



GUIDE FOR BUILDING AND CLASSING

**INTERNATIONAL NAVAL SHIPS
JANUARY 2019**

**PART 5
SPECIFIC VESSEL TYPES**

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

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PART 5

Foreword

Part 5A, 5B and 5C of the *ABS Rules for Building and Classing Steel Vessels* is incorporated as Part 5 of this Guide without modification. Although originally written and intended for application to commercial vessels, it contains requirements that are applicable to certain vessel types addressed by this Guide. In addition, throughout the Guide there are specific references made to Part 5 (most often to Part 5C) where specific criteria or methods are relevant and directly applicable to the systems and equipment requirements in this Guide. ABS should be consulted prior to its actual application or use for any given vessel acquisition. The following is taken verbatim from the Foreword of Part 5C of the *ABS Rules for Building and Classing Steel Vessels* and is duplicated here to provide a brief overview of its construct and general application.

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 Steel 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 13: Passenger Vessels, Liquefied Gas Carriers, Chemical Carriers, Vessels Intended to Carry Vehicles, Water Carriers, Membrane Tank LNG Carriers, and Vessels Using Gases or other Low-Flashpoint Fuels.

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, or 5C are also to be applied.

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Specific Vessel Types

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CHAPTER **1** **General**

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CHAPTER 1 General

SECTION 1 Application

1 General

Part 5A, 5B and 5C of the *ABS Rules for Building and Classing Steel Vessels* contains structural requirements for specific vessel types (tankers, bulk carriers, container carriers, liquefied gas carriers, passenger carriers, chemical carriers, and vessels intended to carry vehicles) that are normally classed in accordance with *ABS Rules for Building and Classing Steel Vessels* and is incorporated, without edit, as Part 5 of this Guide.

The inclusion of Part 5 in the *ABS Guide for Building and Classing International Naval Ships* is for its potential application to certain naval ships (e.g., Oilers). In addition, throughout the Guide there are specific references made to Part 5 (most often to Part 5C) where specific criteria or methods are relevant and directly applicable to the systems and equipment requirements in this Guide. Special consideration is required when applying its requirements since they were intended for application to commercial vessels and are therefore based heavily upon SOLAS and other IMO Convention standards. ABS should be consulted prior to its actual application or use for any given vessel acquisition.

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Part 5 of the *ABS Rules for Building and Classing Steel Vessels* consists of the following:

Part 5A: IACS Common Structural Rules – Part 1: General Hull Requirements

- CHAPTER 1 Rule General Principles
- CHAPTER 2 General Arrangement Design
- CHAPTER 3 Structural Design Principles
- CHAPTER 4 Loads
- CHAPTER 5 Hull Girder Strength
- CHAPTER 6 Hull Local Scantling
- CHAPTER 7 Direct Strength Analysis
- CHAPTER 8 Buckling
- CHAPTER 9 Fatigue
- CHAPTER 10 Other Structures
- CHAPTER 11 Superstructure, Deckhouses and Hull Outfitting
- CHAPTER 12 Construction
- CHAPTER 13 Ship in Operation - Renewal Criteria

Part 5B: IACS Common Structural Rules – Part 2: Ship Types

- CHAPTER 1 Bulk Carriers
- CHAPTER 2 Oil Tankers

Part 5C: ABS Rules for Building and Classing Steel Vessels – Specialized Vessels and Services

Book 1

- CHAPTER 1** Vessels Intended to Carry Oil in Bulk (150 meters (492 feet) or more in Length)
- CHAPTER 2** Vessels Intended to Carry Oil in Bulk (Under 150 meters (492 feet) in Length)
- CHAPTER 3** Vessels Intended to Carry Ore or Bulk Cargoes (150 meters (492 feet) or more in Length)
- CHAPTER 4** Vessels Intended to Carry Ore or Bulk Cargoes (Under 150 meters (492 feet) in Length)
- CHAPTER 5** Vessels Intended to Carry Containers (130 meters (427 feet) to 450 meters (1476 feet) in Length)
- CHAPTER 6** Vessels Intended to Carry Containers (Under 130 meters (427 feet) in Length)
- APPENDIX 1** SafeHull Construction Monitoring Program
- APPENDIX 2** ABS Construction Monitoring Program

Book 2

- CHAPTER 7** Vessels Intended to Carry Passengers
- CHAPTER 8** Vessels Intended to Carry Liquefied Gases in Bulk
- CHAPTER 9** Vessels Intended to Carry Chemical Cargoes in Bulk
- CHAPTER 10** Vessels Intended to Carry Vehicles
- CHAPTER 11** Vessels Intended to Carry Water
- CHAPTER 12** Liquefied Gas Carriers with Membrane Tanks
- CHAPTER 13** Vessels Using Gases or other Low-Flashpoint Fuels