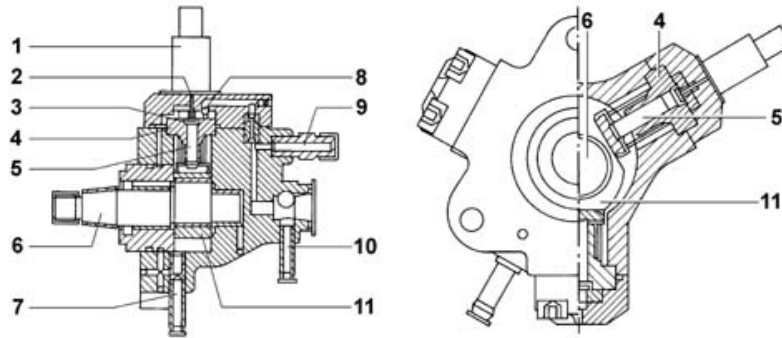


HIGH-PRESSURE PUMP

The radial jet type pressure pump has three radial pistons (total capacity 0.657 cc) and is operated by the timing belt. Each pumping unit consists of:

- a piston (5) operated by a cam (2) in one piece with the pump shaft (6);
- an intake valve (3);
- a ball delivery valve (4);

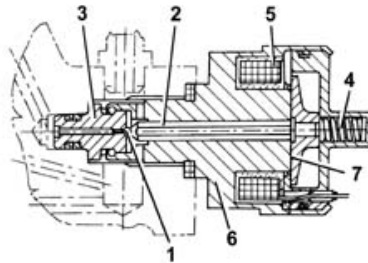
The pump supply pressure should be at least 0.5 bar and, for this reason, the fuel system is equipped with an auxiliary pump submerged in the tank. The supply pressure is controlled by a pressure regulation valve fitted on the pressure pump. The pressure pump is lubricated and cooled by the actual diesel fuel by means of suitable ducts and can supply a maximum pressure of 1350 bar. The 3rd pumping exclusion device consists of a solenoid valve (1) which, by means of the push rod (2), keeps the intake valve (3) open during the 3rd pumping delivery stroke (5). It is activated by the control unit when the engine power does not increase at a speed of above 4200 rpm. The fuel discharged in this way (~ 7% of the capacity) is introduced into the high pressure pump recirculation circuit.



- 1 - 3rd pump element cut-out solenoid.
- 2 - Push rod.
- 3 - Intake valve.
- 4 - Cylinder.
- 5 - Pump.
- 6 - Pump shaft
- 7 - Inlet (low pressure, from the filter).
- 8 - Ball delivery valve.
- 9 - Supply (high pressure, rail).
- 10 - Supply (low pressure, recirculation).
- 11 - Cam.

FUEL PRESSURE REGULATOR

The fuel pressure sensor is fitted on the pressure pump and is operated directly by the injection control unit; it regulates the fuel supply pressure to the injectors. The pressure regulator consists mainly of the following components:



- 1 - Ball plunger.
- 2 - Pin.
- 3 - Valve.
- 4 - Preloading spring
- 5 - Coil.
- 6 - Casing
- 7 - Keeper.