



## TÜRK LOYDU RULE CHANGE SUMMARY

TL NUMBER: 04/2021

JULY 2021

Latest editions of TL Rules incorporate all rule changes. The latest rule revisions of a published rule are shown with a vertical line. Changes after the publication of the rule are written in red colour.

Please note that within this document added items are written in red and for deleted items strikethrough is applied. After the publication of relevant rule, those revisions are to be indicated with a vertical line. Following Rule Changes presented in English are also implemented into Turkish Version of Rules.

### RULE CHANGE SUMMARY

#### CHAPTER 01 – HULL

<u>No</u>	<u>Item</u>
01	<a href="#">Section 16</a>

#### ADDITIONAL RULE – SHIPBUILDING and REPAIR QUALITY STANDARD

<u>No</u>	<u>Item</u>
01	<a href="#">Section 1</a>
02	<a href="#">Section 2</a>

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## PART A – CHAPTER 01 – HULL

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### 01. Section 16 – Hull Outfitting

**Revision Date:** July 2021

**Entry into Force Date:** 1 August 2021

Item F.1.3.2 was revised according to UI LL50 Rev.6 as below:

**1.3.2** A permanent and efficiently constructed gangway fitted at or above the level of the superstructure deck on or as near as practicable to the centre line of the ship, providing a continuous platform at least 0.6 m in width and a non-slip surface, with guard rails extending on each side throughout its length. Guard rails are to be at least 1 m high with courses as required in 2.2, ~~and supported by stanchions spaced not more than 1.5 m;~~ a foot-stop is to be provided.

Item F.1.3.4 was revised according to UI LL50 Rev.6 as below:

**1.3.4** A ~~40 mm diameter~~ wire rope lifeline **not less than 10 mm in diameter**, supported by stanchions ~~about not more than~~ 10 m. apart, or ~~A~~ a single hand rail or wire rope attached to hatch coamings, continued and ~~adequately~~ supported between hatchways.

Note 1 under item F.1.3.6 was revised according to UI LL50 Rev.6 as below:

**Notes:**

1. *In all cases where wire ropes are fitted, adequate devices (for example turnbuckles) are to be provided to ensure their tautness.*

Footnote of Table 16.5 was revised according to UI LL50 Rev.6 as below:

**(\*)** *Oil Tankers, Chemical Tankers and Gas Carriers as defined in SOLAS regulations II-1/2.22, VII/8.2 and VII/11.2, respectively, of the International Convention for the Safety of Life at Sea, 1974, as amended.*

**(\*\*)**  *$A_f$  = The minimum summer freeboard calculated as type "A" ship regardless of the type freeboard actually assigned.*

*$H_s$  = The standard height of superstructure as defined in ICLL Regulation 33.*

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## ADDITIONAL RULE – SHIPBUILDING and REPAIR QUALITY STANDARD

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### 01. Section 1 - Shipbuilding and Remedial Quality Standard for New Construction

**Revision Date:** July 2021

**Entry into Force Date:** 1 August 2021

Generally references to IACS requirement was changed to TL requirements.

Item A.3 was revised according to Rec. 47 Rev.9 as below:

In assessing the criticality of hull structure and structural components, reference is made to ref. A1, A2, A3, A11, **A13, A14, A15, and A16** ~~and A17~~.

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Item C.3 was revised according to Rec. 47 Rev.9 as below:

### 3. Qualification of NDET operators

Personnel performing non-destructive ~~examination~~ testing for the purpose of assessing quality of welds in connection with new construction covered by this standard, are to be qualified in accordance with TL rules or to a recognized international or national qualification scheme. Records of operators and their current certificates are to be kept and made available to the Surveyor for inspection.

Item D.2.3 was revised according to Rec. 47 Rev.9 as below:

### 2.3 Remedial of Defects

Defects are to be remedied by grinding and/or welding in accordance with ~~IACS Rec. 12~~ TL-R W11 (ref. A126).

Referenes were revised according to Rec. 47 Rev.9 as below:

