

Maximize Fluid Life 2 – Oxidation

What is THE difference between hot-oil systems that run for years with minimal problems and those that make everybody's life miserable? Oxidation.

Oxidation is the main cause of heater deposits, plugged lines and that thick black mess that used to be a liquid when you open the drain valve. There is no backtracking – once the Acid Number (the test used to measure oxidation) reaches 0.4 to 0.5, it is only a matter of time until the problems begin. And there are no cures – you have to start all over with new oil. And even changing it can become a problem since oxidation increases the viscosity which in turn increases the amount of effort required to fully drain the system.

The best way to ensure a problem-free system is to make sure that the expansion tank/reservoir temperature doesn't rise above 140°F during normal operation. Make sure that you haven't left a warm-up valve open. Start-ups will cause the expansion tank temperature to increase for a short time but these relatively short exposures generally won't hurt anything. IF all else fails, put a nitrogen blanket on the tank.