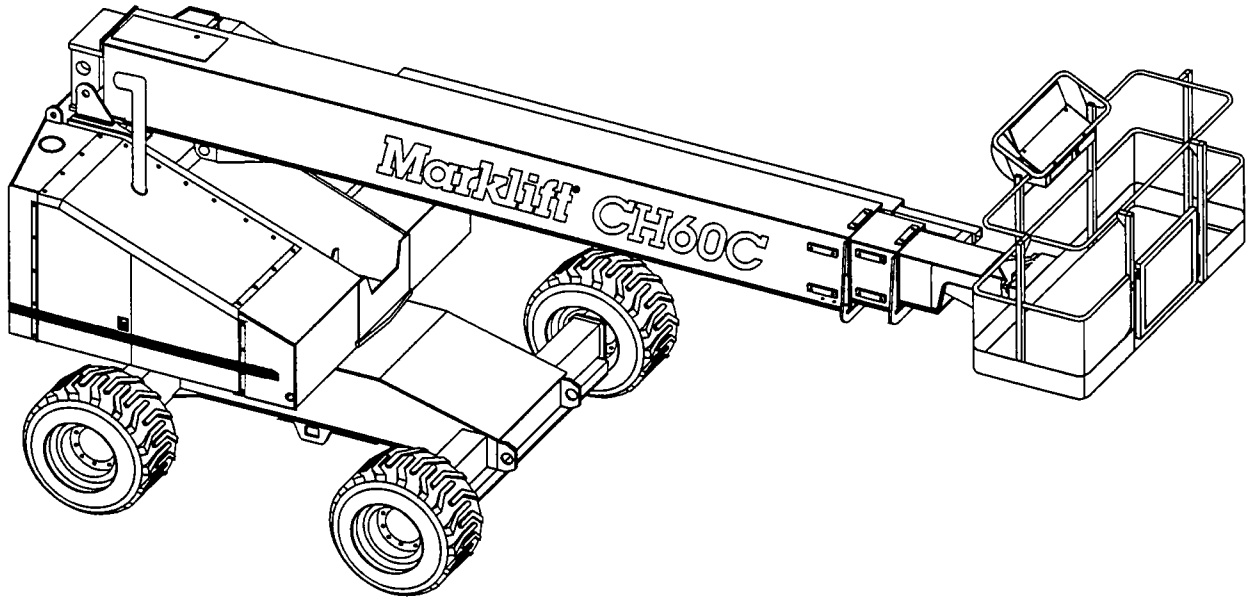
Mark Industries

SELF-PROPELLED BOOM
MODEL CH60C/CH66C



PARTS MANUAL

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

Issued: 1 April 93
Revised: May 96
P/N 17132

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1.1	NOTICE TO USERS
1.2	TABLE OF CONTENTS
1.8	HOW TO USE THE PARTS MANUAL
1.10	HOW TO ORDER PARTS
1.12	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.

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NOTES

HOW TO USE THE PARTS MANUAL

Mark Industries

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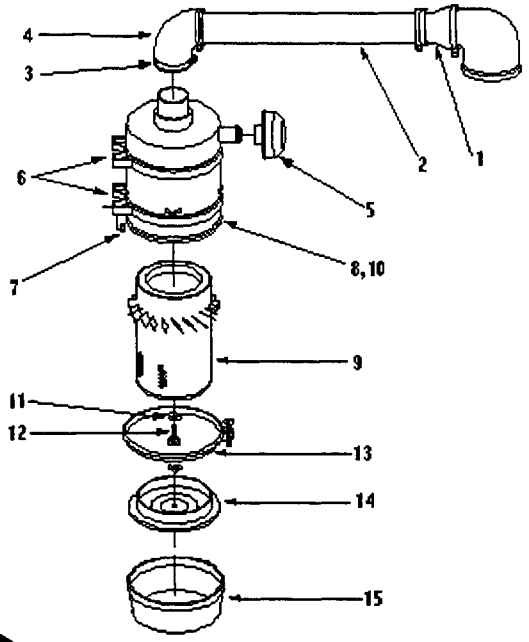
4
4.
Page

Model CH60C
CH66C

Issued 5-96

AIR CLEANER

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5

4

3

6

9

8

Ref.	Part No.	Description	Qty	Remarks
1		Hose	Ref.	
2	212010	Tube	1	
3	65435	Clamp	2	
4	1243-68	Elbow	1	
5	160083	Hood, Air Cleaner	1	
6	65412	Band, Mounting	2	
7	1205-45	Locknut, 3/8C	4	
8	160082	Air Cleaner	1	Incl. Items 9 thru 15
9	1243-75	Element	1	
10	29347	Decal	1	
11	29348	Gasket, Washer	1	
12	29349	Screw, Thumb	1	
13	29350	Clamp Ass'y	1	
14	29351	Baffle Ass'y	1	
15	29352	Cup Ass'y	1	

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 used 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 1.12 for reference.

9. **REMARKS** are shown in the fifth or far right column. The Remark 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

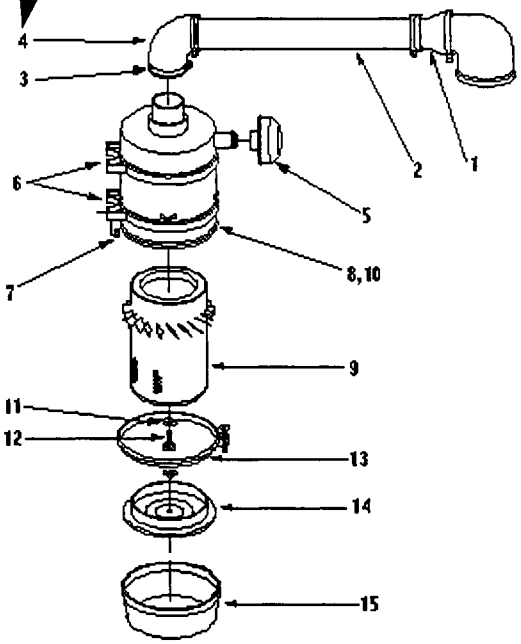
Mark Industries

1A

1B

AIR CLEANER

Mark Industries



1D

1C

Ref.	Part No.	Description	Qty	Remarks
1		Hose	Ref.	
2	212010	Tube	1	
3	65435	Clamp	2	
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8	160082	Air Cleaner	1	Incl. Items 9 thru 15
9	1243-75	Element	1	
10	29347	Decal	1	
11	29348	Gasket, Washer	1	
12	29349	Screw, Thumb	1	
13	29350	Clamp Ass'y	1	
14	29351	Baffle Ass'y	1	
15	29352	Cup Ass'y	1	

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: (601) 393-1751

   C. PHONE: (601) 393-1351

   D. MAIL: Terex - Southaven
   8800 Rostin Road
   P.O. Box 923
   Southaven, MS 38671- 0923

   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 fowarded to the Director of Product Support at the following address:

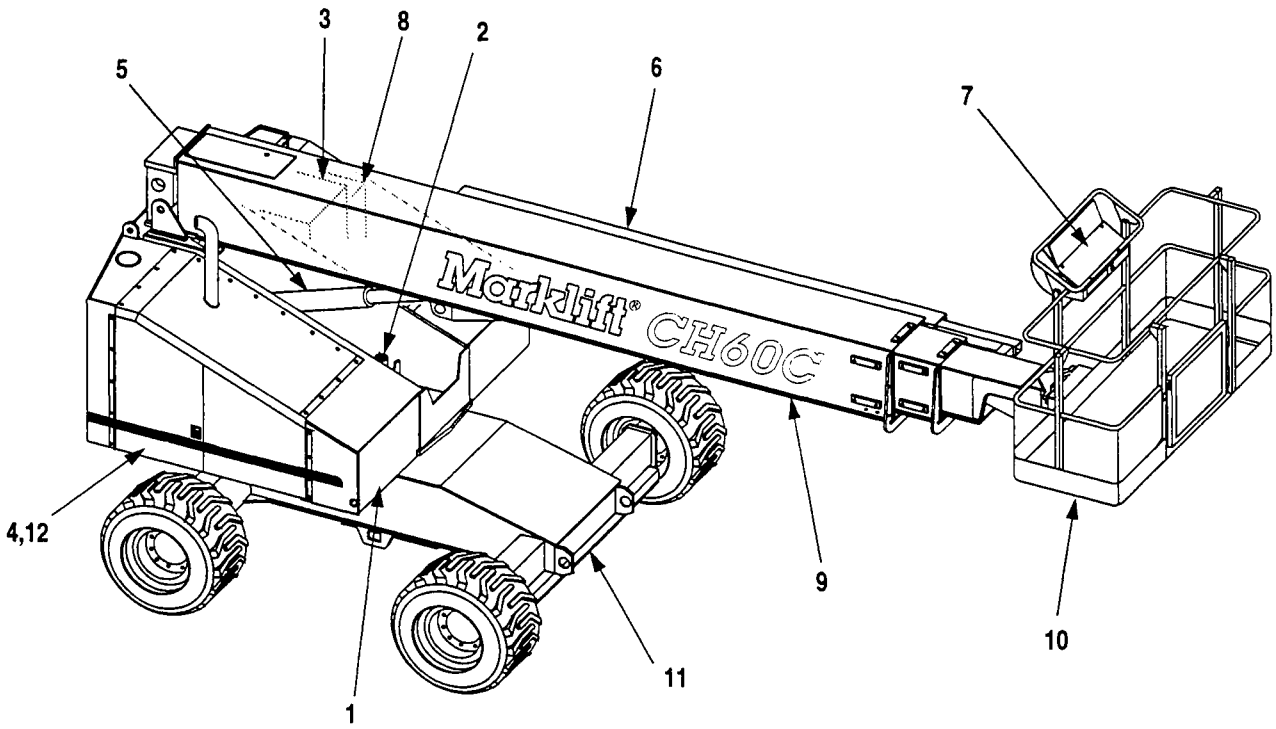
   Mark Industries
   106 12th Street S.E.
   Waverly, IA 50677

ABBREVIATIONS AND SYMBOLS

2WD	2-WHEEL DRIVE	'	FEET
4WD	4-WHEEL DRIVE	"	INCHES
AC	ALTERNATING CURRENT	INT	INTERNAL
ADPTR	ADAPTER	INV	INVERTED
AMP	AMPERE	LG	LENGTH
APPROX	APPROXIMATELY	LH	LEFT HAND
AR	AS REQUIRED	MAX	MAXIMUM
ASSY	ASSEMBLY	MIN	MINIMUM
AVAIL	AVAILABLE	MM	MILLIMETER
BRG	BEARING	MTG	MOUNTING
BRKT	BRACKET	P/N	PART NUMBER
CCW	COUNTER CLOCKWISE	NO	NUMBER
CFM	CUBIC FEET PER MINUTE	NSS	NOT SOLD SEPARATELY
CHRG	CHARGING	OD	OUTSIDE DIAMETER
CTSK	COUNTERSUNK	OSC	OSCILLATING AXLE
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 "FINAL ASSEMBLY" CONTAINS:

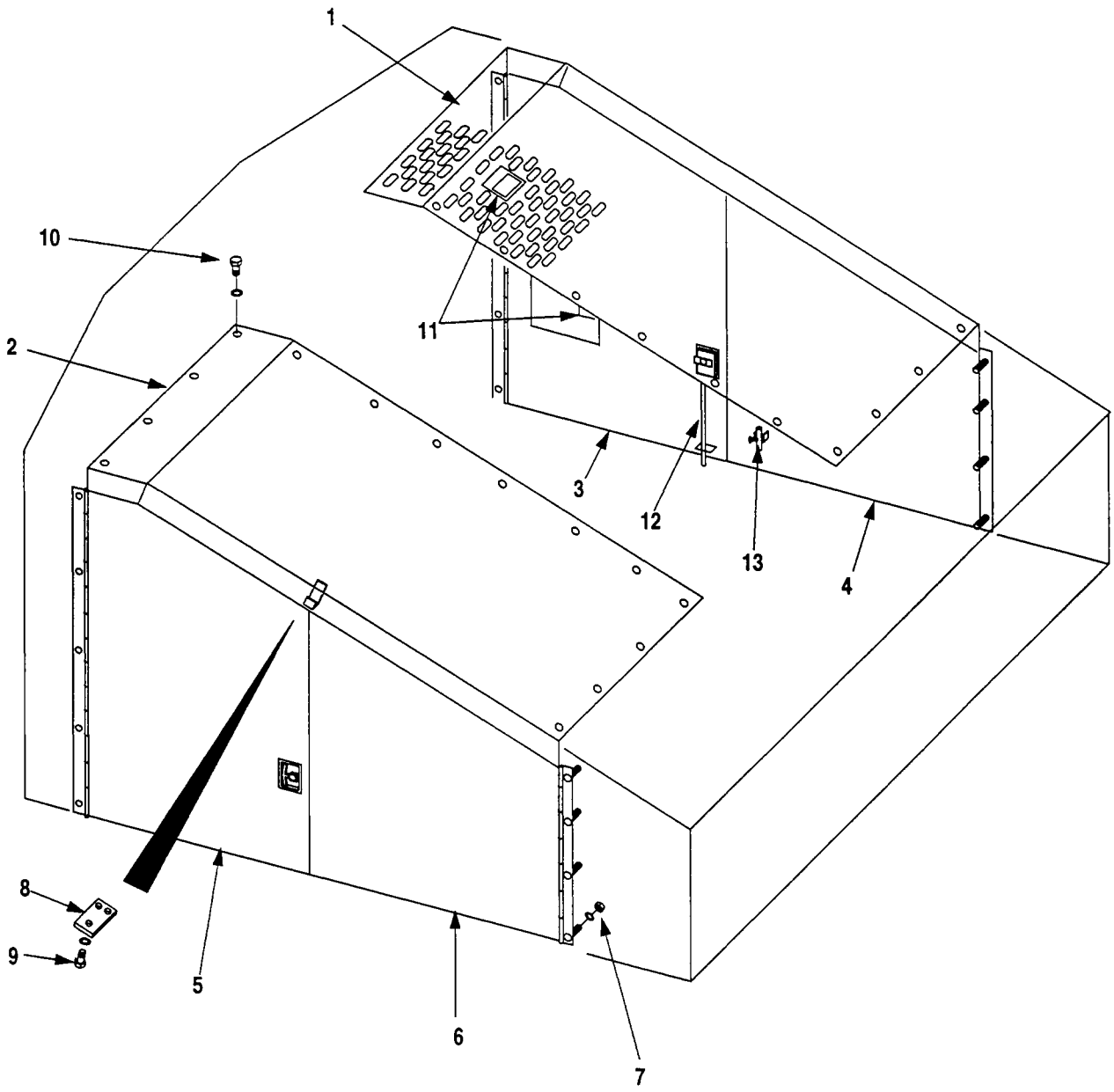
PAGE	TITLE
2.1	FINAL ASSEMBLY
2.2	SHEET METAL
2.4	DECALS & PAINT



Ref.	Part No.	Description	Qty	Remarks
	200149	Final Assembly (CH60C)	Ref.	Incl. Items 1 thru 8
	200151	Final Assembly (CH66C)	Ref.	Incl. Items 1 thru 8
1	211977	Turret	1	Page 4.3
2	212046	Swing Drive Ass'y	1	Page 4.3
3	212043	Upper Hydraulic Ass'y	1	Page 4.42
4	212038	Sheet Metal Ass'y	1	Page 2.2
5	212070	Boom Installation Ass'y	1	Page 5.2
6	211636	Power Track Ass'y	1	Page 5.22
7	212007	Aerial Control Box Ass'y	1	Page 6.8
8	211983	Ground Control Box	1	Page 4.36
9	211685	Boom (CH60C)	1	See Section 5
	212399	Boom (CH60C)	1	See Section 5
10		Platform Ass'y	1	See Section 6
11	212029	Base Ass'y	1	See Section 3
12	212131	Turret Wiring Ass'y	1	Page 4.34

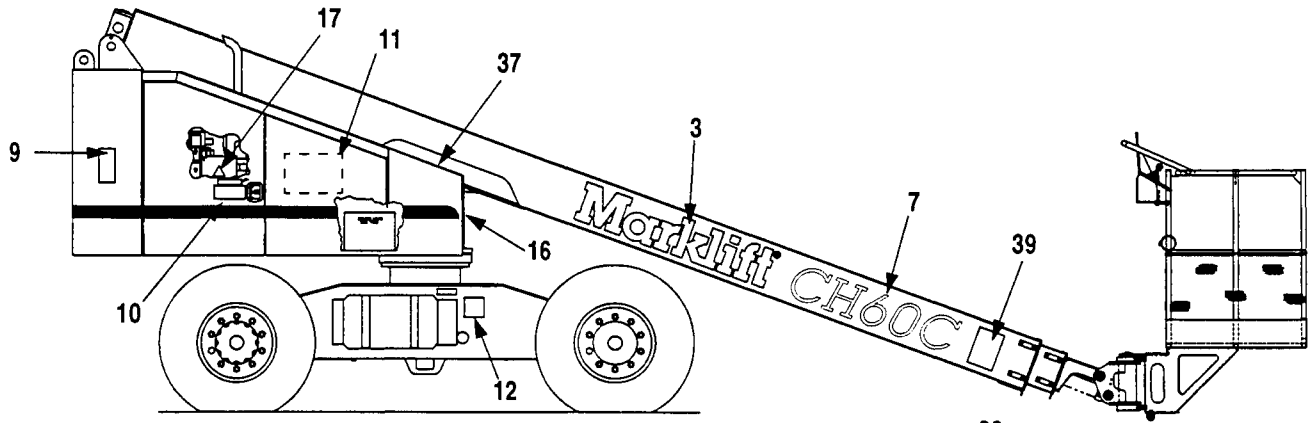
SHEET METAL

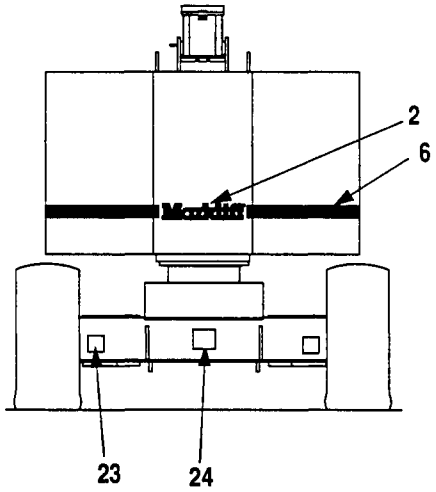
Mark Industries

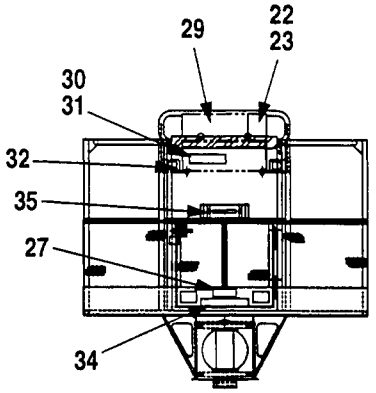


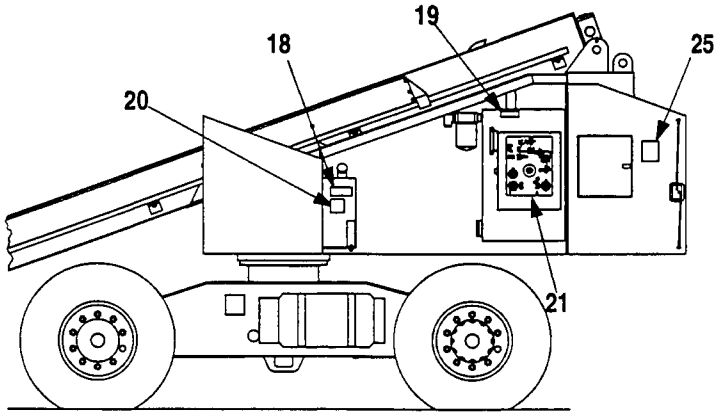
Ref.	Part No.	Description	Qty	Remarks
	212038	Sheet Metal Assembly	1	Incl. Items 1 thru 10
1	211970	Cover, Top Right	1	Incl. Item 11
2	211971	Cover, Top Left	1	
3	211972	Door, Right Front	1	Incl. Items 11 & 12
4	211973	Door, Right Rear	1	Incl. Item 13
5	211974	Door, Left Front	1	Incl. Items 11 & 12
6	211975	Door, Left Rear	1	Incl. Item 13
7	1205-45	Locknut, 3/8C	18	
	1209-89	Flatwasher	18	
8	211993	Plate, Latch	4	
9	1200-29	Capscrew, 5/16C x 3/4	8	
	1210-17	Lockwasher	8	
	1209-46	Flatwasher	8	
10	1211-12	Capscrew, 5/16C x 3/4 Self-Tapping	24	
	1209-24	Flatwasher	24	
11	69749	Latch (Small Doors)	3	For Items 1 & 3
12	69750	Latch, T-Handle	2	For Items 3 & 5
13	69751	Latch	2	For Items 4 & 6

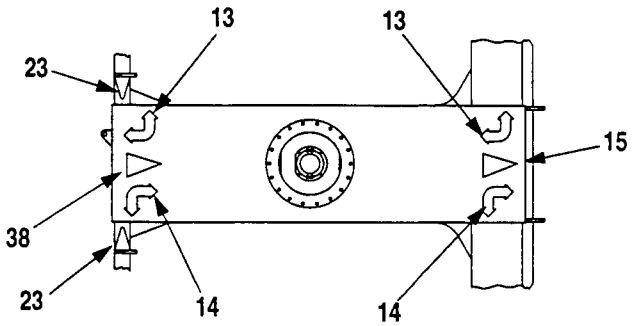
DECALS & PAINT

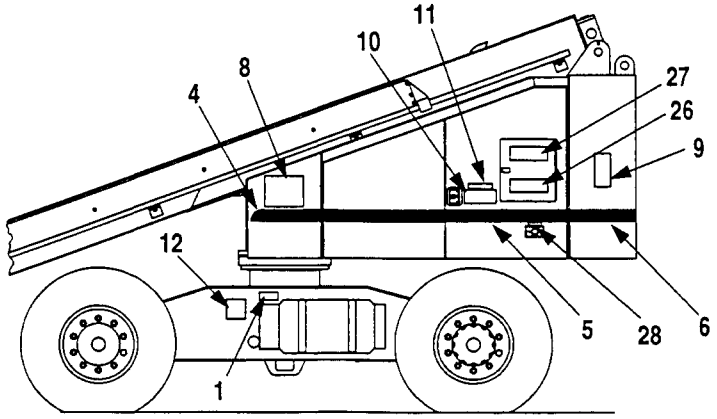












Ref.	Part No.	Description	Qty	Remarks
	212057	Marking Assembly (CH60C)	1	Incl. Items 1 thru 35
	212057-1	Marking Assembly (CH66C)	1	Incl. Items 1 thru 35
1	182821	Decal, Liquid Tank (Dual Fuel Only)	2	
2	181927-1	Decal, Marklift	1	
3	181927-3	Decal, Marklift	1	
4	181928	Decal, Stripe, Round End	1	
5	181929-1	Decal, Stripe, Square End	2	
6	181929-2	Decal, Stripe	4	
7	181930	Decal, CH60C	1	(CH60C Only)
	181943	Decal, CH66C	1	(CH66C Only)
8	12400-571	Decal, Pride/Flag	2	
9	12400-223	Decal, Danger, Tail Swing	2	
10	182122	Decal, Danger - Keep Clear	2	
11	12400-3	Decal, Booster Cable	1	
12	20508	Decal, Transportation	2	
13	182710	Decal, Direction Arrow	2	
14	182709	Decal, Direction Arrow	2	
15	20462	Decal, Forward Arrow	1	
16	182121	Decal, Danger Crushing	1	
17	12260-701	Decal, Fan Warning	1	
18	181829	Decal, Gas/Petrol (Gas Models)	1	
	181830	Decal, Diesel (Diesel Models)	1	
19	183402	Decal, Hydraulic Fluid	1	
20	181321	Decal, No Smoking	1	
21	182817	Decal, Circuit Panel, Lower	1	
22	185702	Decal, Circuit Breaker - 110VAC	1	
23	183101	Decal, Tire Replacement	4	
24	181938	Decal, Name Plate (STD)	1	
	181937	Decal, Name Plate (Optional)	1	
25	183405	Decal, General Checkout & Operation	1	
26	183404	Decal, Emergency Control	1	
27	181319	Decal, Load Capacity (W/6' Platform)	2	
	181320	Decal, Load Capacity (W/8' Platform)	2	
	181322	Decal, Load Capacity (W/Jib)	2	
28	185707	Decal, Power - 110VAC	1	
29	182120	Decal, Operating Instructions	1	
30	182818	Decal, Aerial Control Panel	1	
31	182819	Decal, Aerial Control Panel	1	
32	181828	Decal, D-Ring, Attach Safety Belts Here	2	
34	182307	Decal, Caution, Attach Safety Belt	1	
35	181113	Decal, Operation & Safety Handbook	1	
36	3900-146	Paint, White (Gallon)	AR	
	3900-115	Paint, White (Touch-Up)	AR	
	3900-130	Paint, Blue (Gallon)	AR	
	3900-131	Paint, Blue (Touch-Up)	AR	
37	12400-243	Decal, No Step	2	
38	20461	Decal, Forward Arrow	1	
39	12400-664	Decal, Terex Crown	2	

NOTES

SECTION 3 "BASE ASSEMBLY" CONTAINS:

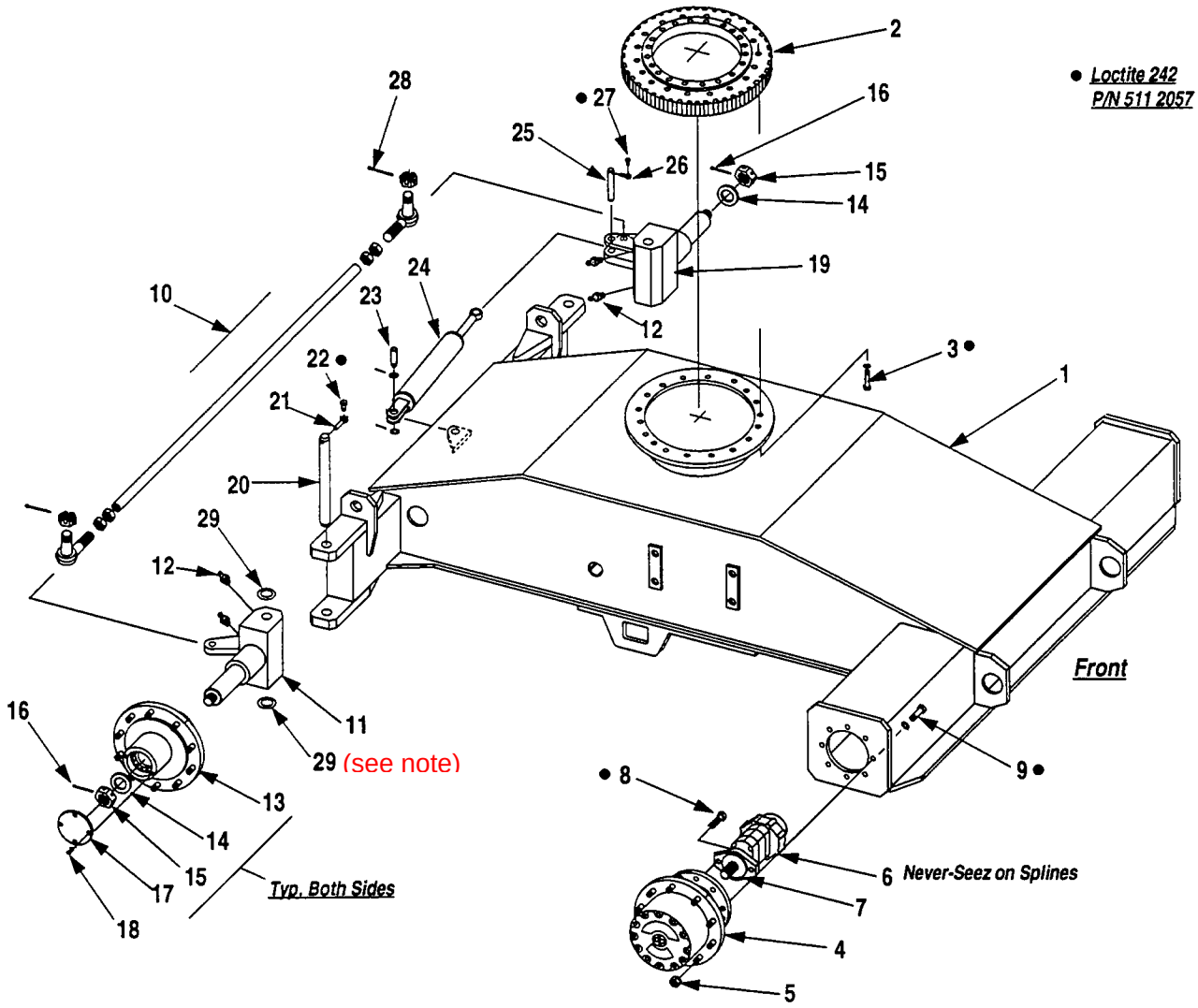
PAGE	TITLE
3.2	BASE (FIXED AXEL)
3.4	BASE HYDRAULICS
3.6	TIE ROD ASSEMBLY
3.7	WHEEL HUB ASSEMBLY
3.8	TORQUE HUB (FAIRFIELD)
3.10	TORQUE HUB (AUBURN GEAR)
3.12	DRIVE MOTOR (STANDARD)
3.14	PARKING BRAKE
3.15	WHEEL & TIRE
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3.17	MASTER LEVELING CYLINDER (ROSENBOOM)

Model CH60C
CH66C

Issued 5-96

BASE
FIXED AXLE

Mark Industries

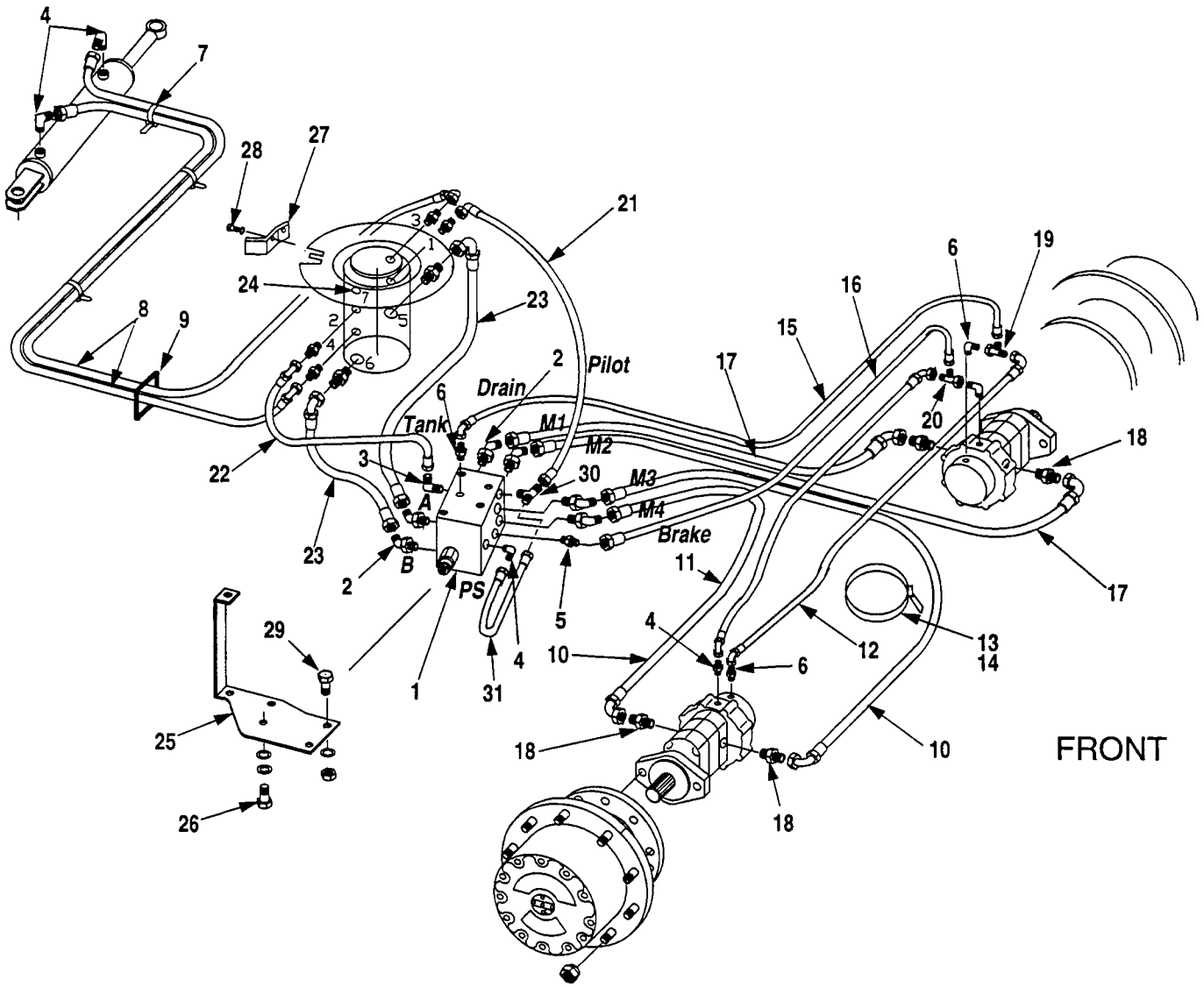


Ref.	Part No.	Description	Qty	Remarks
	212029	Carriage Assembly	1	Incl. 1 thru 28
1	211844	Carriage Weldment	1	
2	211773	Bearing, Swing	1	
3	1242-115	Capscrew, 5/8C x 3-1/2 Gr. 8	18	To be loctited upon assembly
	1209-48	Flatwasher, 5/8 Gr. 8	18	
4	212509	Torque Hub	2	See Page 3.8
5	160718	Nut, Lug (Wheel)	40	
6	81393	Drive Motor & Parking Brake Ass'y	2	See Pages 3.12 & 3.14
7	460 6309	O-Ring (Motor to Torque Hub Seal)	2	.094 x 4.00
8	1203-220	Capscrew, 1/2C x 1-1/2 12 Pt. Gr. 8	4	Motor to Hub

Ref.	Part No.	Description	Qty	Remarks
9	1242-45	Capscrew, 5/8C X 1-1/2 Gr. 8	16	Hub To Undercarriage
	1209-48	Flatwasher, 5/8C Gr. 8	16	
10	212346-1	Tie Rod Assembly	1	See Page 3.6
11	211936	Spindle, RH Rear	1	
	212169	Bushing	2	
12	1213-1	Zerk, Grease	4	
13	211942	Wheel Hub Assembly	2	See Page 3.7
14	211939	Washer, Thrust	2	
15	1205-143	Nut, 1-1/2F Slotted	2	
16	1207-44	Cotter Pin, 1/4 x 2 1/2	2	
17	211938	Cover, Wheel Hub	2	
18	1200-309	Capscrew, 1/4C x 1/2	4	
	1210-14	Lockwasher, 1/4	4	
19	211937	Spindle, LH Rear	1	
	212169	Bushing	2	
20	211914	King Pin	2	
21	~~706 9449~~ 1222-346	Rod End, Buck Pin	2	
22	1242-45	Capscrew, 5/8C x 1-1/2 Gr. 8	2	
23	211913	Pin	1	
	1209-30	Flatwasher	2	
	1207-40	Cotter Pin, 1/4 x 1-1/2	2	
24	211758	Cylinder, Steering (Master Level Cylinder)	1	See Page 3.16
25	211912	Pin	1	Cylinder to LH Spindle
26	~~211779~~ 1222-344	Rod Eye	1	
27	1242-134	Capscrew, 3/8C x 1 Gr. 8	1	
28	1207-14	Cotter Pin, 1/8 x 1-1/2	2	Tie Rod
29	212170	Washer, Thrust (0.280")	4	
30		Tire & Rim Ass'y (Not Shown)	4	See Page 3.15

BASE HYDRAULICS

Mark Industries



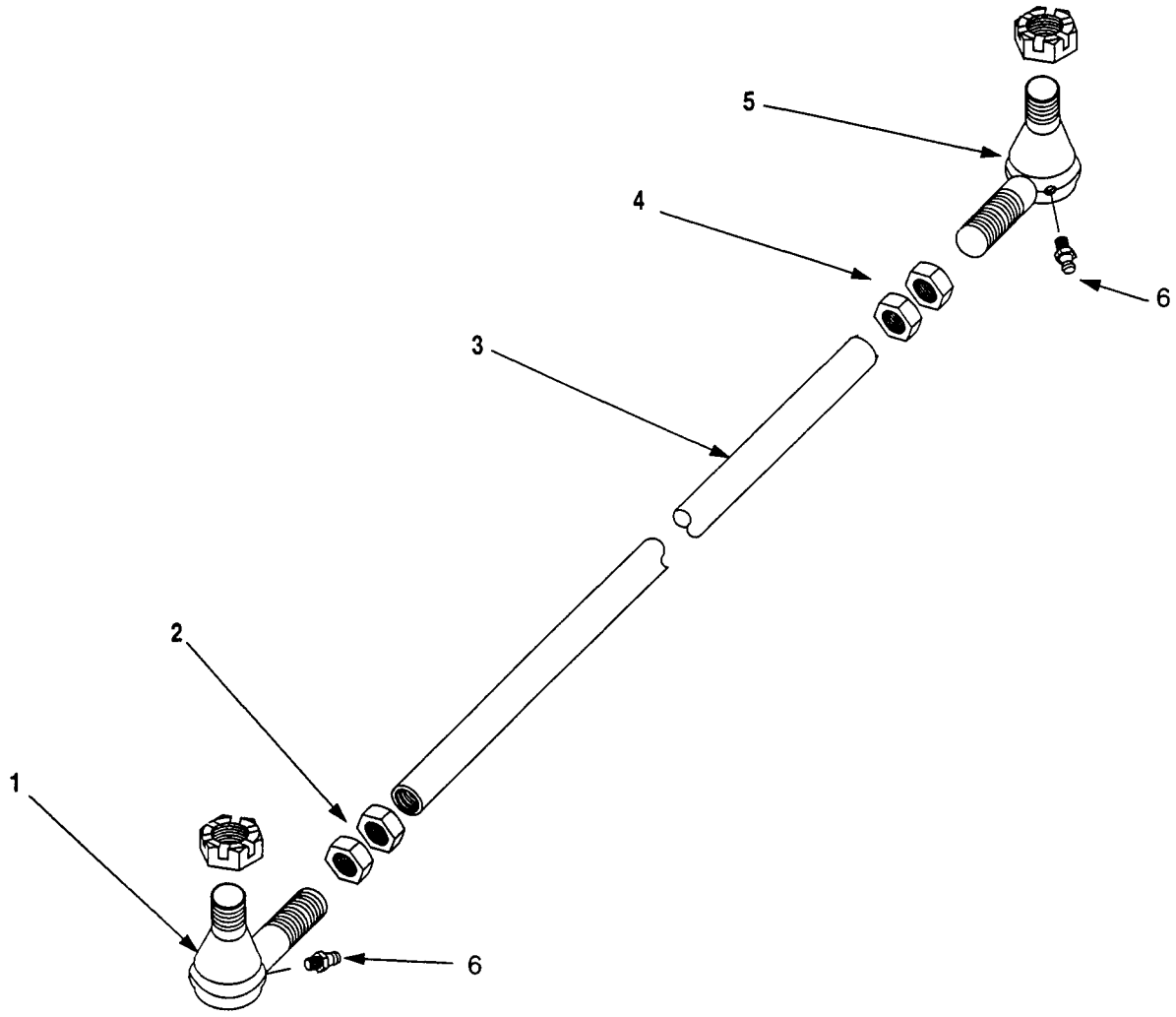
Ref.	Part No.	Description	Qty	Remarks
	212044	Lower Hydraulic Assembly	1	Incl. Items 1 thru 29
1	81445	Valve, Ground Drive	1	See Section 4
2	1219-663	Adapter	6	
3	1219-982	Adapter	1	
4	12019-548	Adapter	5	
5	12019-139	Adapter	1	
6	1219-776	Adapter	3	
7	1222-184	Tie Wrap	4	
8	212059-104	Hose	2	
9	12182-15	Trimlock	4	
10	212062-78	Hose	2	
11	212059-54	Hose	1	
12	212061-52	Hose	1	
13	200B2007-28	Clamp	1	
14	1205-36	Nut	1	
	1209-4	Flatwasher	1	
15	212061-58	Hose	1	
16	212059-68	Hose	1	
17	212062-78	Hose	2	
18	1219-389	Adapter	4	
19	12019-112	Tee	1	
20	12019-453	Tee	1	
21	212110-30	Hose	1	
22	212059-36	Hose	1	
23	212062-22	Hose	2	
24	1219-980	Plug	1	
25	212009	Bracket, Ground Drive Valve	1	
26	1200-59	Capscrew, 3/8C x 1	3	
	1210-20	Lockwasher	3	
	1209-4	Flatwasher	3	
27	212008	Plate, Rotary Manifold	1	
28	1200-59	Capscrew, 3/8C x 1	2	
	1209-4	Flatwasher	2	
29	1200-61	Capscrew, 3/8C x 1-1/4	3	
	1210-20	Lockwasher	3	
	1209-4	Flatwasher	3	
	1205-36	Nut, 3/8C	3	
30	362 3233	Adapter	1	
31	212059-15	Hose	1	

Model CH60C
CH66C

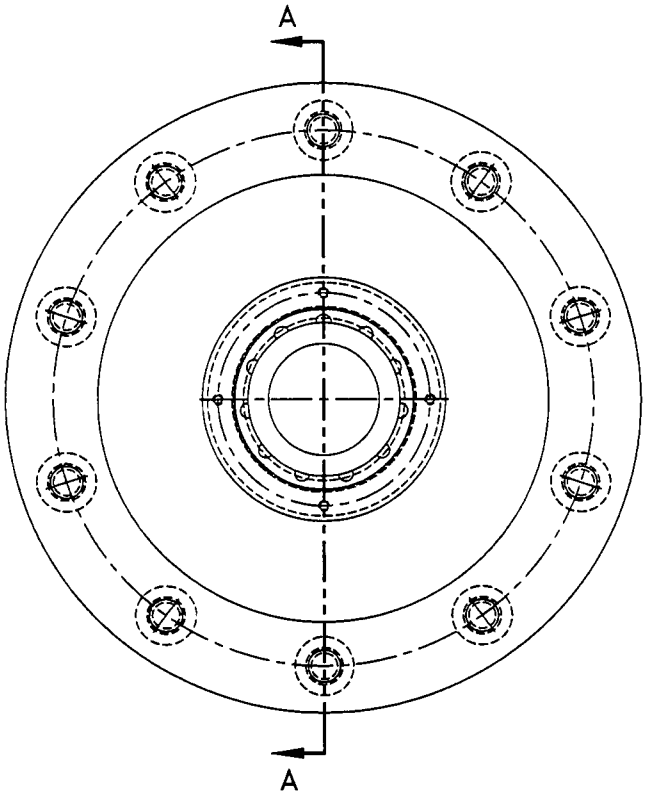
Issued 5-96

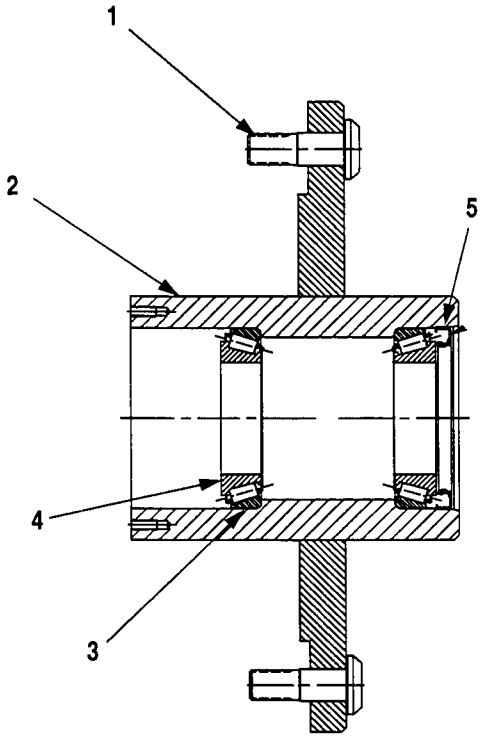
TIE ROD ASS'Y

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	212346-1	Tie Rod Assembly (Fixed Axle & 2WD Osc.)	1	Incl. Items 1 thru 6
	212346-2	Tie Rod Assembly (4WD Osc.)	1	Incl. Items 1 thru 6
1	20569	End, LH	1	
2	20567	LH Jam Nut, 1-1/8 - 12	2	
3	212345	Tube	1	
4	20566	RH Jam Nut, 1-1/8 - 12	2	
5	20568	End, RH	1	
6	1213-1	Zerk, Grease	2	





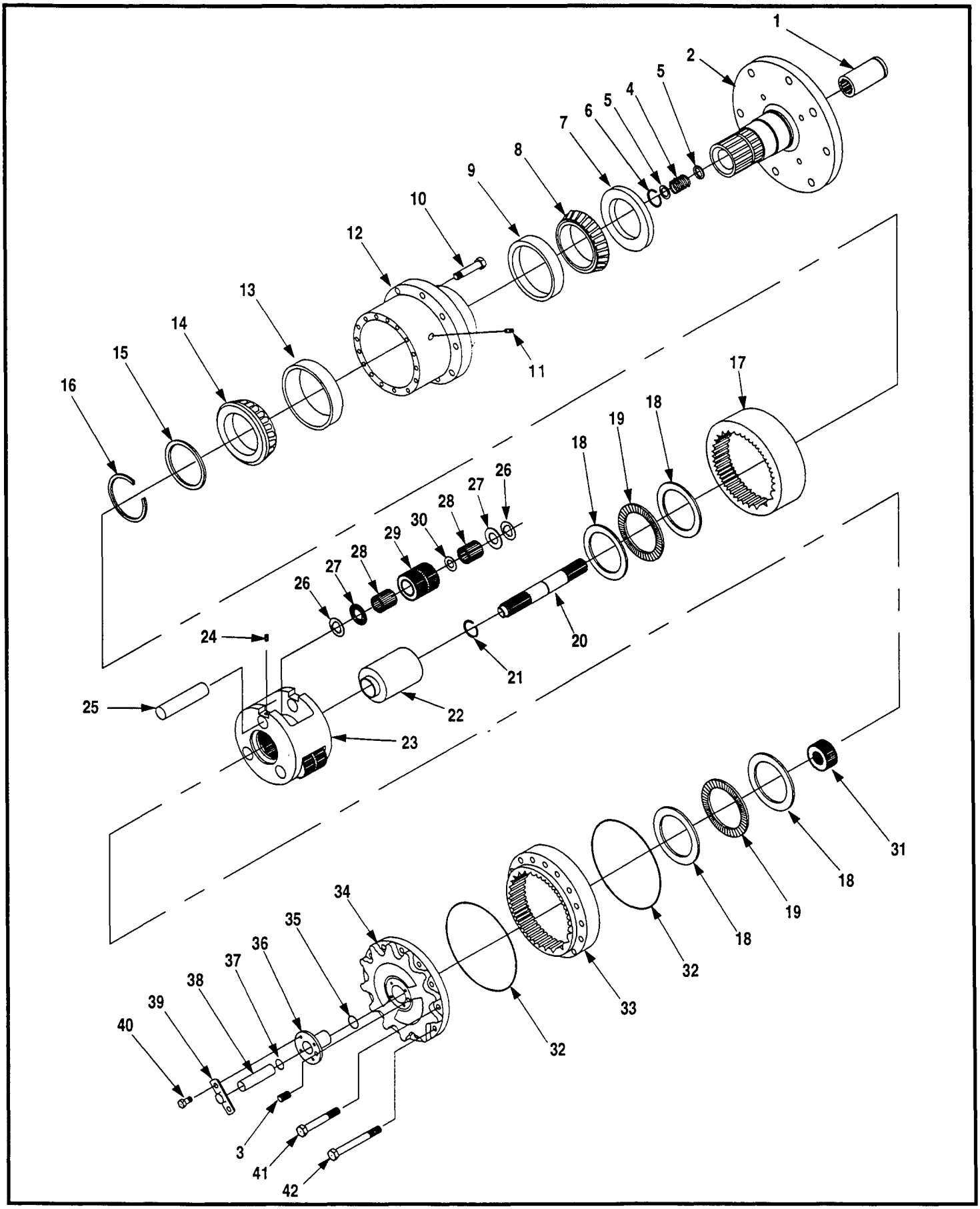
SECTION A–A

Ref.	Part No.	Description	Qty	Remarks
	211942	Wheel Hub Assembly (Incl. Items 1 thru 5)	1	2 Per Machine
1	65351	Stud, Wheel	10	
2	211928	Hub, Wheel	1	
3	211945	Cup, Bearing	2	
4	211944	Cone, Bearing	2	
5	211943	Seal	1	

Model CH60C
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TORQUE HUB
(FAIRFIELD)

Mark Industries



TORQUE HUB
(FAIRFIELD)

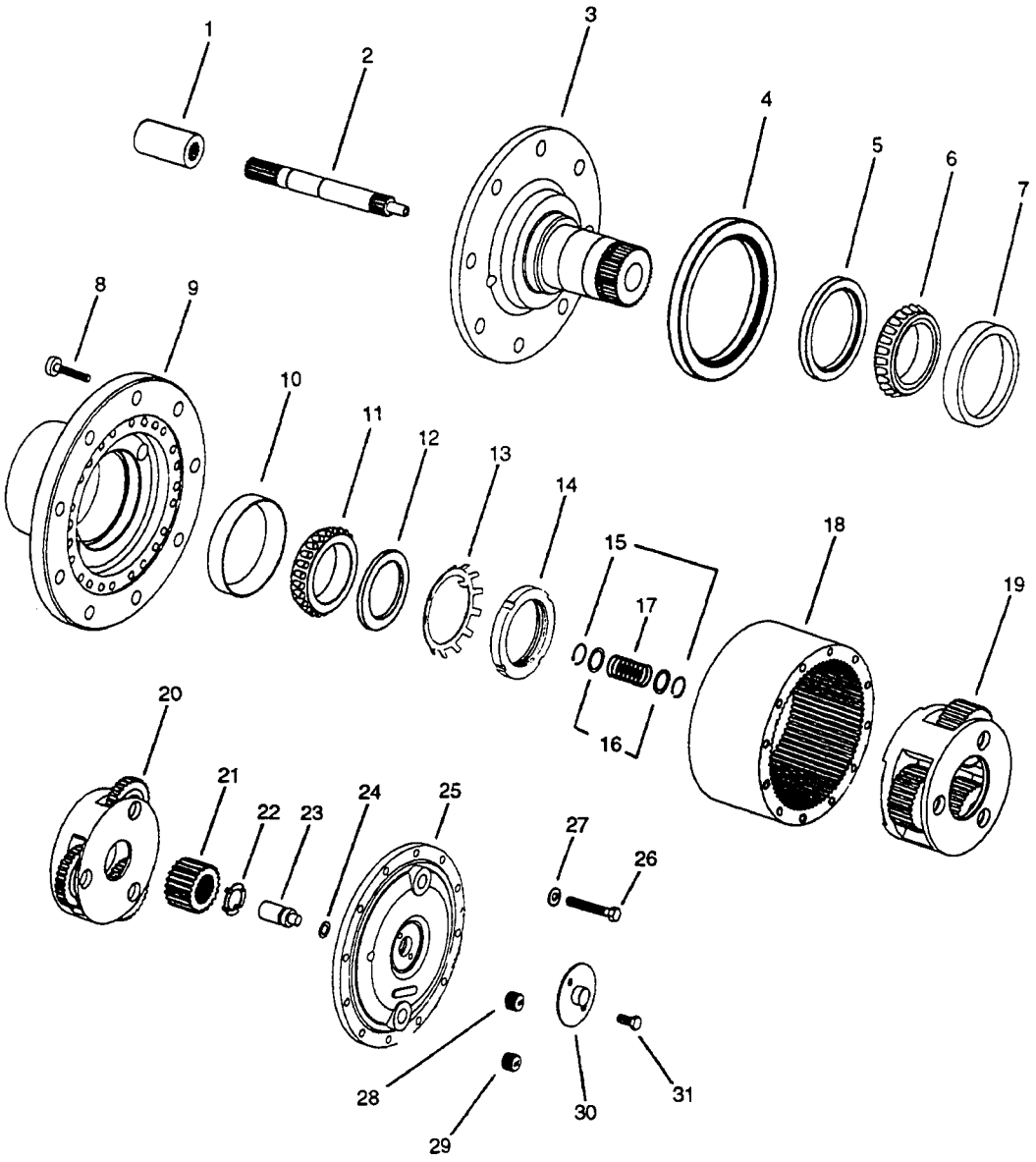
Model CH60C
CH66C
Issued 5-96

Ref.	Part No.	Description	Qty	Remarks
	212509	Torque Hub (Fairfield)	1	Incl. Items 1 thru 43
	67870	Kit, Seal	1	Incl. Items w/Asterisk *
1	67881	Coupling	1	
2	600600	Spindle	1	
3	68287	Plug, Pipe, 1/8 NPTF	1	
4	68293	Spring	1	
5	67892	Washer, Thrust	2	
6	66524	Ring, Retaining	1	
7	66399	Seal	1	*
8	67920	Cone, Bearing	1	
9	67912	Cup, Bearing	1	
10	67884	Stud	10	
11	68286	Plug, Pipe, 3/8 NPTF	2	
12	68302	Hub	1	
13	67913	Cup, Bearing	1	
14	67921	Cone, Bearing	1	
15	67903	Washer, Thrust	1	
16	66516	Ring, Retaining	1	*
17	68290	Gear, Internal	1	
18	66436	Washer, Thrust	4	
19	66437	Bearing, Thrust	2	
20	68292	Shaft, Input	1	
21	67889	Ring, Retaining	1	
22	67905	Spacer, Input	1	
23	66429	Carrier	1	
24	66433	Pin, Roll	3	
25	66431	Shaft, Planet	3	
26	66430	Washer, Thrust	6	
27	66434	Washer, Thrust	6	
28	66423	Roller, Needle	84	
29	66432	Gear, Cluster	3	
30	67904	Spacer	3	
31	68289	Sun Gear, Input	1	
32	66397	O-Ring	2	*
33	68291	Gear, Ring	1	
34	66724	Cover	1	
35	66439	O-Ring	5	*
36	66341	Cap, Cover	1	
37	66438	O-Ring	5	*
38	66230	Rod, disconnect	1	
39	66115	Cap, Disconnect	1	
40	67928	Bolt, 1/4C x 3/4	4	
41	67929	Bolt	8	
42	67930	Bolt, Shoulder	4	
43	67905	Spacer, Thrust	1	

