

PARTS MANUAL

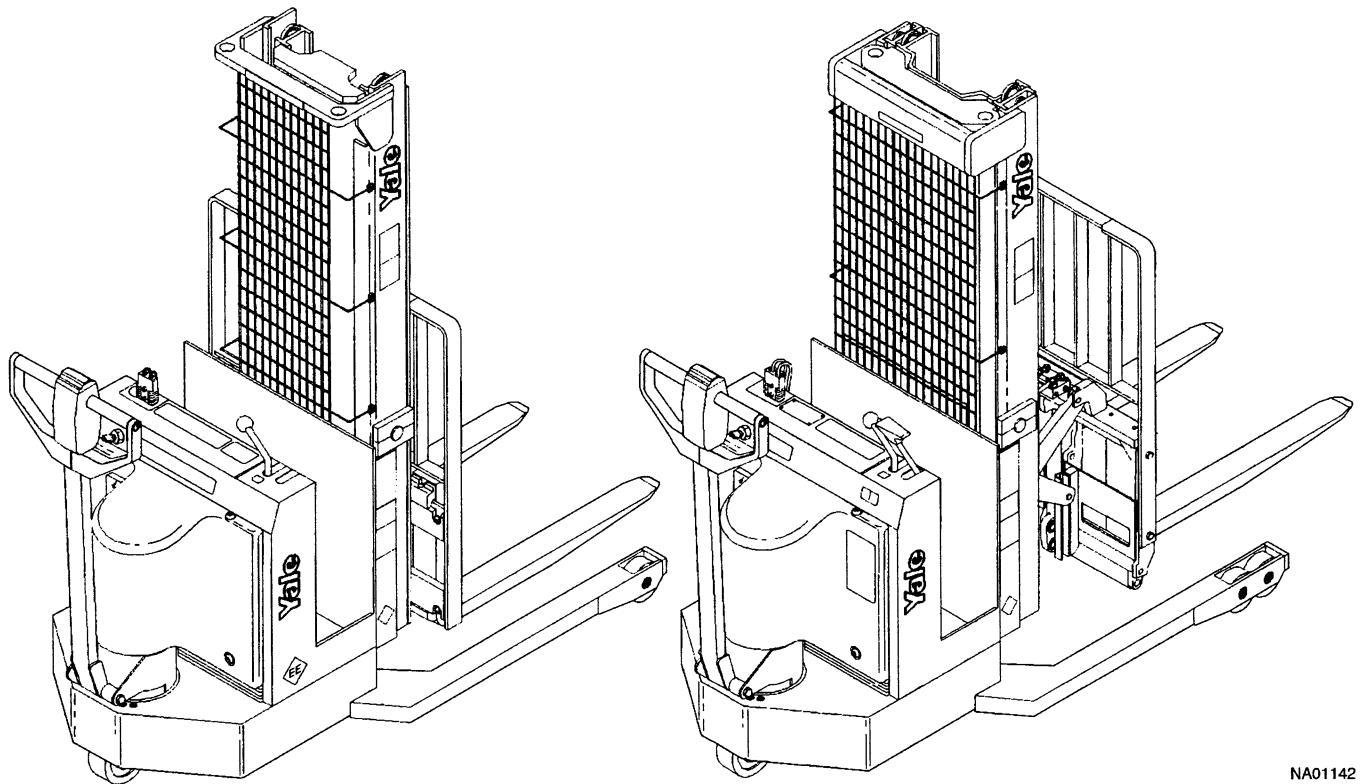
For Models

MSW

**2,000, 3,000 and
4,000 Lb. Capacity
(B820)**

MRW

**2,000 and 3,000 Lb.
Capacity
(B821)**



NA01142

For Service & Parts Contact

Authorized Dealer

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Caller No. 12011
