TASNEEF
هيئة الإمـــــارات للتصـــنـيـف
EMIRATES CLASSIFICATION SOCIETY

Rules for Testing and Certification of Marine Materials and Equipment

Effective from 1 January 2026

TASNEEF
CI Tower, 17th Floor, PO Box. 111155,
Abudhabi-UAE
E-MAIL flt@tasneef.ae
WEB: www.tasneef.ae

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EMIRATES CLASSIFICATION SOCIETY

GENERAL TERMS AND CONDITIONS
OF EMIRATES CLASSIFICATION SOCIETY – L.L.C – O.P.C (TASNEEF)
EFFECTIVE AS OF 1 APRIL 2025

DEFINITIONS

Administration	means the government of the state whose flag the Ship is entitled to fly or under whose authority the Ship is authorised to operate in the specific case.
Client	means the interested party and any other party who requires the Services.
Certificate of Classification	means a certificate of classification, issued by a Society and the certificate confirms that the vessel's structure, machinery, and equipment meet the society's specific technical rules and regulations.
Interested Party	means the party, other than the society, having an interest in or responsibility for the Ship, product, plant or system subject to classification or certification (such as the owner of the Ship and his representatives, the Ship builder, the engine builder or the supplier of parts to be tested) who requests the Services or on whose behalf the Services are requested.
Owner	means the registered owner, the Ship owner, the manager or any other party with the responsibility, legally or contractually, to keep the Ship seaworthy or in service, having particular regard to the provisions relating to the maintenance of class laid down in part a, chapter 2 of the rules for the classification of Ships or in the corresponding rules indicated in the specific rules.
Register of Ships	means a register book, also known as a Register of Ships, is a comprehensive record of vessels that are classified by a society.
Rules	means the documents below issued by the Society: a. Rules for the classification of Ships or other special units. b. Complementary rules containing the requirements for certification of products, plants, systems and other or containing the requirements for the assignment of additional class notations. c. Rules for the application of statutory rules, containing the rules to perform the duties delegated by administrations. d. Guides to carry out particular activities connected with Services. e. Any other technical document, as for example rule variations or interpretations.

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Services	means the activities described in Article 1 below, rendered by the Society upon request made by or on behalf of the Interested Party.
Ship	means ships, boats, craft and other special units, as for example offshore structures, floating units and underwater craft.
Society	means Emirates Classification Society LLC OPC and/or its affiliated entities providing the Services.
Surveyor	means technical staff acting on behalf of the society in performing the Services.
UAE	means United Arab Emirates.

ARTICLE 1

1.1 The purpose of the Society is, among others, the classification and certification of Ships and the certification of their parts and components.

1.2 The Society (a) sets forth and develops Rules; (b) publishes the Register of Ships[1]; and (c) issues certificates, statements and reports based on its survey activities.

1.3 The Society also takes part in the implementation of national and international rules and standards as delegated by various Governments.

1.4 The Society carries out technical assistance activities on request and provides special services outside the scope of classification, which is regulated by these general conditions unless expressly excluded in the particular contract.

ARTICLE 2

2.1 The Rules developed by the Society reflect the level of its technical knowledge at the time they are published. Therefore, the Society, though committed, also through its research and development services, to continuous updating, does not guarantee they meet state-of-the-art science and technology at the time of publication or that they meet the Society's or others' subsequent technical developments.

2.2 The Interested Party is required to know the Rules on the basis of which the Services are provided. With particular reference to Classification Services, special attention is to be given to the Rules concerning class suspension, withdrawal and reinstatement. In case of doubt or inaccuracy, the Interested Party is to promptly contact the Society for clarification. The Rules for Classification of Ships are published on the Society's website: www.tasneefmaritime.ae

2.3 The Society exercises due care and skill:

(a) in the selection of its Surveyors; and

(b) in the performance of its Services, taking into account the level of its technical knowledge at the time the

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Services are performed.

2.4 Surveys conducted by the Society include, but are not limited to, visual inspection and non-destructive testing. Unless otherwise required, surveys are conducted through sampling techniques and do not consist of comprehensive verification or monitoring of each component of the Ship or of the items subject to certification. The surveys and checks made by the Society, either on board Ships or with remote techniques, do not necessarily require the constant and continuous presence of the Surveyor. The Society may also commission laboratory testing, underwater inspection and other checks to qualified service suppliers, who will carry out these duties under their responsibility. Survey practices and procedures are selected by the Society based on its experience and knowledge and according to generally accepted technical standards in the sector.

ARTICLE 3

3.1 The class assigned to a Ship, like the reports, statements, certificates or any other document or information issued by the Society, reflect the discretionary opinion of the Society concerning compliance, at the time the Service is provided, of the Ship or product subject to certification, with the applicable Rules (given the intended use and within the relevant time frame).

3.2 The Society is under no obligation to make statements or provide information about elements or facts which are not part of the specific scope of the Service requested by the Interested Party or on its behalf.

3.3 No report, statement, notation on a plan, review, Certificate of Classification, document or information issued or given as part of the Services provided by the Society shall have any legal effect or implication other than a representation that, on the basis of the checks made by the Society, the Ship, structure, materials, equipment, machinery or any other item covered by such document or information meet the Rules. Any such document is issued solely for the use of the Society, its committees and clients or other duly authorised bodies and for no other purpose. Therefore, the Society cannot be held liable for any act made or document issued by other parties on the basis of the statements or information given by the Society. The validity, application, meaning and interpretation of a Certificate of Classification, or any other document or information issued by the Society in connection with its Services, are governed by the Rules of the Society, whom is the sole subject entitled to make such authentic interpretation. Any disagreement on technical matters between the Interested Party and the Surveyor in the carrying out of his functions shall be raised in writing as soon as possible with the Society, which will settle any divergence of opinion or dispute.

3.4 The classification of a Ship, or the issuance of a certificate or other document connected with classification or certification and in general with the performance of Services by the Society shall have the validity conferred upon it by the Rules of the Society at the time of the assignment of class or issuance of the certificate; in no case shall it amount to a statement or warranty of seaworthiness, structural integrity, quality or fitness for a particular purpose or service of any Ship, structure, material, equipment or machinery inspected or tested by the Society.

3.5 Any document issued by the Society in relation to its activities reflects the condition of the Ship or the subject of certification or other activity at the time of the check.

3.6 The Rules, surveys and activities performed by the Society, reports, certificates and other documents issued by

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the Society are in no way intended to replace the duties and responsibilities of other parties including, without limitation, Governments, designers, ship builders, manufacturers, repairers, suppliers, contractors or sub-contractors, Owners, operators, charterers, underwriters, sellers or intended buyers of a Ship or other product or system surveyed.

3.7 These documents and activities do not relieve such parties from any fulfilment, warranty, responsibility, duty or obligation (also of a contractual nature) expressed or implied or in any case incumbent on them, nor do they confer on such parties any right, claim or cause of action against the Society. With particular regard to the duties of the Owner, the Services undertaken by the Society do not relieve the Owner of his duty to ensure proper maintenance of the Ship and ensure seaworthiness at all times. Likewise, the Rules, surveys performed, reports, certificates and other documents issued by the Society are intended neither to guarantee the buyers of the Ship, its components or any other surveyed or certified item, nor to relieve the seller of the duties arising out of the law or the contract, regarding the quality, commercial value or characteristics of the item which is the subject of transaction.

3.8 In no case, therefore, shall the Society assume the obligations incumbent upon the above-mentioned parties, even when it is consulted in connection with matters not covered by its Rules or other documents.

3.9 In consideration of the above, and within the limits of liability under Article 5 below, the Interested Party undertakes to relieve and hold harmless the Society from any third party claim, as well as from any liability in relation to the latter concerning the Services rendered, where these are attributable to the Interested Party.

3.10 Insofar as they are not expressly provided for in these General Conditions, the duties and responsibilities of the Owner and Interested Parties with respect to the Services rendered by the Society are described in the Rules applicable to the specific Service rendered.

ARTICLE 4

4.1 Any request for the Society's Services shall be submitted in writing and signed by or on behalf of the Interested Party. Such a request will be considered irrevocable as soon as received by the Society and shall entail acceptance by the applicant of all relevant requirements of the Rules, including these General Conditions. Upon acceptance of the written request by the Society, a contract between the Society and the Interested Party is entered into, which is regulated by the present General Conditions.

4.2 In consideration of the Services rendered by the Society, the Interested Party and the person requesting the service shall be jointly liable for the payment of the relevant fees and costs, even if the service is not concluded for any cause not pertaining to the Society. In the latter case, the Society shall not be held liable for non-fulfilment or partial fulfilment of the Services requested. In the event of non-payment of the invoice within the contractually agreed terms, the Society reserves the right to request, in addition to the full payment of the principal amount due and without the need for further formal notice, also:

(a) Late payment interest at a rate of 5% per annum, calculated from the due date of the invoice until full payment is received, in accordance with the applicable laws in the United Arab Emirates or the country from where the invoice is issued. Any applicable VAT, taxes, or statutory levies shall be borne by the Client as per the laws

of the respective jurisdiction;

(b) full reimbursement of any costs incurred for debt recovery, including, but not limited to, legal fees, administrative expenses, and the costs of any extrajudicial actions; and

(c) any additional amount due as compensation for damages suffered as a result of the delay or non-compliance, where documented.

4.3 The contract for the classification of a Ship or for other Services may be terminated and any certificates revoked at the request of one of the parties, subject to at least 30 days' notice to be given in writing. Failure to pay, even in part, the fees due for Services carried out by the Society will entitle the Society to immediately terminate the contract and suspend the Services.

4.4 The Society may withhold, suspend or withdraw any certificate, report or service in the event of non-payment of fees due to any member of the Society by the Client in relation to the entire business relationship between any member of the Society and the Client or by any other companies belonging to the same group as the Client. This also applies when the obligation to pay rests with a builder or with the Ship's previous Owner.

4.5 For every case of termination or suspension of the contract, the fees for the activities performed until the time of the termination or of the suspension shall be owed to the Society as well as the expenses incurred in view of activities already programmed; this is without prejudice to the right to compensation due to the Society as a consequence of the termination or of the suspension.

4.6 With particular reference to Ship classification and certification, unless decided otherwise by the Society, termination of the contract implies that the assignment of class to a Ship is withheld or, if already assigned, that it is suspended or withdrawn; any statutory certificates issued by the Society will be withdrawn in those cases where provided for by agreements between the Society and the flag State.

ARTICLE 5

5.1 In providing the Services, as well as other correlated information or advice, the Society, its Surveyors, servants or agents operate with due diligence for the proper execution of the activity. However, considering the nature of the activities performed (see Article 2), it is not possible to guarantee absolute accuracy, correctness and completeness of any information or advice supplied. Express and implied warranties are specifically disclaimed.

5.2 Therefore, subject to what provided for in Article 5.3 below, and also in the case of activities carried out by delegation of Governments, neither the Society nor any of its Surveyors will be liable for any loss, damage or expense of whatever nature sustained by any person, in tort or in contract, derived from carrying out the Services.

5.3 Notwithstanding the provisions in Article 5.1 above, should any user of the Society's Services prove that he has suffered a loss or damage due to any negligent act or omission of the Society, its Surveyors, servants or agents, then the Society will pay compensation to such person for his proved loss, up to, but not exceeding, five times the amount of the fees charged for the specific Services, information or opinions from which the loss or damage derives or, if no fee has been charged, a maximum of AED5,000 (Arab Emirates Dirhams Five Thousand only).

5.4 Where the fees charged are related to a number of Services, the amount of the fees will be apportioned for the purpose of the calculation of the maximum compensation, by reference to the estimated time involved in the

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performance of the Service from which the damage or loss derives. Any liability for indirect or consequential loss, damage or expense is specifically excluded. In any case, irrespective of the amount of the fees charged, the maximum damages payable by the Society will not be more than AED 300,000 (Three Hundred Thousand Dirhams). Payment of compensation under this Article will not entail any admission of responsibility and/or liability by the Society and will be made without prejudice to the disclaimer clause contained in Article 5.

5.5 Any claim for loss or damage of whatever nature by virtue of the provisions set forth herein shall be made to the Society in writing, within the shorter of the following periods: THREE MONTHS from the date on which the Services were performed or THREE MONTHS from the date on which the damage was discovered. Failure to comply with the above deadline will constitute an absolute bar to the pursuit of such a claim against the Society.

ARTICLE 6

6.1 Any dispute, controversy, or claim arising out of or relating to these Rules, the Services of the Society, or the interpretation, breach, or termination thereof, shall first be referred to the parties' senior management for amicable resolution within thirty (30) days of written notice by either party.

6.2 If the dispute is not resolved amicably under Article 6.1, it shall be exclusively governed by and construed in accordance with the laws of the Emirate of Abu Dhabi and the applicable federal laws of the United Arab Emirates. The courts of Abu Dhabi shall have exclusive jurisdiction to settle any such dispute.

ARTICLE 7

7.1 All plans, specifications, documents and information provided by, issued by, or made known to the Society, in connection with the performance of its Services, will be treated as confidential and will not be made available to any other party other than the Owner without authorisation of the Interested Party, except as provided for or required by any applicable legislation from a competent authority. Information about the status and validity of class and statutory certificates, including transfers, changes, suspensions, withdrawals of class, conditions of class, operating conditions or restrictions issued against classed ships and other related information, as may be required, may be published on the website or released by other means, without the prior consent of the Interested Party.

7.2 Information about the status and validity of other certificates and statements may also be published on the website or released by other means, without the prior consent of the Interested Party.

7.3 Notwithstanding the general duty of confidentiality owed by the Society to its clients in Article 7.1 above, the Society's clients hereby accept that the Society will participate in the IACS Early Warning System which requires each Classification Society to provide other involved Classification Societies with relevant technical information on serious hull structural and engineering systems failures, as defined in the IACS Early Warning System (but not including any drawings relating to the Ship which may be the specific property of another party), to enable such useful information to be shared and used to facilitate the proper working of the IACS Early Warning System. The Society will provide its clients with written details of such information sent to the involved Classification Societies.

7.4 In the event of transfer of class, addition of a second class or withdrawal from a double/dual class, the Interested Party undertakes to provide or to permit the Society to provide the other Classification Society with all building plans and drawings, certificates, documents and information relevant to the classed unit, including its history file,

as the other Classification Society may require for the purpose of classification in compliance with the applicable legislation and relative IACS Procedure. It is the Owner's duty to ensure that, whenever required, the consent of the builder is obtained with regard to the provision of plans and drawings to the new Society, either by way of appropriate stipulation in the building contract or by other agreement.

7.5 In the event that the ownership of the Ship, product or system subject to certification is transferred to a new subject, the latter shall have the right to access all pertinent drawings, specifications, documents or information issued by the Society or which have come to the knowledge of the Society while carrying out its Services, even if related to a period prior to transfer of ownership.

ARTICLE 8

8.1 The Society shall not be obliged to perform any obligation towards the Client (including, without limitation, obligation to (a) perform, deliver, accept, sell, purchase, pay or receive money to, from or through a person or entity, or (b) engage in any other act) if this would be in violation of, inconsistent with or expose the Society to punitive measures under any United Nations resolutions and/or under any laws, regulations, decrees, ordinances, orders, demands, requests, rules or requirements of EU, United Kingdom, and/or United States of America and which relate to foreign trade controls, export controls, embargoes or international boycotts (applying, without limitation, to the financing, payment, insurance, transportation, delivery or storage of product and/or services) hereinafter referred to as "Trade Sanctions".

8.2 Recurring the above circumstances during the performance of the contract, the Society shall be entitled at its sole and absolute discretion:

(a) to immediately suspend payment or performance of the Services which are the object of the contract until such;

(b) time as the Trading Sanctions are in force;

(c) to a full disengagement from the obligation affected by the Trading Sanctions, in the event that the inability to fulfill the said obligation persists until the term provided for the fulfilment hereunder, provided that where the relevant obligation relates to payments for activities and/or Services which have already been delivered, the affected payment obligation shall remain only suspended until such time as the Trading Sanctions no longer apply to the payment ; and/or

(d) to terminate the contract, without prejudice of the Society's rights pursuant to Article 4.

ARTICLE 9

Should any part of these General Conditions be declared invalid, this will not affect the validity of the remaining provisions.

ARTICLE 10

When the Society provides its Services to a consumer - i.e. a natural person who does not act within the scope of his business or professional activity - the following provisions do not apply Article 3 (as far as the Society is solely entitled to the authentic interpretation of the Rules); Article 4, (as far as the payment of the fees is also due for Services not

concluded due to causes not attributable to the Interested Party); Article 5 (as far as the exclusion of liability is concerned), and Article 6 (as far as the jurisdiction of a Board of Arbitrators based in Abu Dhabi is concerned).

ARTICLE 11

11.1 The Society and the Interested Party shall promote safety, protect human health and environment and create safe working conditions for their personnel.

11.2 The Interested Party shall guarantee that the working environment in which the Society's Surveyor will be required to work is adequate, safe and in all respect compliant with the applicable legislation and Rules and shall adopt all necessary measures to mitigate and/or control any relevant risk.

11.3 Furthermore, in accordance with the applicable legislation and Rules, the Interested Party shall provide the Society with complete and detailed information relevant to any actual or potential specific risk existing in the work areas where the Surveyor will be required to operate and relevant to the performance of the Services as well as with any specific safety measure that the Society's Surveyor is requested to comply with.

11.4 The Society reserves not to commence and/or to suspend the Services and/or to terminate the contract, claiming compensation for any damage occurred, if it considers that the safety requirements listed in this Article are not satisfactorily met.

RULES FOR TESTING AND CERTIFICATION OF MARINE MATERIALS AND EQUIPMENT

Chapters **1 2 3 4 5 6 7**

CHAPTER 1 GENERAL

CHAPTER 2 CERTIFICATION SCHEMES

CHAPTER 3 TYPE APPROVAL

CHAPTER 4 IDENTIFICATION MARKING AND TESTING DOCUMENTATION

CHAPTER 5 CRITERIA FOR THE ACCEPTANCE OF TESTS CARRIED OUT BY LABORATORIES

CHAPTER 6 REQUIREMENTS FOR INSPECTION AND TESTING OF PRODUCTS AT WORKSHOPS

CHAPTER 7 REQUIREMENTS FOR INSPECTION AND TESTING OF PRODUCTS AT SHIPYARDS

CHAPTER 1 GENERAL

1 Foreword

1.1 Materials and equipment to be assessed by TASNEEF

1.1.1 The Rules for the Classification of Ships (hereafter referred to simply as "Rules") state as follows in Part A, Chapter 2, Section 1, [2.1.3] and [2.1.5], respectively.

"The Society defines in specific Rules which materials and equipment used for the construction of ships built under survey are, as a rule, subject to appraisal of their design and to inspection at works, and according to which particulars. As a general rule, all materials, machinery, boilers, auxiliary installations, equipment, items, etc. (generally referred to as "products"), which are covered by the class and used or fitted on board ships surveyed by the Society during construction, are to be new and, where intended for essential services as defined in Ch 1, Sec 1, [1.2.1], tested by the Society".

1.1.2 Products which are required by SOLAS or by other IMO Regulations to be type approved by an Administration are also subject to TASNEEF assessment, whenever and as far as TASNEEF is recognised by or is acting on behalf of the ship flag Administration.

2 Field of Application

2.1 General

2.1.1 These Rules refer to products intended for arrangements or services in general considered "essential" in accordance with the intent of Part A, Chapter 1, Section 1, [1.2.1] of the Rules, as well as those for which testing requirements are stated in Statutory Standards or by other Standards applicable to the construction and outfitting of ships.

2.1.2 The required extent of the tests and the relevant details are specified in the Rules and in the specific Standards referred to by the Rules.

2.1.3 In general, the testing operations and the inspections indicated in these Rules are to be carried out in the Manufacturer's workshop. However, the testing operations and acceptance tests to be carried out on board during and/or after installation are also considered for those products which are completed on board or for which tests are to be carried out in connection with the final trials of the on board plants.

2.1.4 Non exclusive surveyors may be used for testing activities relevant to classification purposes, unless otherwise requested by the applicant.

2.2 Acceptance of workshop certificates and products already tested by recognised bodies

2.2.1 Where allowed, acceptance of Manufacturer's workshop certificates is subject to the originals, or identical copies, being produced and to the checking of their correspondence with the relevant products.

Products already tested by recognised bodies may be accepted on a case-by-case basis, using the relevant certificates and/or testing reports, provided that no additional tests are required according to the Rules and that the products correspond to the relevant certificates.

2.3 Acceptability of testing reports

2.3.1 For the purpose of product certification, the acceptability criteria of testing laboratories other than TASNEEF's and relative testing reports are indicated in Chapter 5.

3 Glossary

3.1 Definitions

3.1.1 In addition to those in Part A, Chapter 1,Section 1, [1.2] of the Rules, a number of definitions of terms used for the purpose of these Rules are grouped in alphabetical order in the following Table A. These terms are related to different aspects of the production process and product certification.

Table A : Glossary

WORDING	DEFINITION
Acceptance criteria	The set of values or criteria which a design, product, service or process is required to conform with in order to be accepted
Accepted	The status of a design, product, service or process which has been found to conform with specific acceptance criteria
Alteration	A change to design, product, service or process
Alternative testing scheme	Certification procedure based on a manufacturing survey arrangement between TASNEEF and the Manufacturer
Applicant	A party who applies for a TASNEEF service. It may be a Manufacturer, a Representative, an Importer, etc.
Approval	The examination and acceptance by the Society of documents, designs, products, procedures, services and other items related to classification and statutory certification, verifying solely their compliance with the relevant Rule requirements, or other applicable references (see also Rules Chapter 1, Section 1, [1.2.1])
Approved type	Product representative of continuous production to which it is granted permission for use based upon a satisfactory appraisal (see also Rules Chapter 1, Section 1, [1.2.1])
Assemble	To fit together the components or parts of equipment or a system
Assess	To determine the degree of conformity of a design, product, service, process, system or organisation with identified specifications, rules, standards or other normative documents
Audit	A planned systematic and independent examination to determine that the activities relative to a process are documented, that these activities are actually performed in conformance with what is stated in the documentation and that they are properly recorded and such as to reach the contemplated objectives
Calibration	The set of operations that establish, under specified conditions, the relationship between values indicated by a measuring instrument or measuring system and the corresponding values of a measurement standard that is traceable to a National or International Standard of Measurement
Certificate	Formal document attesting compliance of a design, product, service or process with the specified requirements
Certification	Procedure whereby a design, product, service or process is approved in association with specified requirements
Class notation	Attestation that the relevant components and materials have been certified in accordance with the applicable Rules of the Classification Society for specific features (see Rules Chapter 1, Section 2, [6]
Code of practice	Document that recommends practices or procedures for the design, manufacture, utilisation, installation, operation and maintenance of equipment, systems, structures or products NOTE: a code of practice may be a Standard, a part of a Standard or independent of a Standard
Competent person	Person deemed qualified to undertake work in a specific area by virtue of appropriate knowledge and experience
Component	Part / member of equipment or system
Conformance	Status of conformity
Conformity	Compliance of a design, product, process or service with its specific requirements
Customer	Party who purchases or receives goods or services from another
Design	All relevant plans, documents and calculations describing the performance, installation and manufacturing of a product
Design appraisal	The verification and evaluation performed by a competent Organisation. In general, it includes the drawing approval and may include a type test witnessed by an inspector
Design approval	The process whereby permission is granted for the design to be used for a stated purpose under specific conditions. It comprises design appraisal and validation, as applicable
Documentation	All written data (including drawings, procedures, specifications, etc.) necessary to describe a design, a process, a product or a service
Equipment	Part of a system assembled from components
Equivalent	An acceptable, not less effective alternative to specified criteria
Evaluation	Systematic examination of the extent to which a design, product, service or process satisfies specified criteria
Examination	Assessment by a competent person to determine compliance with requirements

WORDING	DEFINITION
Existing	Built before a date given by a national or international Standard in order to establish the start of its applicability
Fabricate	To construct or build by fitting parts together
Final test	All tests performed to accept a material, product, equipment or plant
Inspection	Examination of a design, product, service or process by an inspector in order to ascertain its compliance with specified standards or specifications
Inspector	A person competent to perform inspections
Installation	The assembling and final placement of components, equipment and sub-systems to permit operation of the system, which it is part of
International instruments	The international conventions, resolutions and circulars of the International Maritime Organisation (IMO) and international testing standards
Manufacturer	The company that produces and or assemblies the final product, and takes the whole responsibility for the final product. If the company owns more than one production site, the word "Manufacturer" means each production site. Sub-suppliers (if any) are considered as Manufacturers as far as the supplied materials, preliminary worked items or products are concerned.
Manufacturer's affidavit	A certificate or a statement of fact issued by a Manufacturer on his sole responsibility as a result of self-inspections
Manufacture	Process of producing a product
Manufacturing process	Systematic series of processes intended to manufacture a product
Manufacturing process approval	Approval of the manufacturing process adopted by the Manufacturer during production of the specific product
Marine product	Product that has been designed, constructed and tested for use in a marine application
Marinisation	The process whereby a product that has been designed, constructed and tested for use in a non-marine application is altered or enhanced for use in a marine environment
Materials	Raw materials that will require further forming or manufacturing before becoming a product
Measurement	The process of determining the performance, size, quantity or value of a product or system
Modification	Limited change that does not affect the current approval
Mutual recognition	Result of an agreement between two or more bodies who consider that an approval or a certification granted by one of them, under specific conditions, is acceptable to the other(s)
New	Not "existing"
Notified Body	An Organisation authorised by the competent National Administration of a European Community Member State to perform certification activities on their behalf
Performance test	Technical operation where a specific performance characteristic is determined and recorded
Process	A systematic series of planned actions
Produce	See "Manufacture"
Product	Result of the manufacturing process
Product verification	Production control scheme mainly consisting of testing samples randomly taken from the production line
Production Quality assurance	Production control scheme consisting of a verification of the Quality Assurance/Control System applied by the Manufacturer to the process for manufacturing and testing the product
Prototype	A piece of equipment selected among a batch of equipment of the same type (or specially manufactured) considered as being representative of that type
Quality control plan	List of tasks of inspection to be performed during the fabrication of a product by the Manufacturer and/or by second and third party inspectors
Raw material	Material not subjected to a manufacturing process
Repair	To restore to original or near original condition the results of decay or damage
Refurbish	To restore to original or nearly original condition the results of normal wear and tear. To overhaul, refit, renovate or make a product usable again
Reject	Not to accept a project, product, service or process that has not been recognised as conforming with specified acceptance criteria
Requirements	Specified characteristics used for evaluation purposes

WORDING	DEFINITION
Revision	Alteration of one or more particulars of a design
Rework	Change that takes place after a design revision
Sample	Representative taken from a certain number / group of materials, outfitting products, equipment, etc. for testing/inspection
Self-inspection	Inspection delegated to the Manufacturer, provided some conditions are fulfilled: in particular, works and quality system are approved, and respective responsibilities are identified
Service notation	See Rules Chapter 1, Section 2, [4]
Specifications	Technical data/particulars which determine the design and/or manufacturing and testing procedures and define the quality requirements
Specimens	Pieces taken from structural materials (such as forged steels, rolled steels, etc.) for various testing, such as mechanical strength tests
Statement of fact	An attestation as to the condition of a design, system, product or service
Sub-supplier	One who contracts to supply materials to another supplier or Manufacturer
Supplier	One who contracts to furnish materials or a design, product, service or process to a customer or user
Surveillance	The process of monitoring a product, procedure or service to ensure it continues to conform with the approved criteria
Survey	Activity carried out by a TASNEEF Surveyor with free and random access to building facility at defined or occa-sional intervals, consisting of one or more inspections and/or surveillance to verify the compliance of a product, design, service, process or plant (including ships or offshore installations or parts thereof) with spe-cific requirements (see also Rules Chapter 1, Section 1, [1.2.1])
(TASNEEF) Surveyor	Competent person (appointed by TASNEEF) to perform surveys (see also Rules Chapter 1, Section 1, [1.2.1])
System	A plant composed of a number of components suitably interfaced to each other
Test	A technical operation that consists of the determination of one or more characteristics or performance of a given product, material, equipment, organism, physical phenomenon, process or service according to a specified procedure
Traceability	Ability to follow back through the design and manufacturing process to the origin
Type approval	The process at the end of which a Type Approval Certificate is issued (see also Rules Chapter 3, Section 1, [1.2])
Type tests	Tests carried out on a prototype to validate the design and to ascertain the conformance of the finished product with the design (they may be destructive tests)
User	A person, company or organisation intending to use a specific product
Validation	Last step in the design process, to verify the effectiveness of the design in fulfilling the established purpose. Usually, this is done by a re-check of drawings and calculations and/or by extensive prototype testing (even destructive tests, if necessary) carried out by a person not involved in the design performance or in the nor-mal routine inspection
Vendor	A party who sells or delivers a design, product, service or process to another
Witness	To be present at a test and to be able to give evidence about its outcome
Workmanship	The quality of a product which is the result of the art or skill of a workman and/or the degree of skill and care expended in carrying out a task related to the production and/or finish of a product

CHAPTER 2 CERTIFICATION SCHEMES

1 General

1.1 Applicability

1.1.1 The purpose of this Chapter is to describe the general procedures to be adopted to certify a marine product.

1.1.2 The procedures indicated in this Chapter deal with all possible steps of document reviews, inspections and tests that might be necessary for the certification of a generic product. However, for specific products, not all the steps described are applicable as a whole. The Rules indicate in detail which operations are mandatory among those stated in [2] for each particular product (see also Chapter 6 and Chapter 7).

