



BANANA WIND

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Every cruise should have a plan . . . a cruise without a plan too often generates into an aimless loafing party. - W.E. Warrington

Bareboat Operations

Chances are that any boat you charter will be larger and better equipped than the one you own. It is often a good idea to brush up on your knowledge of the various boat systems, especially the ones with which you have limited experience.

Diesel Engine

Starting

1. Turn off all electronics.
2. Turn battery switch to All/Both.
3. Run bilge blower for five minutes.
4. Be sure gear shift is in neutral.
5. Throttle 1/2 way.
6. Push in fuel shut-off lever.
7. Locate glow plug or pre-heater.
8. Start engine.
9. Ensure that water is discharging from the exhaust.
10. Perform gear check with idle at 500 rpm.

Note: There is a direct starter button on the engine to bypass the cockpit controls if the key doesn't work.

Stopping

Gauges

Ammeter should read 12 - 14 volts.

Water temperature should read 200 - 210 degrees.

Oil pressure should be 40 - 80 lbs./sq. in.

RPM

Idle - 500 rpm.

Maximum efficiency - 2000 rpm.

Charge refrigeration at 1500 rpm.

Do not motor and charge refrigeration unless you keep rpm below 1500. Otherwise, you will burn up the refrigeration motor.

1. Pull out fuel cutoff lever.
2. Await oil pressure to drop and alarm to sound.
3. Turn off switch (key).
4. Push in fuel cutoff lever.

Daily Maintenance

The oil, water, and transmission fluid levels should be checked every day.

Motor Sailing

Keep the boat upright so the motor can draw water in through the water intake to cool the engine.

Keep a close watch on the oil pressure and temperature gauges.

Apparent wind moves forward due to increased speed, so you will need to trim the sails. Putting in a reef can often help.

Hoist an inverted black cone to indicate that you are under power.

Power Test of an Unfamiliar Boat in Open Waters

1. Motor at half speed:

Turn to starboard and then straighten up.

Turn to port and then straighten up.

Repeat starboard and port turns at full throttle.

2. Figure Eight at half and full throttle:

Make complete circles in the figure 8's to see which has the smallest turning ratio due to prop walk.

Repeat in reverse, but be careful to hold the wheel tightly due to the extra pressure on the rudder.

3. Fast Stop:

As you pass a marker, shift into neutral and then slowly to reverse.

See how long it takes to stop.

Repeat upwind, downwind, and crosswind.

Electrical Systems

DC House System

Draws from batteries

AC Auxiliary System

Powers battery charger, water heater, refrigeration, wall outlets.

Operates everything underway: lights, electronics, bilge pumps, etc.

Power switches: OFF - BOTH - ALL - 1 - 2. Identifies which bank of batteries are engaged.

Turn switch to ALL when starting engine.

Turn switch to OFF before connecting or disconnecting shore power.

A full battery registers 12.6 - 12.7 volts. A dead battery will register 12.2 volts and below.

Keep the battery drain to less than 10 amps when running electronics.

Turn on electronics AFTER starting engine due to the power surge when the engine starts.

Battery charger will recharge a battery at approximately 30 amps per hour. (A 10 amp draw for 10 hours would be 100 amps. You would need to run the engine 3 hours to recharge.)

If engine battery goes dead, move the leads from the house battery to jump the engine battery. Afterwards, be sure to move the leads back to the engine battery so it will be recharged by the alternator. (Be sure to investigate why the engine battery went dead.)

Refrigeration

Charge the refrigeration for one hour twice a day at 1500 rpm. (The 2000 rpm cruising speed is too much. It will burn up refrigeration motor.)

The cooling line can sometimes freeze. Place a warm towel over it to thaw it.

Stove

Alcohol - Safest fuel source.

Liquid Petroleum Gas (LPG) - Most common in charter boats, but it can be dangerous. It is heavier than surrounding air and can sink into the bilge. Do not turn it off at the stove. Leave the burner on, turn gas off at the tank, and wait for the flame to burn out before turning off the stove.

Compressed Natural Gas (CNG) - Lighter than surrounding air and will not settle in the bilge.

