

## METACENTRIC HEIGHT APPARATUS (EE-1533)

A pontoon is allowed to float in a small tank having a transparent side. Removable steel strips placed in the model for the purpose of changing the weight of the model. Displacement of weight is measured with the help of a scale. By means of a pendulum (consisting of a weight suspended to a long pointer) the angle of tilt can be measured on a graduated arc.

For tilting the ship model, a cross bar with two movable hangers is fixed on the model. Pendulum and graduated are suitably fixed at the center of the cross bar. A set of weights is supplied with the apparatus.

### SCOPE OF EXPERIMENTATIONS:

- ) Determination of the metacentric height and position of the metacentric height with angle of heel of ship model.

### UTILITIES REQUIRED:

- ) Water Supply.
- ) Bench Area 1 m x 0.6m.
- ) Drain



### TECHNICAL DETAILS:

- ) Pontoon : Size 300 x 150 mm (approx) with a Horizontal Guide Bar for sliding weight.
- ) Water Tank : Size 600 x 400 x 400 mm (approx).
- ) Front Window of Tank : Made of Glass/Perspex.
- ) A set of weights is supplied with the apparatus.
- ) Tank will be made of Stainless Steel.