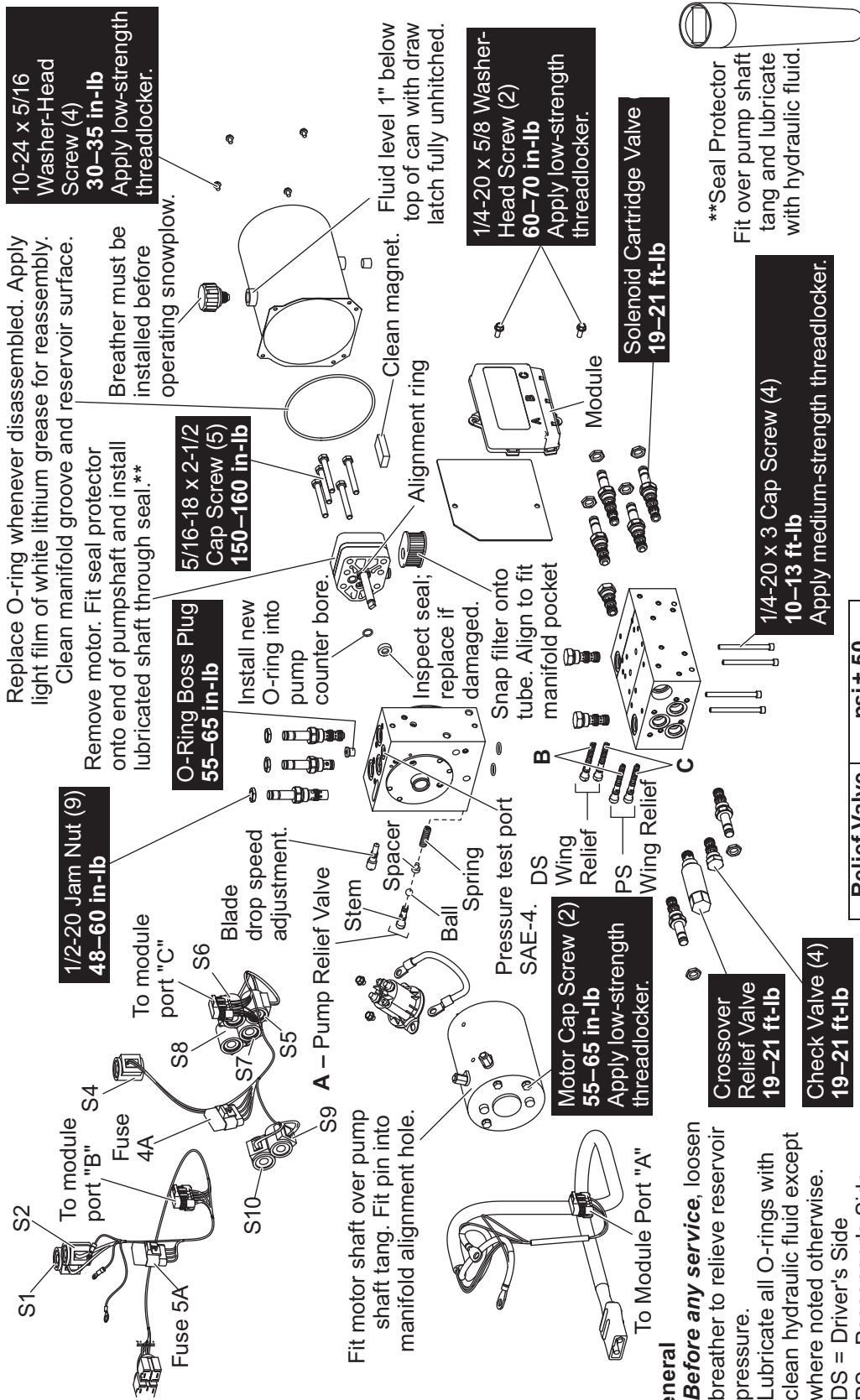


8100 & 86110LP HYDRAULIC UNIT SERVICE INSTRUCTIONS



Relief Valve	psi ± 50
A	1650
B	1700
C	1500

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
4. Also refer to labels inside cover.

