

NEW FUEL CONSIDERATIONS

Here we have good and bad news

The main contributor to failure with ALL diesel fired heaters in North America has long been the high sulfur content in North American diesel. Over the years Boat Electric has taken a number of steps to correct for this problem. We have wired the controls of some forced air heaters to run in a “high /off” configuration to maintain a higher combustion chamber temperature. At one time most hydronic heaters were wired with a master switch. Only the blowers were operated with a thermostat. This configuration allows the heater to operate to maintain the loop water temperature even when there was no heating required. We re-configured the control panels so that if no thermostat is calling for heat, the heater will extinguish thus limiting heater idle time. We have always recommended the use of kerosene when convenient.

In an effort to lower highway emissions refineries have lowered the sulfur content in highway diesel. It is unclear how this will effect the marine market. It is a safe bet that the refineries will not run two lines. Soon all diesel will be ultra low sulfur diesel. This is the good news. ULSD should lower the need for heater clean out maintenance. Glow plugs and atomizing screens should last longer.

Ultra Low Sulfur Diesel Issues

Due to EPA Tier III emission guidelines for heavy duty on-highway trucks to reduce NOx emissions, diesel fuel manufacturers have been mandated to reduce sulfur in diesel to a level of 15 ppm or lower. The ULSD fuel is acting like a detergent and cleaning any varnish or impurities from the vehicle’s fuel tank walls. This residue is making its way into the fuel filters on engines and into the Espar fuel screens and plugging them up. That is the bad news. This should not be much of an issue with new vessels. With older vessels the impurities should eventually work through the fuel system. The older the vessel the longer it will take.

Some of our dealers have been checking the screens and finding them plugged with impurities the fuel cleaned off the walls of the vessel’s fuel tanks. We recommend that the inspection of the fuel pump filters be increased to guard against premature filter plugging. In colder climates insulating the heater fuel lines from the tank to the pump and up as close to the heater as possible will also reduce thickening of the fuel caused by these by-products between the tank and the heater.

We recommend you inspect and change your Espar filters regularly as you do with your vessel’s engine filters during their scheduled periodic maintenance periods.

Biodiesel Should not be used in your Espar.