



Product Bulletin

SV-150 DIRECTIONAL CONTROL VALVE PRODUCT LINE

New Low Torque Operation

We have modified the SV-150, 4-way valve to lower the shifting torque which will allow operation at elevated working pressures. The high torque became an issue with current Shear-Ram-Boosters when operating at 3000 psi hydraulic pressure and 80 psi minimum air pilot which was marginal with a 4" actuator cylinder mounted on the old SV-150. The operating torque at 3000 psi has been reduced to 42 ft-lbs from 130 ft-lbs for the selector and manipulator, and reduced to 100 ft-lbs from 160 ft-lbs for the bypass. This improvement also allows the SV-150 to be rated at 5000 psi if required.



(See Table-1 for further operational details)

Spare Parts and Repair Kits

Only the body and seal rings have been changed and are not interchangeable with the old parts. The old valve part numbers (See Table-2) are now obsolete and replaced by those in (Table-3). The old repair kits and seal rings will continue to be manufactured and supplied to support existing valves in the field. The old SV-150 valves can be converted to the improved model by simply replacing the body and seal rings.

For future identification the new valve part numbers will be stamped into the body and on the back in the center a 0.75" diameter x .100" deep dimple will be added for quick reference (See Figure-1).

Table 1 – Typical Operation/Capabilities

Part No	Model	Rotor	Working Pressure (psi)	Cylinder Size ¹	Torque (Ft-Lbs)
40-2207	SV150-12N3ILS1RN	SEL	3000	4" or 5"	42
40-2102	SV150-12N5ILS1RN	SEL	5000	5" or 6"	54
40-2233	SV150-12N3ILM1RN	MANIP	3000	4" or 5"	42
40-2208	SV150-12N3ILB1RN	BYP (3-POS)	3000	4" or 5"	54
40-2234	SV150-12N3ILO1RN	OC	3000	4" or 5"	42
40-2218	SV150-12N5ILO1RN	OC	5000	5" or 6"	54
---	ALL MODELS	---	0 - 1750	4"	30

¹ Cylinder size based on rod end force with 1" maximum rod diameter and minimum torque-arm of 1.0"

**Table 2 – Obsolete Valve Part Numbers
(Kits are still available for existing product)**

	Valve Assembly	Major Repair Kit	Minor Repair Kit	Seal Kit	O-ring Kit ²
SELECTOR:	40-1527	40-1558	40-1559	40-1537	40-1749
MANIPULATOR:	40-1662	40-1560	40-1561	40-1537	40-1749
BYPASS:	40-2134	40-1767	40-1766	40-1537	40-1749
OPEN CTR	40-2024	NR	NR	40-1537	40-1749

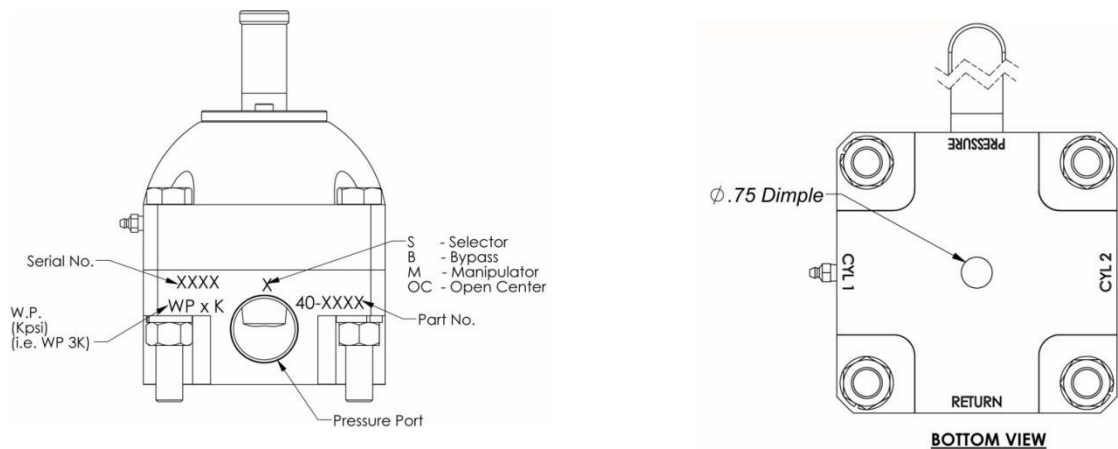
² O-ring kit includes 6 back-up rings

Table 3 – New Valve and Kit Part Numbers

	3000 psi	5000 psi	Major Repair Kit	Minor Repair Kit	Seal Kit	O-ring Kit ³
SELECTOR:	40-2207	40-2102	40-2221	40-2220	40-2219	40-2239
MANIPULATOR:	40-2233	NR	40-2223	40-2222	40-2219	40-2239
BYPASS: (3-POS)	40-2208	NR	40-2225	40-2224	40-2219	40-2239
OPEN CTR	40-2234	40-2218	40-2227	40-2226	40-2219	40-2239

³ O-ring kit includes 3 back-up rings

Figure 1 – Identification of New Low Torque Design



Serial numbers that use the low load assembly are:

P806, P807, P863, P864, Q730, Q732, Q733, R087, R088, R201, R528, R642, R661, R761, R812, R819, R823, R824, R825, R826, R827, R828, R838, R839, R843, R844, R845, R846, R910, R911, R912, R913 and all higher serial numbers.