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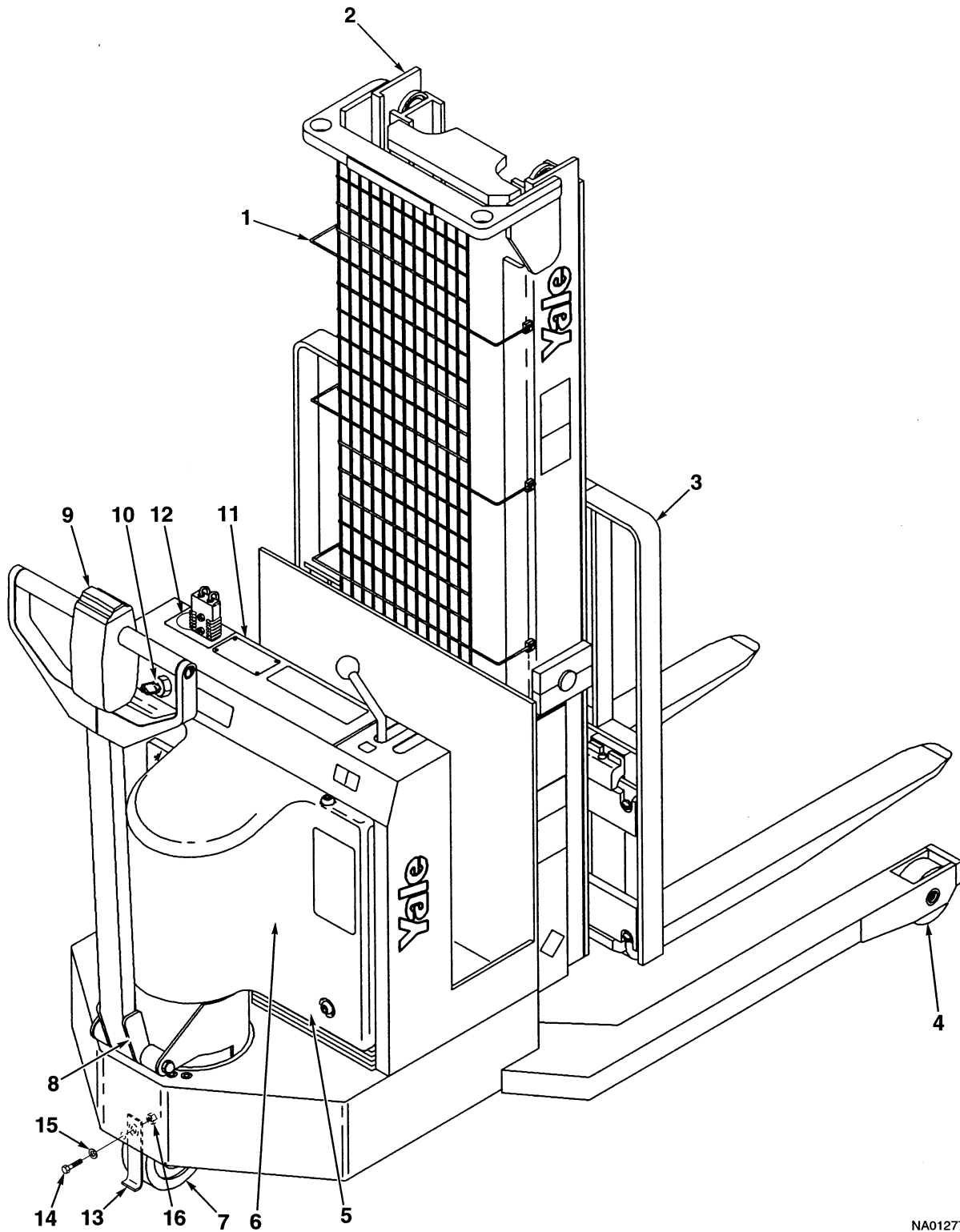
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CONTACTOR PANEL ASSEMBLY - 12 V
 CONTACTOR PANEL ASSEMBLY - 24 V
 FIRST USED B820N01506S
 FIRST USED B821N01538S