1.2 Certification schemes

1.2.1 These Rules provide for three certification schemes, as follows:

a) individual (or traditional) inspection scheme, dealt with in [3]

b) alternative inspection scheme, dealt with in [4]

c) type approval schemes, dealt with in Chapter 3.

The applicable scheme(s) is(are) defined in the Rules and in the following Chapter 6 and 7.

1.2.2 Upon satisfactory completion of all the appTASNEEFble reviews and inspections, TASNEEF issues a certificate stating that the product has been designed
and ured in accordance with the Rules and/or TASNEEF recognised Standards.

2 Technical documentation review and inspection procedures

2.1 Approval of technical documentation

2.1.1 The technical documentation is to be prepared by the Manufacturer in accordance with the applicable Rules and is to be submitted to TASNEEF.

2.1.2 The technical documentation is to make it possible to understand the design, manufacture and operation of the product, and to assess compliance with the requirements of the Rules and the applicable Standards.

2.1.3 The documentation is to include, so far as they are relevant to assessment and as far as applicable:

a) a general description of the product;

b) the conceptual design, the building Standard, the manufacturing drawings and the schemes of components, sub-assemblies, etc.;

c) descriptions and explanations necessary for the understanding of drawings and schemes, including the operation of the product;

d) the results of design calculations made, examinations carried out, etc.;

e) preliminary test reports, if any;

f) manuals for installation, use and maintenance;

g) control and test procedures.

2.1.4 Where appropriate, the design documentation is to contain also the following:

a) attestations and certificates relating to the equipment incorporated in the appliance as components,

b) attestations and certificates relating to the methods of manufacture and/or inspection and/or monitoring of the product,

c) any other document that might be required by TASNEEF to improve its assessment.

2.1.5 Where, upon completion of the examination, the documentation is found to be satisfactory, TASNEEF forwards to the Manufacturer an approval letter in which the conditions of the approval (if any) are stated and returns the approved drawings (if any) appropriately stamped.

2.2 Type tests

2.2.1 The purpose of type tests is to validate the design of the prototype. Accordingly, the type tests are generally more extensive than those required for the normal production testing and may include destructive tests.

2.2.2 Whenever required by the Rules, the test procedures are to be submitted to TASNEEF for approval or information, as applicable.

2.2.3 The type tests are to be carried out on a purpose-manufactured prototype or on sample products randomly taken from the production line. In the latter case the specimens that are to be selected for type tests are defined and identified in accordance with procedures agreed with TASNEEF.

2.2.4 The tests are to be performed at the Manufacturer's facilities, at an independent laboratory acceptable to TASNEEF (see Chapter 5), or at the TASNEEF laboratory. Where the tests are not performed at the TASNEEF laboratory, they are to be witnessed by the TASNEEF Surveyor, unless otherwise stated in

the applicable Rules. TASNEEF may consider accepting on a case-by-case basis tests carried out by independent labora-tories and not witnessed by a TASNEEF Surveyor.

2.2.5 Where one or more tests have been not carried out in the presence of TASNEEF Surveyors, the relevant complete test reports are to be submitted to TASNEEF, which reserves the right to require the repetition of those tests for which the documentation is incomplete or, in any event, unaccept-able.

2.2.6 At the end of the tests attended by a TASNEEF Surveyor,the latter issues a report on the tests carried out and/or endorses the test laboratory's report.

2.3 Manufacturer and manufacturing process approval

2.3.1 Whenever the Rules require the approval of the manufacturing process, the Manufacturers and their individual workshops, where the process is carried out, are to be approved by TASNEEF.

2.3.2 The criteria and the requirements relative to the approval of Manufacturers and manufacturing processes are indicated in detail in the TASNEEF "Rules for the approval of manufacturers of materials".

2.4 Material testing

2.4.1 Material testing is to be performed in accordance with the requirements of the Rules and the Standards applicable to the material and the product which is intended to be built. In general, material testing certificates are to be made available to the Surveyor.

2.4.2 Whenever required by the Rules, the TASNEEF Surveyor attends the material testing.

2.4.3 The testing and measuring equipment is to be properly calibrated and kept in good condition. Records of calibration are to be kept and made available to the Surveyor, whenever requested.

2.4.4 The chemical composition of the materials is to be determined and certified by the raw material supplier, using ladle-sampling analysis. The laboratory that performs the analysis is to be adequately equipped and the analysis is to be performed by qualified personnel.

2.4.5 The chemical analyses of the Manufacturer are generally accepted. However, they are subject to occasional checks, where required by the Surveyor.

2.5 Attendance at workshop

2.5.1 During the fabrication, TASNEEF Surveyors are to have free access to all departments involved in production, col-lection of test samples, internal control and, in general, all operations concerning the inspection, in order to ascertain whether the quality of the workmanship is satisfactory, the product is fabricated in accordance with the approved drawings and specifications, the materials and welding consumables have been suitably certified, and the intermediate sampling and testing are correctly performed.

2.6 Final inspection at workshop

2.6.1 In general final inspection of a product at workshops includes, as far as applicable for the specific product:

a) document review,

b) visual examination,

c) verification of compliance with approved plans,

d) dimensional checks,

e) non-destructive examination.

2.6.2 The visual examination and the dimensional checks, which are to be performed on all products before delivery, are carried out by the Manufacturer acting on his own responsibility.

2.6.3 Unless otherwise specified, the visual examination is also to be performed by the Surveyor on each item for products tested individually and on an adequate number of samples taken randomly from a production lot for products built in large series.

2.6.4 The dimensional checks and the verification of compliance with approved plans are carried out by the Surveyor solely for those parts of the products which are subject to the approval or for which there are specific requirements in the Rules.

2.6.5 Non-destructive tests are to be performed by skilled and qualified personnel using adequate and properly calibrated instrumentation and, when required, in the presence of the TASNEEF Surveyor.

2.7 Final testing at workshop

2.7.1 In general, final testing at the workshop may include, as far as applicable:

a) final testing of a completed product (for instance hydrostatic test of a pressure vessel),

b) performance test (for instance a reduction gear running test),

c) collection of data (for instance performance data for an engine),

depending on the type and complexity of the product, as required by the Rules or by the applicable Standards.

2.8 Installation on board

2.8.1 Installation on board of products and their assembly into plants and systems are to be surveyed in a similar way to that indicated in [2.5] and [2.6] for the attendance and final inspection at the workshop.

2.9 Testing on board

2.9.1 Testing on board of equipment and materials is to be performed, in a similar way to that indicated in [2.7] for testing at workshops, in connection with the testing and tri-

als of the installations which the products or materials are part of.

3 Individual certification scheme

3.1 General

3.1.1 The individual certification, or traditional inspection, scheme (**CT**) applies when all the applicable inspection and testing, among those listed in [2], as prescribed by the Rules and applicable Standards, are witnessed by the TASNEEF Surveyor.

4 Alternative certification scheme

4.1 General

4.1.1 The alternative certification scheme (**CA**) is a certification scheme involving a Manufacturer (and associated sub-suppliers, if needed) in the inspection, testing and certification of the Manufacturer's products.

For the scope of this article, the Manufacturer may also be an importer or vendor which takes the whole responsibility for the testing process.

4.1.2 This alternative system, which is established by taking into account the type of product, its mass production and the Manufacturer's organisation in terms of production and quality control, allows the testing operations to be totally or partially delegated to the Manufacturer.

4.1.3 The admission to the alternative certification scheme is granted subject to verification that the Manufacturers are properly qualified, and maintenance of its validity is subject to the satisfactory outcome of periodical and random checks.

4.1.4 Depending on the type of product, TASNEEF may require the attendance of TASNEEF Surveyor during manufac-turing and at final tests, according to an inspection plan pre-viously established.

4.1.5 Scope

a) An alternative certification scheme (**CA**) may be arranged with product Manufacturers and/or sub-suppliers.

b) A **CA** with a Manufacturer is to define the handling of subcontracted parts (those that require TASNEEF or work certificates, or in any other way are addressed in the TASNEEF'S Rules).

c) The sub-supplier may be included in the **CA** of the Manufacturer or have his own **CA** or deliver parts that are inspected and certified by TASNEEF according to the CT certification scheme.

d) A **CA** that permits the Manufacturer to carry out all or parts of required inspection and testing without the presence of a TASNEEF Surveyor may be arranged in two versions with regard to traceability:

- the Statement of Admission to the **CA** describes inspection, testing and certification additional to the Manufacturer's standard quality control in order to meet the Rules. The components are to be stamped with a special stamp supplied by TASNEEF (ref. to Chap-ter 4, Figure 2) or identified as required by TASNEEF;
- the Manufacturer has a standard quality control that covers all required inspection, testing and certification in compliance with the Rules. Traceability and the required type of product document for components or products will be defined in the Statement of Admission to the **CA**.

4.1.6 Conditions for admission

The conditions for the Manufacturer to be granted the permission to carry out inspection and testing without the presence of a TASNEEF Surveyor are that:

a) the Manufacturer has an implemented Quality System according to a national or international standard approved by an accredited certification body or recognised by TASNEEF;

b) the Manufacturer has a quality control system, current drawings, and TASNEEF Rules and standards that cover the product to be certified;

c) the inspection and testing required by the TASNEEF Rules are either standard procedures in the Quality System and recognized by TASNEEF or specified in detail in the Statement of Admission to the CA;

d) TASNEEF initially ascertains the Manufacturer's compliance with the CA requirements by verifying the required product and process approvals and performing an initial audit. Follow-up and renewal audits are conducted by TASNEEF on a regular basis to verify that conditions of the CA are continuously maintained by the Manufacturer;

e) if work certificates (W) or test reports (R) are found not to fulfil the standards agreed with TASNEEF, the component may not be accepted;

f) the agreed CA may be suspended or cancelled when / if found justified by TASNEEF;

g) TASNEEF may carry out unscheduled inspections at the Manufacturer and/or subcontractor at its own discretion;

h) the Manufacturers (and designers, if producing under license) commit themselves to involve TASNEEF when changes to the design, manufacturing process or testing are made as well as when any major production prob-lems or any major product delivery problems have occurred.

4.1.7 The alternative certification scheme applies to the testing operations carried out at the Manufacturer's workshop. Drawing approval prototype tests and initial approval tests, when required, are to be carried out by TASNEEF.

4.2 Admission

4.2.1 For admission to an alternative testing scheme for a product, the Manufacturer is to submit an application enclosing the following documentation:

a) product details,

b) existing TASNEEF approvals of the Manufacturer's products,as far as required,

c) the procedures relevant to the manufacturing process,

d) a list of material suppliers with an indication of their class approval (as far as required by the Rules) and the type of material certification in each case,

e) quality control plans relevant to the products and relevant components to be certified through the alternative certification scheme. Said plans are to detail the inspections and tests required by the Rules with an indication of which inspections and tests are delegated to the Manufacturer and which are to be done in the presence of the TASNEEF surveyor,

f) the procedures relevant to the quality control and inspections, their methods, frequency and certification,

g) the list of suppliers of materials and main components of the product, including certificates,

h) the quality system details,

i) list of nominated personnel for:

- marking/stamping of products
- tests and Inspection (responsible)
- provision of data and information (e.g. declaration of conformity, test reports etc.),

j) any other additional documents that TASNEEF may require in order to evaluate the manufacturing processes and product quality control.

4.3 Assessment

4.3.1 Upon examination of the admission application, including the enclosed documentation, and subject to its completeness, an initial audit is to be carried out to the Manufacturer's workshop in order to:

a) verify that the manufacture of the product and the relevant controls are performed in accordance with the documents submitted and in compliance with the requirements of the applicable Rules,

b) check the actual organisation of the workshop, its departments and relevant connections and the global manpower,

c) be acquainted with the main equipment used for manufacturing the product,

d) verify the conformity of the Quality System with the reference documents,

e) witness the performance of inspections and tests carried out by the Manufacturer on products being manufactured.

4.3.2 As far as incoming materials and components are concerned, TASNEEF, in relation to their importance, may:

a) perform checks at the vendor's workshop,

b) carry out tests on the materials and products concerned.

4.3.3 Upon satisfactory outcome of the audit, a statement of admission to the alternative testing scheme is issued to the Manufacturer. The statement includes the necessary information relevant to the scope of **CA**, as per [4.1.5], and the testing procedures.

4.3.4 The type and frequency of the tests and checks to be carried out in the presence of TASNEEF Surveyors, when required (see [4.1.4]), are to be included in the statement.

4.4 Admission validity

4.4.1 The validity of the admission to the alternative testing scheme is five years from the date of completion of the initial audit at the Manufacturer's premises.

4.4.2 *(1/7/2021)*

During the period of admission to the alternative testing scheme, TASNEEF performs intermediate audits to verify that the conditions found during the initial audit [4.3.1] are effectively maintained during the production. In general,the number of these intermediate audits is established in connection with the issuance of the statement of admission to the alternative testing scheme.

Intermediate audits are to be carried out on an annual basis as a minimum. Additional audits may be required at the discretion of TASNEEF.

Intermediate audits may coincide with tests and checks to be carried out in the presence of TASNEEF Surveyors (see [4.1.4]).

4.4.3 During the period of validity, further intermediate audits and/or product checks may be required by TASNEEF in addition to those indicated in [4.4.2] depending on the type of product to be produced.

4.4.4 At the time of such controls, the TASNEEF Surveyor may require tests and checks of components of particular impor-tance selected at random from those in stock or being pro-cessed or assembled.

4.4.5 During the period of validity, the admission to the alternative certification scheme may be extended to other types of products manufactured at the same premises with the same fabrication and test procedures which have been accepted, upon satisfactory review of the technical documentation and, if necessary, performance of a type test.

4.4.6 On expiry of its validity, admission to the alternative certification scheme can be renewed for an additional five years upon the satisfactory outcome of a new audit of the Manufacturer's workshop.

The scope of the renewal audit is to:

- verify the conditions of the **CA** are still met;
- verify that the current products and processes are appropriately controlled.

4.4.7 Upon satisfactory completion of the required checks and verification, a statement of renewal of the admission to the alternative testing system is issued.

4.5 Conditions for maintenance of CA

4.5.1 During the period of validity of the admission to the alternative certification scheme, the Manufacturer is to keep unaltered the initial conditions ascertained during the assessment.

4.5.2 The Manufacturer is to allow TASNEEF Surveyors free access to workshops and in particular to Quality Control Department at any time, for the purpose of verifying that the manufacturing control procedures of the product and of its main components are the same as those ascertained during the first audit.

4.5.3 The Manufacturer is to inform TASNEEF of any modifica-tion relevant to:

a) design characteristics of the product,

b) manufacturing and control procedures of the main components,

c) suppliers of the main components.

In relation to such modifications TASNEEF may require an addi-tional assessment.

4.6 Suspension or withdrawal

4.6.1 TASNEEF may suspend or withdraw admission to the alternative certification scheme in the following cases:

a) non-compliance with the conditions mentioned in [4.5] above,

b) repeated unsatisfactory results of tests, checks and inspections carried out on the product or on its main components,

c) objective evidence of in service repeated breakdowns on the products due to causes that may be attributed to the Manufacturer. In such cases, the admission will be suspended until the Manufacturer provides a reliable and proven corrective action to eliminate the causes of the breakdown,

d) modification of the TASNEEF Rules relevant to the testing of products,

e) non-payment of TASNEEF fees by the Manufacturer.

CHAPTER 3 TYPE APPROVAL

1 General

1.1 Applicability

1.1.1 *(1/1/2026)*

This Chapter provides the general criteria and procedures for the issue of a TASNEEF Type Approval Certificate (TA) and those for the issue of a TASNEEF Prototype Design Assessment Certificate (PDA). It applies both to certification of equipment and to software products.

1.1.2 *(1/1/2026)*

It applies to products for which certification is required by the Rules, to equipment subject to statutory requirements and to products for which, while there are no specific requirements in the TASNEEF Rules, certification is requested by the Manufacturer on a voluntary basis.

The approval process of a product for which there are no specific requirements in the Rules, but for which certification is requested by the Manufacturer on a voluntary basis, is established against Standards and/or specifications agreed with the Manufacturer on a case-by-case basis.

1.2 Applicants other than Manufacturers

1.2.1 *(1/7/2021)*

In general the application should be submitted by the Manufacturer of the product to be certified.

However, in case of PDA certification scheme, the application may be submitted by an Applicant other than the Manufacturer, who assumes all the responsibilities and obligations of the Manufacturer for the certification of the product.

2 Certification Schemes

2.1 Available certification schemes

2.1.1 *(1/7/2021)*

The following type approval certification schemes are available:

2.2 TA Certification Scheme

2.2.1 *(1/1/2026)*

Whenever in the Rules a product or equipment is required to be type approved, the TA Certification scheme is applicable and the following process is to be followed:

a) Design Approval and prototype test according to [3]

b) Issue of the Type Approval Certificate

c) Issue and maintenance of the Production Quality Assurance (PQA) Certificate on positive outcome of an initial audit to the Manufacturer's production quality control system, according to [4].

2.2.2 *(1/1/2026)*

In case of products for which individual testing is not required by the Rules (e.g. sensors), the validity of the TA certificate is subject to the maintenance of a PQA certificate (ref. to [4]) covering the production of the type approved products.

In case of products for which individual testing is required by the Rules (e.g. flexible hoses), the PQA Certificate is not needed, but it can be granted as a voluntary certification.

In case of TA certificates issued according to statutory international or national requirements, the applicability of the PQA certification is to be evaluated case by case, also taking into account the Flag Administration requirements.

In case the Manufacturer holds both the Type Approval certificate and the Alternative Certification Scheme (CA) covering the production of the same product, PQA Certificate is not required.

2.2.3 Type Approval of software *(1/1/2026)*

In case of certification of Software, the TA certificate is issued upon satisfactory outcome of Design Approval and prototype test only. The Production Quality Assurance Certificate is not required.

2.3 PDA Certification Scheme

2.3.1 *(1/1/2026)*

This certification scheme may be proposed, as an alternative to the TA certification scheme, when requested by the Manufacturer, or an Applicant different from the Manufacturer, for those products or equipment for which there are no specific requirements in the Rules.

This voluntary certification scheme is not applicable for those products which are required to be type approved according to the Rules.

The following process is to be followed:

a) Design Approval and prototype tests, intended to verify compliance of the product with the Manufacturer's specification and/or the applicable standards

b) Issuance of the Prototype Design Assessment Certificate.

2.4 Validity of the Certificates

2.4.1 *(1/1/2026)*

In general, the validity of the TA Certificates and the PDA Certificates is 5 years, subject to changes in the applicable product's requirements. However, on a case-by-case basis, the assigned validity may be shorter due to justified reasons (e.g. specific requirements of the reference certification

standard or to align the expiry date to other TA Certificates or PDA Certificates already issued).

The validity period starts from the date indicated on the certificate.

The validity of the TA Certificate is subject to the issuance and maintenance of a Production Quality Assurance Certificate covering the production of the certified product, when the PQA Certificate is required.

The TA Certificate or the PDA Certificate is renewed at the end of its validity period. In general, the repetition of the type test is not required for the renewal of the certificate, if the product has not changed and the applicable requirements remained the same as in the initial approval. However, TASNEEF reserves the right to request the repetition of all or part of type tests, whenever this is provided for by the reference Standard or dictated by case-by-case considerations.

2.5 Variations of a certified product

2.5.1 *(1/7/2021)*

If the Manufacturer intends to modify a certified product, TASNEEF is to be informed of all the contemplated modifications. If such alterations are such as to affect the conformance of the product with the main characteristics of the type test prototypes, a new certification procedure will be considered by TASNEEF for the modified product.

2.5.2 *(1/6/2022)*

If the modifications do not affect those aspects which are ruled by the Standards applied for the certification, the Type Approval or the Prototype Design Assessment Certificate may be reissued including the modifications with no additional design approval and/or prototype tests.

3 Design approval process

3.1 Application

3.1.1 *(1/7/2021)*

The Applicant is to submit an application to TASNEEF for a Type Approval Certificate or for a Prototype Design Assessment Certificate specifying the full information necessary to identify the Manufacturer and its production sites, and the type of certification requested.

3.1.2 *(1/6/2022)*

The application is to include the technical documentation related to the product listed in Chapter 2, [2.1.3] and [2.1.4].

3.2 Design approval

3.2.1 *(1/6/2022)*

The design approval process is to be carried out as indicated in Chapter 2, [2.1].

3.3 Type tests

3.3.1 *(1/6/2022)*

Type tests are to be carried out as indicated in Chapter 2, [2.2].At the end of the type tests a testing report identified by number and date is to be prepared.

3.3.2 At least the following information is to be included in the report:

a) description and identification of the product;

b) identification of the testing specifications;

c) description of testing equipment and measuring instruments (for the instruments the identification numbers and the last calibration date are to be indicated);

d) environmental conditions during test execution;

e) test results, including any negative results.

3.3.3 The report is to be signed by the laboratory manager (or his deputy) and by the TASNEEF Surveyor who attended the tests.

3.3.4 Should the outcome of the drawing review or prototype tests be negative, the Applicant cannot apply again for certification until the product has been modified in such a way as to correct the causes of the deficiencies detected.

4 Production quality assurance

4.1 General

4.1.1 *(1/1/2026)*

For the purpose of issuing the PQA Certificate, the Manufacturer is to operate a quality system for production, inspection and testing during fabrication and on the finished product for the products covered by the TA Certificate, at least equivalent to the standard ISO 9001:2015.

4.2 Quality Management System

4.2.1 All Manufacturers' programs, working procedures and instructions are to be documented in writing. This written documentation is to be such as to permit a uniform interpretation of programs, planning, manuals and other quality documents.

4.2.2 *(1/7/2021)*

The Quality System documentation is to include an adequate description of:

a) the quality objectives, organisation charts, managers' and heads' responsibilities and powers in matters that may affect the final product quality;

b) the fabrication methods, quality control techniques, processes and systematic actions intended to be applied;

c) the checks and tests to be carried out before, during and after fabrication, with indication of their frequency and acceptability criteria;

d) the quality documentation, including inspection reports, calibration data, personnel qualifications, etc.;

e) the criteria adopted to continuously verify that the product complies with the requested quality level and to verify the operation of the Quality Management System.

4.3 Manufacturers with a certified Quality System

4.3.1 Documents to be submitted *(1/1/2026)*

Before the audit, the Manufacturer is to submit to TASNEEF the following documentation:

- the quality documentation as per [4.2] above,
- the quality control plans relative to the product(s) to be certified,
- all procedures relative to the Manufacturer's Quality Management System,
- the technical documentation relevant to the products to be certified and copy of relevant TA Certificates,

Before the initial audit to the Manufacturer's production site, TASNEEF examines the documentation and informs the Manufacturer whether it is sufficient or whether additional documents are necessary.

4.3.2 Initial audit and system evaluation *(1/1/2026)*

a) The aim of the initial surveillance audit is to assess the quality assurance system adopted by the Manufacturer with particular reference to the production line(s) of the product(s) to be certified.

b) In general, as far as possible, the audit is to be scheduled so that it takes place during the actual manufacture of the product(s) to be certified.

c) Within the framework of the audit, particular attention is to be paid to the following documentation relative to the product(s) to be certified:
   - quality control plans;
   - internal audits;
   - testing reports on the product(s) to be certified;
   - calibration records of testing and measuring instruments.
   - qualification of the personnel involved in special processes.

d) During the audit, as far as possible, the Surveyor is to witness the tests carried out by the Manufacturer during the various stages of manufacturing and for the final acceptance of the product(s) in order to verify compliance with the TA Certificate and the applicable requirements.

Upon completion of the audit, the TASNEEF Surveyor draws up the relevant report and provides the Manufacturer with a copy.

4.3.3 Issue of the PQA certificate *(1/1/2026)*

Subject to the satisfactory outcome of the audit, TASNEEF issues the PQA Certificate to the Manufacturer for the product(s) to be certified. The certificate or the annex to the certificate includes reference to the TA Certificate(s) of the relevant product(s).

Upon receipt of the PQA Certificate, the Manufacturer is authorised to produce all products covered by the TA Certificate(s).

The validity of the Production Quality Assurance Certificate is subject to the satisfactory results of scheduled periodical audits, as described below.

4.3.4 Periodical audits *(1/1/2026)*

a) The purpose of the periodical audits is to verify that the Quality Management System applied by the Manufacturer to the production line(s) of the certified product(s) continues to work adequately.

b) The periodical audits are to be performed within a time window from 30 days before to 30 days after the due date.

   The due dates are calculated from the date of the certificate.

c) The typical surveillance cycle includes annual audits:
   - During the annual audits, a verification of the Manufacturer's Quality System similar to a periodical audit for a certified Quality Management System is performed, including a verification of the production line(s) of the certified product(s) similar to that described in [4.3.2] c).

d) Different surveillance cycles may be agreed on case-by-case with TASNEEF depending on the peculiarity of the product(s) to be certified and/or considering the control program implemented by the Manufacturer during fabrication.

4.3.5 Unsatisfactory result of the assessment *(1/1/2026)*

Should the audit be considered unsatisfactory, TASNEEF notifies the Manufacturer of the findings detected and the reasons for which the certificate cannot be issued.

The applicant may not submit further application for certification until all the modifications to the quality system and/or to the production line(s) of the product(s) to be certified, are carried out.

4.3.6 Evaluation of Quality Management System *(1/1/2026)*

The evaluation of a Quality Management System is considered satisfactory when major non-conformities are not detected.

In general, the closure of major non-conformities would require an audit to verify the efficiency of the corrective actions taken by the Manufacturer, while a document examination might be sufficient to close minor non-conformities. However, the final assessment on whether or not a further audit is necessary to close the non-conformity is left to TASNEEF, depending on the actual complexity of the Manufacturer's Quality Management System and the type of product being manufactured.

