HEATBASE Ltd FACTSHEET 48
Problems with Oil pumps

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For many years we have been experiencing problems with Oil pumps and it's not getting any better.

Kerosene as a fuel has become more aggressive than ever before, causing damage to Oil supply lines, filter seals and Oil pump seals. The manufacturers of the pumps started fitting Bio fuel compatible seals to their products a few years ago but it has not fixed all of the problems.

Due to EU directives, Kerosene is continually having to be treated to reduce sulphur content; but sulphur provides lubrication in the kerosene. As a result, the oil pump can become excessively hot due to the friction produced, this can also cause damage to the seals or the oil pump may even seize. The increased resistance can also cause damage to the motor which is used to turn it. We have experienced Oil pumps running at temperatures of over 50 degrees C, the flash point of kerosene is 38 degrees C and may therefore be turning to vapour within the oil pump allowing it to cavitate and cause other problems.

Other things that can cause damage to the oil pump is running out of fuel or the use of fuel additives if the oil tank is not free from water and dirt. Aftermarket fuel additives or premium kerosene or premium heating oil as it is sometimes branded has a strong cleaning effect on the oil tank and oil supply line. Whilst they will do their job at helping to keep a clean tank and supply line clean, they could also cause major problems if there is any reasonable quantity of water or sediment present as this contamination will pass through the oil supply line to the oil pump. Other additives will change the combustion of the appliance and therefore will need to be used constantly otherwise combustion can change massively between deliveries of fuel which in turn will lead to other issues such as boilers smoking.