

Dolski Rejestr Statków

RULES

AMENDMENTS NO. 1/2012

to

PUBLICATION NO. 85/P

**REQUIREMENTS CONCERNING THE CONSTRUCTION
AND STRENGTH OF THE HULL AND HULL EQUIPMENT
OF SEA-GOING, DOUBLE HULL OIL TANKERS
OF 150 M IN LENGTH AND ABOVE**

2010



GDAŃSK

Amendments No. 1/2012 to Publication No. 85/P – Requirements Concerning the Construction and Strength of the Hull and Hull Equipment of Sea-going, Double Hull Oil Tankers of 150 M in Length and above – 2010, were approved by PRS Board on 3 February 2012 and enter into force on 6 February 2012.

© Copyright by Polski Rejestr Statków, 2012

PRS/AW, 02/2012

The following amendments to Publication No. 85/P – Requirements Concerning the Construction and Strength of Hull and Hull Equipment of Sea-going, Double Hull Oil Tankers of 150 M in Length and above – 2010, have been introduced:

1. Sub-chapter **6.2.2** has been added:

6.2.2 Corrosion Protection of Cargo Oil Tanks

6.2.2.1 General

6.2.2.1.1 All cargo oil tanks of new crude oil tankers¹⁾ shall be:

- .1 Coated during the construction of the ship in accordance with the Performance Standard for protective coatings for cargo oil tanks of crude oil tankers, adopted by the Maritime Safety Committee by *Resolution MSC.288(87)*, or
- .2 Protected by alternative means of corrosion protection or utilization of corrosion resistance material to maintain required structural integrity for 25 years in accordance with the Performance Standard for alternative means of corrosion protection for cargo oil tanks of crude oil tankers, adopted by Maritime Safety Committee by *Resolution MSC.289(87)*.

6.2.2.1.2 The Administration may exempt a crude oil tanker from the requirements of paragraph 6.2.2.1.1 to allow the use of novel prototype alternatives to the coating system specified in 6.2.2.1.1.1, for testing, provided they are subject to suitable controls, regular assessment and acknowledgement of the need for immediate remedial action if the system fails or is shown to be failing. Such exemption shall be recorded on the exemption certificate.

6.2.2.1.3 The Administration may exempt a crude oil tanker from the requirements of paragraph 6.2.2.1.1 if the ship is built to be engaged solely in the carriage of cargoes and cargo handling operations not causing corrosion. Such exemption and conditions for which it is granted shall be recorded on an exemption certificate.

6.2.2.1.4 Detailed requirements for a.m. Performance Standards are given in sub-chapters 6.2.2.2 and 6.2.2.3.

6.2.2.2 Coating Standard for cargo oil tanks of crude oil tankers²⁾

6.2.2.2.1 Coating Standard is based on specifications and requirements to provide a target useful coating life of 15 years, which is considered to be the time period, from initial application, over which the coating system

¹⁾ New crude oil tankers as defined in regulation 1 of Annex I of *MARPOL 73/78*, whose building contract is placed on or after 1 January 2013, or in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2013, or the delivery of which is on or after 1 January 2016.

²⁾ Crude oil tanker is as defined in Annex I of *MARPOL 73/78*.

is intended to remain in „GOOD” condition³⁾. The actual useful life⁴⁾ will vary, depending on numerous variables including actual conditions encountered in service.

6.2.2.2.2 Protective coatings for cargo oil tanks applied during the construction of new crude oil tankers shall at least comply with the requirements of this Coating Standard.

6.2.2.2.3 An epoxy-based system meeting test and physical properties (see *Resolution MSC.288(87)*, Table 1, 1.3) shall be documented, and a *Type Approval Certificate* or *Statement of Compliance* shall be provided.

6.2.2.2.4 The following areas are the minimum areas that shall be protected according to this Coating Standard:

- .1** Deckhead with complete internal structure, including brackets connecting to longitudinal and transverse bulkheads. In tanks with ring frame girder construction, the underdeck transverse framing to be coated down to level of the first tripping bracket below the upper faceplate.
- .2** Longitudinal and transverse bulkheads to be coated to the uppermost means of access level. The uppermost means of access and its supporting brackets to be fully coated.
- .3** On cargo tank bulkheads without an uppermost means of access, the coating to extend to 10% of the tanks height at centerline but need not extend more than 3 m down from the deck.
- .4** Flat inner bottom and all structure to a height of 0.3 m above inner bottom to be coated.

