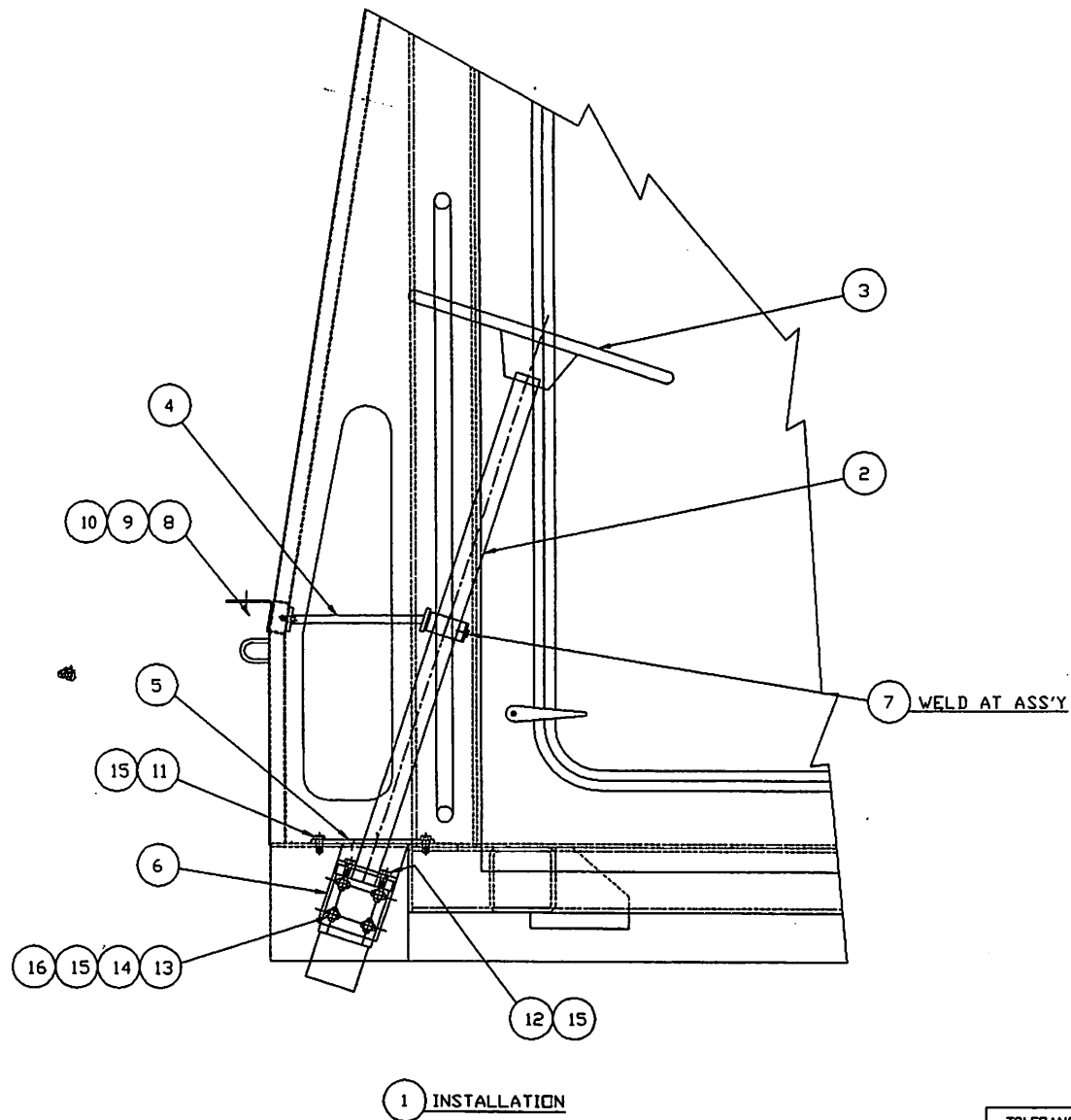




SWINGMASTER

SECTION E

STEERING
SYSTEM



TOLERANCES		SWINGMASTER CORPORATION	
UNLESS OTHERWISE SPECIFIED		11415 MELROSE AVENUE	
FRACTIONS +/-		FRANKLIN PARK, ILLINOIS 60131	
3 PLACE DECIMALS +/-		STEERING COLUMN INSTALLATION	
2 PLACE DECIMALS +/-			
1 PLACE DECIMALS +/-			
ANGLES			
SEE SWINGMASTER SPECIFICATION			
G-1 FOR TOLERANCES NOT SPECIFIED			
DIMENSIONS ARE IN INCHES		DRAWN BY: J.K.	DRAWING NO.
DO NOT SCALE DRAWING		DATE: 7-24-98	C-217
SCALE: 1=6			

MACHINE	SECTION	1
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MODEL SL180-13 SWINGLOADER

STEERING SYSTEM

ASSEMBLY NUMBER	DESCRIPTION
1803529	STEERING COLUMN INSTALLATION

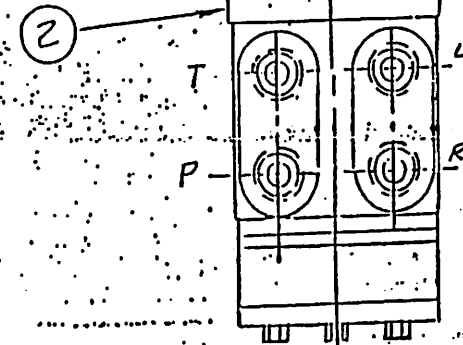
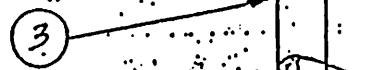
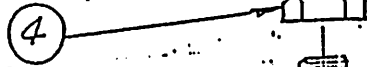
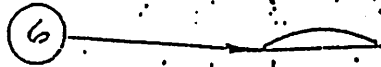
ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
002	1801194	ORBITROL ASSEMBLY	1.00
003	1800239	STEERING WHEEL	1.00
004	1806222	STEERING COLUMN BRACE WLDM'T	1.00
005	1803531	STEERING COLUMN MOUNTING BRACKET	1.00
006	1803532	STEERING GEAR MOUNTING BRACKET	1.00
007	1800230	HOSE CLAMP - 1-1/2"	1.00
008	1800443	H.H.C.S. 5/16-18 X 1" LONG	2.00
009	1800074	5/16" LOCK WASHER	2.00
010	1800550	5/16" FLAT WASHER	2.00
011	1800452	H.H.C.S. 3/8-16 X 1" LONG	4.00
012	1800454	H.H.C.S. 3/8-16 X 1 1/4" LONG	2.00
013	1800457	H.H.C.S. 3/8-16 X 1 1/2" LONG	4.00
014	1800514	HEX NUT 3/8-16	4.00
015	1800568	3/8" LOCK WASHER	10.00
016	1800552	3/8" FLAT WASHER	8.00

