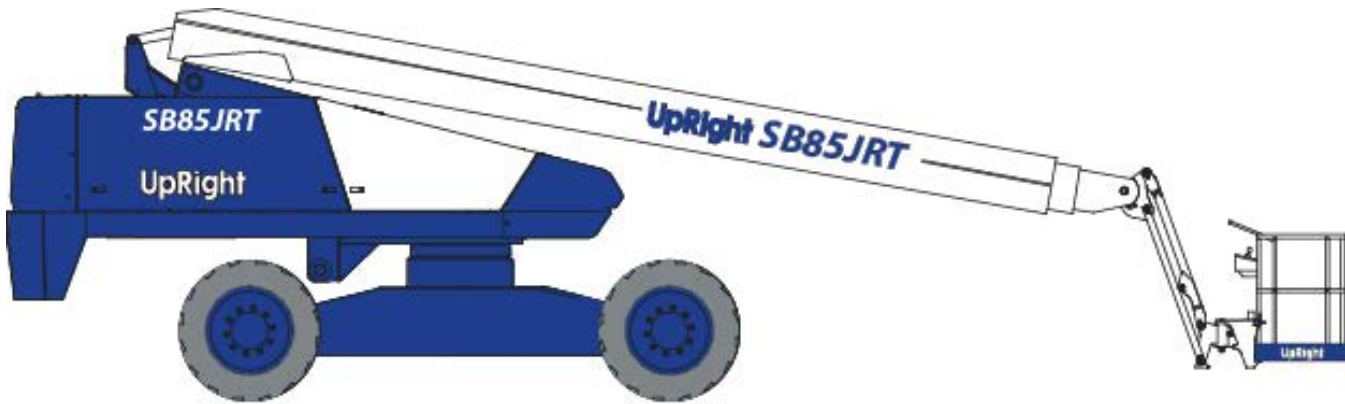


# UpRight

POWERED ACCESS



# SB85JRT

WORK PLATFORM



**Please note:**

The Upright SB85JRT is also sold as the Snorkel TB85J in some regions.

Therefore any reference to the Snorkel TB85J also applies to the UpRight SB85JRT.

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

***Snorkel***

**Europe**

TEL: +44 (0) 845 1550 058  
FAX: +44 (0) 195 2299 948

**UpRight**  
**POWERED ACCESS**

**USA**

TEL: +1 (785) 989 3000  
FAX: +1 (785) 989 3070

[www.upright.com](http://www.upright.com)

# General Information

## About this manual:

This manual covers TB80 machines manufactured from February 2001 to present date and TB85J machines manufactured from December 2004 to present date.

Sections 1 through 4 contain parts information that applies to both the TB80 and the TB85J. Section 5 contains parts pages that apply specifically to the TB85J. If you are looking for parts information about a TB85J, and there is not an applicable page in Section 5, refer to the appropriate page in Sections 1 through 4.

While Snorkel 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 Snorkel for our evaluation.

Your input is important to us and will be used in future printings of this manual.

Every person who repairs this machine must be qualified and authorized to do so.

### ▲CAUTION

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

This machine is covered by a limited warranty that specifically identifies items warranted by Snorkel and those items covered by original manufacturers warranty.

A copy of the Snorkel Limited Warranty is located on the inside of the back cover of this manual.

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

Snorkel International, Inc.  
P.O. Box 1160  
St. Joseph, MO 64502-1160 USA  
Phone: 1-800-255-0317

<http://www.snorkelusa.com>

## Abbreviations

The following abbreviations may be used in this manual:

AC. . . . . alternating current  
ANSI. . . . . American National Standards Institute  
CCA. . . . . cold cranking amps  
cm. . . . . centimeter  
DC. . . . . direct current  
EMS . . . . . envelope management system  
GFCI . . . . . ground fault circuit interrupt

LP . . . . . liquified petroleum  
LPG . . . . . liquified petroleum gas  
mm . . . . . millimeters  
ft . . . . . feet  
in . . . . . inch  
lbs . . . . . pounds  
no . . . . . number  
NPT . . . . . national pipe thread  
psi . . . . . pounds per square inch  
qty . . . . . quantity  
UL . . . . . Underwriters Laboratories Inc.

## Electrical Hazard

### ▲DANGER

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

**Do not go closer than the minimum safe approach distance as defined by the minimum Safe Approach Distance as defined by ANSI Standards.**

Regard all conductors as energized.

Allow for electrical wire sag and aerial platform sway.

If the work platform, 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 work platform 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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**To order service or repair parts**

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

- ✓ Machine model number
- ✓ Machine serial number
- ✓ Snorkel part number
- ✓ Description of part
- ✓ Quantity of parts required
- ✓ Your purchase order number
- ✓ Address for order to "Ship To"
- ✓ Your desired shipment method

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

Snorkel International, Inc.  
P.O. Box 1160  
St. Joseph, MO 64502-1160 USA

Phone: 1-800-255-0317  
Parts Fax: 1-785-989-3077

Attention: Parts Department

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

<http://www.snorkelusa.com>

**ANSI and OSHA compliance**

All owners and users of the aerial platform must read, understand, and comply with all applicable regulations. Ultimate compliance to OSHA regulations is the responsibility of the user and their employer.

ANSI publications clearly identify the responsibilities of all personnel who may be involved with the aerial platform. A reprint of the "Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors and Lessees of ANSI/SIA A92.5-1992 Boom-Supported Elevating Work Platforms" is available from Snorkel dealers or from the factory upon request.

Copies are also available from:

Scaffold Industry Association  
P. O. Box 20574  
Phoenix, AZ 85036-0574 USA

**Manuals**

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

The specific manuals for TB80 and TB85J are as follows:

- ✓ Operator's Manual  
Snorkel part number - 0112477
- ✓ Repair Parts Manual  
Snorkel part number - 0112476B
- ✓ ANSI Manual of Responsibilities  
ANSI/SIA A92.5-1992  
Snorkel part number - 0163200

**Record machine information here:**

Model number

---

Serial number

---

Date of purchase

---

Purchased from

---

Snorkel dealer or distributor

---

# Parts order form

---

Fill out completely and fax to 1-785-989-3077 attention: Parts Department

Date _____	Model _____
Company _____	Serial number _____
Address _____	Optional equipment _____
_____	Purchase order number _____
Contact name _____	Ship to _____
Phone number _____	_____
Fax number _____	_____
Account number _____	_____
Purchase order number _____	Ship by _____

Part number	Description	Quantity	Price

**Note:** Backordered parts will be shipped as soon as available by the same shipping method as the original order unless indicated below:

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

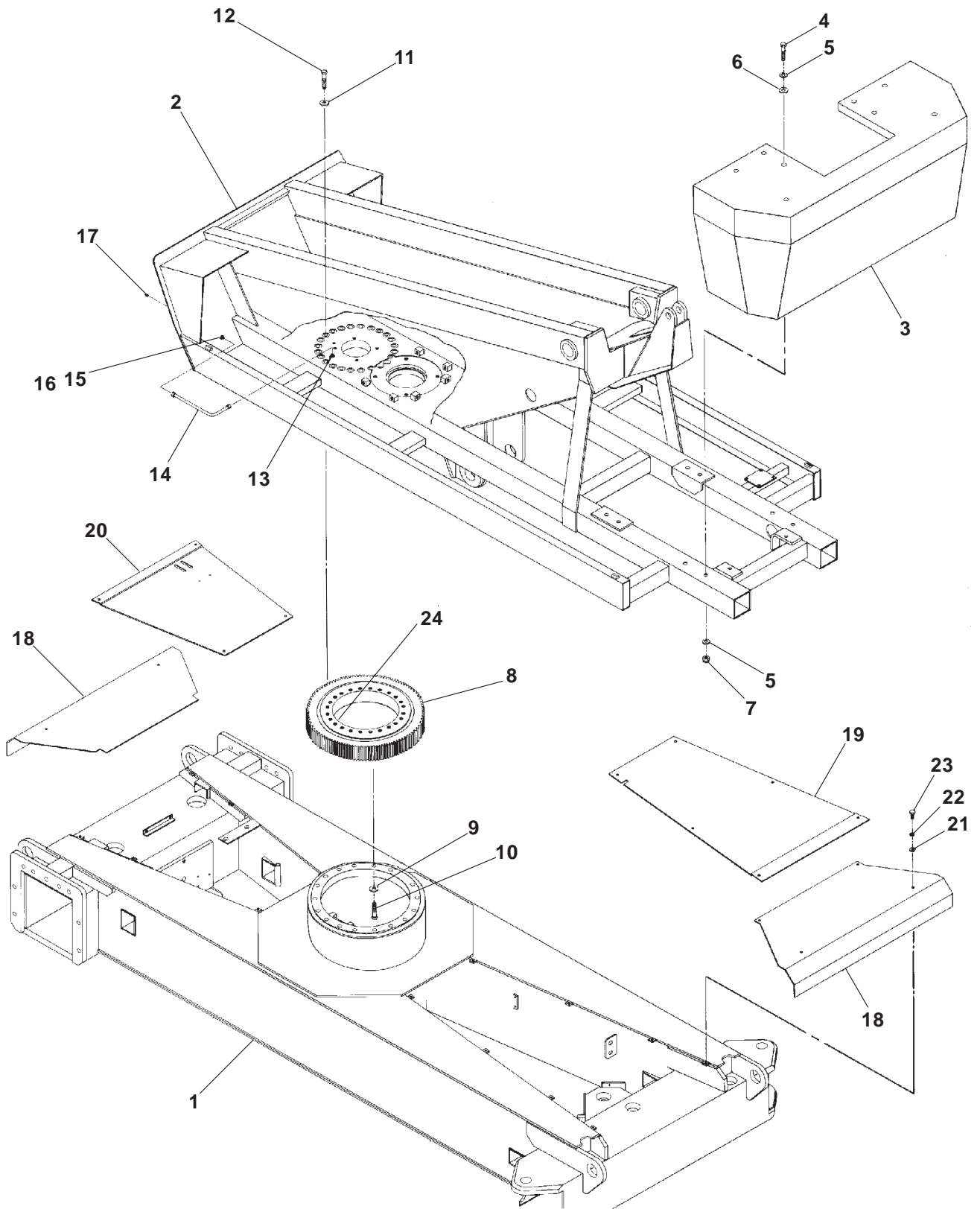




## Chassis/turntable

item	part no	qty	description
1		1	Chassis - (consult factory)
2		1	Turntable - (consult factory)
3		1	Counterweight - (consult factory)
4	971379	4	Capscrew 5/8-11 x 3-3/4 inch long hex head grade 8
5	5560678	8	Washer 5/8 medium flat
6	5560169	4	Washer 5/8 hard flat ASTM-F436
7	5560036	4	Nut 5/8-11 self locking
8	0110756	1	Rotation bearing gear
9	5560170	24	Washer 3/4 hard flat ASTM-F436
10	5560120	24	Capscrew special 3/4-10 self locking
	5560236	24	Capscrew special 3/4-10 self locking - TB85J
11	5560171	22	Washer 7/8 hard flat ASTM-F436
12	5560143	22	Capscrew special 7/8-9 self locking
13	3040295	1	Connector
14	0050137	1	1/4 inch hydraulic hose
15	5074401	1	Bulkhead locknut
16	5037102	1	Bulkhead connector
17	5570001	1	Grease fitting 1/8 NPT straight
18	0111191	2	Access cover, chassis ends
19	0111192	1	Access cover, steer
20	0111193	1	Access cover, drive
21	986299	14	Washer 3/8 medium flat
22	987119	14	Washer 3/8 medium lock
23	970469	14	Capscrew 3/8-16 x 1 inch long hex head grade 5
24	5038702	1	Male 45° elbow

# Chassis/turntable

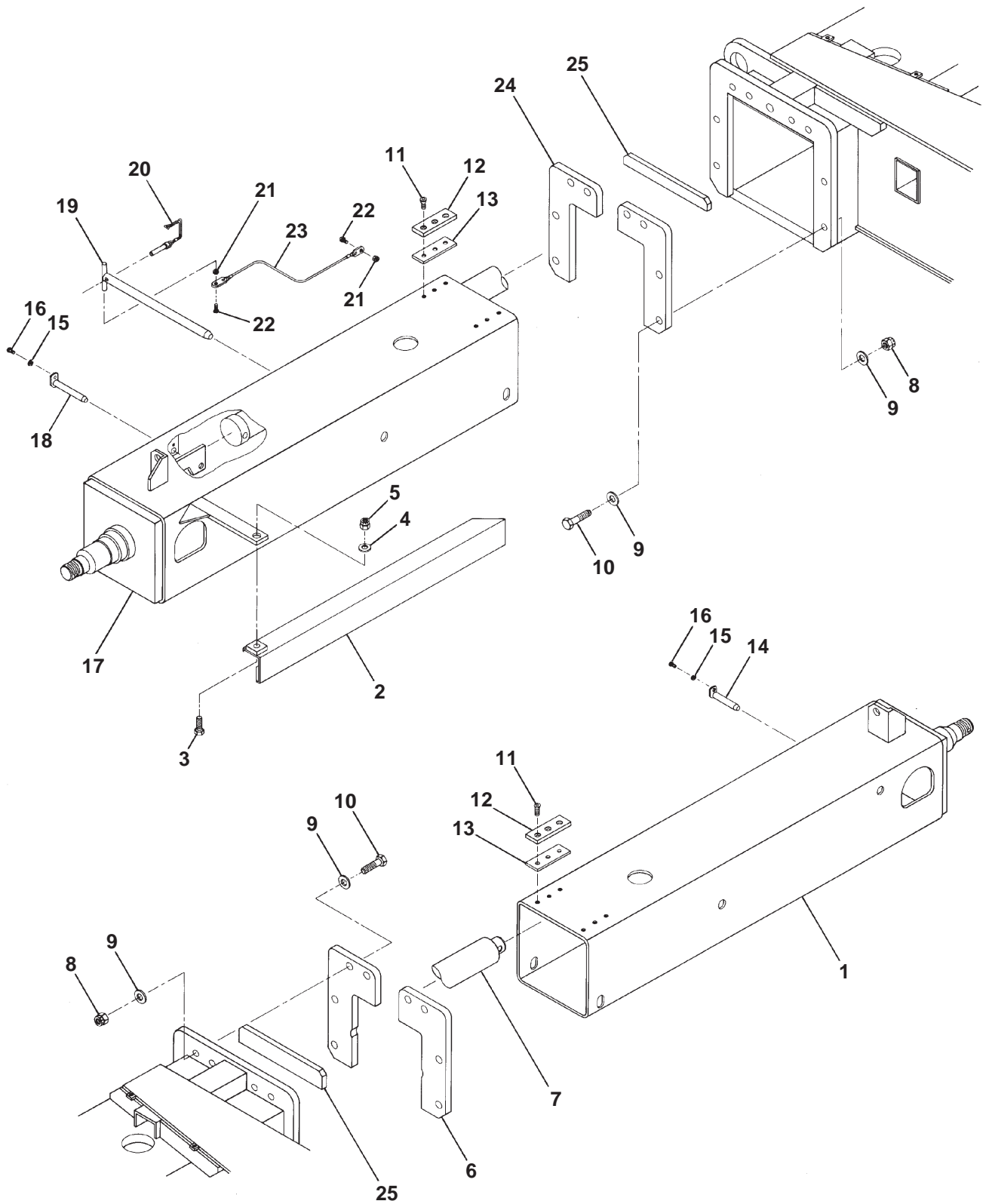


AWM00209

## Extendable axle, rear - 2 wheel drive

item	part no	qty	description
1	0111280	1	Axle, rear left hand
2	0110257	1	Hose carrier tube
3	971309	1	Capscrew 5/8-11 x 2 inch long hex head grade 5
4	5560169	1	Washer 5/8 hard flat ASTM-F436
5	5560036	1	Nut 5/8-11 self locking
6	0111221	2	Flange, left hand
7	0110281	1	Cylinder, axle extend - (see hydraulics section for parts breakdown)
8	5560035	16	Nut 3/4-10 self locking
9	5560170	32	Washer 3/4 hard flat ASTM-F436
10	5560676	16	Capscrew 3/4-10 x 3-1/2 inch long hex head grade 8
11	970439	12	Capscrew 3/8-16 x 5/8 inch long socket flat head
12	0080293	4	Slide pad
13			Slide pad shim, (use thickness required to fill gap)
	0070030	4	Shim, .030 inch thick
	0072567	4	Shim, .063 inch thick
	0090141	4	Shim, .090 inch thick
14	0110260	1	Pin, axle extend cylinder rod end
15	987109	2	Washer 5/16 medium lock
16	5560677	2	Capscrew 5/16-18 x 1/2 inch long socket button head
17	0111279	1	Axle, rear right hand
18	0110261	1	Pin, axle extend cylinder base end
19	0111362	1	Lock pin
20	5580002	1	Snapper pin
21	984069	2	Nut 1/4-20 hex
22	5560086	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
23	0110594	1	Pin lock retainer
24	0111222	2	Flange, right hand
25	0111303	1	Scraper pad, right hand axle
26	0111304	1	Scraper pad, left hand axle

# Extendable axle, rear - 2 wheel drive

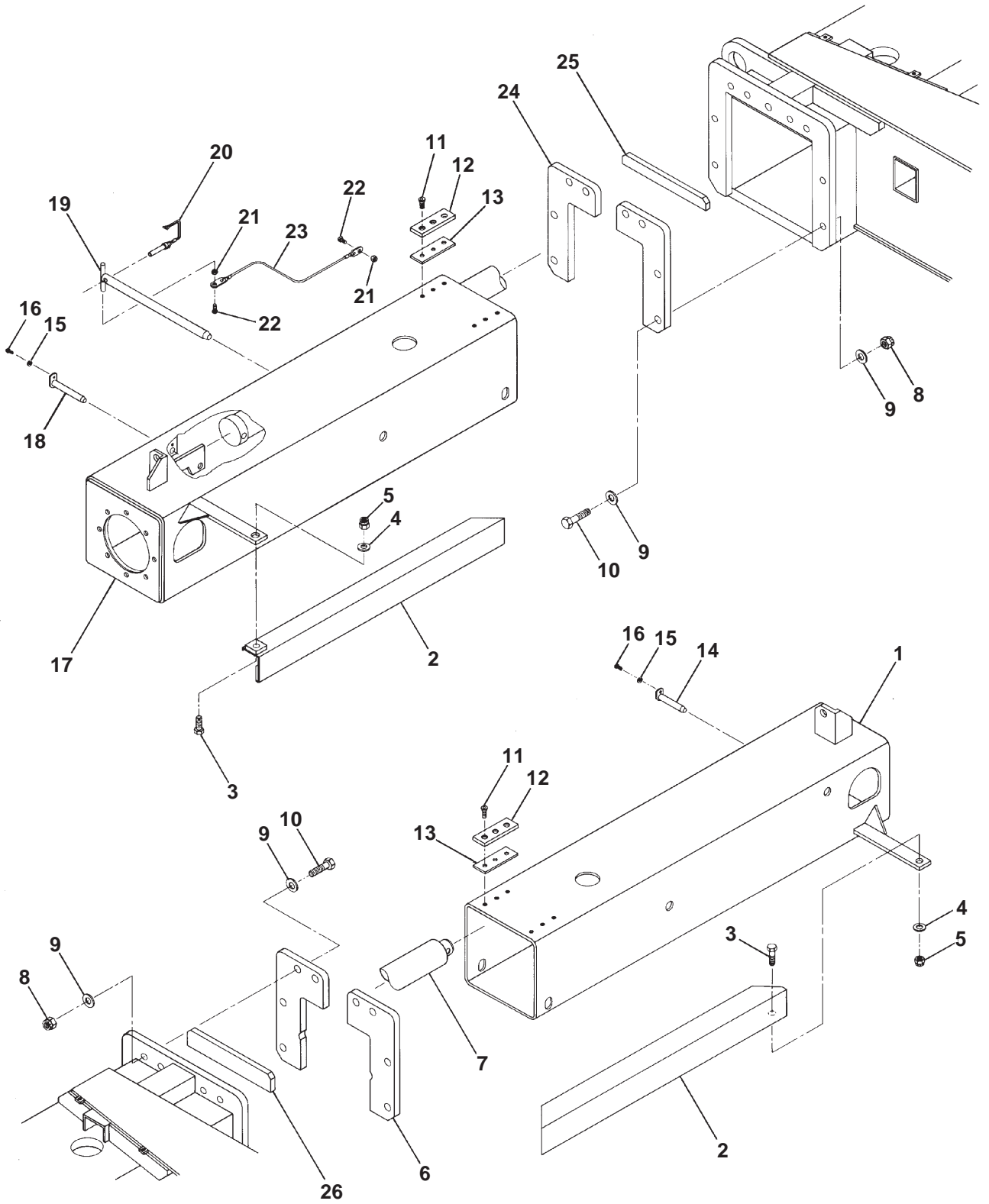


AWM00210

## Extendable axle, rear - 4 wheel drive

item	part no	qty	description
1	0111146	1	Axle, rear left hand
2	0110257	1	Hose carrier tube
3	971269	2	Capscrew 5/8-11 x 1 inch long hex head grade 5
4	5560169	2	Washer 5/8 hard flat ASTM-F436
5	5560036	2	Nut 5/8-11 self locking
6	0111221	2	Flange, left hand
7	0110281	1	Cylinder, axle extend - (see hydraulics section for parts breakdown)
8	5560035	16	Nut 3/4-10 self locking
9	5560170	32	Washer 3/4 hard flat ASTM-F436
10	5560676	16	Capscrew 3/4-10 x 3-1/2 inch long hex head grade 8
11	970439	12	Capscrew 3/8-16 x 5/8 inch long socket flat head
12	0080293	4	Slide pad
13			Slide pad shim, (use thickness required to fill gap)
	0070030	4	Shim, .030 inch thick
	0072567	4	Shim, .063 inch thick
	0090141	4	Shim, .090 inch thick
14	0110260	1	Pin, axle extend cylinder rod end
15	987109	2	Washer 5/16 medium lock
16	5560677	2	Capscrew 5/16-18 x 1/2 inch long socket button head
17	0111145	1	Axle, rear right hand
18	0110261	1	Pin, axle extend cylinder base end
19	0111362	1	Lock pin
20	5580002	1	Snapper pin
21	984069	2	Nut 1/4-20 hex
22	5560086	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
23	0110594	1	Pin lock retainer
24	0111222	2	Flange, right hand
25	0111303	1	Scraper pad, right hand axle
26	0111304	1	Scraper pad, left hand axle

# Extendable axle, rear - 4 wheel drive



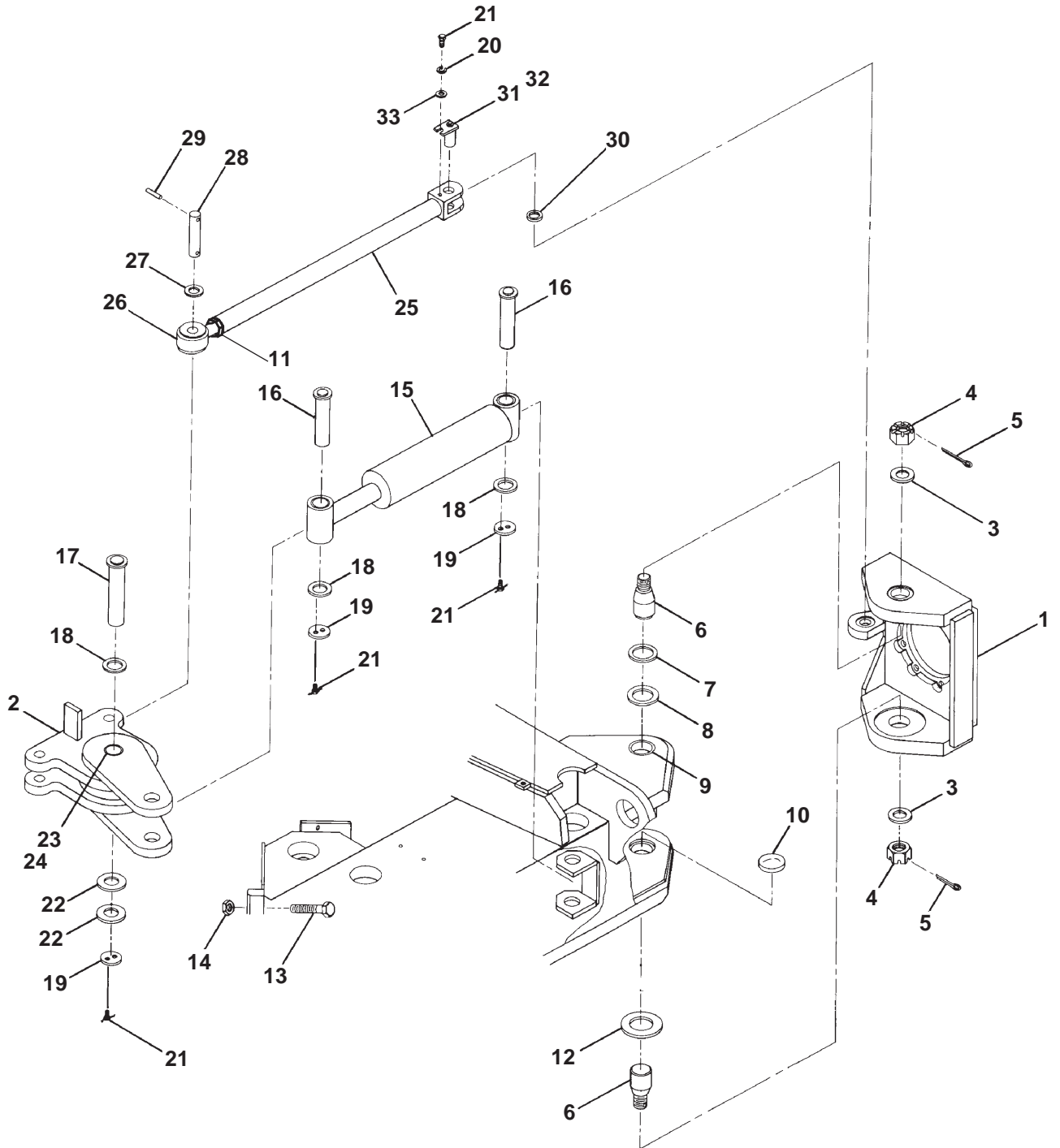
AWM00211

## Steering

item	part no	qty	description
1	0111123	2	Steering yoke
2	0111135	1	Steering arm
3	0072438	4	Washer
4	5560018	4	Spindle nut
5	988229	4	Cotter pin 1/4 inch diameter x 2-1/2 inch long
6	0080885	4	King pin
7	5560660	6	Machine bushing 3 inch OD x 2 inch ID x 14 gauge thick
8	25560089	2	Shim, .031 inch thick
	5560091	2	Shim, .015 inch thick
9	2503220	4	Bearing
10	5070026	2	Cap, wheel service
11	5560202	1	Tie rod hex jam nut for adjustable tie rod
12	2580001	2	Thrust washer
13	5560134	2	Capscrew 3/4-10 x 3-1/4 inch long hex head grade 8
14	984469	2	Nut 3/4-10 hex jam
15	0070007	1	Cylinder, steering - (see hydraulics section for parts breakdown)
16	0070442	2	Pin, steering cylinder
17	0110323	1	Pin, steering arm
18	5560688	3	Machine bushing 2-1/4 OD x 1-1/2 inch ID x 14 gauge thick
19	0070033	3	Pin lock
20	987109	2	Washer 5/16 medium lock
21	970239	8	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
22	0090840	2	Thrust bearing
23	2502416	2	Bearing
24	0111136	1	Bearing spacer
25	0111130	2	Tie rod
26	2690005	2	Tie rod end
27	5560689	2	Machine bushing 1-1/2 inch OD x 1 inch ID x 14 gauge thick
28	0150094	2	Pin, tie rod
29	5560152	4	Roll pin 5/16 inch diameter x 1-3/4 inch long
30	0080348	2	Spacer
31	0110320	2	Lock pin
32	5570001	2	Grease fitting 1/8 NPT straight
33	986269	2	Washer 5/16 medium flat



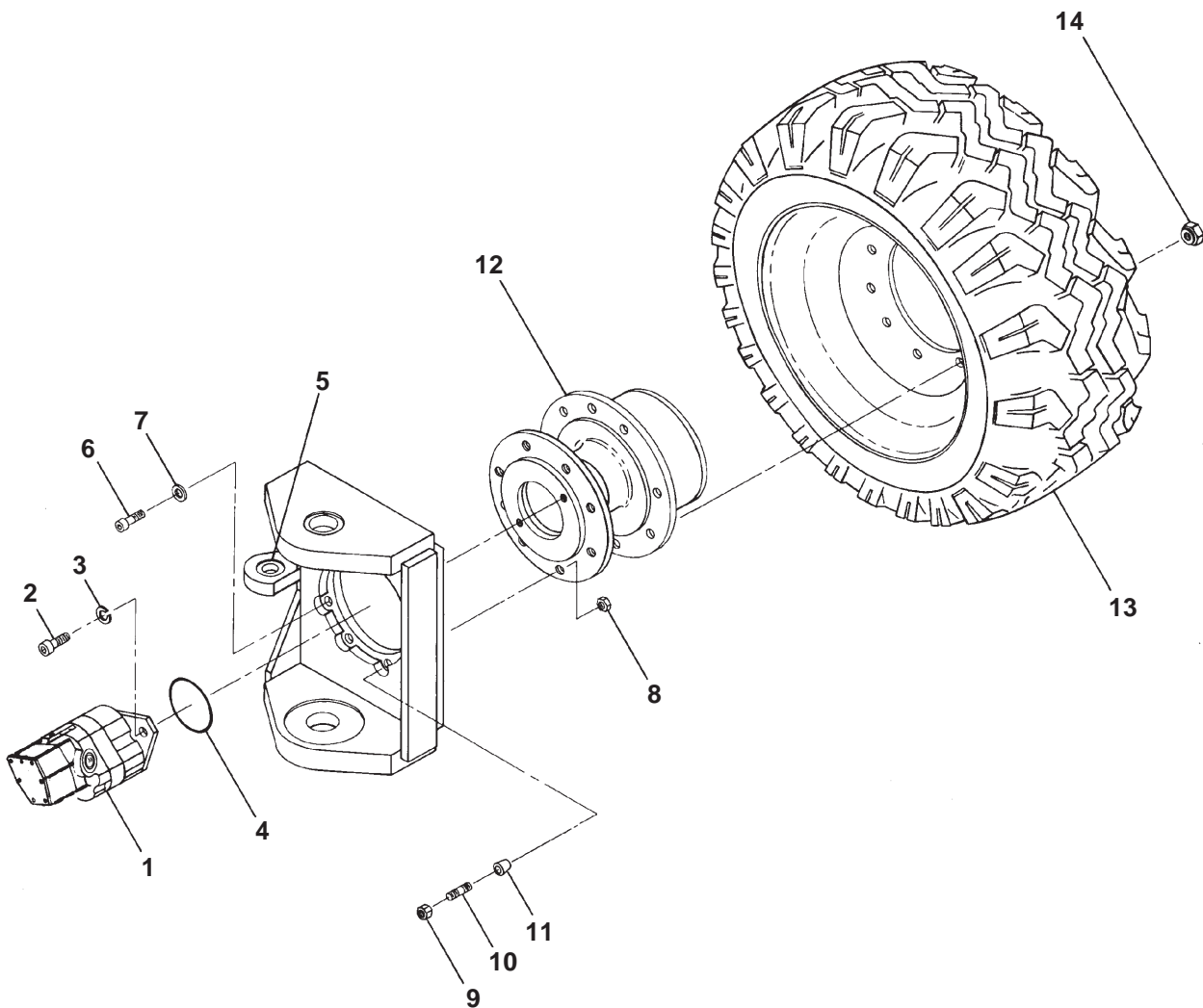
# Steering



AWM00213

## Drive, front axle

item	part no	qty	description
1	6030037	2	Drive motor with brake - (see page 2-30 for parts breakdown)
2	5560245	4	Capscrew 5/8-11 x 1-1/2 inch long socket head
3	987159	4	Washer 5/8 medium lock
4	7110159	2	O-ring
5	2690001	2	Bearing, self aligning
6	5560099	12	Capscrew special 5/8-11 self locking
7	5560169	8	Washer 5/8 hard flat ASTM-F436
8	984449	16	Nut 5/8 hex jam
9	5560131	4	Nut 5/8-11 self locking
10	0111674	4	Wheel stud
11	0111675	4	Wheel stud wedge
12	0110283	2	Gear hub - (see page 1-64 for parts breakdown)
13	0110537	2	Tire and wheel, foam filled 15 x 22.5 16 ply
14	7280010	20	Wheel nut

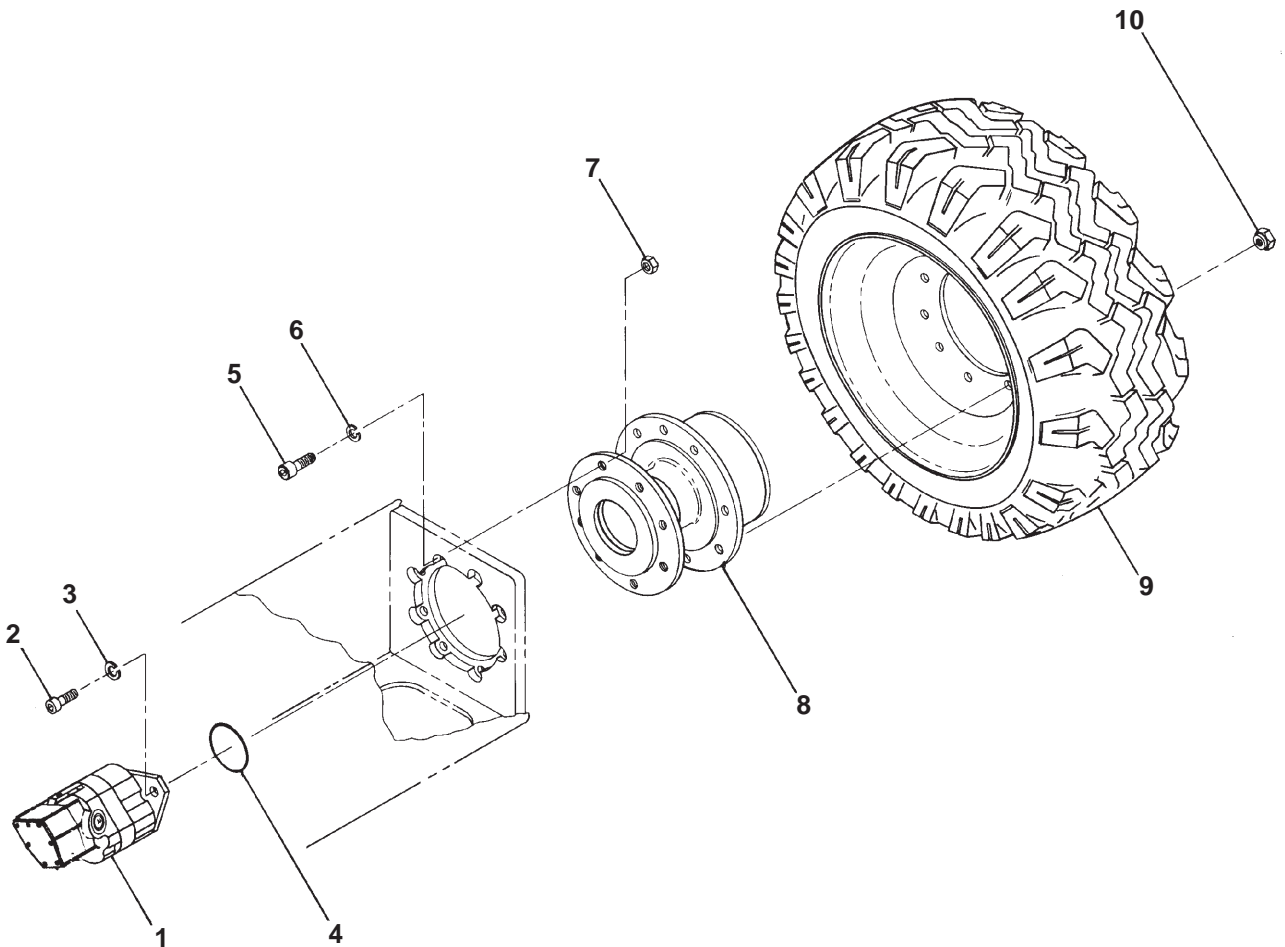


**Note: Do not mix tire brands or sizes on any one machine**

AWM00214

## Drive, rear axle 4 wheel drive

item	part no	qty	description
1	6030037	2	Drive motor with brake - (see page 2-30 for parts breakdown)
2	5560245	4	Capscrew 5/8-11 x 1-1/2 inch long socket head
3	987159	4	Washer 5/8 medium lock
4	7110159	2	O-ring
5	5560099	16	Capscrew special 5/8-11 self locking
6	5560169	16	Washer 5/8 hard flat ASTM-F436
7	984449	16	Nut 5/8 hex jam
8	0110283	2	Gear hub - (see page 1-64 for parts breakdown)
9	0110537	2	Tire and wheel, foam filled 15 x 22.5 16 ply
10	7280010	20	Wheel nut

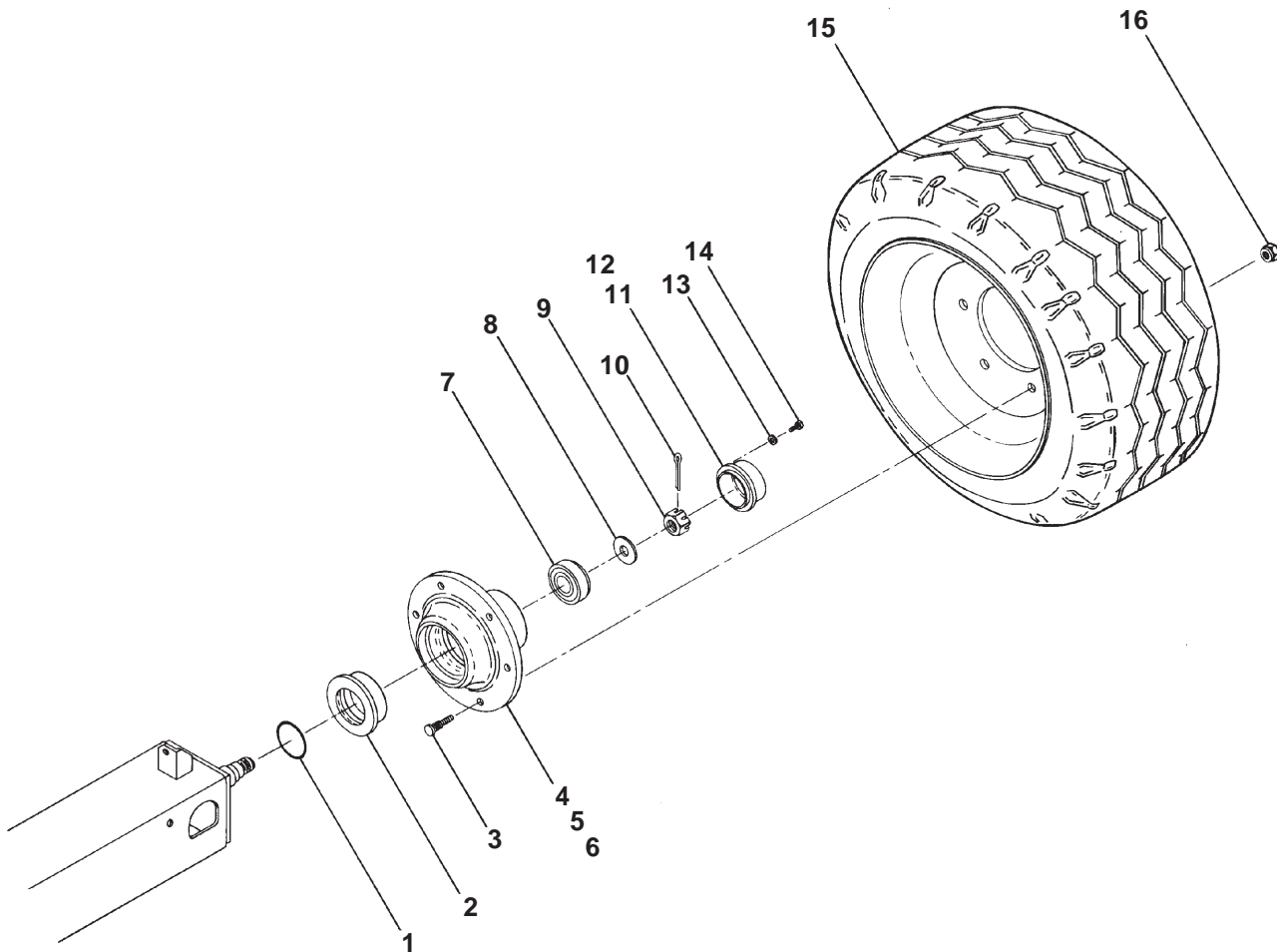


**Note: Do not mix tire brands or sizes on any one machine**

AWM00215

## Hub and wheel, rear axle 2 wheel drive

item	part no	qty	description
1	7150003	2	Grease seal
2	2560006	2	Inner bearing cone
3	7280024	20	Wheel bolt
4	0080181	2	Hub - (includes wheel bolt item 3)
5	2540004	2	Outer bearing cup
6	2540005	2	Inner bearing cup
7	2560005	2	Outer bearing cone
8	5560025	2	Key washer
9	5560026	2	Spindle nut
10	5560661	2	Cotter pin 3/8 inch diameter x 2-1/2 inch long
11	0080186	2	Hub cap
12	0080185	2	Gasket, hub cap
13	987099	8	Washer 1/4 medium lock
14	970009	8	Capscrew 1/4-20 x 1/2 inch long hex head grade 5
15	0110537	2	Tire and wheel, foam filled 15 x 22.5 16 ply
16	7280010	20	Wheel nut

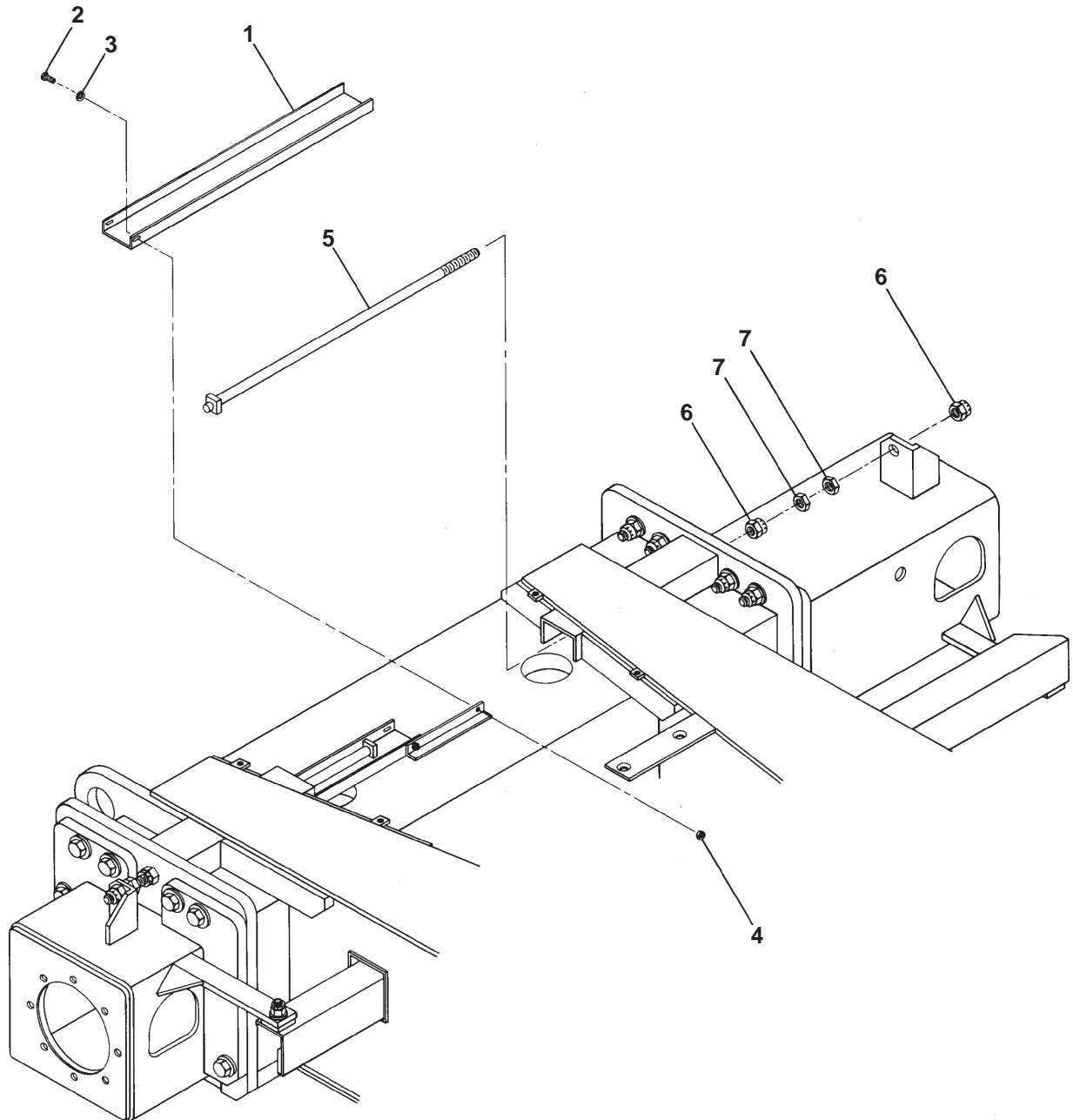


**Note: Do not mix tire brands or sizes on any one machine**

AWM00216

## Axle stop

item	part no	qty	description
1	0111270	2	Tray
2	970239	2	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
3	986269	2	Washer 5/16 medium flat
4	984089	2	Nut 5/16 hex
5	0110926	2	Axle stop rod
6	5560035	4	Nut 3/4-10 self locking
7	984469	4	Nut 3/4-10 hex jam



AWM00212

## Lift and swing

item	part no	qty	description
3		1	Counterweight - (consult factory)
5	0111229	1	Centerpost and fittings - (see page 2-40 for parts breakdown)
6	0110837	1	Swing drive - (see page 1-16 for parts breakdown)
7	0110168	1	Lift cylinder - (see hydraulics section for parts breakdown)
8	0070007	1	Cylinder, master level - TB80 (see hydraulics section for parts breakdown)
	0172223	1	Cylinder, master level - TB85J (see Section 5 for parts breakdown)
9	0110942	1	Adjustment ring, Fairfield swing drive
	0110781	1	Adjustment ring, Gear Products swing drive
13	986459	4	Washer 3/4 hardened flat
14	0110681	2	Capscrew 5/16-18 drilled head
15	7720201	ref	Reducer bushing (1/4 - 1/8)
16		ref	Air vent
17	7720302	ref	Reducer bushing (3/8 - 1/4)
20	5065707	2	Ftg adptr strthd-6b-6s stl
21	0070473	2	Capscrew 5/16-18 drilled head
22	987109	2	Washer 5/8 medium lock
23	9980012	ar	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
24	0110235	1	Pin lock
25	0070033	1	Pin lock
26	0110341	1	Pin, lift cylinder base end to turntable
27	0070442	1	Pin, master level cylinder base end to turntable
28	0070472	1	Key
29	5590003	2	Retaining ring
30	0070256	1	Adapter plate, centerpost
31	5560022	6	Adjustment bolt
32	984449	6	Nut 5/8 hex jam
33	5560100	4	Capscrew 3/4-10 self locking socket head
34	5065703	1	Ftg adptr strthd-4b-4s stl
35	5560051	4	Capscrew 5/8-11 self locking
36	987159	6	Washer 5/8 medium lock
37	5035306	1	Ftg elb 90 strthd-8b-8s stl
38	5065709	1	Ftg adptr strthd-8b-8s stl
39	5037006	1	Ftg elb 90 swvl-8s-8s stl
40	5037003	1	Ftg elb 90 swvl-4s-4s stl

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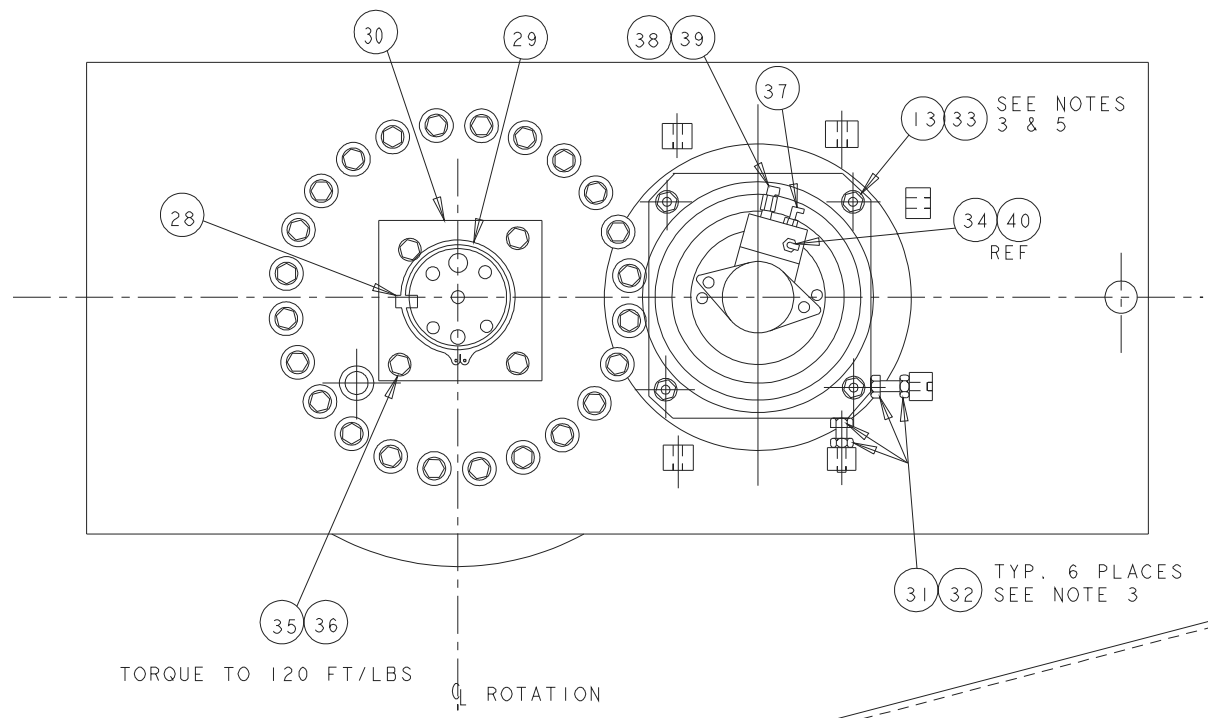
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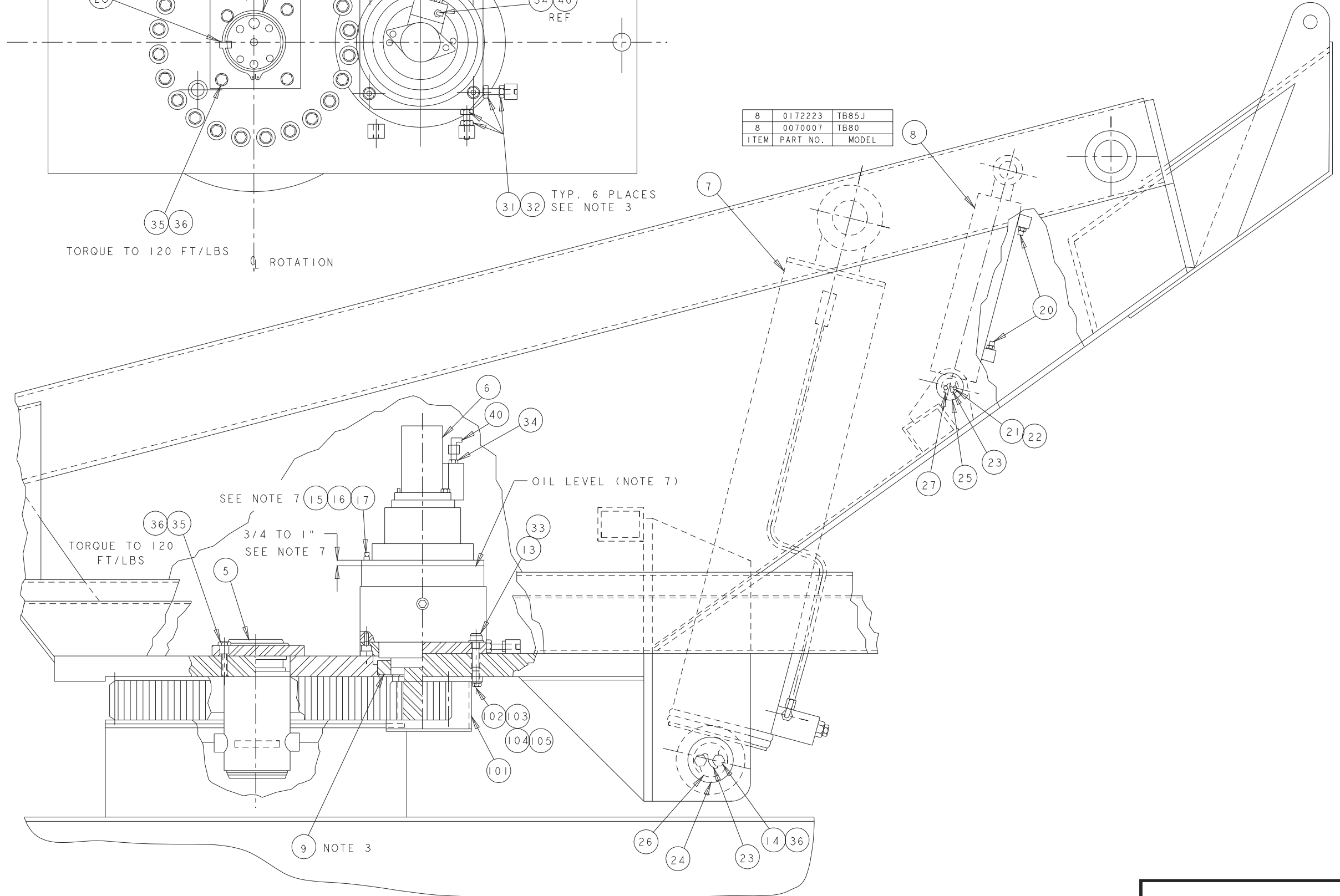
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- NOTES:
1. USE 5/8 FLAT WASHER TO SHIM COUNTERWEIGHT FLUSH WITH SIDE RAILS.
  2. TURN ADJUSTMENT RING (ITEM 9) TO PROVIDE PROPER BACKLASH BETWEEN SWING DRIVE PINION AND ROTATION BEARING GEAR BEFORE TIGHTENING ADJUSTMENT BOLTS (ITEMS 13) AND SWING DRIVE MOUNTING BOLTS (ITEM 33).
  3. TORQUE TO 350 FT/LBS.
  4. REMOVE AIR VENTS ITEM 16 TO FILL WITH OIL.

