General Description of The CMC- Services

JANUARY 2013

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FOREWORD

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CHANGES

General
This document supersedes Standard for Certification No. 1.1, May 2007.

Text affected by the main changes in this edition is highlighted in red colour. However, if the changes involve a whole chapter, section or sub-section, normally only the title will be in red colour.

Main Changes

• General
The changes are related to the type approval service and the text is changed in order to harmonize with Standard for Certification 1.2.
Information about the new EU RO Mutual Recognition (MR) Type Approval scheme has been added.

• Sec.1 General
1.4: Abbreviations have been updated.

• Sec.2 Certification Services
2.5.1: General information about the EU RO MR Type Approval scheme has been added.
2.5.2:
— The formal conditions for a company applying for DNV TA have been changed.
— Formal conditions for EU RO MR TA have been included.
2.5.3:
— “Initial survey” has been renamed to “initial assessment”.
— Approval of the company's Production Quality Assurance (PQA) scheme when EURO MR Type Approval is requested, has been included.
2.5.4:
— When TA documentation is submitted in paper format, only two copies of the documentation shall be submitted.
— No TA documentation will be returned to the company applying for TA.
2.5.5:
— The TA certificate will now be delivered in electronic format and digitally signed.
— The digitally signed electronic TAC is the original of the certificate.
— A Note describing the difference between TA certificate and Product certificate is included.
— The EU RO MR Type Approval Certificate has a validity of max 5 years.
2.5.6:
— “Retention survey” has been renamed to “Periodical assessment”.
— For EU RO MR Type Approval the periodical assessment shall be carried out annually.

Editorial Corrections
In addition to the above stated main changes, editorial corrections may have been made.
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1 General

1.1 Introduction
DNV Classification is a service which comprises the development of independent technical standards for vessels, the DNV Rules for Classification of Ships, and the verification of compliance with the rules throughout the vessel’s life.

The scope of Classification includes and requires that specified materials, components and systems intended for the vessel are certified in accordance with the DNV rules.

This part of the Classification scope is defined as the CMC (Certification of Materials and Components) services.

DNV will consider alternatives found to represent an overall safety standard equivalent to that of the DNV rules.

1.2 Objective of this publication
The objective of this publication is to give a description of the CMC services within classification and some of the principles behind these services.

1.3 Definitions

1.3.1 Definition of Certification
In general Certification can be defined as follows:

*On the basis of a review and a decision, a third party issues a written statement confirming that fulfilment of specified requirements has been demonstrated.*

When DNV is involved in certification, the third party will be DNV, the written statement will be a certificate, and the specified requirements will be DNV rules or other standards and specifications.

By contacting the nearest DNV office you will be informed if DNV can carry out certification to an international standard of your choice.

1.3.2 Definition of Manufacturer
A manufacturer is defined as a company that:

— manufactures the material/product totally, or
— performs a part of the production that determines the quality of the material/product, or
— does the final assembly of the product.

A manufacturer must take and acknowledge the responsibility for the delivered material/product.

1.3.3 Definition of Intermediary
An intermediary is defined as a company which is supplied with products by the manufacturers and which then in turn supplies them without further processing or after processing without changing the properties specified in the purchase order and referenced product specification.

1.4 Abbreviations

AoM Approval of Manufacturer
CMC Certification of Materials and Components
DNV Det Norske Veritas
EU European Union
GCA General Certification Agreement
MED Marine Equipment Directive
MR Mutual Recognition
MPQA Manufacturer Product Quality Assessment
MSA Manufacturing Survey Arrangement
PQA Production Quality Assurance
RO Recognized Organisation
TA Type Approval
2 Certification Services

2.1 General

2.1.1 Objective and Value of CMC
The objective of the CMC services is to verify that materials, components and systems used in DNV classed vessels comply with the DNV rule requirements.

The value of the CMC services for DNV’s customers is that compliance with the requirements is verified and documented, and that this is done in an efficient and cost-effective way by competent personnel.

Further, some of the services may also give an efficient marketing effect of companies and products.

2.1.2 Certification at a Manufacturer
In general, certification of materials, products and systems will be carried out at the manufacturer, i.e. where materials, products and systems are being manufactured.

A certificate confirming compliance with the requirements, will be issued to the manufacturer when compliance has been confirmed, see 2.3.4 and 2.4.4.3.

