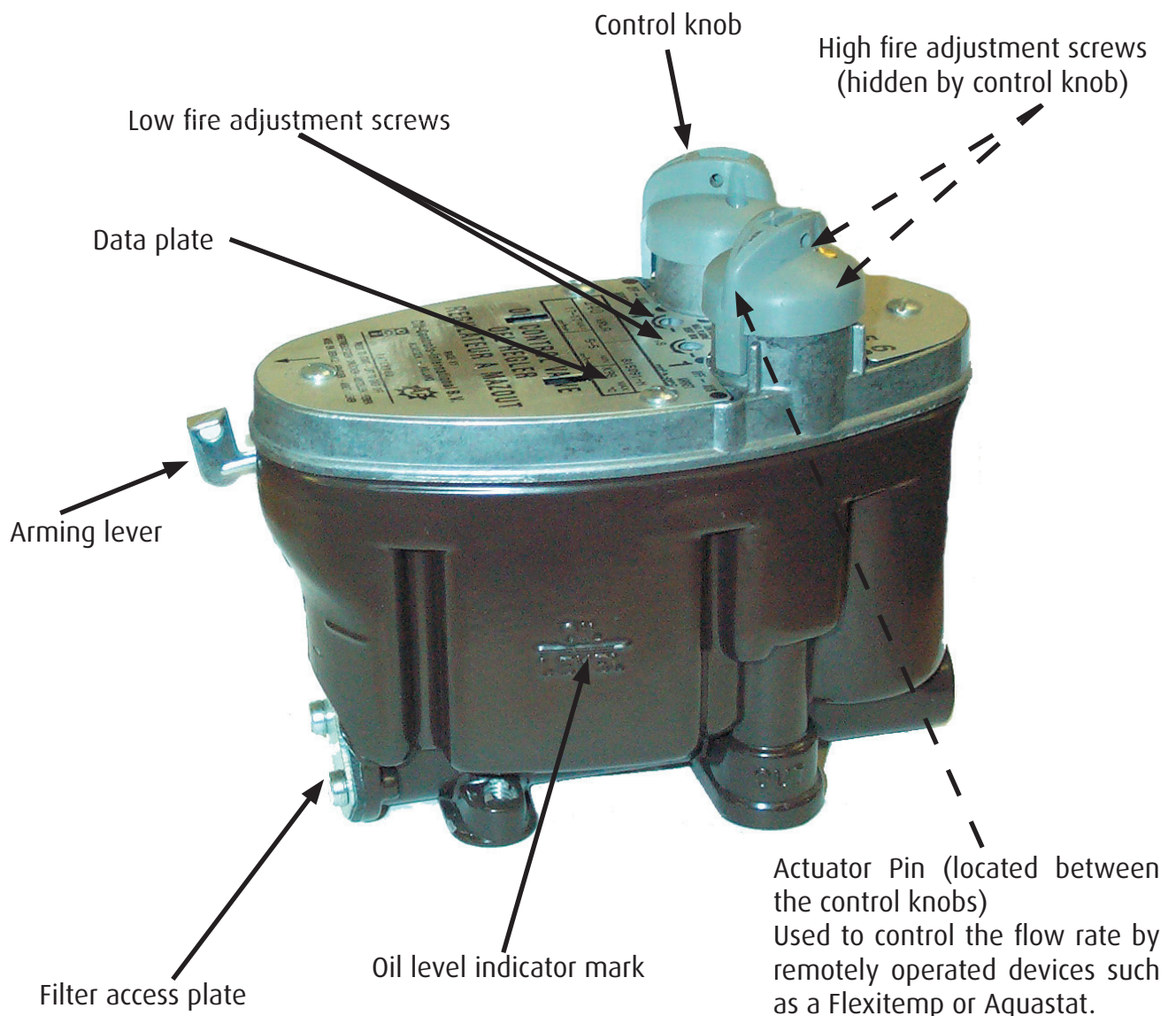




CI Twin Top Oil Valve Adjustment

The oil control serves to regulate the capacity of the stove with liquid fuel oil. Apart from the task of having to supply oil to the burner with the controlled, pre-selected quantity of fuel per unit of time, the oil control also protects the burner against flooding and is therefore a safety device.