SWINGMASTER CORPORATION

11415 MELROSE AVENUE

FRANKLIN PARK, ILLINOIS 60131

TEL: (847) 451-1224



1 ASS'Y

MACHINE SECTION 1

MODEL SL180-13 SWINGLOADER STEERING SYSTEM

ASSEMBLY
NUMBER

DESCRIPTION

1801194

ORBITROL ASSEMBLY

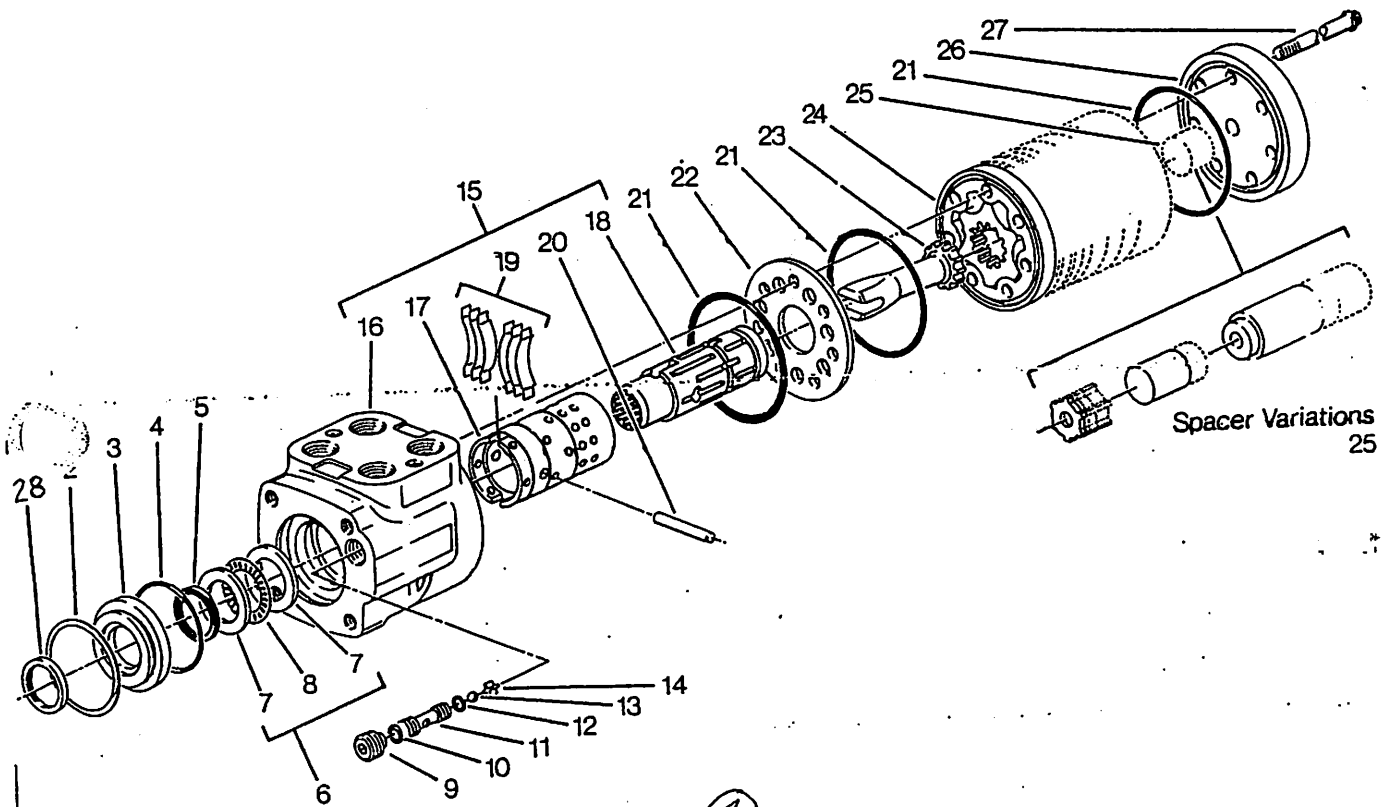
ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	1800233	ORBITROL VALVE	1.00
3	1800234	STEERING COLUMN	1.00
4	1800235	NUT (STEERING WHEEL)	1.00
6	1800237	STEERING WHEEL CAP	1.00

SWINGMASTER CORPORATION

11415 MELROSE AVENUE

FRANKLIN PARK, ILLINOIS 60131

TEL: (847) 451-1224



① ASSEMBLY

MACHINE _____ SECTION 1

 MODEL SL180-13 SWINGLOADER STEERING SYSTEM

ASSEMBLY
 NUMBER 1800233

 DESCRIPTION ORBITROL VALVE ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	8700646	RETAINING RING	1
3	8700647	SEAL GLAND BUSHING	1
4	8700648	SEAL	1
5	8700649	QUAD RING SEAL	1
6	8700650	NEEDLE BEARING KIT - INCLUDES ITEMS 7,8	1
7	8700651	BEARING RACE	2
8	8700652	NEEDLE THRUST BEARING	1
9	8700653	SET SCREW	1
10	8700654	SEAL	1
11	8700655	CHECK BALL SEAT	1
12	8700656	SEAL	1
13	8700657	CHECK BALL	1
14	8700658	CHECK BALL RETAINER	1
15	8700659	CONTROL PARTS ASSY - INCLUDES ITEMS 16-20	1
16		HOUSING	1
17		CONTROL SLEEVE	1
18		CONTROL SPOOL	1
19	8700660	CENTERING SPRING	6
20	8700661	CENTERING PIN	1
21	8700662	SEAL	3
22	8700663	SPACER PLATE	1
23	8700664	DRIVE	1
24	8700665	GEROTOR	1
25	8700666	SPACER	1
26	8700667	END CAP	1
27	8700668	CAP SCREW	7
28	8700669	SEAL	1
	8700670	SEAL KIT - INCLUDES ITEMS 4,5,10,12,21,28	1

