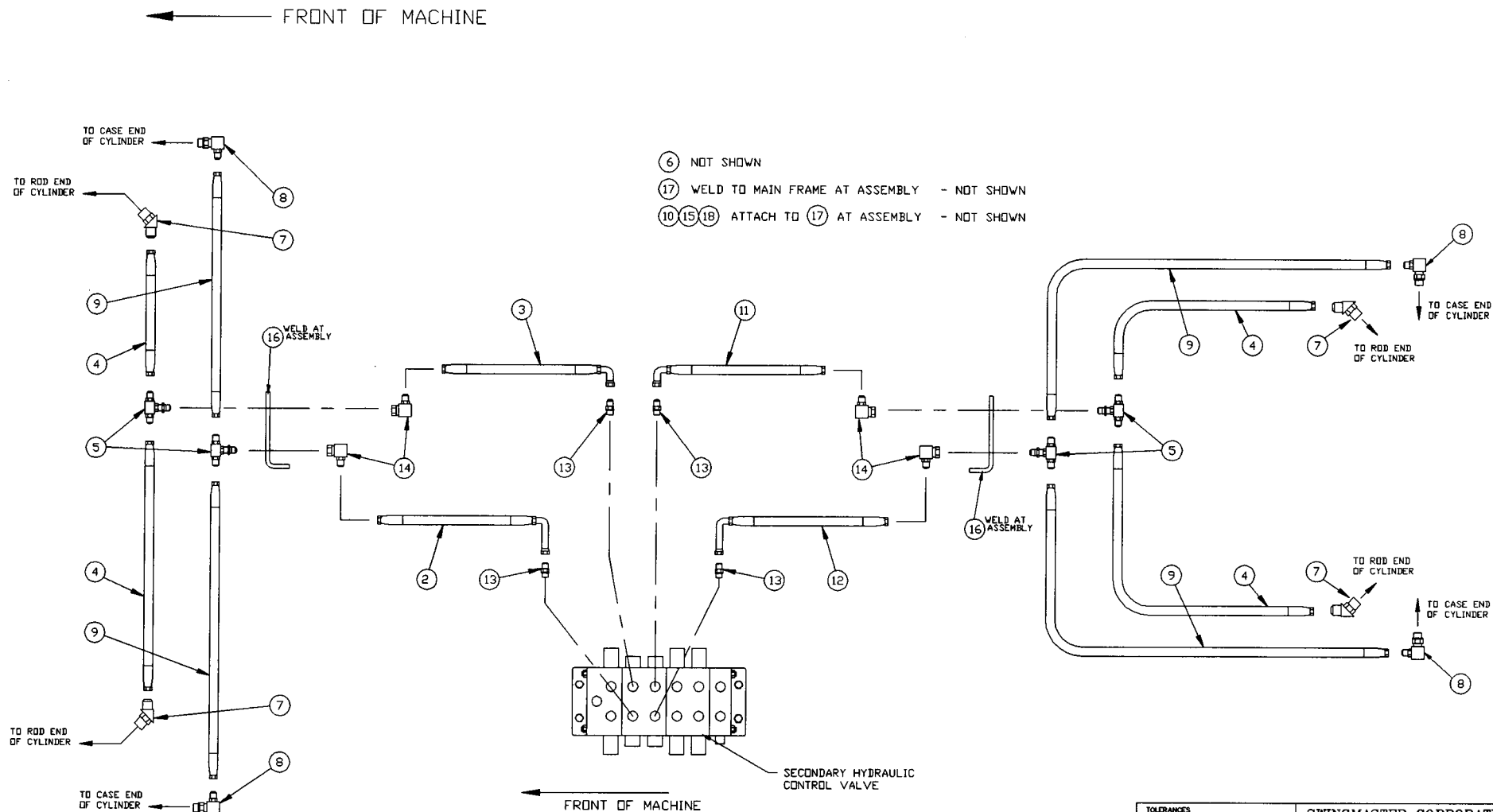




HIRAIL



3	9-13-91
REV.NO.	DATE

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS +/- 3 PLACE DECIMALS +/- 2 PLACE DECIMALS +/- 1 PLACE DECIMALS +/- ANGLES	SWINGMASTER CORPORATION 11415 MELODIE AVENUE FRANKLIN PARK, ILLINOIS 60131	
	HI-RAIL LINES & FITTINGS INSTALLATION	
	MODEL 181	DRAWN BY: B.V. DATE: 9-21-89
	SEE SWINGMASTER SPECIFICATION C-1 FOR TOLERANCES NOT SPECIFIED DIMENSIONS ARE IN INCHES DO NOT SCALE DRAWING SCALE: NONE	D-95

SWINGMASTER CORPORATION

PARTS BOOK

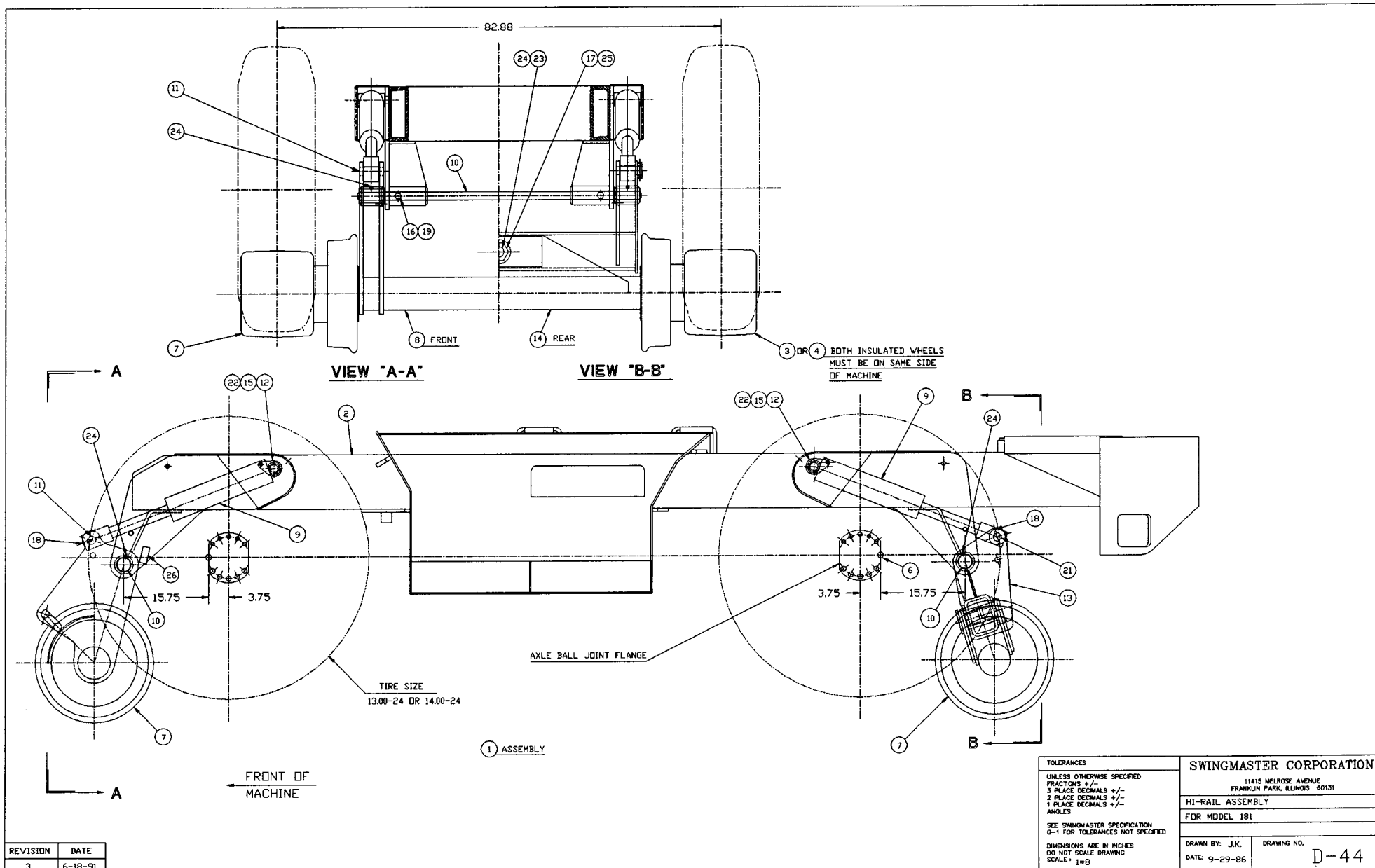
MACHINE	SECTION	27
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MODEL 181 SWINGLOADER	HI-RAIL RAILROAD WHEEL EQUIP.	
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ASSEMBLY
NUMBER

