

Amendments to Part A of the:

- "Rules for the Classification of Ships"
- "Rules for the Classification of Pleasure Yachts"
- "Rules for the Classification of Floating Offshore Units at Fixed Locations and Mobile Offshore Drilling Units"
- "Rules for the Classification of Yachts Designed for Commercial Use"
- "Rules for the Classification of Offshore Units operating in the Caspian Sea and similar areas"

Effective from 1/2/2021

ASSIGNMENT OF CLASS

1 General

1.1 Main cases of assignment of class

1.1.1 Assignment of class (1/2/2021)

Class is assigned to a ship upon a survey, with the associated operations, which is held in order to verify whether it is eligible to be classed on the basis of the Rules of the Society (see Ch 1, Sec 1, [1.3.2]). This may be achieved through:

- the completion of the new building, during which a survey has been performed, or
- the completion of the new building, during which the survey has been carried out according to IACS Procedural Requirement PR 1B when the Society's class is assigned under double class or dual class regime with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR 1A, when ships change class from one QSCS Classification Society (see Note 1) to the Society or
- a survey carried out according to the IACS Procedural Requirement PR 1B, when the Society's class is added to a ship already in class with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR1D, when ships change class from one non-QSCS Classification Society (see Note 1) to the Society or is not classed at all.

Note 1: The obligations of the Procedural Requirements PR1A, PR1B and PR1D apply as pertinent to QSCS Classification Societies.

1.1.2 Reassignment of class (1/1/2015)

Reassignment of class is that part of the process of classification consisting in all the steps aimed at issuing a Certificate of Classification to a ship previously classed with the Society but which had the class withdrawn.

Four cases are considered for reassignment of class:

- a) ship in service classed by another QSCS Classification Society,
- b) ship in service not classed by another QSCS Classification Society,
- c) ship no longer in service since the withdrawal of the class by the Society,
- d) ship no longer in service since the withdrawal of the class by another Society, QSCS or not.

2 New building procedure

2.1 Ships surveyed by the Society during construction

2.1.1 When a ship is surveyed by the Society during construction, it is to comply with those requirements of the Rules which are in force and applicable depending on the class of the ship, taking into account the provisions of Ch 1, Sec 1, [2.2].

2.1.2 The Society:

- approves the plans and documentation submitted as required by the Rules
- proceeds, if required, with the appraisal of the design of materials and equipment used in the construction of the ship and their inspection at works
- carries out surveys or obtains appropriate evidence to satisfy itself that the scantlings and construction meet the rule requirements in relation to the approved drawings
- · attends tests and trials provided for in the Rules
- assigns the construction mark ?; refer to Ch 1, Sec 2, [3.2.1].
- **2.1.3** 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.

2.1.4 Determination of number of Surveyor(s) (1/7/2016)

When a Tanker or a Bulk Carrier, subjected to SOLAS Chapter II-1 Part A-1 Regulation 3-10, is surveyed by the Society during construction, the Society will assign adequate number of suitable qualified surveyor(s) for new building projects according to the construction progress of the ship to meet appropriate coverage of the examination and testing activities as agreed in the Survey Plan.

- **2.1.5** As part of his interventions during the ship's construction, the Surveyor will:
- conduct an overall examination of the parts of the ship covered by the Rules
- examine the construction methods and procedures when required by the Rules
- check selected items covered by the rule requirements
- attend tests and trials where applicable and deemed necessary.

- **2.3.7** Design calculations are to be provided, when called for, as supporting documents to the submitted plans.
- **2.3.8** Design data and calculations are to be adequately referenced. It is the duty of the Interested Party to ascertain that the references used are correct, complete and applicable to the design of the ship.
- **2.3.9** The submitted plans are to contain all necessary information for checking the compliance with the requirements of the Rules.
- **2.3.10** In the case of conflicting information, submitted documentation will be considered in the following order of precedence: design data, plans, design calculations.
- **2.3.11** It is the responsibility of the Interested Party to ascertain that drawings used for the procurement, construction and other works are in accordance with the approved plans.

2.4 Assignment of Double Class to a ship surveyed during construction by two Societies

2.4.1 <u>Double Class (1/2/2021)</u>

A double class ship is one which is classed by two Societies, where each Society acts independently during construction.

2.4.2 **General** (1/2/2021)

The requirements from [2.1] to [2.3] apply also for the assignment of the Double Class to a new construction

2.4.3 Survey (1/2/2021)

The surveyor surveys the ship to check that it complies with the requirements of Ch 3, Sec 1, [4.1].

2.5 Assignment of a Dual Class to a ship surveyed during construction by two QSCS Classification Societies and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1B)

2.5.1 **Dual Class** (1/2/2021)

A dual class new building is one which is classed during construction by two Societies where each Society acts on behalf of the other Society in accordance with the trilateral agreement adopted by the two Societies and the shipyard. This agreement shall clearly define modalities such as submission of plans, rules to be applied, harmonizing and resolution of plan approval comments between societies.

2.5.2 <u>Basic conditions</u> (1/2/2021)

The Procedural Requirements for assigning dual class are applicable when none of the Societies which carried out the new construction technical review has issued its first Certificate of Classification (see Note 1). Unless stated otherwise, the provisions apply to ships of over 100 GT of whatever type, self-propelled or not, restricted or unrestricted service, except for "inland waterway" ships. Cases concerning ships of 100 GT or less are dealt with by the Society on a case-by case basis.

Whenever the Societies are requested by a Shipyard/Owner to accept a new building into their class under dual class:

- each Society is to share information and records related to new construction such as plan approval including following up and closing of comments imposed, surveys, inspection, witnesses and tests etc., to perform the surveys and verify compliance with the relevant requirements; and
- each Society is to issue a certificate of classification for the vessel upon satisfactory completion of new construction survey process.

Note 1: "First Certificate of Classification" means either the Interim Certificate of Classification or full term Certificate of Classification or another document serving the same purpose.

2.5.3 **General** (1/2/2021)

The requirements from [2.1] to [2.3] are applied in accordance with the trilateral agreement referred to in [2.5.1].

2.5.4 Surveys (1/2/2021)

The surveyor surveys the ship to check that it complies with the requirements of Ch 3, Sec 1, [4.2].

3 Ships classed after construction

3.1 General

3.1.1 *(1/7/2019)*

When an Owner applies to the Society for a ship already in service to be admitted to class, the application will be processed differently depending on whether the ship is:

- classed with a QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions, or
- classed with a QSCS Classification Society but not in full compliance with all applicable and relevant IACS Resolutions, or
- · not classed with a QSCS Classification Society, or
- not classed at all.
- 3.2 Transfer to the Society's class of a ship in service classed by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1A)

3.2.1 Documentation to be submitted and design assessment (1/7/2016)

As a rule, the minimum documentation to be supplied for filing purposes is listed hereinafter. The Society may carry out a design assessment on a case-by-case basis (additional documentation may be requested).

- a) Main plans:
 - 1) general arrangement,
 - 2) capacity plan,
 - 3) hydrostatic curves,
 - 4) loading manual where required,
 - 5) damage stability calculation, where required.
- b) Hull structure plans:

5 Reassignment of class

5.1 Ships in service classed by a QSCS Classification Society

5.1.1 Documentation to be submitted and design assessment

The requirements of [3.2.1] apply.

5.1.2 Conditions, Surveys and Certificate of Classification

The requirements of [3.2.2] to [3.2.7] apply.

5.2 Ships in service not classed by a QSCS Classification Society

5.2.1 Documentation to be submitted and design assessment (1/7/2020)

The requirements of [3.6.2] apply.

5.2.2 Conditions, Surveys and Certificate of Classification (1/7/2020)

The requirements of [3.6.3] to [3.6.10] apply.

5.3 Ships in service not classed by a QSCS Classification Society, but previously classified by a QSCS Classification Society

5.3.1 General (1/7/2020)

The following two cases are considered:

- a) the date of the class withdrawal, by the last QSCS Classification Society, falls within the time window of six months counted from the date of the classification request: the provisions of [5.1] apply;
- b) the date of the class withdrawal, by the last QSCS Classification Society, does not fall within the time window of six months counted from the date of the classification request: the provisions of [5.2] apply.

5.4 Ships no longer in service since class withdrawal by the Society

5.4.1 General (1/1/2015)

This paragraph is applicable, based on the premise that after the class was withdrawn by the Society, the ship:

- a) never resumed its trade
- b) has not been classified by any other Classification Society.

5.4.2 Conditions, Surveys and Certificate of Classification (1/1/2015)

The requirements of Sec 3, [1.4] apply

5.5 Ships no longer in service since class withdrawal by a QSCS Classification Society or by a non-QSCS Classification Society

5.5.1 Documentation to be submitted and design assessment (1/7/2020)

The requirements of [3.6.2] apply.

5.5.2 Conditions, Surveys and Certificate of Classification (1/7/2020)

The requirements of [3.6.3] to [3.6.10] apply.

6 Double or dual class procedures

6.1 Definitions

6.1.1 Double class (1/2/2021)

A double class ship is an existing one which is classed by two Societies, where each one acts independently when the ship is in service. A double class ship is one which is classed by two Societies, where each one works as if it is the only Society classing the ship and does all surveys in accordance with its own requirements and schedule.

6.1.2 Dual class (1/2/2021)

A dual class ship is one which is classed by two Societies between which there is a written agreement regarding sharing of work; this agreement shall clearly define the scope of work of each Society in the various applicable situations covered.

A dual class ship is an existing one which is classed by two Societies and

- a) each Society acts on behalf of the other Society in accordance with the bilateral agreement adopted by the two Societies. This agreement shall clearly define the scope of work of each Society;
- b) each Society is to review whether the work undertaken by other Society on its behalf has been completed as agreed.

6.2 Procedures

6.2.1

The procedures of admission to class of a ship already classed with another QSCS Classification Society under double or dual class arrangement are those indicated in [3.4] and [3.5].

SURVEY FOR NEW CONSTRUCTION

1 Hull

1.1 General

1.1.1 Scope (1/7/2016)

The scope of this Article [1] includes the following main activities:

- a) Examination of the parts of the ship covered by classification Rules and by applicable statutory regulations for hull construction, to obtain appropriate evidence that they have been built in compliance with the Rules and regulations, taking account of the relevant approved drawings.
- Appraisal of the manufacturing, construction, control and qualification procedures, including welding consumables, weld procedures, weld connections and assemblies, with indication of relevant approval tests.
- c) Witnessing inspections and tests as required in the classification Rules used for ship construction including materials, welding and assembling, with specification of the items to be examined and/or tested, the methods (e.g. by hydrostatic, hose or leak testing, non-destructive examination, verification of geometry) and who is to carry out such inspections and tests.

Appraisal of materials and equipment used for ship construction and their inspection at works is not included in this Article [1]. Details of requirements for hull and machinery steel forgings and castings and for normal and higher strength hull structural steel are given in Pt D, Ch 2, Sec 3, Pt D, Ch 2, Sec 4 and Pt D, Ch 2, Sec 1, [2] respectively. Acceptance of these items is verified through the survey process carried out at the Manufacturer's works and the issuing of the appropriate certificates.

In addition to above, for Tankers and Bulk Carriers subject to SOLAS Chapter II-1 Part A-1 Regulation 3-10 (Goal-based ship construction standards for bulk carriers and oil tankers), see also Sec 2.

1.2 Definitions

1.2.1 Hull structure

The hull structure (see Note 1) is defined as follows:

- a) hull envelope including all internal and external structures
- b) superstructures, deckhouses and casings,
- c) welded foundations, e.g. main engine seatings,
- d) hatch coamings, bulwarks,

- e) all penetrations fitted and welded into bulkheads, decks and shell,
- f) the fittings of all connections to decks, bulkheads and shell, such as air pipes and ship side valves - all items of ILLC 1966, as amended,
- g) welded attachments to shell, decks and primary members, e.g. crane pedestals, bitts and bollards, but only as regards their interaction on the hull structure.

Note 1: A glossary of hull terms and hull survey terms can be found in IACS Recommendation 82.

1.2.2 Documents

Reference to documents also includes electronic transmission or storage.

1.2.3 Survey methods (1/7/2016)

The survey methods which the Surveyor is directly involved in are as follows:

- a) Patrol is defined as the act of checking on an independent and unscheduled basis that the applicable processes, activities and associated documentation of the shipbuilding functions identified in Tab 1 continue to conform to classification and statutory requirements.
- b) Review is defined as the act of examining documents in order to determine traceability and identification, and to confirm that processes continue to conform to classification and statutory requirements.
- c) Witness is defined as the attendance at scheduled inspections in accordance with the agreed Inspection and Test Plans to the extent necessary to check compliance with the survey requirements.

1.3 Application

1.3.1 Classification items

This Article [1] covers the survey of all new construction of steel ships intended for classification and for international voyages except for:

- a) those defined in SOLAS I/3
- b) high speed craft as defined in I/1.3.1 of the 2000 High Speed Craft Code
- Mobile Offshore Drilling Units as defined in I/1.2.1 of the MODU Code.

1.3.2 Statutory items

This Article [1] covers all delegated statutory items relevant to the hull structure and coating, i.e. Load Line and SOLAS Safety Construction.

- 9) proposal for the examination of Additional class Notation machinery systems arrangement and associated fittings (if any);
- b) proposal for non destructive examination of piping steelwork, and in general for all systems requiring welding for their manufacture or installation;
- c) proposals for testing of machinery components after their manufacture or installation on board;
- d) any other proposals specific to the ship type or to the delegated statutory requirements.

3.7.2 Submittal of plans to the Surveyors

The plans and any modifications to them are to be submitted to the Surveyors in sufficient time to allow review before the relevant survey activity commences.

3.8 Proof of the consistency of surveys

3.8.1 Evidence for survey planning and activities

Inspection and test records, checklists etc are to be kept in order to provide evidence that the Society's Surveyors have complied with the requirements of the newbuilding survey planning and duly participated in the relevant activities shown in the shipbuilder's examination and test plans.

3.9 Inspection and tests of machinery components

3.9.1 Inspection and tests at workshop

Inspection and testing of machinery components, at the workshop, shall be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations.

3.9.2 Inspection and tests at dock and sea trials (1/7/2015)

Inspection and testing of machinery components during sea trials are to be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations. The following Parts of the Rules are applicable:

- a) main propulsion systems, including but not limited to propeller shafting line: Pt C, Ch 1, Sec 16
- b) auxiliary systems for propulsion and other services systems: Pt C, Ch 1, Sec 16
- c) main and auxiliary systems for steering: Pt C, Ch 1, Sec 16
- d) main and auxiliary piping systems: Pt C, Ch 1, Sec 16 and Pt C, Ch 1, Sec 10
- e) main, emergency and auxiliary electrical system for primary, secondary and emergency systems: Pt C, Ch 2, Sec 15

- f) automation systems: Pt C, Ch 3, Sec 5 and Pt C, Ch 3, Sec 6
- g) machinery system for mooring and anchoring: Pt B, Ch 12, Sec 3
- h) machinery systems required for specific Service Notations: Part E
- i) machinery systems required for specific Additional Class Notations: Part F.

