



RULES FOR BUILDING AND CLASSING

STEEL VESSELS 2010

NOTICES AND GENERAL INFORMATION

**American Bureau of Shipping
Incorporated by Act of Legislature of
the State of New York 1862**

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Notices and General Information

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Notices and General Information

Introduction

1. The year 2010 edition of the *Rules for Building and Classing Steel Vessels* is a complete reprint of the 2009 edition, consisting of the eleven (11) booklets as shown in Table 1. In this regard, we would bring the following to the user's attention:
 - a) The purpose of the generic title *ABS Rules for Conditions of Classification (Part 1)* is to reflect the expanded contents of PART 1, as a result of including consolidated requirements for "Classification" applicable to all types of and sizes of vessels, barges and specific shipboard arrangements/systems, etc., except for those in offshore service, as specified in the Foreword to Part 1.
 - b) The purpose of the generic title *ABS Rules for Materials and Welding (Part 2)* of PART 2 is to emphasize the common applicability of the requirements to ABS-classed vessels, other marine structures and their associated machinery, and thereby make PART 2 more readily a common "PART" of various ABS Rules and Guides, as appropriate.
 - c) The purpose of the generic title *ABS Rules for Survey After Construction (Part 7)* is to reflect the expanded contents of PART 7, as a result of including consolidated requirements for "Surveys After Construction" applicable to all types and sizes of vessels, barges and specific shipboard arrangements/systems, etc., as specified in Part 7, Chapter 1, Section 1.
2. The numbering system applied in the Rules is shown in Table 2.
3. The primary changes from the 2009 edition of the Rules are identified and listed in Table 3. The effective date of the indicated Rule Changes is 1 January 2010, unless specifically indicated otherwise.
4. The effective date of each technical change since 1993 is shown in parenthesis at the end of the subsection/paragraph titles within the text of each Part. Unless a particular date and month are shown, the years in parentheses refer to the following effective dates:

(2000) and after	1 January 2000 (and subsequent years)	(1996)	9 May 1996
(1999)	12 May 1999	(1995)	15 May 1995
(1998)	13 May 1998	(1994)	9 May 1994
(1997)	19 May 1997	(1993)	11 May 1993
5. Until the next edition of the *Rules for Building and Classing Steel Vessels* is published, Rule Change Notices and/or Corrigenda, as necessary, will be published on the ABS website – www.eagle.org – only, and will be available free for downloading. It is not intended to publish hard copies of future Rule Change Notices and/or Corrigenda to existing Rules or Guides. The consolidated edition of the *Rules for Building and Classing Steel Vessels*, which includes Rule Change Notices and/or Corrigenda using different colors for easy recognition will be published on the ABS website only when RCN and/or Corrigenda are issued.
6. The listing of CLASSIFICATION SYMBOLS AND NOTATIONS is available from the ABS website <http://www.eagle.org/absdownloads/index.cfm> for download.
7. In association with the introduction of the Common Structural Rules for Double Hull Oil Tankers and Bulk Carriers, respectively, on 1 April 2006, Part 5 of the *Rules for Building and Classing Steel Vessels* was divided into three Sub-parts, 5A, 5B and 5C. The contents and application of each Part are as follows:

Contents

Part 5A: Common Structural Rules for Double Hull Oil Tankers (*See note below)

Part 5B: Common Structural Rules for Bulk Carriers (*See note below)

Part 5C: This Part is divided into two separate booklets as follows:

Chapters 1 to 6:	Tankers not covered by Part 5A, Bulk Carriers not covered by Part 5B and Container Carriers
Chapters 7 to 10:	Passenger Vessels, Liquefied Gas Carriers, Chemical Carriers and Vessels Intended to Carry Vehicles.

* *Note:* In view of the effective date (1 July of each year) of the updated Common Structural Rules, the 2010 editions of Part 5A and Part 5B will be published in July 2010. Until the effective date of the 2010 editions, the following 2009 editions are applicable:

Part 5A Specific Vessel Types (Chapter 1), 2009
Common Structural Rules for Double Hull Oil Tankers
[including Rule Change Notice No. 1 (January 2009)]

Part 5B Specific Vessel Types (Chapters 3 and 4), 2009
Common Structural Rules for Bulk Carriers
[including Rule Change Notice No. 1 (January 2009)]

Application – Oil Tankers

The structural requirements in Part 5A of the Rules are applicable for double hull oil tankers of 150 m in length and upward, with structural arrangements as specified in Part 5A, Section 2.

For oil tankers with structural arrangements not covered by Part 5A, the requirements in Part 5C, Chapters 1 or 2, are to be complied with.

Application – Bulk Carriers

The structural requirements in Part 5B of the Rules are applicable for single side skin and double side skin bulk carriers of 90m in length and upward, with structural arrangements as specified in Part 5B, Chapter 1, Section 1.

For vessels intended to carry ore or bulk cargoes, other than the single side skin or double side skin bulk carriers of 90 m in length and upward with structural arrangements as specified in Part 5B, Chapter 1, Section 1, the requirements in Part 5C Chapters 3 or 4 are to be complied with.

