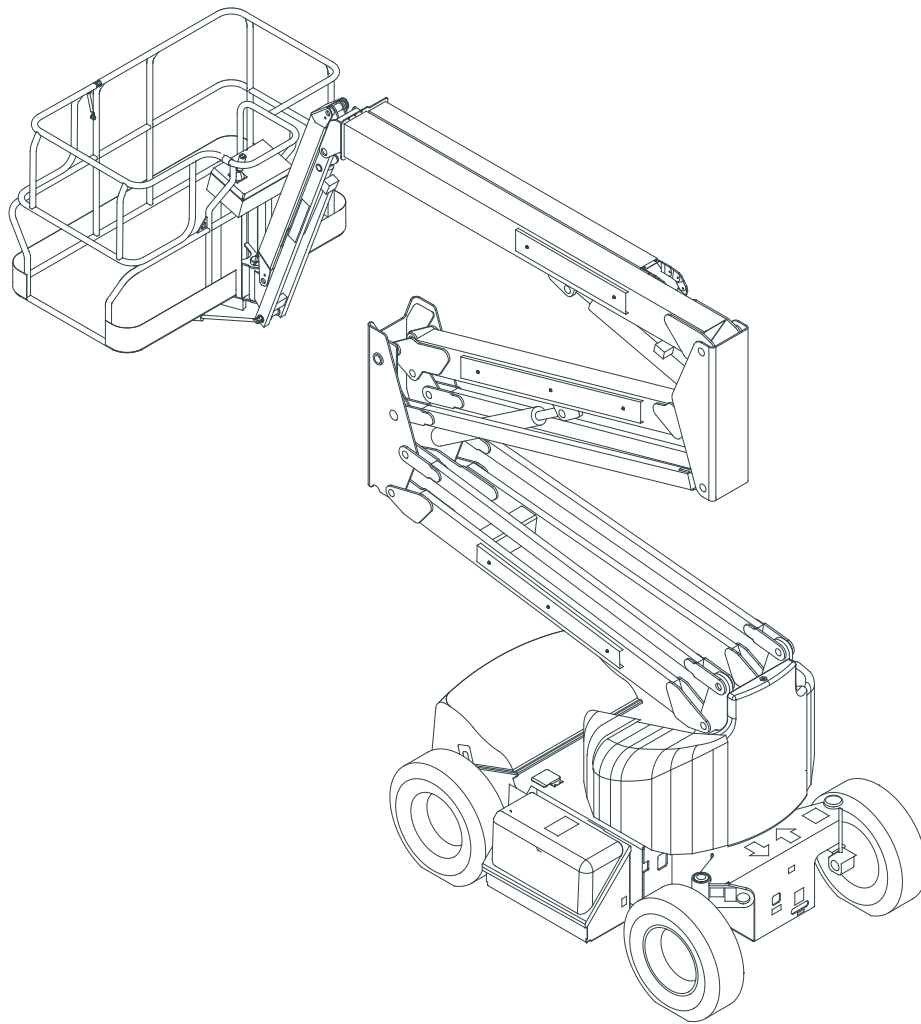


# *Repair Parts Manual*



# **AB46E**

Part Number 0260526  
April 2009

**CE**

**UpRight**

# DANGER

**The aerial platform is not electrically insulated. Death or serious injury will result from contact with, or inadequate clearance from, an energized conductor.**

**It is imperative to keep a safe distance from live parts of electrical equipment.**

Regard all conductors as energized.

Allow for electrical wire sag and aerial platform sway.

If the platform, boom structure, or any part of the aerial platform contacts a high-voltage electrical conductor, the entire machine can become electrically charged.

If that happens, remain on the machine and do not contact any other structure or object. This includes the ground, adjacent buildings, poles, and any other objects that are not part of the aerial platform.

Such contact could make your body a conductor to the other object, creating an electrical shock hazard resulting in death or serious injury.

If an aerial platform is in contact with an energized conductor the platform operator must warn ground personnel in the vicinity to stay away. Their bodies can conduct electricity creating an electrical shock hazard resulting in death or serious injury.

Do not approach or leave the aerial platform until the electricity has been turned off.

Do not attempt to operate the lower controls when the platform, boom structure, or any part of the aerial platform is in contact with a high-voltage electrical conductor or if there is an immediate danger of such contact.

Personnel on or near an aerial platform must be continuously aware of electrical hazards, recognizing that death or serious injury can result from contact with an energized conductor.

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## Appendix

Electrical Schematic
Hydraulic Schematic



# General Information

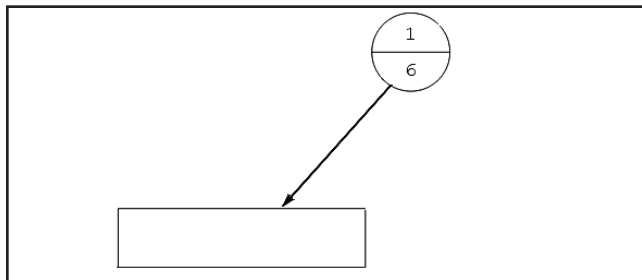
## About This Manual

This manual covers AB46E aerial platform. Information is included for machines that have been manufactured to conform to all applicable requirements of the following organizations:

- American National Standards Institute (ANSI)
- Canadian Standards Association (CSA)
- European Committee for Standardization (CE)

Part pages include a drawing and a bill of material. The bill of material lists the item number that is on the drawing, the UpRight part number, quantity used and a description of the item.

Some callouts in the drawings may have a balloon with two numbers. The top number is the item number and the bottom number is the quantity of the item at that location.



While UpRight has attempted in every way to confirm that all information in this manual is correct, improvements are being constantly made to the machine that may not be reflected in this manual.

If you find information in this manual that is not correct or is confusing, you are urged to report your findings to UpRight for our evaluation. Your input is important to us and will be used in future printings of this manual.

This machine is covered by a limited warranty that specifically identifies items warranted by UpRight and those items covered by original manufacturer's warranty.

## Repairs and Maintenance

Every person who maintains, inspects, tests or repairs the machine must be qualified and authorized to do so.

## Caution

**Do not modify this aerial platform without prior written consent of the UpRight Engineering Department. Modification may void the warranty, adversely affect stability or affect the operational characteristics of the aerial platform.**

## Abbreviations

The following abbreviations may be used in this manual.

AC	alternating current
ANSI	American National Standards Institute
AR	as required
CCA	cold cranking amps
cm	centimeter
DC	direct current
ft	feet
GFCI	ground fault circuit interruptor
in	inch
lbs	pounds
mm	millimeter
no	number
NPT	national pipe thread
psi	pounds per square inch
qty	quantity
rpm	revolutions per minute
UL	Underwriters Laboratories Inc.

## Additional Information

All correspondence relative to this machine, such as field reports, discrepancy reports, requests for information, etc., should be directed to:

UpRight Powered Access HQ  
Vigo Centre  
Birtley Road  
Washington  
Tyne & Wear  
NE38 9 DA

Phone: +44 (0) 845 1550 058

<http://www.upright.com>

# Service and Parts Information

## Ordering Parts

When placing an order for service or repair parts, please have the following machine information readily available.

- Model number
- Serial number
- UpRight part number
- Description of part
- Quantity of parts required
- Your purchase order number
- Address for order to ship to
- The desired shipment method

The parts order form on the following page may be mailed or faxed to the attention of the Parts Department at the following location:

UpRight Powered Access HQ  
Vigo Centre  
Birtley Road  
Washington  
Tyne & Wear  
NE38 9 DA

Phone: +44 (0) 845 1550 058  
Fax: +44 (0) 1952 607 678

Attention: Parts Department

For your convenience, our electronic on-line ordering system is available at the following Internet location:

<http://www.upright.com>

## Manuals

Manuals are available from UpRight to support any of the machines that we produce.

The specific manuals for AB46E aerial platforms are as follows:

### **AB46E Operator Manual**

UpRight part number – 0260229

### **AB46E Repair Parts Manual**

UpRight part number – 0260526

## Machine Information

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Purchased From: \_\_\_\_\_

UpRight Dealer or Distributor: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Parts Order Form

Fill out completely and fax to +44 (0) 1952 607 678, attention Parts Department.

Date: _____	Account Number: _____
Company: _____	Purchase Order Number: _____
Address: _____ _____	Model Number: _____
	Serial Number: _____
Contact Name: _____	Ship To: _____
Phone Number: _____	
Fax Number: _____	
	Shipping Method: _____

Part Number	Description	Quantity

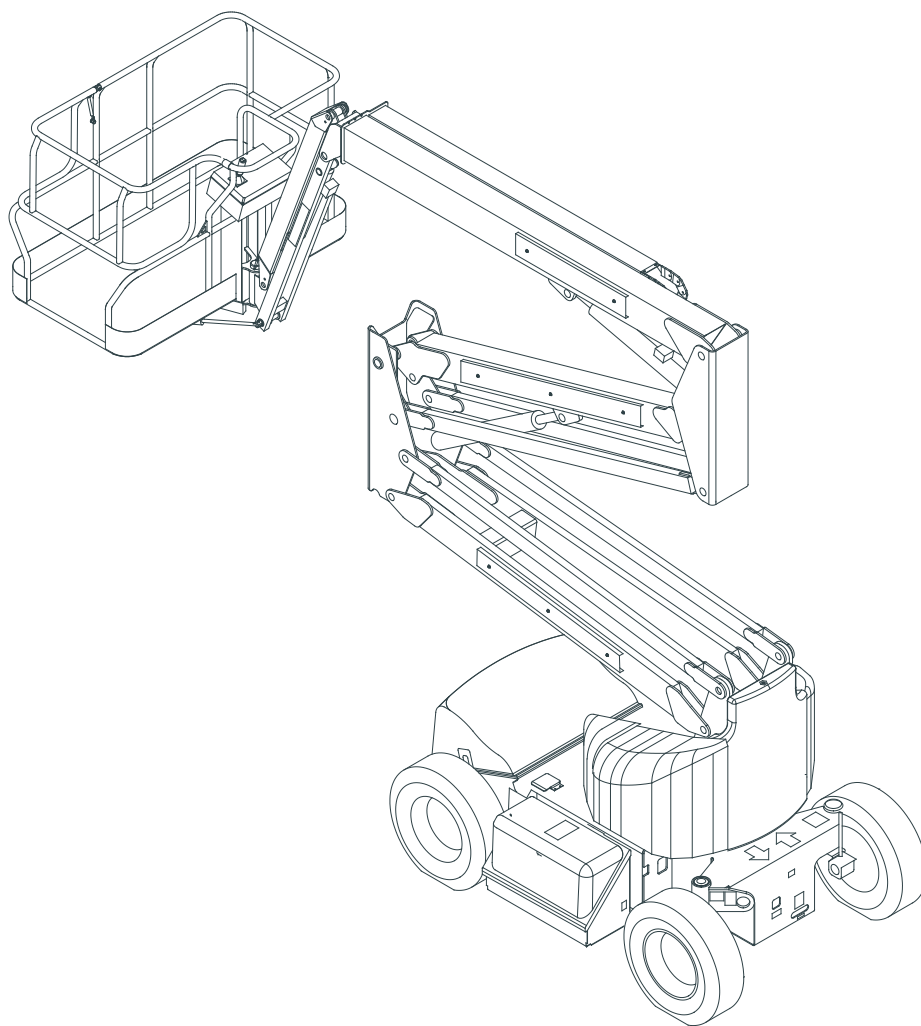
Note: Backordered parts will be shipped as soon as available using the same shipping method as the original order unless otherwise indicated below.

- Ship complete order only. Do not backorder parts.
- Ship all available parts and disposition of backordered parts.
- Other instructions as specified: \_\_\_\_\_





# *Repair Parts*



# AB46E

**UpRight**



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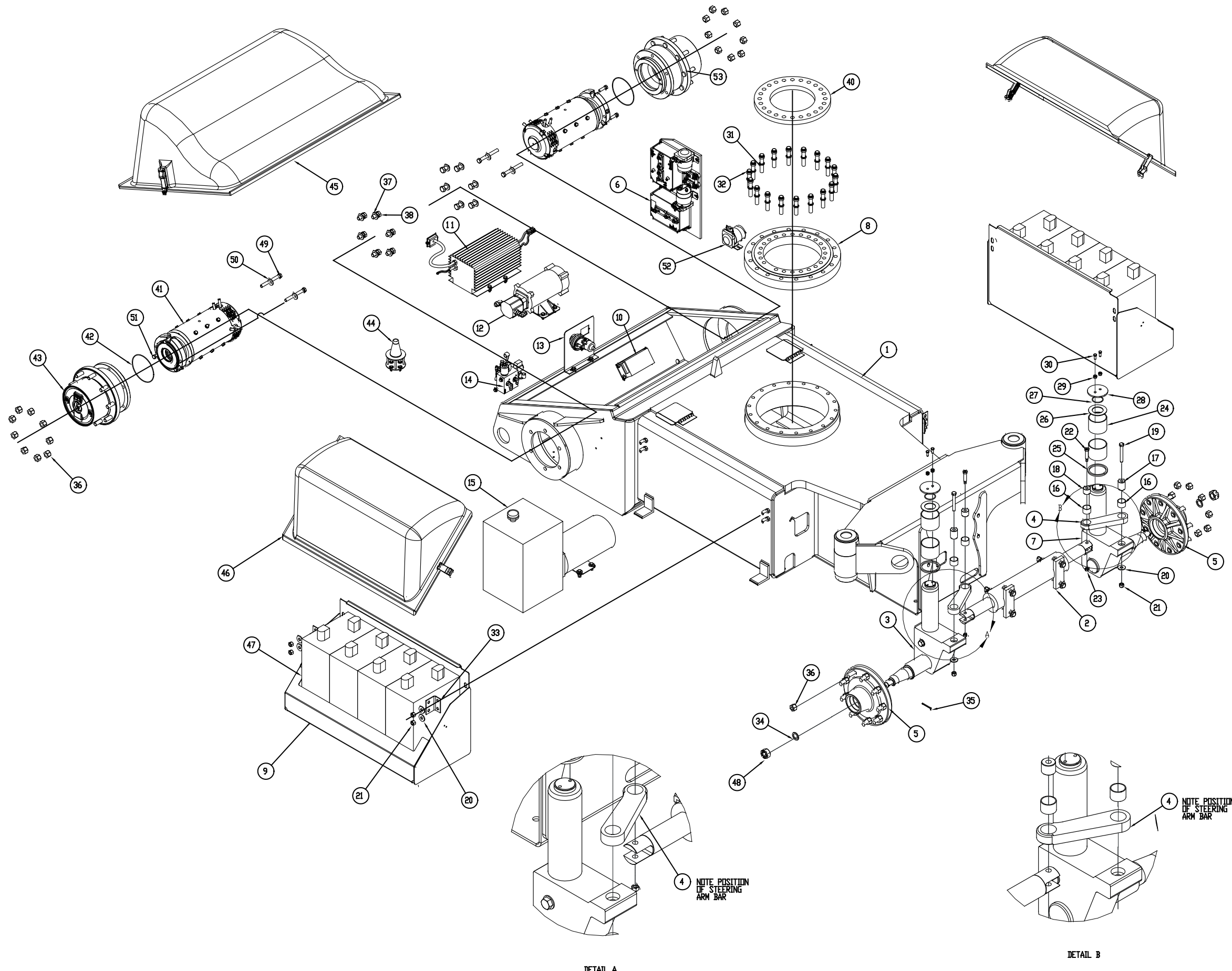
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DETAIL A

DETAIL B

Chassis Assembly

Repair Parts - 3

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Repair Parts – 4

**Chassis Assembly**

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## Chassis Assembly

Item	Part No.	Qty.	Description
1	116314-000-2	1	CHASSIS WELDMENT AB46E
2	0260464	1	STEERING CYLINDER ASSEMBLY (REFER TO HYDRAULICS – 17)
3	0260468-2	1	STEERING SPINDLE ASSY, RH (REFER TO REPAIR PARTS – 9)
4	068372-000-2	2	STEERING ARM
5	116354-000-2	2	FRONT HUB ASSY (REFER TO REPAIR PARTS – 13)
6	0260440	1	ELECTRICAL PANEL ASSEMBLY (REFER TO ELECTRICAL – 7)
7	0260467-2	1	STEERING SPINDLE ASSY, LH (REFER TO REPAIR PARTS – 11)
8	116322-000	1	ROTATION BEARING
9	068726-000-2	2	BATTERY TRAY WELDMENT
10	0260461	1	CONVERTER ASSEMBLY (REFER TO ELECTRICAL – 11)
11	0260459	1	BATTERY CHARGER ASSEMBLY (REFER TO ELECTRICAL – 13)
12	0260457	1	PUMP ASSEMBLY EM POWER, 48V (REFER TO HYDRAULICS – 5)
13	0260499	1	BATTERY DISCONNECT PANEL ASSEMBLY (REFER TO ELECTRICAL – 15)
14	0260463	1	BRAKE VALVE ASSEMBLY (REFER TO HYDRAULICS – 9)
15	0260469	1	HYDRAULIC POWER UNIT ASSEMBLY (REFER TO HYDRAULICS – 3)
16	062642-033	4	BEARING SLEEVE
17	068378-000	2	STEERING PIN-LONG
18	068380-000	2	STEERING PIN - SHORT
19	5563065	2	BLT HEXHD M12-1.75 90MM
20	5560699	10	WSHR FLAT M12
21	5563078	8	NUT HEX LKG M12-1.75
22	5563044	2	BLT SKTHD SHLDR .500 1.75 HEX
23	5560033	2	NUT HEX LKG .375-16
24	068576-001	4	BEARING SLEEVE
25	011788-001	2	SEAL GARLOCK #71X6308
26	010092-014	2	THRUST WASHER GARLOC
27	013888-224	2	SEAL PARKER 224
28	068373-000-2	2	STEERING PIN CAP
29	5560355	4	WSHR LOCK M8
30	972029	4	BLT HEXHD M8-1.25 20MM
31	5563058	18	WSHR, FLAT HARD .653 SP
32	5563056	18	BLT, FLGHD M16-2.0 80MM 12PT12
33	068727-000-3	4	ANGLE BATTERY TRAY MOUNT
34	5563135	2	WSHR FLAT 1 X 1.5 X .125
35	5560282	2	PIN COT .125DIA 2.00LG
36	011469-006	36	NUT LUG 5/8
37	5560169	12	WSHR FLAT HARD .625 SP
38	5563124	12	BLT HEXHD .625-11 1.25 GR8
40	0260062	1	RING-INNER
41	0260001	2	MOTOR ELEC 48VDC DRIVE XP-2215
42	0260099	2	O-RING 4.75ID 4.94OD .094 75D
43	116324-000-2	2	HUB-PLANETARY
44	0260460	1	LEVELING SENSOR ASSEMBLY (REFER TO ELECTRICAL – 17)
45	0260455-2	1	CHASSIS COVER ASSEMBLY (REFER TO REPAIR PARTS – 15)
46	0260458-2	2	BATTERY TRAY COVER ASSEMBLY (REFER TO REPAIR PARTS – 17)
47	068568-000	8	BATTERY US #L-16
48	5563126	2	NUT HEX CASTLE 1.00-12
49	978549	4	BLT HEXHD .500-13 4.50
50	986359	4	WSHR FLAT .500
51	5563132	4	BLT HEXHD .438-14 1.50 GR8
52	0260497	1	CONTACTOR 48V N0 ASSEMBLY (REFER TO ELECTRICAL – 9)
53	0260070	2	O-RING .250 ID .375 OD .063 AS568-010

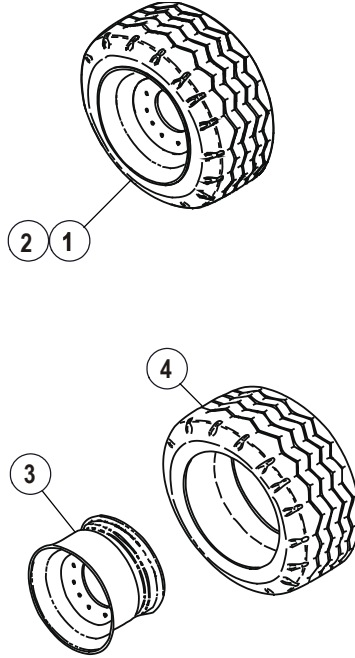
0260474-2

## Chassis Assembly



## Tires and Wheels

Item	Part No.	Qty.	Description
1	0260153-1 0073298	4 2	TIRE AND WHEEL, NONMARKING FOAM FILLED ASSEMBLY DECAL, DANGER FOAM FILLED TIRES – NOT SHOWN
2	116351-013	1	TIRE AND WHEEL, NONMARKING FOAM FILLED LEFT/RIGHT SIDE ASSEMBLY
3	0260180	1	WHEEL, LEFT/RIGHT SIDE
4	0260181	1	TIRE, NONMARKING



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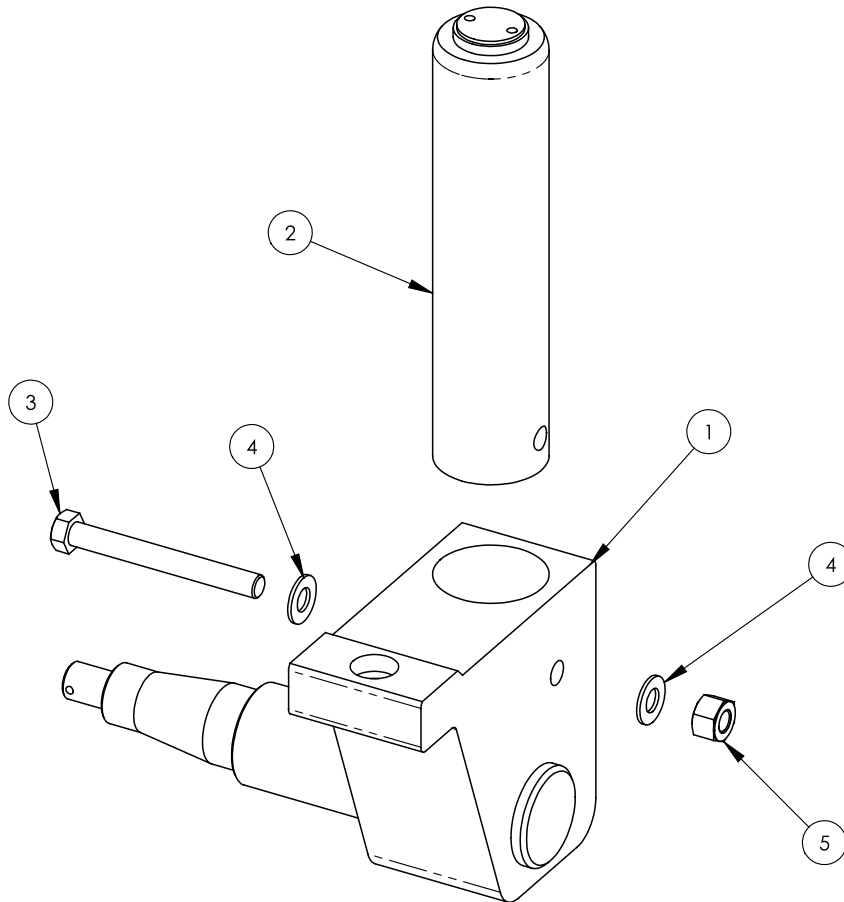
## Tires and Wheels





## Steering Spindle Assembly – Right Side

Item	Part No.	Qty.	Description
1	116353-001-2	1	STEERING SPINDLE
2	068368-000	1	PIN, STEERING PIVOT CHROME PL
3	5563101	1	BLT HEXHD M16-2.00 140MM 10.9
4	5560169	2	WSHR FLAT HARD .625 SP
5	5563082	1	NUT HEX M16-2.00



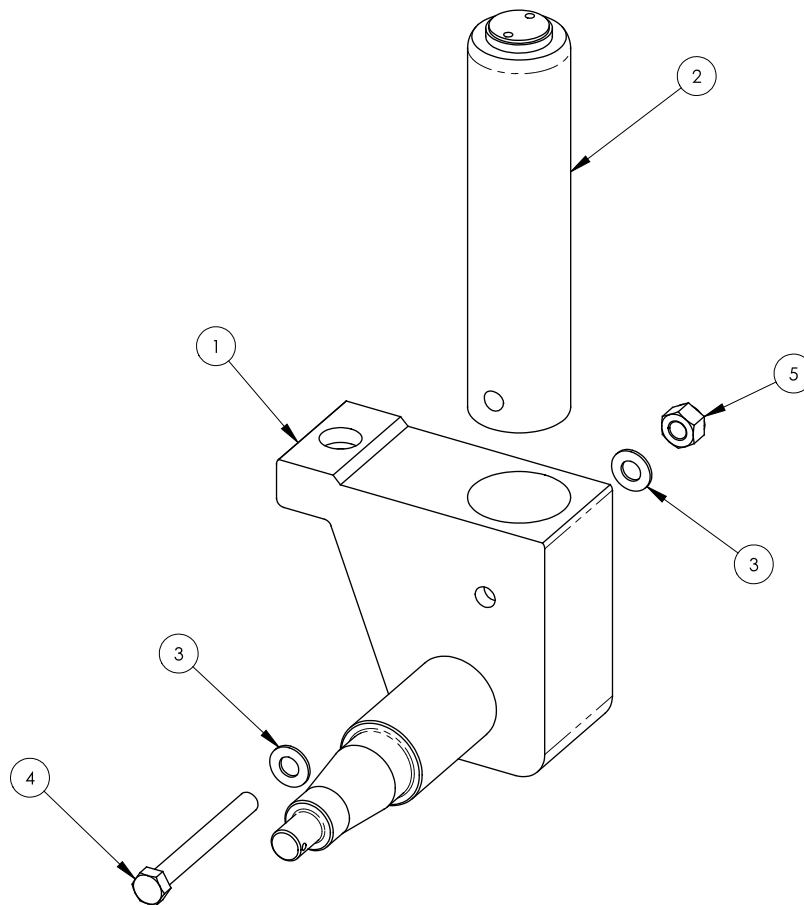
0260468-2

## Steering Spindle Assembly – Right Side



## Steering Spindle Assembly – Left Side

Item	Part No.	Qty.	Description
1	116353-000-2	1	STEERING SPINDLE
2	068368-000	1	PIN, STEERING PIVOT CHROME PL
3	5560169	2	WSHR FLAT HARD .625 SP
4	5563101	1	BLT HEXHD M16-2.00 140MM 10.9
5	5563082	1	NUT HEX M16-2.00



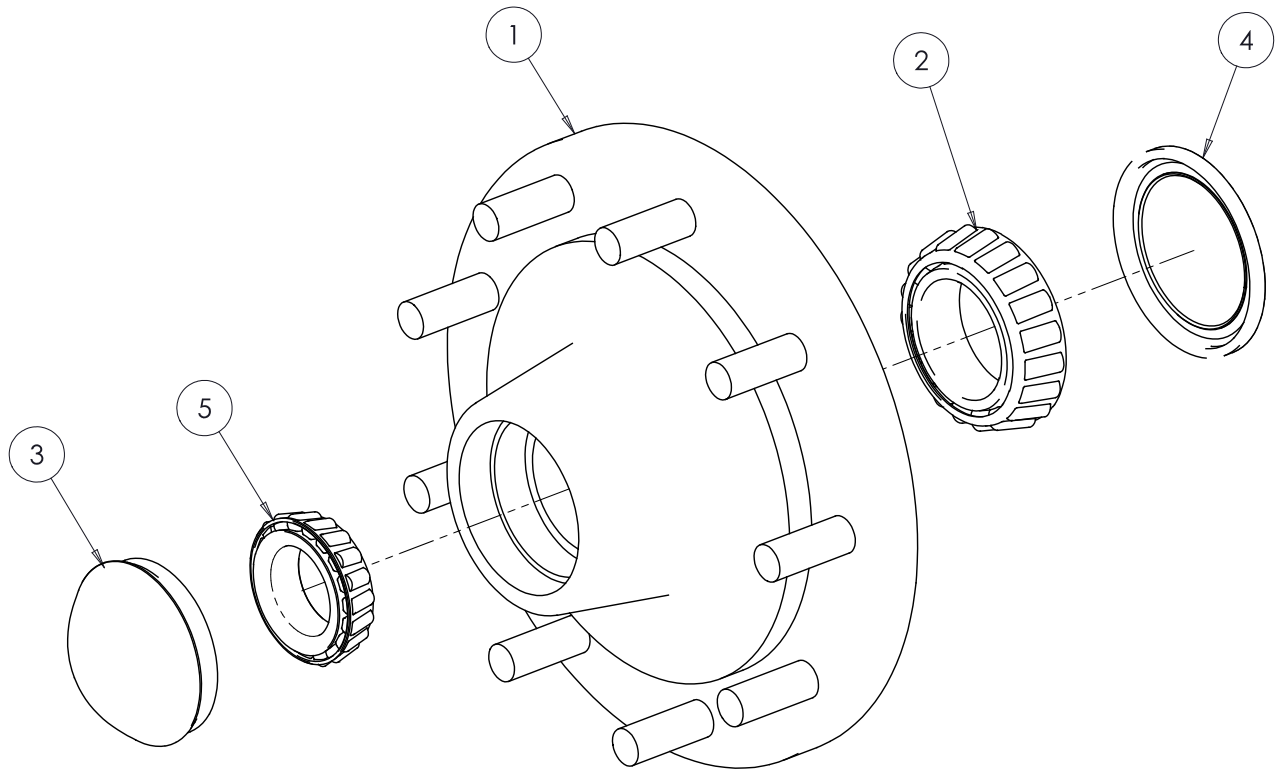
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## Steering Spindle Assembly – Left Side



## Front Hub Assembly

Item	Part No.	Qty.	Description
1	116354-001	1	FRONT HUB
2	0260510	1	BRG. TAPER ROLLER
3	0260511	1	WHEEL BEARING GREASE CAP
4	0260512	1	WHEEL BARING GREASE SEAL
5	0260509	1	BRG. TAPER ROLLER



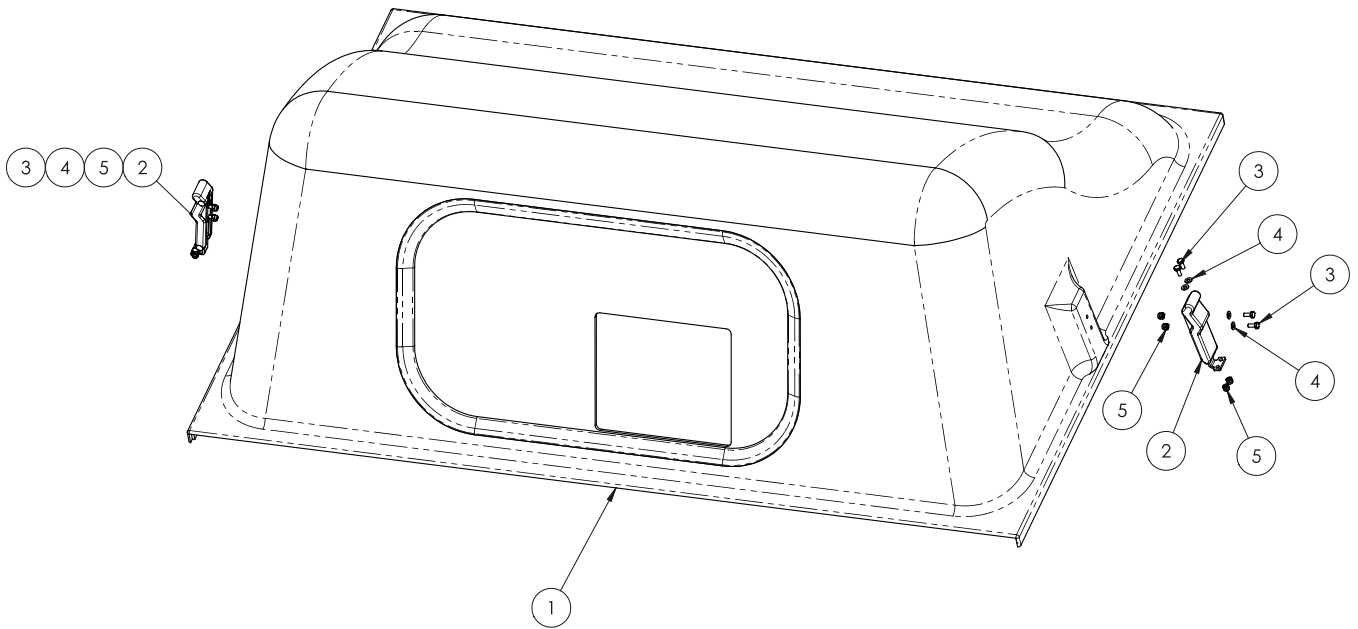
116354-000

## Front Hub Assembly



## Chassis Cover Assembly

Item	Part No.	Qty.	Description
1	068658-000-2	1	COVER
2	068757-001	2	LATCHDRAW
3	5563130	8	BLT HEXHD M4-0.7 10MM
4	5569887	8	WSHR FLAT M4
5	5563011	8	NUT LKG M4-0.70



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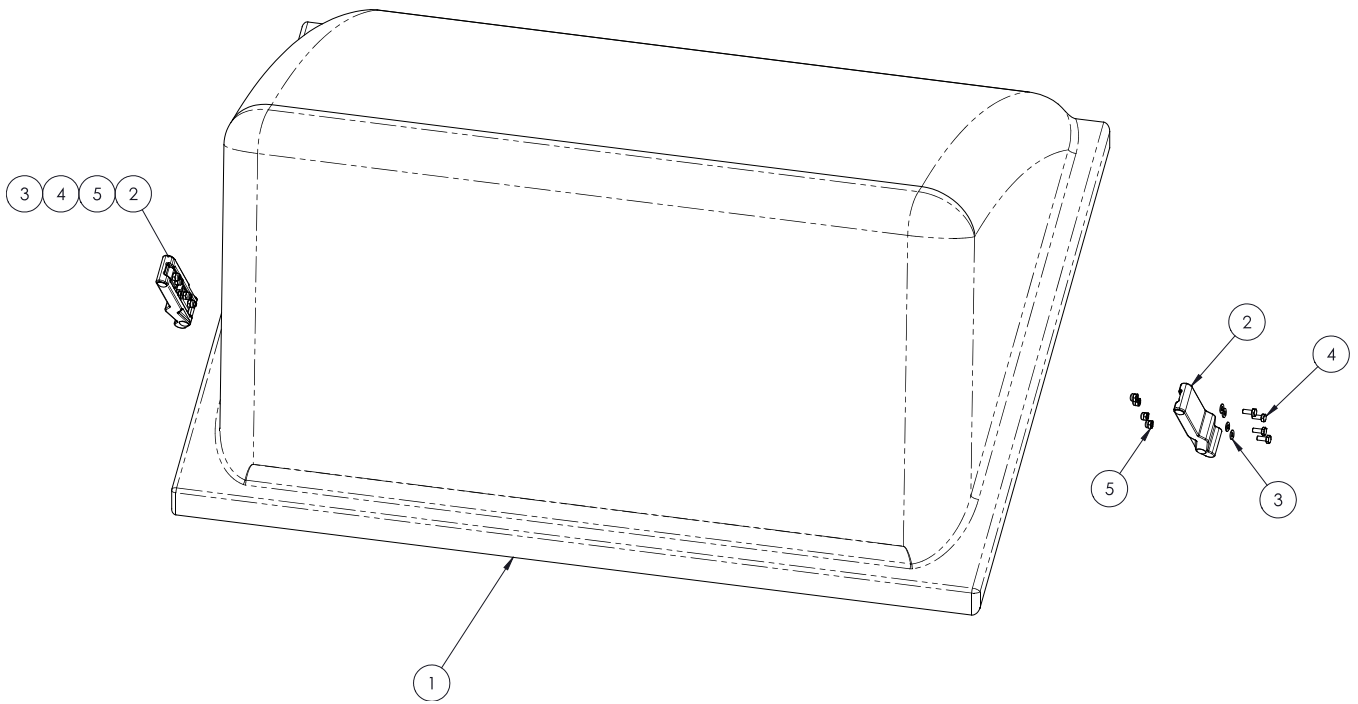
## Chassis Cover Assembly





## Battery Tray Cover Assembly

Item	Part No.	Qty.	Description
1	068659-000-2	1	COVER, BATTERY TRAY
2	068757-000	2	LATCHDRAW
3	5569887	8	WSHR FLAT M4
4	5563130	8	BLT HEXHD M4-0.7 10MM
5	5563011	8	NUT LKG M4-0.70



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## Battery Tray Cover Assembly



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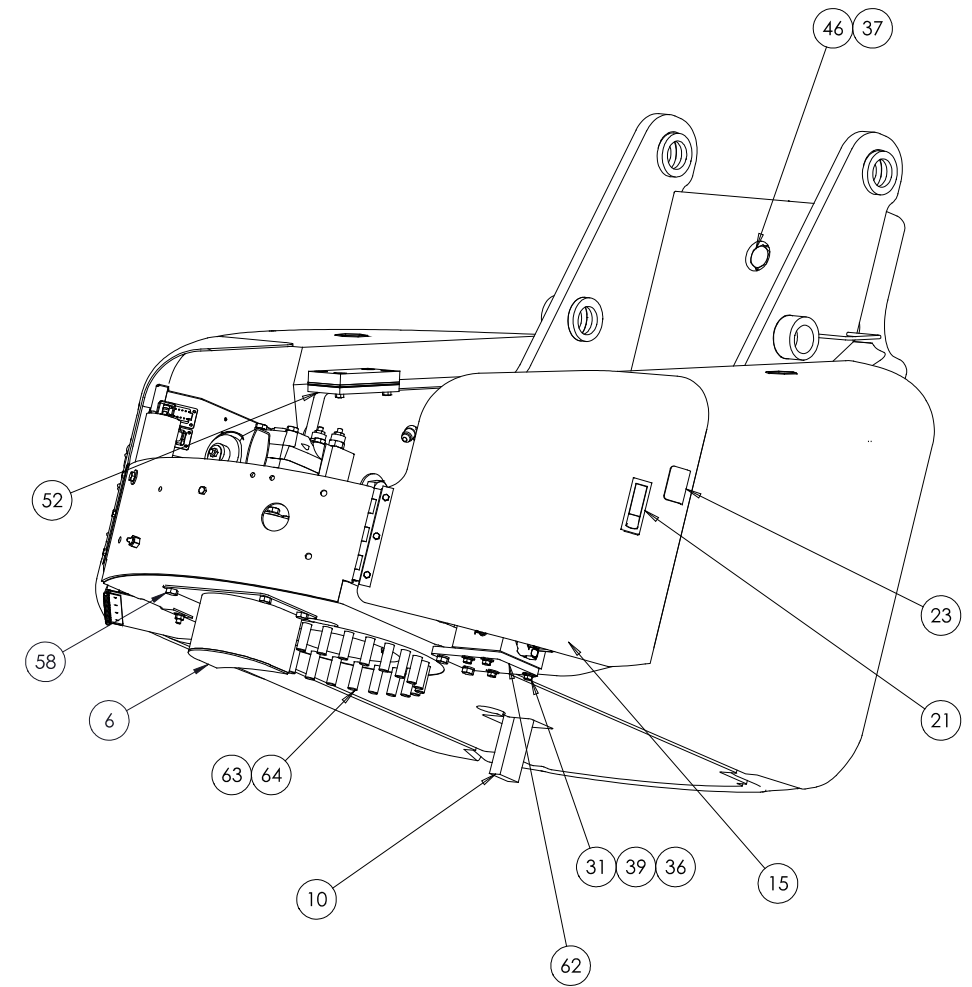
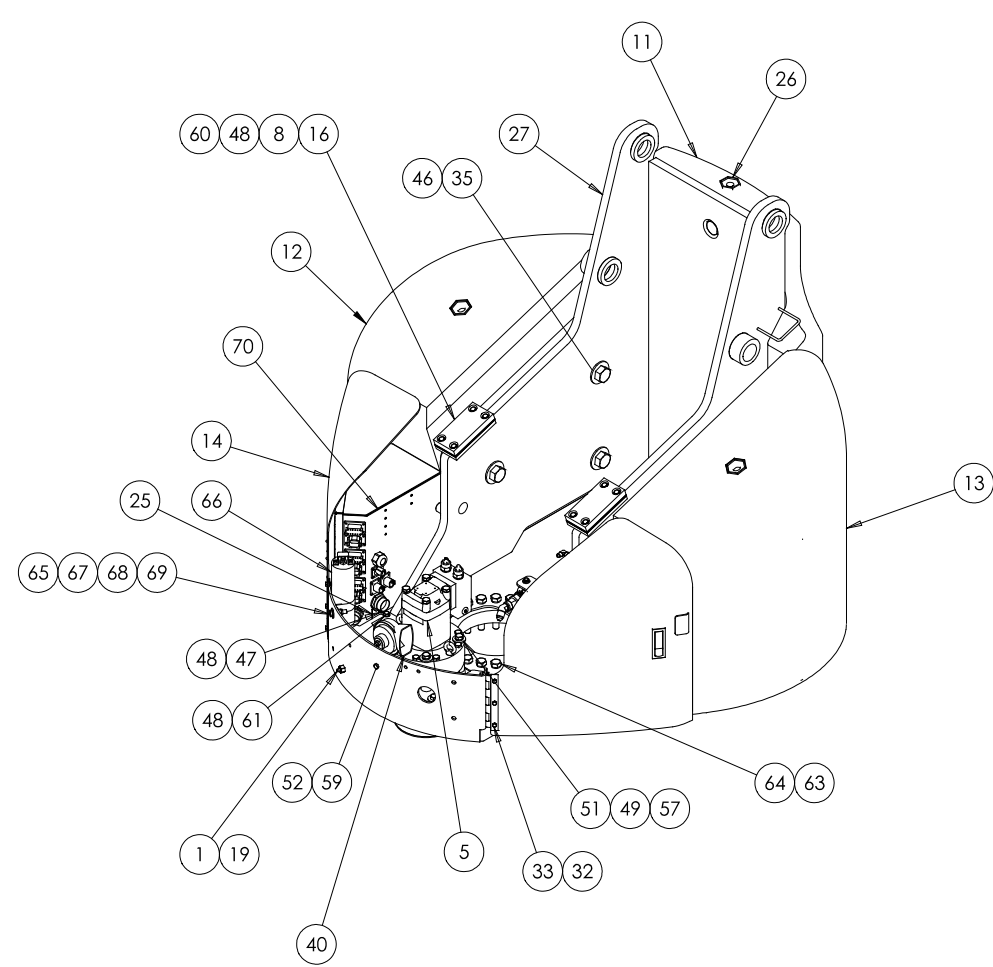
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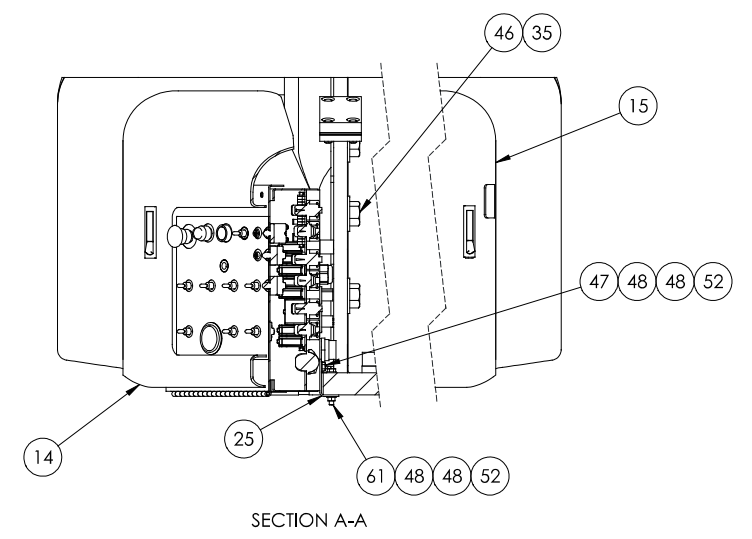
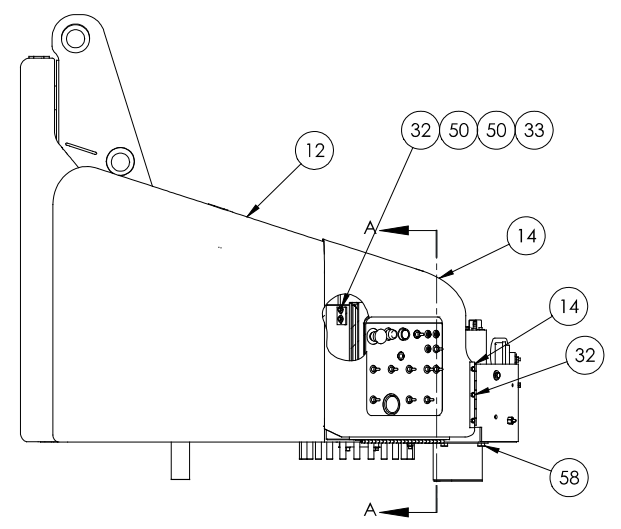
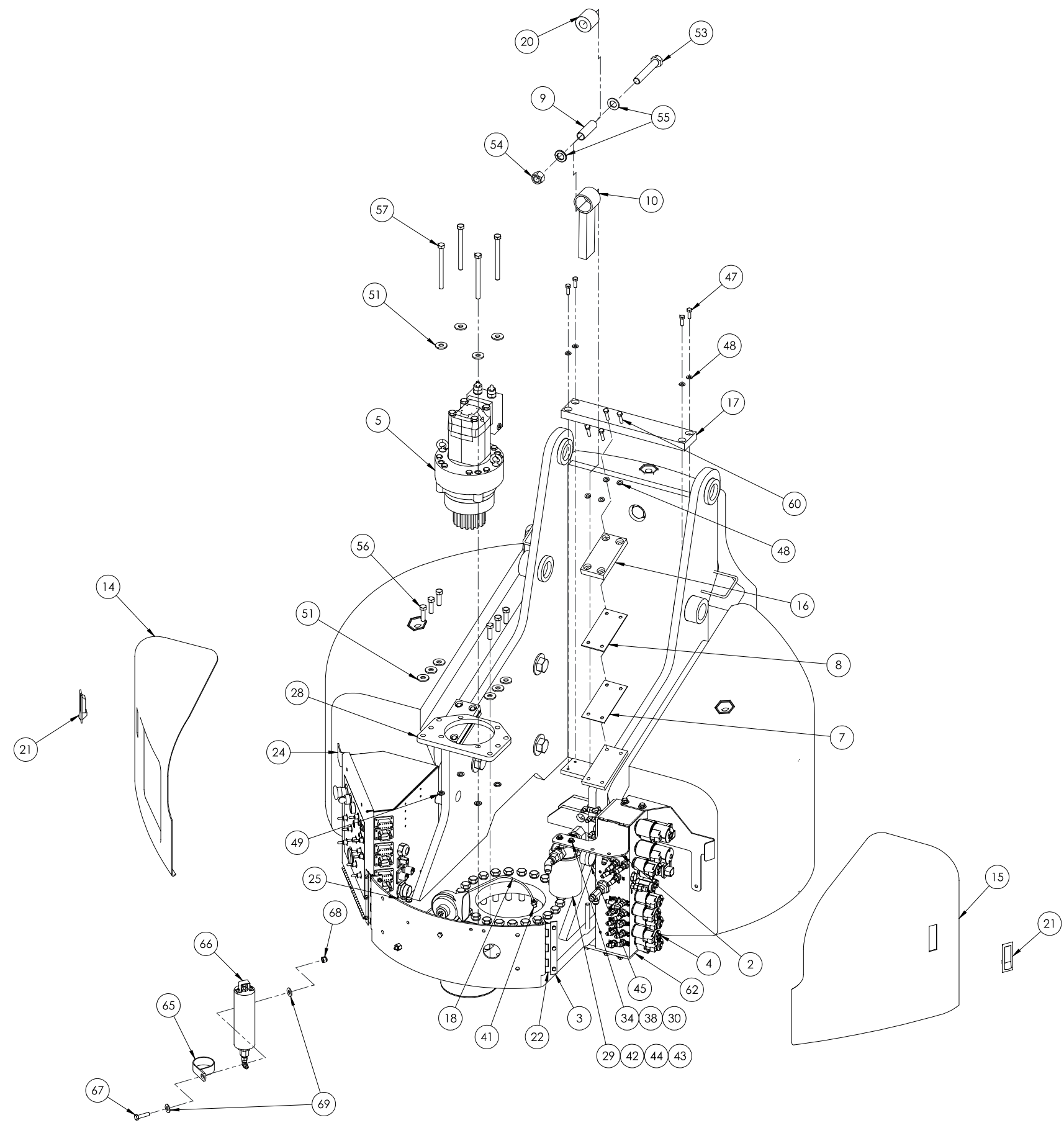
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Repair Parts - 20