In addition, where batteries are used for essential and emergency services, it is to be verified that a schedule document, detailing:

- type and manufacturer's type designation
- voltage and ampere-hour rating
- location
- · equipment and/or system(s) served
- maintenance/replacement cycle dates
- date(s) of last maintenance and/or replacement
- for replacement batteries in storage, the date of manufacture and shelf-life has been prepared. The document is to be reviewed for compliance with the on-board arrangements.

4 Assignment of double or dual class for New Construction

4.1 <u>Assignment of double class for New</u> Construction

4.1.1 (1/2/2021)

Whenever it is requested by the Shipyard/Owner to survey a new building under double class provisions of [1], [2] and [3], apply.

4.2 <u>Assignment of dual class for New Construction</u>

4.2.1 <u>(1/2/2021)</u>

Whenever it is requested by the Shipyard/Owner to survey a new building under dual class:

- a) review and approval of plans, as appropriate, for the newbuilding are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1]:
- b) in application of the requirement of [1], [2] and [3], survey during fabrication, construction and testing of the vessel are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1], and/or the bilateral agreement adopted by the two Societies, if any, clearly defining the scope of work of each Society.

ASSIGNMENT OF CLASS

1 General

1.1 Main cases of assignment of class

1.1.1 Assignment of class (1/2/2021)

Class is assigned to a yacht upon a survey, with the associated operations, which is held in order to verify whether it is eligible to be classed on the basis of the Rules of Tasneef (see Ch 1, Sec 1, [1.3.2]). This may be achieved through:

- the completion of the new building, during which a survey has been performed;
- the completion of the new building, during which the survey has been carried out according to IACS Procedural Requirement PR 1B when the Society's class is assigned under double class or dual class regime with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR1A, when yachts change class from one QSCS Classification Society (see Note 1) to Tasneef or
- a survey carried out according to the IACS Procedural Requirement PR1B, when Tasneef class is added to a yacht already in class with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR1D, when yachts change class from one non-QSCS Classification Society (see Note 1) to Tasneef or is not classed at all.

Note 1 The obligations of the Procedural Requirement PR1A, PR1B and PR1D apply as pertinent to QSCS Classification Societies.

1.1.2 Reassignment of class (1/1/2016)

Reassignment of class is that part of the process of classification consisting in all the steps aimed at issuing a Certificate of Classification to a yacht previously classed with Tasneef but which had the class withdrawn.

Four cases are considered for reassignment of class:

- a) yacht in service classed by another QSCS Classification Society,
- b) yacht in service not classed by another QSCS Classification Society,
- c) yacht no longer in service since the withdrawal of the class by Tasneef,
- d) yacht no longer in service since the withdrawal of the class by another Society, QSCS or not.

2 New building procedures

2.1 Yachts surveyed by Tasneef during con struction

2.1.1 When a yacht is surveyed during construction, it is to comply with those requirements of the Rules which are in force and applicable depending on the class of the yacht, taking into account the provisions of Ch 1, Sec 1, [2.1].

2.1.2 Tasneef:

- approves the plans and documentation submitted as required by the Rules
- proceeds, if required, with the appraisal of the design of materials and equipment used in the construction of the yacht and their inspection at works
- carries out surveys or obtains appropriate evidence to satisfy itself that the scantlings and construction meet the Rule requirements in relation to the approved drawings
- attends tests and trials provided for in the Rules
- assigns the construction mark 록, (refer to Ch 1, Sec 2, [3.2].
- **2.1.3** Tasneef defines in specific Rules which materials and equipment used for the construction of yachts built under survey are, as a rule, subject to appraisal of their design and to inspection at works, and according to which particulars.
- **2.1.4** As part of his interventions during the yacht's construction, the Surveyor will:
- conduct an overall examination of the parts of the yacht covered by the Rules
- examine the construction methods and procedures when required by the Rules
- check selected items covered by the Rule requirements
- attend tests and trials where applicable and deemed necessary.

The Surveyor in charge is to be satisfied of the overall conditions of construction of the Shipyard, its capability and workmanship.

2.1.5 Use of materials, machinery, appliances and items (1/1/2016)

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 yachts surveyed during construction are to be new and, where intended for essential services as defined in Ch 1, Sec 1, [1.2.1], tested or accepted by Tasneef.

- **2.3.9** The submitted plans are to contain all necessary information for checking the compliance with the requirements of the Rules.
- **2.3.10** In the case of conflicting information, submitted documentation will be considered in the following order of precedence: design data, plans, design calculations.
- **2.3.11** It is the responsibility of the Interested Party to ascertain that drawings used for the procurement, construction and other works are in accordance with the approved plans.
- 2.4 Assignment of Double Class to a yacht surveyed during construction by two Societies

2.4.1 Double Class (1/2/2021)

A double class yacht is one which is classed by two Societies, where each Society acts independently during construction.

2.4.2 **General** (1/2/2021)

The requirements from [2.1] to [2.3] apply also for the assignment of the Double Class to a new construction

2.4.3 **Survey** (1/2/2021)

The surveyor surveys the yacht to check that it complies with the requirements of Ch 3, Sec 1, [3.1].

2.5 Assignment of a Dual Class to a yacht surveyed during construction by two QSCS Classification Societies and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1B)

2.5.1 **Dual Class** (1/2/2021)

A dual class new building is one which is classed during construction by two Societies where each Society acts on behalf of the other Society in accordance with the trilateral agreement adopted by the two Societies and the shipyard. This agreement shall clearly define modalities such as submission of plans, rules to be applied, harmonizing and resolution of plan approval comments between societies.

2.5.2 <u>Basic conditions (1/2/2021)</u>

The Procedural Requirements for assigning dual class are applicable when none of the Societies which carried out the new construction technical review has issued its first Certificate of Classification (see Note 1). Unless stated otherwise, the provisions apply to yachts of over 100 GT of whatever type, self-propelled or not, restricted or unrestricted service, except for "inland waterway" yachts. Cases concerning yachts of 100 GT or less are dealt with by the Society on a case-by case basis.

Whenever the Societies are requested by a Shipyard/Owner to accept a new building into their class under dual class:

a) each Society is to share information and records related to new construction such as plan approval including fol-

- lowing up and closing of comments imposed, surveys, inspection, witnesses and tests etc., to perform the surveys and verify compliance with the relevant requirements; and
- b) each Society is to issue a certificate of classification for the vessel upon satisfactory completion of new construction survey process.

Note 1: "First Certificate of Classification" means either the Interim Certificate of Classification or full term Certificate of Classification or another document serving the same purpose.

2.5.3 General (1/2/2021)

The requirements from [2.1] to [2.3] are applied in accordance with the trilateral agreement referred to in [2.5.1].

2.5.4 Surveys (1/2/2021)

The surveyor surveys the yacht to check that it complies with the requirements of Ch 3, Sec 1, [3.2].

3 Yachts classed after construction

3.1 General

3.1.1 (1/1/2016)

When an Owner applies to Tasneef for a yacht already in service to be admitted to class, the application will be processed differently depending on whether the yacht is:

- · classed with a QSCS Classification Society, or
- not classed with a QSCS Classification Society, or
- not classed at all.

3.2 Transfer to Tasneef class of a yacht in service classed by another QSCS Classification Society (IACS PR 1A)

3.2.1 Documentation to be submitted and design assessment (1/1/2017)

As a rule, the minimum documentation to be supplied for filing purposes is listed hereinafter. Tasneef may carry out a design assessment on a case-by-case basis (additional documentation may be requested).

- a) Main plans:
 - 1) general arrangement,
 - 2) capacity plan,
 - loading manual, where required, which is to contain, as a minimum, loading cases, calculations of still water bending moments, and relevant documents, particulars of loading calculator and instruction booklet as per Tasneef requirements, according to the case,
 - hydrostatic curves and stability documentation, as applicable,
 - 5) damage stability calculations, where required.

5.4.2 Conditions, Surveys and Certificate of Classification (1/1/2016)

The requirements of Ch 2, Sec 3, [1.4] apply.

5.5 Yachts no longer in service since class withdrawal by a QSCS Classification Society or by a non-QSCS Classification Society

5.5.1 Documentation to be submitted and design assessment (1/1/2016)

The requirements of [3.6.1] apply.

5.5.2 Conditions, Surveys and Certificate of Classification (1/1/2016)

The requirements of [3.6.2] to [3.6.9] apply.

6 Double or dual class procedure

6.1 Definitions

6.1.1 Double class (1/2/2021)

A double class yacht is one which is classed by two Societies, where each one works as if it is the only Society classing the yacht and does all surveys in accordance with its own requirements and schedule. A double class yacht is an

existing one which is classed by two Societies, where each one acts independently when the yacht is in service.

6.1.2 Dual class (1/2/2021)

A dual class yacht is one which is classed by two Societies between which there is a written agreement regarding sharing of work; this agreement shall clearly define the scope of work of each Society in the various applicable situations covered.

A dual class yacht is an existing one which is classed by two Societies and

- each Society acts on behalf of the other Society in accordance with the bilateral agreement adopted by the two Societies. This agreement shall clearly define the scope of work of each Society;
- b) each Society is to review whether the work undertaken by other Society on its behalf has been completed as agreed.

6.2 Procedures

6.2.1 (1/1/2016)

The procedures of admission to class of a yacht already classed with another QSCS Classification Society under double or dual class arrangement are those indicated in [3.4] and [3.5].

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SURVEY FOR NEW CONSTRUCTIONS

1 Hull

1.1 General

1.1.1 Scope (1/1/2016)

The scope of this Article [1] includes the following main activities:

- a) Examination of the parts of the yacht covered by classification Rules and by applicable statutory regulations for hull construction, to obtain appropriate evidence that they have been built in compliance with the Rules and regulations, taking account of the relevant approved drawings.
- b) Appraisal of the manufacturing, construction, control and qualification procedures, including welding consumables, weld procedures, weld connections and assemblies, with indication of relevant approval tests.
- c) Witnessing inspections and tests as required in the classification Rules used for yacht construction including materials, welding and assembling, with specification of the items to be examined and/or tested, the methods (e.g. by hydrostatic, hose or leak testing, non-destructive examination, verification of geometry) and who is to carry out such inspections and tests.

Appraisal of materials and equipment used for yacht construction and their inspection at works is not included in this Article [1]. Details of requirements for hull and machinery steel forgings and castings and for normal and higher strength hull structural steel are given in Pt D, Ch 2, Sec 3, Pt D, Ch 2, Sec 4 and Pt D, Ch 2, Sec 1, [2] respectively.

Acceptance of these items is verified through the survey process carried out at the Manufacturer's works and the issuing of the appropriate certificates.

1.2 Definitions

1.2.1 Hull structure (1/1/2016)

The hull structure (see Note 1) is defined as follows:

- a) hull envelope including all internal and external structures,
- b) superstructures, deckhouses and casings.
- c) welded foundations, e.g. main engine seatings,
- d) hatch coamings, bulwarks,
- e) all penetrations fitted and welded into bulkheads, decks and shell and shell,
- f) the fittings of all connections to decks, bulkheads and shell, such as air pipes and yacht side valves all items

- of ILLC 1966, as amended, as recalled by the Statutory Requirements, if any,
- g) welded attachments to shell, decks and primary members, e.g. crane pedestals, bitts and bollards, but only as regards their interaction on the hull structure.

Note 1: A glossary of hull terms and hull survey terms can be found in IACS Recommendation 82.

1.2.2 Documents (1/1/2016)

Reference to documents also includes electronic transmission or storage.

1.2.3 Survey methods (1/1/2016)

The survey methods which the Surveyor is directly involved in are as follows:

- a) Patrol is defined as the act of checking on an independent and unscheduled basis that the applicable processes, activities and associated documentation of the shipbuilding functions identified in Tab 1 (See [1.3]) continue to conform to classification and statutory requirements.
- b) Review is defined as the act of examining documents in order to determine traceability and identification, and to confirm that processes continue to conform to classification and statutory requirements.
- c) Witness is defined as the attendance at scheduled inspections in accordance with the agreed Inspection and Test Plans or equivalent to the extent necessary to check compliance with the survey requirements.

1.3 Application

1.3.1 Classification items (1/1/2016)

This Article [1] covers the classification surveys of all new construction of yachts intended for international voyages.

For yachts other than steel this procedure is to be applied as far as practicable and applicable. Tab 1 is reported in Pt A, Ch 3, Sec 1 of Tasneef Rules for the Classification of Ships and it has to be applied taking into consideration the hull mate-rial and the applicable Statutory requirements.

1.3.2 Statutory items (1/1/2016)

This Article [1] covers all delegated statutory items relevant to the hull structure and coating.

1.3.3 Equipment, fittings and appendages (1/1/2016)

This Article [1] does not cover the manufacture of equipment, fittings and appendages regardless of whether they

2.6.6 Special case of kick-off meeting (1/1/2016)

In the event of series yacht production, consideration may be given to waiving the requirement for a kick-off meeting for the second and subsequent yachts provided any changes are documented as required in [2.6.1] and in [2.6.3].

2.7 Examination and test plan for new building activities

2.7.1 Plans to be provided (1/1/2016)

The shipbuilder is to provide plans of the items which are intended to be examined and tested. These plans need not be submitted for approval and examination at the time of the kick-off meeting. They are to include:.

- a) list of machinery components to be fitted on board including the machinery arrangement plans, comprehensive of:
 - proposals for the examination of piping steelwork, including booklets of typical arrangements, completed with the list of the materials and fittings;
 - proposals for the examination of electric systems fittings, including booklets of typical arrangements, completed with the list of the materials and devices;
 - proposal for the examination of propulsion system(s) arrangement and associated fittings;
 - 4) proposal for the examination of steering system(s) arrangement and associated fittings;
 - 5) proposal for the examination of the machinery systems arrangement, as referred in Pt C, Ch 1, Sec 9, and associated fittings;
 - 6) proposal for the examination of automation system(s) arrangement and associated fittings (if any);
 - 7) proposal for the examination of anchoring and mooring arrangements and associated fittings,
 - 8) proposal for the examination of Additional class Notation machinery systems arrangement and associated fittings (if any);
- b) proposal for non destructive examination of piping steelwork, and in general for all systems requiring welding for their manufacture or installation;
- c) proposals for testing of machinery components after their manufacture or installation on board;
- d) any other proposals specific to the ship type or to the delegated statutory requirements.

