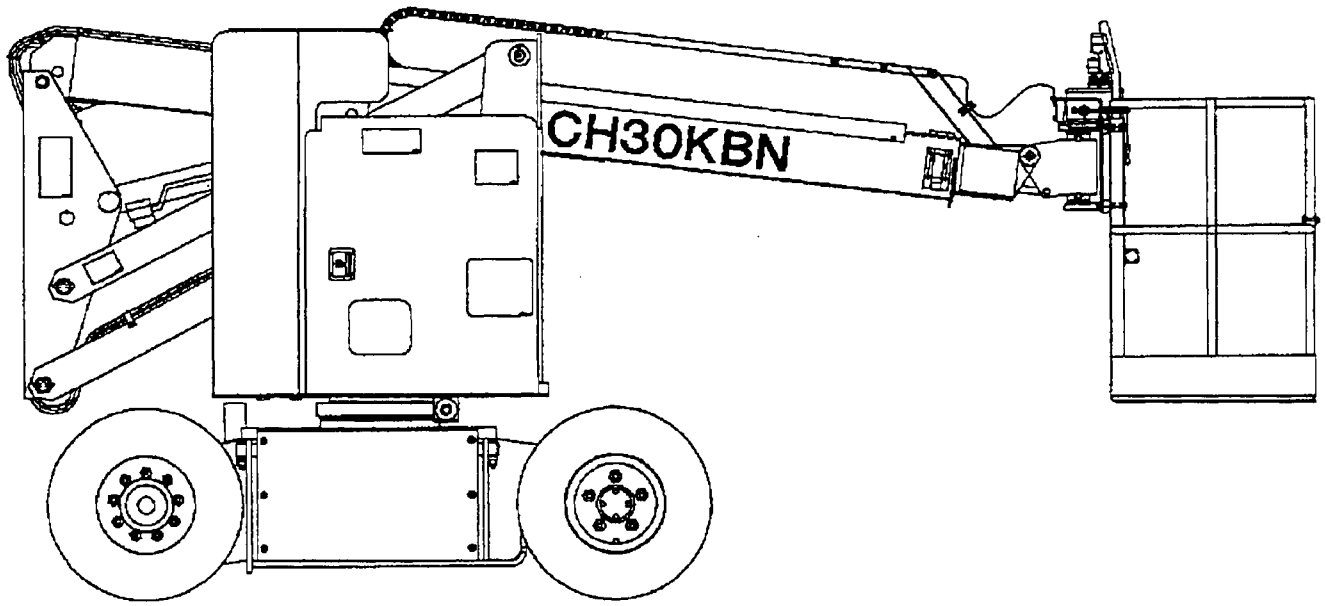
Mark Industries

SELF-PROPELLED KNUCKLE BOOM
MODEL: CH30KBN



PARTS MANUAL

MARK INDUSTRIES
106 12th Street S.E.
Waverly, Iowa 50677
(319) 352-3920
(319) 352-5727 FAX

Issued: Dec 95

P/N 17316

SECTION 1 CONTAINS:

PAGE	TITLE
1.1	NOTICE TO USERS
1.2	TABLE OF CONTENTS
1.6	HOW TO USE THE PARTS MANUAL
1.8	HOW TO ORDER PARTS
1.10	ABBREVIATIONS AND SYMBOLS

DISCLAIMER

MARK INDUSTRIES strives to include in the Parts Manual, information and illustrations that are accurate, complete, and current. Due to on-going changes and revisions by our many suppliers, it is often impossible to show all variations of a given assembly. Therefore, this information is subject to change without notice.

NOTICE

The Parts Manual, though sometimes helpful in the process of assembly / disassembly, is NOT intended to be assembly / disassembly instructions.

TABLE OF CONTENTS

Mark Industries

SECTION 1 "INTRODUCTION" CONTAINS:

PAGE	TITLE
1.1	NOTICE TO USERS
1.2	TABLE OF CONTENTS
1.6	HOW TO USE THE PARTS MANUAL
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1.10	ABBREVIATIONS AND SYMBOLS

SECTION 2 "FINAL ASSEMBLY" CONTAINS:

PAGE	TITLE
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2.5	MANUAL BOX
2.6	SHEET METAL ASSEMBLY
2.7	DECAL SET
2.10	PLATFORM ASSEMBLY
2.12	AERIAL CONTROL BOX ASSEMBLY
2.14	GROUND CONTROL BOX ASSEMBLY
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2.18	HYDRAULIC ASSEMBLY (Prior to July 1995)

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3.2	BASE ASSEMBLY (Prior to July 1995)
3.6	BASE ASSEMBLY (After July 1995)
3.10	BATTERY AND BOX ASSEMBLY
3.12	STEERING CYLINDER
3.13	CONTROLLER

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3.16	BRAKE RELEASE ASSEMBLY (Prior to July 1995)
3.18	TORQUE HUB (Standard)
3.20	DRIVE MOTOR
3.22	CALIPER BRAKE (Prior to July 1995)
3.24	BRAKE, MULTIPLE DISC (After July 1995)
3.26	TORQUE HUB (High Speed)

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4.2	TURRET ASSEMBLY
4.6	BOOM LIFT CYLINDER
4.7	CONTROL VALVE ASSEMBLY
4.10	BATTERY CHARGER - DOMESTIC
4.11	BATTERY CHARGER - INTERNATIONAL

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5.2	BOOM ASSEMBLY
5.6	BOOM ASSEMBLY - INNER
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5.9	SLAVE CYLINDER

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6.3	AIRLINE TO PLATFORM

SECTION 7 "ALPHABETICAL LIST" CONTAINS:

PAGE	TITLE
7.2	ALPHABETICAL PARTS LIST

NOTES

HOW TO USE THE PARTS MANUAL

Mark Industries

1

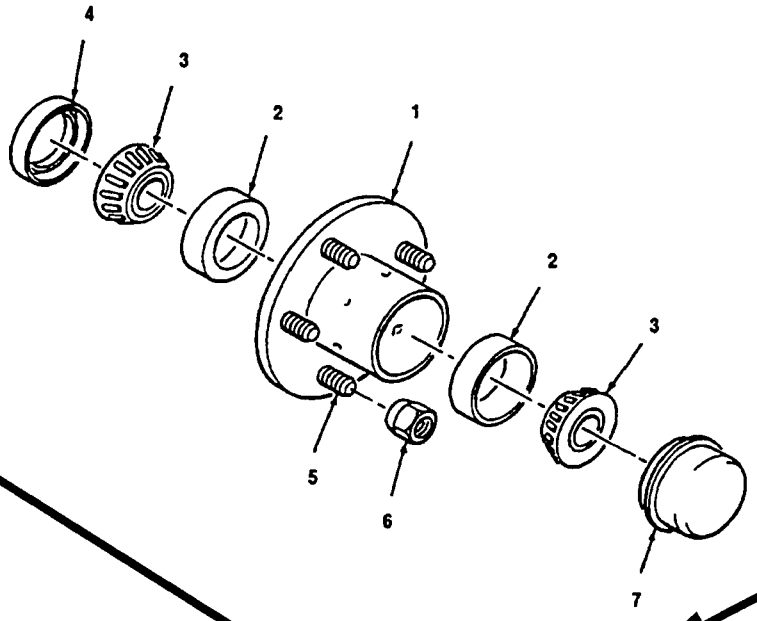
Mark Industries

HUB ASSEMBLY

Models CH30KBN
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3.11 Page

2



5
4
3
6
9
8

Ref.	Part No.	Description	Qty	Remarks
-	134	Assembly, Hub (Studs in Assembly are not used)	Ref.	Incl. items 1 thru 7 To order complete assembly, order P/N 134 Hub & 5 each of 160681 Stud.
1	65684	Hub	1	
2	65686	Race, Bearing	2	
3	65059	Bearing	2	
4	66113	Seal, Grease	1	
5	65685	Studs, Wheel (Not used on machine - See Note)	5	Replace with item 8.
6	61316	Nut, Lug	5	
7	137	Dust Cap	1	
8	160681	Studs, Wheel (Used on machine)	5	(Qty 10 per machine)

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PART REQUIRED

PARTS MANUAL FORMAT

1. **SECTION** refers to the major divisions of the Parts Manual.

2. **PAGE** indicates the page number of the illustration or parts list.

3. The **REF.** number shown in the first column of the parts list corresponds to the callout in the illustration on the same page or facing page.

4. The Mark Industries **PART NUMBER** is shown in the second column for items that are serviceable.

5. **DESCRIPTION** of the part or assembly is shown in the third column.

6. **QUANTITY** indicates the quantity of items used in the assembly or sub-assembly directly above.

   A. Ref. indicates the item is not serviceable or is part of another assembly.

   B. AR indicates the item is used as required. Some quantities may be specified "For Machine".

7. Indented Items are items that are included in the subassembly directly above. See the example below for the indenture system use in this manual.

   EXAMPLE:

Ref.	Part No.	Description	Qty
	123456	Assembly	Ref.
1	234567	Part of Assembly	1
2	345678	Subassembly	1
	456789	Part of Subassembly	2

8. Common abbreviations and symbols that are used throughout this manual are shown on page 1.10 for reference.

9. **REMARKS** are shown in the fifth or far right column. The Remarks column will include page number references for more detailed breakdowns, keyed items included in Kits indicated by symbols * ^ , sizes & special information.

HOW TO ORDER PARTS

Mark Industries

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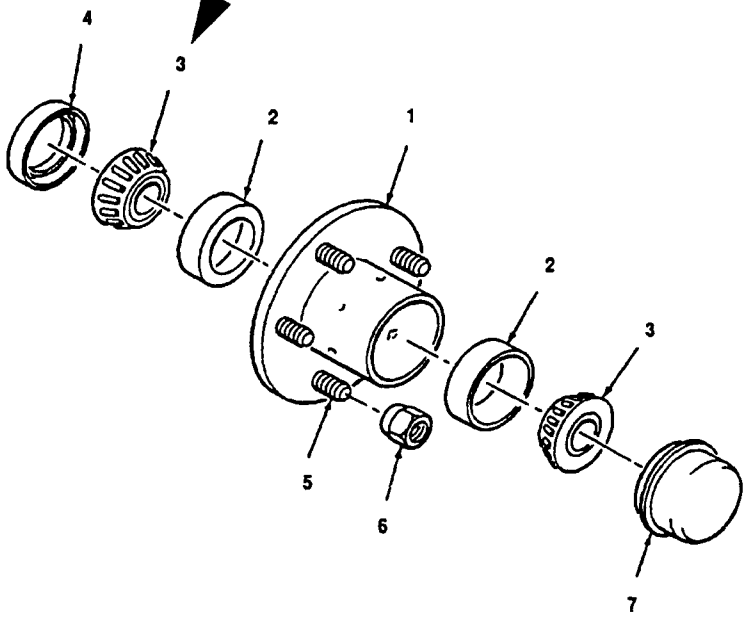
1A

Mark Industries

HUB ASSEMBLY

Model CH30KBN
Issued 12-95

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3.11 Page



1D

1C

Ref.	Part No.	Description	Qty	Remarks
-	134	Assembly, Hub (Studs in Assembly are not used)	Ref.	Incl. items 1 thru 7 To order complete assembly, order P/N 134 Hub & 5 each of 160681 Stud.
1	65684	Hub	1	
2	65686	Race, Bearing	2	
3	65059	Bearing	2	
4	66113	Seal, Grease	1	
5	65685	Studs, Wheel (Not used on machine - See Note)	5	Replace with item 8.
6	61316	Nut, Lug	5	
7	137	Dust Cap	1	
8	160681	Studs, Wheel (Used on machine)	5	(Qty 10 per machine)

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PART REQUIRED

1. **Find the Mark Industries Part Number:**

   A. Using the Table of Contents, find the Section and Page Number.

   B. Match the required part to the illustration and note the callout number.

   C. Find the corresponding Reference number in the parts list below the illustration or on the facing page.

   D. Use the Mark Industries Part Number listed next to the Ref. number when ordering.

   E. Always include the complete part number, as shown in the Parts Manual, along with the description of the part and specify the quantity of the part you wish to order.

   F. Anticipate your spare parts requirements.

   G. Place orders early in the day.

   H. Keep a supply of normal maintenance and recommended spare parts in stock.

   I. Obtain recommended parts stocking requirements from Mark Industries or your Mark Industries Distributor.

2. **Customer Ordering:**

   Genuine Mark Industries parts are available worldwide and must be ordered through your local Mark Industries Distributor. For your nearest Mark Industries Distributor, contact the Parts Sales Center at the numbers listed below.

3. **Distributor Ordering: Listed below in the respective order of preference, are the methods of ordering parts.**

   A. ON LINE (Preferred)

   B. FAX: (615) 899-9819

   C. PHONE: (615) 899-6362

   D. MAIL: Parts Sales Center
   P.O. Box 24148
   5959 Shallowford Road, Suite 229
   Chattanooga, TN 37421

   NOTE: If your Parts Department is not ON-LINE, contact the PARTS SALES CENTER for information on using this system.

4. Any errors, comments, or suggestions should be forwarded to the Director of Product Support at the following address:

   Mark Industries
   106 12th Street S.E.
   Waverly, IA 50677

ABBREVIATONS AND SYMBOLS

Mark Industries

AC	ALTERNATING CURRENT	"	INCHES
ADPTR	ADAPTER	INT	INTERNAL
AMP	AMPERE	INV	INVERTED
APPROX	APPROXIMATELY	LG	LENGTH
AR	AS REQUIRED	LH	LEFT HAND
ASSY	ASSEMBLY	MAX	MAXIMUM
AVAIL	AVAILABLE	MIN	MINIMUM
BRG	BEARING	MM	MILLIMETER
BRKT	BRACKET	MTG	MOUNTING
CCW	COUNTER CLOCKWISE	P/N	PART NUMBER
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CHRG	CHARGING	NSS	NOT SOLD SEPARATELY
CTSK	COUNTERSUNK	OD	OUTSIDE DIAMETER
CVR	COVER	PTO	POWER TAKE-OFF
CW	CLOCKWISE	#	POUND
CYL	CYLINDER	QTY	QUANTITY
°	DEGREE	RD	ROUND
DC	DIRECT CURRENT	REF	REFERENCE
DIA	DIAMETER	RH	RIGHT HAND
DRV	DRIVE	ROT	ROTATION
ENG	ENGINE	RPM	REVOLUTIONS PER MINUTE
EXH	EXHAUST	SL	SLOTTED
EXT	EXTERNAL	SM	SMALL
FT	FEET	SPD	SPEED
GAL	GALLON	SS	STAINLESS STEEL
GR	GRADE	STD	STANDARD
GSK	GASKET	T	TOOTH
HD	HEAD	THK	THICK
HEX	HEXAGON	THRU	THROUGH
HP	HORSEPOWER	TEMP	TEMPERATURE
HSG	HOUSING	V	VOLT
HT	HEAT TREATED	VAC	VOLTS ALTERNATING CURRENT
HYD	HYDRAULIC	VARI	VARIABLE
HZ	HERTZ	VS	VARIABLE SPEED
ID	INSIDE DIAMETER	W/	WITH
INCL	INCLUDES	W/0	WITHOUT

SECTION 2 CONTAINS:

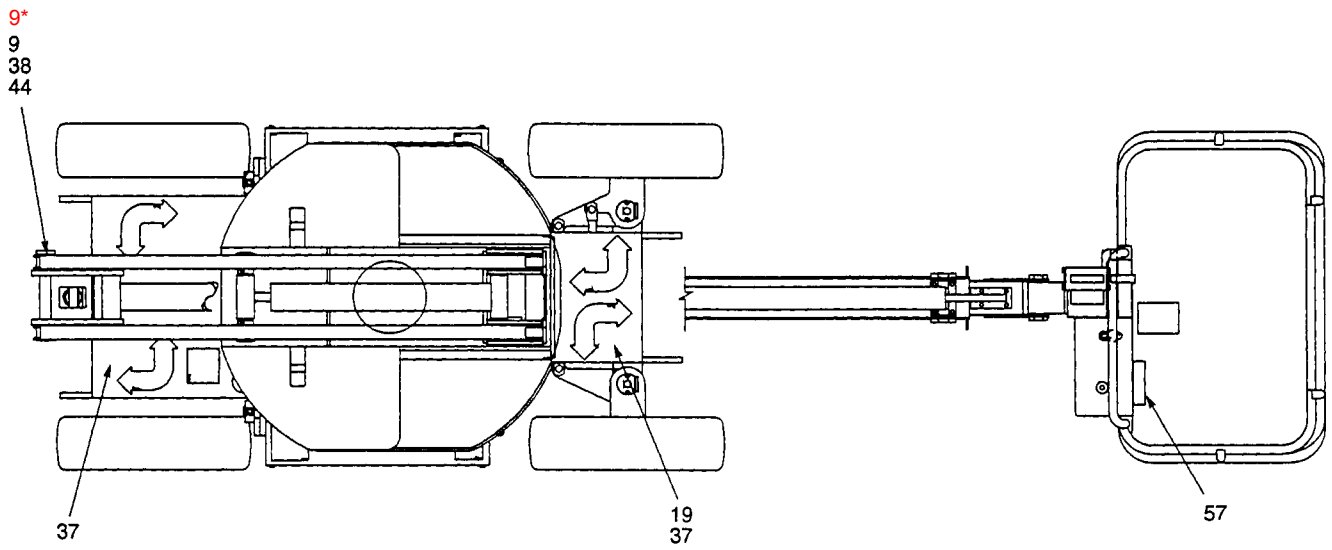
PAGE	TITLE
2.2	FINAL ASSEMBLY
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2.14	GROUND CONTROL BOX ASSEMBLY
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2.18	HYDRAULIC ASSEMBLY (Prior to July 1995)

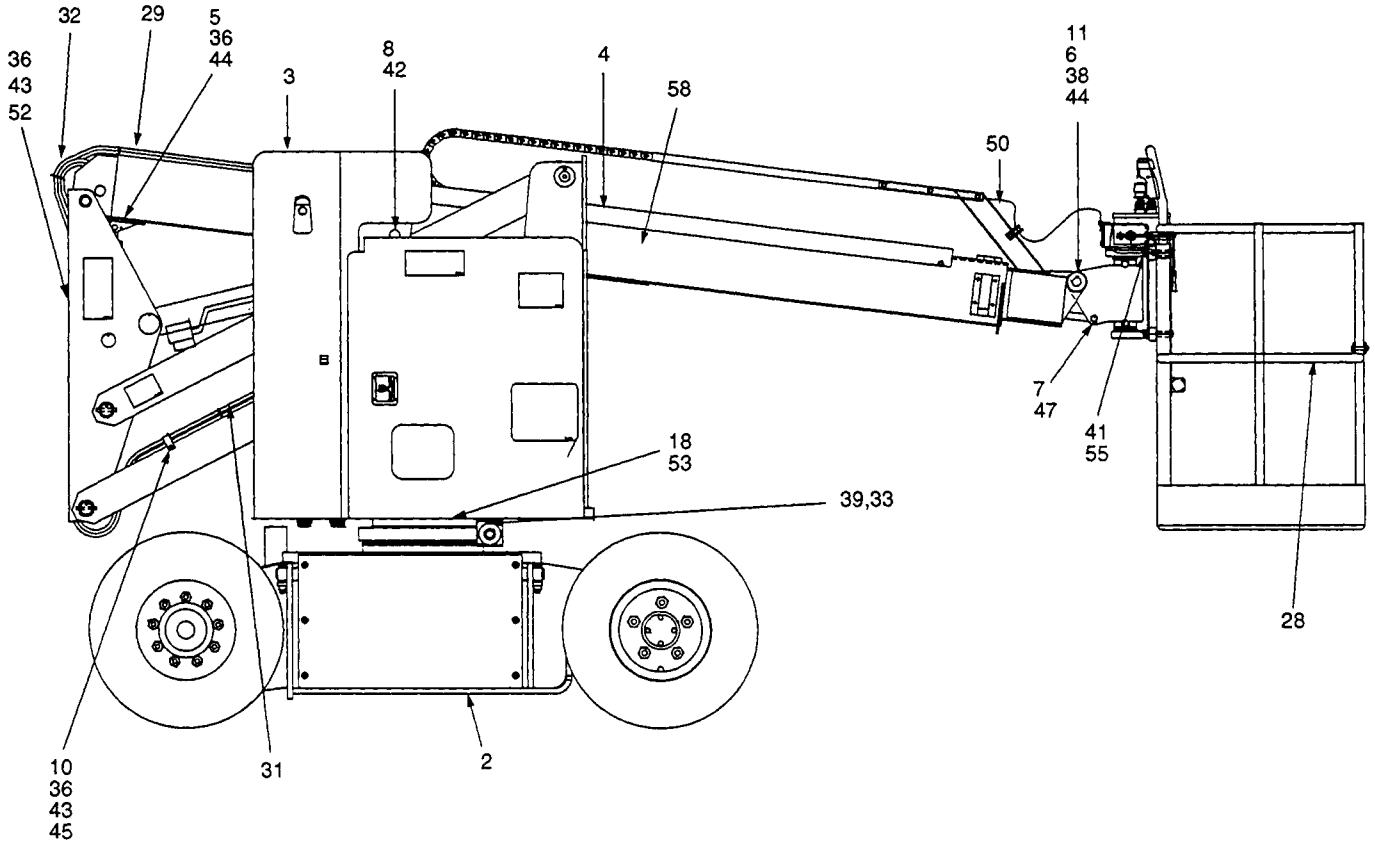
Model CH30KBN

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FINAL ASSEMBLY

Mark Industries



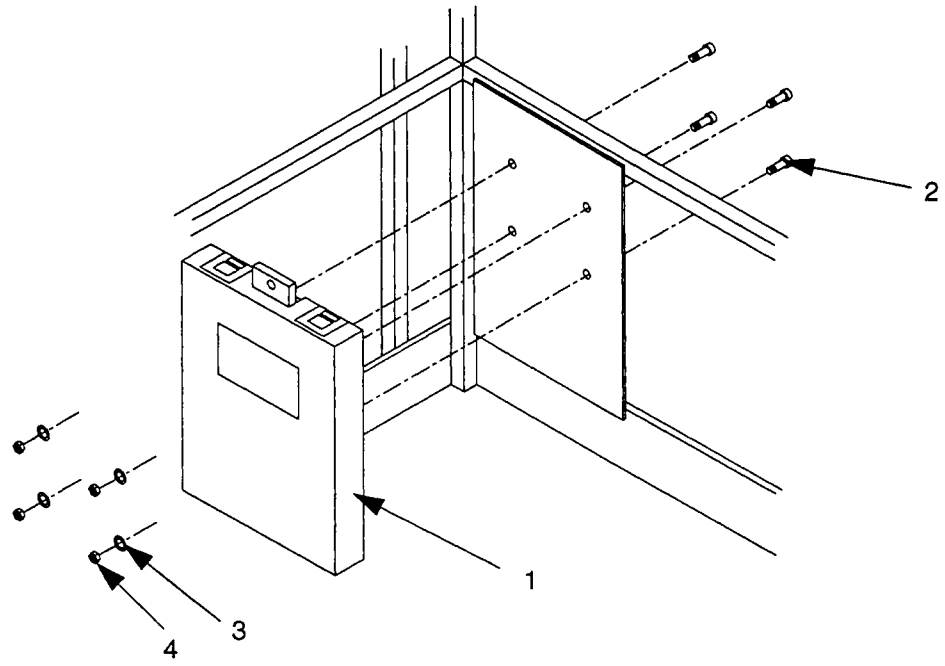


Ref.	Part No.	Description	Qty	Remarks
1	141800	Final Assembly	Ref.	
2	141804	Base Assembly	1	See Page 3.2 For Details
3	141803	Turret Assembly	1	See Page 4.1 For Details
4	141801	Boom Assembly	1	See Page 5.2 For Details
5	140431	Pin, Master Cylinder/Boom	1	
6	141750	Pin, Rotator	1	
7	140437	Pin, Slave Cylinder Rotator	1	
8	140489	Pin, Rod End-Boom Lift Cylinders	1	
9	140601	Pin, Boom Lift	1	
9*	140099	Bushing, boom pivot	2	
10	140602	Assembly, Clamp	6	
11	141749	Cap, Pin	2	
13	141831	Cover, Drive End	1	
18	140996	Bracket	1	
19	141832	Cover, Steering End	1	
20	141778	Kit, Sheet Metal	1	See Page 2.6 For Details
28	141805	Platform Assembly	1	See Page 2.10 For Details
29	141839	Kit, Diagram Hose	1	See Page 2.18 For Details
30	141776	Assembly, Ground Control Box	1	See Page 2.14 For Details
31	255	Tie, Cable	50	
32	256	Tie, Cable	50	
33	1209-48	Washer, Flat	24	
36	60325	Capscrew	1	
37	60338	Capscrew	24	
38	160717	Capscrew, SS	4	
39	1242-117	Capscrew	24	
41	1200-1	Capscrew	2	
42	62234	Set Screw	1	
43	63301	Lockwasher	8	
44	160713	Lockwasher, SS	4	
45	63433	Flat, Washer	6	
47	64209	Pin, Roll	1	
48	12013-18	Oil, Gear (90 WT.)	1	Not Shown
49	65116	Oil, Hydraulic	10	Not Shown
50	12193-72	Sleeve, Protective	6	