Turntable Assembly

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## Turntable Assembly

Item	Part No.	Qty.	Description
1	013336-001	1	GREASE FITTING
2	0260103-3	1	BRACKET, HYDRAULIC FILTER WELDMENT
3	0260166-2	2	TURNTABLE COVER HINGE BAR
4	0260219	1	BOOM FUNCTION CONTROL VALVE ASSEMBLY (REFER TO HYDRAULICS – 11)
5	0260335-3	1	SWING DRIVE
6	0260390-3	1	GUARD WELDMENT, PINION GEAR
7	068319-000-3	2	SHIM, REST PAD 1.5 MM
8	068319-001-3	2	SHIM, REST PAD 3 MM
9	068478-000-3	1	SPACER TUBE
10	068485-000-3	1	STOP WELDMENT
11	068652-000-2	1	COUNTERWEIGHT, REAR
12	068653-000-2	1	COUNTERWEIGHT, LEFT SIDE
13	068654-000-2	1	COUNTERWEIGHT, RIGHT SIDE
14	068656-000-2	1	TURNTABLE COVER, LEFT
15	068657-000-2	1	TURNTABLE COVER, RIGHT
16	068660-000	2	REST PAD
17	068660-001	1	REST PAD, LONG
18	068678-099	1	TUBING, NYLON
19	068679-003	1	FITTING BULKHEAD
20	068720-002	1	SPRING CYLINDER, POLY
21	068757-002	2	LATCH
22	068759-000-2	2	HINGE, TURNTABLE COVER
23	068791-000-3	1	BRACKET
24	068792-000-3	1	BRACKET
25	068793-000-3	1	BRACKET
26	109104-000	3	CAP PLUG WW8
27	116312-000-2	1	TURNTABLE POST WELDMENT
28	116323-000	1	MOUNTING PLATE
29	301440	1	HYDRAULIC OIL RETURN FILTER ASSEMBLY (REFER TO HYDRAULICS – 7)
30	970019	2	BOLT, HEXHD .250-20 X .625 GR5
31	970259	6	BOLT, HEXHD .313-18 X 1.00 GR5 PLATED
32	975209	14	BOLT, HEXHD M6-1.00 X 18 MM
33	984169	14	NUT, HEX M6-1.00
34	986019	2	WASHER, FLAT .250
35	986119	6	WASHER, FLAT 1.00
36	986269	6	WASHER, FLAT .313
37	986459	2	WASHER, FLAT .75
38	987099	2	WASHER, LOCK .250
39	987109	6	WASHER, LOCK .313
40	3040127	1	HORN 12 VDC
41	5028006	1	ADAPTER, MALE PIPE
42	5035333	1	FITTING ELBOW 90 STRTHD -12B -8S STL
43	5036906	1	FITTING ELBOW 45 SWVL -8S -8S STL
44	5065711	1	FITTING ADAPTOR STRTHD -12B-8S STL
45	5080011	1	FILTER CONDITION GAUGE
46	5560327	8	BOLT, HEXHD 1.00-8 X 2.50 GR5
47	5560357	5	BOLT, HEXHD M8-1.25 X 25 MM
48	5560613	18	WASHER, FLAT M8
49	5560614	6	WASHER, LOCK M12
50	5560629	4	WASHER, FLAT M6
51	5560699	10	WASHER, FLAT 12 MM
52	5560727	11	NUT, HEX LKG M8-1.25
53	5563075	1	BOLT, HEXHD M20-2.5 X 120 MM
54	5563076	1	NUT, HEX LKG M20-2.5
55	5563077	2	WASHER, FLAT M20
56	5563079	6	BOLT, HEXHD M12-1.75 X 140 MM
57	5563089	6	BOLT, HEXHD M12-1.75 X 12 MM

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## Turntable Assembly

## Turntable Assembly

Item	Part No.	Qty.	Description
58	5563113	4	BOLT, HEXHD M12-1.75 X 12 MM LG
59	972029	3	BOLT, HEXHD M8-1.25 X 20 MM
60	5560632	8	BOLT, HEXHD M8-1.25 X 35 MM
61	972069	1	BOLT, HEXHD M8-1.25 X 60 MM
62	0260207-3	1	MOUNTING PLATE VALVE BLOCK
63	5563058	24	WASHER, FLAT HARD .653 SP
64	5563059	24	BOLT, FLGD M16-2.0 90 MM HEX SP
65	5093014	1	CLIP, CUSHION 2.25 VINYL COATED
66	0260475	1	ACCUMULATOR ASSEMBLY (REFER TO HYDRAULICS – 15)
67	970489	1	HEXHD CAPSCREW .375-16 UNC STL GR5 1.50 LG
68	5560033	1	NUT, HEX LKG .375-16 UNC
69	986299	2	WASHER, FLAT .375 STANDARD PLATED
70	0260082	1	LOWER CONTROL PANEL (REFER TO ELECTRICAL – 21)

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## Turntable Assembly

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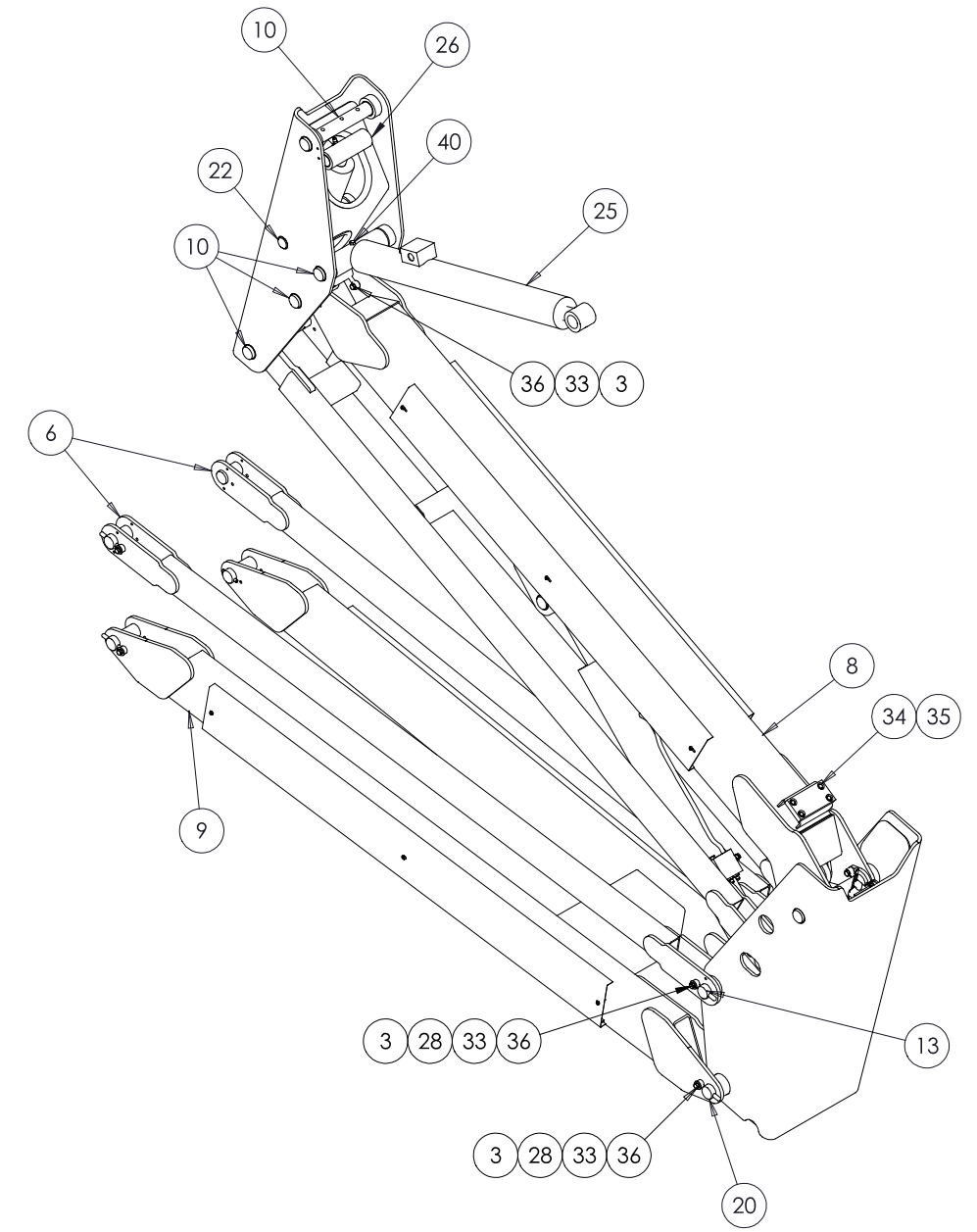
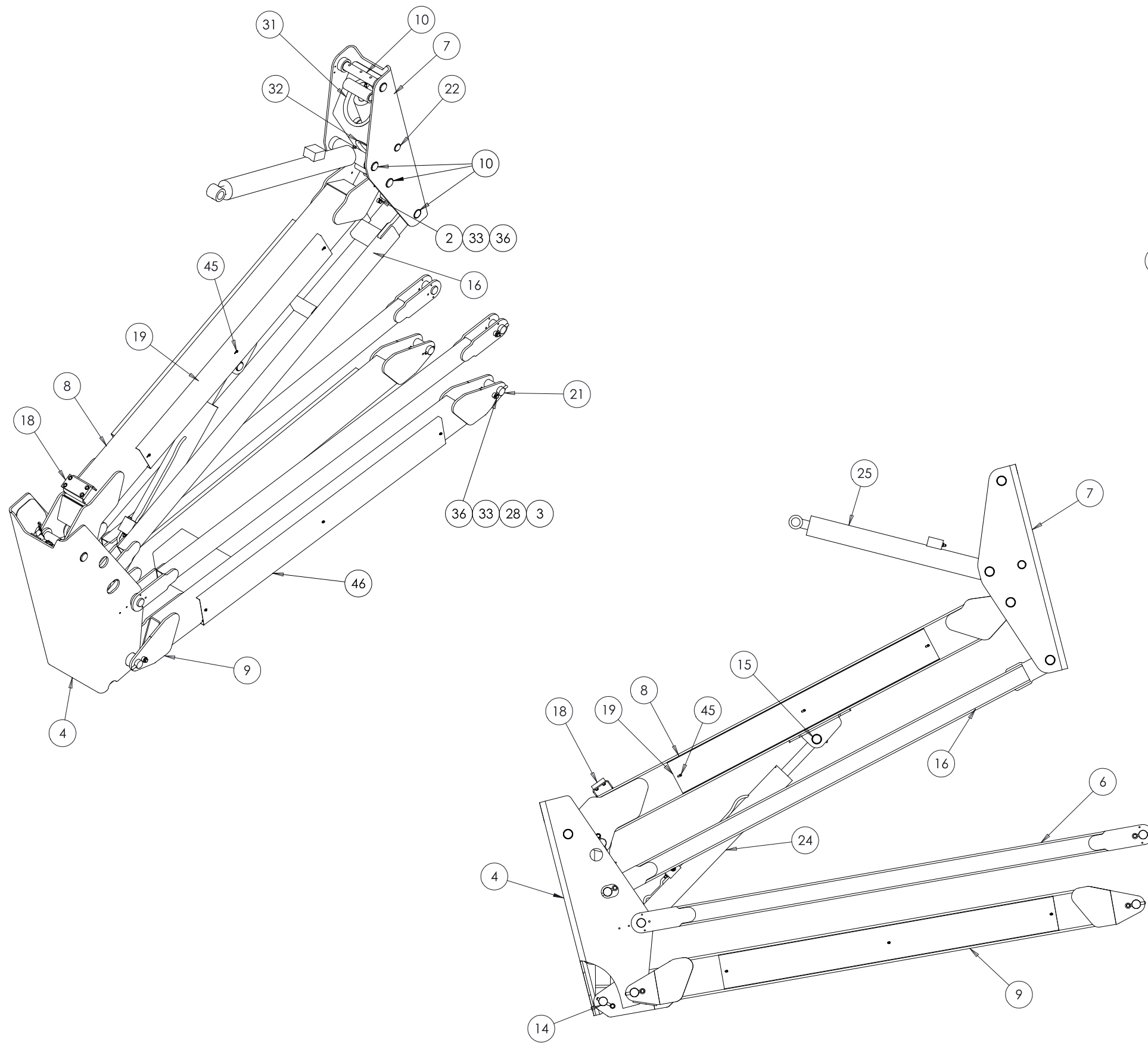
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Riser Boom Assembly

Repair Parts - 23

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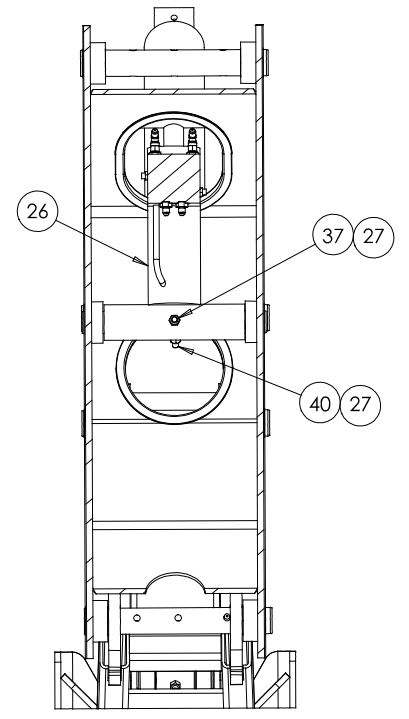
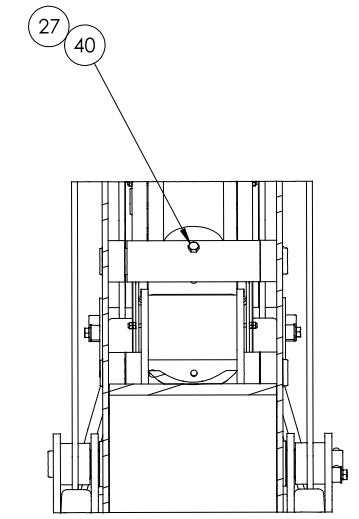
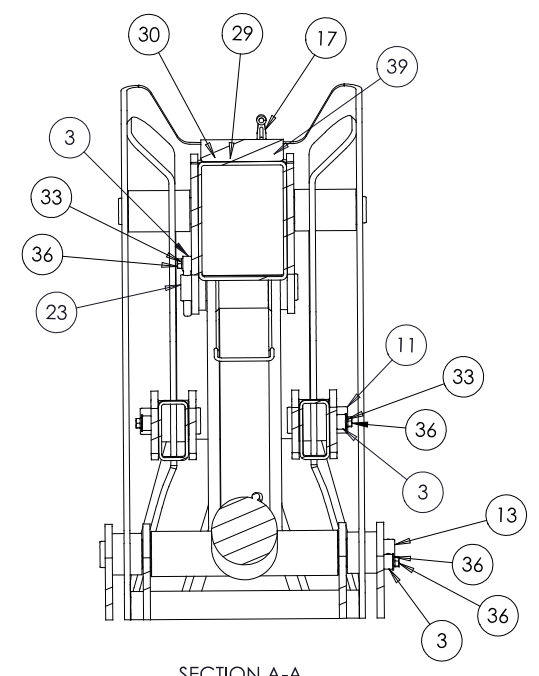
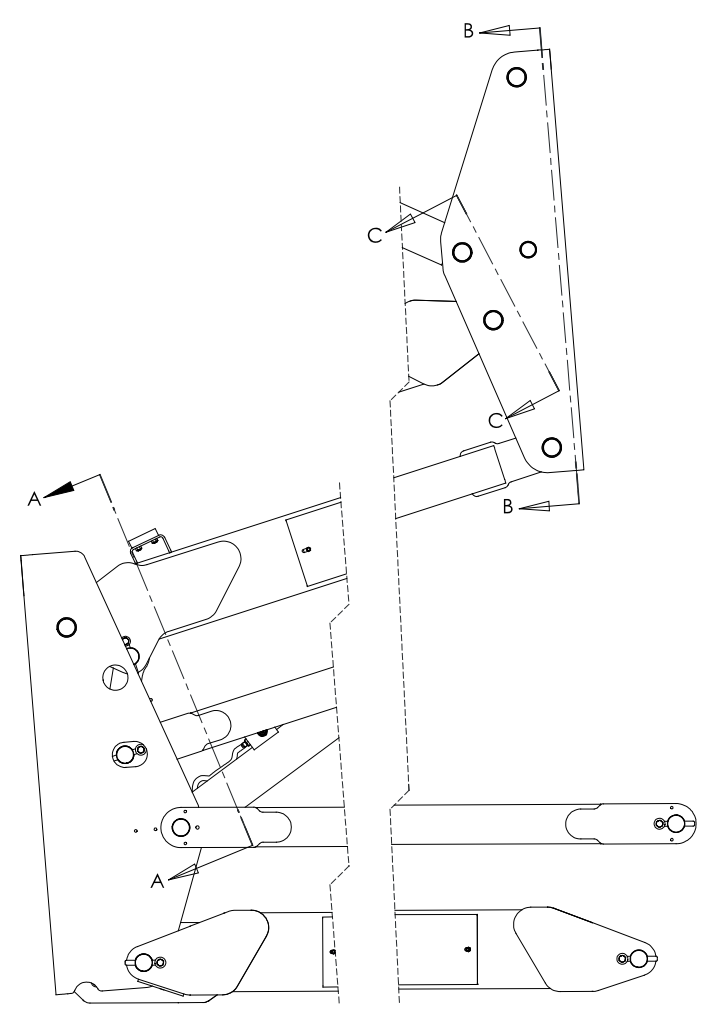
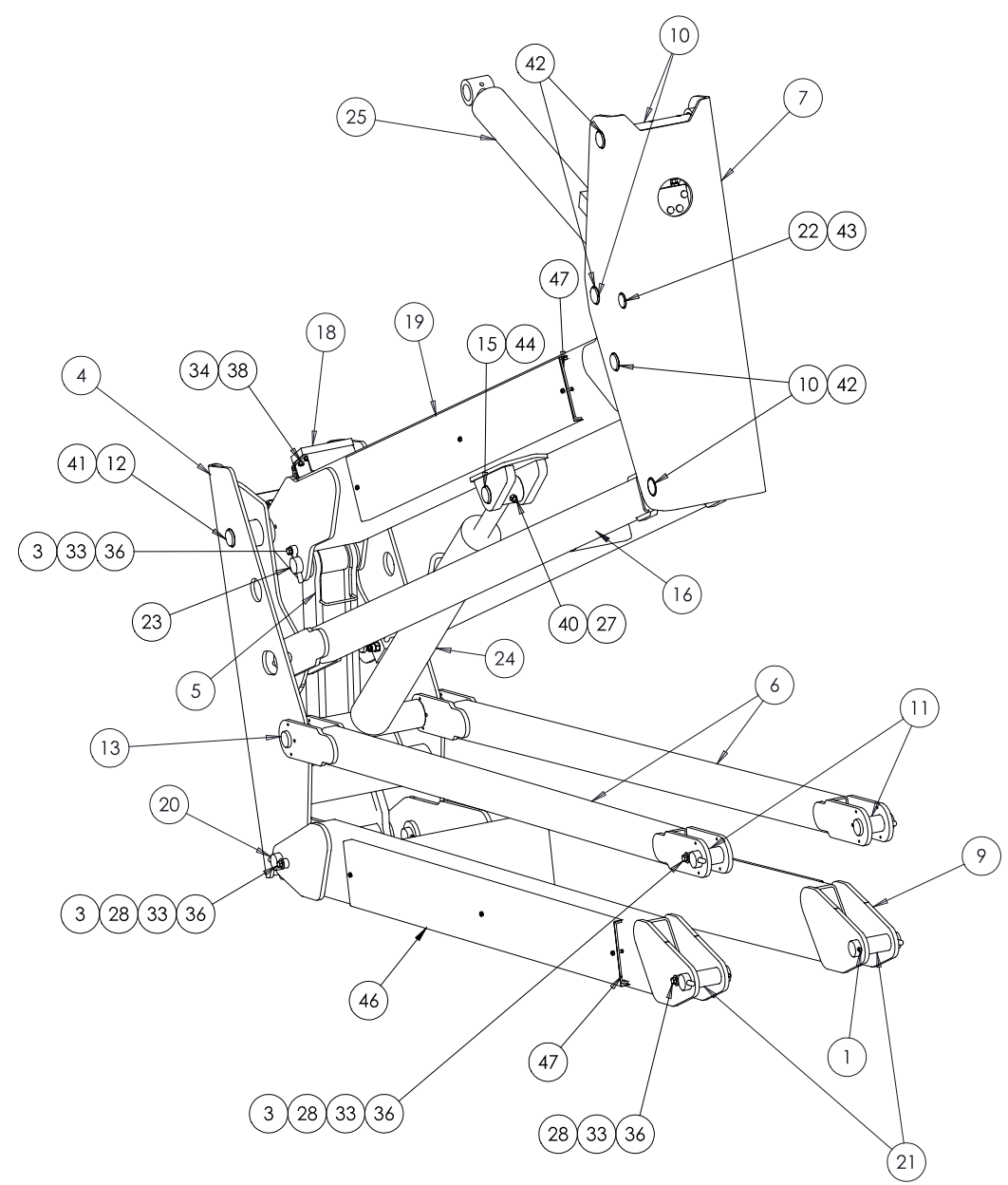
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Repair Parts - 24

Riser Boom Assembly

0260396-2

1 2 3 4 5 6 7 8 9



## Riser Boom Assembly

Item	Part No.	Qty.	Description
1	011739-020	4	PIN ROLL .375 DIA 2.50
2	065214-000	1	ROD END 3/8 X 3
3	065214-001	14	ROD END 1/2 X 3 1/2
4	068397-000	1	RISER POST WELDMENT
5	068399-000	1	TENSION LINK WELDMENT
6	068400-000	2	1ST TENSION RAIL
7	068412-000	1	FRONT RISER WELDMENT
8	068415-000	1	2ND RISER BOOM WELDMENT
9	068417-000	1	1ST RISER BOOM WELDMENT
10	068475-000	2	PIN 1.75 DIA
11	068477-001	6	PIN 1.75 DIA
12	068477-002	1	PIN 1.75 DIA
13	068477-003	1	PIN 1.75 DIA
14	068477-005	1	PIN 1.75 DIA
15	068477-007	1	PIN 1.75 DIA
16	068543-000	1	2ND TENSION RAIL WELDMENT
17	068556-002	1	LEVER SWITCH
18	068660-000	1	REST PAD
19	068704-000	2	HOSE GUARD
20	068794-000	2	PIN 1.75 DIA
21	068794-001	2	PIN 1.75 DIA
22	068796-001	1	PIN 1.75 DIA 38 MM
23	116363-000	1	PIN 1.75 DIA
24	116370-000-3	1	CYLINDER, RISER BOOM (REFER TO HYDRAULICS – 19)
25	116371-000-3	1	CYLINDER, MAIN BOOM LIFT (REFER TO HYDRAULICS – 21)
26	116374-000-3	1	CYLINDER, MASTER LEVEL (REFER TO HYDRAULICS – 27)
27	984909	3	NUT, HEX LKG M10
28	986009	9	WASHER, FLAT M8
29	3040070	1	NUT LKG .500 HUB
30	3040115	1	ELECTRICAL STRAIN RELIEF
31	5560277	2.08 FT	GROMMET EDGE COVER (SOLD BY THE FOOT)
32	5560277	1.75 FT	GROMMET EDGE COVER (SOLD BY THE FOOT)
33	5560356	15	WASHER, LOCK M10
34	5560357	4	BOLT, HEXHD M8-1.25 X 25 MM
35	5560613	4	WASHER, FLAT M8
36	5560626	15	BOLT, HEXHD M10-1.50 X 30 MM
37	5560653	1	BOLT, HEXHD M10 85 MM
38	5560727	4	NUT, HEX LKG M8-1.25
39	5563073	2	SCREW, RD HD M5 X 30 MM
40	5569917	2	BOLT, HEXHD M10-1.50 90 MM
41	062642-034	12	BEARING SLEEVE
42	062642-031	4	BEARING SLEEVE
43	062642-036	2	BEARING SLEEVE
44	062642-028	2	BEARING SLEEVE
45	984169	24	NUT, HEX M6-1.0
46	068705-000	2	HOSE GUARD
47	068706-000	12	CLAMP, HOSE RETAINER
	0262231	1	ASSEMBLY, RISER LIFT LIMIT SWITCH, CE ONLY – NOT SHOWN (REFER TO ELECTRICAL – 33)

0260396-2

## Riser Boom Assembly



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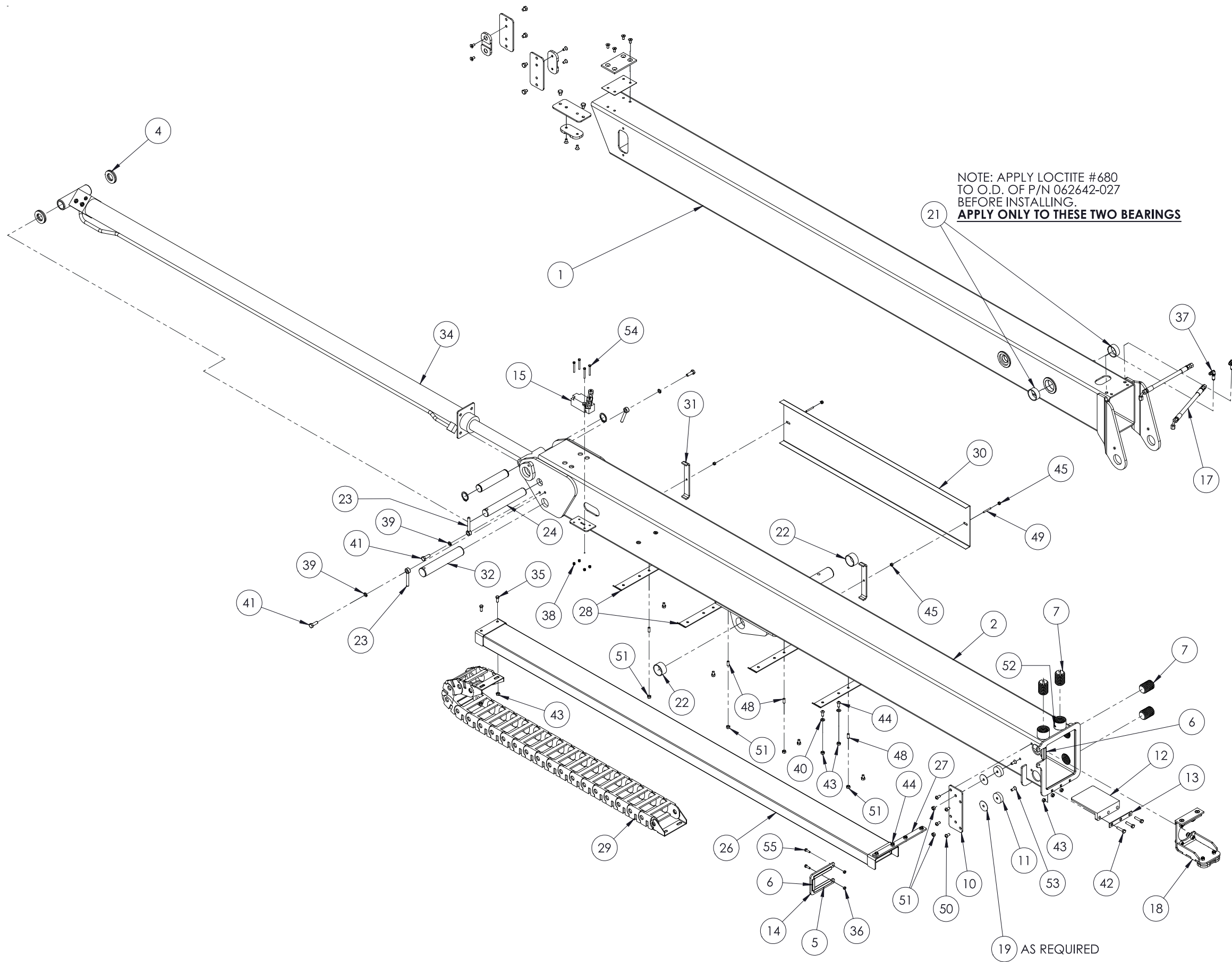
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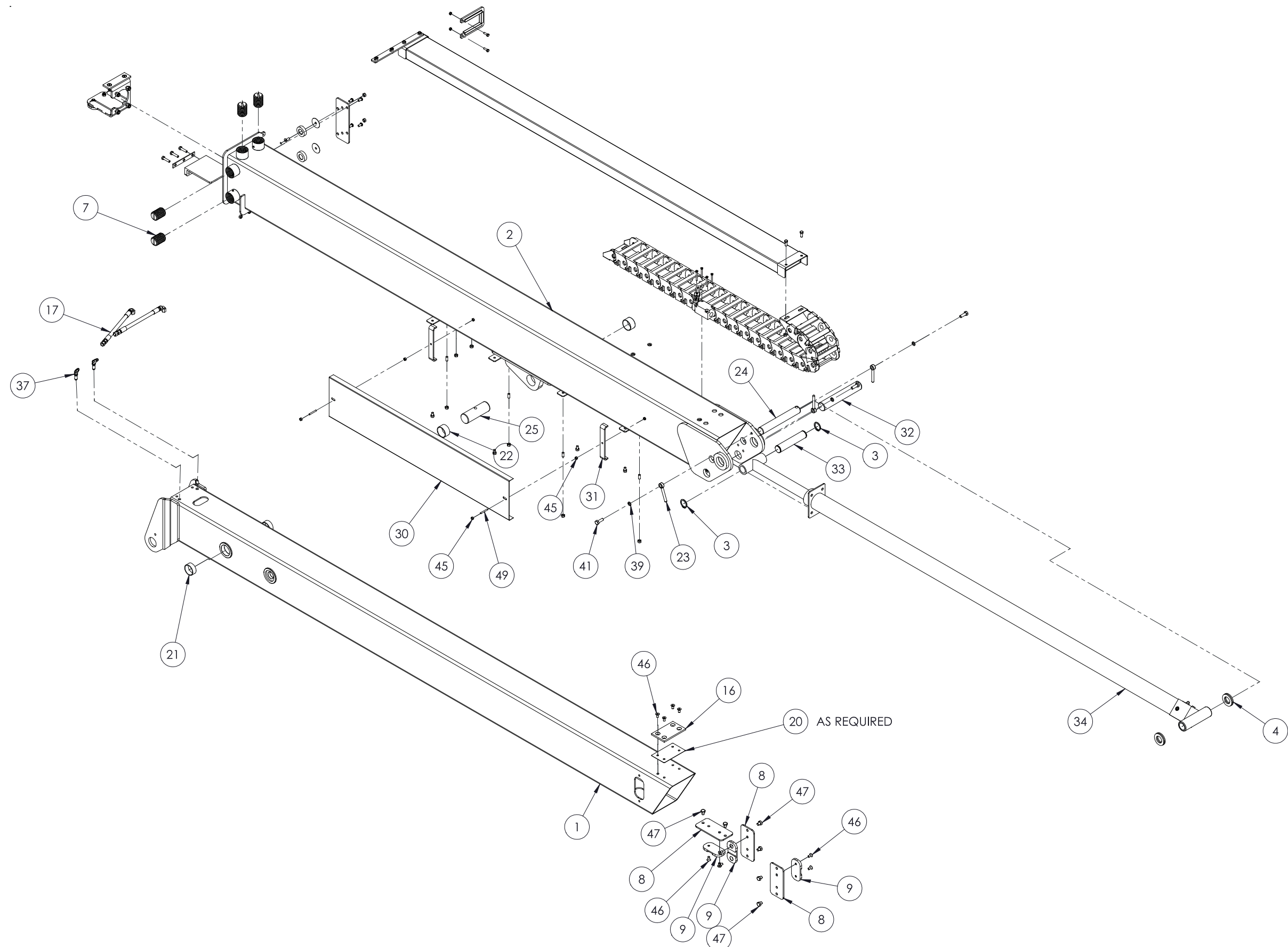
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## Main Boom Assembly

Item	Part No.	Qty.	Description
1	068496-025-2	1	TIP BOOM WELDMENT
2	068497-025-2	1	MAIN BOOM WELDMENT
3	011764-020	2	SNAP RING, EXTERNAL
4	0260128	4	SHIM
5	0260136	2	WEAR STRIP, POLYETHYLENE
6	0260137	2	WEAR STRIP, POLYETHYLENE
7	0260297	4	WEAR PAD
8	0260315	3	WEAR PAD RETAINER PLATE
9	0260316	3	WEAR PAD 2 X 4 X 3/8"
10	0260317	1	RETAINER, PUCK WEAR PAD
11	0260318	2	WEAR PAD, PUCK
12	0260320	1	WEAR PAD, CASSETTE
13	0260321-2	1	WEAR PAD, RETAINER BAR
14	0260323-2	1	BAR, CAT TRACK RETAINER
15	0260347	1	BOOM EXTEND LIMIT SWITCH
16	0260368	1	WEAR PAD, TOP TIP BOOM
17	0260377	2	HOSE -4 -4S90 -4S 11.5 100R17
18	0260452	1	ASSEMBLY, WEAR PAD (REFER TO REPAIR PARTS – 31)
19	0260491	2	SHIM, .030 1.75 DIA
20	0260492	1	SHIM, .030 5.00 3.00
21	062642-027	2	BEARING SLEEVE
22	062642-028	2	BEARING SLEEVE
23	065214-000	3	ROD END 3/8 X 3
24	068476-002	1	PIN 1.25 DIA 8.74
25	068477-007	1	PIN 1.75 DIA
26	068479-000-2	1	EXTENSION TUBE WELDMENT
27	068492-000-2	1	EXTENSION TUBE MOUNTING BAR
28	068497-025-10	4	SUPPORT BRACKET
29	068691-022	1	CAT TRACK
30	068703-000-2	1	HOSE GUARD
31	068706-000	2	CLAMP, HOSE RETAINING
32	068796-002	1	PIN 1.5 DIA
33	116360-000	1	PIN 1.25 DIA
34	116372-000-3	1	CYLINDER, MAIN BOOM EXTEND (REFER TO HYDRAULICS – 23)
35	972029	2	BOLT, HEXHD M8-1.25 X 20 MM
36	984169	2	NUT, HEX M6-1.0
37	5034501	2	FITTING, ELB90 BLHD -4S-4S STL
38	5076513	4	NUT, HEX LKG M5-0.8
39	5560356	3	WASHER, LCK M10
40	5560613	4	WASHER, FLAT M8
41	5560626	3	BOLT, HEXHD M10-1.50 X 30 MM
42	5560632	3	BOLT, HEXHD M8-1.25 X 35 MM
43	5560727	11	NUT, HEX LKG M8-1.25
44	5563068	6	SCREW, BUTTON HEAD M8 X 20
45	5563069	4	BOLT, SKTHD .375-16 1.00
46	5563103	10	SCREW, FLAT HEAD M8-1.25 X16 MM
47	5563104	6	BOLT, HEXHD M8-1.25 X 20 MM
48	5563106	8	STUD, M8-1.25 X 20 MM
49	5563107	2	STUD, M5-0.8 X 40 MM
50	5563108	4	SCREW, BUTTON HEAD M8-1.25 X 16 MM
51	5560727	10	NUT, HEX LKG M8-1.25
52	5563109	4	SCREW, HEX SKT SET M6-1.0 X 10 MM
53	5563137	2	BOLT, FSHCS M8-1.25 20 MM
54	5563138	4	BOLT, HEXHD M5-0.8 45 MM
55	5569985	2	BOLT, HEXHD M6-1.0 X 20 MM

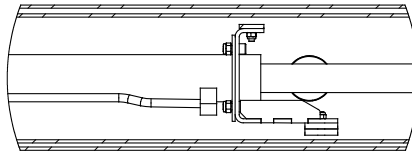
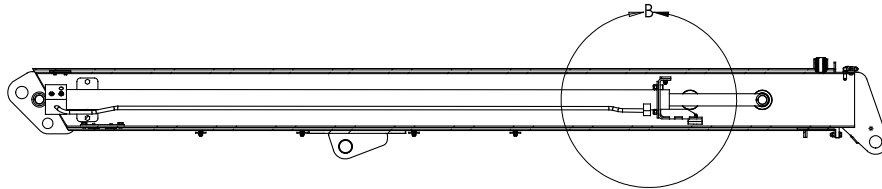
0260376-2

## Main Boom Assembly

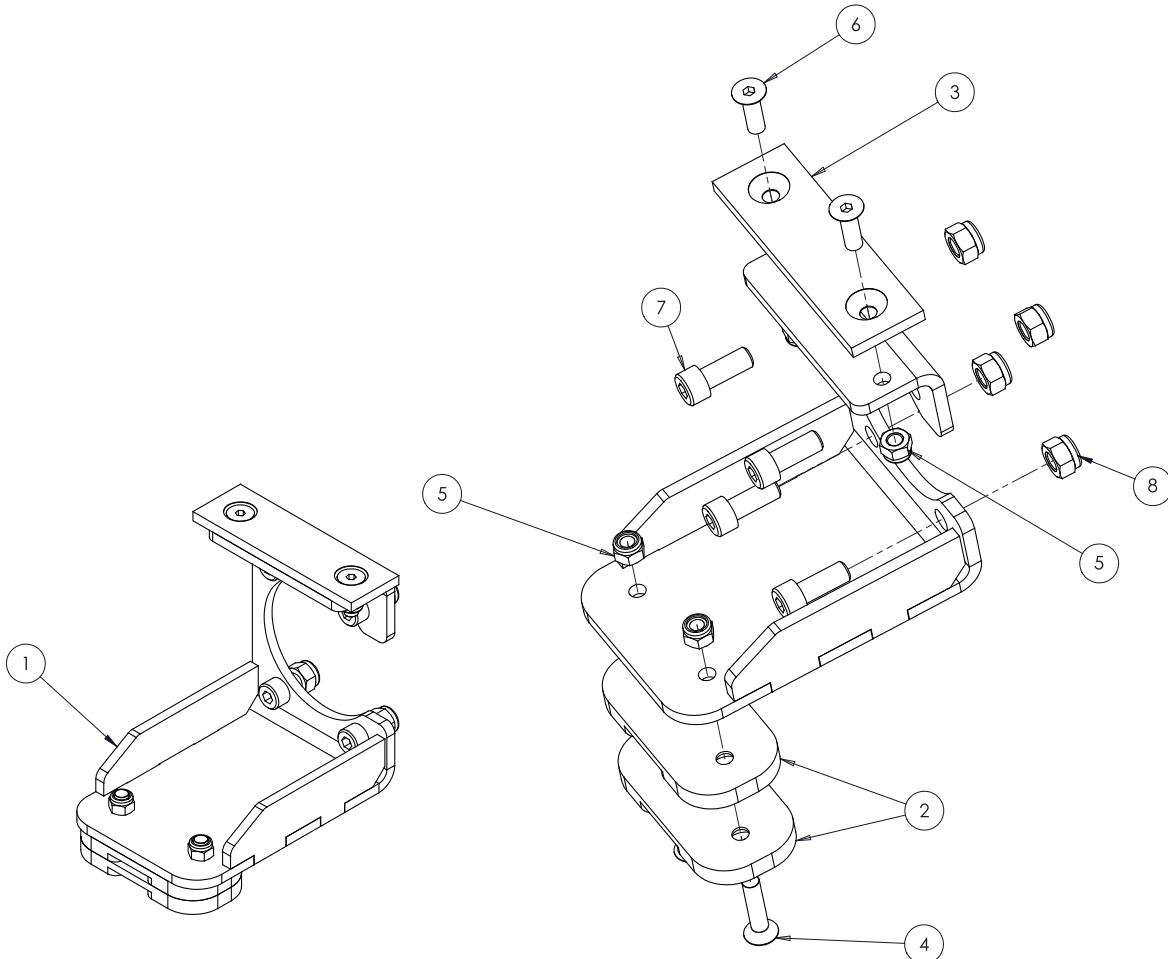


## Wear Pad Assembly

Item	Part No.	Qty.	Description
1	0260450-3	1	EXTEND CYLINDER PAD WELDMENT
2	0260316	2	WEAR PAD 2 X 4 X 3/8
3	0260451	1	UPPER WEAR PAD
4	5563129	2	BOLT, FLSKTHD M8-1.25 35
5	5560727	4	NUT, HEX LKG M8-1.25
6	5563128	2	BOLT, FLSKTHD M8-1.25 25
7	5563127	4	BOLT, SKTHD M10-1.50 25
8	5560719	4	NUT, HEX LKG M10-1.50