Relief Valve Service

Apply one drop of low-strength threadlocker to threads.
Assemble to 2-1/2 turns out from fully bottomed.
Adjust valves on fully assembled and mounted snowplow.
Always relieve pressure before adjusting valves to prevent O-ring damage.

1. Remove pressure test port plug and attach 3000 psi pressure gauge.
2. Angle plow fully to right and adjust pump relief A so deadhead pressure reads 2000 psi.
3. Straighten blade.

4. Adjust DS relief valve C all the way in (clockwise).
5. Extend DS wing fully and adjust DS relief valve B so deadhead pressure reads 1700 psi.
6. Extend DS wing fully and adjust DS relief valve C so deadhead pressure reads 1500 psi. Retract DS wing.
7. Repeat steps 4-6 for PS wing relief valves.
8. Angle plow fully to right and adjust pump relief A so deadhead pressure reads 1650 psi.
9. Remove pressure gauge and reinstall plug.

Replace O-ring whenever disassembled. Apply light film of white lithium grease for reassembly.
Clean manifold groove and reservoir surface.
Breather must be installed before operating snowplow.

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

O-Ring Boss Plug 55-65 in-lb

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

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

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

14-20 x 5/8 Washer-Head Screw (2) 60-70 in-lb Apply low-strength threadlocker.

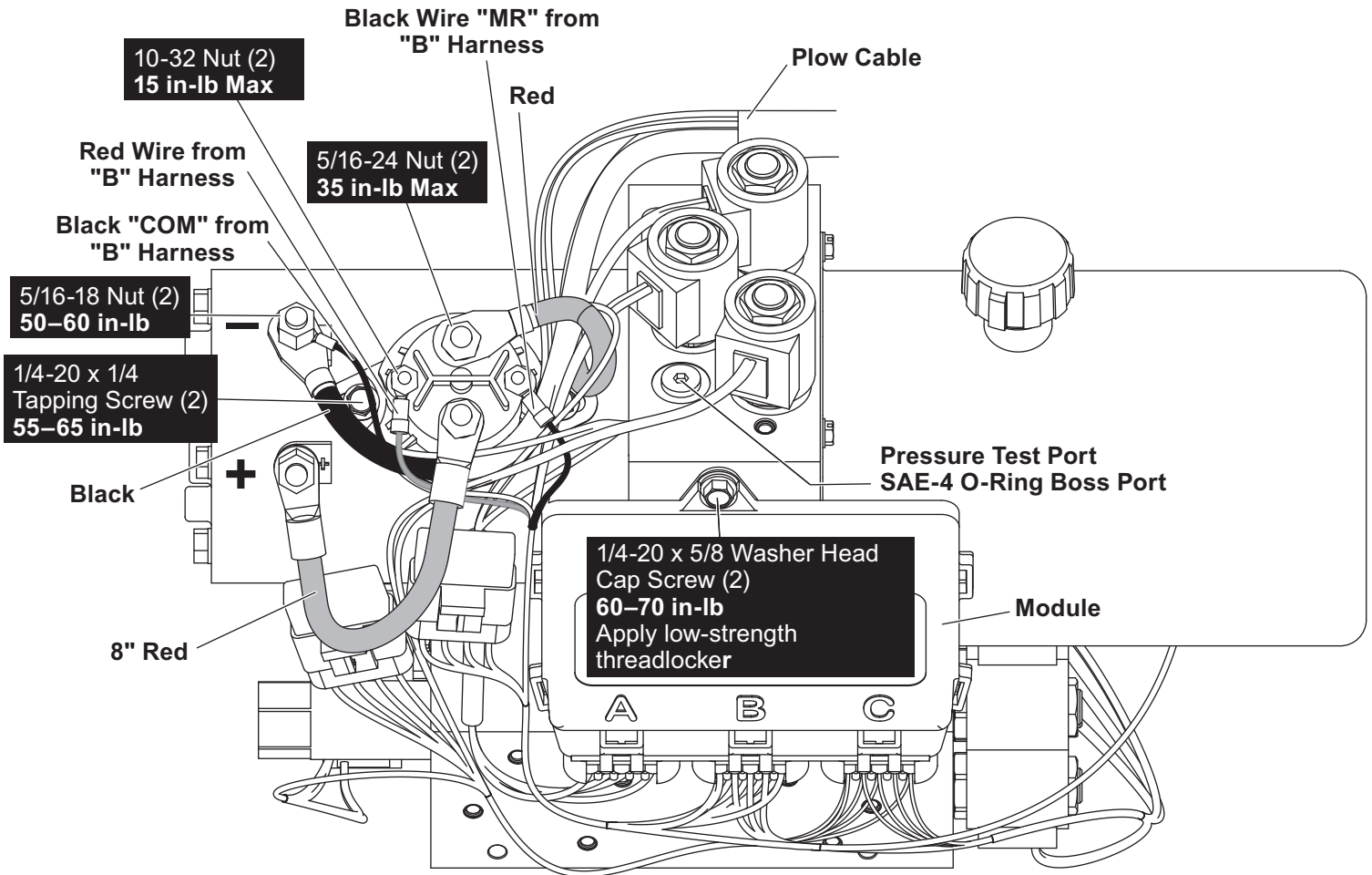
1/4-20 x 3 Cap Screw (4) 10-13 ft-lb Apply medium-strength threadlocker.

