Introduction to

ABS Rules and Guides

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ABS RULES AND GUIDES
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1 Introduction

This document provides an overview of the Rules, Requirements Documents, Guides, and Guidance Notes published by ABS, with guidance on which Rules are applicable to which types of vessels, offshore units or structures, and underwater vehicles and systems.

For a specific project, the applicability of the ABS Rules, Requirements & Guides depends on the Vessel Type, Service Function, Features, Optional Notations, and applicability date.

ABS has developed the Custom Rule Book feature within Rule Manager that will allow users to identify 6-10 parameters and quickly create an ABS Rule Book specific to their project.

The ABS List of Notations and Symbols is available on http://www.eagle.org

The term “Vessel” in this document has been used in place of “Vessel/Offshore Units”. The term “ABS Rules and Guides” in this document has been used in place of “ABS Rules, Requirements Documents, Guides, and Guidance Notes”.

1.1 Vessel Types and Service Functions

ABS has 44 Vessel Types which are each covered by a Rule or Requirements Document:

- The Marine Vessel Rules is the primary Rule set for most vessel types. It covers steel vessels in unrestricted service including Tankers, Bulk Carriers, Containerships, Gas Carriers, Offshore Support Vessels, and many others.

- The Mobile Offshore Unit Rules is applicable to mobile offshore structure or vessel capable of engaging in offshore operations other than production, storage or handling of hydrocarbons. They are designed for operation afloat or supported on seabed. Examples are self-elevating units, column stabilized units, and surface-type units. Within this Rule set are requirements for several service functions including accommodation, crane, construction and maintenance service, drilling tender, pipe laying, cable laying, wind IMR and well services.

- The Floating Production Installations Rules covers floating installations capable of processing and/or storing and/or offloading hydrocarbons. Types of hull structural configurations covered in this Rule are Ship-Type, Column Stabilized, TLP, and Spar. This Rule generally covers the hull portion of the installation and the Facilities Rules covers hydrocarbon production and processing system.

- The Barge Rules covers non-self-propelled vessels that carry cargo. Several functional services are also covered including pipelay, crane, accommodation, etc.

The High Speed Craft Rules includes mono-hull or multi-hull passenger, cargo, and Ro-Ro craft, crewboats, Surface Effects Ships (SES), and hydrofoils.

- The Light Warships, Patrol and High-Speed Naval Vessel Rules covers naval, coast guard and government high speed craft and light displacement vessels.

- The Yacht Rules

- Certain specialized Marine Vessels, Offshore Units, and Barges may have their own Requirements Documents with cross references back to a main Rule set. Examples include asphalt, Wind Farm Support Vessels, LCO2 Carrier, Liftboats, Liquified Gas Terminals, etc

- Other asset types are covered in standalone Rules or Requirement Documents (Underwater Vehicles, Systems, and Hyperbaric Facilities, Single Point Mooring, Offshore Wind Turbines, International Naval Ships, Drydocks, River Vessels, Offshore Installations, Subsea Risers, Subsea Pipelines, etc.)

A vessel’s service function may lead to additional requirements within the main Rules or Requirements documents. For examples Offshore Support Vessels will have specific requirements in Part 5D of the Marine Vessel Rules applicable to the specific service.

Service restrictions may lead to the application of a special Rule set, most commonly the River Rules and the ABS Rules for Great Lakes Bulk Carriers.
1.2 Features
Once the main Rule set corresponding to the Vessel Type and Function is selected, there may be additional Rules and Requirements that need to be applied based on specific features installed. Examples of these include:

- Lithium Batteries – Requirements for Lithium-ion Batteries in the Marine and Offshore Industries
- Wind Assist Propulsion – Requirements for Wind Assisted Propulsion System Installation
- Air Lubrication – Requirements for Air Lubrication System Installation

There are often cross references from the main Rule set to applicable Requirements documents.

1.3 Optional Notations
Many shipyards and owners will select optional notations that indicate compliance with a higher standard or the classification of features that are beyond the minimum classification scope. Examples include:

- Guide for Crew Habitability on Ships
- Guide for the Classification of Drilling Systems

Optional notations may be dropped without impacting the validity of the Class Certificate for a specific vessel.