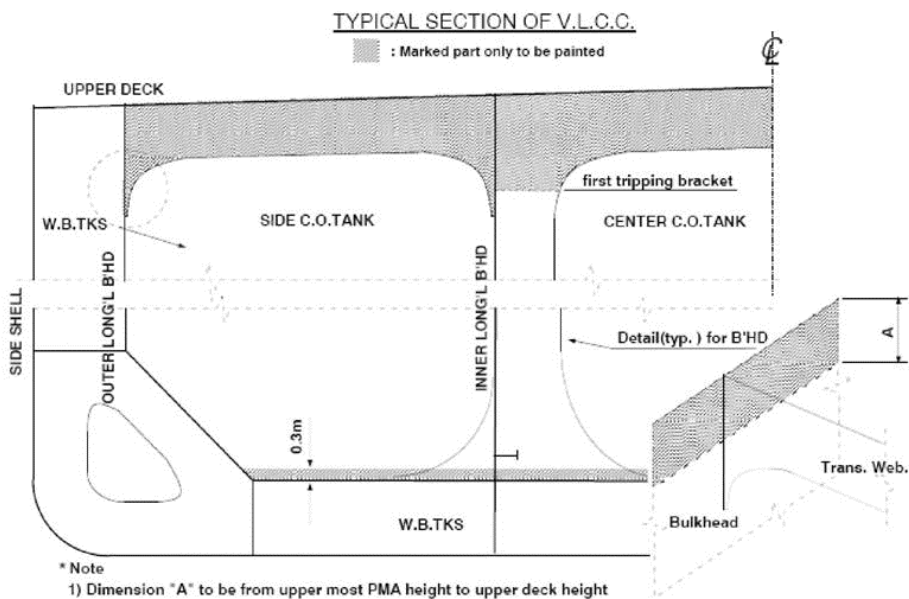


Fig. 6.2.2.2.4

³⁾ “GOOD” condition is the condition with minor spot rusting as defined in *Resolution A.744(18)* for assessing the ballast tank coatings for tankers.

⁴⁾ Target useful life is the target value, in years, of the durability for which the coating system is designed.

6.2.2.2.5 Special application

- .1** This Coating Standard covers protective coating requirements for steel structure within cargo oil tanks. It is noted that there are other independent items that are fitted within the cargo oil tanks and to which coatings are applied to provide protection against corrosion.
- .2** It is recommended that this Coating Standard is applied, to the extent practicable, to those portions of means of access provided for inspection within the areas specified in paragraph 6.2.2.2.4 that are not integral to the ship structure, such as rails, independent platforms, ladders, etc. Other equivalent methods of providing corrosion protection for non-integral items may also be used, provided they do not impair the performance of the coatings of the surrounding structure. Access arrangements that are integral to the ship structure, such as stiffener depths for walkways, stringers, etc., are to fully comply with this Coating Standard when located within the coated areas.
- .3** It is also recommended that supports for piping, measuring devices, etc., be coated as a minimum in accordance with the non-integral items indicated in paragraph 6.2.2.2.5.2.

6.2.2.2.6 The requirements for protective coating systems to be applied at ship construction for the cargo oil tanks of crude oil tankers meeting the Coating Standard specified in paragraph 6.2.2.2.1 are listed in Table 1 of Annex to *Resolution MSC.288(87)*.

6.2.2.3 Corrosion Resistant Steel Standard for alternative means of corrosion protection⁵⁾ for cargo oil tanks of crude oil tankers⁶⁾

6.2.2.3.1 Corrosion Resistant Steel Standard is based on specifications and requirements which intend to provide a target useful life of 25 years, which is considered to be the time period, from initial application, over which the thickness diminution of the steel is intended to be maintained in cargo oil tanks. The actual useful life⁷⁾ will vary, depending on numerous variables including actual conditions encountered in service.

6.2.2.3.2 Corrosion resistant steel⁸⁾ for cargo oil tanks applied to the area specified in 6.2.2.3.4 during the construction of crude oil tankers shall at least comply with the requirements of Corrosion Resistant Steel Standard and this should be considered as a minimum.

⁵⁾ Alternative means is a means that is not utilization of protective coating applied according to the Coating standard for protective coating for cargo oil tanks of crude oil tankers (*Resolution MSC.288(87)*)

⁶⁾ see footnote 2)

⁷⁾ see footnote 4)

⁸⁾ Corrosion resistant steel is steel whose corrosion resistance performance in the bottom or top of the internal cargo oil tank is tested and approved to satisfy the requirements in this Corrosion Resistant Steel Standard in addition to other relevant requirements for ship material, structure strength and construction.

