

MODEL 600 SCRAPER

HOW TO ORDER PARTS:

IMPORTANT

Be sure to state MODEL and SERIAL NO. of machine, PART NO., DESCRIPTION and QUANTITY needed.

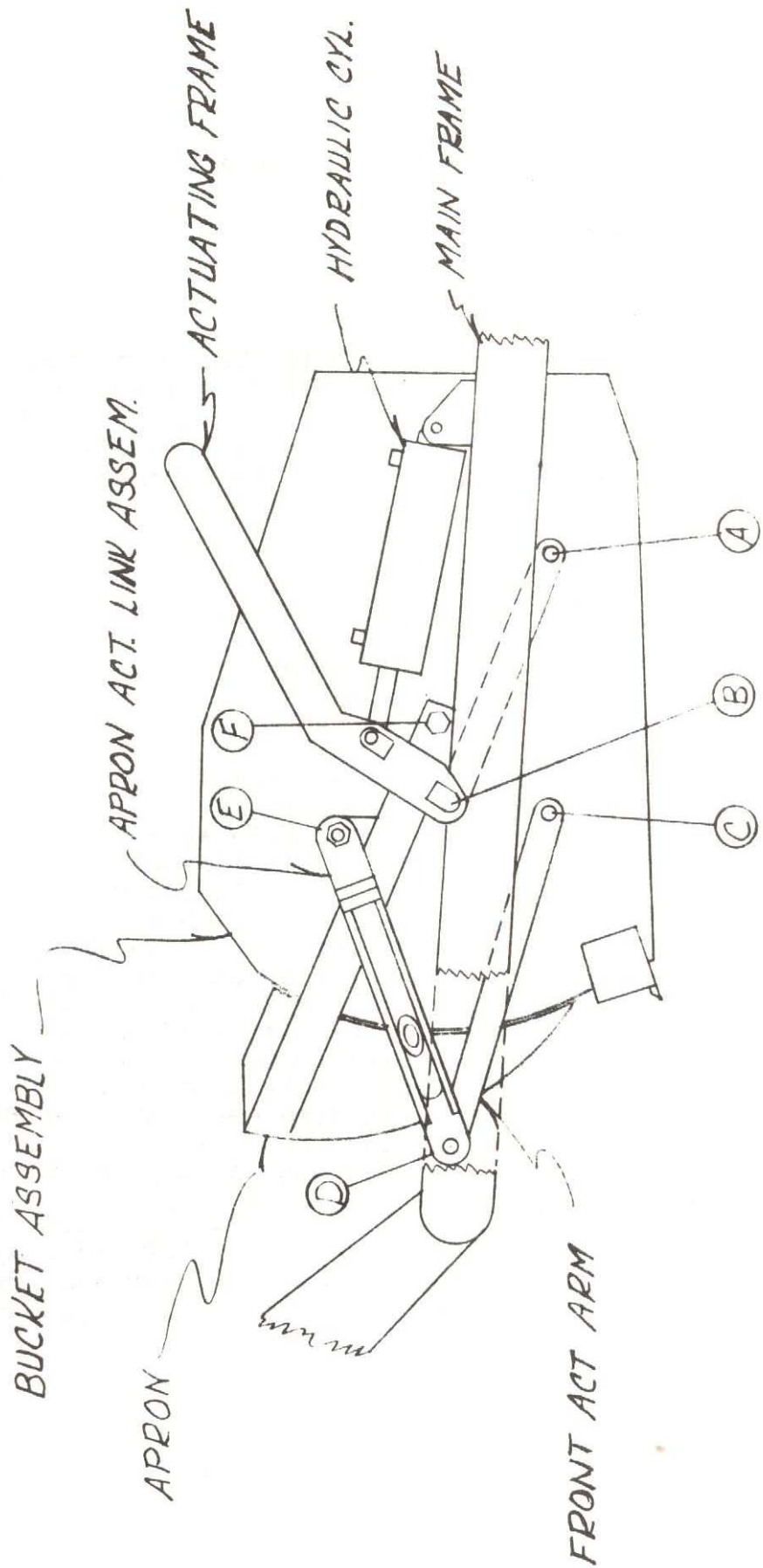
Unless this is done, we cannot provide prompt service or assure shipment of correct parts.

I N D E X

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ILLUSTRATION - ASSEMBLY



ASSEMBLY INSTRUCTIONS FOR MODEL 600 SCRAPER
(Refer to illustration on Page 1)

1. A suitable hoist or lift should be available for assembly.
2. Pack wheel bearings with grease and install hubs to rear spindles and to front axle assembly on model 600D scrapers.
3. Install rear spindles to frame in lowest possible setting to obtain the maximum spreading depth between cutting edge and ground. If less depth of spread is desired, select a lower setting or reverse the spindle - bottom to top. Install wheels with mounted tires to hubs.

(Steps 4 and 5 refer to model 600D scrapers only.)
4. Raise the front of the frame and remove the two 5/8" x 3 1/2" bolts which hold the cast socket halves inside the gooseneck post. Remove the socket halves.
5. Roll the pole and axle assembly directly under the gooseneck and place the cast socket halves around the ball swivel on the axle. Lower the frame into place so that the socket halves seat into the gooseneck. (If necessary, clamp halves together with C-clamp while lowering gooseneck.) Replace the two 5/8" x 3 1/2" bolts and tighten securely. Install long shank grease fitting into hole provided.
6. Raise actuating frame over bucket and lower into place so that the holes in the arms of the actuating frame align with the rear hole on each side of the bucket. (Point A) Insert 1 1/4" x 2 13/16" pins (with tab type head) from the inside of the bucket. Secure with 5/8" x 1 1/2" NF bolt through bucket side with the locking nut to the outside.
7. Connect a short chain from the cutting edge to the cross pipe of the actuating frame then raise the bucket and actuating frame assembly over the main frame and lower into place so the front of the actuating frame can be connected to the 1 3/4" bushing on each side of the frame. (Point B) Secure with 1/2" x 1" NC capscrews and lockwashers.
8. Install the actuating arm bars to the front holes in the bucket. (Point C) Insert 1 1/4" x 2 13/16" pins (with tab type head) from the inside of the bucket. Secure with 5/8" x 1 1/2" NF bolt through bucket side with lock nut on the outside.
9. Lift the end of actuating arms and connect to the brackets on the front frame crossmember using 1 1/2" x 4 1/4" pins. (Point D) Do not insert the pins completely.
10. Attach the apron actuating links (linkage with built-in spring) to the bracket on each apron arm, (Point E) using the 1 5/8" x 1 1/4" shoulder pins, (with grease hole in threaded end). Be sure the open end of the tube containing spring is facing downward.

ASSEMBLY INSTRUCTIONS FOR 600 SCRAFER (Continued)