Model CH60C
CH66C
Issued 5-96

TORQUE HUB
(AUBURN GEAR)

Mark Industries

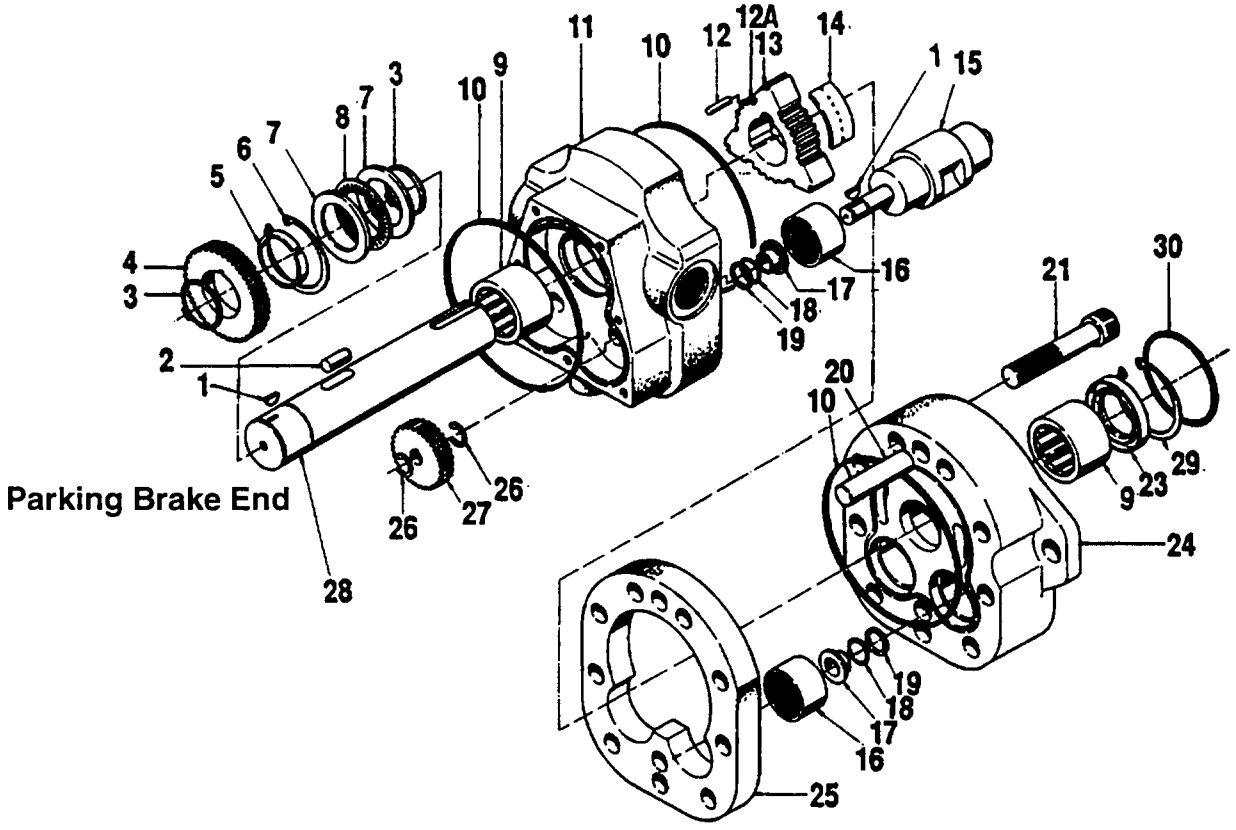


TORQUE HUB
(AUBURN GEAR)

Ref.	Part No.	Description	Qty	Remarks
	212509	Torque Hub (Auburn Gear)	REF.	Incl. Items 1 thru 31
1	600620	Coupling	1	
2	600607	Input Shaft	1	
3	600609	Spindle	1	
4	600619	Seal	1	
5	600618	Seal	1	
6	600617	Cone, Bearing	1	
7	600616	Cup, Bearing	1	
8	600629	Bolt, Wheel	10	
9	600611	Hub	1	
10	600614	Cup, Bearing	1	
11	600615	Cone, Bearing	1	
12	600632	Washer, Thrust	1	
13	600631	Lockwasher	1	
14	600630	Nut	1	
15	600605	Retaining Ring	2	
16	600603	Washer, Thrust	2	
17	600606	Spring	1	
18	600612	Ring Gear	1	
19	600628	Carrier Assembly (Secondary)	1	
20	600627	Carrier Assembly (Primary)	1	
21	600608	Sun Gear	1	
22	600622	Washer, Thrust	1	
23	600601	Plunger	1	
24	600604	O-Ring	1	
25	600610	Cover	1	
26	600623	Bolt, Hex Head	12	
27	600613	Flatwasher	12	
28	600624	Magnetic Plug	1	
29	600625	Plug	1	
30	600621	Cover, Disengage	1	
31	600602	Bolt, Hex Head	2	

DRIVE MOTOR

Mark Industries

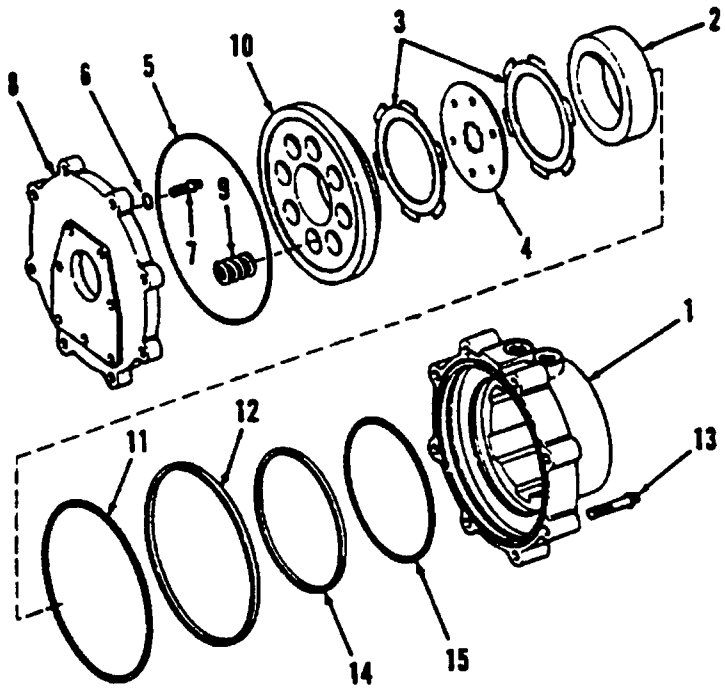


Ref.	Part No.	Description	Qty	Remarks
	81393	Hydraulic Motor w/Brake	2	Incl. Items 1 thru 31 & Items 1 thru 15 Page 3.14
	81394	Hydraulic Motor wo/Brake	1	Incl. Items 1 thru 31
	68132	Kit, Seal (Motor)	1	Incl. Items w/Asterisk *
1	69685	Key, Woodruff	3	
2	69686	Pin, Drive	1	
3	69687	Ring, Retaining	2	
4	69688	Gear, Drive	1	
5	69689	Washer, Spacer	1	
6	69690	Ring, Retaining	1	
7	69691	Race, Bearing	2	
8	69692	Bearing, Thrust	1	
9	69693	Bearing, Needle	2	
10	69694	Oil Seal	3	*
11	69695	Cap, Rear End	1	
12	69696	Roller, Tip Seal	3	
12A	69697	Roller, Body Seal	18	
13	69698	Rotor	1	
14	69699	Plate, Seal	3	
15	69700	Valve, Abutment	2	
16	69701	Bearing, Needle	4	
17	69702	Bearing, Step	4	
18	69703	O-Ring	4	*
19	69704	Ring, Back-Up	4	*
20	69705	Pin, Dowel	2	
21	69706	Capscrew	9	
23	69707	Seal, Shaft	1	*
24	69708	Cap, Front End	1	
25	69709	Housing, Displacement	1	
26	69710	Ring, Retaining	4	
27	69711	Pinion, Gear	2	
28	69712	Shaft, Splined (13T)	1	
29	69713	Ring, Retaining	1	*
30	69714	O-Ring	1	
31	69715	Cap, Front Sealing	1	Not Shown

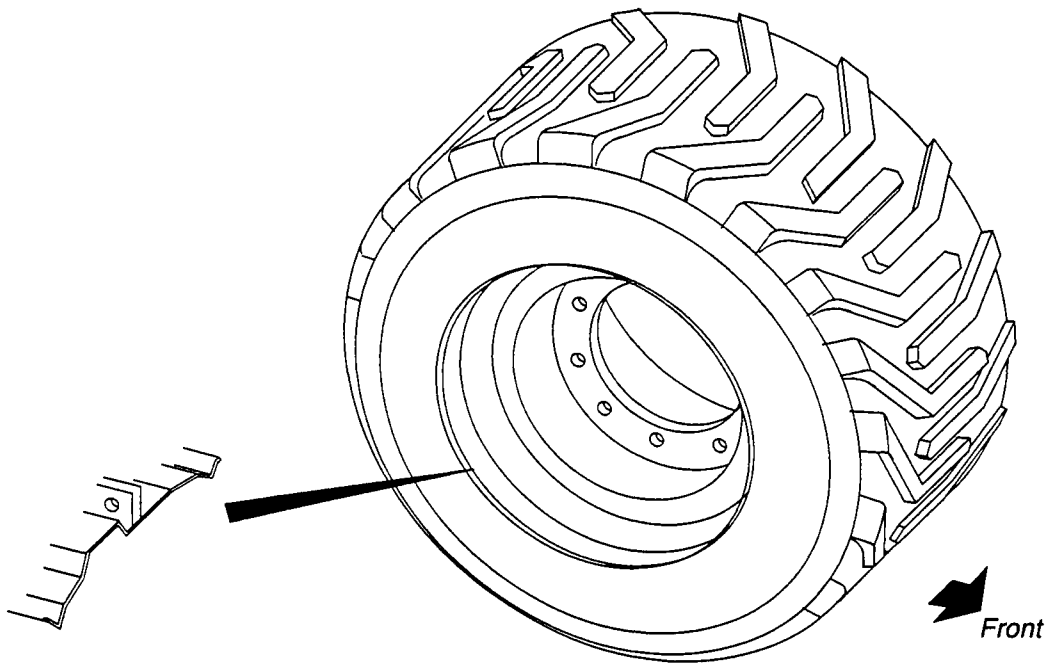
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CH66C
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PARKING BRAKE

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	69731	Brake, Parking	2	Incl. Items 1 thru 15
	68134	Kit, Seal	1	
1	69716	Housing	1	
2	69717	Ring, Spacer	1	
3	69718	Disc, Friction	5	
4	69719	Driver, Plate	4	
5	69720	O-Ring	1	
6	69721	Washer, Brass	7	
7	69722	Capscrew, Socket Head	7	
8	69723	Plate, Adapter	1	
9	69724	Spring, Die	8	
10	69725	Plate, Pressure	1	
11	69726	Ring, Back-Up	1	
12	69727	O-Ring	1	
13	69728	Capscrew, Socket Head	8	
14	69729	O-Ring	1	
15	69730	Ring, Back-Up	1	

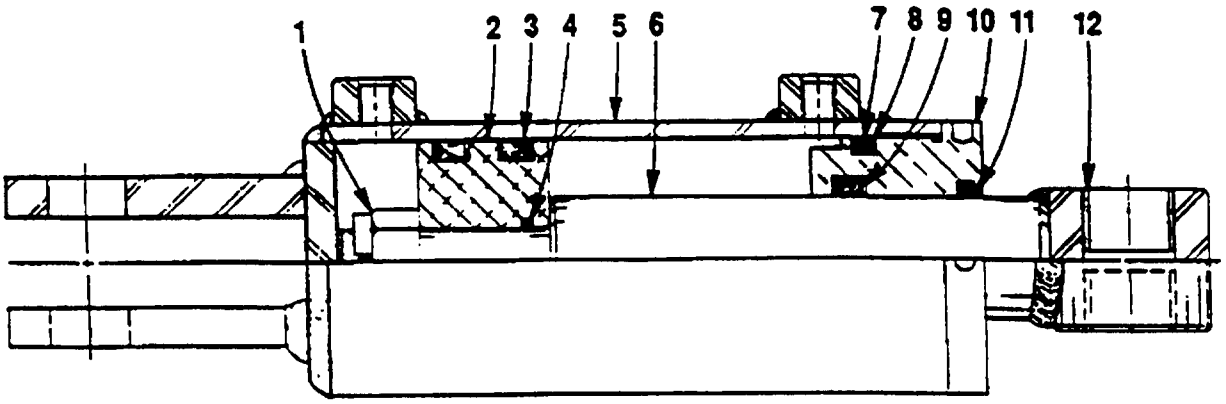


Ref.	Part No.	Description	Qty	Remarks
	212504-1	Wheel & Tire Ass'y, Mono-filled - RH	2	Shown
	212504-2	Wheel & Tire Ass'y, Mono-filled - LH	2	Tread Opposite
		Tire & Wheel can only be purchased as an Assembly. Mono-Fill is necessary for machine stability and to prevent tire from deflating.		

MASTER LEVELING CYLINDER

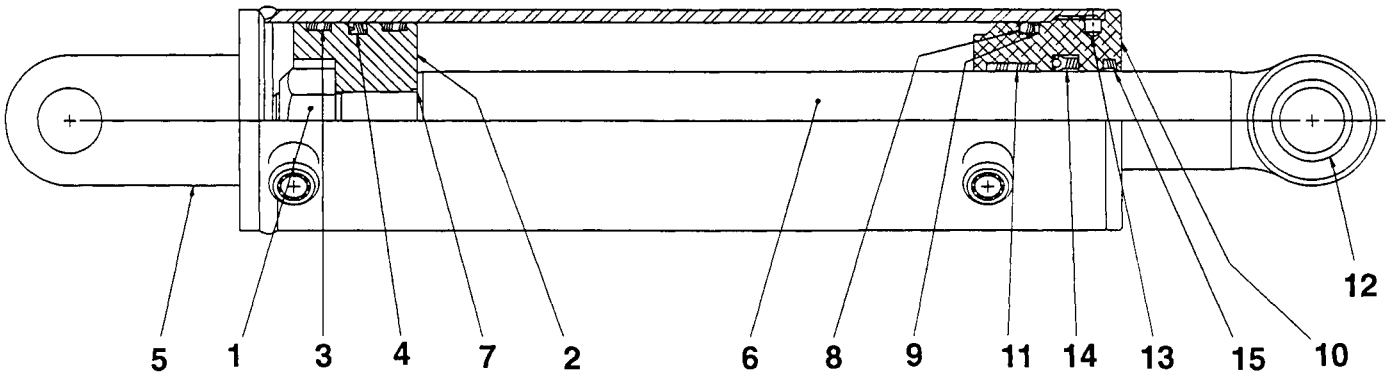
Mark Industries

(STEERING CYLINDER)



Ref.	Part No.	Description	Qty	Remarks
	211758-1	Cylinder, Steering ~~& Master Leveling~~ (Best Metal Products)	2	Incl. Items 1 thru 12
	69652	Kit, Seal	1	Incl. Items w/Asterisk *
1	69653	Nut, Castle	1	
2	69654	Piston	1	
3	69655	Seal, Polypak	2	*
4	69656	O-Ring	1	*
5	69657	Barrel	1	
6	69658	Rod, Piston	1	
7	69659	O-Ring	1	*
8	69660	Back-Up Washer	1	*
9	69661	Seal, Polypak (Type B)	1	*
10	69662	Nut, Gland	1	
11	69663	Wiper	1	*
12	69664	Bushing	1	

(STEERING CYLINDER)



Ref.	Part No.	Description	Qty	Remarks
	211758-2	Cylinder, Steering ~~& Master Leveling~~ (Rosenboom)	2	Incl. Items 1 thru 12
	68954	Kit, Seal	1	Incl. Items w/Asterisk *
1	68956	Nut, Castle	1	
2	68957	Piston	1	
3	*	Wear Band	2	*
4	*	T-Seal	1	*
5	68955	Barrel	1	
6	68958	Rod, Piston	1	
7	*	O-Ring	1	*
8	*	O-Ring	1	*
9	*	Back Up Ring	1	*
10	68960	Nut, Gland	1	
11	*	Wear Band	1	*
12	68961	Bushing	1	
13	68959	Locking Insert	1	*
14	*	Polypak	1	*
15	*	Rod Wiper	1	*

SECTION 4 "TURRET ASSEMBLY" CONTAINS:

PAGE	TITLE
4.3	TURRET
4.4	TURRET ROTATION GEAR BOX
4.6	ROTATION MOTOR

FORD ENGINE

PAGE	TITLE
4.8	ENGINE (FORD GAS & LP)
4.11	RADIATOR & ENGINE (FORD GAS & LP)
4.12	AIR CLEANER (FORD)
4.13	FUEL TANK (FORD)
4.14	LP FUEL SYSTEM (FORD)
4.16	BATTERY ASSEMBLY (FORD & CUMMINS)
4.17	ENGINE CONTROL PANEL (FORD)

DEUTZ DIESEL ENGINE

4.19	ENGINE (DEUTZ)
4.24	FUEL TANK (DEUTZ & CUMMINS)
4.25	BATTERY ASSEMBLY (DEUTZ)
4.26	ENGINE CONTROL PANEL (DEUTZ)

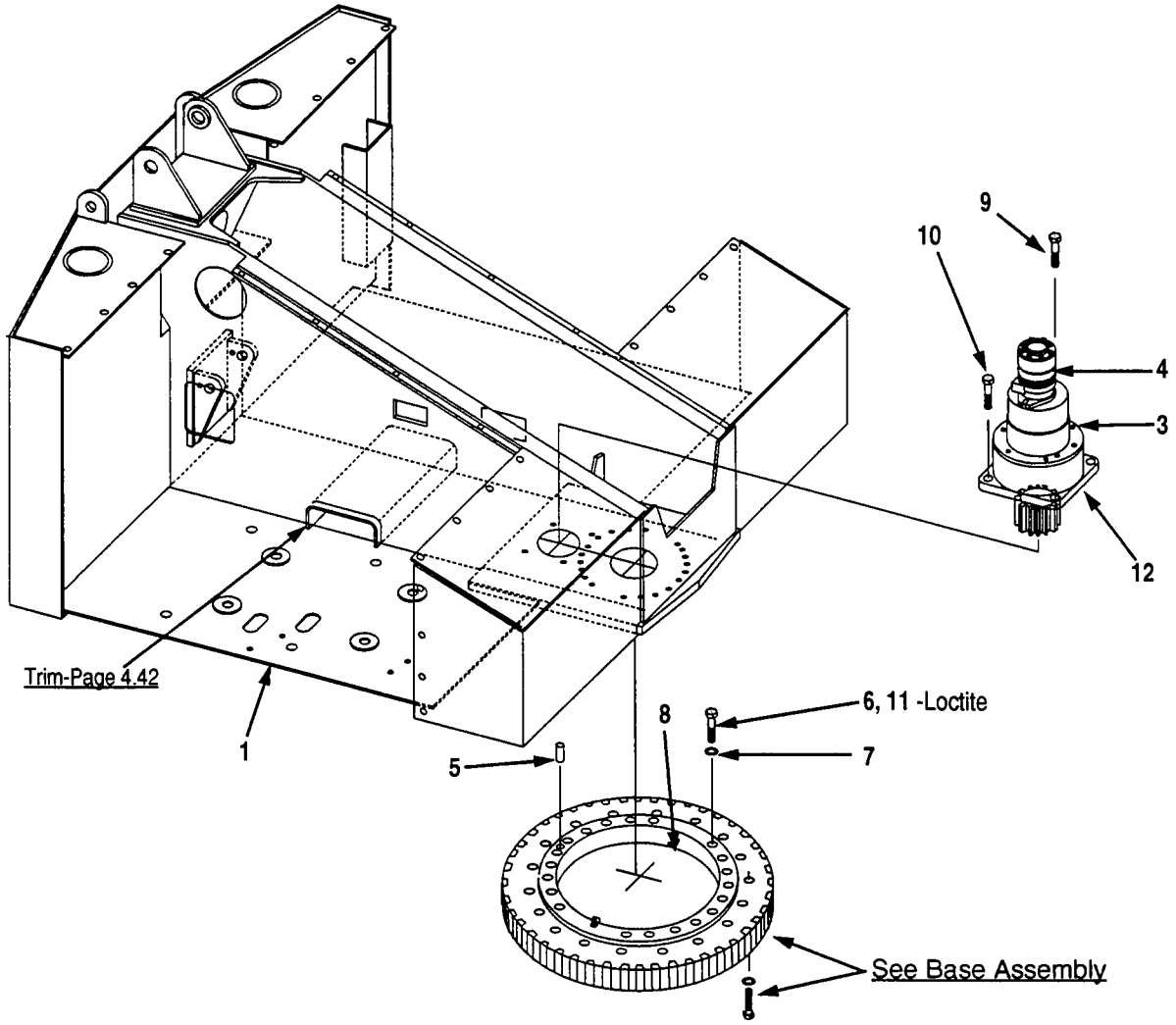
CUMMINS DIESEL ENGINE

4.28	ENGINE (CUMMINS)
4.32	ENGINE CONTROL PANEL (CUMMINS)

SECTION 4 "TURRET ASSEMBLY" CONT'D

PAGE	TITLE
4.34	TURRET WIRING
4.36	GROUND CONTROL BOX
4.40	TURRET HYDRAULICS
4.42	UPPER HYDRAULICS
4.44	HYDRAULIC RESERVOIR & FILTER
4.45	O-RINGS / CLAMPS
4.46	MAIN PUMP (PRIOR TO JAN 1996)
4.48	MAIN PUMP CONTROL (PRIOR TO JAN 1996)
4.50	MAIN PUMP (AFTER JAN 1996)
4.52	MAIN PUMP CONTROL (AFTER JAN 1996)
4.53	EMERGENCY PUMP/MOTOR
4.54	MAIN VALVE
4.58	FUNCTION VALVE (4-WHEEL DRIVE)
4.60	FUNCTION VALVE (2-WHEEL DRIVE)
4.62	ROTARY MANIFOLD (HYDRA-TOOL)
4.63	ROTARY MANIFOLD (TEXAS HYDRAULICS)

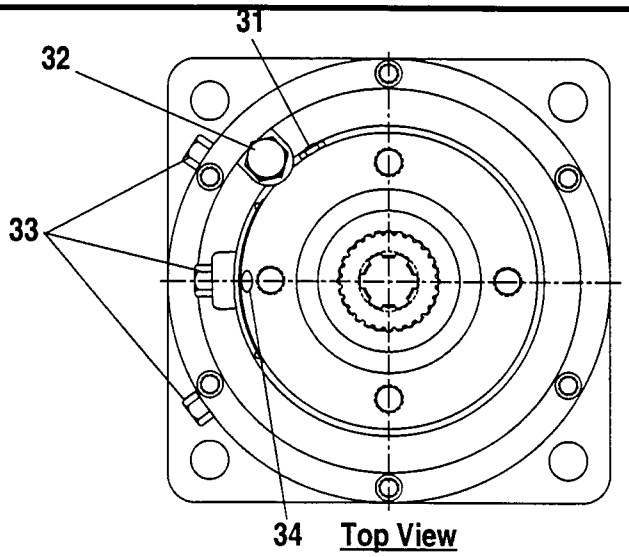
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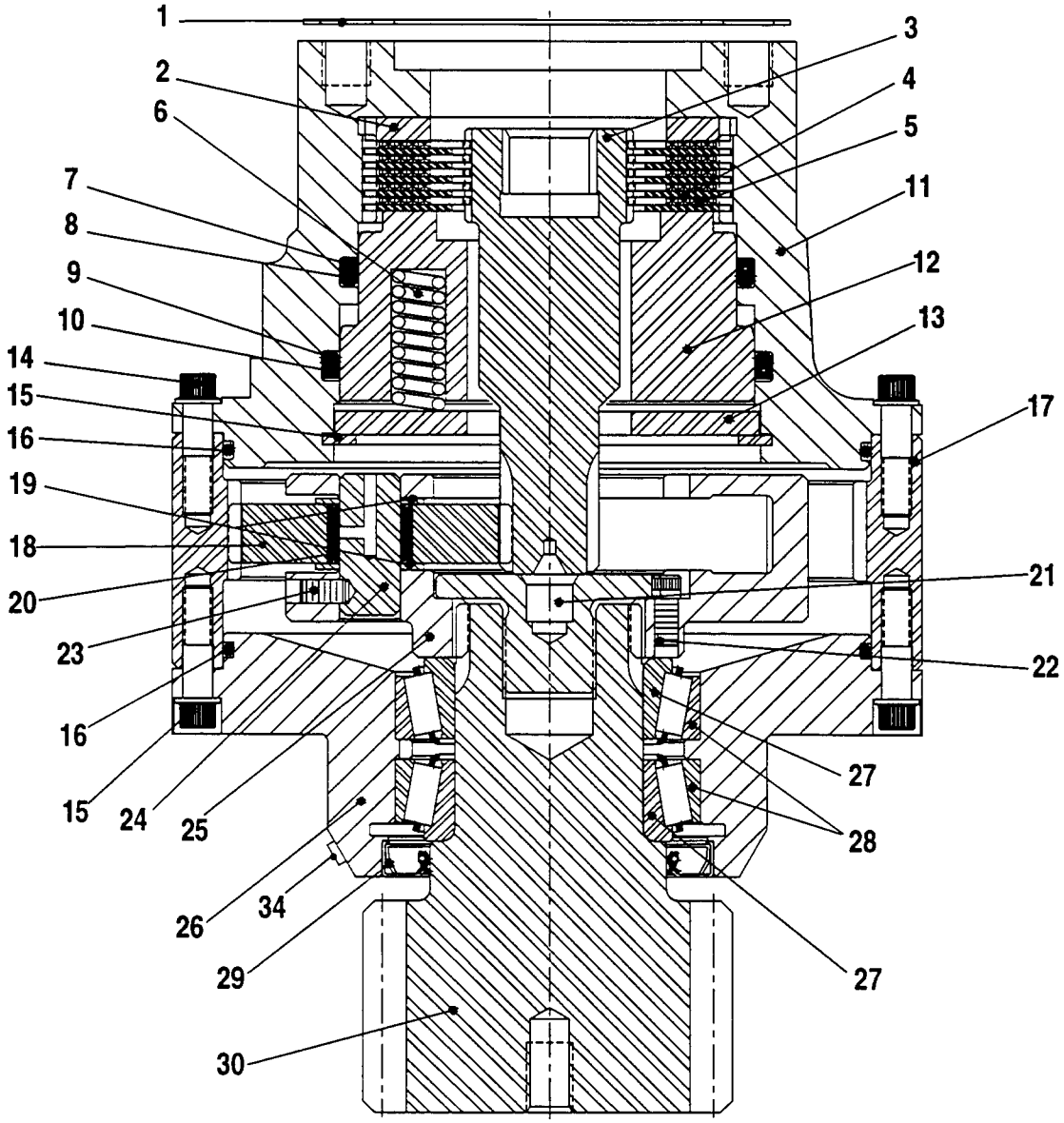
Ref.	Part No.	Description	Qty	Remarks
1	212255	Turret Weldment (Ford & Cummins)	1	
	212255-2	Turret Weldment (Deutz Engine)	1	
2	212046	Turret Rotation Gear Box Ass'y	1	Incl. Items 3 thru 12
3	211930	Rotation Gear Box	1	See Page 4.4
4	81539	Rotation Motor	1	See Page 4.6
5	200B0039-35	Dowel Pin	1	
6	1242-94	Capscrew, 5/8C x 3-1/2 Gr. 8	20	
7	1209-48	Flatwasher, 5/8 H.T.	20	
8	1213-6	Grease Zerk, 45 Deg	2	
9	1200-93	Capscrew, 1/2C x 3/4 12 Pt.	2	
10	316 2364	Capscrew, 5/8C x 1-1/2 12 Pt.	4	
11	511 2057	Loctite	AR	
12	211935	Ring	1	

TURRET ROTATION GEAR BOX

Mark Industries



Top View



TURRET ROTATION GEAR BOX

Model CH60C CH66C

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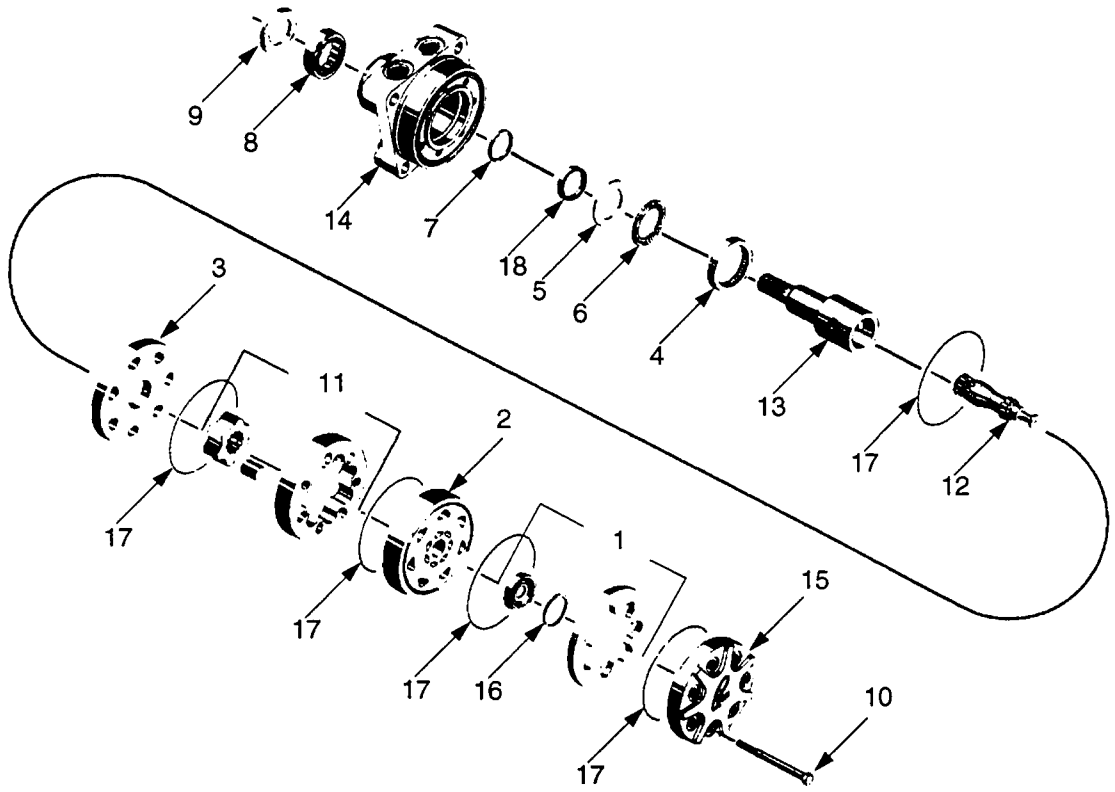
Ref.	Part No.	Description	Qty	Remarks
	211930	Rotation Gear Box, Complete	1	Incl. Items 1 thru 34
1	69632	Gasket, Motor To Gear Box	1	1/32"
2	69637	Plate, Back-up	1	
3	69627	Gear, Input Sun	1	
4	69636	Disc, Brake	5	
5	69635	Disc, Reaction	5	
6	69633	Spring, Brake	11	
7	69649	Ring, Back-Up	1	
8	69648	O-Ring	1	
9	1218-194	O-Ring	1	
10	69650	Ring, Back-Up	1	
11	69628	Housing, Brake	1	
12	69634	Piston, Brake	1	
13	69625	Plate, Spring	1	
14	69645	Capscrew, Ferry, 5/16C x 1	22	
15	69643	Ring, Snap	1	
16	28950	O-Ring	2	
17	69622	Housing	1	
18	69626	Gear, Planet	3	
19	69641	Washer, Thrust	6	
20	69640	Roller, Bearing	54	
21	69624	Bolt, Special	1	
22	69646	Capscrew, Socket Head, 1/4C x 1/2	1	
23	69647	Setscrew, Socket Head, Full Point, 1/4C x 1/2	3	
24	69623	Shaft, Planet	3	
25	69630	Carrier, Planet	1	
26	69629	Base	1	
27	69638	Cone, Bearing	2	
28	69639	Cup, bearing	2	
29	69642	Seal	1	
30	69631	Shaft, Output	1	
31	69644	Plug, Vent	1	
32	1219-980	Plug, -6	1	
33	1219-763	Plug, -4	3	
34	69651	Plug	1	

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ROTATION MOTOR

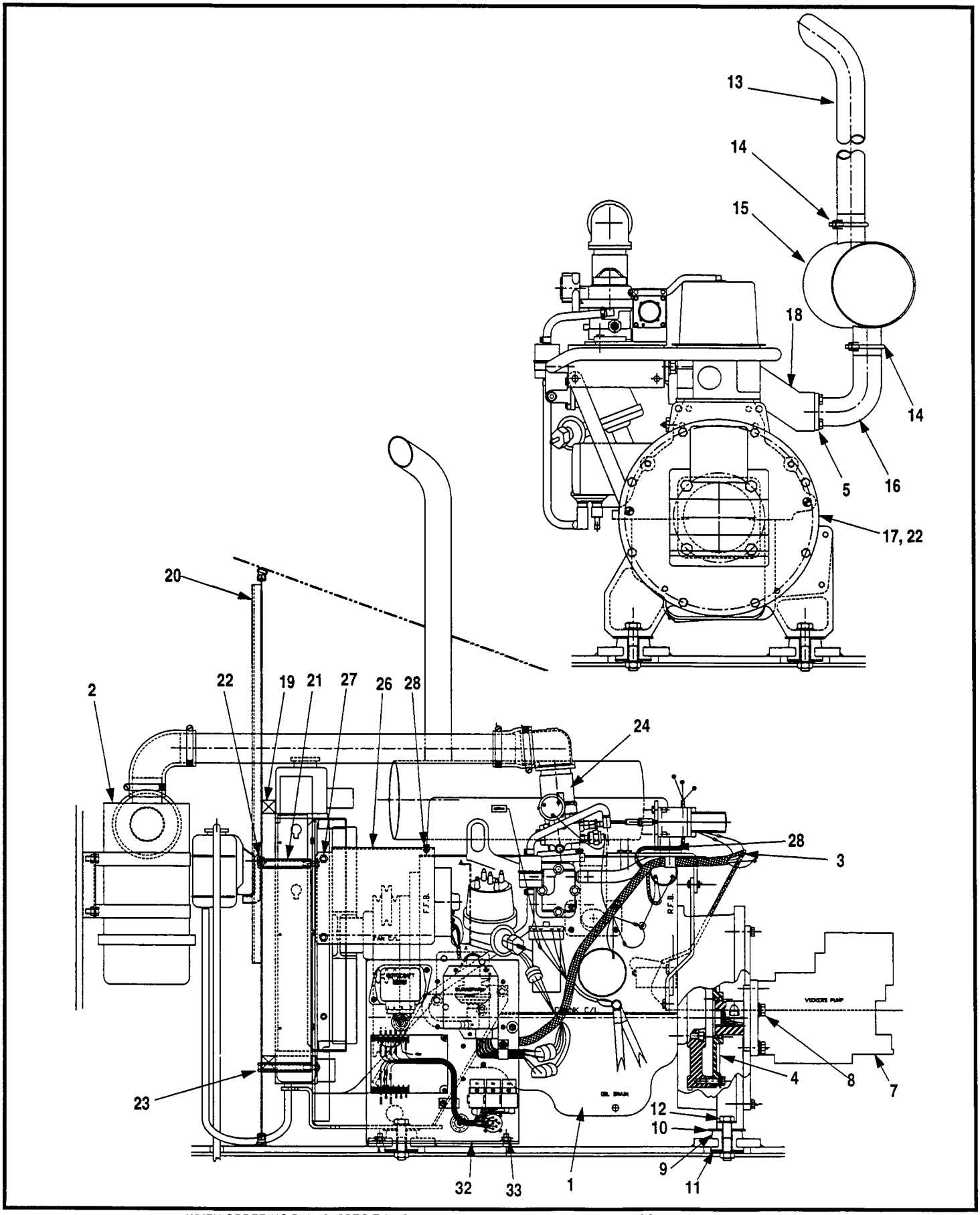
Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	81539	Motor, Rotation	1	Incl. Items 1 thru 14
	600746	Kit, Seal	1	Incl. Items w/Asterisk
1	600733	Commutator and Ring Assembly	1	
2	600734	Manifold	1	
3	600735	Wear Plate	1	
4	600736	Bronze Bushing	1	
5	600737	Thrust Washer	1	
6	600738	Thrust Bearing	1	
7	*	Backup Washer	1	*
8	600739	"DU" Bearing	1	
9	*	Dirt and Water Seal	1	*
10	600740	Bolt	5	
11	600741	Rotor Set	1	
12	600742	Drive Link	1	
13	600743	Coupling Shaft	1	
14	600744	Housing	1	
15	600745	End Cover	1	
16	*	Commutator Seal	1	*
17	*	Seal Ring	5	*
18	*	Inner Seal	1	*

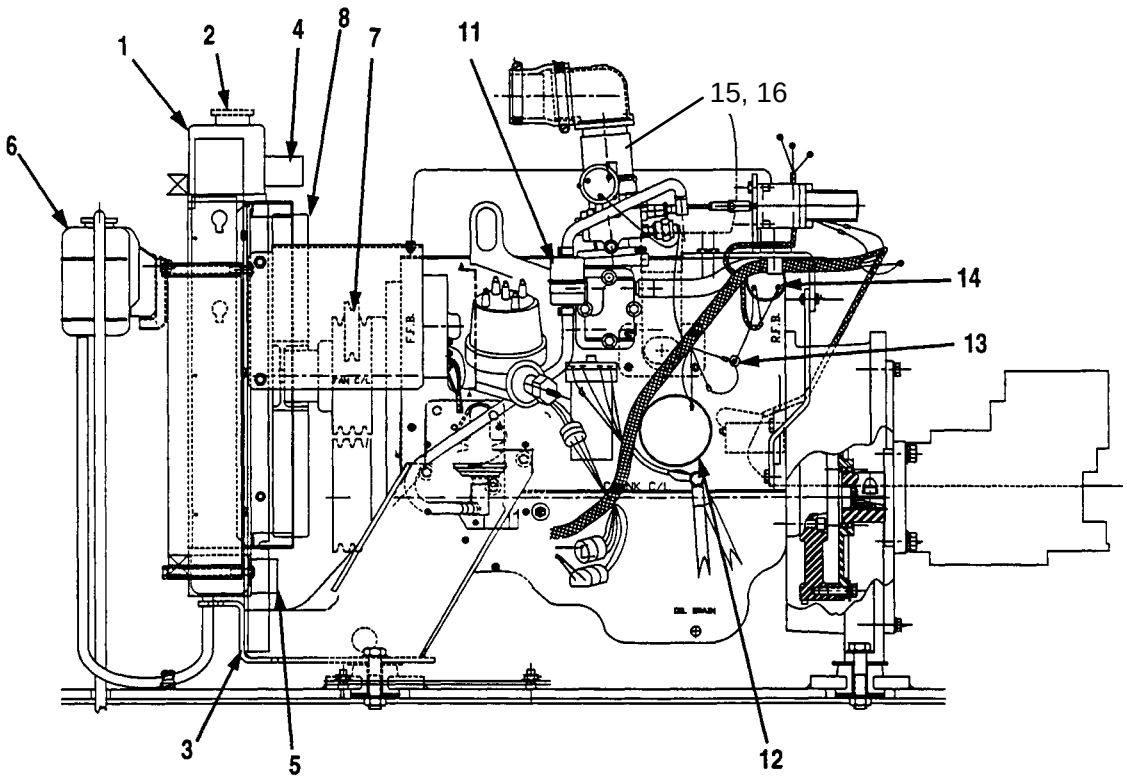
ENGINE
(FORD Gas & LP)

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	212642	Engine Assembly (Gas)	Ref.	Incl. Items 1 thru 33 - Less 25
	212643	Engine Assembly (Dual Fuel)	Ref.	Incl. Items 1 thru 33
1	212546	Engine (Ford LRG423) (Gas)	Ref.	See Ford for Parts & Service
	212545	Engine (Ford LRG423) (Dual Fuel)	Ref.	See Ford for Parts & Service
2		Air Cleaner	Ref.	See Page 4.12
3	212538	Harness, Engine	1	
4	600853	Pump Drive	1	
5	600755	Gasket, Exhaust Flange	1	
6	600757	Drain Cock	1	
7	81526	Pump (After Jan. 96)	1	See Page 4.50
	81442	Pump (Prior to Jan. 96)	1	See Page 4.46
8	1200-98	Capscrew, 1/2C x 1-1/4	4	
	1210-27	Lockwasher	4	
	1209-6	Flatwasher	4	
9	160672	Bushing, Motor Mount	4	
10	160673	Washer	4	
11	160674	Washer	4	
12	1200-156	Capscrew, 5/8C x 3	4	
	1209-8	Flatwasher	8	
	1205-90	Locknut, 5/8C	4	
13	600753	Pipe, Exhaust Stack	1	
14	600754	Clamp, 2"	2	
15	600752	Muffler	1	
16	160669	Tube, Exhaust	1	
17	600758	Starter	1	
18	600760	Alternator	1	
19	12148-20	Gasket, Foam	4	1"x1"
20	212551	Baffle Plate Ass'y	1	
21	212550	Baffle Spacer	2	
22	600763	Starter Relay	1	
23	1200-87	Capscrew, 3/8C x 5	4	
	1205-45	Locknut, 3/8C	4	
24	600769	Carburetor	1	
25	600771	Beam Kit (Dual Fuel only) (Not Shown)	1	
32	212631	Control Panel	1	See Page 4.17
33	1205-45	Locknut, 3/8C	2	
	1209-4	Flatwasher	2	

NOTES



Ref.	Part No.	Description	Qty	Remarks
1	600762	Radiator	1	
2	600756	Cap, Radiator	1	
3	600761	Bracket, Radiator Support	1	
4	69778	Hose, Upper	1	
5	69779	Hose, Lower	1	
6	600770	Tank, Recovery	1	
7	69783	Belt, Fan	1	
8	600759	Fan	1	
11	600766	Filter, Fuel (Gasoline)	1	
12	69782	Filter, Oil	1	
13	600768	Temperature Switch	1	
	1219-214	Bushing	1	
14	600767	Switch, Oil Pressure	1	
15	600921	LP carburator (includes power screw)		
16	600922	venturi adaptor (part of 600921)		

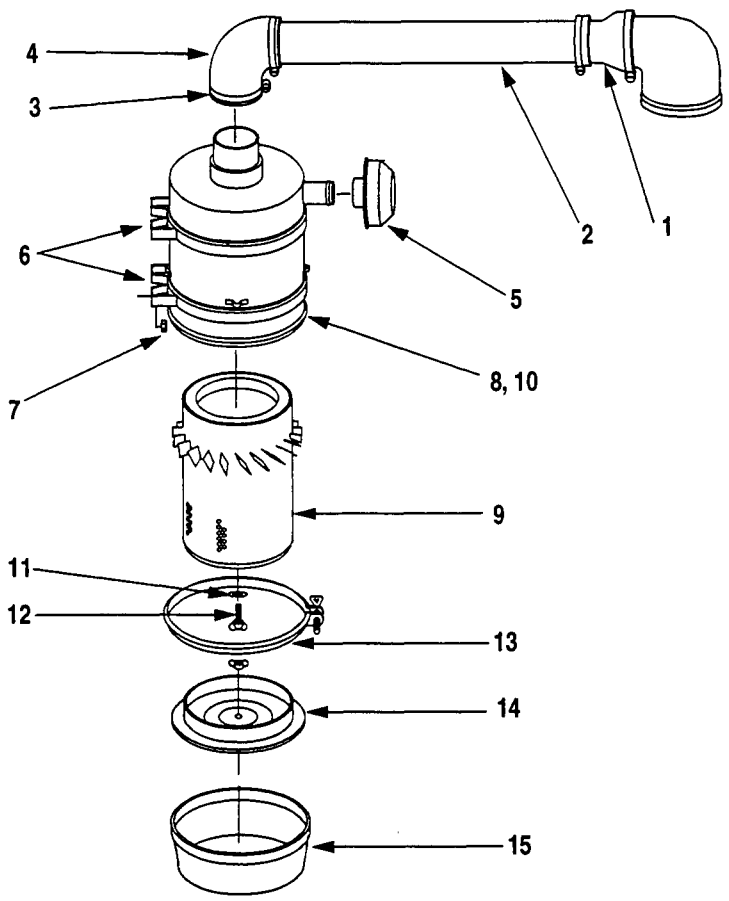
Model CH60C CH66C

Issued 5-96

AIR CLEANER (FORD ENGINE)

Mark Industries

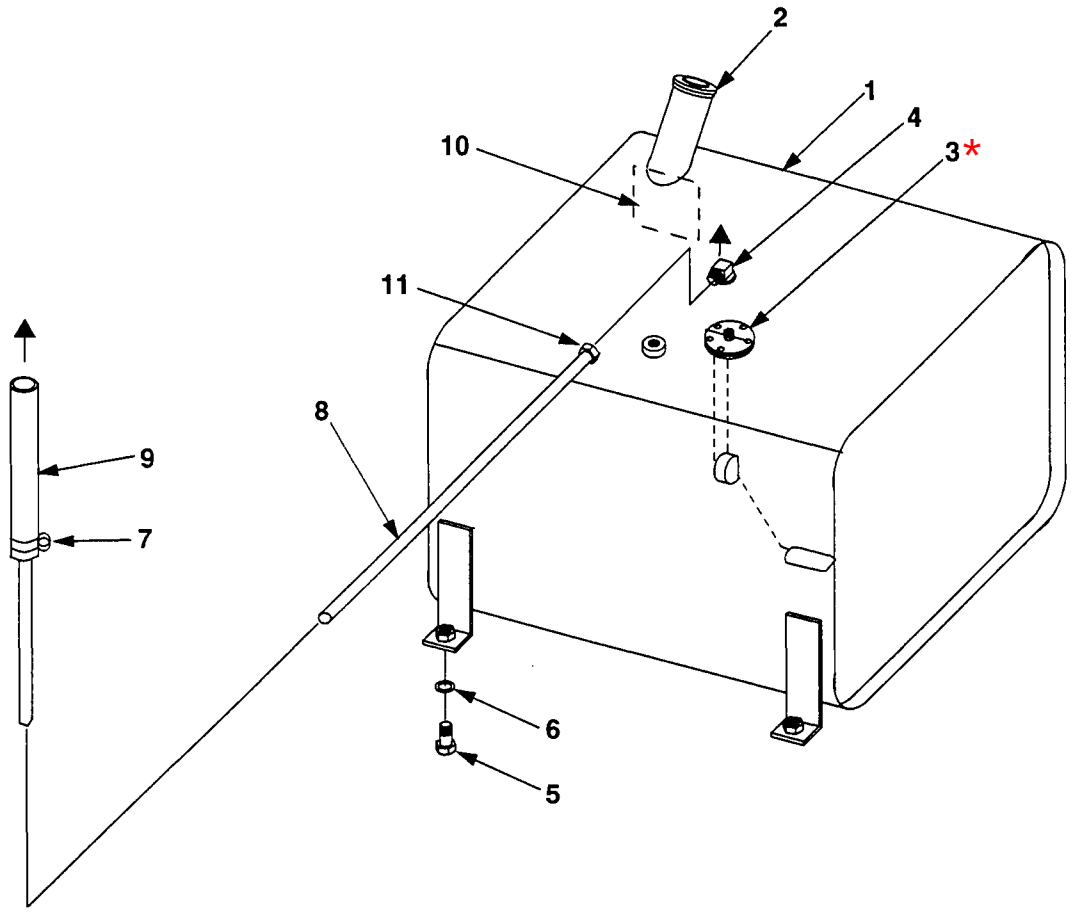
replaced by P/N 212657 (approx. 4/96) see CH44C manual page 4.13



Ref.	Part No.	Description	Qty	Remarks
1	1243-34	Hose	Ref.	Part of Engine
2	212644	Tube	1	
3	65435	Clamp	2	
4	1243-68	Elbow	1	
5	160083	Hood, Air Cleaner	1	
6	65412	Band, Mounting	2	
7	1205-45	Locknut, 3/8C	4	
8	160082	Air Cleaner	1	Incl. Items 9 thru 15
9	1243-75	Element	1	
10	29347	Decal	1	
11	29348	Gasket, Washer	1	
12	29349	Screw, Thumb	1	
13	29350	Clamp Ass'y	1	
14	29351	Baffle Ass'y	1	
15	29352	Cup Ass'y	1	

FUEL TANK
(FORD ENGINE)

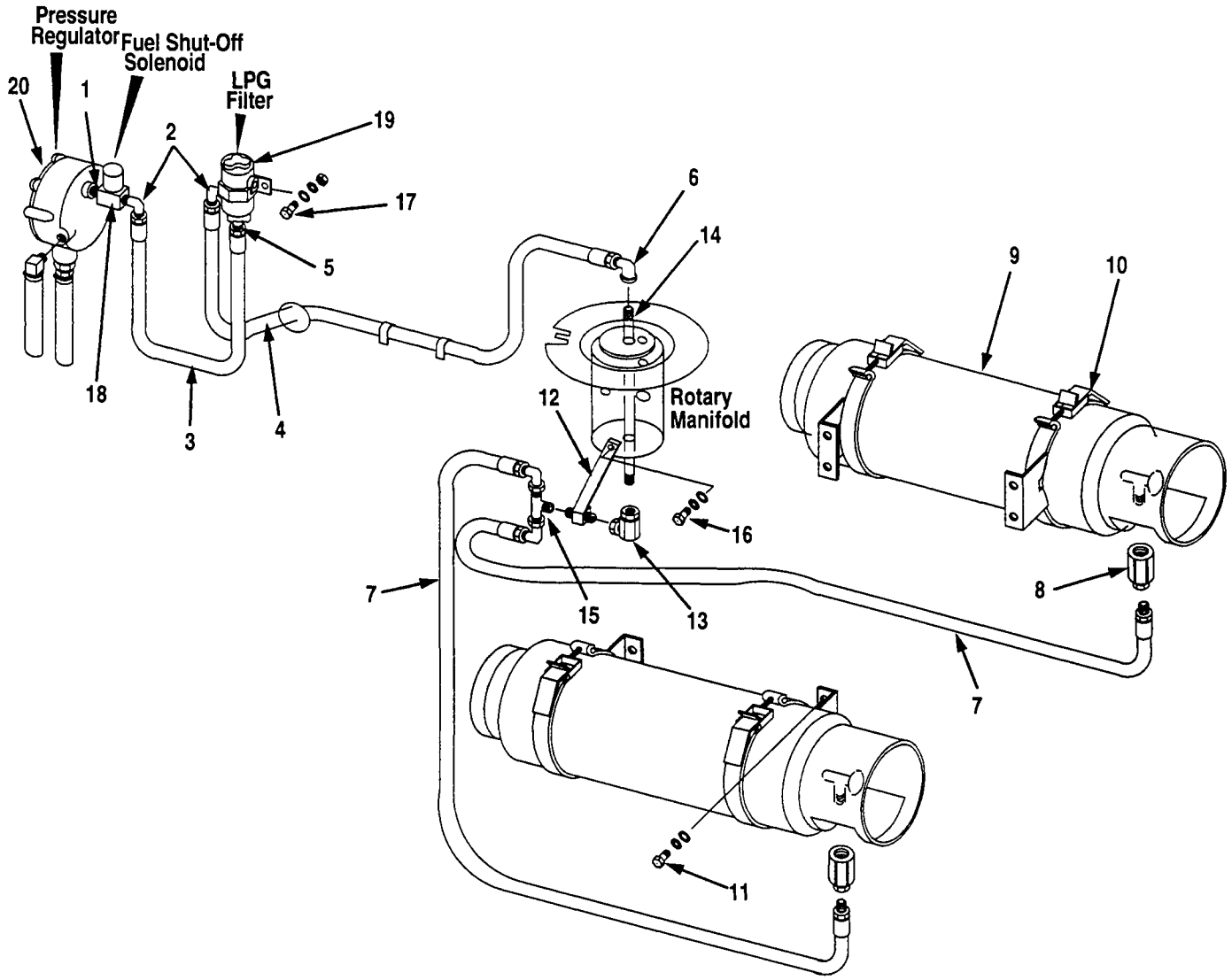
Model CH60C CH66C
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Ref.	Part No.	Description	Qty	Remarks
	212645	Fuel Tank Assembly (Ford Engine)	1	Incl. Items 1 thru 11
1	211929	Tank, Fuel	1	40 Gal.
2	69763	Cap	1	
3*	69764	Sender, Fuel (8.84 inches long)	1	
	600732	Sender, Fuel (9.0 inches long)		
4	81536	Adapter	1	
5	1200-61	Capscrew, 3/8C x 1-1/4	4	
6	1209-89	Flatwasher	4	
7	1240-100	Clamp	2	
8	212836	Tube	1	
	200B2007-2	Clamp	4	
	1205-45	Locknut, 3/8	4	
	1209-4	Flatwasher, 3/8	4	
9	160091-.63	Hose	1	
10	181829	Decal, Gas Fuel	1	
11	80008-6	Adapter	1	

