



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 322-01-1342c

dated 28.02.2020

Re:

amendments to the Guidelines on Technical Supervision of Ships under Construction, 2020, ND No. 2-030101-034-E

Item(s) of supervision:

ships and offshore facilities under construction

Entry-into-force date:

01.04.2020

~~Valid till:~~

~~Validity period extended till:~~

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

~~dated~~

Number of pages:

1 + 9

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to the Guidelines on Technical Supervision of Ships under Construction

Acting Director General

Sergey A. Kulikov

Text of CL:

We hereby inform that the Guidelines on Technical Supervision of Ships under Construction 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 involved in the technical supervision of ships under construction.
 2. Apply the provisions of the Circular Letter when performing technical supervision during construction of ships contracted for classification under construction on or after 01.04.2020.
 3. Apply the provisions of the Circular Letter when performing technical supervision during construction of ships contracted for classification under construction before 01.04.2020, as far as reasonable and practicable.
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List of the amended and/or introduced paras/chapters/sections:

para 1.1.2, Table 3.1.4.1, paras 3.2.1, 3.3.4.1, 3.3.4.2, 3.3.6.1, 3.3.9.1, 3.3.10.2, 3.3.11.1, 4.2.1, 4.3.3, 5.1.4, 5.2.1, 5.3.7, 5.16.1.10, 5.16.1.11 and 5.16.7.1.7, para 1.2 of Appendix 1 to Section 5, paras 6.2.1, 6.5.3, 6.5.4 – 6.5.7, 7.4.7, 7.5.3.4, 7.9.4, 8.3.1.5, 10.2.1, 10.4.2.8, 10.4.2.8.1 – 10.4.2.8.4, 10.4.3.17 and 10.4.3.17.1 – 10.4.3.17.3, paras 8.5.2, 8.6.2 and 10.2.4 of Appendix 1 to Section 10, paras 13.3.1, 15.1.6, 15.2.1, 16.2.1, 16.4.4, 16.3.4.2, 16.3.4.2.1, 18.1.11, 18.1.12 and 18.4.2.2, Chapter 18.6 and Appendix 2 to Section 18