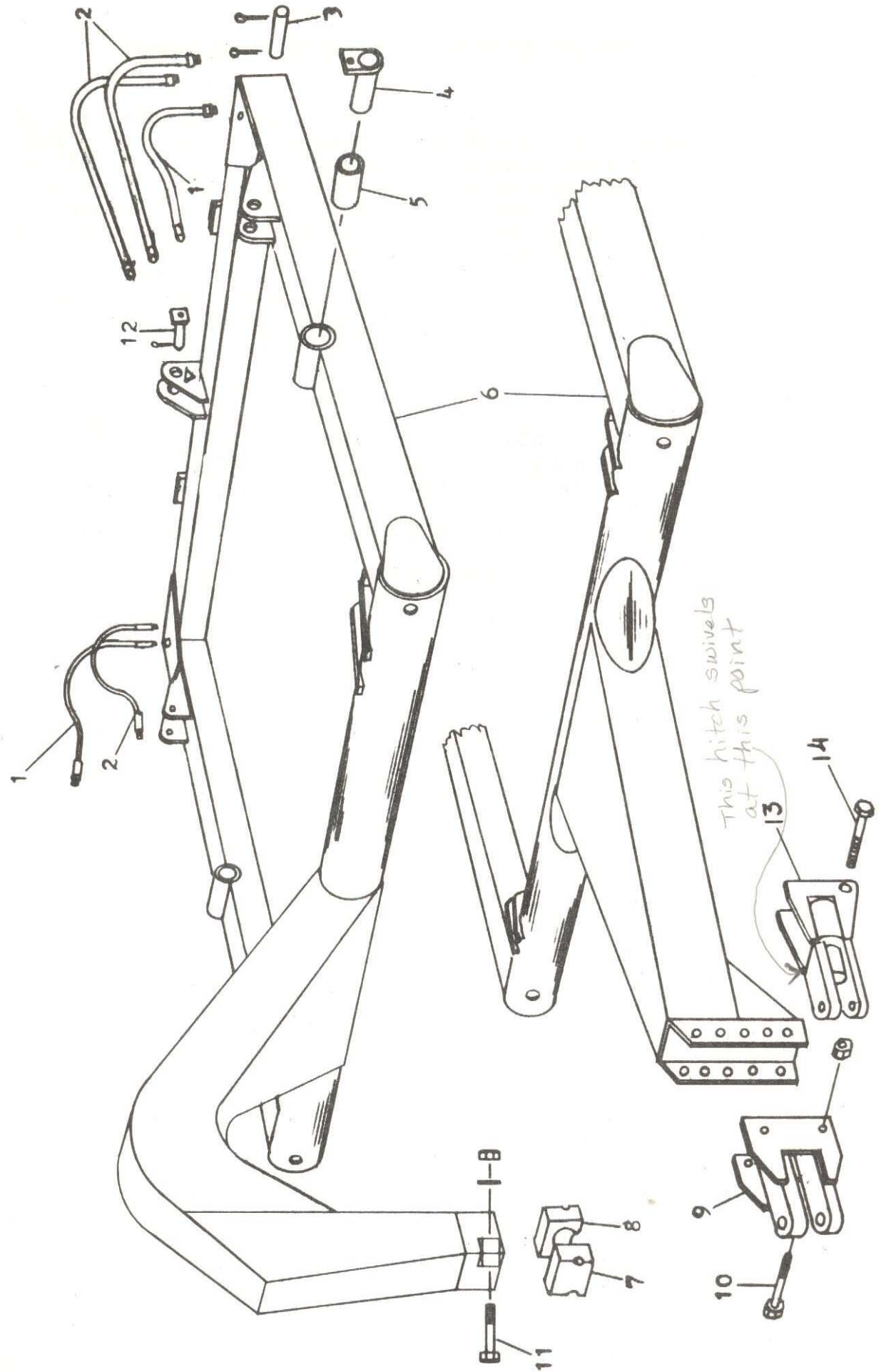
11. Raise the apron over the scraper and lower into place so the hole in the end of the arms aligns with the hole in each side of the bucket walls. (Point F) Attach with 1 5/8" to 1 1/4" shoulder pins (with grease hole in hexagon head).
12. Connect the opposite end of the apron actuating links, referred to in step 10, to the bracket on the front frame crossmember, referred to in step 9, adjacent to the actuating arms connected from the bucket. (Point D) Insert the pins the remainder of the way and secure tab to bracket with 1/2" NC x 1 1/4" capscrew and lockwasher.
13. Installing hydraulic cylinders:
 - A. Install the cylinder with three hose ports on the left side of the scraper with the rod end to the actuating frame and the grease hole in the rod end bushing facing up. Use 1 1/8" x 3 1/4" pin at the base of the cylinder. Secure with 3/16" x 1 1/2" cotter pins. Use 1 1/8" x 5 7/8" pin at the rod end of the cylinder. Secure with 1/2" NC x 1" capscrew and lockwasher.
 - B. Install 1/2" NPT 90° swivel adapters in all three ports of the cylinder. Tighten so that the swivel will be facing toward the rear. The extreme forward swivel will have to be turned slightly to the outside so that the hose will clear the swivel in the center port.
 - C. Connect a 1/2" x 18" hose from the forward pipe line on the frame crossmember to the base (rear) port of the cylinder.
 - D. Connect a 1/2" x 38" hose from the pipe line on the back side of the frame crossmember to the center port of the cylinder.
 - E. Connect a 1/2" x 38" hose from the center pipe line on the frame crossmember to the extreme forward port of the cylinder.
 - F. Install the cylinder with two hose ports on the right side of the scraper with the rod end to the actuating frame and the grease hole in the rod end bushing facing up. Use the same size pins as the cylinder on the left side.
 - G. Install 1/2" NPT 90° swivel adapters in both ports of the cylinder. Tighten so that the swivel will be facing toward the rear.
 - H. Connect a 1/2" x 18" hose from the forward pipe line on the frame crossmember to the base (rear) port of the cylinder (same as left cylinder).
 - I. Connect a 1/2" x 38" hose from the remaining pipe line on the frame crossmember to the forward port of the cylinder.

ASSEMBLY INSTRUCTIONS FOR 600 SCRAPER (Continued)

- J. Install the 4" x 8" hydraulic cylinder on the rear of the scraper with the rod end connected to the rear frame section with grease hole facing up. Insert the 1 1/8" x 3 1/8" sq. head pin at the base of the cylinder. Secure with 3/16 x 1 1/2" cotter pin. Use 1 1/8" x 3 1/2" sq. head pin at the rod end of the cylinder and secure with a 3/16" x 1 1/2" cotter pin.
- K. Install 3/8" x 1/2" x 90° swivel adapters in the two ports of the rear cylinder. Tighten so the 1/2" female threads face toward each other and somewhat to the left of the scraper.
- L. Install one 1/2" x 24" hose from the lower elbow of the single line lock valve to the base port of the cylinder. Install the remaining 1/2" x 24" hose from the upper elbow of the lock valve to the rod end port of the cylinder.
14. Install all the grease fittings and grease liberally.
15. If available, place assembled scraper on level floor or pavement and measure the distance from the cutting edge to floor, on both left and right sides, and then adjust axle spindles to obtain equal distance on both sides.

ASHLAND INDUSTRIES, INC.

ILLUSTRATION - FRAME ASSEMBLY

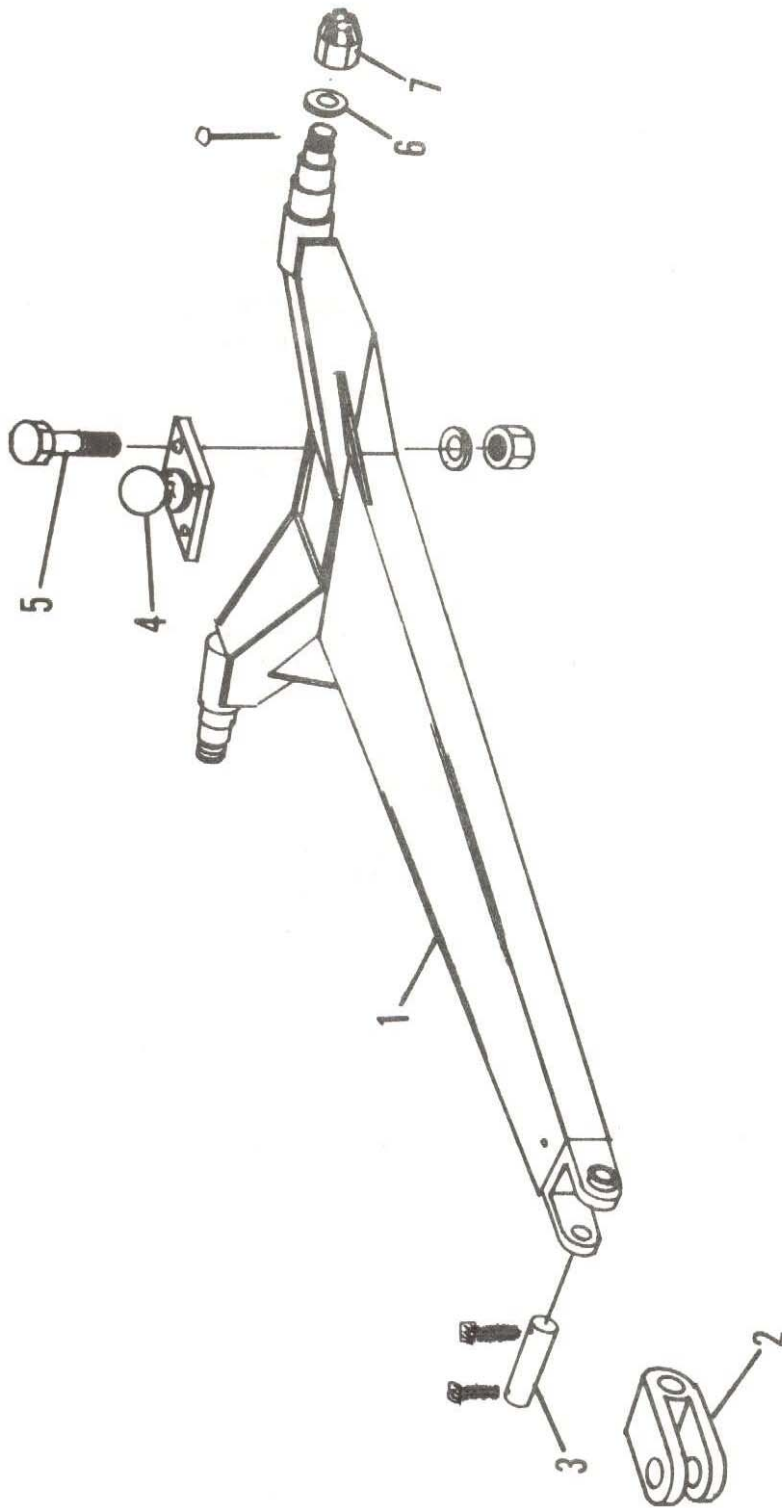


P A R T S L I S T
F R A M E A S S E M B L Y

MODEL 600 SCRAPER

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1.	A60H01A	Hydraulic hose, 1/2" x 18"
2.	A400H01	Hydraulic hose, 1/2" x 38"
3.	A45003	Pin, 1 1/8" x 3 1/4" w/3/16" x 1 1/2" cotter pins
4.	A40016A	Pin, 1 3/4" x 6 3/8" w/tab head
5.	A6001A	Bushing, 2 1/8" x 1 3/4" x 4 3/8"
6.	A60001B A60003B	Frame - 4 wheel Frame - 2 wheel
7.	A40005 A2206	Cast socket half, front (w/zerk hole) Zerk w/long straight shank
8.	A40004	Cast socket half, rear
9.	A60004	Hitch, 2 wheel model
10.		Bolt, 3/4" NC x 6" w/nut & lockwasher
11.		Bolt, 5/8" NC x 3 1/2" w/nut & lockwasher
12.	A45001	Pin, 1 1/8" x 3 1/8" w/sq. head Cotter pin, 3/16" x 1 1/2"
13.	A8033	Swivel Hitch
14.		Bolt, 1-1/4 NFX 7" w/locknut

