



**Information & operations manual for
Leopard 40 Catamaran 2008
'Escape'**

Welcome



Welcome to Horizon Yacht Charters and your Leopard 40 "Escape". We hope you had a pleasant journey and are looking forward to a fantastic holiday and some of the finest sailing in the world here.

This manual is here to guide you through the operation of your yacht. Please take the time to read this manual and don't hesitate to ask any of our professional, friendly staff if you have any questions.

All of the yachts in the Horizon fleet are maintained to the highest standards so that you may enjoy a trouble free vacation, on a beautiful yacht. Please remember that these yachts are all privately owned and we ask that you care for it like it was your own.

Best wishes for a great vacation,

Sylvia and Andrew
Directors

Office Hours:

Monday – Sunday 08:30 – 17:30

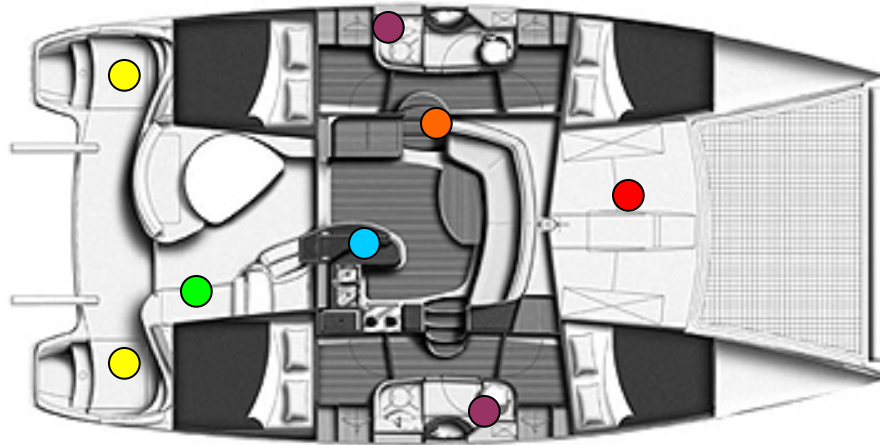
Telephone: (284) 494 8787

Duty Manager: (284) 542 8787 (Emergency Only)

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1. Yacht Specifications



Length	39' 3"
Beam	20' 1"
Draft	3' 10"
Fuel	92 gallons
Water	206 gallons
Engines	2-29hp

Location of:

- Engines (starboard and port aft cockpit lockers)
- Generator (in port bow locker)
- Manual bilge pumps (by the steps leading from the saloon to the hulls)
- Propane tank (beneath cockpit seating)
- Water tank refills (amidships)
- Windlass breaker, electric winch breakers and house battery breaker (behind galley garbage bin)

2. 12 volt panel; 110v systems and breaker locations

12V Electrical panel switches



Column 1

Spare

Freezer (the fridge cools via convection when the freezer is on)

Port bilge pumps

Starboard bilge pumps

Shower pumps

Fresh water pump

VHF radio (note the VHF is located in the cockpit at the helm station)

Autopilot

Navigation instruments

GPS

Spare

DC Main (must be on to operate any 12v operations)

Column 2

Panel lights

Navigation lights

Anchor light

Steaming light

Deck light

Cabin lights

Salon lights

Fans

Stereo

Propane solenoid

Spare

Electric winches

110v systems:

The 110v outlets on this vessel will function when on shore power and when the generator is running.

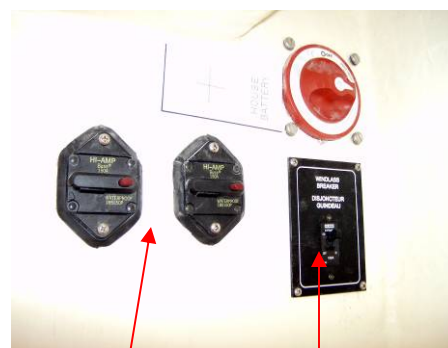


Shore power/generator selector switches

- Water heater 1 (do not use when plugged into shore power)
- Spare
- Spare
- Port air conditioning unit (one unit controls both port cabins)
- Starboard air conditioning unit (one unit controls both starboard cabins)
- Water heater 2
- 110v outlets
- 110v outlets

Breakers

The breakers for the electric winches and the windlass are located behind the garbage bin in the galley. There is also the house battery switch located here.



