

Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships

Object of Amendment

Guidance for the Audit and Registration of Safety Management Systems
Guidance for the Audit and Registration of Ship Security Management Systems
Rules for Approval of Manufacturers and Service Suppliers
Rules for the Survey and Construction of Steel Ships Parts A, B, C and P
Guidance for the Survey and Construction of Steel Ships Parts B, GF, N, R and X
Rules for Marine Pollution Prevention Systems
Rules for Safety Equipment
Rules for Radio Installations
Rules for Anti-Fouling Systems on Ships
Rules for Ballast Water Management Installations
Rules for the Ship Recycling
Rules/Guidance for Cargo Refrigerating Installations
Guidance for Lifting Appliances and Anchor Handling Winches
Rules for Diving Systems
Rules for Automatic and Remote Control Systems
Rules for Navigation Bridge Systems
Rules for Preventive Machinery Maintenance Systems
Rules for Integrated Fire Control Systems
Rules for Hull Monitoring Systems
Rules for Centralized Cargo Monitoring and Control Systems
Rules/Guidance for High Speed Craft
Rules/Guidance for the Survey and Construction of Passenger Ships
Rules/Guidance for the Survey and Construction of Inland Waterway Ships
Guidance for the Approval of Materials and Equipment for Marine Use

Reason for Amendment

As part of the Society's comprehensive review of its Rules and Guidance the Survey and Construction of Steel Ships, an examination was conducted of the requirements for various surveys stipulated in Part B of the Rules and the Guidance. This examination found that many of the requirements related to the same type of survey are not specified in the same chapter but rather spread out throughout other chapters of Part B of the Rules and the Guidance; therefore, not only is it difficult to first find all the relevant requirements for the same type of survey, but it is then also difficult to understand how all they are related. Furthermore, additional review has identified the differences between the Japanese and English versions of Part B of the Rules and Guidance.

Given the above situation, the Society decided to review not only its requirements related to each type of survey but also the overall structure of Part B to figure out whether there was a way to consolidate the survey requirements specified therein that not only makes them easier to find and understand but also ensures consistency between the Japanese and English versions of Part B. The purpose of this amendment is, therefore, simply to consolidate and reorganise requirements related to each type of survey; in other words, no changes are being made to the specific details of any requirements, the review/approval process for submitted

plans/documents or the associated surveys themselves.

Outline of Amendment

The main details of this amendment are as follows:

- (1) Reorganises requirements related to surveys specified in Part B of Rules by consolidating relevant requirements for each type of survey found in Part B of the Rules and the Guidance whenever practicable.
- (2) Amends relevant requirements in other Society technical rules and guidance accordingly to reflect (1) above.
- (3) Align the treatment of the Japanese and English versions of the NK Rules and Guidance.
- (4) Revise of the wording and expressions used to describe thresholds (e.g. “not exceeding” / “less than”) and other matters to be in accordance with IMO instruments (such as resolutions and circulars), IACS documents (such as Unified Requirements), national regulations and inspection guidance, etc.
- (5) Amend relevant requirements as needed to more accurately reflect actual implementation practices.
- (6) Clarify relevant requirements as needed.

Effective Date and Application

Effective date of this amendment is 1 January 2027.

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

ID:DX25-14

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR APPROVAL OF MANUFACTURERS AND SERVICE SUPPLIERS Part 3 REQUIREMENTS FOR APPROVAL OF SERVICE SUPPLIERS Chapter 14 FIRMS ENGAGED IN MEASUREMENTS OF NOISE LEVEL ONBOARD SHIPS 14.4 Equipment 14.4.1 Equipment 2 Sound calibrators and sound level meters are to be verified at least every two years in accordance with An2.2.2, Annex 2.1.7-7B, Part B of the Rules for the Survey and Construction of Steel Ships by a national standard laboratory or a competent laboratory accredited according to <i>ISO 17025</i> (2005), as amended. A record with a complete description of the equipment used is to be kept, including a calibration log. 14.5 Reporting to the Society 14.5.2 Reporting A noise survey report is to be made for each ship. The	RULES FOR APPROVAL OF MANUFACTURERS AND SERVICE SUPPLIERS Part 3 REQUIREMENTS FOR APPROVAL OF SERVICE SUPPLIERS Chapter 14 FIRMS ENGAGED IN MEASUREMENTS OF NOISE LEVEL ONBOARD SHIPS 14.4 Equipment 14.4.1 Equipment 2 Sound calibrators and sound level meters are to be verified at least every two years in accordance with An2.2.2, Annex 2.3.1-2, Part B of the Rules for the Survey and Construction of Steel Ships by a national standard laboratory or a competent laboratory accredited according to <i>ISO 17025</i> (2005), as amended. A record with a complete description of the equipment used is to be kept, including a calibration log. 14.5 Reporting to the Society 14.5.2 Reporting A noise survey report is to be made for each ship. The	Revised reference numbers.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
report is to comprise information on the noise levels in the various spaces on board. The report is to show the reading at each specified measuring point. The points are to be marked on a general arrangement plan, or on accommodation drawings attached to the report, or are to otherwise be identified. The noise survey report is to be made in accordance with Form 1 of Annex <u>2.1.7-7B</u>, Part B of the Survey and Construction of Steel Ships.	report is to comprise information on the noise levels in the various spaces on board. The report is to show the reading at each specified measuring point. The points are to be marked on a general arrangement plan, or on accommodation drawings attached to the report, or are to otherwise be identified. The noise survey report is to be made in accordance with Form 1 of Annex <u>2.3.1-2</u>, Part B of the Survey and Construction of Steel Ships.	Revised reference numbers due to change in annex number.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part A GENERAL RULES Chapter 1 GENERAL 1.2 Class Notations 1.2.7 Application of Special Survey Scheme 2 For ships approved for In-water Surveys in accordance with the provisions of 6.1.4, Part B, the notation of “<i>In Water Survey</i>” (abbreviated to <i>IWS</i>) is affixed to the Classification Characters.	RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part A GENERAL RULES Chapter 1 GENERAL 1.2 Class Notations 1.2.7 Application of Special Survey Scheme 2 For ships approved for In-water Surveys in accordance with the provisions of 6.1.2, Part B, the notation of “<i>In Water Survey</i>” (abbreviated to <i>IWS</i>) is affixed to the Classification Characters.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part B CLASS SURVEYS Chapter 1 GENERAL 1.1 Surveys 1.1.2 Class Maintenance Surveys* 1 Ships (except steel barges, submersibles, mobile offshore drilling units etc., and floating offshore facilities for crude oil/petroleum gas production, storage offloading, <u>and work-ships</u>) classed with the Society are to be subjected to Class Maintenance Surveys by the Surveyor in accordance with the requirements of Chapter 3 through Chapter 9 of this Part. Class Maintenance Surveys of steel barges, submersibles, mobile offshore drilling units etc., floating offshore facilities for crude oil/petroleum gas production, storage and offloading as well as work-ships are to be in accordance with the requirements of Chapter 10, 11, 12, 14 and 15 respectively. In addition, in cases where any modification of ship registration details is needed, the ship is to comply with 2.3 in addition to the above requirements. 1.1.3 Intervals of Class Maintenance Surveys* 1 Periodical Surveys are to be carried out in accordance with the requirements specified in Chapter 3 through	RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part B CLASS SURVEYS Chapter 1 GENERAL 1.1 Surveys 1.1.2 Class Maintenance Surveys* 1 Ships (except steel barges, submersibles, mobile offshore drilling units etc., and floating offshore facilities for crude oil/petroleum gas production, storage <u>and</u> offloading) classed with the Society are to be subjected to Class Maintenance Surveys by the Surveyor in accordance with the requirements of Chapter 3 through Chapter 9 of this Part. Class Maintenance Surveys of steel barges, submersibles, mobile offshore drilling units etc., floating offshore facilities for crude oil/petroleum gas production, storage and offloading as well as work-ships are to be in accordance with the requirements of Chapter 10, 11, 12, 14 and 15 respectively. In addition, in cases where any modification of ship registration details is needed, the ship is to comply with 2.3 in addition to the above requirements. 1.1.3 Intervals of Class Maintenance Surveys* 1 Periodical Surveys are to be carried out in accordance with the requirements specified in (1) through (6) below.	Alignment of Japanese and English versions of the Rules: Revised the wording to be consistent with Japanese text since the requirements for work ships are described in Chapter 15.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>Chapter 9 of this Part.</u>	(1) <u>Annual Surveys</u> <u>Annual Surveys are to be carried out within three months before or after each anniversary date.</u> (2) <u>Intermediate Surveys</u> <u>Intermediate Surveys are to be carried out as specified in (a) or (b) below. Annual Surveys are not required to be carried out when an Intermediate Survey is carried out.</u> <u>(a) Intermediate Surveys are to be carried out at the time of the second or third Annual Survey after the Classification Survey during Construction or a Special Survey; or</u> <u>(b) In lieu of (a) above, Intermediate Surveys for cargo ships over 10 years of age may be commenced at any time between the second and third Annual Surveys and be completed at the time of the second or third Annual Survey.</u> (3) <u>Special Surveys</u> <u>Special Surveys are to be carried out as specified in (a) and (b) below.</u> <u>(a) Special Surveys are to be carried out within 3 months before the date of expiry of the Certificate of Classification;</u> <u>(b) Special Surveys may be commenced at or after the 4th Annual Survey and be completed within 3 months before the date of expiry of the Certificate of Classification.</u> (4) <u>Docking Surveys</u> <u>Docking Surveys are to be carried out as prescribed in (a) and (b) below.</u> <u>(a) Concurrently with Special Surveys</u> <u>(b) Within 36 months from the date of completion of</u>	(1) Transferred to 3.1.2-1, Part B of the Rules (2) Transferred to 4.1.2-1, Part B of the Rules (3) Transferred to 5.1.2-1, Part B of the Rules (4) Transferred to 6.1.2-1, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	<u>the Classification Survey or the previous Docking Survey</u> (5) <u>Boiler Surveys</u> <u>Boiler Surveys are to be carried out as specified in (a) and (b) below. However, for ships where over eight years have elapsed since construction and that have only one main boiler, Boiler Surveys are to be carried out at Annual Surveys, Intermediate Surveys and Special Surveys.</u> <u>(a) Concurrently with Special Surveys</u> <u>(b) Within 36 months from the date of completion of the Classification Survey or the previous Boiler Survey</u> (6) <u>Propeller Shaft and Stern Tube Shaft Surveys</u> <u>Propeller shaft and stern tube shaft surveys are to be carried out as specified in Chapter 8.</u> 2 Planned Machinery Surveys are to be carried out as specified below in (1) to (3). In the case of azimuth thrusters, however, the surveys for gears, gear shafts, shaft couplings, bearings and clutches for propulsion as well as azimuth steering gears may be carried out concurrently with the survey specified in -1(6) above. (1) In the Continuous Machinery Survey, each survey item or part is to be examined at the interval not exceeding 5 years. (2) In the Planned Machinery Maintenance Scheme, each survey item or part is to be examined according to the survey schedule table specified in 9.1.3 and at the general examination (including review of maintenance records) which is to be carried out every year. (3) In the Condition Based Maintenance Scheme, each	(5) Transferred to 7.1.2-1, Part B of the Rules Transferred to 9.1.2-1, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
2 The classed ships are to be subject to Occasional Surveys when they fall under one of the conditions of (1) through (6) below. Periodical Surveys may substitute for the Occasional Surveys where the survey items of the Occasional Surveys are inspected as a part of the Periodical Surveys. ((1) to (6) are omitted.) 3 The classed ships may be subject to Unscheduled Surveys when the confirmation of the status of the ship by survey is deemed necessary in cases where the Society considers the ship to be subject to 1.4-3 of the Conditions of Service for Classification of Ships and Registration of Installations. (Deleted) (Moved) (Moved) (Moved)	survey item or part is to be examined according to the survey schedule table specified in 9.1.4 and at the annual survey. 3 The classed ships are to be subject to Occasional Surveys when they fall under one of the conditions of (1) through (6) below. Periodical Surveys may substitute for the Occasional Surveys where the survey items of the Occasional Surveys are inspected as a part of the Periodical Surveys. ((1) to (6) are omitted.) 4 The classed ships may be subject to Unscheduled Surveys when the confirmation of the status of the ship by survey is deemed necessary in cases where the Society considers the ship to be subject to 1.4-3 of the Conditions of Service for Classification of Ships and Registration of Installations. <u>1.1.4 Periodical Surveys Carried Out in Advance*</u> 1 <u>Annual Surveys may be carried out in advance of the times specified in 1.1.3-1(1) when requested by the owner. In such cases, additional Periodical Surveys are to be carried out as specified otherwise by the Society.</u> 2 <u>Intermediate Surveys may be carried out in advance of the times specified in 1.1.3-1(2) when requested by the owner. In such cases, additional Periodical Surveys are to be carried out as specified otherwise by the Society. Furthermore, when an Intermediate Survey is carried out in advance at the time of an Annual Survey, the Annual Survey may be dispensed with.</u> 3 <u>Special Surveys may be carried out based upon following (1) through (3) in advance of the times specified in 1.1.3-1(3) when requested by the owner.</u> (1) <u>Where a Special Survey is carried out in advance at the time of an Annual Survey or Intermediate Survey,</u>	Renumbered Renumbered Transferred to 3.1.2-2, Part B of the Rules Transferred to 4.1.2-5, Part B of the Rules Transferred to 5.1.2-3, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
1.1.4 Postponement of Surveys* 1 Special Surveys, Docking Surveys carried out at the period specified in <u>6.1.2-1.(1)</u>, Boiler Surveys carried out at the period specified in <u>7.1.2-1.(1)</u> and Ordinary Surveys for Propeller shafts Kind 2 specified in 8.2.2-1(1) may be postponed as specified in (1) or (2) below subject to the approval by the Society in advance. However, no postponement is to be permitted on the period of 36 <i>months</i> between any two Docking Surveys, Boiler Surveys and Ordinary Surveys for Propeller shafts Kind 2 respectively. (1) Maximum 3 <i>months</i> for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed. (2) Maximum 1 <i>month</i> for the ship engaged on short voyages. <u>2 The procedure and approval of the postponement of Periodical Surveys are to be handled in accordance with (1) and (2) below;</u>	<u>the Annual Survey or Intermediate Survey may be dispensed with.</u> (2) <u>Where a Special Survey is commenced prior to the time of the fourth Annual Survey, the Special Survey is to be completed within 15 <i>months</i> from the date of its commencement.</u> (3) <u>Notwithstanding (2), where a Special Survey is commenced on or before the due date of the third Annual Survey and an Intermediate Survey is not carried out, the Special Survey is to be completed up to the following (a) or (b), whichever is earlier.</u> <u>(a) Due date of third Annual Survey; or</u> <u>(b) 15 months from the date of its commencement.</u> 1.1.5 Postponement of Surveys* 1 Special Surveys, Docking Surveys carried out at the period specified in <u>1.1.3-1(4)(a)</u>, Boiler Surveys carried out at the period specified in <u>1.1.3-1(5)(a)</u> and Ordinary Surveys for Propeller shafts Kind 2 specified in 8.2.2-1(1) may be postponed as specified in (1) or (2) below subject to the approval by the Society in advance. However, no postponement is to be permitted on the period of 36 <i>months</i> between any two Docking Surveys, Boiler Surveys and Ordinary Surveys for Propeller shafts Kind 2 respectively. (1) Maximum 3 <i>months</i> for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed. (2) Maximum 1 <i>month</i> for the ship engaged on short voyages. (Moved)	Renumbered Revised reference numbers due to relocation. Transferred from B1.1.5, Part B of the Guidance.

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
<u>(1) Procedure for postponement of Surveys</u> <u>The ship's Owner or Captain is to submit the documents listed below for approval to the Society before the due time of the Survey intended to be postponed. The documents are to be submitted at any one of our offices at the applicant's convenience. However, where the report file of the Class Survey is not part of the submission, then the documents must be submitted to the head office.</u> <u>(a) Application form (APP-PP): 3 copies (or 2 copies in case where the application is to be submitted to the head office of the Society.)</u> <u>(b) Report file of Class Surveys</u> <u>(2) Approval of postponement of Surveys</u> <u>The Society will verify the items specified in (a) and (b) below, and upon approval, will return one copy of the application to the applicant as proof of approval. The applicant is to take suitable action, such as to keep the approval letter on board the ship, in order to show the Surveyor that the ship is accepted to extend the Survey by the Society.</u> <u>(a) The ship is maintained in good order. Verification may be made by reviewing the description of the current condition of the ship on the application and the report file of the Class Surveys.</u> <u>(b) There are no critical Conditions in the survey reports. Critical conditions (used hereafter in this Part) refer to matters that affect or may affect the seaworthiness of the ship.</u> (Moved)	<u>2 In addition to -1 above, Docking Surveys carried out concurrently with Special Surveys may be postponed 3 months, subject to the approval by the Society in advance, in</u>	Transferred to 6.1.2-3, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	exceptional circumstances such as unavailability of dry-docking facilities, unavailability of repair facilities, unavailability of essential materials, equipment or spare parts, or delays incurred by action taken to avoid severe weather conditions. 3 In addition to -1 above, Boiler Surveys specified in 1.1.3-1(5)(a) and (b) may be postponed up to 3 months, subject to the approval by the Society in advance, in the following exceptional circumstances: the unavailability of repair facilities; the unavailability of essential materials, equipment or spare parts; or delays incurred by action taken to avoid severe weather conditions.	Transferred to 7.1.2-3, Part B of the Rules
(Moved)	4 Notwithstanding the requirement specified in 1.1.3-2, Planned Machinery Surveys may be postponed as specified in -1(1) or (2), provided that such Surveys are carried out at the time of Special Surveys.	Transferred to 9.1.2-2, Part B of the Rules
1.1.5 Modification of the Requirements* (Same)	1.1.6 Modification of the Requirements* 1 With respect to Periodical Surveys and Planned Machinery Surveys in cases where considered appropriate by the Society, the Surveyor may modify the requirements specified in Chapters 3 through 9 of this Part based on the size, service engaged, construction, age, history, results of previous surveys and actual condition of the ship.	Renumbered
(Same)	2 When the results of a Periodical Survey suggest the likelihood of heavy corrosion, defects etc., and the Surveyor considers it necessary, close-up surveys, pressure tests or thickness measurements are to be carried out. Thickness measurements procedures and submission of gauging results are to be in accordance with the requirements of 5.2.6-1.	
3 For tanks and cargo holds where effective coatings are found to be in a good condition, the extent of internal	3 For tanks and cargo holds where effective coatings are found to be in a good condition, the extent of internal	

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
examination, close-up surveys or gauging requirements of <u>Periodical Surveys</u> may be reduced to a degree that is sufficient to confirm the actual average condition of the structure under the coating at the discretion of the Surveyor. 4 Continuous Hull Surveys (1) At the request of the owner, the Society may approve ships (other than oil tankers, bulk carriers, ships carrying dangerous chemicals in bulk with integral tanks and general dry cargo ships of not less than 500 <i>gross tonnage</i>) to be exempt from detailed examinations of the tanks and compartments at the next Special Survey if these examinations (<u>internal examinations, close-up surveys, thickness measurements and pressure tests of tanks and compartments</u>) are carried out based on the criteria for the next Special Survey in order and completed before the next Special Survey. This form of examination is referred to as a “Continuous Hull Survey”. If the examination during the Continuous Hull Survey reveals any defects, the Surveyor may require further detailed examinations of other similar tanks and compartments. The Society may, where considered necessary, require the Continuous Hull Survey to be carried out by a method other than that specified above. (2) For ships which are undergoing the Continuous Hull Survey, the Docking Survey specified in <u>6.1.2-1(1)</u> may be carried out prior to the Special Survey, provided that the Docking Surveys are to be held twice or more by the date of expiry of the <i>Certificate</i>	examination, close-up surveys or gauging requirements <u>specified in Chapters 3 through 9 of this Part</u> may be reduced to a degree that is sufficient to confirm the actual average condition of the structure under the coating at the discretion of the Surveyor. 4 Continuous Hull Surveys (1) At the request of the owner, the Society may approve ships (other than oil tankers, bulk carriers, ships carrying dangerous chemicals in bulk with integral tanks and general dry cargo ships of not less than 500 <i>gross tonnage</i>) to be exempt from detailed examinations of the tanks and compartments at the next Special Survey if these examinations (thickness measurements and pressure tests of tanks and compartments) are carried out based on the criteria for the next Special Survey in order and completed before the next Special Survey. This form of examination is referred to as a “Continuous Hull Survey”. If the examination during the Continuous Hull Survey reveals any defects, the Surveyor may require further detailed examinations of other similar tanks and compartments. The Society may, where considered necessary, require the Continuous Hull Survey to be carried out by a method other than that specified above. (2) For ships which are undergoing the Continuous Hull Survey, the Docking Survey specified in <u>1.1.3-1(4)(a)</u> may be carried out prior to the Special Survey, provided that the Docking Surveys are to be held twice or more by the date of expiry of the <i>Certificate</i>	Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text. Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text and in line with the actual practice. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<i>of Classification</i> and that all the requirements of Chapter 6 are also complied with. The Docking Survey, however, is to be carried out within 36 <i>months</i> from the date of completion of the previous Docking Survey ((3) is omitted.) 1.1.6 Bulk Carriers <u>which are applicable to Chapter 31B, Part C</u> (Same) (Same) (Same) 1.1.7 Laid-up Ships* (Same)	<i>of Classification</i> and that all the requirements of Chapter 6 are also complied with. The Docking Survey, however, is to be carried out within 36 <i>months</i> from the date of completion of the previous Docking Survey ((3) is omitted.) 1.1.7 Bulk Carriers* 1 For ships which are applicable to Chapter 31B, Part C (Requirements related to Chapter 31B, Part C specified in this Chapter are those which are applied to ships which have been contracted for construction prior to 1 July 2023), continuing compliance with 31B.3 and 31B.5, Part C is to be verified at Special Surveys and Intermediate Surveys (for ships over 10 years of age). For this purpose, the thickness measurements as deemed appropriate by the Society are to be carried out for the vertical corrugated watertight bulkhead abaft the foremost hold, in addition to those according to Table B5.15. 2 For ships which are required to carry out the annual thickness measurement for the vertical corrugated watertight bulkhead abaft the foremost hold as a result of the survey specified in -1, the measurement is to be carried out at Annual Surveys in addition to those according to Table B3.6. 3 For ships which are applicable to 31B.2.1-2, Part C, the following surveys are to be carried out at periodical surveys in addition to the surveys required in this chapter. ((1) and (2) are omitted.) 1.1.8 Laid-up Ships* 1 Laid-up ships are not subject to Class Maintenance	Renumbered Renumbered

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
(Same)	Surveys specified in 1.1.2 . However, Occasional Surveys may be carried out at the request of owners.	Renumbered
(Same)	2 When laid-up ships are about to be re-entering service, the following surveys and surveys for specific matters which have been postponed due to being laid-up, if any, are to be carried out. ((1) and (2) are omitted.) 3 If the survey to be carried out under the requirements of -2(2) above is a Special Survey, either the overdue Special Survey or the next due Special Survey is to be carried out. In such cases, the validity of the Classification Certificate is to be in accordance with the requirements of 2.6, Guidance for the Classification and Registry of Ships corresponding to the Special Survey to be carried out.	
1.1.8 Machinery Verification Runs	1.1.2 Machinery Verification Runs	
(Same)	1 At the time of a special survey, a dock trial in the presence of the attending surveyor is to be carried out to confirm the satisfactory operation of main and auxiliary machinery. If significant repairs have been carried out to main or auxiliary machinery or steering gear, the Surveyor may deem a sea trial necessary.	
(Same)	2 At the time of extended drydocking, a dock trial may be required at the discretion of the attending surveyor to confirm the satisfactory operation of main and auxiliary machinery. If significant repairs have been carried out to main or auxiliary machinery or steering gear, the Surveyor may deem a sea trial necessary.	
(Same)	3 For electric propulsion ships, at the time of the machinery verification runs specified in -1 and -2 above, the satisfactory operation of electric propulsion plants is to be confirmed.	

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
1.1.9 Self-unloading Ships* (Same)	1.1.10 Self-unloading Ships* Surveys for self-unloading ships are to be carried out in accordance with the requirements for bulk carriers depending upon the structural configuration of the ship unless specified otherwise in this Part.	Renumbered
1.1.10 General Dry Cargo Ships (Same)	1.1.11 General Dry Cargo Ships For general dry cargo ships with hybrid cargo hold arrangements, e.g. with some cargo holds of single-side skin and others of double-side skin, the requirements of general dry cargo ships are to be applied only to structure in way of the single-side skin cargo hold region.	Renumbered
Chapter 2 CLASSIFICATION SURVEYS	Chapter 2 CLASSIFICATION SURVEYS	
2.1 Classification Survey during Construction	2.1 Classification Survey during Construction	
2.1.7 Survey ((1) to (7) are omitted.) (8) In order to have a common understanding of the applicable requirements and recognised fabrication standards (RFS), and the details of each survey item during construction and their survey methods, etc., the Society is to hold kick-off meetings with applicants of registration surveys during construction prior to the commencement of such surveys. The quality standards to be applied are to be in accordance with (a) <u>to</u> (c) below. (a) Shipbuilding quality standards for the hull	2.1.7 Survey ((1) to (7) are omitted.) (8) In order to have a common understanding of the applicable requirements and recognised fabrication standards (RFS), and the details of each survey item during construction and their survey methods, etc., the Society is to hold kick-off meetings with applicants of registration surveys during construction prior to the commencement of such surveys. The quality standards to be applied are to be in accordance with (a) <u>and</u> (b) below. (a) Shipbuilding quality standards for the hull	

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Amended	Original	Remarks
structure during new construction are to be reviewed and agreed during the kick-off meeting. Structural fabrication is to be in accordance with <i>IACS</i> Recommendation 47 “Shipbuilding and Repair Quality Standard” (<i>IACS</i> Rec.47), or a RFS which has been accepted by the Society prior to the commencement of fabrication or construction. (b) Where an RFS other than <i>IACS</i> Rec.47 is applied, the shipyard is to create a summary document referencing the RFS to be used in construction, highlighting any limitations to usage of the selected RFS, a comparison of the tolerance and fabrication standards of the selected RFS with those of <i>IACS</i> Rec.47, etc. This summary document is to be included with the “record of kick-off meeting” for the ship. For ships subject to <i>SOLAS</i> Chapter II-1 Regulation 3-10, the summary document is also to be included in the Ship Construction File. <u>(c) For any items not specified in the applicable fabrication standards, the Society may require that they comply with other fabrication standards it considers appropriate.</u> ((9) is omitted.) 8 Stability Experiments ((1) is omitted.) (2) For inclining tests, Annex 2.1.7-8 “Guidance for Inclining Test” gives the standard method. ((3) and (4) are omitted.)	structure during new construction are to be reviewed and agreed during the kick-off meeting. Structural fabrication is to be in accordance with <i>IACS</i> Recommendation 47 “Shipbuilding and Repair Quality Standard” (<i>IACS</i> Rec.47), or a RFS which has been accepted by the Society prior to the commencement of fabrication or construction. (b) Where an RFS other than <i>IACS</i> Rec.47 is applied, the shipyard is to create a summary document referencing the RFS to be used in construction, highlighting any limitations to usage of the selected RFS, a comparison of the tolerance and fabrication standards of the selected RFS with those of <i>IACS</i> Rec.47, etc. This summary document is to be included with the “record of kick-off meeting” for the ship. For ships subject to <i>SOLAS</i> Chapter II-1 Regulation 3-10, the summary document is also to be included in the Ship Construction File. ((9) is omitted.) 8 Stability Experiments ((1) is omitted.) (2) For inclining tests, Annex 2.3.2 “Guidance for Inclining Test” gives the standard method. ((3) and (4) are omitted.)	Revised reference numbers due to change in annex number.

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Amended		Original					Remarks
2.3 Alterations		2.3 Alterations					Revised reference numbers due to change in annex number. The description and necessity of submission for each plan and document were reformatted into a table by a previous amendment related to “Classification Surveys”. 25: Revised reference numbers due to change in annex number. 29: Alignment of Japanese and English versions of the Rules: Since “Finished Plans for Submission” are required to be kept on board, the relevant section was revised accordingly. 41 : Alignment of Japanese and English
2.3.1 Examinations of Altered Parts*		2.3.1 Examinations of Altered Parts*					
6 The tightness of such boundaries is to be verified by the tests specified in Annex 2.1.7-2 “Testing Procedures of Watertight Compartments” in cases where modifications or repairs that affect the tightness of such boundaries have been carried out.		6 The tightness of such boundaries is to be verified by the tests specified in Annex 2.1.5 “Testing Procedures of Watertight Compartments” in cases where modifications or repairs that affect the tightness of such boundaries have been carried out.					
Table B2.1 Plans and Documents – Hull (General)							
Name*1	Notes	Submission			Maintained On Board		
		Approval	Other	Finished Plans (Submission)	Finished Plans (On Board)	Ship Construction File	
						Ships engaged in international voyages	Ships subject to SOLAS Chapter II-1 Regulation 3-10
(1 to 24 are omitted.)							
25 Plans showing arrange-ments for airborne sound insulation properties of bulkheads and decks in accommodation spaces	(1) “Airborne sound insulation properties of bulkheads and decks within accommodation spaces” refers to the weighted sound reduction index (R_w) in An5.1, Annex 2.3.1-2 2.1.7-7B “Procedures for On Board Noise Measurements”, Part B of the Rules.	○					
(26 to 28 are omitted.)							
29 Plans showing fire extin-guishing arrangements	(1) Plans showing the locations, numbers and types, etc. of fire-fighting systems, fire detection and alarm systems, inert gas systems, fire extinguishers, fire pumps (including emergency fire pumps), fire hydrants, fire hoses, fire fighter outfits, helicopter facilities and international shore connections, etc. in accordance with Part R of the Rules.	○		○	○		
(30 to 40 are omitted.)							

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Amended		Original						Remarks
41 Plans showing arrangements of means of embarkation and disembarkation	(1) For ships of 500 <i>gross tonnage</i> and above engaged in international voyages. (2) As specified in 14.14, Part 1, Part C or 21.8, Part CS of the Rules. (3) Plans showing the following (a) to (c) items. (a) Arrangements of equipment and related devices (including lighting and lifebuoys) (b) Overall arrangements of the means of embarkation and disembarkation (including situations related to the use of maximum and minimum angles of inclination) (c) Detailed plans of connections between the means of embarkation and disembarkation and the deck	○			⊖ ₂	⊖	⊖	versions of the Rules: Revised wording to be consistent with Japanese text since onboard retention is not required
(42 to 64 are omitted.)								65: Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text in accordance with IACS UR S8. (Renumbering from here on.)
65 Documented operating procedures for closing and securing the door and inner door	(1) For ships required to have and post documented operating procedures for closing and securing the door and inner door in accordance with 14.10.1.10-2 and 14.10.2.9-2, Part 1, Part C of the Rules or 21.3.10-2 and 21.4.9-2, Part CS of the Rules.	○						
65 66 Booklets for damage control and damage stability information	(1) As specified in 2.3.4.4 and 2.3.4.5, Part 1, Part C of the Rules.	○			○			
66 67 Operation manuals for loading computers	(1) As specified in 3.8, Part 1, Part C of the Rules.				○			
67 68 Operation manuals for stability instruments or stability computers	(1) Reference is to be made to Chapter 4, Part B of <i>IMO resolution MSC.267(85) "International Code on Intact Stability, 2008 (2008 IS Code)"</i> .				○			
68 69 Instruction manuals for the cargo tank venting systems	(1) Documents showing the handling of venting systems as specified in 4.5.3, Part R of the Rules.				○			
69 70 Fire control plans, fire safety operational book-lets, training manuals and	(1) As specified in Chapters 14, 15 and Chapters 16, Part R of the Rules.				○			

Amended-Original Requirements Comparison Table
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Amended		Original							Remarks
maintenance plans									73: Revised reference numbers due to change in annex number.
70 71 Operation manuals for the helicopter facilities	(1) As specified in 18.8, Part R of the Rules.					○			
71 72 Emergency Towing Procedures	(1) Specified in 14.5.3, Part 1, Part C of the Rules and 23.3 Part CS of the Rules.					○			
72 73 Noise survey report	(1) The reports referred to in An4.2, Annex 2.3.1-2 <u>2.1.7-7B</u> “Procedures for On Board Noise Measurements”, Part B of the Rules. It is recommended that documents containing the noise exposure levels determined in accordance with An3.3.6, Annex 2.3.1-2 <u>2.1.7-7B</u> “Procedures for On Board Noise Measurements” , Part B of the Rules be attached to noise survey reports.			○		○			
73 74 Documents related to watertight cable penetra-tions			○						
74 75 Watertight cable penetra-tion registers	(1) All watertight cable penetrations are to be recorded and identified in the watertight cable penetration register. This is to includes documentation referencing manufacturer manuals for each type of watertight cable penetration installed, type approval certificates for each type of watertight cable penetration, applicable installation drawings, records of each installed watertight cable penetration documenting the as-built condition after final inspections at shipyards, and sections to record any inspection, modification, repair or maintenance. (2) Watertight cable penetration registers are to be provided by shipbuilders and reviewed by attending surveyors. (3) Watertight cable penetration registers can be either hard copies or digitised media. (4) Watertight cable penetration manuals for unmanned vessels may be kept on shore.					○	○	○	
75 76 Certificates showing that the devices related to fire fighting and fire protec-tion maintained on board	(1) Such certificates are the type approval certificates valid at the time of Classification Surveys issued for each piece of equipment, device, etc., or other applicable certificates. Unless the equipment or devices on board are renewed after the ship has entered service, such certificates need not be updated. Devices related to fire-fighting and fire protection means are					○			

Amended-Original Requirements Comparison Table
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Amended		Original							Remarks
have passed all required examinations and tests	those listed in (a) to (q) below. (a) Fire pumps (including emergency fire pumps) (hose test records after installation on board may be accepted.) (b) Fire hoses and nozzles (c) Fire extinguishers (including spare charges) (d) Fire-fighter outfits (e) Emergency escape breathing devices (f) Fixed fire-extinguishing systems (g) Fire dampers and power-operated closing doors (h) Fixed fire detection and fire alarm systems, and automatic sprinkler systems (i) Fire protection materials (j) Additional equipment (e.g. electrical equipment of an explosion-proof type, detection systems, full protective clothing, portable fire extinguishers and water spraying systems) required for ships carrying dangerous goods (k) Deck foam systems (nozzles and foam concentrates) (l) Inert gas systems (portable oxygen content meters) (m) Equipment for protection of cargo pump rooms (temperature sensing devices and hydrocarbon gases concentration meters) (n) Watertight doors below freeboard decks (o) Side scuttles (p) Portable gas detectors (q) Fixed hydrocarbon gas detection systems								
7677 Docking plan	(1) Documents (including locations and other necessary information) for all penetrations specified in item 3, Table B6.1, Part B of the Rules.						○	○	
7778 Plans and documents for anti-fouling systems	(1) As specified in 2.2.2, Rules for Anti-Fouling Systems on Ships.		○				○	○	
7879 Test plans, test records, measurement records, etc.	(1) Documents including the following (a) and (b) items. The allowable deviations referred to in (a) below mean allowable values specified in appropriate standards such as JSQS or other equivalent values applied to the ship.						○	○	

Amended-Original Requirements Comparison Table
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Amended		Original						Remarks
	(a) Measurement records of the ship's principal dimensions (including allowable deviations). (b) Details of markings for load lines and associated measurement records (including allowable deviations).							
79 80	Areas requiring special attention throughout the ship's life (including critical structural areas specified in item 55)						○	
80 81	All design parameters limiting the operation of the ship						○	
81 82	"As built" drawings and information which are verified to incorporate all alterations approved by the Society during the construction process						○	
82 83	Net (renewal) scantlings for all structural constituent parts, as built scant-lings and voluntary addition thickness	○					○	
83 84	Any alternatives to the Rules	○					○	
84 85	A listing of materials used for the						○	

Amended-Original Requirements Comparison Table
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Amended		Original						Remarks
	construction of the hull structure, and pro-visions for document-ing changes to any of the above during the ship's service life							
85 86	Minimum hull girder section modulus along the length of the ship which has to be maintained throughout the ship's life, including cross section details such as the values of the areas of the deck zone and bottom zone, the renewal value for the neutral axis zone	(1) Plans are to be submitted prior to the commencement of the survey.						○
86 87	List of documents constituting the Ship Construction File							○
87 88	Survey records	(1) For ships whose surveys for construction monitoring are carried out in accordance with 2.1.2, Part B of the Rules.				○		○
88 89	Construction monitoring plans	(1) For ships whose surveys for construction monitoring are carried out in accordance with 2.1.2, Part B of the Rules. (2) Plans are to be submitted prior to the commencement of the survey.		○		○		○
89 90	Lists of blocks manufac-tured by subcontractors	(1) Documents are to be submitted prior to the commencement of the survey.		○				
90 91	Welding application plans	(1) Plans are to be submitted prior to the commencement of the survey.	○					
91 92	Non-	(1) Plans are to be submitted prior to the commencement of the	○					

Amended-Original Requirements Comparison Table
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Amended		Original							Remarks
destructive inspection plans	survey.								
92 93 Non-destructive operator qualification records	(1) Documents are to be submitted prior to the commencement of the survey.		○						
93 94 Hydrostatic and water-tight test plans	(1) Plans are to be submitted prior to the commencement of the survey.	○							
94 95 Welding procedure specifications and welding details	(1) Documents are to be submitted prior to the commencement of the survey.	○							
95 96 Welder's qualification records	(1) Documents are to be submitted prior to the commencement of the survey.		○						
96 97 Guidance for maintenance and inspection of steel wires	(1) As specified in 23.1.4, Part CS of the Rules.					○			
97 98 Technical specification documents for mooring lines	(1) As specified in 14.4.4.4, Part 1, Part C of the Rules.		○			○			
98 99 Management plans for inspection and maintenance of mooring equipment (including mooring lines)	(1) As specified in 14.4.5.1, Part 1, Part C of the Rules or 23.2.10, Part CS of the Rules. (2) Plans are to be prepared in accordance with <i>MSC.1/Circ.1620</i> and are to include the following (a) to (f). (a) Procedures for mooring equipment (including mooring lines) operations, inspection and maintenance. (b) Procedures to allow the identification and management of mooring lines, tails and associated attachments. (c) Manufacturer criteria for mooring line replacement. (d) Records of the original mooring design concepts, equipment, arrangements and specifications. For ships the keels of which were laid before 1 January 2007 and which are without appropriate documentation, <i>MBL_{sd}</i> is to be established in accordance with the following i) and ii).					○			

Amended-Original Requirements Comparison Table
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Amended		Original						Remarks
	i) MBL_{sd} is to be established based on the Safe Working Load (SWL) of the mooring equipment provided on board. ii) If no safe working load is specified, the strength of the mooring equipment and its supporting hull structure should be checked based on 14.4.3, Part 1, Part C of the Rules and determine MBL_{sd} based on the actual capacity of the equipment on board and its supporting hull structure. (e) Manufacturers' test certificates for mooring lines, joining shackles and synthetic tails. (f) Records of mooring equipment inspections and maintenance, and mooring line inspections and replacement. The selection of replacement mooring lines is to be in accordance with the following i) to vii). i) When replacing mooring lines, compatibility with the mooring equipment and fittings on board, as specified in the mooring arrangement plan, is to be taken into account, and a replacement mooring line which meets the designed specification is to be selected. ii) In cases where i) above cannot be satisfied, the following 1) to 7) properties are to be taken into consideration and the towing and mooring arrangement plan updated accordingly. 1) breaking strength; 2) environmental conditions to be used (e.g. temperature); 3) linear density; 4) tenacity; 5) D/d ratios; 6) compression fatigue; and 7) stiffness. iii) Any increase in LDBF for the mooring lines above the limits specified, i.e. 100 % to 105 % of the MBLSD, may require a review of the operating parameters and							

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Amended		Original						Remarks
	design loads of mooring equipment and fittings, and their associated hull supporting structures. iv) It is be considered that their strength will decay due to varying environmental conditions and thus the original service life expectations may not be achieved. v) For wire ropes, corrosion protection is to be considered. vi) The acceptable minimum bend radius (D/d ratio) recommended by the manufacturer is to be taken into consideration. The mooring line regularly exposed to below the acceptable minimum bend radius is to be subject to particular attention during inspections, taking into account the possibility that they may need to be replaces before the end of the service life recommended by the manufacturer. vii) When selecting replacement mooring lines with high stiffness, consideration is to be given to the use of synthetic tails. The effect of the use of synthetic tail on the stored energy and possible snap-back of the high stiffness mooring lines is to also be considered.							
99 100 Documented agreement related to performance standard for protective coating and corrosioin resistant	(1) Documents showing the agreement between shipowners, shipyards and coating manufacturers regarding inspections of surface preparations and coating processes.		○					
400 101 Operation manual for lashing software	(1) For container carriers engaged in international voyages. (2) As specified in Annex3.1, Part 2-1, Part C of the Rules.				○			
401 102 Cargo securing manual	(1) For ships that are subject to 1.2.3, Part B of the Rules.	○			○*2			
402 103 Drawings of fixed and portable container securing fittings	(1) For ships that are subject to 14.2, Part 2-1, Part C of the Rules.	○			○*2			

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Amended			Original					Remarks
403 <u>104</u> Arrangement plan for fixed container securing fittings	(1) For ships that are subject to 14.2, Part 2-1, Part C of the Rules.	☐			☐ *2			
404 <u>105</u> Drawings of container supporting structures	(1) For ships that are subject to 14.2, Part 2-1, Part C of the Rules.	☐			☐			
405 <u>106</u> Cargo safe access plan	(1) For ships that are subject to 14.2, Part 2-1, Part C of the Rules.	☐			☐ *2			
406 <u>107</u> Container stowage plan	(1) For ships that are subject to 14.2, Part 2-1, Part C of the Rules.	☐			☐ *2			
407 <u>108</u> Container securing arrangement plan	(1) For ships that are subject to 14.2, Part 2-1, Part C of the Rules.	☐			☐ *2			
408 <u>109</u> Maker declarations or laboratory test reports stating fire-fighting foams do not contain perfluorooctane sulfonic acid (PFOS)	(1) The phrase “containing perfluorooctane sulfonic acid (PFOS)” means present in concentrations of PFOS above 10 <i>mg/kg</i> (0.001 % by weight). (2) The declaration issued by the foam maker is to contain information about the foam such as, but not limited to, foam type, production period, batch No., ref. to type approval / MED Certificate for the foam.		☐					
Notes								
*1 : For ships of not less than 500 <i>gross tonnage</i> engaged in international voyages, it is recommended submitted pans and documents be marked with <i>IMO</i> ship identification numbers.								
*2 : Plans and documents plans approved by the Society or copies thereto.								

Amended-Original Requirements Comparison Table
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Amended		Original	Remarks
Table B2.7 Survey - Hull and Equipment			
Survey Item	Details		
(1 to 9 are omitted.)			
10 Airtight tests (including leakage and hose tests), hydrostatic tests, watertight tests	(1) The watertightness and structural adequacy of tanks and watertight boundaries as well as the weathertightness of other structures and shipboard outfittings are verified in accordance with the following (a) to (d). (a) The tests specified in <i>SOLAS</i> Chapter II-1 Regulation 11 are carried out for ships subject to <i>SOLAS</i> Convention, except where specially approved by the Administration. (b) The tests specified in Chapter 1, Annex 2.1.5 2.1.7-2 “Testing Procedures of Watertight Compartments”, Part B of the Rules are carried out for ships subject to <i>SOLAS</i> Convention, except in the case of the following (c). (c) The tests specified in Chapter 2, Annex 2.1.5 2.1.7-2 “Testing Procedures of Watertight Compartments”, Part B of the Rules are carried out for ships subject to <i>SOLAS</i> Convention satisfying the following i) and ii). i) The shipyard provides documentary evidence of the shipowner’s agreement to request a Flag Administration exemption from the application of <i>SOLAS</i> Chapter II-1, Regulation 11, or for an equivalency agreeing that the content of Chapter 2, Annex 2.1.5 2.1.7-2 “Testing Procedures of Watertight Compartments”, Part B of the Rules is equivalent to <i>SOLAS</i> Chapter II-1, Regulation 11. ii) The exemption/equivalency specified in i) above has been granted by the responsible Flag Administration. (d) The tests specified in Chapter 3, Annex 2.1.5 2.1.7-2 “Testing Procedures of Watertight Compartments”, Part B of the Rules are carried out for ships not subject to <i>SOLAS</i> Convention. (2) Relevant tests specified in Part D of the Rules are carried out for pipes.		10: Revised reference numbers due to change in annex number.
(11 to 19 are omitted.)			
20 Means of embarkation and disembarkation	(1) For ships of not less than 500 gross tonnage engaged on international voyages. (42) Means of embarkation and disembarkation comply with 14.14, Part 1, Part C of the Rules. (23) Accommodation ladders are subjected to static load tests at their specified maximum operational loads. (34) Winch hoisting and lowering of accommodation ladders are tested a minimum of two times in accordance with <i>ISO 7364:1983</i> or another standard deemed appropriate by the Society. (45) Winches and accommodation ladders are verified to be in good conditions after testing.		20: Alignment of the Japanese and English versions of the Rules:
(21 is omitted.)			The requirements are specified in accordance with regulation II-1/3-9 of <i>SOLAS</i> and IMO resolution MSC.1/Circ.1331. Revised wording to be consistent with Japanese text.

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Amended		Original	Remarks							
22 Water level detection and alarm systems	(1) Performance tests (including audible and visible alarms tests) are carried out for the water level detection and alarm systems specified in 13.8.5, <u>13.8.6</u> and 13.8.67, Part D of the Rules.		22: Alignment of Japanese and English versions of the Rules: Revised the wording to be consistent with Japanese text, as there is no discrepancy between the Japanese and English versions of 13.8.7 Part D of the Rules. Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text.							
(23 to 37 are omitted.)										
Table B2.9 Survey – Fire Protection, Means of Escape and Fire Fighting Equipment <table><tr><th>Survey Items</th><th>Details</th></tr><tr><td>(1 to 15 are omitted.)</td><td></td></tr><tr><td>16 Fire detecting systems</td><td>(1) Performance tests for one detector in each group are to be carried out. <u>For onboard function tests of fixed fire detection and alarm systems installed in the machinery spaces specified in 7.4.1-1, Part R of the Rules, refer to the test procedures shown in Annex 2.1.7-4B “Procedures for On-board Function Test of Fixed Fire Detection and Alarm System in Machinery Spaces”.</u> (2) Performance tests of alarm systems under loss of power or fault conditions are to be carried out.</td></tr><tr><td>(17 to 27 are omitted.)</td><td></td></tr></table>				Survey Items	Details	(1 to 15 are omitted.)		16 Fire detecting systems	(1) Performance tests for one detector in each group are to be carried out. <u>For onboard function tests of fixed fire detection and alarm systems installed in the machinery spaces specified in 7.4.1-1, Part R of the Rules, refer to the test procedures shown in Annex 2.1.7-4B “Procedures for On-board Function Test of Fixed Fire Detection and Alarm System in Machinery Spaces”.</u> (2) Performance tests of alarm systems under loss of power or fault conditions are to be carried out.	(17 to 27 are omitted.)
Survey Items	Details									
(1 to 15 are omitted.)										
16 Fire detecting systems	(1) Performance tests for one detector in each group are to be carried out. <u>For onboard function tests of fixed fire detection and alarm systems installed in the machinery spaces specified in 7.4.1-1, Part R of the Rules, refer to the test procedures shown in Annex 2.1.7-4B “Procedures for On-board Function Test of Fixed Fire Detection and Alarm System in Machinery Spaces”.</u> (2) Performance tests of alarm systems under loss of power or fault conditions are to be carried out.									
(17 to 27 are omitted.)										

Amended-Original Requirements Comparison Table
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Amended		Original	Remarks
Table B2.11 Survey – Sea Trials *1			2, 3, 10, 12, 13 Revised reference numbers due to change in annex number. 13(9): Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text.
Test Items	Details		
(1 is omitted.)			
2 Astern tests	(1) Astern tests are to be carried out from a control position in accordance with the following (a) and (b), and the items related to stopping ability specified in An1.4.3, Annex 2.3.1-1 2.1.7-7A “Guidance for the Test of Ship Manoeuvrability”, Part B of the Rules are to be measured. (a) While the ship is running ahead at maximum speed, an order for full astern is issued and the reversing operation from ahead run to full astern run is carried out as quickly as possible. (b) Ships unable to perform the test at maximum speed are to run ahead at not less than the speed specified in An1.1.1-9, Annex 2.3.1-1 2.1.7-7A “Guidance for the Test of Ship Manoeuvrability”, Part B of the Rules. While the ship is at this speed, an order for full astern is issued and the reversing operation from ahead run to full astern run is carried out as quickly as possible. (2) Engines are to be functioning normally while the ship is running astern. Main propulsion machinery is to be capable of operating the <i>MPAP</i> referred to in 1.3.2, Part D of the Rules, and ships are to keep running astern for the periods specified in the following (a) and (b) corresponding to engine type. In addition, performance is to satisfy 1.3.2, Part D of the Rules. This test is to also be conducted in accordance with the provisions of <i>ISO 19019:2005</i>, section 5.4: Astern trial. (a) For ships with main engines other than steam turbines: Until the astern speed (rotational speed in rpm) stabilises. (b) For ships with steam turbines: A period of at least 15 <i>minutes</i>; the astern trial, however, is to be limited to 30 <i>minutes</i> or in accordance with manufacturer recommendations to avoid overheating the turbine due to the effects of “windage” and friction. (3) For gas-fueled dual fuel engines, the confirmation specified in (2)(a) above is to be carried out for all operating modes (i.e. the applicable gas mode, diesel mode, etc.).		
3 Turning tests	(1) Turning tests are to be carried out in accordance with the following (a) and (b). The turning ability specified in An1.4.2, Annex 2.3.1-1 2.1.7-7A “Guidance for the Test of Ship Maneuverability ”, Part B of the Rules is to be measured and ship stability during turning is to be confirmed. (a) Ships are to be steered to the left or right at maximum rudder angle (normally 35 <i>degrees</i>; however, where a special rudder is provided, a different rudder angle		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
		considered appropriate by the Society made be maintained instead) while running ahead at maximum speed, and this rudder angle is to be maintained until the ship makes a 360-<i>degree</i> turn. (b) Notwithstanding (1) above, ships unable to perform the test at maximum speed are to run ahead at not less than the speed specified in An1.1.1-9, Annex 2.3.1-1 2.1.7-7A “Guidance for the Test of Ship Maneuverability”, Part B of the Rules. While at this speed, ship are to be steered to the left or right at maximum rudder angle (normally 35 <i>degrees</i>; however, where a special rudder is provided, a different rudder angle considered appropriate by the Society may be maintained instead), and this rudder angle is to be maintained until the ship makes a 360-<i>degree</i> turn. (2) The turning tests of an individual ship may be dispensed with, provided that sufficient data is available from the turning test of a sister ship and subject to special approval by the Society.	
	(4 to 9 are omitted.)		
	10 Noise measurements	(1) Noise measurements are to be in accordance with Annex 2.3.1-2 2.1.7-7B “Procedures for on board Noise Measurements”, Part B of the Rules.	
	(11 is omitted.)		
	12 Performance tests for automatic and remote control systems for main propulsion machinery, controllable pitch propellers, boilers and electric generating sets *4	((1) is omitted.) (2) Notwithstanding (1) above, the control systems for controllable pitch propellers intended for main propulsion are to be in accordance with Annex 2.3.1-3 2.1.7-7C “Testing Procedures for Control Systems for Controllable Pitch Propellers Intended for Main Propulsion”, Part B of the Rules. ((3) to (6) are omitted.)	
	13 Other tests where deemed necessary by the Society	(1) For ships having multiple propellers or multiple main engines, sea trials are to be carried out under the assumption that one propeller or engine is inoperable due to failure to confirm that the ship can be maneuvered properly in that condition. (2) For propulsion gears for which the total face width (in case of double helical gears, the central gap is included) exceeds 300 <i>mm</i> or for which the ratio of the total face width to pitch circle diameter of the pinion exceeds 2, contact markings of the teeth are to be confirmed by thinly and uniformly coating tooth flanks with suitable paint. (3) Performance tests of supplementary means for manoeuvring or stopping are to be carried out when provided. (4) Open-up inspections of cylinders may be required after sea trials when considered necessary	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
		by the Society. (5) Sea trials for ships with electrical propulsion plants are to be carried out in accordance with test procedures deemed appropriate by the Society. For tests of ship manoeuvrability, refer to the test procedures specified in Annex 2.3.1-1 <u>2.1.7-7A</u>, Part B of the Rules. (6) In addition to the tests specified in item 5, Table B2.11, Part B of the Rules the Society may require other tests found in <i>JIS F 0801</i> "Test Code of Propelling Machinery at Sea Trials" or other documents considered equivalent thereto. (7) For ships carrying liquefied gases in bulk, ships carrying dangerous chemicals in bulk and other ships whose length is not less than 100 m, sea trials to ascertain initial turning ability, yaw, and course keeping abilities are to be carried out. However, such tests need not be carried out for ships whose manoeuvring characteristics are confirmed by sufficient data on the ship and test type as well as information from sources such as the sea trials of sister ships and model tests. For other ships, such tests are recommended. (8) For ships having exhaust gas recirculation systems, running tests of engines are to be carried out with exhaust gas recirculation systems in operation, and the satisfactory operation of the engine and exhaust gas recirculation system is to be confirmed. (9) Tests of the means of communication between the navigation bridge and the steering gear compartment, and between the engine room and the steering gear compartment are to be carried out.	
Notes *1: These tests may be dispensed with where such tests have been conducted while the ships are anchored or at dockside. (*2 to *4 are omitted.)			
Chapter 3 ANNUAL SURVEYS		Chapter 3 ANNUAL SURVEYS	
3.1 <u>Annual Surveys</u>		3.1 <u>General</u>	
3.1.1 <u>General*</u>		3.1.1 <u>Surveys Equivalent to Special Surveys*</u>	
<u>1 The details of Annual Surveys specified in 1.1.2 are defined in this chapter.</u>		(Newly added)	
<u>2 Surveys equivalent to Special Surveys may be</u>		Surveys equivalent to Special Surveys may be	Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
required when considered necessary by the Society, based on the service and repair history of the ship or damage history of similar ship types or ships with similar tanks and spaces. 3 For ships having tanks with no protective coating (excluding double bottom tanks), an internal examination is to be carried out on representative tanks at a level equivalent to Special Surveys at the time of the Annual Survey. 4 At Annual Surveys for combination carriers such as ore/oil carriers and ore/bulk/oil carriers, the surveys are to be carried out in accordance with the relevant requirements in this Chapter, considering the ship's equipment, structural configuration and past operational experience. 3.1.2 Intervals of Annual Surveys (Moved) 1 Annual Surveys are to be carried out within three <i>months</i> before or after each anniversary date. 2 Annual Surveys may be carried out in advance of the times specified in -1 above when requested by the owner. In such cases, additional Periodical Surveys are to be carried out as specified otherwise by the Society. 3 Where an Annual Survey or Intermediate Survey was carried out in advance in accordance with -2 above, the anniversary date is to be amended to a date which is not to be more than three <i>months</i> later than the date on which the Annual Survey or Intermediate Survey was completed. Subsequent Annual Surveys are to be carried out at the intervals using the new anniversary date. However, where the	required when considered necessary by the Society, based on the service and repair history of the ship or damage history of similar ship types or ships with similar tanks and spaces. (Moved) (Moved) 3.1.2 Survey for Combination Carriers At Annual Surveys for combination carriers such as ore/oil carriers and ore/bulk/oil carriers, the surveys are to be carried out in accordance with the relevant requirements in this Chapter, considering the ship's equipment, structural configuration and past operational experience. (Moved) (Moved) (Moved)	Transferred from B3.1.1, Part B of the Guidance Transferred from 3.1.2, Part B of the Rules Transferred to 3.1.1-4, Part B of the Rules Transferred to 1.1.3-1(1), Part B of the Rules Transferred from 1.1.4-1, Part B of the Rules Transferred from B1.1.4, Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>third Periodical Survey (determined using the intervals corresponding to the new anniversary date) after the previous Intermediate Survey is due before the expiry date of the Classification Certificate of the ship, the Intermediate Survey is to be carried out in lieu of the Annual Survey.</u> 3.2 Annual Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings 3.2.1 Examination of Plans and Documents* 1 The management conditions of plans and documents listed in Table B3.1 are to be examined. 2 For ships subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>, the Ship Construction File in 2.1.5-2 are to be examined in accordance with (1) to (5) below: (1) For a Ship Construction File stored on board a ship, the Surveyor is to examine the information included in it on board the ship. (2) For a Ship Construction File stored in an onshore archive, the Surveyor is to examine the list of information included in it stored in the onshore archive. (3) The Surveyor is to confirm upon completion of the survey that the Ship Construction File has been updated whenever any modification of the documentation included in it has taken place. <u>The method of verification is to be in accordance with requirements specified otherwise by the Society.</u> (4) The Surveyor is to confirm upon completion of the survey that any addition and/or renewal of materials used for the construction of the hull structure are	3.2 Annual Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings 3.2.1 Examination of Plans and Documents* 1 <u>At Annual Surveys,</u> the management conditions of plans and documents listed in Table B3.1 are to be examined. 2 For ships subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>, the Ship Construction File in 2.1.5-2 are to be examined in accordance with (1) to (5) below: (1) For a Ship Construction File stored on board a ship, the Surveyor is to examine the information included in it on board the ship. (2) For a Ship Construction File stored in an onshore archive, the Surveyor is to examine the list of information included in it stored in the onshore archive. (3) The Surveyor is to confirm upon completion of the survey that the Ship Construction File has been updated whenever any modification of the documentation included in it has taken place. (4) The Surveyor is to confirm upon completion of the survey that any addition and/or renewal of materials used for the construction of the hull structure are	Revised expressions. Revised expressions.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
documented within the list of materials specified in item 86, Table B2.1. (5) The Surveyor is to confirm that the Ship Construction File is available to the Society and the flag state throughout the ship's life. <u>The method of verification is to be in accordance with requirements specified otherwise by the Society.</u> 3.2.2 General Examination* 1 Examinations of hull, equipment, fire-extinction and fittings listed in Table B3.2 are to be carried out. 2 <u>Examination of suspect areas identified at previous surveys is to be carried out.</u> 3.2.3 Performance Tests* Performance tests listed in Table B3.3 are to be carried out. 3.2.4 Internal Examinations of Spaces and Tanks* The internal examinations (1) and (2) below are to be carried out. ((1) and (2) are omitted.) 3.2.5 Close-up Surveys Close-up surveys listed in Table B3.5 are to be carried out. 3.2.6 Thickness Measurements 1 The thickness measurements (1) to (3) below are to be carried out. As to the gauging equipment and thickness measurement report, the provisions of 5.2.6-1 are to be applied	documented within the list of materials specified in item 85, Table B2.1. (5) The Surveyor is to confirm that the Ship Construction File is available to the Society and the flag state throughout the ship's life. 3.2.2 General Examination* <u>At Annual Surveys,</u> examinations of hull, equipment, fire-extinction and fittings listed in Table B3.2 are to be carried out. (Moved) 3.2.3 Performance Tests* <u>At Annual Surveys,</u> performance tests listed in Table B3.3 are to be carried out. 3.2.4 Internal Examinations of Spaces and Tanks* <u>At Annual Surveys,</u> the internal examinations (1) and (2) below are to be carried out. ((1) and (2) are omitted.) 3.2.5 Close-up Surveys 1 <u>At Annual Surveys,</u> close-up surveys listed in Table B3.5 are to be carried out. 3.2.6 Thickness Measurements 1 <u>At Annual Surveys,</u> the thickness measurements (1) to (3) below are to be carried out. As to the gauging equipment and thickness measurement report, the provisions of 5.2.6-1	Revised of reference numbers due to revision of table. Revised expressions. Transferred from Note of Table B3.2, Part B of the Rules Revised expressions. Revised expressions. Revised expressions. Revised expressions.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
correspondingly as well. ((1) to (3) are omitted.) 3.2.7 Pressure Test For oil tankers and ships carrying dangerous chemicals in bulk, a pressure test is to be carried out on the piping system when deemed necessary by the Surveyor as a consequence of the general examination of item No.27 specified in Table B3.2. 3.3 Annual Surveys for Machinery 3.3.1 General Examinations 1 <u>A general examination for the areas, systems and devices listed in Table B3.7 is to be carried out in order to ascertain that they are in good working order.</u>	are to be applied correspondingly as well. ((1) to (3) are omitted.) 3.2.7 Pressure Test <u>At Annual Surveys</u> for oil tankers and ships carrying dangerous chemicals in bulk, a pressure test is to be carried out on the piping system when deemed necessary by the Surveyor as a consequence of the general examination of item No.27 specified in Table B3.2. 3.3 Annual Surveys for Machinery 3.3.1 General Examinations* 1 <u>At Annual Surveys for Machinery, a general examination of all the machinery in the engine room as well as the following (1) to (4) inspections are to be carried out:</u> (1) <u>It is to be ascertained that the main propulsion machinery, power transmission machinery, shafting systems, prime movers other than main propulsion machinery, boilers, thermal oil heaters, incinerators, pressure vessels, auxiliaries, piping systems, control systems, electrical installations and switchboards are placed in good order.</u> (2) <u>It is to be ascertained that the engine room, boiler spaces and means of escape are placed in good order with respect to dangers of fire and explosion.</u> (3) <u>For ships affixed with the notation “PSCM” or “PSCM-1A”, the records of the parameters monitored are to be reviewed, in addition to a general examination, so as to ascertain that the relevant installations are well maintained.</u>	Revise of expressions. (1) Transferred to item 2 (1) of Table B3.7, Part B of the Rules (2) Transferred to item 1 (1) of Table B3.7, Part B of the Rules (3) Transferred to item 4 (1) of Table B3.7, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	(4) For ships other than those referred to in (3) above with oil lubricated or freshwater lubricated bearings, it is to be checked as to whether lubricating oil analysis or fresh water sample tests are regularly carried out except for the cases specified in 3.3.4-2(3). In cases where lubricating oil analysis or water sample tests are carried out, it is to be checked as to whether the reference standards deemed appropriate by the Society are complied with based upon the lubricating oil analysis or fresh water sample test reports, in addition to a general examination. 2 At Annual Surveys for tankers, ships carrying liquefied gases in bulk and ships carrying dangerous chemicals in bulk, the following inspections (1) and (2) are to be carried out in addition to the items in -1 above. (1) It is to be checked that each pump foundations are intact. (2) It is to be ascertained that ventilation systems in cargo pump rooms and electrical installations in hazardous areas are placed in good order.	(4) Transferred to item 4 (2) of Table B3.7, Part B of the Rules
(Moved)	3 At Annual Surveys for electric propulsion ships, it is to be ascertained as far as practical for electric propulsion systems that forced cooling apparatuses (including filters), supports and coverings of cables, capacitor elements of propulsion semiconductor converters for propulsion, windings of generating plants and electric motors for propulsion, slip rings, commutators and brushes, etc. are in good condition.	Transferred to item 1 of “Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk with integral tanks and Ships Carrying Liquefied Gases in bulk” in Table B3.7, Part B of the Rules
3.3.2 Performance Tests* 1 For Machinery, performance tests for the systems and devices listed in Table B3.8 are to be carried out in order to ascertain that they are in good working order.	3.3.2 Performance Tests* 1 At Annual Surveys for Machinery, performance tests for the systems and devices listed in Table B3.7 are to be carried out in order to ascertain that they are in good working	Transferred to “Additional Requirement for Electric Propulsion Ships” in Table B3.7, Part B of the Rules Revised expressions. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
2 For tankers, ships carrying liquefied gases in bulk and ships carrying dangerous chemicals in bulk, in addition to the requirements specified in Table B3.8, the installations and devices specified in Table B3.9 are to be subjected to the performance tests. 3.4 Special Requirements for Ships Carrying Liquefied Gases in Bulk 3.4.1 General 1 In addition to the requirements of 3.2 and 3.3, the requirements of 3.4 apply to Annual Surveys of ships carrying liquefied gases in bulk. Examinations of inerted cargo tanks or spaces may be omitted at the discretion of the Surveyor. 2 <u>Where applicable, alternative design and arrangements, if any, for the segregation of the cargo area are to be examined in accordance with the test, inspection and maintenance requirements specified in the approved documentation.</u> 3.4.2 Examinations For ships carrying liquefied gases in bulk, <u>the items specified in Table B3.10 are to be examined to verify they are in good order. Where deemed necessary by the Surveyor, additional performance tests, operation tests or open-up examinations may be required.</u>	order. 2 <u>At Annual Surveys</u> for tankers, ships carrying liquefied gases in bulk and ships carrying dangerous chemicals in bulk, in addition to the requirements specified in Table B3.7, the installations and devices specified in Table B3.8 are to be subjected to the performance tests. 3.4 Special Requirements for Ships Carrying Liquefied Gases in Bulk 3.4.1 General In addition to the requirements of 3.2 and 3.3, the requirements of 3.4 apply to Annual Surveys of ships carrying liquefied gases in bulk. Examinations of inerted cargo tanks or spaces may be omitted at the discretion of the Surveyor. (Moved) 3.4.2 Examinations* <u>At Annual Surveys</u> for ships carrying liquefied gases in bulk, <u>structures and equipment of the spaces specified in Table B3.9 are to be generally examined in order to ascertain them being in good order. The extent of the survey may be increased to include performance tests, operation tests, open-up examinations, where deemed necessary by the Surveyor.</u>	Revised expressions. Revised reference numbers due to relocation. Renumbered Transferred from B3.4.1-2, Part B of the Rules Revised reference numbers due to relocation. Revised expressions. Standardised wording as follows: 3.4.2, 3.5.2, 3.6.2, 4.4.2, 4.5.2, 4.6.2,

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
3.5 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk 3.5.1 General In addition to the requirements of 3.2 and 3.3, the requirements of 3.5 apply to ships carrying dangerous chemicals in bulk. 3.5.2 Examinations For ships carrying dangerous chemicals in bulk, <u>the items specified in Table B3.11 are to be examined to verify they are in good order.</u> Where deemed necessary by the Surveyor, additional performance tests, operation tests or open-up examinations may be required. 3.6 Special Requirements for Ships Using Low-flashpoint Fuels 3.6.1 General* <u>1</u> In addition to the applicable requirements of the previous sections, the requirements of 3.6 are to be applied to ships using low-flashpoint fuels. <u>2</u> The requirements of 3.6 need not be applied to ships examined in accordance with 3.4 above.	3.5 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk 3.5.1 General In addition to the requirements of 3.2 and 3.3, the requirements of 3.5 apply to <u>Annual Surveys of</u> ships carrying dangerous chemicals in bulk. 3.5.2 Examinations* <u>At Annual Surveys of</u> ships carrying dangerous chemicals in bulk, <u>examinations of spaces, structures, fittings and equipment specified in Table B3.10 are to be carried out.</u> <u>The extent of the survey may be increased to include performance tests, operation tests, open-up examinations, etc. where deemed necessary by the Surveyor.</u> 3.6 Special Requirements for Ships Using Low-flashpoint Fuels 3.6.1 General* In addition to the applicable requirements of the previous sections, the requirements of 3.6 are to be applied <u>at Annual Surveys of</u> ships using low-flashpoint fuels. (Moved)	5.4.2, 5.5.2, 5.6.2 Revised expressions. Revised expressions. Revised reference numbers due to relocation. Standardised wording as follows: 3.4.2, 3.5.2, 3.6.2, 4.4.2, 4.5.2, 4.6.2, 5.4.2, 5.5.2, 5.6.2 Renumbered Revised expressions. Transferred from B3.6.1, Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
3.6.2 Examinations For ships using low-flashpoint fuels, the <u>items specified in Table B3.12</u> are to be <u>examined to verify they are in good order</u>. Where deemed necessary by the Surveyor, <u>additional performance tests, operation tests or open-up examinations may be required</u>.	3.6.2 Examinations* <u>At Annual Surveys of ships using low-flashpoint fuels, the examinations of spaces, structures and facilities, etc. specified in Table B3.11 are to be carried out in order to ascertain them being in good order. The extent of the survey may be increased to include additional performance testing, operational testing or open-up examinations in cases where deemed necessary by the attending surveyor.</u>	Revised expressions. Revised reference numbers due to relocation. Standardised wording as follows: 3.4.2, 3.5.2, 3.6.2, 4.4.2, 4.5.2, 4.6.2, 5.4.2, 5.5.2, 5.6.2
3.7 Special Requirements for Bulk Carriers and Oil Tankers	3.7 Special Requirements for Bulk Carriers and Oil Tankers	
3.7.1 General In addition to the requirements of 3.2 and 3.3, the requirements of 3.7 apply to bulk carriers and oil tankers subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>.	3.7.1 General In addition to the requirements of 3.2 and 3.3, the requirements of 3.7 apply to <u>the Annual Surveys of</u> bulk carriers and oil tankers subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>.	Revised expressions.
3.8 Special Requirements for Ships Affixed with the Notation “HCM” or “HCM-GBS”	3.8 Special Requirements for Ships Affixed with the Notation “HCM” or “HCM-GBS”	
3.8.1 General In addition to the requirements of 3.2 and 3.3, the requirements of 3.8 apply to ships affixed with the notation “HCM” or “HCM-GBS”.	3.8.1 General In addition to the requirements of 3.2 and 3.3, the requirements of 3.8 apply to <u>the Annual Surveys of</u> ships affixed with the notation “HCM” or “HCM-GBS”.	Revised expressions.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
3.9 Special Requirements for Ships Affixed with the Notation “CybR” 3.9.3 Surveys* For ships affixed with the notation “CybR”, the items specified in Table B3.13 are to be examined.	3.9 Special Requirements for Ships Affixed with the Notation “CybR” 3.9.3 Surveys* At Annual Surveys for ships affixed with the notation “CybR”, the items specified in Table B3.12 are to be examined.	Revised expressions. Revised reference numbers due to relocation.