DESCRIPTION

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1801441	HI-RAIL LINES & FITTINGS INSTALLATION
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
-----	-----	-----	-----
2	1801446	HOSE ASSEMBLY 1503-8	1.00
3	1801447	HOSE ASSEMBLY 1503-8	1.00
4	1801761	HOSE ASEMBLY 1503-8	4.00
5	1801009	1/2 TUBE MALE BULKHEAD BRANCH TEE	4.00
6	1801449	TY-WRAP 3/16" X 14" LONG	1.00
7	1801034	45 DEG MALE ELBOW 1/2 TUBE TO 1/2 O-RING	4.00
8	1800796	90 DEG MALE ELBOW 1/2 O-RING TO 1/2 TUBE	4.00
9	1801450	HOSE ASSEMBLY 1503-8	4.00
10	1800744	1 1/2" DIAMETER CLAMP	1.00
11	1801451	HOSE ASSEMBLY 1503-8	1.00
12	1801452	HOSE ASSEMBLY 1503-8	1.00
13	1800765	STRAIGHT MALE 1/2 O-RING TO 1/2 TUBE	4.00
14	1800853	90 DEG TUBE ELBOW 1/2 M TO 1/2 F SWIVEL	4.00
15	1800568	3/8" LOCK WASHER	1.00
16	1801010	TEE BRACKET	2.00
17	1800452	H.H.C.S. 3/8-16 X 1" LONG	1.00
18	1800514	HEX NUT 3/8-16	1.00
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SWINGMASTER CORPORATION

PARTS BOOK

MACHINE	SECTION	27
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MODEL 181 SWINGLOADER	HI-RAIL RAILROAD WHEEL EQUIP.
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ASSEMBLY NUMBER	DESCRIPTION
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1801442	HI-RAIL ASSEMBLY
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	1804386	HI-RAIL GUARD WELDMENT	1.00
5	1800266	WRENCH ASSEMBLY (FOR BEARING LOCKNUT)	1.00
6	1801454	STEERING STOP	2.00
7	1801455	TRACK WHEEL END ASSEMBLY	4.00
8	1800269	ROCKER TUBE WELDMENT - HI-RAIL	1.00
9	1804364	HI-RAIL CYLINDER	4.00
10	1801400	2 1/2" DIA X 52 1/4" LONG PIN	2.00
11	1800591	1 1/2" DIA X 4 1/2" LONG PIN	2.00
12	1801391	1 1/2" DIAMETER PIN WELDMENT	4.00
13	1800272	ROCKER ARM & TUBE ASSEMBLY	1.00
14	1800261	AXLE TUBE WELDMENT	1.00
15	1800452	H.H.C.S. 3/8-16 X 1" LONG	4.00
16	1800498	H.H.C.S. 3/4-10 X 5" LONG	2.00
17	1800561	1 1/2" FLAT WASHER	1.00
18	1800627	ROLL PIN 3/8" DIA X 3 1/2" LG	4.00
19	1800522	ESNA HEX NUT 3/4-10	2.00
21	1800593	1 1/2" DIA X 4 7/8" LONG PIN	2.00
22	1800568	3/8" LOCK WASHER	6.00
23	1800260	PIN WELDMENT	1.00
24	1800663	STRAIGHT 1/8" PIPE-M GREASE FITTING	7.00
25	1800542	ESNA HEX NUT 1 1/2-12	1.00
26	1802111	HI-RAIL TRAVEL STOP BLOCK	2.00
27	1801365	LOAD CHART - 9 FOOT TOTE HOOK	1.00
28	1800812	LOAD CHART-20 FT LATTICE BOOM W/HI-RAIL	1.00

SWINGMASTER CORPORATION

PARTS BOOK

MACHINE	SECTION	27
MODEL 181 SWINGLOADER	HI-RAIL RAILROAD WHEEL EQUIP.	

