



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 313-69-1854c

dated 18.11.2022

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships, 2022, ND No. 2-020101-152-E

Item(s) of supervision:

ships under construction

Entry-into-force date:

01.01.2023

~~Cancels / amends / adds Circular Letter No.~~

~~dated~~

Number of pages: 1 + 4

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Parts VI "Fire Protection", IX "Machinery" and XII "Refrigerating Plants"

Director General

Konstantin G. Palnikov

Text of CL:

We hereby inform that in connection with entry into force on 01.01.2023 of IACS Unified Interpretation (UI) SC169 (Rev.1 Nov 2021) and IACS Unified Requirement (UR) M60 (Rev.1 Nov 2021), the Rules for the Classification and Construction of Sea-Going Ships shall be amended as specified in the Appendices to the Circular Letter.

It is necessary to do the following:

1. Bring the content of the Circular Letter to the notice of the RS surveyors, interested organizations and persons in the area of the RS Branch Offices' activity.
 2. Apply the provisions of the Circular Letter during review and approval of the technical documentation on ships contracted for construction or conversion on or after 01.01.2023, in the absence of a contract, during review and approval of the technical documentation on ships requested for review on or after 01.01.2023.
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List of the amended and/or introduced paras/chapters/sections:

Part VI: paras 3.3.1.7 and 3.7.2.8

Part IX: paras 2.1.1, 3.5.3, 4.1.2, 8.7.1 and 8.7.8

Part XII: para 11.1.2

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**Information on amendments introduced by the Circular Letter
(for inclusion in the Revision History to the RS Publication)**

| Nos. | Amended paras/chapters/ sections | Information on amendments | Number and date of the Circular Letter | Entry-into-force date |
|------|----------------------------------|--|--|-----------------------|
| 1 | Part VI, para 3.3.1.7 | Requirements have been specified to the sprinkler systems equivalent to the systems required by SOLAS-74 Chapter II-2, as amended | 313-69-1854c of 18.11.2023 | 01.01.2023 |
| 2 | Part VI, para 3.7.2.8 | Requirements have been specified to the deck foam fire extinguishing system in connection with implementation of IACS UI SC169 (Rev.1 Nov 2021) | 313-69-1854c of 18.11.2023 | 01.01.2023 |
| 3 | Part IX, para 2.1.1 | Application of technical solutions has been taken into account | 313-69-1854c of 18.11.2023 | 01.01.2023 |
| 4 | Part IX, para 3.5.3 | Recommended material for sealing ridges has been specified | 313-69-1854c of 18.11.2023 | 01.01.2023 |
| 5 | Part IX, para 4.1.2 | Distribution of dynamic balancing for parts has been specified | 313-69-1854c of 18.11.2023 | 01.01.2023 |
| 6 | Part IX, para 8.7.1 | Additional requirements for the gas turbine control system have been introduced in connection with implementation of IACS UR M60 (Rev.1 Nov 2021) | 313-69-1854c of 18.11.2023 | 01.01.2023 |
| 7 | Part IX, para 8.7.8 | Additional requirements for the gas turbine protection system have been introduced in connection with implementation of IACS UR M60 (Rev.1 Nov 2021) | 313-69-1854c of 18.11.2023 | 01.01.2023 |
| 8 | Part XII, para 11.1.2 | Requirements for pneumatic tests have been specified | 313-69-1854c of 18.11.2023 | 01.01.2023 |

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2022,

ND No. 2-020101-152-E

PART VI. FIRE PROTECTION

3 FIRE-FIGHTING EQUIPMENT AND SYSTEMS

1 **Para 3.3.1.7** is replaced by the following text:

"3.3.1.7 When sprinkler systems equivalent to the systems specified in this Chapter are used, they shall be approved by the Register according to the Guidelines adopted by IMO resolution A.800(19) considering amendments introduced by IMO resolutions MSC.265(84)/Corr.1 and MSC.284(86). When approving such systems special consideration shall be given to the fulfillment of the requirements of 3.3.1.1 — 3.3.1.6, 3.3.2, 3.3.3.1, 3.3.3.2, 3.3.4.2, 3.3.5 и 3.3.6."

2 **Para 3.7.2.8** is replaced by the following text:

"3.7.2.8 In oil tankers, each foam fire extinction station shall be provided with a shut-off device located on the foam fire main before it extends beyond the boundaries of the station.

Before the shut-off device there shall be a branch led out to the monitors situated both port and starboard at the front of the poop or accommodation spaces facing the cargo tanks deck and to twin fire hydrant for coupling thereto fire hoses with air-foam nozzles. The monitors may be located in the cargo area above the fuel oil tanks (oil bunker tanks) adjacent to cargo tanks if capable of protecting the deck below and aft of each other.

For oil tankers of less than 4000 t deadweight, it is sufficient to provide only branch pipes to the said fire hydrants.

Where medium expansion foam is used, twin fire hydrants shall be substituted by valve chests with a number of fire hydrants equal to 50 % of the required number of foam generators."