FINAL ASSEMBLY

Mark Industries

Ref.	Part No.	Description	Qty	Remarks
52	16268	Clamp, Hose	3	
53	160017	Ubolt	2	
55	200B2007-13	Clamp, Rubber	3	
56	3900-146	Paint, White	AR	Not Shown
57	17315	Manual, Operation & Maintenance	Ref	
58	141868	Decal Set - CH30KBN	1	See Page 2.7 For Details
59	3900-130	Paint, Blue	AR	Not Shown



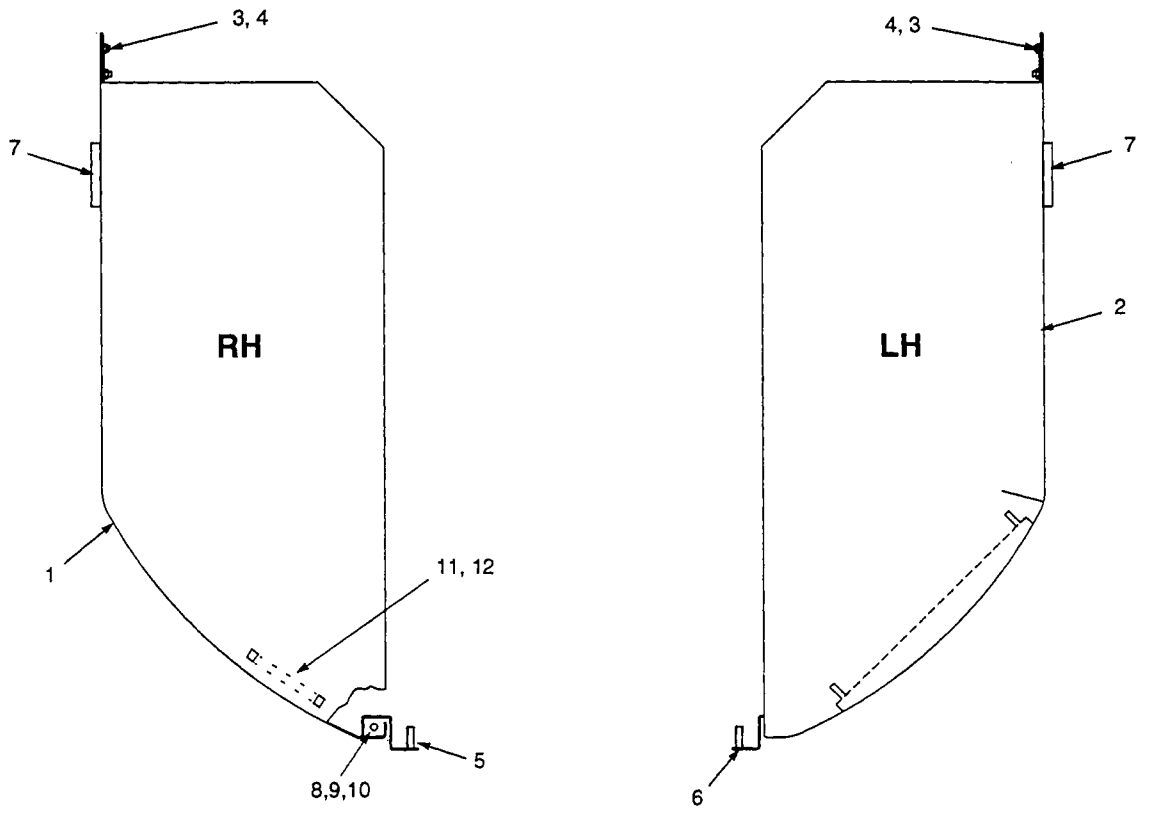
Ref.	Part No.	Description	Qty	Remarks
1	135322	Manual Box	1	
2	1200-1	Capscrew, 1/4C x 3/4	4	
3	1209-2	Washer	4	
4	1205-23	Nut	4	

Model CH30KBN

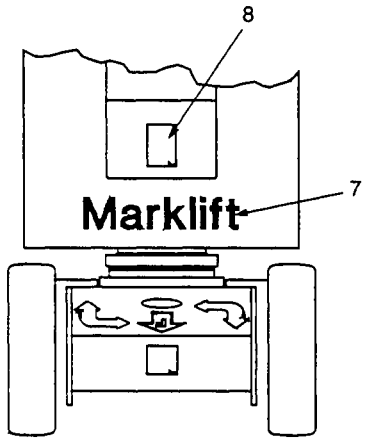
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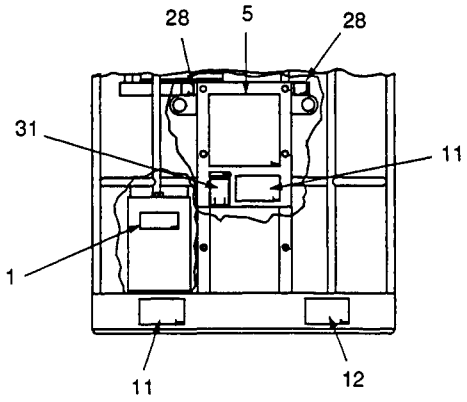
SHEET METAL ASSEMBLY

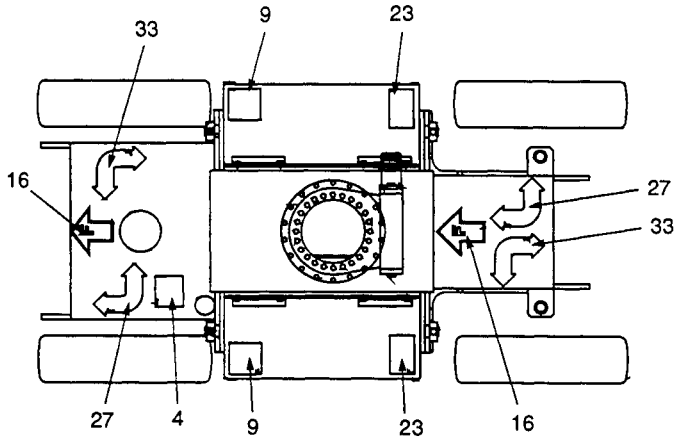
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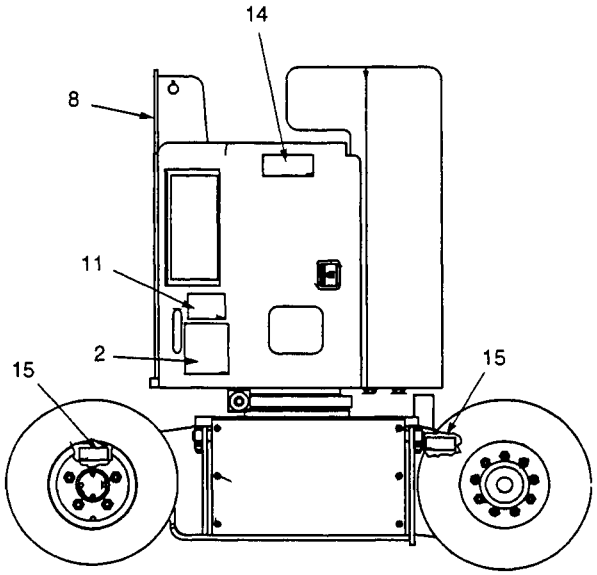


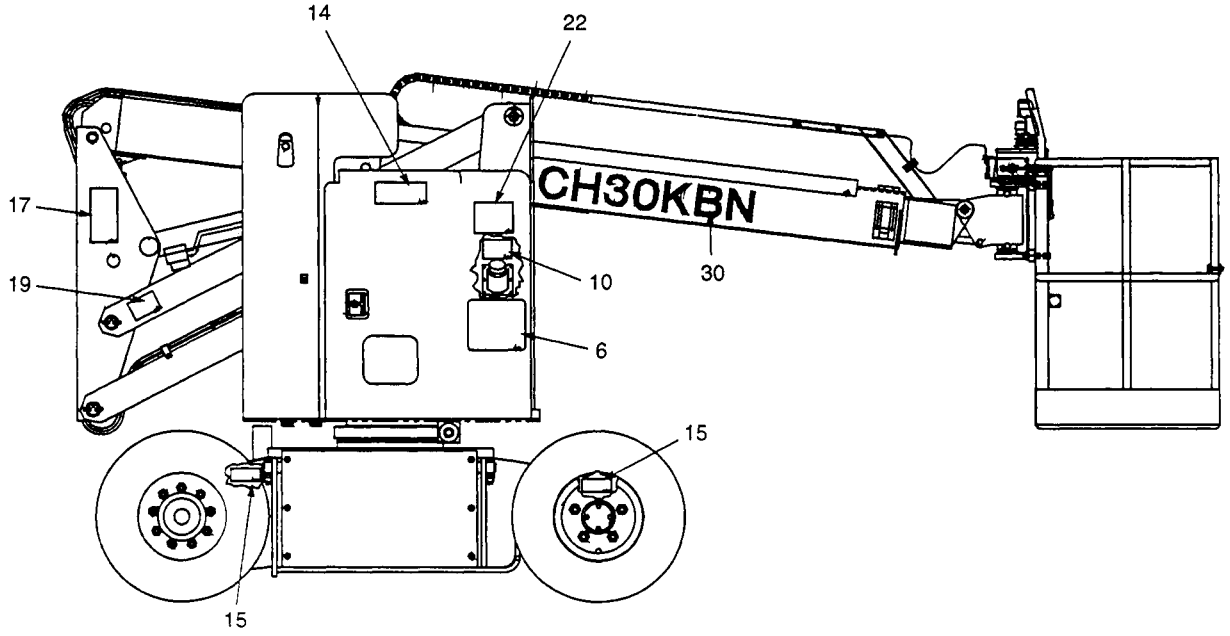
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Ref.	141778	Kit, Sheet Metal	1	
1	600574	Door, R.H.	1	
2	600573	Door, L.H.	1	
3	600575	Gasket	2	
4	600576	Gasket Retainer	2	
5	600577	Door Jam, R.H.	1	
6	600578	Door Jam, L.H.	1	
7	600579	Latch	2	
8	69202	Hinge Half	6	
9	69201	Pin	6	
10	69204	Clip	6	
11	600583	Lock Rod	2	
12	600584	Spring Clip	2	


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CH30KBN
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Model CH30KBN

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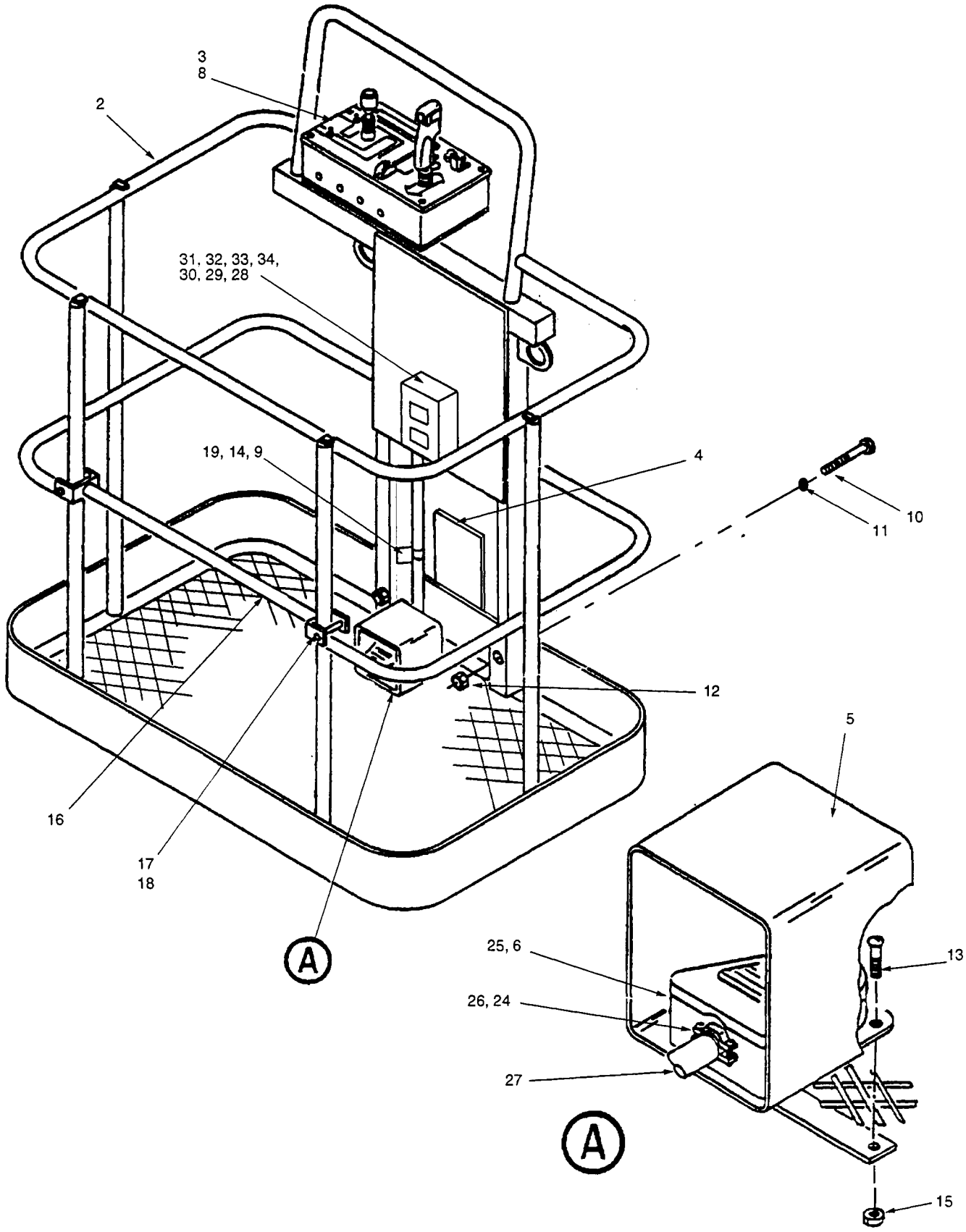
DECAL SET

Mark Industries

Ref.	Part No.	Description	Qty	Remarks
1	181113	Decal, Operation & Maintenance Manual	1	
2	182107	Decal, Hand Pump Operation	1	
4	181766	Decal, Tie Down Diagram	2	
5	182127	Decal, Upper Control	1	
6	181976	Decal, Terex Crown	1	
7	181927-1	Decal, Mark Lift	1	
8	182121	Decal, Danger Crushing	2	
9	2003	Decal, Battery Water Level	2	
10	183402	Decal, Hydraulic System Fluid	1	
11	181322	Decal, Load Capacity 500 Lbs.	2	
12	182307	Decal, Warning Attach Your Safety Belt	2	
14	20419	Decal, Danger, Elect. Hazard Keep Clear	2	Both Sides
15	130949	Decal, Tire Replacement	4	Both Sides
16	182829	Decal, Forward Arrow	2	
17	12400-223	Decal, Danger, Keep Clear Of...	2	Both Sides
18	181975	Nameplate, Identification	1	
19	181328	Decal, Pinch Point	6	
22	12400-571	Decal, Made in USA	1	
23	22449	Decal, No Smoking For Electrical Booms	2	
27	182709	Decal, Arrow Green	1	
28	22386	Decal, Safety Belt	2	
30	181974	Decal, CH30KBN	2	
31	185724	Decal, 110 VAC	2	
33	182710	Decal, Arrow Blue	1	

PLATFORM ASSEMBLY

Mark Industries



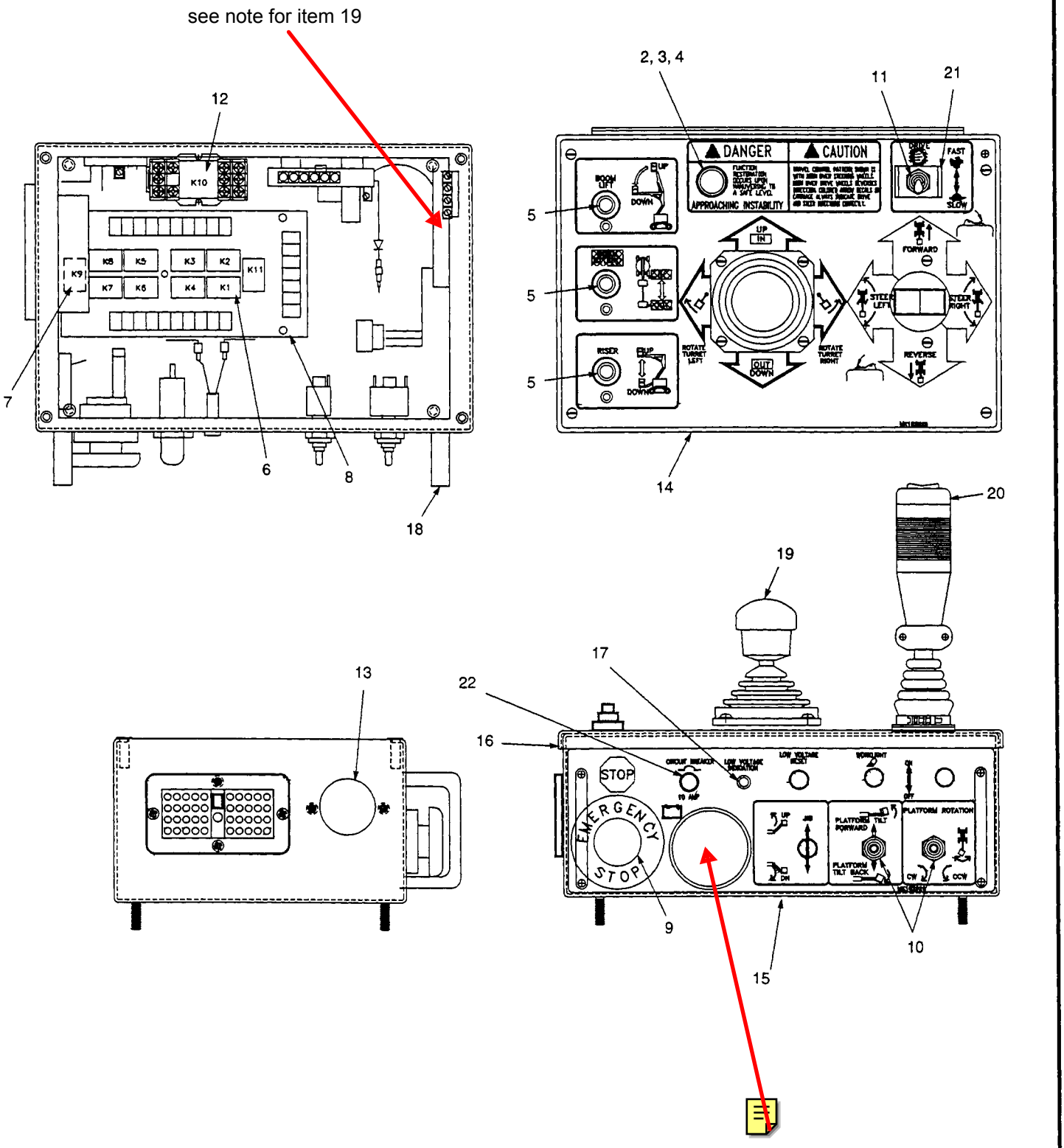
PLATFORM ASSEMBLY

Model CH30KBN
Issued 12-95

Ref.	Part No.	Description	Qty	Remarks
1	141805	Assembly, Platform	Ref.	
2	141729	Weldment, Platform	1	
3	141775	Assembly, Aerial Control Box	1	See Page 2.12 For Details
4	141779	Rotator, Powered	1	See Page 2.16 For Details
5	211909	Cover, Foot Switch	1	
6	92202	Switch, Foot	1	
7	66336	Microswitch	1	Not Shown
8	60711	Lock Nut	4	
9	765	Clamp	6	
10	160289	Capscrew	4	
11	3342205	Flatwasher	8	
12	61305	Lock Nut	4	
13	1200-5	Machine, Screw	2	
14	60342	Screw	6	
15	60711	Lock Nut	2	
16	141080	Weldment, Slide Bar	1	
17	160212	Pin, Clevis	2	
18	160213	Pin, Cotter	2	
19	1210-14	Washer, Lock	6	
24	2806	Strain Relief	1	
25	16213	Terminal Ring	3	
26	2808	Nut	1	
27	70769	Cable	1	
28	70391	Receptacle	1	
29	70392	Cover	1	
30	117	Connector	3	
31	70262	Box	1	
32	12337	Screw	4	
33	1210-7	Washer, Lock	4	
34	63412	Washer, Flat	4	

AERIAL CONTROL BOX

Mark Industries



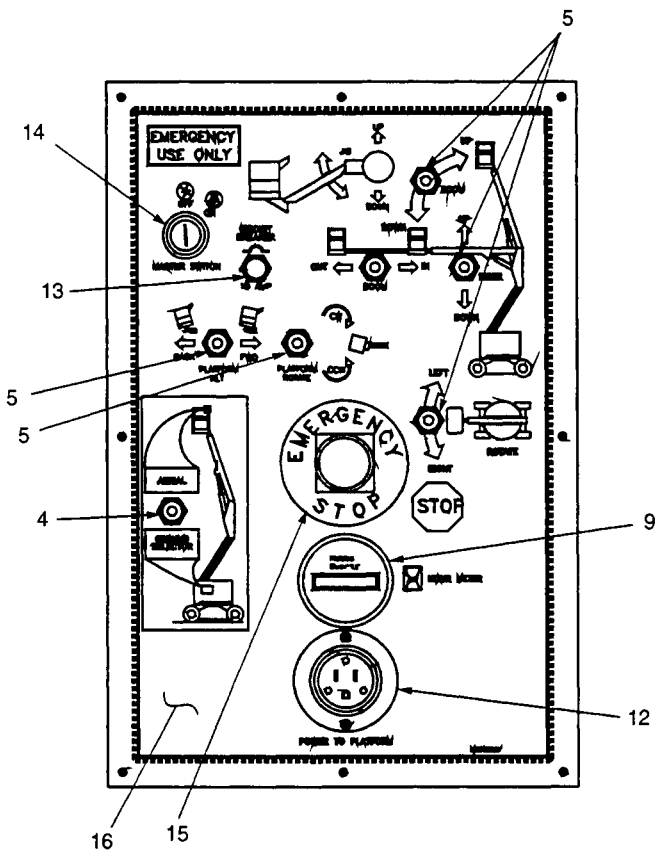
AERIAL CONTROL BOX

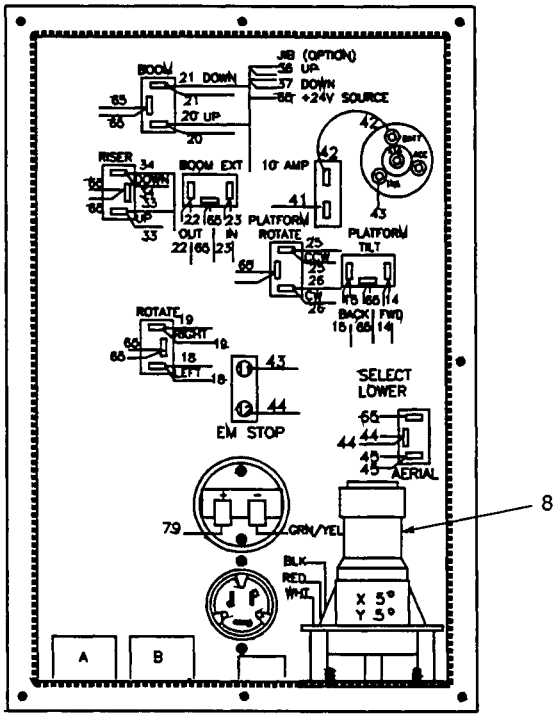
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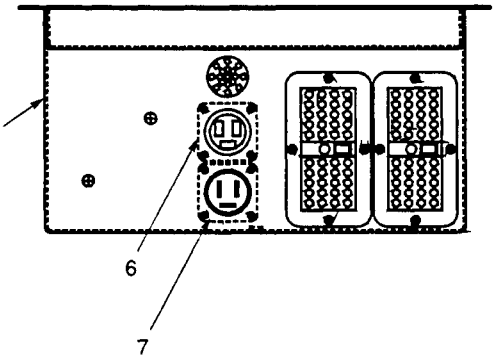
Ref.	Part No.	Description	Qty	Remarks
1	141775	Assembly Aerial Control Box	Ref.	
2	69143	Lens, Red	1	
3	69144	Lamp Base	1	
4	69146	Bulb	1	
5	69242	Switch	3	
6	69168	Relay (K1, K2, K4, K7, K8, & K11)	6	
7	69169	Relay (K3, K5, K6 & K9)	4	
8	69244	Relay Card w/Relays	1	
9	69166	EMRC Stop Button	1	
10	69232	Toggle Switch	2	
11	69245	Toggle Switch	1	
12	69246	Relay	1	
13	69247	Buzzer	1	
14	182925	Decal	1	
15	182926	Decal	1	
16	69250	Enclosure	1	
17	69243	Low Battery Indicator	1	
18	69147	Handle	2	
19	~~69251~~	Controller (Two Axis)	1	
20	69252	Controller (Single Axis)	1	
21	70783	Switch Guard	1	
22	69239	Circuit Breaker	1	

