

**RSG COMMENT:**

Although there may be standards or parts of standards that relate to the integrity and structure of component parts of craft, RSG has interpreted the Essential Requirements as relating to the integrity and structural requirements of the hull, deck and superstructure. This includes construction and attachment of items such as keel, rudder, chain plates and other strength critical items as appropriate.

To assess the structural integrity, one of the following approaches shall be considered:

1. Application of appropriate parts of EN ISO 12215, provided that the scantlings derived from draft parts of the standard are checked by one of the methods described below. Appropriate documentation shall be developed.
2. The structural requirements of the hull may be assessed by other acceptable scantling determination methods that are applicable to the boat type, design category and the Manufacturer's maximum recommended load. Appropriate documentation shall be kept.
3. As an alternative to acceptable scantlings determination methods or in cases where no applicable rules exist, acceptable construction calculation(s) or testing may be used. Calculations and proof of testing shall be documented.
4. In particular cases and if acceptable empirical knowledge can be demonstrated as to the structural requirements of the hull, this may be used as an alternative to the previous methods outlined. This shall include relevant documentation.

Appropriate documentation supporting the methods used shall be developed.

If applicable the following shall be included when drafting the appropriate documentation:

1. Scantling determination method
 - Description of the acceptable scantling determination method used for assessment
 - Description of material, principle of structure and scantlings for the case
 - Input values for strength and stiffness of materials used
 - Input and output calculation results on the different structural members
2. Calculation and/or testing
 - Description of case
 - Reference to applied calculation method (loads, materials, geometry, analysis principle)
 - Evaluation and statement of the applicability of the method for assessment
 - Input and output calculation results on the different structural members
 - Description of test methods and their applicability for the case
 - Test results and their validity for assessment purposes
3. Empirical knowledge
 - Description of case
 - Description of applicability of the empirical material used for assessment
 - Documentation of empirical records (information of conditions of use in relation to intended design category, failures, reclamation, tests, etc.)
 - Documentation of transposition method used from the empirical data to actual use
 - Assessment of the case in relation to empirical knowledge according to method described.

For structural requirements of opening appliances, see EN ISO 12216 - Small Craft - Windows, port lights, hatches, deadlights and doors - Strength and tightness requirements (see Annex I.A.3.4).

Relevant**documents:**

RFU #
156r3

RFU #
168r1