



財團法人驗船中心
CR CLASSIFICATION SOCIETY

**RULES FOR THE CONSTRUCTION AND
CLASSIFICATION OF COAST GUARD SHIPS 2023**

AMENDMENT

January 2024



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The following Parts have been amended and the effective dates are:	
Part	Effective date
I	1 January, 2025
II	1 January, 2025

The Rules for the Construction and Classification of Coast Guard Ships 2023 and this Amendment are to be consolidated and published as January 2025 Edition.

AMENDMENT TO "THE RULES FOR THE CONSTRUCTION AND CLASSIFICATION OF
COAST GUARD SHIPS 2023"

PART I CLASSIFICATION AND SURVEY

List of major changes in Part I from 2023 edition

1.1.12	Revised
1.4.6	New
1.15.1(j)	Revised
Table I 2-2	Revised
A1.2.2(c)	Revised

Rules for the Construction and Classification of Coast Guard Ships 2023 have been partly amended as follows:

Chapter 1 Classification of Steel Ship

Paragraph 1.1.12 has been amended as follows:

1.1 General

.....

1.1.12 For ships not engaged in international voyages are to comply with the relevant regulations of the Administration. **Compliance with these statutory requirements may be accepted as meeting the requirements of the Rules.**

Paragraph 1.4.6 has been added as follows:

1.4 Class Notations

1.4.6 Descriptive Notation

- (a) **A ship with purpose, function or feature not covered by existing notations, may be recognized by assignment of a descriptive notation.**
- (b) **The descriptive notation may be assigned upon request to the Society.**
- (c) **There are no class requirements associated with a descriptive notation.**
- (d) **The descriptive notation will be identified by use of square brackets.**

.....

Paragraph 1.15.1(j) has been amended as follows:

1.15 Sea Trials

1.15.1 In the classification survey of all ships, sea trials specified in following (a) to (j) are to be carried out in full load condition, in the calmest possible sea and weather condition and at the deep unrestricted water. However, where sea trials cannot be carried out in full load condition, sea trials may be carried out in an appropriate loaded condition. The noise measurements specified in (k) are to be carried out at either the full load condition or the ballast condition.

.....

- (j) Measurement of the sound pressure levels of ~~fixed fire detection and fire alarm systems~~ **the general emergency alarm, fire alarm (if not incorporated in the general emergency alarm system) and the public address system (if used for sounding the general emergency alarm and/or the fire alarm).**

Chapter 2 Survey Requirements of Steel Ship

Table I 2-2 has been amended as follows:

**Table I 2-2
Minimum Requirements for Thickness Measurements at Hull Special Surveys**

SS No. 1 (Age ≤ 5)	SS No. 2 (5 < Age ≤ 10)	SS No. 3 (10 < Age ≤ 15)	SS No. 4 and Subsequent (15 < Age)
1. Suspect Areas throughout the ship	1. Suspect Areas throughout the ship 2. One transverse section of deck plating in way of a cargo space within the amidships 0.5L ⁽⁵⁾ (in way of cargo spaces, if applicable)	1. Suspect Areas throughout the ship 2. 2 transverse sections within the amidships 0.5L (in way of 2 different cargo spaces ⁽⁵⁾ , if applicable) 3. Internals in forepeak tank and after peak ballast tanks 4. All cargo hold hatch covers and coamings (plating and stiffeners)	1. Suspect Areas throughout the ship 2. A minimum of 3 transverse sections in way of cargo spaces within the amidships 0.5L ⁽⁵⁾ (in way of cargo spaces, if applicable) 3. Internals in forepeak and after peak ballast tanks 4. All cargo hold hatch covers and coamings (plating and stiffeners) 5. All exposed main deck plating full length 6. Representative exposed superstructure deck plating (poop, bridge, and forecastle deck) 7. Lowest strake and strakes in way of tween decks of all transverse bulkheads in cargo spaces together with internals in way ⁽⁵⁾ 8. All wind- and water strakes, port and starboard, full length 9. All keel plates full length. Also, additional bottom plates in way of cofferdams, machinery space, and aft end of tanks 10. Plating of sea chests. Shell plating in way of overboard discharges as considered necessary by the attending Surveyor
Notes:			
<p>(1) Thickness measurement locations are to be selected to provide the best representative sampling of areas likely to be most exposed to corrosion, considering cargo and ballast history and arrangement and condition of protective coatings.</p> <p>(2) Thickness measurements of internals may be specially considered by the Surveyor if the protective coating is in Good condition.</p> <p>(3) For ships less than 100 meters in length, the number of transverse sections required at Special Survey No. 3 may be reduced to 1, and the number of transverse sections required at Subsequent Special Surveys may be reduced to 2.</p> <p>(4) For ships more than 100 meters in length, at Special Survey No. 3, thickness measurements of exposed deck plating within amidships 0.5 L may be required.</p> <p>(5) For ships without defined cargo spaces, thickness measurements are to be taken at the appropriate, most onerous locations selected to provide the best representative sampling of areas likely to be exposed to corrosion the most.</p> <p>(6) Subject to cargo hold hatch covers of approved design which structurally have no access to the internals, thickness measurement shall be done of accessible parts of hatch covers structures.</p>			

