

Subject :

Amendments to Rules for the Survey and Construction of Steel Ships and others

NKTECHNICAL INFORMATION

No. : 268

Date : 1st July, 1998

To Shipowners and Ship builders concerned

PLEASE BE INFORMED THAT the *Rules for the Survey and Construction of Steel Ships* and other Rules have been amended in 1st July 1998, and come into force on 1st July 1998 unless otherwise specified.

It will not be long before the above mentioned Rules are published.

1. **Part B of the Rules and the Guidance for the Survey and Construction of Steel Ships**

(1) Side Door and Stern Door

Requirements regarding side doors and stern doors have been amended, in the same manner of the amendment regarding bow doors which were made last year as a consequence of the casualty of the Ro-Ro ship which had sunk after losing her bow door.

(2) Bridge Visibility

Plans and documents necessary for Classification Survey during Construction have been stipulated.

(3) Securing Arrangement for On-deck Timber

Provisions regarding securing arrangement for on-deck timber have been amended so that the plan approval and the survey of the arrangement are required regardless of whether the ship is marked with the timber load line or not.

(4) Approval of Firms Engaged in Thickness Measurements and Carrying Out In-water Survey

Requirements regarding the approval of firms engaged in thickness measurements and firms carrying out in-water survey have been deleted because the approval of these firms will be carried out under the Rules for approval of manufacturer. (Referring 13.(1)) (Enforcement : 1 January 1999)

2. **Part C of the Rules and the Guidance for the Survey and Construction of Steel Ships**

(1) Side Door and Stern Door (Referring 1.(1))

(2) Safe Access to Tanker Bows

A new regulation 3-3 has been added to Chapter II-1 of SOLAS requiring a means to enable crew to gain safe access to the bow of tankers (including chemical tankers and gas carriers) even in heavy weather conditions. Structural requirements for permanent gangways and access regarding pertinent facilities are stipulated in detail by the IACS Unified Interpretation LL 50. A portion of Parts C and CS have been revised based on these requirements.

(3) Required Subdivision Index

The scope to which requirements regarding the subdivision index apply has expanded to ships of Ls not less than 80 m, and the requirement regarding the formula for the required subdivision index R has been established for the newly applicable ships in accordance with amendments to Regulations 25-1 and 25-3 of SOLAS Chapter II-1.

ClassNK NIPPON KAIJI KYOKAI
4-7, KIOI-CHO, CHIYODA-KU,
TOKYO 102-8567, JAPAN.

TELEX: J22975 CLASSNK
2324280 CLASNKJ
CABLE: CLASSNK TOKYO

A portion of Parts C and CS have been amended to reflect these changes.

- (4) **Equipment Number of Tug Boats**
Taking the frequency of anchoring and the special circumstances on the general arrangement into consideration, requirements of the equipment number of tug boats which had been too severe have been amended. Under the amendment, requirements regarding the formula for the required equipment number of tug boats have been relaxed.
- (5) **Rudder Stocks**
Upper stocks and lower stocks have been clearly defined.
- (6) **Corrosion Prevention of Seawater Ballast Tanks**
A new Regulation 3-2 has been added to Chapter II-1 of SOLAS, in which cement and coating work have been reviewed. New requirements have been set forth with respect to the colour of coatings to be applied to dedicated ballast tanks of bulk carriers, oar carriers, and oil tankers. A portion of Chapter 25 of Part C of the guidance has been amended to reflect these changes.
- (7) **Openings in the Shell Plating below the Freeboard Deck**
A portion of the SOLAS has been amended in accordance with IMO Resolution MSC 57(67) with the addition of a newly established Regulation 17-1 of Chapter II-1 regarding openings in the shell plating below the freeboard deck of cargo ships. These requirements have been incorporated into Chapter 23 of Part C and Chapter 13 of Part D.
- (8) **Application of Steel**
Provisions regarding application of hull structural steels have been amended to reflect the amendment of the IACS Unified Requirement S6. For 1 year from the enforcement, however, the previous provisions may be applied.
- (9) **Loading Manual and Loading Instrument**
 - (a) Requirements for a loading manual and a loading instrument in Chapter 15 have been transferred to a newly established Chapter 34.
 - (b) For ships of Lf 65 m and above, the provision requiring a loading manual has been newly established.
 - (c) For bulk carriers, new requirements of a loading manual and a loading instrument have been added.
- (10) **Bulk Carrier Safety**
Provisions regarding bulk carrier safety have been amended as listed, reflecting the amendment of SOLAS and the IACS Unified Requirements.
 - (a) Structural requirements of hold frames for newly constructed bulk carriers
 - (b) Structural requirements of steel weather tight hatch covers of the foremost cargo hold for newly constructed bulk carriers
 - (c) Structural requirements and stability requirements in case of cargo holds' flooding for newly constructed bulk carriers (as a newly established Chapter 31A)
 - (d) Structural requirements and stability requirements in case of cargo holds' flooding for existing bulk carriers (as a newly established Chapter 31B)

