



**Muncie®
Power
Products**

KEEP IN VEHICLE

**READ OPERATING INSTRUCTIONS
INSIDE BEFORE OPERATING PTO**

HF184553-24

INSTALLATION AND OPERATOR'S MANUAL

FEATURES • INSTALLATION • SERVICE

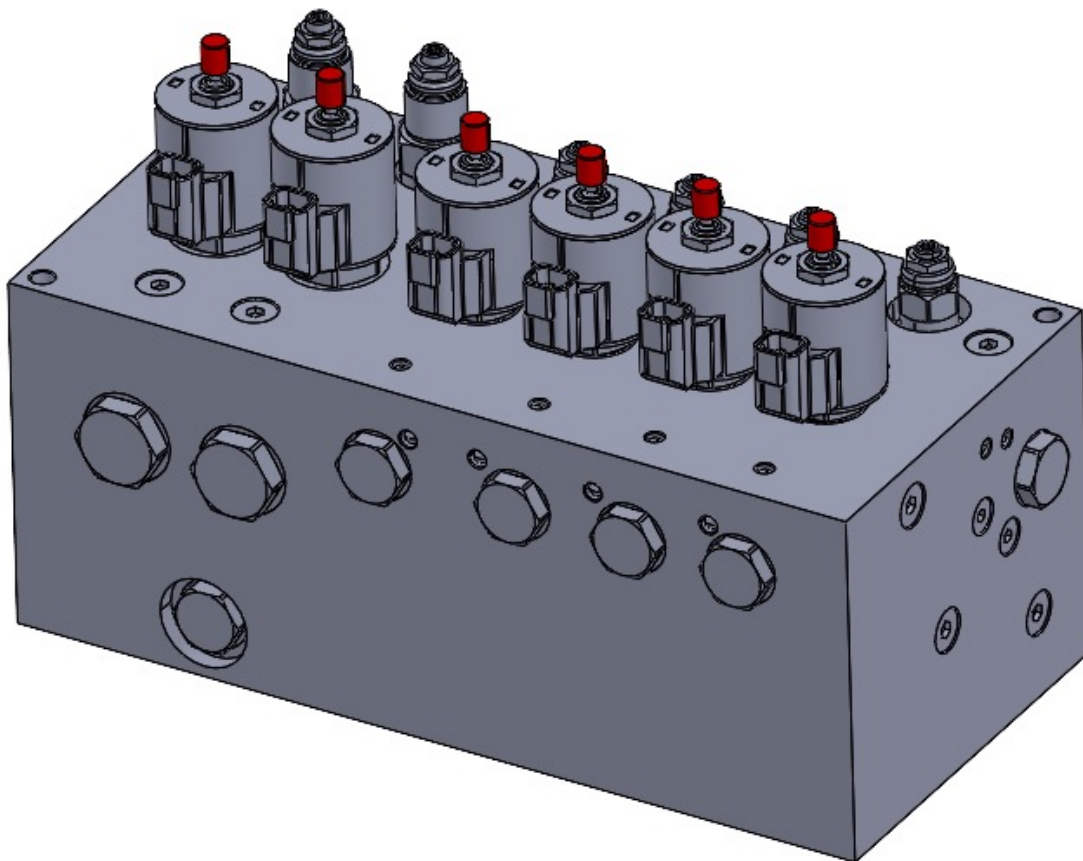


TABLE OF CONTENTS

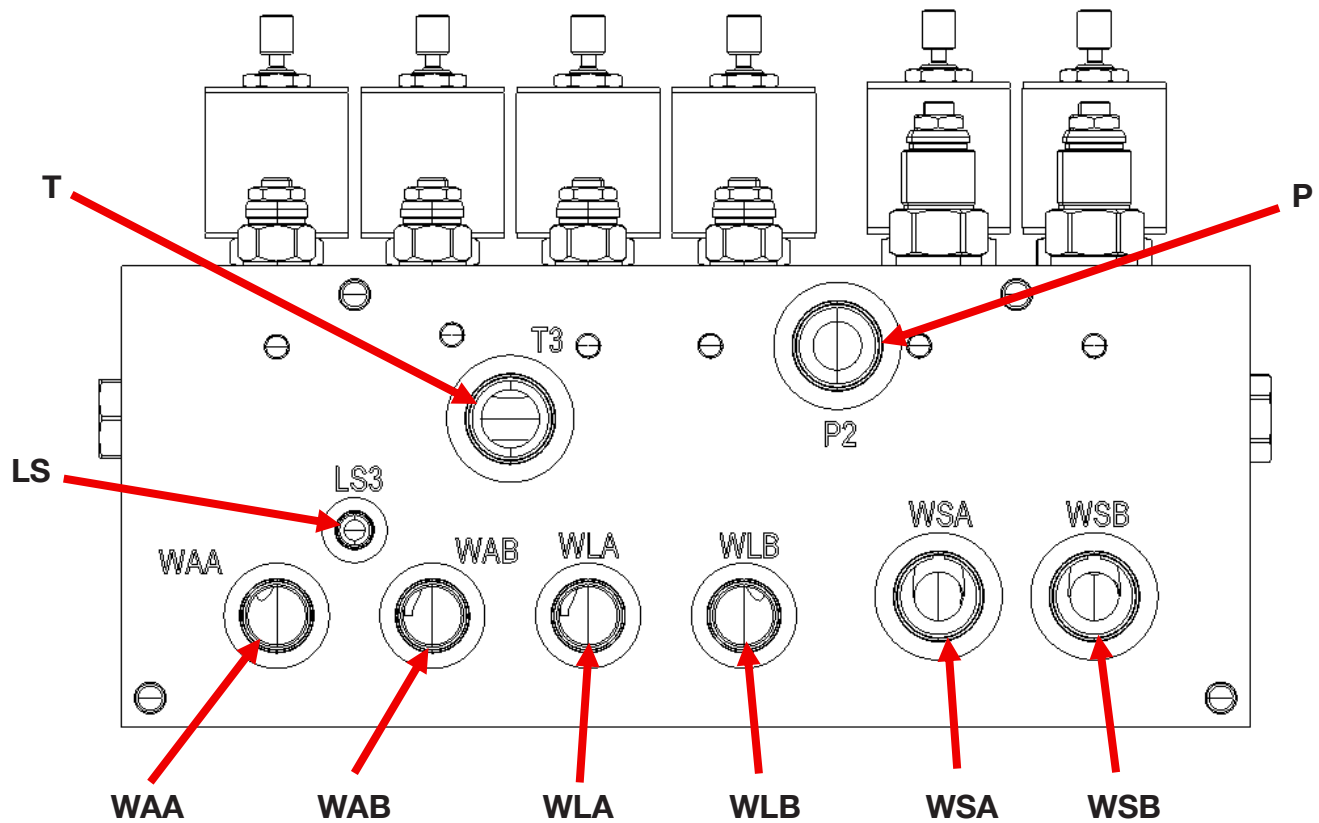
Valve Features and Specifications	1
Hydraulic Work Ports.....	2
Cartridge Designation, Functions, and Part Numbers	3
Hydraulic Schematic	5
Manual Override Instructions	6
Troubleshooting.....	7

VALVE FEATURES AND SPECIFICATIONS

- Cartridge valve manifold assembly configurable for open or closed center operation.
- Post-compensated load-sense design provides stable flow control during pressure fluctuations.
- Pressure relief redundancy for maximum system protection.
- All valve coils are configured for 12 VDC continuous duty operation. Valve coils are of proportional design.
- Manual override functionality equipped on flow controls.
- Max. Inlet Flow: 40 GPM
- Max. System Pressure: 3,000 PSI