ITEM	PART NO.	MODEL
8	0172223	TB85J
8	0070007	TB80



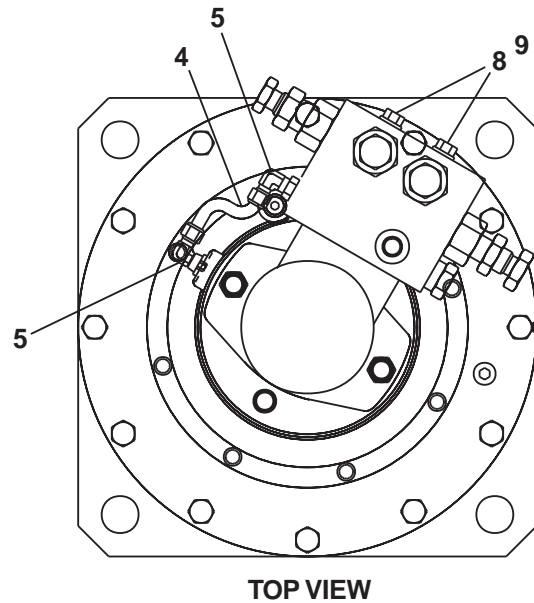
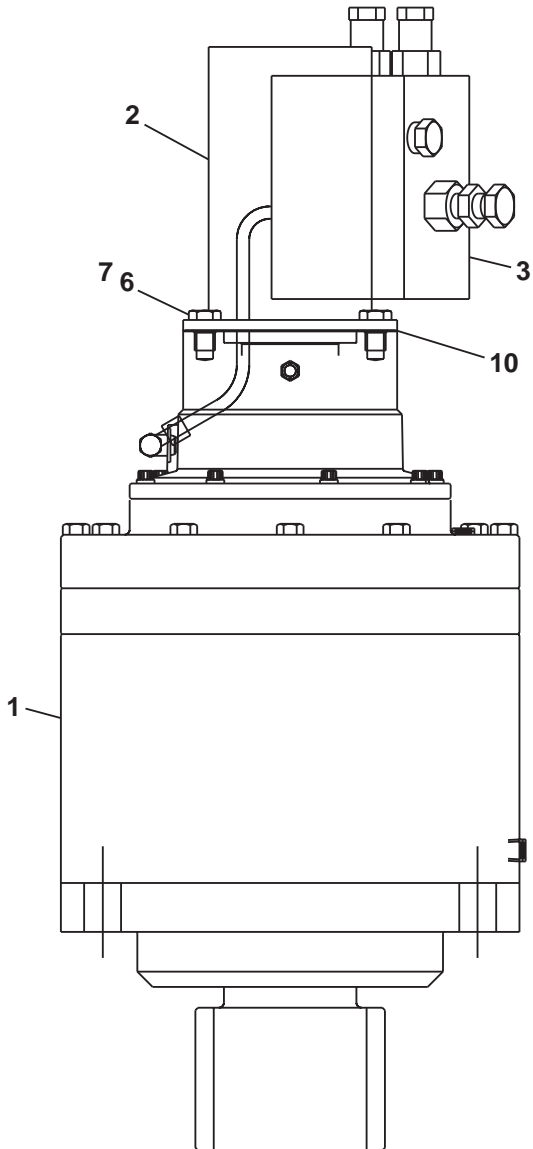






# Swing drive

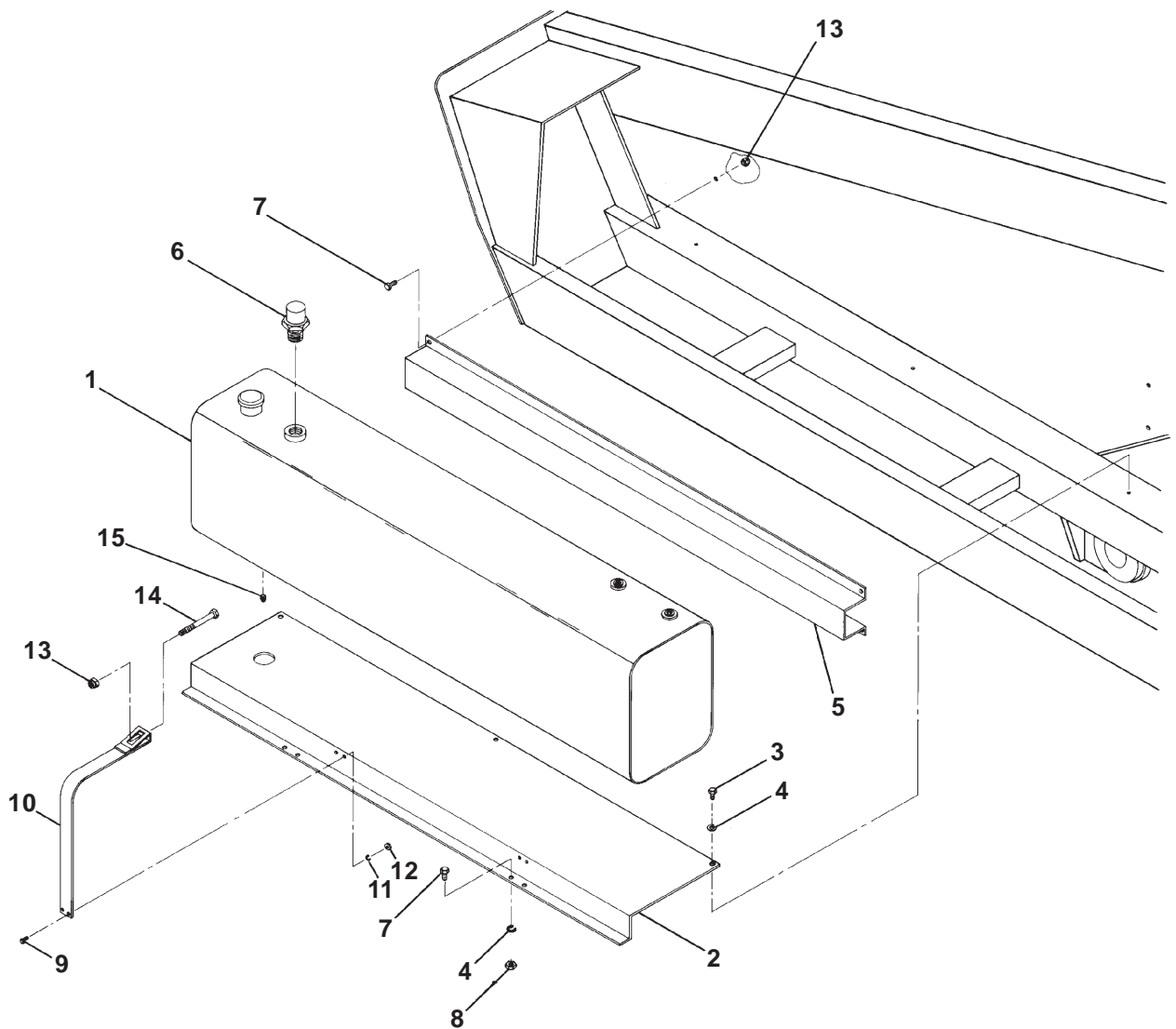
item	part no	qty	description
	0110837	1	Swing drive
1	0112233	1	Planetary swing drive with brake - (see page 1-66 for parts breakdown)
2	6030017	1	Motor, swing drive
	0071089	1	Seal repair kit, TRW motor
	8230073	1	Seal repair kit, White motor
3	6010216	1	Motion control valve, turntable swing - (see page 2-62 for parts breakdown)
4	0112272	1	Tube and fitting
5	0112418	2	Elbow 90°
6	0112421	2	Capscrew 1/2-13 x 1-1/4 inch long socket head
7	0112422	2	Washer 1/2 split ring lock
8	0112423	4	Capscrew 5/16-18 x 3-1/2 inch long hex head grade 5
9	0112424	4	Washer 5/16 medium lock plated
10	7190005	1	Gasket, swing drive motor



AW0110837

# Fuel tank

item	part no	qty	description
1	0080030	1	Fuel tank, 40 gallon capacity - (includes cap and fuel gauge, item 6)
	9940001	1	Replacement cap, fuel tank
2	0110358	1	Fuel tank support
3	970449	3	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
4	987119	7	Washer 3/8 medium lock
5	0110539	1	Fuel tank spacer
6	0070483	1	Fuel gauge - (includes gauge lens)
	8180014	1	Replacement gauge lens
7	970469	8	Capscrew 3/8-16 x 1 inch long hex head grade 5
8	984109	4	Nut 3/8-16 hex
9	970029	4	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
10	0071940	2	Fuel tank strap
11	987099	4	Washer 1/4 medium lock
12	984049	4	Nut 1/4-20 hex
13	5560033	6	Nut 3/8-16 self locking
14	970589	2	Capscrew 3/8-16 x 4-1/2 inch long hex head grade 5
15	7714202	1	Pipe plug 1/4 NPT square head

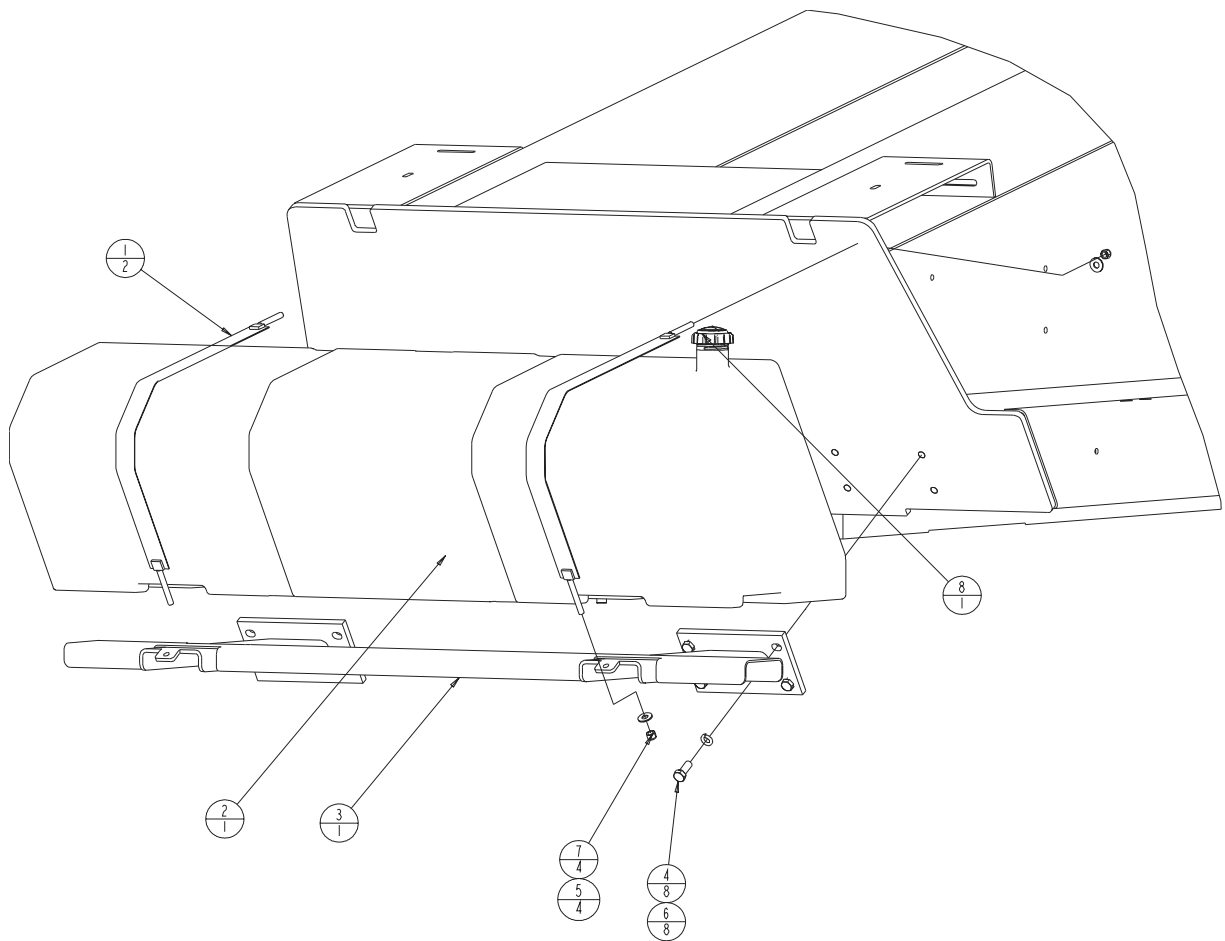


AWM00218



## Fuel Tank, 3-2000 And After

Item	Part No.	Qty.	Description
1	0074680	2	Tank strap
2	0190685	1	Fuel tank, 54 gal
	0191831		Fuel tank with cap
3	0191690	1	Wldmt, fuel tank mount
4	970849	8	Bolt .500-13 X 1.25 Gr. 5
5	986299	4	Washer, flat .38
6	987139	8	Washer, lock .500
7	5560033	4	Nut, lock .375-16
8	9940021	1	Fuel cap, plastic

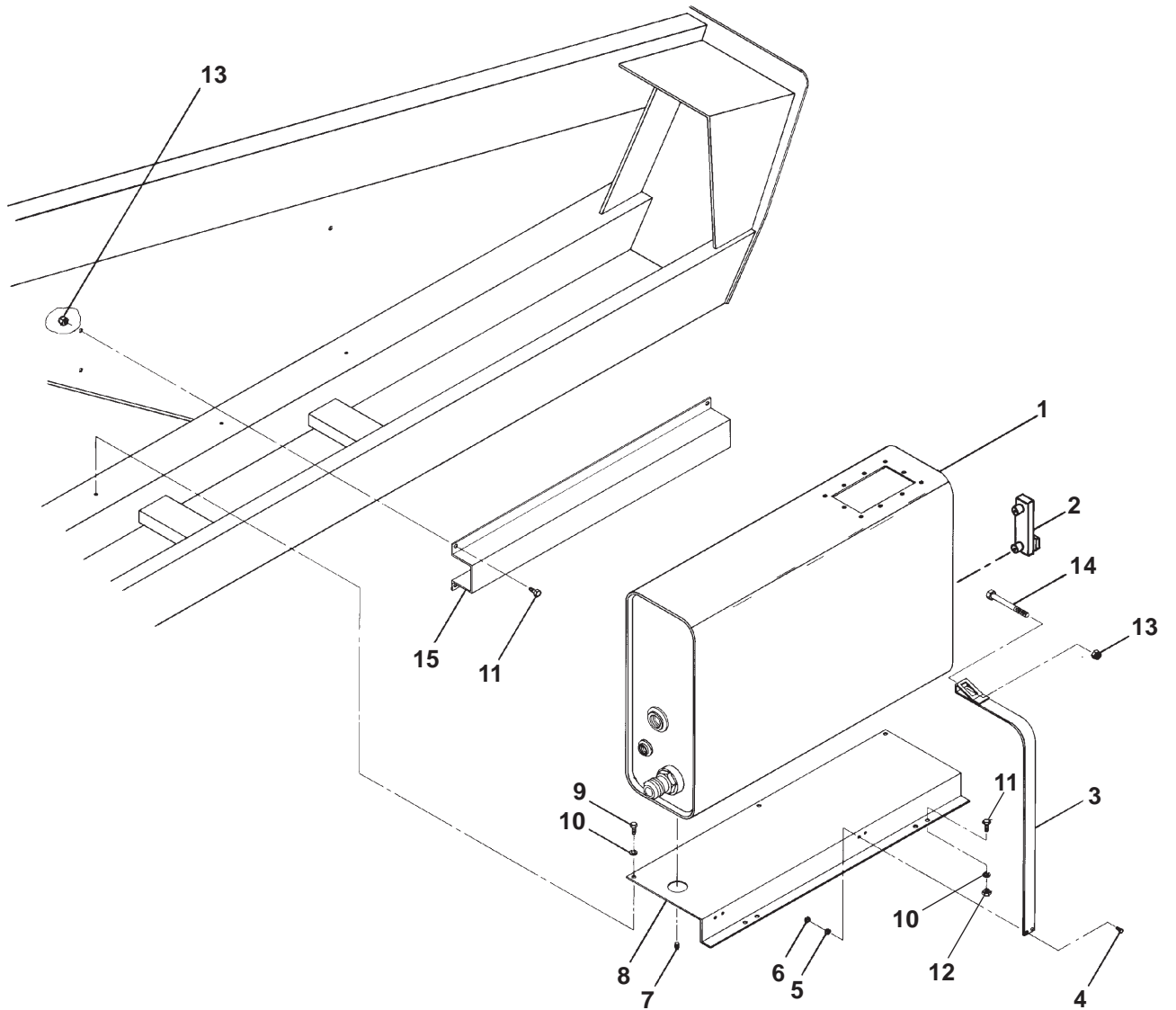


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## Hydraulic oil reservoir mounting

item	part no	qty	description
1	0110364	1	Hydraulic oil reservoir - (see page 2-32 for parts breakdown)
2	5090007	1	Liquid level gauge with thermometer
3	0110362	2	Mount strap, hydraulic oil reservoir
4	970029	4	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
5	987099	4	Washer 1/4 medium lock
6	984069	4	Nut 1/4-20 hex
7	7714304	1	Plug, 1/2 inch NPT hollow hex
8	0110361	1	Support, hydraulic oil reservoir
9	970449	4	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
10	987119	4	Washer 3/8 medium lock
11	970469	7	Capscrew 3/8-16 x 1 inch long hex head grade 5
12	984109	4	Nut 3/8-16 hex
13	5560033	5	Nut 3/8-16 self locking
14	970629	2	Capscrew 3/8-16 x 5 inch long hex head grade 5
15	0110363	1	Spacer, hydraulic oil reservoir

# Hydraulic oil reservoir mounting



AWM00219

## Booms, base end

item	part no	qty	description
1	0112529	1	Booms and hose carrier - TB85J (see Section 5 for parts breakdown)
1	0111897	1	Booms and hose carrier - TB80 (see page 1-23 for parts breakdown)
2	0110238	1	Pin, base boom to turntable
3	1102370	1	Pin, lift cylinder to base boom
4	0110236	1	Pin, leveling cylinder to base boom
5	0070440	1	Pin, link to turntable
6	0110235	2	Pin lock
7	9070033	1	Pin lock
8	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
9	0070473	4	Capscrew 5/16-18 drilled head
10	987109	4	Washer 5/16 medium lock
11	0110681	4	Capscrew 5/8-11 drilled head
12	987159	4	Washer 5/8 medium lock
13	5093012	1	Clamp
14	5093010	5	Clamp
15	5090009	1	Clamp
16	970029	5	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
17	986019	5	Washer 1/4 medium flat
18	987099	5	Washer 1/4 medium lock
19	970449	3	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
20	986299	3	Washer 3/8 medium flat
21	987119	3	Washer 3/8 medium lock
22	5560004	1	Nut 1/4-20 self locking
23	5093002	1	Hose clamp



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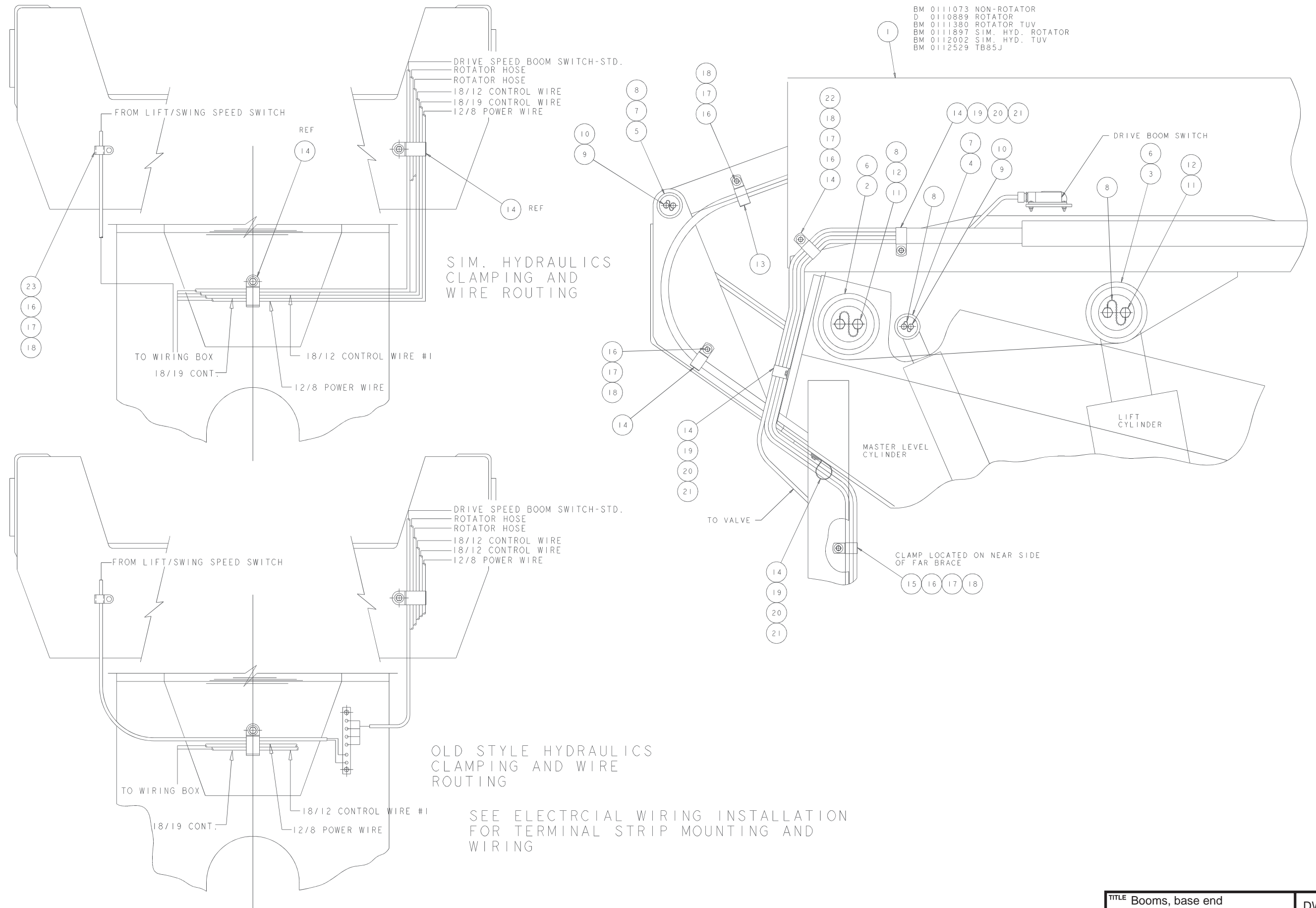
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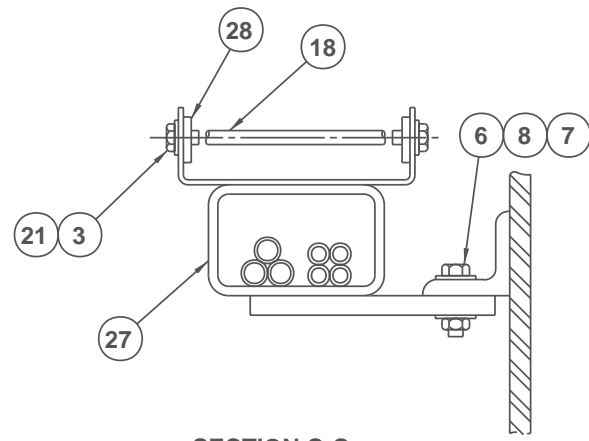
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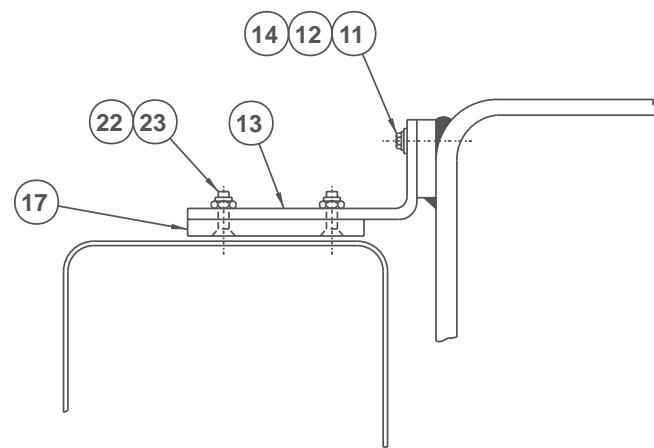
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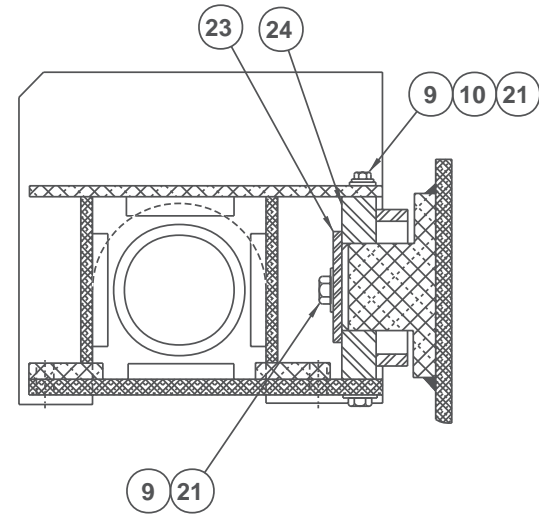
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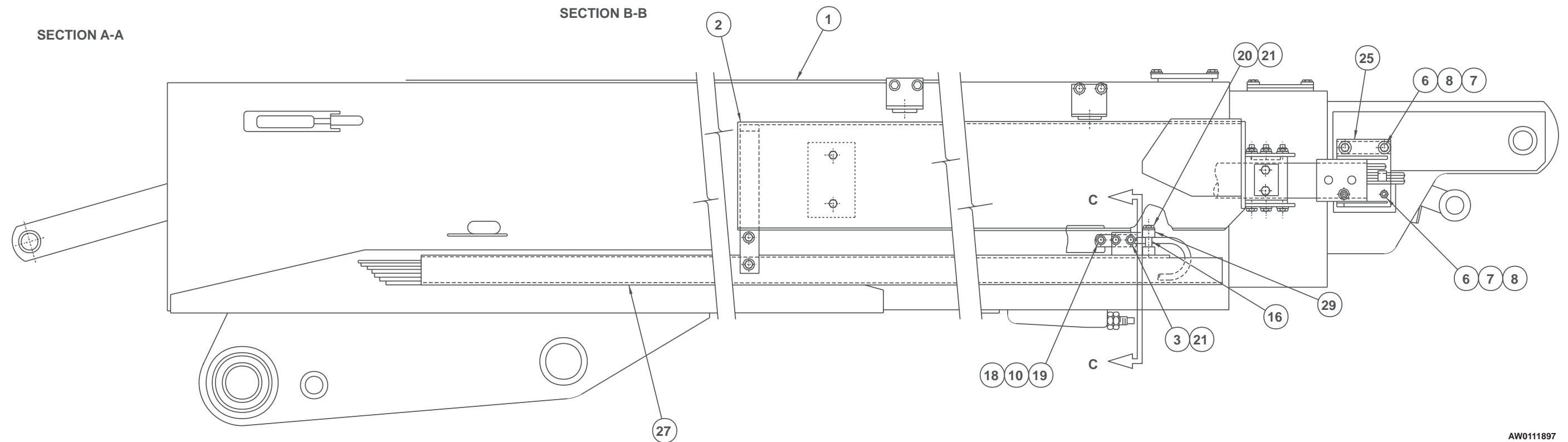
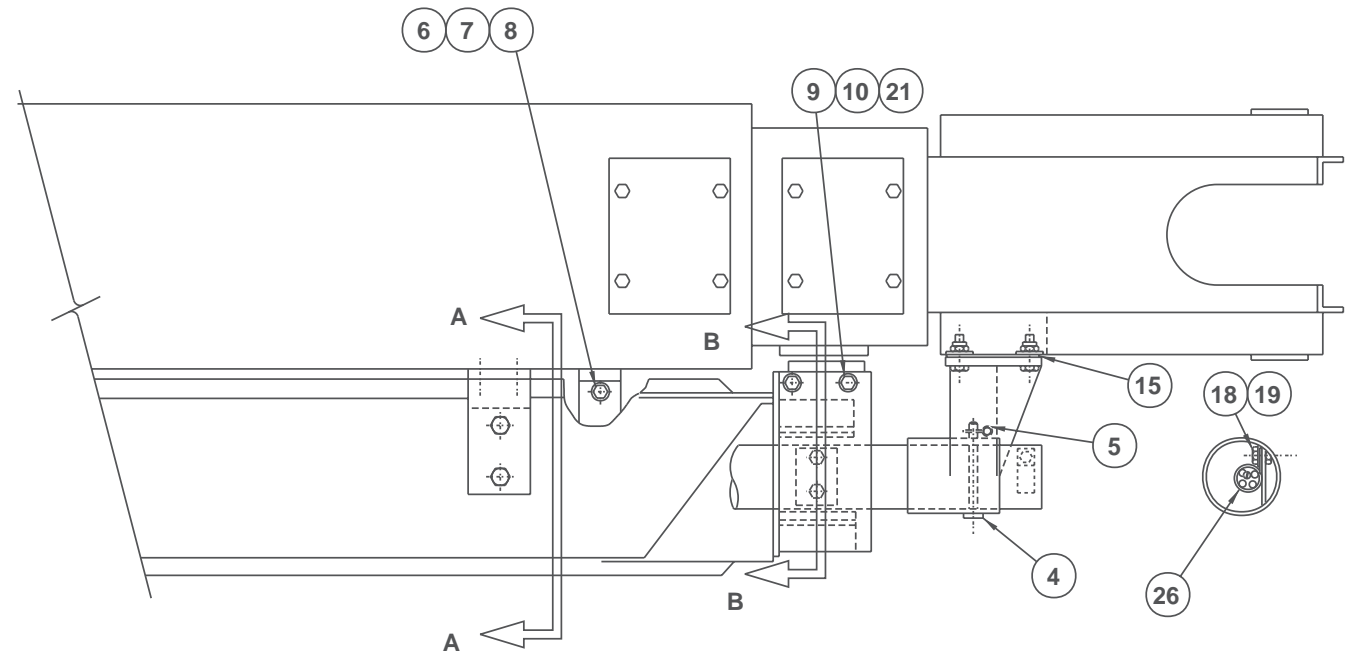
SECTION C-C



SECTION A-A



SECTION B-B



AW011897

## Booms and hose carrier

item	part no	qty	description
	0111897	1	Booms and hose carrier
1	0111896	1	Booms - (see page 1-25 for parts breakdown)
2	0111951	1	Hose carrier - (see page 1-33 for parts breakdown)
3	970429	4	Capscrew 3/8-16 x 1/2 inch long hex head grade 5
4	220072015	1	Clevis pin
5	5560014	1	Hairpin clip pin
6	970909	8	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
7	5560039	8	Nut 1/2-13 self locking
8	986359	8	Washer 1/2 medium flat
9	970469	6	Capscrew 3/8-16 x 1 inch long hex head grade 5
10	986299	6	Washer 3/8 medium flat
11	970369	6	Capscrew 5/16-18 x 1 inch long hex head grade 5
12	987109	6	Washer 5/16 medium lock
13	0072951	2	Guide bar
14	986019	6	Washer 1/4 medium flat
15	0111120	2	Spacer
16	0110581	2	Spacer
17	0070029	2	Slide pad
18	5560686	1	Capscrew 3/8-16 x 6 inch long hex head grade 5
19	5560033	6	Nut 3/8-16 self locking
20	970509	2	Capscrew 3/8-16 x 2 inch long hex head grade 5
21	987119	12	Washer 3/8 medium lock
22	972489	4	Capscrew 3/8-16 x 1-1/2 inch long socket flat head
23	0070506	1	Pin lock
24	0110602	1	Pin joint plate
25	0112071	1	Tube bracket
26	5093027	1	Clamp
27	0110840	1	Support tube
28	0110592	2	Mounting lug
29	0110590	1	Tube clamp, upper



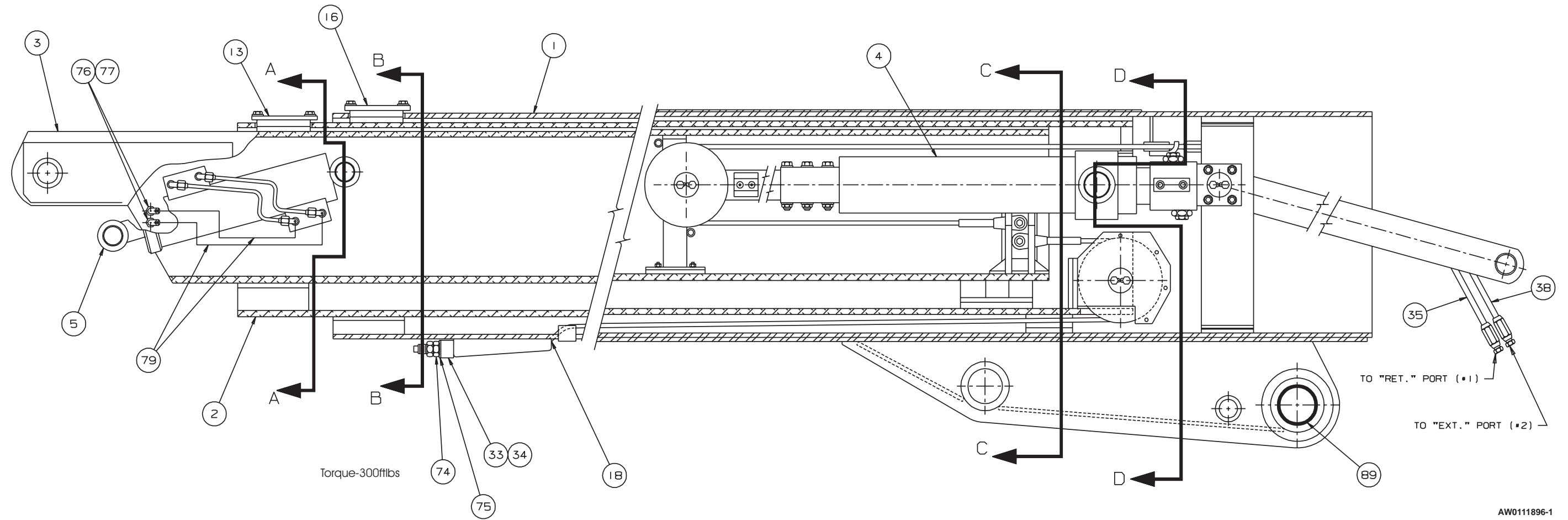
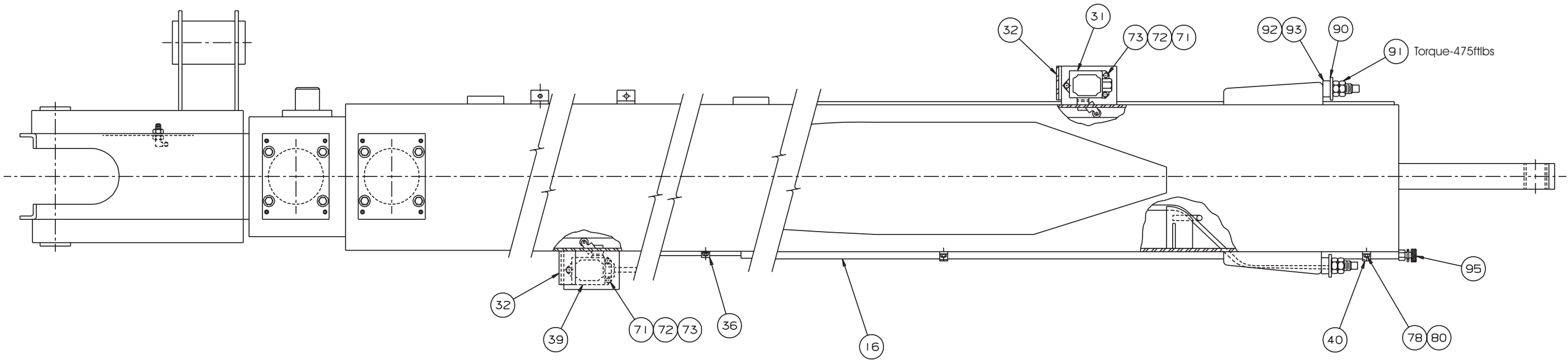
## Booms

item	part no	qty	description
	0111896	1	Booms, complete
1	0110891	1	Base boom
2	0110630	1	Intermediate boom
3	0110631	1	Tip boom
4	0110628	1	Extension cylinder - (see hydraulics section for parts breakdown)
5	0071486	1	Cylinder, slave level - (see hydraulics section for parts breakdown)
6	0110661	1	Pin, slave level cylinder to tip boom
7	0070033	2	Pin lock
8	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
9	0110699	1	Pad plate
10	0080293	8	Slide pad
11	0090444	2	Slide pad spacer
12	0070030	22	Slide pad shim, .030 inch thick
13	0072681	2	Slide pad mount
14	0110700	1	Pad plate
15	0070485	2	Slide pad spacer
16	0110547	1	Conduit
17	0110665	2	Wire rope anchor
18	0110186	2	Wire rope, retract
19	0110703	4	Slide pad
20	0110705	1	Cable support, left hand
21	0060089	2	Slide pad
22	0110190	2	Pin, cylinder anchor
23	0110191	2	Cylinder anchor
24	0110670	1	Pin, cable retainer
25	0110671	1	Pin, retract sheave
26	2502032	1	Bearing
27	988179	2	Cotter pin 1/8 inch diameter x 1 inch long
28	0071342	1	Shim
29	0111700	2	Cable sheave
30	0111322	2	Sheave cage
31	0111888	1	Boom switch, drive speed - (see page 3-37 for parts breakdown)
32	0071216	1	Guard, boom switch
33	0071921	2	Spacer, 5/8 inch thick
34	0071922	2	Spacer, 1-1/4 inch thick
35	0151860	2	1/2 inch hydraulic hose
36	5093000	1	Clamp
37	0110704	1	Cable support, right hand
38	0080522	1	1/2 inch hydraulic hose
39	0111889	1	Boom switch, lift/swing speed - (see page 3-38 for parts breakdown)
40	5093004	3	Clamp
41	2502028	2	Bearing
42	5560331	4	Capscrew 1/4-20 x 1 inch long socket flat head
43	5560004	4	Nut 1/4-20 self locking
44	0070473	4	Capscrew 5/16-18 drilled head
45	970259	6	Capscrew 5/16-18 x 1 inch long hex head grade 5
46	970269	6	Capscrew 5/16-18 x 1-1/4 inch long hex head grade 5
47	5560031	12	Nut 5/16-18 self locking
48	987109	12	Washer 5/16 medium lock
49	986269	12	Washer 5/16 medium flat
50	5560679	16	Capscrew 3/8-16 x 5/8 inch long socket flat head
51	972449	22	Capscrew 3/8-16 x 3/4 inch long socket flat head
52	978409	6	Capscrew 3/8-16 x 1-1/2 inch long socket flat head
53	5560644	16	Capscrew 3/8-16 x 1-1/4 inch long socket flat head
54	0072682	2	Slide pad
			<b>Parts list continued on next page</b>

## Booms

item	part no	qty	description
55	5560680	11	Capscrew 3/8-16 x 1-3/4 inch long socket flat head
56	5560146	2	Anchor bolt
57	5560681	8	Capscrew 3/8-16 x 2-1/4 inch long socket flat head
58	5560682	3	Capscrew 3/8-16 x 2-1/2 inch long socket flat head
59	5560683	10	Capscrew 3/8-16 x 5/8 inch long hex head grade 5
60	970449	18	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
61	970469	8	Capscrew 3/8-16 x 1 inch long hex head grade 5
62	0111317	1	Cable retainer
63	972489	6	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
64	5560033	50	Nut 3/8-16 self locking
65	0072683	2	Slide pad spacer, 1/4 inch thick
66	987119	36	Washer 3/8 medium lock
67	986299	48	Washer 3/8 medium flat
68	5560005	2	Anchor bolt
69	5560053	4	Nut 1/2-13 hex jam
70	0111005	2	Spacer
71	5560649	6	Machine screw #10-24 x 1 inch long truss head
72	986009	6	Washer #10 medium flat
73	984049	6	Nut #10-24 hex
74	984469	4	Nut 3/4-10 hex jam
75	5560170	4	Washer 3/4 hard flat ASTM-F436
76	5074401	2	Bulkhead locknut
77	5034501	2	Bulkhead straight thread 90° elbow
78	987099	4	Washer 1/4 medium lock
79	0070768	2	1/4 inch hydraulic hose
80	970009	4	Capscrew 1/4-20 x 1/2 inch long hex head grade 5
81	0110695	1	Slide pad
82	0070369	4	Slide pad
83	0110706	6	Slide pad shim, .030 inch thick
84	0110701	2	Slide pad spacer
85	0110696	1	Slide pad
86	0110702	2	Slide pad spacer
87	0110707	6	Slide pad shim, .090 inch thick
88	0090141	10	Slide pad shim, .090 inch thick
89	2504857	2	Bearing
90	5560684	4	Washer 7/8 flat ASTM-F436
91	5560685	4	Nut 7/8-9 hex jam
92	0110976	2	Spacer
93	0110977	2	Spacer
94	3040262	2	Conduit coupler 1/2 inch
95	3040187	2	Connector
96	0073111	2	Slide pad spacer, 1/8 inch thick
97	0080294	2	Slide pad
98	0070043	2	Slide pad shim, .030 inch thick
99	0073343	2	Slide pad shim, .090 inch thick
100	5560126	20	Threaded insert 3/8-16 thread
101	2500035	2	Bearing
102	0111324	2	Cable guide
103	0111314	1	Complete slide pad kit - (kit includes all boom slide pads and mounting hardware)

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AW011896-1

TITLE	Booms sheet 1 Snorkel model TB80	Page 1 - 27
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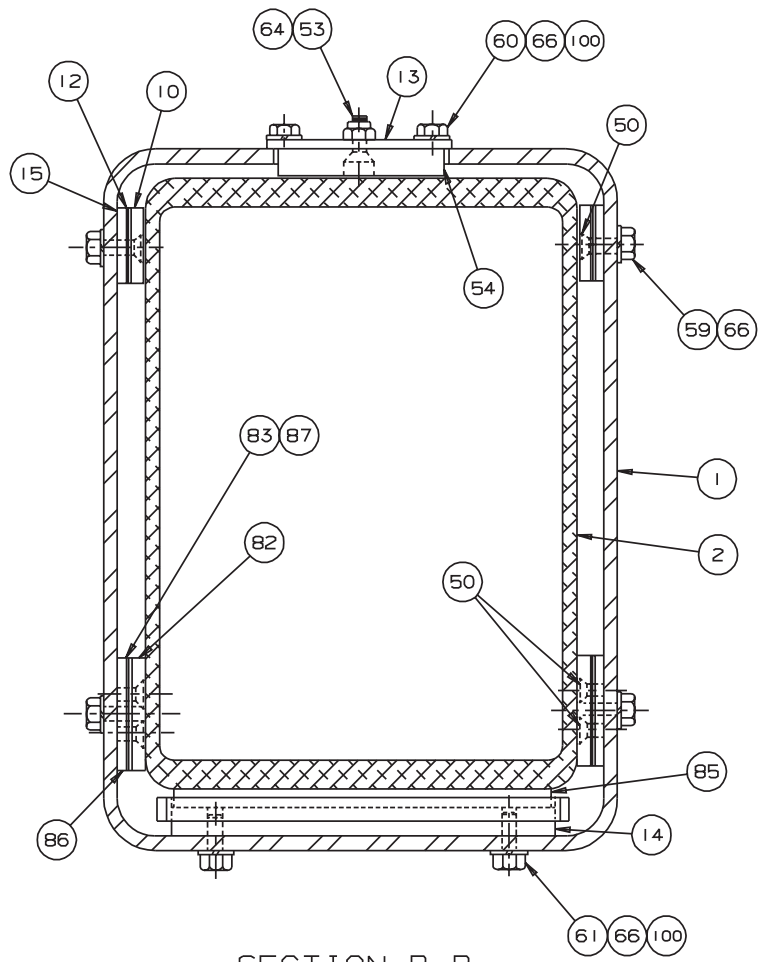
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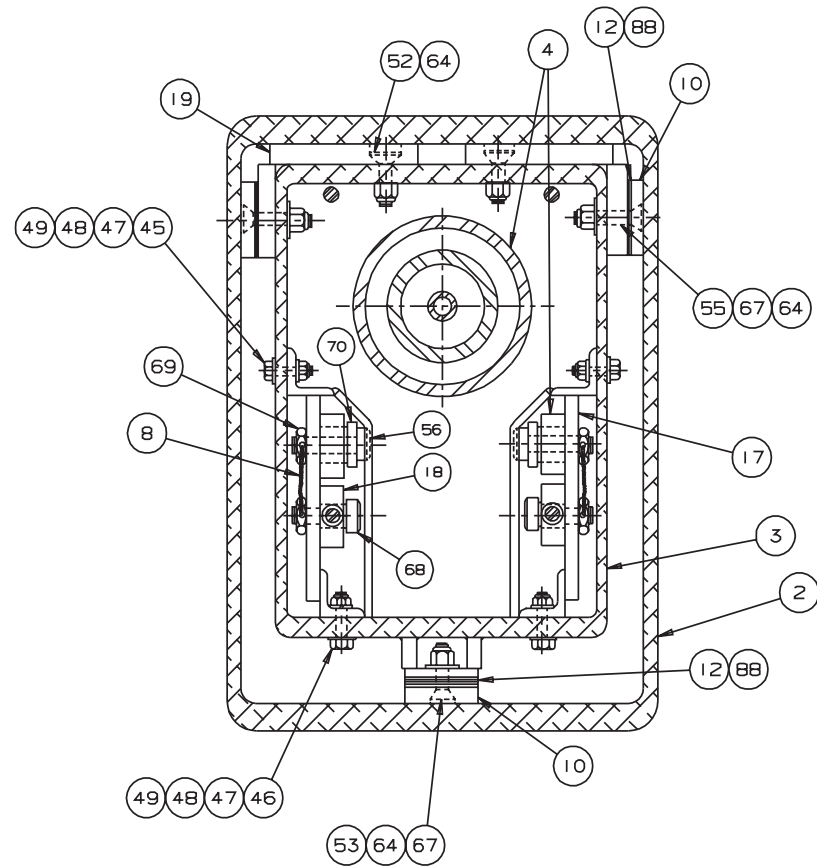
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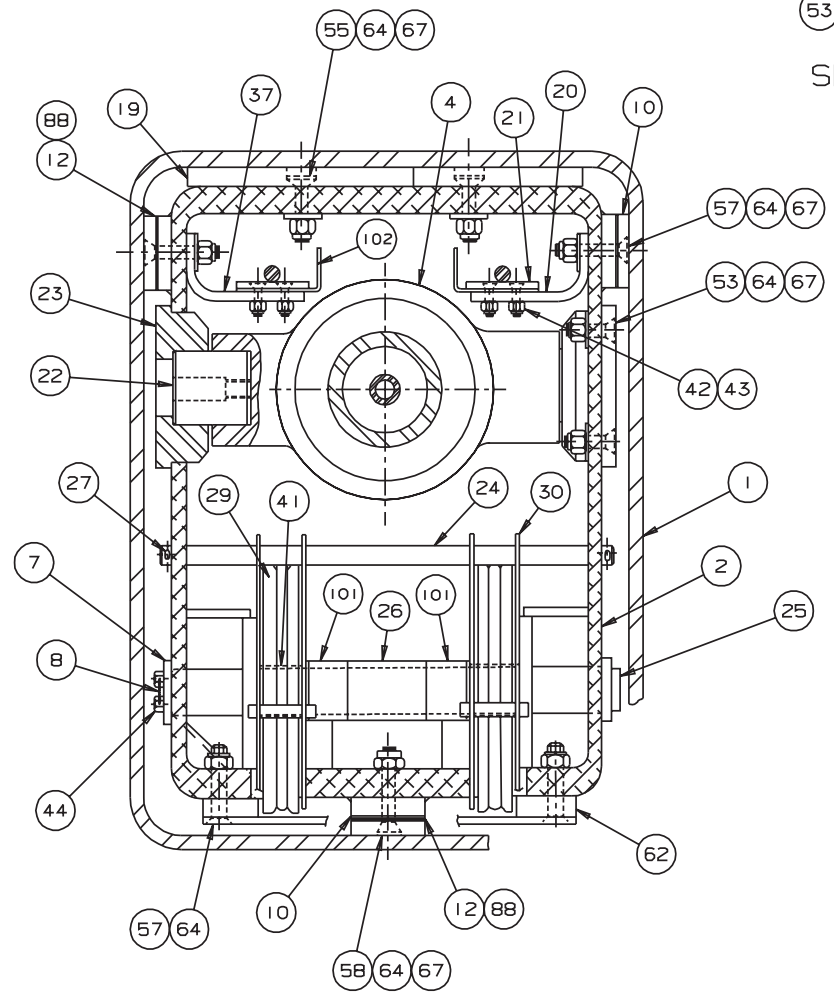
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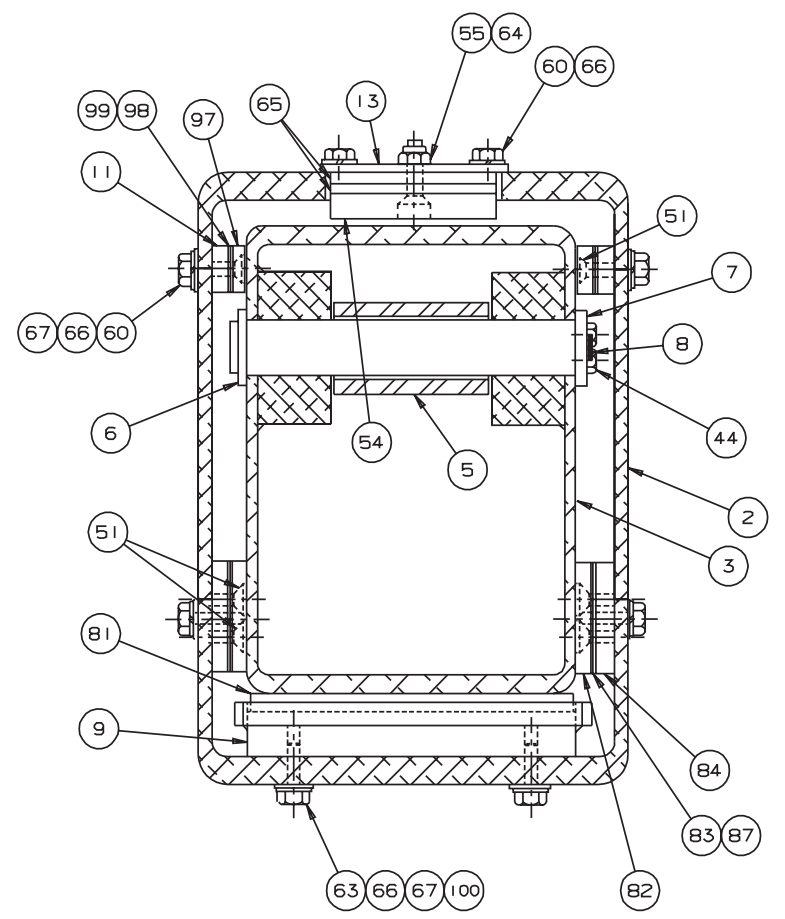
SECTION B-B



SECTION C-C



SECTION D-D



SECTION A-A

AW011896-2







## Extension cylinder

item	part no	qty	description
	0110628	1	Extension cylinder
1	0111822	1	Support bracket, base end
2	0110623	1	Cylinder, extension - (see hydraulics section for parts breakdown)
3	0110647	1	Support bracket, rod end
4	971009	3	Capscrew 1/2-13 x 4 inch long hex head grade 5
5	5560168	6	Washer 1/2 hard flat ASTM-F436
6	5560039	11	Nut 1/2-13 self locking
7	970919	8	Capscrew 1/2-13 x 1-3/4 inch long socket flat head
8	0111701	2	Sheave, extend cable
9	0112064	2	Wire rope, extend
10	0110645	1	Pin, extend sheave
11	0070033	2	Pin lock
12	0070473	4	Capscrew 5/16-18 drilled head
13	5560005	2	Anchor bolt
14	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
15	0191070	1	Plate, slide pad mounting
16	2502028	2	Bearing
17	0191071	1	Slide pad
18	2502432	2	Bearing
19	5560254	5	Thrust washer
20	0110166	1	Link
21	0070141	5	Slide pad
22	0071341	6	Slide pad shim, .063 inch thick
23	972449	10	Capscrew 3/8-16 x 3/4 inch long socket flat head
24	0070029	2	Slide pad
25	0070838	2	Slide pad shim, .030 inch thick
26	0071272	2	Slide pad shim, .063 inch thick
27	5560644	10	Capscrew 3/8-16 x 1-1/4 inch long socket flat head
28	5560033	10	Nut 3/8-16 self locking
29	0070440	1	Link pin
30	5065709	2	Straight thread adapter
31	5037006	2	Swivel nut 90° elbow

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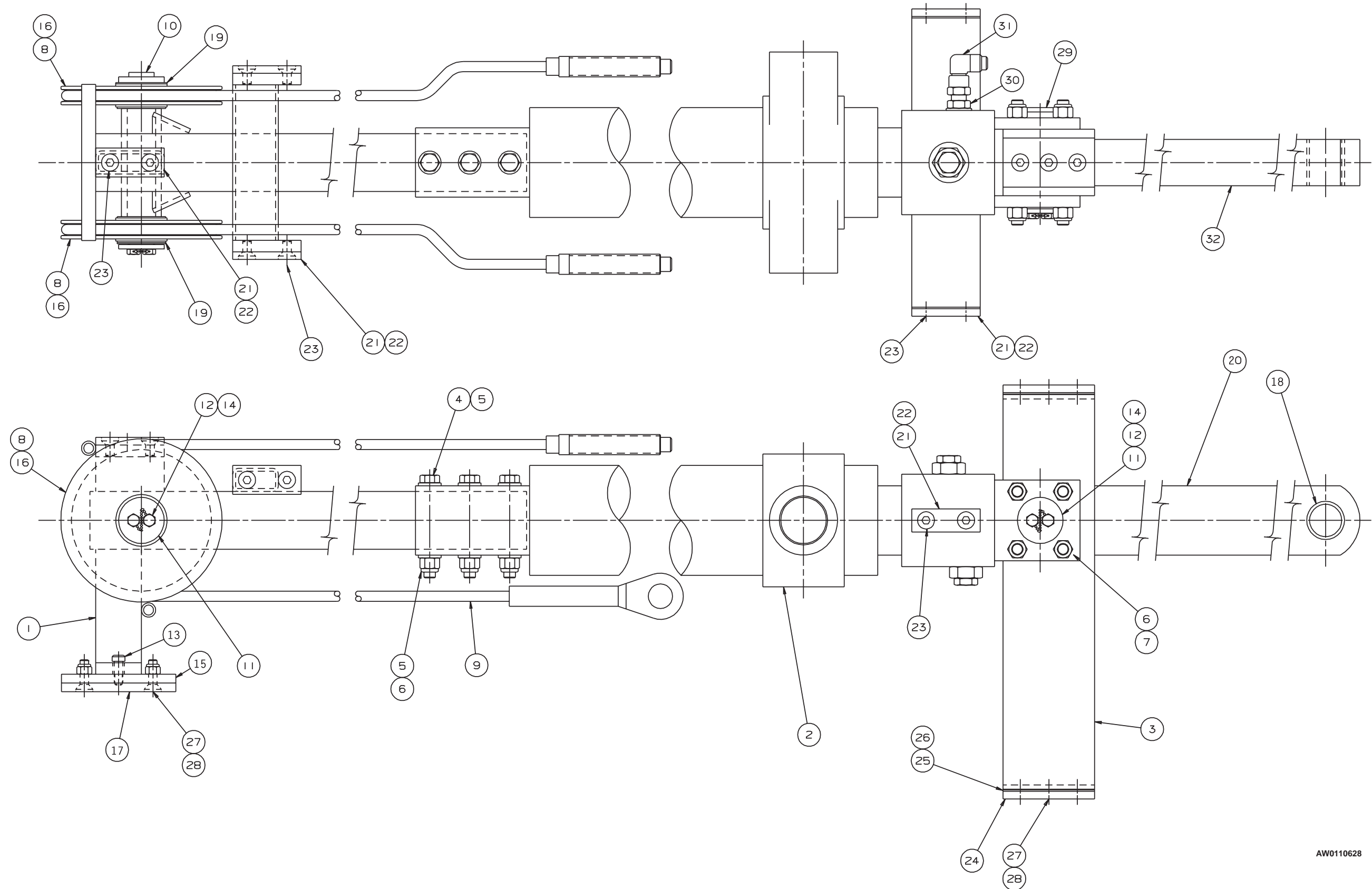
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AW0110628

TITLE	Extension cylinder	
	Snorkel model TB80	
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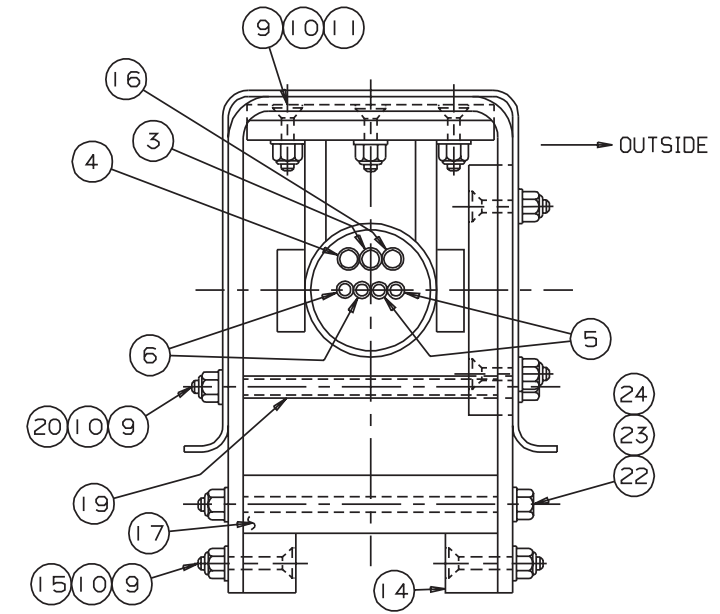
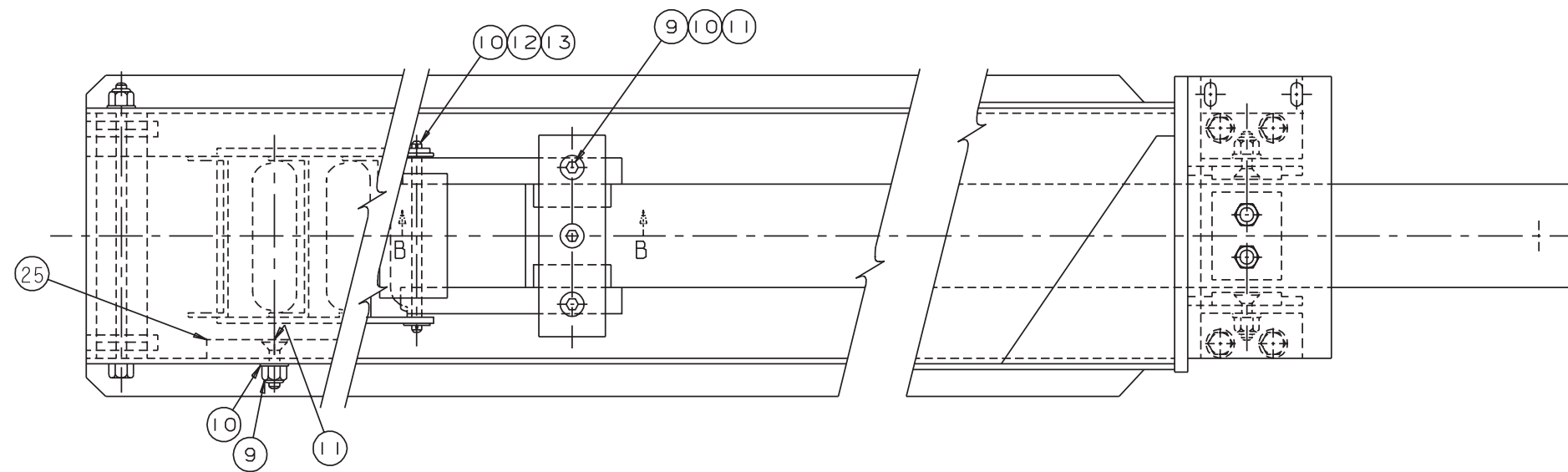
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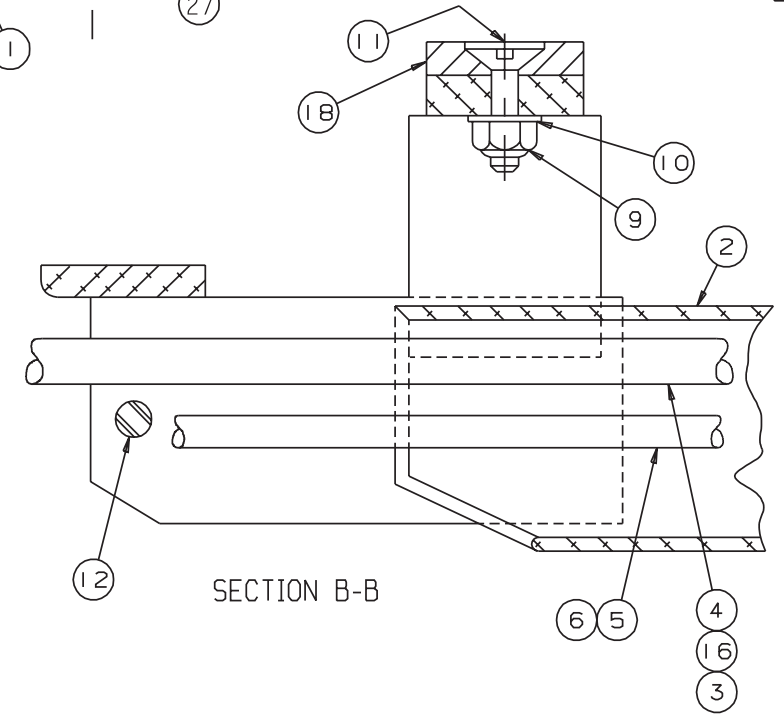
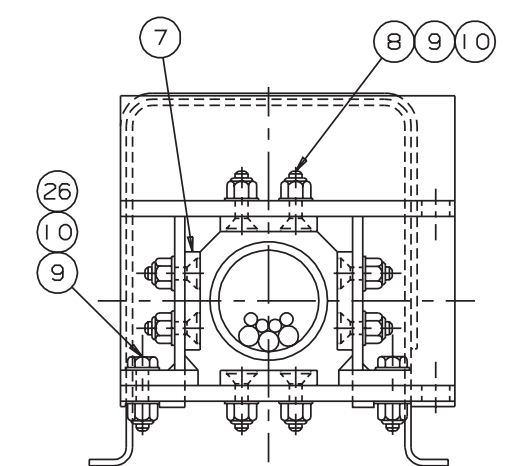
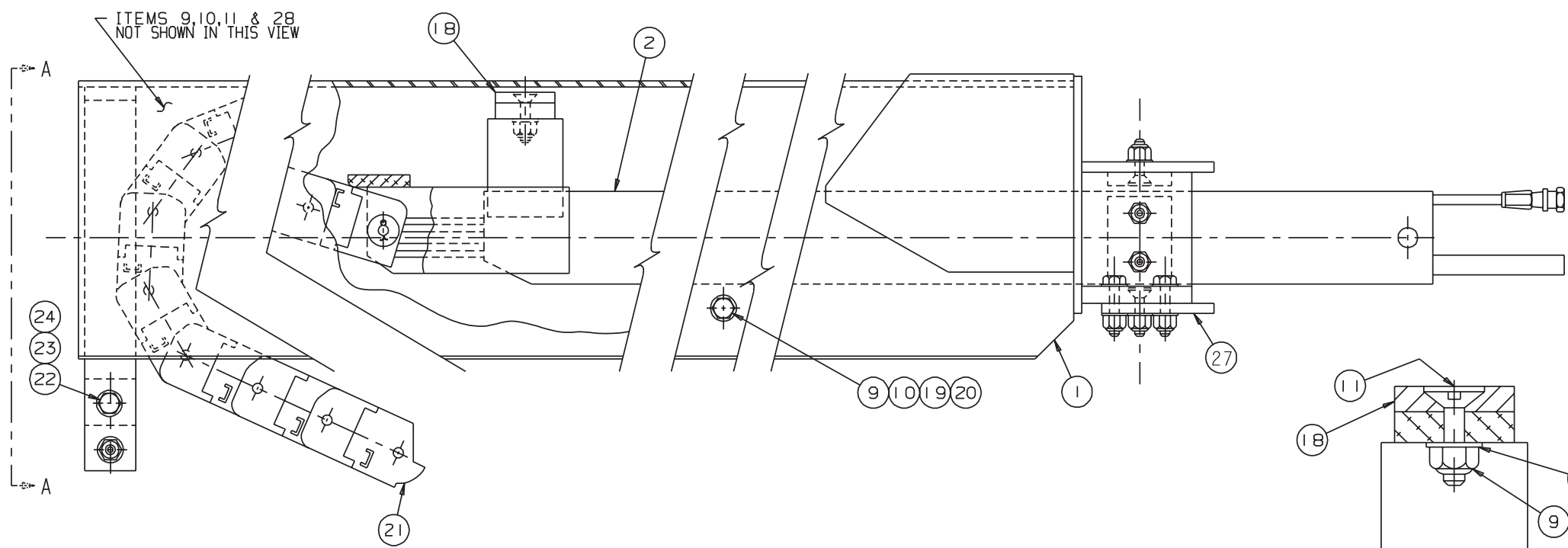
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VIEW A-A