PART IX. MACHINERY

2 INTERNAL COMBUSTION ENGINES

3 **Para 2.1.1** is replaced by the following text:

"2.1.1 The requirements of this Section are applicable to all internal combustion engines of power output 55 kW and above, at the same time, other technical solutions providing an equivalent level of reliability are allowed to be used.

The scope of requirements to the engines of power output less than 55 kW may be reduced regarding to their structural features and purpose."

3 STEAM TURBINES

4 **New para 3.5.3** is introduced reading as follows:

"3.5.3 Sealing ridges at a steam temperature in the seal up to + 300 °C shall be manufactured of brass at a steam temperature in the seal up to up to + 350 °C — copper-nickel alloys; and over + 350 °C — alloyed steels."

4 GEARS, DISENGAGING AND ELASTIC COUPLINGS

5 **Para 4.1.2** is replaced by the following text:

"4.1.2 Parts rotating at speeds 5 to 20 m/s shall be statically balanced, while those rotating at speeds over 20 m/s, designed to work in conjunction with gas turbines and steam turbines, shall be dynamically balanced.

The accuracy of dynamic balancing shall be determined on the basis of the formulae:

$$v = 24000/n \text{ with } v > 300; \quad (4.1.2-1)$$

$$v = 63000/n \text{ with } v = 20 \quad (4.1.2-2)$$

where v = distance between the centre of gravity and the geometrical axis of rotation of the part concerned, μm ;
 n = rotational speed, min^{-1} ;
 v = peripheral velocity, m/s .

For peripheral velocities between 20 and 300 m/s, shall be determined by interpolation.

The rigid elements of couplings shall be balanced together with the parts they rigidly adjoin."

8 GAS TURBINES

6 **Para 8.7.1** is replaced by the following text:

"8.7.1 The main gas turbine shall be provided with the automatic regulation and remote control systems ensuring the following:

- .1 setting the necessary rates and steady maintaining thereof throughout the whole range of operating speeds so that thermal shocks are avoided;
- .2 starting and stopping under any operating conditions;
- .3 maintaining of steady operation of the compressors and combustion chambers under any transient service conditions and under load;
- .4 preventing a sudden increase of gas temperature;
- .5 unified control of the gas turbine and propeller by the single lever or hand wheel, preserving the possibility of separate control;
- .6 restriction of torque at the power take-off shaft, where necessary;
- .7 purging the combustion chambers of turbines and the offtake pipe from liquid or gaseous fuel oil accumulated there before ignition at start or after unsuccessful start (refer to 8.1.17);
- .8 automatic temperature controls of lubricating oil supply, oil fuel supply (or automatic control of fuel viscosity as alternative), exhaust gas so as to maintain steady state conditions throughout the normal operating range of the main gas turbine.

The starting devices shall be designed so that the ignition process stops and the main fuel valve is closed at the ignition failure, protection being activated or gas turbine stop."

7 **Para 8.7.8** is replaced reading as follows:

"8.7.8 In addition to the overspeed device operation, the gas turbine protection system shall provide full interruption of fuel supply in case of alarm for the following parameters:

- .1 lubricating oil pressure drop in the system below the permissible level;
- .2 gas temperature rise above the permissible level before or after the turbine;
- .3 limit level of vibration;
- .4 flame-out;
- .5 excess of revolutions of a low pressure compressor exceeding permissible value (for three-shaft gas turbines with a free-propeller turbine and gas reverse);
- .6 limiting axial rotor shift;
- .7 dangerous air pollution of the machinery and boiler room, if gas-operated;
- .8 drop of lubricating oil pressure of reduction gear below the permissible level;
- .9 excess of vacuum pressure at the compressor inlet.

In case of emergency, the provision shall be made for the manual interruption of fuel supply from the local control station in the vicinity of the gas turbine.

Proceeding from the gas turbine design, the manufacturer may introduce additional types of protection."

PART XII. REFRIGERATING PLANTS

11 TESTS

8 **Para 11.1.2** is replaced by the following text:

"11.1.2 Hydraulic tests for strength of the components working under the refrigerant pressure shall be carried out by a test pressure of not less than 1,5 p in accordance with 2.2.1.

System in assembly shall be subjected to tightness tests by a pressure of not less than maximum working pressure, but not less than 0,2 MPa. In case the system or a component cannot be pressure-tested with liquid for technical reasons, pneumatic tests shall be carried out by means of air or other suitable gas.

In case a component of the system cannot be hydraulically tested for technical reasons, pneumatic tests shall be carried out in assembly by means of air or other suitable gas by a test pressure of 1,5 times the working pressure, but not less than 0,4 MPa.

Components working under the pressure of secondary refrigerant or water shall be tested by a hydraulic pressure of 1,5 times the working pressure, but not less than 0,4 MPa, whereas box structures shall be tested by a pressure equal to 1,5 times their working pressure."