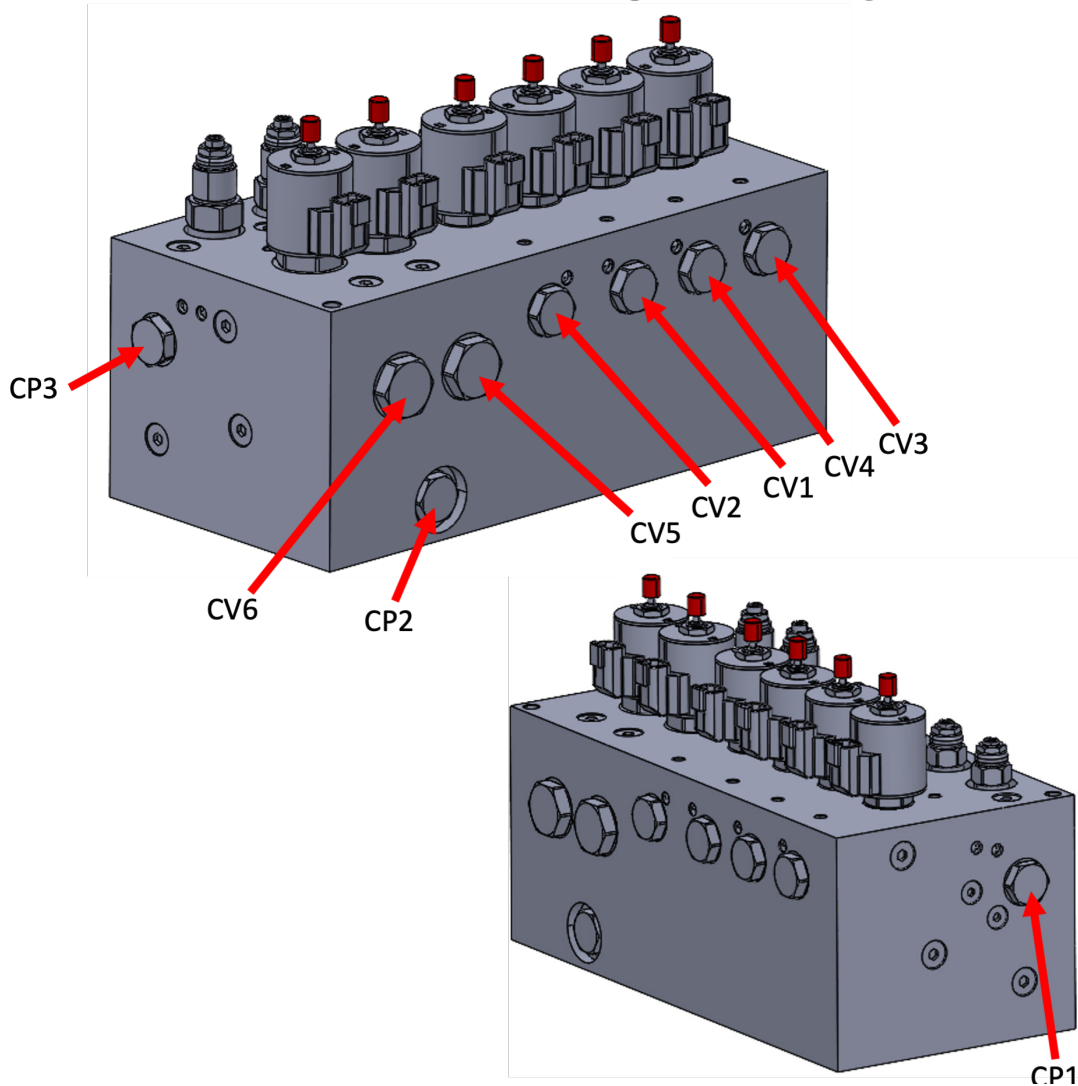
FUNCTION	MAX. FLOW	DEFAULT RELIEF SETTING	MAX. RELIEF SETTING
Wing Angle Out	15 GPM	1,800 PSI	3,000 PSI
Wing Angle In	15 GPM	1,800 PSI	3,000 PSI
Wing Lower	15 GPM	1,800 PSI	3,000 PSI
Wing Raise	15 GPM	1,800 PSI	3,000 PSI
Wing Extend	20 GPM	1,800 PSI	3,000 PSI
Wing Retract	20 GPM	1,800 PSI	3,000 PSI