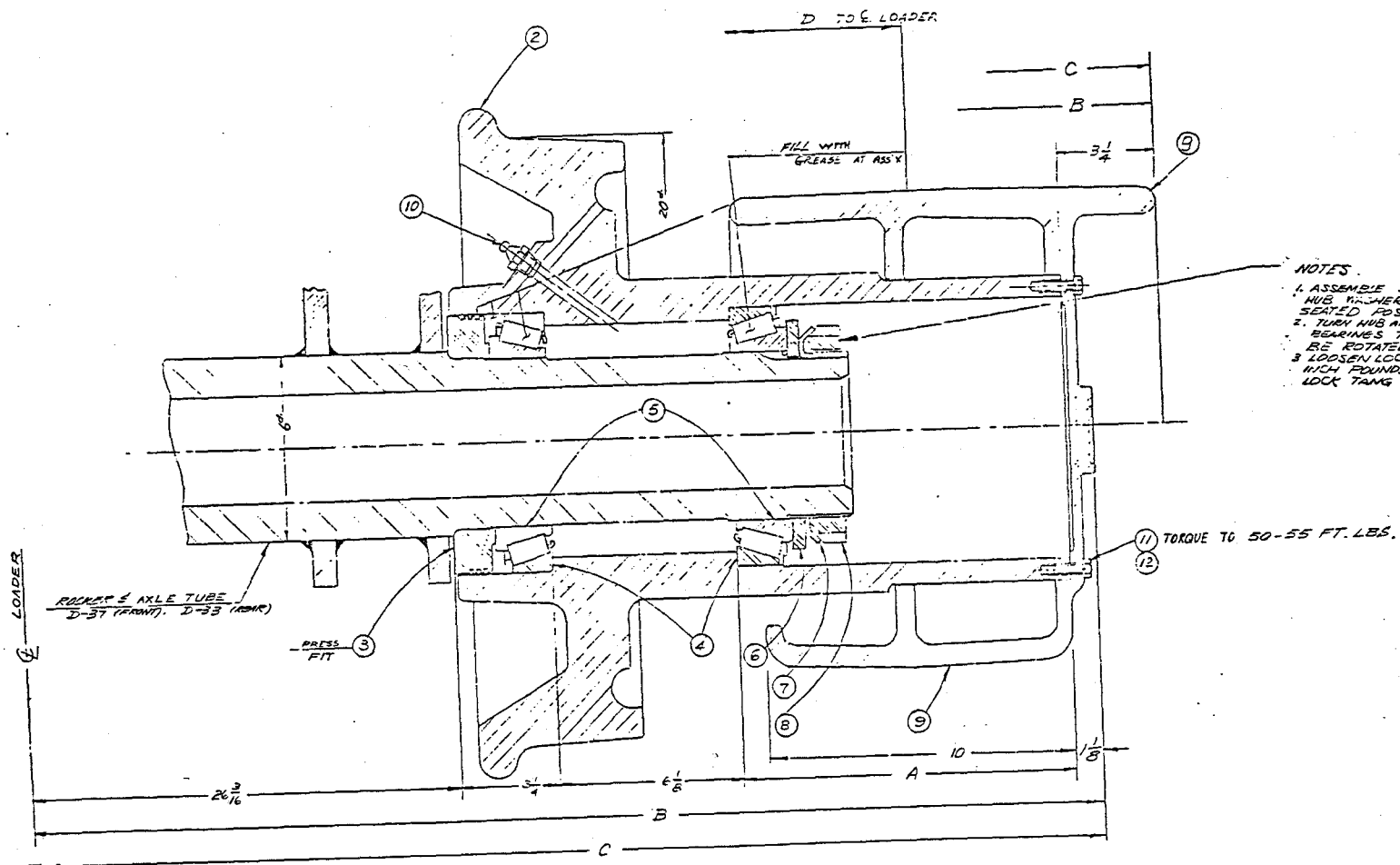
ASSEMBLY
NUMBER

DESCRIPTION

1804673

HI-RAIL ASS'Y STD. INSULATED

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	1804386	HI-RAIL GUARD WELDMENT	1.00
4	1801890	INSULATED TRACK WHEEL END ASSEMBLY	2.00
5	1800266	WRENCH ASSEMBLY (FOR BEARING LOCKNUT)	1.00
6	1801454	STEERING STOP	2.00
7	1801455	TRACK WHEEL END ASSEMBLY	2.00
8	1800269	ROCKER TUBE WELDMENT - HI-RAIL	1.00
9	1804364	HI-RAIL CYLINDER	4.00
10	1801400	2 1/2" DIA X 52 1/4" LONG PIN	2.00
11	1800591	1 1/2" DIA X 4 1/2" LONG PIN	2.00
12	1801391	1 1/2" DIAMETER PIN WELDMENT	4.00
13	1800272	ROCKER ARM & TUBE ASSEMBLY	1.00
14	1800261	AXLE TUBE WELDMENT	1.00
15	1800452	H.H.C.S. 3/8-16 X 1" LONG	4.00
16	1800498	H.H.C.S. 3/4-10 X 5" LONG	2.00
17	1800561	1 1/2" FLAT WASHER	1.00
18	1800627	ROLL PIN 3/8" DIA X 3 1/2" LG	4.00
19	1800522	ESNA HEX NUT 3/4-10	2.00
21	1800593	1 1/2" DIA X 4 7/8" LONG PIN	2.00
22	1800568	3/8" LOCK WASHER	6.00
23	1800260	PIN WELDMENT	1.00
24	1800663	STRAIGHT 1/8" PIPE-M GREASE FITTING	7.00
25	1800542	ESNA HEX NUT 1 1/2-12	1.00
26	1802111	HI-RAIL TRAVEL STOP BLOCK	2.00
27	1801365	LOAD CHART - 9 FOOT TOTE HOOK	1.00
28	1800812	LOAD CHART-20 FT LATTICE BOOM W/HI-RAIL	1.00