I L L U S T R A T I O N - P O L E & A X L E A S S E M B L Y



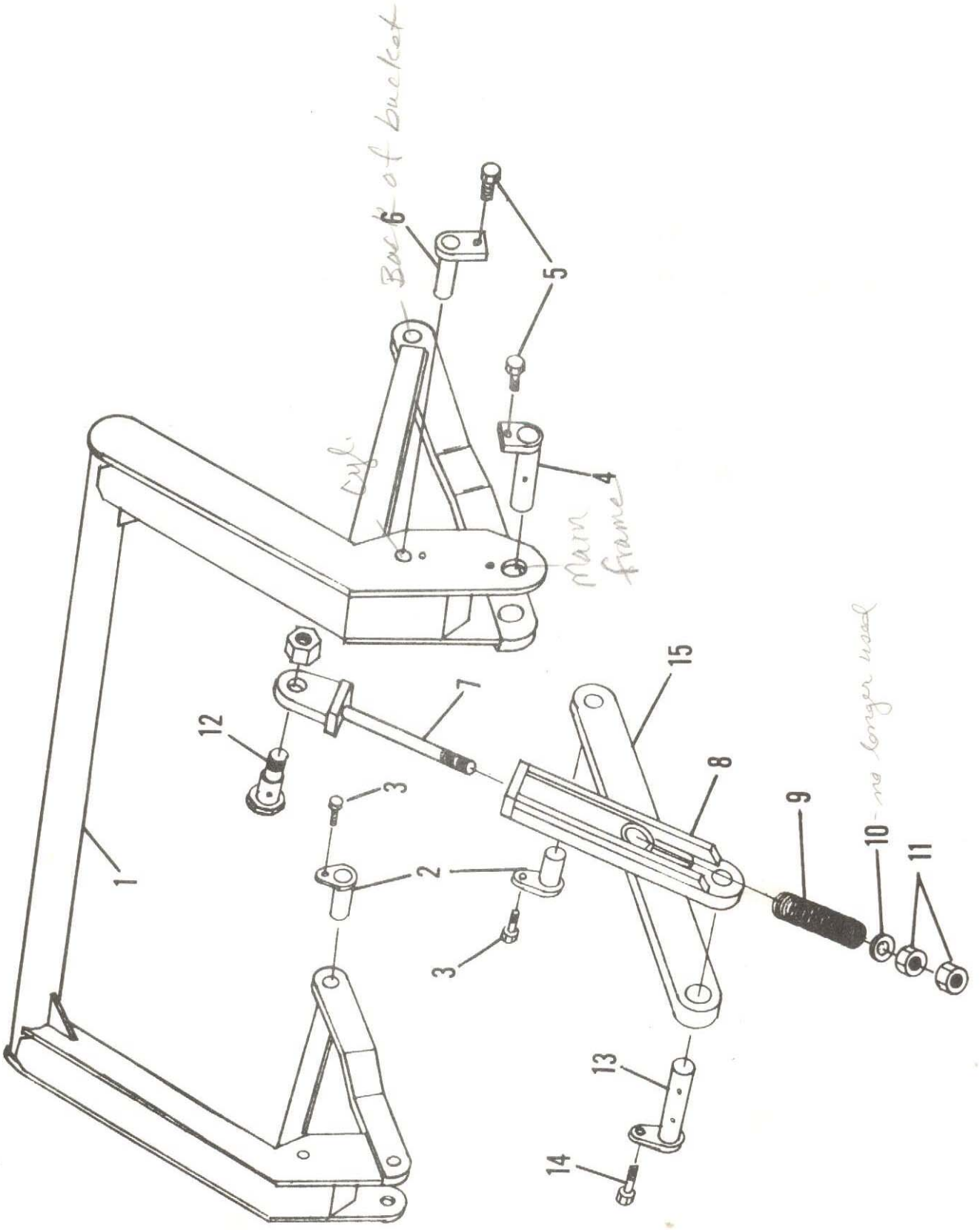
P A R T S L I S T

P O L E & A X L E A S S E M B L Y
(4 Wheel Models only)

MODEL 600 SCRAPERS

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1.	A40007D	Pole & Axle Assembly
2.	A6013	Swivel hitch
3.	A6014	Pin, 1-1/4" x 6-3/4", w/ bolts, 5/16" x 2 1/2"
4.	A40006	Ball Swivel
5.		Bolt, 3/4" x 3" w/nut & lockwasher
6.	A2239	Washer, special 7/8" flat
7.		Nut, 7/8" NF castellated