DETAIL B



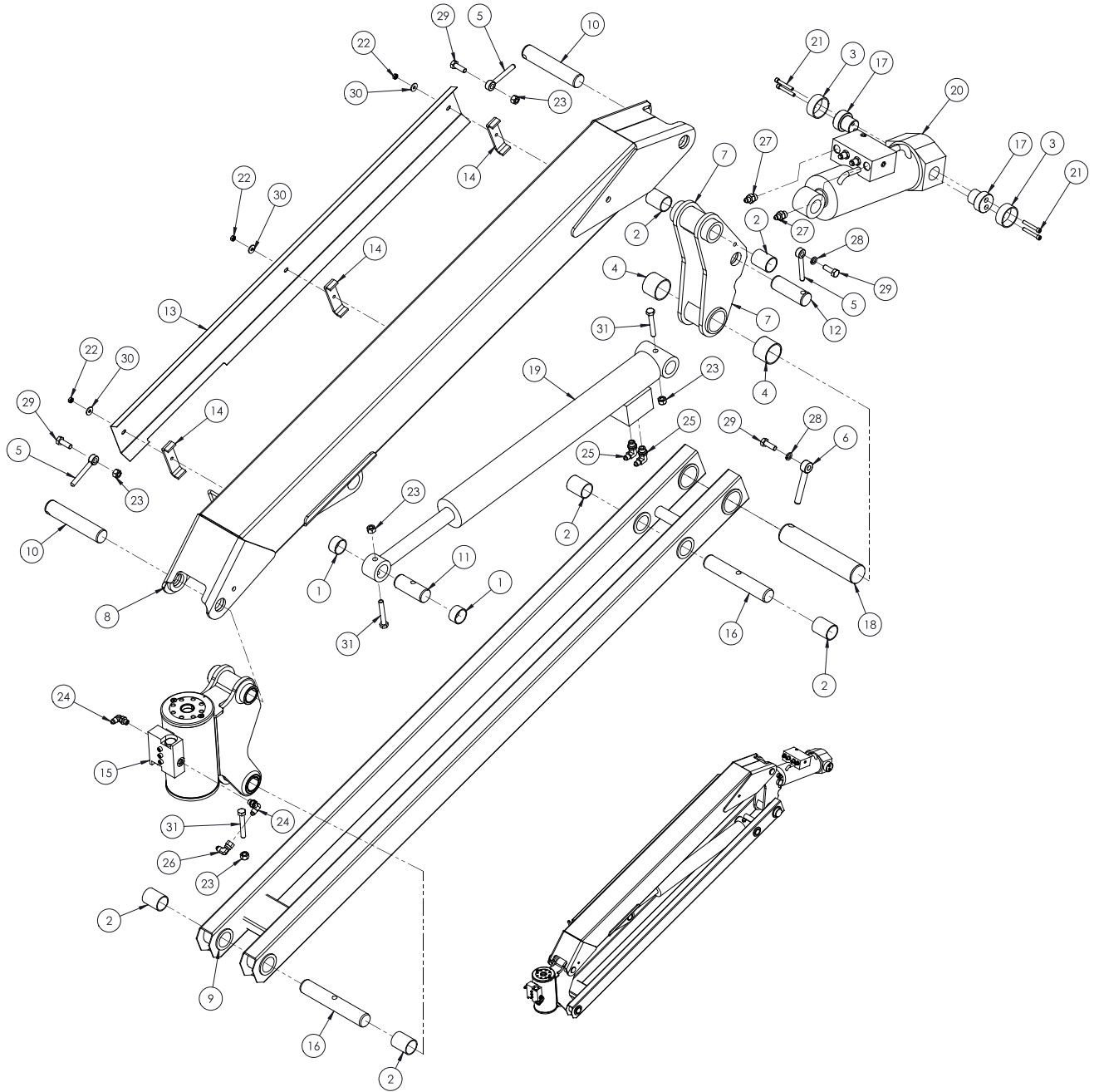
0260452

## Wear Pad Assembly





# Jib Boom Assembly



116311-000-2

# Jib Boom Assembly



## Jib Boom Assembly

Item	Part No.	Qty.	Description
1	062642-024	2	BEARING SLEEVE
2	062642-025	6	BEARING SLEEVE
3	062642-027	2	BEARING SLEEVE
4	062642-031	2	BEARING SLEEVE
5	065214-000	3	ROD END 3/8 X 3
6	065214-001	1	ROD END 1/2 X 3 1/2
7	068438-000-2	1	SWINGING FRAME WELDMENT
8	068439-000-2	1	JIB BOOM WELDMENT
9	068447-025-2	1	LEVELING TUBE WELDMENT
10	068476-003	2	PIN 1.25 DIA
11	068476-004	1	PIN 1.25 DIA
12	068476-005	1	PIN 1.25 DIA
13	068731-000-2	1	HOSE GUARD, JIB
14	068732-000-3	3	HOSE CLAMP, JIB
15	116320-000-2	1	PLATFORM ROTATOR ASSEMBLY (REFER TO HYDRAULICS – 31)
16	116326-000	2	PIN, LOWER JIB
17	116361-000	2	PIN, STEPPED
18	116362-000	1	PIN 1.75 DIA
19	116373-000-3	1	JIB CYLINDER (REFER TO HYDRAULICS – 25)
20	116375-000-3	1	SLAVE CYLINDER (REFER TO HYDRAULICS – 29)
21	978429	4	BOLT, SKTHD 1/4-20 X 1 3/4
22	984169	3	NUT, HEX LKG M6-1.0
23	984909	5	NUT, HEX LKG M10
24	5035303	2	FITTING ELBOW 90 STRTHD -4B -4S STL
25	5035318	2	FITTING ELBOW 90 STRTHD -6B -4S STL
26	5037003	1	ADAPTER 90 DEG ELBOW SWIVEL -4 JIC
27	5065705	2	FITTING ADAPTER STRTHD -6B-4S STL
28	5560356	2	WASHER, LOCK M8
29	5560627	4	BOLT, HEXHD M10-1.50 30MM
30	5560629	3	WASHER FLAT M6
31	5560672	3	BOLT, HEXHD M10 65MM

116311-000-2

## Jib Boom Assembly



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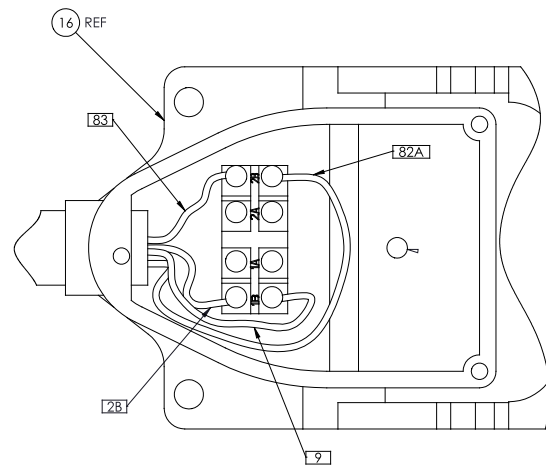
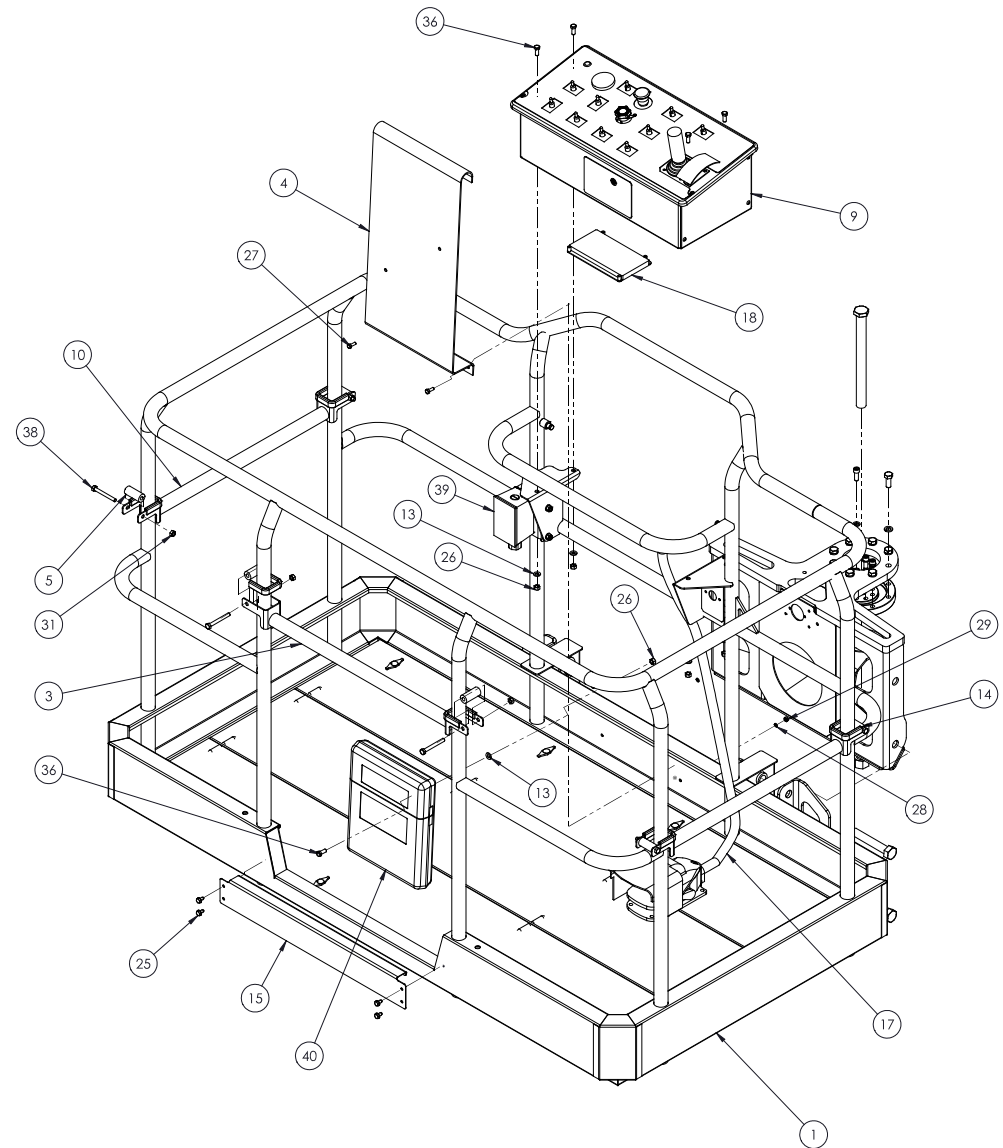
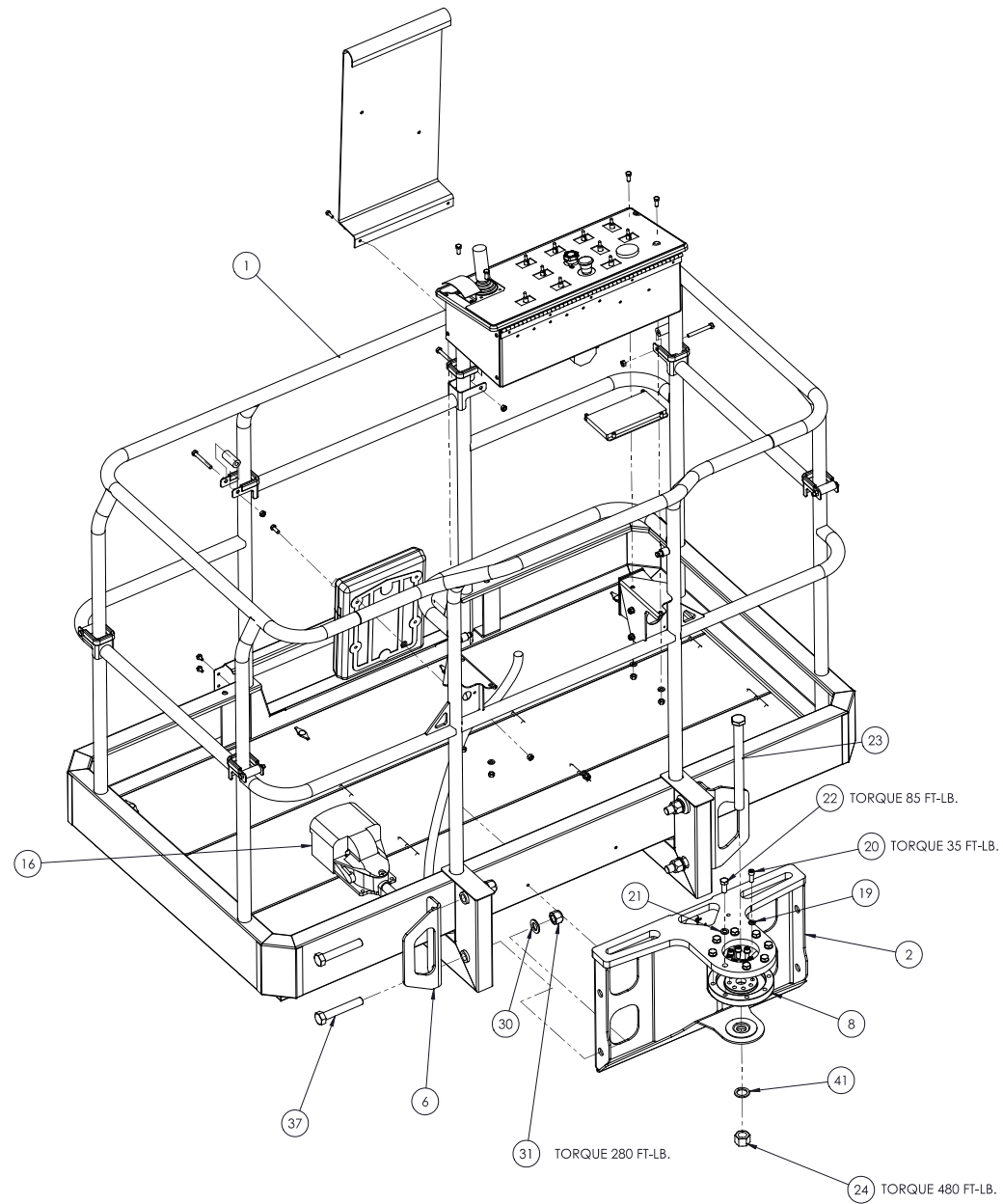
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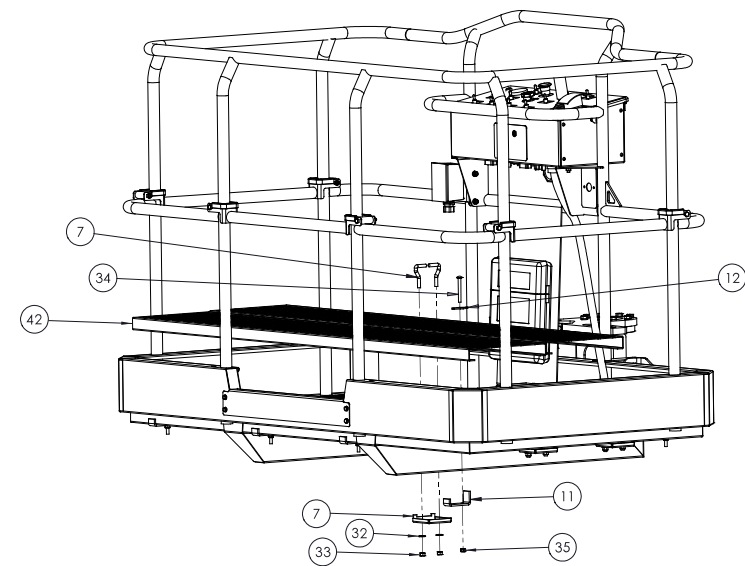
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WIRING DIAGRAM FOR FOOT CONTROL SWITCH



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Repair Parts – 38

**Platform Assembly**

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## Platform Assembly

Item	Part No.	Qty.	Description
1	106530-001-01	1	WELDMENT PLATFORM 6FT
2	104306-001-2	1	CAGE MOUNT
3	100478-000-2	1	LIFT GATE
4	100468-001	1	PANEL, DECAL MOUNT
5	100481-000	6	ROLLER TUBE, GATE
6	102373-000-2	2	BRACKET CHAIN TIE DOWN
7	0260206	8	ANCHOR PLATE
8	116346-000	1	PLATFORM OVERLOAD SENSOR, (REFER TO ELECTRICAL – 77)
9	0260081	1	UPPER CONTROL PANEL ASSMBLY, (REFER TO ELECTRICAL – 27)
10	116342-000-2	2	LIFT GATE
11	0260209	8	ANGLE BRACKET
12	0260208	8	DIAMOND WASHER
13	5560613	6	WASHER, FLAT M8
14	5560083	4.5 FT	HOSE GUIDE .125 RUBBER EDGE COVER
15	102244-000	1	GATE SILL
16	3020021	1	PLATFORM FOOT SWITCH, (REFER TO ELECTRICAL – 19)
17	0260142	1	WIRE HARNESS, FOOT SWITCH, (REFER TO ELECTRICAL – 71)
18	116347-000	1	OVERLOAD CONTROL MODULE, (REFER TO ELECTRICAL – 77)
19	5560356	8	WASHER, LOCK M10
20	5563070	8	BOLT, SKTHD .375-16 1.25
21	5560614	8	WASHER, LOCK M12
22	565476	8	BOLT, HEXHD M12-1.75 35MM
23	5569989	1	BOLT, HEXHD M24-3.0 280MM GR10.9
24	5569990	1	NUT, HEX LKG M24-3.00
25	5560288	4	SCREW SLFTPG .250 .50 TYPE B
26	5560727	12	NUT, HEX LKG M8-1.25
27	975209	2	BOLT, HEXHD M6-1.00 18MM
28	5563051	2	WASHER SPRING LOCK M6
29	984169	2	NUT, HEX M6 -1.00
30	5563077	4	WASHER, FLAT M20
31	5563076	4	NUT, HEX LKG M20-2.5
32	986299	16	WASHER, FLAT .375
33	5566033	16	NUT LKG .375-16
34	5563083	8	BOLT, CARRIAGE .313-18 X 3
35	5560031	8	NUT HEX LKG .313-18
36	972029	6	BOLT, HEXHD M8-1.25 20MM
37	5563075	4	BOLT, HEXHD M20-2.5 X 120MM
38	5560627	6	BLT HEXHD M8-1.25 X 35MM
39	0260501	1	PLATFORM AC POWER, (REFER TO ELECTRICAL – 41)
40	562386	1	LITERATURE COMPARTMENT
41	5563135	1	WASHER, FLAT 1 X 1.5 X .125
42	102271-061	3	GRIP STRUT
43	0260061	1	HARNESS, 110V CABLE – NOT SHOWN

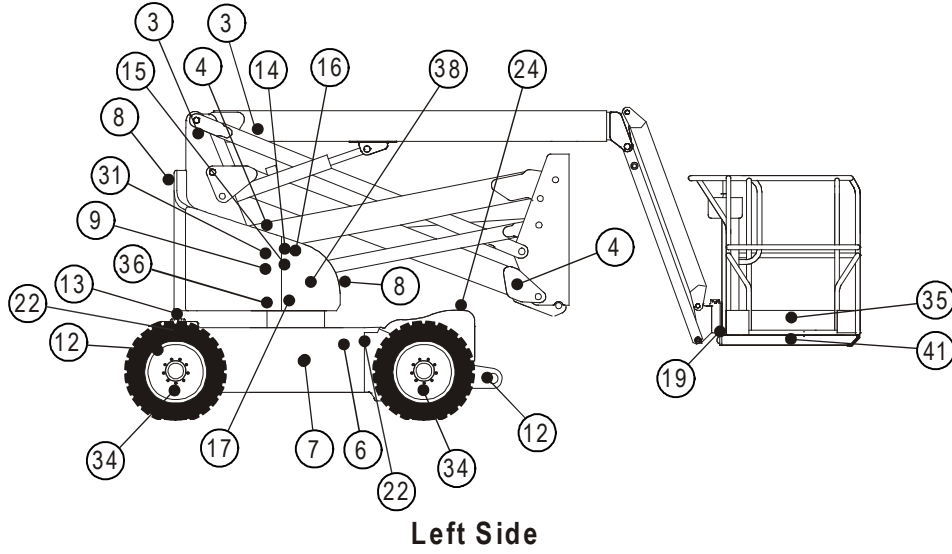
0260371

## Platform Assembly

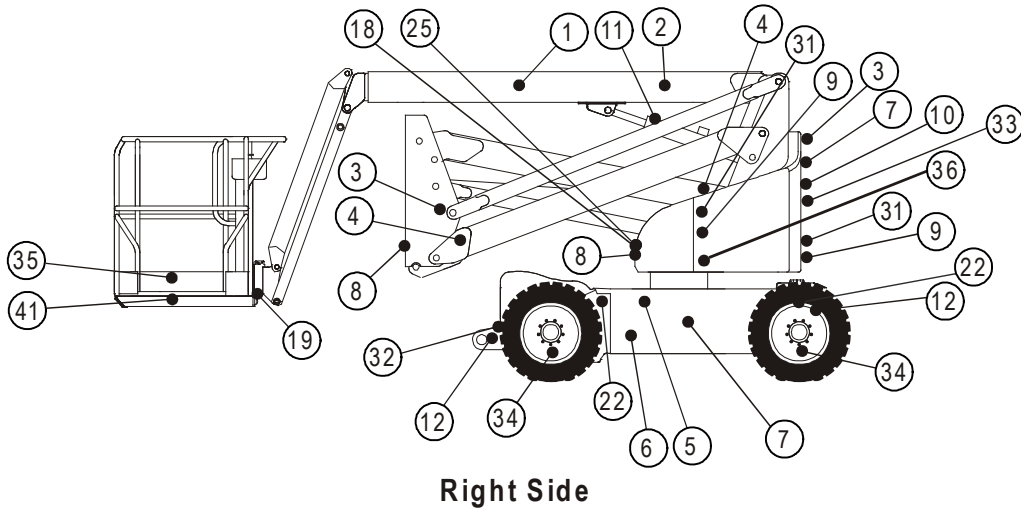




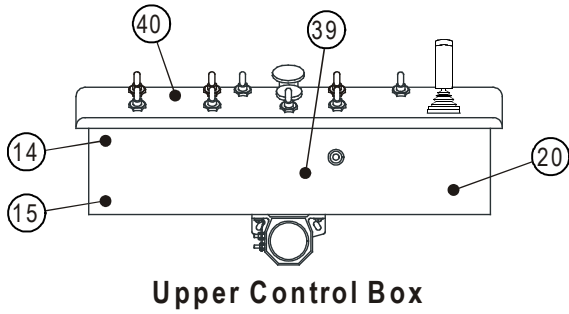
# Placards and Decals



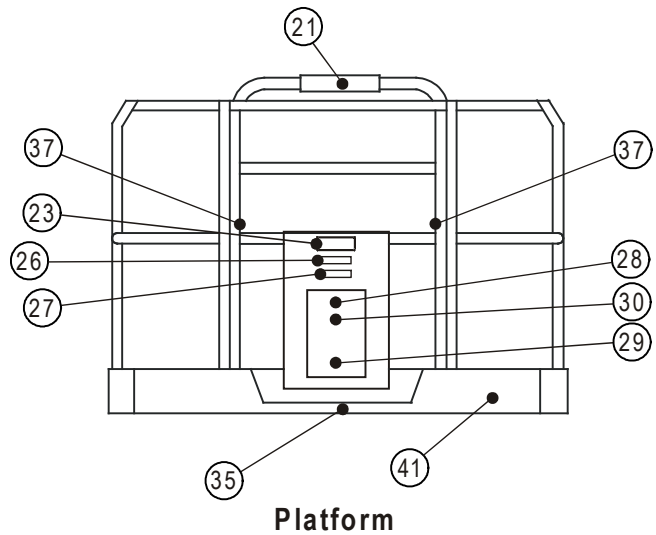
Left Side



Right Side



Upper Control Box



Platform

AB46E Decals

# Placards and Decals



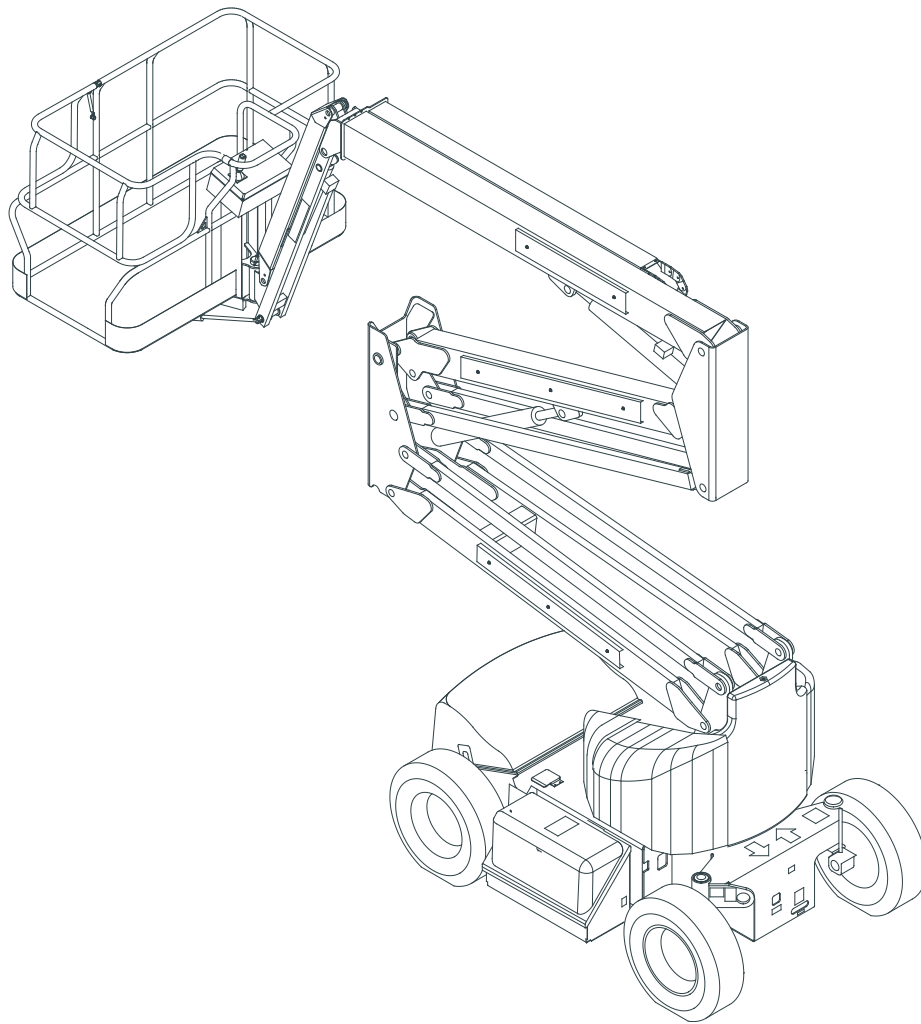
## Placards and Decals

Item	Part No.	Qty.	Description
1	508234-003	1	DECAL, UPRIGHT 5"
2	0260134	1	DECAL, AB46E LOGO 5" WHITE
3	451986	4	DECAL DNGR DO NOT ALTER SW
4	0162365	4	DECAL CRSHG HAZARD SYM
5	0071927	1	DECAL HYDRAULIC OIL
6	0075544	2	DECAL, ASSEMBLED IN THE USA
7	508234-000	3	DECAL, UPRIGHT 3"
8	0150602	4	DECAL DNGR DESCENDING BOOM
9	0162336E	3	DECAL ELEC HAZARD
10	0260135	1	DECAL, AB46E LOGO 3.5" WHITE
11	0074311	7	DECAL DNGR CYLINDER FAILURE – ONE PER CYLINDER
12	0083427	4	DECAL LIFT/TIE DOWN
13	0151917	1	DECAL DIR ARROWS FR MT FWD/RVS
14	0162329E	2	DECAL ADDL OPR INSTR CE ONLY
15	0162328E	2	DECAL BRIEF OPR INSTR CE ONLY
16	0162311	1	DECAL CE LOGO
17	0260441	1	DECAL EMER LWR PROC W/SYMBOLS
18	0073492	1	DECAL ROTATE WHILE GREASING
19	0083426	2	DECAL TIE DOWN SYMBOL
20	0161819E	1	DECAL CE EMER LOWERING PROC
21	0072531	1	DECAL DNGR ELEC HAZARD
22	0260428	4	DECAL, WHEEL LOADING AB46
23	0072541	1	DECAL DANGER DO NOT OPERATE
24	0150452	1	DECAL DIRECTION ARROWS FWD/RVS
25	0070901	1	PLAC CAUTN SERIAL NUMBER
26	0182236	1	DECAL, CAUTN PLAT CONTROLS
27	0071425	1	PLAC PLATF IDENTIFICATION
28	0073224	1	DECAL NOTICE MANUAL RE-ORDER
29	562386	1	COMPARTMENT LITERATURE 8.5X11
30	0073043	1	DECAL MANUAL HOLDER
31	0162366	3	DECAL ELEC HAZARD SYM CE ONLY
32	0260437	1	DECAL, DNGR HI AMP/ELEC
33	0260442	1	DECAL LIFT/TIE DN LCTN AB46
34	0072277	4	PLAC LUG NUT TRQ 200-225FT LB
35	0090589E	3	PLACARD 227 KG 2 PERSON CAPACITY
36	0073298	2	DECAL DANGER FOAM/SOLID TIRES
37	0150448	2	DECAL ATTACH FALL RESTRAINT
38	0260199	1	PLACARD LOWER CONTROL BOX
39	0260215	1	PLACARD UPPER CONTROL BOX FRONT
40	0260013	1	PLACARD UPPER CONTROL BOX TOP
41	7030001	AR	MARKER TAPE 2" RED/WHITE – SOLD IN 108' ROLL

## Placards and Decals



# *Hydraulics*

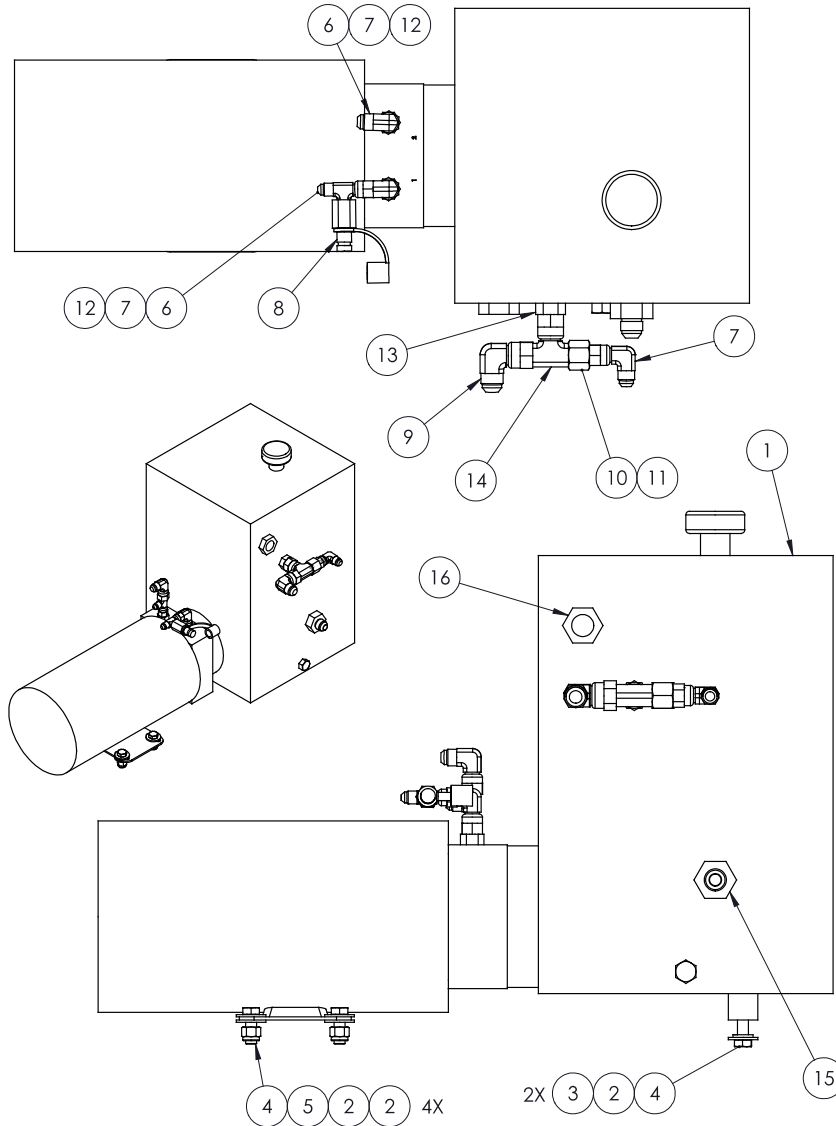


**AB46E**



## Hydraulic Power Unit Assembly

Item	Part No.	Qty.	Description
1	068554-000	1	POWER UNIT
2	5563046	10	WASHER, FLAT HARD .375
3	5560664	2	WASHER, LOCK M6
4	970469	6	BOLT, HEXHD .375-16 1.00 GR5
5	5560033	4	NUT HEX LKG .375-16
6	5036705	2	FTG TEE SWVL RUN-6S-6S STL
7	5037005	3	FTG ELB90SWVL-6S-6S STL
8	5070010	2	FTG NIP DIGN-6S FEM
9	5037006	1	FTG ELB90SWVL-8S-8S STL
10	5064003	1	FTG RDCR-8S-6S W/O NUT STL
11	5063906	1	FTG NUT-8S STL
12	5065707	2	FTG ADPTR STRTHD-6B-6S STL-PH
13	5033614	1	FTG ADPTR MALE-8N-8S STL-2404
14	5033615	1	FTG ADPTR MALE-12N-8S STL
15	5036806	1	FTG TEE SWVL BR-8S-8S STL
16	063979-006	1	SIGHT GAGE



0260469

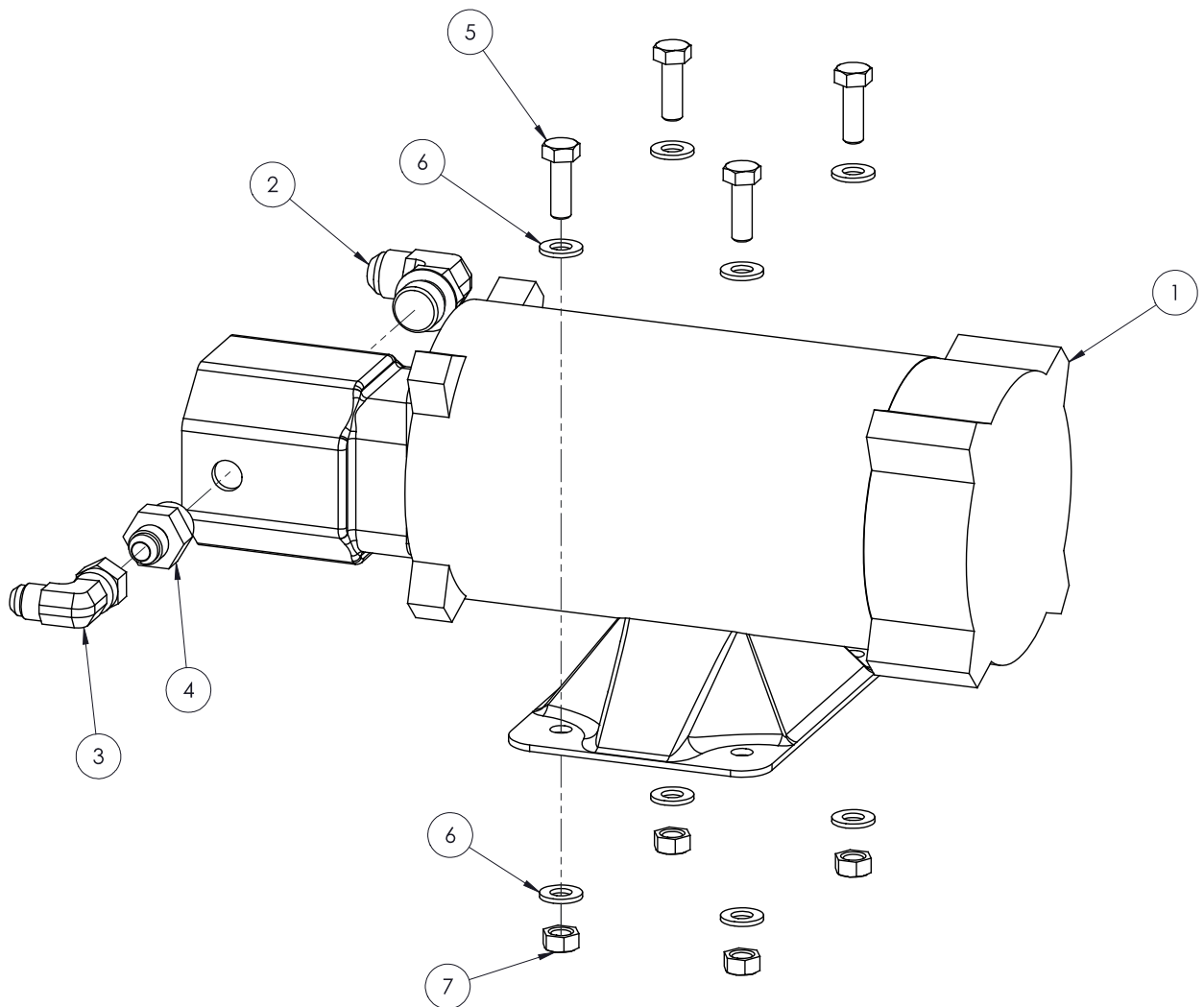
## Hydraulic Power Unit Assembly





## Emergency Power Unit Assembly

Item	Part No.	Qty.	Description
1	0260069	1	EMERGENCY POWER PUMP, 48V
2	5035306	1	FTG ELB90STRTHD-8B-8S STL
3	5037005	1	FTG ELB90SWVL-6S-6S STL
4	5065708	1	FTG ADPTR STRTHD-8B-6S STL
5	5560357	4	BLT HEXHD M8-1.25 25MM
6	5560613	8	WASHER, FLAT M8
7	5560727	4	NUT HEX LKG M8-1.25



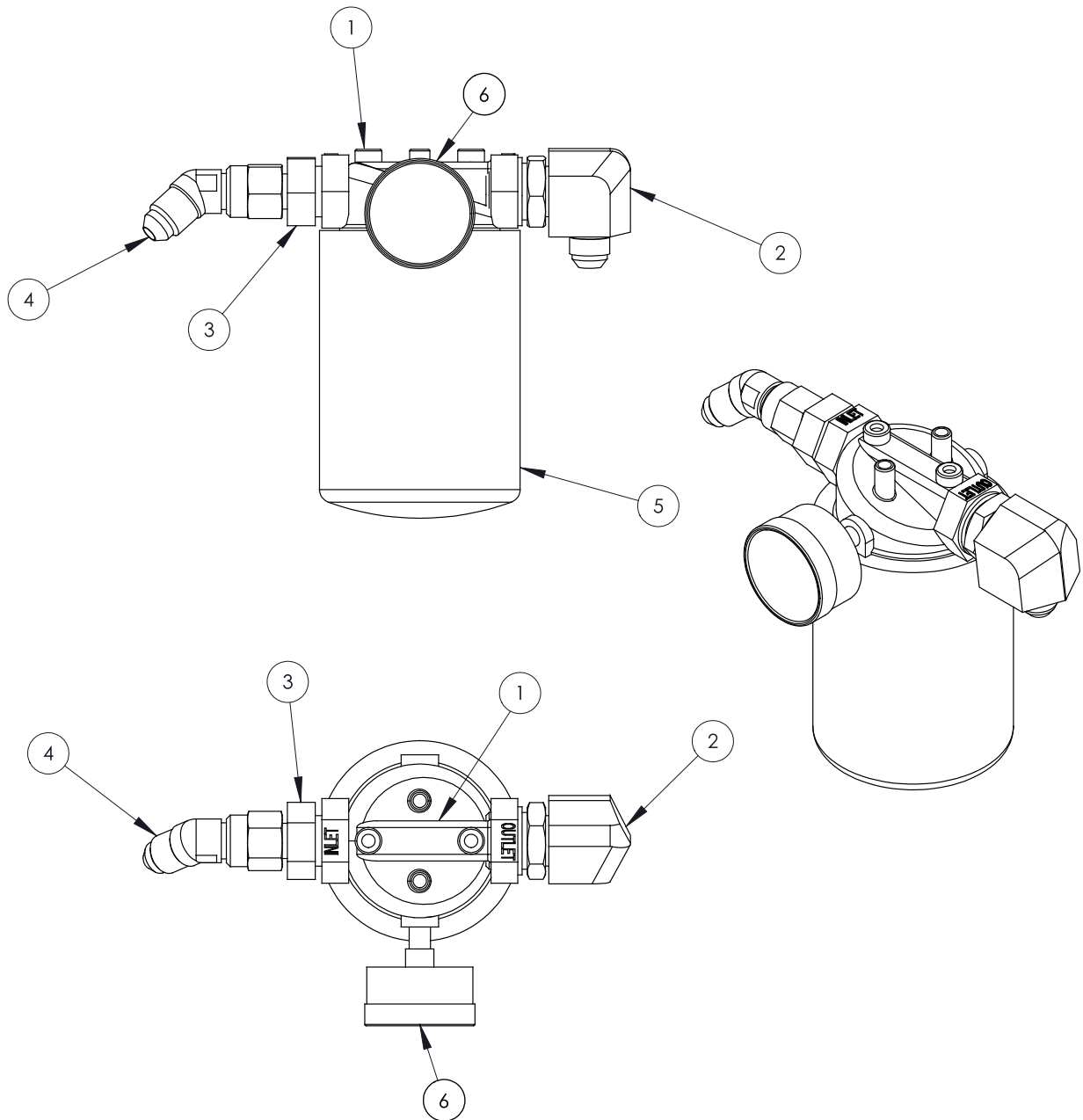
0260457

## Emergency Power Unit Assembly



## Hydraulic Oil Return Filter Assembly

Item	Part No.	Qty.	Description
	0260489	1	HYDRAULIC OIL RETURN ASSEMBLY (INCLUDES ITEMS 1 THROUGH 5)
1	301440	1	RETURN OIL FILTER (INCLUDES ITEM 5)
2	5035333	1	FTG ELB90STRTHD -12B-8S STL
3	5065711	1	ADAPTER STRAIGHT -12 SAE TO -8 JIC
4	5036906	1	FTG ELB 45 SWVL -8S-8S STL
5	5080025	1	FILTER ELEMENT, SPIN ON
6	5080011	1	FILTER CONDITION GAUGE



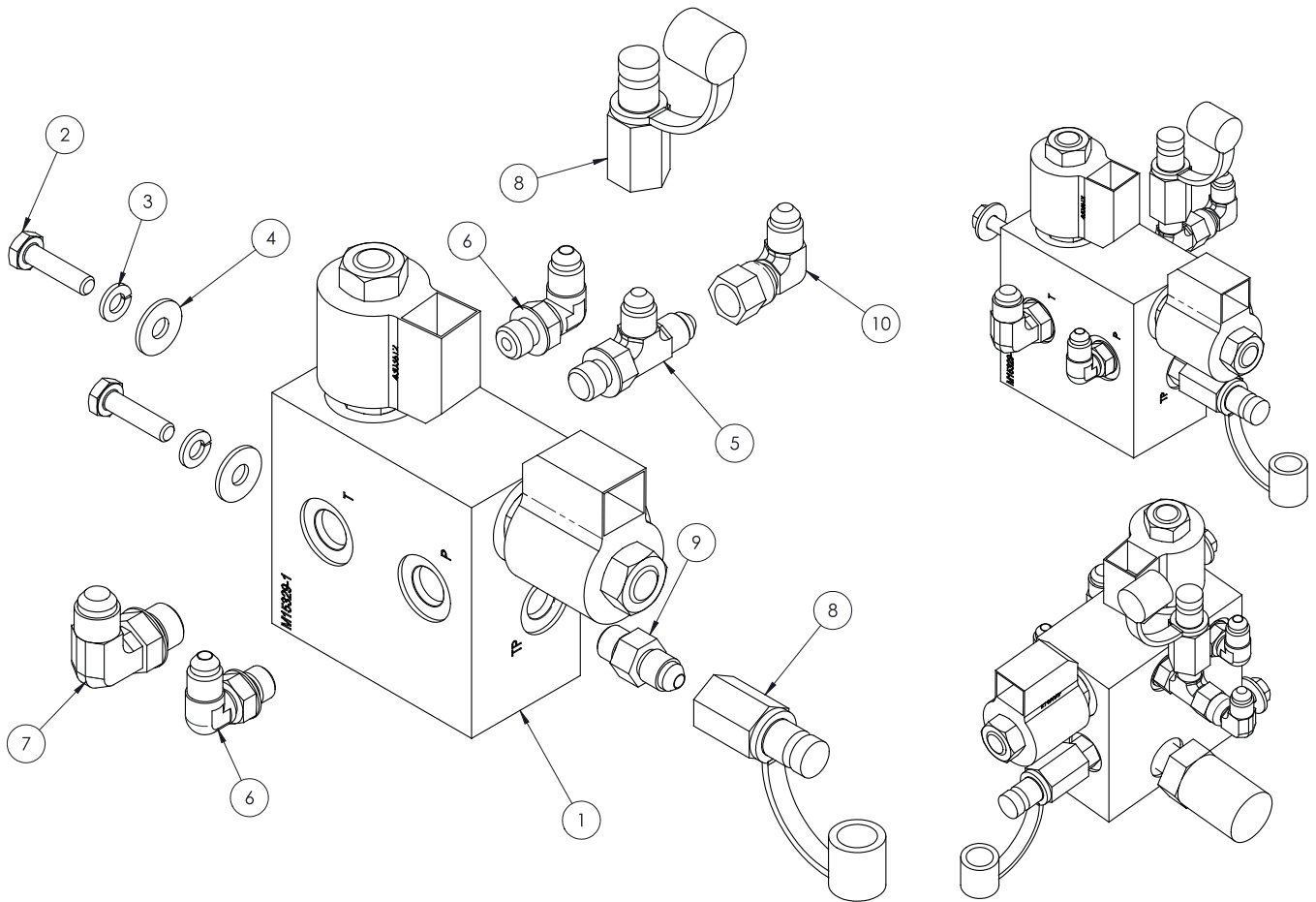
0260489

## Hydraulic Oil Return Filter Assembly



## Brake Valve Assembly

Item	Part No.	Qty.	Description
1	0260041	1	BRAKE VALVE ASSEMBLY, E-DRIVE
2	970049	2	BOLT HEXHD .250-20 1.00 GR5-GRA
3	987099	2	WASHER LOCK .250
4	986019	2	WASHER FLAT .250
5	5036103	1	FTG TEE STRTHD RUN-4B-4S STL
6	5035303	2	FTG ELB90STRTHD-4B-4S STL
7	5035321	1	FTG ELB90STRTHD-4B-6S STL
8	5070010	2	FTG NIP DIGN-6S FEM
9	5065703	1	FTG ADPTR STRTHD-4B-4S STL
10	5037003	1	FTG ELB90SWVL-4S-4S STL



