



RULES FOR CLASSIFICATION OF **Ships**

PART 0 CHAPTER 2

INTRODUCTION

Introduction to Ship Classification

JANUARY 2003

*This chapter has been amended since the main revision (January 2003), most recently in July 2011.
See "Changes" on page 3.*

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FOREWORD

DET NORSKE VERITAS (DNV) is an autonomous and independent foundation with the objectives of safeguarding life, property and the environment, at sea and onshore. DNV undertakes classification, certification, and other verification and consultancy services relating to quality of ships, offshore units and installations, and onshore industries worldwide, and carries out research in relation to these functions.

The Rules lay down technical and procedural requirements related to obtaining and retaining a Class Certificate. It is used as a contractual document and includes both requirements and acceptance criteria.

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In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

CHANGES

General

The present edition of the rules includes amendments decided by the Board in December 2002 and supersedes the January 2002 edition of the same chapter.

The rule changes come into force on 1 July 2003.

Text affected by the main rule changes is highlighted in red colour in the electronic pdf version. However, where the changes involve a whole chapter, section or sub-section, only the title may be in red colour.

This chapter is valid until superseded by a revised chapter.

Amendments July 2011

- **General**

- The restricted use legal clause found in Pt.1 Ch.1 Sec.5 has been added also on the front page. In addition, the layout has been changed to one column in order to improve electronic readability.

Main changes

- **Sec.1 Rule Preamble**

- Item B402 has been expanded to further clarify the use of the Society's world-wide offices by National Authorities.
- Item B403 has been re-written to show that compliance with the rules does not necessarily or automatically ensure compliance with the statutory regulations. However, DNV, when issuing certificates on behalf of the administration, will verify that all relevant statutory regulations have been complied with.

Corrections and Clarifications

In addition to the above stated rule requirements, a number of detected errors, corrections and clarifications have been made in the existing rule text.

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SECTION 1 RULE PREAMBLE

A. Introduction

A 100 Purpose

101 The preamble to the rules explains the system of classification, how it works, conditions of validity, and its interaction with statutory control. This information is to a large extent implied by the rules, but a brief clarification of the essential points in one place is considered useful.

102 The information included in Ch.2 Sec.1 is not in any way to be understood as rule requirements.

A 200 Terminology

201 *Classification* comprises those services rendered by the Society in accordance with the rules. *Classification* of ships is conducted in accordance with the requirements of the rules and any other standards to which reference therein may be made.

202 *Assigning class* originally signified designation of the ship according to its standard in one of several classes, ranging from good to bad. Today only the highest class is assigned, comprising the main class, **1A1** or **1A2**, and an obligatory additional class notation, e.g. **Tanker for Oil ESP**, where applicable. Voluntary additional class notations may also be assigned covering special service, equipment or systems, e.g. **E0** denoting periodically unattended machinery space.

203 The *Classification certificate* is issued upon assignment or renewal of class. Its validity is five years subject to successful completion of annual and intermediate surveys.

204 *Statutory certificates* means IMO Convention Certificates issued on behalf of, or by, National Authorities.

B. The Classification System

B 100 The classification process and its limitations

101 Classification is a system for safeguarding life and property at sea, and the environment due to operational consequences. It implies a process of verifying ship standards against a set of requirements. The requirements are laid down in the rules established by the Society.

102 Classification implies an activity, in which the ship is surveyed during construction on the basis of design approval, tested before being taken into service, and surveyed regularly during its whole operational life until it is scrapped. The aim is to verify that the required rule standard is built in, observed and maintained.

103 Classification is not performed as a substitute for the client's own quality and safety control and related duties, or the client's obligations to third parties, nor to relieve the client of any consequences of default. Classification implies that rule requirements are verified at regular intervals. It is the owner's responsibility to maintain the ship so as to comply with the rules at all times.

104 The Society keeps complete files on all classed ships covering the documentation required by the rules. Reports will not be disclosed to any party, apart from the national authorities involved, without the owners consent. The Society also undertakes all reporting to national authorities required in connection with the safety certificates.

B 200 Who needs classification?

201 Classification serves as verification system for a number of parties who have special interest in the safety and quality of ships, such as:

- National authorities, who accept ships for registry, or let ships into their territorial waters, need assurance that they are safe to sail on and represent a minimum hazard to their surroundings.
- Insurance underwriters require ships to be classed in order to give insurance.
- Owners, who need the technical standard of the rules as basis for building contracts and to document the ships' standard when seeking insurance or financing, or when hiring out or selling the ship.
- Building yards and sub-contractors use the rules as a tool for design and construction, as required by their client.
- Finance institutions use classification as a documented indicator of the ships' value.
- Charterers or cargo owners require confirmation of the ships' standard before hire.

B 300 Recognition of the Society

301 The Society is recognised as an international classification society by virtue of its position in the marine industry, founded on the following criteria:

Independence

- By classing a substantial share of the world fleet and through high equity and financial independence, the economic basis for independent decisions in classification matters is ensured.

High technical competence

- Extensive research and development in class related fields sustains a process where the rules are continuously extended and improved in pace with new technology and experience gained. Research and development also contributes to a high level of staff competence.
- Continuous monitoring of a large classed fleet ensures valuable feedback from casualties, damage incidents and operational experience in general. Analyses of these data is one important source of improvements of the rules.
- The Society runs a scheme for training and qualification of its technical personnel to ensure correct, uniform quality of approval and survey work throughout the organisation.

World-wide survey station network

- The Society operates survey stations in ports all over the world. Efficient reporting and information systems support the operations, and provide service to clients and national authorities.

