

STANDARD FOR CERTIFICATION

No. 2.9

Type Approval Programme No. MED A.1/3

**TYPE APPROVAL ACCORDING TO MARINE EQUIPMENT
DIRECTIVE FIRE SAFETY**

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DET NORSKE VERITAS

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FOREWORD

DET NORSKE VERITAS is an autonomous and independent Foundation with the objective of safeguarding life, property and the environment at sea and ashore.

DET NORSKE VERITAS AS is a fully owned subsidiary Society of the Foundation. It undertakes classification and certification of ships, mobile offshore units, fixed offshore structures, facilities and systems for shipping and other industries. The Society also carries out research and development associated with these functions.

DET NORSKE VERITAS operates a worldwide network of survey stations and is authorised by more than 120 national administrations to carry out surveys and, in most cases, issue certificates on their behalf.

Standards for Certification

Standards for Certification (previously Certification Notes) are publications that contain principles, acceptance criteria and practical information related to the Society's consideration of objects, personnel, organisations, services and operations. Standards for Certification also apply as the basis for the issue of certificates and/or declarations that may not necessarily be related to classification.

A list of Standards for Certification is found in the latest edition of the Pt.0 of the "Rules for Classification of Ships", and the "Rules for Classification of High Speed, Light Craft and Naval Surface Craft".

The list of Standards for Certification is also included in the current "Classification Services – Publications" issued by the Society, which is available on request. All publications may be ordered from the Society's Web site <http://exchange.dnv.com>. The list of publications is also available from this site.

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1. EC Type - Examination

1.1 Scope

This type approval programme gives the requirements on which DNV bases its type approval for issuance of certificates according to the Marine Equipment Directive, 96/98/EC, as amended, for products listed in the Annex A.1.3 Fire Protection. The conditions outlined in this programme shall be fulfilled before the EC Type-Examination certificates are issued.

2. EU Certification Scheme

2.1 Definitions

2.1.1 Notified Body

means an organisation designated by the competent national administration of a Member State to undertake conformity assessment procedures of equipment specified in the EU Directive on Marine Equipment.

2.1.2 Conformity Assessment Procedures

means those procedures necessary to obtain an EC Type-Examination certificate, Certificate of Conformity and the manufacturer's Declaration of Conformity necessary for affixing the mark of conformity, the wheel.

The conformity assessment procedure is subdivided into modules, which relate to the design and production phases of the products.

2.1.3 Modules

The certification scheme specifies different modules to be followed.

There is a variety of modules covering the design and production phases, and the manufacturer may choose between different modules, dependent on type of product, the nature of the risk involved etc.

3. Applicability

The EU "Council Directive 96/98/EC on Marine Equipment" as amended and later amendments. The Directive is mandatory for the products listed in appendix A when they are put onboard new or existing ships flying the flag of any EEA member state, or where it replaces equipment previously carried onboard.

4. Documents to be Submitted

EU Marine Equipment - Application Form (form no. 43.44a) is to be submitted.

Further documents and number of copies to be submitted are specified for each product as stated in the relevant parts of appendix A.

5. Design Requirements

The system is to comply with the rules and regulations as specified for each product as stated in the relevant parts of appendix A.

6. Elements of EC Conformity Assessment Process

Within limitations for each type of equipment, manufacturers may choose alternative procedures/modules in order to affix the mark of conformity. These alternatives are given in the relevant parts of appendix A.

A summary of Modules B, D, E, F and G is also made below.

Further details of these EU Modules will be given by our local surveyor upon request.

7. Modules

7.1 Design Phase

7.1.1 Module B (type-examination)

DNV's type approval procedure is considered to be equal to Module B (EC Type-Examination) referred to in the EU Council Directive on Marine Equipment.

The DNV Type Approval certificate may therefore be converted to an EC Type-Examination certificate (validity 5 years).

For equipment without DNV Type Approval certificate, new technical documentation as specified in appendix B is to be submitted.

Witnessing by a DNV surveyor of the selection of test specimens may be required.

A DNV surveyor should witness relevant parts of the fire performance tests.

Det Norske Veritas will base its acceptance on the test reports, issued by a recognised fire laboratory confirming compliance with above requirements.