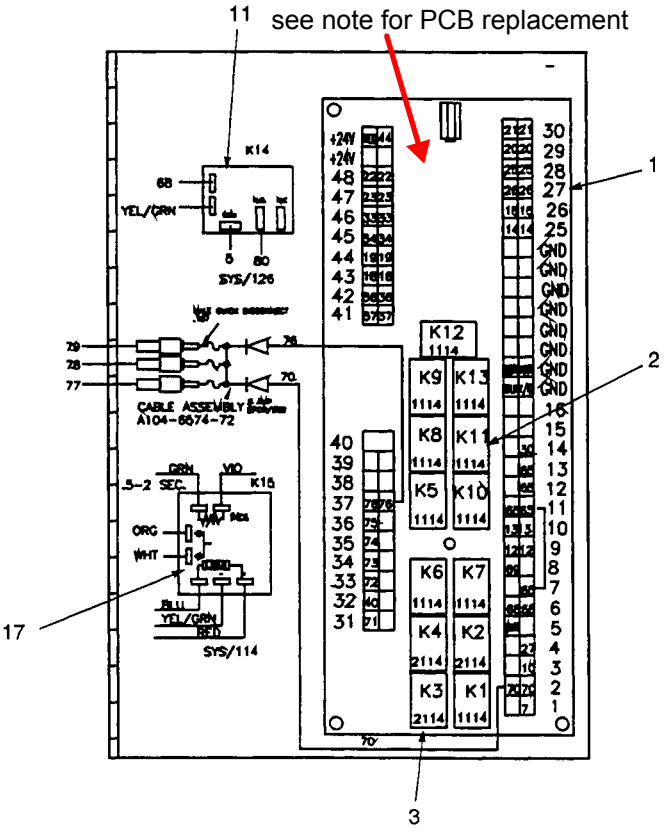
GROUND CONTROL BOX ASSEMBLY

Mark Industries









GROUND CONTROL BOX ASSEMBLY

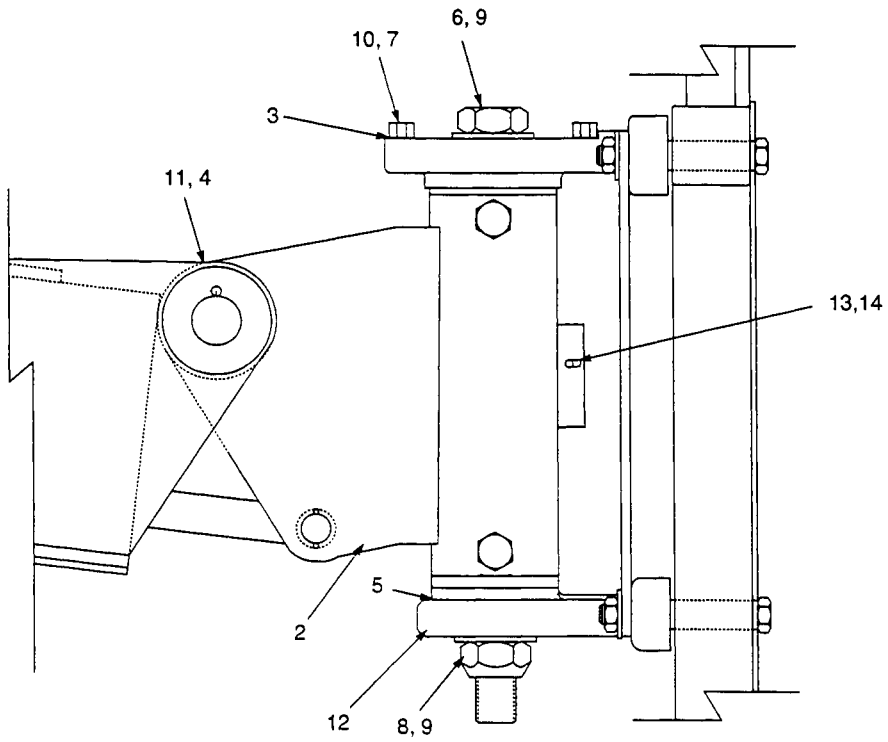
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Ref.	Part No.	Description	Qty	Remarks
	141776	Assembly, Control Panel	Ref	
1	69233	Relay Card w/Relays	1	
2	69168	Relay (K1, K5 thru K13)	10	
3	69169	Relay (K2, K3 & K4)	3	
4	69162	Switch	1	
5	69232	Switch	6	
6	69234	Connector, 110VAC, "male"	1	
7	69235	Connector, 24VDC, "female"	1	
8	4416836	Slope Sensor	1	
9	69241	Hour Meter	1	
10	69238	Enclosure	1	
11	69237	Relay (K14)	1	
12	69171	Power Plug	1	
13	69239	Circuit Breaker	1	
14	2717	Ignition Key Switch	1	
15	69166	Switch	1	
16	182927	Decal	1	
17	69236	Relay (K15)	1	

PLATFORM POWER ROTATOR ASSEMBLY

Mark Industries

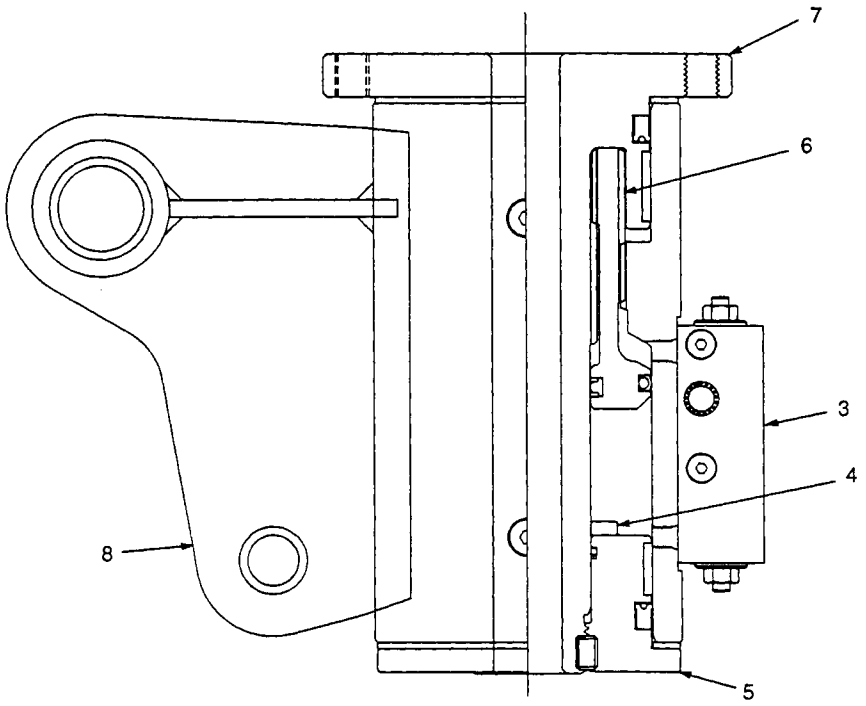


Ref.	Part No.	Description	Qty	Remarks
1	141779	Rotator, Power Assembly	Ref.	
2	81504	Rotator	1	See Below For Breakdown
3	211188	Arm, Steel Top	1	
4	141762	Spacer	1	
5	160627	Shim	1	
6	160628	Bolt	1	
7	1200-104	Capscrew	6	
8	61401	Nut	1	
9	1209-30	Washer	2	
10	1210-26	Washer, Lock	6	
11	1208-30	Shim	6-8	
12	211189	Arm, Steel Bottom	1	
13	1219-959	Adapter (Near Side)	1	
14	12019-548	Adapter (Far Side)	1	

PLATFORM POWER ROTATOR ASSEMBLY

Model CH30KBN

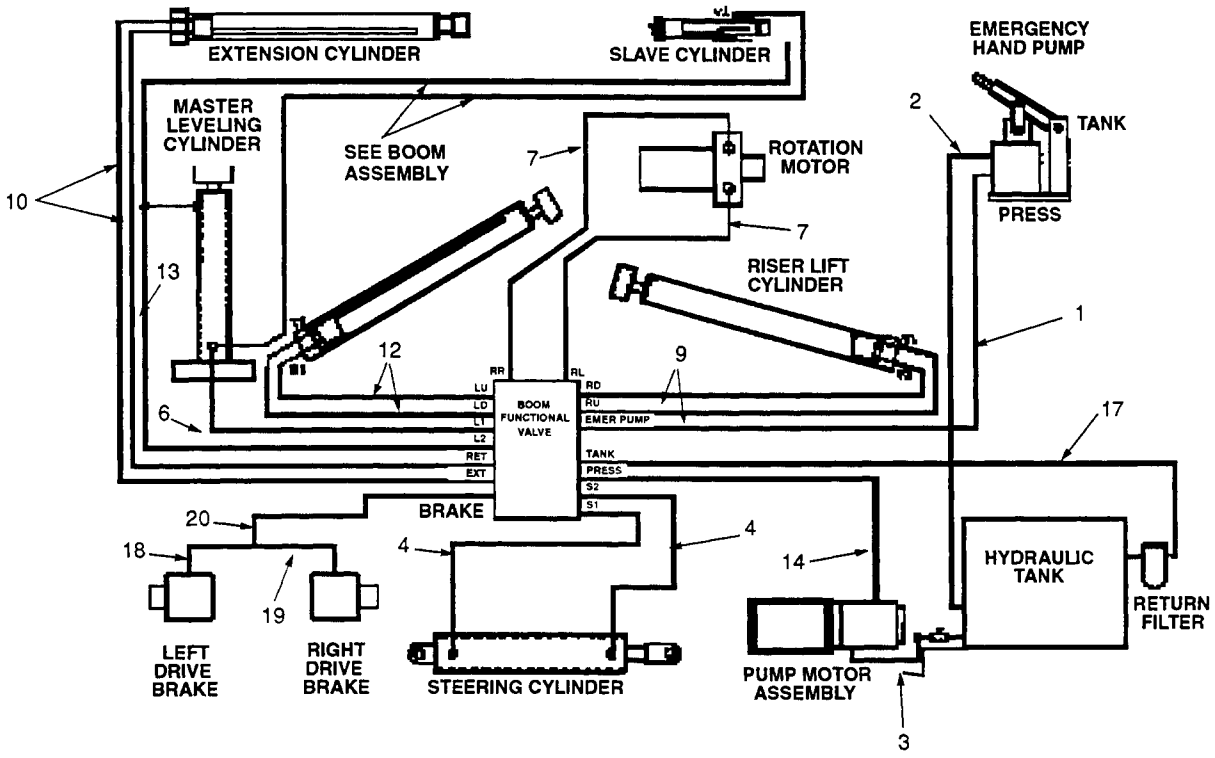
Issued 12-95



Ref.	Part No.	Description	Qty	Remarks
1	600565	Seal Kit	1	Not Shown
2	600566	Bearing Kit	1	Not Shown
3	600567	Valve Assembly	1	
4	600568	Stop Tube	1	
5	600569	End Cap	1	
6	600570	Piston Assembly	1	
7	600571	Shaft Assembly	1	
8	600572	Housing Assembly	1	

HYDRAULIC ASSEMBLY

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
1	141839-1	Hose	1	
2	141839-2	Hose	1	
3	141839-3	Hose	1	
4	141839-4	Hose	2	
6	141839-6	Hose	1	
7	141839-7	Hose	2	
9	141839-9	Hose	2	
10	141839-10	Hose	2	
12	141839-12	Hose	2	
13	141839-13	Hose	1	
14	141839-14	Hose	1	
17	141839-17	Hose	1	
18	141839-18	Hose	1	
19	141839-19	Hose	1	
20	141839-20	Hose	1	

SECTION 3 CONTAINS:

PAGE	TITLE
3.2	BASE ASSEMBLY (Prior To July 1995)
3.6	BASE ASSEMBLY (After July 1995)
3.10	BATTERY AND BOX ASSEMBLY
3.12	STEERING CYLINDER
3.13	CONTROLLER
3.16	BRAKE RELEASE ASSEMBLY (Prior To July 1995)
3.18	TORQUE HUB (Standard)
3.20	DRIVE MOTOR
3.22	CALIPER BRAKE (Prior To July 1995)
3.24	BRAKE, MULTIPLE DISC (After July 1995)
3.26	TORQUE HUB (High Speed)

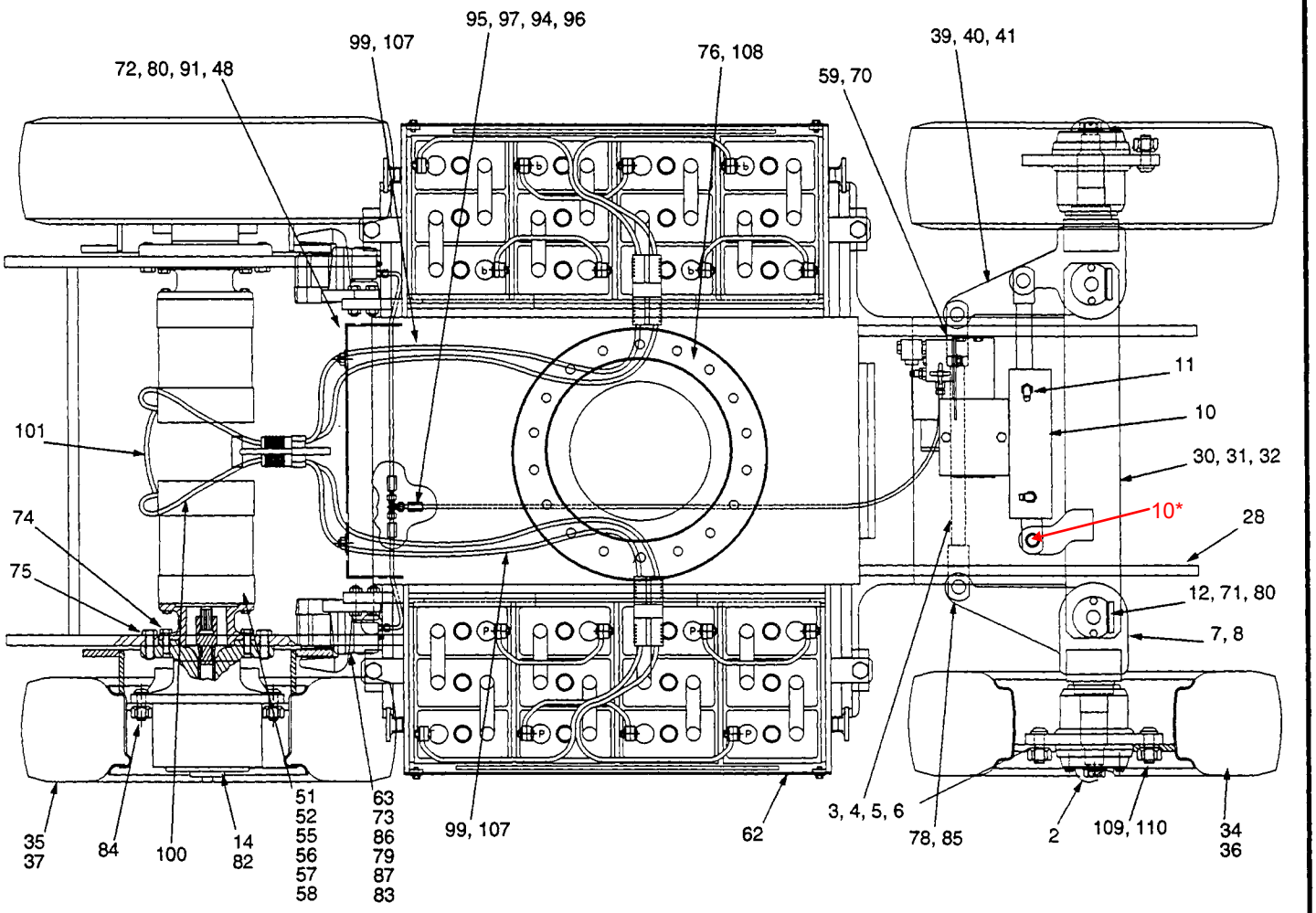
Model CH30KBN

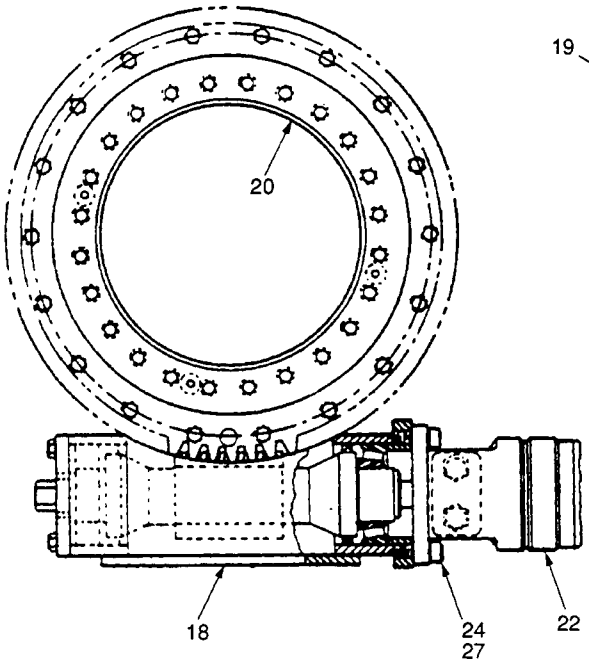
Issued 12-95

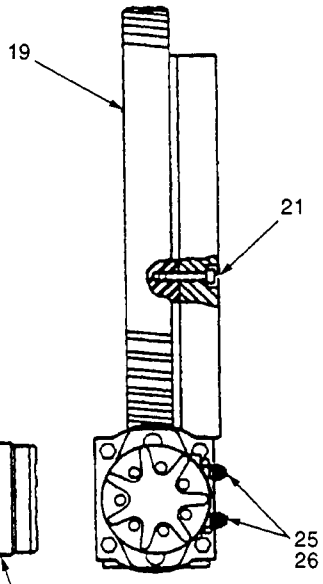
BASE ASSEMBLY

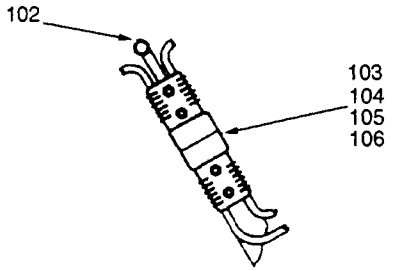
(CH30KBN) Prior to July 1995

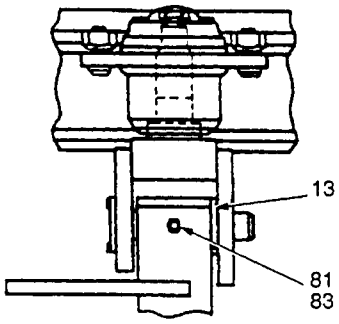
Mark Industries











Ref.	Part No.	Description	Qty	Remarks
1	141804	Assembly, Base	Ref.	Not Shown
2	141669	Assembly, Hub	2	
	141675	Hub	1	
	141674	Bearing Cup, Outer	1	
	141673	Bearing Cone, Outer	1	
	141672	Seal	1	
	141671	Bearing Cup, Inner	1	
	141670	Bearing Cone, Inner	1	
	141677	Cover	1	
	1200-309	Capscrew	4	
	1210-14	Lockwasher	4	
3	140246	Assembly, Steering Tie Rod	1	
4	140270	Yoke, Adjusting	1	
5	60902	Nut, Jam	1	
6	140277	Weldment, Steering Tie Rod	1	
7	140249	Yoke & Spindle (L.H.)	1	
8	2265	Bushing, Sleeve	1	
10	141759	Cylinder, Steering (Rosenboom)	1	See Page 3.12 For Details
10*	600312	pin, cylinder, barrel end	1	
11	80012-033	Elbow, Straight Thread	2	
12	140338	Pin, King	2	
13	140759	Spacer, (Steering Yoke)	2	
14	140891	Hub, Torque (Standard)	2	See Page 3.18 For Details
15	24707	Hub, Torque (Optional)	2	See Page 3.26 For Details
18	141276	Assembly, Worm Box	1	
19	141358	Ring Gear	1	
20	65103	Grease Fitting	2	
21	61912	Capscrew	2	
22	81382	Motor, Hydraulic	1	
23	600471	Kit, Seal (For P/N 81382)	1	
24	62006	Capscrew	2	
25	1219-978	Connector, Male	2	
26	65781	Cap, Plug	2	
27	63305	Lockwasher	2	
28	141857	Undercarriage	1	
30	64910	Bushing, Flange	2	
31	64932	Bearing, Sleeve	1	
32	1214-87	Bearing, Sleeve	2	
34	141718-1	Wheel & Tire (STD Steer)	2	Not Shown
35	141853-1	Wheel & Tire (STD Drive)	2	
36	141718-2	Wheel & Tire (Non Marking Steer)	2	
37	141853-2	Wheel & Tire (Non Marking Drive)	2	
39	140951	Yoke & Spindle (R.H.)	1	

Model CH30KBN

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BASE ASSEMBLY

(CH30KBN) Prior To July 1995

Mark Industries

Ref.	Part No.	Description	Qty	Remarks
40	64935	Bearing, Sleeve, Steering Cyl. Attachment	1	
41	2265	Bushing, Tie Rod Attachment	1	
48	141836	Assembly, Controller	1	See Page 3.13 for Details
51	141059	Assembly, Electric Motor & Adapter	2	
52	70480	Motor, Electric	2	
55	140945	Machining, Motor/Torque Hub	2	
56	60618	Capscrew	8	
57	62319	Lockwasher	8	
58	141294	Gasket, Motor/Torque Hub	2	
59	141353	Assembly, Brake Release	1	See Page 3.16 for Details
62	141851	Battery & Box Assembly	1	See Page 3.10 for Details
63	160694	Assembly, Caliper Brake	2	See Page 3.22 for Details
70	60322	Capscrew	3	
71	60338	Capscrew	4	
72	1200-59	Capscrew	4	
73	60393	Capscrew	8	
74	60602	Capscrew	4	
75	60604	Capscrew	12	
76	1242-117	Capscrew	18	18 top, 24 bottom
76*	1209-148	washer	AR	
78	61236	Lock, Nut	2	
79	61305	Lock, Nut	8	
80	1209-4	Washer, Flat	4	
81	65103	Fitting, Grease	2	
82	65106	Oil, Gear (90 Wt.)	2	
83	65366	Cap, Grease	2	
84	65945	Nut, Conical	18	
85	65966	Screw, Shoulder	2	
86	80004-10	Connector, Straight Thread	2	
87	160183	Bracket, Caliper Mounting	2	
89		Fuse, 300 AMPS	1	
90		Capscrew	2	
91		Lockwasher	4	
92		Flat Washer	2	
93		Capscrew	2	
94	80031-03	Tee, Union	1	
95	13229-04-0660	Assembly, Hose	1	
96	13229-04-0090	Assembly, Hose	1	
97	13229-04-0220	Assembly, Hose	1	
99	141813	Battery Cable	2	
100	141814	Battery Cable	1	
101	13226-0120	Battery Cable	4	