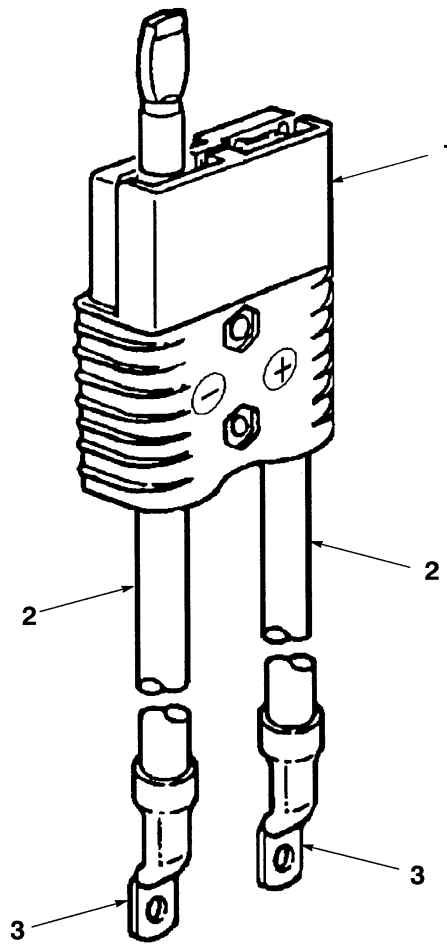
ITEM	PART NO.	DESCRIPTION	NO. REQD.
	585036102	Contacteur Panel Assembly - 12 V	1
	585036103	Contacteur Panel Assembly - 24 V	1
1	585032100	Base	1
2	015026000	Lockwasher	10
3	517456303	Jumper	1
4	014936500	Nut	1
5 ^a	752576412	Connector w/Wire	1
5 ^a	723291303	Connector - Yellow	1
5 ^b	752576413	Connector w/Wire	1
5 ^b	723291304	Connector - Red	1
6	519290800	Standoff	1
7	016103500	Washer	5
8	203142600	Screw	4
9	517408307	Terminal Block	1
10	015035700	Lockwasher	2
11	014936200	Nut	2
12 ^a	504450749	Fuse - 200 Amp	1
12 ^a	520031801	Fuse - 400 Amp	1
12 ^b	504450749	Fuse - 200 Amp	2
13	520069800	Bus Bar	1
14	062151200	Screw	1
15	509982101	Diode	3
16	.....	Contacteur Assembly - 12 and 24 V - EE (☐ 5C215)	1
17	500903103	Fuse - 15 Amp	1
18	503891202	Fuse Block	1
19	504869700	Wire Harness - Contacteur	1
20	502632903	Screw	3
21 ^a	505203201	Relay	1
21 ^b	505203202	Relay	1
22	502700903	Screw	2
23	064401300	Lockwasher	2
24	062151100	Screw	5
25	504232214	Lockwasher	3
26	021197300	Nut	2
27	032643500	Nut	4

NOTE: a 12 V
 b 24 V

DRIVE MOTOR ASSEMBLY - 24 V
GROUP #8620624

IT4M	PART NO.	DESCRIPTION	NO. REQD.
	722045020	Drive Motor Assembly- 24 V	1
1	730087601	Commutator End Head Assembly	1
1	077565100	Cover Plate	1
2	580008838	Screw	3
3	730027202	Shim - Commutator Bearing	1
4	730060200	Bearing	1
5	723864300	Brush Holder Assembly	1
6	730050202	Capscrew	4
7a	135650132	Brush Assembly	2
8	028491000	Screw	2
9	720037902	Washer	2
10	723872300	Terminal Assembly	2
11	015026000	Lockwasher	2
12	720064902	Nut	4
13	015040200	Lockwasher	2
14	502423915	Washer	2
15	503152200	Terminal Insulator	2
16	723562100	Terminal Insulator	2
17	721003401	Commutator End Head	1
18	062151300	Capscrew	4
19	015026000	Lockwasher	4
19	730068500	Pinion End Head Assembly	1
20	09659710A	Bearing Retainer	1
21	720332901	Screw	3
22	06771330F	Bearing	1
23	720428300	Drive End Head	1
24	059716400	Screw	6
25	015026200	Washer	6
26	015003600	Elastic Stop Nut	1
27	730054601	Armature Assembly	1
27	730054705	Field Ring Assembly	1
28	721000302	Pole Piece	4
29	055486800	Capscrew	8
30	015026400	Lockwasher	8
31	720064902	Nut	4
32	015040200	Lockwasher	2
33	502423915	Washer	2
34	503152200	Terminal Insulator	2
35	723562100	Terminal Insulator	2
36	723623102	Terminal Screw	2
37	730008609	Field Coil Assembly	1
38	730008610	Field Coil Assembly	1
39	730008611	Field Coil Assembly	1
40	730008612	Field Coil Assembly	1
41	720641102	Insulator with Hole	2
42	720641106	Insulator without Hole	2
43	720457400	Field Ring	1
44	721284100	Brush Spring	4
45	580014181	Label - Brand (Motor)	1
46	015003600	Nut	4
47	730042205	Washer	4