Table B3.1 Examination of Plans and Documents

Items	Examination
1 Loading Manual	(1) For ships required to have the manual on board in accordance with the requirements of 3.8.1.1, Part 1, Part C, and 25.1.1, Part CS, confirmation that the manual is kept on board is to be made.
2 Stability Information Booklet	(1) Confirmation as to whether the booklet is kept on board is to be made.
3 Damage Control Plan, Booklet and Damage Stability Information	(1) For ships ^{*1} required to have the damage control plan on board in accordance with the requirement in 2.3.4, Part 1, Part C, confirmation that the approved plan is exhibited and the booklet containing the information shown in the plan and the damage stability information are kept on board is to be made.
4 Fire Control Plan	(1) Confirmation that the fire control plan is exhibited and properly stored is to be made.
5 Operating and Maintenance Manual for the door and inner door and notices indicating procedures for closing and securing	(1) For ships required to have the manual and notices on board in accordance with the requirements in 14.10, Part 1, Part C, and Chapter 21, Part CS; (2) Confirmation that the manual is kept on board is to be made. (3) Confirmation that the board is exhibited is to be made.
6 Instruction Manuals for the Inert Gas System	(1) For ships required to have the manual on board in accordance with the requirements of 4.5.5, Part R, confirmation that the manual is kept on board is to be made.
7 Towing and Mooring Fitting Arrangement Plan	(1) Confirmation that the Towing and Mooring Fitting Arrangement Plan specified in 14.4, Part 1, Part C or 23.2, Part CS is kept on board is to be made.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
8	Ship Structure Access Manual	(1) For ships required to have the manual on board in accordance with the requirements of 14.16.3.6, Part 1, Part C or 26.2.6, Part CS, confirmation that the manual is kept on board and updated as necessary is to be made.	
9	Documents related to the surveys for bulk carriers, oil tankers and ships carrying dangerous chemicals in bulk with integral tanks*2	(1) Confirmation that the documents are kept on board is to be made.	
10	Coating Technical File and/or Corrosion Resistant Steel Technical File	(1) For ships required to have a Coating Technical File for dedicated seawater ballast tanks, etc. on board in accordance with the requirements of 3.3.5.3, Part 1, Part C, 22.4.2, Part CS, 1.2.2 Section 5 Chapter 3, Part CSR-B or 2.1.1.2 Section 6, Part CSR-T, confirmation that the file is kept on board and that maintenance and repair work are properly recorded and kept on the file is to be made. (2) For ships required to have a Coating Technical File and/or a Corrosion Resistant Steel Technical File for cargo oil tanks on board in accordance with the requirements of 3.3.5.4, Part 1, Part C or 22.4.3, Part CS, confirmation that the files*3*4 are kept on board and that maintenance and repair work are properly recorded and kept on the files is to be made.	
11	Noise survey report*5	(1) Confirmation that the report is kept on board	
12	Polar Water Operational Manual	(1) For ships required to have the manual on board in accordance with the requirements of 2.3.1, Part I, confirmation that the manual is kept on board is to be made.	
13	Drawings indicating critical structural areas, construction monitoring plan and all construction monitoring survey records	(1) For ships affixed with the notation “HCM” or “HCM-GBS”, confirmation that the documents are kept on board is to be made.	
14	Watertight cable penetration register	(1) Confirmation that the register is kept on board and updated as necessary is to be made.	
15	Procedures for software and hardware change management and relevant change records	(1) Confirmation that the procedures for software and hardware change management are kept on board in accordance with 3.6.12-1, Part X. (2) Confirmation that the change records are updated in accordance with 3.6.11 and 3.6.12-1, Part X.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
16	Management plans for inspection and maintenance of mooring equipment (including mooring lines)	(1) For ships required to have the plan on board in accordance with the requirements of 14.4.5.1, Part 1, Part C or 23.2.10, Part CS, confirmation that the plan is kept on board and updated as necessary is to be made.	
17	Cargo securing manual	(1) For ships that are subject to 1.2.3, confirmation as to whether the booklet is kept on board is to be made.	
18	Operation manual of lashing software	(1) For ships required to have the lashing software on board in accordance with 3.3.1.1, Part 2-1, Part C, confirmation that the manual is kept onboard is to be made.	
<u>Notes:</u> *1: The wording “For ships required to have a damage control plan on board in accordance with the requirements in 2.3.4, Part 1, Part C” refer to the ships specified in the following (1) and (2). (1) Dry cargo ships of 500 gross tonnage and above engaged on international voyages, which were at the beginning stage of construction on or after 1 February 1992. Dry cargo ship is defined as a cargo ship that does not engage in carrying liquids. (2) Cargo ships of 500 gross tonnage and above engaged on international voyages, which were at the beginning stage of construction on or after 1 January 2009 *2: The documents are to be in accordance with requirements specified otherwise by the Society. *3: The record of maintenance and repair work is to be in accordance with the “Guidelines for maintenance and repair of protective coatings” (MSC.1/Circ.1330/Rev.1) or the “Guidelines on procedures for in-service maintenance and repair of coating systems of cargo oil tanks of crude oil tankers” (MSC.1/Circ.1399/Rev.1). *4: The record of maintenance and repair work for corrosion resistant steel is to be in accordance with IACS Unified Interpretation SC258 as amended. *5: “Noise survey report” refers to the report in An4.2, Annex 2.3.1-2 “PROCEDURES FOR ON BOARD NOISE MEASUREMENTS” of the Rules.			Notes 1: Transferred from B3.2.1-1, Part B of the Guidance Notes 3: Transferred from B3.2.1-3, Part B of the Guidance Notes 4: Transferred from B3.2.1-4, Part B of the Guidance Notes 5: Transferred from B3.2.1-5, Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
Table B3.2 General Examination			
	Items	Examination	
	(1 and 2 are omitted.)		
3	Openings on deck and outside of the hull	(1) Confirmation that the means of securing the weathertightness of cargo hatchways, other hatchways and other openings* ¹ on the freeboard and superstructure decks are in good condition. (2) Confirmation that the watertight integrity of the closures to any openings in the ship's side below the freeboard deck is in good condition. (3) Confirmation that the side scuttles and deadlights are in good condition.	6 Air pipes and sounding pipes (1): Alignment of Japanese and English versions of the Rules: The requirements for are specified in accordance with resolution A.1104(29). Revised wording to be consistent with Japanese text because "coamings" is categorised as a "ventilator" in item 5 of the table. 15 Fire protection arrangement and means of escape (2) and(3): Transferred from B3.2.2-3(13) and (14), Part B of the Guidance
	(4 and 5 are omitted.)		
6	Air pipes and sounding pipes* ²	(1) Confirmation that the air pipes and sounding pipes including their coamings and closing appliances are in good condition. (2) For closing appliances of air pipes, open up examinations may be required depending upon their condition.	
	(7 to 13 are omitted.)		
14	Fire extinguishing arrangement* ³	(1) Confirmation that the fire extinguishing arrangement is in good condition and the fixed fire extinguishing system, semi-portable and portable fire extinguishers, firefighters' outfits, emergency fire pumps and the international shore connection are maintained in good order. (2) When fire-fighting foams are replaced or newly fitted, confirmation that maker declarations or laboratory test reports are kept on board in accordance with item 400 101 of Table B2.1.	
15	Fire protection arrangement and means of escape	(1) Confirmation that no alteration has been made to these arrangements since the last survey. (This includes the confirmation that emergency escape breathing devices (EEBDs) are complete and in good condition.) <u>(2) Any manual and automatic fire doors are to be examined, as far as practicable.</u> <u>(3) It is to be confirmed that the means of escape from accommodation, machinery and other spaces are satisfactory.</u>	Notes: Transferred to 3.2.2-2, Part B of the Rules
	(16 to 20 are omitted.)		
21	Bow doors, inner doors, side shell doors and stern doors* ⁴	(1) Confirmation that the bow doors, inner doors, side shell doors and stern doors are in good condition.	Note 2 Transferred from B3.2.2-2, Part B of the Guidance
22	Hearing protectors* ⁵	(1) Confirmation that hearing protectors are in good condition	Note 6: Transferred from B3.2.2-6, Part B of the

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
23	Portable gas detecting instruments ^{*6}	(1) Confirmation that portable gas detecting instruments are in good condition. (This includes the confirmation of calibration records.)	Guidance Note 7: Transferred from B3.2.2-7, Part B of the Guidance
(24 to 26 are omitted.)			
Additional Requirement for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk			
27	Piping	(1) Confirmation that cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other piping in cargo pump room, cargo compressor rooms and on weather decks are in good condition. (2) Confirmation that the earthing between hull structures and cargo piping systems (cargo oil pipes, vent pipes, tank washing pipes, etc.) is in good condition. ^{*7}	
(28 to 30 are omitted.)			
Additional Requirement for Bulk Carriers over 10 years of age			
(32 is omitted.)			
Additional Requirement for General Dry Cargo Ships of not less than 500 gross tonnage and over 15 years of age			
(33 is omitted.)			
Additional Requirement for Container Carriers			
(34 is omitted.)			
Notes: Examination			
*1: The detail of the survey is to be in accordance with requirements specified otherwise by the Society.			
*2 Particular attention is to be paid to the condition of the weld connections between air pipes and deck plating.			
*3 The detail of the survey is to be in accordance with requirements specified otherwise by the Society.			
*4 The detail of the survey is to be in accordance with requirements specified otherwise by the Society.			
*5 The detail of the survey is to be in accordance with requirements specified otherwise by the Society.			
*6 “Hearing protectors” refers to the hearing protectors in An6.1 and An6.2, Annex 2.3.1-2 “PROCEDURES FOR ON BOARD NOISE MEASUREMENTS” of the Rules.			
*7 Resistance testing is to be carried out for all electrical bonding to confirm that resistance is not greater than 1 MΩ in cases where bonding straps are not provided as electrical bonding between fuel storage tanks or fuel piping and hull structures, or in cases where the Surveyor deems such testing to be necessary. However, such measurements may be omitted at the discretion of the Surveyor in cases where accurate measurement records are maintained and can be verified.			

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks																								
Table B3.3 Performance Tests																										
<table><tr><th>Items</th><th>Tests</th></tr><tr><td>(1 is omitted.)</td><td></td></tr><tr><td>2 Closing appliances of watertight door on watertight bulkheads and openings on superstructure end bulkheads, deckhouses or companions protecting hatchways giving access to spaces below freeboard deck</td><td>(1) Checking whether the appliances work in good order is to be made as deemed necessary by the Surveyor. (2) Hose tests*1 or equivalent tests are to be carried out. Such tests may be dispensed with at the discretion of the Surveyor.</td></tr><tr><td>3 Appliances*2 related to fire protection and escape</td><td>(1) Checking whether the appliances work in good order is to be carried out.</td></tr><tr><td>4 Fire detection system and fire alarm system including manually operated call points and sample extraction smoke detection system*3</td><td>(1) Checking, as far as possible, whether the systems work in good order (including proper operation of malfunction indicator) is to be made.</td></tr><tr><td>5 Fire pumps (including emergency fire pumps) piping, hydrants, hoses, nozzles etc. *3</td><td>(1) Performance test of the fire fighting system composed of fire pump, hydrants, etc. is to be carried out. For ships with fire pumps in periodically unattended machinery spaces, an operation test of the remote control system or automatic operation system of one pump is to be carried out.</td></tr><tr><td>6 Fixed deck foam system*3</td><td>(1) Checking whether the system works in good order is to be carried out by delivering water.</td></tr><tr><td>7 Ventilation system</td><td>(1) Checking whether the system works in good order is to be carried out.</td></tr><tr><td>8 Stability Computer*4</td><td>(1) A performance test*5 is to be carried out on computers for stability calculation that are installed as a supplement to the stability information booklet on board ships contracted for construction on or after 1 July 2005.</td></tr><tr><td>9 Water level detection and alarm systems*6</td><td>(1) Checking whether the systems work in order is to be made at random.</td></tr><tr><td>10 Dewatering arrangements*7</td><td>(1) Checking whether the systems work in order is to be made.</td></tr><tr><td>(11 to 15 are omitted.)</td><td></td></tr></table>			Items	Tests	(1 is omitted.)		2 Closing appliances of watertight door on watertight bulkheads and openings on superstructure end bulkheads, deckhouses or companions protecting hatchways giving access to spaces below freeboard deck	(1) Checking whether the appliances work in good order is to be made as deemed necessary by the Surveyor. (2) Hose tests*1 or equivalent tests are to be carried out. Such tests may be dispensed with at the discretion of the Surveyor.	3 Appliances*2 related to fire protection and escape	(1) Checking whether the appliances work in good order is to be carried out.	4 Fire detection system and fire alarm system including manually operated call points and sample extraction smoke detection system*3	(1) Checking, as far as possible, whether the systems work in good order (including proper operation of malfunction indicator) is to be made.	5 Fire pumps (including emergency fire pumps) piping, hydrants, hoses, nozzles etc. *3	(1) Performance test of the fire fighting system composed of fire pump, hydrants, etc. is to be carried out. For ships with fire pumps in periodically unattended machinery spaces, an operation test of the remote control system or automatic operation system of one pump is to be carried out.	6 Fixed deck foam system*3	(1) Checking whether the system works in good order is to be carried out by delivering water.	7 Ventilation system	(1) Checking whether the system works in good order is to be carried out.	8 Stability Computer*4	(1) A performance test*5 is to be carried out on computers for stability calculation that are installed as a supplement to the stability information booklet on board ships contracted for construction on or after 1 July 2005.	9 Water level detection and alarm systems*6	(1) Checking whether the systems work in order is to be made at random.	10 Dewatering arrangements*7	(1) Checking whether the systems work in order is to be made.	(11 to 15 are omitted.)	
Items	Tests																									
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10 Dewatering arrangements*7	(1) Checking whether the systems work in order is to be made.																									
(11 to 15 are omitted.)																										
Notes: *1 The hose test is to be in accordance with An1.4.4-3, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules. *2 The detail of the survey is to be in accordance with requirements specified otherwise by the Society. *3 For details on the examinations refer to 2.1.7, Part B of the rules.																										
Note 1: Transferred from B3.2.3-1, Part B of the Guidance Note 3: Transferred from B3.2.3-3, Part B of the																										

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>*4 “Computers for stability calculation that are installed as a supplement to the stability information booklet” refers to a computer for stability calculation or a computer in which software for stability calculation is installed that can be used at locations such as the navigation bridge and cargo control room.</u> <u>*5 The detail of the survey is to be in accordance with requirements specified otherwise by the Society.</u> <u>*6 Inspection of water level detection and alarm systems (refer to 13.8.5, 13.8.6 and 13.8.7, Part D of the Rules) is to be carried out on the items installed on the following ships.</u> <u>(1) Cargo ships of 500 gross tonnage and above engaged on international voyages, which have a single cargo hold below the freeboard deck or cargo holds below the freeboard deck which are not separated by at least one bulkhead made watertight up to that deck and specified in the following (a) or (b):</u> <u>(a) Cargo ships having a length (L_f) of less than 100 m, which had been at the beginning stage of construction before 1 July 1998</u> <u>(b) Cargo ships having a length (L_f) of less than 80 m, which had been at the beginning stage of construction on and after 1 July 1998</u> <u>(2) Cargo ships of 500 gross tonnage and above engaged on international voyages and specified in the following (a) or (b):</u> <u>(a) Bulk carriers defined in 1.3.1(13), Part B of the Rules, which had been at the beginning stage of construction before 1 July 2006</u> <u>(b) Bulk carriers defined in An1.2.1(1), Annex 1.1, Part 2-2, Part C of the Rules, which had been at the beginning stage of construction on or after 1 July 2006</u> <u>(3) Cargo ships of 500 gross tonnage and above engaged on international voyages, which have multiple cargo holds (excluding bulk carriers defined in An1.2.1(1), Annex 1.1, Part 2-2, Part C of the Rules and tankers) that fall under any of the following.</u> <u>(a) for which the building contract is placed on or after 1 January 2024;</u> <u>(b) in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2024; or</u> <u>(c) the delivery of which is on or after 1 January 2028</u> <u>*7 Inspection of Dewatering Arrangements (refer to 13.5.10, Part D of the Rules) is to be carried out on the items installed on cargo ships of 500 gross tonnage and above engaged on international voyages and specified in the following (1) or (2):</u> <u>(1) Bulk carriers defined in 1.3.1(13), Part B of the Rules, which had been at the beginning stage of construction before 1 July 2006</u> <u>(2) Bulk carriers defined in An1.2.1(1), Annex 1.1, Part 2-2, Part C of the Rules, which had been at the beginning stage of construction on or after 1 July 2006</u>		Guidance Note 4: Transferred from B3.2.3-4, Part B of the Guidance Note 6: Transferred from B3.2.3-6, Part B of the Guidance Note 7: Transferred from B3.2.3-7, Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks																								
<table><tr><th colspan="2">Table B3.4 Internal Examinations of Spaces and Tanks^{*1}</th></tr><tr><th>Items</th><th>Examination</th></tr><tr><td colspan="2">Requirements for cargo ships except when specified otherwise</td></tr><tr><td>(1 to 3 are omitted.)</td><td></td></tr><tr><td colspan="2">Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk with integral tanks and Ships Carrying Liquefied Gases in bulk</td></tr><tr><td>(1 to 3 are omitted.)</td><td></td></tr><tr><td colspan="2">Requirements for Bulk Carriers other than Double Skin Bulk Carriers^{*2}</td></tr><tr><td>(1 to 3 are omitted.)</td><td></td></tr><tr><td colspan="2">Requirements for Double Skin Bulk Carriers</td></tr><tr><td>(1 to 4 are omitted.)</td><td></td></tr><tr><td colspan="2">Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i></td></tr><tr><td>(1 to 3 are omitted.)</td><td></td></tr></table>		Table B3.4 Internal Examinations of Spaces and Tanks ^{*1}		Items	Examination	Requirements for cargo ships except when specified otherwise		(1 to 3 are omitted.)		Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk with integral tanks and Ships Carrying Liquefied Gases in bulk		(1 to 3 are omitted.)		Requirements for Bulk Carriers other than Double Skin Bulk Carriers ^{*2}		(1 to 3 are omitted.)		Requirements for Double Skin Bulk Carriers		(1 to 4 are omitted.)		Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i>		(1 to 3 are omitted.)		Note 1: Transferred from B3.2.4, Part B of the Guidance Note 2: Renumbered
Table B3.4 Internal Examinations of Spaces and Tanks ^{*1}																										
Items	Examination																									
Requirements for cargo ships except when specified otherwise																										
(1 to 3 are omitted.)																										
Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk with integral tanks and Ships Carrying Liquefied Gases in bulk																										
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Requirements for Bulk Carriers other than Double Skin Bulk Carriers ^{*2}																										
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Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i>																										
(1 to 3 are omitted.)																										
Notes: <u>*1:</u> When internal examinations are carried out, the means of access provided for the examinations are also to be examined. <u>*2:</u> For bulk carriers with hybrid cargo hold arrangements, e.g. with some cargo holds of single side skin and others of double side skin, the Requirements for Double Skin Bulk Carriers are to apply to cargo holds of double side skin and associated wing spaces.																										

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
Table B3.5 Close-up Surveys			
Items		Examinations	
Requirements for Cargo Ships except when specified otherwise			
1	Bow doors, inner doors, side shell doors and stern doors	(1) Close-up surveys of securing, supporting and locking devices, together with welded parts, are to be carried out.	
Requirements for Bulk Carriers other than Double Skin Bulk Carriers* ¹			
1	Hatch covers and hatch coamings	(1) Close-up survey of hatch cover plating and hatch coaming plating and their stiffeners is to be carried out.	
2	Structural members in cargo holds	(1) For bulk carriers over 10 <i>years</i> but not more than 15 <i>years</i> of age, a close-up survey of sufficient extent (i.e. a minimum of 25% of the frames) is to be carried out, to establish the condition of the lower region of the side frames including approximately the lower one third length of the frames at side shell and side frame end attachment and the adjacent shell plating in the forward cargo hold. (2) For bulk carriers over 15 <i>years</i> of age, a close-up survey of sufficient extent (i.e. a minimum of 25% of the frames) is to be carried out, to establish the condition of the lower region of the shell frames including approximately the lower one third length of the frames at side shell and side frame end attachment and the adjacent shell plating in the forward cargo hold and one other selected cargo hold. (3) Where this level of survey reveals the need for remedial measures, the survey is to be extended to include a close-up survey of all of the shell frames and adjacent shell plating of that cargo hold as well as a close-up survey of sufficient extent (i.e. a minimum of 25% of the frames) of all remaining cargo holds.	
Requirements for Double Skin Bulk Carriers			
1	Hatch covers and hatch coamings	(1) Close-up survey of hatch cover plating and hatch coaming plating and their stiffeners is to be carried out.	
Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i>			
1	Hatch covers and hatch coamings	(1) Close-up survey of hatch cover plating and hatch coaming plating and their stiffeners is to be carried out.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
2	Cargo hold frames	(1) For general dry cargo ships carrying timber cargoes over 5 <i>years</i> and up to 15 <i>years</i> of age, the extent of survey is to be increased to the satisfaction of the Surveyor where deemed necessary by the Surveyor as a consequence of the survey carried out in accordance with Table B3.4. (2) For general dry cargo ships over 15 <i>years</i> of age, a close-up survey of sufficient extent (i.e. a minimum of 25% of the frames) is to be carried out, to establish the condition of the lower region of the shell frames including approximately the lower one third length of the frames at side shell and side frame end attachment and the adjacent shell plating in the forward cargo hold (the forward lower cargo hold in the case of tween deck spaces) and one other selected cargo hold (one other selected lower cargo hold in the case of tween deck spaces). (3) Where this level of survey reveals the need for remedial measures, the survey is to be extended to include a close-up survey of all of the shell frames and adjacent shell plating of those cargo holds and associated tween deck spaces (as applicable) as well as a close-up survey of sufficient extent of all remaining cargo holds and tween deck spaces (as applicable).	

Note:

- *1: For bulk carriers with hybrid cargo hold arrangements, e.g. with some cargo holds of single side skin and others of double side skin, the Requirements for Double Skin Bulk Carriers are to apply to cargo holds of double side skin and associated wing spaces.

Table B3.6 Thickness Measurements

Items	Note
Requirements for Cargo Ships except when specified otherwise	
1 Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other piping in cargo pump rooms and cargo compressor rooms and on weather decks	(1) When deemed necessary by the Surveyor as a consequence of the examination specified in Table B3.2 , thickness measurements are to be carried out.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original		Remarks
2	Structural members in ballast tanks	(1)	When extensive corrosion is found in the examination specified in Table B3.4 which is required for ships over 5 <i>years</i> of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-2 .	
3	Bow doors, inner doors, side shell doors and stern doors	(1)	When deemed necessary by the Surveyor as a consequence of the examination specified in Table B3.2 , thickness measurements are to be carried out.	
Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk with integral tanks and Ships Carrying Liquefied Gases in bulk				
1	Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other piping in cargo pump rooms and cargo compressor rooms and on weather decks	(1)	When deemed necessary by the Surveyor as a consequence of the examination specified in Table B3.2 , thickness measurements are to be carried out.	
2	Structural members in ballast tanks	(1)	When extensive corrosion is found in the examination of ballast tanks specified in Table B3.4 which is required for oil tankers, ships carrying dangerous chemicals in bulk and ships carrying liquefied gases in bulk over 5 <i>years</i> of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-3 or -4 .	
Requirements for Bulk Carriers other than Double Skin Bulk Carriers				
1	Structural members in ballast tanks	(1)	When extensive corrosion is found in the examination of ballast tanks specified in Table B3.4 which is required for bulk carriers other than double skin bulk carriers over 5 <i>years</i> of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-5 .	
2	Hatch covers and hatch coamings	(1)	When deemed necessary by the Surveyor as a consequence of the internal examination required in Table B3.4 or the close-up survey required in Table B3.5 for bulk carriers other than double skin bulk carriers, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-5 .	
3	Structural members in cargo holds			
Requirements for Double Skin Bulk Carriers				

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
1	Structural members in ballast tanks	(1) When extensive corrosion is found in the examination of ballast tanks specified in Table B3.4 which is required for double skin bulk carriers over 5 <i>years</i> of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-5.	
2	Double side skin void spaces	(1) When extensive corrosion is found in the examination of void spaces specified in Table B3.4 which is required for double skin bulk carriers over 20 <i>years</i> of age and of 150 <i>m</i> in length and upwards, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-5.	
3	Hatch covers and hatch coamings	(1) When deemed necessary by the Surveyor as a consequence of the close-up survey required in Table B3.5 for double skin bulk carriers, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-5.	
Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i>			
1	Structural members in ballast tanks	(1) When extensive corrosion is found in the examination of ballast tanks specified in Table B3.4 which is required for general dry cargo ships over 5 <i>years</i> of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-6.	
2	Hatch covers and hatch coamings	(1) When deemed necessary by the Surveyor as a consequence of the close-up survey required in Table B3.5 , thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-6.	
3	Structural members in cargo holds	(1) For general dry cargo ships over 10 <i>years</i> of age, when deemed necessary by the Surveyor as a consequence of the internal examination required in Table B3.4 and the close-up survey required in Table B3.5 , thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of 5.2.6-6.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
Table B3.7 General Examinations			Transferred the requirements specified in 3.3.1, Part B of the Rules and B3.3.1, Part B of the Guidance
Items	Examinations		
1 The engine room, boiler spaces and means of escape	(1) It is to be ascertained that the engine room, boiler spaces and means of escape are placed in good order with respect to dangers of fire and explosion. (2) A general examination of the machinery, the boilers, all steam, hydraulic, pneumatic and other systems and their associated fittings is to be carried out to see whether they are being properly maintained and with particular attention to the fire and explosion hazards.		
2 The main propulsion machinery, power transmission machinery, shafting systems, prime movers other than main propulsion machinery, boilers, thermal oil heaters, incinerators, pressure vessels, auxiliaries, piping systems, control systems, electrical installations and switchboards	(1) The installations are placed in good order and the following inspections (a) and (i) are to be carried out. (a) It is to be confirmed that the normal operation of the propulsion machinery can be sustained or restored even though one of the essential auxiliaries becomes inoperative. (b) The means for the operation of the main and auxiliary machinery essential for the propulsion and the safety of the ship are to be examined. (c) The arrangements to operate the main and other machinery from a machinery control room are to be examined. (d) It is to be confirmed that the machinery, boilers and other pressure vessels, associated piping systems and fittings are installed and protected so as to reduce to a minimum any danger to persons on board, due regard being given to moving parts, hot surfaces and other hazards. (e) It is to be confirmed that means are provided so that the machinery can be brought into operation from the dead ship condition without external aid. (f) The electrical installations, including the main source of power and the lighting systems are, as far as practicable, to be examined visually and in operation. (g) It is to be examined that the precautions provided against shock, fire and other hazards of electrical origin are being maintained. (h) The condition of all the non-metallic expansion joints in piping systems penetrating ship's side for cases where penetrations and these joints are located below the deepest load waterline is to be visually examined and the relevant service record is to be checked.		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
		(i) <u>Arrangements for remote closing of valves for fuel oil tanks, lubricating oil tanks and other flammable oil tanks are to be examined.</u>	
3	<u>The ventilation for the machinery spaces</u>	(1) <u>The operation of the ventilation for the machinery spaces is to be confirmed.</u>	
4	<u>lubricating oil or fresh water of Stern tube bearing</u>	(1) <u>For ships affixed with the notation “PSCM” or “PSCM-1A”, the records of the parameters monitored are to be reviewed, in addition to a general examination, so as to ascertain that the relevant installations are well maintained.</u> (2) <u>For ships other than those referred to in (1) above with oil lubricated or freshwater lubricated bearings, it is to be checked as to whether lubricating oil analysis or fresh water sample tests are regularly carried out except for the cases specified in 3.3.4-2(3). In cases where lubricating oil analysis or water sample tests are carried out, it is to be checked as to whether the reference standards deemed appropriate by the Society are complied with based upon the lubricating oil analysis or fresh water sample test reports, in addition to a general examination</u>	
5	<u>Controlled atmosphere systems are installed onboard</u> *2	(1) <u>Where controlled atmosphere systems are installed onboard, the general examination of gas freeing equipment as well as control, alarm and monitoring equipment of controlled atmosphere systems specified in D17.3(1) and (3), Part D of the Guidance is to be included in the general examination.</u>	
6	<u>Rubber couplings</u> *3	(1) <u>Where rubber couplings are installed, a visual inspection and measurements of surface hardness or permanent deformation of rubber elements are to be conducted.</u>	
7	<u>Harmonic filters on the main busbars of electrical distribution systems (except in cases where the filters are installed for single application frequency drives such as pump motors)</u> *4	(1) <u>It is to be ascertained that the harmonic filters are placed in good order and either of the following (a) or (b) is to be verified.</u> (a) <u>For ships fitted with facilities to continuously monitor the Total Harmonic Distortion (THD) values experienced by the main busbars as specified in 2.3.13-1, Part H of the Rules, records of THD values are to be verified.</u> (b) <u>For ships other than (1) above, correct operation of harmonic filters is to be confirmed by verifying that the maximum Total Harmonic Distortion (THD) value of the main busbar on board the ship is measured under typical seagoing conditions as close as</u>	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
		possible to the date of the Annual Survey and the value does not exceed the acceptable limit.	
	<u>Additional Requirement for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk</u>		
1	<u>Cargo pump rooms</u>	(1) The installations are placed in good order and the following inspections (a) and (e) are to be carried out. (a) It is to be checked that each pump foundations in cargo pump rooms are intact. (b) It is to be confirmed that potential sources of ignition in or near the cargo pump room are eliminated, such as loose gear, combustible materials, etc., that there are no signs of undue leakage and that access ladders are in good condition. (c) The cargo, bilge, ballast and stripping pumps are to be examined for undue gland seal leakage, as far as practicable. (d) It is to be confirmed that the pump room ducting is intact and screens are clean. (e) The emergency lighting in all cargo pump rooms is to be examined.*⁵	
2	<u>Electrical equipment in dangerous zones</u>	(1) It is to be confirmed that all electrical equipment in dangerous zones is suitable for such locations, is in good condition and is being properly maintained.	
3	<u>The cargo, crude oil washing, ballast and stripping systems both on deck and in the cargo pump rooms and the bunker system on deck</u>	(1) The cargo, crude oil washing, ballast and stripping systems both on deck and in the cargo pump rooms and the bunker system on deck are to be examined.	
4	<u>Temperature sensing devices for bulkhead glands and alarms</u>	(1) Temperature sensing devices for bulkhead glands and alarms are to be checked.	
5	<u>The requisite arrangements to regain steering capability in the event of the single failure*⁶ (referred to in 15.6.1-2(1), Part D of the Rules)</u>	(1) It is to be confirmed that the arrangements are being maintained.	
	<u>Additional Requirement for Electric Propulsion Ships</u>		
1.	<u>Electric propulsion systems</u>	(1) it is to be ascertained as far as practical for electric propulsion systems that forced cooling apparatuses (including filters), supports and coverings of cables, capacitor elements of propulsion semiconductor converters for propulsion, windings of generating plants and electric motors for propulsion, slip rings, commutators and brushes, etc. are in good condition.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks														
(Notes) *1 : The “reference standards deemed appropriate by the Society” refer to the following (1) and (2): (1) those specified in item 11(1)(b) of Table B8.3, Part B of the Rules for oil lubricated shafts; and (2) those specified in item 11(1)(b) of Table B8.4, Part B of the Rules for freshwater lubricated shafts. *2 : Only applicable to ships on which controlled atmosphere systems are installed onboard. *3 : Only applicable to ships on which rubber coupling are installed onboard *4 : Only applicable to ships on which harmonic filters are installed onboard *5 : Only applicable to tankers constructed on or after 1 July 2002 *6 : Only applicable to ships on which the arrangements are installed onboard																
Table B3.7Table B3.8 Performance Tests at Annual Surveys <table><tr><th>Items</th><th>Examinations</th></tr><tr><td>(1 and 2 are omitted.)</td><td></td></tr><tr><td>3 Emergency electrical power source^{*1}</td><td>(1) Operation tests for the emergency source of electrical power and its associated equipment are to be carried out in order to ascertain that the whole system is in good working order. Automatically operated equipment is to be tested in the automatic mode.</td></tr><tr><td>4 Communication systems</td><td>(1) Operation tests for the means of communication between the navigation bridge and the machinery control position and between the navigation bridge and the steering gear compartment are to be carried out. (2) <u>It is to be confirmed that the means of communication between the navigation bridge and steering gear compartment and the means of indicating the angular position of the rudder are operating satisfactorily.</u> (3) <u>It is to be confirmed that the engine room telegraph, the second means of communication between the navigation bridge and the machinery space and the means of communication with any other positions from which the engines are controlled are operating satisfactorily.</u></td></tr><tr><td>5 Steering gears</td><td>(1) Performance tests are to be carried out for the main and auxiliary steering gears including their associated equipment and control systems. ^{*2}</td></tr><tr><td>(6 is omitted.)</td><td></td></tr><tr><td>7 Safety devices</td><td>1 Operation tests for the safety devices, etc. specified in the following (1) to (5) are to be carried out. However, the tests may be omitted at the Surveyor’s discretion based on the general examination, reports of working conditions at sea and inspection records taken by the ship’s crew.</td></tr></table>		Items	Examinations	(1 and 2 are omitted.)		3 Emergency electrical power source ^{*1}	(1) Operation tests for the emergency source of electrical power and its associated equipment are to be carried out in order to ascertain that the whole system is in good working order. Automatically operated equipment is to be tested in the automatic mode.	4 Communication systems	(1) Operation tests for the means of communication between the navigation bridge and the machinery control position and between the navigation bridge and the steering gear compartment are to be carried out. (2) <u>It is to be confirmed that the means of communication between the navigation bridge and steering gear compartment and the means of indicating the angular position of the rudder are operating satisfactorily.</u> (3) <u>It is to be confirmed that the engine room telegraph, the second means of communication between the navigation bridge and the machinery space and the means of communication with any other positions from which the engines are controlled are operating satisfactorily.</u>	5 Steering gears	(1) Performance tests are to be carried out for the main and auxiliary steering gears including their associated equipment and control systems. ^{*2}	(6 is omitted.)		7 Safety devices	1 Operation tests for the safety devices, etc. specified in the following (1) to (5) are to be carried out. However, the tests may be omitted at the Surveyor’s discretion based on the general examination, reports of working conditions at sea and inspection records taken by the ship’s crew.	Renumbered 4 Communication systems (2) and (3): Transferred from B3.3.2-3, Part B of the Guidance 8 Periodically unattended machinery spaces: Transferred from B3.3.2-1, Part B of the Guidance 9 Accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules applies: Transferred from B3.3.2-6, Part B of the Guidance 10 Contact freezers of direct ammonia expansion type: Transferred from B5.3.2-3, Part B of the Guidance
Items	Examinations															
(1 and 2 are omitted.)																
3 Emergency electrical power source ^{*1}	(1) Operation tests for the emergency source of electrical power and its associated equipment are to be carried out in order to ascertain that the whole system is in good working order. Automatically operated equipment is to be tested in the automatic mode.															
4 Communication systems	(1) Operation tests for the means of communication between the navigation bridge and the machinery control position and between the navigation bridge and the steering gear compartment are to be carried out. (2) <u>It is to be confirmed that the means of communication between the navigation bridge and steering gear compartment and the means of indicating the angular position of the rudder are operating satisfactorily.</u> (3) <u>It is to be confirmed that the engine room telegraph, the second means of communication between the navigation bridge and the machinery space and the means of communication with any other positions from which the engines are controlled are operating satisfactorily.</u>															
5 Steering gears	(1) Performance tests are to be carried out for the main and auxiliary steering gears including their associated equipment and control systems. ^{*2}															
(6 is omitted.)																
7 Safety devices	1 Operation tests for the safety devices, etc. specified in the following (1) to (5) are to be carried out. However, the tests may be omitted at the Surveyor’s discretion based on the general examination, reports of working conditions at sea and inspection records taken by the ship’s crew.															

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
(1) Main propulsion machinery and auxiliary machinery	(a) Operation tests of the following safety/alarm devices on prime movers of main propulsion machinery; electric generators; auxiliary machinery essential for propulsion; and auxiliary machinery for manoeuvring and crew safety are to be carried out. * ³ Where deemed necessary by the Surveyor, the maintenance records of the cooling water and lubricating oil are required to be presented for review. i) Overspeed protective devices ii) Automatic shut-off and alarm devices in case of loss or low pressure of the lubricating oil iii) Automatic shut-off devices in case of abnormally low pressure of the main condenser vacuum for steam turbines used as main propulsion machinery		Notes 1: Transferred from B3.3.2-2, Part B of the Guidance Notes 2: Transferred from B3.3.2-4, Part B of the Guidance
(2) Boilers, thermal oil heaters, incinerators and gas combustion units (GCUs)	(a) Operation tests for the safety devices, alarm devices and pressure indicators are to be carried out. Calibration records for the pressure indicators are to be ascertained and the relieving gears of the safety valves are to be examined and tested to verify satisfactory operation* ³ . However, the relief valves provided on the exhaust gas economizers are to be tested by the Chief Engineer at sea prior to the Annual Survey within the period specified in 1.1.3-1(1). This test is to be recorded in the logbook for review by the attending surveyor. Where deemed necessary by the Surveyor, the control records of the boiler water and thermal heater oil are required to be presented for review.		
((3) to (5) are omitted.)			
8 Periodically unattended machinery spaces	(1) 2.3.2-2 of Rules for Automatic and Remote Control Systems is also to be applied for surveys of periodically unattended machinery spaces.		
9 Accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules is applied	(1) The tests referred in 1.2.7, Annex 2.11.1-2, Part H of the Rules are to be carried out.		
10 Contact freezers of direct ammonia expansion type	(1) Examinations are to be carried out on the rubber hoses* ⁴		
Notes: *1 The operation of the emergency source(s) of electrical power including their starting arrangements, the systems supplied and, when appropriate, their automatic operation are also to be confirmed as far as practicable. *2 the following (1) to (4) are to be applied. (1) In addition to carrying out the following (a) to (e) performance tests for main and auxiliary steering arrangements, including their associated equipment and control systems, the said arrangements are to be examined. (a) Operation tests for the power units including changeover from one to another; (b) Operation tests for automatic and remote isolation of the power actuating systems specified in 15.6, Part D of			

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks												
<u>the Rules;</u> <u>(c) Tests for supply of the alternative source of power specified in 15.2, Part D of the Rules;</u> <u>(d) Operation tests for the control system including the changeover system; and</u> <u>(e) Operation tests for the alarm devices, rudder angle indicators and running indicators of power units specified in Part D of the Rules.</u> <u>(2) It is to be confirmed that with ships having emergency steering positions there are means of relaying heading information and, when appropriate, of supplying visual compass readings to the emergency steering position.</u> <u>(3) It is to be confirmed that the various alarms required for hydraulic power-operated, electric and electro-hydraulic steering gears are operating satisfactorily.</u> <u>(4) It is to be confirmed that the re-charging arrangements for hydraulic power-operated steering gears are being maintained.</u> <u>*3 Performance tests of the equipment may be dispensed with provided the Surveyor is satisfied with the results of the general examination of that equipment.</u> <u>*4 The detail of the survey is to be in accordance with requirements specified otherwise by the Society.</u>		Notes 3: Transferred from B3.3.2-5, Part B of the Guidance												
Table B3.8Table B3.9 Additional Requirements for Tankers, Ships Carrying Liquefied Gases in Bulk and Ships Carrying Dangerous Chemicals in Bulk <table><tr><th>Items</th><th>Examinations</th></tr><tr><td>1 Cargo pumps, bilge pumps, ballast pumps, stripping pumps and ventilators</td><td>(1) Operation tests for the remote control systems and shut-off devices of the pumps installed in cargo pump rooms are to be carried out. (2) Proper operation of electrical and mechanical remote operating and shutdown devices and operation of cargo pump room bilge system are to be verified. (3) It is to be confirmed that the pump room ventilation system is operational and dampers are operational. (4) Interlock between lighting and ventilation is to be checked.</td></tr><tr><td>2 Bilge systems</td><td>(1) Operation tests of the bilge systems installed in cargo pump rooms of tankers and ships carrying dangerous chemicals in bulk, including checking of bilge level monitoring devices and alarms, are to be carried out.</td></tr><tr><td>3 Level indicators</td><td>(1) Operation tests of level indicators used in cargo tanks are to be carried out.</td></tr><tr><td>4 Pressure indicators</td><td>(1) Operation tests of pressure indicators installed in cargo discharge lines are to be carried out.</td></tr><tr><td>5 Inert gas systems</td><td>(1) Inert gas systems installed in accordance with 4.5.5, Part R, are to be subjected to the following general examinations and operation tests. After completion of these examinations and tests, when practicable, the proper operation of the inert gas system is to</td></tr></table>		Items	Examinations	1 Cargo pumps, bilge pumps, ballast pumps, stripping pumps and ventilators	(1) Operation tests for the remote control systems and shut-off devices of the pumps installed in cargo pump rooms are to be carried out. (2) Proper operation of electrical and mechanical remote operating and shutdown devices and operation of cargo pump room bilge system are to be verified. (3) It is to be confirmed that the pump room ventilation system is operational and dampers are operational. (4) Interlock between lighting and ventilation is to be checked.	2 Bilge systems	(1) Operation tests of the bilge systems installed in cargo pump rooms of tankers and ships carrying dangerous chemicals in bulk, including checking of bilge level monitoring devices and alarms, are to be carried out.	3 Level indicators	(1) Operation tests of level indicators used in cargo tanks are to be carried out.	4 Pressure indicators	(1) Operation tests of pressure indicators installed in cargo discharge lines are to be carried out.	5 Inert gas systems	(1) Inert gas systems installed in accordance with 4.5.5, Part R, are to be subjected to the following general examinations and operation tests. After completion of these examinations and tests, when practicable, the proper operation of the inert gas system is to	Renumbered 1 Cargo pumps, bilge pumps, ballast pumps, stripping pumps and ventilators (2), (3) and (4): Transferred from B3.3.2-7, Part B of the Guidance
Items	Examinations													
1 Cargo pumps, bilge pumps, ballast pumps, stripping pumps and ventilators	(1) Operation tests for the remote control systems and shut-off devices of the pumps installed in cargo pump rooms are to be carried out. (2) Proper operation of electrical and mechanical remote operating and shutdown devices and operation of cargo pump room bilge system are to be verified. (3) It is to be confirmed that the pump room ventilation system is operational and dampers are operational. (4) Interlock between lighting and ventilation is to be checked.													
2 Bilge systems	(1) Operation tests of the bilge systems installed in cargo pump rooms of tankers and ships carrying dangerous chemicals in bulk, including checking of bilge level monitoring devices and alarms, are to be carried out.													
3 Level indicators	(1) Operation tests of level indicators used in cargo tanks are to be carried out.													
4 Pressure indicators	(1) Operation tests of pressure indicators installed in cargo discharge lines are to be carried out.													
5 Inert gas systems	(1) Inert gas systems installed in accordance with 4.5.5, Part R, are to be subjected to the following general examinations and operation tests. After completion of these examinations and tests, when practicable, the proper operation of the inert gas system is to													

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
		be checked. Other inert gas systems are to be examined as deemed appropriate by the Society. (a) Examining externally for any sign of gas or effluent leakage (b) Confirming the proper operation of both inert gas blowers (c) Observing the operation of the scrubber-room ventilation system (d) Checking the deck water seal for automatic filling and draining (e) Examining the operation of all remotely operated or automatically controlled valves and, in particular, the flue gas isolating valves (f) Observing a test of the interlocking feature of soot blowers (g) Observing that the gas pressure regulating valve automatically closes when the inert gas blowers are secured (h) Checking, as far as practicable, the following alarms and safety devices of the inert gas system using simulated conditions where necessary: i) High oxygen content of gas in the inert gas main ii) Low gas pressure in the inert gas main iii) Low pressure in the supply to the deck water seal iv) High temperature of gas in the inert gas main v) Low water pressure or low water-flow rate vi) Accuracy of portable and fixed oxygen-measuring equipment by means of calibration gas vii) High water level in the scrubber viii) Failure of the inert gas blowers ix) Failure of the power supply to the automatic control system for the gas regulating valve x) Failure of the power supply to the instrumentation for continuous indication and permanent recording of pressure and oxygen content in the inert gas main xi) High pressure of gas in the inert gas main	
6	Gauging, detecting and alarming devices	(1) General examinations and operation tests for the following are to be carried out for tankers and ships carrying dangerous chemicals in bulk. Where tests under actual conditions are difficult, simulation tests or other suitable means may be used to confirm functionality. (a) For fixed and portable gas detecting instruments and their associated alarms, the following items, in particular, are to be examined: i) The provision of at least one portable instrument for measuring oxygen and one for measuring flammable vapour concentrations, together with a sufficient set of spares	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
		is to be checked, and it is to be confirmed that suitable means are provided for the calibration of these instruments. ii) The arrangements for gas measurement in double-hull spaces and double bottom spaces, including the fitting of permanent gas sampling lines are to be examined, where appropriate. iii) The fixed hydrocarbon gas detection system for measuring hydrocarbon gas concentrations in all ballast tanks and void spaces of double-hull and double-bottom spaces adjacent to the cargo tanks are to be examined and tested, as far as possible. iv) It is to be confirmed that the system for continuous monitoring of the concentration of flammable vapours in cargo pump room is satisfactory. v) It is to be confirmed that sampling points or detector heads of the system specified in iv) are located in suitable positions in order that potentially dangerous leakages are readily detected. (b) Gauging devices for oxygen density	
7	Fire extinguishing arrangement	(1) For tankers, general examinations and operation tests for the following are to be carried out: (a) It is to be confirmed that the deck foam system, including the supplies of foam concentrate are in good condition. (b) It is to be checked that the two jets of water at the required pressure in the fire main is obtained when the system is in operation. (c) The fixed firefighting system for the cargo pump rooms are to be examined, and it is to be confirmed, as far as practicable and when appropriate, that the operation of the remote means for closing the various openings.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
Table B3.9 Table B3.10		Special Requirements for Ships Carrying Liquefied Gases in Bulk	Renumbered
Items	Examinations		
1 Cargo containment system	(1) General condition of cargo tanks, secondary barriers and their insulation; and sealing arrangement for cargo tanks or tank covers penetrating decks is to be examined as far as accessible. At the first Annual Survey after delivery ^{*1} , examinations specified in 1(1)(a), (b) and 2 of Table B5.27 and an examination of the general condition of cargo tank foundations are to be carried out. However, these examinations may be dispensed with in accordance with the provisions specified otherwise by the Society.		
(2 is omitted.)			
3 Piping systems	(1) <u>The cargo, bunker, ballast and vent piping systems, (including PRVs, vacuum relief valves, vent masts and protective screens) are to be examined as far as practicable.</u>		
34 Cargo handling system	(1) The general condition of the equipment shown in (a) to (c) below is to be examined during operation, as far as is practical. Regarding (c), operation tests are also to be carried out. (a) Machinery for cargo handling including cargo heat exchangers, vaporizers, pumps and compressors. (b) Piping and its insulation for cargo handling system as far as accessible ^{*2} (c) ESD (emergency shutdown) systems for stopping cargo flow (performance tests are to be carried by manually activating emergency shutdown systems and confirming that cargo pumps and compressors automatically stop as a result.)		3 Piping systems: Transferred from B3.4.1-1, Part B of the Guidance
45 Gauging, detecting, safety, and alarming devices	(1) General examinations and performance tests of the following (a) to (i) are to be carried out. Where tests under actual conditions are difficult, simulation tests or other suitable means may be used to confirm functionality. (a) Liquid level gauges, high level alarms and valves associated with shut-off system ^{*3} (b) Liquid level indicators and overflow control for the cargo tanks (c) Temperature indication equipment and associated alarms (d) Pressure gauges, high pressure and, when applicable, low pressure alarms, for the cargo tanks (e) Pressure gauges and associated alarms for cargo tanks, interbarrier spaces and hold spaces (f) Arrangements for the cargo pressure/temperature control including, when fitted, any thermal oxidation systems, any refrigeration systems, and any associated safety measures and alarms (g) Fixed and portable gas detecting instruments and associated alarms (h) Gauging devices for oxygen density (i) Safety devices of the arrangements for the use of cargo as fuel		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
56 Environmental control system ^{*4}	(1) General examinations of the following (a) to (d) are to be carried out. (a) Gas free and purging systems for cargo tanks, arrangements <u>inert gas storage systems</u> to compensate for normal losses and atmosphere monitoring systems. (b) Confirmation that the use of inert gas has not increased beyond that needed to compensate for normal losses by examining records of inert gas usage (c) Confirmation that any air-drying system and any interbarrier and hold space purging inert gas system are satisfactory (d) Pressure control system for associated inert gas system components, means for preventing backflow of gases and monitoring system		6(1)(a): Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text in accordance with resolution A.1104(29).
67 Fire extinguishing arrangement	(1) In addition to the general examinations for arrangements for fire protection and fire extinction specified in Chapter 11, Part N, general examinations and operation tests for the following are to be carried out: (a) Proper operation of the remote means of starting one main fire pump is to be confirmed. (b) The fixed fire-fighting systems for enclosed cargo machinery spaces and enclosed cargo motor rooms located within cargo areas are to be examined. (c) The water spray system for cooling, fire protection and crew protection is to be examined. (d) The dry chemical powder fire-extinguishing system for the cargo area is to be examined. (e) The appropriate fire-extinguishing systems for the enclosed cargo machinery spaces for ships that are dedicated to the carriage of a restricted number of cargoes and the internal water spray systems for the turret compartments are to be examined. (f) It is to be confirmed that means of operation for arrangements specified in (b) to (e) are clearly marked. (g) Additional firefighters' outfits provided for flammable cargoes are to be examined. (h) Alarm devices for emergency escapes are to be examined.		
78 Personnel protection	(1) General examination of the equipment shown in (a) to (d) is to be carried out in addition to performance tests of decontamination shower and eye wash. (a) Protection equipment (b) Safety equipment (c) Stretcher and medical first-aid equipment (d) The following equipment if required by the provisions of Part N: i) respiratory protection for emergency escape purpose ii) decontamination showers and an eye wash iii) shelter in emergency		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
89 Stability Instrument	(1) Functional tests ^{*5} are to be carried out on stability instruments fitted in accordance with the requirements of 2.2.3, Part N.		
910 Miscellaneous	(1) The general condition of the equipment shown in (a) to (p) is to be examined. The contents of items (j) and (k) are to be checked and confirmation that they are kept on board is to be made. Regarding the arrangements for ventilation systems of spaces in the cargo area specified in (c), operation tests are to be carried out. (a) Facilities associated with damage stability requirements such as cross flooding equipment and watertight doors, as far as accessible. Where it is difficult to carry out a general examination of cross flooding equipment, alternative examinations considered appropriate by the Society may be carried out instead. (b) Closing devices of windows, doors and other openings of the wheelhouse, superstructures, and deckhouses that are required to be gas/vapour-tight; and the arrangements for the air locks. (c) Arrangements for ventilation systems^{*6}, including their spare fans or impellers, of enclosed spaces in the cargo area and spaces in the cargo area normally entered during cargo handling operations. (d) Fixed or portable trays or insulation that protects the deck located beneath the cargo hose connection against cargo leakage. (e) Gas-tight bulkhead penetrations including gas-tight shaft sealings, as far as accessible. (f) Heating arrangements of structural hull steel, as far as accessible. (g) Cargo hoses. ^{*7} (h) Bow and stern loading and unloading arrangements (in particular, the electrical equipment, firefighting arrangements and means of communication between the cargo control room and the shore location) and their related installations, emergency muster station and other equipment required for special cargoes. (i) Electrical installations in hazardous area. ^{*8} (j) Cargo log book, operational records and manuals related to cargo containment system and cargo handling system. (k) The IMO Code for gas carriers or the Rules incorporating the provisions of this Code <u>The IGC Code or national regulations incorporating the provisions of the IGC Code</u> (l) Cargo control room (m) Gas detection arrangements for cargo control rooms and the measures taken to exclude ignition sources where such spaces are classified as hazardous areas (n) The bilge, ballast and oil fuel arrangements specified in 3.7, Part N (o) The wheelhouse doors and windows, sidescuttles and windows in superstructure and deckhouse		10 Miscellaneous (1) (a): Transferred from B3.4.2-6, Part B of the Guidance 10 Miscellaneous (1) (k): Alignment of Japanese and English versions of the Rules: The requirement is an inspection of the

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
	ends in the cargo area (p) Cargo machinery spaces and turret compartments, including their escape routes		documents required to be kept on board as specified in item 45 of Table B2.3, Part B of the Rules. Revised wording to be consistent with the Japanese text for the expression used in item 45 of Table B2.3, Part B of the Rules.
Notes: *1 <u>The Examinations to be carried out at the first Annual Survey after construction for ships carrying liquefied gases in bulk, may be dispensed with provided the ship complies with the provisions specified in (1) to (3) below:</u> (1) <u>The cargo containment system has enough records of good performance</u> <u>However, where the system has sustained substantial damage (e.g. fracturing or deformation in tanks) or is the first of its type made by the manufacturer, the examination cannot to be omitted.</u> (2) <u>The records specified in (a) to (c) are available on board</u> (a) <u>Records of gas detection and temperature measurement in hold spaces</u> (b) <u>Running record of reliquefaction plants</u> (c) <u>Records of cargo tank pressure</u> (3) <u>It is possible to confirm the cargo containment system has not malfunctioned from checking the records specified in (2) above and interviewing the master</u> *2 <u>Cargo and process piping (including the expansion arrangements, insulation from the hull structure, pressure relief and drainage arrangements, and water curtain protection as appropriate) are also to be examined.</u> *3 <u>The examination of high level alarms on ships at beginning stage of construction on or after 1 July 2017 is to include the functional test as specified in 13.3.6, Part N of the Rules.</u> *4 <u>For membrane containment systems, proper operation of the nitrogen control system for insulation and interbarrier spaces is to be confirmed to the Surveyor by the Master.</u> *5 <u>With respect to the functional tests, reference is to be made to the requirements related to annual surveys specified in Chapter 4, Part B of IMO resolution MSC.267(85) "International Code on Intact Stability, 2008 (2008 IS Code)".</u> *6 <u>Examination of the arrangements for the mechanical ventilation of spaces in the cargo area normally entered during cargo handling operations need only be carried out as far as practicable.</u> *7 <u>It is to be confirmed that any liquid and vapour hoses are suitable for their intended purpose and, where appropriate, type-approved or marked with date of testing.</u> *8 <u>It is to be confirmed that electrical equipment in hazardous areas is in a satisfactory condition and is being properly maintained.</u>			

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
Table B3.10Table B3.11 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk			Renumbered
Items	Examinations		
(1 is omitted.)			
2 Cargo pump room and cargo handling spaces	(1) General examinations of the following (a) to (f) are to be carried out. For the equipment shown in (a), operation tests are to be carried out on each. (a) Electrical and mechanical devices for remotely controlling cargo pumps and bilge system; and remote shut-off system (b) <u>Cargo transfer arrangements</u> (bc) Personnel rescue arrangements in cargo pump room (ed) Equipment for cargo separation (de) Ventilating system including spare fans or impellers for enclosed spaces and compartments in cargo area (ef) System for flowback to land facilities of cargo liquid and its slop and vapour (fg) Confirmation that potential sources of ignition in or near the cargo pump room are eliminated, such as loose gear, combustible materials, etc., that there are no signs of undue leakage and that access ladders are in a satisfactory condition		2 Cargo pump room and cargo handling spaces (1) (b): Transferred from B3.5.1-1(1), Part B of the Guidance 3 Environmental control system for cargo containments and surrounding spaces (1) (c): Transferred from B3.5.1-1(2), Part B of the Guidance
3 Environmental control system for cargo containments and surrounding spaces	(1) General examinations of the following (a) and (bc) are to be carried out. (a) Confirmation that arrangements for sufficient gas to be carried or generated to compensate for normal losses, and that the means provided for monitoring ullage spaces, are satisfactory (b) Confirmation that arrangements are made for sufficient medium to be carried where drying agents are used on air inlets to cargo tanks (c) <u>The cargo tank vent system (including the pressure/vacuum valves and secondary means to prevent over- or under-pressure and devices to prevent the passage of flame) and the arrangements of cargo tank purging with inert gas, where provided, are to be examined as far as practicable.</u>		4 Gauging, gas detecting and alarming devices (1) (b): Transferred from B3.5.1-1(3), Part B of the Guidance
4 Gauging, gas detecting and alarming devices	(1) General examinations and performance tests of the following (a) to (de) are to be carried out. Where tests under actual conditions are difficult, simulation tests or other suitable means may be used to confirm functionality. (a) Liquid level gauges, high level alarms and valves associated with overflow control (b) <u>The gauging devices, high-level alarms and valves associated with overflow control are to be examined.</u> (bc) Gauging devices for liquid level, temperature and pressure of cargo containment system and the associated alarming devices (ed) Fixed and portable gas detecting instruments and the associate alarming devices i) It is to be confirmed that the required gas detection instruments are on board and arrangements have been made for the supply of the appropriate vapour detection tubes. (de) Gauging devices for oxygen density		8 Miscellaneous (1)(a): Transferred from B3.5.2-2, Part B of the Guidance 8 Miscellaneous (1)(l): Alignment of Japanese and English versions of the Rules. Note 1: Transferred from B3.5.2-1 Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
	(5 and 6 are omitted.)		Note 2 to 5: Transferred from B3.5.2-3 to B3.5.2-6, Part B of the Guidance
7	Stability Instrument	(1) Functional tests are to be carried out on stability instruments ^{*1} fitted in accordance with the requirements of 2.2.3, Part S .	
8	Miscellaneous	(1) The general condition of the equipment shown in (a) to (m) is to be examined. Regarding (c) and (m), operation tests are also to be carried out. The contents of items (k) and (l) are to be checked and confirmation that they are kept on board is to be made. (a) Facilities associated with damage stability requirements such as cross flooding equipment and watertight doors, as far as accessible. Where it is difficult to carry out a general examination of cross flooding equipment, <u>performance tests of cross flooding equipment to confirm whether the equipment is in good working order</u> may be carried out instead. (b) Cargo sample storage arrangements (c) Bow and stern loading/unloading arrangements and their related installations. (Operation of the means of communication and the remote shut down for the cargo pumps are to be examined.) (d) Fixed or portable trays or insulation that protects the deck located beneath the cargo hose connection against cargo leakage. (e) <u>Bilge and Ballast Arrangements specified in 3.5, Part S and identification</u> marks of pipe lines including pumps and valves (f) Cargo tank ventilating system and means for draining its pipes (g) Cargo hoses^{*2} (h) Special arrangements in accordance with the special requirements for certain cargoes (i) Heating and cooling arrangement for cargoes^{*3} (j) Electrical installations^{*4} in gas dangerous spaces or zones. (k) Cargo log book, operational records and manuals related to cargo containment system and cargo handling system. (l) <u>The IBC Code or national regulations incorporating the IBC Code</u> The IMO Code for chemical carriers or the Rules incorporating the provisions of this Code (m) The arrangements for the ventilation^{*5} of spaces normally entered during cargo handling operations and other spaces in the cargo area	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks						
Notes: *1 Reference is to be made to the requirements related to annual surveys specified in Chapter 4, Part B of <i>IMO resolution MSC.267(85) "International Code on Intact Stability, 2008 (2008 IS Code)"</i>. *2 It is to be confirmed that any hoses are suitable for their intended purpose and, where appropriate, type-approved or marked with date of testing. *3 When applicable, the cargo heating or cooling systems, including any sampling arrangements, are also to be applied in addition to confirming that the means for measuring the temperature and associated alarms are operating satisfactorily. *4 the following (1) and (2) are also to be applied. (1) It is to be confirmed that all electrical equipment in dangerous zones is suitable for such locations, is in satisfactory condition and has been properly maintained. (2) It is to be confirmed, as far as practicable, that the intrinsically safe systems and circuits used for measurement, monitoring, control and communication purposes in all hazardous locations are being properly maintained. *5 General examination of the arrangements for the ventilation of spaces normally entered during cargo handling operations and other spaces in the cargo area need only be carried out as far as practicable.								
Table B3.11 Table B3.12 Special Requirements for Ships Using Low-flashpoint Fuels <table><tr><th>Items</th><th>Examinations</th></tr><tr><td>1 Fuel containment systems*1</td><td>(1) The following (a) to (i) are to be carried out, so far as applicable. (a) External examination of the storage tanks including secondary barrier if fitted and accessible (b) General examination of the fuel storage hold spaces (c) Internal examination of tank connection space (d) External examination of tank and relief valves (e) Verification of satisfactory operation of tank monitoring system (f) Examination and testing of installed bilge alarms and means of drainage of the compartment (g) Examination of the general condition of the thermal insulation of fuel storage tanks and secondary barriers as far as accessible (h) Examination of the general condition of the sealing arrangements for fuel storage tanks or tank covers penetrating decks as far as accessible (i) At the first Annual Survey after delivery, the examinations specified in (1)(a) and (b) of item 1 and item 2 of Table B5.29 as well as an examination of the general condition of the fuel storage tank connection to the hull are to be carried out when deemed necessary by the Surveyor.</td></tr><tr><td>(2 is omitted.)</td><td></td></tr></table>		Items	Examinations	1 Fuel containment systems*1	(1) The following (a) to (i) are to be carried out, so far as applicable. (a) External examination of the storage tanks including secondary barrier if fitted and accessible (b) General examination of the fuel storage hold spaces (c) Internal examination of tank connection space (d) External examination of tank and relief valves (e) Verification of satisfactory operation of tank monitoring system (f) Examination and testing of installed bilge alarms and means of drainage of the compartment (g) Examination of the general condition of the thermal insulation of fuel storage tanks and secondary barriers as far as accessible (h) Examination of the general condition of the sealing arrangements for fuel storage tanks or tank covers penetrating decks as far as accessible (i) At the first Annual Survey after delivery, the examinations specified in (1)(a) and (b) of item 1 and item 2 of Table B5.29 as well as an examination of the general condition of the fuel storage tank connection to the hull are to be carried out when deemed necessary by the Surveyor.	(2 is omitted.)		Renumbered Note 2: Transferred from B3.6.1-3, Part B of the Guidance Note 3: Transferred from B3.6.1-1, Part B of the Guidance Note 4: Transferred from B3.6.1-2, Part B of the Guidance Notes 5 to 7: Renumbered
Items	Examinations							
1 Fuel containment systems*1	(1) The following (a) to (i) are to be carried out, so far as applicable. (a) External examination of the storage tanks including secondary barrier if fitted and accessible (b) General examination of the fuel storage hold spaces (c) Internal examination of tank connection space (d) External examination of tank and relief valves (e) Verification of satisfactory operation of tank monitoring system (f) Examination and testing of installed bilge alarms and means of drainage of the compartment (g) Examination of the general condition of the thermal insulation of fuel storage tanks and secondary barriers as far as accessible (h) Examination of the general condition of the sealing arrangements for fuel storage tanks or tank covers penetrating decks as far as accessible (i) At the first Annual Survey after delivery, the examinations specified in (1)(a) and (b) of item 1 and item 2 of Table B5.29 as well as an examination of the general condition of the fuel storage tank connection to the hull are to be carried out when deemed necessary by the Surveyor.							
(2 is omitted.)								