2.7.2 Submittal of plans to the Surveyors (1/1/2016)

The plans and any modifications to them are to be submitted to the Surveyors in sufficient time to allow review before the relevant survey activity commences.

2.8 Proof of the consistency of surveys

2.8.1 Evidence for survey planning and activities (1/1/2016)

Inspection and test records, checklists etc are to be kept in order to provide evidence that the Society's Surveyors have complied with the requirements of the new building survey planning and duly participated in the relevant activities shown in the shipbuilder's examination and test plans.

2.9 Inspection and tests of machinery components

2.9.1 Inspection and tests at workshop (1/1/2016)

Inspection and testing of machinery components, at the workshop, shall be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations.

2.9.2 Inspection and tests at dock and sea trials (1/1/2016)

Inspection and testing of machinery components during sea trials are to be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations.

The following Parts of the Rules are applicable:

- a) main propulsion systems, including but not limited to propeller shafting line: Pt C, Ch 1, Sec 12
- b) auxiliary systems for propulsion and other services systems: Pt C, Ch 1, Sec 12
- c) main and auxiliary systems for steering: Pt C, Ch 1, Sec 12
- d) main and auxiliary piping systems: Pt C, Ch 1, Sec 12 and Pt C, Ch 1, Sec 9
- e) main, emergency and auxiliary electrical system for primary, secondary and emergency systems: Pt C, Ch 2, Sec 1
- f) automation systems: Pt C, Ch 3, Sec 5 and Pt C, Ch 3, Sec 6
- g) machinery system for mooring and anchoring (if any): Pt B, Ch 1, Sec 3
- h) machinery systems required for specific Additional Class Notations Part E.

3 Assignment of double or dual class for New Construction

3.1 <u>Assignment of double class for New</u> Construction

3.1.1 <u>(1/2/2021)</u>

Whenever it is requested by the Shipyard/Owner to survey a new building under double class provisions of [1] and [2] apply.

3.2 <u>Assignment of dual class for New Construction</u>

3.2.1 <u>(1/2/2</u>021)

Whenever it is requested by the Shipyard/Owner to survey a new building under dual class:

- a) review and approval of plans, as appropriate, for the newbuilding are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1]:
- b) in application of the requirement of [1] and [2], survey during fabrication, construction and testing of the vessel are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1], and/or the bilateral agreement adopted by the two Societies, if any, clearly defining the scope of work of each Society.

ASSIGNMENT OF CLASS

1 General

1.1 Main cases of assignment of class

1.1.1 Assignment of class (1/2/2021)

Class is assigned to a unit upon a survey, with the associated operations, which is held in order to verify whether it is eligible to be classed on the basis of the Rules of the Society (see Ch 1, Sec 1, [1.3.2]). This may be achieved through:

- a) the completion of the new building, during which a survey has been performed,
- b) the completion of the new building, during which the survey has been carried out according to IACS Procedural Requirement PR 1B when the Society's class is assigned under double class or dual class regime with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR 1A when units change class from one QSCS Classification Society see Note 1 to the Society, or
- d) a survey carried out according to the IACS Procedural Requirement PR 1B, when the Society's class is added to a unit already in class with another QSCS Classification Society, or
- e) a survey carried out according to the IACS Procedural Requirement PR1D, when units change class from one non-QSCS Classification Society (see Note 1) to the Society or is not classed at all
- f) a specific admission to class survey, in cases where a unit is classed with a non-QSCS Classification Society or is not classed at all.

Note 1: The obligations of the Procedural Requirement PR1A, PR1B and PR1D apply as pertinent to QSCS Classification Societies

1.1.2 Reassignment of class (1/7/2015)

Reassignment of class is that part of the process of classification consisting in all the steps aimed at issuing a Certificate of Classification to a unit previously classed with the Society but which had the class withdrawn.

Four cases are considered for reassignment of class:

- a) unit in service classed by another QSCS Classification Society,
- b) unit in service not classed by another QSCS Classification Society,
- c) unit no longer in service since the withdrawal of the class by the Society,
- d) unit no longer in service since the withdrawal of the class by another Society, QSCS or not.

2 New building procedure

2.1 Units surveyed by the Society during construction

2.1.1 When a unit is surveyed by the Society during construction, it is to comply with those requirements of the Rules which are in force and applicable depending on the class of the unit, taking into account the provisions of Ch 1, Sec 1, [2.2].

2.1.2 The Society:

- a) approves the plans and documentation submitted as required by the Rules
- b) proceeds, if required, with the appraisal of the design of materials and equipment used in the construction of the unit and their inspection at works
- c) carries out surveys or obtains appropriate evidence to satisfy itself that the scantlings and construction meet the rule requirements in relation to the approved drawings
- d) attends tests and trials provided for in the Rules
- e) assigns the construction mark ♣; refer to Ch 1, Sec 2, [3.2.1].
- **2.1.3** The Society defines in specific Rules which materials and equipment used for the construction of units built under survey are, as a rule, subject to appraisal of their design and to inspection at works, and according to which particulars.
- **2.1.4** As part of his interventions during the unit's construction, the Surveyor will:
- a) conduct an overall examination of the parts of the unit covered by the Rules
- b) examine the construction methods and procedures when required by the Rules
- c) check selected items covered by the rule requirements
- attend tests and trials where applicable and deemed necessary.

2.1.5 Use of materials, machinery, appliances and items

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 units surveyed by the Society during construction are to be new and, where intended for essential services as defined in, tested by the Society.

- **2.3.9** The submitted plans are to contain all necessary information for checking the compliance with the requirements of the Rules.
- **2.3.10** In the case of conflicting information, submitted documentation will be considered in the following order of precedence: design data, plans, design calculations.
- **2.3.11** It is the responsibility of the Interested Party to ascertain that drawings used for the procurement, construction and other works are in accordance with the approved plans.
- 2.4 Assignment of Double Class to a unit surveyed during construction by two Societies

2.4.1 Double Class (1/2/2021)

A double class unit is one which is classed by two Societies, where each Society acts independently during construction.

2.4.2 **General** (1/2/2021)

The requirements from [2.1] to [2.3] apply also for the assignment of the Double Class to a new construction

2.4.3 <u>Survey (1/2/20</u>21)

The surveyor surveys the unit to check that it complies with the requirements of Ch 3. Sec 1, [3.1].

2.5 Assignment of a Dual Class to a unit surveyed during construction by two QSCS Classification Societies and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1B)

2.5.1 **Dual Class** (1/2/2021)

A dual class new building is one which is classed during construction by two Societies where each Society acts on behalf of the other Society in accordance with the trilateral agreement adopted by the two Societies and the shipyard. This agreement shall clearly define modalities such as submission of plans, rules to be applied, harmonizing and resolution of plan approval comments between societies.

2.5.2 <u>Basic conditions (1/2/2021)</u>

The Procedural Requirements for assigning dual class are applicable when none of the Societies which carried out the new construction technical review has issued its first Certificate of Classification (see Note 1). Unless stated otherwise, the provisions apply to units of over 100 GT of whatever type, self-propelled or not, restricted or unrestricted service, except for "inland waterway" units. Cases concerning units of 100 GT or less are dealt with by the Society on a case-by case basis.

Whenever the Societies are requested by a Shipyard/Owner to accept a new building into their class under dual class:

 each Society is to share information and records related to new construction such as plan approval including following up and closing of comments imposed, surveys, inspection, witnesses and tests etc., to perform the sur-

- veys and verify compliance with the relevant requirements; and
- b) each Society is to issue a certificate of classification for the vessel upon satisfactory completion of new construction survey process.

Note 1: "First Certificate of Classification" means either the Interim Certificate of Classification or full term Certificate of Classification or another document serving the same purpose.

2.5.3 **General** (1/2/2021)

The requirements from [2.1] to [2.3] are applied in accordance with the trilateral agreement referred to in [2.5.1].

2.5.4 **Surveys** (1/2/2021)

The surveyor surveys the unit to check that it complies with the requirements of Ch 3, Sec 1, [3.2].

3 Units classed after construction

3.1 General

3.1.1 *(1/7/2015)*

When an Owner applies to the Society for a unit already in service to be admitted to class, the application will be processed differently depending on whether the unit is:

- a) classed with a QSCS Classification Society, or
- b) not classed with a QSCS Classification Society, or
- c) not classed at all.

3.2 Transfer to the Society's class of a unit in service classed by another QSCS Classification Society (IACS PR 1A)

3.2.1 Documentation to be submitted and design assessment (1/1/2014)

As a rule, the minimum documentation to be supplied for filing purposes is listed hereinafter, as far as applicable with regard to the unit concerned. The Society may carry out a design assessment on a case-by-case basis (additional documentation may be requested.

- a) Main plans:
 - 1) general arrangement,
 - 2) capacity plan,
 - 3) hydrostatic curves,
 - 4) loading manual where required,
 - 5) damage stability calculation, where required.
- b) Hull structure plans:
 - 1) midship section,
 - 2) scantling plan,
 - 3) decks,
 - 4) shell expansion,
 - 5) transverse bulkheads,
 - 6) rudder and rudder stock,
 - 7) hatch covers.

less than 15 years of age or by the losing Society for units 15 years of age and above;;

- 2) until all relevant surveys specified in Ch 3, Sec 2, [1.1.2] have been satisfactorily completed; when facilities are not available in the first port of survey, an Interim Certificate of Classification may be issued to allow the unit to undertake a direct voyage to a port where facilities are available to complete surveys required in Ch 3, Sec 2, [1.1.2]. In such cases the surveys specified in Ch 3, Sec 2, [1.1.2] are to be carried out to the maximum extent practicable at the first port of survey, but in no case less than the scope of annual hull surveys and machinery surveys as required in Ch 3, Sec 2, [1.1.2] b);
- 3) before giving the opportunity to the flag Administration to provide any further instructions within 3 working days, in compliance with the requirements of Art. 10.5 of the Regulation (EC) No 391/2009.

3.2.4 Limitations of IACS Procedural Requirement PR 1A for the Certificate of Classification

The validity of the Interim Certificate of Classification and the subsequent Certificate of Classification is subject to any outstanding recommendations previously issued against the unit being completed by the due date and as specified by the losing Society. Any outstanding recommendations with their due dates are stated on the Survey Endorsement Sheets and survey status when the full term Certificate of Classification is issued.

If additional information regarding overdue surveys or recommendations is received from the losing Society after the Interim Certificate of Classification has been issued, these are to be dealt with at the first port of call by the Society for units less than 15 years of age or by the losing Society for units 15 years of age or over. If this is not accomplished, the Interim Certificate of Classification is withdrawn immediately unless the Owner agrees to proceed directly, without further trading, to a suitable port where any overdue surveys or overdue recommendations are to be carried out by the relevant Society based on the age of the unit.

3.2.5 Surveys

The Surveyor:

- a) checks that the outcome of the design assessment (if any), survey instructions and losing Society's survey status are available,
- b) surveys the unit to check that it complies with the outcome of the design assessment (if any) and with the requirements Ch 3, Sec 2, [1.1.2].

3.2.6 Interim Certificate of Classification

Upon satisfactory completion of the survey for assignment of class, the Surveyor issues to the Owner an interim Certificate of Classification valid not more than 5 months, provided that the conditions in [3.2.2] to [3.2.5] are met. This certificate indicates the class notations.

The certificate is issued with a Survey Endorsement Sheet where all outstanding recommendations and significant memoranda are recorded; class notations requested by the Owner and not assigned due to pending items are clearly indicated together with the relevant pending items.

3.2.7 Certificate of Classification

Upon satisfactory review of the survey reports, the Society issues to the Owner the Certificate of Classification valid for the whole period of class, provided that the conditions in [3.2.2] to [3.2.5] are met. The certificate indicates the class notations.

All outstanding recommendations, significant memoranda and pending items for class notations not assigned are made available in the survey status.

3.3 Transfer to the Society's class of a unit surveyed during construction by another IACS Society at shipunit's delivery (IACS PR 1A)

3.3.1 Documentation to be submitted and design assessment

The requirements of [3.2.1] apply.

3.3.2 Basic conditions of IACS Procedural Requirement PR 1A

The Procedural Requirements for transfer of class at shipunit's delivery (see Note 1) are applicable when the Society which carried out the new construction technical review and surveys (i.e. the losing Society) has issued its first Certificate of Classification (see Note 2). Unless stated otherwise, the provisions apply to units of over 100 GT of whatever type, self-propelled or not, restricted or unrestricted service.

Whenever the Society is requested by an Owner to accept a unit into class at its delivery, the Society immediately notifies the Owner in writing that:

- a) any outstanding recommendations are to be dealt with by their due dates;
- b) copies of the plans listed in [3.2.1] are to be provided to the Society as a prerequisite to obtaining a full term Certificate of Classification.

If the Owner is unable to provide all of the required plans, the Society requests that the Owner authorises the losing Society to transfer copies of such of these plans as it may possess directly to and upon request from the Society, with the advice that the losing Society will invoice the Society and the Society may, in turn, charge the associated costs to the Owner.

Note 1: "At shipunit's delivery" means that the new construction survey process is completed and the unit has not departed from the yard.

Note 2: "First Certificate of Classification" means either the Interim Certificate of Classification or full term Certificate of Classification or another document serving the same purpose.

3.3.3 Conditions of IACS Procedural Requirement PR 1A, preventing issue of the Interim Certificate of Classification (1/1/2014)

Prior to issuing an Interim Certificate of Classification on the date of the shipunit's delivery, the Society is to obtain:

- a) from the Owner, a written request for transfer of class at shipunit's delivery, containing an authorisation for the Society to obtain a copy of the first Certificate of Classi-fication from the losing Society; and
- b) the first Certificate of Classification from the Headquarters of the losing Society or one of its designated control

3.4.3 Conditions of IACS Procedural Requirement PR 1A, preventing issue of the Interim Certificate of Classification

Prior to issuing an Interim Certificate of Classification the Society is to:

- a) obtain from the Owner, a written application for entry into the Society's class, containing an authorisation for the Society to obtain the current classification status from the first Society;
- b) obtain the first Certificate of Classification from the Headquarters of the first Society or from one of its designated control or management centres or from the attending Surveyor at the yard of the builders, including any outstanding recommendations/conditions of class and information normally contained in the classification status; and
- c) carry out and satisfactorily complete all relevant surveys specified in Ch 3, Sec 2, [1.2.1].

3.4.4 Limitations of IACS Procedural Requirement PR 1A for the Certificate of Classification

The validity of the Interim Certificate of Classification and the subsequent Certificate of Classification is subject to any outstanding recommendations previously issued against the unit being completed by the due dates and as specified by the first Society. Any outstanding recommendations with their due dates are stated on the Survey Endorsement Sheets and survey status when the full term Certificate of Classification is issued.

