

Lifting Appliances

Object of Amendment

Regulations for the Classification and Registry of Ships
Rules/Guidance for Lifting Appliances and Anchor Handling Winches

Reason for Amendment

Amendments (IMO resolution MSC.532(107)) to the SOLAS Convention concerning lifting appliances and anchor handling winches adopted by the IMO Maritime Safety Committee (MSC) at its 107th session (MSC 107) in June 2023 finally entered into force on 1 January 2026. In addition, guidelines associated with these amendments were also adopted by the IMO MSC in June 2023 as MSC.1/Circ. 1162 (“Guidelines for Anchor Handling Winches”) and MSC.1/Circ.1663 (“Guidelines for Lifting Appliances”).

In anticipation of these amendments and guidelines entering into force the Society renamed its “Rules for Cargo Handling Appliances” to “Rules for Lifting Appliances and Anchor Handling Winches” and incorporated said amendments and guidelines into its Rules in December 2025. The Society also amended its other technical rules and guidance accordingly to reflect this name change.

In addition to the above, IACS issued Recommendation No.198 (“Onboard Lifting Appliances”) in April 2026: this recommendation provides examples related to the scope of application and notes on survey schemes to facilitate the smooth implementation of the aforementioned IMO amendments and guidelines.

Accordingly, relevant requirements concerning lifting appliances are amended for the purpose of incorporating IACS Recommendation No.198 and clarifying existing requirements.

Outline of the Amendment

The main contents of this amendment are as follows:

- (1) Amends requirements in the Regulations for the Classification and Registry of Ships to change the installation character notation for lifting appliances from “CHG” (“Cargo Handling Appliances”) to “LA” (“Lifting Appliances”).
- (2) Specifies examples related to the scope of application of the Rules/Guidance for Lifting Appliances and Anchor Handling Winches, based on lifting appliance type and loose gear type, in accordance with IACS Recommendation No.198.
- (3) Adds requirements to the Rules/Guidance for Lifting Appliances and Anchor Handling Winches for cases in which detailed structural analysis of a lifting appliance is carried out using finite element analysis (FEA).
- (4) Adds requirements to the Rules/Guidance for Lifting Appliances and Anchor Handling Winches for cases in which dynamic loads are considered in the load testing of lifting appliances.

Effective Date and Application

- (1) Regulations for the Classification and Registry of Ships
This amendment applies to ships for which the completion of Classification Survey or

- Special Survey is on or after 1 July 2027.
- (2) Rules/Guidance for Lifting Appliances and Anchor Handling Winches
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:DX26-09

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Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
REGULATIONS FOR THE CLASSIFICATION AND REGISTRY OF SHIPS Chapter 3 REGISTRATION OF INSTALLATIONS 3.1 Installations Registration 3.1.2 Installations Character(s)* 1 The installations applicable to 3.1.1 will be distinguished by the following characters (hereinafter referred to as “Installations Character(s)”) (1) RMC and RMC·CA: Installations in 3.1.1(1) (2) LA and AHW: Installations in 3.1.1(2) (3) MPP: Installations in 3.1.1(3) (4) LSA: Installations in 3.1.1(4) (5) RCF: Installations in 3.1.1(5) (6) MC, M0, M0·A, M0·B, M0·C, and M0·D: Installations in 3.1.1(6) (7) BRS, BRS1, and BRS1A: Installations in 3.1.1(7) (8) DVS: Installations in 3.1.1(8) (9) PMM: Installations in 3.1.1(9) (10) IFC·M, IFC·A, and IFC·AM: Installations in 3.1.1(10) (11) HMS and HMS·R: Installations in 3.1.1(11) (12) AFS and AFS·C: Installations in 3.1.1(12) (13) CCM: Installations in 3.1.1(13) (14) BWM: Installations in 3.1.1(14) (15) IHM: Installations in 3.1.1(15) (16) Installations in 3.1.1(16) are to be given as	REGULATIONS FOR THE CLASSIFICATION AND REGISTRY OF SHIPS Chapter 3 REGISTRATION OF INSTALLATIONS 3.1 Installations Registration 3.1.2 Installations Character(s)* 1 The installations applicable to 3.1.1 will be distinguished by the following characters (hereinafter referred to as “Installations Character(s)”) (1) RMC and RMC·CA: Installations in 3.1.1(1) (2) CHG and AHW: Installations in 3.1.1(2) (3) MPP: Installations in 3.1.1(3) (4) LSA: Installations in 3.1.1(4) (5) RCF: Installations in 3.1.1(5) (6) MC, M0, M0·A, M0·B, M0·C, and M0·D: Installations in 3.1.1(6) (7) BRS, BRS1, and BRS1A: Installations in 3.1.1(7) (8) DVS: Installations in 3.1.1(8) (9) PMM: Installations in 3.1.1(9) (10) IFC·M, IFC·A, and IFC·AM: Installations in 3.1.1(10) (11) HMS and HMS·R: Installations in 3.1.1(11) (12) AFS and AFS·C: Installations in 3.1.1(12) (13) CCM: Installations in 3.1.1(13) (14) BWM: Installations in 3.1.1(14) (15) IHM: Installations in 3.1.1(15) (16) Installations in 3.1.1(16) are to be given as	The term is changed from CHG (Cargo Handling Gear) to LA (Lifting Appliances) to align with the terminology used for lifting appliances.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
appropriate	appropriate	
The effective date of the amendment is according to EFFECTIVE DATE AND APPLICATION (A)		