Only new and unused materials, products and systems can be certified.

Accordingly, 2nd hand (i.e. used) equipment will not be certified. The DNV involvement in 2nd hand equipment will be documented by survey reports.

2.1.3 Certification at an Intermediary
Occasional certification at an Intermediary may be performed when all possibilities for a normal certification procedure at the manufacturer are excluded due to:

— short delivery times, e.g. delivery to repair of ships in operation
— intended use and or installation is not known at time of production.

Accordingly, new materials and products that have been certified by another Classification Society, may under certain special conditions be re-certified by DNV at an intermediary for compliance with DNV rules.

2.2 General Certification Agreement

2.2.1 Background
Manufacturers are continuously aiming at reduced delivery times of their products. At the same time they are trying to avoid delays that may be costly and result in lost markets.

Therefore, it is essential for manufacturers to have efficient and streamlined production lines and quality control of their products.

DNV will support the manufacturers in their efforts on reduced delivery times and timely deliveries.

2.2.2 Agreement
In order to support efforts on reduced delivery time and to ensure efficient and correct certification processes, DNV consider it beneficial to establish General Certification Agreements (GCA) between manufacturers and DNV.

In such agreements the daily procedures for efficient processes for design approval and surveys will be laid down. Information and documentation needed and required by the two parties may also be defined and be part of such agreements.

Further, the agreement will also normally include commitments on transfer and sharing of information and experiences that are considered beneficial for the manufacturer and DNV.

Use the following link to find the nearest local DNV office: http://www.dnv.com/findus/

2.3 Material Certification

2.3.1 General
Material certification based on the DNV rules, will in most cases include the following two main elements:

— approval of the Manufacturer, see 2.6
— testing and inspection of the individual materials, see 2.3.3.

Applicable chapters of the DNV rules define the extent and requirements to material testing.
2.3.2 Objective and basis for testing and inspection
The objective of the testing and inspection is to verify and document that the materials are in compliance with the purchase order, the specified rule requirements and the material standard accepted as part of a design approval.

Accordingly, it is important that prior to the testing and inspection, the manufacturer provides the DNV surveyor with the technical specifications of the order.

2.3.3 Scope and process
The DNV surveyor will carry out the inspections and witness the testing as required by the DNV Rules and approved specifications.

In order to do this, the surveyor must at any time be given access to all areas and facilities for production and quality control at the manufacturer.

The testing of the materials shall be carried out on representative test pieces from sample products to the extent described in the DNV rules, Part 2 Chapter 1.

The materials covered by the testing, will be accepted or rejected on the basis of the test results.

When found acceptable, a Manufacturing Survey Arrangement (MSA) can be agreed between the local DNV office and the manufacturer, see 2.7.

The certification of the materials will in such cases be carried out as agreed in the MSA.

2.3.4 Material certificate
When compliance with the requirements is confirmed, a material certificate will be issued and validated by DNV.

The material being certified will be marked for traceability to the certificate as required and advised by DNV Rules, see 2.9.

2.3.5 Fees
A fee will be charged for the service carried out and will depend on the amount, grade and type of material being certified.

2.4 Product Certification
2.4.1 General
The applicable chapters of the DNV rules define the extent of the certification that is required.

Product certification includes normally both:

— approval of the product design, and
— survey during the production and / or of the final product.

The survey will be carried out at the manufacturer’s premises.

The design approval will either be on a “case by case” basis, see 2.4.2, or follow the procedure for Type Approval”, see 2.5.

The survey will either be on a “case by case” basis, see 2.4.4, or on the basis of an agreed Manufacturing Survey Agreement, see 2.7.

2.4.2 Design Approval “case by case”
2.4.2.1 Documentation requirements
When the design approval is performed on a “case by case” basis, documentation of the design shall be submitted for approval for each application / project.

The documentation requirements are described in the various chapters in the DNV rules. If there are any doubts about which documentation to be submitted, the local DNV unit will assist in identifying correct documentation.

If the product design needs to be revised, new updated drawings shall be submitted for approval.

2.4.2.2 Scope and process
In order to achieve an efficient design approval process, it is a prerequisite that correct and complete documentation is submitted to the local DNV unit as soon as available for the relevant application/project.

