

② BOTH INSULATED WHEELS  
MUST BE ON THE SAME  
SIDE OF THE MACHINE.

VIEW "B-B"

VIEW "A-A"

FRONT OF MACHINE

① ASSEMBLY

NOTE: 1. SEE D4-764 FOR 3RD HI-RAIL MAIN FRAME, IF REQUESTED.  
2. SEE SPECIAL DRIVE WHEEL D-599 AND D1-599.

TOLERANCES  
UNLESS OTHERWISE SPECIFIED  
1 FRACTIONS ±/−  
2 PLACE DECIMALS ±/−  
3 PLACE DECIMALS ±/−  
4 ANGLES  
SEE DIMENSIONS FOR POSITION  
OF THE TOLERANCES ARE NOT PROVIDED  
DIMENSIONS ARE IN INCHES  
DO NOT SCALE DRAWING  
SCALE: 1/4" = 1'-0"

SWINGMASTER CORPORATION  
1143 WILKES AVENUE  
POMONA, CALIF. 92673  
HI-RAIL INSTALLATION  
56 1/2" RICH GAGE  
MODEL 1817CH  
DRAWN BY: J.C.  
DATE: 9-8-68  
DRAWING NO.  
D1-816

MACHINE

SECTION

1

MODEL SL180-13 SWINGLOADER .

HI-RAIL RAILROAD WHEEL

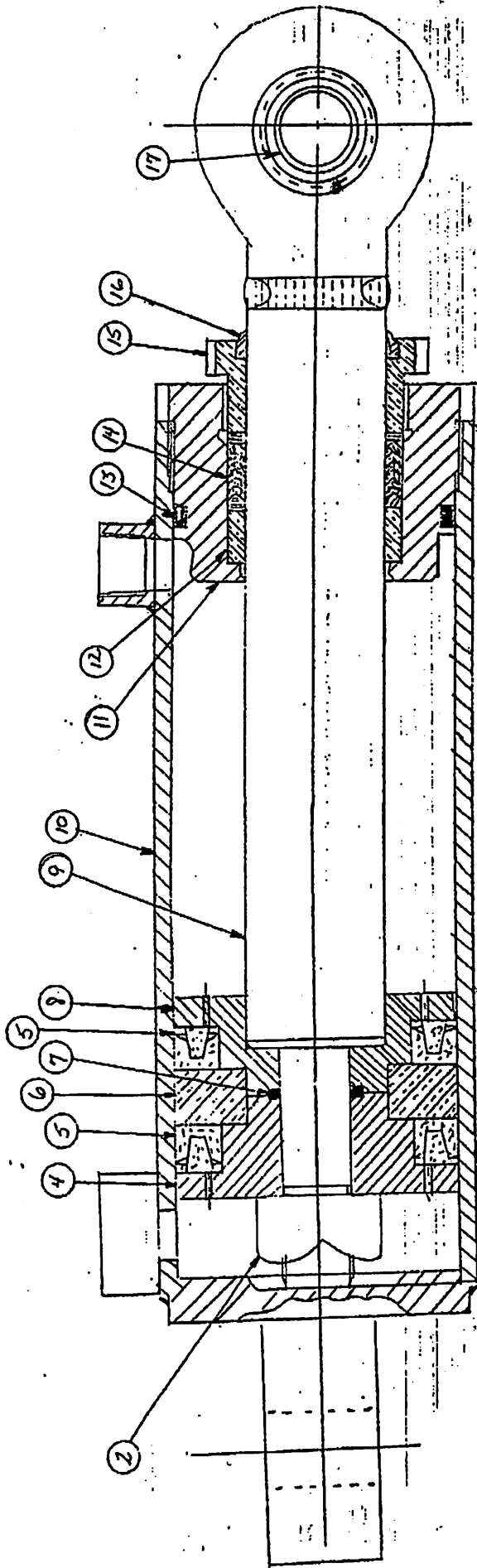
ASSEMBLY		DESCRIPTION	QTY USED
NUMBER			
1806828		HI-RAIL INSTALLATION	
ITEM NO.	PART NUMBER	DESCRIPTION	QTY USED
2	1802100	HI-RAIL CYLINDER	4
3	1802101	PIN - 1 1/2" DIA. X 4 7/8" LONG	4
4	1800452	H.H.C.S. 3/8-16 X 1" LONG	4
5	1800568	3/8" LOCK WASHER	4
6	1800663	STRAIGHT 1/8" MALE-PIPE GREASE FITTING	13
7	1802561	PIN - 1 1/2" DIA. X 5 1/4" LONG	4
8	1802103	H.H.C.S. 3/8-24 X 4" LONG	4
9	1802104	ESNA NUT 3/8-24	12
10	1806201	FRONT HI-RAIL ROCKER ARM & AXLE TUBE WDT	1
11	1802106	PIN - 2 1/2" DIA. X 43" LONG	2
12	1800498	H.H.C.S. 3/4-10 X 5" LONG	2
13	1800522	ESNA HEX NUT 3/4-10	2
14	1802107	HI-RAIL GUARD WELDMENT	2
15	1802108	H.H.C.S. 3/8-24 X 1 3/4" LONG	8
16	1801050	LABEL- DANGER PINCH POINTS	2
17	1806202	REAR HI-RAIL ROCKER ARM WLD'T	1
18	1802110	REAR HI-RAIL AXLE TUBE WELDMENT	1
19	1800260	PIN WELDMENT	1
20	1800181	BRONZE BUSHING - 2" x 2-1/2"	2
21	1800561	1 1/2" FLAT WASHER	1
22	1800542	ESNA HEX NUT 1 1/2-12	1
23	1801455	TRACK WHEEL END ASSEMBLY	4
27	1800266	WRENCH ASSEMBLY (FOR BEARING LOCKNUT)	1
28	1802111	HI-RAIL TRAVEL STOP BLOCK	4