3. Part CS of the Rules and the Guidance for the Survey and Construction of Steel Ships

- (1) Side Door and Stern Door (Referring 1.(1))
- (2) Required Subdivision Index (Referring 2.(3))
- (3) Equipment Number of Tug Boats (Referring 2.(4))
- (4) Rudder Stocks (Referring 2.(5))

- (5) Application of Steel (Referring 2.(8))

4. Part D of the Rules and the Guidance for the Survey and Construction of Steel Ships

- (1) Side Door and Stern Door (Referring 1.(1))

- (2) Fire Safety Measures for Tankers

A portion of amendments to Chapter II-2 of SOLAS regarding fire safety measures for tankers in accordance with IMO Resolution MSC 57(67) have been incorporated into the relevant provisions of Parts D and R.

- (3) Equipment of Venting System for Tankers

Provisions concerning the approval scheme of the equipment of a venting system for tankers have been reviewed and amended.

- (4) Facilities for Working in the Steering Gear Room

Although provisions already exist in the *Rules* regarding the installation of access ways, handrails, non-slip flooring and the like as safety measures for working in the steering gear room, a portion of Part D of the *Guidance* has been amended to clarify the concrete methods which are to be followed. (Enforcement : 1 January 1999)

- (5) Fire Safety Measures for Cargo Oil Pump Room

Regarding pump room fire safety measures of tanker carrying crude oil and petroleum products having flash point more than 60°C, reduction requirements have been added in the Rules. In addition, regarding the location of temperature measuring device fitted on bulkhead shaft glands and the equivalent system for bilge level monitoring devices, provision have been added in the Guidance.

- (6) Fuel Oil Service Tank

The amendment to Regulation 26 of Chapter II-1 of SOLAS has been incorporated into the *Rules*. Under the amendment, the installation of two fuel oil service tanks for each type of fuel oil used on board and the arrangement of vent pipes for fuel oil tanks and lubrication oil tanks such that any damage to the pipes will not lead to the ingress of water into the tank, are required.

- (7) Remote Control of Main Propulsion Machinery

The amendment to Regulation 31 of Chapter II-1 of SOLAS has been incorporated into Chapter 18 of the *Rules* and the *Rules for Automatic and Remote Control Systems*. Under the amendment, propulsion machinery orders from the navigation bridge shall be indicated in every control station of a main propulsion machinery.

- (8) Restoration of Propulsion from Dead Ship Condition

The addition of a new paragraph 3.4 to Regulation 43 of SOLAS II-1 was adopted at IMO MSC 67, and it applies to ships constructed on or after 1 July 1998. The amendments have been incorporated into the *Rules*. Under the amendment, where electrical power is necessary to restore propulsion, the capacity of such ships shall be sufficient to restore propulsion to the ship from a dead ship condition within 30 minutes after blackout.

- (9) Strength Calculations of Gears

An IACS Unified Requirement concerned with the detailed consideration of gear strength has been established, which has been newly incorporated as "*Guidance for Calculation of Strength of Gears*". And a portion of Chapter 5 of the *Guidance* has been amended so that newly established guidance may be used as one of detailed calculation methods of gears. Under the amendment, strength requirements of gears are generally relaxed.

5. Part H of the Rules and the Guidance for the Survey and Construction of Steel

Ships

(1) Fire Safety Measures

Provisions regarding cables have been amended. Under the amendment, cables connected between a generator and a main switchboard should not be installed above prime movers of a generator and fuel oil purifiers, and cables used in case of fire should be of fire resistance. (Enforcement : 1 January 1999).

(2) Sub-division of Main Busbars in Main Switchboard

Amendments adopted at IMO MSC 66 and 67 have been incorporated into the *Rules*.