This is important in order to be able to finish the approval before starting the survey phase. Otherwise, delays in the production may be the consequence.
It is also important that all relevant information for the actual application is included, such as ship name, newbuilding yard number, purpose/function of equipment, etc. Information about previous approvals of same type of product is also valuable.

Normally, 2 set of the required drawings/documentation shall be submitted. However, more copies of the drawings may be required in each separate case. This is to be agreed with the local DNV unit.

DNV has established a service for digital handling of drawing approval. The service is called “eApproval”. For further information, see 2.4.3.

2.4.2.3 Approval letter
A design approval letter or design verification report will be issued and sent to the manufacturer by DNV when compliance with the requirements for the design has been confirmed.

2.4.2.4 Fees
The fee charged for certification of the product normally covers both design approval fee and survey fee. For some products, however, the design approval fee will be charged separately. In such cases the fee has to be agreed with the local DNV unit before the approval can start.

2.4.3 Digital design approval – “eApproval”
Through a secure service on DNV’s web tool, DNV Exchange, manufacturers can submit and receive documentation over the Internet. This digital approval service is named “eApproval”.

When manufacturers are using “eApproval”, documentation and accompanying letters shall be uploaded to the DNV Exchange server. From there DNV will start the process of approving the documentation electronically, redline and stamp the drawings.

When approval has been finished the approved documentation will be uploaded by DNV back to the DNV exchange server together with the approval letter.

The approved documentation and the approval letter will then be available to the manufacturer through the internet.

Further information about the “eApproval” service is available at the local DNV units.

2.4.4 Survey during production, “case by case”

2.4.4.1 Objective
The objective of the surveys carried out by the DNV surveyor during the production and of the final product, is to verify and document that the final product is in compliance with the specified rule requirements and the approved design documentation.

Accordingly, the surveyor must be given access to all areas and facilities for production and quality control.

2.4.4.2 Scope and process
In order to get an efficient process and to avoid delays, it is important that the DNV involvement in connection with the surveys and certification is harmonised with the ongoing production process and the manufacturer’s own quality controls.

To achieve this it is important that the manufacturer’s request for survey is submitted to DNV well in advance of the survey date. Further, it is important that the necessary DNV survey “hold points” are identified in the manufacturer’s production and quality plans. The local DNV unit will assist in identifying these “hold points”.

It would be beneficial for the manufacturer and DNV that such issues are laid down in a General Certification Agreement, see 2.2.

The manufacturer’s own quality control of the product shall be traceable and documented to the extent given in the applicable chapters of the DNV rules. Further, the quality control shall be carried out by qualified personnel at facilities and with equipment suitable for the control.

During the survey it will be verified that the product fulfils all applicable rule requirements and that the product has been made in accordance with the approved design.

If the product for any reason has not been manufactured in accordance with the approved design or if any repairs need to be done, DNV shall be notified and further actions shall be agreed upon.

2.4.4.3 Product certificate
When compliance with the requirements and the approved design is confirmed, a product certificate will be issued by DNV to the manufacturer in order to document compliance with the requirements.

The product shall be marked for traceability to the certificate as advised by DNV, see 2.9.
2.4.4.4 Fees
When the certification has been completed, a fee will be charged for the service carried out. This fee will normally cover both the design approval and the surveys.

The fee will vary from product to product. However, DNV aims to ensure that the certification fee for a specific product is kept on the same level worldwide to avoid distortion of the competition between the different manufacturers competing in the same market.

2.4.5 Survey during production on the basis of a Manufacturing Survey Arrangement
As an alternative to survey during production, “case by case”, the survey may be carried out on the basis of an agreed Manufacturing Survey Arrangement (MSA), see 2.7.

When an MSA has been established, the surveys shall be carried out by the manufacturer and DNV in accordance with the agreed MSA.

Issuance of product certificate and marking of the product shall also be carried out as agreed in the MSA.

2.5 Type Approval

2.5.1 General
DNV is operating the following two Type Approval schemes:

— DNV Type Approval
— EU RO Mutual Recognition (MR) Type Approval.

**DNV Type Approval:**

The DNV Type Approval (TA) scheme is a procedure for approval of the design of materials, products and systems and may be used as an alternative to the design approval “case by case”, see 2.4.2.

The DNV TA procedure should normally be used for approval of standard design of products produced in series.