SWINGMASTER CORPORATION

11415 MELROSE AVENUE

FRANKLIN PARK, ILLINOIS 60131

TEL: (847) 451-1224



MACHINE \_\_\_\_\_ SECTION 1

MODEL SL180-13 SWINGLOADER . HI-RAIL RAILROAD WHEEL EQUIP.

ASSEMBLY NUMBER	DESCRIPTION
1802100	HI-RAIL CYLINDER ASSEMBLY

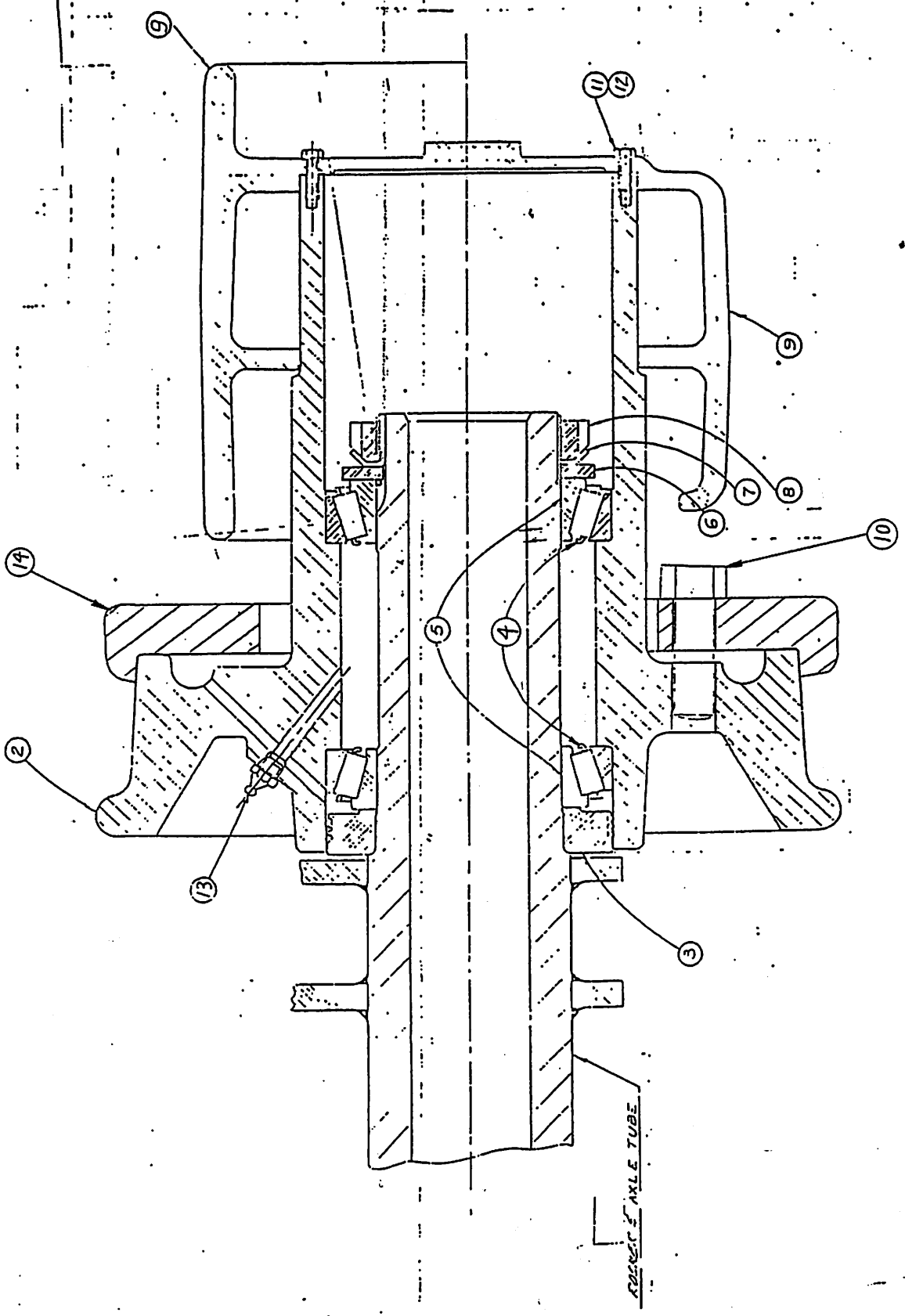
ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	8703296	STOP NUT 1-14	1
4	8700723	PISTON END	1
5	8700726	"U" PACKING	2
6	8700725	CENTER PISTON	1
7	8700727	O-RING	1
8	8700724	PISTON END	1
9	8703306	PISTON ROD	1
10		TUBE	1
11	8700716	PACKING GLAND	1
12	8700718	GUIDE BUSHING	1
13	8700721	O-RING	1
14	8700719	PACKING SET	1
15	8700717	GLAND NUT	1
16	8700720	WIPER RING	1
17	1803626	SPHERICAL BUSHING	2

