RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER **No. 313-67-1545c** dated 12.04.2021

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships in connection with implementation of new revision of IACS unified requirement (UR) M79 (Rev.1 Feb 2020), and considering the experience of technical supervision

Item(s) of supervision:

shafting brakes, machine parts, mechanically driven air compressors, natural gas (methane) compressors, towing winch emergency release system

Entry-into-force date: ~~Valid till:~~ ~~Validity period extended till:~~
See Appendix 1

~~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 Part VII "Machinery installations" and Part IX "Machinery"

Director General Konstantin G. Palnikov

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 amendments introduced by the Circular Letter during review and approval of the technical documentation on machinery installations and machinery designed for application on ships contracted for construction or conversion on or after dates indicated in Appendix 1, in the absence of a contract, the keels of which are laid or which are at a similar stage of construction on or after dates indicated in Appendix 1, as well as when performing technical supervision during manufacture of machinery installations requested on or after dates indicated in Appendix 1.

List of the amended and/or introduced paras/chapters/sections:

Part VII: paras 5.8.2 and 5.8.3
Part IX: para 1.3.1, table 1.3.1, para 5.1.3.3, chapter 5.5, paras 6.6.1.1, 6.6.1.3, 6.6.3.1.6, 6.6.3.1.7, 6.6.3.2.1, 6.6.3.2.2, 6.6.3.2.10, 6.6.3.2.11, 6.6.4.2 and 6.6.4.3 - 6.6.4.5

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"Thesis" System No. 21-44509

Appendix 1 to Circular Letter
No. 313-67-1545c dated 12.04.2021

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 VII, para 5.8.2	Requirements for the breaking devices of the shafting have been specified	313-67-1545c of 12.04.2021	01.06.2021
2	Part VII, para 5.8.3	Requirements for the breaking devices of the shafting have been specified	313-67-1545c of 12.04.2021	01.06.2021
3	Part IX, para 1.3.1	Requirements for the hydraulic testing of machine parts have been specified	313-67-1545c of 12.04.2021	01.06.2021
4	Part IX, table 1.3.1	Requirements for the hydraulic testing of machine parts have been specified	313-67-1545c of 12.04.2021	01.06.2021
5	Part IX, para 5.1.3.3	The designations in the requirements for calculating the strength of the crankshaft of mechanically driven air compressors have been specified	313-67-1545c of 12.04.2021	01.06.2021
6	Part IX, chapter 5.5	Design requirements for natural gas (methane) compressors have been deleted	313-67-1545c of 12.04.2021	01.06.2021
7	Part IX, paras 6.6.1.1, 6.6.1.3, 6.6.3.1.6, 6.6.3.1.7, 6.6.3.2.1, 6.6.3.2.2, 6.6.3.2.10, 6.6.3.2.11, 6.6.4.2 and 6.6.4.3 - 6.6.4.5	Requirements for the towing winch emergency release systems have been specified, taking into account IACS UR M79 (Rev.1 Feb 2020)	313-67-1545c of 12.04.2021	01.07.2021

Appendix 2 to Circular Letter
No. 313-67-1545c dated 12.04.2021

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2020,

ND No. 2-020101-124-E

PART VII. MACHINERY INSTALLATIONS

5 SHAFTING

1 New **para 5.8.2** is introduced reading as follows:

"**5.8.2** The braking device shall ensure the retention of the failed shafting during the towing of the ship.".

2 New **para 5.8.3** is introduced reading as follows:

"**5.8.3** In ships with multi-shaft propulsion plants, the braking device shall ensure the retention of a failed shafting during movement and maneuvering of the ship while the rest of the shafting is in operation.".

PART IX. MACHINERY

1 GENERAL

3 **Para 1.3.1**. The last paragraph is replaced by the following text:

"In all cases, the value of test pressure shall not be lower than the pressure setting with the safety valve fully open, but not less than 0,4 MPa for cooled spaces of parts and various seals and not less than 0,2 MPa in all other cases. If temperatures or working pressures exceed the ratings indicated in Table 1.3.1, as well as for materials not indicated in the Table, the value of test pressure shall be approved by the Register in each case.".

4 **Table 1.3.1** is replaced by the following:

"Table 1.3.1

Material	Characteristic	Working temperature, °C, up to									
		120	200	250	300	350	400	430	450	475	500
Steel (except as specified below)	p, MPa	–	20	20	20	20	10	10	10	–	–
	k	0	0	1	3	5	8	11	17	–	–
Molybdenum and molybdenumchrome steel with at least 0,4 % molybdenum content	p, MPa	–	–	–	–	20	20	20	20	20	20
	k	0	0	0	0	0	1	2	3,5	6	11
Cast iron	p, MPa	6	6	6	6	–	–	–	–	–	–
	k	0	2	3	4	–	–	–	–	–	–
Bronze, brass and copper	p, MPa	20	3	3	–	–	–	–	–	–	–
	k	0	3,5	7	–	–	–	–	–	–	–

".

5 AUXILIARY MACHINERY

5 **Para 5.1.3.3**. In the first paragraph and **Formula** (**5.1.3.3)** the symbol "d_c" is replaced by the symbol "d".