SECTION B-B

AW0111951

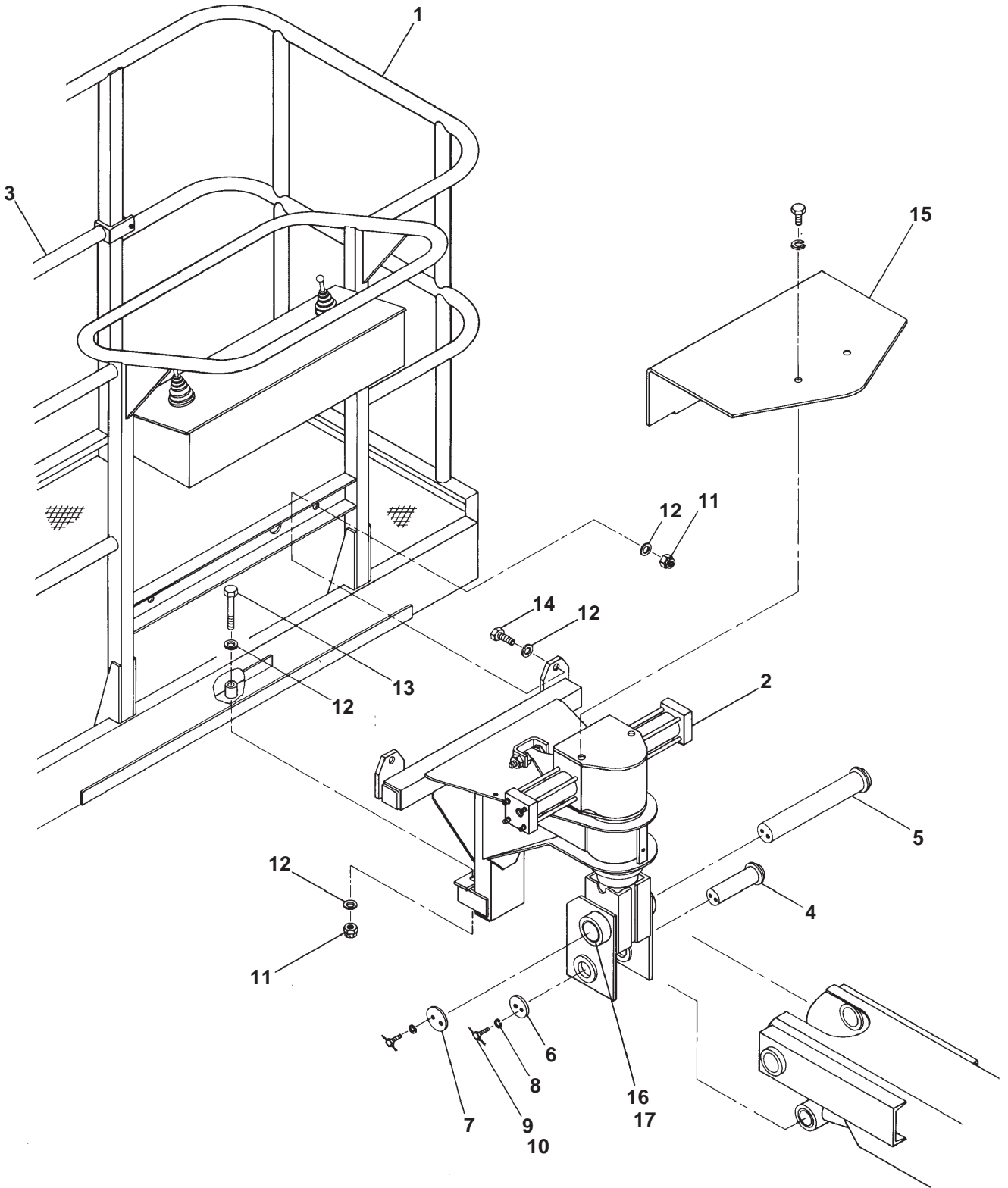
## Hose carrier

item	part no	qty	description
	0111951	1	Hose carrier, complete
1	0110206	1	Hose carrier
2	0110571	1	Carrier tube
3	3010009	1	Control wire #1, 18 gauge/12 conductor x 100 feet long - (terminals not included)
	3046972		Replacement terminal
4	3010006	1	Power wire, 12 gauge/8 conductor x 100 feet long - (terminals not included)
	3044854		Replacement terminal
5	0110219	2	3/16 inch hydraulic hose - (leveling hoses)
6	0111957	2	3/16 inch hydraulic hose - (rotation hoses)
7	0100105	4	Slide pad
8	5560644	8	Capscrew 3/8-16 x 1-1/4 inch long socket flat head
9	5560033	29	Nut 3/8-16 self locking
10	986299	43	Washer 3/8 medium flat
11	978409	5	Capscrew 3/8-16 x 1-1/2 inch long socket flat head
12	0110583	1	Pin
13	988169	2	Cotter pin 1/8 inch diameter x 3/4 inch long
14	0110842	2	Slide pad
15	5560681	2	Capscrew 3/8-16 x 2-1/4 inch long socket flat head
16	3010005	1	Control wire #2, 18 gauge/19 conductor x 100 feet long - (terminals not included)
	3046972		Replacement terminal
17	0110841	1	Slide pad
18	0070031	1	Slide pad
19	0110227	10	Spacer
20	970639	10	Capscrew 3/8-16 x 8 inch long hex head grade 5
21	9920017	118	Plastic track link
22	5560687	1	Capscrew 1/2-13 x 8 inch long hex head grade 5
23	986359	2	Washer 1/2 medium flat
24	5560039	1	Nut 1/2-13 self locking
25	0110603	1	Slide pad
26	970529	4	Capscrew 3/8-16 x 2-1/2 inch long hex head grade 5
27	0110610	1	Anchor plate, bottom

## Platform mounting

item	part no	qty	description
1		1	Platform - (consult factory)
2	0072552	1	Platform rotator - (see page 1-38 for parts breakdown)
3		1	Platform gate - (see page 1-36 for proper platform gate)
4	0070441	1	Pin, slave level cylinder to platform
5	0070446	1	Pin, platform to tip boom
6	0070033	1	Pin lock
7	0070132	1	Pin lock
8	987109	4	Washer 5/16 medium lock
9	0070473	4	Capscrew 5/16-18 drilled head
10	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
11	5560039	4	Nut 1/2-13 self locking
12	986359	8	Washer 1/2 medium flat
13	971009	2	Capscrew 1/2-13 x 4 inch long hex head grade 5
14	970909	2	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
15	0070874	1	Cover, platform rotator
16	0070351	1	Bearing spacer
17	2502832	2	Bearing

# Platform mounting

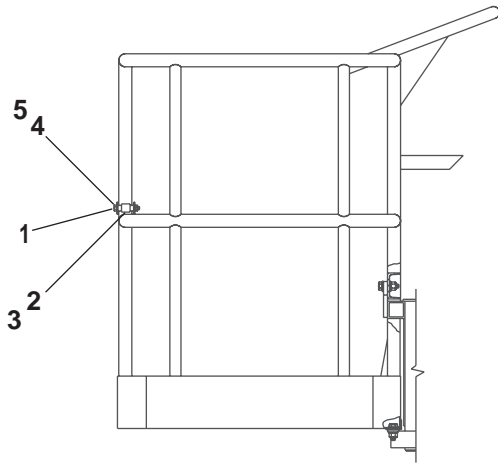


## Platform gate

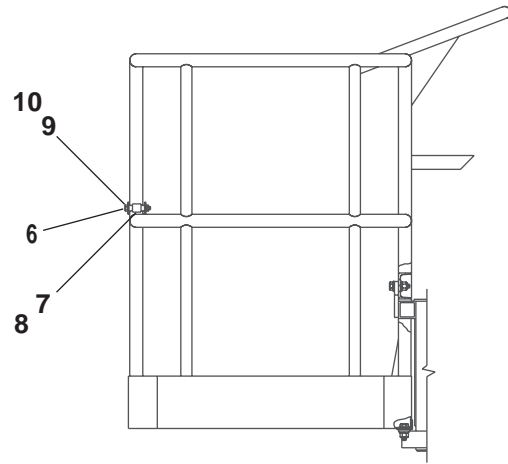
item	part no	qty	description
<b>Gravity gate for 5 ft and 8 ft steel platforms</b>			
1	0071951	1	Gravity gate, steel platform
2	0150509	2	Roller, steel gravity gate
3	0071953	2	Roller spacer, steel gravity gate
4	970529	2	Capscrew 3/8-16 x 2-1/2 inch long hex head grade 5
5	5560033	2	Nut 3/8-16 self locking
<b>Gravity gate for 5 ft and 8 ft aluminum platforms</b>			
	016117728	1	Gravity gate service kit - (kit includes items 6 through 10)
6	0161177	1	Gravity gate, aluminum platform
7	0161182	2	Roller, aluminum gravity gate
8	0161184	2	Roller spacer, aluminum gravity gate
9	970889	2	Capscrew 1/2-13 x 1 inch long hex head grade 5
10	5560039	2	Nut 1/2-13 self locking
<b>Swinging gate for 5 ft and 8 ft steel platforms</b>			
11	0071834	1	Swinging gate, steel platform
12	0322724	1	Pin, gate hinge
13	988179	2	Cotter pin 1/8 inch diameter x 1 inch long
14	986359	2	Washer 1/2 medium flat
15	0071837	1	Spring, torsion
16	2570002	2	Bearing
17	2667500	1	Knob, gate hinge pin
<b>Swinging gate for 5 ft and 8 ft aluminum platforms</b>			
18	0160970	1	Swinging gate, aluminum platform
19	0322724	1	Pin, gate hinge
20	5560056	1	Roll pin 1/8 inch diameter x 1 inch long
21	0071837	1	Spring, torsion
22	2570002	2	Bearing
23	2667500	1	Knob, gate hinge pin
24	0161472	1	Latch stop
25	970099	3	Capscrew 1/4-20 x 5/8 inch long hex head grade 5
26	984529	3	Nut sert 1/4-20
27	987099	2	Washer 1/4 medium lock
28	986019	1	Washer 1/4 medium flat
29	300891	1	Door latch
<b>Full height swinging gate for 8 ft steel platforms</b>			
30	0074468	1	Full height swinging gate, steel platform
31	0322724	1	Pin, gate hinge
32	988179	2	Cotter pin 1/8 inch diameter x 1 inch long
33	986359	2	Washer 1/2 medium flat
34	0071837	1	Spring, torsion
35	2570002	2	Bearing
36	2667500	1	Knob, gate hinge pin
37	300891	1	Door latch
38	984529	3	Nut sert 1/4-20
39	970099	3	Capscrew 1/4-20 x 5/8 inch long hex head grade 5
40	987099	2	Washer 1/4 medium lock
41	986019	1	Washer 1/4 medium flat
42	0181574	1	Latch stop



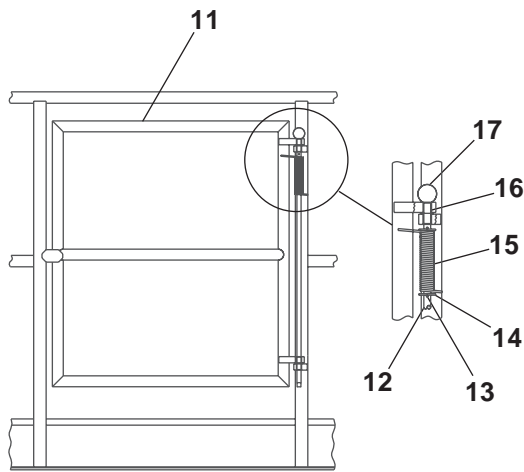
# Platform gate



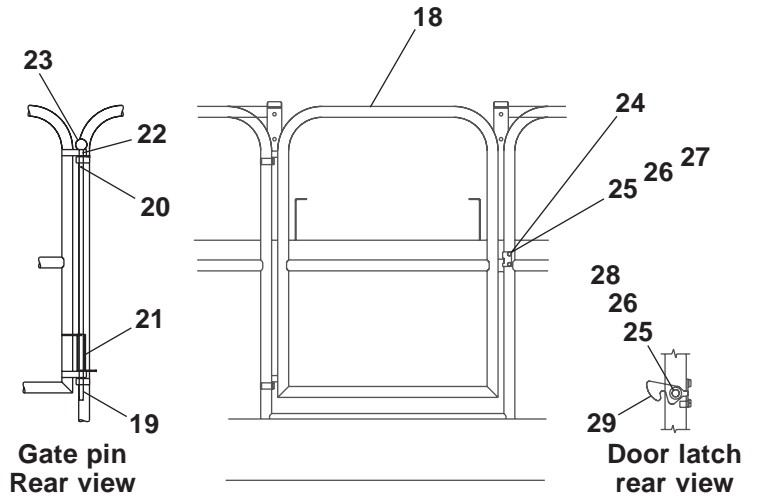
Gravity gate, steel platform



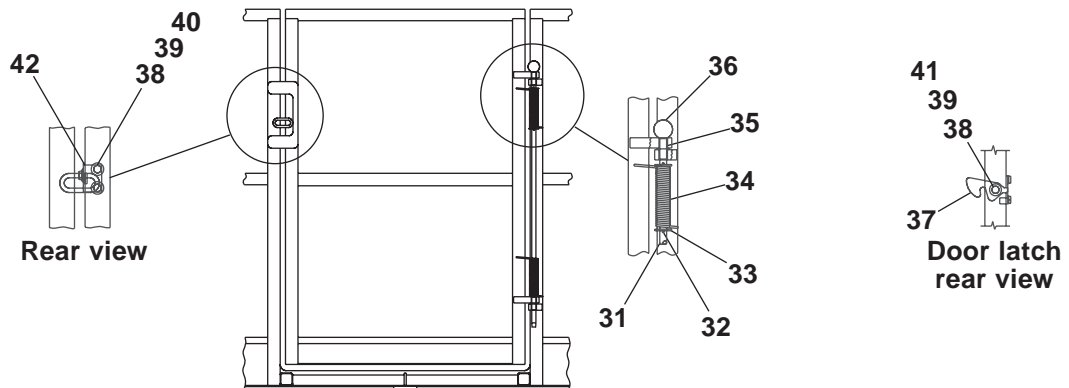
Gravity gate, aluminum platform



Swinging gate, steel platform



Swinging gate, aluminum platform



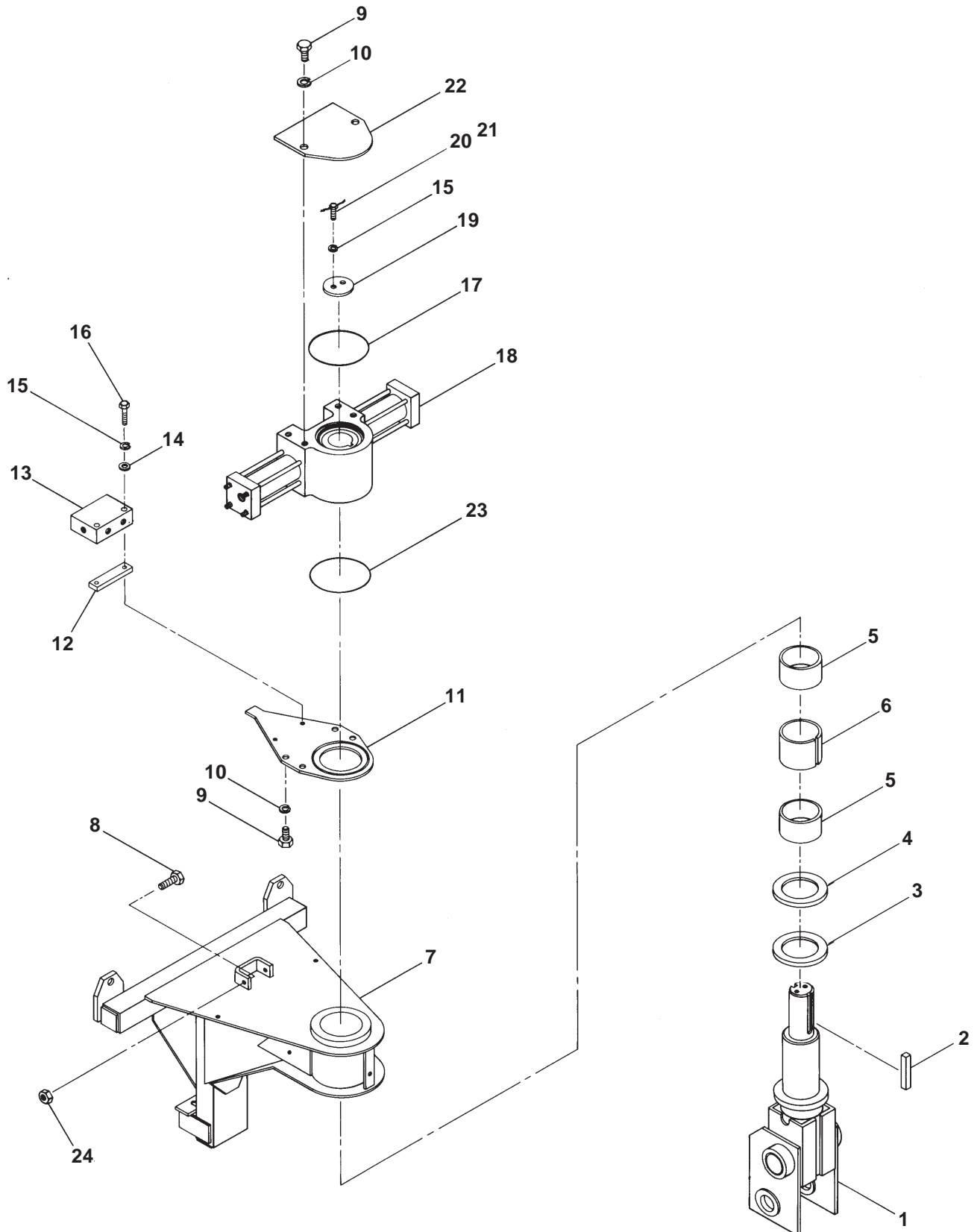
Full height swinging gate, steel platform

AWM00207

## Platform rotator

item	part no	qty	description
	0072552	1	Platform rotator
1	0072553	1	Pylon, platform rotator - (requires 0072555 collar)
2	0070916	1	Key
3	0072555	1	Collar
4	0072561	1	Thrust bearing
5	2504856	2	Bearing
6	0072562	1	Bearing spacer
7	0072556	1	Mounting frame, platform rotator
8	970919	2	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 5
9	970849	6	Capscrew 1/2-13 x 1-1/4 inch long hex head grade 5
10	987139	6	Washer 1/2 medium lock
11	0072818	1	Torque plate, platform rotator
12	0073783	1	Valve spacer
13	6010628	1	Dual holding valve, platform rotation - (see page 2-56 for parts breakdown)
14	986269	2	Washer 5/16 medium flat
15	987109	4	Washer 5/16 medium lock
16	970349	2	Capscrew 5/16-18 x 2-3/4 inch long hex head grade 5
17	7110348	1	O-ring
18	0110771	1	Platform rotator, Parker - see page 2-63 for parts breakdown)
19	0070132	1	Pin lock
20	0070473	2	Capscrew 5/16-18 drilled head
21	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
22	0072508	1	Cover plate, platform rotator
23	7110348	1	O-ring
24	984409	2	Nut 1/2-13 hex jam

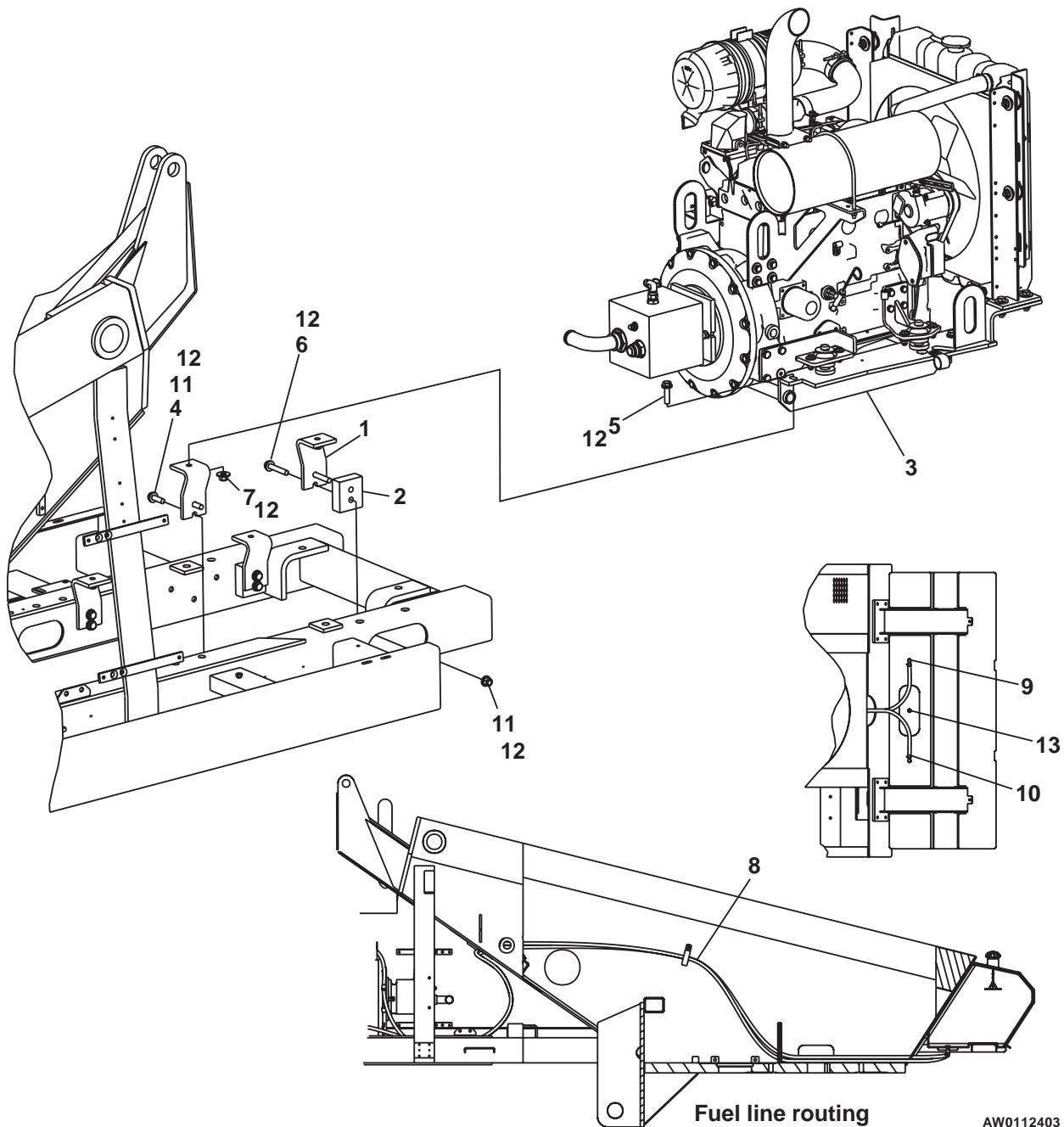
# Platform rotator



AW0072552

## Engine mounting, Cummins 3.3

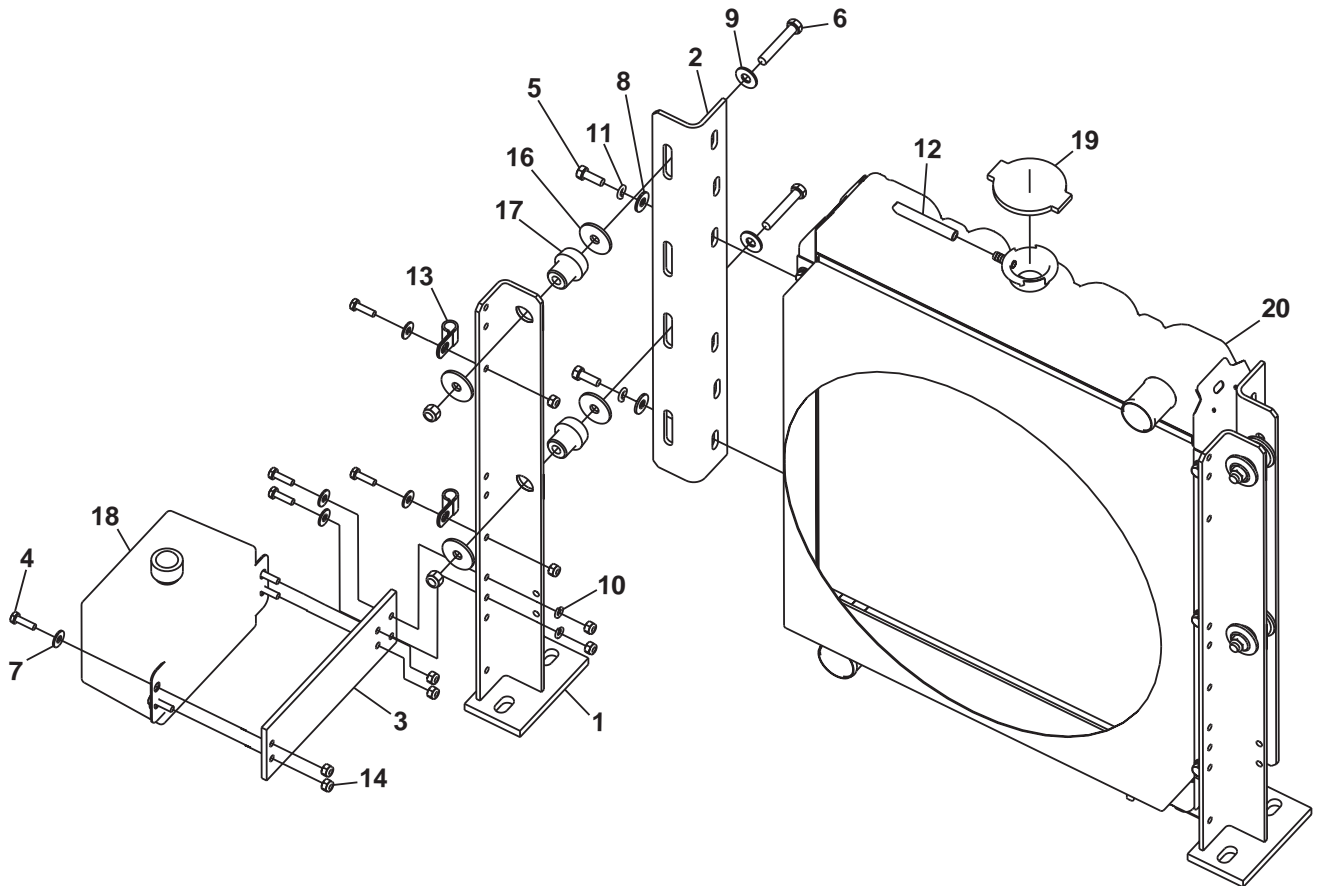
item	part no	qty	description
1	0083438	4	Engine mount, Cummins 3.3
2	0112241	2	Spacer
3	0112381	1	Engine and radiator, Cummins 3.3 - (see page 1-42 for parts breakdown)
4	970909	4	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
5	970929	4	Capscrew 1/2-13 x 2 inch long hex head grade 5
6	970969	4	Capscrew 1/2-13 x 3 inch long hex head grade 5
7	986359	4	Washer 1/2 medium flat
8	5010005	1	Hose 3/8 inch diameter x 33 feet long
9	5093038	2	Elbow 90° male brass
10	5550006	4	Clamp
11	5560039	12	Nut 1/2-13 self locking
12	5560168	20	Washer 1/2 hard flat ASTM-F436
13	7714203	1	Hex head plug



AW0112403

## Radiator, Cummins 3.3

item	part no	qty	description
	0074634	1	Radiator, Cummins 3.3
1	0074630	2	Radiator bracket
2	0083153	2	Radiator mount angle
3	0180832	1	Mount plate, overflow reservoir
4	970039	8	Capscrew 1/4-20 x 7/8 inch long hex head grade 5
5	970249	4	Capscrew 5/16-18 x 7/8 inch long hex head grade 5
6	970519	4	Capscrew 3/8-16 x 2-1/4 inch long hex head grade 5
7	986019	8	Washer 1/4 medium flat
8	986269	4	Washer 5/16 medium flat
9	986299	4	Washer 3/8 medium flat
10	987099	2	Washer 1/4 medium lock
11	987109	4	Washer 5/16 medium lock
12	5010011	1	Fuel hose 5/16 inch diameter x 48 inch long
13	5093001	2	Clamp
14	5560004	8	Nut 1/4-20 self locking
15	5560033	4	Nut 3/8-16 self locking
16	5560179	8	Washer, snubbing
17	7630180	1	Radiator cushion
18	7630227	1	Overflow reservoir
	8060277	1	Replacement reservoir cap
19	7630239	1	Radiator cap - 13 psi
20	7630756	1	Radiator



AW0074634

## Engine and radiator, Cummins 3.3

item	part no	qty	description
	0112381	1	Engine and radiator, Cummins 3.3
1	0074634	1	Radiator, Cummins 3.3 - (see page 1-41 for parts breakdown)
2	0074641	1	Exhaust pipe
3	0074644	1	Muffler, standard
4	0074645	1	Tail pipe
5	0074664	1	Muffler clamp
6	0074684	1	Lower radiator hose
7	0074685	1	Upper radiator hose
8	0074687	1	Air intake tube clamp
9	0074688	1	Air intake hose adapter
10	0074786	1	Muffler support bracket
11	0083165	2	Clamp, T-bolt
12	0083167	1	Air cleaner mount bracket
13	0083175	1	Air cleaner hose coupler
14	0083445	1	Engine tray, Cummins 3.3 - (see page 1-45 for parts breakdown)
15	0083544	2	Clamp, T-bolt
16	0111578	1	Hydraulic pump - (see page 2-59 for parts breakdown)
17	970239	2	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
18	970449	2	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
19	970919	1	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 5
20	972019	4	Capscrew metric M10-1.5 x 25mm long hex head
21	975209	2	Capscrew metric M6-1.00 x 18mm long hex head
22	984089	4	Nut 5/16-18 hex
23	986359	8	Washer 1/2 medium flat
24	987109	4	Washer 5/16 medium lock
25	987139	2	Washer 1/2 medium lock
26	5550026	2	Clamp
27	5550038	2	Clamp
28	5550040	2	Clamp
29	5560033	2	Nut 3/8-16 self locking
30	5560039	4	Nut 1/2-13 self locking
31	5560136	2	Capscrew 1/2-13 self locking drilled head
32	5560356	8	Washer metric M10 lock
33	5560364	4	Washer metric M10 flat
34	5560625	4	Capscrew metric M10-1.5 x 20mm long hex head
35	5560664	2	Washer metric M6 lock
36	7630015	1	Elbow, 90° rubber
37	7630755	1	Air cleaner
	8140011	1	Replacement primary filter element
	8140012	1	Replacement dust ejector
	8140013	1	Replacement cover
	8140014	2	Replacement clip
38	7630759	1	Air cleaner bracket
39	5010005	1	Hose 3/8 inch diameter x 33 inch long
40	5010005	1	Hose 3/8 inch diameter x 9 inch long
41	5010027	1	Fuel hose 3/16 inch diameter x 24 inch long
42	5093044	1	Nylon tee
43	5550006	4	Clamp
44	5550028	2	Clamp

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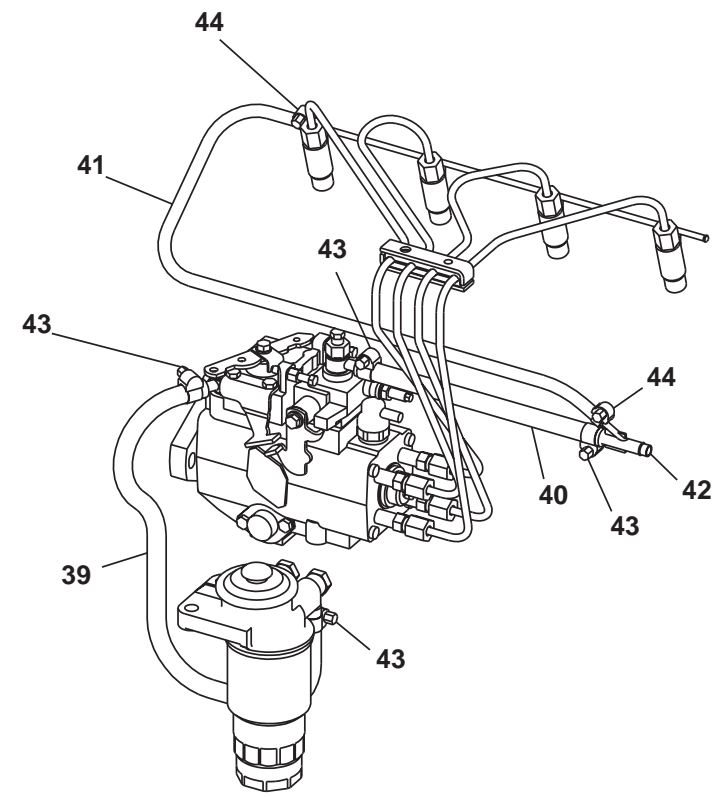
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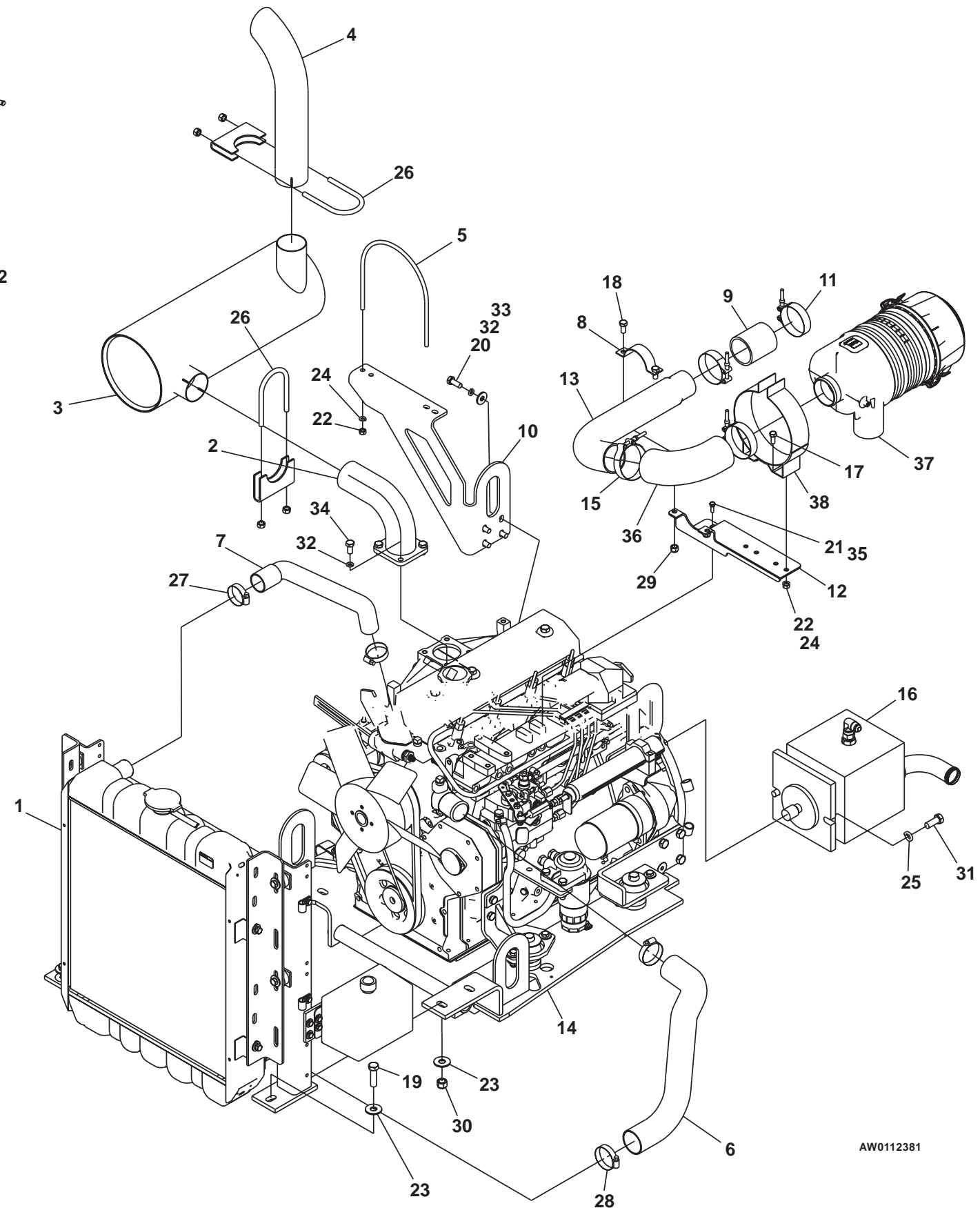
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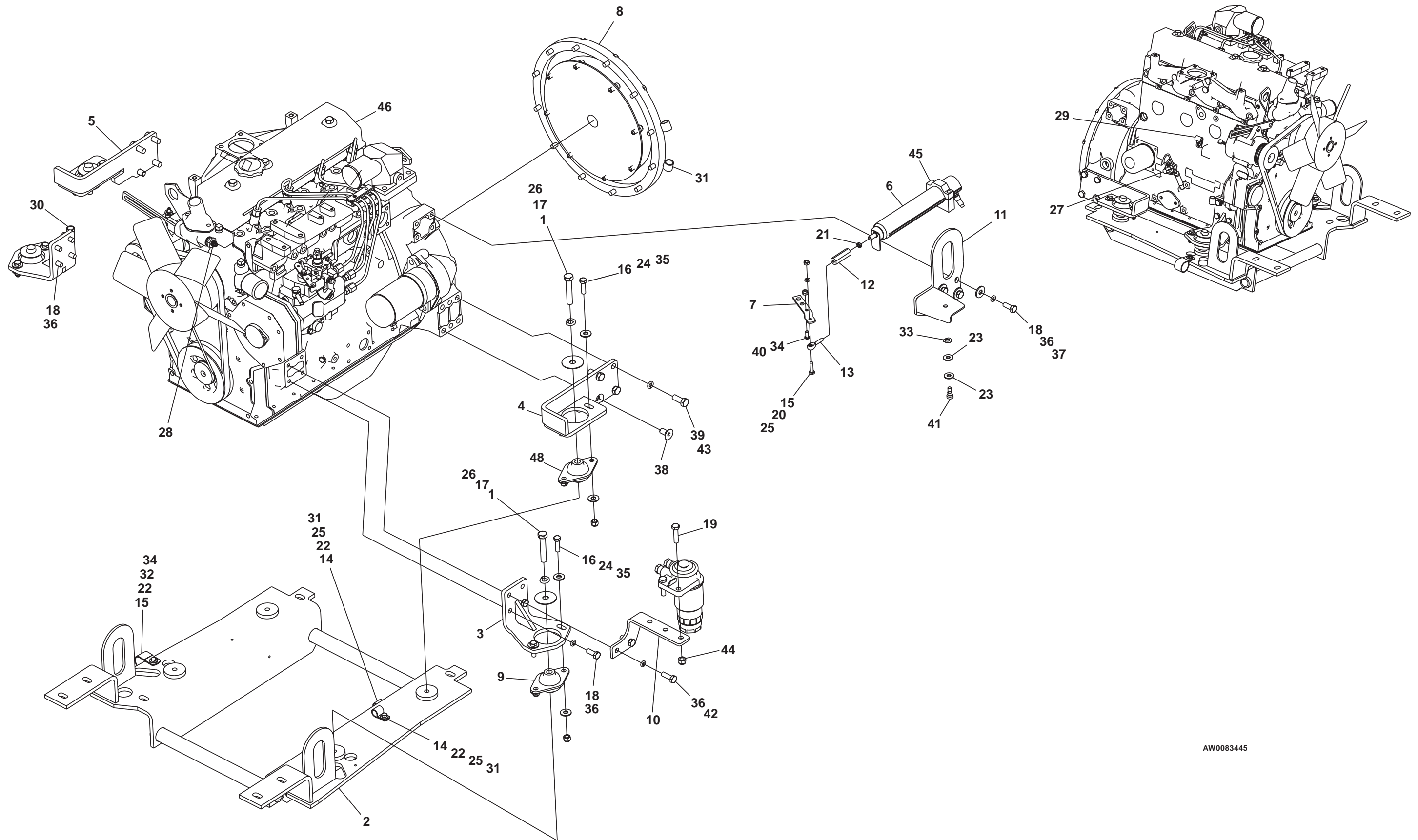


Fuel line routing



AW0112381

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AW0083445

TITLE Engine tray  
Cummins 3.3  
Snorkel model TB80



## Engine tray, Cummins 3.3

item	part no	qty	description
	0083445	1	Engine tray, Cummins 3.3
1	0070148	4	Engine mount washer
2	0074615	1	Engine tray
3	0074622	2	Front engine mount bracket
4	0074625	1	Rear engine mount bracket, left hand
5	0074628	1	Rear engine mount bracket, right hand
6	0162698	1	Throttle actuator
7	0083155	1	Throttle lever extension
8	0083437	1	Flywheel coupling
9	7630707	4	Engine isolator
10	0083529	1	Fuel filter mount bracket
11	0083570	1	Throttle actuator mount bracket
12	0083586	1	Throttle actuator coupler
13	0083587	1	Rod end
14	970019	2	Capscrew 1/4-20 x 5/8 inch long hex head grade 5
15	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
16	970419	8	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
17	971069	4	Capscrew 1/2-13 x 2-3/4 inch long hex head grade 5
18	972019	10	Capscrew metric M10-1.5 x 25mm long hex head
19	972049	2	Capscrew metric M10-1.5 x 40mm long hex head
20	984069	1	Nut 1/4-20 hex
21	984329	1	Nut 1/4-20 hex jam
22	986019	3	Washer 1/4 medium flat
23	986269	2	Washer 5/16 medium flat
24	986299	16	Washer 3/8 medium flat
25	987099	3	Washer 1/4 medium lock
26	987139	4	Washer 1/2 medium lock
27	3020095	1	Switch, oil pressure
28	3070037	1	Temperature sensor
29	5093000	1	Clamp
30	5093002	1	Clamp
31	5093021	4	Clamp
32	5093024	1	Clamp
33	5530017	1	Washer 3/8 curved spring
34	5560004	2	Nut 1/4-20 self locking
35	5560033	8	Nut 3/8-16 self locking
36	5560356	12	Washer metric M10 lock
37	5560364	4	Washer metric M10 flat
38	5560598	2	Capscrew metric M12-1.75 x 25mm long socket flat head
39	5560614	6	Washer metric M12 lock
40	5560615	1	Capscrew 1/4-20 x 5/8 inch long button head
41	5560618	1	Shoulder bolt 3/8 x 3/8 inch long
42	5560626	2	Capscrew metric M10-1.5 x 30mm long hex head
43	5560631	6	Capscrew metric M12-1.75 x 20mm long hex head
44	5560719	2	Nut metric M10-1.50 self locking
45	7630323	1	Mounting block
46	7620065	1	Engine, Cummins 3.3
	8036201	1	Replacement fuel filter
	8036204	1	Replacement oil filter

## Engine mounting, Deutz F4L-1011F

item	part no	qty	description
1	0111953	1	Engine, Deutz F4L-1011F - (see page 1-49 for parts breakdown)
2	0111750	1	Mount bracket, right hand front
3	0111751	1	Mount bracket, left hand front
4	0071599	8	Engine mount washer
5	7630130	4	Engine mount
6	7630286	1	Fuel filter
7	967299	1	Fuel hose 1/4 inch diameter x 15 feet long
8	5010011	1	Fuel hose 5/16 inch diameter x 15 feet long
9	5093040	1	Elbow 90° male brass
10	5093002	1	Clamp
11	5560169	4	Washer 5/8 hard flat ASTM-F436
12	5550028	5	Clamp
13	5560131	4	Nut 5/8-11 self locking
14	5560168	16	Washer 1/2 hard flat ASTM-F436
15	5560039	8	Nut 1/2-13 self locking
16	5560639	4	Capscrew 5/8-11 x 4-1/2 inch long hex head grade 5
17	970909	6	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
18	970929	2	Capscrew 1/2-13 x 2 inch long hex head grade 5
19	5093000	2	Clamp
20	5093006	1	Clamp
21	5560638	1	Capscrew metric M8-1.25 x 16mm long hex head
22	5560355	1	Washer metric M8 lock
23	7714203	1	Hex head plug
24	0110199	1	1 inch diameter hydraulic hose
25	0111821	1	Suction hose 1-1/2 inch diameter x 26 inch long
26	5088824	1	Hose clamp
27	5076407	1	Reducing adapter
28	5093039	1	Elbow 90° male brass

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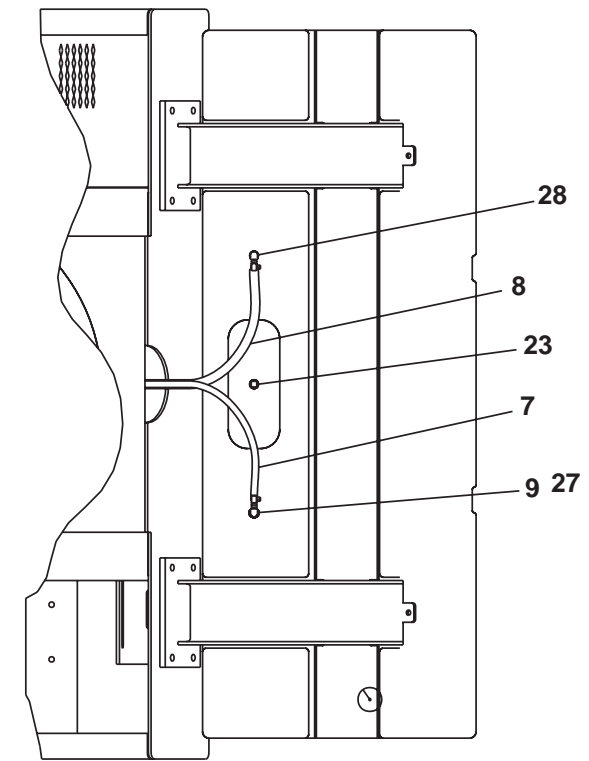
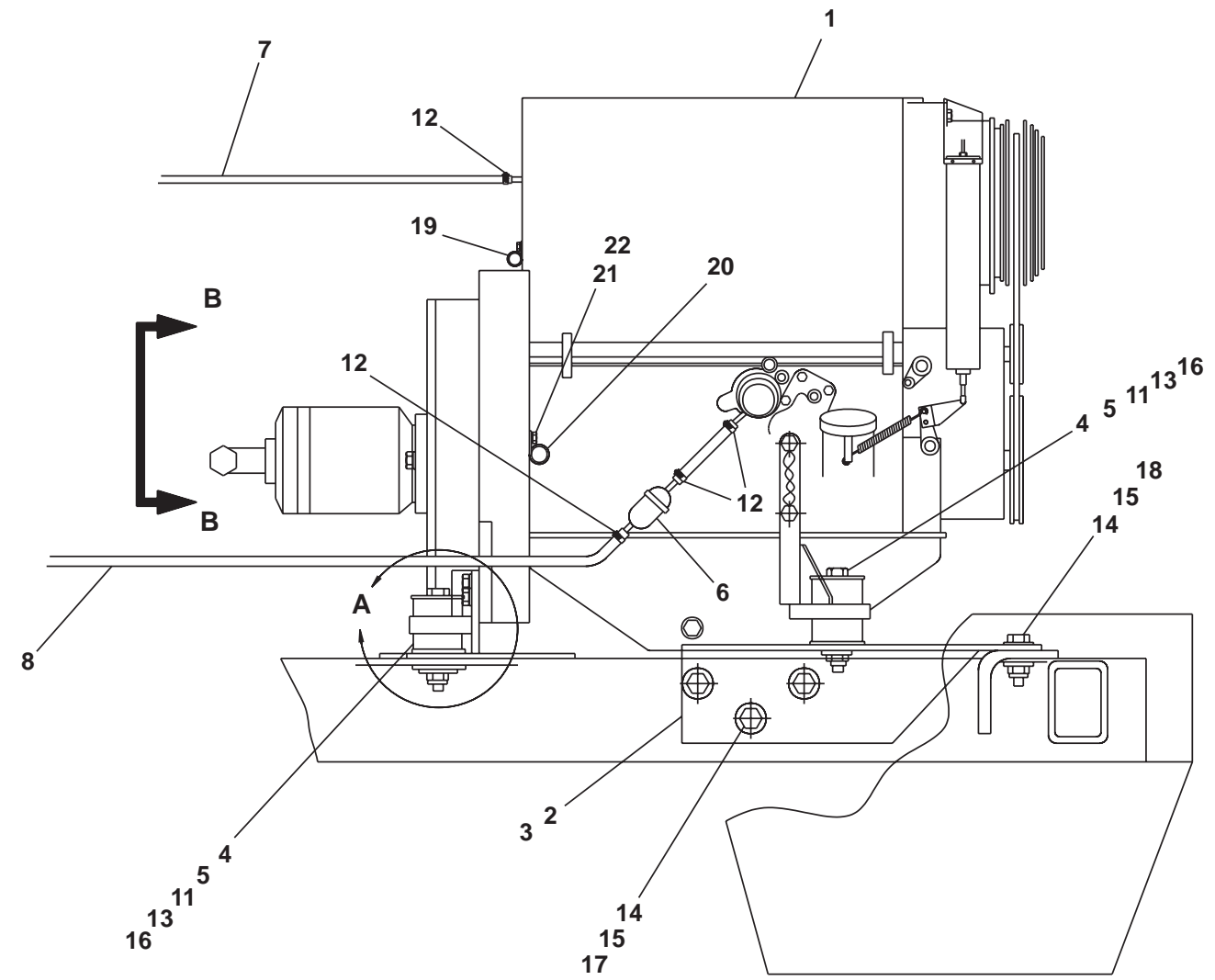
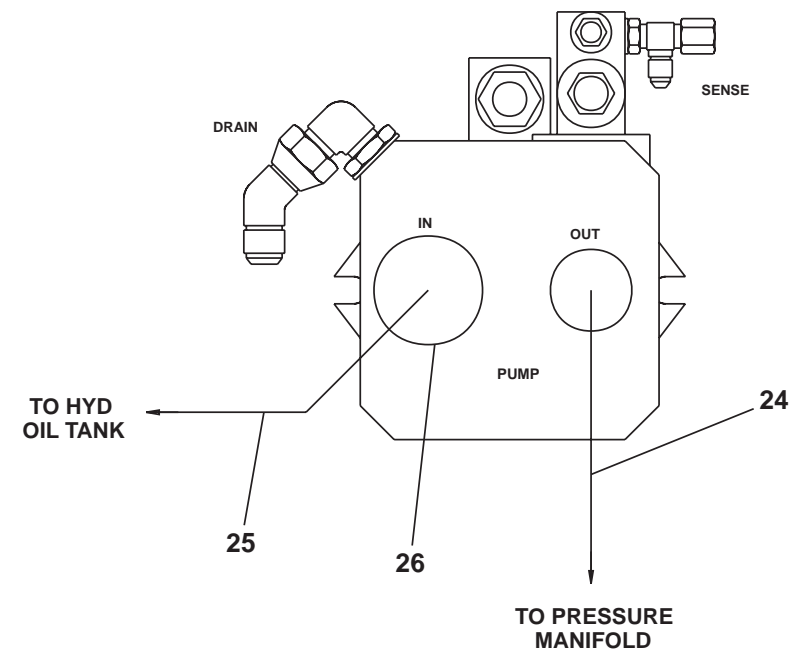
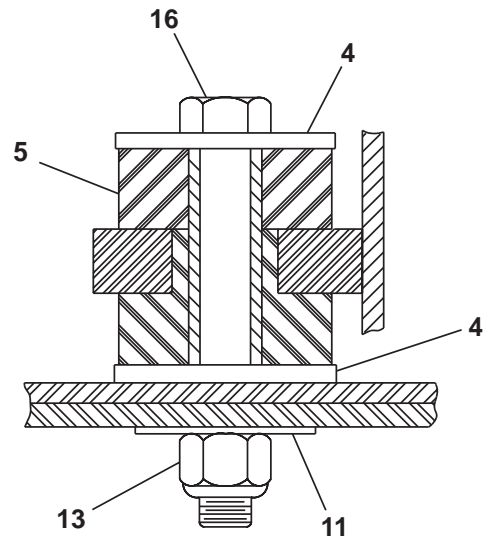
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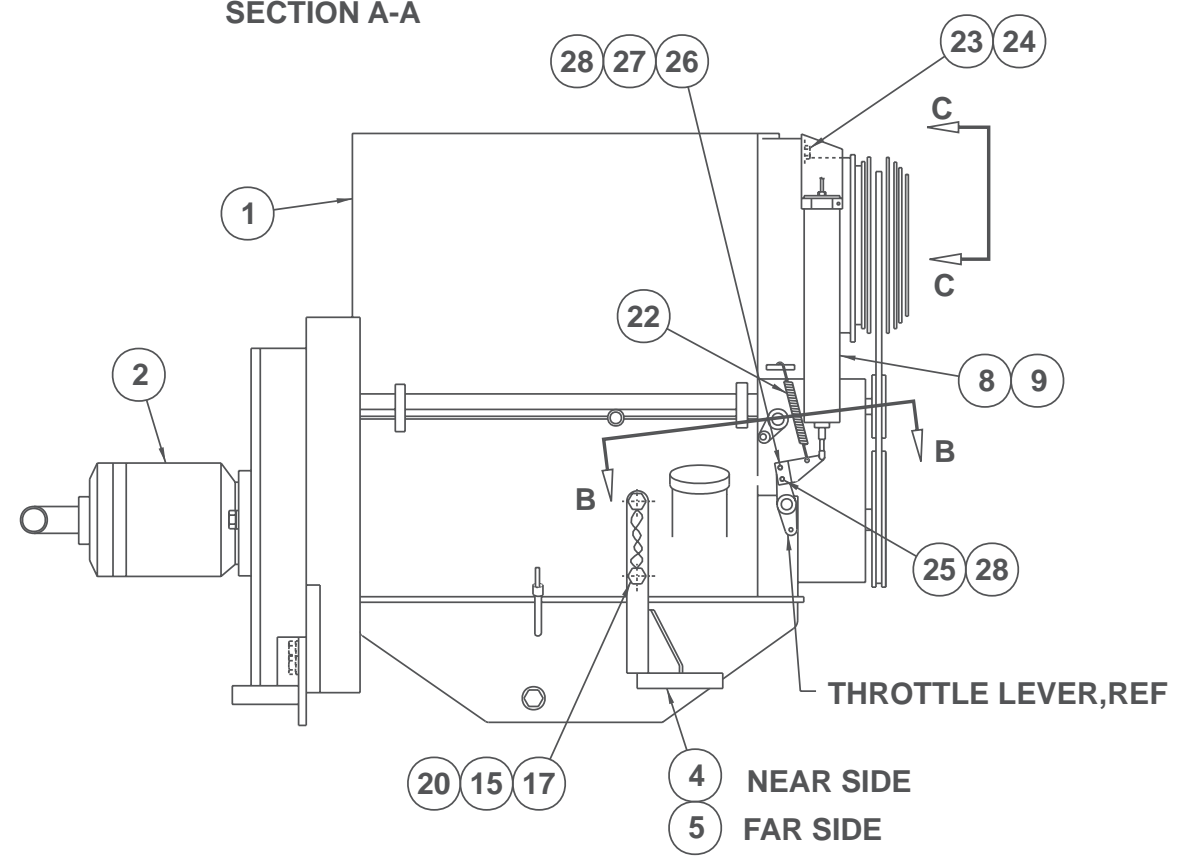
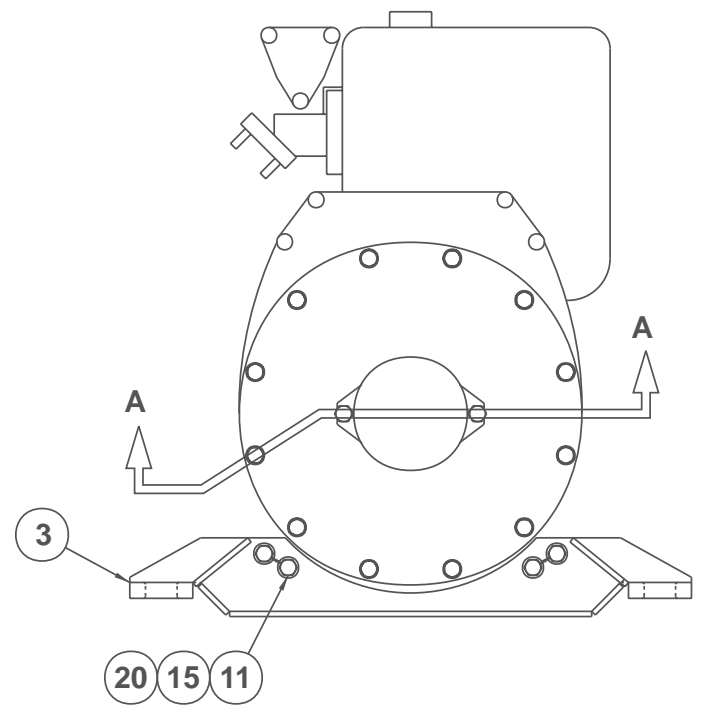
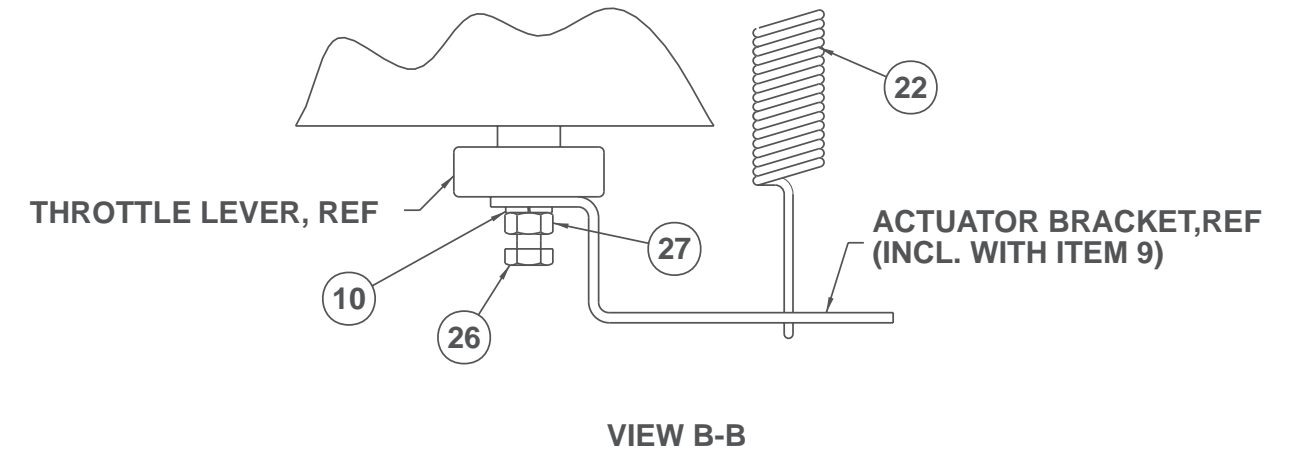
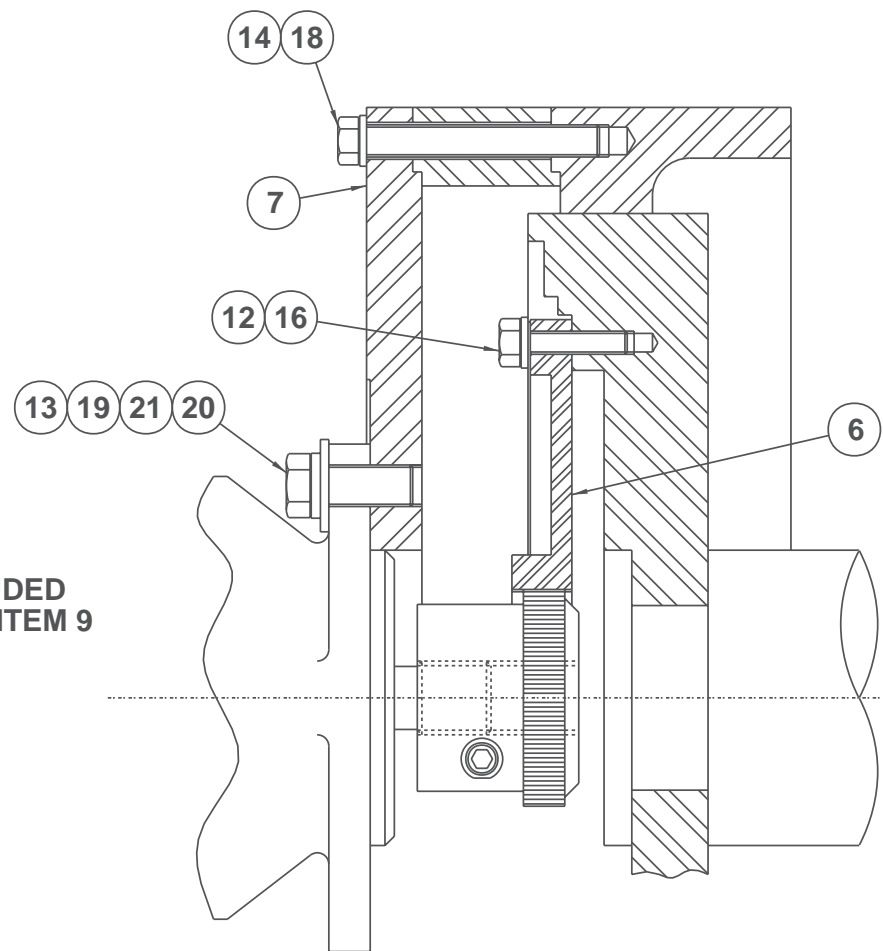
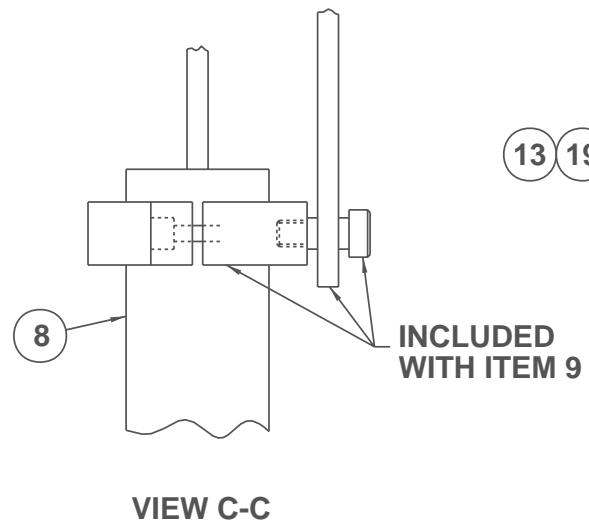
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AW0111953

