

# Performance Tests for Hatch Covers

## Object of Amendment

Rules for the Survey and Construction of Steel Ships Part B

## Reason for Amendment

Requirements related to performance tests for hatch covers specified in Part B of the Rules for the Survey and Construction of Steel Ships Part B are based on the IACS UR Z10 series.

Relevant requirements are, therefore, amend to clarify the correspondence of wording between of Part B of the Rule and IACS UR Z10 series.

## Outline of the Amendment

Specify wording that performance tests for mechanically operated hatch covers are to be carried out using a method that allows verification of satisfactory operation throughout the full extent of both the opening and closing directions.

## Effective Date and application

Effective date of this amendment is [the date of establishment].

An asterisk (\*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

ID: DH24-08

**Amended-Original Requirements Comparison Table (Performance Tests for Hatch Covers)**

Amended	Original	Remarks
<p align="center"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part B CLASS SURVEYS</b></p> <p align="center"><b>Chapter 3 ANNUAL SURVEYS</b></p> <p><b>3.2 Annual Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings</b></p> <p><b>3.2.3 Performance Tests*</b> At Annual Surveys, performance tests listed in <b>Table B3.3</b> are to be carried out.</p>	<p align="center"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part B CLASS SURVEYS</b></p> <p align="center"><b>Chapter 3 ANNUAL SURVEYS</b></p> <p><b>3.2 Annual Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings</b></p> <p><b>3.2.3 Performance Tests*</b> At Annual Surveys, performance tests listed in <b>Table B3.3</b> are to be carried out.</p>	

### Amended-Original Requirements Comparison Table (Performance Tests for Hatch Covers)

Amended		Original		Remarks
<b>Table B3.3 Performance Tests</b>		<b>Table B3.3 Performance Tests</b>		
Items	Tests	Items	Tests	
1 Weathertight hatch covers	(1) Hose test (when deemed necessary by the Surveyor) (2) Random checking of the satisfactory operation of mechanically operated hatch covers including hydraulic and power components, wires, chains and link drives (3) For mechanically operated hatch covers on bulk carriers, hatch cover sets within the forward 0.25 $L_f$ and at least one additional set, including hydraulic and power components, wires, chains and link drives, are to be checked for satisfactory operation <u>throughout the full extent of both the opening and closing directions, and</u> all sets on the ship are checked at least once every 5 years between <u>Special Surveys</u>	1 Weathertight hatch covers	(1) Hose test (when deemed necessary by the Surveyor) (2) Random checking of the satisfactory operation of mechanically operated hatch covers including hydraulic and power components, wires, chains and link drives (3) For mechanically operated hatch covers on bulk carriers, hatch cover sets within the forward 0.25 $L_f$ and at least one additional set, including hydraulic and power components, wires, chains and link drives, are to be checked for satisfactory operation <u>so that</u> all sets on the ship are checked at least once every 5 years between <u>special surveys</u>	IACS UR Z10.2 / 3.2.3.2 IACS UR Z10.5 / 3.2.3.2
(Omitted)		(Omitted)		