Where a non-conformity identified by a major finding cannot be closed within the agreed time, the audit is considered failed, and a new audit of the whole system is to be performed.

4.3.7 Major non-conformity *(1/1/2026)*

Major findings are those related to:

a) any non-conformity resulting in the delivery of a product so defective as to make impossible or reduce its use or to be dangerous or to become a source of risk;

b) deficiencies in the Quality Management System possibly leading to the risk that products with defects similar to those indicated in a) might be delivered

before a corrective action rectifies the detected non-conformity;

c) a non-conformity already detected with a minor finding not properly closed.

d) any alterations to the project, construction procedures and/or materials of certified products without prior notification to TASNEEF.

4.3.8 Minor non-conformity *(1/1/2026)*

Minor findings are considered those related to:

a) any non-conformity resulting in the delivery of products with defects not so serious as those described in [4.3.7] a);

b) deficiencies in the Quality Management System that do not generate the risk that products with defects similar to those indicated in [4.3.7] a); might be delivered before a corrective action rectifies the detected non-conformity.

4.3.9 Validity of the Certificate *(1/1/2026)*

The Production Quality Assurance Certificate validity is 5 years subject to positive outcome of the periodical audits, to be scheduled on an annual basis. More stringent audit planning may be evaluated by the competent TASNEEF Office,case by case.

4.3.10 Renewal of the certification *(1/1/2026)*

Upon completion of each five-year cycle, the assessment of the quality management system as stated in items [4.3.1] and [4.3.2] is repeated for renewal of the certificate. The renewal audits are carried out with criteria similar to those of the initial audits.

4.3.11 Suspension and/or withdrawal of the certification *(1/1/2026)*

Should serious failures be detected in the course of periodical surveillance such as to show that the quality management system no longer complies with the applicable requirements, TASNEEF notifies the Manufacturer of the reasons for which the certificate cannot be endorsed and immediately suspends the certification for all those products which could be affected by the failure detected,indicating the serial number from which the suspension takes effect and/or any other information necessary to identify the products suspended.

Upon completion of the necessary corrective actions, subject to the satisfactory outcome of a TASNEEF audit to assess their effectiveness, the suspension lapses and the Manufacturer is notified of this by TASNEEF.

In the event that the non-conformities that led to the suspension are not rectified by the agreed deadline, TASNEEF withdraws the PQA certificate of the production site and notifies the Manufacturer accordingly. The withdrawal of the related TA Certificate is evaluated case by case.

The applicant may not submit a further application for surveillance until he has made all those modifications to the quality system which are necessary to meet the applicable requirements.

4.4 Manufacturers without a certified Quality Management System

4.4.1 General *(1/1/2026)*

In order for a Manufacturer without a certified Quality Management System to be entitled to apply for the Production Quality Assurance scheme for production control, it is to apply at the same time for the evaluation of its Quality Management System.

In general, the requirements of [4.3] are applicable.

5 MED Type Approval

5.1 General

5.1.1 The products listed in the applicable implementing Regulation of the European Directive 2014/90/EU, intended to be installed on ships flying European Community flags, are to be certified in accordance with the requirements of the TASNEEF "Rules for the certification of marine equipment in accordance with European Directive 2014/90/EU and subsequent amendments".

5.2 Equivalence between MED type approval and TASNEEF type approval

5.2.1 *(1/6/2022)*

All certificates issued by TASNEEF for products in compliance with European Directive 2014/90/EU and the applicable implementing Regulation are considered equivalent to TASNEEF Type Approval, unless otherwise indicated for specific products.

6 Type approval on behalf of flag Administrations signatories of SOLAS Convention

6.1 Italian Administration

6.1.1 Products listed in Art. 55 of DPR 8 November 1991, no. 435 which are not subject to certification according to MED directive, are to be type approved by the Italian Administration. TASNEEF may perform the drawing approval and witness the type tests for a product as technical advisor of the Italian Administration, if so requested. A TASNEEF Type Approval Certificate may be issued for that product at the Manufacturer's request.

6.2 Other Administrations that are part of the European Community

6.2.1 See [5.1] and [5.2] relative to MED type approval for other European Community Administrations.

6.3 Other Administrations that are not part of the European Community

6.3.1 Procedures for type approval certification by TASNEEF of products on behalf of flag Administrations of countries which are not part of the European Community are

established on a case-by-case basis depending on particular agreements between TASNEEF and the flag Administration.

7 Type approval of software products

7.1 Introduction

7.1.1 The Rules for the Classification of Ships foresee the use of management software systems and/or software systems as an aid to calculations.

7.2 Field of application

7.2.1 These Rules apply, for the purpose of type approval, to software systems used in the marine field where their use is allowed by the Rules in force.

TASNEEF reserves the right not to certify software which it deems is outside its field of activity and for which it does not possess the necessary competence.

7.3 Scope of the activity

7.3.1 The activities consist of the following:

a) identification of the components of the program considered for certification and associated information;

b) review of the documentation related to the program;

c) description of the tests to be carried out on the program and its components;

d) review of the input, use of the program and control of the output to verify that it meets the requirements of the certification requested;

e) documentation of the tests carried out and associated results.

7.4 Documentation and software required

7.4.1 In order to be able to carry out the above reviews, the Applicant is to provide the following documentation and software:

a) user manual, generally including:
   - general information about the system and field of application;
   - limitations, conventions used, conditions of use;
   - description of the input;
   - description of the output;
   - procedures for the use of the program.

b) system documentation, generally including:
   - logic flow;
   - structuring of the data;
   - input / output formats;
   - description of the interfaces and algorithms.

c) verification documentation (containing at least one test case).
   - The test cases consist of a series of examples (related to realistic cases) with the relative input and output data produced. A test case is to be provided for each module of the program.
   - TASNEEF may give indications concerning a suitable selection of test cases or accept a series of test cases proposed by the customer, reserving the right to possibly require additional test cases, if necessary to complete the checks.

d) installation program.
   - the data in electronic format to make it possible to repeat the steps foreseen in the verification documentation.

e) documentation relevant to the Quality System with particular reference to:
   - tests, controls and management of the source code;
   - any qualification report of the personnel responsible for the tests.

7.5 Checks and tests

7.5.1 General

The activities are performed by exclusive TASNEEF personnel under the supervision of a person in charge.

7.5.2 Tests *(1/7/2025)*

In the light of the above, the activities proposed are the following:

- review of the documentation related to the software
- review of the input, use of the program and control of the output for the series of test cases foreseen. The output is to be essentially the same as that expected.

For computer based systems on-board ships as specified in Pt C, Ch 3, Sec 5, [1.3] of the Rules, the testing requirements in Pt C, Ch 3, Sec 5 of the Rules are to be complied with.

TASNEEF reserves the right to require any additional tests if considered necessary for the assessment.

7.6 Issue and validity of Type Approval Certificate

7.6.1 Once the checks and tests required have been satisfactorily completed, TASNEEF will issue a Type Approval Certificate valid for the software system tested.

The Type Approval Certificate issued is valid for the software version tested for five years from the date of issue of the certificate.

If a new version of the software is released during the period of validity of the certificate, the Applicant is to inform TASNEEF,which reserves the right to carry out further tests and request additional documentation related to the modified
part of the program in order to issue a certificate renewal.

Any change made to the software without prior communication to TASNEEF will automatically lead to suspension of the certificate.

7.7 Renewal of Type Approval Certificate

7.7.1 To renew the Type Approval certificate, the documentation in [7.5] is to be sent to TASNEEF with any

modifications compared to that submitted for the previous approval.

On the basis of the review of this documentation, TASNEEF will establish the tests and checks necessary to renew the Type Approval Certificate.

CHAPTER 4 IDENTIFICATION MARKING AND TESTING DOCUMENTATION

1 Identification marks

1.1 General

1.1.1 The following provisions supplement the requirements on material and product marking indicated in Part D, Chapter 1, Section 1, [4.1] of the Rules.

1.2 Products individually tested

1.2.1 Products which have undergone testing are to be appropriately marked by the Manufacturer in at least one easily accessible location; the marking is to contain all necessary indications, as required depending on the product categories. Lengthy duration of marking is to be ensured.

The marks are to correspond to the contents of the testing documentation.

1.2.2 The marks are to be stamped, as a rule, by means of brands, except for products made of material which could be impaired by such a procedure or having too small a thickness; inTASNEEFh cases, the alternative systems used are to be equally reliable, in the opinion of TASNEEF Surveyors.

Where possible, the marks are to be made conspicuous by circling them with paint so as to facilitate their location.

1.2.3 In general, products are to be marked individually.

Exception may be made for small pieces contained in effective containers, as well as for bars and angles of modest weight, adequately bound in bundles, in which cases the marks are transferred to the container or bundle by procedures to the satisfaction of TASNEEF Surveyors.

1.2.4 Products for which checks and tests are required and which are satisfactorily tested in compliance with TASNEEF Rules are to be marked in the presence of TASNEEF Surveyors with the official TASNEEF brand, as indicated in Figure 1.

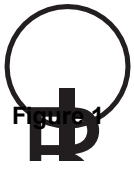


Figure 1

1.3 Products subjected to an alternative testing scheme

1.3.1 In the case of admission to alternative testing systems, the marking with the Society's stamp may be delegated to the Manufacturer, who will be supplied, for this purpose, with a special brand.

1.3.2 In such cases, marking with the above-mentioned stamp is also regarded as an implicit assurance on the part of the Manufacturer that the products stamped are those which satisfactorily passed the required tests.

1.3.3 Figure 2 shows the mark.

Figure 2

1.4 Additional marking

1.4.1 For products tested by lot, the test samples and the parts from which they originate are to be marked with the personal brand of the TASNEEF Surveyor responsible for the sampling.

1.4.2 Pieces which are hydro-tested are also to be marked as above, generally adding the test pressure preceded by the letters:

TP

1.4.3 Exception is made, at the discretion of TASNEEF Surveyors, for pipes and for parts of minor importance.

1.5 Products with testing not completed

1.5.1 Whenever a product is despatched for delivery without undergoing all the tests required, the official TASNEEF round stamp will be replaced by the square stamp by means of special TASNEEF brands (Figure 3).

1.5.2 The testing documents are to contain clear indications as to why some of the tests have not been performed; all outstanding tests are also to be clearly specified.

Figure 3

1.6 Particular cases

1.6.1 The diamond stamp indicated in Figure 4 is substituted for the round stamp (by special TASNEEF brands) in the following cases:

- Products for which TASNEEF has agreed to dispense with some of the required tests.

- Products intended for ships not classified by TASNEEF or for shore installations, which TASNEEF has been requested to test according to specifications other than those con-tained in TASNEEF Rules.
- Products tested (either new or after repairs) with the right of reconsideration in service in that they are accepted on a trial basis and/or under special conditions (e.g. closer surveys, special checks in service, reduction in accepted performance, etc.). In these cases, in order to draw the attention of the TASNEEF Surveyors and interested parties, the letter R will be added to the stamp (Figure 5). Where the round stamp is previously stamped, it is to be invalidated as indicated in [1.7]. The notation "experimental" and/or the conditions con-nected with this marking are to be clearly indicated in the testing documents, which are to be made available to TASNEEF Surveyors at the first survey at the beginning of the product's service and at any subsequent surveys.

1.7 Invalidation of marks

1.7.1 When a product already marked with one of the stamps above is found, during or subsequent to the testing, to be not in compliance with the requirements and is therefore rejected, the TASNEEF stamps and the Surveyor's initials are to be invalidated by punching as indicated in Figure 6.

TASNEEF Surveyors may demand to check that the stamps have been invalidated as indicated above.

Figure 4

Figure 5

1.7.2 In the case of marking as specified in [1.6], when the trial period is finished and no other restrictive condition is to be applied, the diamond stamp is to be invalidated as indicated above (Figure 6) and the product is to be marked with the round stamp (Figure 1) and, whenever possible, with the date of marking. This change of marks is to be clearly indicated in the relevant survey report.

1.7.3 Any repairs after the product is tested, either before or after the beginning of service, are subject to the prior consent of TASNEEF; failing this the validity of the original test-ing will automatically expire and the original testing marks are to be invalidated by the interested parties.

2 Testing documentation

2.1 General

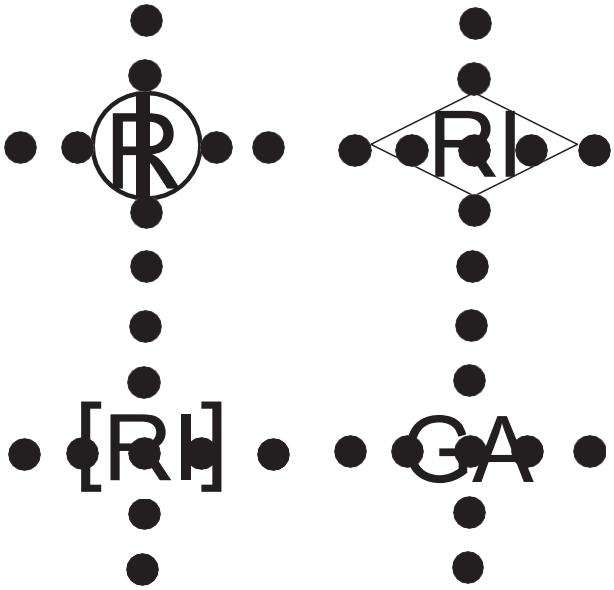
2.1.1 The following provisions supplement the requirements on material and product markings indicated in Part D, Chapter 1, Section 1 [4.2], of the Rules and in Chapter 2 of these Rules.

2.2 Application for testing

2.2.1 For the purpose of testing, the Manufacturer is to submit a written application to TASNEEF containing at least the following information:

- the kind and essential specification properties of the product and, in the case of materials, indication of the type, dimensions, weight and supply conditions;
- the name of the purchaser and the order number;
- the hull number or destination.

Figure 6



2.3 Testing report

2.3.1 When the testing is completed, the Manufacturer is to issue the testing report enclosing statement of the following:

a) the requirements for and the results of the tests;

b) the identification and testing marks stamped on the products; additionally, in the case of testing of materials:
   - the specifying designations of the heat and relevant chemical analysis;
   - the supply condition and the specification of heat treatment, as required;
   - the working and manufacturing procedure (for rolled products intended for hull, boilers and pressure vessels only).

For complicated or assembled products admitted to the alternative testing scheme, as an alternative to the above, the Manufacturer may issue a written statement that all the inspections and required tests have been performed as required by the Rules, provided it is possible to trace the associated documentation at the request of the TASNEEF Sur-veyor. This documentation is to be kept for a period of at least 10 years after the date of the certificate.

2.3.2 This testing report will be attached to the testing certificate issued by TASNEEF, or, alternatively, at TASNEEF's discre-tion, directly confirmed by endorsement with the TASNEEF stamp and the signature of the TASNEEF Surveyor in charge.

For materials manufactured in large quantities and tested by heats or by lot, the Manufacturer is to further state for the individual supplies that the material has been produced according to the Rules.

2.3.3 Where, following a special procedure, testing is entirely delegated to the Manufacturer, the latter is to issue its own certificate, containing all the information required in [2.2] and [2.3.1].

2.4 Certificates issued by Manufacturers

2.4.1 Where it is anticipated that the materials or products will be received with only the certificate of conformity issued by the Manufacturer, this document is to contain at least the following information:

- the kind and essential specification properties of the product, the weight and, in the case of materials, the type (working and manufacturing procedure), the nominal chemical analysis and mechanical properties or the reference standard, the dimensions and the supply condition;
- the identification marks on the products.

2.5 Delayed testing

2.5.1 Where, in special cases, at the request of the interested parties, testing is allowed to be performed after delivery, at the user's works, such procedure is subject to the following conditions:

- the Manufacturer is to be recognised;
- the product is to be accompanied by a statement from the Manufacturer containing the information required in [2.4]and, in addition for materials, the ladle analysis.

2.5.2 In any event, TASNEEF Surveyors have the right either to reject products with documentation missing or of dubious origin, or to demand further checks, such as the determina-tion of the chemical composition on the product.

CHAPTER 5 CRITERIA FOR THE ACCEPTANCE OF TESTS CARRIED OUT BY LABORATORIES

1 General

1.1 Scope

1.1.1 This Chapter supplies the criteria for the acceptance of testing reports produced by laboratories others than TASNEEF'S , for the use of TASNEEF Surveyors in connection with the performance of their activities.

1.2 Field of application

1.2.1 This Chapter applies both to tests carried out by laboratories in the presence of TASNEEF Surveyors and to tests for which the Rules do not require the presence of the Surveyor during their performance.

1.3 Calibration certificates

1.3.1 The calibration certificates relative to the instruments and equipment used for testing are to be made available to TASNEEF Surveyors.

2 Criteria for the acceptance of test laboratories that perform tests attended by TASNEEF Surveyors

2.1 Premise

2.1.1 In general, the Rules have no specific requirements on the characteristics and qualifications of laboratories where tests requiring the attendance of TASNEEF Surveyors are performed, as it is presumed that the Surveyor's attendance can in most cases guarantee the reliability of the tests that are necessary for the certification of materials, machinery and equipment for which there are specific Rule require-ments. However, this presumption is not always correct when the tests require sophisticated equipment and tech-nologies. For the acceptance of tests and reports of labora-tories other than TASNEEF'S , it is therefore necessary to consider two cases, as specified in [2.2] and [2.3].

2.2 Tests not requiring sophisticated procedures or equipment

2.2.1 For the scope of this paragraph the word "laboratory" is used not only for an equipped laboratory (either independent or owned by the Manufacturer) but also for a simple testing machine used in the field to perform tests or trials required by the applicable TASNEEF Rules.

If the tests are performed in the presence of a TASNEEF Sur-veyor, it is not necessary for the laboratory to be recognised or qualified by TASNEEF or by other Organisations, provided the following conditions are complied with:

a) they are mechanical tests which do not require sophisticated control/monitoring equipment (for instance, tensile tests, impact tests, bend tests, etc.);

b) they are electrical tests that may be performed with common equipment (voltage, current resistance measures, etc.);

c) they are hydraulic tests carried out with normal instruments (pressure gauges, flow rate gauges, etc.);

d) they are dimensional measures performed with common instruments (callipers, micrometers, angle gauges, thickness gauges, etc.);

e) they are performance tests where the functioning parameters are easy to evaluate;

f) they are simulation tests where all input and output parameters are easily evaluated;

g) they are sophisticated tests which are supported by detailed manuals explaining the inputs and outputs and the means to check the accuracy of the tests, as well as the methodology to perform sample testing in the presence of the Surveyor.

2.2.2 However, for any of the above cases, it is always to be possible for the surveyor to check that the instruments are calibrated against national or international Standards, that the instruments and testing machines are kept in good order and that testing is properly performed using instruments adequate to the accuracy required by the measure.

2.3 Tests requiring sophisticated procedures or equipment

2.3.1 Where the tests to be performed require the use of sophisticated equipment, technology and/or technical knowledge not provided for by any of the cases listed in [2.2.1], it will not be possible to accept tests performed by laboratories which are not approved and certified by TASNEEF in accordance with the "Rules for recognition of test labora-tories" or considered acceptable in accordance with criteria similar to those indicated in [3.1].

2.4 Reporting

2.4.1 In the cases indicated in [2.2] the testing reports may be prepared either directly by the TASNEEF Surveyor or by the laboratory and endorsed by the TASNEEF Surveyor who attended the tests.

2.4.2 In the cases indicated in [2.3] the testing reports are to be prepared by the laboratory in accordance with the criteria laid down in [3.2] and are to be endorsed by the TASNEEF Surveyor who attended the tests.

3 Criteria for the acceptance of test laboratories that perform tests not attended by TASNEEF Surveyors

3.1 Characteristics of laboratories

3.1.1 Testing laboratories complying with any of the following conditions may be accepted by TASNEEF whenever the tests or types of tests carried out may be accepted without the presence of TASNEEF Surveyors:

a) they are recognised by TASNEEF in accordance with the "Rules for recognition of test laboratories";

b) they are accredited and/or recognised by:
   - an Organisation which is a full term member of ILAC (International Laboratory Accreditation Co-operation);
   - USCG (United States Coast Guard);
   - an IACS (International Association of Classification Societies) member;
   - a State Administration which is a signatory of IMO (International Maritime Organisation) conventions.

c) they have implemented a certified Quality Assurance System in accordance with ISO 9000 Standards that covers the types of tests necessary for the certification of the product.

3.1.2 Laboratories not complying with any of the above conditions will be evaluated by TASNEEF on a case-by-case basis, provided the documentation submitted and the results of a possible audit demonstrate that their level of experience and reliability is not less than that of the labora-tories accepted on the basis of [3.1.1]. This evaluation may also be based on records of historical performance.

3.1.3 Laboratories which perform unattended tests on equipment subject to the European MED Directive are to comply with the requirements of the TASNEEF "Rules for the certification of marine equipment in accordance with European Directive 2014/90/EU".

3.2 Acceptance of testing reports

3.2.1 Whenever provided for and allowed by the applicable Rules, testing reports issued by laboratories complying with the conditions laid down in [3.1] may be accepted subject to the following.

a) The testing reports are to be complete and clear in full compliance with the applicable Standards and are to be signed by a technician in charge of the testing laboratory;

b) In general, the testing reports are to be compiled and to include the information in accordance with the criteria stated in ISO Standard 17025, or in other equivalent Standards;

c) The testing reports are to include a copy of the Accreditation Certificate of the Laboratory or other documentation clearly showing the Accreditation Body that issued the accreditation as well as its expiry date.

In general, testing reports are not acceptable if they are issued by Laboratories not satisfying the conditions laid down in [3.1] or satisfying them only for types of testing other than that performed and reported in the specific case or by laboratories with expired accreditation.

3.3 Acceptance procedure

3.3.1 Unless the laboratory is acceptable to TASNEEF as per [3.1.1], the acceptance of its testing reports will be recon-sidered by TASNEEF on a case-by-case basis as indicated in [3.1.2].

In such cases, one testing report issued by a laboratory does not constitute a precedent for the acceptance of another testing report issued by the same laboratory.

3.4 Derogation

3.4.1 TASNEEF may establish different criteria for the accept-ance of testing laboratories with respect to the requirements indicated above for those categories of products which, due to their peculiarity, cannot be dealt with as prescribed in this Chapter.

CHAPTER 6 REQUIREMENTS FOR INSPECTION AND TESTING OF PRODUCTS AT WORKSHOPS

1 General

1.1 Purpose

1.1.1 The following tables list the equipment and materials which are likely to be used for the construction and outfitting of a ship together with the minimum certification and testing required to be performed at the workshop before the delivery to the building shipyard.

1.2 Applicability

1.2.1 These tables are not to be considered as an alternative to or a substitute for the applicable Rule requirements. They are intended to summarise a large number of requirements located in various parts of different documents. In the event of discrepancy between the content of the tables and the applicable Rules and Standards, the latter are to be considered valid.

1.2.2 Products which are not considered in the following tables are to be dealt with as indicated in the applicable Rules and Standards and/or using the criteria stipulated in the tables for similar equipment, as agreed with TASNEEF.

2 Content of the tables

2.1 Columns

2.1.1 The following tables have 13 columns, as follows:

- **COLUMN 1:**

  supplies an identification number for the equipment or material considered

- **COLUMN 2:**

  supplies a description of the equipment or material considered

- **COLUMN 3:**

  indicates whether the certification is required for the classification of the ships by TASNEEF Rules or by statutory regulations or by other Organisations, such as OIL

- **COLUMN 4:**

  indicates which type of certificate is required; for the meaning of the symbols used see [2.2]

- **COLUMN 5:**

  indicates whether the Rules require the submittal of technical documentation and design approval (see Chapter 2, [2.1] and [2.3]); whether type approval certification is required as a preliminary step towards the individual certification is also indicated

- **COLUMN 6:**

  indicates whether the Rules require the approval of the manufacturer and of the Manufacturing process (see Chapter 2, [2.3])

- **COLUMN 7:**

  indicates whether the Rules require that all or part of material testing is attended by a TASNEEF Surveyor (see Chapter 2, [2.4]). When Workshop Certificates are nor-mally accepted, the symbol **XM** is indicated in the col-umn

- **COLUMN 8:**

  indicates whether the Rules require that all or part of the materials or welds are subjected to NDT in the presence of the TASNEEF Surveyor's or under his control. When Workshop Certificates are normally accepted, the sym-bol **XM** is indicated in the column

- **COLUMN 9:**

  indicates whether the Rules require the TASNEEF Surveyor's presence at the workshop during certain steps of the manufacturing process (see Chapter 2, [2.5])

- **COLUMN 10:**

  indicates whether the Rules require that a TASNEEF Sur-veyor performs a final examination of the product (See Chapter 2, [2.6]) or the verification of the conformity with the approved type and checking of compliance with approved drawings as applicable. The verification of conformity may also be performed at the shipyard in connection with the installation on board of the equip-ment (See Chapter 2, [2.6]). When Workshop Certifi-cates are normally accepted, the symbol **XM** is indicated in the column

- **COLUMN 11:**

  indicates whether the Rules require that final tests are carried out in the presence of a TASNEEF Surveyor. In the case of hydrostatic testing carried out in batches, the test is performed and certified by the Manufacturer and checks may be carried out by the Surveyor. When Work-shop Certificates are normally accepted, the symbol **XM** is indicated in the column

- **COLUMN 12:**

  indicates whether the completed equipment is to be subjected to a functioning and/or performance test in the presence of the TASNEEF Surveyor (See Chapter 2, [2.7]). When Workshop Certificates are normally accepted, the symbol **XM** is indicated in the column

2.2 Symbols

2.2.1 The following symbols are used in Column 3:

- **C**

  to indicate that the certification is required by TASNEEF in connection with the ship classification Rules

- **S**

  to indicate that the certification is required following statutory requirements

- **B**

  to indicate that the certification is required both for TASNEEF classification of the ship and to comply with statu-tory requirements.

- **O**

  to indicate that the certification is required to comply with the requirements of other Organisations, for instance OIL.

2.2.2 The following symbols are used in Column 4:

- **CT**

  individual inspection scheme (see Chapter 2, [3])

- **CA**

  alternative inspection scheme (see Chapter 2, [4])

- **TA**

  TASNEEF type approval (see Chapter 3, [1]). Where the Type Approval Certificate is supplemented by a Production Control Certificate, no additional certificate is required.

  Where the Type Approval Certificate is required as a preliminary step of the individual certification, the symbol TA is indicated in column 5 in addition to the other requirements for the individual certification.

- **ITA**

  Italian Administration type approval (see Chapter 3, [6.1])

- **MED**

  MED type approval (see Chapter 3, [5])

- **MA**

  (Manufacturer's affidavit). In general, the MA requires the examination of the available documentation (internal reports, certificates) by the TASNEEF Surveyor and is in general carried out directly at the shipyard.

2.3 Alternatives

2.3.1 In general, whenever a TA is required for a product, a CT may also be acceptable. In such cases, the tests to be carried out are to be agreed on a case-by-case basis with TASNEEF taking into account the tests required for type approval.