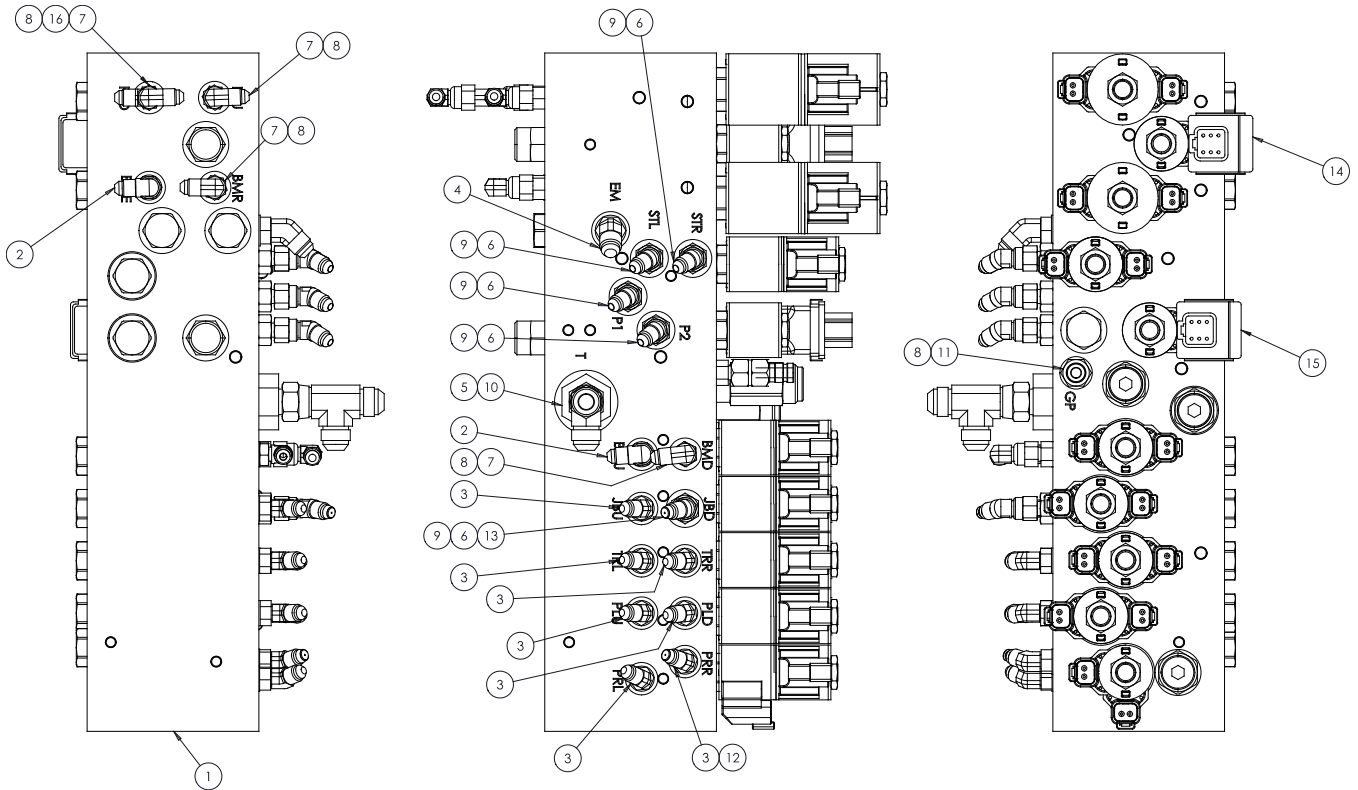
0260463

## Brake Valve Assembly



## Boom Function Control Valve Assembly

Item	Part No.	Qty.	Description
1	116344-000	1	DUAL PROPORTIONAL CONTROL VALVE ASSY (REFER TO HYDRAULICS – 13)
2	5035303	2	FTG ELB90STRTHD-4B-4S STL
3	5035703	7	FTG ELB45STRTHD-4B-4S STL
4	5035705	1	FTG ELB45STRTHD-6B-6S STL-PH 6
5	5036706	1	FTG TEE SWVL RUN-8S-8S STL
6	5036903	5	FTG ELB45SWVL-4S-4S STL
7	5037003	4	FTG ELB90SWVL-4S-4S STL
8	5065703	5	FTG ADPTR STRTHD-4B-4S STL
9	5065705	5	FTG ADPTR STRTHD-6B-4S STL
10	5065711	1	FTG ADPTR STRTHD-12B-8S STL
11	5070005	1	FTG NIP DIGN-4S FEM
12	0150604	1	ORIFICE .029
13	0151918	1	ORIFICE .035
14	8080201	1	DRIVER MOD, EVDR1, PROGRAMED
15	8080203	1	DRIVER MOD, EVDR1, PROGRAMED
16	5036703	1	FTG TEE TEE SWVL RUN-4-4F JIC



0260219

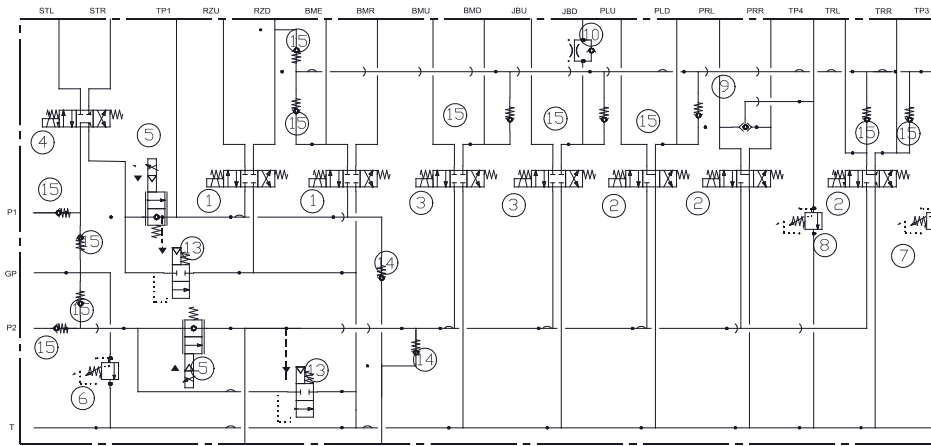
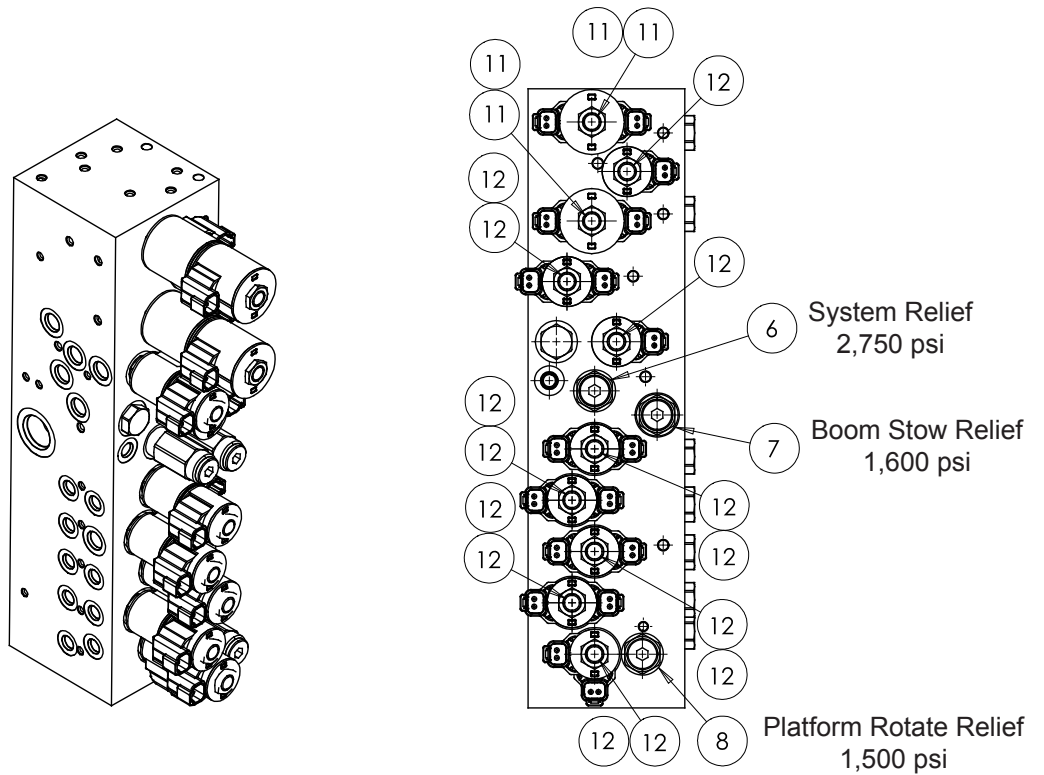
## Boom Function Control Valve Assembly





## Dual Propotional Control Valve

Item	Part No.	Qty.	Description
1	6019098	2	VALVE, SOL CART 3-POS 4WAY CC
2	6018940	3	SOL VALVE
3	6018952	2	SOLENOID VALVE
4	6019075	1	SOLENOID VALVE
5	6019173	2	ELECTRO-PROPORTIONAL VALVE
6	6019174	1	RELIEF VALVE
7	6019175	1	RELIEF VALVE
8	6019175	1	RELIEF VALVE
9	6010737	1	SHUTTLE VALVE
10	6019177	1	ORIFICE PLATE
11	6019179	4	COIL
12	6019180	14	COIL
13	6019181	2	LOGIC ELEMENT VALVE, PILOTED
14	6019182	2	CHECK VALVE
15	561176	11	VALVE CART CHECK



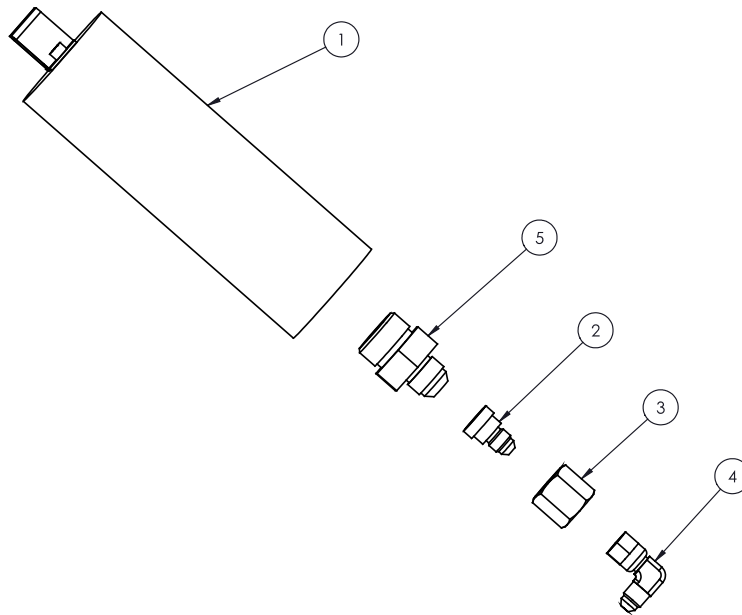
116344-000

## Dual Propotional Control Valve



## Accumulator Assembly

Item	Part No.	Qty.	Description
1	6070006	1	ACCUMULATOR
2	5064002	1	FTG RDCR-8S-4S W/O NUT STL
3	5063906	1	FTG NUT-8S STL
4	5037003	1	FTG ELB90SWVL-4S-4S STL
5	5065711	1	FTG ADPTR STRTHD-12B-8S STL



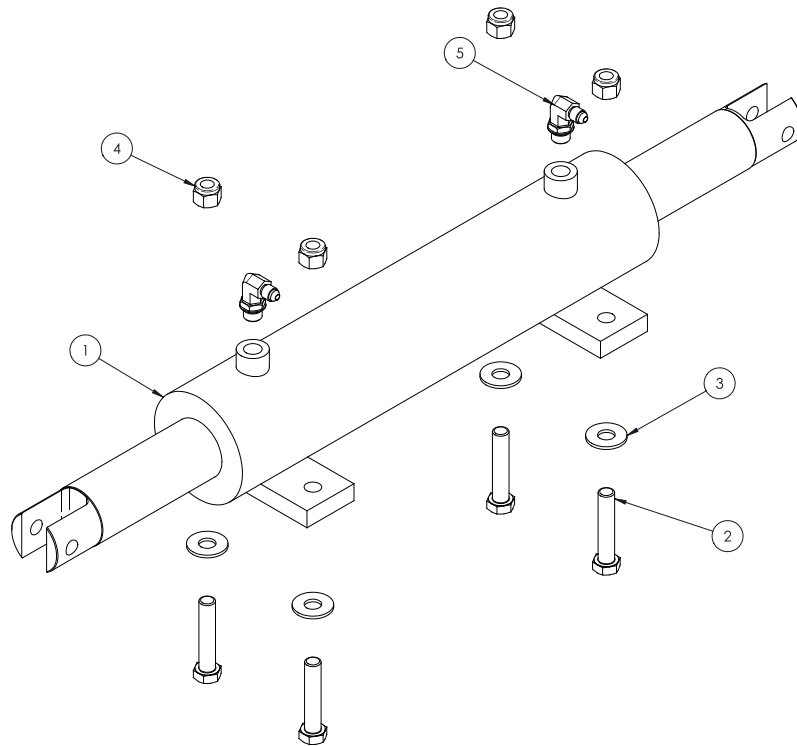
0260475

## Accumulator Assembly



## Steer Cylinder – Hydratech

Item	Part No.	Qty.	Description
1	068456-001-3	1	STEERING CYLINDER
	0260304	1	SEAL KIT
2	5560249	4	BLT HEXHD .500-13 2.50 GR8
3	986359	4	WSHR FLAT .500
4	984519	4	NUT HEX LKG .500-13 GR8



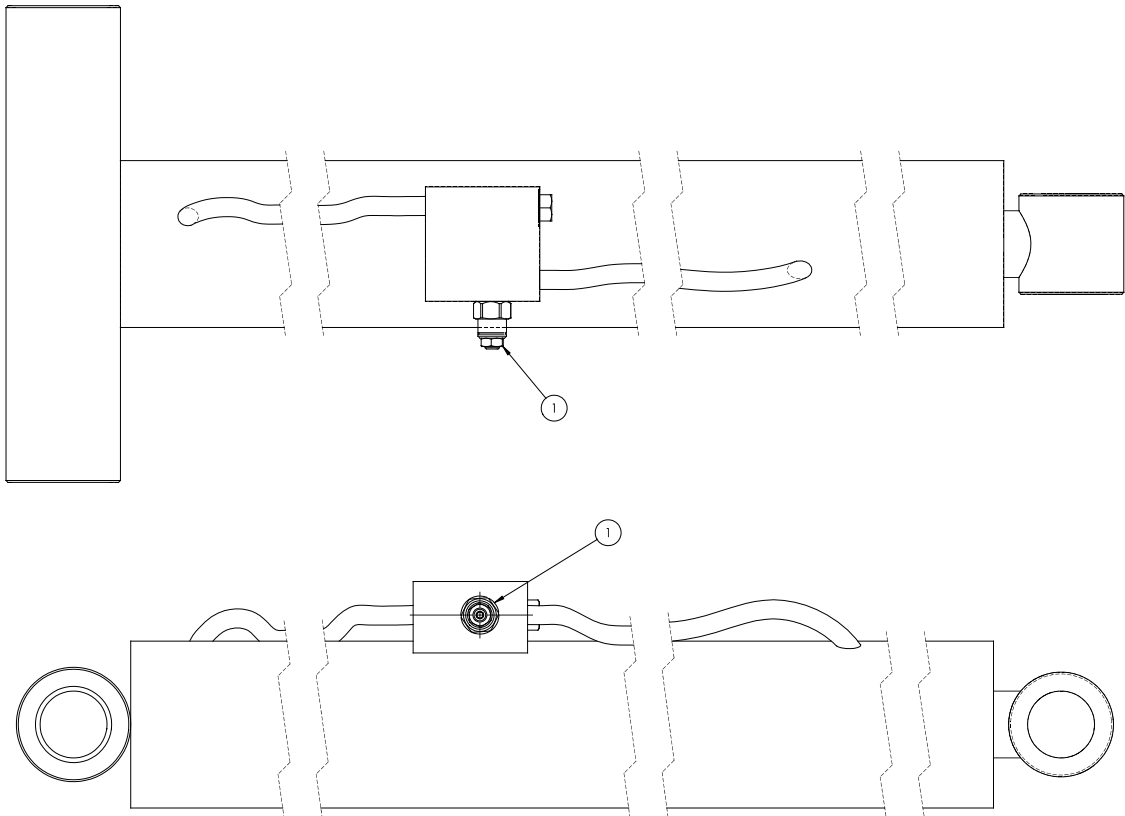
0260464

## Steer Cylinder – Hydratech



## Riser Boom Cylinder – Hydratech

Item	Part No.	Qty.	Description
1	116370-000-3	1	CYLINDER, RISER BOOM
	0260311	1	SEAL KIT
	6019167	1	COUNTERBALANCE HOLDING VALVE



116370-000-3

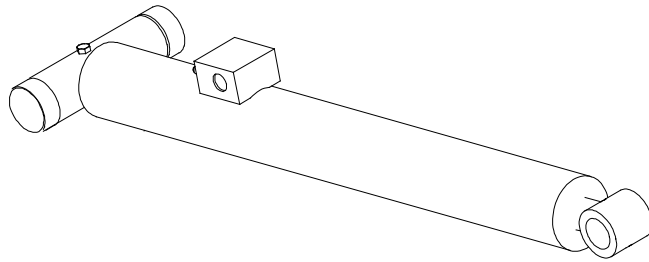
## Riser Boom Cylinder – Hydratech





## Main Boom Lift Cylinder – Hydratech

Item	Part No.	Qty.	Description
	116371-000-3	1	CYLINDER, MAIN BOOM LIFT
	0260306	1	SEAL KIT



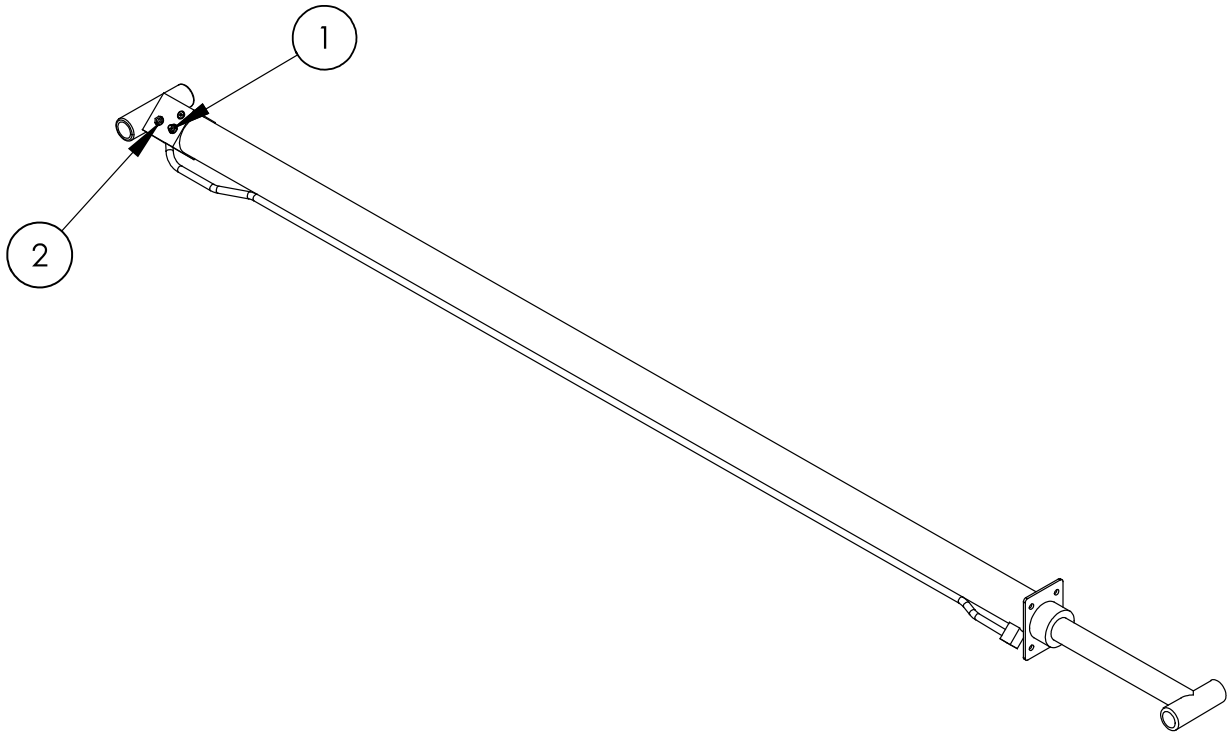
116371-000-3

## Main Boom Lift Cylinder – Hydratech



## Main Boom Extend Cylinder – Hydratech

Item	Part No.	Qty.	Description
	116372-000-3	1	CYLINDER, MAIN BOOM EXTEND
	0260309	1	SEAL KIT
1	0260517	1	COUNTERBALANCE HOLDING VALVE
2	0260518	1	SHUTTLE VALVE



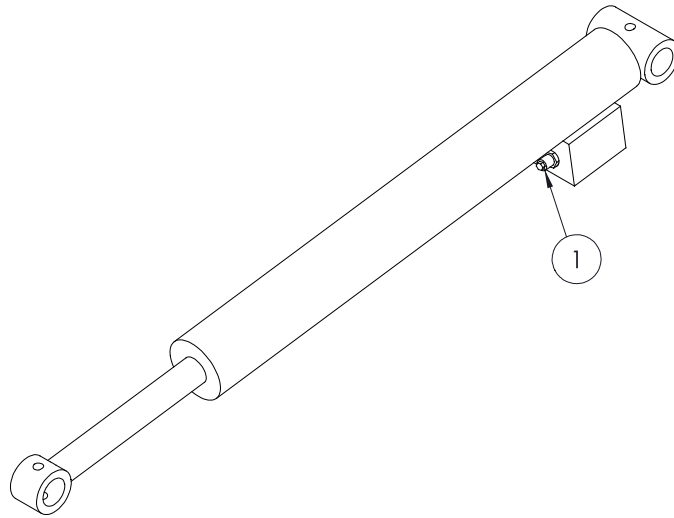
116372-000-3

## Main Boom Extend Cylinder – Hydratech



## Jib Cylinder – Hydratech

Item	Part No.	Qty.	Description
1	116373-000-3	1	CYLINDER, JIB
	0260305	1	SEAL KIT
	0260516	1	COUNTERBALANCE HOLDING VALVE



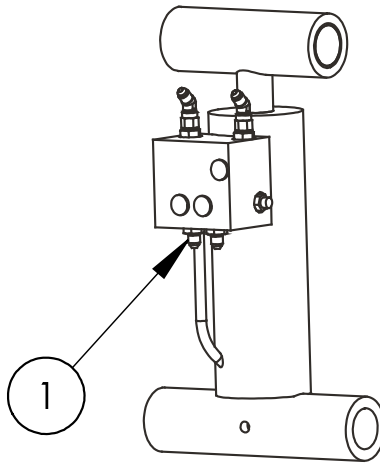
116373-000-3

## Jib Cylinder – Hydratech



## Master Level Cylinder – Hydratech

Item	Part No.	Qty.	Description
1	116374-000-3	1	CYLINDER, MASTER LEVEL
	0260307	1	SEAL KIT
	6018978	2	COUNTERBALANCE HOLDING VALVE



116374-000-3

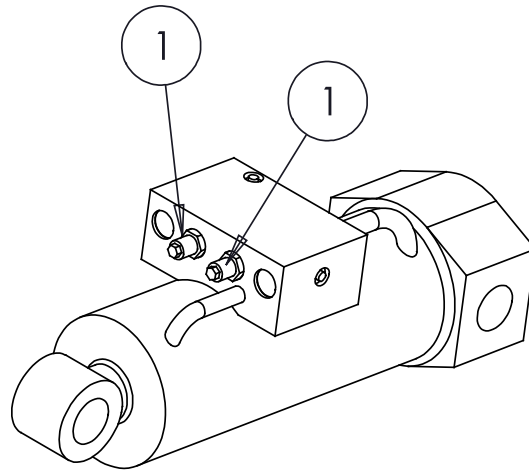
## Master Level Cylinder – Hydratech





## Slave Level Cylinder – Hydratech

Item	Part No.	Qty.	Description
1	116375-000-3	1	CYLINDER, SLAVE LEVEL
	0260310	1	SEAL KIT
	6018978	2	COUNTERBALANCE HOLDING VALVE



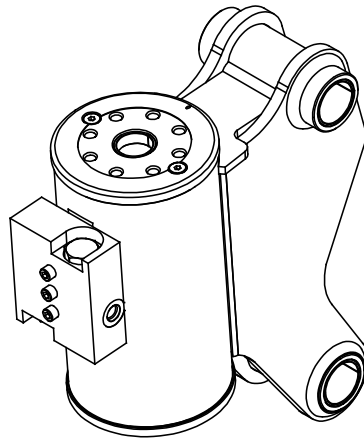
116375-000-3

## Slave Level Cylinder – Hydratech



## Platform Rotator Assembly

Item	Part No.	Qty.	Description
1	116320-000-2	1	PLATFORM ROTATOR ASSEMBLY



116320-000-2

## Platform Rotator Assembly



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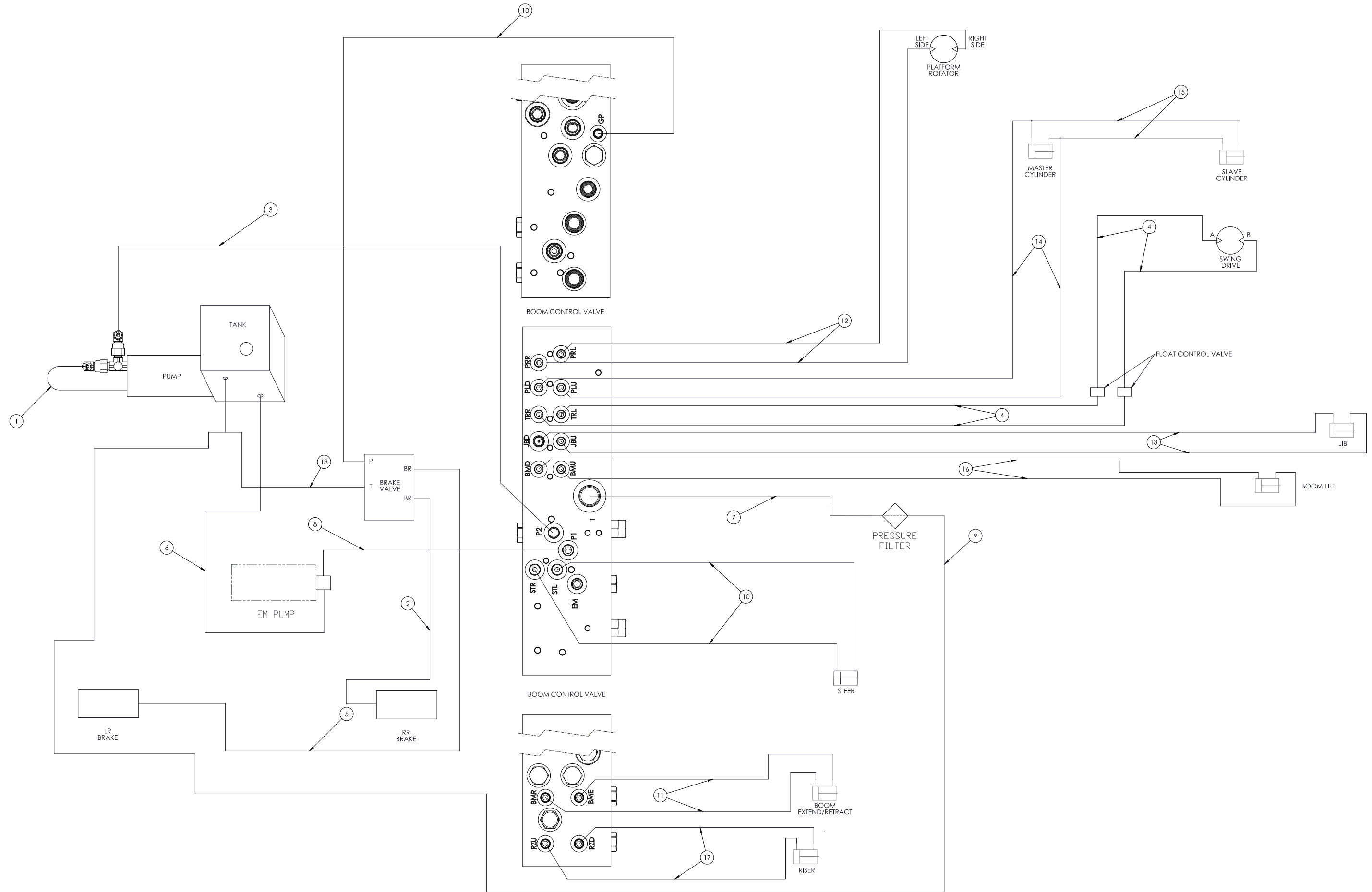
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Hydraulics – 34

Hydraulic Plumbing

A26011B

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## Hydraulic Plumbing

Item	Part No.	Qty.	Description
1	0020266	1	HOSE-6-6S-6S 24 100R2
2	0020280	1	HOSE-4-4S-4S 23.5
3	0060290	1	HOSE-6-6S-6S 48 100R2
4	0070768	4	HOSE-4-4S-4S 18.5 100R1
5	0070772	1	HOSE-4-4S-4S 54 100R1
6	0070791	1	HOSE-8-8S-8S 20.5 100R2
7	0070927	1	HOSE-8-8S-8S 23.5 100R2
8	0090402	1	HOSE-6-6S-6S 108 100R2
9	0180784	1	HOSE-8-8S-8S 72 SP
10	0181163	3	HOSE-4-4S-4S 103 100R2
11	0260185	2	HOSE -4-4S-4S 323 100R17
12	0260186	2	HOSE -4-4S-4S 700 100R17
13	0260187	2	HOSE -4-4S-4S 634 100R17
14	0260188	2	HOSE -4-4S-4S 367 100R17
15	0260189	2	HOSE -4-4S-4S 282 100R17
16	0260190	2	HOSE -4-4S-4S 330 100R17
17	0260191	2	HOSE -4-4S-4S 195 100R17
18	463374	1	HOSE-6-6S-6S 13 100R2

A26011B

## Hydraulic Plumbing





## Hydraulic Hose Kit

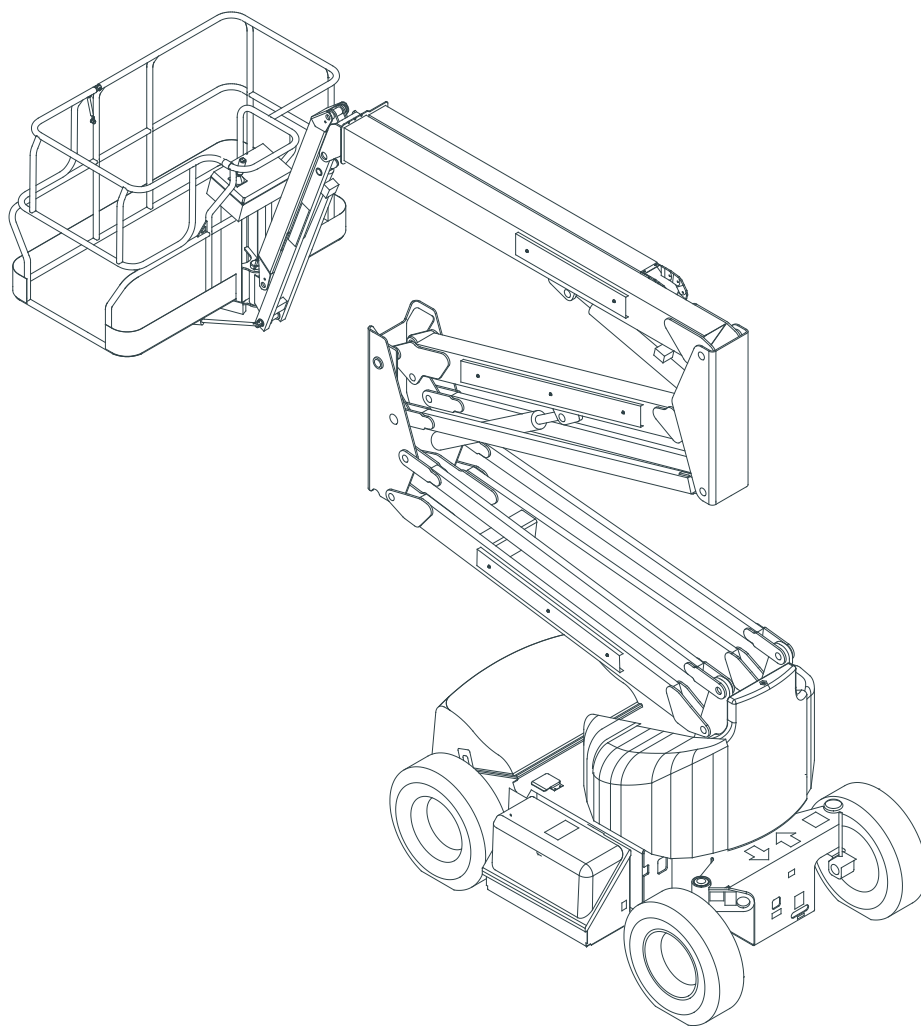
Item	Part No.	Qty.	Description
010	0020266	1.00	HOSE-6-6S-6S 24 100R2
020	0020280	1.00	HOSE-4-4S-4S 23.5
030	0060290	1.00	HOSE-6-6S-6S 48 100R2
040	0070768	4.00	HOSE-4-4S-4S 18.5 100R1
050	0070772	1.00	HOSE-4-4S-4S 54 100R1
060	0070791	1.00	HOSE-8-8S-8S 20.5 100R2
070	0070927	1.00	HOSE-8-8S-8S 23.5 100R2
080	0090402	1.00	HOSE-6-6S-6S 108 100R2
090	0180784	1.00	HOSE-8-8S-8S 72 SP
100	0181163	3.00	HOSE-4-4S-4S 103 100R2
110	0260185	2.00	HOSE -4-4S-4S 323 100R17
120	0260186	2.00	HOSE -4-4S-4S 700 100R17
130	0260187	2.00	HOSE -4-4S-4S 634 100R17
140	0260188	2.00	HOSE -4-4S-4S 367 100R17
150	0260189	2.00	HOSE -4-4S-4S 282 100R17
160	0260190	2.00	HOSE -4-4S-4S 330 100R17
170	0260191	2.00	HOSE -4-4S-4S 195 100R17
180	0260377	2.00	HOSE -4 -4S90 -4S 11.5 100R17
190	463374	1.00	HOSE-6-6S-6S 13 100R2

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## Hydraulic Hose Kit



# ***Electrical***



# **AB46E**

**UpRight**



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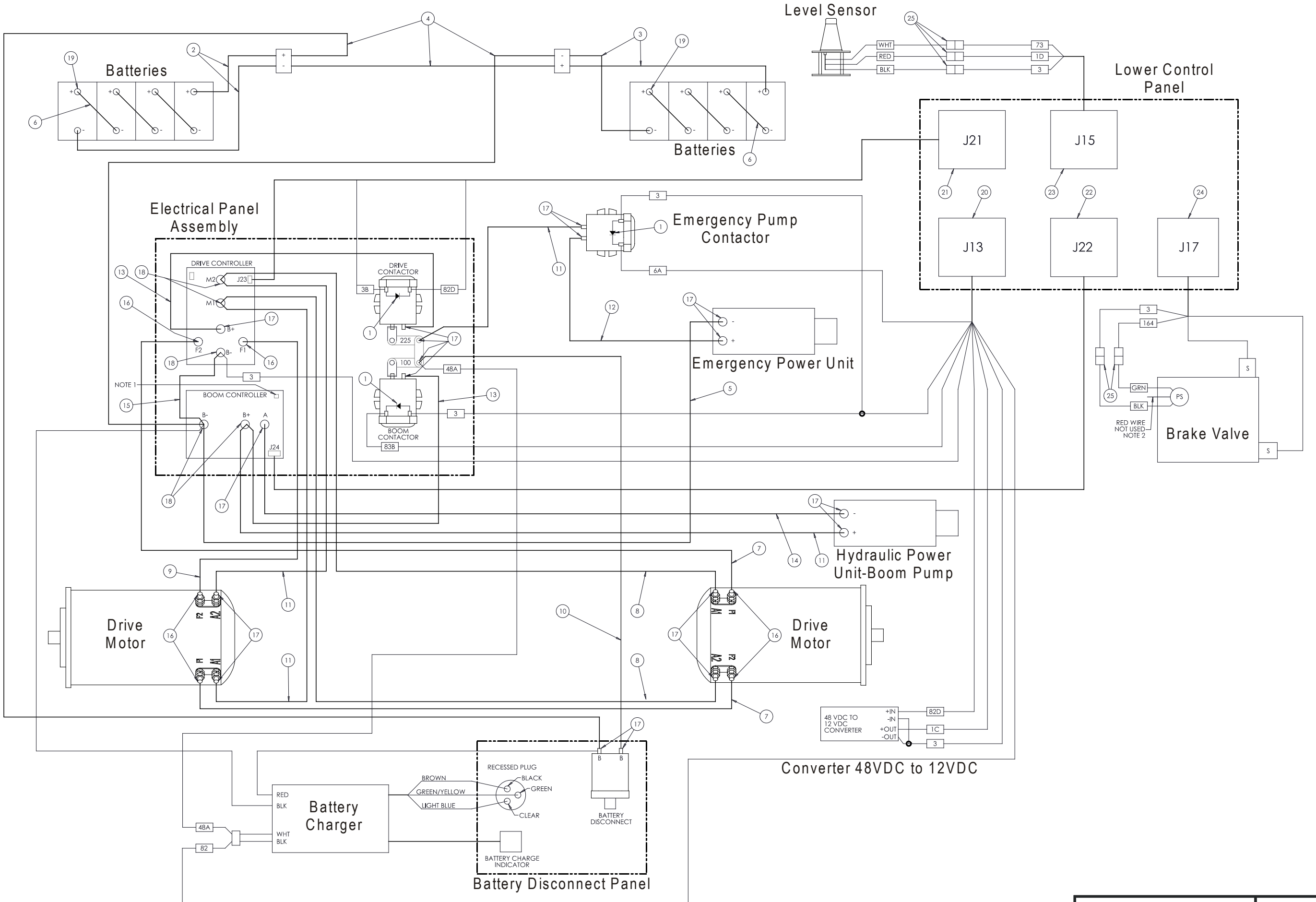
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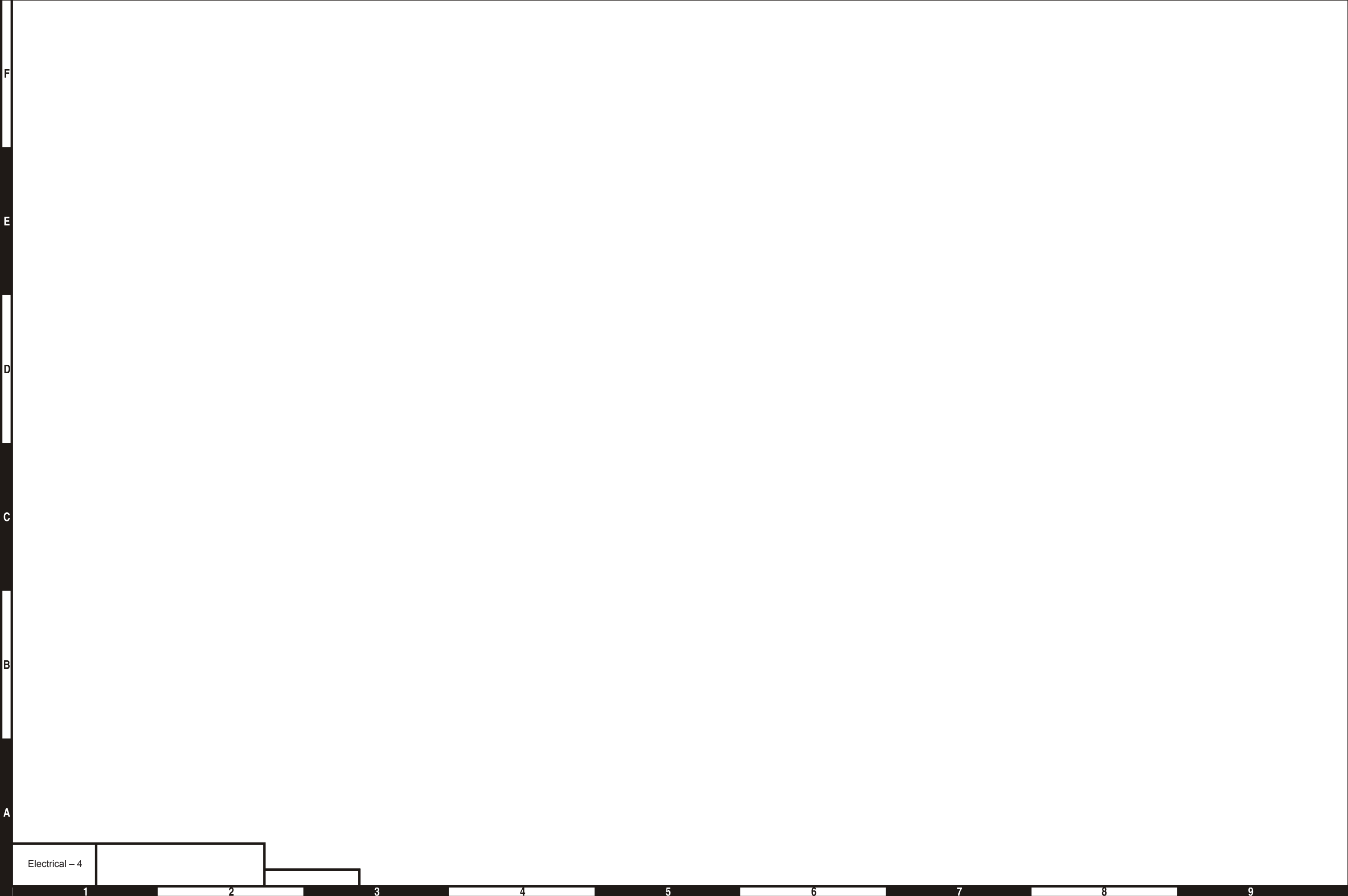


A26008C

Chassis Wiring

Electrical - 3

1 2 3 4 5 6 7 8 9



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Electrical - 4

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## Chassis Wiring

Item	Part No.	Qty.	Description
1	0351039	3	DIODE ASSEMBLY R101 R101
2	0260211	1	BATTERY WIRE RIGHT SIDE
3	0260212	1	BATTERY WIRE LEFT SIDE
4	0260213	1	BATTERY WIRE CENTER
5	0260214	1	WIRE 2 R312I R312I 36 BLK
6	0075268	6	WIRE 2/0 R375 R375 13 BLK
7	0351107	2	WIRE 10 R313I R250I 48 WHT SP
8	0350727	2	WIRE 2 R313I R313I 66 RED
9	0350758	1	WIRE 10 R313I R250I 24 WHT SP
10	0073940	1	WIRE 2/0 R375 R375 80 RED
11	0162244	4	WIRE 2 R312 R375 20 RED
12	0090430	1	WIRE 4 R313I R375I 15
13	0161408	2	WIRE 2 R313I R313I 10 BLK
14	0161746	1	WIRE 2 R375I R375I 26 BLK
15	584926	1	WIRE 2 R375 R375 9 BLK
16	3040268	6	BOOT BATTERY CABLE END BLK 4GA
17	3040269	18	BOOT BATTERY CABLE END BLK 1/0
18	3040270	5	BOOT BATTERY CABLE END Y-TYPE
19	010154-001	16	COVER BATTERY TERMINAL
20	0260141	1	WIRE HARNESS, E CHASSIS (REFER TO ELECTRICAL – 43)
21	0260144	1	WIRE HARNESS, DRIVE CONTROLLER (REFER TO ELECTRICAL – 45)
22	0260145	1	WIRE HARNESS, BOOM CONTROLLER (REFER TO ELECTRICAL – 47)
23	0260033	1	WIRE HARNESS, LEVEL SENSOR (REFER TO ELECTRICAL – 51)
24	0260140	1	WIRE HARNESS, BRAKE VALVE (REFER TO ELECTRICAL – 49)
25	3040046	5	TERMINAL MALE 250FI 22/18