**Amended-Original Requirements Comparison Table (Performance Tests for Hatch Covers)**

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<p><b>Chapter 4 INTERMEDIATE SURVEYS</b></p> <p><b>4.2 Intermediate Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings</b></p> <p><b>4.2.3 Performance Tests*</b> At Intermediate Surveys, performance tests listed in <b>Table B4.1</b> are to be carried out.</p> <p align="center">Table B4.1 Performance Test</p> <table border="1"> <thead> <tr> <th align="center">Items</th> <th align="center">Tests</th> </tr> </thead> <tbody> <tr> <td align="center" colspan="2">(Omitted)</td> </tr> <tr> <td>12 Closing appliances of openings related to fire fighting in way of cargo holds</td> <td>(1) Confirmation that closing appliances work in order is to be made.</td> </tr> <tr> <td align="center" colspan="2">Additional Requirements for Bulk Carriers</td> </tr> </tbody> </table>	Items	Tests	(Omitted)		12 Closing appliances of openings related to fire fighting in way of cargo holds	(1) Confirmation that closing appliances work in order is to be made.	Additional Requirements for Bulk Carriers		<p><b>Chapter 4 INTERMEDIATE SURVEYS</b></p> <p><b>4.2 Intermediate Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings</b></p> <p><b>4.2.3 Performance Tests*</b> At Intermediate Surveys, performance tests listed in <b>Table B4.1</b> are to be carried out.</p> <p align="center">Table B4.1 Performance Test</p> <table border="1"> <thead> <tr> <th align="center">Items</th> <th align="center">Tests</th> </tr> </thead> <tbody> <tr> <td align="center" colspan="2">(Omitted)</td> </tr> <tr> <td>12 Closing appliances of openings related to fire fighting in way of cargo holds</td> <td>(1) Confirmation that closing appliances work in order is to be made.</td> </tr> <tr> <td align="center" colspan="2">Additional Requirements for Bulk Carriers</td> </tr> <tr> <td>13 Mechanically operated hatch covers</td> <td>(1) Confirmation that hatch cover sets within the forward <math>0.25L_f</math> and at least one additional set <u>work in good order is to be carried out</u>. The method is to be in a way that ensures all sets on the ship are checked at least once every 5 <i>years</i> between <u>special surveys</u>.  (2) Confirmation that all hatch covers work in good order is to be carried out for ships over 10 years of age.</td> </tr> <tr> <td>14 Weathertight hatch covers</td> <td>(1) Hose tests or equivalent, for all hatch covers for ships over 10 <i>years</i> of age.</td> </tr> <tr> <td>15 Water level detection and alarm systems</td> <td>(1) Confirmation that the systems work in order is to be made for ships over 10 <i>years</i> of age.</td> </tr> </tbody> </table>	Items	Tests	(Omitted)		12 Closing appliances of openings related to fire fighting in way of cargo holds	(1) Confirmation that closing appliances work in order is to be made.	Additional Requirements for Bulk Carriers		13 Mechanically operated hatch covers	(1) Confirmation that hatch cover sets within the forward $0.25L_f$ and at least one additional set <u>work in good order is to be carried out</u> . The method is to be in a way that ensures all sets on the ship are checked at least once every 5 <i>years</i> between <u>special surveys</u> .  (2) Confirmation that all hatch covers work in good order is to be carried out for ships over 10 years of age.	14 Weathertight hatch covers	(1) Hose tests or equivalent, for all hatch covers for ships over 10 <i>years</i> of age.	15 Water level detection and alarm systems	(1) Confirmation that the systems work in order is to be made for ships over 10 <i>years</i> of age.	<p>IACS UR Z10.2 / 4.1.2 IACS UR Z10.5 / 4.1.2</p>
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**Amended-Original Requirements Comparison Table (Performance Tests for Hatch Covers)**

Amended		Original	Remarks
13	Mechanically operated hatch covers	(1) Confirmation that hatch cover sets within the forward $0.25L_f$ and at least one additional set, <u>including hydraulic and power components, wires, chains and link drives, are checked for satisfactory operation throughout the full extent of both the opening and closing directions.</u> The <u>confirmation</u> method is to be in a way that ensures all sets on the ship are checked at least once every 5 years between Special Surveys.  (2) Confirmation that all hatch covers work in good order is to be carried out for ships over 10 years of age.	
14	Weathertight hatch covers	(1) Hose tests or equivalent, for all hatch covers for ships over 10 years of age.	
15	Water level detection and alarm systems	(1) Confirmation that the systems work in order is to be made for ships over 10 years of age.	