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
3	Bunkering systems and fuel supply systems for low-flashpoint fuels* ¹	(1) The following (a) to (c) are to be carried out, so far as applicable. (a) Examination of bunkering stations and the fuel bunkering system, including liquid level gauges, high level alarms and valves associated with emergency shutdown systems (b) Examination of the fuel supply system (including fuel heat exchangers, vaporizers, pumps and compressors) under its working condition as far as practicable (c) Examination of automatic and manual stopping devices for fuel pumps and compressors	
	(4 is omitted.)		
5	Control, Monitoring and Safety Systems	(1) General examinations and performance testing of those specified in the following (a) to (c) are to be carried out. Simulation testing or other suitable methods may be used in cases where it is difficult to carry out testing under actual operating conditions. (a) Temperature indication equipment and associated alarms (b) Pressure gauges and associated alarms*² for fuel tanks, interbarrier spaces and fuel storage hold spaces (c) Oxygen content meters (2) The following (a) to (e) are to be carried out. (a) Gas detection equipment, including both fixed and portable instruments, and other leakage detection equipment in compartments containing fuel storage, fuel bunkering, and fuel supply equipment or components or associated systems, including indicators and alarms, is to be confirmed in satisfactory operating condition. Recalibration of the gas detection systems is to be verified in accordance with the manufacturers' recommendations. (b) Verification of the satisfactory operation of the control, monitoring and shutdown systems, including automatic shutdown systems, of the fuel supply and bunkering systems is to be carried out. General examinations and performance testing, simulation testing or other suitable methods in cases where it is difficult to carry out performance testing under actual operating conditions for liquid level gauges, high level alarms and valves associated with emergency shutdown systems for bunkering are to be carried out. (c) Testing of the remote and local closing of the installed main tank valve is to be carried out. (d) Testing of the remote and local closing of the master fuel valve for each engine compartment and verification of satisfactory operation of the fuel supply system control, monitoring and shutdown systems are to be carried out with the fuel supply system operating under its working condition as far as practicable. (e) Operational test, as far as practicable, of the shutdown of <i>ESD</i> protected machinery spaces is to be carried out.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
6	Environmental control systems	(1) Means for inerting specified in the following (a) to (c) is to be examined. ^{*3} (a) Systems for gas freeing and purging and gas sampling devices for fuel storage tanks (b) Inert gas generators and inert gas storage systems (c) Pressure control systems, means for preventing backflow of gases and monitoring systems for inert gas associated systems	
	(7 and 8 are omitted.)		
9	Other	(1) General conditions of those specified in the following (a) to (k) are to be examined. Checking the contents of items (i) to (k) and confirmation that they are maintained on board are to be carried out. (a) Closing appliances for openings such as windows and doors of the wheelhouse, deckhouses and superstructures that are required to be capable of being closed; and the arrangements for the air locks (b) Portable and fixed drip trays and insulation for the protection of the ship's structure in the event of leakage (c) Fuel preparation rooms, including fuel pump and compressor rooms, and the sealing of shafts penetrating gas-tight bulkheads (d) Means for preventing excessive cooling of hull structures (e) Approved fuel hoses (f) Electrical bonding arrangements^{*4} in hazardous areas, such as those between hull structures and fuel piping or fuel storage tanks, including bonding straps where fitted (g) Equipment specially required depending upon fuel type (h) Electrical equipment and bulkhead/deck penetrations including access openings in hazardous areas^{*5} (i) Bunker delivery notes for low-flashpoint fuel delivered as well as the operational procedures (17.2.2-3, Part GF)^{*6} and emergency procedures (17.2.2-4, Part GF) for ships using low-flashpoint fuels (j) <i>The IMO International Code of Safety for Ships using Gases or Other Low-flashpoint Fuels</i> (k) Logbooks/Records^{*7}	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks				
Notes: *1 <u>Insulation need not be removed, but any deterioration or evidence of dampness is to be investigated.</u> *2 <u>It is to be verified that ship masters have checked the inert gas control system for each thermal insulation layer of membrane tanks to verify proper operation.</u> *3 <u>Resistance testing is to be carried out for all electrical bonding to confirm that resistance is not greater than 1 MΩ in cases where bonding straps are not provided as electrical bonding between fuel storage tanks or fuel piping and hull structures, or the Surveyor deems such testing to be necessary. However, such measurements may be omitted at the discretion of the Surveyor in cases where accurate measurement records are maintained and can be verified.</u> *4 <u>General examinations and performance testing for high level alarms are included functional test specified in 15.4.2-4, Part GF of the Rules.</u> *5 <u>The electrical equipment and bulkhead/deck penetrations including access openings are to be examined for continued suitability for their intended service and installation area.</u> *6 <u>The manufacturer/builder instructions and manuals covering the operations, safety and maintenance requirements and occupational health hazards relevant to fuel storage, fuel bunkering, and fuel supply and associated systems for the use of the fuel, are to be confirmed as being aboard the vessel.</u> *7 <u>The logbooks and operating records are to be examined with regard to correct functioning of the gas detection systems, fuel supply/gas systems, etc. The hours per day of the reliquefaction plant, gas combustion unit, as applicable, the boil-off rate, and nitrogen consumption (for membrane containment systems) are to be considered together with gas detection records.</u>						
Table B3.12 Table B3.13 Special Requirements for Ships Affixed with the Notation “CybR” <table><tr><th>Item</th><th>Examination</th></tr><tr><td>1 Ship cyber security and resilience program (First Annual Survey)</td><td> (1) In accordance with the documents for management of change and, hardware and software modifications specified in 5.4.2(1)(d)iv), Part X, confirm the following: (a) Vessel asset inventory is updated and completed at delivery. (b) Computer based systems in the scope of applicability of this Chapter are correctly represented by the vessel asset inventory. (c) Software of the computer based systems in the scope of applicability of this Chapter has been kept updated, e.g. by vulnerability scanning or by checking the software versions of computer based systems while switched on. <u>(a) The approved management of change process has been adhered to.</u> <u>(b) Known vulnerabilities and functional dependencies have been considered for the software in the computer-based systems, and</u> <u>(c) The Vessel asset inventory has been kept updated.</u> ((2) to (10) are omitted.) </td></tr></table>		Item	Examination	1 Ship cyber security and resilience program (First Annual Survey)	(1) In accordance with the documents for management of change and, hardware and software modifications specified in 5.4.2(1)(d)iv), Part X, confirm the following: (a) Vessel asset inventory is updated and completed at delivery. (b) Computer based systems in the scope of applicability of this Chapter are correctly represented by the vessel asset inventory. (c) Software of the computer based systems in the scope of applicability of this Chapter has been kept updated, e.g. by vulnerability scanning or by checking the software versions of computer based systems while switched on. <u>(a) The approved management of change process has been adhered to.</u> <u>(b) Known vulnerabilities and functional dependencies have been considered for the software in the computer-based systems, and</u> <u>(c) The Vessel asset inventory has been kept updated.</u> ((2) to (10) are omitted.)	Renumbered 1(1)(a) to (c): Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text with reference to the requirements in 5.4.2(1)(d)iv), Part X of the Rules in accordance with the requirements of IACS UR E26. Notes
Item	Examination					
1 Ship cyber security and resilience program (First Annual Survey)	(1) In accordance with the documents for management of change and, hardware and software modifications specified in 5.4.2(1)(d)iv), Part X, confirm the following: (a) Vessel asset inventory is updated and completed at delivery. (b) Computer based systems in the scope of applicability of this Chapter are correctly represented by the vessel asset inventory. (c) Software of the computer based systems in the scope of applicability of this Chapter has been kept updated, e.g. by vulnerability scanning or by checking the software versions of computer based systems while switched on. <u>(a) The approved management of change process has been adhered to.</u> <u>(b) Known vulnerabilities and functional dependencies have been considered for the software in the computer-based systems, and</u> <u>(c) The Vessel asset inventory has been kept updated.</u> ((2) to (10) are omitted.)					

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
2	Ship cyber security and resilience program (Subsequent Annual Survey)	(1) In accordance with presenting records or other documented evidence described in the Ship cyber security and resilience program specified in -1 above, confirm the implementation of the program upon request by the Society ^{*1} .	Transferred from B3.9.3, Part B of the Guidance
Note: ^{*1} The wording “upon request by the Society” includes the case where the shipowners (or ship management companies) were changed.			
Chapter 4 INTERMEDIATE SURVEYS		Chapter 4 INTERMEDIATE SURVEYS	
4.1 Intermediate Surveys		4.1 General	
4.1.1 General		4.1.1 Surveys Equivalent to Special Surveys* (Newly added)	
1 The details of Intermediate Surveys specified in 1.1.2 are defined in this chapter.		1 Surveys equivalent to Special Surveys may be required when considered necessary by the Society, based on the service and repair history of the ship or damages history of similar ship types or ships with similar tanks and spaces.	Renumbered
3 For ships having tanks with no protective coating (excluding double bottom tanks), an internal examination is to be carried out on representative tanks at a level equivalent to Special Surveys at the time of Intermediate Surveys.		(Moved)	Transferred from B4.1.1, Part B of the Guidance
4 Intermediate Surveys for bulk carriers, oil tankers, and ships carrying dangerous chemicals in bulk with integral tanks over 10 years of age and general dry cargo ships of not less than 500 gross tonnage over 15 years of age are to be carried out to the extent of the previous Special Survey. That is, the surveys specified in 4.2.2, 4.2.4, 4.2.5 and 4.2.6 are replaced by 5.2.2, 5.2.4, 5.2.5 and 5.2.6 (except -8) respectively; and		2 Intermediate Surveys for bulk carriers, oil tankers, and ships carrying dangerous chemicals in bulk with integral tanks over 10 years of age and general dry cargo ships of not less than 500 gross tonnage over 15 years of age are to be carried out to the extent of the previous Special Survey. That is, the surveys specified in 4.2.2, 4.2.4, 4.2.5 and 4.2.6 are replaced by 5.2.2, 5.2.4, 5.2.5 and 5.2.6 (except -8) respectively; and	Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
the surveys specified in 5.2.3-2(3), (5) and Docking Surveys (except item 7 specified in Table B6.1) are to be carried out. However, the following (1) to (3) do not need to be carried out: ((1) to (3) are omitted.) 5 At Intermediate Surveys for combination carriers such as ore/oil carriers and ore/bulk/oil carriers, the surveys are to be carried out in accordance with the relevant requirements in this Chapter, considering the ship's equipment, structural configuration and past operational experience. (Moved) (Moved) 4.1.2 Survey for Combination Carriers (Moved)	the surveys specified in 5.2.3-2(3), (5) and Docking Surveys (except item 7 specified in Table B6.1) are to be carried out. However, the following (1) to (3) do not need to be carried out: ((1) to (3) are omitted.) (Moved) 3 Where the Intermediate Survey is commenced in accordance with the requirements in 1.1.3-1(2)(b), the thickness measurement required in 5.2.6 is to be carried out at the commencement of the Survey in order to facilitate planning repairs, as far as practicable. Where the Intermediate Survey is commenced at the time of an Annual Surveys, at a minimum the examinations required in Chapter 3 are to be carried out. 4 Where the Intermediate Survey is commenced at any time between the second and third Annual Surveys and is completed at the third Annual Survey in accordance with the requirements in 1.1.3-1(2)(b), at a minimum the examinations required in Chapter 3 are to be carried out at the completion of the Intermediate Survey. However, the Surveyor may, based upon the above results, require examinations already carried out to be conducted again when deemed necessary. 4.1.2 Survey for Combination Carriers At Intermediate Surveys for combination carriers such as ore/oil carriers and ore/bulk/oil carriers, the surveys are to be carried out in accordance with the relevant requirements in this Chapter, considering the ship's equipment, structural	Transferred from 4.1.2, Part B of the Guidance Transferred to 4.1.2-2, Part B of the Rules Transferred to 4.1.2-3, Part B of the Rules Transferred to 4.1.1-5, Part B of the Rules

Amended-Original Requirements Comparison Table

(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>1 Intermediate Surveys are to be carried out as specified in (1) or (2) below. Annual Surveys are not required to be carried out when an Intermediate Survey is carried out.</u> <u>(1) Intermediate Surveys are to be carried out at the time of the second or third Annual Survey after the Classification Survey during Construction or a Special Survey; or</u> <u>(2) In lieu of (1) above, Intermediate Surveys for cargo ships over 10 years of age may be commenced at any time between the second and third Annual Surveys and be completed at the time of the second or third Annual Survey.</u>	configuration and past operational experience. (Moved)	Transferred from 1.1.3-1(2), Part B of the Rules
<u>2 Where the Intermediate Survey is commenced in accordance with the requirements in -1(2) above, the thickness measurement required in 5.2.6 is to be carried out at the commencement of the Survey in order to facilitate planning repairs, as far as practicable. Where the Intermediate Survey is commenced at the time of an Annual Surveys, at a minimum the examinations required in Chapter 3 are to be carried out.</u>	(Moved)	Transferred from 4.1.1-3, Part B of the Rules
<u>3 Where the Intermediate Survey is commenced at any time between the second and third Annual Surveys and is completed at the third Annual Survey in accordance with the requirements in -1(2)(b) above, at a minimum the examinations required in Chapter 3 are to be carried out at the completion of the Intermediate Survey. However, the Surveyor may, based upon the above results, require examinations already carried out to be conducted again when deemed necessary.</u>	(Moved)	Transferred from 4.1.1-4, Part B of the Rules
<u>4 For Intermediate Surveys for cargo ships up to 10 years of age carried out at the time of the third Annual Survey in accordance with the requirements in -1(1) above,</u>	(Moved)	Transferred from 1.1.6-5, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>examinations required for Intermediate Surveys carried out during the period between the 2nd and 3rd Annual Surveys as a part of another survey may be given special consideration or omitted at the discretion of the Surveyor. However, at a minimum the examinations required in Chapter 3 are to be carried out at the Intermediate Survey.</u> <u>5 Intermediate Surveys may be carried out in advance of the times specified in -1 above when requested by the owner. In such cases, additional Periodical Surveys are to be carried out as specified otherwise by the Society. Furthermore, when an Intermediate Survey is carried out in advance at the time of an Annual Survey, the Annual Survey may be dispensed with.</u> <u>6 Where an Intermediate Survey was carried out in advance in accordance with -5 above, the anniversary date is to be amended to a date which is not to be more than three months later than the date on which the Annual Survey or Intermediate Survey was completed. Subsequent Annual Surveys and Intermediate Surveys specified in are to be carried out at the intervals using the new anniversary date. However, where the third Periodical Survey (determined using the intervals corresponding to the new anniversary date) after the previous Intermediate Survey is due before the expiry date of the Classification Certificate of the ship, the Intermediate Survey is to be carried out in lieu of the Annual Survey.</u> 4.1.3 Survey Results Regardless of when Intermediate Surveys and Special Surveys are carried out, the results of <u>internal examinations, close-up surveys and thickness measurements of spaces and tanks</u> carried out for Intermediate Surveys are not to be used as the results for Special Surveys and the results of <u>internal examinations, close-up surveys and thickness measurements</u>	(Moved) (Moved) 4.1.3 Survey Results* Regardless of when Intermediate Surveys and Special Surveys are carried out, the results of surveys and thickness measurements of spaces carried out for Intermediate Surveys are not to be used as the results for Special Surveys <u>and</u> the results of surveys and thickness measurements of spaces carried out for Special Surveys are not to be used as the results	Transferred from 1.1.4-2, Part B of the Rules Transferred from B1.1.4, Part B of the Guidance Transferred underlined text from B4.1.3, Part B of the Guidance.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
of spaces <u>and tanks</u> carried out for Special Surveys are not to be used as the results for Intermediate Surveys. 4.2 Intermediate Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings 4.2.1 Examination of Plans and Documents* 1 The management conditions of plans and documents specified in 3.2.1 are to be examined. 2 For ships subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>, the Ship Construction File in 2.1.5-2 are to be examined in accordance with (1) to (5) below: (1) For a Ship Construction File stored on board a ship, the Surveyor is to examine the information included in it on board the ship (2) For a Ship Construction File stored in an onshore archive, the Surveyor is to examine the list of information included in it stored in the onshore archive. (3) The Surveyor is to confirm upon completion of the survey that the Ship Construction File has been updated whenever any modification of the documentation included in it has taken place. <u>The method of verification is to be in accordance with requirements specified otherwise by the Society.</u> (4) The Surveyor is to confirm upon completion of the survey that any addition and/or renewal of materials used for the construction of the hull structure are documented within the list of materials specified in item 86, Table B2.1. (5) The Surveyor is to confirm that the Ship Construction	for Intermediate Surveys. 4.2 Intermediate Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings 4.2.1 Examination of Plans and Documents* 1 <u>At Intermediate Surveys</u>, the management conditions of plans and documents specified in 3.2.1 are to be examined. 2 For ships subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>, the Ship Construction File in 2.1.5-2 are to be examined in accordance with (1) to (5) below: (1) For a Ship Construction File stored on board a ship, the Surveyor is to examine the information included in it on board the ship. (2) For a Ship Construction File stored in an onshore archive, the Surveyor is to examine the list of information included in it stored in the onshore archive. (3) The Surveyor is to confirm upon completion of the survey that the Ship Construction File has been updated whenever any modification of the documentation included in it has taken place. (4) The Surveyor is to confirm upon completion of the survey that any addition and/or renewal of materials used for the construction of the hull structure are documented within the list of materials specified in item 85, Table B2.1. (5) The Surveyor is to confirm that the Ship Construction	Revised expressions. Revised expressions. Revised of reference numbers due to revision of table.

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
File is available to the Society and the flag state throughout the ship's life. <u>The method of verification is to be in accordance with requirements specified otherwise by the Society.</u> 4.2.2 General Examination* Examinations of hull, equipment, fire-extinction and fittings specified in 3.2.2 are to be carried out. In addition, examinations specified in the following (1) and (2) are to be carried out. (1) General examinations of the spare parts of extinguishing systems (2) Visual examinations or <u>performance tests</u> of cross flooding equipment to confirm whether said equipment is in good working order 4.2.3 Performance Tests* Performance tests listed in Table B4.1 are to be carried out. 4.2.4 Internal Examinations of Spaces and Tanks* Internal examinations of the areas listed in Table B4.2 and suspect areas identified in the previous survey are to be carried out. However, assessment of the coating condition of ballast tanks for oil tankers and ships carrying dangerous chemicals in bulk with integral tanks is as defined by the Society. 4.2.6 Thickness Measurements 1 Thickness measurements of the area listed in (1) to (3) below are to be carried out. As to the gauging equipment and thickness measurement report, the provisions of 5.2.6-1 are to be applied correspondingly as well.	File is available to the Society and the flag state throughout the ship's life. 4.2.2 General Examination* At Intermediate Surveys, examinations of hull, equipment, fire-extinction and fittings specified in 3.2.2 are to be carried out. In addition, examinations specified in the following (1) and (2) are to be carried out. (1) General examinations of the spare parts of extinguishing systems (2) Visual examinations or <u>examinations considered appropriate by the Society</u> of cross flooding equipment 4.2.3 Performance Tests* At Intermediate Surveys, performance tests listed in Table B4.1 are to be carried out. 4.2.4 Internal Examinations of Spaces and Tanks* <u>At Intermediate Surveys</u>, internal examinations of the areas listed in Table B4.2 and suspect areas identified in the previous survey are to be carried out. However, assessment of the coating condition of ballast tanks for oil tankers and ships carrying dangerous chemicals in bulk with integral tanks is as defined by the Society. 4.2.6 Thickness Measurements 1 <u>At Intermediate Surveys</u>, thickness measurements of the area listed in (1) to (3) below are to be carried out. As to the gauging equipment and thickness measurement report, the provisions of 5.2.6-1 are to be applied correspondingly as	Revised expressions. (2): Transferred from B4.2.2, Part B of the Guidance Revised expressions. Revised expressions. Revised expressions.

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(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(1) Structural members, etc. listed in Table B4.4 (2) Suspect areas identified in the previous survey where deemed necessary by the Surveyor as a consequence of internal examination of spaces and tanks specified in 4.2.4. (excluding Bulk Carriers) ((3) is omitted.) 4.2.7 Pressure Test For oil tankers and ships carrying dangerous chemicals in bulk, a pressure test, a thickness gauging or both for piping systems are to be carried out when deemed necessary by the Surveyor as a consequence of the general examination required in 4.2.2. <u>Particular attention is to be paid to repairs.</u> 4.3 Intermediate Surveys for Machinery 4.3.1 General Examinations* For Machinery, in addition to the general examinations and inspections specified in 3.3.1, the examinations specified in Table B4.5 are to be carried out. 4.3.2 Performance Tests For Machinery, the performance tests specified in 3.3.2 are to be carried out.	well. (1) Structural members, etc. listed in Table B4.4 (2) Suspect areas identified in the previous survey where deemed necessary by the Surveyor as a consequence of internal examination of spaces and tanks specified in 4.2.4. ((3) is omitted.) 4.2.7 Pressure Test <u>At Intermediate Surveys</u> for oil tankers and ships carrying dangerous chemicals in bulk, a pressure test, a thickness gauging or both for piping systems are to be carried out when deemed necessary by the Surveyor as a consequence of the general examination required in 4.2.2. 4.3 Intermediate Surveys for Machinery 4.3.1 General Examinations* <u>At Intermediate Surveys</u> for Machinery, in addition to the general examinations and inspections specified in 3.3.1, the examinations specified in Table B4.5 are to be carried out. 4.3.2 Performance Tests <u>At Intermediate Surveys</u> for Machinery, the performance tests specified in 3.3.2 are to be carried out.	(2): Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text as bulk carriers are specified in Table 4.4. Revised expressions. Transferred from B4.2.7, Part B of the Guidance Revised expressions. Revised expressions.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
4.4 Special Requirements for Ships Carrying Liquefied Gases in Bulk 4.4.1 General In addition to the requirements of 4.2 and 4.3, requirements of 4.4 apply to ships carrying liquefied gases in bulk. Examinations of inerted cargo tanks or spaces may be omitted at the discretion of the Surveyor. 4.4.2 Examinations* For ships carrying liquefied gases in bulk, the items specified in Table B4.6 are to be <u>examined to verify they are in good order</u>, in addition to examinations required by 3.4.2. Where deemed necessary by the Surveyor, <u>additional performance tests, operation tests or open-up examinations may be required</u>. 4.5 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk 4.5.1 General In addition to the requirements of 4.2 and 4.3, requirements of 4.5 apply to ships carrying dangerous chemicals in bulk. 4.5.2 Examinations* <u>For ships carrying dangerous chemicals in bulk, the items specified in Table B4.7 are to be examined to verify they</u>	4.4 Special Requirements for Ships Carrying Liquefied Gases in Bulk 4.4.1 General In addition to the requirements of 4.2 and 4.3, requirements of 4.4 apply to <u>Intermediate Surveys for</u> ships carrying liquefied gases in bulk. Examinations of inerted cargo tanks or spaces may be omitted at the discretion of the Surveyor. 4.4.2 Examinations* <u>At Intermediate Surveys for ships carrying liquefied gases in bulk, examinations of spaces, structures and equipment specified in Table B4.6 are to be carried out in addition to examinations required in 3.4.2. The survey may be expanded to include performance tests, operation tests, open-up examinations, etc. where deemed necessary by the Surveyor.</u> 4.5 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk 4.5.1 General In addition to the requirements of 4.2 and 4.3, requirements of 4.5 apply to Intermediate Surveys of ships carrying dangerous chemicals in bulk. 4.5.2 Examinations* <u>At Intermediate Surveys of ships carrying dangerous chemicals in bulk, examinations of spaces, structures and</u>	Revised expressions. Revised expressions. Standardised wording as follows: 3.4.2, 3.5.2, 3.6.2, 4.4.2, 4.5.2, 4.6.2, 5.4.2, 5.5.2, 5.6.2 Revised expressions. Standardised wording as

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
are in good order, in addition to the examinations required by 3.5.2. Where deemed necessary by the Surveyor, additional performance tests, operation tests or open-up examinations may be required. 4.6 Special Requirements for Ships Using Low-flashpoint Fuels 4.6.1 General* 1 In addition to the applicable requirements of the previous sections, the requirements of 4.6 are to be applied at ships using low-flashpoint fuels. 2 The requirements of 4.6 need not be applied to ships examined in accordance with 4.4. 4.6.2 Examinations* For ships using low-flashpoint fuels, the items specified in Table B4.8 are to be carried out in order to ascertain the ship is in good order, in addition to the examinations required by 3.6.2. Where deemed necessary by the Surveyor, additional performance tests, operation tests or open-up examinations may be required. 4.7 Special Requirements for Bulk Carriers and Oil Tankers 4.7.1 General In addition to the requirements of 4.2 and 4.3, the	equipment specified in Table B4.7 are to be carried out in addition to examinations required in 3.5.2. The survey may be expanded to include performance tests, operation tests, open-up examinations, etc. where deemed necessary by the Surveyor. 4.6 Special Requirements for Ships Using Low-flashpoint Fuels 4.6.1 General* In addition to the applicable requirements of the previous sections, the requirements of 4.6 are to be applied at <u>Intermediate Surveys</u> of ships using low-flashpoint fuels. (Moved) 4.6.2 Examinations* At <u>Intermediate Surveys</u> of ships using low-flashpoint fuels, the <u>examinations of structures and facilities, etc.</u> specified in Table B4.8 are to be carried out in order to ascertain them being in good order, in addition to the examinations specified in 3.6.2. 4.7 Special Requirements for Bulk Carriers and Oil Tankers 4.7.1 General In addition to the requirements of 4.2 and 4.3, the	follows: 3.4.2, 3.5.2, 3.6.2, 4.4.2, 4.5.2, 4.6.2, 5.4.2, 5.5.2, 5.6.2 Renumbered Revised expressions. Transferred from B4.6.1, Part B of the Rules Revised expressions. Standardised wording as follows: 3.4.2, 3.5.2, 3.6.2, 4.4.2, 4.5.2, 4.6.2, 5.4.2, 5.5.2, 5.6.2 Revised expressions.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
requirements of 4.7 apply to bulk carriers and oil tankers subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>. 4.8 Special Requirements for Ships Affixed with the Notation “HCM” or “HCM-GBS” 4.8.1 General In addition to the requirements of 4.2 and 4.3, the requirements of 4.8 apply to ships affixed with the notation “HCM” or “HCM-GBS”. 4.9 Special Requirements for Ships Affixed with the Notation “CybR” 4.9.1 General In addition to the requirements of 4.2 to 4.3, the requirements of 4.9 apply to ships affixed with the notation “CybR”. 4.9.2 Surveys For ships affixed with the notation “CybR”, the examinations specified in 3.9.2 are to be carried out.	requirements of 4.7 apply to <u>the Intermediate Surveys of</u> bulk carriers and oil tankers subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>. 4.8 Special Requirements for Ships Affixed with the Notation “HCM” or “HCM-GBS” 4.8.1 General In addition to the requirements of 4.2 and 4.3, the requirements of 4.8 apply to <u>the Annual Surveys of</u> ships affixed with the notation “HCM” or “HCM-GBS”. 4.9 Special Requirements for Ships Affixed with the Notation “CybR” 4.9.1 General In addition to the requirements of 4.2 to 4.3, the requirements of 4.9 apply to <u>the Intermediate Surveys of</u> ships affixed with the notation “CybR”. 4.9.2 Surveys <u>At Intermediate Surveys of</u> ships affixed with the notation “CybR”, the examinations specified in 3.9.2 are to be carried out.	Revised expressions. Revised expressions.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original		Remarks
Table B4.1 Performance Test				Note: Transferred from B4.2.3, Part B of the Guidance
Items		Tests		
1 Equipment or installations of items in Table B3.3 (except item 2)	(1)		Tests* ¹ for each item specified in Table B3.3 are to be carried out.	
2 Doors on watertight bulkheads and closing appliances on superstructure end bulkheads, deckhouses or companions protecting hatchways giving access to spaces below freeboard deck	(1)		Confirmation that the doors and closing appliances work in order is to be made.	
	(2)		Hose tests* ² or equivalent tests are to be carried out. Such tests may be dispensed with at the discretion of the Surveyor.	
(3 is omitted.)				
4 Fixed dry-chemical powder fire fighting system* ³	(1)		Confirmation that the piping is maintained in good condition is made by delivering air through the pipes. Confirmation that monitors and hoses, and the remote control system and related automatic valves work in order is to be made.	
	(2)		Confirmation of quantity of starting or pressuring gases is to be made.	
5 Water spray system* ³	(1)		Checking whether the system works in order is to be made by delivering water through the system. Checking of quantity of delivered water may be dispensed with.	
(6 is omitted.)				
7 Fixed carbon dioxide fire fighting system and fixed halon fire fighting system* ³	(1)		Confirmation that piping is maintained in good condition is made by delivering air through the pipes.	
	(2)		Confirmation that system alarm works in order is to be made.	
8 Fixed foam fire fighting system and fixed high expansion foam fire fighting system * ³	(1)		Confirmation that piping is maintained in good condition is to be carried out by delivering water through the pipes.	
9 Fixed pressure water spraying fire fighting system* ³	(1)		Confirmation that the system works in order is to be made by delivering water through the system.	
	(2)		Confirmation that the system pump works in order is to be made.	
10 Automatic sprinkler system* ³	(1)		Confirmation that the delivery alarm and pump work in order is to be made while fire detecting system is in operation.	
11 Fixed Local Application Fire-fighting Systems* ³	(1)		Confirmation that the piping is to be made by delivering air through pipes.	
	(2)		Confirmation that the system alarm works in order is to be made.	
	(3)		Confirmation that the feed water pump and starting valve works in order is to be made.	
(12 is omitted.)				
Additional Requirements for Bulk Carriers				
(13 is omitted.)				

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
14	Weathertight hatch covers	(1) Hose tests ^{*2} or equivalent, for all hatch covers for ships over 10 <i>years</i> of age.	Revised expressions. Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i> 3 Cargo holds (3): Transferred from B4.1.1-2, Part B of the Guidance
(15 is omitted.)			
Notes:			
*1 In cases where an air quality control system is provided in accordance with 20.3.1-2(3), Part R of the Rules, the performance of the air quality control system is to be confirmed in conjunction with the performance test of ventilation system specified in item 7 in Table B3.3, Part B of the Rules.			
*2 The hose test is to be in accordance with An1.4.4-3, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules.			
*3 For details on the examinations refer to 2.1.7, Part B of the Rules.			
Table B4.2 Internal Examinations of Spaces and Tanks ^{*1}			
Items	Examinations		
Requirements for cargo ships unless specified otherwise			
(1 and 2 are omitted.)			
3 Ballast tanks	(1) For ships over 5 <i>years</i> and up to 10 <i>years</i> of age, an internal examination of representative ballast tanks ^{*2} is to be carried out. Where poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction, the examination is to be extended to other ballast tanks of the same type. (2) For ships over 10 <i>years</i> of age, an internal examination of all ballast tanks is to be carried out. (3) If such examinations reveal no visible structural defects, the examination may be limited to a verification that the corrosion prevention system remains effective. (4) For ballast tanks where a protective coating is found in poor condition, and it is not renewed or where a protective coating has not been applied <u>from the time of construction</u> , excluding double bottom tanks, an internal examination is to be carried out at annual intervals. For double bottom ballast tanks in this condition, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals.		
(4 is omitted.)			
Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk with integral tanks and Ships Carrying Liquefied Gases in bulk			
(1 and 2 are omitted.)			
3 Ballast tanks	(1) For Oil Tankers and Ships Carrying Dangerous Chemicals in bulk: (a) For oil tankers and ships carrying dangerous chemicals in bulk over 5 <i>years</i> of age, an internal examination of the tank(s), of which an internal examination is required as a consequence of the last Intermediate Survey or Special Survey, is to be carried		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
		out. (b) For oil tankers and ships carrying dangerous chemicals in bulk over 5 <i>years</i> and up to 10 <i>years</i> of age, an internal examination of representative ballast tanks*² is to be carried out. For oil tankers except Double hull oil tankers, an internal examination of all ballast tanks is to be carried out. (c) If such examinations reveal no visible structural defects, the examination may be limited to a verification that the corrosion prevention system remains effective. (d) Where a poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction, the examination is to be extended to other ballast tanks of the same type. (e) As a result of internal examinations, ballast tanks with conditions shown in i) to iii) require an internal examination to be carried out at annual intervals. i) The protective coating is found to be in less than GOOD condition and it is not repaired to the satisfaction of the Surveyor ii) The protective coating has not been applied from the time of construction or only the soft coating has been applied (the examination is to be extended to other ballast tanks of the same type) iii) Substantial corrosion is found within the tanks (2) For Ships Carrying Liquefied Gases in bulk: (a) For ships over 5 <i>years</i> and up to 10 <i>years</i> of age, an internal examination of representative ballast tanks is to be carried out. (b) For ships over 10 <i>years</i> of age, an internal examination of all ballast tanks is to be carried out. (c) If such examinations reveal no visible structural defects, the examination may be limited to a verification that the corrosion prevention system remains effective. (d) For ballast tanks where a protective coating is found in poor condition, and it is not renewed or where a protective coating has not been applied <u>from the time of construction</u>, excluding double bottom tanks, an internal examination is to be carried out at annual intervals. For double bottom ballast tanks with the condition as specified, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals.	Liquefied Gases in bulk” 3(2)(d): Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text with reference to the expression of 3(1) in “Requirements for cargo ships unless specified otherwise”.
		Requirements for Bulk Carriers	
(1 to 3 are omitted.)			
		Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i>	
(1 to 2 are omitted.)			

Amended-Original Requirements Comparison Table

(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
3 Cargo holds	(1) For general dry cargo ships over 5 <i>years</i> and up to 10 <i>years</i> of age, an internal examination of one forward and one after cargo hold (all cargo holds for ships carrying timber cargoes) and their associated tween deck spaces is to be carried out. (2) For general dry cargo ships over 10 <i>years</i> of age, an internal examination of all cargo holds and their associated tween deck spaces is to be carried out. (3) For ships 15 <i>years</i> old and over, limber boards are to be removed at least at two locations on each side of the ship as well as the cement chocks, and the connections between the frames and tank side brackets are to be examined carefully. When any defect is found, the extent of the survey is to be expanded accordingly.	Note1: Transferred from B4.2.4, Part B of the Guidance

Notes:

*1 When internal examinations are carried out, the means of access provided for the examinations are also to be examined.

~~(4)~~*2 “Representative ballast tanks” means ballast tanks which include, at least, fore and aft peak tanks and two (for double hull oil tankers and double skin bulk carriers, three) deep tanks within the cargo length area.

Table B4.3 Close-up Surveys

Items	Examinations
Requirements for Cargo Ships except when specified otherwise	
1 Bow doors, inner doors, side shell doors and stern doors	(1) Close-up surveys of securing, supporting and locking devices, together with welded parts, are to be carried out.
Requirements for Ships Carrying Liquefied Gases in bulk	
1 Ballast tanks	(1) For ships over 10 <i>years</i> of age and up to 15 <i>years</i> of age, close-up surveys of the following portions are to be carried out: (a) All web frames*1 and both transverse bulkheads*2 in a representative ballast tank (b) The upper part of one web frame and one transverse bulkhead*2 in another representative ballast tank (2) For ships over 15 <i>years</i> of age, close-up surveys of all web frames*1 and both transverse bulkheads*2 in two representative ballast tanks are to be carried out. (3) Notwithstanding the above, for ships having independent tanks of type C, with a midship section similar to that of a general cargo ship, the extent of close-up surveys may be reduced to a degree that is sufficient to confirm the actual average condition of the structure under the coating at the discretion of the Surveyor.
Requirements for Bulk Carriers other than Double Skin Bulk Carriers*3	
1 Hatch covers and hatch coamings	(1) A close-up survey of all hatch cover plating and all hatch coaming plating and their stiffeners is to be carried out.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
	2 Structural members in cargo holds 1 Hold frames including their upper and lower end attachments, adjacent shell plating	(1) For ships over 5 <i>years</i> of age, a close-up survey of sufficient extent (i.e. a minimum of 25% of the frames) is to be carried out to establish the condition of shell frames including their upper and lower end attachments and adjacent shell plating in the forward cargo hold and one other selected cargo hold. Where considered necessary by the Surveyor as a result of the internal examination and close-up survey, the survey is to be extended to include a close-up survey of all of the shell frames and adjacent shell plating of that cargo hold as well as a close-up survey of sufficient extent (i.e. a minimum of 25% of the frames) of all remaining cargo holds. (2) A close-up survey is to be carried out to establish the condition of areas found to be suspect areas at previous surveys.	
	2 Transverse bulkheads	(1) For ships over 5 <i>years</i> of age, a close-up survey is to be carried out to establish the condition of transverse bulkheads in the forward cargo hold and one other selected cargo hold. (2) A close-up survey is to be carried out to establish the condition of areas found to be suspect areas at previous surveys.	
	3 Other structural members	(1) A close-up survey is to be carried out to establish the condition of areas found to be suspect areas at previous surveys. (2) Where considered necessary by the Surveyor as a result of the internal examination required in Table B4.2, a close-up survey is to be carried out.	
	3 Ballast tanks	(1) A close-up survey is to be carried out to establish the condition of areas found to be suspect areas at previous surveys.	
	Requirements for Double Skin Bulk Carriers		
	1 Hatch covers and hatch coamings	(1) A close-up survey of all hatch cover plating and all hatch coaming plating and their stiffeners is to be carried out.	
	2 Structural members in cargo holds	(1) Where considered necessary by the Surveyor as a result of the internal examination required in Table B4.2, a close-up survey is to be carried out.	
	3 Ballast tanks	(1) A close-up survey is to be carried out to establish the condition of areas found to be suspect areas at previous surveys.	
	Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i>		
	1 Hatch covers and hatch coamings	(1) A close-up survey of hatch cover plating and hatch coaming plating and their stiffeners is to be carried out.	
	2 Structural members in cargo holds		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks																	
1 Lower part of shell frames and their lower end brackets 2 Lower parts of transverse bulkheads 3 Lower parts (located on inner bottom plating) of pipes that pass through cargo holds such as air pipes, sounding pipes, etc.	(1) For ships carrying timber cargoes over 5 <i>years</i> of age, a close-up survey of structures listed in the left column is to be carried out in all cargo holds.		Revised expressions.																	
Notes: *1: Including structural members adjacent to cross ties and/or transverse web frame rings, such as shell plating, longitudinal bulkheads, longitudinal stiffeners, brackets. *2: Including vertical and horizontal girders and adjacent structural members, and adjacent longitudinal bulkhead structure. *3: For bulk carriers with hybrid cargo hold arrangements, e.g. with some cargo holds of single side skin and others of double side skin, the Requirements for Double Skin Bulk Carriers are to apply to cargo holds of double side skin and associated wing spaces.																				
Table B4.4 Thickness Measurements <table><tr><th>Items</th><th>Note Examinations</th></tr><tr><td colspan="2">Requirements for Cargo Ships except those specified in the followings</td></tr><tr><td>(1 to 3 are omitted.)</td><td></td></tr><tr><td colspan="2">Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk with integral tanks and Ships Carrying Liquefied Gases in bulk</td></tr><tr><td>(1 to 3 are omitted.)</td><td></td></tr><tr><td colspan="2">Requirements for the Bulk Carriers over 5 <i>years</i> of age</td></tr><tr><td>(1 to 3 are omitted.)</td><td></td></tr><tr><td colspan="2">Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i></td></tr><tr><td>(1 to 3 are omitted.)</td><td></td></tr></table>				Items	Note Examinations	Requirements for Cargo Ships except those specified in the followings		(1 to 3 are omitted.)		Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk with integral tanks and Ships Carrying Liquefied Gases in bulk		(1 to 3 are omitted.)		Requirements for the Bulk Carriers over 5 <i>years</i> of age		(1 to 3 are omitted.)		Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i>		(1 to 3 are omitted.)
Items	Note Examinations																			
Requirements for Cargo Ships except those specified in the followings																				
(1 to 3 are omitted.)																				
Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk with integral tanks and Ships Carrying Liquefied Gases in bulk																				
(1 to 3 are omitted.)																				
Requirements for the Bulk Carriers over 5 <i>years</i> of age																				
(1 to 3 are omitted.)																				
Requirements for General Dry Cargo Ships of not less than 500 <i>gross tonnage</i>																				
(1 to 3 are omitted.)																				

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
Table B4.5 Additional Requirements at Intermediate Surveys			
Items		Examinations	
1	Refrigerating Machinery	(1) Examination of refrigerant leakage while the machinery is in operation and the general condition of the safety devices*1 are to be carried out.	
Requirements for Tankers			
1	Electrical installations in hazardous areas*2	(1) Electrical installations in hazardous areas are to be examined in detail and confirmation that they conform to the requirements in 4.2.7, Part H is to be carried out. In addition, confirmation that the installations are in good condition is to be made by measuring the insulation resistance. However, this measurement may be omitted at the discretion of the Surveyor, if accurate measurement records of the insulation resistance can be verified. (2) Performance tests of interlock devices associated with pressurized protected type electrical equipment and electrical equipment installed in pressurized or ventilated areas are to be carried out.	Note 1: Transferred from B4.3.1-1, Part B of the Guidance Note 2: Transferred from B4.3.1-2, Part B of the Guidance

Notes:

*1 Where controlled atmosphere systems are installed onboard, the general examination of safety devices for refrigerating machinery is to be conducted on the gas freeing equipment, and control, alarm and monitoring equipment of the controlled atmosphere systems.

*2 The wording “hazardous areas” refers to the hazardous areas specified in 4.2.3-1, -4 and -5, Part H of the Rules.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks										
Table B4.6 Special Requirements for Ships Carrying Liquefied Gases in Bulk		3 Electrical installations in hazardous areas (2): Transferred from B4.4.2-2, Part B of the Guidance Note 1: Transferred from B4.4.2-1, Part B of the Guidance Note 2: Transferred from B4.4.2-2, Part B of the Guidance										
<table><tr><th>Items</th><th>Examinations</th></tr><tr><td>(1 is omitted.)</td><td></td></tr><tr><td>2 Cargo tank pressure relief valves with non-metallic membranes</td><td>(1) If the cargo tanks are equipped with relief valves with non-metallic membranes in the main or pilot valves, it is to be confirmed that such non-metallic membranes are maintained in good condition. ^{*1}</td></tr><tr><td>3 Electrical installations in hazardous areas ^{*2}</td><td>(1) Examinations for tankers of Table B4.5 are to be carried out. (2) <u>It is to be checked for defective equipment, fixtures and wiring is to be checked.</u></td></tr><tr><td>(4 to 6 are omitted.)</td><td></td></tr></table>	Items		Examinations	(1 is omitted.)		2 Cargo tank pressure relief valves with non-metallic membranes	(1) If the cargo tanks are equipped with relief valves with non-metallic membranes in the main or pilot valves, it is to be confirmed that such non-metallic membranes are maintained in good condition. ^{*1}	3 Electrical installations in hazardous areas ^{*2}	(1) Examinations for tankers of Table B4.5 are to be carried out. (2) <u>It is to be checked for defective equipment, fixtures and wiring is to be checked.</u>	(4 to 6 are omitted.)		
Items	Examinations											
(1 is omitted.)												
2 Cargo tank pressure relief valves with non-metallic membranes	(1) If the cargo tanks are equipped with relief valves with non-metallic membranes in the main or pilot valves, it is to be confirmed that such non-metallic membranes are maintained in good condition. ^{*1}											
3 Electrical installations in hazardous areas ^{*2}	(1) Examinations for tankers of Table B4.5 are to be carried out. (2) <u>It is to be checked for defective equipment, fixtures and wiring is to be checked.</u>											
(4 to 6 are omitted.)												
<u>Notes:</u> <u>*1 In the examination of non-metallic membranes , the following are to be confirmed.</u> <u>(1) Cracks and deterioration are not found by visual examination</u> <u>(2) Membranes are renewed at intervals not exceeding 3 years</u> <u>Where the membranes are those approved for usage exceeding 3 years in accordance with 6.4.1-3, Annex 1, Part N of “GUIDANCE FOR EQUIPMENT AND FITTINGS OF SHIPS CARRYING LIQUEFIED GASES IN BULK”, these are renewed at the approved intervals.</u> <u>(3) Pressure relief valves are adjusted and function tested.</u> <u>*2 The wording “hazardous areas” in item 3 of Table B4.6, Part B of the Rules refers to the hazardous areas specified in 4.2.3-3, -4 and -5, Part H of the Rules as well as in 1.1.5(23), Part N of the Rules.</u>												
Table B4.7 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk												
<table><tr><th>Items</th><th>Examinations</th></tr><tr><td>1 Electrical installations in hazardous areas ^{*1}</td><td>(1) Examinations for tankers of Table B4.5 are to be carried out. (2) <u>It is to be checked for defective equipment, fixtures and wiring.</u></td></tr><tr><td>(2 and 3 are omitted.)</td><td></td></tr></table>	Items		Examinations	1 Electrical installations in hazardous areas ^{*1}	(1) Examinations for tankers of Table B4.5 are to be carried out. (2) <u>It is to be checked for defective equipment, fixtures and wiring.</u>	(2 and 3 are omitted.)						
Items	Examinations											
1 Electrical installations in hazardous areas ^{*1}	(1) Examinations for tankers of Table B4.5 are to be carried out. (2) <u>It is to be checked for defective equipment, fixtures and wiring.</u>											
(2 and 3 are omitted.)												
<u>Note:</u> <u>*1 The wording “hazardous areas” refers to the hazardous areas specified in 4.2.3-2, -4 and -5, Part H of the Rules.</u>												
		1 Electrical installations in hazardous areas (2) : Transfers from B4.5.2, Part B of the Guidance Note: Transferred from B4.5.2, Part B of the Guidance										

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks										
Table B4.8 Special Requirements for Ships Using Low-flashpoint Fuels <table><tr><th>Items</th><th>Examinations</th></tr><tr><td>(1 is omitted.)</td><td></td></tr><tr><td>2 Fuel storage tank pressure relief valves with non-metallic membranes</td><td>(1) In cases where fuel storage tank relief valves with non-metallic membranes are main or pilot valves, it is to be confirmed that such non-metallic membranes are maintained in good condition.*1</td></tr><tr><td>3 Electrical installations in hazardous areas*2</td><td>(1) Examinations for tankers of Table B4.5 are to be carried out.</td></tr><tr><td>(4 to 6 are omitted.)</td><td></td></tr></table> Notes: *1 The sentence “it is to be confirmed that such non-metallic membranes are maintained in good condition” means the following: visual examinations are to be carried out to verify no cracks and deterioration; and it is to be confirmed membranes are renewed at intervals not exceeding 3 years, have been properly adjusted, and have been tested for performance. In cases where relief valves are approved for use for membranes whose renewal intervals exceed 3 years in accordance with 6.4.1-3, Annex 1 “Guidance for Equipment and Fittings of Ships Using Low-flashpoint Fuels”, Part GF of the Guidance, it is to be confirmed that they are renewed at approved intervals. *2 The term “hazardous areas” means the hazardous areas specified in 12.5, Part GF, and 4.2.3-4 and -5, Part H of the Rules.		Items	Examinations	(1 is omitted.)		2 Fuel storage tank pressure relief valves with non-metallic membranes	(1) In cases where fuel storage tank relief valves with non-metallic membranes are main or pilot valves, it is to be confirmed that such non-metallic membranes are maintained in good condition.*1	3 Electrical installations in hazardous areas*2	(1) Examinations for tankers of Table B4.5 are to be carried out.	(4 to 6 are omitted.)		Note: Transferred from B4.6.2, Part B of the Guidance
Items	Examinations											
(1 is omitted.)												
2 Fuel storage tank pressure relief valves with non-metallic membranes	(1) In cases where fuel storage tank relief valves with non-metallic membranes are main or pilot valves, it is to be confirmed that such non-metallic membranes are maintained in good condition.*1											
3 Electrical installations in hazardous areas*2	(1) Examinations for tankers of Table B4.5 are to be carried out.											
(4 to 6 are omitted.)												
Chapter 5 SPECIAL SURVEYS 5.1 <u>Special Surveys</u> 5.1.1 <u>General</u> (Moved)	Chapter 5 SPECIAL SURVEYS 5.1 <u>General</u> 5.1.1 <u>Examinations to be Carried Out at the Commencement or Completion of Special Surveys</u> 1 Where the Special Survey is commenced in accordance with the requirements in 1.1.3-1(3)(b) or 1.1.4-3, the thickness measurements required in 5.2.6 are to be carried out at the commencement of the Survey if possible in order to facilitate planning repairs. Where the Special Survey is	Transferred to 5.1.3, Part B of the Rules Transferred to 5.1.3-1, Part B of the Rules										

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
(Moved)	commenced at or prior to the time of the 4th Annual Survey, at a minimum the examinations required in Chapter 3 are to be carried out. 2 Where the Special Surveys is completed in accordance with the requirements in 1.1.3-1(3)(b) or 1.1.4-3, at a minimum the examinations required in Chapter 3 are to be carried out at the completion of the Special Survey. However, the Surveyor may, based upon the above results, require examinations already carried out to be conducted again when deemed necessary. (Newly added)	Transferred to 5.1.3-2, Part B of the Rules
1 The details of Intermediate Surveys specified in 1.1.2 are defined in this chapter. 2 At Special Surveys for combination carriers such as ore/oil carriers and ore/bulk/oil carriers, the surveys are to be carried out in accordance with the relevant requirements in this Chapter, considering the ship's equipment, structural configuration and past operational experience.	(Moved)	Transferred from 5.1.2, Part B of the Rules
5.1.2 Intervals of Special Surveys (Moved)	5.1.2 Survey for Combination Carriers At Special Surveys for combination carriers such as ore/oil carriers and ore/bulk/oil carriers, the surveys are to be carried out in accordance with the relevant requirements in this Chapter, considering the ship's equipment, structural configuration and past operational experience. (Moved)	Transferred to 5.1.1-2, Part B of the Rules
1 Special Surveys are to be carried out in accordance with the requirements specified in (1) through (3) below. (1) Special Surveys are to be carried out within 3 months before the date of expiry of the Certificate of Classification. (2) Special Surveys may be commenced at or after the 4th Annual Survey and be completed within 3 months before the date of expiry of the Certificate of		(1) Transferred from 1.1.3-1(3)(a), Part B of the Rules (2) Transferred from 1.1.3-1(3)(b), Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>Classification.</u> (3) Where Annual Surveys or Intermediate Surveys have been carried out in advance in accordance with 3.1.2-2 and 4.1.2-5, the Special Survey may be carried as specified in (a) or (b) below: (a) The Special Survey may commence up to 15 months before the date of expiry of the Certificate of Classification and be completed within 3 months before the date of expiry of the Certificate of Classification. (b) The Special Survey may be carried out during the period specified in accordance with -3 below. 2 Where postponement of the Special Survey for a ship is granted in accordance with the requirements in 1.1.5, the content of the Special Survey is determined based on the original expiry date of the Classification Certificate of the ship. 3 Special Surveys may be carried out based upon following (1) through (3) in advance of the times specified in 5.1.2-1(3) when requested by the owner. (1) Where a Special Survey is carried out in advance at the time of an Annual Survey or Intermediate Survey, the Annual Survey or Intermediate Survey may be dispensed with. (2) Where a Special Survey is commenced prior to the time of the fourth Annual Survey, the Special Survey is to be completed within 15 months from the date of its commencement. (3) Notwithstanding (2), where a Special Survey is commenced on or before the due date of the third Annual Survey and an Intermediate Survey is not carried out, the Special Survey is to be completed up	(Moved) (Moved)	(3) Transferred from B1.1.3-1, Part B of the Guidance Transfers from 5.1.3, Part B of the Rules Transfers from 1.1.4-3, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
to the following (a) or (b), whichever is earlier. (a) Due date of third Annual Survey; or (b) 15 months from the date of its commencement. 5.1.3 Examinations to be Carried Out at the Commencement or Completion of Special Surveys (Moved) <u>1 Where the Special Survey is commenced in accordance with the requirements in 5.1.2-1(2) or -3, the thickness measurements required in 5.2.6 are to be carried out at the commencement of the Survey if possible in order to facilitate planning repairs. Where the Special Survey is commenced at or prior to the time of the 4th Annual Survey, at a minimum the examinations required in Chapter 3 are to be carried out.</u> <u>2 Where the Special Surveys is completed in accordance with the requirements in 5.1.2-1(2) or -3, at a minimum the examinations required in Chapter 3 are to be carried out at the completion of the Special Survey. However, the Surveyor may, based upon the above results, require examinations already carried out to be conducted again when deemed necessary.</u> 5.1.4 Survey Results Regardless of when Intermediate Surveys and Special Surveys are carried out, the results of <u>internal examinations, close-up surveys and thickness measurements of spaces and</u>	5.1.3 Survey for the Postponement of Special Surveys Where postponement of the Special Survey for a ship is granted in accordance with the requirements in 1.1.5, the content of the Special Survey is determined based on the original expiry date of the Classification Certificate of the ship. (Moved) (Moved) 5.1.4 Survey Results* Regardless of when Intermediate Surveys and Special Surveys are carried out, the results of surveys and thickness measurements of spaces carried out for Intermediate Surveys	Transferred from 5.1.1, Part B of the Rules Transferred to 5.1.2-2, Part B of the Rules Transferred from 5.1.1-1, Part B of the Rules Transferred from 5.1.1-2, Part B of the Rules Added requirement of B5.1.4, Part B of the Guidance

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
tanks carried out for Intermediate Surveys are not to be used as the results for Special Surveys and the results of <u>internal examinations, close-up surveys</u> and thickness measurements of spaces <u>and tanks</u> carried out for Special Surveys are not to be used as the results for Intermediate Surveys. 5.2 Special Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings 5.2.1 Examination of Plans and Documents* 1 The management conditions of plans and documents specified in 3.2.1 are to be examined. 2 For ships subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>, the Ship Construction File in 2.1.5-2 are to be examined in accordance with (1) to (5) below: (1) For a Ship Construction File stored on board a ship, the Surveyor is to examine the information included in it on board the ship. (2) For a Ship Construction File stored in an onshore archive, the Surveyor is to examine the list of information included in it stored in the onshore archive. (3) The Surveyor is to confirm upon completion of the survey that the Ship Construction File has been updated whenever any modification of the documentation included in it has taken place. <u>The method of verification is to be in accordance with requirements specified otherwise by the Society.</u> (4) The Surveyor is to confirm upon completion of the survey that any addition and/or renewal of materials used for the construction of the hull structure are	are not to be used as the results for Special Surveys and the results of surveys <u>and</u> thickness measurements of spaces carried out for Special Surveys are not to be used as the results for Intermediate Surveys. 5.2 Special Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings 5.2.1 Examination of Plans and Documents* 1 <u>At Special Surveys</u>, the management conditions of plans and documents specified in 3.2.1 are to be examined. 2 For ships subject to <i>SOLAS Chapter II-1 Regulation 3-10</i>, the Ship Construction File in 2.1.5-2 are to be examined in accordance with (1) to (5) below: (1) For a Ship Construction File stored on board a ship, the Surveyor is to examine the information included in it on board the ship. (2) For a Ship Construction File stored in an onshore archive, the Surveyor is to examine the list of information included in it stored in the onshore archive. (3) The Surveyor is to confirm upon completion of the survey that the Ship Construction File has been updated whenever any modification of the documentation included in it has taken place. (4) The Surveyor is to confirm upon completion of the survey that any addition and/or renewal of materials used for the construction of the hull structure are	Revised expressions. (3) and (5): Revised expressions. Revised of reference

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
documented within the list of materials specified in item 86, Table B2.1. (5) The Surveyor is to confirm that the Ship Construction File is available to the Society and the flag state throughout the ship's life. <u>The method of verification is to be in accordance with requirements specified otherwise by the Society.</u> 5.2.2 General Examination* 1 Items (1) to (4) below in addition to hull, equipment, fire-extinction, and fittings specified in 4.2.2 are to be examined carefully. (1) All bilge and ballast piping systems (2) Automatic air pipe heads which are located on exposed decks as well as the ventilators and closing appliances of machinery and cargo spaces (3) For ships having bow doors, inner doors, side shell doors and stern doors, the surveys specified in (a) and (b) below are to be carried out. ((a) and (b) are omitted.) (4) For watertight cable penetrations, the surveys specified in (a) to (c) below; ((a) to (c) are omitted.) 2 For tankers and ships carrying dangerous chemicals in bulk, in addition to -1, cargo piping, vent piping, purging piping, gas free piping, inert gas piping and all other piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, pipe tunnels, cofferdams, and void spaces and on weather decks are to be examined. 3 For ships carrying liquefied gases in bulk, in addition to -1, cargo piping, vent piping, purging piping, gas free	documented within the list of materials specified in item 85, Table B2.1. (5) The Surveyor is to confirm that the Ship Construction File is available to the Society and the flag state throughout the ship's life. 5.2.2 General Examination* 1 <u>At Special Surveys,</u> items (1) to (4) below in addition to hull, equipment, fire-extinction, and fittings specified in 4.2.2 are to be examined carefully. (1) All bilge and ballast piping systems (2) Automatic air pipe heads which are located on exposed decks as well as the ventilators and closing appliances of machinery and cargo spaces (3) For ships having bow doors, inner doors, side shell doors and stern doors, the surveys specified in (a) and (b) below are to be carried out. ((a) and (b) are omitted.) (4) For watertight cable penetrations, the surveys specified in (a) to (c) below <u>are to be carried out.</u> ((a) to (c) are omitted.) 2 <u>At Special Surveys,</u> for tankers and ships carrying dangerous chemicals in bulk, in addition to -1, cargo piping, vent piping, purging piping, gas free piping, inert gas piping and all other piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, pipe tunnels, cofferdams, and void spaces and on weather decks are to be examined. 3 <u>At Special Surveys,</u> for ships carrying liquefied gases in bulk, in addition to -1, cargo piping, vent piping, purging	numbers due to revision of table. Revised expressions. Revised expressions. Revised expressions.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
piping, inert gas piping and all other piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams, and void spaces and on weather decks are to be examined. 4 For bulk carriers and general dry cargo ships of not less than 500 <i>gross tonnage</i>, in addition to -1, all piping systems within all cargo holds, all ballast tanks, and all tanks and spaces bounding cargo holds such as pipe tunnels, cofferdams and void spaces, and on the weather deck are to be examined. 5 For container carriers using extremely thick steel plates which comply with 10.5, Part 2-1, Part C, in addition to -1, the block-to-block butt joints of strength decks, hatch side coamings (including top plates and attached longitudinal stiffeners), sheer strakes, and the topmost strakes of inner hulls and bulkheads (only one strake adjacent to strength decks) are to be examined from both sides as far as practicable. Furthermore, additional non-destructive inspections may be required based upon the results of such examination when deemed necessary by the attending surveyor. 5.2.3 Performance Test* 1 The performance tests specified in 4.2.3 are to be carried out. <u>In addition to such performance tests, the following items are to be confirmed.</u> Moreover, the performance tests for mooring and anchoring arrangements specified in item 3 of Table B4.1 may not be omitted. (1) The loading instrument required by 3.8.1.1, Part 1, 3.2.2.1, Part 2-2 and 3.2.2.1, Part 2-3, Part C works correctly.	piping, gas free piping, inert gas piping and all other piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams, and void spaces and on weather decks are to be examined. 4 <u>At Special Surveys,</u> for bulk carriers and general dry cargo ships of not less than 500 <i>gross tonnage</i>, in addition to -1, all piping systems within all cargo holds, all ballast tanks, and all tanks and spaces bounding cargo holds such as pipe tunnels, cofferdams and void spaces, and on the weather deck are to be examined. 5 <u>At Special Surveys,</u> for container carriers using extremely thick steel plates which comply with 10.5, Part 2-1, Part C, in addition to -1, the block-to-block butt joints of strength decks, hatch side coamings (including top plates and attached longitudinal stiffeners), sheer strakes, and the topmost strakes of inner hulls and bulkheads (only one strake adjacent to strength decks) are to be examined from both sides as far as practicable. Furthermore, additional non-destructive inspections may be required based upon the results of such examination when deemed necessary by the attending surveyor. 5.2.3 Performance Test* 1 <u>At Special Surveys,</u> performance tests specified in 4.2.3 are to be carried out. <u>In addition to such performance tests, it is to be confirmed that the loading instrument required in 3.8.1.1, Part 1, 3.2.2.1, Part 2-2 and 3.2.2.1, Part 2-3, Part C works in order.</u> Moreover, the performance tests for mooring and anchoring arrangements specified in item 3 of Table B4.1 may not be omitted.	Revised expressions. Revised expressions. Revised expressions.

