CLASS PROGRAMME

Type approval

DNVGL-CP-0206

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Machinery planned maintenance system (MPMS)
FOREWORD

DNV GL class programmes contain procedural and technical requirements including acceptance criteria for obtaining and retaining certificates for objects and organisations related to classification.

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CHANGES – CURRENT

This is a new document.
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SECTION 1 GENERAL

1 Objective
The objective of this class programme (CP) is to give a description of the Society's type approval scheme for which the Society bases its type approval Machinery planned maintenance systems (MPMS), which normally is a part of a Computerized maintenance management system (CMMS).
For a description of the Society's type approval scheme in general and further information on general conditions and procedures for obtaining the Society's type approval certificate, see class programme DNVGL CP 0338, DNV GL type approval scheme.

2 Scope
In order to achieve type approval, the MPMS shall fulfil the class required functionality for the Survey arrangement (SA) MPMS as described in Rules for classification of ships RU SHIP Pt.7 Ch.1 Sec.7 [3.2]. Final acceptance of the SA MPMS onboard is pending verification of content and use of MPMS in each case.

3 Application
The objective of this class programme (CP) is to give a description of the Society's type approval scheme for which the Society bases its type approval Machinery planned maintenance systems (MPMS), which normally is a part of a Computerized maintenance management system (CMMS).
For a description of the Society's type approval scheme in general and further information on general conditions and procedures for obtaining the Society's type approval certificate, see class programme DNVGL CP 0338 CP 0338- Type approval scheme.
SECTION 2 CONFORMITY ASSESSMENT OF DESIGN OF PRODUCT TYPE

1 General
The requirements are based on:
— Rules for classification RU SHIP Pt.7 Ch.1 Sec.7

2 Procedure
The type approval procedure consists of the following activities:
— assessment of documentation
— type testing of the product (MPMS)
— issuance of DNV GL type approval certificate (TAC).

3 Documentation to be submitted
The following documentation shall be submitted electronically:
— DNV GL type approval application form
— approval specific document, covering all functional requirements for SA MPMS [4]
— software package with a complete test-database [5]
— software specifications [6]
— documentation reflecting training courses and user support.

4 Functional requirements
The software has to comply with the following functional requirements:
1) means of identification of class related components
2) capability to handle maintenance related information
   a) job descriptions / work orders
   b) maintenance intervals (running hours / calendar based)
   c) continuous improvement process (e.g. following up of deficiencies, failure reports, user feedback, etc.)
   d) maintenance types
      i) planned
      ii) unplanned / corrective
      iii) postponed / deferred
      iv) overdue.
   e) alarms for unattended machinery spaces.
3) search and filter functionality for
   a) class related components
   b) class related maintenance types
      i) historical jobs
      ii) upcoming jobs.
4) traceability
   a) circulating components
b) audit logs.

5) access control
   a) support different levels of user access
   b) support administrative access.

6) exporting functionality
   a) all results from items 1 – 3 shall be available as reports
   b) all reports from the system shall be vessel and system specific (non-editable onboard)
   c) all class components in spreadsheet format
   d) all maintenance reports shall at least cover:
      i) component name
      ii) job/ work order name
      iii) maintenance interval
      iv) date carried out
      v) job/ work order history.

5 Test database
The database shall contain as a minimum:
— class related components
— non-class related components
— samples of job descriptions
— samples of maintenance (historical and non-historical, shall cover all maintenance types).

6 Software specifications and identification
The documentation shall contain an overview of the software architecture on a top level. Identification of the software shall be carried out in such a way that it is visible, legible and indelible throughout the anticipated life of the product, and that the identification can be traced back to the type approval certificate.

7 Issuance of type approval certificate
When the assessment of documentation and type testing are successfully completed, a type approval certificate (TAC) will be issued to the TA applicant.

8 Periodical assessment for retention and renewal of type approval certificates
In order to verify that the conditions for the TA are not altered in the validity period, periodical assessments will be carried out.
At least three months before the period of validity expires, the supplier shall apply for renewal of the certificate, stating the changes in the product (system).
Changes in the relevant rule requirements during the validity period of the TAC may require a new type approval.
Changes in the type approved software related to the functional requirements given in [4] may require a new type approval. The holder of the TAC is obliged to inform class about any such changes.
The following documentation shall be submitted for periodical assessment for retention of TAC:
   — Change log of software, MPMS relevant items shall be highlighted.
The following documentation shall be submitted for renewal of the TAC:

— change log of software, MPMS relevant items shall be highlighted
— updated approval specific document, see [3]
— updated software package including a complete test-database.
CHANGES – HISTORIC

There are currently no historical changes for this document.
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