Appendix 1

Guidance for Inclining Test

Paragraph A1.2.2(c) has been amended as follows:

A1.2 Preparation for the Test

A1.2.2 Inclining test condition

.....

- (c) The total value of missing weights is not to exceed 2% and surplus weights, excluding liquid ballast, ~~fuel oil, diesel oil and fresh water~~, not exceed 4% of the light ship displacement. For smaller ships, higher percentages may be allowed.

AMENDMENT TO "THE RULES FOR THE CONSTRUCTION AND CLASSIFICATION OF
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PART II HULL CONSTRUCTION AND EQUIPMENT

List of major changes in Part II from 2023 edition

5.7.7	Deleted
5.7.8	Renumbered
11.3.1	Revised
12A.1.10(c)	Revised
Table II 12A-2	Revised
12A.4.7(a)	Revised and Renumbered
13.4	New
13.4	Revised and Renumbered
Fig. II 14-1	Revised

Chapter 5 Double Bottoms

Paragraph 5.7.7 has been deleted as follows:

5.7 Inner Bottoms, Margin and Bottom Plates

~~5.7.7 Where the inner bottom or the double bottom structure forms part of a sea chest, the thickness of the plating is not to be less than that of the shell plating in the same location, but need not exceed 25 mm.~~

Paragraph 5.7.8 has been renumbered as follows:

~~5.7.8~~ **5.7.7** The thickness of the bottom shell plating of cargo hold in way of double bottom is not to be less than that obtained from Chapter 7 of this Part, or than that from 5.7.1(a)(i) of this Chapter with C_H obtained using α from the following formula:

$$\alpha = \frac{13.8}{24 - 15.5f_B K}$$

where:

α , f_B , K = See 5.7.1(a)(i) above.

Chapter 11 Decks

Paragraph 11.3.1 has been amended as follows:

11.3 Plated Decks

11.3.1 ~~If the thickness of the strength deck plating is less than that of the side shell plating, a stringer plate having the width of the sheer strake and the thickness of the side shell plating is to be fitted to strength deck.~~ The thickness of sheer strakes at the strength deck for the midship part is not to be less than 0.75 times that of the stringer plate of the strength deck. However, the thickness is not to be less than that of the adjacent side shell plating.

Chapter 12A Helicopter Decks and Facilities

Paragraph 12A.1.10(c) has been amended as follows:

12A.1 General

12A.1.1 The structure of the helicopter deck is to be designed to suit landing of the largest type of helicopter intended to use.

.....

12A.1.10 Definition

- (a) Helicopter deck is a purpose built helicopter landing area located on a ship including all structure, fire-fighting appliances and other equipment necessary for the safe operation of helicopters.
- (b) Helicopter facility is a helicopter deck including any refueling and hangar facilities.
- (c) ~~Helicopter landing area means an area on a ship designed for emergency landing of helicopters.~~ Helicopter landing area is an area on a ship designated for occasional or emergency landing of helicopters but not designed for routine helicopter operations.

Table II 12A-2 has been amended as follows:

12A.3 Structural Strength

**Table II 12A-2
Design Load Cases for Deck Stiffening and Supporting Structure**

Load case	Loads			
	Supporting structure		Landing area ⁽¹⁾	
	Self weight	Horizontal load ⁽²⁾	Uniformly distributed vertical load over entire landing area, kN/m ²	Helicopter ⁽²⁾⁽⁴⁾
1. Overall distributed loading	–	–	2	–
2. Helicopter emergency landing	W	0.5 P	0.5	2.5 P _w f
3. Normal usage	W	0.5 P + 0.5 W	0.5	1.5 P _w

Notes:

- (1) For the design of the supporting structure for helicopter platforms applicable self weight and horizontal loads are to be added to the landing area loads.
- (2) The helicopter is to be so positioned as to produce the most severe loading condition for each structural member under consideration.
- (3) ~~f = As defined in 12A.3.1.~~
 W = The structural weight of helicopter platform, in ton.
 P = The maximum all up weight of the helicopter, in ton.
 P_w = As defined in 12A.3.1.
- (4) **f = As defined below:**
 For the emergency landing and normal usage load cases, the helicopter patch load is to be increased by a suitable structural response factor depending upon the natural frequency of the helideck structure. This factor is to be taken as 1.3 unless calculations are submitted justifying a lower factor.
 For helidecks constructed of aluminium alloys, the value of the structural response factor is to be specially considered.