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
(2) <u>The performance test of computers for stability calculation which are fitted on board the ship as a supplement to stability information booklets is to be carried out according to the procedures specified otherwise by the Society, so as to ensure that the stability computer is working correctly.</u> 2 In addition to -1 above, the performance tests and operation tests specified in (1) to (11) below are to be carried out. ((1) is omitted.) (2) Hose tests or equivalent, for all weathertight hatch covers <u>(see An1.4.4-3, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules)</u> (3) Performance tests and operation tests <u>under the working pressure</u> for all bilge and ballast piping system (4) Hose tests or equivalent, for all bow doors, inner doors, side shell doors and stern doors <u>(see An1.4.4-3, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules)</u> (5) The hose tests or equivalent tests, for the doors of watertight bulkheads and the closing appliances of superstructure end bulkheads, deckhouses or companions protecting hatchways giving access to spaces below freeboard deck <u>(see An1.4.4-3, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules)</u> (6) For oil tankers and ships carrying dangerous chemical in bulk, performance tests and operation tests <u>under the working pressure</u> of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all	2 In addition to -1 above, the performance tests and operation tests specified in (1) to (11) below are to be carried out. ((1) is omitted.) (2) Hose tests or equivalent, for all weathertight hatch covers (3) Performance tests and operation tests for all bilge and ballast piping system (4) Hose tests or equivalent, for all bow doors, inner doors, side shell doors and stern doors (5) The hose tests or equivalent tests, for the doors of watertight bulkheads and the closing appliances of superstructure end bulkheads, deckhouses or companions protecting hatchways giving access to spaces below freeboard deck (6) For oil tankers and ships carrying dangerous chemical in bulk, performance tests and operation tests of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo	(2): The procedural requirements are specified in B5.2.3-1, Part B of the Guidance. (2), (4) and (5): Transferred from B5.2.3-2, Part B of the Guidance (3), (6), (7) and (8): Transferred from B5.2.3-3, Part B of the Guidance (8): Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text since it is a requirement for bulk carriers and general dry cargo ships of 500 gross tonnage or more.

Amended-Original Requirements Comparison Table

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Amended	Original	Remarks
tanks and spaces bounding cargo tanks such as pump rooms, pipe tunnels, cofferdams and void spaces, and on the weather deck (7) For ships carrying liquefied gases in bulk, performance test and operation test <u>under the working pressure</u> of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams and void spaces, and on weather deck (8) For bulk carriers and general dry cargo ships of 500 <i>gross tonnage</i> <u>or more</u>, performance test and operation test <u>under the working pressure</u> of all piping systems within cargo holds, all ballast tanks and all tanks and spaces bounding cargo holds such as pipe tunnels, cofferdams, void spaces, and other similar spaces bounding cargo holds, and those on weather decks ((9) is omitted.) (10) Performance test <u>stipulated otherwise by the Society</u> for the means of embarkation and disembarkation, for ships not less than 500 <i>gross tonnage</i> which are engaged on international voyages. ((11) is omitted.) 5.2.4 Internal Examinations of Spaces and Tanks* 1 Examinations of structures, fittings and the means of access provided for the examinations such as piping in tanks and spaces are to be carried out carefully paying due attention to items (1) through (7) below. <u>When internal examinations are carried out, the means of access provided for the examinations</u> are also to be examined. For oil tankers, bulk	tanks such as pump rooms, pipe tunnels, cofferdams and void spaces, and on the weather deck (7) For ships carrying liquefied gases in bulk, performance test and operation test of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams and void spaces, and on weather deck (8) For bulk carriers and general dry cargo ships of 500 <i>gross tonnage</i>, performance test and operation test of all piping systems within cargo holds, all ballast tanks and all tanks and spaces bounding cargo holds such as pipe tunnels, cofferdams, void spaces, and other similar spaces bounding cargo holds, and those on weather decks ((9) is omitted.) (10) Performance test for the means of embarkation and disembarkation, for ships not less than 500 <i>gross tonnage</i> which are engaged on international voyages. ((11) is omitted.) 5.2.4 Internal Examinations of Spaces and Tanks* 1 <u>At Special Surveys</u>, examinations of structures and fittings such as piping in tanks and spaces are to be carried out carefully paying due attention to items (1) through (7) below.	Revised expressions. Transferred from B5.2.4-2, Part B of the Guidance

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Amended	Original	Remarks
carriers and ships carrying dangerous chemicals in bulk with integral tanks, reference is to be made to the plans and documents as deemed appropriate by the Society. ((1) to (7) are omitted.) 2 Internal examinations of tanks or spaces listed in Table B5.1 are to be carried out paying attention to the items in -1 above. 3 For tankers and ships carrying dangerous chemicals in bulk with integral tanks, in addition to -1 and -2 above, an internal examination of tanks and spaces listed in Table B5.2 is to be carried out. Tanks and spaces identified as suspect areas at previous surveys are to be examined. The examination of the coating condition in ballast tanks for oil tankers and ships carrying dangerous chemicals in bulk is to be based on the coating criteria defined by the Society. However, for ships carrying dangerous chemicals in bulk, stainless steel tanks may be exempted from internal examinations where deemed appropriate by the Society. 5.2.5 Close-up Surveys* 1 Close-up Surveys are to be carried out for portions (1) to (4) below: ((1) and (2) are omitted.) (3) All hatch cover plating, hatch coaming plating, and stiffeners <u>(Close-up surveys are to be carried out for the accessible parts of cargo hold hatch covers whose internals are impossible to structurally access.)</u> ((4) is omitted.) 2 For oil tankers and ships carrying dangerous chemical in bulk with integral tanks, notwithstanding the provision of -1 above, a Close-up Survey is to be carried out for structural members listed in Table B5.5-1.	((1) to (7) are omitted.) 2 <u>At Special Surveys</u>, internal examinations of tanks or spaces listed in Table B5.1 are to be carried out paying attention to the items in -1 above. 3 <u>At Special Surveys</u> for tankers and ships carrying dangerous chemicals in bulk with integral tanks, in addition to -1 and -2 above, an internal examination of tanks and spaces listed in Table B5.2 is to be carried out. Tanks and spaces identified as suspect areas at previous surveys are to be examined. The examination of the coating condition in ballast tanks for oil tankers and ships carrying dangerous chemicals in bulk is to be based on the coating criteria defined by the Society. However, for ships carrying dangerous chemicals in bulk, stainless steel tanks may be exempted from internal examinations where deemed appropriate by the Society. 5.2.5 Close-up Surveys* 1 Close-up Surveys are to be carried out for portions (1) to (4) below: ((1) and (2) are omitted.) (3) All hatch cover plating, hatch coaming plating, and stiffeners ((4) is omitted.) 2 <u>At Special Surveys</u> for oil tankers and ships carrying dangerous chemical in bulk with integral tanks, notwithstanding the provision of -1 above, a Close-up Survey is to be carried out for structural members listed in Table	Revised expressions. Revised expressions. Revised expressions. (3) Transferred from B5.2.5-4, Part B of the Guidance Revised expressions.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
3 For ships carrying liquefied gases in bulk, notwithstanding the provision of -1 above, a Close-up Survey is to be carried out for structural members and so forth listed in Table B5.5-2. 4 For bulk carriers, notwithstanding the provision of -1 above, a Close-up Survey is to be carried out for structural members listed in Table B5.6-1. For ore carriers, a Close-up Survey is to be carried out in accordance with the requirements in Table B5.6-2 instead of Table B5.6-1. 5 For general dry cargo ships of not less than 500 <i>gross tonnage</i>, notwithstanding the provision of -1 above, a Close-up Survey is to be carried out for structural members listed in Table B5.7. 8 <u>Non-destructive testing may be required to detect fractures when deemed necessary by the Surveyor.</u> 9 <u>Thickness measurements are to be carried out on the securing, supporting and locking devices of bow doors, inner doors, side shell doors and stern doors to the extent considered necessary by the Surveyor. The maximum thickness diminution of such securing, supporting and locking devices is not to be more than 15% of the as-built thickness.</u> 5.2.6 Thickness Measurements* 1 Thickness measurements are to be carried out in accordance with (1) to (8) below. (1) Thickness measurements are to be carried out using appropriate ultra-sonic gauging machines or other approved means. The Surveyor may request that the accuracy of the equipment be demonstrated. (2) Thickness measurements are to be carried out at or	B5.5-1. 3 <u>At Special Surveys</u> for ships carrying liquefied gases in bulk, notwithstanding the provision of -1 above, a Close-up Survey is to be carried out for structural members and so forth listed in Table B5.5-2. 4 <u>At Special Surveys</u> for bulk carriers, notwithstanding the provision of -1 above, a Close-up Survey is to be carried out for structural members listed in Table B5.6-1. For ore carriers, a Close-up Survey is to be carried out in accordance with the requirements in Table B5.6-2 instead of Table B5.6-1. 5 <u>At Special Surveys</u> for general dry cargo ships of not less than 500 <i>gross tonnage</i>, notwithstanding the provision of -1 above, a Close-up Survey is to be carried out for structural members listed in Table B5.7. (Moved) (Moved) 5.2.6 Thickness Measurements* 1 <u>At Special Surveys, thickness measurements are to be carried out in accordance with (1) to (5) below.</u> (1) Thickness measurements are to be carried out using appropriate ultra-sonic gauging machines or other approved means. The Surveyor may request that the accuracy of the equipment be demonstrated. (2) Thickness measurements are to be carried out at or	Revised expressions. Revised expressions. Revised expressions. Transferred from B5.2.5-1, Part B of the Guidance Transferred from B5.2.5-2, Part B of the Guidance Revised expressions.

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
after the time of the 4th Annual Survey under the attendance of the Surveyor by the firm approved by the Society under the “Rules for Approval of Manufacturers and Service Suppliers”. The surveyor may request to have the measurements taken again to ensure acceptable accuracy. (3) Additional thickness measurements are to be carried out before the completion of the survey. (4) A thickness measurement record is to be prepared and submitted to the Society. (5) Thickness measurements of structures in areas where close-up surveys are required are to be carried out simultaneously with close-up surveys. (6) <u>Transverse sections are to be chosen where the largest reductions are suspected to occur or are revealed from deck plating measurements. Where two or more transverse sections are required to be measured, one of them, at least, is to be a part of the water ballast tanks arranged just below upper deck within 0.5L amidships.</u> (7) <u>As for thickness measurements on frames and brackets, the measuring points are to be generally within 30 mm from fillet welding with shell or slant plates.</u> (8) <u>Thickness measurement locations are to be selected to provide the best representative sampling of areas likely to be most exposed to corrosion, considering cargo and ballast history and arrangement and condition of protective coating.</u> 2 <u>Thickness measurements are to be carried out according to -1 above for structural members listed in Table B5.8. However, thickness measurements are to be carried out</u>	after the time of the 4th Annual Survey under the attendance of the Surveyor by the firm approved by the Society under the “Rules for Approval of Manufacturers and Service Suppliers”. The surveyor may request to have the measurements taken again to ensure acceptable accuracy. (3) Additional thickness measurements are to be carried out before the completion of the survey. (4) A thickness measurement record is to be prepared and submitted to the Society. (5) Thickness measurements of structures in areas where close-up surveys are required are to be carried out simultaneously with close-up surveys. 2 <u>At Special Surveys, thickness measurements are to be carried out according to -1 above for structural members listed in Table B5.8. Where substantial corrosion is found as a result</u>	(6) Transferred from B5.2.6-2, Part B of the Guidance (7) Transferred from B5.2.6-3, Part B of the Guidance (8) Transferred from B5.2.6-8, Part B of the Guidance Transferred from B5.2.6-

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for the accessible parts of cargo hold hatch covers whose internals are impossible to structurally access. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Table B5.9. 3 <u>For oil tankers and ships carrying dangerous chemicals in bulk with integral tanks, notwithstanding the provision of -2 above, thickness measurements are to be carried out according to -1 for structural members listed in Table B5.10-1, and tanks and spaces identified as suspect areas at previous surveys. Stainless steel hull structure and piping of ships carrying dangerous chemicals in bulk except for clad steel may be exempted from thickness measurements where deemed appropriate by the Society. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Tables B5.11 through B5.14.</u> 4 <u>For ships carrying liquefied gases in bulk, notwithstanding to the provision of -2 above, a thickness measurement is to be carried out for structural members and so forth listed in Table B5.10-2 according to -1 above. Where substantial corrosion is found in the results of such thickness measurements, the thickness measurement is to be expanded to all the structural members listed in the Table B5.9, of which the sub-title corresponds to substantially corroded members. For ships having independent tanks of type C, with a midship section similar to that of a general cargo ship, the extent of thickness measurements may be increased to include the tank top plating at the discretion of the Surveyor.</u> 5 <u>For Bulk Carriers, notwithstanding the provision of -2 above, thickness measurements are to be carried out according to -1 above for structural members listed in Table B5.15 and</u>	of such thickness measurements, additional thickness measurements are to be taken in accordance with Table B5.9. 3 <u>At Special Surveys for oil tankers and ships carrying dangerous chemicals in bulk with integral tanks, notwithstanding the provision of -2 above, thickness measurements are to be carried out according to -1 for structural members listed in Table B5.10-1, and tanks and spaces identified as suspect areas at previous surveys. Stainless steel hull structure and piping except for clad steel may be exempted from thickness measurements where deemed appropriate by the Society. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Tables B5.11 through B5.14.</u> 4 <u>At Special Surveys for ships carrying liquefied gases in bulk, notwithstanding to the provision of -2 above, a thickness measurement is to be carried out for structural members and so forth listed in Table B5.10-2 according to -1 above. Where substantial corrosion is found in the results of such thickness measurements, the thickness measurement is to be expanded to all the structural members listed in the Table B5.9, of which the sub-title corresponds to substantially corroded members. For ships having independent tanks of type C, with a midship section similar to that of a general cargo ship, the extent of thickness measurements may be increased to include the tank top plating at the discretion of the Surveyor.</u> 5 <u>At Special Surveys for Bulk Carriers, notwithstanding the provision of -2 above, thickness measurements are to be carried out according to -1 above for structural members listed</u>	7, Part B of the Guidance Revised expressions. Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text as stainless steel is basically used only in ships carrying dangerous chemicals in bulk Revised expressions. Revised expressions.

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tanks and spaces identified as suspect areas at previous surveys. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Tables B5.16 through Table B5.20. In addition to the above, for bulk carriers built under Part CSR-B or Part CSR-B&T, identified substantial corrosion areas are to be in accordance with either the following (1) or (2): ((1) and (2) are omitted.) 6 For general dry cargo ships of not less than 500 <i>gross tonnage</i>, notwithstanding the provision of -2 above, thickness measurements are to be carried out according to -1 above for structural members listed in Table B5.21. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Table B5.9. 7 For double hull oil tankers built under Part CSR-T or Part CSR-B&T and bulk carriers built under Part CSR-B or Part CSR-B&T, thickness measurements are to be carried out in accordance with (1) through (3) below in addition to provisions -3 and -5 above. ((1) to (3) are omitted.) 8 The ship's longitudinal strength is to be evaluated, <u>as specified otherwise by the Society</u>, by using the thickness of structural members measured in <u>the</u> transverse sections specified in Table B5.8, Table B5.10, Table B5.15 and Table B5.21. 5.2.7 Pressure Tests* 1 A pressure test of tanks is to be carried out according to (1) through (3) below. (1) <u>The testing pressure is to be determined as follows:</u>	in Table B5.15 and tanks and spaces identified as suspect areas at previous surveys. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Tables B5.16 through Table B5.20. In addition to the above, for bulk carriers built under Part CSR-B or Part CSR-B&T, identified substantial corrosion areas are to be in accordance with either the following (1) or (2): ((1) and (2) are omitted.) 6 <u>At Special Surveys</u> for general dry cargo ships of not less than 500 <i>gross tonnage</i>, notwithstanding the provision of -2 above, thickness measurements are to be carried out according to -1 above for structural members listed in Table B5.21. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Table B5.9. 7 <u>At Special Surveys</u> for double hull oil tankers built under Part CSR-T or Part CSR-B&T and bulk carriers built under Part CSR-B or Part CSR-B&T, thickness measurements are to be carried out in accordance with (1) through (3) below in addition to provisions -3 and -5 above. ((1) to (3) are omitted.) 8 The ship's longitudinal strength is to be evaluated by using the thickness of structural members measured in transverse sections specified in Table B5.8, Table B5.10, Table B5.15 and Table B5.21. 5.2.7 Pressure Tests* 1 <u>At Special Surveys</u>, a pressure test of tanks is to be carried out according to (1) through (3) below. (1) <u>A pressure test is to be carried out under the pressure</u>	Revised expressions. Revised expressions. Revised expressions.

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((a) and (b) are omitted.) ((2) is omitted.) (3) At Special Surveys for ships having many water tanks and oil tanks, some of the tanks may be exempted from a pressure test where deemed appropriate by the Surveyor taking into account the ship's present condition, age and interval from the previous test. <u>Furthermore, bilge, sludge and other similar tanks are to comply with the requirements for fresh water tanks.</u> ((4) is omitted.) (5) <u>Pressure tests of air pipes, sounding pipes, and other pipes may be required where deemed necessary by the Surveyor as a result of examinations.</u> 2 For cargo ships, a pressure test is to be carried out according to -1 above for tanks listed in Table B5.22. 3 For oil tankers and ships carrying dangerous chemicals in bulk with integral tanks, notwithstanding the provisions of -2 above, a pressure test is to be carried out for tanks listed in Table B5.23-1. With respect to the pressure tests for the cargo tanks of tankers and ships carrying dangerous chemicals in bulk, when pressure tests are conducted in the presence of the Master or any other representative personnel of the ship, such pressure tests may be regarded as the pressure tests required for Special Surveys at the discretion of the Surveyor provided the following (1) to (6) conditions are complied with. For pressure tests conducted in the presence of the master or any other representative personnel, guidance is specified in Annex 5.2.7. For double hull oil tankers and ships carrying dangerous chemicals in bulk with integral tanks, any testing of double bottom tanks and other watertight compartments not designed to carry liquids may be omitted, provided that satisfactory	<u>specified below:</u> ((a) and (b) are omitted.) ((2) is omitted.) (3) At Special Surveys for ships having many water tanks and oil tanks, some of the tanks may be exempted from a pressure test where deemed appropriate by the Surveyor taking into account the ship's present condition, age and interval from the previous test. ((4) is omitted.) 2 <u>At Special Surveys</u>, for cargo ships, a pressure test is to be carried out according to -1 above for tanks listed in Table B5.22. 3 <u>At Special Surveys</u>, for oil tankers and ships carrying dangerous chemicals in bulk with integral tanks, notwithstanding the provisions of -2 above, a pressure test is to be carried out for tanks listed in Table B5.23-1. With respect to the pressure tests for the cargo tanks of tankers and ships carrying dangerous chemicals in bulk, when pressure tests are conducted in the presence of the Master or any other representative personnel of the ship, such pressure tests may be regarded as the pressure tests required for Special Surveys at the discretion of the Surveyor provided the following (1) to (6) conditions are complied with. For pressure tests conducted in the presence of the master or any other representative personnel, guidance is specified in Annex 5.2.7. For double hull oil tankers and ships carrying dangerous chemicals in bulk with integral tanks, any testing of double bottom tanks and other watertight compartments not designed to carry	(3) Transferred from B5.2.7-1, Part B of the Guidance (5) Transferred from B5.2.7-2, Part B of the Guidance Revised expressions. Revised expressions.

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internal and/or external examinations are carried out. ((1) to (6) are omitted.) 4 For ships carrying liquefied gases in bulk, notwithstanding the provision of -2 above, a pressure test is to be carried out for tanks listed in Table B5.23-2. 5 For bulk carriers and dry cargo ships of not less than 500 <i>gross tonnage</i>, notwithstanding the provisions of -2 above, a pressure test is to be carried out according to -1 above for tanks listed in Table B5.24. For bulk carriers, any testing of double bottom tanks and other watertight compartments not designed to carry liquids may be omitted, provided that satisfactory internal and/or external examinations are carried out. 5.3 Special Surveys for Machinery 5.3.1 General Examinations For Machinery, in addition to the general examination and inspections specified in 3.3.1, the verification runs specified in 1.1.9-1 and -3, and the surveys specified in Table B5.25 are to be carried out. 5.3.2 Performance Tests and Pressure Tests For Machinery, in addition to the performance tests specified in 3.3.2, the performance tests specified in Table B5.26 are to be carried out. 5.3.4 Surveys of Water Jet Propulsion Systems, etc. 1 For ships fitted with water jet propulsion systems, in addition to the surveys specified in 3.3.4-1, the surveys are to	liquids may be omitted, provided that satisfactory internal and/or external examinations are carried out. ((1) to (6) are omitted.) 4 <u>At Special Surveys</u>, for ships carrying liquefied gases in bulk, notwithstanding the provision of -2 above, a pressure test is to be carried out for tanks listed in Table B5.23-2. 5 <u>At Special Surveys</u>, for bulk carriers and dry cargo ships of not less than 500 <i>gross tonnage</i>, notwithstanding the provisions of -2 above, a pressure test is to be carried out according to -1 above for tanks listed in Table B5.24. For bulk carriers, any testing of double bottom tanks and other watertight compartments not designed to carry liquids may be omitted, provided that satisfactory internal and/or external examinations are carried out. 5.3 Special Surveys for Machinery 5.3.1 General Examinations* <u>At Special Surveys</u> for Machinery, in addition to the general examination and inspections specified in 3.3.1, the verification runs specified in 1.1.9-1 and -3, and the surveys specified in Table B5.25 are to be carried out. 5.3.2 Performance Tests and Pressure Tests* <u>At Special Surveys</u> for Machinery, in addition to the performance tests specified in 3.3.2, the performance tests specified in Table B5.26 are to be carried out. 5.3.4 Surveys of Water Jet Propulsion Systems, etc. 1 For ships fitted with water jet propulsion systems, in addition to the surveys specified in 3.3.4-1, the surveys are to	Revised expressions. Revised expressions. Revised expressions. Revised expressions. Revised expressions. Alignment of Japanese and English versions of

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Amended	Original	Remarks
be carried out in accordance with the following (1) to (5): ((1) and (4) are omitted.) (5) Sea water piping for <u>cooling</u> is to be examined. 5.4 Special Requirements for Ships Carrying Liquefied Gases in Bulk 5.4.1 General In addition to the requirements of 5.2 and 5.3, the requirements of 5.4 apply to ships carrying liquefied gases in bulk. 5.4.2 Examinations* For ships carrying liquefied gases in bulk, <u>the items specified in Table B5.27 are to be examined to verify they are in good order, in addition to examinations required by 4.4.2. Where deemed necessary by the Surveyor, additional performance tests, operation tests or open-up examinations may be required.</u>	be carried out in accordance with the following (1) to (5): ((1) and (4) are omitted.) (5) Sea water piping for <u>lubrication</u> is to be examined. 5.4 Special Requirements for Ships Carrying Liquefied Gases in Bulk 5.4.1 General In addition to the requirements of 5.2 and 5.3, the requirements of 5.4 apply to <u>Special Surveys of</u> ships carrying liquefied gases in bulk. 5.4.2 Examinations* <u>At Special Surveys</u> for ships carrying liquefied gases in bulk, <u>examinations specified in 4.4.2 and examinations of spaces, structures and equipment specified in Table B5.27 are to be carried out.</u>	the Rules: Revised wording to be consistent with Japanese text since “sea water cooling piping” is listed as a drawing to be submitted for water jet propulsion systems in 19.1.3(14), Part D of the Rules. Revised expressions. Revised expressions. Standardised wording as follows: 3.4.2, 3.5.2, 3.6.2, 4.4.2, 4.5.2, 4.6.2, 5.4.2, 5.5.2, 5.6.2

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Amended	Original	Remarks
5.5 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk 5.5.2 Examinations* For ships carrying dangerous chemicals in bulk, the <u>items specified in Table B5.28 are to be examined to verify they are in good order, in addition to the examinations required by 4.5.2. Where deemed necessary by the Surveyor, additional performance tests, operation tests or open-up examinations may be required.</u> 5.6 Special Requirements for Ships Using Low-flashpoint Fuels 5.6.1 General* 1 In addition to the applicable requirements of previous sections, the requirements of 5.6 are to be applied at Special Surveys of ships using low-flashpoint fuels. 2 <u>The requirements of 5.6 need not be applied to ships examined in accordance with 5.4.</u> 5.6.2 Examinations* For ships using low-flashpoint fuels, the <u>items specified in Table B5.29 are to be examined to verify they are in good order, in addition to the examinations required by 4.6.2. Where deemed necessary by the Surveyor, additional performance tests, operation tests or open-up examinations may be required.</u>	5.5 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk 5.5.2 Examinations* At <u>Special Surveys</u> for ships carrying dangerous chemicals in bulk, <u>examinations specified in 4.5.2 and examinations of spaces, structures and equipment specified in Table B5.28 are to be carried out.</u> 5.6 Special Requirements for Ships Using Low-flashpoint Fuels 5.6.1 General* In addition to the applicable requirements of previous sections, the requirements of 5.6 are to be applied at Special Surveys of ships using low-flashpoint fuels. (Moved) 5.6.2 Examinations* At <u>Special Surveys of ships using low-flashpoint fuels</u>, the <u>examinations specified in Table B5.29 are to be carried out thoroughly in order to ascertain them being in good order, in addition to the examinations specified in 4.6.2.</u>	Revised expressions. Standardised wording as follows: 3.4.2, 3.5.2, 3.6.2, 4.4.2, 4.5.2, 4.6.2, 5.4.2, 5.5.2, 5.6.2 Renumbered Transferred from B5.6.1, Part B of the Guidance Revised expressions. Standardised wording as follows: 3.4.2, 3.5.2, 3.6.2, 4.4.2, 4.5.2, 4.6.2, 5.4.2, 5.5.2, 5.6.2

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Amended	Original	Remarks
5.8 Special Requirements for Ships Affixed with the Notation “HCM” or “HCM-GBS” 5.8.1 General In addition to the requirements of 5.2 and 5.3, the requirements of 5.8 apply to the <u>Special</u> Surveys of ships affixed with the notation “HCM” or “HCM-GBS”. 5.9 Special Requirements for Ships Affixed with the Notation “CybR” 5.9.1 General In addition to the requirements of 5.2 to 5.3, the requirements of 5.9 apply to ships affixed with the notation “CybR”. 5.9.2 Surveys For ships affixed with the notation “CybR”, examinations specified in 3.9.2 and examinations specified in Table B5.32 are to be carried out in accordance with ship cyber resilience test procedure specified in 2.2.3-4(2), Part X.	5.8 Special Requirements for Ships Affixed with the Notation “HCM” or “HCM-GBS” 5.8.1 General In addition to the requirements of 5.2 and 5.3, the requirements of 5.8 apply to the <u>Annual</u> Surveys of ships affixed with the notation “HCM” or “HCM-GBS”. 5.9 Special Requirements for Ships Affixed with the Notation “CybR” 5.9.1 General In addition to the requirements of 5.2 to 5.3, the requirements of 5.9 apply to <u>the Special Surveys of</u> ships affixed with the notation “CybR”. 5.9.2 Surveys <u>At Special Surveys of</u> ships affixed with the notation “CybR”, examinations specified in 3.9.2 and examinations specified in Table B5.32 are to be carried out in accordance with ship cyber resilience test procedure specified in 2.2.3-4(2), Part X.	Revised expressions. Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text as the requirements for the Special Surveys are specified in Chapter 5. Revised expressions. Revised expressions.

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Amended		Original	Remarks
Table B5.1 Internal Examinations of Tanks and Spaces ^{*1*2*3}			Note 1 to 3: Renumbered Note 4: Transferred from B5.2.4-4, Part B of the Guidance
Special Survey (1 and 2 are omitted.)	Tanks and spaces subject to examination		
3 Special Survey for ships over 10 years and up to 15 years of age (Special Survey No. 3)	(1) All tanks and spaces (other than cargo tanks of ships carrying liquefied gases in bulk and lubricating oil tanks which are not peak tanks) However, if fuel oil tanks which are not peak tanks have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced. In such cases, internal examinations are to be carried out on the following tanks for at least the designated number of tanks ^{*4} : (a) Fuel oil tanks fitted within engine rooms: 1 tank (b) Fuel oil tanks fitted within cargo length areas (within cargo areas for tankers): 2 tanks (In cases where deep fuel oil tanks are provided, one or more deep fuel oil tanks are to be included.) (c) If no fuel oil tanks are fitted within cargo length areas (within cargo areas for tankers), fuel oil tanks fitted at locations other than engine rooms (if fitted): 1 tank		
4 Special Survey for ships over 15 years of age (Special Survey No. 4 and subsequent Special Surveys)	(1) All tanks and spaces (other than cargo tanks of ships carrying liquefied gases in bulk) However, if fuel oil tanks and lubricating oil tanks which are not peak tanks have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced. In such cases, internal examinations are to be carried out on the following tanks for at least the designated numbers of tanks ^{*4} : (a) Fuel oil tanks fitted within engine room: 1 tank (b) Fuel oil tanks fitted within cargo length areas (for tankers, within cargo areas): half the total number of tank, but not less than 2 tanks. (in cases where deep fuel oil tanks are provided, one or more deep tanks are to be included.) (c) If no fuel oil tanks are fitted within cargo length areas (within cargo areas for tankers), fuel oil tanks fitted at location other than engine rooms (if fitted): 2 tanks (d) Lubricating oil tanks: 1 tank		
Notes: —*1: Ballast tanks (excluding double bottom tanks) where the protective coating is found in poor condition and has not been renewed or where a protective coating has not been applied, internal examinations are to be carried out at annual intervals. For double bottom ballast tanks in this condition, internal examinations are to be carried out at annual intervals where considered necessary by the Surveyor. —*2: For holds insulated for the carriage of refrigerated cargo, limber boards and cover plates are to be removed and an examination of the inside is to be carried out. In addition, an examination behind the insulation is to be carried out at representative locations. The examination may be limited to verification that the protective coating remains effective and that there are no visible structural defects. Where the protective coating is found to be in a poor condition, the examination is to be extended as deemed necessary by the Surveyor.			

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Amended		Original	Remarks
→*3: Ballast tanks converted to void spaces are to be examined in accordance with the provisions for ballast tanks. *4: If a selection of tanks is accepted to be examined, then different tanks are to be selected so as to examine all tanks on a rotational basis.			
Table B5.2 Additional Requirements of Internal Examinations for Tankers and Ships Carrying Dangerous Chemicals in Bulk with integral tanks			
Special Survey	Tanks and spaces subject to examination	Notes	Alignment of Japanese and English versions of the Rules: In Table B5.11, Part B of the Rules, thickness measurements around and under all bell mouths are required. Revised wording to be consistent with Japanese text to align the internal examinations with the measurement locations.
1 All Special Surveys	1 All cargo tanks	(1) For oil tankers, combined cargo/ballast tanks, if any, are to be examined carefully taking account of ballast history and the extent of the corrosion prevention system provided. (2) For oil tankers, condition of the inner surface of the bottom plating of the tank is to be examined carefully in order to ascertain that the there is no excessive pitting of the plating. (3) For oil tankers, bell mouths of the cargo suction pipes are to be removed and the bottom plating of the tank and bulkheads in that vicinity are to be examined as considered necessary by the Surveyor.	
	(2 is omitted.)		

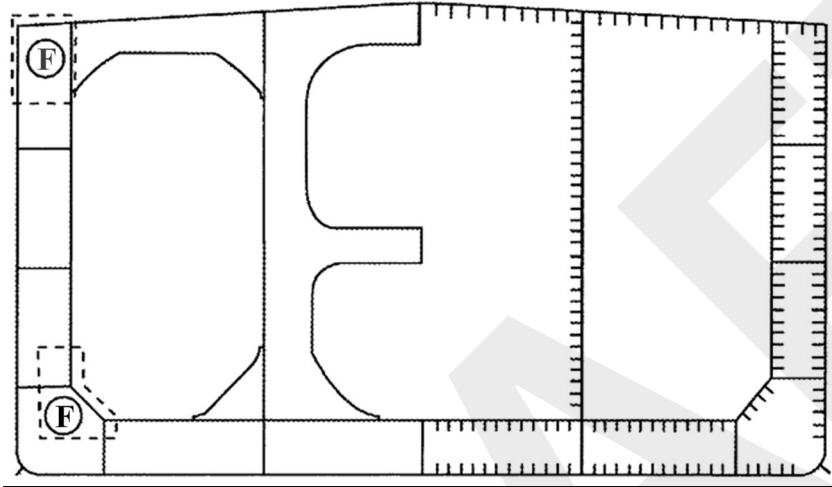
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Amended		Original	Remarks
Table B5.5-1 Requirements of Close-up Surveys for Oil Tankers and Ships Carrying Dangerous Chemicals in Bulk with integral tanks ^{*1}			Renumbered Notes
Special Survey		Structural members subject to the Close-up Survey	Delete (F) Change (G) to (F) Added (See Fig. B5.1)
Requirements for Tankers and Ships Carrying Dangerous Chemicals in bulk without Double Hull Structure			
(1 and 2 are omitted.)			
3 Special Survey for ships over 10 years and up to 15 years of age (Special Survey No.3)	(1) All Web Frames (A) - in all ballast tanks (2) All Web Frames (A) - in a cargo wing tank (3) A minimum of 30% ^{*1*2} of all Web Frames (A) - in each remaining cargo wing tank (only for oil tankers) (4) One Web Frame (A) - in each remaining cargo tank (except for oil tankers) (5) All Transverse Bulkheads (C) - in all cargo and ballast tanks (6) A minimum of 30% ^{*1*2} of all Deck and Bottom Transverses (E) - in each cargo centre tank (only for oil tankers)		
(4 is omitted.)			
Requirements for Tankers and Ships Carrying Dangerous Chemicals in bulk having Double Hull Structure			
1 Special Survey for ships up to 5 years of age (Special Survey No.1)	(1) One Web Frame (A) - in a ballast double hull tank ^{*2*3} (2) One Deck Transverse (B) - in a cargo tank or on deck (3) One Transverse Bulkhead (C) - in a ballast double hull tank ^{*2*3} (4) The lower part of one Transverse Bulkhead (D) - in a cargo wing tank ^{*3*4} (5) The lower part of one Transverse Bulkhead (D) - in a cargo centre tank		
2 Special Survey for ships over 5 years and up to 10 years of age (Special Survey No.2)	(1) All Web Frames (A) - in a ballast double hull tank ^{*2*3} (2) The knuckle area and the top part of one Web Frame (E) - in each remaining ballast tank (3) One Deck Transverse (B) - in or on two cargo tanks (4) One Transverse Bulkhead (C) - in all ballast double hull tanks ^{*2*3} (5) The lower part of one Transverse Bulkhead (D) - in a cargo wing tank ^{*3*4} (6) The lower part of one Transverse Bulkhead (D) - in two cargo centre tanks		
(3 and 4 are omitted.)			

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Amended	Original	Remarks
Notes: <u>*1:</u> Letters in this table mean: (A): Cross ties and complete transverse web frame ring including adjacent structural members such as shell plating, longitudinal bulkheads, longitudinal stiffeners, and brackets (B): Including deck structural members adjacent to deck transverses such as deck plating, longitudinal stiffeners, and brackets (C) and (D): Including vertical and horizontal girders and structural members adjacent to transverse bulkheads such as longitudinal bulkheads, inner bottom plating, hopper plating, bottom girders, brackets, and stiffeners; and internal structure of lower and upper stools, where fitted (E): Including structural members adjacent to deck and bottom transverses such as deck plating, bottom plating, and longitudinal stiffeners (F): Additional complete transverse web frame ring including adjacent structural members listed in A (G)<u>(F)</u>: The knuckle area includes the slope hopper plating and where it connects to the inner hull bulkhead and inner bottom plating; up to 2 <i>meters</i> from the corners along the bulkhead and double bottom; and adjacent structural members The top part includes the top 5 <i>meters</i> (3 <i>meters</i> for ships carrying dangerous chemicals in bulk) of the web frame and adjacent structural members <u>(See Fig.B5.1)</u> <u>*1*2:</u> The 30% is to be rounded up to the next whole integer <u>*2*3:</u> “Ballast double hull tank” means the following, apart from the fore and aft peak tanks: (a): all ballast compartments (hopper tank, side tank and double-deck tank, if separate from double-bottom tank) located on one side, i.e. portside or starboard side, and additionally double-bottom tank on portside plus starboard side, when the longitudinal central girder is not watertight and, therefore, the double bottom tank is a unique compartment from portside to starboard side; or (b): all ballast compartments (double-bottom tank, hopper tank, side tank and double-deck tank) located on one side, i.e. portside or starboard side, when the longitudinal central girder is watertight and, therefore, the portside double-bottom tank separate from the starboard-side double-bottom tank. <u>*3*4:</u> For double hull that have no centre cargo tanks (as in the case of tanks with a centre longitudinal bulkhead), transverse bulkheads in wing tanks are to be surveyed		

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Amended	Original	Remarks
<u>Fig. B5.1 The Knuckle Area and the Top Part of Wing Ballast Tanks of Double Hull</u> 		Transferred from Fig. B5.2.5, Part B of the Guidance

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Amended	Original	Remarks
Table B5.5-2. Requirements of Close-up Surveys for Ships Carrying Liquefied Gases in Bulk ^{*1}		Renumbered Notes
Special Survey	Structural members subject to the Close-up Survey ^{*2}	
1 Special Survey for ships up to 5 years of age (Special Survey No.1)	(1) One web frame in a representative ballast tank of the topside, hopper side and double hull side type (A) (2) Lower part of one transverse bulkhead in a ballast tank ^{*1*3} (C)	
2 Special Survey for ships over 5 years and up to 10 years of age (Special Survey No.2)	(1) All web frames in a ballast tank, which is to be a double hull side tank or a topside tank (If such tanks are not fitted another ballast tank is to be selected. ^{*1*3}) (A) (2) One web frame in each remaining ballast tank (A) (3) One transverse bulkhead in each ballast tank (B)	
(3 is omitted.)		
Notes:		
^{*1} Letters in this table mean: (A): Cross Ties and complete transverse web frame rings including adjacent structural members such as shell plating, longitudinal bulkheads, longitudinal stiffeners, brackets, etc. (B): Including vertical and horizontal girders, adjacent structural members and adjacent longitudinal bulkhead structure (C): Including vertical and horizontal girders and adjacent structural members ^{*1}: One ballast tank can be selected from ballast tanks including peak tanks. ^{*2}: For ships having independent tanks of type C, with a midship section similar to that of a general cargo ship, the extent of close-up surveys may be reduced to a degree that is sufficient to confirm the actual average condition of the structure under the coating at the discretion of the Surveyor. <u>^{*3}: One ballast tank can be selected from ballast tanks including peak tanks.</u>		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Table B5.6-1 Requirements of Close-up Surveys for Bulk Carriers (Excluding Ore Carriers) ^{*1*2}		Renumbered Notes
Special Survey	Structural members subject to Close-up Survey	
Requirements for Bulk Carriers other than Double Skin Bulk Carriers ^{*1*3}		
(1 to 4 are omitted.)		
Requirements for Double Skin Bulk Carriers (excluding Ore Carriers) ^{*4}		
(1 to 4 are omitted.)		
Notes:		
(1) A double side tank of double skin bulk carriers is to be considered as a separate tank even if it is in connection to either the topside tank or the bilge hopper tank. (2)^{*1} Letters in this table mean: (A): Cargo hold transverse frames, or stiffeners (ordinary transverse frames for transverse framing systems or longitudinals for longitudinal framing systems) on side shell or longitudinal bulkhead in double side tanks (B): Transverse web or watertight transverse bulkhead in fore and aft peak, topside, bilge hopper, double side ballast tanks and double bottom tanks including adjacent structural members (C): Including plating and internal structures of lower and upper stools, where fitted (3)^{*2} Close-up Surveys of transverse bulkheads are to be carried out at least at four levels as specified as follows: (i) Immediately above the inner bottom and immediately above the line of gussets (if fitted) and shedders for ships without lower stool. (ii) Immediately above and below the lower stool shelf plate (for those ships fitted with lower stools), and immediately above the line of the shedder plates. (iii) About mid-height of the bulkhead. (iv) Immediately below the upper deck plating and immediately adjacent to the upper wing tank, and immediately below the upper stool shelf plate for those ships fitted with upper stools, or immediately below the topside tanks. ^{*1*3}: For bulk carriers with hybrid cargo hold arrangements, that is, with some cargo holds of single side skin and others of double side skin, the Requirements for Double Skin Bulk Carriers are to apply to cargo holds of double side skin and associated wing spaces. ^{*4} A double side tank of double skin bulk carriers is to be considered as a separate tank even if it is in connection to either the topside tank or the bilge hopper tank.		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks				
Table B5.6-2 Requirements of Close-up Surveys for Ore Carriers^{*1*2} <table><tr><td>Special Survey</td><td>Structural members subject to Close-up Survey</td></tr><tr><td>(1 to 4 are omitted.)</td><td></td></tr></table> Notes: (1)*1: Letters in this table mean: (A): Cross Ties and complete transverse web frame rings including adjacent structural members such as shell plating, longitudinal bulkheads, longitudinal stiffeners, brackets, etc. (B): Including deck structures adjacent to deck transverse such as deck plating, longitudinal stiffeners, brackets, etc. (C) and (D): Including vertical and horizontal girders, and adjacent structural members such as longitudinal bulkheads, inner bottom plating, hopper plating, bottom girders, brackets, stiffeners, etc. (E): Including plating and internal structures of lower and upper stools, where fitted (2)*2: Close-up Surveys of transverse bulkheads are to be carried out at least at four levels as specified as follows: (i): Immediately above the inner bottom and immediately above the line of gussets (if fitted) and shedders for ships without lower stool. (ii): Immediately above and below the lower stool shelf plate (for those ships fitted with lower stools), and immediately above the line of the shedder plates. (iii): About mid-height of the bulkhead. (iv): Immediately below the upper deck plating and immediately adjacent to the upper wing tank, and immediately below the upper stool shelf plate for those ships fitted with upper stools, or immediately below the topside tanks.		Special Survey	Structural members subject to Close-up Survey	(1 to 4 are omitted.)		Added “*1*2” to title Renumbered Notes
Special Survey	Structural members subject to Close-up Survey					
(1 to 4 are omitted.)						
Table B5.7 Requirements of Close-up Surveys for General Dry Cargo Ships of Not less than 500 gross tonnage^{*1} <table><tr><td>Special Survey</td><td>Structural members subject to Close-up Survey</td></tr><tr><td>(1 to 4 are omitted.)</td><td></td></tr></table> Notes: *1: Close-up Surveys of transverse bulkheads are to be carried out at least at three levels as specified as follows: - (1) Immediately above the inner bottom and immediately above the tween decks, as applicable. - (2) Mid-height of the bulkheads for holds without tween decks. - (3) Immediately below the upper deck plating and tween deck plating.		Special Survey	Structural members subject to Close-up Survey	(1 to 4 are omitted.)		Renumbered Notes
Special Survey	Structural members subject to Close-up Survey					
(1 to 4 are omitted.)						

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Table B5.23-1 Requirements of Pressure Tests for Oil Tankers and Ships Carrying Dangerous Chemicals in Bulk with integral tanks ^{*1}		Note 1: Transferred from B5.2.7-3, Part B of the Guidance
Special Survey (1 to 3 are omitted.)	Tanks subject to pressure tests	
Notes: ^{*1} <u>In oil tankers, all bulkheads which form the boundaries of each cargo tank are to be tested with pressure from either side without fail at Special Survey No. 2 and subsequent Special Surveys.</u>		
Table B5.25 Additional Requirements at Special Surveys for Machinery		
Items	Examinations	Note 1: Transferred from B5.2.2-4, Part B of the Guidance Note 2: Transferred from B5.3.1-1, Part B of the Guidance Note 3: Transferred from B5.3.1-2, Part B of the Guidance
(1 is omitted.)		
2 Electrical installations ^{*1}	(1) The switchboards (including those for emergency), distribution boards, cables, etc. are, as far as practicable, to be generally examined. (2) Insulation resistance of the generators and switchboards (the both including those for emergency use), the motors and the cables; the main circuits of control gears for electric propulsion motors and semiconductor converters for propulsion of electric propulsion ships are to be tested to ensure that they are placed in good order, and to be adjusted if it is found not to comply with the requirements 2.18.1, Part H. However, where a proper record of measurement is maintained and deemed appropriate by the Surveyor, consideration may be given to accepting recent readings.	
3 Refrigerating machinery	(1) Safety devices are to be generally examined to ascertain that they are placed in good order. ^{*2} (2) The machinery is to be examined while in operation to ascertain that there is no leakage of refrigerant.	
(4 is omitted.)		
Requirements for Tankers		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
1	Electrical installations in hazardous areas ^{*3}	(1) Electrical installations in hazardous areas are to be examined in detail and confirmation that they conform to the requirements in 4.2.7, Part H is to be carried out. In addition, confirmation that the installations are in good order is to be made by measuring the insulation resistance. However, this measurement may be omitted at the discretion of the Surveyor, if accurate measurement records of the insulation resistance can be verified. (2) Performance tests of interlock devices associated with pressurized protected type electrical equipment and electrical equipment installed in pressurized or ventilated areas are to be carried out.	
<u>Notes:</u> *1 The conditions of accumulator battery systems are to be examined in detail with measuring the insulation resistance of main circuit of accumulator battery systems and associated equipment. In addition, it is to be confirmed that the maintenance, management, etc. of such systems are properly carried out in accordance with 1.2.8, Annex 2.11.1-2, Part H of the Rules for ships equipped with accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules is applied. *2 Where controlled atmosphere systems are installed onboard², the general examination of safety devices for refrigerating machinery is to be conducted on the gas freeing equipment, and control, alarm and monitoring equipment of the controlled atmosphere systems. *3 The wording “hazardous areas” refers to the hazardous areas specified in 4.2.3-1, -4 and -5, Part H of the Rules.			

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
Table B5.26 Additional Requirements at Special Surveys			
Items	Examinations		
(1 is omitted.)			Note 1: Transferred from B5.3.2-1, Part B of the Guidance
2 Condensers, evaporators, and receivers	(1) For those that use NH_3 (R717) as the refrigerant, the parts exposed to the primary refrigerant are to be tested at a pressure of 90% of the design pressure (the pressure may be reduced down to 90% of the setting pressure of the relief valves). However, the pressure test may be replaced by other means as deemed appropriate by the Society.*1		Note 2: Transferred from B5.3.2-2, Part B of the Guidance
3 All other piped machinery and parts not specified in - 2 above	(1) Pressure tests are to be handled in accordance with the requirements of item 2, Table B2.8 where deemed necessary by the Surveyor.*2		Note 3: Transferred from B5.3.2-4 and B5.3.2-5, Part B of the Guidance
(4 is omitted.)			
5 Electric generator sets, etc.	(1) Performance tests of electric generator sets and important auxiliaries are to be carried out.*3		
Notes:			
*1 “As deemed appropriate by the Society” refers to conditions that satisfy the criteria below. “Other means” refers to non-destructive inspections such as ultrasonic tests which can detect cracks of at least 5 mm in length on the inside of vessels.			
(1) Straight flange parts (skirt parts) of receivers are to have been hot formed.			
(2) As installed, straight flange parts are to have adequate surface area for an ultrasonic angle beam test.			
*2 “Where deemed necessary by the Surveyor” refers to the following.			
(1) For parts exposed to pressure, where wastage such as corrosion or abrasion that affect the strength of those parts is found.			
(2) For boilers, pressure vessels or main steam piping, where the condition of internal wastage is impossible to be checked.			
*3 The “Performance tests of electric generator sets and important auxiliaries” are to verify the following for the electric generator sets specified in 3.2.1-3, Part H of the Rules. In this case, The “electric generating sets specified in 3.2.1-3, Part H of the Rules” refer to the application of 6.2.11-1 and -3, Part H of the Rules for the ships specified in 6.1.1, Part H of the Rules.			
(1) Where only one electric generating set is normally used, the standby generator, air circuit breakers, and important auxiliary machinery start up automatically when the main source of electrical power is stopped by tripping a circuit breaker.			
(2) Where two electric generating sets are normally used, preference tripping of unnecessary loads is performed when the circuit breaker of one of the sets is tripped.			

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
Table B5.27 Special Requirements for Ships Carrying Liquefied Gases in Bulk			
Items	Examinations		
1 Cargo tanks	(1) The following examinations are to be carried out ^{*1}: (a) An internal examination of all cargo tanks (b) A visual examination of insulation^{*2} or cargo tank surface (if insulation is not fitted) Special attention is to be paid to chocks, supports, keys and other parts of the tank foundations. Removal of insulation may be required where deemed necessary by the Surveyor. (c) Thickness measurements for cargo tank plate (where deemed necessary by the Surveyor) (d) Non-destructive test for independent tank of Type <i>B</i> in accordance with the approved program This program is to be prepared according to the cargo tank design. Cargo tanks other than independent tanks of Type <i>B</i> are to be examined by non-destructive tests on welded connections of the tank shell, main structural members and other parts liable to bear high stress^{*3}, <u>as deemed necessary by the Surveyor</u>. However, non-destructive testing for independent tanks of Type <i>C</i> cannot be dispensed with totally. (e) Leak tests of all cargo tanks However, the leak test of independent tanks below deck may be omitted, if it is verified by the log book or other proper means that gas detecting devices are in normal condition and no leak is recorded. (2) Where there is any doubt on the integrity of any of the cargo tanks as a result of the examinations (1)(a) through (e), the tank is to be tested under the pressures specified below. (a) For independent tanks of Type <i>C</i>: Not less than 1.25 times maximum allowable design pressure (hereinafter referred to as <i>MARVS</i>) of pressure relief valves (b) For independent tanks of Type <i>A</i> and <i>B</i> and integral tanks: Appropriate pressure according to the cargo tank design (3) For independent tanks of Type <i>C</i>, either of the following tests (a) or (b) is to be carried out at every second Special Survey in addition to examinations (1)(a) through (e). (a) Tests at a pressure 1.25 times <i>MARVS</i>, and thereafter, the non-destructive test stipulated in (1)(d) (b) Non-destructive test according to the program prepared for the cargo tank design^{*4}		1(1)(d): Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text in accordance with the requirements of IACS UR Z16. “8 Stability Instrument”: Transferred from B5.4.2-3, Part B of the Guidance Note 5: Transferred from B5.4.2-1, Part B of the Guidance Note 10: Transferred from B5.4.2-2, Part B of the Guidance Renumbered Notes
2 Hold spaces and secondary barriers	(1) Tank supporting and surrounding hull structures in hold spaces, secondary barriers and their insulation are to be visually examined. (2) For membrane containment systems, it is to be verified that secondary barriers keep a specific level of tightness required in the system design in accordance with programs and acceptance criteria approved in advance^{*5}. However, low differential pressure tests are not to be considered an acceptable test for the tightness of secondary barriers. For membrane containment systems with glued secondary barriers, if the verification results do not satisfy the approved acceptance criteria, an investigation is to be carried out and additional testing such as thermographic or acoustic emissions testing is to be carried out. (3) For other cargo containment systems, in cases where there is any doubt about integrity of secondary barriers, the integrity is to be verified by pressure or vacuum test or other proper means.^{*5*6}		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
3	Venting system for cargo tanks	(1) Pressure relief valves for cargo tanks are to be overhauled, readjusted, performance-tested and sealed. ^{6*7} Pressure/vacuum relief devices and associated safety systems for interbarrier spaces and hold spaces are to be examined, overhauled and tested depending on their design. ^{6*7}	
	(4 is omitted.)		
5	Cargo handling equipment	(1) Examinations and tests (a) through (c) are to be carried out. (a) Cargo pumps, cargo gas compressors and gas blowers, and their prime movers are to be overhauled and performance tests for safety devices are to be carried out. Overhaul of electric motors as prime movers may be dispensed with. ^{7*8} (b) Heat exchangers, pressure vessels and evaporators are to be overhauled and pressure relief valves are to be performance tested. If an internal examination of vessels is impracticable, a pressure test of vessels and a performance test of pressure relief valves are to be carried out. ^{7*8} (c) The following tests i) through iii) are to be carried out for refrigerating equipment. i) Overhaul of pumps and compressors and performance tests of pressure vessels such as condensers, evaporators, inter-coolers, oil separators and relief valves ^{7*8} ii) Leak test of pressure vessels and heat exchangers at a pressure of not less than 90% of the set pressure of relief valves iii) Leak test of refrigerant piping system at a pressure of not less than 90% of set pressure of relief valves (d) Gas combustion units (GCUs) are to be overhauled.	
6	Emergency shutdown devices	(1) For emergency shutdown valves, open-up examinations and leakage testing of valve seats are to be carried out. ^{6*8*7 *9}	
7	Electrical installations in hazardous areas ^{9*10}	(1) Examinations for tankers of Table B5.25 are to be carried out.	
8	Stability Instrument	(1) Functional tests are to be carried out on stability instruments fitted in accordance with the requirements of Chapter 4, Part B of <i>IMO resolution MSC.267(85) "International Code on Intact Stability, 2008 (2008 IS Code)"</i> .	