BASE ASSEMBLY

(CH30KBN) Prior To July 1995

Model CH30KBN

Issued 12-95

Ref.	Part No.	Description	Qty	Remarks
102	141183	Handle, Disconnect	1	
103	1205-13	Nut	4	
104	1210-17	Lockwasher	4	
105	1200-17	Capscrew	2	
106	1200-15	Capscrew	2	
107	65322	Plastic Wrap (48")	2	
108	141476	Spacer, Turret Plate	1	
109	67138	Nut, Wheel	10	
110	65943	Bolt, Wheel	10	

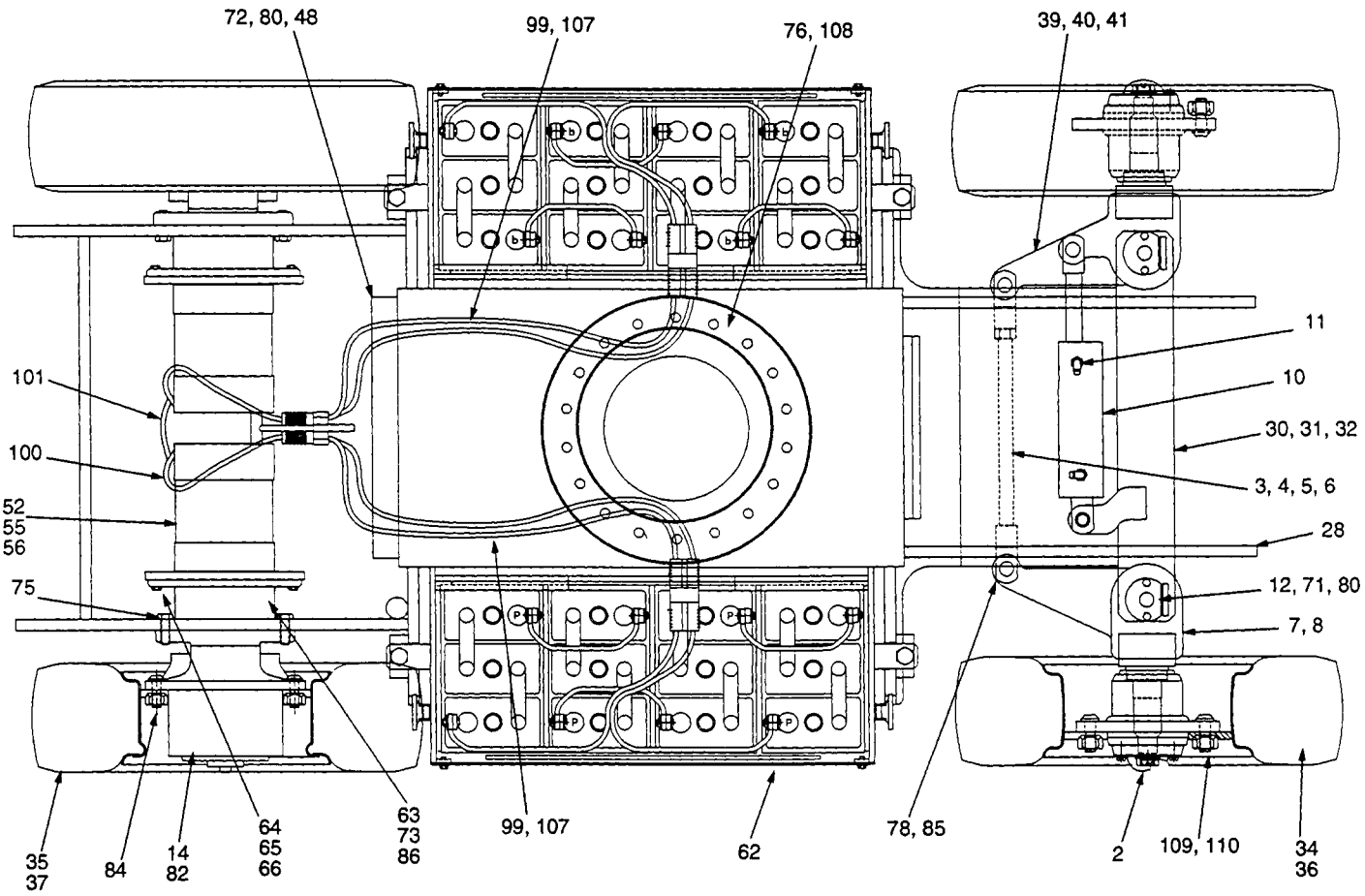
Model CH30KBN

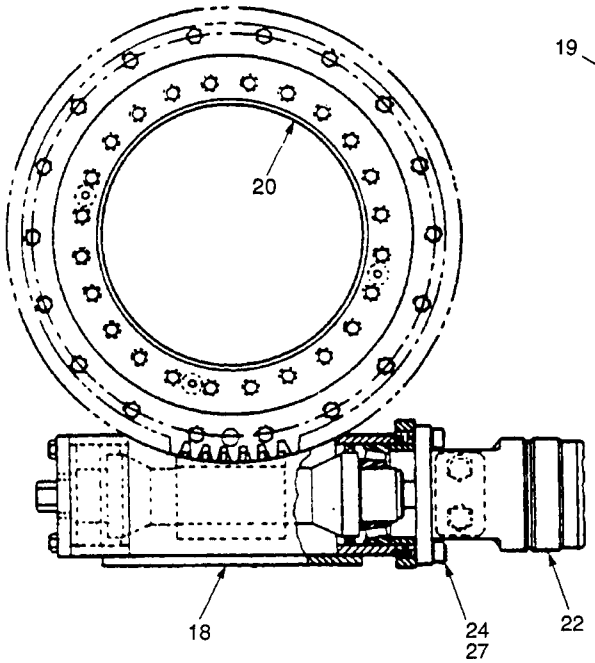
Issued 12-95

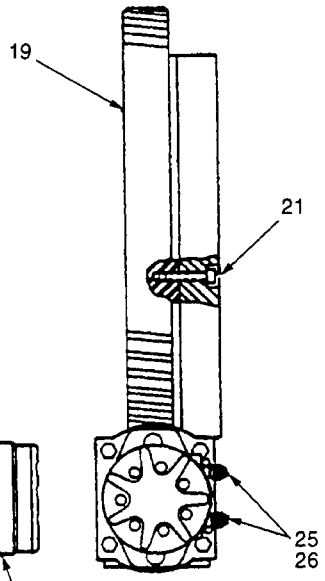
BASE ASSEMBLY

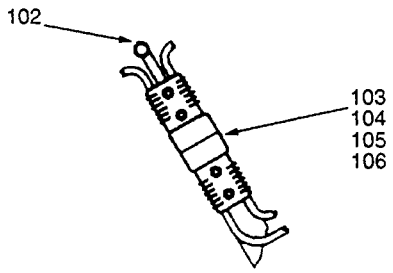
(CH30KBN) after July 1995

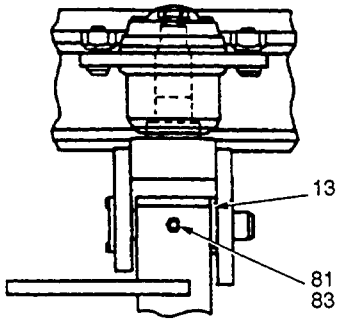
Mark Industries











BASE ASSEMBLY

(CH30KBN) After July 1995

Model CH30KBN

Issued 12-95

Ref.	Part No.	Description	Qty	Remarks
1	141804	Assembly, Base	Ref.	Not Shown
2	141669	Assembly, Hub	2	
	141675	Hub	1	
	141674	Bearing Cup, Outer	1	
	141673	Bearing Cone, Outer	1	
	141672	Seal	1	
	141671	Bearing Cup, Inner	1	
	141670	Bearing Cone, Inner	1	
	141677	Cover	1	
	1200-309	Capscrew	4	
	1210-14	Lockwasher	4	
3	140246	Assembly, Steering Tie Rod	1	
4	140270	Yoke, Adjusting	1	
5	60902	Nut, Jam	1	
6	140277	Weldment, Steering Tie Rod	1	
7	140249	Yoke & Spindle (L.H.)	1	
8	2265	Bushing, Sleeve	1	
10	141759	Cylinder, Steering (Rosenboom)	1	See Page 3.12 For Details
11	80012-033	Elbow, Straight Thread	2	
12	140338	Pin, King	2	
13	140759	Spacer, (Steering Yoke)	2	
14	140891	Hub, Torque (Standard)	2	See Page 3.18 For Details
15	24707	Hub, Torque (High Speed)	2	See Page 3.26 For Details
18	141276	Assembly, Worm Box	1	
19	141358	Ring Gear	1	
20	65103	Grease Fitting	2	
21	61912	Capscrew	2	
22	81382	Motor, Hydraulic	1	
23	600471	Kit, Seal (For P/N 81382)	1	
24	62006	Capscrew	2	
25	1219-978	Connector, Male	2	
26	65781	Cap, Plug	2	
27	63305	Lockwasher	2	
28	141857	Undercarriage	1	
30	64910	Bushing, Flange	2	
31	64932	Bearing, Sleeve	1	
32	1214-87	Bearing, Sleeve	2	

Model CH30KBN

Issued 12-95

BASE ASSEMBLY

(CH30KBN) after July 1995

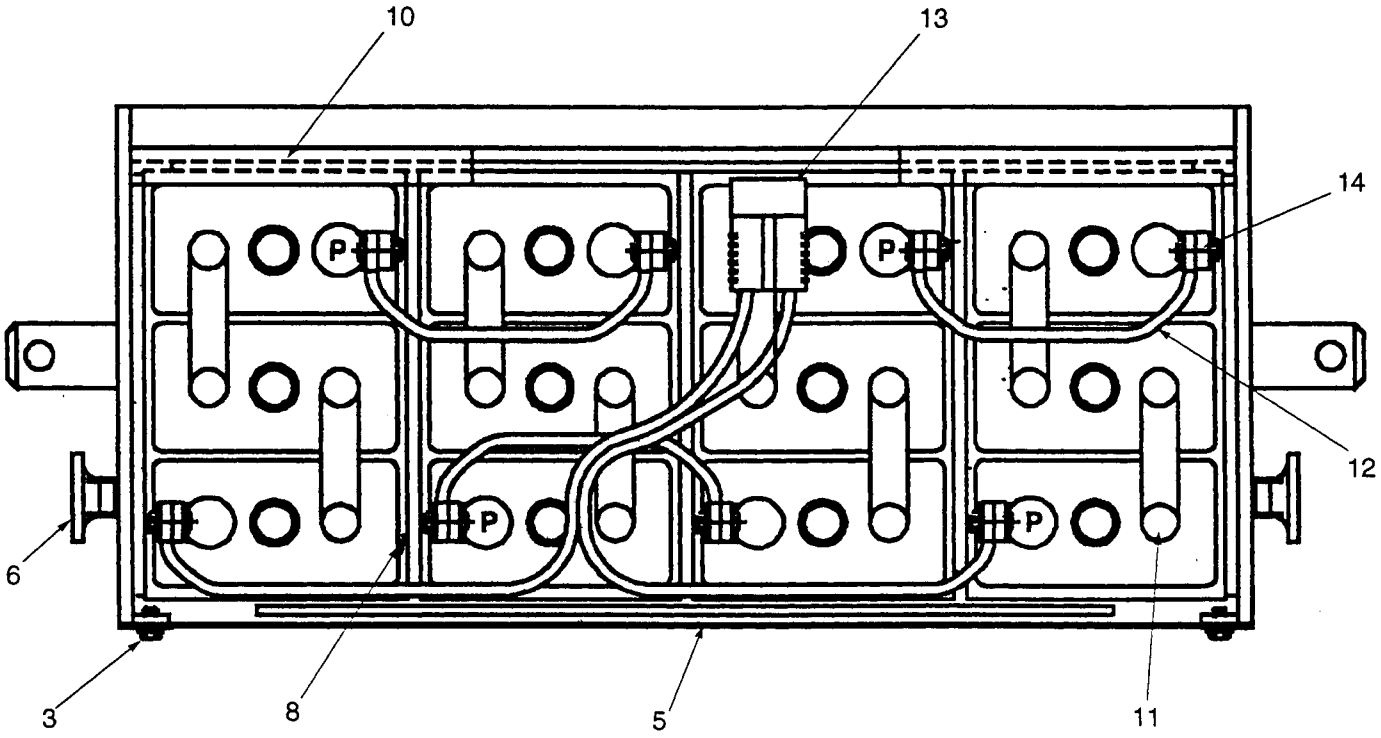
Mark Industries

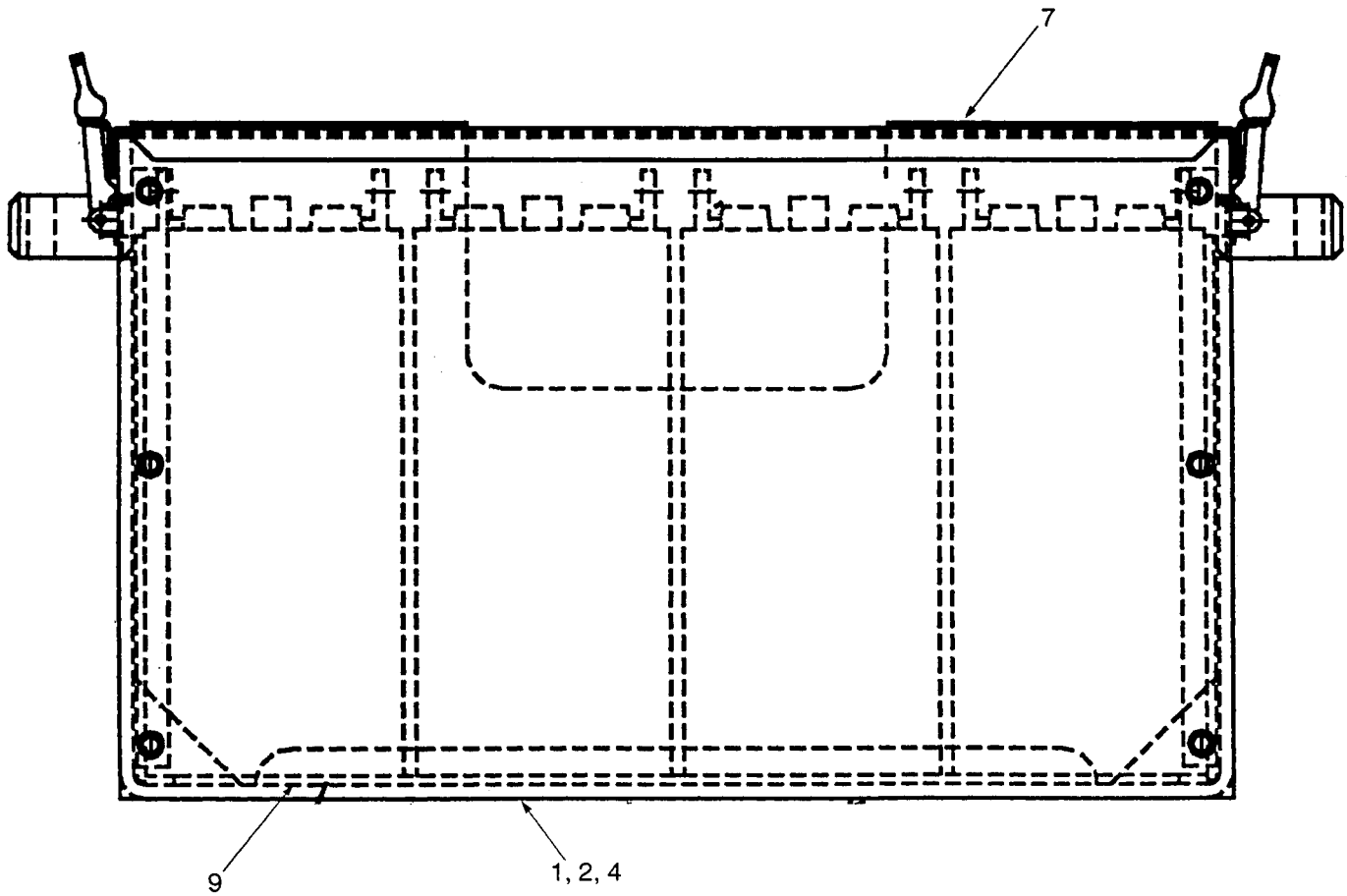
Ref.	Part No.	Description	Qty	Remarks
34	141718-1	Wheel & Tire (STD Steer)	2	
35	141753-1	Wheel & Tire (STD Drive)	2	
36	141718-2	Wheel & Tire (Non Marking Steer)	2	
37	141753-2	Wheel & Tire (Non Marking Drive)	2	
39	140951	Yoke & Spindle (R.H.)	1	
40	64935	Bearing, Sleeve, Steering Cyl. Attachment	1	
41	2265	Bushing, Tie Rod Attachment	1	
48	141836	Assembly, Controller	1	See Page 3.13 For Details
52	~~70480~~	Motor, Electric	2	
55	81520	Plate, Adapter	2	(when replacing GE w/Advance motor)
56	62013	Capscrew	8	
62	141851	Battery & Box Assembly	1	See Page 3.10 For Details
63	~~81519~~	Assembly, Multi-Disc Brake	2	See Page 3.24 For Details
64	1242-49	Capscrew	8	
65	1210-21	Lockwasher	8	
66	1209-63	Flat Washer	8	
71	60338	Capscrew	4	
72	1200-59	Capscrew	4	
73	16270	Capscrew	8	
75	60604	Capscrew	12	
76	1242-117	Capscrew	18	

Ref.	Part No.	Description	Qty	Remarks
78	61236	Lock, Nut	2	
80	1209-4	Washer, Flat	4	
81	65103	Fitting, Grease	2	
82	65106	Oil, Gear (90 Wt.)	2	
83	65366	Cap, Grease	2	
84	65945	Nut, Conical	18	
85	65966	Screw, Shoulder	2	
86	1219-959	Connector, Straight Thread	2	
99	141813	Battery Cable	2	
100	141814	Battery Cable	1	
101	13226-0120	Battery Cable	4	
102	141183	Handle, Disconnect	1	
103	1205-13	Nut	4	
104	1210-17	Lockwasher	4	
105	1200-17	Capscrew	2	
106	1200-15	Capscrew	2	
107	65322	Plastic Wrap (48")	2	
108	141476	Spacer, Turret Plate	1	
109	67138	Nut, Wheel	10	
110	65943	Bolt, Wheel	10	

BATTERY & BOX ASSEMBLY

Mark Industries





BATTERY & BOX ASSEMBLY

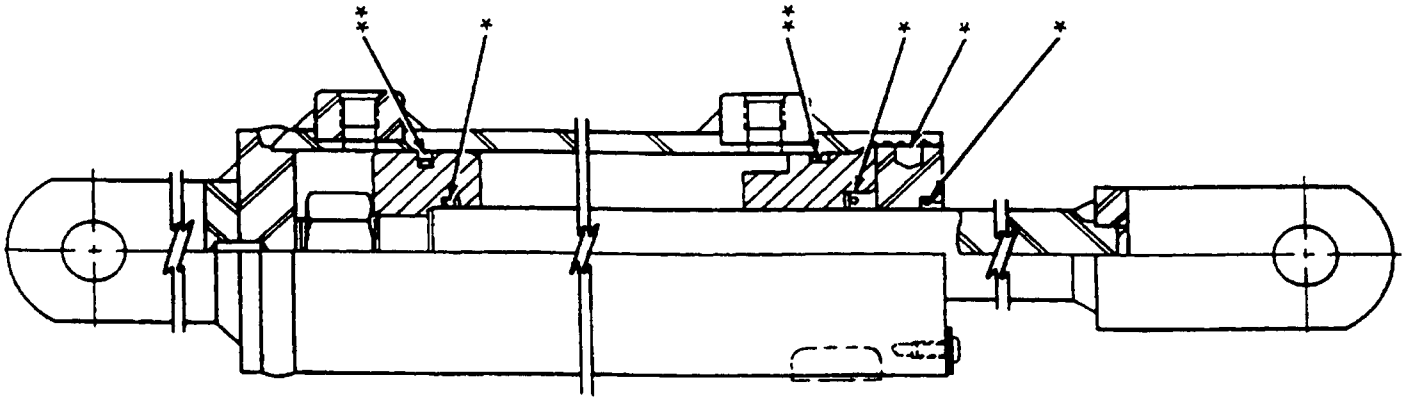
Model CH30KBN

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Ref.	Part No.	Description	Qty	Remarks
1	141851	Battery & Box Assembly	2	(Items 2-14)
2	141852	Box Assembly	1	(Items 3-14)
3	1200-314	Capscrew	6	
	1210-17	Lockwasher	6	
	1209-46	Flatwasher	6	
4	141830	Battery Box Weldment	1	
5	141834	Cover, Side	1	
6	160697	Strap	2	
	160700	Pin	2	
	160701	Cotter Pin	2	
7	141849	Cover, Top	1	
8	141709-1	Separator	5	
9	141709-2	Separator	1	
10	141709-3	Separator	1	
11	30297	Battery	4	
12	13226-0120	Battery Cable	3	
13	141818	Battery Cable Assembly	1	
14	63205	Capscrew	8	
	1205-25	Nut	8	
	65204	Washer, Felt	8	
	70812	Rubber Boot	7	

STEERING CYLINDER (CH30KBN)

Mark Industries

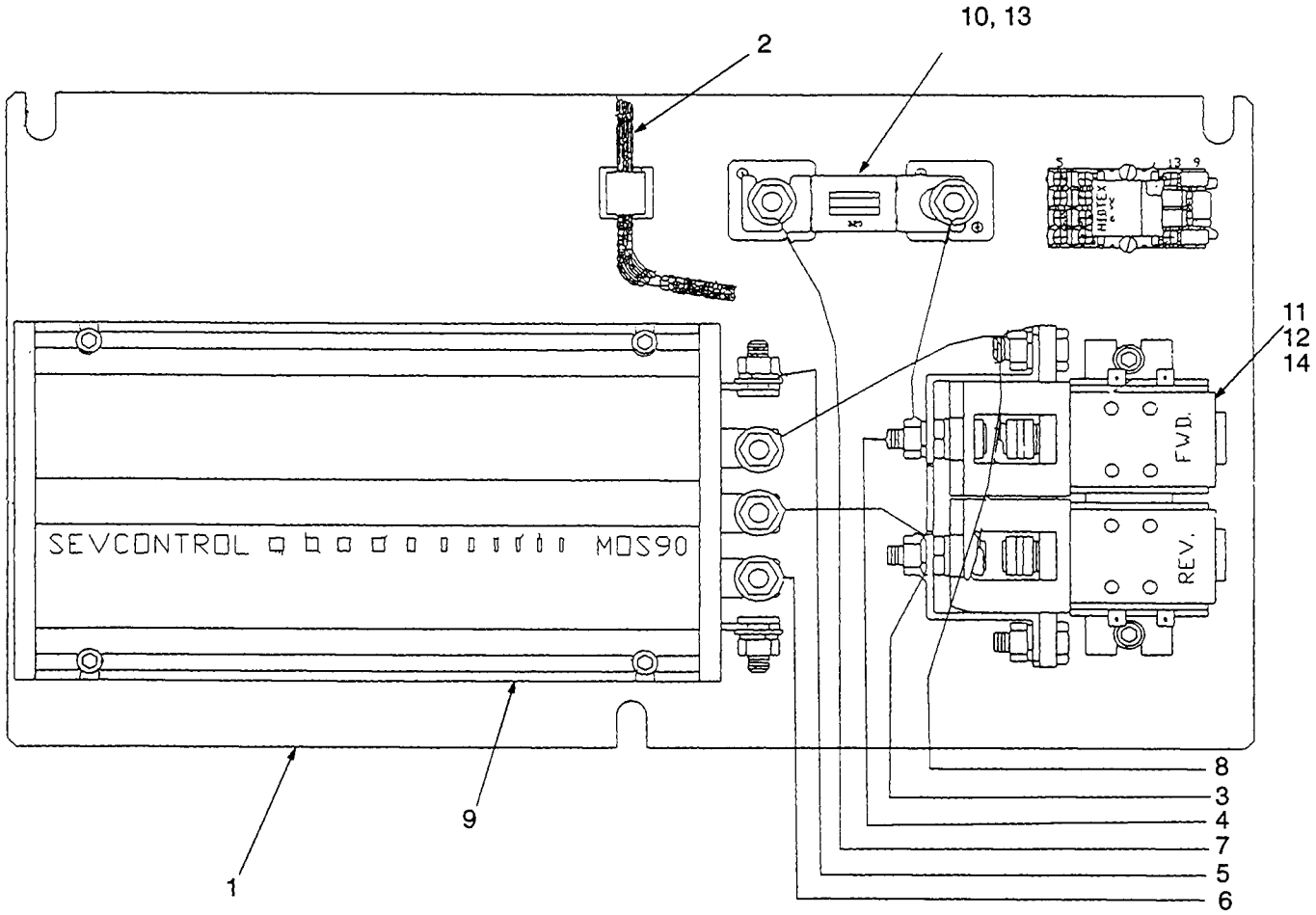


NOTE 1: DUE TO ONGOING VENDOR/MFG. REVISIONS, WHEN POSSIBLE, PROVIDE ALL NUMBERS FROM THE CYLINDER I.D. TAG.