### REFERENCES

- A1. ~~IACS Recommendation No. TL- G 76~~ "Bulk Carriers - Guidelines for Surveys, Assessment and Repair of Hull Structure"
- A2. TSCF "Guidelines for the inspection and maintenance of double hull tanker structures"
- A3. TSCF "Guidance manual for the inspection and condition assessment of tanker structures"
- A4. ~~IACS UR TL- R W7~~ "Hull and machinery steel forgings"
- A5. ~~IACS UR TL- R W8~~ "Hull and machinery steel castings"
- A6. ~~IACS UR TL- R W11~~ "Normal and higher strength hull structural steels"
- A7. ~~IACS UR TL- R W13~~ "Thickness tolerances of steel plates and wide flats"
- A8. ~~IACS UR TL- R W14~~ "Steel plates and wide flats with specified minimum through thickness properties ("Z" quality)"
- A9. ~~IACS UR TL- R W17~~ "Approval of consumables for welding normal and higher strength hull structural steels"
- A10. ~~IACS UR TL- R W28~~ "Welding procedure qualification tests of steels for hull construction and marine structures"
- A11. Annex I to ~~IACS UR TL- R Z10.1~~ "Hull surveys of oil tankers", and Z10.2 "Hull surveys of bulk carriers", Z10.3 "Hull Surveys of Chemical Tankers", Z10.4 "Hull Surveys of Double Hull Oil Tankers" and Z10.5 "Hull Surveys of Double-Skin Bulk Carriers" Annex I
- A12. ~~IACS UR TL- R Z23~~ "Hull survey for new construction"
- A13. ~~IACS Recommendation No. 12~~ "Guidelines for surface finish of hot rolled plates and wide flats"
- A143. ~~IACS Recommendation No. 20~~ TL-R W33 "Non-destructive testing of ship hull steel welds"
- A154. ~~IACS Recommendation No. TL- G 96~~ "Double Hull Oil Tankers- Guidelines for Surveys, Assessment and Repair of Hull Structures"
- A165. ~~IACS Recommendation No. TL- G 55~~ "General Dry Cargo Ships- Guidelines for Surveys, Assessment and Repair of Hull Structures"
- A176. ~~IACS Recommendation No. TL- G 84~~ "Container Ships- Guidelines for Surveys, Assessment and Repair of Hull Structures"

**02. Section 2 - Repair Quality Standard for Existing Ships**

**Revision Date:** July 2021

**Entry into Force Date:** 1 August 2021

Items A.2 and 3 were revised according to Rec. 47 Rev.9 as below:

2. The standard covers typical repair methods and gives guidance on quality standard on the most important aspects of such repairs. Unless explicitly stated elsewhere in the standard, the level of workmanship reflected herein will in principle be acceptable for primary and secondary structure of conventional design. A more stringent standard may however be required for critical and highly stressed areas of the hull and is to be agreed with TL in each case. In assessing the criticality of hull structure and structural components, reference is made to ref. B1, B2, B3, B6, B8, B9, B10, and B11 and B12.

3. Restoration of structure to the original standard may not constitute durable repairs of damages originating from insufficient strength or inadequate detail design. In such cases strengthening or improvements beyond the original design may be required. Such improvements are not covered by this standard, however it is referred to ref. B1, B2, B3, B6, B8, B9, B10, and B11 and B12.

Item C.3 was revised according to Rec. 47 Rev.9 as below:

**3. Qualification of NDET Operators**

3.1 Personnel performing non destructive examination testing for the purpose of assessing quality of welds in connection with repairs covered by this standard, are to be qualified in accordance with TL rules or to a recognised international or national qualification scheme. Records of operators and their current certificates are to be kept and made available to the Surveyor for inspection.

Tables 2.4, 2.5, 2.6 and 2.7 were revised according to Rec. 47 Rev.9 as below:

Item	Standard	Limit	Remarks
Material Grade	Same as original or higher		See D.
Welding Consumables	IACS UTL-R-W17 (ref. B5)	Approval according to equivalent international standard	
Groove / roughness	See note and Fig. 2.1	d < 1.5 mm	Grind smooth
Pre-Heating	See Table 2.3	Steel temperature not lower than 5°C	
Welding with water on the outside	See E.1.3	Acceptable for normal and high strength steels	Moisture to be removed by a heating torch
Alignment	As for new construction		
Weld finish	IACS Rec. 20 TL-R W33 (ref. B9 8)		
NDET	IACS Rec. 20 TL-R W33	At random with extent	

	(ref. B9 8)	to be agreed with attending surveyors	
<b>Note :</b> Slag, grease, loose mill scale, rust and paint, other than primer, to be removed			

Item	Standard	Limit	Remarks
Size insert	Min. 300x300mm R = 5 x thickness Circular inserts: D <sub>min</sub> =200mm	Min. 200x200mm Min R = 100 mm	
Material grade	Same as original or higher		See D.
Edge Preparation	As for new construction		In case of non compliance increase the amount of NDET
Welding sequence	See Fig.2.2 Weld sequence is 1 → 2 → 3 → 4		For primary members sequence 1 and 2 transverse to the main stress direction
Alignment	As for new construction		
Weld finish	IACS Rec. 20 TL-R W33 (ref. B9 8)		
NDET	IACS Rec. 20 TL-R W33 (ref. B9 8)		

