

### NA SERIES

The NA8-10 Large Angle Stability System is designed for the study of ship hydrostatics and stability. A comprehensive manual provides hydrostatic stability and other data for ship models and includes a number of experiments which are useful to students.

## Ships Stability Apparatus - NA8

4 TEST MODELS AVAILABLE

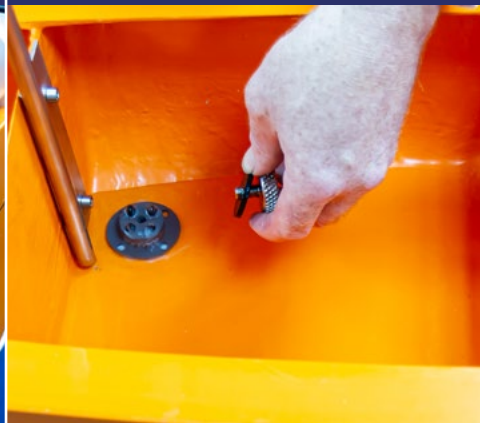
Exercises are conducted on a 1/70 scale model of a general cargo vessel of 28000 tonnes ship mass. Rolling, righting and the effects of flooding various compartments may be studied. Optional alternative ships models are also available for study.



NA8 Clinometer (supplied)



Flooding Compartments



Effect of Suspended Cargoes



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USA office - email: [info@armfield.inc](mailto:info@armfield.inc) tel: +1 (609) 208-2800 (USA only)

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URL: <http://www.armfield.co.uk/na>

Applications

ME ChE CE IP

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## Demonstration capabilities

- ▶ Inclining experiment
- ▶ Influence of a free surface
- ▶ Influence of a suspended mass, (with the optional crane ship model)
- ▶ Effect of flooding various compartments
- ▶ Rolling experiments

## Ordering specification

- ▶ Apparatus designed to enable students to study ship hydrostatics and stability.
- ▶ Supply includes a water tank, a floating ship model, a dynamometer and a clinometer.
- ▶ The model supplied is a 1/70 scale model of a 28000 tonne general cargo vessel.
  - It includes a number of transverse watertight bulkheads in representative positions.
  - The compartments are fitted with individual flooding valves.
  - The model is constructed of glass reinforced plastic (GRP).
  - Models of other ships are available as optional accessories.
- ▶ The dynamometer measures the righting moment of the model.
- ▶ It holds the model at any angle of heel within the range, with the model either free to trim or with heeling axis kept horizontal.
- ▶ It exerts no vertical force on the model.
- ▶ It is floor standing, with castors and is supplied complete with counterweights.
- ▶ Battery powered clinometer measures the inclination of the model, over the range of 0 to 45 degrees.

## Optional accessory

- ▶ NA8-14 Trawler Model:  
A 1/25 scale model of an ocean going trawler of 850 tonnes ship mass constructed in glass reinforced plastic (GRP). The hull is fitted with a number of transverse watertight bulkheads in their correct positions. Flooding valves are fitted.
- ▶ NA8-15 Crane Ship Model:  
A 1/50 scale model of a crane ship typical of those used in off-shore industries. The hull is ballasted and fitted with a moveable derrick supplied with a number of masses for suspension.
- ▶ NA8-16 Rectangular Barge Model:  
Moulded in GRP, dimensions 2200 x400 x 250mm and fitted with internal bulkheads, supplied with a collection of ballast and trimming weights.

## Requirements

## Scale



### Electrical supply:

NA4-10-A: 220V-240V/1ph/50Hz, 2A  
NA4-10-B: 120V/1ph/60Hz, 4A

Free water surface, if NA4-11 Flotation Tank not ordered

## Overall dimensions - NA8-10 Only

Length	2.66 m
Width	1.95 m
Height	2.17m

## Packed and created shipping specifications - NA8-10 Only

Volume	3.0 m <sup>3</sup>
Gross weight	550 kg



NA8-16 Rectangular Barge Model



NA8-14 Trawler Model



Supplied - 1/70 scale model of a 28000 tonne general cargo vessel



NA8-15 Crane Ship Model

## Ordering codes

- ▶ NA4-10
- ▶ NA4-11
- ▶ NA8-10
- ▶ NA8-14
- ▶ NA8-15
- ▶ NA8-17

Armfield standard warranty applies with this product

## Knowledge base

- > 28 years' expertise in research & development technology
- > 50 years' providing engaging engineering teaching equipment

Benefit from our experience, just call or email to discuss your laboratory needs, latest project or application.

An ISO 9001:2015 Company



armfield.co.uk

## Aftercare

Installation  
Commissioning  
Training  
Service and maintenance  
Support: [armfieldassist.com](http://armfieldassist.com)