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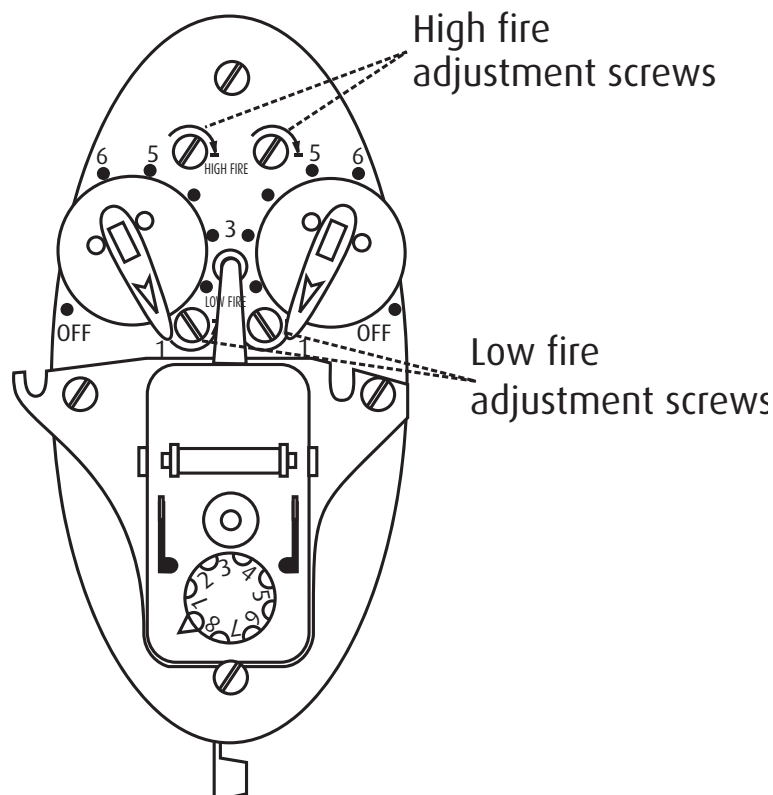
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The oil metering valve is set to give the correct flow rates before being fitted to the stove and will not normally require further adjustment.

The oil metering valve performs three operations within its main body; it regulates with a float valve the depth of oil held, it meters with an adjustable outlet the fuel supplied to the burner, and its safety float valve will isolate the fuel should the levels within the valve body become too high.

The safety float will cause the arming lever to "trip" whenever the fuel levels become too high, but severe vibration can cause ripples on the fuel surface to lift the float, and because of this it is possible for the vibration set up by heavy passing traffic to shut off the valve. Having "tripped", resetting the arming lever may need to be done several times before the fuel level within the valve falls sufficiently to allow reliable operation.



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Adjustment of the valve.

The two burners should be lit and a suitable amount of time allowed for the flue system to warm up (anything between 20 mins and 1 hour) to establish a constant flue draught. The stabilizer may need adjustment to bring the flue draught within the parameter of the graph on page 4.

Any adjustments to the flow rates must be allowed to settle (5 mins) before further adjustments are made. The adjustments should only be a quarter turn at a time.

Low Fire Adjustment

The low flame should only be adjusted with the stove running at its minimum setting on the control knob, position 1.

Turning the low fire screw anticlockwise will decrease the oil flow and clockwise will increase the oil flow. The screws should only be turned a quarter turn at a time and the stove given 5 minutes to settle before any further adjustments or flue draught readings are taken.

It is nearly impossible to have the exact same flame picture in the two burners, the left hand burner tends to have a lower flame picture however this is normal.

Once the low fire has been adjusted the valve should be again turned to maximum setting over a period of 10 minutes to allow the flue draught to increase and then left to run for a further 10 minutes to stabilise the high fire, which can then be checked.

High Fire Adjustment

The high flame should only be adjusted with the stove running at its maximum capacity, position 6.

