

RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part D

Machinery Installations

Rules for the Survey and Construction of Steel Ships
Part D **2008** **AMENDMENT NO.1**
Guidance for the Survey and Construction of Steel Ships
Part D **2008** **AMENDMENT NO.1**

Rule No.13 / Notice No.9 27th February 2008

Resolved by Technical Committee on 30th November 2007

Approved by Board of Directors on 25th December 2007

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NIPPON KAIJI KYOKAI

RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

Part D

Machinery Installations

2008 AMENDMENT NO.1

Rule No.13 27th February 2008

Resolved by Technical Committee on 30th November 2007

Approved by Board of Directors on 25th December 2007

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

Part D Machinery Installations

Amendment 1-1

Chapter 12 PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES

12.1 General

12.1.6 Use of Special Materials

Sub-paragraph -2(3) has been amended as follows.

- (3) Construction requirements
Non-metallic flexible hoses are to conform to the following requirements.
 - (a) Non-metallic flexible hoses are to incorporate woven integral wire braid or other suitable material reinforcement where used for pipes specified in **12.4.3-2(1)** through **(6)**. Where specially approved by the Society, the reinforcement may be exempted.
 - (b) Where non-metallic flexible hoses are to be used for fuel oil supply lines to burners, they are to have external wire braid protection.
 - (c) Non-metallic flexible hoses used for flammable oil and sea water pipes, where failure may result in flooding, are to be of fire resistant type.

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

- 1.** The effective date of the amendments is 1 July 2008.
- 2.** Notwithstanding the amendments to the Rules, the current requirements apply to ships other than ships for which the application for Classification Survey during Construction is submitted to the Society on and after the effective date.
- 3.** Notwithstanding the provision of preceding **2.**, the amendments to the Rules may apply to ships other than ships for which the application for Classification Survey during Construction is submitted to the Society on and after the effective date upon request by the owner.

Chapter 13 PIPING SYSTEMS

13.2 Piping

13.2.5 Bulkhead Valves

Sub-paragraph -2 has been amended as follows.

2 Pipes piercing the collision bulkhead are to be fitted with suitable valves operable from above the ~~freeboard deck~~ bulkhead deck and the valve chest is to be secured at the bulkhead inside the forepeak. The valve, however, may be fitted on the after side of the collision bulkhead provided that the valves are readily accessible under all service conditions and the space in which they are located is not a cargo space. The remote control device for this valve may be omitted.

13.4 Scuppers , Sanitary Discharges , etc.

13.4.1 General

Sub-paragraph -3(2) and -4(2) have been amended as follows.

3 Scupper pipes from within enclosed superstructures or enclosed deckhouses on the freeboard deck are to be led directly to inboard bilge wells. Alternatively, they may be led to overboard where they are provided with valves in accordance with the following requirements.

- (1) Each separate discharge is to have one automatic non-return valve with a positive means of closing it from a position above the freeboard deck or, alternatively, one automatic non-return valve having no positive closing means and one stop valve controlled from above the freeboard deck. However, where the scuppers lead overboard through the shell plating in way of manned engine room, the fitting to the shell plating of a locally operated positive closing valve, together with a non-return valve inboard, will also be accepted. The means for operating the positive action valve from above the freeboard deck are to be readily accessible and provided with an indicator showing whether the valve is open or closed.
- (2) Where, however, the vertical distance from the load line to the inboard end of the scupper pipe exceeds $0.01L_f$, the scupper pipe may have two automatic non-return valves without positive means of closing in lieu of valves prescribed in (1) In this case, the inboard valve is to be located above the level of the ~~tropical load line~~ deepest subdivision draught specified in 4.1.2(3), Part C of the Rules and always accessible for inspection under service condition. If it is not practicable to fit inboard valve above the specified waterline then it can be accepted below provided locally controlled stop valve is fitted between two automatic non-return valves.
- (3) Where the vertical distance prescribed in (2) exceeds $0.02L_f$, a single automatic non-return valve without positive means of closing may be accepted in lieu of valves prescribed in (1) and (2) subject to the approval of the Society.

4 Scupper pipes from spaces below the freeboard deck are to be led directly to inboard bilge wells. Alternatively, they may be led to overboard where they are provided with the valves in

accordance with the following requirements.

- (1) Each separate discharge is to have one automatic non-return valve with a positive means of closing it from a position above the freeboard deck or, alternatively, one automatic non-return valve having no positive closing means and one stop valve controlled from above the freeboard deck. The means for operating the positive action valve from above the freeboard deck are to be readily accessible and provided with an indicator showing whether the valve is open or closed.
- (2) Where, however, the vertical distance from the load line to the inboard end of the scupper pipe exceeds $0.01L_f$, the scupper pipe may have two automatic non-return valves without positive means of closing in lieu of valves prescribed in (1). In this case, the inboard valve is to be located above the level of the ~~tropical load line~~ deepest subdivision draught specified in 4.1.2(3), Part C of the Rules and always accessible for inspection under service condition.