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
RULES FOR LIFTING APPLIANCES AND ANCHOR HANDLING WINCHES Part 1 LIFTING APPLIANCES Chapter 1 GENERAL 1.1 General 1.1.1 Application 1 Part 1 of the Rules for Lifting Appliances and Anchor handling Winches (hereinafter referred to as “the Rules”) apply to the following lifting appliances and loose gear which are installed on the ships classed with NIPPON KAIJI KYOKAI (hereinafter referred to as “the Society”), and which are intended to be registered under Chapter 3 of the Regulations for the Classification and Registry of Ships. (1) Lifting appliances installed on the following ships (This, however, excludes cargo ramps, except for cargo lifts and cargo ramps which do not open, close or turn while loaded with cargo or other items) (a) Passenger ships engaged on international voyages (including high speed craft that are considered to be passenger ships) (b) Cargo ships not less than 500 <i>gross tonnage</i> engaged on international voyages (including high speed craft considered to be cargo ships) (2) Loose gear <u>used for</u> lifting appliances in (1) above	RULES FOR LIFTING APPLIANCES AND ANCHOR HANDLING WINCHES Part 1 LIFTING APPLIANCES Chapter 1 GENERAL 1.1 General 1.1.1 Application 1 Part 1 of the Rules for Lifting Appliances and Anchor handling Winches (hereinafter referred to as “the Rules”) apply to <u>the</u> the following lifting appliances and loose gear which are installed on the ships classed with NIPPON KAIJI KYOKAI (hereinafter referred to as “the Society”), and which are intended to be registered under Chapter 3 of the Regulations for the Classification and Registry of Ships. (1) Lifting appliances installed on the following ships (This, however, excludes cargo ramps, except for cargo lifts and cargo ramps which do not open, close or turn while loaded with cargo or other items) (a) Passenger ships engaged on international voyages (including high speed craft that are considered to be passenger ships) (b) Cargo ships not less than 500 <i>gross tonnage</i> engaged on international voyages (including high speed craft considered to be cargo ships) (2) Loose gear <u>installed on</u> lifting appliances in (1) above	

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
(Deleted) (Same) 3 For lifting appliances installed on or after 1 January 2026, those covered by -1 and -2 above are to satisfy the following. (1) Design, construction and installation are in accordance with this Part 1 (2) Load tests and thorough examinations are to be carried out in accordance with this Part 1 before being used for the first time after installation and after any major repairs, modifications or alterations (the repairs or conversions referred to in 2.2.2-1(4)). (3) In accordance with this Part 1, safe working loads are to be permanently marked on appliances, and documentary evidence for said safe working loads is to be provided on board.	(3) Based on the application submitted, lifting appliances and loose gear other than (1) and (2) above may also be applied. 2 Notwithstanding -1 above, this Part 1 does not apply to the following lifting appliances and loose gear: (1) Lifting appliances on ships certified as <i>MODU</i> (ships certified as <i>MODU</i> are those subject to the <i>MODU Code</i> and which carry a <i>MODU Code</i> Certificate on board issued by the Administration or a recognised organisation). (2) Lifting appliances used on offshore construction ships, such as pipe/cable laying/repair or offshore installation ships, including ships for decommissioning work, which comply with standards acceptable to the Administration. (3) Integrated mechanical equipment for opening and closing hold hatch covers. (4) Life-saving launching appliances complying with the International Life-Saving Appliance (<i>LSA</i>) Code. 4 For lifting appliances installed on or after 1 January 2026, those covered by -1 and -2 above are to satisfy the following. (1) Design, construction and installation are in accordance with this Part 1 (2) Load tests and thorough examinations are to be carried out in accordance with this Part 1 before being used for the first time after installation and after any major repairs, modifications or alterations (the repairs or conversions referred to in 2.2.2-1(4)). (3) In accordance with this Part 1, safe working loads are to be permanently marked on appliances, and documentary evidence for said safe working loads is to be provided on board.	Relocated to 1.1.1-8.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
4 For lifting appliances installed before 1 January 2026, those covered by -1 and -2 above are to satisfy the following by the date of the first special survey on or after 1 January 2026, or after major repairs, modifications or alterations (the repairs or conversions referred to in 2.2.2-1(4)). (1) Load tests and thorough examinations are to be carried out in accordance with this Part 1. However, load tests and thorough examination may be omitted for lifting appliances with valid certificates for tests and thorough examinations under another international instrument acceptable to the Administration such as <i>ILO C152</i> that are issued prior to 1 January 2026. (2) In accordance with this Part 1, safe working loads are to be permanently marked on appliances, and documentary evidence for said safe working loads is to be provided on board. 5 The “lifting appliances installed on or after 1 January 2026” referred to in -3 above means the following. (1) for ships the keels of which are laid or which are at a similar stage of construction on or after 1 January 2026, any installation date on the ship; or (2) for ships other than those specified in above (1), a contractual delivery date for the lifting appliance, or in the absence of a contractual delivery date, the actual delivery date of the lifting appliance to the ship on or after 1 January 2026. 6 For all lifting appliances, those covered by -1 and -2 above, and the loose gear used with the lifting appliances are to be operationally tested, thoroughly examined (except for thorough examinations after load tests), inspected, operated and maintained based on this Part 1. 7 For lifting appliances <u>which</u> have a safe working load	5 For lifting appliances installed before 1 January 2026, those covered by -1 and -2 above are to satisfy the following by the date of the first special survey on or after 1 January 2026, or after major repairs, modifications or alterations (the repairs or conversions referred to in 2.2.2-1(4)). (1) Load tests and thorough examinations are to be carried out in accordance with this Part 1. However, load tests and thorough examination may be omitted for lifting appliances with valid certificates for tests and thorough examinations under another international instrument acceptable to the Administration such as <i>ILO C152</i> that are issued prior to 1 January 2026. (2) In accordance with this Part 1, safe working loads are to be permanently marked on appliances, and documentary evidence for said safe working loads is to be provided on board. 6 The “lifting appliances installed on or after 1 January 2026” referred to in -4 above means the following. (1) for ships the keels of which are laid or which are at a similar stage of construction on or after 1 January 2026, any installation date on the ship; or (2) for ships other than those specified in above (1), a contractual delivery date for the lifting appliance, or in the absence of a contractual delivery date, the actual delivery date of the lifting appliance to the ship on or after 1 January 2026. 7 For all lifting appliances, those covered by -1 and -2 above, and the loose gear used with the lifting appliances are to be operationally tested, thoroughly examined (except for thorough examinations after load tests), inspected, operated and maintained based on this Part 1. 3 For lifting appliances <u>with</u> have a safe working load	