Cooling Systems

Closed System

Circulates water through the engine to keep it cool.

Fluid level should be within 1 inch of the top.

Can fill with tap water.

Possible causes for overheating:

- leaking hose

Raw Water System

Draws in sea water that is used to cool the water in the closed system.

Possible solutions to overheating:

- clean raw water filter strainer

- open/close the thru-hull connection

- stuck thermostat
- water pump belt

- replace impeller in the raw water pump
- check belt on the raw water pump

Fuel System

Fuel is filled through a fill plate on the deck. Don't confuse the fuel plate with the water and waste (i.e. pump-out) plates

Possible solutions to problems:

- release water and sediment from glass reservoir in the fuel separator
- change the secondary fuel filter element
- bleed the system.

If air gets into the fuel system, it will be necessary to bleed the system. Fuel tanks without baffles (i.e. plastic tanks) can pick up air when the fuel is low and begins sloshing around in heavy seas.

Fresh Water System

The fresh water system (as opposed to the closed system and the raw water system) is the system of potable water on the boat.

It is filled through a fill plate on the deck. Don't confuse the water plate with the ones designated for waste (i.e. pump-out) or fuel.

To bleed an air lock in the water system:

- open all tanks and all faucets
- close facets one at a time
- close tanks one at a time.

For water usage, figure on 1 quart to 1 gallon per day per person and 2 - 5 gallons per day for cooking and hygiene.

Bilge

There are normally at least two pumps for the bilge. One is an automatic pump and one is controlled manually by a switch.

It is often a good idea to turn on the manual pump for a few seconds each day to pump out the bilge water rather than wait until enough water accumulates to trigger the float in the automatic pump.

To freshen the bilge and lubricate the pumps, squirt some dishwashing liquid into the bilge.

Head Operations

This may vary depending on the manufacturer but this is pretty standard:

Wet - open seacock and pump in water using 5 pumps.

Utilize the head.

Wet - pump 15 times to evacuate the bowl.

Dry - close seacock and pump the bowl dry using 5 pump.

Leave the seacock closed while sailing or water might back up into the head when the boat heels.

Head Maintenance

Pour 1 pint of white vinegar into the bowl once a month. Pump the vinegar slowly--single stroke every 4 - 5 seconds--through the toilet. The acidic vinegar dissolves scale deposits from uric acid and salt water.

Add 1 - 2 ounces of mineral oil to white vinegar to lubricate the pump.

Thru-hulls

Gate valve

Screw down faucet

Off = clockwise

On = counterclockwise

Seacock

Off = lever is perpendicular to the fitting

On = lever is parallel to the fitting

Starter Motor

Trouble shooting

- tap solenoid if there is clicking when you try to start the motor or if there is no sound at all.

Starter motor is not serviceable. You must take it to a professional to be fixed or replaced.

Transmission

The engine will have a manual transmission gear lever on the side of the engine to be used in an emergency.

Alternator

The belt of the alternator should be checked regularly.

It should move no more than 3/4 inch.

Wheel

The boat should have an emergency tiller that attaches to the rudder post from the sole of the cockpit or possibly inside the boat.

Dinghy

Run an extra safety line to the dinghy.

Start with a painter (tow line) of 1 - 2 dinghy lengths.

Extend to 4 dinghy lengths when cruising speed is reached.

Side tie the dinghy to the aft quarter when motoring in reverse.

Remove all gear and oars before towing.

Always be aware of where

Outboard Motor

Starting

1. Check for fuel.
2. Open tank vent.
3. Pump bulb until hard.
4. Shift into neutral.
5. Check that kill switch is not engaged.
6. Put throttle in start position.
7. Pull choke out 1/2 way.

If it won't start

1. Increase choke.
8 - 10 pulls.
2. Pull choke 1/2 way out and increase throttle.
8 - 10 pulls.
3. Put choke all the way in.
10 pulls.
4. Seek professional help.

dinghy is when docking and maneuvering in tight quarters.

Double check knots when securing dinghy.

8. Pull cord.

9. Check that water is flowing from the exhaust.

Four stroke engine - Gasoline

Two stroke engine - Gasoline-oil mixture

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