



Muncie®
Power
Products

KEEP IN VEHICLE
READ OPERATING INSTRUCTIONS
INSIDE BEFORE OPERATING PTO

HF85622-13

INSTALLATION AND OPERATOR'S MANUAL

FEATURES • INSTALLATION • SERVICE

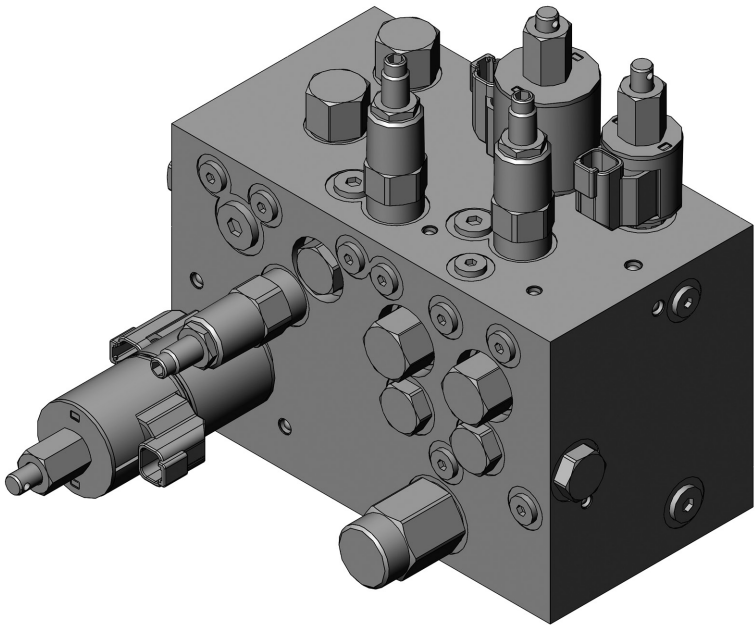


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FEATURES

DIRECT ACTING - PROPORTIONAL SOLENOID VALVES
For consistent and predictable flow control

ADJUSTABLE MAIN RELIEF

POST COMPENSATED – FLOW SHARING

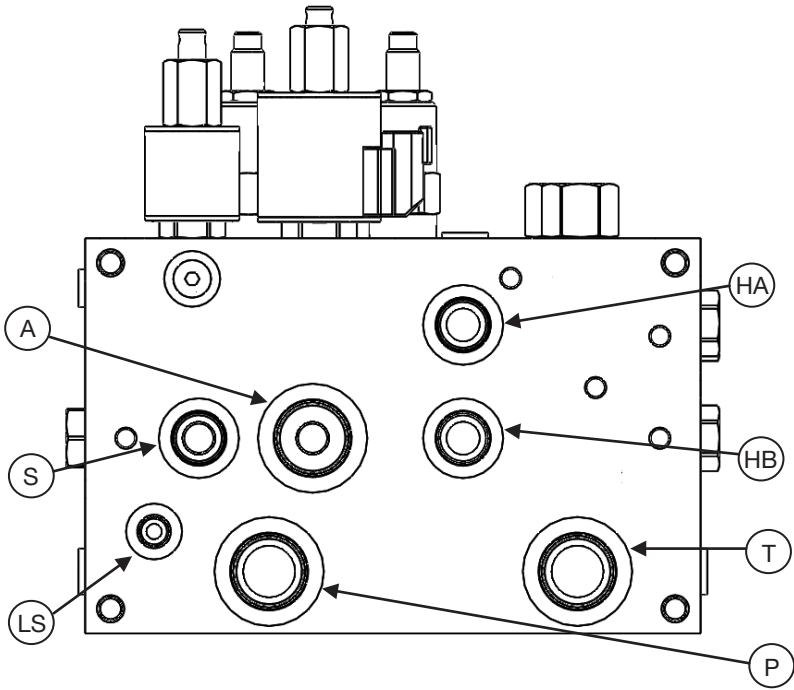
CONFIGURABLE FOR EITHER GEAR OR PISTON PUMPS

MANUAL OVERRIDES

SPECIFICATIONS

Maximum Inlet Flow	20 GPM
Maximum System Pressure	3,000 PSI
Factory Setting (2,500 PSI)	
Auger Flow (Proportional).....	13 GPM
Spinner Flow (Proportional).....	5 GPM
Hoist Flow (Proportional).....	6 GPM
Hoist Downside Relief	950 PSI
Factory Setting (950 PSI)	

