



TÜRK LOYDU RULE CHANGE SUMMARY

TL NUMBER: 03/2023

NOVEMBER 2023

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 4 - MACHINERY

<u>No</u>	<u>Item</u>
01	Section 2
02	Section 4
03	Section 16
04	Section 18

CHAPTER 5 – ELECTRICAL INSTALLATION

01	Section 9
02	Section 17
03	Section 18

PART B – CHAPTER 4 MACHINERY

01. Section 02 – Internal Combustion Engines and Air Compressors

Revision Date: Nov 2023

Entry into Force Date: 1 January 2024

Item J.2 and Table 2.7 were revised according to UR M63 Rev.1 as below:

2. Scope of Alarms

Alarms have to be provided for main engines, auxiliary engines and emergency reciprocating I.C. engines (engines which use distillate marine fuels covered by ISO 8217:2017) according to Table 2.7. (For alarms and safeguards for emergency reciprocating I.C. engines, see also TL-R M63.)

Table 2.7 Alarm and indicators

Description	Propulsion engines	Auxiliary engines	Emergency engines
Speed / direction of rotation	I		
Engine overspeed (5)	A, S	A, S	S
Lubricating oil pressure at engine inlet	I, L(9), S	I, L(9), S	I, L(9)
Lubricating oil temperature at engine inlet	I, H	I (5), H (5)	I (5), H (5)
Fuel oil pressure at engine inlet	I	I	
Fuel oil temperature at engine inlet (1)	I	I	
Fuel oil leakage from high pressure pipes (fuel injection pipes and common rails)	A	A	A
Cylinder cooling water pressure at engine inlet	I, L	I(4), L (4)	I(4), L (4) (5)
Cylinder cooling water /air temperature at engine outlet	I, H	I, H	I, H
Cylinder pressure (10)	H	H	H
Piston coolant pressure at engine inlet	I, L		
Piston coolant temperature at engine outlet	I, H		
Charge air pressure at cylinder inlet	I		
Charge air temperature at charge air cooler inlet	I		
Charge air temperature at charge air cooler outlet	I, H		
Starting air pressure	I, L		
Control air pressure	I, L		
Exhaust gas temperature (2)	I, H (3)		
Activation of oil mist detection arrangements (or activation of the temperature monitoring systems or equivalent devices of: - the engine main and crank bearing oil outlet; or - the engine main and crank bearing) concentration in crankcase or alternative monitoring system (6)(7) (8)	I, H	I, H	I, H
(1) For engines running on heavy fuel oil only. (2) Wherever the dimensions permit, at each cylinder outlet and at the turbo charger inlet and outlet. (3) At turbo charger outlet only.			I : Indicator A : Alarm H : Alarm for upper limit L : Alarm for lower limit

<p>(4) Cooling water pressure or flow.</p> <p>(5) Only for an engine output ≥ 220 kW.</p> <p>(6) For engines having an output > 2250 kW or a cylinder bore > 300 mm.</p> <p>(7) Alternative methods of monitoring may be approved by TL. See F-4.3.1.</p> <p>(8) Engine slowdown function for low speed engines and shutdown function for medium and high speed engines to be provided.</p> <p>(9) Only for an engine output > 37 kW</p> <p>(10) Only for engines having cylinder bore > 230 mm.</p>	S : Shutdown
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Revision Date: Nov 2023

Entry into Force Date: 1 January 2024

Item M.5.4.1 was revised according to UR M 77 Rev.4 as below:

5.4.1 General

The NOx Technical Code, in 2.2.5 and elsewhere, provides for the use of NOx Reducing Devices of which Selective Catalytic Reduction (SCR) is one option. SCR requires the use of a reductant which may be a urea/water solution or, in exceptional cases, aqueous ammonia or even anhydrous ammonia. These requirements apply to the arrangements for the storage and use of SCR reductants which are typically carried on board in bulk quantities

02. Section 04 – Turbomachinery / Gas Turbines and Exhaust Gas Turbochargers

Revision Date: Nov 2023

Entry into Force Date: 1 January 2024

Item D.2.3 and D.3.3 was revised as below:

2.3 In addition a bench test according to C.6 may be carried out on a sample basis and need not to be verified by a TL Surveyor.

3.3 Upon satisfactory assessment in combination with a bench test carried out on a sample basis with TL Surveyor's attendance, the drawing approval and tests according to C.72 and C.83 are not required. The scope of the testing for materials and components has to be fulfilled unchanged according to C.21 and C.62.

