

Technical Service Bulletin #45
S22 and SX Engine Winterization
 October 4, 2000

Tools Needed

3/8" wrench	9/16" wrench	12mm wrench
Pliers	Phillips screwdriver	5/16" hose clamp tool

⚠ WARNING

Always use caution when working with fuel tanks, fuel systems, or around gasoline. Be sure to use OSHA approved eye protection.

As colder weather approaches, Epic engines will need to be prepared for the season. The following procedure outlines instructions for winterizing Epic V-Drive boats. This bulletin affects all Epic S22 and SX model boats. For winterization on direct drive boats (E21, E22, X22) see TSB #01.

Procedure

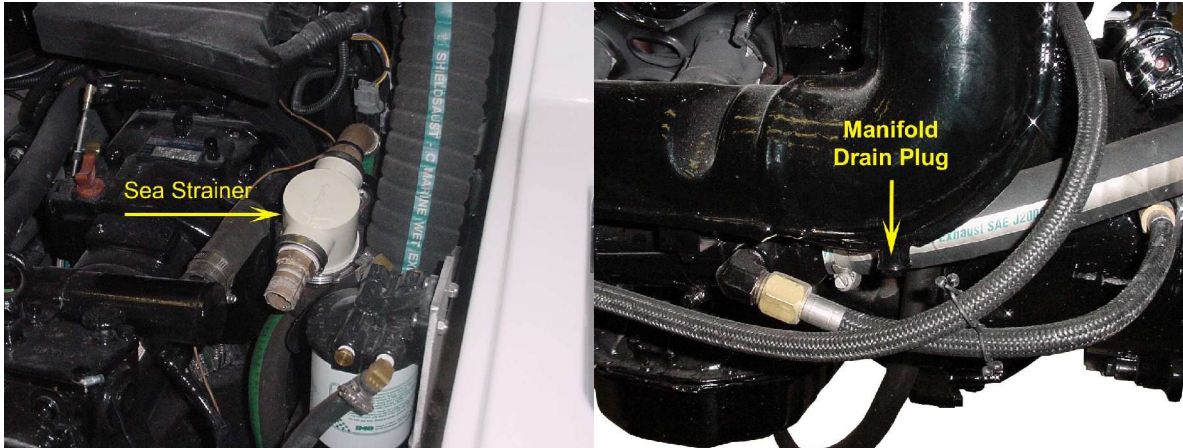
Step 1 – Accessing the engine

In order to get to all the areas of the engine needed, the aft seat cushions, center aft seat insert, trunk bulkheads, and aft floorboard will need to be removed. Place the seat cushions outside the boat in a secure location. Next, remove the bulkheads on either side of the engine from the trunk, and place them outside the boat. To remove the center aft seat insert, remove the screws indicated in the picture below, and place in a safe location for later use. Lift the center aft seat insert free and set outside the boat. Finally, remove the aft floorboard and set it outside the boat. **NOTE:** The center aft seat insert **MUST** be removed in order to remove the aft floorboard.



Step 2 – Preparing sea strainer

Using the 5/16" hose clamp tool, remove the sea strainer and hose from the thru hole fitting to after the sea strainer, as shown below, left. Be sure to allow water to be drained out of the transmission cooler. **NOTE:** There may be some zip ties securing a wire to the hose. If the wire is interfering with the procedure, remove the zip ties, making sure to note the location so that they can be replaced when finished.