A26008C

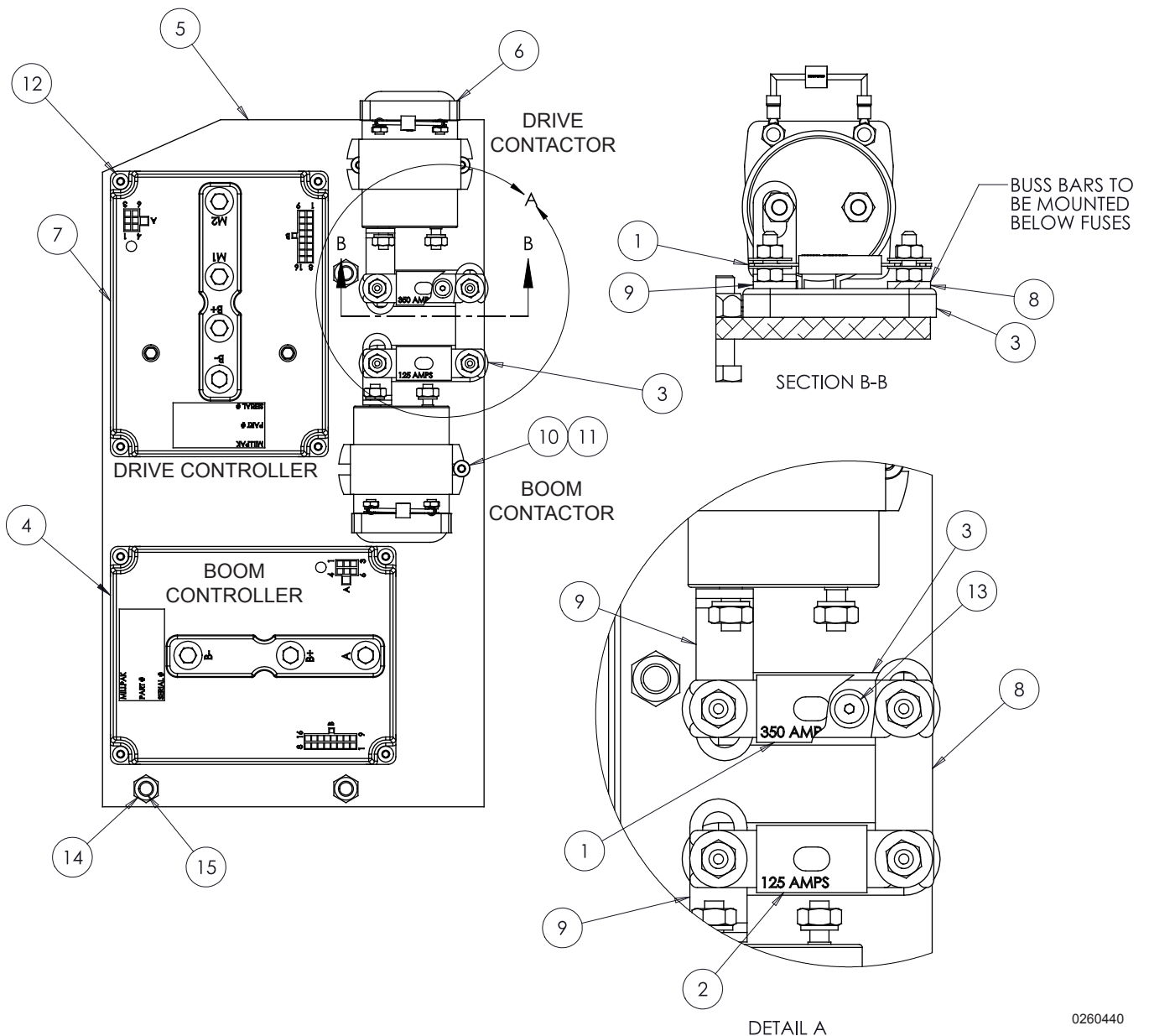
## Chassis Wiring





## Electrical Panel Assembly

Item	Part No.	Qty.	Description
1	010148-003	1	FUSE BUSS 350 AMP
2	010148-004	1	FUSE BUSS 125 AMP
3	010149-000	2	FUSE BUSS BLOCK #4164
4	0260022	1	PUMP CONTROLLER, 48V 600A
5	0260025	1	MTG PLATE, CONTROLLER
6	0260497	2	CONTACTOR 48V NO ASSEMBLY, (REFER TO ELECTRICAL - 9)
7	3087791	1	MOTOR CONTROLLER
8	3220106	1	BUS BAR, CU, 2 CIRCUIT
9	3220107	2	BUS BAR, CU, 2 CIRCUIT, 90DEG
10	5560664	4	WASHER, LOCK M6
11	5563122	4	SCR SKTBTNHD M6 - 1.0 X 10
12	5563123	8	SCR SKTBTNHD M6 X 1. X 16
13	5563125	4	SCR FLH SKT CP M5 - .8 X 20
14	984909	3	NUT, HEX LKG M10
15	5560695	3	BLT HEXHD M10 40MM



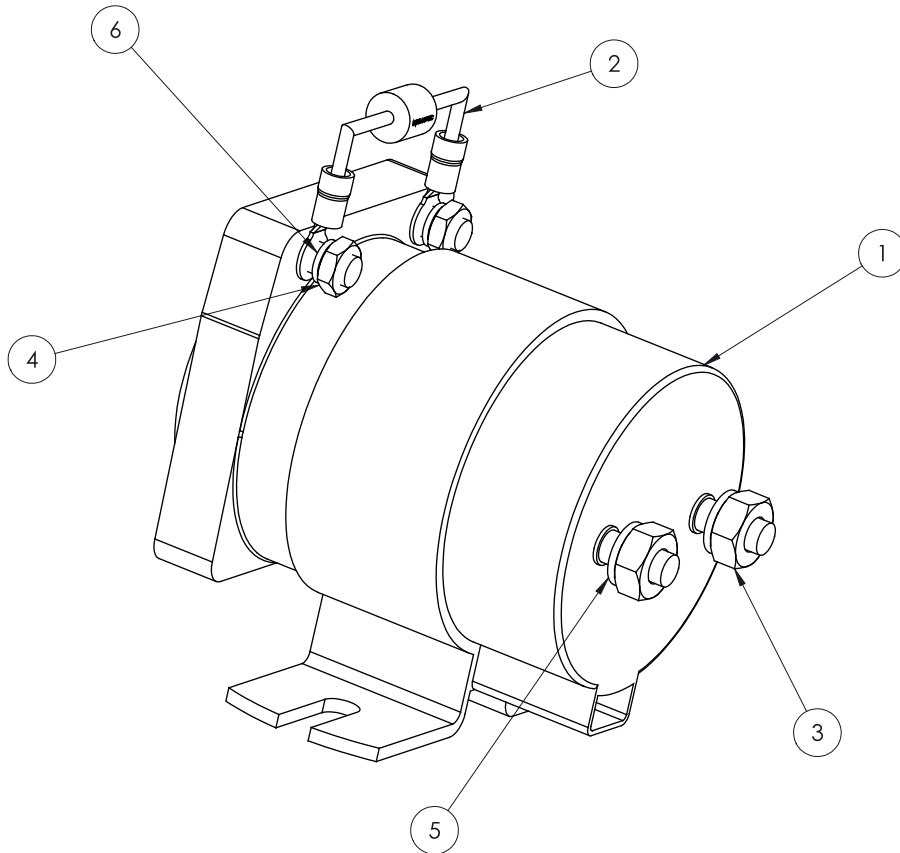
0260440

## Electrical Panel Assembly



## Contactor Assembly – 48 V

Item	Part No.	Qty.	Description
1	3087794	1	CONTACTOR 48V NO
2	0351039	1	DIODE ASSY
3	984099	2	NUT HEX .313-24
4	984059	2	NUT HEX 10-32
5	987099	2	WSHR LOCK .250 SPLIT
6	5560654	2	WASHER LOCK #10 SPLIT



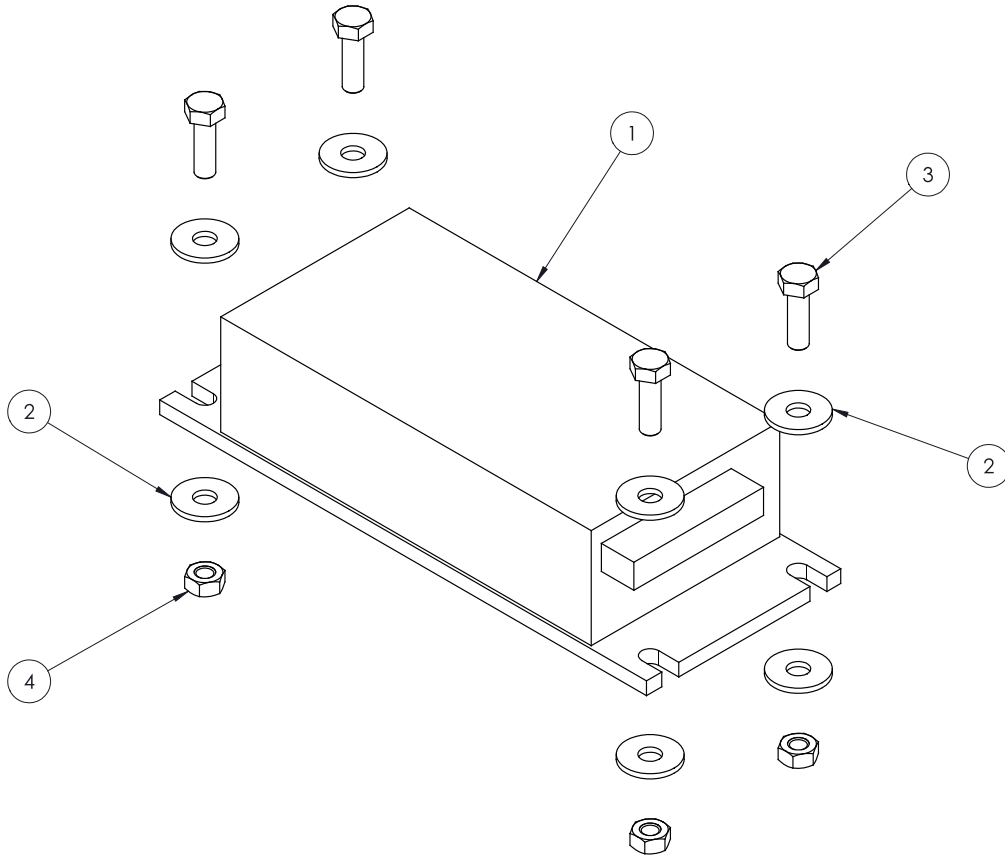
0260497

## Contactor Assembly – 48 V



## Converter Assembly – 48 VDC to 12 VDC

Item	Part No.	Qty.	Description
1	3220098	1	CONVERTER, 48VDC TO 12VDC
2	5560629	8	WASHER FLAT M6
2	5569985	4	BLT HEXHD M6-1.00 20MM
4	984169	4	NUT HEX M6 -1.00



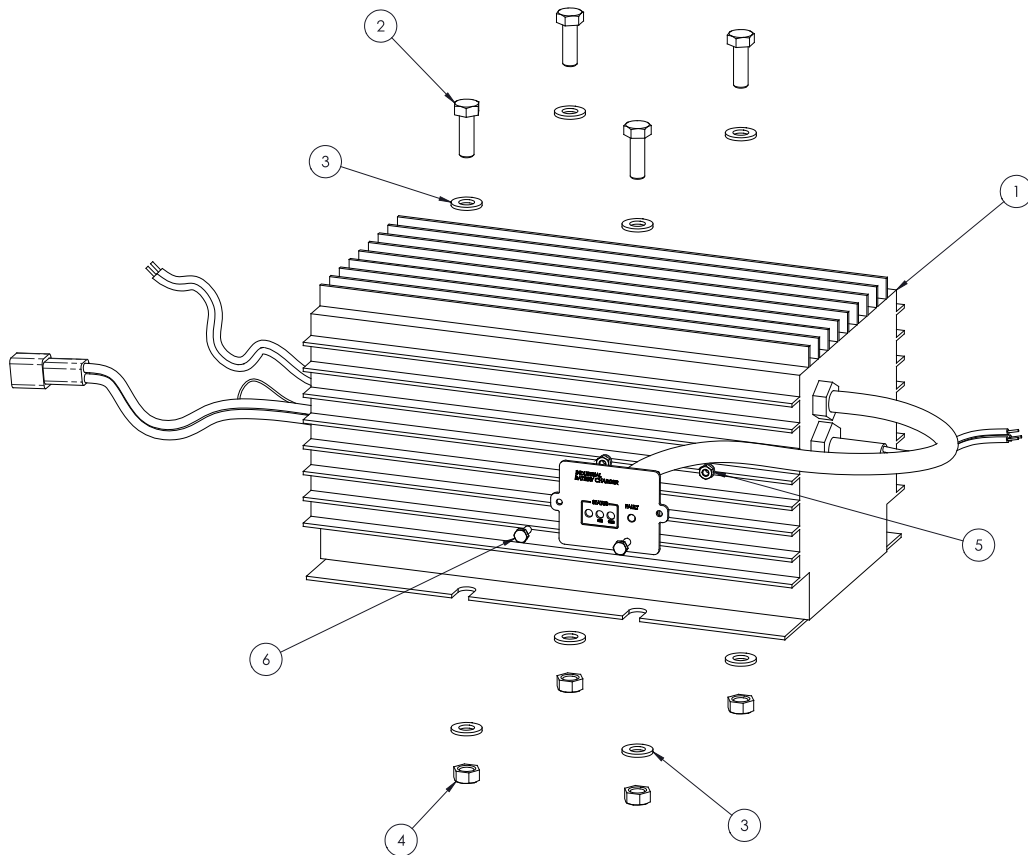
0260461

## Converter Assembly – 48 VDC to 12 VDC



## Battery Charger Assembly – 48 V Global Input

Item	Part No.	Qty.	Description
1	0260021	1	CHARGER 48V, GLOBAL INPUT
2	5560357	4	BLT HEXHD M8-1.25 25MM
3	5560613	8	WSHR FLAT M8
4	5560727	4	NUT HEX LKG M8-1.25
5	5563011	2	NUT LKG M4-0.70
6	5563130	2	HHCS M4 X 0.7 X 10 G8.8



0260459

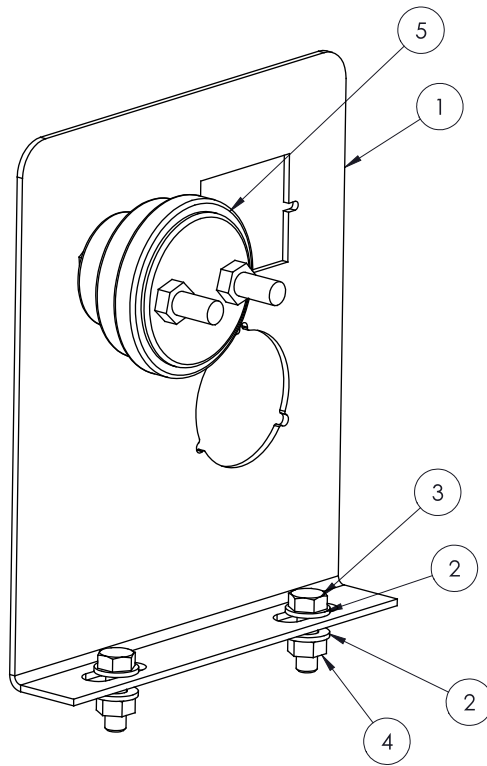
## Battery Charger Assembly – 48 V Global Input





## Battery Disconnect Panel Assembly

Item	Part No.	Qty.	Description
1	0260183	1	DISCONNECT SW PANEL
2	5560613	4	WSHR FLAT M8
3	5560357	2	BLT HEXHD M8-1.25 25MM
4	5560727	2	NUT HEX LKG M8-1.25
5	3020049	1	SW BATTERY DISCONNECT



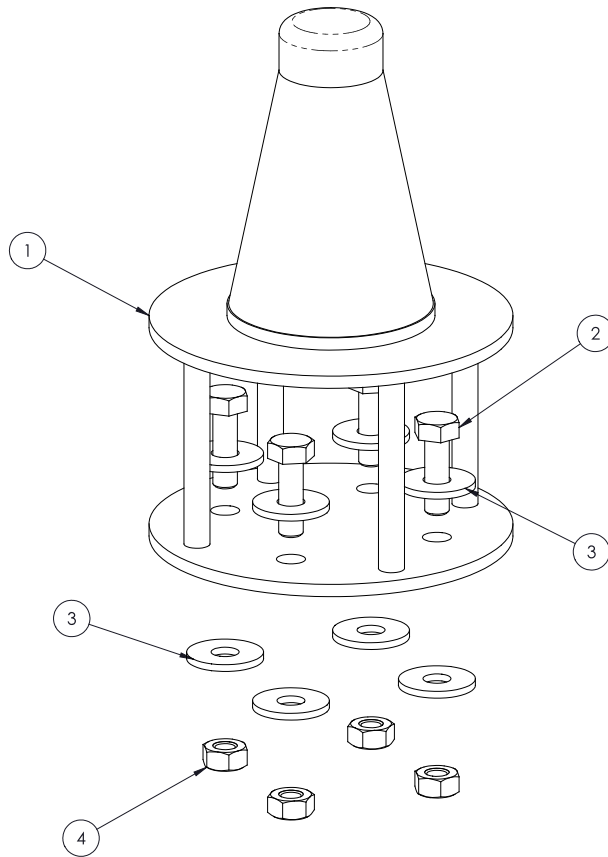
0260499

## Battery Disconnect Panel Assembly



# Level Sensor Assembly

Item	Part No.	Qty.	Description
1	3020103	1	LEVEL SENSOR 3.5 DEGREE
2	5569985	4	BLT HEXHD M6-1.00 20MM
3	5560629	8	WASHER FLAT M6
4	984169	4	NUT HEX M6 -1.00



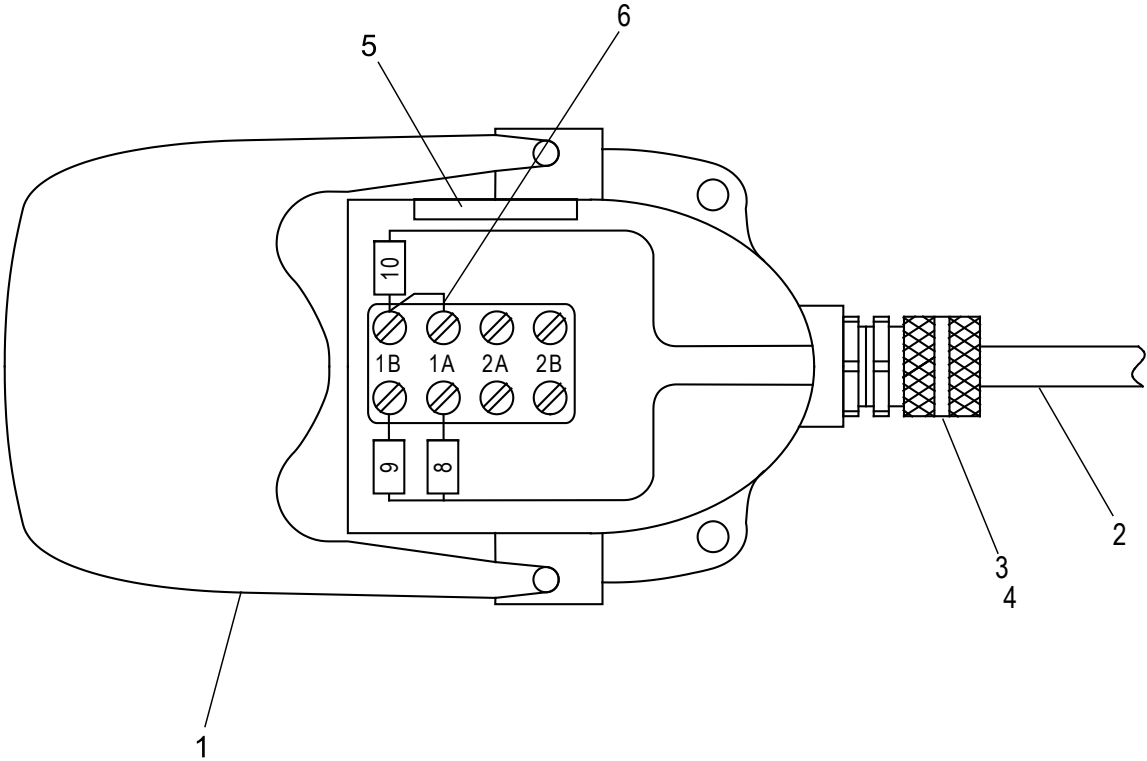
0260460

# Level Sensor Assembly



# Platform Foot Switch

Item	Part No.	Qty.	Description
1	3020021	1	FOOT SWITCH
	3020037	1	REPLACEMENT SWITCH, SQUARE D SWITCH, 4 POLE – NOT SHOWN
	3020113	1	REPLACEMENT SWITCH , SQUARE D SWITCH, 8 POLE
2	0260047	1	WIRE HARNESS, PLATFORM FOOT SWITCH (REFER TO ELECTRICAL – 71)
3	3040116	1	CONNECTOR
4	3040110	1	CONNECTOR LOCKNUT
5	0070967	1	CORROSION INHIBITOR
6	0060373	1	JUMPER STRAP - (USED ON SQUARE D SWITCH ONLY )



# Platform Foot Switch



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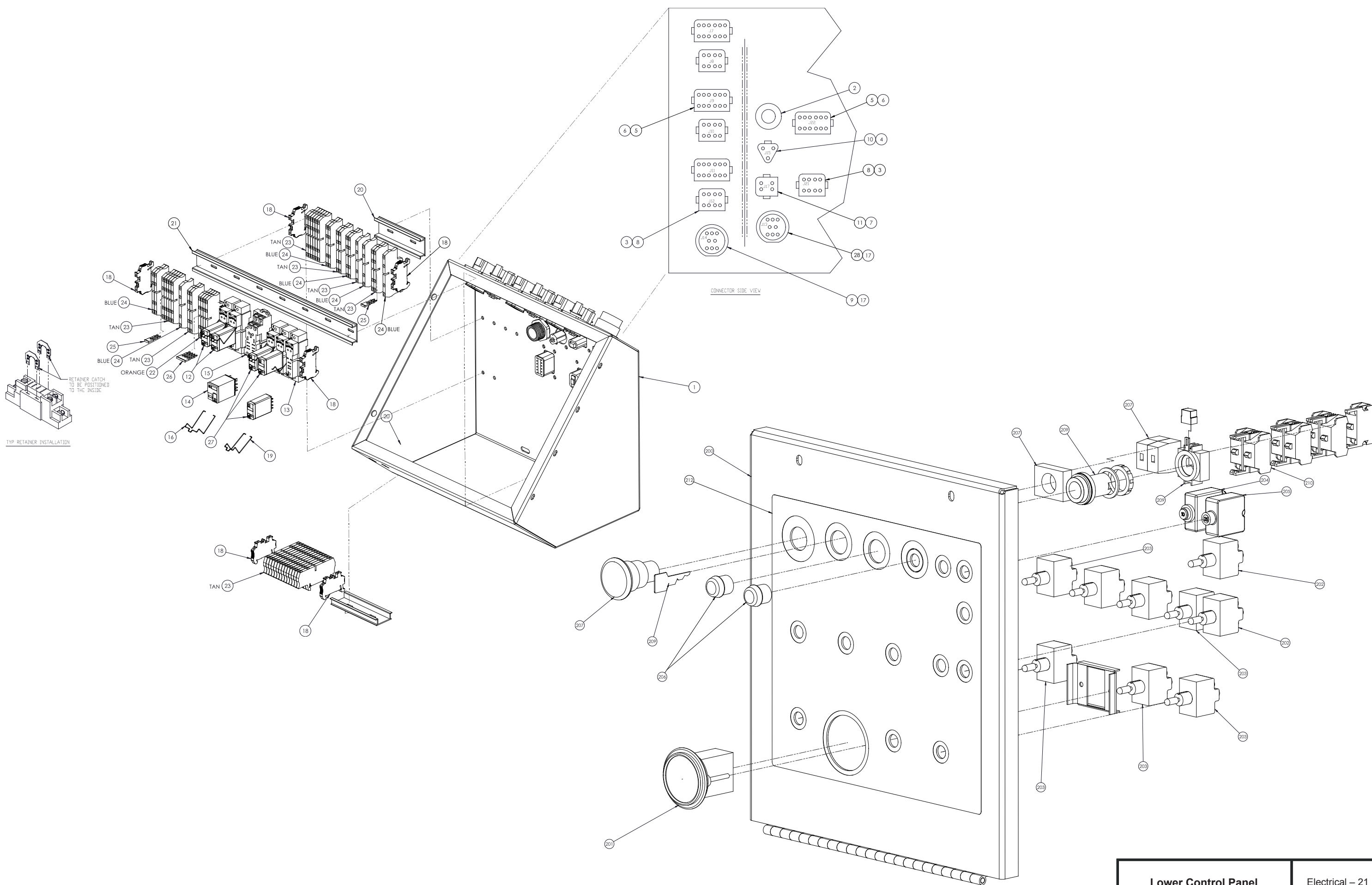
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TYP. RETAINER INSTALLATION

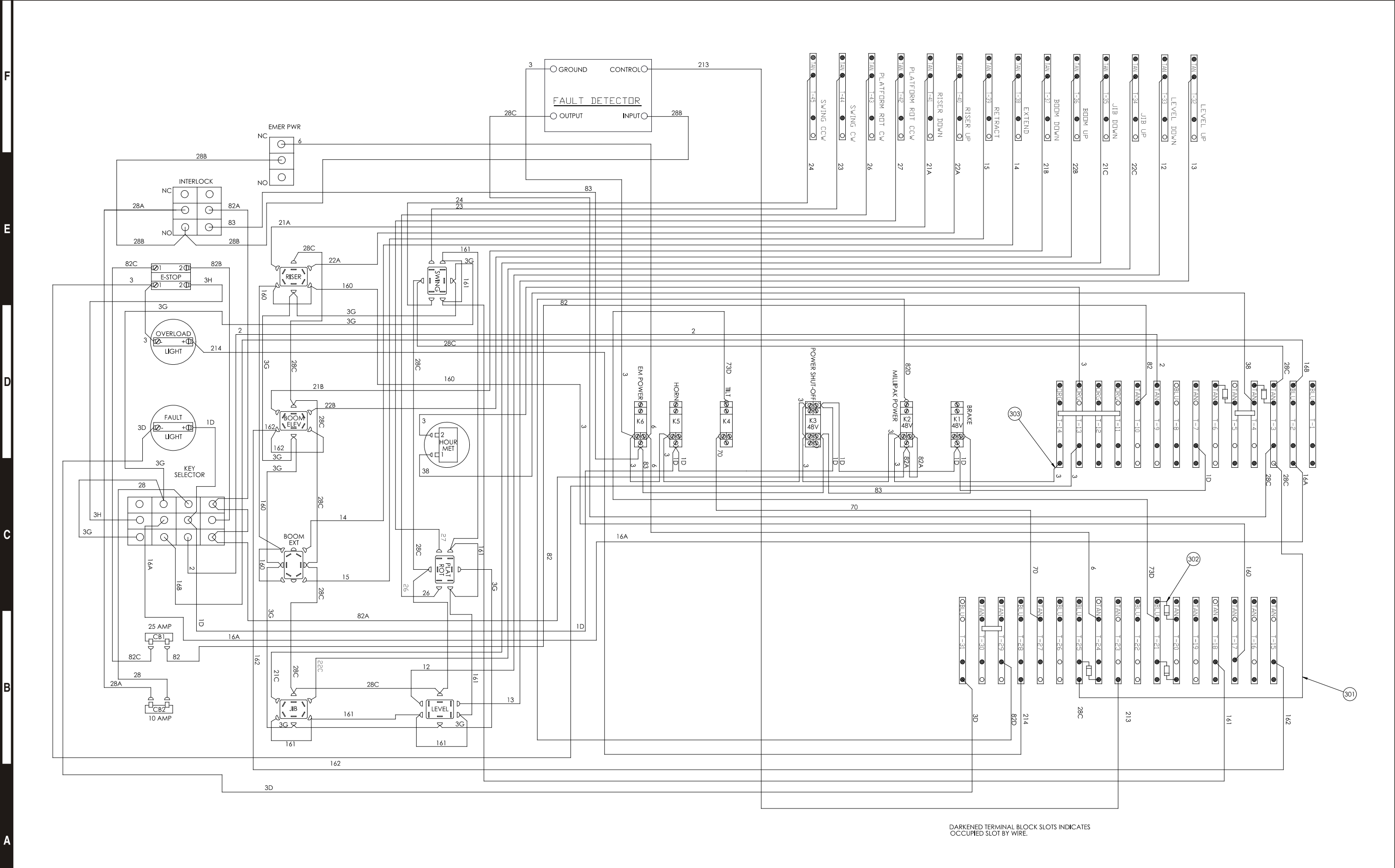
CONNECTOR SIDE VIEW

0260082

Lower Control Panel

Electrical - 21

1 2 3 4 5 6 7 8 9



DARKENED TERMINAL BLOCK SLOTS INDICATES OCCUPIED SLOT BY WIRE.

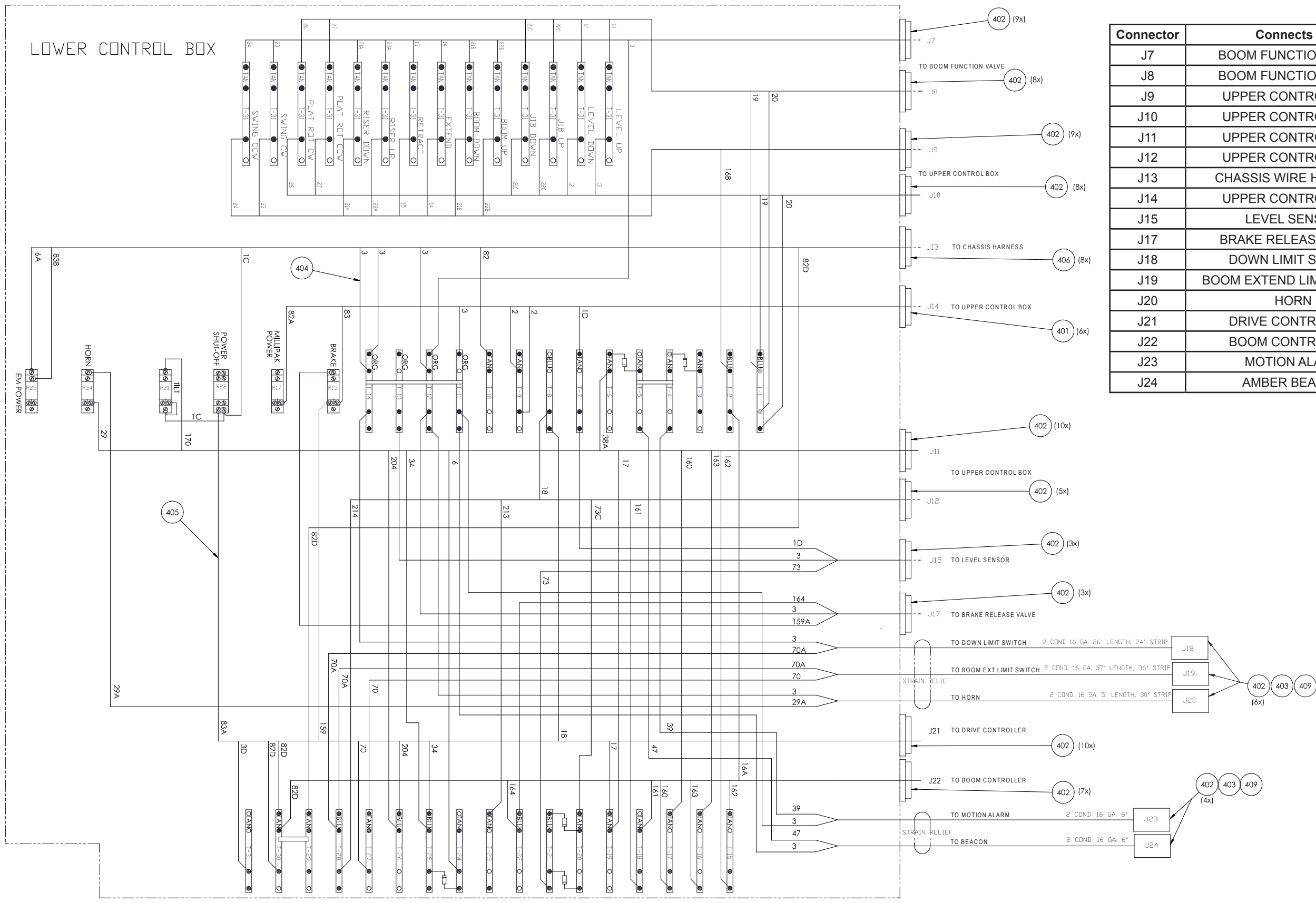
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1 2 3 4 5 6 7 8 9



LOWER CONTROL BOX

Connector	Connects To	Part #	Page #
J7	BOOM FUNCTION VALVE	0260028	Electrical - 53
J8	BOOM FUNCTION VALVE	0260028	Electrical - 53
J9	UPPER CONTROLS - J1	0260029	Electrical - 55
J10	UPPER CONTROLS - J2	0260029	Electrical - 55
J11	UPPER CONTROLS - J3	0260032	Electrical - 59
J12	UPPER CONTROLS - J4	0260032	Electrical - 59
J13	CHASSIS WIRE HARNESS	0260141	Electrical - 43
J14	UPPER CONTROLS - J5	0260031	Electrical - 57
J15	LEVEL SENSOR	0260033	Electrical - 51
J17	BRAKE RELEASE VALVE	0260140	Electrical - 49
J18	DOWN LIMIT SWITCH	0260036	Electrical - 61
J19	BOOM EXTEND LIMIT SWITCH	0260038	Electrical - 63
J20	HORN	0260037	Electrical - 65
J21	DRIVE CONTROLLER	0260144	Electrical - 45
J22	BOOM CONTROLLER	0260145	Electrical - 47
J23	MOTION ALARM	0260484	Electrical - 67
J24	AMBER BEACON	0260429	Electrical - 69



DARKENED TERMINAL BLOCK SLOTS INDICATES OCCUPIED SLOT BY WIRE.

PIN OUTS FOR CONN J7

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	-	PLUG	-	-	-
2	24	SWING CW	18	ITEM 2	WHITE
3	23	SWING CCW	18	ITEM 2	WHITE
4	22B	MAIN BOOM UP	18	ITEM 2	WHITE
5	21B	MAIN BOOM DOWN	18	ITEM 2	WHITE
6	14	EXTEND	18	ITEM 2	WHITE
7	15	RETRACT	18	ITEM 2	WHITE
8	-	PLUG	-	-	-
9	-	PLUG	-	-	-
10	22A	RISER UP	18	ITEM 2	WHITE
11	21A	RISER DOWN	18	ITEM 2	WHITE
12	3	GROUND	18	ITEM 2	BLACK

PIN OUTS FOR CONN J8

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	19	STEER LEFT	18	ITEM 2	WHITE
2	22C	JIB UP	18	ITEM 2	WHITE
3	21C	JIB DOWN	18	ITEM 2	WHITE
4	26	PLATFORM ROTATE CW	18	ITEM 2	WHITE
5	27	PLATFORM ROTATE CCW	18	ITEM 2	WHITE
6	13	LEVEL UP	18	ITEM 2	WHITE
7	12	LEVEL DOWN	18	ITEM 2	WHITE
8	20	STEER RIGHT	18	ITEM 2	WHITE

PIN OUTS FOR CONN J9

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	-	PLUG	-	-	-
2	24	SWING CW	18	ITEM 2	WHITE
3	23	SWING CCW	18	ITEM 2	WHITE
4	22B	MAIN BOOM UP	18	ITEM 2	WHITE
5	21B	MAIN BOOM DOWN	18	ITEM 2	WHITE
6	14	EXTEND	18	ITEM 2	WHITE
7	15	RETRACT	18	ITEM 2	WHITE
8	-	PLUG	-	-	-
9	16B	BOOM SPEED DIAL	18	ITEM 2	WHITE
10	22A	RISER UP	18	ITEM 2	WHITE
11	21A	RISER DOWN	18	ITEM 2	WHITE
12	NONE	PLUG	18	ITEM 2	WHITE

PIN OUTS FOR CONN J10

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	19	STEER LEFT	18	ITEM 2	WHITE
2	22C	JIB UP	18	ITEM 2	WHITE
3	21C	JIB DOWN	18	ITEM 2	WHITE
4	26	PLATFORM ROTATE CW	18	ITEM 2	WHITE
5	27	PLATFORM ROTATE CCW	18	ITEM 2	WHITE
6	13	LEVEL UP	18	ITEM 2	WHITE
7	12	LEVEL DOWN	18	ITEM 2	WHITE
8	20	STEER RIGHT	18	ITEM 2	WHITE

PIN OUTS FOR CONN J11

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	160	POWER TO HIGH FLOW POT	18	ITEM 2	WHITE
2	6	EMERGENCY POWER	18	ITEM 2	WHITE
3	162	FLOW "C" SIGNAL	18	ITEM 2	WHITE
4	34	CUTBACK SPEED 1	18	ITEM 2	WHITE
5	163	FLOW "D" SIGNAL	18	ITEM 2	WHITE
6	38A	FOOTSWITCH SIGNAL (12V)	18	ITEM 2	WHITE
7	29	HORN	18	ITEM 2	WHITE
8	NONE	PLUG	-	-	-
9	-	PLUG	-	-	-
10	204	DRIVE ACCELERATOR	18	ITEM 2	WHITE
11	170	ELEVATE	18	ITEM 2	WHITE
12	17	DRIVE FORWARD	18	ITEM 2	WHITE

PIN OUTS FOR CONN J12

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	18	DRIVE REVERSE	18	ITEM 2	WHITE
2	213	FAILSAFE OUTPUT	18	ITEM 2	WHITE
3	73C	TILT ALARM	18	ITEM 2	WHITE
4	161	FLOW "B" SIGNAL	18	ITEM 2	WHITE
5	-	PLUG	-	-	-
6	-	PLUG	-	-	-
7	-	PLUG	-	-	-
8	214	OVERLOAD LAMP	18	ITEM 2	WHITE

PIN OUTS FOR CONN J13

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
A	82	48V POWER	12	ITEM 1	RED
B	1C	12V POWER	12	ITEM 1	RED
C	82D	48V RUN	12	ITEM 1	WHITE
D	6A	EM POWER	12	ITEM 1	WHITE
E	3	GROUND	12	ITEM 1	BLACK
F	83B	PUMP CONTACTOR SIGNAL	12	ITEM 1	WHITE
G	3	GROUND	12	ITEM 1	BLACK
H	3	GROUND	12	ITEM 1	BLACK

PIN OUTS FOR CONN J14

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
A	2	PLATFORM POWER	12	ITEM 1	WHITE
B	2	PLATFORM POWER	12	ITEM 1	WHITE
C	3	GROUND	12	ITEM 1	BLACK
D	-	PLUG	-	-	-
E	-	PLUG	-	-	-
F	1D	AUX POWER	12	ITEM 1	WHITE
G	83	FOOTSWITCH SIGNAL (48V)	12	ITEM 1	WHITE
H	82A	PLATFORM POWER (48V)	12	ITEM 1	WHITE

PIN OUTS FOR CONN J15

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
A	1D	POWER TO LEVEL SENSOR	16	ITEM 2	WHITE
B	73	POWER FROM LEVEL SENSOR	16	ITEM 2	WHITE
C	3	GROUND	16	ITEM 2	BLACK

PIN OUTS FOR CONN J17

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	164	PRESSURE SWITCH	16	ITEM 2	WHITE
2	159A	BRAKE RELEASE VALVES	16	ITEM 2	WHITE
3	-	PLUG	-	-	-
4	3	COIL GROUND	16	ITEM 2	BLACK

PIN OUTS FOR CONN J18

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	3	GROUND FOR BOOM DOWN SWITCH	16	ITEM 2	BLACK
2	70A	SIGNAL TO BOOM DOWN SWITCH	16	ITEM 2	WHITE

PIN OUTS FOR CONN J19

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	70	SIGNAL TO BOOM EXT SWITCH	16	ITEM 2	WHITE
2	70A	SIGNAL FROM BOOM EXT SWITCH	16	ITEM 2	WHITE

PIN OUTS FOR CONN J20

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	29A	HORN	16	ITEM 2	WHITE
2	3	GROUND	16	ITEM 2	BLACK

PIN OUTS FOR CONN J21

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	82D	48V INPUT	16	ITEM 2	WHITE
2	17	FORWARD	16	ITEM 2	WHITE
3	18	REVERSE	16	ITEM 2	WHITE
4	83A	FOOT SW INPUT	16	ITEM 2	WHITE
5	34	CUT BACK SP #1	16	ITEM 2	WHITE
6	70	CUT BACK SP #2	16	ITEM 2	WHITE
7	159	BRAKE RELEASE	16	ITEM 2	WHITE
8	82D	LINE CONTACTOR	16	ITEM 2	WHITE
9	3D	LED FAULT OUTPUT	16	ITEM 2	WHITE
10	204	ACCEL PDT INPUT	16	ITEM 2	WHITE
11	NONE	PLUG	-	-	-
12	NONE	PLUG	-	-	-

PIN OUTS FOR CONN J22

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	82D	48V INPUT	16	ITEM 2	WHITE
2	NONE	PLUG	-	-	-
3	160	FLOW "A" SIGNAL	16	ITEM 2	WHITE
4	162	FLOW "C" SIGNAL	16	ITEM 2	WHITE
5	161	FLOW "B" SIGNAL	16	ITEM 2	WHITE
6	163	FLOW "D" SIGNAL	16	ITEM 2	WHITE
7	164	FLOW "E" SIGNAL	16	ITEM 2	WHITE
8	16A	BOOM SPEED SIGNAL	16	ITEM 2	WHITE

PIN OUTS FOR CONN J23

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	39	MOTION ALARM	16	ITEM 2	WHITE
2	3	GROUND	16	ITEM 2	BLACK

PIN OUTS FOR CONN J24

PIN #	WIRE	DESCRIPTION	WIRE GA	TERM	COLOR
1	47	BEACON	16	ITEM 2	WHITE
2	3	GROUND	16	ITEM 2	BLACK

## Lower Control Panel

Item	Part No.	Qty.	Description
1	0260115	1	WLDMT, UPPER CONTROL BOX E DRIVE
2	29925-001	1	CORD GRIP 3/4"
3	3040700	4	LOCK WEDGE 8-PIN
4	3049823	1	LOCK WEDGE 3-PIN
5	3049837	4	CONNECTOR 12-PIN
6	3049849	4	LOCK WEDGE 12-PIN
7	3049891	1	LOCK WEDGE 4-PIN
8	3049971	4	DEUTSCH 8-PIN BLKHD RCPT CONN
9	3220088	1	CONN DEUTSCH 8PIN 12GA RECP
10	3220105	1	CONNECTOR, 3-PIN BHD
11	3220110	1	CONN, 4-PIN 16GA RECPT, BLKHD
12	3220112	2	RELAY, 48VDC, 1 POLE
13	3220113	5	RELAY SOCKET, 1 POLE, DIN
14	3220114	1	RELAY, 48VDC, 2 POLE
15	3220115	1	RELAY SOCKET, 2 POLE, DIN
16	3220117	1	RELAY SPRING CLIP, 2 POLE
17	3220118	2	PANEL NUT, RECEPTACLE
18	67660-006	6	END BLOCK TERMINAL
19	67662-005	5	RETAINER CLIP, 1 POLE RELAY
20	67893-001	2	DIN RAIL, 4" LG
21	67893-002	1	DIN RAIL, 14" LG
22	68698-000	4	BLOCK TERMINAL ORANGE
23	68698-001	32	BLOCK TERMINAL TAN
24	68698-002	9	BLOCK TERMINAL BLUE
25	68773-002	2	JUMPER, 2 PIN
26	68773-004	1	JUMPER, 4 PIN
27	67661-001	3	RELAY SPST, 12 VOLT DC
28	3220128	1	CONN DEUTSCH 8SCKT 12GA RECP
200	0260019	1	PANEL WLDMT, CONTROL BOX
201	3070001	1	HOURLMETER
202	3020081	2	SW TGL DPDT (M/ON)
203	3020018	7	SW TGL DPDT (M/OFF/M)
204	3220019	1	CIRCUIT BREAKER 10 AMP
205	3040069	1	CIRCUIT BREAKER 25 AMP
206	3069524	2	LIGHT, RED LED 12V .69DIA MTG
207	3028810	1	EMERGENCY STOP BUTTON
209	3028813	1	KEYED SELECTOR SWITCH
210	3028814	7	CONTACT BLOCK NO
212	0260199	1	PLACARD, LOWER CONTROL E-DRIVE CE
301	3011641	A/R	WIRE SINGLE CONDUCTOR 16GA WHT
302	3040293	5	DIODE 3 AMP 600V
303	3011601	A/R	WIRE SINGLE CONDUCTOR 16GA BLK
401	3040650	6	PIN CONTACT SIZE 12 DEUTSCH
402	3040341	6	PIN CONTACT SIZE 16 DEUTSCH
403	3049804	5	CONN DEUTSCH RECP 2 PIN
404	3011601	A/R	WIRE SINGLE CONDUCTOR 16GA BLK
405	3011641	A/R	WIRE SINGLE CONDUCTOR 16GA WHT
406	3040650	8	SOCKET CONTACT 12 DEUTSCH
409	3049808	5	LOCK WEDGE 2 PIN DEUTSCH

