

SECTION 2

DESIGN LOADS

1 Definitions

1.1 Local loads

1.1.1 Local loads are pressures or forces which are directly applied to the individual structural members such as plating panels, ordinary stiffeners and primary supporting members.

1.1.2 Local loads considered in the present Rules are:

- still water local loads, constituted by the hydrostatic external sea pressures and hull weight distribution
- wave local loads, constituted by the external sea pressures due to waves and the inertial pressures and forces induced by the ship accelerations
- dynamic local loads, constituted by the slamming pressures on the bottom hull (induced by the vertical ship motions) and by impact pressure on the side shell (induced by sea impact on the hull)
- punctual loads, constituted by localized efforts exerted on ship's structure, such as, e.g., loads induced by standing rigging and main sail sheet.

1.1.3 Test loads are local loads constituted by pressures exerted during hydrostatic tests of spaces intended to carry liquids.

1.2 Hull girder loads

1.2.1 Hull girder loads (still water, wave and dynamic) are forces and moments which result as effects of local loads acting on the ship as a whole and considered as a beam.

1.2.2 Hull girder loads considered in the present Rules are:

- still water hull girder loads, resulting from the effect difference in downwards ship weights and upwards buoyancy forces throughout the length of the ship
- wave hull girder loads, induced by the added or subtracted buoyancy forces along the float induced by incident waves on the float
- rigging induced global, constituted by all the loads exerted by the standing rigging on the float.

2 Application criteria

2.1 Fields of application

2.1.1 The wave induced and dynamic loads defined in this Chapter corresponds to an operating life of the ship equal to 20 years.

2.1.2 The still water, wave induced and dynamic loads defined in this Chapter are to be used for the determination of the hull girder strength and structural scantlings. These loads are not to be amplified by any safety factor, such safety factor being included in admissible stress levels given in Ch 4, Sec 3.

3 Navigation coefficients

3.1 General

3.1.1 Navigation coefficients depending on navigation notation defined in Pt A, Ch 1, Sec 2 are given in Tab 1.

3.1.2 In scope of application of the present Rules for specific purposes (e.g. evaluation of conformity in scope of EC directive for recreational craft), navigation coefficients depending on navigation may be taken into account.

Such coefficients are given in Tab 1.

Table 1 : Navigation coefficients

Navigation notation	Navigation coefficient n
Unrestricted navigation Design category A and B (EC Directive)	1,00
Coastal area Design category C (EC Directive)	0,90
Sheltered area Design category D (EC Directive)	0,80