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① ASSY.

MACHINE

SECTION

1

MODEL SL180-13 SWINGLOADER

HI-RAIL RAILROAD WHEEL EQUIP.

ASSEMBLY  
NUMBER

## DESCRIPTION

1801455

TRACK WHEEL END ASSEMBLY - STANDARD GAGE

1801655

TRACK WHEEL END ASSEMBLY- FOR THIRD RAIL

1801807

TRACK WHEEL END ASSEMBLY-FOR DUAL FLANGE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	1800242	TRACK WHEEL - STANDARD GAGE	1
2	1801656	TRACK WHEEL - FOR THIRD RAIL	1
2	1800243	TRACK WHEEL - FOR DUAL FLANGE	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*	1800480	H.H.C.S. 3/4-16 X 2 1/2" LG	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*	1800358	FLANGE	1

\* - FOR DUAL FLANGE USE ONLY

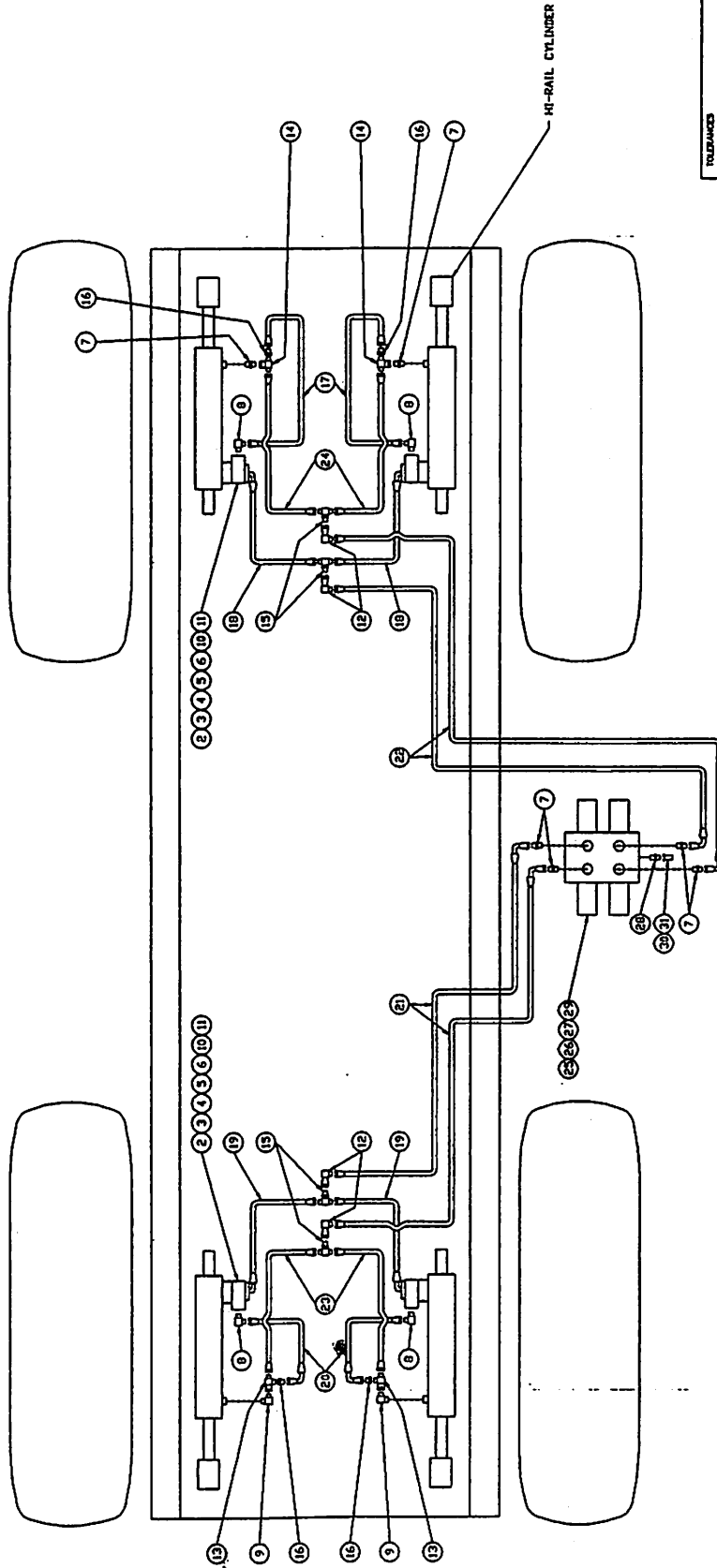
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FRONT OF MACHINE



<b>SWINGMASTER CORPORATION</b> 11415 WILSON AVENUE FRANKLIN PARK, ILLINOIS 60151	
H-RAIL CONTROL VALVE LINES & FITTINGS	
MODEL 361	DRAWING NO. D-257
DATE 8-1-69	DRAWING NO. 041
TOLERANCES UNLESS OTHERWISE SPECIFIED 3 PLACE DECIMALS +/- 2 PLACE DECIMALS +/- 1 PLACE DECIMALS +/- ANGLES	
SEE SWINGMASTER SPECIFICATION G-1 FOR TOLERANCES NOT SPECIFIED DIMENSIONS ARE IN INCHES SCALE 1/8"	

MACHINE

SECTION

1

MODEL SL180-13 SWINGLOADER

HI-RAIL RAILROAD WHEEL EQUIP.