NOTE 2: THE SEAL KIT INCLUDES ITEMS SHOWN WITH AN ASTERISK (*).

Ref.	Part No.	Description	Qty	Remarks
1	141759	Cylinder, Steering (Rosenboom) - CH30KBN	Ref.	
2	141759	Kit, Seal	1	

NOTE 3: INTERNAL SERVICE REPLACEMENT PARTS AVAILABLE ON A SPECIAL ORDER BASIS.


10, 13
2
11
12
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SEVCONTROL MOS90
F.V.D.
REV.
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Models CH30KBN

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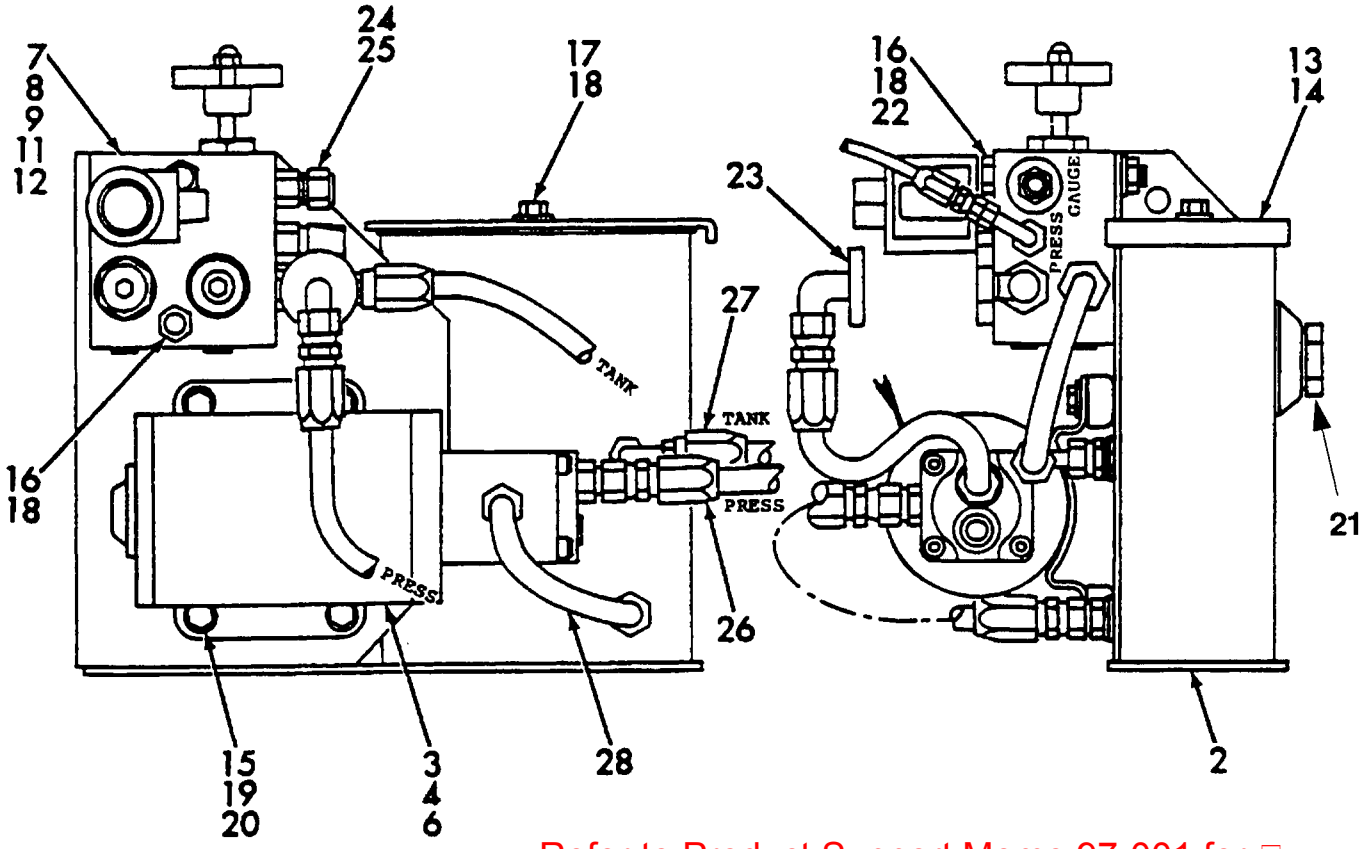
CONTROLLER

Mark Industries

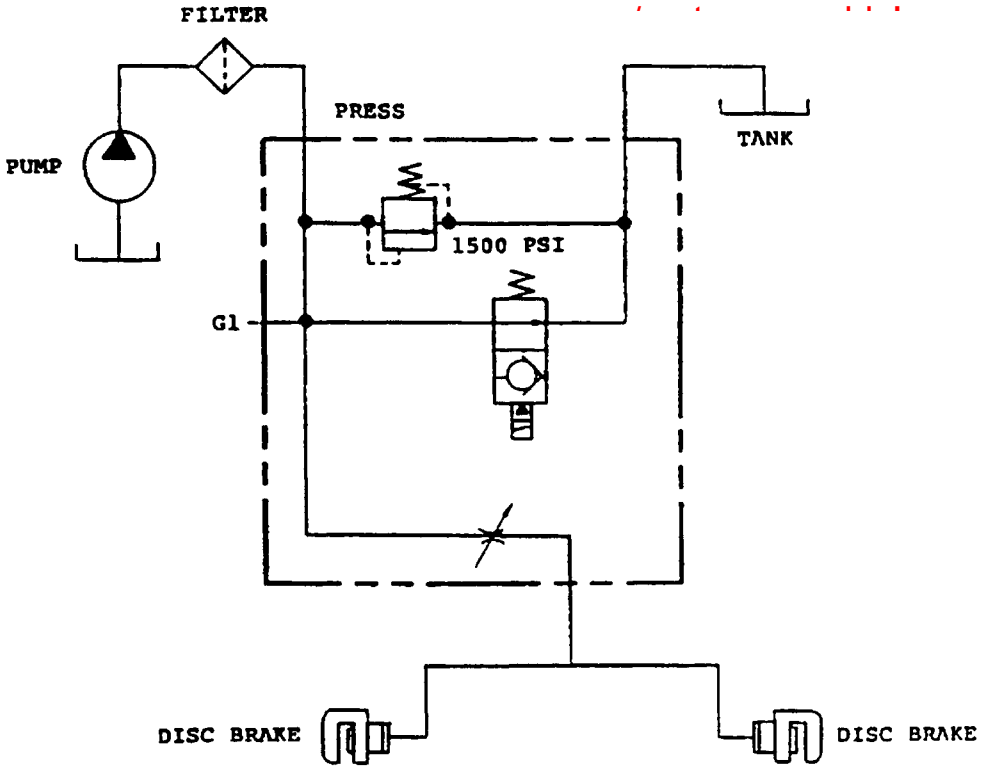
Ref.	Part No.	Description	Qty	Remarks
	141836	Assembly, Controller	1	Includes Items 1-15
	141835	Controller	1	Includes Items 1-14
1	600585	Base Plate	1	
2	600586	Harness	1	
3	600587	Cable	1	
4	600588	Cable	1	
5	600589	Cable	1	
6	600590	Cable	1	
7	600591	Cable	1	
8	600592	Cable	1	
9	600593	Controller	1	
10	600594	Fuse	1	
11	600595	Contactor	1	
12	600596	Bracket	1	
13	600597	Terminal Hub	1	
14	600598	Tip Kit For 600595	1	
15	70893	Calibrator	1	Not Shown

BRAKE RELEASE ASSEMBLY
(Machines Prior to July 1995)

Mark Industries



Refer to Product Support Memo 97-001 for □ installation information on replacement □



Ref.	Part No.	Description	Qty	Remarks
1	141353	Assembly, Brake Release	Ref.	
2	141354	Weldment, Brake Release Panel	1	
3	~~81299~~ 601517	Assembly, Pump/Motor	1	re: Product Support Memo 97-001
4	~~600176~~ 69411	Pump	1	
5	600178	Kit, Seal	1	Not Shown
6	~~600177~~ 69412	Motor	1	
7	81300	Valve, Control Brake	1	
8	600106	Valve, Relief (Non-Adjustable)	1	
9	600107	Valve, Needle	1	
10	600032	Kit, Knob Extension	1	Not Shown
11	67986	Valve, Solenoid	1	
12	600028	Coil, 20 Volt (Round)	1	
13	141338	Cover, Reservoir Brake	1	
14	141339	Gasket, Brake Release Cover	1	
15	60323	Capscrew	4	
16	60355	Capscrew	2	
17	60338	Capscrew	1	
18	60702	Hex Nut	2	
19	63402	Flat Washer	4	
20	61246	Lock Nut	4	
21	160185	Plug, Liquid Level Sight	1	
22	63302	Lock Washer	3	
23	81340	Filter, Fitting	1	
24	80004-03	Connector, Straight Thread	3	
25	80059-03	Cap	1	
26	13229-03-0120	Assembly, Hose	1	
27	13229-03-0190	Assembly, Hose	1	
28	13228-03-0210	Assembly, Hose	1	

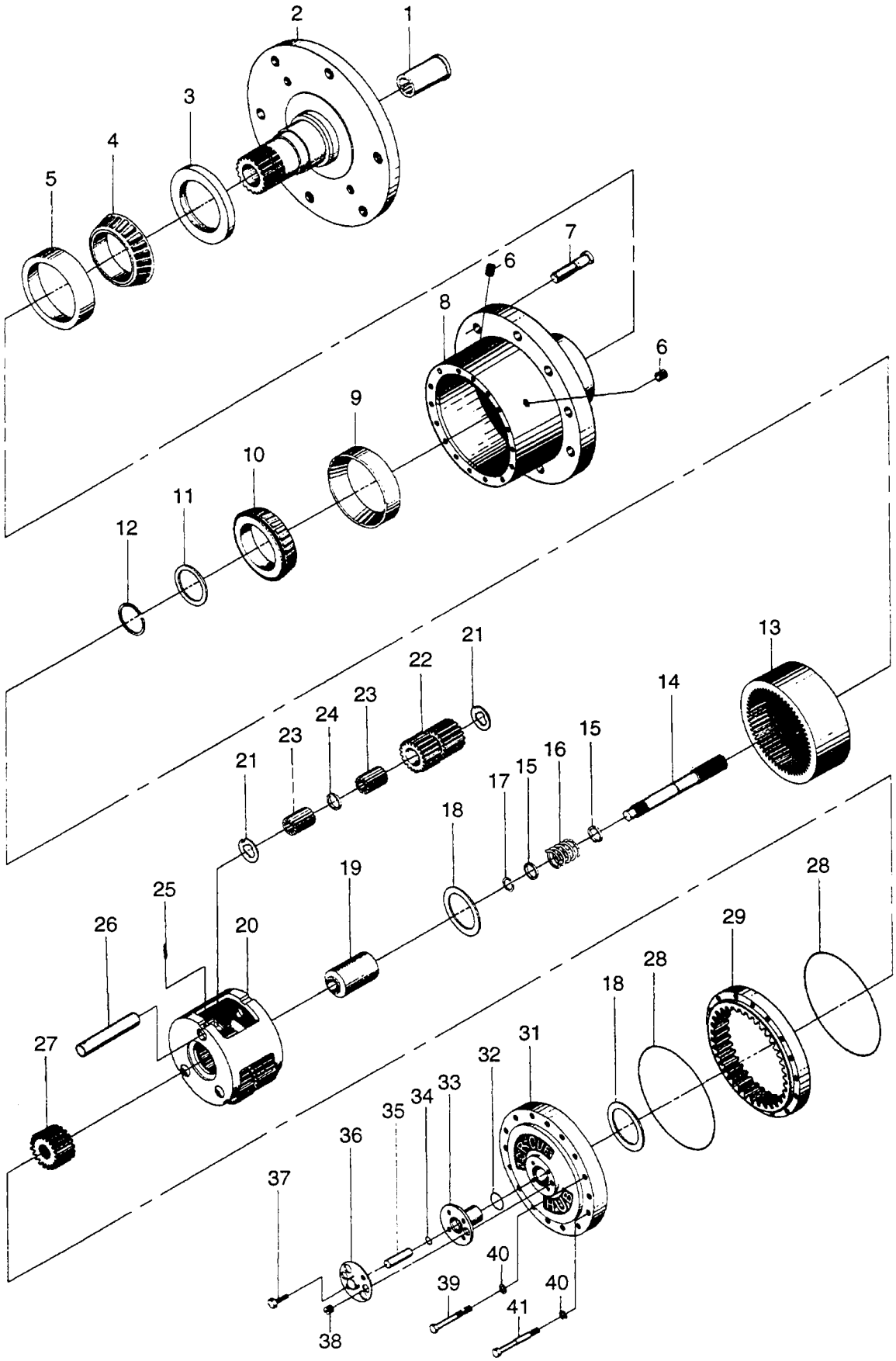
Model CH30KBN

Issued 12-95

TORQUE HUB

(STANDARD)

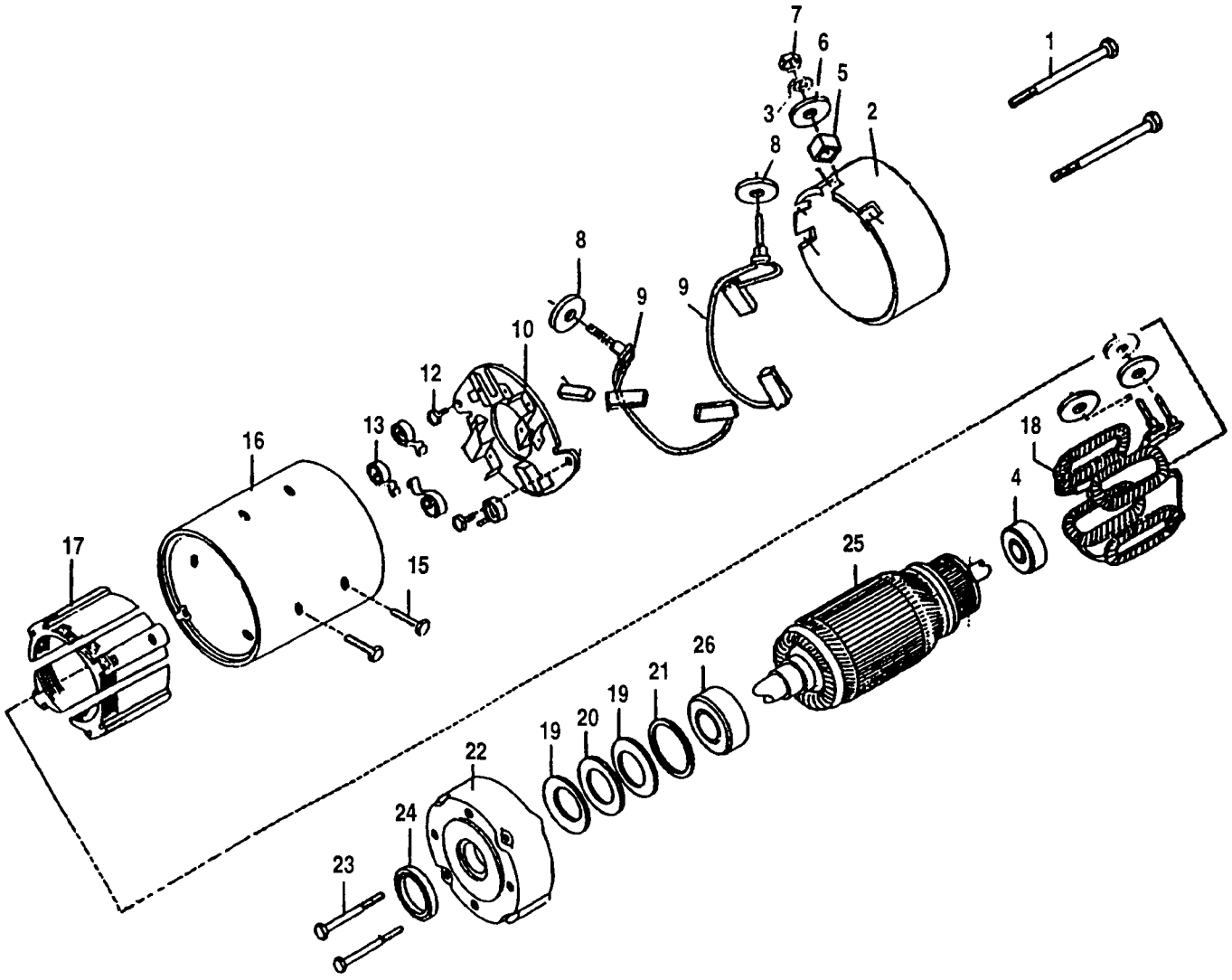
Mark Industries



Ref.	Part No.	Description	Qty	Remarks
-	140891	Torque Hub (Standard)	Ref.	Incl. items 1 thru 41
	600219	Kit, Seal	1	Incl. items w/Asterisk *
	600120	Seal, Outboard		
1	68316	Coupling	1	
2	67872	Spindle	1	
3	68130	Seal	1	*
4	67922	Cone, Bearing	1	
5	67914	Cup, Bearing	1	
6	68303	Pipe Plug, 1/4 NPTF	2	
7	67885	Stud	9	
8	68305	Housing	1	
9	67915	Cup, Bearing	1	
10	67923	Cone, Bearing	1	
11	67906	Washer, Thrust	1	
12	66510	Ring, Retaining	1	*
13	66521	Gear, Internal	1	
14	600448	Shaft, Input	1	
15	67907	Spacer, Thrust	2	
16	68311	Spring	1	
17	66509	Ring, Retaining	1	
18	68310	Washer, Thrust	2	*
19	67908	Spacer, Input	1	
20	66520	Carrier	1	
21	67895	Washer, Thrust	6	
22	68319	Gear, Cluster	3	
23	67916	Roller, Needle	96	
24	67907	Spacer, Thrust	3	
25	68304	Pin, Roll	3	
26	68306	Shaft, Planet	3	
27	68318	Gear, Sun	1	
28	66428	O-Ring	2	*
29	68320	Gear, Ring	1	
30	66425	Assembly, Cover	Ref.	Incl. items 31 thru 37
31	68312	Cover	1	
32	66713	O-Ring	1	*
33	68313	Cap, Cover	1	
34	66438	O-Ring	1	*
35	66186	Rod, Disconnect	1	
36	16265	Cap, Disconnect	1	
37	67928	Bolt, 1/4C x 3/4	4	
38	68287	Pipe Plug, 1/8 NPTF	1	
39	66427	Bolt, 5/16C x 2-1/4	12	
40	66424	Flatwasher	16	
41	66426	Bolt, Shoulder	4	

DRIVE MOTOR

Mark Industries



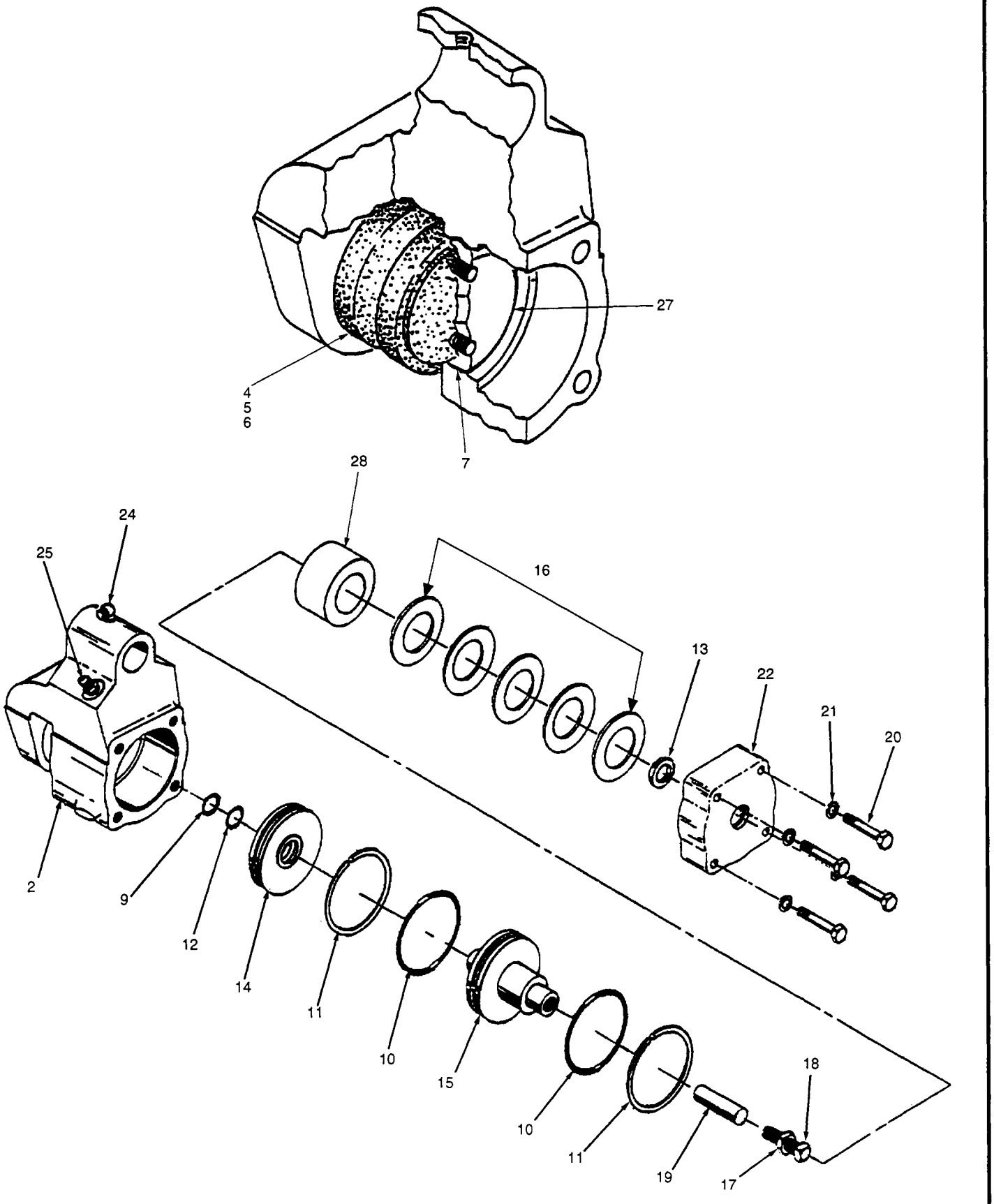
Ref.	Part No.	Description	Qty	Remarks
-	70480	Assembly, Motor (General Electric)	Ref.	Incl. Items 1 Thru 26
	141876	Assembly, Motor (Advance)		
	items below are N/A for Advance motor, contact parts sales center techincal department for available parts			
1	NSS	Screw, Motor Clamp, CE	2	
2	NSS	Endshield, Commutator End, CE	1	
3	NSS	Washer	4	
4	600143	Ball Bearing, Commutator End	1	
5	600145	Bushing, Insulation For Studs	4	
6	600146	Washer, Insulation For Terminal Stud	4	
7		Terminal Stud Nut	4	
8	600147	Washer, Insulation For Terminal Stud	4	
9	600142	Brush & Parts	2	
10	600140	Brush Rigging & Parts	1	
11	NSS	Gasket	4	
12	NSS	Screw, Brush Rigging Mounting	2	
13	600141	Brush Spring (P/O Item 11)	4	
14	NSS	Stator (Complete)	1	Incl. Items 15 Thru 18
15	NSS	Screw, Pole Piece	8	
16	NSS	Shell, Stator	1	
17	NSS	Field Pole Piece	4	
18	600148	Field Coils (Set)	SET	
19	NSS	Conical Washer, PE	2	
20	NSS	Spacer Washer, PE	1	
21	NSS	Shim Washer, PE	AR	
22	NSS	Endshield, Pulley End (PE)	1	
23	NSS	Screw, Motor Clamp, PE	2	
24	NSS	Shaft Seal	1	
25	NSS	Armature	1	
26	600144	Ball Bearing, Output End	1	