ILLUSTRATION - ACTUATING ASSEMBLY

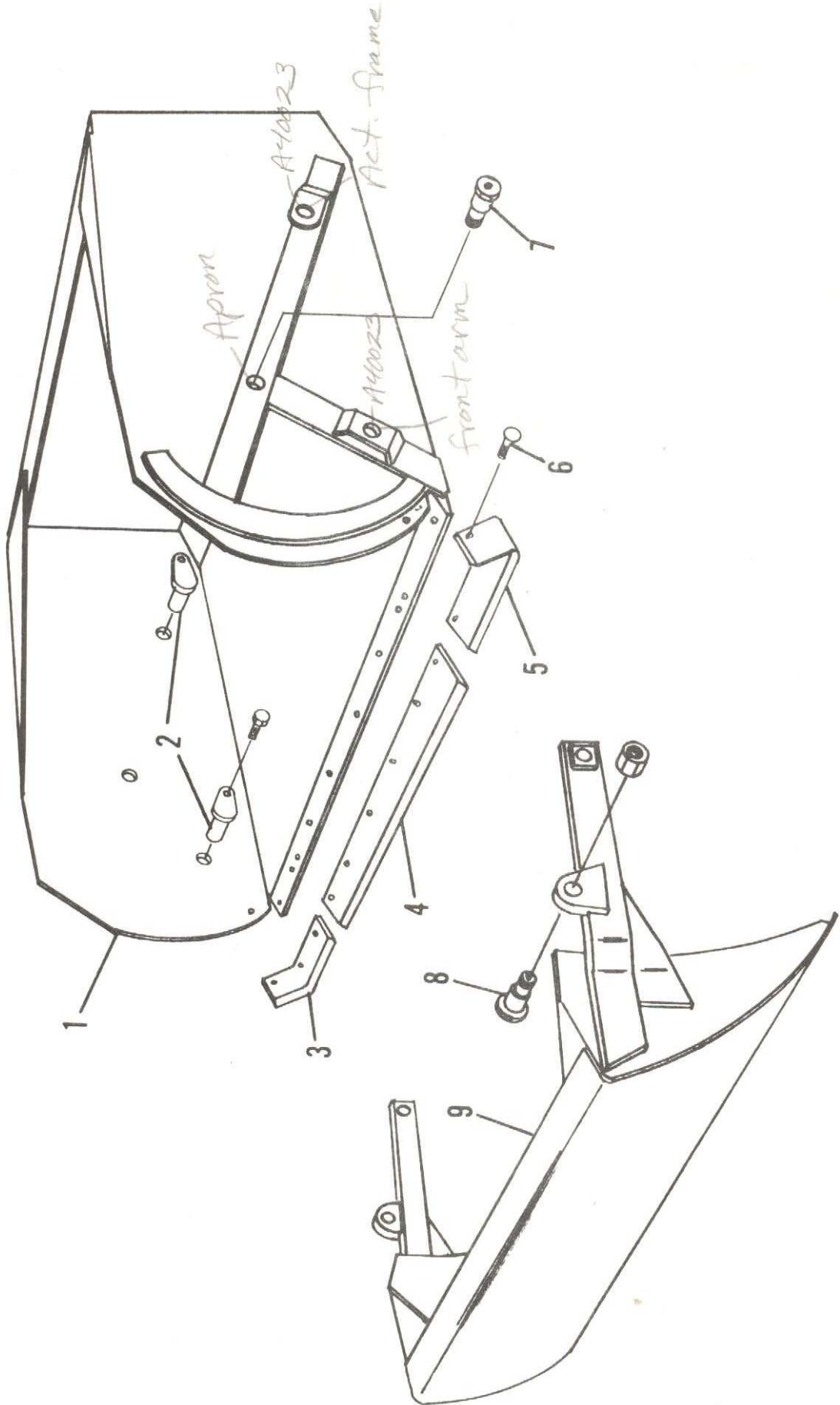


P A R T S L I S T
A C T U A T I N G A S S E M B L Y

MODEL 600 SCRAPER

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1.	A6004B	Actuating frame
2.	A40023	Pin, 1 1/4" x 2 13/16" w/locking head
3.		Bolt, 5/8" x 1 1/2" NF w/nylon insert lock nut
4.	A40016A	Pin, 1 3/4" x 6 3/8" w/locking head
5.		Capscrew, 1/2" x 1" NC w/lockwasher
6.	A40012A	Pin, 1 1/8" x 5 7/8" w/locking head
7.	A6015	Actuating link (Upper half)
8.	A6016	Actuating link (Lower half)
9.	A6018	Compression Spring, 1" ID x 2" OD x 10" lg.
10.		Washer, 1" narrow rim <i>-no longer used</i>
11.		Nut, 1" NF
12.	A6019	Shoulder pin, 1 5/8" to 1 1/4" w/zerk on th'd end
		Nut, 1 1/4" NF w/nylon insert, lock type (thin)
13.	A6020	Pin, 1 1/2" x 4 1/4" w/locking head & zerk
14.		Capscrew, 1/2" NC x 1 1/4" w/lockwasher
15.	A6021	Actuating arm

ILLUSTRATION - BUCKET & APRON ASSEMBLY



P A R T S L I S T
B U C K E T A N D A P R O N A S S E M B L Y

MODEL 600 SCRAPER

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1.	A6008	Bucket
2.	A40023	Pin, 1 1/4" x 2 13/16" w/locking head Bolt, 5/8" x 1 1/4" NF w/nylon insert lock nut
3.	A2225	Right cutting edge
4.	A60005	Center cutting edge, 8" x 54"
5.	A8030 A2222	Left cutting edge
6.		Plow bolt, 1/2" x 1 3/4" w/nut Plow bolt, 5/8" x 2" w/nut
7.	A6010	Shoulder pin, 1 5/8" to 1 1/4" w/zerk in head Nut, 1 1/4" NF, lock type w/nylon insert
8.	A6019	Shoulder pin, 1 5/8" to 1 1/4" w/zerk in th'd end Nut, 1 1/4" NF, lock type w/nylon insert (thin)
9.	A6009B	Apron

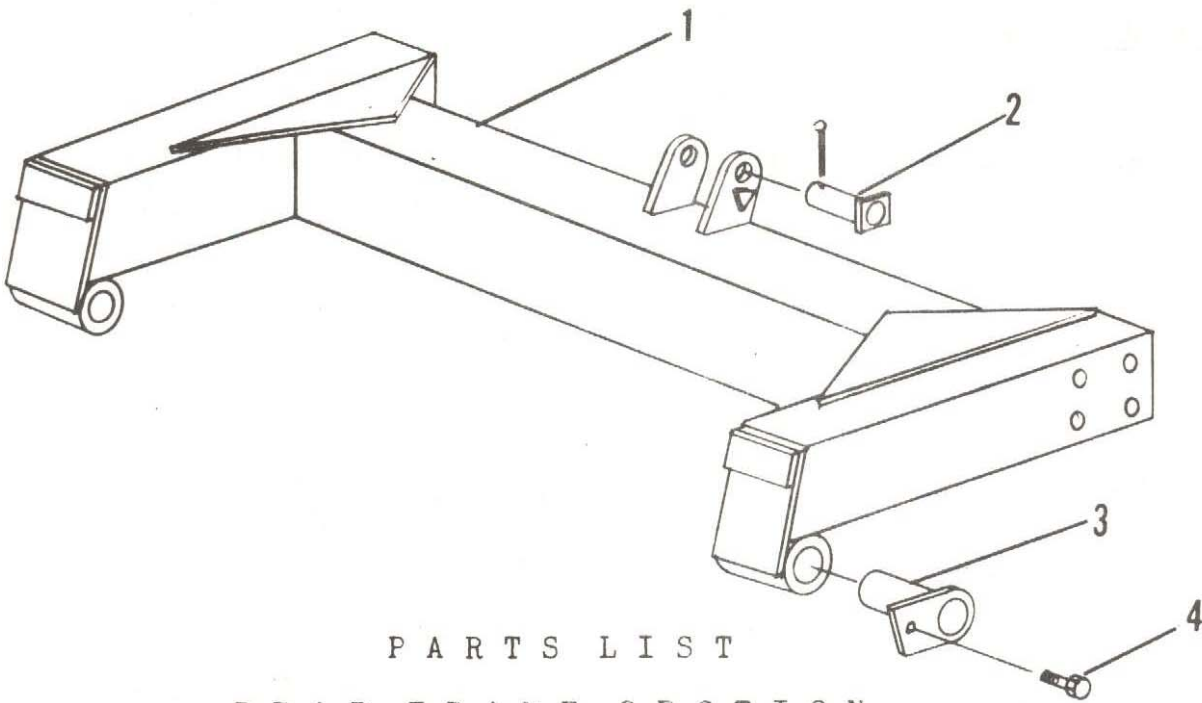
This scraper uses:

2 1/2 x 1 1/4 Plow Bolts

4 1/2 x 1 3/4 " "

6 5/8 x 2 " "

I L L U S T R A T I O N
R E A R F R A M E S E C T I O N



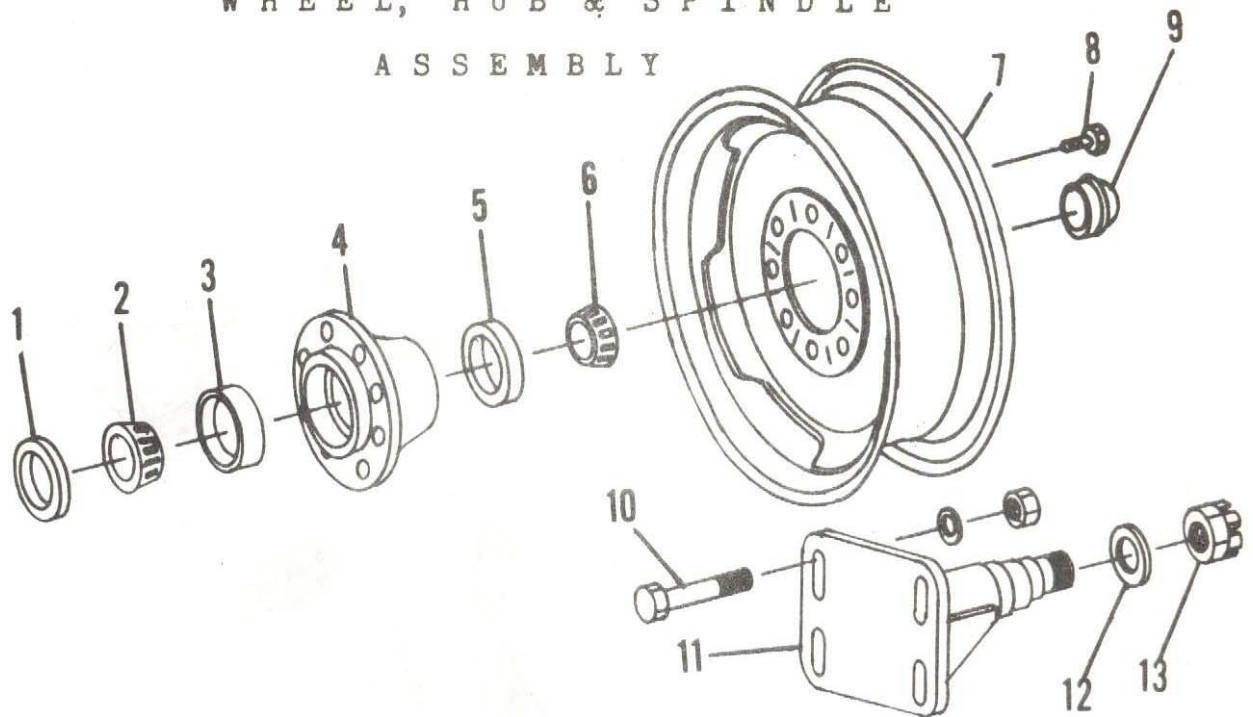
P A R T S L I S T

R E A R F R A M E S E C T I O N

MODEL 600 SCRAPER

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1.	A60009	Frame section
2.	A60002	Pin, 1 1/8" x 3 5/8" w/sq. head Cotter pin, 3/16" x 1 1/2"
3.	A40016	Pin, 1 1/2" x 6 3/8"
4.		Capscrew, 1/2" x 1" NC w/lockwasher
	A45H06	1/2" x 24" hydraulic hose
	A45H07	1/2" x 3/8" x 90° swivel adapter

