

MULTIPLEX STRAIGHT BLADE HYDRAULIC UNIT SERVICE INSTRUCTIONS

42292 & 42294 SERVICE MANIFOLD ASSEMBLIES

NOTE: Before removing hoses and fittings, carefully note hose routing for proper reassembly. For complete hydraulic fluid level/change or hose/fitting instructions, see the Maintenance Section of your Owner's Manual.

NOTE: Loosen fill plug slowly to relieve any pressure in reservoir.

Before performing any service, loosen the breather to relieve pressure in reservoir.

Angle ram relief valves A and B are factory set at 2500 psi for use on FISHER® MC and SD snowplows. For use on FISHER HD snowplows, follow relief valve A and B adjustment instructions on page 2 for 4000 psi angle ram relief.

For all service manifold assemblies, install the return tube as shown on page 2. Press or tap in until the shoulder of the tube is flush with the manifold.

TORQUE CHART

Multiplex Straight Blade Hydraulic Unit Torque Chart		
Location	Fastener Size	Torque
Pump Cap Screws	5/16-18 x 2-1/4	150–160 in-lb
Motor Terminals (+ and –)	5/16 Nut	50–60 in-lb
Motor to Manifold Cap Screws	1/4-20	55–65 in-lb*
Reservoir Screws	#10-24 x 5/16	30–35 in-lb*
Solenoid Valves	7/8 Hex Head	19–21 ft-lb
Coil Nuts	3/4 Hex Head Jam Nut	48–60 in-lb
SAE O-Ring Plugs	1/8 or 5/32 Internal Hex	7–9 ft-lb
Hydraulic Unit Mount Bolts	3/8-16 x 1	22–27 ft-lb
Motor Relay Small Terminals	10-32 Nut	15 in-lb max
Motor Relay Large Terminals	5/16-24 Nut	35 in-lb max
Motor Relay Mount Screws	1/4-20 x 1/4	55–65 in-lb
Plow Module Mount Screws	1/4-20 x 3/8	60–70 in-lb
Module Plate to Manifold	1/4-20 x 5/8	60–70 in-lb

* Torque with low-strength threadlocker

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Relief Valve Service: Apply one drop of low-strength threadlocker to all relief valve stems.

Relief Valve A and B Adjustment: Screw stem in until spring is fully compressed, then back out 1 to 1-1/4 turns for approximately 4000 psi angle ram relief. For FISHER® SD and MC snowplows only: Back out screw 2-1/4 to 2-1/2 turns for approximately 2500 psi angle ram relief.

⚠ WARNING

Do not stand between the vehicle and the blade or within 8 feet of a moving blade. A moving or falling blade could cause personal injury.

Relief Valve C Adjustment: Attach 3000 psi gauge in line with PS ram. Adjust relief valve C to obtain 1750 psi pump relief pressure at full angle left. Relieve pressure before adjusting.

Remove motor. Fit seal protector onto end of pump shaft and install lubricated shaft through seal.**

Snap filter onto tube and align filter as shown in end view.†

Replace O-ring whenever disassembled. Apply light film of white lithium grease for reassembly. Clean manifold groove and reservoir surface.

10-24 x 5/16 Washer-Head Screw (4)
30-35 in.-lb. Apply low-strength threadlocker.

Clean magnet.

5/16-18 x 2-1/4
Cap Screw (5)
150-160 in.-lb

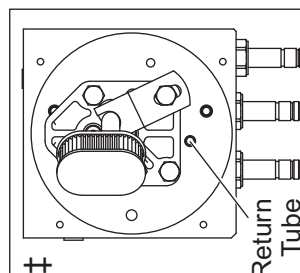
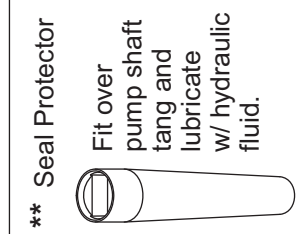


Remove motor. Fit seal protector onto end of pump shaft and install lubricated shaft through seal.**

Replace O-ring whenever disassembled. Apply light film of white lithium grease for reassembly. Clean manifold groove and reservoir surface.

General

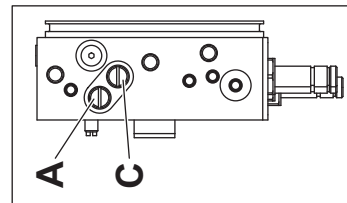
1. **Before any service**, loosen breather to relieve reservoir pressure.
2. Lubricate all O-rings with clean hydraulic fluid except where noted otherwise.
3. DS = Driver's Side; PS = Passenger's Side



C — Pump Relief Valve

O-Ring Boss Plug
7-9 ft.-lb

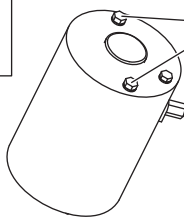
A — DS Plowing
Relief Valve



Stem

Ball

Spacer



Motor Cap Screw (2)
55-65 in.-lb.
Apply low-strength
threadlocker.