Model CH30KBN

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CALIPER BRAKE
(Machines prior to July 1995)

Mark Industries



CALIPER BRAKE
(Machines prior to July 1995)

Model CH30KBN
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Ref.	Part No.	Description	Qty	Remarks
1	160694	Assembly, Caliper Brake	Ref.	
2	68639	Brake, Spring (Caliper)	2	
3	68654	Kit, Repair	1	Incl. items 4 thru 13
4	NSS	Screw	2	
5	NSS	Bushing	2	
6	NSS	Lining	2	
7	NSS	Screw	2	
9	NSS	B/U Ring	1	
10	NSS	O-Ring	1	
11	NSS	B/U	2	
12	NSS	O-Ring	2	
13	NSS	Seal, Wiper	1	
14	66379	Piston	1	
15	68653	Piston	1	
16	66381	Spring, Bellville	13	
17	66384	Nut, Jam	1	
18	66385	Screw, Set	1	
19	68651	Rod, Push	1	
20	68652	Capscrew	4	
21	66393	Lockwasher	4	
22	66378	Cover	1	
23	66395	Screw, Bleeder	1	Not Shown
24	66377	ND Fitting, Grease (90 Deg.)	1	
25	80004-03	ND Connector, Straight Thread	1	
26	65366	Cap, Grease	1	
27	68656	Piston	1	
28	68650	Spacer	1	

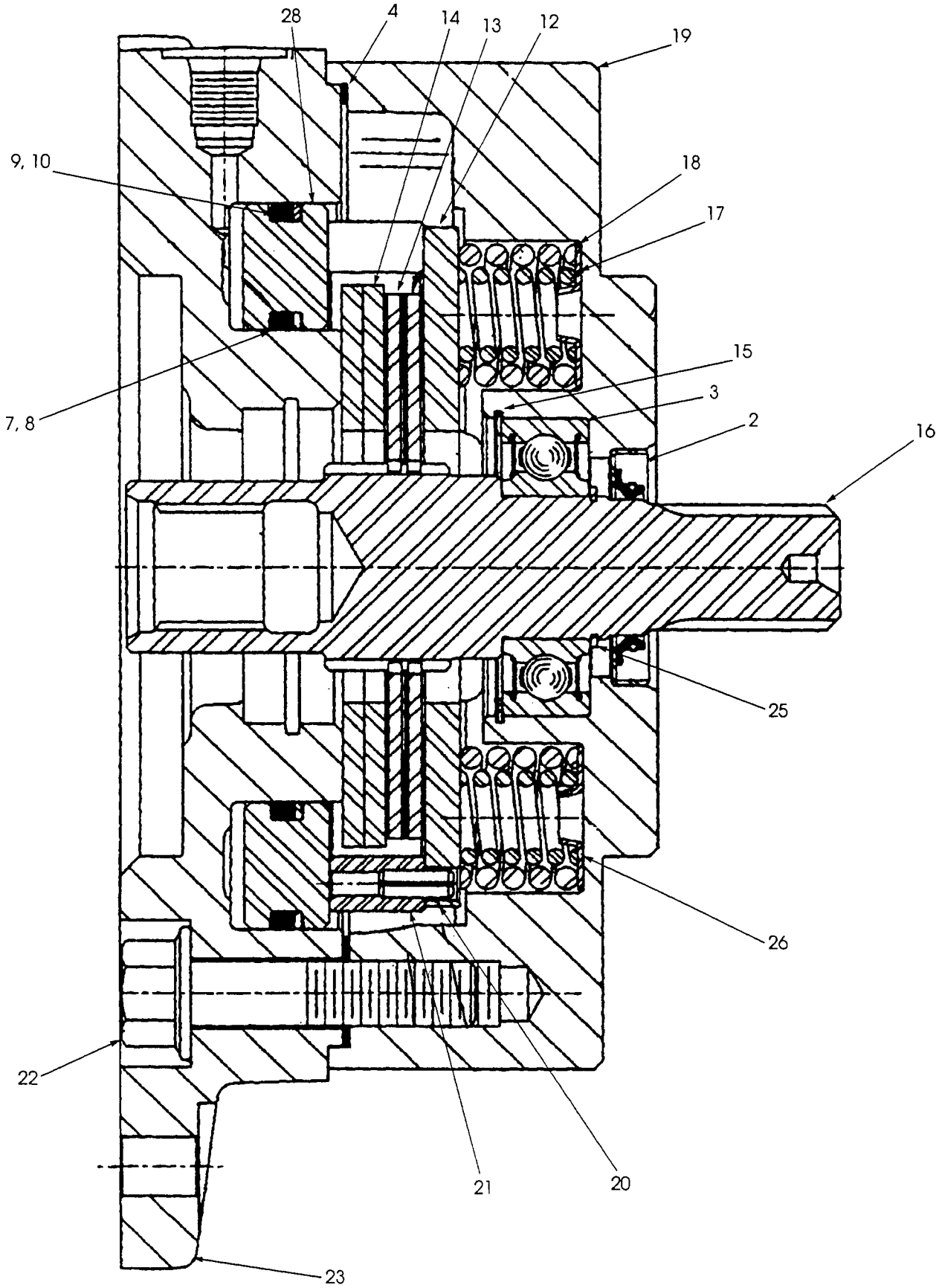
Model CH30KBN

Issued 12-95

BRAKE, MULTIPLE DISC

(Machines Manufactured After July 1995)

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BRAKE, MULTIPLE DISC

(Machines Manufactured After July 1995)

Model CH30KBN

Issued 12-95

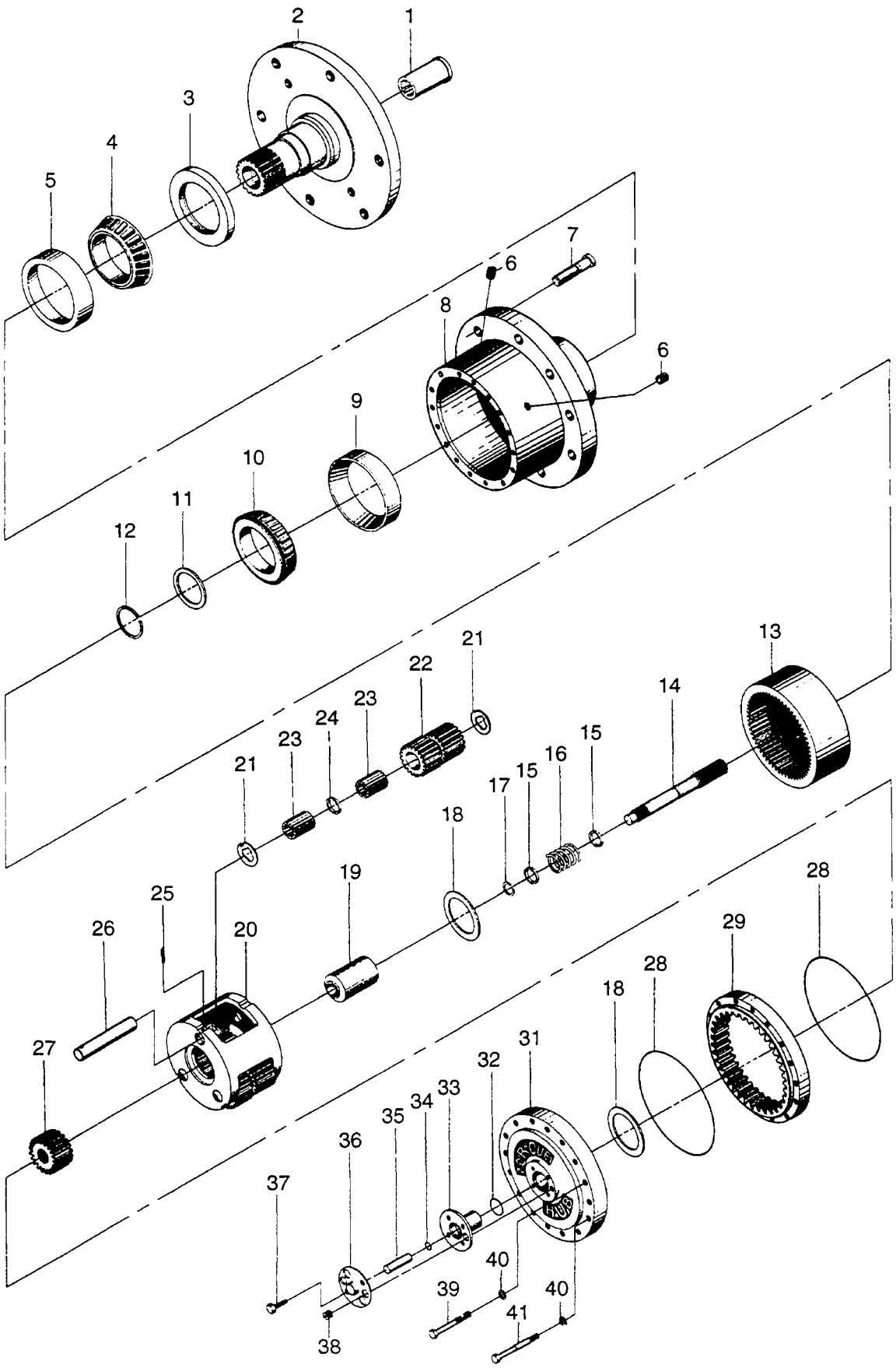
Ref.	Part No.	Description	Qty	Remarks
	81519	Multiple Disc Brake Assembly	1	
1	69229	Bearing Repair Kit	1	Includes Items 2-5
2	NSS	Oil Seal	1	
3	NSS	Bearing	1	
4	NSS	Case Seal	1	
5	NSS	O-Ring	2	Not Shown
6	69227	O-Ring Repair Kit	1	Includes Items 2, 4, 5 & 7-10
7	NSS	Backup Ring	1	
8	NSS	O-Ring	1	
9	NSS	Backup Ring	1	
10	NSS	O-Ring	1	
11	69228	Lining Repair Kit	1	Includes Items 4, 5 & 12-14
12	NSS	Return Plate	1	
13	NSS	Rotor	2	
14	NSS	Stator	2	
15	69222	Retaining Ring	1	
16	69221	Shaft	1	
17	69220	Spring	4	
18	69219	Spring	4	
19	69218	Cover Plate	1	
20	69217	Pin	4	
21	69216	Separator	2	
22	69213	Capscrew	4	
23	69212	Pressure Plate	1	
24	66395	Bleeder Screw	1	Not Shown
25	68471	Retainer Ring	1	
26	69211	Spring Guide	1	
27	69210	Dowel Pin	2	Not Shown
28	69207	Piston	1	
29	69206	Plug	2	Not Shown

Model CH30KBN

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TORQUE HUB (HIGH SPEED)

Mark Industries



TORQUE HUB (HIGH SPEED)

Model CH30KBN

Issued 12-95

Ref.	Part No.	Description	Qty	Remarks
-	24707	Torque Hub (High Speed)	Ref.	Incl. items 1 thru 41
	600219	Kit, Seal	1	Incl. items w/Asterisk *
	600120	Seal, Outboard	1	
1	68316	Coupling	1	
2	67872	Spindle	1	
3	68130	Seal	1	*
4	67922	Cone, Bearing	1	
5	67914	Cup, Bearing	1	
6	68303	Pipe Plug, 1/4 NPTF	2	
7	67885	Stud	9	
8	68305	Housing	1	
9	67915	Cup, Bearing	1	
10	67923	Cone, Bearing	1	
11	67906	Washer, Thrust	1	
12	66510	Ring, Retaining	1	*
13	66521	Gear, Internal	1	
14	600448	Shaft, Input	1	
15	67907	Spacer, Thrust	2	
16	68311	Spring	1	
17	66509	Ring, Retaining	1	
18	68310	Washer, Thrust	2	*
19	67908	Spacer, Input	1	
20	66520	Carrier	1	
21	67895	Washer, Thrust	6	
22	68319	Gear, Cluster	3	
23	67916	Roller, Needle	96	
24	67907	Spacer, Thrust	3	
25	68304	Pin, Roll	3	
26	68306	Shaft, Planet	3	
27	68318	Gear, Sun	1	
28	66428	O-Ring	2	*
29	68325	Gear, Ring	1	
30	66425	Assembly, Cover	Ref.	Incl. items 31 thru 37
31	68312	Cover	1	
32	66713	O-Ring	1	*
33	68313	Cap, Cover	1	
34	66438	O-Ring	1	*
35	66186	Rod, Disconnect	1	
36	16265	Cap, Disconnect	1	
37	67928	Bolt, 1/4C x 3/4	4	
38	68287	Pipe Plug, 1/8 NPTF	1	
39	66427	Bolt, 5/16C x 2-1/4	12	
40	66424	Flatwasher	16	
41	66426	Bolt, Shoulder	4	

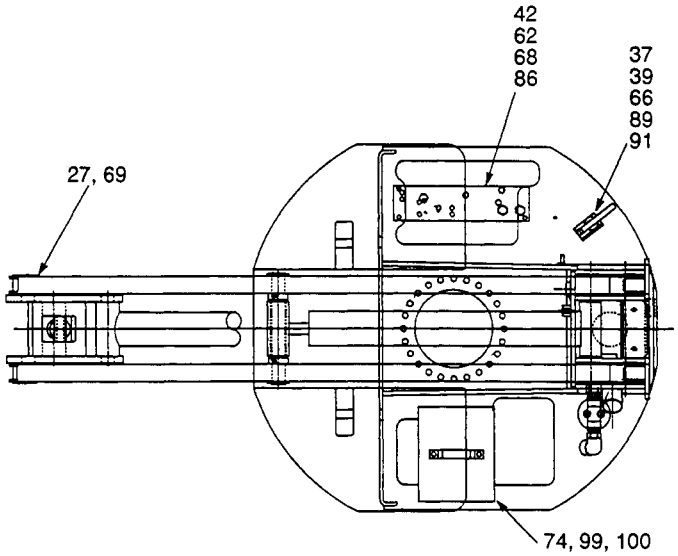
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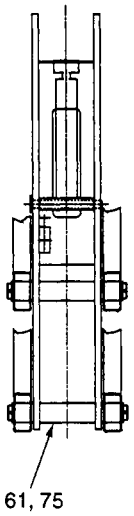
SECTION 4 CONTAINS:

PAGE	TITLE
4.2	TURRET ASSEMBLY
4.6	BOOM LIFT CYLINDER
4.7	CONTROL VALVE ASSEMBLY
4.10	BATTERY CHARGER - DOMESTIC
4.11	BATTERY CHARGER - INTERNATIONAL

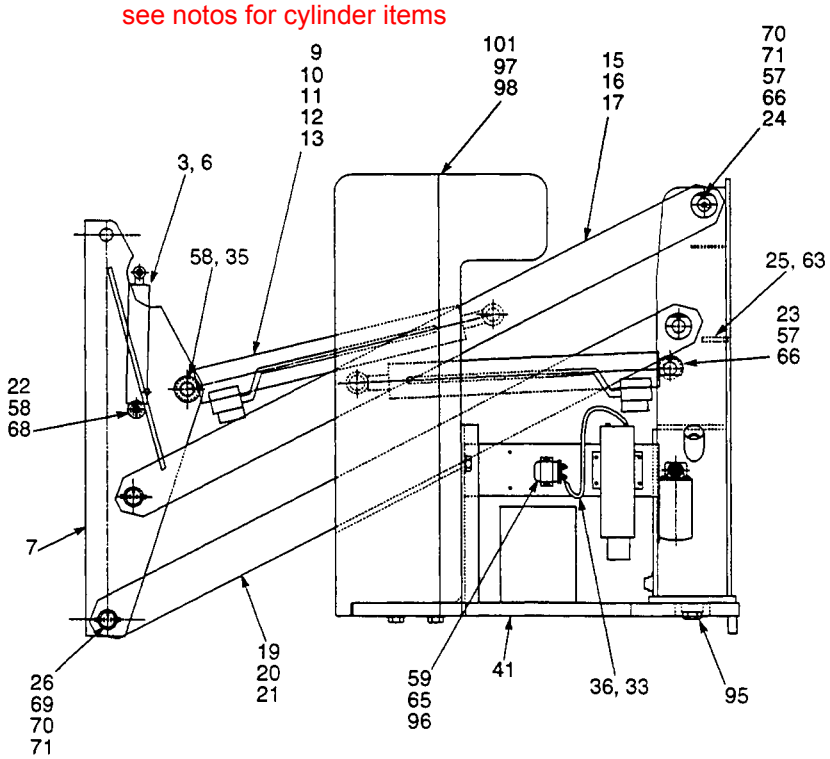
TURRET ASSEMBLY
CH30KBN

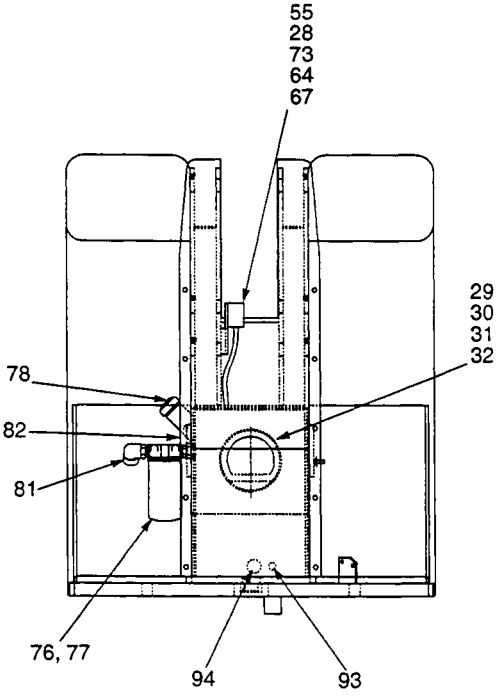
Mark Industries

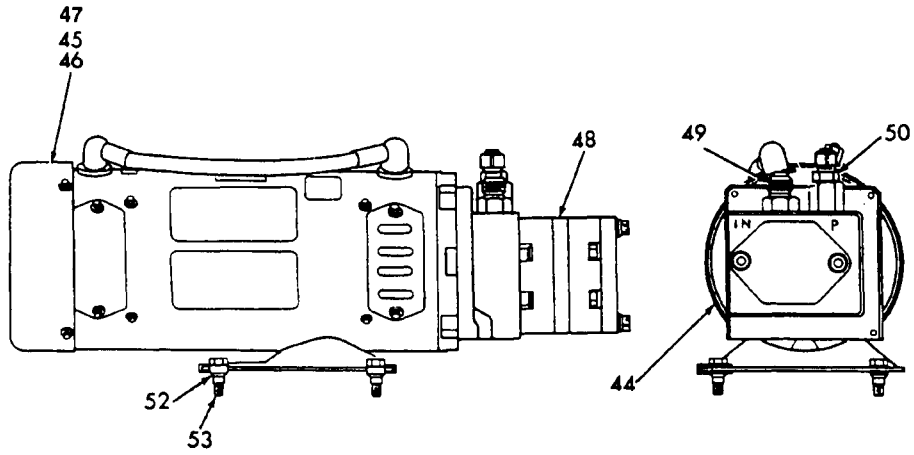




see notos for cylinder items







Ref.	Part No.	Description	Qty	Remarks
1	141803	Assembly, Turret	Ref.	Not Shown
3	140896	Cylinder, Master (Remco)	1	
5	600564	Kit, Seal (Remco)	1	Not Shown
6	3623233	Tee, Straight Thread	2	
7	140140	Machining, Riser	1	
8	140169	Sub-Assembly, Boom Lift Cylinder	2	Not Shown
9	~~140747~~	Cylinder, Lift	2	See Page 4.6 For Details
10	1200-9	Capscrew	6	
11	1210-14	Lockwasher	6	
12	1219-605	Connector, Straight Thread	4	
13	~~81205~~	Valve, Holding	2	
14	140390	Assembly, Cylinder Riser Arm	2	Not Shown
15	140106	Weldment, Cylinder Riser Arm	2	
16	140389	Bushing, Riser	2	
17	140388	Bushing, Column	2	
18	140391	Assembly, Riser Arm	2	Not Show
19	140101	Weldment, Riser Arm	2	
20	140389	Bushing, Riser	2	
21	140388	Bushing, Column	2	
22	140427	Pin, Master Cylinder/Riser	1	
23	140454	Pin, Rise Lift Cylinder (Cap End)	1	
24	140455	Pin, Riser Arm	4	
25	141238	Pad, Boom Rest	1	
26	140469	Pin, Arm/Riser	2	
27	140471	Pin, Arm/Cylinder	1	
28	141817	Plate Prox Switch	1	
29	135718	Gasket	1	
30	1200-29	Capscrew	6	

TURRET ASSEMBLY (CH30KBN)

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Ref.	Part No.	Description	Qty	Remarks
31	135723	Washer	6	
32	141846	Cover	1	
33	141823	Wire Harness	1	
35	140601	Pin, Boom Lift	1	
36	13226-0249	Cable	1	
37	81522	Pump, Emergency	1	
38	69987	Kit, Seal (Soft Parts Only)	1	Not Shown
	69988	Repair Kit (Soft & Hard Parts)	1	Not Shown
39	1219-959	Elbow, Male	1	
41	141780	Weldment, Turret	1	
42	81514	Assembly, Control Valve	1	See Page 4.7 For Details
44	~~70704 81568~~	Pump/Motor	1	
45	~~68087 69406~~	Motor	1	
46	68088	Brush	4	
47	68397	Spring	4	
48	~~68086~~	Pump	1	
49	1219-795	Connector, Straight Thread	1	
50	1219-611	Connector, Straight Thread	1	
51	1209-3	Washer, Flat	1	
52	1205-34	Nut, Lock	4	
53	1200-31	Capscrew	4	
55	4416835	Cable, Conductor	1	
57	1200-29	Capscrew	14	
58	1200-57	Capscrew	4	
59	1200-5	Capscrew	18	
61	60388	Capscrew	2	
62	1200-85	Capscrew	3	
63	61824	Capscrew	2	
64	160719	Machine Screw	2	
65	1210-14	Lockwasher	10	
66	1210-17	Lockwasher	11	
67	3101603	Machine Screw	2	
68	1210-20	Lockwasher	12	
69	64216	Pin, Roll	6	
70	65103	Fitting, Grease	8	
71	65366	Cap, Grease	8	
73	4416834	Switch, Limit	1	
74	70523	Charger, Battery (Domestic)	1	See Page 4.10 For Details
	70526	Charger, Battery (International 230V)	1	See Page 4.11 For Details
	70533	Charger, Battery (International 110V)	1	See Page 4.12 For Details