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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	Section 1, para 1.1.2	The reference to the applicable requirements has been specified	322-01-1342c of 28.02.2020	01.04.2020
2	Section 3, Table 3.1.4.1, paras 3.2.1, 3.3.4.1, 3.3.4.2, 3.3.6.1, 3.3.9.1, 3.3.10.2 and 3.3.11.1	The references to the applicable requirements have been specified	322-01-1342c of 28.02.2020	01.04.2020
3	Section 4, paras 4.2.1 and 4.3.3	The references to the applicable requirements have been specified	322-01-1342c of 28.02.2020	01.04.2020
4	Section 5, paras 5.1.4 – 5.1.13	Para 5.1.4 has been deleted. Paras 5.1.5 – 5.1.13 have been renumbered 5.1.4 – 5.1.12, accordingly	322-01-1342c of 28.02.2020	01.04.2020
5	Section 5, para 5.2.1	The requirements have been specified for agreement of examination and testing plans, procedure for verification of the report on failure analysis of propulsion and steering	322-01-1342c of 28.02.2020	01.04.2020
6	Section 5, para 5.3.7	The Chapter has been supplemented by new para 5.3.7 regarding testing of insulation of heated surfaces	322-01-1342c of 28.02.2020	01.04.2020
7	Section 5, paras 5.16.1.10 – 5.16.1.11	New para 5.16.1.10 has been introduced specifying requirements for testing of machinery installations and machinery. Para 5.16.1.10 has been renumbered 5.16.1.11	322-01-1342c of 28.02.2020	01.04.2020
8	Section 5, para 5.16.7.1.7	The reference has been added to the requirement of Part IX "Machinery" of the Rules for the Classification and Construction of Sea-Going Ships	322-01-1342c of 28.02.2020	01.04.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
9	Section 5, Appendix 1, para 1.2	The para has been deleted	322-01-1342c of 28.02.2020	01.04.2020
10	Section 6, para 6.2.1	The references to the applicable requirements have been specified	322-01-1342c of 28.02.2020	01.04.2020
11	Section 6, para 6.5.3	The reference to the applicable requirements has been added	322-01-1342c of 28.02.2020	01.04.2020
12	Section 6, paras 6.5.4 – 6.5.7	The Chapter has been supplemented by new paras 6.5.4 – 6.5.7 regarding verification of compliance with the requirements of Part VII "Machinery Installations" of the Rules for the Classification and Construction of Sea-Going Ships	322-01-1342c of 28.02.2020	01.04.2020
13	Section 7, para 7.4.7	The Chapter has been supplemented by new para 7.4.7 regarding verification of compliance with the requirements of Part VII "Machinery Installations" of the Rules for the Classification and Construction of Sea-Going Ships	322-01-1342c of 28.02.2020	01.04.2020
14	Section 7, para 7.5.3.4	The reference to the applicable requirements has been added	322-01-1342c of 28.02.2020	01.04.2020
15	Section 7, para 7.9.4	The Chapter has been supplemented by new para 7.9.4 regarding verification of compliance with the requirements of Part VII "Machinery Installations" of the Rules for the Classification and Construction of Sea-Going Ships	322-01-1342c of 28.02.2020	01.04.2020
16	Section 8, para 8.3.1.5	The reference to the applicable requirements has been specified	322-01-1342c of 28.02.2020	01.04.2020
17	Section 10, para 10.2.1	The scope of application and reference to the	322-01-1342c of 28.02.2020	01.04.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
		applicable requirements have been specified		
18	Section 10, paras 10.4.2.8, 10.4.2.8.1 – 10.4.2.8.4, 10.4.3.17 and 10.4.3.17.1 – 10.4.3.17.3	New paras 10.4.2.8, 10.4.2.8.1 – 10.4.2.8.4, 10.4.3.17 and 10.4.3.17.1 – 10.4.3.17.3 have been introduced containing requirements for composite propulsion systems	322-01-1342c of 28.02.2020	01.04.2020
19	Section 10, Appendix 1, paras 8.5.2, 8.6.2 and 10.2.4	The references to the applicable requirements have been specified	322-01-1342c of 28.02.2020	01.04.2020
20	Section 13, para 13.3.1	The scope of application has been specified	322-01-1342c of 28.02.2020	01.04.2020
21	Section 15, para 15.1.6	The requirements for additional checks and tests of radio equipment have been specified	322-01-1342c of 28.02.2020	01.04.2020
22	Section 15, para 15.2.1	The reference to the applicable requirements has been specified	322-01-1342c of 28.02.2020	01.04.2020
23	Section 16, para 16.2.1	The reference to the applicable requirements has been specified	322-01-1342c of 28.02.2020	01.04.2020
24	Section 16, paras 16.4.4, 16.3.4.2 and 16.3.4.2.1	The reference to the applicable requirements has been specified. Paras 16.3.4.2 and 16.3.4.2.1 have been renumbered 16.4.4.2 and 16.4.4.2.1, accordingly	322-01-1342c of 28.02.2020	01.04.2020
25	Section 18, para 18.1.11	The requirements have been specified for measurements included in the shipyard's documents issued upon the results of mooring and sea trials	322-01-1342c of 28.02.2020	01.04.2020
26	Section 18, para 18.1.12	The reference to the applicable requirements has been specified	322-01-1342c of 28.02.2020	01.04.2020
27	Section 18, para 18.4.2.2	The reference to the applicable requirements has been added	322-01-1342c of 28.02.2020	01.04.2020
28	Section 18, Chapter 18.6	The requirements for measurement of vibration on board sea-going ships have been specified	322-01-1342c of 28.02.2020	01.04.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
29	Section 18, Appendix 2	The Appendix has been deleted	322-01-1342c of 28.02.2020	01.04.2020

Appendix 2 to Circular Letter
No. 322-01-1342c dated 28.02.2020

GUIDELINES ON TECHNICAL SUPERVISION OF SHIPS UNDER CONSTRUCTION, 2020,

ND No. 2-030101-034-E

1 GENERAL

1 **Para 1.1.2** is replaced by the following text:

"**1.1.2** The provisions of the Guidelines may apply with due regard to the details and differences in the processes of ship's construction inherent in the country of the Register technical supervision, and/or specific shipyard."

3 EQUIPMENT, ARRANGEMENTS AND OUTFIT

2 **Table 3.1.4.1. Footnote 2.** The reference to 3.4.4 is replaced by the reference to 3.3.1.4.

3 **Para 3.2.1.** The reference to 1.7.1 is replaced by the reference to 2.7.1.

4 **Para 3.3.4.1.** The reference to 3.1.3 is replaced by the reference to Table 3.1.4.1.

5 **Paras 3.3.4.2, 3.3.6.1, 3.3.9.1, 3.3.10.2 and 3.3.11.1.** The reference to 3.1.3 is replaced by the reference to 3.2.

4 FIRE PROTECTION

6 **Para 4.2.1.** The reference to 1.7.1 is replaced by the reference to 2.7.1.