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
below 1,000 <i>kg</i>, the extent of application of the requirements for design, construction and installation and load tests (including thorough examinations immediately after load tests) specified in this Part 1 is to be determined at the discretion of the Administration. <u>Additionally, for loose gear used for the lifting appliances, the application of the requirements for design, construction and installation specified in this Part 1 may be omitted.</u> <u>8</u> Notwithstanding -1 to -7 above, the requirements in this Part 1 may also be applied to lifting appliances and loose gear deemed appropriate by the Society, based on the application submitted. <u>9</u> The relevant requirements in the Rules for the Survey and Construction of Steel Ships apply to the materials, equipment, installation and workmanship of the lifting appliances, unless otherwise specified in the Rules. <u>10</u> Cranes used for personnel transfers are to comply with the requirements specified in the Annex 1.1.1-9 “Additional Requirements for Cranes Used for Personnel Transfers”, in addition to the requirements specified in the Rules. 1.2 Definitions 1.2.1 Terminology* For the purpose of this Part 1, relevant terms are defined as given in (1) to (25) unless defined otherwise elsewhere: ((1) to (10) are omitted.) (11) “Cranes” cover jib cranes, gantry cranes, <u>A-frame cranes</u>, overhead cranes and hoists, cargo davits, etc. and are capable of performing the works of cargo loading and unloading, slewing and/or horizontal	below 1,000 <i>kg</i>, the extent of application of the requirements for design, construction and installation and load tests (including thorough examinations immediately after load tests) specified in this Part 1 is to be determined at the discretion of the Administration. (Newly added) <u>8</u> The relevant requirements in the Rules for the Survey and Construction of Steel Ships apply to the materials, equipment, installation and workmanship of the lifting appliances, unless otherwise specified in the Rules. <u>9</u> Cranes used for personnel transfers are to comply with the requirements specified in the Annex 1.1.1-9 “Additional Requirements for Cranes Used for Personnel Transfers”, in addition to the requirements specified in the Rules. 1.2 Definitions 1.2.1 Terminology* For the purpose of this Part 1, relevant terms are defined as given in (1) to (25) unless defined otherwise elsewhere: ((1) to (10) are omitted.) (11) “Cranes” cover jib cranes, gantry cranes, overhead cranes and hoists, cargo davits, etc. and are capable of performing the works of cargo loading and unloading, slewing and/or horizontal movement	Clarify the applicable requirements for loose gear. Relocated from 1.1.1-1(3). The A-frame crane is explicitly specified.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
movement simultaneously or separately. ((12) to (25) are omitted.) 1.3 Arrangement, Construction, Materials and Welding 1.3.3 Calculation of Strength 1 The dimensions of the structural members are to be determined by the method of direct calculation of strength using the design loads and allowable stresses specified in respective chapters concerned, with the exception of those members for which calculation formulae are given in Chapter 3. <u>2 Notwithstanding -1 above, fine element analysis may be used in lieu of direct strength calculations in cases where deemed appropriate by the Society.</u> Chapter 2 SURVEYS 2.2 Surveys of Lifting Appliances and Loose Gear 2.2.2 Timing of Surveys* The timing of surveys <u>is</u> to be in accordance with the following: (1) A Registration Survey is to be carried out when the safety working load, etc. are assigned for the first time. (2) Thorough examinations are to be carried out at the following (a) to (c) times.	simultaneously or separately. ((12) to (25) are omitted.) 1.3 Arrangement, Construction, Materials and Welding 1.3.3 Direct Calculation of Strength The dimensions of the structural members are to be determined by the method of direct calculation of strength using the design loads and allowable stresses specified in respective Chapters concerned, with the exception of those members for which calculation formulae are given in Chapter 3. (Newly added) Chapter 2 SURVEYS 2.2 Surveys of Lifting Appliances and Loose Gear 2.2.2 Timing of Surveys* The timing of surveys <u>are</u> to be in accordance with the followings: (1) A Registration Survey is to be carried out when the safety working load, etc. are assigned for the first time. (2) Thorough examinations are to be carried out at the following (a) to (c) times.	It is specified that strength calculations based on finite element analysis (FEA) may also be taken into consideration.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
(a) At Registration Surveys (b) At Annual Surveys, Intermediate Surveys and Special Surveys (at the request of the ship's owner, it may be limited to verification at Annual Surveys, Intermediate Surveys and Special Surveys that a thorough examination has been conducted or completed to the satisfaction of the Administration within a period, in principle, not exceeding 12 <u>months</u> from the date of completion of the previous thorough examination.) (c) After load tests (including after proof tests) (3) Load Tests are to be carried out when the lifting appliances fall under any of the following. (a) At Registration Surveys (<u>however, excluding Registration Survey after Construction carried out in conjunction with the thorough examination specified in 1.1.1-6</u>) (b) At dates not exceeding 5 <i>years</i> from the date of the previous Load Test (except loose gear) (c) At Occasional Survey when deemed necessary by the Society (4) An Occasional Survey is to be carried out when the lifting appliances and loose gear fall under any of the following conditions at the time other than Registration Surveys, thorough examinations, load tests, and unscheduled surveys. To implement the survey, in lieu of the traditional ordinary surveys where a surveyor is in attendance, the Society may approve survey methods which it considers to be appropriate. (a) When serious damage is caused on the structural members and the repair or conversion is made	(a) At Registration Surveys (b) At Annual Surveys, Intermediate Surveys and Special Surveys (at the request of the ship's owner, it may be limited to verification at Annual Surveys, Intermediate Surveys and Special Surveys that a thorough examination has been conducted or completed to the satisfaction of the Administration within a period, in principle, not exceeding 12 <u>months</u> from the date of completion of the previous thorough examination.) (c) After load tests (including after proof tests) (3) Load Tests are to be carried out when the lifting appliances fall under any of the following. (a) At Registration Surveys (b) At dates not exceeding 5 <i>years</i> from the date of the previous Load Test (except loose gear) (c) At Occasional Survey when deemed necessary by the Society (4) An Occasional Survey is to be carried out when the lifting appliances and loose gear fall under any of the following conditions at the time other than Registration Surveys, thorough examinations, load tests, and unscheduled surveys. To implement the survey, in lieu of the traditional ordinary surveys where a surveyor is in attendance, the Society may approve survey methods which it considers to be appropriate. (a) When serious damage is caused on the structural members and the repair or conversion is made	Specify that the load test at the Registration Survey after Construction may be waived where an unregistered lifting appliance is registered concurrently with the thorough examination required by 1.1.1-6.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
(b) When major conversion is made in the cargo handling procedures, rigging arrangements, operation and control methods (c) When the assignment and marking of safe working load, etc. is altered (d) Other cases when considered necessary by the Society (5) The classed ships may be subject to unscheduled surveys when the confirmation of the status of appliances by survey is deemed necessary in cases where the Society considers the appliances to be subject to 1.4-3 of the Conditions of Service for Classification of Ships and Registration of Installations. At unscheduled surveys, investigations, examinations or tests are to be made to the satisfaction of the Surveyor with respect to the matters concerned. 2.2.4 Postponement of Thorough Examinations and Load Tests * 1 Load tests may be postponed from the date specified in 2.2.2 subject to approval by the Administration. 2 In accordance with 2.2.2(2)(b), Thorough examinations those carried out not exceeding 12 <i>months</i> from the date of completion of the previous thorough examination may be postponed not to exceed 3 <i>months</i> from the date specified in 2.2.2 subject to approval by the Society. 3 <u>Open-up examinations (as a part of thorough examination of the topping brackets, goose neck brackets and derrick heel lugs of derrick system) may be postponed beyond the due date specified in 2.4.1-2, subject to approval by the Society.</u>	(b) When major conversion is made in the cargo handling procedures, rigging arrangements, operation and control methods (c) When the assignment and marking of safe working load, etc. is altered (d) Other cases when considered necessary by the Society (5) The classed ships may be subject to unscheduled surveys when the confirmation of the status of appliances by survey is deemed necessary in cases where the Society considers the appliances to be subject to 1.4-3 of the Conditions of Service for Classification of Ships and Registration of Installations. At unscheduled surveys, investigations, examinations or tests are to be made to the satisfaction of the Surveyor with respect to the matters concerned. 2.2.4 Postponement of Through Examinations and Load Tests * 1 Load tests may be postponed from the date specified in 2.2.2 subject to approval by the Administration. 2 In accordance with 2.2.2(2)(b), Thorough examinations those carried out not exceeding 12 <i>months</i> from the date of completion of the previous thorough examination may be postponed not to exceed 3 <i>months</i> from the date specified in 2.2.2 subject to approval by the Society. (Newly added)	The possibility of postponing the open-up examination for a period not exceeding five years is taken into consideration.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
2.3 Registration Surveys 2.3.2 Survey* 1 <u>In the Registration Survey during Construction,</u> workmanship of lifting appliances and loose gear is to be examined and ascertained to be in good order when any of the following (1) to (5) is relevant: (1) When, in process of manufacturing and assembling of structural members, requested by the Society (2) When structural members are installed on board the ship (3) For driving gear, at the times when the finishing work on major parts is completed and when the Surveyor considers necessary during the process of manufacture (4) When the subcontracted materials, parts or equipment are <u>treated as</u> the lifting appliances and loose gear (5) Other cases when considered necessary by the Society 2 <u>In the Registration Survey during Construction,</u> lifting appliances and loose gear are to be examined and ascertained to be in good order by the following tests and surveys: (1) Testing as specified in Part K of the Rules for the Survey and Construction of Steel Ships where the materials need to be in compliance with the requirements in Part K (2) Testing as specified in Part M of the Rules for the Survey and Construction of Steel Ships where the welding works need to be in compliance with the requirements in Part M (3) Non-destructive testing where requested by the	2.3 Registration Surveys 2.3.2 Survey* 1 Workmanship of lifting appliances and loose gear is to be examined and ascertained to be in good order when any of the following (1) to (5) is relevant: (1) When, in process of manufacturing and assembling of structural members, requested by the Society (2) When structural members are installed on board the ship (3) For driving gear, at the times when the finishing work on major parts is completed and when the Surveyor considers necessary during the process of manufacture (4) When the subcontracted materials, parts or equipment are <u>incorporated to</u> the lifting appliances and loose gear (5) Other cases when considered necessary by the Society 2 Lifting appliances and loose gear are to be examined and ascertained to be in good order by the following tests and surveys: (1) Testing as specified in Part K of the Rules for the Survey and Construction of Steel Ships where the materials need to be in compliance with the requirements in Part K (2) Testing as specified in Part M of the Rules for the Survey and Construction of Steel Ships where the welding works need to be in compliance with the requirements in Part M (3) Non-destructive testing where requested by the	It is clarified that this requirement pertains to the content of the registration survey during construction. For the purpose of this provision, “during or after construction” refers to the period during or after the construction of the lifting appliances. Same as above.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
Surveyor (4) Shop trial of the driving gear (5) Operation tests of the lifting appliances and loose gear (6) Operation tests of the safety devices and protective devices (including braking tests and electric power source cut-off tests) (7) Other tests considered necessary by the Society <u>3 In the Registration Survey after Construction (i.e. Registration Survey of Lifting Appliances Not Built under Survey), lifting appliances and loose gear are to be examined and ascertained to be in good order by the following tests and surveys:</u> <u>(1) Operation tests of the lifting appliances and loose gear</u> <u>(2) Operation tests of the safety devices and protective devices (including braking tests and electric power source cut-off tests)</u> <u>(3) Other tests considered necessary by the Society</u> <u>4 To implement the tests and the surveys specified in -1 and -2 (hereinafter referred to as survey in this sub-paragraph), in lieu of traditional ordinary surveys where the Surveyor is in attendance, the Society may approve other survey methods which it considers to be appropriate.</u> 2.5 Load Tests 2.5.1 Load Tests* 1 At load tests, lifting appliances and loose gear are to	Surveyor (4) Shop trial of the driving gear (5) Operation tests of the lifting appliances and loose gear (6) Operation tests of the safety devices and protective devices (including braking tests and electric power source cut-off tests <u>with a testing weight equal to the safe working load applied (Hereinafter same in 2.4.1-1(2)(c), 2.4.2(2)(d), 2.4.3(2)(d) and 2.4.4-1(2)(c))</u>) (7) Other tests considered necessary by the Society (Newly added) <u>3 To implement the tests and the surveys specified in -1 and -2 (hereinafter referred to as survey in this sub-paragraph), in lieu of traditional ordinary surveys where the Surveyor is in attendance, the Society may approve other survey methods which it considers to be appropriate.</u> 2.5 Load Tests 2.5.1 Load Tests* 1 At load tests, lifting appliances and loose gear are to	Taking into account actual operating conditions, it is specified that the operational test need not be limited to the condition with the safe working load applied. Requirements for the registration survey after construction are specified.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
be examined by applying movable weights or loads at least equal to the test loads as specified in -2 and in the manners specified in -4 or -5 depending on the types of lifting appliances and ascertained that they are in good order. For lifting appliances intended for open-sea operations, the test loads are to be <u>determined</u> taking into account the applicable dynamic loads. However, load tests of loose gear may be replaced with tests conducted by manufacturers (i.e. proof tests) provided that the certificates with testing records of them are submitted. Chapter 3 DERRICK SYSTEMS 3.2 Design Loads 3.2.5 Load Combinations 1 The load to be used in the strength analysis of the structural members is to be such a combined load that these members may be put in the most severe load condition considering the loads specified in 3.2.1. <u>Where the application of the test load results in the most severe load condition for a structural member, said condition is also to be taken into account.</u> 3.3 Strength and Construction of Derrick Posts, Masts, Derrick Booms and Stays 3.3.2 Allowable Stress for Combined Loads (-1 and -2 are omitted.)	be examined by applying movable weights or loads at least equal to the test loads as specified in -2 and in the manners specified in -4 or -5 depending on the types of lifting appliances and ascertained that they are in good order. For lifting appliances intended for open-sea operations, the test loads are to be <u>to the satisfaction of the Administration,</u> taking into account the applicable dynamic loads. However, load tests of loose gear may be replaced with tests conducted by manufacturers (i.e. proof tests) provided that the certificates with testing records of them are submitted. Chapter 3 DERRICK SYSTEMS 3.2 Design Loads 3.2.5 Load Combinations 1 The load to be used in the strength analysis of the structural members is to be such a combined load that these members may be put in the most severe load condition considering the loads specified in 3.2.1. 3.3 Strength and Construction of Derrick Posts, Masts, Derrick Booms and Stays 3.3.2 Allowable Stress for Combined Loads (-1 and -2 are omitted.)	Requirements regarding the treatment of dynamic loads are specified in the Guidance. It is specified that the loading condition during the load test is also to be considered at the design stage. The acceptance criteria for evaluations based on