TURRET ASSEMBLY (CH30KBN)

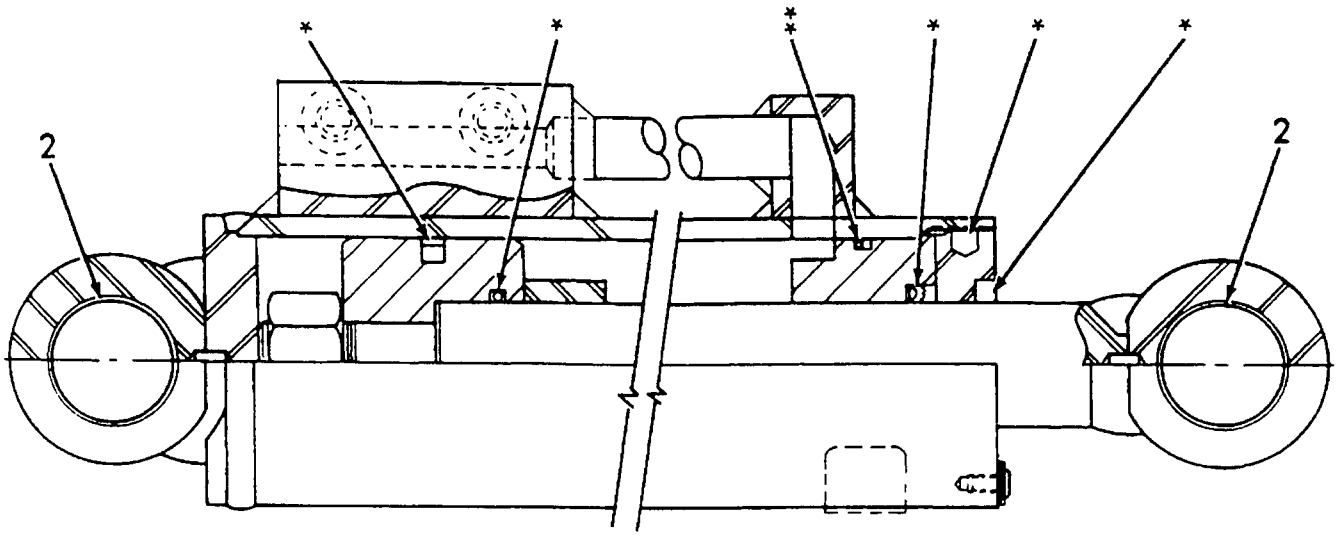
Model CH30KBN

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Ref.	Part No.	Description	Qty	Remarks
75	90565	Flat Washer	10	
76	81450	Filter, Return	1	
77	69748	Cartridge, Filter	1	
78	141841	Fill Cap	1	
81	1219-916	Connector	1	
82	1219-292	Nipple	1	
86	141815	Tube	3	
89	1200-71	Capscrew	2	
91	1205-36	Lock Nut	2	
93	80001-05	Connector, Male	1	
94	69953	Suction Strainer	1	
95	80048-05	Plug	1	
96	70362	Relay, 24 VDC	1	
96*	70479	Diode, supressor (6A, 1000 V)	1	
97	1200-278	Capscrew	5	
98	3345005	Washer, Flat	5	
99	60711	Nut, Lock	4	
100	1200-11	Capscrew	4	
101	141722	Counterweight	1	

BOOM LIFT CYLINDER (CH30KBN)

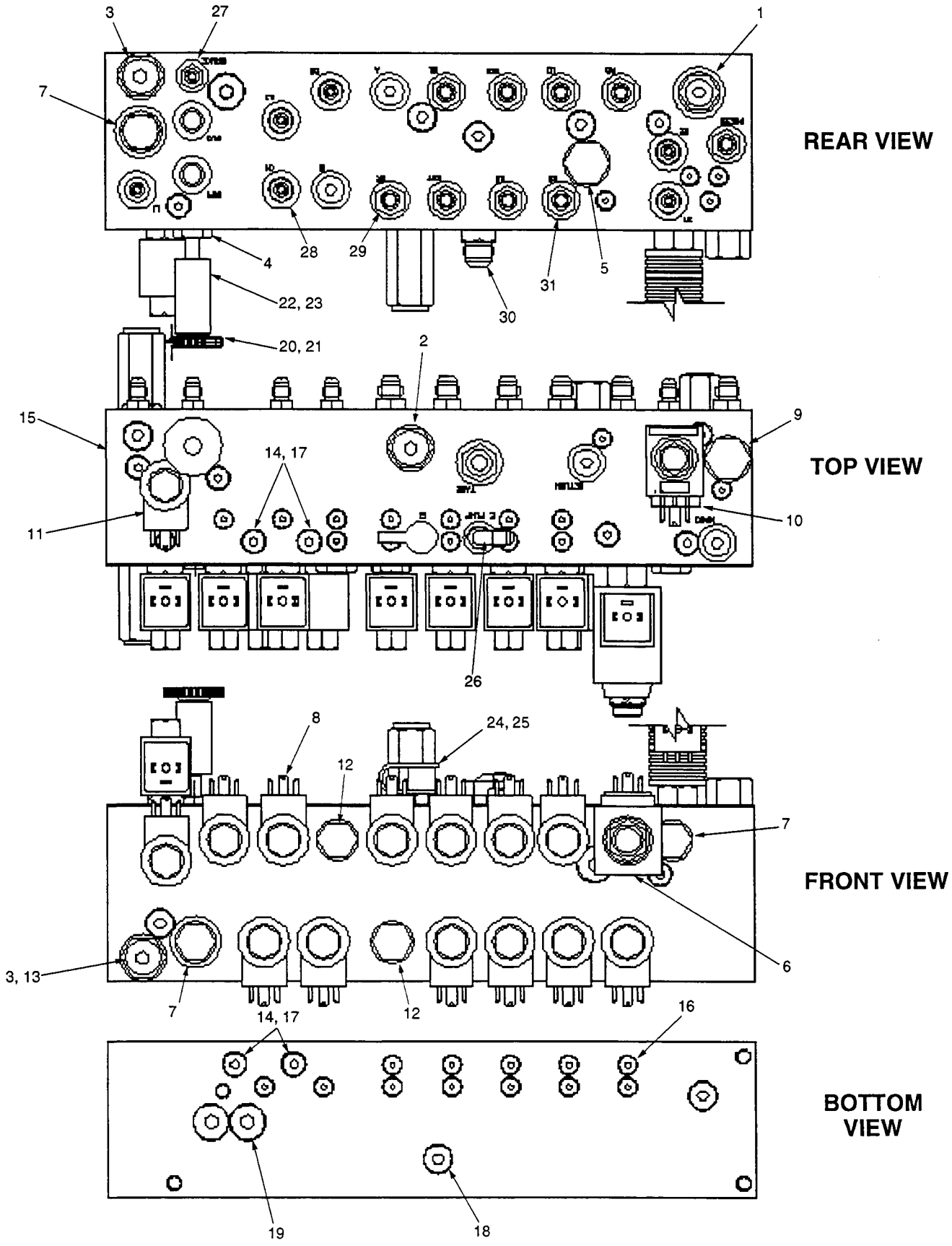
Mark Industries



NOTE 1: DUE TO ONGOING VENDOR/MFG. REVISIONS, WHEN POSSIBLE, PROVIDE ALL NUMBERS FROM THE CYLINDER I.D. TAG.

NOTE 2: THE SEAL KIT INCLUDES ITEMS SHOWN WITH AN ASTERISK (*).

Ref.	Part No.	Description	Qty	Remarks
1	140747	Cylinder, Boom Lift (GB)	Ref.	Not Shown
2	66882	Bushing	4	
3	600082	Kit, Seal (GB)	1	
	NOTE:	INTERNAL SERVICE REPLACEMENT PARTS AVAILABLE ON A SPECIAL ORDER BASIS.		


3
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3, 13
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14, 17
12
16
19
18
REAR VIEW
TOP VIEW
FRONT VIEW
BOTTOM VIEW

Model CH30KBN

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CONTROL VALVE ASSEMBLY

Mark Industries

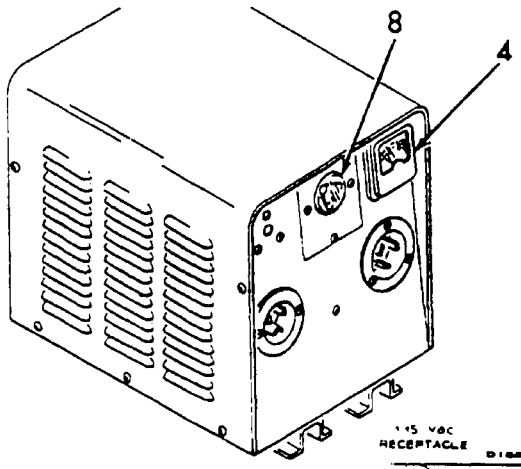
Ref.	Part No.	Description	Qty	Remarks
	MK81514	Control Valve	1	
1	67335	Relief Valve	1	
2	67336	Relief Valve	1	
3	66916	Relief Valve	2	
4	68875	Needle Valve	1	
5	67338	Valve, Diff. Sensing	1	
6	69990	Valve, Prop.	1	
7	600003	Valve, Check	3	
8	69992	Valve, Solenoid	13	
9	66687	Flow Regulator	1	
10	69994	Valve, Solenoid	1	
11	69995	Valve, Solenoid	1	
12	69996	Cavity Plug	2	
13	67682	Piston	1	
14	69997	Orifice (.025)	4	
15	69998	Body	1	
16	69999	#2 Plug	32	
17	67680	#4 Plug	18	
18	67681	#6 Plug	17	
19	12019-225	#8 Plug	4	
20	600042	Knob	1	
21	600556	Set Screw	1	
22	600557	Adapter	1	
23	600558	Set Screw	1	
24	600559	Nipple	1	
25	600560	Cap	1	
26	600561	Fitting	1	
27	1219-959	Fitting	1	
28	12019-205	Fitting	6	
29	1219-605	Fitting	9	
30	1219-441	Fitting	1	
31	600562	Orifice (.060)	1	

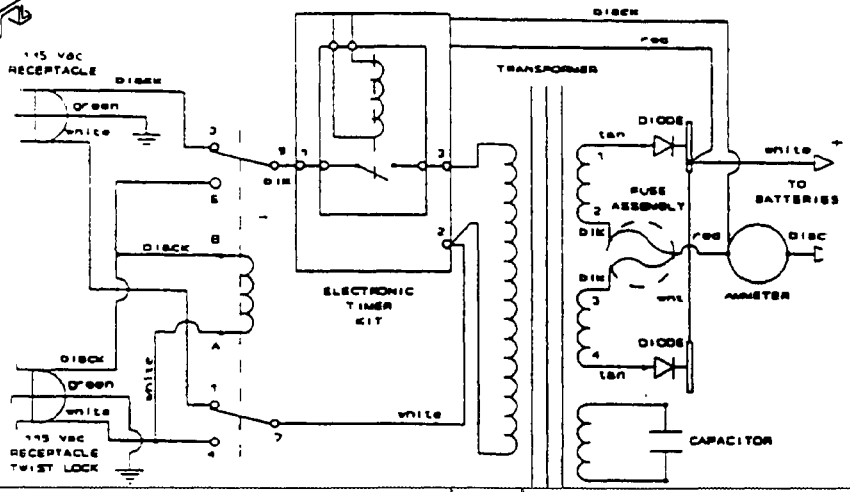
Model CH30KBN

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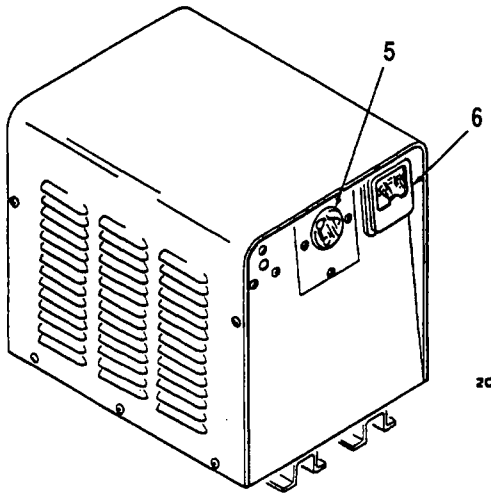
BATTERY CHARGER (DOMESTIC)

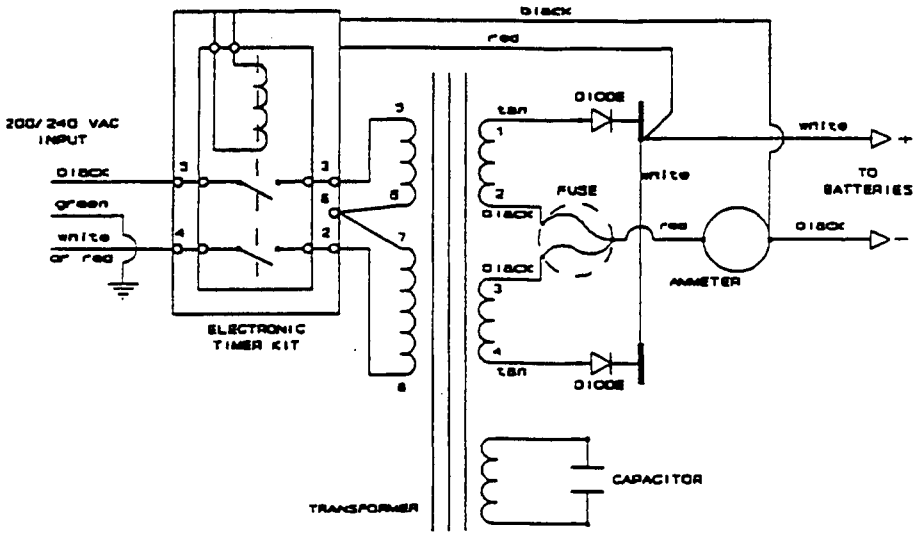
Mark Industries





Ref.	Part No.	Description	Qty	Remarks
1	70523	Charger, Battery (Domestic) (110V/60Hz)	Ref.	Not Shown
2	600135	Assembly, Transformer	1	Not Shown
3	600019	Assembly, Heat Sink (With Diodes)	1	Not Shown
4	600020	Ammeter	1	
5	600134	Assembly, Electronic Timer	1	Not Shown
6	66750	Capacitor (6 MFD, 660 VAC)	1	Not Shown
7	66728	Relay (120 VAC, DPDT, 15 AMP)	1	Not Shown
8	600136	Assembly, Fuse (With Panel)	1	





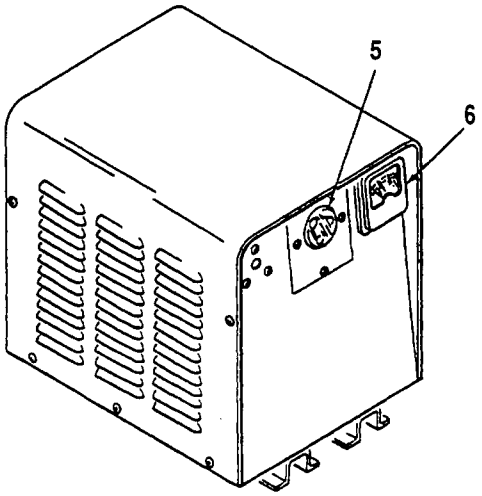
Ref.	Part No.	Description	Qty	Remarks
1	70526	Charger, Battery (International) (230V/50Hz)	Ref.	Not Shown
2	600018	Assembly, Transformer	1	Not Shown
3	66750	Capacitor (6 MFD, 660 VAC)	1	Not Shown
4	600019	Assembly, Heat Sink (With Diodes)	1	Not Shown
5	600136	Assembly, Fuse (With Panel)	1	
6	600020	Ammeter	1	
7	600021	Kit, Electronic Timer	1	Not Shown
8	600022	Relay, Timer Kit	1	Not Shown

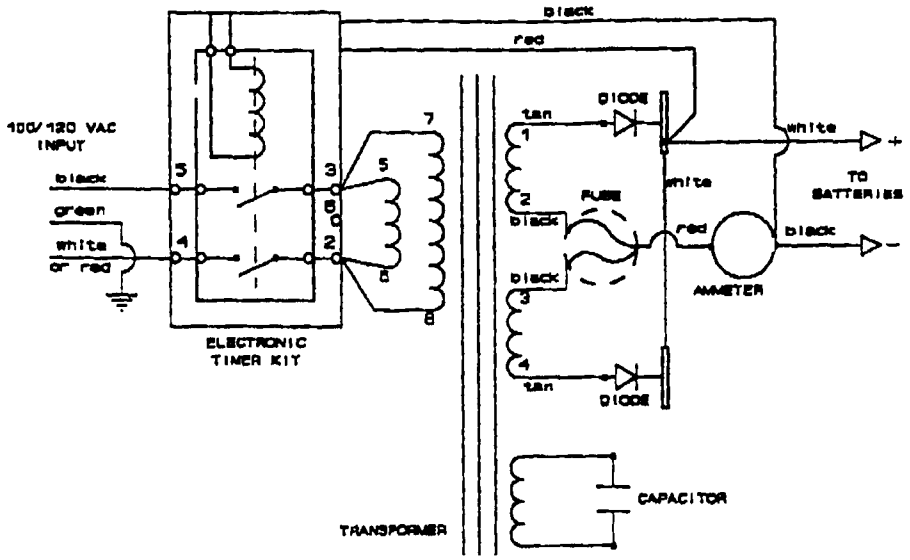
Model CH30KBN

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BATTERY CHARGER (INTERNATIONAL)

Mark Industries





Ref.	Part No.	Description	Qty	Remarks
1	70533	Charger, Battery (International) (110V/50Hz)	Ref.	Not Shown
2	600018	Assembly, Transformer	1	Not Shown
3	66750	Capacitor (6 MFD, 660 VAC)	1	Not Shown
4	600019	Assembly, Heat Sink (With Diodes)	1	Not Shown
5	600136	Assembly, Fuse (With Panel)	1	
6	600020	Ammeter	1	
7	600021	Kit, Electronic Timer	1	Not Shown
8	600022	Relay, Timer Kit	1	Not Shown

SECTION 5 CONTAINS:

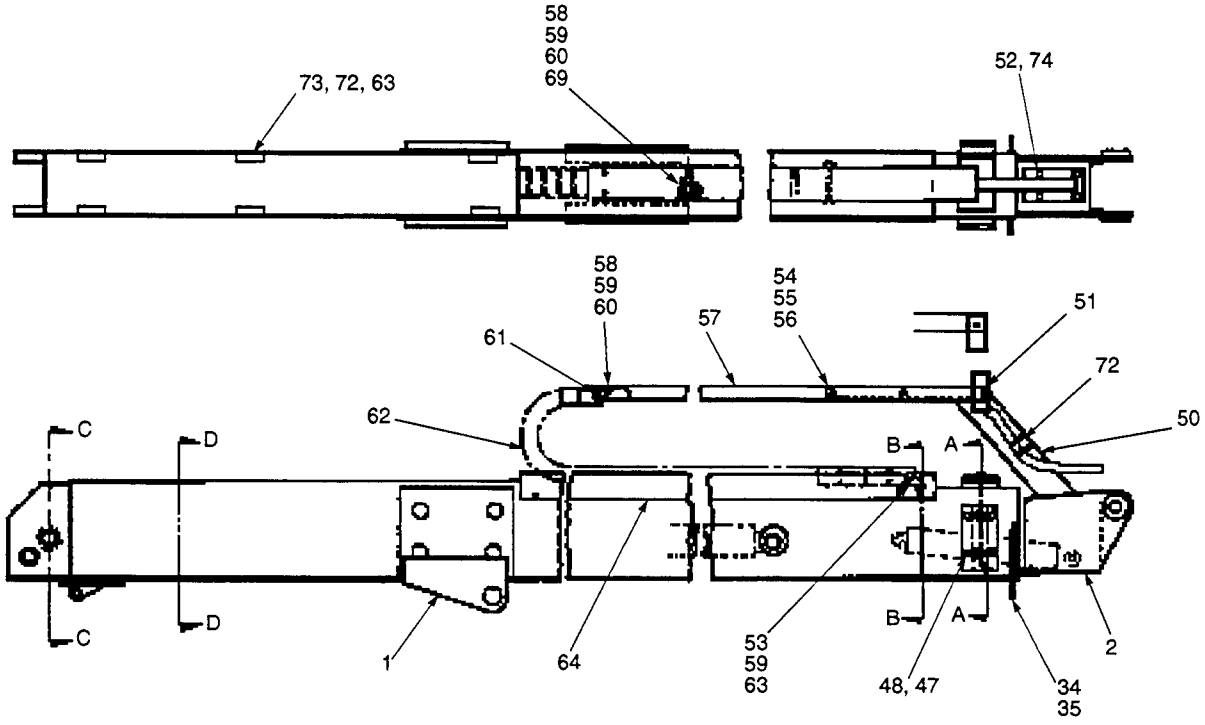
PAGE	TITLE
5.2	BOOM ASSEMBLY
5.6	BOOM ASSEMBLY - INNER
5.8	EXTENSION CYLINDER
5.9	SLAVE CYLINDER

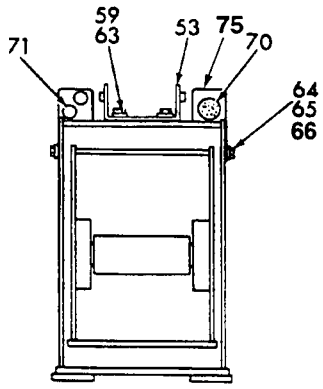
Models CH30KBN

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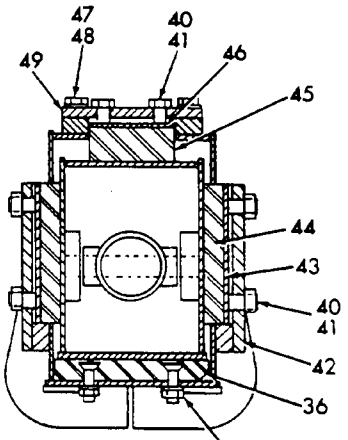
BOOM ASSEMBLY

