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# Howells Maritime Services

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● Marine Surveyors

● ISO Container Surveyors

● Marine Consultants

## SURVEY REPORT No: H14-512Q

**THIS IS TO CERTIFY**, that at the request of Advantage Plastics, New Zealand, the undersigned Marine Surveyor on the 11/04/14 attended the dinghy:

### “SMARTWAVE SW4200”

At Smiths Creek, Cairns, Queensland for the purpose of carrying out a swamp test in accordance with NSCV C6B Annex E.

Weights used to simulate outboard motor, batteries and engine controls were 25 kg lead ingots. Total weight added 125 kg as per maximum engine weight from Australian Builders Plate. Passenger simulation weights were 25 kg lead ingots, 8 weights were used to simulate 50% of 5 persons (assumed to be 80kg each) as per table E.2 (W1). 2 weights were added for 25% of additional weight difference as per table E.2 (W2). Vessel was prepared as per E5 (a-c) Sea state was calm with 10 knots of wind.



## 1. Ships Particulars;

<b>Model</b>	: Smartwave SW4200, versions open boat and Centre console.
<b>Builder</b>	: Advantage Plastics, New Zealand
<b>Test Model</b>	: SW4200 open boat.
<b>Length</b>	: 4.30 m
<b>Breadth</b>	: 1.93 m
<b>Moulded Depth</b>	: 0.83 m
<b>Dry Weight of Ship</b>	: 220 kg
<b>Hull Material</b>	: Moulded Polyethylene
<b>Maximum rated HP</b>	: 50 HP (36.77 kW), 105 kg
<b>Maximum persons</b>	: 5 persons, 450 kg
<b>Maximum Capacity</b>	: 580 kg
<b>Foam quantity</b>	: 0.74 M3 of polyurethane foam

## 2. Results:

### 2.1 Symmetrical fully-laden condition;

Note; To achieve water flowing freely into the vessel across the transom, 2 persons (80 kg) in addition to fully laden test weights were required to stand on the transom

Table 33; LFa1 maximum angle of heel was 1 degree  
 LFa2 Reference area above the surface of the water  
 LFa3 Nil reference area points immersed



Symmetrical fully laden test



Symmetrical fully laden test

## 2.2 Unsymmetrical partially-laden condition;

Table 33; LFB1 Reference area above the surface of the water  
LFB2 Nil reference area points immersed  
LFB3 maximum angle of heel was 5 degrees



**Unsymmetrical partially laden condition test**

## 2.3 Symmetrical light condition;

Table 33; LFC1 maximum angle of heel was 2 degrees  
LFC2 Reference area above the surface of the water  
LFC3 Nil reference area points immersed





Symmetrical light condition test



Symmetrical light condition test

Positive flotation statement # PF39954 was issued.

A handwritten signature in black ink, appearing to be 'R.L. Howells'.



11/04/14

R.L. (Zac) Howells  
MAIMS, MNI  
AMSA/ Maritime Safety Queensland accredited marine surveyor # 315

*This report is made without prejudice and is conscientiously believed to be true and accurate.*