19-21 ft-lb

19-21 ft-lb

8100 & 86110LP HYDRAULIC UNIT SERVICE INSTRUCTIONS

ELECTRICAL ASSEMBLY



TORQUE CHART

8100 & 86110LP Hydraulic Unit Torque Chart		
Location	Fastener Size	Torque
Pump Cap Screws	5/16-18 x 2-1/2	150-160 in-lb
Motor Terminals (+ and -)	5/16-18 Nut	50-60 in-lb
Motor to Manifold Cap Screws	1/4-20 x 6-1/4	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	55-65 in-lb
Hydraulic Unit Mount Bolts	See diagram	22-25 ft-lb**
Check Valves	7/8 Hex Head	19-21 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	75-85 in-lb
Plow Module Mount Screws	1/4-20 x 5/8	60-70 in-lb
Crossover Relief Valve	1" Hex Head	19-21 ft-lb
Secondary to Primary Manifold Bolts	1/4-20 x 3	10-13 ft-lb**

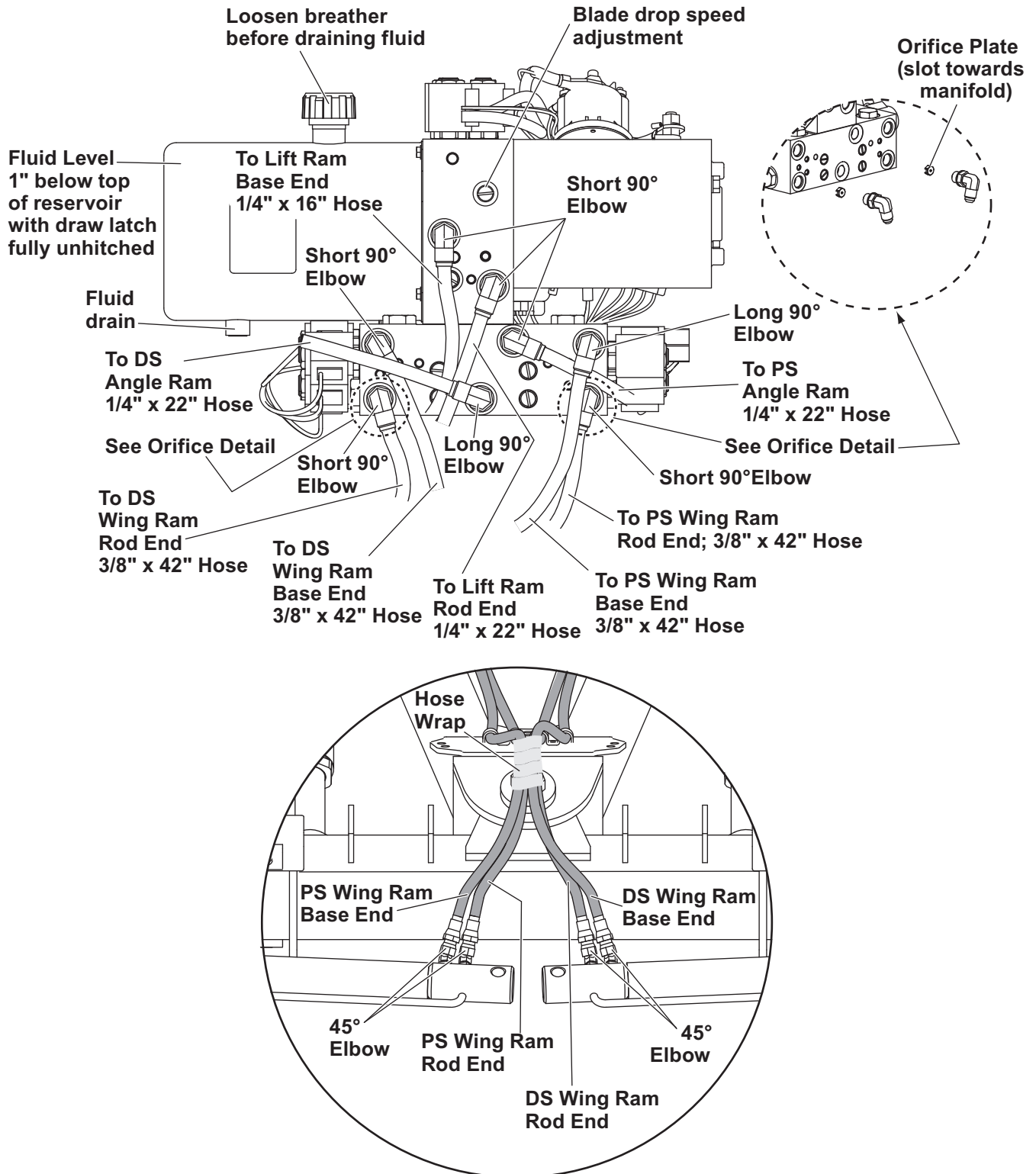