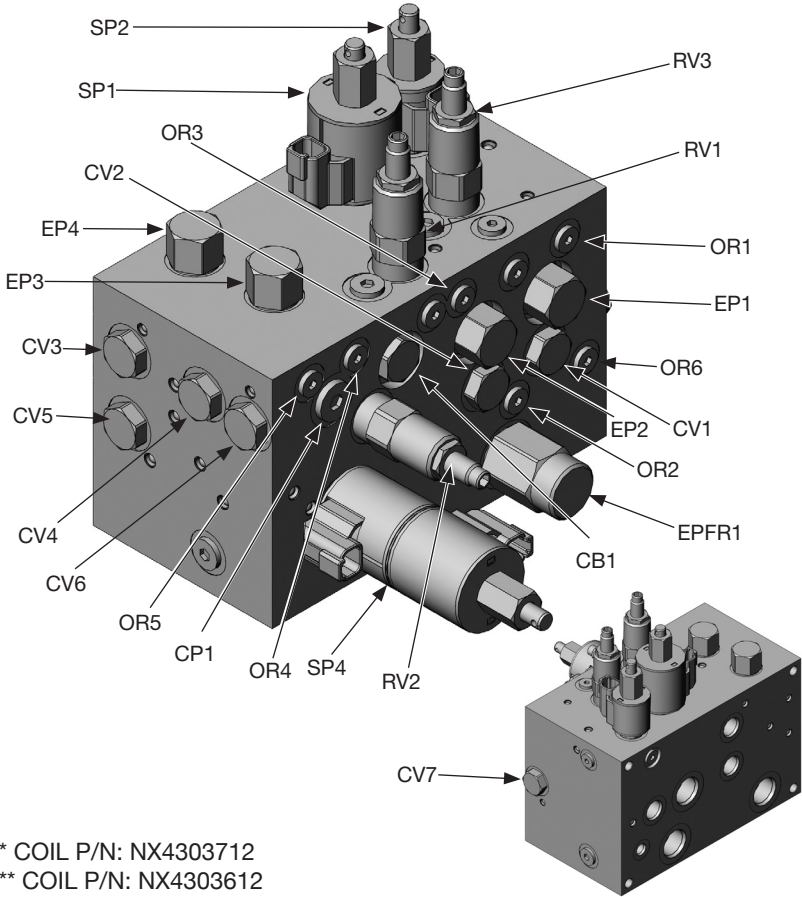
WORKPORTS



HF85622-13

DESIGNATION	DESCRIPTION	SIZE (SAE)
T	TANK	12
P	PUMP	12
HA	HOIST RAISE	08
HB	HOIST LOWER	08
LS	LOAD SENSE	04
A	AUGER	12
S	SPINNER	08