BATTERY CONNECTOR AND CABLE ASSEMBLY

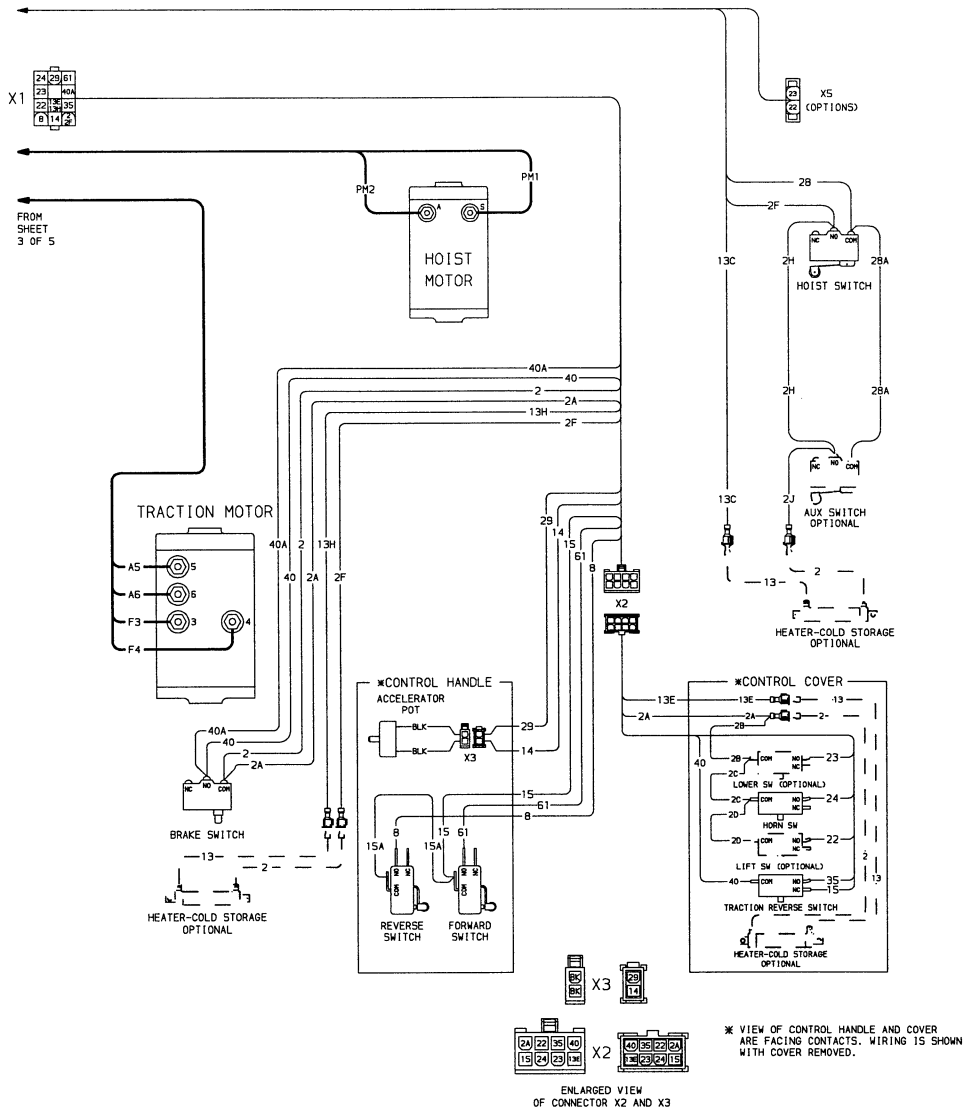


ITEM	PART NO.	DESCRIPTION	NO. REQD.
1	.....	Connector (☞ Table)	1
2	502164908	Cable (Order by Length)	AR
3	012471000	Terminal	2