Application – ABS Construction Monitoring Program

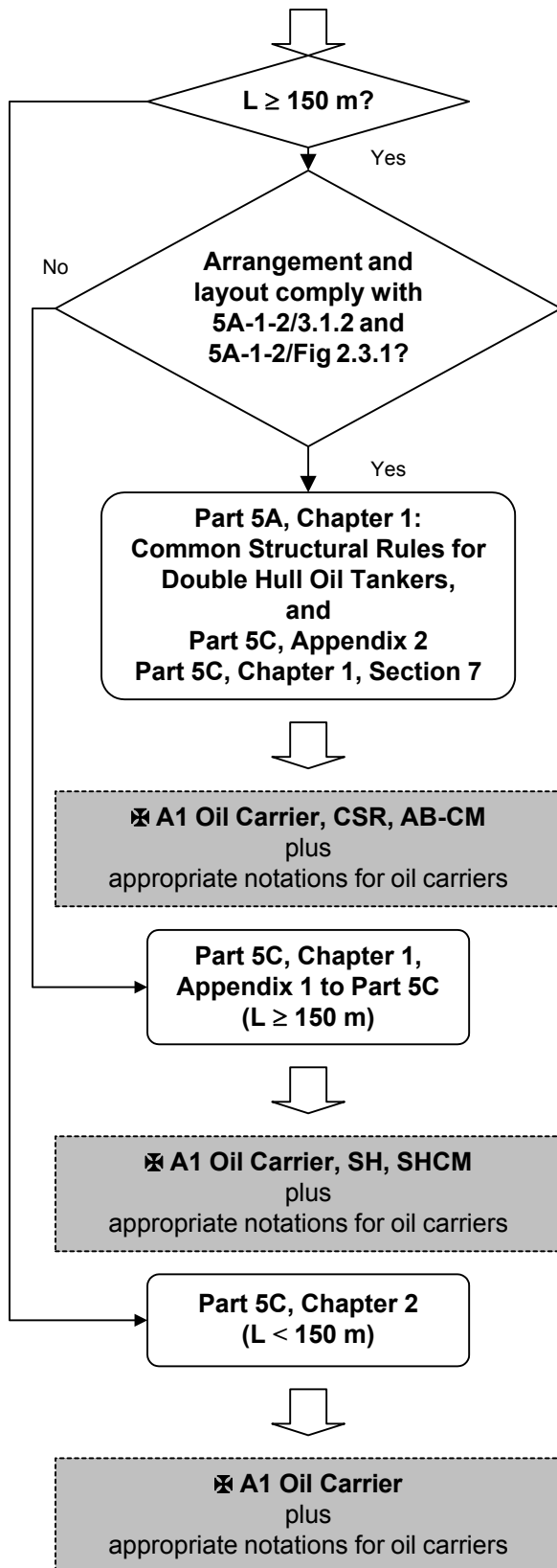
These compulsory requirements for **CSR** notation are specified in Part 5C, Appendix 2.

Application – Onboard Systems for Oil Tankers and Bulk Carriers

The onboard systems for all tankers are to comply with the requirements of Part 5C, Chapter 1, Section 7, and for all bulk carriers are to comply with the requirements of Part 5C, Chapter 3, Section 7 of the Rules.

The following flow chart indicates the application of the Rules and typical Class Notations for tanker and bulk carrier vessels, of which arrangements and scantlings are in full compliance with the Rules:

