

Important terminologies of fishing craft

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a) Design Water Line:

The water plane to which the ship is being designed is called the Load Water Plane or Design Water Plane (LWP or DWP). The plane at which the vessel is in ballast or leaving port or fully loaded condition that plane is called Design Water Plane. Additional water planes for examining the ships shape are drawn above it or below it, equally spaced. Usually by leaving an uneven slice near the keel, that part is examined separately. It is used for dealing with ship's resistance.

b) Forward Perpendicular or Fore Perpendicular or F.P:

It is the vertical line through the intersection of bows (stem) profile and design water line. It is a reference point at the fore end of the ship and perpendicular to the load water plane.

c) After Perpendicular or Aft Perpendicular or A.P:

There are three different definitions

- 1) It is vertical line through the centre of the Rudder stock.
- 2) It is the vertical line through the intersection of stern profile and design water line.
- 3) It is a vertical line through the 96% of the design water line length behind foreword perpendicular (F.P)

d) Length Between Perpendiculars (L.B.P):

It is the horizontal distance between forward perpendicular and aft perpendicular of the vessel. It is used for calculating stability and displacement.

e) Port side:

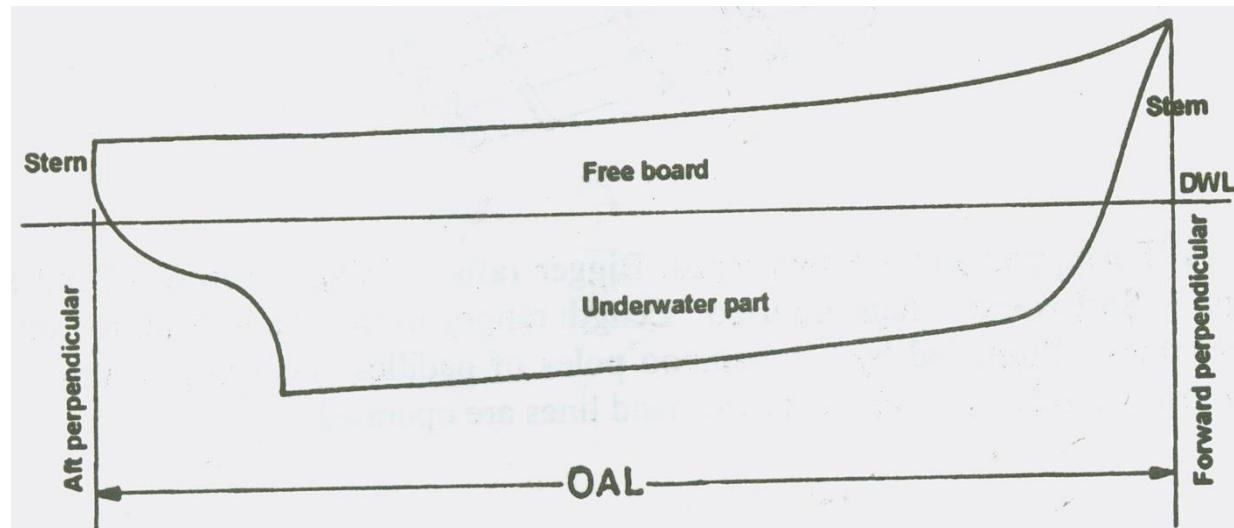
When facing forward, the left hand side of the boat is called portside.

f) Star board side:

When facing forward, the right hand side is called starboard side.

g) Overall length or Extreme length of the vessel (LOA)

It is the distance from the extreme point at the after end to a similar point at the forward end. In most of the ship the overall length will exceed by a considerable amount than the length between perpendiculars. The excess amount will include the overhang of the stern and also that of the stem. Modern ships may have bulbous bows; the overall length may have to be measured to the extreme point of the bulb.



h) Standard Water Line (SWL):

The water line drawn at 85% of the depth moulded is called Standard Water Line.

i) Mid Ship:

It is the point located at half way between perpendiculars i.e A.P and F.P. Some time it defined as the middle of standard water line. The ship is usually broadest at this point. All trim, stability and centre of gravity calculations are related to this point.

