



# RUSSIAN MARITIME REGISTER OF SHIPPING

**CIRCULAR LETTER**

**No. 314-01-1459c**

dated 12.11.2020

Re:

amendments to the Rules for the Classification, Construction and Equipment of Mobile Offshore Drilling Units and Fixed Offshore Platforms (MODU/FOP), 2018, ND No. 2-020201-015-E

Item(s) of supervision:

MODU/FOP under construction

Entry-into-force date:

**15.12.2020**

~~Valid till:~~

~~Validity period extended till:~~

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

~~dated~~

Number of pages:

1 + 7

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Parts II "Hull", XII "Materials" and XIII "Welding"

Director General

Konstantin G. Palnikov

Text of CL:

We hereby inform that the Rules for the Classification, Construction and Equipment of Mobile Offshore Drilling Units and Fixed Offshore Platforms shall be amended as specified in the Appendices to the Circular Letter. The amendments will be introduced into the Rules at their re-publication.

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 MODU and FOP contracted for construction or conversion on 15.12.2020 or after, in the absence of a contract — on MODU and FOP, the keels of which are laid or which are at a similar stage of construction on 15.12.2020 or after.

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

Part II: paras 1.5.1.1, 1.5.1.2 and 1.5.1.4, Tables 1.5.1.2 and 1.5.1.5

Part XII

Part XIII: paras 2.2.2.4, 2.4.1, 2.5.1, 2.5.3 and 2.7.1.19, Section 4

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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 II, para 1.4.1.1	Definition of special structural elements has been amended	314-01-1459c of 12.11.2020	15.12.2020
2	Part II, para 1.5.1	Requirements in paras 1.5.1.1, 1.5.1.2 and 1.5.1.4, and Tables 1.5.1.2 and 1.5.1.5 have been amended in connection with amendments introduced into Part XII "Materials" of the MODU/FOP Rules and Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships considering IACS recommendation No. 11 (Rev.3 Oct 2019)	314-01-1459c of 12.11.2020	15.12.2020
3	Part XII	The Part has been completely revised. Sections 3 – 7 have been deleted considering IACS UR W11	314-01-1459c of 12.11.2020	15.12.2020
4	Part XIII, para 2.2.2.4	A new para with the requirements for CTOD testing during approval of welding procedures of steels with "Arc" index has been introduced	314-01-1459c of 12.11.2020	15.12.2020
5	Part XIII, para 2.4.1	Requirements for materials for manufacture of welded structures have been specified	314-01-1459c of 12.11.2020	15.12.2020
6	Part XIII, para 2.5.1	A reference to Part XIV "Welding" of the Rules for the Classification and Construction of Sea-Going Ships has been specified	314-01-1459c of 12.11.2020	15.12.2020
7	Part XIII, para 2.5.3	The para has been revised; requirements for CTOD testing have been transferred to Part XIII "Materials of the Rules for the Classification and Construction of Sea-Going Ships	314-01-1459c of 12.11.2020	15.12.2020

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
8	Part XIII, para 2.7.1.19	A reference to Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships has been specified	314-01-1459c of 12.11.2020	15.12.2020
9	Part XIII, Section 4	The Section has been deleted. Its requirements have been revised and transferred to Part III "Technical Supervision during Manufacture of Materials" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships	314-01-1459c of 12.11.2020	15.12.2020

**RULES FOR THE CLASSIFICATION, CONSTRUCTION AND EQUIPMENT OF MOBILE  
OFFSHORE DRILLING UNITS AND FIXED OFFSHORE PLATFORMS, 2018,**

**ND No. 2-020201-015-E**

**PART II. HULL**

**1 GENERAL**

1 **Para 1.4.1.1** is replaced by the following text:

"**1.4.1.1** Special structural elements are those portions of primary structural elements which are in way of critical load transfer points, stress concentrations, etc.".

2 **Paras 1.5.1.1 and 1.5.1.2** are replaced by the following text:

"**1.5.1.1** For the manufacture of MODU/FOP structures, the steel approved by the Register and complying with the requirements of Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships shall be used.

**1.5.1.2** The steel grade for particular structural element of MODU/FOP shall be determined from Table 1.5.1.2 reasoning from the design temperature of the structural material and the function of the element according to the requirements of 1.4.".