ASSEMBLY  
NUMBER

DESCRIPTION

1802511

HI-RAIL CONTROL VALVE LINES &amp; FITTINGS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	1800210	COUNTERBALANCE VALVE	4.00
3	1800454	H.H.C.S. 3/8-16 X 1 1/4" LONG	8.00
4	1800462	H.H.C.S. 3/8-16 X 3" LONG	8.00
5	1800463	H.H.C.S. 3/8-16 X 3 1/2" LONG	8.00
6	1800568	3/8" LOCK WASHER	24.00
7	1800765	STRAIGHT MALE 1/2 O-RING TO 1/2 TUBE	6.00
8	1800794	90 DEG MALE ELBOW 3/8 O-RING TO 3/8 TUBE	4.00
9	1800796	90 DEG MALE ELBOW 1/2 O-RING TO 1/2 TUBE	2.00
10	1800817	3/4" O-RING FOR SPLIT FLANGE HEAD	4.00
11	1800823	3/4" SPLIT FLANGE CLAMP HALF	8.00
12	1800853	90 DEG TUBE ELBOW 1/2 M TO 1/2 F SWIVEL	4.00
13	1800859	1/2 TUBE RUN TEE M-F SWIVEL-M	2.00
14	1800883	1/2 TUBE BRANCH TEE M-M-F-SWIVEL	2.00
15	1801009	1/2 TUBE MALE BULKHEAD BRANCH TEE	4.00
