



PUMP SLIP COMPENSATOR CONTROL

I. CONSTRUCTION & MOUNTING: The body (340) contains a sliding sleeve (341) that holds spring washers (345) around a spindle (343) and a hydraulic piston (346) operating in a cylinder (347). The compensator control is mounted between the pump operator (such as an air positioner) and the force amplifier.

PRINCIPLE OF OPERATION: As system pressure on the pump increases, it acts on the annular area of the piston (346) compressing the spring washers (345) and effectively changes the overall length of the compensator assembly. Since our control signal has not changed, the operator positioner remains fixed but the change in effective length of the compensator allows the force amplifier pilot plunger to move and compensate for higher system slip at higher pressure. With control and compensator on left side facing pump driveshaft, configuration "A" decreases the effective length and compensates for delivery from Port "A". Configuration "B" increases the effective length and compensates for delivery from Port "B". If control and compensator are mounted on the other (right) side of unit, ports compensated are reversed for the same configurations.

II. MALFUNCTIONS & CAUSES: If compensator ceases to work or becomes erratic, dirt is the likely cause.

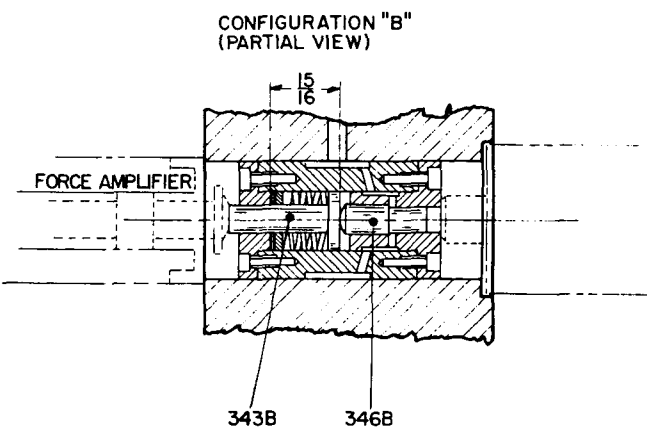
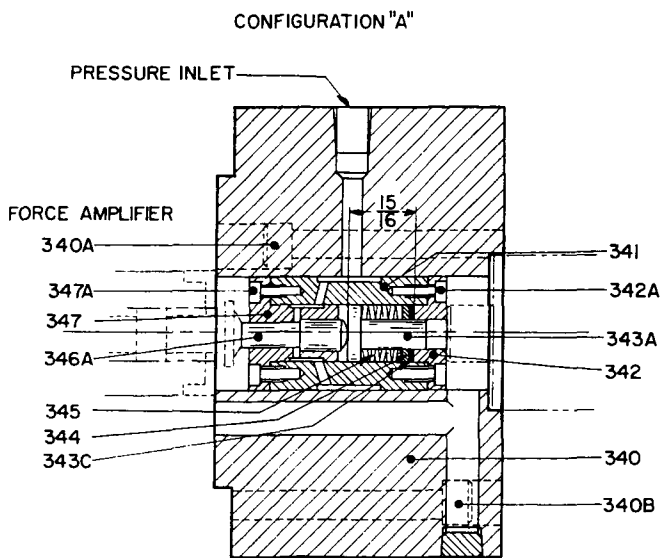
III. TESTING & ADJUSTING: Compensators are tested and adjusted at the factory, further adjustment should not be necessary. The amount of compensation is determined by using different spring

washer stacking configurations. If spring arrangement is changed, be certain to shim (343C) for dimension shown on drawing or neutral setting of the pump will be off.

IV. DISASSEMBLY: Remove the operator and compensator assembly from the control. Remove compensator from the operator. Note which configuration (A or B) is used before disassembling. Slip sleeve assembly (341) out of body. Remove cover (342) and pull out the spindle (343) with shims (343C), washer (344) and spring washers (345) in place. If disassembling, note or make a sketch of spring positions and configuration (which way bow faces) so they can be re-assembled in the same position. Compensating piston (346) can be pushed from cylinder into spring chamber.

V. INSPECTION: Inspect piston (346) and sleeve (341) and their bores for signs of wear, scratches or grooves. Fits should be smooth, lap if necessary. Clean all parts and lubricate lightly before assembly.

VI. ASSEMBLY: Assemble in reverse order of disassembly. Be sure spring washers are stacked on spindle in the same order and configuration as they were. Be sure shim-to-spindle top dimension (as shown on drawing) is correct or neutral setting will be wrong.



VII. PARTS LIST

- 340. Body, Compensator
- 340A. Screw, Sock. Hd. Cap.
- 340B. Screw, Sock. Hd. Cap.

- 341. Sleeve
- 342. Cover, Spring
- 342A. Screw, Sock. Hd. Cap.
- 343A. Spindle, Spring
- 343B. Spindle, Spring
- 343C. Shims, Neutral
- 344. Washer
- 345. Washer, Springs
- 346A. Piston, Compensating
- 346B. Piston, Compensating
- 347. Cylinder, Compensating Piston

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