



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 314-04-1557c

dated 30.04.2021

Re:

amendments to the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, 2021, ND No. 2-020101-139-E

Item(s) of supervision:

ships under construction

Entry-into-force date:

01.06.2021

~~Valid till:~~

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

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Number of pages:

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Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Part III "Technical Supervision during Manufacture of Materials"

Director General

Konstantin G. Palnikov

Text of CL:

We hereby inform the Rules for the Technical Supervision during Construction of Ships in 2021, they 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 01.06.2021, in the absence of a contract, on ships, the keels of which are laid or which are at a similar stage of construction on or after 01.06.2021, as well as during review and approval of the technical documentation on ships, the delivery of which is on or after 01.06.2021.

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

Part III: Tables 2.2.5.2.3 and 4.3.3.1-1 and para 6.6.2.1.2

Person in charge: Maxim E. Yurkov

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+7 (812) 312-85-72

"Thesis" System No. 21-85624

**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	Table 2.2.5.2.3	Requirements for new corrosion-resistant alloy 04X20H6Г11M2AФБ have been introduced	314-04-1557c of 30.04.2021	01.06.2021
	Table 4.3.3.1-1	Requirements for new corrosion-resistant alloy 04X20H6Г11M2AФБ have been introduced	314-04-1557c of 30.04.2021	01.06.2021
	Para 6.6.2.1.2	Requirements for new corrosion-resistant alloy 04X20H6Г11M2AФБ have been introduced	314-04-1557c of 30.04.2021	01.06.2021

**RULES FOR THE RULES FOR TECHNICAL SUPERVISION DURING CONSTRUCTION
OF SHIPS AND MANUFACTURE OF MATERIALS AND PRODUCTS FOR SHIPS, 2021,**

ND No. 2-020101-139-E

PART III. TECHNICAL SUPERVISION DURING MANUFACTURE OF MATERIALS

2 METALS

1 Table 2.2.5.2.3 is replaced by the following text:

"Table 2.2.5.2.3

Type of tests	Position of the samples and direction of the test specimens	Remarks
Chemical analysis ¹	Top	Bulk analysis, including additions and microalloying elements
Tensile test at room and elevated temperature	Top and bottom, longitudinal ²	$R_{p0.2}$, R_m , A_5 (%), Z shall be reported
Impact test, <i>KV</i> , <i>KCV</i> , for class M-1, MF-2, F-3, AM-4, AF-8, A-9 steels	Top, longitudinal	Test temperature, in °C
		+20 0
Impact test at negative temperature, <i>KV</i> , <i>KCV</i> , for class: M-1 AF-8, A-9 M-1 ³ , AM-4 A-5, A-6 steels	Top, longitudinal	Test temperature, °C
		-20
		-40
		-60
		-165
Ultrasonic testing	Over volume	
Macro examination	Top	
Control of non-metallic inclusion content	Top	
Grain size control	Top and bottom	For class F3, AM-4, A-5, A-6, A-7, AF-8, A-9 steels
Ferritic phase testing	Top	For class A-5, A-6, A-7, A-9 steels
Susceptibility to intergranular corrosion	Top, longitudinal	Except for class M-1 ⁴ steel
Micro examination	Top and bottom	
¹ Chemical analysis of ladle sample is also required. ² Transverse, radial or tangential specimens may be used. ³ For steel mark 07X16H4B only. ⁴ Steel 07X16H4B is subject to testing.		

"