16	1802381	STRAIGHT TUBE ADAPTER 3/8-M TO 1/2-F	4.00
17	1802512	HOSE ASSEMBLY 1503-6	2.00
18	1802513	HOSE ASSEMBLY 2781-8	2.00
19	1802514	HOSE ASSEMBLY 2781-8	2.00
20	1801602	HOSE ASSEMBLY 1503-6	2.00
21	1802515	HOSE ASSEMBLY 2781-8	2.00
22	1802516	HOSE ASSEMBLY 2781-8	2.00
23	1802517	HOSE ASSEMBLY 2781-8	2.00
24	1802518	HOSE ASSEMBLY 2781-8	2.00
25	1800443	H.H.C.S. 5/16-18 X 1" LONG	4.00
26	1800512	HEX NUT 5/16-18	4.00
27	1800074	5/16" LOCK WASHER	4.00
28	1800764	STRAIGHT MALE 1/2 O-RING TO 3/8 TUBE	1.00
29	1802562	HI-RAIL CONTROL VALVE	1.00
30	1800876	DUST CAP	1.00
31	1801668	PRESSURE SENSING COUPLING - 3/8 TUBE	1.00

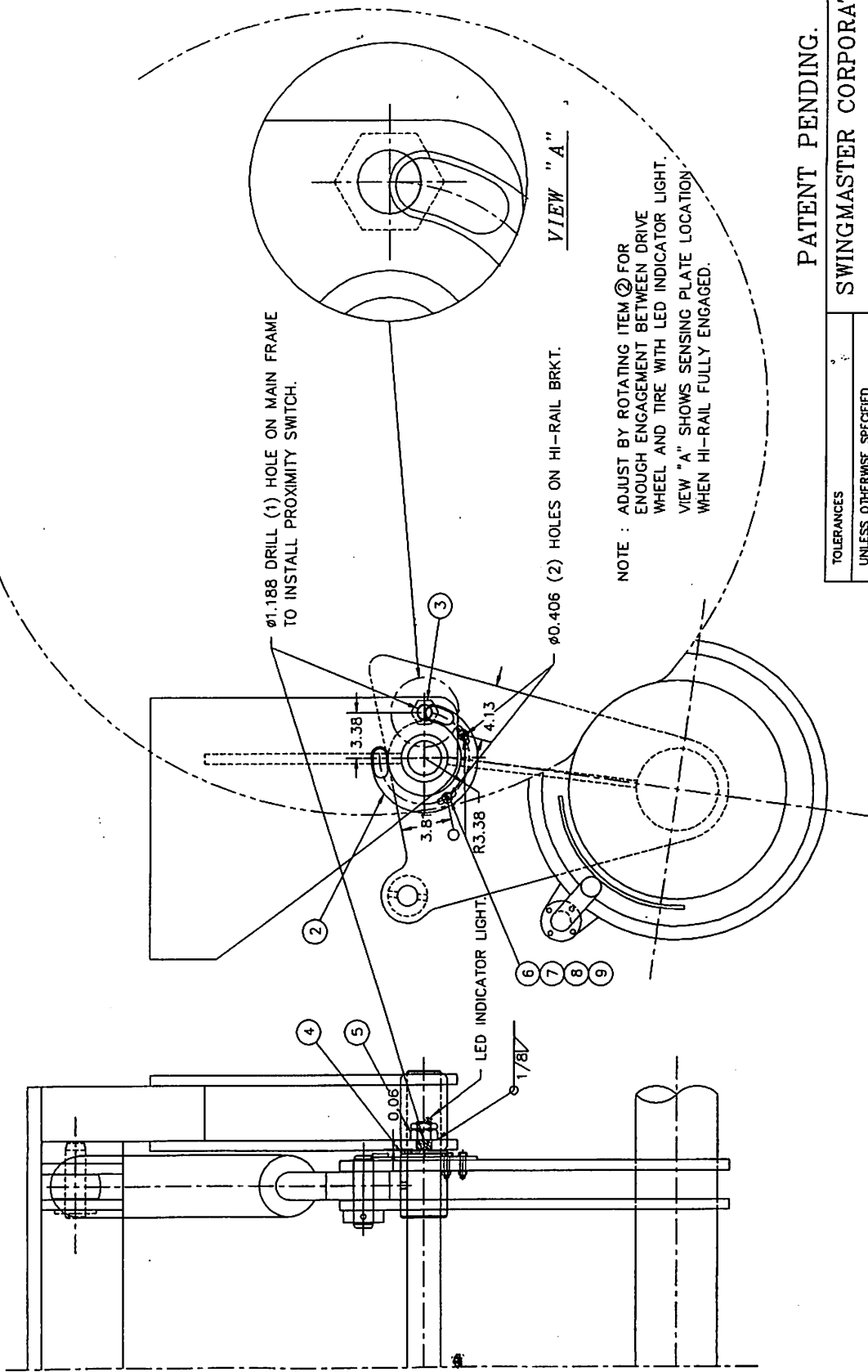
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FRANKLIN PARK, ILLINOIS 60131

