

Rules for Building and Classing

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# Marine Vessels

Notices and General Information



July 2023



## **RULES FOR BUILDING AND CLASSING**

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# **MARINE VESSELS JULY 2023**

### **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. ABS Rules and Guides are developed and updated to keep pace with the marine industry. This has resulted in a complex library of Rules and Guides. Many requirements are repeated throughout the ABS Rules and Guides, making use and maintenance of Rules/Guides more challenging. To address the duplication of requirements and to provide a set of Rules that is easier to navigate, ABS has consolidated Rules for both Vessels and Offshore Units.

For vessels, the *Rules for Building and Classing Steel Vessels*, the *Rules for Building and Classing Steel Vessels Under 90 meters (295 feet) in Length* and the *Rules for Building and Classing Offshore Support Vessels* have been consolidated into the **Rules for Building and Classing Marine Vessels** (the *Marine Vessel Rules*).

2. The year 2023 edition of the *Rules for Building and Classing Marine Vessels* consists 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. The supplemental requirements previously contained in individual Rules and Guides have been consolidated into Chapters of Part 1.
  - b) The purpose of the generic title *ABS Rules for Materials and Welding* 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. The Rules for steel, aluminum, and FRP materials have been consolidated into a single Part 2.
  - 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.
3. The numbering system applied in the Rules is shown in Table 2.
4. The primary changes from the January 2023 Rules are identified and listed in Table 3. The effective date of the indicated Rule Changes is 1 July 2023, unless specifically indicated otherwise.

For certain changes that have a major impact on shipyards, designers and vendors, ABS has instituted a two-year Rule cycle to give the industry more time to prepare for these changes. The text of these changes will appear in a box along with the effective date just under the existing Rule requirement.

5. The listing of CLASSIFICATION SYMBOLS AND NOTATIONS is available from the ABS website <http://www.eagle.org/absdownloads/index.cfm> for download.

6. In association with the harmonization of the Common Structural Rules (CSR) for Bulk Carriers and Oil Tankers, on 1 July 2015, the three Sub-parts, 5A, 5B, and 5C, of Part 5 of the *Rules for Building and Classing Marine Vessels* are as follows:

**Contents**

Part 5A: General Hull Requirements (IACS CSR Part 1)

Part 5B: Ship Types (IACS CSR Part 2)

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

Chapters 1 to 6: Tankers and Bulk Carriers not covered by Part 5A and Part 5B and Container Carriers

Chapters 7 to 19: Passenger Vessels, Liquefied Gas Carriers, Chemical Carriers, Vessels Intended to Carry Vehicles, Water Carriers, Membrane Tank LNG Carriers, Vessels Using Gases or other Low-Flashpoint Fuels, Fire Fighting Vessels, Oil Recovery Vessels, Escort Vessels, Vessels Under 90 m (295 ft) Intended for Towing, Fishing Vessels, and Box-Shaped Bulk Carriers.

Part 5D: Offshore Support Vessels for Specialized Services

**Application – Oil Tankers**

The structural requirements in Part 5A, Pt 1 and Part 5B, Pt 2, Ch 2 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, Pt 1, Ch 1, Sec 1, [1.3].

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

**Application – Bulk Carriers**

The structural requirements in Part 5A, Pt 1 and Part 5B, Pt 2, Ch 1 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 5A, Pt 1, Ch 1, Sec 1, [1.2].

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 5A, Pt 1 and Part 5B, Pt 2, Ch 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.