LP FUEL SYSTEM
(FORD)

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	212158	LP Fuel System (Garretson)	1	Incl. Items 1 thru 17
	212599	LP Fuel System (Beam)		
1	1219-512	Nipple, 1/4 NPT	1	
2	1219-351	Elbow	2	
3	212156-32	Hose	1	
4	212156-44	Hose	1	
5	1219-559	Adapter	1	
6	16506	Elbow, Female	1	
7	212157-38	Hose	2	
8	65141	Socket, Female	2	
9	65937	Tank, Propane	2	
10	~~65463~~ 486-B	Bracket, Mounting (2 piece)	2	
11	1200-95	Capscrew, 1/2C x 1	8	
	1210-26	Lockwasher	8	
	1209-6	Flatwasher	8	
12	21896	Bracket, LPG Swivel	1	
13	20815	Swivel, LPG	1	
14	65391	Nipple	1	
15	80029-07	Tee	1	
16	1200-335	Capscrew, 3/8C x 1/2	2	
	1210-20	Lockwasher	2	
	1209-4	Flatwasher	2	
17	1200-1	Capscrew, 1/4C x 3/4	2	
	1209-2	Flatwasher	2	
	1210-14	Lockwasher	2	
	1205-13	Nut, 1/4C	2	
18	69771	Filter, Fuel	1	
	69772	Element, Filter	1	
19	69773	Solenoid Valve, Fuel Shut-Off	1	
20	69774	Pressure Regulator (Garretson)	1	
	68579	Pressure Regulator (Beam)		
	69775	Kit, Repair (Garretson)	1	
	69155	Kit, Repair (Beam)		

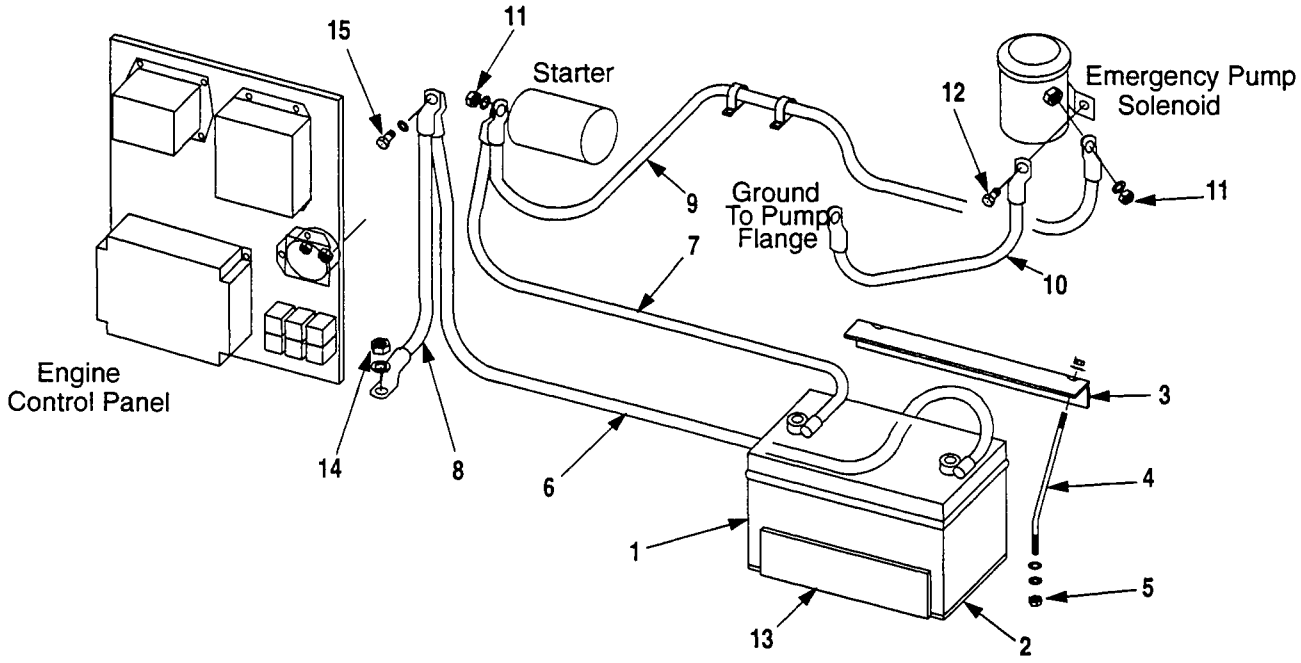
Model CH60C CH66C

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BATTERY ASSEMBLY

(FORD & CUMMINS ENGINES)

Mark Industries

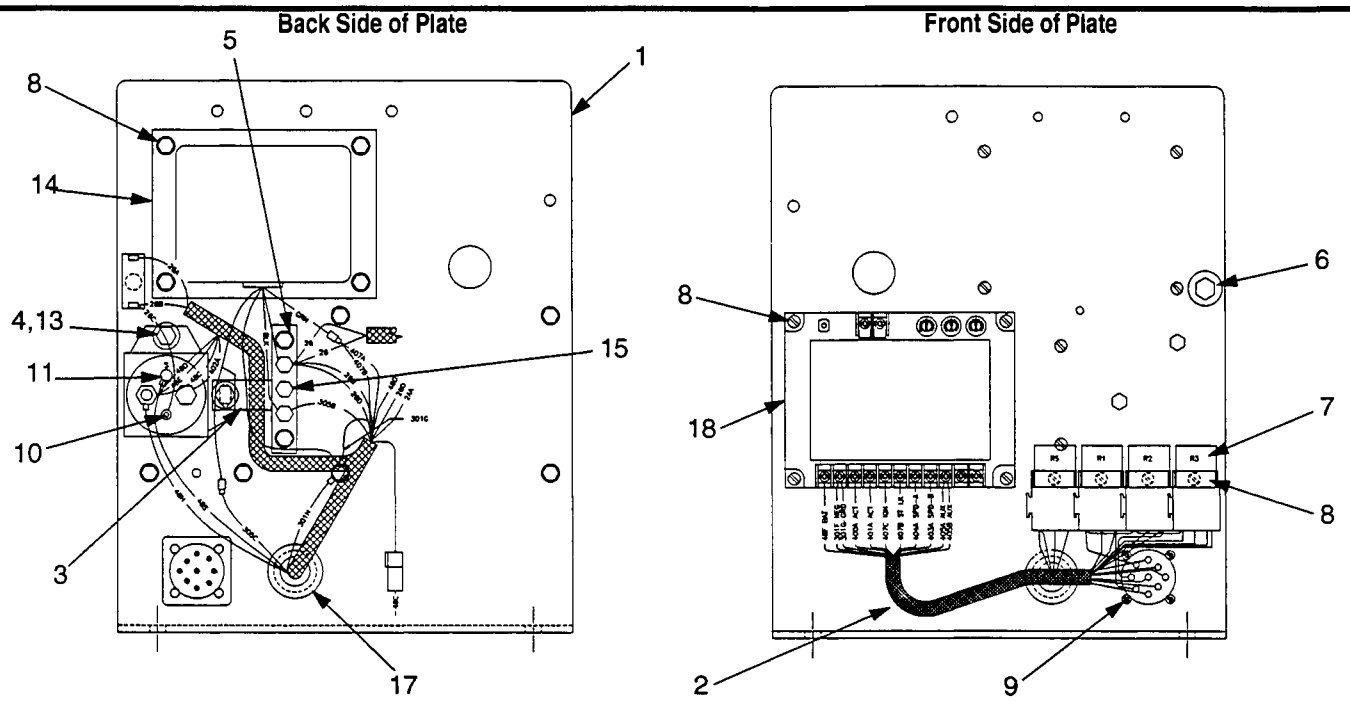


Ref.	Part No.	Description	Qty	Remarks
	212066	Battery Installation (Ford & Cummins)	1	Incl. Items 1 thru 15
1	1223-824	Battery	1	
2	706 8846	Plate, Masonite, Battery Isolation	1	
3	212541	Hold Down, Battery	1	
4	707 4375	Rod, Battery Hold-Down	2	
5	1205-34	Locknut, 5/16C	4	
	1209-3	Flatwasher	4	
6	70798	Cable, Battery (+)	1	
7	70797	Cable, Battery (-)	1	
8	70799	Cable, Engine Ground	1	
9	70800	Cable, Starter	1	
10	70851	Cable, Emergency Pump	1	
11	1205-199	Nut, 5/16C Brass	2	
	1210-17	Lockwasher	2	
12	1200-309	Capscrew, 1/4C x 1/2	1	
13	212210	Plate, Masonite	1	
14	1205-170	Nut, 3/8C Brass	1	
	1210-77	Washer, 7/16 Ext. Tooth	1	
	1210-20	Lockwasher, 3/8	1	
15	1200-57	Capscrew, 3/8C x 3/4	1	
	1210-20	Lockwasher	1	

ENGINE CONTROL PANEL (FORD ENGINE)

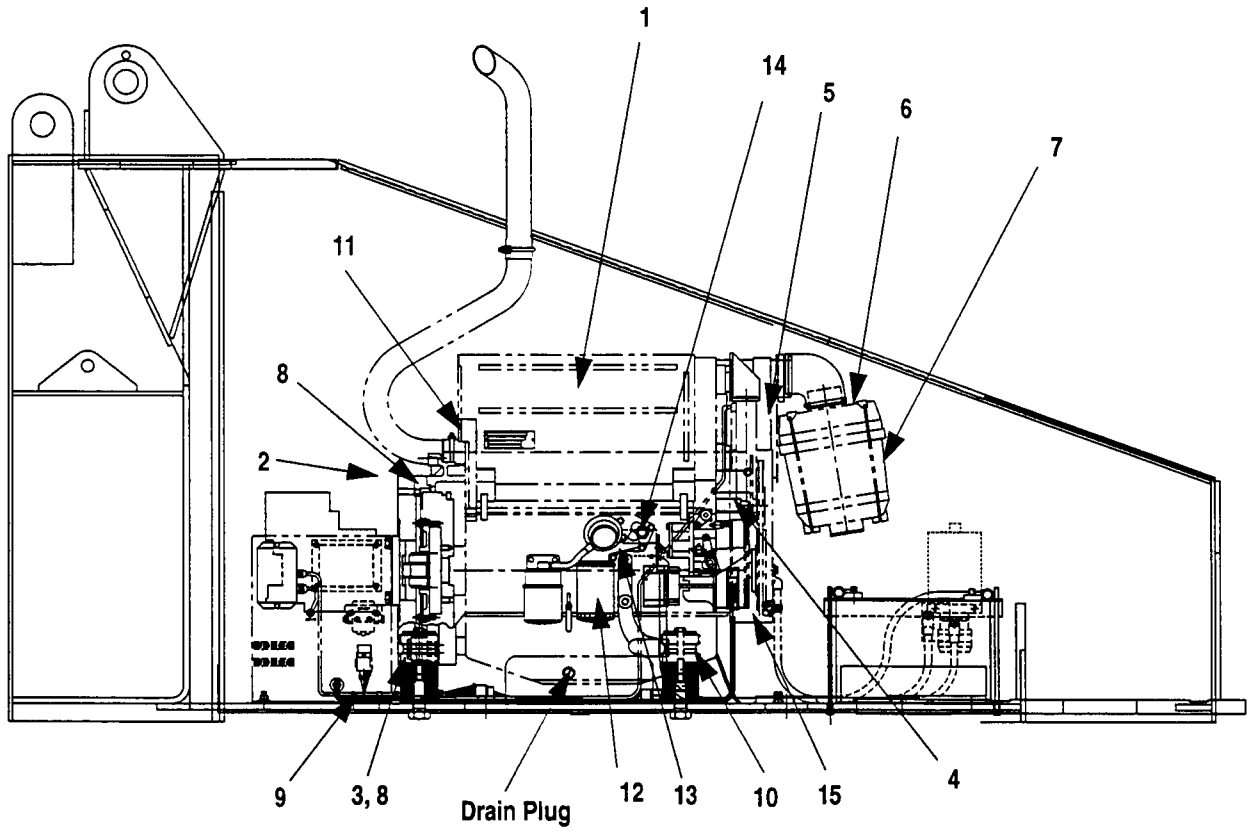
Model CH60C CH66C

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Ref.	Part No.	Description	Qty	Remarks
	212631	Engine Control Panel Ass'y	1	Incl. Items 1 thru 18
1	212028	Plate	1	
2	212632	Harness, Control Panel	1	
3	200B2007-4	Clamp, 1/2"	1	
4	1200-1	Capscrew, 1/4 x .75	1	
	1205-13	1/4 Nut	1	
	1210-14	Lockwasher, 1/4	1	
5	117-C	Eyelet #10	2	
6	441 4026	Circuit Breaker (20A)	1	
	442 2399	Boot	1	
7	441 6828	Relay	3	
8	1202-6	Machine Screw, #10-24 x 3/4	13	
	1210-7	Lockwasher, #10	13	
	1205-5	Nut, #10-24	13	
9	1233-22	Machine Screw, #5-40 x 1/2	4	
	1230-11	Keps, #5-40	4	
10	1205-3	Nut #8-32	1	
11	1205-6	Nut #10-32	1	
13	1209-2	Flatwasher, 1/4	3	
14	~~70923~~ 70983	Starter Lockout	1	
15	7099	Block, Terminal	1	
17	1221-13	Grommet	2	
18	70919	Governor Control	1	

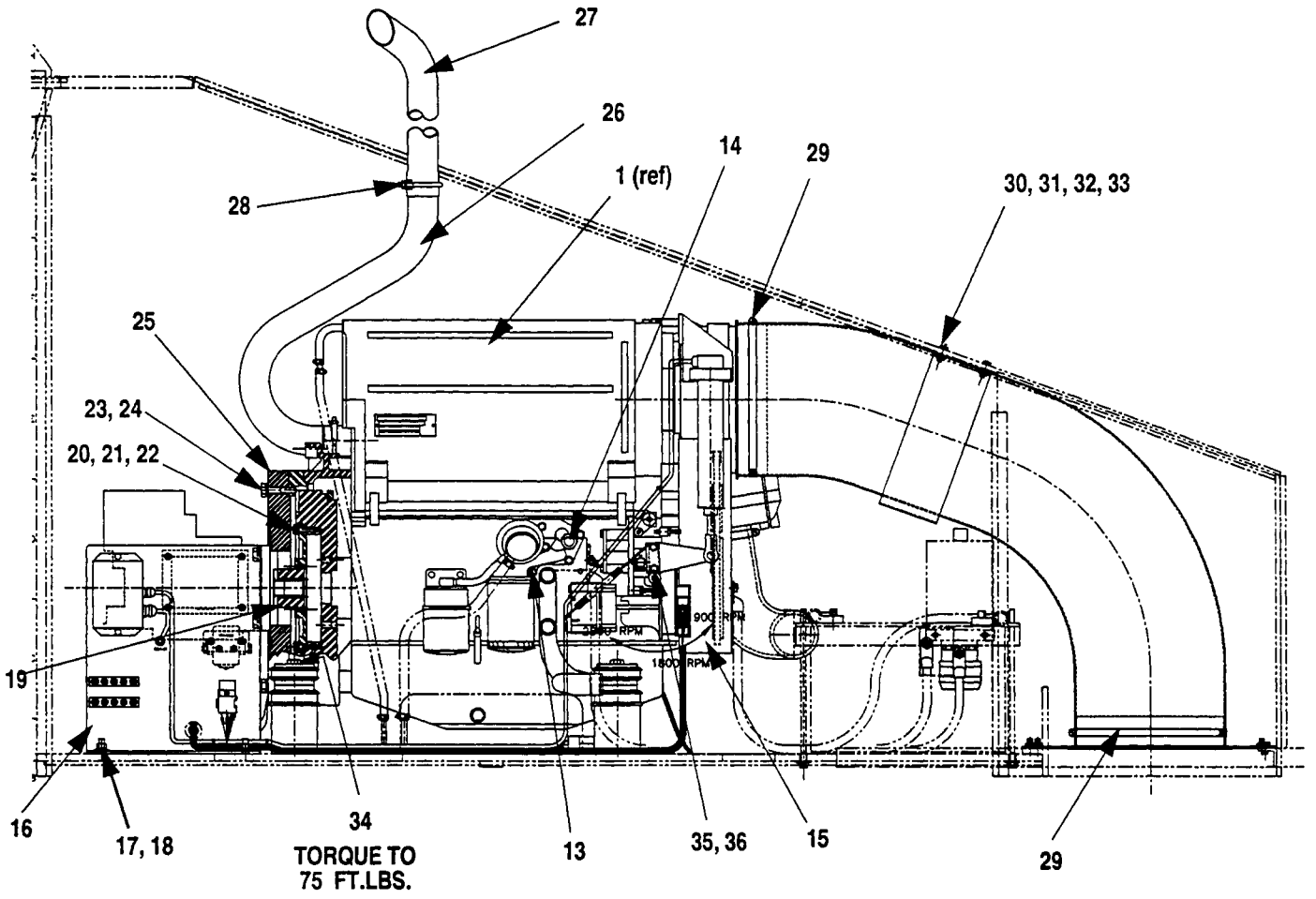
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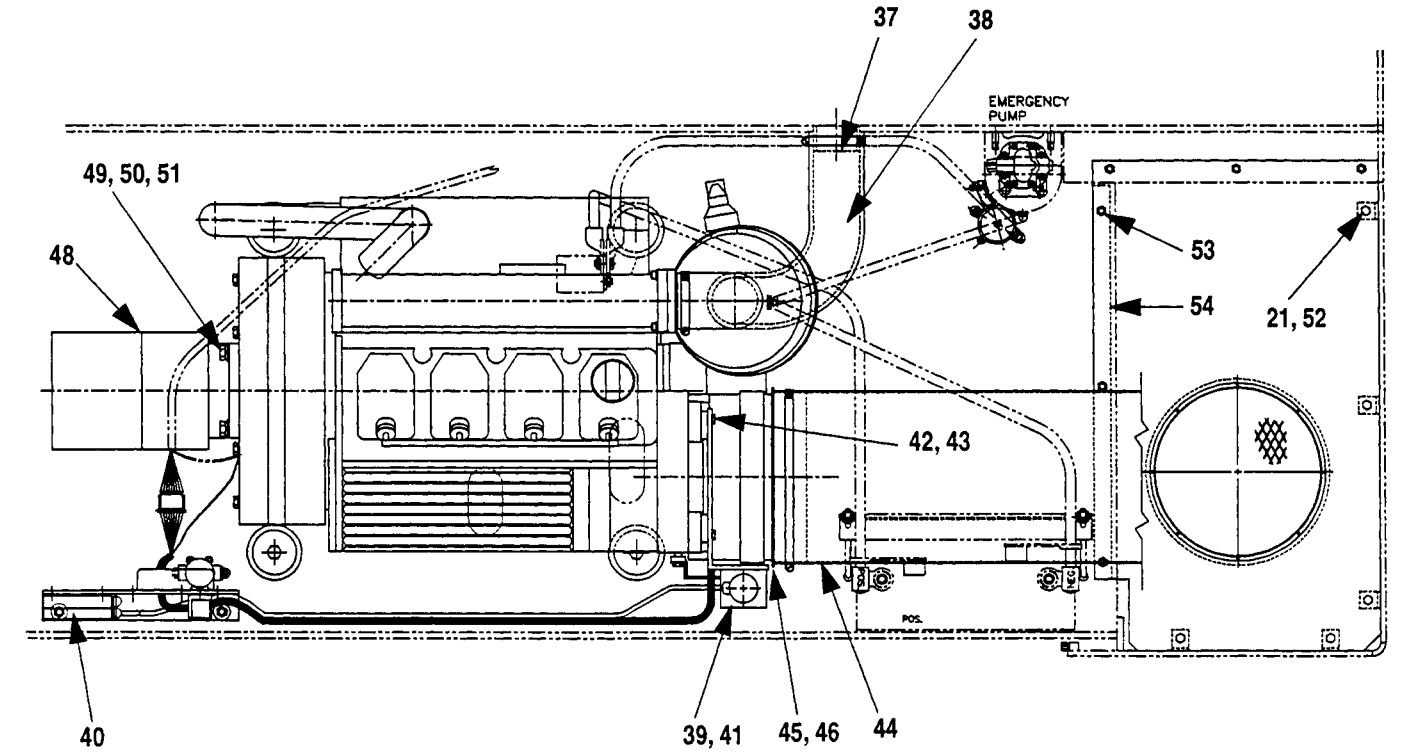


Ref.	Part No.	Description	Qty	Remarks
	212180	Engine Assembly, Deutz	Ref.	Incl. items 1 thru 40
1	212298	Engine, Deutz	1	See Deutz for Parts & Service
2	68785	Starter, 12 Volt	Ref.	
3	68786	Flywheel	Ref.	
4	68787	Solenoid, Shutdown	Ref.	
5	68788	Ring, Air Guide	Ref.	
6	68789	Service Indicator	Ref.	
7	160631	Assembly, Air Cleaner (dry type)	Ref.	
	68724	Element, Replacement	Ref.	
8	68790	Housing, Adapter	Ref.	
9	68791	Harness, Wiring	Ref.	
10	68792	Mount, Engine	Ref.	
11	68793	Muffler, Manifold	Ref.	
12	68794	Filter, Oil	Ref.	
13	68795	Switch, Oil Temp.	Ref.	

ENGINE, DIESEL (DEUTZ)

Mark Industries

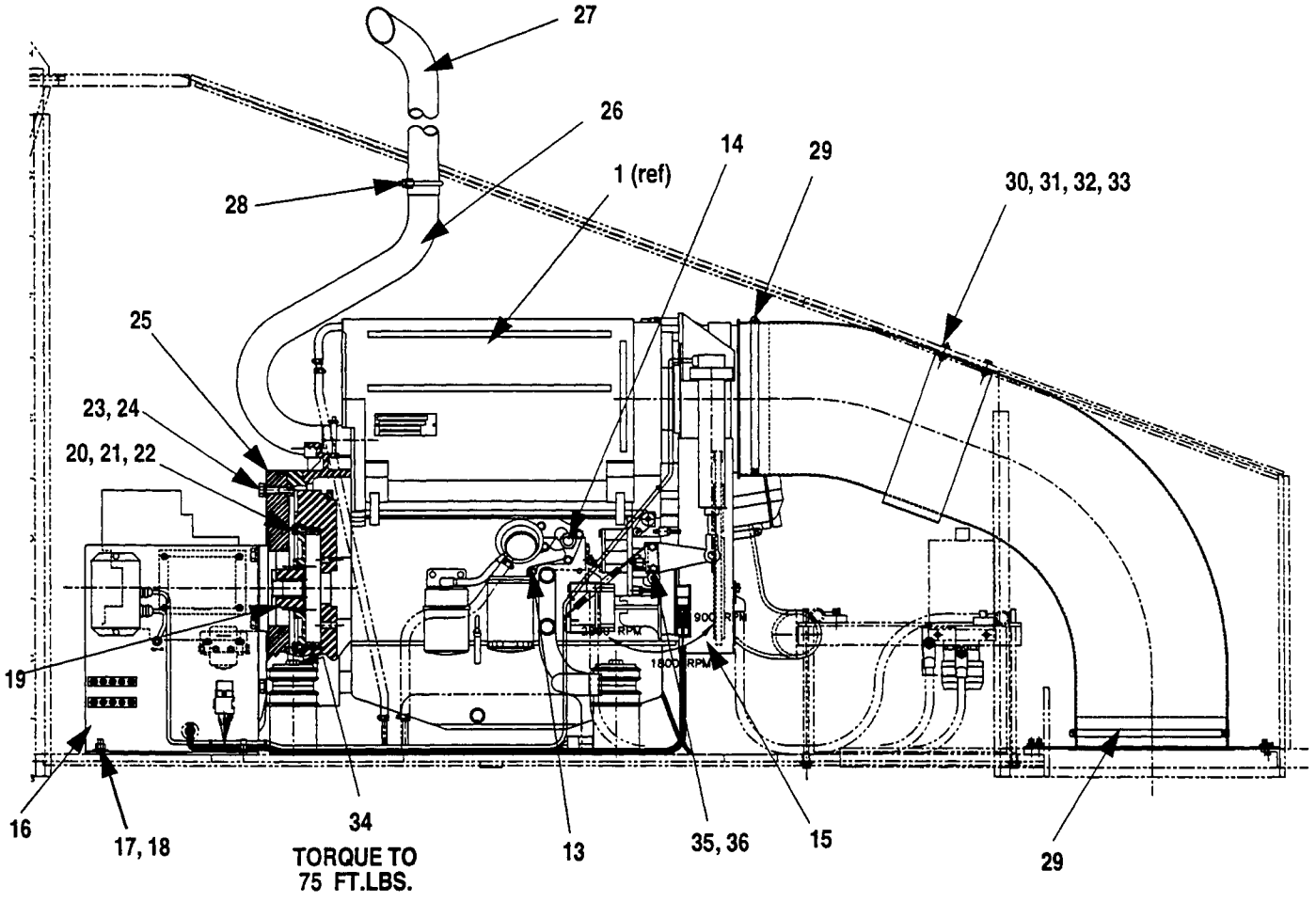


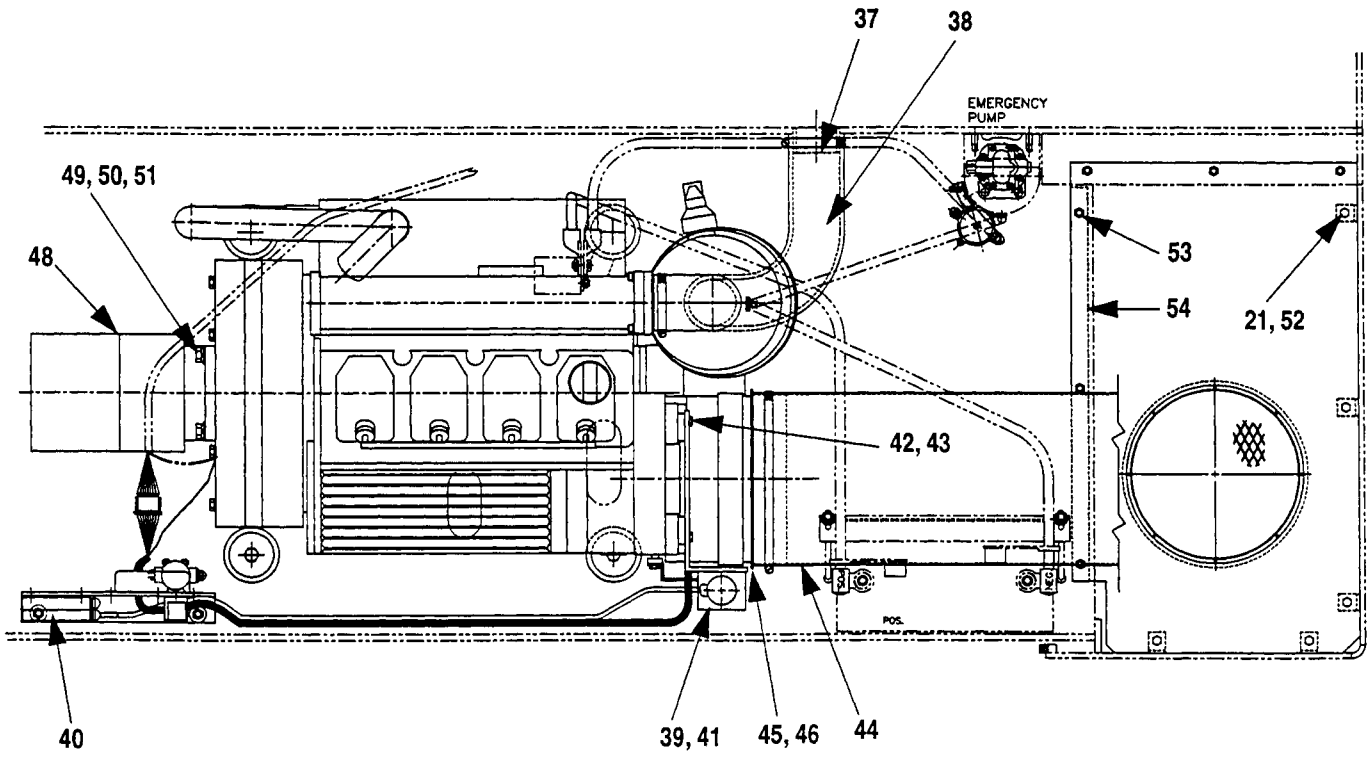


Ref.	Part No.	Description	Qty	Remarks
14	600370	Switch, Oil Pressure	Ref.	
13	68795	Switch, Oil Temp	Ref.	
15	160588	Guard, Fan Belt	Ref.	
16	212146	Control Panel (for Deutz Engine)	1	See Page 4.26
17	1205-45	Locknut, 3/8C	2	
18	1209-4	Flatwasher, 3/8	2	
19	212107	Flywheel Coupling	1	
20	071 408 40	Capscrew, Hex Head M8 x 30	Ref.	
21	1210-17	Lockwasher, 5/16	Ref.	
22	1209-3	Flatwasher	Ref.	
23	071 310 20	Capscrew, Hex Head M10 x 50	8	
24	085 310 18	Lockwasher, 10mm	8	
25	212103	Plate, Pump Mounting	1	
26	212117	Tube, Exhaust (Lower)	1	
27	212116	Tube, Exhaust (Upper)	1	
28	16230	Clamp, 2"	1	
29	160682	Clamp, Hose	2	
30	1209-2	Flatwasher, 1/4	4	
31	1205-23	Locknut, 1/4C	4	
32	1200-3	Capscrew, 1/4C x 1	4	
33	212171	Hanger	1	
34	1200-116	Capscrew, 1/2-13 x 3-1/2	4	
35	071 406 16	Capscrew, M6 x 10	Ref.	
36	065 306 12	Lockwasher	Ref.	
37	16318	Clamp, Hose	2	
38	160255-13	Hose	Ref.	
39	70829	Actuator, Throttle	Ref.	
40	70830	Controller, Throttle	Ref.	
41	70831	Hardware, Mounting	Ref.	
42	071 406 16	Capscrew, M8 x 16	Ref.	
43	085 306 16	Lockwasher, M8	Ref.	
44	160543	Duct, Air Flex	1	
45	210792	Duct, Engine	1	
46	1211-24	Screw, #6 x 3/8	8	
47	212168	Baffle Assembly	1	
48	81442	Pump (Prior to Jan 96)	1	See Page 4.46
	81526	Pump (After to Jan 96)	1	See Page 4.50
49	1200-96	Capscrew, 1/5-13 x 1-1/4	4	

ENGINE, DIESEL (DEUTZ)

Mark Industries





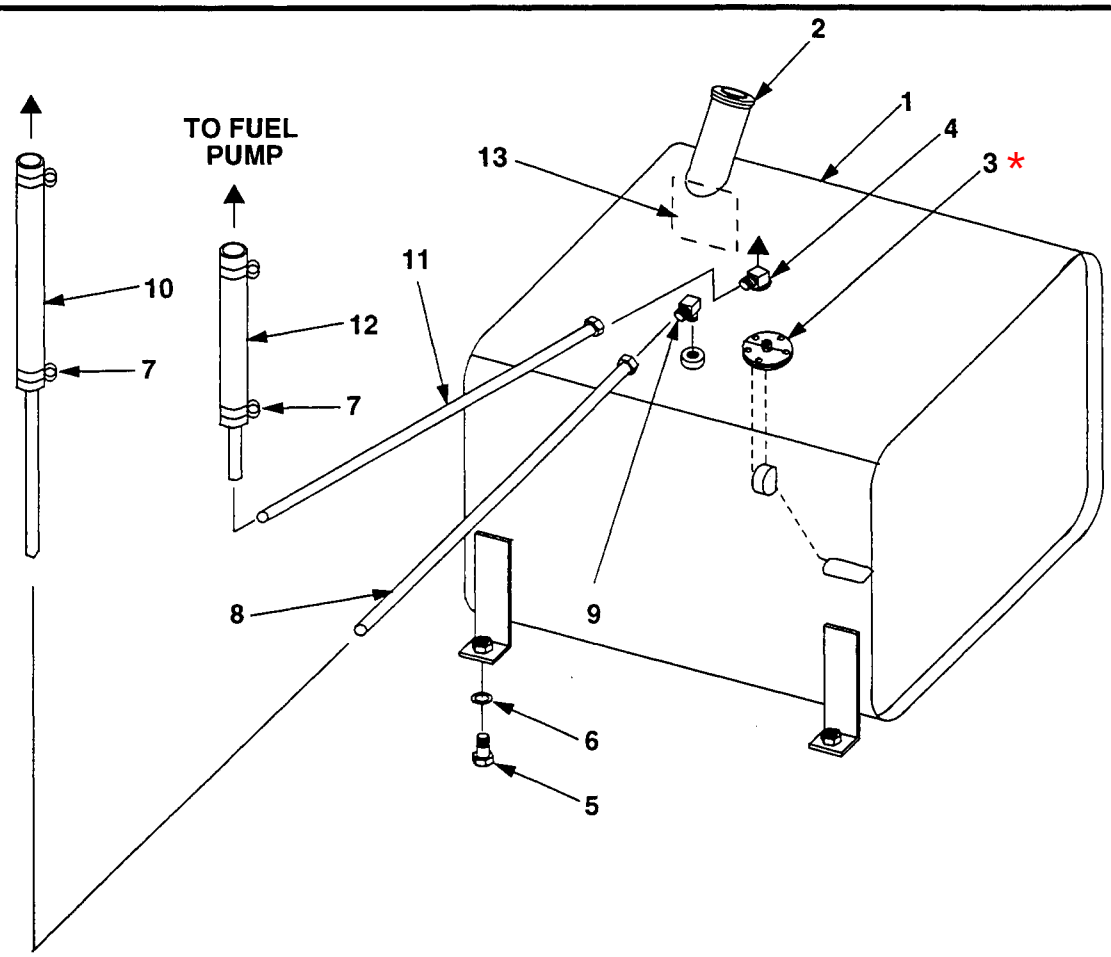
Ref.	Part No.	Description	Qty	Remarks
50	1209-6	Flatwasher, 1/2	4	
51	1210-27	Lockwasher, 1/2	4	
52	1200-319	Capscrew, 5/16C x 1/2	5	
53	1205-34	Locknut, 5/16C	6	
54	212166	Spacer	1	

Model CH60C
CH66C

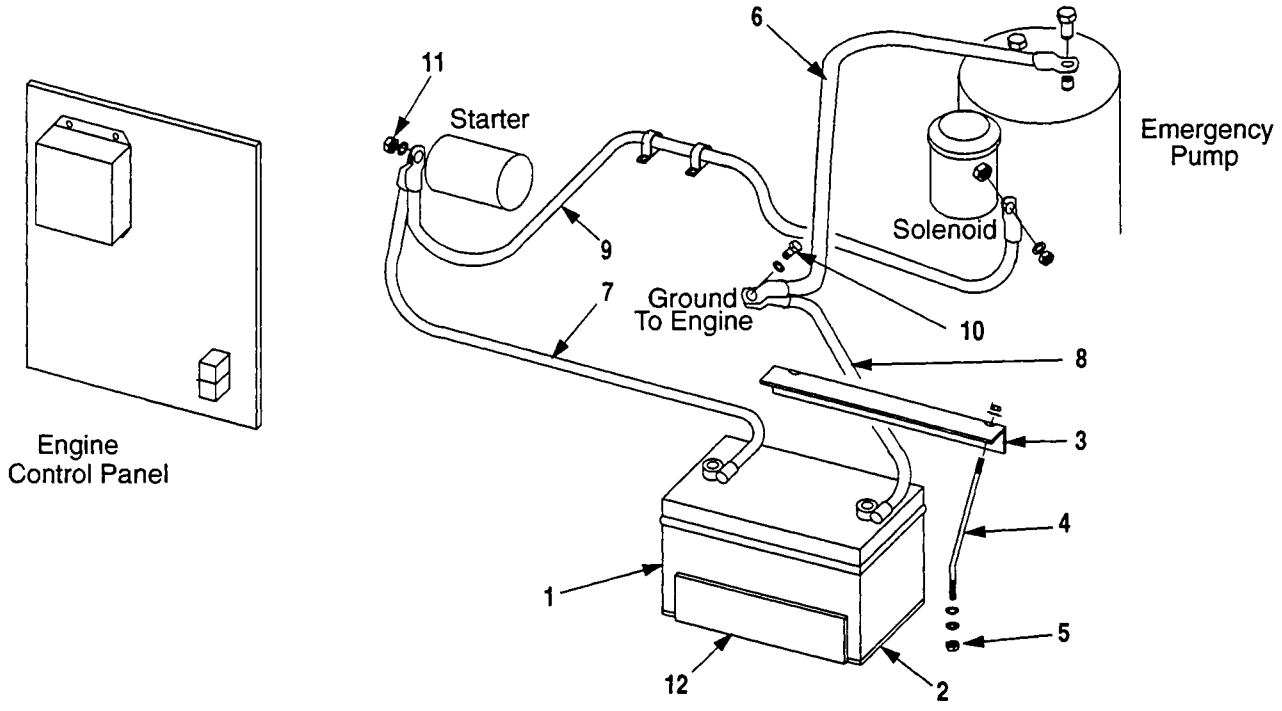
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FUEL TANK
(DEUTZ & CUMMINS ENGINE)

Mark Industries



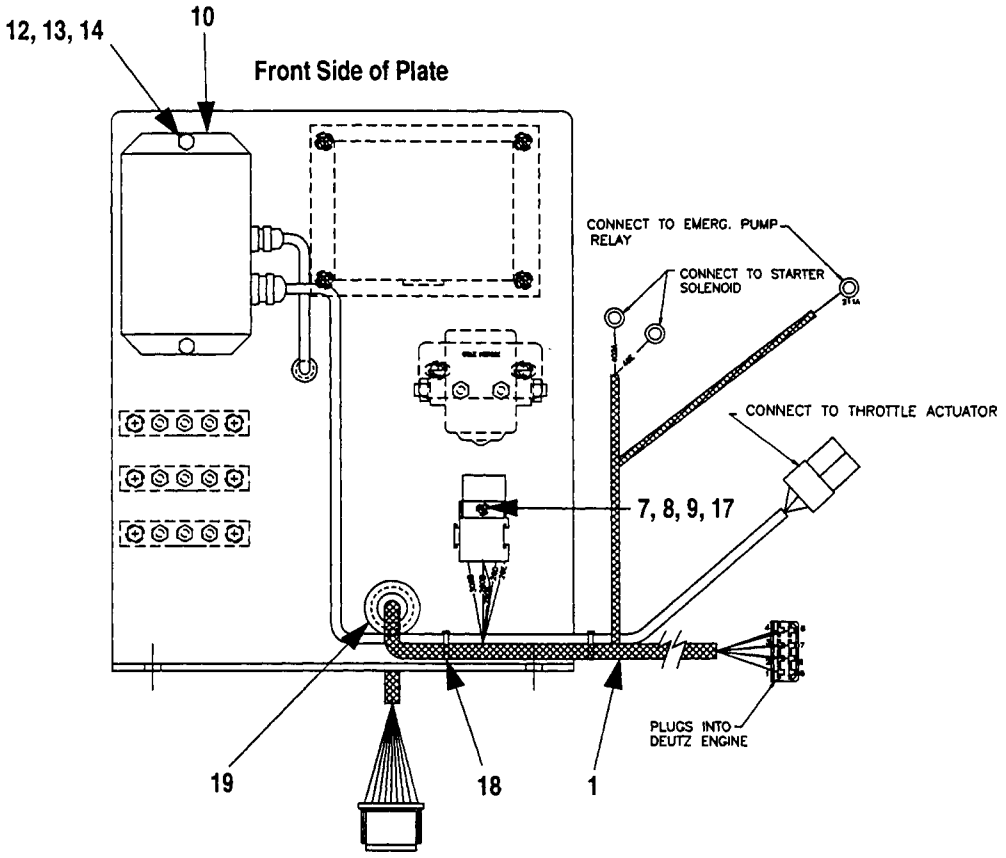
Ref.	Part No.	Description	Qty	Remarks
	212181	Fuel Tank Assembly (Deutz & Cummins Engine)	1	Incl. Items 1 thru 13
1	211929	Tank, Fuel	1	40 Gal.
2	69763	Cap	1	
3 *	69764/600732	Sender, Fuel	1	
4	69765	Tube	1	
5	1200-61	Capscrew, 3/8C x 1-1/4	4	
6	1209-89	Flatwasher	4	
7	1240-100	Clamp	4	
8	212164	Tube, .31 OD (return line)	1	
	200B2007-2	Clamp	4	
	1205-45	Locknut, 3/8	2	
	1209-4	Flatwasher, 3/8	2	
9	1219-904	Adapter, 90°	1	
10	160091-.63	Hose, .31 ID x 24" (return)	1	
11	212163	Tube, .375 OD (supply line)	1	
	1219-559	Adapter	1	
	200B2007-2	Clamp	4	
	1205-45	Locknut, 3/8	2	
	1209-4	Flatwasher, 3/8	2	
12	12301-20	Hose, .38 ID x 20" (supply)	1	
13	181830	Decal, Diesel Fuel	1	

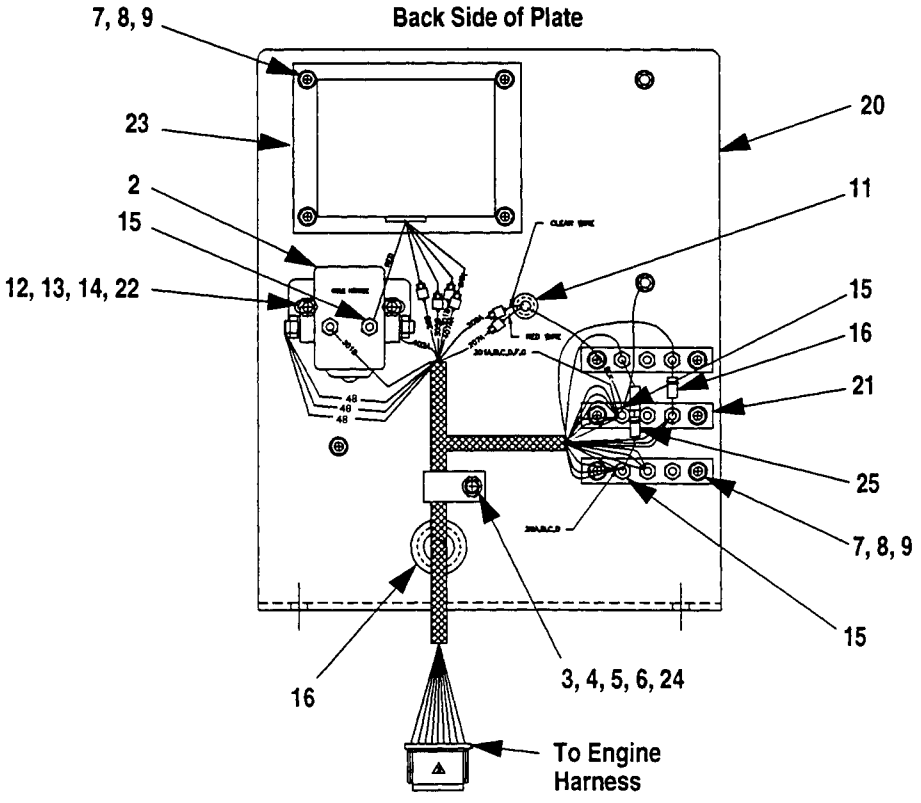


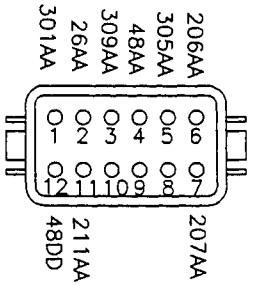
Ref.	Part No.	Description	Qty	Remarks
	212174	Battery Installation (Deutz Engine)	1	Incl. Items 1 thru 12
1	1223-824	Battery	1	
2	706 8846	Plate, Masonite, Battery Isolation	1	
3	708 2203	Hold Down, Battery	1	
4	707 4375	Rod, Battery Hold-Down	2	
5	1205-32	Locknut, 5/16C	4	
	1209-3	Flatwasher	4	
6	70835	Cable, Battery, Emergency Pump	1	
7	70836	Cable, Battery (+)	1	
8	70833	Cable, Engine Ground	1	
9	70834	Cable, Starter	1	
10	1200-366	Capscrew, M10 x 30	1	
	08531018	Lockwasher, M10	1	
11	1205-170	Nut, 3/8C Brass	1	
	1210-20	Lockwasher, 3/8	1	
12	212210	Plate, Masonite	1	

ENGINE CONTROL PANEL (DEUTZ ENGINE)

Mark Industries







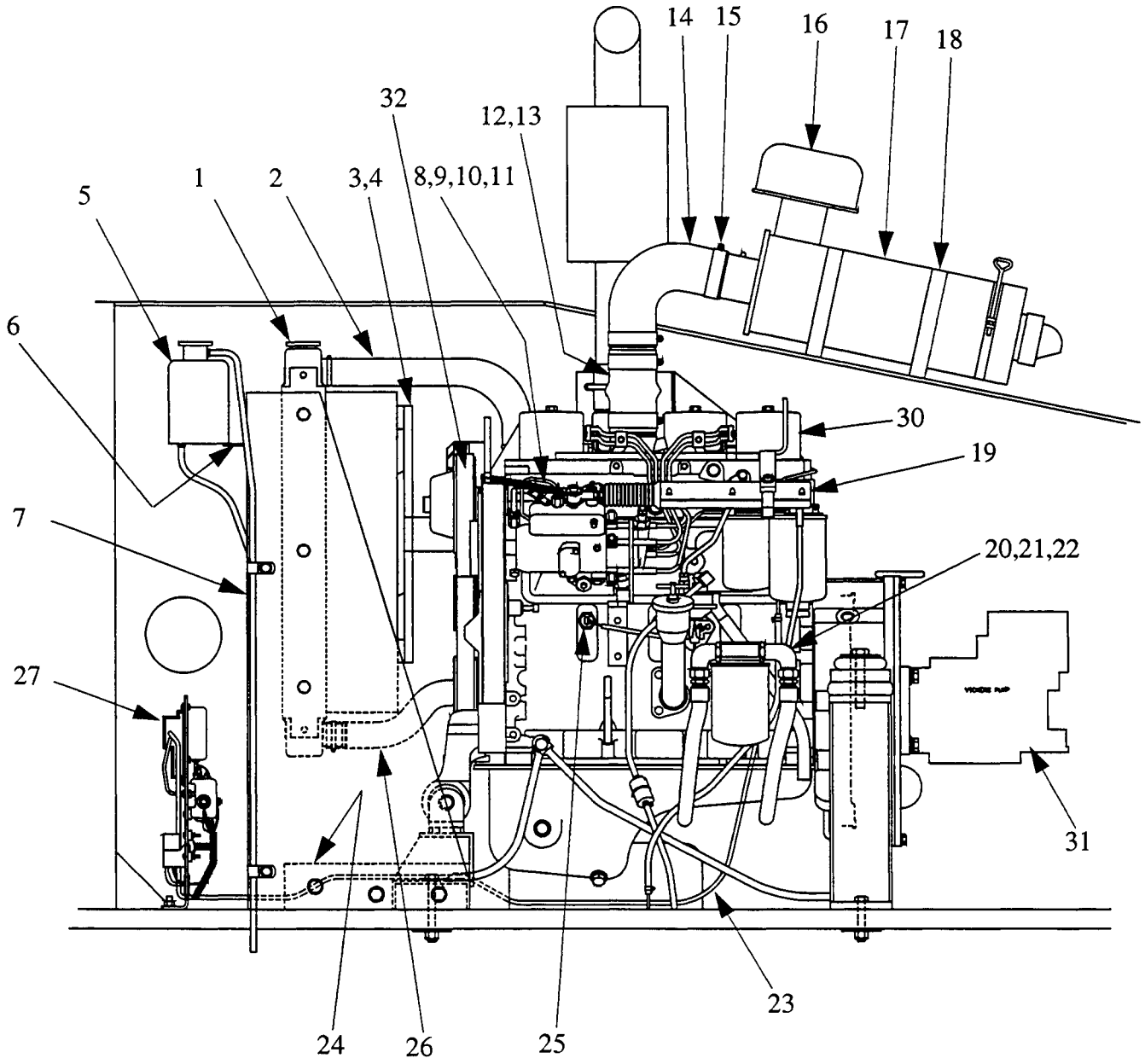
ENGINE CONTROL PANEL
(DEUTZ ENGINE)

Ref.	Part No.	Description	Qty	Remarks
	212146	Engine Control Panel Ass'y (Deutz & Cummins)	1	Incl. Items 1 thru 25
1	212159	Harness, Control Panel	1	
2	70209	Relay	1	
3	1200-57	Capscrew, 3/8C x 3/4	1	
4	1209-4	Flatwasher, 3/8	1	
5	1210-20	Lockwasher, 3/8	1	
6	1205-36	Nut, 3/8C	1	
7	1202-6	Machine Screw, #10-24 x 3/4	8	
8	1210-7	Lockwasher, #10	8	
9	1205-5	Nut, #10-24	8	
10	70830	Governor	Ref.	Part of Engine
11	1221-78	Grommet	1	
12	1202-15	Machine Screw, 1/4C x 3/4	4	
13	1210-14	Lockwasher, 1/4	4	
14	1205-13	Nut, 1/4C	4	
15	1223-428	Eyelet, #10	3	
16	70842	Diode Assembly	1	
17	441 6828	Relay	1	
18	1222-184	Tie, Cable	4	
19	1221-61	Grommet	1	
20	212161	Plate	1	
21	7099	Block, Terminal	3	
22	1209-2	Flatwasher, 1/4	3	
23	~~70793~~ 70982	Starter Lockout	1	
24	200B2007-4	Clamp, 1/2"	1	
25	70843	Diode/Resistor Assembly	1	

ENGINE (CUMMINS)

see note for horizontal muffler installation

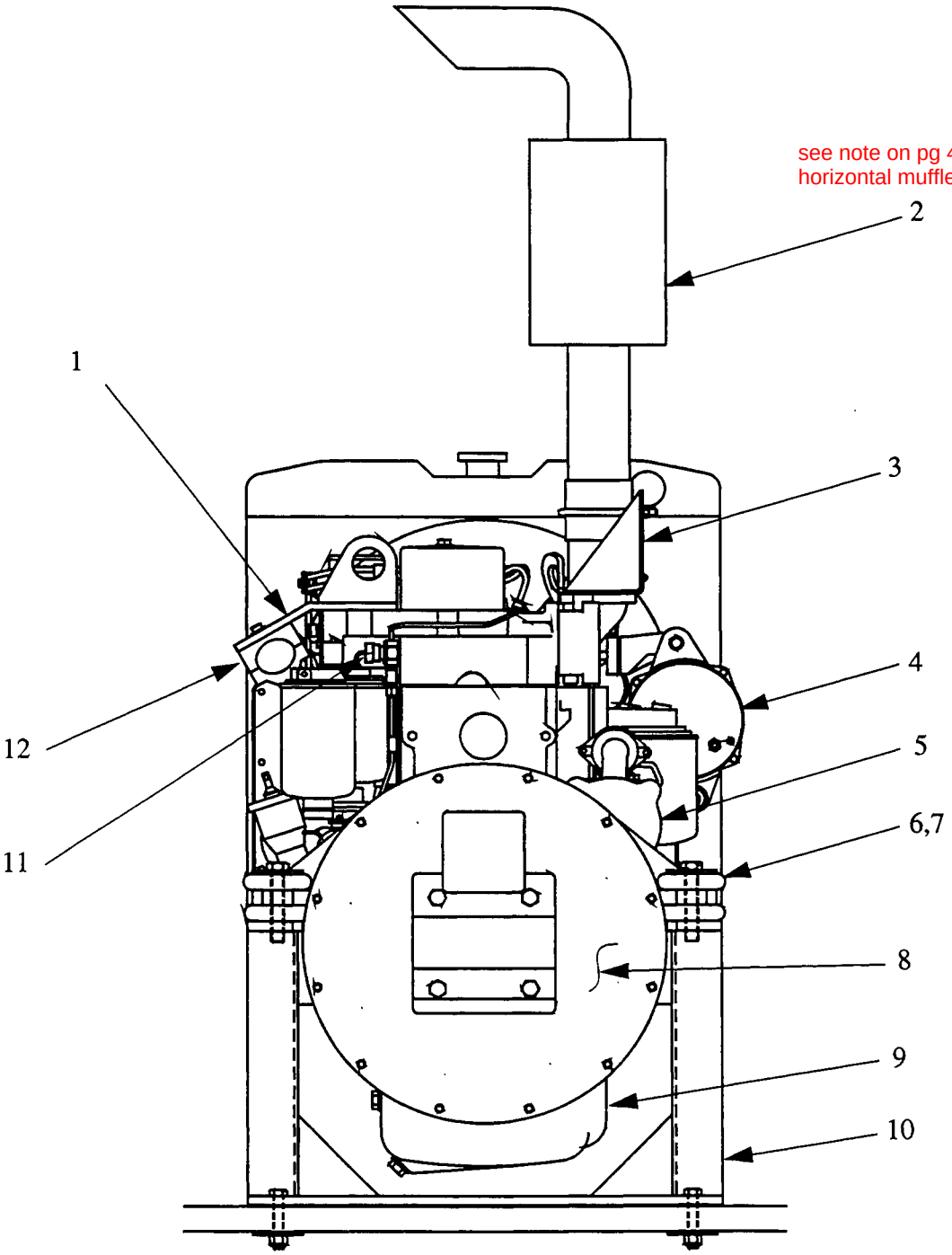
see note for radiator installation



Ref.	Part No.	Description	Qty	Remarks
	212452	Engine Assembly, Cummins	REF.	Incl. 1-32 & 1-12 pg. 4.31
1	69290	Radiator	1	
2	69310	Upper Radiator Hose	1	
3	69299	Fan Guard	1	
4	69300	Fan	1	
	69312	Capscrew	4	
5	69780	Recovery Tank	1	
6	69291	Recovery Tank Bracket	1	
7	69298	Radiator Bracket	2	
8	69301	Rod End	1	
9	69302	Boot Kit	1	
10	6422	Spring	1	
11	8903	Spring Hook	1	
12	709 1310	Tube	1	
13	1243-125	Hump Hose	1	
14	1243-67	Elbow	1	
15	1240-216	Clamp	4	
16	1243-27	Stack Cap	1	
17	709 1304	Air Cleaner	1	
	207537	Filter	1	
	207541	Valve	1	
18	1243-32	Mounting Band	2	
19	70829	Actuator	1	
20	69293	Filter	1	
21	69294	Filter Kit	1	
22	69295	Bracket	1	
23	70922	Switch Harness	2	
24	69296	Front Mount	1	
25	70920	Oil Pressure Switch	1	
26	69311	Lower Radiator Hose	1	
27	70830	Controller	1	
28	69098	Manual, Cummins (Not Shown)	1	
29	69292	Engine Oil Cooler (Not Shown)	1	
30	212843	Engine	1	See Cummins for Parts & Service
31	81526	Pump	1	
32	69364	Fan Belt	1	