## Engine, Deutz F4L-1011F

item	part no	qty	description
1	0111953	1	Engine, Deutz F4L-1011F
	7624750		Engine, Deutz F4L-1011F, 7-17-2004 and after
2	0111578	1	Hydraulic pump - (see page 2-59 for parts breakdown)
3	0081624	1	Motor mount, rear
4	0081619	1	Motor mount, front right hand
5	0081614	1	Motor mount, front left hand
6	7630249	1	Flexible coupling
7	0081226	1	Plate, engine coupling
8	20082045	1	Actuator - (includes spring - item 22)
9	7630311	1	Mount kit, Addco actuator
10	5560664	2	Washer metric M6 lock
11	5560207	4	Capscrew metric M14-2.00 x 30mm long hex head
12	986299	6	Washer 3/8 medium flat
13	987139	2	Washer 1/2 medium lock
14	5560356	8	Washer metric M10 lock
15	5560377	8	Washer metric M14 lock
16	5560626	6	Capscrew metric M10-1.5 x 30mm long hex head
17	5560028	4	Capscrew metric M14-2.00 x 50mm long hex head drilled
18	5560653	8	Capscrew metric M10-1.5 x 85mm long hex head
19	5560168	2	Washer 1/2 hard flat ASTM-F436
20	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
21	5560136	2	Capscrew 1/2-13 self locking drilled head
22	8010246	1	Spring - (included with actuator kit 008204528)
23	5560638	2	Capscrew metric M8-1.25 x 16mm long hex head
24	5560355	2	Washer metric M8 lock
25	5560690	1	Capscrew metric M6-1.25 x 18mm long hex head
26	5560628	1	Capscrew metric M6-1.0 x 12mm long hex head
27	984169	1	Nut metric M6-1.0 hex
28	5560664	2	Washer, M6 lock



## Engine mounting, Ford LRG-425

item	part no	qty	description
1	0112083	1	Engine, Ford LRG-425 - (see page 1-55 for parts breakdown)
2	7630677	1	Radiator
3	0180441	2	Bracket, radiator support
4	0081860	2	Angle, radiator
5	7630180	4	Radiator cushion
6	5560179	8	Washer, snubbing
7	7630332	1	Radiator hose, lower
8	7630191	1	Radiator hose, upper
9	5550030	4	Clamp
10	7630117	4	Engine mount
11	0071599	8	Engine mount washer
12	0180832	1	Mount plate, overflow reservoir
13	7630227	1	Overflow reservoir
	8060277	1	Replacement reservoir cap
14	5010012	1	Radiator overflow hose 5/16 inch diameter x 60 inch long
15	970909	6	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
16	5560039	6	Nut 1/2-13 self locking
17	5550028	6	Clamp
18	5010011	1	Fuel hose 5/16 inch diameter x 30 feet long
19	5093039	2	Elbow 90° male brass
20	7714203	1	Hex head plug
21		1	Drain cock (included with engine - not sold separately)
22	970239	4	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
23	987109	4	Washer 5/16 medium lock
24	970889	4	Capscrew 1/2-13 x 1 inch long hex head grade 5
25	986359	4	Washer 1/2 medium flat
26	987139	4	Washer 1/2 medium lock
27	5560639	4	Capscrew 5/8-11 x 4-1/2 inch long hex head grade 5
28	5560169	4	Washer 5/8 hard flat ASTM-F436
29	5569958	8	Nut 5/8-11 self locking
30	970049	6	Capscrew 1/4-20 x 1 inch long hex head grade 5
31	5560004	14	Nut 1/4-20 self locking
32	986019	8	Washer 1/4 medium flat
33	0111349	2	Motor mount, front
34	986269	4	Washer 5/16 medium flat
35	7630239	1	Radiator cap - 13 psi
36	970519	4	Capscrew 3/8-16 x 2-1/4 inch long hex head grade 5
37	986299	4	Washer 3/8 medium flat
38	5560033	4	Nut 3/8-16 self locking
39	0112092	1	Decal, engine control module
40	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
41	987099	2	Washer 1/4 medium lock
42	0111713	1	Motor mount, rear
43	970319	4	Capscrew 5/16-18 x 2-1/2 inch long hex head grade 5
44	5560678	8	Washer 5/8 medium flat
45	970069	8	Capscrew 1/4-20 x 1-1/4 inch long hex head grade 5
46	0110200	1	1 inch diameter hydraulic hose
47	0111883	1	Suction hose 1-1/2 inch diameter
48	5058824	1	Clamp, suction hose
49	7630678	1	Fuel line connector - (included with engine)
50	7630679	1	Fuel line connector - (included with engine)
			Parts list continued on next page

## Engine mounting, Ford LRG-425

item	part no	qty	description
51	7630680	1	Fuel line connector - (included with engine)
52	7630681	1	Pressure regulator - (included with engine)
53	7630682	1	Fuel pump - (included with engine)
54	7630683	1	Fuel filter - (included with engine)
55	7630686	1	High pressure hose - (included with engine)
56	7630685	1	Pressure regulator clamp - (included with engine)
57	7630691	1	High pressure fuel clamp - (included with engine)
58	7630687	1	Engine control module - (included with engine)
59	7630688	1	Indicator lamp
60	0112093	1	Bracket, ECM mounting
61	3020081	1	Switch, toggle



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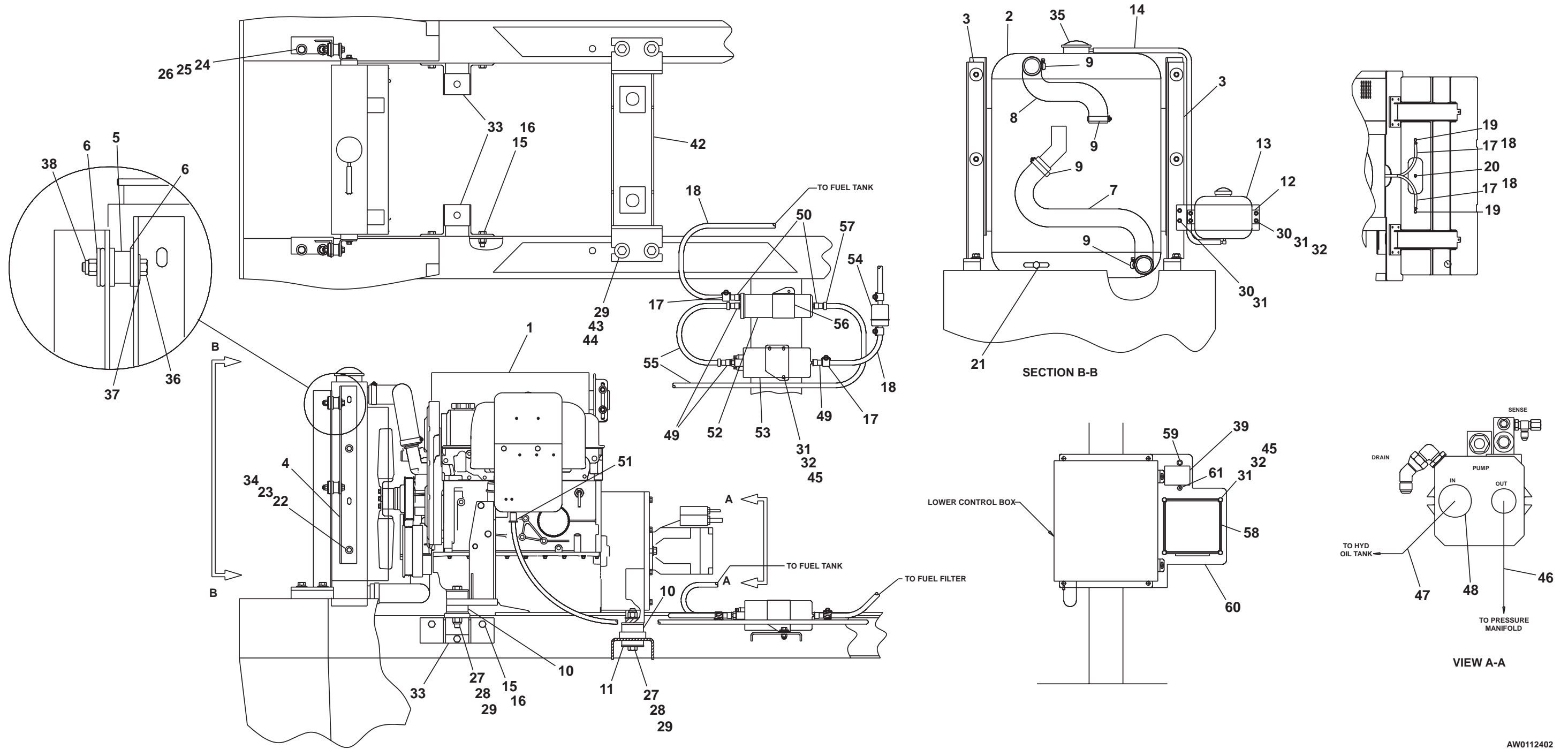
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TITLE	Engine mounting Ford LRG-425 Snorkel model TB80
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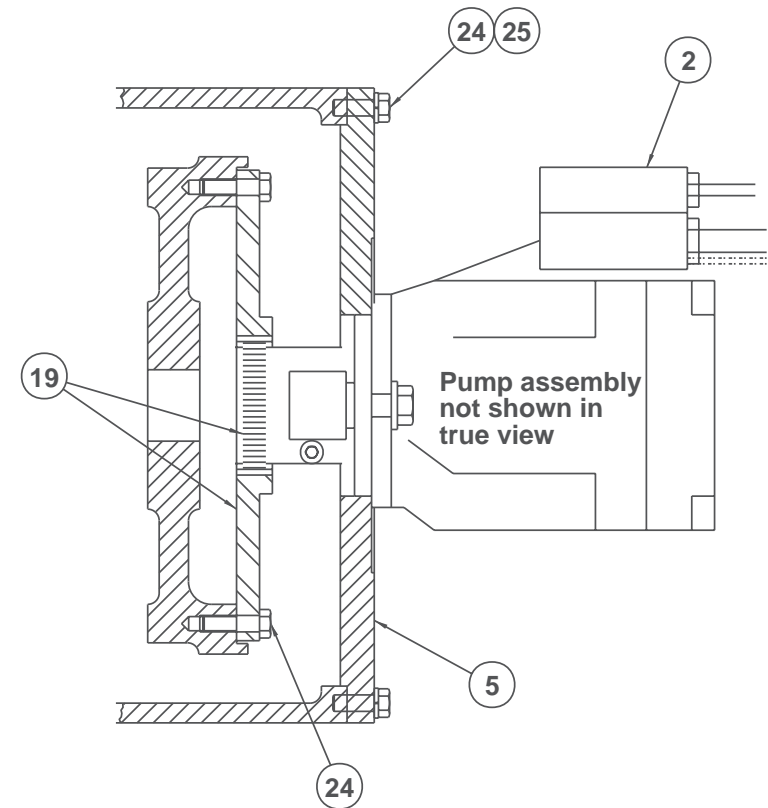
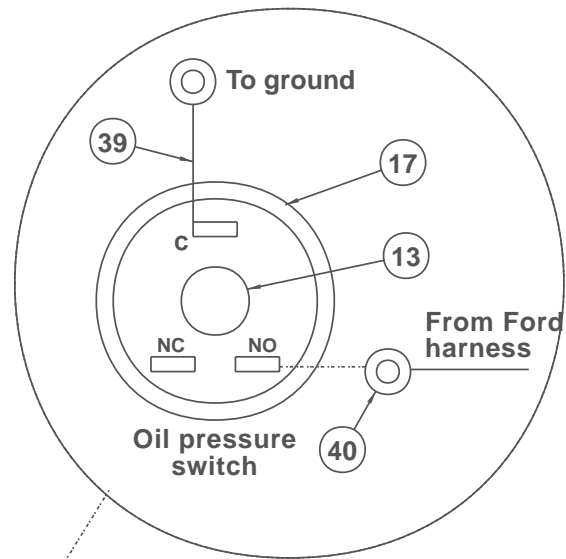
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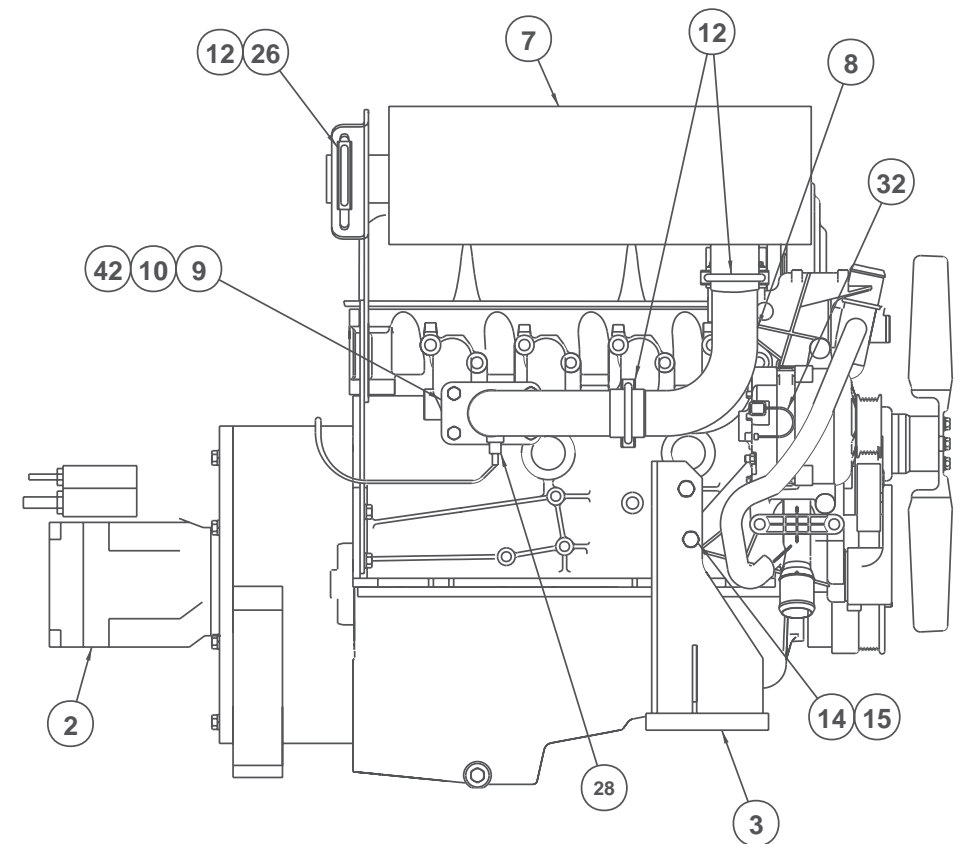
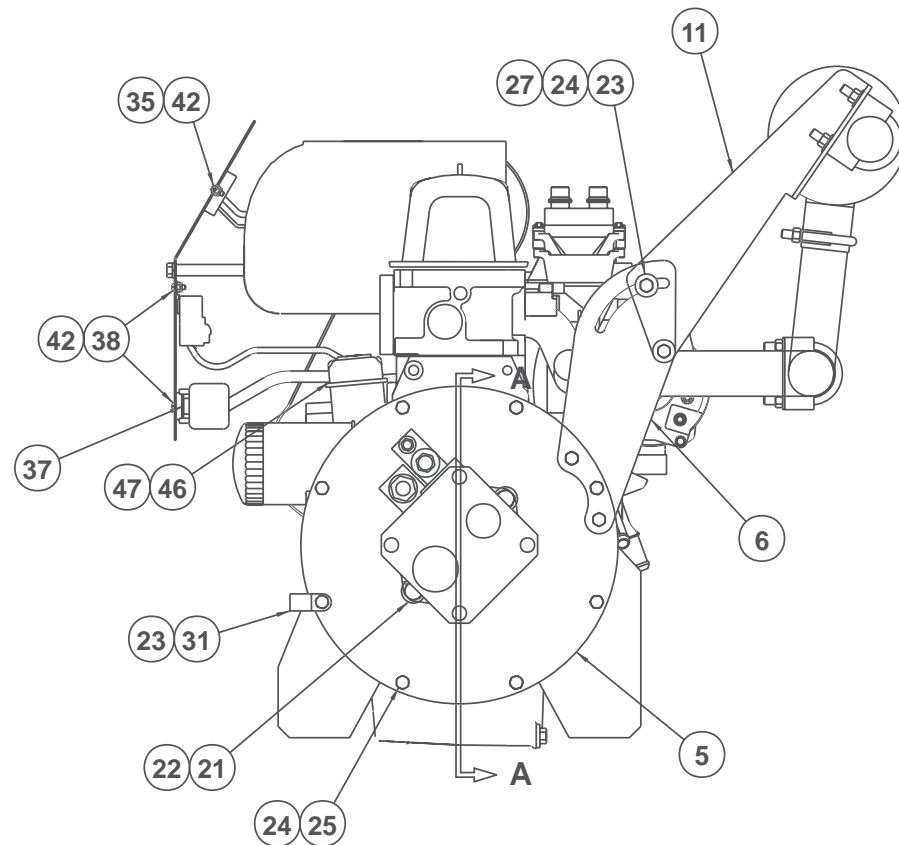
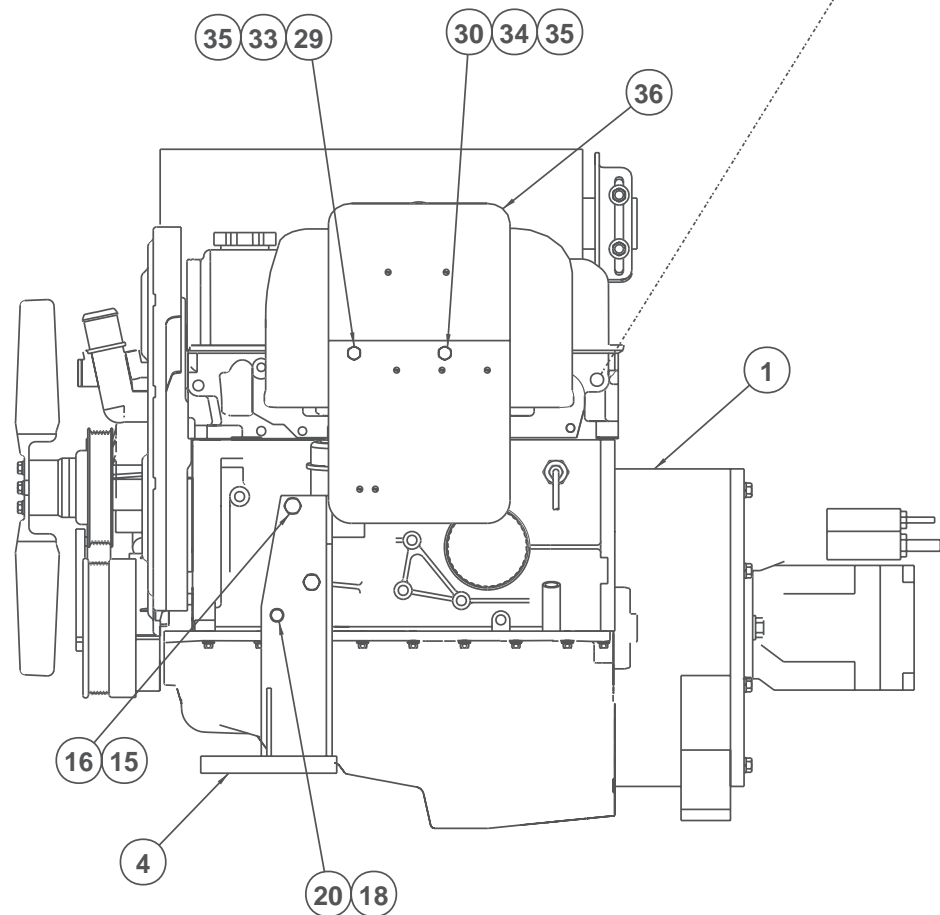
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Section A-A



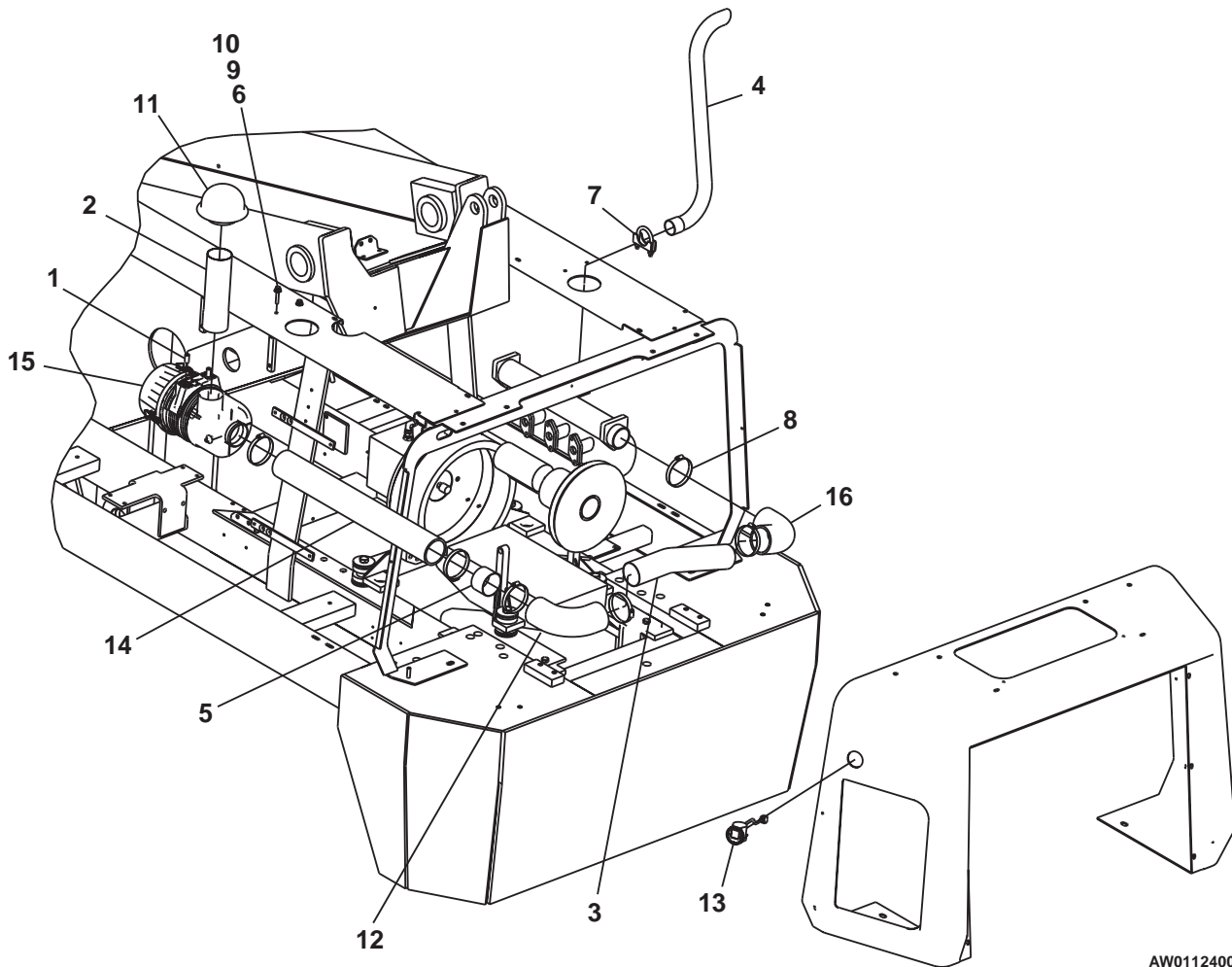
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## Engine, Ford LRG-425

item	part no	qty	description
	0112083	1	Engine, Ford LRG-425
1	7620055	1	Engine, Ford LRG-425 gasoline
2	0111578	1	Hydraulic pump - (see page 2-59 for parts breakdown)
3	0111838	1	Motor mount, right hand
4	0111839	1	Motor mount, left hand
5	0080827	1	Engine adapter, Ford engine
6	0181535	1	Exhaust bracket, lower
7	7630255	1	Muffler
8	0181453	1	Exhaust pipe
9	0112088	1	Exhaust flange, LRG Ford
10		1	Exhaust gasket - (included with engine, item 1)
11	0181543	1	Exhaust bracket, upper
12	5550014	3	Exhaust clamp
13	7720201	1	Reducer
14	5560652	2	Capscrew metric M10-1.5 x 70mm long hex head
15	5560356	4	Washer metric M10 lock
16	972019	2	Capscrew metric M10-1.5 x 25mm long hex head
17	3020095	1	Switch, oil pressure
18	5560357	1	Capscrew metric M8-1.25 x 25mm long hex head
19	7630249	1	Flexible coupling
20	5560355	3	Washer metric M8 lock
21	5560136	2	Capscrew 1/2-13 self locking drilled head
22	5560168	2	Washer 1/2 hard flat ASTM-F436
23	986299	1	Washer 3/8 medium flat
24	970479	14	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
25	987119	14	Washer 3/8 medium lock
26	986269	2	Washer 5/16 medium flat
27	5560033	2	Nut 3/8-16 self locking
28		1	Hego sensor - (included with engine)
29	0112084	1	Spacer, 3 inch
30	0112085	1	Spacer, 4 inch
31	5093006	2	Clamp
32	0111869	1	Wire harness, alternator
33	5569823	1	Capscrew metric M8-1.25 x 105mm long hex head
34	5569824	1	Capscrew metric M8-1.25 x 130mm long hex head
35	5560610	2	Machine screw #10-24 x 1-1/4 inch long truss head
36	0112086	1	Engine harness cover plate
37	0112087	1	Connector bracket, 42 pin
38	5560609	5	Machine screw #10-24 x 1/2 inch long truss head
39	0071563	1	Jumper wire
40	3044145	1	Terminal #8 stud insulated 22/18 wire
41	5560034	2	Nut #10-24 self locking
42	5560625	1	Capscrew metric M10-1.5 x 20mm long hex head

## Exhaust and air cleaner, Deutz

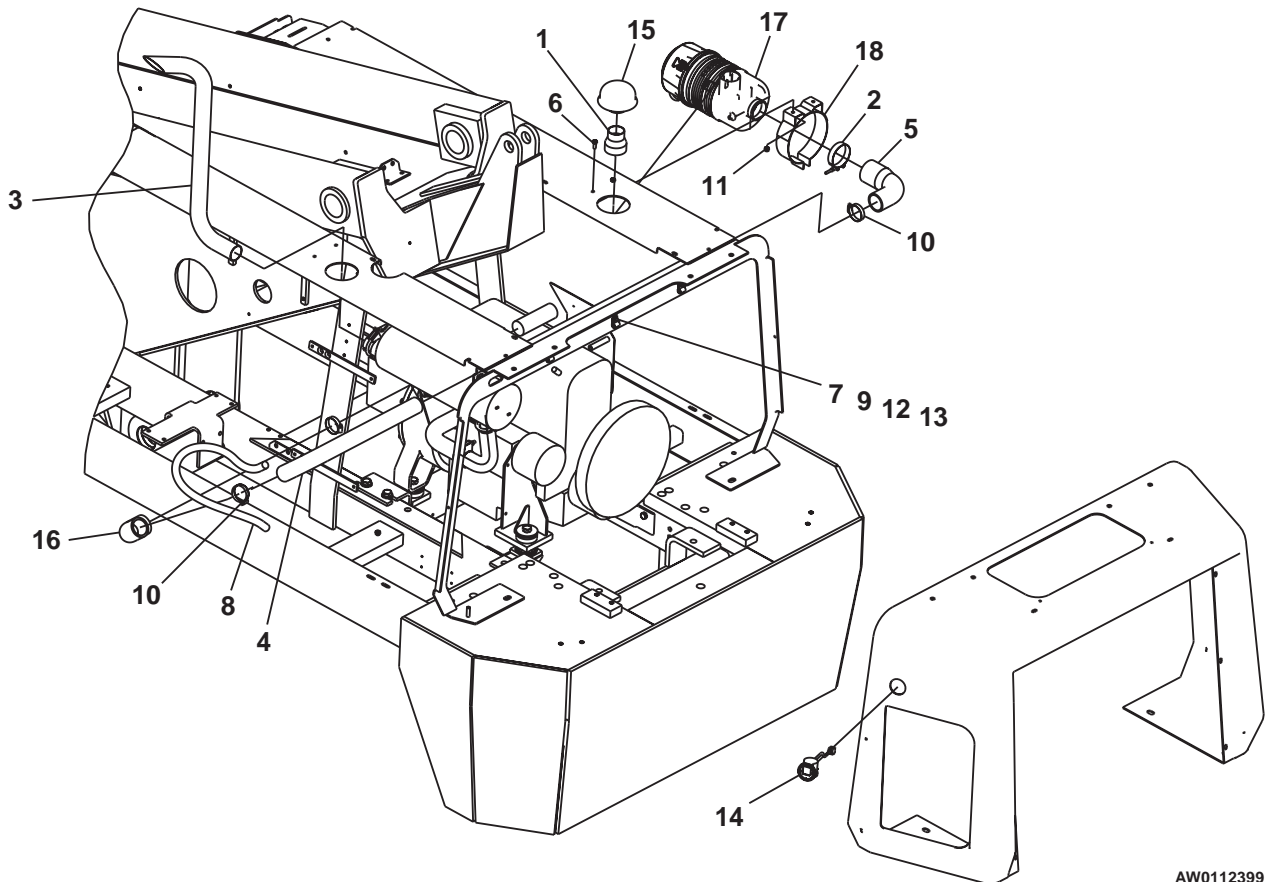
item	part no	qty	description
1	0071510	2	Spacer, air cleaner
2	0080679	1	Air inlet tube
3	0081639	1	Air intake tube
4	0081640	1	Exhaust pipe
5	0190805	1	Air inlet tube
6	987119	2	Washer 3/8 medium lock
7	5550007	1	Clamp
8	5550050	6	Clamp
9	5560222	2	Washer 3/8 hard flat ASTM-F436
10	5560635	2	Capscrew metric M8-1.25 x 50mm long hex head
11	7630004	1	Air inlet hood
12	7630016	1	Elbow, 3 inch 90° rubber
13	7630140	1	Filter condition indicator
14	7630313	1	Hose, 3 inch diameter flame resistant x 27-1/2 inch long
15	7630689	1	Air cleaner
	8140006	1	Replacement primary filter element
16	7630129	1	Elbow 90° rubber reducing



AW0112400

## Exhaust and air cleaner, Ford

item	part no	qty	description
1	0071995	1	Air inlet tube
2	0083544	1	Clamp, T-bolt
3	0111959	1	Tail pipe
4	0112470	1	Air inlet elbow
5	7630015	1	Elbow, 90° rubber
6	970239	2	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
7	986009	3	Washer #10 medium flat
8	5010020	1	Fuel hose, 5/8 inch diameter x 36 inch long
9	5093000	3	Clamp
10	5550040	3	Clamp
11	5560031	2	Nut 5/16-18 self locking
12	5560034	3	Nut #10-24 self locking
13	5560673	3	Machine screw #10-24 x 1 inch long truss head
14	7630140	1	Filter condition indicator
15	7630196	1	Air inlet hood
16	7630197	1	Elbow, 2 inch 90° rubber
17	7630755	1	Air cleaner
	8140011	1	Replacement primary filter element
	8140012	1	Replacement dust ejector
	8140013	1	Replacement cover
	8140014	1	Replacement clip
18	7630759	1	Air cleaner bracket



AW0112399

## Plastic cowling

item	part no	qty	description
1	0074408	8	Door hinge
2	0074602	1	Record box mount bracket
3	0082303	1	Door stop
4	0082321	6	Gas spring
5	0110483	1	Cover, lower controls
6	0112193	1	Door, left hand rear
7	0112195	1	Door, right hand rear
8	0112196	1	Cover, turntable rear
9	0112234	1	Front cowling
10	0112235	1	Front cowling support
11	0112239	1	Box mount
12	0112242	1	Door, left hand front
13	0112244	1	Door, right hand front
14	0112248	1	Cover, left hand rear
15	0112249	1	Cover, rear
16	0112250	1	Cover, left hand front
17	0112252	1	Bracket
18	0112253	1	Bracket
19	0112261	4	Gas spring mount
20	0112413	1	Cover
21	0191780	2	Gas spring mount
22	970029	5	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
23	970049	4	Capscrew 1/4-20 x 1 inch long hex head grade 5
24	970269	8	Capscrew 5/16-18 x 1-1/4 inch long hex head grade 5
25	970469	18	Capscrew 3/8-16 x 1 inch long hex head grade 5
26	970489	4	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
27	970849	12	Capscrew 1/2-13 x 1-1/4 inch long hex head grade 5
28	970909	2	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
29	970989	2	Capscrew 1/2-13 x 3-1/2 inch long hex head grade 5
30	972439	28	Carriage bolt 3/8-16 x 1-1/4 inch long
31	986019	5	Washer 1/4 medium flat
32	986269	8	Washer 5/16 medium flat
33	986299	6	Washer 3/8 medium flat
34	987139	10	Washer 1/2 medium lock
35	5510022	6	Latch adjust lever
	8030051	1	Replacement key
36	5560004	7	Nut 1/4-20 self locking
37	5560031	20	Nut 5/16-18 self locking
38	5560033	55	Nut 3/8-16 self locking
39	5560034	10	Nut #10-24 self locking
40	5560039	5	Nut 1/2-13 self locking
41	5560080	8	Bumper
42	5560137	6	Speed nut 5/16-18 with captive nut
43	5560168	12	Washer 1/2 hard flat ASTM-F436
44	5560222	55	Washer 3/8 hard flat ASTM-F436
45	5560311	12	Ball stud
46	5560609	5	Machine screw #10-24 x 1/2 inch long truss head
47	5560610	5	Machine screw #10-24 x 1-1/4 inch long truss head
48	0073481	1	Access door
49	0110042	1	Shroud
50	0112268	1	Cover
51	0073158	2	Spacer
52	0111756	1	Shroud, inner intake
53	0111757	1	Air intake shroud
54	0112397	1	Cover, Deutz
55	5560645	2	Capscrew 3/8-16 x 5-1/2 inch long hex head grade 5

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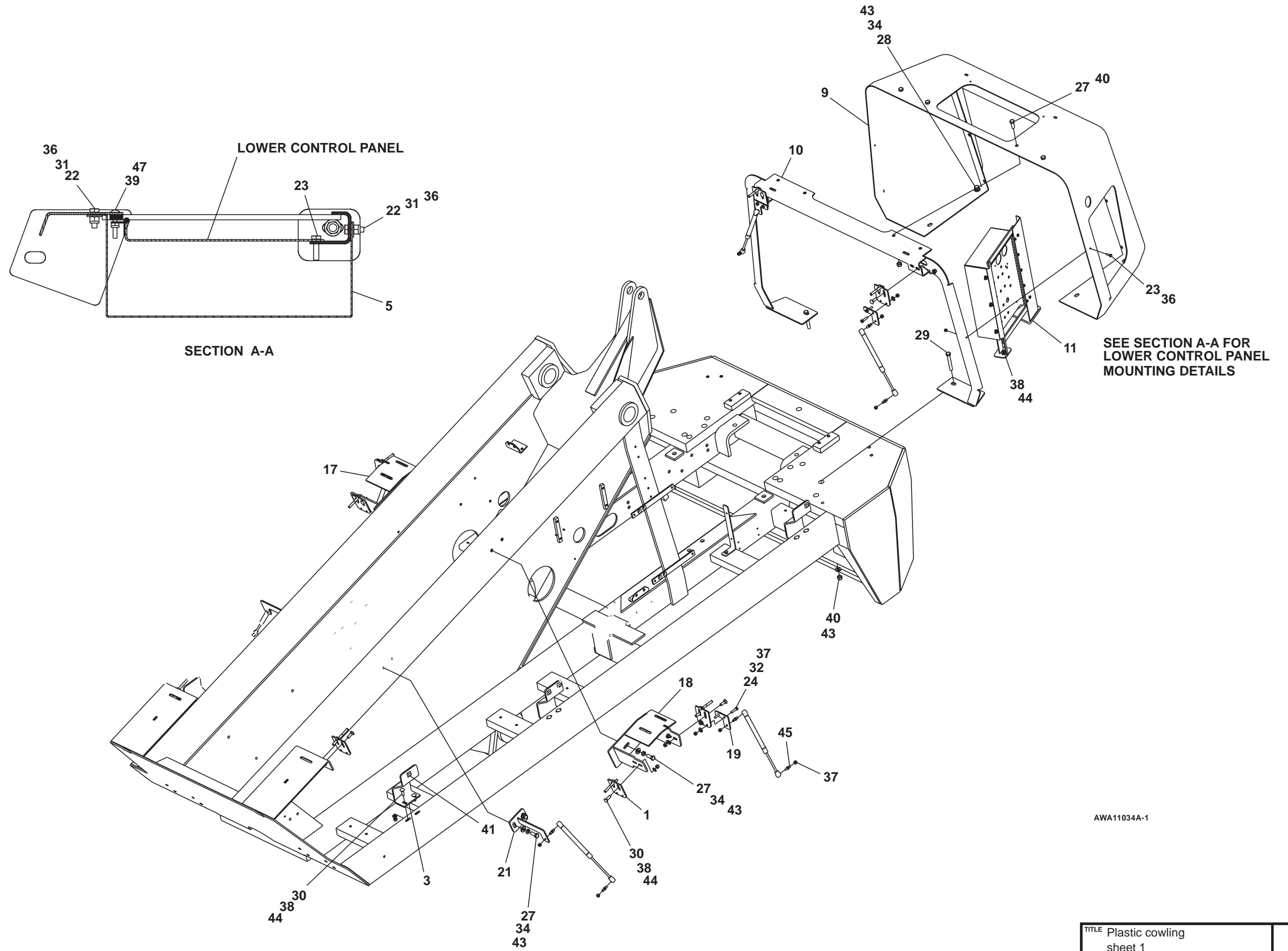
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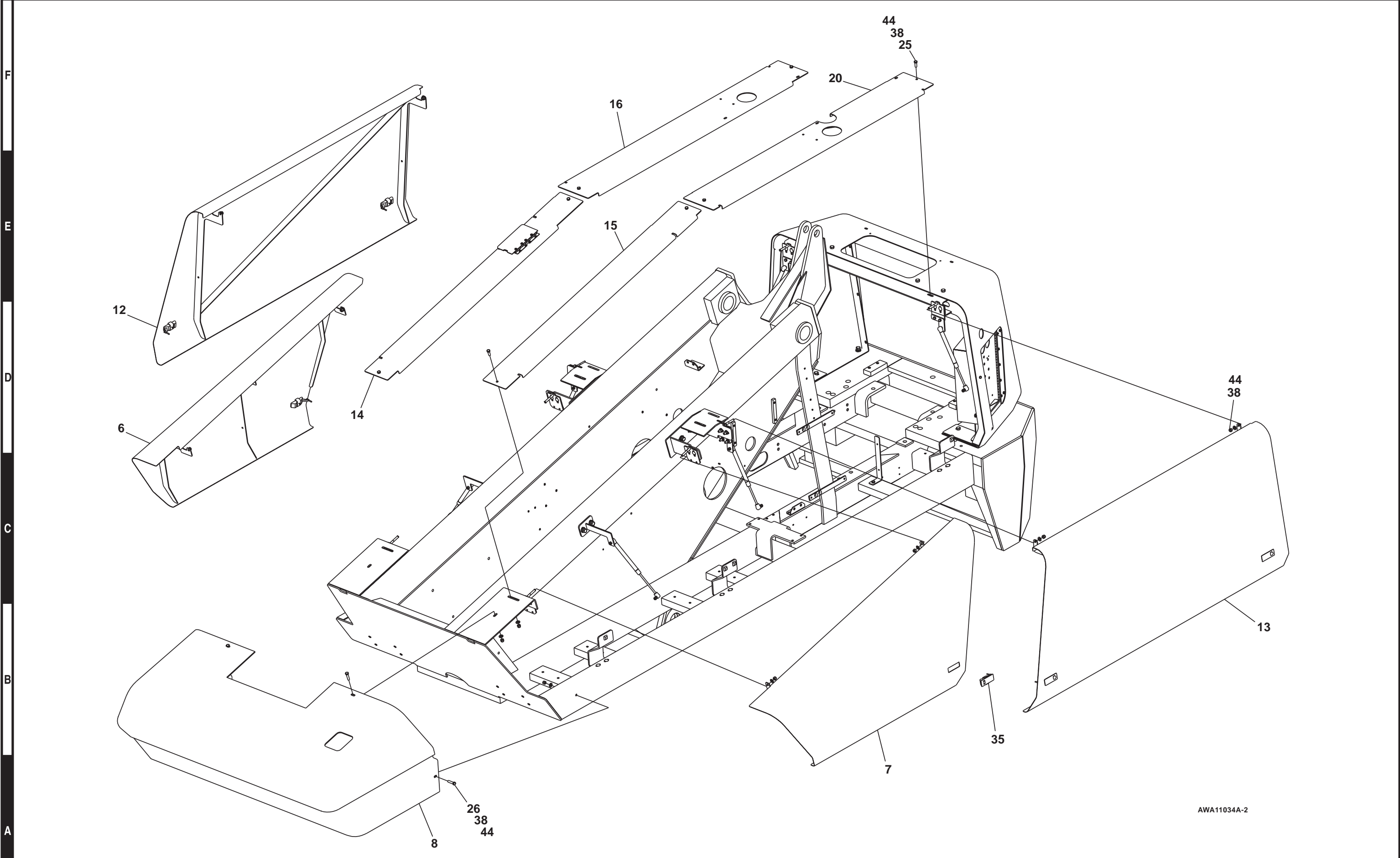
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 Snorkel model TB80

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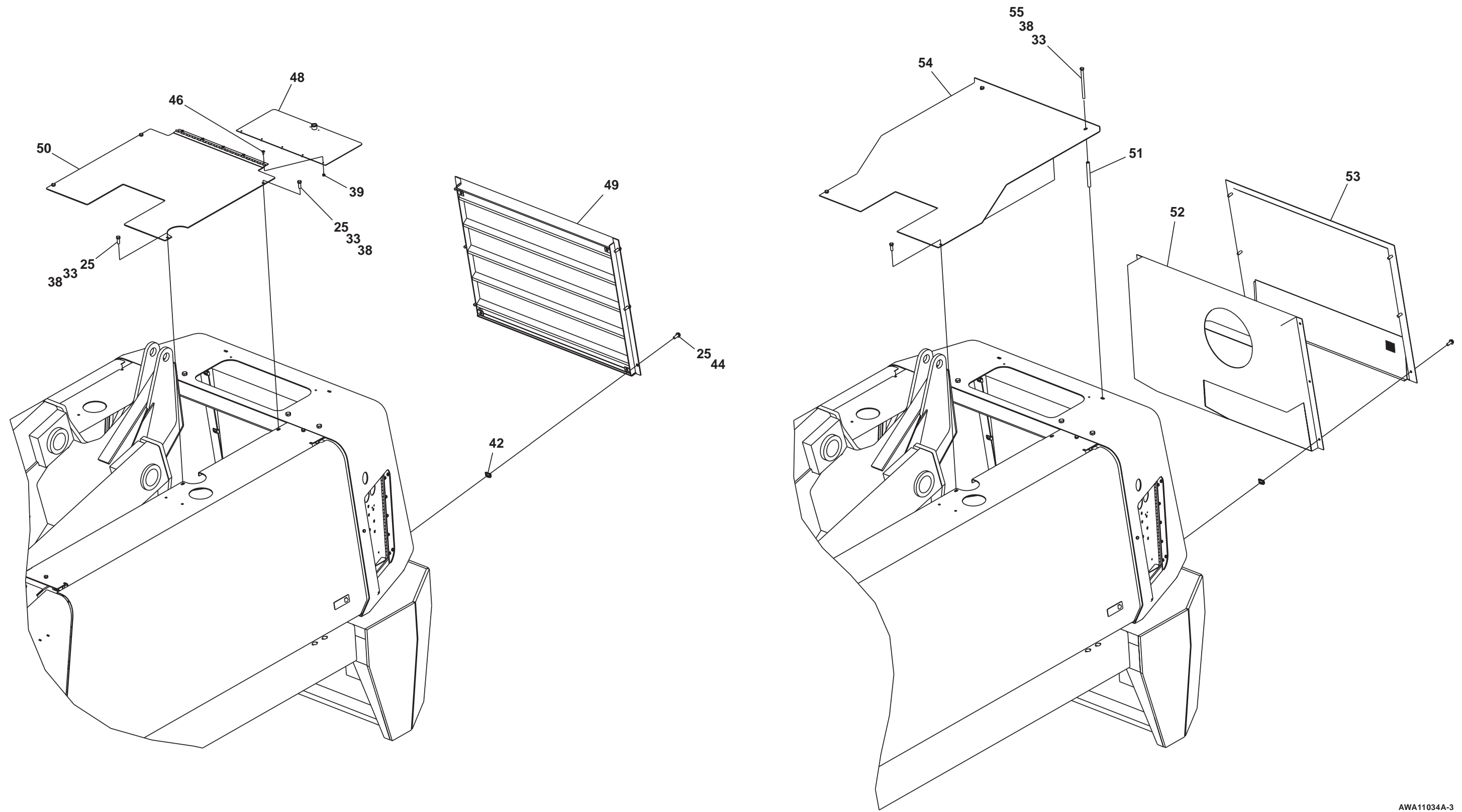
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TITLE Plastic cowling  
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 Snorkel model TB80

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## Placards and decals

Item	Part No.	Qty.	Description
<b>COMMON COMPONENTS</b>			
1	0083733	1	DECAL, SNORKEL BRAND LOGO
2	0323896	5	DECAL, DANGER ELECTRICAL HAZARD
	0162336E	5	DECAL, DANGER ELECTRICAL HAZARD (CE ONLY)
3	0070420	1	PLACARD, EMERGENCY BLEED DOWN VALVE
4	0074908	2	DECAL, SNORKEL BRAND LOGO
5	0323897	1	DECAL, DANGER YOU MUST NOT OPERATE
6	0110708	1	DECAL, DANGER AXLE/JACK
	0110708E	1	DECAL, DANGER AXLE/JACK (CE ONLY)
7		1	PLACARD, PLATFORM CAPACITY -(CONSULT FACTORY)
8	0323899	1	DECAL, DANGER ELECTRICAL HAZARD
	0162336E	1	DECAL, DANGER ELECTRICAL HAZARD (CE ONLY)
9	0070540	3	DECAL, YELLOW ARROW
10	0070541	3	DECAL, BLUE ARROW
11	0070901	1	PLACARD, CAUTION SERIAL NUMBER
12	5560655	12	POP RIVET
13	0071425	1	PLACARD, PLATFORM IDENTIFICATION
14	0071927	1	DECAL, HYDRAULIC OIL
16	562386	1	LITERATURE COMPARTMENT
17	0073491	1	DECAL, SAFE OPERATION INFORMATION"
18	0181562	1	PLACARD, ANSI STANDARD
19	0073224	1	DECAL, NOTICE MANUAL REORDER
20	0190988	1	PLACARD, GROUND CONTROL INSTRUCTIONS
	0190988E	1	PLACARD, GROUND CONTROL INSTRUCTIONS (CE ONLY)
21	5560080	8	BUMPER
22	7050004	1	RECORD POUCH
23	0072531	1	DECAL, DANGER ELECTRICAL HAZARD
24	7030003	1	DECAL, LUBE RECOMENDATIONS
25	0070921	1	PLACARD, 125 VOLT 15 AMPS
26	0073043	1	DECAL, OPERATING MANUAL ENCLOSED
27	0073139	1	CRANKCASE OIL TAG - (USED FOR SHIPPING ONLY)
28	0074311	7	DECAL, DANGER CYLINDER FAILURE - (1 PER CYLINDER)
29	9980013	2	CAP
30	0190989	1	DECAL, DANGER DO NOT REACH
	0190989E	1	DECAL, DANGER DO NOT REACH (CE ONLY)
31	0150448	1	DECAL, ATTACH FALL RESTRAINT US AND CE
32	0073492	1	DECAL, ROTATE WHILE GREASING US AND CE
33	0074921	16	DECAL, 4 INCH STRIPE
34	0074372	1	PLACARD, ENGINE RPM US AND CE
35	0073667	2	DECAL, INSPECT WIRE ROPES US AND CE
36	451986	1	DECAL, DANGER DO NOT ALTER SW US AND CE
37	5560004	2	NUT .250-20 ESNA
38	9980022	AR	PLUG, 4.0" DIA.
39	569295	2	DECAL, SNORKEL BRAND LOGO US AND CE
40	5569012	4	RUBBER BUMPER
41	0072276	4	PLACARD, LUG NUT TORQUE
42	0162311	1	DECAL, CE LOGO
43	970009	2	BLT .25-20 X .5 HH GR5
44	0083427	4	DECAL, TIE DOWN SYMBOL
45	7030001	35 in	WARNING STRIPE (CE ONLY)
46	0111343	1	DECAL, HIGH SPEED RANGE SP SEL VALVE US AND CE
47	0111342	1	DECAL, HIGH SPEED RANGE SP SEL LOCATION
48	0162328E	1	DECAL, ADDITIONAL OPERATING INSTRUCTIONS (CE ONLY)
49	0162329E	1	DECAL, ADDITIONAL OPERATING INSTRUCTIONS (CE ONLY)
<b>TB80 COMPONENTS</b>			
101	0112475	2	DECAL, TB80 LOGO
102	0112474	1	DECAL, 80 LOGO
103	0112188	1	DECAL, LIFT TIE DOWN LOCATION

Item	Part No.	Qty.	Description
<b>FORD COMPONENTS</b>			
201	0071925	1	DECAL, GASOLINE FUEL
202	0151410	3	DECAL, DANGER ROTATING PARTS
203	0074316	1	DECAL, CAUTION GOVERNOR DAMAGE
204	0112092	1	DECAL, ENGINE CONTROL MODULE
<b>CUMMINS COMPONENTS</b>			
301	0071926	1	DECAL, DIESEL FUEL
302	0151410	3	DECAL, DANGER ROTATING PARTS
	0151410E	3	DECAL, DANGER ROTATING PARTS (CE ONLY)
<b>DEUTZ COMPONENTS</b>			
401	0071926	1	DECAL, DIESEL FUEL
<b>4X4 COMPONENTS</b>			
501	0074913	2	DECAL, 4X4 LOGO
<b>OPTION COMPONENTS</b>			
601	0081377	1	DECAL, LPS LOGO - (LP FUEL ONLY)
602	0071793	1	DECAL, HYDRAULIC WARM-UP INSTRUCTIONS
603	0181634	1	DECAL, ENGINE BLOCK HEATER
604	0073298	2	PLACARD, DANGER FOAM FILLED TIRES
	0073298	2	PLACARD, DANGER FOAM FILLED TIRES (CE ONLY)
605	0081441	1	DECAL, CAUTION LIQUID WITHDRAWL
606	0082164	1	DECAL, DANGER DO NOT RIDE
607	0090493	1	DECAL, DUAL FUEL INSTRUCTIONS
608	0072203	2	DECAL, TOWING INSTRUCTIONS
609	0082203	1	DECAL, DANGER CRUSHING HAZARD
610	0082160	1	DECAL, DANGER TOW PACKAGE
<b>TB85J COMPONENTS</b>			
701	0112568	1	DECAL, 85J LOGO
702	0112567	2	DECAL, TB85J LOGO
703	0112188	1	DECAL, LIFT TIE DOWN LOCATION