13.5 Bilge and Ballast Pipings

13.5.3 Sizes of Bilge Suction Pipes

Sub-paragraph -1 has been amended as follows.

1 Main bilge line, direct bilge suction pipes and branch bilge suction pipes from watertight compartments are to be of the internal diameter obtained from the following formulae (1) and (2) or the standard pipes of internal diameters nearest to the calculated diameter. In case where the internal diameter of such standard pipes is short of the calculated value by 13 mm or more, standard pipes of one grade higher diameter are to be used.

- (1) For main bilge line and direct bilge suction pipes:

$$d = 1.68\sqrt{\frac{L_f}{L} (B + D)} + 25 \text{ (mm)}$$

- (2) For branch bilge suction pipes:

$$d' = 2.15\sqrt{l(B + D)} + 25 \text{ (mm)}$$

where :

d : Internal diameter of main bilge line or direct bilge suction pipes (mm).

d' : Internal diameter of branch bilge suction pipes (mm).

~~L~~ , B and D : ~~Length~~, breadth and depth of ship, respectively (m)

L_f : Length (m) for freeboard specified in 2.1.3, Part A of the Rules

However for ships to which the requirement 13.4.1-5(2) is applied, “ D ” is to be considered as follows:

- (a) For ships of which enclosed cargo spaces are extend for the full length of the ship, “ D ” is to be considered as the depth of ship measured to the next deck above the freeboard deck (m)
- (b) For ships of which enclosed cargo spaces are not extend for the full length of the ship, “ D ” is to be considered as the depth of ship plus $l' \times h/L_f$ (m), where l' and h are the aggregate length and height respectively of the enclosed cargo spaces

l : Length of the compartment to be served by the branch bilge suction pipes (m).

EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 January 2009.
2. Notwithstanding the amendments to the Rules, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date.

(Note) The term “*a similar stage of construction*” means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 *tonnes* or 1% of the estimated mass of all structural material, whichever is the less.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part D

Machinery Installations

GUIDANCE

2008 AMENDMENT NO.1

Notice No.9 27th February 2008

Resolved by Technical Committee on 30th November 2007

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

Part D Machinery Installations

Amendment 1-1

D12 PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES

D12.1 General

D12.1.6 Use of Special Materials

Sub-paragraph -5 has been added as follows.

5 “Where specially approved by the Society” stipulated in **12.1.6-2(3)(a) of the Rules** refers to the use of materials such as Teflon or nylon which are unable to be reinforced. However, the hoses are to have external wire braid protection as practicable.

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

- 1.** The effective date of the amendments is 1 July 2008.
- 2.** Notwithstanding the amendments to the Guidance, the current requirements apply to ships other than ships for which the application for Classification Survey during Construction is submitted to the Society on and after the effective date.
- 3.** Notwithstanding the provision of preceding **2.**, the amendments to the Guidance may apply to ships other than ships for which the application for Classification Survey during Construction is submitted to the Society on and after the effective date upon request by the owner.

D13 PIPING SYSTEMS

D13.2 Piping

D13.2.5 Bulkhead Valves

Sub-paragraph -1 has been amended as follows.

1 With respect to the provisions of **13.5.10, Part D of the Rules**, the bulkhead valves capable of being brought into operation from a readily accessible enclosed space, the location of which is accessible from the navigation bridge or continuously manned propulsion machinery control rooms without traversing exposed decks, may be accepted as an alternative to the valves operable from above the ~~freeboard-deck~~ bulkhead deck required by the provisions of **13.2.5-2, Part D of the Rules**.

Sub-paragraph -4 has been added as follows.

4 The number of pipes piercing the collision bulkhead specified in 13.2.5-2, Part D of the Rules, is to be in principle just one. Where the forepeak is divided to hold two different kinds of liquids, the Society may allow the collision bulkhead to be pierced below the bulkhead deck by two pipes. However, the Society is satisfied that there is no practical alternative to the fitting of such a second pipe and, that having regard to the additional subdivision provided in the forepeak, the safety of the ship is maintained. In addition, screw-down valves, complied with the requirements in 13.2.5-2, Part D of the Rules, are to be fitted.

EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 January 2009.
2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date.
(Note) The term “*a similar stage of construction*” means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 tonnes or 1% of the estimated mass of all structural material, whichever is the less.