Winch breakers

Windlass breaker

4. Engine start procedures

You have two engines on your vessel, one to operate the starboard prop and one for port. You must switch on both engines to manoeuvre the vessel. Start one engine and then start the other.

- Make sure engines are in neutral.
- Turn the key to "start" to switch on the ignition (an audible alarm should sound).
- Turn the key further to the right to "start" and release once the engine has started.
- Once the engines are running check you have water coming out of the exhausts which are located at the transom of the vessel.
- To stop the engines press the stop buttons until the engines stop. Turn the keys back to "off".



Should you hear an engine alarm during operation, check which light is on and immediately shut down the engine-**CALL HORIZON**

All our yacht engines run with diesel fuel. There is a diesel filler cap on the transom which is clearly marked "DIESEL".... **DO NOT PUT WATER IN HERE.**

5. Daily Engine Checks

The engines are located at the transom, one in each hull. It is important that you complete the following checks on both engines.

- Check the oil level using the dip stick located to the right front of the engine. The level should be at least halfway between the empty and full marks. To add oil open the yellow oil filler cap on the top of the engine.
- To the back right of the engine is the engine coolant reservoir. The coolant level should be between the maximum and minimum lines.
- Check for any engine leaks or bilge water below engine.
- Check the belt for any damage and correct tension.

KEEP HANDS CLEAR OF ALL MOVING PARTS.

ANY PROBLEMS CALL HORIZON



Oil dip stick



6. Generator

Escape is fitted with its own generator which will run the 110v outlets, the air conditioning and will also charge the batteries in place of the engine. The generator is located in the port bow locker. The main breaker for the generator is located in the side panel.



Main breaker for the generator. Must be on for the generator to operate.



The generator panel is located between the stereo and the 12v panel.

To start the generator:

- Make sure all the 110v switched off prior to starting
- Press the glow switch down for 5 seconds before engaging the start button.
- Pinch the two switches together and hold until the psi gauge reaches 58. Release the switches. The generator is now running.
- Allow the generator to warm up for 5 minutes and then gradually load up the system, adding one load every 2 minutes.

systems have been the generator.

Stopping the generator

- Turn off all 110v systems.
- Press down on the bottom switch and release immediately. The generator will stop.

You must not run the generator when underway, only switch it on once you are stationary.



Glow switch. Press down for 5 seconds before engaging the start switch.

Start/stop switch. To start the generator pinch the start and glow switches together. Hold until the psi reaches over 58. Release.

To stop the generator press the bottom switch down once and release immediately.



Ensure that you have moved the 110v selector switches to generator.

7. Air conditioning



There are two air conditioning units located to the right of the navigation station. The port side unit controls the port cabins and the starboard unit controls the starboard cabins.

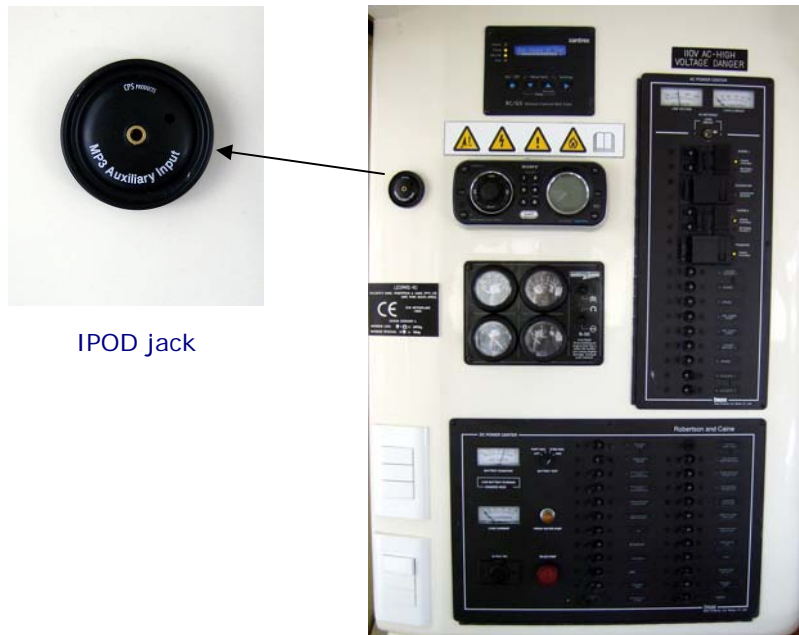
The air conditioning units will operate when the vessel is plugged into shore power or when the generator is on. To switch on the units switch on the two switches on the 110v panel. Next, press

the mode button on the air con unit until the "cool" mode is selected; i.e. the green light next to the "cool" mode is illuminated.

