



## Stability Notice

Subject: Phoenix 24536

Following the proof test carried out on the subject vessel on 28/10/2014 by RMS in accordance with the requirements of NSCV Part C, Section 6A the results were shown to comply with the criteria 7B for the following operations:

Operational Area	Crew	Passengers	Special Personnel
3C	1	0	3

### **General Instructions**

A copy of this stability notice, accepted and endorsed by a recognised marine authority, must be kept on board the vessel at all times.

Before a voyage commences care should be taken to ensure that any large items of equipment and stores are properly stowed, hatches are to be closed and secured.

Compliance with the stability criteria indicated in the booklet does not ensure immunity against capsizing regardless of the circumstances or absolve the master from his responsibilities.

Masters should therefore exercise prudence and good seamanship having regard to the season of the year, weather forecasts, the navigational zone, and should take the appropriate action as to speed, course and sail setting warranted by the prevailing conditions.

In adverse weather conditions and when there is the possibility of encountering a severe gust, squall or large breaking wave, all exposed doors, hatches, skylights, vents etc. should be closed and securely fastened to prevent the ingress of water.

### **Operational Limitations**

The vessel is to operate in class C waters laterally along the coast and within fifteen (15) nautical miles seaward of the shore.

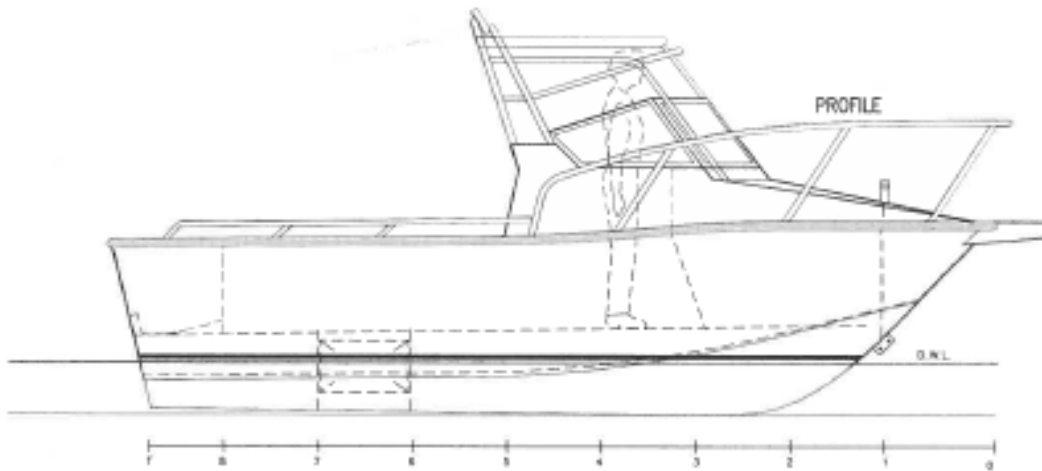
Catch bins to be adequately secured on deck.

No upgrades in service.

# Operator's Stability Manual

## Principal Particulars

Vessel Name: Phoenix  
 UVI: 24536  
 Operations: Fishing vessel  
 Measured Length: 5.60 m  
 Breadth: 2.35 m  
 Depth: 0.57 m  
 Draft: 0.32 m  
 Speed:  
 Builder: Phoenix boats  
 Year of build: 2014  
 Operational Class(es): 3C (to 15 nm)  
 Crew: 1  
 Passengers: 0  
 Special Personnel: 3



## Tanks Table

Tank Name	Capacity	Frames
Fuel tk	120 L	6 - 7

# NSCV Stability Assessment



Part C 6A 7B, 7C, 7D and 7E

## General

Vessel Name:   
 Folio: MA14/82   
 Surveyor: Tony   
 Place: Nowra   
 Date: 28/10/2014   
 Weather: Fine and Calm   
 Mooring:   
 Vessel Type: Well Deck C

## Conditions

Equipment: Complete   
 Fresh Water: Nil   
 Sullage: Nil   
 Fuel: 50% (Worst of 25 or 75%)   
 Weight Used: People + Drums   
 Length: 5.6 m (Measured)   
 Bulwark Ht: 685 mm (To Deck)   
 Class (C,D,E): C