HYDRAULIC WORK PORTS



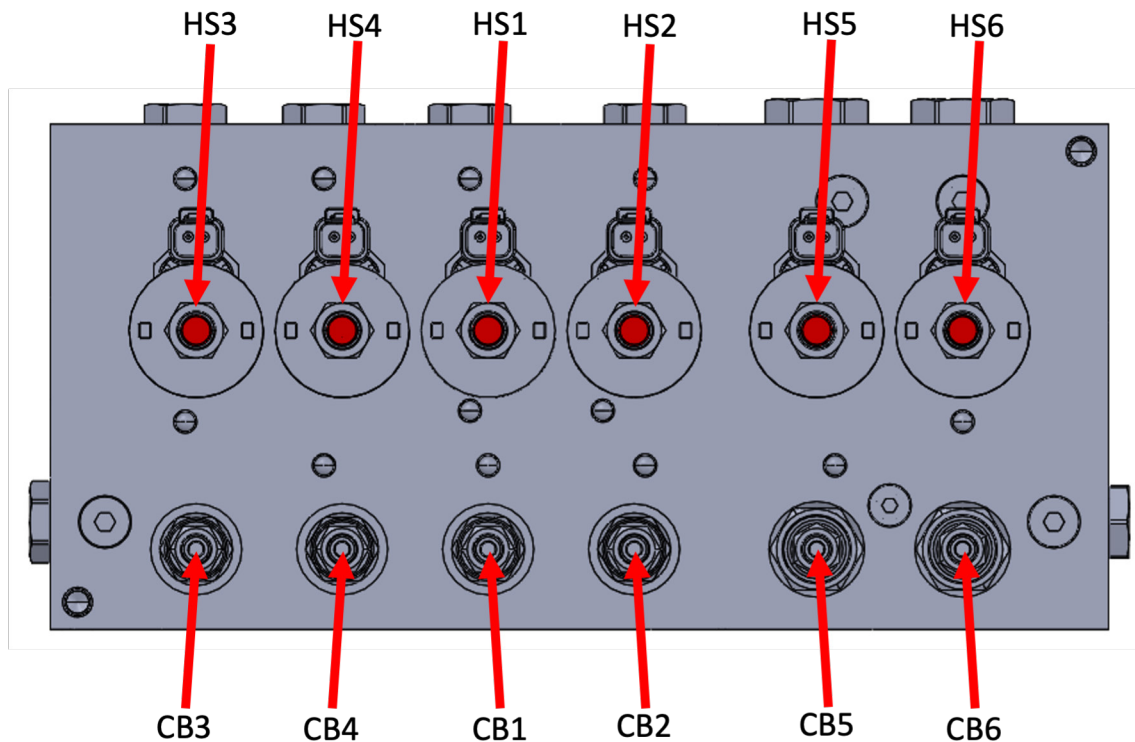
DESIGNATION	DESCRIPTION	SIZE (SAE)
WAA	Wing Angle Out	10
WAB	Wing Angle In	10
WLA	Wing Lower	10
WLB	Wing Raise	10
WSA	Wing Extend	12
WSB	Wing Retract	12
LS3	Load Sense	04
T	Tank	12
P	Pump	12