Table A : Workshop Inspections - Hull Structures

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
1	Aluminium alloy bars for rivets	C	CT or CA			X					
2	Aluminium alloy plates, profiles and structural pipes	C	CT or CA		X (1)	X	X		X	X	
3	Bimetallic joints for connection of aluminium structures to steel structures	C	CT or CA		X (1)	X	X		X	X	
4	Cast or forged steel for engine foundation plates	C	CT or CA			X	X		X		
5	Cast or forged steel for stem, sternpost, rudder horn, rudder frames, shaft brackets, hawsepipes	C	CT or CA	X	X	X	X		X		
6	Propeller nozzles	C	CT	X		X	X	X	X		
7	Steel plates, profiles and structural pipes	C	CT or CA		X (1)	X	X		X	X	
8	Welded profiles	C	CT or CA		X (1)		X		X	X	
(1) Not required for limited supplies with CT when additional tests are carried out											

Table B : Workshop Inspections - Hull Equipment and Fittings *(1/7/2025)*

Table B (Sheet 1 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
1	Anchor windlasses	C	CT or CA	X		XM	X (4)		X	X (1)	X (1)
2	Anchors	C	CT or CA	X	X	X	X		X	X (2) (7)	
3	Ball type air pipe closing devices	B	TA								
3A	Bow chain stopper for SPM ships	C	CT orCA	TA		X			X	X	X
3B	Bow fairleads for SPM ships	C	CT or CA	TA		XM			X		
4	Chain stoppers	C	CT or CA	X (12)		XM			X	X (13)	X
5	Chain cables for anchors	C	CT or CA		X				X	X (3)	
6	Electric motors and electric apparatus for products 1, 8, 23, 26	SEE TABLE N									
7	Fittings for chain cables: - links, shackles, end links, swivels - pendants	C	CT or CA		X	X	X (4)		X	X (3)	
7A	Gear for operating watertight doors replacing hand operated sliding doors with an all round crank motion	B	ITA	TA					X	X	X
8	Hatch covers, shell and bottom doors, bow visor, loading ramps, movable decks	B	CT	X		X	X	X	X (6)		
9	High holding power anchors	C	CT or CA	TA	X	X	X		X	X (2) (7)	
10	Hull fittings for mooring or towing, without rotating components (bollards, bitts, chocks)	C	CT or CA	X (12)		XM			X		
10A	Hull fittings for mooring or towing, with rotating components (fairleads, rollers)	C	CT or CA	X (12)		XM			X	X (7) (13)	X
11	Hydraulic plants for products 1, 8, 23, 26	SEE TABLE L									
12	Scuppers	B	CT or CA	X					X	X	
13	Securing devices for hatch covers and shell doors (see item 8)	B	CT or CA	X		X	X		X		

Table B (Sheet 2 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
14	Sidescuttles, deadlights and windows	B	CT or CA	X (5)		X			X	X (6)	
15	Glass for sidescuttles and windows	B	CT or CA			XM			X	X (8)	
16	Steel bars for chains	C	CT or CA		X	X					
17	Steel or aluminium alloy masts	C	MA			XM					
18	Steel, raw or synthetic fibre ropes for standing running rigging, mooring warping, towing	C	CT or CA		X (11)				X	X (9)	
19	Stem, sternpost, rudder horn, rudder frames, shoepieces, shaft brackets, hawsepipes, etc.	C	CT	X		X	X	X	X	X	
20	Tow hooks	C	CT or CA	X		XM			X	X (7)	
21	Towing winches	C	CT or CA	X		XM	X (4)		X	X	X
22	Valves for sea inlet and overboard discharge	B	CT or CA	X (12)		X (11)	X (11)		X	X (10)	
22A	Watertight cable transits	B	TA								
23	Watertight doors Structure	B	CT or CA	X		X	X	X	X	X	
24	Watertight doors On-site manual pump for door control	B	ITA							X (10)	X
25	Weathertight doors	B	CT or CA			XM			X	X	
26	Winches for fishing nets, windlasses, etc.	C	MA			XM					
27	External glass balustrades (14)	C	TA (15)								

Table B (Sheet 3 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS

(1) With verification of the disassembled parts after the test, as applicable
(2) Drop and hammering test on cast anchors may be omitted subject to preliminary agreement and additional tests.
(3) Proof load and breaking strength test per lots
(4) If and when requested by TASNEEF Surveyor
(5) To be in accordance with a recognised Standard, otherwise design is to be approved
(6) Hose tests
(7) Proof load test
(8) Hydrostatic test on sample products randomly selected plus other particular tests as required by the Rules
(9) Breaking strength test
(10) Hydrostatic test
(11) when required by the Rules
(12) Approval of drawings is not required if the equipment is made in accordance with a recognised industry standard (e.g. ISO)
(13) Proof load test is not required if the equipment is made in accordance with a recognised industry standard
(14) Applicable to Passenger Ships
(15) Prototype pressure test required on glass supporting structure according to Pt E, Ch 11, Sec 3, [8.6.1] of the Rules, as an alternative to direct calculation. Prototype pendulum impact test to be carried out according to Pt E, Ch 11, Sec 3, [8.7.1] of the Rules.

Table C : Workshop Inspections - Rudders and Steering Gear

(Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Actuators	C	CT or CA	X		X	X		X	X (1)	
2	Electric motors and apparatus	SEE TABLE N									

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
3	Hydraulic plants	SEE TABLE L									
4	ITEM DELETED										
5	Pintles	C	CT	X		X	X		X		
6	Hydraulic pumps	C	CT or CA	TA		X	X		X	X (1)	X (2)
7	Rudder tillers, quadrants , rams and piston rods; cylindrical shells of hydraulic cylinder; rotors and rotor housings for rotary vane steering gear	C	CT or CA	X		X	X		X	X (1)	
8	Rudders (complete)	C	CT	X			X	X	X	X (3)	
8A	Rudder components: • Blades • Stocks • Couplings • Bolts and nuts (excluded hydraulic nuts, see item 8B) • Trunks (where fitted)	C	CT	X		X	X		X		
8B	Rudder components: • Hydraulic nuts itended for mounting of cone couplings • Stock liners • Flap pivots, hinge rings and bushes	C	CT	X		XM			X		
9	Steering gear (complete)	C	CT or CA	X				X	X	X (2)	

(1) Hydrostatic test of components subject to pressure
(2) It may be performed at the shipyard
(3) Hydrostatic test on complete rudder

Table D : Workshop Inspections - Main and Auxiliary Diesel Engines

Table D (Sheet 1 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Welded bedplate	C	CT or CA	X	X (5)	XM (1) (2)	XM (3) (4)	X (6)	X		
2	Cast steel bearing transverse girders	C	CT or CA			XM (1) (2)	XM (3) (4)		X		
3	Welded frame box	C	CT or CA		X (5)	XM (1) (2)	XM (3) (4)	X (6)	X		
4	Gray cast iron cylinder block for engines having a power per cylinder greater than 400 kW/cyl	C	MA						XM	XM (16) (7)	
5	Spheroidal graphite cast iron cylinder block for engines having a power per cylinder greater than 400 kW/cyl	C	MA						XM	XM (16) (7)	
6	Welded cylinder frames for crosshead engines	C	CT or CA		X (5)	XM (1) (2)	XM (3) (4)	X (6)	X		
7	Gray cast iron engine block for engines having a power per cylinder greater than 400 kW/cyl	C	MA						XM	XM (16) (7)	
8	Spheroidal graphite cast iron engine block for engines having a power per cylinder greater than 400 kW/cyl	C	MA		XM (2)				XM	XM (16) (7)	
9	Cylinder liner for engines having cylinder bore greater than 300 mm	C	MA		XM (1) (2)				XM	XM (16) (7)	
10	Gray cast iron cylinder head for engines having cylinder bore greater than 300 mm	C	MA							XM (16) (7)	
11	Spheroidal graphite cast iron cylinder head for engines having cylinder bore greater than 300 mm	C	MA							XM (16) (7)	

Table D (Sheet 2 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
12	Cast steel cylinder head for engines having cylinder bore greater than 300 mm	C	CT or CA		X	XM (1) (2)	XM (3) (4)		X	XM (16) (7)	
13	Forged cylinder head for engines having cylinder bore greater than 300 mm	C	CT or CA		X	XM (1) (2)	XM (3) (4)		X	XM (16) (7)	
14	Cast steel piston crown for engines having cylinder bore greater than 400 mm	C	CT or CA		X	XM (1) (2)	XM (3) (4)		X		
15	Forged piston crown for engines having cylinder bore greater than 400 mm	C	CT or CA		X	XM (1) (2)	XM (3) (4)		X		
16	Crankshaft (made in one piece)	C	CT or CA	X	X	X (1) (2)	XM (3) (4)	XM (8)	X (9)		
17	Semi-built crankshaft (Crank throw, forged main journal and journals with flange)	C	CT or CA	X	X	X (1) (2)	XM (3) (4)	XM (8)	X (10)		
18	ITEM DELETED										
19	ITEM DELETED										
20	Exhaust gas valve cage for crosshead engines	C	MA							XM (16) (7)	
21	Piston rod for crosshead engines having cylinder bore greater than 400 mm	C	CT or CA			X (1) (2)	XM (3) (4)		X (11)		
22	Cross head for crosshead engines	C	CT or CA			X (1) (2)	XM (3) (4)		X (11)		
23	Connecting rod with cap	C	CT or CA			X (1) (2)	XM (3) (4)	XM	X(17)		
24	Coupling bolts for crankshaft	C	CT or CA			X (1) (2)	XM (3) (4)	XM	X (18)		
25	Bolts and studs for main bearings for engines having cylinder bore greater than 300 mm	C	MA			XM (1) (2)	XM (3) (4)				

Table D (Sheet 3 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
26	Bolts and studs for cylinder heads for engines having cylinder bore greater than 300 mm	C	MA			XM (1) (2)	XM (3) (4)				
27	Bolts and studs for connecting rods for engines having cylinder bore greater than 300 mm	C	MA			XM (1) (2)	XM (3) (4)	XM (12)			
28	Tie rod for crosshead engines	C	CT or CA			XM (1) (2)	XM (3) (4)	XM (12)	X (11)		
29	High pressure fuel injection pump body for engines having cylinder bore greater than 300 mm	C	MA			XM (1) (2)				XM (16) (7)	
30	High pressure fuel injection pump body for engines having cylinder bore not greater than 300 mm	C	MA			XM (1) (2)				XM (15) (7)	
31	High pressure fuel injection valves (only for those not auto-fretted) for engines having cylinder bore greater than 300 mm	C	MA							XM (16) (7)	
32	High pressure fuel injection valves (only for those not auto-fretted) for engines having cylinder bore not greater than 300 mm	C	MA							XM (15) (7)	
33	High pressure fuel injection pipes including common fuel rail for engines having cylinder bore greater than 300 mm	C	MA			XM (1) (2)				XM (14)(16) (7)	
34	High pressure fuel injection pipes including common fuel rail for engines having cylinder bore not greater than 300 mm	C	MA			XM (1)(2)				XM (14) (15) (7)	
35	High pressure common servo oil system for engines having cylinder bore greater than 300 mm	C	MA			XM (1) (2)				XM(16) (7)	
36	High pressure common servo oil system for engines having cylinder bore not greater than 300 mm	C	MA			XM (1) (2)				XM(15) (7)	
37	Cooler, both sides (13), for engines having cylinder bore greater than 300 mm	C	MA			XM (1) (2)				XM (16) (7)	

Table D (Sheet 4 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
38	Accumulator (only for accumulators with capacity greater than 0,5 l)	C	MA			XM (1) (2)				XM(16) (7)	
39	Piping, pumps, actuators, etc. for hydraulic drive of valves for engines having a power per cylinder greater than 800 kW/cyl	C	MA			XM (1) (2)				XM(16) (7)	
40	Engine driven pumps (oil, water, fuel, bilge), other than pumps referred to in item 29, 30 and 39, for engines having a power per cylinder greater than 800 kW/cyl	C	MA							XM (16)	
41	Bearings for main, crosshead, and crankpin for engines having a power per cylinder greater than 800 kW/cyl	C	MA			XM (1) (15)	XM (4) (15)	XM (8)			
42	Diesel engines (complete) for non-essential service and diesel engines for essential auxiliary service of less than 110 kW	C	MA								
43	- Diesel engines (complete) intended for main propulsion, or - Diesel engines (complete) developping a power of 110 kW and over intended for: a) driving electrical generator; b) other auxiliary services essential for safety and navigation; c) driving cargo pumps in tankers;	C	CT or CA	TA					X		X
44	Diesel engine control panels	SEE TABLE E									
45	Elastic couplings for electric generator groups	C	CT or CA			XM			X		
46	Electric power generating sets	SEE TABLE N									

Table D (Sheet 5 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
47	Injection plants for diesel engines intended for: - propulsion - power generation and other essential auxiliary services of 110 KW or greater	SEE TABLE E									
48	ITEM DELETED										
49	Chocking resins (pourable compounds for foundation chocking)	C	TA								

(1) Chemical composition
(2) Mechanical properties
(3) Crack detection by MPI or liquid penetrant test
(4) Ultrasonic testing
(5) Approval of WPS
(6) Fit up + post welding
(7) Hydrostatic pressure test as required by the applicable rules
(8) Dimensional inspection, including surface condition
(9) Random check of fillets and oil bores
(10) Random check of fillets and shrink fittings
(11) Random check
(12) Manufacturer Test Report of thread making
(13) Charge air coolers need only be tested on the water side
(14) Required for those injection pipes that are not autofretted
(15) Review of Manufacturer Test Report
(16) Review of Manufacturer Work Certificate
(17) Random check of all surfaces, in particular those shot peened
(18) Random check of interference fit

Table E : Workshop Inspections - Auxiliary Components and Accessories for Engines *(1/7/2025)*

Table E (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
1	Air, water and oil coolers	**FOR PRESSURE PARTS SEE TABLE J**									
2	Clutches	**SEE TABLE H**									
3	Control, monitoring and alarm systems	**SEE TABLE Q**									
4	Cooling water, lubricating oil, fuel oil injection and fuel oil transfer pumps	**C**	**CT or CA**							**X (1)**	**X**
5	Ejectors for bilge in machinery spaces	**C**	**CT or CA**							**X (1)**	
6	ITEM DELETED										
7	Electric panels and apparatus	**SEE TABLE N**									
8	Fuel oil and lubricating oil non-structural tanks	**C**	**CT or CA**			**XM**			**X**	**X (1)**	
9	Fuel oil and lubricating oil purifiers	**C**	**CT or CA**						**X**	**X (1)**	**X**
10	Injectors, buster pumps and injection pipes	**C**	**CT o CA**			**XM**			**X**	**X (1)**	
10A	Oil mist detector	**C**	**TA**								
11	Piping systems	**SEE TABLE K**									
12	Pressure filters	**FOR PRESSURE PARTS SEE TABLE J**									
13	ITEM DELETED										
14	ITEM DELETED										
15	Crankcase explosion relief valves for diesel engines **(4)**	**C**	**TA**								
16	Scavenge air main	**FOR PRESSURE PARTS SEE TABLE J**									
17	Scavenging pumps	**C**	**CT or CA**						**X**	**X (1)**	**X**
18	Starting air compressors	**C**	**CT or CA**						**X**	**X (1)**	**X**

Table E (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICA-TION**	**FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
19	Starting motors – electrical	**SEE TABLE N**									
20	Starting motors – hydraulic or pneumatic	**C**	**CT o CA**						**X**	**X (1)**	
21	Turbochargers (Category A and B)	**C**	**MA (2)**								
22	Turbochargers (Category C)	**C**	**CT or CA**	**TA**		**X**	**X**		**X**	**X (1) (3)**	**X**
23	Electronic speed governors and their actuators	**C**	**TA**								
24	Explosion relief devices (ERD) for combustion air inlet and exhaust gas manifolds of i.c.engines using gas as fuel (4)	**C**	**TA**								

(1) Hydrostatic test

(2) For Category B the manufacturer is to adhere to a quality system designed to ensure that the designer's specifications are met, and that manufacturing is in accordance with the approved drawings.

(3) Overspeed and balancing tests on completed rotor

(4) When required by the Rules

Table F : Workshop Inspections - Steam Turbines and Condensers

Table F (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA-TION	FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Assembled rotor	C	CT or CA						X	X (1)	
2	Blades	C	CT or CA			X (3) (6)	X (2) (3)		X (3)		
3	Casings	C	CT or CA			XM	X (4)			X (5)	
4	Circulation pumps	C	CT or CA			XM					X
5	Clutches	SEE TABLE I									
6	Control, monitoring and alarm systems	SEE TABLE Q									
7	Foundation bolts	C	CT or CA			XM (8)			X		
8	Couplings	SEE TABLE H, I									
9	Disks	C	CT or CA			X	X (2)		X (3)		
10	Dump condenser	SEE TABLE J									
11	Ejectors	C	MA								
12	Electrical apparatus	SEE TABLE N									
13	Extraction pumps	C	CT or CA			XM					X
14	Main condenser	SEE TABLE J									
15	Piping systems	SEE TABLE K									
16	Safety valves	SEE TABLE J									
17	Sectors, nozzles and diaphragms	C	CT or CA			XM	X (2)		X (3)		
18	Shafts	C	CT or CA			X	X		X		
19	Turbine internal piping	C	CT or CA			XM			X	X (5)	

Table F (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
20	Turbines (complete)	C	CT or CA	X				X	X	X (5)	X
21	Welded structures	C	CT or CA		X (7)	XM	X	X	X		

(1) Overspeed, balancing and thermal stability tests (for turbines with service temperature over 400 °C)
(2) Ultrasonic tests or X-ray examinations and magnetic particle or liquid penetrant tests on samples
(3) On samples
(4) As agreed with TASNEEF Surveyor
(5) Hydrostatic test
(6) May be XM in case of auxiliary turbines with steam inlet temperature of up to 250°C.
(7) Welding procedures
(8) X for bolts diameter greater than 40 mm

Table G : Workshop Inspections - Gas Turbines

Table G (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Assembled rotor	C	CT or CA						X	X (1)	
2	Blades	C	CT or CA			X (3)	X (2) (3)		X (3)		
3	Casings	C	CT or CA			XM	X (5)			X (6)	
4	Clutches	SEE TABLE I									
5	Combustion chamber	C	CT or CA			XM	X (5)			X (6)	
6	Control, monitoring and alarm systems	SEE TABLE Q									
7	Foundation bolts	C	CT or CA			XM (4)			X		
8	Couplings	SEE TABLE H, I									
9	Disks	C	CT or CA			X	X (2)		X (3)		
10	Electrical panels and apparatus	SEE TABLE N									
11	Piping systems	SEE TABLE K									
12	ITEM DELETED										
13	Sectors, nozzles and diaphragms	C	CT or CA			XM	X (2)		X (3)		
14	Shafts	C	CT or CA			X	X		X		
15	Starting motors – electrical	SEE TABLE N									
16	Starting motors – hydraulic or pneumatic	SEE TABLE E									
17	Turbine Internal piping	C	CT or CA			XM			X	X (6)	
18	Turbines (completed)	C	CT or CA	TA	X			X	X	X (6)	X

Table G (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
19	Welded structures	C	CT or CA		X (7)	XM	X	X	X		

(1) Overspeed and balancing tests
(2) Ultrasonic tests or X-ray examinations and magnetic particle or liquid penetrant tests on samples
(3) On samples
(4) X for bolts diameters greater than 40 mm
(5) Magnetic particle or liquid penetrant tests
(6) Hydrostatic tests. Alternative means for testing may be agreed with TASNEEF Surveyors
(7) Welding procedures

Table H : Workshop Inspections - Reduction and Reverse Gears

Table H (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Casings of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	X (1)	X (2)	X	X (3)		X		
2	Clutches	C	CT or CA	X		X			X	X (4)	
3	Control, monitoring and alarm systems	SEE TABLE Q									
4	Couplings of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	X		X	X (5)		X		
5	Pinions and wheels of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	X	X	X	X		X	X (6)	
6	Plates and profiles for steel welded cases of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA		X	X (9)					
7	Reduction and/or reverse gears for propulsion transmitting 220 kW and above power and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	X (7)					X		X (8)
8	Reduction and/or reverse gears others than those indicated in item 7	C	MA								
9	Shafts of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	X	X	X	X (5)		X		

Table H (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
10	Valves, pipes, pump coolers	FOR PRESSURE PARTS SEE TABLES J AND K									

(1) Only for welded casings
(2) Welding procedures
(3) Only for welded joints
(4) Hydrostatic tests for hydraulic and pneumatic clutches
(5) Not required for shaft of less than 250 mm diameter
(6) Verification of teeth accuracy, balancing, meshing test
(7) It may be TA at Manufacturer's request
(8) Tooth meshing test t is to be performed at a load sufficient to ensure tooth contact
(9) Only for main structural plates and profiles and if intended for propulsion

Table I : Workshop Inspections - Propellers, Main Shafting and Thrusters

Table I (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Bearing sleeves and bushing (other than sterntube bushes)	C	CT or CA			XM (6)			X		
2	Cardan shafts (flanges, crosses, shafts, yokes)	C	CT or CA	X	X (1)	X	XM (5)		X		
3	Clutches	SEE TABLE H									
4	Control, monitoring and alarm systems	SEE TABLE Q									
5	Controllable pitch propeller and built-up propeller blades	C	CT or CA	X	X	X	X		X	X (2)	
6	Controllable pitch propeller and built-up propeller connecting bolts/studs	C	CT or CA	X		X			X		
7	Controllable pitch propeller and built-up propeller hubs	C	CT or CA	X	X	X	X		X	XM (3)	
8	Controllable pitch propeller hydraulic control system	SEE TABLE L									
9	Controllable pitch propeller mechanism (mechanical parts)	C	CT or CA			XM			X		X
10	Coupling bolts or studs for couplings	C	CT or CA	X		XM			XM		
11	Coupling keys	C	CT or CA	X		XM			X		
12	Elastic coupling	C	CT or CA	X (7)		XM			X		
13	Forgings for tailshafts	C	CT or CA		X	X	X (4)				
14	Hydraulic couplings	C	CT or CA	X		X			X	XM (3)	
15	Intermediate shafts	C	CT or CA	X		X	XM (5)		X		
16	Propeller nuts	C	CT or CA			XM					

Table I (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
17	Propellers (solid)	C	CT or CA	X	X	X	X		X	X (2)	
18	ITEM DELETED										
19	Sterntube bushes, (oil lubricated, water lubricated, grease lubricated)	C	CT or CA	X		XM (6)	X		X		
20	Sterntube sealing	C	CT or CA	X					X		
21	Sterntubes	C	CT or CA	X		XM	X		X	XM (3)	
22	Propeller shaft liners	C	CT or CA	X		XM			X	XM (3)	
23	Propeller shafts	C	CT	X		X	XM (5)		X		
24	Teeth coupling	C	CT or CA	X		X	X		X		
25	Thrust shafts	C	CT	X		X	XM (5)		X		
26	Thrust sliding blocks (frame only)	C	CT or CA			XM			X		
27	Thrusters (propulsion and steering thrusters, transverse thrusters, podded propulsors, water-jets)	C	CT or CA	X		X	X		X		X

(1) Welding procedures
(2) Balancing test
(3) Hydrostatic tests
(4) Not required for shafts with diameter less than 100 mm
(5) Not required for shafts with diameter less than 250 mm
(6) Verification of anti-friction material
(7) Only for propulsion couplings

Table J : Workshop Inspections - Boilers, Pressure Vessels and Heat Exchangers

Table J (Sheet 1 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA-TION	FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Boilers	C	CT or CA	X	X (1)	X (2)	X (3)	X	X	X (4)	
2	Cast or forged parts for boilers, steam generators, oil fired thermal oil heaters, exhaust gas thermal oil heaters and class 1 pressure vessels	C	CT or CA		X	X	X (6)		X		
3	Cast or forged parts for class 2 pressure vessels	C	CT or CA			XM	X (6)		X		
4	Cast or forged parts for class 3 pressure vessels	C	MA			XM					
5	Class 1 pressure vessels and heat exchangers	C	CT or CA	X	X (1)	X (2)	X (3)	X	X	X (4)	
6	ITEM DELETED										
7	Class 2 pressure vessels and heat exchangers	C	CT or CA	X	X (1)	X (9)	X (3)	X	X	X (4)	
8	ITEM DELETED										
9	Class 3 pressure vessels and heat exchangers	C	CT or CA	X (6)	X	XM			X (12)	X (4)	
10	Condensers	AS REQUIRED DEPENDING ON THE CLASS OF THE PRESSURE VESSEL									
11	Control, monitoring and alarm systems	SEE TABLE Q									
12	Cylinders for hydraulic plants	SEE TABLE L									
13	Drums for watertube boilers	C	CT or CA	X	X (1)	X (2)	X (3)		X	X (4)	
14	Flanges and nozzles for boilers, steam generators, oil fired thermal oil heaters, exhaust gas thermal oil heaters and class 1 pressure vessels	C	CT or CA		X (1)	X	X (3)		X		
15	Flanges and nozzles for class 2 pressure vessels	C	CT or CA		X (1)	XM	X (3)		X		
16	ITEM DELETED										
17	Flanges and nozzles for class 3 pressure vessels	C	MA			XM					
18	Level indicators	C	CT or CA	X		X (8)	X		X	X (4)	

Table J (Sheet 2 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
19	Oil fired thermal oil heaters, exhaust gas thermal oil heaters	C	CT or CA	X	X (1)	X (2)	X (3)	X	X	X (4)	
20	Pipes and valves	SEE TABLE K									
21	Plates, profiles and tubesheets for boilers, steam generators, oil fired thermal oil heaters, exhaust gas thermal oil heaters and class 1 pressure vessels	C	CT or CA		X	X	X (6)		X		
22	Plates, profiles and tubesheets for class 2 pressure vessels	C	CT or CA (5)		X	XM	X (6)		X		
23	Plates, profiles and tubesheets for class 3 pressure vessels	C	MA			XM					
24	ITEM DELETED										
25	Safety valves	SEE TABLE K									
26	Seamless bottles	C	CT or CA	X	X	X (8)	X		X	X (10)	
27	Steam heated generators or steam generators heated by another fluid	C	CT or CA	X	X (1)	X (2)	X (3)	X	X	X (4)	
28	Steel bars for stays of boilers	C	CT or CA			X			X		
29	Steering gear actuators	SEE TABLE C									
30	Tubes for class 3 heat exchangers	C	MA			XM					
31	Tubes for boilers, steam generators, oil fired thermal oil heaters, exhaust gas thermal oil heaters and class 1 pressure vessels	C	CT or CA		X (11)	X	X (6)			X (4)	
32	Tubes for class 2 heat exchangers	C	CT or CA		X (11)	XM	X (6)			X (4)	
33	Welded bottles	C	CT or CA	X	X	X (8)	X		X	X (10)	

Table J (Sheet 3 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS

(1) Welding procedures
(2) Including testing on welded joint production samples, as required by the Rules
(3) On the welded joints for the extension required by the Rules
(4) Hydrostatic test – as required by the Rules
(5) Document review in lieu of CT or CA for limited supplies
(6) As required by the applicable Rules
(7) It may be scheme II for small mass produced products
(8) XM for class 2 and 3
(9) Limited to tests on welded joint production samples, as required by the Rules
(10) Burst test on prototypes and hydrostatic tests on production as required by the Rules
(11) Only for welded tubes and for seamless tubes in low alloy steel
(12) Review of conformity certificate issued by the manufacturer

