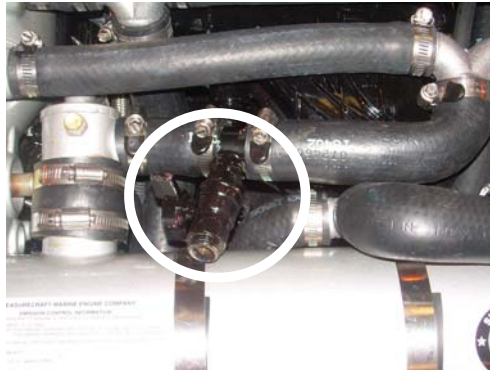


6.0L CES Coolant System Filling Procedure

The 6.0L Catantium Exhaust System (CES) applications contain a completely closed cooling system. This means that the complete engine and CES system is cooled with an antifreeze mixture. The following procedure illustrates the proper way to completely fill the system with antifreeze, ensuring that all air pockets are purged from the system.

Important: DO NOT start the engine prior to this procedure. This procedure is done on a cool engine, ENGINE NOT RUNNING.

1. If the system contains a heater, close both ball valves. Disconnect both hoses from the ball valves and plug hoses to prevent leakage.



2. First, raise the degas bottle from the lower, or running location, to the upper, or filling location, of the bracket.

If the bottle can be held higher than that, filling goes quicker.



Lower Location



Upper Location

3. Remove the cap from the degas bottle. Open the heat exchanger bleed valve and keep filling until solid liquid is achieved from the drain hose.

Note: Make sure the drain hose is uncoiled and flowing freely.

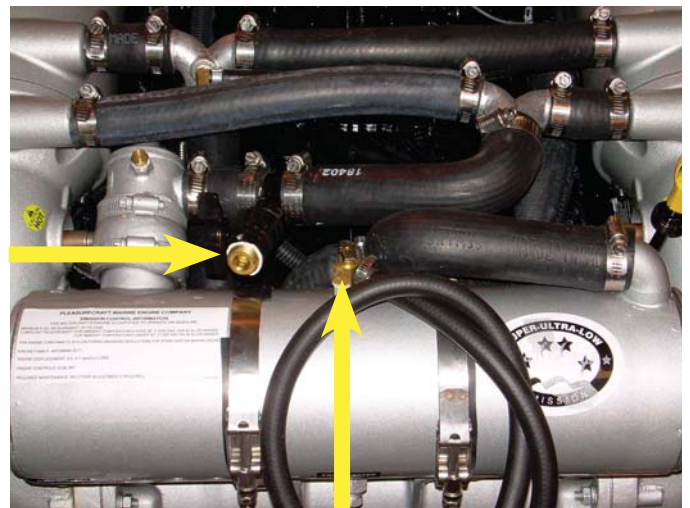
Note: A plug may have to be removed from the end of the drain hose.

4. Add 50/50 mixture of Dexcool, or equivalent, to the degas bottle. Keep adding to the bottle until solid liquid comes out the drain hose, making sure all air is purged.

Note: Keeping the bottle filled to the top, or raising the bottle above the bracket, will accelerate the filling process.

5. Once solid liquid is achieved, close the bleed valve.

Heater Ball Valve



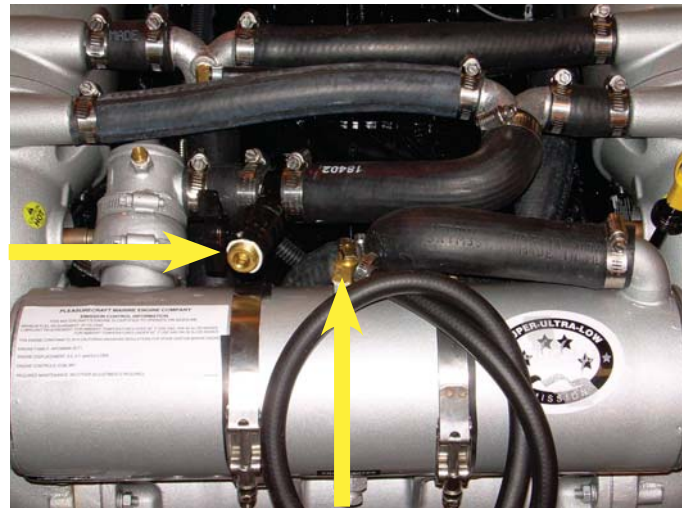
Heat Exchanger Bleed Valve
(uncoil hose prior to bleeding)

6. Open up the heater ball valve near the thermostat housing.

Note: A plug may have to be removed if no heater hose was previously connected here.

7. Once solid liquid is achieved, close the ball valve.

Heater Ball Valve



Heat Exchanger Bleed Valve
(uncoil hose prior to bleeding)

8. Using a 7/32" allen head, remove the port side exhaust manifold bleeder plug. Keep adding to the bottle until solid liquid comes out the top of the manifold, making sure all air is purged.
9. Once solid liquid is achieved, install and tighten bleeder plug.
10. Repeat steps 7 and 8 for starboard manifold.

Port Side Manifold Bleeder

Starboard Side Manifold Bleeder



11. Return the degass bottle to the lower, or running position. Make sure the bottle level is at the "Min" mark on the bottle and tighten the cap.



Upper Location



Lower Location

Important: If a heater is used, the complete heater system, hoses and core, should be prefilled by either pumping or sucking Dexcool through the system. Once the heater system is prefilled, the hoses can be attached to the ball valves and the ball valves need to be opened.

Once the system has heated up and cooled down, it is not uncommon to have to add a little bit of coolant after the first couple of heat cycles.