

SINGER MODEL 106-RD

Differential Relief Pilot Schematic A0556B
Installation, Operation and Maintenance Instructions

DESCRIPTION:

Model 106-RD is designed to allow flow when the inlet pressure exceeds the outlet pressure by a predetermined amount. The valve is used as a differential control valve on Singer Model 106-A-IV.

DESCRIPTION OF OPERATION:

Top of the diaphragm is externally connected to the outlet of the valve. When inlet and outlet pressures are equal, the spring force keeps the valve closed. When outlet pressure drops a predetermined amount below the inlet pressure, the inlet pressure under the diaphragm is sufficient to overcome the combined forces at the spring and the outlet pressure acting on top of the diaphragm. The valve opens.

ADJUSTING PROCEDURE:

1. To increase differential setting turn adjusting screw clockwise.
2. To decrease differential setting, turn adjusting screw counterclockwise.

NOTE: Release locknut before adjusting and tighten locknut after adjusting.

DISMANTLING:

1. Close shut-off cock in sensing line.
2. Loosen locknut and remove adjusting screw.
3. Disconnect piping from spring casing.
4. Remove casing capscrews.
5. Remove spring casing, spring step, spring, spring buffer and diaphragm.

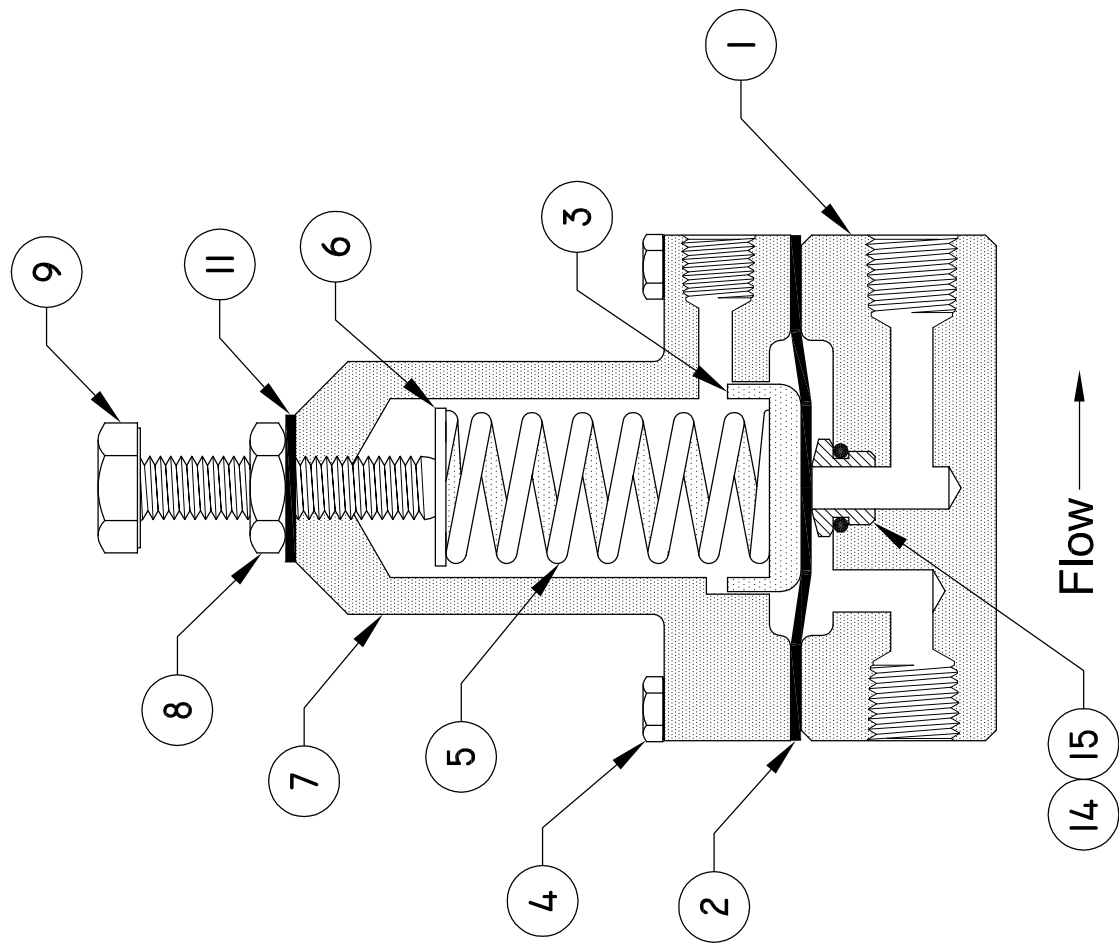
INSPECTION:

1. Clean all parts with water and clean with a lint free cloth.
2. Inspect all parts for scale and damage.

REASSEMBLY:

1. Reassembly is the reverse of dismantling.
2. Ensure that all parts are installed as shown in enclosed drawing.

Differential Relief Pilot



| Item | Part Name | Material |
|------|------------------|-------------------|
| 1 | Body | Brass |
| 2 | Diaphragm | Neoprene |
| 3 | Spring Buffer | Brass |
| 4 | Casing Capscrews | Stainless Steel |
| 5 | Spring | Stainless Steel |
| 6 | Spring Step | Brass |
| 7 | Spring Casing | Brass |
| 8 | Locknut | Stainless Steel |
| 9 | Adjusting Screw | Stainless Steel |
| 11 | Thread Seal | Steel & Resilient |
| 14 | Seat Ring Seal | Stainless Steel |
| 15 | Seat Ring Seal | Buna-N |



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