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
<u>3 Where a detailed structural analysis is performed by finite element analysis (FEA), the allowable values for principal stress, shear stress and equivalent stress may be increased up to 1.1 times the allowable stresses specified in -1 above.</u> Chapter 4 CRANES 4.2 Design Loads 4.2.9 Load Combinations* 1 The load to be used in the strength analysis of structural members is to be such a combined load that these members may be put in the severest loading condition considering the loads specified in -2 through -5 below. <u>Where the application of the test load results in the most severe load condition for a structural member, said condition is also to be taken into account.</u> 4.3 Strength and Construction 4.3.2 Allowable Stress for Loads (-1 and -2 are omitted.) <u>3 Where a detailed structural analysis is performed by finite element analysis (FEA), the allowable values for principal stress, shear stress and equivalent stress may be increased up to 1.1 times the allowable stresses specified in -1 above.</u>	(Newly added) Chapter 4 CRANES 4.2 Design Loads 4.2.9 Load Combinations* 1 The load to be used in the strength analysis of structural members is to be such a combined load that these members may be put in the severest loading condition considering the loads specified in -2 through -5 below. 4.3 Strength and Construction 4.3.2 Allowable Stress for Loads (-1 and -2 are omitted.) (Newly added)	finite element analysis (FEA) are explicitly specified. It is specified that the loading condition during the load test is also to be considered at the design stage. The acceptance criteria for evaluations based on finite element analysis (FEA) are explicitly specified.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
Chapter 9 CERTIFICATION, MARKING AND DOCUMENTATION 9.3 Marking of Safe Working Load, etc. 9.3.2 Marking for Loose Gear 1 On loose gear other than wire ropes and fibre ropes, the safe working load and the identification symbols are to be marked by using stamps in a conspicuous place without adversely affecting loose gear strength or service.	Chapter 9 CERTIFICATION, MARKING AND DOCUMENTATION 9.3 Marking of Safe Working Load, etc. 9.3.2 Marking for Loose Gear 1 On loose gear other than wire ropes and fibre ropes, <u>the test load</u>, the safe working load and the identification symbols are to be marked by using stamps in a conspicuous place without adversely affecting loose gear strength or service.	The marking requirement for test loads is deleted, as neither SOLAS nor ILO Convention No. 152 contains such a requirement.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended			Original			Remarks																																					
9.4 Documentation			9.4 Documentation																																								
9.4.2 Timing of Issuance of Documents			9.4.2 Timing of Issuance of Documents																																								
Table 9.1 Timing of Issuance			Table 9.1 Timing of Issuance																																								
<table><tr><th colspan="2">Kind of Documents</th><th>Timing of Issuance</th></tr><tr><td rowspan="2">A</td><td>Document in 9.4.1(1)</td><td>When the application for assignment is made and the ship passes the Registration Survey for the first time</td></tr><tr><td>Document in 9.4.1(2)</td><td rowspan="4">(1) When the application for assignment is made, and the ship passes the Registration Survey for the first time (2) When the lifting appliances and loose gear that are installed additionally pass the Registration Survey (3) When the safe working load, etc. is altered (4) When the ship passes the load tests specified in 2.5.1-5</td></tr><tr><td rowspan="3">B</td><td>Document in 9.4.1(3)</td></tr><tr><td>Document in 9.4.1(4)</td></tr><tr><td>Document in 9.4.1(5)</td></tr><tr><td rowspan="2">C</td><td>Document in 9.4.1(6)</td><td rowspan="2">(1) When the application for assignment is made, and the ship passes the Registration Survey for the first time (2) When the lifting appliances and loose gear that are installed additionally pass the Registration Survey (3) When loose gear is replaced or repaired at time of the Periodical Surveys and the Occasional Survey</td></tr><tr><td>Document in 9.4.1(7)</td></tr><tr><td>D</td><td>Document in 9.4.1(8)</td><td>When the ship passes the load tests specified in 2.5.1-3 but does not have the valid certificate specified in 1.1.1-5(1)</td></tr></table>			Kind of Documents		Timing of Issuance		A	Document in 9.4.1(1)	When the application for assignment is made and the ship passes the Registration Survey for the first time	Document in 9.4.1(2)	(1) When the application for assignment is made, and the ship passes the Registration Survey for the first time (2) When the lifting appliances and loose gear that are installed additionally pass the Registration Survey (3) When the safe working load, etc. is altered (4) When the ship passes the load tests specified in 2.5.1-5	B	Document in 9.4.1(3)	Document in 9.4.1(4)	Document in 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Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
Chapter 10 OPERATION, MAINTENANCE, INSPECTION AND OPERATIONAL TESTING 10.2 Lifting appliances 10.2.1 Maintenance, Inspection and Operational Testing 6 If upon the completion of an inspection, the responsible person considers the lifting appliance to be unsafe for operation or otherwise not in compliance with the applicable requirements of the Administration, said lifting appliance is to be taken out of service until any deficiency is rectified to the satisfaction of a competent person. The lifting appliances are to be clearly marked “not to be used” and the status is to be recorded in the “Register of Ship’s Lifting Appliances and Loose Gear”. While out of service, the relevant actions for inoperative lifting appliances as outlined in 2.1.7 are to be followed.	Chapter 10 OPERATION, MAINTENANCE, INSPECTION AND OPERATIONAL TESTING 10.2 Lifting appliances 10.2.1 Maintenance, Inspection and Operational Testing 6 If upon the completion of an inspection, the responsible person considers the lifting appliance to be unsafe for operation or otherwise not in compliance with the applicable requirements of the Administration, said lifting appliance is to be taken out of service until any deficiency is rectified to the satisfaction of a competent person. The lifting appliances are to be clearly marked “not to be used” and the status is to be recorded in the “Register of Ship’s Lifting Appliances and Loose Gear”. While out of service, the relevant actions for inoperative lifting appliances as outlined in 2.1.6 are to be followed.	

