

# HD & LT STRAIGHT BLADE HYDRAULIC UNIT SERVICE INSTRUCTIONS

## General

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

### Relief Valve Service

Apply one drop of low-strength thread locker to threads.

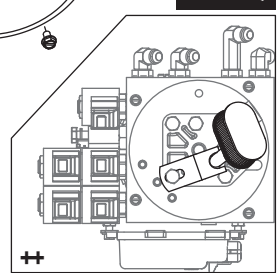
Adjustment: Screw stem in until spring is fully compressed and back out number of turns in chart.

Relief Valve	Approx. Pressure Out (psi)	# of Turns Fully Seated
A (Qty 2) LT only	4000	1-1-1/4 *
B (Qty 1)	1900 LT 1650 HD	*

\* Attach 3000 psi gauge to pressure test port. Read pump relief pressure when holding the right angle button.

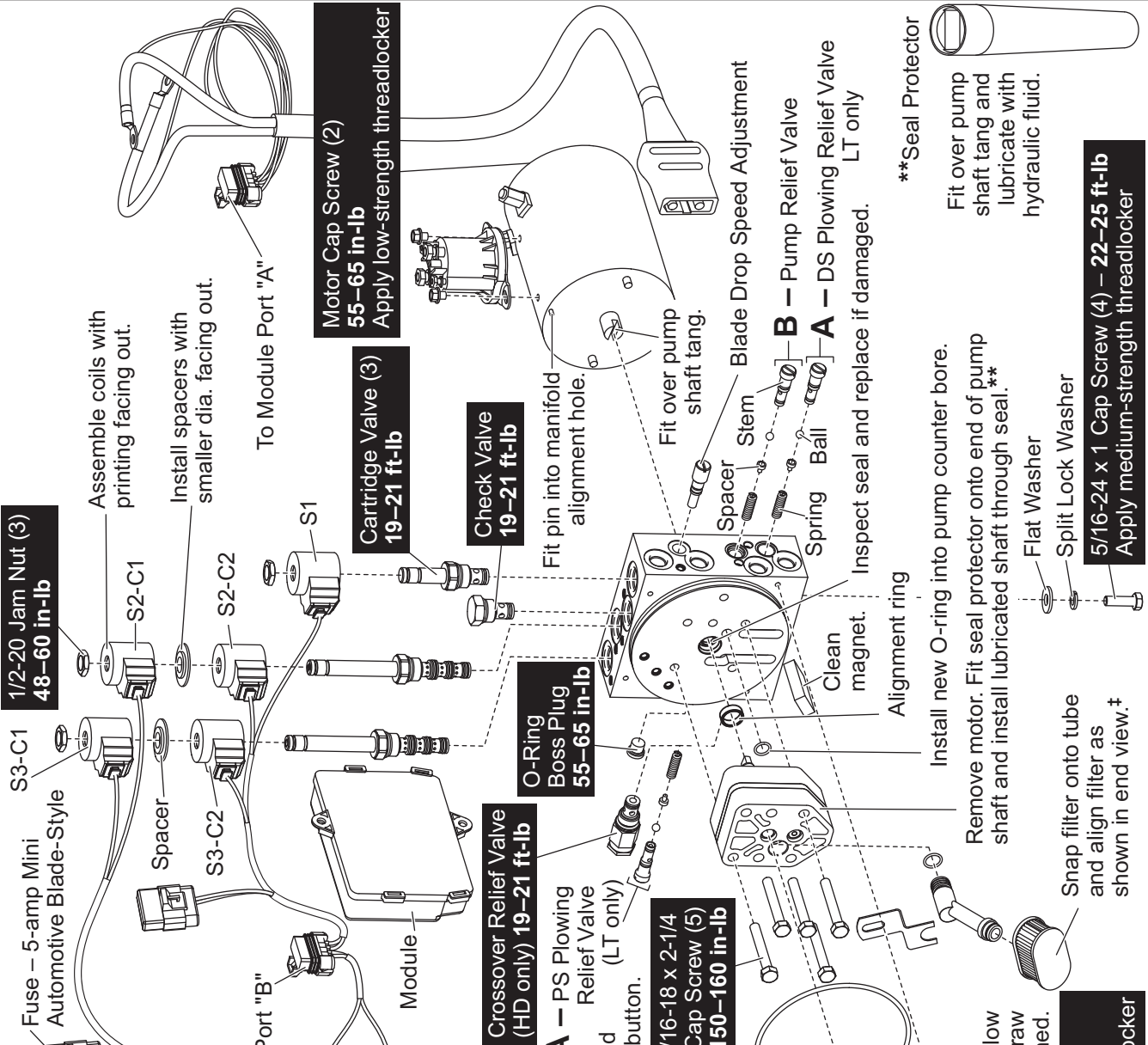
Replace O-ring whenever disassembled. Apply light film of white lithium grease for reassembly. Clean manifold groove and reservoir surface.