3.4.5 Surveys

The Surveyor:

- a) checks that the outcome of the design assessment (if any), survey instructions and first Society's survey status are available;
- b) surveys the unit to check that it complies with the outcome of the design assessment (if any) and with the requirements of Ch 3, Sec 2, [1.1.2].

3.4.6 Interim Certificate of Classification

Upon satisfactory completion of the survey for assignment of class, the Surveyor issues to the Owner an Interim Certificate of Classification valid not more than 5 months, provided that the conditions in [3.4.2] to [3.4.5] are met. This certificate indicates the class notations.

The certificate is issued with a Survey Endorsement Sheet where all outstanding recommendations and significant memoranda are recorded; class notations requested by the Owner and not assigned due to pending items are clearly indicated together with the relevant pending items.

3.4.7 Certificate of Classification

Upon satisfactory review of the survey reports, the Society issues to the Owner the Certificate of Classification valid for the whole period of class, provided that the conditions in [3.4.2] to [3.4.5] are met. The Certificate indicates the class notations.

All outstanding recommendations, significant memoranda and pending items for class notations not assigned are made available in the survey status.

3.5 Addition of the Society's class to a unit surveyed during construction by another QSCS Classification Society at the shipunit's delivery (IACS PR1B)

3.5.1 Documentation to be submitted and design assessment

The requirements of [3.2.1] apply.

3.5.2 Basic conditions of IACS Procedural Requirement PR 1A

The Procedural Requirements for adding class at shipunit's delivery are applicable when the Society which carried out the new construction technical review and surveys (i.e. the first Society) has issued its first Certificate of (see Note 2 to item [3.3.2]). Unless stated otherwise, the provisions apply to units of over 100 GT of whatever type, self-propelled or not, restricted or unrestricted service.

Whenever the Society is requested by an Owner to accept a unit already classed by another QSCS Classification Society (the first Society) into its class under double or dual class arrangement at shipunit's delivery, the following applies:

- a) the Owner is to inform the first Society of his request to the Society;
- b) the Owner is to authorise the first Society to submit to the Society its Certificate of Classification;
- c) when the Owner decides to leave the double or dual class arrangement and prior to withdrawing from the class of either of the Societies, he is to inform the Societies of his intended actions:
- d) when the Owner is advised that one of the Societies involved in double or dual class arrangement is suspending or withdrawing class. he is to inform the remaining Society of the action taken by the other Society without delay;
- e) copies of the plans listed in [3.2.1] are to be provided to the Society as a prerequisite to obtaining a full term Certificate of Classification. If the Owner is unable to provide all of the required plans, the Society requests that the Owner authorise the first Society to transfer copies of such of these plans as it may possess directly to and upon request from the Society, with the advice that the first Society will invoice the Society and the Society may, in turn, charge the associated costs to the Owner.

3.5.3 Conditions of IACS Procedural Requirement PR 1A, preventing issue of the Interim Certificate of Classification

Prior to issuing an Interim Certificate of Classification on the date of the shipunit's delivery, the Society is to obtain:

- a) from the Owner, a written request for entry into the Society's class at shipunit's delivery, containing an authorisation for the Society to obtain a copy of the first Certificate of Classification from the first Society; and
- b) the first Certificate of Classification from the Headquarters of the first Society or one of its designated control or management centres or from the attending Surveyor at the builder's yard, including any outstanding recommendations and information normally contained in the classification status.

6 Double or dual class procedure

6.1 Definitions

6.1.1 Double class (1/2/2021)

A double class unit is one which is classed by two Societies, where each one works as if it is the only Society classing the unit and does all surveys in accordance with its own requirements and schedule. A double class unit is an existing one which is classed by two Societies, where each one acts independently when the unit is in service.

6.1.2 Dual class (1/2/2021)

A dual class unit is one which is classed by two Societies between which there is a written agreement regarding sharing of work, reciprocal recognition of surveys carried out by each of the Societies on behalf of the other and full exchange of information on the class status and survey

reports. A dual class unit is an existing one which is classed by two Societies and

- each Society acts on behalf of the other Society in accordance with the bilateral agreement adopted by the two Societies. This agreement shall clearly define the scope of work of each Society:
- b) <u>each Society is to review whether the work undertaken</u> by other Society on its behalf has been completed as agreed.

6.2 Procedure

6.2.1 The procedure of admission to class of a unit already classed with another QSCS Classification Society under double or dual class arrangement is to be the same as that provided for single class arrangement.

SURVEY FOR NEW CONSTRUCTION

1 Hull

1.1 Plans and documents

- **1.1.1** When a unit is requested for classification with the Society during building, construction plans and all necessary documents relevant to the hull, machinery and equipment, as detailed in the Rules, are to be submitted for approval of the Society before the work is commenced. Any subsequent modifications or additions to the structure, arrangements, systems or equipment indicated on the approved plans and documents are also to be submitted for approval.
- **1.1.2** Copies of approved plans (showing the unit as built), essential certificates and records, the Operating Manual and loading and other instruction manuals are to be readily available for use when required by the Society's Surveyors, and is required to be kept on board.

1.2 Materials

1.2.1

Materials used in the construction of process plant and riser systems are to comply with the requirements in Ch 2, Sec 1, [2.1.5].

1.3 Formal safety case

1.3.1 Where classification is to be based on a formal safety case approach, special consideration will be given by the Society to the use of materials in accordance with internationally recognized Codes and Standards.

2 Survey during construction

2.1 Special survey

2.1.1 New units intended for classification by the Society are to be built according to special survey requirements. From the commencement of work until the completion of the unit, the Surveyors are to verify that the materials, workmanship and arrangements are satisfactory and compliant with the Rules. Any items found not to be in accordance with the Rules or the approved plans, or any material, workmanship or arrangements found to be unsatisfactory, are to be rectified.

2.2 Special surveys of facultative plants / systems

2.2.1

When the process plant and riser systems of a unit are constructed under survey of the Society, this survey is to relate to the period from the commencement of the work until the final test under working conditions. Any items found not to be in accordance with the Rules or the approved plans, or any material, workmanship or arrangements found to be unsatisfactory, are to be rectified.

2.2.2

When remote and/or automatic control equipment, alarms and safeguards are fitted to the process plant and riser systems, the equipment is to be arranged, installed and tested in accordance with the Society's Rules.

3 Assignment of double or dual class for New Construction

3.1 <u>Assignment of double class for New</u> Construction

3.1.1 <u>(1/2/2021)</u>

Whenever it is requested by the Shipyard/Owner to survey a new building under double class provisions of [1] and [2] apply.

3.2 <u>Assignment of dual class for New Con</u>struction

3.2.1 (1/2/2021)

Whenever it is requested by the Shipyard/Owner to survey a new building under dual class:

- a) review and approval of plans, as appropriate, for the newbuilding are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1];
- b) in application of the requirement of [1] and [2], survey during fabrication, construction and testing of the vessel are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1], and/or the bilateral agreement adopted by the two Societies, if any, clearly defining the scope of work of each Society.

ASSIGNMENT OF CLASS

1 General

1.1 Main cases of assignment of class

1.1.1 Assignment of class (1/2/2021)

Class is assigned to a yacht upon a survey, with the associated operations, which is held in order to verify whether it is eligible to be classed on the basis of the Rules of Tasneef (see Ch 1, Sec 1, [1.3.2]). This may be achieved through:

- the completion of the new building, during which a survey has been performed, or
- the completion of the new building, during which the survey has been carried out according to IACS Procedural Requirement PR 1B when the Society's class is assigned under double class or dual class regime with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR1A, when yachts change class from one QSCS Classification Society (see Note 1) to Tasneef or
- a survey carried out according to the IACS Procedural Requirement PR1B, when Tasneef class is added to a yacht already in class with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR1D, when yachts change class from one non-QSCS Classification Society (see Note 1) to Tasneef or is not classed at all.

Note 1: The obligations of the Procedural Requirements PR1A, and PR1B and PR1D apply as pertinent to QSCS Classification Societies

1.1.2 Reassignment of class (1/1/2016)

Reassignment of class is that part of the process of classification consisting in all the steps aimed at issuing a Certificate of Classification to a yacht previously classed with Tasneef but which had the class withdrawn.

Four cases are considered for reassignment of class:

- a) yacht in service classed by another QSCS Classification Society,
- b) yacht in service not classed by another QSCS Classification Society,
- c) yacht no longer in service since the withdrawal of the class by Tasneef,
- d) yacht no longer in service since the withdrawal of the class by another Society, QSCS or not.

2 New building procedure

2.1 Yacht surveyed during construction

2.1.1 When a yacht is surveyed during construction, it is to comply with those requirements of the Rules which are in force and applicable depending on the class of the yacht, taking into account the provisions of Ch 1, Sec 1, [2.1].

2.1.2 Tasneef:

- approves the plans and documentation submitted as required by the Rules
- proceeds, if required, with the appraisal of the design of materials and equipment used in the construction of the yacht and their inspection at works
- carries out surveys or obtains appropriate evidence to satisfy itself that the scantlings and construction meet the Rule requirements in relation to the approved drawings
- · attends tests and trials provided for in the Rules
- assigns the construction mark (refer to Ch 1, Sec 2, [3.2].
- **2.1.3** Tasneef defines in specific Rules which materials and equipment used for the construction of yachts built under survey are, as a rule, subject to appraisal of their design and to inspection at works, and according to which particulars.
- **2.1.4** As part of his interventions during the yacht's construction, the Surveyor will:
- conduct an overall examination of the parts of the yacht covered by the Rules
- examine the construction methods and procedures when required by the Rules
- check selected items covered by the rule requirements
- attend tests and trials where applicable and deemed necessary.

The Surveyor in charge is to be satisfied of the overall conditions of constructions of the shipyard, its capability and workmanship.

2.1.5 Use of materials, machinery, appliances and items (1/1/2016)

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 yachts surveyed by Tasneef during construction are to be new and, where intended for essential services as defined in Ch 1, Sec 1, [1.2.1], tested by Tasneef.

- **2.3.9** The submitted plans are to contain all necessary information for checking compliance with the requirements of the Rules.
- **2.3.10** In the case of conflicting information, submitted documentation will be considered in the following order of precedence: design data, plans, design calculations.
- **2.3.11** It is the responsibility of the Interested Party to verify that drawings used for the procurement, construction and other works are in accordance with the approved plans.

2.4 Assignment of Double Class to a yacht surveyed during construction by two Societies

2.4.1 **Double Class** (1/2/2021)

A double class yacht is one which is classed by two Societies, where each Society acts independently during construction.

2.4.2 **General** (1/2/2021)

The requirements from [2.1] to [2.3] apply also for the assignment of the Double Class to a new construction

2.4.3 Survey (1/2/2021)

The surveyor surveys the yacht to check that it complies with the requirements of Ch 3, Sec 1, [3.1].

2.5 Assignment of a Dual Class to a yacht surveyed during construction by two QSCS Classification Societies and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1B)

2.5.1 **Dual Class** (1/2/2021)

A dual class new building is one which is classed during construction by two Societies where each Society acts on behalf of the other Society in accordance with the trilateral agreement adopted by the two Societies and the shipyard. This agreement shall clearly define modalities such as submission of plans, rules to be applied, harmonizing and resolution of plan approval comments between societies.

2.5.2 <u>Basic conditions (1/2/2021)</u>

The Procedural Requirements for assigning dual class are applicable when none of the Societies which carried out the new construction technical review has issued its first Certificate of Classification (see Note 1). Unless stated otherwise, the provisions apply to yachts of over 100 GT of whatever type, self-propelled or not, restricted or unrestricted service, except for "inland waterway" yachts. Cases concerning yachts of 100 GT or less are dealt with by the Society on a case-by case basis.

Whenever the Societies are requested by a Shipyard/Owner to accept a new building into their class under dual class:

 each Society is to share information and records related to new construction such as plan approval including following up and closing of comments imposed, surveys, inspection, witnesses and tests etc., to perform the sur-

- veys and verify compliance with the relevant requirements; and
- b) each Society is to issue a certificate of classification for the vessel upon satisfactory completion of new construction survey process.

Note 1: "First Certificate of Classification" means either the Interim Certificate of Classification or full term Certificate of Classification or another document serving the same purpose.

2.5.3 **General** (1/2/2021)

The requirements from [2.1] to [2.3] are applied in accordance with the trilateral agreement referred to in [2.5.1].

2.5.4 Surveys (1/2/2021)

The surveyor surveys the yacht to check that it complies with the requirements of Ch 3, Sec 1, [3.2].

3 Yachts classed after construction

3.1 General

3.1.1 *(1/1/2016)*

When an Owner applies to Tasneef for a yacht already in service to be admitted to class, the application will be processed differently depending on whether the yacht is:

- classed with a QSCS Classification Society, or
- not classed with a QSCS Classification Society, or
- not classed at all.

3.2 Transfer to Tasneef class of a yacht in service classed by another QSCS Classification Society (IACS PR 1A)

3.2.1 Documentation to be submitted and design assessment (1/1/2017)

As a rule, the minimum documentation to be supplied for filing purposes is listed hereinafter. Tasneef may carry out a design assessment on a case-by-case basis (additional docu-mentation may be requested).

- a) Main plans:
 - General arrangement
 - · Capacity plan
 - Loading manual, where required, which is to contain, as a minimum, loading cases, calculations of still water bending moments, and relevant documents, particulars of loading calculator and instruction booklet as per Tasneef requirements, according to the case,
 - Hydrostatic curves and stability documentation, as applicable
 - · Damage stability calculations, where required
- b) Hull structure plans:
 - Midship section
 - Scantling plans
 - Profile and decks plan
 - Shell expansion
 - Watertight bulkheads, transverse and longitudinal (if any),

5.3 Yachts in service not classed by a QSCS Classification Society, but previously classified by a QSCS Classification Society

5.3.1 General (1/1/2016)

The following two cases are considered:

- a) the date of the class withdrawal, by the last QSCS Classification Society, falls within the time window of six months counted from the date of the classification request: the provisions of [5.1] apply;
- b) the date of the class withdrawal, by the last QSCS Classification Society, does not fall within the time window of six months counted from the date of the classification request: the provisions of [5.2] apply.

When the yacht was previously classed by Tasneef and since the withdrawal of Tasneef class no conversion or significant modification of the yacht or alteration of the yacht's class has been made, a design assessment may nevertheless be required.

5.4 Yachts no longer in service since class withdrawal by Tasneef

5.4.1 General (1/1/2016)

This paragraph is applicable, based on the premise that after the class was withdrawn by Tasneef, the yacht:

- a) never resumed its trade
- b) has not been classified by any other Classification Society.