03. Section 16 – Pipe Lines, Valves, Fittings and Pumps

Revision Date: Nov 2023

Entry into Force Date: 1 January 2024

Item V.6 was revised according to MSC.1/Circ.1276/Rev.1 as below:

6. Storage of Gas Bottles for Domestic Purposes

6.1 Storage of gas bottles shall be located on open deck or in well ventilated spaces which only having access to open deck only.

6.2 Gaseous fuel systems for domestic purposes shall comply with a recognized standard.

A portion of open deck meeting the above shall be considered as open deck in applying tables 9.1 to 9.8 of SOLAS Chapter II-2. (MSC.1/Circ.1276/Rev.1)

04. Section 18 – Fire Protection and Fire Extinguishing Equipment

Revision Date: Nov 2023

Entry into Force Date: 1 December 2023

Table 18.1 was revised according to MSC.1/Circ.1395/Rev.6 as below:

Spaces and areas to be protected	Type of vessel	
	Cargo ships ≥ 500 GT	Passenger ships
Cargo area and cargo tanks	Tankers acc. to D. 2: Low-expansion foam system and inert gas system	
	Chemical tankers to Chapter 8 - Chemical Tankers, Section 11: Low-expansion foam, dry powder, pressure water spraying and inert gas system	-
	Ships for the carriage of liquefied gases to Chapter 10 - Liquefied Gas Tankers, Section 11: Pressure water spraying, dry powder system (8) and inert gas systems.	-
Cargo pump spaces	Tankers and chemical tankers: CO ₂ , high-expansion foam or pressure water spraying system (2)	-
Cargo pump and compressor rooms:	Ships for the carriage of liquefied gases: CO ₂ , system (2)	-
<p>(1) Also applies to < 500 GT in the case of ships with class notation AUT and in the case of chemical tankers.</p> <p>(2) Approved systems using gases other than CO₂, may be applied-see, I.</p> <p>(3) Applies to passenger ships of 500 GT and above and cargo ships of 2000 GT and above.</p> <p>(4) Special category spaces are closed vehicle decks on passenger ships to which the passengers have access.</p> <p>(5) Pressure water spraying system in ro/ro spaces (open or not capable of being sealed), in open top container cargo spaces and in special category spaces.</p> <p>(6) May be dispensed with on request where only coal, ore, grain, unseasoned timber, non-combustible cargoes or cargoes resending a low fire risk are carried. Reference is made to MSC.1/Circ.1395/Rev.6.</p> <p>(7) May be dispensed with, if the furniture and furnishings are only of restricted fire risk, see L.4.</p> <p>(8) Details see J.3.</p> <p>(9) For ships of less than 500 GT the requirement may be dispensed with subject to acceptance by the Administration.</p> <p>(10) Oil fuel unit includes any equipment used for the preparation and delivery of oil fuel, heated or not, to boilers (including inert gas generators) and engines (including gas turbines) at a pressure of more than 0.18 N/mm². Oil fuel transfer pumps are not considered as oil fuel units</p> <p>(11) Fixed CO₂ fire-extinguishing systems or inert gas systems installed on board dedicated to the protection of cargo spaces can be used for the control of the self-heating of the cargo within the cargo holds (See Q.2.1).</p>		

Revision Date: Nov 2023

Entry into Force Date: 1 January 2024

Items L.2.3.1, L.2.3.2 , L.2.3.3 and note **(28)** were revised according to MSC.1/Circ.1430/Rev.3 as below:

2.3 Pressure water spraying systems for special category and ro/ro cargo spaces

2.3.1 Fixed water-based fire fighting systems for protection of vehicle, special category and ro-ro spaces shall be designed in accordance with the guidelines of MSC.1/Circ.1430/Rev.2Rev.3**(28)**.

(28) Refer to IMO MSC.1/Circ.1430/Rev.2Rev.3, "Revised Guidelines for the *Design and Approval of Fixed Water-Based Fire-Fighting Systems for Ro-Ro Spaces and Special Category Spaces*

2.3.2 Water spray systems shall be designed acc. to sections 3 and 4 of MSC.1/Circ.1430/Rev.2Rev.3. The water spray nozzles shall be approved as per item 3.11 of the guidelines.