CARTRIDGE DESIGNATIONS, FUNCTIONS, AND PART NUMBERS



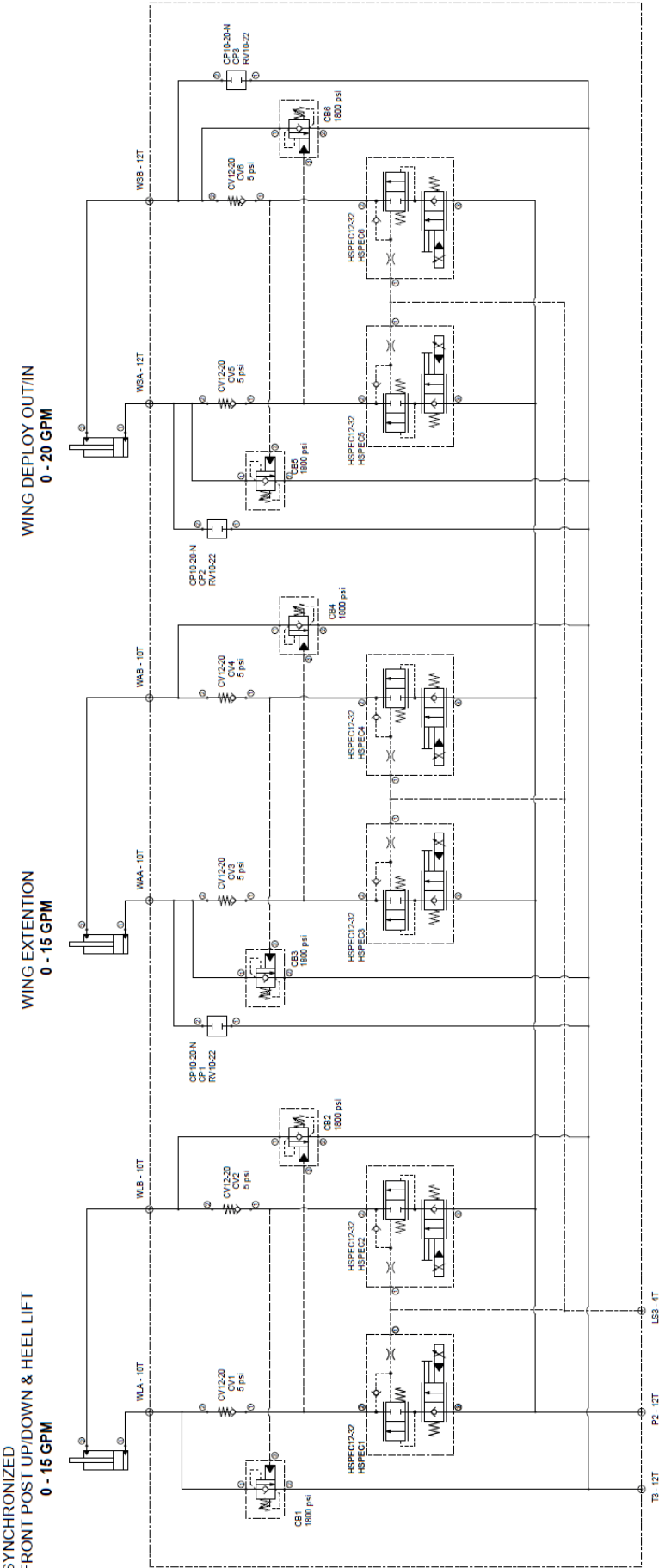
DESIGNATION	FUNCTION	PART NUMBER
CP1	Wing Angle Out Cavity	NXCP10-20-N
CP2	Wing Extend Cavity	NXCP10-20-N
CP3	Wing Retract Cavity	NXCP10-20-N
CV1	Wing Lower Check	NXCV10-20-0-N-05
CV2	Wing Raise Check	NXCV10-20-0-N-05
CV3	Wing Angle Out Check	NXCV10-20-0-N-05
CV4	Wing Angle In Check	NXCV10-20-0-N-05
CV5	Wing Extend Check	NXCV12-20-0-N-05
CV6	Wing Retract Check	NXCV12-20-0-N-05