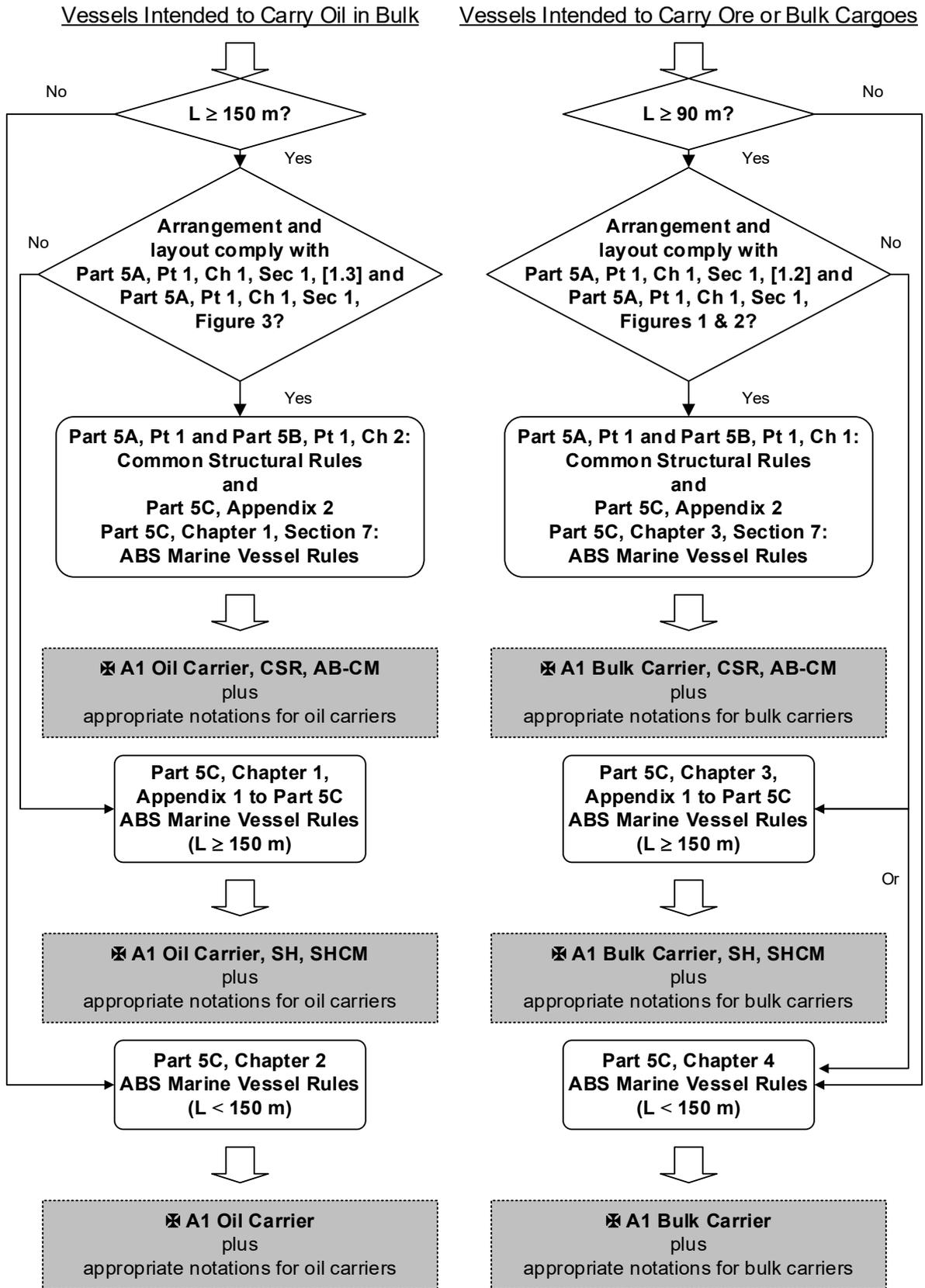
**Application – Onboard Systems for Oil Tankers and Bulk Carriers**

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.

**Application – References**

Other Parts of the ABS Rules that are referenced within Part 5A, 5B, 5C, and 5D are also to be applied.

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:



**TABLE 1**  
**Applicable Editions of Booklets Comprising July 2023 Marine Vessel Rules**

Notices and General Information		July 2023
Part 1:	Rules for Conditions of Classification	July 2023
Part 2:	Rules for Materials and Welding Rules for Testing and Certification of Materials Rules for Welding and Fabrication	July 2023
Part 3:	Hull Construction and Equipment	July 2023
Part 4:	Vessel Systems and Machinery	July 2023
Part 5A: (Booklet 1)	Specific Vessel Types General Hull Requirements (IACS CSR Part 1)	July 2023 (on and after 1 July 2023)
Part 5B: (Booklet 1)	Specific Vessel Types Ship Types (IACS CSR Part 2)	July 2023 (on and after 1 July 2023)
Part 5C: (Booklet 2)	Specific Vessel Types Chapter 1 & 2 Oil Carrier Chapter 3 & 4 Bulk Carrier Chapter 5 & 6 Container Carrier	July 2023
Part 5C: (Booklet 3)	Specific Vessel Types Chapter 7 Passenger Carrier Chapter 8 Liquefied Gas Carrier Chapter 9 Chemical Carrier Chapter 10 Vehicle Carrier Chapter 11 Water Carrier Chapter 12 Liquefied Gas Carrier with Membrane Tanks Chapter 13 Vessels Using Gases or other Low-Flashpoint Fuels Chapter 14 Fire Fighting Vessels Chapter 15 Oil Recovery Vessels Chapter 16 Escort Vessels Chapter 17 Vessels Under 90m (295 ft) Intended for Towing Chapter 18 Fishing Vessels Chapter 19 Vessels Intended to Carry Bulk Cargoes without Upper Wing Tanks and Lower Wing Tanks	July 2023