2.3.3 Water mist systems shall be type approved and be designed acc. to sections 3 and 5 of MSC.1/Circ.1430/Rev.2Rev.3.

Revision Date: Nov 2023

Entry into Force Date: 1 January 2024

Item L.3.14 was revised according to MSC.1/Circ.1276/Rev.1 as below:

3.14 The objects to be protected are to be covered with a grid of nozzles subject to the nozzle arrangement parameters indicated in the type approval Certificate (maximum horizontal nozzle spacing, minimum and maximum vertical distance from the protected object, minimum lateral distance from the protected object).

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Illustrative sketches of acceptable nozzle arrangements are shown for clarity in MSC.1/Circ.1276/Rev.1.

Revision Date: October 2023

Entry into Force Date: 1 December 2023

Item Q.1.3.8 was revised according to MSC.1/Circ.1395/Rev.6 as below:

1.3.8 IMO MSC.1/Circ.1395/Rev.6 "List of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire extinguishing system is ineffective"

Revision Date: October 2023

Entry into Force Date: 1 December 2023

Table 18.11 was revised according to MSC.500(105) as below:

Bulk Cargo Shipping Name (BCSN)	Class	Requirements															
		Fire-extinguishing system	Water supplies	Sources of ignition	Temperature measurement	Gas detection	Acidity of bilge water	Ventilation	Additional provisions on ventilation	Bilge pumping	Personnel protection	No smoking signs	Machinery space boundaries	Other boundaries	Gas sampling points	Weather-tightness	Fuel tanks
ALUMINA HYDRATE	MHB	Q.2.2.1									Q.8.1.1 Q.8.2.1						
AMMONIUM NITRATE BASED FERTILIZER MHB	MHB (OH)	Q.2.2		Q.4	Q.5.1.2						Q.8.1.2 Q.8.2.2	Q.9					Q.14.1 Q.14.2.3
AMORPHOUS SODIUM SILICATE LUMPS	MHB (CR)	Q.2.2.1									Q.8.1.2 Q.8.2.2						
IRON OXIDE, SPENT or IRON SPONGE, SPENT UN 1376	4.2	Q.2.1	Q.3	Q.4 IIA T2.IP55		Q.5.2.5 Q.5.2.8		Q.6.1 Q.6.2 Q.6.3			Q.8.1.2 Q.8.2.2	Q.9	Q.10.1	Q.11	Q.12	Q.13	Q.14.2.2
LEACH RESIDUE CONTAINING LEAD	MHB	Q.2.2.1									Q.8.1.2 Q.8.2.2						
LEAD NITRATE UN 1469	5.1	Q.2.2	Q.3					Q.6.1 Q.6.2			Q.8.1.2 Q.8.2.2						
SULPHUR UN 1350	4.1	Q.2.2.1	Q.3	Q.4 4, IP55				Q.6.1 Q.6.2	6.7.1		Q.8.1.2 Q.8.2.2	9	10.1				
SUPERPHOSPHATE (triple, granular)	MHB (CR)	Q.2.2.1									Q.8.1.2 Q.8.2.2						

Revision Date: October 2023

Entry into Force Date: 1 December 2023

Item Q.2.2 was revised according to MSC.1/Circ.1395/Rev.6 as below:

2.2 Exemption certificate

2.2.1 A ship may be exempted from the requirement of a fixed gas fire-extinguishing system if constructed and solely intended for the carriage of cargoes as specified MSC.1/Circ.1395/Rev.6. Such exemption may be granted only if the ship is fitted with steel hatch covers and effective means of closing all ventilators and other openings leading to the cargo spaces

2.2.2 For cargoes according to MSC.1/ Circ.1395/Rev.6, Table 2 a fire-extinguishing system giving equivalent protection is to be provided.

For fire-extinguishing systems giving equivalent protection refer to 3.2.

PART B – CHAPTER 5 ELECTRICAL INSTALLATION

01. Section 09 – Control, Monitoring and Ship’s Safety Systems

Revision Date: Nov 2023

Entry into Force Date: 1 January 2024

Item D.3.1.2.5 was added according to MSC.484(103) as below:

3.1.2.5 In cargo ships and on passenger ship cabin balconies, where an individually identifiable system is fitted, notwithstanding the provisions of 3.1.27, isolator modules need not be provided at each fire detector if the system is arranged in such a way that the number and location of individually identifiable fire detectors rendered ineffective due to a fault would not be larger than an equivalent section in a section identifiable system, arranged in accordance with FSS Code, Chapter 9 paragraph 2.4.1.