You can control the base temperature by using the + and – buttons. Fan speed can be altered from fast to slow by pressing the end button on the right side of the panel. Once the interior of the vessel has reached optimum temperature it is advisable to reduce fan speed to maintain the current temperature.

Please ensure that before unplugging the vessel from shore power or stopping the generator that you have first switched off the air conditioning units. Switch the units off at the control panels first, by pressing the mode button until the green light beside the "off" mode is illuminated. Once the compressors have closed down; turn off the switches on the 110v panel.

8. Using your IPOD



iPOD jack

It is possible to use your IPOD or MP3 player on Escape. Plug your device into the auxiliary input shown in the above pictures and ensure that the stereo is on and you have selected auxiliary mode. Your device will play through the stereo speakers.

9. Instruments

Located at the helm are the following Raymarine instruments:



240VHF



RC435 Chart plotter



ST6002 Autopilot



ST60 Tridata



ST60 Wind indicator

To operate the equipment, ensure that the following switches are on at the 12v panel:

- VHF
- Autopilot
- Instruments

NB: Press and hold the “Last WX” button on the VHF to switch to the weather channel. Press and hold again to revert to standard VHF channels.

10. VHF Procedures

Using the VHF radio:

Familiarise yourself with the method for switching channels, and with the squelch and volume controls on your radio. Most radios have a button to instantly select Channel 16 – ensure you understand how this operates or you could end up speaking on Ch. 16 when you think you are on some other channel.

1. Make sure the radio is switched on, volume quite high; power to high unless the station you are calling is very close.
2. Squelch up until loud hissing, and then back a little until the noise *just* stops.
3. Select the channel for calling (Channel 16, unless specified otherwise).
4. Press switch on microphone when speaking. Release immediately.

If no response then wait two minutes and repeat the call. If still no response, wait a further two minutes before trying again. If calling on Channel 16, it is very important to switch to a working channel after the contact is established. Do not use Channel 16 for your conversations – this channel is for hailing and distress only.

Channels to use:

- 16 Hailing and Distress
- 74 Contact Horizon Yacht Charters (when in range)
- 12 Yacht Charter Companies working channel – assigned for yacht breakdown servicing and emergency only
- 68 Marinas and Yacht Clubs – for lunch/dinner reservations etc
- 06 Ship to Ship – along with Channel 68 and 77 can be used for contact between boats

In the event that your vessel is involved in a non-life threatening incident with an object or with another vessel, it is important that you contact the Horizon Office immediately at 494 8787 or 496 0653. Please remember to get as much information as possible about your location, the other vessel's description and what damage has been done to your vessel so that we can best assist you.

Failure to report any accidents or incidents in a timely manner may result in nullification of your hull damage insurance.

Types of emergency:

In the unlikely event that you are involved in an emergency stay calm and follow these steps. You will also have an Emergency Procedure card next to your VHF.

Distress: "MAYDAY, MAYDAY, MAYDAY." This is an International Distress signal and an imperative call for assistance. It is used only when a life or vessel is considered to be in grave and imminent danger.

Mayday Relay: used to summon help for a vessel which is either too far offshore to contact the coastguard directly, without radio capabilities or whose radio has been damaged or destroyed.

Urgency: "PAN-PAN, PAN-PAN, PAN-PAN" This is the International Urgency Signal and is used when a vessel or person is in some jeopardy but is not considered to be in grave and imminent danger.

Medical emergency: "PAN-PAN MEDICO, PAN-PAN MEDICO, PAN-PAN MEDICO" (Pronounced med-ick-oh). This is an International Urgency Signal that should be used when medical advice is needed.

Safety: "SECURITE, SECURITE, SECURITE" (Pronounced Say-cure-it-tay). This is an International Safety Signal and is a message about some aspect of navigational safety or a weather warning.

How to issue an emergency message

Select Channel 16 and press transmit button on handset

Say slowly and clearly 'MAYDAY, MAYDAY, MAYDAY, CALLING ALL STATIONS

This is.... (vessel name)....' and repeat vessel name 3 times

Give position – vessel's position in degrees of latitude and longitude or nautical miles from, and bearing to, a navigational landmark

Describe emergency – list the problem, the type of assistance needed; number of passengers aboard (boat length, hull colour and type is also useful)

Wait 1 minute for a response, repeat message

ALTERNATIVELY: Dial either 767 or 999 from any BVI cell phone or call 494- HELP (4357)

11. Batteries

There are 3 ways to recharge your batteries.