ILLUSTRATION
WHEEL, HUB & SPINDLE
ASSEMBLY



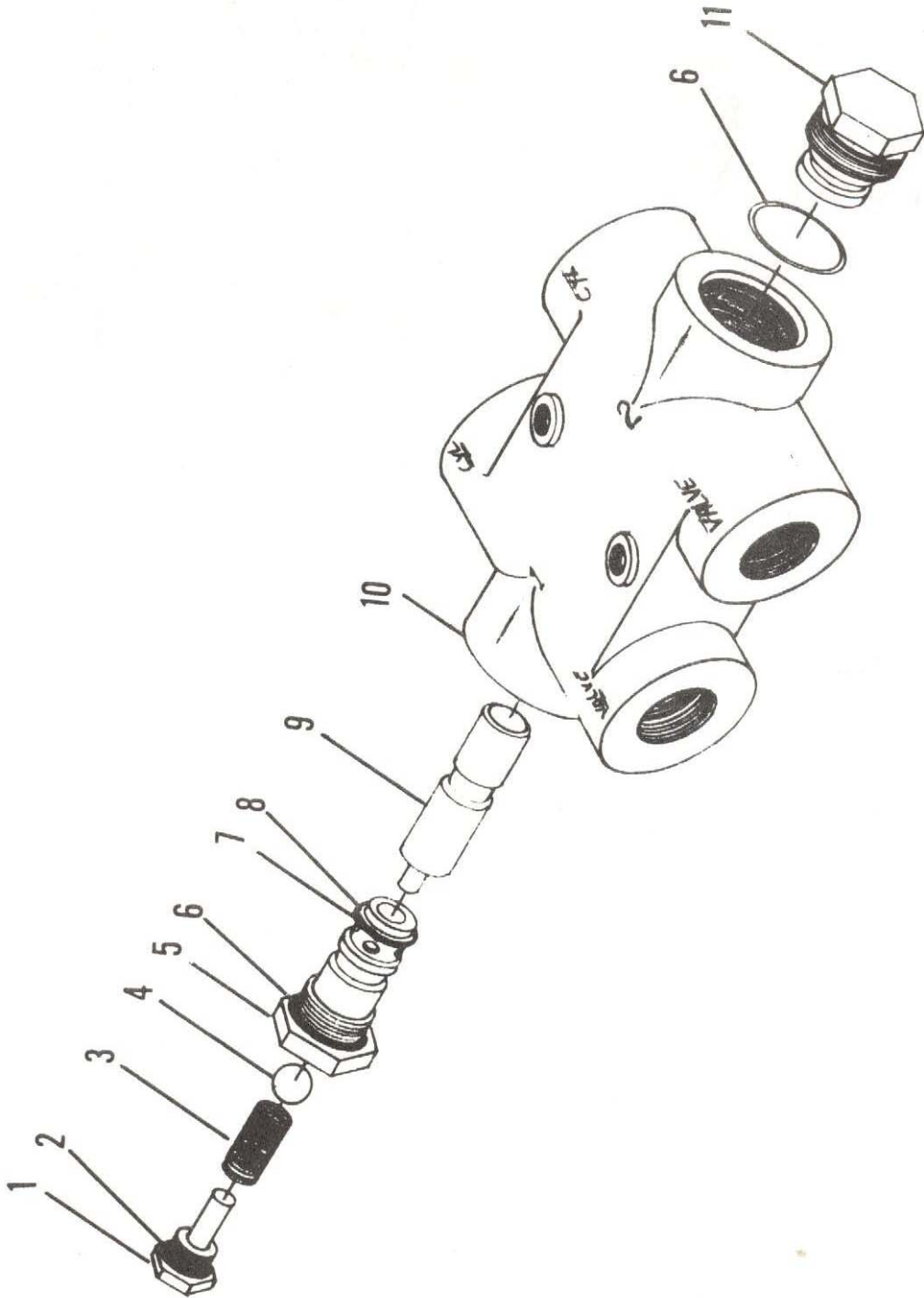
PARTS LIST

WHEEL, HUB & SPINDLE ASSEMBLY

MODEL 600 SCRAPER

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1.	A4512	Grease seal
2.	A4513	Bearing cone (inner)
3.	A4514	Bearing Cup (inner)
4.	A4515	Hub (less bearing)
5.	A2233	Bearing cup (outer)
6.	A4516	Bearing cone (outer)
7.	A4521A	Wheel, 20" DC
	A6022	Wheel, 16" x 11" DC (opt.)
	A8013	Wheel, 16" lock rim (opt.)
8.	A4519	Wheel bolt, 9/16" NF
9.	A2235	Hub cap
10.		Bolt, 3/4" x 6" w/flat washer & nut
11.	A4520	Spindle
12.	A2239	Washer, special, 7/8" flat
13.		Nut, 7/8" NF castellated

ILLUSTRATION SINGLE LINE LOCK VALVE



P A R T S L I S T
S I N G L E L I N E L O C K V A L V E

MODEL 600 SCRAPER

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
* 1.	A600H01	Valve stem plug
* 2.	A600H02	O-ring seal
* 3.	A600H03	Spring
* 4.	A600H04	Ball valve
* 5.	A600H05	Valve seat sleeve
* 6.	A600H06	O-ring
* 7.	A600H07	O-ring
* 8.	A600H08	Back up washer
* 9.	A600H09A	Plunger Kit
10.	A600H10	Valve housing
* 11.	A600H11	Plug
	A600H12	Complete valve assembly
*	Parts sold in kit only, Kit No. A600H09A	

ILLUSTRATION

PRESSURE RETAINING
SEQUENCE VALVE

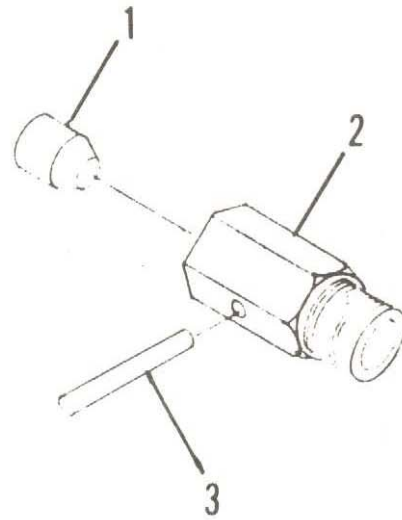
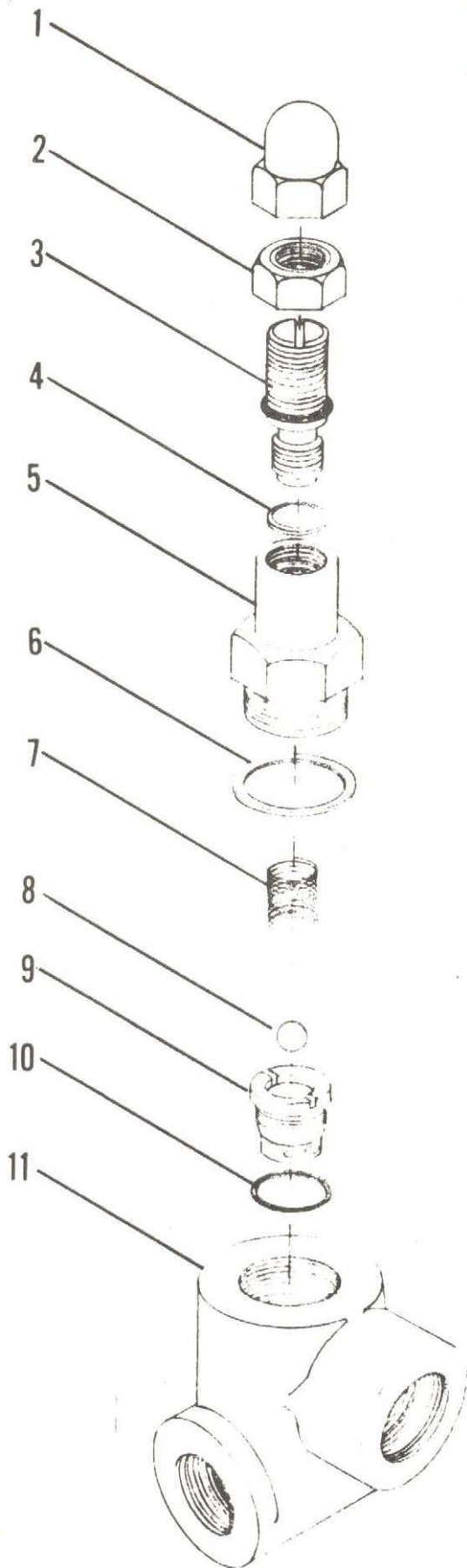


ILLUSTRATION
LINE CHECK VALVE

PARTS LIST

PRESSURE RETAINING SEQUENCE VALVE

MODEL 600 SCRAPER

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
* 1.	A600H13	Acorn cap
* 2.	A600H14	Jam nut
* 3.	A600H15	Adjusting screw
* 4.	A600H16	Adjusting screw o-ring
* 5.	A600H17	Valve body
* 6.	A600H18	Valve body gasket
* 7.	A600H19	Spring
* 8,	A600H20	Ball
* 9.	A600H21	Relief seat
* 10.	A600H22	Relief seat o-ring
* 11.	A600H23	Valve housing
	A600H24	Complete pressure valve assembly

