



Lifeguarding IRB Hull, Fuel Bladder & Engine Specifications

1.0 SCOPE

This policy applies to all clubs, members and employees of SLSNZ.

2.0 PURPOSE

This policy outlines the SLSNZ specification for IRB hulls, fuel bladders and engines, which all IRBs used for a lifesaving purpose must follow.

3.0 INTRODUCTION

The Arancia design has evolved over the years. However, the current design is still very similar to the original. Other manufacturers have also supplied IRBs from time to time, although Arancia is the only current Surf Life Saving New Zealand (SLSNZ) approved IRB manufacturer. The first outboard engine used on an IRB was a Johnson/ Evinrude 25hp (horsepower) two stroke fitted with a stainless steel propeller and an aluminium/stainless propeller guard. Subsequently, 30hp engines by Mariner and Yamaha were approved, and the current engine of choice is the Mercury 30hp surf engine. SLSNZ is now the world leader in the field of Inflatable Rescue Boat Operations and the IRB is involved in more than 50% of all rescues in New Zealand each year.

4.0 DEFINITIONS

IRB: Inflatable Rescue Boat

5.0 RELATED DOCUMENT, POLICIES AND PROCEDURES

1. SLSNZ Lifesaving Sport Competition Manual
2. SLSNZ IRB Training Manual
3. SLSNZ Vehicles Standards

6.0 EXCEPTIONS

There are no exceptions to this policy.

7.0 POLICY

1. All IRB hulls, fuel bladders and engines which are used for a lifesaving purpose will meet the specification listed in this policy.
2. For new IRB hulls & engines, Clubs & services can only purchase this equipment through SLSNZ or through SLSNZ approved providers.
3. Clubs and services can on sell IRB hulls & engines to other SLSNZ Clubs as long as it meets the specifications listed in this policy.
4. Clubs and services can on sell IRB hulls & engines to the general public providing all SLSNZ branding and SLSNZ sponsors' logos are removed.

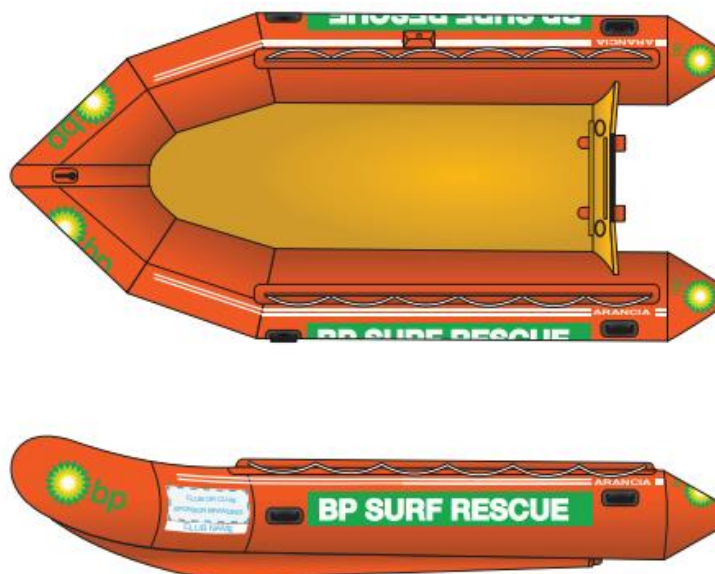


Lifeguarding IRB Hull, Fuel Bladder & Engine Specifications

THE SLSNZ APPROVED IRB HULL:

ARANCIA 3.8 m SOFT HULL INFLATABLE

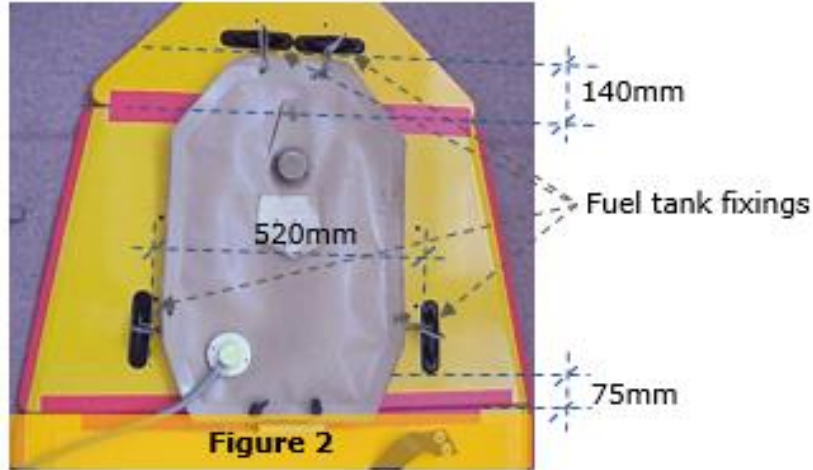
- The IRB is a purpose built motorised inflatable boat crewed by 2 suitably qualified lifeguards to conduct surf lifesaving operations in the surf zone and near shore environments.
The primary purpose of an IRB is to safely and quickly negotiate the surf zone to reach a person(s) requiring assistance and transport them back to shore.
- Boat identification & CE Marking Class
 - RCD Design Category: C (Inshore)
 - Maximum recommended number of people: 6 adults
- Maximum recommended engine power
 - 30 Horsepower (HP), 22 Kilowatts
- Arancia A380 IRB Principal Dimensions
 - Material: Neoprene coated polyester fabric proofed with an outer surface of Pennel & Flipo Orca coated CSM fabric (Hypalon)
 - Floorboard: 3 panels of Infusion moulded GRP Polyester Laminate with 6mm PVA Foam on main panel
 - Length of Hull: 3.850m
 - Beam of Hull: 1.730m
 - Tube Diameter: 460mm
 - Number of Chambers: 3 plus Keelson
 - Working Pressure: 25kpa
 - Unladen Weight (without engine): 68kg
 - Maximum Recommended Fully Laden Weight: 685kg
 -





