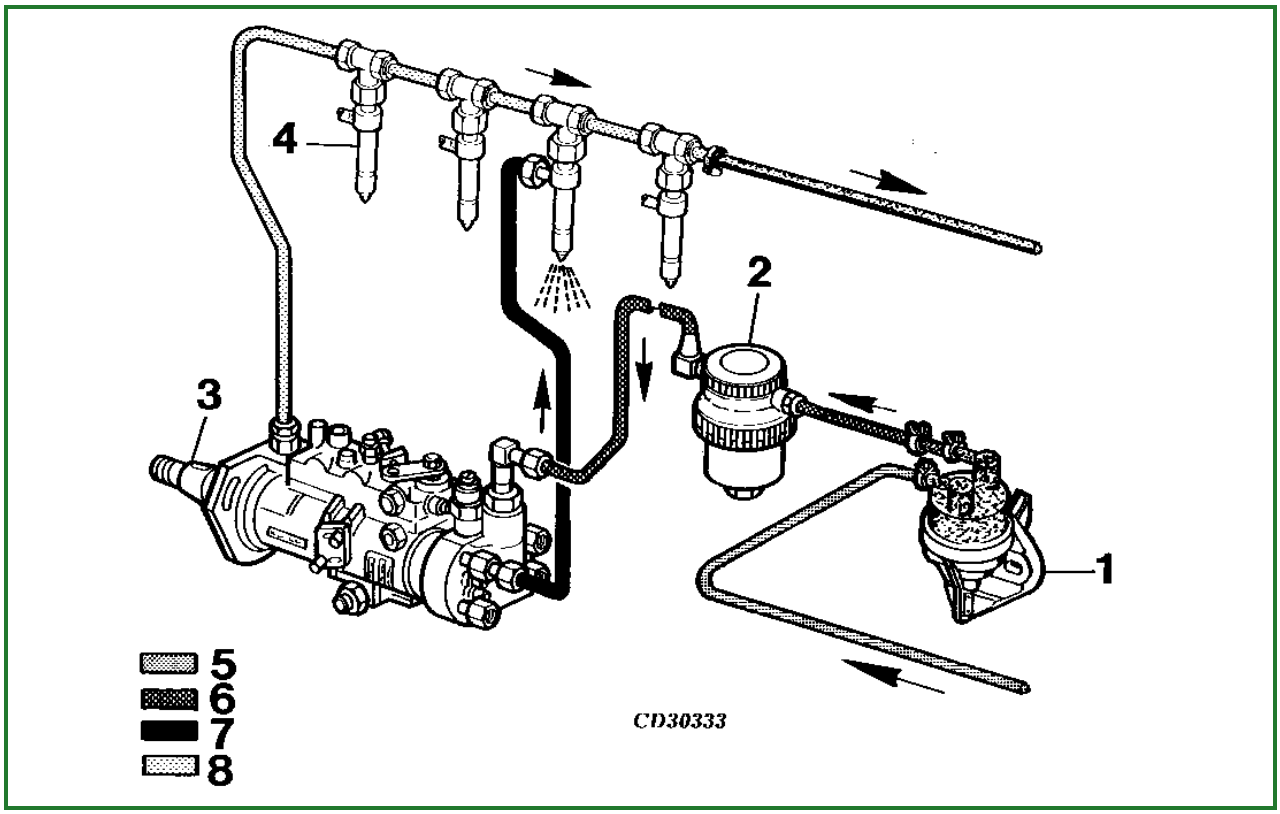
Specifications

Item	Measurement	Specification
Engine	Speed	See specifications in Group 40
Fuel transfer pump at engine slow idle	Pressure	20-30 kPa (0.20-0.30 bar; 2.9-4.35 psi)

CD,3274,G220,1-19-1994/02/01

Fuel System Operation - Distributor Injection Pump



CD30333-UN: Fuel System Operation-Distributor Injection Pump

LEGEND:

1 - Fuel transfer pump

2 - Fuel filter

3 - Fuel injection pump

4 - Fuel injection nozzle

5 - Gravity pressure

6 - Fuel transfer pump pressure

7 - Fuel injection pump pressure

8 - Return fuel pressure

The fuel transfer pump (1) draws fuel from the tank and pressurizes it. This pressure permits the fuel to flow through the filter (2) and charge the transfer pump of the injection pump (3).

With the fuel injection pump charged with fuel by the fuel transfer pump, the injection pump plungers pressurize the fuel to approximately 50000 kPa (500 bar; 7255 psi). Delivery (pressure) lines are used to route this high pressure fuel to the fuel injection nozzles (4).

Fuel enters the injection nozzle at a pressure which easily overcomes the pressure required to open the nozzle valve. When the nozzle valve opens, fuel is forced out through the orifices in the nozzle tip and atomizes as it enters the combustion chamber.

Incorporated into the fuel system is a means of returning excess (or unused) fuel back to the fuel tank. Excess fuel comes from two sources:

1. Fuel injection pump: A quantity of fuel greater than that required by the engine is supplied to the fuel injection pump.

2. Fuel injection nozzles: A small amount of fuel seeps past the nozzle valve for lubrication purposes.