

## Oil fired heating general guide for South Cambs DC residents.

The councils heating contractors, Mears, carry out all annual servicing, repairs, and breakdowns of oil-fired appliances and fuel storage tanks. They can be contacted on **tel: 0333 207 0766.**

Mears engineers are experienced, qualified, and registered with the



Oil Firing Technical Association (OFTEC)

In terms of operation, they work in very much the same way as a gas-powered boiler. Using oil, they heat water that is then used to heat your radiators and provide hot water.

Familiarise yourself with the system and controls there are many variants of boiler types.

These can range from floor and wall mounted boilers both inside and outside the property.

Fuel storage tanks can range in shape, material construction, and capacity from 500 litres – 2000 litres. There is usually a prominent label affixed to the tank that states capacity along with a lockable cap. Some (not all) tanks have an oil monitoring device. If you are unsure, please contact Mears heating team for advice.

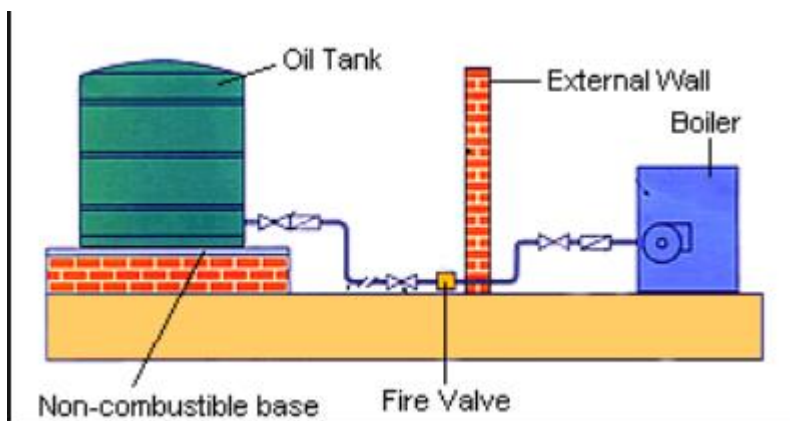
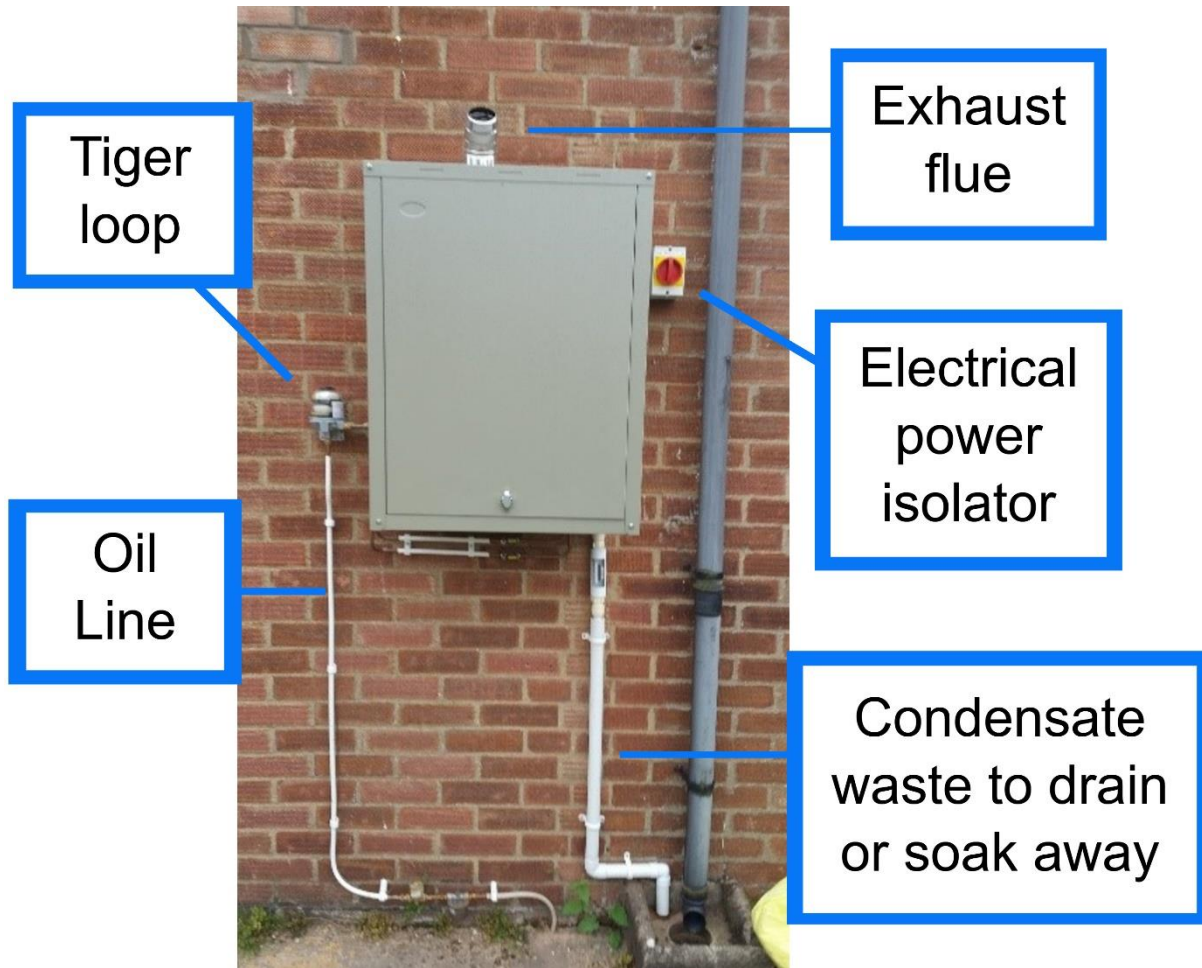


The location of oil tanks varies also between front or back gardens, some within fire boarded enclosures, some without to meet the necessary building regulations. The tank will have a shut off valve at the bottom where oil line is. In case of emergency, this can be turned off. The oil line will usually be run beneath ground in continuous plastic-coated soft copper tubing buried at a depth of 450mm.

