

Windward Passage Engine Operation

General

The engine control is a single lever that controls both the engine speed and the direction (forward or reverse). You push the lever forward to go forward and pull it back to go in reverse. The middle position is neutral and you can tell if you are in neutral by pushing the rubber button on the lever in. If the button will not go in, then you are in either forward or reverse. The button is like the clutch on a stick shift car in that you can push the button in and move the lever either forward or back to increase the engine speed without engaging the propeller. The button will stay in until you move the shift lever to the neutral position.

If you need to run the engine to charge the batteries while at anchor the best process is to push the button in and pull the lever back. The transmission has some slippage and the propeller will turn slowly when the button is engaged so you want the boat to be pulling slightly on the anchor instead of drifting forward as a result of this slow turning of the propeller. When charging the batteries at anchor the engine rpms should be between 1500 and 1800.

Starting the Engine

1. Make sure the fuel shut off pull located on the port side of the helm station is fully in the down position.
2. Put the shift lever in the neutral position and confirm by pushing in the clutch button.
3. Turn the ignition key past the "on" position just as you would when starting a car. Once the engine starts release the key and let it return to the "on" position and leave it in this position. Do not turn the key to the "off" position while the engine is running as this will not shut the engine down but will damage the diodes in the alternator.
4. The engine low oil pressure alarm will sound when you turn the key to the on position and continue sounding until the engine starts. It should stop sounding as soon as the engine starts.
5. If the oil pressure alarm ever sounds while the engine is running stop the engine immediately! **Stopping the**

Engine

1. Never turn the key to OFF when the engine is running as this will damage the diodes in the alternator.
2. Put the engine control lever in neutral.
3. Pull up on the fuel shut off pull located on the port side of the helm station and hold it up until the engine stops. There is a red button next to the key that is labeled Engine Stop but I have not installed a solenoid in the fuel line so this button does nothing.
4. When the engine has completely stopped and the low oil pressure alarm sounds, turn off the key.
5. Push the fuel shut off pull down completely.
6. Leave the engine lever in the reverse position. This prevents the propeller from turning when sailing and reduces the wear on the shaft bearings.

Cruising Under Engine Power

The best cruising speed is with the engine rpms between 2100 and 2300. The maximum rpms should not exceed 2500 rpm. The oil pressure and engine cooling water temperature are displayed on one of the data pages on the chart plotter. For some reason the oil pressure reading does not register until the oil has heated up (about 10 minutes of engine running). However, the engine low oil pressure alarm should go off almost immediately when the engine starts. Date Printed: June 15, 2018