5.4.2 Conditions, Surveys and Certificate of Classification (1/1/2016)

The requirements of Ch 2, Sec 3, [1.4] apply

5.5 Yachts no longer in service since class withdrawal by a QSCS Classification Society or by a non-QSCS Classification Society

5.5.1 Documentation to be submitted and design assessment (1/1/2016)

The requirements of [3.6.1] apply.

5.5.2 Conditions, Surveys and Certificate of Classification (1/1/2016)

The requirements of [3.6.2] to [3.6.9] apply.

6 Double or dual class procedure

6.1 Definitions

6.1.1 Double class (1/2/2021)

A double class yacht is one which is classed by two Classification Societies, where each one works as if it is the only Society classing the yacht, and does all surveys in accordance with its own requirements and schedule. A double class yacht is an existing one which is classed by two Societies, where each one acts independently when the yacht is in service.

6.1.2 Dual class (1/2/2021)

A dual class yacht is one which is classed by two Societies between which there is a written agreement regarding sharing of work; this agreement shall clearly define the scope of work of each Society in the various applicable situations covered.

A dual class yacht is an existing one which is classed by two Societies and

- each Society acts on behalf of the other Society in accordance with the bilateral agreement adopted by the two Societies. This agreement shall clearly define the scope of work of each Society;
- b) <u>each Society is to review whether the work undertaken</u> by other Society on its behalf has been completed as <u>agreed</u>.

6.2 Procedures

6.2.1 (1/1/2016)

The procedures of admission to class of a yacht already classed with another QSCS Classification Society under double or dual class arrangement are those indicated in [3.4] and [3.5].

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SURVEY FOR NEW CONSTRUCTIONS

1 Hull

1.1 General

1.1.1 Scope (1/1/2016)

The scope of this Article [1] includes the following main activities:

- a) Examination of the parts of the yacht covered by classification Rules and by applicable statutory regulations for hull construction, to obtain appropriate evidence that they have been built in compliance with the Rules and regulations, taking account of the relevant approved drawings.
- b) Appraisal of the manufacturing, construction, control and qualification procedures, including welding consumables, weld procedures, weld connections and assemblies, with indication of relevant approval tests.
- c) Witnessing inspections and tests as required in the classification Rules used for yacht construction including materials, welding and assembling, with specification of the items to be examined and/or tested, the methods (e.g. by hydrostatic, hose or leak testing, non-destructive examination, verification of geometry) and who is to carry out such inspections and tests.

Appraisal of materials and equipment used for yacht construction and their inspection at works is not included in this Article [1]. Details of requirements for hull and machinery steel forgings and castings and for normal and higher strength hull structural steel are given in Pt D, Ch 2, Sec 3, Pt D, Ch 2, Sec 4 and Pt D, Ch 2, Sec 1, [2] respectively.

Acceptance of these items is verified through the survey process carried out at the Manufacturer's works and the issuing of the appropriate certificates.

1.2 Definitions

1.2.1 Hull structure (1/1/2016)

The hull structure (see Note 1) is defined as follows:

- a) hull envelope including all internal and external structures.
- b) superstructures, deckhouses and casings,
- c) welded foundations, e.g. main engine seatings,
- d) hatch coamings, bulwarks,
- e) all penetrations fitted and welded into bulkheads, decks and shell,
- f) the fittings of all connections to decks, bulkheads and shell, such as air pipes and yacht side valves all items

- of ILLC 1966, as amended, as recalled by the Statutory Requirements, if any,
- g) welded attachments to shell, decks and primary members, e.g. crane pedestals, bitts and bollards, but only as regards their interaction on the hull structure.

Note 1: A glossary of hull terms and hull survey terms can be found in IACS Recommendation 82.

1.2.2 Hull structure (1/1/2016)

Reference to documents also includes electronic transmission or storage.

1.2.3 Survey methods (1/1/2016)

The survey methods which the Surveyor is directly involved in are as follows:

- a) Patrol is defined as the act of checking on an independent and unscheduled basis that the applicable processes, activities and associated documentation of the shipbuilding functions identified in Tab 1 (See [1.3]) continue to conform to classification and statutory requirements.
- b) Review is defined as the act of examining documents in order to determine traceability and identification, and to confirm that processes continue to conform to classification and statutory requirements.
- c) Witness is defined as the attendance at scheduled inspections in accordance with the agreed Inspection and Test Plans or equivalent to the extent necessary to check compliance with the survey requirements.

1.3 Application

1.3.1 Classification items (1/1/2016)

This Article [1] covers the classification surveys of all new construction of yachts intended for international voyages.

For yachts other than steel this procedure is to be applied as far as practicable and applicable. Tab 1 is reported in Pt A, Ch 3, Sec 1 of Tasneef Rules for the Classification of Ships and it has to be applied taking into consideration the hull mate-rial and the applicable Statutory requirements.

1.3.2 Statutory items (1/1/2016)

This Article [1] covers all delegated statutory items relevant to the hull structure and coating.

1.3.3 Equipment, fittings and appendages (1/1/2016)

This Article [1] does not cover the manufacture of equipment, fittings and appendages regardless of whether they

2.6.6 Special cases of kick-off meeting (1/1/2016)

In the event of series yacht production, consideration may be given to waiving the requirement for a kick-off meeting for the second and subsequent yachts provided any changes are documented as required in [2.6.1] and in [2.6.3].

2.7 Examination and test plan for newbuilding activities

2.7.1 Plans to be provided (1/1/2016)

The shipbuilder is to provide plans of the items which are intended to be examined and tested. These plans need not be submitted for approval and examination at the time of the kick-off meeting. They are to include:

- a) list of machinery components to be fitted on board including the machinery arrangement plans, comprehensive of:
 - proposals for the examination of piping steelwork, including booklets of typical arrangements, completed with the list of the materials and fittings;
 - proposals for the examination of electric systems fittings, including booklets of typical arrangements, completed with the list of the materials and devices;
 - proposal for the examination of propulsion system(s) arrangement and associated fittings;
 - 4) proposal for the examination of steering system(s) arrangement and associated fittings;
 - 5) proposal for the examination of the machinery systems arrangement, as referred in Pt C, Ch 1, Sec 9, and associated fittings
 - 6) proposal for the examination of automation system(s) arrangement and associated fittings (if any);
 - 7) proposal for the examination of anchoring and mooring arrangements and associated fittings,
 - 8) proposal for the examination of Additional class Notation machinery systems arrangement and associated fittings (if any);
- b) proposal for non destructive examination of piping steelwork, and in general for all systems requiring welding for their manufacture or installation;
- c) proposals for testing of machinery components after their manufacture or installation on board;
- d) any other proposals specific to the yacht type or to the delegated statutory requirements.

2.7.2 Submittal of plans to the Surveyors (1/1/2016)

The plans and any modifications to them are to be submitted to the Surveyors in sufficient time to allow review before the relevant survey activity commences.

2.8 Proof of the consistency of surveys

2.8.1 Evidence for survey planning and activities (1/1/2016)

Inspection and test records, checklists etc are to be kept in order to provide evidence that the Society's Surveyors have complied with the requirements of the newbuilding survey planning and duly participated in the relevant activities shown in the shipbuilder's examination and test plans.

2.9 Inspection and tests of machinery components

2.9.1 Inspection and tests at workshop (1/1/2016)

Inspection and testing of machinery components, at the workshop, shall be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations.

2.9.2 Inspection and tests at dock and sea trials (1/1/2016)

Inspection and testing of machinery components during sea trials are to be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations.

The following Parts of the Rules are applicable:

- a) min propulsion systems, including but not limited to propeller shafting line: Pt C, Ch 1, Sec 12
- b) auxiliary systems for propulsion and other services systems: Pt C, Ch 1, Sec 12
- c) main and auxiliary systems for steering: Pt C, Ch 1, Sec
 12
- d) main and auxiliary piping systems: Pt C, Ch 1, Sec 12 and Pt C, Ch 1, Sec 9
- e) main, emergency and auxiliary electrical system for primary, secondary and emergency systems: Pt C, Ch 2, Sec 6
- f) automation systems: Pt C, Ch 3, Sec 5 and Pt C, Ch 3, Sec 6
- g) machinery system for mooring and anchoring (if any): Pt B, Ch 1, Sec 3
- h) machinery systems required for specific Additional Class Notations: Part E.

3 <u>Assignment of double or dual class</u> <u>for New Construction</u>

3.1 Assignment of double class for New Construction

3.1.1 <u>(1/2/2021)</u>

Whenever it is requested by the Shipyard/Owner to survey a new building under double class provisions of [1] and [2] apply.

3.2 <u>Assignment of dual class for New Construction</u>

3.2.1 <u>(1/2/2021)</u>

Whenever it is requested by the Shipyard/Owner to survey a new building under dual class:

- review and approval of plans, as appropriate, for the newbuilding are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1];
- b) in application of the requirement of [1] and [2], survey during fabrication, construction and testing of the vessel are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1], and/or the bilateral agreement adopted by the two Societies, if any, clearly defining the scope of work of each Society.

ASSIGNMENT OF CLASS

1 General

1.1 Main cases of assignment of class

1.1.1 Assignment of class (1/2/2021)

Class is assigned to a ship upon a survey, with the associated operations, which is held in order to verify whether it is eligible to be classed on the basis of the Rules of the Society (see Ch 1, Sec 1, [1.3.2]). This may be achieved through:

- the completion of the new building, during which a survey has been performed,
- the completion of the new building, during which the survey has been carried out according to IACS Procedural Requirement PR 1B when the Society's class is assigned under double class or dual class regime with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR 1A, when ships change class from one QSCS Classification Society (see Note 1) to the Society or the Society's class is added to a ship already in class with another QSCS Classification Society, or
- a specific admission to class survey, in cases where a ship is classed with a non-QSCS Classification Society or is not classed at all.

Note 1: The obligations of the Procedural Requirement PR1A apply to QSCS Classification Societies.

1.1.2 Reassignment of class

Reassignment of class is that part of the process of classification consisting in all the steps aimed at issuing a Certificate of Classification to a ship previously classed with the Society but which had the class withdrawn.

Two cases are considered for reassignment of class:

- a) ship in service classed by another QSCS Classification Society,
- b) ship in service not classed by another QSCS Classification Society.

2 New building procedure

2.1 Ships surveyed by the Society during construction

2.1.1 When a ship is surveyed by the Society during construction, it is to comply with those requirements of the Rules which are in force and applicable depending on the class of the ship, taking into account the provisions of Ch 1, Sec 1, [2.2].

2.1.2 The Society:

- approves the plans and documentation submitted as required by the Rules
- proceeds, if required, with the appraisal of the design of materials and equipment used in the construction of the ship and their inspection at works
- carries out surveys or obtains appropriate evidence to satisfy itself that the scantlings and construction meet the rule requirements in relation to the approved drawings
- · attends tests and trials provided for in the Rules
- assigns the construction mark ?; refer to Ch 1, Sec 2, [3.2.1].
- **2.1.3** 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.
- **2.1.4** As part of his interventions during the ship's construction, the Surveyor will:
- conduct an overall examination of the parts of the ship covered by the Rules
- examine the construction methods and procedures when required by the Rules
- check selected items covered by the rule requirements
- attend tests and trials where applicable and deemed necessary.

2.1.5 Use of materials, machinery, appliances and items

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.

Second hand materials, machinery, appliances and items may be used subject to the specific agreement of the Society and the Owner.

The requirements for the selection of materials to be used in the construction of the various parts of a ship, the characteristics of products to be used for such parts and the checks required for their acceptance are to be as stated in Part C and Part D, as applicable, or in other Parts of the Rules or as specified on approved plans. In particular, the testing of products manufactured according to quality assurance procedures approved by the Society and the approval of such procedures are governed by the requirements of Pt D, Ch 1, Sec 1, [3] of the Rules.

2.4 Assignment of Double Class to a ship surveyed during construction by two Societies

2.4.1 **Double Class** (1/2/2021)

A double class ship is one which is classed by two Societies, where each Society acts independently during construction.

2.4.2 **General** (1/2/2021)

The requirements from [2.1] to [2.3] apply also for the assignment of the Double Class to a new construction

2.4.3 Survey (1/2/2021)

The surveyor surveys the ship to check that it complies with the requirements of Ch 3, Sec 1, [4.1].

2.5 Assignment of a Dual Class to a ship surveyed during construction by two QSCS Classification Societies and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1B)

2.5.1 **Dual Class** (1/2/2021)

A dual class new building is one which is classed during construction by two Societies where each Society acts on behalf of the other Society in accordance with the trilateral agreement adopted by the two Societies and the shipyard. This agreement shall clearly define modalities such as submission of plans, rules to be applied, harmonizing and resolution of plan approval comments between societies.

2.5.2 **Basic conditions** (1/2/2021)

The Procedural Requirements for assigning dual class are applicable when none of the Societies which carried out the new construction technical review has issued its first Certificate of Classification (see Note 1). Unless stated otherwise, the provisions apply to ships of over 100 GT of whatever type, self-propelled or not, restricted or unrestricted service, except for "inland waterway" ships. Cases concerning ships of 100 GT or less are dealt with by the Society on a case-by case basis.

Whenever the Societies are requested by a Shipyard/Owner to accept a new building into their class under dual class:

- each Society is to share information and records related to new construction such as plan approval including following up and closing of comments imposed, surveys, inspection, witnesses and tests etc., to perform the surveys and verify compliance with the relevant requirements; and
- b) each Society is to issue a certificate of classification for the vessel upon satisfactory completion of new construction survey process.

Note 1: "First Certificate of Classification" means either the Interim Certificate of Classification or full term Certificate of Classification or another document serving the same purpose.

2.5.3 **General** (1/2/2021)

The requirements from [2.1] to [2.3] are applied in accordance with the trilateral agreement referred to in [2.5.1].

2.5.4 Surveys (1/2/2021)

The surveyor surveys the ship to check that it complies with the requirements of Ch 3, Sec 1, [4.2].

3 Ships classed after construction

3.1 General

- **3.1.1** When an Owner applies to the Society for a ship already in service to be admitted to class, the application will be processed differently depending on whether the ship is:
- classed with a QSCS Classification Society, or
- not classed with a QSCS Classification Society.

3.2 Transfer to the Society's class of a ship in service classed by another QSCS Classification Society (IACS PR 1A)

3.2.1 Documentation to be submitted and design assessment

As a rule, the minimum documentation to be supplied for filing purposes is listed hereinafter. The Society may carry out a design assessment on a case-by-case basis (additional documentation may be requested).