6.2.2.3.3 Special application

- .1** Corrosion Resistant Steel Standard covers corrosion resistant steel requirements for ship's steel structures. It is noted that other independent items are fitted within the tanks to which measures are applied to provide protection against corrosion.
- .2** It is recommended that Corrosion Resistant Steel Standard or the Coating Standard for protective coating for cargo oil tanks is applied, to the extent possible, to those portions of permanent means of access provided for inspection within the area specified in 6.2.2.3.4 that are not integral to the ship's structure, such as rails, independent platforms, ladders, etc. Other equivalent methods of providing corrosion protection for the non-integral items may also be used, provided they do not impair the performance of the corrosion resistant steel of the surrounding structure. Access arrangements that are integral to the ship structure, such as increased stiffener depths for walkways, stringers, etc., are to fully comply with this Corrosion Resistant Steel Standard or the Coating Standard for protective coating for cargo oil tanks, when located within the areas specified in 6.2.2.3.4.
- .3** It is also recommended that supports for piping, measuring devices, etc., be provided with corrosion protection in accordance with the non-integral items indicated in 6.2.2.3.3.2.

6.2.2.3.4 The following areas are the minimum areas that shall be protected according to this Corrosion Resistant Steel Standard:

- .1** Deckhead with complete internal structure, including brackets connecting to longitudinal and transverse bulkheads. In tanks with ring frame girder construction, the underdeck transverse framing to be protected down to level of the first tripping bracket below the upper faceplate.
- .2** Longitudinal and transverse bulkheads to be protected to the uppermost means of access level. The uppermost means of access and its supporting brackets to be fully protected.
- .3** On cargo tank bulkheads without an uppermost means of access, the protection shall extend to 10% of the tanks height at centerline but need not extend more than 3 m down from the deck.
- .4** Flat inner bottom and all structure to a height of 0.3 m above inner bottom to be protected.

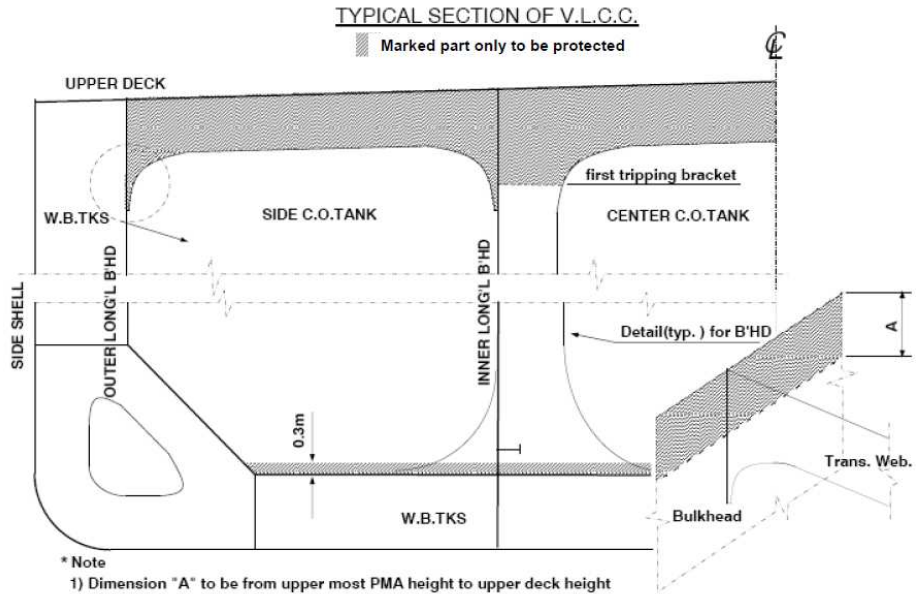


Fig. 6.2.2.3.4

6.2.2.3.5 The requirements for corrosion resistant steel to be applied at the ship construction for cargo tanks in crude oil tankers meeting the Performance Standard specified in 6.2.2.3.1 are to use approved corrosion resistant steels according to the conditions specified in the *Type Approval Certificate* and the *Technical File*⁹⁾ to protect the area of application indicated in 6.2.2.3.4.

⁹⁾ Technical file – as required by *Res. MSC.289 (87)*, in Annex 'Performance Standard for Corrosion Resistant Steel' – shall be verified by the Administration and be kept aboard and maintained throughout the life of the ship.