SWINGMASTER CORPORATION

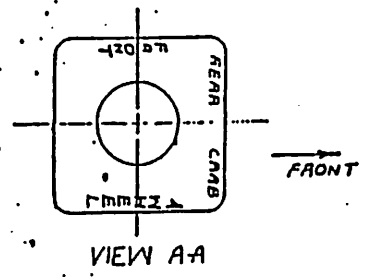
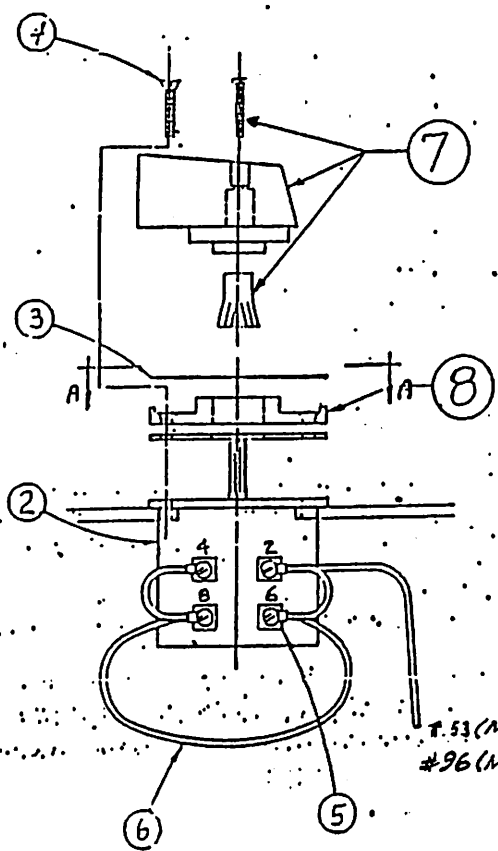
11415 MELROSE AVENUE

FRANKLIN PARK, ILLINOIS 60131

TEL: (847) 451-1224

TERM NO.	WIRE NO.		TO	
	MODEL 181	MODEL 361	MODEL 181	MODEL 361
2, 4, 6, 8.	53	96	CIRC. BRKR #3	CIRC. BRKR. #30
1	8	8	SOL #1	SOL #1
3	9	7	SOL #2	SOL #2
5	10	6	SOL #3	SOL #3
7	11	5	SOL #4	SOL #4

STEERING
SELECTOR
VALVE.



1. 53 (MODEL 181)
#96 (MODEL 361)

① ASSY

MACHINE	SECTION	1
MODEL SL180-13 SWINGLOADER	STEERING SYSTEM	

ASSEMBLY NUMBER	DESCRIPTION
1801192	STEERING SELECTOR SWITCH INSTALLATION

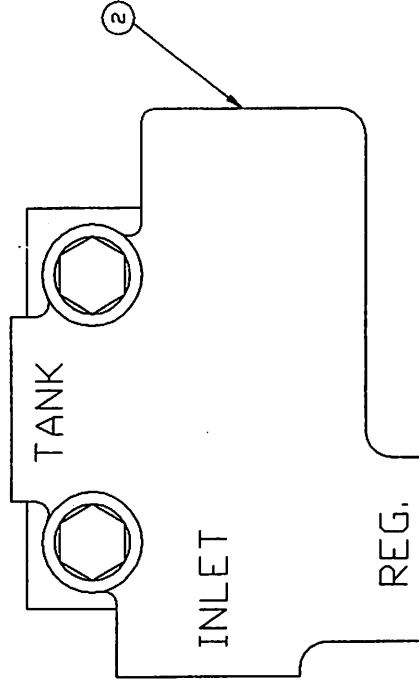
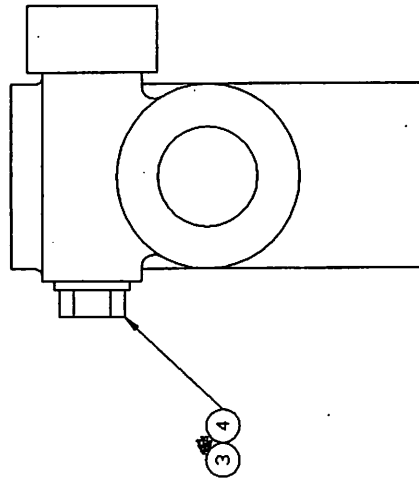
ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
002	1800245	4-POLE, ROTARY SWITCH	1.00
003	1801376	STEERING MODES SWITCH LABEL	1.00
004	1800846	FLAT HEAD MACHINE SCREW #6-32 X 1/2 LG	4.00
005	1801204	14 GAGE #6 ELECTRICAL RING TERMINAL	4.00
006	1801086	BULK 14 GA.WIRE/(FT)	1.00
007	8701368	KNOB	1.00
008	8701369	ESCUTCHEON PLATE	1.00

SWINGMASTER CORPORATION
 11415 MELROSE AVENUE
 FRANKLIN PARK, ILLINOIS 60131

TEL: (847) 451-1224

ALL PORTS 7/8-14 S.A.E. O-RING BOSS (-10)

⑤ WELD IN PLACE AT ASSEMBLY
LOCATE INSIDE OF FENDER.



① INSTALLATION

TOLERANCES

UNLESS OTHERWISE SPECIFIED
FRACTIONS +/-
3 PLACE DECIMALS +/-
2 PLACE DECIMALS +/-
1 PLACE DECIMALS +/-
ANGLES

SEE SWINGMASTER SPECIFICATION
G-1 FOR TOLERANCES NOT SPECIFIED
DIMENSIONS ARE IN INCHES
DO NOT SCALE DRAWING
SCALE 1

SWINGMASTER CORPORATION

11415 MELROSE AVENUE
FRANKLIN PARK, ILLINOIS 60131

STEERING RELIEF VALVE INSTALLATION

SL180-15

DRAWN BY: J.K.

DATE: 7-16-98

DRAWING NO.