Breather must be installed before operating snowplow.



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

Fluid level 1" below top of can with draw latch fully unhitched.



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

Install new O-ring into pump counter bore.

Inspect seal and replace if damaged.

Fit over pump shaft tang and lubricate with hydraulic fluid.

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

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

Assemble coils with printing facing out.

Install spacers with smaller dia. facing out.

To Module Port "A"

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

Cartridge Valve (3) 19-21 ft-lb

Check Valve 19-21 ft-lb

Fit pin into manifold alignment hole.

Fit over pump shaft tang.

Blade Drop Speed Adjustment

B - Pump Relief Valve

A - DS Plowing Relief Valve LT only

\*\*Seal Protector

Alignment ring

Clean magnet.

Spring

Ball

Stem

Spacer

Flat Washer

Split Lock Washer

5/16-24 x 1 Cap Screw (4) - 22-25 ft-lb  
Apply medium-strength threadlocker

Fuse - 5-amp Mini Automotive Blade-Style

To Module Port "C"

S3-C1

S3-C2

To Module Port "B"

Module

S1

O-Ring Boss Plug 55-65 in-lb

Crossover Relief Valve (HD only) 19-21 ft-lb

A - PS Plowing Relief Valve (LT only)

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

Alignment ring

Clean magnet.

Spring

Ball

Stem

Spacer

Flat Washer

Split Lock Washer

5/16-24 x 1 Cap Screw (4) - 22-25 ft-lb  
Apply medium-strength threadlocker

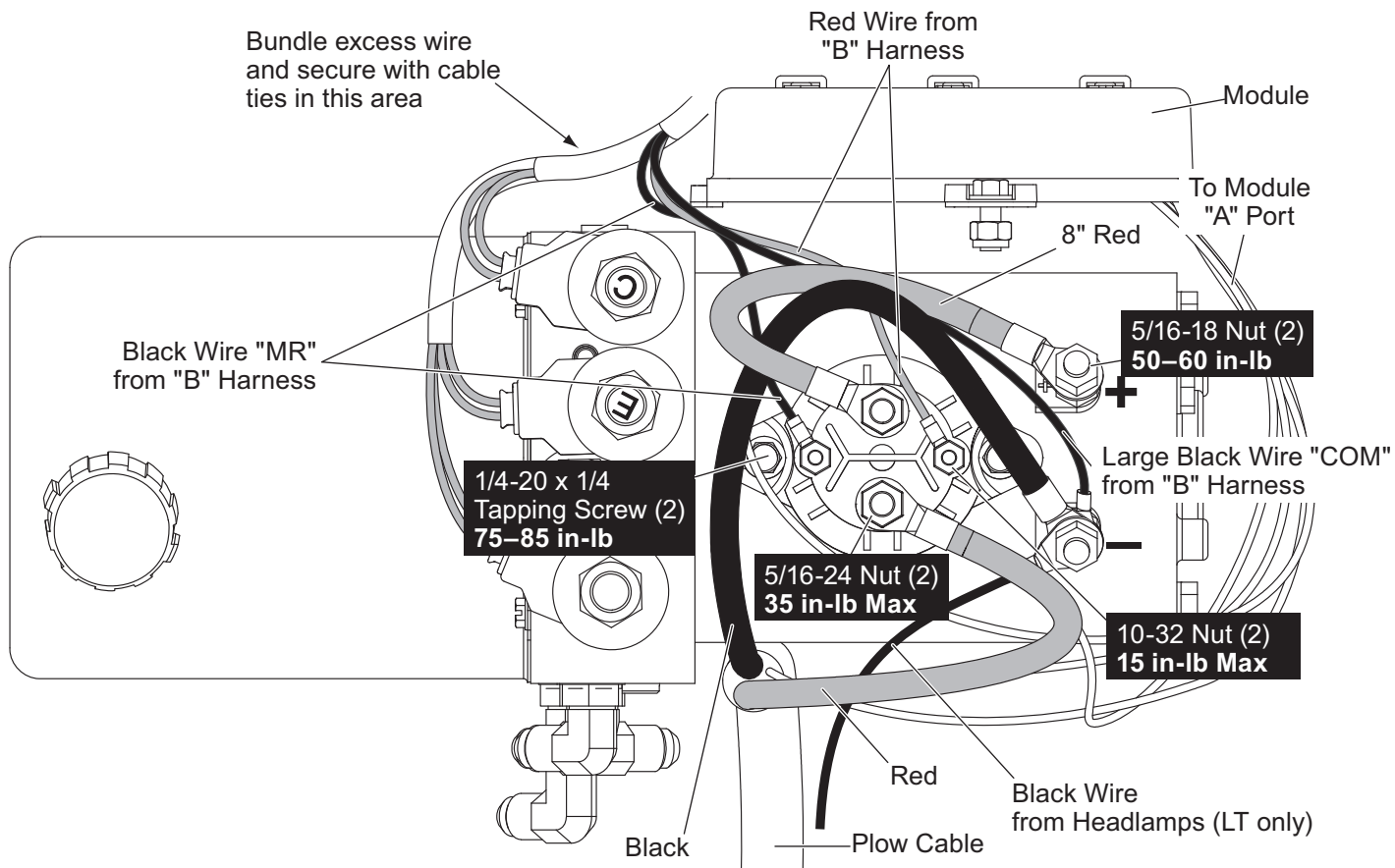
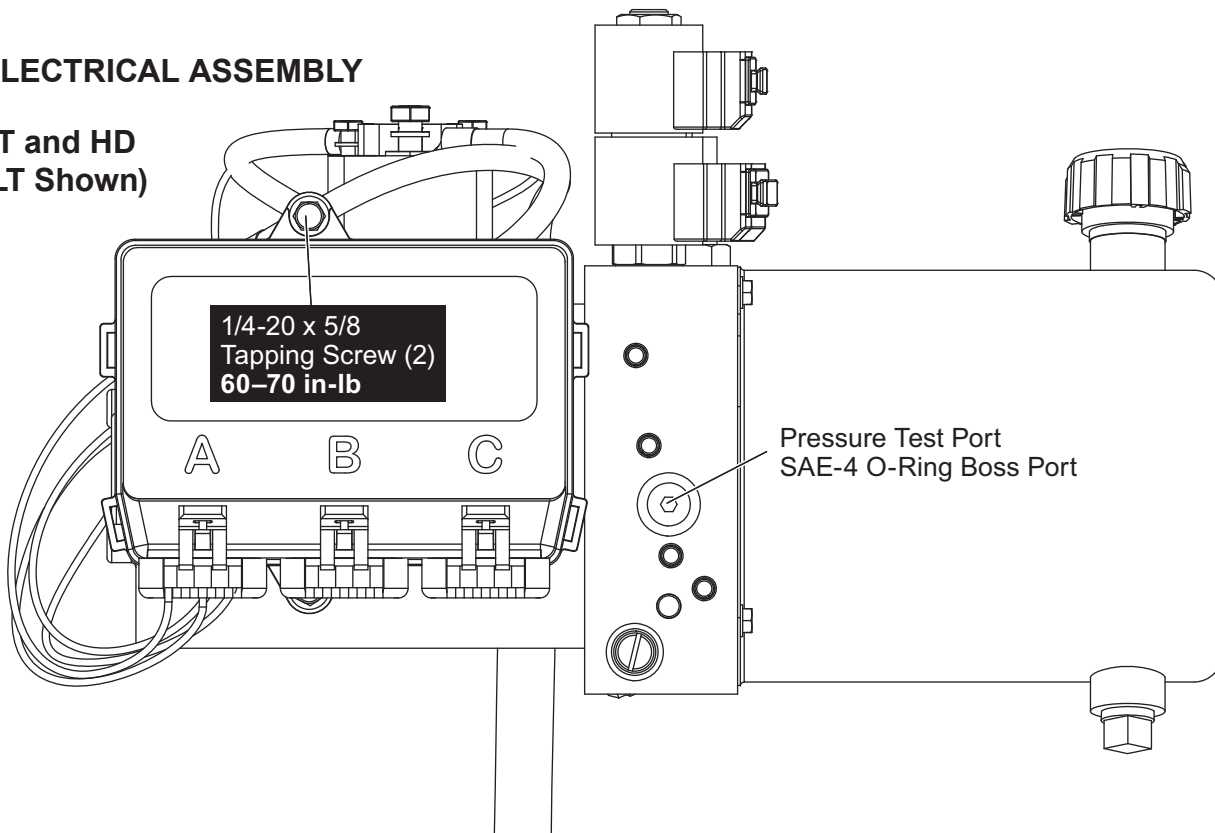
Alignment ring

Clean magnet.

