RULES

FOR THE CARGO HANDLING GEAR OF SEA-GOING SHIPS

ND No. 2-020101-179-E

RULE CHANGE NOTICE

ENTERS INTO FORCE:

01.07.2025

St. Petersburg
2025

RULES FOR THE CARGO HANDLING GEAR OF SEA-GOING SHIPS

The present Rule Change Notice to Rules for the Cargo Handling Gear of Sea-Going Ships (hereinafter — RCN) has been approved in accordance with the established approval procedure and contains information on amendments, except for editorial amendments. RCN amendments come in force on 1 July 2025.

REVISION HISTORY

Item	Applicability	Description	Remarks
Para 3.1.5	Cargo handling gear of sea-going ships, fixed offshore platforms, and mobile offshore drilling units. Materials used in the manufacture of stress-bearing structures	Requirements for CTOD values of the base metal and HAZ metal have been introduced	
Tables 3.1.5-1 and 3.1.5-2	Cargo Handling Gear of Sea-Going Ships, Fixed Offshore Platforms, and Mobile Offshore Drilling Units. Materials used in the manufacture of stress-bearing structures	Requirement for CTOD testing has been introduced for structures with thicknesses of 60 mm or greater	
Table 3.1.5-3 (new)	Cargo handling gear of sea-going ships, fixed offshore platforms, and mobile offshore drilling units. Materials used in the manufacture of stress-bearing structures	Additional average CTOD values for the base metal and HAZ metal have been introduced for special structural members where tensile stress does not exceed 0.5_{Rp02} of the specified minimum yield strength	

3 MATERIALS AND WELDING

3.1 MATERIALS

Para 3.1.5 is amended as follows:

"**3.1.5** Mechanical properties and chemical composition of the rolled steel used for stress-bearing elements of metal structures of cargo handling gear and cargo-gripping devices shall comply with the respective requirements of 3.2, 3.5~~,~~ and 3.13, Part XIII "Materials" of the~~ for Rules the Classification and Construction of Sea-Going Ships~~ RS Rules/C considering the requirements of this Chapter.

The steel grade shall be selected depending on design temperature T_A of welded structures in compliance with Tables 3.1.5-1~~,~~ and 3.1.5-2 and considering the location of cargo handling gear and structural element group.

Design temperature of structures T_A shall be determined in compliance with 1.2.3, Part II "Hull" of the~~ Rules for the Classification and Construction of Sea-Going Ships~~ RS Rules/C.

Special elements include the structural elements, which destruction leads to destruction of cargo handling gear.

Primary elements include the structural elements subjected to high stresses.

The rest elements are the secondary elements.

For the structural elements loaded in Z-direction provision shall be made for the application of Z-steels.

The crack resistance parameter values for the base metal and welded joint metal (*CTOD*) of the base metal and the heat-affected zone (*HAZ*) metal for special structural members, where determination is required in accordance with Tables 3.1.5-1 and 3.1.5-2, shall comply with the requirements of paras 3.5.3.3.3.2 and 3.5.3.3.3.3 of Part XIII "Materials", the RS Rules/C.

If a strength calculation approved by the Register demonstrates that the acting tensile stresses in special structural members do not exceed $0.5R_{p02}$ of the specified minimum yield strength, the required average values of *CTOD* for the base metal and the *HAZ* metal shall be determined in accordance with Table 3.1.5-3. Linear interpolation and extrapolation are permitted.".

Tables 3.1.5-1 and **3.1.5-2** are amended as follows:

"Table 3.1.5-1

Impact test temperature of welded structural steel used for cargo handling gear installed on ships

Thickness, mm	Test temperature		
	Special elements	Primary elements	Secondary elements
<15	T_A + 10 °C	T_A + 20 °C	–
15 – 25	T_A	T_A + 10 °C	T_A + 20 °C
26 – 40	T_A – 20 °C	T_A	T_A + 10 °C
41 – 60	T_A – 30 °C	T_A – 10 °C	T_A
>60	Shall be agreed with the Register in each particular case after submitting the substantiation[1]	T_A – 20 °C	T_A – 10 °C

[1] To confirm applicability, the *CTOD* parameter values shall be determined at T_A.

Table 3.1.5-2

Impact test temperature of welded structural steel used for cargo handling gear installed on MODU/FOP

Thickness, mm	Test temperature		
	Special elements	Primary elements	Secondary elements
<15	T_A	T_A + 10 °C	T_A + 20 °C
15 — 25	T_A – 10 °C	T_A	T_A + 10 °C
26 — 40	T_A – 20 °C	T_A – 10 °C	T_A
41 — 60	T_A – 30 °C[1]	T_A – 20 °C	T_A – 10 °C
>60	Shall be agreed with the Register in each particular case after submitting the substantiation[1]	T_A – 30 °C	T_A – 20 °C

[1] ~~In order to confirm the use, the crack resistance parameter values shall be determined for the base metal and welded joint metal (CTOD) at the temperature T_A.~~ To confirm applicability, the *CTOD* parameter values shall be determined at T_A.

".

New Table 3.1.5-3 is introduced reading as follows:

"Table 3.1.5-3

Average value of *CTOD* for base metal and *HAZ* metal of structural steel for special structural components of cargo handling gear shall be not less than (in mm)

Thickness, mm	Strength level (specified minimum yield strength, R_{p02}, MPa)			
	390	500	620	690
41 — 60	0.13	0.14	0.14	0.14
61 — 80	0.16	0.16	0.17	0.17
81 — 100	0.18	0.18	0.19	0.20

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Russian Maritime Register of Shipping

Rule Change Notice
to the Rules for the Cargo Handling Gear of Sea-Going Ships

Endorsed: 25-111633

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