

## Pilot and Travel Speed Manifold

SMCS - 5264; 5479

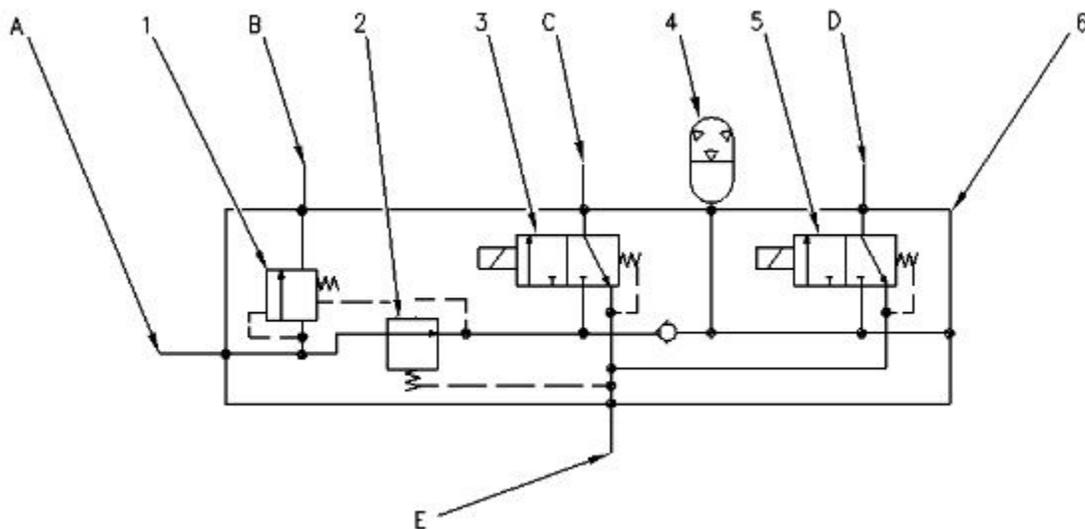


Illustration 1

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(1) Regulating valve. (2) Reducing valve. (3) Solenoid valve (Two-Speed Travel). (4) Accumulator. (5) Solenoid valve (Hydraulic Disable Function). (6) Pilot and travel speed manifold. (A) Oil that is supplied from the gear pump. (B) Oil that is supplied to the bank valve. (C) Oil that is supplied to the two speed valve on the piston motors (travel). (D) Pilot oil for the hydraulic system, the parking brake for the piston motor (swing), the main relief valves and the combined flow valve. (E) Oil that is returning to the tank.

The pilot and travel speed manifold (6) receives oil from the gear pump (A). The manifold routes oil to the following components: the bank valve (B), the two speed valve on the piston motors (travel) (C), the accumulator (4), the pilot valves (joysticks), the parking brake for the piston motor (swing) and the combined flow valve (D).

The oil that is routed to the bank valve (B) is controlled by the regulating valve (1). The regulating valve maintains a pressure of 3900 kPa (565 psi). The reducing valve (2) maintains the pilot pressure (D) of  $3400 \pm 490$  kPa ( $490 \pm 70$  psi) for the following components: two speed valves on the piston motors (travel), accumulator, pilot valves (joystick), relief valves (main) and combined flow valve.

## Two Speed Valve

The solenoid valve (3) controls the high speed operation of the piston motors (travel). When the high speed switch is pressed, the solenoid energizes. The spool in the solenoid moves to the right. This allows oil to flow to the travel motors in order to activate the high speed operation. Refer to the Systems Operation, "Piston Motor (Travel)" for more information on the piston motor (travel).

## Hydraulic Disable Function

The solenoid valve (5) controls the hydraulic disable function. When the hydraulic control console is lowered, the solenoid valve energizes. The spool in the solenoid moves to the right. This allows the pilot oil to flow in the hydraulic system. If the hydraulic control console is raised the solenoid de-energizes. This disables the pilot system. Refer to the Systems Operation, "Pilot Valve (Joystick)" for more information on the pilot valves. Refer to the Operation and Maintenance Manual, SEBU7296, "Hydraulic Control Console" for more information on the hydraulic control console.

## Accumulator

The accumulator (4) stores 0.5 L (0.53 qt) of oil. The accumulator is charged to a pressure of  $1760 \pm 100$  kPa ( $255 \pm 15$  psi) with 300 cc ( $18.3 \text{ in}^3$ ) of dry nitrogen. The accumulator provides an amount of oil to the pilot system when the engine is shut off. Refer to the Operation and Maintenance Manual, SEBU7296, "Equipment Lowering with Engine Stopped" for more information on the operation of the accumulator.

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