CARTRIDGE DESIGNATIONS AND PART NUMBERS



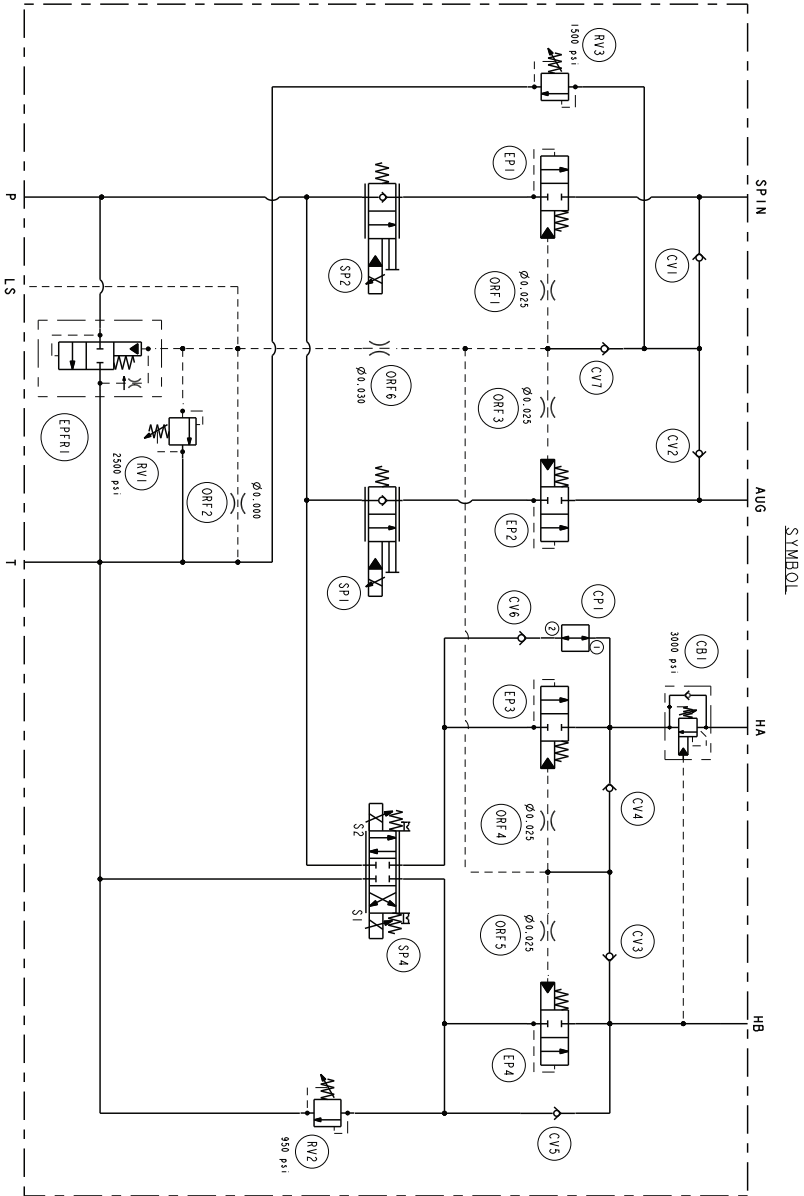
* COIL P/N: NX4303712

** COIL P/N: NX4303612

DESIGNATION	P/N	FUNCTION
CP1	6103008	CAVITY PLUG
CB1	SUN 6114189.30	COUNTER BALANCE
CV1 – CV7	NXCV08-20-0-N-04	CHECK VALVES
EP1 – EP4	NXEP10-S35-0-N-10	POST COMPENSATOR
EPFR	EPFR52-S35T-0-N-240	UNLOADER COMPENSATOR
OR1, OR3, OR4, OR5	6101025	ORIFICE
OR2	6101000	ORIFICE
OR6	6101030	ORIFICE
RV1	NXR08-20A-0-N-33/18	MAIN RELIEF
RV2	NXR08-20A-0-N-09/	HOIST DOWNSIDE RELIEF
RV3	NXR10-22A-0-N-25/2.5	SPREADER RELIEF
SP1	NXSP10-20M-0-N-00	AUGER FLOW CTRL
SP2	NXSP08-20M-0-N-00	SPINNER FLOW CTRL
SP4	NXHSP10-47C-0-U-00	HOIST CTRL

SCHEMATIC

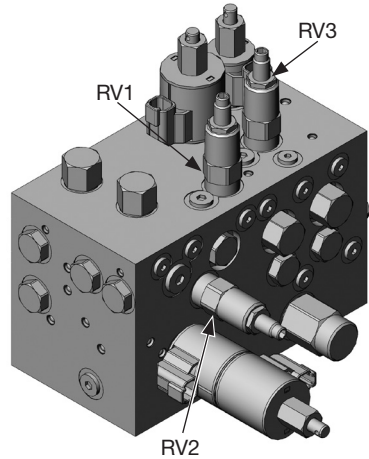
Open Center Configuration



RELIEF VALVE ADJUSTMENTS

Main System Relief (Factory Setting 2,500 PSI) – RV1

1. The tools required for adjusting the main relief setting includes: $\frac{3}{4}$ " wrench and a $\frac{1}{4}$ " Allen drive.
2. Tee a pressure gauge into the pump port (gauge greater than 3,000 PSI)
3. Loosen the lock nut while holding the Allen screw stationary.
4. Start the truck and deadhead flow at either the auger or spinner. (Pressure will increase to the main relief setting)
5. While observing the pressure gauge, turn the Allen screw CCW to decrease pressure, and CW to increase pressure.