ASSEMBLY NUMBER	CONNECTOR PART NO.	COLOR	+ CABLE LENGTH	- CABLE LENGTH
752576411	723291300	GRAY	7-1/2 IN	7 IN
752576412	723291303	YELLOW	7-1/2 IN	7 IN
752576413	723291304	RED	7-1/2 IN	7 IN

**WIRING DIAGRAM - MSW
TYPE E**

FOR ALL OTHER NOTES SEE SHEET 1 OF 5



CONTROL HANDLE TOP COVER ASSEMBLY WITH LIFT CONTROLS

ITEM	PART NO.	DESCRIPTION	NO. REQD.
	524143525	Control Handle Top Cover Assembly With Lift Controls	1
1	505712501	Actuator - Raise	1
2	505713500	Actuator - Horn	1
3	505712502	Actuator - Lower	1
4	501067207	Spring	6
5	503896200	Switch Retainer	1
6	519296800	Switch	4
7 ^a	N.S.S.	Switch Support	1
8	502023905	Screw	2
9	504232214	Lockwasher	4
10	502023904	Screw	2
11	504058200	Decal - Directional Arrow	1
12 ^a	N.S.S.	Top Cover	1

NOTE: N.S.S. - Not Serviced Separately.
^a Part of 504118200 Control Handle Head Kit.

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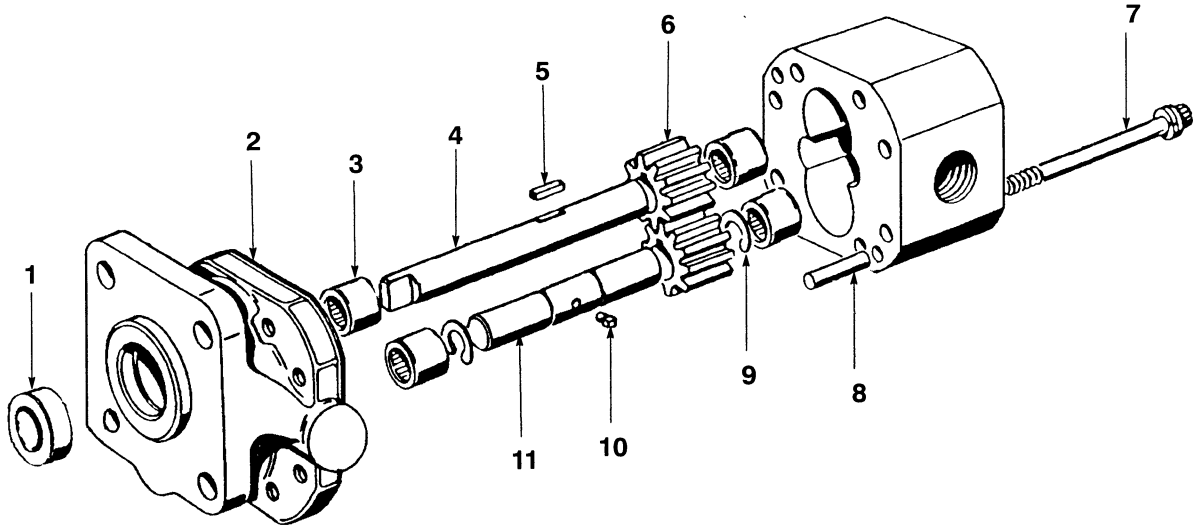