* Torque with low-strength thread locker

** Torque with medium-strength thread locker

8100 & 86110LP HYDRAULIC UNIT SERVICE INSTRUCTIONS

HYDRAULIC FLUID (DRAIN AND FILL), FITTINGS AND HOSES

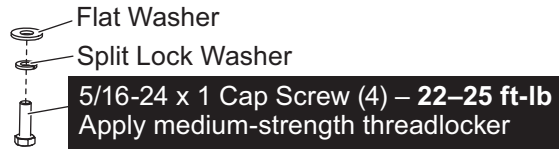
NOTE: Before removing hoses and fittings, carefully note hose routing for proper reassembly. For complete hydraulic fluid level/change or hose/fitting instructions, see the Maintenance Section of your Owner's Manual.



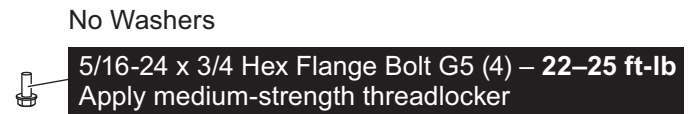
8100 & 86110LP HYDRAULIC UNIT SERVICE INSTRUCTIONS

HYDRAULIC UNIT MOUNTING BOLTS

For mounting plate with holes:



For mounting plate with keyhole slots:



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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