SWINGMASTER CORPORATION

PARTS BOOK

MECHINE

SECTION

27

MODEL 181 SWINGLOADER

HI-RAIL RAILROAD W

ASSEMBLY
NUMBER

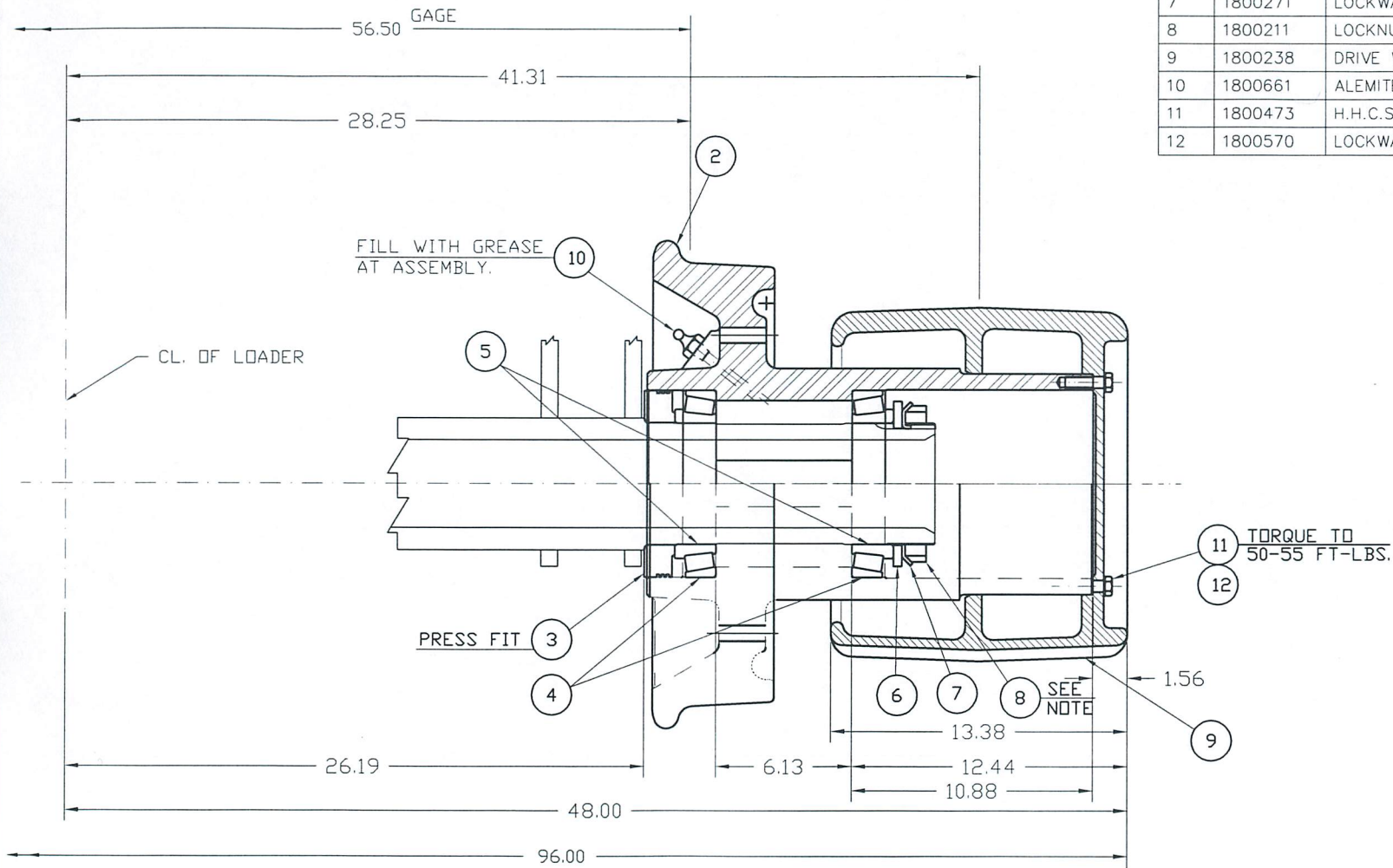
DESCRIPTION

1801655

HI-RAIL RAILROAD WHEEL EQUIP. IN

ITEM NO.	PART NUMBER	DESCRIPTION	QTY USED
2	1801656	TRACK WHEEL	1
3	1801401	DUST COLLAR	1
4	1800208	BEARING CUP 5-1/2" BORE	2
5	1800207	BEARING CONE 5-1/2" BORE	2
6	1801407	TONGUED STEEL WASHER	1
7	1800271	BEARING LOCKWASHER	1
8	1800211	LOCK NUT - HEAVY SECTION, 7-3/32"	1
9	1804363	DRIVE WHEEL	1
10	1800661	STRAIGHT 1/4" PIPE-M GREASE FITTING	1
11	1800473	H.H.C.S. 1/2-20 X 1 3/4" LONG	8
12	1800570	1/2" LOCK WASHER	8

ITEM	PART NO	DESCRIPTION	QTY
1	1801455	TRACK WHEEL END ASS'Y	1
2	1800242	TRACK WHEEL	1
3	1801401	DUST SEAL	1
4	1800208	BEARING CUP	2
5	1800207	BEARING CONE	2
6	1801407	TONGUED WASHER	1
7	1800271	LOCKWASHER	1
8	1800211	LOCKNUT	1
9	1800238	DRIVE WHEEL	1
10	1800661	ALEMITE FITTING	1
11	1800473	H.H.C.SCREW	8
12	1800570	LOCKWASHER	8