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HYDRAULIC SYSTEM

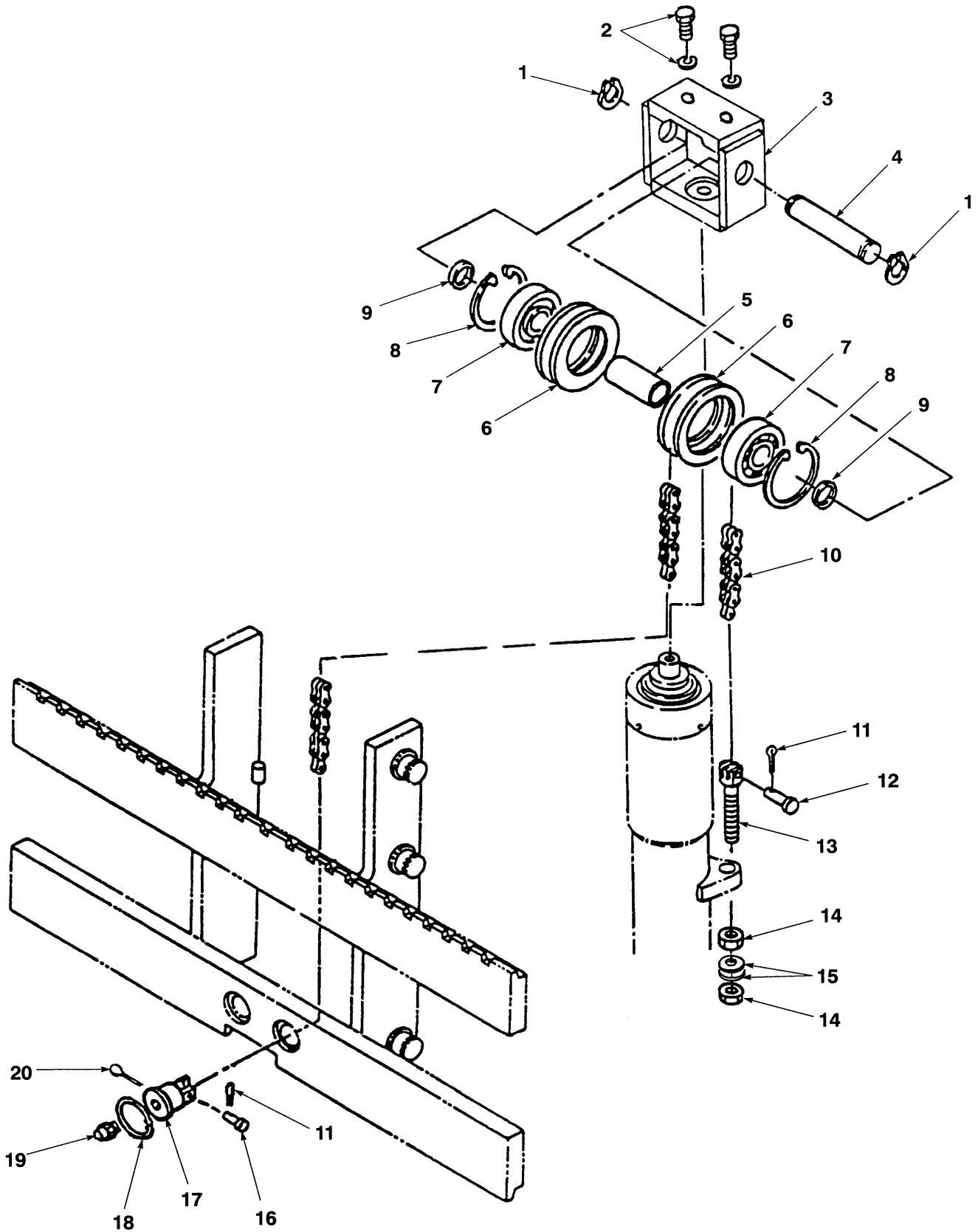
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ITEM	PART NO.	DESCRIPTION	NO. REQD.
	516979602	Hydraulic Pump - 12 V	1
1	518463801	Oil Seal	1
2	504226211	Plastic Gasket	1
3	131635419	Bearing	4
4	515686823	Drive Shaft	1
5	515692806	Key	1
6	515685803	Gear	2
7	503145800	Screw	8
8	515689803	Dowel Pin	1
9	503144800	Snap Ring	4
10	519729801	Drive Pin	1
11	515686820	Idler Shaft	1