Table K : Workshop Inspections - Piping Systems

Table K (Sheet 1 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Centrifugal separators	C	CT or CA			XM			X	X (1)	X
2	Class I and II prefabricated pipe lines **(2)**	C	CT or CA		X (3)		X (4)		X	X (1)	
3	ITEM DELETED										
4	Class III prefabricated pipe lines **(10)**	C	CT or CA						X	X (1)	
4A	Class III prefabricated pipe lines	C	MA						XM	XM (1)	
5	Compressors (complete), except associated containers and pressure vessels	C	CT or CA						X	X (1)	X
6	Control, monitoring and alarm systems	SEE TABLE Q									
6A	Emergency release coupling (ERC)	C	CT or CA	TA					X	X (1)	
7	Expansion joints and metallic compensators	C	CT or CA	X (5)		XM	X (4)		X	X (1)	
8	Filters	SEE TABLE J AS PER APPLICABLE PRESSURE VESSEL CLASS									
9	Fittings for class I piping systems having internal diameter equal to or greater than 50 mm and for class II piping having internal diameter equal to or greater than 100 mm	C	CT or CA			X	X (4)		X	X (1)	
10	Fittings for class I piping systems having internal diameter less than 50 mm and for class II piping having internal diameter less than 100 mm	C	CT or CA			XM	X (4)		X	X (1)	
11	Fittings for class III piping systems	C	MA			XM					
12	Fittings for plastic pipes	C	CT or CA	TA					X	X (1)	

Table K (Sheet 2 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
13	Flexible hoses – Metallic	C	CT or CA	TA		XM	X (4)		X	X (1)	
14	Flexible hoses - Non-metallic	C	CT or CA	TA					X	X (1)	
15	Flexible hoses conveying oil and fuel oil	SEE TABLE O									
15A	Flooding detection system	S-C	CT or CA	X					X	X	X
15B	Hold, ballast, dry space water level detection system	S-C	CT or CA	X					X	X	X
16	Level indicators for flammable fluids	C	CT or CA (5)	X (5)			X (4)		X	X (1)	
17	Materials other than steel for pipes conveying oil or fuel oil	SEE TABLE O									
17A	Mechanical joints for pipes	C	MA	TA		XM					
17B	Quick connect disconnect coupler (QCDC)	C	CT or CA	TA					X	X (1)	
18	Pipes for class I piping systems having internal diameter equal to or greater than 50 mm and for class II piping having internal diameter equal to or greater than 100 mm	C	CT or CA		X (4)	X	X (4)		X	X (1)	
19	Pipes for class I piping systems having internal diameter less than 50 mm and for class II piping having internal diameter less than 100 mm	C	CT or CA		X (4)	XM	X (4)		X	X (1)	
20	Pipes for class III piping systems	C	MA			XM				XM (1)	
21	Plastic pipes	C	CT or CA	TA					X	X (1)	
22	Prime movers for compressors	SEE TABLE D, F, L AS FAR AS APPLICABLE									
23	Prime movers for pumps	SEE TABLE D, F, L AS FAR AS APPLICABLE									
24	Pumps (complete)	C	CT or CA			X (8)			X	X (1)	X (4)

Table K (Sheet 3 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
25	Safety valves	C	CT or CA	X (5)		X (8)	X (4)		X	X (1)	
25A	Suction and discharge valves for dredging piping	C (13)	CT or CA	TA					X	X	
26	Valves for class I piping systems having internal diameter equal to or greater than 50 mm and for class II piping having internal diameter equal to or greater than 100 mm	C	CT or CA	X (6)		X	X (4)		X	X (1)	
27	Valves for class I piping systems having internal diameter less than 50 mm and for class II piping having internal diameter less than 100 mm	C	CT or CA	X (6)		XM	X (4)		X	X (1)	
28	Valves for class III piping systems	C	MA			XM				XM (1)	
29	Valves for sea inlet and overboard discharge	SEE TABLE B									
30	Water level detectors	S	MED (10) - TA (11)								
31	Water level detectors on bulk carriers	S	TA (12)								

(1) Hydrostatic tests as required by the Rules
(2) The pipes and the components are to be previously tested as specifically required for each item
(3) Welding procedures
(4) As required by the applicable Rules
(5) TA as required by the Rules
(6) For valves not manufactured in accordance with a recognised Standard
(7) Required for casing and bolts of feed and forced circulation pumps for main boilers
(8) XM for valves having: - diameter less than 50 mm and intended for class I piping systems
- diameter less than 100 mm and intended for class II piping systems
(9) For all piping systems mentioned in Pt C, Ch 1, Sec 10, [21.4.2] a).
(10) For ships flying European Community Administration flags
(11) For ships flying non-European Community Administration flags, whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf
(12) For ships whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf
(13) For ships intrended for dredging activities

Table L : Workshop Inspections - Hydraulic Plants

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
1	Actuators **(1)**	**C**	**CT or CA**			**XM**				**X (3)**	**X**
2	Accumulators and oleodynamic cylinders	**C**	**CT or CA**	**X**	**X (5)**	**X (2)**	**X**		**X**	**X (3)**	**X**
3	Control, monitoring and alarm systems	**SEE TABLE Q**									
4	Flexible hoses	**SEE TABLE K**									
5	Hydraulic motors	**C**	**CT or CA**							**X (3)**	
6	Hydraulic motors and pumps for propulsion	**C**	**CT or CA**			**XM**			**X**	**X (3)**	**X**
7	Oleodynamic packages	**C**	**CT or CA**	**X**		**X (4)**	**X (4)**		**X**	**X (3)**	**X**
8	Piping, including valves, fittings and filters	**SEE TABLE K**									
9	Pressure filters and air coolers	**SEE TABLE J**									
10	Pumps – Hydraulic	**SEE TABLE K and C**									
11	Starters, switchboards and electric motors	**SEE TABLE N**									

(1) For steering gear actuators see Table C
(2) It may be XM for plants intended for embarkation ramps, hatch covers, mobile decks and similar structures not subject to OIL certification
(3) Hydrostatic tests
(4) Depending on the classes of pressure components
(5) For accumulators as required by the Rules

Table M : Workshop Inspections - Machinery and Apparatus for Sea Pollution Prevention

(Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Ballast water treatment system	S-C	TA (5)	X					X	X	X
1A	Equipment using other equivalent methods to reduce on board NOx emissions	C (1) S	CT (1) or CA (1) TA (5)	X (1)					X (1)		X (1)
1B	Equipment using other technological methods to limit SOx emissions	C (1) S	TA (1) (3)								
2	Garbage disposal systems	C (1)	CT (1) or CA (1)	X (1)					X (1)	X (1)	X (1)
2A	NOx analyser permanently placed on board and for use on board NOx as per Technical Code 2008	C (1) S	MED (1) - TA (1) (3)								
3	Oil content meters	S-C (1)	MED (2) -TA (1) (3)								
4	Oil discharge monitoring and control system for oil tanker	S-C (1)	MED (2) -TA (1) (3)								
5	Oil/water interface detectors	S-C (1)	MED (2) -TA (1) (3)								
6	Oil filtering equipment (for an oil content of the effluent not exceeding 15 p.p.m.)	S	MED (2) -TA (3)								
7	On board exhaust gas cleaning system	C (1)	CT (1) or CA (1)	X (1)					X (1)		X (1)
8	On board NOx analysers using a measurement method other than the Direct Measurement and Monitoring Method of the NOx Technical Code 2008	S	TA (5)								
9	ITEM DELETED										
10	Process units intended for attachment to existing oily water separating equipment (for an oil content of the effluent not exceeding 15 p.p.m.)	S-C (1)	TA (1)								
11	Sewage treatment plants	S-C (1)	MED (2) -TA (1) (3)	X (1)				X (1)	X (1)		X (1)
12	Shipboard incinerators	S-C (1)	MED (2) -TA (1) (3)	X (1)	X (1) (4)	XM	X (1)	X (1)	X (1)	X (1)	X (1)

(Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICA-TION**	**FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**

(1) For ships with **"clean"** class notation

(2) For ships flying European Community Administration flags

(3) For ships flying non-European Community Administration flags, whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

(4) Welding procedures

(5) For ships flying flags whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

Table N : Workshop Inspections - Electrical Installations *(1/7/2025)*

Table N (Sheet 1 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Batteries for essential and/or emergency services	C	MA								
1A	Batteries for battery powered ships	C	CT or CA	TA					X	X	X
1B	Control, monitoring and alarm systems for battery powered ships	SEE TABLE Q									
1C	Fuel cells	C	CT or CA	TA					X	X	X
1D	Control, monitoring and alarm systems for fuel cells	SEE TABLE Q									
2	Battery chargers having rated power of 50 kVA and above	C	CT or CA	X						X (1)	
3	Cables intended for propulsion	C	CT or CA	TA						X	
3A	Cables not intended for propulsion system	C	MA	TA							
4	Circuit-breakers, contactors, etc., with nominal current greater than 100 A	C	CT or CA (5)	TA					X (5)	X (5)	
4A	Disconnectors with nominal current greater than 100 A	C	CT or CA						X	X	
5	Circuit-breakers, contactors, etc., with nominal current of 100 A or less	C	MA	TA							
5A	Disconnectors with nominal current of 100 A or less	C	MA								
6	Cold weather starting of generator sets (starting devices)	SEE TABLE P									
7	Complete power generation sets	C	CT or CA	X (3)					X (2)	X (4)	X (4)

Table N (Sheet 2 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
8	Distribution panels and single starters of voltage greater than 1000 V	C	CT	X						X	
9	Electric motors intended for propulsion	C	CT or CA	TA (6)					X	X	X
10	Electric safety lamps	SEE TABLE P									
11	Electrical appliances for hazardous areas	C	MA								
11A	Miscellaneous electric equipment (lighting fittings, heating and cooking appliances, plug and socket connection, accessories)	C	MA								
12	Electronic components and computers	SEE TABLE Q									
13	Instrumentation	SEE TABLE Q									
14	Low voltage distribution panels and single starters having nominal current greater than 100 A	C	CT	X (8)						X	
15	Low voltage distribution panels and single starters having nominal current of 100 A or less except those intended for steering gear motors	C	MA								
16	Low-locating lighting systems	SEE TABLE O									
17	Main and emergency switchboards	C	CT	X						X	
18	Navigation lights	S	MED (10)- TA (11)								
19	Navigation light switchboards	C	CT or CA	X						X	
20	Rotating machines for essential services of 100 kW and over (100 kVA for generators)	C	CT or CA	TA (6)					X	X (9)	X
21	Rotating machines for essential services of less than 100 kW (100 kVA for generators)	C	MA (7)						XM	XM	XM

Table N (Sheet 3 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
22	Semiconductor converters having nominal power of 50 kVA and over	C	CT or CA	X					X (1)		X
23	Shafts for rotating machines intended for essential services (not for propulsion) other than those indicated in item 24	C	MA			XM					
24	Shafts for rotating machines intended for propulsion and power generation whose rotors are part of the shafting lines	C	CT or CA	X		X			X		
25	Shafts for rotating machines intended for propulsion of 100 kW and over (100 kVA for generators) others than those indicated at item 24	C	CT or CA			X			X		
26	Sound signal appliances	B	TA								
27	Starters for steering gear motors	C	CT	X						X	
28	Switchboards and panels related to alarm systems	C	CT	X						X	
29	Switchboards for watertight door, side door and fire door control, monitoring and alarm	C	CT	X						X	
30	Transformers for essential services of 100 kVA and over (60 kVA for single phase transformers)	C	CT or CA	TA (6)						X	
31	Transformers for essential services of less than 100 kVA (60 kVA for single phase transformers)	C	MA (7)								
31A	Uninterruptible power system (UPS) units of 50 kVA and over	C	CT							X	
32	Electronic devices for alarm, safety and control of electrical convertors for primary essential services	C	CT	TA						X	
33	Cable trays/protective casings of plastic materials	C	TA (6)								

Table N (Sheet 4 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
34	Busbar trunking system (outside of switchboards, distribution boards)	C	CT	TA					X	X	
35	Harmonic filters	C	CT or CA						X	X	X
36	HVSC (high voltage shore connection, cold ironing, shore side electricity)	C	CT or CA		X				X	X	X
37	Internal communication device (automatic exchange telephone, common battery telephone, sound powered telephone)	B	CT or CA						X	X	X
38	Engine telegraph	B	CT or CA						X	X	X

(1) Including type tests (if any)
(2) For components
(3) Drawing approval is required in respect of Torsional Vibration Calculation (engine power 110 kW and above)
(4) May be postponed on board upon agreement of all interested parties
(5) If production control is not integrated in the TA
(6) Type approval or type test as required by the Rules
(7) Manufacturer's type test reports are to be submitted
(8) Above 100 kW
(9) In case of motors cooled with water jacket, hydrostatic pressure test to be carried as required by the Rules.
(10) For ships flying European Community Administration flags
(11) For ships flying non-European Community Administration flags, whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

Table O : Workshop Inspections - Passive Fire Protection

Table O (Sheet 1 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	"A" and "B" class divisions, fire integrity: a) 'A' class division b) 'B' class division	S	MED (1) – TA (2)								
2	Bedding components **(3)**	S	MED (1) – TA (2)								
3	"C " class divisions	S	MED (1) - TA (2)								
4	fire door control systems components **(3)**	S	MED (1) – TA (2)								
5	ITEM DELETED										
6	Devices to prevent the passage of flame into the cargo tanks in oil tankers: a) P/V valves b) flame arresters c) detonation flame arresters d) high velocity vent valves	S	MED (1) – TA (2)								
7	Draperies, curtains and other suspended textile materials and films	S	MED (1) – TA (2)								
8	Electrical cables and apparatus for hazardous areas	SEE TABLE N									
9	Fire dampers	S	MED (1) – TA (2)								
10	Fire dampers for high speed craft	S	MED (1) – TA (2)								
11	Fire doors	S	MED (1) – TA (2)								
12	Fire doors for high speed craft	S	MED (1) – TA (2)								
13	Fire-resisting divisions for high speed craft	S	MED (1) – TA (2)								
14	Fire restricting materials (except furniture) for high speed craft	S	MED (1) – TA (2)								

Table O (Sheet 2 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
15	Fire restricting materials for furniture for high speed craft	**S**	**MED (1) – TA (2)**								
16	Low-location lighting systems (components only) **(3)**	**S**	**MED (1) – TA (2)**								
17	Materials other than steel for pipes conveying oil or fuel oil: a) Plastic pipes and fittings b) Valves c) Flexible pipe assemblies and compensators d) metallic pipe components with resilient and elastomeric seals	**B**	**MED (1) – TA (2)**						**X (4)**		
18	ITEM DELETED										
19	Non-combustible materials	**S**	**MED (1) – TA (2)**								
20	Penetrations through "A" class divisions a) Electric cable transits b) Pipe, duct, trunk, etc. penetrations	**SC (6)**	**MED (1) – TA (2) (6)**								
21	Penetrations through "B" class divisions a) Electric cable transits b) Pipe, duct, trunk, etc. penetrations	**SC (6)**	**MED (1) – TA (2) (6)**								
22	Penetrations through "C" class divisions Electrical cable transits Non-combustible duct penetrations	**SC (6)**	**MA TA (6)**								
23	Penetrations through fire-resisting divisions on high speed craft a) Electric cable transits b) Pipe, duct, trunk, etc. penetrations	**SC (6)**	**MED (1) – TA (2) (6)**								
24	Primary deck coverings	**S**	**MED (1) – TA (2)**								
24A	Sanitary boxes	**C**	**CT or CA**	**X**					**X (7)**		

Table O (Sheet 3 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
25	Surface materials and floor coverings with low flame spread characteristics: a) Decorative veneers b) Paint systems c) Floor coverings d) Pipe insulation covers e) Adhesive used in the construction of "B" & "C" class divisions f) Combustible ducts membrane	**S**	**MED (1) – TA (2)**								
26	Upholstered furniture: a) complete piece of furniture (including cover material, filling material and non-flammable rack) b) cover material for any filling material c) cover material for flame-retardant filling material (tested in specific combination as intended for further application) d) flame-retardant filling material	**S**	**MED (1) – TA (2)**								
27	"A" and "B" class fire proof windows and sidescuttles	**B**	**MED (1) – TA (2)**						**X (5)**		
28	Evacuation guidance systems used as an alternative to low-location lighting systems	**S**	**MED (1) – TA (2)**								

Table O (Sheet 4 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICA-TION**	**FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**

(1) For ships flying European Community Administration flags

(2) For ships flying non-European Community Administration flags, whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

(3) Applicable to a single component or a group of components or a whole system which needs to be tested to ensure that the applicable requirements are fulfilled.

(4) Flexible hoses to be Type Approved and individually tested according to Pt C, Ch 10 of TASNEEF Rules for the Classification of Ships.

(5) Glass panes and frames to be tested according to Pt D, Ch 4, Sec 1 of TASNEEF Rules for the Classification of Ships

(6) Watertight Cable Transits are to be additionally type approved by TASNEEF (see Table B)

(7) Review of TA/MED certificates for components (class divisions, surface materials, coverings, penetrations, etc.)

Table P : Workshop Inspections - Active Fire Protection *(1/1/2026)*

Table P (Sheet 1 of 8)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICA-TION**	**FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
1	Compressed air line breathing apparatus	**S**	**MED (1) – TA (2)**								
1A	Compressed airline breathing apparatus (High Speed Craft)	**S**	**TA (4)**								
1B	Fire alarm devices (sounders)	**S**	**MED (1) – TA (2)**								

Table P (Sheet 2 of 8)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
2	Nozzles for equivalent watermist fire extinguishing systems for machinery spaces and cargo pump rooms	**B**	**MED (1) – TA (2)**								
3	Cold weather starting of generator sets (starting devices)	**B**	**TA (4)**								
4	Concentrate for fixed high expansion foam fire-extinguishing systems for machinery spaces and cargo pump rooms	**S**	**MED (1) – TA (2)**								
5	Nozzles for deep-fat cooking equipment fire-extinguishing systems (automatic or manual type)	**S**	**MED (1) – TA (2)**								
6	ITEM DELETED										
7	Dual purpose type nozzles (spray/jet type): a) Hand-held branch pipes for fire service use - Combination branch pipes PN 16 b) Hand-held branch pipes for fire service use - Smooth bore jet and/or one fixed spray jet angle branch pipes PN 16	**S**	**MED (1) - TA (2)**								
8	Electric safety lamp	**S**	**ITA (3) – TA (2)**								
9	Emergency escape breathing devices (EEBD): a) self-contained open-circuit compressed air breathing apparatus with full mask or mouthed piece assembly for escape b) self-contained open-circuit compressed air breathing apparatus with a hood for escape c) self-contained closed-circuit compressed air breathing apparatus	**S**	**MED (1) – TA (2)**								

Table P (Sheet 3 of 8)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
10	Equivalent fixed gas fire-extinguishing system components (extinguishing medium, head valves and nozzles) for machinery spaces and cargo pump rooms	S	MED (1) – TA (2)								
11	Equivalent fixed gas fire-extinguishing systems for machinery spaces (aerosol systems)	S	MED (1) – TA (2)								
12	Expansion foam for fixed fire-extinguishing systems for chemical tankers	S	MED (1) - TA (2)								
13	Fire-fighting hoses - non-percolating lay flat firefighting hoses	S	MED (1) – TA (2)								
14	Fixed firefighting hose systems: - hose reels with semi-rigid hose	S	MED (1) - TA (2)								
15	Fire-fighter's outfit: protective clothing (close proximity clothing): a) protective non reflective clothing for firefighting b) reflective clothing for specialised fire-fighting c) protective clothing with a reflective outer surface	S	MED (1) – TA (2)								
16	Fire-fighter's outfit: boots	S	MED (1) – TA (2)								
17	Fire-fighter's outfit: gloves	S	MED (1) – TA (2)								
18	Fire-fighter's outfit: helmet	S	MED (1) – TA (2)								
19	Fire-fighter's outfit: lifeline	S	MED (1) – TA (2)								

Table P (Sheet 4 of 8)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
20	Fixed oxygen analysis and gas detection equipment a) category 4: (safe area) b) category 3: (explosive gas atmospheres)	**S**	**MED (1) - TA (2)**								
21	Fixed fire detection and fire alarm systems components for control stations, service spaces, accommodation spaces, cabin balconies, machinery spaces and unattended machinery spaces a) control and indicating equipment b) power supply equipment c) heat detectors - point detectors d) smoke detectors: point detectors using scattered light, transmitted light or ionization e) flame detectors: point detectors f) manual call points g) short circuit isolators h) input/output devices i) cables	**S**	**MED (1) - TA (2)**								
22	ITEM DELETED										
23	Fixed low expansion foam fire-extinguishing system components **(5)** for machinery spaces and tanker deck protection	**S**	**MED (1) -TA (2)**								
24	ITEM DELETED										
25	Fixed water based local application fire-fighting system components **(5)** for use in category "A" machinery spaces	**B**	**MED (1) – TA (2)**								
26	ITEM DELETED										

Table P (Sheet 5 of 8)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
27	Galley exhaust duct fixed fire-extinguishing systems components **(5)**	**S**	**MED (1) – TA(2)**								
28	ITEM DELETED										
29	Helicopter facility foam fire-fighting appliances	**S**	**MED (1) – TA (2)**								
30	Inert gas system: a) Whole system b) single components: inert gas scrubbers c) single components: inert gas blowers	**B**	**MED (1) – TA (2)**								
30A	a) Inside air high expansion foam systems for the protection of machinery spaces, cargo pump rooms, vehicle and ro-ro spaces, special category spaces and cargo spaces b) Outside air high expansion foam systems for the protection of machinery spaces, cargo pump rooms, vehicle and ro-ro spaces, special category spaces and cargo spaces	**S**	**MED (1) – TA(2) (7)**								
31	ITEM DELETED										
31A	Medium expansion foam fire extinguishing systems components **(5)** fixed deck foam for tankers	**S**	**MED (1) - TA (2)**								
32	Non-portable and transportable extinguishers	**S**	**MED (1) - TA (2)**								
33	ITEM DELETED										
34	Fixed water-based fire-fighting systems for roro spaces, vehicle spaces and special category spaces: a) prescriptive-based systems as per IMO MSC.1/Circ.1430 b) performance-based systems as per IMO MSC.1/Circ. 1430	**S**	**MED (1) – TA (2)**								

Table P (Sheet 6 of 8)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
35	Nozzles for fixed pressure water-spraying fire-extinguishing systems for machinery spaces and cargo pump rooms	S	MED (1) - TA (2)								
35A	Nozzles for fixed pressure water-spraying fire-extinguishing systems for cabin balconies	S	MED (1) - TA (2)								
36	Portable oxygen analysis and gas detection equipment: a) category 1: (safe area) b) category 2: (explosive gas atmospheres)	B	MED (1) – TA (2)								
37	ITEM DELETED										
38	Portable fire extinguishers	S	MED (1) – TA (2)								
39	Portable fire extinguishers for lifeboats and rescue boats	S	MED (1) – TA (2)								
40	Portable foam applicator units	S	TA (4)								
41	Pressure bottles and vessels	SEE TABLE J									
42	Protective clothing resistant to chemical attack	S	TA (4)								
43	Pumps and compressors for fixed fire extinction systems	SEE TABLE K									
44	Sample extraction smoke detection system components : control and indicating equipment. Electrical installations in ships b) power supply equipment c) aspiring smoke detectors	S	MED (1) – TA (2)								
45	Self-contained compressed-air-operated breathing apparatus	S	MED (1) – TA (2)								

Table P (Sheet 7 of 8)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
46	Self-contained compressed-air-operated breathing apparatus for entry and work in gas-filled space	**S**	**MED (1) - TA (2)**								
47	Sprinkler systems (limited to sprinkler heads **(6)**	**S**	**MED (1) – TA (2)**								
48	Sprinkler systems components for accommodation spaces, service spaces and control stations equivalent to that referred to in SOLAS 74 Reg. II-2/12 (limited to nozzles and their performance)	**S**	**MED (1) – TA (2)**								
49	Dry chemical powder extinguishing systems	**S**	**MED (1) – TA (2)**								
50	Fixed hydrocarbon gas detection system	**S**	**MED (1) – TA (2)**								
51	Mobile water monitor for ships constructed on or after 1 January 2016 designed to carry five or more tiers of containers on or above the weather deck	**S**	**MED (1) – TA (2)**								
52	Fire-fighting hoses: — semi-rigid hoses for fixed systems	**S**	**MED (1) – TA (2)**								
53	Fixed firefighting hose systems — hose systems with lay-flat hose	**S**	**MED (1) – TA (2)**								
54	Paint lockers and flammable liquid lockers fire extinguishing systems components **(5)**	**S**	**TA (4)**								
55	Gaseous Fuel Systems Used for Domestic Purposes (components) **(5)**	**S**	**TA (4)**								
56	Fixed Gas Fire Extinguishing Systems (CO2) components **(5)**	**S**	**TA (4)**								

Table P (Sheet 8 of 8)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
57	Water Spraying Hand Operated System	**S**	**TA (4)**								

(1) For ships flying European Community Administration flags

(2) For ships flying non-European Community Administration flags, whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

(3) For ships flying the Italian flag

(4) For ships flying flags whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

(5) Applicable to a single component or a group of components or a whole system which needs to be tested to ensure that the applicable requirements are fulfilled.

(6) Nozzles for fixed sprinkler systems, for high speed craft (HSC) are included under this item

(7) Inside/Outside air high expansion foam systems for the protection of machinery spaces, cargo pump rooms, vehicle and ro-ro spaces, special category spaces and cargo spaces shall be tested with the approved concentrate to the satisfaction of the Administration.