DNV shall issue a EC Type – Examination Certificate (validity 5 years).

7.1.2 Recognition of Test Laboratory

Testing in accordance with the regulations and standards required by the DNV type approval programmes as stated in the relevant parts of appendix A will be accepted when carried out either:

- 1) at a European laboratory accredited by an EA (European Accreditation) member, or
- 2) at a non-European laboratory accredited by an organization who has signed an MLA (multilateral

agreement) with EA (examples are: HOKLAS/Hong Kong and NATA/Australia), or

- 3) at a laboratory having the quality system audited by DNV (A quality audit by DNV will mean that a competent person will go through the Quality System of the laboratory in accordance with ISO/IEC 17025:2000. After closing the non-conformities, if any, a "Statement of Recognition" is issued. From then on, DNV will approve testing carried out by them as a part of a technical file, or
- 4) at a laboratory recognized/certified by the Marine Administration of one EU Member State or by another Notified Body (MED), or
- 5) at a non-recognized/certified laboratory when testing is witnessed by a DNV branch auditor/expert and such arrangement is approved by the project leader prior to testing. Testing carried out on site or at the manufacturer's premises has to be witnessed by a branch auditor/expert.

7.2 Production Phase

For the production phase the manufacturer may choose between modules D, E and F.

If he chooses to apply for modules D and E, DNV as notified body may approve his quality system (QS) and will then arrange with the necessary details making it possible to affix the mark of conformity.

In any case, the manufacturer shall draw up a declaration of conformity and affix the mark of conformity.

7.2.1 Module D (Production Quality Assurance)

If the manufacturer operates an approved QS for production and testing equivalent to the requirements in relevant parts of EN ISO 9001:2000 (e.g., approved by DNV as notified body), Module D may be used.

DNV shall issue a QS – Certificate of Assessment - EC.

7.2.2 Module E (Product Quality Assurance)

If the manufacturer operates an approved QS for inspection and testing equivalent to the requirements in relevant parts of EN ISO 9001:2000 (e.g., approved by DNV as notified body), Module E may be used.

DNV shall issue a QS – Certificate of Assessment - EC.

7.2.3 Module F (Product Verification)

Necessary measures shall be taken by the manufacturer, in order that the manufacturing process ensures conformity of the products with the type as described in the EC Type-Examination certificate (Module B).

DNV as notified body shall carry out the appropriate examinations and tests in order to check the conformity of the product with the specified requirements either by examination and testing of every product, or by examination and testing of products on a statistical basis.

DNV shall issue a Certificate of Conformity - EC.

7.2.4 Module G (Unit Verification)

This Module is used for equipment being produced in small quantities.

The unit verification consists of 2 elements:

- 1) Assessment of technical documentation: Examination of technical documents to ensure that the design of a product/system is in conformity with specified requirements will be done by branch experts.
- 2) Examination and test of the equipment concerned: The manufacturer shall have affixed the mark of conformity followed by the identification number of the notified body, and drawn up a written declaration of conformity. A branch auditor shall examine the individual product and carry out appropriate tests to ensure that it complies with the relevant requirements of the international requirements specified in Annex B to the directive, Module G.

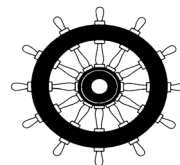
DNV shall issue a Certificate of Conformity-EC.

8. EC Marking of Products

The product is to be marked with name of manufacturer, type designation, fire technical rating and the MED mark of conformity.

The manufacturer or his authorised representative established within the Community, shall affix the mark of conformity, to each product and draw up a written declaration of conformity at the end of the production phase.

The wheel shall be followed by the DNV identification number as notified body when involved in the production control phase and the two last digits of the production year.



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9. Renewal of EC Type – Examination Certificate

Renewal of an EC Type Examination certificate will be based on a statement from the manufacturer confirming that no change has been made to the design of the product and an annual survey report from the DNV surveyor.