### Placard and Decal Kit Information

Machine	Kit Part Number	TB80 Common	TB80 Logo	TB85J Logo	TB80 Hardware	TB80 CE Common	TB80 CE Platform
		0112116	0112112	0112571	0112139	0112180	0112183
TB80 DZ 4x2	0112106	x	x		x		
TB80 DZ 4x4	0112103	x	x		x		
TB80 FO 4x2	0112111	x	x		x		
TB80 FO 4x4	0112109	x	x		x		
TB80 CU 4x2	0112105	x	x		x		
TB80 CU 4x4	0112104	x	x		x		
TB80 DZ 4x2 CE	0112176		x		x	x	x
TB80 DZ 4x4 CE	0112177		x		x	x	x
TB80 CU 4x2 CE	0112174		x		x	x	x
TB80 CU 4x4 CE	0112175		x		x	x	x
TB85J DZ 4x2	0112574			x			
TB85J DZ 4x4	0112575			x			
TB85J FO 4x2	0112570			x			
TB85J FO 4x4	0112569			x			
TB85J CU 4x2	0112572			x			
TB85J CU 4x4	0112573			x			

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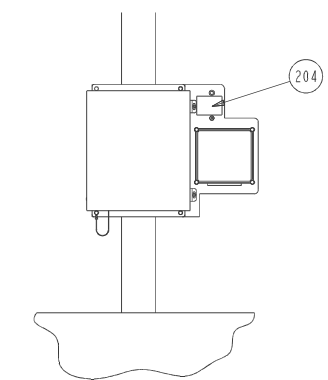
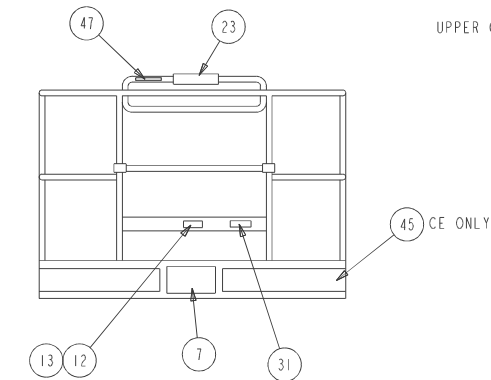
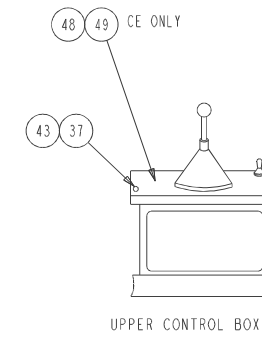
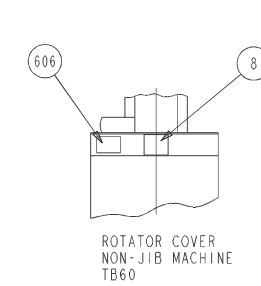
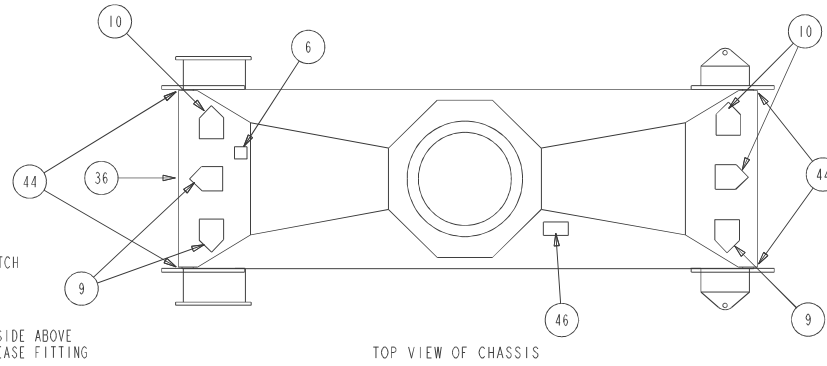
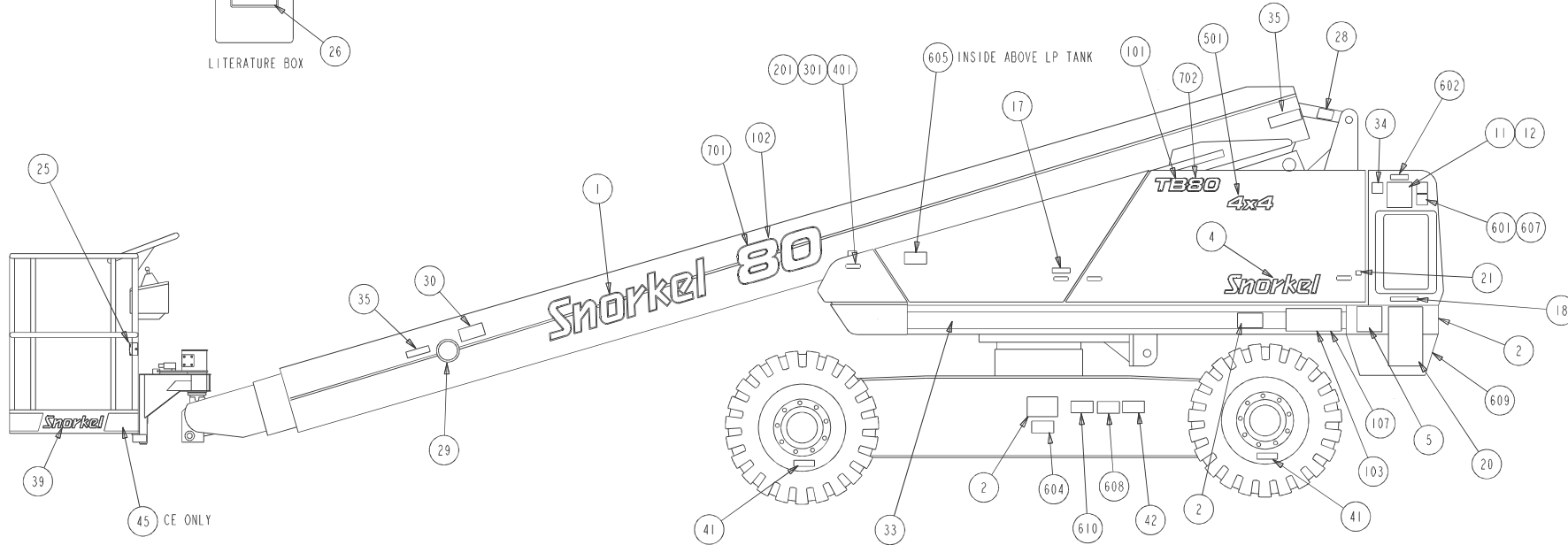
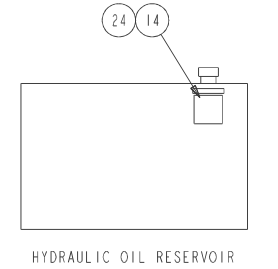
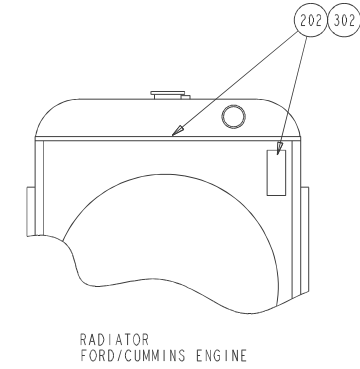
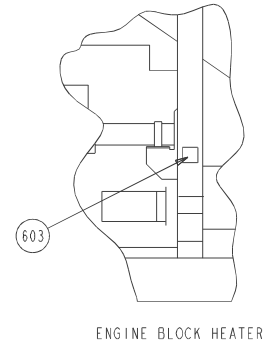
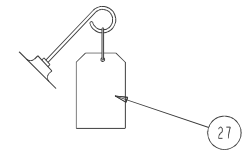
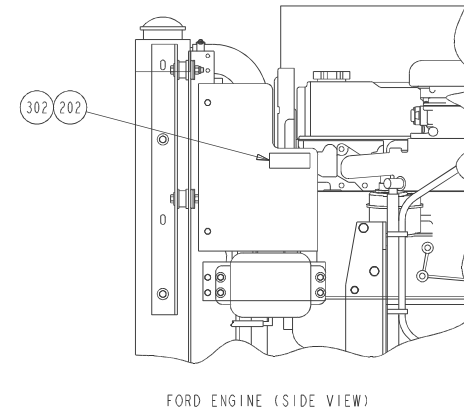
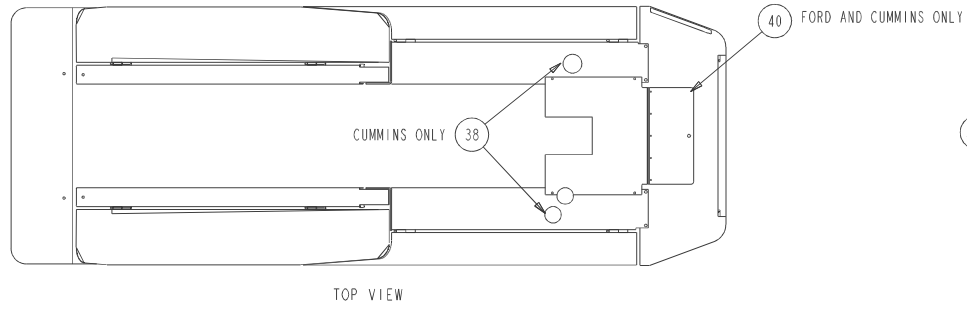
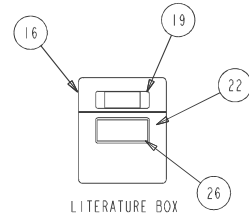
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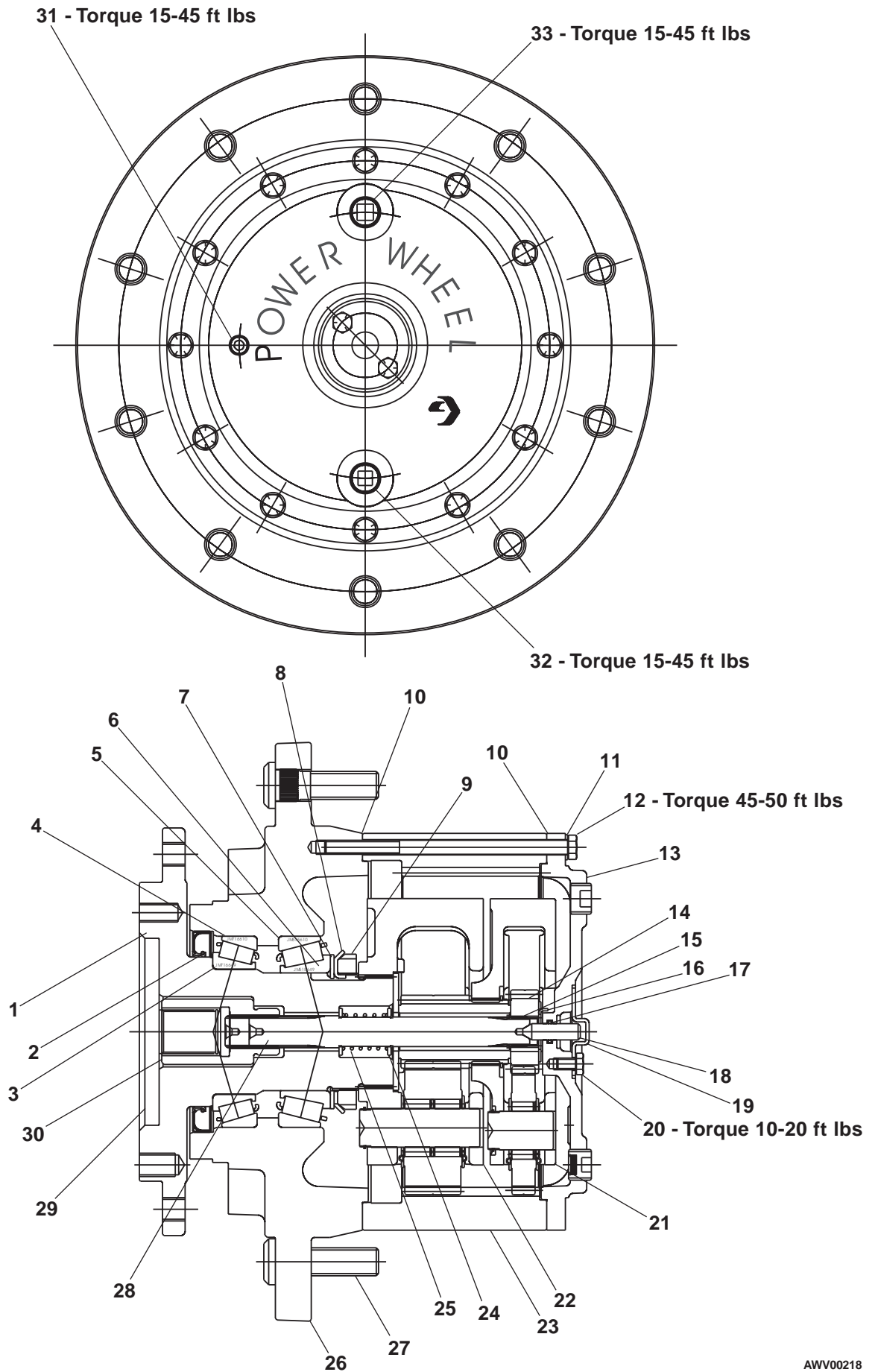


## Gear hub, Auburn

item	part no	qty	description
	0110283	1	Gear hub, Auburn
1	0112216	1	Spindle
2	8010027	1	Oil seal
3	8010030	1	Bearing cone
4	8010029	1	Bearing cup
5	0112217	1	Bearing cup
6	0112218	1	Bearing cone
7	8010275	1	Thrust washer
8	8010276	1	Lock washer
9	8010277	1	Lock nut
10	8010021	1	Pipe plug
11	8010105	12	Flat washer
12	8010278	12	Capscrew, hex head
13	0112219	1	Cover
14	0112220	1	Primary Sun gear
15	8010145	2	Retaining ring
16	8010075	1	Thrust washer
17	8010149	1	O-ring
18	8010143	1	Plunger
19	8010080	1	Disengage cover
20	8010168	2	Capscrew, hex head
21	0112221	1	Primary carrier
22	0112222	1	Secondary carrier
23	0112223	1	Ring gear
24	8010279	2	Thrust washer
25	0112224	1	Disengage spring
26	0112225	1	Hub
27	8010280	10	Wheel bolt
28	0112226	1	Input shaft
29	8010281	1	Shipping plug
30	8010138	1	Coupling
31	0112227	1	Pipe plug
32	8010028	1	Pipe plug
33	8010021	1	Magnetic plug



# Gear hub, Auburn

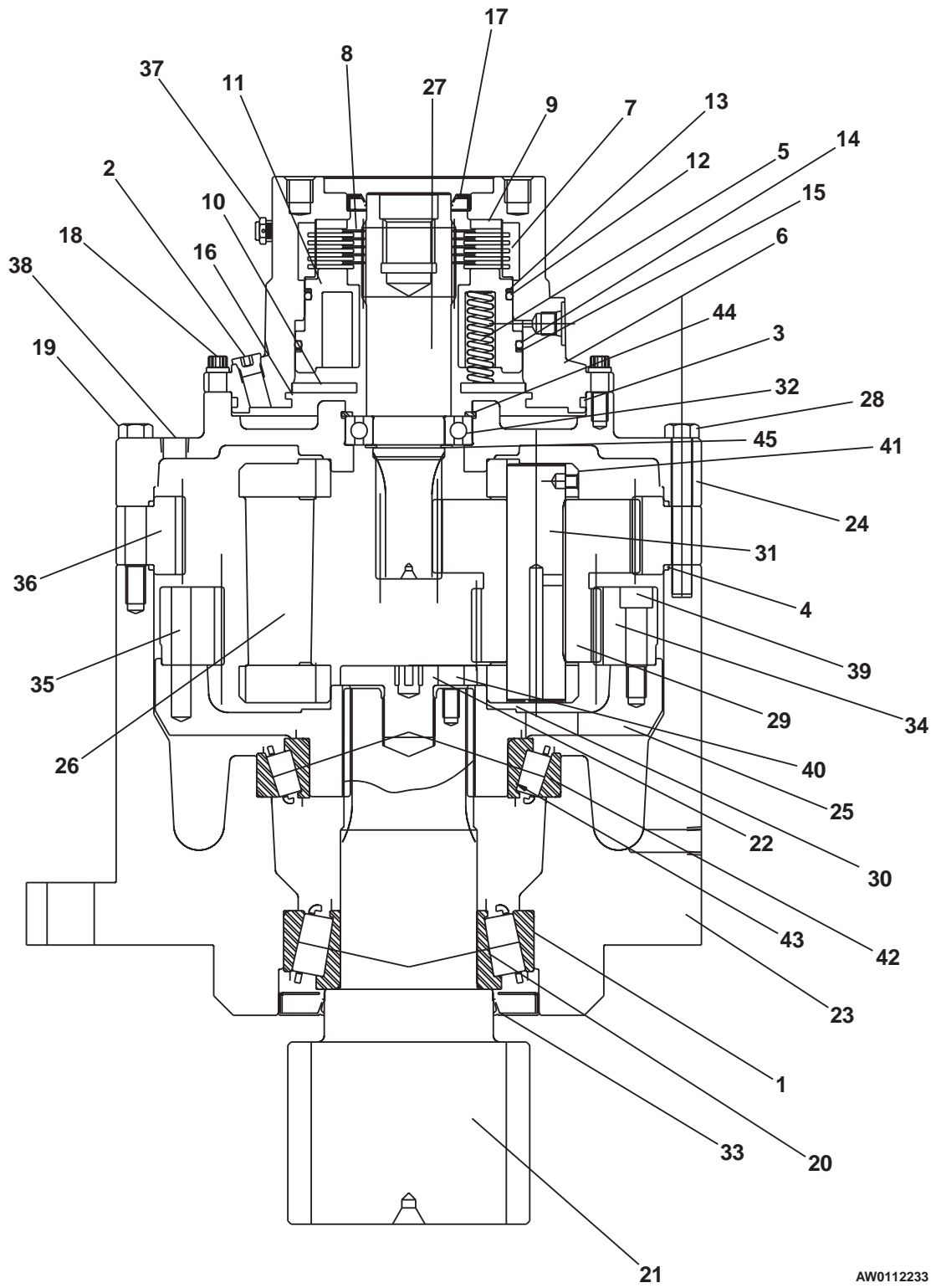


AWV00218

## Swing drive, Perfection

item	part no	qty	description
	0112233	1	Planetary swing drive with brake
	0112316	1	Seal repair kit - (kit includes items 3, 4, 12, 14, 17 and 33)
1	0172033	1	Bearing cup
2	0112273	2	Plug, O- ring
3	Kit item	1	O-ring - (not sold separately)
4	Kit item	1	O-ring - (not sold separately)
5	0112276	11	Spring
6	0112277	1	Housing
7	0112278	5	Pressure disc
8	0112279	1	Pressure disc
9	0112280	1	Pressure plate
10	0112281	1	Pressure plate
11	0112282	1	Brake piston
12	Kit item	1	O-ring - (not sold separately)
13	0112284	1	Back-up ring
14	Kit item	1	O-ring - (not sold separately)
15	0112286	1	Back-up ring
16	0112292	1	Snap ring, internal
17	Kit item	1	Oil seal - (not sold separately)
18	0112287	8	Capscrew 5/16-18 x 7/8 inch long
19	0112288	8	Capscrew 3/8-16 x 3 inch long
20	0112289	1	Bearing cone
21	0112290	1	Pinion
22	0112291	1	Pinion bolt
23	0112293	1	Housing
24	0112294	1	Brake adapter
25	0112295	1	Drive web
26	0112296	1	Carrier
27	0112297	1	Input pinion
28	0112298	4	Capscrew 3/8-16 x 3 long
29	0112299	3	Planet gear
30	0112300	1	Thrust washer
31	0112301	3	Idler pin
32	0112303	1	Ball bearing
33	Kit item	1	Oil seal - (not sold separately)
34	0112304	3	Roll pin 3/8 inch diameter x 2 inch long
35	0112305	1	Ring gear, 72 teeth
36	0112306	1	Ring gear, 87 teeth
37	0172053	1	Pressure vent plug
38	0172050	2	Pipe plug
39	0112308	12	Capscrew 3/8-16 x 1-1/2 inch long
40	0112309	1	Capscrew 5/16-18 x 1/2 inch long
41	0112310	3	Capscrew 1/4-20 x 1/2 inch long
42	0112311	1	Bearing cup
43	0112312	1	Bearing cone
44	0112313	1	Snap ring, internal
45	0112314	1	Snap ring, external

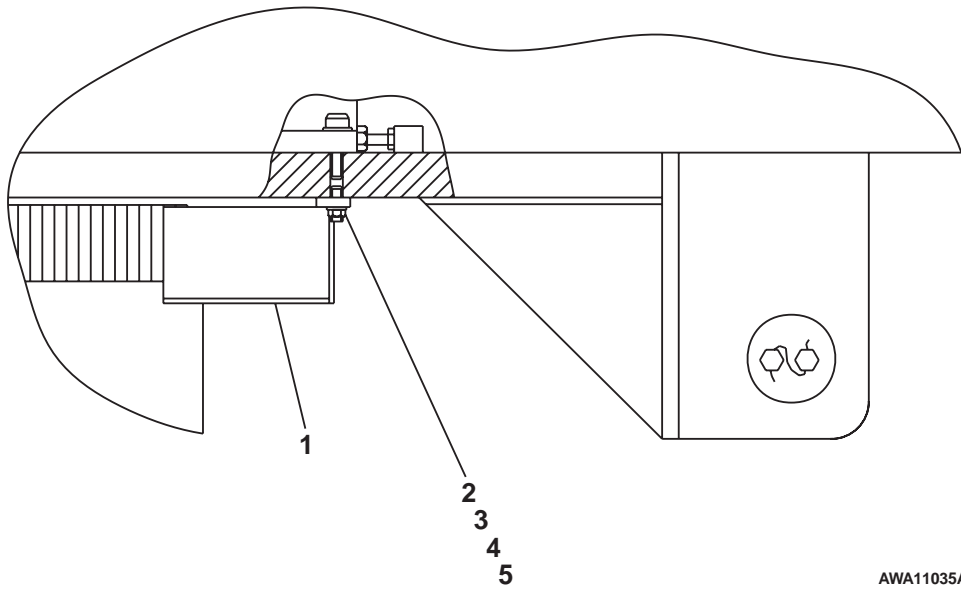
# Swing drive, Perfection



AW0112233

# Pinion guard

item	part no	qty	description
1	0111373	1	Pinion guard
2	5569836	2	Set screw 3/4-10 x 1-3/4 inch long hex socket head
3	987179	2	Washer 3/4 medium lock
4	986459	2	Washer 3/4 medium flat
5	984469	2	Nut 3/4-10 hex jam



AWA11035A



## Chassis hydraulic equipment, 2 wheel drive

item	part no	qty	description
1	0111291	1	Control valve, axle jacking - (see page 2-22 for parts breakdown)
2	0111292	1	Jacking cylinder - (see hydraulic section for parts breakdown)
3	6010222	3	Cam valve
	0110714	1	Seal repair kit
4	0111290	1	Shuttle valve - (see page 2-68 for parts breakdown)
5	0111431	1	Drive control valve, 2 wheel drive - (see page 2-24 for parts breakdown)
6	5070026	2	Cap, wheel service
7	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
8	986019	2	Washer 1/4 medium flat
9	0111490	1	Steer cut-out valve, 2 wheel drive - (see page 2-66 for parts breakdown)
10	5035408	2	Bulkhead run tee
11	5034406	2	Bulkhead union
12	5074406	4	Bulkhead locknut
13	5035405	1	Bulkhead run tee
14	5074403	1	Bulkhead locknut
15	0111425	1	Mount angle
16	5560667	4	Machine screw #10-24 x 3/8 inch long pan head
17	987089	4	Washer #10 medium lock
18	5560693	4	Capscrew 3/4-10 x 1-3/4 inch long socket head
19	987179	4	Washer 3/4 medium lock
20	5075203	2	Hex head plug
21	0111528	1	Dual sequence valve, left hand - (see page 2-54 for parts breakdown)
22	5035303	2	Straight thread 90° elbow
23	0110495	1	Base plate, cam valve
24	970449	3	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
25	987119	7	Washer 3/8 medium lock
26	986299	7	Washer 3/8 medium flat
27	972469	2	Capscrew 3/8-16 x 1 inch long socket flat head
28	984109	8	Nut 3/8-16 hex
29	0111305	1	Guard
30	970469	6	Capscrew 3/8-16 x 1 inch long hex head grade 5
31	970009	2	Capscrew 1/4-20 x 1/2 inch long hex head grade 5
32	987099	4	Washer 1/4 medium lock
33	0111527	1	Dual sequence valve, right hand - (see page 2-53 for parts breakdown)

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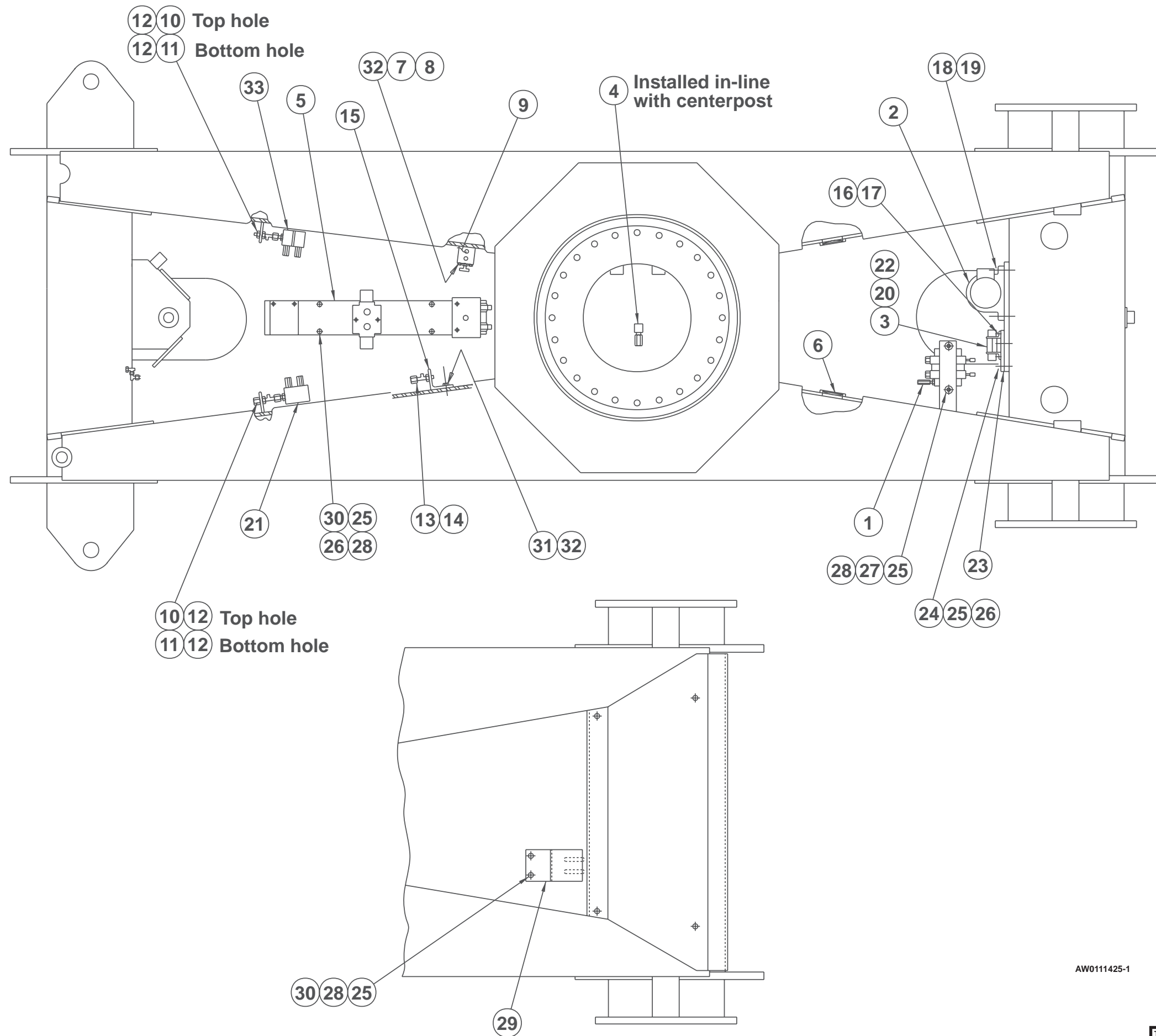
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AW0111425-1

TITLE Chassis hydraulic equipment  
2 wheel drive  
Snorkel model TB80

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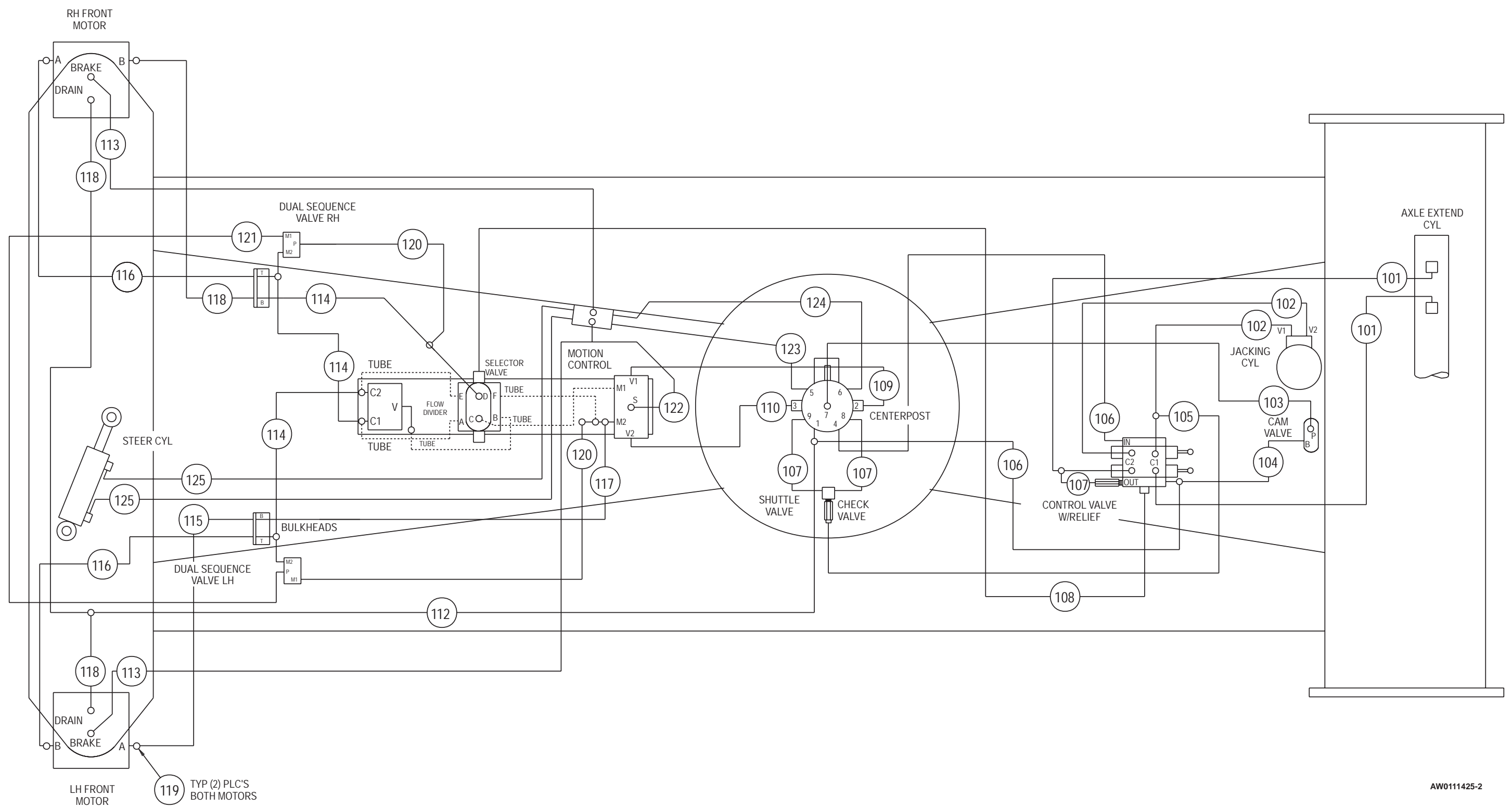
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AW0111425-2



## Chassis hydraulic hoses, 2 wheel drive

item	part no	qty	description
101	0100270	2	1/4 inch hydraulic hose
102	0070799	2	1/4 inch hydraulic hose
103	0080386	1	1/4 inch hydraulic hose
104	0080359	1	1/4 inch hydraulic hose
105	0070781	1	1/4 inch hydraulic hose
106	0070782	1	1/4 inch hydraulic hose
107	0070773	2	1/4 inch hydraulic hose
108	0100271	3	1/4 inch hydraulic hose
109	0080941	1	3/4 inch hydraulic hose
110	0080939	1	3/4 inch hydraulic hose
111	0080524	1	3/4 inch hydraulic hose
112	0020279	1	3/8 inch hydraulic hose
113	0070771	2	1/4 inch hydraulic hose
114	0323804	3	3/4 inch hydraulic hose
115	0110173	2	3/4 inch hydraulic hose
116	0110171	2	3/4 inch hydraulic hose
117	0081080	1	3/8 inch hydraulic hose
118	0111286	1	3/8 inch hydraulic hose
119	5080015	4	Last chance filter
120	0073040	2	1/2 inch hydraulic hose
121	0020280	2	1/4 inch hydraulic hose
122	0070765	1	1/4 inch hydraulic hose
123	0070780	1	1/4 inch hydraulic hose
124	0090299	1	1/4 inch hydraulic hose
125	0070783	2	1/4 inch hydraulic hose

## Chassis hydraulic equipment, 4 wheel drive

item	part no	qty	description
1	0111291	1	Control valve, axle jacking - (see page 2-22 for parts breakdown)
2	0111292	1	Jacking cylinder - (see hydraulic section for parts breakdown)
3	6010222	3	Cam valve
	0110714	1	Seal repair kit
4	0111290	1	Shuttle valve - (see page 2-68 for parts breakdown)
5	0111273	1	Anti-cavitation valve - (see page 2-36 for parts breakdown)
6	0111344	1	High range speed selector valve - (see page 2-58 for parts breakdown)
7	0111264	1	Drive control valve, 4 wheel drive - (see page 2-24 for parts breakdown)
8	0110495	3	Base plate, cam valve
9	0323310	1	Bar clamp
10	5034203	1	Union 90° elbow
11	5036705	2	Swivel nut run tee
12	5034505	1	Bulkhead straight thread 90° elbow
13	5070026	2	Cap, wheel service
14	5074406	4	Bulkhead locknut
15	974679	12	Machine screw #10-24 x 5/8 inch long round head
16	987089	12	Washer #10 medium lock
17	0111305	1	Guard
18	5035408	3	Bulkhead run tee
19	970319	6	Capscrew 5/16-18 x 2-1/2 inch long hex head grade 5
20	987109	6	Washer 5/16 medium lock
21	984089	2	Nut 5/16-18 hex
22	972469	2	Capscrew 3/8-16 x 1 inch long socket flat head
23	970426	9	Capscrew 3/8-16 x 7/8 inch long hex head grade 5
24	970469	8	Capscrew 3/8-16 x 1 inch long hex head grade 5
25	987119	17	Washer 3/8 medium lock
26	986299	15	Washer 3/8 medium flat
27	5560611	8	Nut 3/8-16 hex
28	5560693	4	Capscrew 3/4-10 x 1-3/4 inch long socket head
29	987179	4	Washer 3/4 medium lock
30	5035303	5	Straight thread 90° elbow
31	0112030	4	Shim
32	5075203	5	Hex head plug
33	0111492	1	Steer cut-out valve, 4 wheel drive - (see page 2-67 for parts breakdown)
34	0111535	1	Series parallel package, right hand - (see page 2-26 for parts breakdown)
35	0111536	1	Series parallel package, left hand - (see page 2-28 for parts breakdown)
36	0111530	1	Dual sequence valve, 4 wheel drive - (see page 2-55 for parts breakdown)
37	0111528	1	Dual sequence valve, left hand - (see page 2-54 for parts breakdown)
38	5037008	2	Swivel nut 90° elbow
39	970059	2	Capscrew 1/4-20 x 1-1/2 inch long hex head grade 5
40	986019	4	Washer 1/4 medium flat
41	987099	4	Washer 1/4 medium lock
42	5560369	2	Capscrew 1/4-20 x 4 inch long hex head grade 5

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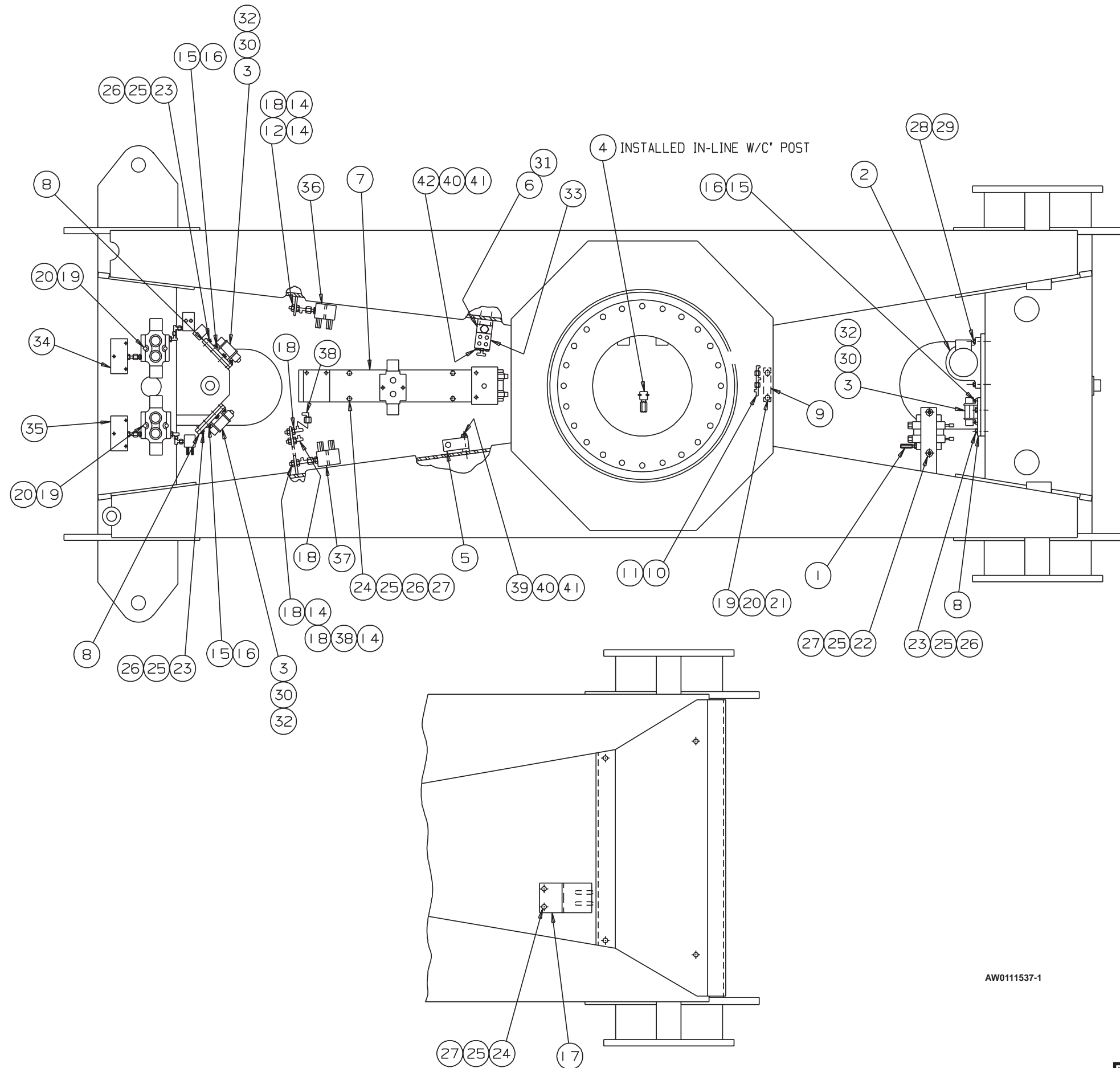
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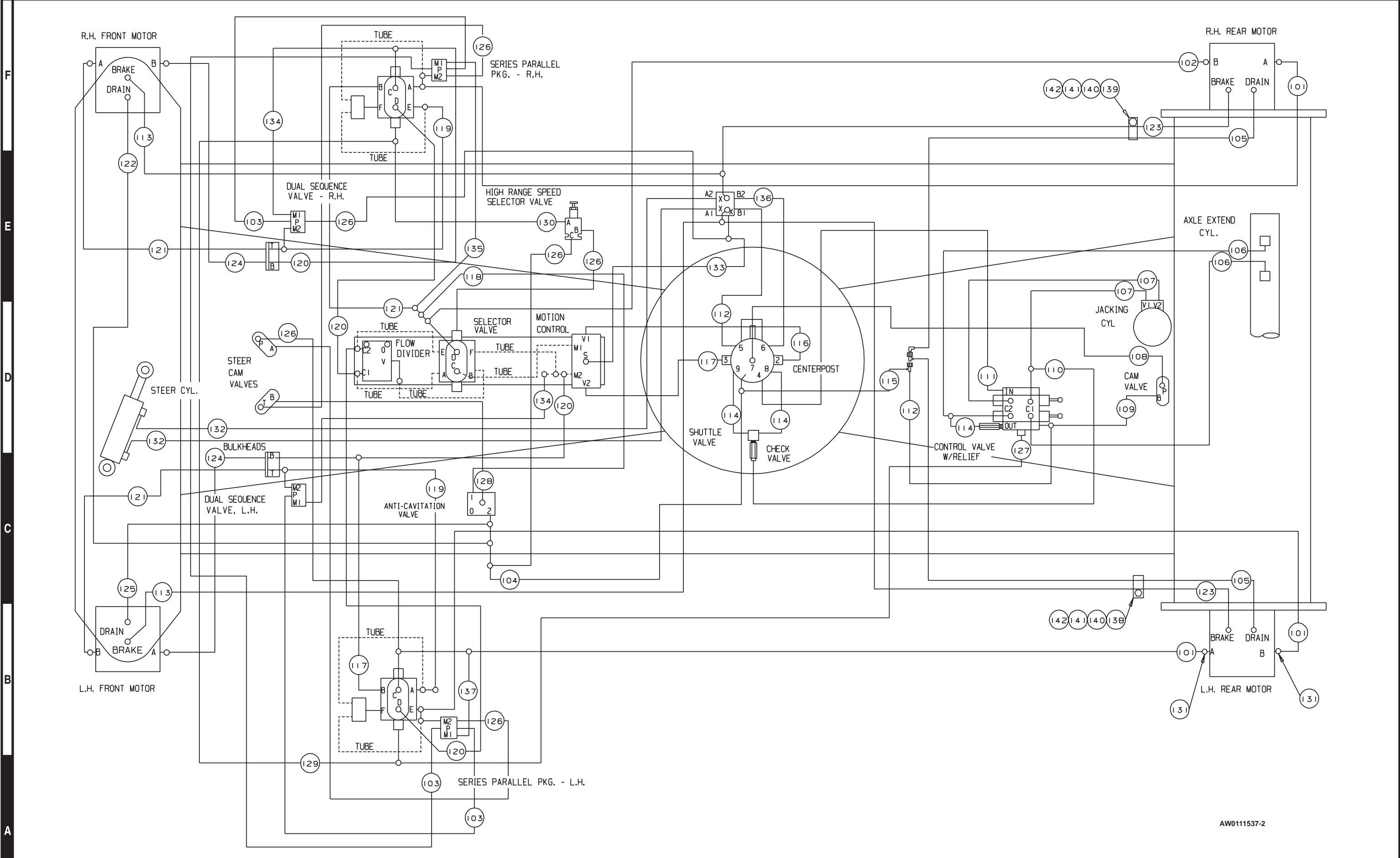
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AW011537-1

TITLE Chassis hydraulic equipment  
 4 wheel drive  
 Snorkel model TB80

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AW011537-2

TITLE Chassis hydraulic hoses  
4 wheel drive  
Snorkel model TB80

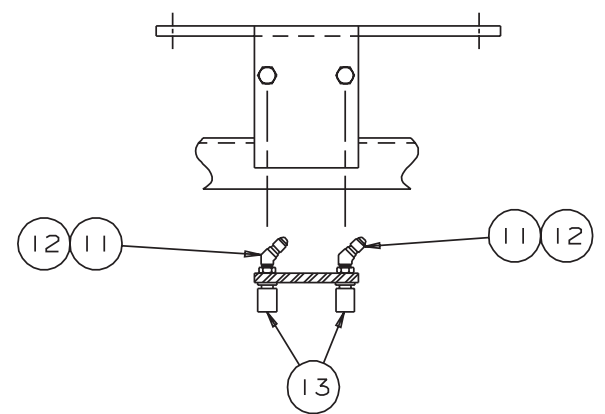
## Chassis hydraulic hoses, 4 wheel drive

item	part no	qty	description
101	0111282	3	3/4 inch hydraulic hose
102	0111283	1	3/4 inch hydraulic hose
103	0040276	3	1/4 inch hydraulic hose
104	0110285	1	3/4 inch hydraulic hose
105	0090402	2	3/8 inch hydraulic hose
106	0100270	2	1/4 inch hydraulic hose
107	0070779	2	1/4 inch hydraulic hose
108	0080386	1	1/4 inch hydraulic hose
109	0080359	1	1/4 inch hydraulic hose
110	0070781	1	1/4 inch hydraulic hose
111	0070782	1	1/4 inch hydraulic hose
112	0070780	2	1/4 inch hydraulic hose
113	0070771	2	1/4 inch hydraulic hose
114	0070773	3	1/4 inch hydraulic hose
115	0020276	1	3/8 inch hydraulic hose
116	0080941	1	3/4 inch hydraulic hose
117	0110173	2	3/4 inch hydraulic hose
118	0110173	1	3/4 inch hydraulic hose
119	0323804	2	3/4 inch hydraulic hose
120	0080524	4	3/4 inch hydraulic hose
121	0110171	3	3/4 inch hydraulic hose
122	0111286	1	3/8 inch hydraulic hose
123	0100491	2	1/4 inch hydraulic hose
124	0110173	2	3/4 inch hydraulic hose
125	0081080	1	3/8 inch hydraulic hose
126	0020280	6	1/4 inch hydraulic hose
127	0111346	1	1/4 inch hydraulic hose
128	0101278	1	1/4 inch hydraulic hose
129	0070768	1	1/4 inch hydraulic hose
130	0070911	1	1/4 inch hydraulic hose
131	5080015	8	Last chance filter
132	0070783	2	1/4 inch hydraulic hose
133	0070765	1	1/4 inch hydraulic hose
134	0073040	2	1/2 inch hydraulic hose
135	0070792	1	1/2 inch hydraulic hose
136	0090299	1	1/4 inch hydraulic hose
137	0020424	1	1/2 inch hydraulic hose
138	5093013	1	Clamp
139	5093014	1	Clamp
140	970469	2	Capscrew 3/8-16 x 1 inch long hex head grade 5
141	986299	4	Washer 3/8 medium flat
142	5560033	2	Nut 3/8-16 self locking

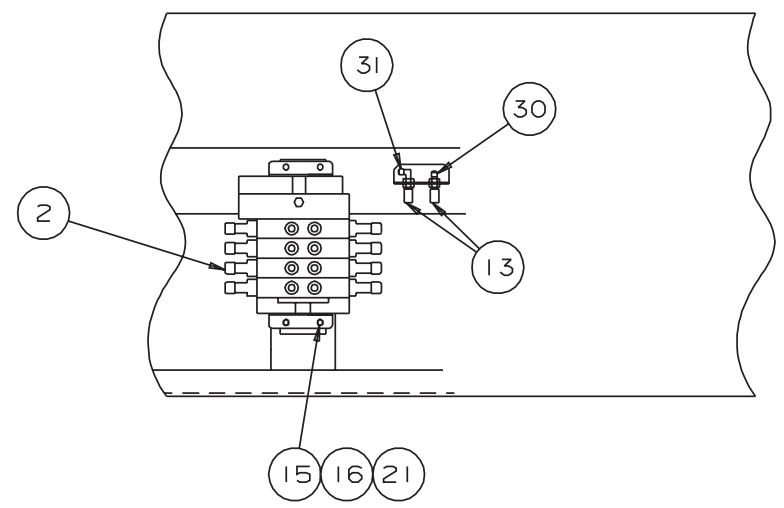
## Turntable hydraulic equipment

item	part no	qty	description
1	0112077	1	Control valve and fittings, non-proportional - (see page 2-14 for parts breakdown)
2	0111857	1	Control valve and fittings, proportional - (see page 2-18 for parts breakdown)
3	0111878	1	Pump control valve - (see page 2-65 for parts breakdown)
4	0111879	1	Pressure manifold - (see page 2-64 for parts breakdown)
5	0111876	1	Blocking valve, extend - (see page 2-38 for parts breakdown)
6	0111877	1	Blocking valve, lift - (see page 2-39 for parts breakdown)
7	0112029	1	Hydraulic oil return filter - (see page 2-61 for parts breakdown)
8	0082055	1	Accumulator - (see page 2-34 for parts breakdown)
9	5093014	2	Clamp
10	0072940	1	Emergency power unit - (see page 2-57 for parts breakdown)
11	5034602	2	Bulkhead 45° elbow
12	5074401	6	Bulkhead locknut
13	5070005	4	Diagnostic nipple
14	970569	2	Capscrew 3/8-16 x 3-1/2 inch long hex head grade 5
15	986299	14	Washer 3/8 medium flat
16	987119	12	Washer 3/8 medium lock
17	970449	4	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
18	5560641	2	Capscrew 5/16-18 x 3-1/2 inch long hex head grade 5
19	986269	8	Washer 5/16 medium flat
20	987109	8	Washer 5/16 medium lock
21	970479	6	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
22	970239	1	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
23	970319	5	Capscrew 5/16-18 x 2-1/2 inch long hex head grade 5
24	970709	4	Capscrew 7/16-14 x 1 inch long hex head grade 5
25	986179	4	Washer 7/16 medium flat
26	987129	4	Washer 7/16 medium lock
27	0190878	1	Axle interlock valve - (see page 2-37 for parts breakdown)
28	5035403	2	Bulkhead run tee
29	5562077	1	Trim lock x 24 inch long
30	5034401	1	Bulkhead union
31	5034501	1	Bulkhead straight thread 90° elbow
32	5034404	1	Bulkhead union
33	5074404	1	Bulkhead locknut
34	5560033	2	Nut 3/8-16 self locking
35	5093000	2	Clamp
36	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
37	986019	1	Washer 1/4 medium flat
38	987099	1	Washer 1/4 medium lock

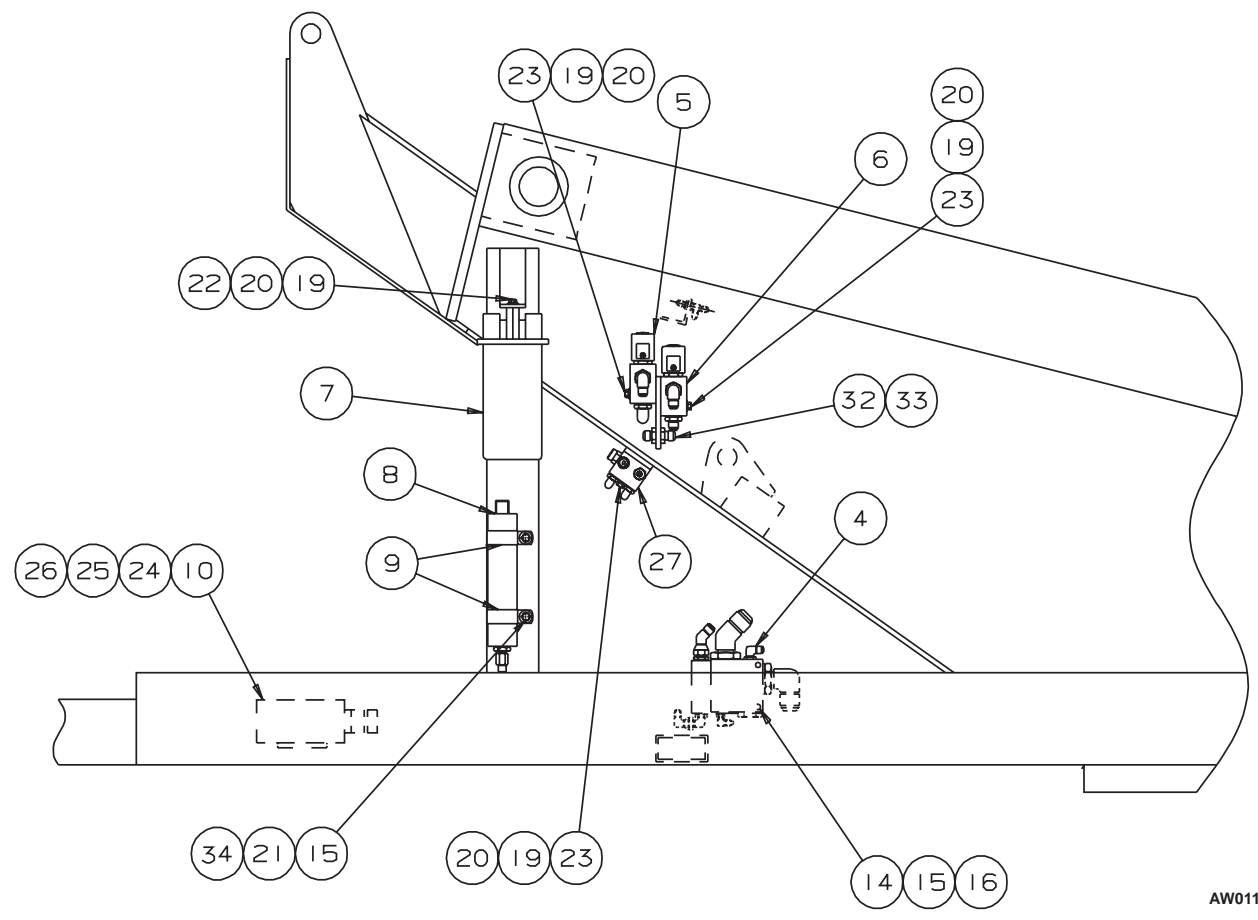
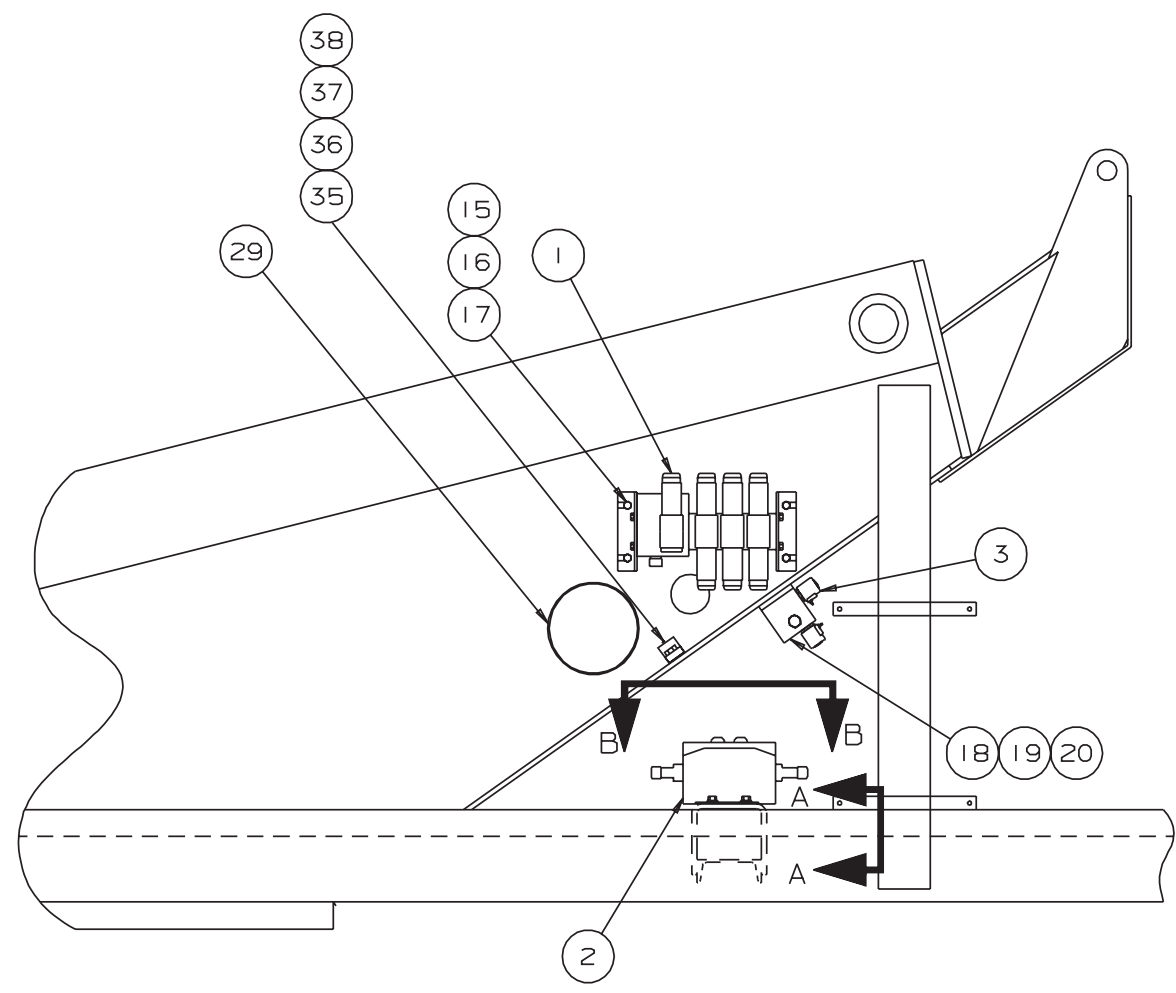
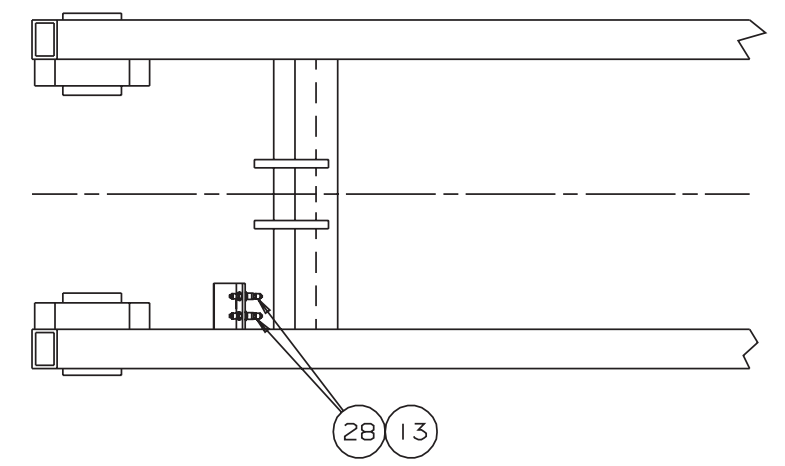
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SECTIONAL VIEW A-A

