



# RUSSIAN MARITIME REGISTER OF SHIPPING

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**CIRCULAR LETTER**

**No. 314-01-1328c**

dated 14.02.2020

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Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships, 2020, ND No. 2-020101-124-E

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Item(s) of supervision:

welding consumables

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Entry-into-force date:

**01.04.2020**

Valid till:-

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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 XIV "Welding"

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Director General

Konstantin G. Palnikov

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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.

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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 of consumables requested for approval on or after 01.04.2020.
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List of the amended and/or introduced paras/chapters/sections:

Part XIV: paras 4.1.4 and 4.1.8.2, Tables 4.3.3.1 and 4.5.2.1

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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	Para 4.1.4	Requirements for the assignment of grades of welding consumables during surveys with the aim of issuance of the Certificate of Approval of Welding Consumables have been specified	314-01-1328c of 14.02.2020	01.04.2020
2	Пункт 4.1.8.2	Requirements for drawing up the Certificate of Approval of Welding Consumables when upgrading the welding consumable have been specified	314-01-1328c of 14.02.2020	01.04.2020
3	Table 4.3.3.1	Requirements for PG welding position have been specified	314-01-1328c of 14.02.2020	01.04.2020
4	Table 4.5.2.1	Requirements for PG welding position have been specified	314-01-1328c of 14.02.2020	01.04.2020

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

**ND No. 2-020101-124-E**

### **PART XIV. WELDING**

#### **4 WELDING CONSUMABLES**

1 **Para 4.1.4** is replaced by the following text:

**"4.1.4 Certificate of Approval for Welding Consumables.**

**4.1.4.1** Upon satisfactory completion of the survey and tests required in this Section to the extent of the initial approval, the Register issues to a manufacturer the Certificate of Approval for Welding Consumables of a set form. The approved welding consumables and manufacturers shall be registered and entered in the special list located at the Register website (<http://www.rs-class.org/ru> → "Online information" → "Approved materials and products, service suppliers, companies" → Certificate of Approval for Welding Consumables).

**4.1.4.2** Upon satisfactory completion of tests, the Register assigns one grade to the relevant welding consumable requested by the manufacturer. In accordance with the requirements of 2.2.4.4, on the manufacturer's request, the Register may assign to the welding consumable additional grades within one temperature value of impact test upon receiving satisfactory test results. In this case preparation and welding of test assemblies shall be carried out in accordance with the requirements of 4.2.1."

2 **Para 4.1.8.2** is replaced by the following text:

**"4.1.8.2** Tests on upgrading of welding consumables are carried out at the manufacturer's request and are generally combined with annual re-approval tests of the welding consumables. The scope of the tests for upgrading of welding consumables shall comply with the requirements in 4.3.8.2, 4.4.4.2, 4.5.5.2 and 4.6.3.2 for the relevant types of welding consumables. Upon satisfactory completion of tests, the new Certificate of Approval for Welding Consumables is issued for the grade specified by the manufacturer. Herewith the validity of the previously issued Certificate is ceased, and the grades specified therein become void."

3 **Table 4.3.1.1** is replaced by the following text:

"Table 4.3.1.1

Test assembly						Number and type of specimens <sup>2</sup>
Type	Welding position <sup>1</sup>	Electrode diameter, mm	Number	Thickness, mm	Dimensions	
Deposited metal	PA	Ø 4	1	20	Refer to Fig. 4.3.2.1	1LT+3KV
		Max. Ø	1			
Butt weld	PA	1 <sup>st</sup> run: Ø 4 Intermediate: Ø 5 Last two layers max. Ø	1	15 – 20	Refer to Fig. 4.3.3.1	1TT+1RB+1FB+3KV
	PF	1 <sup>st</sup> run: Ø 3,0 or 3,25 Remaining runs: Ø 4	1			1TT+1RB+1FB+3KV
	PG	Refer to 4.3.3.2	1			1TT+1RB+1FB+3KV
	PC	1 <sup>st</sup> run: Ø 4,0 Remaining runs: Ø 5	1			1TT+1RB+1FB+3KV
	PE	1 <sup>st</sup> run: Ø 3,0 or 3,25 Remaining runs: Ø 4	1			1TT+1RB+1FB+3KV
Fillet weld	PB	1 <sup>st</sup> side: min. Ø	1	15 – 20	Refer to Fig. 4.3.6.2	M+FF+HV
		2 <sup>nd</sup> side: max. Ø				

<sup>1</sup> Welding positions are designated according to ISO 6947.

<sup>2</sup> The following abbreviations are used for the type of specimens:

LT – longitudinal cylindrical tensile test specimen;

TT – transverse flat tensile test specimen;

RB – transverse root bend test specimen;

FB – transverse face bend test specimen;

KV – transverse Charpy V-notch impact test specimen;

FF – fillet fracture test specimen;

M – transverse macrosection;

HV – hardness measurement specimen.

4 **Table 4.5.2.1** is replaced by the following text:

"Table 4.5.2.1

Test assembly						Number and type of specimens <sup>3</sup>
Type	Welding position <sup>1,2</sup>	Electrode diameter, mm	Number	Thickness, mm	Dimensions	
Deposited metal	PA	1,2 or min. Ø	1	20	Refer to Fig. 4.3.2.1	1LT+3KV
		Max. Ø	1 <sup>4</sup>			
Butt weld	PA	1 <sup>st</sup> run: 1,2 or min. Ø	1 <sup>5</sup>	15 – 20	Refer to Fig. 4.3.3.1	1TT+1RB+1FB+3KV
		Remaining runs max. Ø				
	PF	1	1TT+1RB+1FB+3KV			
	PG	1	1TT+1RB+1FB+3KV			
	PC	1	1TT+1RB+1FB+3KV			
PE	1	1TT+1RB+1FB+3KV				
Fillet weld	6	1 <sup>st</sup> side: min. Ø	1	15 – 20	Refer to Figs. 4.3.6.2 and 4.3.6.3	M+FF+HV
		2 <sup>nd</sup> side: max. Ø				

<sup>1</sup> Welding positions are designated according to ISO 6947 ICO 6947.

<sup>2</sup> When the approval is requested only for one or limited number of welding positions, the butt weld test assemblies shall be welded in such positions only.

<sup>3</sup> The following abbreviations are used for the type of specimens:

LT – longitudinal cylindrical tensile test specimen;

TT – transverse flat tensile test specimen;

RB – transverse root bend test specimen;

FB – transverse face bend test specimen;

KV – transverse Charpy V-notch impact test specimen;

FF – fillet fracture test specimen;

M – transverse macrosection;

HV – hardness measurement specimen.

<sup>4</sup> When the approval is requested only for one diameter, only one deposited metal test assembly shall be prepared.

<sup>5</sup> When the approval is requested for a downhand welding position only, two test assemblies shall be prepared in this position: one using the largest diameter wire, and another using the wire of an increasing diameter from the first to the last run.

<sup>6</sup> Fillet weld test assemblies shall be welded in the position required for approval.