Amended-Original Requirements Comparison Table

(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Notes: (*1) For membrane and semi-membrane tanks and internal insulation tanks, examination and testing are to be carried out in accordance with programs specially prepared according to approved methods for each tank system. (*2) If visual examination of the insulation of tanks is impossible, the surrounding structural members are to be examined for cold spots when the cargo tanks are cooled. However, where integrity of cargo tanks and their insulation is verified by the cargo log book, the examination of cold spots may be omitted. (*3) Parts liable to bear high stress: - cargo tank supports and anti-rolling / anti-pitching devices - web frames or stiffening rings - swash bulkhead boundaries - dome and sump connections to tank shell - foundations for pumps, towers, ladders, etc. - pipe connections (*4) If an approved non-destructive test program does not exist, then a non-destructive test of at least 10 % of the length of the welded connections in each of the highly stressed areas below is to be conducted. This test is to be carried out from both inside and outside of the tank as appropriate and insulation is to be removed, as necessary. - cargo tank supports and anti-rolling / anti-pitching devices - stiffening rings - Y-connections between tank shell and a longitudinal bulkhead of bilobe tanks - swash bulkhead boundaries - dome and sump connections to tank shell - foundations for pumps, towers, ladders, etc. - pipe connections <u>*5 The wording “programs and acceptance criteria approved in advance” refers to the programs and acceptance criteria prepared by cargo containment systems’ designers and approved by the Society in accordance with the provisions of 4.6.2(4), Part N of the Rules.</u> (*56) Appropriate pressure or vacuum tests and examination for cold spots are to be carried out. However, where integrity of insulation is verified by the log book, examination for cold spots may be omitted. (*67) For valves, of which continuous open-up examinations and operation tests have been carried out in the presence of a Surveyor after the previous Special Survey and whose test records are confirmed, open-up examinations may be replaced by visual examinations to the extent that such visual examinations are feasible. (*78) Equipment that has the open inspection at Planned Machinery Surveys need only be visually examined at Special Surveys. (*89) In cases where the conditions of valve bodies and valve seats can be checked without removing their valve casings from the fitted piping, internal confirmatory examinations may be regarded as open-up examinations. In cases where the condition of the valve is confirmed to be good during such examinations, leakage testing may be omitted. <u>*10 The wording “hazardous areas” refers to the hazardous areas specified in 4.2.3-3, -4 and -5, Part H of the Rules as well as in 1.1.5(23), Part N of the Rules.</u>		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Table B5.28 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk		
Items	Examinations	
(1 to 3 are omitted.)		
4 Cargo pumps	(1) Main parts of cargo pumps are to be opened up and examined.*1	
5 Electrical installations in hazardous areas*2	(1) Examinations specified for tankers in item 2 of Table B5.25 are to be carried out.	
6 Stability instrument	(1) With respect to the functional tests, reference is to be made to the requirements related to renewal surveys specified in Chapter 4, Part B of IMO resolution MSC.267(85) “International Code on Intact Stability, 2008 (2008 IS Code)”.	
Notes:		
{*1} Equipment that has the open inspection at Planned Machinery Surveys need only be visually examined at Special Surveys.		
*2 The wording “hazardous areas” refers to the hazardous areas specified in 4.2.3-2, -4 and -5, Part H of the Rules.		
Table B5.29 Special Requirements for Ships Using Low-flashpoint Fuels		
Items	Examinations	
(1 is omitted.)		
2 Tank support arrangements, tank fixing arrangements, etc.	(1) Tank support arrangements, anti-rolling or anti-pitching devices, and surrounding hull structures and their thermal insulation are to be visually examined. Non-destructive testing may be required if conditions raise doubt to the structural integrity. (2) For membrane tanks, it is to be verified that the gas-tightness of secondary barriers is kept on the level of tightness required for system design in accordance with the programme and acceptance criteria approved in advance*5. Low differential pressure testing, however, is not to be adopted for testing the tightness of secondary barriers. For glued secondary barriers, if the verification results do not satisfy the required level of gas-tightness, an investigation is to be carried out to analyse the causes of failure, and additional testing such as thermographic or acoustic emission testing is to be carried out taking into account the analysis.s(3) For other secondary barriers, gas-tightness is to be verified by pressure or vacuum testing or other proper means in cases where there is any doubt.*5*6	Notes 7 and8: Alignment of Japanese and English versions of the Rules: (Added “as far as possible”) Revised wording to be consistent with Japanese text in accordance with the requirements of IACS UR Z25.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
3	Venting systems for fuel contain- ment systems	(1) The pressure relief valves for the fuel storage tanks are to be opened for examination, adjusted, function tested and sealed.^{*6*7} If the tanks are equipped with relief valves with non-metallic membranes in the main or pilot valves, such non-metallic membranes are to be replaced. (2) The pressure/vacuum relief valves, rupture disc and other pressure relief devices for interbarrier spaces and fuel storage hold spaces are to be opened, examined, tested and readjusted as necessary, depending on their design.^{*7*8} (3) The vacuum protection systems for fuel storage tanks are to be overhauled and tested appropriately for the design.^{*8*9}	
	(4 is omitted.)		
5	Components of bunkering systems, fuel containment systems, gas consumers and fuel supply systems for low-flashpoint fuels ^{*10}	(1) The following examinations and testing are to be carried out. (a) Fuel pumps and fuel compressors as well as their prime movers are to be overhauled, and performance testing of safety devices is to be carried out. Overhauling of electric motors for prime movers, however, may be omitted.^{*9*10} (b) Heat exchangers, pressure vessels, including process pressure vessels, evaporators and other components used in connection with fuel handling are to be overhauled. Pressure relief systems are to be performance tested. If an internal examination of the pressure vessels, including process pressure vessels, is impracticable, pressure testing of the vessels and performance testing of pressure relief systems are to be carried out.^{*9*10} (c) The examinations specified in the following i) to iii) are to be carried out for refrigerating equipment. i) Overhauling of pumps and compressors and performance testing of pressure vessels such as condensers, evaporators, inter-coolers and oil separators and the relief systems^{*9*10} ii) Leakage testing of pressure vessels and heat exchangers at a pressure not less than 90% of the setting pressure of their relief systems iii) Leakage testing of refrigerant piping systems at a pressure of not less than 90% of the setting pressure of their relief systems (d) General examinations of inert gas generators are to be carried out. (e) Gas combustion units (GCUs) are to be overhauled.	

Amended-Original Requirements Comparison Table

(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
6	Electrical installations	(1) The following examinations and testing are to be carried out.*11 (a) Examination of electrical equipment to include the physical condition of electrical cables and supports, intrinsically safe, explosion proof, or increased safety features of electrical equipment. (b) Testing of systems for de-energizing electrical equipment which is not certified for use in hazardous areas. (c) An electrical insulation resistance test of the circuits terminating in, or passing through, the hazardous zones and spaces is to be carried out. However, this test may be omitted at the discretion of the Surveyor, if accurate test records of the insulation resistance can be verified. (d) The earthing between fuel storage tanks or fuel piping systems (fuel pipes, vent pipes, etc.) and hull structures is to be examined. (e) Electrical installations in hazardous areas are to be examined in detail and confirmation that they conform to the requirements in 4.2.7, Part H is to be carried out. (f) Performance tests of interlock devices associated with pressurized protected type electrical equipment and electrical equipment installed in pressurized or ventilated areas are to be carried out. In addition, functional testing of pressurized equipment and associated alarms is to be carried out.	
	(7 is omitted.)		
Notes: (*)1 For membrane tanks, examinations and testing are to be carried out in accordance with a programme specially prepared according to methods approved for each tank system. (*)2 If visual examinations of the thermal insulation of tanks are impossible, their surrounding structural members are to be examined for cold spots when the fuel storage tanks are cooled. Where the integrity of fuel storage tanks and their thermal insulation is verified by checking the bunker delivery note for the low-flashpoint fuel delivered, however, the examinations of cold spots may be omitted. (*)3 For type C tanks, non-destructive testing is not to be totally dispensed with. Parts where high stress is deemed likely to occur: - fuel storage tank supports and anti-rolling/anti-pitching devices - web frames or stiffening rings - swash bulkhead boundaries - dome and sump connections to tank shell - foundations for fuel pumps, towers or ladders, etc. - pipe connections (*)4 If an approved non-destructive testing programme does not exist, non-destructive testing of at least 10% of the length of the welded connections in each highly stressed area given below is to be conducted. This testing is to be carried out from both inside and outside of the tank, as appropriate, with thermal insulation removed, as necessary. - fuel storage tank supports and anti-rolling/anti-pitching devices - stiffening rings - Y-connections between tank plates and longitudinal bulkheads of bilobe tanks			

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
- swash bulkhead boundaries - dome and sump connections to the tank shell - foundations for fuel pumps, towers or ladders, etc. - pipe connections <u>*5 The phrase “programme and acceptance criteria approved” means those prepared by fuel containment system designers and approved by the Society.</u> (*)*6 Appropriate pressure or vacuum testing and examinations for cold spots are to be carried out. Where the integrity of thermal insulation is verified by checking the bunker delivery note for the low-flashpoint fuel delivered, however, the examinations for cold spots may be omitted. (*)*7 In cases where it is confirmed through the examination of records that the pressure relief valves have been opened for examination, adjusted, function tested and sealed at an interval not exceeding five <i>years</i>, general examinations of the pressure relief valves need only be carried out <u>as far as possible</u> at Special Surveys. (*)*8 In cases where it is confirmed through the examination of records that the pressure/vacuum relief valves, rupture disc or other pressure relief devices have been opened, examined, tested and readjusted at an interval not exceeding five <i>years</i>, respective general examinations of the pressure/vacuum relief valves, rupture disc or other pressure relief devices need only be carried out <u>as far as possible</u>. (*)*9 For systems whose continuous open-up examinations and performance testing since the previous Special Survey have been carried out in the presence of a Surveyor and whose test records are confirmed, visual examinations to the extent as far as practical may be carried out in lieu of the required testing. (*)*10 For equipment that is overhauled at Planned Machinery Surveys, overhauling at Special Surveys may be replaced by visual examinations to the extent as far as practical. <u>*11 The term “hazardous areas” means the hazardous areas specified in 12.5, Part GF, and 4.2.3-4 and -5, Part H of the Rules.</u>		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Table B5.30 Interpretations of Rule Requirements for the Number and Location of Thickness Measurements for Bulk Carriers Built under Part CSR-B or Part CSR-B&T		
Item	Interpretation	Reference
(1 and 2 are omitted.)		
3 Transverse section	(1) Single side skin construction: A transverse section includes all longitudinal members (i.e., plating, longitudinals and girders, etc.) at the deck, side, bottom; inner bottom and hopper side plating and bottom plating in top wing tanks. (2) Double side skin construction: A transverse section includes all longitudinal members (i.e., plating, longitudinals and girders, etc.) at the deck, sides, bottom, inner bottom, hopper sides, inner sides and top wing inner sides.	Fig. B5.1 Fig B5.2
4 All cargo hold hatch covers and coamings	(1) Including plates and stiffeners	Fig. B5.2 Fig. B5.3
(5 is omitted.)		
6 All deck plating and underdeck structure inside line of hatch openings between cargo hold hatches	(1) «All deck plating» means at least two points on each plate to be taken either at each 1/4 extremity of the plate or at representative areas of average corrosion. “Under deck structure”: at each short longitudinal girder: three points for web plating (fwd/middle/aft), one point for face plate, one point for web plating and one point for face plating of transverse beams in way. At each end of transverse beams, one point for web plating and one point for face plate	Fig. B5.6 Fig. B5.7
7 Selected side shell frames in cargo holds of single side skin construction	(1) Includes side shell frames, upper and lower end attachments and adjacent shell plating. (2) 25% of frames: one out of four frames should preferably be chosen throughout the cargo hold length on each side. (3) 50% of frames: one out of two frames should preferably be chosen throughout the cargo hold length on each side. (4) «Selected frames» means at least 3 frames on each side of cargo holds	Fig. B5.3 Fig. B5.4
8 Transverse frame in double skin tank of double side skin construction	---	Fig. B5.1 Fig. B5.2
9 Transverse bulkheads in cargo holds	(1) Includes bulkhead plating, stiffeners and girders. Also includes internal structures of upper and lower stools, where fitted. Two selected bulkheads: one is to be the bulkhead between the two foremost cargo holds and the second may be chosen in	Fig. B5.4 Fig. B5. 5

Revised reference numbers due to change in figure numbers

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original		Remarks
		another position		
10	One transverse bulkhead in each cargo hold	(1) This means that close-up surveys and related thickness measurements are to be performed on one side of the bulkhead; the side is to be chosen based on the outcome of the overall survey of both sides. In the event of doubt, the Surveyor may also require (possibly partial) close-up surveys on the other side	Fig. B5.4 <u>Fig. B5.5</u>	
11	Transverse bulkheads in one topside, hopper, double bottom ballast tank and side ballast tank (double side skin)	(1) Includes bulkhead and stiffening systems. (2) The ballast tank is to be chosen based on the history of ballasting among those prone to have the most severe conditions	Fig. B5.5 <u>Fig. B5.6</u>	
12	Transverse webs in ballast tanks	(1) Includes web plating, face plates, stiffeners and associated plating and longitudinals. (2) One of representative tanks of each type (i.e. topside or hopper or side tank) is to be chosen for in the forward part	Fig. B5.1 Fig. B5.3 <u>Fig. B5.2</u> <u>Fig. B5.4</u>	

Table B5.31 Interpretations of Rule Requirements for the Number and Location of Thickness Measurements for Double Hull Oil Tankers Built under **Part CSR-T** or **Part CSR-B&T**

Item	Interpretation	Reference
(1 and 2 are omitted.)		
3 Transverse section	(1) Measurements to be taken on all longitudinal members (i.e., plating, longitudinals and girders, etc.) at the deck, side, bottom, longitudinal bulkheads, inner bottom and hopper. One point to be taken on each plate. Both web and flange to be measured on longitudinals, if applicable. (2) For tankers older than 10 years of age: • Within 0.1 D (where D is the ship's moulded depth) of the deck and bottom at each transverse section to be measured, • Every longitudinal and girder is to be measured on webs and face plates • Every plate is to be measured at one point between longitudinals.	Fig. B5.7 <u>Fig. B5.8</u>
4 Transverse rings ^{*1} in cargo and ballast tanks	(1) At least two points on each plate in a staggered pattern and two points on the corresponding flange, where applicable. (2) Minimum 4 points on the first plate below deck. (3) Additional points in way of curved parts. (4) At least one point on each of two stiffeners between stringers / longitudinal	Fig. B5.8 <u>Fig. B5.9</u>

Revised reference numbers due to changes in figure numbers

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original		Remarks
		girders.		
5	Transverse bulkheads in cargo tanks	(1) At least two points on each plate. Minimum 4 points on the first plate below main deck. (2) At least one point on every third stiffener to be taken between each stringer. (3) At least two points on each plate of stringers and girders, and two points on the corresponding flange. (4) Additional points in way of curved parts. (5) Two points of each diaphragm plate of stools (if fitted).	Fig. B5.9 Fig. B5.10	
6	Transverse bulkheads in ballast tanks	(1) At least 4 points on plates between stringers / longitudinal girders, or per plate if stringers / girders are not fitted. (2) At least two points on each plate of stringers and girders, and two points on the corresponding flange. (3) Additional points in way of curved parts. (4) At least one point on two stiffeners between each stringer / longitudinal girder.	Fig. B5.10 Fig B5.11	
7	Adjacent structural members	(1) On adjacent structural members, one point per plate and one point on every third stiffener / longitudinal.		
Notes: (H)*1 "Transverse rings" means all transverse material appearing in a cross-section of the ship's hull in way of a double bottom floor, vertical web and deck transverse				
Fig. B5.2 Example of Locations subject to Thickness Measurements in Transverse Sections (Bulk Carriers) (Omitted)		Fig. B5.1 Example of Locations subject to Thickness Measurements in Transverse Sections (Bulk Carriers) (Omitted)		Renumbered
Fig. B5.3 Example of Locations subject to Thickness Measurements on Hatch Covers and Hatch Coamings (Bulk Carriers) (Omitted)		Fig. B5.2 Example of Locations subject to Thickness Measurements on Hatch Covers and Hatch Coamings (Bulk Carriers) (Omitted)		Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Fig. B5.4 Example of Locations subject to Thickness Measurements in Cargo Holds and Water Ballast Tanks (Omitted)	Fig. B5.3 Example of Locations subject to Thickness Measurements in Cargo Holds and Water Ballast Tanks (Omitted)	Renumbered
Fig. B5.5 Example of Locations subject to Thickness Measurements on Cargo Hold Transverse Bulkheads (Omitted)	Fig. B5.4 Example of Locations subject to Thickness Measurements on Cargo Hold Transverse Bulkheads (Omitted)	Renumbered
Fig. B5.6 Example of Locations subject to Thickness Measurements on Transverse Bulkheads of Topside, Hopper, Double Hull and Double Bottom Tanks (Bulk Carriers) (Omitted)	Fig. B5.5 Example of Locations subject to Thickness Measurements on Transverse Bulkheads of Topside, Hopper, Double Hull and Double Bottom Tanks (Bulk Carriers) (Omitted)	Renumbered
Fig. B5.78 Example of Locations subject to Thickness Measurements in Transverse Sections (Double Hull Oil Tankers) (Omitted)	Fig. B5.78 Example of Locations subject to Thickness Measurements in Transverse Sections (Double Hull Oil Tankers) (Omitted)	Renumbered
Fig. B5.9 Example of Locations subject to Thickness Measurements on Transverse Rings in Cargo and Ballast Tanks (Double Hull Oil Tankers) (Omitted)	Fig. B5.8 Example of Locations subject to Thickness Measurements on Transverse Rings in Cargo and Ballast Tanks (Double Hull Oil Tankers) (Omitted)	Renumbered
Fig. B5.10 Example of Locations subject to Thickness Measurements on Transverse Bulkheads in Cargo Tanks (Double Hull Oil Tankers) (Omitted)	Fig. B5.9 Example of Locations subject to Thickness Measurements on Transverse Bulkheads in Cargo Tanks (Double Hull Oil Tankers) (Omitted)	Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Fig. B5.11 Example of Locations subject to Thickness Measurements on Transverse Bulkhead in Ballast Tanks (Double Hull Oil Tankers) (Omitted) Chapter 6 DOCKING SURVEYS 6.1 Docking Surveys <u>6.1.1 General</u> The details of Docking Surveys specified in 1.1.2 are defined in this chapter. <u>6.1.2 Intervals of Docking Surveys</u> <u>1</u> Docking Surveys are to be carried out as prescribed in (1) and (2) below. (1) Concurrently with Special Surveys (2) Within 36 <i>months</i> from the date of completion of the Classification Survey or the previous Docking Survey <u>2</u> The Docking Survey may be postponed in accordance with the requirements in 1.1.4. <u>3</u> In addition to 1.1.4, Docking Surveys carried out concurrently with Special Surveys may be postponed 3 <i>months</i>, subject to the approval by the Society in advance, in exceptional circumstances such as unavailability of dry-docking facilities, unavailability of repair facilities, unavailability of essential materials, equipment or spare parts, or delays incurred by action taken to avoid severe weather conditions.	Fig. B5.10 Example of Locations subject to Thickness Measurements on Transverse Bulkhead in Ballast Tanks (Double Hull Oil Tankers) (Omitted) Chapter 6 DOCKING SURVEYS 6.1 Docking Surveys (Newly added) (Newly added) (Newly added) (Moved) (Newly added) (Moved)	Renumbered Transferred from 1.1.3-1(4), Part B of the Rules Transferred from 1.1.5-2, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
6.1.3 Surveys in Dry Dock or on Slipway* (Same) (Same) (Same)	6.1.1 Surveys in Dry Dock or on Slipway* 1 At Docking Surveys, examinations listed in Table B6.1 are to be carried out in the dry dock or on the slipway after cleaning the outer shell. 2 For ships fitted water jet propulsion systems, the surveys are to be carried out in accordance with the following (1) to (3): ((1) to (3) are omitted.) 3 For ships fitted with azimuth thrusters, the surveys are to be carried out in accordance with the following (1) and (2): ((1) and (2) are omitted.)	Renumbered
6.1.4 In-water Surveys* 1 In-water Surveys may be accepted in lieu of Surveys in the dry dock or on the slipway subject to prior approval by the Society. In any case, Surveys in the dry dock or on the slipway to be carried out at the times specified in (1) or (2) are not to be replaced with In-water Surveys. (1) Docking Surveys carried out at the times specified in 6.1.2-1(1) for the general dry cargo ships defined in 1.3.1(15), for the ships carrying liquefied gases in bulk defined in 1.3.1(17) and for ships with the class notation “<i>Enhanced Survey Programme</i>” (abbreviated to <i>ESP</i>) (2) Docking Surveys carried out for ships with the class notation “<i>Enhanced Survey Programme</i>” (abbreviated to <i>ESP</i>), all of which are 15 years of age and over (Same)	6.1.2 In-water Surveys* 1 In-water Surveys may be accepted in lieu of Surveys in the dry dock or on the slipway subject to prior approval by the Society. In any case, Surveys in the dry dock or on the slipway to be carried out at the times specified in (1) or (2) are not to be replaced with In-water Surveys. (1) Docking Surveys carried out at the times specified in 1.1.3-1(4)(a) for the general dry cargo ships defined in 1.3.1(15), for the ships carrying liquefied gases in bulk defined in 1.3.1(17) and for ships with the class notation “<i>Enhanced Survey Programme</i>” (abbreviated to <i>ESP</i>) (2) Docking Surveys carried out for ships with the class notation “<i>Enhanced Survey Programme</i>” (abbreviated to <i>ESP</i>), all of which are 15 years of age and over 2 In applying -1 above, consecutive In-water Surveys are not to be accepted in lieu of Surveys in dry dock or on slipway. However, In-water Surveys may be consecutively	Renumbered Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Same)	carried out in lieu of Surveys in dry docks or on slipways for ships other than these specified in the following (1) to (4) subject to the prior approval of the Society and the Administration: ((1) to (4) are omitted.) 3 The following plans and documents are to be included as part of a submission to the Society for approval for conducting In-water Surveys, which is to be obtained prior to commencement.	
(Same)	((1) to (4) are omitted.) 4 Ships intended to be subjected to the In-water Survey are to comply with the following. Where the documents specified in -3(3) above are submitted, special consideration may be given to (1) or (4) below.	
(Same)	((1) to (7) are omitted.) 5 The Surveyor may require internal examinations or dry dock surveys where deemed necessary as a result of the In-water Survey.	
6.1.5 Other Surveys* (Same)	6.1.3 Other Surveys* 1 For ships affixed with the notation “PSCM”, the records of the parameters monitored are to be reviewed, in addition to a general examination, so as to ascertain that relevant installations are well maintained.	Renumbered
2 For ships other than those referred to in -1 above with oil lubricated or freshwater lubricated bearings, it is to be checked as to whether lubricating oil analysis or fresh water sample tests are regularly carried out except for the cases specified in the following -3. In cases where lubricating oil analysis or water sample tests are carried out, it is to be checked as to whether the <u>following</u> reference standards are complied with based upon the lubricating oil analysis or fresh	2 For ships other than those referred to in -1 above with oil lubricated or freshwater lubricated bearings, it is to be checked as to whether lubricating oil analysis or fresh water sample tests are regularly carried out except for the cases specified in the following -3. In cases where lubricating oil analysis or water sample tests are carried out, it is to be checked as to whether the reference standards <u>deemed appropriate by the Society</u> are complied with based upon the	(1) and (2): Transferred from B6.1.3, Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
water sample test reports, in addition to a general examination. <u>(1) those specified in item 11(1)(b) of Table B8.3, Part B of the Rules for oil lubricated shafts; and</u> <u>(2) those specified in item 11(1)(b) of Table B8.4, Part B of the Rules for freshwater lubricated shafts.</u> (Same)	lubricating oil analysis or fresh water sample test reports, in addition to a general examination. 3 Ships in which where vibration measurement systems or Fe-density measurement systems are used instead of temperature sensors and temperature recorders, in the case of azimuth thrusters which use roller bearings as the bearings of propeller shaft Kind 1C, are to comply with the requirements specified in the following (1) and (2). ((1) and (2) are omitted.)	

Table B6.1 Requirements for Docking Surveys

Items	Examinations
(1 is omitted.)	
2 Rudder	(1) The rudder is to be lifted or removed and visible parts of the rudder, rudder pintles, gudgeons, rudder stocks and couplings and stern frame are to be examined. Where applicable, a pressure test of the rudder* ¹ may be required as deemed necessary by the Surveyor. The rudder bearing clearance is to be measured. The rudder may not require lifting or removal provided the Surveyor is satisfied with the condition of the rudder by measurement of the clearance.
(3 to 6 are omitted.)	

Item 7: Alignment of Japanese and English versions of the Rules: (added reference to 14.3.1.1, Part 1, Part C)

Revised wording to be consistent with Japanese text since the required nominal diameter is

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original	Remarks
7	Anchor, anchor chain, ropes, hose pipe, chain locker and cable clenches	(1) At the Docking Surveys carried out at the times specified in 1.1.3-1(4)(a) <u>6.1.2-1.(1)</u> , anchor and anchor chains are to be ranged and all chains and chain related equipment are to be verified and externally examined. In cases where In-water Surveys in lieu of Docking Surveys conducted in dry dock or on slipway may be applied at the times specified in 1.1.3-1(4)(a) <u>6.1.2-1.(1)</u> , anchors and anchor chains may not be required to be ranged and examined at the discretion of the Society provided they were examined (including visual inspection by diver) and found to be in good order. In such cases, anchors and anchor chains should be ranged and all chains and chain related equipment should be verified and externally examined at the next Docking Surveys conducted in dry dock or on slipway. At Special Survey No.2 and subsequent Special Surveys, the diameter of the anchor chain is to be measured. If the mean diameter of a link ^{*2} , at its most worn part, is reduced by 12% or more from its required nominal diameter <u>specified in 14.3.1.1, Part C Part 1 of the Rules</u> , it is to be renewed.	specified in Part C of the Rules. Notes 1 Transferred from B6.1.1-1, Part B of the Guidance Notes 2 Transferred from B6.1.1-2, Part B of the Guidance
8	Tanks and spaces	(1) The internal examination, close-up surveys and thickness measurements (if applicable and not already carried out) are to be carried out as stipulated below. (a) At Docking Surveys in the dry dock or on the slipway carried out in conjunction with Special Surveys or at the times specified in 4.1.14-2. , at least the portions below the light ballast water line of the cargo holds/tanks and water ballast tanks (b) At Docking Surveys carried out at the times specified in 1.1.3-1(2)(b) <u>4.1.2-1.(1)</u> as far as practicable.	
9	Installations for In-water Surveys	(1) With regard to ships having the approval for conducting In-water Surveys based on the requirements in 6.1.24 , Surveyors are to confirm that the means and installations specified in 6.1.24-4 are in good condition.	
<u>Notes:</u> *1 : The pressure test stipulated refers to that specified in item 13 of Table An1.4-1, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules. *2 : “Mean diameter” refers to the average of the smallest diameter (the diameter measured in the direction with the most wear) found in one cross-section of the link and the diameter measured perpendicular to it in the same cross-section.			

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Chapter 7 BOILER SURVEYS 7.1 Boiler Surveys <u>7.1.1 General</u> <u>The details of Annual Surveys specified in 1.1.2 are defined in this chapter.</u> <u>7.1.2 Intervals of Boiler Surveys</u> <u>1 Boiler Surveys are to be carried out as specified in (1) and (2) below. However, for ships where over eight years have elapsed since construction and that have only one main boiler, Boiler Surveys are to be carried out at Annual Surveys, Intermediate Surveys and Special Surveys.</u> <u>(1) Concurrently with Special Surveys</u> <u>(2) Within 36 months from the date of completion of the Classification Survey or the previous Boiler Survey</u> <u>2 The Boiler Surveys may be postponed in accordance with the requirements in 1.1.4.</u> <u>3 In addition to 1.1.4, Boiler Surveys specified in -1(1) and (2) above may be postponed up to 3 months, subject to the approval by the Society in advance, in the following exceptional circumstances: the unavailability of repair facilities; the unavailability of essential materials, equipment or spare parts; or delays incurred by action taken to avoid severe weather conditions.</u> <u>(1) External examination</u> <u>(2) Operation test of the relieving gear of the safety valve or the relief valve</u> <u>(3) Operation tests of safety devices, alarm devices and pressure indicators</u>	Chapter 7 BOILER SURVEYS 7.1 Boiler Surveys (Newly added) (Newly added) (Newly added) (Moved) (Newly added) (Moved)	Transferred from 1.1.3-1(5), Part B of the Rules Transferred from 1.1.5-2, Part B of the Rules (1) to (4): Transferred from B1.1.5(2)(c), Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(4) <u>Review of the following records since the last Boiler Survey</u> <u>(a) Operation</u> <u>(b) Maintenance</u> <u>(c) Repair history</u> <u>(d) Quality control of the feed water or thermal oil</u> 7.1.3 Surveys of Boilers and Thermal Oil Heaters (Same) 7.1.4 Surveys of Steam Generators (Same)	7.1.1 Surveys of Boilers and Thermal Oil Heaters At Boiler Surveys, examinations specified in Table B7.1 are to be carried out for boilers and thermal oil heaters. 7.1.2 Surveys of Steam Generators Steam generators and other pressure vessels with steam accumulated in them are to be handled in accordance with the requirements for boilers.	Renumbered Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks																		
<table><tr><th colspan="2">Table B7.1 Requirements of Boiler Survey</th></tr><tr><th>Items</th><th>Examinations</th></tr><tr><td>1 Pressure parts of boilers</td><td>(1) To be internally examined with the manholes, cleaning holes and inspection holes dismantled. Where considered to be necessary for external examination by the Surveyor, the parts are to be examined to the Surveyor's satisfaction with the insulation around the parts removed.^{(2)*2}</td></tr><tr><td>2 Superheaters, economizers and exhaust gas economizers</td><td>(1) To be examined internally and externally. For exhaust gas economizers of the shell type, all accessible welded joints are to be subject to a visual examination for cracking and non-destructive testing may be requested where deemed necessary by the Surveyor.^{(2)*2}</td></tr><tr><td>3 Combustion parts of boilers and thermal oil heaters^{(1)*1}</td><td>(1) The furnaces, combustion chambers, combustion gas chambers, etc. are internally examined with their doors opened.^{(2)*2}</td></tr><tr><td>4 Valves and cocks</td><td>(1) The principal mountings and their fastening bolts or studs are to be opened up and examined.</td></tr><tr><td>5 Thickness of plates and tubes and size of stays</td><td>(1) To be measured where deemed necessary by the Surveyor.</td></tr><tr><td>6 Safety valves and relevant parts of boilers, superheaters and thermal oil heaters^{(1)*1}</td><td>(1) The safety valves are to be adjusted under steam to a pressure not more than 103 % the approved working pressure after the open-up examination. The pressure gauge used for this adjustment is to be calibrated properly. The relieving gears of the valves are to be examined and tested to verify satisfactory operation. However, for exhaust gas economizers, if steam cannot be raised at port, the relief valves may be set by the chief engineer at sea, and the results recorded in the logbook for review by the Surveyor. (2) The general conditions of relief pipes for thermal oil heaters are to be examined. The popping pressure of safety valves fitted on thermal oil heaters^{(1)*1} is to be ascertained.</td></tr><tr><td colspan="2">(7 and 8 are omitted.)</td></tr></table>		Table B7.1 Requirements of Boiler Survey		Items	Examinations	1 Pressure parts of boilers	(1) To be internally examined with the manholes, cleaning holes and inspection holes dismantled. Where considered to be necessary for external examination by the Surveyor, the parts are to be examined to the Surveyor's satisfaction with the insulation around the parts removed. ^{(2)*2}	2 Superheaters, economizers and exhaust gas economizers	(1) To be examined internally and externally. For exhaust gas economizers of the shell type, all accessible welded joints are to be subject to a visual examination for cracking and non-destructive testing may be requested where deemed necessary by the Surveyor. ^{(2)*2}	3 Combustion parts of boilers and thermal oil heaters ^{(1)*1}	(1) The furnaces, combustion chambers, combustion gas chambers, etc. are internally examined with their doors opened. ^{(2)*2}	4 Valves and cocks	(1) The principal mountings and their fastening bolts or studs are to be opened up and examined.	5 Thickness of plates and tubes and size of stays	(1) To be measured where deemed necessary by the Surveyor.	6 Safety valves and relevant parts of boilers, superheaters and thermal oil heaters ^{(1)*1}	(1) The safety valves are to be adjusted under steam to a pressure not more than 103 % the approved working pressure after the open-up examination. The pressure gauge used for this adjustment is to be calibrated properly. The relieving gears of the valves are to be examined and tested to verify satisfactory operation. However, for exhaust gas economizers, if steam cannot be raised at port, the relief valves may be set by the chief engineer at sea, and the results recorded in the logbook for review by the Surveyor. (2) The general conditions of relief pipes for thermal oil heaters are to be examined. The popping pressure of safety valves fitted on thermal oil heaters ^{(1)*1} is to be ascertained.	(7 and 8 are omitted.)		Renumbered the Notes
Table B7.1 Requirements of Boiler Survey																				
Items	Examinations																			
1 Pressure parts of boilers	(1) To be internally examined with the manholes, cleaning holes and inspection holes dismantled. Where considered to be necessary for external examination by the Surveyor, the parts are to be examined to the Surveyor's satisfaction with the insulation around the parts removed. ^{(2)*2}																			
2 Superheaters, economizers and exhaust gas economizers	(1) To be examined internally and externally. For exhaust gas economizers of the shell type, all accessible welded joints are to be subject to a visual examination for cracking and non-destructive testing may be requested where deemed necessary by the Surveyor. ^{(2)*2}																			
3 Combustion parts of boilers and thermal oil heaters ^{(1)*1}	(1) The furnaces, combustion chambers, combustion gas chambers, etc. are internally examined with their doors opened. ^{(2)*2}																			
4 Valves and cocks	(1) The principal mountings and their fastening bolts or studs are to be opened up and examined.																			
5 Thickness of plates and tubes and size of stays	(1) To be measured where deemed necessary by the Surveyor.																			
6 Safety valves and relevant parts of boilers, superheaters and thermal oil heaters ^{(1)*1}	(1) The safety valves are to be adjusted under steam to a pressure not more than 103 % the approved working pressure after the open-up examination. The pressure gauge used for this adjustment is to be calibrated properly. The relieving gears of the valves are to be examined and tested to verify satisfactory operation. However, for exhaust gas economizers, if steam cannot be raised at port, the relief valves may be set by the chief engineer at sea, and the results recorded in the logbook for review by the Surveyor. (2) The general conditions of relief pipes for thermal oil heaters are to be examined. The popping pressure of safety valves fitted on thermal oil heaters ^{(1)*1} is to be ascertained.																			
(7 and 8 are omitted.)																				
Notes: ^{(1)*1} Only applies to thermal oil heaters heated by fire, combustion gas or exhaust gas from machinery. ^{(2)*2} When direct visual internal inspection is not feasible due to the limited size of the internal spaces, such as for small boilers and/or narrow internal spaces, this may be replaced by a hydrostatic pressure test or by alternative verifications as deemed appropriate by the Society.																				

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Chapter 8 PROPELLER SHAFT AND STERN TUBE SHAFT SURVEYS 8.1 General 8.1.1 Terms The terms which appear in this chapter are defined as follows. ((1) and (2) are omitted.) (3) “Stern tube shaft” is a shaft placed between the intermediate shaft and propeller shaft, normally arranged within a stern tube or running in open water. ((4) to (9) are omitted.) (Deleted) <u>(10) “Stern tube” is a tube or pipe fitted in the shell of a ship at the stern (or rear part of the ship), through which passes the stern tube shaft or aftermost section of the propeller shaft.</u> <u>(11) “Stern tube bearing” is a bearing installed inside the stern tube to sustain the shaft and allow its rotation with less frictional resistance.</u> ((12) to (15) are omitted.) (16) “Service records” are regularly recorded data showing in-service conditions of the shafts and stern tube <u>bearings</u> include the following (as applicable): service conditions of lubricating water pumps (for “Shaft Kind 1A” or “Shaft Kind 2”), lubricating oil temperature, bearing temperature and oil consumption records (for “Shaft Kind 1B” or “Shaft	Chapter 8 PROPELLER SHAFT AND STERN TUBE SHAFT SURVEYS 8.1 General 8.1.1 Terms The terms which appear in this chapter are defined as follows. ((1) and (2) are omitted.) (3) “Stern tube shaft” is a shaft placed between the intermediate shaft and propeller shaft, normally arranged within a stern tube or running in open water. ((4) to (9) are omitted.) <u>(10) “Stern tube shaft” is a shaft placed between the intermediate shaft and propeller shaft, normally arranged within a stern tube or running in open water.</u> <u>(11) “Stern tube” is a tube or pipe fitted in the shell of a ship at the stern (or rear part of the ship), through which passes the stern tube shaft or aftermost section of the propeller shaft.</u> (Newly added) ((12) to (15) are omitted.) (16) “Service records” are regularly recorded data showing in-service conditions of the shafts and stern tube include the following (as applicable): service conditions of lubricating water pumps (for “Shaft Kind 1A” or “Shaft Kind 2”), lubricating oil temperature, bearing temperature and oil consumption records (for “Shaft Kind 1B” or “Shaft	Alignment of Japanese and English versions of the Rules: Deleted as (10) duplicates (3). Revised wordings to be consistent with Japanese text by adding a definition for “Stern tube bearing” in accordance with the requirements of IACS UR 21.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks								
Kind 1C”) or water flow, water temperature, salinity, pH, make-up water and pressure of lubricating fresh water pumps (for “Shaft Kind 1W”). ((17) to (25) are omitted.) 8.1.2 Preventive Maintenance System of Shafts	Kind 1C”) or water flow, water temperature, salinity, pH, make-up water and pressure of lubricating fresh water pumps (for “Shaft Kind 1W”). ((17) to (25) are omitted.) 8.1.2 Preventive Maintenance System of Shafts									
Table B8.1-2 Approval Procedure of Preventive Maintenance System for Water Lubricated Propeller Shafts (PSCM-1A)										
<table><tr><th>Item</th><th>Procedures</th></tr><tr><td>(1 is omitted.)</td><td></td></tr><tr><td>2 Application</td><td>(1) The executive management (hereinafter referred to as “management”) responsible for adopting the preventive maintenance system according to the procedures is to submit to the Society three copies of a maintenance manual specifying at least the following (a) to (g) <u>together with the application form (Form PSCM-1A).</u> (a) Management policy for implementing the preventive maintenance system (b) Procedures for monitoring parameters such as the following and recording necessary data i) Wear-down of shafts by remote monitoring devices ii) At least the flow rates and the differential pressures specified in Table B8.1-3 related to the water lubricating systems. iii) Grounding conditions between shafts and the hull, including the monitoring of values for voltage, current, or resistance. (c) Procedures and personnel responsible for controlling the items specified in (b) above (d) Procedures and personnel responsible for review and evaluating the monitored values specified in (b) above. In addition, the criteria for each parameter mentioned in 4(3) is to be specified. (e) Procedures and personnel responsible for handling any abnormalities found (including procedures for reporting to the Society) in the monitored values specified in (b) above (f) Procedures and personnel responsible for ensuring that proper maintenance is carried out according to the maintenance manual (g) Plans and documents for equipment or systems related to water lubrication. ((2) and (3) are omitted.)</td></tr><tr><td>(3 to 6 are omitted.)</td><td></td></tr></table>			Item	Procedures	(1 is omitted.)		2 Application	(1) The executive management (hereinafter referred to as “management”) responsible for adopting the preventive maintenance system according to the procedures is to submit to the Society three copies of a maintenance manual specifying at least the following (a) to (g) <u>together with the application form (Form PSCM-1A).</u> (a) Management policy for implementing the preventive maintenance system (b) Procedures for monitoring parameters such as the following and recording necessary data i) Wear-down of shafts by remote monitoring devices ii) At least the flow rates and the differential pressures specified in Table B8.1-3 related to the water lubricating systems. iii) Grounding conditions between shafts and the hull, including the monitoring of values for voltage, current, or resistance. (c) Procedures and personnel responsible for controlling the items specified in (b) above (d) Procedures and personnel responsible for review and evaluating the monitored values specified in (b) above. In addition, the criteria for each parameter mentioned in 4(3) is to be specified. (e) Procedures and personnel responsible for handling any abnormalities found (including procedures for reporting to the Society) in the monitored values specified in (b) above (f) Procedures and personnel responsible for ensuring that proper maintenance is carried out according to the maintenance manual (g) Plans and documents for equipment or systems related to water lubrication. ((2) and (3) are omitted.)	(3 to 6 are omitted.)	
Item	Procedures									
(1 is omitted.)										
2 Application	(1) The executive management (hereinafter referred to as “management”) responsible for adopting the preventive maintenance system according to the procedures is to submit to the Society three copies of a maintenance manual specifying at least the following (a) to (g) <u>together with the application form (Form PSCM-1A).</u> (a) Management policy for implementing the preventive maintenance system (b) Procedures for monitoring parameters such as the following and recording necessary data i) Wear-down of shafts by remote monitoring devices ii) At least the flow rates and the differential pressures specified in Table B8.1-3 related to the water lubricating systems. iii) Grounding conditions between shafts and the hull, including the monitoring of values for voltage, current, or resistance. (c) Procedures and personnel responsible for controlling the items specified in (b) above (d) Procedures and personnel responsible for review and evaluating the monitored values specified in (b) above. In addition, the criteria for each parameter mentioned in 4(3) is to be specified. (e) Procedures and personnel responsible for handling any abnormalities found (including procedures for reporting to the Society) in the monitored values specified in (b) above (f) Procedures and personnel responsible for ensuring that proper maintenance is carried out according to the maintenance manual (g) Plans and documents for equipment or systems related to water lubrication. ((2) and (3) are omitted.)									
(3 to 6 are omitted.)										
Alignment of Japanese and English versions of the Rules: Revised wordings to be consistent with Japanese text by adding a description regarding the application form and a reference to the form.										

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original					Remarks
8.2 Surveys of Water Lubricated Shafts		8.2 Surveys of Water Lubricated Shafts					Alignment of Japanese and English versions of the Rules: In Partial Surveys or Alternative Ordinary Surveys, the shaft is not fully withdrawn; therefore, the inspection is limited to the accessible areas. Revised wording to be consistent with Japanese text, with reference to the expressions in Table B8.3, Part B of the Rules.
8.2.3 Surveys of Shafts of ships whose classification characters are affixed with the notation <i>PSCM-1A</i>		8.2.3 Surveys of Shafts of ships whose classification characters are affixed with the notation <i>PSCM-1A</i>					
Table B8.2 Surveys of Water Lubricated Shafts – Shafts Kind 1A, Kind 2 and Shafts of Ships Whose Classification Characters Are Affixed with the Notation <i>PSCM-1A</i>							
Items	Examinations	Ordinary Survey	Partial Survey	Alternative Ordinary Survey	Extension Survey		
					1 Year	3Month	
(1 to 5 are omitted.)							
6 Shaft and coupling bolts	(1) Examination of shaft and coupling bolts (For extension survey <u>the surveys except Ordinary Survey</u> , visual inspection of accessible parts of shaft and coupling bolts.). However, performing a non-destructive examination (<i>NDE</i>) to coupling bolts with the method deemed appropriate by a surveyor in cases where the surveyor, based on the results of external examinations, deems such addition examination to be necessary. In addition, anti-corrosion covers are to be removed for shafts Kind 2.	○	○	○	○	○	
(7 to 12 are omitted.)							
Note							
*1: It is acceptable by confirmation of the result of Section 1-3 of the table.							

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Chapter 9 PLANNED MACHINERY SURVEYS 9.1 Planned Machinery Surveys 9.1.1 General* <u>1 The details of Planned Machinery Surveys specified in 1.1.2 are defined in this chapter.</u> <u>2 In a Planned Machinery Survey, surveys in accordance with the applicable requirements prescribed in 9.1.3 to 9.1.5 are to be carried out. In cases where 9.1.4 or 9.1.5 is adopted, the survey items to be covered by the scheme are to be determined according to the shipowner's (or the ship management company's) application, while the rest of the items are to apply 9.1.3.</u> <u>3 The machinery and equipment been applicable under the Planned Machinery Surveys are stipulated otherwise by the Society.</u> 9.1.2 Intervals of Planned Machinery Surveys <u>1 Planned Machinery Surveys are to be carried out as specified below in (1) to (3). In the case of azimuth thrusters, however, the surveys for gears, gear shafts, shaft couplings, bearings and clutches for propulsion as well as azimuth steering gears may be carried out concurrently with the survey specified in Chapter 8.</u> <u>(1) In the Continuous Machinery Survey, each survey item or part is to be examined at the interval not exceeding 5 years.</u> <u>(2) In the Planned Machinery Maintenance Scheme, each survey item or part is to be examined according to the survey schedule table specified in 9.1.4 and at the</u>	Chapter 9 PLANNED MACHINERY SURVEYS 9.1 Planned Machinery Surveys 9.1.1 Application* (Newly added) In a Planned Machinery Survey, surveys in accordance with the applicable requirements prescribed in 9.1.2 to 9.1.4 are to be carried out. In cases where 9.1.3 or 9.1.4 is adopted, the survey items to be covered by the scheme are to be determined according to the shipowner's (or the ship management company's) application, while the rest of the items are to apply 9.1.2. (Newly added) (Newly added) (Moved)	Renumbered Revised reference numbers due to relocation. Transferred from 1.1.3-2, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>general examination (including review of maintenance records) which is to be carried out every year.</u> (3) <u>In the Condition Based Maintenance Scheme, each survey item or part is to be examined according to the survey schedule table specified in 9.1.5 and at the annual survey.</u> <u>2 Notwithstanding the requirement specified in -2 above, Planned Machinery Surveys may be postponed as specified in 1.1.5-1(1) or (2), provided that such Surveys are carried out at the time of Special Surveys.</u> 9.1.3 Continuous Machinery Surveys (CMS)* (Same) 9.1.4 Planned Machinery Maintenance Scheme (PMS)* (Same) (Same)	(Moved) 9.1.2 Continuous Machinery Surveys (CMS)* In a Continuous Machinery Survey (hereinafter referred to as “CMS” in this Chapter), every item specified in Table B9.1 is to be surveyed in accordance with the following (1) to (3): ((1) to (3) are omitted.) 9.1.3 Planned Machinery Maintenance Scheme (PMS)* 1 A shipowner (or ship management company) that has an established maintenance system may apply to adopt the planned maintenance method in which the shipowner is permitted to carry out planned overhaul inspections and maintenance as specified in (1) to (4) in place of the open-up surveys specified in Table B9.1. ((1) to (4) are omitted.) 2 The survey of machinery for which condition monitoring and maintenance is carried out according to a machinery maintenance scheme approved by the Society on or before 31 December 2019 is to be in accordance with	Transferred from 1.1.5-4, Part B of the Rules Renumbered Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Same) 9.1.5 Condition Based Maintenance Scheme (CBM)* 1 A shipowner (or ship management company) that has an established maintenance system may apply to adopt the method in which maintenance of machinery is carried out according to the results of condition monitoring and diagnosis, as specified in the following (1) to (6), in place of the open-up surveys specified in Table B9.1. ((1) to (6) are omitted.) (Same) 9.1.6 Periodical Surveys* In place of the Planned Machinery Surveys prescribed in 9.1.3 to 9.1.5, the surveys specified in Table B9.1 may be carried out at Special Surveys prescribed in 5.1.2-1, to ascertain that all the machinery is placed in good order. However, at Special Surveys of ships equipped with two or more propeller shafting systems driven by identical main engines, surveys of the main engine components that were examined in accordance with the requirements for Special Surveys after the Classification Surveys or the previous Special Survey may be omitted where deemed appropriate by the Surveyor, considering the time the engines were examined, the service history of the engines, the present condition and	requirements specified otherwise by the Society. 3 PMS management software is to be approved by the Society in accordance with Chapter 1, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use. 9.1.4 Condition Based Maintenance Scheme (CBM)* 1 A shipowner (or ship management company) that has an established maintenance system may apply to adopt the method in which maintenance of machinery is carried out according to the results of condition monitoring and diagnosis, as specified in the following (1) to (6), in place of the open-up surveys specified in Table B9.1. ((1) to (6) are omitted.) 2 CBM management software is to be approved by the Society in accordance with Chapter 1, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use. 9.1.5 Periodical Surveys* In place of the Planned Machinery Surveys prescribed in 9.1.2 to 9.1.4, the surveys specified in Table B9.1 may be carried out at Special Surveys prescribed in 1.1.3 to ascertain that all the machinery is placed in good order. However, at Special Surveys of ships equipped with two or more propeller shafting systems driven by identical main engines, surveys of the main engine components that were examined in accordance with the requirements for Special Surveys after the Classification Surveys or the previous Special Survey may be omitted where deemed appropriate by the Surveyor, considering the time the engines were examined, the service history of the engines, the present condition and whether or	Renumbered Renumbered Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
whether or not they were subject to a Classification Survey during Construction. Gas turbines may be replaced in rotation with spare sets that are to be overhauled and stored on shore in place of undergoing open-up examinations provided that the survey schedule table (including the overhaul procedures and storing method of the spare sets on shore) is submitted for Society approval in advance. Chapter 10 SURVEYS FOR STEEL BARGES 10.2 Classification Survey during Construction 10.2.1 General In the Classification Survey during Construction, it is to be confirmed that hull structure, hull equipment, machinery, fire protection, <u>means of escape</u>, fire extinguishing systems, electrical installations, computer-based systems, stability and load lines of the barge comply with the relevant requirements in <u>the Rules</u>. 10.2.3 Survey 4 To implement surveys of items specified in 20.16.1-1, -3 and -7, Part Q, the Society may approve other survey methods which <u>are considered to be able to obtain information equivalent to that obtained through traditional ordinary surveys where a surveyor is in attendance</u>.	not they were subject to a Classification Survey during Construction. Gas turbines may be replaced in rotation with spare sets that are to be overhauled and stored on shore in place of undergoing open-up examinations provided that the survey schedule table (including the overhaul procedures and storing method of the spare sets on shore) is submitted for Society approval in advance. Chapter 10 SURVEYS FOR STEEL BARGES 10.2 Classification Survey during Construction 10.2.1 General In the Classification Survey during Construction, it is to be confirmed that hull structure, hull equipment, machinery, fire protection, fire extinguishing systems, electrical installations, computer-based systems, stability and load lines of the barge comply with the relevant requirements <u>specified in Part Q</u>. 10.2.3 Survey 4 To implement surveys of items specified <u>specified in 20.16.1-1, -3 and -7, Part Q, in lieu of traditional ordinary surveys where the Surveyor is in attendance</u>, the Society may approve other survey methods which <u>it considers</u> to be <u>appropriate</u>.	Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text with reference to the expressions in 10.3.1-1, Part B. Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text with reference to the expressions in Tables

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
10.6 Special Surveys 10.6.2 Special Survey for Hull, Equipment, Computer-based Systems and Fire Extinction* Special Surveys for hull, equipment and fire extinction are to be in accordance with the relevant requirements specified in 5.2 corresponding to the barge's structure, equipment and fire extinction.	10.6 Special Surveys 10.6.2 Special Survey for Hull, Equipment, Computer-based Systems and Fire Extinction* Special Surveys for hull, equipment and fire extinction are to be in accordance with the relevant requirements specified in 5.2 <u>(except 5.2.3-2(8))</u> corresponding to the barge's structure, equipment and fire extinction.	B2.7 and B2.8, Part B of the Rules. Alignment of Japanese and English versions of the Rules: Section 5.2.3-2(8) is a requirement applicable to bulk carriers and general dry cargo ships of 500 gross tonnage or above; however, Section 5.2 also includes requirements applicable to specific ship types other than those mentioned above. Revised wording to be consistent with Japanese text to remove exclusion items.
Chapter 11 SURVEYS OF SUBMERSIBLES 11.4 Periodical Surveys 11.4.1 Intermediate Surveys 1 At each Intermediate Survey, it is to be verified that the submersible is in good order after undergoing the following tests and inspections in dry dock.	Chapter 11 SURVEYS OF SUBMERSIBLES 11.4 Periodical Surveys 11.4.1 Intermediate Surveys 1 At each Intermediate Survey, it is to be verified that the submersible is in good order after undergoing the following tests and inspections in dry dock.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
((1) to (3) are omitted.) (4) Operation or performance tests on the following (a) Buoyancy control systems (b) Trim control systems (c) Manoeuvring systems (d) Devices indicating open or close of hatch covers and valves (e) Accumulator batteries (f) Lighting (g) Depth gauges specified in 4.1.5, Part T (h) <u>Emergency releasing means specified in 4.1.6, Part T</u> (i) Means for pressure equalising specified in 4.2.5, Part T (j) <u>Pingers and/or transponders specified in 4.2.7, Part T</u> (k) <u>Underwater communication system specified in 4.2.8, Part T</u> (l) <u>Protective devices and emergency cut-off devices specified in 4.3.4, Part T</u> (m) Life support and environmental control systems ((5) to (9) are omitted.) 2 At the Intermediate Survey, open-up inspections of the watertight packing specified in -1(3) and tests and inspections specified in -1(4)(c), (f), (l) and (m) may be dispensed with at the discretion of the Surveyor by examining the maintenance records and operation records.	((1) to (3) are omitted.) (4) Operation or performance tests on the following (a) Buoyancy control systems (b) Trim control systems (c) Manoeuvring systems (d) Devices indicating open or close of hatch covers and valves (e) Accumulator batteries (f) Lighting (g) Depth gauges specified in 4.1.5, Part T (h) <u>Protective devices and emergency cut-off devices specified in 4.3.4, Part T</u> (i) Means for pressure equalising specified in 4.2.5, Part T (j) Life support and environmental control systems ((5) to (9) are omitted.) 2 At the Intermediate Survey, open-up inspections of the watertight packing specified in -1(3) and tests and inspections specified in -1(4)(c), (f), (h) and (i) may be dispensed with at the discretion of the Surveyor by examining the maintenance records and operation records.	Alignment of Japanese and English versions of the Rules: Added emergency releasing means, pingers and/or transponders and underwater communication system Alignment of Japanese and English versions of the Rules: Revised reference numbers

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Chapter 12 SURVEYS FOR MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES 12.2 Classification Survey during Construction 12.2.2 Submission of Plans and Documents* 2 With respect to the Classification Survey during Construction, the following plans and documents are to be submitted as other plans and documents in addition to the plans and documents specified in -1 above. ((1) to (9) are omitted.) (10) <u>Hydrostatic curves</u> ((11) to (21) are omitted.) 12.2.6 Sea Trials and Stability Experiments* 1 For units that have main propulsion machinery, the following tests corresponding to the unit type are to be carried out in addition to the sea trials required in 2.1.7-7: ((1) and (2) are omitted.) (3) <u>The Society may, where deemed necessary,</u> require a demonstration test in still water after the completion of the hull construction work, where the unit is operating under the severest loading condition in order to verify the adequacy of the theoretical calculations and to confirm the safety factor during operation	Chapter 12 SURVEYS FOR MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES 12.2 Classification Survey during Construction 12.2.2 Submission of Plans and Documents* 2 With respect to the Classification Survey during Construction, the following plans and documents are to be submitted as other plans and documents in addition to the plans and documents specified in -1 above. ((1) to (9) are omitted.) (10) <u>Cross curves for stability</u> ((11) to (21) are omitted.) 12.2.6 Sea Trials and Stability Experiments* 1 For units that have main propulsion machinery, the following tests corresponding to the unit type are to be carried out in addition to the sea trials required in 2.1.7-7: ((1) and (2) are omitted.) (3) <u>For large storage units, the</u> Society may require a demonstration test in still water after the completion of the hull construction work, where the unit is operating under the severest loading condition in order to verify the adequacy of the theoretical calculations and to confirm the safety factor during operation	Alignment of Japanese and English versions of the Rules: Cross curves of stability are required to be submitted for approval. Revised wordings to be consistent with Japanese text as submission of hydrostatic curves for reference is required”. Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text as an example of when the demonstration test is required is specified in the Guidance.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
12.5 Special Surveys 12.5.2 Special Surveys for Hull, Equipment, Fire Extinguishing Systems, Computer-based Systems, and Fittings* 3 For self-elevating units, following surveys are to be carried out, in addition to the survey items specified in -1 and -2. However, where the unit is examined while floating, examinations deemed appropriate by the Society are to be conducted. ((1) is omitted.) (2) At Special Surveys, thickness measurements are to be carried out for the structural members listed in Table B12.1. <u>The Surveyor may extend the thickness measurements as deemed necessary.</u> Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Table B5.9. 4 For column-stabilized units, following surveys are to be carried out, in addition to the survey items specified in -1 and -2. However, where the unit is examined while floating, examinations deemed appropriate by the Society are to be conducted. ((1) is omitted.) (2) At Special Surveys, thickness measurements are to be carried out for the structural members listed in Table B12.2. <u>The Surveyor may extend the thickness measurements as deemed necessary.</u> Where substantial corrosion is found as a result of such thickness measurements, additional thickness	12.5 Special Surveys 12.5.2 Special Surveys for Hull, Equipment, Fire Extinguishing Systems, Computer-based Systems, and Fittings* 3 For self-elevating units, following surveys are to be carried out, in addition to the survey items specified in -1 and -2. However, where the unit is examined while floating, examinations deemed appropriate by the Society are to be conducted. ((1) is omitted.) (2) At Special Surveys, thickness measurements are to be carried out for the structural members listed in Table B12.1. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Table B5.9. 4 For column-stabilized units, following surveys are to be carried out, in addition to the survey items specified in -1 and -2. However, where the unit is examined while floating, examinations deemed appropriate by the Society are to be conducted. ((1) is omitted.) (2) At Special Surveys, thickness measurements are to be carried out for the structural members listed in Table B12.2. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Table B5.9.	Alignment of Japanese and English versions of the Rules: Revised wordings to be consistent with Japanese text in accordance with the requirements of IACS UR Z15. Alignment of Japanese and English versions of the Rules: Revised wordings to be consistent with Japanese text in accordance with the requirements of IACS UR Z15.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
measurements are to be taken in accordance with Table B5.9. ((3) is omitted.) 5 For ship-type units and barge-type units, the following surveys are to be carried out, in addition to the survey items specified in -1 through -3. However, where the unit is examined while floating, examinations deemed appropriate by the Society are to be conducted. ((1) is omitted.) (2) At Special Surveys, thickness measurements are to be carried out for the structural members listed in Table B12.3. <u>The Surveyor may extend the thickness measurements as deemed necessary.</u> Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Table B5.9.	((3) is omitted.) 5 For ship-type units and barge-type units, the following surveys are to be carried out, in addition to the survey items specified in -1 through -3. However, where the unit is examined while floating, examinations deemed appropriate by the Society are to be conducted. ((1) is omitted.) (2) At Special Surveys, thickness measurements are to be carried out for the structural members listed in Table B12.3. Where substantial corrosion is found as a result of such thickness measurements, additional thickness measurements are to be taken in accordance with Table B5.9.	Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text in accordance with the requirements of IACS UR Z15.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks										
12.9 Planned Machinery Surveys 12.9.1 General	12.9 Planned Machinery Surveys 12.9.1 General											
Table B12.1 Requirements for Thickness Measurements for Self-elevating Units												
<table><tr><th>Special Survey</th><th>Structural members subject to thickness measurements</th></tr><tr><td>1 Special Survey for units up to 5 years of age (Special Survey No.1)</td><td>(1) Suspect areas throughout the unit (particular attention is to be paid to the legs in way of the splash zone).</td></tr><tr><td>2 Special Survey for units over 5 years and up to 10 years of age (Special Survey No.2)</td><td>(1) Suspect areas throughout the unit. (2) Legs in way of the splash zone. (3) Special portions of structural members and primary structural members where wastage is evident. (4) Representative locations of the upper hull deck and bottom plating. (5) Representative locations of the interior of one preload (ballast) tank.</td></tr><tr><td>3 Special Survey for units over 10 years and up to 15 years of age (Special Survey No.3)</td><td>(1) Suspect areas throughout the unit. (2) Legs in way of the splash zone. (3) Representative locations, throughout, of special portions of structural members and primary structural members. (4) Leg well structure. (5) Representative locations of deck, bottom and side shell plating of hull and mat. (6) Interiors Representative locations of interior of at least two preload (ballast) tanks.</td></tr><tr><td>4 Special Survey for units over 15 years of age (Special Survey No.4 and subsequent Special Surveys)</td><td>(1) Suspect areas throughout the unit. (2) Legs in way of the splash zone. (3) Special portions of structural members and primary structural members. (4) Leg well structure. (5) Representative locations of deck, bottom and side shell plating of hull and mat. (6) Substructure of derrick (as deemed necessary by the Surveyor). (7) Representative locations of interior of all preload (ballast) tanks.</td></tr></table>	Special Survey	Structural members subject to thickness measurements	1 Special Survey for units up to 5 years of age (Special Survey No.1)	(1) Suspect areas throughout the unit (particular attention is to be paid to the legs in way of the splash zone).	2 Special Survey for units over 5 years and up to 10 years of age (Special Survey No.2)	(1) Suspect areas throughout the unit. (2) Legs in way of the splash zone. (3) Special portions of structural members and primary structural members where wastage is evident. (4) Representative locations of the upper hull deck and bottom plating. (5) Representative locations of the interior of one preload (ballast) tank.	3 Special Survey for units over 10 years and up to 15 years of age (Special Survey No.3)	(1) Suspect areas throughout the unit. (2) Legs in way of the splash zone. (3) Representative locations, throughout, of special portions of structural members and primary structural members. (4) Leg well structure. (5) Representative locations of deck, bottom and side shell plating of hull and mat. (6) Interiors Representative locations of interior of at least two preload (ballast) tanks.	4 Special Survey for units over 15 years of age (Special Survey No.4 and subsequent Special Surveys)	(1) Suspect areas throughout the unit. (2) Legs in way of the splash zone. (3) Special portions of structural members and primary structural members. (4) Leg well structure. (5) Representative locations of deck, bottom and side shell plating of hull and mat. (6) Substructure of derrick (as deemed necessary by the Surveyor). (7) Representative locations of interior of all preload (ballast) tanks.		3(6): Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text with reference to the expressions in 2(5) and 4(7), Part X of the Rules, in accordance with the requirements of IACS UR Z15.
Special Survey	Structural members subject to thickness measurements											
1 Special Survey for units up to 5 years of age (Special Survey No.1)	(1) Suspect areas throughout the unit (particular attention is to be paid to the legs in way of the splash zone).											
2 Special Survey for units over 5 years and up to 10 years of age (Special Survey No.2)	(1) Suspect areas throughout the unit. (2) Legs in way of the splash zone. (3) Special portions of structural members and primary structural members where wastage is evident. (4) Representative locations of the upper hull deck and bottom plating. (5) Representative locations of the interior of one preload (ballast) tank.											
3 Special Survey for units over 10 years and up to 15 years of age (Special Survey No.3)	(1) Suspect areas throughout the unit. (2) Legs in way of the splash zone. (3) Representative locations, throughout, of special portions of structural members and primary structural members. (4) Leg well structure. (5) Representative locations of deck, bottom and side shell plating of hull and mat. (6) Interiors Representative locations of interior of at least two preload (ballast) tanks.											
4 Special Survey for units over 15 years of age (Special Survey No.4 and subsequent Special Surveys)	(1) Suspect areas throughout the unit. (2) Legs in way of the splash zone. (3) Special portions of structural members and primary structural members. (4) Leg well structure. (5) Representative locations of deck, bottom and side shell plating of hull and mat. (6) Substructure of derrick (as deemed necessary by the Surveyor). (7) Representative locations of interior of all preload (ballast) tanks.											
Note: The definitions of special portions of structural members and primary structural members are according to 6.2.1, Part P.												