7 **Para 4.3.3.** The reference to 4.2.2 is replaced by the reference to 4.3.2.

5 MACHINERY

8 **Para 5.1.4** is deleted. **Paras 5.1.5 – 5.1.13** are renumbered 5.1.4 – 5.1.12, accordingly.

9 **Para 5.2.1** is replaced by the following text:

"**5.2.1** Prior to commencement of survey of the machinery of the ship under construction, the RS Branch Office shall agree the examination and testing plan developed by the shipbuilder taking into account production process of the specified ship at the shipyard (refer to 13.3, Part I "General Regulations for Technical Supervision" of the Rules for Technical Supervision). The agreement shall be in accordance with Tables 5.4.1, 5.6.1, 5.9.1, 5.11.1, 5.12.1 and with due regard to the requirements of appropriate chapters of the Section. The Register and the shipyard shall agree the procedure for verification of the report on failure analysis of propulsion and

steering on passenger ships specified in Section 11, Part VII "Machinery Installations" of the Rules for the Classification and Construction.

The shipbuilder shall be informed about that at a kick-off meeting prior to commencement of construction according to 2.7.1.

The builder shall agree to undertake ad hoc investigations during construction as may be requested by RS where areas of concern arise and the builder to agree to keep RS advised of the progress of any investigation. Whenever an investigation is undertaken, the builder shall be requested, in principle, to agree to suspend relevant construction activities if warranted by the severity of the problem."

10 Chapter 5.3 is supplemented by **para 5.3.7** reading as follows:

"5.3.7 When testing the insulation of heated surfaces, it is necessary to make sure that the surfaces of machinery, equipment and piping with temperatures above 220 °C, which may be impinged as a result of a fuel system failure, shall be properly insulated, as well as structural measures shall be taken to prevent any oil that may escape under pressure from any pump, filter or heater from coming into contact with heated surfaces. The insulating materials and surface of insulation shall be in accordance with the requirements of 2.1.1.5, Part VI "Fire Protection" of the Rules for the Classification and Construction."

11 **New para 5.16.1.10** is introduced reading as follows:

"5.16.1.10 Trials shall include verification of the fulfillment of the requirements in 2.1.6, 2.1.9, 3.1.2 – 3.1.6, 3.1.8 – 3.1.11, 3.2.2, 3.2.3, 3.2.6, 3.3.1, 3.3.3 and 3.3.5, Part VII "Machinery Installations" and 6.1.2 – 6.1.4, Part IX "Machinery" of the Rules for the Classification and Construction."

12 **Existing para 5.16.1.10** is renumbered 5.16.1.11.

13 **Para 5.16.7.1.7** is replaced by the following text:

".7 time required to change over from the main to spare, emergency or hand-operated steering gear with due regard to 6.2.1.3, Part IX "Machinery" of the Rules for the Classification and Construction;"

APPENDIX 1

DURATION OF TESTING OF THE MAIN AND AUXILIARY MACHINERY ON MOORING AND SEA TRIALS

14 **Para 1.2** is deleted.

6 SHAFTING

15 **Para 6.2.1.** The first paragraph is replaced by the following text:

"6.2.1 Prior to commencement of survey of the stern tube arrangement and shafting of the ship under construction, the RS Branch Office shall agree the examination and testing plan developed by the shipbuilder taking into account Table 6.2.1, 6.3 – 6.7 of the Guidelines and 5.9, Part VII "Machinery Installations" of the Rules for the Classification and Construction. The shipbuilder shall be informed about that at a kick-off meeting prior to commencement of construction according to 2.7.1."

16 **Para 6.5.3** is replaced by the following text:

"6.5.3 Mounting, assembly and check of installation of the shaft-turning gear, torsionmeter and tachometer sensor, as well as flange couplings and other devices in the shafting — CPP arrangement shall be performed in accordance with the requirements of the technical documentation given in 6.3."

17 Chapter 6.5 is supplemented by **paras 6.5.4 – 6.5.7** reading as follows:

6.5.4 The protection of propeller shafts against exposure to sea water shall be checked with due regard to 5.2.15 – 5.2.20, Part VII "Machinery Installations" of the Rules for the Classification and Construction. Propeller shaft liners shall be made of corrosion resistant materials and shall be shrunk on the shaft in such a way as to provide tight interference between mating surfaces. The portion of the shaft between the liners shall be protected against the action of sea water by a method approved by the Register. To prevent water from reaching the propeller shaft cone, appropriate sealing shall be provided.