# HD & LT STRAIGHT BLADE HYDRAULIC UNIT SERVICE INSTRUCTIONS

## ELECTRICAL ASSEMBLY

LT and HD  
(LT Shown)



# HD & LT STRAIGHT BLADE HYDRAULIC UNIT SERVICE INSTRUCTIONS

## TORQUE CHART

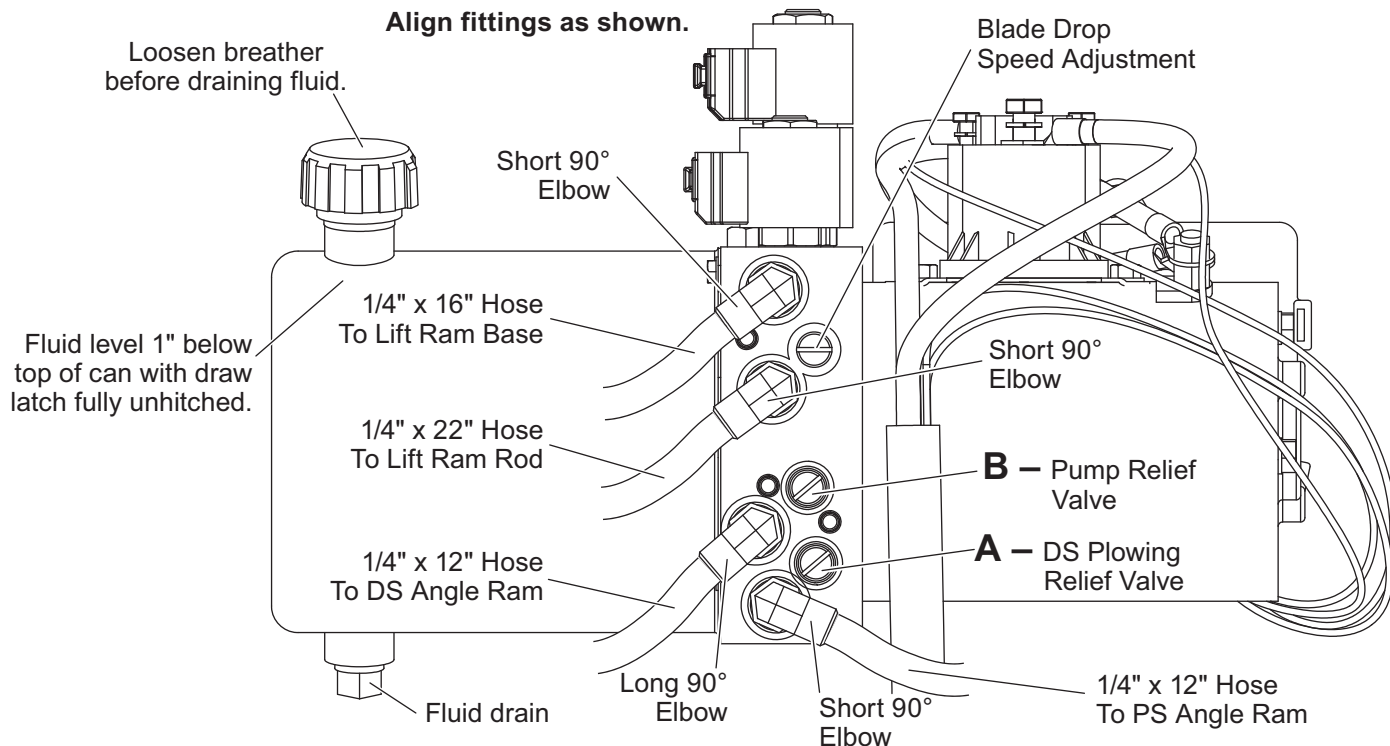
Straight Blade Hydraulic Unit Torque Chart		
Location	Fastener Size	Torque
Pump Cap Screws	5/16-18 x 2-1/4 (LT) or 2-1/2 (HD)	150–160 in-lb
Motor Terminals (+ and –)	5/16-18 Nut	50–60 in-lb
Motor to Manifold Cap Screws	1/4-20 x 6-1/4	55–65 in-lb*
Reservoir Screws	#10-24 x 5/16	30–35 in-lb*
Solenoid Valves	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	5/16-24 x 1	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	7/8 Hex Head	19–21 ft-lb