10. Appendix A – Type Approval Programme - MED A.1/3

Specified Requirements for items listed in Annex A.1/3 of the Commission Directive 98/85/EC and later amendments

Contents

- A1/3.1 Primary deck coverings
- A1/3.2 Portable fire extinguishers
- A1/3.3 Fire-fighter's outfit: protective clothing (close proximity clothing)
- A1/3.4 Fire-fighter's outfit: boots
- A1/3.5 Fire-fighter's outfit: gloves
- A1/3.6 Fire-fighter's outfit: helmet
- A1/3.7 Self-contained, compressed-air-operated breathing apparatus
- A1/3.8 Air-supplied breathing apparatus for use with a smoke helmet or smoke mask
- A1/3.9 Sprinkler systems components for accommodation spaces, service spaces and control stations equivalent to that referred to in SOLAS 74 Regulation II-2/12
- A1/3.11 "A" and "B" Class divisions, fire integrity
 - (a) "A" class divisions
 - (b) "B" class divisions
- A1/3.12 Devices to prevent the passage of flame into the cargo tanks in oil tankers (high velocity valves only)
- A1/3.13 Non-combustible materials
- A1/3.14 Materials other than steel for pipes penetrating "A" or "B" Class division
- A1/3.15 Materials other than steel for pipes conveying oil or fuel oil
 - (a) pipes and fittings
 - (b) valves
 - (c) flexible pipe assemblies
- A1/3.16 Fire doors
- A1/3.17 Fire door control systems components
- A1/3.18 Surface materials and floor coverings with low flame-spread characteristics
 - (a) decorative veneers
 - (b) paint systems
 - (c) floor coverings
 - (d) pipe insulation covers
- A1/3.19 Draperies, curtains and other suspended textile materials and films
- A1/3.20 Upholstered furniture
- A1/3.21 Bedding components
- A1/3.22 Fire dampers
- A1/3.25 Windows and side scuttles
- A.1/3.26 Penetrations through "A" class divisions
 - (a) electric cable transits
 - (b) pipe, duct, trunk, etc. penetrations
- A.1/3.27 Penetrations through "B" class divisions
 - (a) electric cable transits
 - (b) pipe, duct, trunk, etc. penetrations
- A.1/3.28 Sprinkler systems (limited to sprinkler heads and to the method of automatic sprinkling and signalling e.g. flow switches, alarm panels)
- A.1/3.29 Fire hoses
- A.1/3.30 Oxygen analysis and gas detection equipment
- A.1/3.31 Fixed sprinkler systems components for high-speed craft
- A.1/3.32 Fire restricting materials (except furniture) for high-speed craft
- A.1/3.33 Fire restricting materials for furniture for high-speed craft
- A.1/3.34 Fire resisting divisions for high-speed craft
- A.1/3.35 Fire doors on high-speed craft
- A.1/3.36 Fire dampers on high-speed craft
- A.1/3.37 Penetrations through fire resisting divisions on high-speed craft
 - (a) electric cable transits
 - (b) pipe, duct, trunk, etc. penetrations
- A.1/3.38 Portable fire-extinguishing equipment for lifeboats and rescue boats
- A.1/3.39 Alternative arrangements for halon fire extinguishing systems components in machinery spaces and pump rooms - equivalent water-based fire extinguishing systems components

- A.1/3.40 Low-location lighting systems (components only)
- A.1/3.41 Emergency escape breathing device (EEBD)
- A.1/3.42 Inert gas systems components
- A.1/3.43 Deep fat cooking equipment fire extinguishing systems components (automatic or manual type)
- A.1/3.44 Firefighters outfit - lifeline
- A.1/3.45 Equivalent fixed gas fire extinguishing systems components for machinery spaces and cargo pump rooms
- A.1/3.46 Equivalent fixed gas fire extinguishing systems components for machinery spaces (aerosol systems)
- A.1/3.47 Concentrate for fixed gas fire extinguishing systems components for machinery spaces and cargo pump rooms
- A.1/3.48 Fixed water based local application fire fighting systems components for use in category "A" machinery spaces
- A.1/3.49 Nozzles for fixed pressure water-spraying fire-extinguishing systems for special category spaces, ro-ro cargo spaces, ro-ro spaces and vehicle spaces
- A.1/3.50 Protective clothing resistant to chemical attack