**EU RO MR Type Approval:**

The EU RO MR Type Approval (TA) scheme is a procedure for type approval of certain products that can be accepted for installation onboard vessels on the basis of the EU RO MR TA only.

This Type Approval scheme can only be used for products that are defined on a list of products agreed by the EU RO.

When a product has got an EU RO MR Type Approval Certificate from DNV, the product shall be accepted for installation onboard vessels classed by any of the EU RO.

TA is defined as:

*Approval of conformity with specified requirements on the basis of a systematic examination of one or more specimens of a product representative for the production.*

2.5.2 Basic principles

Type Approvals Certificates (TAC) are normally given to companies designing and manufacturing their own products. Upon certain conditions, however, a TAC can be issued to a company placing a product on the market under the company's name and thus presenting the company as the manufacturer of the product even if the designing and/or manufacturing and/or assembly are partly or fully subcontracted or licenced to other companies.

A company applying for EU RO MR Type Approval must operate a quality management system certified to ISO 9001 or equivalent by an accredited certifying body.

Products and systems can be type approved when compliance with requirements in one of the following standards/programmes has been confirmed:

For **DNV TA:**

— DNV Rules for Classification of Ships, and/or
— DNV Offshore Standards, and/or
— DNV TA Programmes.

For **EU RO MR TA:**

— DNV Publications “EU RO Mutual Recognition TA Programmes”.
2.5.3 Type Approval scope
The scope of the DNV TA and EU RO MR TA schemes will normally include the following activities:

— design assessment
— type testing
— initial assessment at the company (DNV TA)
— approval of the company’s Production Quality Assurance (PQA) scheme (EU RO MR TA).

The type testing initial assessment and/or approval of PQA should preferably be carried out before or in parallel with the design assessment.

For certain products, systems as defined in applicable chapters of the DNV rules, TA is a mandatory procedure for design approval.

To apply for Type Approval, please contact the nearest DNV unit where the TA Application form and other useful information are available.

2.5.4 Documentation requirements
When a DNV and/or EU RO MR TA is applied for, the following documentation shall be submitted for assessment to DNV as required in the relevant DNV TA programmes and/or the DNV rules:

— the design documentation
— the results of the type testing
— the report from the initial assessment (DNV TA)
— the report from the approval of the PQA scheme (EU RO MR TA).

When documentation is submitted in paper format, 2 sets of the documentation shall be submitted to the local DNV unit together with the application for TA.

No TA documentation will be returned to the TA applicant.

English language shall be used in the documentation.

All documentation that has been used as basis for the Type Approval must be available at the company for the DNV surveyor at any time.

Any changes to the TA documentation need to be communicated to DNV. Otherwise, the validity of the Type Approval certificate may be terminated.

2.5.5 Type Approval Certificate
A Type Approval Certificate (TAC) will be issued to the TA applicant when compliance with the requirements for the product is confirmed. The certificate will be in electronic format and digitally signed.

The digitally signed electronic TAC is the original of the certificate, and any paper version of the certificate is a copy.

The DNV Type Approval certificate has a validity of 2 or 4 years depending on type of material, component or system.

The EU RO MR Type Approval Certificate has a validity of max 5 years.

Before expiry of the TA certificate, the manufacturer will be contacted by DNV with respect to renewal of the certificate.

All valid TA certificates are listed on DNV Exchange on the Internet, see http://www.dnv.com/maritime/shipclassification/index.asp.

Note:
The difference between a DNV Type Approval Certificate and a NV Product Certificate should be observed.

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A DNV Type Approval Certificate states that the design of a product type is in conformity with specified requirements. The certificate is valid for a certain period of time.

A NV Product Certificate states that a manufactured product is in conformity with specified (design and manufacturing) requirements at the date of issuance.

2.5.6 Periodical Assessment for Retention of the Type Approval
In order to verify that the conditions for the TA are not altered in the validity period, periodical assessments will be carried out. For DNV TA the periodical assessment will be carried out every second year.

For EU RO MR Type Approval the periodical assessment shall be carried out annually.
2.5.7 Fees
A fee will be charged for the type approval. The fee shall always be agreed upon before the TA work is started.

2.5.8 Suspension of Type Approval Certificate
A TA certificate may, for different reasons, be withdrawn or suspended for a certain period of time. Before suspension or withdrawal of the TA certificate, the company will always be contacted and informed that a modification or a re-qualification of the product/system is needed within a reasonable time in order to maintain the TA certificate.