02. Section 17 – Additional Rules for Ships for the Carriage of Dangerous Goods

Revision Date: Nov 2023

Entry into Force Date: 1 December 2023

Item I was revised according to MSC.500(104) as below:

For electrical installations in cargo holds for solid dangerous goods in bulk and materials hazardous only in bulk (MHB), see Chapter 4 - Machinery, Section 18, Table 18.11.

Bulk Cargo Shipping Name (BCSN)	class	Hazard	Protection against explosive		
			atmosphere		dust
			Explosion group	Temperature class	Degree of protection

Aluminium—ferrosilicon powder UN 1395	4.3	H ₂	II-G	T2	-
Aluminium silicon powder Uncoated UN 1398	4.3	H ₂	II-G	T2	-
Aluminium—smelting—by products—or—aluminium remelting—by products UN 3170	4.3	H ₂	II-G	T2	-
Aluminium smelting/ remelting by products, processed	MHB	H ₂	II-G	T1	
Ammonium nitrate UN 1942	5.1	Combustible	-	T3	-
Ammonium nitrate based fertilizer UN 2067	5.1	Combustible	-	T3	-
Ammonium nitrate based fertilizer UN 2074	9	Combustible	-	T3	-
Brown coal briquettes	MHB	Dust, Methane	II-A	T4	IP55
Coal	MHB	Dust, Methane	II-A	T4	IP55
Directly reduced iron (A) Briquettes, hot-moulded	MHB	H ₂	II-G	T2	-
Directly reduced iron (B) Lumps, pellets, cold-moulded briquettes	MHB	H ₂	II-G	T2	-
Directly reduced iron (C) (By-product fines)	MHB	H ₂	II-G	T2	-
Dust (e.g from grain)	-	Dust	-	-	IP55
Ferrophosphorus (excl. briquettes)	MHB	H ₂	II-G	T1	-
Ferrosilicon	MHB	H ₂	II-G	T1	-
Ferrosilicon UN 1408	MHB	H ₂	II-G	T1	-
Iron oxide, spent or iron sponge, spent UN 1376	4.2	Dust	II-A	T2	IP55
Seed cake, containing vegetable oil UN 1386 (b) solvent extracted seeds	4.2	Hexane	II-A	T3	-
Seed cake UN 2217	4.2	Hexane	II-A	T3	-
Silicon manganese	MHB	H ₂	II-G	T1	
Solified fuels recycled from paper and plastics	MHB	Combustible	-	T3	IP55
Sulphur UN 1350	4.1	Combustible	-	T4	IP55
Wood torrefied	MHB	Combustible	-	T3	IP55
Zinc ashes UN1435	4.3	H ₂	II-G	T2	

Note:

The term "Hazard" relates exclusively to the danger of explosion attributable to the dangerous goods and electrical appliances.

03. Section 18 – Additional Rules for Bulk Carriers and Single Hold Cargo Ships Other Than Bulk Carriers

Revision Date: Nov 2023

Entry into Force Date: 1 January 2024

Section 18 was generally revised in accordance with MSC.482(103) and MSC.188(79)/Rev.2 as below:

ADDITIONAL RULES FOR BULK CARRIERS AND SINGLE **AND MULTIPLE HOLD CARGO SHIPS OTHER THAN BULK CARRIERS**

1. Scope

These requirements apply additionally to electrical plants on

- Bulk carriers or
- Single hold cargo ships other than bulk carriers ~~constructed before 1 January 2007 shall comply with the requirements not later than 31 December 2009, or~~
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- **Multiple hold cargo ships other than bulk carriers and tankers constructed on or after 1 January 2024 (See also MSC.1/Circ.1673). Water level detectors are not required for cargo holds located entirely above the freeboard deck.**

2. References to Other Rules

The requirements in this section are based on the following rules/regulations and they are also to be referred for further guidance (e.g. MSC 188(79)/Rev.2, Appendix and related interpretations provided in TL-I SC180)

- **Regulation 25-1 of SOLAS Chapter II-1 as amended by IMO Resolutions MSC.482(103)**
- Regulation 25 of SOLAS Chapter II-1 as amended by IMO Resolutions **MSC.436(99)**
- Regulation 12 of SOLAS Regulation XII as amended by IMO Resolutions up to MSC.170 (79).
- **MSC.188(79)/Rev.2- Revised** Performance standards for water level detectors on **ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12** ~~bulk carriers and single hold cargo ships other than bulk carriers~~

B. Water Level Detectors

1. General

1.1 Definition

1.1.1 Water level detector

Water level detectors means a system comprising sensors and indication devices that detect and warn of water ingress in cargo holds and other spaces as required for bulk carriers in **SOLAS** regulation XII/12.1 ~~and~~, for single

hold cargo ships other than bulk carriers as required in **SOLAS** regulation II-1/25 and for multiple hold cargo ships other than bulk carriers and tankers As required in **SOLAS** regulation 25-1.

