

Subject :

Amendments to the Rules for the Survey and
Construction of Steel Ships and Other Rules and
Guidances (English edition only)

NKTECHNICAL INFORMATION

No. : 233

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To Shipowners and Shipbuilders concerned

PLEASE BE INFORMED THAT *Rules and Guidance for the Survey and Construction of Steel Ships, Rules and Guidance for Testing Machines, Guidance for the Approval and Type Approval of Materials for Marine Use* have been amended as of the 31st October, 1997. They become effective on 1st January, 1998. In advance of issuing these amendments, we would like to inform the technical back grounds and/or reasons for the amendments as follows.

Side doors and stern doors

(Rules for the Survey and Construction of Steel Ships - Part B, C and CS)

(Guidance for the Survey and Construction of Steel Ships - Part C)

In view of the sinking of Ro-Ro ships due to the falling off of their bow doors, rules relating to bow doors have undergone a thorough revision last year. At this time, rules concerning side doors and stern doors have also been amended as a follow-up to the consideration given to bow doors.

Loading computer for existing bulk carriers

(Rules for the Survey and Construction of Steel Ships - Part B and C)

(Guidance for the Survey and Construction of Steel Ships - Part C)

(Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use)

Given the recent major casualties of bulk carriers and the diversification of the cargo loading conditions of bulk carriers, related rules have been revised making it mandatory for loading computers to be installed on board existing bulk carriers having an Lf of 150 meters or more as a part of measures for enhancing bulk carrier safety.

Rudder stocks (Rules for the Survey and Construction of Steel Ships - Part C and CS)

The diameter of the rudder stock is calculated by diving it into the upper stock and lower stock. The Rules were revised to clarify the current ambiguous definitions for what constitutes the upper and lower stocks.

Tug boats (Rules and Guidance for the Survey and Construction of Steel Ships - Part C and CS)

Bearing in mind that tugboats do not set anchor in foreign waters as part of their normal navigation conditions, the equipment number stipulated for tugboats under current rules has become too large. In the current revisions, the formula used to calculate equipment number has been modified taking into consideration the wind pressure from the fore or aft of the ship, in which the required number for tugboats has been reduced.

Hatch covers (Guidance for the Survey and Construction of Steel Ships - Part C)

Although the formula used for calculating the dimensions of the stiffeners which support the girders on the hatch covers is established for the location where the hatch cover is installed, it is not clear in cases when loads are added to the hatch cover. The Rules were amended to clarify the formulae to be used in such cases.

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Arrangements for securing timber on deck

(Guidance for the Survey and Construction of Steel Ships - Part C)

The current Rules for the Survey and Construction of Steel Ships require that the timber securing arrangements of only those ships to which a timber freeboard has been assigned are subject to plan approval and that the securing arrangements of ships in service undergo a survey at the time of special survey. The Rules have been clarified to the effect that arrangements for securing timber on deck of ships having the same securing arrangements as ships to which a timber freeboard has been assigned are subject to plan approval and survey regardless of whether a timber freeboard has been assigned or not.

Measures for Preventing Explosions in Oil Tanker Pump-rooms

(Rules for the Survey and Construction of Steel Ships - Part D)

The IMO and IACS have both been reviewing measures for preventing explosions in oil tanker pump-rooms. These measures have been incorporated as IACS UR F39 and adopted as a MSC Circular. Concrete requirements of these measures for preventing explosions in oil tanker pump-rooms have been incorporated in the Rules. These include the requirement to install high temperature alarms on the pump casing as well as the bulkhead shaft part, bilge level monitoring, and the installation of hydrocarbon gas detectors which generate an alarm when the density of hydrocarbon gas in the pump room reaches a lower flammable limit of 10%.

Test Specimens, Welding Consumables, and Welding Procedure Qualification Tests

(Rules for the Survey and Construction of Steel Ships - Part D, M and N)

Revisions to IACS UR W2 concerning Test Specimens and Mechanical Testing Procedures for Welding Joint and UR W23 concerning the Approval of Welding Consumables for High Strength Quenched and Tempered Steels for Welded Structures were enacted. In addition, IACS Recommendation No.32 regarding Welding Procedure Qualification Tests was also enacted. Consideration is being given to incorporating these IACS URs and Recommendation and revising related rules and regulations accordingly.

Pull-up length of small diameter keyless propellers

(Rules for the Survey and Construction of Steel Ships - Part D)

As a result of theoretical estimates of the torque increase rate of propeller shafts along with actual measured ship data regarding small diameter propellers at the time of crash astern, the diameter of propellers has been incorporated as a variable in the formula for calculating the lower limit of the pull-up length for propellers. Accordingly, the lower limit for pull-up length for propellers as the propeller diameter becomes smaller has been relaxed under this amendment to the Rules.

Devices for ventilation of cargo oil tanks

(Guidance for the Survey and Construction of Steel Ships - Part D)

Provisions regarding the testing of flame arresters have been amended in the *Rules for the Survey and Construction of Steel Ships* in keeping with the adoption of IMO MSC/Circ. 677, Revised Standards for the Design, Testing and Locating of Devices to Prevent the Passage of Flame into Cargo Tanks in Tankers.

Arrangements for fire safety in engine room spaces

(Guidance for the Survey and Construction of Steel Ships - Part D)

The content of IMO Circular 647 has been incorporated in the Survey Guidance of the Rules. Various items such as spray shields and metallic covers, amongst others, have been stipulated as concrete measures for preventing the leakage and spraying of oil.

Revision of Reference Standards for Circuit Breakers and Magnetic Contactors

(Rules for the Survey and Construction of Steel Ships - Part H)

Reference standards for circuit breakers and magnetic contactors, test voltages of high-voltage electrical equipment, and ventilation openings of cargo holds on coal carriers have been brought into conformity with IEC standards, while the definition of the term "dangerous spaces" has been made to conform with that given in IACS Recommendation No.22.

Rotating Machines (Rules for the Survey and Construction of Steel Ships - Part H)

Requirements tests for rotating machines (generators and electric motors) vary somewhat by a classification society. Since these differences need to be unified, IACS has adopted Unified Requirements for Testing Requirements by Classification Societies with regard to Rotating Machines. Accordingly, a review is being conducted of the stipulations concerned with rotating machines in the Rules for Part H of the Rules for the Survey and Construction of Steel Ships, and the associated survey guidance. At the same time that the IACS Unified Requirements were being incorporated, the Rules have also been brought into conformity with the new version of IEC standards.

Requirements for Halogenated Hydrocarbon Fire Extinguishing System

(Rules for the Survey and Construction of Steel Ships - Part R)

(Guidance for the Survey and Construction of Steel Ships - Part D and N)

Those Rules and accompanying Guidance concerned with the new installation of halogenated hydrocarbon fixed fire-extinguishing systems have been deleted in accordance with revisions to the SOLAS Convention.

Automatic testing machines and inspections of corresponding quality management

(Rules and Guidance for Testing Machines)

Provisions have been added to the *Rules for Testing Machines* regarding inspections of automatic testing machines in order to clarify the treatment of such machines. Some provisions have also been amended so that inspections can be performed with greater flexibility in order to take account of variations in the circumstances of the quality management systems of suppliers of testing machines. In addition, some provisions which differ from those set forth by JIS have been amended.

-- The End --

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