Table Q : Workshop Inspections - Control, Monitoring and Alarm Systems *(1/7/2025)*

(Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
1	Actuators (electrical/electronic)	**C**	**TA**								
2	Alarm system (complete)	**C**	**CT**	**X**					**X**	**X (1)**	**X (1)**
3	Computers of Category II, III	**C**	**TA**								
3A	Computers of Category I	**C**	**MA**								
4	Consoles	**C**	**CT**	**X**					**X**	**X (1)**	**X (1)**
5	Control devices to computers of Category II, III	**C**	**TA**								
5A	Control devices to computers of Category I	**C**	**MA**								
6	Control system (complete)	**C**	**CT**	**X**					**X**	**X (1)**	**X (1)**
7	Electrical cables and apparatus	**SEE TABLE N**									
8	Hydraulic system	**SEE TABLE L**									
8A	Pneumatic system	**SEE TABLE K**									
9	Loading instruments	**B**	**TA (3)**								
10	Indicators, Instruments to computers of Category II, III	**C**	**TA**								
10A	Indicators, Instruments to computers of Category I	**C**	**MA**								
11	Monitoring system (complete)	**C**	**CT**	**X**					**X**	**X (1)**	**X (1)**
12	Peripherals to computers of Category II, III (keyboard, mouse, VDU, etc.)	**C**	**TA**								
12A	Peripherals to computers of Category I (keyboard, mouse, VDU, etc.)	**C**	**MA**								
13	Sensors	**C**	**TA**								
14	Software	**C**	**CT**	**TA**							**X (1) (2)**

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA-TION	FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS

(1) May be performed on board
(2) Review of software validation documentation and functional test of the whole system
(3) For ships whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

Table R : Workshop Inspections - Life-Saving Appliances

Table R (Sheet 1 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Automatically self-righting liferafts: a) inflatable b) rigid	S	MED (1) - TA (2)								
1A	Buoyant apparatus	S	ITA								
2	Buoyant smoke signals (pyrotechnics)	S	MED (1) - TA (2)								
3	Canopied reversible liferafts	S	MED (1) - TA (2)								
4	Daylight signal mirrors	S	ITA								
4A	Distress Signals	S	ITA (5)								
5	ITEM DELETED										
6	Embarkation ladders	S	MED (1) - TA (2)								
7	Fast rescue boat launching appliances (Davits)	S	MED (1) - TA (2)								
8	Fast rescue boats: a) inflated b) rigid c) rigid-inflated	S	MED (1) - TA (2)								
9	Float-free arrangements for liferafts (hydrostatic release units)	S	MED (1) - TA (2)								
9A	Float-free launching appliances for survival craft	S	TA (3)								
9B	Gyro-Compass Repeaters	S	ITA								
10	Hand flares (pyrotechnics)	S	MED (1) - TA (2)								
11	Immersion suit materials	S	TA (3)								

Table R (Sheet 2 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
12	Immersion suits and anti-exposure suits designed to be worn in conjunction WITH a life jackets: a) immersion suit without inherent insulation b) immersion suit with inherent insulation c) anti-exposure suits	**S**	**MED (1) - TA (2)**								
12A	Immersion suits and anti-exposure suits designed to be worn in conjunction WITHOUT a life jackets: a) immersion suit without inherent insulation b) immersion suit with inherent insulation c) anti-exposure suits	**S**	**MED (1) - TA (2)**								
13	Inflatable liferafts	**S**	**MED (1) - TA (2)**								
14	Inflated rescue boats	**S**	**MED (1) - TA (2)**								
15	ITEM DELETED										
16	Launching appliances for free-fall lifeboats	**S**	**MED (1) - TA (2)**								
17	Launching appliances using fall (davits) **(4)**	**S**	**MED (1) - TA (2)**								
18	Life jackets	**S**	**MED (1) - TA (2)**								
19	Lifeboat/rescue boat propulsion engine	**S**	**MED (1) - TA (2)**								
20	Lifeboats: a) Davit-launched lifeboats: - partially enclosed - totally enclosed	**S**	**MED (1) - TA (2)**								
20A	Lifeboat canopies	**S**	**ITA (6)**								
21	Lifebuoys	**S**	**MED (1) - TA (2)**								
22	Lifebuoys' self-activating smoke signals	**S**	**MED (1) - TA (2)**								
23	Liferaft launching appliances (Davits)	**S**	**MED (1) - TA (2)**								

Table R (Sheet 3 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
24	ITEM DELETED										
25	ITEM DELETED										
26	ITEM DELETED										
27	Line-throwing appliances	**S**	**MED (1) - TA (2)**								
28	Manual pumps for lifeboats	**S**	**ITA (3) (6)**								
29	Marine evacuation systems	**S**	**MED (1) - TA (2)**								
30	Means of rescue	**S**	**MED (1) - TA (2)**								
31	ITEM DELETED										
32	ITEM DELETED										
33	Open reversible liferafts	**S**	**MED (1) - TA (2)**								
34	Position-indicating lights for life-saving appliances: a) for survival craft and rescue boats b) for lifebuoys c) for lifejackets	**S**	**MED (1) - TA (2)**								
35	Public address and general alarm system (fire alarm excluded)	**S**	**TA (3)**								
36	Radar reflector for lifeboats and rescue boats (passive)	**S**	**MED (1) - TA (2)**								
37	Radar reflector for liferafts	**S**	**TA (3)**								
38	Red star hand flares	**S**	**ITA**								

Table R (Sheet 4 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
39	Release mechanism for: a) lifeboats and rescue boats (launched by a fall or falls) b) liferafts (launched by a fall or falls) c) for lifejackets	S	MED (1) - TA (2)								
40	Rescue boat propulsion engine – Outboard engines	S	MED (1) - TA (2)								
41	Retro-reflective materials	S	MED (1) - TA (2)								
42	Rigid liferafts	S	MED (1) - TA (2)								
43	Rigid rescue boats	S	MED (1) - TA (2)								
43A	Rigid-infilated rescue boats	S	MED (1) - TA (2)								
44	Rocket parachute flares (pyrotechnics)	S	MED (1) - TA (2)								
45	Searchlight for use in lifeboats and rescue boats	S	MED (1) - TA (2)								
46	Thermal protective aids	S	MED (1) - TA (2)								
46A	Water de-salting apparatus for lifeboats	S	ITA								
47	ITEM DELETED										

Table R (Sheet 5 of 5)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA-TION	FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
48	Winches for survival crafts and rescue boats: a) davit launched lifeboats b) free-fall lifeboats c) liferafts d) rescue boats e) fast rescue boats	**S**	**MED (1) - TA (2)**								

(1) For ships flying European Community Administration flags

(2) For ships flying non-European Community Administration flags, whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

(3) For ships flying flags whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

(4) Testing of steel ropes is required (see item 9 Table U)

(5) These "Distress Signals" are the "illustrated table" mentioned under reg. V/16 of SOLAS 74 as amended for which it can be used what is available on the market

(6) Upon authorisation from the Italian Administration, this equipment can be considered as part of the general approval of the lifeboat in accordance with the MED

Table S : Workshop Inspections - Navigating Equipment

Table S (Sheet 1 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA-TION	FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Search and rescue locating devices (SRLD) - 9 GHz SAR transponder (SART)	**S**	**MED (1) - TA (2)**								
1A	Bridge Navigational Watch Alarm System (BNWAS)	**S**	**MED (1) - TA (2)**								
2	ITEM DELETED										
3	ITEM DELETED										
4	Combined GPS/GLONASS equipment	**S**	**TA (4)**								
4A	Compass bearing device	**S**	**MED (1) - TA (2)**								
5	Magnetic compass (class B for lifeboats and rescue boats)	**S**	**MED (1) - TA (2)**								
6	Daylight signalling lamp	**S**	MED **(1) - TA (2)**								
7	DGPS equipment	**S**	**MED (1) - TA (2)**								
7A	DGLONASS equipment	**S**	**MED (1) - TA (2)**								
7B	Differential beacon receiver for DGPS and DGLONASS equipment	**S**	**MED (1) - TA (2)**								
8	Echo-sounding equipment	**S**	**MED (1) - TA (2)**								
9	Electronic chart display and information system (ECDIS) with backup, and raster chart display system (RCDS)	**S - C (3)**	**MED (1) - TA (2) (3)**								
9A	Electronic Inclinometer	**S**	**TA (4)**								
10	GLONASS equipment	**S**	**MED (1) - TA (2)**								

Table S (Sheet 2 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
10A	GNSS Equipment Incorporating one or more of the following elements: - GPS equipment - GLONASS equipment - DGPS Equipment - DGLONASS Equipment - Galileo Equipment - Beidou (BDS)	**S**	**MED (1) - TA (2)**								
11	GPS equipment	**S**	**MED (1) - TA (2)**								
12	Gyrocompass	**S**	**MED (1) - TA (2)**								
13	Gyrocompass for high speed craft	**S**	**MED (1) - TA (2)**								
14	Heading control system (HCS)	**S**	**MED (1) - TA (2)**								
14A	Heading control system for high speed craft	**S**	**MED (1) - TA (2)**								
15	ITEM DELETED										
16	Integrated navigation system	**S-C (3)**	**MED (1) - TA (2) (3)**								
17	ITEM DELETED										
18	ITEM DELETED										
19	Magnetic compass (class A for ships)	**S**	**MED (1) - TA (2)**								
19A	Magnetic compass (class B for lifeboats and rescue boats)	**S**	**MED (1) - TA (2)**								
20	ITEM DELETED										
20A	Nautical publications in digital form as defined by SOLAS V27	**S**	**TA (4)**								
21	Night vision equipment for high speed craft	**S**	**MED (1) -TA (2)**								

Table S (Sheet 3 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
21A	Pilot ladder	S	MED (1) - TA (2)								
22	Pitch indicator	S	MED (1) - TA (2)								
23	Propeller revolution indicator	S	MED (1) - TA (2)								
24	ITEM DELETED										
25	ITEM DELETED										
26	ITEM DELETED										
27	ITEM DELETED										
28	Radar equipment: - CA 1 - CAT 2 - CAT 3 - CAT 1H - CAT 2H	S	MED (1) - TA (2)								
29	Radar reflector - passive type	S	MED (1) - TA (2)								
30	Radar target enhancer	S	MED (1) - TA (2)								
31	Rate-of-turn indicator	S	MED (1) - TA (2)								
32	Rudder angle indicator	S	MED (1) - TA (2)								
32A	Search and rescue locating devices (SRLD) - AIS SART equipment	S	MED (1) - TA (2)								
33	Searchlight for high speed craft	S	MED (1) -TA (2)								
33A	Simplified voyage data recorde (S-VDR)	S	MED (1) - TA (2)								
34	Sound reception system	S	MED (1) - TA (2)								
35	Speed and distance measuring equipment (SDME)	S	MED (1) - TA (2)								

Table S (Sheet 4 of 4)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
36	Thrust indicator	**S**	**TA (2)**								
37	Track control system	**S**	**MED (1) - TA (2)**								
37A	Track control system for high-speed craft	**S**	**TA (4)**								
38A	Track control system (working at ship's speed from 30 knots and above)	**S**	**TA (4)**								
38	Transmitting heading device THD (GNSS method)	**S**	**MED (1) - TA (2)**								
39	Transmitting heading device THD (gyroscopic method)	**S**	**MED (1) - TA (2)**								
40	Transmitting heading device THD (magnetic method)	**S**	**MED (1) - TA (2)**								
41	ITEM DELETED										
42	ITEM DELETED										
43	Universal automatic identification system equipment (AIS)	**S**	**MED (1) - TA (2)**								
44	Voyage data recorder (VDR)	**S**	**MED (1) - TA (2)**								

(1) For ships flying European Community Administration flags

(2) For ships flying non-European Community Administration flags, whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

(3) For ships with **"SYS-NEQ"** class notation

(4) For ships flying flags whose Administrations recognise the certificates issued by TASNEEF or authorise TASNEEF to issue certificates on their behalf

Table T : Workshop Inspections - Radio-Communications Equipment

Table T (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	406 MHz EPIRB (COSPAS-SARSAT)	S	MED (1) (2)								
2	Aeronautical two-way WHF radiotelephone apparatus	S	MED (1) (2)								
3	ITEM DELETED										
4	EGC receiver	S	MED (1) (2)								
4A	Fire-fighter's two-way radiotelephone apparatus	S	MED (1) (2)								
5	Fixed survival craft two-way VHF radiotelephone apparatus	S	MED (1) (2)								
6	HF marine safety information (MSI) equipment (HF NBPD receiver)	S	MED (1) (2)								
7	ITEM DELETED										
8	Inmarsat-C SES	S	MED (1) (2)								
8A	Integrated communication system (ICS)	S	MED (1) (2)								
9	ITEM DELETED										
10	MF radio capable of transmitting and receiving DSC and radiotelephony	S	MED (1) (2)								
10A	MF/HF DSC scanning watch keeping receiver	S	MED (1) (2)								
11	MF/HF radio capable of transmitting and receiving DSC, NBPD and radiotelephony	S	MED (1) (2)								
12	MF, DSC watchkeeping receiver	S	MED (1) (2)								
13	NAVTEX receiver	S	MED (1) (2)								
14	Portable survival craft two-way VHF radiotelephone apparatus	S	MED (1) (2)								

Table T (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
14A	Ship Earth station for use in the GMDSS - Inmarsat C equipment	**S**	**MED (1) (2)**								
15	VHF DCS watchkeeping receiver	**S**	**MED (1) (2)**								
16	VHF radio capable of transmitting and receiving DSC and radiotelephony	**S**	**MED (1) (2)**								

(1) For ships flying European Community Administration flags

(2) TASNEEF is not authorised to issue MED certificates for radio-communications equipment

Table U : Workshop Inspections - Cargo Handling and Other Lifting Appliances

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Cargo gear accessories (blocks, rings, hooks, collars, swivels, terminals, etc.)	O	CT or CA	X (1)		XM (6)			X	X (2)	
2	Chains for hoists	O	CT or CA			XM				X (2) (4)	
3	Cranes, bridge cranes, motored hoists, elevators and ramps of movable decks	B	CT	X		X	X (7)	X	X		
4	Gall's chains	O	CT or CA	X (1)		XM			X	X (2) (4)	
5	Machinery for lifting appliances	O	CT or CA						X	X	X
6	Masts, posts and derricks	O	CT	X		X	X	X	X	X	X
7	Steel bars for chains	O	MA			XM					
8	Steel plate sections, forgings and castings for cargo masts, posts, derricks, cranes, cargo lifts, movable decks and elevators	O	CT or CA			X	X		X		
9	Steel ropes for rigging	O	CT or CA		X (3)					X (5) (4)	
10	Winches for cargo crane	B	MA			XM					
10A	Winches for fishing nets	B	MA			XM					

(1) If not conforming to a recognised Standard
(2) Proof tests
(3) When required by the Rules
(4) Breaking tests
(5) Other tests as required by the Rules
(6) X when required by the Rules
(7) When required by the rules and/or TASNEEF Surveyor

Table V : Workshop Inspections - Refrigerating Installations

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Cast iron or steel evaporator and condenser casings	SEE TABLE J (3)									
2	Coils	SEE TABLE K (3)									
3	Complete refrigerating units	C (1)	CT or CA	X					X	X (2)	X
4	Compressor coupling, connecting and piston rods	C (1)	CT or CA			X (4)	X		X		
5	Compressor liners, cylinder heads and other parts subject to pressure	C (1)	CT or CA			X (4)	X		X	X (2)	
6	Compressors	C (1)	CT or CA						X	X (2)	X
7	Compressor crankshaft	C (1)	CT or CA			X (4)	X		X		
8	Condensers and evaporators	SEE TABLE J (3)									
9	Control, monitoring and alarm systems	SEE TABLE Q									
10	Electrical apparatus	SEE TABLE N									
11	Material for refrigerated chamber insulation	C (1)	MA								
12	Oil separators, intermediate receivers and pressure vessels	SEE TABLE J (3)									
13	Piping for refrigerating system, brine system, air system, defrosting system, etc.	SEE TABLE K (3)									
14	Refrigerant	C (1)	MA								
15	Regulating valves	SEE TABLE K (3)									
16	Thermometers	SEE TABLE Q									

(1) For ships with **"REF"** class notation
(2) Hydrostatic test and leak test
(3) For ships with **"REF"**class notation, in addition to the tests required in Tables J and K, the leak test is also to be carried out as required by the Rules
(4) XM for compressors having power not exceeding 100 kW

Table W : Workshop Inspections - Air Conditioning and Ventilation Plants

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Air treatment units	C (1)	CT or CA	X					X	X (2)	X
2	Control, monitoring and alarm systems (1)	SEE TABLE Q									
3	Duct penetrations	SEE TABLE O									
4	Ducts	SEE TABLE K									
5	Electrical apparatus	SEE TABLE N									
6	Fans	C (1) (3)	CT or CA						X	X (4)	
7	Filters	SEE TABLE J									
8	Heat exchangers	SEE TABLE J									
9	Insulation	C (1)	MA								
10	Refrigerating unit	C (1)	CT or CA	X					X	X (2)	X
11	Thermal unit	C (1)	CT or CA	X					X	X (2)	X

(1) For ships with **" COMF-AIR "** class notation

(2) Hydrostatic test of pressure parts

(3) Applicable to fans used in essential services such as:
- machinery spaces of category A,
- spaces containing the emergency source of power,
- safe areas (for SRtP condition purposes),
- hazardous spaces.

(4) 20% over speed and dynamic balance

Table X : Workshop Inspections - Lifts

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICA-TION**	**FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
1	Car	**S (1)**	**CT or CA**	**X**					**X**		
2	Fireproof doors	**SEE TABLE O**									
3	Guides	**S (1)**	**CT or CA**	**X**		**X**			**X**		
4	Hydraulic plant	**SEE TABLE L**									
5	Lift (complete)	**S (1)**	**CT**	**X**					**X**		
6	Plates and profiles for car and frames	**S (1)**	**CT or CA**			**X**					
7	Starters and switchboard	**SEE TABLE N**									
8	Steel ropes	**S (1)**	**CT or CA**							**X (2)**	

(1) Only for Italian flag ships
(2) Breaking strength test

Table Y : Workshop Inspections - Installations for Oil Carriers and Chemical Carriers *(1/7/2025)*

Table Y (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
1	Cargo piping	**SEE TABLE K**									
2	Cargo pumps	**C**	**CT or CA**			**XM**			**X**	**X (1)**	**X**
3	Cargo pump prime movers	**SEE TABLE D, F, G AS APPLICABLE**									
4	Coatings for cargo tanks	**C**	**MA**								
5	Control, monitoring and alarm systems	**SEE TABLE Q**									
6	Crude oil washing machines	**C**	**TA**								
7	Devices to prevent the passage of flame into cargo tanks	**SEE TABLE O**									
8	Emergency towing arrangements on tankers	**B**	**CT or CA**	**TA**		**X**	**X**	**X**	**X**	**X (3)**	
9	Expansion joints	**SEE TABLE K**									
10	Fans in cargo area	**C**	**CT or CA**						**X**	**X (4)**	**X**
11	Flexible cargo hoses	**SEE TABLE K**									
12	Inert gas generators	**SEE TABLE J**									
13	Inert gas plant	**SEE TABLE P**									
14	Level indicators	**SEE TABLE K**									
15	Penetrations of motor shafts through gas-tight bulkheads	**C**	**CT or CA**	**X (7)**						**X**	
16	Pressure vacuum valves	**C**	**CT or CA**	**TA**					**X**	**X**	
17	Safety valves	**SEE TABLE K**									

Table Y (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICA-TION**	**FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
18	Stainless steel plates and profiles for cargo tanks	**C**	**CT or CA**		**X (5)**	**X**	**X (6)**		**X**	**X**	

(1) Hydrostatic test

(2) If production control is not integrated in the TA

(3) Proof load test

(4) Dynamic balance and 20% overspeed test. During the dynamic balance the attendance of the TASNEEF Surveyor is not required. Check of compliance with anti-sparking proper-ties, as required by the Rules

(5) The acceptance of products supplied by unapproved Manufacturers may be considered for limited supplies and additional tests may be required

(6) As required by the Rules

(7) It may be TA

Table Z : Workshop Inspections - Installations for Ships Carrying Liquefied Gas

Table Z (Sheet 1 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Aluminium alloy plates and profiles for independent cargo tanks	C	CT or CA		X (1)	X	X (2)		X	X	
2	Boil-off warm-up heaters	SEE TABLE J									
2A	Bunkering hoses	C	CT or CA	TA					X	X (4)	
3	Cargo piping insulation	C	CT or CA	TA						X	
4	Cargo pumps (main, stripping and emergency)	C	CT or CA	TA		X			X	X (4)	X
5	ITEM DELETED										
6	Control valves for glycol heating system and inert gas system	C	CT or CA			XM			X	X (4)	
7	Cryogenic cargo hoses	C	CT or CA	TA		X	X (2)		X	X (4)	
8	Custody transfer system	SEE TABLE Q									
8A	Emergency release coupling (ERC)	SEE TABLE K									
9	Emergency shutdown system	SEE TABLE Q									
10	Emergency towing arrangements on tankers	SEE TABLE Y									
11	Expansion joints for cargo lines	C	CT or CA	TA		X	X (2)		X	X (4)	
12	Filters	SEE TABLE J									
13	Forcing vaporiser	SEE TABLE J FOR PRESSURE PARTS									
14	Gas detection system	SEE TABLE P, Q									
15	Gas vaporisers	SEE TABLE J FOR PRESSURE PARTS									

Table Z (Sheet 2 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
16	ITEM DELETED										
17	Heat exchangers	SEE TABLE J									
18	Cargo compressors	C	CT or CA	X		X	X		X	X	X
19	Inert gas generator	SEE TABLE J									
20	Insulation material for cargo tanks	C	CT or CA	TA						X	
21	Level gauge for cargo tanks	C	CT or CA	X		X	X		X	X	
22	ITEM DELETED										
23	Nitrogen generator	SEE TABLE J									
24	Pipes for cargo lines	C	CT or CA		X (1)	X (6)	X (2)		X	X	
25	Pipes for cofferdam heating system	SEE TABLE K									
26	Pipes for insulation space pressurisation	SEE TABLE K									
26A	Quick connect disconnect coupler (QCDC)	SEE TABLE K									
27	Refrigerating units	SEE TABLE V									
28	Safety valves, valves and fittings for cargo piping	C	CT	TA (5)	X	X (3)	X		X	X (4)	X
29	Safety valves for cargo tanks and interbarrier spaces	C	CT or CA	TA	X	X	X (2)		X	X (4)	X
30	ITEM DELETED										
31	ITEM DELETED										
32	ITEM DELETED										

Table Z (Sheet 3 of 3)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICATION	FINAL INSPECTION AND/OR CONFORMITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
33	Stainless steel for plates for membrane tanks	C	CT or CA		X (1)	X	X (2)		X	X	
34	Steel plates and profiles for independent cargo tanks	C	CT or CA		X (1)	X	X (2)		X	X	
35	Structural supports for independent tanks	C	CT or CA		X (1)	X	X (2)		X	X	
36	Temperature and pressure sensors installed in secondary insulation space, cofferdams, ballast tanks, etc.	SEE TABLE Q									
36A	Transfer pumps	C	CT or CA	TA		X			X	X (4)	X
37	Valve remote control system for cargo and ballast system	SEE TABLE Q									
38	Water detector in insulation space	SEE TABLE Q									
39	Fans in cargo area	SEE TABLE Y									

(1) The acceptance of products supplied by unapproved Manufacturers may be considered for limited supplies and additional tests may be required
(2) As required by the Rules
(3) XM when the diameter is less than 50 mm
(4) Hydrostatic test
(5) Type test for pumps and valves with minimum working temperature below -55° C
(6) XM for outer pipes of double wall cargo piping arrangements with diameter less than 100 mm

Table Z-1 : Workshop Inspections - Installations for Ships Using Gases or Other Low Flash Point Fuels

Table Z -1 (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/OR MANUFAC-TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA-TION	FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
1	Aluminium alloy plates and profiles for independent fuel tanks	C	CT or CA		X (1)	X	X (2)		X	X	
2	Boil-off warm-up heaters	SEE TABLE J									
3	Fuel piping insulation	C	CT or CA	TA						X	
4	Fuel pumps (main, stripping and emergency)	C	CT or CA	TA		X			X	X (4)	X
5	Control valves for glycol heating system and inert gas system	C	CT or CA			XM			X	X (4)	
6	Cryogenic fuel hoses	C	CT or CA			X	X (2)		X	X (4)	
7	Custody transfer system	SEE TABLE Q									
8	Emergency shutdown system	SEE TABLE Q									
9	Emergency towing arrangements on tankers	SEE TABLE Y									
10	Expansion joints for fuel lines	C	CT or CA	TA		X	X (2)		X	X (4)	
11	Filters	SEE TABLE J									
12	Forcing vaporiser	SEE TABLE J FOR PRESSURE PARTS									
13	Gas detection system	SEE TABLE P, Q									
14	Gas vaporisers	SEE TABLE J FOR PRESSURE PARTS									
15	Heat exchangers	SEE TABLE J									
16	Fuel compressors	C	CT or CA	X		X	X		X	X	X
17	Inert gas generator	SEE TABLE J									

Table Z -1 (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	11	12
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**TYPE OF CERTIFICATE**	**DRAWING OR DESIGN APPROVAL**	**MANUFACTURER AND/OR MANUFACTURING PROCESS APPROVAL**	**MATERIAL TESTING**	**NDT**	**SHOP ATTENDANCE DURING FABRICATION**	**FINAL INSPECTION AND/OR CONFORMITY VERIFICATION**	**FINAL TESTS**	**FUNCTIONING TESTS**
18	Insulation material for fuel tanks	**C**	**CT or CA**	**TA**						**X**	
19	Level gauge for fuel tanks	**C**	**CT or CA**	**X**		**X**	**X**		**X**	**X**	
20	Nitrogen generator	**SEE TABLE J**									
21	Pipes for fuel lines	**C**	**CT or CA**	**X (1)**		**X**	**X (2)**		**X**	**X (4)**	
22	Pipes for cofferdam heating system	**SEE TABLE K**									
23	Pipes for insulation space pressurisation	**SEE TABLE K**									
24	Refrigerating units	**SEE TABLE V**									
25	Safety valves, valves and fittings for fuel piping	**C**	**CT or CA**	**TA (5)**	**X**	**X (3)**	**X**		**X**	**X (4)**	**X**
26	Safety valves for fuel tanks and interbarrier spaces	**C**	**CT or CA**	**TA**	**X**	**X**	**X (2)**		**X**	**X (4)**	**X**
27	Stainless steel for plates for membrane tanks	**C**	**CT or CA**		**X (1)**	**X**	**X (2)**		**X**	**X**	
28	Steel plates and profiles for independent fuel tanks	**C**	**CT or CA**		**X (1)**	**X**	**X (2)**		**X**	**X**	
29	Structural supports for independent tanks	**C**	**CT or CA**		**X (1)**	**X**	**X (2)**		**X**	**X**	
30	Temperature and pressure sensors installed in secondary insulation space, cofferdams, ballast tanks, etc.	**SEE TABLE Q**									
31	Valve remote control system for fuel and ballast system	**SEE TABLE Q**									
32	Water detector in insulation space	**SEE TABLE Q**									
33	Fans in gas fuel system spaces area	**SEE TABLE Y**									

(1) The acceptance of products supplied by unapproved Manufacturers may be considered for limited supplies and additional tests may be required
(2) As required by the Rules
(3) XM when the diameter is less than 50 mm
(4) Hydrostatic test
(5) Type test for pumps and valves with minimum working temperature below -55° C

CHAPTER 7 REQUIREMENTS FOR INSPECTION AND TESTING OF PRODUCTS AT SHIPYARDS

1 General

1.1 Purpose

1.1.1 The following tables list the equipment and the materials that require the completion of inspection and testing during and/or after installation on board.

1.1.2 These tables are not to be considered as an alternative or substitute for the applicable Rule requirements. They are intended to summarise in one document a large number of requirements located in various parts of various documents. In the event of discrepancy between the content of the tables and the applicable Rules or Standards, the latter are to be considered valid.

1.1.3 Products which are not considered in the following tables are to be dealt with as indicated in the applicable Rules and/or using the criteria stipulated in the tables for similar equipment, as agreed with the Society.

2 Content of the tables

2.1 Columns

2.1.1 The following tables have 10 columns, as follows:

- **COLUMN 1:**

  supplies an identification number for the equipment or material considered
- **COLUMN 2:**

  supplies a description of the equipment considered
- **COLUMN 3:**

  indicates whether the certification of the product is required for the classification of the ships by TASNEEF Rules or by different requirements.
- **COLUMN 4:**

  indicates whether the Rules require the verification against approved drawings
- **COLUMN 5:**

  indicates whether the Rules require the verification of conformity before installation on board. This verification may consist of an examination of the documents relative to the tests carried out at the workshop, a check of the marks or, for type approved products, a test to verify the conformity of the product with the approved prototype
- **COLUMN 6:**

  indicates whether the Rules require that fabrication and installation on board are attended by a TASNEEF Surveyor
- **COLUMN 7:**

  indicates whether the Rules require that all or some of the welds executed on board during installation are subjected to NDT in the presence of the TASNEEF Surveyor or under his control
- **COLUMN 8:**

  indicates whether the Rules require that the product/equipment is examined by the TASNEEF Surveyor after completion of its installation on board
- **COLUMN 9:**

  indicates whether the Rules require that final tests are carried out in the presence of a TASNEEF Surveyor after installation on board (see Chapter 2 [2.9])
- **COLUMN 10:**

  indicates whether the completed equipment is to be subjected to a functioning and/or performance test or trial in the presence of the TASNEEF Surveyor after installation on board (see Chapter 2, [2.9]).