**Amended-Original Requirements Comparison Table (Performance Tests for Hatch Covers)**

Amended	Original	Remarks
<p align="center"><b>Chapter 5 SPECIAL SURVEYS</b></p> <p><b>5.2 Special Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings</b></p> <p><b>5.2.3 Performance Test*</b></p> <p><b>1</b> At Special Surveys, performance tests specified in 4.2.3 are to be carried out. In addition to such performance tests, it is to be confirmed that the loading instrument required in 3.8.1.1, Part 1, 3.2.2.1, Part 2-2 and 3.2.2.1, Part 2-3, Part C works in order. Moreover, the performance tests for mooring and anchoring arrangements specified in item 3 of <b>Table B4.1</b> may not be omitted.</p> <p><b>2</b> In addition to -1 above, the performance tests and operation tests specified in (1) to (10) below are to be carried out.</p> <p>(1) Operation tests for all mechanically operated hatch covers, including the testing of all hydraulic and power components, wires, chains and link drives. <u>In addition, the mechanically operated hatch covers of bulk carriers are to be checked for satisfactory operation throughout the full extent of both the opening and closing directions</u></p> <p>(2) Hose tests or equivalent, for all weathertight hatch covers</p> <p>(3) Performance tests and operation tests for all bilge and ballast piping system</p> <p>(4) Hose tests or equivalent, for all bow doors, inner doors, side shell doors and stern doors</p> <p>(5) The hose tests or equivalent tests, for the doors of watertight bulkheads and the closing appliances of superstructure end bulkheads, deckhouses or</p>	<p align="center"><b>Chapter 5 SPECIAL SURVEYS</b></p> <p><b>5.2 Special Surveys for Hull, Equipment, Fire Extinction, Computer-based Systems and Fittings</b></p> <p><b>5.2.3 Performance Test*</b></p> <p><b>1</b> At Special Surveys, performance tests specified in 4.2.3 are to be carried out. In addition to such performance tests, it is to be confirmed that the loading instrument required in 3.8.1.1, Part 1, 3.2.2.1, Part 2-2 and 3.2.2.1, Part 2-3, Part C works in order. Moreover, the performance tests for mooring and anchoring arrangements specified in item 3 of <b>Table B4.1</b> may not be omitted.</p> <p><b>2</b> In addition to -1 above, the performance tests and operation tests specified in (1) to (10) below are to be carried out.</p> <p>(1) Operation test for all mechanically operated hatch covers, including the testing of all hydraulic and power components, wires, chains and link drives</p> <p>(2) Hose tests or equivalent, for all weathertight hatch covers</p> <p>(3) Performance tests and operation tests for all bilge and ballast piping system</p> <p>(4) Hose tests or equivalent, for all bow doors, inner doors, side shell doors and stern doors</p> <p>(5) The hose tests or equivalent tests, for the doors of watertight bulkheads and the closing appliances of superstructure end bulkheads, deckhouses or</p>	<p>IACS UR Z10.2 / 2.2.4.2 IACS UR Z10.5 / 2.2.4.2</p>

**Amended-Original Requirements Comparison Table (Performance Tests for Hatch Covers)**

Amended	Original	Remarks
<p>companions protecting hatchways giving access to spaces below freeboard deck</p> <p>(6) For oil tankers and ships carrying dangerous chemical in bulk, performance tests and operation tests of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, pipe tunnels, cofferdams and void spaces, and on the weather deck</p> <p>(7) For ships carrying liquefied gases in bulk, performance test and operation test of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams and void spaces, and on weather deck</p> <p>(8) For bulk carriers and general dry cargo ships of 500 <i>gross tonnage</i>, performance test and operation test of all piping systems within cargo holds, all ballast tanks and all tanks and spaces bounding cargo holds such as pipe tunnels, cofferdams, void spaces, and other similar spaces bounding cargo holds, and those on weather decks</p> <p>(9) Performance tests listed in item 1 of <b>Table B4.1</b>, for all water level detection and alarm systems.</p> <p>(10) Performance test for the means of embarkation and disembarkation, for ships not less than 500 <i>gross tonnage</i> which are engaged on international voyages.</p>	<p>companions protecting hatchways giving access to spaces below freeboard deck</p> <p>(6) For oil tankers and ships carrying dangerous chemical in bulk, performance tests and operation tests of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, pipe tunnels, cofferdams and void spaces, and on the weather deck</p> <p>(7) For ships carrying liquefied gases in bulk, performance test and operation test of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams and void spaces, and on weather deck</p> <p>(8) For bulk carriers and general dry cargo ships of 500 <i>gross tonnage</i>, performance test and operation test of all piping systems within cargo holds, all ballast tanks and all tanks and spaces bounding cargo holds such as pipe tunnels, cofferdams, void spaces, and other similar spaces bounding cargo holds, and those on weather decks</p> <p>(9) Performance tests listed in item 1 of <b>Table B4.1</b>, for all water level detection and alarm systems.</p> <p>(10) Performance test for the means of embarkation and disembarkation, for ships not less than 500 <i>gross tonnage</i> which are engaged on international voyages.</p>	
<p><b>EFFECTIVE DATE AND APPLICATION</b></p> <p>1. The effective date of the amendments is [the date of establishment].</p>		