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Ø1.188 DRILL (1) HOLE ON MAIN FRAME TO INSTALL PROXIMITY SWITCH.

Ø0.406 (2) HOLES ON HI-RAIL BRKT.

NOTE : ADJUST BY ROTATING ITEM 2 FOR ENOUGH ENGAGEMENT BETWEEN DRIVE WHEEL AND TIRE WITH LED INDICATOR LIGHT. VIEW "A" SHOWS SENSING PLATE LOCATION WHEN HI-RAIL FULLY ENGAGED.

VIEW "A"

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 : 1/6

PATENT PENDING.

SWINGMASTER CORPORATION

11415 MELROSE AVENUE  
 FRANKLIN PARK, ILLINOIS 60131

DRIVER SIDE FRONT SENSOR INSTALLATION

HI-RAIL FREE WHEEL PROTECTION SYSTEM

MODEL SL180

DRAWN BY: J.K.

DATE: 10-17-02

DRAWING NO.

C-410

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MACHINE	SECTION	1
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MODEL SL180-13 SWINGLOADER	HI-RAIL RAILROAD WHEEL EQUIP.	
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ASSEMBLY NUMBER	DESCRIPTION
1806253	DRIVER SIDE FRONT SENSOR INSTALLATION

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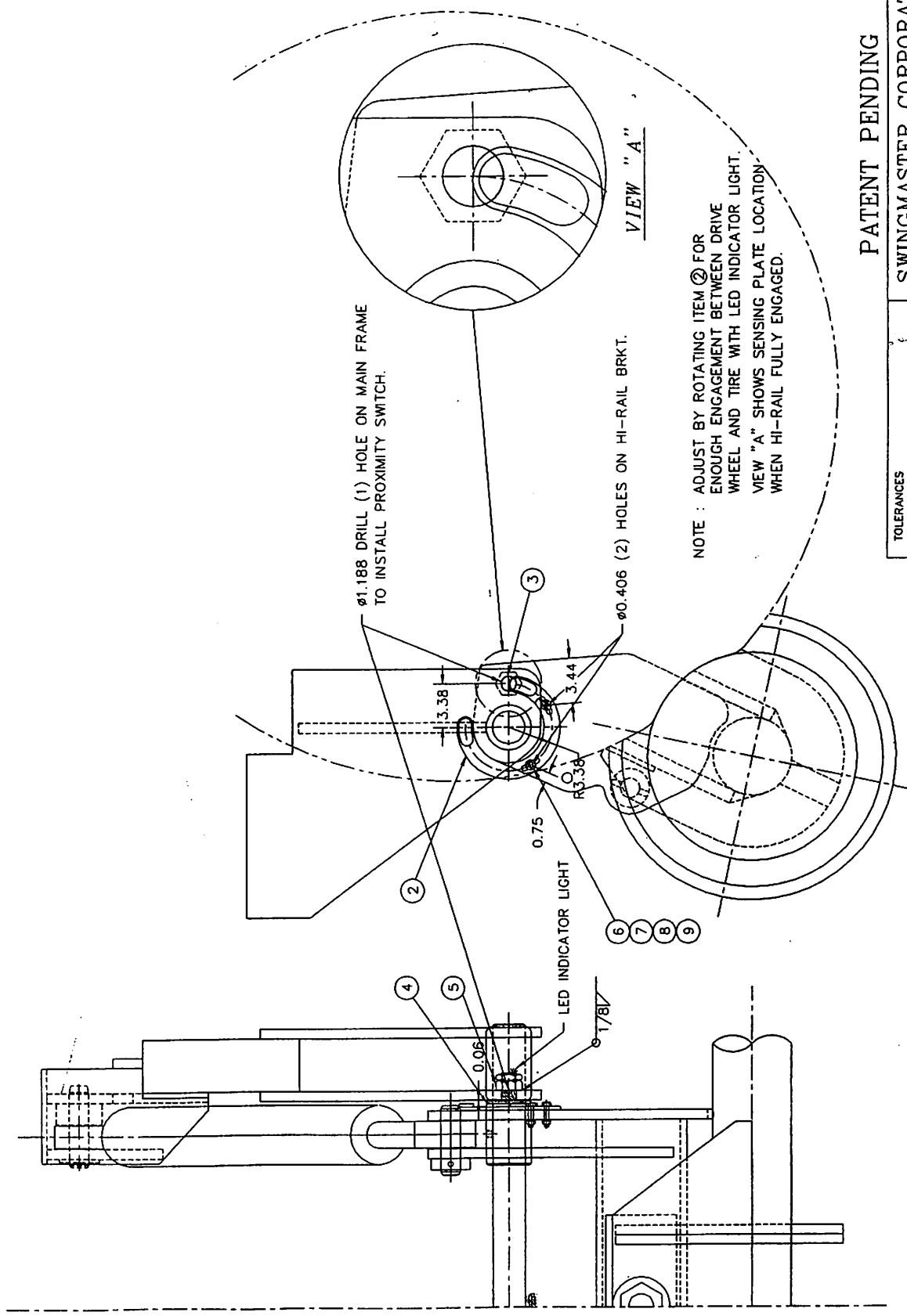
ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	1806255	SENSING PLATE WELDMENT	1.00
3	1806256	PROXIMITY SWITCH	1.00
4	1806257	SPECIAL SPACER	1.00
5	1806258	METRIC HEX NUT M30-1.50	1.00
6	1800459	H.H.C.S. 3/8-16 X 1 3/4" LONG	2.00
7	1800552	3/8" FLAT WASHER	2.00