ITEM	PART NO.	DESCRIPTION	NO. REQD.
1	502126928	Hose Assembly - Small Battery Box	2
1	502126908	Hose Assembly - Large Battery Box	2
2	056943800	90° Barbed Elbow	1
2	052644500	Locknut	1
2	052645500	O-Ring	1
3	032227700	Hose Assembly - Return	1
3	062159500	Clamp	2
4	059634700	Connector - Straight w/O-Ring	2
4	052645400	O-Ring	1
5	052643400	Connector - Straight w/O-Ring	1
5	052645400	O-Ring	1
6	053349600	Elbow - 90° Swivel w/O-Ring	1
7	501796907	Hose Assembly - Small Battery Box	2
7	501796908	Hose Assembly - Large Battery Box	2
8	136866100	Reducer - Tube End	1
9	507454100	Elbow - w/O-Ring	1
9	052645500	O-Ring	1
10	501884905	Pipe Plug	1
11	501772905	Hose Assembly	1
12	064824400	90° Elbow - Reducing w/O-Ring	1
12	052645300	O-Ring	1
13	508648824	Hose Assembly	1
13	502056901	Clamp	2
14	062254900	Connector	1
15	585034100	Oil Tank	1
16	120293300	Filter	1
17	502117904	Pipe Plug	1
18	723103412	Dip Stick and Breather	1
19	502117905	Pipe Plug	1

TWO STAGE MAST - SHEAVES, CHAINS, PINS AND ANCHORS



THREE STAGE HIGH-VISIBILITY MAST ASSEMBLY

THREE STAGE HIGH VISIBILITY MAST ASSEMBLY - MSW 020/030 - 12 AND 24 V

O.A.H.	MAX. FORK HEIGHT	MAST ASSEMBLY	CARRIAGE WELDMENT	STATIONARY MAST	SECONDARY MAST	PRIMARY MAST
72 IN	157 IN	523491011	519955601	520095611	518429611	518428611
77 IN	172 IN	523491002	519955601	520095602	518429602	518428602
83 IN	190 IN	523491003	519955601	520095603	518429603	518428603

O.A.H.	MAX. FORK HEIGHT	FRONT CHAIN (2)	REAR CHAIN (2)	LIFT CYLINDER	FREE LIFT CYLINDER
72 IN	157 IN	519653432	519653441	518356607	518382607
77 IN	172 IN	519653433	519653407	518356612	518382612
83 IN	190 IN	519653435	519653410	518356618	518382618

THREE STAGE HIGH VISIBILITY MAST ASSEMBLY - MSW 040 - 12 AND 24 V

O.A.H.	MAX. FORK HEIGHT	MAST ASSEMBLY	CARRIAGE WELDMENT	STATIONARY MAST	SECONDARY MAST	PRIMARY MAST
72 IN	153 IN	523493011	519958601	520095611	518429611	518428611
77 IN	168 IN	523493002	519958601	520095602	518429602	518428602
83 IN	186 IN	523493003	519958601	520095603	519429603	518428603

O.A.H.	MAX. FORK HEIGHT	FRONT CHAIN (2)	REAR CHAIN (2)	LIFT CYLINDER	FREE LIFT CYLINDER
72 IN	153 IN	519653432	519653441	518442607	518382607
77 IN	168 IN	519653433	519653407	518442612	518382612
83 IN	186 IN	519653435	519653410	518442618	518382618

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THREE STAGE HI-VISIBILITY - MAST AND REACH ASSEMBLY

ITEM	PART NO.	DESCRIPTION	NO. REQD.
1	.....	Primary Mast (☞ Table)	1
2	.....	Secondary Mast (☞ Table)	1
3	.....	Stationary Mast (☞ Table)	1
4	932119907	Setscrew	8
5	937501908	Jam Nut	8
6	507033500	Load Roller	8
7	449029009	Retaining Ring	8
8	504562100	Wear Plug	8
9	058831000	Capscrew	4
10	058889000	Washer	4
11	N.S.S.	Trunnion Cap	2
12	031129200	Dowel Pin	2
13	503067200	Nut Plate	2
14	503068200	Shim (Mast to Frame)	AR
15	061278300	Washer	4
16	014716600	Capscrew	4
17	449001418	Capscrew	4
18	502566904	Washer	4
19	500302502	Wear Strip - (LH) (Secondary Mast)	1
20	500303502	Shim - (LH) (Secondary Mast)	1
21	500302501	Wear Strip - (RH) (Secondary Mast)	1
22	500303501	Shim - (RH) (Secondary Mast)	1
23	502313100	Wear Strip (Primary Mast)	2
24	502314100	Shim (Primary Mast)	4
25	449002197	Screw (Cylinder Locating)	1
26	504353200	Pad	4

9	OPTIONS
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