Lifeguarding IRB Hull, Fuel Bladder & Engine Specifications



FLOORBOARD SPECIFICATION:



Floorboard fuel bladder fixtures

- (a) Floorboard fuel bladder fixtures must be as supplied by Arancia (factory standard). (See Figure 2).
- (b) Should damaged fixtures need to be replaced, correct positioning is required as per Figure 2.

NOTE: The placement of the Crew Foot Straps 2017 Configuration

Post 2017 Configuration Incorrect	Correct Crew Persons Foot Strap Configuration
	



Lifeguarding IRB Hull, Fuel Bladder & Engine Specifications

THE SLSNZ APPROVED IRB ENGINES:

- **Mercury 30M (Marine Power NZ Ltd)**
 - Short Shaft
 - Performance: 30 HP (22.1 kw)
 - Type: 2 Cylinder-2 Stroke
 - Capacity: 430cc
 - Single Carburettor
 - Fuel: Outboard Engine 2 Stroke Oil and Petrol

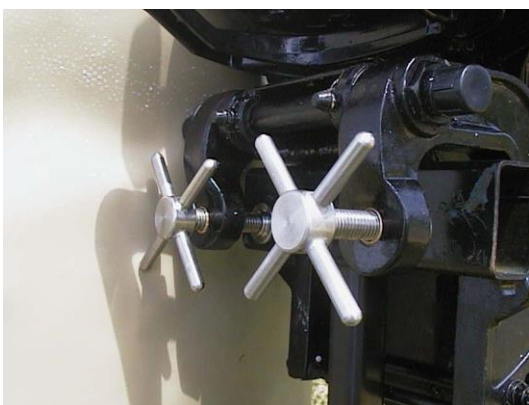
The standard Mercury 30M engine is modified and strengthened by SLSNZ to suit surf lifesaving operations and to enhance safety and performance.

A Mercury Surf Engine comprises:

- Mercury 30M Engine
- Strengthened and modified components fitted (PSP Engineering Ltd)
- Stainless Steel Propeller Guard (Stainless Design Group)
- Stainless Steel Propeller (Propeller Services Ltd)
- Engine Safety Strop fitted with a type 2470 (70 x 31mm) stainless steel spring snap hook (Arancia & PSP Engineering Ltd)
-

Throttle Return Spring

- All Mercury Surf Engines must be fitted with a functioning throttle return spring as issued by SLSNZ





Lifeguarding IRB Hull, Fuel Bladder & Engine Specifications

Spark Plugs Only the listed (manufacturer recommended) Spark Plugs may be used:-

Mercury/Mariner = NGK B7HS-10
NGK BR7HS-10

Engine Paint Colour must be original manufacturer's colour; only the top of the cowling cover is available for Sponsor/Club name, brand or logo. The front, back and sides of the cowling cover must remain as supplied by SLSNZ complete with manufacturers decals (

- **SLSNZ Sponsor Branding** displayed on an engine at time of purchase by the club must remain.



PROPELLER SPECIFICATION:

There is no restriction on propellers provided they comply with all clearances and requirements of SLSNZ approved propeller guards and the engine is fully operable under normal loading

The leading and trailing propeller blade edges must be contained inside the ring guard





Lifeguarding IRB Hull, Fuel Bladder & Engine Specifications

FUEL BLADDER SPECIFICATION

The Fuel Bladder shall be constructed of a suitable flexible material to contain fuel, with the ability to collapse to a flat state when empty.

- Covertex 15 Litre & 25 Litre

Fuel Bladder Clip attachment

-The intention of fuel bladder clip fixture is to ensure no rigid type fixing that could expose the IRB Crew to potential injury.

The fuel bladder must be fitted with (4) type 2470 (70mm x 31mm) stainless steel spring snap hooks independently attached with rope to the eyelets or through the carry handles

Rope type and diameter is not restricted but the rope length will be determined by allowing minimum travel of the fuel bladder from its designated position

The rope must be of sufficient strength to retain the fuel bladder during all manoeuvres

Clips must be attached to the fuel bladder in such a way as to allow a 180-degree rotation between the clip and the fuel bladder attachment point





Lifeguarding IRB Hull, Fuel Bladder & Engine Specifications

Fuel Bladder Clip Attachment



Fuel Line / Bayonet Connection

The fuel line may have up to 100mm of 'support' where it connects to the bayonet. The measurement is inclusive of the bayonet. Any 'support' must not encroach onto the bayonet



8.0 PROCEDURES

Nil

9.0 DOCUMENT MANAGEMENT AND CONTROL

Policy owner	Chief Operations Officer	Date issued	July 2022
Content Manager	National Lifesaving Manager	Revision date	July 2025
Approved By	Chief Operations Officer		