If a certificate is suspended or withdrawn, this will have no retroactive influence on the fee initially charged for the TA.

2.5.9 Further information
For further information about the Type Approval service reference is made to the DNV Standard for Certification 1.2.

2.6 Approval of Manufacturer (AoM)

2.6.1 Objective of Approval of Manufacturer
Approval of Manufacturers (AoM) is a scheme to qualify manufacturers for delivery of specified materials and/or products intended for classification.

The objective of AoM is to verify the manufacturers’ ability to consistently manufacture materials and products to the given specification and according to the DNV rule requirements.

2.6.2 Requirements for materials
The DNV rules require that materials delivered with DNV certificate (NV) or works certificate (W) shall be manufactured at manufacturers approved by DNV.

The specific requirements to materials (NV or W) are given in the applicable chapters of the DNV Rules.

2.6.3 Requirements for products
In addition to the requirements to manufacturers of materials, it is also required that manufacturers of boilers and pressure vessels class I and II delivered in accordance with the DNV rules, shall be approved.

2.6.4 Scope and process
In order to become approved, the manufacturer must submit documentation describing the available manufacturing, testing and inspection facilities and confirm that these are supervised by qualified personnel.

Further, approval testing shall be carried out in order to demonstrate the manufacturer’s ability to deliver products in accordance with DNV Rules.

The detailed approval programmes are described in Standard for Certification No 2.9.

Ask your nearest DNV unit for the approval programmes, see http://www.dnv.com/findus/.

When a manufacturer has more than one work, each of the works needs to carry out the testing in accordance with the programme in order to become approved.

2.6.5 Certificate and publication
A certificate will be issued to the approved manufacturer.

The validity of an approval is 4 years.

Approved manufacturers are listed on DNV Exchange on the Internet, see http://www.dnv.com/maritime/shipclassification/index.asp.

2.6.6 Fees
A fee will be charged for the approval of the manufacturer.

The fee shall be agreed upon before the work with the approval of manufacturer is started.

2.6.7 Suspension of Approval of Manufacturer
If DNV does not have sufficient confidence in the manufacturer’s ability to consistently manufacture materials and products to the given specification and according to the DNV rule requirements, DNV may at any time suspend or withdraw the AoM certificate.

Serious or recurring non-compliances with requirements, deliberately conceal of non-conformities and any attempt to fraud are examples of reasons for suspension/withdrawal.

If an AoM certificate is suspended or withdrawn, this will have no retroactive influence on the fee initially charged for the AoM certificate.
2.7 Manufacturing Survey Arrangement

2.7.1 Definition
A Manufacturing Survey Arrangement (MSA) is a formal written agreement between the manufacturer and DNV which describe the scope, requirements, acceptance criteria, documentation and the roles and responsibilities of the manufacturer and DNV in connection with the production assessment.

When it is agreed in the MSA that the majority of the required survey items are being completed without the presence of a DNV surveyor, the MSA is defined to be a Major MSA. Otherwise the MSA is Minor.

2.7.2 Objective
The objective of establishing an MSA is to achieve a reliable, efficient and cost effective CMC service by utilising the manufacturer’s quality system and procedures as part of the survey and certification process when found effective to attain the quality, safety and environmental standard of the DNV Rules.

2.7.3 Conditions
Establishment of an MSA is conditional upon that:

— DNV has the confidence that the manufacturer’s procedures and processes for production and quality control meet the quality, safety and environmental level of the DNV Rules
— the production and product surveys are based on the DNV Rules
— certification is done on regular basis
— the damage rate is acceptable low.

Establishment of a Major MSA is conditional upon that the manufacturer have in operation a quality system certified by an accredited body to ISO 9001, or equivalent.

2.7.4 Scope and process
When establishing an MSA, the manufacturer and DNV shall agree on the scope of work that shall be covered by the MSA.

An initial assessment of the manufacturer’s ability to control product quality and to comply with the scope, requirements and criteria laid down in the MSA shall be performed by DNV.

For all Major MSA, the assessment will be performed with DNV’s Manufacturer Product Quality Assessment (MPQA) tool.

2.7.5 Validity of Manufacturing Survey Arrangement
An MSA is normally given a validity of 4 years.

In order to retain the validity of the MSA, periodical retention assessments of the manufacturer will be carried out. The extent and frequency of the assessments shall be included in the MSA.