B 400 Responsibility for Safety at Sea

401 National law institutes national authorities' responsibility for the total safety control of ships flying the national flag. Classification cannot in any way relieve the national authorities of that responsibility.

402 National authorities may use the classification system and the Society's world-wide survey station network as their executive branch for safety control. The convenience of this arrangement is proved by the fact that the Society has been delegated extensive authorisation to work and certify on behalf of the majority of the maritime nations of the world.

Then owners and yards have the benefit of co-operating with one body in respect of surveys and issue or renewal of all safety certificates.

403 Many regulations in the International Maritime Conventions have been adopted in the rules, but compliance with the rules does not ensure that all relevant statutory regulations have been complied with.

However, when issuing certificates on behalf of the flag administration, DNV will verify that all relevant statutory requirements have been complied with.

404 The national authorities on whose behalf the Society is working, normally expect surveyors of the Society to assume authority similar to that of their own governmental inspectors. As a consequence the Society's surveyors are expected to take steps to stop a substandard ship from leaving port. This entails withdrawing safety certificates in cooperation with port authorities and local consular authorities of the flag country.

405 The classification system applied to delegated, statutory work offers the national authorities regular monitoring of survey and certificate status of ships flying their flag. Verification of the Society's work process and quality systems may also be carried out. In this way, national control is retained at the discretion of the authority involved.

B 500 Classification of newbuildings

501 The builder initiates the process by submitting a request for classification to the Society. In response to a list of documentation issued by the Society for the specific class notations requested, the builder and sub-suppliers submit plans, specifications, related technical descriptions and data, including specification of materials as required by the rules, for approval.

After examining the above documents, the Society informs the builder and sub-supplier whether the design and arrangement of structure, machinery and equipment is acceptable. If not, the Society may propose modifications needed to meet the classification requirements.

502 During the building period the Society will carry out surveys at the building yard and its suppliers. The method and extent of survey will be decided by the Society based on the acceptance of their quality system.

The purpose of the surveys is to verify that the construction, components and equipment satisfy the rule requirements and are in accordance with the approved plans, that required materials are used, and that functional tests are carried out as prescribed by the rules.

503 When the Society is satisfied that the requirements specified for the ship in question have been met, the

appropriate class will be assigned and confirmed by the issuance of a classification certificate. Provided the requirements for retention of class are complied with, the certificate will normally have a validity of five years.

B 600 Classification in the operational phase

601 Compliance with the rule requirements in the operational phase is verified by the Society through a system of periodical surveys. The most comprehensive survey is the one carried out in connection with the renewal of the five-yearly classification certificate. During the five year period the ship undergoes annual and intermediate surveys covering various parts, equipment and systems, depending on the class assigned.

602 In order to confirm retained validity of class, the Society evaluates the extent of possible sustained damage and verifies ensuing repairs. Deferred repairs may be accepted by the Society, but always associated with a maximum time limit.

603 The rules allow periodical surveys to contain an element of sampling. This sampling must be sufficient to enable the surveyor to obtain a proper assessment of the condition of the ship. This assessment is based amongst other things on type, age and technical history of the ship.

604 Results of the surveys are reported to the owners and to the Society's central office for updating records. Special findings are also recorded and used as basis for updating and development of the rules.

605 The "Register of vessels classed with DNV" is available for supplying information on ships' main particulars and details of their classification.

B 700 Owner's duties

701 In order to maintain valid class the classification system specifies the following to be observed by the owner:

- The ship has to be competently handled in accordance with the rules.
- The ship has to be maintained to rule standard at all times. Any conditions of class have to be carried out as specified.
- The ship has to undergo prescribed periodical and renewal surveys, as well as surveys of damage, repairs, conversions and alterations.
- The Society must be furnished with all information that may influence its decisions in connection with classification.

Failure to meet any of these requirements may lead to termination of valid class and withdrawal of all class and statutory certificates.

702 To assist the owner in this regard the Society supplies regular status reports on certificates, surveys carried out and becoming due, and possible conditions of class.

C. Remuneration

C 100 Fee system

101 Remuneration is normally based on a fee system, in which the Society invoices each type of survey according to a basic scale of fees. The basic scale of fees is developed by taking into consideration the amount of work needed to execute, process and follow up the survey in question, as well as the items surveyed. The fees also cover investment and development costs of the rules as well as maintenance of a world-wide survey network, central service support system, etc. Price level and costs vary from country to country and are therefore reflected in the fees charged.

D. Classification Support

D 100 General

101 The staff of the Society represents a significant accumulation of knowledge and practical experience in all ship-related technical fields. This is an asset often drawn on by the industry in matters related to classification.

102 The expertise of the Society is available to the owner at any time when needed in connection with operating problems, damage and casualties.

D 200 Pre-contract support

201 Co-operation with the Society early in the design stage, before classification is requested and any contract is signed, is usually very beneficial to both yard and owner. Different technical solutions may be

evaluated in terms of cargo flexibility and cost, thus contributing to a more efficient ship, and ensuring that all safety aspects as specified by the rules are taken care of. In this way expensive changes late in a project may be avoided.

D 300 In-service support

301 Similar services are given in connection with ships in operation. Alternative ways of repairs may be indicated, acceptable distributions of cargo and ballast to alleviate overstressing may be computed in case of damage, stability may be investigated in order to carry grain, etc. These are typical examples.

D 400 Limitations

401 Two main restrictions prevail on the Society when undertaking classification support work:

- The Society does not carry out complete, conceptual design of ships. In cases where the Society has been involved in design support, the plans and calculations must still be independently evaluated by the Society before being accepted for classification purposes.
- Information received from clients in connection with assignment of class is not disclosed and used in classification support work.