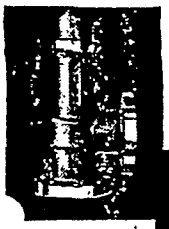
Data Sheet No. 3.1.1
Effective January 1, 1967



3.1 INSTALLATION AND MAINTENANCE INSTRUCTIONS FOR FULFLO VALVES

Valves Type VJ, VB, VS, VJF, VBF, VSF, VJSP, VJFSP
Fig. 3.1.1

PLAINTIFF'S EXHIBIT
CHV-62A

Installation

Fulflo valves can be mounted in any position. A tee may be inserted in the pump discharge line to mount the valve. The correct size of valve should be installed, preferably matching the pump discharge line. Screw the valve into the nipple in the tee, or in the case of the "F" series, bolt the valve to the companion flange screwed into the nipple. When the valve is used for frequent bypassing of oil under pressure, its outlet should be piped back to the tank. Care must be taken to have the discharge well below the oil level in the tank to prevent air entrainment and erratic operation.

Only if the valve is used as safety or overload relief and operates infrequently, its discharge may be piped back into the pump suction line. Frequent or continuous operation under these conditions will cause excessive heating of the oil and possible damage.

Maintenance

Standard valves are designed for use with mineral oils used in hydraulic and lubricating systems. For fire resisting fluids and other liquid media, factory recommendations for special trim or packings should be secured. The liquid used must be free of abrasives or foreign matter and continuous filtration is recommended.

To dismantle valve for inspection or cleaning:

1. Remove cap "B"
2. Remove gasket "E" (in suffix "R" valves, an O-ring is used which is recessed into the cap)
3. Remove lock nut "F"
4. Remove adjusting screw "C"
5. Remove retainer "D"
6. Remove spring "G"
7. Remove piston "I"
8. Remove stop ring "H" (only if desired to replace it)

Inspect valve bore and piston for wear and scoring. Replace broken or damaged parts. Clean all parts thoroughly and re-assemble by reversing the above procedure.

Setting Valves

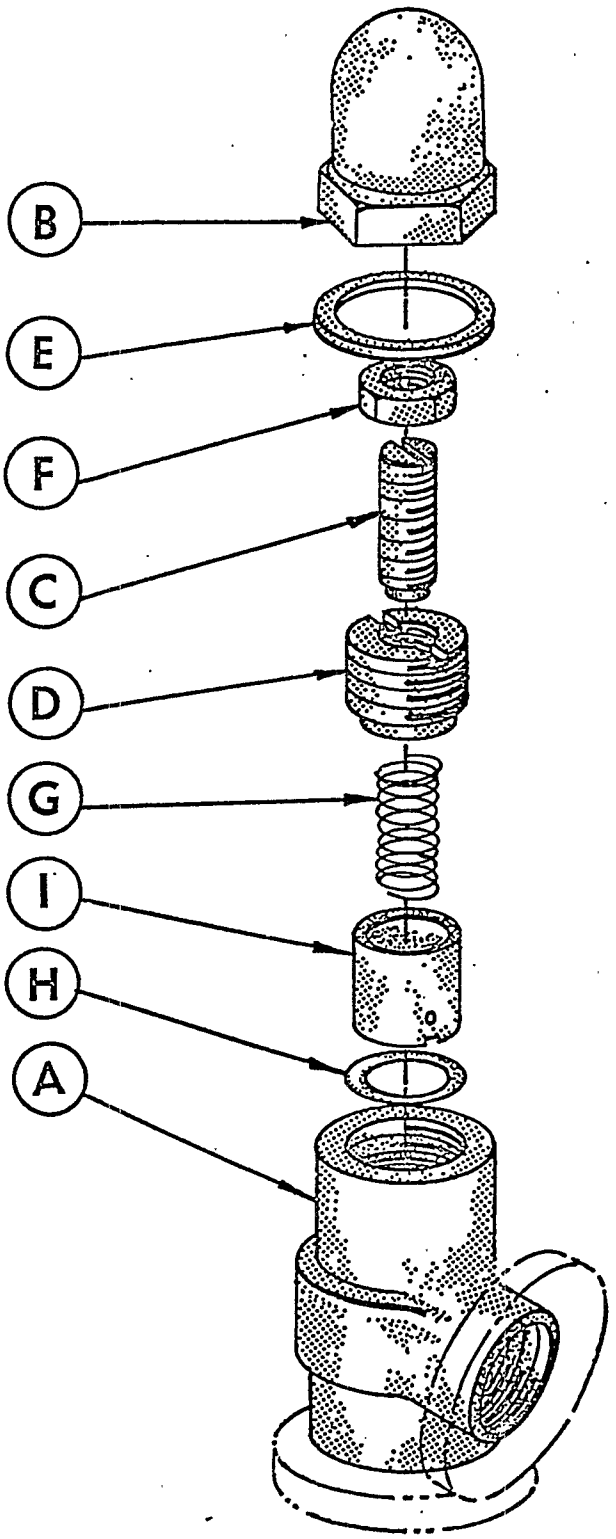
Valves may be set with a hand pump for cracking pressure. If a test stand is available, valve should be connected to the discharge header, with the pump bypass open, and the bypass gradually closed until the desired pressure registers on the gauge. Adjust valve adjusting screw, until valve slightly bleeds at the set bypass pressure, and lock adjusting screw.

If valve is required to bypass a given amount of fluid at a given pressure, a test stand having a flow meter in the pump discharge line, must be available. With valve adjusted for cracking pressure as above, continue closing bypass until the required flow registers on the flow meter, and observe pressure. Re-adjust pressure, if necessary, to obtain desired pressure at desired flow.

CHEV BB 0000211

FIG. 3.1.1

TYPE VJ, VB, VS, VJF, VBF
VSF, VJSP, VJFSP



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