Engines:

The batteries will need to be recharged as often as you deplete them. Conserving power will result in less time needed for charging, so turn off systems that you are not using. Your batteries will charge when the engines are running at 1400rpms or more, whether sitting at a mooring or motoring to a destination.

Check the battery levels and make note of them before charging.

Run the engines at 1400rpms or more for 1-1 1/2hrs.

Shut the motor off.

Wait 5 minutes before checking the battery levels, (directly after turning off the motor they will remain in an excited state for about 10 minutes).

Shore power:

Ensure the charge button on the inverter panel is illuminated and the ac power selector switches are switched to shore power.

Generator:

Ensure the charge button on the inverter panel is illuminated and the ac power selector switches are switched to generator.

In all instances ensure that the charge button on the inverter panel is on as this starts the battery charger.

12. Anchoring & the windlass

Setting your anchor:

Preparation:

- Establish a non verbal communication system from bow to stern, as with the noise of the engine and wind, verbal communication proves difficult.
- Tie the dinghy painter close to the boat at the bow or amidships to avoid wrapping it around the prop.

Location:

- Choose a clear area to anchor in, normally in 12 to 25 feet. A white bottom is sand and perfect for anchoring. A brown or green bottom will be grass, rock or coral. **Only anchor in sand.**
- Make sure that you are not on a lee shore; i.e. that the land mass is protecting you from the elements and that you are not being pushed onto the shore. **A lee shore is the most dangerous place to anchor your yacht.**

Action:

- Manually lift the anchor over the bow roller and feed the chain so the anchor is just above the water surface.
- Use the elements; approach from down wind or current, whichever prevails.
- Once the yacht is stationary use the electric windlass to drop the anchor. The elements will push you back and away from the anchor.
- Minimum scope is 5:1. In heavy weather you may want to increase that, always ensuring your swing area is clear of any obstacles.
- Engage reverse, slowly building up to 1500 rpm to really drive your hook into the sand.
- Once set, put the engine in neutral and allow the yacht to settle, take transits around the bay to ensure you are not dragging, it is always advisable to snorkel the anchor and ensure it is bedded in correctly and not just lying on its side.

Attaching the snubbing line:

- Once you are happy that the anchor is set you must attach the snubbing line. The snubbing line protects the windlass and it is important that you attach the snubber every time you set the anchor.
- Attach the hook around the chain link (the hook is too big to go through the link) and cleat off the bitter end of the line to a bow cleat. Pay out enough chain so that the snubbing line becomes taut.
- If the hook falls off the chain it means that there is not enough tension on the line. In this case re-attach the hook and pay out more chain until the line is once again taut.

Setting a secondary anchor:

- If a second anchor is required, e.g. you are anchoring in a mooring field and need to control your swing room, deploy the primary as above and attach the secondary at the bow. Drive the boat forward at a 45 degree angle to the primary. Once in line with the primary deploy the secondary and allow the elements to push you back. Increase astern to 1500 rpm to drive in the secondary. Snorkel over the anchor to ensure a good hold.

Manual operation of the windlass

If you lose power to your windlass, start the engine and give it some revs, to make sure you have not just got a low battery voltage. If you still have no power, you can operate the windlass manually.



To drop the anchor, insert the windlass handle into the hole on the right side of the windlass.

Continue to pull back on the handle, so that the wing nut loosens.

Your anchor is now ready to drop.

Remove the safety line or safety pin, and push the anchor over the bow, keeping hands and feet clear. Control the rate the chain pays out by tightening or loosening the wing nut with the handle.

When you have paid out sufficient chain, between 5 to 8 times the water depth, push the handle forward to tighten the wing nut. Increase revs to 1500 rpm to set the anchor. If you drag, pay out more chain, and re-try 1500 rpm in reverse. When the anchor is set, fit the snubbing line then release more chain on the gypsy so that the load is taken up on the snubbing line.