*K20003
Kit of
End of
Price list*

*1 A600H16
1 A600H18
1 A600H22*

PARTS LIST

LINE CHECK VALVE

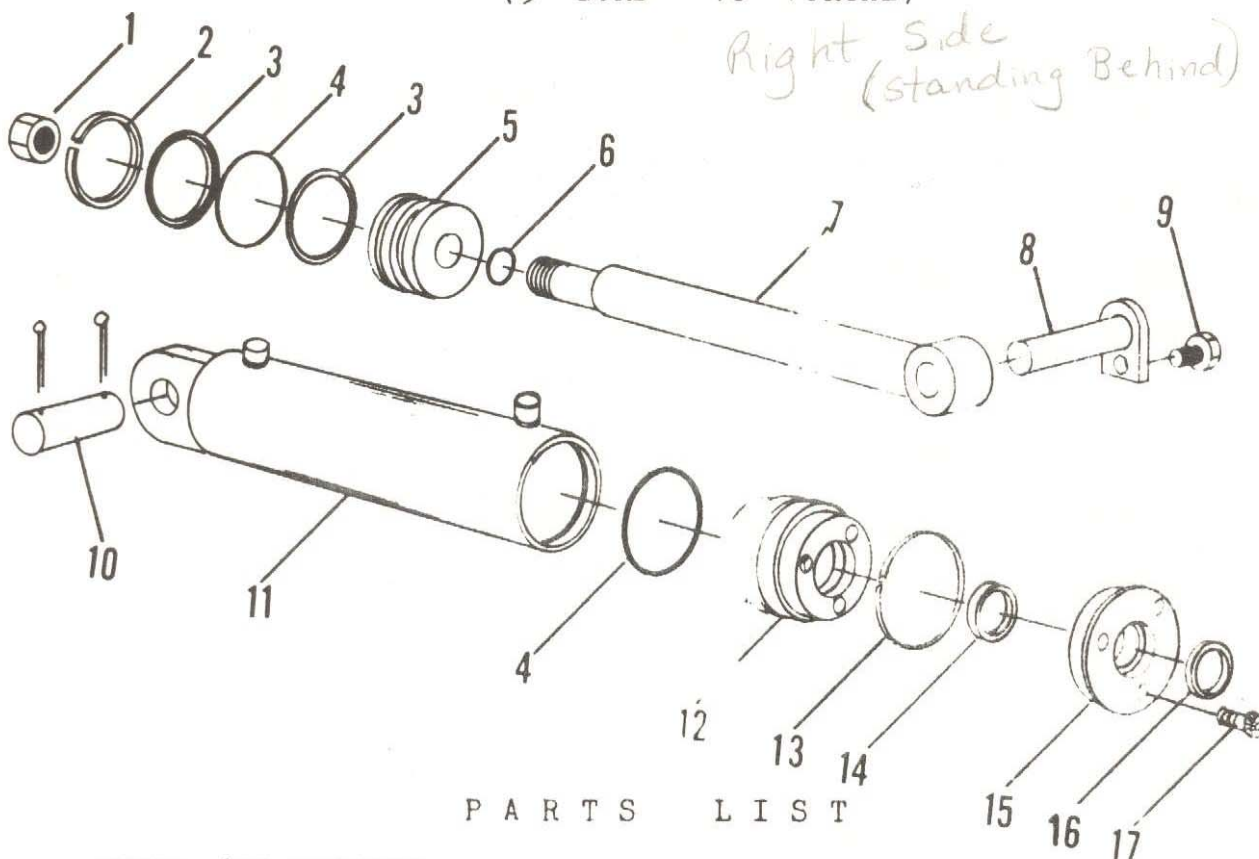
<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
* 1.	A600H25	Check poppet
* 2.	A6C026	Valve body
* 3.	A600H27	Taper pin
	A600H28	Complete check valve assembly

* Parts not sold separately. Kit K20003 is available.

ILLUSTRATION

RIGHT HYDRAULIC CYLINDER
(5" BORE - 16" STROKE)

*Right Side
(standing Behind)*



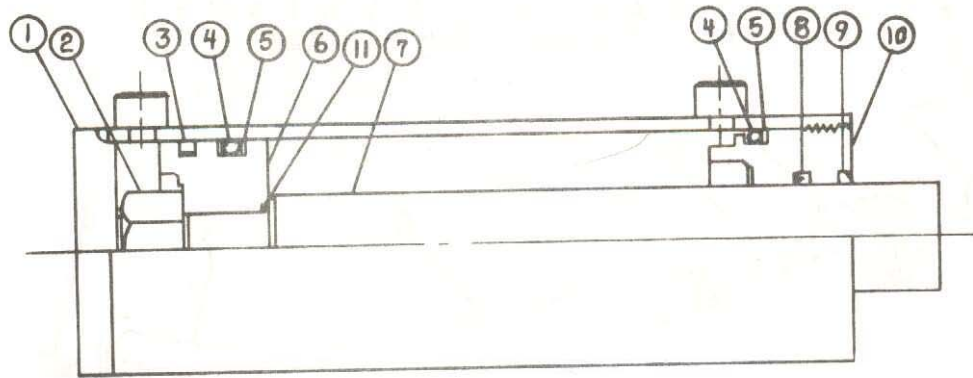
P A R T S L I S T

MODEL 600 SCRAPER
Cylinder Part No. A516H118 Type 2 Identified by 3 Capscrews
in Head Cap

KEY NO.	PART NO.	DESCRIPTION
1	A400H17	Piston nut, 1-1/4"
2	A400H04	Cast iron ring, 5" OD
3	A400H05	Back up washer, 5" OD
4	A400H06	O-Ring seal, 5" OD x 1/4"
5	A400H07	Piston, 5"
6	A22H27	Piston O-Ring, 1-1/4" ID x 1/8"
7	A400H08	Shaft, 2" dia.
8	A40012A	Pin, 1-1/8" x 5-7/8"
9		Capscrew, 1/2" NC x 1" w/ lockwasher
10	A45003	Pin, 1-1/8" x 3-1/4"
		Cotter pin, 3/16" x 1-1/2"
11	A400H09	Barrel Assembly, 5" ID
12	A400H10	Head gland
13	A400H11	Retainer ring
14	A400H12	O-Ring
	A400H12A	Back up washer
15	A400H13	Head cap
16	A400H14	Wiper seal, 2" ID
17	A22H18	Capscrew, 1/4" NC x 1"
	A400H15B	Packing kit containing:
		1 A400H04 1 A400H11
		2 A400H05 2 A400H12
		2 A400H06 1 A400H12A
		1 A22H27 1 A400H14