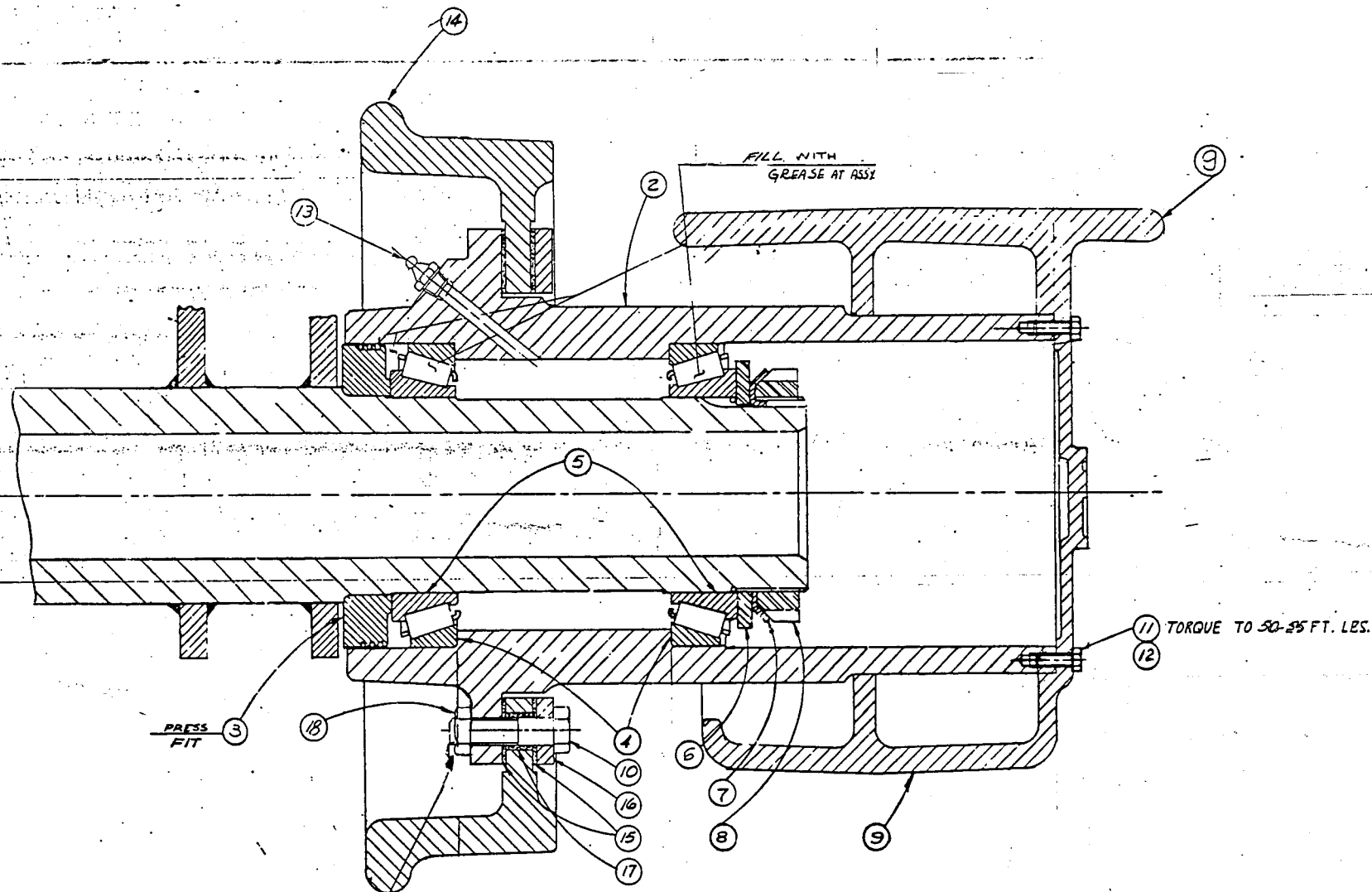


1 ASSEMBLY

- NOTE : 1. ASSEMBLE SEAL, BEARING CUPS & CONES, HUB, WASHER, LOCKWASHER, AND NUT IN SEATED POSITION.
2. TURN HUB AND TIGHTEN LOCKNUT UNTILL BEARING TIGHTEN AND HUB CAN NOT BE ROTATE BY HAND.
3. LOOSEN LOCKNUT TO OBTAIN 100 TO 200 INCH POUNDS OF ROLLING TORQUE AND LOCK TANG OF LOCKWASHER.

TOLERANCES		SWINGMASTER CORPORATION	
UNLESS OTHERWISE SPECIFIED		11415 MELROSE AVENUE	
FRACTIONS +/-		FRANKLIN PARK, ILLINOIS 60131	
3 PLACE DECIMALS +/-		TRACK WHEEL END ASS'Y	
2 PLACE DECIMALS +/-			
1 PLACE DECIMALS +/-		MODEL 181, 361 , SL-180	
ANGLES			
SEE SWINGMASTER SPECIFICATION		DRAWN BY: J.K.	
G-1 FOR TOLERANCES NOT SPECIFIED		DATE: 11-16-16	
DIMENSIONS ARE IN INCHES		DRAWING NO.	
DO NOT SCALE DRAWING		C-23	
SCALE :			

REVISION
1



① ASS'Y.

C1-23

SWINGMASTER CORPORATION

PARTS BOOK

MACHINE

SECTION

27

MODEL 181 SWINGLOADER

HI-RAIL RAILROAD WHEEL EQUIP.

ASSEMBLY
NUMBER

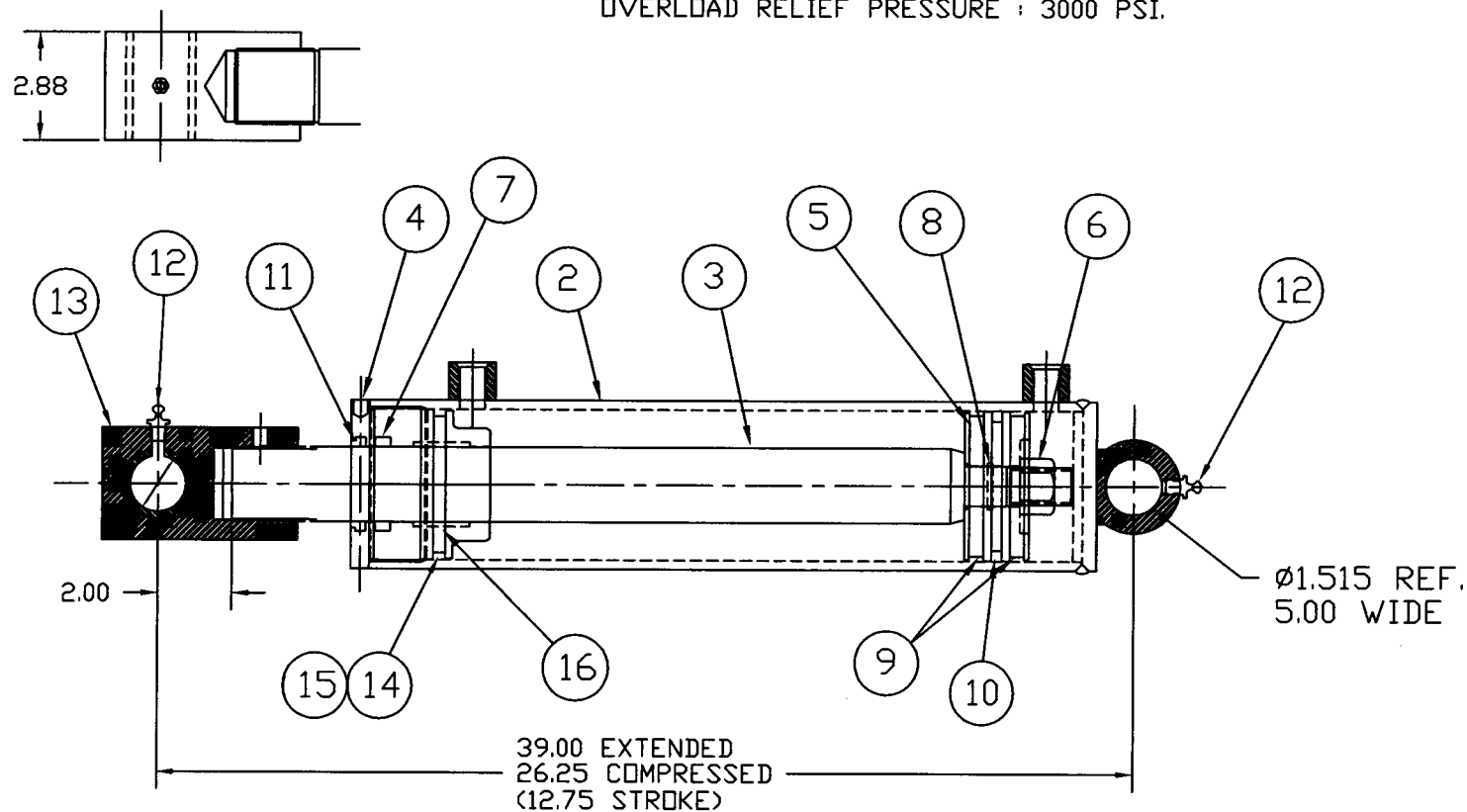
DESCRIPTION

1801890

INSULATED TRACK WHEEL END ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	1801891	TRACK WHEEL HUB	1
3	1801401	DUST COLLAR	1
4	1800208	BEARING CUP - 5 1/2" BORE	2
5	1800207	BEARING CONE - 5 1/2" BORE	2
6	1801407	TONGUED STEEL WASHER	1
7	1800271	BEARING LOCK WASHER	1
8	1800211	LOCK NUT	1
9	1800238	DRIVE WHEEL	1
9	1803118	WIDE DRIVE WHEEL	1
10	1801509	H.H.C.S. 3/4-16 X 2" LONG	8
11	1800473	H.H.C.S. 1/2-20 X 1 3/4" LONG	8
12	1800570	1/2" LOCK WASHER	8
13	1800661	STRAIGHT 1/4" PIPE-M GREASE FITTING	1
14	1801892	TRACK WHEEL	1
15	1801383	TRACK WHEEL INSULATING DISC	2
16	1801893	FLANGE	1
17	1802951	BUSHING	8
18	1801895	HEX JAM NUT 3/4-16	8

CYLINDER OPERATING PRESSURE : 2,050 PSI.
OVERLOAD RELIEF PRESSURE : 3000 PSI.



