

MARINE WARNING NOTICE

NOTICE: For safety and protection of persons and property all United States Coast Guard (U.S.C.G.) and other marine safety requirements and other marine safety requirements and recommendations, as well as the following instructions, must be carefully studied and applied.

Failure to follow the above WILL result in an improper installation, which may lead to personal injury, including death, and/or property damage. Improper installation and/or use will also void your warranty.

WARNING: For the safety and protection of yourself and others, the installation, adjustment, and repair must be performed **ONLY** by a trained mechanic having adequate marine fuel system experience. It is particularly important to remember one of the very basic principles of marine safety: fuel vapors are heavier than air and tend to collect in lower places. This means that ANY fuel spilled will vaporize and remain in the lowest extremes of the engine compartment of your vessel where an explosive fuel/air mixture may be ignited by any spark or flame. Great care must be exercised to prevent spillage and thus eliminate the formation of such fuel vapors. In all cases it is necessary to have and properly operate the bilge blower for a length of time sufficient to remove all vapors before starting your vessel's engine.

NOTE: Due to the large distance between the helm and the engine in most boats, it is **STRONGLY** recommended that the mechanic have an assistant to operate the appropriate helm controls during removal, installation, adjustment, or repair of any marine fuel system component, as well as during the starting procedures.

IMPORTANT NOTE: A United States Coast Guard approved fire extinguisher, in proper operating condition, should be nearby at all times during removal, installation, adjustment, or repair of the marine fuel system and during the starting procedure.

Removal of Carburetor

WARNING: The following steps **MUST** be carefully studied and applied when disconnecting **ANY** part of the fuel system.

1. Disconnect the battery (to prevent accidental arcing) and any other equipment which may or can cause arcing. Extinguish **ANY** flame - **NO SMOKING!**
2. Label and remove all hoses going to the flame arrester
3. Remove flame arrester.
4. Remove existing carburetor following the procedure below:
 - a. Carefully disconnect fuel line. Catch all fuel left in the fuel line in a suitable container and **remove** container from the vessel before proceeding further. Absorb any spilled fuel immediately with a shop towel or rag and remove from vessel.
 - b. Label and disconnect all vacuum lines attached to the carburetor.
 - c. Disconnect any choke rods, heat tubes, and any electrical wires from the carburetor.
 - d. Disconnect and remove throttle linkage. Save all retaining clips.
 - e. Unbolt carburetor and remove.

WARNING: Be **EXTREMELY** careful not to tilt the carburetor, which may cause fuel to spill. **REMOVE** carburetor from the vessel. If fuel spillage occurs, see instructions 4a.

Removal of Carburetor (Cont.)

- f. Stuff shop rags or paper towels into the manifold opening and remove the original flange gasket. Clean the manifold face, taking precautions to prevent particles from falling into the manifold.
- g. Perform carburetor disassembly, service and reassembly off the vessel.

Installation:

5. Remove shop rags or towels from the manifold opening and place new flange gasket provided on the manifold.
6. Reinstall carburetor, reversing steps outlined in section #4.
7. Reconnect throttle and throttle return spring.

WARNING: After reassembly check the throttle linkage for sticking and/or binding. Be sure that there is no interference between parts as the throttle lever is operated from idle to full wide open throttle positions.

Check for sticking by having the assistant at the helm operate the throttle controls while the experienced mechanic watches the operations of the carburetor(s) to detect any malfunctions.

If any binding, sticking or malfunction is found it **MUST** be corrected before proceeding further.

8. Reinstall flame arrester and reconnect all hoses.
9. Open all hatches and allow the bilge to ventilate naturally until no fuel vapors are present.
10. Reconnect battery and operate bilge blower for a minimum of ten minutes.

WARNING: The bilge blower should operate until ALL fumes have been safely expelled from the bilge area. The blower should be run for at least ten minutes and longer if necessary.

Starting

11. Without operating the throttle, crank the engine. It may take 15 to 30 seconds of cranking to allow the fuel bowls of the carburetor to fill. If the engine does not start, stop cranking, open and close the throttle twice, and crank again until the engine starts.

WARNING: After starting engine check fuel lines and inlet fittings for possible leaks. If **ANY** fuel leakage or weeping is detected, shut off the engine immediately. Wipe any leaked fuel up and remove the rag or towel from the vessel. Operate the bilge blower as directed above before proceeding to correct the cause of the leakage. Be sure to operate the blower again before attempting to restart the engine.

Fuel System Storage Instructions

During extended periods of vessel storage (60 days or more) gasoline may deteriorate due to oxidation. This can damage rubber and other polymers in the fuel system. It may also clog small orifices such as main jets, idle feed restrictions, and power valve channel restrictions. A commercially available fuel stabilizer such as **Sierra's 18-9013** or an equivalent should be added to the vessel's fuel tank whenever actual or expected storage period exceeds 60 days.

Follow the product instructions for the amount of additive to use. The engine should be operated at idle for a minimum of ten minutes after the addition of the stabilizer to assure that it reaches the carburetor.