Paragraph 12A.4.7(a) has been amended and renumbered as follows:

12A.4 Arrangements

12A.4.7 Fire-fighting appliances

- (a) In close proximity to the helicopter deck, the following fire-fighting appliances are to be provided and stored near the means of access to that helicopter deck:
- (i) at least two dry powder extinguishers having a total capacity of not less than 45 kg;
 - (ii) carbon dioxide extinguishers of a total capacity of not less than 18 kg or equivalent;
 -
 - (vi) in lieu of the requirements of (iii) through (v), on ships having a helideck, foam firefighting appliances which comply with the provisions of the Fire Safety Systems Code.
 - ~~(vii)~~ (vii) in addition to the requirements of SOLAS Reg. II-2/10.10, two sets of fire-fighter's outfits; and
 - ~~(viii)~~ (viii) at least the following equipment is to be stored in a manner that provides for immediate use and protection from the elements:
 - (1) adjustable wrench;
 - (2) blanket, fire resistant;
 - (3) cutters, bolt 60 cm;
 - (4) hook, grab or salving;
 - (5) hacksaw, heavy duty complete with 6 spare blades;
 - (6) ladder;
 - (7) lift line 5 mm diameter × 15 m in length;
 - (8) pliers, side cutting;
 - (9) set of assorted screwdrivers; and
 - (10) harness knife complete with sheath.

Chapter 13

Bulwarks, Freeing Ports, Side Scuttles, Shell Doors and Gangways

Section 13.4 has been added as follows:

13.4 Gangways

Satisfactory means for safety passage required by Regulation 25-1 in the International Convention on Load Lines (ICLL) (in the form of guardrails, life lines, gangways or under deck passages, etc.) are to be provided for the protection of the crew in getting to and from their quarters, the machinery space and all other parts used in the necessary work of the ship.

Section 13.4 has been amended and renumbered as follows:

~~13.4~~13.5 Means of Embarkation and Disembarkation

~~13.4.1~~ **13.5.1** Ships are to be provided with appropriate means of embarkation on and disembarkation from ships for use in port and in port related operations, such as gangways and accommodation ladders.

~~13.4.2~~ **13.5.2** Where a ship is engaged in voyages between designated ports where appropriate shore accommodation / embarkation ladders (platforms) are provided, special approval may be made by the Society.

~~13.4.3~~ **13.5.3** the means of embarkation and disembarkation are to be in accordance with the following.

- (a) Accommodation ladders and gangways are to be constructed based on ISO 5488:1979 "Shipbuilding - accommodation ladders", ISO 7061:1993 "Shipbuilding - aluminium shore gangways for seagoing vessels" or standards where deemed appropriate by the Society. Accommodation ladder winches are to be constructed based on ISO 7364:1983 "Shipbuilding and marine structures – deck machinery – accommodation ladder winches" or standards where deemed appropriate by the Society or are to be the one pursuant to aforementioned standards.
- (b) The structure of the accommodation ladders and gangways and their fittings and attachments are to be such as to allow regular inspection, maintenance of all parts and, if necessary, lubrication of their pivot pin. Special care is to be paid to welding connection.
- (c) As far as practicable, the means of embarkation and disembarkation are to be sited clear of the working area and are not to be placed where cargo or other suspended loads may pass overhead. However, in cases where the Society recognizes unavoidable circumstances, the means of embarkation and disembarkation may be installed within the above mentioned areas or places, provided that safe passage is ensured through description in operation manuals, the installation of warning plates, and so on.

(d) The means of embarkation and disembarkation are to be constructed and installed based on the "Guidelines for construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation(MSC.1/Circ.1331)."