- a) Main plans:
 - 1) general arrangement,
 - 2) capacity plan,
 - 3) hydrostatic curves,
 - 4) loading manual where required.
- b) Hull structure plans:
 - 1) midship section,
 - 2) scantling plan,
 - 3) decks,
 - 4) shell expansion,
 - 5) transverse bulkheads,
 - 6) rudder and rudder stock,
 - 7) hatch covers.
- c) Machinery plans:
 - 1) machinery arrangement,
 - 2) intermediate, thrust and screw shafts,
 - 3) propeller,
 - main engines, propulsion gears and clutch systems (or Manufacturer's make, model and rating information),
 - 5) for steam turbine ships: main boilers, superheaters and economisers (or Manufacturer's make, model and rating information) and steam piping,
 - 6) bilge and ballast piping diagram,
 - 7) wiring diagram,
 - steering gear system piping and arrangements and steering gear (or Manufacturer's make and model information),
 - 9) torsion vibration calculations for ships less than two years old,

6 Double or dual class procedure

6.1 Definitions

6.1.1 Double class (1/2/2021)

A double class ship is one which is classed by two Societies, where each one works as if it is the only Society classing the ship and does all surveys in accordance with its own requirements and schedule. A double class ship is an existing one which is classed by two Societies, where each one acts independently when the ship is in service.

6.1.2 Dual class (1/2/2021)

A dual class ship is one which is classed by two Societies between which there is a written agreement regarding sharing of work; this agreement shall clearly define the scope of work of each Society in the various applicable situations covered.

A dual class ship is an existing one which is classed by two Societies and

- each Society acts on behalf of the other Society in accordance with the bilateral agreement adopted by the two Societies. This agreement shall clearly define the scope of work of each Society;
- b) each Society is to review whether the work undertaken by other Society on its behalf has been completed as agreed.

6.2 Procedure

6.2.1 The procedure of admission to class of a ship already classed with another QSCS Classification Society under double or dual class arrangement is to be the same as that provided for single class arrangement.

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SURVEY FOR NEW CONSTRUCTION

1 Hull

1.1 General

1.1.1 Scope

The scope of this Section includes the following main activities:

- a) Examination of the parts of the ship covered by classification Rules and by applicable statutory regulations for hull construction, to obtain appropriate evidence that they have been built in compliance with the Rules and regulations, taking account of the relevant approved drawings.
- b) Appraisal of the manufacturing, construction, control and qualification procedures, including welding consumables, weld procedures, weld connections and assemblies, with indication of relevant approval tests.
- c) Witnessing inspections and tests as required in the classification Rules used for ship construction including materials, welding and assembling, with specification of the items to be examined and/or tested, the methods (e.g. by hydrostatic, hose or leak testing, non-destructive examination, verification of geometry) and who is to carry out such inspections and tests.

Appraisal of materials and equipment used for ship construction and their inspection at works is not included in this Section. Details of requirements for hull and machinery steel forgings and castings and for normal and higher strength hull structural steel are given in Pt D, Ch 2, Sec 3, Pt D, Ch 2, Sec 4 and Pt D, Ch 2, Sec 1, [2] respectively. Acceptance of these items is verified through the survey process carried out at the Manufacturer's works and the issuing of the appropriate certificates.

1.2 Definitions

1.2.1 Hull structure

The hull structure (see Note 1) is defined as follows:

- a) hull envelope including all internal and external structures,
- b) superstructures, deckhouses and casings,
- c) welded foundations, e.g. main engine seatings,
- d) hatch coamings, bulwarks,
- all penetrations fitted and welded into bulkheads, decks and shell,

- f) the fittings of all connections to decks, bulkheads and shell, such as air pipes and ship side valves - all items of ILLC 1966, as amended,
- g) welded attachments to shell, decks and primary members, e.g. crane pedestals, bitts and bollards, but only as regards their interaction on the hull structure.

Note 1: A glossary of hull terms and hull survey terms can be found in IACS Recommendation 82.

1.2.2 Documents

Reference to documents also includes electronic transmission or storage.

1.2.3 Survey methods

The survey methods which the Surveyor is directly involved in are as follows:

- a) Patrol is defined as the act of checking on an independent and unscheduled basis that the applicable processes, activities and associated documentation of the shipbuilding functions identified in Tab 1 continue to conform to classification and statutory requirements.
- b) Review is defined as the act of examining documents in order to determine traceability and identification, and to confirm that processes continue to conform to classification and statutory requirements.
- c) Witness is defined as the attendance at scheduled inspections in accordance with the agreed Inspection and Test Plans or equivalent to the extent necessary to check compliance with the survey requirements.

1.3 Application

1.3.1 Classification items

This Section covers the survey of all new construction of steel ships intended for classification and for international voyages except for:

- a) those defined in SOLAS I/3
- b) high speed craft as defined in I/1.3.1 of the 2000 High Speed Craft Code
- Mobile Offshore Drilling Units as defined in I/1.2.1 of the MODU Code.

1.3.2 Statutory items

This Section covers all statutory items relevant to the hull structure and coating, i.e. Load Line and SOLAS Safety Construction.

Table 1: New construction survey activities (1/2/2021)

No.	Shipbuilding quality con- trol function	Survey Requirements for Classifica- tion	Survey Method required for Classifica- tion	Society Rule refer- ence	Statutory require- ments and relevant reference	Docu- menta- tion available to Sur- veyor dur- ing construc- tion	Docu- menta- tion for Ship Con- struction File	Specific activities	Society proposals for the project
1	Welding:								
1.1	Welding consumables	Approved by Society sepa- rately at the Manufac- turer's	Review approval status and patrol, verify storage, handling and treatment in accord- ance with Manufac- turer's require- ments	Pt D, Ch 5, Sec 2		Consuma- ble speci- fication and approval status	Not required	Identify consumables against approved list	
								Verify tem- porary and permanent storage facil- ities	E.g. kept dry, cov- ered, where applica- ble heated
								Verify trace- ability	E.g. ran- dom batch number checking
1.2	Welder qualification	Qualified welders	Review of welder cer- tification and patrol	Guide for Welding		Ship- yard's records with indi- vidual's identifica- tion	Not required	Verify welder qualification standard, e.g. class or recognised standard approval	
								Verify welder approved for weld posi- tion	
								Verify valid- ity of qualifi- cation certificate	

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No.	Shipbuilding quality con- trol function	Survey Requirements for Classifica- tion	Survey Method required for Classifica- tion	Society Rule refer- ence	Statutory require- ments and relevant reference	Docu- menta- tion available to Sur- veyor dur- ing construc- tion	Docu- menta- tion for Ship Con- struction File	Specific activities	Society proposals for the project
7	Corrosion protection systems, e.g. coatings, cathodic protection, impressed current, except for coating system subject to PSPC	Salt water ballast tanks with boundaries formed by the hull envelope, and alsobulk carrier hold internal surfaces, coamings and hatch covers are to have an efficient protective coating. Safety aspects of cathodic systems to be dealt with separately.	Review and report on builder's & Manufacturer's documentation	Pt B, Ch 11, Sec 1	Reg. II- 1/3-2 of SOLAS as amended	Manufacturer's and builder's specification	Corrosion protec- tion speci- fications	Verify that applied coatings are approved and review records of application	
								Verify that adequate records have been main- tained and copied to the ship con- struction file	
	Application Antifouling Systems		Review		AFS Convention	Painting specifica- tion	Paint specifica- tion and Mfq dec- laration	Verify that adequate records have been maintained and copied to the ship construction file	
7.1	Application of protective coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers subject to PSPC	Monitor implementa- tion of the coating inspection requirements	Patrolling and review	UI SC223. PR34	Reg. II- 1/3-2 of SOLAS as amended	Coating standard	Coating technical file	Verify that applied coatings are approved and review records of application in accordance with Chapter 7 of Annex to MSC.215(82).	

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2 Requirements for Tankers subject to SOLAS Chapter II-1 Part A-1 Regulation 3-10

2.1 Examination and test plan for newbuilding activities

2.1.1 Plans to be provided (1/2/2021)

The shipbuilder is to provide plans of the items which are intended to be examined and tested in a document known as the Survey Plan, taking into account the ship type and design. This Survey Plan shall be reviewed at the time of the kick off meeting, and are to include:

- a set of requirements, including specifying the extent and scope of the construction survey(s) and identifying areas that need special attention during the survey(s), to ensure compliance of construction with mandatory ship construction standards including:
 - Types of surveys (visual, non-destructive examination, etc.) depending on location, materials, welding, casting, coatings, etc.
 - Establishment of a construction survey schedule for all assembly stages from the kick-off meeting, through all major construction phases, up to delivery.
 - Inspection/survey plan, including provisions for critical areas identified during design approval.
 - 4) Inspection criteria for acceptance.
 - 5) Interaction with shipyard, including notification and documentation of survey results.
 - 6) Correction procedures to remedy construction defects
 - List of items that would require scheduling or formal surveys.
 - 8) <u>Determination and documentation of areas that need special attention throughout ship's life, including criteria used in making the determination.</u>
- b) <u>a description of the requirements for all types of testing</u> <u>during survey, including test criteria.</u>

2.2 **Design Transparency**

2.2.1 <u>(1/2/2021)</u>

For ships subject to compliance with IMO Res. MSC.287(87). IMO Res. MSC.290(87). IMO Res. MSC.290(87). IMO Res. MSC.296(87) and IMO MSC.1/Circ.1343, readily available documentation is to include the main goal-based parameters and all relevant design parameters that may limit the operation of the ship.

2.3 Ship Construction File (SCF)

2.3.1 Classification items (1/2/2021)

A Ship Construction File (SCF) with specific information on how the functional requirements of the Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers have been applied in the ship design and construction is to be provided upon delivery of a new ship, and kept on board

the ship and/or ashore and updated as appropriate throughout the ship's service. The contents of the Ship Construction File are to conform to the requirements below:

- a) The following design specific information is to be included in the Ship Construction File (SCF):
 - 1) <u>Areas requiring special attention throughout the ship's life. (including critical structural areas).</u>
 - 2) All design parameters limiting the operation of a ship.
 - Any alternatives to the rules, including structural details and equivalency calculations.
 - 4) "As built" drawings and information which are verified to incorporate all alterations approved by the recognized organization or flag State during the construction process including scantling details, material details, location of butts and seams, cross section details and locations of all partial and full penetration welds.
 - Net (renewal) scantlings for all the structural constituent parts, as built scantlings and voluntary addition thicknesses.
 - 6) Minimum hull girder section modulus along the length of the ship which has to be maintained throughout the ship's life, including cross section details such as the value of the area of the deck zone and bottom zone, the renewal value for the neutral axis zone.
 - 7) A listing of materials used for the construction of the hull structure, and provisions for documenting changes to any of the above during the ship's service life.
 - 8) Copies of testing certificates of forgings and castings welded into the hull (Pt D, Ch 5, Sec 4).
 - Details of equipment forming part of the watertight and weather tight integrity of the ship.
 - 10) Tank testing plan including details of the test requirements (Pt B, Ch 12, Sec 3).
 - Details for the in-water survey, when applicable, information for divers, clearances measurements instructions etc., tank and compartment boundaries.
 - 12) <u>Docking plan and details of all penetrations normally examined at dry-dock.</u>
 - 13) <u>Coating Technical File, for ships subject to compliance with the IMO Performance Standard for Protective Coatings (PSPC2).</u>
- b) Refer to Tab 2 for details of information to be further included. This information has to be kept on board the ship and/or ashore and updated as appropriate throughout the ship's life in order to facilitate safe operation. maintenance, survey, repair and emergency measure.
- c) It is to be noted that parts of the content of the SCF may be subject to various degrees of restricted access and that such documentation may be appropriately kept ashore.
- d) The SCF has to include the list of documents constituting the SCF and all information listed in Tab 2, which is required for a ship's safe operation, maintenance, sur-

- vey, repair and in emergency situations. Details of specific information that is not considered to be critical to safety might be included directly or by reference to other documents.
- e) When developing an SCF, all of the columns in Tab 2 of this Appendix have to be reviewed to ensure that all necessary information has been provided.
- f) It may be possible to provide information listed in the annex under more than one Tier II (see Note 1) functional requirement as a single item within the SCF, for example, the Coating Technical File required by the PSPC (see Note 2) is relevant for both "Coating life" and "Survey during construction".

Note 1: <u>Tier II items means the functional requirements included in</u> the International Goal-based Ship Construction Standards for

- Bulk Carriers and Oil Tankers (GBS), adopted by IMO Res. MSC 287(87).
- Note 2: Performance standard for protective coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers, adopted by IMO Res. MSC 215(82), as amended and Performance standard for protective coatings for cargo oil tanks of crude oil tankers, adopted by IMO Res. MSC 288(87), as amended.
- g) The SCF has to remain with the ship and, in addition, be available to its classification society and flag State throughout the ship's life. Where information not considered necessary to be on board is stored ashore, procedures to access this information should be specified in the onboard SCF. The intellectual property provisions within the SCF should be duly complied with.
- h) The SCF should be updated throughout the ship's life at any major event, including, but not limited to, substantial repair and conversion, or any modification to the ship structure.

Table 2: List of Information to be Included in the Ship Construction File (SCF) (1/2/2021)

	<u>Tier II Items</u>	Information to be included	Further explanation of the content	Example documents	Normal storage location
<u>DESIGN</u>					
<u>1</u>	Design life	assumed design life in years	statement or note on midship sec- tion	SCF-specific midship section plan	on board ship on board ship
2	Environmental conditions	assumed environ- mental conditions	statement referencing data source or Rule (specific rule and data) or: in accordance with Rule (date and revision)	SCF-specific	on board ship
<u>3</u>	Structural strength				

- (1) "SCF-specific" means documents to be developed especially to meet the requirements of the GBS guidelines (MSC.1/Circ.1343).
- (2) "Key construction plans" means plans such as midship section, main O.T. and W.T. transverse bulkheads, construction profiles/plans, shell expansions, forward and aft sections in cargo tank (or hold) region, engine-room construction, forward construction and stern construction drawings.
- (3) "Yard plans" means a full set of structural drawings, which include scantling information of all structural members.
- (4) "Hull form" means a graphical or numerical representation of the geometry of the hull. Examples would include the graphical description provided by a lines plan and the numerical description provided by the hull form data stored within an onboard computer.
- (5) "Lines plan" means a special drawing which is dedicated to show the entire hull form of a ship.
- (6) "Equivalent (to Lines plan)" means a set of information of hull form to be indicated in key construction plans for SCF purposes. Sufficient information should be included in the drawings to provide the geometric definition to facilitate the repair of any part of the hull structure.
- (7) "Normal storage location" means a standard location where each SCF information item should be stored. However, those items listed as being on board in the table above should be on board as a minimum to ensure that they are transferred with the ship on a change of owner.
- (8) "Shore archive" is to be operated in accordance with applicable international standards.