H-414

MACHINE SECTION 1

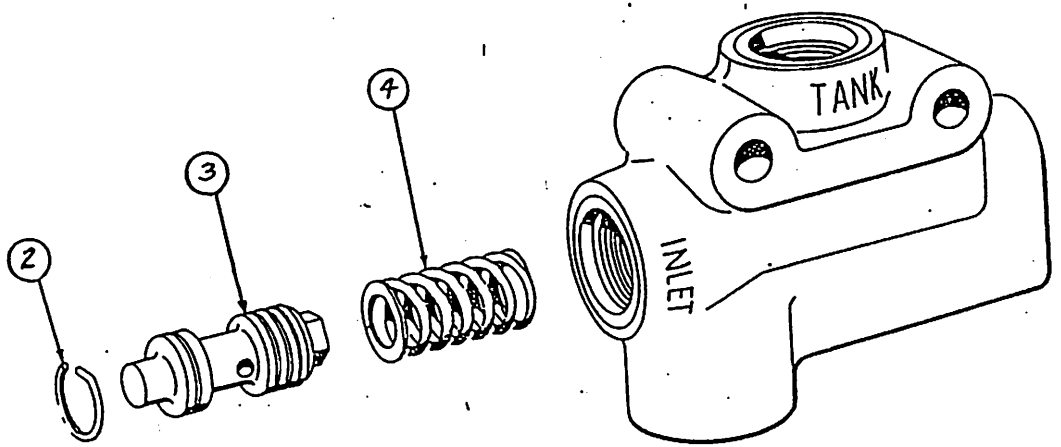
MODEL SL180-13 SWINGLOADER STEERING SYSTEM

ASSEMBLY NUMBER	DESCRIPTION
1805773	STEERING RELIEF VALVE INSTALLATION

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
002	1802474	STEERING RELIEF VALVE - 2500 PSI	1.00
003	1800447	H.H.C.S. 5/16-18 X 2" LONG	2.00
004	1800074	5/16" LOCK WASHER	2.00
005	1803667	BAR	1.00

SWINGMASTER CORPORATION
 11415 MELROSE AVENUE
 FRANKLIN PARK, ILLINOIS 60131

TEL: (847) 451-1224



① ASSEMBLY

MACHINE _____ SECTION 1

MODEL SL180-13 SWINGLOADER STEERING SYSTEM

ASSEMBLY NUMBER	DESCRIPTION
1802474	STEERING RELIEF VALVE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	8701149	SNAP RING	1
3	8702308	CONTROL VALVE SUB ASSEMBLY	1
4	8701151	SPRING	1

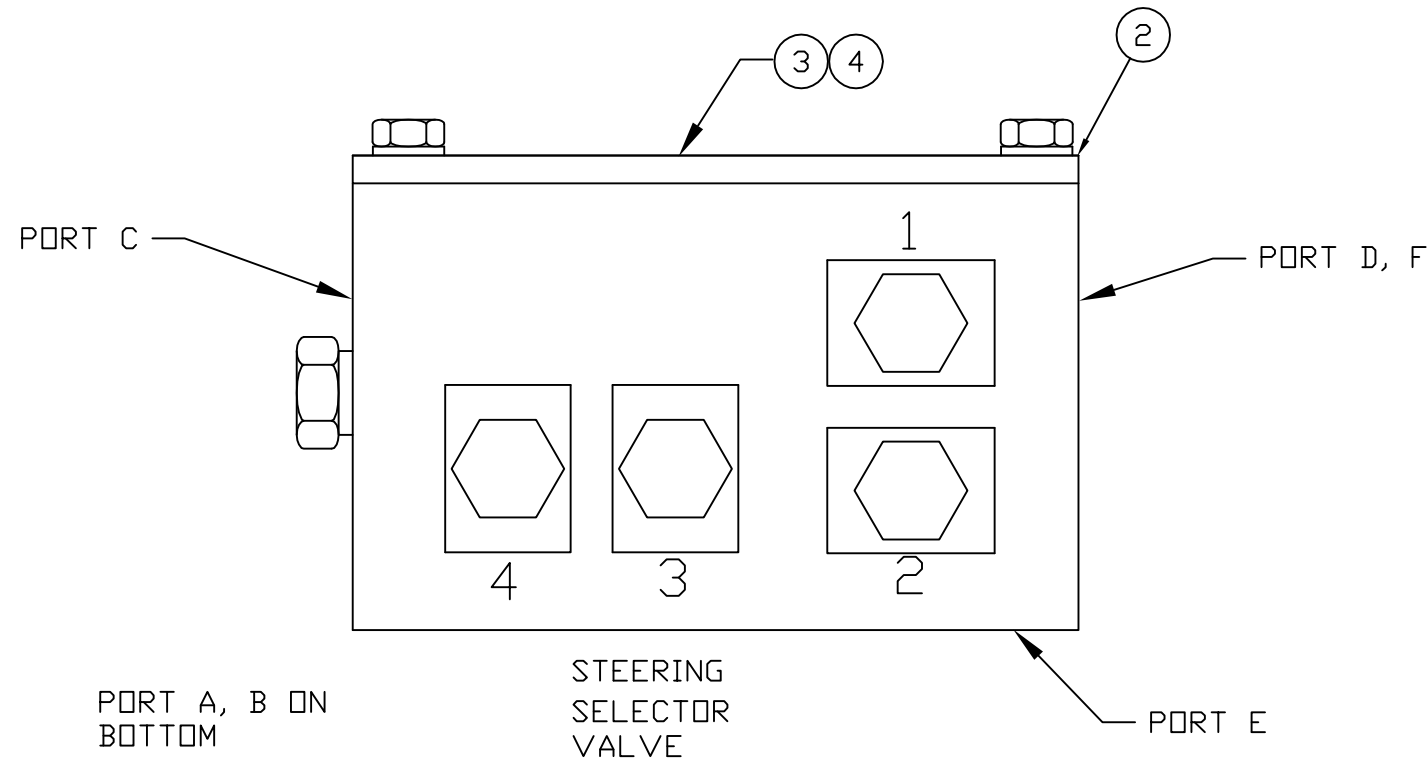
SWINGMASTER CORPORATION
 11415 MELROSE AVENUE
 FRANKLIN PARK, ILLINOIS 60131

TEL: (847) 451-1224

PORT	FUNCTION
A	PRESSURE IN – RIGHT TURN
B	PRESSURE IN – LEFT TURN
C	PRESSURE OUT – FRONT LEFT TURN
D	PRESSURE OUT – FRONT RIGHT TURN
E	PRESSURE OUT – REAR LEFT TURN
F	PRESSURE OUT – REAR RIGHT TURN