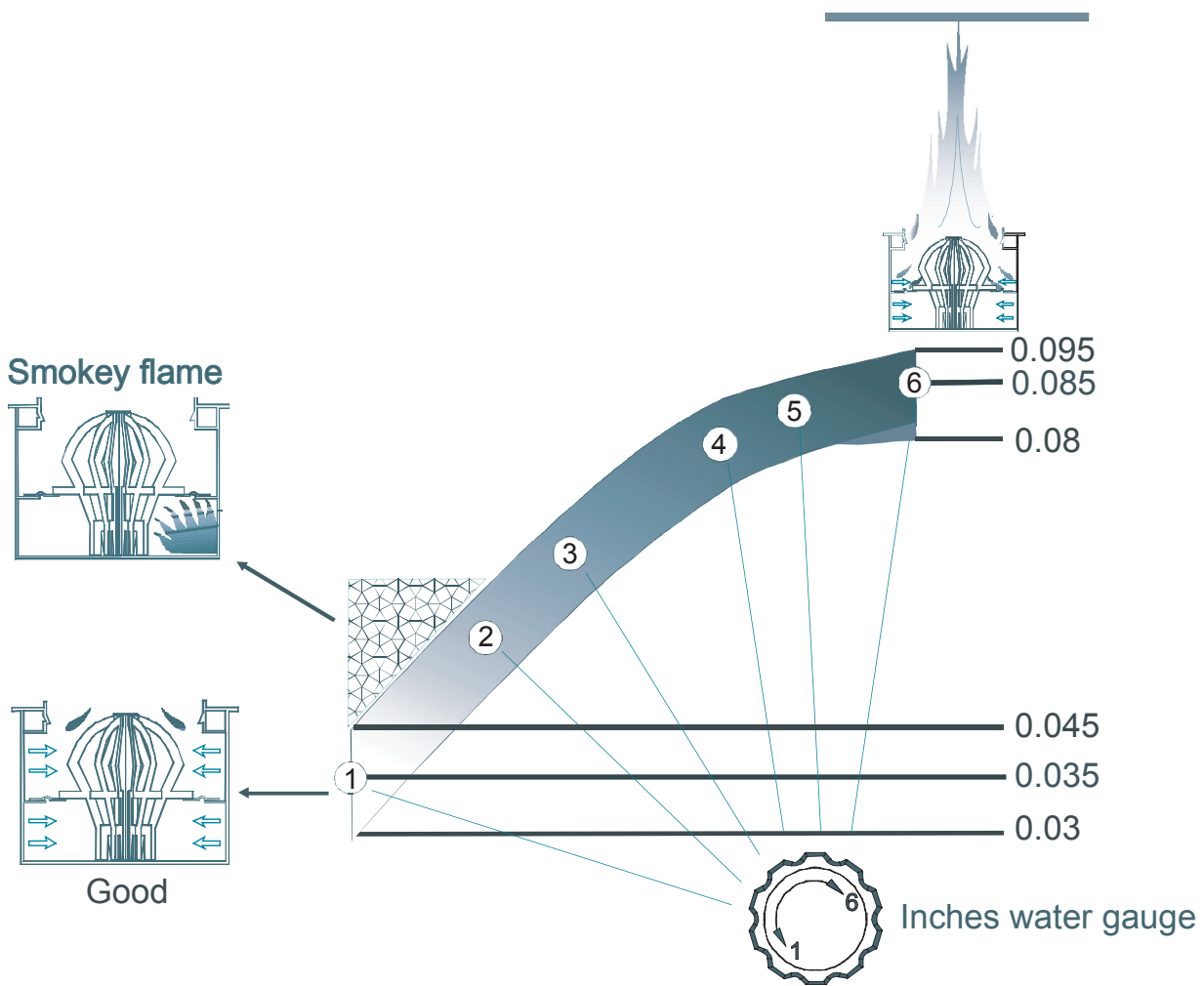
Turning the high fire screw clockwise will decrease the oil flow and anticlockwise will increase the oil flow. The screws should only be turned a quarter turn at a time and the stove given 5 minutes to settle before any further adjustments or flue draught readings are taken.

Once the high fire has been adjusted the valve should be again turned to minimum setting and the low fire setting re checked.



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Flue draught and flame picture for the Harmony and Coachman Thermal stoves.



There are draught gauges (MS026), choke plate (MS1015) and stabilizing cowls available from Euroheat. Trying to adjust flow rates without first taking flue draught readings and adjusting accordingly may lead to increased fuel consumption and damage to the catalyser.

**C I Twin Top Oil Valve Adjustment****If the Valve has Flooded**

Should the feed valve become leaky as a result of accumulated dirt or an increased head of pressure, the oil level in the control rises further, the float rises releasing the arming lever and stopping any further oil entering the control valve.

The appliance must be allowed to go cold before any work on the oil control valve or resetting of the arming lever are attempted after the over fill float has been activated.

