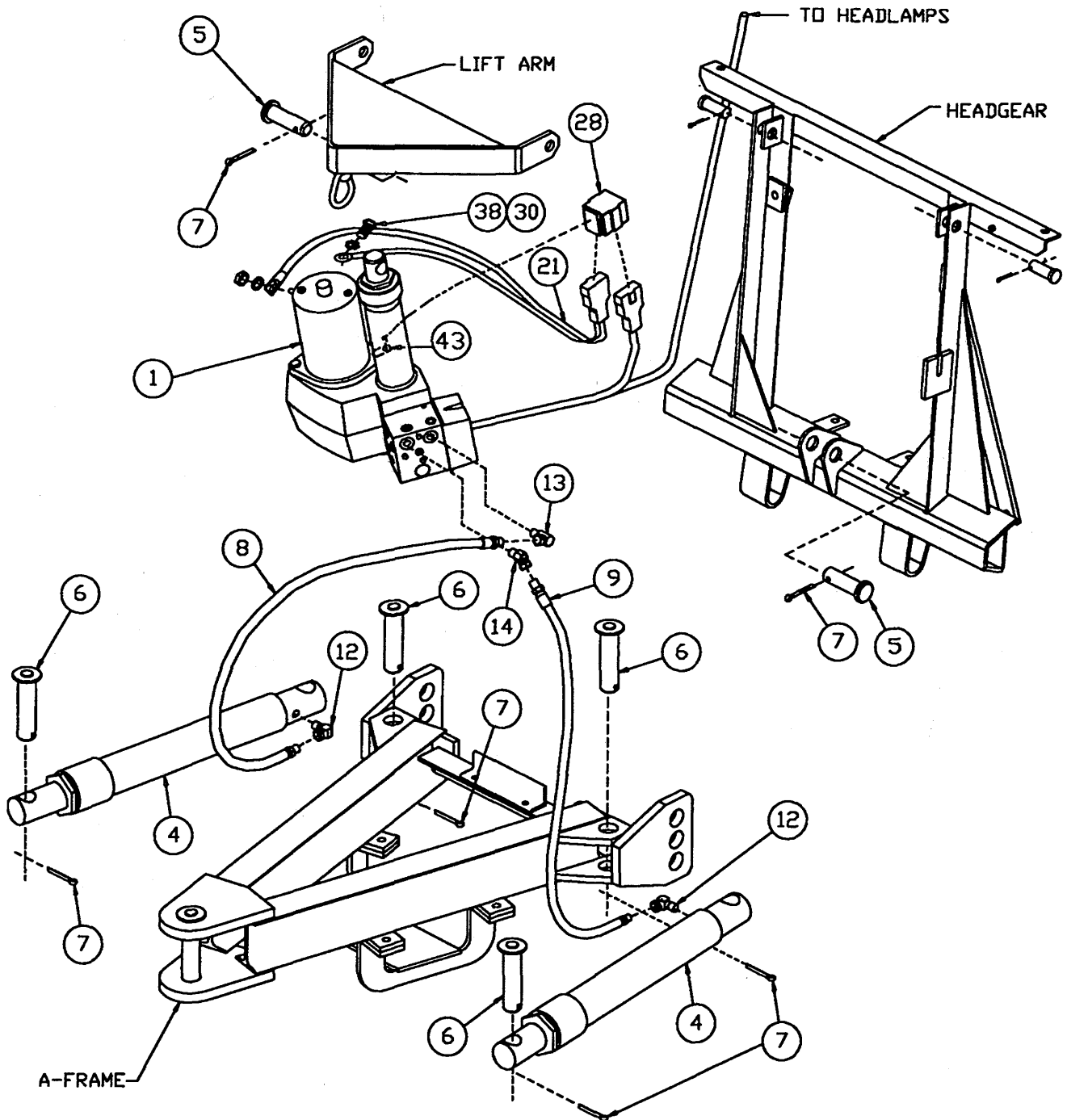


COMMERCIAL
SOLENOID ELECTRIC HYDRAULIC PAK



NOTE: LIFT ARM, HEADGEAR, & A-FRAME ARE IN COMMON ATTACHMENT KIT.

Parts List

Ref #	Qty	Part #	Description	Ref #	Qty	Part #	Description
1	1	20905	Solenoid Electric Hydraulic Pak 10" - 2500 PSI	23	1	20681	Battery Cable - 50"
				27	6	3666*	Hose Tie, Nylon
2	1	8292	Solenoid Control - Style 3	28	1	8284	Cable Boot
4	2	A5166	2" x 16" Cylinder Assy - XL	29	2	90360	5/16" Sp Lk Washer ZP
5	2	6814**	Clevis Pin - 1" x 3-5/16"	30	1	90692	5/16 Ex Tooth Lk Washer
6	4	20790**	Anchor Pin - 1-1/4 x 5"	31	2	90461*	1/4" x 3/4" (NC) Cap Screw
7	6	90601*	1/4 x 1-1/2" Cotter Pin	32	2	90311*	1/4" Flat Washer
8	1	4424	Hose -36" HP 1/4P - 1/4P	33	2	90350*	1/4" (NC) Lock Nut
9	1	8728	Hose -28" HP 1/4P - 1/4P	38	1	90691	5/16-18 x 1/2" Cap Screw
12	2	2780*	1/4" NPT x 90° Street Elbow	41	1	8329	Dielectric Grease Tube
13	1	319*	1/4" NPT x 90° Sw Adt Elbow	42	2	90657	#10 Sp Lk Washer BPO
14	1	8127*	1/4" NPT x 45° Street Swivel	43	1	8289	Boot Bracket
16	1	21306*	.187 Insulated Receptacle	44	1	3042	Grommet - Rubber, Split
17	1	21307*	.250 Insulated Receptacle	46	2	90672	5/16 - 24 Hx Jam Nut ZP
18	1	21308*	Fuse Tap; .250 Tab	47	2	90673	#10 - 32 Hx Nut ZP
19	1	21309*	Fuse Tap; .187 Tab	48	1	7714*	Dash Bracket Bag-SEHP (not shown)
20	1	5794	Motor Relay				
21	1	8245	Plow Cable Assy MM	49	1	8290*	Panel Mount Plate Set-Long (not shown)
22	1	21330	Cable Assembly - Vehicle				

Note: Some fasteners and electrical fittings listed in the parts list may not be used for your application.