Major MSA automatically becomes invalid if the approval of manufacturer and/or the quality system certificate is no longer valid.

2.7.6 Fees
A fee will be charged for the establishment of the MSA. The fee shall be agreed upon before the work with establishing the MSA is started.

2.7.7 Suspension of Manufacturing Survey Arrangement
If DNV does not have sufficient confidence in the manufacturer’s procedures and processes for production and quality control, DNV may at any time suspend the MSA.

If an MSA is suspended or withdrawn, this will have no retroactive influence on the fee initially charged for the MSA.

2.8 Definition of DNV certificates
In connection with certification of materials and components DNV has defined three types of certificates to be used for documentation of compliance with requirements.

The three types are defined as follows:

DNV certificate (NV)
A document signed by a DNV surveyor stating:

— conformity with DNV rule requirements
— that tests are carried out on the certified product itself
— that tests are made on samples taken from the certified product itself
— that tests are performed in the presence of the surveyor or in accordance with special agreements.

**Works certificate (W)**
A document signed by the manufacturer stating:

— conformity with DNV rule requirements
— that tests are carried out on the certified product itself
— that tests are made on samples taken from the certified product itself
— that tests are witnessed and signed by a qualified department of the manufacturer.

**Test Report (TR)**
A document signed by the manufacturer stating:

— conformity with DNV rule requirements
— that tests are carried out on samples from the current production.

The applicable chapters and sections of the DNV Rules specify which of the above mentioned documents that will be required in each case.

For comparison between DNV’s definitions of certificates and definitions in ISO standard 10474 and EN standard 10204, see 3.3.2.

### 2.9 Marking of products

In order to ensure traceability between the material/product certified by DNV and the certificate issued for the material/product, all materials/products shall be clearly marked for identification.

The marking shall normally include the DNV mark (NV), place of certification (station abbreviation), year of certification (e.g. 06) and a specific unique identification number.

A typical example of marking may then be: NV OSL 06-32111.

### 3 DNV Scheme Versus other Schemes

#### 3.1 DNV Type Examination

**3.1.1 Basic principles**

The general definition used for Type Approval, see 2.5.1, applies also for Type Examination. However, the difference between Type Approval and Type Examination are the requirements forming the basis for the examination.

A DNV TA certificate is issued on the basis of compliance with requirements in DNV Rules, DNV Offshore Standards or DNV Type Approval Programmes, see 2.5.2.

The basis for a DNV Type Examinations is any other standard than the DNV Rules, DNV Offshore Standards and DNV Type Approval Programmes. The standards used can be national or international standards as long as they include specific requirements to the design of the product.

When a product is has got a DNV TA, the product design is found acceptable for DNV classed vessels within the stated limitations. This is, however, not necessarily the case for products covered by a DNV Type Examination certificate. The reason is that the standard used as basis for the Type Examination, has not been evaluated for application on DNV classed vessels.

**3.1.2 Procedure**

The procedure to be used for examination and issuance of DNV Type Examination certificates, is the same as used for DNV TA, see 2.5.3 to 4.

**3.1.3 Type Examination Certificate**

When compliance with the standard has been confirmed, a DNV Type Examination certificate will be issued in the same way as for DNV Type Approvals. DNV Type Examination certificates are listed on the internet together with the DNV TA certificates.

#### 3.2 EC Type-Examination

**3.2.1 Basic principles**

When an EC Type-Examination is carried out for the design of a product type, this is done on the basis of an EU Directive and the belonging international standards. Compliance with the directive (acc. to Module B) and standards is documented by issuance of an EC Type-Examination certificate.
The examination of the design and the issuance of the certificate can only be done by Notified Bodies.

DNV has become notified and can therefore issue EC Type-Examination certificates with basis in several different EU Directives.

The directives and standards used, have in general not been evaluated with regard to application of the product type on DNV classed vessels. EC Type-Examination certificates may for that reason not be accepted as basis for certification of product intended for DNV classed vessels.

An exception is the Marine Equipment Directive (MED) for which the products are assessed as suitable for the intended application on the vessels.

For certification according to MED (wheelmark), other certificates related to the product fabrication are required in addition to the EC Type-Examination certificate.

