



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 311-05-1953c

dated 21.06.2023

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships, ND No. 2-020101-174-E

Item(s) of supervision:

ships under construction

Entry-into-force date:

01.07.2023

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

~~dated~~

Number of pages: 1 + 3

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Part VIII "Systems and Piping"

Director General

Sergey A. Kulikov

Text of CL:

We hereby inform that 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 01.07.2023, in the absence of a contract, during review and approval of the technical documentation on ships requested for review on or after 01.07.2023.
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List of the amended and/or introduced paras/chapters/sections:

Part VIII: new Chapter 13.16

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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 VIII, Chapter 13.16	New Chapter 13.16 has been introduced containing requirements for dangerous gas systems for gas welding operations and other application	311-05-1953c of 21.06.2023	01.07.2023

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2023,

ND No. 2-020101-174-E

PART VIII. SYSTEMS AND PIPING

13 FUEL OIL SYSTEM

New Chapter 13.16 is introduced reading as follows:

"13.16 DANGEROUS GAS SYSTEMS FOR GAS WELDING OPERATIONS AND OTHER PURPOSE

13.16.1 The requirements of this Chapter apply to the systems for distribution, storage or receipt on board of dangerous combustible and oxidizing gases (acetylene (C₂H₂), oxygen (O₂), etc.) for different process needs, e.g., gas welding operations or ensuring operation of another auxiliary equipment.

Only gas welding equipment of type approved by the competent technical supervisory bodies may be installed on board the ship.

These requirements do not apply to the ship's diving systems, systems of refrigerating plants and liquefied gas systems for domestic needs.

13.16.2 Oxygen and dangerous combustible gas cylinders shall be kept in special separate storerooms complying with the requirements of 2.1.5.4.4, Part VI "Fire Protection". Furthermore, storerooms shall meet the following requirements:

.1 efficient natural ventilation shall be provided, account being taken of the provisions of 12.1.4 and 12.4.6. In addition to natural ventilation, mechanical ventilation may be used, the requirements of 12.1.4 being taken into consideration;

.2 all electrical equipment of the storerooms shall be safe-type according to 2.9, Part XI "Electrical Equipment".

13.16.3 Installation of acetylene or oxygen cylinders shall comply with the following requirements:

.1 in storerooms for oxygen and acetylene cylinders, the cylinders with a total capacity of maximum 200 l shall be installed;

.2 cylinders shall be placed vertically in rows and shall be accessible for visual examination. The fastening shall provide the possibility of their quick release;

.3 where in the storeroom one cylinder is installed, a reducing safety valve shall generally be fitted on the cylinder head. Flexible hose of approved type shall be used for connection of the reducing valve to the pipeline. The reducing safety valve shall be fitted with two pressure gauges for monitoring the gas pressure at the inlet and in the hose leading to the pipeline;

.4 where in the storeroom several cylinders are installed, a manifold shall be provided and the reducing safety valve with a pressure gauge for pressure monitoring at the pipeline inlet shall be installed between the shut-off (distribution) valve fitted on the manifold and the distribution pipeline. The manifold shall be provided with non-return shut-off valves, to which the cylinders shall be connected by means of high-pressure flexible hoses of approved type. A notice prohibiting the simultaneous use of more than one cylinder shall be displayed in the compartment;

.5 a manifold shall be fitted with a pressure gauge graduated to a value at least 1 MPa in excess of the hydraulic test pressure of the cylinders. The value of the pressure gauge scale division shall not exceed 0,5 MPa;

.6 arrangement of the manifolds shall provide their complete draining;

.7 reducing safety valves shall be fitted with pipes to provide gas draining from the safety device to the atmosphere. The bent pipe end shall be located in a safe place not less than 450 mm above the above deck plating and be duly marked, however, a reduced height may be approved based on the justification submitted by the designer.

13.16.4 The fixed piping system to supply oxygen and acetylene shall comply with the following requirements:

.1 low-pressure pipelines designed to supply oxygen and acetylene to the compartment for gas welding operations and arranged between the pressure regulators (reducers) and shut-off valves located in the welding shop shall be of seamless carbon and low-alloy steel or equivalent material with the butt-welded joints. Herewith, the pipelines and valves designed for acetylene shall be made of steel only. Alloys used for manufacture of acetylene pressure gauges shall contain not more than 70 % of copper. Pipelines designed for oxygen may be copper or brass;

.2 threaded or flanged joints are allowed only at the connections of valves, instrumentation and gas welding equipment;

.3 pipelines shall be short, where possible, laid over the open deck and protected against mechanical damages. Pipeline laying through the accommodation spaces is not allowed;

.4 steel pipelines shall be protected against corrosion. The thickness of pipe walls shall meet the requirements of column 2, Table 2.3.8;

.5 prior to installation, pipes and pressure gauges intended for oxygen pipelines shall be visually examined for absence of grease and oil contamination on the internal surfaces.

13.16.5 The system shall be tested by hydraulic pressure:

part of the system from cylinders to the reducing safety valve inclusive — $1,5p$ where p is the maximum working pressure in the system equal to the cylinder design pressure, in MPa;

part of the system from the reducing safety valve to the shut-off valve located in the welding shop — 5 MPa.

13.16.6 The compartments for gas welding operations shall comply with the requirements of 2.1.5.6, Part VI "Fire Protection".

In addition, the compartment shall be provided with an exhaust and supply ventilation independent from other ventilation systems."