ITEM	PART NO.	DESCRIPTION	QTY.
1	H-184	STEERING SELECTOR VALVE INSTALLATION	1
① 2	P-299-2	STEERING SELECTOR VALVE	1
① 3	G-67-32	H.H.C.S. 3/8-16 X 3/4" LONG	2
4	G-72-11	3/8" LOCK WASHER	2

ALL PORTS 9/16-18 S.A.E. O-RING BOSS (-6)



ELECTRICAL FUNCTIONS

	SOL(1)	SOL(2)	SOL(3)	SOL(4)
STEER FRONT	0	0	0	0
STEER REAR	X	X	0	0
STEER CRAB	0	0	0	X
STEER FOUR	0	0	X	0

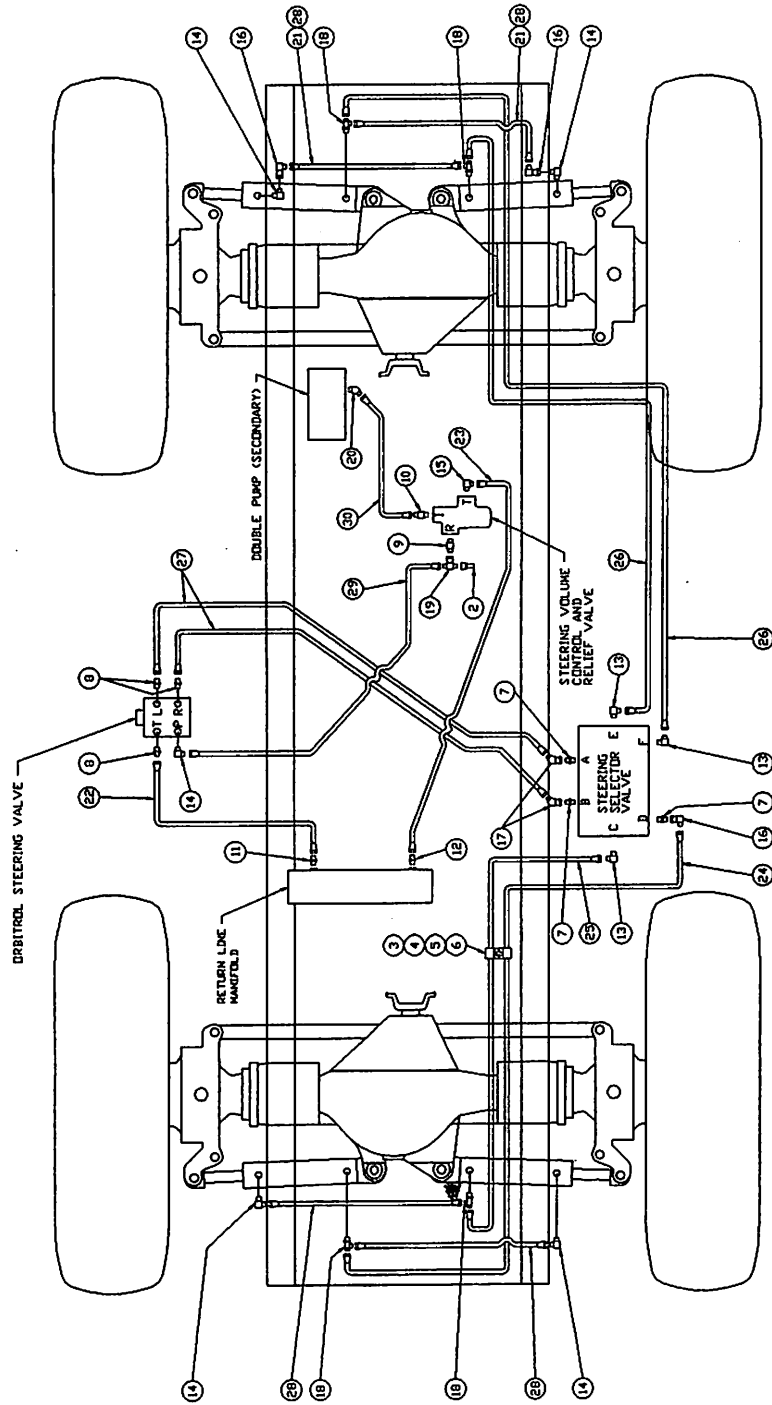
X = ENERGIZED
0 = DEENERGIZED

① INSTALLATION

TOLERANCES	SWINGMASTER CORPORATION	
UNLESS OTHERWISE SPECIFIED FRACTIONS +/- 3 PLACE DECIMALS +/- 2 PLACE DECIMALS +/- 1 PLACE DECIMALS +/- ANGLES	11415 MELROSE AVENUE FRANKLIN PARK, ILLINOIS 60131	
SEE SWINGMASTER SPECIFICATION G-1 FOR TOLERANCES NOT SPECIFIED	STEERING SELECTOR VALVE INSTALLATION	
DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING SCALE: 1=2	SL180, 361	
	DRAWN BY: j.k.	DRAWING NO.
	DATE: 7-20-98	H-184

REV	DATE	DESCRIPTION	BY
①	7/23/18	ITEM 2 WAS P-31-1, ITEM 3 WAS G-67-35	K.P.

FRONT OF MACHINE



SWINGMASTER CORPORATION 11115 WEDGE LANE FRANKLIN PARK, ILLINOIS 60131 STEERING CONTROL HYDRAULIC LINES & FITTINGS	
MODEL RTC-15 & SL180 DRAWN BY: J.K. DATE: 7-24-58	DRAWING NO. D-469