	Tier II Items	Information to be included	Further explanation of the content	Example documents	Normal storage location
3.1	General design	applied Rule (date and revision) applied alternative to Rule	applied design method alternative to Rule and sub- ject structure(s)	SCF-specific capacity plan	on board ship
<u>3.2</u>	Deformation and failure modes	<u>calculating conditions and results</u>	allowable loading pattern	loading manual	on board ship
		assumed loading conditions	maximum allowa- ble hull girder bending moment and shear force	• trim and stability booklet	on board ship
3.3	<u>Ultimate strength</u>	operational restric- tions due to struc- tural strength	maximum allowa- ble cargo density or storage factor	loading instru- ment instruction manual	on board ship
				operations and maintenance man- uals	on board ship
				• strength calcula- tion	on shore archive

- (1) <u>"SCF-specific" means documents to be developed especially to meet the requirements of the GBS guidelines</u> (MSC.1/Circ.1343).
- (2) "Key construction plans" means plans such as midship section, main O.T. and W.T. transverse bulkheads, construction profiles/plans, shell expansions, forward and aft sections in cargo tank (or hold) region, engine-room construction, forward construction and stern construction drawings.
- (3) "Yard plans" means a full set of structural drawings, which include scantling information of all structural members.
- (4) "Hull form" means a graphical or numerical representation of the geometry of the hull. Examples would include the graphical description provided by a lines plan and the numerical description provided by the hull form data stored within an onboard computer.
- (5) "Lines plan" means a special drawing which is dedicated to show the entire hull form of a ship.
- (6) "Equivalent (to Lines plan)" means a set of information of hull form to be indicated in key construction plans for SCF purposes. Sufficient information should be included in the drawings to provide the geometric definition to facilitate the repair of any part of the hull structure.
- (7) "Normal storage location" means a standard location where each SCF information item should be stored. However, those items listed as being on board in the table above should be on board as a minimum to ensure that they are transferred with the ship on a change of owner.
- (8) "Shore archive" is to be operated in accordance with applicable international standards.

	<u>Tier II Items</u>	Information to be included	Further explanation of the content	Example documents	Normal storage location
3.4	Safety margins	strength calculation results gross hull girder	bulky output of strength calculation plan showing highly stressed areas (e.g. critical structural areas) prone to yielding and/or buckling	areas prone to yielding and/or buckling	on board ship
		section modulus minimum hull girder section modulus along the length of the ship to be maintained throughout the ship's life, including cross section details such as the value of the area of the deck zone and bottom zone, the renewal value for the neu- tral axis zone		general arrange- ment plan	on board ship
		gross scantlings of structural constituent parts net scantlings of structural constituent parts, as built scantlings and voluntary addition thicknesses	structural drawings rudder and stern frame structural details of typical members	key construction plans rudder and rudder stock plans structural details yard plans dangerous area plan	on board ship on board ship on board ship on shore archive on board ship

- (1) "SCF-specific" means documents to be developed especially to meet the requirements of the GBS guidelines (MSC.1/Circ.1343).
- (2) "Key construction plans" means plans such as midship section, main O.T. and W.T. transverse bulkheads, construction profiles/plans, shell expansions, forward and aft sections in cargo tank (or hold) region, engine-room construction, forward construction and stern construction drawings.
- (3) "Yard plans" means a full set of structural drawings, which include scantling information of all structural members.
- (4) "Hull form" means a graphical or numerical representation of the geometry of the hull. Examples would include the graphical description provided by a lines plan and the numerical description provided by the hull form data stored within an onboard computer.
- (5) "Lines plan" means a special drawing which is dedicated to show the entire hull form of a ship.
- (6) "Equivalent (to Lines plan)" means a set of information of hull form to be indicated in key construction plans for SCF purposes. Sufficient information should be included in the drawings to provide the geometric definition to facilitate the repair of any part of the hull structure.
- (7) "Normal storage location" means a standard location where each SCF information item should be stored. However, those items listed as being on board in the table above should be on board as a minimum to ensure that they are transferred with the ship on a change of owner.
- (8) "Shore archive" is to be operated in accordance with applicable international standards.

	<u>Tier II Items</u>	Information to be included	Further explanation of the content	Example documents	Normal storage location
3.4 cont.		• hull form	hull form information indicated in key construction plans hull form data stored within an onboard computer necessary for trim and stability and longitudinal strength calculations	• lines plan or	on shore archive
4	<u>Fatigue life</u>	applied Rule (date and revision) applied alternative to Rule	applied design method alternative to Rule and sub- ject structures	SCF-specific	on board ship on board ship
		calculating conditions and results assumed loading conditions	assumed loading conditions and rates	structural details	on board ship
		fatigue life calcula- tion results	bulky output of fatigue life calcu- lation	fatigue life calcula- tion results	on shore archive
			plan showing areas (e.g. critical structural areas) prone to fatigue	areas prone to fatigue	on board ship
<u>5</u>	Residual strength	applied Rule (date and revision)		<u>SCF-specific</u>	on board ship
<u>6</u>	Protection against corr	<u>rosion</u>	•		

- (1) "SCF-specific" means documents to be developed especially to meet the requirements of the GBS guidelines (MSC.1/Circ.1343).
- (2) "Key construction plans" means plans such as midship section, main O.T. and W.T. transverse bulkheads, construction profiles/plans, shell expansions, forward and aft sections in cargo tank (or hold) region, engine-room construction, forward construction and stern construction drawings.
- (3) "Yard plans" means a full set of structural drawings, which include scantling information of all structural members.
- (4) "Hull form" means a graphical or numerical representation of the geometry of the hull. Examples would include the graphical description provided by a lines plan and the numerical description provided by the hull form data stored within an onboard computer.
- (5) "Lines plan" means a special drawing which is dedicated to show the entire hull form of a ship.
- (6) "Equivalent (to Lines plan)" means a set of information of hull form to be indicated in key construction plans for SCF purposes. Sufficient information should be included in the drawings to provide the geometric definition to facilitate the repair of any part of the hull structure.
- (7) "Normal storage location" means a standard location where each SCF information item should be stored. However, those items listed as being on board in the table above should be on board as a minimum to ensure that they are transferred with the ship on a change of owner.
- (8) "Shore archive" is to be operated in accordance with applicable international standards.

	<u>Tier II Items</u>	Information to be included	Further explanation of the content	Example documents	Normal storage location
6.1	Coating life	coated areas and target coating life and other measures for corrosion protection in holds, cargo and ballast tanks, other structure-integrated deep tanks and void spaces	plans showing areas (e.g. critical structural areas) prone to exces- sive corrosion	• <u>SCF-specific</u>	on board ship
6.2	Corrosion addition			Coating Technical File required by PSPC (Perfor- mance standard for protective coatings for dedicated seawater ballast tanks in all types of ships and double- side skin spaces of bulk carriers adopted by IMO Resolution. MSC.215(82). as amended and Performance standard for protective coatings for cargo oil tankers. adopted by IMO Resolution. MSC.288(87). as amended)	on board ship

- (1) "SCF-specific" means documents to be developed especially to meet the requirements of the GBS guidelines (MSC.1/Circ.1343).
- (2) "Key construction plans" means plans such as midship section, main O.T. and W.T. transverse bulkheads, construction profiles/plans, shell expansions, forward and aft sections in cargo tank (or hold) region, engine-room construction, forward construction and stern construction drawings.
- (3) "Yard plans" means a full set of structural drawings, which include scantling information of all structural members.
- (4) "Hull form" means a graphical or numerical representation of the geometry of the hull. Examples would include the graphical description provided by a lines plan and the numerical description provided by the hull form data stored within an onboard computer.
- (5) "Lines plan" means a special drawing which is dedicated to show the entire hull form of a ship.
- (6) "Equivalent (to Lines plan)" means a set of information of hull form to be indicated in key construction plans for SCF purposes. Sufficient information should be included in the drawings to provide the geometric definition to facilitate the repair of any part of the hull structure.
- (7) "Normal storage location" means a standard location where each SCF information item should be stored. However, those items listed as being on board in the table above should be on board as a minimum to ensure that they are transferred with the ship on a change of owner.
- (8) "Shore archive" is to be operated in accordance with applicable international standards.

	<u>Tier II Items</u>	Information to be included	Further explanation of the content	Example documents	Normal storage location
6.2 cont.		specification for coating and other measures for corro- sion protection in holds, cargo and ballast tanks, other structure-integrated deep tanks and void spaces		areas prone to excessive corro- sion	on board ship
		gross scantlings of structural constituent parts net scantlings of structural constituent parts, as built scantlings and voluntary addition thicknesses		key construction plans	on board ship
7	Structural redun- dancy	applied Rule (date and revision)		SCF-specific	on board ship
8	Watertight and weathertight integrity	applied Rule (date and revision)		<u>SCF-specific</u>	on board ship
		key factors for watertight and weathertight integ- rity	details of equip- ment forming part of the watertight and weathertight integrity	structural details of hatch covers, doors and other closings integral with the shell and bulkheads	on board ship
9	Human element considerations	Iist of ergonomic design principles applied to ship structure design to enhance safety during operations. inspections and maintenance of ship		SCF-specific	on board ship

- (1) "SCF-specific" means documents to be developed especially to meet the requirements of the GBS guidelines (MSC.1/Circ.1343).
- (2) "Key construction plans" means plans such as midship section, main O.T. and W.T. transverse bulkheads, construction profiles/plans, shell expansions, forward and aft sections in cargo tank (or hold) region, engine-room construction, forward construction and stern construction drawings.
- (3) "Yard plans" means a full set of structural drawings, which include scantling information of all structural members.
- (4) "Hull form" means a graphical or numerical representation of the geometry of the hull. Examples would include the graphical description provided by a lines plan and the numerical description provided by the hull form data stored within an onboard computer.
- (5) "Lines plan" means a special drawing which is dedicated to show the entire hull form of a ship.
- (6) "Equivalent (to Lines plan)" means a set of information of hull form to be indicated in key construction plans for SCF purposes. Sufficient information should be included in the drawings to provide the geometric definition to facilitate the repair of any part of the hull structure.
- (7) "Normal storage location" means a standard location where each SCF information item should be stored. However, those items listed as being on board in the table above should be on board as a minimum to ensure that they are transferred with the ship on a change of owner.
- (8) "Shore archive" is to be operated in accordance with applicable international standards.

<u>Tier II Items</u>	Information to be included	Further explanation of the content	Example documents	Normal storage location
10 Design transparency	applied Rule (date and revision)		intellectual prop- erty provisions	on board ship
	applicable industry standards for design transparency and IP protection			
	reference to part of SCF information kept ashore		summary, location and access proce- dure for part of SCF information on shore	on board ship
CONSTRUCTION				
Construction quality procedure	applied construction quality standard	recognized national or inter- national construc- tion quality standard	SCF-specific	on board ship
Survey during construction	survey regime applied during con-	applied Rules (date and revision)	<u>SCF-specific</u>	on board ship
	struction (to include all owner and class scheduled inspec- tions during con- struction)	copies of certificates of forgings and castings welded into the hull	tank testing plan	on board ship
	information on non- destructive exami-		non destructive testing plan	on board ship
	<u>nation</u>		Coating Technical File required by PSPC	on board ship

IN-SERVICE CONSIDERATIONS

- (1) "SCF-specific" means documents to be developed especially to meet the requirements of the GBS guidelines (MSC.1/Circ.1343).
- (2) "Key construction plans" means plans such as midship section, main O.T. and W.T. transverse bulkheads, construction profiles/plans, shell expansions, forward and aft sections in cargo tank (or hold) region, engine-room construction, forward construction and stern construction drawings.
- (3) "Yard plans" means a full set of structural drawings, which include scantling information of all structural members.
- (4) "Hull form" means a graphical or numerical representation of the geometry of the hull. Examples would include the graphical description provided by a lines plan and the numerical description provided by the hull form data stored within an onboard computer.
- (5) "Lines plan" means a special drawing which is dedicated to show the entire hull form of a ship.
- (6) "Equivalent (to Lines plan)" means a set of information of hull form to be indicated in key construction plans for SCF purposes. Sufficient information should be included in the drawings to provide the geometric definition to facilitate the repair of any part of the hull structure.
- (7) "Normal storage location" means a standard location where each SCF information item should be stored. However, those items listed as being on board in the table above should be on board as a minimum to ensure that they are transferred with the ship on a change of owner.
- (8) "Shore archive" is to be operated in accordance with applicable international standards.

<u>Tier II Items</u>	Information to be included	Further explanation of the content	Example documents	Normal storage location
Survey and maintenance	maintenance plans specific to the struc- ture of the ship where higher atten- tion is called for	plan showing highly stressed areas (e.g. critical structural areas) prone to yielding, buckling, fatigue and/or excessive corrosion	SCF-specific	on board ship
			operation and maintenance man- uals (e.g. hatch covers and doors)	on board ship
	preparations for survey vey	arrangement and details of all pene- trations normally examined at dry- docking	• <u>docking plan</u>	on board ship
	gross hull girder section modulus	details for dry- docking	dangerous plan	on board ship
	minimum hull girder section mod-	details for in-water survey	Ship Structure Access Manual	on board ship
	ulus along the length of the ship to be maintained throughout the ship's life, including		Means of access to other structure- integrated deep tanks	on board ship
	cross section details such as the value of the area of the deck zone and bottom zone, the renewal value for the neu- tral axis zone		Coating Technical File required by PSPC	on board ship
	gross scantlings of structural constitu- ent parts		key construction plans	on board ships

- (1) "SCF-specific" means documents to be developed especially to meet the requirements of the GBS guidelines (MSC.1/Circ.1343).
- (2) "Key construction plans" means plans such as midship section, main O.T. and W.T. transverse bulkheads, construction profiles/plans, shell expansions, forward and aft sections in cargo tank (or hold) region, engine-room construction, forward construction and stern construction drawings.
- (3) "Yard plans" means a full set of structural drawings, which include scantling information of all structural members.
- (4) "Hull form" means a graphical or numerical representation of the geometry of the hull. Examples would include the graphical description provided by a lines plan and the numerical description provided by the hull form data stored within an onboard computer.
- (5) "Lines plan" means a special drawing which is dedicated to show the entire hull form of a ship.
- (6) "Equivalent (to Lines plan)" means a set of information of hull form to be indicated in key construction plans for SCF purposes. Sufficient information should be included in the drawings to provide the geometric definition to facilitate the repair of any part of the hull structure.
- (7) "Normal storage location" means a standard location where each SCF information item should be stored. However, those items listed as being on board in the table above should be on board as a minimum to ensure that they are transferred with the ship on a change of owner.
- (8) "Shore archive" is to be operated in accordance with applicable international standards.

