

Introduction

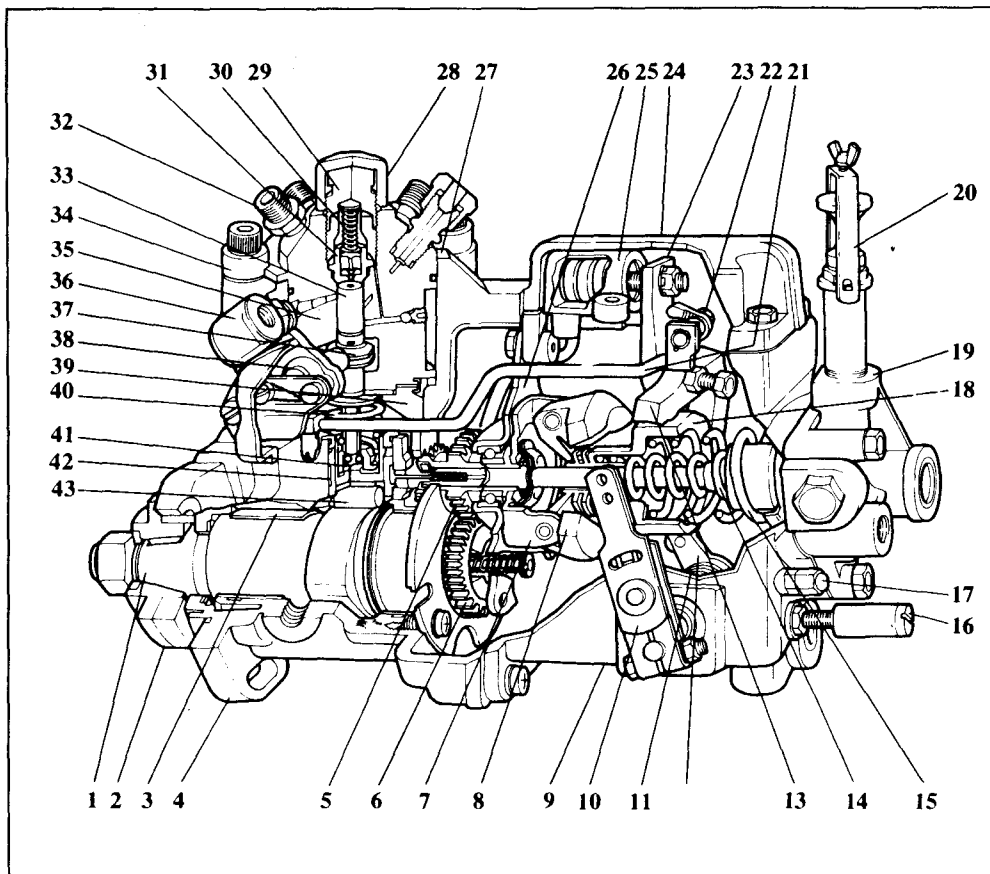


FIGURE 1-1
MODEL 100 SECTION VIEW

Model 100 Sectionalized Pump

1. Camshaft
2. Drive Hub
3. Camshaft Bearing
4. Pump Mounting Flange
5. Governor & Hydraulic Head Drive Gear
6. Camshaft Gear
7. Governor Weight Spider
8. Governor Weights
9. Governor Housing
10. Operating Lever
11. Operating Shaft Spring
12. Fulcrum Lever Bracket
13. Fulcrum Lever
14. Inner Governor Spring
15. Outer Governor Spring
16. Low Idle Screw (Spring Loaded)
17. High Idle Screw
18. Governor Sliding Sleeve
19. Fuel Supply Pump
20. Hand Primer
21. Control Rod
22. Torque Cam
23. Stop Plate
24. Governor Top Cover
25. Excess Fuel Starting Device
26. Ball Bearing Support Plate
27. Head Indexing Plate
28. Delivery Valve Cap Nut & Gasket
29. Delivery Valve Holder
30. Delivery Valve Spring
31. Delivery Valve & Spring Guide
32. Fuel Discharge Outlet
33. Hydraulic Plunger
34. Hydraulic Head Retaining Clamp and Screw
35. Hydraulic Head Assembly
36. Overflow Valve
37. Fuel Metering Sleeve
38. Control Unit Assembly
39. Face Gear
40. Plunger Return Spring
41. Plunger Button & Spring Seat
42. Tappet Guide
43. Tappet Roller

The Model 100 fuel injection pump is a flange-mounted, governor controlled, single-plunger injection pump. It can be used in applications requiring either clockwise or counterclockwise rotation. The pump is currently used on over-the-road and agricultural vehicles as well as marine and industrial engines. It is driven at engine speed and is used on four-stroke cycle engines.

The Model 100 is equipped with a hydraulic head assembly containing a delivery valve and plunger. The plunger is vertically actuated by a multi-lobe camshaft and is continuously rotated by a face gear, in order to distribute fuel to the multiple outlets.

Fuel delivery is controlled by movement of the plunger metering sleeve. The metering sleeve is positioned by the control unit which, in turn, is positioned by the governor via the control rod. The governor controls low idle speed, maximum no-load speed (high idle) and fuel delivery throughout the operating speed range.

Fuel is drawn from the fuel tank, by the supply pump, through a primary filter. The supply pump includes a hand primer as optional equipment. The fuel then flows through a final stage filter to the sump area of the hydraulic head. The fuel supply pump is equipped with an integral pressure relief valve which maintains fuel sump pressure as specified.

The Model 100 is normally equipped with either a single or dual range internal timing device (Intravance®). The Intravance camshaft assy. is designed to advance or retard the beginning of fuel injection as specified.

An integral excess fuel device provides increased fuel delivery at cranking speed for improved engine starting. When the engine starts, the increased engine lube oil pressure actuates the device to its normal running position.