CARTRIDGE DESIGNATIONS, FUNCTIONS, AND PART NUMBERS

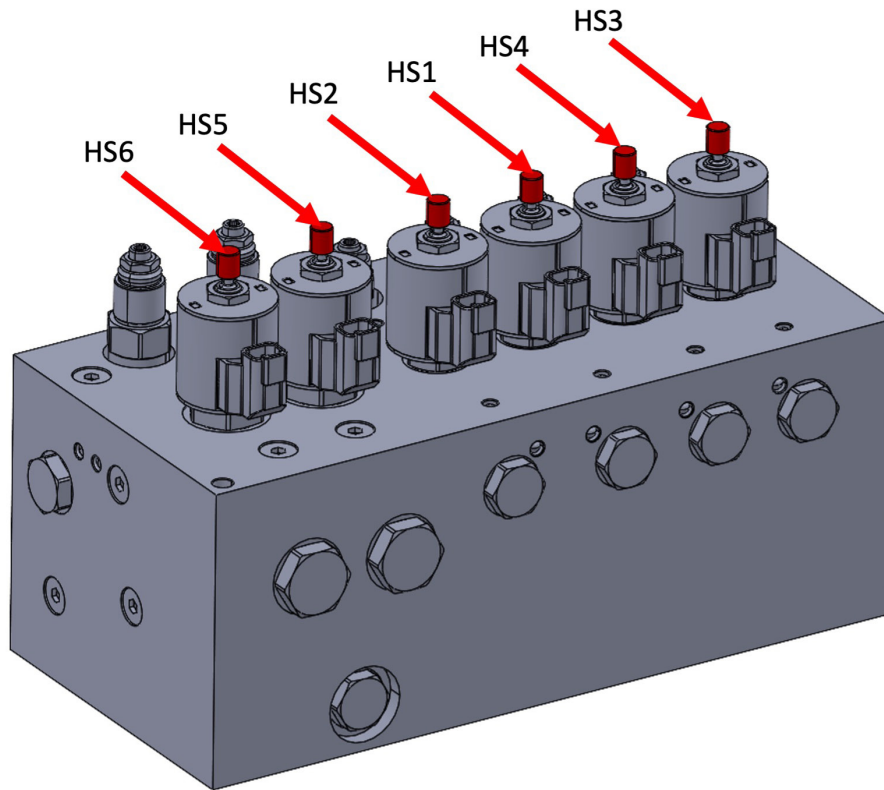


DESIGNATION	FUNCTION	PART NUMBER
CB1	Wing Lower Counterbalance	R930099750
CB2	Wing Raise Counterbalance	R930099750
CB3	Wing Angle Out Counterbalance	R930099750
CB4	Wing Angle In Counterbalance	R930099750
CB5	Wing Extend Counterbalance	R930100257
CB6	Wing Retract Counterbalance	R930100257
HS1	Wing Lower Flow Control	HSPEC1032AT0U012ER
HS2	Wing Raise Flow Control	HSPEC1032AT0U012ER
HS3	Wing Raise Flow Control	HSPEC1032AT0U012ER
HS4	Wing Angle In Flow Control	HSPEC1032AT0U012ER
HS5	Wing Extend Flow Control	HSPEC1232AT0U012ER
HS6	Wing Retract Flow Control	HSPEC1232AT0U012ER

HYDRAULIC SCHEMATIC



MANUAL OVERRIDE INSTRUCTIONS



FUNCTION	DESIGNATION	OVERRIDE POSITION
Wing Lower	Engage HS1	Rotate CCW
Wing Raise	Engage HS2	Rotate CCW
Wing Angle Out	Engage HS3	Rotate CCW
Wing Angle In	Engage HS4	Rotate CCW
Wing Extend	Engage HS5	Rotate CCW
Wing Retract	Engage HS6	Rotate CCW

TROUBLESHOOTING

CAUTION: ONLY REMOVE COMPONENTS WHEN PUMP IS OFF AND SYSTEM IS NOT UNDER PRESSURE

Symptom	Possible Cause
The wing will not lower	• Reduce counterbalance setting on appropriate counterbalance • Try removing cartridge and inspect for contamination • Inspect wiring and check continuity from control module to solenoid
The wing drifts down	• Increase the appropriate counterbalance setting • Remove and check the counterbalance for contamination • Inspect plumbing to verify ports are correctly plumbed to cylinder
The wing will not angle	• If wing is equipped with cross-over relief, ensure that oil is not unintentionally bypassing preventing cylinder movement • Check quick disconnects to verify flow is not being impeded • Inspect wiring and check continuity from control module to solenoid
The wing will not raise	• Make sure that manual override is set for middle/normal operating position • Try removing appropriate cartridge and inspect for contamination • Inspect plumbing to verify ports are correctly plumbed to cylinder • Verify that flow is not bypassing around cylinder's internal seals • Inspect wiring and check continuity from control module to solenoid
System is overheating/running at main relief	• PTO/pump not engaging • Check pressure with motors engaged; investigate seized motor or gearbox • Investigate the quick disconnect to ensure it is seated correctly • Check all manual overrides to ensure nothing is unintentionally engaged • Swap the downside TS and the hoist downside TS cartridges
System running at main relief, getting excessively hot	• Inspect plumbing; if applicable, verify spreader motors are not deadheading at quick couplers • Inspect for contamination • If applicable, verify gear box is not seized or creating unintentional load upon the hydraulic system



**Muncie®
Power
Products**

A Member of the Interpump Group

IN26-01 (Rev. 07-26)

201 East Jackson Street, Muncie, Indiana 47305
800-367-7867 • Fax: 765-284-6991 • info@munciepower.com

Specifications are subject to change without notice. Visit www.munciepower.com
for warranties and literature. All rights reserved. © Muncie Power Products, Inc. (2026)