Vessels Intended to Carry Oil in Bulk



Vessels Intended to Carry Ore or Bulk Cargoes

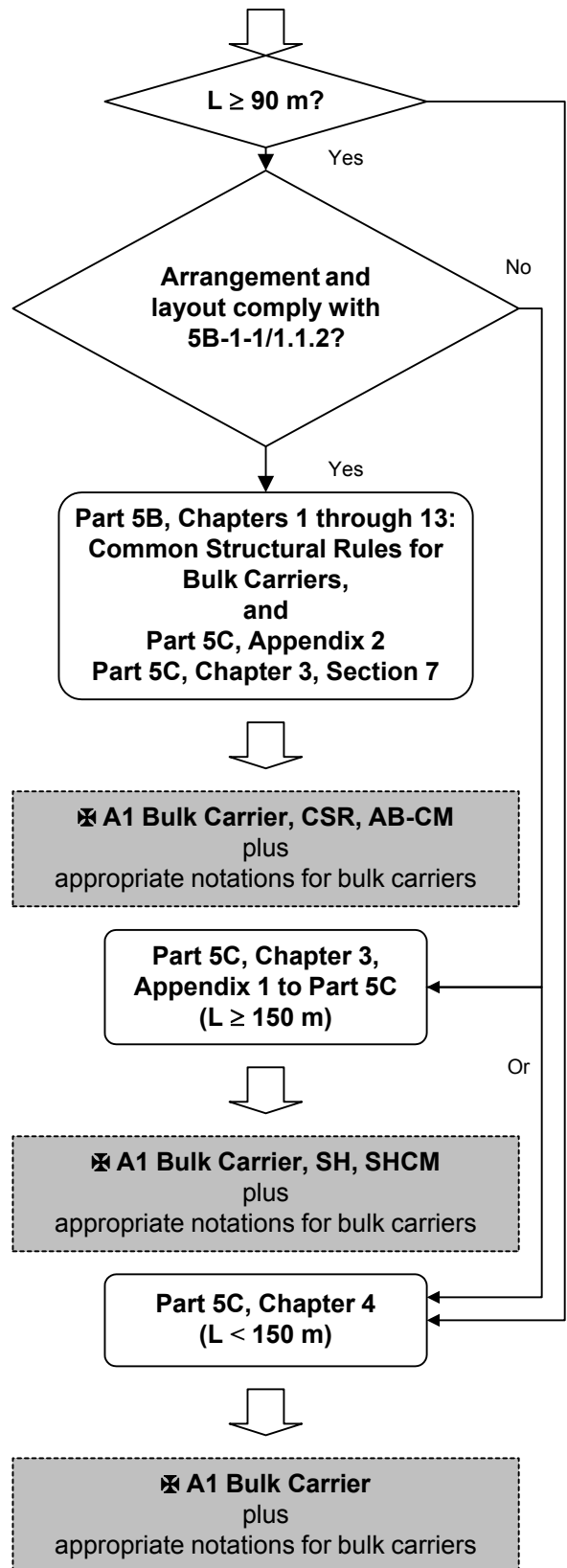


TABLE 1
Applicable Editions of Booklets Comprising 2010 Rules

Notices and General Information		2010
Part 1:	Rules for Conditions of Classification	2010
Part 2:	Rules for Materials and Welding Rules for Testing and Certification of Materials Rules for Welding and Fabrication	2010
Part 3:	Hull Construction and Equipment	2010
Part 4:	Vessel Systems and Machinery	2010
Part 5A: (Booklet 1)	Specific Vessel Types Chapter 1 Common Structural Rules for Double Hull Oil Tankers	2009 (on and after 1 July 2009)
Part 5B: (Booklet 2)	Specific Vessel Types Chapter 3 & 4 Common Structural Rules for Bulk Carriers	2009 (on and after 1 July 2009)
Part 5C: (Booklet 3)	Specific Vessel Types Chapter 1 & 2 Oil Carrier Chapter 3 & 4 Bulk Carrier Chapter 5 & 6 Container Carrier	2010
Part 5C: (Booklet 4)	Specific Vessel Types Chapter 7 Passenger Carrier Chapter 8 Liquefied Gas Carrier Chapter 9 Chemical Carrier Chapter 10 Vehicle Carrier	2010
Part 6:	Optional Items and Systems Chapter 1 Strengthening for Navigation in Ice Chapter 2 Refrigerated Cargo Vessels	2010
Part 7:	Rules for Surveys After Construction	2010

TABLE 2
Division and Numbering of Rules

<i>Division</i>	<i>Number</i>
Part	Part 1
Chapter	Part 1, Chapter 1
Section	Section 1-1-1
Subsection (see Note 1)	1-1-1/1
Paragraph (see Note 1)	1-1-1/1.1
Subparagraph	1-1-1/1.1.1
Item	1-1-1/1.1.1(a)
Subitem	1-1-1/1.1.1(a)i
Appendix	Appendix 1-1-A1 or Appendix 1-A1-1

Note:

1

An odd number (1, 3, 5, etc.) numbering system is used for the Rules. The purpose is to permit future insertions of even-numbered paragraphs (2, 4, 6, etc.) of text and to avoid the necessity of having to renumber the existing text and associated cross-references, as applicable, within the Rules and associated process instructions, check sheets, etc.

Change Notice (2010)

TABLE 3
Summary of Changes from the 2009 Rules

EFFECTIVE DATE 1 January 2009 – shown as (2009)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
PART 1	Rules for Conditions of Classification	
1-1-4/1.3	Application	To allow for special consideration of application and implementation of the Rules for military vessels or vessels owned by governments. (Incorporates Notice No. 1)

EFFECTIVE DATE 1 April 2009 – shown as (1 April 2009)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
PART 1	Rules for Conditions of Classification	
1-1-4/7.6 (New)	Application of Common Structural Rules for tankers and Bulk Carriers	To clarify acceptance of double hull oil tankers and bulk carriers designed for full compliance with the “Common Structural Rules for Double Hull Oil Tankers” and “Common Structural Rules for Single/Double Side Skin Bulk Carriers” but approved by another recognized classification society. (Incorporates Notice No. 2)

EFFECTIVE DATE 31 July 2009 – shown as (31 July 2009)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
PART 1	Rules for Conditions of Classification	
1-1-5/5.3 (New)	European Commission	To comply with Articles 8(1) and 9 of Regulation (EC) No. 391/2009 on “Common rules and standards for ship inspection and survey organizations”. (Incorporates Notice No. 3)

EFFECTIVE DATE 1 January 2010 – shown as (2010)
(based on the date of purchase order of the materials)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
PART 2	Rules for Materials and Welding	
2-1-1/1.2.1	<No Title>	To align the requirements with IACS UR W11, Rev. 7 and Appendices 2-A4-1 and 2-A4-2 of the <i>ABS Rules for Materials and Welding</i> .
2-2-1/3	Materials for Anchors	To include Charpy Impact testing requirements for all cast anchors.
2-2-1/5.9	Repairs	To require that anchor manufacturers maintain a record of weld repairs to anchor castings or forgings. To reference 2-2-1/7.3.7, highlighting that repairs of cracks detected after drop test or during hammering test is not permitted.
2-2-1/Table 1	Applicable Test Programs for Each Product Form	To include Charpy Impact testing requirements for all cast anchors.
2-2-1/Table 2	Product test Requirements for Program A and B	To require drop testing for Program B
2-3-7/1.15	Rectification of Defective Forgings	To clarify that welders or welding operators are required to be qualified for the repair welding of forgings.