To re arm the valve the excess oil must be removed from the valves chamber. This can be done by first turning the oil control valve to the maximum setting and allowing the excess oil to drain into the burner pot. The burner pot will need the excess oil removing before the burner is re lit. Once the excess oil has drained out, to the level indicated on the side of the valve or the flow ceases into the burner, the pot must be cleaned. The arming lever can then be depressed to allow the oil feed to the burner to continue.

Normal Annual Servicing

Like all mechanical devices, it is necessary to clean the oil controls at certain intervals, as a rule every 1-2 years. If particularly dirty fuel oil is used, or there is no fuel filter in the fuel line from the oil tank, additional cleaning may prove necessary.

The following sequence should be carried out during the annual overhaul:

1. Tap the actuator pin, with the control knob set at the highest position. In this way, any slight accumulation of dirt in the metering stem slit will be removed.

2. Remove and clean the filter, and refit it.

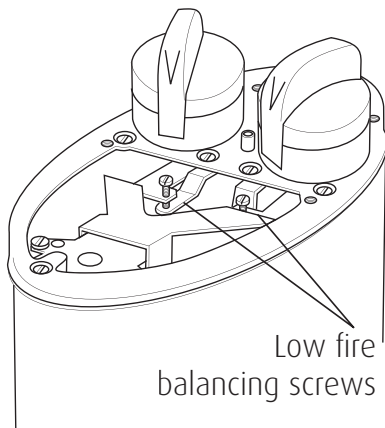
3. Remove the top plate, held in place by 4 screws and inspect inside the valve.

A) If water should be found inside the oil control, it is advisable to remove the oil control valve for further inspection. If corrosion is found within the valve it should be replaced as irreparable damage may have occurred. If water has entered the valve, but there is no corrosion evident, all traces of moisture must be removed, as it will cause corrosion of the die cast metal within the valve. The valve should then be refitted ensuring the correct valve height is maintained and the stove re commissioned.

B) If dirt should be found inside the oil valve, it is advisable to remove the oil control valve for further inspection and cleaning. Remove all the dirt from the valve and wash it and all the component parts in clean oil. The valve should then be refitted ensuring the correct valve height is maintained and the stove re commissioned.

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Remote methods of controlling the oil flowLow fire
balancing screws

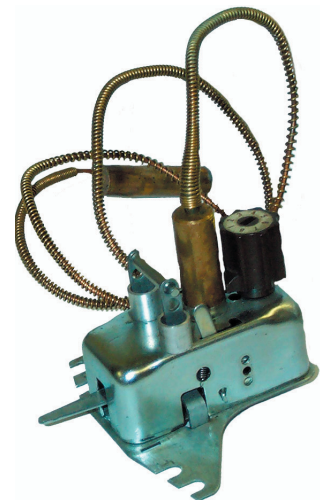
The aim of these remote devices is to reduce the oil flow to minimum when a preset temperature has been achieved. An arm on either the flexitemp or aquastat press on to the actuating pin which pushes an internal lever downwards which moves the metering stem so reducing the oil flow. The distance by which this pin is moved is determined by the actuating pin adjustment screw. This must be balanced with the previous low fire flow adjustment. The actuating pin adjustment screw must be adjusted so it just touches the low fire balancing plate below the screw. The thermal stoves have two adjustment screws one for each metering stem.

Aquastat.

The aquastat performs two functions, the first being a shut off device for the oil flow from the valve. If the water temperature at the flow pipe nears 100°C the two arming levers will trip stopping the flow of oil. This protects the boiler and heating system if there is an electrical or pump failure.

It also regulates the oil flow to the burner dependant on the demand required from the stove. The file senses the water temperature at the flow pipe and if lower than that of the set temperature required, set by the brown knob (usually set at 4 or 5), it raises the arm at the end of the aquastat. This allows the oil valve to deliver the oil at whatever rate the oil control knobs have been set to.

If the water temperature is greater than that required by the setting of the brown knob on the aquastat then the arm drops. This depresses the actuating pin and the valve will only deliver the minimum oil flow to the burners.

**Flexitemp.**

The flexitemp only regulates the oil flow to the burner, it is not a safety device like the aquastat. When the flexitemp is energized by which ever controlling system it has been wired to then the arm raises allowing the oil flow to the burner to operate at which ever setting the control knobs have been set to.