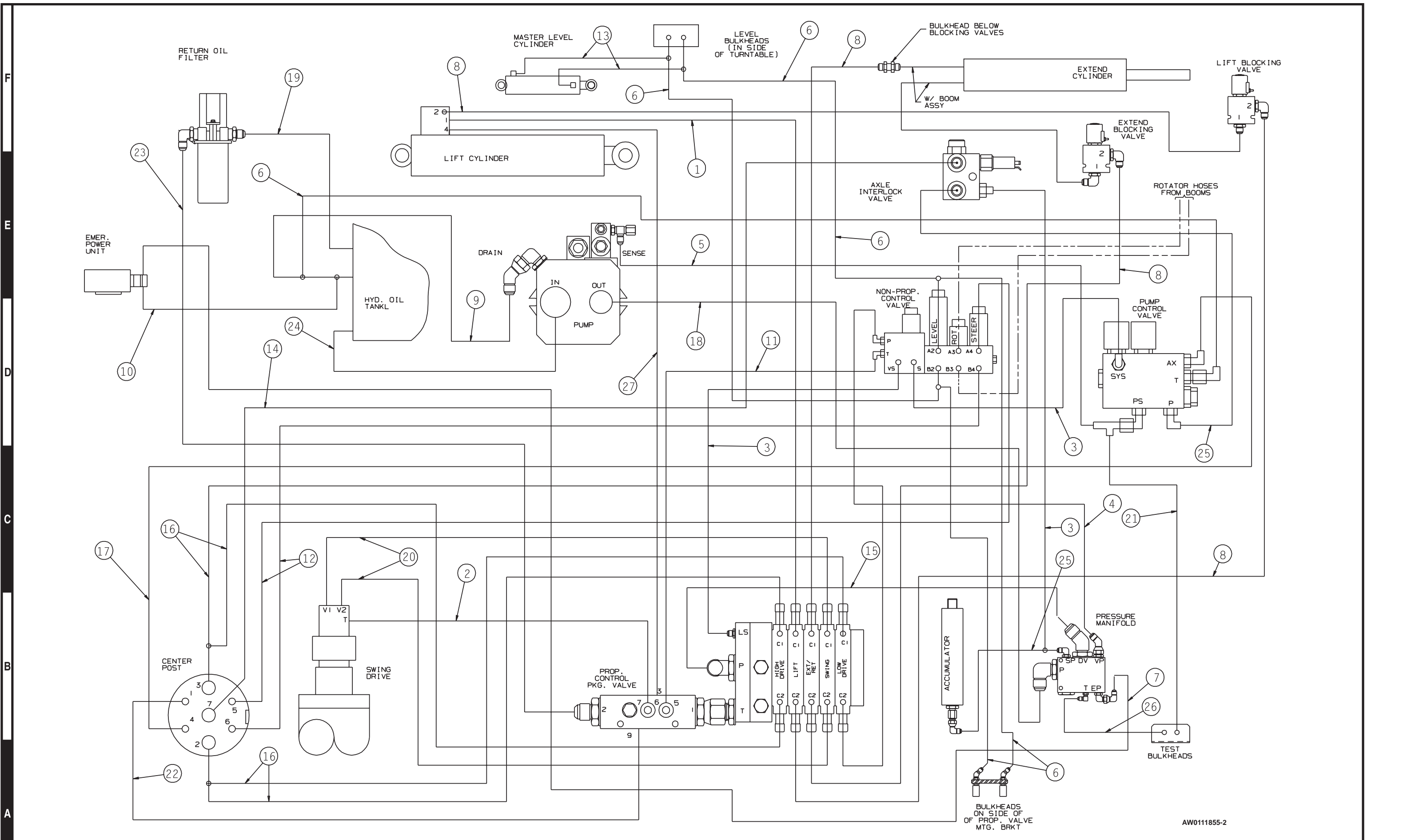


VIEW B-B



AW011855-1

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AW011855-2



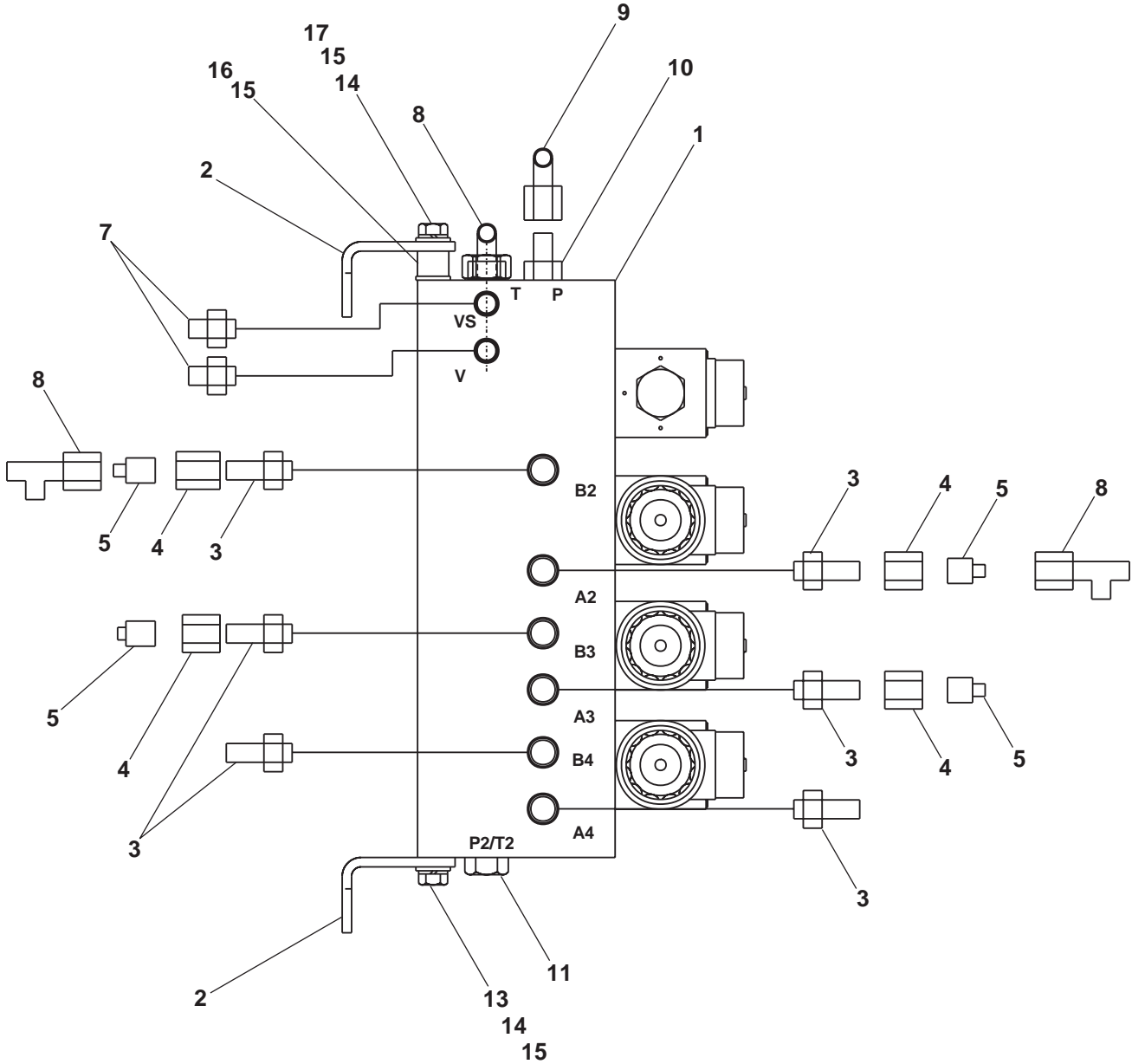
## Turntable hydraulic hoses

item	part no	qty	description
1	0080522	1	1/2 inch hydraulic hose
2	0070771	1	1/4 inch hydraulic hose
3	0020280	3	1/4 inch hydraulic hose
4	0020273	1	3/8 inch hydraulic hose
5	0020283	1	1/4 inch hydraulic hose
6	0050137	6	1/4 inch hydraulic hose
7	0050400	1	3/8 inch hydraulic hose
8	0060315	4	1/2 inch hydraulic hose
9	0070927	1	1/2 inch hydraulic hose
10	0070792	1	1/2 inch hydraulic hose
11	0070786	1	3/8 inch hydraulic hose
12	0080362	2	3/8 inch hydraulic hose
13	0080359	2	1/4 inch hydraulic hose
14	0100271	1	1/4 inch hydraulic hose
15	0111843	1	1 inch hydraulic hose
16	0111844	4	1/2 inch hydraulic hose
17	0111287	1	1/4 inch hydraulic hose
18	0110200	1	1 inch hydraulic hose - (Deutz machines only)
	0110199	1	1 inch hydraulic hose
19	0180943	1	1-1/4 inch hydraulic hose
20	0180784	2	1/2 inch hydraulic hose
21	0180946	1	1/4 inch hydraulic hose
22	0110198	1	1/2 inch hydraulic hose
23	0111882	1	1-1/4 inch hydraulic hose
24	0111121	1	Suction hose 1-1/2 inch diameter - (Deutz machines only)
	0111883	1	Suction hose 1-1/2 inch diameter
25	0040276	2	1/4 inch hydraulic hose
26	0070765	1	1/4 inch hydraulic hose
27	0060297	1	1/4 inch hydraulic hose

## Control valve and fittings, non-proportional

item	part no	qty	description
	0112077	1	Control valve and fittings, non-proportional
1	6010974	1	Control valve, non-proportional - (see page 2-16 for parts breakdown)
2	0191640	2	Angle
3	5065805	6	Long straight thread adapter
4	5063905	4	Fitting nut
5	5064001	4	Tube end reducer
6	5035320	1	Straight thread 90° elbow
7	5065703	2	Straight thread adapter
8	5036703	2	Swivel nut run tee
9	5037005	1	Swivel nut 90° elbow
10	5065708	1	Straight thread adapter
11	5075205	2	Hex head plug
12	0082010	1	Decal set, non-proportional control valve
13	970239	2	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
14	987109	4	Washer 5/16 medium lock
15	986269	6	Washer 5/16 medium flat
16	0191641	1	Spacer plate
17	5560674	2	Capscrew 5/16-18 x 1-1/2 inch long hex head grade 5

# Control valve and fittings, non-proportional

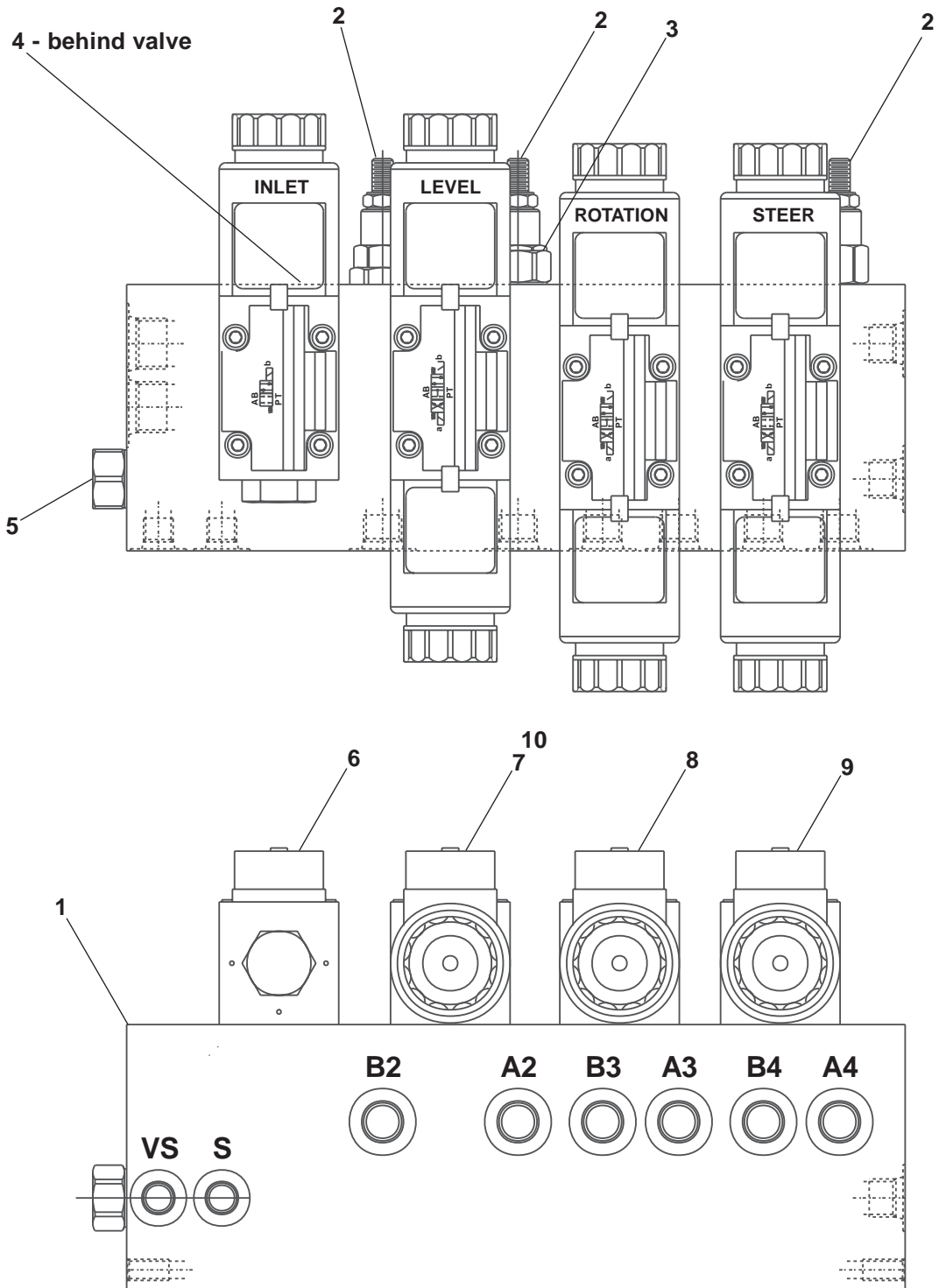


AW0112077

## Control valve, non-proportional

item	part no	qty	description
	6010974	1	Control valve, non-proportional
1	8230105	1	Manifold body, aluminum
2	8230106	4	Relief valve
3	8230107	2	Check valve
4	8230108	1	Flow control valve
5	8230109	1	Shuttle valve
6	8230110	1	Directional control valve section, inlet
7	6010904	1	Directional control valve section, level
	3040524	2	Replacement coil, 12 volt DC
8	6010904	1	Directional control valve section, rotate
	3040524	2	Replacement coil, 12 volt DC
9	6010908	1	Directional control valve section, steer
	3040524	2	Replacement coil, 12 volt DC
10	8230111	1	Orifice, 1.0 mm diameter orifice

# Control valve, non-proportional

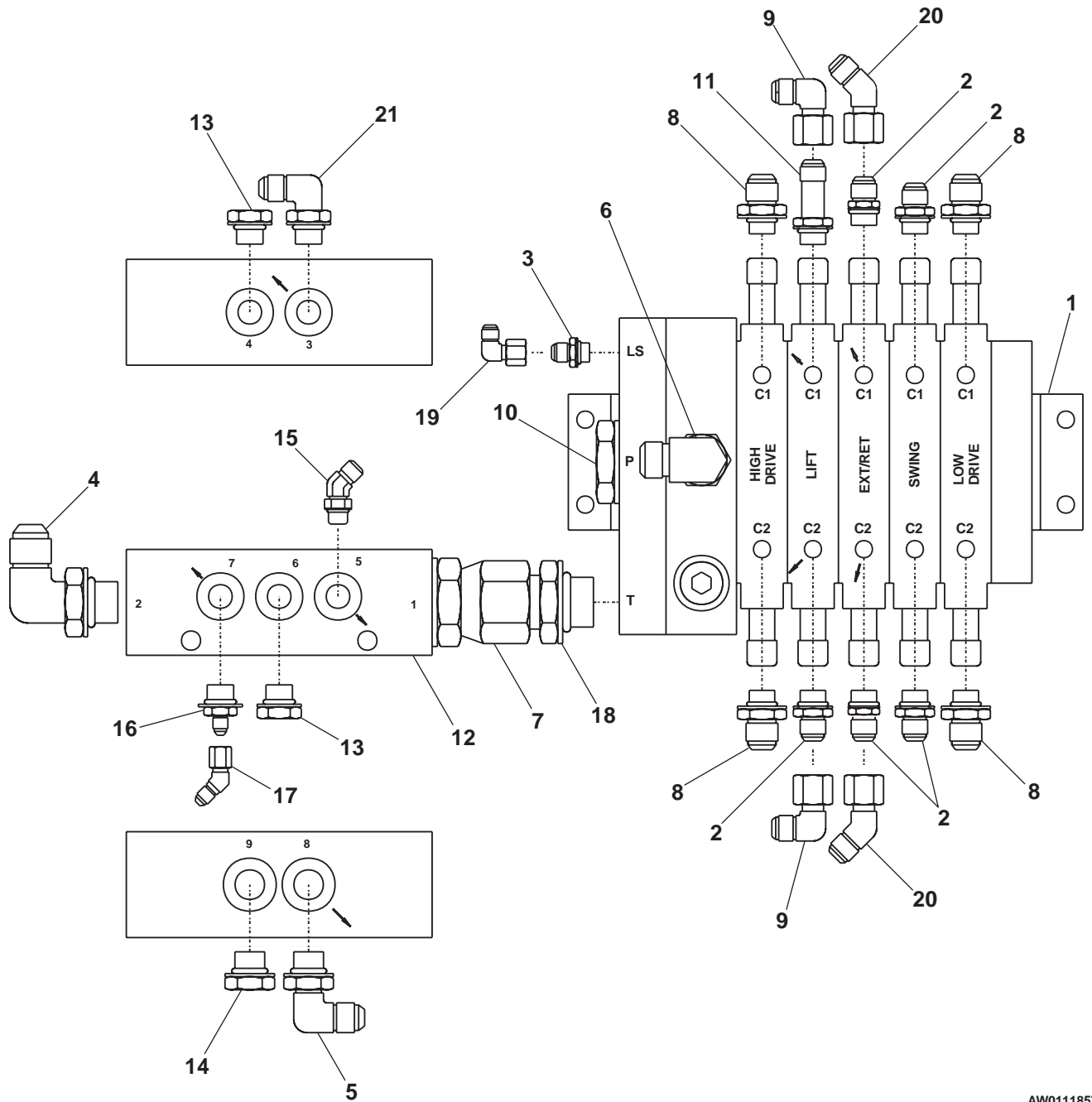


AW6010974

## Control valve and fittings, proportional

item	part no	qty	description
	0111857	1	Control valve and fittings, proportional
1	6010846	1	Control valve, proportional - (see page 2-20 for parts breakdown)
2	5065709	5	Straight thread adapter
3	5065703	1	Straight thread adapter
4	5035324	1	Straight thread 90° elbow
5	5035306	1	Straight thread 90° elbow
6	5035311	1	Straight thread 90° elbow
7	5025002	1	Straight thread 37° female swivel adapter
8	5065729	4	Straight thread adapter
9	5037006	2	Swivel nut 90° elbow
10	5075208	1	Hex head plug
11	5065806	1	Long straight thread adapter
12	0110156	1	Pressure manifold
13	5075205	2	Hex head plug
14	5075206	1	Hex head plug
15	5035705	1	Straight thread 45° elbow
16	5065705	1	Straight thread adapter
17	5036903	1	Swivel nut 45° elbow
18	5065719	1	Straight thread adapter
19	5037003	1	Swivel nut 90° elbow
20	5036906	2	Swivel nut 45° elbow
21	5035305	1	Straight thread 90° elbow

# Control valve and fittings, proportional



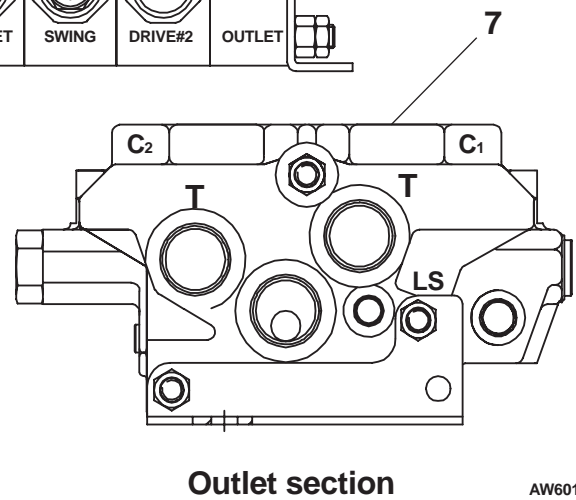
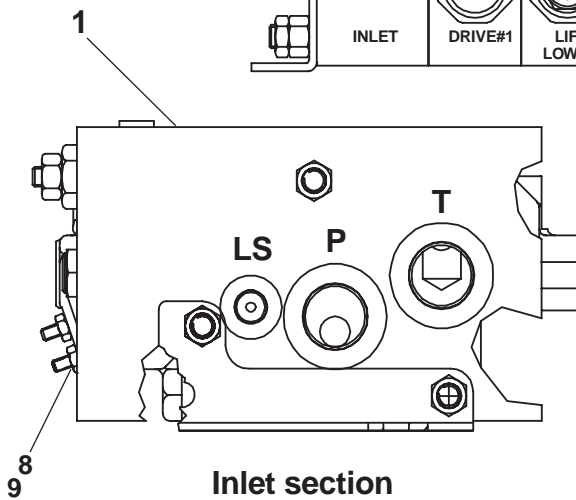
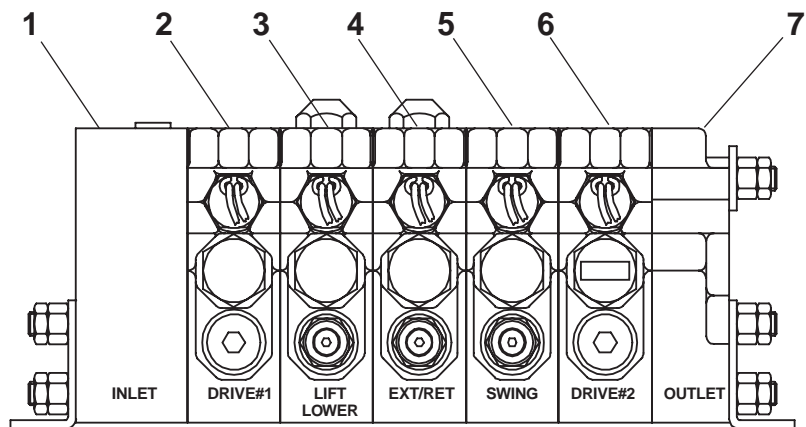
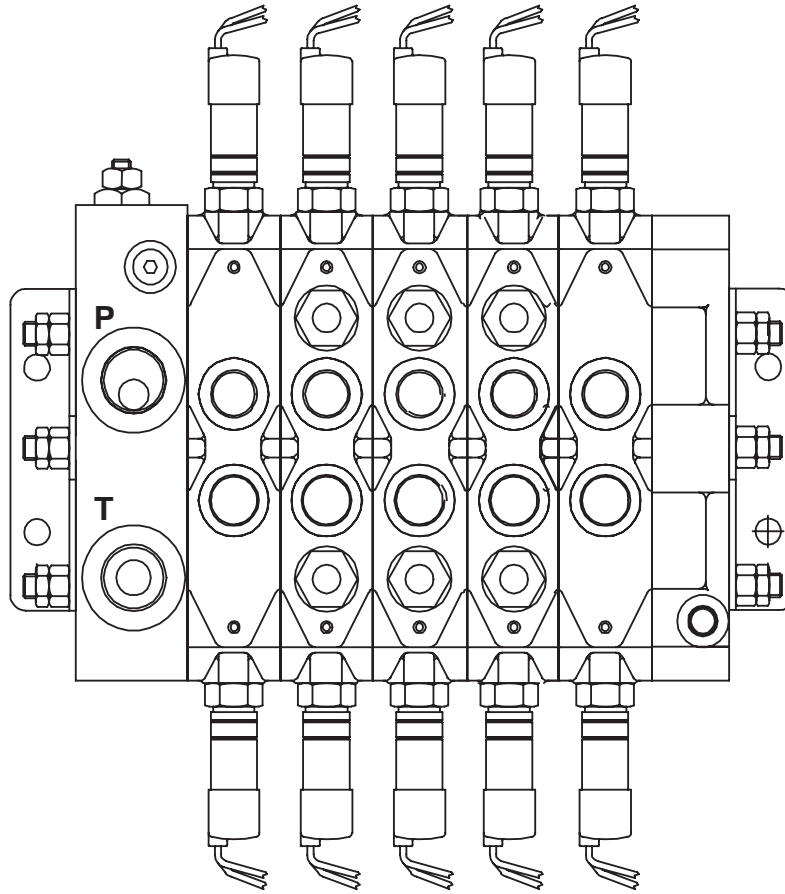
AW0111857

## Control valve, proportional

item	part no	qty	description
	6010846	1	Control valve, proportional
1	6010860	1	Inlet section
	8010245	1	O-ring seal kit for valve section
2	6010890	1	Drive control valve section #1
	8010245	1	O-ring seal kit for valve section
	6010653	2	Solenoid cartridge, 12 volt DC - (black - 33 Hz) (includes cartridge, o-ring and orifice disc - must be installed as complete unit)
3	6010891	1	Lift/lower control valve section
	8010245	1	O-ring seal kit for valve section
	6010653	2	Solenoid cartridge, 12 volt DC - (black - 33 Hz) (includes cartridge, o-ring and orifice disc - must be installed as complete unit)
4	6010892	1	Extend/retract control valve section
	8010245	1	O-ring seal kit for valve section
	6010845	2	Solenoid cartridge, 12 volt DC - (blue - 60 Hz) (includes cartridge, o-ring and orifice disc - must be installed as complete unit)
5	6010893	1	Swing control valve section
	8010245	1	O-ring seal kit for valve section
	6010653	2	Solenoid cartridge, 12 volt DC - (black - 33 Hz) (includes cartridge, o-ring and orifice disc - must be installed as complete unit)
6	6010894	1	Drive control valve section #2
	8010245	1	O-ring seal kit for valve section
	6010653	2	Solenoid cartridge, 12 volt DC - (black - 33 Hz) (includes cartridge, o-ring and orifice disc - must be installed as complete unit)
7	6010871	1	Outlet section
	8010245	1	O-ring seal kit for valve section
8	8010273	2	Nut/washer
9	8010274	2	Set screw



# Control valve, proportional

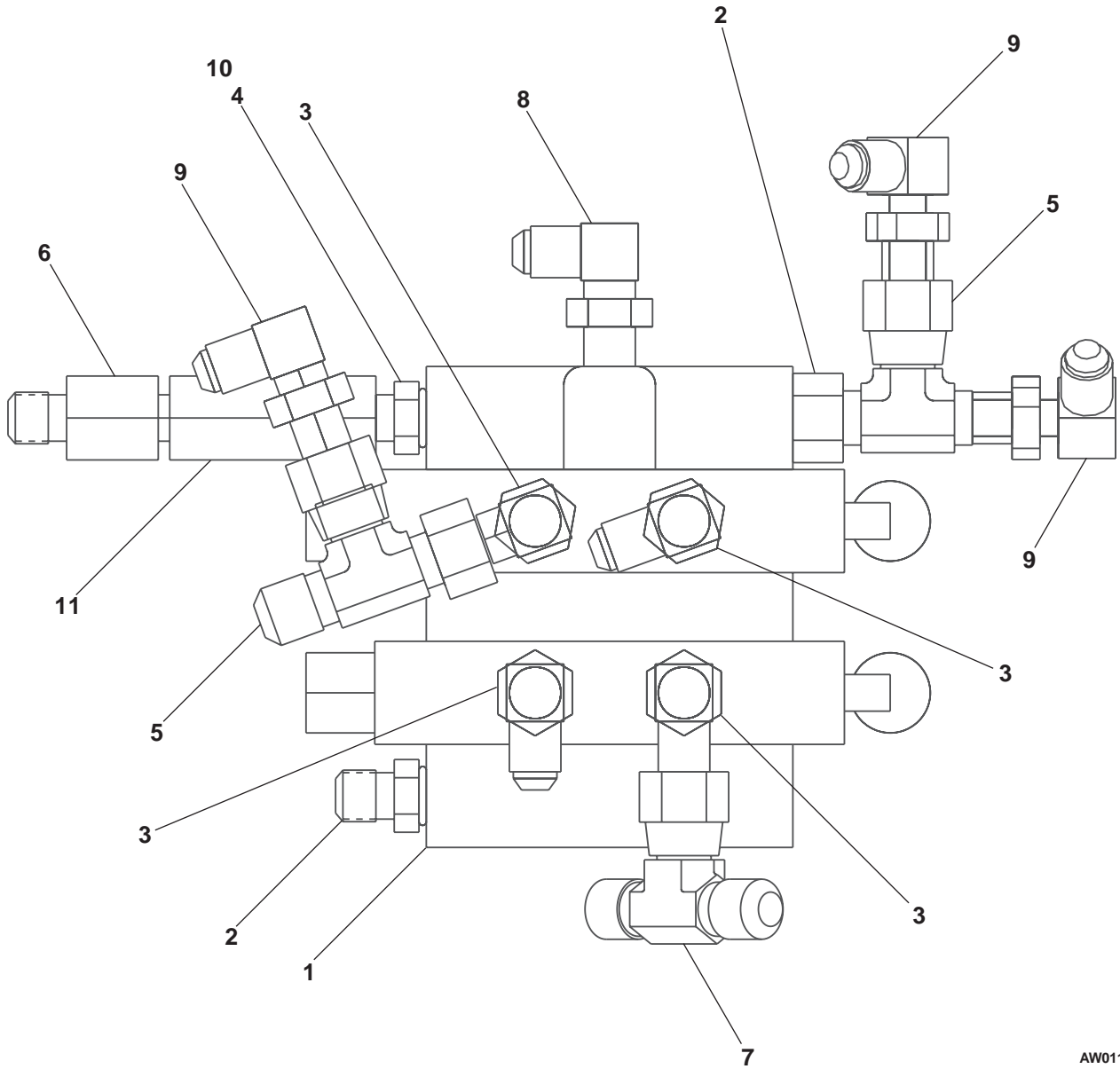


AW6010846

## Control valve, axle jacking

item	part no	qty	description
	0111291	1	Control valve, axle jacking
1	6010223	1	Valve, axle jacking
	0110713	1	Seal repair kit
	8060142	1	Replacement valve handle
2	5065707	2	Straight thread adapter
3	5035305	4	Straight thread 90° elbow
4	5033610	1	Male adapter
5	5036705	2	Swivel nut run tee
6	5038805	1	Female adapter
7	5036805	1	Swivel nut branch tee
8	5035318	1	Straight thread 90° elbow
9	5037005	3	Swivel nut 90° elbow
10	7110906	1	O-ring
11	6010159	1	Pressure relief valve - (factory preset, do not reset)

# Control valve, axle jacking

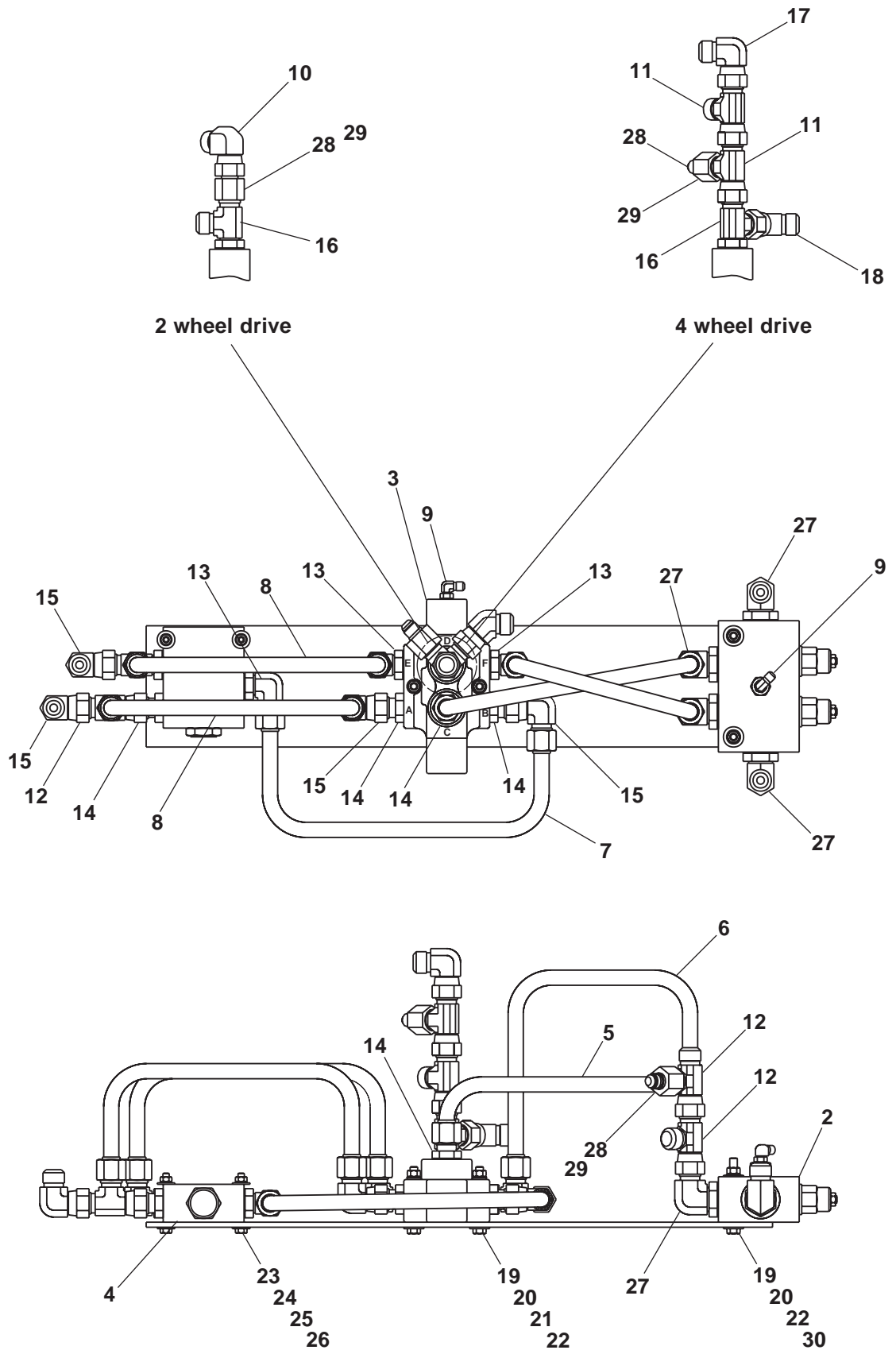


AW0111291

## Drive control valve

item	part no	qty	description
	0111431	1	Drive control valve - 2 wheel drive
	0111264	1	Drive control valve - 4 wheel drive
1	0111265	1	Mount plate
2	6010633	1	Dual counterbalance valve
	8190156	1	Seal repair kit
	8190157	1	Counterbalance cartridge - (factory preset, do not reset)
3	0080529	1	Selector valve
	0081127	1	Seal repair kit
	0080528	2	Valve end cap
4	6010231	1	Flow divider/combiner valve
5	0111267	1	3/4 inch hydraulic tube
6	0111266	1	3/4 inch hydraulic tube
7	0111268	1	3/4 inch hydraulic tube
8	0111269	2	3/4 inch hydraulic tube
9	5035303	2	Straight thread 90° elbow
10	5037006	1	Swivel nut 90° elbow
11	5036708	2	Swivel nut run tee - (used on 4 wheel drive only)
12	5036708	3	Swivel nut run tee
13	5035308	3	Straight thread 90° elbow
14	5065714	4	Straight thread adapter
15	5037008	4	Swivel nut 90° elbow
16	5036108	2	Straight thread run tee
17	5037008	1	Swivel nut run tee - (used on 4 wheel drive only)
18	5036908	1	Swivel nut 45° elbow - (used on 4 wheel drive only)
19	987119	6	Washer 3/8 medium lock
20	986299	6	Washer 3/8 medium flat
21	970549	2	Capscrew 3/8-16 x 3 inch long hex head grade 5
22	984109	4	Nut 3/8-16 hex
23	970349	2	Capscrew 5/16-18 x 2-3/4 inch long hex head grade 5
24	987109	2	Washer 5/16 medium lock
25	986269	4	Washer 5/16 medium flat
26	984089	2	Nut 5/16-18 hex
27	5035319	4	Straight thread 90° elbow
28	5064008	2	Tube end reducer
29	5063908	2	Fitting nut
30	970569	2	Capscrew 3/8-16 x 3-1/2 inch long hex head grade 5

# Drive control valve

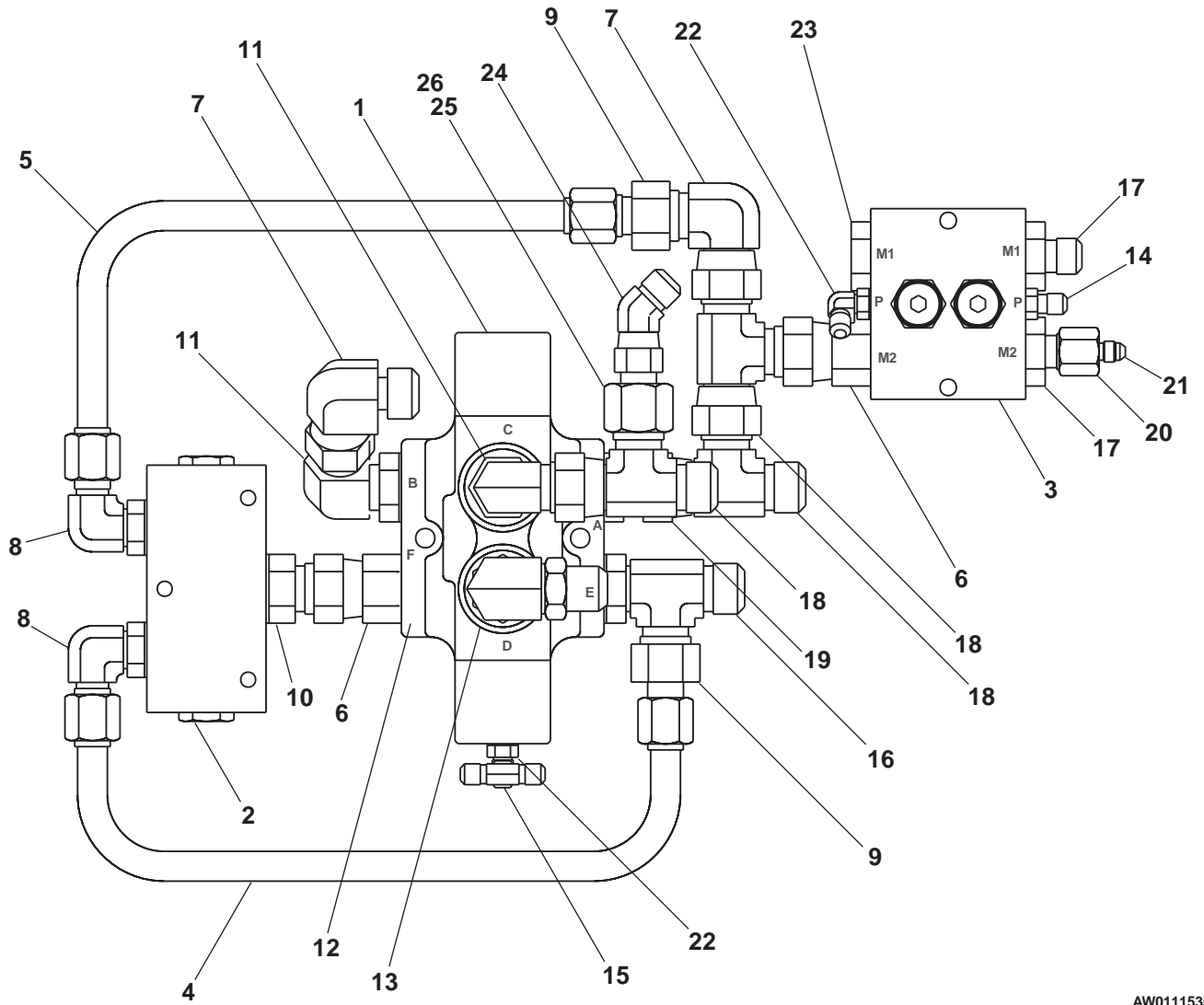


AW0111264

## Series parallel package, right hand

item	part no	qty	description
	0111535	1	Series parallel package, right hand
1	0080529	1	Selector valve
	0081127	1	Seal repair kit
	0080528	1	Valve end cap
2	6010231	1	Flow divider/combiner valve
3	6010613	1	Dual sequence valve
	6010614	1	Valve body, Fluid tech
	6010624	1	Valve body, Weco
	6010615	1	Cartridge sequence valve, Fluid Tech - (preset by factory, do not reset)
	6010269	1	Cartridge sequence valve, Weco - (preset by factory, do not reset)
4	0111340	1	5/8 inch hydraulic tube
5	0111338	1	5/8 inch hydraulic tube
6	5025001	2	Swivel adapter
7	5037008	2	Swivel nut 90° elbow
8	5035322	2	Straight thread 90° elbow
9	5064011	2	Tube end reducer
10	5065731	1	Straight thread adapter
11	5035308	2	Straight thread 90° elbow
12	5033618	1	Male adapter
13	5076206	1	Straight thread 90° elbow
14	5065703	1	Straight thread adapter
15	5036803	1	Swivel nut branch tee
16	5036108	1	Straight thread run tee
17	5065711	2	Straight thread adapter
18	5036708	3	Swivel nut run tee
19	5065714	1	Straight thread adapter
20	5063906	1	Fitting nut
21	5064002	1	Tube end reducer
22	5035303	2	Straight thread 90° elbow
23	5075208	1	Hex head plug
24	5036906	1	Swivel nut 45° elbow
25	5063908	1	Fitting nut
26	5064008	1	Tube end reducer

# Series parallel package, right hand



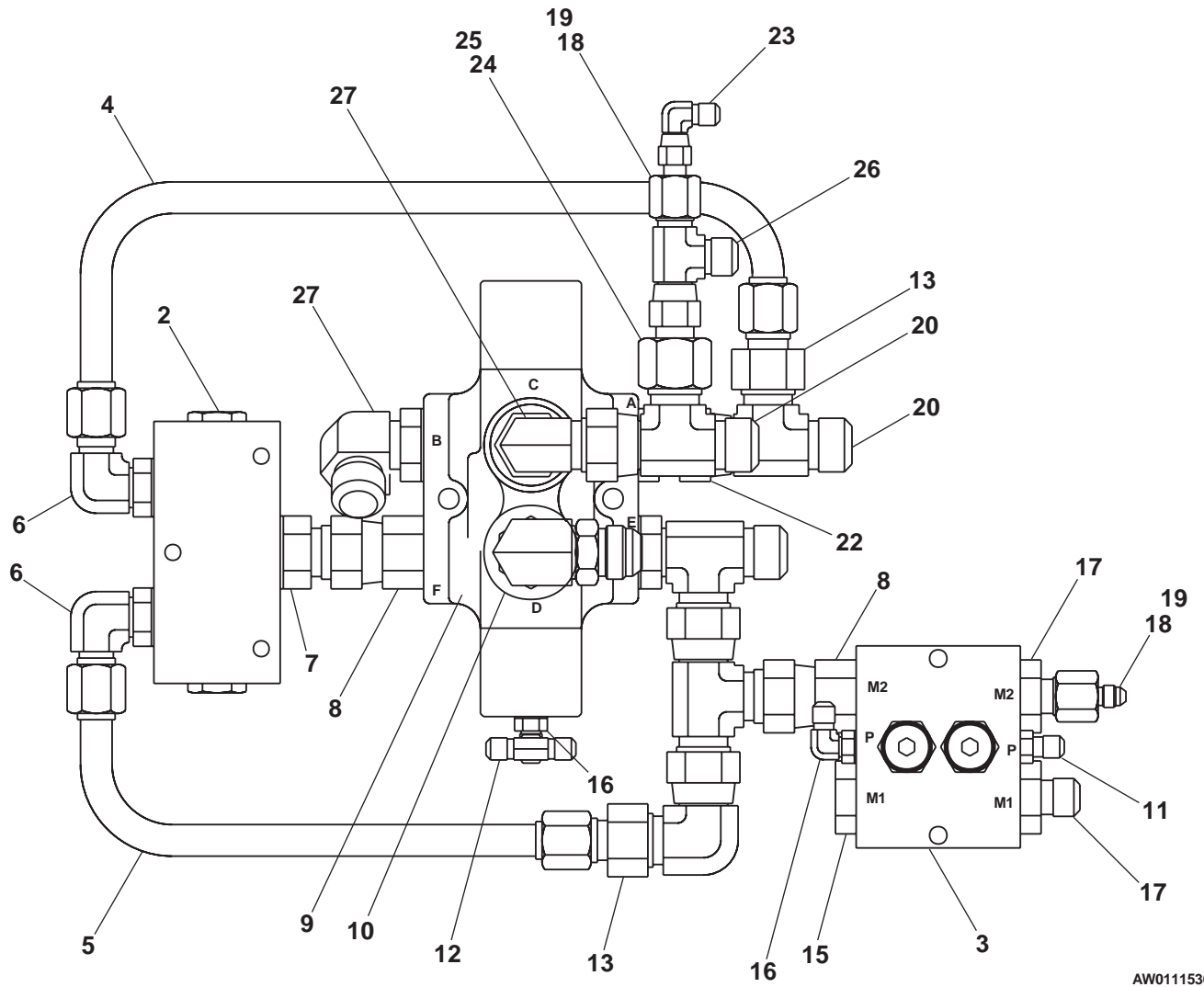
AW0111535

## Series parallel package, left hand

item	part no	qty	description
	0111536	1	Series parallel package, left hand
1	0080529	1	Selector valve
	0081127	1	Seal repair kit
	0080528	1	Valve end cap
2	6010231	1	Flow divider/combiner valve
3	6010613	1	Dual sequence valve
	6010614	1	Valve body, Fluid tech
	6010624	1	Valve body, Weco
	6010615	1	Cartridge sequence valve, Fluid Tech - (preset by factory, do not reset)
	6010269	1	Cartridge sequence valve, Weco - (preset by factory, do not reset)
4	0111341	1	5/8 inch hydraulic tube
5	0111339	1	5/8 inch hydraulic tube
6	5035322	2	Straight thread 90° elbow
7	5065731	1	Straight thread adapter
8	5025001	2	Swivel adapter
9	5033618	1	Male adapter
10	5076206	1	Straight thread 90° elbow
11	5065703	1	Straight thread adapter
12	5036803	1	Swivel nut branch tee
13	5064011	2	Tube end reducer
14	5037008	1	Swivel nut 90° elbow
15	5075208	1	Hex head plug
16	5035303	2	Straight thread 90° elbow
17	5065711	2	Straight thread adapter
18	5063906	2	Fitting nut
19	5064002	2	Tube end reducer
20	5036708	3	Swivel nut run tee
21	5036108	1	Straight thread run tee
22	5065714	1	Straight thread adapter
23	5037003	1	Swivel nut 90° elbow
24	5063908	1	Fitting nut
25	5064008	1	Tube end reducer
26	5036706	1	Swivel nut run tee
27	5035303	2	Straight thread 90° elbow



# Series parallel package, left hand

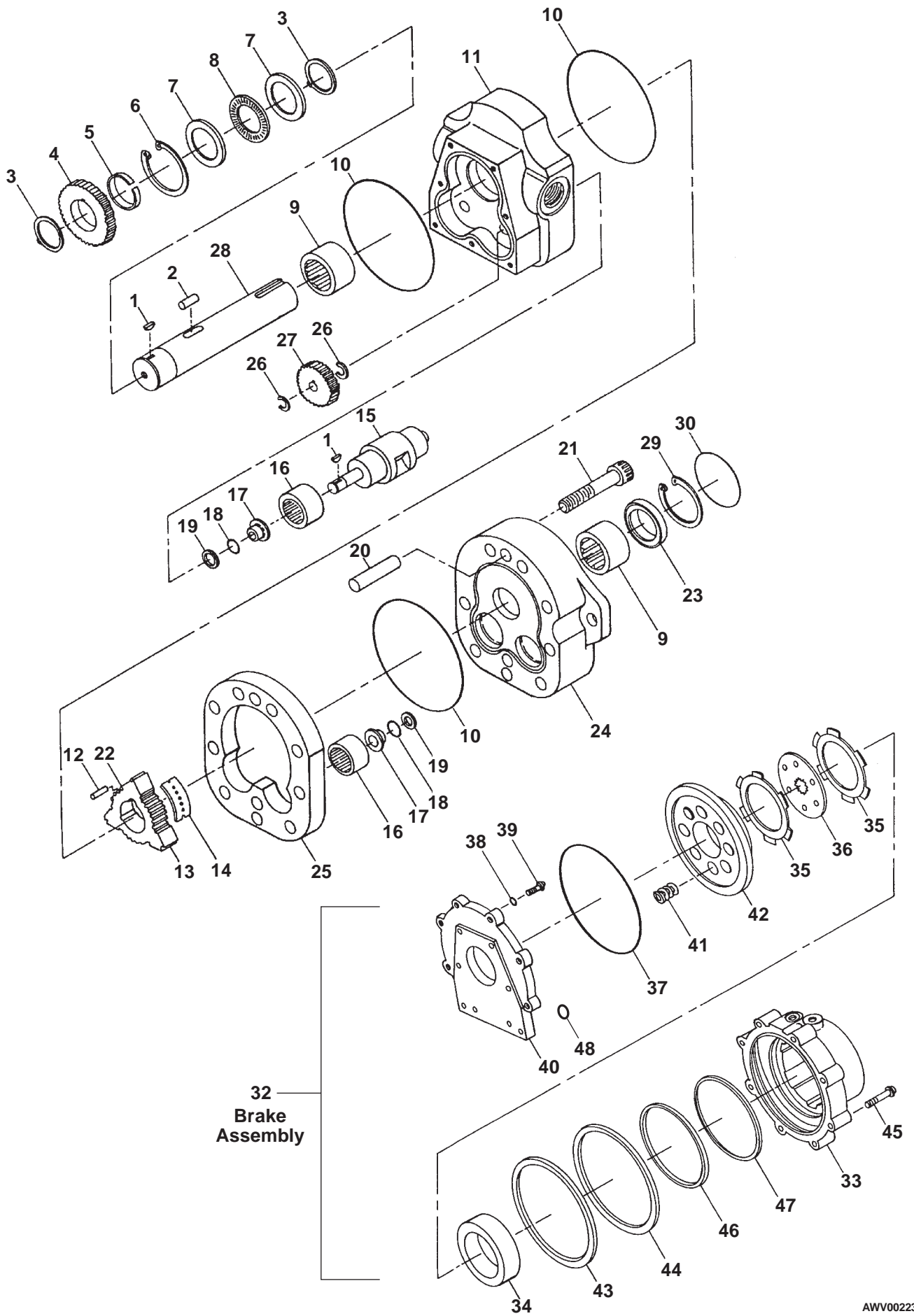


AW0111536

## Drive motor with brake

item	part no	qty	description
	6030037	1	Drive motor with brake
	0111494	1	Seal repair kit - (kit includes items 10, 18, 19, 23, 30, 43, 44, 45, 46, 47 and 48)
1	8220126	3	Woodruff key
2	8220157	1	Drive pin
3	8220158	2	Retaining ring
4	8220159	1	Gear drive
5	8220160	1	Spacer washer
6	8220161	1	Retaining ring
7	8220162	2	Thrust bearing race
8	8220163	1	Thrust bearing
9	8220034	2	Needle bearing
10	Kit item	3	Oil seal - (not sold separately)
11	8220035	1	Rear end cap
12	8220165	3	Tip seal roller
13	8220167	1	Rotor
14	8220168	3	Seal plate
15	8220169	2	Abutment valve
16	8220036	4	Needle bearing
17	8220170	4	Step bearing
18	Kit item	4	O-ring - (not sold separately)
19	Kit item	4	Back-up ring - (not sold separately)
20	8220180	4	Dowel pin
21	8220173	18	Capscrew
22	8220166	18	Body seal roller
23	Kit item	1	Shaft seal - (not sold separately)
24	8220175	1	Front end cap
25	8220176	1	Displacement housing
26	8220142	4	Retaining ring
27	8220177	2	Gear pinion (standard)
28	8220178	1	S-shaft for brake
29	8220179	1	Retaining ring
30	Kit item	1	O-ring - (not sold separately)
31	8220019	1	Front sealing cap
32	8220182	1	Drive motor brake, 4 cubic inch - (includes items 33 through 48)
	8220038		Brake replacement kit - (includes items 33, 40 and 45)
33	Kit item	1	Housing - (not sold separately)
34	6030038	1	Spacer ring
35	8220014	5	Friction disc
36	8220015	4	Driver plate
37	8220010	1	O-ring
38	8230077	7	Brass washer
39	8220016	7	Capscrew
40	Kit item	1	Adapter plate - (not sold separately)
41	8220025	8	Die spring
42	8220026	1	Pressure plate
43	Kit item	1	Back-up ring - (not sold separately)
44	Kit item	1	O-ring - (not sold separately)
45	Kit item	8	Capscrew - (not sold separately)
46	Kit item	1	O-ring - (not sold separately)
47	Kit item	2	Back-up ring - (not sold separately)
48	Kit item	1	O-ring - (not sold separately)

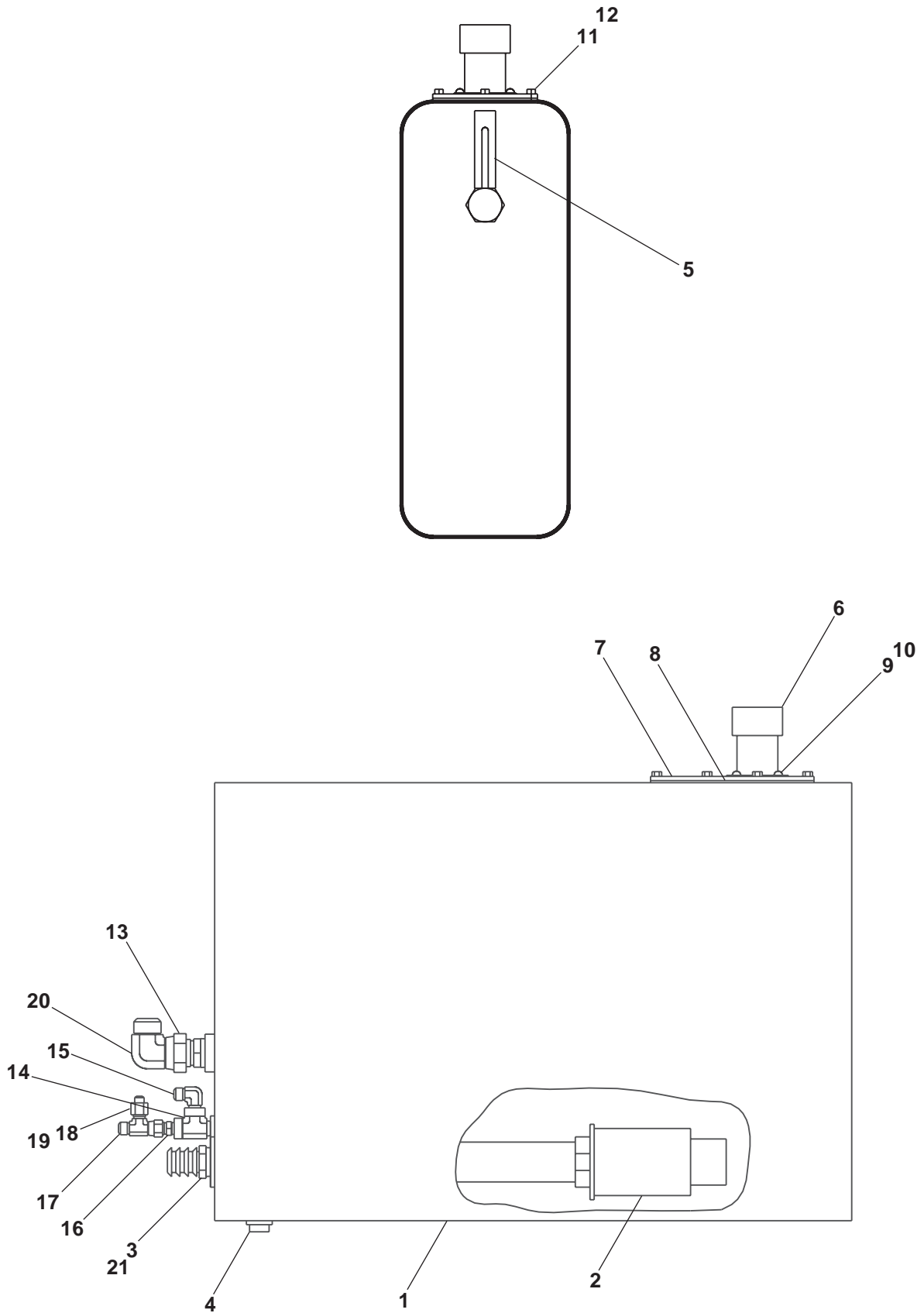
# Drive motor with brake



## Hydraulic oil reservoir

item	part no	qty	description
	0110360	1	Hydraulic oil reservoir
1	0110364	1	Hydraulic oil reservoir, 40 gallon capacity
2	5080018	1	Filter, sump strainer
3	5037305	1	Straight connector
4	7714202	1	Pipe plug 1/4 NPT square head
5	5090007	1	Liquid level gauge with thermometer
6	5090008	1	Filler/breather cap
7	0110367	1	Cover plate
8	0110368	1	Cover gasket
9	5560691	6	Machine screw #10-24 x 1/2 inch long hex head
10	987089	6	Washer #10 medium lock
11	970369	10	Capscrew 5/16-18 x 1 inch long hex head grade 5
12	987109	10	Washer 5/16 medium lock
13	5033623	1	Male adapter
14	7734204	1	Street tee, 1/2 inch NPT
15	5033713	1	Male 90° elbow
16	5033614	1	Male adapter
17	5036706	1	Swivel nut run tee
18	5063906	1	Fitting nut
19	5064002	1	Tube end reducer
20	5037011	1	Swivel nut 90° elbow
21	7721612	1	Reducer bushing