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
GUIDANCE FOR LIFTING APPLIANCES AND ANCHOR HANDLING WINCHES Part 1 LIFTING APPLIANCES Chapter 1 GENERAL 1.1 General 1.1.1 Application <u>1 The meaning of “installed” in 1.1.1-1(1), Part 1 of the Rules is that lifting appliances are permanently connected to the ship. In this context, “permanently connected” means either bolted connections in which forces and/or moments are transmitted through the geometric shape of the mating parts, and bonded connections such as welded connections.</u> <u>2 Among the lifting appliances specified in 1.1.1-1(1), Part 1 of the Rules, the following appliances are, in principle, subject to application for the requirements of the Rules. However, the scope of application is not limited thereto.</u> <u>(1) All lifting appliances listed in 1.2.1(1), Part 1 of the Rules;</u> <u>(2) Cargo handling cranes;</u> <u>(3) Derrick systems;</u> <u>(4) Hatch cover gantry cranes (i.e. running on rails on deck);</u> <u>(5) Lifting appliances installed in spaces categorised as</u>	GUIDANCE FOR LIFTING APPLIANCES AND ANCHOR HANDLING WINCHES Part 1 LIFTING APPLIANCES Chapter 1 GENERAL 1.1 General (Newly added) (Newly added) (Newly added)	Specify requirements with reference to IACS Recommendation No. 198. (Paragraph 3.) Same as above. (Paragraph 5.2) (Paragraph 5.5)