6.5.5 In case of an end nut securing the propellers or coupling on the shaft, its stoppers shall be secured to the shaft in accordance with 5.4.1, Part VII "Machinery Installations" of the Rules for the Classification and Construction.

6.5.6 During mounting the securing and locking items of propeller blades, hub cones, end nut of propeller, sterntubes, sternbushes and sealings shall be checked that they are made of corrosion-resistant materials in accordance with 2.4.6, Part VII "Machinery Installations" of the Rules for the Classification and Construction.

6.5.7 After mounting and alignment of shafting, performance of the breaking device shall be checked in accordance with 5.8.1, Part VII "Machinery Installations" of the Rules for the Classification and Construction."

7 PROPELLERS

18 **Chapter 7.4** is supplemented by **para 7.4.7** reading as follows:

7.4.7 It is necessary to check that the space inside the propeller cap, as well as the empty spaces between the boss and shaft cone are filled with non-corrosive mass (refer to 6.3.2, Part VII "Machinery Installations" of the Rules for the Classification and Construction."

19 **Para 7.5.3.4** is replaced by the following text:

.4 requirements in 7.4.6 and 7.4.7 shall be met."

20 Chapter 7.9 is supplemented by **para 7.9.4** reading as follows:

7.9.4 Trials shall include verification of the fulfillment of the requirements in 2.1.4, 2.1.5 and 2.1.8 (for ships of river-sea navigation), Part VII "Machinery Installations" of the Rules for the Classification and Construction."

8 SYSTEMS AND PIPING

21 **Para 8.3.1.5**. The reference to 8.2.2 and 8.2.3 is replaced by the reference to 8.3.2 and 8.3.3.

10 ELECTRICAL EQUIPMENT

22 **Para 10.2.1**. The first paragraph is replaced by the following text:

"Prior to commencement of survey of the electrical plants and critical electrical equipment of the ship under construction, the RS Branch Office shall agree the examination and testing plan of the electrical equipment developed by the shipbuilder taking into account the RS Nomenclature and 10.3. The shipbuilder shall be informed about that at a kick-off meeting prior to commencement of construction according to 2.7.1."

23 **Paras 10.4.2.8, 10.4.2.8.1 – 10.4.2.8.4** are introduced reading as follows:

10.4.2.8 Mooring trials of composite propulsive systems.

10.4.2.8.1 Mooring trials of composite propulsive system shall be conducted concurrently with tests of the main heat engine (ME) referred to in 5.16, Section 5 "Machinery" and EPP tests referred to in 10.4.2, Section 10 "Electrical Equipment".

10.4.2.8.2 During mooring trials of the composite propulsive system, the following shall be checked within the scope and at load allowed by the trial conditions:

- start of composite propulsive system motors under all design combinations;
- frequency regulation of composite propulsive system motors under all design combinations;
- stop of composite propulsive system motors under all design combinations;
- emergency stop of composite propulsive system motors under all design combinations;
- reverse of composite propulsive system motors under all design combinations.

10.4.2.8.3 During mooring trials of the composite propulsive system, where provided by the design, the following shall be checked within the scope and at load allowed by the trial conditions:

- generator operation mode of the electric propulsion motor;
- electric ME starting from the electric propulsion motor;
- other modes provided by the composite propulsive system design.

10.4.2.8.4 Where it is impossible to perform individual checks during mooring trials they shall be carried out during sea trials."

24 **Paras 10.4.3.17, 10.4.3.17.1 – 10.4.3.17.3** are introduced reading as follows:

"10.4.3.17 Sea trials of composite propulsive systems.

10.4.3.17.1 Sea trials of composite propulsive systems shall be conducted concurrently with the ME tests referred to in 5.17, Section 5 "Machinery" and EPP tests referred to in 10.4.3, Section 10 "Electrical Equipment".

10.4.3.17.2 During sea trials the following shall be checked at the specified loads:

- start of composite propulsive system motors under all design combinations;
- frequency regulation of composite propulsive system motors under all design combinations;
- stop of composite propulsive system motors under all design combinations;
- emergency stop of composite propulsive system motors under all design combinations;
- reverse of composite propulsive system motors under all design combinations.

10.4.3.17.3 During sea trials, where provided by the design, at the specified loads the following shall be checked:

- generator operation mode of the electric propulsion motor;
- electric ME starting from the electric propulsion motor;
- other modes provided by the composite propulsive system design."

APPENDIX 1

RECOMMENDATIONS ON INSPECTION OF ELECTRICAL EQUIPMENT DURING THE SHIP CONSTRUCTION

25 **Para 8.5.2.** The second paragraph is replaced by the following text:

"During the inspection the measurements of distances may be performed, which shall not be less than those given in 5.5, Part VIII "Systems and Piping" of the Rules for the Classification and Construction."