ENGINE (CUMMINS)

Mark Industries



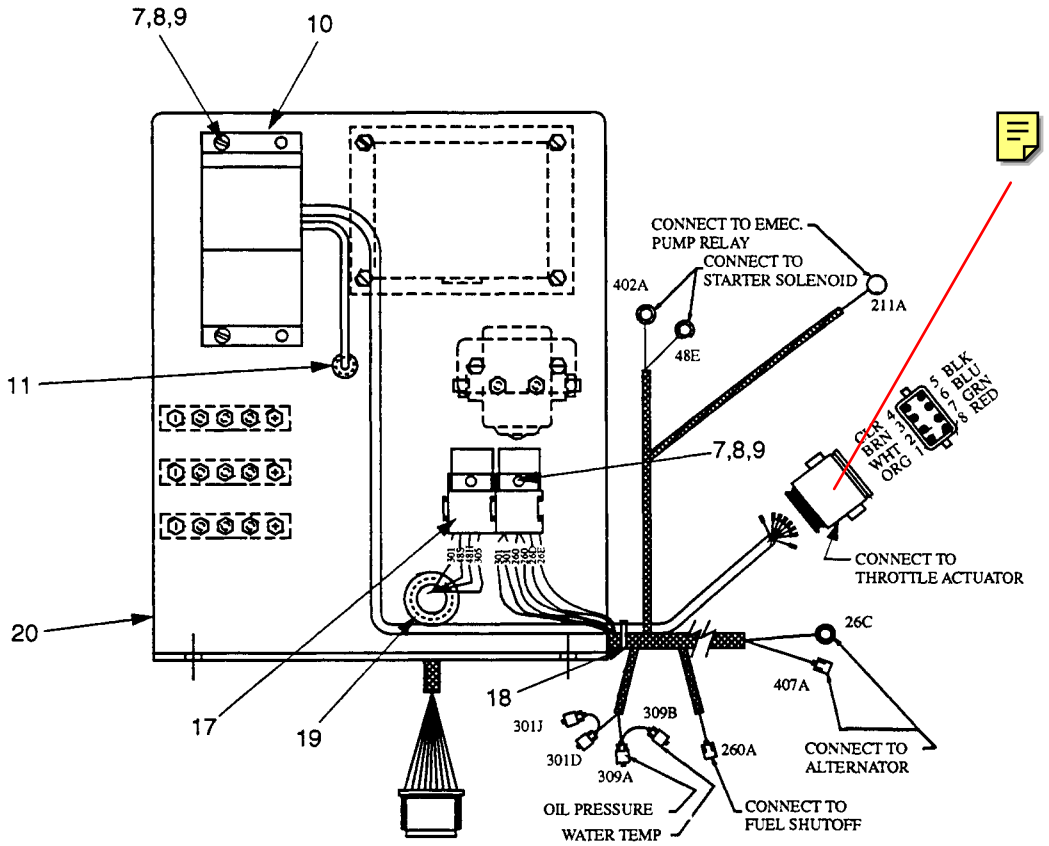
Ref.	Part No.	Description	Qty	Remarks
1	69309	Throttle Bracket	1	
2	69304	Spark Arrestor Assembly	1	
3	69305	Exhaust Bracket	1	
4	69289	Alternator	1	
5	69288	Starter	1	
6	69308	Variation Mount	2	
7	69313	Washer	2	
8	69099	Pump Drive	1	
9	69307	Engine	1	See Cummins for Parts
10	60297	Rear Mount	1	
11	70921	Water Temp. Switch	1	
12	69303	Clamp Kit	1	

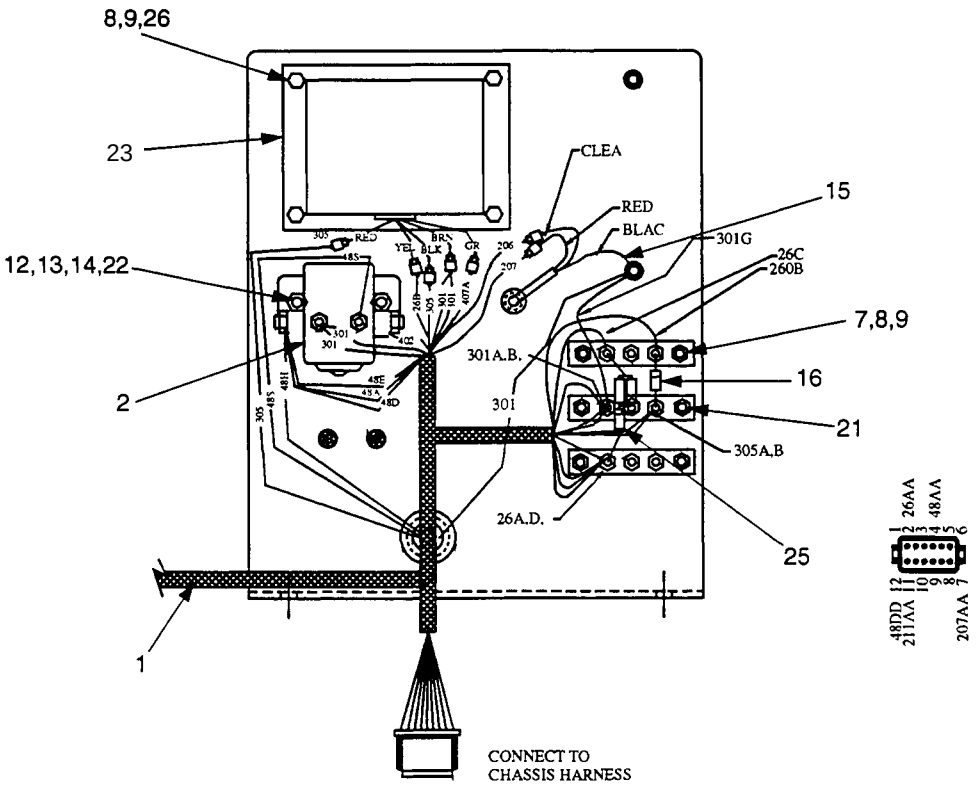
Model CH60C
CH66C

Issued 5-96

ENGINE CONTROL PANEL
(CUMMINS ENGINE)

Mark Industries



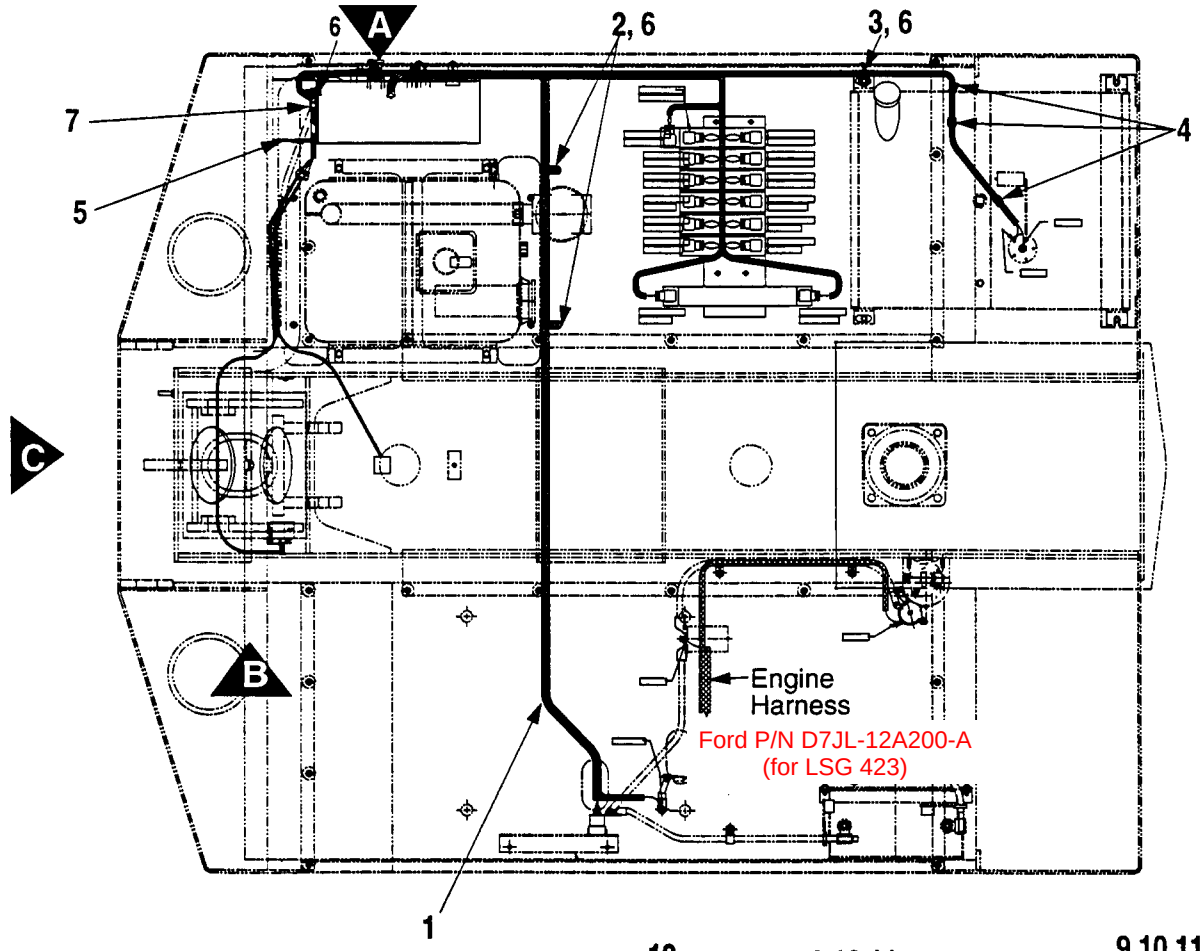


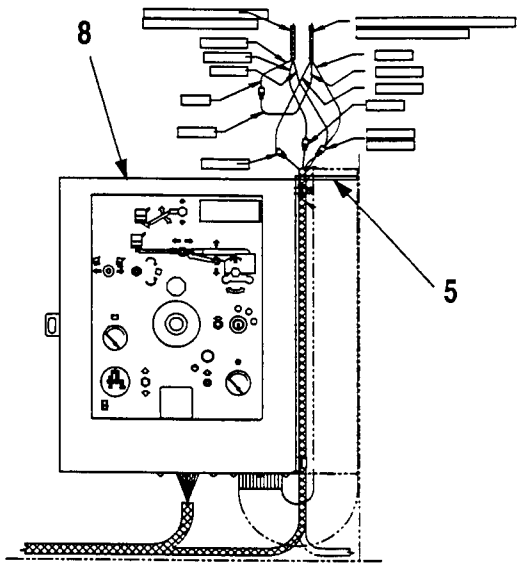
ENGINE CONTROL PANEL
(CUMMINS ENGINE)

Ref.	Part No.	Description	Qty	Remarks
	212807	Engine Control Panel Ass'y (Cummins)	1	Incl. Items 1 thru 25
1	212805	Harness, Control Panel	1	
2	70209	Relay	1	
3	70915	Connector, Plug	1	
4	70916	Wedge, Locking	1	
5	70807	Contact Socket	8	
7	1202-6	Machine Screw, #10-24 x 3/4	10	
8	1210-7	Lockwasher, #10	14	
9	1205-5	Nut, #10-24	14	
10	70830	Governor	Ref.	Part of Engine
11	1221-78	Grommet	1	
12	1202-1	Machine Screw, 1/4C x 3/4	4	
13	1210-14	Lockwasher, 1/4	4	
14	1205-13	Nut, 1/4C	4	
15	1223-428	Eyelet, #10	3	
16	70842	Diode Assembly	1	
17	441 6828	Relay	1	
18	1222-184	Tie, Cable	4	
19	1221-61	Grommet	1	
20	212161	Plate	1	
21	7099	Block, Terminal	3	
22	1209-2	Flatwasher, 1/4	3	
23	~~70923~~ 70982	Starter Lockout	1	
25	70843	Diode/Resistor Assembly	1	
26	1202-4	Machine Screw, #10-24 x .50	4	

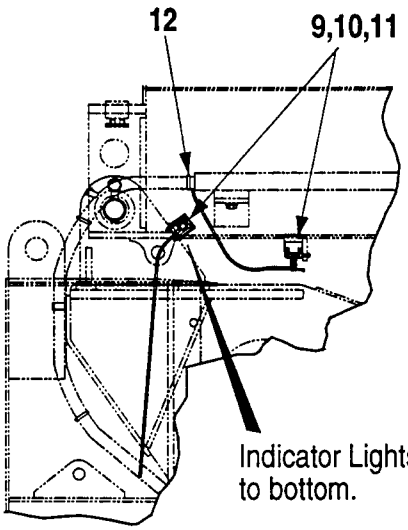
TURRET WIRING

Mark Industries

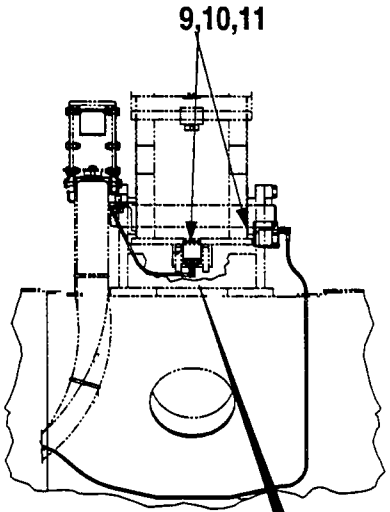




VIEW A



VIEW B



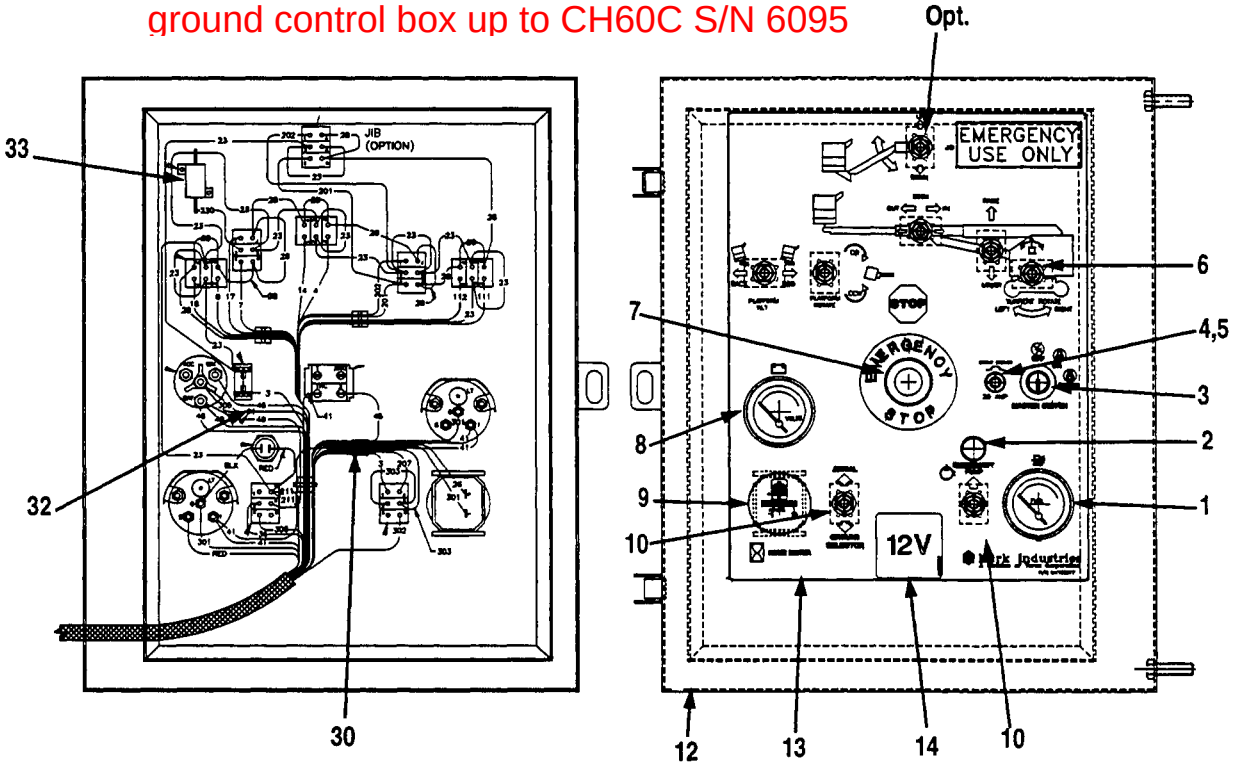
VEW C

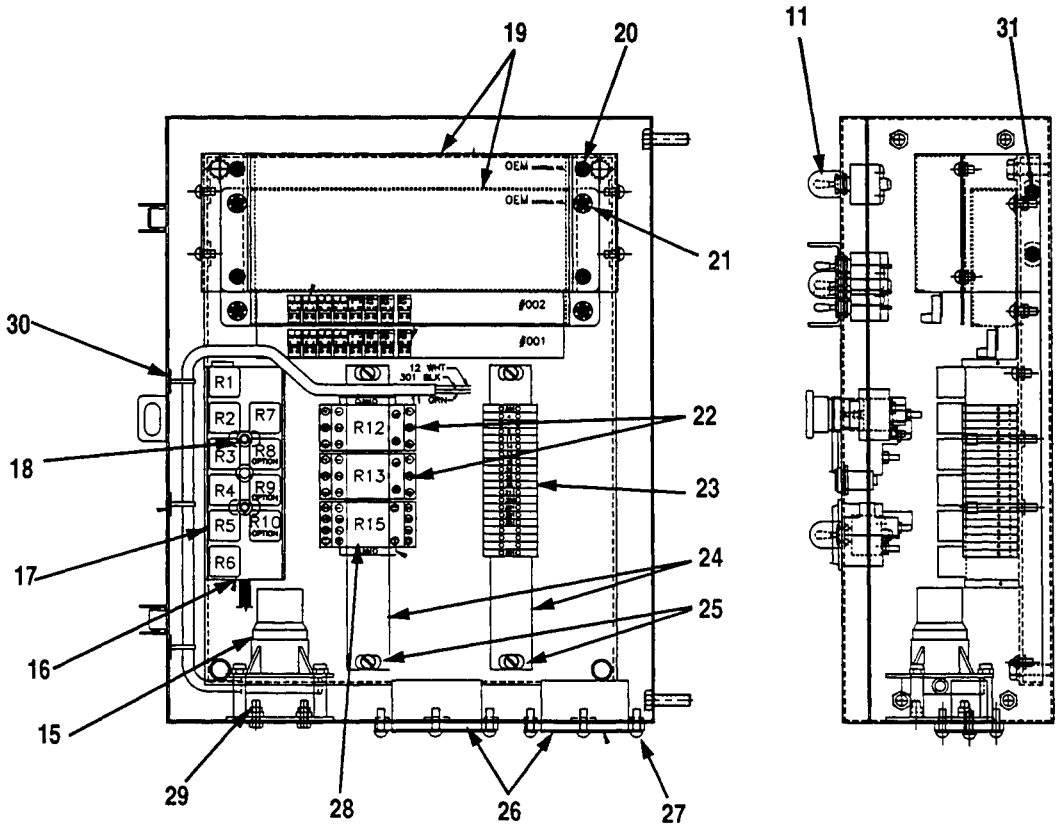
Ref.	Part No.	Description	Qty	Remarks
	212131	Turret Wiring Assembly	1	Incl. Items 1 thru 12
1	212539	Wire Harness, Turret	1	
2	200B2007-6	Clamp, 3/4"	2	
3	200B2007-4	Clamp, 1/2"	1	
4	16214	Pad, Tie	3	
	256	Tie, Cable	3	
5	12177-4	Trim, Flexible	1	
6	1205-36	Nut, 3/8C	7	
	1210-20	Lockwasher, 3/8	7	
	1209-4	Flatwasher, 3/8	7	
7	200B2007-56	Clamp, Double, 1/2"	2	
8	211983	Ground Control Box Ass'y	1	See Page 4.36
9	441 6834	Switch, Proximity	2	
10	441 6835	Cable w/Connector	2	
11	310 1507	Capscrew, #10-24C x 2 Socket Head	4	
	331 1000	Flatwasher, #10	4	
	340 1504	Locknut, #10-24C	4	
12	1222-202	Tie, Plastic	3	

GROUND CONTROL BOX

Mark Industries

ground control box up to CH60C S/N 6095





GROUND CONTROL BOX

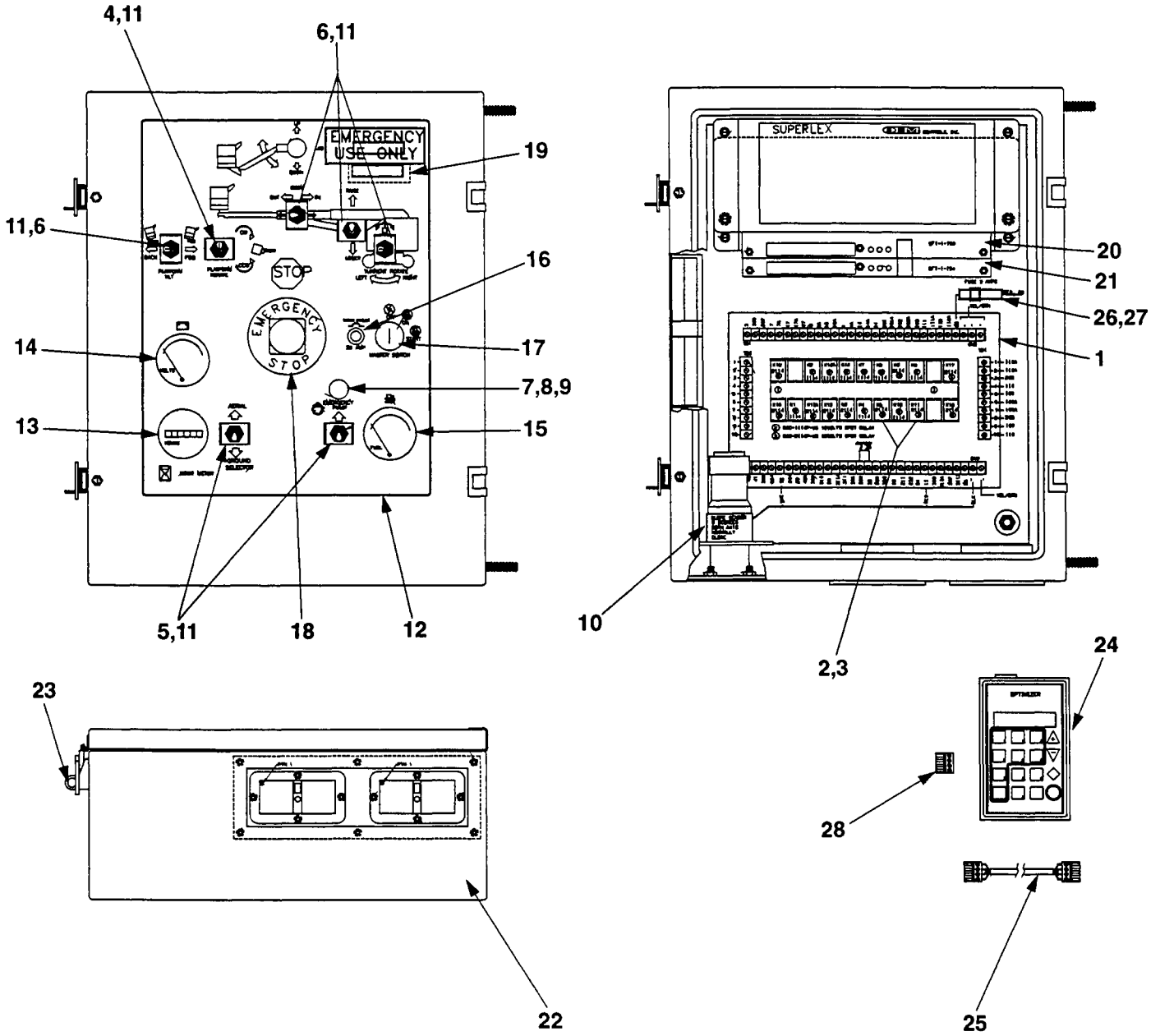
Model CH60C CH66C
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Ref.	Part No.	Description	Qty	Remarks
	211983	Ground Control Box Assembly (Mark)	1	Incl. Items 1 thru 33
1	21219	Gauge, Fuel	1	
2	70781	Light, Indicator	1	
3	2717	Switch, Ignition	1	
	66961	Key, For Above	1	
4	441 4026	Circuit Breaker, 20 Amp	1	
5	442 2399	Boot, Circuit Breaker	1	
6	20481	Switch, Toggle	5	
7	70645	Switch, Emergency	1	
8	420 2852	Voltmeter	1	
9	20571	Hourmeter	1	
10	441 6827	Switch, Toggle	2	
11	70783	Guard, Switch	7	
12	70790	Enclosure	1	
13	182817	Decal, Control	1	
14	180724	Decal, 12V	1	
15	441 6836	Sensor, Slope	1	
16	441 6829	Base, Relay	1	
17	441 6828	Relay	6	
	70814	Connector	24	
18	1203-166	Capscrew, 1/4C x 2 Socket Head	2	
19	70826	Controller - Drive/Boom Extend	1	Part of 70775 Kit
	70827	Controller - Boom Raise/Turret Rotate	1	Part of 70775 Kit
20	1202-4	Machine Screw, #10-24 x 1/2	4	
	1210-7	Lockwasher, #10	4	
21	1202-6	Machine Screw, #10-24 x 3/4	4	
	1209-1	Flatwasher	4	
	1210-7	Lockwasher	4	
	1205-5	Nut, #10	4	
22	441 6831	Relay	2	
	441 6832	Spring, Retainer	2	
	441 6833	Base	2	
23	441 6839	Block, Terminal (Gray)	15	
	441 6840	Block, Terminal (Y/G)	7	
24	70580	Rail, Low Profile (20" lg.)	1	
25	1202-4	Machine Screw, #10-24 x 1/2	8	
26	70803	Connector, Receptacle	2	
	70792	Base		
27	1233-10	Machine Screw, #8-32 x 3/4	8	
	1210-5	Lockwasher, #8	8	
28	70791	Relay	1	
	441 6832	Spring, Retainer	1	
	70792	Base	1	
29	1205-23	Locknut, 1/4C	4	
30	256	Tie, Plastic	35	
	16214	Pad, Tie	7	
31	1202-4	Machine Screw, #10-24 x 1/2	4	
	1210-14	Lockwasher, 1/4	4	
32	70479	Diode	5	
33	70828	Resistor	1	

GROUND CONTROL BOX

Mark Industries

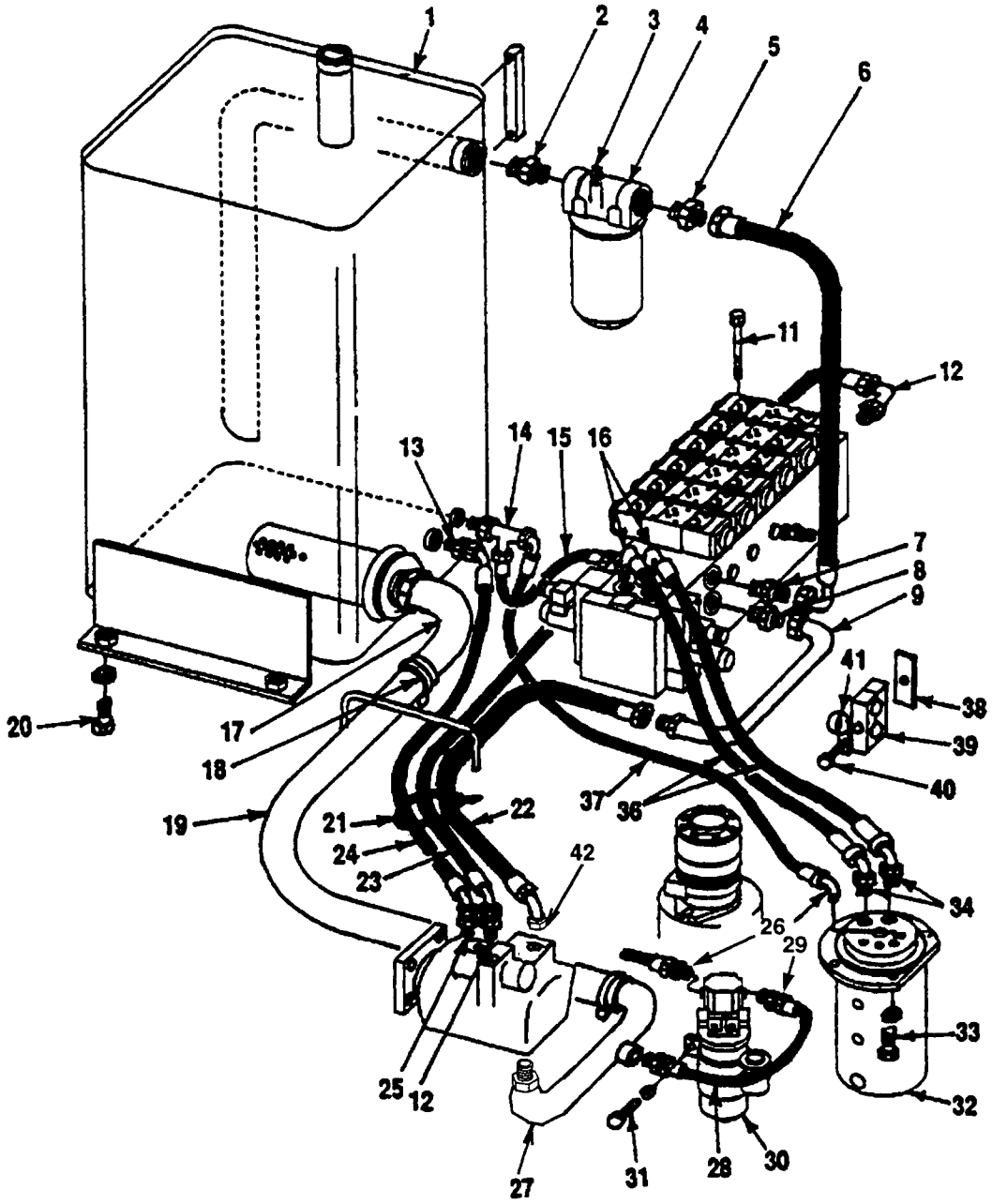
see P/N 213009 for control box with SF4 & "updated" PCB



Ref.	Part No.	Description	Qty	Remarks
	211983	Ground Control Box Ass'y (OEM)	Ref.	Incl. Items 1 thru 28
1	69156	Relay Card w/Relays	1	
2	69256	Relay (K3,K5,K9,K11,K12,K12A, K15,K16,K17,K18)	10	
3	69257	Relay (K1,K2,K4,K6,K7,K8,K10,K13,K13A)	9	
4	69164	Switch	1	
5	69163	Switch	2	
6	69232	Switch	4	
7	69144	Lamp Base	1	
8	69254	Bulb	1	
9	69143	Lens	1	
10	441 6836	Slope Sensor	1	
11	70783	Switch Guard	7	
12	182817	Decal	1	
13	20571	Hour Meter	1	
14	69258	Volt Meter	1	
15	69259	Fuel Gauge	1	
16	69172	Circuit Breaker	1	
17	2717	Ignition Key Switch	1	
18	69166	Emergency Stop Switch	1	
19	69260	Resistor	1	
20	70827	Controller Board	1	
21	70826	Controller Board	1	
22	69261	Enclosure	1	
23	69262	Latch	1	
24	69263	Optimizer	1	
25	70841	Optimizer Cable	1	
26	69264	Fuse Holder	1	
27	69265	Fuse (3 Amp)	1	
28	69266	Connector	1	

TURRET HYDRAULICS

Mark Industries

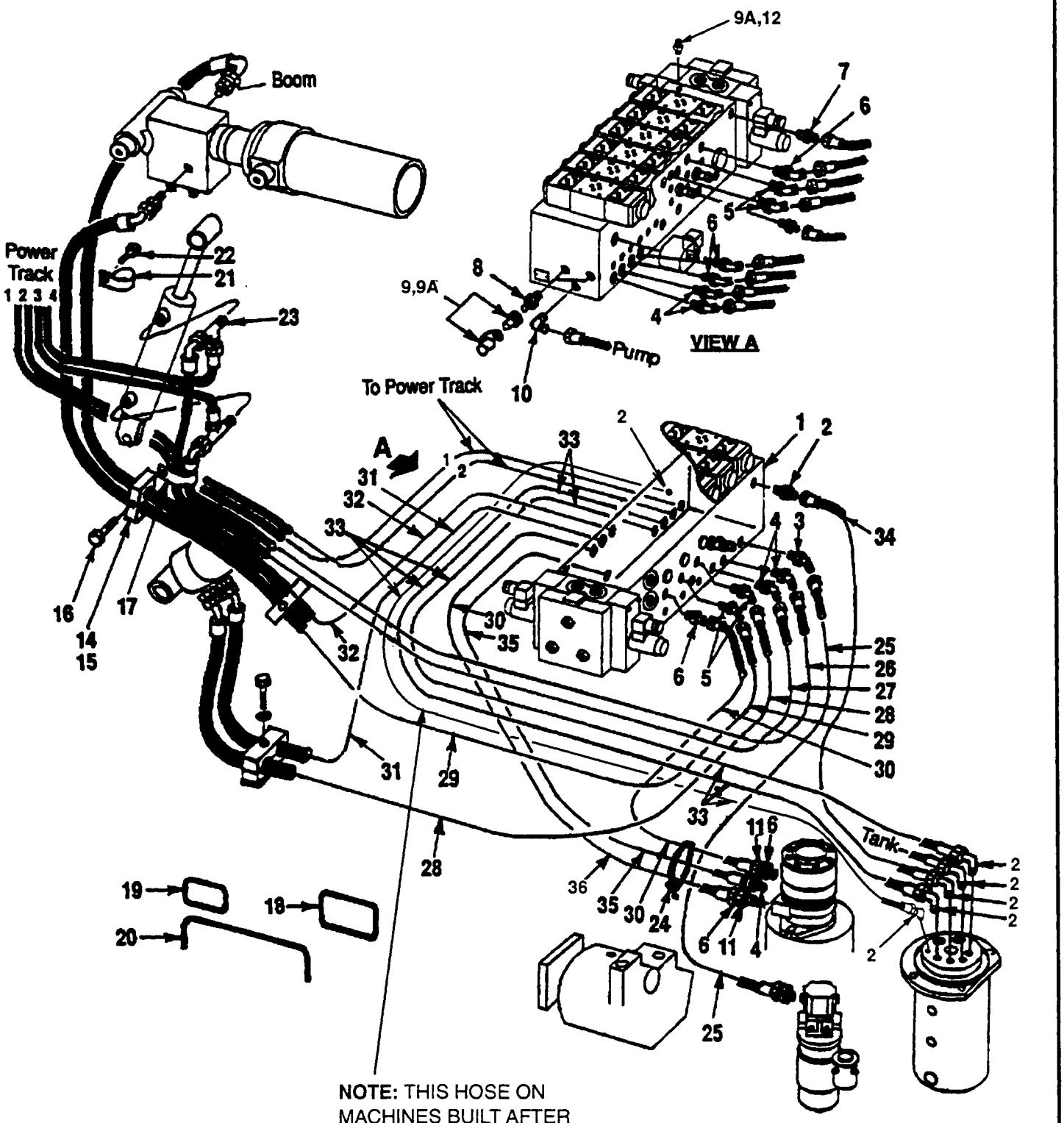


Ref.	Part No.	Description	Qty	Remarks
	212043	Turret Hydraulic Ass'y (Ford & Deutz)	1	Incl. All Items Pages 4.40-4.45
	212825	Turret Hydraulic Ass'y (Cummins)	1	Incl. All Items Pages 4.40-4.45
1	212012	Hydraulic Tank	1	See Page 4.44
2	3624006	Adapter	1	
3	81448	Filter	1	See Page 4.44
4	430 3022	Drain Cock	1	
5	12019-153	Adapter	1	
6	709 5097-39	Hose	1	

Ref.	Part No.	Description	Qty	Remarks
7	1219-386	Adapter	1	
8	1219-282	Adapter	1	
9	707 4525	Tube	1	
11	316 2346	Capscrew, 3/8C x	4	
	1209-89	Flatwasher	4	
	1205-194	Locknut, 3/8C	4	
12	1219-776	Adapter	2	
13	12019-447	Adapter	7	
14	1219-693	Tee	1	
15	212097-15	Hose	1	
16	1219-389	Adapter	2	
17	363 0411	Beaded Insert	1	
18	378 0301	Clamp	2	
19	12368-58	Hose	1	
20	1200-100	Capscrew	4	
	1209-6	Flatwasher	4	
21	1222-202	Tie, Plastic	7	
22	212929-67	Hose (With 81442 Pump)	1	
	81548	Hose (With 81526 Pump)	1	
23	212091-95	Hose	1	
24	212095-64	Hose	1	
25	1219-442	Adapter	1	
26	1219-605	Adapter	2	
27	81535	Tube (Tube W/81526 Pump)	1	
	212065	Tube (Ford W/81442 Pump)	1	
	212140	Tube (Deutz W/81442 Pump)	1	
	212549	Tube (Cummins W/81442 Pump)	1	
28	212096-63	Hose	1	
29	1219-620	Adapter	2	
30	81505	Pump, Emergency	1	See Page 4.53
31	1200-59	Capscrew	2	
	1209-46	Flatwasher	2	
	1209-89	Flatwasher, 3/8"	2	
32	81530	Rotary Manifold (After March 96)	1	See Page 4.64
	81495	Rotary Manifold (Prior to March 96)	1	See Page 4.62
33	1200-33	Capscrew	4	
	1209-46	Flatwasher	4	
34	1219-663	Adapter	2	
36	212062-39	Hose	2	
37	212097-61	Hose	1	
38	1240-155	Plate, Cover	1	
39	365 0215	Clamp Half	2	
40	200B2007-11	Clamp	1	
41	1200-51	Capscrew	1	
	1209-24	Flatwasher	1	
	340 2113	Locknut	1	
42	1219-555	Adapter	1	

UPPER HYDRAULICS

Mark Industries



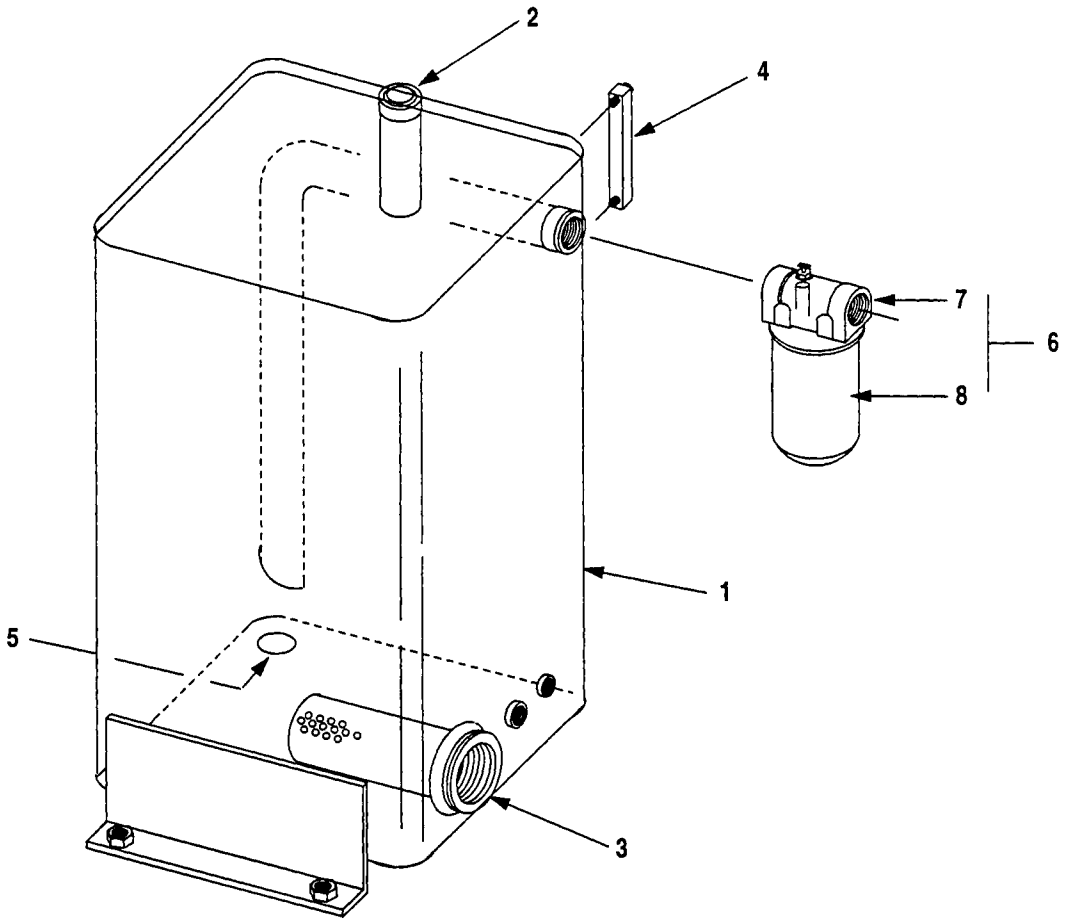
Ref.	Part No.	Description	Qty	Remarks
1	81516	Valve (After Jan 1996)	1	See Page 4.54
	81443	Valve (Prior to Jan 1996)	1	See Page 4.56
2	1219-959	Adapter	7	
3	1219-982	Adapter	1	
4	80018-03	Adapter	7	
5	12019-447	Adapter	7	
6	12019-205	Adapter	6	
7	1219-605	Adapter	1	
8	375 5201	Adapter	1	
9	12019-557	Coupling	2	
9A	12019-558	Cap, Dust	2	
10	1219-776	Adapter	2	
11	375 0701	Adapter	2	
12	375 0400	Coupling	1	
14	1240-213	Clamp, Half	6	
15	1240-154	Plate, Cover	3	
16	1200-39	Capscrew	3	
17	200B2007-9	Clamp	2	
18	12169-25	Trimloc, 3/8 x 25"	1	
19	12169-17	Trimloc, 3/8" x 17"	1	
20	12182-20	Trimloc, 1/4" x 20"	2	
21	200B2007-15	Clamp	1	
22	1205-194	Locknut, 3/8C	1	
	1209-4	Flatwasher, 3/8	1	
23	12019-427	Tee	2	
24	1222-184	Tie, Plastic	3	
25	212091-77	Hose	1	
26	212059-82	Hose	1	
27	212059-104	Hose	1	
28	212092-76	Hose	1	
29	212930-112	Hose	1	
30	212059-33	Hose	1	
31	212092-61	Hose	1	
32	212930-93	Hose	1	
33	212060-66	Hose	3	
34	212059-64	Hose	1	
35	212059-36	Hose	1	
36	212059-38	Hose	1	

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HYDRAULIC RESERVOIR & FILTER

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
1	212012	Hydraulic Tank, Complete	1	Incl. Items 2 thru 5
2	69766	Cap, Fill/Breather	1	
3	69767	Strainer, Suction	1	
4	69768	Gauge, Sight	1	
5	69769	Magnetic Plug w/O-Ring	1	
	69770	O-Ring	1	
6	81448	Filter, Complete	1	Incl. Items 7 & 8
7	69620	Head	1	
8	69621	Cartridge, Spin-On	1	



O-RINGS FOR SAE ADAPTERS

O-RING PART NO.	SAE SIZE (-) 16ths Inch	FOR TUBE OD
1218-282, 460 0080	-4	1/4
1218-283	-5	5/16
1218-284, 460 0885	-6	3/8
1218-285, 460 0886	-8	1/2
1218-286, 460 0079	-10	5/8
1218-290, 460 0887	-12	3/4
1218-292, 460 0888	-14	7/8
1218-287, 460 0163	-16	1
1218-288, 460 0133	-20	1-1/4
1218-289, 460 0889	-24	1-1/2
1218-293, 460 0890	-32	2



SPLIT FLANGE CLAMPS

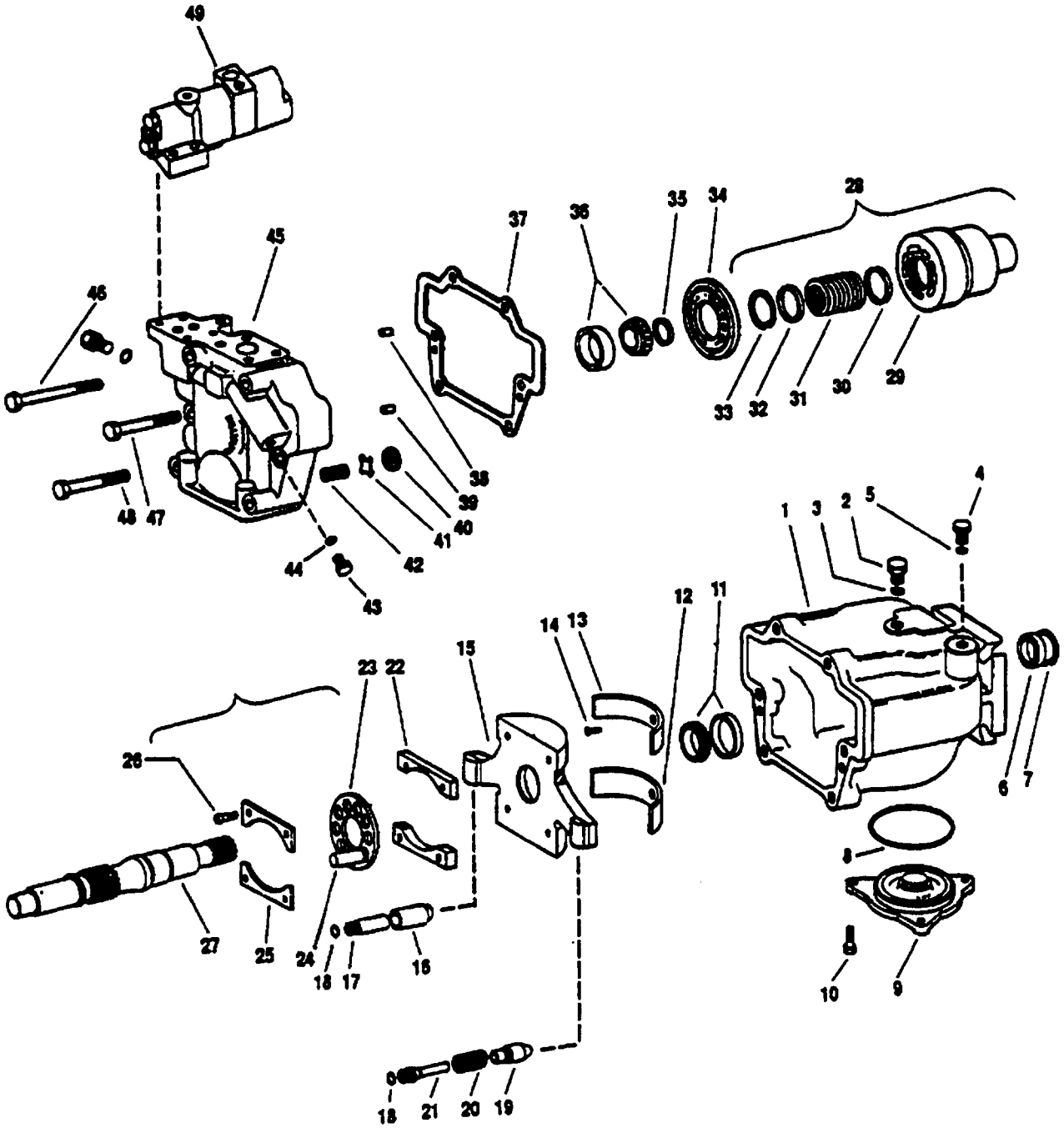
Ref.	Part No.	Description	Qty	Remarks
	1219-665	Split Flange Clamp	2	For 1" OD Tube
	460 4112	Seal	1	
	1200-61	Capscrew	4	
	1210-20	Lockwasher	4	

Model CH60C
CH66C

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MAIN PUMP
(PRIOR TO JAN 1996)

Mark Industries

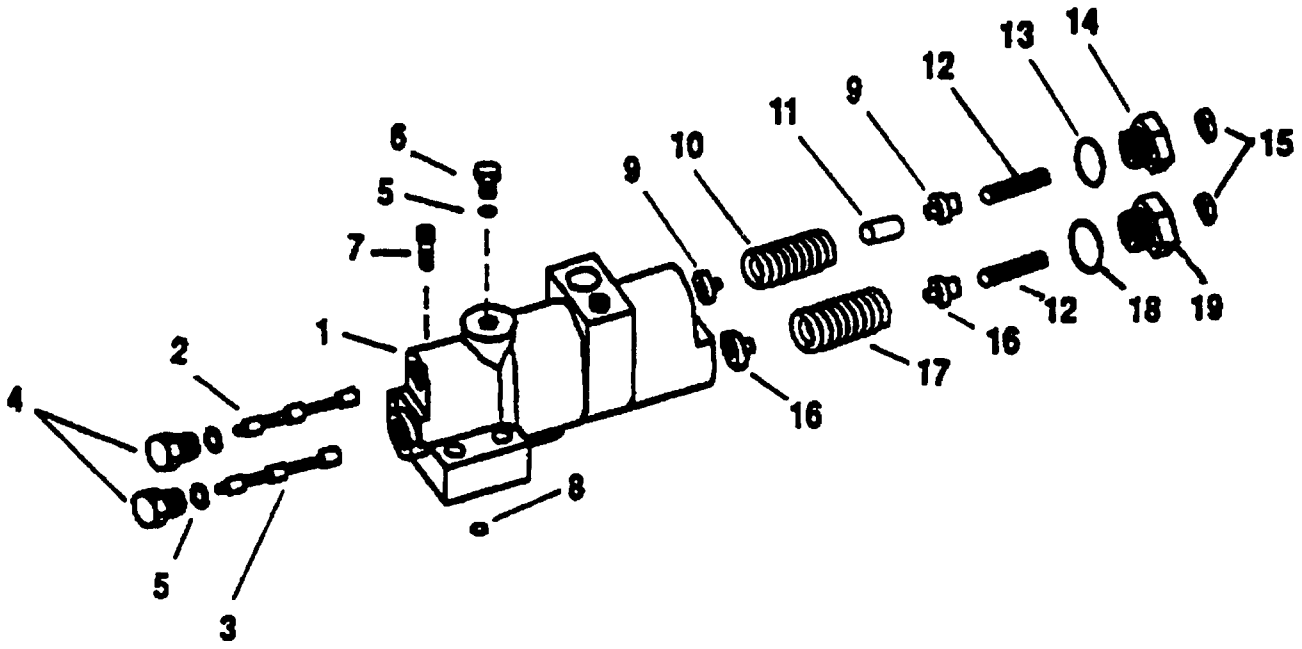


Ref.	Part No.	Description	Qty	Remarks
	81442	Pump, Complete	1	Incl. Items 1 thru 49
	69501	Kit, Seal	1	Incl. Items marked *
	69502	Kit, Bearing	1	Incl. Items marked ^
	69521	Kit, Rotating Group	1	Incl. Items marked +
1	N.S.S.	Housing	1	
2	69503	Plug	1	
3	69504	O-Ring	1	*
4	69505	Plug	1	
5	69506	O-Ring	1	*
6	69507	Shaft Seal	2	
7	69508	Retaining Ring	2	
8	69509	O-Ring	1	*
9	69510	Cover	1	
10	69511	Screw	3	
11		Bearing	1	^
12		Saddle Bearing	1	^
13		Saddle Bearing	1	^
14		Screw	1	^
15	69512	Yoke	1	
16	69513	Control Piston	1	
17	69514	Control Rod	1	
18	69515	O-Ring	2	*
19	69516	Bias Piston	1	
20	69517	Spring	1	
21	69518	Bias Rod	1	
22	69519	Spacer	2	
23		Shoe Cage	1	+
24		Piston Kit	1	+
25		Limiter	2	+
26		Screw	4	+
27	69520	Shaft	1	
28		Rotating Group	1	+ See Kit Above
29		Cylinder Block	1	+
30		Spring Guide	1	+
31		Spring	1	+
32		Spring Guide	1	+
33		Retaining Ring	1	+
34	69522	Valve Plate	1	
35	69523	Shaft Spacer Kit	1	
36		Bearing	1	^
37	69524	Gasket	1	*
38	69525	Pin	2	
39	69526	Pin	1	
40	69527	Seat	1	
41	69528	Poppet	1	
42	69529	Spring	1	
43	69530	Plug	2	
44	69531	O-Ring	2	*
45	69532	Valve Block	1	
46	69533	Capscrew	1	
47	69534	Capscrew	1	
48	69535	Capscrew	4	
49	69536	Load Sensing & Pressure Compensator Control	1	See Page 4.48