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
<u>engine rooms (according to the definition specified in MSC/Circ.834);</u> (6) <u>Service cranes (e.g. bunker davits, bosun store davits);</u> (7) <u>Car ramps and slope ways operating/moving with (pay) load on them;</u> (8) <u>Movable decks operating/moving with (pay) load or cargo on them;</u> (9) <u>Lifting platforms for cargo and/or personnel;</u> (10) <u>Lifting appliance operating in open sea conditions;</u> (11) <u>Monorail trolleys with hoist, and monorail (permanently installed, i.e. hoist and trolley are unremovable);</u> (12) <u>Personnel handling cranes;</u> (13) <u>Boom/arm of self-unloading equipment (excluding the conveyor system).</u> 3 <u>Among the lifting appliances specified in 1.1.1-1(1), Part 1 of the Rules, the following appliances are, in principle, not subject to application for the requirements of the Rules. However, the scope of application is not limited thereto.</u> (1) <u>All lifting appliances listed in 1.1.1-2, Part 1 of the Rules;</u> (2) <u>Any removable or portable crane (i.e. removable means not permanently connected; refer to -1 above); or any removable chain and rope hoist trolleys temporarily mounted on runway beams, and runway beams (i.e. arrangements that after their use are readily removable and are not intended to remain permanently in place);</u> (3) <u>Lifting eyes (e.g. used in the engine room)</u> (4) <u>Car ramps and slope always operating/moving without (pay) load on them;</u>	(Newly added)	It is explicitly stated that monorails are also included. Same as above. (Paragraph 5.3) It is explicitly stated that runway beams are also included.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
<u>(5) Movable decks always operating/moving without (pay) load or cargo on them;</u> <u>(6) Launch and recovery appliances for survival craft and rescue boats (under chapter III of SOLAS and the <i>LSA Code</i>) unless dual use as lifting appliances specified in -1 above is applicable;</u> <u>(7) Offshore cranes used on fixed offshore installations;</u> <u>(8) Pipe laying or cable laying systems;</u> <u>(9) Lifts/elevators and escalators;</u> <u>(10) Shiplift and transfer systems;</u> <u>(11) Personnel transfer systems (i.e. required to comply with the International Code of Safety for Ships Carrying Industrial Personnel (IP Code));</u> <u>(12) Conveyor systems.</u> <u>4 Among the loose gear specified in 1.1.1-1(2), Part 1 of the Rules, the following loose gear is, in principle, subject to application for the requirements of the Rules. However, the scope of application is not limited thereto.</u> <u>(1) Fixed load lifting attachments to the lifting appliances</u> <u>Hooks, swivelled hooks, hook blocks, shackles, chains, rings, swivels and rigging screws</u> <u>(2) Non-fixed load lifting attachments to the lifting appliances (load handling devices)</u> <u>Grabs, frames, spreaders and lifting beams</u> <u>5 Among the loose gear specified in 1.1.1-1(2), Part 1 of the Rules, the following loose gear is, in principle, not subject to application for the requirements of the Rules. However, the scope of application is not limited thereto.</u> <u>(1) Sling gear (all loose gear between the hook and the non-fixed load lifting attachments and/or the lifted load)</u> <u>Grommets, shackles, rings, wire rope, chain slings,</u>	(Newly added) (Newly added)	Specify requirements with reference to IACS Recommendation No. 198. (Paragraph 7.3) Same as above. (Paragraph 7.3)

