

Annual Surveys for Arrangements of Ballast Piping Systems

Amended Rules and Guidance

Rules for the Survey and Construction of Steel Ships Parts B, and D

Rules for the Survey and Construction of Passenger Ships

Guidance for the Survey and Construction of Steel Ships Parts B, and D

Reason for Amendment

The IMO adopted its “Survey Guidelines under the Harmonized System of Survey and Certification” (hereinafter referred to as HSSC Guideline) so as to specify detailed requirements related to periodical surveys carried out to confirm that ships in service have satisfied the structural and arrangement requirements mandated by international conventions and the like. In response, IACS adopted Unified Requirement (UR) Z1 which makes reference to and clarifies certain survey items in the HSSC Guideline which are considered necessary for ship classification requirements. These requirements have been incorporated into the NK Rules.

At the 32nd Session of the IMO Assembly (December 2021), an amendment to the HSSC Guideline was adopted as assembly resolution A.1156(32) to meet the requirements for the latest international conventions and the like. In response, IACS reviewed UR Z1 and subsequently adopted a revision of it as UR Z1(Rev.9) in July 2022.

Accordingly, the annual surveys requirements for arrangements of ballast piping systems are amended in accordance with UR Z1(Rev.9).

With the above revision, the requirements for tanks specified in Part D of the Rules for the Survey and Construction of Steel Ships that are intended to be used for both fuel oil and ballast water are reviewed and revised so that they are in line with the current situation.

Outline of Amendment

- (1) Specifies the annual surveys requirements for arrangements of ballast piping systems.
- (2) Amends requirements for tanks that are intended to be used for both fuel oil and ballast water.

“Rules for the survey and construction of steel ships” has been partly amended as follows:

Part B CLASS SURVEYS

Chapter 3 ANNUAL SURVEYS

3.2 Annual Surveys for Hull, Equipment, Fire Extinction and Fittings

3.2.2 General Examination*

Table B3.2 has been amended as follows.

Table B3.2 General Examination (Continued)

Items	Examination
(1 to 25 are omitted.)	
<u>26</u> Arrangements of ballast piping systems	(1) Confirmation that ballast piping systems are not connected to fuel oil tanks. However, the requirements may be dispensed with when ballast piping systems are provided with suitable arrangements which comply with <u>13.5.1-11, Part D.</u>
Additional Requirement for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
26 7 Piping	(1) Confirmation that cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other piping in cargo pump room, cargo compressor rooms and on weather decks are in good condition. (2) Confirmation that the earthing between hull structures and cargo piping systems (cargo oil pipes, vent pipes, tank washing pipes, etc.) is in good condition.
27 8 Cargo tank	(1) Confirmation that the cargo tank openings, including gaskets, covers, coamings and screens are in good condition. (2) Confirmation that the cargo tank pressure/vacuum valves and devices to prevent the passage of flame are in good condition. (3) Confirmation that the cargo tank venting, cargo tank purging and gas-freeing and other ventilation systems are in good condition. (4) Confirmation that the earthing between hull structures and the cargo tank is in good condition.
28 9 Wire gauze to prevent the passage of flame	(1) Confirmation, as far as practicable, that the wire gauze to prevent the passage of flame on vents to all bunker, oily-ballast and oily-slop tanks and void spaces are in good condition.
29 30 Safe access to the bow	(1) Confirmation that the means of safe access to the bow is in good condition.
30 1 Emergency towing arrangements	(1) Confirmation that emergency towing arrangements for ships of not less than 20,000 tonnes deadweight are in good condition.
Additional Requirement for Bulk Carriers over 10 years of age	
31 2 Piping in the cargo holds	(1) Confirmation that all piping and penetrations in cargo holds, including overboard piping, are in good condition.
Additional Requirement for General Dry Cargo Ships of not less than 500 gross tonnage and over 15 years of age	
32 3 Piping in the cargo holds	(1) Confirmation that all piping and penetrations in cargo holds, including overboard piping, are in good condition.
Additional Requirement for Container Carriers	

<p>32.4 Block-to-block butt joints of strength decks and hatch side coamings (including top plates and attached longitudinal stiffeners)</p>	<p>(1) In the case of container carriers using extremely thick steel plates which comply with 32.13, Part C of the Rules, it is to be confirmed, as far as practicable, that block-to-block butt joints of strength decks and hatch side coamings (including top plates and attached longitudinal stiffeners) are in good condition.</p>
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Note:

Examination of suspect areas identified at previous surveys is to be carried out.

Paragraph 3.2.7 has been amended as follows.

3.2.7 Pressure Test

At Annual Surveys for oil tankers and ships carrying dangerous chemicals in bulk, a pressure test is to be carried out on the piping system when deemed necessary by the Surveyor as a consequence of the general examination of item No. ~~267~~ specified in **Table B3.2**.

Part D MACHINERY INSTALLATIONS

Chapter 13 PIPING SYSTEMS

13.5 Bilge and Ballast Piping

13.5.1 General*

Sub-paragraph -11 has been amended as follows.