MAIN PUMP CONTROL

(PRIOR TO JAN 1996)

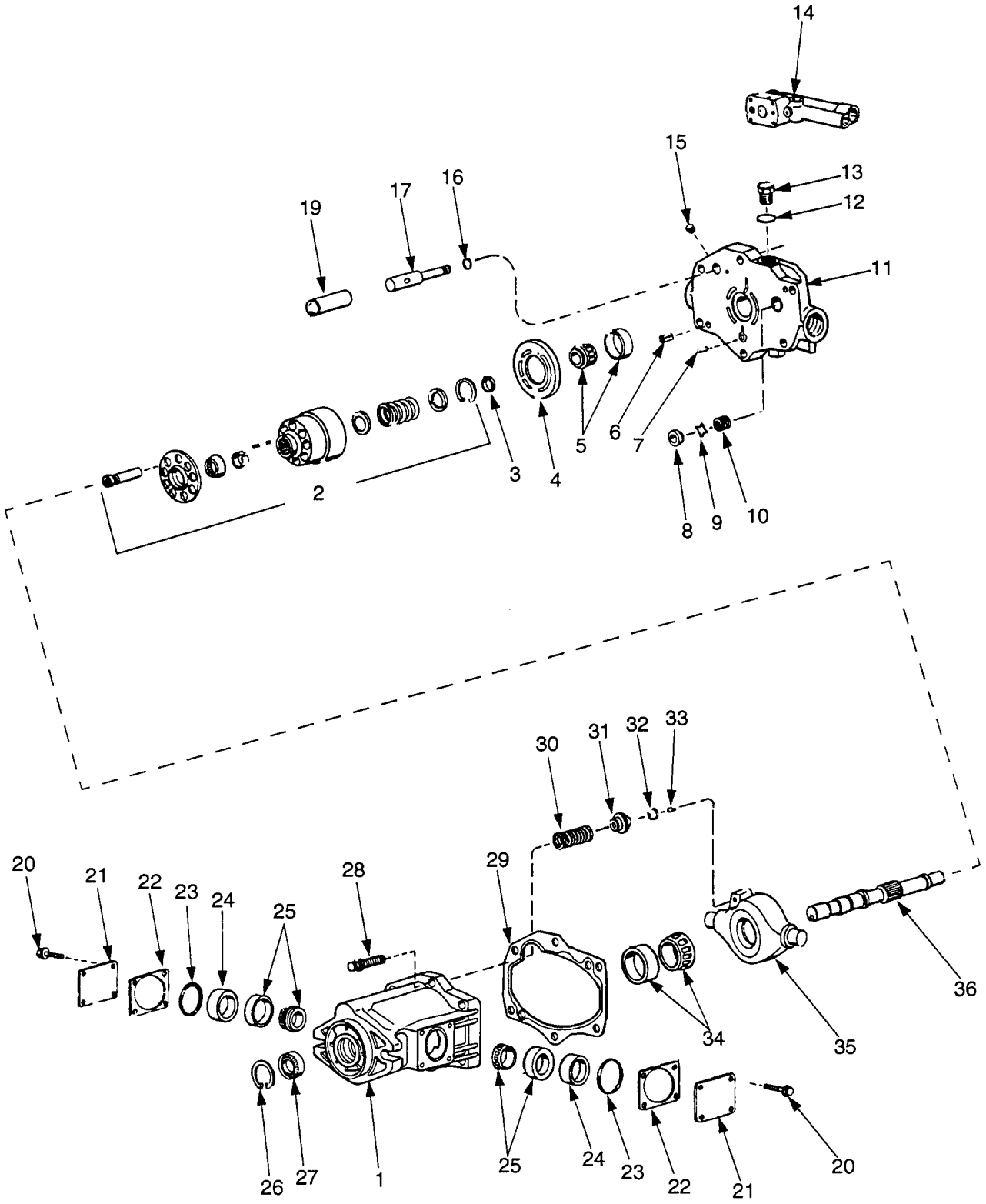
Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	69536	Load Sense & Pressure Compensator Control	1	Incl. Items 1 thru 19
				Items w/Asterisk * Included
1	N.S.S.	Body	1	in Seal Kit on Page 4.47
2	69538	Load Sense Spool	1	
3	69539	Pressure Limiter Spool	1	
4	69540	Plug	2	
5	69541	O-Ring	3	*
6	69542	Plug	1	
7	69543	Capscrew	4	
8	69544	O-Ring	3	*
9	69545	Spring Guide	2	
10	69546	Spring	1	
11	69547	Pin Spring Stop	1	
12	69548	Adjusting Screw	2	
13	69549	O-Ring	1	*
14	69550	Plug	1	
15	69551	Nut	2	
16	69552	Spring Guide	2	
17	69553	Control Spring	1	
18	69554	O-Ring	1	*
19	69555	Plug	1	

MAIN PUMP
(AFTER JAN 1996)

Mark Industries



MAIN PUMP
(AFTER JAN 1996)

Model CH60C CH66C

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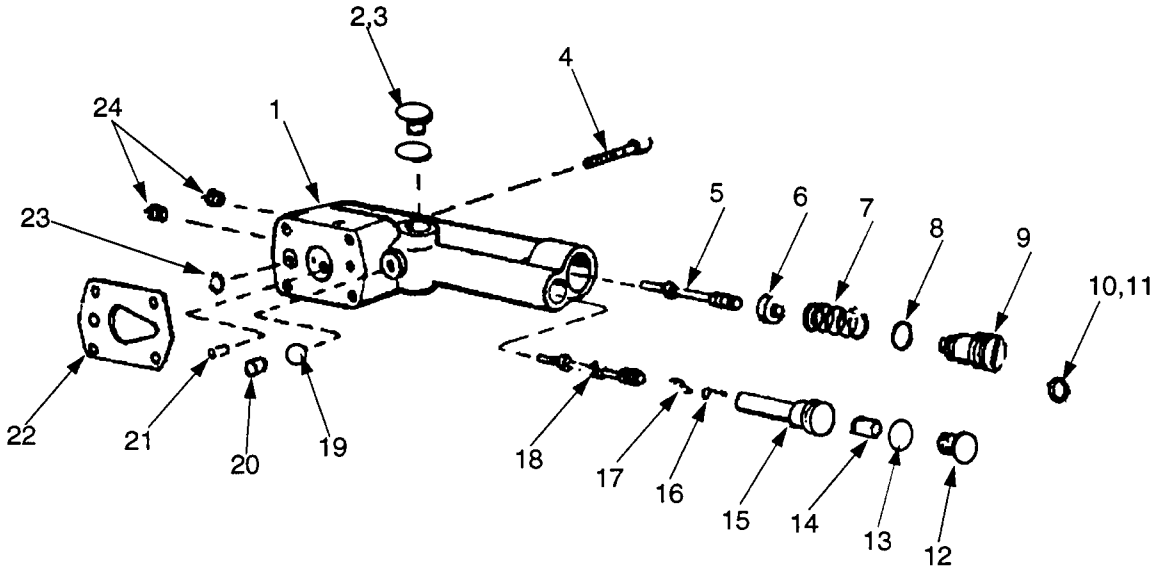
Ref.	Part No.	Description	Qty	Remarks
	81526	Pump, Complete	1	Incl. Items 1 thru 36
	600772	Kit, Seal	1	Incl. Items marked *
1	N.S.S.	Housing	1	
2	600773	Kit, Rotating Group	1	
3	600774	Spacer	1	
4	600775	Waffer Plate	1	
5	600776	Bearing	1	
6	600777	Pin	2	
7	600778	Pin	1	
8	600779	Seat	1	
9	600780	Valve	1	
10	600781	Spring	1	
11	N.S.S.	Cover	1	
12	*	O-Ring	1	*
13	600782	Plug	1	
14	600655	Compensator	1	See Page 4.52
15	600783	Plug	1	
16	*	O-Ring	1	
17	600784	Rod	1	
19	600786	Piston	1	
20	600787	Screw	8	
21	600788	Cover	2	
22	600789	Shim Kit	2	
23	*	O-Ring	2	
24	600790	Spacer	2	
25	600791	Bearing	2	
26	600792	Retaining Ring	1	
27	*	Seal	1	
28	600793	Screw	6	
29	*	Gasket	1	
30	600794	Spring	1	
31	600795	Seat	1	
32	600796	Seat	1	
33	600797	Roll Pin	1	
34	600798	Bearing	1	
35	600799	Yoke	1	
36	600800	Shaft	1	

Model CH60C
CH66C

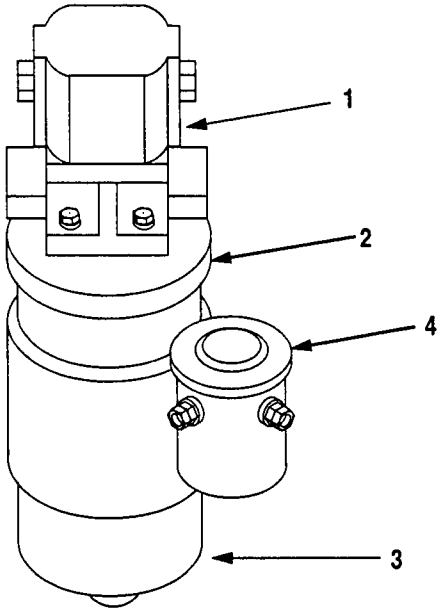
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MAIN PUMP CONTROL
(AFTER JAN 1996)

Mark Industries



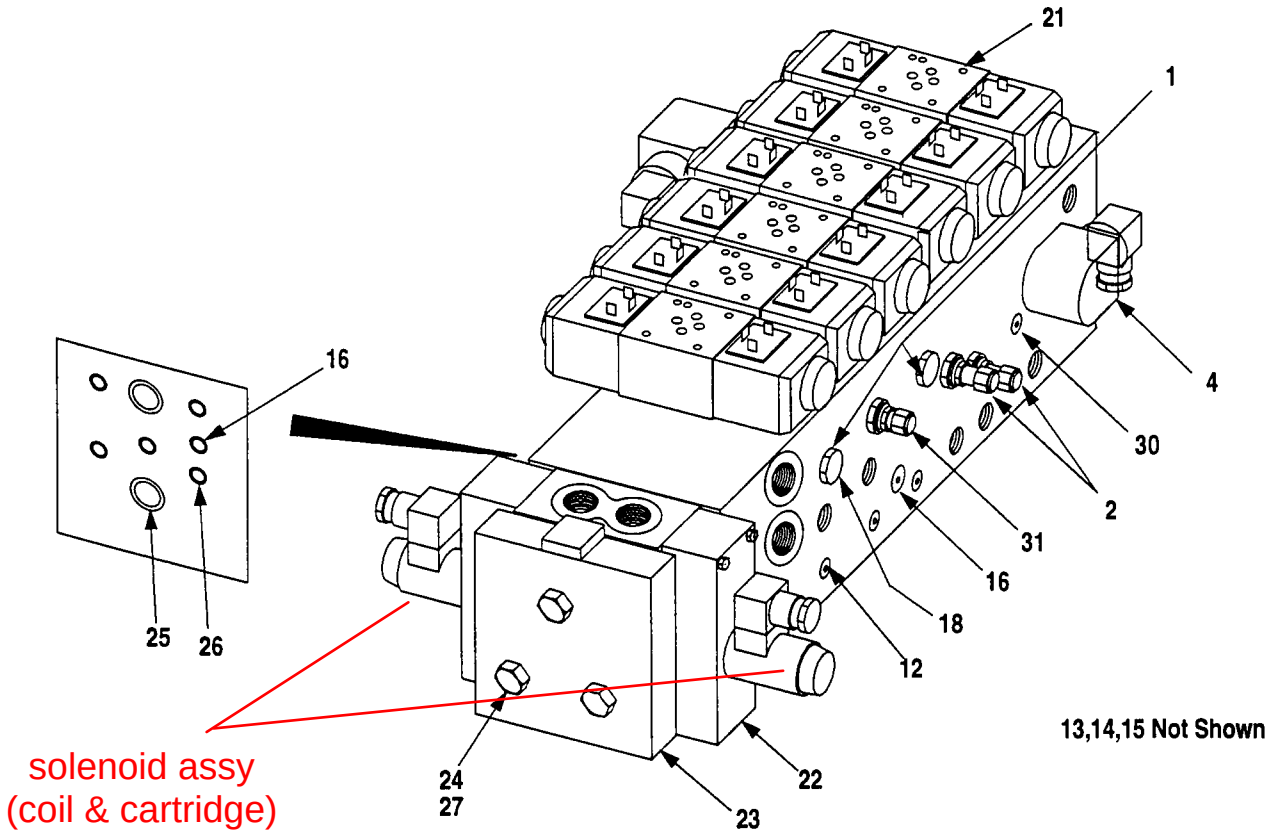
Ref.	Part No.	Description	Qty	Remarks
	600655	Load Sense & Pressure Compensator Control	1	Incl. Items 1 thru 19
1	NSS	Body	1	Items w/Asterisk * Included in Seal Kit on Page 4.51.
2	600801	Plug	1	
3	*	O-Ring	1	*
4	600802	Screw	4	
5	600803	Spool	1	
6	600804	Seat	1	
7	600805	Spring	1	
8	*	O-Ring	1	*
9	600818	Plug	1	
10	600806	Seal	1	
11	600807	Lockwire	1	
12	600808	Plug	1	
13	*	O-Ring	1	*
14	600809	Set Screw	1	
15	600810	Seat	2	
16	600822	Spring	2	
17	600812	Seat	1	
18	600813	Spool	1	
19	600814	Plug	1	
20	600815	Plug	1	
21	600816	Check Valve	1	
22	*	Gasket	1	*
23	*	O-Ring	1	*
24	600817	Plug	2	

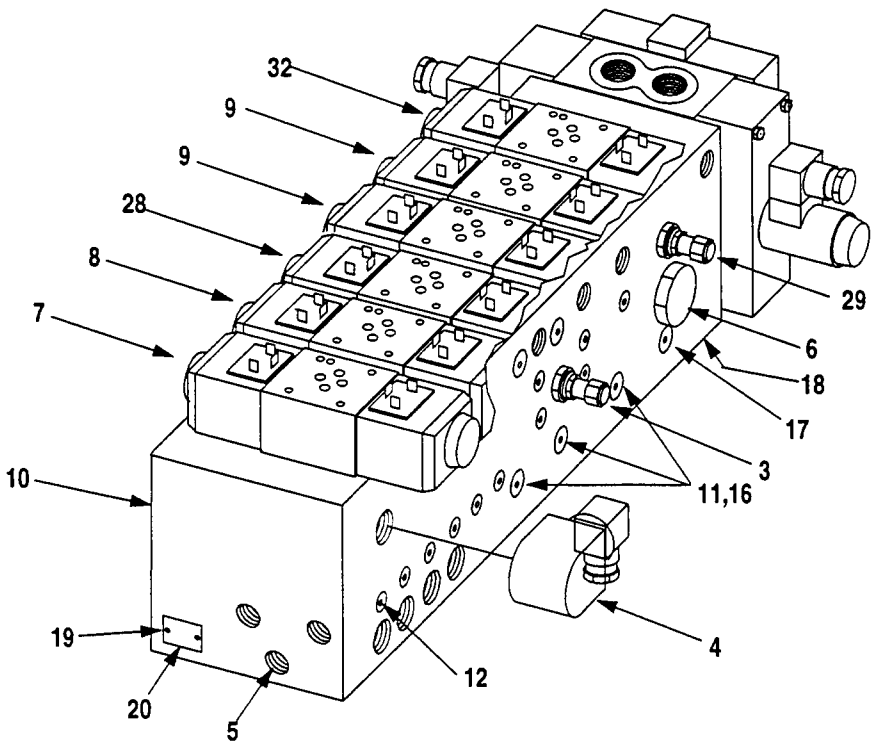


Ref.	Part No.	Description	Qty	Remarks
	81505	Emergency Pump / Motor Complete	1	Incl. Items 1 Thru 3
1	69045	Pump	1	
2	68129	Plate, Adapter	1	
3	66780	Motor	1	
4	68510	Relay	1	

MAIN VALVE
(AFTER JANUARY, 1996)

Mark Industries



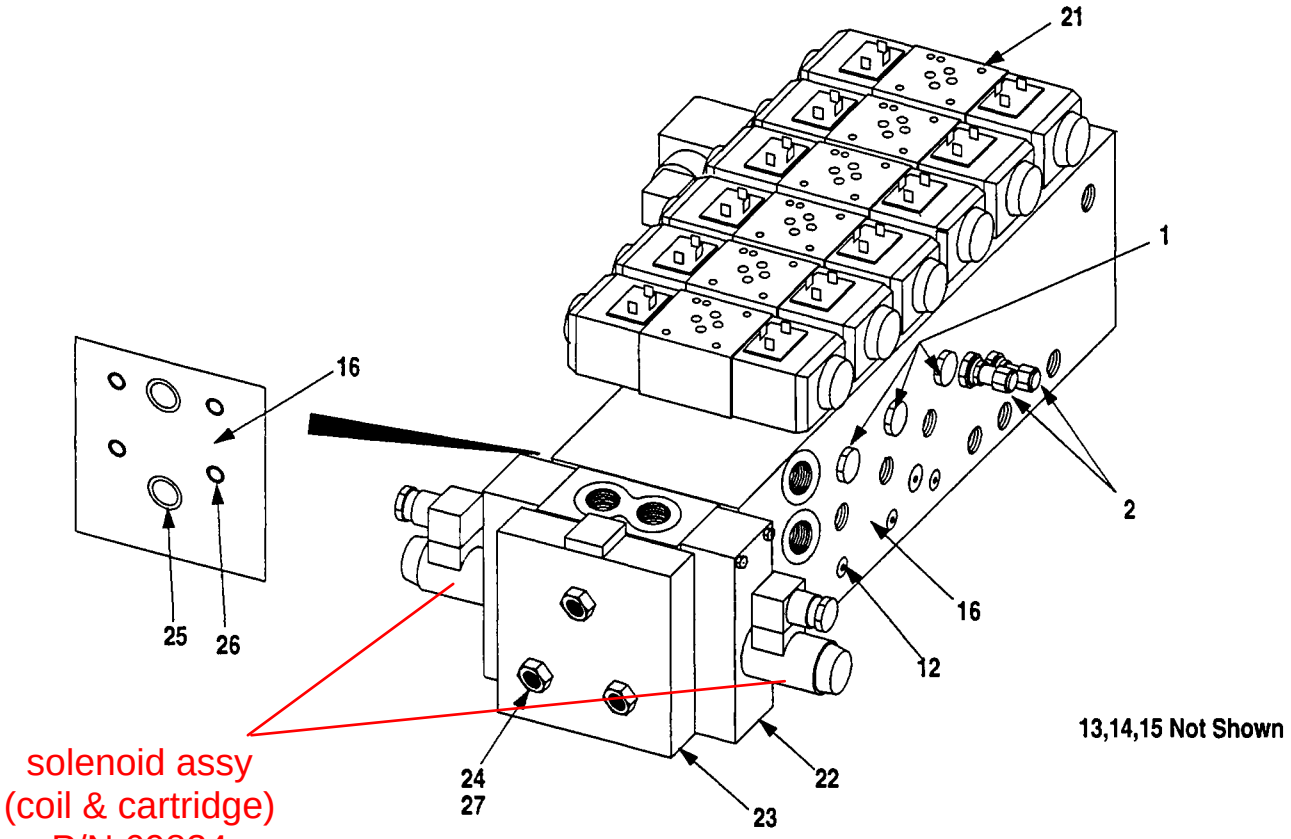


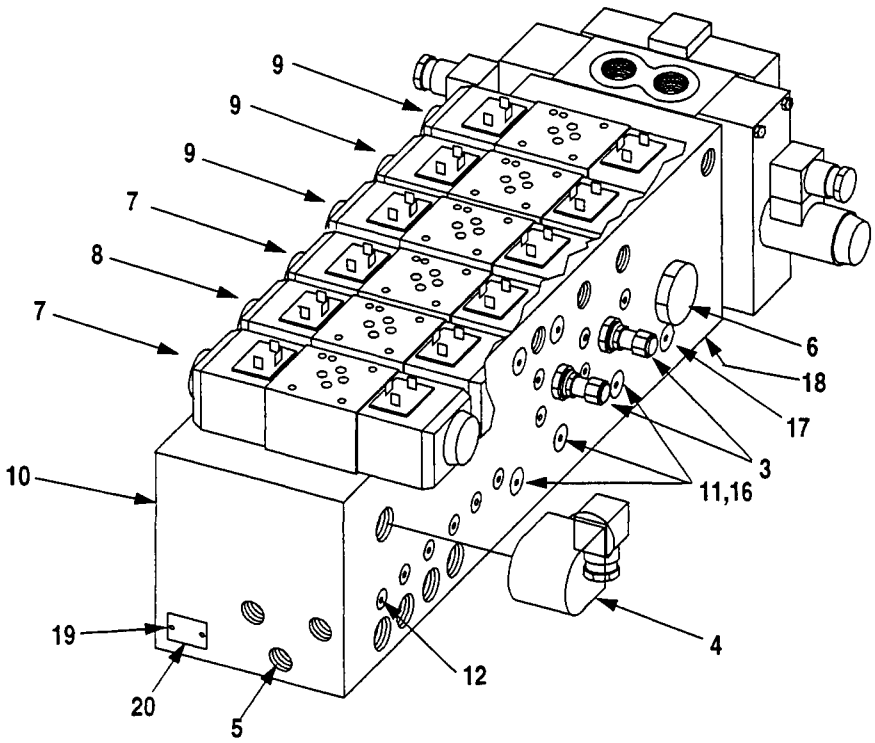
MAIN VALVE
(AFTER JANUARY, 1996)

Ref.	Part No.	Description	Qty	Remarks
	81516	Main Valve, Complete	1	Incl. Items 1 thru 27
1	69556	Valve, Differential Pressure Sensing	2	
2	600823	Valve, Counterbalance	2	
3	600824	Valve, Relief	1	
4	69559	Valve, Solenoid	2	
5	69560	Plug, Orifice, .020	1	
6	69561	Valve, Check	1	
7	600825	Valve, Solenoid	1	
8	600826	Valve, Solenoid	1	
9	600827	Valve, Solenoid	2	
	69565	Coil only - For Items 7,8,9	AR	
10	600828	Manifold	1	
11	69567	Plug, Orifice, .031	3	
12	69568	Check, Sensing	15	
13	69569	Plug, Expander (Under Valves #9 & 32)	3	
14	69570	Plug, Expander	52	
15	69571	Plug, Expander (Bottom Side)	1	
16	NSS	Plug	11	SAE -6
17	NSS	Plug	10	SAE -8
18	600828	Orifice Disc	1	
19	NSS	Rivet	2	
20	NSS	Nameplate	1	
21	69572	Kit, Bolt	6	
22	600829	Valve, Solenoid	1	
23	69574	Cover	1	
24	600830	Capscrew	3	
25	69576	O-Ring	2	
26	69577	O-Ring	5	
27	600831	Lockwasher	3	
28	600832	Valve, Solenoid	1	
29	600833	Shuttle Valve	1	
30	NSS	Plug	4	SAE -4
31	600834	Diff. Pressure Sensing Valve	1	
32	600835	Valve, Solenoid	1	

MAIN VALVE
(PRIOR TO JANUARY, 1996)

Mark Industries

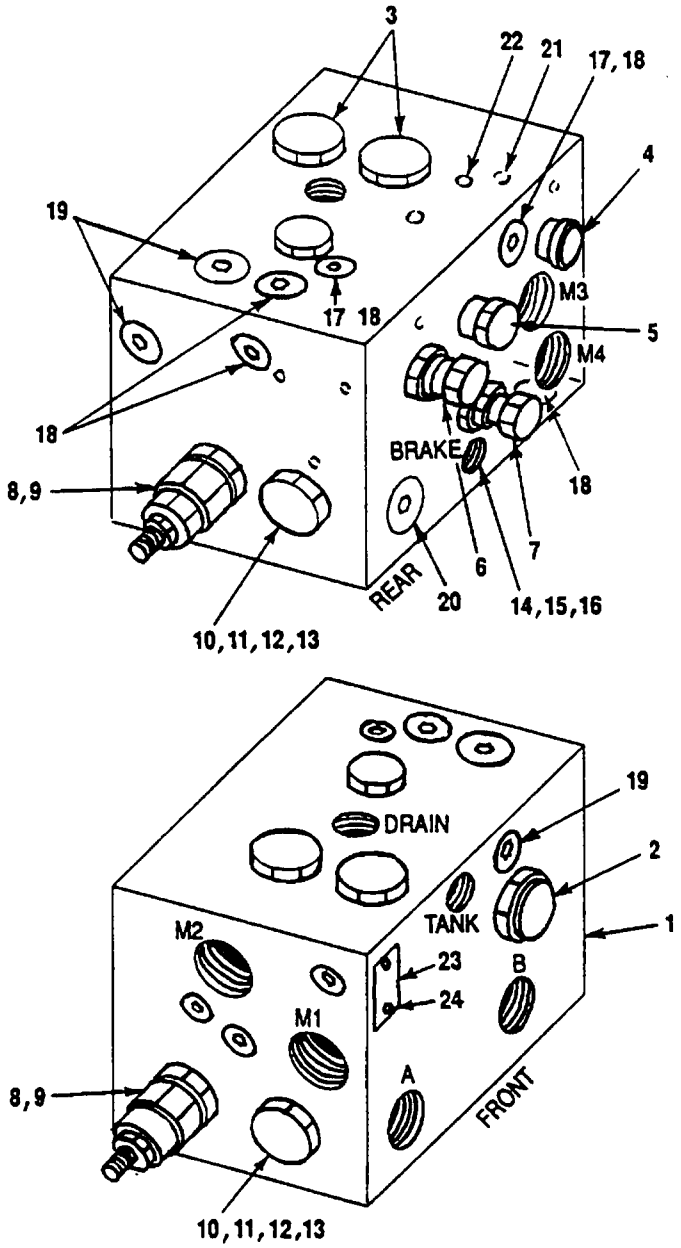




Ref.	Part No.	Description	Qty	Remarks
	81443	Main Valve, Complete	1	Incl. Items 1 thru 27
1	69556	Valve, Differential Pressure Sensing	3	
2	~~69557~~ N.L.A.	Valve, Counterbalance	2	
3	69558	Valve, Relief	2	
4	69559	Valve, Solenoid	1	
5	69560	Plug, Orifice, .020	1	
6	69561	Valve, Check	1	
7	69562	Valve, Solenoid (Platform Level & Rotate)	2	
8	69563	Valve, Solenoid (Steering)	1	
9	69564	Valve, Solenoid	3	
		(Turret Rotate, Boom Extend Retract, Boom Lift)		
	69565	Coil only - For Items 7,8,9	AR	
10	69566	Manifold	1	
11	69567	Plug, Orifice, .031	3	
12	69568	Check, Sensing	15	
13	69569	Plug, Expander	3	
14	69570	Plug, Expander	52	
15	69571	Plug, Expander	1	
16		Plug	11	SAE -6
17		Plug	10	SAE -8
18		Plug	1	SAE -10
19		Rivet	2	
20		Nameplate	1	
21	69572	Kit, Bolt	6	
22	69573	Valve, Solenoid (Drive)	1	
	69834	Coil only	2	
23	69574	Cover	1	
24	69575	Rod, Tie	3	
25	69576	O-Ring	2	
26	69577	O-Ring	5	
27	69578	Nut	3	

FUNCTION VALVE
(4-WHEEL DRIVE)

Mark Industries



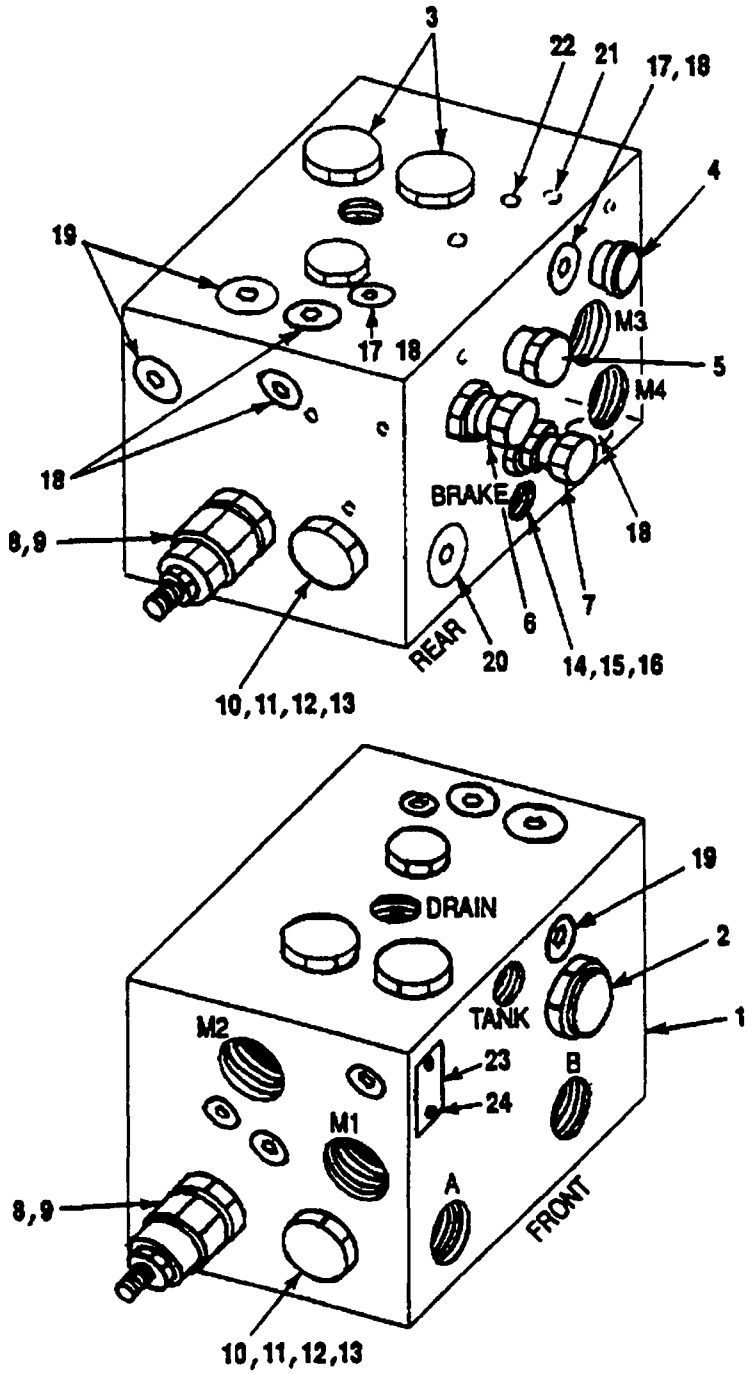
FUNCTION VALVE
(4-WHEEL DRIVE)

Model CH60C CH66C
Issued 5-96

Ref.	Part No.	Description	Qty	Remarks
	81446	Propel Valve, Complete	1	Incl. Items 1 thru 24
1	600635	Manifold	1	
2	600633	Flow Divider/Combiner Valve	2	
3	69580	Differential Pressure Sensing Valve	4	
4	69581	Differential Pressure Sensing Valve	7	
5	69587	Pilot Operated Directional Valve	1	
6	69582	Relief Valve	1	
8	69582	Relief Valve	2	
9	600636	Pilot Piston	1	
10	69561	Check Valve	2	
11	69588	Ball	1	
12	~~69589~~ 81625	Seat secure with Loc-Tite 242!	1	
13	69590	O-Ring	1	
14	69591	Orifice Disc	1	
15	69592	Spring	1	
16	69593	Setscrew	1	
18	NSS	Plug, SAE-6	8	
19	NSS	Plug, SAE-8	18	
20	NSS	Plug, SAE-10	1	
22	69570	Plug, Expander	36	
23	NSS	Nameplate	1	
24	NSS	Rivet	2	
25	600634	Flow Divider/ Combiner Valve	1	

FUNCTION VALVE
(2-WHEEL DRIVE)

Mark Industries



FUNCTION VALVE
(2-WHEEL DRIVE)

Ref.	Part No.	Description	Qty	Remarks
	81445	Propel Valve, Complete	1	Incl. Items 1 thru 24
1	69585	Manifold	1	
2	69579	Flow Divider/Combiner Valve	1	
3	69580	Differential Pressure Sensing Valve	2	
4	69581	Differential Pressure Sensing Valve	2	
5	69587	Pilot Operated Directional Valve	1	
6	69584	Relief Valve	1	
7	69594	Check Valve	1	
8	69582	Relief Valve	2	
9	69586	Pilot Piston	1	
10	69561	Check Valve	2	
11	69588	Ball	1	
12	69589	Seat	1	
13	69590	O-Ring	1	
14	69591	Orifice Disc	1	
15	69592	Spring	1	
16	69593	Setscrew	1	
17	69567	Orifice Plug, .031	4	
18		Plug, SAE-6	8	
19		Plug, SAE-8	3	
20		Plug, SAE-10	1	
21	69569	Plug, Expander	1	
22	69570	Plug, Expander	10	
23		Nameplate	1	
24		Rivet	2	

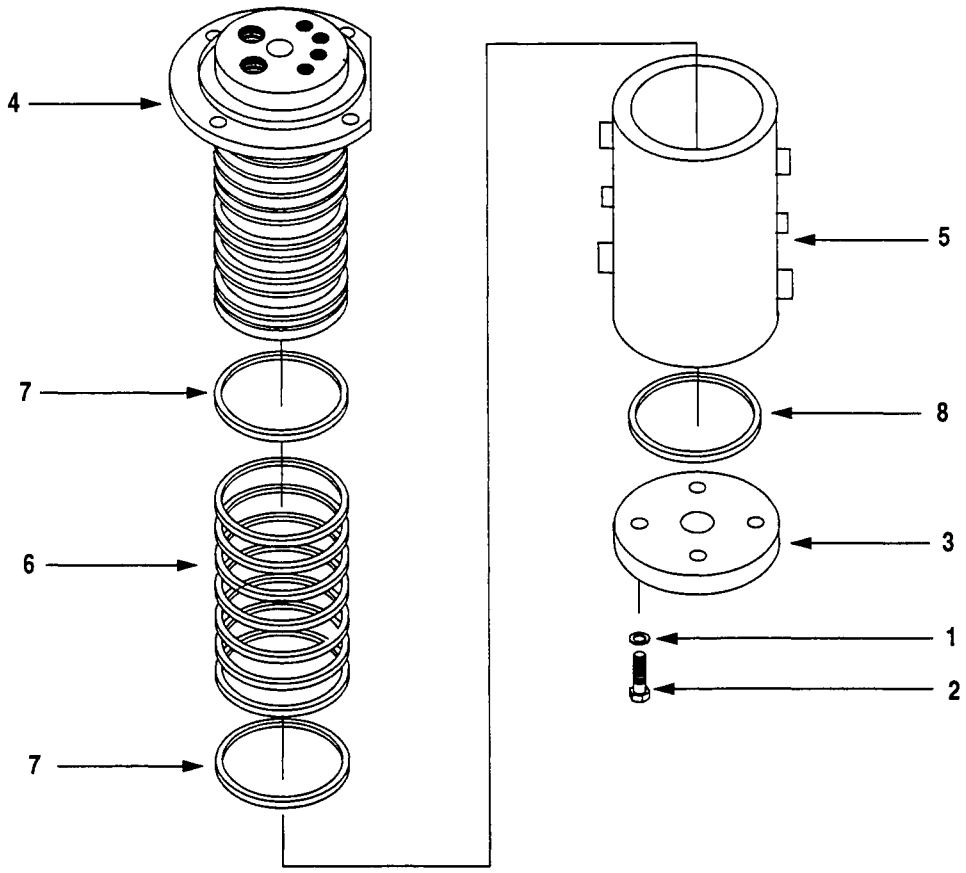
Model CH60C CH66C

Issued 5-96

ROTARY MANIFOLD

(Prior to March, 1996)

Mark Industries



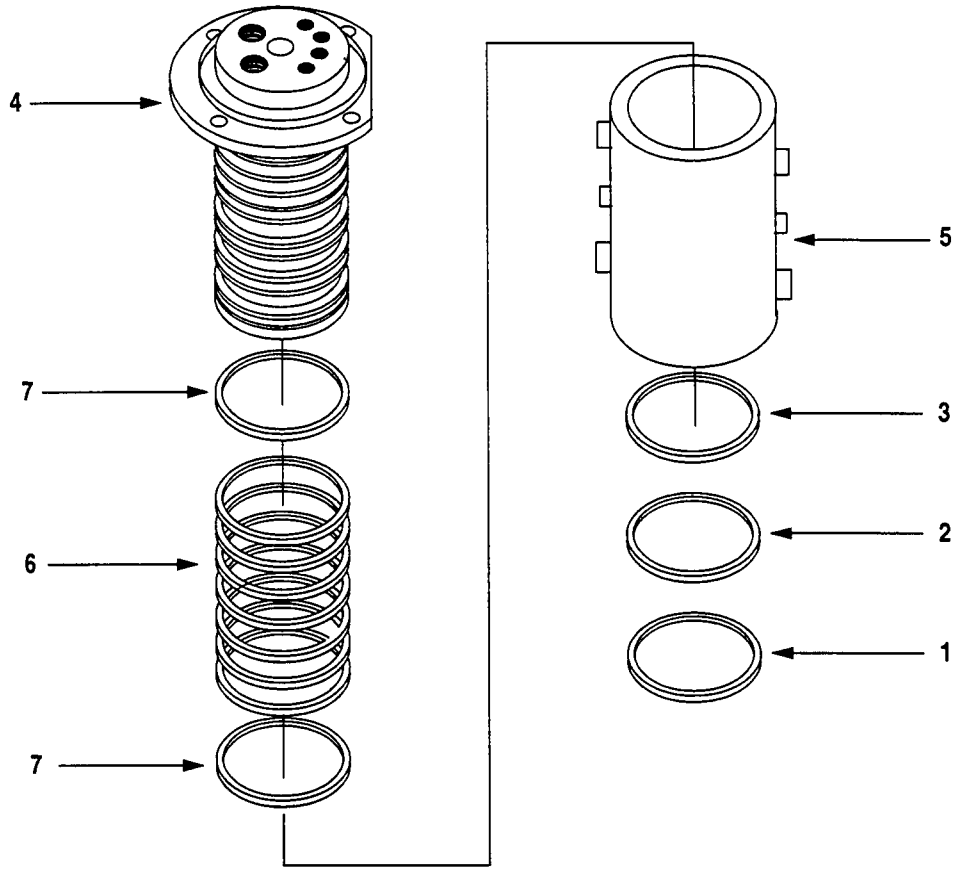
Ref.	Part No.	Description	Qty	Remarks
	81495	Rotary Manifold, Complete (Hydra-Tool)	1	Incl. Items 1 thru 8
	67817	Kit, Seal	1	Incl. Items 6,7
1	600728	Lockwasher	4	
2	600727	Capscrew	4	
3	600725	Retainer, Spool	1	
4	600851	Spool	1	
5	600852	Housing	1	
6	*	Seal	8	
7	*	Seal	2	
8	600726	Thrust Washer	1	

ROTARY MANIFOLD

(Prior to March, 1996)

Model CH60C CH66C

Issued 5-96

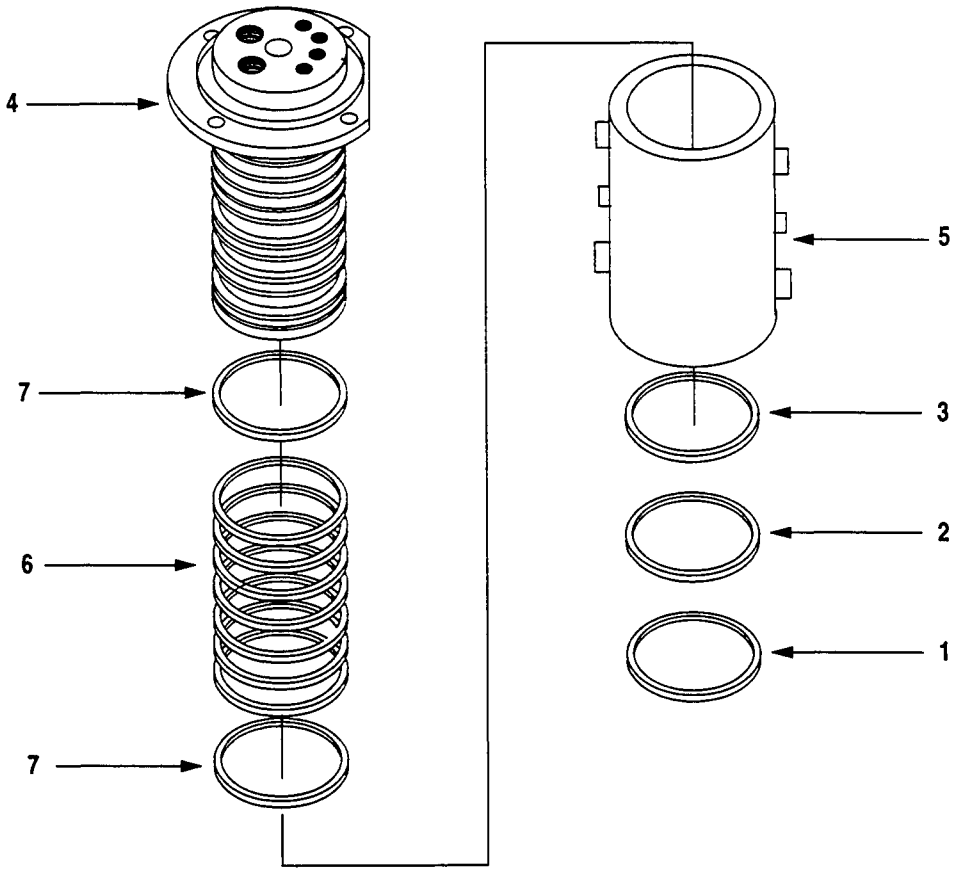


Ref.	Part No.	Description	Qty	Remarks
	81495	Rotary Manifold, Complete (Texas Hydraulics)	1	Incl. Items 1 thru 7
	67817	Kit, Seal	1	Incl. Items 6,7
1	600722	Retaining Ring	1	
2	600718	Bearing Ring	1	
3	600721	Wear Ring	1	
4	600849	Spool	1	
5	600850	Housing	1	
6	*	Seal	7	*
7	*	Seal	2	*

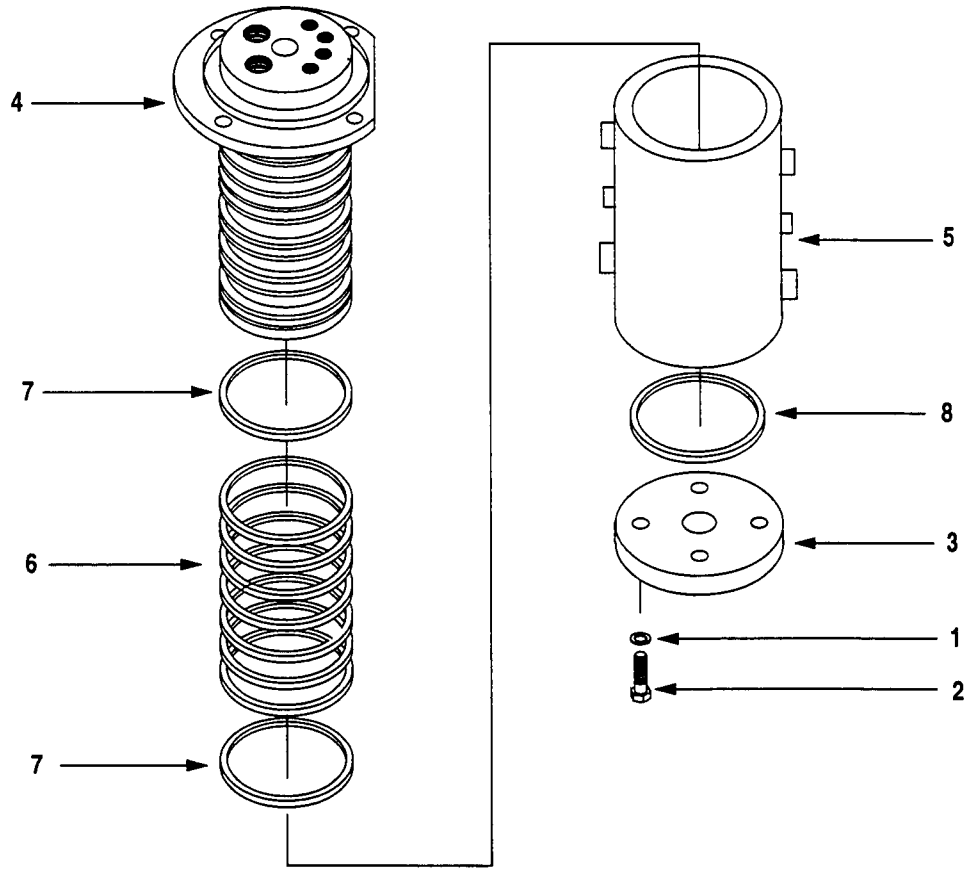
ROTARY MANIFOLD

(After March, 1996)

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	81530	Rotary Manifold, Complete (Texas Hydraulics)	1	Incl. Items 1 thru 11
	67817	Kit, Seal	1	Incl. Items 6,7
1	600722	Retaining Ring	1	
2	600718	Bearing Ring	1	
3	600721	Wear Ring	1	
4	600719	Spool	1	
5	600720	Housing	1	
6	*	Seal	8	*
7	*	Seal	2	*



Ref.	Part No.	Description	Qty	Remarks
	81530	Rotary Manifold, Complete (Hydra-Tool)	1	Incl. Items 1 thru 11
	600724	Kit, Seal	1	Incl. Items 6,7
1	600728	Lockwasher	4	
2	600727	Capscrew	4	
3	600725	Retainer, Spool	1	
4	600723	Spool	1	
5	600729	Housing	1	
6	*	Seal	8	
7	*	Seal	2	
8	600726	Thrust Washer	1	

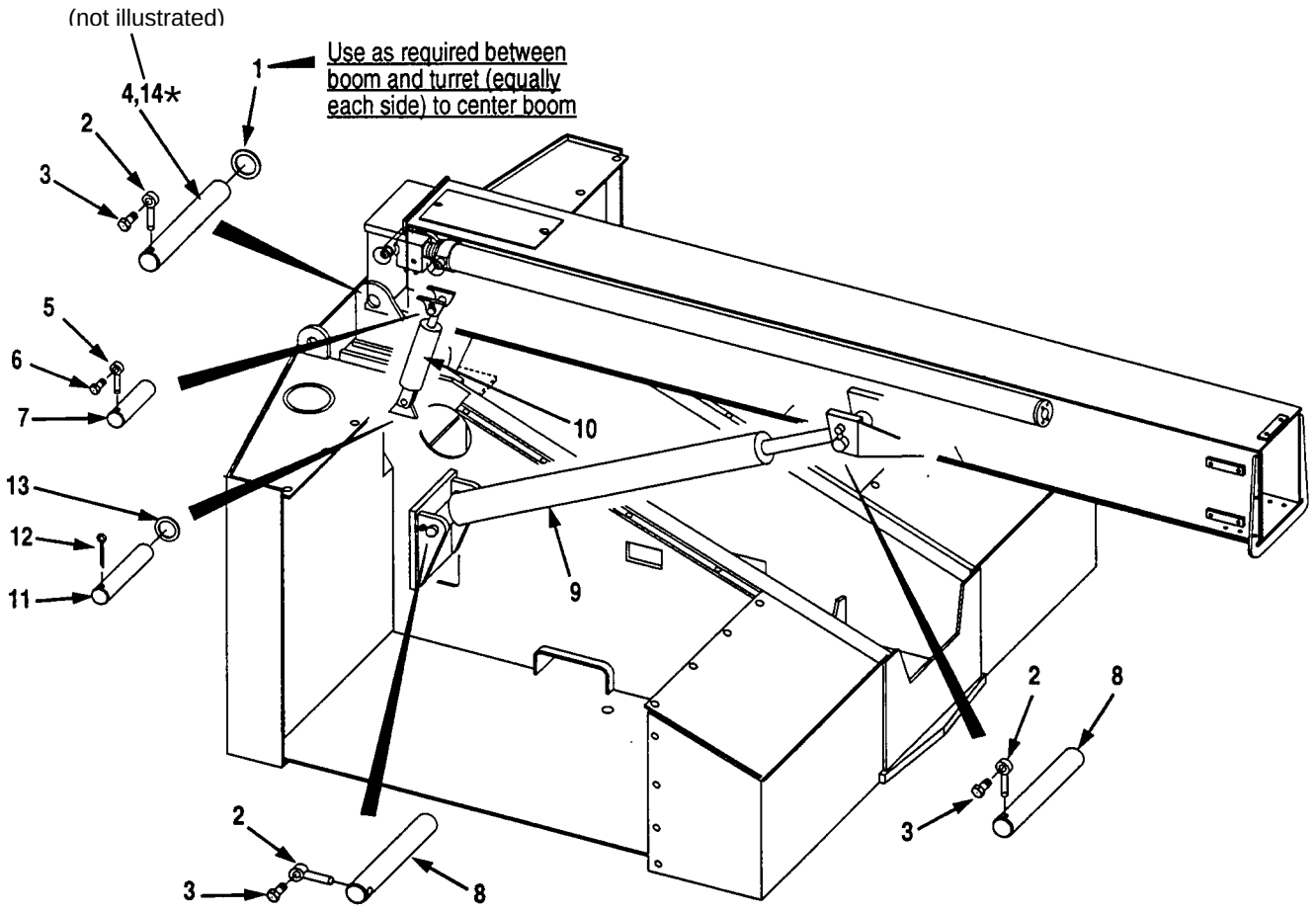
NOTES

SECTION 5 "BOOM ASSEMBLY" CONTAINS:

PAGE	TITLE
5.2	BOOM INSTALLATION
5.4	BOOM ASSEMBLY (CH60C)
5.8	BOOM ASSEMBLY (CH66C)
5.12	6' JIB ASSEMBLY (CH66C)
5.14	BOOM LIFT CYLINDER (BENTON HARBOR)
5.15	BOOM LIFT CYLINDER (ROSENBOOM)
5.17	JIB LEVELING CYLINDER (ROSENBOOM)
5.18	SLAVE LEVELING CYLINDER (ROSENBOOM)
5.19	SLAVE LEVELING CYLINDER (BEST METAL)
5.20	BOOM EXTEND CYLINDER
5.22	POWER TRACK ASSEMBLY