Notices and General Information

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
2-3-9/15.7	Welded Repair	To clarify that welders or welding operators are required to be qualified for the repair welding of castings.
2-4-4/5.11	Peening	To distinguish between peening for distortion control and peening for fatigue life enhancement.
2-4-4/5.12 (New)	Weld Profiling	To provide criteria regarding weld profiling for fatigue life enhancement.
2-4-4/5.21 (New)	Fillet Weld Ends	To provide clarification regarding wrapping of fillet weld ends.
2-4-2/1.3	Welding Approval	To clarify that filler metals other than electrodes also need to be approved by the Surveyor.
2-4-3/11.3	Qualification Tests	To permit qualification of welders to recognized standards, such as ISO 9606-1, AWS B2.1, AWS D1.1, NavSea Technical Publication S9074-AQ-GIB-010/248, ASME Section IX, or other equivalent.
2-4-3/Table 1	Welder Qualification Tests	To align the requirements with current welder qualification test practices.
2-4-3/Figure 13	Orientation and Location of Charpy V-notch Specimens for Weld and Heat Affected Zone Properties	To align the requirements with IACS UR W28 Annex A.
2-A2-1/9.3.1	Deposited Metal Test and Diffusible Hydrogen Test	To clarify when buttering may be applied.
2-A2-1/9.3.2	Butt Weld Test and Fillet Weld Test	To align the requirements with IACS UR W17 and to add equivalent grades from other class societies.
2-A2-1/29.1.2	Uprating	To clarify that fillet testing is to be conducted for uprating to YQ grades of SMAW electrodes.
Appendix 4	Procedure for the Approval of Manufacturers of Hull Structural Steel	To align the requirements with IACS UR W11 Rev. 7.
2-A7-2/Table 1	Crankshaft Forgings –Allowable Number and Size of Indications in a Reference Area of 225 cm ²	To align the table with 4-3-2/3.7.3 of the <i>ABS Rules for Building and Classing Steel Vessels</i> .
2-A7-2/Table 2	Steel Forgings Excluding Crankshaft Forgings - Allowable Number and Size of Indications in a Reference Area of 225 cm ²	To align the table with 4-3-2/3.7.3 of the <i>ABS Rules for Building and Classing Steel Vessels</i> .

EFFECTIVE DATE 1 July 2009 – shown as (1 July 2009)
(based on the contract date for new construction between builder and Owner)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
PART 3	Hull Construction and Equipment	
3-1-2/Table 2	Material Grade of Structural Members	To align the requirements with IACS UR S6, rev. 5. (Incorporates Notice No. 1)
PART 4	Vessel Systems and Machinery	
4-3-1A1/21.17	Helix Angle Factor	To align the requirements with the corrigenda to ISO 6336-2 <i>Calculation of Surface Durability</i> . (Incorporates Notice No. 1)
4-6-3/9	Manufacturing of Plastic Pipes	To allow for consideration of the requirements in recognized standards for plastic pipe manufacturing. (Incorporates Notice No. 1)
4-6-7/3.5.5	Hydraulic Power Cylinder	To clarify the requirements. (Incorporates Notice No. 1)
4-7-3/5.1.5 (New)	Fixed Foam Systems Using Inside Air	To reflect the use of MSC.1/Circ.1271 for High-Expansion Foam Systems that utilize inside air. (Incorporates Notice No. 1)
4-7-3/5.3.1	System Characteristics	To align the requirements with Annex 3 of IMO resolution MSC.217(82). (Incorporates Notice No. 1)