0260082

## Lower Control Panel



F

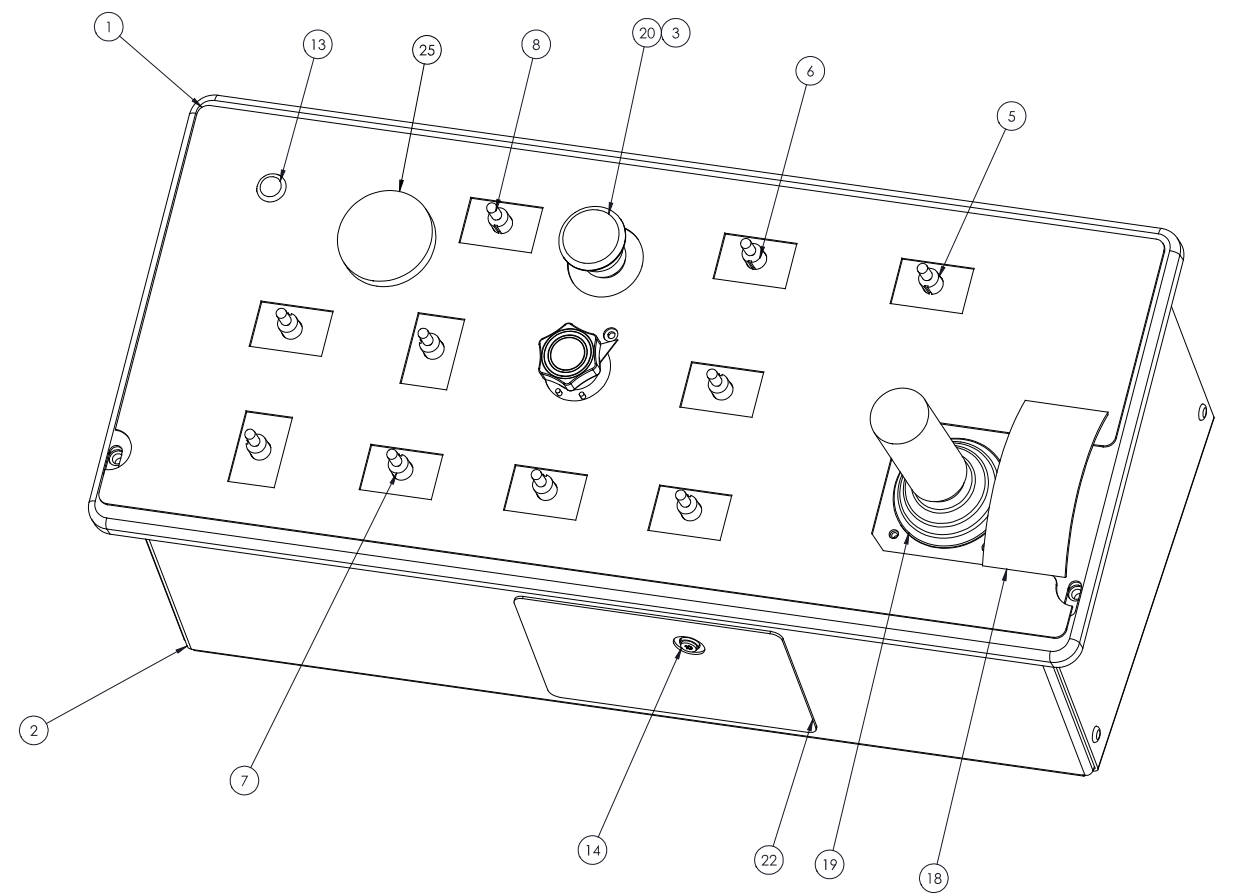
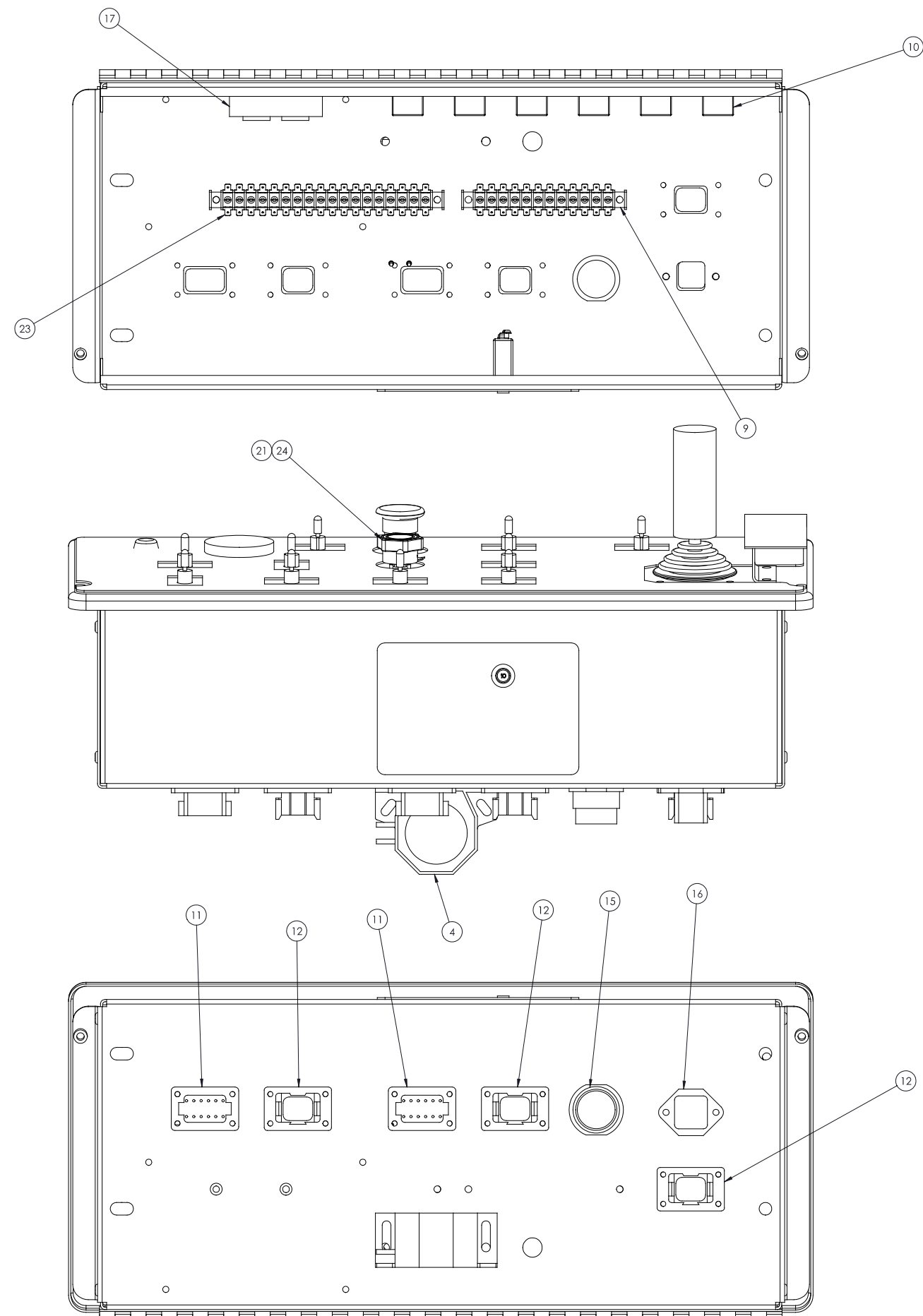
E

D

C

B

A

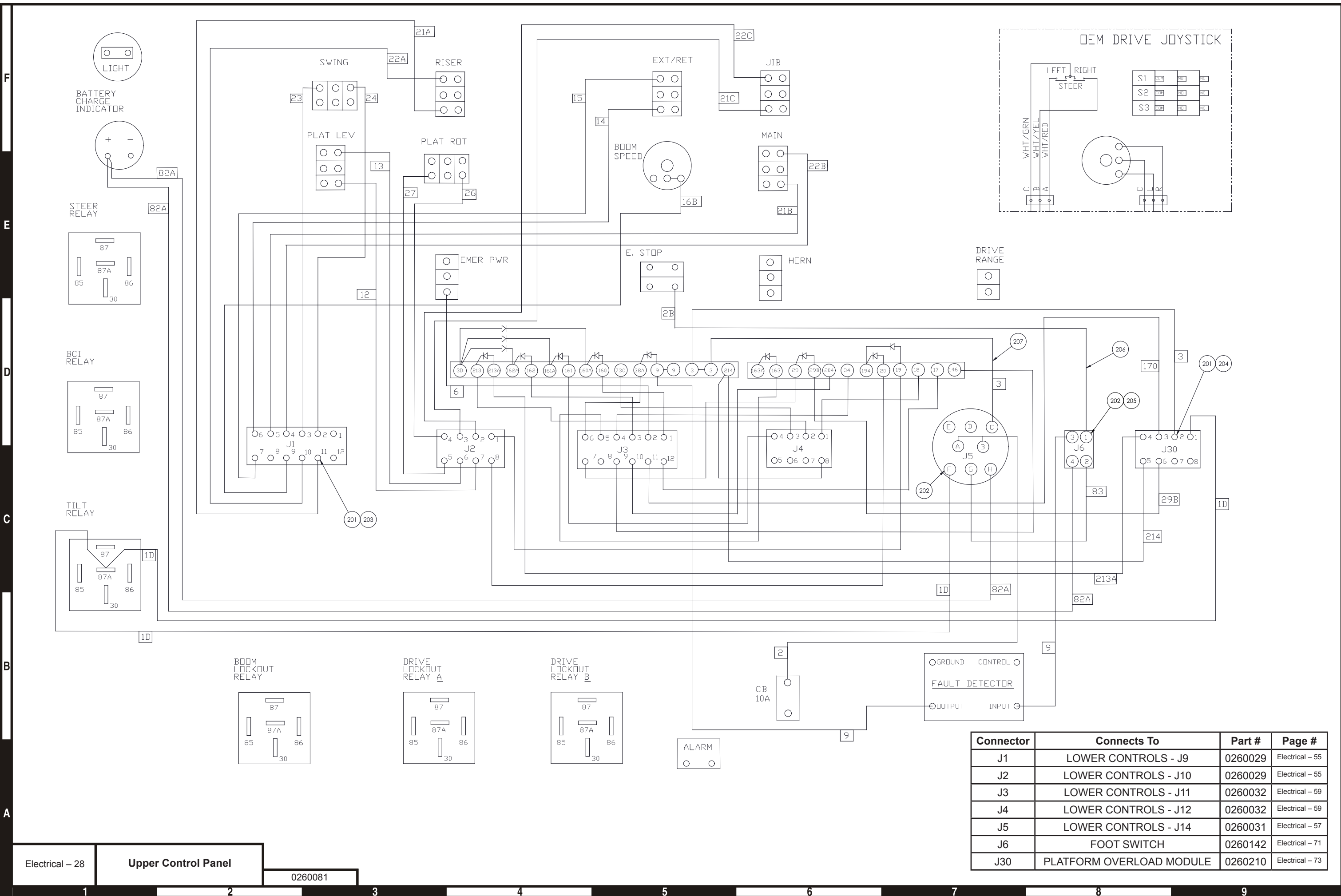


0260081

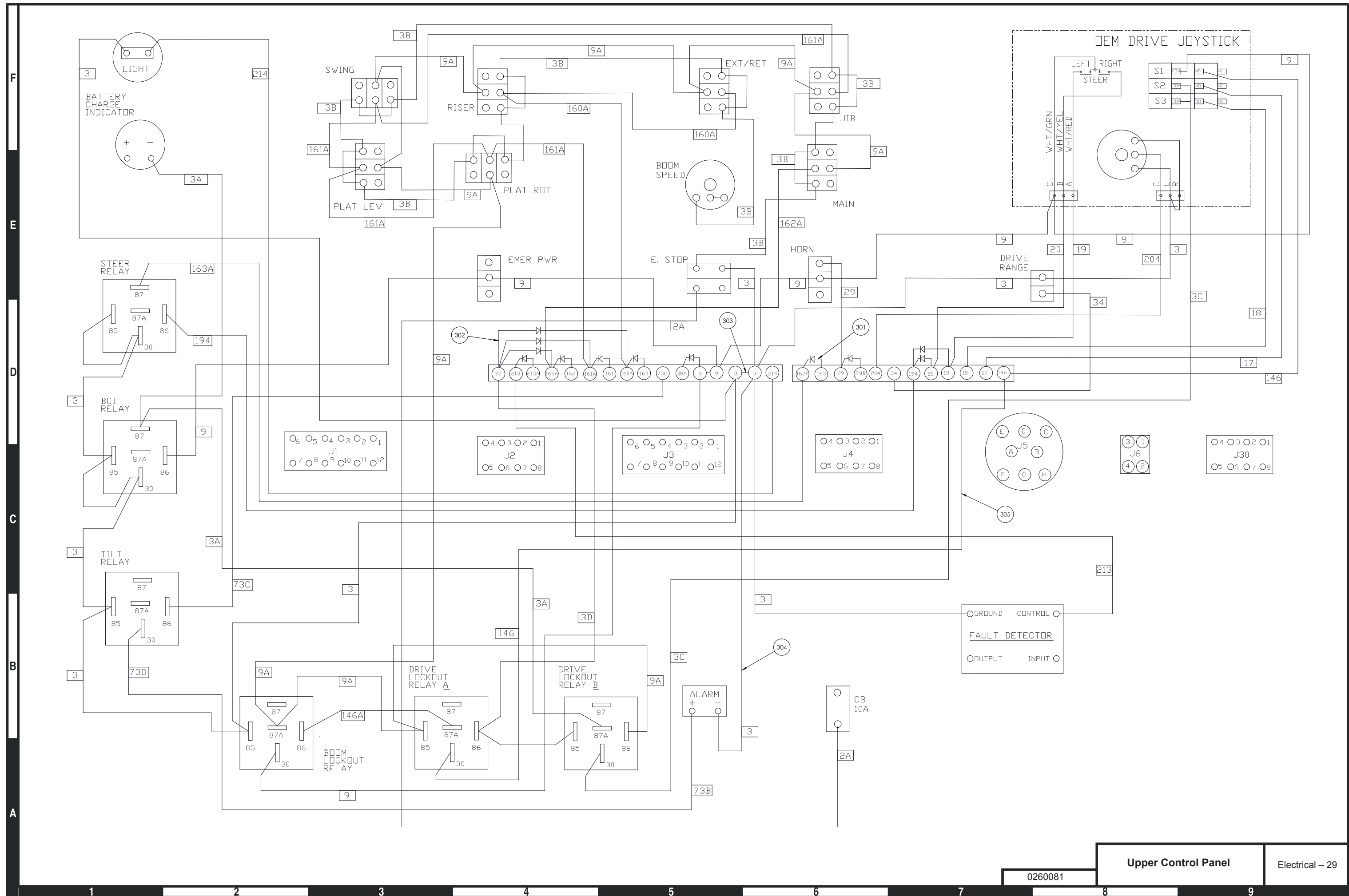
Upper Control Panel

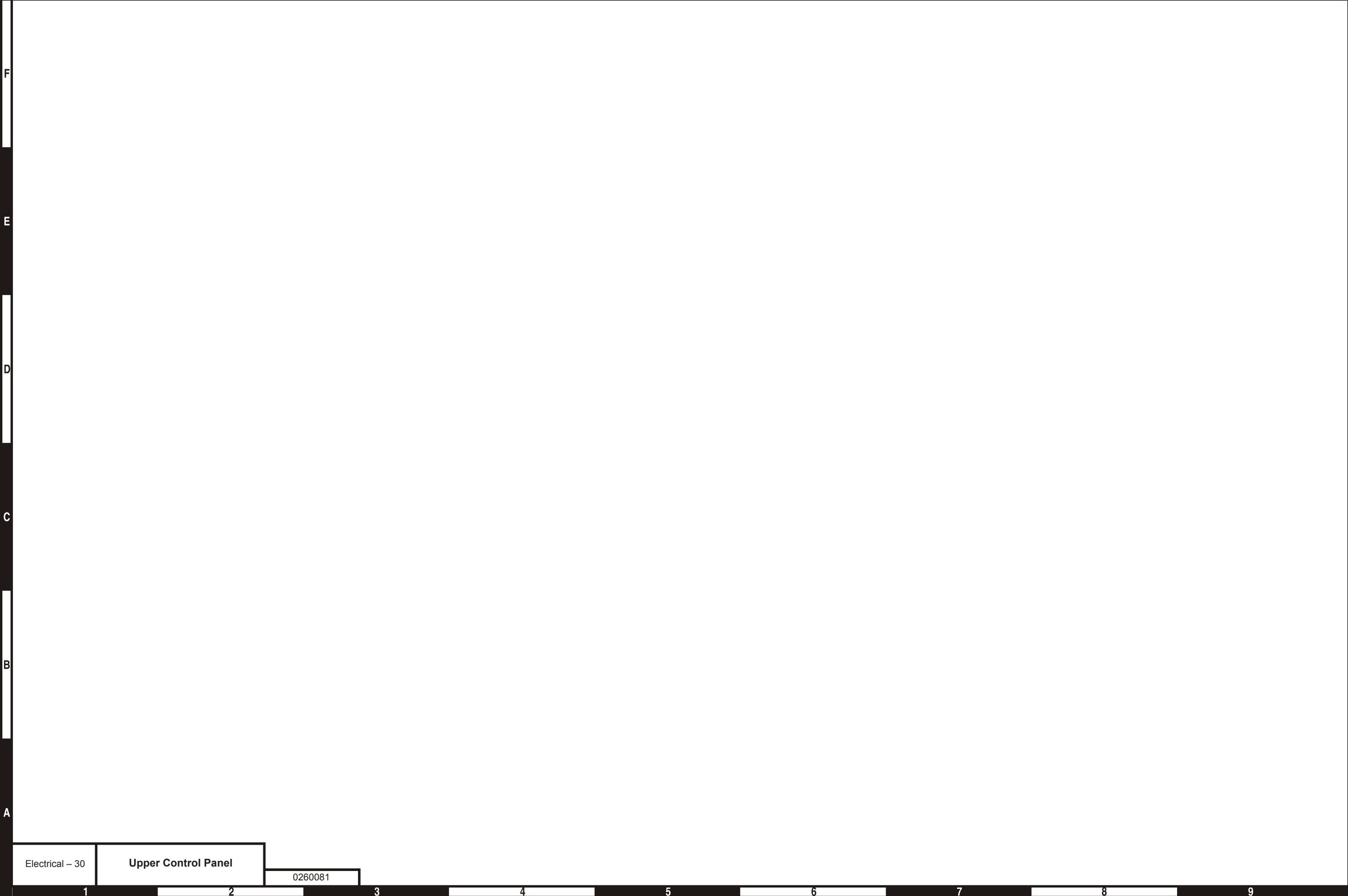
Electrical - 27





Connector	Connects To	Part #	Page #
J1	LOWER CONTROLS - J9	0260029	Electrical - 55
J2	LOWER CONTROLS - J10	0260029	Electrical - 55
J3	LOWER CONTROLS - J11	0260032	Electrical - 59
J4	LOWER CONTROLS - J12	0260032	Electrical - 59
J5	LOWER CONTROLS - J14	0260031	Electrical - 57
J6	FOOT SWITCH	0260142	Electrical - 71
J30	PLATFORM OVERLOAD MODULE	0260210	Electrical - 73





F

E

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Electrical – 30

**Upper Control Panel**

0260081

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## Upper Control Panel

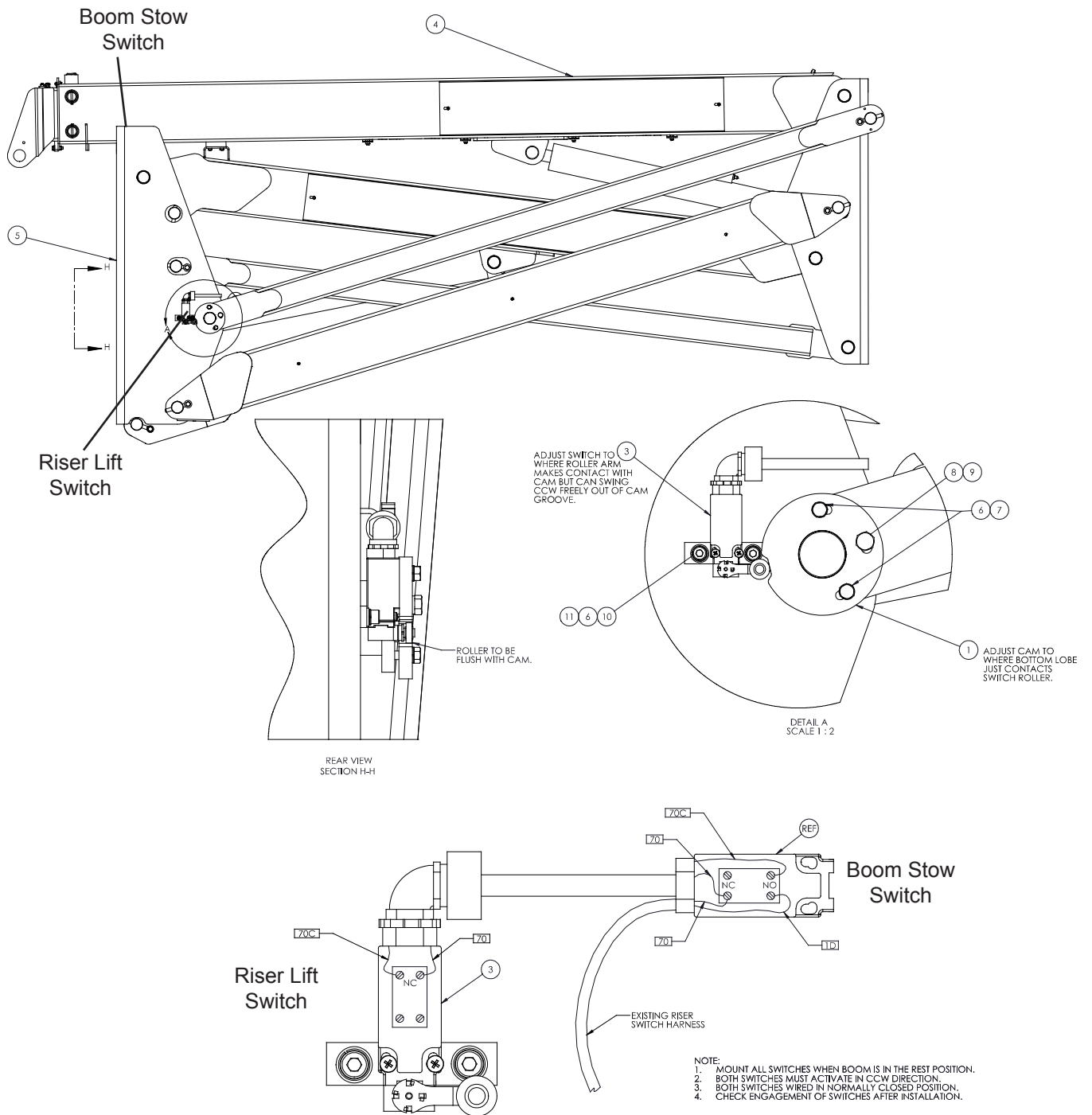
Item	Part No.	Qty.	Description
1	0260013	1	PLACARD, UPPER CONTROL BOX TOP
2	0260216	1	WELDMENT PLATFORM CONTROL BOX
3	3028810	1	SWITCH, CONTACT BLK N.C. & MOUNT
4	480652	1	ALARM 97 DBA DUAL TONE 12/24 V
5	3020013	1	SWITCH, TOGGLE SPST ON OFF SEALED
6	3020015	1	SWITCH, TOGGLE SPST (ON) OFF SEALED
7	3020018	7	SWITCH, TOGGLE DPDT (ON/OFF/ON)
8	3020080	1	SWITCH, TOGGLE SPDT (ON/OFF/ON) SEALED
9	3040433	1	TERMINAL STRIP .188 TAB 12 CIRCUIT
10	3040469	6	RELAY SPDT 12V 30 AMP
11	3049837	2	CONNECTOR, 12 PIN BHD DEUTSCH
12	3049971	3	CONNECTOR, 8 PIN BLKHD RCPT DEUTSCH
13	3069524	1	LIGHT
14	3220019	1	CIRCUIT BREAKER 10 AMP
15	3220088	1	CONNECTOR, 8 PIN PND 12GA RCPT DEUTSCH
16	3220089	1	CONNECTOR, 4 PIN BLKHD
17	3220096	1	OVERLOAD FAULT DETECTION (REFER TO ELECTRICAL – 77)
18	68801-000	1	WELDMENT HAND SUPPORT
19	3220101	1	CONTROLLER, SINGLE AXIS W/TOG
20	446836	1	TWO POSITION PUSH/PULL SWITCH
21	0163252	1	RHEOSTAT ASSEMBLY
22	0260215	1	PLACARD, FRONT PLATFORM CONTROL BOX
23	3040057	1	TERMINAL STRIP 18 CIRCUIT
24	3040777	1	RHEOSTAT KNOB
25	3070034	1	BATTERY INDICATOR
201	3040341	39	PIN CONTACT SIZE 16 16/18 GA
202	3040649	10	PIN CONTACT -12 DEUTSCH
203	3049849	2	LOCK WEDGE 12-PIN DEUTSCH REC
204	3040700	3	LOCK WEDGE 8-PIN REC
205	3220090	1	LOCK WEDGE 4-PIN DEUTSCH
206	3011241	A/R	WIRE 12GA SINGLE CONDUCTOR WHT
207	3011251	A/R	WIRE 12GA SINGLE CONDUCTOR BLK
301	0361233	9	DIODE ASSEMBLY
302	0170335	3	WIRE 18 FEM 188I FEM188I 5 DIO
303	3045279	2	TERMINAL STRIP STRAP
304	3011851	A/R	WIRE 18GA SINGLE CONDUCTOR BLK
305	3011801	A/R	WIRE 18GA SINGLE CONDUCTOR WHT

0260081

## Upper Control Panel



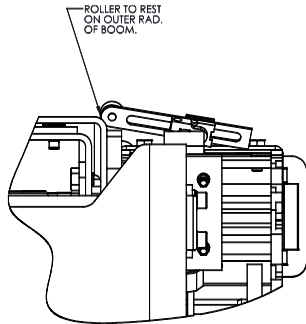
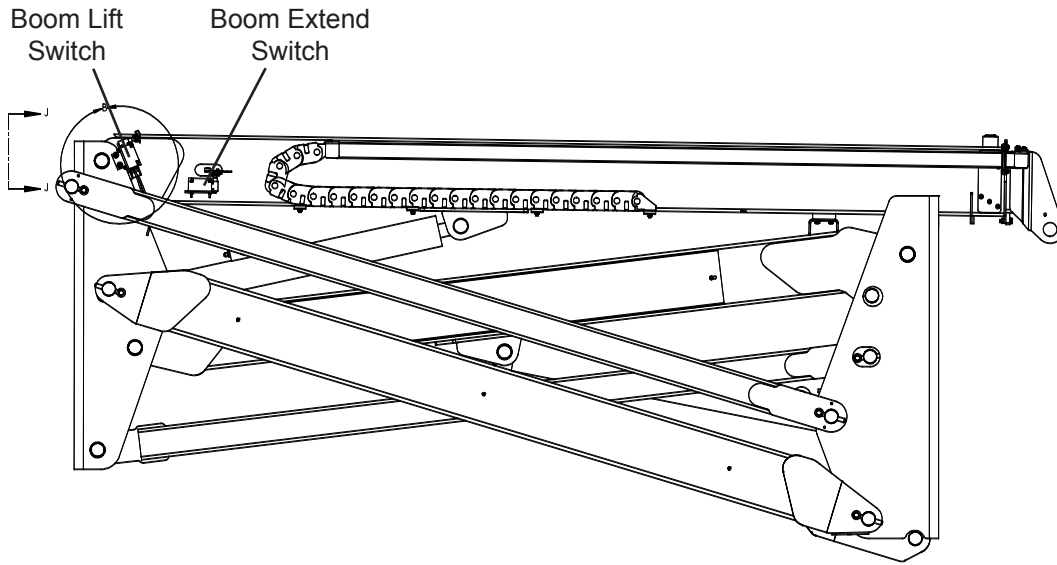
# Riser Lift Switch Configuration



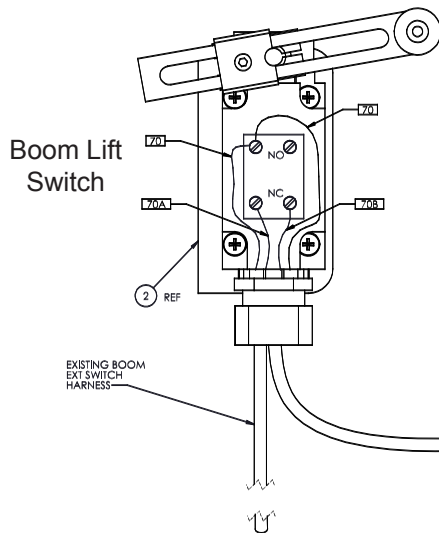
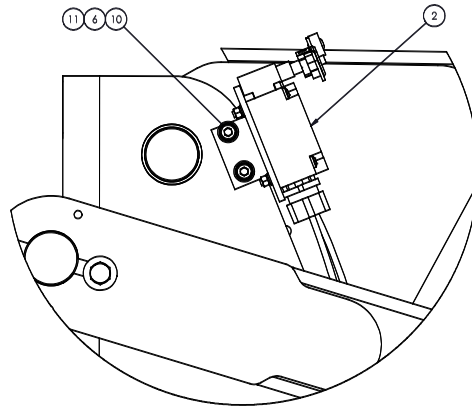
Refer to Electrical – 35, Riser and Boom Lift Switch Configuration, bill of material for items on this page.

# Riser Lift Switch Configuration

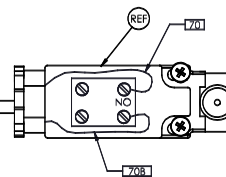
# Boom Lift Switch Configuration



REAR VIEW  
SECTION J-J  
SCALE 1 : 2



- NOTE:
1. MOUNT ALL SWITCHES WHEN BOOM IS IN THE REST POSITION.
  2. BOTH SWITCHES MUST ACTIVATE IN CCW DIRECTION.
  3. BOTH SWITCHES WIRED IN NORMALLY CLOSED POSITION.
  4. CHECK ENGAGEMENT OF SWITCHES AFTER INSTALLATION.



Boom Extension Switch

Refer to Electrical – 35, Riser and Boom Lift Switch Configuration, bill of material for items on this page.

0260433

# Boom Lift Switch Configuration

## Riser and Boom Lift Switch Configuration

Item	Part No.	Qty.	Description
1	0260230-2	1	CAM, CE RISER SWITCH
2	0260231	1	BOOM LIFT LIMIT SWITCH ASSEMBLY (REFER TO ELECTRICAL – 37)
3	0260235	1	RISER LIFT LIMIT SWITCH ASSEMBLY (REFER TO ELECTRICAL – 39)
4		REF	MAIN BOOM
5		REF	RISER
6	5560355	6	WASHER, LOCK M8
7	5560357	2	BOLT HEXHD M8-1.25X25MM
8	5560356	1	WASHER, LOCK M10
9	5560627	1	BOLT HEXHD M10-1.50X25MM
10	5560613	4	WASHER FLAT M8
11	5560595	4	BOLT SKTHD M8-1.25X20MM

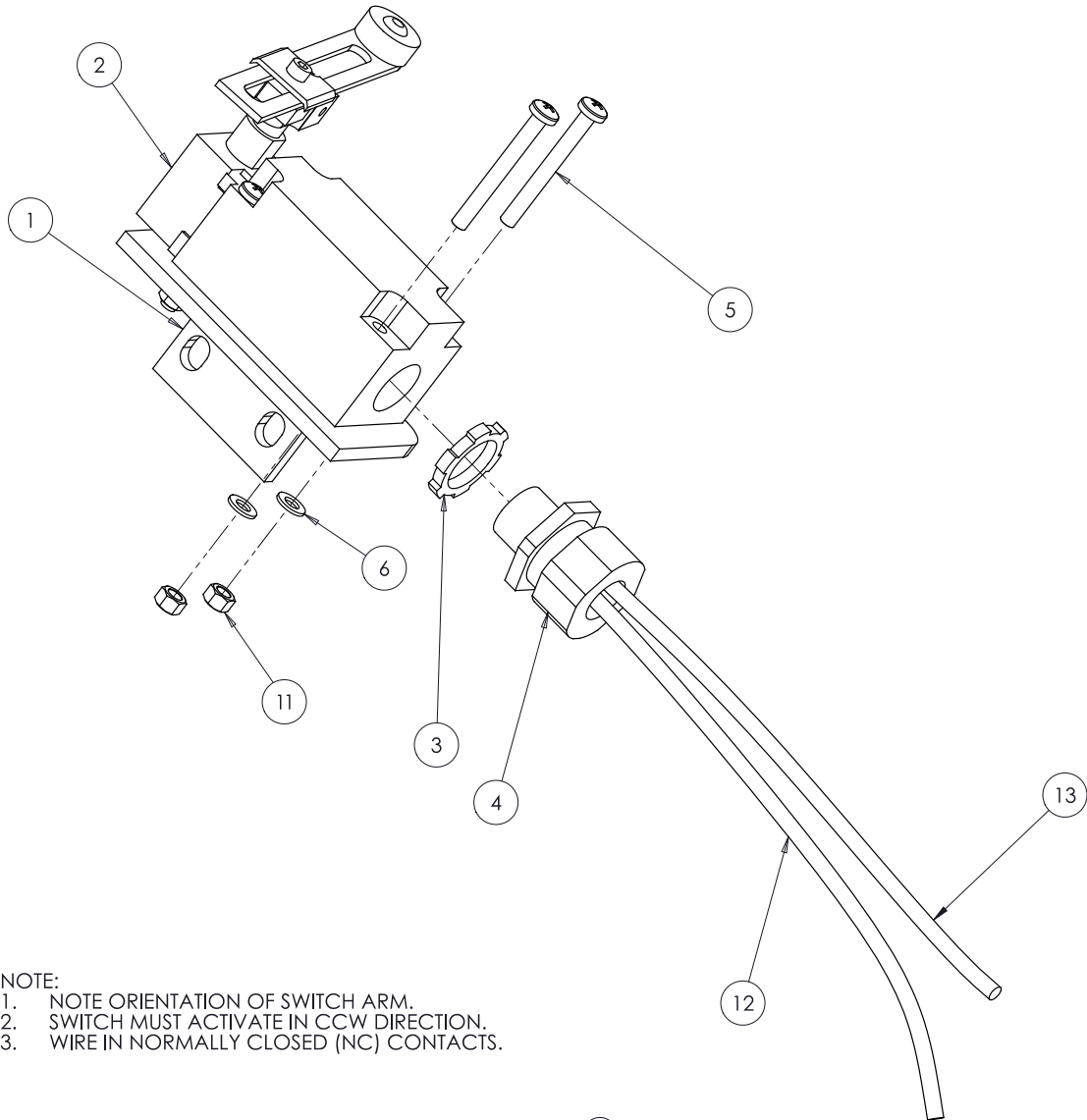
0260443

## Riser and Boom Lift Switch Configuration

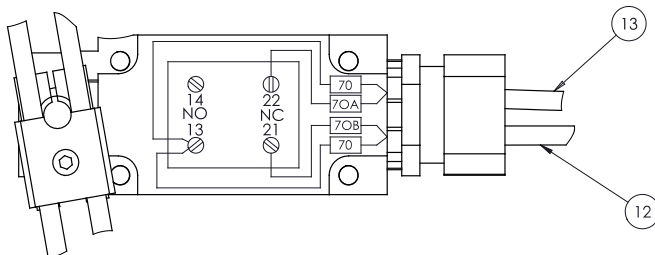


## Boom Lift Limit Switch – CE Only

Item	Part No.	Qty.	Description
1	0260416	1	LIMIT SWITCH MOUNT
2	0260347	1	LIMIT SWITCH
3	3040070	1	NUT, LKG .500 HUB
4	3040536	1	CONNECTOR, .500 .500-.625
5	5563114	4	SCREW, RNDHD M5-0.8 45 MM PHL
6	5563048	4	WASHER, FLAT M5 ZINC PL
11	5563136	4	NUT, HEX LKG M5-0.8
12	0260232	1	WIRE ASSEMBLY
13	0260038	1	BOOM EXTEND LIMIT SWITCH WIRE HARNESS (REFER TO ELECTRICAL – 63)



NOTE:  
 1. NOTE ORIENTATION OF SWITCH ARM.  
 2. SWITCH MUST ACTIVATE IN CCW DIRECTION.  
 3. WIRE IN NORMALLY CLOSED (NC) CONTACTS.



0260231

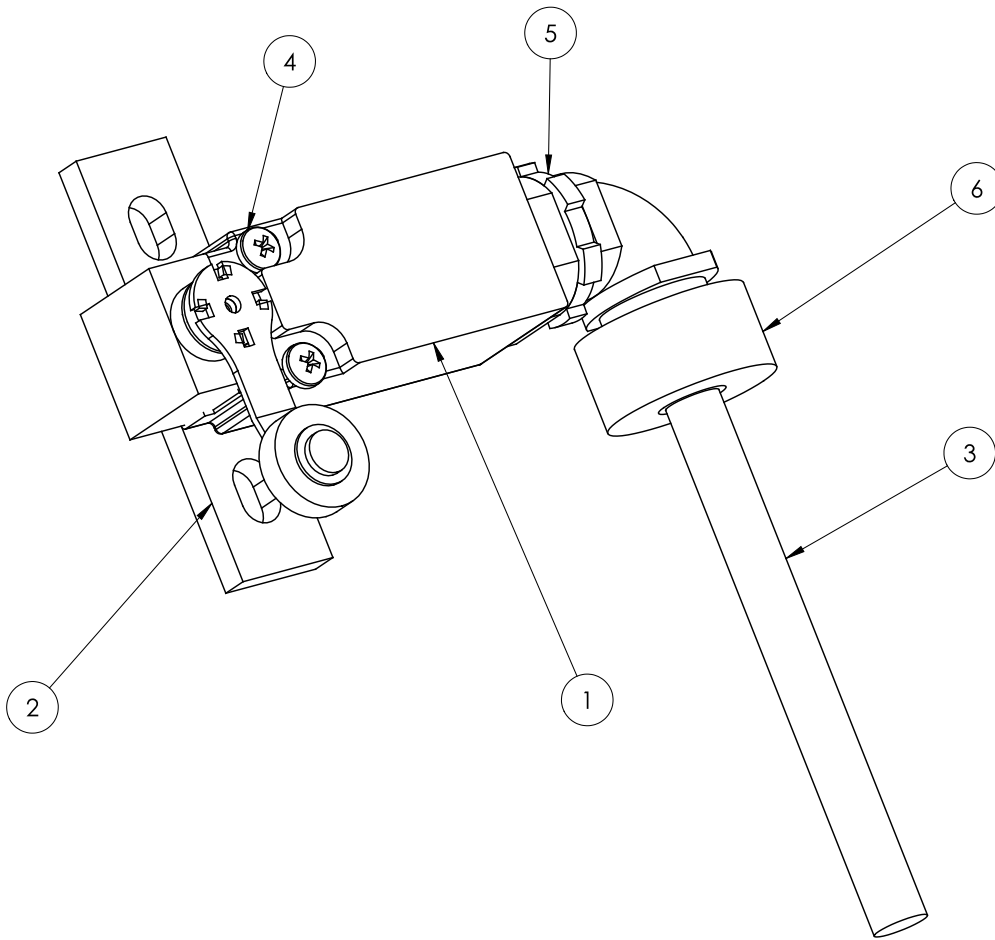
## Boom Lift Limit Switch – CE Only





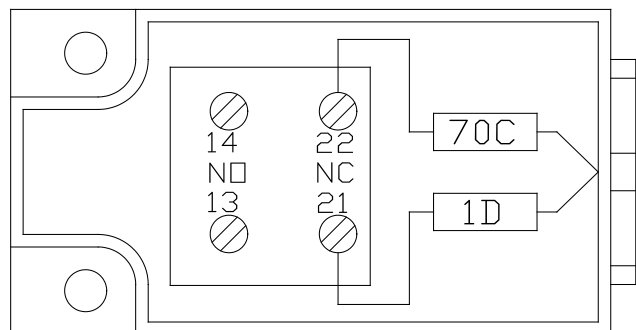
## Riser Lift Limit Switch – CE Only

Item	Part No.	Qty.	Description
1	3020140	1	LIMIT SWITCH
2	0260234	1	MOUNTING BRACKET
3	0260236	1	WIRE ASSEMBLY
4	5563094	2	SCREW, RD HD M4 X 30 MM
5	3040070	1	NUT, LKG .500 HUB
6	3040711	1	CONNECTOR, 90 .500 .375-.500



**NOTES:**

1. NOTE ORIENTATION OF SWITCH ARM
2. SWITCH MUST ACTIVATE IN CCW DIRECTION.
3. WIRE IN NORMALLY CLOSED (NC) CONTACTS.
4. APPLY LOCTITE 242 REMOVABLE THREADLOCKING COMPOUND TO ITEMS #6.



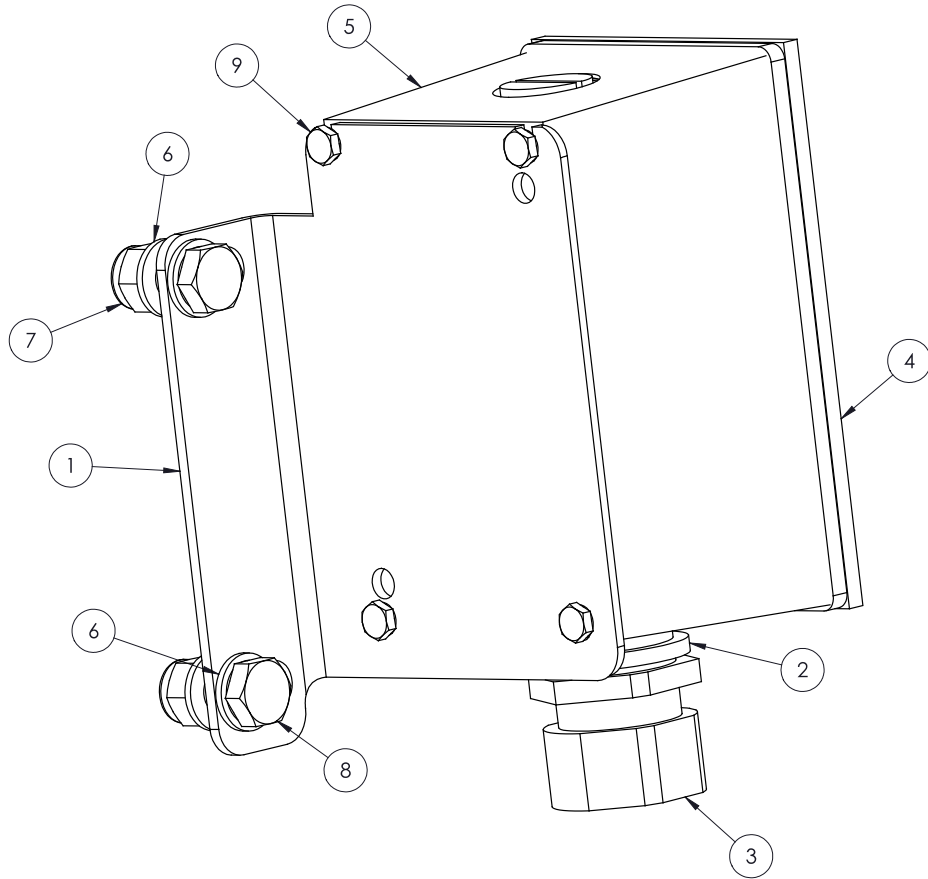
0260235

## Riser Lift Limit Switch – CE Only



## Platform AC Power

Item	Part No.	Qty.	Description
1	0162060	1	OUTLET BOX PLATE MTG
2	3040110	1	NUT, LKG .750 HUB
3	3040116	1	CONNECTOR, .75 .500-.625
4	3040180	1	BLANK WTHPRF COVER W/ GASKET
5	3220007	1	BOX ELECTRICAL OUTLET
6	5560613	4	WASHER, FLAT M8 DIN 125
7	5560727	2	NUT, HEX LKG M8-1.25
8	5563104	2	BOLT, HEXHD M8-1.25 20MM
9	5569978	4	SCREW, HEXHD 8-32 .500 THD CTG
10	0260061	1	HARNESS, 110V CABLE – NOT SHOWN



0260501

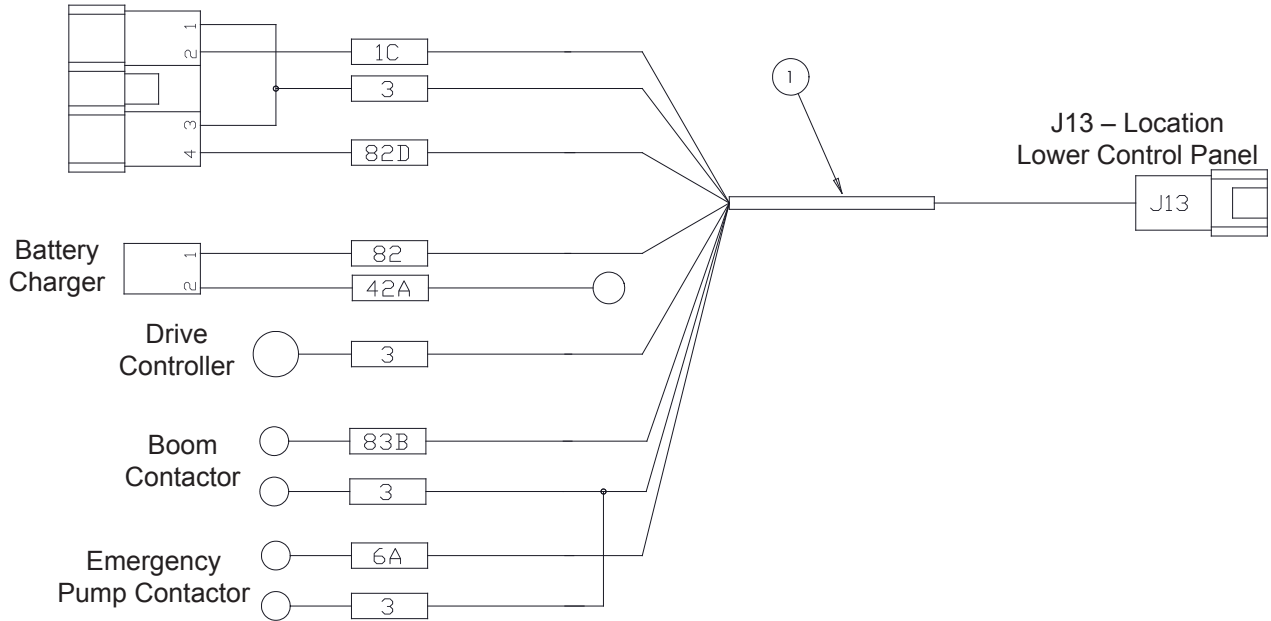
## Platform AC Power



## Chassis Wiring Harness

Item	Part No.	Qty.	Description
1	0260141	1	WIRING HARNESS, E CHASSIS

48VDC to 12VDC  
Converter Assembly



**Connector J17 Pin ID**

Pin	Wire #
A	82
B	1C
C	82D
D	6A
E	3
F	83D
G	3
H	3

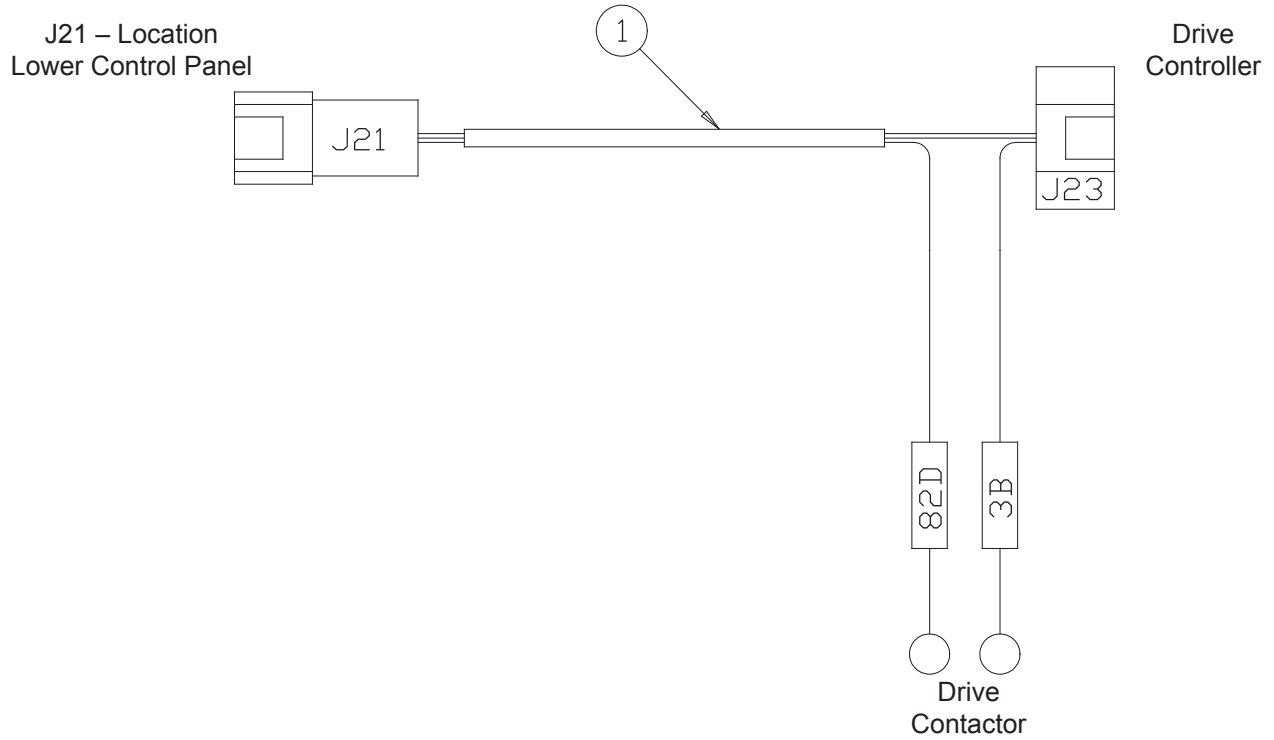
0260141

## Chassis Wiring Harness



## Lower Controls to Drive Controller Wiring Harness

Item	Part No.	Qty.	Description
1	0260144	1	WIRING HARNESS, DRIVE CONTROLLER



**Connector J21 and J23 Pin ID**

Pin #	Wire #	Description
1	82D	48V INPUT
2	17	FORWARD
3	18	REVERSE
4	83A	FOOT SW INPUT
5	34	CUT BACK SP #1
6	70	CUT BACK SP #2
7	159	BRAKE RELEASE
8	82D	LINE CONTACTOR
9	3D	LED FAULT LIGHT
10	204	ACCEL POT INPUT
11		NOT USED
12		NOT USED

