

# FOCUS ON KEROSENE

## WHAT'S NEW

- ◆ **Imports of kerosene continue to grow, leading to variable fuel quality issues**
  - Different degrees of desulphurisation – low sulphur contents lead to low fuel 'lubricity' and the possibility of early fuel pump failure
  - Higher than ideal char values – leads to premature coking of ranges and boilers
  - Water continues to be an issue in the supply chain and in storage
  - Bug contamination, once the preserve of diesel and gas oil, is now common in kerosene
- ◆ **The kerosene season is extended or at least shifted – no longer a September to March business, typically now October to June**
  - Consumers are getting more savvy with their buying practices

## ISSUES WITH VAPOURISING BURNERS

### (Aga/Rayburn/Esse)

- ◆ There are still plenty of oil-fired appliances around
- ◆ Fuel flow is critical and a good flow through the controller and the fuel feed pipe is essential
- ◆ Fuel filters fitted at the exit of the fuel tank and before the controller are essential
- ◆ Installation and location of an AGA - and changes to that installation - has a big impact on its successful operation
  - The burner plate should be perfectly level
  - Airflow is critical and should be optimised around the appliance to meet the manufacturers requirements
  - It can be greatly affected by changes in airflow as a result of:
    - > Double glazing
    - > Trees
    - > Home extensions/improvements
    - > Birds' nests!
    - > Replacement doors



## ISSUES WITH BOILERS

- Keeping a boiler clean between services is ever-more important
- Doing this means that the boiler stays at peak performance for longer; fuel efficiency is maintained; and the servicing load is eased
- New boilers have strict limits on emissions that became more stringent in 2018

**REMEMBER... FUEL SHOULD ALWAYS BE CLEAR AND BRIGHT!**

## PRODUCTS FOR KEROSENE

### PREMIUM HEATING OIL (for boilers)

A premium fuel to enhance your boiler performance.

- Reduces operating and service problems
- Maintains fuel efficiency between services
- Keeps fuel nozzle & heat exchanger clean
- Improves fuel atomisation in boiler
- Increases fuel shelf life
- Prevents tank sludge formation

### COOKER ADDITIVE (for vaporising burners)

A premium fuel for Aga/Rayburn/Esse appliances.

- Reduces operating and service problems
- Stabilises char value of fuel
- Reduces carbon build up in fuel feed pipe
- Increases fuel shelf life
- Slows tank sludge formation



## BOILER EFFICIENCY LOSSES

Most domestic heating oil boilers lose efficiency even between the annual service without the home occupants knowing about it, because the boiler still runs. Efficiency losses in transferring fuel energy to the heating system are due to partially blocked nozzles which affects the spray pattern of the fuel and this in turn leads to incomplete chemical combustion which produces soot that covers the heat exchanger and essentially insulates it against the external heat. These issues mean that the boiler has to fire more regularly and therefore burn more fuel in order to achieve a set room temperature (via the thermostat) for the same weather conditions.

## ADDITIVES HAVE BEEN HELPING FOR YEARS

FAST have been producing heating oil additives for years that reduce deposit formation in boilers. We have conducted many tests and reported separately that these additives can improve efficiency by up to 10% and that heating engineers notice the difference during the annual service.

## FASTFLAME®

FASTFlame® is our advanced technology additive for boilers using kerosene or gas oil, in both domestic and industrial applications. It was developed and patented by FAST and improves fuel combustion by reducing the droplet size of the atomised fuel, therefore leading to more complete combustion in the fire box. The improved efficiency was also measured when using a new nozzle.



Without Additive



With Additive

## CLEANER NOZZLES



**AVOIDS HEAT EXCHANGER DEPOSITS**

**ADVANCED FUEL TECHNOLOGY**