1 ASSEMBLY

NOTE :
MODEL 181T : CONVERTS FROM 2007 SERIAL NUMBER.

TOLERANCES		SWINGMASTER CORPORATION	
UNLESS OTHERWISE SPECIFIED		11415 MELROSE AVENUE	
FRACTIONS +/-		FRANKLIN PARK, ILLINOIS 60131	
3 PLACE DECIMALS +/- 0.005		HYDRAULIC CYLINDER	
2 PLACE DECIMALS +/- 0.01			
1 PLACE DECIMALS +/-			
ANGLES			
SEE SWINGMASTER SPECIFICATION			
TOLERANCES NOT SPECIFIED			
DIMENSIONS ARE IN INCHES		DRAWN BY: J.K.	
DO NOT SCALE DRAWING		DATE: 11-30-06	
SCALE: NONE		DRAWING NO. D-31N	

SWINGMASTER CORPORATION

PARTS BOOK

MACHINE

SECTION

27

MODEL 181 SWINGLOADER

HI-RAIL RAILROAD WHEEL EQUIP.

ASSEMBLY

NUMBER

DESCRIPTION

1806646

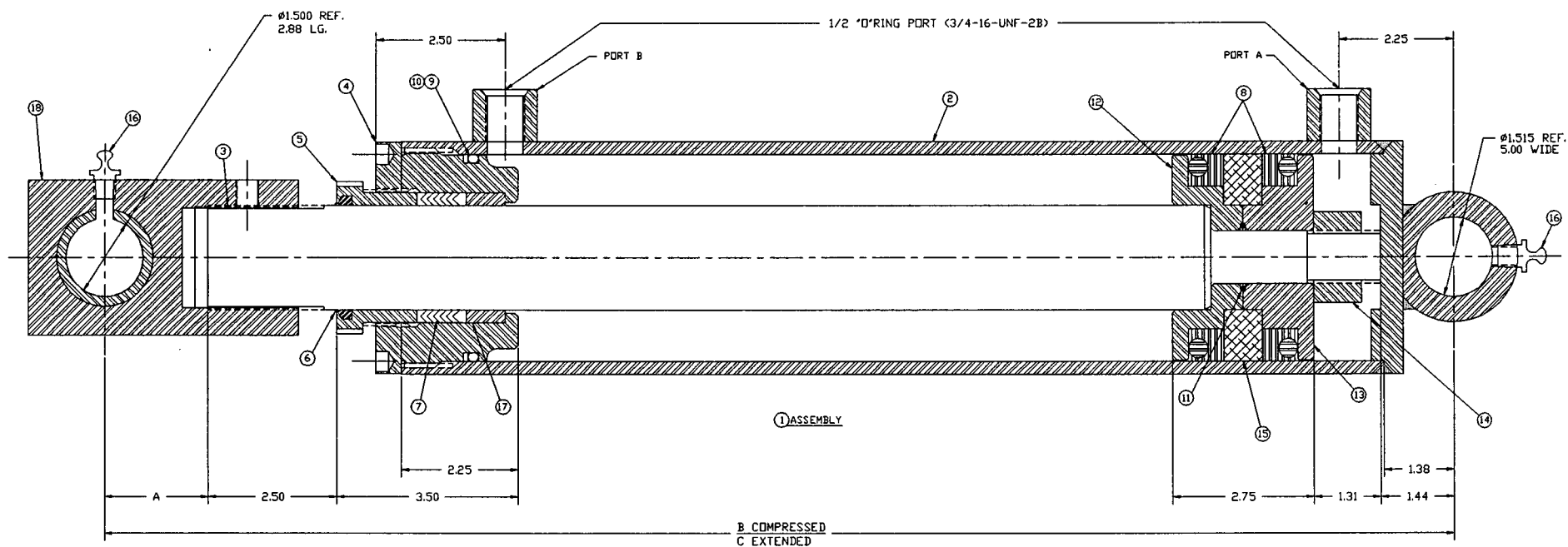
HYD. CYLINDER ASS'Y

ITEM
NO.PART
NUMBER

DESCRIPTION

QTY.
USED

002	1806647	CASE WLDM'T	1.00
003	1806648	ROD	1.00
004	1806649	CAP	1.00
005	1806650	PISTON	1.00
006	1805655	GRIPCO LOCKNUT 1"-14	1.00
007	1806615	U-SEAL	1.00
008	1806618	"O" RINGG	1.00
009	1806619	WEAR RING	2.00
010	1806620	PISTON RING	1.00
011	1806614	WIPER	1.00
012	1800663	STRAIGHT 1/8" MALE-PIPE GREASE FITTING	2.00
013	1805658	ROD END	1.00
014	1806621	"O" RING	1.00
015	1806622	BACK-UP RING	1.00
016	1806616	WEAR RING	3.00



ASSEMBLY PART NO.	STROKE	A	B	C	D	USE	PORT LOCATION	
							PORT A	PORT B
D-31	12.75	2.00	26.25	39.00	-	MODEL 181	AS SHOWN	AS SHOWN
D-31-1	12.75	2.00	26.25	39.00	-	MODEL 181	AS SHOWN	OPPOSITE FROM SHOWN ROTATED 180°

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 1/1	SWINGMASTER CORPORATION 11415 MELROSE AVENUE FRANKLIN PARK, ILLINOIS 60131	
	HYDRAULIC CYLINDER	
	MODEL 181	DRAWING NO. D-31
	DRAWN BY: R.M. DATE: 10-10-96	

SWINGMASTER CORPORATION

PARTS BOOK

MACHINE	SECTION	27
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MODEL 181 SWINGLOADER	HI-RAIL RAILROAD WHEEL EQUIP.	
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ASSEMBLY