As it exits the ground on route to the boiler it will be clipped to the wall and connected to a tiger loop (de-aeration unit) on the oil line before entering the boiler, especially on long distance runs when gravity fall from the tank can be an issue.

Below is a typical illustration of an external condensing oil boiler

Grant Vortex key components



## **Heating Oil**

Just about all oil-fired central heating used in Britain on a domestic level uses 28sec oil. This oil is sometimes referred to as Kerosene. The "sec" part of the oil description refers to seconds.

This second's part is used to define the viscosity (or thickness) of the oil.

28sec oil burns very cleanly yellow in colour leaving minimal deposits such as smoke and soot on afterburn. Heavier oil products such as gasoil, which is also known as 35sec heating oil, is thicker, burns red in colour, and is not compatible with modern oil boilers as it will cause damage to components.

## **Oil buying**

The price of heating oil can fluctuate due to surges in demand, weather conditions, and political unrest. Prices for heating oil tend to be lower in the summer, as demand is a lot lower.

No matter when you order, it is important to keep an eye on your oil-tank gauge. Don't let it get too low (e.g. less than a quarter full) before you order – especially in winter. The size of your tank will affect how much heating oil you can store, and therefore how much you can order in one go. The more you order, the cheaper it will be.

The oil tank will need to be refueled as necessary to ensure that you don't run out of oil at any point. Some people will only need the tank to be refilled once a year. However for larger homes with more radiators, you may find that the tank has to be refilled a couple of times each winter. There are many companies that provide Oil buying and delivery services. The minimum order volume will be 500 liters.

It's worth noting that a heating oil tank should only be filled up to around 80-90% of its capacity to avoid spillage. If your tank doesn't have a large capacity, joining a heating oil club (also called a heating oil buying group) free of charge is a good way to buy cheaper heating oil. This is because your order will be clubbed together with others in your area. Some companies offer

payment plans to spread the cost of fuel in monthly payments and there may be local parish oil buying groups for smaller quantities

## Useful contact details for choosing an oil supplier

Go Compare: <https://www.gocompare.com/gas-and-electricity/guide/heating-oil/> Heating oil for domestic homes Learn about home heating oil for domestic energy and get tips on how households using this form of fuel can cut their energy bills.

Boiler Juice:

[https://www.boilerjuice.com/?src=254&msclkid=690baffe00181167e8e1f0ef89b9fac6&utm\\_source=bing&utm\\_medium=cpc&utm\\_campaign=EN-NorthEast-Focus-M&utm\\_term=%2Bdomestic%2Boil&utm\\_content=DomesticHeatingOil](https://www.boilerjuice.com/?src=254&msclkid=690baffe00181167e8e1f0ef89b9fac6&utm_source=bing&utm_medium=cpc&utm_campaign=EN-NorthEast-Focus-M&utm_term=%2Bdomestic%2Boil&utm_content=DomesticHeatingOil)

Beesley Fuels: [https://www.beesleyfuels.co.uk/heating-oil-supplier/?utm\\_keyword=%2Bheating%20%2Boil&SearchNetwork&matchtype=b&creative=&target=&placement=&device=c&adtype\[adtype\]adposition=&campaignid=353438242&adgroupid=1330409273524672&msclkid=be7bd514a64c165e2e888a052fed58ad](https://www.beesleyfuels.co.uk/heating-oil-supplier/?utm_keyword=%2Bheating%20%2Boil&SearchNetwork&matchtype=b&creative=&target=&placement=&device=c&adtype[adtype]adposition=&campaignid=353438242&adgroupid=1330409273524672&msclkid=be7bd514a64c165e2e888a052fed58ad)

## How does my boiler work?

- Check there is fuel oil in the outdoor storage tank
- There will be a programmer for heating and hot water usually situated on the side wall in the hot water cylinder cupboard to control your heating and hot water requirements. This can be set by you and timed to suit your needs.
- Check the programmer is calling for heat
- Turn up your room thermostat, usually situated on wall in hallway
- Check the power supply is turned on to boiler
- If the boiler doesn't fire or the tank has been refilled you will need to contact Mears as the oil line may require bleeding **tel: 0333 207 0766.**

## Combustion process

The heating oil stored in the main tank is pumped through a nozzle under pressure to create a fine spray of fuel and air is also blown into the combustion chamber by a fan. The finely

atomised fuel mixes readily with oxygen in the air to produce a flammable mix, that when ignited by an electrode generates a highly efficient burning flame.

Hot exhaust gases pass through a heat exchanger, usually a copper coil, transferring energy to the water circulating through it. This hot water is then distributed throughout the house via radiators which subsequently warm the rooms as appropriate.

Although radiators remain hot, the boiler does not operate all the time. It switches on and off depending on the boiler water outlet temperature setting on the boiler and the room temperature where the thermostat is located. If the heating system is switched on water constantly circulates throughout the boiler, heat exchanger and radiators extracting heat from the burning fuel.

An oil boiler will fire more regularly and use more fuel in colder weather to compensate for the additional heat lost through home walls, floor, windows, and roof etc.

Should you require any further information on oil heating systems or need a boiler specific user instruction manual please contact

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