



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 340-04-1836c

dated 07.10.2022

Re:

amendments to the Rules for the Classification Surveys of Ships in Service and Annexes thereto, 2022, ND No. 2-020101-012-E, based on the experience of technical supervision and results of scientific research

Item(s) of supervision:

ships and offshore installations in service

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 Part I "General Provisions" and Annex 2 "Instructions for Determination of the Technical Condition and Repair of the Hulls of Sea-Going Ships"

Director General

Konstantin G. Palnikov

Text of CL:

We hereby inform that the Rules for the Classification Surveys of Ships in Service and Annexes thereto 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 and interested organizations in the area of the RS Branch Offices' activity.
 2. Apply the provisions of the Circular Letter during surveys of ships and offshore installations in service from the entry-into-force date of amendments.
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List of the amended and/or introduced paras/chapters/sections:

Part I: para 5.12.4;

Annex 2: paras 2.2.3.1, 3.2.1.2, 3.2.2.2, 4.1.5.2, 4.2.2.1, 4.2.3.3, 4.2.5 and Table 4.2.2.1-2

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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 I, para 5.12.4	Requirement for application of the Rules for Construction has been specified	340-04-1836c of 07.10.2022	01.01.2023
2	Annex 2, para 2.2.3.1	Requirement for determination of permissible residual thickness of girders has been specified	340-04-1836c of 07.10.2022	01.01.2023
3	Annex 2, para 3.2.1.2	Requirement for determination of a type of wear of a hull member has been specified	340-04-1836c of 07.10.2022	01.01.2023
4	Annex 2, para 3.2.2.2	Requirement for application of the Rules for Construction has been specified	340-04-1836c of 07.10.2022	01.01.2023
5	Annex 2, para 4.1.5.2	Requirements have been specified	340-04-1836c of 07.10.2022	01.01.2023
6	Annex 2, para 4.2.2.1	Requirements for wear allowance have been specified to align their values with the requirements of the Rules for Construction	340-04-1836c of 07.10.2022	01.01.2023
7	Annex 2, Table 4.2.2.1-2	Table has been deleted to align the values of wear allowances with the requirements of the Rules for Construction	340-04-1836c of 07.10.2022	01.01.2023
8	Annex 2, para 4.2.3.3	Requirement for determination of permissible residual thickness of a girder member and requirement for assessment of technical condition of series of ships, where the keel of the prototype ship was laid before 1 October 1990, have been specified	340-04-1836c of 07.10.2022	01.01.2023
9	Annex 2, para 4.2.5	Requirement for assessment of technical condition of series of ships, where the keel of the prototype ship was laid before 1 October 1990, has been specified	340-04-1836c of 07.10.2022	01.01.2023

RULES FOR THE CLASSIFICATION SURVEYS OF SHIPS IN SERVICE, 2022,

ND No. 2-020101-012-E

PART I. GENERAL PROVISIONS

5 ASSESSMENT OF THE SHIP TECHNICAL CONDITION

1 **Para 5.12.4.** The first sentence is replaced by the following text:

"5.12.4 The permissible residual scantlings calculated using standards specified in 4.2.1 — 4.2.5 of Annex 2 to these Rules shall be determined for all hull members, hull cross-sections, parameters of which are regulated by the effective Rules for Construction and for which the residual thickness measurements shall be performed when the ship is in service. The possibility of using previous editions of the Rules for Construction shall be agreed with RHO."

ANNEXES TO THE RULES FOR THE CLASSIFICATION SURVEYS OF SHIPS IN SERVICE, 2022,

ND No. 2-020101-012-E

ANNEX 2

INSTRUCTIONS FOR DETERMINATION OF THE TECHNICAL CONDITION AND REPAIR OF THE HULLS OF SEA-GOING SHIPS

2 INSTRUCTIONS ON ASSESSMENT OF THE HULL TECHNICAL CONDITION

2 **Para 2.2.3.1.** The last paragraph is replaced by the following text:

"During evaluation of allowable wear, the permissible residual thickness of a girder member [S_1] shall be determined. The permissible residual thickness of a girder member shall not be less than the thickness at which the conditions for permissible residual girder section modulus [W_1] and/or permissible residual web cross-sectional area [F_1] (depending on what is regulated by the Rules for Construction) are met, and the permissible residual face plate thickness shall not be less than the thickness at which the condition for permissible residual girder section modulus [W_1] is met."