26 **Para 8.6.2** is replaced by the following text:

"8.6.2 Conditions and possibilities of maintenance shall be checked by the RS surveyor by means of full-scale tests and measuring distances, which shall not be less than those specified in 4.6.7 and 18.6.2.1.1.2, Part XI "Electrical Equipment" of the Rules for the Classification and Construction."

27 **Para 10.2.4** is replaced by the following text:

"**10.2.4** When measuring the allowable distances of cable paths to the adjacent structures one shall be guided by the values stated in 16.8.4, Part XI "Electrical Equipment" of the Rules for the Classification and Construction."

13 LIFE-SAVING APPLIANCES

28 **Para 13.3.1** is replaced by the following text:

"**13.3.1** Launching appliances of lifeboats/rescue boats/fast rescue boats and liferafts."

15 RADIO EQUIPMENT

29 **Para 15.1.6.** The last paragraph is replaced by the following text:

"Additional checks and tests may be assigned by the RS surveyor in substantiated cases."

30 **Para 15.2.1.** The reference to 1.7.1 is replaced by the reference to 2.7.1.

16 NAVIGATIONAL EQUIPMENT

31 **Para 16.2.1.** The reference to 1.7.1 is replaced by the reference to 2.7.1.

32 **Para 16.4.4.** The reference to 16.3.4.1 – 16.3.4.16 is replaced by the reference to 16.4.4.1 – 16.4.4.16.

33 **Paras 16.3.4.2 and 16.3.4.2.1** are renumbered 16.4.4.2 and 16.4.4.2.1, accordingly.

18 MOORING AND SEA TRIALS

34 **Para 18.1.11.** The last paragraph is replaced by the following text:

"The shipyard's documents issued upon the results of mooring and sea trials shall include measurements regulated by the relevant sections of the Guidelines, agreed standards, programs of firms (manufacturers), etc., as applicable."

35 **Para 18.1.12.** The reference to 13.10 is replaced by the reference to 13.9.

36 **Para 18.4.2.2** is replaced by the following text:

".**2** measurements of vibration of machinery and equipment in accordance with Section 9, Part VII "Machinery Installations" of the Rules for the Classification and Construction."

37 **Chapter 18.6** is replaced by the following text:

"18.6 MEASUREMENT OF VIBRATION ON BOARD SEA-GOING SHIPS

18.6.1 Vibration measurements of machinery and equipment shall be carried out in accordance with Section 9, Part VII "Machinery Installations" of the Rules for the Classification and Construction on board all prototype ships of a series constructed at the shipyard, on the first ship of modified design, on ships of single construction and subjected to conversion (taking into account particularities of conversion and as applicable to the equipment, which vibration may be influenced by the conversion performed).

18.6.1.1 Vibration measurements are carried out in the course of mooring trials (measurements of machinery vibration parameters (except for main engines) and shipboard

equipment on their specification running regimes) and sea trials (measurements of the main engine vibrations, individual machinery and equipment, which specification power cannot be obtained during mooring trials) under the program approved by the Register. In well-grounded cases (refer to 18.6.1.2) the measurements may be postponed until the first service voyages.

18.6.1.2 Vibration measurements of the main engines are carried out at specification running: slow, half and full ahead for two values of displacement:

- ballast displacement;
- loaded displacement.

In case when in the course of sea trials or trial voyage the ship's condition in full load cannot be ensured, measurements of vibration may be postponed to the first service voyages with the Register agreement.

18.6.2 Measurement of sanitary vibration level in ship's spaces shall be carried out in accordance with Section 18.3, Part VXII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships" of the Rules for the Classification and Construction during sea trials on ships where the distinguishing mark **COMF (V – 1 or 2, or 3)** may be added to the design class notation.

18.6.2.1 During measurements the following conditions shall be met:

ship moves with the constant speed and heading within rudder angle from port to starboard 2°;

engine runs in the representative mode with the constant output power;

sea force is not more than 3;

propeller is completely submerged;

water depth is not less than five times exceeds the ship's draught.

Any deviation from the specified conditions shall be recorded in the report on tests.

18.6.3 Effectiveness of arrangements elaborated and developed on the basis of vibration measurement results and aimed at reducing its to the allowable values shall be verified by control measurements."

APPENDIX 2

TECHNICAL REQUIREMENTS FOR MEASUREMENT OF VIBRATION ON SEA-GOING SHIPS

38 **Appendix** is deleted.