13. Picking up a mooring buoy

- Ensure dinghy painter tied off short on the bow or amidships and clear of the prop.
- Approach mooring buoy, keeping the bow into the wind or current, whichever prevails.
- Have a crew member on the bow to pick up the mooring pennant with the boat hook.
- The bowman will direct the helmsman to the mooring, using the already established non verbal communication system. Once at the mooring, inspect the buoy and pennant for any signs of wear and tear - generally the overnight moorings are well maintained, the day balls to a lesser degree. If you are ever unsure about a mooring buoy's integrity, choose another location to moor up.
- Attach the bridle to the pennant using the attached clip
- Once set you will have a bridle around the bow of the boat holding the yacht head to wind, remember to centralize wheel and lock in place to avoid the yacht sailing around the buoy.
- Now set up a second back up line. Go directly to the mooring buoy if possible. It is always easier to do this from the dinghy.
- To depart, slowly motor the yacht forward to create slack, release the clip from the pennant and allow the pennant to drop into the water. Fall back with the wind or current, and be careful not to foul your prop on the pennant.
- **Remember to tie your dinghy away from the stern whenever you are maneuvering in close quarters**

14. Bilge Pumps

Your yacht is equipped with two manual and four electric bilge pumps, one in each hull and one in each engine compartment. The bilges are operated by switches located on the 12v panel. The manual pumps are located by the stairs leading down the stairs from the saloon to the cabins. It is important that you check all the bilges once a day.



15. Fresh water system

Escape is equipped with one water tank with a capacity of 206 gallons. Before filling the tanks let the water run from the hose for a while before placing the end into the fillers that are located amidships on the port and starboard sides. Please ensure that the correct fillers are used, NOT the holding tanks or the diesel fill.

To use the fresh water system, turn on the fresh water breaker on the 12v panel and open a faucet. When the tank runs out of water the pump will run at high speed and the faucet will start to cough air. As soon as you hear the pump running continuously, check to see if anyone is using water. If not, switch off the pump immediately to prevent the pump from drawing more air into the system or the pump overheating.

There are two valves for the water tanks located behind the saloon seating. When the valve is vertical it means that the tank is open. A horizontal valve indicates that the tank is closed. Use only one tank at a time.



16. Heads

- Nothing is to be put down the head unless it has been digested first, with the exception of 3 sheets of paper.
- Prior to use, move the lever to wet bowl to add water - 4/6 pumps.
- Move lever to dry bowl to pump out waste; this must be done when you are more than 1000 yards off shore.
- Move lever to wet bowl to flush the pan and pipes, 20-25 pulls will keep your heads smelling fresh.
- Move lever back to dry bowl and pump the pan and pipes dry, the lever must be left in dry bowl as leaving it in wet bowl will ingress water.
- Wherever possible please use the heads ashore as this keeps our waters nice and clean.
- **Blocked heads will be cleared at a cost to you of \$120.00 sewage fee, plus a technician's fee of \$60 per hour and the call out fee.**



17. Showers

Your yacht has a hot & cold, fresh-water shower in each head and on the transom.

If the engine has been running, the hot water can be very hot – be cautious!

In order to use the showers, the fresh-water pump must be activated on the 12V panel.

To operate the shower-drain pump, make sure the shower drain switch is on. The shower drains are manual, so once some water has collected in the bottom of the shower you must press the drain button until the water has drained away. The button is located next to the shower head.

18. Refrigeration

There is an upgraded 12v refrigerator and freezer onboard your vessel. This system is designed to run 24hrs a day if you wish.

The fridge and freezer will rapidly drain the domestic batteries so it is important to keep your batteries charged. If the level goes below 12v the system will malfunction. Refer to section 12 for charging instructions.

Ensure that the freezer switch on the 12v panel is on. This operates both the fridge and the freezer.

Ask one of our staff for a deck cooler if you would like one for storing your drinks. It will keep the drinks cooler and the refrigeration colder, as people will not be going in it every 5 minutes for a drink.

Please note that we are in the tropics and we cannot guarantee that items will remain frozen when placed in the fridge and that fruit, vegetables and other fresh produce may have a shortened shelf life.

19. Propane and stove

The propane tank locker is located beneath the cockpit seating by the helm

To use:

- Turn the LPG switch on the 12v panel. This opens the solenoid on the tank.
- To light, turn the knob you want 90 degrees anticlockwise. When you push the knob in the self-igniter will light the gas around the burner.
- Hold the knob in for 5-10 seconds, then release. Make sure that the flame goes all the way around the burner. Reduce any wind that may hinder this by closing hatches or switching off fans.
- Light the oven and the grill in the same way, pressing the knob in to ignite the burners.
- If you cannot get it to light, check the manual shut off on the propane tank. Make sure it is open and try again.