(a) Requirements regarding maintenance and restoration of main source of electric power, load shedding, and subdivision of main busbar (Paragraph 5, Regulation 41 of Chapter II-1 of SOLAS)

(b) The value for safety voltage, from 55V to 50V (1.1.1, Regulation 45 of Chapter II-1 of SOLAS)

(3) Clearance Distance for Control Appliances

Requirements of clearance distance for control appliances in JIS C 0704 which was amended, in line with IEC Publication concerned, in 1995 have been incorporated into the *Rules*.

6. Part N of the Rules and the Guidance for the Survey and Construction of Steel Ships

(1) The amendment to the IGC/IBC Codes

The amendment to the IGC/IBC Codes has been incorporated into the *Rules*, vague expressions in the *Rules* have been rewritten and the lists of cargo substances have been reviewed and mended, etc.

(2) Load Restrictions on Type C Tanks

The filling limit for a cargo tank was determined by a relative density of the cargo at the temperature corresponding to the vapour pressure of the cargo at the set pressure of the pressure relief valve. The new filling limit may be determined by a relative density of the cargo at the highest temperature which the cargo may reach upon termination of loading, during transport, or at unloading provided that the adequacy of the tank vent system has been approved. Under the amendment, depending on their loading condition and voyage route, gas carriers with type C tanks may be loaded with more cargo than ever.

7. Part R of the Rules and the Guidance for the Survey and Construction of Steel Ships

(1) Special Requirements for Ships Carrying Dangerous Goods

Regarding special requirements for ships carrying dangerous goods, a portion of the amendment to Regulation 54 of Chapter II-2 of SOLAS has been incorporated into the *Rules*.

(2) FTP Code

The standard of fire test to fire protection material has been stipulated according to FTP Code in the *Rules* in addition to the current requirements on them.

(3) Fire Safety Measures for Tankers (Referring 4.(2))

(4) Fire-fighting Appliances for onboard Helicopter Facilities

The amendment to paragraph 8, Regulation 18 of Chapter II-2 of SOLAS and the establishment of IMO Res. A.855(20) concerning fire-fighting appliances for onboard helicopter facilities have been incorporated into the *Rules*.

8. **Part S of the Rules and the Guidance for the Survey and Construction of Steel Ships**
(1) The amendment to the IGC/IBC Codes (Referring 6.(1))
9. **Part W of the Rules and the Guidance for the Survey and Construction of Steel Ships (Establishment)**
Stipulations regarding visibility from the navigating bridge set forth in Regulation 22 of Chapter V of SOLAS have been incorporated into the newly established Part W of the *Rules*.
10. **Rules for High Speed Craft**
(1) Bridge Visibility (Referring 9.)
11. **Rules and Guidance for Automatic and Remote Control Systems**
Provisions related to 4.(7) have been amended.
12. **Rules and Guidance for Navigation Bridge Systems**
Provisions related to 9. have been amended.
13. **Rules for Approval of Manufacturers (Enforcement : 1 January 1999)**
(1) Approval of Firms Engaged in Thickness Measurements and Carrying Out In-water Survey
Requirements regarding the approval of firms engaged in thickness measurements, firms carrying out in-water survey and radio firms engaged in services on ships have been established based on IACS UR Z17 and the previous provision of Part B of the *Guidance for the Survey and Construction of Steel Ships*, etc., with qualification requirements of operators/supervisors and quality system requirements amended, so that these firms are approved under the *Rules*. (Referring 1.(4))
(2) Approval of Mass Produced Machinery
Because manufacturers of mass produced machinery are to be approved under the *Rules* and under the *Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use*, requirements regarding the approval of mass produced machinery and its manufacturer have been established based on the previous provisions of Part 5 of the *Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use*, so that the mass produced machinery and its manufacturers are approved under the *Rules*. (Referring 14.(4))
(3) Valid Term of the Approval
Valid term of the approval have been amended from 3 years to 5 years taking the compiled results of this approval scheme into account.
14. **Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use**
(1) Loading Instrument (Referring 2.(9))
(2) Equipment of Venting System for Tankers (Referring 4.(3))
(3) FTP Code (Referring 7.(2))
(4) Approval of Mass Produced Machinery (Referring 13.(2)) (Enforcement : 1 January 1999)

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