8	1800568	3/8" LOCK WASHER	2.00
9	1800514	HEX NUT 3/8-16	2.00

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Ø1.188 DRILL (1) HOLE ON MAIN FRAME  
TO INSTALL PROXIMITY SWITCH.

Ø0.406 (2) HOLES ON HI-RAIL BRKT.

NOTE : ADJUST BY ROTATING ITEM 2 FOR  
ENOUGH ENGAGEMENT BETWEEN DRIVE  
WHEEL AND TIRE WITH LED INDICATOR LIGHT.  
VIEW "A" SHOWS SENSING PLATE LOCATION  
WHEN HI-RAIL FULLY ENGAGED.

VIEW "A"

<b>TOLERANCES</b> 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: 1/6	
<b>PATENT PENDING</b> <b>SWINGMASTER CORPORATION</b> 11415 MELROSE AVENUE FRANKLIN PARK, ILLINOIS 60131	
<b>PASSENGER SIDE REAR SENSOR INSTALLATION</b> <b>HI-RAIL FREE WHEEL PROTECTION SYSTEM</b> <b>MODEL SL180</b>	
DRAWN BY: J.K.	DRAWING NO <b>C1-410</b>
DATE: 10-17-02	

MACHINE	SECTION
MODEL SL180-13 SWINGLOADER	1 HI-RAIL RAILROAD WHEEL EQUIP.

ASSEMBLY NUMBER	DESCRIPTION
1806254	PASSENGER SIDE REAR SENSOR INSTALLATION

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. USED
2	1806255	SENSING PLATE WELDMENT	1.00
3	1806256	PROXIMITY SWITCH	1.00
4	1806257	SPECIAL SPACER	1.00
5	1806258	METRIC HEX NUT M30-1.50	1.00
6	1800459	H.H.C.S. 3/8-16 X 1 3/4" LONG	2.00
7	1800552	3/8" FLAT WASHER	2.00
8	1800568	3/8" LOCK WASHER	2.00
9	1800514	HEX NUT 3/8-16	2.00

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