



RULES FOR
CLASSIFICATION OF
SHIPS

NEWBUILDINGS

SPECIAL EQUIPMENT AND SYSTEMS
ADDITIONAL CLASS

PART 6 CHAPTER 21

DYNAMIC POSITIONING SYSTEMS - CLASS ENTRY OPTIONS

JANUARY 2008

*This booklet includes the relevant amendments and corrections
shown in the July 2009 version of Pt.0 Ch.1 Sec.3.*

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INTRODUCTION

General

The Board approved this new chapter in December 2007.

The rules come into force on 1 July 2008.

This chapter is valid until superseded by a revised chapter. Supplements will not be issued except for an updated list of corrections presented in Pt.0 Ch.1 Sec.3. Pt.0 Ch.1 is normally revised in January and July each year.

Revised chapters will be forwarded to all subscribers to the rules. Buyers of reprints are advised to check the updated list of rule chapters printed in Pt.0 Ch.1 Sec.1 to ensure that the chapter is current.

Main changes adopted July 2009

Coming into force 1 July 2009

- **Sec.1 General Regulations and Information**

- In item A102, Guidance note, the wording “an IACS member society” has been changed to “a recognized classification society”.

Corrections and Clarifications

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

Comments to the rules may be sent by e-mail to rules@dnv.com

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SECTION 1 GENERAL REGULATIONS AND INFORMATION

A. Application

A 100 Rule application

101 These rules apply to class entry vessels fitted with dynamic positioning (DP) systems. When transferred to DNV class, the vessel may be granted an optional class notation that covers the dynamic positioning system, when the owner chooses not to undergo testing, as required for DNV DYNPOS notations.

Guidance note 1:

A class notation as per Table A1 imply that the DP system has not been verified against the requirements for DNV optional class notations for **DYNPOS-AUTS**, or **DYNPOS-AUT**, or **DYNPOS-AUTR**, or **DYNPOS-AUTRO**.

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Guidance note 2:

The owner can request, at any time, that a DP survey, corresponding to **DNV-DYNPOS** notations is to be carried out in order to verify compliance with the relevant requirements in Pt.6 Ch.7.

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102 The rules in this chapter apply only to vessels being transferred to DNV class. The vessel shall have been granted, and have maintained, a class notation for dynamic positioning systems from the losing society.

Guidance note:

Only class notations issued by a recognized classification society will be accepted under these rules.

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A 200 Optional class notations

201 One of the following optional class notations may be granted to vessels transferring class to DNV:

Table A1 Optional class notations applicable to class entry vessels	
<i>Notation</i>	<i>Typical description</i>
POS CLE-0 (...)	Dynamic position system without redundancy.
POS CLE-1 (...)	Dynamic positioning system with independent joystick system back-up.
POS CLE-2 (...)	Dynamic positioning system designed with full redundancy.
POS CLE-3 (...)	Dynamic positioning system designed with full redundancy, plus a back-up dynamic position system in an emergency dynamic position control centre, designed with physical separation for components that provide redundancy.
Note: The parenthesis after each notation shall contain the losing Society's acronym.	

202 In order to be granted one of the optional class notations shown in Table A1, the DP control system shall be capable of automatic position keeping (surge, sway, and yaw). These optional class notations shall not be granted to vessels equipped with only a semi-automatic position control system.

203 A qualifier **(A)** can be assigned to vessels with notation **POS CLE-2 (...)** or **POS CLE-3 (...)** which undergo annual survey according to the corresponding 5 yearly complete survey scope.

Guidance note:

Example of notation: **POS CLE-2 (...)(A)**

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204 Vessels to be assigned the qualifier **(A)** shall have an updated FMEA, with a corresponding FMEA test program.

B. Definitions

B 100 General

101 For the definition of terms used in this chapter reference is made to Pt.6 Ch.7 Sec.1 B100.

C. Documentation

C 100 General

101 The documentation listed in Table C1 shall be submitted prior to class assignment.

Table C1 Documentation requirements applicable to class entry vessels – required for information only	
<i>Documentation</i>	<i>Additional information</i>
Documentation regarding Dynamic Positioning class notation from losing society	may be a copy of latest classification certificate from the losing society
DP control system topology	including position reference systems, sensors and power supply arrangement
Thruster arrangement	-
Mode change system	DP, joystick, manual
Joystick system topology	Additional for: POS CLE-1 (...)
Failure Mode and Effect Analysis (FMEA), and FMEA test program	Additional for: POS CLE-2 (...) , and POS CLE-3 (...)
Note 1: These documentation requirements are applicable for all notations shown in Table A1. Note 2: Failure Mode and Effect Analysis (FMEA) and FMEA test program will not be required for vessels where this documentation was not required by the losing Society.	

D. Survey and Tests

D 100 General

101 Survey or testing will not be required prior to class assignment, unless the periodic DP survey will be overdue (based on the date of the last survey or test from the losing society) when the vessel is taken into DNV class.

E. Alterations

E 100 Changes to the DP system

101 The owner shall advise the Society of any major alterations to the DP-system hardware or software.

DNV will consider the need for additional documentation, survey or testing, in regard to major changes to the DP system.

Guidance note:

In addition to the renewal of the DP-controller, a major alteration might also be:

- installation of a new position reference system
- installation of new thrusters
- software changes
- structural changes
- changes in power generation and distribution systems.

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SECTION 2

TECHNICAL REQUIREMENTS

A. General

A 100 General

101 In general, the DP system design will be accepted based on a corresponding, valid and maintained DP class notation, from the losing society.

Guidance note:

In case deviations are revealed during evaluation of the requested documentation, written confirmation from the losing society stating acceptance of any deviation(s) may be requested.

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