*** DO NOT EXCEED 3000 PSI**

6. Once the desired pressure has been established, hold the Allen screw stationary and tighten the lock nut.

Downside Hoist Relief (Factory Setting 950 PSI) – RV2

1. The tools required for adjusting the hoist downside relief setting includes: $\frac{3}{4}$ " wrench and a $\frac{1}{4}$ " Allen drive.
2. Tee a pressure gauge into the hoist lower (HB) port (Gauge greater than 1,000 PSI)
3. Loosen the lock nut while holding the Allen screw stationary.
4. Start the truck and deadhead the hoist down. (Pressure will increase to the downside relief setting)
5. While observing the pressure gauge, turn the Allen screw CCW to decrease pressure, and CW to increase pressure.
6. Once the desired pressure has been established, hold the Allen screw stationary and tighten the lock nut.

MANUAL OVERRIDE INSTRUCTIONS

SP1 & SP2 – Spinner/Auger

1. To manually override SP1 or SP2: Push the red override down and turn CCW. (Up Position)
2. To disengage SP1 or SP2: Push the red override down and turn CW. (Down Position)

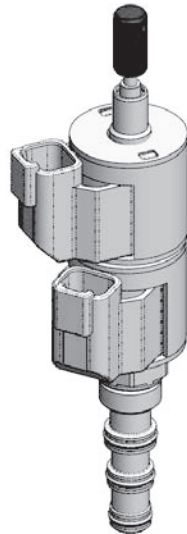


Normal Operation: Push down and turn CW

SP4 - Hoist

1. To manually override SP4: To shift the valve manually from neutral to activate S1 (Lower the Hoist), push the knob down slight, rotate 90 degrees counterclockwise, then pull. To lock in this position, rotate the knob an additional 90 degrees counterclockwise.

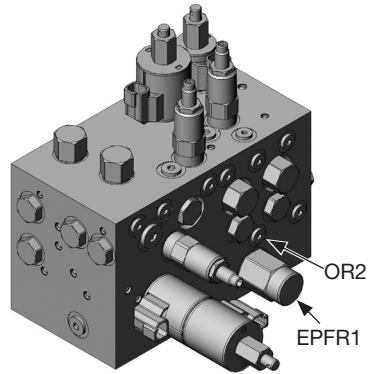
To shift manually to activate S2 (Raise the Hoist), push the knob down all the way. To lock in this position, rotate the knob 90 degrees clockwise to lock in the lower detent groove.



CONVERTING MANIFOLD FROM OPEN-CENTER TO LOAD SENSE

Instructions:

1. Remove EPFR1 and replace with NXCP10-S30-N
2. Remove the OR2 SAE plug.
3. Remove the set-screw that is sitting inside of the OR2 cavity
4. Replace the setscrew with P/N: NX6101025
5. Reinstall the OR2 SAE plug.
6. Locate the LS port on the manifold and route back to the variable displacement pump.



TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE
Either the auger or spinner operates wide open.	<ul style="list-style-type: none"> • Check manual overrides of SP1 or SP2 (Reference pg. 8 for manual override instructions) – disengage if necessary. • Remove SP1 or SP2 from manifold and inspect cavity and cartridge for contamination.
Either the auger or spinner are inoperative.	<ul style="list-style-type: none"> • Inspect wiring and check continuity of Deutsch connector into solenoid receptacle. • Verify that the flow is not bypassing motor (loss of efficiency). • Verify that the SP1 or SP2 are magnetizing when energized.
No function operates, System doesn't build pressure.	<ul style="list-style-type: none"> • Remove EPFR from manifold and inspect cavity and cartridge for contamination. • Check main relief (RV1) for contamination. • Verify that pump is producing flow.
The hoist will not operate.	<ul style="list-style-type: none"> • Inspect plumbing – verify that the HA port is connected to the cap side of the cylinder and HB is connected to the rod of the cylinder. • Inspect Wiring • Increase the main relief pressure setting (pg. 7)
Manifold operates continuously at main relief pressure (1800 PSI).	<ul style="list-style-type: none"> • Inspect plumbing – If applicable, check quick disconnects. • Remove EPFR from manifold and inspect cavity and cartridge for contamination.
Chattering noise occurs while system is bypassing fluid and goes away when spreader system is active or higher RPM's.	<ul style="list-style-type: none"> • This is due to the EPFR becoming unstable at low flow conditions. <ol style="list-style-type: none"> 1. Try downsizing the inlet hose to a minimum of a -8 (1/2") running from the pump outlet to the manifold. 2. Downsize ORF6 from a 0.04" orifice to 0.025" orifice. Contact Muncie Power for more details.
Hoist will not lower	<ul style="list-style-type: none"> • Adjust counterbalance.



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