TOLERANCES
 UNLESS OTHERWISE SPECIFIED
 FRACTIONS DECIMALS
 1/16 0.0625
 1/8 0.125
 3/16 0.1875
 1/4 0.25
 5/16 0.3125
 3/8 0.375
 7/16 0.4375
 1/2 0.5
 5/8 0.625
 3/4 0.75
 7/8 0.875
 1 1.0
 1 1/8 1.125
 1 1/4 1.25
 1 3/8 1.375
 1 1/2 1.5
 1 5/8 1.625
 1 3/4 1.75
 1 7/8 1.875
 2 2.0
 2 1/8 2.125
 2 1/4 2.25
 2 3/8 2.375
 2 1/2 2.5
 2 5/8 2.625
 2 3/4 2.75
 2 7/8 2.875
 3 3.0
 3 1/8 3.125
 3 1/4 3.25
 3 3/8 3.375
 3 1/2 3.5
 3 5/8 3.625
 3 3/4 3.75
 3 7/8 3.875
 4 4.0
 4 1/8 4.125
 4 1/4 4.25
 4 3/8 4.375
 4 1/2 4.5
 4 5/8 4.625
 4 3/4 4.75
 4 7/8 4.875
 5 5.0
 5 1/8 5.125
 5 1/4 5.25
 5 3/8 5.375
 5 1/2 5.5
 5 5/8 5.625
 5 3/4 5.75
 5 7/8 5.875
 6 6.0
 6 1/8 6.125
 6 1/4 6.25
 6 3/8 6.375
 6 1/2 6.5
 6 5/8 6.625
 6 3/4 6.75
 6 7/8 6.875
 7 7.0
 7 1/8 7.125
 7 1/4 7.25
 7 3/8 7.375
 7 1/2 7.5
 7 5/8 7.625
 7 3/4 7.75
 7 7/8 7.875
 8 8.0
 8 1/8 8.125
 8 1/4 8.25
 8 3/8 8.375
 8 1/2 8.5
 8 5/8 8.625
 8 3/4 8.75
 8 7/8 8.875
 9 9.0
 9 1/8 9.125
 9 1/4 9.25
 9 3/8 9.375
 9 1/2 9.5
 9 5/8 9.625
 9 3/4 9.75
 9 7/8 9.875
 10 10.0
 10 1/8 10.125
 10 1/4 10.25
 10 3/8 10.375
 10 1/2 10.5
 10 5/8 10.625
 10 3/4 10.75
 10 7/8 10.875
 11 11.0
 11 1/8 11.125
 11 1/4 11.25
 11 3/8 11.375
 11 1/2 11.5
 11 5/8 11.625
 11 3/4 11.75
 11 7/8 11.875
 12 12.0
 12 1/8 12.125
 12 1/4 12.25
 12 3/8 12.375
 12 1/2 12.5
 12 5/8 12.625
 12 3/4 12.75
 12 7/8 12.875
 13 13.0
 13 1/8 13.125
 13 1/4 13.25
 13 3/8 13.375
 13 1/2 13.5
 13 5/8 13.625
 13 3/4 13.75
 13 7/8 13.875
 14 14.0
 14 1/8 14.125
 14 1/4 14.25
 14 3/8 14.375
 14 1/2 14.5
 14 5/8 14.625
 14 3/4 14.75
 14 7/8 14.875
 15 15.0
 15 1/8 15.125
 15 1/4 15.25
 15 3/8 15.375
 15 1/2 15.5
 15 5/8 15.625
 15 3/4 15.75
 15 7/8 15.875
 16 16.0
 16 1/8 16.125
 16 1/4 16.25
 16 3/8 16.375
 16 1/2 16.5
 16 5/8 16.625
 16 3/4 16.75
 16 7/8 16.875
 17 17.0
 17 1/8 17.125
 17 1/4 17.25
 17 3/8 17.375
 17 1/2 17.5
 17 5/8 17.625
 17 3/4 17.75
 17 7/8 17.875
 18 18.0
 18 1/8 18.125
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 18 5/8 18.625
 18 3/4 18.75
 18 7/8 18.875
 19 19.0
 19 1/8 19.125
 19 1/4 19.25
 19 3/8 19.375
 19 1/2 19.5
 19 5/8 19.625
 19 3/4 19.75
 19 7/8 19.875
 20 20.0
 20 1/8 20.125
 20 1/4 20.25
 20 3/8 20.375
 20 1/2 20.5
 20 5/8 20.625
 20 3/4 20.75
 20 7/8 20.875
 21 21.0
 21 1/8 21.125
 21 1/4 21.25
 21 3/8 21.375
 21 1/2 21.5
 21 5/8 21.625
 21 3/4 21.75
 21 7/8 21.875
 22 22.0
 22 1/8 22.125
 22 1/4 22.25
 22 3/8 22.375
 22 1/2 22.5
 22 5/8 22.625
 22 3/4 22.75
 22 7/8 22.875
 23 23.0
 23 1/8 23.125
 23 1/4 23.25
 23 3/8 23.375
 23 1/2 23.5
 23 5/8 23.625
 23 3/4 23.75
 23 7/8 23.875
 24 24.0
 24 1/8 24.125
 24 1/4 24.25
 24 3/8 24.375
 24 1/2 24.5
 24 5/8 24.625
 24 3/4 24.75
 24 7/8 24.875
 25 25.0
 25 1/8 25.125
 25 1/4 25.25
 25 3/8 25.375
 25 1/2 25.5
 25 5/8 25.625
 25 3/4 25.75
 25 7/8 25.875
 26 26.0
 26 1/8 26.125
 26 1/4 26.25
 26 3/8 26.375
 26 1/2 26.5
 26 5/8 26.625
 26 3/4 26.75
 26 7/8 26.875
 27 27.0
 27 1/8 27.125
 27 1/4 27.25
 27 3/8 27.375
 27 1/2 27.5
 27 5/8 27.625
 27 3/4 27.75
 27 7/8 27.875
 28 28.0
 28 1/8 28.125
 28 1/4 28.25
 28 3/8 28.375
 28 1/2 28.5
 28 5/8 28.625
 28 3/4 28.75
 28 7/8 28.875

