

Indmar Products

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LS2/LS3 Drain/Winterize - Raw Water Cooled Engines

NOTE: When winterizing, we recommend leaving the impeller out of the raw water pump and leaving all drain caps, plugs and hoses disconnected till it is time to re-commission the boat in the spring.

1. Remove caps from block drain hoses on each side of the motor and let the water drain into the bilge.
2. Disconnect the coupler on the manifold drain hose and let the water drain into the bilge.

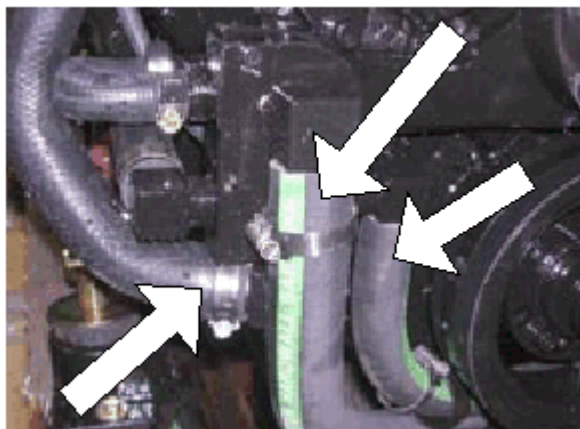


Remove Block Drain Caps

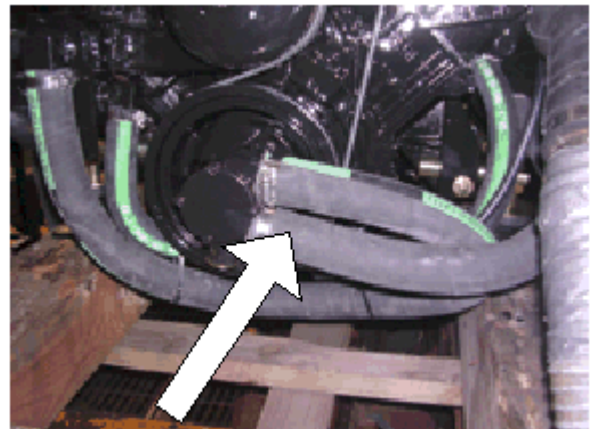


Separate Exhaust Manifold Drains

3. Remove the three hoses indicated from the thermostat housing. Push the hoses into the bilge to drain them.
4. Remove the impeller cover from the raw water pump and remove the impeller. Coat the impeller with Vaseline and store it in a suitable container till the boat is ready to be re-commissioned.
5. Remove the inlet hose from the lower fitting on the raw water pump and push the hose into the bilge to let it drain.

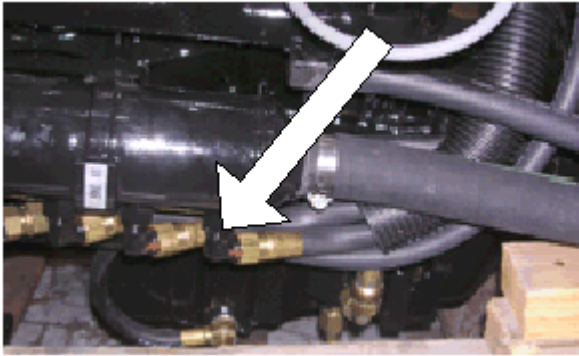


Remove Three Hoses From Housing

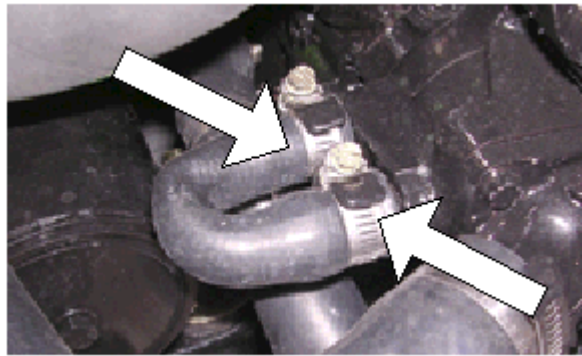


Remove Inlet Hose From Pump

6. Remove the drain plug from the transmission/oil cooler and allow it to drain.
7. If the boat is equipped with a heater, remove the inlet and outlet hoses from the heater connections on the engine. Make sure to drain all of the water from the heater.