BOOM INSTALLATION

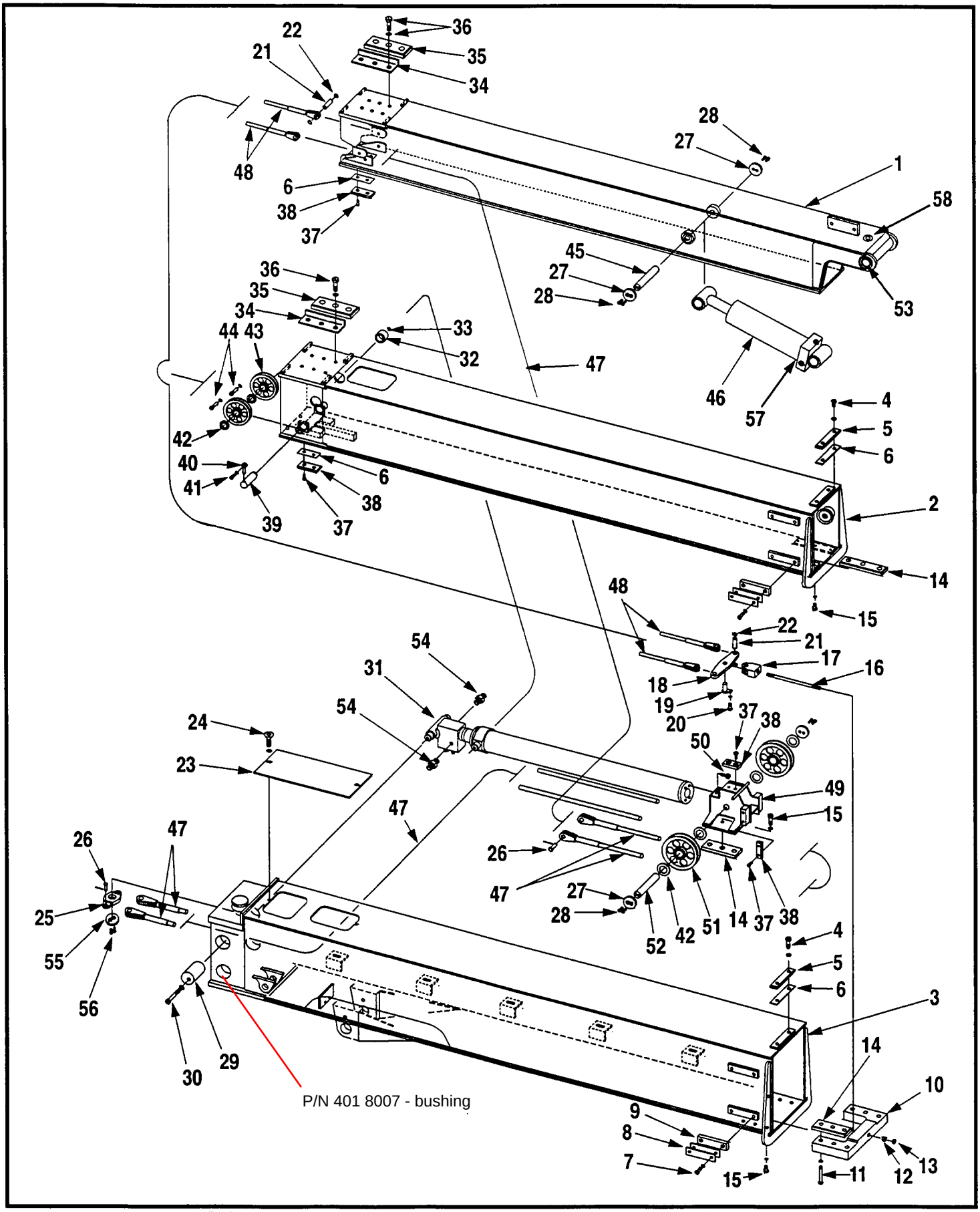
Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	212070	Boom Installation Ass'y	1	Incl. Items 1 thru 13
1	1208-57	Bushing, Machinery	2	
2	~~706-9449~~ 1222-346	Buck Pin	3	
3	1242-45	Capscrew, 5/8C x 1-1/2 Gr. 8	3	
4	211708	Pin	1	
5	~~211779~~ 1222-344	Buck Pin	1	
6	1242-134	Capscrew, 3/8C x 1 Gr. 8	1	
7	211912	Pin	1	
8	211706	Pin	2	
9	211691	Cylinder, Boom Lift	1	See Page 5.14
10	~~211758~~ 212867	Cylinder, Master Level	1	~~See Page 3.16~~
11	211913	Pin	1	
12	1207-40	Pin, Cotter	2	
13	1209-70	Flatwasher, 1 HT	2	
14	2214	Collar	2	
14*	0729100	Collar, "special" (2 piece, does not require removal of pivot pin for installation)		

BOOM ASSEMBLY
(CH60C)

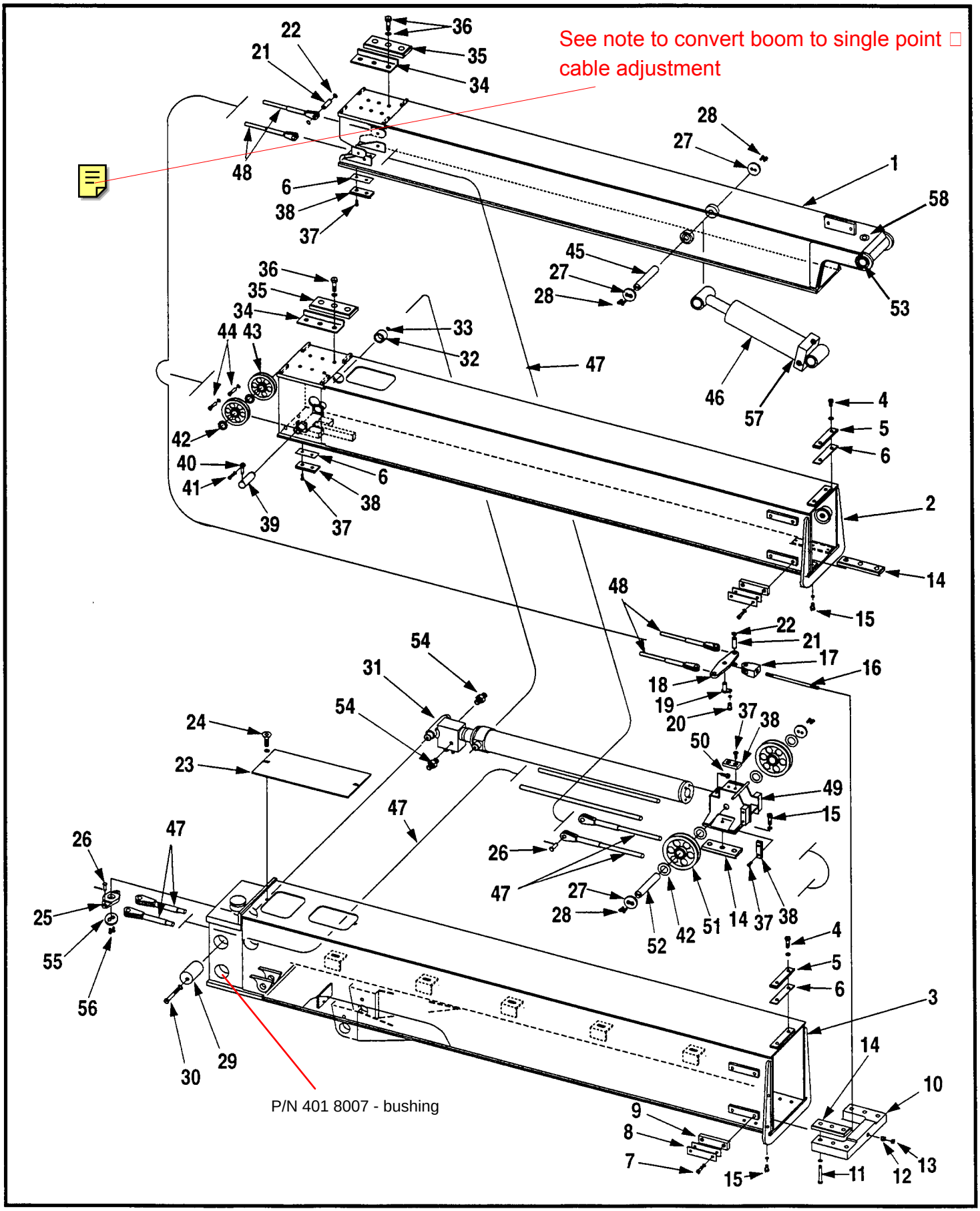
Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	211685	Boom Assembly	Ref.	Incl. 1 thru 54
1	211573	Boom, Inner	1	
2	211645	Boom, Intermediate	1	
3	211646	Boom, Outer	1	
4	1200-31	Capscrew, 5/16C x 1	4	
	1210-17	Lockwasher	4	
5	211651	Pad, Wear	2	
6	211649	Shim, 16 Ga.	20	
	211650	Shim, 20 Ga.	6	
7	316 2338	Capscrew, 3/8C x 7/8	17	
	1210-20	Lockwasher	16	
8	211962	Shim. 16 Ga.	16	
	211963	Shim, 20 Ga.	8	
9	211956	Pad, Wear	8	
10	211672	Plate	1	
11	1200-67	Capscrew, 3/8C x 2	6	
	1209-63	Flatwasher, 3/8 HT	6	
12	1205-80	Nut, 5/8C	1	
13	1205-84	Nut,5/8C Jam	1	
14	211652	Pad, Wear	5	
15	1200-315	Capscrew, 3/8C x 5/8	9	
	1209-63	Flatwasher, 3/8 HT	9	
16	211671	Rod, Threaded	1	
17	211664	Yoke	1	
18	211662	Bar, Equalizer	1	
19	211670	Pin	1	
20	1200-319	Capscrew, 5/16C x 1/2	1	
	1209-46	Flatwasher	3	
21	22703	Pin	4	
22	65082	Ring, Snap	8	
23	211644	Cover	1	
24	1200-57	Capscrew, 3/8C x 3/4	4	
	1210-20	Lockwasher	4	
	1209-63	Flatwasher, 3/8 HT	4	
25	211661	Bar, Equalizer	1	
26	1689	Pin, Clevis	4	
	1207-12	Cotter Pin, 1/8 x 1	4	

BOOM ASSEMBLY
(CH60C)

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
27	211639	Plate	4	
28	61825	Capscrew, 5/16C x 1/2 Flat Head	8	
29	211682	Pin, Eccentric	2	
30	1242-110	Capscrew, 1/2C x 2-3/4 Gr. 8	2	
	1209-29	Flatwasher	2	
31	211722	Cylinder, Boom Extend	1	See Page 5.14
32	211681	Pin, Trunnion Cap	2	
33	1200-95	Capscrew, 1/2C x 1	2	
	1209-29	Flatwasher	2	
34	211660	Plate	4	
35	211659	Pad, Wear	4	
36	1200-336	Capscrew, 7/16C x 3/4	12	
	1209-59	Flatwasher, 7/16 HT	12	
37	1203-144	Capscrew, 3/8C x 3/4 Flat Head	12	
38	211957	Pad, Wear	6	
39	211705	Pin	2	
40	211779	Rod End	3	
41	1200-57	Capscrew, 3/8c x 3/4	2	
42	1208-30	Bushing, 18 Ga.	14	
43	212027	Sheave, Retraction	2	
44	211680	Keeper, Cable	4	
	1209-29	Flatwasher	4	
45	211703	Pin	1	
46	211729	Cylinder, Slave Leveling	1	See Page 5.18
47	211676	Cable, Extension	2	
48	211675	Cable, Retraction	2	
49	211643	Bracket, Sheave	1	
50	1203-60	Capscrew, 1/2C x 1 Socket Head	4	
51	212026	Sheave, Extension	2	
52	212237	Pin	1	
53	401 2405	Bearing, Inner Boom Tip	2	
54	1219-441	Adapter	2	
55	212173	Plate	1	
56	212209	Washer	2	
	1200-314	Capscrew	2	
57	1219-959	Adapter	1	
58	1221-100	Grommet	1	

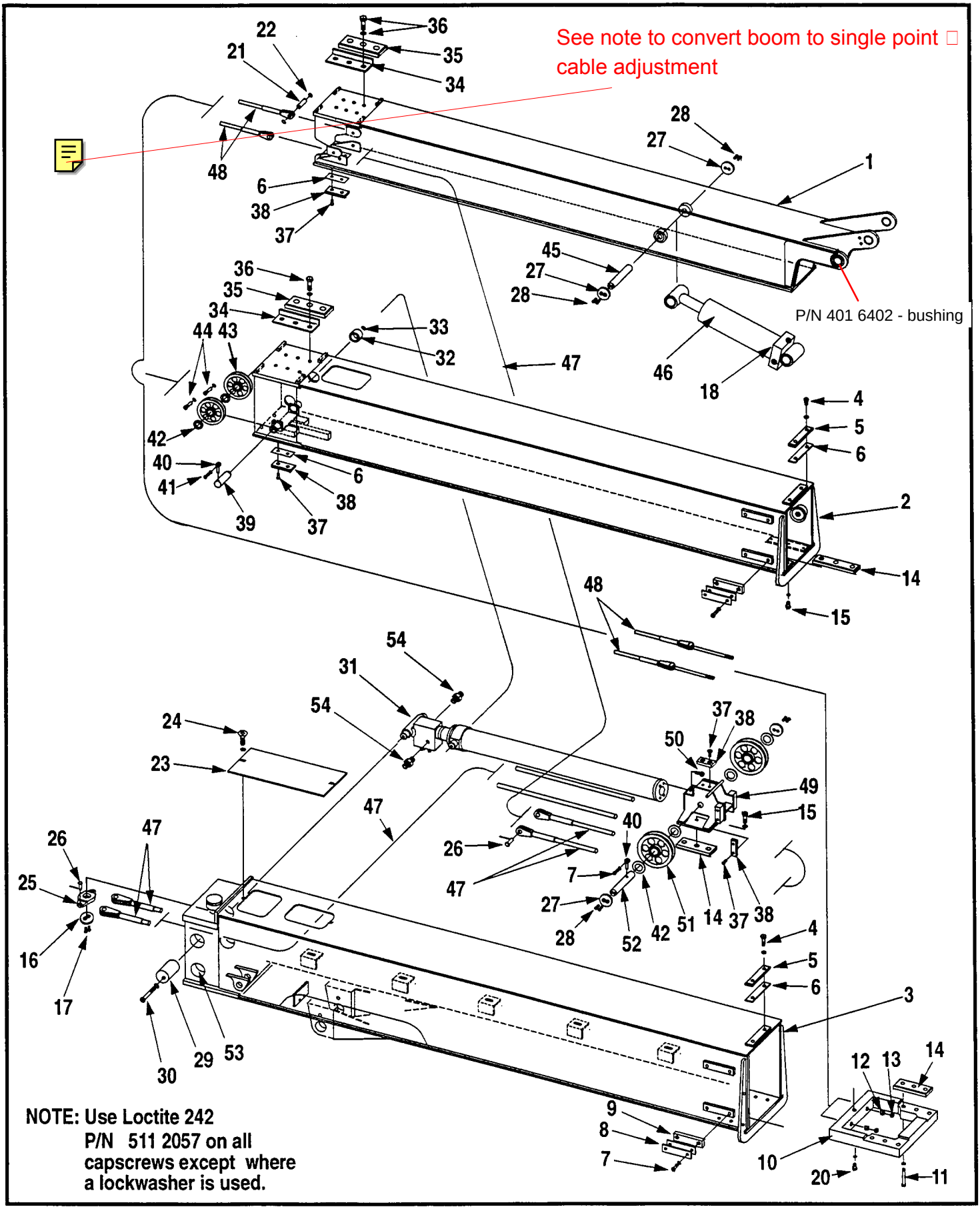
Model CH60C
CH66C

Issued 5-96

BOOM ASSEMBLY

(CH66C)

Mark Industries

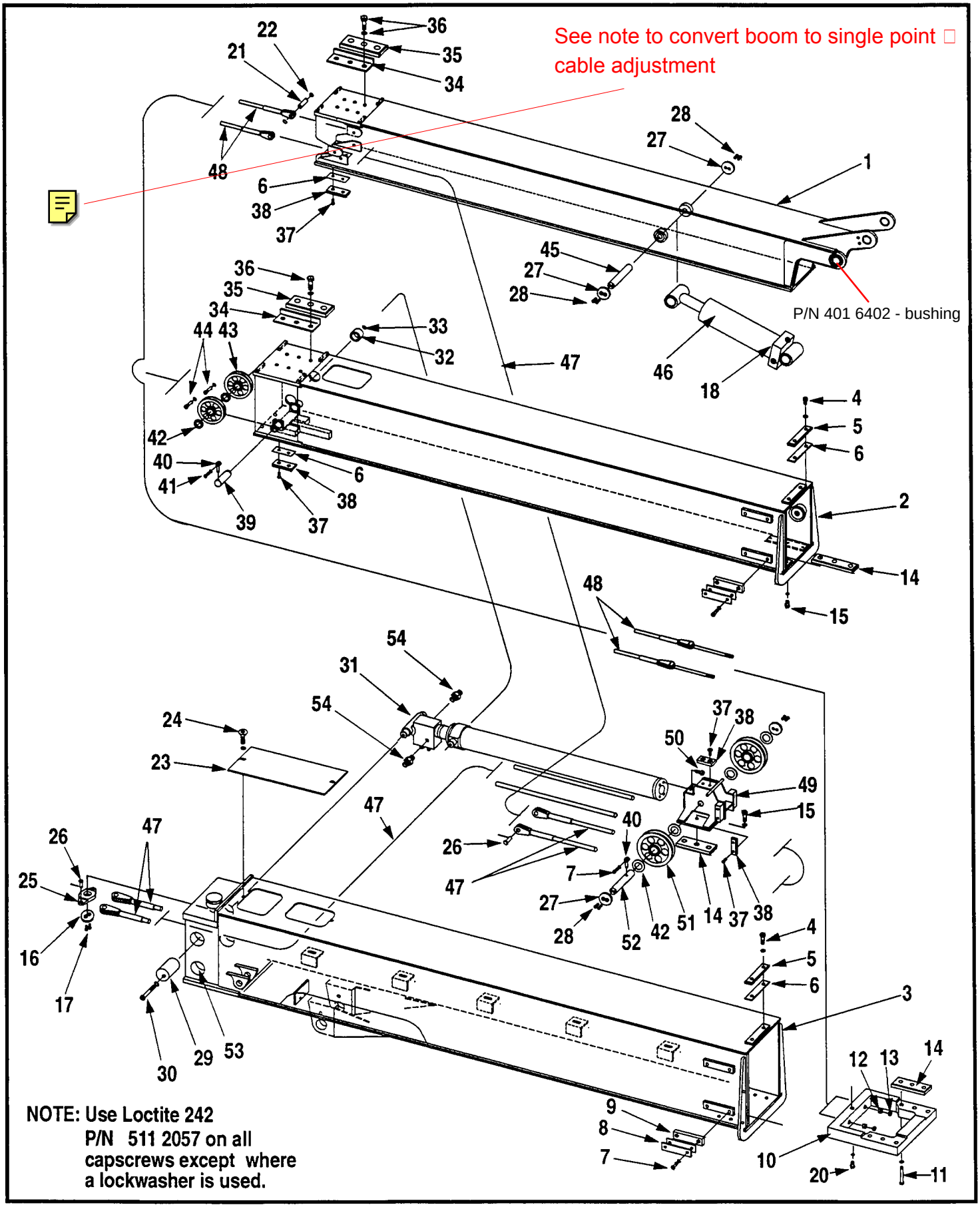


Ref.	Part No.	Description	Qty	Remarks
	212258	Boom Assembly (for use with 6' Jib)	Ref	Incl. 1 thru 54
1	212230	Boom, Inner (for Jib)	1	
2	212223	Boom, Intermediate	1	
3	212251	Boom, Outer	1	Incl. 53
4	1200-31	Capscrew, 5/16C x 1	4	
	1210-17	Lockwasher	4	
5	211651	Pad, Wear	2	
6	211649	Shim, 16 Ga.	20	
	211650	Shim, 20 Ga.	6	
7	316 2338	Capscrew, 3/8C x 7/8	17	
	1210-20	Lockwasher	16	
8	211962	Shim, 16 Ga.	16	
	211963	Shim, 20 Ga.	8	
9	211956	Pad, Wear	8	
10	212241	Plate	1	
11	1200-67	Capscrew, 3/8C x 2	6	
	1209-63	Flatwasher, 3/8 HT	6	
12	1209-48	Flatwasher, 5/8 HT	2	
13	1205-80	Nut, 5/8C	1	
	1205-84	Nut, 5/8C Jam	1	
14	211652	Pad, Wear	5	
15	1200-315	Capscrew, 3/8C x 5/8	9	
	1210-20	Lockwasher, 3/8	9	
16	212173	Plate	1	
17	1200-314	Capscrew, 5/16C x 5/8	2	
	1209-46	Flatwasher, 5/16 HT	2	
18	1219-959	Adapter	2	
19	211670	Pin	1	
20	1200-102	Capscrew, 1/2C x 1-3/4	1	
	1209-29	Flatwasher, 1/2 HT	1	
21	22703	Pin	4	
22	65082	Ring, Snap	8	
23	211644	Cover	1	
24	1200-57	Capscrew, 3/8C x 3/4	2	
	1210-20	Lockwasher	2	
	1209-63	Flatwasher, 3/8 HT	2	
25	212244	Bar, Ext. Equalizer	1	

BOOM ASSEMBLY

(CH66C)

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
26	160693	Pin, Clevis	4	
	1207-12	Cotter Pin, 1/8 x 1	4	
27	211639	Plate	4	
28	61825	Capscrew, 5/16C x 1/2 Flat Head	8	
29	211682	Pin, Eccentric	2	
30	1200-110	Capscrew, 1/2C x 2-3/4 Gr. 8	2	
	1209-29	Flatwasher	2	
	212209	Washer, Special	2	
31	211722	Cylinder, Boom Extend	1	See Page 5.20
32	211681	Pin, Trunnion Cap	2	
33	1200-95	Capscrew, 1/2C x 1	2	
	1209-29	Flatwasher	2	
34	211660	Plate	4	
35	211659	Pad, Wear	4	
36	1242-160	Capscrew, 7/16C x 3/4	12	
	1209-59	Flatwasher, 7/16 HT	12	
37	1203-144	Capscrew, 3/8C x 3/4 Flat Head	12	
38	211957	Pad, Wear	6	
39	211705	Pin	2	
40	211779	Rod End	3	
41	1200-57	Capscrew, 3/8c x 3/4	2	
42	1208-30	Bushing, 18 Ga.	14	
43	212212	Sheave, Retraction	2	
44	211680	Keeper, Cable	4	
	1209-29	Flatwasher	4	
45	212182	Pin	1	
46	212175	Cylinder, Jib Leveling	1	See Page 5.17
47	212253	Cable, Extension	2	
48	212254	Cable, Retraction	2	
49	212219	Bracket, Sheave	1	
50	1203-60	Capscrew, 1/2C x 1 Socket Head	4	
51	212214	Sheave, Extension	2	
52	212237	Pin	1	
53	401 8007	Bushing, Outer Boom	2	
54	1219-441	Adapter	2	

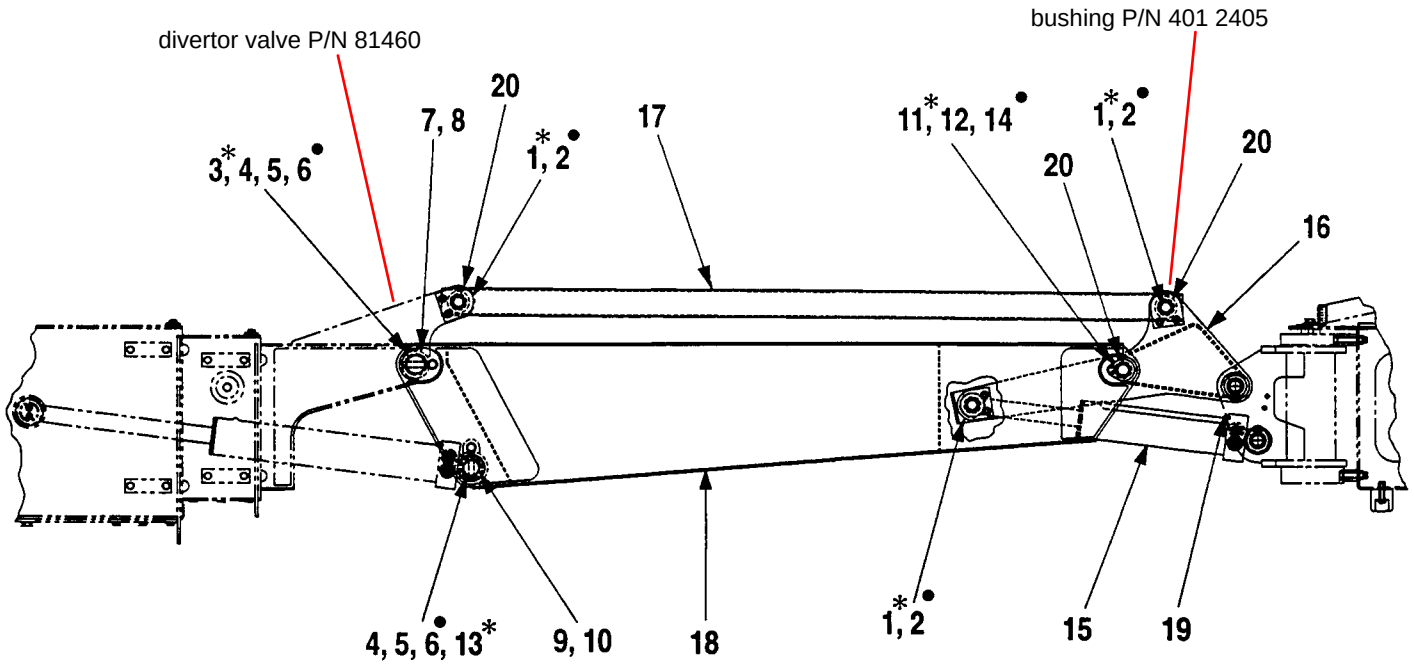
Model CH60C
CH66C

Issued 5-96

6' JIB ASSEMBLY

(CH66C)

Mark Industries



• *Loctite 242*
P/N 511 2057

Apply Never-Seez to pin before installation

6' JIB ASSEMBLY

(CH66C)

Model CH60C
CH66C

Issued 5-96

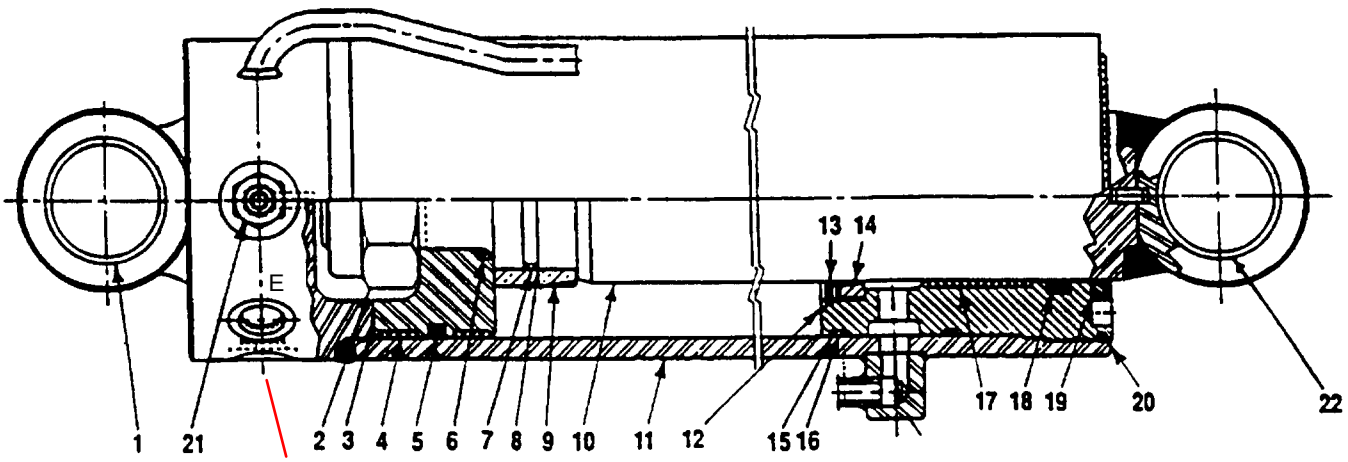
Ref.	Part No.	Description	Qty	Remarks
	212257	6' Jib Assembly	Ref.	Incl. items 1 thru 20
1	212178	Pin	3	
2	61828	Capscrew, 5/16C x 3/4 Socket Head	6	
3	212177	Pin	1	
4	~~709-1573~~ 1222-348	Rod End	2	
5	1209-59	Flatwasher, 7/16 HT	2	
6	1242-21	Capscrew, 7/16C x 1-1/2 Gr. 8	4	
7	1208-46	Bushing, 10 Gauge	2AU	AU=Average Usage
8	1208-48	Bushing, 18 Gauge	6AU	Average Usage
9	1208-36	Bushing, 10 Gauge	2AU	Average Usage
10	1208-38	Bushing, 18 Gauge	2AU	Average Usage
11	211710	Pin	1	
12	1209-63	Flatwasher, 3/8 HT	1	
13	212176	Pin	1	
14	1242-100	Capscrew, 3/8C x 3/4 Gr. 8	1	
15	211729	Cylinder, Slave Leveling	1	See Page 5.18
16	212192	Bracket	1	
17	212183	Link	1	
18	212207	Jib	1	
19	1219-959	Adapter	2	
20	1208-30	Bushing, 18 Gauge	12	Average Usage
21	511 2057	Loctite 242	AR	

Model CH60C
CH66C

Issued 5-96

BOOM LIFT CYLINDER

Mark Industries

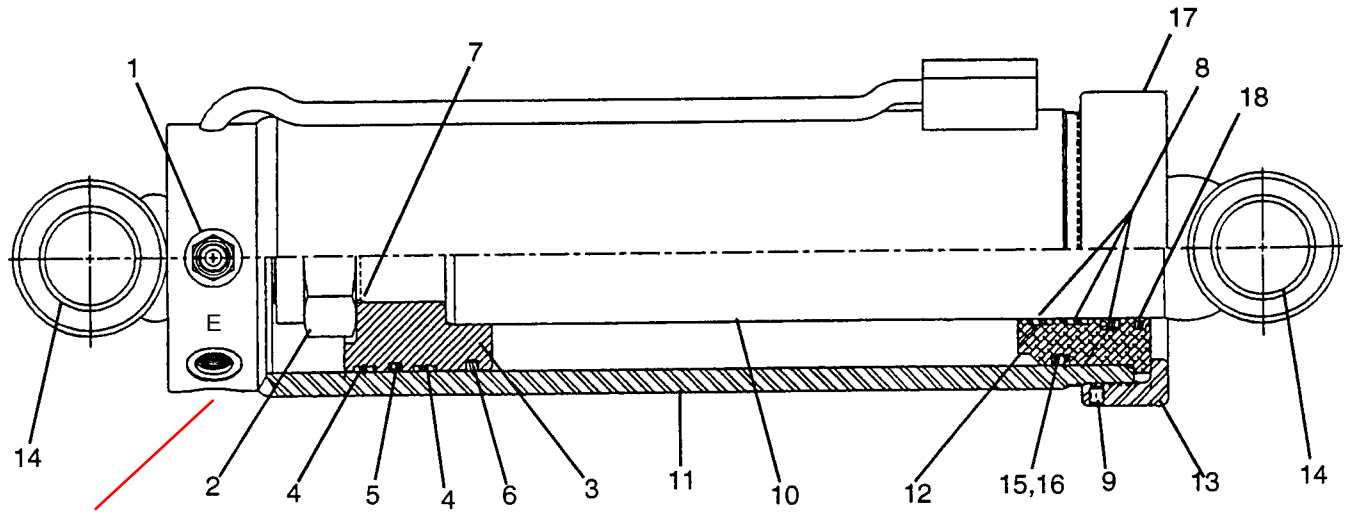


"R" is 90 degrees opposite of item 21

Ref.	Part No.	Description	Qty	Remarks
	211691	Boom Cylinder, Complete (Benton Harbor)	1	Incl. Items 1 thru 22
	69808	Kit, Seal	1	Incl. Items w/Asterisk *
1	69807	Bushing	4	
2	69806	Nut	1	
3	69805	Piston	1	
4	69804	Bearing	2	*
5	69803	Seal/Expander Ass'y	1	*
6	69802	O-Ring	1	*
7	69801	O-Ring	1	*
8	69800	Back-Up	2	*
9	69799	Cushion Plug	1	
10	69798	Rod w/Bushing	1	
11	69797	Barrel w/Bushings	1	
12	69796	Head	1	
13	69795	Snap Ring	1	
14	69794	Cushion Ring	1	
15	69793	Back-Up	3	*
16	69792	O-Ring	2	*
17	69791	Bearing	1	*
18	69790	Seal	1	*
19	69789	Wiper	1	*
20	69788	O-Ring	1	*
21	69787	Valve, Counterbalance	1	
22	69786	Spacer	2	

BOOM LIFT CYLINDER

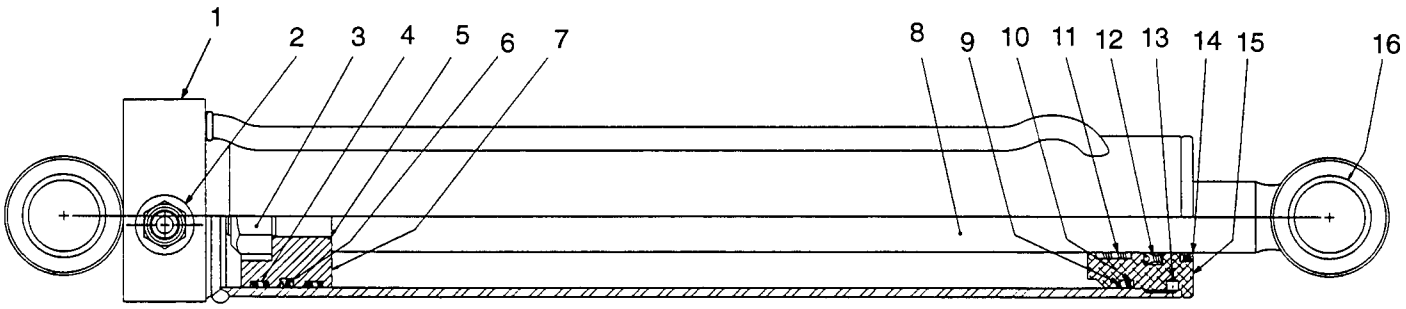
Model CH60C CH66C
Issued 5-96



"R" is 90 degrees opposite of item 21

Ref.	Part No.	Description	Qty	Remarks
	211691	Boom Cylinder, Complete (Rosenboom)	1	Incl. Items 1 thru 22
	600854	Kit, Seal	1	Incl. Items w/Asterisk *
1	600855	CB Valve	1	
2	600857	Nut	1	
3	600858	Piston	1	
4	*	Bearing	2	*
5	*	Seal/Expander Ass'y	1	*
6	*	Cast Ring	1	*
7	*	O-Ring	1	*
8	*	Polypak	2	*
9	600860	Set Screw	1	
10	600859	Rod Weldment	1	
11	600856	Tube Weldment	1	
12	600862	Head Gland	1	
13	600861	Head Gland Cap	1	
14	600863	Bushing	4	
15	*	Back-Up	1	*
16	*	O-Ring	1	*
17	*	Bearing	2	*
18	*	Wiper	1	*

NOTES



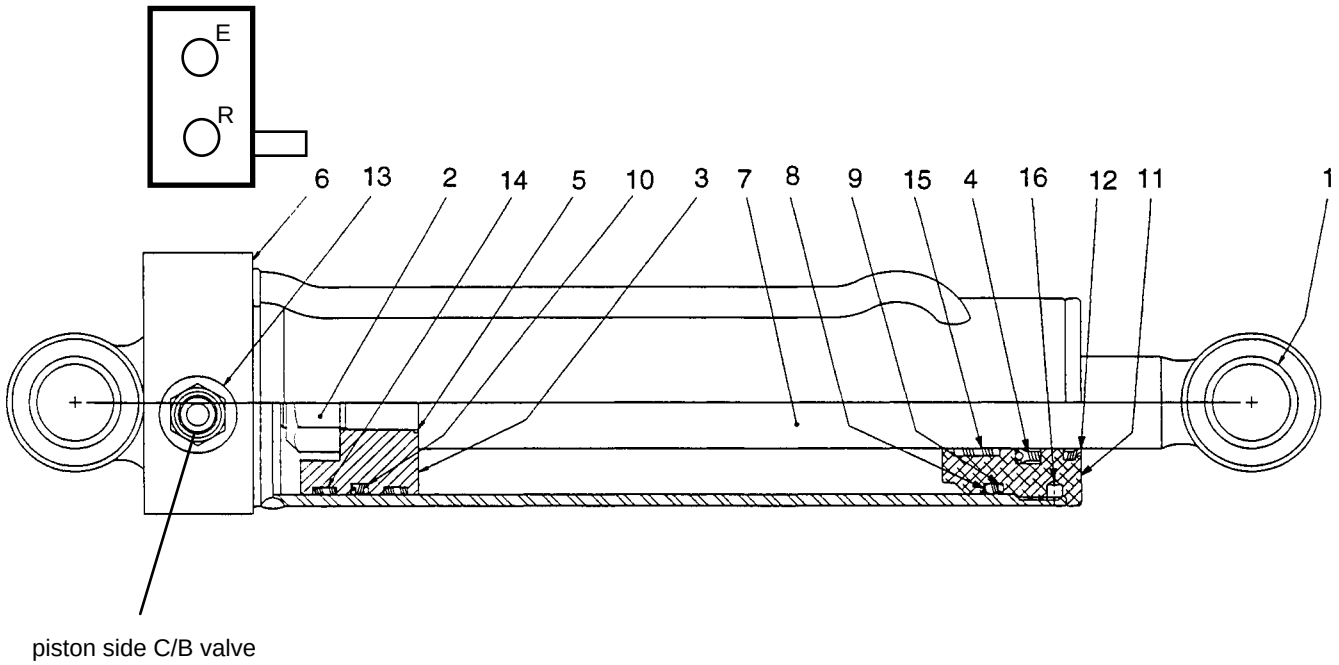
Ref.	Part No.	Description	Qty	Remarks
	212175	Cylinder, Jib Leveling (Rosenboom)	Ref.	Incl. items 1 thru 16
	69348	Kit, Seal	Ref.	Incl. items with asterisk
1	600684	Tube Weldment	1	
2	600685	Valve, Counterbalance	1	
3	68956	Nut, Lock	1	
4	*	Wear Band	2	*
5	*	O-Ring	1	*
6	*	T-Seal	1	*
7	68957	Piston	1	
8	600686	Rod Assembly	1	
9	*	O-Ring	1	*
10	*	Back Up Ring	1	*
11	*	Wearband	2	*
12	*	Polypak	1	*
13	68959	Locking Insert	1	
14	*	Rod Wiper	1	*
15	68960	Head Gland	1	
16	~~69349~~ 69052	Bearing	4	

Model CH60C
CH66C

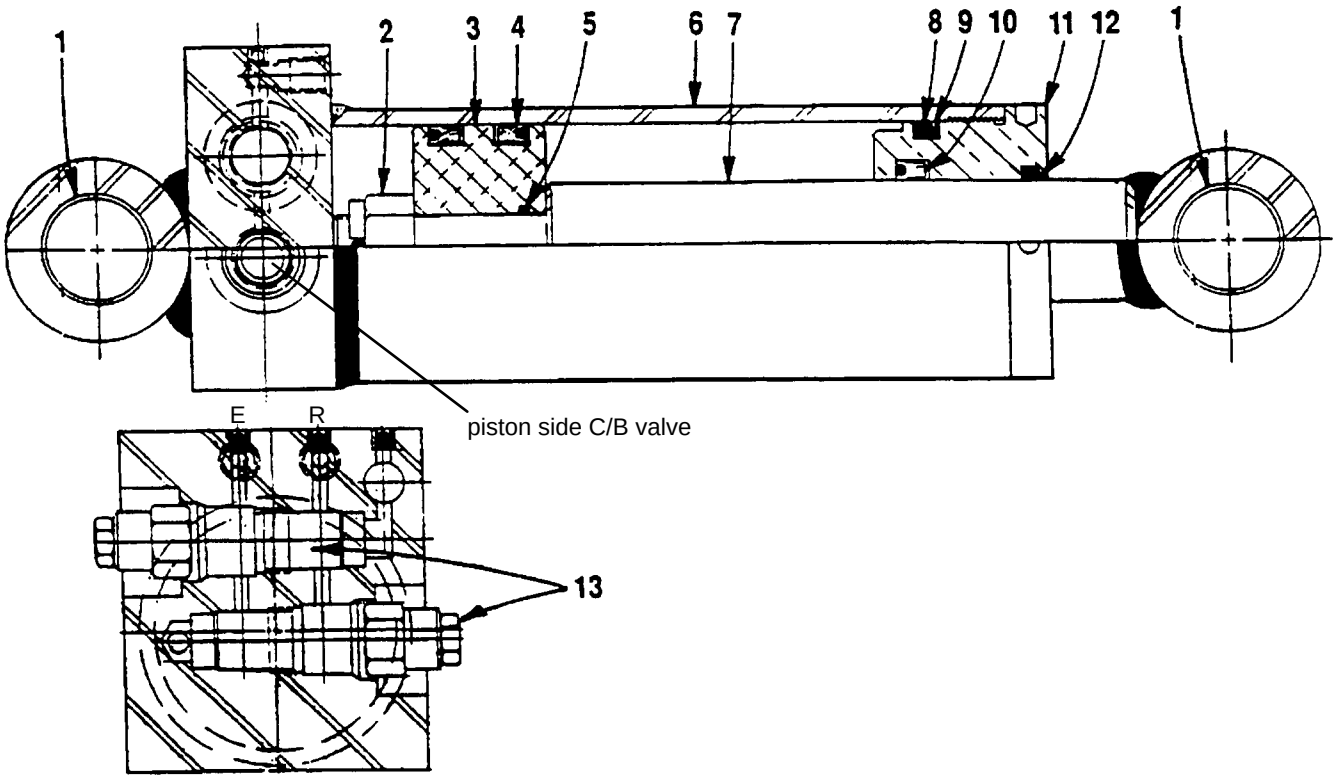
Issued 5-96

SLAVE LEVELING CYLINDER

Mark Industries



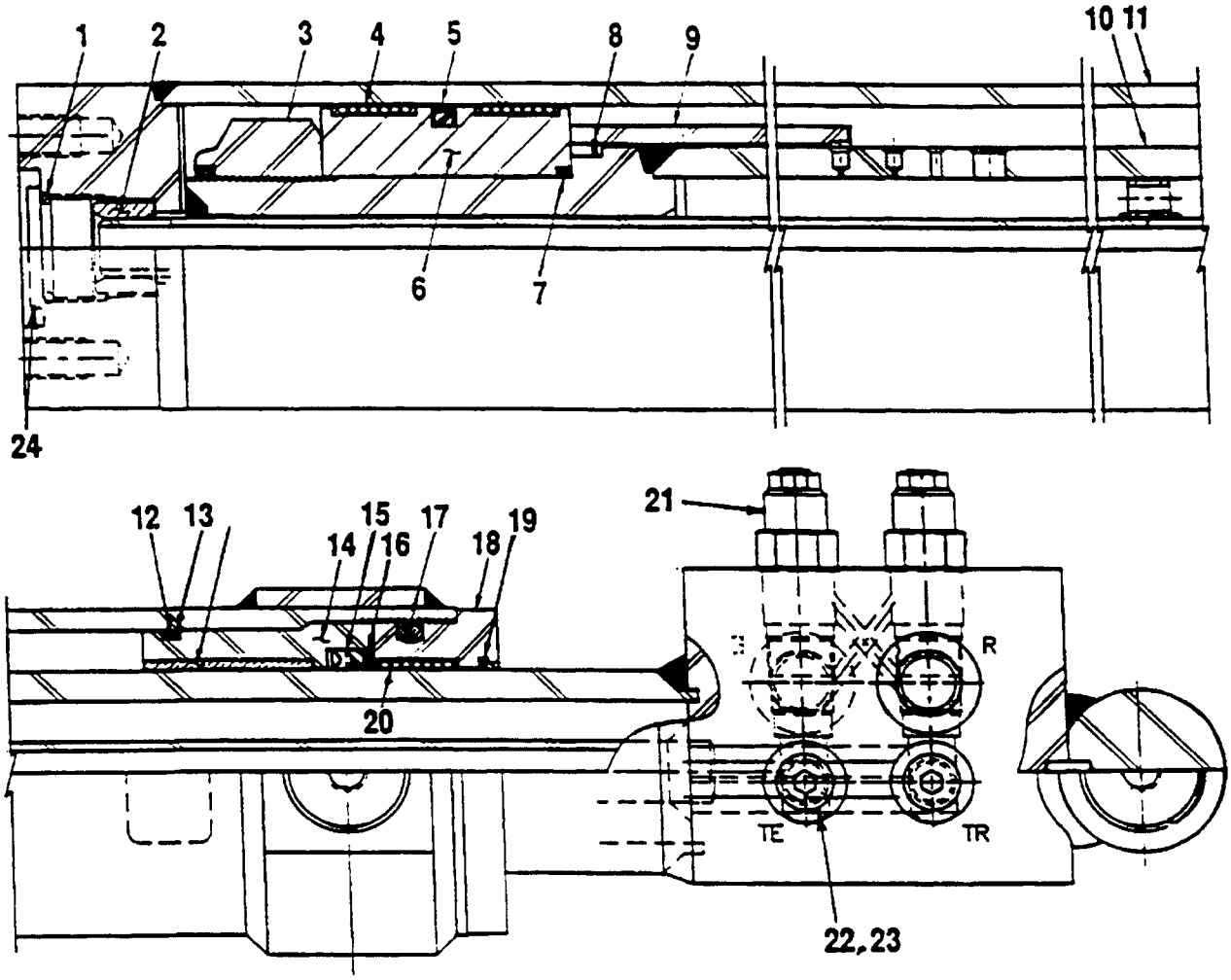
Ref.	Part No.	Description	Qty	Remarks
	211729	Slave Level Cylinder (Rosenboom)	1	Incl. Items 1 thru 16
	69348	Kit, Seal	1	Incl. Items w/Asterisk *
1	600689	Bushing	2	
2	68956	Nut, Castle	1	
3	68957	Piston	1	
4	*	Seal, Polypak	2	*
5	*	O-Ring	1	*
6	600687	Barrel	1	
7	600688	Rod, Piston	1	
8	*	O-Ring	1	*
9	*	Back-Up Ring	1	*
10	*	T-Seal	1	*
11	68960	Gland, Head	1	
12	*	Wiper	1	*
13	600685	Valve, Counterbalance	1	
14	*	Wearband	2	*
15	*	Wearband	2	*
16	68959	Locking Insert	1	



Ref.	Part No.	Description	Qty	Remarks
	211729	Slave Level Cylinder (Best Metal)	1	Incl. Items 1 thru 13
	69652	Kit, Seal	1	Incl. Items w/Asterisk *
1	69665	Bushing	2	
2	69653	Nut, Castle	1	
3	69654	Piston	1	
4	69655	Seal, Polypak	2	*
5	69656	O-Ring	1	*
6	69667	Barrel	1	
7	69785	Rod, Piston	1	
8	69659	O-Ring	1	*
9	69660	Back-Up Washer	1	*
10	69661	Seal, Polypak (Type B)	1	*
11	69662	Nut, Gland	1	
12	69663	Wiper	1	*
13	69666	Valve, Counterbalance	1	

BOOM EXTEND CYLINDER

Mark Industries



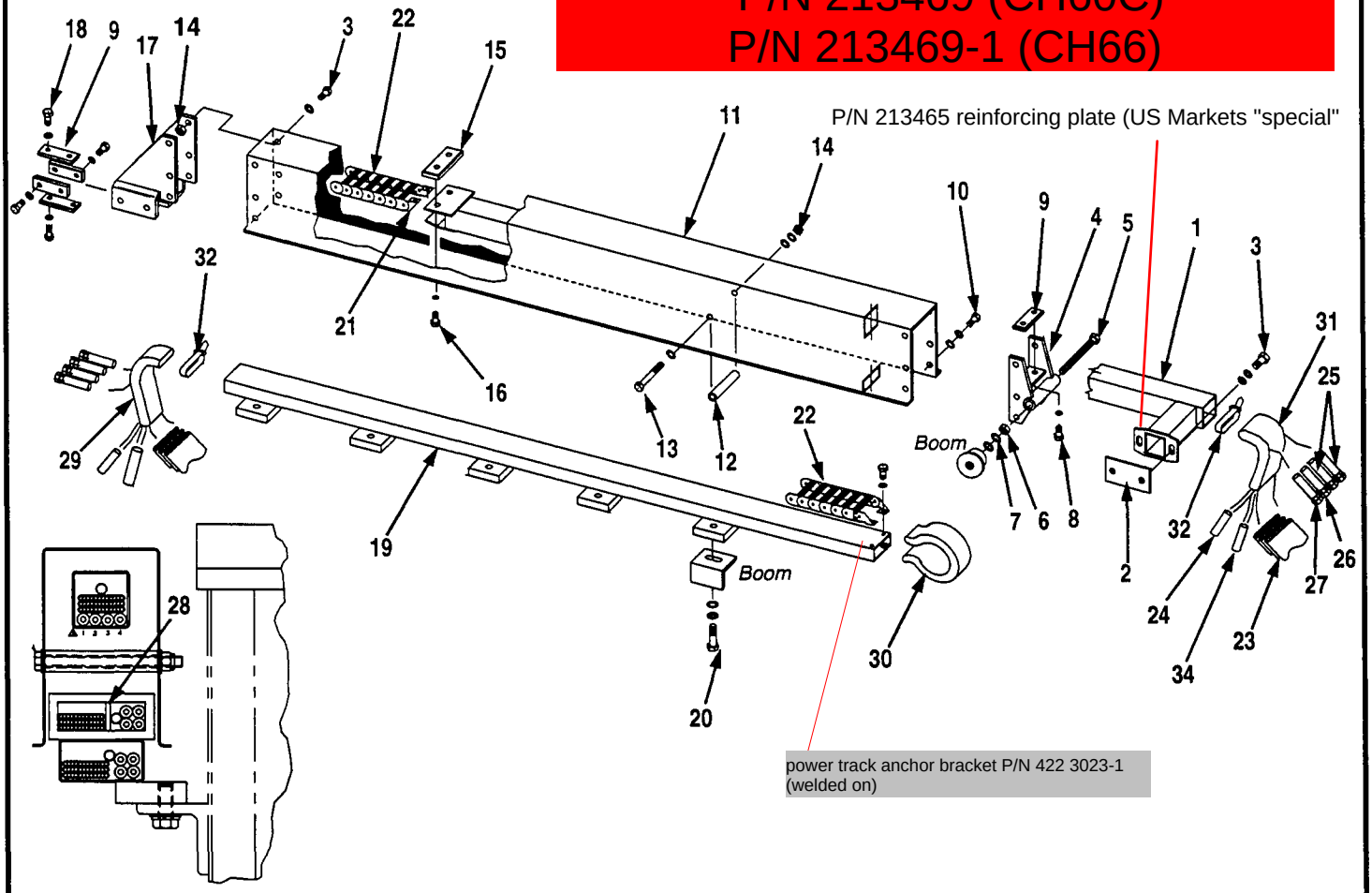
BOOM EXTEND CYLINDER

Ref.	Part No.	Description	Qty	Remarks
	211722	Extend Cylinder, Complete (Great Bend)	1	Incl. Items 1 thru 24
	69595	Kit, Seal	1	
1	69607	O-Ring	1	
2	69613	Bushing	1	
3	69609	Nut	1	
4	69601	Wear Ring	2	
5	69602	Teflon Ring Ass'y	1	
6	69615	Piston	1	
7	69600	O-Ring	1	
8	69611	Retaining Ring	1	
9	69614	Spacer	1	
10	69618	Rod Ass'y	1	
11	69619	Tube Ass'y	1	
12	69603	O-Ring	1	
13	69604	Back-Up	1	
14	69616	Bearing Ass'y	1	
15	69599	U-Ring	1	
16	69598	Back-Up	1	
17	69605	Nylon Plug	1	
18	69617	Retainer	1	
19	69596	Wiper	1	
20	69597	Wear Ring	1	
21	69612	Valve, Counterbalance	2	
22	69610	Port Plug	2	
23	69606	O-Ring	2	
24	69608	Port Plug	1	

POWER TRACK ASS'Y

Mark Industries

Replaced by:
P/N 213469 (CH60C)
P/N 213469-1 (CH66)



Ref.	Part No.	Description	Qty	Remarks
	211636	Power Track Assembly (CH60C)		Incl. Items 1 thru 33
	211636-1	Power Track Assembly (CH66C)		Incl. Items 1 thru 33
1	212002	Track, Inner	1	
2	211735	Shim	2	
3	1200-59	Capscrew, 3/8C x 1	2	
	1210-20	Lockwasher	2	
	1209-63	Flatwasher, 3/8 HT	2	
4	211748	Bracket, Track	1	
5	1200-212	Capscrew, 3/4C x 6	1	
6	1205-96	Nut, 3/4C Jam	1	
7	1209-40	Flatwasher, 3/4	3	

Ref.	Part No.	Description	Qty	Remarks
8	316 2338	Capscrew, 3/8C x 7/8	6	
	1209-63	Flatwasher, 3/8 HT	6	
9	211961	Pad, Wear	5	
10	1200-315	Capscrew, 3/8C x 1/2	6	
	1210-20	Lockwasher	6	
	1209-63	Flatwasher, 3/8 HT	6	
11	211740	Cover	1	
12	206F4693	Tube	8	
13	1200-380	Capscrew, 3/8C x 4 3/4	8	
	1210-20	Lockwasher	8	
	1209-63	Flatwasher	8	
14	1205-45	Locknut, 3/8C	14	
15	211960	Pad, Wear	1	
16	61921	Button Screw, 1/4C x 1/2	2	
	1209-44	Flatwasher	2	
17	211783	Bracket, Pad	1	
18	1200-315	Capscrew, 3/8C x 5/8	8	
	1209-63	Flatwasher	8	
19	211789	Bracket, Track	1	
20	1200-98	Capscrew, 1/2C x 1-1/4	5	
	1210-26	Lockwasher	5	
	1209-29	Flatwasher, 1/2 HT	5	
21	422 3023-2	Bracket, Female	1	
22	422 3025	Cable Carrier (1 Link)	112	
23	212098	Cable, Flat (CH60C)	1	
	212098-1	Cable, Flat (CH66C)	1	
24	70769	Cable, AC power to platform	1	72' (CH60C), 80' (CH66C)
	600660-*	Cable, Optimizer		
25	212135-790	Hose Ass'y	2	#1 & #2
26	212135-750	Hose Ass'y	1	#3
27	212135-760	Hose Ass'y	1	#4
28	422 3026	Cable Separator (both ends & 30" intervals)	8	
29	12193-120	Nylon Sleeve (CH60C)	1	
	12193-216	Nylon Sleeve (CH66C)	1	
30	12193-24	Nylon Sleeve	1	
31	12193-126	Nylon Sleeve	1	
32	1222-202	Tie, Plastic	2	
33	511 2057	Loctite #242	AR	
34	2912	Cable	1	77' (CH60C), 85' (CH66C)

NOTES

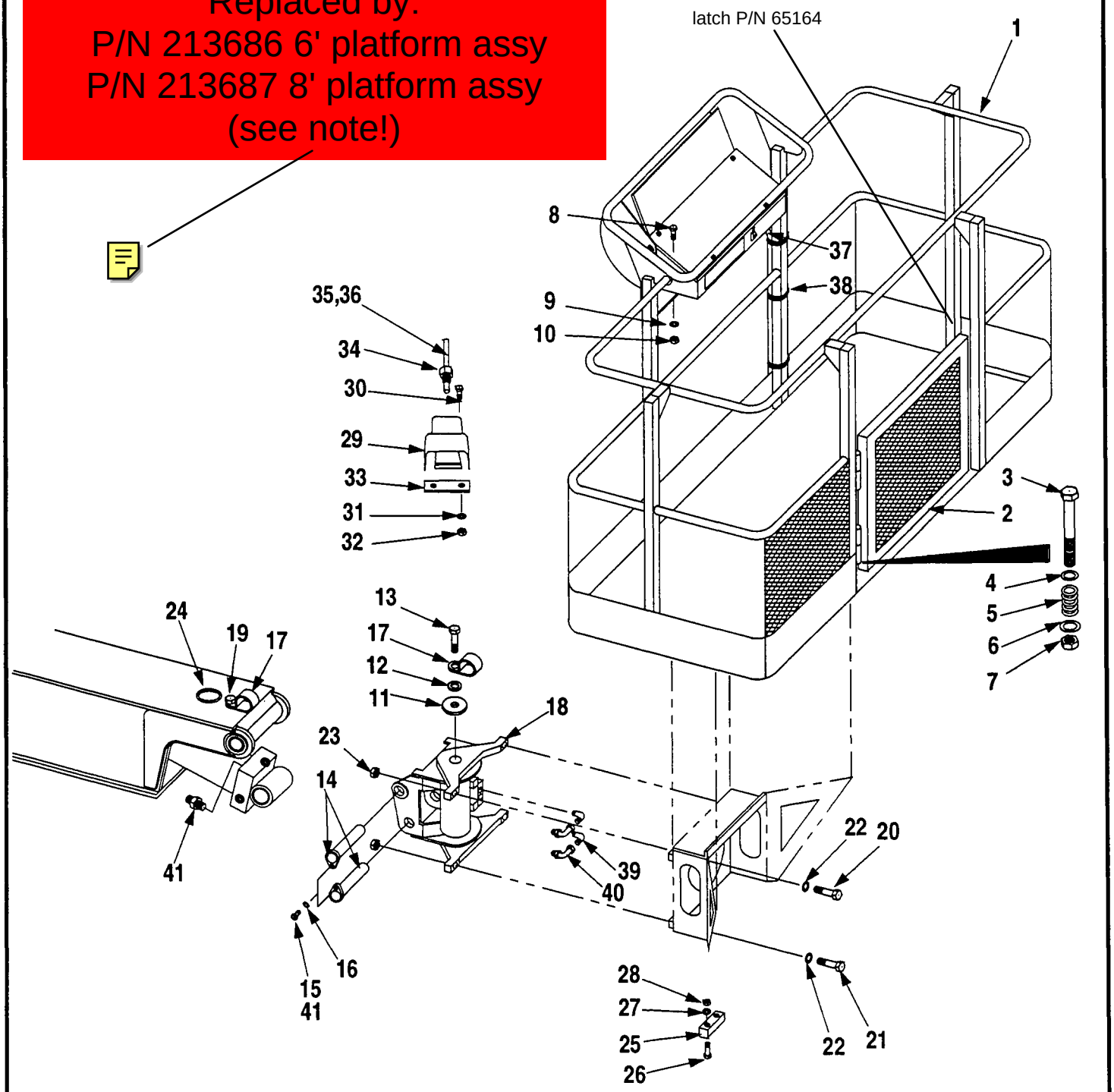
SECTION 6 "PLATFORM" CONTAINS:

PAGE	TITLE
6.2	PLATFORM
6.4	PLATFORM (TOP MOUNT)
6.6	PLATFORM (FLAT MOUNT)
6.8	AERIAL CONTROL BOX
6.14	PLATFORM ROTATOR
6.15	FOOT SWITCH
6.16	PLATFORM WIRING
6.17	JOYSTICKS

PLATFORM

Mark Industries

Replaced by:
P/N 213686 6' platform assy
P/N 213687 8' platform assy
(see note!)

