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R & J MARITIME LIMITED

CONSULTANT NAVAL ARCHITECTS, MARINE ENGINEERS AND SHIP SURVEYORS

Our Ref: **RJM/21/009**

Your Ref:

23rd March 2021

Tresco Boat Services
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HEEL TEST REPORT

No: RJM/21/009/A

THIS IS TO CERTIFY that at the request of Tresco Boat Services, Tresco, Isles of Scilly, survey has been held on the single water-jet aluminium alloy RIB:

"HURRICANE"

registered in the Isles of Scilly, URN: D06WB0114804 while lying afloat at Port Pendennis Marina, Falmouth on 23rd March 2021 for the purpose of conducting a heel test to confirm compliance with MCA Workboat Code and certification requirement following the installation of a new main propulsion diesel engine.

23rd MARCH 2021

Proceeded to the vessel at Falmouth and in company with Rob Featherstone of Tresco Boat Services noted the following:

The vessel is arranged with fixed seating for twelve passengers on the after open deck, five each side on the raised machinery casing and two forward facing immediately aft of the wheelhouse casing.

Calibrated steel weights were used to represent the weight of 12 passengers and two crew. The steel weights used and supplied by Survitec were a mixture of 25 kg and 56 lb (25.4 kg), all being assumed to be approximately 25 kg for heel test purposes.

The aluminium alloy transom fitted extends to a position 150 mm below the top of the tubes (See photographs) so 150 mm was deducted from minimum freeboard measurement to the top of the tubes at side to obtain the minimum freeboard to the transom top.

The vessel is fitted with fixed handrailing aft preventing access to the top of the tubes. With the vessel arrangement it was concluded that the tests were to be completed with the weights placed on the side deck to represent the passenger crowding to this location on one side.

Test 1 Vessel Upright

Total passenger weight on board 12 x 75 kg (900 kg). Three weights (75 kg) were placed on the deck immediately outboard of each of the side facing seats and immediately forward of the forward facing seats. Six further 25 kg weights to represent the two crew members were position within the after end of the deckhouse casing and freeboards to the top of the tube at the transom were recorded as follows:

Tube Freeboard Port:	620 mm	Tube Freeboard Starboard:	600 mm
Transom Freeboard Port	470 mm	Transom Freeboard Starboard	450 mm

Test 2 Vessel Heeled to Starboard

All port side weights representing the 5 outboard facing passengers were moved and placed on the starboard side deck outboard or on top of the port weights. The forward facing starboard weights were placed on top of the port weights and freeboards to the tube at the transom were recorded as follows

Tube Freeboard Port:	730 mm	Tube Freeboard Starboard:	520 mm
Transom Freeboard Port	580 mm	Transom Freeboard Starboard	370 mm

Test 3 Vessel Heeled to Port

All starboard side weights representing the 5 outboard facing passengers were moved and placed on the port side deck outboard or on top of the port weights. The forward facing starboard weights were placed on top of the port weights and freeboards to the tube at the transom were recorded as follows

Tube Freeboard Port:	520 mm	Tube Freeboard Starboard:	730 mm
Transom Freeboard Port	370 mm	Transom Freeboard Starboard	590 mm

When heeled to port and starboard, positive freeboard was retained at the transom main deck boarding platform, this clearly evident from the following photograph.

From the above results is was concluded that the vessel satisfied the minimum freeboard requirements of 300 mm to the top of the tube and 250 mm to the transom when loaded with a total of fourteen personnel (12 passengers and 2 crew)

For and on behalf of
R. & J. MARITIME LIMITED

ROBERT J. MEDLER
Managing Director

PHOTOGRAPH

The above photograph shows the vessel heeled to port with all the passenger weights within the decked section outboard of the seating. It also shows that positive freeboard to the transom boarding platform is maintained