Mark Industries

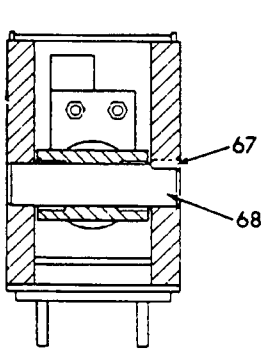




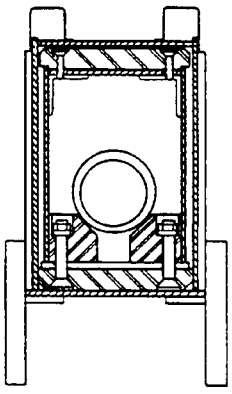
SECTION B-B



SECTION A-A



SECTION C-C

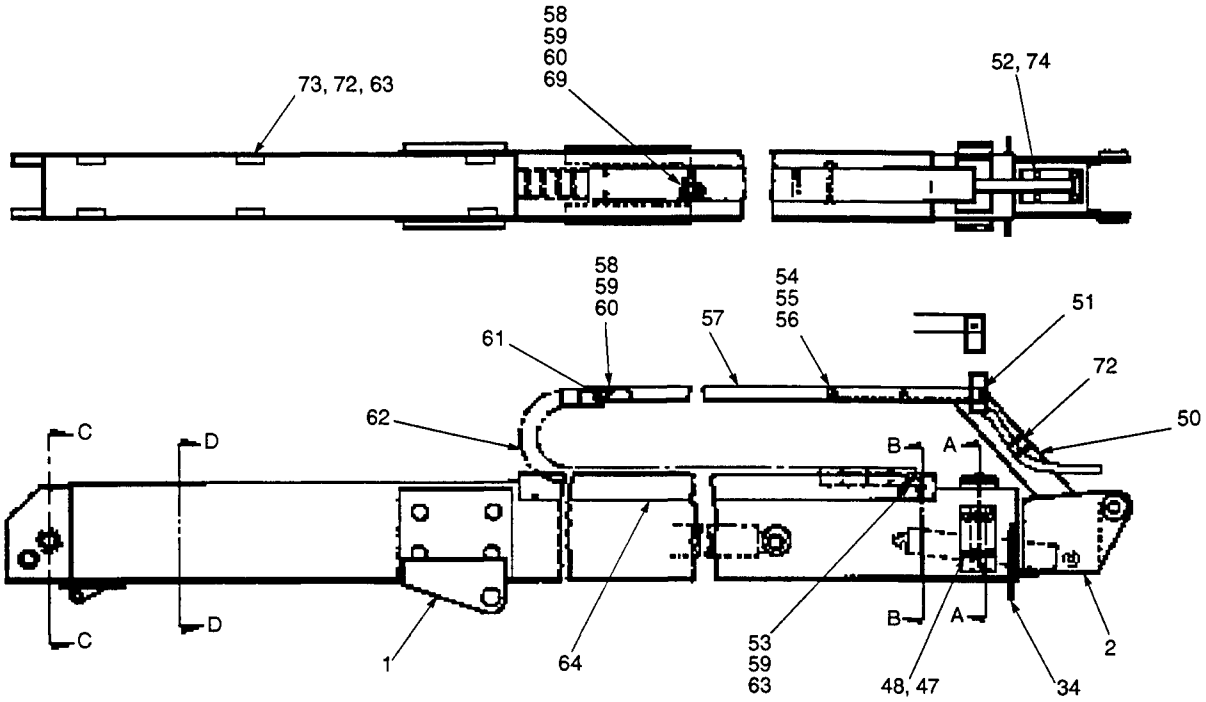


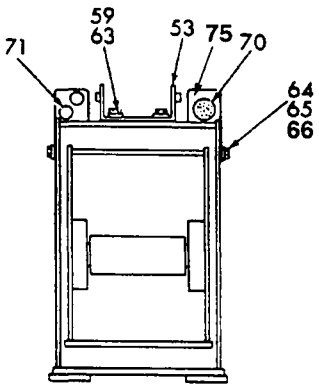
SECTION D-D

Ref.	Part No.	Description	Qty	Remarks
1	141801	Assembly, Final Boom	Ref.	Not Shown
2	141802	Sub-Assembly, Inner Boom	1	See Page 5.6 For Details
32	140098	Machining, Outer Boom	1	Not Shown
34	141242	Pad, Boom Wear	2	
35	140099	Bushing	2	
36	141763	Pad, Wear (Outer Boom Bottom)	1	
37	61821	Capscrew	4	
38	1210-20	Lockwasher	4	
39	1205-36	Hex Nut	4	
40	62210	Set, Screw	6	
41	1205-62	Nut, Jam	6	
42	140402	Plate, Side Cover	2	
43	27247	Strip	2	
44	141767	Pad, Wear (Side)	2	
45	140405	Pad, Wear (Top)	1	
46	27250	Strip	1	
47	1210-17	Lockwasher	12	
48	1200-31	Capscrew	12	
49	140406	Plate, Top Cover	1	
50	141745	Weldment, Power Track Bracket	1	
51	65390	Plug	2	
52	160704	Capscrew	4	
53	23875	Bracket, Stationary (Male)	1	
54	160705	Capscrew	3	
55	160706	Nut, Lock	3	
56	65647	Washer, Flat	3	
57	141746	Support, Power Track	1	
58	160707	Capscrew	5	
59	160708	Washer, Flat	7	
60	160709	Hex Nut	5	
61	23874	Bracket, Movable (Female)	1	
62	23824	Power Track	34	
63	60422	Capscrew	8	
64	140201	Guide, Power Track	1	
65	61729	Machine Screw	4	

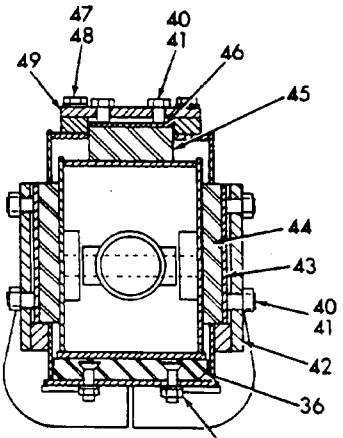
BOOM ASSEMBLY

Mark Industries

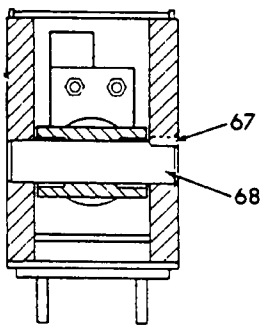




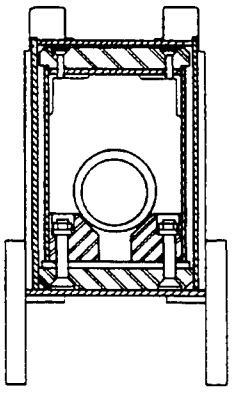
SECTION B-B



SECTION A-A



SECTION C-C

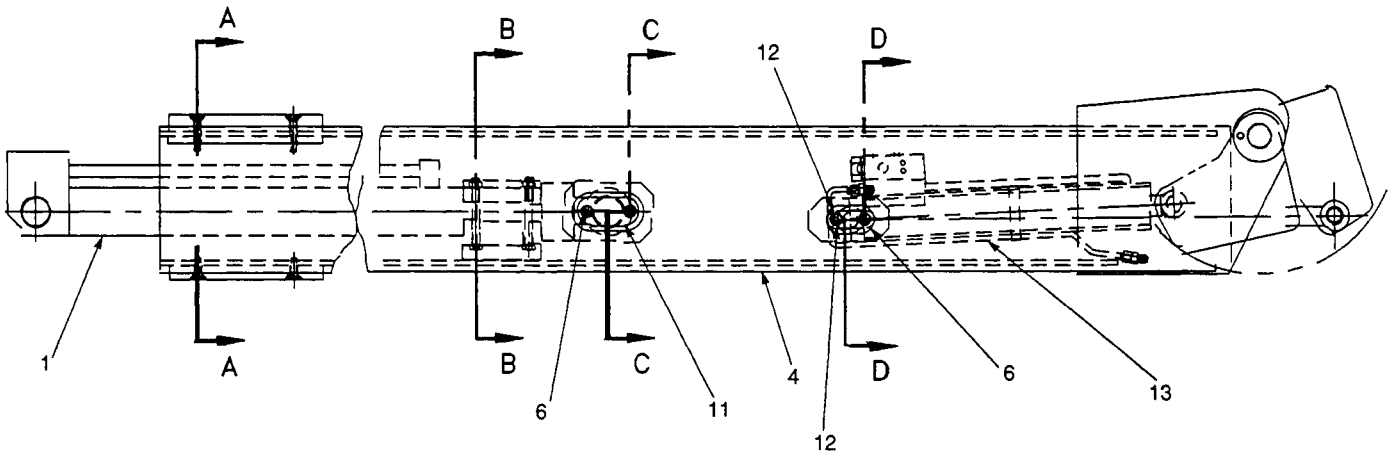


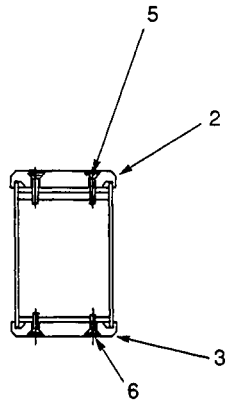
SECTION D-D

Ref.	Part No.	Description	Qty	Remarks
66	1210-7	Lockwasher	4	
67	62229	Screw, Set (Nylon Lock)	2	
68	140483	Pin, End Cap (Extension Cylinder)	1	
69	65867	Clamp	3	
70	141850	Cable	1	
71	2568-35	Hose, Hydraulic	2	
72	16268	Clamp	7	
73	1210-14	Lockwasher	7	
74	65645	Lockwasher	4	
75	141812	Cable	1	

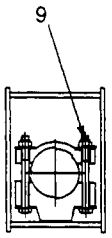
BOOM ASSEMBLY (INNER)

Mark Industries

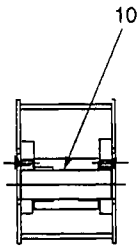




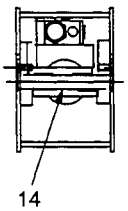
SECTION A–A



SECTION B–B



SECTION C–C



SECTION D–D

BOOM ASSEMBLY (INNER)

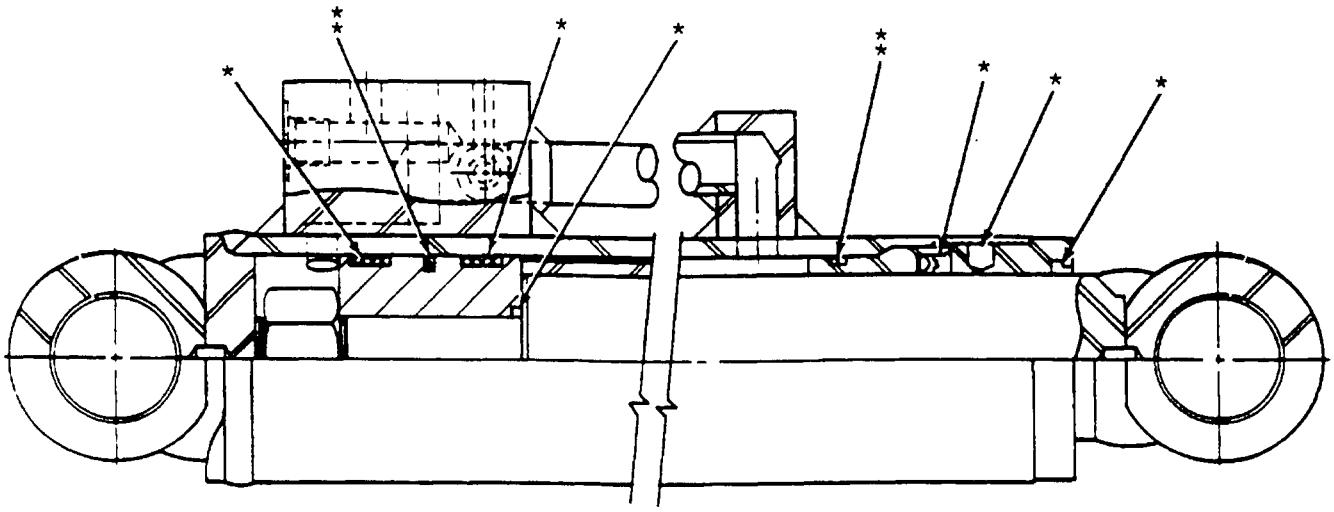
Ref.	Part No.	Description	Qty	Remarks
	141802	Sub Assembly, Inner Boom	1	
1	81490	Extension Cylinder	1	See Page 5.8 For Details
2	141753	Wear Pad	1	
3	141754	Wear Pad	1	
4	141740	Boom, Inner	1	
5	160710	Screw	4	
6	160711	Screw	12	
7	141755	Wear Pad	1	
8	141756	Wear Pad	1	
9	1200-81	Capscrew	4	
	1209-63	Flatwasher	4	
	1205-45	Locknut	4	
10	141752	Pin	1	
11	141748	Pin, Cap	2	
12	141747	Pin, Cap	2	
13	141869	Slave Cylinder	1	See Page 5.9 For Details
14	141751	Pin	1	

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EXTENSION CYLINDER

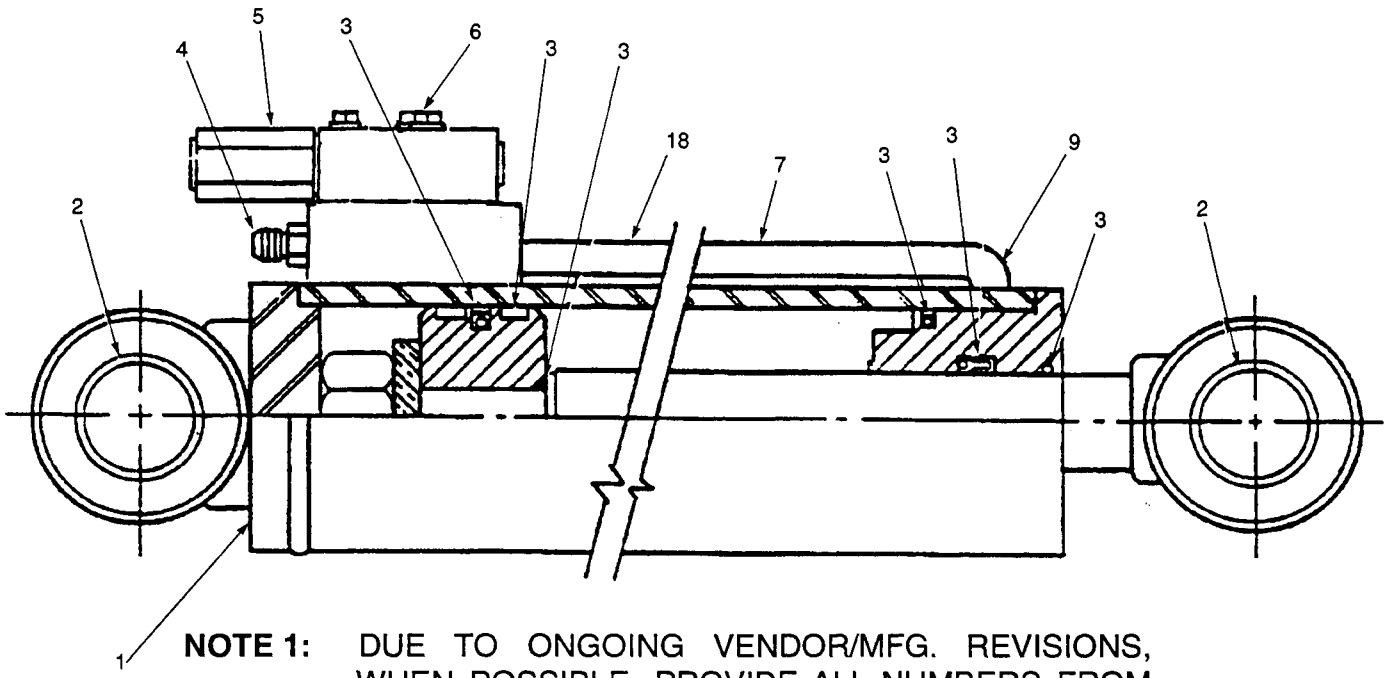
Mark Industries



NOTE 1: DUE TO ONGOING VENDOR/MFG. REVISIONS, WHEN POSSIBLE, PROVIDE ALL NUMBERS FROM THE CYLINDER I.D. TAG.

NOTE 2: THE SEAL KIT INCLUDES ITEMS SHOWN WITH AN ASTERISK (*).

Ref.	Part No.	Description	Qty	Remarks
1	81490	Cylinder, Extension (RB)	Ref	Not Shown
2	69968	Kit, Seal	1	Not Shown
	NOTE 3:	INTERNAL SERVICE REPLACEMENT PARTS AVAILABLE ON A SPECIAL ORDER BASIS.		



NOTE 1: DUE TO ONGOING VENDOR/MFG. REVISIONS, WHEN POSSIBLE, PROVIDE ALL NUMBERS FROM THE CYLINDER I.D. TAG.

Ref.	Part No.	Description	Qty	Remarks
	141869	Slave Cylinder Assembly (Remco)	1	
1	140890	Cylinder	1	
2	67999	Bushing	4	
3	67997	Seal Kit	1	
4	80004-03	Connector	2	
5	81524	Hold Valve	1	
6	310 1922	Capscrew	3	
7	140058-68	Tube	1	
8	65111	Strap	1	
9	80042-03	Connector	2	

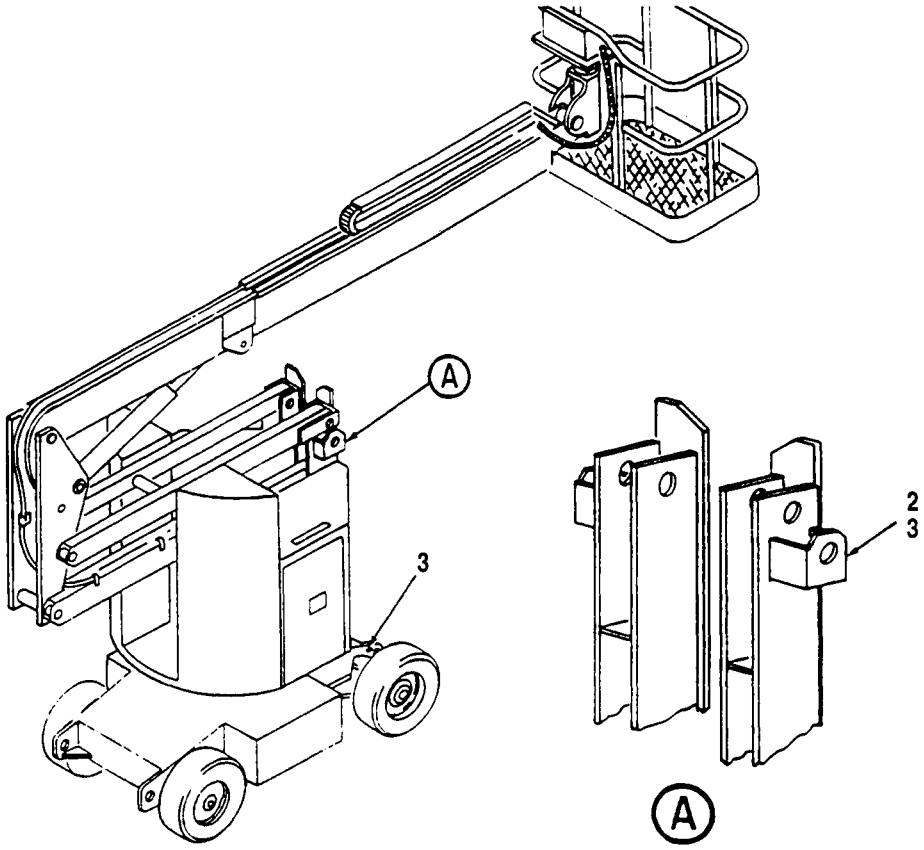
SECTION 6 CONTAINS:

PAGE	TITLE
6.1	LIFTING LUG
6.3	AIRLINE TO PLATFORM

LIFTING LUG (CH30KBN)

Model CH30KBN

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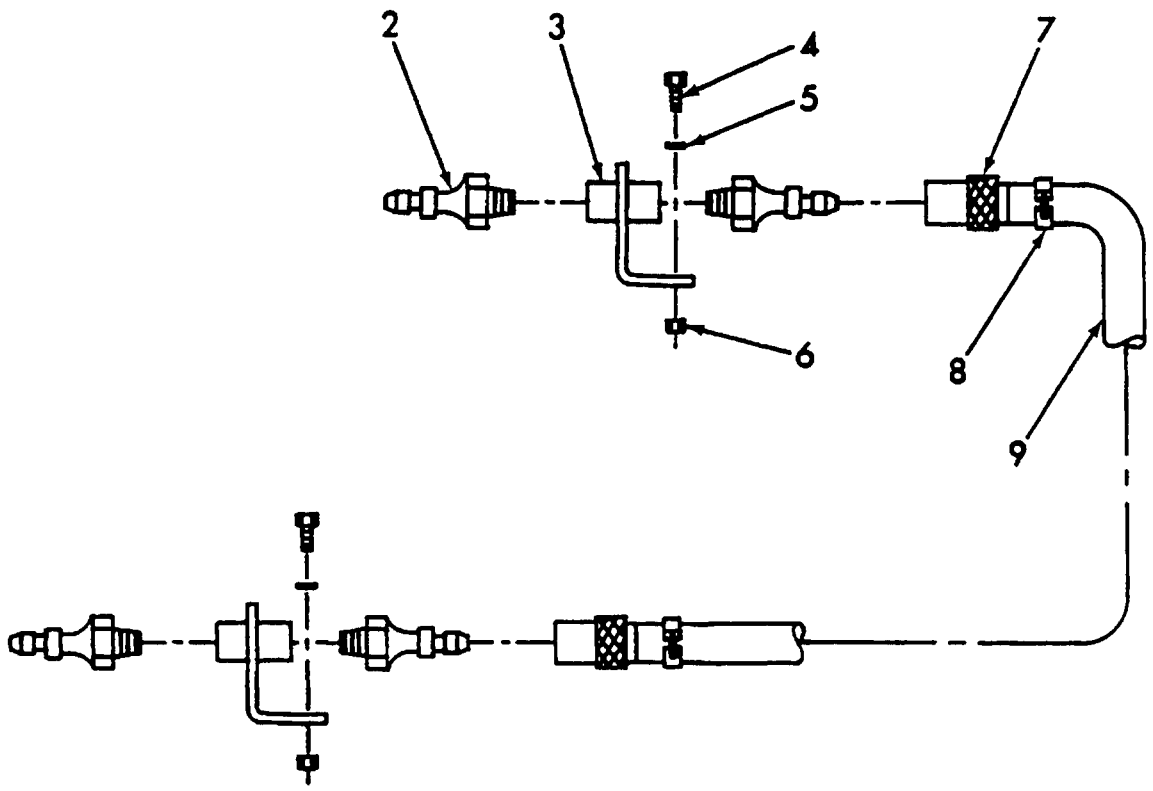
Ref.	Part No.	Description	Qty	Remarks
1	141317	Option, Lifting Lug	Ref.	Not Shown
2	140644	Weldment, Lifting Lug	2	
3	181501	Decal	2	

NOTES

Mark Industries

AIRLINE TO PLATFORM

Model CH30KBN
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Ref.	Part No.	Description	Qty	Remarks
1	140672	Platform, Airline	Ref.	
2	160112	Plug, MPT (Air)	4	
3	140851	Weldment, Airline Bracket	2	
4	60312	Capscrew	4	
5	63301	Lockwasher	4	
6	60701	Hex Nut	4	
7	160111	Socket, Hose	2	
8	160113	Clamp, Hose	2	
9	160140	Hose, Air (50 Ft.)	1	

NOTES

SECTION 7 CONTAINS:

PAGE	TITLE
7.2	ALPHABETICAL PARTS LIST

ALPHABETICAL LIST

Mark Industries

- A -

Aerial Control Box 2.12
Airline to Platform (Option) 6.3

- B -

Base Assembly (Prior to 7/95) 2.3, 3.2
Base Assembly (After 7/95) 3.6
Battery & Box Assembly 3.10
Battery Charger (Domestic) 4.10
Battery Charger (International) 4.11
Boom Assembly 5.2
Boom Assembly, Inner 5.6
Boom Lift Cylinder 4.6
Brake Release Assy (Prior to 7/95) 3.16
Brake, Caliper (Prior to 7/95) 3.22
Brake, Multiple Disc (After 7/95) 3.24

- C -

Caliper Brake (Prior to 7/95) 3.22
Charger, Battery (Domestic) 4.10
Charger, Battery (International) 4.11
Control Box, Aerial 2.12
Control Box Assembly, Ground 2.14
Control Valve Assembly 4.7
Controller 3.13
Cylinder, Boom Lift 4.6
Cylinder, Extension 5.8
Cylinder, Slave 5.9
Cylinder, Steering 3.12

- D -

Decal Set 2.7
Drive Motor 3.20

- E -

Extension Cylinder 5.8

- F -

Final Assembly 2.1

- G -

Ground Control Box Assembly 2.14

- H -

Hydraulic Assembly (Prior to 7/95) 2.18

- I,J,K -

- L -

Lift Cylinder, Boom 4.6
Lifting Lug (Option) 6.1

- M -

Manual Box 2.5
Motor, Drive 3.20
Multiple Disc Brake (After 7/95) 3.24

- N,O -

- P -

Platform, Airline (Option) 6.3
Platform Assembly 2.10
Platform Power Rotator Assembly 2.16

- Q -

- R -

Riser See Turret
Rotator Assembly, Power Platform 2.16

- S -

Sheet Metal Assembly 2.6
Slave Cylinder 5.9
Steering Cylinder 3.12

- T -

Torque Hub (Standard) 3.18
Torque Hub (High Speed) 3.26
Turret Assembly 4.1

-U, V -

Valve, Control 4.7

- W -

- X,Y,Z -

NOTES