3 PROCEDURE OF INSPECTION (FLAW DETECTION) OF THE SHIP'S HULL

3 **Para 3.2.1.2** is replaced by the following text:

"3.2.1.2 The type of wear of a hull member shall be determined visually during the ship survey and based on the random measurements of residual thickness."

4 **Para 3.2.2.2.** The first sentence is replaced by the following text:

"3.2.2.2 The residual hull section modulus $W'_{d(b)}$ shall be calculated in accordance with the effective Rules for Construction with due regard to the bending moments stipulated for the ship hogging and sagging. The possibility of using previous editions of the Rules for Construction shall be agreed with RHO."

4 STANDARDS FOR HULL WITH DEFECTS

5 **Para 4.1.5.2.** The first paragraph is replaced by the following text:

"4.1.5.2 For a ship, in which the parameters of defects exceed 75 % of permitted values¹, the standards for similar members or the date of next survey may be specified in accordance with 4.4 and, at the RS surveyor's discretion, submitted by the shipowner or shipowner's representative to the Register for agreement in the following cases:"

6 **Para 4.2.2.1.** Explication to Formula (4.2.2.1-1) is replaced by the following text:

"where m_1 = factor to be adopted from Table 4.2.2.1-1;
 S = plate thickness, in mm, required by the Rules for Construction without taking into consideration the requirements for minimal thickness;
 ΔS = wear allowance, in mm, to be determined from the Rules for Construction."

7 **Table 4.2.2.1-2** is deleted.

8 **Para 4.2.3.3.** The second and third paragraphs are replaced by the following text:

"The permissible residual thickness of a girder member shall not be less than the thickness at which the conditions for permissible residual section modulus $[W_1]$ of a girder and/or permissible residual area $[F_1]$ of a girder web cross-section according to Formula (4.2.3.2) (depending on what is regulated by the Rules for Construction) are met, and the permissible residual face plate thickness shall not be less than the thickness at which the condition for permissible residual section modulus $[W_1]$ of a girder according to Formula (4.2.3.1) is met.

The permissible residual thickness $[S_1]$, in mm, of a girder element shall additionally comply with the following:

in the general case

$$[S_1] \geq 0,65 S_{\min}; \quad (4.2.3.3-2)$$

for ships built to the RS Rules whose keel was laid before 1 October 1990 (upon agreement with the Register may be applied to series of ships built to the RS Rules irrespective the keel laying date, provided that the keel of the prototype ship was laid before 1 October 1990)

$$[S_1] \geq 0,5 S_0; \quad (4.2.3.3-3)$$

for ships built to the RS Rules whose keel was laid on or after 1 October 1990 as well as to the rules of other classification societies or without technical supervision of any classification society

$$[S_1] \geq 0,7 S_0 \quad (4.2.3.3-4)$$

where S_{\min} = minimal girder element thickness, in mm, required by the Rules for Construction;
 S_0 = as-built girder element thickness, in mm.

For a trapezoidal corrugation, the following condition shall be additionally met:

$$[S_1] \geq 12,5b/\sqrt{\eta} \quad (4.2.3.3-5)$$

where b = trapezoidal corrugation thickness, in m, in the plane parallel to the bulkhead plane;
 η = mechanical properties utilization factor for the steel of trapezoidal corrugations, to be adopted from the Rules for Construction."

9 **Para 4.2.5** is replaced by the following text:

"4.2.5 Local strengthening.

In case of total wear, the permissible residual thickness $[S_1]$, in mm, of local strengthening is determined from the formulae:

for ships built to the RS Rules whose keel was laid before 1 October 1990 (upon agreement with the Register may be applied to series of ships built to the RS Rules irrespective the keel laying date, provided that the keel of the prototype ship was laid before 1 October 1990)

$$[S_1] \geq 0,5S_0; \quad (4.2.5-1)$$

for ships built to the RS Rules whose keel was laid on or after 1 October 1990 as well as to the Rules of other classification societies or without technical supervision of any classification society

$$[S_1] \geq 0,7S_0 \quad (4.2.5-1)$$

where S_0 = as-built thickness, in mm, of local strengthening."