Part 5D: (Booklet 4)	Offshore Support Vessels for Specialized Services Chapter 1 Vessels Intended for Offshore Support Services Chapter 2 Offshore Supply Chapter 3 Anchor Handling and Towing Chapter 4 Fire Fighting Chapter 5 Diving and Remotely Operated Vehicles (ROVs) Support Chapter 6 Oil Spill Recovery Chapter 7 Safety Standby Rescue Chapter 8 Pipe Laying Chapter 9 Heavy Lift Chapter 10 Well Intervention Chapter 11 Well Stimulation Chapter 12 Well Test Chapter 13 Escort Chapter 14 Wind Turbine Installation, Maintenance and Repair (Wind IMR) Chapter 15 Cable Laying Chapter 16 Subsea Services	January 2023
Part 6:	Specialized Items and Systems Chapter 1 Strengthening for Navigation in Ice Chapter 2 Refrigerated Cargo Vessels	July 2023
Part 7:	Rules for Survey After Construction	July 2023

**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.

**Rule Change Notice (1 July 2023)**

**TABLE 3**  
**Summary of Changes from the January 2023 Rules**

**EFFECTIVE DATE 1 July 2023 – shown as (1 July 2023)**

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
<b>PART 1</b>	<b>Rules for Conditions of Classification</b>	
1-1-7/9	Submission of Plans	To simplify the plan submittal process and align it with our legal duty to verify compliance with IMO, IACS requirements related to Asbestos-free declaration. This newly created section proposes a consolidated ABS policy regarding Asbestos-free declaration whereby individual declarations are no longer necessary.

**EFFECTIVE DATE 1 July 2023 – shown as (1 July 2023)**  
(based on the date of purchase order of the materials)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
<b>PART 2</b>	<b>Materials and Welding</b>	
2-1-5/13.1, 13.7.1	Hull Steel Castings	To define suitable minimum inspection requirements for castings and to add requirements for weld procedure qualification for repair of castings, based on IACS UR W8 Rev 3.
2-3-9/15.1, 15.7.1	Steel Castings for Machinery, Boilers and Pressure Vessels	To define suitable minimum inspection requirements for castings and to add requirements for weld procedure qualification for repair of castings, based on IACS UR W8 Rev 3.

**EFFECTIVE DATE 1 July 2023 – shown as (1 July 2023)**  
(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>
<b>PART 3</b>	<b>Hull Construction and Equipment</b>	
3-3-A2	Intact Stability Requirements for Offshore Support Vessels	To apply the requirements and to make clarifications in accordance with IMO Code on Intact Stability 2008, as amended by IMO Res.MSC.415(97) for ships engaged in anchor handling and lifting operations respectively.
<b>PART 4</b>	<b>Vessel Systems and Machinery</b>	
4-2-1/13.2.1	Internal Combustion Engines	To update 4-2-1/13.2.1 to include specific reference to include engine fluid system cleaning and flushing items to the quality plan.
4-2-1/TABLE 1	Internal Combustion Engines	To remove redundant text “The FMEA reports required will not be explicitly approved by ABS”, in line with IACS UR M44 Rev.10 Corr.1.
4-3-4/13.1.9	Steering Gears	To specify that a system response without manual intervention is not mandatory for mechanical failures such as hydraulic locking, in line with IACS UR E25 Rev.2.
4-3-5/3.3.3	Thrusters	To add the requirements for Certification Under Quality Assurance Assessment to be applied for thrusters in PQA program.
4-6-3/1, 5.11, 5.11.5, 21	Plastic Piping	To clarify “existing fire endurance”, provide requirements for test specimens and onboard testing, in line with IACS UR P4 Rev.7.
4-6-7/1, 13	Other Piping Systems	To add requirements for refrigeration plants for HVAC application which are not addressed in Part 6 Chapter 2 as they are only intended for Cargo Refrigeration.
4-7-3/11.3.1(f), (h)	Fire-extinguishing Systems and Equipment	To specify requirements for isolator modules on ship cabin balconies, in line with IMO Res. MSC.484(103).

