



# NATIONAL SHIPPING ADJUSTERS



## TECHNICAL LETTER No 14 - 2024

FROM: NASHA Technical Department  
 TO: NASHA exclusive surveyors-Owner  
 SUBJECT: AMENDMENTS BY IMO RES. 523 (106) INSTRUCTIVE FOR IGC  
 DATE: SEPTEMBER 14, 2024

To: Organization Members / Surveyors

Dear Exclusive Surveyors,

The purpose of this letter is to inform you of the updates in the Instructive for IGS, based on the amendments by IMO Resolution 523(106).

- The table 6.3 in Annex 1 has been revised taking into consideration the amendments of IMO MSC.523(106).

Table 6.3 - PLATES, SECTIONS AND FORGINGS See note 1 FOR CARGO TANKS, SECONDARY BARRIERS AND PROCESS PRESSURE VESSELS FOR DESIGN TEMPERATURES BELOW -55°C AND DOWN TO -165°C See note 2 Maximum thickness 25 mm See notes 3 and 4		
Minimum design temperature (°C)	Chemical composition (See note 5) and heat treatment	Impact test temperature (°C)
-60	1.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP See note 6	-65
-65	2.25% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP See notes 6 and 7	-70
-90	3.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP. See notes 6 and 7	-95
-105	5% nickel steel – normalized or normalized and tempered or quenched and tempered See notes 6, 7 and 8	-110
-165	9% nickel steel – double normalized and tempered or quenched and tempered See note 6	-196
-165	Austenitic steels, such as types 304, 304L, 316, 316L, 321 and 347 solution treated See note 9	-196
-165	High manganese austenitic steel – hot rolling and controlled cooling See notes 10 and 11	-196
-165	Aluminium alloys; such as type 5083 annealed	Not required
-165	Austenitic FeNi alloy (36% nickel). Heat treatment as agreed	Not required
TENSILE AND TOUGHNESS (IMPACT) TEST REQUIREMENTS		
Sampling frequency		
Plates	Each "piece" to be tested	
Sections and forgings	Each "batch" to be tested	
Toughness (Charpy V-notch test)		
Plates	Transverse test pieces. Minimum average energy value (KV) 27J	
Sections and forgings	Longitudinal test pieces. Minimum average energy (KV) 41J	
Notes		
1 The impact test required for forgings used in critical applications shall be subject to special consideration by the Administration.		
2 The requirements for design temperatures below 165°C shall be specially agreed with the Administration.		
3 For materials 1.5%Ni, 2.25% Ni, 3.5%Ni and 5% Ni, with thicknesses greater than 25 mm, the impact tests shall be conducted as follows:		
Material thickness (mm)	Test temperature (°C)	
25 < t ≤ 30	10°C below design temperature	



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$30 < t \leq 35$	15°C below design temperature
$35 < t \leq 40$	20°C below design temperature
The energy value shall be in accordance with the table for the applicable type of test specimen. For material thickness of more than 40mm, the Charpy V-notch values shall be specially considered.	
4 For 9% Ni steels, austenitic stainless steels, high manganese austenitic steels and aluminium alloys, thickness greater than 25 mm may be used.	
5 The chemical composition limits shall be in accordance with recognized standards.	
6 TMCP nickel steels will be subject to acceptance by the Administration.	
7 A lower minimum design temperature for quenched and tempered steels may be specially agreed with the Administration.	
8 A specially heat treated 5% nickel steel, for example triple heat treated 5% nickel steel, may be used down to 165°C, provided that the impact tests are carried out at 196°C.	
9 The impact test may be omitted, subject to agreement with the Administration.	
10 The use of the material shall be subject to the required conditions specified by the Administration based on the Guidelines developed by the Organization. * Refer to the Revised guidelines on the application of high manganese austenitic steel for cryogenic service (MSC.1/Circ.1599/Rev.2).	
11 The impact test may not be omitted for high manganese austenitic steel.	

- The procedure has been revised to incorporate the requirements of IMO Resolution A.1186(33) and A.1187(33).

This update will start on September 15, 2024.

**Waiting for your confirmation of “SAFE RECEIPT, READ and UNDERSTANDING”.**



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