6 **Chapter 5.5** is deleted.

6 DECK MACINERY

7 **Para 6.6.1.1** is replaced by the following text:

"**6.6.1** The Chapter defines minimum safety standards for winch emergency release systems provided on towing winches that are used on towing ships within close quarters, ports or terminals, including those ships normally not intended for towing operation in transverse direction.

The purpose of this chapter requirements is to provide requirements to prevent the capsize of a tug when in the act of towage as a result of the towline force acting transversely to the tug (in beam direction) as a consequence of an unexpected event (could be loss of propulsion/steering or otherwise), whereby the resulting couple generated by offset and opposing transverse forces (towline force is opposed by thrust or hull resistance force) causes the tug to heel and, ultimately, to capsize. This capsize may be referred to as "girting", "girthing", "girding" or "tripping". See Fig. 6.6.1-1 which shows the forces acting during towage operations.".

8 **Para 6.6.1.3** is replaced by the following text:

"**6.6.1.3** Definitions to Chapter 6.6.

Emergency release system refers to the mechanism and associated control arrangements that are used to release the load on the towline in a controlled manner under both normal and black out conditions.

Maximum design load is the maximum load that can be held by the winch as defined by the manufacturer (the manufacturer's rating).

Feet angle is the angle between the applied load (towline force) and the towline as it is wound onto the winch drum see Fig. 6.6.1-2).

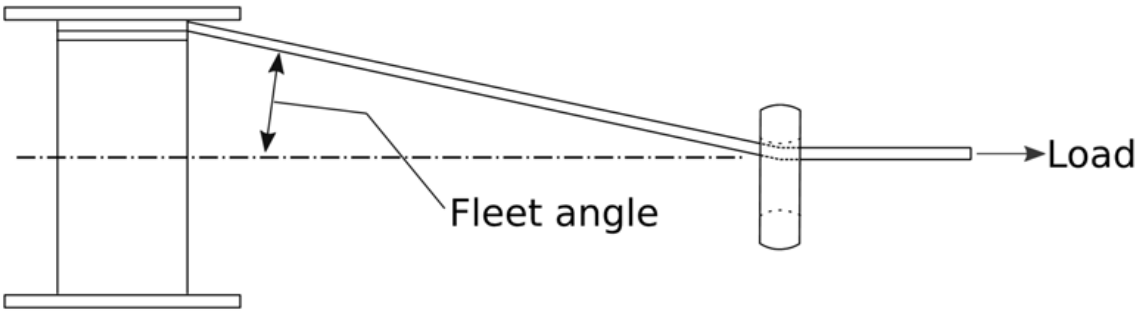

Fig. 6.6.1-2
Towline "fleet angle"".

9 **Para 6.6.3.1.6** is replaced by the following text:

"**6.6.3.1.6** Emergency release of the towline is to be possible in the event of a blackout. For this purpose, where additional sources of energy are required, such sources shall comply with 6.6.3.1.7.".

10 **Para 6.6.3.1.7** is replaced by the following text:

"**6.6.3.1.7** The sources of energy required by 6.6.3.1.6 shall be sufficient to achieve the most onerous of the following conditions (as applicable):

sufficient for at least three attempts to release the towline (i.e. three activations of the emergency release system). Where the system provides energy for more than one winch it shall be sufficient for three activations of the most demanding winch connected to it;

where the winch design is such that the drum release mechanism requires continuous application of power (e.g. where the brake is applied by spring tension and released using hydraulic or pneumatic power), sufficient power is to be provided to operate the emergency release system (e.g. hold the brake open and allow release of the towline) in a dead-ship situation in the event of a blackout for a minimum of five minutes. This may be reduced to the time required for the full length of the towline to feed off the winch drum at the load specified in 6.6.3.1.5 if this is less than five minutes.".

11 **Para 6.6.3.2.1** is replaced by the following text:

"**6.6.3.2.1** Emergency release operation must be possible from the bridge and from the winch control station on deck. The winch control station on deck is to be in a safe location. A position in close proximity to the winch is not regarded as "safe location", unless it is documented that the position is at least protected against towline break or winch failure.".

12 **Para 6.6.3.2.2** is replaced by the following text:

"**6.6.3.2.2** The emergency release control shall be located in close proximity to the an emergency stop button for winch operation, if provided, and both should shall be clearly identifiable, clearly visible, easily accessible and positioned to allow safe operability.".

13 **Paras 6.6.3.2.10** и **6.6.3.2.11** are deleted.

14 **Para 6.6.4.2** is replaced by the following text:

"**6.6.4.2** The performance capabilities, and as well as instructions for operating on, of the emergency release system shall be documented by the manufacturer and made available on board the ship on which the winch has been installed.".

15 New **paras 6.6.4.3 and 6.6.4.4** are introduced reading as follows:

"**6.6.4.3** Instructions for surveys of the emergency release system are to be documented by the manufacturer, agreed by the Register and made available on board the ship on which the winch has been installed.

6.6.4.4 Where necessary for conducting the annual and special surveys of the winch, adequately sized strong points are to be provided on deck.".

16 Existing **para 6.6.4.3** is renumbered **6.6.4.5**.