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks
<u>lifting belts and similar items.</u> 6 <u>Notwithstanding the lifting appliances installed on offshore construction ships which comply with standards acceptable to the Administration, as referred to in 1.1.1-2(2), Part 1 of the Rules, the requirements of these Rules are, in principle, to be applied to all other lifting appliances (e.g. engine-room cranes and provision cranes), except for lifting appliances that are essential for the purpose or operational functions of the ship.</u> Chapter 2 SURVEYS 2.5 Load Tests 2.5.1 Load Tests (-1 to -4 are omitted.) 5 <u>The meaning of “taking into account the applicable dynamic loads” in 2.5.1-1, Part 1 of the Rules is that the test load is to be determined on the basis of the modified safe working load, W_r, in lieu of the safe working load, W, specified in Tables 2.1 and 2.2 of Part 1 of the Rules. However, where the safe working load, W exceeds the modified safe working load, W_r, the test load is to be determined on the basis of W. Notwithstanding the above, where a test load is otherwise specified by the Administration or the manufacturer, such specified test load is to be applied.</u> <u>$W_r = 0.75 \times \Psi \times W$</u> <u>$W$: Safe working load ($t$)</u> <u>$\Psi = 1 + V_r \sqrt{\frac{K}{L \cdot g}}$</u> <u>$K$: Crane stiffness as specified by</u>	(Newly added) Chapter 2 SURVEYS 2.5 Load Tests 2.5.1 Load Tests (1 to 4 are omitted.) (Newly added)	Same as above. (Paragraph 5.4) Specify the method for determining test loads when dynamic loads are considered.