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original		Remarks
Table B12.2 Requirements for Thickness Measurements for Column-Stabilized Units				2 (2)(b), 3(3)(b): Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text with reference to the expressions in 4(3)(b) in accordance with the requirements of IACS UR Z 15.
Special Survey	Structural members subject to thickness measurements			
1 Special Survey for units up to 5 years of age (Special Survey No.1)	(1)	Suspect areas throughout the unit.		
	(2)	Columns and bracings where wastage is evident in the splash zone.		
2 Special Survey for units over 5 years and up to 10 years of age (Special Survey No.2)	(1)	Suspect areas throughout the unit.		
	(2)	The following locations: (a) Representative locations of columns and bracings in the splash zone; and (b) Representative locations of interiors of the columns and bracings specified in (a) above (as deemed necessary by the Surveyor).		
	(3)	Special portions of structural members and primary structural members where wastage is evident.		
3 Special Survey for units over 10 years and up to 15 years of age (Special Survey No.3)	(1)	Suspect areas throughout the unit.		
	(2)	Representative locations, throughout, of special portions of structural members and primary structural members.		
	(3)	The following locations: (a) One transverse section (girth belt) of each of 2 columns and 2 bracings in the splash zone; and (b) The interiors of the columns and bracings specified in (a) (as deemed necessary by the Surveyor).		
	(4)	Lower hulls in way of mooring lines where wastage is evident.		
	(5)	One transverse section (girth belt) of each lower hull between one set of columns.		
4 Special Survey for units over 15 years of age (Special Survey No.4 and subsequent Special Surveys)	(1)	Suspect areas throughout the unit.		
	(2)	Special portions of structural members and primary structural members.		
	(3)	The following locations: (a) One transverse section (girth belt) of each of one-half of the columns and bracings in the splash zone; and (b) Interiors of the columns and bracings specified in (a) (as deemed necessary by the Surveyor).		
	(4)	Lower hulls in way of mooring lines where wastage is evident.		
	(5)	One transverse section (girth belt) of each lower hull between one set of columns.		
	(6)	Representative locations of the substructures of drilling derricks.		
Notes:				
(1) The definitions of special portions of structural members and primary structural members are according to 6.2.1, Part P.				
(2) A transverse section (girth belt) includes all continuous longitudinal members such as plating, longitudinals and girders at a given section of the unit.				

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
Chapter 14 SURVEY FOR FLOATING OFFSHORE FACILITIES FOR CRUDE OIL/PETROLEUM GAS PRODUCTION, STORAGE AND OFFLOADING 14.2 Classification Surveys 14.2.2 Submission of Plans and Documents 2 In the Classification Surveys during construction of Floating Offshore Facilities, the following plans and documents are to be submitted as other plans and documents in addition to those specified in -1 above. ((1) to (6) are omitted.) (7) <u>Hydrostatic</u> curves ((8) to (11) are omitted.) (12) In the case of installations <u>or equipment</u> used for the safety of Floating Offshore Facilities, plans and documents required in the relevant Chapters given in Part D ((13) to (21) are omitted.) 3 The installation work procedures specified in -2(19) above are to include the following as applicable. The work process of each item is to include a method of confirming the	Chapter 14 SURVEY FOR FLOATING OFFSHORE FACILITIES FOR CRUDE OIL/PETROLEUM GAS PRODUCTION, STORAGE AND OFFLOADING 14.2 Classification Surveys 14.2.2 Submission of Plans and Documents 2 In the Classification Surveys during construction of Floating Offshore Facilities, the following plans and documents are to be submitted as other plans and documents in addition to those specified in -1 above. ((1) to (6) are omitted.) (7) <u>Cross curves of stability</u> ((8) to (11) are omitted.) (12) In the case of <u>machinery</u> installations used for the safety of Floating Offshore Facilities <u>or for positioning systems</u>, plans and documents required in the relevant Chapters given in Part D ((13) to (21) are omitted.) 3 The installation work procedures specified in -2(19) above are to include the following as applicable. The work process of each item is to include a method of confirming the	Alignment of Japanese and English versions of the Rules: (7) Cross curves of stability are required to be submitted for approval. Revised wording to be consistent with Japanese text as submission of hydrostatic curves for reference is required”. (12) Revised wordings to be consistent with Japanese text as there are other equipment items, in addition to positioning systems, that refer to Part D of the Rules.

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
adequacy of completed work as well as relevant judgment criteria. ((1) to (5) are omitted.) (6) Procedures for hooking up flow line systems to the receiving sides of Floating Offshore Facilities (import systems), and flow line systems to the offloading side of Floating Offshore Facilities (export systems) (a) Procedures for the hook up of import systems i) Handling and rigging of flexible risers during installation, ii) Positioning of work vessels for various purposes during installation, iii) Procedures for the installation of buoyancy tanks, supports, clump weights, if applicable, etc. (including precautions against damage); and, iv) Tie-in rigging methods for the hook up of both ends of risers. (b) Procedures for the installation of export systems i) Rigging, handling, make-up of export systems and precautions against damage during installation ii) Fitting of all the necessary accessories and navigation aids iii) Procedures for paying out the hose string into the sea iv) Procedures for the <u>leak</u> tests of hoses (including <u>design pressure</u>, testing pressure and duration) 14.2.9 Onboard Testing and Stability Experiments 3 Equipment which cannot be verified due to special	adequacy of completed work as well as relevant judgment criteria. ((1) to (5) are omitted.) (6) Procedures for hooking up flow line systems to the receiving sides of Floating Offshore Facilities (import systems), and flow line systems to the offloading side of Floating Offshore Facilities (export systems) (a) Procedures for the hook up of import systems i) Handling and rigging of flexible risers during installation, ii) Positioning of work vessels for various purposes during installation, iii) Procedures for the installation of buoyancy tanks, supports, clump weights, if applicable, etc. (including precautions against damage); and, iv) Tie-in rigging methods for the hook up of both ends of risers. (b) Procedures for the installation of export systems i) Rigging, handling, make-up of export systems and precautions against damage during installation ii) Fitting of all the necessary accessories and navigation aids iii) Procedures for paying out the hose string into the sea iv) Procedures for the <u>pressure</u> tests of hoses (including testing pressure and duration) 14.2.9 Onboard Testing and Stability Experiments 3 Equipment which cannot be verified due to special	(6) (b) iv): Alignment of Japanese and English versions of the Rules: Revised the wording to “leak tests.” Revised wording to be consistent with Japanese text, reflecting that the test pressure is determined based on the design pressure. Alignment of Japanese and English versions of

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
reasons that are related to such equipment only being capable of functioning after start-up and commissioning is to be <u>verified by</u> the next annual survey. Annex 1.5.3 CLASS MAINTAINANCE SURVEY BY MEANS OF REMOTE SURVEY An4 ICT An4.1 General 7 Select a communication infrastructure which is sufficiently reliable in terms of information security, considering <u>risks such as data leakage</u>.	reasons that are related to such equipment only being capable of functioning after start-up and commissioning is to be <u>identified for verification at</u> the next annual survey. Annex 1.5.3 CLASS MAINTAINANCE SURVEY BY MEANS OF REMOTE SURVEY An4 ICT An4.1 General 7 Select a communication infrastructure which is sufficiently reliable in terms of information security, considering <u>risk of data leakage, etc. Also, it is to be ensured that a communication environment can stably send and receive still images and recorded videos with the quality required by the remote Surveyor.</u>	the Rules: Revised wordings to be consistent with Japanese text as the same situation may arise at the next inspection if the equipment can only be used after the commencement of operation. Alignment between the Japanese and English Versions of the Rules: Revised wording to be consistent with Japanese text since the requirements for communication infrastructure are described in An4.3.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Annex <u>2.1.7-2</u> TESTING PROCEDURES OF WATERTIGHT COMPARTMENTS (Omitted) Annex <u>2.1.7-4A</u> PROCEDURES FOR TESTS OF PREVENTIVE MEASURES FOR REDUNDANT OPERATIONS OF THE FIXED LOCAL APPLICATION FIRE-EXTINGUISHING SYSTEMS (Omitted) Annex <u>2.1.7-4B</u> PROCEDURES FOR ON-BOARD FUNCTION TEST OF FIXED FIRE DETECTION AND ALARM SYSTEM IN MACHINERY SPACES An1.2 Test Details An1.2.1 Mock Fire Either one of the following is to be used as a mock fire at the test. (1) Fire by burning liquid fuel Fuel oil (Marine Diesel Oil or Heavy Fuel Oil) is ignited in a cylindrical steel container having a 200 mm diameter and 200 mm depth. The volume of fuel	Annex <u>2.1.5</u> TESTING PROCEDURES OF WATERTIGHT COMPARTMENTS (Omitted) Annex <u>2.1.7</u> PROCEDURES FOR TESTS OF PREVENTIVE MEASURES FOR REDUNDANT OPERATIONS OF THE FIXED LOCAL APPLICATION FIRE-EXTINGUISHING SYSTEMS (Omitted) Annex <u>2.1.4</u> PROCEDURES FOR ON-BOARD FUNCTION TEST OF FIXED FIRE DETECTION AND ALARM SYSTEM IN MACHINERY SPACES An1.2 Test Details An1.2.1 Mock Fire Either one of the following is to be used as a mock fire at the test. (1) Fire by burning liquid fuel Fuel oil (Marine Diesel Oil or Heavy Fuel Oil) is ignited in a cylindrical steel container having a 200 mm diameter and 200 mm depth. The volume of fuel	Renumbered Renumbered Renumbered Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
oil may be optional but is to be enough to complete the test. Where Heavy Fuel Oil is used, some Marine Diesel Oil may be mixed in for easy ignition. In order to prevent oil spillage due to pitch and roll of the ship or to restrict the height of the flame, rags steeped in the fuel oil may be used as the fuel source in the container. <u>In such cases, a reduction in smoke generation is expected. Therefore, the use of containers larger than the specified dimensions is permitted. However, for safety, the fire scale is to be such that the flame height is limited to approximately 0.8 m.</u> (2) Fire by burning materials other than liquid fuel Materials other than liquid fuel may be used for the mock fire, provided that the amount of heat release and smoke generation are confirmed to be equivalent to the liquid fuel in (1) above by placing the test device specified in <i>ISO 9705</i> on top of the cylindrical container. Ignition of the mixture of lactose ($C_{12}H_{22}O_{11}$) and potassium chlorate ($KClO_3$) (40 g in weight each) is considered to be equivalent to the mock fire mentioned in (1). The quantity of lactose and potassium chlorate may be modified according to the size of the machinery spaces. <u>However, the quantity of each chemical is to be approximately within the range of 30 g to 80 g, and they are to be mixed uniformly at a 1:1 ratio.</u>	oil may be optional but is to be enough to complete the test. Where Heavy Fuel Oil is used, some Marine Diesel Oil may be mixed in for easy ignition. In order to prevent oil spillage due to pitch and roll of the ship or to restrict the height of the flame, rags steeped in the fuel oil may be used as the fuel source in the container. (2) Fire by burning materials other than liquid fuel Materials other than liquid fuel may be used for the mock fire, provided that the amount of heat release and smoke generation are confirmed to be equivalent to the liquid fuel in (1) above by placing the test device specified in <i>ISO 9705</i> on top of the cylindrical container. Ignition of the mixture of lactose ($C_{12}H_{22}O_{11}$) and potassium chlorate ($KClO_3$) (40 g in weight each) is considered to be equivalent to the mock fire mentioned in (1). The quantity of lactose and potassium chlorate may be modified according to the size of the machinery spaces.	text as this requirement is intended as guidance for testing.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Annex 2.1.7-7A TEST OF SHIP MANOEUVRABILITY An5 Other Manoeuvring Tests An5.2 Tests An5.2.2 Spiral Manoeuvre Test 4 Simplified Spiral Manoeuvre Test (1) Testing method While the ship is running ahead at test speed, the ship is steered to the maximum rudder angle until a constant yaw rate is obtained. The rudder angle is then brought to zero until the yaw rate returns to zero. If the ship returns to zero yaw rate, the ship is stable and the test may be terminated. If the ship does not return to zero yaw rate, the ship is steered to a half of the following angles in the opposite direction until the yaw rate stabilizes at zero. (a) $L/V < 9s$ 0 degrees (b) $9 \leq L/V < 45s$ $\{-3 + 1/3 \cdot (L/V)\}$ degrees (c) $L/V \geq 45s$ 12 degrees (2) Measurement Method Yaw rate, ship speed and rudder angle are measured. (3) Measurement Items and Report (a) The following items are to be measured. i) Yaw rate, maximum rudder angle, and ship speed when a constant yaw rate is obtained at the maximum rudder angle ii) Ship speed and yaw rate when the rudder is	Annex 2.3.1-1 TEST OF SHIP MANOEUVRABILITY An5 Other Manoeuvring Tests An5.2 Tests An5.2.2 Spiral Manoeuvre Test 4 Simplified Spiral Manoeuvre Test (1) Testing method While the ship is running ahead at test speed, the ship is steered to the maximum rudder angle until a constant yaw rate is obtained. The rudder angle is then brought to zero until the yaw rate returns to zero. If the ship returns to zero yaw rate, the ship is stable and the test may be terminated. If the ship does not return to zero yaw rate, the ship is steered to a half of the following angles in the opposite direction until the yaw rate stabilizes at zero. (a) $L/V < 9s$ 0 degrees (b) $9 \leq L/V < 45s$ $\{-3 + 1/3 \cdot (L/V)\}$ degrees (c) $L/V \geq 45s$ 12 degrees (2) Measurement Method Yaw rate, ship speed and rudder angle are measured. (3) Measurement Items and Report (a) The following items are to be measured. i) Yaw rate, maximum rudder angle, and ship speed when a constant yaw rate is obtained at the maximum rudder angle ii) Ship speed and yaw rate when the rudder is	Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
returned to the neutral position iii) Time taken to achieve a constant yaw rate after the rudder is returned to the neutral position iv) Yaw rate, rudder angle, and ship speed for ships requiring steering in the opposite direction (b) The yaw rate / rudder angle relation curve <u>as shown in Fig. An5.2.2</u> and the measurement items specified in (a) are to be reported in the results of the sea trials. An5.2.3 Pull out Manoeuvre Test 3 Measurement Items and Report (1) The following items are to be measured. (a) Yaw rate at constant intervals (b) Ship speed (2) The yaw rate time history curve as shown in Fig. An5.2.3 and the measurement items specified in (1) are to be reported in the results of the sea trials.	returned to the neutral position iii) Time taken to achieve a constant yaw rate after the rudder is returned to the neutral position iv) Yaw rate, rudder angle, and ship speed for ships requiring steering in the opposite direction (b) The yaw rate / rudder angle relation curve and the measurement items specified in (a) are to be reported in the results of the sea trials. An5.2.3 Pull out Manoeuvre Test 3 Measurement Items and Report (1) The following items are to be measured. (a) Yaw rate at constant intervals (b) Ship speed <u>and rudder angle</u> (2) The yaw rate time history curve as shown in Fig. An5.2.3 and the measurement items specified in (1) are to be reported in the results of the sea trials.	Alignment of Japanese and English versions of the Rules: Revised wordings to be consistent with Japanese text by adding reference to Fig.An5.2.2. Alignment of Japanese and English versions of the Rules: Deleted requirement for rudder angle as the pull out manoeuvre test is conducted by returning the rudder to 0 degrees after completing the turning test.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Annex <u>2.1.7-7B</u> PROCEDURES FOR ON BOARD NOISE MEASUREMENTS (Omitted)	Annex <u>2.3.1-2</u> PROCEDURES FOR ON BOARD NOISE MEASUREMENTS (Omitted)	Renumbered
Annex <u>2.1.7-7C</u> TESTING PROCEDURES FOR CONTROL SYSTEMS FOR CONTROLLABLE PITCH PROPELLERS INTENDED FOR MAIN PROPULSION (Omitted)	Annex <u>2.3.1-3</u> TESTING PROCEDURES FOR CONTROL SYSTEMS FOR CONTROLLABLE PITCH PROPELLERS INTENDED FOR MAIN PROPULSION (Omitted)	Renumbered
Annex <u>2.1.7-8</u> GUIDANCE FOR INCLINING TEST An1.2Preparation for the Test An1.2.2 Inclining Test Conditions 5 <u>Residues of cargo, tools, debris, scaffolding, snow and ice adhering to the inner and outer surfaces, including the underwater hull, are to be removed as far as practicable.</u>	Annex <u>2.3.2</u> GUIDANCE FOR INCLINING TEST An1.2Preparation for the Test An1.2.2 Inclining Test Conditions 5 <u>The ship is to be cleared of residues of cargo, tools, debris, scaffolding and snow. Icing of the inner and outer surfaces, the underwater hull included, is not permitted.</u>	Renumbered Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text because as snow and ice removal is carried out to the extent practicable, depending on the situation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part P MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES Chapter 1 GENERAL 1.2 Definitions 1.2.23 Units Fixed on the Seabed or Positioned Semi-permanent Units fixed on the seabed or positioned semi-permanent mean that the units are fixed on the seabed or positioned at a specific sea area over 36 months which is the maximum interval of Docking Survey specified in <u>6.1.2-1</u>, Part B.	RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part P MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES Chapter 1 GENERAL 1.2 Definitions 1.2.23 Units Fixed on the Seabed or Positioned Semi-permanent Units fixed on the seabed or positioned semi-permanent mean that the units are fixed on the seabed or positioned at a specific sea area over 36 months which is the maximum interval of Docking Survey specified in <u>1.1.3</u>, Part B.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR MARINE POLLUTION PREVENTION SYSTEMS Part 2 SURVEYS Chapter 1 GENERAL 1.1 General 1.1.3 Intervals of Surveys* 2 Annual Surveys Annual Surveys are to be carried out at intervals specified in 3.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. 3 Intermediate Surveys Intermediate Surveys are to be carried out at intervals specified in 4.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. 4 Special Surveys Special Surveys are to be carried out at intervals specified in 5.1.2-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. 1.1.4 Periodical Surveys Carried Out in Advance The requirements for Periodical Surveys carried out in advance are to be in accordance with the provisions specified in 3.1.2-2, 4.1.2-5, 5.1.2-3, Part B of the Rules for the Survey and Construction of Steel Ships.	RULES FOR MARINE POLLUTION PREVENTION SYSTEMS Part 2 SURVEYS Chapter 1 GENERAL 1.1 General 1.1.3 Intervals of Surveys* 2 Annual Surveys Annual Surveys are to be carried out at intervals specified in 1.1.3-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. 3 Intermediate Surveys Intermediate Surveys are to be carried out at intervals specified in 1.1.3-1(2), Part B of the Rules for the Survey and Construction of Steel Ships. 4 Special Surveys Special Surveys are to be carried out at intervals specified in 1.1.3-1(3)(a), Part B of the Rules for the Survey and Construction of Steel Ships. 1.1.4 Periodical Surveys Carried Out in Advance The requirements for Periodical Surveys carried out in advance are to be in accordance with the provisions specified in 1.1.4, Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
1.1.5 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in 1.1.4-1(1) or 1.1.4-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	1.1.5 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in 1.1.5-1(1) or 1.1.5-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR SAFETY EQUIPMENT Chapter 2 SURVEYS OF SAFETY EQUIPMENT 2.1 General 2.1.2 Time of Registration Surveys and Intervals of Registration Maintenance Surveys* 2 Registration Maintenance Surveys are to be carried out at the following intervals: (1) Special Surveys are to be carried out at intervals specified in 5.1.2-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. (2) Periodical Surveys are to be carried out at intervals specified in 4.1.2-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. (3) Annual Surveys are to be carried out at intervals specified in 3.1.2-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. ((4) and (5) are omitted.) 2.1.3 Registration Maintenance Surveys Carried Out in Advance The requirements for Registration Maintenance Surveys carried out in advance are to be in accordance with the provisions specified in 3.1.2-2, 4.1.2-5, and 5.1.2-3, Part B of the Rules for the Survey and Construction of Steel Ships.	RULES FOR SAFETY EQUIPMENT Chapter 2 SURVEYS OF SAFETY EQUIPMENT 2.1 General 2.1.2 Time of Registration Surveys and Intervals of Registration Maintenance Surveys* 2 Registration Maintenance Surveys are to be carried out at the following intervals: (1) Special Surveys are to be carried out at intervals specified in 1.1.3-1(3)(a), Part B of the Rules for the Survey and Construction of Steel Ships. (2) Periodical Surveys are to be carried out at intervals specified in 1.1.3-1(2)(a), Part B of the Rules for the Survey and Construction of Steel Ships. (3) Annual Surveys are to be carried out at intervals specified in 1.1.3-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. ((4) and (5) are omitted.) 2.1.3 Registration Maintenance Surveys Carried Out in Advance The requirements for Registration Maintenance Surveys carried out in advance are to be in accordance with the provisions specified in 1.1.4, Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
2.1.4 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in 1.1.4-1(1) or 1.1.4-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	2.1.4 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in 1.1.5-1(1) or 1.1.5-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR RADIO INSTALLATIONS Chapter 2 SURVEYS 2.1 General 2.1.2 Time of Registration Surveys and Intervals between Registration Maintenance Surveys* 2 Registration Maintenance Surveys are to be carried out in accordance with the requirements specified in (1) through (4) below. (1) Special Surveys are to be carried out at intervals specified in <u>5.1.2-1(1)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (2) Periodical Surveys are to be carried out at intervals specified in <u>3.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((3) to (5) are omitted.) 2.1.3 Registration Maintenance Surveys Carried Out in Advance The requirements for Registration Maintenance Surveys carried out in advance are to be in accordance with the provisions specified in <u>3.1.2-2</u>, <u>4.1.2-5</u>, and <u>5.1.2-3</u>, Part B of the Rules for the Survey and Construction of Steel Ships. 2.1.4 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified		
	RULES FOR RADIO INSTALLATIONS Chapter 2 SURVEYS 2.1 General 2.1.2 Time of Registration Surveys and Intervals between Registration Maintenance Surveys* 2 Registration Maintenance Surveys are to be carried out in accordance with the requirements specified in (1) through (4) below. (1) Special Surveys are to be carried out at intervals specified in <u>1.1.3-1(3)(a)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (2) Periodical Surveys are to be carried out at intervals specified in <u>1.1.3-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((3) to (5) are omitted.) 2.1.3 Registration Maintenance Surveys Carried Out in Advance The requirements for Registration Maintenance Surveys carried out in advance are to be in accordance with the provisions specified in <u>1.1.4</u>, Part B of the Rules for the Survey and Construction of Steel Ships. 2.1.4 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
in 1.1.4-1(1) or 1.1.4-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	in 1.1.5-1(1) or 1.1.5-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR ANTI-FOULING SYSTEMS ON SHIPS Chapter 2 SURVEYS 2.1 General 2.1.2 Time of Surveys* Time of the Surveys is specified in the following (1) to (4). Surveys specified in (1), (3) and (4) are in general to be carried out in dry docks or on slipways. (1) Registration Surveys are to be carried out at the time the application for registration is made. (2) Periodical Surveys are to be carried out at the time of Docking Surveys for the Classification (e.g. the time given in <u>5.1.2-1</u> and <u>6.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships). ((3) and (4) are omitted.) 2.1.3 Periodical Surveys Carried Out in Advance and Postponement The requirements for Periodical Surveys carried out in advance are to be in accordance with the provisions relevant to the Periodical Surveys for the Classification (e.g. <u>3.1.2-2</u>, <u>4.1.2-5</u>, <u>5.1.2-3</u> or <u>1.1.4</u>, Part B of the Rules for the Survey and Construction of Steel Ships).	RULES FOR ANTI-FOULING SYSTEMS ON SHIPS Chapter 2 SURVEYS 2.1 General 2.1.2 Time of Surveys* Time of the Surveys is specified in the following (1) to (4). Surveys specified in (1), (3) and (4) are in general to be carried out in dry docks or on slipways. (1) Registration Surveys are to be carried out at the time the application for registration is made. (2) Periodical Surveys are to be carried out at the time of Docking Surveys for the Classification (e.g. the time given in <u>1.1.3-1(3)</u> and <u>(4)</u>, Part B of the Rules for the Survey and Construction of Steel Ships). ((3) and (4) are omitted.) 2.1.3 Periodical Surveys Carried Out in Advance and Postponement The requirements for Periodical Surveys carried out in advance are to be in accordance with the provisions relevant to the Periodical Surveys for the Classification (e.g. <u>1.1.4</u> or <u>1.1.5</u>, Part B of the Rules for the Survey and Construction of Steel Ships).	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR BALLAST WATER MANAGEMENT INSTALLATIONS Part 2 SURVEYS Chapter 1 GENERAL 1.1 General 1.1.3 Intervals of Surveys* 2 Annual Surveys Annual Surveys are to be carried out at intervals specified in 3.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. 3 Intermediate Surveys Intermediate Surveys are to be carried out at intervals specified in 4.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. 4 Special Surveys Special Surveys are to be carried out at intervals specified in 5.1.2-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. 1.1.4 Periodical Surveys Carried Out in Advance The requirements for Periodical Surveys carried out in advance are to be in accordance with the provisions specified in 3.1.2-2, 4.1.2-5, and 5.1.2-3, Part B of the Rules for the Survey and Construction of Steel Ships.	RULES FOR BALLAST WATER MANAGEMENT INSTALLATIONS Part 2 SURVEYS Chapter 1 GENERAL 1.1 General 1.1.3 Intervals of Surveys* 2 Annual Surveys Annual Surveys are to be carried out at intervals specified in 1.1.3-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. 3 Intermediate Surveys Intermediate Surveys are to be carried out at intervals specified in 1.1.3-1(2), Part B of the Rules for the Survey and Construction of Steel Ships. 4 Special Surveys Special Surveys are to be carried out at intervals specified in 1.1.3-1(3)(a), Part B of the Rules for the Survey and Construction of Steel Ships. 1.1.4 Periodical Surveys Carried Out in Advance The requirements for Periodical Surveys carried out in advance are to be in accordance with the provisions specified in 1.1.4, Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
1.1.5 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in 1.1.4-1(1) or 1.1.4-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	1.1.5 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in 1.1.5-1(1) or 1.1.5-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR THE SHIP RECYCLING Part 3 REQUIREMENTS FOR SHIPS Chapter 2 SURVEY 2.1 General 2.1.2 Intervals of Surveys (<i>Regulation 10 of Annex</i>) Surveys are to be carried out in accordance with the following in (1) to (5). ((1) is omitted.) (2) Renewal Surveys Renewal Surveys are to be carried out at the intervals specified in 5.1.2-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. ((3) to (5) are omitted.)	RULES FOR THE SHIP RECYCLING Part 3 REQUIREMENTS FOR SHIPS Chapter 2 SURVEY 2.1 General 2.1.2 Intervals of Surveys (<i>Regulation 10 of Annex</i>) Surveys are to be carried out in accordance with the following in (1) to (5). ((1) is omitted.) (2) Renewal Surveys Renewal Surveys are to be carried out at the intervals specified in 1.1.3-1(3)(a), Part B of the Rules for the Survey and Construction of Steel Ships. ((3) to (5) are omitted.)	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR CARGO REFRIGERATING INSTALLATIONS Chapter 2 SURVEYS 2.1 General 2.1.2 Registration Surveys and Intervals of Registration Maintenance Surveys* 2 Registration Maintenance Surveys Refrigerating installations which have been registered are to undergo surveys in accordance with the following intervals to maintain their registrations. (1) Special Surveys are to be carried out at intervals specified in 5.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. (2) Annual Surveys are to be carried out at intervals specified in 3.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. ((3) and (4) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with the provisions specified in 3.1.2-2, 4.1.2-5, and 5.1.2-3, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys	RULES FOR CARGO REFRIGERATING INSTALLATIONS Chapter 2 SURVEYS 2.1 General 2.1.2 Registration Surveys and Intervals of Registration Maintenance Surveys* 2 Registration Maintenance Surveys Refrigerating installations which have been registered are to undergo surveys in accordance with the following intervals to maintain their registrations. (1) Special Surveys are to be carried out at intervals specified in 1.1.3-1(3), Part B of the Rules for the Survey and Construction of Steel Ships. (2) Annual Surveys are to be carried out at intervals specified in 1.1.3-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. ((3) and (4) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with the provisions specified in 1.1.4, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in 1.1.4-1(1) or 1.1.4-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in 1.1.5-1(1) or 1.1.5-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR DIVING SYSTEMS Chapter 2 SURVEYS OF THE DIVING UNIT AND SYSTEMS 2.1 General 2.1.2 Survey Intervals* 2 Registration Maintenance Surveys are to be carried out at the times as prescribed in (1) to (4) below. (1) Special Surveys are to be carried out at intervals specified in <u>5.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (2) Annual Surveys are to be carried out at intervals specified in <u>3.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((3) and (4) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with the provisions specified in <u>3.1.2-2</u> and <u>5.1.2-3</u>, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in <u>1.1.4-1(1)</u> or <u>1.1.4-1(2)</u>, Part B of the Rules for the Survey and	RULES FOR DIVING SYSTEMS Chapter 2 SURVEYS OF THE DIVING UNIT AND SYSTEMS 2.1 General 2.1.2 Survey Intervals* 2 Registration Maintenance Surveys are to be carried out at the times as prescribed in (1) to (4) below. (1) Special Surveys are to be carried out at intervals specified in <u>1.1.3-1(3)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (2) Annual Surveys are to be carried out at intervals specified in <u>1.1.3-1(1)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((3) and (4) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with the provisions specified in <u>1.1.4</u>, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for postponement of Special Surveys are to be in accordance with the provisions specified in <u>1.1.5-1(1)</u> or <u>1.1.5-1(2)</u>, Part B of the Rules for the Survey and	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Construction of Steel Ships.	Construction of Steel Ships.	relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR AUTOMATIC AND REMOTE CONTROL SYSTEMS Chapter 2 SURVEYS OF AUTOMATIC AND REMOTE CONTROL SYSTEMS 2.1 General 2.1.2 Survey Intervals* Surveys are to be carried out in accordance with the following requirements given in (1) and (2): (1) Registration Surveys are to be carried out at the time of application for registration. (2) Registration Maintenance Surveys are to be carried out at those times as prescribed in (a) to (d) below. (a) Special Surveys are to be carried out at those intervals specified in <u>5.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (b) Annual Surveys are to be carried out at those intervals specified in <u>3.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((c) and (d) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys	RULES FOR AUTOMATIC AND REMOTE CONTROL SYSTEMS Chapter 2 SURVEYS OF AUTOMATIC AND REMOTE CONTROL SYSTEMS 2.1 General 2.1.2 Survey Intervals* Surveys are to be carried out in accordance with the following requirements given in (1) and (2): (1) Registration Surveys are to be carried out at the time of application for registration. (2) Registration Maintenance Surveys are to be carried out at those times as prescribed in (a) to (d) below. (a) Special Surveys are to be carried out at those intervals specified in <u>1.1.3-1(3)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (b) Annual Surveys are to be carried out at those intervals specified in <u>1.1.3-1(1)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((c) and (d) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys	Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
carried out in advance are to be in accordance with those provisions specified in 3.1.2-2, 4.1.2-5, and 5.1.2-3, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys are to be in accordance with those provisions specified in 1.1.4-1(1) or 1.1.4-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	carried out in advance are to be in accordance with those provisions specified in 1.1.4, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys are to be in accordance with those provisions specified in 1.1.5-1(1) or 1.1.5-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR NAVIGATION BRIDGE SYSTEMS Chapter 2 SURVEYS OF NAVIGATION BRIDGE SYSTEMS 2.1 General 2.1.2 Time of Registration Surveys and Intervals of Registration Maintenance Surveys* 2 Registration Maintenance Surveys are to be carried out at the following intervals: (1) Special Surveys are to be carried out at those intervals specified in <u>5.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (2) Annual Surveys are to be carried out at those intervals specified in <u>3.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((3) and (4) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with those provisions specified in <u>3.1.2-2</u>, <u>4.1.2-5</u>, and <u>5.1.2-3</u>, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys	RULES FOR NAVIGATION BRIDGE SYSTEMS Chapter 2 SURVEYS OF NAVIGATION BRIDGE SYSTEMS 2.1 General 2.1.2 Time of Registration Surveys and Intervals of Registration Maintenance Surveys* 2 Registration Maintenance Surveys are to be carried out at the following intervals: (1) Special Surveys are to be carried out at those intervals specified in <u>1.1.3-1(3)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (2) Annual Surveys are to be carried out at those intervals specified in <u>1.1.3-1(1)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((3) and (4) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with those provisions specified in <u>1.1.4</u>, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
are to be in accordance with those provisions specified in 1.1.4-1(1) or 1.1.4-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	are to be in accordance with those provisions specified in 1.1.5-1(1) or 1.1.5-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR PREVENTIVE MACHINERY MAINTENANCE SYSTEMS Chapter 2 SURVEYS 2.1 General 2.1.2 Period of Surveys* 2 Registration Maintenance Surveys are to be carried out at the following intervals: (1) Special Surveys are to be carried out at those intervals specified in <u>5.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (2) Annual Surveys are to be carried out at those intervals specified in <u>3.1.2-1</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((3) and (4) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with those provisions specified in <u>3.1.2-2</u>, <u>4.1.2-5</u>, and <u>5.1.2-3</u>, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys are to be in accordance with those provisions specified in <u>1.1.4-1(1)</u> or <u>1.1.4-1(2)</u>, Part B of the Rules for the Survey	RULES FOR PREVENTIVE MACHINERY MAINTENANCE SYSTEMS Chapter 2 SURVEYS 2.1 General 2.1.2 Period of Surveys* 2 Registration Maintenance Surveys are to be carried out at the following intervals: (1) Special Surveys are to be carried out at those intervals specified in <u>1.1.3-1(3)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. (2) Annual Surveys are to be carried out at those intervals specified in <u>1.1.3-1(1)</u>, Part B of the Rules for the Survey and Construction of Steel Ships. ((3) and (4) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with those provisions specified in <u>1.1.4</u>, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys are to be in accordance with those provisions specified in <u>1.1.5-1(1)</u> or <u>1.1.5-1(2)</u>, Part B of the Rules for the Survey	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
and Construction of Steel Ships.	and Construction of Steel Ships.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR INTEGRATED FIRE CONTROL SYSTEMS Chapter 2 SURVEYS 2.1 General 2.1.2 Time of Registration Survey and Intervals of Registration Maintenance Surveys The timing of Registration Surveys and the intervals for Registration Maintenance Surveys are as in the following (1) and (2). Surveys, as a rule, are to be carried out at the same time as Classification Surveys. (1) Registration Surveys are to be carried out at the time of application for registration. (2) Registration Maintenance Surveys are to be carried out at the following intervals: (a) Special Surveys are to be carried out at those intervals specified in 5.1.2-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. (b) Intermediate Surveys are to be carried out at those intervals specified in 4.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. (c) Annual Surveys are to be carried out at those intervals specified in 3.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships.	RULES FOR INTEGRATED FIRE CONTROL SYSTEMS Chapter 2 SURVEYS 2.1 General 2.1.2 Time of Registration Survey and Intervals of Registration Maintenance Surveys The timing of Registration Surveys and the intervals for Registration Maintenance Surveys are as in the following (1) and (2). Surveys, as a rule, are to be carried out at the same time as Classification Surveys. (1) Registration Surveys are to be carried out at the time of application for registration. (2) Registration Maintenance Surveys are to be carried out at the following intervals: (a) Special Surveys are to be carried out at those intervals specified in 1.1.3-1(3)(a), Part B of the Rules for the Survey and Construction of Steel Ships. (b) Intermediate Surveys are to be carried out at those intervals specified in 1.1.3-1(2), Part B of the Rules for the Survey and Construction of Steel Ships. (c) Annual Surveys are to be carried out at those intervals specified in 1.1.3-1(1), Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
((d) and (e) are omitted.) 2.1.3 Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys, Intermediate Surveys and Annual Surveys carried out in advance are to be in accordance with those provisions specified in <u>3.1.2-2, 4.1.2-5, and 5.1.2-3, Part B of the Rules for the Survey and Construction of Steel Ships.</u> 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys are to be in accordance with those provisions specified in <u>1.1.4-1(1) or 1.1.4-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.</u>	((d) and (e) are omitted.) 2.1.3 Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys, Intermediate Surveys and Annual Surveys carried out in advance are to be in accordance with those provisions specified in <u>1.1.4, Part B of the Rules for the Survey and Construction of Steel Ships.</u> 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys are to be in accordance with those provisions specified in <u>1.1.5-1(1) or 1.1.5-1(2), Part B of the Rules for the Survey and Construction of Steel Ships.</u>	Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR HULL MONITORING SYSTEMS Chapter 2 SURVEY 2.1 General 2.1.2 Time and Intervals of Surveys 2 Registration Maintenance Surveys are to be carried out at the following intervals: (1) Annual Surveys are to be carried out at those times stipulated in 3.1.2-1, Part B of the Rules for Survey and Construction of Steel Ships ((2) and (3) are omitted.) 2.1.3 Surveys Carried Out in Advance Annual Surveys may be carried out in advance of their due dates in accordance with the requirements given in 3.1.2-2, Part B of Rules for Survey and Construction of Steel Ships.	RULES FOR HULL MONITORING SYSTEMS Chapter 2 SURVEY 2.1 General 2.1.2 Time and Intervals of Surveys 2 Registration Maintenance Surveys are to be carried out at the following intervals: (1) Annual Surveys are to be carried out at those times stipulated in 1.1.3-1(1), Part B of the Rules for Survey and Construction of Steel Ships ((2) and (3) are omitted.) 2.1.3 Surveys Carried Out in Advance Annual Surveys may be carried out in advance of their due dates in accordance with the requirements given in 1.1.4, Part B of Rules for Survey and Construction of Steel Ships.	Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR CENTRALIZED CARGO MONITORING AND CONTROL SYSTEMS Chapter 2 SURVEYS 2.1 General 2.1.2 Survey Intervals* Surveys are to be carried out in accordance with the following requirements given in (1) and (2): ((1) is omitted.) (2) Registration Maintenance Surveys are to be carried out at those times as prescribed in (a) to (d) below. (a) Special Surveys are to be carried out at those intervals specified in 5.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. (b) Annual Surveys are to be carried out at those intervals specified in 3.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. ((c) and (d) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with those provisions specified in 3.1.2-2 and 5.1.2-3, Part B of the	RULES FOR CENTRALIZED CARGO MONITORING AND CONTROL SYSTEMS Chapter 2 SURVEYS 2.1 General 2.1.2 Survey Intervals* Surveys are to be carried out in accordance with the following requirements given in (1) and (2): ((1) is omitted.) (2) Registration Maintenance Surveys are to be carried out at those times as prescribed in (a) to (d) below. (a) Special Surveys are to be carried out at those intervals specified in 1.1.3-1(3), Part B of the Rules for the Survey and Construction of Steel Ships. (b) Annual Surveys are to be carried out at those intervals specified in 1.1.3-1(1), Part B of the Rules for the Survey and Construction of Steel Ships. ((c) and (d) are omitted.) 2.1.3 Special Surveys and Annual Surveys Carried Out in Advance, etc. 1 Surveys carried out in advance The requirements for Special Surveys and Annual Surveys carried out in advance are to be in accordance with those provisions specified in 1.1.4, Part B of the Rules for the	Revised reference numbers due to relocation. Revised reference numbers due to

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Rules for the Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys are to be in accordance with those provisions specified in 1.1.4-1(1) or 1.1.4-2(2), Part B of the Rules for the Survey and Construction of Steel Ships.	Survey and Construction of Steel Ships. 2 Postponement of Special Surveys The requirements for the postponement of Special Surveys are to be in accordance with those provisions specified in 1.1.5(1) or 1.1.5(2), Part B of the Rules for the Survey and Construction of Steel Ships.	relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR HIGH SPEED CRAFT Part 2 CLASS SURVEYS Chapter 2 CLASSIFICATION SURVEYS 2.1 Classification Survey during Construction 2.1.5 Hydrostatic and Watertight Tests In the Classification Survey during construction, hydrostatic tests, watertight tests, etc., are to be carried out in accordance with the following: (1) Hull and equipment Hydrostatic tests or watertight tests are to be carried out in accordance with Annex 2.1.7-2, in Part B of the Rules for the Survey and Construction of Steel Ships. ((2) is omitted.) 2.3 Sea Trials and Stability Experiments 2.3.1 Sea Trials* 1 In the Classification Survey of all craft, sea trials specified in following (1) to (11) are to be carried out in a full load condition, at the calmest possible sea and weather conditions and in deep unrestricted water. However, where sea	RULES FOR HIGH SPEED CRAFT Part 2 CLASS SURVEYS Chapter 2 CLASSIFICATION SURVEYS 2.1 Classification Survey during Construction 2.1.5 Hydrostatic and Watertight Tests In the Classification Survey during construction, hydrostatic tests, watertight tests, etc., are to be carried out in accordance with the following: (1) Hull and equipment Hydrostatic tests or watertight tests are to be carried out in accordance with Annex 2.1.5 in Part B of the Rules for the Survey and Construction of Steel Ships. ((2) is omitted.) 2.3 Sea Trials and Stability Experiments 2.3.1 Sea Trials* 1 In the Classification Survey of all craft, sea trials specified in following (1) to (11) are to be carried out in a full load condition, at the calmest possible sea and weather conditions and in deep unrestricted water. However, where sea	Revised reference numbers due to change in annex number. Revised reference numbers due to change in annex number.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
trials cannot be carried out in a full load condition, sea trials may be carried out in an appropriate loaded condition. ((1) to (6) are omitted.) (7) Performance test of automatic and remote control systems for main propulsion machinery or the controllable pitch propellers, boilers and electric generating sets. However, the control systems for controllable pitch propellers intended for main propulsion are to be in accordance with Annex 2.1.7-7.C “Testing Procedures for Control Systems for Controllable Pitch Propellers Intended for Main Propulsion”, Part B of the Rules for the Survey and Construction of Steel Ships. ((8) to (11) are omitted.) Chapter 3 PERIODICAL SURVEYS AND PLANNED MACHINERY SURVEYS 3.2 Intervals of Periodical Surveys and Planned Machinery Surveys 3.2.6 Planned Machinery Surveys Planned Machinery Surveys are to be carried out at intervals specified in 9.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships.	trials cannot be carried out in a full load condition, sea trials may be carried out in an appropriate loaded condition. ((1) to (6) are omitted.) (7) Performance test of automatic and remote control systems for main propulsion machinery or the controllable pitch propellers, boilers and electric generating sets. However, the control systems for controllable pitch propellers intended for main propulsion are to be in accordance with Annex 2.3.1-3 “Testing Procedures for Control Systems for Controllable Pitch Propellers Intended for Main Propulsion”, Part B of the Rules for the Survey and Construction of Steel Ships. ((8) to (11) are omitted.) Chapter 3 PERIODICAL SURVEYS AND PLANNED MACHINERY SURVEYS 3.2 Intervals of Periodical Surveys and Planned Machinery Surveys 3.2.6 Planned Machinery Surveys Planned Machinery Surveys are to be carried out at intervals specified in 1.1.2-2.(2), Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Part 5 DESIGN LOADS Chapter 2 DESIGN LOADS 2.6 Design Loads for Watertight Bulkheads and Deep Tanks 2.6.2 Design Loads for Deep Tanks The design loads for deep tanks P_{DT} are to be those obtained from the following formulae. (1) Sea Going Condition $P_{DT} = 10\rho C A_f h_D \text{ (kN/m}^2\text{)}$ where: ρ: The specific gravity of liquid which is intended to carry. However, where the value is less than 1, the specific gravity is to be taken 1. C and A_f: As specified in 2.4.3. h_D: Vertical distance measured from the lower edge of the plates to the mid-point of the height between the top of tanks and the top of overflow pipes (m). (2) Tank Test Condition $P_{DT} = 10h_T \text{ (kN/m}^2\text{)}$ where: h_T: Test head specified in Annex 2.1.7-2, Part B of the Rules for the Survey and Construction of Steel Ships (m).	Part 5 DESIGN LOADS Chapter 2 DESIGN LOADS 2.6 Design Loads for Watertight Bulkheads and Deep Tanks 2.6.2 Design Loads for Deep Tanks The design loads for deep tanks P_{DT} are to be those obtained from the following formulae. (1) Sea Going Condition $P_{DT} = 10\rho C A_f h_D \text{ (kN/m}^2\text{)}$ where: ρ: The specific gravity of liquid which is intended to carry. However, where the value is less than 1, the specific gravity is to be taken 1. C and A_f: As specified in 2.4.3. h_D: Vertical distance measured from the lower edge of the plates to the mid-point of the height between the top of tanks and the top of overflow pipes (m). (2) Tank Test Condition $P_{DT} = 10h_T \text{ (kN/m}^2\text{)}$ where: h_T: Test head specified in Annex 2.1.5, Part B of the Rules for the Survey and Construction of Steel Ships (m).	Revised reference numbers due to change in annex number.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF PASSENGER SHIPS Part 2 CLASS SURVEY Chapter 1 GENERAL 1.1 Surveys 1.1.3 Intervals of Class Maintenance Surveys* 1 Periodical Surveys are to be carried out in accordance with the requirements specified in (1) through (5) below. ((1) to (3) are omitted.) (4) Boiler Surveys Boiler Surveys are to be carried out at intervals specified in 7.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. (5) Propeller Shaft and Stern Tube Shaft Surveys Propeller Shaft and Stern Tube Shaft Surveys are to be carried out at intervals specified in Chapter 8, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Planned Machinery Surveys are to be carried out at intervals specified in 9.1.2-1, Part B of the Rules for the Survey and Construction of Steel Ships. 3 Occasional Surveys are to be carried out on the occasions specified in 1.1.3-2, Part B of the Rules for the Survey and Construction of Steel Ships.	RULES FOR THE SURVEY AND CONSTRUCTION OF PASSENGER SHIPS Part 2 CLASS SURVEY Chapter 1 GENERAL 1.1 Surveys 1.1.3 Intervals of Class Maintenance Surveys* 1 Periodical Surveys are to be carried out in accordance with the requirements specified in (1) through (5) below. ((1) to (3) are omitted.) (4) Boiler Surveys Boiler Surveys are to be carried out at intervals specified in 1.1.3-1(5), Part B of the Rules for the Survey and Construction of Steel Ships. (5) Propeller Shaft and Stern Tube Shaft Surveys Propeller Shaft and Stern Tube Shaft Surveys are to be carried out at intervals specified in Chapter 8, Part B of the Rules for the Survey and Construction of Steel Ships. 2 Planned Machinery Surveys are to be carried out at intervals specified in 1.1.3-2, Part B of the Rules for the Survey and Construction of Steel Ships. 3 Occasional Surveys are to be carried out on the occasions specified in 1.1.3-3, Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
4 Unscheduled Surveys may be carried out in the cases specified in <u>1.1.3-3</u>, Part B of the Rules for the Survey and Construction of Steel Ships. Chapter 2 CLASSIFICATION SURVEYS 2.1 Classification Survey during Construction 2.1.3 Submission of Other Plans and Documents* With respect to ships intended to undergo the Classification Survey during Construction, the following plans and documents are to be submitted for reference, in addition to the plans and documents specified in 2.1.2: (1) Plans and documents specified in item 1, 2, 3, 5, 6, 20, 47, 56, 59, 60 and <u>89</u>, Table B2.1, Part B of the Rules for the Survey and Construction of Steel Ships. ((2) to (9) are omitted.)	4 Unscheduled Surveys may be carried out in the cases specified in <u>1.1.3-4</u>, Part B of the Rules for the Survey and Construction of Steel Ships. Chapter 2 CLASSIFICATION SURVEYS 2.1 Classification Survey during Construction 2.1.3 Submission of Other Plans and Documents* With respect to ships intended to undergo the Classification Survey during Construction, the following plans and documents are to be submitted for reference, in addition to the plans and documents specified in 2.1.2: (1) Plans and documents specified in item 1, 2, 3, 5, 6, 20, 47, 56, 59, 60 and <u>88</u>, Table B2.1, Part B of the Rules for the Survey and Construction of Steel Ships. ((2) to (9) are omitted.)	Revised reference numbers due to relocation. Revised of reference numbers due to revision of table.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS Part 2 CLASS SURVEYS Chapter 2 CLASSIFICATION SURVEYS 2.3 River Trials and Stability Experiments 2.3.1 River Trials* 1 In the Classification Survey of all ships, river trials specified in following (1) to (9) are to be carried out in full load condition, in the calmest possible water and weather condition and in deep unrestricted water. However, where river trials cannot be carried out in full load condition, river trials may be carried out in an appropriate loaded condition. ((1) to (4) are omitted.) (5) Performance test of automatic and remote control systems for main propulsion machinery, controllable pitch propellers, boilers and electric generating sets. However, the control systems for controllable pitch propellers intended for main propulsion are to be in accordance with Annex 2.1.7-7C “Testing Procedures for Control Systems for Controllable Pitch Propellers Intended for Main Propulsion”, Part B of the Rules for the Survey and Construction of Steel Ships.	RULES FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS Part 2 CLASS SURVEYS Chapter 2 CLASSIFICATION SURVEYS 2.3 River Trials and Stability Experiments 2.3.1 River Trials* 1 In the Classification Survey of all ships, river trials specified in following (1) to (9) are to be carried out in full load condition, in the calmest possible water and weather condition and in deep unrestricted water. However, where river trials cannot be carried out in full load condition, river trials may be carried out in an appropriate loaded condition. ((1) to (4) are omitted.) (5) Performance test of automatic and remote control systems for main propulsion machinery, controllable pitch propellers, boilers and electric generating sets. However, the control systems for controllable pitch propellers intended for main propulsion are to be in accordance with Annex 2.3.1-3 “Testing Procedures for Control Systems for Controllable Pitch Propellers Intended for Main Propulsion”, Part B of the Rules for the Survey and Construction of Steel Ships. ((6) to (9) are omitted.)	Revised reference numbers due to change in annex number.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
((6) to (9) are omitted.)		

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Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE AUDIT AND REGISTRATION OF SHIP SAFETY MANAGEMENT SYSTEMS Chapter 5 AUDIT OF SHIPBOARD SMS 5.5 Ships Laid-up For the commencement of lay-up, the ship owner is required to submit the Application for the Ship Laid-up to the nearest Society's local office. However, the document has been submitted under the provisions of B1.1.7, Guidance for the Survey and Construction of Steel Ships or 3.6, Guidance for the Audit and Registration of Ship Security Management Systems, this requirement may be omitted.	GUIDANCE FOR THE AUDIT AND REGISTRATION OF SHIP SAFETY MANAGEMENT SYSTEMS Chapter 5 AUDIT OF SHIPBOARD SMS 5.5 Ships Laid-up For the commencement of lay-up, the ship owner is required to submit the Application for the Ship Laid-up to the nearest Society's local office. However, the document has been submitted under the provisions of B1.1.8, Guidance for the Survey and Construction of Steel Ships or 3.6, Guidance for the Audit and Registration of Ship Security Management Systems, this requirement may be omitted.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE AUDIT AND REGISTRATION OF SHIP SECURITY MANAGEMENT SYSTEMS Chapter 3 AUDIT OF SECURITY MANAGEMENT SYSTEMS 3.6 Ships Laid-up For the commencement of lay-up, the ship owner is required to submit the following documents to the nearest Society's local office. However, the document specified in (1) has been submitted under the provisions of B1.1.7, Part B, Guidance for the Survey and Construction of Steel Ships or 5.5, Guidance for the Audit and Registration of Safety Management Systems, the submission of the document specified (1) is not required. (1) Application for the Ship Laid-up (2) A copy of the Certificate of acceptance of lay-up written by the Authority	GUIDANCE FOR THE AUDIT AND REGISTRATION OF SHIP SECURITY MANAGEMENT SYSTEMS Chapter 3 AUDIT OF SECURITY MANAGEMENT SYSTEMS 3.6 Ships Laid-up For the commencement of lay-up, the ship owner is required to submit the following documents to the nearest Society's local office. However, the document specified in (1) has been submitted under the provisions of B1.1.8, Part B, Guidance for the Survey and Construction of Steel Ships or 5.5, Guidance for the Audit and Registration of Safety Management Systems, the submission of the document specified (1) is not required. (1) Application for the Ship Laid-up (2) A copy of the Certificate of acceptance of lay-up written by the Authority	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part B CLASS SURVEYS B1 GENERAL B1.1 Surveys (Deleted) (Moved)	GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part B CLASS SURVEYS B1 GENERAL B1.1 Surveys <u>B1.1.2 Class Maintenance Surveys</u> <u>1 Modifications and changes that are subject to Occasional Surveys referred to in 1.1.2-2(3), Part B of the Rules are as specified in (1) through (5) below:</u> <u>(1) Change in the purpose of combined deep water tank/oil tank/cargo hold</u> <u>When such dual-purpose holds are intended to be used for cargoes exclusively, the Owner is to submit an application form (APP-CP) to the Society. A part of the oil/ballast suction line is to be removed and blank flanges are to be fitted at the end of the line. Hydrostatic tests for the holds need not be carried out after the change.</u> <u>(2) Change in the purpose of tanks</u> <u>When the purpose of a tank is changed for ships complying with the Rules in editions since 1964, the Owner is to submit an application for the change of purpose to the Society. The longitudinal strength is to be verified again, and suitable reinforcement is to be</u>	Transferred to B1.1.3-1, Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	provided as necessary. (3) <u>Change in the loading conditions</u> When ships are loaded in an extremely different way from the conditions specified in the approved plans, the longitudinal strength, shearing force and local strength are to be verified and approved by the Society. (4) <u>Change in the loading manuals, the stability information and other similar documents</u> When a modification is intended that alters the principal data of the ship, 2.3.1, Part B of the Rules apply. (5) <u>Other changes and modifications</u> As changes and modifications may require approval by the Society, the Owner is to notify the Society in such a case. In general, modifications to the main hull structure require approval by the Society. Reference is made to the provisions of 2.3.1, Part B of the Rules. 2 <u>Where a change needs to be made to the documents listed in Table B2.1 to Table B2.5, Part B of the Rules as a result of modifications and changes specified in -1 above, relevant documents are to be renewed and then confirmed/approved by the Surveyor. However, small changes to the contents of such documents due to repair work based on the principle of restoration or localized reinforcement (e.g. changes of welding lines due to the replacement of plate structure, addition of local stiffeners for carrying short-term deck cargoes) need not require such renewal and confirmation/approval.</u>	Transferred to B1.1.3-2, Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B1.1.3 Intervals of Class Maintenance Surveys (Moved) (Moved) <u>1 Modifications and changes that are subject to Occasional Surveys referred to in 1.1.3-2(1), Part B of the Rules are as specified in (1) through (5) below:</u> (1) <u>Change in the purpose of combined deep water tank/oil tank/cargo hold</u> <u>When such dual-purpose holds are intended to be used for cargoes exclusively, the Owner is to submit an application form (APP-CP) to the Society. A part of the oil/ballast suction line is to be removed and blank flanges are to be fitted at the end of the line. Hydrostatic tests for the holds need not be carried out after the change.</u> (2) <u>Change in the purpose of tanks</u> <u>When the purpose of a tank is changed for ships</u>	B1.1.3 Intervals of Class Maintenance Surveys <u>1 In applying the requirements specified in 1.1.3-1(3)(b), Part B of the Rules, where Annual Surveys or Intermediate Surveys have been carried out in advance in accordance with 1.1.4-1 and -2, Part B of the Rules, the Special Survey may be carried as specified in (1) or (2) below:</u> (1) <u>The Special Survey may commence up to 15 months before the date of expiry of the Certificate of Classification and be completed within 3 months before the date of expiry of the Certificate of Classification.</u> (2) <u>The Special Survey may be carried out during the period specified in accordance with 1.1.4-3, Part B of the Rules.</u> <u>2 The main parts of machinery specified in 1.1.3-3(1), Part B of the Rules generally refer to the parts subject to examination at the Classification Survey.</u> (Moved)	Transferred to 5.1.2-1(3), Part B of the Rules Transferred to 1.1.3-2(1), Part B of the Rules Transferred from B1.1.2-1, Part B of the Guidance Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>complying with the Rules in editions since 1964, the Owner is to submit an application for the change of purpose to the Society. The longitudinal strength is to be verified again, and suitable reinforcement is to be provided as necessary.</u> (3) <u>Change in the loading conditions</u> <u>When ships are loaded in an extremely different way from the conditions specified in the approved plans, the longitudinal strength, shearing force and local strength are to be verified and approved by the Society.</u> (4) <u>Change in the loading manuals, the stability information and other similar documents</u> <u>When a modification is intended that alters the principal data of the ship, 2.3.1, Part B of the Rules apply.</u> (5) <u>Other changes and modifications</u> <u>As changes and modifications may require approval by the Society, the Owner is to notify the Society in such a case. In general, modifications to the main hull structure require approval by the Society. Reference is made to the provisions of 2.3.1, Part B of the Rules.</u> 2 <u>Where a change needs to be made to the documents listed in Table B2.1 to Table B2.5, Part B of the Rules as a result of modifications and changes specified in -1 above, relevant documents are to be renewed and then confirmed/approved by the Surveyor. However, small changes to the contents of such documents due to repair work based on the principle of restoration or localized reinforcement (e.g. changes of welding lines due to the replacement of plate structure, addition of local stiffeners for carrying short-term</u>	(Moved)	Transferred from B1.1.2-2, Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
deck cargoes) need not require such renewal and confirmation/approval. 3 The Occasional Surveys specified in 1.1.3-3(5), Part B of the Rules are as specified below: ((1) to (19) are omitted.) (20) Portable atmosphere testing instruments for enclosed spaces For ships of not less than 500 <i>gross tonnage</i> engaged on international voyages <u>(except steel barges, submersibles)</u> which had been at the beginning stage of construction before 1 July 2016, it is to be verified that portable atmosphere testing instruments complying with 1.5.1, Part B of the Rules are provided on board by the first survey on or after 1 July 2016. ((21) to (28) are omitted.) 4 With respect to the provisions of -3 above, for ships at beginning stage of construction, such construction began before the effective date of each Occasional Survey requirements and such ships are delivered after these effective date, the Classification Survey of such ships is regarded as either their “first survey” or their “first scheduled dry docking”, <u>“survey before starting use”</u>; therefore, these ships need to comply with each of the requirements of Occasional Surveys by the completion date of their Classification Survey. (Deleted) (Moved)	3 The Occasional Surveys specified in 1.1.3-3(5), Part B of the Rules are as specified below: ((1) to (19) are omitted.) (20) Portable atmosphere testing instruments for enclosed spaces For ships of not less than 500 <i>gross tonnage</i> engaged on international voyages which had been at the beginning stage of construction before 1 July 2016, it is to be verified that portable atmosphere testing instruments complying with 1.5.1, Part B of the Rules are provided on board by the first survey on or after 1 July 2016. ((21) to (28) are omitted.) 4 With respect to the provisions of -3 above, for ships at beginning stage of construction, such construction began before the effective date of each Occasional Survey requirements and such ships are delivered after these effective date, the Classification Survey of such ships is regarded as either their “first survey” or their “first scheduled dry docking”; therefore, these ships need to comply with each of the requirements of Occasional Surveys by the completion date of their Classification Survey. <u>B1.1.4 Periodical Surveys Carried Out in Advance</u> <u>Where an Annual Survey or Intermediate Survey was carried out in advance in accordance with 1.1.4-1 and -2, Part B of the Rules, the anniversary date is to be amended to a date which is not to be more than three <i>months</i> later than the date on which the Annual Survey or Intermediate Survey was</u>	Alignment of Japanese and English versions of the Rules: Revised wording to be consistent with Japanese text with reference to the expressions in 1.5.1, Part B of Rules. t Transferred to 3.1.2-3 and 4.1.2-6, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Deleted) (Moved)	completed. Subsequent Annual Surveys and Intermediate Surveys specified in 1.1.3-1(1) and 1.1.3-1(2), Part B of the Rules are to be carried out at the intervals using the new anniversary date. However, where the third Periodical Survey (determined using the intervals corresponding to the new anniversary date) after the previous Intermediate Survey is due before the expiry date of the Classification Certificate of the ship, the Intermediate Survey is to be carried out in lieu of the Annual Survey. <u>B1.1.5 Postponement of Surveys</u> <u>The procedure and approval of the postponement of Periodical Surveys specified in 1.1.5, Part B of the Rules are to be handled in accordance with (1) and (2) below;</u> <u>(1) Procedure for postponement of Surveys</u> <u>The ship's Owner or Captain is to submit the documents listed below for approval to the Society before the due time of the Survey intended to be postponed. The documents are to be submitted at any one of our offices at the applicant's convenience. However, where the report file of the Class Survey is not part of the submission, then the documents must be submitted to the head office.</u> <u>(a) Application form (APP-PP): 3 copies (or 2 copies in case where the application is to be submitted to the head office of the Society.)</u> <u>(b) Report file of Class Surveys</u> <u>(2) Approval of postponement of Surveys</u> <u>The Society will verify the items specified in (a) and (b) below, and upon approval, will return one copy of the application to the applicant as proof of approval. The applicant is to take suitable action, such as to keep</u>	(1) and (2)(a) to (b): Transferred to 1.1.5-2, Part B of the Rules (2)(c): Transferred to 7.1.2-3, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B1.1.5 Modification of the Requirements 1 “In cases where considered appropriate by the Society” specified in 1.1.5-1, Part B of the Rules means only those cases where any of the modifications specified in Table	<u>the approval letter on board the ship, in order to show the Surveyor that the ship is accepted to extend the Survey by the Society.</u> <u>(a) The ship is maintained in good order. Verification may be made by reviewing the description of the current condition of the ship on the application and the report file of the Class Surveys.</u> <u>(b) There are no critical Conditions in the survey reports. Critical conditions (used hereafter in this Part) refer to matters that affect or may affect the seaworthiness of the ship.</u> <u>(c) Postponement of the Boiler surveys specified in 1.1.5-3, Part B of the Rules is to be approved by the Society after the following is satisfactorily carried out.</u> <u>i) External examination</u> <u>ii) Operation test of the relieving gear of the safety valve or the relief valve</u> <u>iii) Operation tests of safety devices, alarm devices and pressure indicators</u> <u>iv) Review of the following records since the last Boiler Survey</u> <u>1) Operation</u> <u>2) Maintenance</u> <u>3) Repair history</u> <u>4) Quality control of the feed water or thermal oil</u> B1.1.6 Modification of the Requirements 1 “In cases where considered appropriate by the Society” specified in 1.1.6-1, Part B of the Rules means only those cases where any of the modifications specified in Table	Renumbered Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B1.1.5-1 are carried out during Periodical Surveys and Planned Machinery Surveys. However, this regulation is not to be applied to surveys required by international regulations or by the requirements of flag states. 2 Conditions that “the Surveyor considers ... necessary” as used in 1.1.5-2, Part B of the Rules means any of the following (1) and (2): ((1) and (2) are omitted.) 3 The procedures for internal examination, close-up survey, thickness measurements and hydrostatic tests of tanks and compartments required at Special Surveys carried out on the continuous survey basis in accordance with the requirements in 1.1.5-4, Part B of the Rules are to conform to the following requirements in (1) to (5). ((1) and (5) are omitted.)	B1.1.6-1 are carried out during Periodical Surveys and Planned Machinery Surveys. However, this regulation is not to be applied to surveys required by international regulations or by the requirements of flag states. 2 Conditions that “the Surveyor considers ... necessary” as used in 1.1.6-2, Part B of the Rules means any of the following (1) and (2): ((1) and (2) are omitted.) 3 The procedures for internal examination, close-up survey, thickness measurements and hydrostatic tests of tanks and compartments required at Special Surveys carried out on the continuous survey basis in accordance with the requirements in 1.1.6-4, Part B of the Rules are to conform to the following requirements in (1) to (5). ((1) and (5) are omitted.)	Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks														
Table B1.1.6 – Table B1.1.5-1 Modification of Requirements <table><tr><th>Survey</th><th>Extent and contents of survey</th></tr><tr><td>1 General</td><td>The surveyor may extend the contents of an examination based on the survey history of the ship.</td></tr><tr><td>2 Surveys for similar ships or similar tanks</td><td>In cases where damage has occurred in similar ships or similar tanks, the scope of examinations may be expanded.</td></tr><tr><td>3 Examination of auxiliary machinery and pressure vessels</td><td>With the exception of general examinations, auxiliary machinery and pressure vessels subject to examinations in accordance with the Rules are as follows: (1) Essential auxiliary machinery as specified in 1.1.6, Part D of the Rules. (2) Pressure vessels (Group I and II) and pressure vessels (Group III) for essential uses as specified in 10.1.3, Part D of the Rules.</td></tr><tr><td>4 Examination of machinery and equipment of small capacity or infrequent use</td><td>Examinations of the following machinery and equipment in working condition and general examinations are to be carried out during Special Surveys. An open-up examination is required based on the results of the examination. (1) Air compressors for emergency use and their motors (2) Starting devices of boilers in cold conditions (3) Forced draft fans, pumps, and related parts attached to small packaged boilers (4) Electrical heaters with a capacity of not more than 10 kW (5) Oil tanks with a capacity of not more than 1 m³ (6) Lubricating oil tanks (7) Hand pumps (for bilge, transfer of fuel oil, etc.)</td></tr><tr><td>5 Boiler Surveys</td><td>With respect to Boiler Surveys, the following requirements (1) and (2) may be applied. (1) The examinations of boilers other than those of water tube type subject to Classification Surveys may be modified at the first Boiler Survey after the Classification Survey at the discretion of the Surveyor based on present conditions. (2) The required examinations for pressure vessels less than 8 years of age used for processing fish may be modified at the discretion of the Surveyor.</td></tr><tr><td>6 Others</td><td>With respect to other surveys in cases where specially approved by the Society, examinations are to be carried out in accordance with approved measures.</td></tr></table>		Survey	Extent and contents of survey	1 General	The surveyor may extend the contents of an examination based on the survey history of the ship.	2 Surveys for similar ships or similar tanks	In cases where damage has occurred in similar ships or similar tanks, the scope of examinations may be expanded.	3 Examination of auxiliary machinery and pressure vessels	With the exception of general examinations, auxiliary machinery and pressure vessels subject to examinations in accordance with the Rules are as follows: (1) Essential auxiliary machinery as specified in 1.1.6, Part D of the Rules. (2) Pressure vessels (Group I and II) and pressure vessels (Group III) for essential uses as specified in 10.1.3, Part D of the Rules.	4 Examination of machinery and equipment of small capacity or infrequent use	Examinations of the following machinery and equipment in working condition and general examinations are to be carried out during Special Surveys. An open-up examination is required based on the results of the examination. (1) Air compressors for emergency use and their motors (2) Starting devices of boilers in cold conditions (3) Forced draft fans, pumps, and related parts attached to small packaged boilers (4) Electrical heaters with a capacity of not more than 10 kW (5) Oil tanks with a capacity of not more than 1 m ³ (6) Lubricating oil tanks (7) Hand pumps (for bilge, transfer of fuel oil, etc.)	5 Boiler Surveys	With respect to Boiler Surveys, the following requirements (1) and (2) may be applied. (1) The examinations of boilers other than those of water tube type subject to Classification Surveys may be modified at the first Boiler Survey after the Classification Survey at the discretion of the Surveyor based on present conditions. (2) The required examinations for pressure vessels less than 8 years of age used for processing fish may be modified at the discretion of the Surveyor.	6 Others	With respect to other surveys in cases where specially approved by the Society, examinations are to be carried out in accordance with approved measures.	Renumbered
Survey	Extent and contents of survey															
1 General	The surveyor may extend the contents of an examination based on the survey history of the ship.															
2 Surveys for similar ships or similar tanks	In cases where damage has occurred in similar ships or similar tanks, the scope of examinations may be expanded.															
3 Examination of auxiliary machinery and pressure vessels	With the exception of general examinations, auxiliary machinery and pressure vessels subject to examinations in accordance with the Rules are as follows: (1) Essential auxiliary machinery as specified in 1.1.6, Part D of the Rules. (2) Pressure vessels (Group I and II) and pressure vessels (Group III) for essential uses as specified in 10.1.3, Part D of the Rules.															
4 Examination of machinery and equipment of small capacity or infrequent use	Examinations of the following machinery and equipment in working condition and general examinations are to be carried out during Special Surveys. An open-up examination is required based on the results of the examination. (1) Air compressors for emergency use and their motors (2) Starting devices of boilers in cold conditions (3) Forced draft fans, pumps, and related parts attached to small packaged boilers (4) Electrical heaters with a capacity of not more than 10 kW (5) Oil tanks with a capacity of not more than 1 m ³ (6) Lubricating oil tanks (7) Hand pumps (for bilge, transfer of fuel oil, etc.)															
5 Boiler Surveys	With respect to Boiler Surveys, the following requirements (1) and (2) may be applied. (1) The examinations of boilers other than those of water tube type subject to Classification Surveys may be modified at the first Boiler Survey after the Classification Survey at the discretion of the Surveyor based on present conditions. (2) The required examinations for pressure vessels less than 8 years of age used for processing fish may be modified at the discretion of the Surveyor.															
6 Others	With respect to other surveys in cases where specially approved by the Society, examinations are to be carried out in accordance with approved measures.															
B1.1.6 Bulk Carriers <u>which are applicable to Chapter 31B, Part C</u> 1 In order to appropriately verify the thickness of the	B1.1.7 Bulk Carriers 1 In order to appropriately verify the thickness of the	Renumbered Revised reference numbers due to														