3 **Table 1.5.1.2** is replaced by the following text:

"Table 1.5.1.2

Structural elements	Steel grade for MODU/FOP	Design temperature of structural material, in °C						
		0	-10	-20	-30	-40	-50	-60
		Max. thickness of structural element, in mm						
Secondary	A	30	20	10	—	—	—	—
	B	40	30	20	10	—	—	—
	D	50	50	45	35	25	15	—
	E	50	50	50	50	45	35	25
	F	50	50	50	50	50	50	45
	A32, A36, A40	40	30	20	10	—	—	—
	D32, D36, D40	50	50	45	35	25	15	—
	E32, F36, E40	50	50	50	50	45	35	25
	F32, F36, F40	50	50	50	50	50	50	45
	AH420, AH460, AH500	40	25	10	—	—	—	—
	DH420, DH460, DH500	50	45	35	25	15	—	—
	EH420, EH460, EH500	50	50	50	45	35	25	15
	FH420, FH460, FH500	50	50	50	50	50	45	35

Structural elements	Steel grade for MODU/FOP	Design temperature of structural material, in °C						
		0	-10	-20	-30	-40	-50	-60
		Max. thickness of structural element, in mm						
Primary	A	20	10	—	—	—	—	—
	B	25	20	10	—	—	—	—
	D	45	40	30	20	10	—	—
	E	50	50	50	40	30	20	—
	F	50	50	50	50	40	30	25
	A32, A36, A40	25	20	10	—	—	—	—
	D32, D36, D40	45	40	30	20	10	—	—
	E32, F36, E40	50	50	50	40	30	20	15
	F32, F36, F40	50	50	50	50	50	40	30
	AH420, AH460, AH500	20	—	—	—	—	—	—
	DH420, DH460, DH500	45	35	25	15	—	—	—
	EH420, EH460, EH500	50	50	45	35	25	15	—
	FH420, FH460, FH500	50	50	50	50	45	35	25
Special	A	15	—	—	—	—	—	—
	B	15	—	—	—	—	—	—
	D	30	20	10	—	—	—	—
	E	50	45	35	25	15	—	—
	F	50	50	50	45	35	25	15
	A32, A36, A40	15	—	—	—	—	—	—
	D32, D36, D40	30	20	10	—	—	—	—
	E32, F36, E40	50	45	35	25	15	—	—
	F32, F36, F40	50	50	50	50	40	30	20
	AH420, AH460, AH500	—	—	—	—	—	—	—
	DH420, DH460, DH500	25	15	—	—	—	—	—
	EH420, EH460, EH500	50	40	30	20	10	—	—
	FH420, FH460, FH500	50	50	50	40	30	20	10

Note. For intermediate temperature values, linear interpolation is permissible.

4 Para 1.5.1.4 is replaced by the following text:

"1.5.1.4 Special and primary structural elements taking up considerable loads directed through the thickness dimension of rolling shall be manufactured of Z-steel in compliance with the requirements of 3.14, Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships."

5 **Table 1.5.1.5** is replaced by the following text:

"Table 1.5.1.5

Steel grade for MODU/FOP	Standard yield stress, $R_{eH}$ , in MPa	Design yield stress $R_d$ , in MPa, for thickness, in mm		
		<30	30 — 50	50 — 70
A, B, D, E, F	235	235	215	200
A32, D32, E32, F32	315	315	295	280
A36, D36, E36, F36	355	355	335	320
A40, D40, E40, F40	390	390	370	355
AH420, DH420, EH420, FH420	420	420	390	365
AH460, DH460, EH460, FH460	460	460	430	390
AH500, DH500, EH500, FH500	500	500	480	440

## PART XII. MATERIALS

6 **Part XII** is replaced by the following text:

## "PART XII. MATERIALS

### 1 GENERAL

**1.1** Materials intended for welded structures, components of machinery and equipment of MODU/FOP, subject to the Register technical supervision, shall comply with the requirements of Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships and additional requirements of this Part.

**1.2** Testing of materials subject to technical supervision shall be carried out in accordance with the requirements of Section 2, Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships and procedures recognized by the Register, as well as national and international standards.