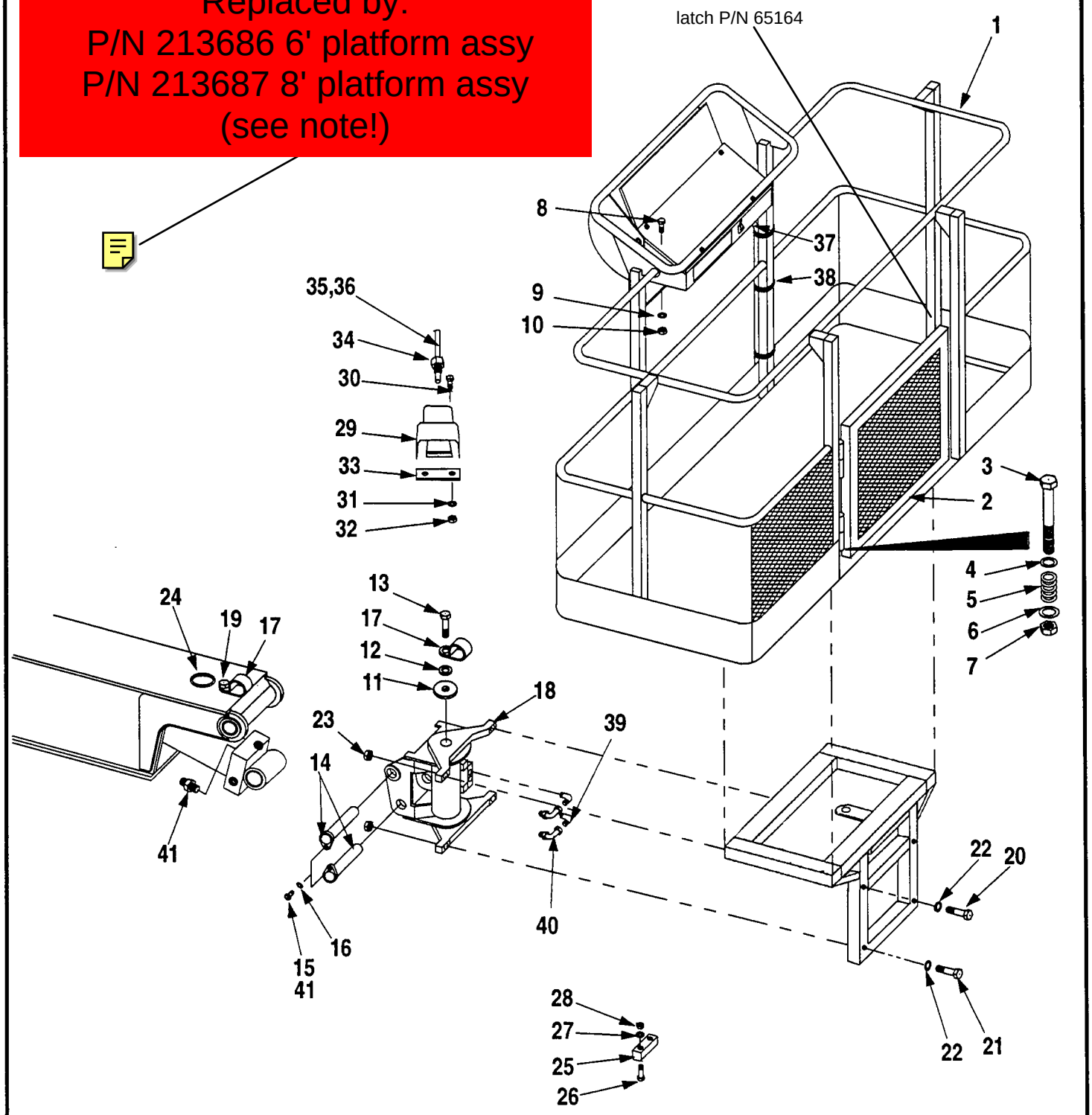


Ref.	Part No.	Description	Qty	Remarks
	211811-3	Platform Ass'y, 6' W/O Mesh	1	}-Incl. Items 1 thru 42
	211811-4	Platform Ass'y, 8' W/O Mesh	1	
1	212325	Platform, 6' W/O Mesh	1	
	212326	Platform, 8' W/O Mesh	1	
2	212324	Door	1	
3	1200-130	Capscrew, 1/2C x 6	2	
4	085 113 24	Flatwasher	4	
5	211816	Spring	2	
6	384 2200	Washer, Thrust	2	
7	1205-67	Locknut, 1/2C	2	
8	1200-61	Capscrew, 3/8C x 1-1/4	4	
9	1209-63	Flatwasher, 3/8 HT	8	
10	1205-45	Locknut, 3/8C	4	
11	212209	Washer, Special	1	
12	1210-26	Lockwasher, 1/2 Gr. 8	1	
13	1242-29	Capscrew, 1/2C x 1 Gr. 8	1	
14	211710	Pin, Boom	2	
15	1242-100	Capscrew, 3/8C x 3/4 Gr. 8	2	
16	1209-63	Flatwasher, 3/8 HT	2	
17	200B2007-52	Clamp	2	
18	81372	Rotator Assembly	1	See Page 6.14
19	1200-61	Capscrew 3/8C x 1-1/4	1	
	1209-4	Flatwasher	1	
	1205-45	Locknut, 3/8C	1	
20	1242-127	Capscrew, 1/2C x 3 Gr. 8	2	Top
21	1242-118	Capscrew, 1/2C x 2-1/2 Gr. 8	2	Bottom
22	1209-29	Flatwasher, 1/2 Gr. 8	4	
23	1205-67	Locknut, 1/2C	4	
24	1221-100	Grommet	1	
25	212064	Bumper	1	
26	1200-65	Capscrew, 3/8C x 1-3/4	2	
27	1209-63	Flatwasher, 3/8 HT	2	
28	1205-45	Locknut, 3/8C	2	
29	70212	Footswitch Ass'y	1	See Page 6.15
30	1200-5	Capscrew, 1/4C x 1/4	2	
31	1209-2	Flatwasher, 1/4	4	
32	1205-23	Locknut, 1/4C	2	
33	22742	Plate	1	
34	2531	Strain Relief	1	
35	70187	Cable, SJO 18/4	1	
36	70149	Terminal, Pink Ring	4	
37	70807	Socket	4	
	69835	Tool, Crimp	Opt.	For Socket Installation
38	1222-202	Tie, Plastic	3	
39	12019-264	Elbow, 90°	2	
40	2594	Fitting, 90°	2	
41	2562	Fitting, Straight	2	
42	511 2057	Loctite #242	AR	
43	70862	Connector	1	

PLATFORM
(TOP MOUNT)

Mark Industries

Replaced by:
P/N 213686 6' platform assy
P/N 213687 8' platform assy
(see note!)

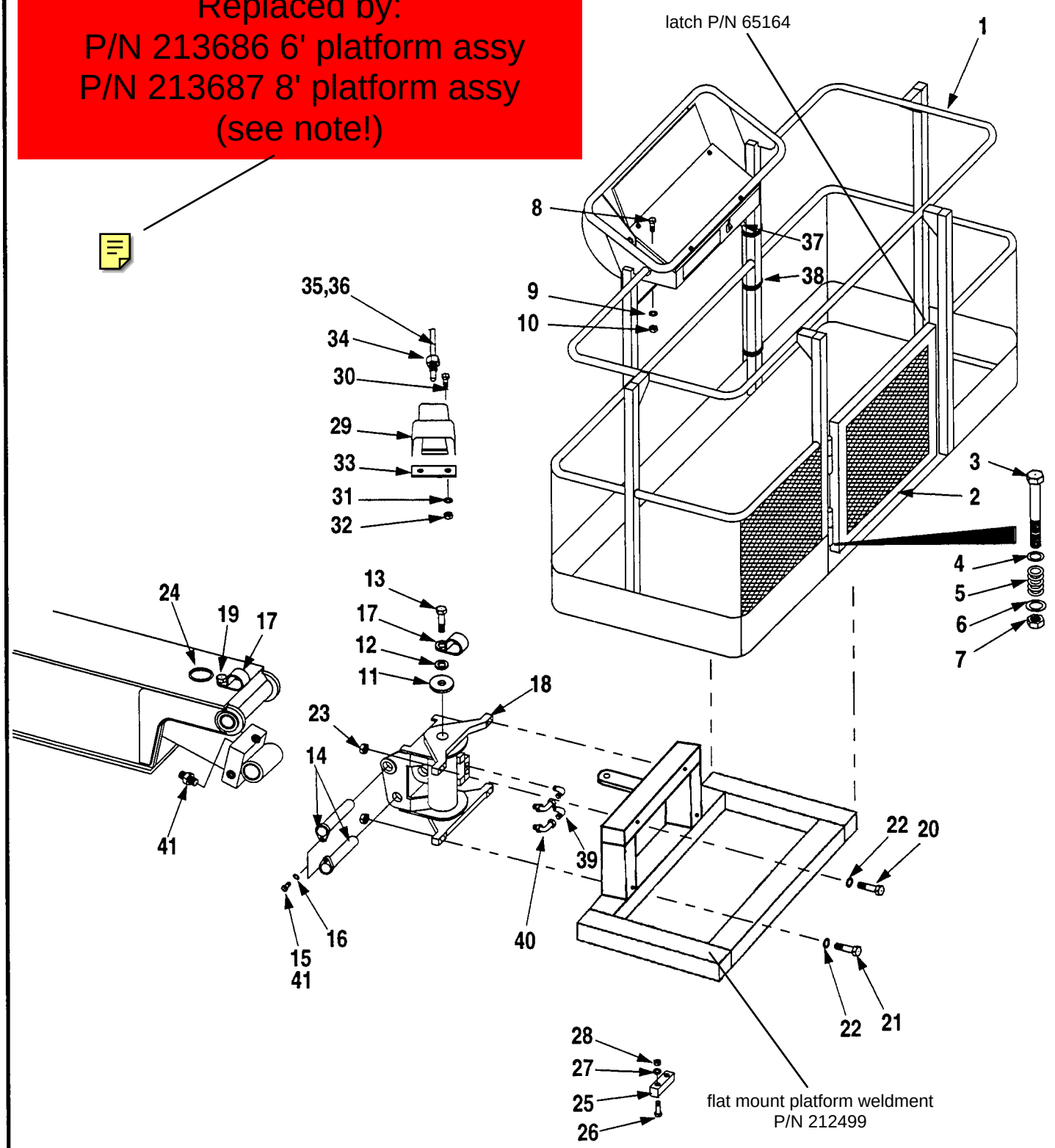


Ref.	Part No.	Description	Qty	Remarks
	212476	Platform Ass'y, 6'	1	]-Incl. Items 1 thru 42
	212477	Platform Ass'y, 8'	1	
1	212388	Platform, 6'	1	
	212473	Platform, 8'	1	
1A	24171	Bracket	1	
2	212324	Door	1	
3	1200-130	Capscrew, 1/2C x 6	2	
4	085 113 24	Flatwasher	4	
5	211816	Spring	2	
6	384 2200	Washer, Thrust	2	
7	1205-67	Locknut, 1/2C	2	
8	1200-61	Capscrew, 3/8C x 1-1/4	4	
9	1209-63	Flatwasher, 3/8 HT	8	
10	1205-45	Locknut, 3/8C	4	
11	212209	Washer, Special	1	
12	1210-26	Lockwasher, 1/2 Gr. 8	1	
13	1242-29	Capscrew, 1/2C x 1 Gr. 8	1	
14	211710	Pin, Boom	2	
15	1242-100	Capscrew, 3/8C x 3/4 Gr. 8	2	
16	1209-63	Flatwasher, 3/8 HT	2	
17	200B2007-52	Clamp	2	
18	81372	Rotator Assembly	1	See Page 6.14
19	1200-61	Capscrew 3/8C x 1-1/4	1	
	1209-4	Flatwasher	1	
	1205-45	Locknut, 3/8C	1	
20	1242-127	Capscrew, 1/2C x 3 Gr. 8	2	Top
21	1242-118	Capscrew, 1/2C x 2-1/2 Gr. 8	2	Bottom
22	1209-29	Flatwasher, 1/2 Gr. 8	4	
23	1205-67	Locknut, 1/2C	4	
24	1221-100	Grommet	1	
25	212064	Bumper	1	
26	1200-65	Capscrew, 3/8C x 1-3/4	2	
27	1209-63	Flatwasher, 3/8 HT	2	
28	1205-45	Locknut, 3/8C	2	
29	70212	Footswitch Ass'y	1	See Page 6.15
30	1200-5	Capscrew, 1/4C x 1/4	2	
31	1209-2	Flatwasher, 1/4	4	
32	1205-23	Locknut, 1/4C	2	
33	22742	Plate	1	
34	2531	Strain Relief	1	
35	70187	Cable, SJO 18/4	1	
36	70149	Terminal, Pink Ring	4	
37	70807	Socket	4	
	69835	Tool, Crimp	Opt.	For Socket Installation
38	1222-202	Tie, Plastic	3	
39	12019-264	Elbow, 90°	2	
40	2594	Fitting, 90°	2	
41	2562	Fitting, Straight	2	
42	511 2057	Loctite #242	AR	
43	70862	Connector	1	

PLATFORM
(FLAT MOUNT)

Mark Industries

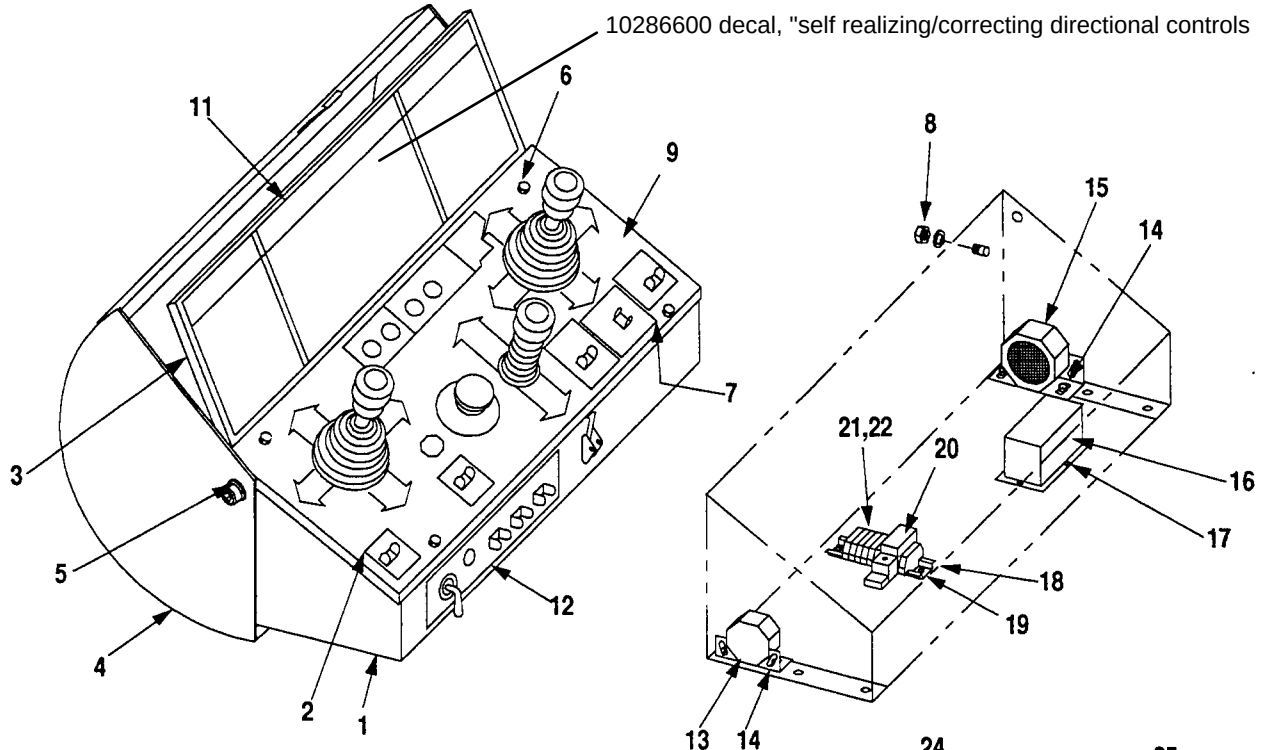
Replaced by:
P/N 213686 6' platform assy
P/N 213687 8' platform assy
(see note!)

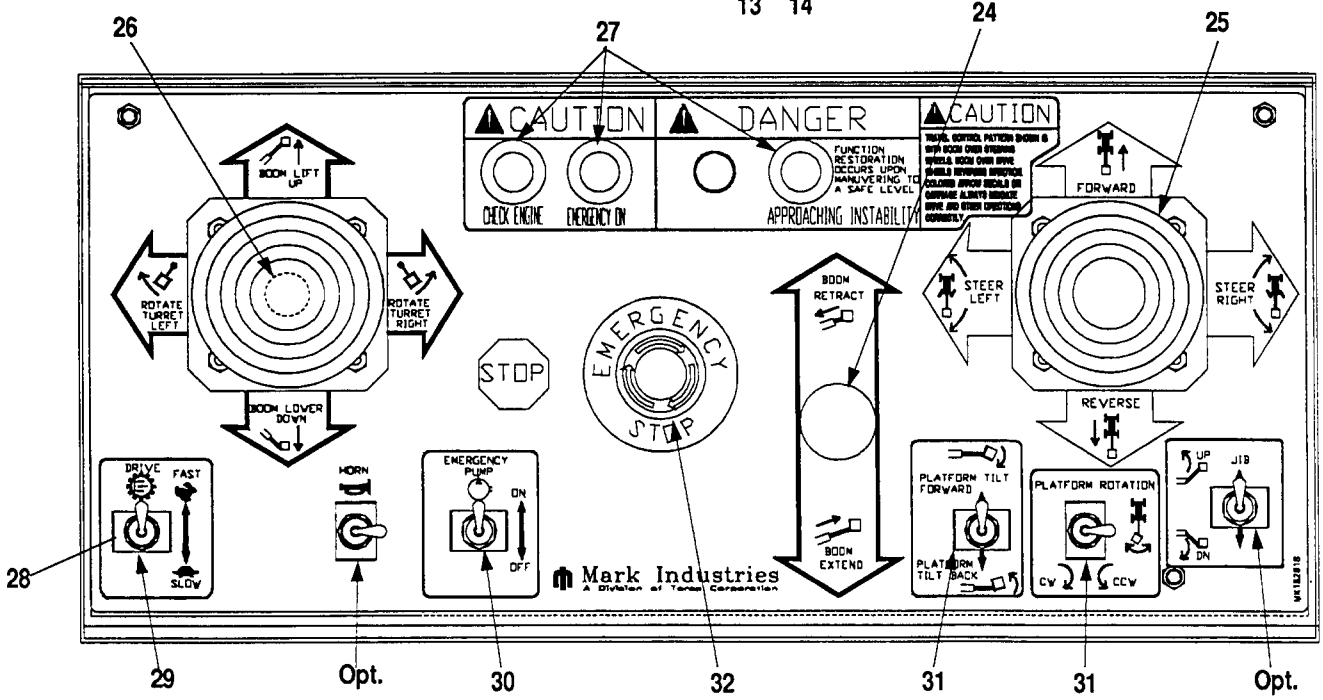


Ref.	Part No.	Description	Qty	Remarks
	212474	Platform Ass'y, 6'	1	]-Incl. Items 1 thru 42
	212475	Platform Ass'y, 8'	1	
1	212388	Platform, 6'	1	
	212473	Platform, 8'	1	
1A	212499	Bracket	1	
2	212324	Door	1	
3	1200-130	Capscrew, 1/2C x 6	2	
4	085 113 24	Flatwasher	4	
5	211816	Spring	2	
6	384 2200	Washer, Thrust	2	
7	1205-67	Locknut, 1/2C	2	
8	1200-61	Capscrew, 3/8C x 1-1/4	4	
9	1209-63	Flatwasher, 3/8 HT	8	
10	1205-45	Locknut, 3/8C	4	
11	212209	Washer, Special	1	
12	1210-26	Lockwasher, 1/2 Gr. 8	1	
13	1242-29	Capscrew, 1/2C x 1 Gr. 8	1	
14	211710	Pin, Boom	2	
15	1242-100	Capscrew, 3/8C x 3/4 Gr. 8	2	
16	1209-63	Flatwasher, 3/8 HT	2	
17	200B2007-52	Clamp	2	
18	81372	Rotator Assembly	1	See Page 6.?
19	1200-61	Capscrew 3/8C x 1-1/4	1	
	1209-4	Flatwasher	1	
	1205-45	Locknut, 3/8C	1	
20	1242-127	Capscrew, 1/2C x 3 Gr. 8	2	Top
21	1242-118	Capscrew, 1/2C x 2-1/2 Gr. 8	2	Bottom
22	1209-29	Flatwasher, 1/2 Gr. 8	4	
23	1205-67	Locknut, 1/2C	4	
24	1221-100	Grommet	1	
25	212064	Bumper	1	
26	1200-65	Capscrew, 3/8C x 1-3/4	2	
27	1209-63	Flatwasher, 3/8 HT	2	
28	1205-45	Locknut, 3/8C	2	
29	70212	Footswitch Ass'y	1	See Page 6.?
30	1200-5	Capscrew, 1/4C x 1/4	2	
31	1209-2	Flatwasher, 1/4	4	
32	1205-23	Locknut, 1/4C	2	
33	22742	Plate	1	
34	2531	Strain Relief	1	
35	70187	Cable, SJO 18/4	1	
36	70149	Terminal, Pink Ring	4	
37	70807	Socket	4	
	69835	Tool, Crimp	Opt.	For Socket Installation
38	1222-202	Tie, Plastic	3	
39	12019-264	Elbow, 90°	2	
40	2594	Fitting, 90°	2	
41	2562	Fitting, Straight	2	
42	511 2057	Loctite #242	AR	
43	70862	Connector	1	

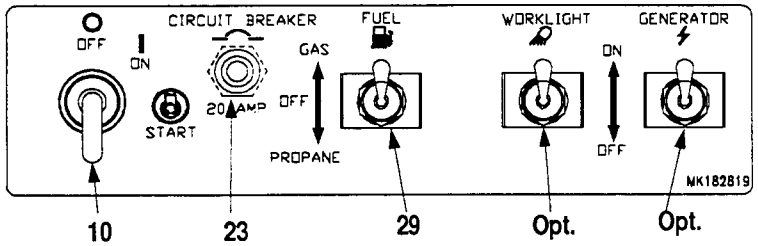
AERIAL CONTROL BOX

Mark Industries, Inc.





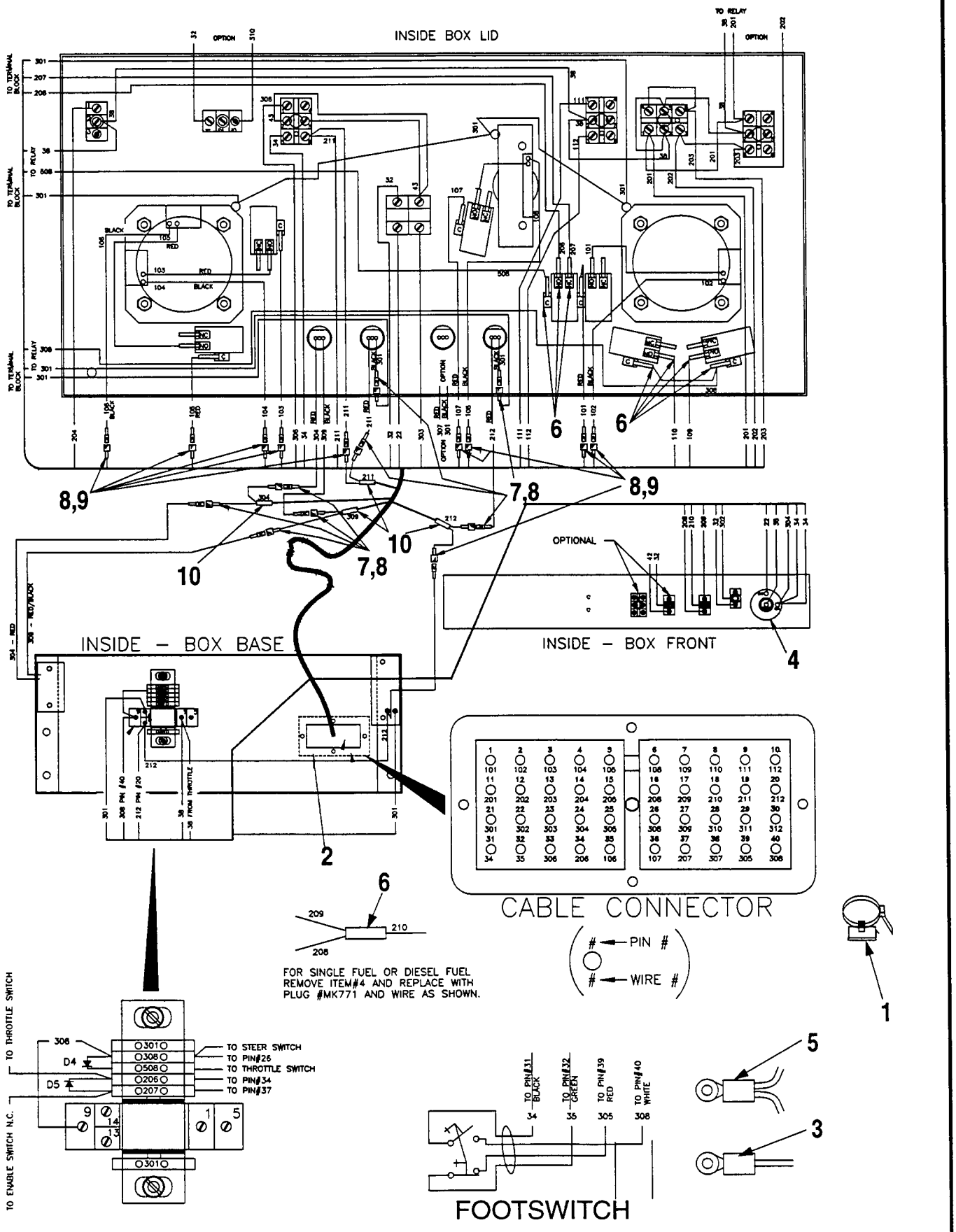
May Not be Available on all Models.



Ref.	Part No.	Description	Qty	Remarks
	212007	Aerial Control Box Ass'y (Mark)	1	Incl. Items 1 thru 34 &
1	212005	Box	1	1 thru 11, Page 6.11
2	212100	Lid, Box	1	
3	212088	Plate, Back	1	
4	~~211087~~ 212410	Cover	1	
5	1203-21	Shoulder Screw, 3/8 x 1/2 - 5/16C x 1/2	2	
	511 2057	Loctite	AR	
6	311 1956	Machine Screw, 1/4C x 1/2	4	
	A126739	Cage Nut, 1/4 J-Type	4	
7	12258-60	Rubber, Adhesive Back - 1/8" x 1/2"	1	
8	1205-13	Nut, 1/4C	3	
	1210-14	Lockwasher	3	
9	182818	Decal, Box (Top)	1	
10	181109	Decal, Danger, High Voltage Distance	1	
11	182820	Decal, Operation Instructions	1	
12	182819	Decal, Box (Front)	1	
13	441 6637	Alarm, Engine	1	
14	1205-13	Nut, 1/4C	4	
15	441 6838	Alarm, Stability	1	
16	70803	Connector, Receptacle	1	
17	1233-10	Machine Screw, #8-32 x 3/4	4	
	1210-5	Lockwasher, #8	4	
18	70580	Rail, Low Profile	1	
19	1233-5	Machine Screw, 1/4C x 1/2	2	
	1205-23	Locknut, 1/4C	2	
20	70459	Relay	1	
	70460	Base	1	
	70462	Clip, Relay Hold-Down	2	
21	441 6839	Terminal Block, Gray	4	
22	441 6840	Terminal Block, Y/G	2	
	441 6841	Cover, End	2	
23	70775	Electronic Control Kit	1	Incl. 24,25,26 & Controllers
24	70823	Joystick, Boom Extend	1	
25	70824	Joystick, Drive/Steer	1	
26	70825	Joystick, Lift/Rotate	1	
27	70781	Light, Red	3	
28	70783	Guard, Switch	AR	
29	20482	Switch, Toggle (SPDT)	3	
30	441 6827	Switch, Toggle (DPDT)	1	
31	20481	Switch, Toggle (DPDT)	2	
32	70645	Emergency Stop Mushroom	1	
	441 6845	Block, Contact	1	
33	70595	Switch, Ignition	1	
34	20562	Circuit Breaker	1	
	70785	Boot	1	

AERIAL CONTROL BOX

Mark Industries



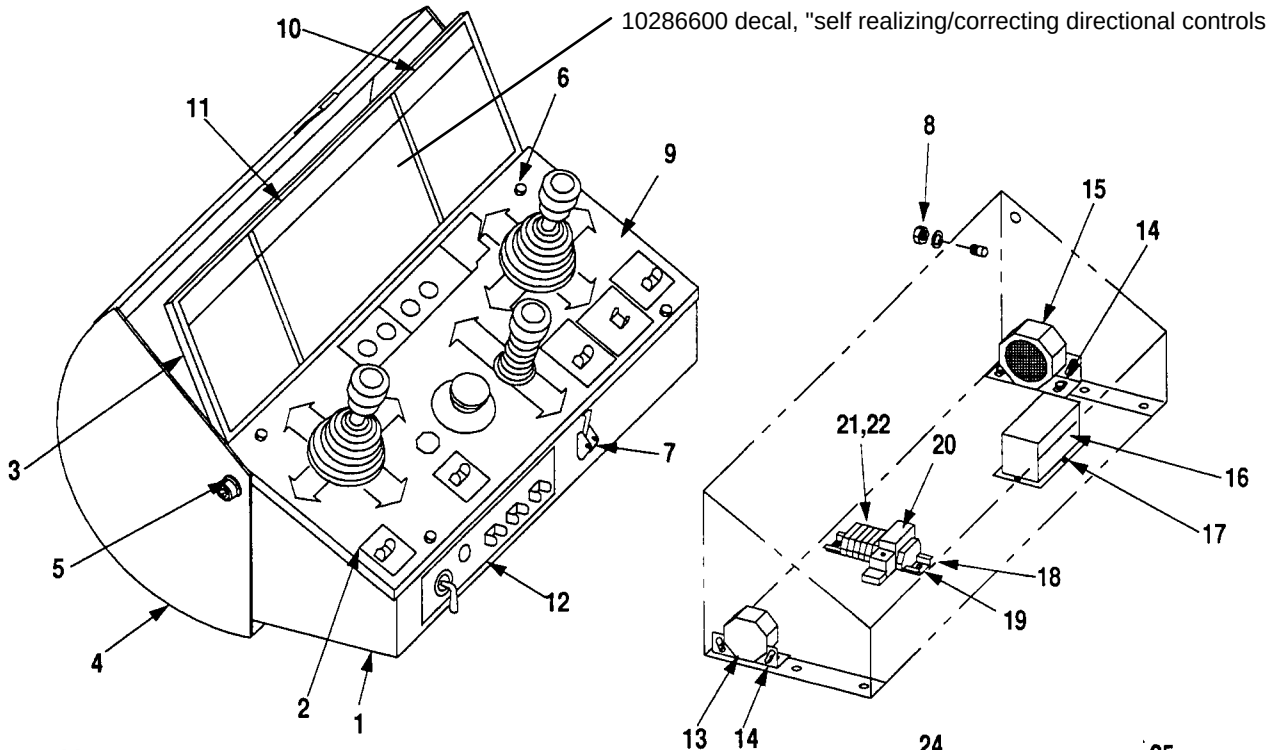
Ref.	Part No.	Description	Qty	Remarks
1	256	Tie, Plastic	30	
2	16214	Pad, Tie	10	
3	70149	Terminal, Ring (Pink)	13	
4	117-M	Terminal, Ring (Blue)	8	
5	117	Terminal, Ring	8	
6	70782	Terminal, Female Disconnect	7	
7	70501	Terminal, Male Disconnect	8	
8	66356	Terminal, Female Disconnect	18	
9	66357	Terminal, Male Disconnect	10	
10	70068	Connector, Butt	5	
11	12241-3	Sealant, Silicone	AR	

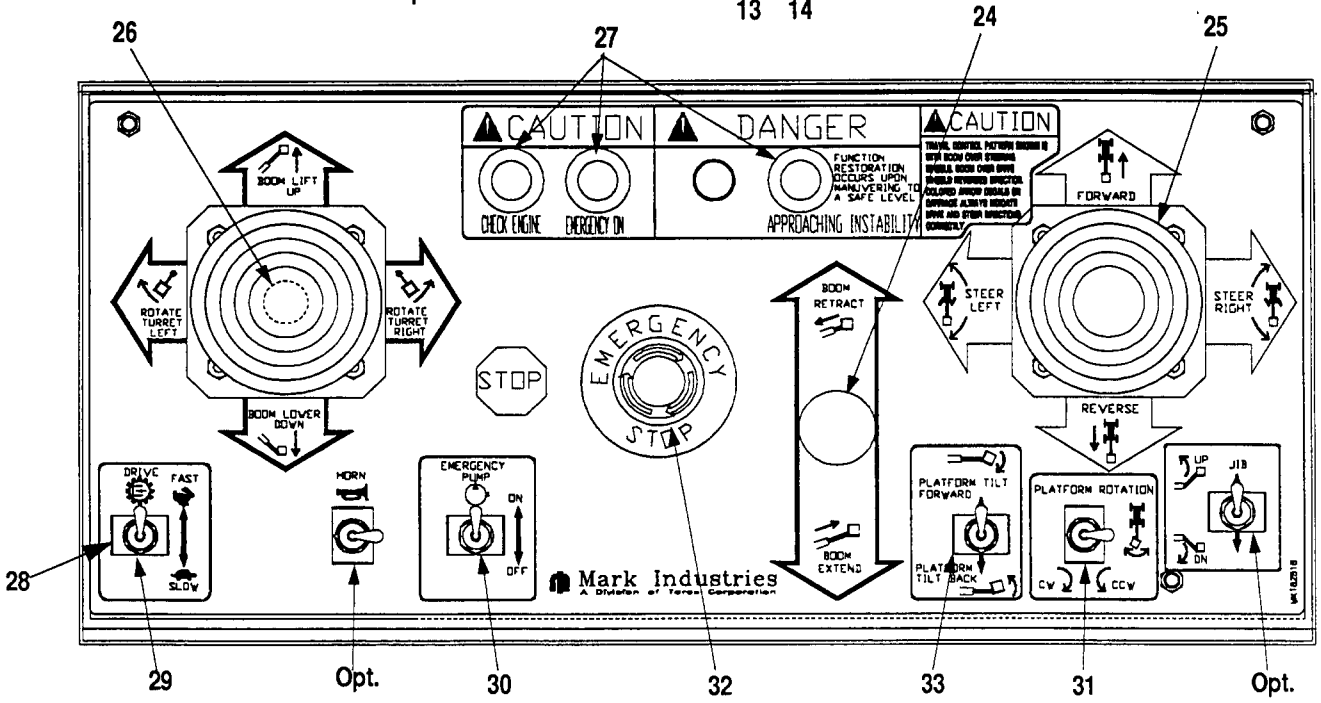
CABLE PIN CONNECTORS

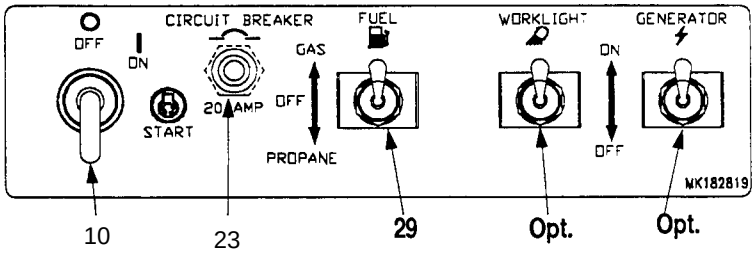
PIN #	WIRE #	COLOR
1	101	BLACK
2	102	BROWN
3	103	YELLOW
4	104	ORANGE
5	105	BLUE
6	106	YELLOW
7	108	ORANGE
8	110	BLUE
9	111	RED
10	112	BLACK
11	201	BLACK
12	202	BROWN
13	203	YELLOW
14	204	ORANGE
15	205	BLUE
16	206	YELLOW
17	208	ORANGE
18	210	BLUE
19	211	RED
20	212	BLACK
21	301	BLACK
22	302	BROWN
23	303	YELLOW2
24	304	ORANGE
25	305	BLUE
26	308	YELLOW
27	309	ORANGE
28	310	BLUE
29	311	RED
30	3312	BLACK
31	34	BLACK
32	35	GREEN
33	305	RED
34	208	RED
35	106	RED
36	107	BROWN
37	207	BROWN
38	307	BROWN
39	305	RED
40	308	WHITE

AERIAL CONTROL BOX

Mark Industries







Ref.	Part No.	Description	Qty	Remarks
	212007	Aerial Control Box Ass'y (OEM)	Ref.	Incl. Items 1 thru 33
1	212005	Box	1	
2	212100	Lid, Box	1	
3	212088	Plate, Back	1	
4	212410	Cover	1	
5	1203-201	Shoulder Screw, 3/8 x 1/2 - 5/16C x 1/2	2	
	511 2057	Loctite	AR	
6	311 1956	Machine Screw, 1/4C x 1/2	4	
	A126739	Cage Nut, 1/4 J-Type	4	
	69117	Latch	1	
8	1205-13	Nut, 1/4C	3	
	1210-14	Lockwasher	3	
9	182818	Decal, Box (Top)	1	
10	69119	Switch, Ignition	1	
11	182120	Decal, Operation Instructions	1	
12	182819	Decal, Box (Front)	1	
13	441 6837	Alarm, Engine	1	
14	1205-13	Nut, 1/4C	4	
15	441 6838	Alarm, Stability	1	
16	70803	Connector, Receptacle	1	
17	1233-10	Machine Screw, #8-32 x 3/4	4	
	1205-3	Nut, #8-32	4	
	1210-5	Lockwasher, #8	4	
18	70580	Rail, Low Profile	1	
19	1233-5	Machine Screw, 1/4C x 1/2	2	
	1205-23	Locknut, 1/4C	2	
20	70459	Relay	1	
	70460	Base	1	
	70462	Clip, Relay Hold-Down	2	
21	441 6839	Terminal Block, Brown	4	
22	441 6840	Terminal Block, Y/G	2	
23	69172	Circuit Breaker	1	
24	70823	Joystick, Boom Extend	1	
25	70824	Joystick, Drive/Steer	1	
26	70825	Joystick, Lift/Rotate	1	
27	69144	Lamp Base	3	
	69254	Bulb	3	
	69143	Lens	3	
28	70783	Guard, Switch	5	
29	69162	Switch, Toggle	1	
30	69255	Switch, Toggle	1	
31	69164	Switch, Toggle	1	
32	69166	Emergency Stop Button	1	
33	69232	Switch, Toggle	1	

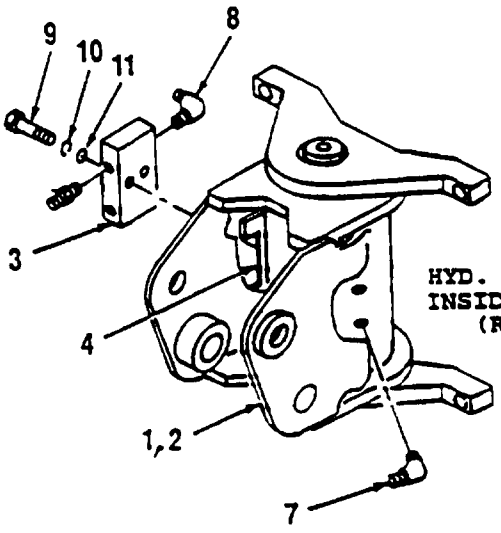
Model CH60C
CH66C

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PLATFORM ROTATOR

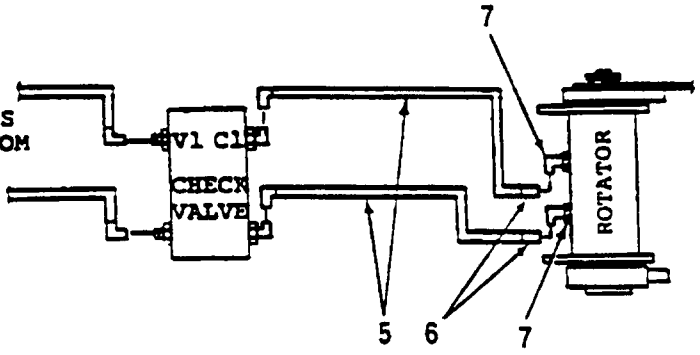
Mark Industries

Open note for replacement rotator

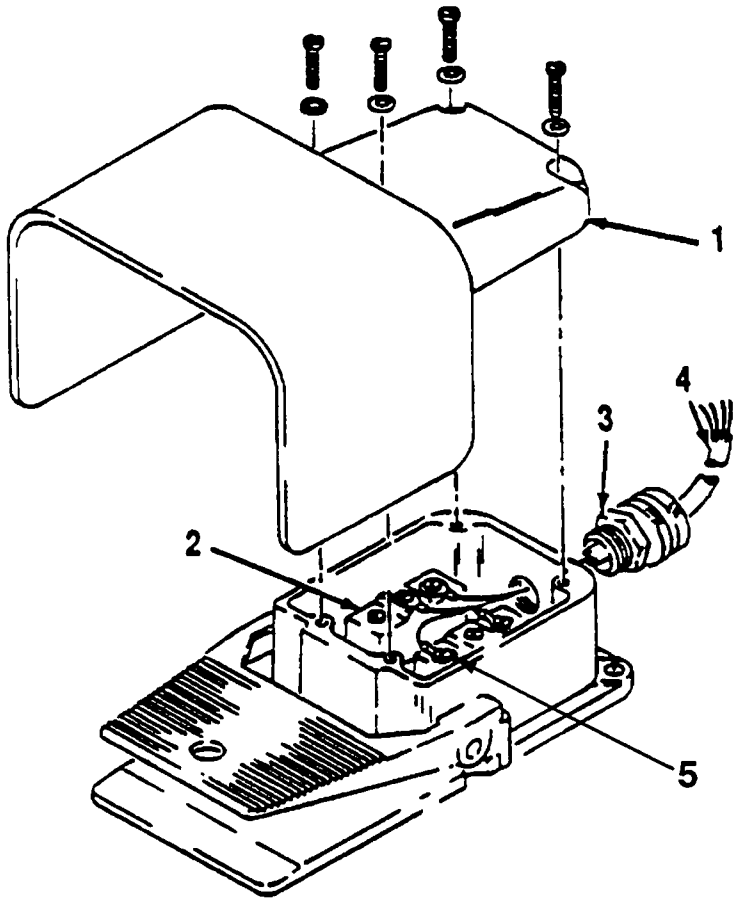


HYD. HOSES INSIDE BOOM (REF.)

HOSE DIAGRAM



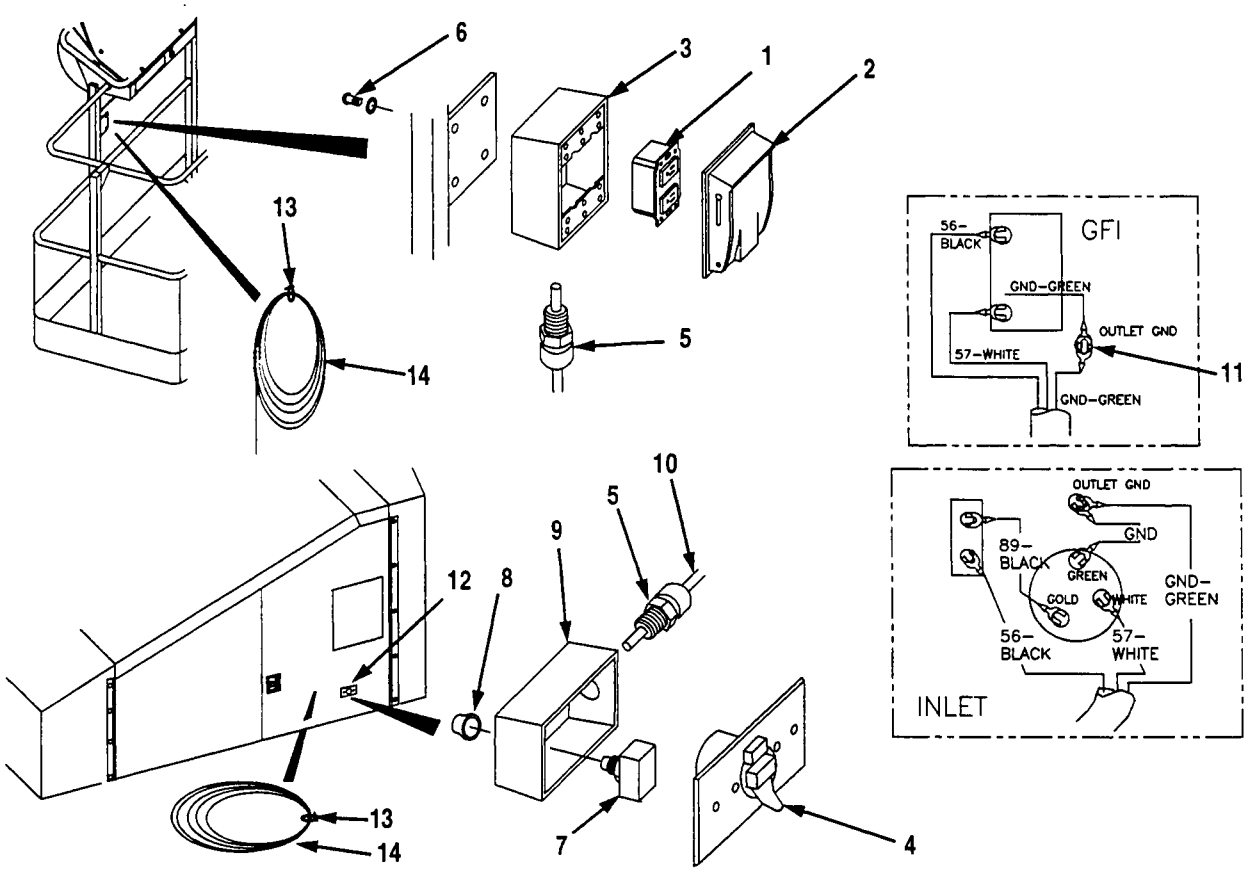
Ref.	Part No.	Description	Qty	Remarks
	81372	Platform Rotator Ass'y	1	Incl. Items 1 thru 11
1	~~67770~~ 69178	Kit, Seal, Universal	1	
2	~~67771~~ 68179	Kit, Bearing, Universal	1	
3	20351	Valve, Check	1	
4	23197	Bracket, Check Valve	1	
5	69356	Tube set	1	
6	2562	Fitting, Swivel	2	
7	80012-03	Elbow, Stright Thread	2	
8	80012-05	Elbow, Swivel	4	
9	60360	Screw, Cap	2	
10	63302	Lockwasher	2	
11	63402	Flatwasher	2	



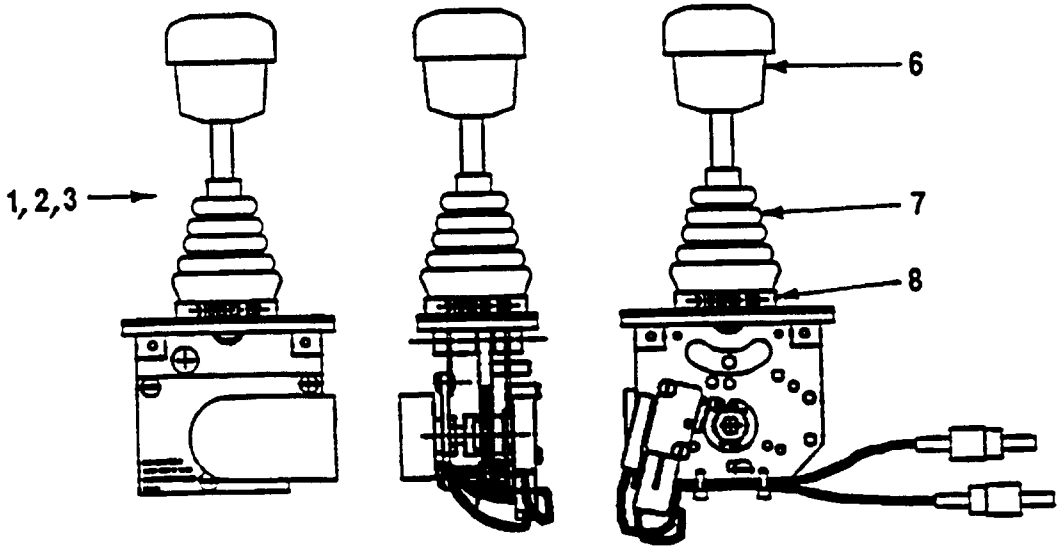
Ref.	Part No.	Description	Qty	Remarks
1	70212	Footswitch	1	Incl. Item 2
2	66336	Microswitch	2	
3	2531	Relief, Strain	1	
4	70187	Cable, SJO 18/4	1	
5	876	Terminal	4	

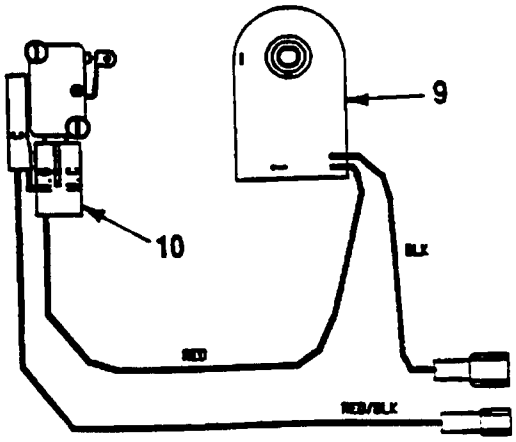
PLATFORM WIRING

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	212162-1	Platform Wiring - 110 Volt	Opt.	Incl. Items 1 thru 11
	212162-2	Platform Wiring - 220 Volt	Opt.	Incl. Items 12 thru 14
1	70391	Receptacle, GFI	1	
2	70392	Cover, Receptacle	1	
3	70262	Box	1	
4	70119	Inlet w/Gasket	1	
5	2806	Strain Relief	2	
6	61720	Screw, #10-24 x 5/8 Self-Tapping	4	
7	441 4026	Circuit Breaker, 20A	1	
8	442 2399	Boot	1	
9	212133	Outlet Box	1	
10	~~70769~~ 70423	Cable, 12/3	Ref.	
11	117-C	Terminal	11	
12	902	Cover, Door	1	
13	1222-202	Tie, Plastic	2	
14	70423	Cable, TUV 12/3	Ref.	