~~11 In cases where a tank is intended to be used for both fuel oil and ballast water, adequate provisions, such as blank flanges or spool pieces, are to be made to prevent any mixing of fuel oil and ballast water in the ballast pipe when carrying fuel oil and in the fuel oil pipe when carrying ballast water.~~ Ballast piping system is not to be connected with a fuel oil tank. However, the requirements may be dispensed with where as deemed appropriate by the Society in consideration of the arrangements of the ballast piping system.

13.9 Fuel Oil Systems

Paragraph 13.9.1 has been amended as follows.

13.9.1 General*

(-1 to -4 are omitted.)

~~5 In cases where a ship alternates between carrying fuel oil and ballast water in the same compartment, pipes are to be so arranged that the fuel oil can be pumped out from any compartment at the same time that ballast water is being discharged from any other compartment. In cases where settling or service tanks are provided, each having a capacity sufficient to permit 12 hours of normal service without replenishment, the above requirement may be modified.~~

~~6~~5 Two fuel oil service tanks for each type of fuel used on board that is necessary for propulsion and vital systems or equivalent arrangements are to be provided.

~~7~~6 The capacity of each fuel service tank required in ~~-6~~5 is to be sufficient for at least 8 hours at maximum continuous rating of the main engine and normal operating load of the generators at sea.

~~8~~7 In addition to 13.9, fuel oil systems are to comply with the requirements in 4.2, Part R.

Chapter 25 SPECIAL REQUIREMENTS FOR MACHINERY INSTALLED IN SHIPS WITH RESTRICTED AREA OF SERVICE AND SMALL SHIPS

25.2 Modified Requirements

25.2.1 Ships with Class Notation “Coasting Service” or Equivalent

Sub-paragraph -4(6) has been amended as follows.

4 For ships with the Class Notation “Coasting Service” or equivalent, which are not engaged in international voyages, or whose gross tonnage is less than 500 *tons*, the following requirements may be applied in addition to the requirements given in -1 to -3 above.

- (1) The requirements specified in 1.3.1-5 need not apply.
- (2) The requirements specified in 1.3.8 need not apply. (however, only for those ships not engaged in international voyages)
- (3) The requirements specified in 1.3.9 need not apply.
- (4) Appropriate devices specified in 5.2.4-3 may be replaced with emergency fixing bolts for clutches to enable the ship to obtain navigable speed.
- (5) Appropriate devices specified in 7.2.2-8, may be replaced with propeller pitch-fixing devices to enable the ship to obtain a navigable speed.
- (6) The requirements specified in 13.5.10, 13.6.1-5, 13.8.5, 13.9.1-~~65~~ and 13.9.1-~~76~~ need not apply.

“Rules for the survey and construction of passenger ships” has been partly amended as follows:

Part 5 MACHINERY INSTALLATIONS

Chapter 4 SPECIAL REQUIREMENTS FOR MACHINERY INSTALLED IN SHIPS WITH RESTRICTED AREA OF SERVICE

4.2 Modified Requirements

4.2.1 Ships with Class Notation “*Coasting Service*” or Equivalent

Sub-paragraph -4(8) has been amended as follows.

4 For ships with the Class Notation “*Coasting Service*” or equivalent, which are not engaged in international voyages, the following requirements may apply in addition to the requirements in -1 to -3 above.

(8) The requirements specified in 13.6.1-5, 13.9.1-~~65~~ and 13.9.1-~~76~~, Part D of the Rules for the Survey and Construction of Steel Ships may not apply.

“Guidance for the survey and construction of steel ships” has been partly amended as follows:

Part B CLASS SURVEYS

B3 ANNUAL SURVEYS

B3.2 Annual Surveys for Hull, Equipment, Fire Extinction and Fittings

B3.2.2 General Examination

Sub-paragraph -7 has been amended as follows.

7 When applying the requirements of item ~~267~~ and item ~~278~~ of **Table B3.2, Part B of the Rules**, resistance testing is to be carried out for all electrical bonding to confirm that resistance is not greater than $1\ M\Omega$ in cases where bonding straps are not provided as electrical bonding between fuel storage tanks or fuel piping and hull structures, or in cases where the Surveyor deems such testing to be necessary. However, such measurements may be omitted at the discretion of the Surveyor in cases where accurate measurement records are maintained and can be verified.

Part D MACHINERY INSTALLATIONS

D13 PIPING SYSTEMS

D13.5 Bilge and Ballast Piping

D13.5.1 General

Sub-paragraph -4 has been added as follows.

4 The wording “where as deemed appropriate by the Society” specified in **13.5.1-11, Part D of the Rules** means the case where an oily-water separator with an appropriate processing capacity or no openings for the discharging ballast water to the ocean is provided and the oily ballast water is intended to discharge on the shore.

D13.9 Fuel Oil Systems

D13.9.1 General

Sub-paragraph -3 has been amended as follows.

3 The wording “fuel oil service tanks” specified in **13.9.1-65, Part D of the Rules** refers to those fuel oil tanks which contain only fuel of a quality ready for use and that meet any specifications required by the equipment manufacturer. In this case, service tanks are to be declared as such and they are not to be used for any other purpose.