	<u>Tier II Items</u>	Information to be included	Further explanation of the content	Example documents	Normal storage location
<u>13 cont.</u>		net scantlings of structural constitu- ent parts, as built		rudder and rudder stock	on board ships
	scantlings and vol- untary addition thicknesses • hull form • hull form information indicated in	<u>untary addition</u>		structural details yard plans	on board ships on shore archive
		• <u>lines plans</u>	on shore archive		
			key construction plans	or equivalent	on board ships
<u>14</u>	Structural accessibil- ity	holds, cargo and	• plans showing arrangement and	Ship Structure Access Manual	on board ships
		ballast tanks and other structure-integrated deep tanks	details of means of access	means of access to other structure- integrated deep tanks	on board ships
RECYCLIN	IG CONSIDERATIONS				'
<u>15</u>	Recycling	identification of all materials that were used in construction and may need spe- cial handling due to	Iist of materials used for the con- struction of the hull structure	SCF-specific	on board ship

- (1) "SCF-specific" means documents to be developed especially to meet the requirements of the GBS guidelines (MSC.1/Circ.1343).
- (2) "Key construction plans" means plans such as midship section, main O.T. and W.T. transverse bulkheads, construction profiles/plans, shell expansions, forward and aft sections in cargo tank (or hold) region, engine-room construction, forward construction and stern construction drawings.
- (3) "Yard plans" means a full set of structural drawings, which include scantling information of all structural members.
- (4) "Hull form" means a graphical or numerical representation of the geometry of the hull. Examples would include the graphical description provided by a lines plan and the numerical description provided by the hull form data stored within an onboard computer.
- (5) "Lines plan" means a special drawing which is dedicated to show the entire hull form of a ship.
- (6) "Equivalent (to Lines plan)" means a set of information of hull form to be indicated in key construction plans for SCF purposes. Sufficient information should be included in the drawings to provide the geometric definition to facilitate the repair of any part of the hull structure.
- (7) "Normal storage location" means a standard location where each SCF information item should be stored. However, those items listed as being on board in the table above should be on board as a minimum to ensure that they are transferred with the ship on a change of owner.
- (8) "Shore archive" is to be operated in accordance with applicable international standards.

2.3.2 (1/2/2021)

The SCF is to be reviewed (see Note 1), at the time of new building, in accordance with the requirements of items [2.3.1] a) and [2.3.1] b) and the normal storage location is to be distinguished.

For the SCF stored on board ship, the surveyor is to verify that the information is placed on board the ship, upon completion of ship construction.

For the SCF stored on shore archive, the surveyor is to verify that the information is stored on shore archive by examining the list of information included on shore archive, upon completion of ship construction.

Note 1:

"Review" means the examination of the SCF that is carried out by the surveyor, at the end of the newbuilding process, in order to confirm that:

- drawings and documents required under the item [2.3], plus
- the possible additional drawings/documents provided by the shipyard, as per the Ship Constructional File (SCF) list of drawings/documents

are present in the copies of the SCF stored on board and in the ashore archive.

The "review" is not to be intended as an assessment of the drawings/documents in order to verify their compliances with the applicable Rules.

3 Machinery and systems

3.1 General

3.1.1 **Scope** (1/2/2021)

The scope of this article [3] includes the following main activities:

- a) Examination of the parts of the ship covered by classification Rules and by applicable delegated statutory regulations for machinery construction, to obtain appropriate evidence that they have been built in compliance with the Rules and regulations, taking account of the relevant approved drawings.
- b) Appraisal of the manufacturing, construction, control and qualification procedures, including welding consumables, weld procedures, weld connections and assemblies, with indication of relevant approval tests (e.g for piping systems).
- c) Witnessing inspections and tests as required in the classification Rules for machinery and systems including materials, welding and assembly, the inspection and testing methods (e.g. by hydrostatic, leak testing, non-destructive examination, verification of geometry) and by whom.

Appraisal of materials and equipment used for machinery and systems and their inspection at works is not included in this Article [3]. Details of requirements for machinery and systems and equipment are given in:

- Part C, Chapter 1 for machinery equipment and piping systems.
- Part C, Chapter 2 for electrical systems,
- Part C, Chapter 3 for automation systems,
- · Part D for materials and welding,
- Part B for anchoring and mooring system,
- Part E requirements for the specific Service Notations,
- Part F requirements for the Additional Class Notations.

3.2 **Definitions**

3.2.1 <u>Machinery (1/2/2021)</u>

The Machinery components are generally defined as follows:

- a) Main and auxiliary engines, turbines and boilers
- Reduction gears, main thrust, intermediate shafts, tailshafts and propellers
- c) Main and auxiliary systems for steering
- d) Pumps and other machinery items
- e) Systems in machinery spaces and in cargo areas
- f) <u>Electrical equipment and installations</u>
- g) Fire protection, detection and extinction (limited to the items covered by Classification, see Note 1 in Ch 1, Sec 1, [1.1.2])
- h) Automation systems
- i) Machinery system for mooring and anchoring
- j) <u>Machinery systems required by specific Service Notation</u>

 Machinery systems required by specific Additional Class Notations.

3.2.2 <u>Documents</u> (1/2/2021)

Reference to documents also includes electronic transmission or storage.

3.2.3 Survey methods (1/2/2021)

The survey methods involving the Surveyor directly are as follows:

- a) Patrol is defined as the act of checking on an independent and unscheduled basis that the applicable processes, activities and associated documentation of the shipbuilding functions continue to conform to classification and delegated statutory requirements.
- b) Review is defined as the act of examining documents in order to determine traceability and identification, and to confirm that processes continue to conform to classification and delegated statutory requirements.
- c) Witness is defined as the attendance at scheduled inspections and tests in accordance with the agreed Inspection and Test Plans or equivalent to the extent necessary to check compliance with the survey requirements.

3.3 Application

3.3.1 Classification items (1/2/2021)

This Article [3] covers the survey of all new construction of steel ships intended for classification and for international voyages except for:

- a) those defined in SOLAS I/3
- b) <u>high speed craft as defined in I/1.3.1 of the 2000 High Speed Craft Code</u>
- Mobile Offshore Drilling Units as defined in I/1.2.1 of the MODU Code.

3.3.2 Delegated statutory items (1/2/2021)

This Article [3] covers all delegated statutory items relevant to the machinery items, i.e. SOLAS Safety Construction.

3.3.3 <u>Location of construction (1/2/2021)</u>

This Article [2] applies to the machinery items, as defined in [3.2.1] whether constructed and/or installed:

- a) at the shipbuilder's facilities
- b) by subcontractors/suppliers at the shipbuilder's facilities
- c) by subcontractors/suppliers at their own facilities or at other remote locations
- d) <u>by machinery item manufacturers at the shipbuilder's</u> facilities
- e) by machinery item manufacturers at their own facilities or at other remote locations.

3.4 Personnel

3.4.1 Qualification and monitoring of exclusive Surveyors (1/2/2021)

The Society's Surveyors are to confirm through patrol, review and witness, as defined in [3.2.3], that machinery items are built and installed using approved plans in

accordance with the relevant Rules and delegated statutory requirements. The Surveyors are to be qualified to be able to carry out their tasks, and procedures are to be in place to ensure that their activities are monitored.

3.5 Survey of Machinery installations

3.5.1 Surveyable items (1/2/2021)

The items of machinery to undergo survey during their:

- a) construction/manufacturing
- b) installation on board the new ship

are those covered by the pertinent Parts of the Rules, as defined in [3.1.1], and delegated statutory requirements.

3.5.2 <u>Materials and equipment supplied (1/2/2021)</u>

During the construction and installation processes as required, evidence is also to be made available by the ship-builder to the Surveyor to prove that the materials and equipment supplied to the ship have been built or manufactured under survey relevant to the classification Rules and delegated statutory requirements.

Evidence that no material containing asbestos has been installed on board is to be provided to the Surveyor.

3.6 New building survey planning

3.6.1 Kick-off meeting (1/2/2021)

Prior to commencement of surveys for any machinery installation, the Society is to discuss with the shipbuilder at a kick-off meeting referred to in [1.7.1] the items related to the building and/or installation activities of machinery as per item [3.2.1] as applicable. The purpose of the meeting is to agree on how the list of specific activities is to be addressed. The meeting is to take into account the shipbuilder's construction facilities and ship type, including the list of proposed manufacturers, subcontractors and suppliers. A record of the meeting is to be made. If the Society has appointed a Surveyor for a specific newbuilding project or for the task of machinery installation surveillance, then this Surveyor is to attend the kick-off meeting. The shipbuilder is to be asked to agree to undertake ad hoc investigations during construction where areas of concern arise and to keep the Society advised of the progress of any such investigation. Whenever an investigation is undertaken, the builder is to be requested, in principle, to agree to suspend relevant construction activities if warranted by the severity of the problem.

3.6.2 <u>Delegated statutory requirements (1/2/2021)</u>

The records are to take note of specific published Administration requirements and interpretations of delegated statutory requirements.

3.6.3 Construction progress records (1/2/2021)

The shipyard shall be requested to advise of any changes to the activities agreed at the kick-off meeting and these are to be documented. For instance, if the shipbuilder chooses to use or change manufacturers of machinery items, subcontractors for machinery items, supplier of machinery items, or to incorporate any modifications necessitated by changes in production, in inspection methods, in rules and regula-

tions, in structural modifications, or in the event where increased inspection requirements are deemed necessary as a result of a substantial non-conformance, or otherwise.

3.6.4 Fabrication quality standard (1/2/2021)

The quality standard of shipbuilding, manufacturers of machinery items, subcontractors for machinery items, supplier of machinery items, for the machinery installations during new constructions are to be reviewed and agreed during the kick-off meeting. Machinery items should be manufactured and installed according to applicable IACS Recommendations, or a recognized fabrication standard which has been accepted by the Society prior to the commencement of fabrication/construction. The work is to be carried out in accordance with the Rules and under survey of the Society.

3.6.5 Other attendees at the kick-off meeting (1/2/2021)

The kick-off meeting may be attended by other parties, such as the Owner or Administrations, subject to agreement by the shipbuilder.

3.6.6 Special cases of kick-off meeting (1/2/2021)

In the event of series ship production, consideration may be given to waiving the requirement for a kick-off meeting for the second and subsequent ships provided any changes are documented as required in [3.6.1] and in [3.6.3].

3.7 Examination and test plan for newbuilding activities

3.7.1 Plans to be provided (1/2/2021)

The shipbuilder is to provide plans of the items which are intended to be examined and tested. These plans need not be submitted for approval and examination at the time of the kick-off meeting. They are to include:

- a) <u>list of machinery components to be fitted on board including the machinery arrangement plans, comprehensive of:</u>
 - proposals for the examination of piping steelwork, including booklets of typical arrangements, completed with the list of the materials and fittings;
 - proposals for the examination of electric systems fittings, including booklets of typical arrangements, completed with the list of the materials and devices;
 - proposal for the examination of propulsion system(s) arrangement and associated fittings;
 - proposal for the examination of steering system(s) arrangement and associated fittings;
 - 5) proposal for the examination of the machinery systems arrangement, as referred in Pt C, Ch 1, Sec 08, and associated fittings
 - 6) proposal for the examination of automation system(s) arrangement and associated fittings (if any):
 - 7) proposal for the examination of anchoring and mooring arrangements and associated fittings,
 - 8) proposal for the examination of cargo system(s) arrangement and associated fittings (if any):

- proposal for the examination of Additional class Notation machinery systems arrangement and associated fittings (if any);
- b) proposal for non destructive examination of piping steelwork, and in general for all systems requiring welding for their manufacture or installation;
- proposals for testing of machinery components after their manufacture or installation on board;
- any other proposals specific to the ship type or to the delegated statutory requirements.

3.7.2 Submittal of plans to the Surveyors (1/2/2021)

The plans and any modifications to them are to be submitted to the Surveyors in sufficient time to allow review before the relevant survey activity commences.

3.8 Proof of the consistency of surveys

3.8.1 Evidence for survey planning and activities (1/2/2021)

Inspection and test records, checklists etc are to be kept in order to provide evidence that the Society's Surveyors have complied with the requirements of the newbuilding survey planning and duly participated in the relevant activities shown in the shipbuilder's examination and test plans.

3.9 <u>Inspection and tests of machinery components</u>

3.9.1 Inspection and tests at workshop (1/2/2021)

Inspection and testing of machinery components, at the workshop, shall be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations.

3.9.2 Inspection and tests at dock and sea trials (1/2/2021)

Inspection and testing of machinery components during sea trials are to be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations. The following Parts of the Rules are applicable:

- a) main propulsion systems, including but not limited to propeller shafting line: Pt C, Ch 1, Sec 13
- b) <u>auxiliary systems for propulsion and other services systems: Pt C, Ch 1, Sec 13</u>
- main and auxiliary systems for steering: Pt C, Ch 1, Sec 13
- d) main and auxiliary piping systems: Pt C, Ch 1, Sec 13 and Pt C, Ch 1, Sec 08
- e) main, emergency and auxiliary electrical system for primary, secondary and emergency systems: Pt C, Ch 2, Sec 15
- f) automation systems: Pt C, Ch 3, Sec 5 and Pt C, Ch 3, Sec 6
- g) <u>machinery system for mooring and anchoring: Pt B.</u> Ch 12, Sec 3
- h) <u>machinery systems required for specific Service Notations: Part E</u>

 i) machinery systems required for specific Additional Class Notations: Part F.

In addition, where batteries are used for essential and emergency services, it is to be verified that a schedule document, detailing:

- type and manufacturer's type designation
- voltage and ampere-hour rating
- <u>location</u>
- equipment and/or system(s) served
- maintenance/replacement cycle dates
- date(s) of last maintenance and/or replacement
- for replacement batteries in storage, the date of manufacture and shelf-life has been prepared. The document is to be reviewed for compliance with the on-board arrangements.

4 <u>Assignment of double or dual class</u> for New Construction

4.1 <u>Assignment of double class for New Construction</u>

4.1.1 (1/2/2021)

Whenever it is requested by the Shipyard/Owner to survey a new building under double class provisions of [1], [2] and [3] apply.

4.2 <u>Assignment of dual class for New Construction</u>

4.2.1 <u>(1/2/2021)</u>

Whenever it is requested by the Shipyard/Owner to survey a new building under dual class:

- a) review and approval of plans, as appropriate, for the newbuilding are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1];
- b) in application of the requirement of [1], [2] and [3], survey during fabrication, construction and testing of the vessel are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1], and/or the bilateral agreement adopted by the two Societies, if any, clearly defining the scope of work of each Society.