Notices and General Information

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
Appendix 4-7-3A1 (New)	IMO MSC.1/Circ.1271	To incorporate IMO MSC.1/Circ.1271 for ready reference. (Incorporates Notice No. 1)
4-7-3/7.1	Fixed Pressure Water-spraying Fire Extinguishing System	To align the requirements with IMO resolution MSC.217(82). (Incorporates Notice No. 1)
Appendix 4-7-3A2 (New)	IMO MSC/Circ.1165	To incorporate IMO MSC/Circ.1165 for ready reference. (Incorporates Notice No. 1)
4-7-3/7.1.3	Sprinkler Systems Equivalency	To align the requirements with IMO resolution MSC.265(84). (Incorporates Notice No. 1)
Appendix 4-7-3A3 (New)	IMO Resolution A.800(19), as Amended by MSC.265(84)	To incorporate IMO Resolution A.800(19), as amended by MSC.265(84) for ready reference. (Incorporates Notice No. 1)
4-7-3/15.3	Portable Foam Applicators	To align the requirements with Annex 3 of IMO resolution MSC.217(82). (Incorporates Notice No. 1)
4-7-3/Table 4	Equivalent Fire Extinguishers	To align the Table with the text of 4-7-3/15.1.1 and to include Type A dry chemical extinguishers. (Incorporates Notice No. 1)
4-8-4/21.17.1	Emergency and Essential Feeders	To clarify the requirements. (Incorporates Notice No. 1)
4-8-4/21.17.3 (New)	Electrical Cables for the Emergency Fire Pump	To clarify that the electrical cables to the emergency fire pump are not to pass through the machinery spaces containing the main fire pumps and their sources of power and prime movers (such as the main machinery space) and that where the cables pass through other high fire risk areas, the cables are to be of a fire resistant type in accordance with paragraph 2(a) of IACS UR E15. (Incorporates Notice No. 1)
PART 5C		
Specific Vessel Types		
5C-3-1/1.3.6 (New)	Selection of Material Grades	To update the material selection for single-side skin bulk carriers subject to SOLAS Regulation XII/6.5.3, in line with IACS UR S6 (Rev. 5). (Incorporates Notice No. 1)
5C-3-1/Table 1 (New)	Minimum Material Grades for Single-side Skin Bulk Carriers Subject to SOLAS Regulation XII/6.5.3	To update the material selection for single-side skin bulk carriers subject to SOLAS Regulation XII/6.5.3, in line with IACS UR S6 (Rev. 5). (Incorporates Notice No. 1)
5C-3-4/1.7 (New)	Evaluation of Grouped Stiffeners	To be consistent with 5C-1-4/1.7 and 5C-5-4/1.7 of the Rules and current industry practice. (Incorporates Notice No. 1)
5C-4-1/1.13 (New)	Selection of Material Grades	To update the material selection for single-side skin bulk carriers subject to SOLAS Regulation XII/6.5.3, in line with IACS UR S6 (Rev. 5). (Incorporates Notice No. 1)
5C-4-1/Table 1 (New)	Minimum Material Grades for Single-side Skin Bulk Carriers Subject to SOLAS Regulation XII/6.5.3	To update the material selection for single-side skin bulk carriers subject to SOLAS Regulation XII/6.5.3, in line with IACS UR S6 (Rev. 5). (Incorporates Notice No. 1)
PART 6		
Optional Items and Systems		
6-1-2/5.3	Upper and Lower Ice Waterlines	To align the requirements with revisions to the Finnish-Swedish Baltic Ice Rules. (Incorporates Notice No. 1)
6-1-2/7	Maximum and Minimum Draft Fore and Aft	To align the requirements with revisions to the Finnish-Swedish Baltic Ice Rules. (Incorporates Notice No. 1)
6-1-2/Figure 3	Ice Strengthening Regions	To align the requirements with revisions to the Finnish-Swedish Baltic Ice Rules. (Incorporates Notice No. 1)
Appendix 6-1-2A1 (New)	Ice Class Draft Marking	To align the requirements with revisions to the Finnish-Swedish Baltic Ice Rules. (Incorporates Notice No. 1)

EFFECTIVE DATE 1 January 2010 – shown as (2010)
(based on the contract date for new construction between builder and Owner)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
PART 3	Hull Construction and Equipment	
3-2-4/17 (New)	Fixed Ballast	To call out the requirements for fixed ballast in 7-A-4/25.
3-2-14/11.3	Keyed Fitting	To provide requirements for sizing rudder keys.
3-4-1/5.3.1	Low Flash Point Cargoes	To identify the additional structural fire protection requirements applicable to oil tankers with bow or stern loading arrangements.
3-5-1/1	General	To provide requirements for verifying the windlass capability to heave in a length of chain longer than the Rule length.
PART 4	Vessel Systems and Machinery	
4-1-1/Table 1	Certification Details – Prime Movers	To indicate that the Product Quality Assurance program is not available for diesel engines, steam turbines or gas turbines that are less than 100 kW (135 hp).
4-2-1/7.2.1	General	To require that all diesel engines of 2,250 kW and above or having cylinders of more than 300 mm bore along should be fitted with oil mist monitoring arrangements or equivalent arrangements, regardless of whether or not an automation notation was being pursued, in line with IACS UR M10 and IACS UI 228.
4-3-2/7.3	Shaft Alignment Calculations	To clarify the requirements for alignment verification and to expand the requirements for submission of calculations to shafts of 300 mm (11.81 in.) and greater.
4-3-2/11.1.1	Alignment	To clarify the requirements for alignment verification and to expand the requirements for submission of calculations to shafts of 300 mm (11.81 in.) and greater.
4-3-4/3.3.2	Small Parts of Rudder Actuators	To align the requirements with the material testing requirements in 4-4-1/3.5 and 4-4-1/1.1(v).
4-3-4/5.11	Power Gear Stops	To clarify the requirements.
4-3-5/15.13.2	Trials	To align the requirements with 7-9-6/3 of the <i>ABS Rules for Survey After Construction</i> , and to clarify the requirements for the Failure Modes and Effects Analysis (FMEA).
4-6-4/9.3.2(a)	Exposed to Weather	To align the requirements with Regulation 20 of the International Convention on Load Lines, IACS UI LL36, 3-2-17/Table 2, and IACS UR S27.
4-6-4/9.3.5(a)	Protection from Weather and Sea Water Ingress	To align the requirements with Regulation 20 of the International Convention on Load Lines, as amended by MSC.143(77)
4-6-7/5.5.2	Air Quality	To provide requirements for the quality of air supplied to safety and control air systems.
4-6-7/7.5.1(b)	Piping Materials	To align the requirements with NFPA 51, USCG Title 46 CFR 56.50-103, and BS 29593/ISO 9539
4-7-1/7	Plans and Data to be Submitted	To ensure that the emergency fire pumps have sufficient lift capacity (NPSHR vs. NPSHA) and performance at limited suction conditions and to verify compliance with such requirements early in the design phase of the vessel.
4-7-3/1.5.3v)	<No Title>	To provide a safety margin of at least 1 meter (3.3 feet) between the Net Positive Suction Head Available (NPSHA) and Net Positive Suction Head Required (NPSHR).
4-8-1/5.5	Equipment Plans	To clarify the requirements for essential machines of 100 kW and over.
4-8-1/Table 1	Primary Essential Services	To incorporate additional services required to be ABS certified.
4-8-1/Table 2	Secondary Essential Services	To incorporate additional services required to be ABS certified.
4-8-3/1.5	Certification of Equipment	To document that rotating machines, motor controllers, and motor control centers for services indicated in 4-8-3/Table 7 require ABS certification.