## Notices and General Information

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
4-8-1/5.5.1	General Provisions	To expand and clarify document submission requirements for rotating machinery.
4-8-3/3.15.5, 3.15.10, 3.17, Table 3	Electrical Equipment	To prevent incidents of generator failures by adding additional requirements for factory testing.
<b>PART 5C</b>	<b>Specific Vessel Types</b>	
5C-3-A3/9.1 & 9.21	The Design and Evaluation of Ore and Ore/Oil Carriers	To provide requirements for ore carriers and ore/oil carriers compatible with higher loading rates and/or capable of carrying iron ore fines with moisture content in excess of TML.
5C-5-1/1.3.5	Introduction	To introduce notations for whipping and springing from the ABS H47 Guide and to specify that it is mandatory to perform whipping/springing analysis for container carriers with upper deck region constructed of H47 grade steel.
5C-5-3/5.5.3(a)	Load Criteria	To provide clarification on the specific gravity of fuels other than oil.
5C-7-5/5.5	Machinery Equipment and Systems	To delete requirements based on IACS UR M69, which was deleted due to confusion with MSC.1/Circ.1369.
5C-8-7/3 (ABS) & 5C-8-7/4.5 (ABS)	Cargo Pressure/Temperature Control	To be consistent with 5C-8-1/2.3.1 & 5C-8-1/2.3.2.
5C-8-16/4.9	Use of Cargo as Fuel	To introduce new subsection 5C-8-16/4.9 with rule requirements for the alternative (cargo or other low flashpoint fuel) fuel supply filtration system.
5C-8-16/9.3	Use of Cargo as Fuel	To introduce change to 5C-8-16/9.3 to add new ABS requirement by cross reference to new subsection under 5C-8-16/4.9 and to clarify that all applicable parts of 5C-8-16/4 apply to the application of cargos other than methane as fuel.
5C-9-15/11.2	Special Requirements	To align with IACS UI CC6.
5C-13-6/1	Fuel Containment System	To be in line with MVR 5C-13-6/4.1.8 (IGF Code), In-Service Inspection Plan is to be submitted for the liquefied gas fuel containment system.
5C-13-9/3.4, 13	Fuel Supply to Consumers	To introduce new subsection 5C-13-9/13 (ABS) to add rule requirements for the alternative fuel supply filtration system.
<b>PART 6</b>	<b>Specialized Items and Systems</b>	
6-3-1	General	To add new optional notations EGC-SO <sub>x</sub> (M) and EGC-SCR(M) which are applicable for vessels complying with the required statutory IMO requirements and the minimum class requirements indicated in MVR 6-3-1/Table 1.
6-3-2/2	EGC – SO <sub>x</sub> Scrubbers	To add new optional notation EGC-SO <sub>x</sub> (M) which is applicable for vessels complying with the required statutory IMO requirements and the minimum class requirements indicated in MVR 6-3-1/Table 1.
6-3-3	EGC – Selective Catalytic Reduction Systems	To add new optional notation EGC-SCR(M) which is applicable for vessels complying with the required statutory IMO requirements and the minimum class requirements indicated in MVR 6-3-1/Table 1.

**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., 7-1-1/7.1.2 “General Information” (1 July 2023) is to apply for vessels undergoing survey on or after 1 July 2023].

**EFFECTIVE DATE 1 July 2023** – shown as (1 July 2023)

<i>Part/Para. No.</i>	<i>Title/Subject</i>	<i>Status/Remarks</i>
<b>PART 7</b>	<b>Rules for Survey After Construction</b>	
7-1-1/7.1.2	General Information	To remove requirement stated for internal combustion engines, which is in conflict with MVR 4-2-1/Table 6.
7-3-2/5.1.15(c)	Vessels for Unrestricted Service	To delete "different", in line with latest revisions to IACS UR Z7 Rev 29.
7-6-2/1.1.8(d)	Survey Requirements	To add requirements for batteries including maintenance schedule and to add a Commentary to address thermal runaway.
7-9-4/1	Propulsion Redundancy System	To add Survey after Construction requirements for R2-N notation.
7-9-15/5	Environmental Safety	To update SAC requirements related to the latest update in 4/7,9 of Guide for the Environmental Protection Notations for Vessels.
7-9-29/1.3,3	Exhaust Emission Abatement Systems	To address SAC requirements for the newly developed Guide for Onboard Carbon Capture and Storage.
7-9-49	Special Loading of Ore and Ore/Oil Carriers	To incorporate survey after construction requirements for the new Loading Care notations (LDCARE1, LDCARE2, and TML).
7-A1-16/Table 3	Thickness Measurement and Close-up Survey Requirements at Special Periodical Surveys	To delete "different", in line with latest revisions to IACS UR Z7 Rev 29.