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks									
<u>manufacturer (kN/m)</u> <u>L: Live load-static weight of the safe working load plus weight of accessories (sheave blocks, hooks, lifting beams, grab, etc.) (kN)</u> <u>g: Acceleration of gravity 9.81(m/s²)</u> $V_r = V_h + \sqrt{V_d^2 + V_c^2}$ <u>V_h: Maximum steady hoisting speed for live load (m/s) not less than following V_{hmin}.</u> <u>V_{hmin}: Minimum steady hoisting velocity to avoid re-contact of the lifted load with the moving ship (m/s)</u> <u>V_{hmin} = 0.1(H_s + 1)</u> <u>H_s : Significant wave height (m)</u> <u>V_d: Vertical velocity of the deck when lifting off from a supply ship (m/s), as specified in Table 2.5.1-1.</u> <u>V_c: Vertical velocity of the boom tip of the lifting appliances (m/s), as specified in Table 2.5.1-2.</u> <u>Table 2.5.1-1 Vertical velocity of the deck when lifting off from a supply ship V_d (m/s)</u> <table border="1"> <tr> <td><u>Location of lifting appliance</u></td><td><u>H_s</u></td><td><u>V_d</u></td></tr> <tr> <td><u>Bottom supported platforms</u></td><td><u>0 < H_s < 3</u></td><td><u>0.6 × H_s</u></td></tr> <tr> <td><u>Semi-submersible</u> <u>Other floating units</u></td><td><u>0H_s ≥ 3</u></td><td><u>0.9 + 0.3 × H_s</u></td></tr> </table>	<u>Location of lifting appliance</u>	<u>H_s</u>	<u>V_d</u>	<u>Bottom supported platforms</u>	<u>0 < H_s < 3</u>	<u>0.6 × H_s</u>	<u>Semi-submersible</u> <u>Other floating units</u>	<u>0H_s ≥ 3</u>	<u>0.9 + 0.3 × H_s</u>	(Newly added)	
<u>Location of lifting appliance</u>	<u>H_s</u>	<u>V_d</u>									
<u>Bottom supported platforms</u>	<u>0 < H_s < 3</u>	<u>0.6 × H_s</u>									
<u>Semi-submersible</u> <u>Other floating units</u>	<u>0H_s ≥ 3</u>	<u>0.9 + 0.3 × H_s</u>									

Amended-Original Requirements Comparison Table (Lifting Appliances)

Amended	Original	Remarks								
<u>Table 2.5.1-2. Vertical velocity of the boom tip of the lifting appliances $V_c(m/s)$</u> <table><tr><td><u>Location of lifting appliance</u></td><td>V_c</td></tr><tr><td><u>Bottom supported platforms</u></td><td>0</td></tr><tr><td><u>Semi-submersible</u></td><td>$0.25 \times H_s$</td></tr><tr><td><u>Other floating units</u></td><td>$0.50 \times H_s$</td></tr></table>	<u>Location of lifting appliance</u>	V_c	<u>Bottom supported platforms</u>	0	<u>Semi-submersible</u>	$0.25 \times H_s$	<u>Other floating units</u>	$0.50 \times H_s$	(Newly added)	
<u>Location of lifting appliance</u>	V_c									
<u>Bottom supported platforms</u>	0									
<u>Semi-submersible</u>	$0.25 \times H_s$									
<u>Other floating units</u>	$0.50 \times H_s$									
The effective date of the amendment is according to EFFECTIVE DATE AND APPLICATION (B)										
EFFECTIVE DATE AND APPLICATION (A) 1. The effective date of the amendments is 1 July 2027. 2. Notwithstanding the amendments, the current requirements apply to ships other than ships for which Classification Survey is completed on or after the effective date. 3. Notwithstanding the provision of preceding 2., the amendments may apply to ships other than ships for which Classification Survey or Renewal Survey is completed on or after the effective date upon request by the owner. EFFECTIVE DATE AND APPLICATION (B) 1. The effective date of the amendments is 1 January 2027.										