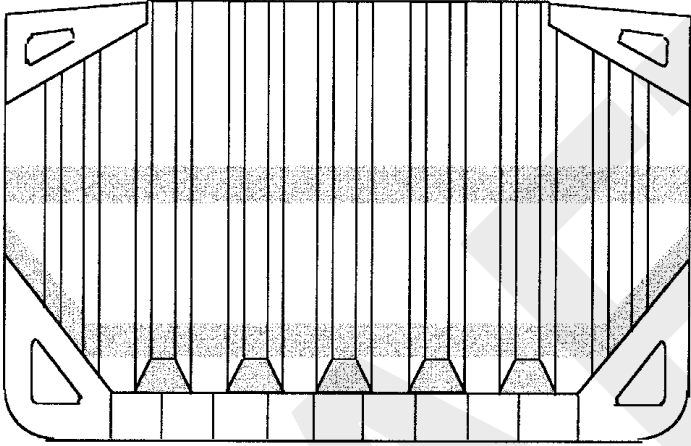
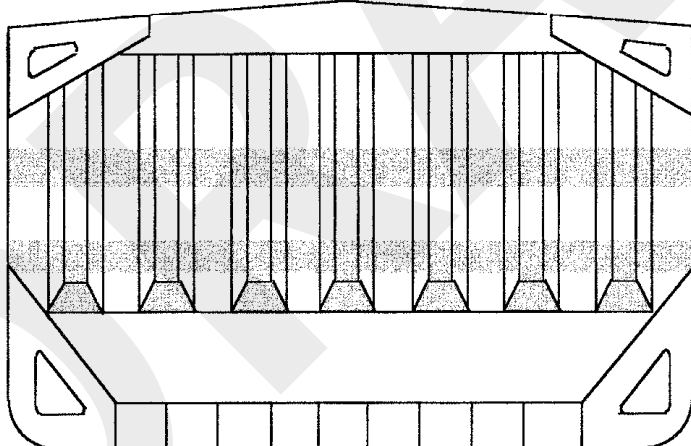
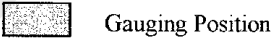
Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
vertical corrugated watertight bulkhead abaft the foremost hold, the thickness measurements required in 1.1.6-1, Part B of the Rules subject to compliance with 31B.3, Part C of the Rules are to be carried out for the following positions. (1) Lower end of the corrugation (Refer to Level A in Fig. B1.1.6-1) ((a) to (d) are omitted.) (2) Mid-span of corrugation (Refer to Level B in Fig. B1.1.6-1) ((a) is omitted.) 2 The thickness measurements required in 1.1.6-1, Part B of the Rules subject to compliance with 31B.5, Part C of the Rules are to be carried out as follows. (1) For the purpose of steel renewal, sand blasting and coating, four zones <i>A</i>, <i>B</i>, <i>C</i> and <i>D</i> are defined as shown in Fig. B1.1.6-2. (2) Thickness measurement methodology (a) The number of side frames to be measured is to be determined in accordance with 5.2.6-4, Part B of the Rules for Special Surveys, or 4.1.4-2 or 4.2.6, Part B of the Rules corresponding to the ship's age for Intermediate Surveys. Where measurements are nearing the steel renewal or reinforcing criteria (t_{REN} or t_{COAT} in 31B.5, Part C of the Rules), the number of hold frames to be measured is to be increased. ((b) and (c) are omitted.) (d) The gauging pattern of web plating for zones <i>A</i>, <i>B</i> and <i>D</i> is to be a five point pattern. See Fig. B1.1.6-3. The 5 point pattern is to be over a square area extending the depth of the web. The gauging report is to reflect the average reading.	vertical corrugated watertight bulkhead abaft the foremost hold, the thickness measurements required in 1.1.7-1, Part B of the Rules subject to compliance with 31B.3, Part C of the Rules are to be carried out for the following positions. (1) Lower end of the corrugation (Refer to Level A in Fig. B1.1.7-1) ((a) to (d) are omitted.) (2) Mid-span of corrugation (Refer to Level B in Fig. B1.1.7-1) ((a) is omitted.) 2 The thickness measurements required in 1.1.7-1, Part B of the Rules subject to compliance with 31B.5, Part C of the Rules are to be carried out as follows. (1) For the purpose of steel renewal, sand blasting and coating, four zones <i>A</i>, <i>B</i>, <i>C</i> and <i>D</i> are defined as shown in Fig. B1.1.7-2. (2) Thickness measurement methodology (a) The number of side frames to be measured is to be determined in accordance with 5.2.6-4, Part B of the Rules for Special Surveys, or 4.1.1-2 or 4.2.6, Part B of the Rules corresponding to the ship's age for Intermediate Surveys. Where measurements are nearing the steel renewal or reinforcing criteria (t_{REN} or t_{COAT} in 31B.5, Part C of the Rules), the number of hold frames to be measured is to be increased. ((b) and (c) are omitted.) (d) The gauging pattern of web plating for zones <i>A</i>, <i>B</i> and <i>D</i> is to be a five point pattern. See Fig. B1.1.7-3. The 5 point pattern is to be over a square area extending the depth of the web. The gauging report is to reflect the average reading.	relocation. Revised reference numbers due to relocation.

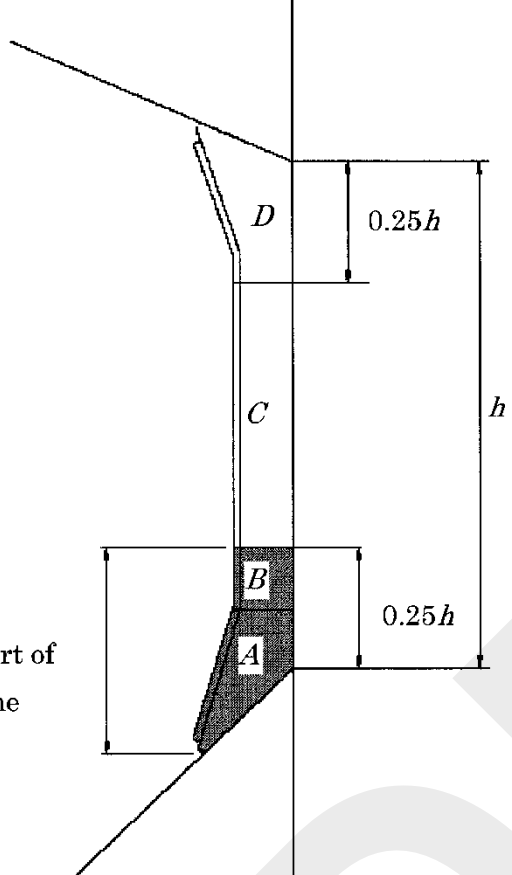
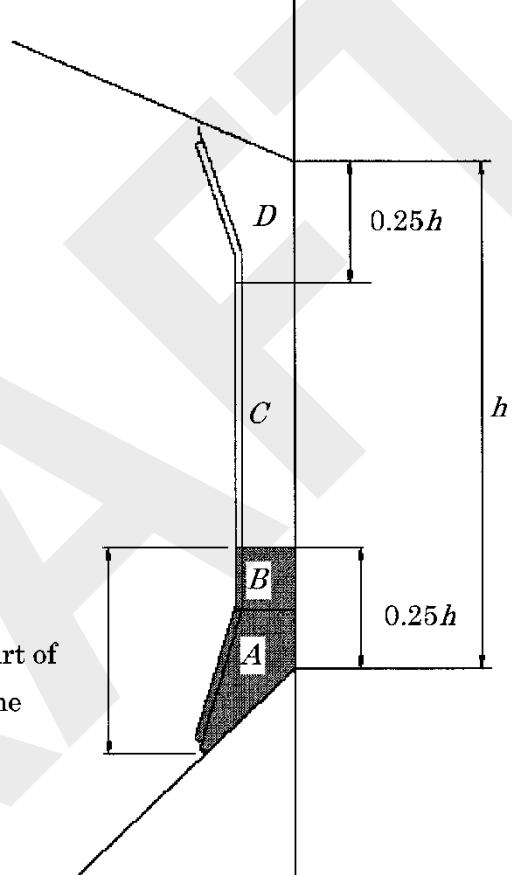
Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
((e) is omitted.) (f) Where the calculation of the actual section modulus of the brackets and side frames at sections <i>a</i>) and <i>b</i>) is required in accordance with 31B.5.3-5(1), Part C of the Rules, at least 2 readings on the flange/faceplate are to be taken in way of each section and, at least one reading of the attached shell plating is to be taken on each side of the frame (i.e. fore and aft) in way of each section. See Fig. B1.1.6-4. If bulb plate has been used, then the web of the bulb plate is to be measured in the normal manner and special consideration needs to be given to the sectional modulus. (3) Pitting and grooving ((a) and (b) are omitted.) (c) If pitting intensity is higher than 15% in one area (see Fig. B1.1.6-5), then thickness measurements are to be taken to check the extent of the pitting corrosion. The 15% is based upon pitting or grooving on only one side of the web. In this case, an area of 300 mm diameter or more is to be cleaned down to bare metal at the most pitted part of the frame, and the thickness is to be measured in way of the five deepest pits within the cleaned area. The least thickness measured in way of any of these pits is to be recorded. ((d) is omitted.) 3 The thickness measurements required in 1.1.6-2 and -3, Part B of the Rules are to be carried out according to -1 and -2 above.	((e) is omitted.) (f) Where the calculation of the actual section modulus of the brackets and side frames at sections <i>a</i>) and <i>b</i>) is required in accordance with 31B.5.3-5(1), Part C of the Rules, at least 2 readings on the flange/faceplate are to be taken in way of each section and, at least one reading of the attached shell plating is to be taken on each side of the frame (i.e. fore and aft) in way of each section. See Fig. B1.1.7-4. If bulb plate has been used, then the web of the bulb plate is to be measured in the normal manner and special consideration needs to be given to the sectional modulus. (3) Pitting and grooving ((a) and (b) are omitted.) (c) If pitting intensity is higher than 15% in one area (see Fig. B1.1.7-5), then thickness measurements are to be taken to check the extent of the pitting corrosion. The 15% is based upon pitting or grooving on only one side of the web. In this case, an area of 300 mm diameter or more is to be cleaned down to bare metal at the most pitted part of the frame, and the thickness is to be measured in way of the five deepest pits within the cleaned area. The least thickness measured in way of any of these pits is to be recorded. ((d) is omitted.) 3 The thickness measurements required in 1.1.7-2 and -3, Part B of the Rules are to be carried out according to -1 and -2 above.	Revised reference numbers due to relocation.

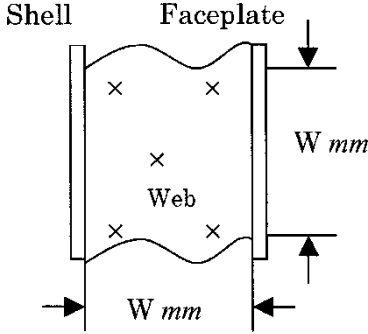
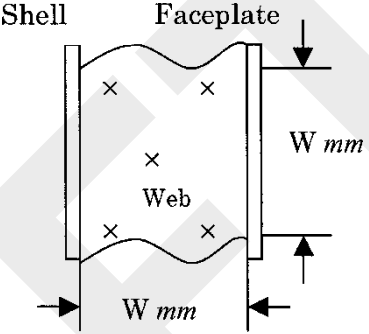
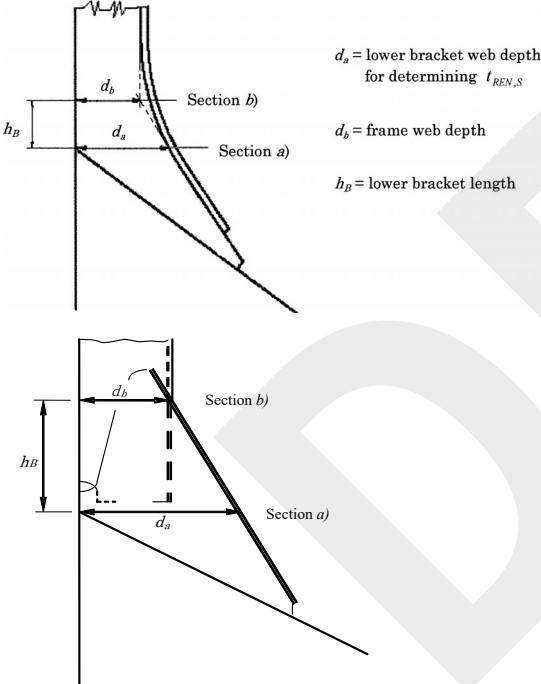
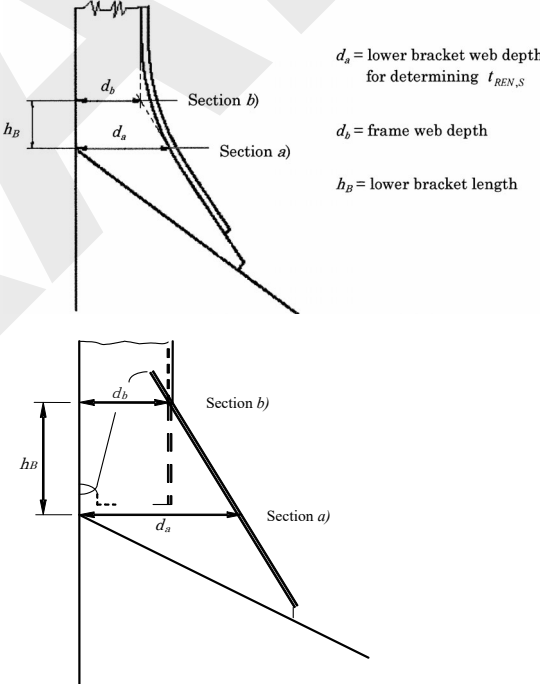
Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Fig. B1.1.7-1 <u>Fig. B1.1.6-1</u>   	Additional Gauging Position	Renumbered

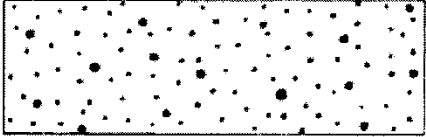
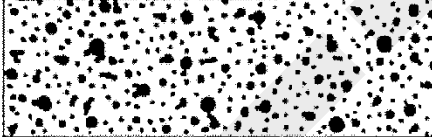
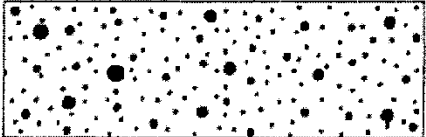
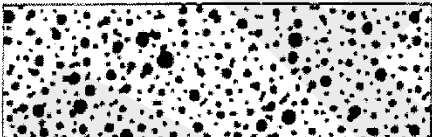
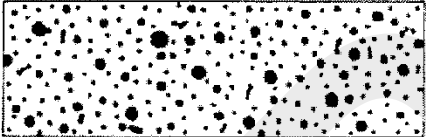
Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Fig. B1.1.6-2 Lower Part and Zones of Side Frame  Lower part of Side frame	Fig. B1.1.7-2 Lower Part and Zones of Side Frame  Lower part of Side frame	Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Fig. B1.1.6-3 Typical 5 Point Pattern on the Web Plate 	Fig. B1.1.7-3 Typical 5 Point Pattern on the Web Plate 	Renumbered
Fig. B1.1.6-4 Sections <i>a</i>) and <i>b</i>)  d_a = lower bracket web depth for determining $t_{REN,S}$ d_b = frame web depth h_B = lower bracket length	Fig. B1.1.7-4 Sections <i>a</i>) and <i>b</i>)  d_a = lower bracket web depth for determining $t_{REN,S}$ d_b = frame web depth h_B = lower bracket length	Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Fig. B1.1.7-5 <u>Fig. B1.1.6-5</u> Pitting Intensity Diagrams (from 5% to 25% intensity) 5% Scattered  20% Scattered  10% Scattered  25% Scattered  15% Scattered 		Renumbered
B1.1.7 Laid-up Ships (Same)	B1.1.8 Laid-up Ships For the commencement of lay-up, the Owner is required to submit the three copies of the application form (Form B1-1) to the Society's local office.	Renumbered
B1.1.9 Self-unloading Ships With respect to the provisions of 1.1.9, Part B of the Rules, surveys for self-unloading ships are to be carried out in accordance with the requirements for bulk carriers except for the requirements specified in B1.3.1-3, B1.4.2-12, B2.3.1, B3.2.3-5 and B3.2.3-6.	B1.1.10 Self-unloading Ships With respect to the provisions of 1.1.10, Part B of the Rules, surveys for self-unloading ships are to be carried out in accordance with the requirements for bulk carriers except for the requirements specified in B1.3.1-3, B1.4.2-12, B2.3.1, B3.2.3-5 and B3.2.3-6.	Renumbered Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B3 ANNUAL SURVEYS (Deleted) (Deleted) (Moved) B3.2 Annual Surveys for Hull, Equipment, Fire Extinction and Fittings B3.2.1 Examination of Plans and Documents (Moved) 1 The wording “Documents related to the surveys for bulk carriers, oil tankers and ships carrying dangerous chemicals in bulk with integral tanks” in of Table B3.1, Part	B3 ANNUAL SURVEYS <u>B3.1 General</u> <u>B3.1.1 Surveys Equivalent to Special Surveys</u> For ships having tanks with no protective coating (excluding double bottom tanks), an internal examination is to be carried out on representative tanks at a level equivalent to Special Surveys at the time of the Annual Survey. B3.2 Annual Surveys for Hull, Equipment, Fire Extinction and Fittings B3.2.1 Examination of Plans and Documents 1 The wording “For ships required to have a damage control plan on board in accordance with the requirements in <u>2.3.4, Part 1, Part C</u>” in Table B3.1, Part B of the Rules refer to the ships specified in the following (1) and (2). (1) Dry cargo ships of 500 <i>gross tonnage</i> and above engaged on international voyages, which were at the beginning stage of construction on or after 1 February 1992. Dry cargo ship is defined as a cargo ship that does not engage in carrying liquids. (2) Cargo ships of 500 <i>gross tonnage</i> and above engaged on international voyages, which were at the beginning stage of construction on or after 1 January 2009 2 The wording “Documents related to the surveys for bulk carriers, oil tankers and ships carrying dangerous chemicals in bulk with integral tanks” in Table B3.1, Part B	Transferred to 3.1.1-3, Part B of the Rules Transferred to Note 1 of Table B3.1, Part B of the Rules Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B of the Rules refers to the documents specified in B1.4.2-6 . (Moved)	of the Rules refers to the documents specified in B1.4.2-6 .	Transferred to Note 3 of Table B3.1, Part B of the Rules
(Moved)	3 The record of maintenance and repair work, which is specified in No.10 of Table B3.1, Part B of the Rules , is to be in accordance with the “ <i>Guidelines for maintenance and repair of protective coatings</i> ” (MSC.1/Circ.1330/Rev.1) or the “ <i>Guidelines on procedures for in-service maintenance and repair of coating systems of cargo oil tanks of crude oil tankers</i> ” (MSC.1/Circ.1399/Rev.1).	Transferred to Note 4 of Table B3.1, Part B of the Rules
(Moved)	4 The record of maintenance and repair work for corrosion resistant steel, which is specified in No.10 of Table B3.1, Part B of the Rules , is to be in accordance with IACS Unified Interpretation SC258 as amended.	Transferred to Note 5 of Table B3.1, Part B of the Rules
	5 “Noise survey report” in item 11, Table B3.1 in 3.2.1, Part B of the Rules refers to the report in An4.2, Annex 2.3.1-2 “PROCEDURES FOR ON BOARD NOISE MEASUREMENTS” of the Rules .	
2 Confirmation of the updating of the Ship Construction File as specified in 3.2.1-2(3), Part B of the Rules is to be carried out in accordance with (1) and (2) below: (1) and (2) are omitted.)	6 Confirmation of the updating of the Ship Construction File as specified in 3.2.1-2(3), Part B of the Rules is to be carried out in accordance with (1) and (2) below: (1) and (2) are omitted.)	Renumbered
3 Confirmation that the Ship Construction File is available as specified in 3.2.1-2(5), Part B of the Rules is to be carried out in accordance with (1) and (2) below: (1) and (2) are omitted.)	7 Confirmation that the Ship Construction File is available as specified in 3.2.1-2(5), Part B of the Rules is to be carried out in accordance with (1) and (2) below: (1) and (2) are omitted.)	Renumbered
4 Confirmation of the management plans for inspection and maintenance of mooring equipment including mooring lines referred to in item 16, Table B3.1, 3.2.1, Part B of the Rules is required from 1 January 2024 and the contents of the plans are to be in accordance with B2.1.6-10 .	8 Confirmation of the management plans for inspection and maintenance of mooring equipment including mooring lines referred to in item 16, Table B3.1, 3.2.1, Part B of the Rules is required from 1 January 2024 and the contents of the plans are to be in accordance with B2.1.6-10 .	Renumbered
B3.2.2 General Examination	B3.2.2 General Examination	
1 The General examination of “closing appliances of	1 The General examination of “closing appliances of	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
hatchways” stipulated in item 3 of Table B3.2, Part B of the Rules is to confirm that the items specified in (1) to (5) below are in good condition. (1) Where controlled atmosphere systems are installed on board, examination of controlled atmosphere zones in D17.3(1)(a), Part D of the Guidance ((2) to (5) are omitted.) (Moved) 2 The examination stipulated in items 14 and 15 of Table B3.2, Part B of the Rules is to be carried out in accordance with following (1) to (15): ((1) and (12) are omitted.) (13) Overhaul inspections of the self priming pump and associated equipment, etc. of emergency fire pumps are conducted at least once every five years, and are to be confirmed to be maintained in good working order. 3 With regard to item 20 of Table B3.2, Part B of the Rules, the general examinations for the means of embarkation and disembarkation installed on ships not less than 500 <i>gross tonnage</i> engaged on international voyages are to be carried out in accordance with (1) to (5) below. ((1) to (5) are omitted.) 4 The general examination of “bow doors, inner doors, side shell doors and stern doors (hereinafter collectively	hatchways” stipulated in item 3 of Table B3.2, Part B of the Rules is to confirm that the items specified in (1) to (5) below are in good condition. (1) Where controlled atmosphere systems are installed on board, examination of controlled atmosphere zones in D17.3(1)(a), Part D of the Guidance ((2) to (5) are omitted.) 2 <u>For item 6 of Table B3.2, Part B of the Rules, particular attention is to be paid to the condition of the weld connections between air pipes and deck plating.</u> 3 The examination stipulated in items 14 and 15 of Table B3.2, Part B of the Rules is to be carried out in accordance with following (1) to (15): ((1) and (12) are omitted.) (13) <u>Any manual and automatic fire doors are to be examined, as far as practicable.</u> (14) <u>It is to be confirmed that the means of escape from accommodation, machinery and other spaces are satisfactory.</u> (15) Overhaul inspections of the self priming pump and associated equipment, etc. of emergency fire pumps are conducted at least once every five years, and are to be confirmed to be maintained in good working order. 4 With regard to item 20 of Table B3.2, Part B of the Rules, the general examinations for the means of embarkation and disembarkation installed on ships not less than 500 <i>gross tonnage</i> engaged on international voyages are to be carried out in accordance with (1) to (5) below. ((1) to (5) are omitted.) 5 The general examination of “bow doors, inner doors, side shell doors and stern doors (hereinafter collectively	Transferred to Note 2 of Table B3.2, Part B of the Rules Renumbered (13) Transferred to item 15(2) of Table B3.2, Part B of the Rules (14) Transferred to item 15(3) of Table B3.2, Part B of the Rules Renumbered Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
referred to as “door(s)”)” stipulated in item 21 of Table B3.2, Part B of the Rules is to confirm that the items specified (1) to (7) below are in good condition. Non-destructive testing may be required when deemed necessary by the Surveyor as a consequence of the examination specified in Table B3.2, Part B of the Rules. ((1) to (7) are omitted.) (Moved) (Moved) B3.2.3 Performance Tests (Moved) 1 With regard to item 3 of Table B3.3, Part B of the Rules, operation tests for the following (1) to (5) are to be carried out as far as practicable: ((1) to (5) are omitted.) (Moved)	referred to as “door(s)”)” stipulated in item 21 of Table B3.2, Part B of the Rules is to confirm that the items specified (1) to (7) below are in good condition. Non-destructive testing may be required when deemed necessary by the Surveyor as a consequence of the examination specified in Table B3.2, Part B of the Rules. ((1) to (7) are omitted.) 6 “Hearing protectors” in item 22, Table B3.2 in 3.2.1, Part B of the Rules refers to the hearing protectors in An6.1 and An6.2, Annex 2.3.1-2 “PROCEDURES FOR ON BOARD NOISE MEASUREMENTS” of the Rules. 7 When applying the requirements of item 27 and item 28 of Table B3.2, Part B of the Rules, resistance testing is to be carried out for all electrical bonding to confirm that resistance is not greater than 1 MΩ in cases where bonding straps are not provided as electrical bonding between fuel storage tanks or fuel piping and hull structures, or in cases where the Surveyor deems such testing to be necessary. However, such measurements may be omitted at the discretion of the Surveyor in cases where accurate measurement records are maintained and can be verified. B3.2.3 Performance Tests 1 The hose test stipulated in items 1 and 2 of Table B3.3, Part B of the Rules is to be in accordance with An1.4.4-3, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules. 2 With regard to item 3 of Table B3.3, Part B of the Rules, operation tests for the following (1) to (5) are to be carried out as far as practicable: ((1) to (5) are omitted.) 3 For details on the examinations stipulated in items 4, 5	Transferred to Note 6 of Table B3.2, Part B of the Rules Transferred to Note 7 of Table B3.2, Part B of the Rules Transferred to Note 1 of Table B3.3, Part B of the Rules Renumbered Transferred to Note 3 of Table B3.3, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	and 6 of Table B3.3, Part B of the Rules, refer to 2.1.7, Part B of the rules. 4 “Computers for stability calculation that are installed as a supplement to the stability information booklet” stipulated in item 8 of Table B3.3, Part B of the Rules, refers to a computer for stability calculation or a computer in which software for stability calculation is installed that can be used at locations such as the navigation bridge and cargo control room.	Rules
2 The performance test stipulated in item 8 of Table B3.3, Part B of the Rules is to be carried out in the presence of the Surveyor according to the procedures in (1) to (4) below, so as to ensure that the stability computer is working correctly. Where a copy of prior computer checks which were carried out in accordance with procedures (1) to (3) or (1) and (4) is available and on board, and the Surveyor is able to verify that the computer is working properly, the confirmation of such results may substitute for the performance test. ((1) to (4) are omitted.) (Moved)	5 The performance test stipulated in item 8 of Table B3.3, Part B of the Rules is to be carried out in the presence of the Surveyor according to the procedures in (1) to (4) below, so as to ensure that the stability computer is working correctly. Where a copy of prior computer checks which were carried out in accordance with procedures (1) to (3) or (1) and (4) is available and on board, and the Surveyor is able to verify that the computer is working properly, the confirmation of such results may substitute for the performance test. ((1) to (4) are omitted.) 6 Inspection of water level detection and alarm systems (refer to 13.8.5, 13.8.6 and 13.8.7, Part D of the Rules) specified in item 9 of Table B3.3, Part B of the Rules, is to be carried out on the items installed on the following ships. (1) Cargo ships of 500 <i>gross tonnage</i> and above engaged on international voyages, which have a single cargo hold below the freeboard deck or cargo holds below the freeboard deck which are not separated by at least one bulkhead made watertight up to that deck and specified in the following (a) or (b): (a) Cargo ships having a length (L_f) of less than 100 m, which had been at the beginning stage of construction before 1 July 1998	Transferred to Note 4 of Table B3.3, Part B of the Rules Renumbered Transferred to Note 6 of Table B3.3, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	<u>(b) Cargo ships having a length (L) of less than 80 m, which had been at the beginning stage of construction on and after 1 July 1998</u> <u>(2) Cargo ships of 500 gross tonnage and above engaged on international voyages and specified in the following (a) or (b):</u> <u>(a) Bulk carriers defined in 1.3.1(13), Part B of the Rules, which had been at the beginning stage of construction before 1 July 2006</u> <u>(b) Bulk carriers defined in An1.2.1(1), Annex 1.1, Part 2-2, Part C of the Rules, which had been at the beginning stage of construction on or after 1 July 2006</u> <u>(3) Cargo ships of 500 gross tonnage and above engaged on international voyages, which have multiple cargo holds (excluding bulk carriers defined in An1.2.1(1), Annex 1.1, Part 2-2, Part C of the Rules and tankers) that fall under any of the following.</u> <u>(a) for which the building contract is placed on or after 1 January 2024;</u> <u>(b) in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2024; or</u> <u>(c) the delivery of which is on or after 1 January 2028</u> <u>7 Inspection of Dewatering Arrangements (refer to 13.5.10, Part D of the Rules) specified in item 10 of Table B3.3, Part B of the Rules, is to be carried out on the items installed on the following ships.</u> <u>(1) Cargo ships of 500 gross tonnage and above engaged on international voyages and specified in the following (a) or (b):</u>	Transferred to Note 7 of Table B3.3, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved) (Moved)	(a) Bulk carriers defined in 1.3.1(13), Part B of the Rules, which had been at the beginning stage of construction before 1 July 2006 (b) Bulk carriers defined in An1.2.1(1), Annex 1.1, Part 2-2, Part C of the Rules, which had been at the beginning stage of construction on or after 1 July 2006 <u>B3.2.4 Internal Examinations of Spaces and Tanks</u> <u>When internal examinations are carried out, the means of access provided for the examinations are also to be examined.</u>	Transferred to Note 1 of Table B3.4, Part B of the Rules
B3.3 Annual Surveys for Machinery	B3.3 Annual Surveys for Machinery	
(Deleted) (Moved)	<u>B3.3.1 General Examinations</u> <u>1</u> Where controlled atmosphere systems are installed onboard, the general examination of gas freeing equipment as well as control, alarm and monitoring equipment of controlled atmosphere systems specified in D17.3(1) and (3), Part D of the Guidance is to be included in the general examination. Furthermore, where rubber couplings are installed, a visual inspection and measurements of surface hardness or permanent deformation of rubber elements are to be conducted.	Transferred to Note 5 and 6 of Table B3.7, Part B of the Rules
(Moved)	<u>2</u> The “reference standards deemed appropriate by the Society” referred to in 3.3.1-1(4), Part B of the Rules refer to the following (1) and (2): (1) those specified in item 11(1)(b) of Table B8.3, Part B of the Rules for oil lubricated shafts; and (2) those specified in item 11(1)(b) of Table B8.4, Part	Transferred to Note 1 of Table B3.7, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	<u>B of the Rules for freshwater lubricated shafts.</u> <u>3 In general examinations specified in 3.3.1-1, Part B of the Rules, for ships where harmonic filters are installed on the main busbars of electrical distribution systems, except in cases where the filters are installed for single application frequency drives such as pump motors, it is to be ascertained that the harmonic filters are placed in good order and either of the following (1) or (2) is to be verified.</u> <u>(1) For ships fitted with facilities to continuously monitor the Total Harmonic Distortion (THD) values experienced by the main busbars as specified in 2.3.13-1, Part H of the Rules, records of THD values are to be verified.</u> <u>(2) For ships other than (1) above, correct operation of harmonic filters is to be confirmed by verifying that the maximum Total Harmonic Distortion (THD) value of the main busbar on board the ship is measured under typical seagoing conditions as close as possible to the date of the Annual Survey and the value does not exceed the acceptable limit.</u>	Transferred to Note 7 of Table B3.7, Part B of the Rules
(Moved)	<u>4 In applying 3.3.1-1, Part B of the Rules, the operation of the ventilation for the machinery spaces is to be confirmed.</u>	Transferred to Note 3 of Table B3.7, Part B of the Rules
(Moved)	<u>5 In applying 3.3.1-1(1), Part B of the Rules, the following to (1) to (9) are also to be applied.</u> <u>(1) It is to be confirmed that the normal operation of the propulsion machinery can be sustained or restored even though one of the essential auxiliaries becomes inoperative.</u> <u>(2) The means for the operation of the main and auxiliary machinery essential for the propulsion and the safety of the ship are to be examined.</u>	Transferred to item 2 (a) to (i) of Table B3.7, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	(3) <u>The arrangements to operate the main and other machinery from a machinery control room are to be examined.</u> (4) <u>It is to be confirmed that the machinery, boilers and other pressure vessels, associated piping systems and fittings are installed and protected so as to reduce to a minimum any danger to persons on board, due regard being given to moving parts, hot surfaces and other hazards.</u> (5) <u>It is to be confirmed that means are provided so that the machinery can be brought into operation from the dead ship condition without external aid.</u> (6) <u>The electrical installations, including the main source of power and the lighting systems are, as far as practicable, to be examined visually and in operation.</u> (7) <u>It is to be examined that the precautions provided against shock, fire and other hazards of electrical origin are being maintained.</u> (8) <u>The condition of all the non-metallic expansion joints in piping systems penetrating ship's side for cases where penetrations and these joints are located below the deepest load waterline is to be visually examined and the relevant service record is to be checked.</u> (9) <u>Arrangements for remote closing of valves for fuel oil tanks, lubricating oil tanks and other flammable oil tanks are to be examined.</u> 6 <u>In applying 3.3.1-1(2), Part B of the Rules, a general examination of the machinery, the boilers, all steam, hydraulic, pneumatic and other systems and their associated fittings is to be carried out to see whether they are being properly maintained and with particular attention to the fire and explosion hazards.</u>	Transferred to item 1(2) of Table B3.7, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	<u>7 In applying 3.3.1-1, Part B of the Rules referred to in -2 of the said requirement, the following to (1) to (4) are also to be applied.</u> (1) <u>It is to be confirmed that the requisite arrangements to regain steering capability in the event of the single failure referred to in 15.6.1-2(1), Part D of the Rules are being maintained.</u> (2) <u>The cargo, crude oil washing, ballast and stripping systems both on deck and in the cargo pump rooms and the bunker system on deck are to be examined.</u> (3) <u>On tankers and chemical tankers, temperature sensing devices for bulkhead glands and alarms are to be checked.</u> (4) <u>The emergency lighting in all cargo pump rooms of tankers constructed on or after 1 July 2002 is to be examined.</u>	(1) to (3) Transferred to “Additional Requirement for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases” in Table B3.7, Part B of the Rules (1) Transferred to item 5 (2) Transferred to item 3 (3) Transferred to item 4 (4) Transferred to item 1 (e) and item 5
(Moved)	<u>8 In applying 3.3.1-2(2), Part B of the Rules, the following to (1) to (4) are also to be applied.</u> (1) <u>It is to be confirmed that all electrical equipment in dangerous zones is suitable for such locations, is in good condition and is being properly maintained.</u> (2) <u>It is to be confirmed that potential sources of ignition in or near the cargo pump room are eliminated, such as loose gear, combustible materials, etc., that there are no signs of undue leakage and that access ladders are in good condition.</u> (3) <u>The cargo, bilge, ballast and stripping pumps are to be examined for undue gland seal leakage, as far as practicable.</u> (4) <u>It is to be confirmed that the pump room ducting is intact and screens are clean.</u>	Transferred to “Additional Requirement for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases” in bulk” in Table B3.7, Part B of the Rules (1) Transferred to item 2 (2) Transferred to item 1(b) (3) Transferred to item 1(c) (4) Transferred to item 1(d)

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B3.3.2 Performance Tests (Moved)	B3.3.2 Performance Tests <u>1 In applying 3.3.2-1, Part B of the Rules, 2.3.2-2 of Rules for Automatic and Remote Control Systems is also to be applied for surveys of periodically unattended machinery spaces.</u>	Transferred to item 4 (2) and (3) of Table B3.8, Part B of the Rules
(Moved)	<u>2 In applying item 3 of Table B3.7, Part B of the Rules, the operation of the emergency source(s) of electrical power including their starting arrangements, the systems supplied and, when appropriate, their automatic operation are also to be confirmed as far as practicable.</u>	Transferred to item 1 of Table B3.8, Part B of the Rules
(Moved)	<u>3 In applying item 4 of Table B3.7, Part B of the Rules, the following (1) and (2) are also to be applied.</u> <u>(1) It is to be confirmed that the means of communication between the navigation bridge and steering gear compartment and the means of indicating the angular position of the rudder are operating satisfactorily.</u> <u>(2) It is to be confirmed that the engine room telegraph, the second means of communication between the navigation bridge and the machinery space and the means of communication with any other positions from which the engines are controlled are operating satisfactorily</u>	Transferred to item 10 of Table B3.8, Part B of the Rules
(Moved)	<u>4 In applying item 5 of Table B3.7, Part B of the Rules, the following (1) to (4) are to be applied.</u> <u>(1) In addition to carrying out the following (a) to (e) performance tests for main and auxiliary steering arrangements, including their associated equipment and control systems, the said arrangements are to be examined.</u> <u>(a) Operation tests for the power units including changeover from one to another;</u>	Transferred to item 2 of Table B3.8, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
	(b) Operation tests for automatic and remote isolation of the power actuating systems specified in 15.6, Part D of the Rules; (c) Tests for supply of the alternative source of power specified in 15.2, Part D of the Rules; (d) Operation tests for the control system including the changeover system; and (e) Operation tests for the alarm devices, rudder angle indicators and running indicators of power units specified in Part D of the Rules. (2) <u>It is to be confirmed that with ships having emergency steering positions there are means of relaying heading information and, when appropriate, of supplying visual compass readings to the emergency steering position.</u> (3) <u>It is to be confirmed that the various alarms required for hydraulic power-operated, electric and electro-hydraulic steering gears are operating satisfactorily.</u> (4) <u>It is to be confirmed that the re-charging arrangements for hydraulic power-operated steering gears are being maintained.</u>	
(Moved)	5 <u>Performance tests of the equipment stipulated in items 7-1(1)(a) and (2)(a) of Table B3.7, Part B of the Rules may be dispensed with provided the Surveyor is satisfied with the results of the general examination of that equipment.</u>	Transferred to item 3 of Table B3.8, Part B of the Rules
(Moved)	6 <u>In applying 3.3.2-1, Part B of the Rules, the tests referred in 1.2.7, Annex 2.11.1-2, Part H of the Rules are to be carried out for ships equipped with accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules is applied.</u>	Transferred to item 9 of Table B3.8, Part B of the Rules
(Moved)	7 <u>In applying item 1 of Table B3.8, Part B of the Rules, the following (1) to (3) are also to be applied.</u>	Transferred to item 1 of Table B3.9, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>The following examinations are to be carried out on the rubber hoses used for contact freezers of direct ammonia expansion type as shown in Table B3.3.2.</u> (1) <u>Rubber hoses and their fitting attachments are to be generally examined yearly at periodical surveys.</u> (2) <u>In addition to (1) above, at the first periodical survey after the rubber hoses have been in use for two years and yearly at periodical surveys after four years, the hoses are to be cut open longitudinally and examined to verify that there is no internal cracking or lubricant present. Where deemed necessary by the attending Surveyor, tensile tests of the internal rubber may be requested. At this time, the breaking stress is to be not less than 8 N/mm².</u> (3) <u>In addition to being in compliance with (1) and (2) above, bursting tests at 6 MPa are to be carried out on the rubber hoses yearly at periodical surveys after they have been in use for four years.</u> (4) <u>All rubber hoses are, as a rule, to be replaced with new ones after they have been in use for eight years.</u> (5) <u>For the tests specified in (2) and (3) above, one representative rubber hose is to be taken as a test specimen for every five sets of contact freezers, and where that hose fails either the tensile test (2) or the bursting test (3), all the hoses it represents are</u>	(1) <u>Proper operation of electrical and mechanical remote operating and shutdown devices and operation of cargo pump room bilge system are to be verified.</u> (2) <u>It is to be confirmed that the pump room ventilation system is operational and dampers are operational.</u> (3) <u>Interlock between lighting and ventilation is to be checked.</u> (Moved)	Transferred from B5.3.2-3, Part B of the Guidance

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>assumed to have the same results and therefore are to be replaced with new ones.</u> (6) <u>The chief engineer is to check the hoses and their fitting attachments before taking them into use, and to replace substandard ones as necessary. In addition, he is to keep a record of the following items in a maintenance book and present it to the attending Surveyor at periodical surveys.</u> <u>(a) List of service histories of each hose</u> <u>(b) Maintenance results (inspected dates, conditions of the hoses and their fitting attachments, disposition, etc.)</u> <u>(c) Location number, manufacturer, type, manufacture date of renewed hoses</u>		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended		Original			Remarks
Table B5.3.2-3Table B3.3.2		Examinations of rubber hoses used for contact freezers of direct ammonia expansion type			Transferred from Table B5.3.2-3.
Survey item Served year	Visual examination (outside)	Visual examination (inside)	Bursting test (6 MPa)	Tensile test (8N/mm²)	
1 year	○				
2 years	○	○		△	
3 years	○				
4 years	○	○	○	△	
5 years	○	○	○	△	
6 years	○	○	○	△	
7 years	○	○	○	△	
8 years	To be renewed.				
○ : To be carried out. △ : To be carried out in case where deemed necessary by the attending Surveyor.					
(Deleted)	B3.4 Special Requirements for Ships Carrying Liquefied Gases in Bulk				
(Deleted) (Moved)	B3.4.1 General 1 In applying 3.4.1, Part B of the Rules, the cargo, bunker, ballast and vent piping systems, (including PRVs, vacuum relief valves, vent masts and protective screens) are to be examined as far as practicable.				Transferred to item 1 of Table B3.10, Part B of the Rules
(Moved)	2 Where applicable, alternative design and arrangements, if any, for the segregation of the cargo area are to be examined in accordance with the test, inspection and maintenance requirements specified in the approved				Transferred to 3.4.1-2, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Deleted) (Moved)	<u>documentation.</u> <u>B3.4.2 Examinations</u> <u>1</u> The Examinations stipulated in item 1 of Table B3.9, Part B of the Rules to be carried out at the first Annual Survey after construction for ships carrying liquefied gases in bulk, may be dispensed with provided the ship complies with the provisions specified in (1) to (3) below: (1) The cargo containment system has enough records of <u>good performance</u> However, where the system has sustained substantial damage (e.g. fracturing or deformation in tanks) or is the first of its type made by the manufacturer, the examination cannot to be omitted. (2) The records specified in (a) to (c) are available on board (a) Records of gas detection and temperature measurement in hold spaces (b) Running record of reliquefaction plants (c) Records of cargo tank pressure (3) It is possible to confirm the cargo containment system has not malfunctioned from checking the records specified in (2) above and interviewing the master <u>2</u> In applying item 3(1)(b) of Table B3.9, Part B of the Rules, cargo and process piping (including the expansion arrangements, insulation from the hull structure, pressure relief and drainage arrangements, and water curtain protection as appropriate) are also to be examined. <u>3</u> In applying item 4 of Table B3.9, Part B of the Rules, the examination of high level alarms on ships at beginning stage of construction on or after 1 July 2017 is to include the functional test as specified in 13.3.6, Part N of the Rules.	Transferred to Note 1 of Table B3.10, Part B of the Rules Transferred to Note 2 of Table B3.10, Part B of the Rules Transferred to Note 3 of Table B3.10, Part B of the Rules
(Moved)		
(Moved)		

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	4 In applying item 5 of Table B3.9, Part B of the Rules , <u>for membrane containment systems, proper operation of the nitrogen control system for insulation and interbarrier spaces is to be confirmed to the Surveyor by the Master.</u>	Transferred to Note 4 of Table B3.10, Part B of the Rules
(Moved)	5 With respect to the functional tests specified in item 8 of Table B3.9, Part B of the Rules , <u>reference is to be made to the requirements related to annual surveys specified in Chapter 4, Part B of <i>IMO resolution MSC.267(85) "International Code on Intact Stability, 2008 (2008 IS Code)"</i>.</u>	Transferred to Note 1 of Table B3.10, Part B of the Rules
(Moved)	6 "Alternative examinations considered appropriate by the Society" stipulated in item 9 of Table B3.9, Part B of the Rules <u>refers to performance tests of cross flooding equipment to confirm whether the equipment is in good working order.</u>	Transferred to item 10(1) (a) of Table B3.10, Part B of the Rules
(Moved)	7 In applying item 9(1)(c) of Table B3.9, Part B of the Rules , <u>examination of the arrangements for the mechanical ventilation of spaces in the cargo area normally entered during cargo handling operations need only be carried out as far as practicable.</u>	Transferred to Note 6 of Table B3.10, Part B of the Rules
(Moved)	8 In applying item 9(1)(g) of Table B3.9, Part B of the Rules , <u>it is to be confirmed that any liquid and vapour hoses are suitable for their intended purpose and, where appropriate, type-approved or marked with date of testing.</u>	Transferred to Note 7 of Table B3.10, Part B of the Rules
(Moved)	9 In applying item 9(1)(i) of Table B3.9, Part B of the Rules , <u>it is to be confirmed that electrical equipment in hazardous areas is in a satisfactory condition and is being properly maintained.</u>	Transferred to Note 8 of Table B3.10, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Deleted)	<u>B3.5 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk</u>	
(Deleted) (Moved)	<u>B3.5.1 General</u> <u>In applying 3.5.1, Part B of the Rules, the following (1) to (3) are also to be applied.</u> <u>(1) The cargo transfer arrangements are to be examined.</u> <u>(2) The cargo tank vent system (including the pressure/vacuum valves and secondary means to prevent over- or under-pressure and devices to prevent the passage of flame) and the arrangements of cargo tank purging with inert gas, where provided, are to be examined as far as practicable.</u> <u>(3) The gauging devices, high-level alarms and valves associated with overflow control are to be examined.</u>	Transferred to Table B3.11, Part B of the Rules (1) : item 2(b) (2) : item 3(c) (3) : item 4(b)
(Deleted) (Moved)	<u>B3.5.2 Examinations</u> <u>1 With respect to the functional tests specified in item 7 of Table B3.10, Part B of the Rules, reference is to be made to the requirements related to annual surveys specified in Chapter 4, Part B of IMO resolution MSC.267(85) “International Code on Intact Stability, 2008 (2008 IS Code)”.</u>	Transferred to Note 1 of Table B3.11, Part B of the Rules
(Moved)	<u>2 “Alternative examinations considered appropriate by the Society” stipulated in item 8(1)(a) of Table B3.10, Part B of the Rules refers to performance tests of cross flooding equipment to confirm whether the equipment is in good working order.</u>	Transferred to item 8 (1)(a) of Table B3.11, Part B of the Rules
(Moved)	<u>3 In applying item 8(1)(g) of Table B3.10, Part B of the Rules, it is to be confirmed that any hoses are suitable for their intended purpose and, where appropriate, type-approved or marked with date of testing.</u>	Transferred to Note 2 of Table B3.11, Part B of the Rules
(Moved)	<u>4 In applying item 8(1)(i) of Table B3.10, Part B of the</u>	Transferred to Note 3 of

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	<u>Rules, when applicable, the cargo heating or cooling systems, including any sampling arrangements, are also to be applied in addition to confirming that the means for measuring the temperature and associated alarms are operating satisfactorily.</u> 5 <u>In applying item 8(1)(j) of Table B3.10, Part B of the Rules, the following (1) and (2) are also to be applied.</u> (1) <u>It is to be confirmed that all electrical equipment in dangerous zones is suitable for such locations, is in satisfactory condition and has been properly maintained.</u> (2) <u>It is to be confirmed, as far as practicable, that the intrinsically safe systems and circuits used for measurement, monitoring, control and communication purposes in all hazardous locations are being properly maintained.</u>	Table B3.11, Part B of the Rules Transferred to Note 4 of Table B3.11, Part B of the Rules
(Moved)	6 <u>In applying item 8(1)(m) of Table B3.10, Part B of the Rules, general examination of the arrangements for the ventilation of spaces normally entered during cargo handling operations and other spaces in the cargo area need only be carried out as far as practicable.</u>	Transferred to Note 5 of Table B3.11, Part B of the Rules
(Moved)	<u>B3.6 Special Requirements for Ships Using Low-flashpoint Fuels</u>	
(Moved)	<u>B3.6.1 General</u> <u>The requirements of 3.6, Part B of the Rules need not be applied to ships examined in accordance with 3.4, Part B of the Rules.</u>	Transferred to 3.6.1-2, Part B of the Rules
(Deleted)	<u>B3.6.2 Examinations</u> 1 <u>When applying the requirements of item 6 of Table</u>	Transfers to Note 3 of

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	<u>B3.11, Part B of the Rules</u>, it is to be verified that ship masters have checked the inert gas control system for each thermal insulation layer of membrane tanks to verify proper operation. 2 When applying the requirements of item 9(1)(f) of <u>Table B3.11, Part B of the Rules</u>, resistance testing is to be carried out for all electrical bonding to confirm that resistance is not greater than 1 $M\Omega$ in cases where bonding straps are not provided as electrical bonding between fuel storage tanks or fuel piping and hull structures, or the Surveyor deems such testing to be necessary. However, such measurements may be omitted at the discretion of the Surveyor in cases where accurate measurement records are maintained and can be verified.	Table B3.12, Part B of the Rules Transferred to Note 4 of Table B3.12, Part B of the Rules
(Moved)	3 When applying the requirements of item 5(1)(b) of <u>Table B3.11, Part B of the Rules</u>, general examinations and performance testing for high level alarms are included functional test specified in <u>15.4.2-4, Part GF of the Rules</u>.	Transferred to Note 2 of Table B3.12, Part B of the Rules
(Deleted)	<u>B3.9 Special Requirements for Ships Affixed with the Notation “CybR”</u>	
(Deleted) (Moved)	<u>B3.9.3 Surveys</u> The wording “upon request by the Society” in item <u>2(1) of Table B3.12, Part B of the Rules</u> includes the case where the shipowners (or ship management companies) were changed.	Transferred to Note of Table B3.13, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B4 INTERMEDIATE SURVEYS	B4 INTERMEDIATE SURVEYS	
(Deleted)	<u>B4.1 General</u>	
(Deleted) (Moved)	<u>B4.1.1 Surveys Equivalent to Special Surveys</u> <u>1 For ships having tanks with no protective coating (excluding double bottom tanks), an internal examination is to be carried out on representative tanks at a level equivalent to Special Surveys at the time of Intermediate Surveys.</u>	Transferred to 4.1.1-3, Part B of the Rules
(Moved)	<u>2 For ships 15 years old and over, limber boards are to be removed at least at two locations on each side of the ship as well as the cement chocks, and the connections between the frames and tank side brackets are to be examined carefully. When any defect is found, the extent of the survey is to be expanded accordingly.</u>	Transferred to item 3(3) of Table B4.2, Part B of the Rules
(Deleted) (Moved)	<u>B4.1.3 Survey Results</u> <u>“Surveys and thickness measurements of spaces” specified in 4.1.3, Part B of the Rules means internal examinations, close-up surveys and thickness measurements of spaces and tanks.</u>	Transferred to 4.1.3, Part B of the Rules
B4.2 Intermediate Surveys for Hull, Equipment, Fire Extinction and Fittings	B4.2 Intermediate Surveys for Hull, Equipment, Fire Extinction and Fittings	
B4.2.1 Examination of Plans and Documents 1 Confirmation of the updating of the Ship Construction File as specified in 4.2.1-2(3), Part B of the Rules is to be carried out in accordance with B3.2.1-2 .	B4.2.1 Examination of Plans and Documents 1 Confirmation of the updating of the Ship Construction File as specified in 4.2.1-2(3), Part B of the Rules is to be carried out in accordance with B3.2.1-6 .	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
2 Confirmation that the Ship Construction File is available as specified in 4.2.1-2(5), Part B of the Rules is to be carried out in accordance with B3.2.1-3. (Deleted) (Moved) (Deleted) (Moved) (Moved) (Moved) B4.2.4 Internal Examinations of Spaces and Tanks (Moved) “Coating condition” as referred to in 4.2.4 Part B of the Rules is as specified in the following (1) to (3). ((1) to (3) are omitted.)	2 Confirmation that the Ship Construction File is available as specified in 4.2.1-2(5), Part B of the Rules is to be carried out in accordance with B3.2.1-7. <u>B4.2.2 General Examination</u> <u>“Examinations considered appropriate by the Society” stipulated in 4.2.2, Part B of the Rules refers to performance tests of cross flooding equipment to confirm whether said equipment is in good working order.</u> <u>B4.2.3 Performance Tests</u> <u>1</u> With respect to item 1 in Table B4.1, Part B of the Rules, in cases where an air quality control system is provided in accordance with 20.3.1-2(3), Part R of the Rules, the performance of the air quality control system is to be confirmed in conjunction with the performance test of ventilation system specified in item 7 in Table B3.3, Part B of the Rules. <u>2</u> The hose test stipulated in items 2 and 14 of Table B4.1, Part B of the Rules is to be in accordance with An1.4.4-3, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules. <u>3</u> For details on the examinations stipulated in items 4 through 11 in Table B4.1, Part B of the Rules, refer to 2.1.7, Part B of the rules. B4.2.4 Internal Examinations of Spaces and Tanks <u>1</u> When internal examinations are carried out, the means of access provided for the examinations are also to be examined. <u>2</u> “Coating condition” as referred to in 4.2.4 Part B of the Rules is as specified in the following (1) to (3). ((1) to (3) are omitted.)	Revised reference numbers due to relocation. Transferred to 4.2.2(2), Part B of the Rules Transferred to Note 1 of Table B4.1, Part B of the Rules Transferred to Note 2 of Table B4.1, Part B of the Rules Transferred to Note 3 of Table B4.1, Part B of the Rules Transferred to Note 1 of Table B4.2, Part B of the Rules Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Deleted) (Moved) B4.3 Intermediate Surveys for Machinery (Deleted) B4.3.1 General Examinations (Moved) (Moved) 1 In applying 4.3.1, Part B of the Rules, the conditions of accumulator battery systems are to be examined in detail with measuring the insulation resistance of main circuit of accumulator battery systems and associated equipment. In addition, it is to be confirmed that the maintenance, management, etc. of such systems are properly carried out in accordance 1.2.8, Annex 2.11.1-2, Part H of the Rules for ships equipped with accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules is applied.	<u>B4.2.7 Pressure Test</u> <u>In applying 4.2.7, Part B of the Rules, particular attention is to be paid to repairs.</u> B4.3 Intermediate Surveys for Machinery <u>At Intermediate Surveys, the requirements of B5.3.2-3 are also to be complied with.</u> B4.3.1 General Examinations 1 Where controlled atmosphere systems are installed onboard, the general examination of safety devices for refrigerating machinery specified in item 1 of Table B4.5, Part B of the Rules is to be conducted on the gas freeing equipment, and control, alarm and monitoring equipment of the controlled atmosphere systems. 2 The wording “hazardous areas” of Requirements for Tankers in Table B4.5, Part B of the Rules refers to the hazardous areas specified in 4.2.3-1, -4 and -5, Part H of the Rules. 3 In applying 4.3.1, Part B of the Rules, the conditions of accumulator battery systems are to be examined in detail with measuring the insulation resistance of main circuit of accumulator battery systems and associated equipment. In addition, it is to be confirmed that the maintenance, management, etc. of such systems are properly carried out in accordance 1.2.8, Annex 2.11.1-2, Part H of the Rules for ships equipped with accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules is applied.	Transferred to 4.2.7-1, Part B of the Rules Transferred to Note 1 of Table B4.5, Part B of the Rules Transferred to Note 2 of Table B4.5, Part B of the Rules Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Deleted)	<u>B4.4 Special Requirements for Ships Carrying Liquefied Gases in Bulk</u>	
(Deleted) (Moved)	<u>B4.4.2 Examinations</u> <u>1 In the examination of non-metallic membranes required for item 2 of Table B4.6, Part B of the Rules, the following are to be confirmed.</u> <u>(1) Cracks and deterioration are not found by visual examination</u> <u>(2) Membranes are renewed at intervals not exceeding 3 years</u> <u>Where the membranes are those approved for usage exceeding 3 years in accordance with 6.4.1-3, Annex 1, Part N of “GUIDANCE FOR EQUIPMENT AND FITTINGS OF SHIPS CARRYING LIQUEFIED GASES IN BULK”, these are renewed at the approved intervals.</u> <u>(3) Pressure relief valves are adjusted and function tested.</u>	Transferred to Note 1 of Table B4.6, Part B of the Rules
(Moved)	<u>2 The wording “hazardous areas” in item 3 of Table B4.6, Part B of the Rules refers to the hazardous areas specified in 4.2.3-3, -4 and -5, Part H of the Rules as well as in 1.1.5(23), Part N of the Rules. In applying this item, it is to be checked for defective equipment, fixtures and wiring is to be checked.</u>	Transferred to Note 2 of Table B4.6, Part B of the Rules Transferred to item 3(2) of Table B4.6, Part B of the Rules
(Deleted)	<u>B4.5 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk</u>	
(Deleted) (Moved)	<u>B4.5.2 Examinations</u> <u>The wording “hazardous areas” in item 1 of Table</u>	Transferred to Note 1 of

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Deleted)	<u>B4.7, Part B of the Rules</u> refers to the hazardous areas specified in <u>4.2.3-2, -4 and -5, Part H of the Rules</u> . In applying this item, it is to be checked for defective equipment, fixtures and wiring.	Table B4.6, Part B of the Rules
(Deleted)	<u>B4.6 Special Requirements for Ships Using Low-flashpoint Fuels</u>	
(Deleted) (Moved)	<u>B4.6.1 General</u> The requirements of <u>4.6, Part B of the Rules</u> need not be applied to ships examined in accordance with <u>4.4, Part B of the Rules</u> .	Transferred to 4.6.1-2, Part B of the Rules
(Deleted) (Moved)	<u>B4.6.2 Examinations</u> 1 The sentence “it is to be confirmed that such non-metallic membranes are maintained in good condition” in item <u>2 of Table B4.8, Part B of the Rules</u> means the following: visual examinations are to be carried out to verify no cracks and deterioration; and it is to be confirmed membranes are renewed at intervals not exceeding <u>3 years</u> , have been properly adjusted, and have been tested for performance. In cases where relief valves are approved for use for membranes whose renewal intervals exceed <u>3 years</u> in accordance with <u>6.4.1-3, Annex 1 “Guidance for Equipment and Fittings of Ships Using Low-flashpoint Fuels”, Part GF of the Guidance</u> , it is to be confirmed that they are renewed at approved intervals.	Transferred to Note 1 of Table B4.8, Part B of the Rules
(Moved)	2 The term “hazardous areas” in item <u>3 of Table B4.8, Part B of the Rules</u> means the hazardous areas specified in <u>12.5, Part GF, and 4.2.3-4 and -5, Part H of the Rules</u> .	Transferred to Note 2 of Table B4.8, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B5 SPECIAL SURVEYS (Deleted) (Deleted) (Moved) B5.2 Special Surveys for Hull, Equipment, Fire Extinction and Fittings B5.2.2 General Examination 1 In addition to the general examination, automatic air pipe heads which are installed on the exposed deck are to be completely examined (both externally and internally) at special surveys as specified below. Where the inner parts cannot be properly inspected from the outside, the head is to be removed from the air pipe. <u>In this case, particular attention is to be paid to the condition of the zinc coating in heads constructed from galvanised steel.</u> ((1) to (3) are omitted.) (Moved) 2 With respect to the provisions of 5.2.2-1, Part B of the Rules, in addition to the general examination, ventilators for machinery and cargo spaces are to be examined internally at special surveys as specified below.	B5 SPECIAL SURVEYS B5.1 General B5.1.4 Survey Results <u>“Surveys and thickness measurements of spaces” specified in 5.1.4, Part B of the Rules means internal examinations, close-up surveys and thickness measurements of spaces and tanks.</u> B5.2 Special Surveys for Hull, Equipment, Fire Extinction and Fittings B5.2.2 General Examination 1 In addition to the general examination, automatic air pipe heads which are installed on the exposed deck are to be completely examined (both externally and internally) at special surveys as specified below. Where the inner parts cannot be properly inspected from the outside, the head is to be removed from the air pipe. ((1) to (3) are omitted.) 2 <u>Particular attention is to be paid to the condition of the zinc coating in heads constructed from galvanised steel.</u> 3 With respect to the provisions of 5.2.2-1, Part B of the Rules, in addition to the general examination, ventilators for machinery and cargo spaces are to be examined internally at special surveys as specified below.	Transferred to 5.1.4, Part B of the Rules Transferred from B5.2.2-2, Part B of the Guidance Transferred to B5.2.2-1, Part B of the Guidance Renumbered Revised expressions.