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
4-8-3/3.1	Application	To document that rotating machines, motor controllers, and motor control centers for services indicated in 4-8-3/Table 7 require ABS certification.
4-8-3/3.15.1	Machines to be Tested and Test Schedule	To document that rotating machines, motor controllers, and motor control centers for services indicated in 4-8-3/Table 7 require ABS certification.
4-8-3/3.17	Certification	To document that rotating machines, motor controllers, and motor control centers for services indicated in 4-8-3/Table 7 require ABS certification.
4-8-3/5.11.1	Certification	To document that rotating machines, motor controllers, and motor control centers for services indicated in 4-8-3/Table 7 require ABS certification.
4-8-3/9.1	Standard of Compliance	To clarify the requirements regarding cable glands designed for use in hazardous areas.
4-8-3/Table 7	Additional Services Requiring Electrical Equipment to be Designed, Constructed and Tested to the requirements in Section 4-8-3	To incorporate additional services required to be ABS certified.
4-9-1/9.7.5	Temporarily Disconnecting Alarms	To incorporate the requirement for reactivation of disabled loops or detectors in fire detection systems for ABCU and ACCU operations, in line with IACS UR F32.8.
4-9-1/11.7	Pneumatic	To provide requirements for the quality of air supplied to pneumatic control equipment.
4-9-4/21.3	Controls at Fire Fighting Station	To clarify the requirements for shutdown of equipment.
4-9-4/21.5.2 (New)	Temporarily Disconnecting Alarms	To incorporate the requirement for reactivation of disabled loops or detectors in fire detection systems for ABCU and ACCU operations, in line with IACS UR F32.8.
4-9-4/Table 3A	Instrumentation and Safety System Functions in Centralized Control Station – Slow Speed (Crosshead) Diesel Engines	To align the requirements with IACS M35. To reflect electronically controlled diesel engine design and the need to monitor the common rail fuel and lube oil pressures. To apply the turbocharger lube oil monitoring requirements regardless of the design type of turbocharger lubrication.
4-9-4/Table 3B	Instrumentation and Safety System Functions in Centralized Control Station – Medium and High Speed (Trunk Piston) Diesel Engines	To align the requirements with IACS M35. To reflect electronically controlled diesel engine design and the need to monitor the common rail fuel and lube oil pressures. To provide specific requirements for turbochargers.
4-9-4/Table 6B	Instrumentation and Safety System Functions in Centralized Control Station – Generator Prime Mover for electric Propulsion	To align the requirements with IACS M35. To reflect electronically controlled diesel engine design and the need to monitor the common rail fuel and servo oil pressures. To apply the turbocharger lube oil monitoring requirements regardless of the design type of turbocharger lubrication.
4-9-4/Table 8	Instrumentation and Safety System Functions in Centralized Control Station – Auxiliary Turbines and Diesel Engines	To align the requirements with IACS M35. To reflect electronically controlled diesel engine design and the need to monitor the common rail fuel and servo oil pressures.
PART 5C Specific Vessel Types		
5C-1-5/5.13.2	Calculation of SM_e	To reference to new alternative calculation method for hull girder ultimate strength.
5C-1-7/3.3.3viii)	<No Title>	To provide a reference to Part 3 of the <i>ABS Rules for Building and Classing Steel Vessels</i> for easy reference and Rules cohesiveness.
5C-1-7/31.5.3	Forepeak Tank and Spaces Above Forepeak Tank	To clarify the requirements for connection of forepeak tanks to the ballast system in the cargo area and access to the forepeak tanks.
Appendix 5C-1-A5 (New)	Guide for Hull Girder Ultimate Strength Assessment of Oil Carriers	To provide an alternative method for evaluating hull girder ultimate strength, introducing a widely accepted concept of progressive buckling of individual structural members used in the Common Structural Rules.
5C-3-5/5.13.1(b)	Calculation of SM_e	To reference to new alternative calculation method for hull girder ultimate strength.