NUMBER

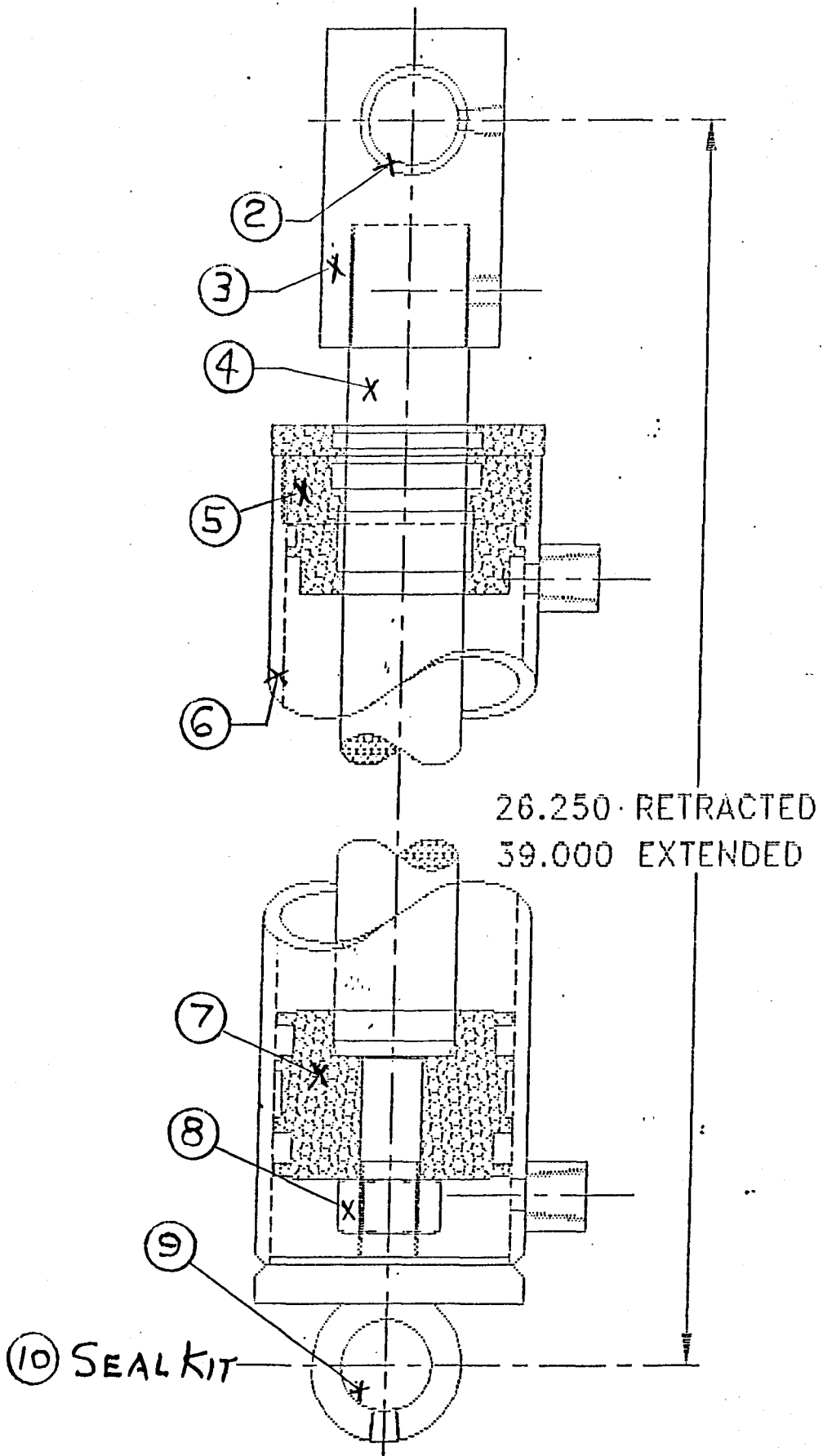
DESCRIPTION

1800246

HI-RAIL CYLINDER ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
002	1805643	CASE WELDMENT	1.00
003	1805644	ROD	1.00
004	1805645	CAP	1.00
005	1805646	GLAND NUT	1.00
006	1805647	SEAL	1.00
007	1805648	VEE PACKING SET	1.00
008	1805649	U-SEAL	2.00
009	1805650	"O" RING	1.00
010	1805651	BACK-UP RING	1.00
011	1805652	"O" RING	1.00
012	1805653	PISTON - RIGHT SIDE	1.00
013	1805654	PISTON - LEFT SIDE	1.00
014	1805655	GRIPCO LOCKNUT 1"-14	1.00
015	1805656	PISTON GUIDE	1.00
016	1800663	STRAIGHT 1/8" MALE-PIPE GREASE FITTING	2.00
017	1805657	NYLON BEARING	1.00
018	1805658	ROD END	1.00

FROM 97181L0178 TO PRESENT



HI-RAIL CYLINDER 1800246

SWINGMASTER CORPORATION

PARTS BOOK

MACHINE

SECTION

27

MODEL 181 SWINGLOADER

HI-RAIL RAILROAD WHEEL EQUIP.

ASSEMBLY

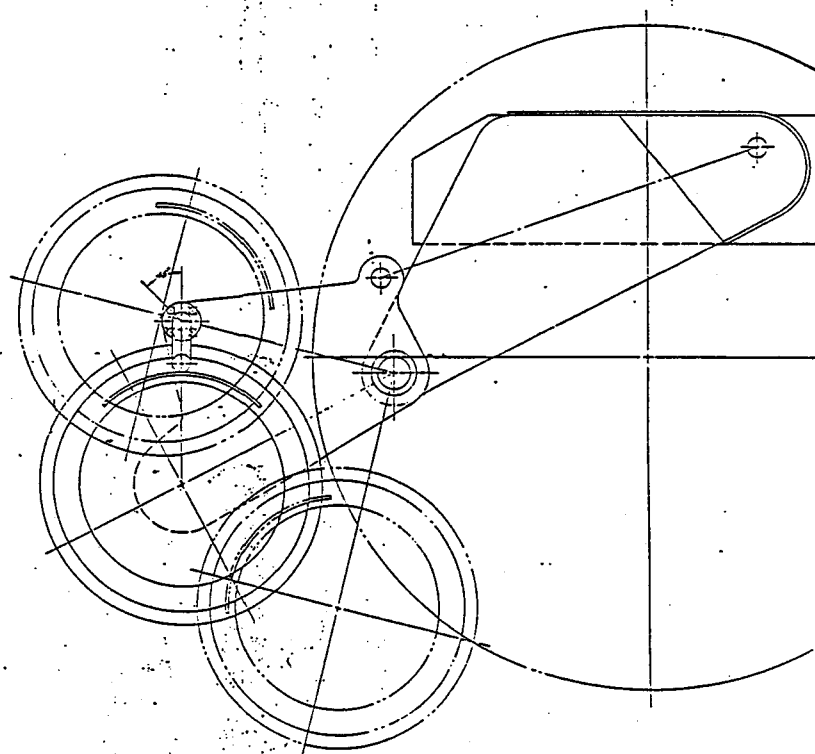
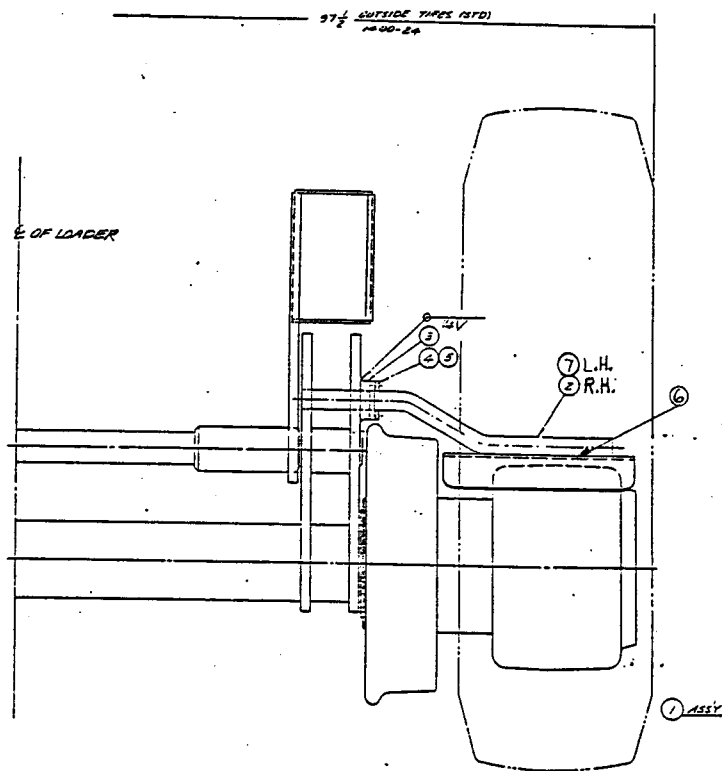
NUMBER