0260144

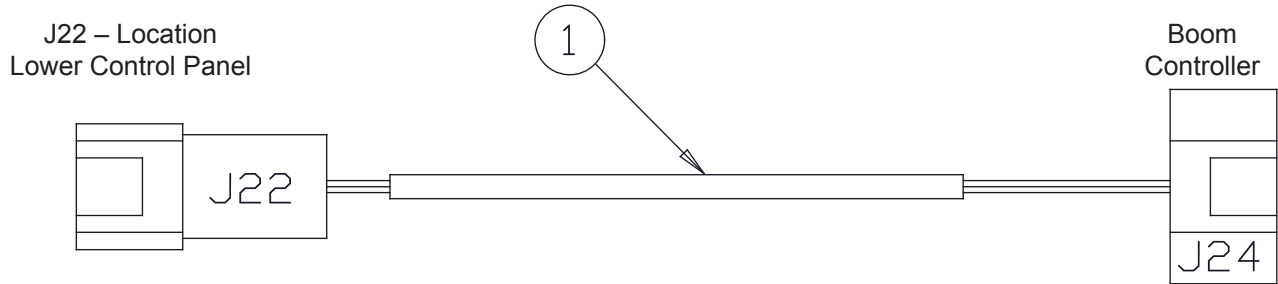
## Lower Controls to Drive Controller Wiring Harness





## Lower Controls to Boom Controller Wiring Harness

Item	Part No.	Qty.	Description
1	0260145	1	WIRING HARNESS, BOOM CONTROLLER



**Connector J22 Pin ID**

Pin #	Wire #	Description
1	82D	48V INPUT
2	3D	FAULT SIGNAL
3	160	FLOW A
4	162	FLOW "C" SIGNAL
5	161	FLOW "B" SIGNAL
6	163	FLOW "D" SIGNAL
7	164	FLOW "E" SIGNAL
8	16A	ACCEL POT INPUT
9		NOT USED
10		NOT USED
11		NOT USED
12		NOT USED

**Connector J24 Pin ID**

Pin #	Wire #	Description
1	82D	48V INPUT
2	160	FLOW A
3	162	FLOW "C" SIGNAL
4	161	FLOW "B" SIGNAL
5	163	FLOW "D" SIGNAL
6	164	FLOW "E" SIGNAL
7		NOT USED
8	3D	FAULT SIGNAL
9		NOT USED
10	16A	ACCEL POT INPUT
11		NOT USED
12		NOT USED

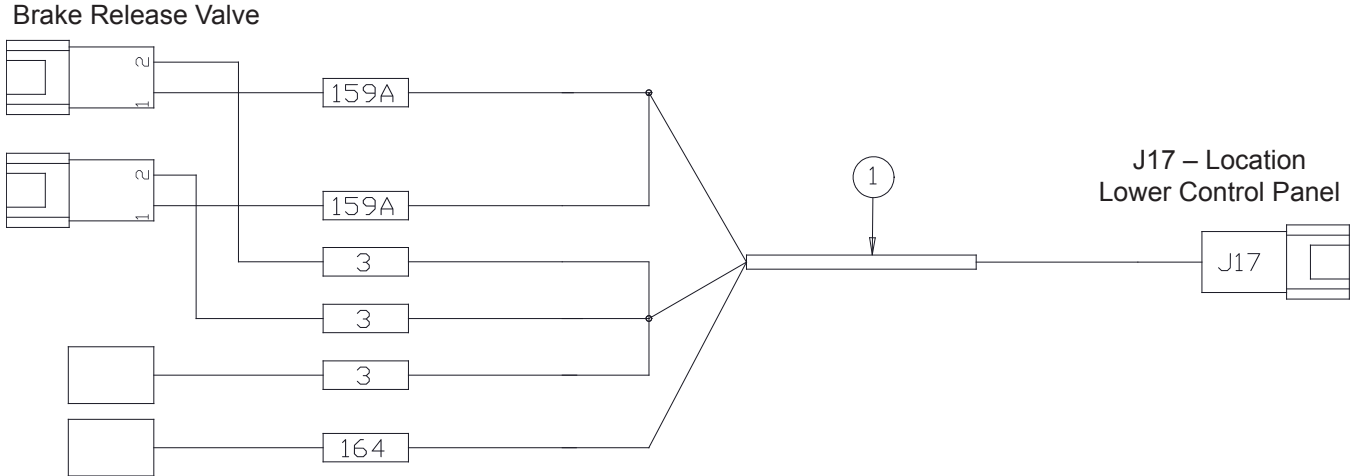
0260145

## Lower Controls to Boom Controller Wiring Harness



## Lower Controls to Brake Release Valve Wiring Harness

Item	Part No.	Qty.	Description
1	0260140	1	WIRING HARNESS, BRAKE RELEASE VALVE



**Connector J17 Pin ID**

Pin #	Wire #
1	164
2	159A
3	-
4	3

## Lower Controls to Brake Release Valve Wiring Harness



## Lower Controls to Level Sensor Wiring Harness

Item	Part No.	Qty.	Description
1	0260033	1	WIRING HARNESS LEVEL SENSOR

J15 – Location  
Lower Control Panel

Level Sensor

### Connector J15 and Level Sensor Pin ID

Pin #	Wire #	Description
A	1D	AUX CIRCUIT
B	73	TILT ALARM SIGNAL
C	3	GROUND

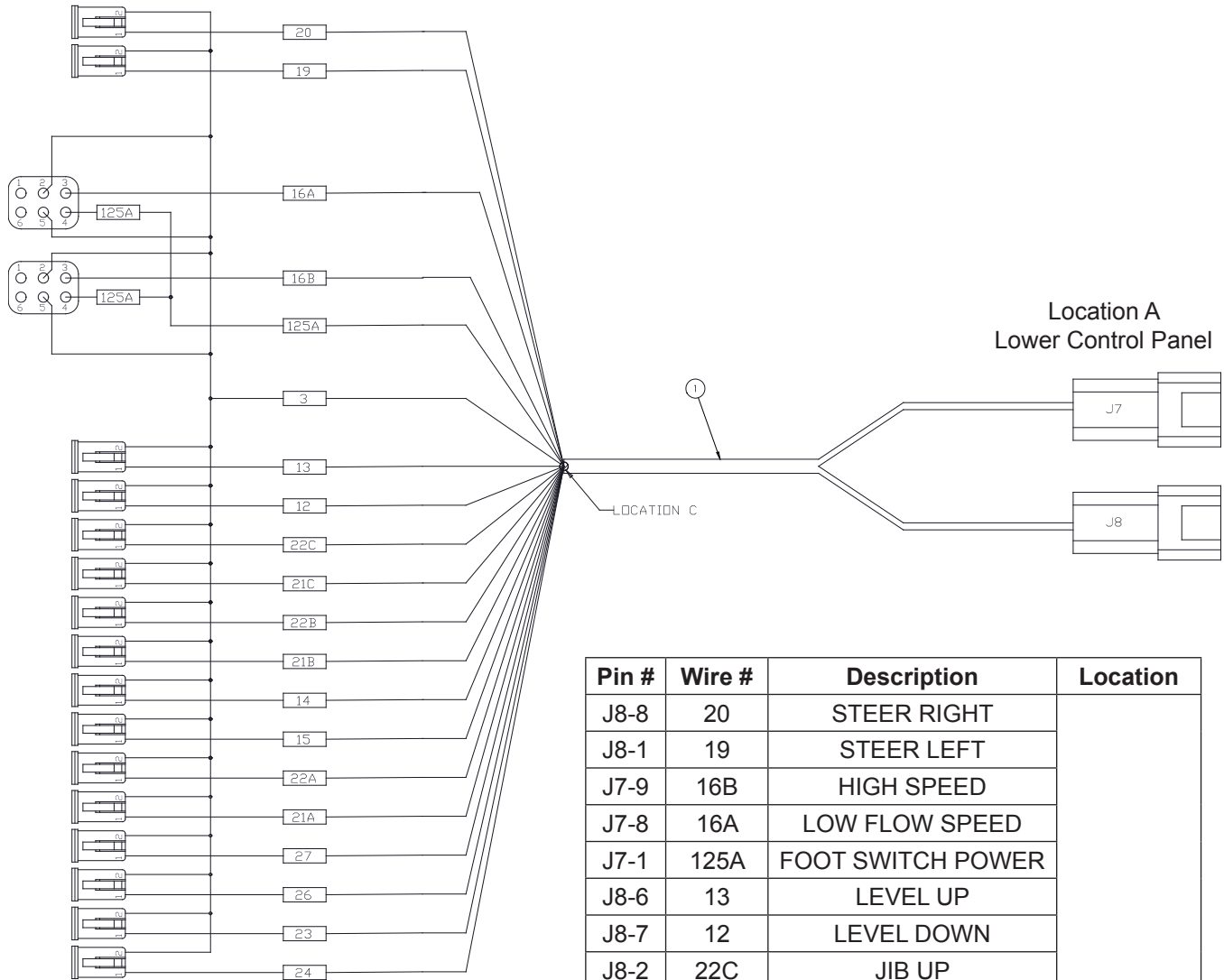
0260033

## Lower Controls to Level Sensor Wiring Harness



## Lower Controls to Boom Function Valve Wiring Harness

Item	Part No.	Qty.	Description
1	0260028	1	WIRING HARNESS, VALVE BLOCK



Location B  
Boom Function Valve

Location A  
Lower Control Panel

Pin #	Wire #	Description	Location
J8-8	20	STEER RIGHT	A and B
J8-1	19	STEER LEFT	
J7-9	16B	HIGH SPEED	
J7-8	16A	LOW FLOW SPEED	
J7-1	125A	FOOT SWITCH POWER	
J8-6	13	LEVEL UP	
J8-7	12	LEVEL DOWN	
J8-2	22C	JIB UP	
J8-3	21C	JIB DOWN	
J7-4	22B	MAIN BOOM UP	
J7-5	21B	MAIN BOOM DOWN	
J7-6	14	BOOM EXTEND	
J7-7	15	BOOM RETRACT	
J7-10	22A	RISER UP	
J7-11	21A	RISER DOWN	
J8-5	27	PLATF ROTATE CCW	
J8-4	26	PLATF ROTATE CW	
J7-3	23	SWING CCW	
J7-2	24	SWING CW	
J7-12	3	GROUND	

0260028

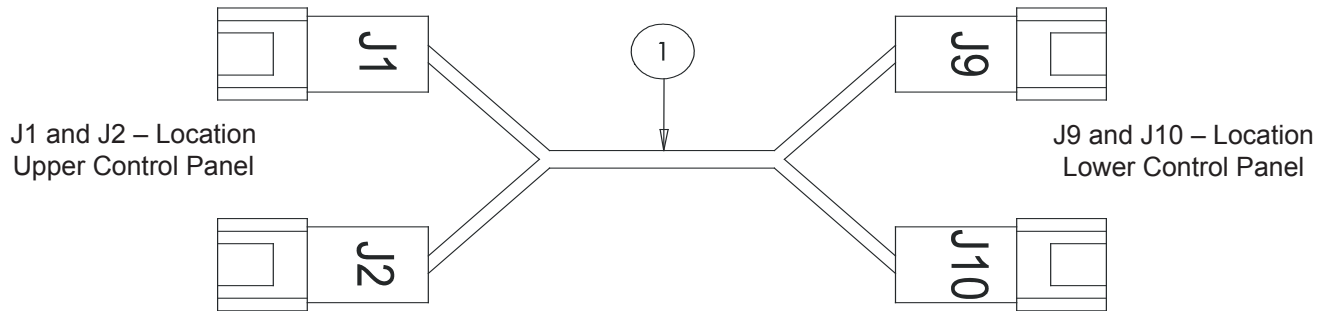
## Lower Controls to Boom Function Valve Wiring Harness





## Lower Controls to Upper Controls Wiring Harness

Item	Part No.	Qty.	Description
1	0260029	1	WIRING HARNESS, UPPER CONTROL FUNCTIONS



**Connector J1 and J9 Pin ID**

Pin #	Wire #	Rex #	Rex Color
1	111	12	BLACK/RED
2	24	11	BROWN/BLACK
3	23	17	BLACK/BLUE
4	22B	7	RED/BLACK
5	21B	19	ORANGE/BLUE
6	14	15	YELLOW/RED
7	15	6	BROWN
8	16A	3	BLUE
9	16B	4	ORANGE
10	22A	2	RED
11	21A	5	YELLOW
12	NONE	NONE	-

**Connector J2 and J10 Pin ID**

Pin #	Wire #	Rex #	Rex Color
1	19	16	BROWN/RED
2	22C	9	ORANGE/BLACK
3	21C	18	RED/BLUE
4	26	10	BROWN
5	27	1	BLACK
6	13	14	ORANGE/RED
7	12	13	BLUE/RED
8	20	8	BLUE/BLACK

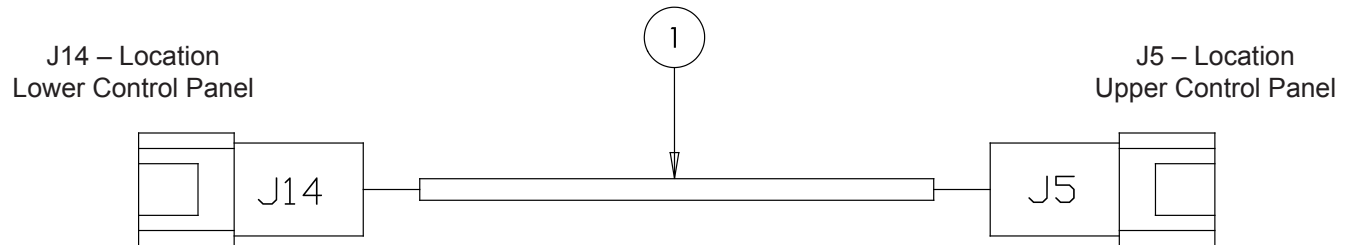
0260029

## Lower Controls to Upper Controls Wiring Harness



## Lower Controls to Upper Controls Wiring Harness – 12/8 Conductor

Item	Part No.	Qty.	Description
1	0260031	1	WIRING HARNESS 12/8 CONDUCTOR, UPPER CONTROL FUNCTIONS



**Connector J5 and J14 Pin ID**

Pin #	Wire #	Rex #	Rex Color
A	2	2	RED
B	2	7	RED/BLACK
C	3	1	BLACK
D	4	4	ORANGE
E	5	5	YELLOW
F	1D	8	BLUE/BLACK
G	83	3	BLUE
H	82A	6	BROWN

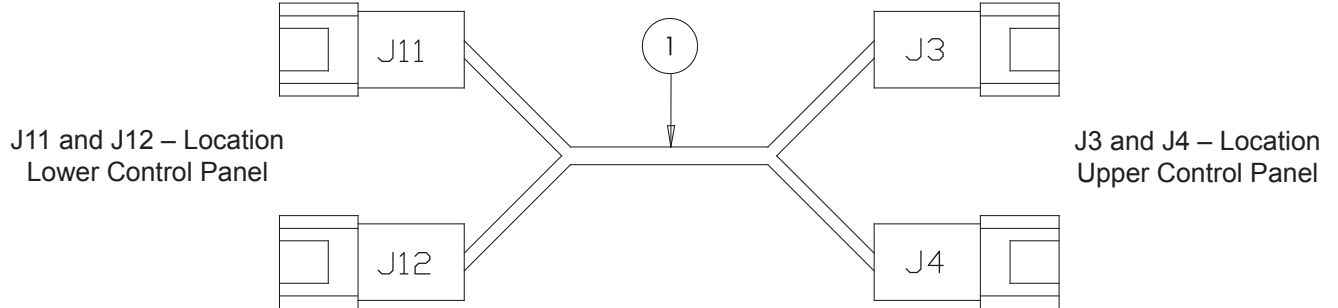
0260031

## Lower Controls to Upper Controls Wiring Harness – 12/8 Conductor



## Lower Controls to Upper Controls Wiring Harness – 18/19 Conductor

Item	Part No.	Qty.	Description
1	0260032	1	WIRING HARNESS 18/19 CONDUCTOR, UPPER CONTROL FUNCTIONS



**Connector J11 and J3 Pin ID**

Pin #	Wire #	Rex #	Rex Color
1	160	10	YELLOW/BLACK
2	6	11	BROWN/BLACK
3	162	17	BLACK/BLUE
4	34	7	RED/BLACK
5	163	19	ORANGE/BLUE
6	125/38A	15	YELLOW/RED
7	29	3	BLUE
8	NONE	NONE	-
9	159	4	ORANGE
10	3A/204	2	RED
11	170	5	YELLOW
12	17	12	BLACK/RED

**Connector J12 and J4 Pin ID**

Pin #	Wire #	Rex #	Rex Color
1	18	16	BROWN/RED
2	213	9	ORANGE/BLACK
3	73C	18	RED/BLUE
4	161	6	BROWN
5	169	1	BLACK
6	155C	14	ORANGE/RED
7	-	13	BLUE/RED
8	214	8	BLUE/BLACK

0260032

## Lower Controls to Upper Controls Wiring Harness – 18/19 Conductor



## Down Limit Switch Wiring Harness

Item	Part No.	Qty.	Description
1	0260036	1	WIRING HARNESS, DOWN LIMIT SWITCH

J18 – Location  
Lower Control Panel

Down Limit Switch

### Connector J18 and Down Limit Switch Pin ID

Pin #	Wire #	Description
1	1D	PWR TO LT SW
2	70	PWR FROM LT SW

0260036

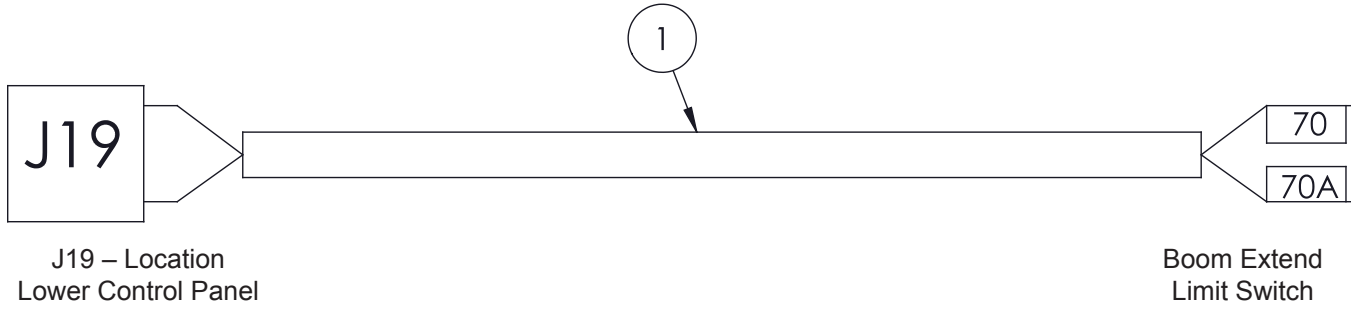
## Down Limit Switch Wiring Harness





## Boom Extend Limit Switch Wiring Harness

Item	Part No.	Qty.	Description
1	0260038	1	WIRING HARNESS, BOOM LIMIT SWITCH



**Connector J19 and Boom Extend Limit Switch  
Pin ID**

Pin #	Wire #	Description
1	70	PWR TO EXT SW
2	70A	PWR FROM EXT SW

0260038

## Boom Extend Limit Switch Wiring Harness



## Horn Wiring Harness

Item	Part No.	Qty.	Description
1	0260037	1	WIRING HARNESS, HORN

J20 – Location  
Lower Control Panel

Horn

### Connector J20 and Horn Pin ID

Pin #	Wire #	Description
1	29A	HORN
2	3	GROUND

0260037

## Horn Wiring Harness



## Motion Alarm Wiring Harness

Item	Part No.	Qty.	Description
1	0260484	1	WIRING HARNESS, MOTION ALARM

J23 – Location  
Lower Control Panel

Motion Alarm

### Connector J23 and Motion Alarm Pin ID

Pin #	Wire #	Description
1	39	MOTION ALARM
2	3	GROUND

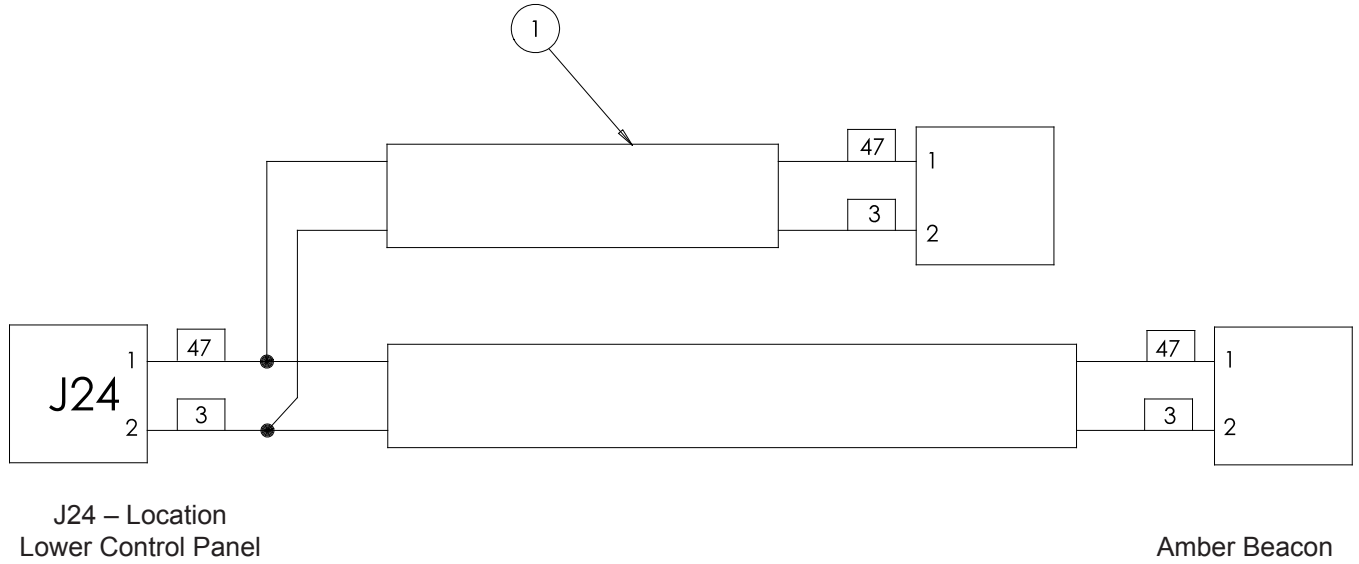
0260484

## Motion Alarm Wiring Harness



## Amber Beacon Wiring Harness

Item	Part No.	Qty.	Description
1	0260429	1	WIRING HARNESS, AMBER BEACON



0260429

## Amber Beacon Wiring Harness





## Platform Foot Switch Wiring Harness

Item	Part No.	Qty.	Description
1	0260142	1	WIRING HARNESS, PLATFORM FOOT SWITCH

J6 – Location  
Upper Control Panel

Foot Switch

### Connector J6 and Foot Switch Pin ID

Pin #	Wire #	Description
1	2B	PLTF PWR (12V)
2	83	FT SW SIGNAL (48V)
3	9	PWR TO PLTF CTR
4	82A	PLTF OWR (48V)

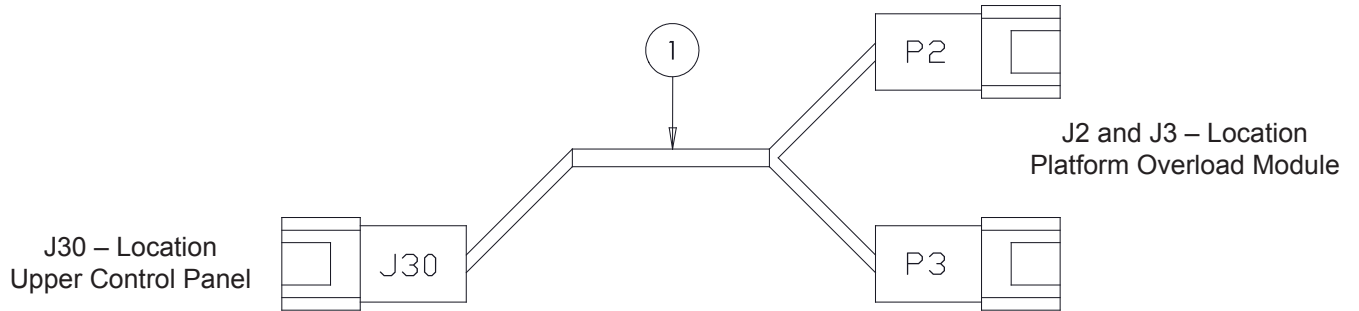
0260142

## Platform Foot Switch Wiring Harness



## Platform Overload Module Wiring Harness

Item	Part No.	Qty.	Description
1	0260210	1	WIRING HARNESS, PLATFORM OVERLOAD MODULE



**Connector J30 Pin ID**

Pin #	Wire #	Description
1	1D	AUX POWER
2	3	GROUND
3	170	HI RANGE
4	213	FAILSAFE OUTPUT
5	214	OVERLOAD LAMP
6	29	HORN
7	-	-
8	-	-

**Connector P2 Pin ID**

Pin #	Wire #	Description
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	170	HI RANGE
11	3	GROUND
12	1D	AUX POWER

**Connector P3 Pin ID**

Pin #	Wire #	Description
1	-	-
2	29	HORN
3	214	OVERLOAD LAMP
4	213	FAILSAFE OUTPUT
5	-	-
6	-	-

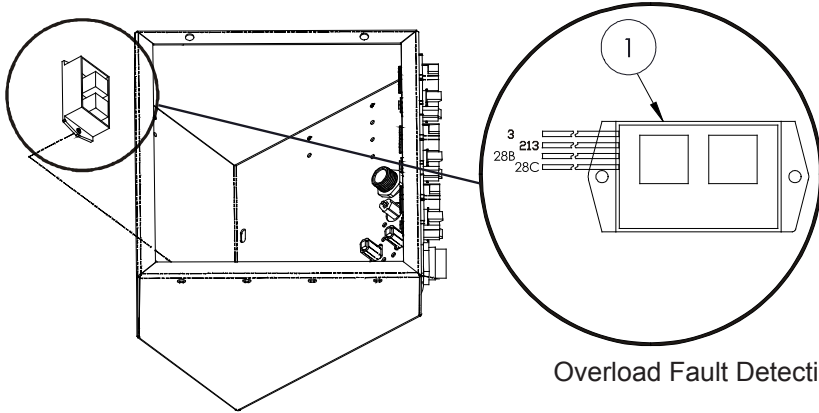
0260210

## Platform Overload Module Wiring Harness



# Platform Overload System at Lower Controls

Item	Part No.	Qty.	Description
1	3220096	1	OVERLOAD FAULT DETECTION

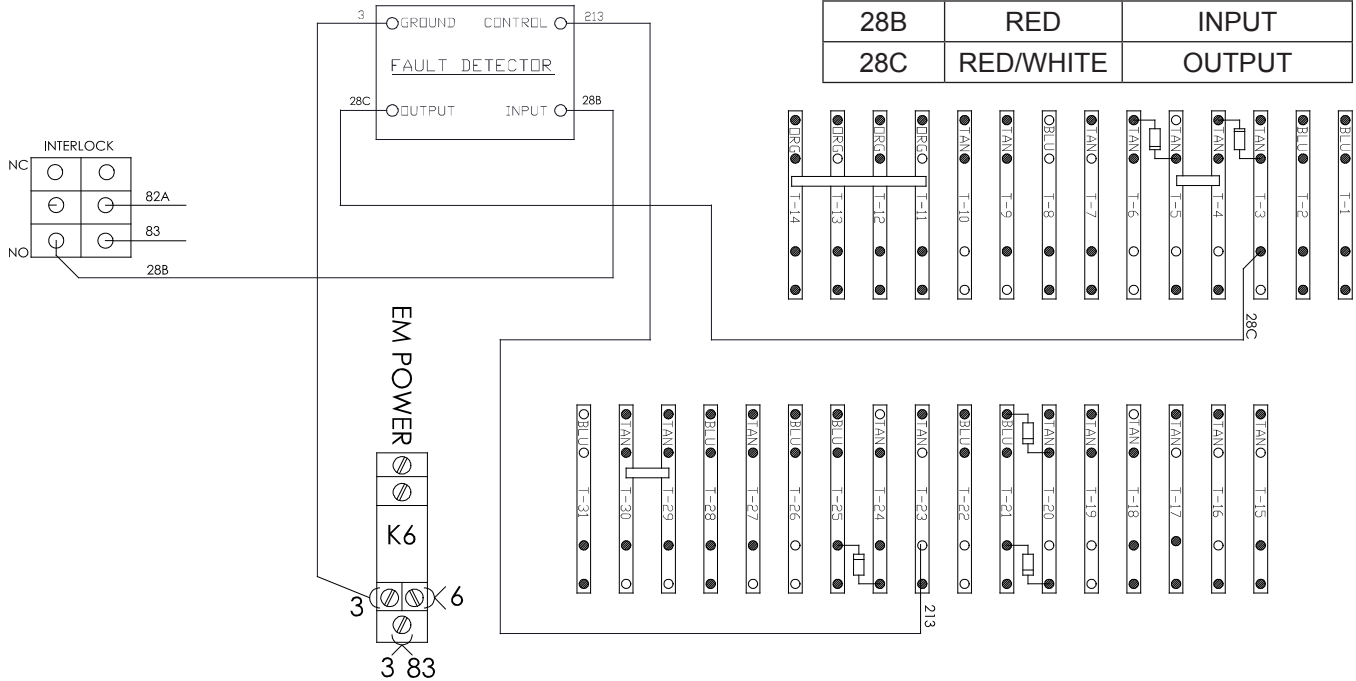


Lower Control Panel – Inside

Overload Fault Detection

### Overload Fault Detection Connections

Wire #	Color	Function
3	BLACK	GROUND
213	WHITE	CONTROL
28B	RED	INPUT
28C	RED/WHITE	OUTPUT



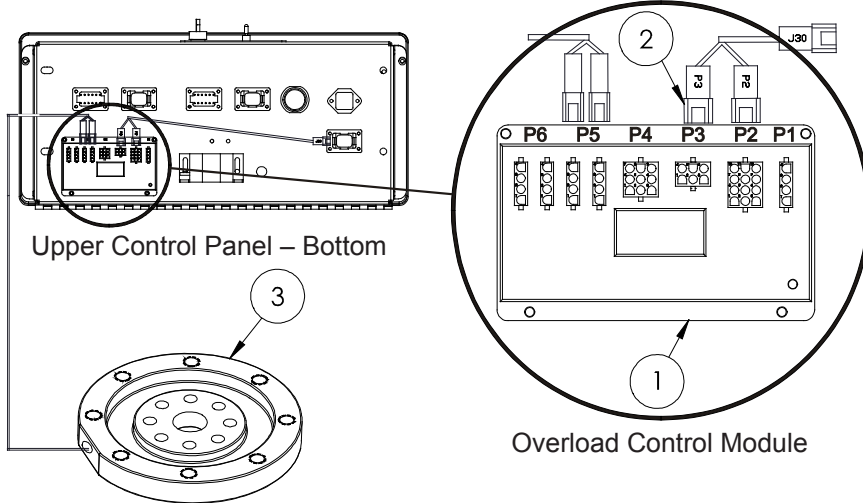
Overload Fault Detection Wiring – Lower Control Panel

# Platform Overload System at Lower Controls



## Platform Overload System at Upper Controls

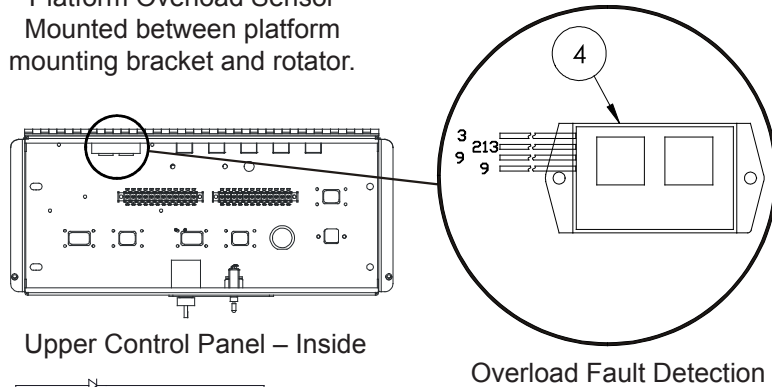
Item	Part No.	Qty.	Description
1	116347-000	1	OVERLOAD CONTROL
2	0260210	1	WIRING HARNESS, PLATFORM OVERLOAD MODULE
3	116346-000	1	PLATFORM OVERLOAD SENSOR (INCLUDES WIRING HARNESS)
4	3220096	1	OVERLOAD FAULT DETECTION



**Overload Control Connections**

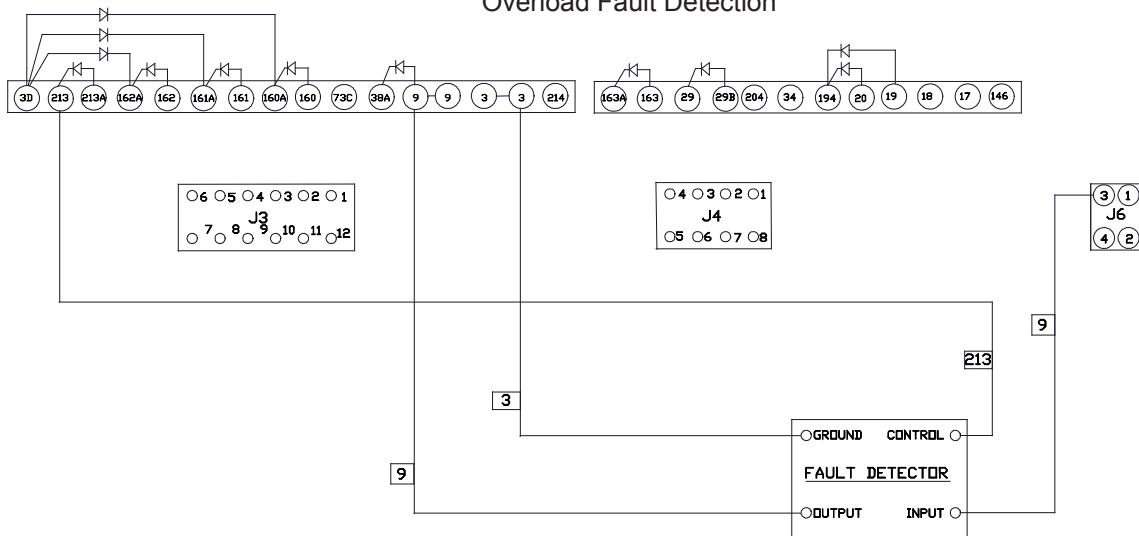
	Cable Function
P1	DIAGNOSTICS
P2	INPUT
P3	OUTPUT
P5	OVERLOAD SENSOR

Platform Overload Sensor Mounted between platform mounting bracket and rotator.



**Overload Fault Detection Connections**

Wire #	Color	Function
3	BLACK	GROUND
213	WHITE	CONTROL
9	RED	INPUT
9	RED/WHITE	OUTPUT

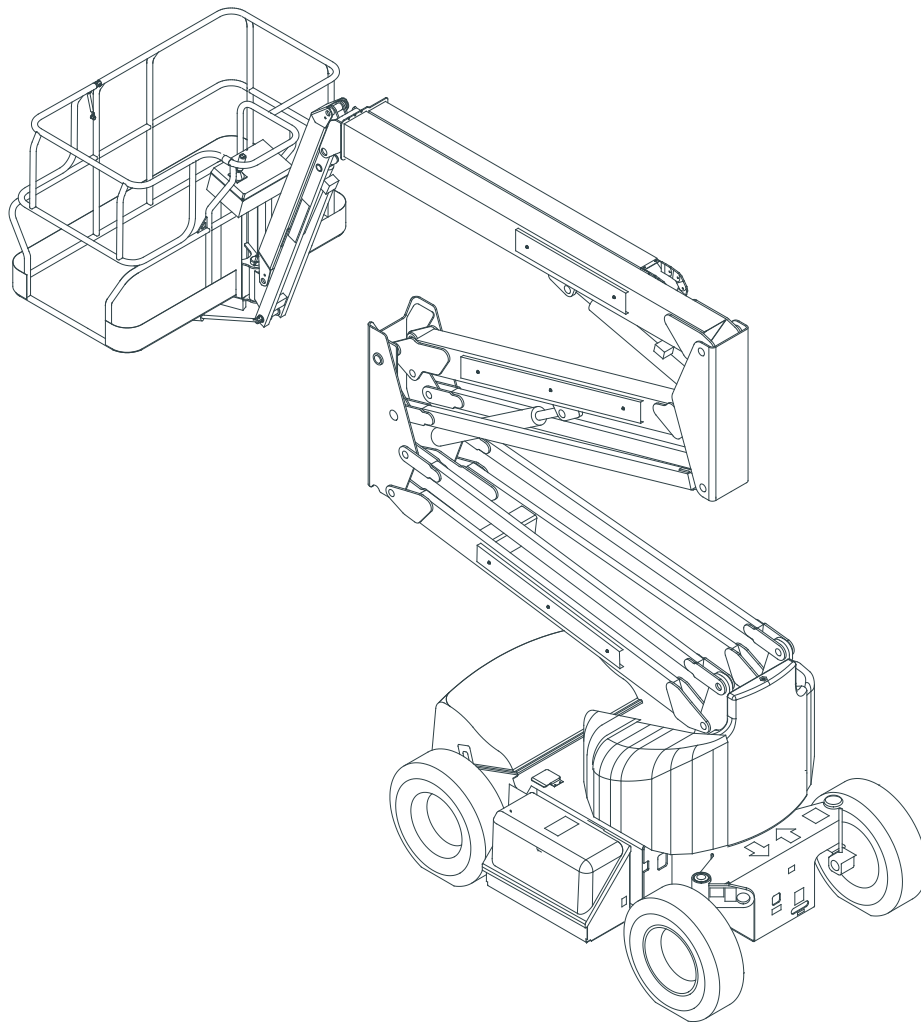


## Platform Overload System at Upper Controls





# *Options*



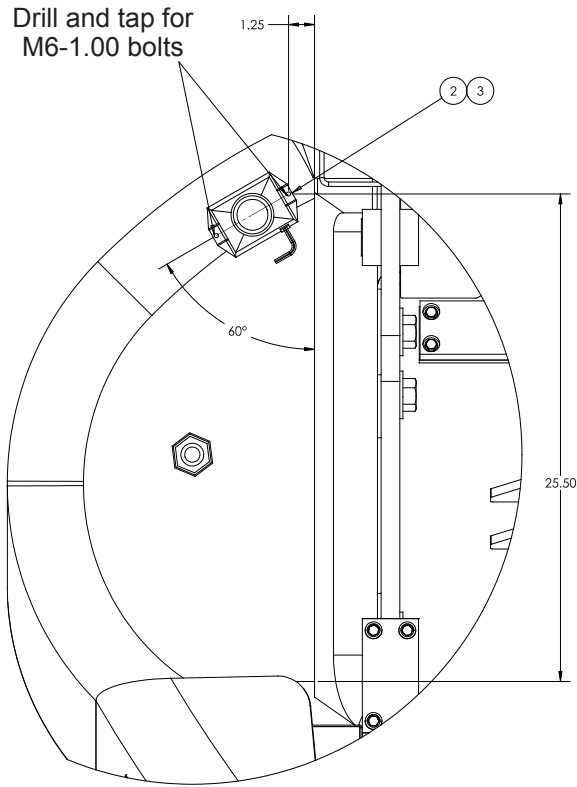
# **AB46E**

**UpRight**

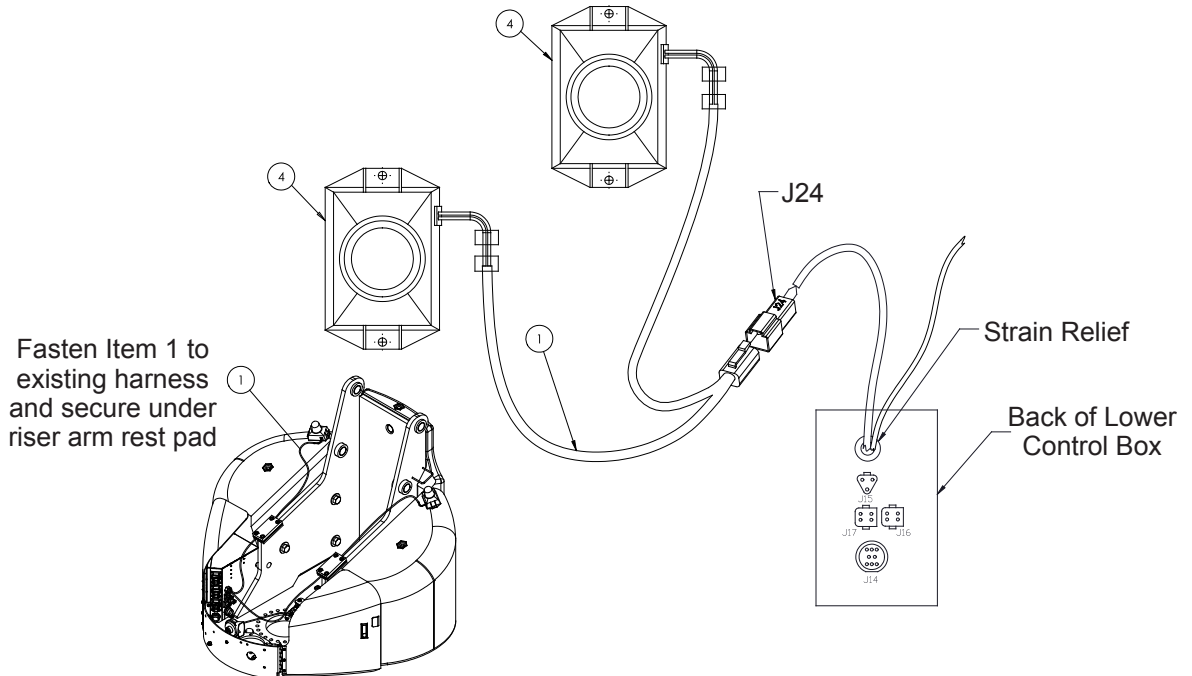
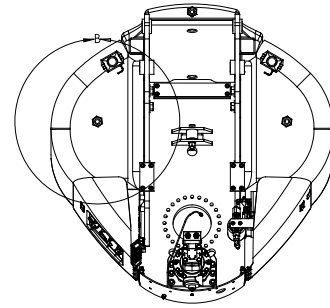


## Dual Amber Beacon

Item	Part No.	Qty.	Description
1	0260429	1	WIRE HARNESS, BEACON (REFER TO ELECTRICAL – 69)
2	975209	4	BOLT, HEXHD M6-1.00 18MM
3	5560664	4	WASHER, LOCK M6
4	0361297	2	FLASHING LIGHT ASSEMBLY