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
Appendix 5C-3-A7 (New)	Guide for Hull Girder Ultimate Strength Assessment of Bulk Carriers	To provide an alternative method for evaluating hull girder ultimate strength, introducing a widely accepted concept of progressive buckling of individual structural members used in the Common Structural Rules.
5C-5-4/3.1.1	Hull Girder Section Modulus Amidships	To specify additional requirements for use of the Q factor for H40 strength steel ($t > 51$ mm) and H47 strength steel.
5C-5-5/5.13.1(b)	Calculation of SM_e	To reference to new alternative calculation method for hull girder ultimate strength.
Appendix 5C-5-A7 (New)	Guide for Hull Girder Ultimate Strength Assessment of Container Carriers	To provide an alternative method for evaluating hull girder ultimate strength, introducing a widely accepted concept of progressive buckling of individual structural members used in the Common Structural Rules.
5C-8-5/3	Tests of Piping Components and Pumps Prior to Installation on Board (IACS)	To revise title in line with IACS UR G3, Rev. 3.
5C-8-5/3.2.1 (IACS) (New)	Valves	To provide requirements for prototype testing and unit production testing for valves, in line with IACS UR G3, Rev. 3.
5C-8-5/3.2.1 (IACS) (New)	Cargo Pumps	To provide requirements for prototype testing and unit production testing for cargo pumps, in line with IACS UR G3, Rev. 3.
5C-9-11/1.1.3 (IACS) (New)	Interpretation of 5C-9-11/1.1.3	To clarify the application of SOLAS II/2 10.2, 10.4, and 10.5, in line with IACS UI CC5 "Fire protection and fire extinction IBC Code Chapter 11 (Regulation 11.1)".
5C-10-4/3.3.1(b)		To reflect that IMO MSC/Circ.914 has been superseded by IMO MSC.1/Circ.1272.
Appendix 5C-10-4A1 (New)	IMO Resolution A.123(v)	To incorporate IMO Resolution A.123(v) for ready reference.
Appendix 5C-10-4A2 (New)	IMO MSC.1/Circ.1272	To incorporate IMO MSC.1/Circ.1272 for ready reference.
5C-10-4/3.7.2(a)	Hazardous Areas	To incorporate Rev. 2 of IACS UI SC42 and UI SC43, and to clarify the specific requirements for electrical equipment within ro-ro cargo spaces intended to carry vehicles with fuel in their tanks.
5C-10-4/3.7.2(b)	Alternative Electrical Equipment	To incorporate Rev. 2 of IACS UI SC42 and UI SC43, and to clarify the specific requirements for electrical equipment within ro-ro cargo spaces intended to carry vehicles with fuel in their tanks.
5C-10-4/3.9.4	Ro-Ro Cargo Spaces Fitted with Water-Spray System	To incorporate new requirements for the drainage arrangements of ro-ro cargo spaces fitted with fixed water spray systems, in line with IMO Resolution MSC.256(84).
PART 6 Optional Items and Systems		
6-1-1/Table 16	Material Class of Structural Members	To align the requirements with IACS UR S6 (Rev.5).
6-1-2/13.3	Ice Belt Plating Thickness	To increase the upper bound of steel yield strength range to the HT40 value.
6-1-2/29 (New)	Propulsion Machinery	To align the requirements with revisions to the Finnish-Swedish Baltic Ice Rules.
6-2-11/3.7	Emergency Ventilation of Ammonia Refrigeration Machinery Space	To require mechanical exhaust gas evacuation system only. To remove requirement for water dump tank and scrubbing arrangement in the ventilation system.
6-2-11/3.9	Drainage of Ammonia Refrigeration Machinery Space	To require ammonia machinery space deck plating to be arranged to facilitate easy cleaning. To require that where deluge system is installed, sufficient capacity bilge system to be provided, and be at least 125% of the deluge capacity.
6-2-11/3.11 (New)	Deluge System	To make water deluge systems optional (if installed, allow 20% reduction of the emergency gas evacuation capacity) and relocate deluge system requirements.
6-2-11/7.3	<No title>	To require additional safety equipment to be provided.
6-2-112/7	Location and Access for Compartments Containing Gas Generating Equipment	To align the requirements with 5C-1-7/25.41 of the <i>ABS Rules for Building and Classing Steel Vessels</i> .

Part 7 “Rules for Survey After Construction”

The reference date which is indicated in the parentheses following the title of the requirement in this Part is the date that the requirement becomes effective [e.g., 7-2-1/17.1.1 “Multiple Boilers” (1 July 2009) is to apply for vessels undergoing survey on or after 1 July 2009].

EFFECTIVE DATE 12 June 2009 – shown as (12 June 2009)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
PART 7	Rules for Survey After Construction	
Appendix 7-A-3	Guide for Lay-up and for Reactivation of Laid-up Ships	To add “LAID-UP” notation and to expand consideration for other equipment and machinery not previously addressed, specifically automation and other electronic units. (Incorporates Notice No. 1)

EFFECTIVE DATE 1 July 2009 – shown as (1 July 2009)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
PART 7	Rules for Survey After Construction	
7-2-1/17.1.1	Multiple Boilers	To harmonize propulsion boiler survey intervals with Dry Dock Survey requirements for vessels on Continuous Survey – Hull.

