

Recommended Pre-Season Maintenance for *HYDRONIC* Heaters

Ladies and Gentlemen,

Before the cold weather arrives, it is recommended that the HYDRONIC 4 / 5 and HYDRONIC 10 heaters receive a pre-season check-up. The purpose of the pre-season maintenance is to make sure that the heaters are clean, free running and ready for a troublefree cold weather season. It should be noted that periodic heater maintenance is the responsibility of the owner of the heater and is not covered under Espar's warranty.

The heaters should be inspected and repaired as follows:

1. Check all electrical connections from the heater to the batteries. Check for wear and abrasion along the length of the harnesses. Repair or replace the harness whenever the harness insulation is broken or damaged. Check the battery connections. Clean any corrosion at the terminals. Replace the battery terminals if the corrosion is severe. Check the fuse for corrosion and the correct rating.
2. Check all clamps and hoses. Replace as required.
3. Check the condition of the exhaust system. Check for holes and breaks in the exhaust piping. Replace the exhaust as necessary.
4. Check the fuel pump filter - clean or replace as necessary. For heaters with external fuel pumps, ensure mounting angle of the fuel pump is in between 15-35°. An incorrectly mounted fuel pump may lead to excessive carbon issues. Check the fuel lines for possible leaks, loose clamps, etc. Once the entire fuel system has been checked and any issues corrected, it is advisable to do a fuel quantity check.
5. Check and clear clogged weep holes on the side of the heater body. Look for any indication of coolant leakages. If leakage is suspected then remove cover with water pump assembly and inspect and replace "O" rings on water pump housing. Closely inspect the heater waterjacket for leakages and replace "O" ring between waterjacket and heat exchanger. If waterjacket is cracked, replace it.
6. Remove and replace the glow pin screen. Make sure that the new screen is installed correctly as outlined in the repair manual for the heater.
7. Remove and check the glow pin. If it shows signs of dissimilar color or if the glow pin is in any way distorted, replace it.
8. The coolant pump should be removed and the impeller checked for damage. Any dirt or metal particles on the impeller magnet should be removed and the cavity in the pump should also be cleaned. However, it should be noted that coolant pumps are not covered by warranty if the vehicle's coolant system is excessively contaminated. Refer to Technical Circular 250.
9. Remove the flame tube and check the condition of the flame tube end. The flame tube should be light brown in color with no excessive carbon on the end of the flame tube. Check for carbon build up on the burner "nose" at the cold end of the flame tube. Any carbon covering the air slots should be removed. Check the inside of the heat exchanger and scrape any loose carbon out from between the fins in the heat exchanger. Re-install the flame tube replacing all gaskets.
10. Re-assemble the heater and test operation. The heater should be bench tested for 15-20 minutes before returning the heater to the vehicle.
11. Regardless of the season, run the heater every month for a minimum period of 15 minutes. This will help the heater to burn away any combustion residue in the burner chamber and prevent corrosion in the waterjacket and decay of "O" rings.