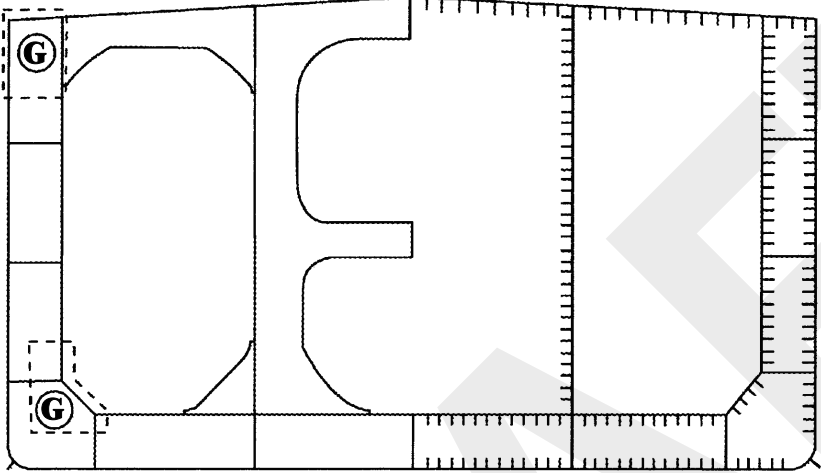
Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
((1) to (3) are omitted.) (Moved) B5.2.3 Performance Test 1 The performance test of computers for stability calculation which are fitted on board the ship as a supplement to stability information booklets is to be carried out in the presence of the Surveyor according to the procedures specified in (1) to (3) below, so as to ensure that the stability computer is working correctly. ((1) to (3) are omitted.) (Moved) (Moved) 2 The performance test specified in 5.2.3-2(10), Part B of the Rules is to be in accordance with the following: ((1) to (4) are omitted.)	((1) to (3) are omitted.) 4 In applying item 2 of Table B5.25, Part B of the Rules, the conditions of accumulator battery systems are to be examined in detail with measuring the insulation resistance of main circuit of accumulator battery systems and associated equipment. In addition, it is to be confirmed that the maintenance, management, etc. of such systems are properly carried out in accordance with 1.2.8, Annex 2.11.1-2, Part H of the Rules for ships equipped with accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules is applied. B5.2.3 Performance Test 1 The performance test of computers for stability calculation which are fitted on board the ship as a supplement to stability information booklets is to be carried out in the presence of the Surveyor according to the procedures specified in (1) to (3) below, so as to ensure that the stability computer is working correctly. ((1) to (3) are omitted.) 2 The hose test stipulated in 5.2.3-2(2) and (5), Part B of the Rules is to be in accordance with An1.4.4-3, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules. 3 Operational tests specified in 5.2.3-2(3) and (5), Part B of the Rules are to be carried out to the working pressure of all bilge and ballast piping systems. 4 The performance test specified in 5.2.3-2(10), Part B of the Rules is to be in accordance with the following: ((1) to (4) are omitted.)	Transferred to Note 1 of Table B5.25, Part B of the Rules Revised expressions. Transferred to 5.2.3-2 (2)(4)(5), Part B of the Rules Transferred to 5.2.3-2 (3)(6)(7)(8), Part B of the Rules Renumbered

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B5.2.4 Internal Examinations of Spaces and Tanks 1 <u>The plans and documents stipulated otherwise by the Society as specified in 5.2.4-1, Part B of the Rules</u> are the plans and documents specified in B1.4.2-6. (Moved) 2 “Coating condition” referred to in 5.2.4-3 Part B of the Rules is in accordance with B4.2.4. (Moved) (Deleted) (Moved) (Moved) (Moved) (Moved) (Moved)	B5.2.4 Internal Examinations of Spaces and Tanks 1 <u>At Special Surveys for oil tankers, bulk carriers and ships carrying dangerous chemicals in bulk with integral tanks, reference is to be made to the plans and documents specified in B1.4.2-6.</u> 2 <u>When internal examinations are carried out, the means of access provided for the examinations are also to be examined.</u> 3 “Coating condition” referred to in 5.2.4-3 Part B of the Rules is in accordance with B4.2.4-2. 4 <u>With respect to Table B5.1. Part B of the Rules, if a selection of tanks is accepted to be examined, then different tanks are to be selected so as to examine all tanks on a rotational basis.</u> B5.2.5 Close-up Surveys 1 Non-destructive testing may be required to detect fractures when deemed necessary by the Surveyor. 2 Thickness measurements are to be carried out on the securing, supporting and locking devices of bow doors, inner doors, side shell doors and stern doors to the extent considered necessary by the Surveyor. The maximum thickness diminution of such securing, supporting and locking devices is not to be more than 15% of the as-built thickness. 3 For the areas described in (G) in Table B5.5-1, Part B of the Rules, refer to Fig.B5.2.5. 4 Close-up surveys are to be carried out for the accessible parts of cargo hold hatch covers whose internals are impossible to structurally access.	Revised expressions. Transferred to 5.2.4-1, Part B of the Rules Renumbered Revised reference numbers due to relocation. Transferred to Note 4 of Table B5.1, Part B of the Rules Transferred to 5.2.5-8, Part B of the Rules Transferred to 5.2.5-9, Part B of the Rules Transferred to Note 1 of Table B5.5-1, Part B of the Rules Transferred to 5.2.5-1(3), Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Fig. B5.2.5 The Knuckle Area and the Top Part of Wing Ballast Tanks of Double Hull  B5.2.6 Thickness Measurements 1 The wording “requirements specified otherwise by the Society” in 5.2.6-1(4), Part B of the Rules means the following. (1) The thickness measurement record is to give the position of each measuring point, the thickness measured, the corresponding original thickness, the allowable diminution and the extent of use of high tensile steels (if used). Furthermore, the record is to give the date when the measurement was carried out, the type of measuring equipment used, the names of the personnel involved and their qualifications with their signatures. (2) For oil tankers, bulk carriers, double hull oil tankers built under Part CSR-T of the Rules or Part CSR-B&T of the Rules, bulk carriers built under Part	B5.2.6 Thickness Measurements 1 The thickness measurement record specified in 5.2.6-1(4), Part B of the Rules is to give the position of each measuring point, the thickness measured as well as the corresponding original thickness, the allowable diminution, and extent of use of high tensile steels, if used. Furthermore, the record is to give the date when the measurement was carried out, the type of measuring equipment used, and names of the personnel and their qualifications with their signatures. In oil tankers, bulk carriers, double hull oil tankers built under Part CSR-T of the Rules or Part CSR-B&T of the Rules, bulk carriers built under Part CSR-B of the Rules or Part CSR-B&T of the Rules and ships carrying dangerous chemicals in bulk with integral tanks, the record is to be made in the approved format. The surveyor verifies and countersigns the thickness measurement record.	Transferred to Fig.B5.1, Part B of the Rules The requirements were enumerated as (1) to (3).

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
<u>CSR-B of the Rules or Part CSR-B&T of the Rules</u> <u>and ships carrying dangerous chemicals in bulk with</u> <u>integral tanks, the thickness measurement record is to</u> <u>be made in the approved format.</u> (3) <u>The surveyor is to verify and countersign the</u> <u>thickness measurement record.</u> (Moved) (Moved) 2 “Where deemed appropriate by the Society” stipulated in 5.2.6-3, Part B of the Rules refers to cases where any general wear down was not found in stainless steel (excluding clad steel) hull structure and piping as a result of an internal examination for tanks and spaces. 3 “The criteria for each type of corrosion” stipulated in 5.2.6-7(3), Part B of the Rules refers to the following (1) to (3): ((1) to (3) are omitted.) 4 “Ship’s longitudinal strength evaluation” required in 5.2.6-8, Part B of the Rules is to be carried out in accordance with the following. ((1) to (7) are omitted.) (Moved) (Moved)	2 <u>Transverse sections are to be chosen where the largest</u> <u>reductions are suspected to occur or are revealed from deck</u> <u>plating measurements. Where two or more transverse sections</u> <u>are required to be measured, one of them, at least, is to be a</u> <u>part of the water ballast tanks arranged just below upper deck</u> <u>within 0.5 L amidships.</u> 3 <u>As for thickness measurements on frames and</u> <u>brackets, the measuring points are to be generally within 30</u> <u>mm from fillet welding with shell or slant plates.</u> 4 “Where deemed appropriate by the Society” stipulated in 5.2.6-3, Part B of the Rules refers to cases where any general wear down was not found in stainless steel (excluding clad steel) hull structure and piping as a result of an internal examination for tanks and spaces. 5 “The criteria for each type of corrosion” stipulated in 5.2.6-7(3), Part B of the Rules refers to the following (1) to (3): ((1) to (3) are omitted.) 6 “Ship’s longitudinal strength evaluation” required in 5.2.6-8, Part B of the Rules is to be carried out in accordance with the following. ((1) to (7) are omitted.) 7 <u>Thickness measurements are to be carried out for the</u> <u>accessible parts of cargo hold hatch covers whose internals are</u> <u>impossible to structurally access.</u> 8 <u>Thickness measurement locations are to be selected to</u>	Transferred to 5.2.6-1(6), Part B of the Rules Transferred to 5.2.6-1(7), Part B of the Rules Renumbered Renumbered Renumbered Transferred to 5.2.6-2, Part B of the Rules Transferred to 5.2.6-1(8),

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B5.2.7 Pressure Tests (Moved) (Moved) (Moved) “In cases where deemed appropriate by the Society stipulated in Table B5.22 to Table B5.24, Part B of the Rules” means that satisfactory external examinations of tank boundaries and confirmations from Masters stating that all pressure testing has been carried out according to the requirements with satisfactory results. (Deleted) (Deleted) (Moved)	<u>provide the best representative sampling of areas likely to be most exposed to corrosion, considering cargo and ballast history and arrangement and condition of protective coatings.</u> B5.2.7 Pressure Tests 1 With respect to 5.2.7. Part B of the Rules, bilge, sludge and other similar tanks are to comply with the requirements for fresh water tanks. 2 Pressure tests of air pipes, sounding pipes, and other pipes may be required where deemed necessary by the Surveyor as a result of examinations. 3 In oil tankers, all bulkheads which form the boundaries of each cargo tank are to be tested with pressure from either side without fail at Special Survey No. 2 and subsequent Special Surveys. 4 “In cases where deemed appropriate by the Society stipulated in Table B5.22 to B5.24, Part B of the Rules” means that satisfactory external examinations of tank boundaries and confirmations from Masters stating that all pressure testing has been carried out according to the requirements with satisfactory results. <u>B5.3 Special Surveys for Machinery</u> <u>B5.3.1 General Examinations</u> 1 <u>Where controlled atmosphere systems are installed onboard, the general examination of safety devices for refrigerating machinery specified in item 3 of Table B5.25 of the Rules is to be conducted on the gas freeing equipment, and control, alarm and monitoring equipment of the controlled atmosphere systems.</u>	Part B of the Rules Transferred to 5.2.7-1(3), Part B of the Rules Transferred to 5.2.7-1(5), Part B of the Rules Transferred to Note 1 of Table B5.2.3-1, Part B of the Rules Renumbered Transferred to Note 2 of Table B5.25, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	2 The wording “hazardous areas” of Requirements for Tankers in Table B5.25, Part B of the Rules refers to the <u>hazardous areas specified in 4.2.3-1, -4 and -5, Part H of the Rules.</u>	Transferred to Note 3 of Table B5.25, Part B of the Rules
(Deleted)	B5.3.2 Performance Tests and Pressure Tests	
(Moved)	1 “As deemed appropriate by the Society” stipulated in item 2 of Table B5.26 of the Rules refers to conditions that <u>satisfy the criteria below. “Other means” refers to non-destructive inspections such as ultrasonic tests which can detect cracks of at least 5 mm in length on the inside of vessels.</u>	Transferred to Note 1 of Table B5.26, Part B of the Rules
(Moved)	(1) Straight flange parts (skirt parts) of receivers are to <u>have been hot formed.</u>	
	(2) As installed, straight flange parts are to have adequate <u>surface area for an ultrasonic angle beam test.</u>	
(Moved)	2 “Where deemed necessary by the Surveyor” in item 3 of Table B5.26 of the Rules refers to the following.	Transferred to Note 2 of Table B5.26, Part B of the Rules
	(1) For parts exposed to pressure, where wastage such as <u>corrosion or abrasion that affect the strength of those parts is found.</u>	
	(2) For boilers, pressure vessels or main steam piping, <u>where the condition of internal wastage is impossible to be checked.</u>	
(Moved)	3 The following examinations are to be carried out on <u>the rubber hoses used for contact freezers of direct ammonia expansion type as shown in Table B5.3.2-3.</u>	Transferred to B3.2.2, Part B of the Guidance
	(1) Rubber hoses and their fitting attachments are to be <u>generally examined yearly at periodical surveys.</u>	
	(2) In addition to (1) above, at the first periodical survey <u>after the rubber hoses have been in use for two years and yearly at periodical surveys after four years, the hoses are to be cut open longitudinally and examined</u>	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	to verify that there is no internal cracking or lubricant present. Where deemed necessary by the attending Surveyor, tensile tests of the internal rubber may be requested. At this time, the breaking stress is to be not less than 8 N/mm^2. (3) In addition to being in compliance with (1) and (2) above, bursting tests at 6 MPa are to be carried out on the rubber hoses yearly at periodical surveys after they have been in use for four years. (4) All rubber hoses are, as a rule, to be replaced with new ones after they have been in use for eight years. (5) For the tests specified in (2) and (3) above, one representative rubber hose is to be taken as a test specimen for every five sets of contact freezers, and where that hose fails either the tensile test (2) or the bursting test (3), all the hoses it represents are assumed to have the same results and therefore are to be replaced with new ones. (6) The chief engineer is to check the hoses and their fitting attachments before taking them into use, and to replace substandard ones as necessary. In addition, he is to keep a record of the following items in a maintenance book and present it to the attending Surveyor at periodical surveys. (a) List of service histories of each hose (b) Maintenance results (inspected dates, conditions of the hoses and their fitting attachments, disposition, etc.) (c) Location number, manufacturer, type, manufacture date of renewed hoses 4 The “Performance tests of electric generator sets and important auxiliaries” mentioned in item 5 of Table B5.26,	Transferred to Note 3 of Table B5.26, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Moved)	<u>Part B of the Rules</u> are to verify the following for the electric generator sets specified in <u>3.2.1-3, Part H of the Rules.</u> (1) Where only one electric generating set is normally used, the standby generator, air circuit breakers, and important auxiliary machinery start up automatically when the main source of electrical power is stopped by tripping a circuit breaker. (2) Where two electric generating sets are normally used, preference tripping of unnecessary loads is performed when the circuit breaker of one of the sets is tripped. <u>5</u> The “electric generating sets specified in <u>3.2.1-3, Part H of the Rules</u>” mentioned in -4 above, refer to the application of <u>6.2.11-1 and -3, Part H of the Rules</u> for the ships specified in <u>6.1.1, Part H of the Rules.</u>	Transferred to Note 3 of Table B5.26, Part B of the Rules
(Deleted)	<u>B5.4 Special Requirements for Ships Carrying Liquefied Gases in Bulk</u>	
(Deleted) (Moved)	<u>B5.4.2 Examinations</u> <u>1</u> The wording “programs and acceptance criteria approved in advance” in item 2 of <u>Table B5.27, Part B of the Rules</u> refers to the programs and acceptance criteria prepared by cargo containment systems’ designers and approved by the Society in accordance with the provisions of <u>4.6.2(4), Part N of the Rules.</u>	Transferred to Note 5 of Table B5.27, Part B of the Rules
(Moved)	<u>2</u> The wording “hazardous areas” in item 6 of <u>Table B5.27, Part B of the Rules</u> refers to the hazardous areas specified in <u>4.2.3-3, -4 and -5, Part H of the Rules</u> as well as in <u>1.1.5(23), Part N of the Rules.</u>	Transferred to Note 10 of Table B5.27, Part B of the Rules
(Moved)	<u>3</u> In applying <u>5.4.2, Part B of the Rules</u>, with respect to the functional tests specified in item 8 of <u>Table B3.9, Part B</u>	Transferred to item 8 of Table B5.27, Part B of the

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(Deleted)	<u>of the Rules</u>, reference is to be made to the requirements related to renewal surveys specified in Chapter 4, Part B of <i>IMO resolution MSC.267(85) “International Code on Intact Stability, 2008 (2008 IS Code)”</i>, notwithstanding the requirements of B3.4.2-4. <u>B5.5 Special Requirements for Ships Carrying Dangerous Chemicals in Bulk</u>	Rules
(Deleted) (Moved)	<u>B5.5.2 Examinations</u> 1 The wording “hazardous areas” in item 5 of Table B5.28, Part B of the Rules refers to the hazardous areas specified in 4.2.3-2, -4 and -5, Part H of the Rules.	Transferred to Note 2 of Table B5.28, Part B of the Rules
(Moved)	2 In applying 5.5.2, Part B of the Rules, with respect to the functional tests specified in item 7 of Table B3.10, Part B of the Rules, reference is to be made to the requirements related to renewal surveys specified in Chapter 4, Part B of <i>IMO resolution MSC.267(85) “International Code on Intact Stability, 2008 (2008 IS Code)”</i>, notwithstanding the requirements of B3.5.2-2.	Transferred to item 6(1) of Table B5.28, Part B of the Rules
(Deleted)	<u>B5.6 Special Requirements for Ships Using Low-flashpoint Fuels</u>	
(Deleted) (Moved)	<u>B5.6.1 General</u> The requirements of 5.6, Part B of the Rules need not be applied to ships examined in accordance with 5.4, Part B of the Rules.	Transferred to 5.6.1-2, Part B of the Rules

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks																																													
(Deleted) (Moved) (Moved)	<u>B5.6.2 Examinations</u> <u>1</u> The phrase “programme and acceptance criteria approved” in item 2 of Table B5.29, Part B of the Rules means those prepared by fuel containment system designers and approved by the Society. <u>2</u> The term “hazardous areas” in item 6 of Table B5.29, Part B of the Rules means the hazardous areas specified in 12.5, Part GF, and 4.2.3-4 and -5, Part H of the Rules.	Transferred to Note 5 of Table B5.29, Part B of the Rules Transferred to Note 11 of Table B5.29, Part B of the Rules Transferred to B3, Part B of the Guidance																																													
Table B5.3.2 3. Examinations of rubber hoses used for contact freezers of direct ammonia expansion type																																															
<table><tr><th> Survey item Served year </th><th>Visual examination (outside)</th><th>Visual examination (inside)</th><th>Bursting test (6 MPa)</th><th>Tensile test (8N/mm²)</th></tr><tr><td>1 year</td><td>○</td><td></td><td></td><td></td></tr><tr><td>2 years</td><td>○</td><td>○</td><td></td><td>△</td></tr><tr><td>3 years</td><td>○</td><td></td><td></td><td></td></tr><tr><td>4 years</td><td>○</td><td>○</td><td>○</td><td>△</td></tr><tr><td>5 years</td><td>○</td><td>○</td><td>○</td><td>△</td></tr><tr><td>6 years</td><td>○</td><td>○</td><td>○</td><td>△</td></tr><tr><td>7 years</td><td>○</td><td>○</td><td>○</td><td>△</td></tr><tr><td>8 years</td><td colspan="4">To be renewed.</td></tr></table> ○ : To be carried out. △ : To be carried out in case where deemed necessary by the attending Surveyor.			Survey item Served year	Visual examination (outside)	Visual examination (inside)	Bursting test (6 MPa)	Tensile test (8N/mm²)	1 year	○				2 years	○	○		△	3 years	○				4 years	○	○	○	△	5 years	○	○	○	△	6 years	○	○	○	△	7 years	○	○	○	△	8 years	To be renewed.			
Survey item Served year	Visual examination (outside)	Visual examination (inside)	Bursting test (6 MPa)	Tensile test (8N/mm²)																																											
1 year	○																																														
2 years	○	○		△																																											
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6 years	○	○	○	△																																											
7 years	○	○	○	△																																											
8 years	To be renewed.																																														

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B6 DOCKING SURVEYS B6.1 Docking Surveys (Deleted) (Moved) (Moved) B6.1.4 In-water Surveys 1 The approval of application for the In-water Survey specified in 6.1.4-1, Part B of the Rules is subject to the following conditions in (1) and (2). ((1) and (2) are omitted.) 2 Approval of the consecutive In-water Surveys specified in 6.1.4-2, Part B of the Rules is to be carried out with respect to each ship in reference to <i>IACS</i> Recommendation No.133. (Deleted) (Moved)	B6 DOCKING SURVEYS B6.1 Docking Surveys B6.1.1 Surveys in Dry Dock or on Slipway 1 The pressure test stipulated in item 2 of Table B6.1, Part B of the Rules refers to that specified in item 13 of Table An1.4-1, Annex 2.1.5 “Testing Procedures of Watertight Compartments” of the Rules. 2 “Mean diameter” as prescribed in item 7 of Table B6.1, Part B of the Rules refers to the average of the smallest diameter (the diameter measured in the direction with the most wear) found in one cross-section of the link and the diameter measured perpendicular to it in the same cross-section. B6.1.2 In-water Surveys 1 The approval of application for the In-water Survey specified in 6.1.2-1, Part B of the Rules is subject to the following conditions in (1) and (2). ((1) and (2) are omitted.) 2 Approval of the consecutive In-water Surveys specified in 6.1.2-2, Part B of the Rules is to be carried out with respect to each ship in reference to <i>IACS</i> Recommendation No.133. B6.1.3 Other Surveys The “reference standards deemed appropriate by the Society” referred to in 6.1.3-2, Part B of the Rules refer to the following (1) and (2): (1) those specified in item 11(1)(b) of Table B8.3, Part B of the Rules for oil lubricated shafts; and	Transferred to Note 1 of Table B6.1, Part B of the Rules Transferred to Note 2 of Table B6.1, Part B of the Rules Renumbered Revised reference numbers due to relocation. Revised reference numbers due to relocation. (1) and (2): Transferred to 6.1.5-2, Part B of the Rules

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
B9 PLANNED MACHINERY SURVEYS B9.1 Planned Machinery Surveys B9.1.1 <u>General</u> (Omitted) B9.1.3 Continuous Machinery Surveys (CMS) (Same) (Same) (Same) (Same) (Same) (Same)	(2) <u>those specified in item 11(1)(b) of Table B8.4, Part B of the Rules for freshwater lubricated shafts.</u> B9 PLANNED MACHINERY SURVEYS B9.1 Planned Machinery Surveys B9.1.1 <u>Application</u> (Omitted) B9.1.2 Continuous Machinery Surveys (CMS) 1 Application of CMS ((1) and (2) are omitted.) 2 Application for CMS ((1) and (2) are omitted.) 3 CMS Program The CMS Program is to be prepared referring to the following (1) to (3). Each survey interval for items covered by the Planned Machinery Survey is not to exceed 5 years, and the Program is to be retained on board the ship so that it can be presented to the Surveyor whenever so requested. ((1) to (3) are omitted.) 4 Procedures for CMS ((1) and (2) are omitted.) 5 Substitution for open-up examinations The machinery and equipment listed below may be exempt from open-up examinations if they are found to be in satisfactory condition by carrying out the examinations listed and examining records such as the logbooks. However, when	Renumbered

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
6 Confirmatory Survey In ships deemed by the Society as maintaining their machinery and equipment well, overhaul inspections according to the CMS Program specified in -3 by the shipowner (or the ship management company) may forgo the open-up examination performed in the presence of Surveyors by conducting the following confirmatory surveys, provided that the machinery and equipment are overhauled as part of the ship's maintenance practices and the records from such overhauls are kept in good order. In this case, the due date of the next open-up examination is <i>5 years</i> from the date of its last overhaul and inspection. ((1) and (2) are omitted.) (3) Timing of the confirmatory survey A confirmatory survey is to be carried out no later than the completion date of the first periodical survey (excluding those specified in 6.1.2, 7.1.2, 8.1.2, Part B of the Rules, hereinafter the same in this (3)) on or after the day the item of machinery and equipment intended for the confirmatory survey was overhauled and inspected. Notwithstanding the above, if the shipowner (or the ship management company) applies for a survey, it may be allowed to carry out a confirmatory survey no later than the following (a) or (b) whichever is earlier. ((a) and (b) are omitted.) (Same)	defects are found during the examinations, or if the maintenance condition is judged to be questionable as a result of examining the logbooks or other records, open-up examinations may be required. ((1) to (4) are omitted.) 6 Confirmatory Survey In ships deemed by the Society as maintaining their machinery and equipment well, overhaul inspections according to the CMS Program specified in -3 by the shipowner (or the ship management company) may forgo the open-up examination performed in the presence of Surveyors by conducting the following confirmatory surveys, provided that the machinery and equipment are overhauled as part of the ship's maintenance practices and the records from such overhauls are kept in good order. In this case, the due date of the next open-up examination is <i>5 years</i> from the date of its last overhaul and inspection. ((1) and (2) are omitted.) (3) Timing of the confirmatory survey A confirmatory survey is to be carried out no later than the completion date of the first periodical survey (excluding those specified in (4) to (6) of 1.1.3-1, Part B of the Rules, hereinafter the same in this (3)) on or after the day the item of machinery and equipment intended for the confirmatory survey was overhauled and inspected. Notwithstanding the above, if the shipowner (or the ship management company) applies for a survey, it may be allowed to carry out a confirmatory survey no later than the following (a) or (b) whichever is earlier. ((a) and (b) are omitted.) 7 Cancellation of CMS	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B9.1.4 Planned Machinery Maintenance Scheme (PMS) 1 Application of PMS PMS may apply to the open-up examinations of machinery and equipment prescribed in B9.1.3-1. 2 Terms The definition of “maintenance management system” which appears in B9.1.4 is a computer system for managing the maintenance and inspection plans of machinery and its components that are subject to the Planned Machinery Maintenance Scheme. (Same) (Same) (Same) 6 Surveys based on condition monitoring and diagnosis The wording “requirements specified otherwise by the Society” in 9.1.4-2, Part B of the Rules means the following: ((1) and (2) are omitted.) (Same)	((1) to (3) are omitted.) B9.1.3 Planned Machinery Maintenance Scheme (PMS) 1 Application of PMS PMS may apply to the open-up examinations of machinery and equipment prescribed in B9.1.2-1. 2 Terms The definition of “maintenance management system” which appears in B9.1.3 is a computer system for managing the maintenance and inspection plans of machinery and its components that are subject to the Planned Machinery Maintenance Scheme. 3 Application Procedure for PMS To apply for PMS, the shipowner or ship management company or representative is to submit an application form (Form-PMS-AP) together with the following documents to the Society. ((1) and (2) are omitted.) 4 Approval of PMS Conditions for approval of PMS are as follows: ((1) to (5) are omitted.) 5 Surveys for PMS ((1) to (4) are omitted.) 6 Surveys based on condition monitoring and diagnosis The wording “requirements specified otherwise by the Society” in 9.1.3-2, Part B of the Rules means the following: ((1) and (2) are omitted.) 7 Cancellation of PMS The Society may cancel approval for PMS when it is considered difficult to continue PMS for any of the following reasons.	Renumbered Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B9.1.5 Condition Based Maintenance Scheme (CBM) (Same) 2 Application of CBM (1) The wording “an established maintenance system” in 9.1.5, Part B of the Rules refers to those which satisfy the requirements of Rules for the Audit and Registration of Safety Management Systems or their equivalent. In addition, all personnel involved in condition monitoring and diagnosis are to be properly qualified. (2) CBM may apply to items subjected to the open-up examinations of machinery and equipment prescribed in B9.1.3-1. 3 Terms The definitions of terms which appear in B9.1.5 are as specified in the following (1) to (5). ((1) and (2) are omitted.) (3) Condition based maintenance Maintenance performed as governed by B9.1.5. ((4) and (5) are omitted.) (Same)	((1) and (2) are omitted.) B9.1.4 Condition Based Maintenance Scheme (CBM) 1 General The purpose of a condition based maintenance scheme is to obtain maintenance efficiency by performing maintenance at the early stage of an abnormality detected by condition monitoring and diagnosis and by continuously using components when no abnormality is found. The condition monitoring systems are to be arranged to provide an equivalent or greater degree of confidence in the condition of the machinery to traditional survey techniques. 2 Application of CBM (1) The wording “an established maintenance system” in 9.1.4, Part B of the Rules refers to those which satisfy the requirements of Rules for the Audit and Registration of Safety Management Systems or their equivalent. In addition, all personnel involved in condition monitoring and diagnosis are to be properly qualified. (2) CBM may apply to items subjected to the open-up examinations of machinery and equipment prescribed in B9.1.2-1. 3 Terms The definitions of terms which appear in B9.1.4 are as specified in the following (1) to (5). ((1) and (2) are omitted.) (3) Condition based maintenance Maintenance performed as governed by B9.1.4. ((4) and (5) are omitted.) 4 Application Procedure for CBM To apply for CBM, the shipowner or ship management	Renumbered Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
5 Approval of CBM Conditions for approval of CBM are as follows: ((1) is omitted.) (2) Condition monitoring system The condition monitoring system is to satisfy the following requirements specified in (a) to (h). In cases where this system is modified, that modification is to be approved by the Society. ((a) is omitted.) (b) The hardware and software of the computer is to comply with B9.1.4-4(5)(a) to (e) of the Guidance and Chapters 1, 2 and 3, Part X of the Rules. ((c) to (h) are omitted.) ((5) is omitted.) (6) Machinery maintenance record The machinery maintenance records are to include the items specified in B9.1.4-4(3) for the machinery, equipment or associated components subject to the scheme. Those records are to be created by the chief engineer and always to be available on board the ship. ((7) is omitted.) 6 Surveys of CBM ((1) is omitted.) (2) Implementation survey An implementation survey is to be carried out no	company or representative is to submit an application form (Form-CBM-AP) together with the following documents to the Society. The baseline data specified in (1)(i) may be submitted to the Society so as to be approved before the implementation survey specified in -6(2). ((1) and (2) are omitted.) 5 Approval of CBM Conditions for approval of CBM are as follows: ((1) is omitted.) (2) Condition monitoring system The condition monitoring system is to satisfy the following requirements specified in (a) to (h). In cases where this system is modified, that modification is to be approved by the Society. ((a) is omitted.) (b) The hardware and software of the computer is to comply with B9.1.3-4(5)(a) to (e) of the Guidance and Chapters 1, 2 and 3, Part X of the Rules. ((c) to (h) are omitted.) ((5) is omitted.) (6) Machinery maintenance record The machinery maintenance records are to include the items specified in B9.1.3-4(3) for the machinery, equipment or associated components subject to the scheme. Those records are to be created by the chief engineer and always to be available on board the ship. ((7) is omitted.) 6 Surveys of CBM ((1) is omitted.) (2) Implementation survey An implementation survey is to be carried out no	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
earlier than 6 months after the installation survey and no later than the first periodical survey (i.e. the Annual Survey <u>specified in 3.1.2-1, Part B of the Rules</u>, Intermediate Survey <u>specified in 4.1.2-1, Part B of the Rules</u> or Special Survey <u>specified in 5.1.2-1, Part B of the Rules</u>). At the implementation survey the following (a) to (f) are to be verified. At this implementation survey, a report which specifies the implementation status of these items is to be submitted to the Society. The baseline data are to be approved by the Society prior to the implementation survey ((a) to (f) are omitted.) ((3) and (4) are omitted.) (Same)	earlier than 6 months after the installation survey and no later than the first periodical survey (i.e. the Annual Survey, Intermediate Survey or Special Survey <u>specified in 1.1.3-1, Part B of the Rules</u>). At the implementation survey the following (a) to (f) are to be verified. At this implementation survey, a report which specifies the implementation status of these items is to be submitted to the Society. The baseline data are to be approved by the Society prior to the implementation survey ((a) to (f) are omitted.) ((3) and (4) are omitted.) 7 Cancellation of CBM The Society may cancel all or part of approval for CBM scheme when it is considered difficult to continue CBM scheme for any of the following reasons. In such cases, items which have been monitored under the scheme since the last survey are to be subjected to surveys deemed appropriate by the Society. ((1) to (6) are omitted.)	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
B13 SPECIAL REQUIREMENTS OF PERIODICAL SURVEYS FOR OFFSHORE STRUCTURES B13.5 Periodical Surveys for Equipment, Machinery Installations and Fire Extinguishing Systems B13.5.1 General 2 For large oil storage barges complying with 12.1.1-3, Part B of the Rules, the surveys of equipment and fire extinguishing systems are to be carried out in accordance with the following, and completed by the time of the Intermediate Surveys specified in 1.1.3, Part B of the Rules. (1) The representative unit (a) Piping and rupture hatches Inspection of the condition of all piping on the exposed deck and rupture hatches (b) Fire extinguishing systems Inspection of the condition of fire extinguishing systems specified in -1(2)(a) through (h), and performance tests specified in Chapter 4, Part B of the Rules (2) Rest units (a) Piping and rupture hatches Inspection of the condition of all piping on the exposed deck and rupture hatches (b) Fire extinguishing systems Inspection of the condition of fire extinguishing systems specified in -1(2)(a) through (h)	B13 SPECIAL REQUIREMENTS OF PERIODICAL SURVEYS FOR OFFSHORE STRUCTURES B13.5 Periodical Surveys for Equipment, Machinery Installations and Fire Extinguishing Systems B13.5.1 General 2 For large oil storage barges complying with 12.1.1-3, Part B of the Rules, the surveys of equipment and fire extinguishing systems are to be carried out in accordance with the following, and completed by the time of the Intermediate Surveys specified in 1.1.3, Part B of the Rules. (1) The representative unit (a) Piping and rupture hatches Inspection of the condition of all piping on the exposed deck and rupture hatches (b) Fire extinguishing systems Inspection of the condition of fire extinguishing systems specified in -1(2)(a) through (h) (2) Rest units (a) Piping and rupture hatches Inspection of the condition of all piping on the exposed deck and rupture hatches (b) Fire extinguishing systems Inspection of the condition of fire extinguishing systems specified in -1(2)(a) through (h)	Alignment of Japanese and English versions of the Rules: The handling is differentiated between the representative ship and other ships. Revised wording to be consistent with Japanese text so that an effectiveness test is required for the representative ship.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part GF SHIPS USING LOW-FLASHPOINT FUELS GF15 CONTROL, MONITORING AND SAFETY SYSTEMS GF15.4 Bunkering and Liquefied Gas Fuel Tank Monitoring GF15.4.2 Overflow Control The wording “each dry-docking” specified in 15.4.2-3, Part GF of the Rules means docking surveys carried out at the times specified in <u>6.1.2-1(a)</u>, Part B of the Rules. GF17 OPERATING REQUIREMENTS GF17.2 Functional Requirements GF17.2.2 Additional Requirements The “operational procedures” specified in the requirements in 17.2.2-3, Part GF of the Rules are to include following (1) and (2):	GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part GF SHIPS USING LOW-FLASHPOINT FUELS GF15 CONTROL, MONITORING AND SAFETY SYSTEMS GF15.4 Bunkering and Liquefied Gas Fuel Tank Monitoring GF15.4.2 Overflow Control The wording “each dry-docking” specified in 15.4.2-3, Part GF of the Rules means docking surveys carried out at the times specified in <u>1.1.3-1(4)(a)</u>, Part B of the Rules. GF17 OPERATING REQUIREMENTS GF17.2 Functional Requirements GF17.2.2 Additional Requirements The “operational procedures” specified in the requirements in 17.2.2-3, Part GF of the Rules are to include following (1) and (2):	Revised reference numbers due to relocation. Revised reference numbers due to change in table number

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(1) the instructions and manuals specified in Note 3 of Table B3.12, Part B of the Rules; and (2) a notice that the logbooks and operating records specified in Note 4 of Table B3.12, Part B of the Rules are to be retained on board.	(1) the instructions and manuals specified in Note 3 of Table B3.11, Part B of the Rules; and (2) a notice that the logbooks and operating records specified in Note 4 of Table B3.11, Part B of the Rules are to be retained on board.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part N SHIPS CARRYING LIQUEFIED GASES IN BULK N4 CARGO CONTAINMENT N4.20 Construction Processes N4.20.3 Testing 6 The quantities of the real cargo and vapour used in the gas trials and cargo full loading tests referred to in the preceding -4 are to be sufficient to conducting the tests specified in said -4. However, in cases where cargo conditions do not permit operation tests of high level alarms, such tests are to be carried out at the first occasion in which cargo conditions allow for said testing. In such cases, the logbook entries for testing and relevant records are to be reviewed no later than the first Annual Survey specified in <u>3.1.2-1</u>, Part B of the Rules.	GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part N SHIPS CARRYING LIQUEFIED GASES IN BULK N4 CARGO CONTAINMENT N4.20 Construction Processes N4.20.3 Testing 6 The quantities of the real cargo and vapour used in the gas trials and cargo full loading tests referred to in the preceding -4 are to be sufficient to conducting the tests specified in said -4. However, in cases where cargo conditions do not permit operation tests of high level alarms, such tests are to be carried out at the first occasion in which cargo conditions allow for said testing. In such cases, the logbook entries for testing and relevant records are to be reviewed no later than the first Annual Survey specified in <u>1.1.3-1</u>, Part B of the Rules.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
N13 INSTRUMENTATION AND AUTOMATION SYSTEMS N13.1 General N13.1.3 Calibration and Test of Measuring Instruments For the purpose of the requirements in 13.1.3, Part N of the Rules, tests and inspections of measuring instruments are to be in accordance with the following requirements (1) to (3): ((1) and (2) are omitted.) (3) For retests and testing procedures of instrumentation after installation on board the ship, at least the following items are to be noted in the Operation Manual specified in the requirements in 18.2.1, Part N of the Rules: (a) Check method and testing procedure before use (b) Check method and testing procedure during use (c) Periodical check method and intervals specified by the manufacturer (d) Service life of equipment (excluding those permanent system components) (e) Periodical inspection procedure specified in the requirements in Item 4 of Table B3.10, Part B of the Rules (f) Other precautions	N13 INSTRUMENTATION AND AUTOMATION SYSTEMS N13.1 General N13.1.3 Calibration and Test of Measuring Instruments For the purpose of the requirements in 13.1.3, Part N of the Rules, tests and inspections of measuring instruments are to be in accordance with the following requirements (1) to (3): ((1) and (2) are omitted.) (3) For retests and testing procedures of instrumentation after installation on board the ship, at least the following items are to be noted in the Operation Manual specified in the requirements in 18.2.1, Part N of the Rules: (a) Check method and testing procedure before use (b) Check method and testing procedure during use (c) Periodical check method and intervals specified by the manufacturer (d) Service life of equipment (excluding those permanent system components) (e) Periodical inspection procedure specified in the requirements in Item 4 of Table B3.9, Part B of the Rules (f) Other precautions	Revised reference numbers due to change in table number

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
N13.3 Overflow Control N13.3.5 Installation and Function Test The wording “each dry-docking” specified in 13.3.5, Part N of the Rules means docking surveys carried out at the times specified in 6.1.2-1(a), Part B of the Rules.	N13.3 Overflow Control N13.3.5 Installation and Function Test The wording “each dry-docking” specified in 13.3.5, Part N of the Rules means docking surveys carried out at the times specified in 1.1.3-1(4)(a), Part B of the Rules.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part R FIRE PROTECTION, DETECTION AND EXTINCTION R4 PROBABILITY OF IGNITION R4.5 Cargo Areas of Tankers R4.5.2 Restriction on Boundary Openings 5 The navigational bridge external doors and windows which are located within the limits specified in 4.5.2-2, Part R of the Rules, are to be provided with packing and clamping fittings. For ensuring their gas-tightness, appropriate test are to be carried out. If a water hose test is applied, such tests are to be in accordance with the provisions of An1.4.4-3, Annex 2.1.7-2 “TESTING PROCEDURES OF WATERTIGHT COMPARTMENTS”, Part B of the Rules.	GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part R FIRE PROTECTION, DETECTION AND EXTINCTION R4 PROBABILITY OF IGNITION R4.5 Cargo Areas of Tankers R4.5.2 Restriction on Boundary Openings 5 The navigational bridge external doors and windows which are located within the limits specified in 4.5.2-2, Part R of the Rules, are to be provided with packing and clamping fittings. For ensuring their gas-tightness, appropriate test are to be carried out. If a water hose test is applied, such tests are to be in accordance with the provisions of An1.4.4-3, Annex 2.1.5 “TESTING PROCEDURES OF WATERTIGHT COMPARTMENTS”, Part B of the Rules.	Revised reference numbers due to change in annex number.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part X COMPUTER-BASED SYSTEMS X3 COMPUTER-BASED SYSTEMS X3.3 System Categories X3.3.3 System Category Examples The wording “diagnostics and troubleshooting systems” in 3.3.3(1)(c), Part X of the Rules, does not means the “condition monitoring system” specified in B9.1.5-5(2), Part B of the Guidance.	GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS Part X COMPUTER-BASED SYSTEMS X3 COMPUTER-BASED SYSTEMS X3.3 System Categories X3.3.3 System Category Examples The wording “diagnostics and troubleshooting systems” in 3.3.3(1)(c), Part X of the Rules, does not means the “condition monitoring system” specified in B9.1.4-5(2), Part B of the Guidance.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR CARGO REFRIGERATING INSTALLATIONS Chapter 2 SURVEYS 2.3 Registration Maintenance Surveys 2.3.1 Special Surveys 3 “Continuous Surveys” specified in 2.1.3-5 of the Rules is conform to the following requirements: ((1) to (3) are omitted.) (4) Confirmatory Surveys On the items listed in (a) to (d) of (3) above, confirmatory surveys may be carried out in accordance with the procedures specified in <u>B9.1.3-6 of the Guidance for the Survey and Construction of Steel Ships</u>. For compressors, at least one unit of them is to be subject to open-up inspection during the period of one cycle of continuous surveys. ((5) is omitted.)	GUIDANCE FOR CARGO REFRIGERATING INSTALLATIONS Chapter 2 SURVEYS 2.3 Registration Maintenance Surveys 2.3.1 Special Surveys 3 “Continuous Surveys” specified in 2.1.3-5 of the Rules is conform to the following requirements: ((1) to (3) are omitted.) (4) Confirmatory Surveys On the items listed in (a) to (d) of (3) above, confirmatory surveys may be carried out in accordance with the procedures specified in <u>B9.1.2-6 of the Guidance for the Survey and Construction of Steel Ships</u>. For compressors, at least one unit of them is to be subject to open-up inspection during the period of one cycle of continuous surveys. ((5) is omitted.)	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR LIFTING APPLIANCES AND ANCHOR HANDLING WINCHES Part 1 LIFTING APPLIANCES Chapter 2 SURVEYS 2.2 Surveys of Lifting Appliances and Loose Gear 2.2.4 Postponement of Thorough Examinations and Load Tests In order to obtain “approval by the Society” specified in 2.2.4, Part 1 of the Rules, the followings are to be complied with. (1) The owner or its representative is to make the application for postponement before the due date in the same manner specified in <u>1.1.5-2, Part B of the Rules for the Survey and Construction of Steel Ships</u> (2) There is no Society’s Condition relevant to lifting appliances and loose gear.	GUIDANCE FOR LIFTING APPLIANCES AND ANCHOR HANDLING WINCHES Part 1 LIFTING APPLIANCES Chapter 2 SURVEYS 2.2 Surveys of Lifting Appliances and Loose Gear 2.2.4 Postponement of Thorough Examinations and Load Tests In order to obtain “approval by the Society” specified in 2.2.4, Part 1 of the Rules, the followings are to be complied with. (1) The owner or its representative is to make the application for postponement before the due date in the same manner specified in <u>B1.1.5, Part B of the Guidance for the Survey and Construction of Steel Ships.</u> (2) There is no Society’s Condition relevant to lifting appliances and loose gear.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR HIGH SPEED CRAFT Part 1 GENERAL RULES Chapter 1 GENERAL 1.1 General 1.1.8 Crafts Using Low-flashpoint Fuels In applying Part GF of the Rules for the Survey and Construction of Steel Ships with respect to requirement 1.1.8, Part 1 of the Rules, the wording “docking surveys carried out at the times specified in <u>6.1.2-1(1)</u>, Part B of the Rules for the Survey and Construction of Steel Ships” in GF15.4.2, Part GF of the Guidance for the Survey and Construction of Steel Ships is to be interpreted to mean “Special Surveys carried out at the times specified in 3.1.1-1(3), Part 2 of the Rules for High Speed Craft”.	GUIDANCE FOR HIGH SPEED CRAFT Part 1 GENERAL RULES Chapter 1 GENERAL 1.1 General 1.1.8 Crafts Using Low-flashpoint Fuels In applying Part GF of the Rules for the Survey and Construction of Steel Ships with respect to requirement 1.1.8, Part 1 of the Rules, the wording “docking surveys carried out at the times specified in <u>1.1.3-1(4)(a)</u>, Part B of the Rules for the Survey and Construction of Steel Ships” in GF15.4.2, Part GF of the Guidance for the Survey and Construction of Steel Ships is to be interpreted to mean “Special Surveys carried out at the times specified in 3.1.1-1(3), Part 2 of the Rules for High Speed Craft”.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Part 2 CLASS SURVEYS Chapter 1 GENERAL 1.1 Surveys 1.1.4 Laid-up Craft Laid-up craft are to be in accordance with B1.1.7, Part B of the Guidance for the Survey and Construction of Steel Ships. Chapter 3 PERIODICAL SURVEYS AND PLANNED MACHINERY SURVEYS 3.1 General 3.1.2 Docking The approval to the application of In-water Survey specified in 3.1.2, Part 2 of the Rules is to be subject to the provisions specified in B6.1.4, Part B of the Guidance for the Survey and Construction of Steel Ships. 3.1.5 Modification of Requirements of Surveys “In cases where considered appropriate by the Society” specified in 3.1.5-1, in Part 2 of the Rules means those cases where the examinations specified in Table B1.1.5-1, Part B of the Guidance for the Survey and Construction	Part 2 CLASS SURVEYS Chapter 1 GENERAL 1.1 Surveys 1.1.4 Laid-up Craft Laid-up craft are to be in accordance with B1.1.8, Part B of the Guidance for the Survey and Construction of Steel Ships. Chapter 3 PERIODICAL SURVEYS AND PLANNED MACHINERY SURVEYS 3.1 General 3.1.2 Docking The approval to the application of In-water Survey specified in 3.1.2, Part 2 of the Rules is to be subject to the provisions specified in B6.1.2, Part B of the Guidance for the Survey and Construction of Steel Ships. 3.1.5 Modification of Requirements of Surveys “In cases where considered appropriate by the Society” specified in 3.1.5-1, in Part 2 of the Rules means those cases where the examinations specified in Table B1.1.6-1, Part B of the Guidance for the Survey and Construction	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
of Steel Ships are carried out during Periodical Surveys and Planned Machinery Surveys. However, this regulation is not to be applied to surveys required by international regulations or the requirements of flag states.	of Steel Ships are carried out during Periodical Surveys and Planned Machinery Surveys. However, this regulation is not to be applied to surveys required by international regulations or the requirements of flag states.	

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF PASSENGER SHIPS Part 1 GENERAL Chapter 1 GENERAL 1.1 General 1.1.6 Ships Using Low-flashpoint Fuels In applying Part GF of the Rules for the Survey and Construction of Steel Ships with respect to requirement 1.1.6, Part 1 of the Rules, the following (1) and (2) are to be applied. (1) The wording “docking surveys carried out at the times specified in <u>6.1.2-1(1)</u>, Part B of the Rules” in GF15.4.2, Part GF of the Guidance for the Survey and Construction of Steel Ships is to be interpreted to mean “docking surveys carried out at the times specified in 1.1.3-1(3), Part 2 of the Rules for the Survey and Construction of Passenger Ships”. In such cases, the docking surveys are to be carried out every 5 years in accordance with <i>IMO Resolution A.1104(29)</i>. ((2) is omitted.)	GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF PASSENGER SHIPS Part 1 GENERAL Chapter 1 GENERAL 1.1 General 1.1.6 Ships Using Low-flashpoint Fuels In applying Part GF of the Rules for the Survey and Construction of Steel Ships with respect to requirement 1.1.6, Part 1 of the Rules, the following (1) and (2) are to be applied. (1) The wording “docking surveys carried out at the times specified in <u>1.1.3-1(4)(a)</u>, Part B of the Rules” in GF15.4.2, Part GF of the Guidance for the Survey and Construction of Steel Ships is to be interpreted to mean “docking surveys carried out at the times specified in 1.1.3-1(3), Part 2 of the Rules for the Survey and Construction of Passenger Ships”. In such cases, the docking surveys are to be carried out every 5 years in accordance with <i>IMO Resolution A.1104(29)</i>. ((2) is omitted.)	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Part 2 CLASS SURVEY Chapter 1 GENERAL 1.1 Surveys 1.1.2 Class Maintenance Surveys 1 Modifications or conversions referred to in 1.1.2-2(3), Part 2 of the Rules are to be in accordance with the provisions specified in <u>B1.1.3-1 and -2, Part B of the Guidance for the Survey and Construction of Steel Ships.</u> 1.1.5 Postponement of Periodical Surveys The procedure and approval of the postponement of Periodical Surveys specified in 1.1.5, Part 2 of the Rules are to be in accordance with the provisions specified in <u>1.1.5-2, Part B of the Rules for the Survey and Construction of Steel Ships.</u> 1.1.6 Modification of the Requirements The modifications of the requirements are to be in accordance with the provisions specified in <u>B1.1.5, Part B of the Guidance for the Survey and Construction of Steel Ships.</u> 1.1.7 Laid-up Ships Laid-up ships are to be in accordance with the provisions specified in <u>B1.1.7, Part B of the Guidance for the Survey and Construction of Steel Ships.</u>	Part 2 CLASS SURVEY Chapter 1 GENERAL 1.1 Surveys 1.1.2 Class Maintenance Surveys 1 Modifications or conversions referred to in 1.1.2-2(3), Part 2 of the Rules are to be in accordance with the provisions specified in <u>B1.1.2, Part B of the Guidance for the Survey and Construction of Steel Ships.</u> 1.1.5 Postponement of Periodical Surveys The procedure and approval of the postponement of Periodical Surveys specified in 1.1.5, Part 2 of the Rules are to be in accordance with the provisions specified in <u>B1.1.5, Part B of the Guidance for the Survey and Construction of Steel Ships.</u> 1.1.6 Modification of the Requirements The modifications of the requirements are to be in accordance with the provisions specified in <u>B1.1.6, Part B of the Guidance for the Survey and Construction of Steel Ships.</u> 1.1.7 Laid-up Ships Laid-up ships are to be in accordance with the provisions specified in <u>B1.1.8, Part B of the Guidance for the Survey and Construction of Steel Ships.</u>	Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Chapter 5 DOCKING SURVEYS 5.1 Docking Surveys 5.1.2 In-water Surveys The approval to the application of In-water Surveys is to be in accordance with the provisions specified in 6.1.4, Part B of the Rules for the Survey and Construction of Steel Ships.	Chapter 5 DOCKING SURVEYS 5.1 Docking Surveys 5.1.2 In-water Surveys The approval to the application of In-water Surveys is to be in accordance with the provisions specified in 6.1.2, Part B of the Rules for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS Part 1 GENERAL RULES Chapter 1 GENERAL 1.1 General 1.1.8 Ships Using Low-flashpoint Fuels In applying Part GF of the Rules for the Survey and Construction of Steel Ships with respect to requirement 1.1.8, Part 1 of the Rules, the wording “docking surveys carried out at the times specified in <u>6.1.2-1(1)</u>, Part B of the Rules for the Survey and Construction of Steel Ships” in GF15.4.2, Part GF of the Guidance for the Survey and Construction of Steel Ships is to be interpreted to mean “docking surveys carried out at the times specified in 1.1.3-1(4)(a) and (b)i), Part 2 of the Rules for the Inland Water Ships”.	GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS Part 1 GENERAL RULES Chapter 1 GENERAL 1.1 General 1.1.8 Ships Using Low-flashpoint Fuels In applying Part GF of the Rules for the Survey and Construction of Steel Ships with respect to requirement 1.1.8, Part 1 of the Rules, the wording “docking surveys carried out at the times specified in <u>1.1.3-1(4)(a)</u>, Part B of the Rules for the Survey and Construction of Steel Ships” in GF15.4.2, Part GF of the Guidance for the Survey and Construction of Steel Ships is to be interpreted to mean “docking surveys carried out at the times specified in 1.1.3-1(4)(a) and (b)i), Part 2 of the Rules for the Inland Water Ships”.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
GUIDANCE FOR THE APPROVAL OF MATERIALS AND EQUIPMENT FOR MARINE USE Part 5 NON-METALLIC MATERIALS AND COATING MATERIALS FOR HULL Chapter 4 TYPE APPROVAL OF COATING SYSTEM 4.4 Approval Test 4.4.1 Approval Test 2 The Approval test may be omitted where deemed appropriate by the Society for epoxy based systems that are rated “Good” for 5 <i>years</i> of field exposure as specified in B4.2.4(1)(a), Part B of the Guidance for the Survey and Construction of Steel Ships.	GUIDANCE FOR THE APPROVAL OF MATERIALS AND EQUIPMENT FOR MARINE USE Part 5 NON-METALLIC MATERIALS AND COATING MATERIALS FOR HULL Chapter 4 TYPE APPROVAL OF COATING SYSTEM 4.4 Approval Test 4.4.1 Approval Test 2 The Approval test may be omitted where deemed appropriate by the Society for epoxy based systems that are rated “Good” for 5 <i>years</i> of field exposure as specified in B4.2.4-2(1)(a), Part B of the Guidance for the Survey and Construction of Steel Ships.	Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
Chapter 6 TYPE APPROVAL OF AIRBORNE SOUND INSULATING MATERIALS USED FOR BULKHEADS AND DECKS 6.1 General 6.1.1 Scope The requirements of this chapter apply to the tests and inspections for the type approval of the airborne sound insulating materials used for bulkheads and decks in accordance with the requirements of An5.2, Annex <u>2.1.7-7B</u> “PROCEDURES FOR ON BOARD NOISE MEASUREMENTS”, Part B of the Rules for the Survey and Construction of Steel Ships. Part 6 MACHINERY Chapter 1 TYPE APPROVAL OF PMS/CBM MANAGEMENT SOFTWARE 1.1 General 1.1.1 Scope 1 These procedures apply to the tests, examinations, etc. of the computer software required by ships adopting the Planned Machinery Maintenance Scheme (hereinafter referred to as “PMS”) or the Condition Based Maintenance Scheme	Chapter 6 TYPE APPROVAL OF AIRBORNE SOUND INSULATING MATERIALS USED FOR BULKHEADS AND DECKS 6.1 General 6.1.1 Scope The requirements of this chapter apply to the tests and inspections for the type approval of the airborne sound insulating materials used for bulkheads and decks in accordance with the requirements of An5.2, Annex <u>2.3.1-2</u> “PROCEDURES FOR ON BOARD NOISE MEASUREMENTS”, Part B of the Rules for the Survey and Construction of Steel Ships. Part 6 MACHINERY Chapter 1 TYPE APPROVAL OF PMS/CBM MANAGEMENT SOFTWARE 1.1 General 1.1.1 Scope 1 These procedures apply to the tests, examinations, etc. of the computer software required by ships adopting the Planned Machinery Maintenance Scheme (hereinafter referred to as “PMS”) or the Condition Based Maintenance Scheme	Revised reference numbers due to change in annex number. Revised reference numbers due to relocation.

Amended-Original Requirements Comparison Table
(Review of the Structure of Part B of the Rules for Survey and Construction of Steel Ships)

Amended	Original	Remarks
(hereinafter referred to as “CBM”) in accordance with the requirements given in 9.1.4-3, Part B of the Rules or B9.1.5-2, Part B of the Guidance.	(hereinafter referred to as “CBM”) in accordance with the requirements given in 9.1.3-3, Part B of the Rules or B9.1.4-2, Part B of the Guidance.	
EFFECTIVE DATE AND APPLICATION		
1. The effective date of the amendments is 1 January 2027.		