Blade
Drop Speed
Adjustment

1/2-20 Jam Nut
(3) 48-60 in.-lb

Spring

Install
new O-ring
into pump
counter bore.



Alignment Ring
Return Tube for
Service Manifold

Inspect seal and
replace if damaged.

B — PS Plowing
Relief Valve

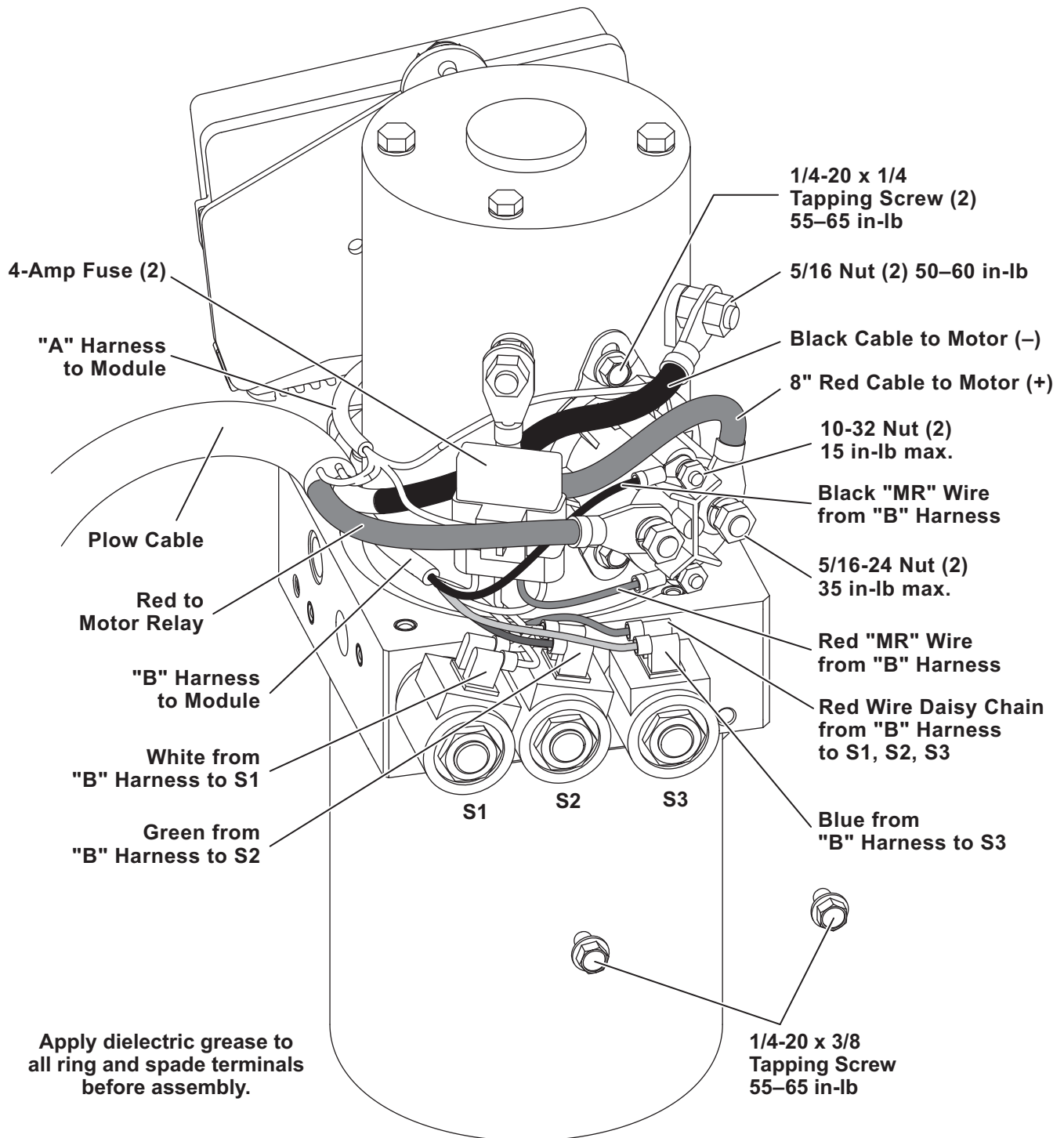
Breather

Cartridge Valve (3)
19-21 ft.-lb

Assemble coils with
printing facing out.