Remove Plug to Drain Cooler



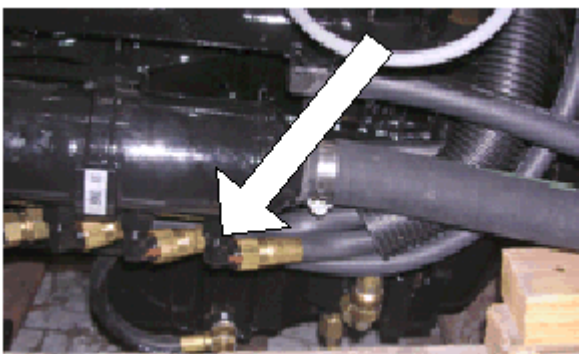
Remove Hoses and Drain Heater (If Equipped)

Re-commissioning

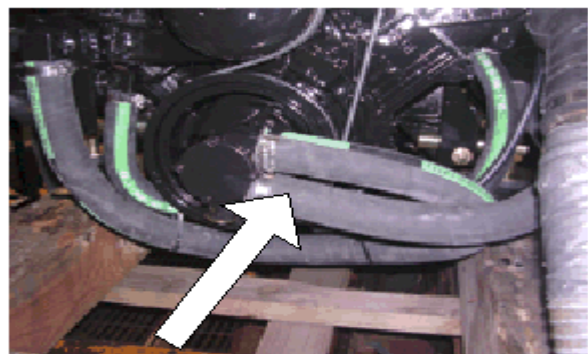
1. Reinstall the raw water pump impeller. Be sure to use a new gasket.
2. Reinstall the caps on the block drain hoses on both sides of the engine.
3. Reinstall the hoses on the thermostat housing. Tighten the clamps securely.
4. Reinstall the hose to the inlet side of the raw water pump. Tighten the clamp securely.
5. Apply some pipe thread sealant on the transmission/oil cooler plug and reinstall it in the cooler.
6. Start the engine and check for leaks. Note: When starting a heater equipped LY6 for the first time or if the system has been drained for winterization, put the boat in the water (see service advisory about running engines on a hose) start the engine and run it at approximately 2000 rpm till you can feel both heater hoses starting to get warm. This will purge the air from the system and fill the block and heads with water and should only be required if the system, including the heater, has been completely drained.

Fresh Water Cooled (Salt Water Series) Motors

1. Remove the drain plug from the transmission/oil cooler and let the cooler drain.
2. Remove the hose from the inlet side of the raw water pump and push the hose into the bilge to let it drain.

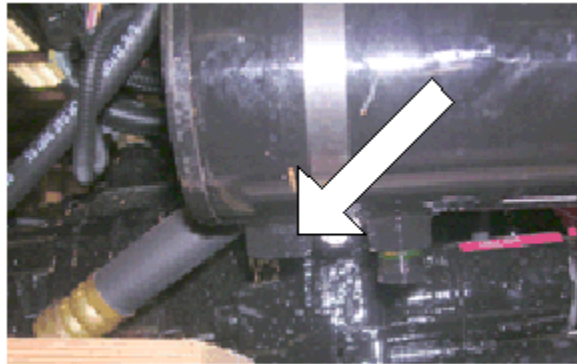


Remove Plug to Drain Cooler



Remove Inlet Hose From Pump

3. Remove the cover from the raw water impeller housing and remove the impeller. Coat the impeller with Vaseline and store it in a suitable container till the boat is ready to be re-commissioned.
4. Remove the drain plug/anode from the raw water portion of the heat exchanger and let the heat exchanger drain. If the active material of the drain plug/anode is reduced to 1 inch or less, it must be replaced (P/N 81-865055).



Remove Drain Plug/Anode (Closest to End of Exchanger)

5. Use an appropriate tester to test the strength of the anti-freeze. If the coolant is not capable of protecting the cooling system below the normal coldest temperature in your area, the coolant concentration must be adjusted. NOTE: A coolant tester used with propylene glycol coolant is not the same as a tester for ethylene glycol. You must use a tester that is designed for the type of anti-freeze you are testing. The system comes from the factory filled with Sierra Brand polypropylene based coolant. If you must add coolant, do not use ethylene glycol coolant unless you drain the system completely and refill. If you do use coolant other than Sierra Brand propylene glycol based coolant, we recommend Dex-Cool ethylene glycol based coolant mixed 50:50 with water.
6. Use blue litmus paper (available at a drug store) to test the alkalinity of the coolant. If the paper turns pink or red the coolant has is acid not alkaline and must be replaced. See information above regarding coolant types.

Re-commissioning

1. Reinstall the raw water pump impeller. Make sure to use a new gasket.
2. Reinstall the hose on the inlet side of the raw water pump. Tighten the clamp securely.
3. Apply pipe sealant and reinstall the drain plug in the transmission/oil cooler.
4. Apply pipe sealant and reinstall the drain plug/anode in the raw water side of the heat exchanger.
5. Start engine and check for leaks. Service advisory about running engines on a hose.