



# RUSSIAN MARITIME REGISTER OF SHIPPING

---

**CIRCULAR LETTER**

**No. 314-04-1684c**

dated 11.01.2022

---

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships

---

Item(s) of supervision:

materials

---

Entry-into-force date:

**01.03.2022**

---

~~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 XIII "Materials"

---

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, as well as interested organizations and persons in the area of the RS Branch Offices' activity.
  2. Apply the provisions of the Circular Letter when performing technical supervision during manufacture of materials applied on the items of the RS technical supervision contracted for construction on or after 01.03.2022, or when performing technical supervision during manufacture of materials where the item of application is not specified, requested on or after 01.03.2022.
- 

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

Rules for the Classification and Construction of Sea-Going Ships:

Part XIII: paras 3.3.3, 3.15.2.1 and Table 5.1.3-2

---

Person in charge: Sergey M Kordonets, 314  
Maxim E. Yurkov

+7 (812) 314-07-34

---

"Thesis" System No. 21-293781

**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	Para 3.3.3	Requirements for the scope of testing of steel for boilers, heat exchangers and pressure vessels have been specified	314-04-1684c of 11.01.2022	01.03.2022
2	Para 3.15.2.1	Requirements for allowable manufacturing method of steel ropes have been specified	314-04-1684c of 11.01.2022	01.03.2022
3	Table 5.1.3-2	Requirements for mechanical properties for alloy 1561 extruded products have been specified	314-04-1684c of 11.01.2022	01.03.2022

**RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2021,**

**ND No. 2-020101-138-E**

**PART XIII. MATERIALS**

**3 STEEL AND CAST IRON**

1 **Para 3.3.3** is replaced by the following text:

**"3.3.3 Mechanical properties.**

The mechanical properties of steel at room and elevated temperature shall be in accordance with standards.

The properties of steel shall be confirmed by the following tests if they are provided in agreed standards:

tensile test (tensile strength, yield stress and elongation are determined);

bend test;

impact test (*KCU* or *KV*).

The tensile test at elevated temperature and the ageing test shall be carried out if required by the relevant parts of the Rules or by standards.

The values of long-term stress-rupture strength of metal shall be submitted to the Register."

2 **Para 3.15.2.1** is replaced by the following text:

**"3.15.2.1** For the manufacture of ropes, wire with a coating to protect it from corrosion and a tensile strength not less than 1180 MPa shall be used. For the manufacture of specialized ropes intended for operation in closed spaces, wire without a coating to protect it from corrosion (non-galvanized wire) may be used."

**5 ALLUMINIUM ALLOYS**

3 **Table 5.1.3-2** is replaced by the following text:

"Table 5.1.3-2

**Mechanical properties for extruded products**

Grade	Temper condition	Thickness <i>t</i> , mm	Yield stress <i>R<sub>p0.2</sub></i> , N/mm <sup>2</sup> , min.	Tensile strength <i>R<sub>m</sub></i> , N/mm <sup>2</sup> , min.	Elongation, % min.	
					<i>A<sub>50</sub></i> mm	<i>A<sub>5d</sub></i>
5083	O	3 ≤ <i>t</i> ≤ 50	110	270 — 350	14	12
	H111		165	275	12	10
	H112		110	270	12	10
5383	O	3 ≤ <i>t</i> ≤ 50	145	290	17	17
	H111		145	290	17	17
	H112		190	310		13
5059	H112	3 ≤ <i>t</i> ≤ 50	200	330		10
5086	O	3 ≤ <i>t</i> ≤ 50	95	240 — 315	14	12
	H111		145	250	12	10
	H112		95	240	12	10
6005A	T5	3 ≤ <i>t</i> ≤ 50	215	260	9	8
		3 ≤ <i>t</i> ≤ 10	215	260	8	6
	T6	10 ≤ <i>t</i> ≤ 50	200	250	8	6
6061	T6	3 ≤ <i>t</i> ≤ 50	240	260	10	8

Grade	Temper condition	Thickness $t$ , mm	Yield stress $R_{p0,2}$ , N/mm <sup>2</sup> , min.	Tensile strength $R_m$ , N/mm <sup>2</sup> , min.	Elongation, % min.	
					$A_{50}$ mm	$A_{5d}$
6082	T5	$3 \leq t \leq 50$	230	270	8	6
	T6	$3 \leq t \leq 5$	250	290	6	6
		$5 \leq t \leq 50$	260	310	10	8
National alloys <sup>1)</sup>						
1530	O/H111/H112	$3 \leq t \leq 12,5$	80	175	12	–
		$12,5 \leq t \leq 50$			–	12
1550	O/H111/H112	$3 \leq t \leq 12,5$	125	255	13	–
		$12,5 \leq t \leq 50$			–	13
1561 <sup>2)</sup>	O/H111/H112	$3 \leq t \leq 12,5$	205	335	11	–
		$12,5 \leq t \leq 50$			–	11
1565 <sub>4</sub>	O/H112	$3 \leq t \leq 12,5$	185	335		12
		$5,5 \leq t \leq 50$	185	335		12
1575	O/H111/H112	$3 \leq t \leq 12,5$	295	400	11	–
		$12,5 \leq t \leq 50$			–	11
1581	O/H112	All thicknesses	215	355	–	12

<sup>1)</sup> The mechanical properties specified for national alloys also cover hollow sections made of these alloys if their cross section does not exceed 60 mm<sup>2</sup> or the diameter of a circumscribed circle is equal or less than 250 mm.

<sup>2)</sup> Reduction of the yield stress rated value for pipes to 167 MPa is permitted provided the value is stipulated in the agreed normative documents.

Note. The values in the Table are applicable for both longitudinal and transverse specimens.