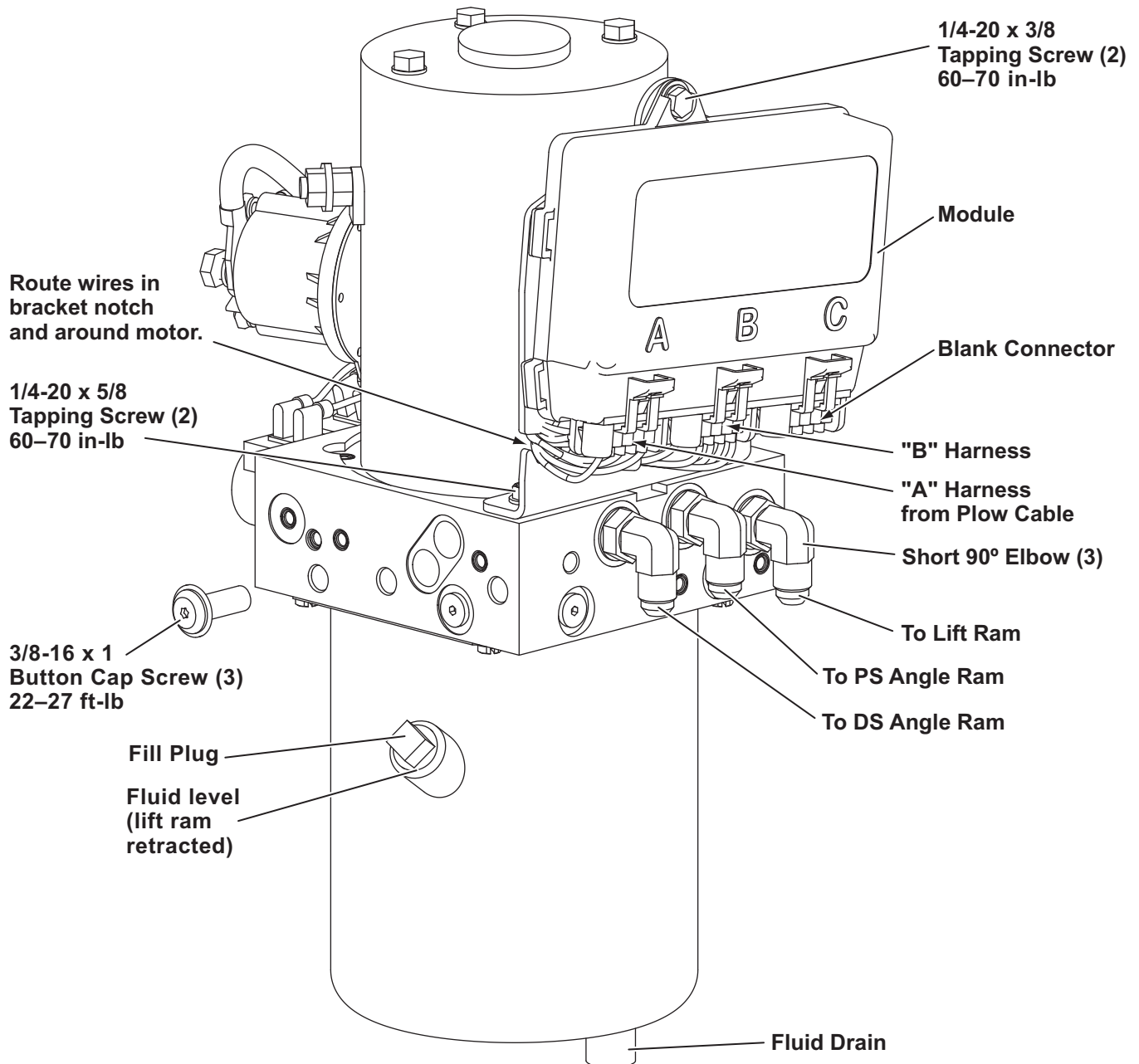
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ELECTRICAL ASSEMBLY



MULTIPLEX STRAIGHT BLADE HYDRAULIC UNIT SERVICE INSTRUCTIONS

ELECTRICAL ASSEMBLY, HYDRAULIC FLUID (DRAIN AND FILL), FITTINGS



The company reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. This equipment manufacturer or the vehicle manufacturer may require or recommend optional equipment for snow removal. Do not exceed vehicle ratings with a snowplow. The company offers a limited warranty for all snowplows and accessories. See separately printed page for this important information.

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