- ~~(d)~~(e) Each accommodation ladder is to be of such a length to ensure that, at a maximum design operating angle of inclination, the lowest platform will be not more than 600 mm above the waterline in the lightest seagoing condition (in this regard, trim is to be the condition resulting from the loading condition of the lightest seagoing condition), as defined in SOLAS Regulation III/3.13. However, in cases where the height of the embarkation / disembarkation deck exceeds 20 m above the waterline or is deemed appropriate by the Society, an alternative means of providing safe access to the ship or supplementary means of access to the bottom platform of the accommodation ladder may be accepted.
- ~~(e)~~(f) The arrangement at the head of the accommodation ladder is to provide direct access between the ladder and the ship's deck by a platform securely guarded by handrails and handholds. The ladder is to be securely attached to the ship to prevent overturning.
- ~~(f)~~(g) Each accommodation ladder or gangway is to be clearly marked at each end with a plate showing the restrictions on the safe operation and loading, including the maximum and minimum permitted design angles of inclination, design load, maximum load on bottom end plate, etc. Where the maximum operational load is less than the design load, it is also to be shown on the marking plate.
- ~~(g)~~(h) Gangways are not to be used at an angle of inclination greater than 30 degrees from the horizontal and accommodation ladders are not to be used at an angle greater than 55 degrees from the horizontal, unless designed and constructed for use at angles greater than these and marked as such.
- ~~(h)~~(i) Gangways are not to be secured to a ship's guardrails unless they have been designed for that purpose. If positioned through an open section of bulwark or railings, any remaining gaps are to be adequately fenced.
- ~~(i)~~(j) Adequate lighting is to be provided to illuminate the means of embarkation and disembarkation, the position on deck where persons embark or disembark and the controls of the arrangement.
- ~~(j)~~(k) A lifebuoy equipped with a self-igniting light and a buoyant lifeline is to be available for immediate use in the vicinity of the embarkation and disembarkation arrangement when in use.
- ~~(k)~~(l) A safety net is to be mounted and arrangements that enable the installation of such net are to be provided to prevent falling accident in cases where it is possible that a person may fall from the means of embarkation and disembarkation or between the ship and quayside.

~~13.4.4~~ 13.5.4 Ships that have small freeboards and are provided with boarding ramps needs not to be in accordance with the requirements of ~~13.4.3~~ 13.5.3.

Chapter 14 Watertight Bulkheads

Fig. II 14-1 has been amended as follows:

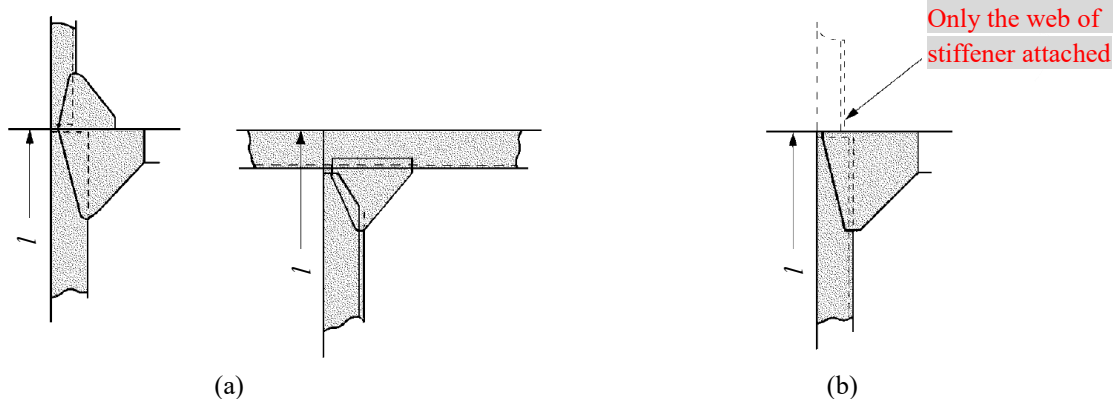
14.4 Other Watertight Construction

**Table II 14-2
Value of C**

Vertical Stiffener				
Lower end	Upper end			
	Lug-connection or supported by horizontal girders	Connection		End of stiffener unattached
		Type A	Type B	
Lug-connection or supported by horizontal girders	1.00	1.00	1.15	1.35
Connected by brackets	0.80	0.80	0.90	1.00
stiffener web attached at end only	1.15	1.15	1.35	1.60
End of stiffener unattached	1.35	1.35	1.60	2.00
Horizontal Stiffener				
The other end	One end			End of stiffener unattached
	Lug-connection, connected by brackets or supported by vertical girders			
	Lug-connection, connected by brackets or supported by vertical girders			
Lug-connection, connected by brackets or supported by vertical girders	1.00			1.35
End of stiffener unattached	1.35			2.00

Notes:

- (1) Lug-connection is a connection where both webs and face plates of stiffeners are effectively attached to the bulkhead plating, decks or inner bottoms and which are strengthened by effective supporting members on the opposite side of the plating.
- (2) " Type A " of vertical stiffeners is a connection by bracket to the longitudinal members or to the adjacent members, in line with the stiffeners, of the same or larger sections. (See Fig. II 14-1 (a))
- (3) " Type B " of vertical stiffeners is a connection by bracket to the transverse members such as beams, or other connections equivalent to the connection mentioned above. (See Fig. II 14-1 (b))



**Fig. II 14-1
Types of End Connections**



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