5" Bore, 16" Stroke
2" Rod, 2 Part

N200 Series

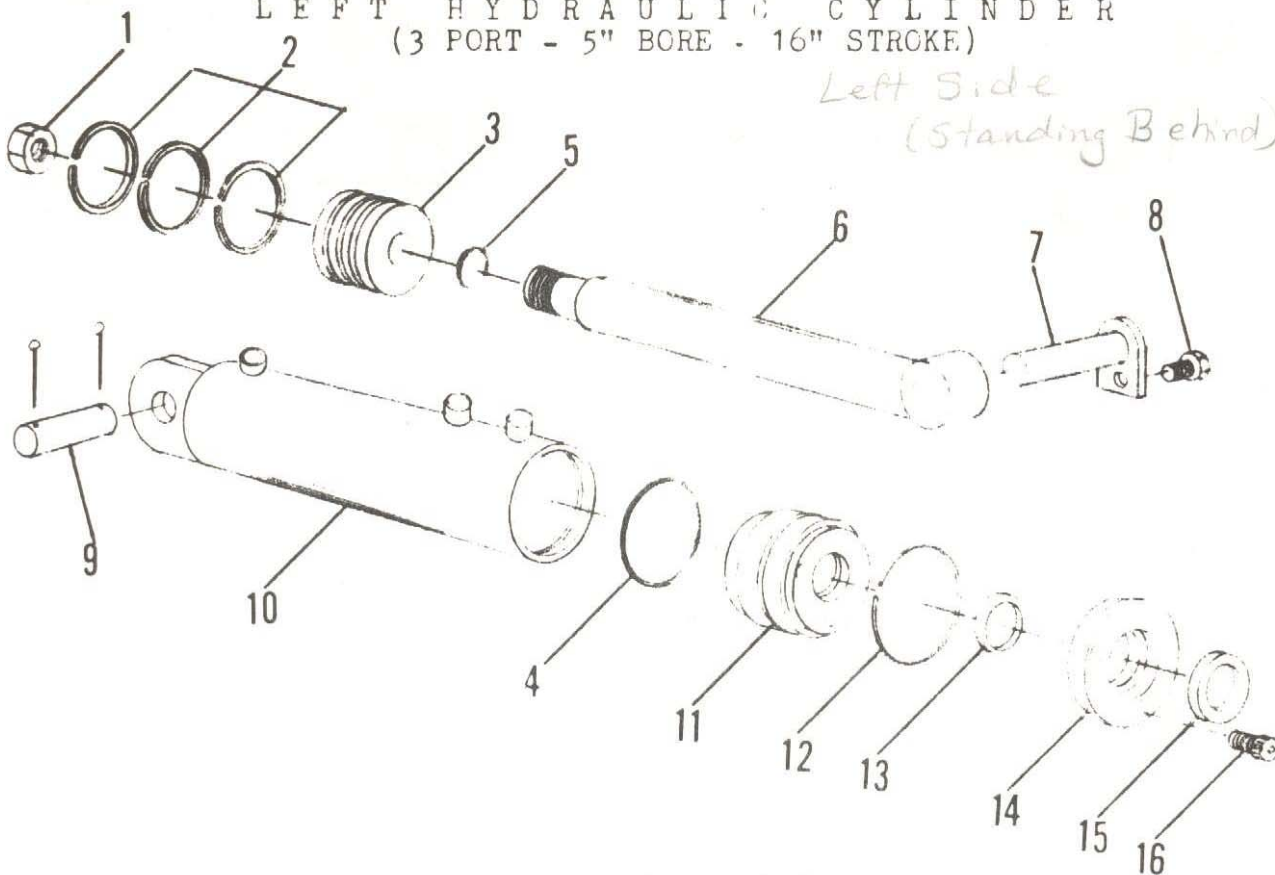


N200 Series Type 3 cylinder
Identified by 2 holes in gland

ITEM	QUANTITY	PART NO.	DESCRIPTION
1	1	A400H09-P	Butt and tube ass'y
2	1	220000214	Lock nut
3	1	240004010	Piston ring
4	2	240000425	O-ring
5	3	240005425	Bu-washer
6	1	072100039	Piston 072100015 - A400H07
7	1	A400H08-P	Piston rod
8	1	240009010	U-cup A80H04
9	1	250001329	Wiper A80H06
10	1	082100066	Gland A80H05A
11	1	240000026	O-ring A22H27
	1	FMCK-N-200	Packing kit (use A80H07)

I L L U S T R A T I O N
L E F T H Y D R A U L I C C Y L I N D E R
(3 P O R T - 5 " B O R E - 1 6 " S T R O K E)

*Left Side
 (Standing Behind)*



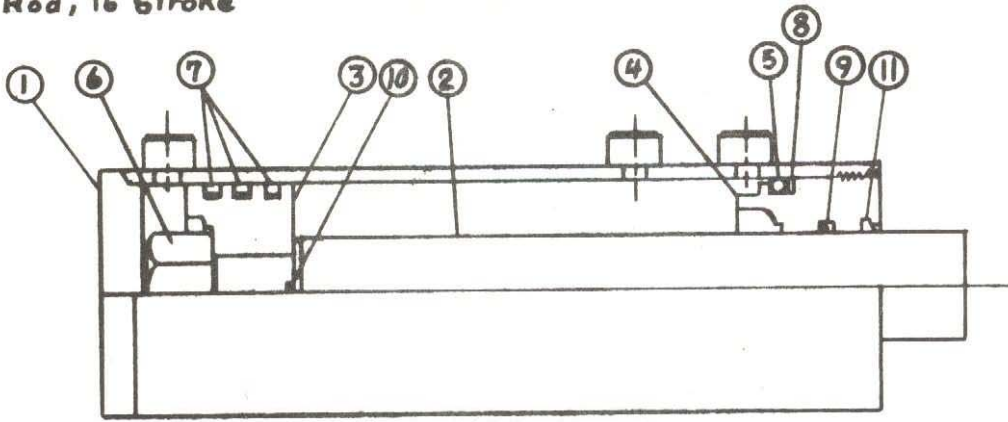
P A R T S L I S T

MODEL 600 SCRAPER
 Cylinder Part No. AH516H118 Type 2 Identified by 3 Capscrews
 in Head Cap

KEY NO.	PART NO.	DESCRIPTION
1	A400H17	Piston nut, 1 1/4" NF
2	A400H04	Cast iron ring, 5" OD
3	A600H50	Piston, 5"
4	A400H06	O-Ring, 5" OD x 1/4"
5	A22H27	Piston O-Ring, 1 1/4" ID x 1/8"
6	A400H08	Shaft, 2" dia.
7	A40012A	Pin, 1 1/8" x 5 7/8"
8		Capscrew, 1/2" NC x 1"
9	A45003	Pin, 1 1/8" x 3 1/4"
10	A600H30	Barrel assembly w/ sequence porting
11	A400H10	Head gland
12	A400H11	Retainer ring
13	A400H12	O-Ring
	A400H12A	Back Up washer
14	A400H13	Head cap
15	A400H14	Wiper seal, 2" ID
16	A22H18	Capscrew, 1/4" NC x 1"
	A600H53B	Packing kit containing:
		3 A400H04 1 A400H11
		1 A400H06 1 A400H14
		1 A22H27 2 A400H12
		1 A400H12A

5" Bore, 3 Port
2" Rod, 16" Stroke

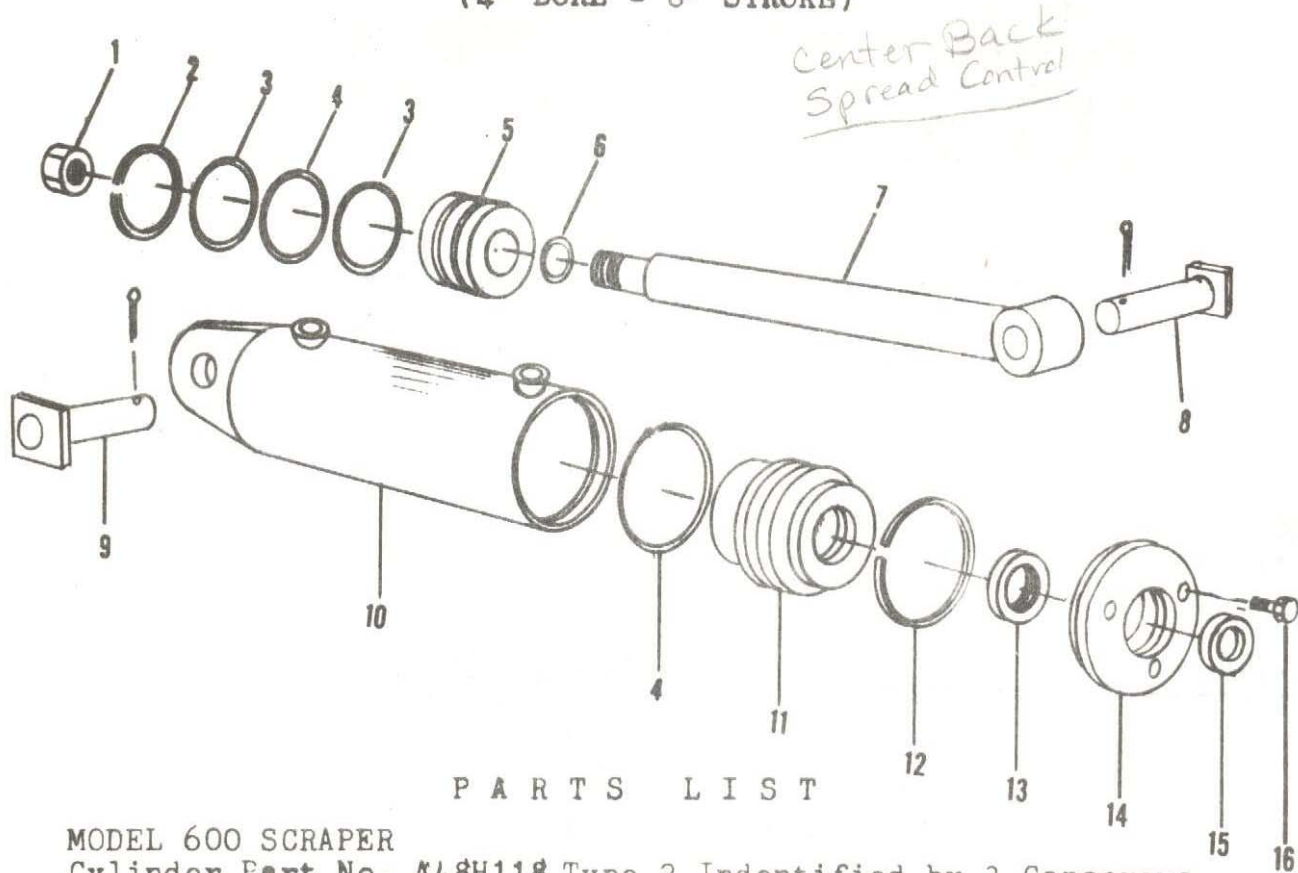
N 200 Series



N200 Series Type 3 cylinder
Identified by 2 holes in gland

ITEM	QUANTITY	PART NO.	DESCRIPTION
1.	1	A600H30-P	Butt & tube ass'y
2.	1	A400H08-P	Piston rod
3.	1	A600H50-P	Piston
4.	1	082100066	Gland
5.	1	240000425	O-ring
6.	1	220000212	Lock nut
7.	3	240004010	Piston ring
8.	1	240005425	BU-washer
9.	1	240009010	U-cup
10.	1	240000026	O-ring A22H27
11.	1	250001329	Wiper
	1	PMCK-N-200A	Packing kit