* Part of 20902 Bolt Bag

** Part of 20903 Bolt Bag

ABBREVIATIONS

ASSY	Assembly	NAR	Narrow	SPL	Special
BP	Black Phosphate	NPTF	National Pipe Thread (Fluid)	SQ	Square
BPO	Black Phosphate & Oil	NYIS	Nylon Insert	STD	Standard
BRG	Bearing	PC	Printed Circuit	TCTS	Thread Cutting Tapping Screw
BZP	Black Zinc Plate	PN	Pan	TFTS	Thread Forming Tapping Screw
CS	Cap Screw	PR	Prestolite	TRTS	Thread Rolling Tapping Screw
EX	External	PSI	Pounds per Square Inch	TY	Type
G	Grade	PT	Prevailing Torque	W/	With
HD	Heavy Duty	SL	Slotted	W/O	Without
HX	Hex	SO	Socket Head	ZP	Zinc
HXW	Hex Washer	SOL	Solenoid		
LK	Lock	SP	Spring		

1. Hydraulics Assembly

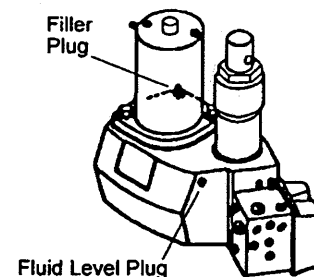
- A. Using a bench vise to hold the angle cylinders (4), remove the plugs from the ports. Screw the brass forged street ells (12) into the ports. When tight, the ells should point slightly upward to protect the angle hoses from pinching between the angle cylinders and headgear while stacking snow. Install a 36" HP hose (8) to the passenger-side cylinder and a 28" HP hose (9) to the driver-side cylinder. Attach the cylinders to the A-frame and blade on their respective sides, with anchor pins (6) and cotter pins (7). Assemble the common attachments according to the common attachment instructions before proceeding further.
- B. Attach the Solenoid Electric Hydraulic Pak (SEHP) (1) to lift arm and then to headgear with two clevis pins (5) and cotter pins (7). Connect lift arm and SEHP to headgear with two 3/4" x 1-7/8" machine pins and 5/32" x 1-1/4" cotter pins from the common attachment kit.
- C. Remove the two angle port plugs from the SEHP. Install a 90° swivel fitting (13) in the rear, passenger-side angle port tightened to a 10 o'clock position. Install a 45° swivel fitting (14) to the front, driver side port tightened to a 9 o'clock position. Attach the hose from the passenger-side angle cylinder to a 90° swivel fitting and the hose from the driver-side angle cylinder to 45° swivel fitting.

2. Solenoid Control and Harness Installation

- A. Install the solenoid control (2) and dash bracket according to the instructions found in the SEHP Dash Bracket Bag (48).

3. Filling Hydraulic Fluid

- A. Check all hydraulic fittings for tightness.
- B. Push lift arm all the way down.
- C. Remove filler plug behind motor.
- D. Fill unit with FISHER® High Performance Hydraulic Fluid (recommended for superior cold-weather performance) or type "A" automatic transmission fluid (ATF) through filler plug hole. Unit is full when fluid reaches hole threads.
- E. Drive the vehicle to the headgear and adjust the vertical height by tipping the headgear forward or back using carrying chain. Move vehicle fully into the headgear and install according to installation instructions on the back of the blade on the driver-side.
- F. Turn ignition (key) switch on or to accessory power.
- G. Turn the control on/off switch on.
- H. Raise front end of vehicle until plow is off the ground with the lift cylinder fully retracted. Check reservoir oil level. Angle blade with lift cylinder retracted to remove air from system. Recheck reservoir oil level.
- I. Remove filler plug (behind motor) and fluid level plug on driver-side front corner of reservoir. Fill reservoir through filler plug hole until fluid runs out right front corner hole. Replace both plugs.






J. Move the control lever, as indicated on label, to control the plow. Raise and lower plow several times to remove air. Recheck fluid level according to Step H.

Capacity: **Solenoid EHP reservoir:** **1-3/4 quarts**
Equipped with angle cylinders: **2-7/8 quarts**

K. Adjust the headlights with blade raised off ground.

L. Use cable ties to secure wiring harness to headgear.

M. Consult the owner's manual for proper operating procedures, inspection, routine service and service part information.

NC FASTENER TORQUE (FT-LB)			
DIAMETER- THREADS PER INCH	GRADE		
			
	G2	G5	G8
1/4 - 20	6	9	13
5/16 - 18	11	18	28
3/8 - 16	19	31	46
7/16 - 14	30	50	75
1/2 - 13	45	75	115
9/16 - 12	66	110	165
5/8 - 11	93	150	225
3/4 - 10	150	250	370
7/8 - 9	150	378	591
1 - 8	220	583	893