

The gear set draws the fuel from the tank through the built-in strainer and transfers it to the valve that regulates the fuel pressure to the nozzle line.

All the fuel that does not go through the nozzle line will be dumped through the valve back to the inlet in one-pipe installation, and back to the return line if it is a two pipe installation .

The valve also has a cut-off function as follows:

During starting period when the gear-set speed is increasing, all the fuel passes through a special flat on the piston, back to the return. Once the speed reaches a certain value and the flow can no longer pass through this flat, then the pressure increases rapidly overcoming the valve spring force and opens the valve.

During the stop sequence, the gear-set speed slows down and the valve closes when the gear-set capacity is lower than the flat flow.

The cut-on and cut-off speeds depend on the gear-set size and set pressure.

Installation :

For one pipe installation, the by-pass plug is removed from the return port and the return port is plugged. The fuel which is not required at the nozzle is then returned back to the inlet.

For two pipe installation, the by-pass plug must be fitted in the return port allowing any fuel not required at the nozzle to be bypassed back to the tank, the return plug must not be reinstalled.

Bleed :

In one pipe operation, the easy flow bleeder valve must be loosened to bleed the system.

Bleeding in two pipe operation is automatic, but it may be accelerated by loosening the easy flow bleeder.