RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

Part O Work-Ships

2015 AMENDMENT NO.1

Rule No.30 8th May 2015

Resolved by Technical Committee on 2nd February 2015

Approved by Board of Directors on 23rd February 2015

Rule No.30 8th May 2015
AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

"Rules for the survey and construction of steel ships" has been partly amended as follows:

Part O Work-Ships

Chapter 7 OFFSHORE SUPPLY VESSELS

7.4 Hull Equipment

Paragraph 7.4.5 has been added as follows.

7.4.5 Means for Emergency Disconnection of Cargo Hoses

Where cargo hoses whose specified maximum working pressure exceeds 5 *MPa* are used, a means for their emergency disconnection is to be provided. This means is to be capable of being activated from the bridge or cargo control stations. In addition, any couplings used to connect such hoses are to be of a self-sealing type (i.e., close automatically upon disconnection).

7.5 Machinery

Paragraph 7.5.2 has been renumbered to Paragraph 7.5.3, and Paragraph 7.5.2 has been added as follows.

7.5.2 Engine Exhaust Outlets

Exhaust outlets of internal combustion engines are to be fitted with suitable spark-arresting devices.

7.5.~~2~~3 Tests

1 Before installation on board, equipment and components constituting the machinery installations are to be tested at the manufacturers in accordance with the relevant requirements in **Part D**.

2 Notwithstanding the requirements in **-1**, for machinery installations, other than boilers, pressure vessels belonging to Group I or II and piping systems which contain inflammable or toxic liquids, used solely for the operation which is the purpose of the ship, the tests may be deemed appropriate by the Society.

3 The systems or the equipment essential for the safety of the ship or for the propulsion of the ship (only applicable to the ship which has the main propulsion machinery) are, after installed on board, to be subjected to performance tests.

Chapter 8 ANCHOR HANDLING VESSELS

8.3 Hull Construction

Paragraph 8.3.1 has been amended as follows.

8.3.1 General

1 Hull constructions are to be according to this **8.3** in addition to relevant requirements in each chapter of **Part C**, **Part CS** or **Part Q**.

2 The design loads for the supporting structures of anchor handling equipment are not to be less than the breaking strength of the anchor handling equipment, the maximum braking capacity of the winch, or the maximum hoisting capacity of the winch, whichever is the greatest.

8.4 Hull Equipment

Paragraph 8.4.4 has been added as follows.

8.4.4 Equipment for Anchor Handling

Anchor handling equipment components such as fixtures, the stern roller, pin connections are, in principle, are to be capable of sustaining the breaking strength of the towlines, etc. However, in cases where design loads are determined in advance and are clearly indicated on board the ship, such loads may be used in lieu of the breaking strength of the towlines, etc. when deemed appropriate by the Society.

8.5 Machinery

Paragraph 8.5.2 has been renumbered to Paragraph 8.5.5, and Paragraphs 8.5.2 to 8.5.4 have been added as follows.

8.5.2 Control Stations

1 Anchor handling and towing winch equipment are to be capable of being operated from a control station located on the navigation bridge and at least one additional control station located on deck with an unobstructed view of the equipment.

2 Each control station is to be equipped with suitable control elements, such as operating levers, whose functions are clearly marked. Wherever practical, control levers are to be moved in the direction of the intended towline movement. In addition, operating levers are to automatically return to the stop position upon release and are to be capable of being secured in the stop position.

3 Means are to be provided for measuring the tension of anchor handling and tow lines for display at control stations.

8.5.3 Winch Brakes

Each winch for anchor handling is to be provided with a means of power control braking. Such as means is to be regenerative, dynamic, counter torque breaking, controlled lowering or mechanically controlled braking which is capable of maintaining control at low speeds. Brakes are to be applied automatically upon loss of power or whenever winch levers are returned to the neutral position.

8.5.4 Power Supply

When the power supply for normal operation of anchor handling or towing winch equipment is the same as the power supply for propulsion equipment, such as shaft generators, shaft power take-offs (PTO), etc., an independent (redundant) power supply with sufficient capacity for winch operation is to be available to ensure that ship maneuverability during anchor handling or towing operations is not degraded.