1.4 Applicable Year of Rules
The Rules applicable to new construction vessels are based on the Contract Date between the shipyard and owner. A full discussion of applicability to sister vessels, optional vessels, etc can be found in 1A-1-4/1.3 and 1A-1-4/3.

The latest Survey After Construction Rules available on the commencement date of a particular Survey are applicable.

Vessels that undergo modifications may apply the current Rules or those applicable based on the original contract date. When a vessel undergoes a major modification, a more comprehensive review is carried out to determine whether later statutory requirements need to be applied.

2 Document Types
ABS publishes several document types to support Classification. The content and approval process for the main four document types is outlined below.

<table>
<thead>
<tr>
<th>Document Type</th>
<th>Mandatory Requirements</th>
<th>Optional Notations</th>
<th>Best Practices</th>
<th>Technical Committee Review</th>
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<tbody>
<tr>
<td>Rules</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Requirements</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Guides</td>
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<td>Yes</td>
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<tr>
<td>Guidance Notes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

3 Generic Rules
Several Rules are considered “generic” and apply to more than one Rule, Requirements Document or Guide. These include the ABS Rules for Conditions of Classification (Part 1), ABS Rules for Materials and Welding (Part 2), and ABS Rules for Survey After Construction (Part 7).

The applicability of these Rules can be found at the beginning of each book.
3.1 Rules for Conditions of Classification (Part 1)

The Rules for Conditions of Classification (Part 1) books contain the requirements for classification, including the process and scope, suspension and cancellation, classification notations, submission of plans, conditions for surveys after construction, and details on the ABS Type Approval program.

There are four “Part 1” books:

3.1.1 Rules for Conditions of Classification (Part 1A)
Part 1A applies to marine vessels, such as those covered by the Marine Vessel Rules, River Rules, or Barge Rules.
Chapter 1 covers classification requirements that apply to all marine vessel types. The subsequent Chapters contain requirements that are specific to various vessel types.

3.1.2 Rules for Conditions of Classification – Offshore Units and Structures (Part 1B)
Part 1B applies to offshore units and structures, such as those covered by the ABS Mobile Offshore Units Rules, Floating Production Units Rules, Offshore Installations Rules, or Single Point Moorings Rules.
Part 1B contains only the classification requirements that are common to all types of offshore units and structures. Any unique “Conditions of Classification” requirements for a specific type of offshore unit or structure are specified in Part 1 supplements contained in the Rule, Requirements Document or Guide for that type of offshore unit or structure.

3.1.3 Rules for Conditions of Classification – Light and High-Speed Craft (Part 1C)
Part 1C applies to commercial and naval high-speed craft, as well as light warships and patrol vessels, such as those covered by the High-Speed Craft Rules or Light Warships, Patrol and High-Speed Naval Vessels Rules.
Chapter 1 covers classification requirements that apply to all types of light and high-speed craft. The subsequent Chapters contain requirements that are specific to various vessel types.

3.1.4 Rules for Alternative Arrangements, Novel Concepts and New Technologies (Part 1D)
Part 1D applies to all types of vessels and offshore units and structures.
Due to the rapid adoption of new technology, Goal Based Standards have been incorporated into the ABS Rules. Goal Based Standards offer a path for class approval for alternative and novel concepts.
Part 1D outlines the procedure for the design and ABS acceptance of Alternative Arrangements, Novel Concepts and New Technologies and provides a consolidated list of Tier I Goals.

3.2 Rules for Materials and Welding (Part 2)
The Rules for Materials and Welding (Part 2) contains requirements for materials used in the construction of marine vessels and offshore units and their associated machinery and equipment.
Part 2 covers various grades of steel, aluminum, and fiber-reinforced plastics, including requirements for welding of steel and aluminum, approval of manufacturers, and welder qualification.

3.3 Rules for Survey After Construction (Part 7)
The Rules for Survey After Construction (Part 7) contains requirements for surveys after construction for marine vessels, dry docks, yachts, and underwater vehicles and systems.
Chapters 1 through 8 contain survey Rules that have common requirements for different vessel types and geographical service areas. Chapter 9 contains survey requirements to maintain a Class Notation for an additional system or service. Chapters 10 through 12 contain unique survey Rules for Floating Drydocks, Underwater Vehicles and Sailing Yachts not Receiving AMS Notation.
Survey requirements for offshore units and structures are included in the Rules/Requirements Documents for each type of offshore unit or structure.