3.2.2 Procedure
The procedure used for examination and issuance of the EC Type-Examination certificate, is the same as used for DNV Type Approval, see 2.5.

3.2.3 EC Type-Examination Certificate
An EC Type-Examination certificate is issued to the manufacturer of the product or his authorised representative.

The EC Type-Examination certificate may be given a validity for a limited period of time. There are, however, no specific requirements for retention of the certificate during the period of validity.

Validity and retention requirements for Type Approval, see 2.5.5 to 6.

3.3 Class Certification versus Non-Class Certification

3.3.1 Non-Class Certification

The Class-related Certification of Materials and Components (CMC) are described in 2.3 and 2.4.

DNV is also doing third party certification (non-class certification) to other standards than the DNV rules.

In this case DNV is acting as an independent certification body authorized by the purchaser. Basis for the certification is national and international standards and order specifications.

After finishing the work and when compliance with the specification and standard has been confirmed, an inspection certificate shall be issued by the manufacturer and validated by DNV.

For definition of inspection certificate, see 3.3.2.

3.3.2 DNV Certificates vs. Inspection Documents

For definition of DNV certificates, see 2.8.

In addition to the DNV certificates, there are defined different types of inspection documents in the international standards ISO 10474 and EN 10204.

In the table below is given a comparison of the DNV certificates and the inspection documents specified by the international standards.

The documents are listed in increasing order, i.e. from 1 where only a confirmation from the manufacturer is necessary to 7 where the highest level of documentation is required.
<table>
<thead>
<tr>
<th>Document in which the manufacturer declares that the products supplied are in compliance with the requirements of the order, without inclusion of test results.</th>
<th>Certificate of compliance with the order 2.1</th>
<th>Declaration of compliance with the order 2.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>As 1 + test results based on non-specific inspection and testing.</td>
<td>Test Report (TR) Pt.1 Ch.1 Sec.3</td>
<td>Test report 2.2</td>
</tr>
<tr>
<td>Test report 2.2</td>
<td>Test report 2.2</td>
<td></td>
</tr>
<tr>
<td>As 1 + test results based on specific inspection and testing.</td>
<td>Specific test report 2.3</td>
<td>-</td>
</tr>
<tr>
<td>Document issued on the basis of inspection and tests carried out in accordance with the technical specifications of the order. The tests shall be carried out on the products supplied or the products in the inspection unit. Certificate is issued and validated by an inspector designated by the official regulations, in accordance with these and the corresponding technical rules.</td>
<td>Inspection certificate 3.1 A</td>
<td>Inspection certificate 3.1 A</td>
</tr>
<tr>
<td>Inspection certificate 3.1 A</td>
<td>Inspection certificate 3.1 A</td>
<td></td>
</tr>
<tr>
<td>As 4, except that the certificate is issued by a department independent of the manufacturing department and validated by an authorized representative independent of the manufacturing department.</td>
<td>Works' Certificate (W) Pt.1 Ch.1 Sec.3</td>
<td>Inspection certificate 3.1 B</td>
</tr>
<tr>
<td>Inspection certificate 3.1 B</td>
<td>Inspection certificate 3.1 B</td>
<td></td>
</tr>
<tr>
<td>As 4 except that the certificate is issued and validated by an authorized representative of the purchaser, in accordance with the specification of the order.</td>
<td>DNV Certificate (NV) Pt.1 Ch.1 Sec.3</td>
<td>Inspection certificate 3.1 C</td>
</tr>
<tr>
<td>Inspection certificate 3.1 C</td>
<td>Inspection certificate 3.1 C</td>
<td></td>
</tr>
<tr>
<td>As 4, except that the certificate is validated by the manufacturer’s authorized representative independent of the manufacturing department and either the purchaser’s authorized inspection representative or the inspector designated by the official regulations.</td>
<td>DNV Certificate (NV) Pt.1 Ch.1 Sec.3</td>
<td>Inspection report 3.2</td>
</tr>
<tr>
<td>Inspection report 3.2</td>
<td>Inspection report 3.2</td>
<td></td>
</tr>
</tbody>
</table>

Note a: Inspection certificate 3.1 replaces inspection certificate 3.1B in the previous edition of EN 10204

Note b: Inspection certificate 3.2 replaces inspection certificate 3.1A and 3.1C, and inspection report 3.2 in the previous edition of EN 10204