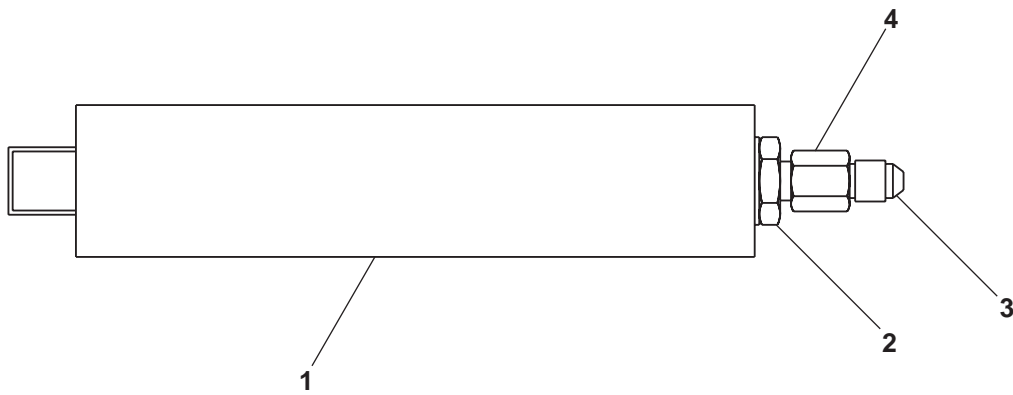
# Hydraulic oil reservoir



AW0110360

# Accumulator

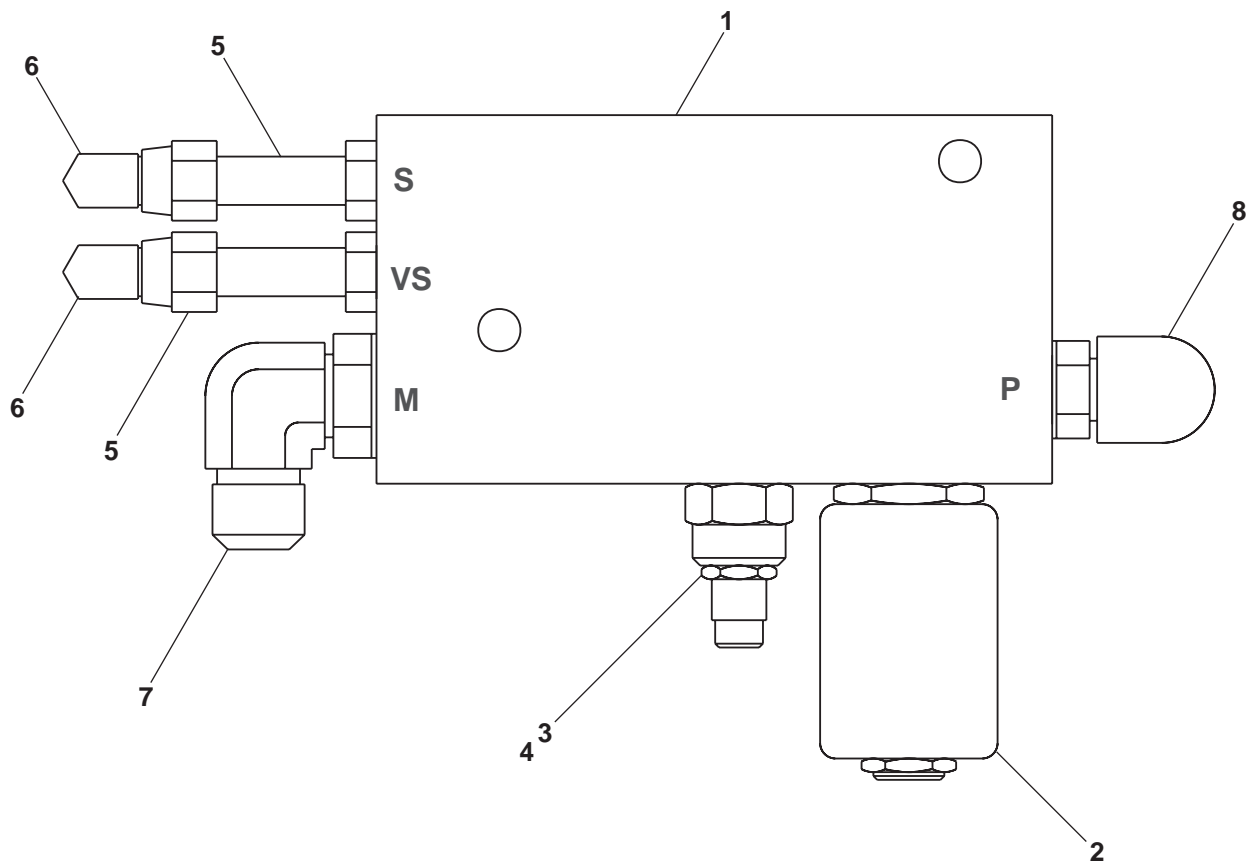
item	part no	qty	description
	0082055	1	Accumulator - (shipped charged)
1	6070005	1	Accumulator - (shipped uncharged, charge to 300 psi with dry nitrogen before use)
2	5065711	1	Straight thread adapter
3	5064002	1	Tube end reducer
4	6063905	1	Fitting nut



AW0082055

## AC generator valve

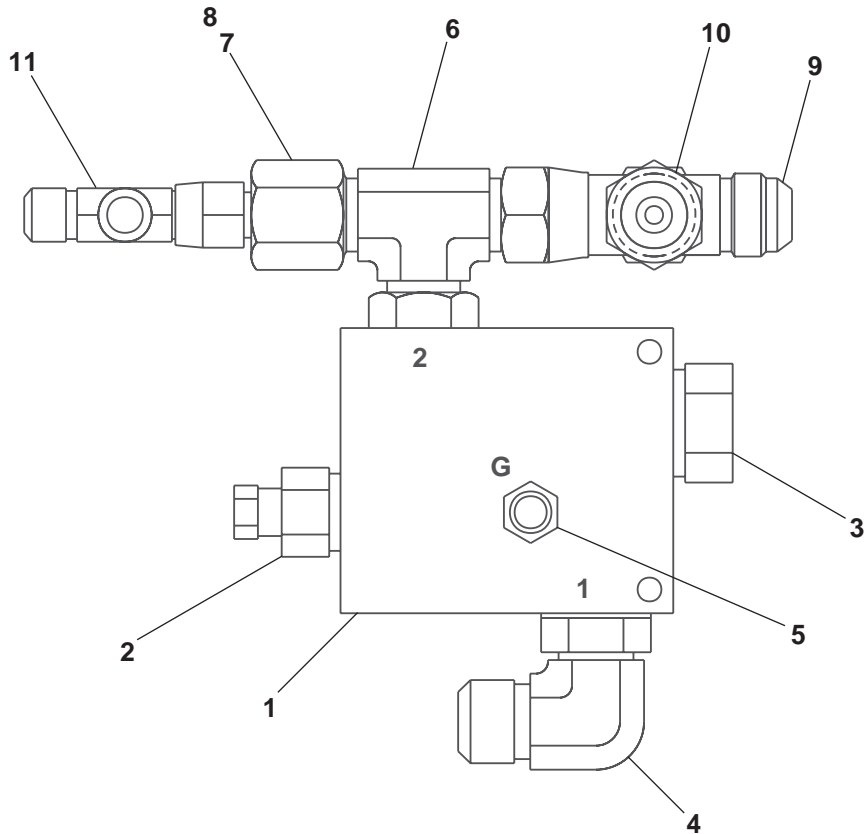
item	part no	qty	description
	0152831	1	AC generator valve
1	6010489	1	Valve, AC generator - (includes items 2, 3 and 4 — valve is not preset)
2	6010508	1	Cartridge valve with coil
	6010509	1	Replacement cartridge valve
	3040457	1	Replacement coil, 12 volt DC
3	6018901	1	Flow control valve cartridge
4	6010510	1	Shuttle valve cartridge
5	5065803	2	Long straight thread adapter
6	5037003	2	Swivel nut 90° elbow
7	5035306	1	Straight thread 90° elbow
8	5035320	1	Straight thread 90° elbow



AW0152831

## Anti-cavitation valve

item	part no	qty	description
	0111273	1	Anti-cavitation valve
1	6010492	1	Valve, anti-cavitation - (valve includes items 2 and 3)
	0110683	1	Seal repair kit
2	8230099	1	Relief valve cartridge - (factory preset, do not reset)
3	6010563	1	Check valve cartridge
	8190291	1	Seal repair kit
4	5035307	1	Straight thread 90° elbow
5	5065703	1	Straight thread adapter
6	5036507	1	Straight thread branch tee
7	5063907	1	Fitting nut
8	5064004	1	Tube end reducer
9	5036707	1	Swivel nut run tee
10	5064012	1	Tube end reducer
11	5036705	1	Swivel nut run tee

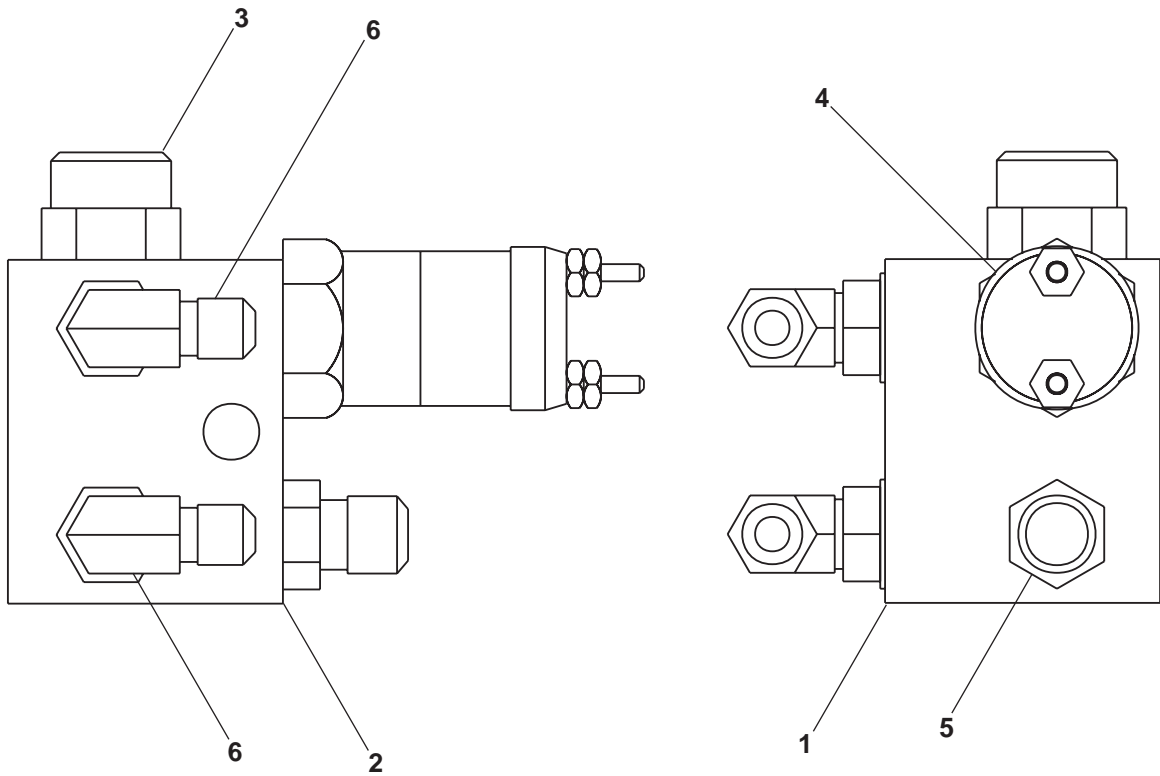


AW0111273



## Axle interlock valve

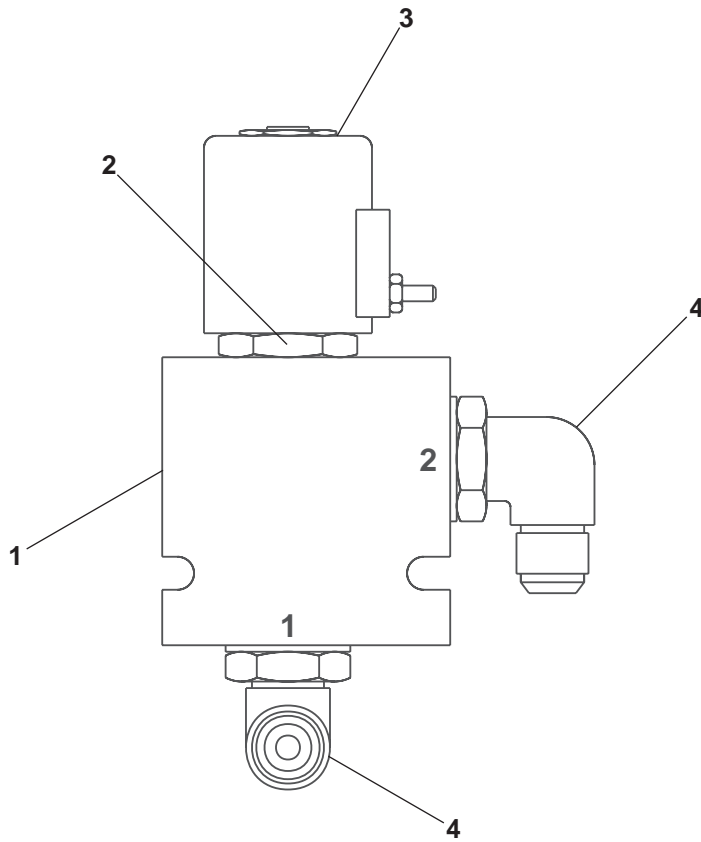
item	part no	qty	description
	0190878	1	Axle interlock valve
1	6010723	1	Valve, axle interlock - (valve includes items 2 and 3)
2	6010735	1	Valve body, Fluid Tech
	6010913	1	Valve body, Weco
3	6010734	1	Flow control valve, Fluid Tech
	6010914	1	Flow control valve, Weco
4	3020077	1	Pressure switch
5	5065705	1	Straight thread adapter
6	5035318	2	Straight thread 90° elbow



AW0190878

## Blocking valve, extend

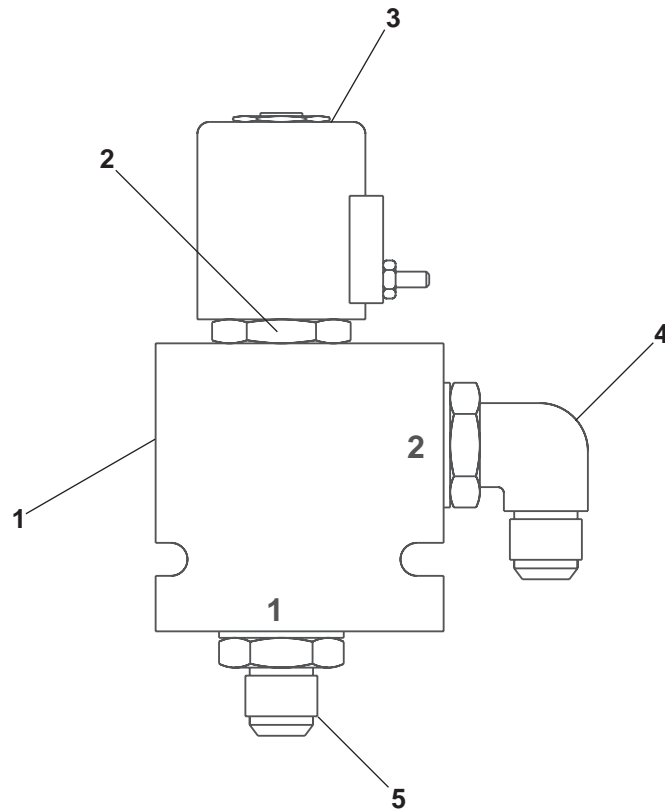
item	part no	qty	description
	0111876	1	Blocking valve, extend
1	6010855	1	Valve, blocking - (valve includes items 2 and 3)
2	6010727	1	Solenoid valve, 2-way - (factory preset, do not reset)
	6010856	1	Seal repair kit
3	3040457	1	Solenoid coil, 12 volt DC
4	5035316	2	Straight thread 90° elbow



AW011876

## Blocking valve, lift

item	part no	qty	description
	0111877	1	Blocking valve, lift
1	6010855	1	Valve, lift blocking - (valve includes items 2 and 3)
2	6010727	1	Solenoid valve, 2-way - (factory preset, do not reset)
	6010856	1	Seal repair kit
3	3040457	1	Solenoid coil, 12 volt DC
4	5035316	1	Straight thread 90° elbow
5	5065710	1	Straight thread adapter

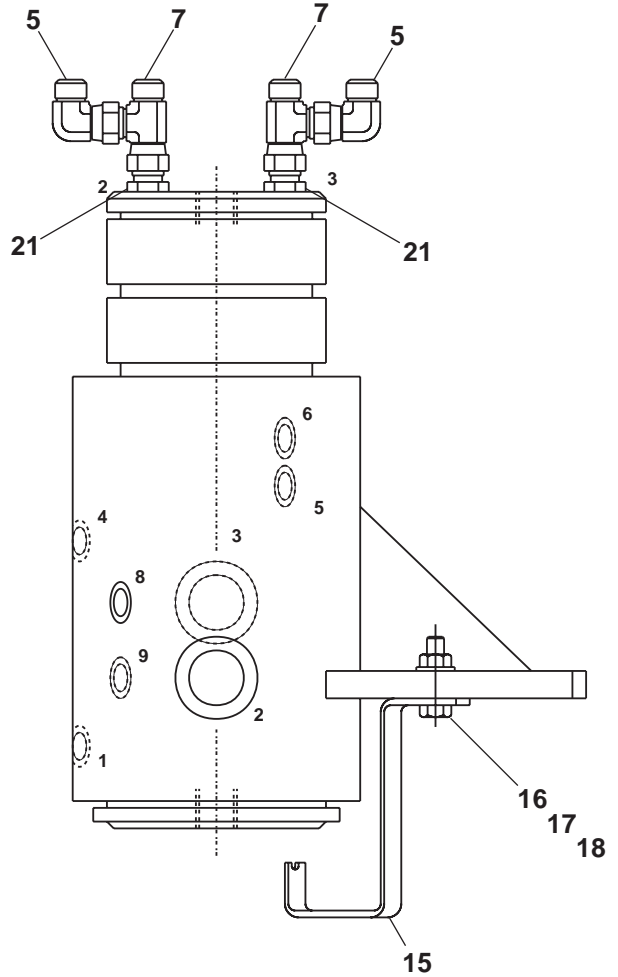
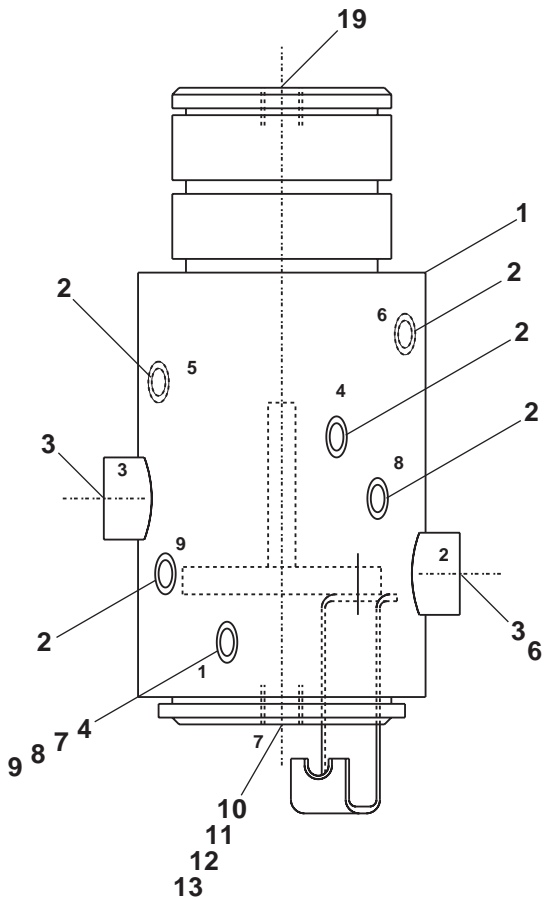
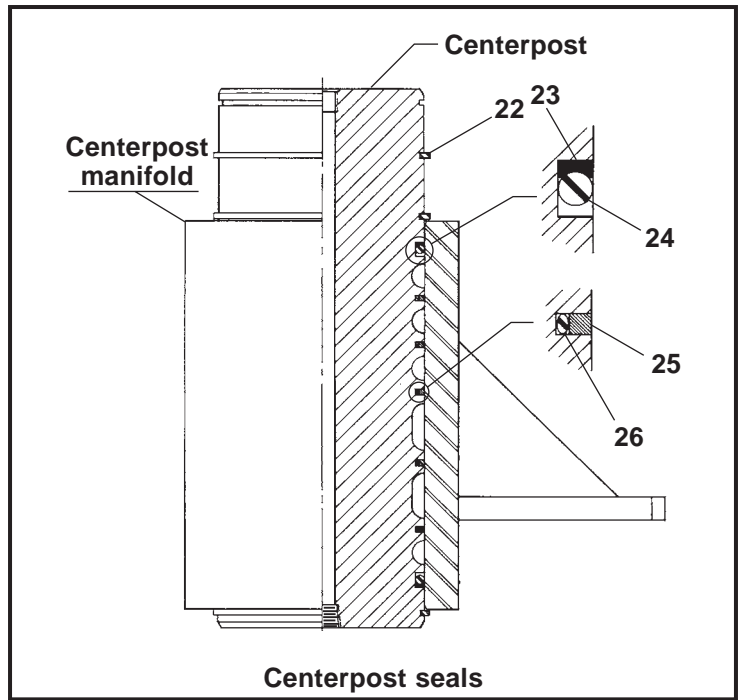
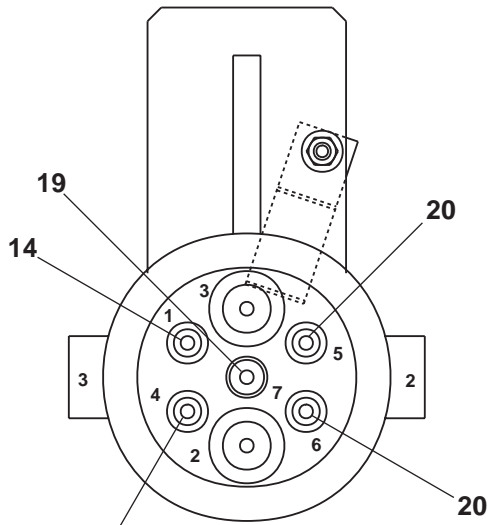


AW011877

## Centerpost and fittings

item	part no	qty	description
	0111299	1	Centerpost and fittings
1	0110465	1	Centerpost - (includes centerpost, centerpost manifold and seals)
	0110466	1	Centerpost
	0110467	1	Centerpost manifold
	0070991	1	Seal repair kit
2	5035305	5	Straight thread 90° elbow
3	5035308	2	Straight thread 90° elbow
4	5035703	1	Straight thread 45° elbow
5	5037007	1	Swivel nut 90° elbow
6	5036908	1	Swivel nut 45° elbow
7	5036707	3	Swivel nut run tee
8	5063907	1	Fitting nut
9	5064004	1	Tube end reducer
10	5020001	1	Elbow, special swivel
11	5037005	1	Swivel nut 90° elbow
12	5063905	1	Fitting nut
13	5064001	1	Tube end reducer
14	5065728	1	Straight thread adapter
15	0110502	1	Fitting bracket
16	970269	1	Capscrew 5/16-18 x 1-1/4 inch long hex head grade 5
17	984089	1	Nut 5/16-18 hex
18	987109	1	Washer 5/16 medium lock
19	5065705	2	Straight thread adapter
20	5065707	2	Straight thread adapter
21	5065713	2	Straight thread adapter
22	5590003	3	Retaining ring
23	Kit item	2	Parbak seal - (not sold separately)
24	Kit item	2	O- ring - (not sold separately)
25	Kit item	5	Seal ring - (not sold separately)
26	Kit item	5	O-ring - (not sold separately)

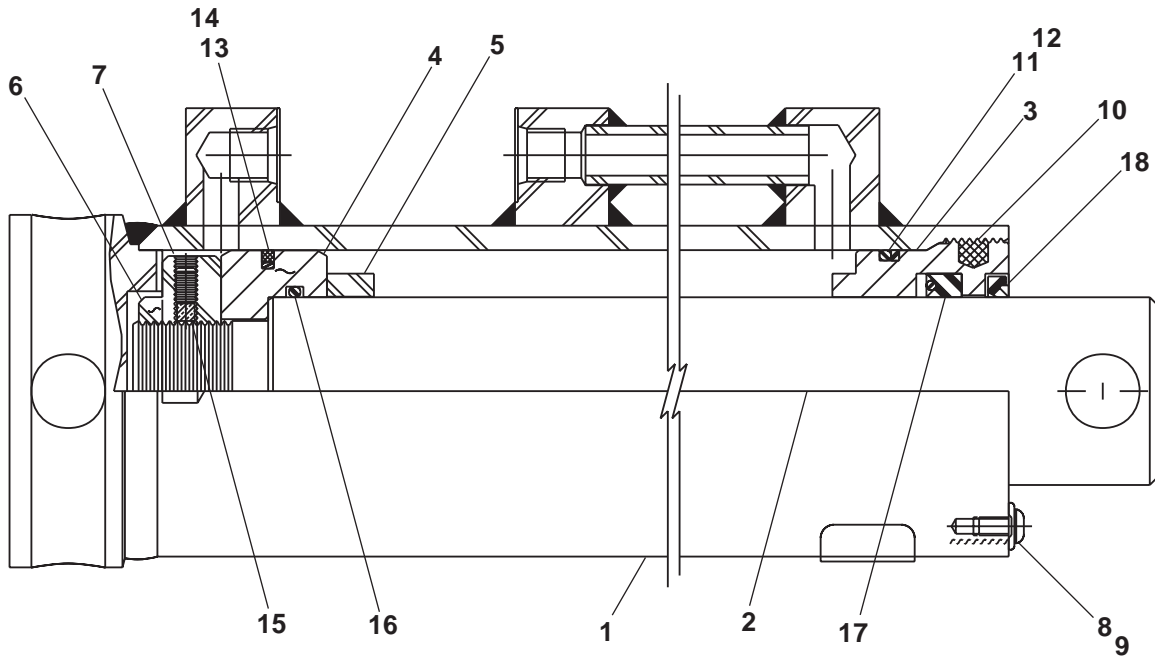
# Centerpost and fittings



AW0111299

## Cylinder, axle extend - GBI

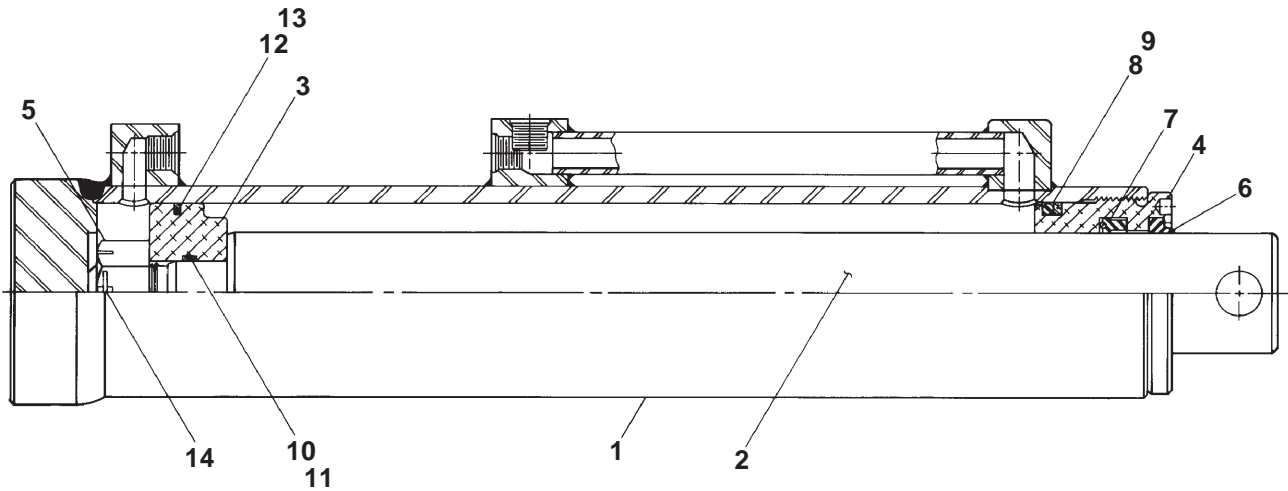
item	part no	qty	description
	0110281	1	Cylinder, axle extend - GBI
	0190917	1	Seal repair kit - (kit includes items 10 through 18)
1		1	Case - (not sold separately)
2	8070356	1	Rod
3	8070357	1	Head gland
4	8070358	1	Piston
5	8070359	1	Spacer
6	8070360	1	Ring nut
7	8070361	1	Set screw
8	8070362	1	Lock washer
9	8070363	1	Capscrew
10	Kit item	1	Nylon plug - (not sold separately)
11	Kit item	1	Back-up - (not sold separately)
12	Kit item	1	O-ring - (not sold separately)
13	Kit item	1	O-ring - (not sold separately)
14	Kit item	1	Teflon ring - (not sold separately)
15	Kit item	1	Bronze plug - (not sold separately)
16	Kit item	1	O-ring - (not sold separately)
17	Kit item	1	U-ring - (not sold separately)
18	Kit item	1	Wiper, lip type - (not sold separately)



AWV00224

## Cylinder, axle extend - Seabee

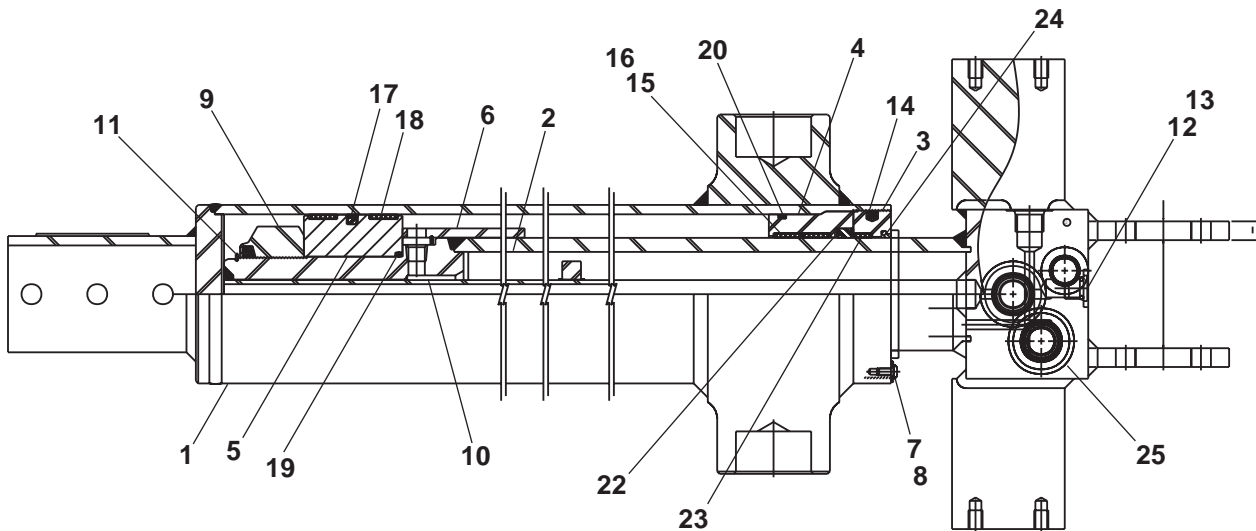
item	part no	qty	description
	0110281	1	Cylinder, axle extend - Seabee
	0110535	1	Seal repair kit - (kit includes items 6 through 13)
1		1	Case - (not sold separately)
2	8190135	1	Shaft
3	8190078	1	Piston
4	8190079	1	Head gland
5	8190080	1	Piston nut
6	Kit item	1	Wiper - (not sold separately)
7	Kit item	1	U-cup - (not sold separately)
8	Kit item	1	O-ring - (not sold separately)
9	Kit item	1	Back-up - (not sold separately)
10	Kit item	1	O-ring - (not sold separately)
11	Kit item	2	Back-up - (not sold separately)
12	Kit item	1	Piston seal - (not sold separately)
13	Kit item	1	O-ring - (not sold separately)
14	8190151	1	Cotter key



AWV00225

## Cylinder, extension - GBI

item	part no	qty	description
	0110623	1	Cylinder, extension - GBI
	8070380	1	Seal repair kit - (kit includes items 13 through 24)
1		1	Tube - (not sold separately)
2	8070373	1	Rod
3	8070231	1	Thread ring
4	8070374	1	Head gland
5	8070375	1	Piston
6	8070376	1	Spacer
7	8070363	1	Capscrew
8	8070362	1	Lock washer
9	8070377	1	Nut
10	8070378	1	Retaining ring
11	8070379	1	Retaining ring
12	8070368	1	Port plug
13	Kit item	1	O-ring - (not sold separately)
14	Kit item	1	Nylon plug - (not sold separately)
15	Kit item	1	Back-up - (not sold separately)
16	Kit item	1	O-ring - (not sold separately)
17	Kit item	1	Teflon seal - (not sold separately)
18	Kit item	2	Wear ring - (not sold separately)
19	Kit item	1	O-ring - (not sold separately)
20	Kit item	2	Wear ring - (not sold separately)
21	Kit item	1	U-cup - (not sold separately)
22	Kit item	1	Back-up - (not sold separately)
23	Kit item	1	Wear ring - (not sold separately)
24	Kit item	1	Wiper, AN - (not sold separately)
25	6010116	1	Cartridge holding valve - (preset by factory, do not reset)
	0071918	1	Seal repair kit

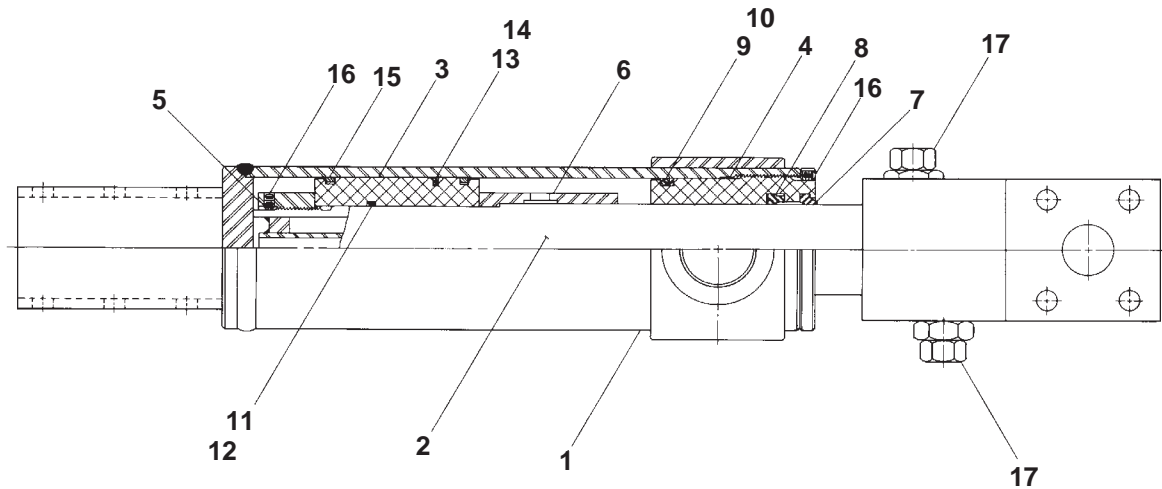


AWV00226



## Cylinder, extension - Seabee

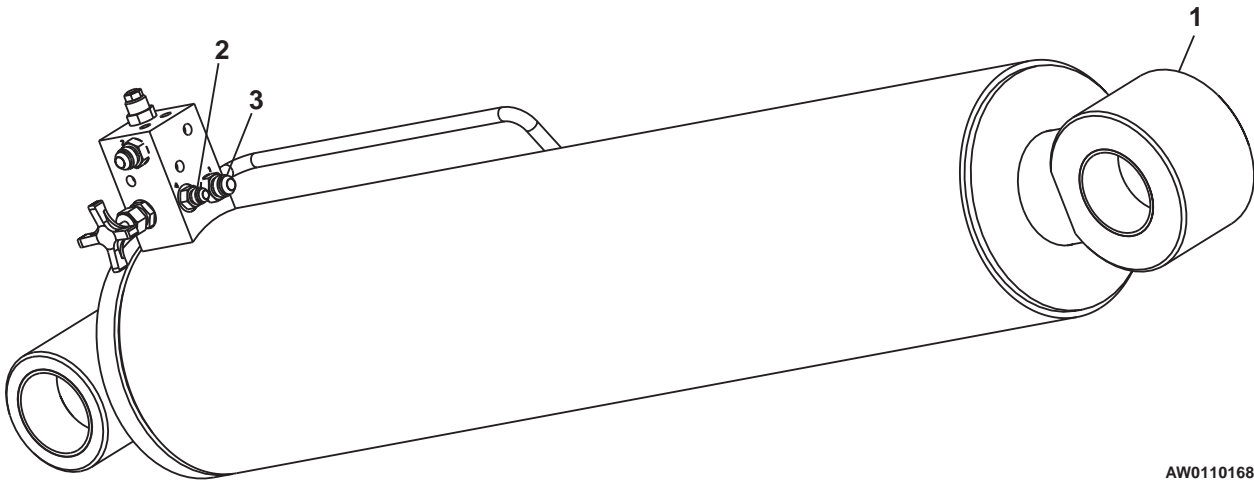
item	part no	qty	description
	0110623	1	Cylinder, extension - Seabee
	0110534	1	Seal repair kit - (kit includes items 7 through 15)
1		1	Case - (not sold separately)
2	8190120	1	Rod
3	8190136	1	Piston
4	8190083	1	Head gland
5	8190137	1	Buttress ring nut
6	8190138	1	Spacer
7	Kit item	1	Wiper - (not sold separately)
8	Kit item	1	U-cup - (not sold separately)
9	Kit item	1	O-ring - (not sold separately)
10	Kit item	1	Back-up - (not sold separately)
11	Kit item	1	O-ring - (not sold separately)
12	Kit item	2	Back-up - (not sold separately)
13	Kit item	2	Piston seal - (not sold separately)
14	Kit item	1	O-ring - (not sold separately)
15	Kit item	1	Piston ring - (not sold separately)
16	8190129	3	Set screw
17	6010116	1	Cartridge holding valve - (preset by factory, do not reset)
	0071918	1	Seal repair kit



AWV00227

# Lift cylinder

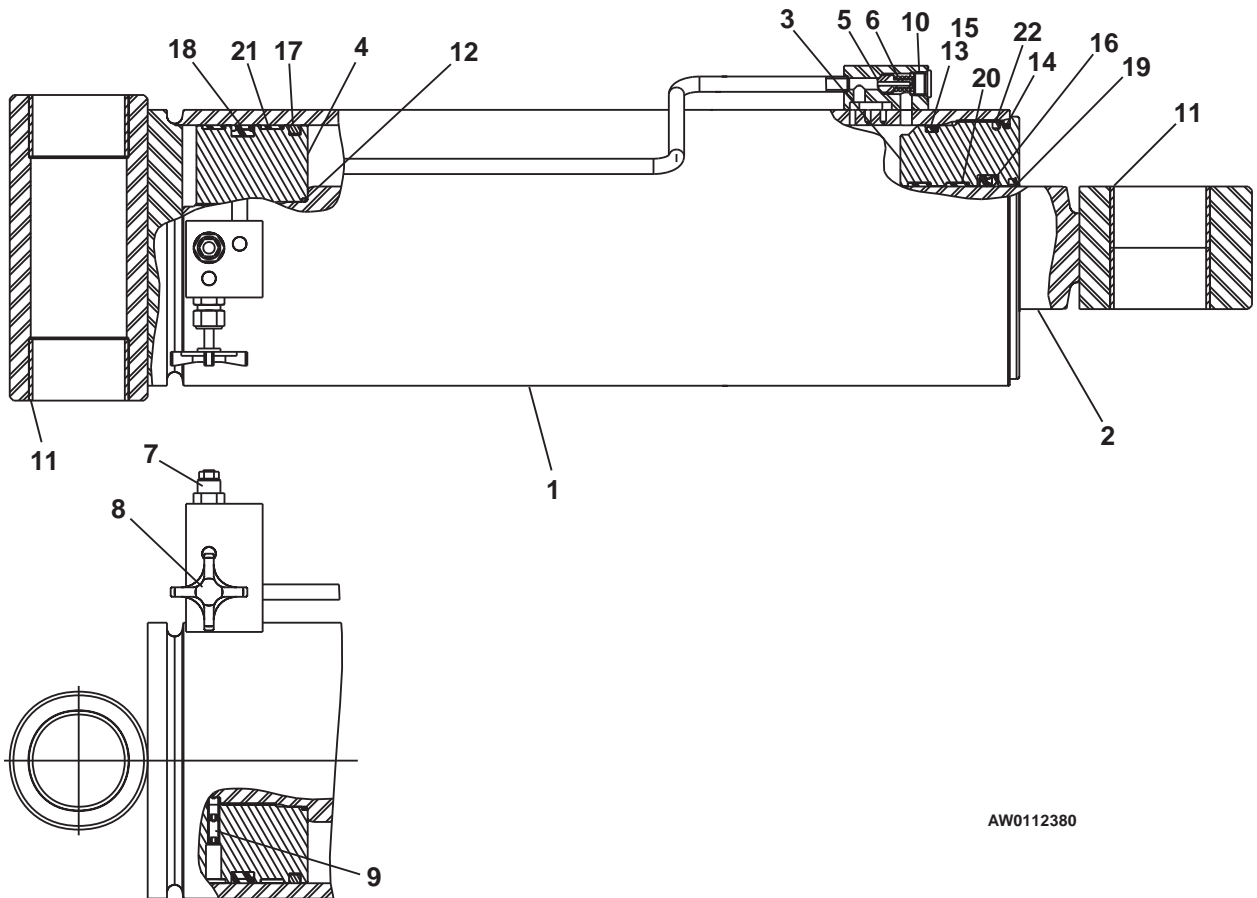
item	part no	qty	description
	0110168	1	Lift cylinder
1	0112380	1	Cylinder, lift - (see page 2-47 for parts breakdown)
2	5065707	1	Straight thread adapter
3	5065709	2	Straight thread adapter



AW0110168

# Cylinder, lift - Rosenboom

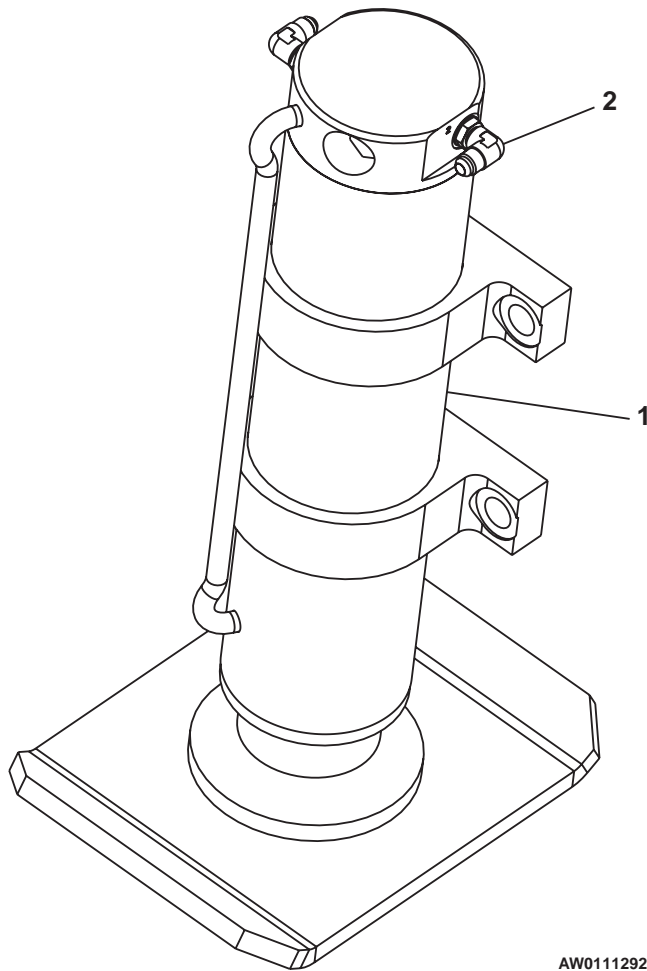
item	part no	qty	description
	0112380	1	Cylinder, lift - Rosenboom
	6091362	1	Seal repair kit - (kit includes items 12 through 22)
1		1	Tube - (not sold separately)
2	6091361	1	Rod
3	6091359	1	Head gland
4	6091358	1	Piston
5	6091241	1	Poppet
6	6091246	1	Spring
7	6091314	1	Counterbalance holding valve - (preset by factory, do not reset)
8	6010115	1	Cartridge needle valve
	0071845	1	Seal repair kit
9	975839	4	Set screw 3/8-16 x 3/4 inch long hex socket head
10	5075306	1	Hex plug
11	2500063	4	Bearing
12	Kit item	1	O-ring - (not sold separately)
13	Kit item	1	O-ring - (not sold separately)
14	Kit item	1	O-ring - (not sold separately)
15	Kit item	1	Back-up - (not sold separately)
16	Kit item	1	Deep Z-seal - (not sold separately)
17	Kit item	1	Cast iron ring - (not sold separately)
18	Kit item	1	Capped T-seal - (not sold separately)
19	Kit item	1	Rod wiper - (not sold separately)
20	Kit item	2	Wearband - (not sold separately)
21	Kit item	2	Wearband - (not sold separately)
22	Kit item	2	Locking insert - (not sold separately)



AW0112380

# Jacking cylinder

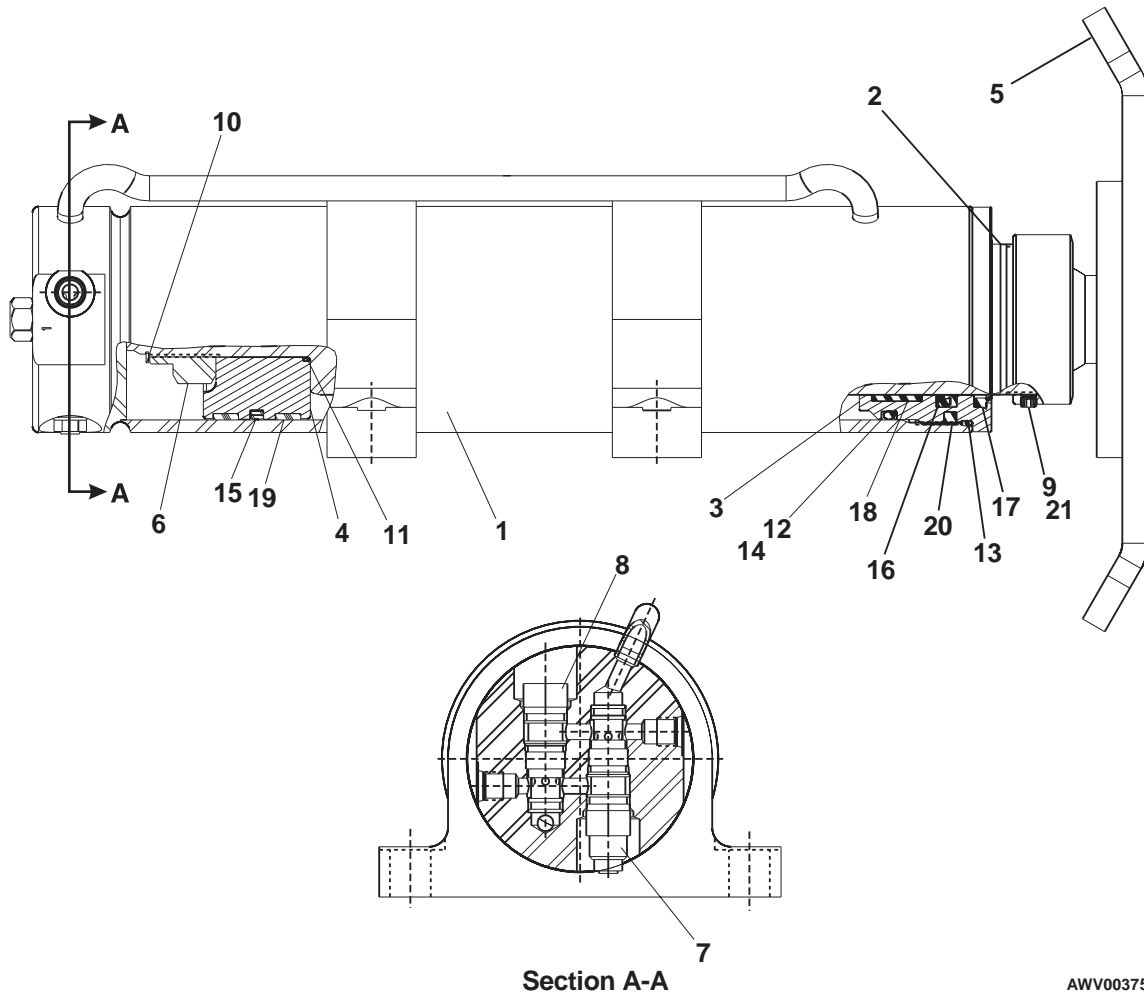
item	part no	qty	description
	0111292	1	Jacking cylinder
1	0112379	1	Cylinder, jacking - (see page 2-49 for parts breakdown)
2	5035305	2	Straight thread 90° elbow



AW0111292

## Cylinder, jacking - Rosenboom

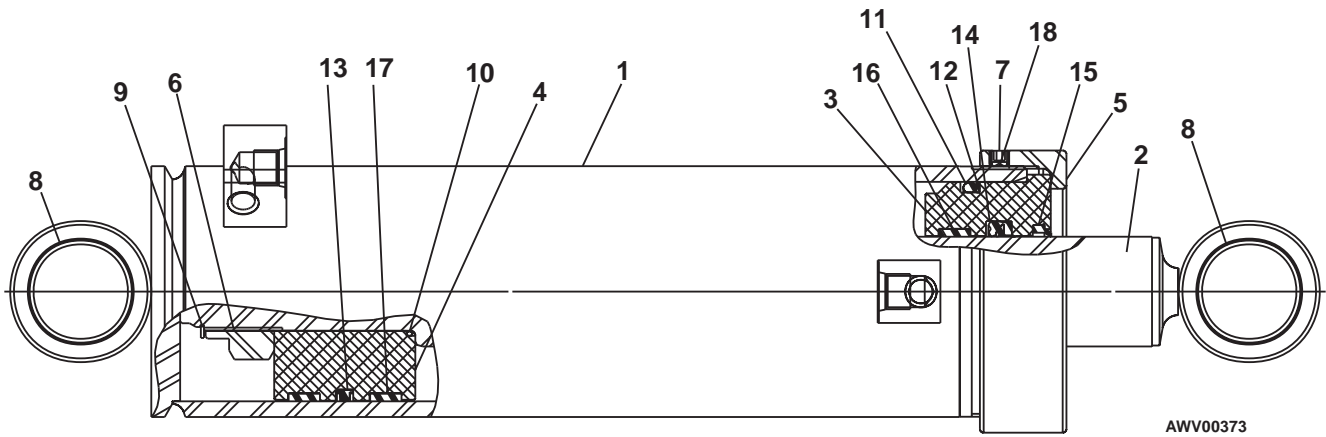
item	part no	qty	description
	0112379	1	Cylinder, jacking - Rosenboom
	6091355	1	Seal repair kit - (kit includes items 10 through 21)
1		1	Tube - (not sold separately)
2	6091354	1	Rod
3	6091351	1	Head gland
4	6091350	1	Piston
5	6091362	1	Jack shoe
6	6091272	1	Locknut
7	6010488	1	Cartridge counterbalance valve - (factory preset, do not reset)
	6091190	1	Seal repair kit
8	6010426	1	Check valve
9	5569835	1	Set screw 5/16-18 x 1/4 inch long
10	Kit item	1	Snap ring - (not sold separately)
11	Kit item	1	O-ring - (not sold separately)
12	Kit item	1	O-ring - (not sold separately)
13	Kit item	1	O-ring - (not sold separately)
14	Kit item	1	Back-up - (not sold separately)
15	Kit item	1	Diso-pac - (not sold separately)
16	Kit item	1	Deep Z-seal - (not sold separately)
17	Kit item	1	Rod wiper - (not sold separately)
18	Kit item	1	Wearband - (not sold separately)
19	Kit item	2	Wearband - (not sold separately)
20	Kit item	2	Locking insert - (not sold separately)
21	Kit item	1	Locking insert - (not sold separately)



AWV00375

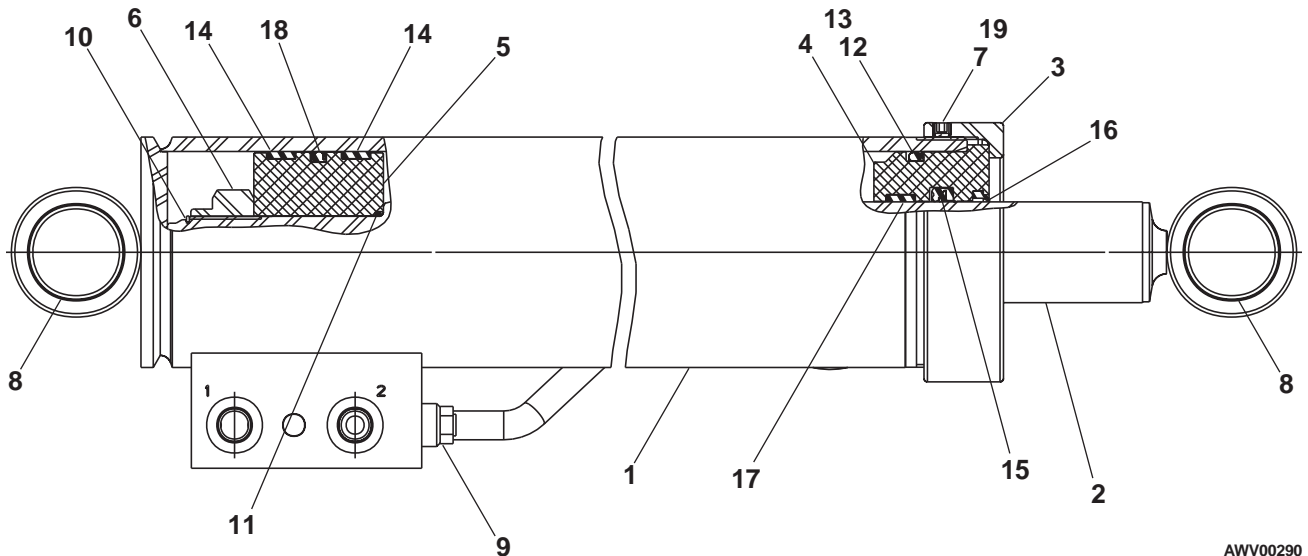
## Cylinder, master level - Rosenboom

item	part no	qty	description
	0070007	1	Cylinder, master level - Rosenboom
	6091260	1	Seal repair kit - (kit includes items 9 through 18)
1		1	Tube - (not sold separately)
2	6091374	1	Rod
3	6091257	1	Head gland
4	6091256	1	Piston
5	6091250	1	Head gland cap
6	6091259	1	Lock nut
7	5569835	1	Set screw 5/16-18 x 1/4 inch long
8	2502416	4	Bearing
9	Kit item	1	Snap ring - (not sold separately)
10	Kit item	1	O-ring - (not sold separately)
11	Kit item	1	O-ring - (not sold separately)
12	Kit item	1	Back-up - (not sold separately)
13	Kit item	1	Capped T-seal - (not sold separately)
14	Kit item	1	Deep Z-seal - (not sold separately)
15	Kit item	1	Rod wiper - (not sold separately)
16	Kit item	1	Wearband - (not sold separately)
17	Kit item	2	Wearband - (not sold separately)
18	Kit item	1	Locking insert - (not sold separately)



## Cylinder, slave level - Rosenboom

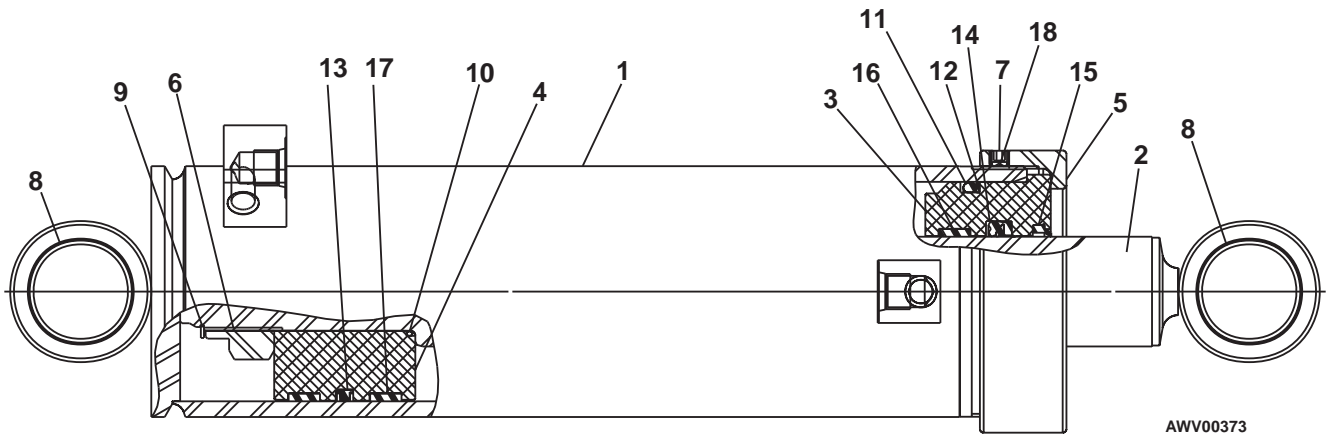
item	part no	qty	description
	0074713	1	Cylinder, slave level - Rosenboom
	6091260	1	Seal repair kit - (kit includes items 10 through 19)
1		1	Cylinder tube - (not sold separately)
2	6091258	1	Rod
3	6091255	1	Head gland cap
4	6091257	1	Head gland
5	6091256	1	Piston
6	6091259	1	Lock nut
7	5569835	1	Set screw 5/16-18 x 1/4 inch long
8	2502416	4	Bushing
9	6010794	2	Cartridge holding valve - (factory preset, do not reset)
	0150563	1	Seal repair kit
10	Kit item	1	External snap ring - (not sold separately)
11	Kit item	1	O-ring - (not sold separately)
12	Kit item	1	O-ring - (not sold separately)
13	Kit item	1	Back-up ring - (not sold separately)
14	Kit item	1	T-seal - (not sold separately)
15	Kit item	1	Deep Z-seal - (not sold separately)
16	Kit item	1	Rod wiper - (not sold separately)
17	Kit item	1	Wearband - (not sold separately)
18	Kit item	2	Wearband - (not sold separately)
19	Kit item	1	Locking insert - (not sold separately)