Item	Standard	Limit	Remarks
Existing plating		General: $t \geq 5$ mm	For areas where existing plating is less than 5mm plating a permanent repair by insert is to be carried out.
Extent/size	Rounded off corners.	min 300x300 mm $R \geq 50$ mm	
Thickness of doubler ( $t_d$ )	$t_d \leq t_p$ ( $t_p$ =original thickness of existing plating )	$t_d > t_p/3$	
Material grade	Same as original plate		See D.
Edge preparation	As for [new building] new construction		Doublers welded on primary strength members: (Le: leg length) when $t > Le + 5$ mm, the

			edge to be tapered (1:4)
Welding	As for [new building] new construction		Welding sequence similar to insert plates.
Weld size(throat thickness)	Circumferential and in slots: $0.6 \times t_d$		
Slot welding	Normal size of slot: (80-100) x 2 $t_d$  Distance from doubler edge and between slots: $d \leq 15 t_d$	Max pitch between slots 200mm  $d_{max} = 500mm$	For doubler extended over several supporting elements, see Figure 2.3
NDET	IACS Rec. 20 TL-R W33 (ref. B9 8)		

Item	Standard	Limit	Remarks
Size insert	Min. 300 mm	Min. 200mm	
Material grade	Same as original or higher		See D.
Edge Preparation	As for new construction. Fillet weld stiffener web/plate to be released over min. $d = 150$ mm		
Welding sequence	See Fig.2.4 Weld sequence is 1 → 2 → 3		
Alignment	As for new construction		
Weld finish	IACS Rec. 20 TL-R W33 (ref. B9 8)		
NDET	IACS Rec. 20 TL-R W33 (ref. B9 8)		

Tables 2.10 and 2.11 were revised according to Rec. 47 Rev.9 as below:

Item	Standard	Limit	Remarks
Extent/depth	Pits/grooves are to be welded flush with the original surface.	If deep pits or grooves are clustered together or remaining thickness is less than 6 mm, the plate should be renewed.	IACS Rec.12 TL-R W11 (ref.B84)
Cleaning	Heavy rust to be removed		
Pre-Heating	See Table 2.3	Required when ambient temperature < 5°C	Always use propane torch or similar to remove any moisture
Welding sequence	Reverse direction for each layer		IACS Rec.12 TL-R W11 (ref.B84)

Weld finish	<del>IACS Rec. 20 TL-R W33</del> (ref. B9 8)		
NDET	<del>IACS Rec. 20 TL-R W33</del> (ref. B9 8)	Min. 10% extent	Preferably MPI
<i>Reference is made to TSCF Guideline, Ref.B2 &amp; B3</i>			

Item	Standard	Limit	Remarks
Groove preparation	$\theta=45-60^\circ$ r= 5 mm		For through plate cracks as for newbuilding. Also see Fig. 2.11
Termination	Termination to have slope 1:3		For cracks ending on edges weld to be terminated on a tab see Fig.2.9
Extent	On plate max. 400 mm length. Vee out 50 mm past end of crack	On plate max 500 mm. Linear crack, not branched	
Welding sequence	See Fig. 2.10 for sequence and direction	For cracks longer than 300 mm step- back technique should be used Fig.2.8	Always use low hydrogen welding consumables
Weld finish	<del>IACS Rec. 20 TL-R W33</del> (ref. B9 8)		
NDET	<del>IACS Rec. 20 TL-R W33</del> (ref. B9 8)	100 % MP or PE of groove	100 % surface crack detection + UE or RE for butt joints

References were revised according to Rec. 47 Rev.9 as below:

- B1. ~~IACS Recommendation No. TL- G 76~~ "Bulk Carriers - Guidelines for Surveys, Assessment and Repair of Hull Structure"
- B2. TSCF "Guidelines for the inspection and maintenance of double hull tanker structures"
- B3. TSCF "Guidance manual for the inspection and condition assessment of tanker structures"
- B4. ~~IACS UR TL-R W11~~ "Normal and higher strength hull structural steels"
- B5. ~~IACS UR TL-R W17~~ "Approval of consumables for welding normal and higher strength hull structural steels"
- B6. Annex I to ~~IACS UR TL-R Z10.1~~ "Hull surveys of oil tankers", and Z10.2 "Hull surveys of bulk carriers", Z10.3 "Hull Surveys of Chemical Tankers", Z10.4 "Hull Surveys of Double Hull Oil Tankers" and "Z10.5 Hull Surveys of Double-Skin Bulk Carriers" Table IV
- B7. ~~IACS UR TL-R Z3~~ "Voyage repairs and maintenance"
- B8. ~~IACS Recommendation No. 12~~ "Guidelines for surface finish of hot rolled steel plates and wide flats"
- B8. **IACS Recommendation No. 20 TL-R W33** "Non-destructive testing of ship hull steel welds"
- B9. ~~IACS Recommendation No. TL- G 96~~ "Double Hull Oil Tankers- Guidelines for Surveys, Assessment and Repair of Hull Structures"
- B10. ~~IACS Recommendation No. TL- G 55~~ "General Dry Cargo Ships- Guidelines for Surveys, Assessment and Repair of Hull Structures"
- B11. ~~IACS Recommendation No. TL- G 84~~ "Container Ships- Guidelines for Surveys, Assessment and Repair of Hull Structures"

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