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For multiple hold cargo ships other than bulk carrier and tankers the detectors are also to be located at the aft end of the cargo holds. For cargo holds which are occasionally used for water ballast, an alarm overriding device may be installed. The visual alarms shall clearly discriminate between the two different water levels detected in each hold.

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3.2.4 The part of the system which has circuitry in the cargo area, should be intrinsically safe.

- In general, the construction and type testing is to be in accordance with IEC 60079-11:2011 to a minimum requirement of EX(ib). Where a ship is designed only for the carriage of cargoes that cannot create a combustible or explosive atmosphere then the requirement for intrinsically safe circuitry is not to be insisted upon, provided the operational instructions included in the Manual required by 4.1 of the Appendix to the Annex to MSC.188(79)/Rev.2 specifically exclude the carriage of cargoes that could produce a potential explosive atmosphere. Any exclusion of cargoes identified in the Annex is to be consistent with the ship's Cargo Book and any Certification relating to the carriage of specifically identified cargoes.
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4.1.10.2 An alarm, both visual and audible, activated when the level depth of water at the sensor reaches the main alarm level, indicating increasing water level in a cargo hold. The indication shall identify the space and visual and the audible alarm shall not be the same as that for the pre-alarm level.

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For multiple hold cargo ships other than bulk carriers and tankers the water level detectors shall give audible and visual alarms at the navigation bridge, one when the water level above the bottom of the cargo hold reaches a height of not less than 0.3 m, and another at a height not less than 15% of the depth of the cargo hold but not more than 2 m.

4.1.10.3 For multiple hold cargo ships other than bulk carriers and tankers, as an alternative to the water level detector at a height of not less than 0.3 m as per last paragraph of 4.1.10.2, a bilge level sensor* serving the bilge pumping arrangements required by SOLAS regulation 35-1 and installed in the cargo hold bilge wells or other suitable location is considered acceptable, subject to:

- the fitting of the bilge level sensor at a height of not less than 0.3 m at the aft end of the cargo hold; and
- the bilge level sensor giving audible and visual alarm at the navigation bridge which is clearly distinctive from the alarm given by the other water level detector fitted in the cargo hold.

* Refer to the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79)/Rev.2).

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4.4 Bilge alarms used as water level detectors

Bilge alarms may be used as water level detectors provided that they meet the functional requirements and installation and testing requirements set out in items 3, 4 and 5.

Some cargoes require the bilge pumping system to be protected to prevent the spread of contaminated or potentially dangerous fluids.

Where the cargo hold bilge well will be completely sealed when specific cargoes are carried, and the bilge well therefore cannot be used for the entry of ingress water to the detector(s), a suitable alternative detection point or points are to be provided.

If the bilge well is used for when specific cargoes are carried, the bilge well is not to be completely sealed in order to allow water ingress for activating the detectors.

5. Tests

5.1 Type test

5.1.1 Water level detector systems should be type tested to demonstrate their robustness and suitability under the appropriate internationally recognized conditions **and for their continued functioning under the expected service temperature**. Refer to IEC 60092-504 and IEC 60529 for testing. TL-R E 10 may be used as an equivalent test standard to IEC 60092-504.

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For alarm/monitoring panel:

- Functional tests in accordance with MSC.188(79)/Rev.2,

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For water ingress detectors:

- Functional tests in accordance with MSC.188(79) /Rev.2,
- Electric power supply failure test,
- Power supply variation test,
- Dry heat test,
- Damp heat test,
- Cold test
- Vibration test,
- Enclosure class in accordance with MSC.188(79)/Rev.2,

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5.1.5 For further requirements regarding type testing, refer to MSC 188 (79)/Rev.2, Appendix 1 and related interpretations provided in TL-I SC 180.

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Note: See MSC 188 (79)/Rev.2, Appendix for guidance on information and operational instructions to be contained in the manuals.

For further information:

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