### 2 METALS

#### **2.1 Rolled stock for steel structures.**

Rolled stock intended for manufacture of structural members of MODU/FOP depending on the choice shall comply with the requirements of the relevant chapters of Section 3, Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships for indexed steels.

#### **2.2 Steel for boilers, heat exchangers and pressure vessels.**

**2.2.1** The steel intended for manufacture of pressure vessels and exposed to negative design temperatures shall be subjected to impact tests on specimens with sharp V-notch ( $KV_T$ ) and longitudinal axis perpendicular to the direction of final rolling. For impact tests of profiles and strip steel longitudinal specimens ( $KV_L$ ) may be selected. Impact tests of carbon and carbon-manganese steels shall be carried out at a temperature of at least 5 °C lower than the design temperature. In any case the mean value of impact  $KV_T$  for test pieces with section of 10 x 10 mm shall be not lower than 27 J and the mean value of impact  $KV_L$  not lower than 41 J.

**2.2.2** Steels with thickness above 15 mm intended for service at negative temperatures shall be subjected additionally to drop weight testing. The tests shall be performed on minimum

two specimens selected from semi-finished products of the largest thickness in each cast in accordance with the requirements of 2.2.6, Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships. Absence of steel susceptibility to brittle fracture shall be confirmed at the temperature 5 °C lower than the design temperature.

**2.2.3** Steel intended for manufacture of process tanks for storage and transportation of liquefied gases shall comply with the requirements of Part IX "Materials and Welding" of the Rules for the Classification and Construction of Ships Carrying Liquefied Gases in Bulk.

**2.3** Steel forgings and castings used at a design temperature below – 30 °C shall comply with the relevant paras of 3.5, Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships."

## **PART XIII. WELDING**

### **2 PROCESS REQUIREMENTS FOR MANUFACTURE OF MODU/FOP WELDED STRUCTURES**

7 A new para **2.2.2.4** is introduced reading as follows:

**"2.2.2.4** Qualification testing for approval of welding procedures of steels with "Arc" index shall be supplemented by the weld metal CTOD testing. The tests are carried out in accordance with 2.2.10.5, Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships and 6.7.4, Part III "Technical Supervision during Manufacture of Materials" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, according to the programs approved by the Register."

8 **Para 2.4.1** is replaced by the following text:

**"2.4.1** The materials employed in manufacture of welded structures of MODU and FOP subject to the Register technical supervision shall fully comply with the relevant requirements of Part XII "Materials" of the MODU/FOP Rules and Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships.

The weldability of base metal is considered approved in the course of testing aimed at approval of the base metal and recognition of the manufacturer by the Register.

Given below are general requirements stipulating the necessity for additional weldability tests, as employed in specific conditions of welded structures manufacture at firms."

9 **Para 2.5.1** is replaced by the following text:

**"2.5.1** The welding consumables employed in welding of structural elements of MODU and FOP subject to the Register technical supervision shall be approved by the Register in accordance with the requirements of Section 4, Part XIV "Welding" of the Rules for the Classification and Construction of Sea-Going Ships. At the same time, the use of welding consumables shall comply with instructions contained in their Type Approval Certificate, as well as requirements listed below."

10 **Para 2.5.3** is replaced by the following text:

**"2.5.3** The electrodes, combinations wire-flux and wire-gas intended for welding of special and primary structures made of higher- and high-strength steels shall ensure the content of diffusible hydrogen in the deposited metal corresponding to indices H10 or H5. Only electrodes with basic coating shall be used for the purpose.

For welding of secondary structures with thickness up to 20 mm not subjected to dynamic loads the electrodes with rutile coating may be used."

11 **Para 2.7.1.19** is replaced by the following text:

**"2.7.1.19** After completion of welding the temporary fastening and leveling fixtures shall be removed by methods excluding damage to base metal. In case of cuts-through and other damages to the base metal resulting from removal of temporary fastening fixtures they shall be eliminated by welding-up and dressing, providing smooth transition to the base metal.

The decrease or increase in thickness of the base metal after dressing shall not exceed the permissible deviations in plate thickness specified in 3.2.8 Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships.

*Note.* Subject to complete removal with subsequent dressing to base metal are remains of the fastening fixtures welds on special and primary structures. On other structures the tack welds up to 10 mm in height may be left without dressing, if the latter is not specified in the technical documentation."

12 **Section 4** is deleted.