Ref.	Part No.	Description	Qty	Remarks
	70775	Electronic Control System	Ref.	Incl. Items 1 thru 5
1	70823	Joystick, Boom Extend (Single Axis-Shown)	1	
2	70824	Joystick, Drive/Steer (Dual Axis)	1	Incl. Serviceable Items 6-11
3	70825	Joystick, Lift/Rotate (Dual Axis)	1	
4	70826	Controller, Drive / Boom Extend	1	Shown Page 4.37
5	70827	Controller, Boom Raise / Turret Rotate	1	Shown Page 4.37
6	600114	Knob	AR	
7	67496	Boot, Single Axis	AR	
	68982	Boot, Dual Axis		
8	67495	Clamp, Single Axis	AR	
		Clamp, Dual Axis		
9		DigiSensor w/Wires	AR	
10	67486	Microswitch	AR	
11	not available	~~Centering Spring, Dual Axis~~	AR	

NOTES

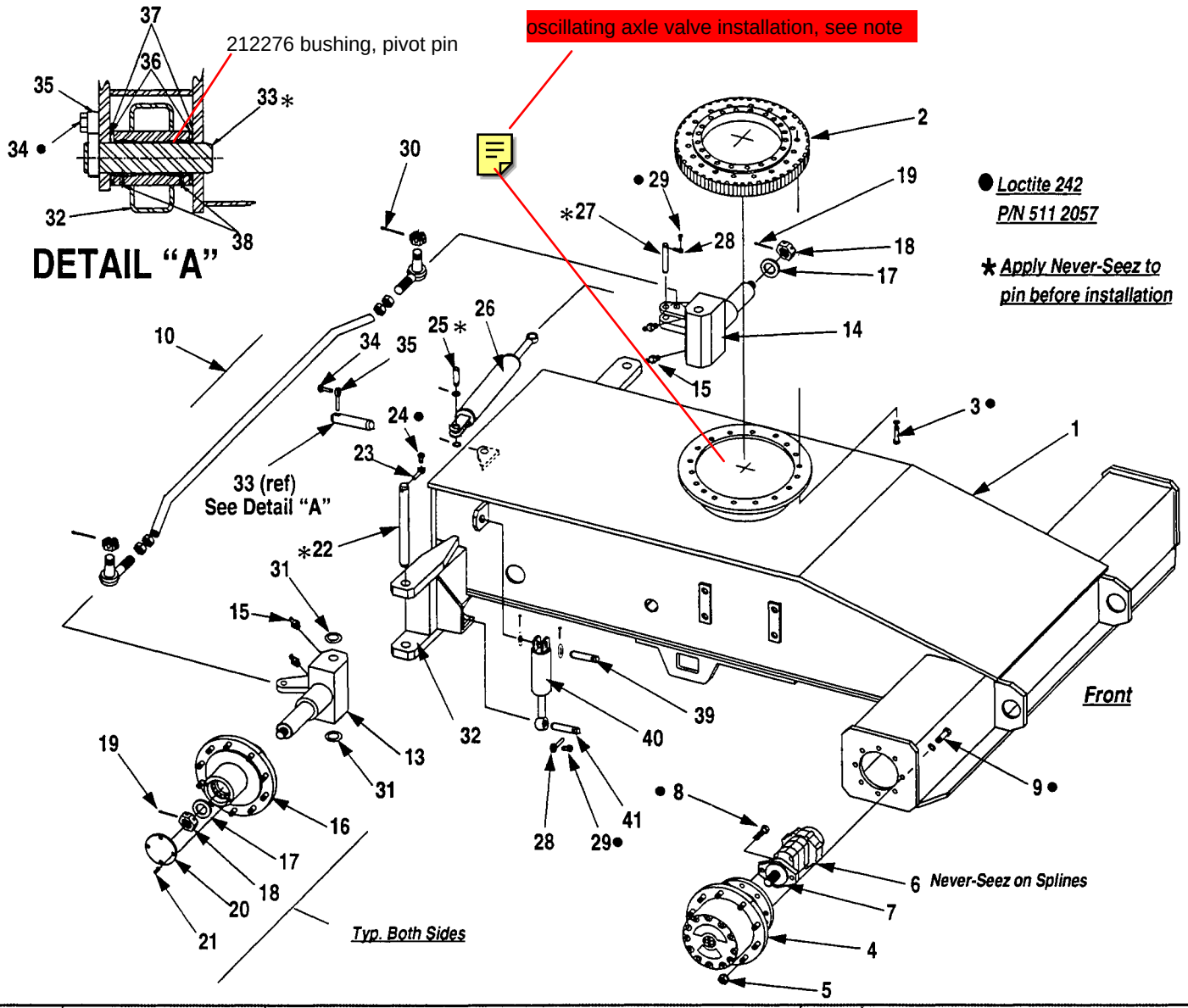
SECTION 7 "OPTIONS" CONTAINS:

PAGE	TITLE
7.2	OSCILLATING AXLE BASE (2WD)
7.4	BASE HYDRAULICS (2WD & OSCILLATING AXLE)
7.8	OSCILLATING AXLE BASE (4WD)
7.10	BASE HYDRAULICS (4WD & OSCILLATIING AXLE)
7.14	WARNING HORN
7.15	AMBER BEACON
7.16	ALL MOTION ALARM & TRAVEL WARNING ALARM
7.17	OSCILLATING AXLE CYLINDER
7.18	GROUND DRIVE PENDANT
	Hostile environment kit (sand blasting) P/N 213506

Model CH60C
CH66C
Issued 5-96

OSCILLATING AXLE BASE
(2WD)

Mark Industries



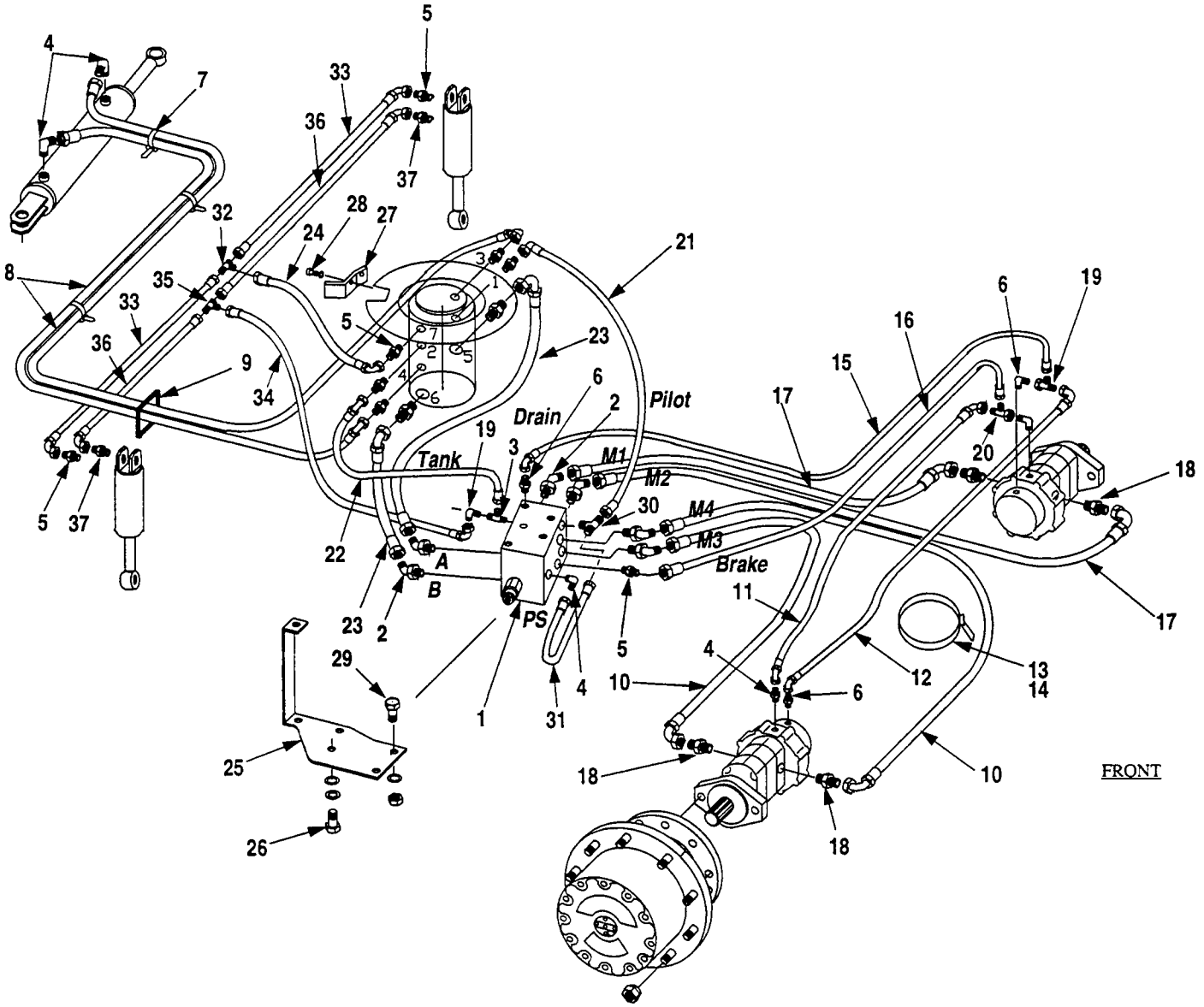
Ref.	Part No.	Description	Qty	Remarks
	212125	Carriage Ass'y, Oscillating Axle (CH60C)	1	Incl. 1 thru 42
	212125-1	Carriage Ass'y, Oscillating Axle (CH66C)	1	Incl. 1 thru 42
1	212288	Carriage Weldment (CH60C)	1	
	212288-1	Carriage Weldment (CH66C)	1	
2	211773	Bearing, Swing	1	
3	1242-94	Capscrew, 5/8C x 3-1/2 Gr. 8	18	To be loctited upon assembly
	1209-48	Flatwasher, 5/8 Gr. 8	18	
4	212509	Torque Hub	2	See Page 3.8
5	160718	Nut, Lug (Wheel)	36	
6	81393	Drive Motor & Parking Brake Ass'y	2	See Pages 3.12 & 3.14
7	460 6309	O-Ring (Motor to Torque Hub Seal)	2	.094 x 4.00
8	1203-220	Capscrew, 1/2C x 1-1/2 12 Pt. Gr. 8	4	Motor to Hub

Ref.	Part No.	Description	Qty	Remarks
9	1242-45	Capscrew, 5/8C X 1-1/2 Gr. 8	18	Hub To Undercarriage
	1209-48	Flatwasher, 5/8C Gr. 8	18	
10	212346-1	Tie Rod Assembly	1	See Page 3.6
13	211936	Spindle, RH Rear	1	
	212169	Bushing	2	
14	211937	Spindle, LH Rear	1	
	212169	Bushing	2	
15	1213-1	Zerk, Grease	4	
16	211942	Wheel Hub Assembly	2	See Page 3.7
17	211939	Washer, Thrust	2	
18	1205-143	Nut, 1-1/2F Slotted	2	
19	1207-44	Cotter Pin, 1/4 x 2-1/2	2	
20	211938	Cover, Wheel Hub	2	
21	1200-309	Capscrew, 1/4C x 1/2	4	
	1210-14	Lockwasher, 1/4	4	
22	211914	King Pin	2	
23	706 9449	Rod End, Buck Pin	2	
24	1242-45	Capscrew, 5/8C x 1-1/2 Gr. 8	2	
25	211913	Pin	1	
	1209-30	Flatwasher	2	
	1207-40	Cotter Pin, 1/4 x 1-1/2	2	
26	211758	Cylinder, Steering (Master Level Cylinder)	1	See Section 5
27	211912	Pin	1	Cylinder to LH Spindle
28	211779	Rod Eye	3	
29	1242-134	Capscrew, 3/8C x 1 Gr. 8	3	
30	1207-14	Cotter Pin, 1/8 x 1-1/2	2	Tie Rod
31	212170	Washer, Thrust	4	
32	212278	Weldment, Oscillating Axle	1	
33	212292	Pin, Oscillating Axle Pivot	1	
34	1200-268	Capscrew, 1C x 2-1/4 Gr.8	1	
35	709 1424	Rod Eye	1	
36	212277	Washer, Thrust	2	
37	212290	Shim	2	
38	1213-1	Zerk, Grease	2	
39	212294	Pin, Oscillating Cylinder Base	2	
	1209-31	Washer, Flat	4	
	1207-41	Cotter Pin, 1/4 x 1-3/4	4	
40	212260	Cylinder, Oscillating Axle	2	See Page 7.2
41	212295	Pin, Oscillating Cylinder Eye	2	
42	212296	Hydraulic Assembly, Oscillating Axle (2WD)	1	See Page 7.4
43		Tire & Rim Ass'y (Not Shown)	4	See Page 3.15

BASE HYDRAULICS

(2WD & OSC AXLE)

Mark Industries

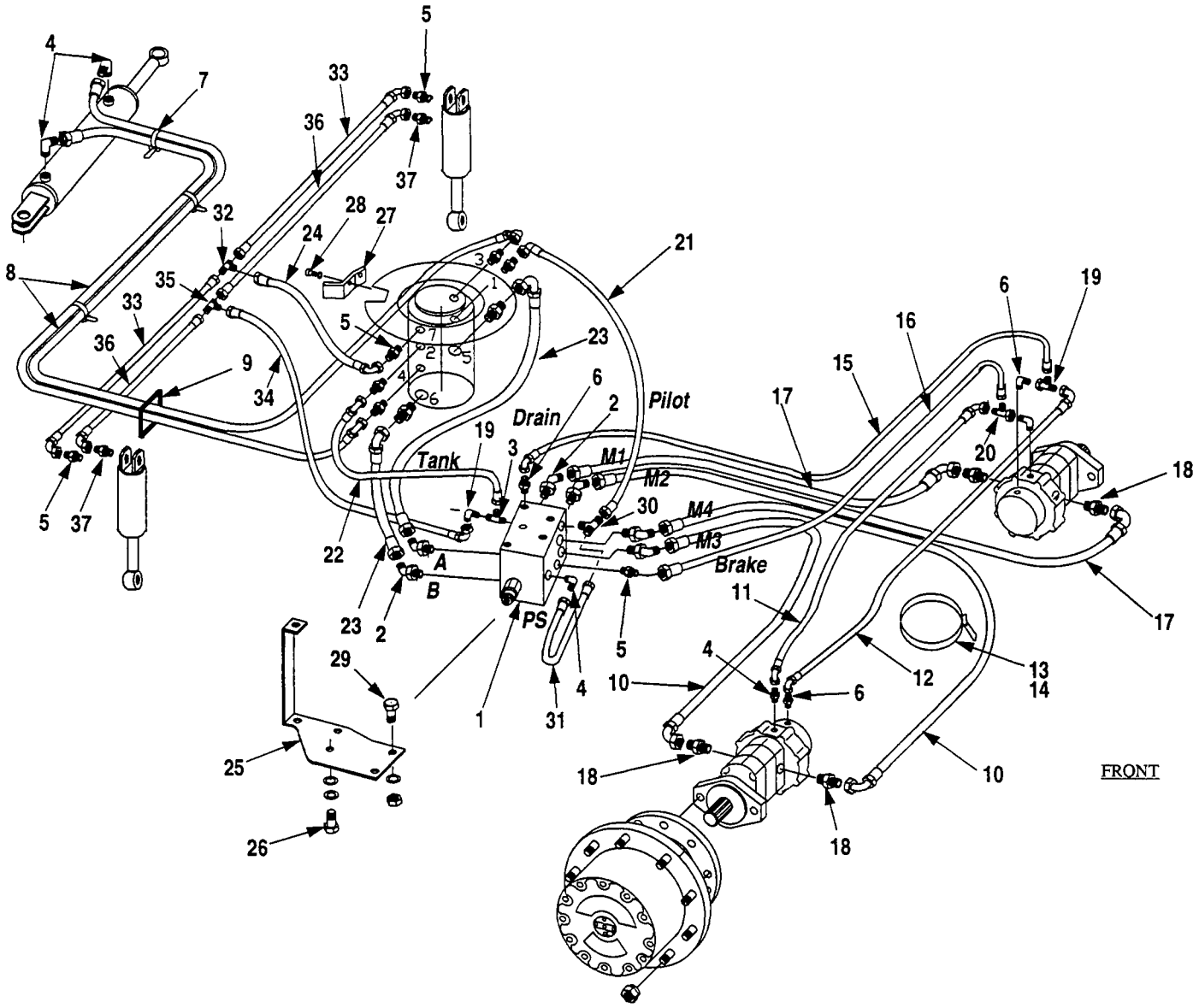


Ref.	Part No.	Description	Qty	Remarks
	212296	Lower Hydraulic Assembly	1	Incl. Items 1 thru 37
1	81445	Valve, Ground Drive	1	See Section 4
2	1219-663	Adapter	6	
3	1219-693	Adapter	1	
4	12019-548	Adapter	5	
5	1219-959	Adapter	4	
6	1219-776	Adapter	3	
7	1222-184	Tie Wrap	4	
8	212059-104	Hose	2	
9	12182-15	Trimlock	4	
10	212062-78	Hose	2	
11	212059-54	Hose	1	
12	212061-52	Hose	1	
13	200B2007-28	Clamp	1	
14	1205-36	Nut	1	
	1209-4	Flatwasher	1	
15	212061-58	Hose	1	
16	212059-68	Hose	1	
17	212062-78	Hose	2	
18	1219-389	Adapter	4	
19	12019-483	Adapter	1	
20	12019-453	Tee	1	
21	212110-30	Hose	1	
22	212059-36	Hose	1	
23	212062-22	Hose	2	
24	212378-72	Hose	1	
25	212009	Bracket, Ground Drive Valve	1	
26	1200-59	Capscrew, 3/8C x 1	3	
	1210-20	Lockwasher	3	
	1209-4	Flatwasher	3	
27	212008	Plate, Rotary Manifold	1	
28	1200-59	Capscrew, 3/8C x 1	2	
	1209-4	Flatwasher	2	
29	1200-61	Capscrew, 3/8C x 1-1/4	3	
	1210-20	Lockwasher	3	
	1209-4	Flatwasher	3	
	1205-36	Nut, 3/8C	3	
30	362 3233	Adapter	1	
31	212059-15	Hose	1	

BASE HYDRAULICS

(2WD & OSC AXLE)

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
30	362 3233	Tee	1	
31	212378-15	Hose	1	
32	12019-140	Tee	1	
33	212378-32	Hose	2	
34	212380-77	Hose	1	
35	12019-71	Tee	1	
36	212110-30	Hose	2	
37	1219-605	Adapter	2	

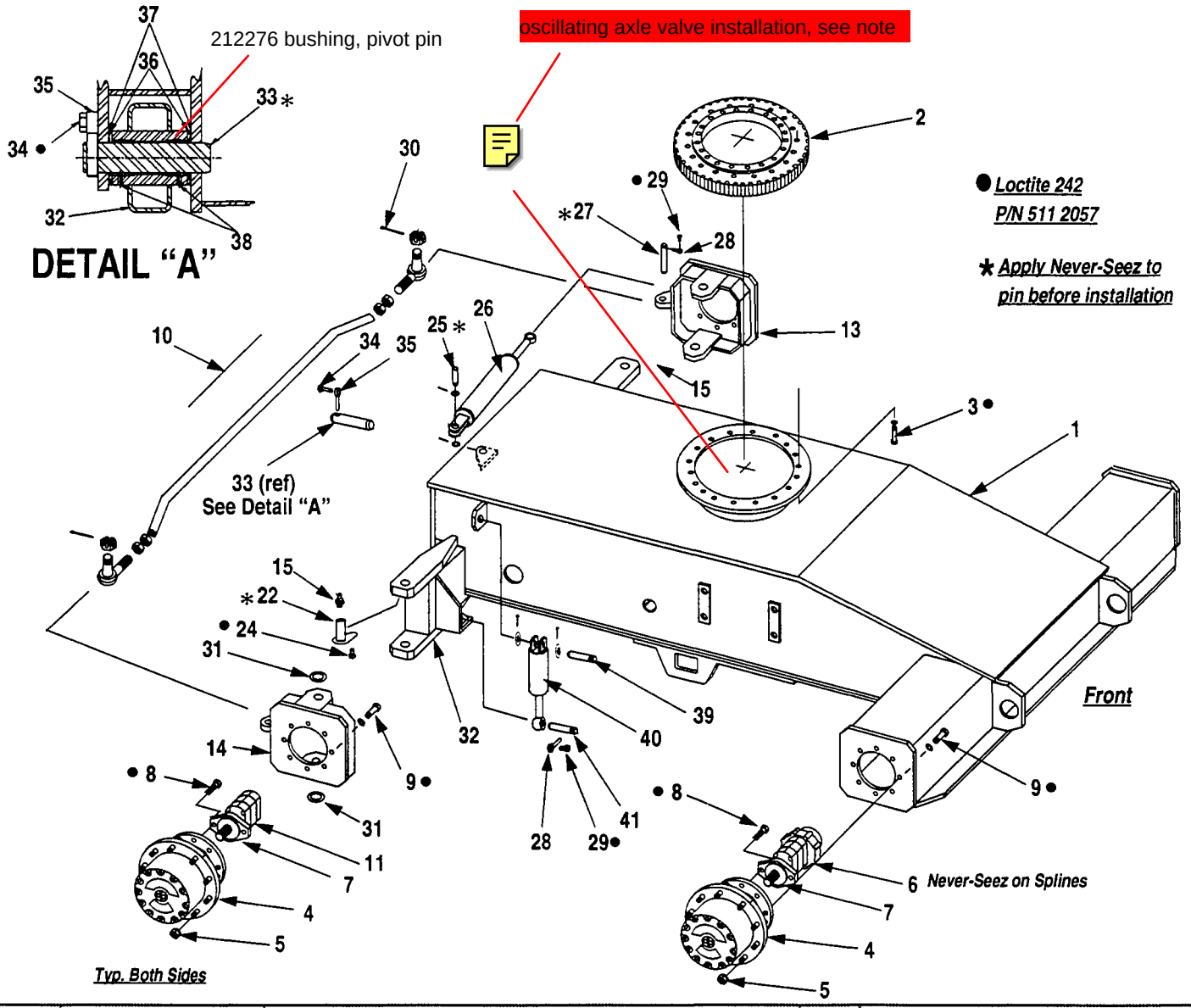
Model CH60C CH66C

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OSCILLATING AXLE BASE

(4WD)

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	212126	Carriage Ass'y, Oscillating Axle (CH60C)	1	Incl. 1 thru 42
	212126-1	Carriage Ass'y, Oscillating Axle (CH66C)	1	Incl. 1 thru 42
1	212288	Carriage Weldment (CH60C)	1	
	212288-1	Carriage Weldment (CH66C)	1	
2	211773	Bearing, Swing	1	
3	1242-94	Capscrew, 5/8C x 3-1/2 Gr. 8	18	To be loctited upon assembly
	1209-48	Flatwasher, 5/8 Gr. 8	18	
4	212509	Torque Hub	4	See Page 3.8
5	160718	Nut, Lug (Wheel)	40	
6	81393	Drive Motor & Parking Brake Ass'y	2	See Pages 3.12 & 3.14
7	460 6309	O-Ring (Motor to Torque Hub Seal)	2	.094 x 4.00
8	1203-220	Capscrew, 1/2C x 1-1/2 12 Pt. Gr. 8	4	Motor to Hub

Ref.	Part No.	Description	Qty	Remarks
9	1242-45	Capscrew, 5/8C X 1-1/2 Gr. 8	32	Hub To Undercarriage
	1209-48	Flatwasher, 5/8C Gr. 8	32	
10	212346-2	Tie Rod Assembly	1	See Page 3.6
11	81394	Drive Motor	2	See Page 3.12
13	212313	Bracket, LH Rear	1	
	212169	Bushing	2	
14	212322	Bracket, RH Rear	1	
	212169	Bushing	2	
15	1213-1	Zerk, Grease	4	
22	212423	King Pin	4	
24	1242-45	Capscrew, 5/8C x 1-1/2 Gr. 8	2	
25	211913	Pin	1	
	1209-30	Flatwasher	2	
	1207-40	Cotter Pin, 1/4 x 1-1/2	2	
26	211758	Cylinder, Steering (Master Level Cylinder)	1	See Section 5
27	211912	Pin	1	Cylinder to LH Spindle
28	211779	Rod Eye	3	
29	1242-134	Capscrew, 3/8C x 1 Gr. 8	3	
30	1207-14	Cotter Pin, 1/8 x 1-1/2	2	Tie Rod
31	212170	Washer, Thrust	4	
32	212278	Weldment, Oscillating Axle	1	
33	212292	Pin, Oscillating Axle Pivot	1	
34	1200-268	Capscrew, 1C x 2-1/4 Gr.8	1	
35	709 1424	Rod Eye	1	
36	212277	Washer, Thrust	2	
37	212290	Shim	2	
38	1213-1	Zerk, Grease	2	
39	212294	Pin, Oscillating Cylinder Base	2	
	1209-31	Washer, Flat	4	
	1207-41	Cotter Pin, 1/4 x 1-3/4	4	
40	212260	Cylinder, Oscillating Axle	2	See Page 7.17
41	212295	Pin, Oscillating Cylinder Eye	2	
42	212347	Hydraulic Assembly, Osc. Axle (4WD)	1	See Page 7.10
43		Tire & Rim Ass'y (Not Shown)	4	See Page 3.15

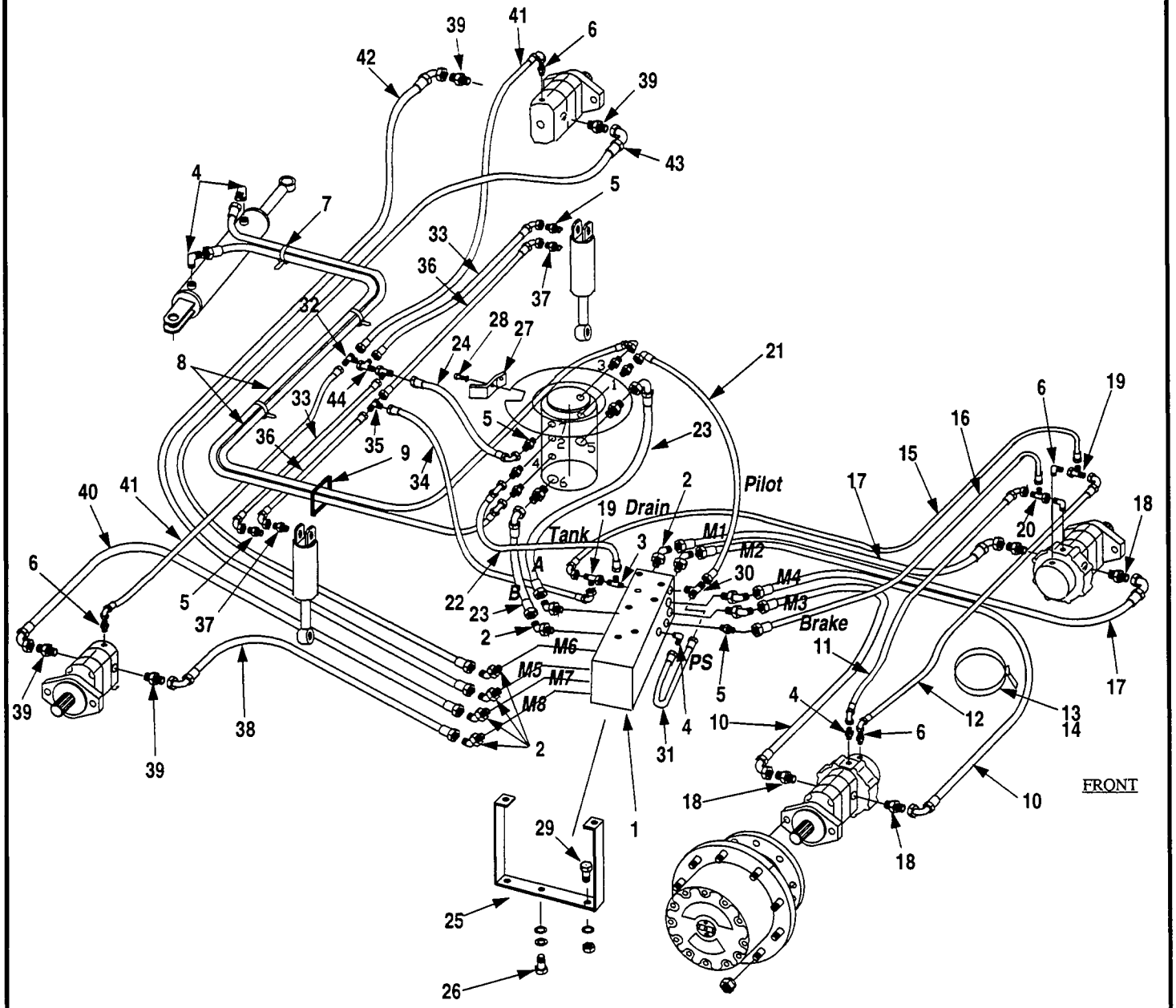
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CH66C

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BASE HYDRAULICS

(4WD & OSC AXLE)

Mark Industries



Ref.	Part No.	Description	Qty	Remarks
	212347	Lower Hydraulic Assembly	1	Incl. Items 1 thru 29
1	81446	Valve, Ground Drive	1	See Section 4
2	1219-663	Adapter	10	
3	1219-982	Adapter	1	
4	12019-548	Adapter	5	
5	1219-959	Adapter	1	
6	1219-776	Adapter	5	
7	1222-184	Tie Wrap	4	
8	212059-104	Hose	2	
9	12182-15	Trimlock	4	
10	212062-78	Hose	2	
11	212059-54	Hose	1	
12	212061-52	Hose	1	
13	200B2007-28	Clamp	1	
14	1205-36	Nut	1	
	1209-4	Flatwasher	1	
15	212061-58	Hose	1	
16	212059-68	Hose	1	
17	212062-62	Hose	2	
18	1219-389	Adapter	4	
19	12019-112	Tee	1	
20	12019-453	Tee	1	
21	212110-30	Hose	1	
22	212059-36	Hose	1	
23	212062-22	Hose	2	
24	212378-72	Hose	1	
25	212349	Bracket, Ground Drive Valve	1	
26	1200-59	Capscrew, 3/8C x 1	3	
	1210-20	Lockwasher	3	
	1209-4	Flatwasher	3	
27	212008	Plate, Rotary Manifold	1	
28	1200-59	Capscrew, 3/8C x 1	2	
	1209-4	Flatwasher	2	
29	1200-61	Capscrew, 3/8C x 1-1/4	3	
	1210-20	Lockwasher	3	
	1209-4	Flatwasher	3	
	1205-36	Nut, 3/8C	3	
30	362 3233	Adapter	1	
31	212059-15	Hose	1	

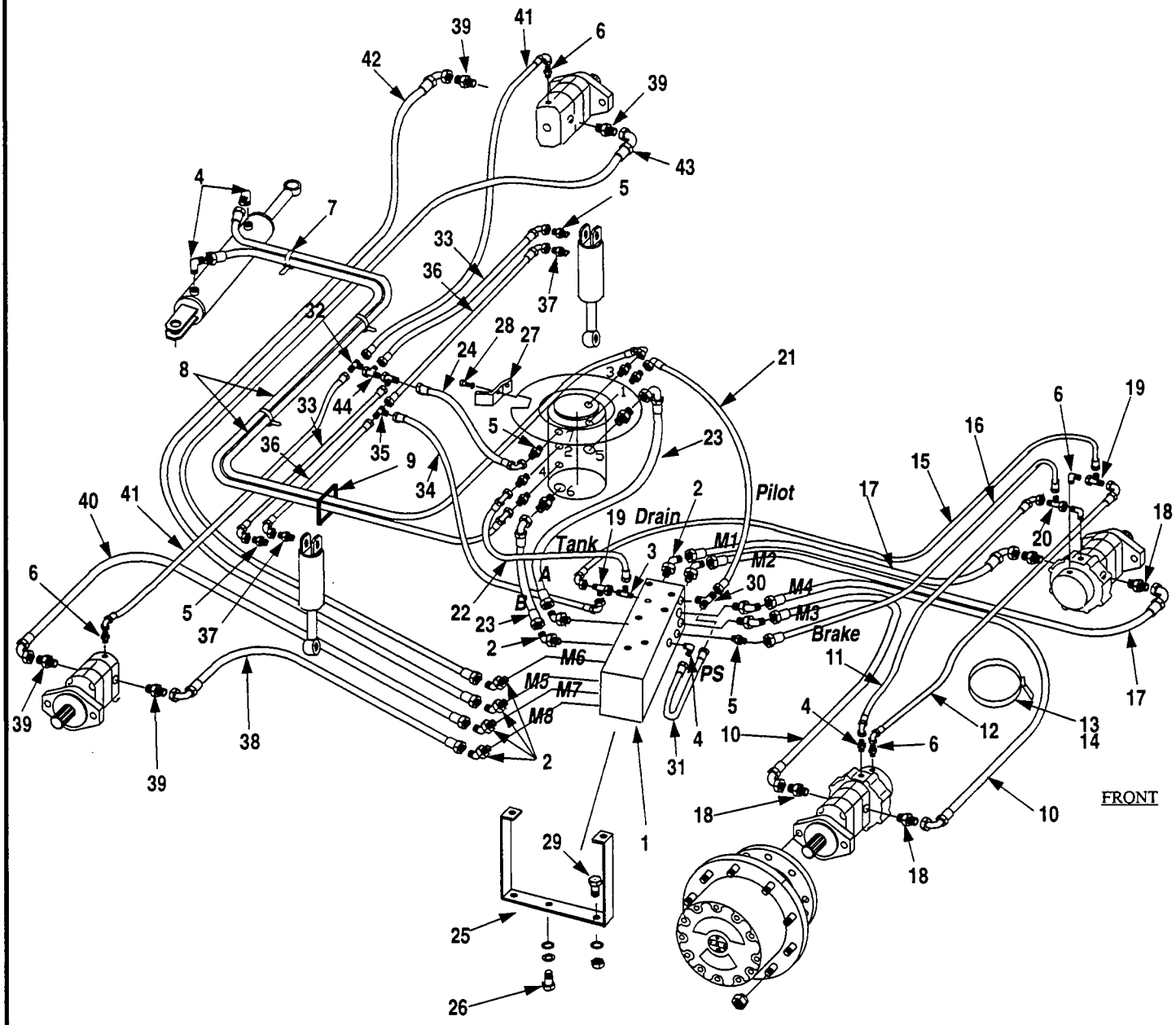
Model CH60C
CH66C

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BASE HYDRAULICS

(4WD & OSC AXLE)

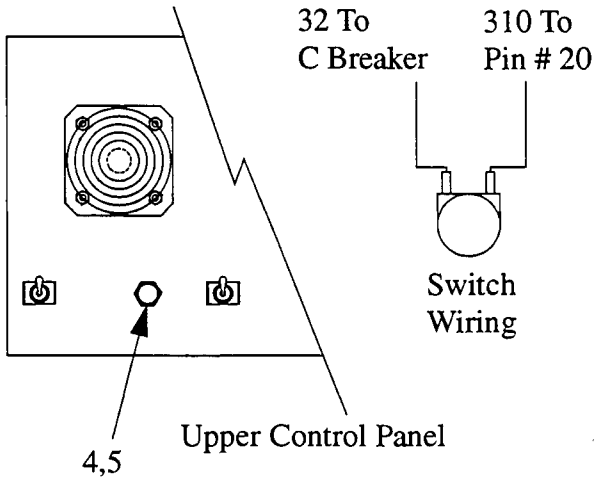
Mark Industries

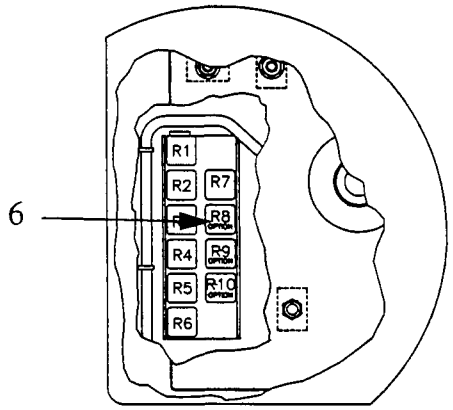


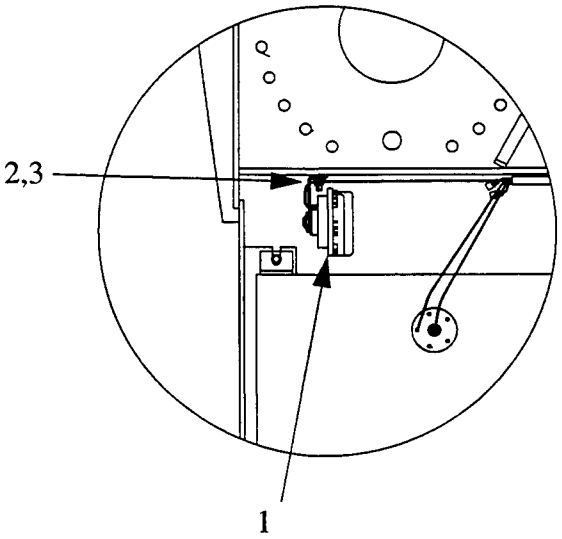
Ref.	Part No.	Description	Qty	Remarks
30	362 3233	Tee	1	
31	212378-15	Hose	1	
32	12019-140	Tee	1	
33	212378-32	Hose	2	
34	212380-77	Hose	1	
35	12019-71	Tee	1	
36	212110-30	Hose	2	
37	1219-605	Adapter	2	
38	212382-106	Hose	1	
39	1219-802	Adapter	4	
40	212381-102	Hose	1	
41	212383-76	Hose	2	
42	212381-119	Hose	1	
43	212382-136	Hose	1	
44	12019-609	Tee	2	

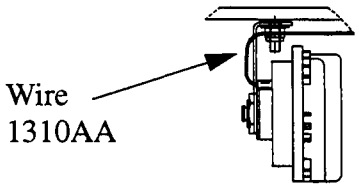
WARNING HORN

Mark Industries

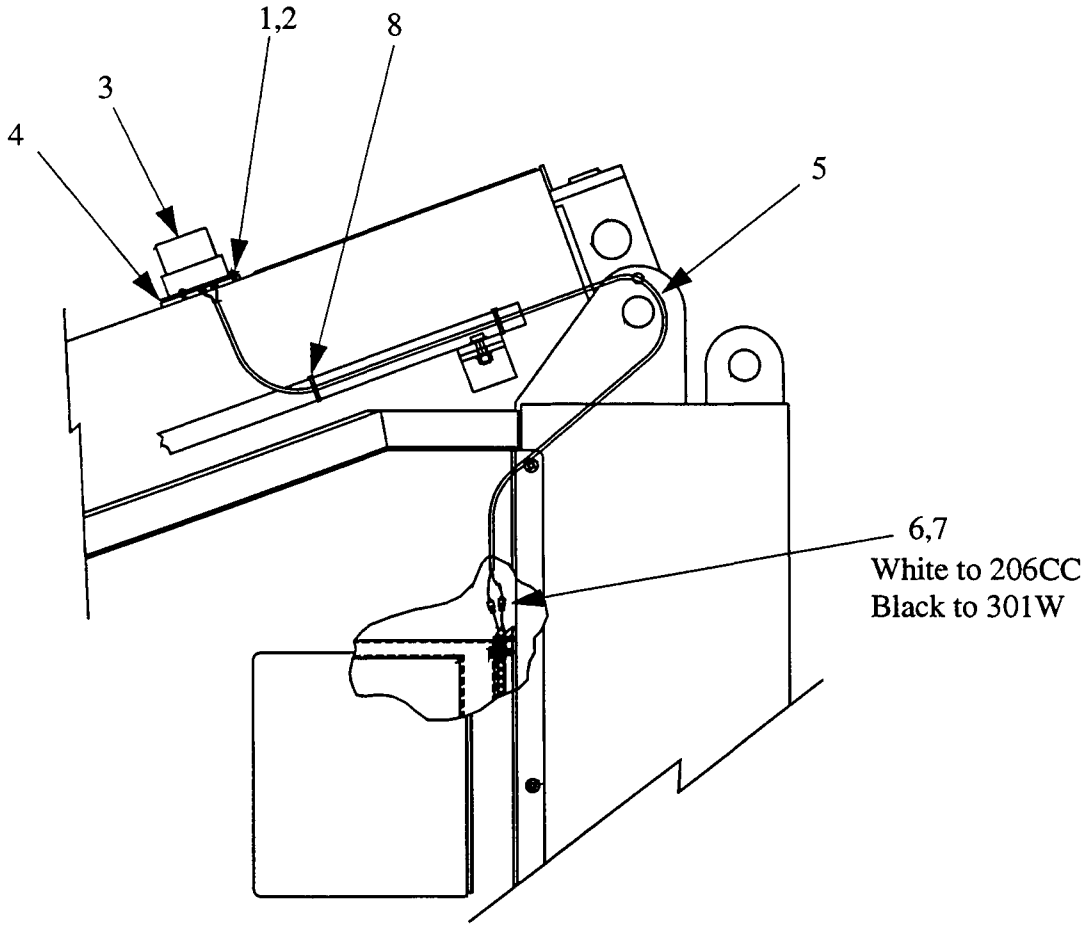








Ref.	Part No.	Description	Qty	Remarks
	212297-1	Warning Horn Assembly	Ref.	
1	70249	Horn	1	
2	1205-34	Nut, lock .31	1	
3	1209-3	Washer, plain .31	2	
4	4011	Push Button Switch	1	
5	70373	Push Button Boot	1	
6	441 6828	Relay	1	



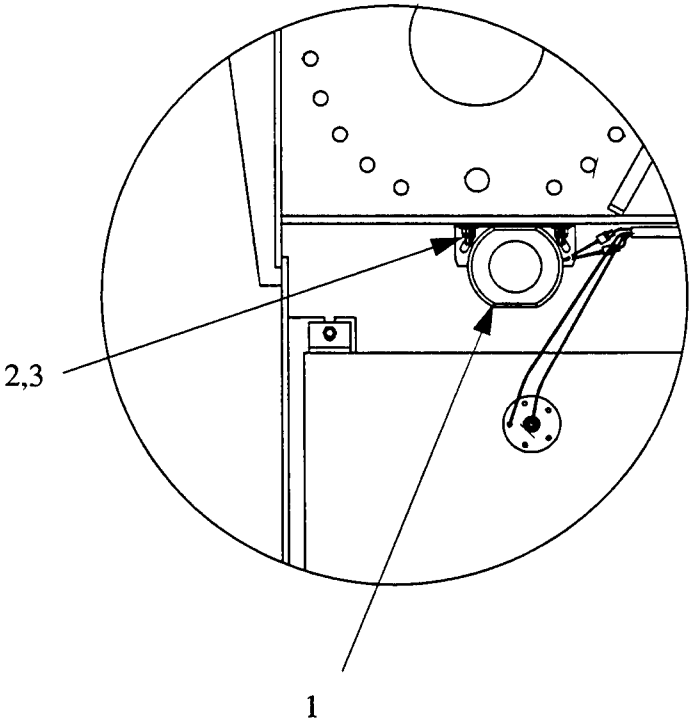
Ref.	Part No.	Description	Qty	Remarks
	212297-2	Amber Beacon Assembly	Ref.	
1	1210-7	Washer, Lock #10	3	
2	1202-4	Capscrew	3	
3	441 6844	Amber Beacon	1	
4	212293	Plate	1	
5	70767	Cable (10 feet)	1	
6	70500	Female Spade	2	
7	70501	Male Spade	2	
8	1222-202	Plastic Tie	2	

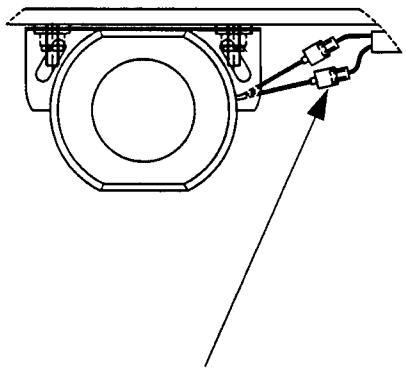
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All Motion Alarm & Travel Warning Alarm

Mark Industries

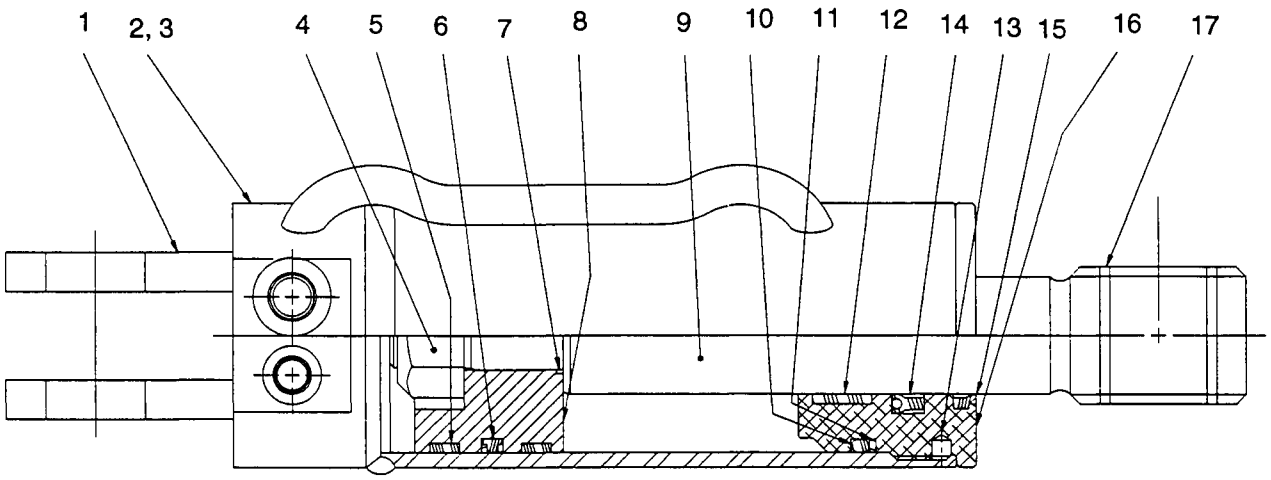




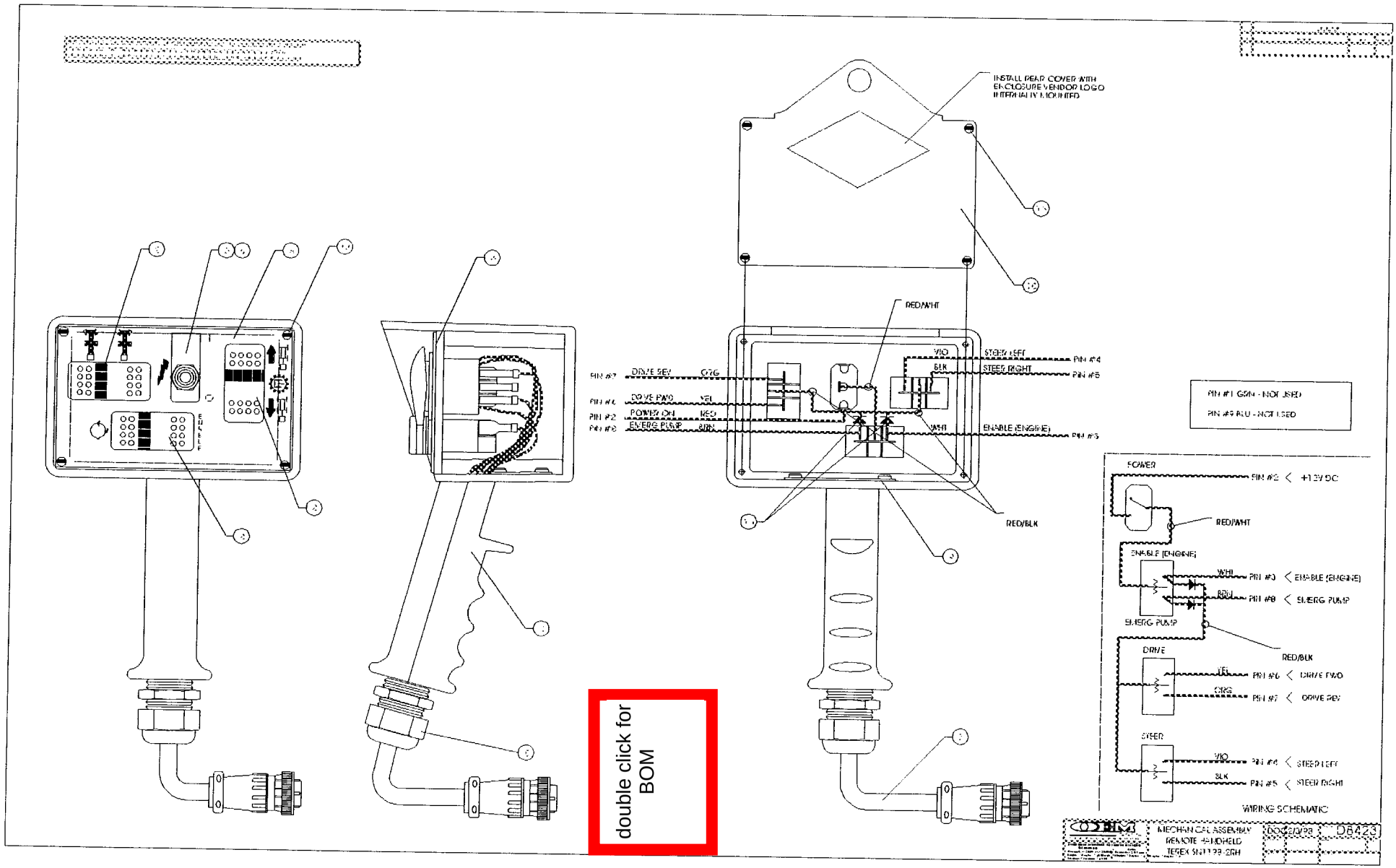
All Motion Alarm
Red to 28AA
Black to 301V

Travel Warning Alarm
Red to 206
Black to 301V

Ref.	Part No.	Description	Qty	Remarks
	212292-3	All Motion Alarm	Ref.	
	212292-4	Travel Warning Alarm	Ref.	
1	1223-716	Back-Up Alarm	1	
2	1205-34	Nut, Lock .31	2	
3	1209-3	Washer, Plain .31	4	



Ref.	Part No.	Description	Qty	Remarks
	212260	Cylinder, Oscillating Axle (Rosenboom)	Ref.	Incl. items 1 thru 17
	69332	Seal Kit	Ref.	Incl. Items w/asterisk *
1	600680	Tube Weldment	1	
2	600681	Bleed Screw	1	
3	69333	Valve, Check	1	
4	68956	Nut, Lock	1	
5	*	Wear Band	2	*
6	*	T-Seal	1	*
7	*	O-Ring	1	*
8	68957	Piston	1	
9	600682	Rod Weldment	1	
10	*	O-Ring	1	*
11	*	Backup Ring	1	*
12	*	Wear Band	2	*
13	68959	Locking Insert	1	
14	*	Polypak	1	*
15	*	Rod Wiper	1	*
16	68960	Head Gland	1	*
17	600683	Super Oilite Bearing	1	


INSTALL REAR COVER WITH ENCLOSURE VENDOR LOGO INTERNALLY MOUNTED
RED/WHT
RED/BLK
PIN #7 DRIVE REV GRG
PIN #6 DRIVE FWD YEL
PIN #2 POWER ON RED
PIN #8 EMERG PUMP BRN
VIO STEER LEFT PIN #4
BLK STEER RIGHT PIN #5
WHT ENABLE (ENGINE) PIN #3
PIN #1 GRN - NOT USED
PIN #9 BLU - NOT USED
POWER
PIN #2 < +12V DC
RED/WHT
ENABLE (ENGINE)
WHT PIN #3 < ENABLE (ENGINE)
BRN PIN #8 < EMERG PUMP
EMERG PUMP
RED/BLK
DRIVE
YEL PIN #6 < DRIVE FWD
GRG PIN #7 < DRIVE REV
STEER
VIO PIN #4 < STEER LEFT
BLK PIN #5 < STEER RIGHT
WIRING SCHEMATIC
MECHANICAL ASSEMBLY
REMOTE 4-HANDHELD
TEREX SN1199-2RH
D6423
double click for BOM

P/N 03752600

NOTES



Mark Industries

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ALPHABETICAL LIST

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