Table A : Shipboard and Shipyard Inspections - Hull Structures

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERIFICATION**	**INSPECTIONS DURING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
1	Connections of aluminium structures to steel structures	C			X (1)	X (2)	X		
2	Fixed propeller nozzles	C	X		X (1)	X (2)	X		
3	Machinery foundations	C	X				X		
4	Main engine foundations	C	X		X (1)	X (2)	X		
5	Shafting line bearing supports	C					X		
6	Welded divisional non-structural bulkheads and decks	C					X		
7	Welded strength structures	C	X		X (1)	X (2)	X		
8	Welding for cast or forged steel for stem, stern post, rudder horn, rudder frames, shaft brackets, hawsepipes	C	X		X (1)	X (2)	X		

(1) Including welding procedures

(2) When required by the Rules and/or by TASNEEF Surveyors

Table B : Shipboard and Shipyard Inspections - Hull Fittings and Hull Equipment *(1/7/2025)*

Table B (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Anchor windlasses	C	X	X	X	X (2)	X		X (4)
1A	Ball type air pipe closing devices	B	TA	X			X		
2	Bilge keels	C			X (1)	X (2)	X		
2A	Bow chain stopper for SPM ships	C	TA	X			X		
3	Bulwark and railings	B	X				X		
4	Electric motors and electrical apparatus for products 7, 11, 17, 19	C	SEE TABLE N						X
5	Gangways	C					X		
5A	Gear for operating watertight doors replacing hand operated sliding doors with an all round crank motion	B	TA	X			X		X
6	Hatch covers, shell and bottom doors, bow visor, loading ramps, movable decks	B	X	X	X (1)	X (2)	X	X (3)	X
7	Hull fittings for mooring or towing, without rotating components (bollards, bitts, chocks)	C		X			X		
7A	Hull fittings for mooring or towing, with rotating components (fairleads, rollers)	C		X			X		X
8	Hydraulic plants for products 7, 11, 17, 19	C	SEE TABLES K-L						X
9	Propeller brackets	C	X		X (1)	X (2)	X		
10	Scuppers	C	X	X			X		

Table B (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
11	Securing devices for hatch covers and shell doors	B	X	X	X (1)	X (2)	X	X (2)	X
12	Sidescuttles and deadlights	B	X	X			X		
13	Stairs and ladders	C					X		
14	Steel or aluminium alloy masts	C					X		
15	Tow hooks	C		X	X	X		X	
15A	Towing winches	C	X	X		X (2)	X		X
16	Valves for sea inlet and overboard discharge	B	X	X	X (1)	X (2)	X	X	X
16A	Watertight cable transits	B	TA	X	X		X		
17	Watertight doors	B	X	X	X (1)	X (2)	X	X (3)	X
18	Weathertight doors	B		X			X	X (3)	

(1) Including welding procedures
(2) When required by the Rules and/or by TASNEEF Surveyors
(3) Hose test
(4) Including functioning test of emergency release system, where fitted.

Table C : Shipboard and Shipyard Inspections - Rudders and Steering Gear

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERIFI-CATION**	**INSPECTIONS DUR-ING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
1	Actuators for steering gears	**C**	**X**	**X**			**X**	**X**	**X (1)**
2	Electric motors and electrical apparatus	**C**	**SEE TABLE N**						**X (1)**
3	Hydraulic plant	**C**	**SEE TABLE K-L**						**X (1)**
4	Rudders	**C**	**X**	**X (2)**	**X**		**X**	**X (2)**	**X (1)**
5	Steering gears	**C**	**X**	**X (2)**	**X**		**X**	**X (3)**	**X (1)**

(1) Sea trials
(2) For complete products or for components if the item is fabricated on board
(3) Hydrostatic tests as applicable for pressure parts

Table D - E : Shipboard and Shipyard Inspections - Diesel Engines and Accessories

Table D -E (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Air, water and oil coolers	C	SEE TABLE J						X (1)
2	Clutches	C	SEE TABLE H-I						X (1)
3	Control, monitoring and alarm systems	C	SEE TABLE Q						X (1)
4	Cooling water, lubricating oil, fuel oil injection and fuel oil transfer pumps	C		X				X (2)	X (1)
5	- Diesel engines (complete) intended for main propulsion, or - Diesel engines (complete) developping a power of 110 kW and over intended for: a) driving electrical generator; b) other auxiliary services essential for safety and navigation; c) driving cargo pumps in tankers;	C		X	X		X		X (1)
6	Diesel engines for non-essential service and engines for essential service of less than 110 kW	C							X (1)
7	Ejectors	C		X					X (1)
8	ITEM DELETED								
9	Electrical apparatus	C	SEE TABLE N						X (1)
10	Fuel oil and lubricating oil purifiers	C		X			X	X (2)	X (1)
10A	Oil mist detector	C	TA	X					X (1)
11	Piping systems	SEE TABLE K-L							
12	Power generation sets	C	SEE TABLE N						X (1)
13	Pressure filters	C		X			X	X (2)	X (1)

Table D -E (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFI-CATION	INSPECTIONS DUR-ING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
14	Scavenging pumps	C		X				X (2)	X (1)
15	Silencers	C	X					X (2)	X (1)
16	Starting air compressors	C		X					X (1)
17	Starting motors – electric	C		X (3)					X (1)
18	Starting motors – hydraulic or pneumatic	C		X (3)					X (1)
19	Turbocharger(Category A and B)	C					X		X (1)
20	Turbocharger (Category C)	C	TA	X			X		X (1)
21	ITEM DELETED								

(1) Sea trials
(2) In connection with the hydrostatic test of the plant which they are part of
(3) Only for starting motors intended for diesel engines in item 5

Table F : Shipboard and Shipyard Inspections - Steam Turbines

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFI-CATION	INSPECTIONS DUR-ING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Clutches	C	SEE TABLE H-I						X (1)
2	Control, monitoring and alarm systems	C	SEE TABLE Q						X (1)
3	Couplings	C	SEE TABLE H-I						X (1)
4	Dump condenser	C	X (2)	X	X		X	X	X (1)
5	Electrical apparatus	C	SEE TABLE N						X (1)
6	Main condensers	C	X (2)	X	X		X	X	X (1)
7	Piping systems	SEE TABLE J							
8	Safety valves	C		X			X		X (1)
9	Turbines (complete)	C	X (2)	X	X		X	X	

(1) Sea trials
(2) As far as installation is concerned

Table G : Shipboard and Shipyard Inspections - Gas Turbines

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERI-FICATION**	**INSPECTIONS DUR-ING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
1	Clutches	**C**	**SEE TABLE H-I**						**X (1)**
2	Control, monitoring and alarm systems	**C**	**SEE TABLE Q**						**X (1)**
3	Couplings	**C**	**SEE TABLE H-I**						**X (1)**
4	Electrical apparatus	**C**	**SEE TABLE N**						**X (1)**
5	Piping systems	**SEE TABLE J**							
6	ITEM DELETED								
7	Starting motors – electric	**C**		**X**					**X (1)**
8	Starting motors – hydraulic or pneumatic	**C**		**X**					**X (1)**
9	Turbines (complete)	**C**	**X (2)**	**X**	**X**		**X**	**X**	**X (1)**

(1) Sea trials
(2) As far as installation is concerned

Table H - I : Shipboard and Shipyard Inspections - Reduction and Reverse Gears, Propellers, Main Shafting and Thrusters

Table H - I (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Cardan shafts	C	X	X	X		X		
2	Clutches	C		X			X		X (1)
3	Control, monitoring and alarm systems	C	SEE TABLE Q						X (1)
4	Controllable pitch propeller and built-up propeller	C	X	X	X		X	X	X (1)
5	Controllable pitch propeller hydraulic control system	C	SEE TABLE K-L						X (1)
6	Couplings	C	X	X			X		X
7	Elastic coupling	C	X (2)	X			X		X (1)
8	Hydraulic couplings	C	X (2)	X			X		X (1)
9	Intermediate shafts	C	X		X		X		
10	Propeller nuts	C	X				X		
11	Propellers (solid)	C	X	X	X		X		
12	ITEM DELETED								
13	Reduction and/or reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	X (2)	X	X		X		X (1)
14	Reduction and/or reverse gears others than those indicated in item 13	C							X (1)
15	Sterntube bushes (oil lubricated, water lubricated, grease lubricated)	C	X	X			X		
16	Sterntube sealing	C		X			X	X	
17	Tailshaft liners	C	X	X	X		X		

Table H - I (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
18	Tailshafts	C	X		X		X		
19	Teeth coupling	C	X (2)	X			X		X (1)
20	Thrust shafts	C	X		X		X		
21	Thrust sliding-blocks	C		X			X		
22	Thrusters (propulsion and steering thrusters, transverse thrusters, podded propulsors, water-jets)	C	X (2)	X	X		X		X (1)

(1) Sea trials
(2) As far as installation is concerned

Table J : Shipboard and Shipyard Inspections - Boilers, Pressure Vessels and Heat Exchangers

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFI-CATION	INSPECTIONS DUR-ING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Boilers	C	X (1)	X	X (2)	X (3)	X	X (4)	X (4)
2	Bottles	C		X					
3	Class 1 pressure vessels and heat exchangers	C		X			X	X (4)	
4	ITEM DELETED								
5	Class 2 pressure vessels and heat exchangers	C		X			X	X (4)	
6	ITEM DELETED								
7	Class 3 pressure vessels and heat exchangers	C		X				X (4)	
8	Condensers	C	X (1)	X			X	X (4)	X (4)
9	Control, monitoring and alarm systems	C	SEE TABLE Q						X (4)
10	Cylinders for hydraulic plants	C	X (1)	X			X	X (4)	X (4)
11	Oil fired thermal oil heaters, exhaust gas thermal oil heaters	C	X (1)	X	X (2)	X (3)	X	X (4)	
12	ITEM DELETED								
13	Safety valves	C		X			X		X
14	Steam heated generators or steam generators heated by another fluid	C	X (1)	X	X (2)	X (3)	X	X (4)	X (4)

(1) As far as installation is concerned
(2) Welding procedures for parts welded on board
(3) On welds whenever required by the Rules or by TASNEEF Surveyors

(4) As part of the plant which the item is part of

Table K - L : Shipboard and Shipyard Inspections - Piping Systems and Hydraulic Plants

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFI-CATION	INSPECTIONS DUR-ING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Actuators	C	X	X			X	X	X (1)
2	Centrifugal separators	C		X			X	X (2)	X (1)
3	Compressors (complete)	C		X			X		X (1)
4	Control, monitoring and alarm systems	C	SEE TABLE Q						X (1)
5	Electrical apparatus	C	SEE TABLE N						X (1)
6	Hydraulic motors	C		X			X	X (2)	X (1)
7	Hydraulic motors for propulsion	C	X	X			X	X (2)	X (1)
8	Prime movers (diesel engines)	C	SEE TABLE D-E						X (1)
9	Prime movers (electric motors)	C	SEE TABLE N						X (1)
10	Pumps (complete)	C		X			X	X (2)	X (1)
11	Safety valves	C		X			X		X
12	Systems (complete)	C	X	X (3)	X (4)	X (5)	X	X (2)	X (1)

(1) Sea trials
(2) Hydrostatic test of the whole plant
(3) For components
(4) Including welding procedures
(5) Whenever required by the Rules and/or by TASNEEF Surveyors

Table M : Shipboard and Shipyard Inspections - Marine Pollution Prevention

(Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Equipment using other equivalent methods to reduce on board NOx emissions	C (1)	X (1) (2)	X (1)			X (1)		X (1)
2	Garbage disposal systems	C (1)	X (1) (2)	X (1)			X (1)		X (1)
3	Oil content meters	S (3) (4)-C (1)	X (2) (5)	X (5) (6)			X (3) (5)		X (3) (5)
4	Oil discharge monitoring and control system for an oil tanker	S (3) (4)-C (1)	X (2) (5)	X (5) (6)			X (3) (5)		X (3) (5)
5	Oil/water interface detectors	S (3) (4)-C (1)	X (2) (5)	X (5) (6)			X (3) (5)		X (3) (5)
6	Oil-filtering equipment (for an oil content of the effluent not exceeding 15 p.p.m.)	S (3) (4)-C (1)	X (2) (5)	X (5) (6)			X (3) (5)		X (3) (5)
7	On board exhaust gas cleaning system	C (1)	X (2) (1)	X (1)			X (1)		X (1)
8	NOx analyser permanently placed on board and for use on board as per NOx Technical Code 2008	S (3) (4) - C (1)	X (2) (5)	X (5) (6)			X (3) (5)		X (3) (5)
9	Equipment using other technological methods to limit SOx emissions	S (3) (4) - C (1)	X (2) (5)	X (5) (6)			X (3) (5)		X (3) (5)
10	Process units intended for attachment to existing oily water separating equipment (for an oil content of the effluent not exceeding 15 p.p.m.)	S (3) (4)-C (1)	X (2) (5)	X (5) (6)			X (3) (5)		X (3) (5)
11	Sewage treatment plants	S (3) (4)-C (1)	X (2) (5)	X (5) (6)			X (3) (5)		X (3) (5)
12	Shipboard incinerators	S (3) (4)-C (1)	X (2) (5)	X (5) (6)			X (3) (5)	X	X (3) (5)
13	On board NOx analysers using a measurement method other than the Direct Measurement and Monitoring Method of the NOx Technical Code 2008	C (1)	X (1) (2)	X (1)			X (1)		X (1)
14	Ballast water treatment system	S-C	X	X			X		X

(Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFI-CATION	INSPECTIONS DUR-ING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST

(1) For ships with **"clean"** class notation

(2) As far as the installation is concerned

(3) For ships flying European Community Administration flags subject to the MED Directive

(4) For ships flying non-European Community Administration flags, on behalf of which TASNEEF issues statutory certificates

(5) For ships with **"clean"**class notation and for ships flying the flag of a State not belonging to the European Community on behalf of which TASNEEF issues statutory certificates

(6) For products covered by MED directive requirements, Type Approval (Module B), Production Control Certificates (Module D/E, F or G) and EU DoC are to be verified by the Surveyor

Table N : Shipboard and Shipyard Inspections - Electrical Installations

Table N (Sheet 1 of 3)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Batteries for essential and/or emergency services	C		X					
1A	Batteries for battery powered ships	C	X	X			X		X
1B	Control, monitoring and alarm system for battery powered ships	SEE TABLE Q							
1C	Fuel cells	C	X	X			X		X
1D	Control, monitoring and alarm system for fuel cells	SEE TABLE Q							
2	Battery chargers	C		X					X
3	Circuit-breakers, contactors, disconnectors, etc., with nominal current greater than 100 A	C		X			X		X
4	Circuit-breakers, contactors, disconnectors, etc., with nominal current of 100 A or less	C							X
5	Cold weather starting of generator sets (starting devices)	C							X
6	Complete power generation sets	C	X	X			X		X
7	Distribution panels and single starters of voltage greater than 1000 V	C		X	X		X		X
8	Electrical cables	C	X	X			X	X	X
9	Electric motors intended for propulsion	C		X			X		
10	Electric safety lamps	SEE TABLE O-P							
11	Electrical appliances for hazardous areas	SEE TABLE O-P							
11A	Miscellaneous electric equipment (lighting fittings, heating and cooking appliances, plug and socket connection, accessories)	C					X		X
12	Electronic components and computers	C		X					

Table N (Sheet 2 of 3)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFI-CATION	INSPECTIONS DUR-ING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
12A	Electronic devices for alarm, safety and control of electrical convertors for primary essential services	SEE TABLE Q							
13	Low voltage distribution panels and single starters having nominal current greater than 100 A		X						X
14	Low voltage distribution panels and single starters having nominal current of 100 A or less except those intended for steering gear motors	C	X	X			X	X	X
15	Low-locating lighting systems	C							X
16	Main and emergency switchboards	C	X	X			X	X	X
17	Navigation equipment	C	X	X			X	X	X
18	Navigation lights	S		X					X
19	Navigation light switchboards	S		X			X		X
20	Rotating machines for essential services of 100 kW and over (100 kVA for generators)	C	X	X			X	X	X
21	Rotating machines for essential services of less than 100 kW (100 kVA for generators)	C		X			X		X
22	Semiconductor converters	C							X
23	Sound signal appliances	C		X			X		X
24	Starters for steering gear motors	B		X			X		X
25	Switchboards and panels related to alarm systems	C	X	X			X	X	X
26	Switchboards for watertight door, side door and fire door control, monitoring and alarm	C	X	X			X	X	X
27	Transformers for essential services of 100 kVA (60 kVA for single phase transformers) and above	C							X
28	Transformers for essential services of less than 100 kVA (60 kVA for single phase transformers)	C		X	X		X		X

Table N (Sheet 3 of 3)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
28A	Uninterruptible power system (UPS) units of 50 kVA and over	C		X	X		X		X
29	Cable trays/protective casings of plastic materials	C		X			X		
30	Busbar trunking system (outside of switchboards, distribution boards)	C		X			X	X	X
31	Harmonic filters	C					X	X	X
32	HVSC (high voltage shore connection, cold ironing, shore side electricity)	C					X	X	X
33	Internal communication device (automatic exchange telephone, common battery telephone, sound powered telephone)	B					X		X
34	Engine telegraph	B					X		X

Table O - P : Shipboard and Shipyard Inspections - Fire Protection *(1/1/2026)*

Table O - P **(Sheet 1 of 8)**

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERIFICATION**	**INSPECTIONS DURING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
1	Class divisions, fire integrity: a) 'A' class division b) 'B' class division c) 'C' class division	**S (1) (2)**	**X**	**X (3)**	**X**			**X**	
2	Air supplied breathing apparatus for use with a smoke helmet or smoke mask	**S (1) (2)**		**X (3)**			**X**		
2A	Fire alarm devices (sounders)	**S (1) (2)**		**X (3)**					
3	Alternative arrangements for halon fire-extinguishing system components in machinery spaces and pump rooms - equivalent water-based fire-extinguishing system components **(5)**	**B (1) (2)**		**X (3)**					
4	Bedding components	**S (1) (2)**		**X (3)**					
5	ITEM DELETED								
6	Cold weather starting of generator sets (starting devices)	**B (1) (4)**		**X**					**X**
7	Concentrate for fixed high expansion foam fire-extinguishing systems for machinery spaces and cargo pump rooms	**S (1) (2)**		**X (3)**					
8	Deep-fat cooking equipment fire-extinguishing systems (automatic or manual type)	**S (1)**	**X**		**X**		**X**	**X**	**X**
9	Nozzles for deep-fat cooking equipment fire- extinguishing systems (automatic or manual type)	**S (1) (2)**		**X (3)**					
10	ITEM DELETED								

Table O - P (Sheet 2 of 8)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
11	Devices to prevent the passage of flame into the cargo tanks in oil tankers: a) P/V valves b) flame arresters c) detonation flame arresters d) high velocity vent valves	S (1) (2)		X (3)			X		
12	Draperies, curtains and other suspended textile materials and films	S (1) (2)		X (3)					
13	ITEM DELETED								
14	Dual purpose type nozzles (spray/jet type)	S (1)(2)		X (3)					
15	Electric safety lamps	S (1)		X					
16	Electrical cables and apparatus for hazardous areas	SEE TABLE N							
17	Emergency escape breathing devices (EEBD)	S (1) (2)		X (3)			X		
18	Equivalent fixed gas fire-extinguishing systems for machinery spaces (aerosol systems)	S (1) (2)	X	X (3)	X		X	X	X
19	ITEM DELETED								
20	Equivalent fixed gas fire-extinguishing systems for cargo pump rooms	S (1)	X		X		X	X	X
21	Equivalent fixed gas fire extinguishing system components (extinguishing medium, head valves and nozzles) for machinery spaces and cargo pump rooms	S (1) (2)		X (3)					
22	Expansion foam for fixed fire-extinguishing systems for chemical tankers	S (1) (2)		X (3)					
23	ITEM DELETED								
24	Fire dampers	S (1) (2)	X	X (3)			X		X
25	Fire dampers for high speed craft	B (1) (2)	X	X (3)			X		X
26	Fire doors	S (1) (2)	X	X (3)	X		X		X

Table O - P (Sheet 3 of 8)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
27	Fire doors control systems	S (1)	X		X		X	X	X
28	**(5)**Fire doors control systems – Components	S (1) (2)		X (3)					
29	Fire doors for high speed craft	B (1) (2)	X	X (3)	X		X		X
30	Fire hoses	S (1) (2)		X (3)			X		
31	Fire hoses (reel type)	S (1) (2)		X (3)			X		
32	Fire-resisting divisions for high speed craft	B (1) (2)	X	X (3)	X			X	
33	Fire restricting materials (except furniture) for high speed craft	B (1) (2)		X (3)					
34	Fire restricting materials for furniture for high speed craft	B (1) (2)		X (3)					
35	Fireman's outfit: protective clothing (close proximity clothing)	S (1) (2)		X (3)					
36	Fireman's outfit: boots	S (1) (2)		X (3)					
37	Fireman's outfit: gloves	S (1) (2)		X (3)					
38	Fireman's outfit: helmet	S (1) (2)		X (3)					
39	Fireman's outfit: lifelines	S (1) (2)		X (3)					
40	Fixed oxygen analysis and gas detection equipment	S (1) (2)		X (3)			X		
41	Fixed fire detection and fire alarm systems for control stations, service spaces, accommodation spaces, machinery spaces and unattended machinery spaces	S (1) (2)		X (3)	X		X	X	X
42	Fixed fire detection and fire alarm systems for control stations, service spaces, accommodation spaces, machinery spaces and unattended machinery spaces – Components **(5)**	S (1) (2)		X (3)					
43	Fixed high expansion foam fire-extinguishing systems	S	X		X		X	X	X

Table O - P (Sheet 4 of 8)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
44	Fixed high expansion foam fire-extinguishing systems - Components **(5)**	S		X					
45	Fixed high expansion foam fire-extinguishing systems for machinery spaces and cargo pump rooms	S (1)	X		X		X	X	X
46	Fixed low expansion foam fire-extinguishing systems for tanker deck protection	S (1)	X		X		X	X	X
47	Fixed low expansion foam fire-extinguishing systems for machinery spaces and tanker deck protection - Components **(5)**	S (1) (2)		X (3)					
48	Fixed sprinkler systems for high speed craft	B (1)	X		X		X	X	X
49	Fixed sprinkler systems for high speed craft – Components **(5)**	B (1) (2)		X (3)					
50	Fixed water based local application fire-fighting system for use in category "A" machinery spaces	B (1)	X		X		X	X	X
51	Fixed water based local application fire-fighting system for use in category "A" machinery spaces - Components **(5)**	B (1) (2)		X (3)					
52	Flame detectors	S (1) (2)		X (3)			X		
53	Galley exhaust duct fixed fire-extinguishing systems	S (1)	X		X		X	X	X
54	Galley exhaust duct fixed fire-extinguishing systems - Components **(5)**	S (1) (2)		X (3)					
55	Heat detectors	S (1) (2)		X (3)			X		
56	Helicopter deck fire-extinguishing systems	S (1)	X		X		X	X	X
57	Helicopter facility foam fire-fighting appliances	S (1) (2)		X (3)					
58	Inert gas systems	B (1) (2)	X	X (3)	X		X	X	X
59	Inert gas systems – Components **(5)**	B (1) (2)		X (3)					
59A	Inside air high expansion foam system for the protection of machinery spaces and cargo pump rooms	S (1) (2)		X (3)					

Table O - P (Sheet 5 of 8)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
60	Low-location lighting systems	S (1)	X		X		X		X
61	Low-location lighting systems – Components **(5)**	S (1) (2)		X (3)					
62	Manual call points	S (1) (2)		X (3)					
63	Materials other than steel for pipes conveying oil or fuel oil: a) Plastic pipes and fittings b) Valves c) Flexible pipe assemblies and compensator d) metallic pipe components with resilient and elastomeric seals	B (1) (2)		X (3)					
64	ITEM DELETED								
64A	Medium expansion foam fire extinguishing systems components fixed deck foam for tankers	S (1) (2)		X (3)					
65	Non-portable and transportable extinguishers	S (1) (2)		X (3)			X		
66	Non-combustible materials	S (1) (2)		X (3)					
67	Non-conventional material flexible hoses and expansion joints for all types of fluid	C		X			X		
68	Nozzles for fixed pressure water-spraying fire-extinguishing systems for special category spaces, ro-ro cargo spaces, other ro-ro spaces and vehicle spaces	S (1)		X					
68A	Nozzles for fixed pressure water-spraying fire-extinguishing systems for cabin balconies	S (1) (2)		X (3)					
69	Nozzles for fixed pressure water-spraying fire-extinguishing systems for machinery spaces and cargo pump rooms	S (1) (2)		X (3)					
70	Oxygen analysis and gas detection equipment	B (1) (2)		X (3)					
71	Paint locker and flammable liquid locker fire-extinguishing systems	S (1)	X		X		X	X	X
72	Paint lockers and flammable liquid lockers fire extinguishing systems components	S (1)	X				X		

Table O - P (Sheet 6 of 8)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
73	Penetrations through "A" class divisions a) electrical cable transits b) pipe, duct, trunk, etc. penetrations	S (1) (2)		X (3)	X (7)		X		
74	Penetrations through "B" class divisions a) electrical cable transits b) pipe, duct, trunk, etc. penetrations	S (1) (2)		X (3)	X (7)		X		
75	Penetrations through "C" class divisions a) electrical cable transits b) non-combustible duct penetrations	S (1)		X	X (7)		X		
76	Penetrations through fire-resisting divisions on high speed craft a) Electrical cable transits b) Pipe, duct, trunk, etc. penetrations	B (1) (2)		X (3)	X (7)		X		
77	Portable fire extinguishers	S (1) (2)		X (3)			X		
78	Portable fire extinguishers for lifeboats and rescue boats	S (1) (2)		X (3)					
79	Portable foam applicator units	S (1)		X			X		
80	Pressure bottles and vessels	SEE TABLE J							
81	Primary deck coverings	S (1) (2)		X (3)	X		X		
82	Protective clothing resistant to chemical attack	S (1)		X					
83	Pumps and compressors for fixed fire extinction systems	C		X			X	X	X
84	Sample extraction smoke detection systems	S (1)	X		X		X	X	X
85	Sample extraction smoke detection systems – Components **(5)**	S (1) (2)		X (3)					
85A	Sanitary boxes	C	X	X			X		
86	Self-contained compressed-air-operated breathing apparatus	S (1) (2)		X (3)			X		
87	Smoke detectors	S (1) (2)		X (3)			X		

Table O - P (Sheet 7 of 8)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
88	Sprinkler systems (limited to sprinkler heads and to the methods of automatic sprinkling and signalling e.g. flow switches, alarm panels)	S (1) (2)		X (3)					
89	Sprinkler systems equivalent to that referred to in SOLAS 74 Regulation II-2/12	S (1)	X		X			X	X
90	Sprinkler systems components for accommodation spaces, service spaces and control stations equivalent to that referred to in SOLAS 74 Reg. II-2/12 (limited to nozzles and their performance)	S (1) (2)		X (3)					
91	Surface materials and floor coverings with low flame-spread characteristics: a) Decorative veneers b) Paint systems c) Floor coverings d) Pipe insulation covers e) Adhesives used in the construction of "B" & "C" class divisions f) Combustible ducts	S (1) (2)		X (3)					
92	Upholstered furniture	S (1) (2)		X (3)					
93	Ventilation systems	C	X (6)		X (6)			X (6)	X (6)
94	'A' and 'B' class fire proof windows and sidescuttles	B (1) (2)		X (3)			X	X	
95	Evacuation guidance systems used as an alternative to low-location lighting systems	S (1) (2)		X (3)					
96	Dry chemical powder extinguishing systems	S (1) (2)		X (3)			X		X
97	Fixed hydrocarbon gas detection system	S (1) (2)		X (3)			X		X
98	Mobile water monitor for ships constructed on or after 1 January 2016 designed to carry five or more tiers of containers on or above the weather deck	S (1) (2)		X (3)			X		X
99	Fire-fighting hoses: — semi-rigid hoses for fixed systems	S (1) (2)		X (3)					

Table O - P (Sheet 8 of 8)

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERIFICATION**	**INSPECTIONS DURING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
100	Fixed firefighting hose systems — hose systems with lay-flat hose	**S (1) (2)**		**X (3)**			**X**		**X**
101	Gaseous Fuel Systems Used for Domestic Purposes (components) **(5)**	**S (1)**	**X**		**X**			**X**	**X**
102	Fixed Gas Fire Extinguishing Systems (CO_2) component **(5)**s	**S (1)**	**X**				**X**		
103	Water Spraying Hand Operated System	**S (1)**	**X**		**X**			**X**	**X**

(1) For ships flying flags of States not belonging to the European Community: if TASNEEF issues the statutory certificates, the requirements are established on a case-by-case basis depending on the agreements with the flag Administration.

