RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part CS Hull Construction and Equipment of Small Ships

Rules for the Survey and Construction of Steel Ships
Part CS 2007 AMENDMENT NO.1

Rule No.12 1st February 2007
Resolved by Technical Committee on 17th November 2006
Approved by Board of Directors on 19th December 2006

ClassNK
NIPPON KAIJI KYOKAI

Rule No.12 1st February 2007
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 CS HULL CONSTRUCTION AND EQUIPMENT OF SMALL SHIPS

Chapter 4 SUBDIVISIONS

4.3 Openings

4.3.1 Internal Openings

Sub-paragraph -2 has been amended as follows.

2 The number of internal openings required to be watertight under the requirement of **-1** above is to be minimized, and their closing appliances are to comply with the following **(1)** to **(5)**. Relaxation in the watertightness of openings above the freeboard deck may be considered, where deemed by the Society that the safety of the ship is not impaired.

(1) Closing appliances are to be of ample strength and watertightness for water pressure to the equilibrium/intermediate waterplane.

(2) Closing appliances for internal openings which are used while at sea are to be of sliding watertight doors:
   (a) to be capable of being remotely closed from the bridge;
   (b) to be capable of being opened and closed by hand locally, from both sides of them with the ship listed 30 *degrees* to either side;
   (c) to be provided with position indicators showing whether the doors are open or closed at all operating positions;
   (d) to be provided with an audible alarm which will sound at the door position whenever such a door is remotely closed; and
   (e) the power, control and indicators for which are to be operable in the event of main power failure. Particular attention is to be paid to minimizing the effect of control system failure.

(3) Closing appliances normally closed at sea, are to be of watertight closing appliances:
   (a) to be capable of being opened and closed by hand locally, from both sides of them with the ship listed 30 *degrees* to either side. If hinged, to be of quick acting or single action type;
   (b) to be provided with position indicators showing whether the doors are open or closed on the bridge and at all operating positions. Such indicators are to be operable in the event of main power failure;
   (c) unless provided with means of remote closure, to have notices fixed to both sides of the closing devices stating "To be kept closed at sea"; and

(d) if being operable remotely, to be in accordance with **(2)(d)** and **(e)** above.

(4) Watertight doors or ramps fitted to internally subdivided cargo spaces are to be permanently closed at sea, and are:
   (a) not to be remotely controlled;
   (b) to have notices fixed to both sides of the doors stating "Not to be opened at sea"; and
   (c) where accessible during the voyage, to be fitted with a device which prevents unauthorized opening.

(5) Other closing appliances which are kept permanently closed at sea are to comply with **(4)(a)** and **(b)** above.

Sub-paragraphs -3 and -4 has been added as follows.

3 Bolted watertight manholes kept permanently closed at sea, need not apply to the provisions of **-2** above.

4 Closing appliances for the internal openings required to be watertight under the requirement of **-1** above are to comply with the provisions of **13.3**, unless otherwise provided in **-2** above.

4.3.2 External Openings

Sub-paragraph -2 has been amended as follows.

2 The closing appliances for the external openings required to be watertight under the requirements of **-1** above are to be permanently closed at sea, and are to comply with the following **(1)** to **(4)**.

(1) Closing appliances are to be of ample strength and watertightness for water pressure to the equilibrium/intermediate waterplane.

(2) Indicators showing whether the doors are open or closed are to be provided on the bridge. Such indicators are to be operable in the event of main power failure. However, such indicators are not required for cargo hatch covers, fixed side scuttles and bolted manholes.

(3) Closing appliances are to be provided with a notice fixed at their operating positions of closing appliances stating "To be kept closed at sea". However, such notice is not required for cargo hatch covers, fixed side scuttles and bolted manholes.

(4) Closing appliances for openings in the shell plating accessible during the voyage, are to be fitted with a device which prevents unauthorized opening, except where specially accepted by the Society.

Sub-paragraph -3 has been added as follows.