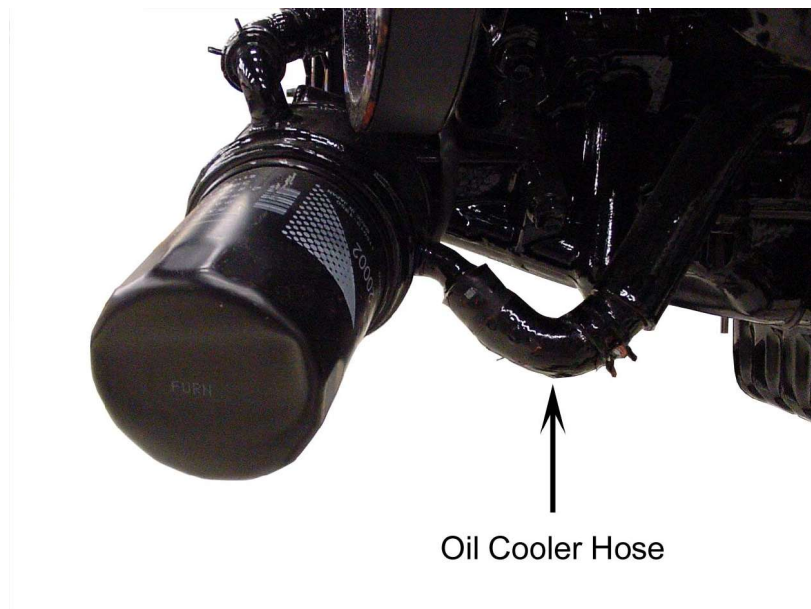


Step 3 – Removing plugs from manifold

Remove drain plugs and washers from exhaust manifold in the location shown above, right. Be sure to store plugs and washers in a safe location for later use.

Step 4 – Remove oil cooler hose

The oil cooler hose is in the location shown below. Using the pliers, pull back the hose clamp and remove the clamp. Remove the oil cooler hose.



Step 5 – Stabilizing fuel

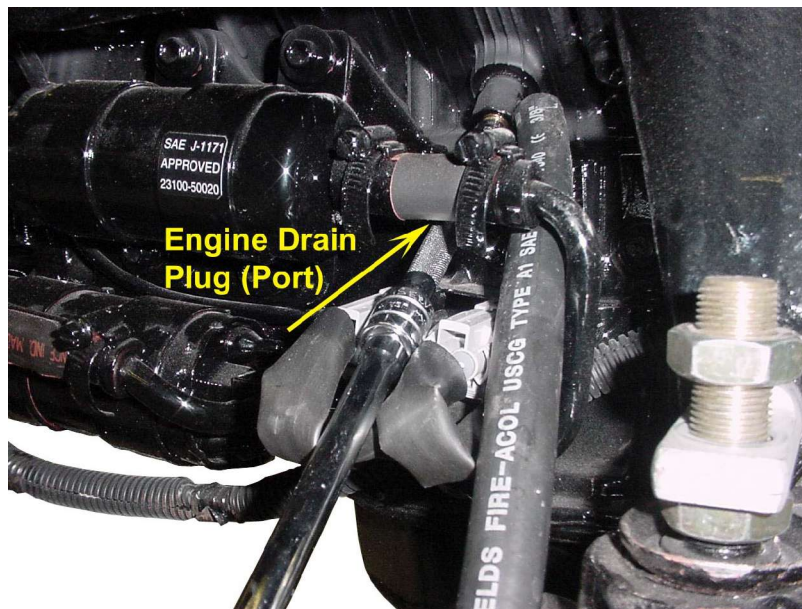
First, make sure the fuel tank is full. Add a fuel-stabilizing agent and run the fuel pump using the bypass button to mix fuel with the stabilizing agent. Disconnect the fuel line intake at the fuel pump. Turn the key on and press the red fuel pump switch until there is a change in the pump sound, which indicates the fuel has been pushed through. Resecure the hose. This will keep the fuel pump dry during winter storage.

Step 6 – Removing the water pump

Refer to Service Campaign 9901 for procedure for removing the water pump. Next, remove the water pump impeller and store in a plastic bag.

Step 7 – Draining the engine

Once the hose has been detached from the sea strainer, the drain plugs have been removed from the manifold, and the oil cooler hose has been detached, the engine will be ready to be drained. First, on the port side of the boat, loosen the drain plug of the engine with a flex 10mm socket. Pull the engine kill switch. Next, turn over the engine four or five times, releasing water from the engine. Once you are finished draining the water, retighten the drain plug.



Step 8 – Drain the bilge