

# MARINE DESIGN & SURVEY

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## POSITIVE FLOTATION TEST SPECIFICATION

### 1. GENERAL

A positive flotation test is performed on a ship to determine if the ship has positive flotation as defined in **schedule 11 of the Transport Operations (Marine Safety) Regulation 1995 [Qld]**. Positive flotation means an attribute of the ship to remain afloat in the upright position when it is filled with water, and support its normal complement of passengers and crew, because of the way the ship is built or the materials from which it is constructed, or both.

The Positive Flotation Test Report is to be used to record all measurements and observations made during a positive flotation test.

### 2. SHIP PREPARATION

For the positive flotation test, the ship is to be in the fully loaded condition. Where certain items of equipment normally carried on the ship can not be carried due to possible damage by water, equivalent masses must be carried on the ship. The position of these equivalent masses must be as near as practicable to the position of the equipment they represent.

The ship is to be inspected prior to filling with water to ensure that it is in the fully loaded condition. The results of this inspection are to be recorded

### 3. INITIAL MEASUREMENTS & READINGS

Prior to commencing the positive flotation test the following steps should be taken-

Check that the Application for Positive Flotation Test has been properly completed and record the result. If sections have not been properly completed, the surveyor in charge must determine the required information and enter it on the application.

#### 3.1 SHIP'S NAME

The ship's name as it appears on the application is to be confirmed. This name should be found on the transom of the ship (and both bows of the ship if it is not a tender to another ship). If the name of the ship is not permanently marked as required, the ship's owner or operator is to be instructed to permanently mark same before the swamp test can proceed.

#### 3.2 SHIP'S REGISTRATION

The ship's Northern Territory Transport registration number (if any) as it appears on the application is to be confirmed.

#### 3.3 SHIP'S OWNER OR OPERATOR

The full name, postal address and contact phone number of the ship's owner or operator as appears on the application is to be confirmed.

### **3.4 SHIP'S CONSTRUCTION MATERIAL**

The ship's construction material of both the hull and superstructure as it appears on the application is to be confirmed. Acceptable materials are steel, aluminium, timber, ferrocement or FRP.

### **3.5 SHIP'S LENGTH**

The ship's measured length to the nearest 0.01m is to be determined in accordance with USL Code, Section 1 and be confirmed with that stated on the application.

**Note:** If the ship's measured length is not less than 6.00m, the test must not proceed.

### **3.6 SHIP'S BEAM**

The ship's moulded beam to the nearest 0.01m at the mid measured length is to be determined and be confirmed with that stated on the application.

### **3.7 SHIP'S DEPTH**

The ship's moulded depth to the nearest 0.01m at the mid measured length is to be determined in accordance with USL Code, Section 1 and be confirmed with that stated on the application.

### **3.8 REQUIRED USL CLASS**

The required USL Code class (if any) for the ship as it appears on the application is to be confirmed.

### **3.9 SHIP'S COMPLEMENT**

The number of persons desired to be carried as it appears on the application is to be confirmed.

## **4. CONDITIONS AT TEST**

### **4.1 WITNESSES**

The test is to be witnessed by a Naval Architect and a Northern Territory Transport marine surveyor or a delegate of such a person. The name of this person representing Marine Design & Survey is to be recorded. This person is designated as the person in charge of the test.

### **4.2 WIND**

The wind present at the test site must be relatively calm. If the wind is too strong, it may become unsafe to carry out or continue with the test. It is the sole responsibility of the ship's master to determine if the strength of the wind is too great.

### **4.3 SEA**

The sea conditions at the test site must be relatively smooth with no swell. If these conditions can not be met, it may become unsafe to carry out or continue with the test. It is the sole responsibility of the ship's master to determine if the sea condition is too dangerous to undertake or continue with the test.

### **4.4 WATER DEPTH**

The water depth at the test site must be such that the ship when swamped does not make contact with the ground. A recommended water depth is one of at least 1.2 times the depth of the ship. The actual water depth at the test site must be determined and recorded.

### **4.5 TIDAL STREAM & CURRENT**

The test site is to be such that the ship's movement is not influenced by the effect of tidal stream and/or water current. During the test, the ship's mooring lines must be slack and not exert any force on the ship.