j) Moulded draught: (dm):

It is the perpendicular or vertical distance in a transverse plane from the top of the flat keel to the design water line. If unspecified it refers to a mid ship.

k) Moulded Breadth or Breadth moulded or Beam:

It is the maximum horizontal breadth of the vessel. It is measured to inside of the shell plating for steel and aluminium plated boats or vessels, to out side of the shell for wood or Fibre Glass Reinforced vessels. Like in the case of length between perpendiculars the breadth moulded does not represent the greatest breadth of the ship. So that it define this greatest breadth, the breadth extreme is required. In many ship the breadth extreme is the breadth moulded plus the thickness of the shell plating on each side of the ship. Breadth extreme is the distance from the extreme over hang on one side of the ship to a similar point on the other side. This distance would include the overhang of decks. It would be measured over fenders. Which are sometimes fitted to ships to protect the sides of the ship.

l) Depth moulded or moulded depth (Dm):

It is a perpendicular or vertical distance from the top of the flat keel to the underside of deck plating at the ship's side. If unspecified it refers to this dimension at a mid ship. It is some time quoted as a depth moulded to upper deck or depth moulded to second deck. Where no deck is specified it can be taken as depth is measured to the upper most continuous deck. In some modern ship there is a rounded gunwale. In such cases the depth mould is measured from the intersection of the deck line continued with the breadth moulded.

m) Camber or Round down of beam:

It is defined as the rise of the deck of the ship is going from the side to the centre. The camber curve used to be parabolic or there may be no camber at all on decks. Camber is use full on the weather deck of a ship from a drainage point of view.

n) Bilge radius:

In many full cargo ships the section is virtually a rectangle with the lower corner rounded off. This part of the section is referred to as the "bilge" and the shape is often circular at this position. The radius of the circular arc forming the bilge is called bilge radius.

o) Rise of Floor:

The bottom of a ship at mid ships is usually flat, but it is not necessarily horizontal. If a line of the flat bottom is continued outwards it will intersect the breadth moulded line. The height of this intersection, above the base is called the "rise of floor" or vertical distance between keel line and bilge line or is the distance above the keel that a tangent to the bottom at or near the keel cuts the line of maximum beam a mid ships. The rise of floor is very much dependent on the ship form. In a cargo ships the rise of floor may only be a few centimeters.

p) Tumble home:

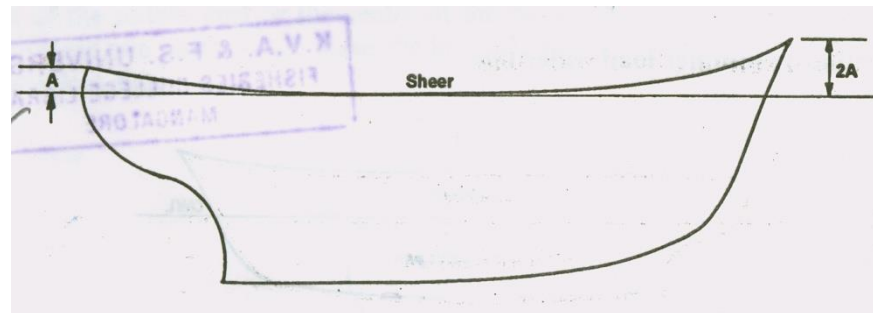
This is the amount which the side of the ship falls in, from the breadth moulded line. Tumble home was a use full feature in sailing ships.

q) Free board:

It is the difference between moulded depth at side and moulded draught. It is the perpendicular distance in a transverse plane from the design water line to the upper side of the deck plating at side.

r) Sheer:

Sheer is the tendency of a deck to rise above the horizontal in profile. Sheer is the height of the deck at the side above a line drawn parallel to the base and tangent to the deck line at mid ship. The sheer can vary along the length of the ship and is usually greatest at the ends.



s) Rake of stem:

The inclination of the stem to the vertical is called "rake of stem". Other words is the departure from the vertical of any conspicuous line in profile such as mast, stem, super structure etc.