

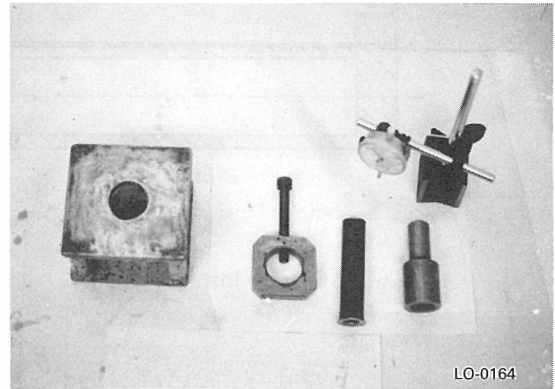
## During Control Valve (Main) Neutral Operation

If all the spools of the control valve (main) are operating in the neutral position, the load pressure feedback line runs through vent passage (G) of the control valve (main) and passes to the tank line, so spool (8) is pushed in the direction of spring (9) and chambers (D) and (F) are connected.

Pump discharge pressure passes from chamber (D) to chamber (F) and into swash plate control chamber (C) and decreases until the pump swash plate angle is in a virtually neutral position, reducing the pump displacement to practically zero. Also, that discharge pressure is lowered until it reaches a constant low pressure where spring (9) is being pushed (feathering state).

**Disassembly**

Tools used



	Name	Application
1	Snap ring pliers (for holes)	Oil seal removal
2	Ratchet handle	Removal of bolts
3	Hexagon socket (7/16 or 11)	Control valve installation bolts
4	Hexagon key socket (10)	End cap installation bolts
5	Hexagon wrench key (5)	Trunnion bolts
6	Gear puller	Bearing removal
7	Spanner (19, 41)	Pump, control valve disassembly
8	Monkey wrench (S, M, L)	
9	Hammer (steel, plastic)	
10	Screwdriver (flat)	
11	Bearing fitting tool	Rear bearing fitting
12	Spacer	Rear bearing removal
13	Oil seal fitting tool	Oil seal installation
14	Dial gauge	Shaft end play measuring
15	End play measuring tool	Shaft end play measuring
16	Pump assembly base	Pump assembly work