The 12v solenoid system is USCG approved device. You do not need to close the tank unless you wish.



All of our yachts are fitted with propane detectors. The propane 'sniffer' has been placed in the bilge (propane is heavier than air and so will sink into the bilge). The detectors are sensitive to several types of gas and will trigger the alarm. The alarm can also be triggered if there is moisture in the bilge. If the alarm sounds it does not necessarily mean that the propane system is leaking, so don't panic!!

In the event that the alarm goes off follow these steps:

- Close the valve on the propane tank.
- Check the stove and surrounding area for propane smell.
- If detected, open up the bilges and hatches. Point the boat downwind and use the manual bilge pump to pump out the bilges.
- Call Horizon immediately

Under no circumstances should you use the electrical bilge pumps or any other electrical system if you suspect a gas leak.

20. BBQ

- When using the BBQ, tie your dinghy off at the side of the yacht, not off the stern
- Make sure that the bimini, life rings and any safety equipment is moved away from the BBQ
- Never use the BBQ while sailing
- Never use the BBQ on a dock
- Never change propane tanks when using the BBQ
- Make sure someone is always tending the BBQ when in use
- Call us if you have too much food



21. Fire Safety

Prevention is the best answer to fire safety.

- Always switch off the safety solenoid when stove is not in use
- Never leave the stove or oven burning unattended.
- Never change propane tanks whilst barbequing.
- Never smoke inside.
- Never smoke when changing propane tanks.
- Safely store any flammable liquids (for example charcoal lighter fuel).
- Keep matches away from children.

Engine compartment fire:

In the event of a fire in one of the engine compartments; use the fire extinguisher located in the life raft locker to the fire hole.

- Pull the yellow key out
- Press down on the red button until all the contents of the extinguisher have been discharged.
- Do not open the engine compartment even if you think the fire has been extinguished, dying embers can easily be re-ignited by a fresh supply of oxygen (air).



Open fire:

- Pull out the yellow safety tab.
- Point the extinguisher at the base of the fire and press down on the red button to discharge contents.
- Generously cover the base of the fire and surrounding area to ensure the fire is under control and cannot spread. Continue discharging extinguisher until the fire is out.



Galley fire:

- Take the fire blanket out of its container. Read the instructions for use carefully.
- Ensure hands and limbs are protected from the fire by the blanket.
- Carefully lay the blanket over the fire, laying the blanket away from you and keeping yourself protected at all times from the flames.
- Once in place leave the blanket until all heat has gone from the scene of the fire, this way you can be sure that the fire has definitely gone out and will not re-ignite.

22. Dinghy & Outboard

The driver of the dinghy must be over 18, and must at all times be wearing the kill cord. Never operate the dinghy under the influence of alcohol or drugs.

- Always tow your dinghy on a short line while motoring and a long line while sailing, always tow with the engine leg up as it gives you an extra half knot.
- Most of the time it is fine to leave the outboard on the dinghy, but if conditions are very rough, the outboard needs to be mounted on the push-pit.
- When going ashore for an evenings entertainment allocate a dinghy captain, someone who will bring the whole crew back to the boat safely, allowing the rest of the crew to enjoy various local cocktails and concoctions.
- To start the engine, lower the motor into the water using the lever on the starboard side of the engine. The lever position corresponds to the motor position, up and fwd for towing and back and down for driving. Check you are in neutral and **the safety cord is in place**. For starting an engine that has been at rest for 3 or more hrs use the choke. Pull the choke out, and set a few revs with the throttle. Do not twist the throttle trying to prime the engine. You will only flood it. Face the engine and pull the start cord and push the choke back in as soon as it runs. If it runs for a second but cuts out, try again without the choke.
- To stop the engine, press the button on top of the kill cord, or pull the kill cord out.
- Keep the kill cord with you to prevent anyone from borrowing it. You have been provided a dinghy lock and cable. Use them.
- Do not drag the dinghy onto a beach; anchor it off or put it on a dock with a stern anchor to prevent damage from going under or hitting the dock.
- Do not speed in and around other yachts, speeding fines have been introduced.
- At night an all round white light must be displayed along with red & green side lights, and it is always a good idea to have a flashlight with you, to show the way, and warn other vessels of your presence.
- Wear the life preservers provided in the cockpit lockers when in the dinghy.
- GAS to OIL ratio, 1 Gall = 3 ounces.