2 Table 4.3.3.1-1 is replaced by the following text:

"Table 4.3.3.1-1

Grouping system for steels according to ISO/TR 15608

Group	Subgroup	Types of steel
1		Steels with a specified minimum yield strength $R_{eH}^{(1)} \leq 460$ and with analysis in, % macc.: ²⁾ $C \leq 0,25$; $Si \leq 0,60$; $Mn \leq 1,80$; $Mo \leq 0,70$; $S \leq 0,045$; $P \leq 0,045$; $Cu \leq 0,40$; $Ni \leq 0,5$; $Cr \leq 0,3$ (0,4 for castings); $Nb \leq 0,06$; $V \leq 0,10$; $Ti \leq 0,05$
	1.1	Steels with a specified minimum yield strength $R_{eH} \leq 275$ N/mm ²
	1.2	Steels with a specified minimum yield strength 275 N/mm ² < $R_{eH} \leq 360$ N/mm ²
	1.3	Normalized fine grain steels with a specified minimum yield strength $R_{eH} > 360$ N/mm ²
	1.4	Steels with improved atmospheric corrosion resistance whose analysis may exceed the requirements for the single elements as indicated under 1
2		Thermomechanically treated fine grain steels and cast steels with a specified minimum yield strength $R_{eH} > 360$ N/mm ²
	2.1	Thermomechanically treated fine grain steels and cast steels with a specified minimum yield strength 360 N/mm ² < $R_{eH} \leq 460$ МПа
	2.2	Thermomechanically treated fine grain steels and cast steels with a specified minimum yield strength $R_{eH} > 460$ N/mm ²
3		Quenched and tempered steels and precipitation hardened steels except stainless steels with a specified minimum yield strength $R_{eH} > 360$ N/mm ²
	3.1	Quenched and tempered steels with a specified minimum yield strength 360 N/mm ² < $R_{eH} \leq 690$ N/mm ²
	3.2	Quenched and tempered steels with a specified minimum yield strength $R_{eH} > 690$ N/mm ²
	3.3	Precipitation hardened steels except stainless steels
4		Low vanadium alloyed steels Cr-Mo-(Ni) with $Mo \leq 0,7$ % and $V \leq 0,1$ %
	4.1	Steels with $Cr \leq 0,3$ % and $Ni \leq 0,7$ %
	4.2	Steels with $Cr \leq 0,7$ % and $Ni \leq 1,5$ %
5		Cr-Mo steels free of vanadium with $C \leq 0,35$ % ³⁾
	5.1	Steels with $0,75$ % $\leq Cr \leq 1,5$ % and $Mo \leq 0,7$ %
	5.2	Steels with $1,5$ % < $Cr \leq 3,5$ % and $0,7$ % < $Mo \leq 1,2$ %
	5.3	Steels with $3,5$ % < $Cr \leq 7,0$ % and $0,4$ % < $Mo \leq 0,7$ %
	5.4	Steels with $7,0$ % < $Cr \leq 10,0$ % and $0,7$ % < $Mo \leq 1,2$ %
6		High vanadium alloyed Cr-Mo-(Ni) steels
	6.1	Steels with $0,3$ % $\leq Cr \leq 0,75$ %, $Mo \leq 0,7$ % and $V \leq 0,35$ %
	6.2	Steels with $0,75$ % < $Cr \leq 3,5$ %; $0,7$ % < $Mo \leq 1,2$ % and $V \leq 0,35$ %
	6.3	Steels with $3,5$ % < $Cr \leq 7,0$ %; $Mo \leq 0,7$ % and $0,45$ % $\leq V \leq 0,55$ %
	6.4	Steels with $7,0$ % < $Cr \leq 12,5$ %; $0,7$ % < $Mo \leq 1,2$ % and $V \leq 0,35$ %
7		Ferritic, martensitic or precipitation hardened steels with $C \leq 0,35$ % and $10,5$ % $\leq Cr \leq 30$ %
	7.1	Ferritic stainless steels
	7.2	Martensitic stainless steels
	7.3	Precipitation hardened stainless steels
8		Austenitic stainless steels
	8.1	Austenitic stainless steels with $Cr \leq 19$ %
	8.2	Austenitic stainless steels with $Cr > 19$ %
	8.3	Manganese austenitic stainless steels with $4,0$ % < $Mn \leq 12,0$ %
	8.4	Austenitic stainless steels with $Cr > 18$ %; 4 % < $Mn \leq 12$ % and 3 % < $Ni \leq 8$ %
9		Nickel alloy steels with $Ni \leq 10,0$ %
	9.1	Nickel alloy steels with $Ni \leq 3,0$ %
	9.2	Nickel alloy steels with $3,0$ % < $Ni \leq 8,0$ %
	9.3	Nickel alloy steels with $8,0$ % < $Ni \leq 10,0$ %
10		Austenitic ferritic stainless steels (duplex)
	10.1	Austenitic ferritic stainless steels with $Cr \leq 24,0$ %
	10.2	Austenitic ferritic stainless steels with $Cr > 24,0$ %

Group	Subgroup	Types of steel
11		Steels covered by group 1 except $0,25 \% < C \leq 0,85 \%$ ⁴⁾
	11.1	Steels as indicated under 11 with $0,25 \% < C \leq 0,35 \%$
	11.2	Steels as indicated under 11 with $0,35 \% < C \leq 0,5 \%$
	11.3	Steels as indicated under 11 with $0,5 \% < C \leq 0,85 \%$
¹⁾ In accordance with the specification of the steel product standards R_{eH} may be replaced by $R_{p0,2}$ or $R_{p0,5}$. ²⁾ A higher value is accepted, provided that $Cr+Mo+Ni+Cu+V \leq 0,75 \%$. ³⁾ "Free of vanadium" means not deliberately added to the material. ⁴⁾ A higher value is accepted, provided that $Cr+Mo+Ni+Cu+V \leq 1 \%$.		

3 **Para 6.6.2.1.2** is replaced by the following text:

"6.6.2.1.2 High-strength steels.

When specifying the range of welding procedure approval for high-strength steels complying with the requirements of 3.13, Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships, the following requirements shall be met:

- .1 for each strength level of the base metal, the range of approval for a welding procedure is considered applicable to the same and lower toughness grades as that tested;
- .2 for each grade of the base metal toughness grade, the range of approval for a welding procedure is considered applicable to the same and one lower strength level as that tested;
- .3 the approval of quenched and tempered steels does not qualify thermo-mechanically rolled steels (TM steels) and vice versa;
- .4 for austenitic stainless steels, when specifying the range of the procedure approval, the welding shall be performed at high heat input not exceeding 35 kJ/cm."