(2) Products subject to the MED Directive

(3) For products covered by MED directive requirements, Type Approval (Module B), Production Control Certificates (Module D/E, F or G) and EU DoC are to be verified by the Surveyor

(4) It is to be type approved by an Administration of the European Community

(5) Applicable to a single component or a group of components or a whole system which needs to be tested to ensure that the applicable requirements are fulfilled.

(6) Limited to damping operations

(7) Only applicable to Watertight Cable Transits

Table Q : Shipboard and Shipyard Inspections - Control, Monitoring and Alarm Systems

(Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Actuators	C		X			X		X (1)
2	Alarm systems (complete)	C	X	X (2)					X
3	Computers of Category II, III	C	TA	X					X (1)
3A	Computers of Category I	C							X (1)
4	Consoles	C	X	X (2)	X		X		X
5	Control devices to computers of Category II, III	C	TA	X					X (1)
5A	Control devices to computers of Category I	C							X (1)
6	Control systems (complete)	C	X	X (2)					X
7	Electrical cables and apparatus	SEE TABLE N							
8	Hydraulic systems	SEE TABLE L							
8A	Pneumatic systems	SEE TABLE K							
9	Loading instruments	C	X	X					X (1)
10	Indicators, Instruments to computers of Category II, III	C		X					X (1)
10A	Indicators, Instruments to computers of Category I	C							X (1)
11	Monitoring systems (complete)	C	X		X		X		X
12	Peripherals to computers of Category II, III (keyboard, mouse, VDU, etc.)	C		X					X (1)
12A	Peripherals to computers of Category I (keyboard, mouse, VDU, etc.)	C							X (1)
13	Sensors	C		X					X (1)

(Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERIFI-CATION**	**INSPECTIONS DUR-ING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
14	Software	**C**							**X (1)**
15	Wireless data communication equipment	**C**							**X (3)**

(1) As a component of the systems being tested
(2) As far as components are concerned
(3) To demonstrate electromagnetic compatibility

Table R : Shipboard and Shipyard Inspections - Life-Saving Appliances

Table R (Sheet 1 of 4)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFI-CATION	INSPECTIONS DUR-ING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Automatically self-righting liferafts: a) inflatable b) rigid	S (1) (2)		X (3) (4)			X (4)		
2	Buoyant smoke signals (pyrotechnics)	S (1) (2)		X (3) (4)					
2A	Buoyant apparatus	S (5)		X					
3	Canopied reversible liferafts	S (1) (2)		X (3) (4)			X (4)		
4	Daylight signal mirrors	S (5)		X (4)					
4A	Distress Signals	S (5)		X					
5	ITEM DELETED								
6	Embarkation ladders	S (1) (2)		X (3) (4)					
7	Fast rescue boat launching appliances (davits)	S (1) (2)		X (3) (4)			X (4)		X (4)
8	Fast rescue boats: a) inflated b) rigid c) rigid-inflated	S (1) (2)		X (3) (4)			X (4)		
9	Float-free launching appliances for survival craft	S (1)		X (4)			X (4)		X (4)
10	Float-free arrangements for liferafts (hydrostatic release units)	S (1) (2)		X (3) (4)			X (4)		X (4)
11	Hand flares (pyrotechnics)	S (1) (2)		X (3) (4)					

Table R (Sheet 2 of 4)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
12	Immersion suits and anti-exposure suits designed to be worn in conjunction WITH a jackets: a) immersion suit without inherent insulation b) immersion suit with inherent insulation c) anti-exposure suits	**S (1) (2)**		**X (3) (4)**					
12A	Immersion suits and anti-exposure suits designed to be worn WITHOUT a lifejacket: a) immersion suit without inherent insulation b) immersion suit with inherent insulation c) anti-exposure suits	**S (1) (2)**		**X (3) (4)**					
13	Inflatable liferafts	**S (1) (2)**		**X (3) (4)**			**X (4)**		
14	Inflated rescue boats	**S (1) (2)**		**X (3) (4)**			**X (4)**		
15	ITEM DELETED								
16	Launching appliances for free-fall lifeboats	**S (1) (2)**		**X (3) (4)**			**X (4)**		**X (4)**
17	Launching appliances using fall (davits)	**S (1) (2)**		**X (3) (4)**			**X (4)**		**X (4)**
18	Life jackets	**S (1) (2)**		**X (3) (4)**			**X (4)**		
19	Lifeboat and rescue boat propulsion engine	**S (1) (2)**		**X (3) (4)**					**X (4)**
20	Lifeboats: a) Davit-launched lifeboats: - partially enclosed - totally enclosed b) Free-fall lifeboats	**S (1) (2)**		**X (3) (4)**			**X (4)**		
20A	Lifeboat canopies	**S (5)**		**X**					
21	Lifebuoys	**S (1) (2)**		**X (3) (4)**			**X (4)**		
22	Lifebuoys' self-activating smoke signals	**S (1) (2)**		**X (3) (4)**					

Table R (Sheet 3 of 4)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
23	Liferaft launching appliances (davits)	S (1) (2)		X (3) (4)			X (4)		X (4)
24	Position-indicating lights for life-saving appliances: a) for survival craft and rescue boats b) for lifebuoys c) for lifejackets	S (1) (2)		X (3) (4)					
25	ITEM DELETED								
26	Line-throwing appliances	S (1) (2)		X (3) (4)					
27	Manual pumps for lifeboats	S (5)		X (4)					
28	Marine evacuation systems	S (1) (2)		X (3) (4)			X (4)		X (4)
29	Means of rescue	S (1) (2)		X (3) (4)			X (4)		
30	ITEM DELETED								
31	ITEM DELETED								
32	Open reversible liferafts	S (1) (2)		X (3) (4)			X (4)		
33	ITEM DELETED								
34	Public address and general alarm system (fire alarm excluded)	B (1)	X						X
35	Radar reflector for lifeboats and rescue boats (passive)	S (1) (2)		X (3) (4)					
36	Radar reflector for liferafts	S (4)		X (4)					
37	Red star hand flares	S (4)		X (4)					

Table R (Sheet 4 of 4)

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERIFI-CATION**	**INSPECTIONS DUR-ING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
38	Release mechanism for lifeboats: a) lifeboats and rescue boats (launched by a fall or falls) b) liferafts (launched by a fall or falls) c) free fall lifeboats	**S (1) (2)**		**X (3) (4)**			**X (4)**		**X (4)**
39	Rescue boat propulsion engine – Outboard engines	**S (1) (2)**		**X (3) (4)**					**X (4)**
40	Rigid liferafts	**S (1) (2)**		**X (3) (4)**			**X (4)**		
41	Rigid rescue boats	**S (1) (2)**		**X (3) (4)**			**X (4)**		
42	Rocket parachute flare (pyrotechnics)	**S (1) (2)**		**X (3) (4)**					
43	Searchlight for use in lifeboats and rescue boats	**S (1) (2)**		**X (3) (4)**			**X (4)**		**X (4)**
44	Thermal protective aids	**S (1) (2)**		**X (3) (4)**					
44A	Water de-salting apparatus for lifeboats	**S (5)**		**X**					
45	ITEM DELETED								
46	Winches for survival crafts and rescue boats a) davit launched lifeboats b) free-fall lifeboats c) liferafts d) rescue boats e) fast rescue boats	**S (1) (2)**	**X (1) (2)**	**X (1) (2)**	**X (1) (2)**	**X (1) (2) (6)**	**X (1) (2)**	**X (1) (2)**	**X (1) (2)**

(1) For ships flying flags of States not belonging to the European Community:
- If TASNEEF issues the statutory certificates, the requirements are established on a case-by-case basis depending on the agreements with the flag Administration
- No requirements if TASNEEF does not issue statutory certificates

(2) Products subject to the MED Directive

(3) For products covered by MED directive requirements, Type Approval (Module B), Production Control Certificates (Module D/E, F or G) and EU DoC are to be verified by the Surveyor

(4) For ships for which TASNEEF issues statutory certificates

(5) Only for the Italian Administration

(6) When required by the rules and/or TASNEEF Surveyor

Table S : Shipboard and Shipyard Inspections - Navigating Equipment

Table S (Sheet 1 of 4)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Search and rescue locating devices (SRLD) - 9 GHz SAR transponder (SART)	S (1) (2)		X (3) (4)					X (4)
2	ITEM DELETED								
3	ITEM DELETED								
4	Combined GPS/GLONASS equipment	S (4)		X (4)					X (4)
5	Magnetic compass (class B for lifeboats and rescue boats)	S (1) (2)		X (3) (4)					
6	Daylight signalling lamp	S (1)		X (4)					X (4)
7	ITEM DELETED								
7A	Differential beacon receiver for DGPS and DGGLONASS equipment	S (1) (2)		X (3) (4)					X (4)
8	Echo-sounding equipment	S (1) (2)		X (3) (4)					X (4)
9	Electronic chart display and information system (ECDIS) with backup, and raster chart display system (RCDS)	S (1) (2) (5)		X (3) (4) (5)			X (4) (5)		X (4) (5)
10	GLONASS equipment	S (1) (2)		X (3) (4)					X (4)
11	GPS equipment	S (1) (2)		X (3) (4)					X (4)
12	Gyrocompass	S (1) (2)		X (3) (4)					
13	Gyrocompass for high speed craft	S (1) (2)		X (3) (4)					
13A	Gyro-Compass Repeaters	S (6)		X					
14	Heading control system (HSC)	S (1) (2)		X (3) (4)					X (4)

Table S (Sheet 2 of 4)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
15	ITEM DELETED								
16	Integrated navigation system	**B (1) (2) (5)**	**X (5)**	**X (3) (4) (5)**			**X (4) (5)**		**X (4) (5)**
17	ITEM DELETED								
18	ITEM DELETED								
19	Magnetic compass (class A for ships)	**S (1) (2)**		**X (3) (4)**					
19A	Magnetic compass (class B for lifeboats and rescue boats)	**S (1) (2)**		**X (3) (4)**					
20	ITEM DELETED								
21	Night vision equipment for high speed craft	**S (1) (2)**		**X (3) (4)**					
22	Pitch indicator	**S (1) (2)**		**X (3) (4)**					**X (4)**
23	Propeller revolution indicator	**S (1) (2)**		**X (3) (4)**					**X (4)**
24	ITEM DELETED								
25	ITEM DELETED								
26	ITEM DELETED								
27	ITEM DELETED								
28	ITEM DELETED								
29	Radar reflector - passive type	**S (1) (2)**		**X (3) (4)**					**X (4)**
30	Radar target enhancer	**S (1) (2)**		**X (3) (4)**					
31	Rate-of-turn indicator	**S (1) (2)**		**X (3) (4)**					**X (4)**
32	Rudder angle indicator	**S (1) (2)**		**X (3) (4)**					**X (4)**
33	Searchlight for high speed craft	**S (1) (2)**		**X (3) (4)**					**X (4)**

Table S (Sheet 3 of 4)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
33A	Simplified voyage data recorder (S-VDR)	S (1) (2)		X (3) (4)					X (4)
34	Sound reception system	S (1) (2)		X (3) (4)					X (4)
35	Speed and distance measuring equipment (SDME)	S (1) (2)		X (3) (4)					X (4)
36	ITEM DELETED								
37	Track control system	S (1) (2)		X (4)					X (4)
38	Transmitting heading device THD (GNSS method)	S (1) (2)		X (3) (4)					X (4)
39	Transmitting heading device THD (gyroscopic method)	S (1) (2)		X (3) (4)					X (4)
40	Transmitting heading device THD (magnetic method)	S (1) (2)		X (3) (4)					X (4)
41	ITEM DELETED								
42	ITEM DELETED								
43	Universal automatic identification system equipment (AIS)	S (1) (2)		X (3) (4)					X (4)
44	Voyage data recorder (VDR)	S (1) (2)		X (3) (4)					X (4)
45	Pilot ladder	S (1) (2)		X (3) (4)					
46	DGPS equipment	S (1) (2)		X (3) (4)					X (4)
47	DGLONASS Equipment	S (1) (2)		X (3) (4)					X (4)
48	Compass bearing device	S (1) (2)		X (3) (4)					X (4)
49	Search and rescue locating devices (SRLD) - AIS SART equipment	S (1) (2)		X (3) (4)					X (4)
50	Bridge Navigational Watch Alarm System (BNWAS)	S (1) (2)		X (3) (4)					X (4)

Table S (Sheet 4 of 4)

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERIFICATION**	**INSPECTIONS DURING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
51	GNSS Equipment Incorporating one or more of the following elements: — GPS equipment — GLONASS equipment — DGPS Equipment — DGLONASS Equipment — Galileo Equipment — Beidou (BDS)	**S (1) (2)**		**X (3) (4)**					**X (4)**
52	Radar equipment: — CAT 1 — CAT 2 — CAT 3 — CAT 1H — CAT 2H	**S (1) (2)**		**X (3) (4)**					**X (4)**
53	Track control system for high-speed craft	**S (4)**		**X (4)**					**X (4)**
54	Track control system (working at ship's speed from 30 knots and above)	**S (4)**		**X (4)**					**X (4)**
55	Electronic Inclinometer	**S (4)**		**X (4)**					**X (4)**
56	Nautical publications in digital form as defined by SOLAS V 27	**S (4)**		**X (4)**					**X (4)**

(1) For ships flying flanges of States not belonging to the European Community:
- If TASNEEF issues the statutory certificates, the requirements are established on a case-by-case basis depending on the agreements with the flag Administration
- No requirements if TASNEEF does not issue statutory certificates

(2) Products subject to the MED Directive

(3) For products covered by MED directive requirements, Type Approval (Module B), Production Control Certificates (Module D/E, F or G) and EU DoC are to be verified by the Surveyor

(4) For ships for which TASNEEF issues statutory certificates

(5) For ships with **"SYS-NEQ"** class notation

(6) Only for the Italian Administration

Table T : Shipboard and Shipyard Inspections - Radio Communications Equipment

Table T (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	406 MHz EPIRB (COSPAS-SARSAT)	S (1)		X (2) (3)			X (3)		
2	Aeronautical two-way WHF radiotelephone apparatus	S (1)		X (2) (3)			X (3)		
3	ITEM DELETED								
4	ITEM DELETED								
5	ITEM DELETED								
6	EGC receiver	S (1)		X (2) (3)			X (3)		
7	Fixed survival craft two-way VHF radiotelephone apparatus	S (1)		X (2) (3)			X (3)		
8	HF marine safety information (MSI) equipment (HF NBPD receiver)	S (1)		X (2) (3)			X (3)		
9	ITEM DELETED								
10	Inmarsat-C SES	S (1)		X (2) (3)			X (3)		
11	ITEM DELETED								
12	ITEM DELETED								
13	MF radio installation capable of transmitting and receiving DSC and radiotelephony	S (1)		X (2) (3)			X (3)		
14	MF/HF radio installation capable of transmitting and receiving DSC, NBPD and radiotelephony	S (1)		X (2) (3)			X (3)		
15	MF, DSC watchkeeping receiver	S (1)		X (2) (3)			X (3)		
16	NAVTEX receiver	S (1)		X (2) (3)			X (3)		

Table T (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERIFICATION**	**INSPECTIONS DURING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
17	Portable survival craft two-way VHF radiotelephone apparatus	**S (1)**		**X (2) (3)**			**X (3)**		
18	Radio reserve source of energy	**S**		**X (3)**			**X (3)**		
19	VHF DCS watchkeeping receiver	**S (1)**		**X (2) (3)**			**X (3)**		
20	ITEM DELETED								
21	VHF radio installation capable of transmitting and receiving DSC and radiotelephony	**S (1)**		**X (2) (3)**			**X (3)**		
22	MF/HF DSC scanning watch keeping receiver	**S (1)**		**X (2) (3)**			**X (3)**		
23	Fire-fighter's two-way radiotelephone apparatus	**S (1)**		**X (2) (3)**			**X (3)**		
24	Integrated communication system (ICS)	**S (1)**		**X (2) (3)**			**X (3)**		
25	Ship Earth station for use in the GMDSS - Inmarsat C equipment	**S (1)**		**X (2) (3)**			**X (3)**		

(1) Products subject to the MED Directive

(2) For products covered by MED directive requirements, Type Approval (Module B), Production Control Certificates (Module D/E, F or G) and EU DoC are to be verified by the Surveyor

(3) For ships for which TASNEEF issues statutory certificates

Table U : Shipboard and Shipyard Inspections - Cargo Handling Arrangements and Other Lifting Appliances

1	2	3	4	5	6	7	8	9	10
No.	**PRODUCT**	**ORIGIN OF THE REQUIREMENT**	**CORRESPONDENCE WITH APPROVED DRAWINGS**	**CONFORMITY VERIFICATION**	**INSPECTIONS DURING INSTALLATION**	**NDT**	**INSPECTION AFTER INSTALLATION**	**FINAL TEST**	**FUNCTIONING TEST**
1	Chains and gall chains for rigging	**O**		**X**			**X**		
2	Cranes, bridge cranes, motored hoists, elevators and ramps of movable decks	**B**	**X**	**X**	**X (1)**	**X (2)**	**X**	**X**	**X**
3	Machinery for lifting appliances	**O**	**X**	**X**			**X**		**X**
4	Masts, posts and derricks	**O**	**X**		**X (1)**	**X (2)**	**X**		
5	Steel ropes for rigging	**O**		**X**			**X**		
6	Various accessories (blocks, rings, hooks, collars, swivels, terminals, etc.)	**O**		**X**			**X**		
7	Winches for cargo crane	**B**		**X**				**X (4)**	**X**
7A	Winches for fishing nets	**B**	**X**	**X**	**X**	**X (2)**	**X**	**X (3)**	**X**

(1) Including welding procedures

(2) Whenever required by the Rules and/or by TASNEEF Surveyors

(3) Overload test is required for SWL greater than 2 t and it is carried out during the test of the fishing net system

(4) Final test of winches for cargo crane is carried out during the overload crane test

Table V : Shipboard and Shipyard Inspections - Refrigerating Installations

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Coils	C (1)		X				X (2)	
2	Complete refrigerating units	C (1)		X			X	X (2)	X
3	Compressors	C (1)		X					X
4	Condensers and evaporators	C (1)		X				X (2)	X
5	Control, monitoring and alarm systems	SEE TABLE Q							
6	Electrical apparatus	SEE TABLE N							
7	Insulation of refrigerated chamber insulation	C (1)	X	X	X				
8	Oil separators, intermediate receivers and pressure vessels	SEE TABLE J							
9	Piping for refrigerating system, brine system, air system, defrosting system, etc.	SEE TABLE K							
10	Regulating valves	C (1)		X					X
11	Thermometers	C (1)		X					X

(1) For ships with "**REF**" class notation

(2) Hydrostatic tests

Table W : Shipboard and Shipyard Inspections - Air Conditioning and Ventilation Plants

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Air conditioning plant	C (1)	X				X		X
2	Air treatment units	C (1)		X			X	X (2)	X
3	Chamber insulation	C (1)		X			X		X
4	Control, monitoring and alarm systems	SEE TABLE Q							
5	Duct penetrations	C (1)		X					
6	Ducts	C (1)		X			X		
7	Electrical apparatus	SEE TABLE N							
8	Fans **(3)**	C		X(4)			X (5)		X (6)
9	Heat exchangers	SEE TABLE J							
10	Refrigerating unit	C (1)		X			X	X (2)	X
11	Thermal unit	C (1)		X			X	X (2)	X

(1) For ships with **" COMF-AIR "** class notation

(2) Hydrostatic test

(3) Applicable to fans used in essential services such as:
- machinery spaces of category A,
- spaces containing the emergency source of power,
- safe areas (for SRtP condition purposes),
- hazardous spaces.

(4) Review of workshop testing documentation and verification of identification marking

(5) Verification of good installation, fixing on foundations, vibro-stops connections, ducts sealing against air leaks, appropriate construction of ducts in case of ventilation in high fire risk areas (galley hoods, ro- ro spaces, flammable liquids storage, etc.)

(6) Running test at nominal speed

Table X : Shipboard and Shipyard Inspections - Lifts

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Car	S (1)	X	X			X		X
2	Fireproof doors	SEE TABLE O-P							
3	Guides	S (1)	X	X			X		X
4	Hydraulic plant	SEE TABLE K-L							
5	Lift (complete)	S (1)	X	X			X	X	X
6	Machinery	S (1)		X					X
7	Starters and switchboard	SEE TABLE N							
8	Steel ropes	S (1)		X			X		X
(1) Only for Italian flag ships									

Table Y : Shipboard and Shipyard Inspections - Installations for Oil Carriers and Chemical Carriers

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFI-CATION	INSPECTIONS DUR-ING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Cargo piping	C	X	X	X (1)	X (2)	X	X (3)	X
2	Cargo pumps	C		X			X		X
3	Cargo pump prime movers	C	SEE TABLES D-E, N AS APPLICABLE						
4	Coatings for cargo tanks	C	X		X		X		
5	Control, monitoring and alarm systems	SEE TABLE Q							
6	Crude oil washing system	C	X				X	X (3)	X
7	Devices to prevent the passage of flame into cargo tanks	SEE TABLE O-P							
8	Emergency towing arrangements on tankers	C	X	X	X (1)	X (2)	X	X	
9	Fans in cargo area	C		X			X		X
10	Inert gas generators	C	X				X	X	X
11	Inert gas plant	SEE TABLE O-P							
12	Penetrations through gas-tight bulkheads of motor shafts	C		X			X		
13	Pressure vacuum valves	C		X			X		X
14	Safety valves	C		X			X		X

(1) Including welding procedures
(2) Whenever required by the Rules and/or by TASNEEF Surveyors
(3) Hydrostatic test

Table Z : Shipboard and Shipyard Inspections - Installations for Ships Carrying Liquefied Gases

Table Z (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Boil-off warm-up heaters	C		X			X		X
2	Cargo piping insulation	C	X	X (1)	X		X		
3	Cargo pumps (main, stripping and emergency)	C		X			X		X
4	ITEM DELETED								
5	Control valves for glycol heating system and inert gas system	C		X			X		X
6	Cryogenic cargo hoses	C		X					
7	Custody transfer system	C	X	X (1)					X
8	Emergency shutdown system	C	X	X (1)					X
9	Emergency towing arrangements on tankers	SEE TABLE Y							
10	Forcing vaporiser	C		X			X		X
11	Gas detection system	C	X	X (1)					X
12	Gas vaporisers	C		X			X		X
13	Heat exchangers	C		X			X		X
14	Cargo compressors	C		X			X		X
15	Independent cargo tanks	C	X		X (2)	X (3)	X	X	
16	Inert gas generator	C		X			X		X
17	Inert gas plant	SEE TABLE O-P							
18	Insulation of cargo tanks	C	X	X (1)	X		X		
19	Level gauge for cargo tanks	C		X			X		X

Table Z (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
20	ITEM DELETED								
21	Nitrogen generator	C		X			X		X
22	Piping for cargo lines	C	X	X (1)	X (2)	X (3)	X	X (4)	X
23	Piping for cofferdam heating system	C	X	X (1)	X (2)	X (3)	X	X (4)	X
24	Piping for insulation space pressurisation	C	X	X (1)	X (2)	X (3)	X	X (4)	X
25	Refrigerating units	C		X			X		X
26	Safety valves for cargo piping	C		X			X		X
27	Safety valves for cargo tanks and insulation spaces	C		X			X		X
28	Secondary insulation space water drain system	C	X		X		X	X (4)	X
29	Spray system for cargo tank cooling-down	C	X	X (1)	X			X (4)	X
30	Structural supports for independent tanks	C	X		X (2)	X (3)			
31	Temperature and pressure sensors installed in secondary insulation space, cofferdams, ballast tanks, etc.	C		X					
32	Valve remote control system for cargo system and inert gas plant	C	X	X (1)					X
33	Water detector in insulation space	C		X					
34	Water spray system	C	X	X (1)	X		X	X (4)	X

(1) For components
(2) Including welding procedures
(3) Whenever required by the Rules and/or by TASNEEF Surveyors
(4) Hydrostatic test

Table Z-1 : Shipboard and Shipyard Inspections - Installations for Ships Carrying Liquefied Gases

Table Z -1 (Sheet 1 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFI-CATION	INSPECTIONS DUR-ING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
1	Boil-off warm-up heaters	C		X			X		X
2	Fuel piping insulation	C	X	X (1)	X		X		
3	Fuel pumps (main, stripping and emergency)	C		X			X		X
4	Control valves for glycol heating system and inert gas system	C		X			X		X
5	Cryogenic cargo hoses	C		X					
6	Custody transfer system	C	X	X (1)					X
7	Emergency shutdown system	C	X	X (1)					X
8	Emergency towing arrangements on tankers	SEE TABLE Y							
9	Forcing vaporiser	C		X			X		X
10	Gas detection system	C	X	X (1)					X
11	Gas vaporisers	C		X			X		X
12	Heat exchangers	C		X			X		X
13	Fuel compressors	C		X			X		X
14	Independent fuel tanks	C	X		X (2)	X (3)	X	X	
15	Inert gas generator	C		X			X		X
16	Inert gas plant	SEE TABLE O-P							
17	Insulation of fuel tanks	C	X	X (1)	X		X		
18	Level gauge for fuel tanks	C		X			X		X
19	Nitrogen generator	C		X			X		X

Table Z -1 (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10
No.	PRODUCT	ORIGIN OF THE REQUIREMENT	CORRESPONDENCE WITH APPROVED DRAWINGS	CONFORMITY VERIFICATION	INSPECTIONS DURING INSTALLATION	NDT	INSPECTION AFTER INSTALLATION	FINAL TEST	FUNCTIONING TEST
20	Piping for fuel lines	C	X	X (1)	X (2)	X (3)	X	X (4)	X
21	Piping for cofferdam heating system	C	X	X (1)	X (2)	X (3)	X	X (4)	X
22	Piping for insulation space pressurisation	C	X	X (1)	X (2)	X (3)	X	X (4)	X
23	Refrigerating units	C		X			X		X
24	Safety valves for fuel piping	C		X			X		X
25	Safety valves for fuel tanks and insulation spaces	C		X			X		X
26	Secondary insulation space water drain system	C	X		X		X	X (4)	X
27	Spray system for fuel tank cooling-down	C	X	X (1)	X			X (4)	X
28	Structural supports for independent tanks	C	X		X (2)	X (3)			
29	Temperature and pressure sensors installed in secondary insulation space, cofferdams, ballast tanks, etc.	C		X					
30	Valve remote control system for fuel system and inert gas plant	C	X	X (1)					X
31	Water detector in insulation space	C		X					
32	Water spray system	C	X	X (1)	X		X	X (4)	X

(1) For components
(2) Including welding procedures
(3) Whenever required by the Rules and/or by TASNEEF Surveyors
(4) Hydrostatic test