DESCRIPTION

1800246

HI-RAIL CYLINDER ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	8700714	TUBE ASSEMBLY	1
3	8700715	PISTON ROD	1
4	8700716	PACKING GLAND	1
5	8700717	GLAND NUT	1
6	8700718	GUIDE BUSHING	1
7	8700719	PACKING SET	1
8	8700720	WIPER RING	1
9	8700721	O-RING	1
10	8700722	SLOTTED HEX NUT	1
11	8700723	PISTON END	1
12	8700724	PISTON END	1
13	8700725	CENTER PISTON	1
14	8700726	"U" PACKING	1
15	8700727	O-RING	1
16	8700728	COTTER PIN	1
17	8700729	ROD END	1
19	8700731	SET SCREW	1
20	1800663	LUBRICATION FITTING	2
21	8700732	THD. GUARD DISC	1
	8700730	SEAL KIT	1
		INCLUDES ITEMS 7,8,9,14,15	



SWINGMASTER CORPORATION

PARTS BOOK

MACHINE	SECTION	27
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MODEL 181 SWINGLOADER	HI-RAIL RAILROAD WHEEL EQUIP.	
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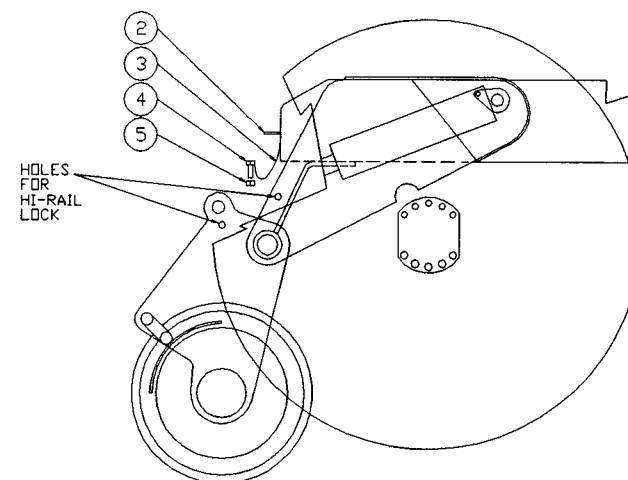
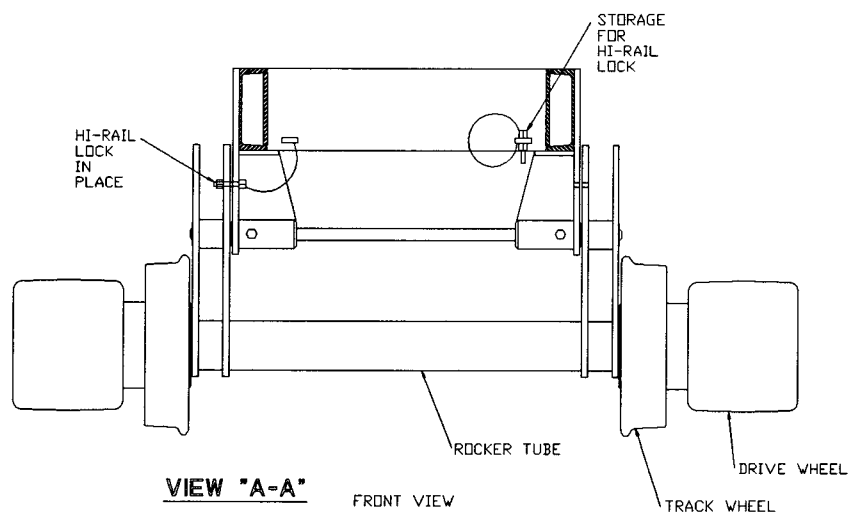
 ASSEMBLY
NUMBER

DESCRIPTION

1801443

FRONT HI-RAIL GUARD ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
-----	-----	-----	-----
2a	1800342	HI-RAIL GUARD - RIGHTHAND	1
2b	1800343	HI-RAIL GUARD - DUAL FLANGE ONLY - RIGHT	1
2c	1804461	HI-RAIL GUARD - RIGHTHAND - 3rd RAIL	1
3	1800973	MOUNTING PLATE	2
4	1801456	H.H.C.S. 3/8-24 X 1" LONG	8
5	1800568	3/8" LOCK WASHER	8
6	1801050	LABEL - DANGER PINCH POINTS	2
7a	1803686	HI-RAIL GUARD - LEFTHAND	1
7b	1803711	HI-RAIL GUARD - DUAL FLANGE ONLY - LEFT	1
7c	1804462	HI-RAIL GUARD - LEFTHAND - 3rd RAIL	1
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SIDE VIEW

FRONT OF
MACHINE

① INSTALLATION

TOLERANCES		SWINGMASTER CORPORATION	
UNLESS OTHERWISE SPECIFIED		11415 MELROSE AVENUE	
FRACTIONS +/-		FRANKLIN PARK, ILLINOIS 60131	
3 PLACE DECIMALS +/-		HI-RAIL HOLD UP PINS INSTALLATION	
2 PLACE DECIMALS +/-			
1 PLACE DECIMALS +/-			
ANGLES			
SEE SWINGMASTER SPECIFICATION			
G-1 FOR TOLERANCES NOT SPECIFIED			
DIMENSIONS ARE IN INCHES		DRAWN BY: R.O.	
DO NOT SCALE DRAWING		DATE: 5-2-90	
SCALE: NONE		DRAWING NO.	
		H-263	