1. INSTALLATION

MACHINE

SECTION

1

MODEL SL180-13 SWINGLOADER

STEERING SYSTEM

ASSEMBLY
NUMBER

DESCRIPTION

1803811

STEERING HYDRAULIC LINES & FITTINGS

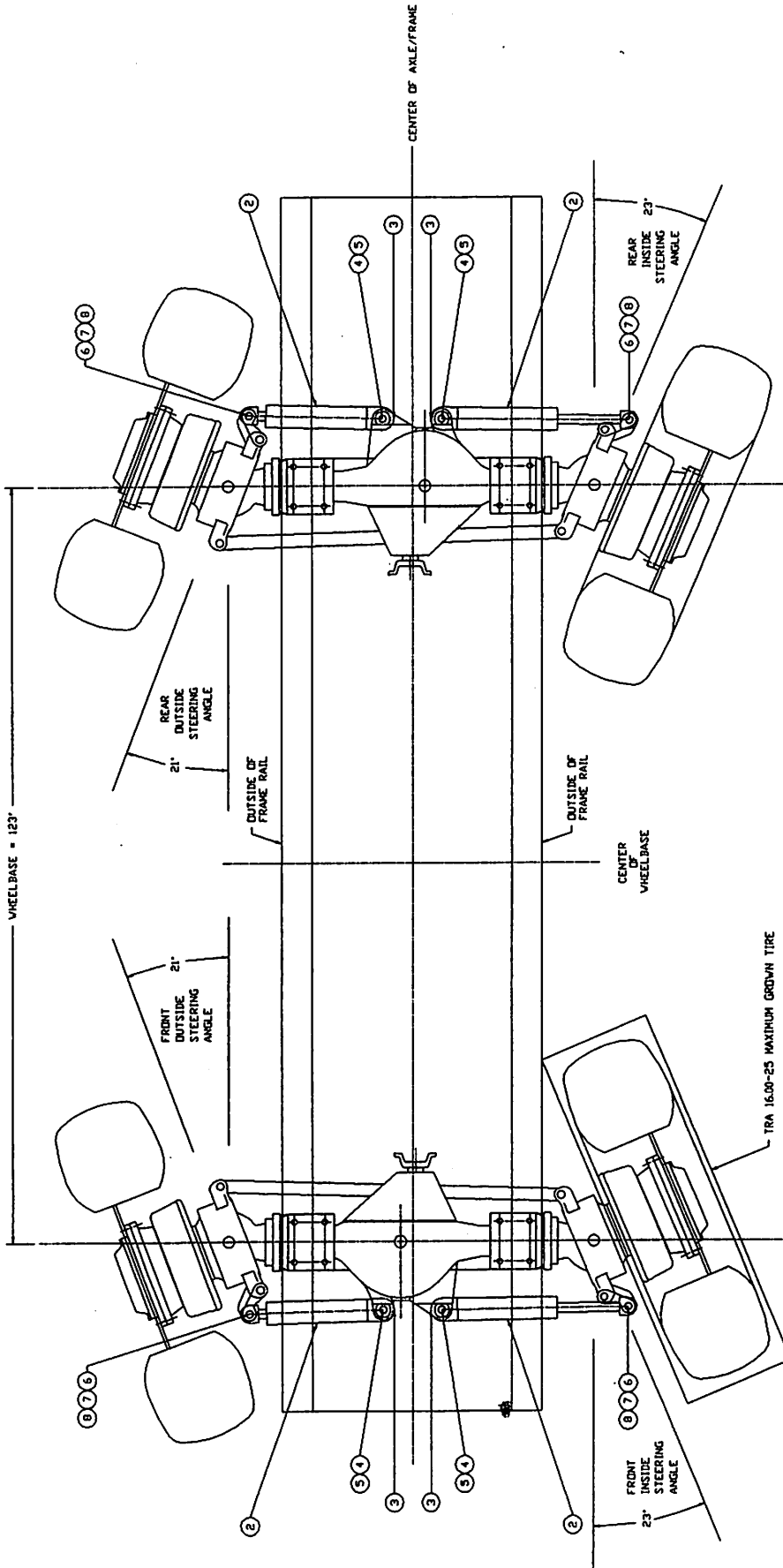
ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
002	1800264	TEST PORT - 3/4"-16	1.00
003	1800451	H.H.C.S. 3/8-16 X 3/4" LONG	1.00
004	1800514	HEX NUT 3/8-16	1.00
005	1800568	3/8" LOCK WASHER	1.00
006	1800743	1 1/16" DIAMETER CLAMP	2.00
007	1800763	STRAIGHT MALE 3/8 O-RING TO 1/2 TUBE	3.00
008	1800765	STRAIGHT MALE 1/2 O-RING TO 1/2 TUBE	3.00
009	1800767	STRAIGHT MALE 5/8 O-RING TO 1/2 TUBE	1.00
010	1800768	STRAIGHT MALE 5/8 O-RING TO 3/4 TUBE	1.00
011	1800773	STRAIGHT MALE 1 O-RING TO 1/2 TUBE	1.00
012	1801831	STRAIGHT MALE 1 O-RING TO 5/8 TUBE	1.00
013	1800795	90 DEG MALE ELBOW 3/8 O-RING TO 1/2 TUBE	3.00
014	1800796	90 DEG MALE ELBOW 1/2 O-RING TO 1/2 TUBE	5.00
015	1800798	90 DEG MALE ELBOW 5/8 O-RING TO 5/8 TUBE	1.00
016	1800853	90 DEG TUBE ELBOW 1/2 M TO 1/2 F SWIVEL	3.00
017	1800855	45 DEG TUBE ELBOW 1/2 M TO 1/2 F SWIVEL	2.00
018	1802493	MALE RUN TEE 1/2 O-RING TO 1/2 TUBE	4.00
019	1800883	1/2 TUBE BRANCH TEE M-M-F-SWIVEL	1.00
020	1802331	45 DEG MALE ELBOW 3/4 TUBE TO 3/4 O-RING	1.00
021	1802495	PROTECTIVE SLEEVE - 3/4" I.D. / (FT)	4.00
022	1801157	HOSE ASSEMBLY 1503 - 8	1.00
023	1803805	HOSE ASSEMBLY 1503-10	1.00
024	1802499	HOSE ASSEMBLY 2781-8	1.00
025	1803806	HOSE ASSEMBLY 2781-8	1.00
026	1803807	HOSE ASSEMBLY 2781-8	2.00
027	1803808	HOSE ASSEMBLY 2781-8	2.00
028	1802502	HOSE ASSEMBLY 2781-8	4.00
029	1803809	HOSE ASSEMBLY 2781-8	1.00
030	1803810	HOSE ASSEMBLY 2781-12	1.00

SWINGMASTER CORPORATION

11415 MELROSE AVENUE

TEL: (847) 451-1224

FRANKLIN PARK, ILLINOIS 60131



SWINGMASTER CORPORATION
 11415 WILBOSE AVENUE
 FRANKLIN PARK, ILLINOIS 60151
 STEERING CYLINDER INSTALLATION

DRAWN BY: J.K.
 DATE: 7-24-90

DRAWING NO. **D-335**

TOLERANCES
 UNLESS OTHERWISE SPECIFIED
 3 PLACE DECIMALS \pm .005
 2 PLACE DECIMALS \pm .01
 ANGLES

SIZE SWINGMASTER SPECIFICATION
 G-1 FOR TOLERANCES NOT SPECIFIED
 DIMENSIONS ARE IN INCHES
 DO NOT SCALE DRAWING
 SCALE: 1-1/2