\* Torque with low-strength threadlocker

\*\* Torque with medium-strength threadlocker

## HYDRAULIC FLUID (DRAIN AND FILL), FITTINGS AND HOSES – LT

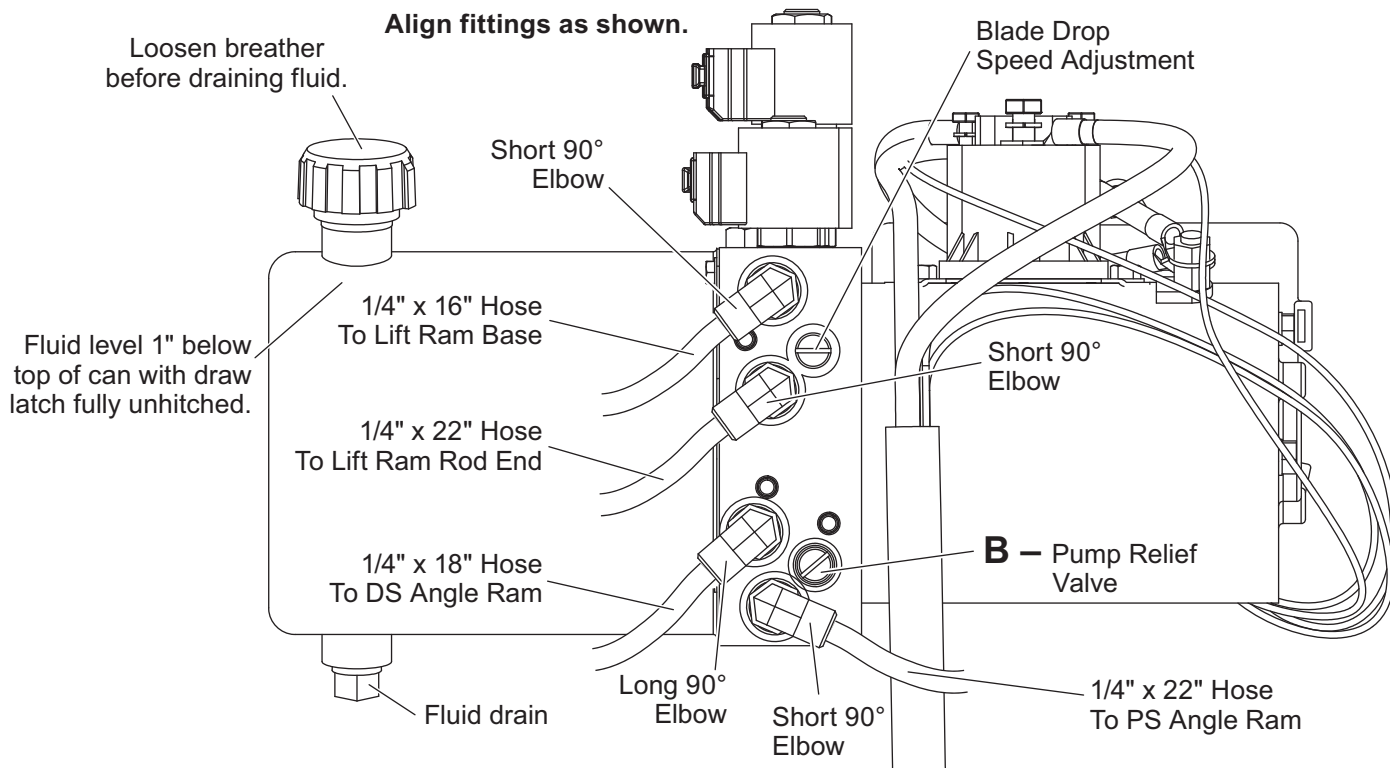
**NOTE:** Before removing hoses and fittings, carefully note hose routing for proper reassembly. For complete hydraulic fluid level/change or hose/fitting instructions, see the Maintenance Section of your Owner's Manual.



# HD & LT STRAIGHT BLADE HYDRAULIC UNIT SERVICE INSTRUCTIONS

## HYDRAULIC FLUID (DRAIN AND FILL), FITTINGS AND HOSES – HD

**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.



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