8.5.~~2~~5 Tests

1 Before installation on board, equipment and components constituting the machinery installations are to be tested at the manufacturers in accordance with the relevant requirements in **Part D**.

2 Notwithstanding the requirements in **-1**, for machinery installations, other than boilers, pressure vessels belonging to Group I or II and piping systems which contain inflammable or toxic liquids, used solely for the operation which is the purpose of the ship, the tests may be deemed appropriate by the Society.

3 The systems or the equipment essential for the safety of the ship or for the propulsion of the ship (only applicable to the ship which has the main propulsion machinery) are, after installed on board, to be subjected to performance tests.

Chapter 10 OIL RECOVERY VESSELS

10.6 Machinery Installations in Hazardous Area

Paragraph 10.6.2 has been added as follows.

10.6.2 Piping System

1 Exhaust outlets of internal combustion engines and boilers are to discharge outside of all hazardous areas.

2 Exhaust outlets of internal combustion engines are to be fitted with suitable spark-arresting devices.

3 Exhaust piping insulation is to be protected from absorbing oil when said piping is exposed to oil or oil vapors.

4 Air intakes are to be located no less than 3 *m* from hazardous areas.

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 8 November 2015.

2. Notwithstanding the amendments to the Rules, the current requirements may apply to ships for which the date of contract for construction is before the effective date.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part O Work-Ships

GUIDANCE

2015 AMENDMENT NO.1

Notice No.33 8th May 2015

Resolved by Technical Committee on 2nd February 2015

Notice No.33 8th May 2015
AMENDMENT TO THE GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

"Guidance for the survey and construction of steel ships" has been partly amended as follows:

Part O Work-Ships

O4 VESSELS ENGAGED IN TOWING OPERATION

Section O4.3 has been added as follows.

O4.3 Hull Construction

O4.3.5 Supporting Structures of Towing Equipment

With respect to the provisions of **4.3.5, Part O of the Rules**, the allowable stress values for each member of the supporting structures of towing equipment are, in principle, to be as given below. Different values, however, may be used in consideration of the arrangements, etc. of the supporting structures.

$\sigma = 166/K$ (N/mm^2)

$\tau = 96/K$ (N/mm^2)

$\sigma_e = 196/K$ (N/mm^2)

σ : $\sigma_a + \sigma_b$ (Normal stress)

σ_a : Axial stress

σ_b : Bending stress

τ : Shearing stress in plane

σ_e : $\sigma_e = \sqrt{\sigma^2 + 3\tau^2}$ (Equivalent stress)

K : Coefficient corresponding to the kind of steel

e.g. 1.0 for mild steel, the values specified in **1.1.7-2(1), Part C of the Rules** for high tensile steel

O8 ANCHOR HANDLING VESSELS

Section O8.3 has been added as follows.

O8.3 Hull Construction

O8.3.2 Supporting Structures of Anchor Handling Equipment

With respect to the provisions of **8.3.2, Part O of the Rules**, the allowable stress values for each member of the supporting structures of anchor handling equipment and in way of parts where anchors are stored as cargo are, in principle, to be as given below. Different values, however, may be used in consideration of the arrangements, etc. of the supporting structures.

$\sigma = 166/K$ (N/mm^2)

$\tau = 96/K$ (N/mm^2)

$\sigma_e = 196/K$ (N/mm^2)

σ : $\sigma_a + \sigma_b$ (Normal stress)

σ_a : Axial stress

σ_b : Bending stress

τ : Shearing stress in plane

σ_e : $\sigma_e = \sqrt{\sigma^2 + 3\tau^2}$ (Equivalent stress)

K : Coefficient corresponding to the kind of steel

e.g. 1.0 for mild steel, the values specified in **1.1.7-2(1), Part C of the Rules** for high tensile steel

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 8 November 2015.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships for which the date of contract for construction is before the effective date.