DRAWING SHOWN WITH
 16.00-25 TIRE
 2 1/16" DISH WHEEL

REVISION	DATE
1	10-10-90

MACHINE	SECTION	1
MODEL SL180-13 SWINGLOADER	STEERING SYSTEM	

ASSEMBLY NUMBER	DESCRIPTION
1803284	STEERING CYLINDER INSTALLATION

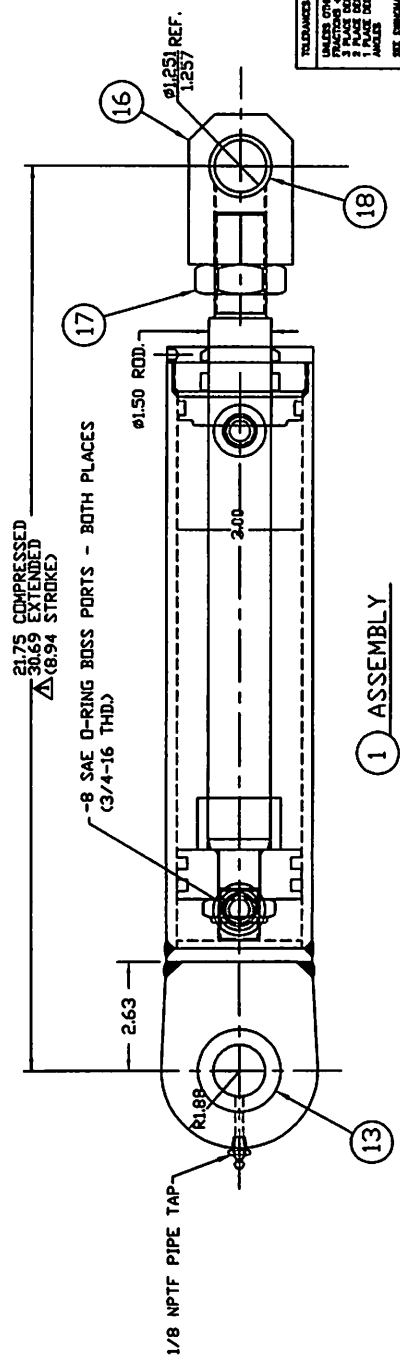
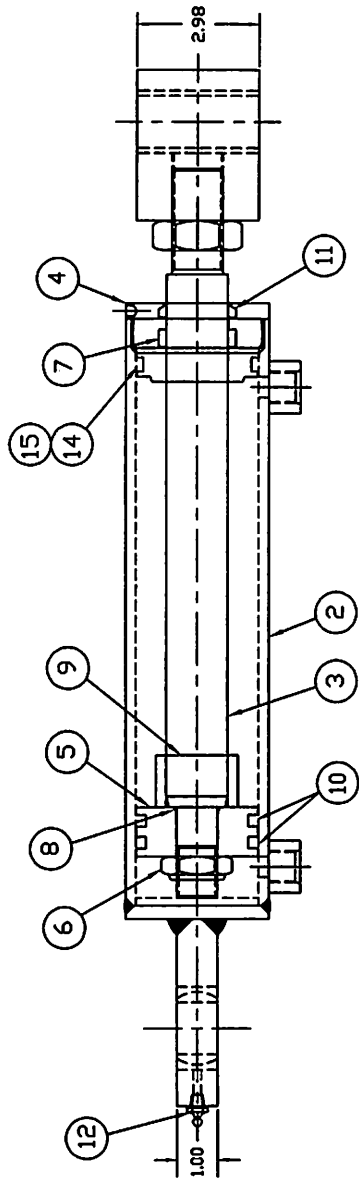
ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
002	1801988	STEERING CYLINDER - 10.00" STROKE	4.00
003	1800059	65 DEG 1/8" PIPE-M GREASE FITTING	4.00
004	1801989	PIN	4.00
005	1801990	COTTER PIN 1/4" DIA. X 1 3/4" LONG	4.00
006	1800005	PIN	4.00
007	1800007	COTTER PIN 1/4 X 2" LONG	4.00
008	1800663	STRAIGHT 1/8" MALE-PIPE GREASE FITTING	4.00

SWINGMASTER CORPORATION

11415 MELROSE AVENUE

FRANKLIN PARK, ILLINOIS 60131

TEL: (847) 451-1224



WORKING PRESSURE = 2500 PSI
PRIME PAINT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING SCALE: 1"=3"	
SEE DIMENSIONS SPECIFICATION Q-1 FOR TOLERANCES NOT SHOWN	
THIS DRAWING IS FOR STEERING CYLINDER MODEL 301 & SL180	
DRAWN BY: J.L. DATE: 10-18-05	DRAWING NO. D-169

REV	DATE	DESCRIPTION	ENG. NO.	BY
1	10-23-05	B/M ADDED.	200505	J.L.

MACHINE

SECTION

1

MODEL SL180-13 SWINGLOADER

STEERING SYSTEM

ASSEMBLY
NUMBER

DESCRIPTION

1801988 STEERING CYLINDER

ITEM NO.	PART NUMBER	DESCRIPTION	QTY USED
2	1806835	CASE WELDMENT	1
3	1806836	CYLINDER ROD	1
4	1806837	CAP	1
5	1806838	PISTON	1
6	1806839	LOCKNUT	1
7	1806610	ROD SEAL	1
8	1806604	"O" RING	1
9	1806840	SPACER	1
10	1806611	PISTON SEAL	2
11	1806612	WIPER	1
12	1800663	STRAIGHT 1/8" MALE-PIPE GREASE FITTING	1
13	1806176	SPHERICAL BUSHING	1
14	1806608	"O" RING	1
15	1806613	BACK-UP RING	1
16	8700708	ROD END L2-6576	1
17	1805222	JAM NUT 1-1/4 - 12	1
18	1800098	BRONZE BUSHING - 1-1/4" ID x 3" LONG	1

SWINGMASTER CORPORATION

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