EFFECTIVE DATE 1 January 2010 – shown as (2010)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
PART 7	Rules for Survey After Construction	
7-1-2/3.25	Corrosion Prevention System	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/1.1.10(a)	Vessels Over 5 Years of Age	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/1.13.6	Tankers ESP – Ballast Tanks and Combined Cargo/Ballast Tanks	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/3.1.2	Ballast Tanks	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/3.17.3(a)	Vessels 5 < Age ≤ 10 Years	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/3.18.3(a)	Vessels 5 < Age ≤ 10 Years	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/3.23.3(a)	Vessels 5 < Age ≤ 10 Years	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/5.1.7(c)	Ballast Tanks and Combined Cargo/Ballast Tanks	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/5.13.3(b)	Ballast Tanks and Combined Cargo/Ballast Tanks	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/5.14.3(b)	Ballast Tanks and Combined Cargo/Ballast Tanks	To align the requirements with IACS URs regarding semi-hard coatings.
7-3-2/5.21.4(a)	Special Periodical Survey No. 1 (Age ≤ 5 Years)	To align the requirements with IACS UR Z10.3 Rev. 10, differentiating between non double hull and double hull chemical carriers.
7-3-2/5.21.4(b)	Special Periodical Survey No. 2 (5 < Age ≤ 10 Years)	To align the requirements with IACS UR Z10.3 Rev. 10, differentiating between non double hull and double hull chemical carriers.
7-3-2/5.21.4(d)	Special Periodical Survey No. 4 and Subsequent Special Periodical Surveys (Age > 15 Years)	To align the requirements with IACS UR Z10.3 Rev. 10, differentiating between non double hull and double hull chemical carriers.

Notices and General Information

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
7-3-2/7.5	Tankers ESP (Oil Carriers and Oil Carrier Features of Combination Carriers – Non Double Hull and Chemical Carriers)	To align the requirements with IACS UR Z10.3 Rev. 10, differentiating between non double hull and double hull chemical carriers. To delete text specific to double hull arrangements and contained in the double hull requirements.
7-3-2/7.7	Tankers ESP (Oil Carriers and Oil Carrier Features of Combination Carriers – Double Hull and Chemical Carriers)	To revise title to include chemical carriers for double hull requirements.
7-3-2/7.7.1(h) (New)	Substantial Corrosion of More than 20% in Chemical Carriers ESP	To align the requirements with IACS UR Z10.3 Rev. 10, differentiating between non double hull and double hull chemical carriers.
7-3-2/7.7.5(h) (New)	Deep Webs and Girder (for Chemical Carriers)	To include additional requirements for deep webs and girders.
7-3-2/9.2.2	<No Title>	To align the requirements with IACS URs for ESP vessels.
7-9-6/3.1	Annual Surveys	To incorporate additional requirements for Annual Surveys for dynamic positioning systems.
7-9-6/3.5	Special Periodical Surveys	To incorporate additional requirements for Special Periodical Surveys for dynamic positioning systems.
Appendix 7-A-1	Guide for Underwater Inspection in Lieu of Drydocking Survey	To incorporate the separate ABS <i>Guide for the Class Notation Underwater Inspection in Lieu of Drydocking (UWILD)</i> and to clarify the requirements.
7-A-4/25	Installation and Inspection of Special Fixed Ballast Materials	To align the requirements with industry practice and to expand the requirements to include solid materials and concrete.
7-A-8/15	ESP Survey Program – Double Hull Oil Tankers and Chemical Carriers	To align the requirements with IACS UR Z10.3 Rev. 10. To include Chemical Carriers in ESP Survey Program for double hull tankers.
7-A-8/17	ESP Survey Planning Questionnaire – Double Hull Oil Tankers and Chemical Carriers	To align the requirements with IACS UR Z10.3 Rev. 10. To include Chemical Carriers in ESP Survey Planning Questionnaire for double hull tankers.
7-A-8/19	ESP Survey Program – Non Double Hull Oil Tankers and Chemical Carriers	To align the requirements with IACS UR Z10.3 Rev. 10. To include Chemical Carriers in ESP Survey Program for non double hull tankers.
7-A-8/21	ESP Survey Planning Questionnaire – Non Double Hull Oil Tankers and Chemical Carriers	To align the requirements with IACS UR Z10.3 Rev. 10. To include Chemical Carriers in ESP Survey Planning Questionnaire for non double hull tankers.
7-A-12/Note	<No Title>	To update reference to ASTM 388 and to allow consideration of an equivalent EN, ISO, or ISO specification.
7-A-12/3	Applicable Documents	To update reference to ASTM 388 and to allow consideration of an equivalent EN, ISO, or ISO specification.
7-A-12/7	Apparatus and Technique	To update reference to ASTM 388 and to allow consideration of an equivalent EN, ISO, or ISO specification.
7-A-12/13	Procedure	To update reference to ASTM 388 and to allow consideration of an equivalent EN, ISO, or ISO specification.
7-A-12/13.3	Radial Scanning	To update reference to ASTM 388 and to allow consideration of an equivalent EN, ISO, or ISO specification.
7-A-12/17.1	Report Content	To update reference to ASTM 388 and to allow consideration of an equivalent EN, ISO, or ISO specification.
7-A-12/Annex	Pertinent Sections of ASTM A 388 referenced in the Guide	To align the Annex with the latest revision of ASTM A 388.
7-A-16/Table 17	Minimum Requirements for CLOSE-UP Examination at Special Periodical Surveys – Chemical Carriers ESP	To align the requirements with IACS UR Z10.3 Rev. 10, differentiating between non double hull and double hull chemical carriers.