ILLUSTRATION
HYDRAULIC CYLINDER
(4" BORE - 8" STROKE)

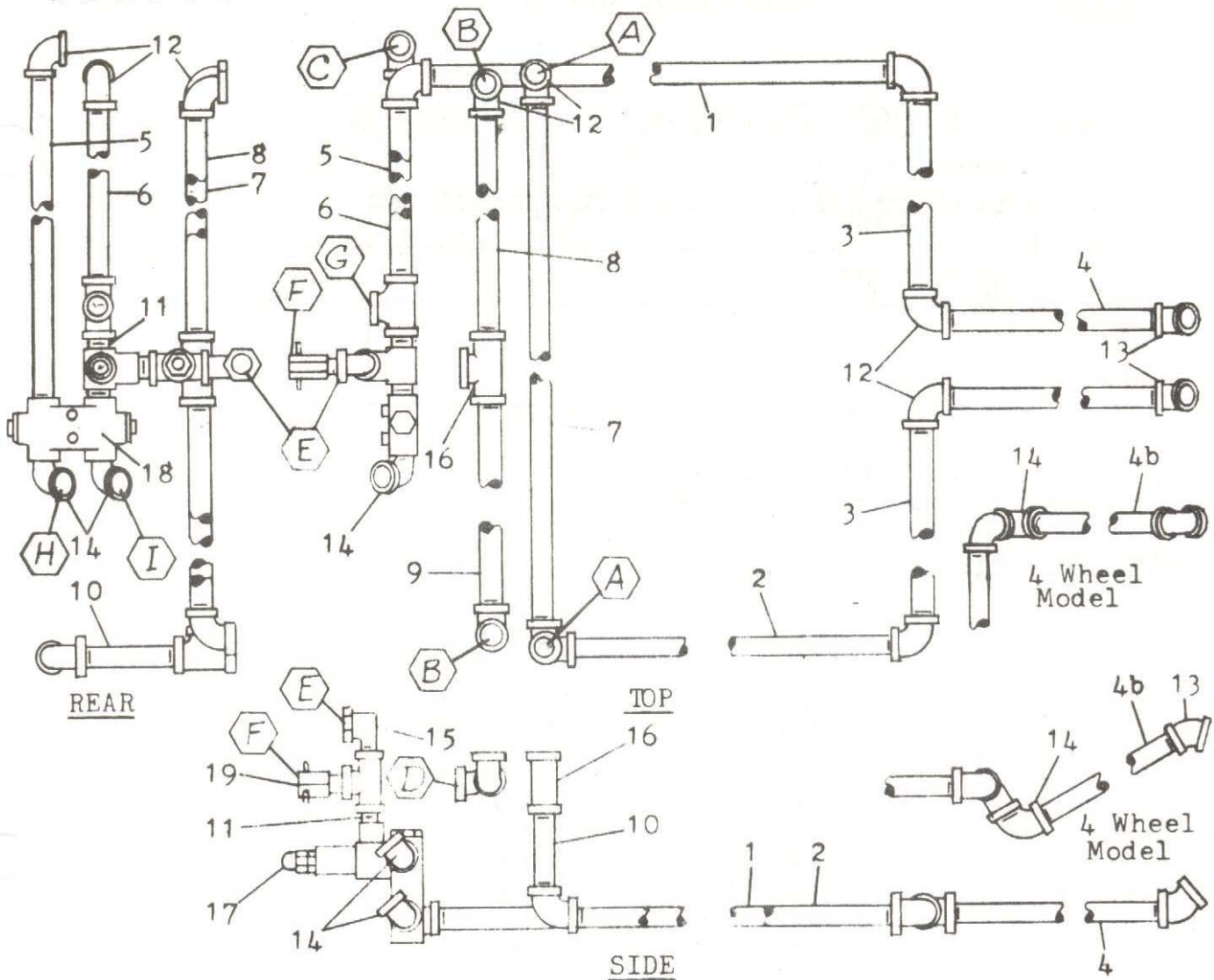


P A R T S L I S T

MODEL 600 SCRAPER
Cylinder Part No. A48H118 Type 2 Identified by 3 Capscrews
in Head Cap

KEY NO.	PART NO.	DESCRIPTION
1	A300H03	Piston nut, 1" NF
2	A300H04	Cast iron ring, 4" OD
3	A300H05	Back-up washer
4	A300H06	O-Ring, 4" OD, 3/16"
5	A300H07	Piston, 4" OD
6	A45H05	Piston O-Ring, 1" ID
7	A600H32	Shaft, 1 1/2"
8	A60002	Pin, 1 1/8" x 3 5/8" w/ sq. head
9	A45001	Cotter Pin, 3/16" x 1 1/2"
10	A600H33	Barrel Assembly
11	A300H11	Head gland
12	A300H12	Retainer ring
13	A22H15	O-Ring
	A22H15A	Back-up washer
14	A300H13	Head cap
15	A22H17	Wiper seal, 1 1/2" ID
16	A22H18	Capscrew, 1/4" x 1"
	A300H14B	Packing kit containing:
	1 A300H04	1 A300H12
	2 A300H05	2 A22H15
	2 A300H06	1 A22H15A
	1 A45H05	1 A22H17

ILLUSTRATION - PLUMBING ASSEMBLY



PIPE AND FITTINGS

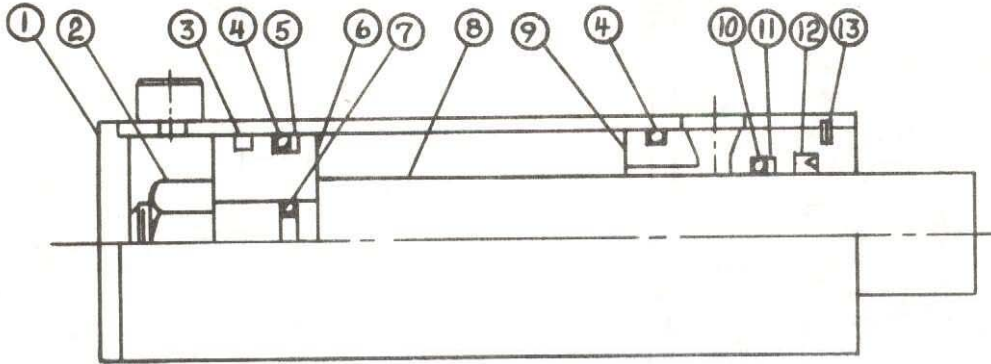
ITEM	DESCRIPTION	LENGTH	QTY.	QTY.
1	1/2" std blk pipe	90 1/4	1	2
2	" " " "	86 1/2	1	2
3	" " " "	44 3/4	2	1
4	" " " "	34	2	1
4b	" " " "	42 1/4	2	1
5	" " " "	40	1	1
6	" " " "	33 3/4	1	1
7	" " " "	95 1/2	1	
8	" " " "	42 1/4	1	
9	" " " "	48 1/4	1	
10	" " " "	3	1	
11	1/2" NPT close nipple		3	
12	1/2" NPT x 90° elbow		10	
13	1/2" NPT x 45° elbow		2	
14	1/2" NPT x 90° st. elbow		2	
(4 wheel model requires 4)				
15	1/2" x 90° swivel adapt.		1	
16	1/2" NPT tee		3	
17	Relief valve		1	
18	Lock valve		1	
19	Check valve		1	

HYDRAULIC HOSES

QTY.	LG.	LOCATION
2	18"	A to base port side cyl.
2	38"	B to rod port side cyl.
1	38"	C to center port left cyl.
1	24"	D to E
1	24"	F to G
1	24"	H to base port rear cyl.
1	24"	I to rod port rear cyl.

4" Bore, 8" Stroke
2 Port

PMC-5600D Series



PMC-5600D Series Type 4 cylinder
Identified by snap ring securing gland

ITEM	QUANTITY	PART NO.	DESCRIPTION
1	1	A600H33-P	Butt and Tube ass'y
2	1	A-2043-8	Lock nut
3	1	PMAP-R-45	Piston ring
4	2	PMAP-O-45	O-ring
5	1	PMAP-W-45	Bu-washer
6	1	P4-1130	Piston
7	1	PMAP-O-19	O-ring
8	1	A600H32-P	Piston rod
9	1	GIC-3940	Gland
10	1	PMAP-O-32	O-ring
11	1	PMAP-W-32	Bu-washer
12	1	PMAP-VB-32	Wiper
13	1	TSR-400	Snap ring
	1	PMCK-56COD	Packing kit