3 Closing appliances for external openings above the equilibrium/intermediate waterplane but below the bulkhead deck are to be normally closed at sea, and are to comply with the following (1) to (4).

(1) Closing appliances other than those permanently closed at sea are to be capable of being opened and closed by hand locally, from both sides of them with the ship listed 30 *degrees* to either side. If hinged, to be of quick acting or single action type;

(2) Indicators showing whether the doors are open or closed are to be provided on the bridge. Such indicators are to be operable in the event of main power failure. However, such

indicators are not required for fixed side scuttles.

(3) Closing appliances are to be provided with a notice fixed at their operating positions of closing appliances stating “To be kept closed at sea”. Closing appliances permanently closed at sea are to be provided with a notice stating “Not to be opened at sea”. However, such notices are not required for fixed side scuttles.

(4) Closing appliances for openings in the shell plating accessible during the voyage, are to be fitted with a device which prevents unauthorized opening, except where specially accepted by the Society.

Chapter 13 WATERTIGHT BULKHEADS

13.3 Watertight Doors

13.3.1 General

Existing paragraph has been replaced with the followings.

1 All openings in the watertight bulkheads and the part of the deck which forms the step of the bulkheads are to be closed by watertight closing appliances (hereinafter, referred to as “watertight doors” in this chapter) in accordance with the requirements in **13.3.2** to **13.3.5**.

2 Watertight doors as specified in **-1** above are to be normally closed at sea, except where deemed as necessary for the ship’s operation by the Society. Watertight doors or ramps fitted to internally subdivided cargo spaces are to be permanently closed at sea.

13.3.2 Types of Watertight Doors

Sub-paragraphs -2 and -3 have been amended as follows.

2 Notwithstanding the provisions in **-1** above, watertight doors provided at small access openings, which are approved by the Society, may be of hinged type or rolling type, except where the doors are required to be capable of being operated remotely by the provisions of **13.3.4-2**.

3 Notwithstanding the provisions in **-1** above, watertight doors or ramps fitted to internally subdivided cargo spaces may be of a type other than sliding type.

13.3.4 Control

Sub-paragraph -3 has been deleted, and then sub-paragraph -4 has been renumbered to -3.

13.3.5 Indication

Sub-paragraph -1 has been amended as follows.

1 Watertight doors, except those permanently closed at sea, are to be provided with position indicators showing whether the doors are open or closed on the bridge and at all operating positions.

13.3.6 Alarms

Existing text has been amended as follows.

Watertight doors which are capable of being remotely closed are to be provided with an audible alarm which will sound at the door position whenever such a door is remotely closed.

13.3.8 Notices

Sub-paragraph -2 has been amended as follows.

2 Watertight doors which are to be permanently closed at sea are to have notices fixed to both sides stating “Not to be opened at sea”. Such doors which are accessible during the voyage are to be fitted with a device which prevents unauthorized opening.

Chapter 19 HATCHWAYS, MACHINERY SPACE OPENINGS AND OTHER DECK OPENINGS

19.1 General

Paragraph 19.1.3 has been newly added as follows.

19.1.3 Renewal thickness for ship in operation

The structural drawings for hatch covers and hatch coamings complying with the requirement of **19.2** are to indicate the renewal thickness ($t_{renewal}$) for each structural elements, given by the following formula in addition to the as built thickness ($t_{as\text{-}built}$). If the thickness for voluntary addition is included in the as built thicknesses, the value may be at the discretion of the Society.

$t_{renewal}=t_{as\text{-}built} - t_c + 0.5$ (*mm*)

t_c: Corrosion additions specified in **Table CS19.1 and 19.2.3 -1**

In case that corrosion addition t_c is 1.0 (*mm*), renewal thickness may be given by the formula of $t_{renewal} = t_{as\text{-}built} - t_c$ (*mm*)

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 1 July 2007.

2. Notwithstanding the amendments to the Rules, the current requirements 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.