Detail B



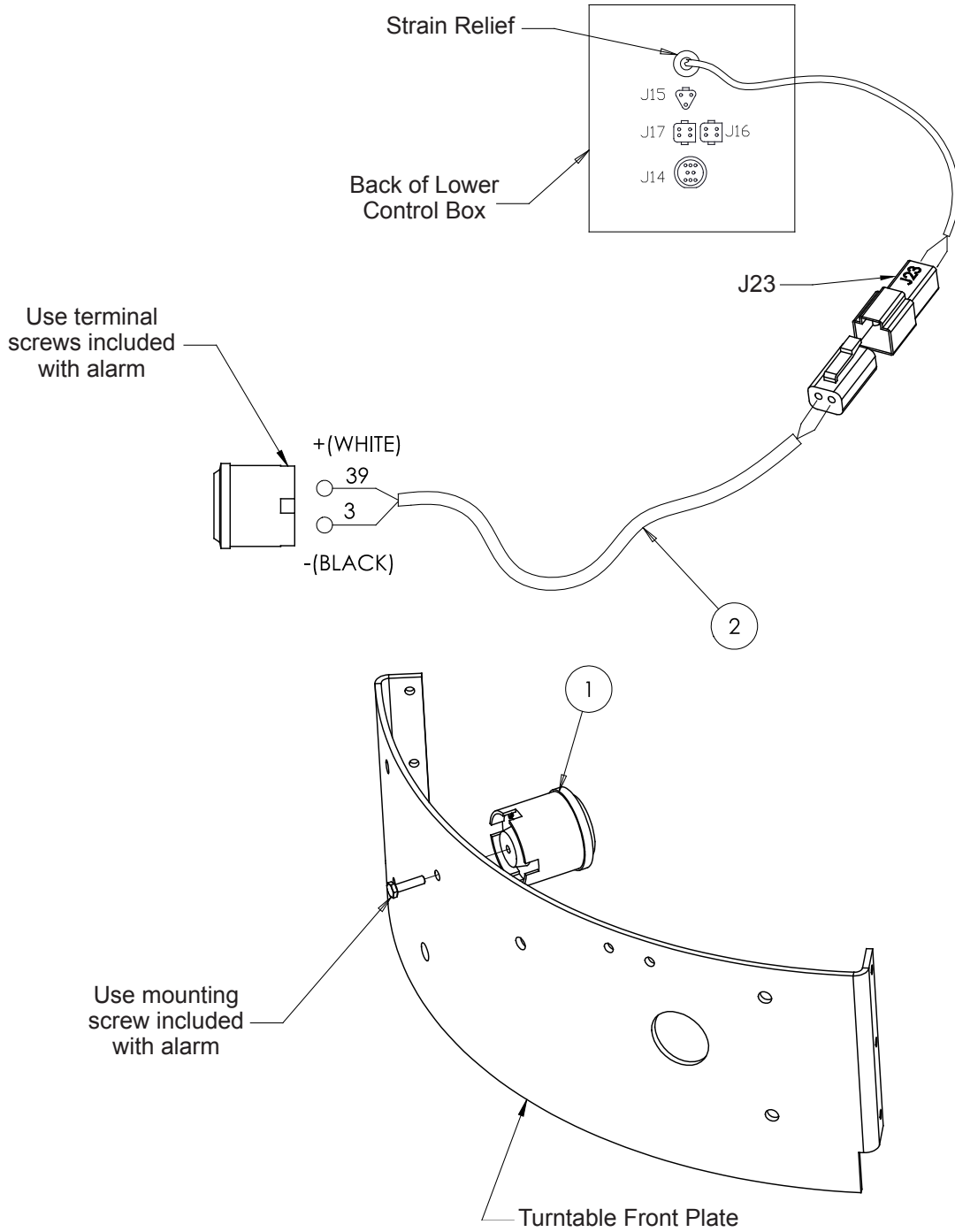
0260259

## Dual Amber Beacon



# Motion Alarm

Item	Part No.	Qty.	Description
1	3040593	1	ALARM, 97 DBA
2	0260484	1	WIRE HARNESS, MOTION ALARM (REFER TO ELECTRICAL – 57)

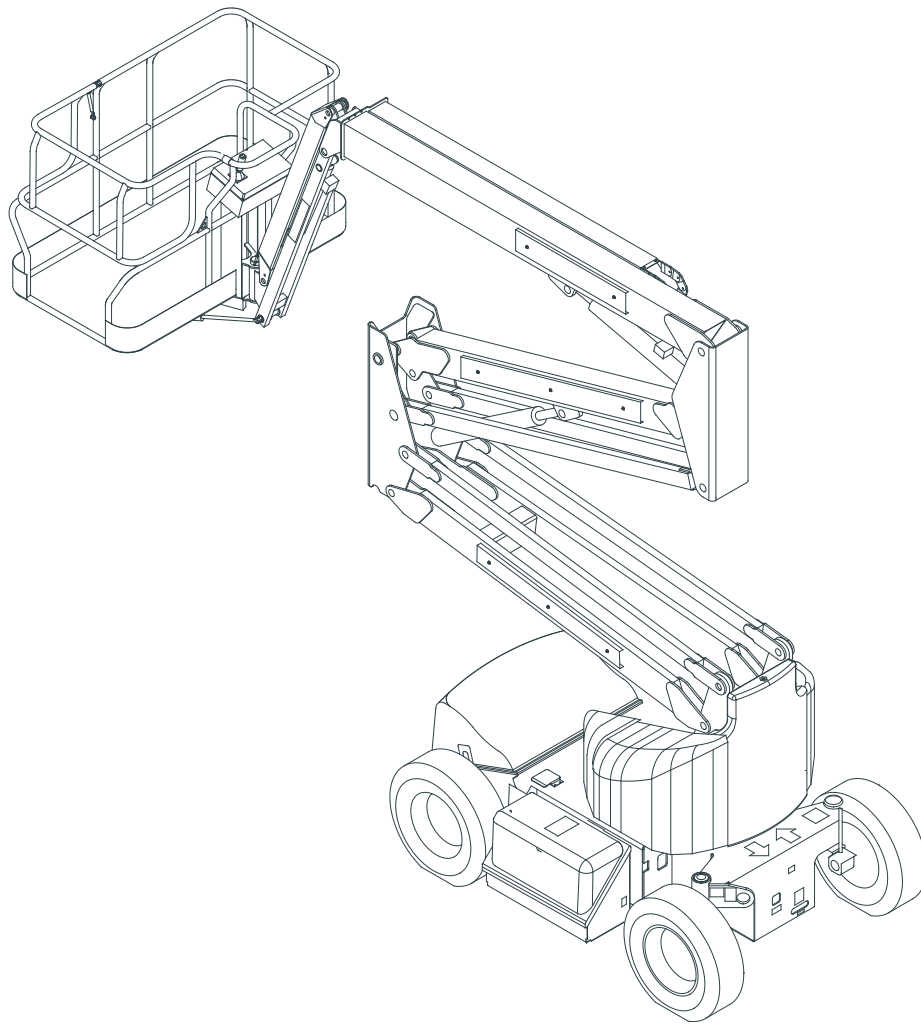


A26013A

# Motion Alarm



# ***Maintenance***



# **AB46E**

**UpRight**





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## Maintenance

Every person who maintains, inspects, tests or repairs the aerial platform must be qualified to do so. Maintenance functions must be performed by maintenance personnel who are qualified to work on the aerial platform.

### ⚠Caution

**Welding current can be very intense. Damage to electronic components can result. Connect the ground clamp as close as possible to the area being welded. Disconnect the battery cables and any microprocessors and control modules before welding on the machine.**

If it becomes necessary to weld aerial platform components as a method of repair, take all precautions to prevent damage to electronic circuitry and devices on the machine. This includes, but may not be limited to, disconnecting battery cables and electronic devices.

Do not modify this aerial platform without prior written consent of the UpRight Engineering Department. Modification may void the warranty, adversely affect stability or affect the operational characteristics of the aerial platform.

### Maintenance Schedules

The manufacturer has established a preventative maintenance schedule to detect any defective, damaged or improperly secured parts and provide information regarding lubrication and other minor maintenance items.

This schedule includes the following:

- Daily Prestart Inspection
- Frequent Inspection and Maintenance – Every 90 Days or 150 Hours
- Annual Maintenance – Every 500 Hours

The Daily Prestart Inspection must be performed by a trained operator. All other maintenance and inspection must be performed by a trained service technician only. Retain a copy of these forms for your records.

All placards and decals on the machine must be in place and legible. Use the Placards and Decals parts page in the Repair Parts section of this manual to check these placards and decals.

UpRight recommends that you make additional copies of the preventative inspection and maintenance checklists for your use in performing these inspections.

## ⚠Warning

**The potential for accident increases when operating an aerial platform that is damaged or malfunctioning. Death or serious injury can result from such accidents. Do not operate the aerial platform if it is damaged or malfunctioning.**

Repair all defects before returning the machine to service.

### General Information

The parts drawings located in the Repair Parts section are designed for use as a guide for proper disassembly of the machine and components, as well as, for parts replacement.

## ⚠Danger

**Hydraulic fluid escaping under pressure can have enough force to inject fluid into the flesh. Serious infection or reaction will result if medical treatment is not given immediately. In case of injury by escaping hydraulic fluid, seek medical attention at once.**

Always refer to the hydraulic system installation drawings and the electrical wiring diagram before removing or disassembling associated parts.

When disassembling or reassembling components, complete the procedural step in sequence. Do not partially disassemble or assemble one part, then start on another. Always check your work to assure that nothing has been overlooked.

Keep the following in mind when disassembling or assembling the machine.

- Always be conscious of weight.
- Never attempt to lift heavy objects without the aid of a mechanical device.
- Do not allow heavy object to rest in an unstable condition.
- Always make sure the work platform is in the stowed position, blocked or the weight removed by a suitable lifting device before removing any components from the machine.
- When raising a portion of the machine, be sure that adequate blocking is properly positioned. Do not depend solely on the lifting device to hold and secure weight.
- If a part resists removal, check to see if all fasteners, electrical wiring, hydraulic lines, etc., have been removed or that other parts are not interfering.

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Parts should be thoroughly inspected before restoring to service at the time of reassembly. Burrs, nicks or scratches may be removed from machines surfaces by honing or polishing with a #600 crocus cloth, followed by a thorough cleaning with an approved cleaning solvent, and blown dry with compressed air. Do not alter the contour of any part. If this operation does not restore the part to a serviceable condition, replace the part.

Replace all o-rings, seals and gaskets at reassembly. Use new roll pins or cotter pins. Dip all packing rings and seals in hydraulic oil before reassembling in cylinder and manifolds. Replace any part having imperfect threads. In general, machines that have been disassembled can be reassembled by reversing the order of disassembly.

The service life of a machine can be increased by keeping dirt and foreign materials out of the vital components. Shields, covers, seals and filters help to keep air and oil supplies clean. However, these items must be maintained on a scheduled basis in order to function properly.

Clean surrounding areas, as well as the opening and fittings before disconnecting air or oil lines. As soon as a line or component is disconnected, cap or cover all openings to prevent the entry of dirt or foreign materials.

New parts should remain in their container until they are ready to be used.

Clearly mark or tag hydraulic lines and electrical wiring connections when disconnecting or removing them from the machine. This will assure that they are correctly reinstalled.

Proper assembly is critical to the successful rebuilding of any machine. Carefully, inspect any parts which are to be reused. If in doubt, replace.

“Safety First” is a good slogan.

Replace any guards and protective devices that have been removed to carry out maintenance and repair work.

## Daily Prestart Inspection

Item	Inspect For	Ok
<b>Operator's Manual</b>	In place, all pages readable and intact	
<b>Electrical System</b>		
Batteries	Condition and charged for proper operation	
Battery fluid level and terminals	Proper level/clean, connectors tight	
Battery charger and condition indicator	Proper operation	
Cables and wiring harness	No wear or physical damage	
<b>Hydraulic System</b>		
Fluid level	Between full and add marks	
Fluid filter	Verify operation in the green zone	
Hoses, tubes and fittings	No leaks	
<b>Tires</b>		
Solid non-marking	Good condition	
<b>Wheels</b>	All wheel lug nuts present and properly torqued	
<b>Lower Control Station</b>		
Operating controls	Proper operation	
Emergency stop and emergency power	Shuts off lower controls/proper operation	
<b>Level Sensor</b>	Sounds tilt alarm	
<b>Flashing Light</b>	Proper operation	
<b>All Motion Alarm</b>	Sounds when machine is operated and/or driven	
<b>Structures</b>		
Weldments – Chassis, turntable, booms, platform, etc.	Welds intact, no damage or deformation	
Slide pads	In place, no damage or deformation	
Fasteners	In place and tight	
<b>Upper Control Station</b>		
Guardrail system and lanyard anchors	Welds intact, no damage or deformation	
Operating controls	Proper operation	
Emergency stop and emergency power	Shuts off upper controls/proper operation	
Horn	Sounds when activated	
Electrical power outlet – GFCI	Proper operation	
<b>Placards and Decals</b>	In place and readable	

Performed by: \_\_\_\_\_ Date: \_\_\_\_\_



## Frequent Inspection and Maintenance – Every 90 Days or 150 Hours

Item	Procedure	Information	Ok
<b>Chassis</b>			
Structural	Check for damage and cracked welds		
Steering cylinder pins and retaining bolts	Verify that all fasteners are in place		
Steering linkage	Check for proper operation		
Tires	Check for wear and damage		
Hydraulic tubes and hoses	Check for leaks, wear, and damage		
Torque drive and steer wheel lug nuts per placard on wheel	Torque lug bolts/nuts to proper value on machine placard		
Right drive motor	Check for leaks		
Left drive motor	Check for leaks		
<b>Turntable</b>			
Structural	Check for damage and cracked welds		
Torque turntable top bolts	Torque to proper value	190 ft lbs	
Torque turntable bottom bolts	Torque to proper value	190 ft lbs	
Hydraulic tubes and hoses	Check for leaks, wear, and damage		
Cowling	Check for wear/damage and that fasteners are in place and are tight		
Wire harness	Check for wear/damage and that fasteners are in place and are tight		
Tilt alarm	Check for proper operation		
<b>Lower Booms</b>			
Structural	Check for damage and cracked welds		
Boom lift cylinder retaining bolts	Verify that all fasteners are in place and are tight		
Boom lift cylinder and holding valve	Check for leaks, wear, damage, and for proper operation		
Riser lift cylinder forged pin retainer/ retaining bolt	Verify that all fasteners are in place and are tight		
Riser lift cylinder and holding valve	Check for leaks, wear, damage, and for proper operation		
Master level cylinder forged pin retainer	Verify that all fasteners are in place and are tight		
Hydraulic tubes and hoses	Check for leaks, wear, and damage		
Electrical Wires	Check for wear and damage		
<b>Left Hand Access Door</b>			
Boom control valve	Check for leaks, wear, damage, and for proper operation		
Boom circuit system pressure	Check maximum system pressure	2,700 to 2,800 psi	
Filter minder gauge	Check for proper operation		
<b>Battery Trays</b>			
Battery Terminals	Clean terminals and check cable connections		
Electrolyte	Check for proper fluid level	Add distilled water if necessary	
Cables and wiring harness	Check for wear and damage		
Battery charger	Check for proper operation	Ensure batteries are fully charged	
<b>Drive Control Compartment</b>			
Hydraulic pump	Check for proper operation		
Hydraulic oil reservoir	Check for wear/damage/leaks		
Hydraulic oil reservoir filler/ breather cap	Verify that all fasteners are in place and are tight		
Hydraulic oil reservoir fluid level	Check for proper level	Above 10°F (-13°C) Mobil DTE-13M, ISO VG32 Below 10°F (-13°C) Mobil DTE-11M, ISO VG15	

*Continued on next page...*

## Frequent Inspection and Maintenance – Every 90 Days or 150 Hours

Item	Procedure	Information	Ok
<b>Drive Control Compartment</b>			
Hydraulic oil return filter	Replace after the first 50 hours, every 90 days or 150 hours thereafter		
	Inspect filter for foreign matter that could indicate component wear		
Drive system control valve	Verify that all fasteners are in place and are tight		
<b>Upper Booms</b>			
Structural	Check for damage and cracked welds		
Electrical wires	Check for wear and damage		
Extension cylinder pins, snap rings, and forged pin retainers	Verify that all fasteners are in place and are tight		
Extension cylinder and holding valve	Check for leaks, wear, damage, and for proper operation		
Jib cylinder pin and retainer bolt	Verify that all fasteners are in place and are tight		
Jib cylinder and holding valve	Check for leaks, wear, damage, and for proper operation		
Slave level cylinder pin caps and retainer bolt	Verify that all fasteners are in place and are tight		
Slave level cylinder holding valves	Check for leaks, wear, damage, and for proper operation		
Hose carrier assembly	Check for residue buildup/proper operation		
Hydraulic hoses and tubes	Check for leaks, wear, and damage		
Platform rotator, pin and forged pin retaining system	Verify that all fasteners are in place and are tight		
Platform rotation holding valve	Verify that all fasteners are in place and are tight		
Rotator mounting bolts	Verify that all fasteners are in place and are tight		
Overload cell (if equipped)	Check for proper operation		
<b>Platform</b>			
Structural	Check for damage and cracked welds		
Lanyard anchors	Check for wear and damage		
Platform gates	Check for damage/proper operation		
Platform mounting bolts	Verify that all fasteners are in place and are tight		
Operator's Manual	Proper manual in document holder		
<b>Lower Control Station</b>			
Station selector switch in the lower controls position	Check for proper operation	With the selector in the lower controls position, the upper controls do not work	
Station selector switch in the upper control position	Check for proper operation	With the selector in the upper controls position, the lower controls do not work	
Start switch	Check for proper operation		
Drive fault light	Check for proper operation	The ground operation switch or foot switch must be depressed to check the drive fault light  If the drive fault light is flashing or not lit the machine will not drive	
Audible alarms	Check for proper operation		
Turntable rotation CW – CCW	Check for proper operation – full cycle	65 to 80 seconds for each direction	
Riser boom Up – Down	Check for proper operation – full cycle	Up: 25 - 30 sec    Down: 15 - 20 sec	
Main boom Up – Down	Check for proper operation – full cycle	Up: 25 - 30 sec    Down: 18 - 23 sec	
Jib boom Up – Down	Check for proper operation – full cycle	Up: 14 - 18 sec    Down: 20 - 25 sec	
Boom extension In – Out	Check for proper operation – full cycle	Ext: 12 - 16 sec    Ret: 26 - 30 sec	
Platform leveling Up – Down	Check for proper operation – full cycle		
Platform rotation CW – CCW	Check for proper operation – full cycle	Full cycle: 14 to 18 seconds	

*Continued on next page...*

## Frequent Inspection and Maintenance – Every 90 Days or 150 Hours

Item	Procedure	Information	Ok
<b>Lower Control Station</b>			
Emergency power, all functions	Check for proper operation		
Emergency stop	Check for proper operation		
Hour meter	Check for proper operation		
<b>Upper Control Station</b>			
Foot switch	Check for proper operation	Functions should be operational when foot switch is engaged	
Battery condition indicator	Check for proper operation		
Boom speed knob	Check for proper operation		
Horn	Check for proper operation		
Turntable rotation CW – CCW	Check for proper operation		
Riser boom lift Up – Down	Check for proper operation		
Main boom lift Up – Down	Check for proper operation		
Jib boom lift Up – Down	Check for proper operation		
Emergency power, all functions	Check for proper operation		
Emergency stop	Check for proper operation		
Gradual start to stop, drive/steer controls	Check for proper operation		
Drive speed limit switch, main boom lift	Check for proper operation		
Drive speed limit switch, tip boom extend	Check for proper operation		
Drive speed limit switch, riser boom lift – CE only	Check for proper operation		
110 volt AC power to platform	Check for proper operation		
Boom extension In – Out	Check for proper operation		
Platform leveling Up – Down	Check for proper operation		
Platform rotation CW – CCW	Check for proper operation		
Drive range – booms stowed	Check for proper operation	Slow speed only with boom raised	
Drive speed	Boom down and retracted High – 2.8 to 3.2 mph	50 ft in 10.6 to 12.1 seconds	
	Boom up or extended Low – 0.7 to 0.8 mph	50 ft in 42.6 to 48.7 seconds	
<b>Placards and Decals</b>			
	Check for damage and readability		
	Order replacements as necessary	Refer to Parts Manual for part numbers	
<b>Optional Equipment</b>			
Air line to platform	Check for proper operation		
All motion warning alarm	Check for proper operation		
Flashing light	Check for proper operation		

Performed by: \_\_\_\_\_ Date: \_\_\_\_\_

## Frequent Inspection and Maintenance – Every 90 Days or 150 Hours

Item	Procedure	Information	Ok
Daily maintenance	Perform maintenance as per schedule	Retain copy of checklist	
Preventive inspection maintenance checklist	Perform inspection, complete form	Retain copy of checklist	
Placards and decals inspection	Inspect using drawing and parts listing in Section 1 – Repair Parts Manual	Replace any missing or unreadable decals/placards	
Door hinges and latches	Lubricate	SAE 10W oil or spray lubricant	
Rotation bearing	Lubricate	Conoco Super Sta #2 Above 32° F Mobilgrease CM-P Below 32° F Mobilgrease CM-L	
Rotation bearing teeth and pinion	Lubricate	Mobil Mobiltac 375NC	
Gear hubs	Check fluid level, fill if low	Mobil Mobilube 80W-90	
Platform rotator	Check for proper operation	Repair or replace if not working properly	
Platform controller	Check smooth operation & speeds		
Batteries	Check specific gravity	1.260/1.275 at 80° F	
Charging system	Check operation		

Performed by: \_\_\_\_\_ Date: \_\_\_\_\_

## Frequent Maintenance – Every 180 Days or 300 Hours

Item	Procedure	Information	Ok
Platform overload system	Recalibrate		

Performed by: \_\_\_\_\_ Date: \_\_\_\_\_



## Annual Maintenance – Every 500 Hours

Item	Procedure	Information	Ok
<b>90 day or 150 hour maintenance</b>	Perform maintenance per schedule	Retain copy of checklist	
<b>Hydraulic oil reservoir</b>	Clean and replace fluid	Above 10° F Mobil DTE-13M Below 10° F Mobil DTE-11M	
<b>Hydraulic return filter</b>	Replace	After first 50 hours, then at recommended interval	
<b>Hydraulic reservoir suction filter</b>	Clean and reinstall		
<b>Hydraulic pressures</b>	Boom pump setting	Maximum pressure: 2,750-2,800 psi	
	Function pressures: check at manifold, except level	Steer right/left: 2,700-2,800 psi	
		Riser boom down: 1,600-1,700 psi	
		Main boom down: 1,600-1,700 psi	
		Extend: 1,600-1,700 psi	
		Jib Down: 1,600-1,700 psi	
		Rotate: 1,600-1,700 psi	
	Platform rotate: 1,500-1,600 psi		
	Level Pressure: install gauge between valve and slave cylinder	Level: 2,000-2,050 psi	
<b>Gear hubs</b>	Replace fluid	Mobil Mobilube HD 80W-90	
<b>Swing drive</b>	Replace fluid	Mobil Mobilube HD 80W-90	

Performed by: \_\_\_\_\_ Date: \_\_\_\_\_

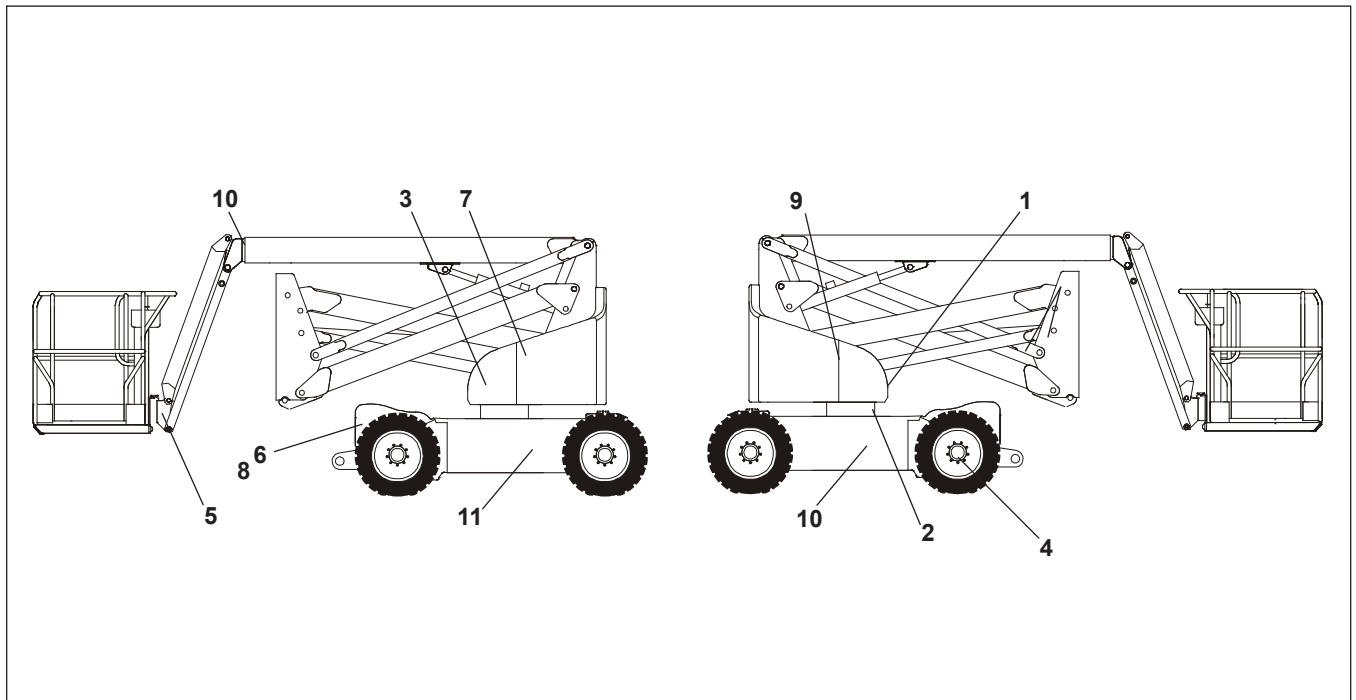


# Major Repairs

Date	Part Number	Part Description	Repair Performed



# Lubrication Points



## Lubrication

Specific lubricants as recommended by UpRight, should be used in maintaining the unit. If in doubt regarding the use of lubricants other than those listed, contact UpRight Customer Service Department for evaluation and recommendation.

Refer to the above lubrication illustration to locate component item numbers.

Service all fittings as indicated on the Frequent Maintenance schedule and lubrication illustration. Wipe away all excess lubricant from exposed surfaces. Over lubrication can collect dirt and foreign matter which acts as an abrasive. Lubrication of accessory equipment should be in accordance with the manufacturer's recommendations.

## Rotation Bearing

Rotation bearing – Item 1. Pressure gun lubricate bearing at recommended interval using lubricant as outlined in the maintenance schedule. Rotate while lubricating. The lubrication fitting is located on the rear of the turntable.

## Rotation Gear Teeth and Pinion

Rotation gear teeth and pinion – Item 2. Gear teeth and gear box pinion should be lubricated with a spray-on type open gear lubricant.

## Swing Drive

Swing drive – Item 3. To check oil level, remove check plug located on the side of the gear box. Unit is full if oil is level with bottom of fill hole or just starts to run out.

## Gear Hubs

Gear hubs – Item 4. To check and fill Gear hubs:

1. Rotate wheel until bottom of filler/drain plug is about 1 inch above horizontal centerline.
2. Remove plug with drive ratchet and extension.
3. Fill until lubricant is level with bottom of fill hole.

## Note

*Do not overfill gear hubs as they are not vented and need air space for expansion of oil to prevent damage to hubs.*

## Platform Rotator

Platform Rotator – Item 5. Platform rotators will require lubrication only if disassembled for repairs. Consult factory for proper lubricant if replacement of platform rotator is required.

## Hydraulic Oil Reservoir

Hydraulic oil reservoir – Item 6. The fluid level should be visible in the bottom of the sight gauge and should be checked with the machine in the stowed position.

The interior of the reservoir should be wiped out and cleaned each time the hydraulic oil is changed. The reservoir filler/breather cap should be removed and the cap strainer cleaned with Kerosene, fuel oil, or other solvent at this time.

It is absolutely necessary that only new, clean hydraulic oil is added.

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### Note

If it becomes necessary to add or use an oil other than the recommended fluid, it is important that it be compatible and equivalent to the factory fill. Local oil suppliers can generally furnish this information.

If questions still remain, contact UpRight Customer Service Department for further information.

### Hydraulic Oil Return Filter

Return filter – Item 7. The hydraulic oil return filter is located on the control valve behind the door on the right side of the turntable

The filter element is a throw-away type filter and should be changed after the initial break-in period (approximately 50 hours operation time).

The filter is equipped with a hydraulic pressure gauge to indicate the filter element condition. A by-pass relief within the filter base is provided and is set to by-pass at 25 psi. If pressure readings are above 25 psi, the filter should be changed.

The filter condition should be checked at the 90 day or 150 hour Preventive Inspection Maintenance interval or more frequently under extreme working conditions.

The filter condition indicator is accurate only when the pump is discharging maximum flow, which occurs only during full speed driving. This requires that the indicator be observed while the unit is in motion, booms fully retracted and in stowed position, drive range switch in “LO” position, and drive controller fully forward. Oil temperature should be at least 90° F (32° C).

## ⚠Warning

**Use extreme caution while observing the condition indicator because of the motion of the drive wheels. The condition indicator is best observed from outside of the tract of the vehicle wheels to avoid possible personal injury or machine damage.**

When changing the filter element, the oil inside of the filter element, should be examined for deposits of metal cuttings, which is present, could indicate excessive wear in some of the system components.

### Suction Strainer

Suction strainer – Item 8. Two 100 mesh strainers are located within the hydraulic oil reservoir, one on the inlet and one on the outlet, and filters the pump suction flow.

The strainers should be cleaned at the time interval shown in the maintenance schedule chart, using Kerosene, fuel oil or other solvent and a soft bristled brush.

Inspect the filter wire cloth for damage. Holes in the filter cloth leak dirt into the pump and other vital hydraulic components. If element is damaged, replace.

When the filter has been thoroughly cleaned, reinstall in suction line and tighten securely.

### Door Hinges and Latches

Door hinges and latches – Item 9. After lubricating, remove any excess lubricant or over spray so it will not collect dirt or debris.

### Slide Pads

Slide pads – Item 10. Check slide pads for excessive wear and replace as required. Slide pads do not require lubrication.

### Batteries

Batteries – Item 11. The batteries will have longer life if the water level is maintained and they are kept charged. In cold weather the batteries should be maintained at full charge to keep from freezing. Extremely low or dead batteries can freeze in cold weather. Make sure connections are clean and tight.

Make sure charging equipment is operating properly.

## ⚠Danger

**Lead-acid batteries produce flammable and explosive gases. Never allow smoking, flames or sparks around batteries. Lead-acid batteries contain sulfuric acid which will damage eyes or skin on contact. When working around batteries, always wear a face shield to avoid acid in eyes.**

If acid contacts eyes, flush immediately with clear water and get medical attention. Wear rubber gloves and protective clothing to keep acid off skin, if acid contacts skin, wash off immediately with clear water.

### Battery Care and Maintenance

The following information about battery care and maintenance was supplied by Interstate Batteries and is reprinted here with their permission.





1. New batteries need to be cycled several times before reaching full capacity (20-50 cycles, depending on type). Usage should be limited during this period.
2. Always recharge batteries fully, immediately after use. Batteries perform best when they are fully charged. More capacity and longer life will result from this practice.
3. The deeper the discharge, the fewer number of cycles a lead-acid battery will deliver. Deep discharges deteriorate the battery quicker than lighter shallow cycles.

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4. Battery cables should be intact and connectors kept tight at all times. Systematic inspection is recommended.
  5. Vent caps should be kept in place and tight during vehicle operation and battery charging.
  6. Batteries should be kept clean – free of dirt and corrosion – at all times. Always keep the top of batteries clean. A film on top of the battery can cause the current to migrate between the posts, accelerating self discharge.
  7. Never let the electrolyte level of a lead-acid battery fall below the plates. Lack of maintaining the electrolyte in a lead-acid battery causes damage to the exposed portion of the plate which reduces capacity.
  8. Always check electrolyte level before charging. Do not add water to individual cells unless plates are exposed. Batteries should be watered after charging unless the plates are exposed before charging. If exposed before charging, the plates should be covered by approximately 1/8" of water. Check water level after charging. Water should be kept 1/4" below the bottom of the fill tube in the cell cover.
  9. Water used to replenish batteries should be distilled or treated to not exceed 200 T.D.S. (total dissolved solids... parts per million). Particular care should be taken to avoid metallic solids (iron).
  10. A fully charged battery will give you the best and longest service. Be sure the batteries are fully charged before testing or using. A fully charged battery, without a drain or load, after the surface charge has dissipated, is 6.35 volts for a 6 volt battery.
  11. Batteries should not be discharged below 20% of capacity (approximately 1.8 volts per cell under normal operating load; 1.98 volts open circuit; 1.145 specific gravity). Proper battery sizing will help avoid excessive discharge.
  12. Battery chargers should be sized to fully charge batteries in an eight hour period. Chargers should be kept in proper operating condition.
  13. Do not use a mismatched charger of any type; i.e., a 12 volt charger on a 24 volt pack or a 24 volt charger on a 12 volt pack. An undersized charger will never get the job done, no matter how long it tries. An oversized charger will cause excess gassing and heat that could possibly result in a battery meltdown and/or explosion.
  14. Never charge a lead-acid battery with a sealed (gel cell) battery charger. The lead-acid battery needs higher voltage to finish its charge. Without it the battery will never come back to 100% and sulfation can occur.
  15. Always allow batteries to cool off after charging. The cooling time is very important because heat is generated during the recharge and discharge cycles. Without the cooling time the heat grows, accelerating grid corrosion which is one of the major causes of battery failure. Charging practice should enable batteries to cool before use.
  16. Deep cycle batteries need to be equalized periodically. Equalizing is an extended, low current charge performed after the normal charge cycle. It helps keep cells in balance. Actively used batteries should be equalized once per week. Manually timed chargers should have the charge time extended approximately 3 hours. Automatically controlled chargers should be unplugged and reconnected after completing a charge cycle.
  17. In situations where multiple batteries are connected in series, parallel or series-parallel, a replacement battery's should be of the same size, age and usage level as the companion batteries. Do not put a new battery in a pack that has 50 or more cycles. Either replace all the batteries with new batteries or install a good used battery's in place of the bad. New batteries should be given a full charge before use.
  18. Periodic battery testing is an important preventative maintenance procedure. Hydrometer readings of each cell (fully charged) give an indication of balance and true charge level. Imbalance could mean the need for equalizing and is often a sign of improper charging or a bad cell. Voltage checks (open circuit, charged and discharged) can locate a bad cell or weak battery. Load testing will pick out a bad cell when other methods fail. The point is to look for the abnormal. A weak cell or battery will cause premature failure of companion cells or batteries respectively.
  19. As batteries age, their maintenance requirements change. Generally their specific gravity is higher and gassing voltage goes up. This means longer charging time and/or higher finish rate (higher amperage at the end of charge). Usually, older batteries need to be watered more often and their capacity decreases.
  20. "Opportunity charging", a short partial charge during an extended duty cycle, is a controversial subject. Generally, the practice is a "crutch" to make up for undersized batteries. The correct approach is to install adequate battery capacity. If this is impossible because of lack of space in the battery compartment or extreme operating conditions (24 hour intermittent use, as an example), "opportunity charging" is better than excessive battery discharging. However, the practice can cause batteries to overheat, require more watering and usually will shorten battery life. "Opportunity charging" is a trade off; something to avoid if possible. One charging cycle per day is preferable.

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21. Extreme temperatures can substantially affect battery performance and charging. Cold reduces battery capacity and retards charging. Heat increases water usage and can result in overcharging. Very high temperature can cause “thermal run away” which may lead to an explosion or fire. If extreme temperature is an unavoidable part of an application, consult a battery/charger specialist about ways to deal with the problem.
  22. An overly discharged battery might need to be cycled a few times before it can recover fully. If a battery begins to heat before coming up to a full charge, it might be necessary to discharge the battery and recharge it a few times. The charge and discharge cycle might help the current acceptance of the battery and facilitate its recovery to a usable condition.
  23. Inactivity can be harmful to deep cycle batteries. If they sit for several months, a “boost” charge should be given – more frequently in warm climate (about once a month) than in cold (every 2-3 months).
  24. Never store a battery in a discharged state. The sulfate that forms during discharge can make the battery impossible to recharge fully.



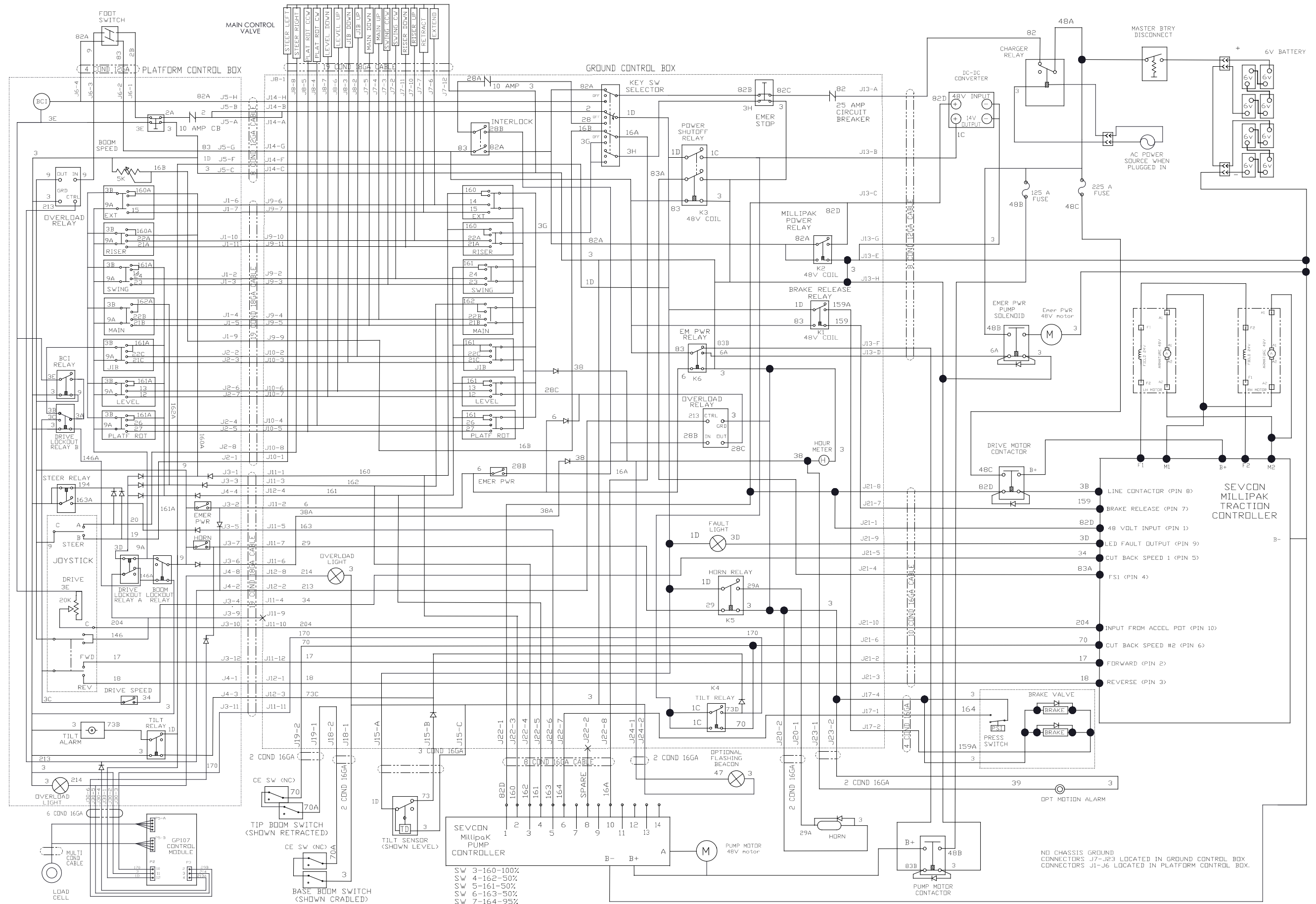
## Fastener Torque Chart

Bolt Grade	SAE Grade 1 or 2	SAE Grade 5	SAE Grade 6	SAE Grade 8
Marking				
Definition	Indeterminate Quality	Minimum Commercial Quality	Medium Commercial Quality	Best Commercial Quality
Material	Low Carbon Steel	Medium Carbon Steel Tempered	Medium Carbon Steel Quenched and Tempered	Medium Carbon Alloy Steel Quenched and Tempered
Minimum Tensile Strength	64,000 psi.	105,000 psi	133,000 psi.	150,000 psi
Bolt Size	Recommended Torque Value (ft lbs)			
1/4	5	7	10	10.5
5/16	9	14	19	22
3/8	15	25	34	37
7/16	24	40	55	60
1/2	37	60	85	92
9/16	53	88	120	132
5/8	74	120	167	180
3/4	120	200	280	296
7/8	190	302	440	473
1	282	466	660	714

Torque chart information:

- Consult manufacturers' specific recommendations, when available.
- The chart may be used with both coarse and fine thread fasteners lightly lubricated.
- Increase torque by 20% when multiple tapered tooth (shake proof) lock washers are used.
- The torque values are given in foot-pounds.
- Inch/pound equivalent may be obtained by multiplying by 12.





A26006E

Electrical Schematic  
AB46E

Electrical  
Schematic - 1

1 2 3 4 5 6 7 8 9

F

E

D

C

B

A

Electrical  
Schematic - 2

**Electrical Schematic  
AB46E**

A26006D

1

2

3

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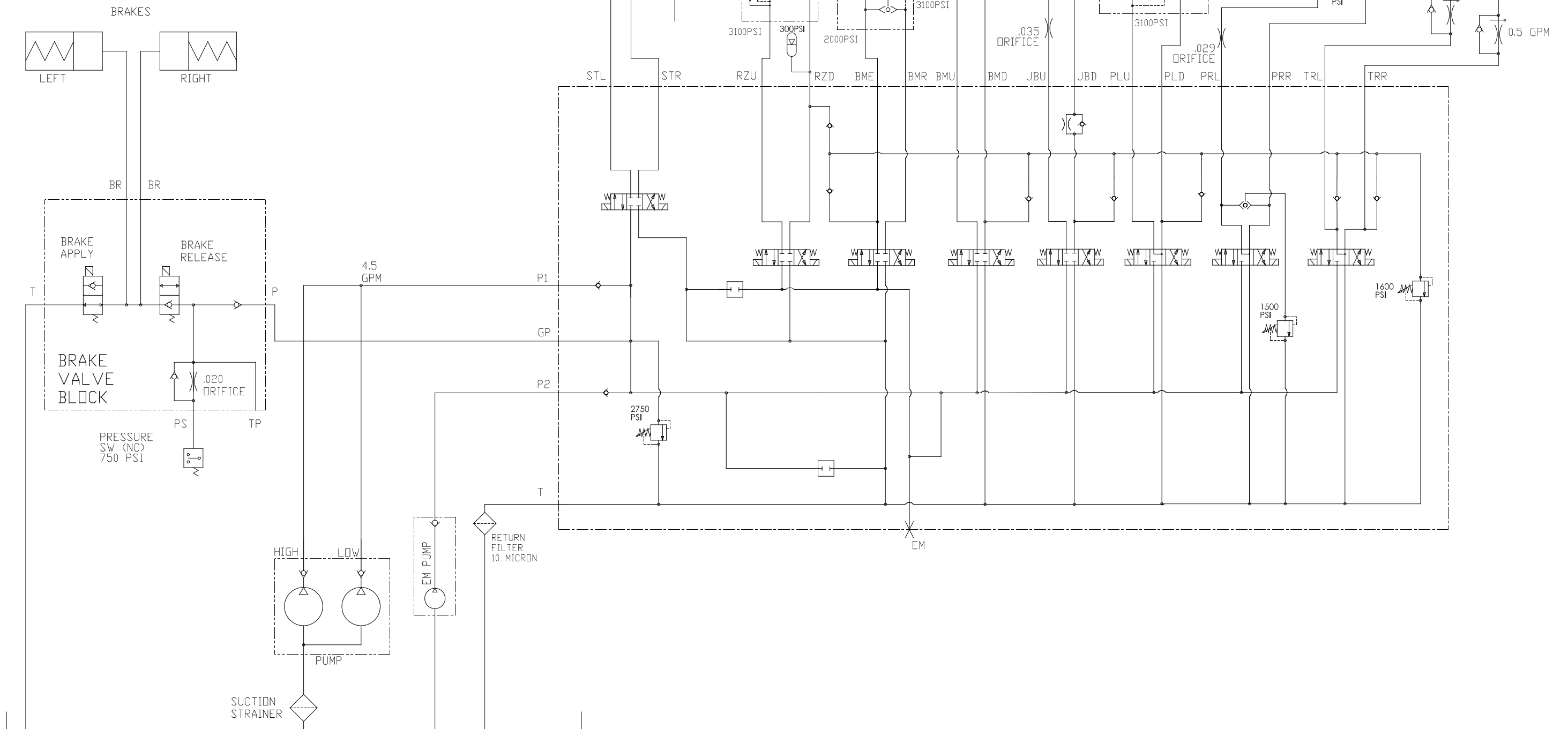
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Hydraulic  
Schematic – 2

**Hydraulic Schematic  
AB46E**

A26007B

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