



IRB PROCEDURES

- Follow the procedures in the IRB Log of Operations for both pre and post operations. Ensure the logbook is completed
- Read the chalkboards, ensure you know which engine is to be used - we will be rotating engine usage so please try the one indicated first on the chalkboards above the engines.
- **Make sure you put the Powercraft signs on the beach and bring them back in.**

BEFORE

Extra procedures to perform which are not in the IRB Log of Operations book before the morning patrol (pre operation):

- When filling fuel cells the fuel is ALREADY mixed with oil, no need to add oil
- Start with Fuel Can 1 and work through to Fuel Can 5 (Notify IRB Captain once you are using Fuel Can 4)
- NOTE the Evinrude has a different fuel cell and engine fitting. Check you fill the right cell
- NOTE the Evinrude uses straight 95 Unleaded. NOT Premixed, **use the red container on the top shelf for the Evinrude only (Labelled 95).**
- Remove ALL sand from the engine, propeller and guard area before running the engine in the water tank
- Ensure the water tank is free from sand, if not, rinse out before filling. Also it must be outside the boat shed so no water fires into the shed.



Water
doesn't fire
into shed

- Fill the water tank with fresh water and add salt water removal chemical – half a cup of SX50 (stored in the Lifesaving Shed on the shelf)
 - Ensure the engine is submerged to where the arrow is in the below image.



- When starting the engine:
 - Ensure fuel bulb is pumped until hard;
 - Have the choke fully on and the throttle held at the midpoint – aligned marks;



Marks aligned

- Pull the start cord slowly once to “turn” the engine over;
 - Pull the start cord repeatedly until engine “fires”;
 - Once the engine “fires” for the first time close the choke and continue to pull the start cord until engine starts – with throttle still at half; and
 - **Idle for at least THREE minutes**
- Ensure the second fuel cell is full and ready, for use in case the second IRB is required at short notice
- Inflate the hull to just under 2.5 PSI, in the heat it will expand

DURING PATROL

- Ensure you have constant contact with your Patrol Captain by radio.
- Consider your location, an IRB is useless at the southern end when the driver/crew are at the pipe.
- On a hot day check the pontoons & fuel cell for expansion, and release pressure if necessary
- Pontoons should have some give if you push on them with a hand
- Be prepared to have a second IRB on the beach, drivers and crew can set up a second IRB in about 5 mins if the fuel is already ready and in boat.
- As IRB Driver/Crew go out for a 30 minute drive on EVERY patrol at least. This simple act maintains skills and confidence so when they are really needed you can react with confidence. Also the fuel bag does not expand and the engine is kept warm.

AFTER

Extra procedures to perform which are not in the IRB Log of Operations book after the afternoon patrol (post operation):

- Complete the Log Book
- Remove all sand from the engine, propeller and guard area BEFORE placing the engine in the water tank and running the engine
- Ensure the water tank is free from sand and ensure the water tank is outside the boat shed so the water outlet doesn't fire water into the boat shed. (see image above)
- Fill the water tank with fresh water and add salt water removal chemical— half a cup of SX50, stored in the Lifesaving Shed on the shelf. (ensure engine is submerged as per the image above)
- Any issues with motor or hull or any equipment post operation please write it on the on the chalkboard and send an email to the IRB Captain at lifesaving@manlylsc.com or SMS 0429916380 with specific details including for example:

- Engine number
- Detail of specific fault/issue
- Hull name if applicable
- RUNNING THE ENGINE – Start the engine and allow to run for a minute before removing the fuel line
- Place the fuel bayonet in the eyelet on the transom so no water can get in the bayonet, **as per the image.**
- Hose the engine fully, once it has stalled. After hosing using the air compressor, dry the whole engine.
- Using Inox (stored in the Lifesaving shed on the racks), spray the engine, avoiding any rubber parts. Pay particular attention to the carbie.
- **REFUEL REFUEL REFUEL (Can't stress this enough!)**
- Ensure all water is drained out of the boat by lifting the nose up and watching the water run out (see image below)
- Pack away and lock up



LOCATION OF IRB FOR RUNNING, HOSING OUT AND DRAINING

Run outside of shed, water doesn't fire onto shed floor



Lift IRB and ensure all water drains out



Ensure all water drains out.



TROUBLESHOOTING

Engine will not start

Possible causes

- Stop switch not in start position
- Incorrect starting procedure
- Engine flooded
- Fuel is not reaching engine
 - a Faulty fuel line connector
 - b Line is kinked
 - c Primer bulb not squeezed
 - d Primer bulb faulty
 - e Fuel filter obstructed
 - f Fuel pump failure
- Spark Plugs fouled or defective
- Carburettor blocked
- Loose plugs, nuts, bolts or restrictor plate seal
- Old or contaminated fuel
- Ignition system component failure (e.g. plug boots, poor ground, faulty boxes), incorrect tuning for timing, mixture and idle.
- Major engine issue (e.g. valves not sealing, internal carbon build up, corrosion, seized, poor compression)

Engine runs erratically

Possible causes

- Spark plugs fouled or defective
- Incorrect setup or adjustments
- Fuel is being restricted to engine
 - a Fuel filter obstructed
 - b Fuel line kinked
- Fuel pump failure
- Ignition system component failure (e.g. plug boots, poor ground, faulty boxes)
- Carburettor blocked
- Old or contaminated fuel
- Loose plugs, nuts, bolts or restrictor plate seal
- Major engine issue (e.g. valves not sealing, internal carbon build up, corrosion, seized, poor compression)

Performance loss

Possible causes

- Throttle not fully open
- Boat overloaded or weight not properly distributed
- Excessive water or sand in bilge
- Incorrect engine timing, adjustments or setup
- Bad fuel
- Boat bottom is dirty, damaged or not inflated properly
- Damaged or improperly sized propeller

IRB SERVICE SCHEDULE

MONTHLY

- Tighten spindle feet
- Lubricate sliding and rotating parts and grease fittings using grease gun
- Check steering friction adjustment so engine cannot steer to lock by itself
- Check spark plugs

QUARTERLY

- Lubricate all lubrication points
- Inspect and clean spark plugs, replace if electrode worn or insulator is rough, cracked, broken, blistered or fouled
- Check fuel filter
- Check carburettor
- Check tightness of bolts, nuts and other fasteners
- Check water pump impellor pressure (replace every 3 years)
- Tighten spindle feet
- Remove engine deposits
- Lubricate propeller shaft

ANNUAL (End of Season)

- Annual Service @ Pittwater Marine