Personnel Number: 3   
 Weight: 254 kg   
 Other deadweight onboard (exclude fuel and equipment): 0 kg   
 Total weight onboard during experiment: 254 kg   
 Required operational personnel number (pax + crew): 3   
 Other weights to go on for departure condition: 0 kg   
 Total weight onboard at departure: 240 kg   
 Difference in weight from departure to experiment: -14 kg (Should be nil)

## Heeling Levers

Pax No. (N): 3 (Lm<6 all persons, Lm>6 no crew)   
 Pax Lever (b): 0.945 m   
 Pax Moment: 227 kg.m (Nx80xb)   
 Windage Area (A): 6.421 m<sup>2</sup> (See diagram over page)   
 Windage Lever (h): 0.815 m   
 Class (C,D,E): C (450, 360, 300 Pa for C, D E, except if AS1799 300 Pa)   
 Wind Pressure (P): 450 Pa   
 Wind Moment: 240 kg.m (PxAxh/9.81)   
 L<sub>WL</sub>: m   
 Max Speed: kn   
 Heel Speed (V): kn (Lesser of 4(LWL)<sup>1/2</sup>, or max speed)   
 Lever (h): m (Height of VCG from underwater centroid)   
 Displacement (Δ): t (Approx. 1.7 t for trailerable runabouts)   
 Turn Moment: kg.m (5.3xV<sup>2</sup>xΔxh/L<sub>WL</sub>)   
 Largest Moment: 240 kg.m

## Inclining Experiment

	Mass kg	Distance m	Moment kg.m	Running M. kg.m	Freeboard mm	FB Loss mm	FB Loss %	Heel Deg.
Upright	--	--	--		863	--	--	--
1	95	0.94	89.3	89.3	822	41	4.8	2.0
2	94	0.94	88.36	177.66	743	120	13.9	5.8
3	65	0.94	61.1	238.76	687	176	20.4	8.5
4	40	0.98	39.2	277.96	670	193	22.4	9.3
5								
6								
Total	294							

Upright FB to Deck: 863.0 mm

External beam at measurement: 2.35 m   
 Measure Freeboard to: Deck (Fill in the vessel type. Deck for flush & well, else gunwale)

Vessel Type: Well Deck C

Allowable FB Loss: 50.0 % PASS

Heel Consequence: Moderate ▼

Heel Limit: 10 Deg. PASS

Min FB Upright: 150 mm PASS (For Class C Vess. and RIBS)

Min RIB FB to Transom: mm

Offshore Pax RIB Deck FB: mm (Max negative and min average)

Note: Currently the sheet only checks RIB deck FB based on measurement @ 0.75L and only max negative FB. You need to check actual min deck FB and average deck FB manually.

Crit.	Application	Description
7B.1	All vessels	Max heel angle, 5, 10, 15 deg for high, med., low consequence.
7B.2a	Flush Deck	< 50% FB loss to FB deck.
7B.2b	Well Deck C	< 50% FB loss to FB deck.
7B.2c	Well Deck D,E	< 25% FB loss to gunwale.
7B.2d	Cockpit C	Allowable FB loss (mm) = $FB_{U.RIGHT} \times (2Lm - 1.5C) / 4Lm$
7B.2e	Cockpit D,E	Allowable FB loss (mm) = $FB_{U.RIGHT} \times (2Lm - C) / 4Lm$
7B.2f	Open	< 25% FB loss to gunwale.
7B.3	All	< 25% FB loss to point of downflooding.

Interpolate/Extrapolate to required Moment Yes

Moment kg.m	Freeboard mm	FB Loss mm	FB Loss %	Heel Deg.
238.8	687	176	20.4	8.5
278.0	670	193	22.4	9.3
240.1	686	177	20.5	8.5

Item	Allowable	Actual	PASS or FAIL?
FB Loss:	50.0	20.5	PASS
Heel:	10.0	8.5	PASS

Do you want to determine the maximum pax/crew number? Yes

	Moment kg.m	FB Loss %	Moment kg.m	Heel
Above Pass:	238.8	20.4	238.8	8.5
Below Pass:	278.0	22.4	278.0	9.3
To Pass:	827.9	50.0	310.5	10.0

Maximum moment to pass = 311 kg.m

Passengers to create moment of 311 kg.m = 4.11 therefore limit to 4

Is this moment still the largest? Yes

**Sketch of Windage, Freeing Ports and Cockpit Deck Area**