AWV00290

## Cylinder, steering - Rosenboom

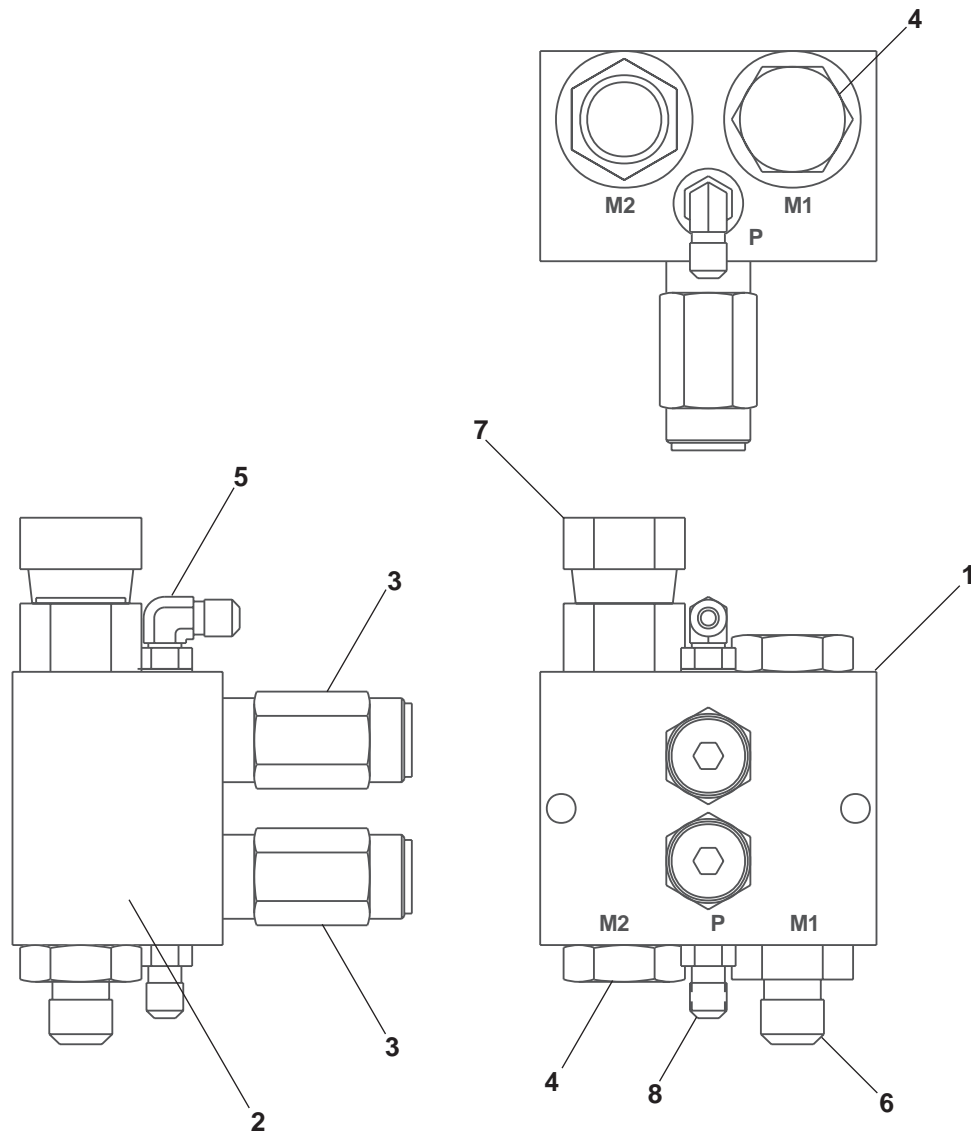
item	part no	qty	description
	0070007	1	Cylinder, steering - Rosenboom
	6091260	1	Seal repair kit - (kit includes items 9 through 18)
1		1	Tube - (not sold separately)
2	6091374	1	Rod
3	6091257	1	Head gland
4	6091256	1	Piston
5	6091250	1	Head gland cap
6	6091259	1	Lock nut
7	5569835	1	Set screw 5/16-18 x 1/4 inch long
8	2502416	4	Bearing
9	Kit item	1	Snap ring - (not sold separately)
10	Kit item	1	O-ring - (not sold separately)
11	Kit item	1	O-ring - (not sold separately)
12	Kit item	1	Back-up - (not sold separately)
13	Kit item	1	Capped T-seal - (not sold separately)
14	Kit item	1	Deep Z-seal - (not sold separately)
15	Kit item	1	Rod wiper - (not sold separately)
16	Kit item	1	Wearband - (not sold separately)
17	Kit item	2	Wearband - (not sold separately)
18	Kit item	1	Locking insert - (not sold separately)





## Dual sequence valve, right hand

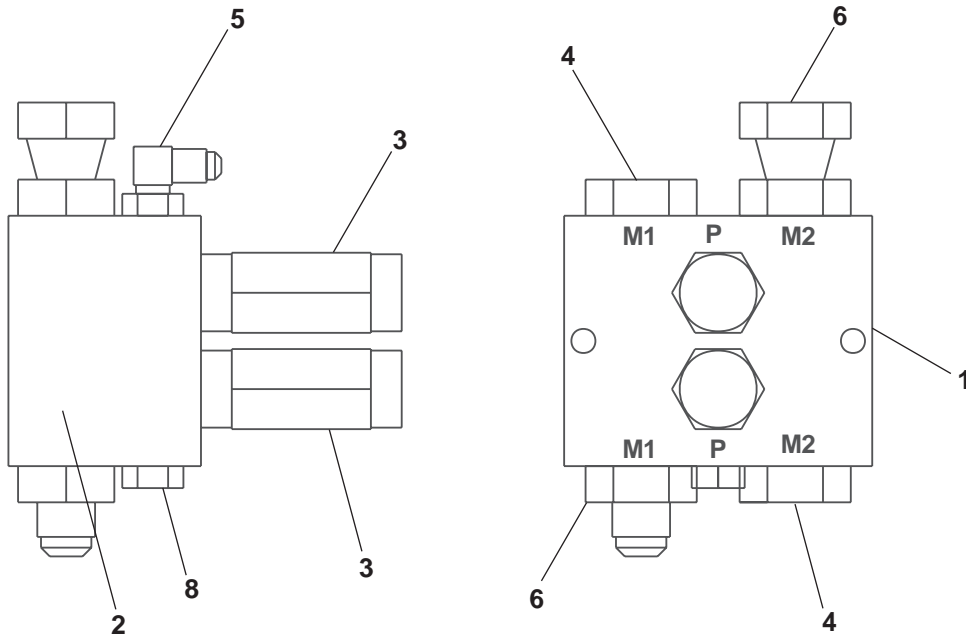
item	part no	qty	description
	0111527	1	Dual sequence valve, right hand
1	6010613	1	Dual sequence valve, Fluid Tech or Weco - (includes items 2 and 3)
2	6010614	1	Valve body, Fluid Tech
	6010624	1	Valve body, Weco
3	6010615	2	Cartridge sequence valve, Fluid Tech- (preset at factory, do not reset)
	6010269	2	Cartridge sequence valve, Weco- (preset at factory, do not reset)
4	5075208	2	Hex head plug
5	5035303	1	Straight thread 90° elbow
6	5065711	1	Straight thread adapter
7	5025001	1	Swivel adapter
8	5065703	1	Straight thread adapter



AW0111527

## Dual sequence valve, left hand

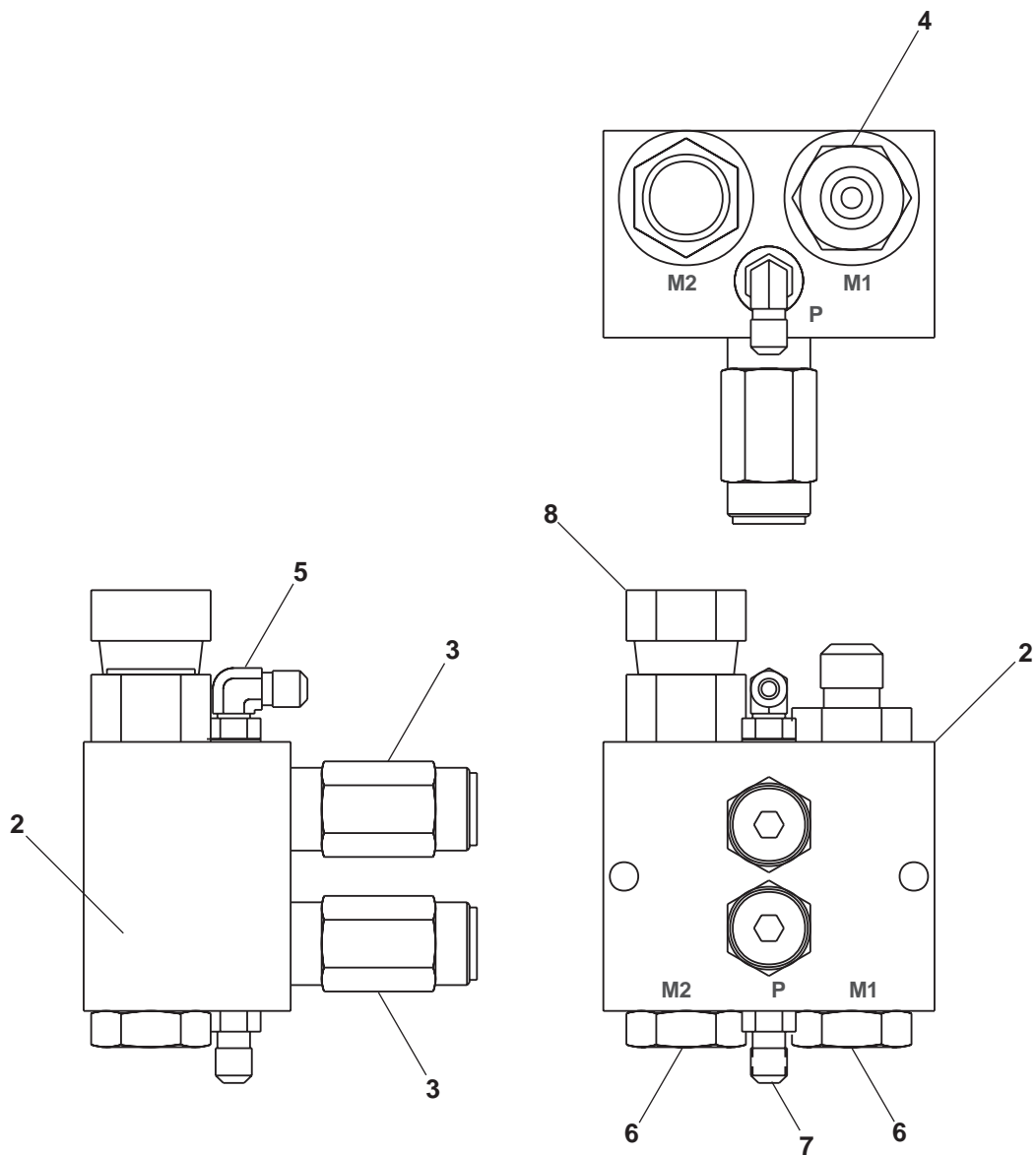
item	part no	qty	description
	0111528	1	Dual sequence valve, left hand
1	6010613	1	Dual sequence valve, Fluid Tech or Weco - (includes items 2 and 3)
2	6010614	1	Valve body, Fluid Tech
	6010624	1	Valve body, Weco
3	6010615	2	Cartridge sequence valve, Fluid Tech- (preset at factory, do not reset)
	6010269	2	Cartridge sequence valve, Weco- (preset at factory, do not reset)
4	5075208	2	Hex head plug
5	5035303	1	Straight thread 90° elbow
6	5065711	1	Straight thread adapter
7	5025001	1	Swivel adapter
8	5075203	1	Hex head plug



AW0111528

## Dual sequence valve, 4 wheel drive

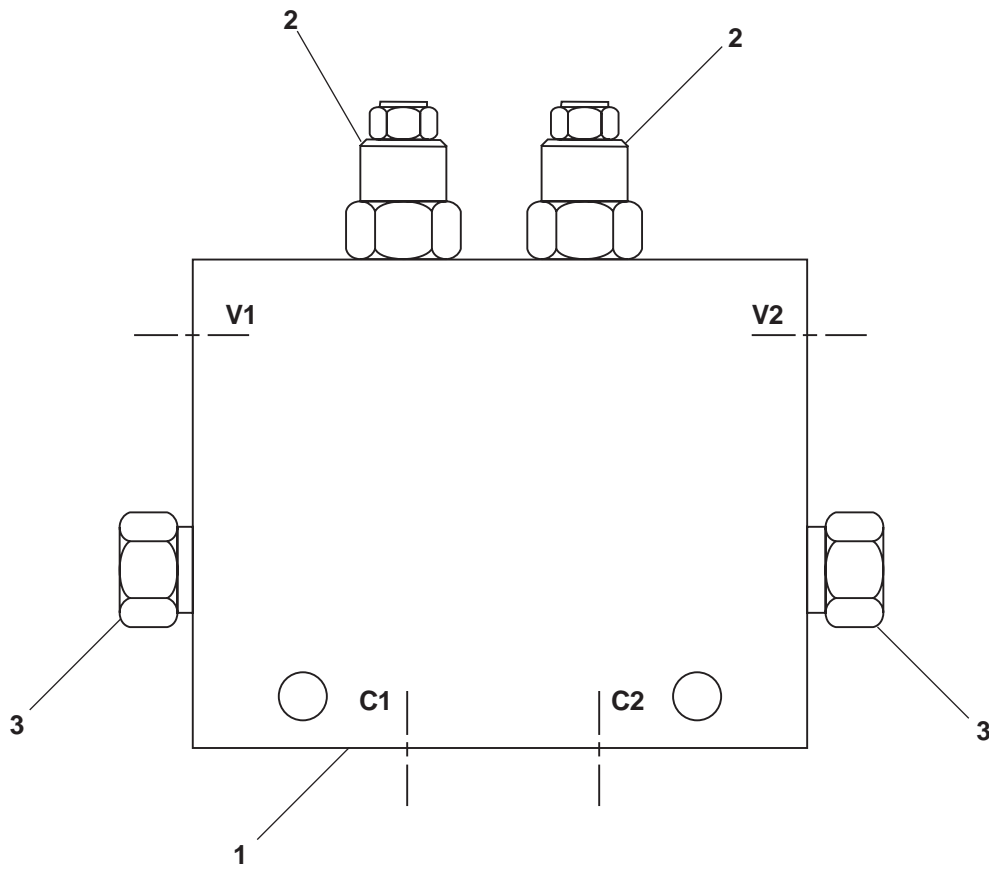
item	part no	qty	description
	0111530	1	Dual sequence valve, 4 wheel drive
1	6010613	1	Dual sequence valve, Fluid Tech or Weco - (includes items 2 and 3)
2	6010614	1	Valve body, Fluid Tech
	6010624	1	Valve body, Weco
3	6010615	2	Cartridge sequence valve, Fluid Tech- (preset at factory, do not reset)
	6010269	2	Cartridge sequence valve, Weco - (preset at factory, do not reset)
4	5065711	1	Straight thread adapter
5	5035303	1	Straight thread 90° elbow
6	5075208	2	Hex head plug
7	5065703	1	Straight thread adapter
8	5025001	1	Swivel adapter



AW0111530

## Dual holding valve, platform rotation

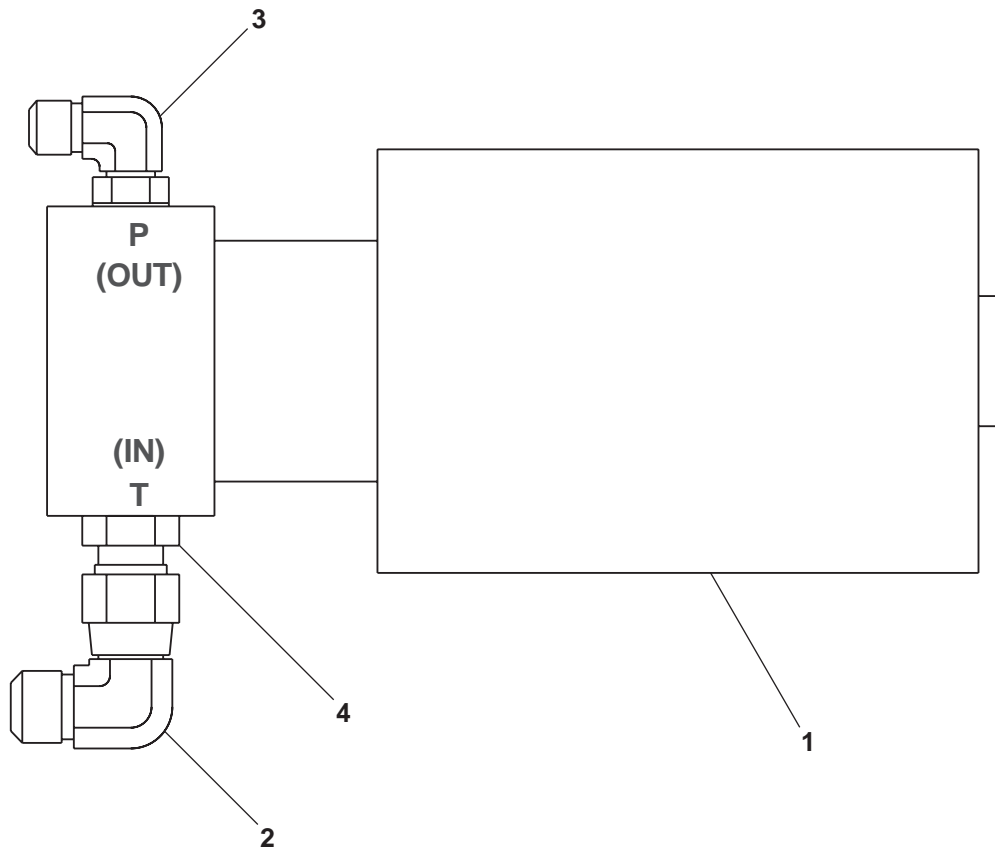
item	part no	qty	description
1	6010628	1	Dual holding valve, platform rotation
2	6010794	2	Cartridge holding valve - (preset by factory, do not reset)
	0150563	1	Seal repair kit
3	6010640	2	Flow control cartridge



AW6010628

## Emergency power unit

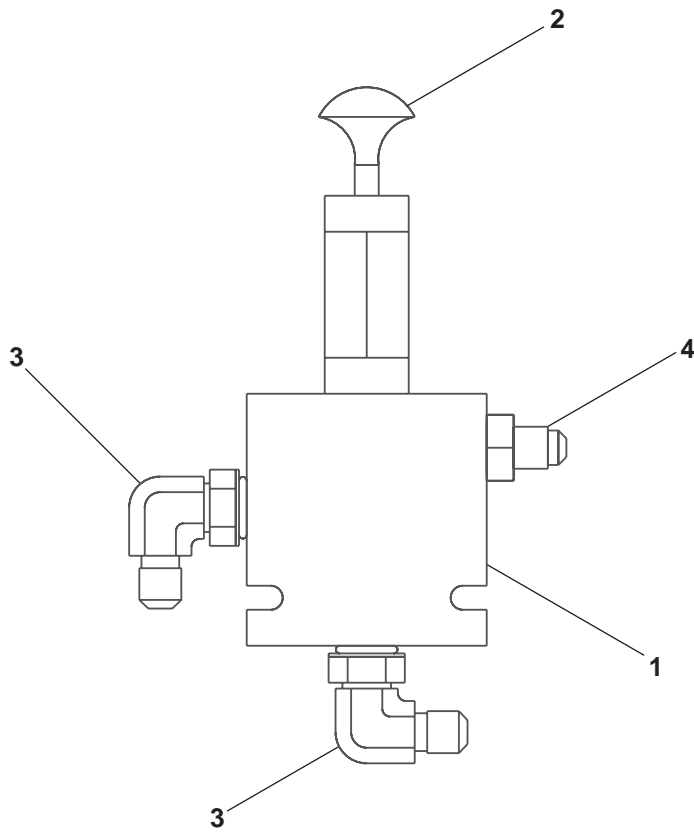
item	part no	qty	description
	0072940	1	Emergency power unit
1	6020058	1	Emergency power motor/pump
2	5037006	1	Swivel nut 90° elbow
3	5035305	1	Straight thread 90° elbow
4	5065709	1	Straight thread adapter



AW0072940

## High range speed selector valve

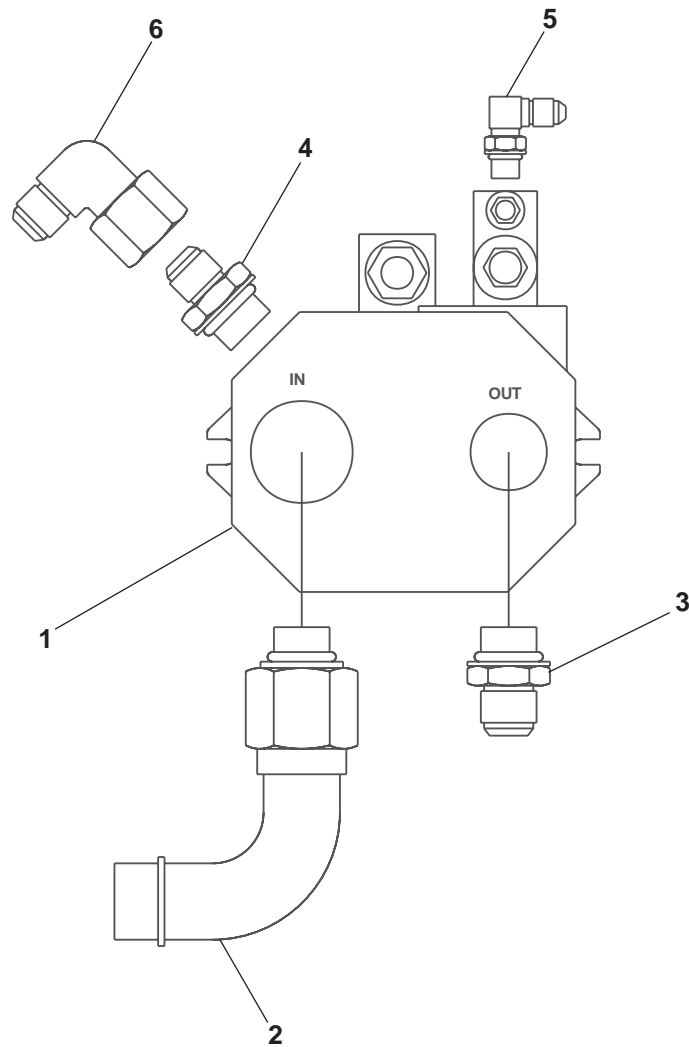
item	part no	qty	description
	0111344	1	High range speed selector valve
1	6010493	1	High range speed valve - (valve includes knob)
2	8080110	1	Knob
3	5035318	2	Straight thread 90° elbow
4	5065705	1	Straight thread adapter



AW0111344

# Hydraulic pump

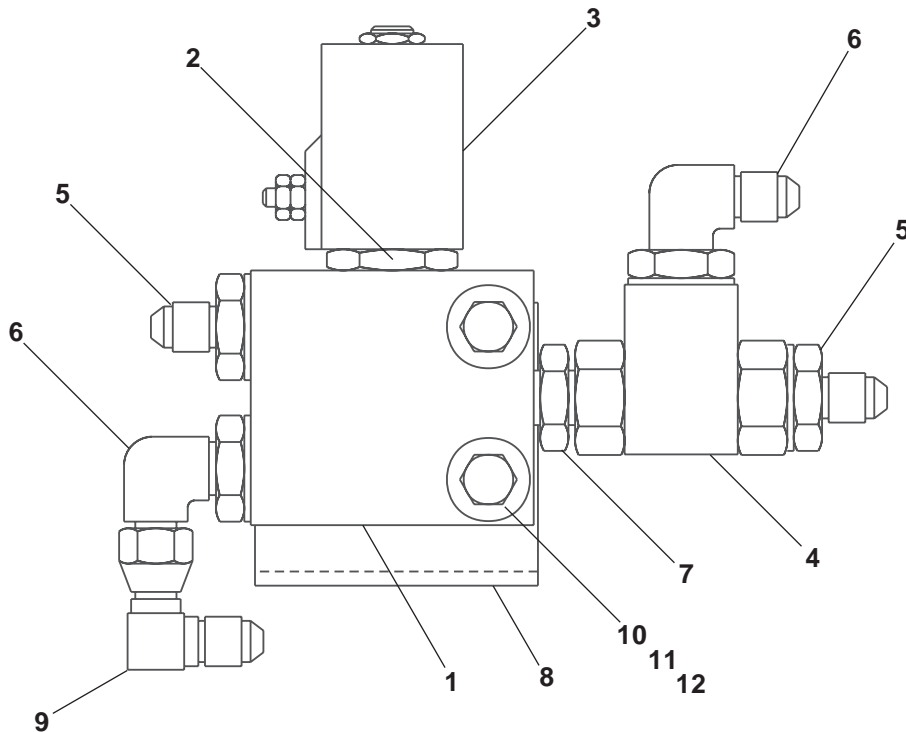
item	part no	qty	description
1	0111578	1	Hydraulic pump - (complete)
	6020065	1	Hydraulic pump - (pump compensator is not preset)
	8220119	1	Seal repair kit - Vickers pump
	8160100	1	Seal repair kit - Parker pump
	8180021	1	Seal repair kit - Rexroth pump
	8220120	1	Replacement compensator - Vickers pump
	6090057	1	Replacement compensator - Parker pump
2	8180023	1	Replacement compensator - Rexroth pump
	5038005	1	Beaded 90° elbow
	5065718	1	Straight thread adapter
3	5065718	1	Straight thread adapter
4	5065710	1	Straight thread adapter
5	5035303	1	Straight thread 90° elbow
6	5037006	1	Swivel nut 90° elbow



AW0111578

## Hydraulic warm-up valve

item	part no	qty	description
	0082053	1	Hydraulic warm-up valve
1	6010499	1	Valve, hydraulic warm-up - (includes items 2 and 3)
	0073620	1	Seal repair kit
2	6010472	1	Cartridge - (preset by factory, do not reset)
3	3040473	1	Cartridge solenoid, 10 volt DC
4	6010083	1	Shuttle valve
5	5065705	2	Straight thread adapter
6	5035318	1	Straight thread 90° elbow
7	5076301	1	Straight thread union
8	0071805	1	Mounting bracket
9	5037003	1	Swivel nut 90° elbow
10	970169	2	Capscrew 1/4-20 x 2 inch long hex head grade 5
11	986019	2	Washer 1/4 medium flat
12	5560004	2	Nut 1/4-20 self locking

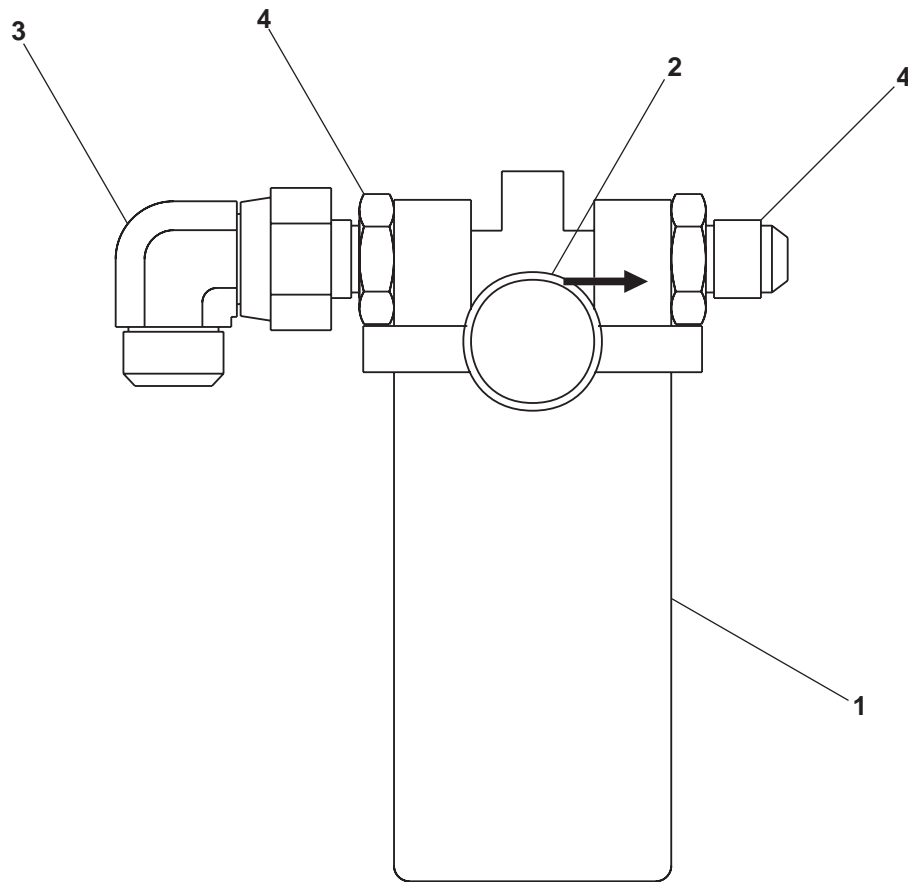


AW0082053



## Hydraulic oil return filter

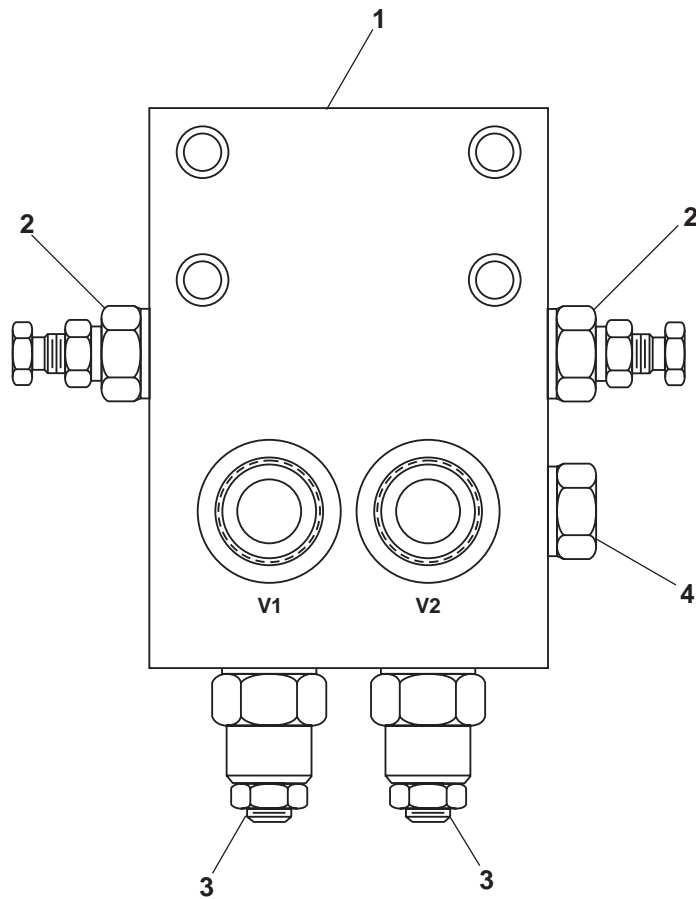
item	part no	qty	description
	0112029	1	Hydraulic oil return filter
1	5080044	1	Filter - (includes gauge)
2	5080011	1	Filter gauge
3	5037011	1	Swivel nut 90° elbow
4	5065721	1	Straight thread adapter



AW0112029

## Motion control valve, turntable swing

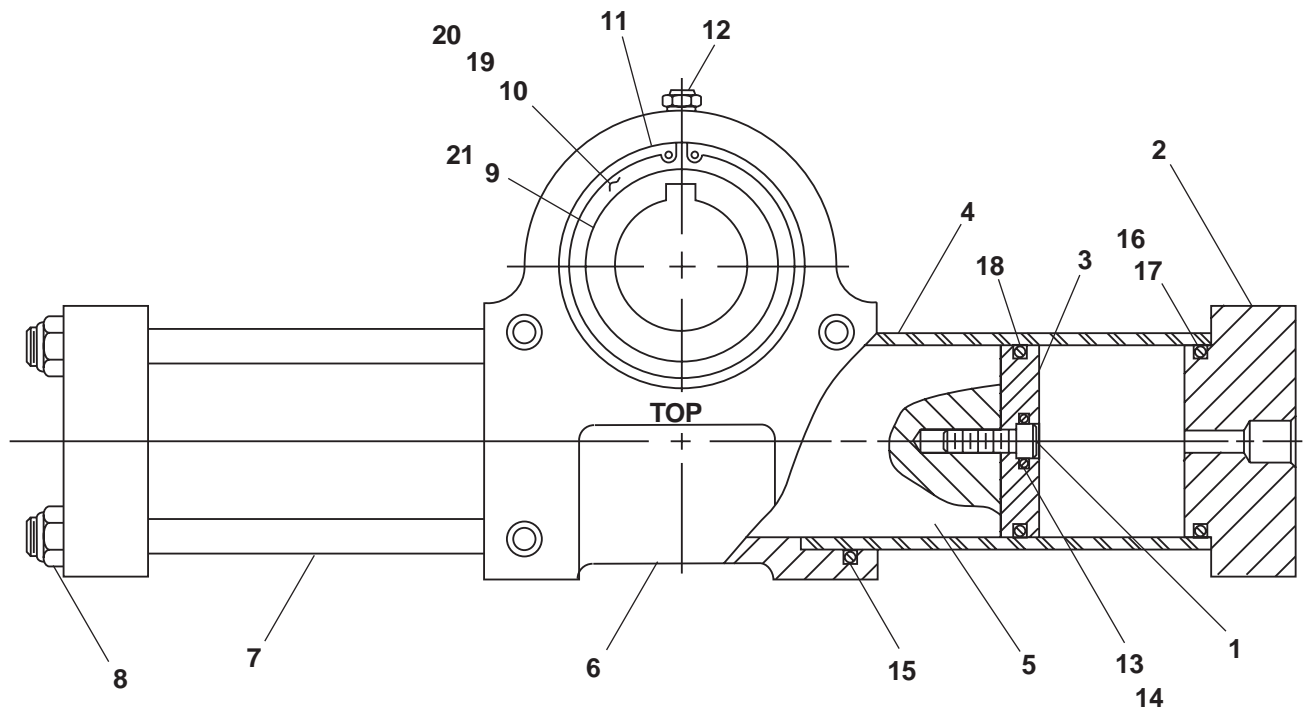
item	part no	qty	description
1	6010216	1	Motion control valve, turntable swing - (valve includes items 2, 3 and 4)
	0110682	1	Seal repair kit
2	6010255	2	Sequence valve cartridge - (factory preset, do not reset)
3	6010256	2	Counterbalance cartridge - (factory preset, do not reset)
4	6010531	1	Shuttle valve
	0150562	1	Seal repair kit



AW6010216

## Platform rotator, Parker

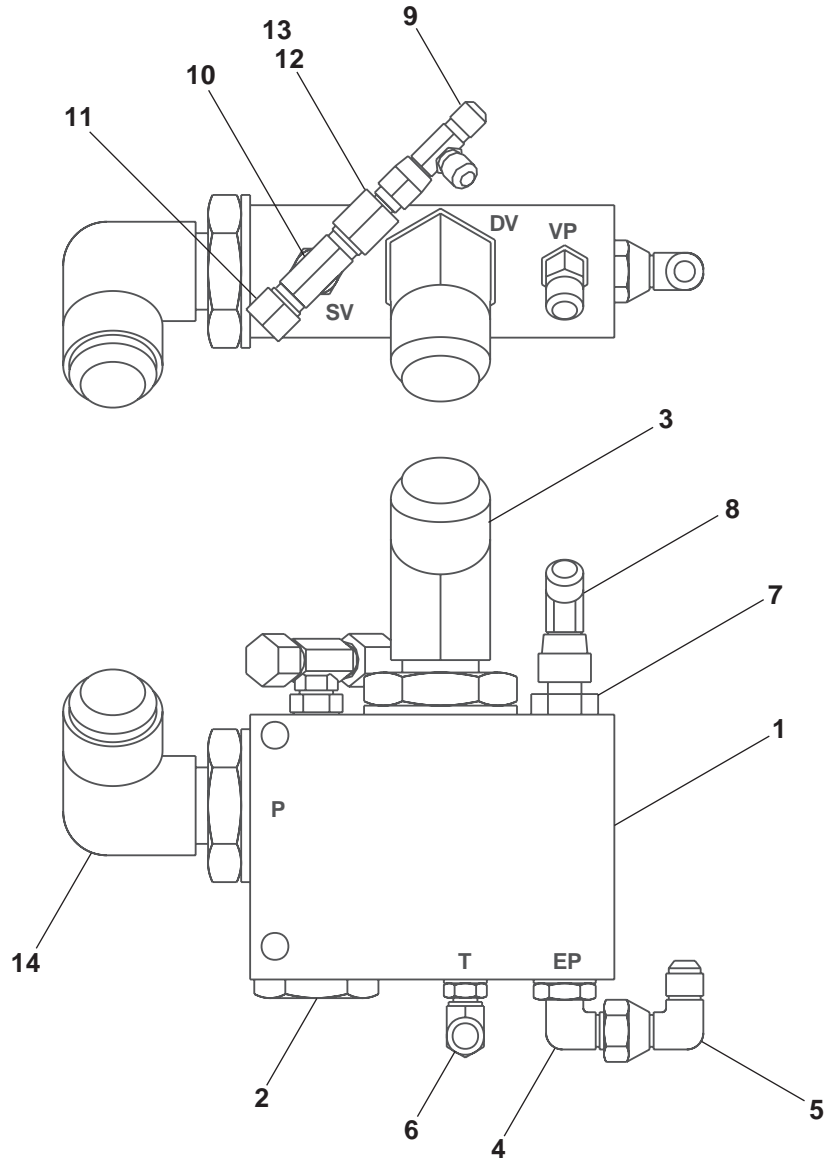
item	part no	qty	description
	0110771	1	Platform rotator - (includes rotator and spacer)
	0070570	1	Platform rotator, Parker
	0071275	1	Seal repair kit - (kit includes items 13 through 21)
1	8080018	2	Rack bolt
2	8080016	2	End cap
3	8080015	2	Piston
4	8080040	2	Cylinder
5	8080060	1	Rack
6	8080039	1	Housing
7	0073281	8	Tie rod
8	8080041	8	Lock nut
9	8080061	1	Pinion
10	8080038	2	Pinion bushing
11	8080062	2	Snap ring
12	8080064	1	Relief valve
13	Kit item	2	O-ring - (not sold separately)
14	Kit item	2	Parbat seal - (not sold separately)
15	Kit item	2	O-ring - (not sold separately)
16	Kit item	2	O-ring - (not sold separately)
17	Kit item	2	Parbat seal - (not sold separately)
18	Kit item	2	Polypak seal - (not sold separately)
19	Kit item	2	O-ring - (not sold separately)
20	Kit item	2	Parbat seal - (not sold separately)
21	Kit item	1	O-ring - (not sold separately)



AWV00214

## Pressure manifold

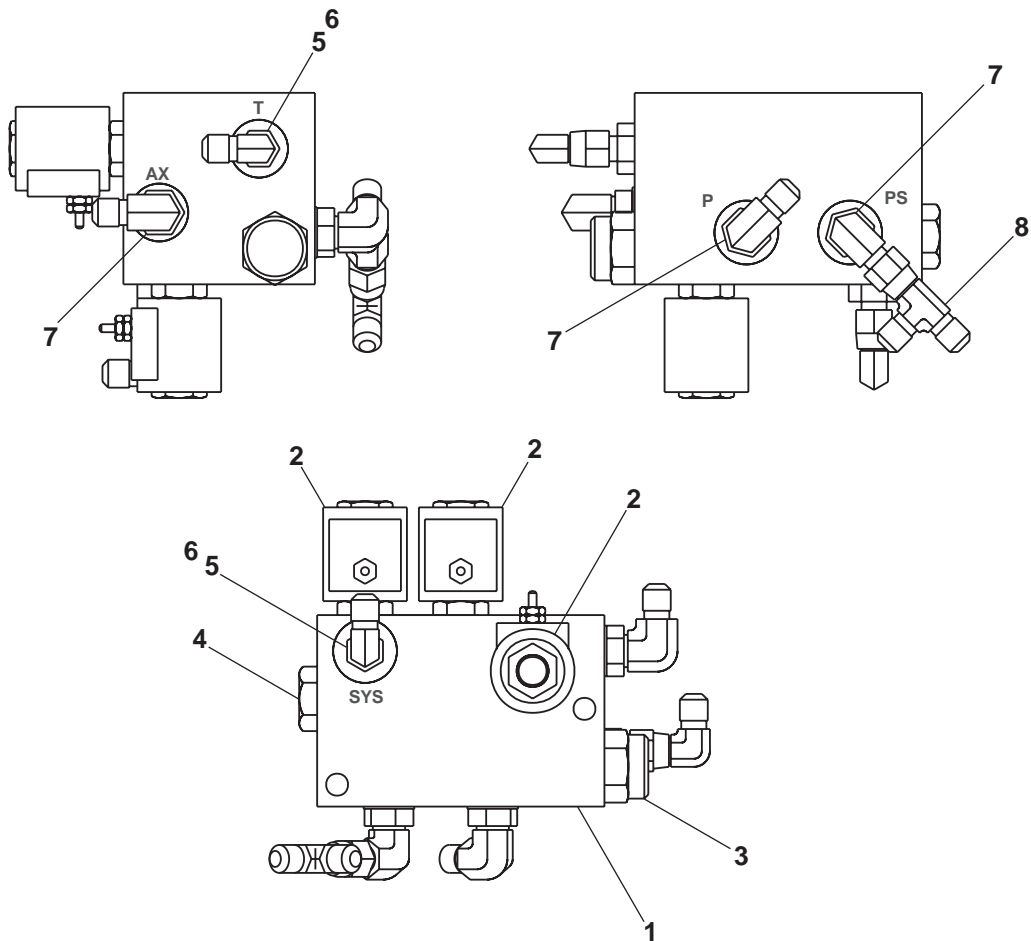
item	part no	qty	description
	0111879	1	Pressure manifold
1	6010579	1	Valve, pressure manifold - (includes check valve cartridge)
2	6010565	1	Check valve cartridge - (factory preset, do not reset)
	6010605	1	Seal repair kit
3	5035710	1	Straight thread 45° elbow
4	5035305	1	Straight thread 90° elbow
5	5037005	1	Swivel nut 90° elbow
6	5035303	1	Straight thread 90° elbow
7	5065708	1	Straight thread adapter
8	5036905	1	Swivel nut 45° elbow
9	5036703	1	Swivel nut run tee
10	5036505	1	Straight thread branch tee
11	5063703	1	Cap
12	5064001	1	Tube end reducer
13	5063905	1	Fitting nut
14	5035310	1	Straight thread 90° elbow



AW011879

## Pump control valve

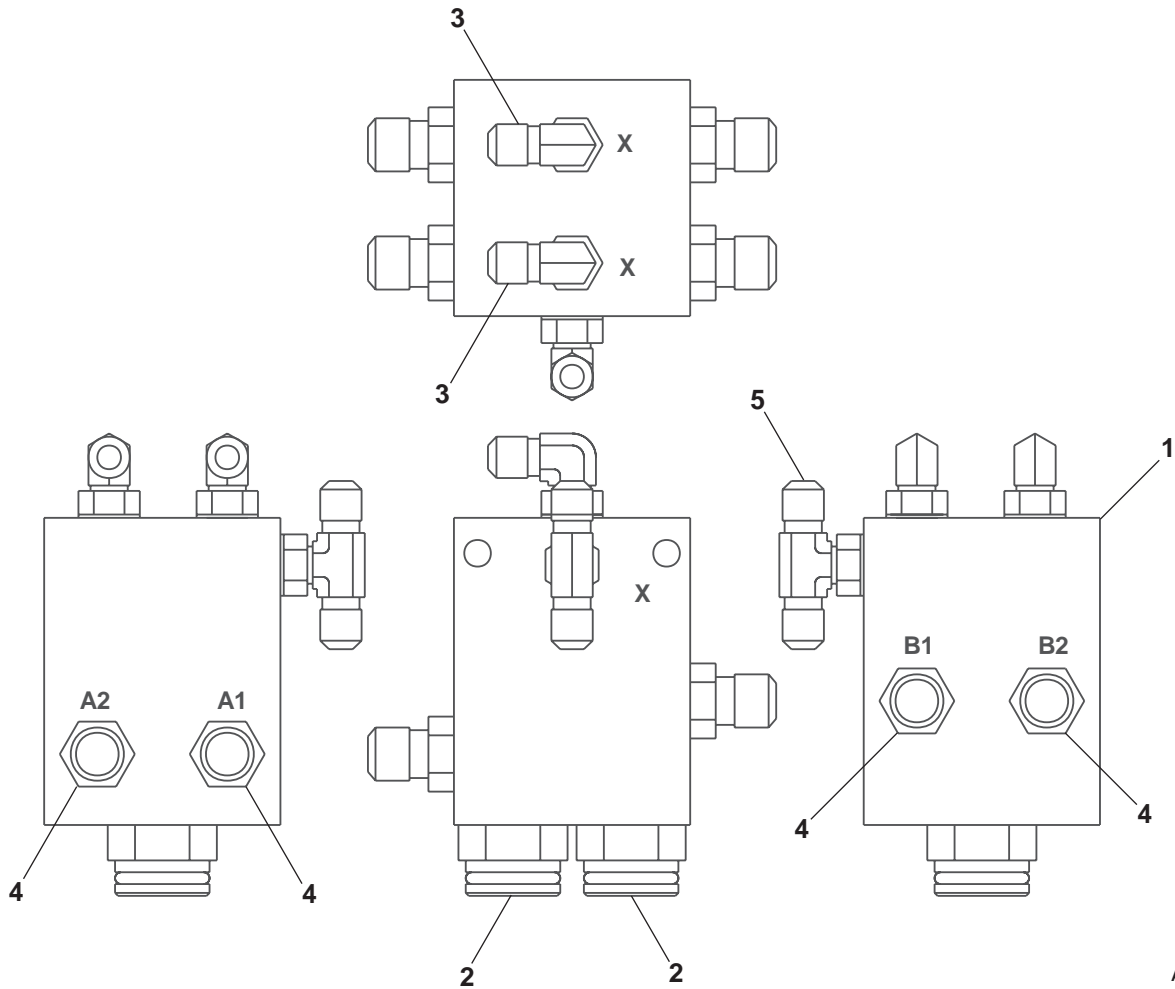
item	part no	qty	description
	0111878	1	Pump control valve
1	6010672	1	Valve, pump control - (valve includes items 2, 3 and 4)
2	6010472	3	3-way solenoid valve
	3040473	1	Replacement solenoid coil, 10 volt DC
3	6010736	1	Flow regulator
4	6010737	1	Shuttle valve
5	5037003	2	Swivel nut 90° elbow
6	5065705	2	Straight thread adapter
7	5035318	3	Straight thread 90° elbow
8	5036703	1	Swivel nut run tee



AW0111878

## Steer cut-out valve, 2 wheel drive

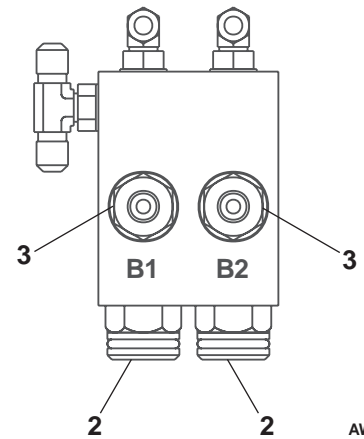
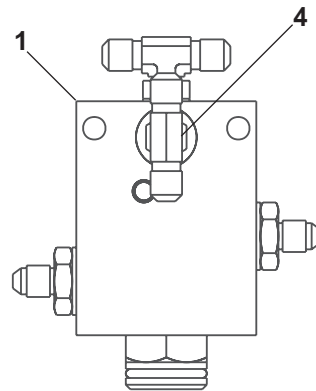
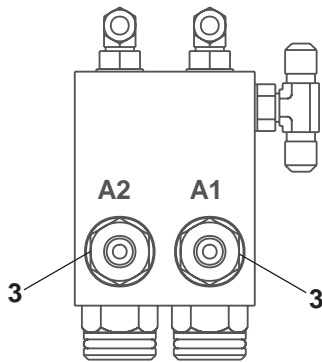
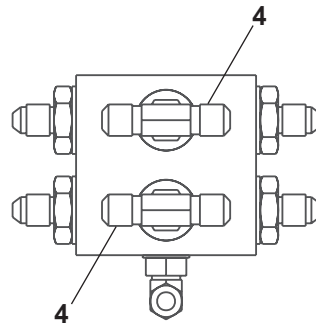
item	part no	qty	description
	0111490	1	Steer cut-out valve, 2 wheel drive
1	6010607	1	Steer cut-out valve - (valve includes 3-way cartridge)
2	6010549	2	Cartridge valve, 3-way
3	5035303	2	Straight thread 90° elbow
4	5065707	4	Straight thread adapter
5	5036503	1	Straight thread branch tee



AW011490

## Steer cut-out valve, 4 wheel drive

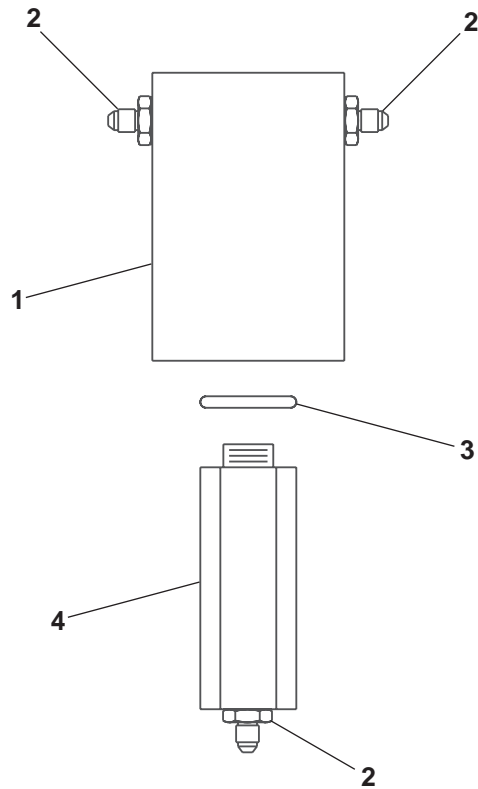
item	part no	qty	description
	0111492	1	Steer cut-out valve, 4 wheel drive
1	6010607	1	Steer cut-out valve - (valve includes 3-way cartridge)
2	6010549	2	Cartridge valve, 3-way
3	5065707	4	Straight thread adapter
4	5036503	3	Straight thread branch tee



AW0111492

# Shuttle valve

item	part no	qty	description
	0111290	1	Shuttle valve
1	6010083	1	Valve, shuttle
2	5065707	3	Straight thread adapter
3	7110906	1	O-ring
4	6010490	1	Check valve



AW011290





## Turntable electrical, Cummins 3.3

item	part no	qty	description
1	0112396	1	Lower controls, Cummins 3.3 - (see page 3-14 for parts breakdown)
2	3050002	2	Battery, 12 volt DC - 550 CCA
3	3050008	2	Battery hold down
4	3050004	4	Battery hold down bolt
5	3020049	1	Switch, battery disconnect
6	0073089	1	Placard, battery disconnect switch
7	0073051	1	Bracket, battery disconnect switch
8	3040268	3	Insulator boot
9	3040469	1	Relay, 12 volt DC
10	0110529	1	Battery wire
11	3040506	1	Solenoid, 12 volt DC
12	0070705	1	Jumper wire
13	0080483	1	Jumper wire
14	3020040	1	Tilt alarm sensor 5°
15	5093002	3	Clamp
16	0072323	1	Jumper wire
17	0080484	4	Jumper wire
18	3040269	2	Insulator boot
19	5093027	1	Clamp
20	3040270	1	Insulator boot
21	970249	2	Capscrew 5/16-18 x 7/8 inch long hex head grade 5
22	5093008	3	Clamp
23	5560004	9	Nut 1/4-20 self locking
24	5093006	4	Clamp
25	970029	17	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
26	986019	12	Washer 1/4 medium flat
27	987099	14	Washer 1/4 medium lock
28	970239	2	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
29	986269	2	Washer 5/16 medium flat
30	987109	4	Washer 5/16 medium lock
31	974239	2	Machine screw #6-32 x 1/2 inch long round head
32	3044162	1	Terminal 1/4 ring tongue insulated 16/14 wire
33	0082046	1	Actuator module - (included with engine)
34	3040082	2	Terminal .250 tab male fully insulated 16/14 wire
35	974659	2	Machine screw #10-24 x 1/2 inch long round head
36	987089	5	Washer #10 medium lock
37	0111871	1	Wiring box - (see page 3-20 for parts breakdown)
38	0071545	1	Jumper wire
39	0111884	1	Wire harness, turntable
40	3040534	1	PWM module
41	5560700	2	Machine screw #6-32 x 1 inch long truss head
42	987349	4	Washer #6 medium lock
43	986159	4	Washer #6 medium flat
44	984009	4	Nut #6-32 hex
45	3044146	2	Terminal #10 ring tongue insulated 22/18 wire
46	3040046	6	Terminal .250 tab male slip-on fully insulated 22/18 wire
47	3040127	1	Horn, 12 volt DC
48	970049	4	Capscrew 1/4-20 x 1 inch long hex head grade 5

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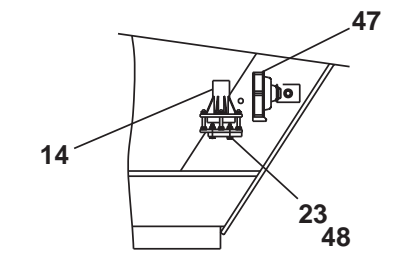
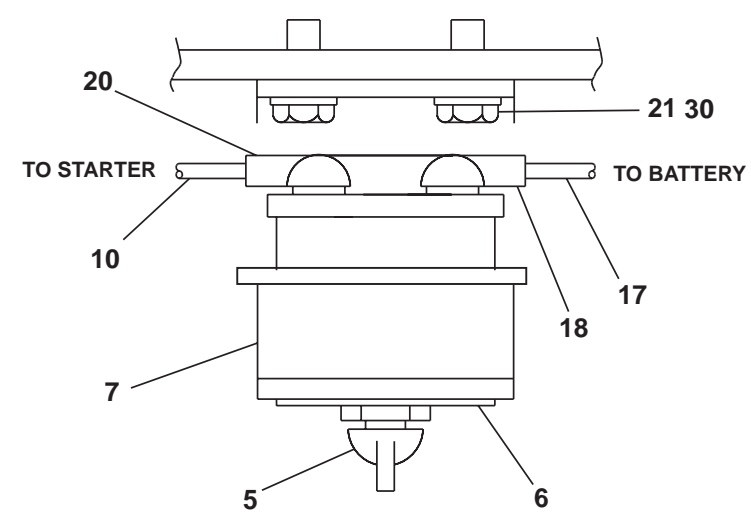
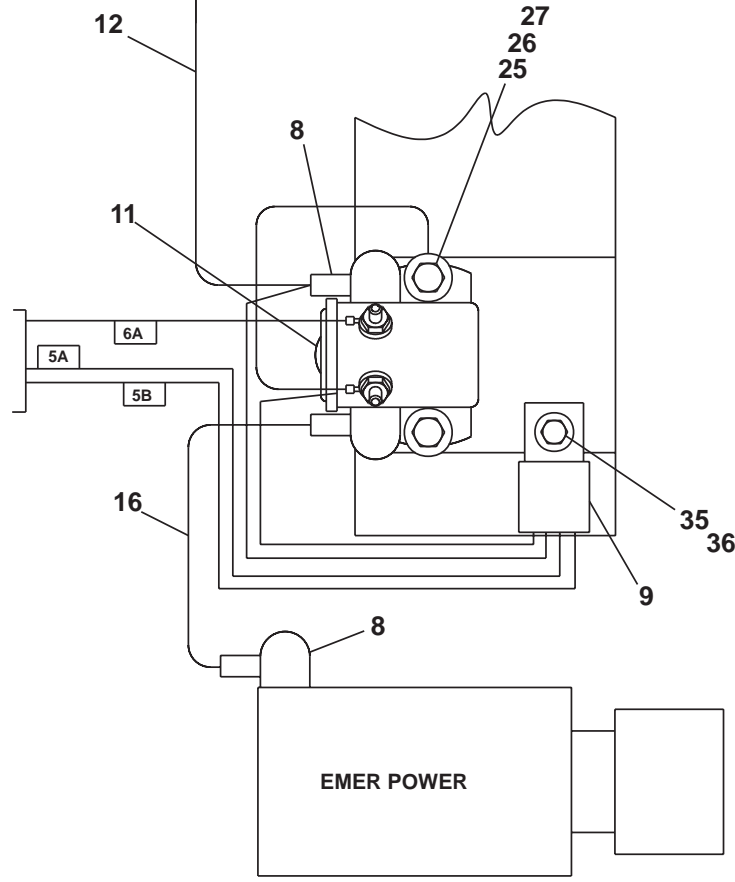
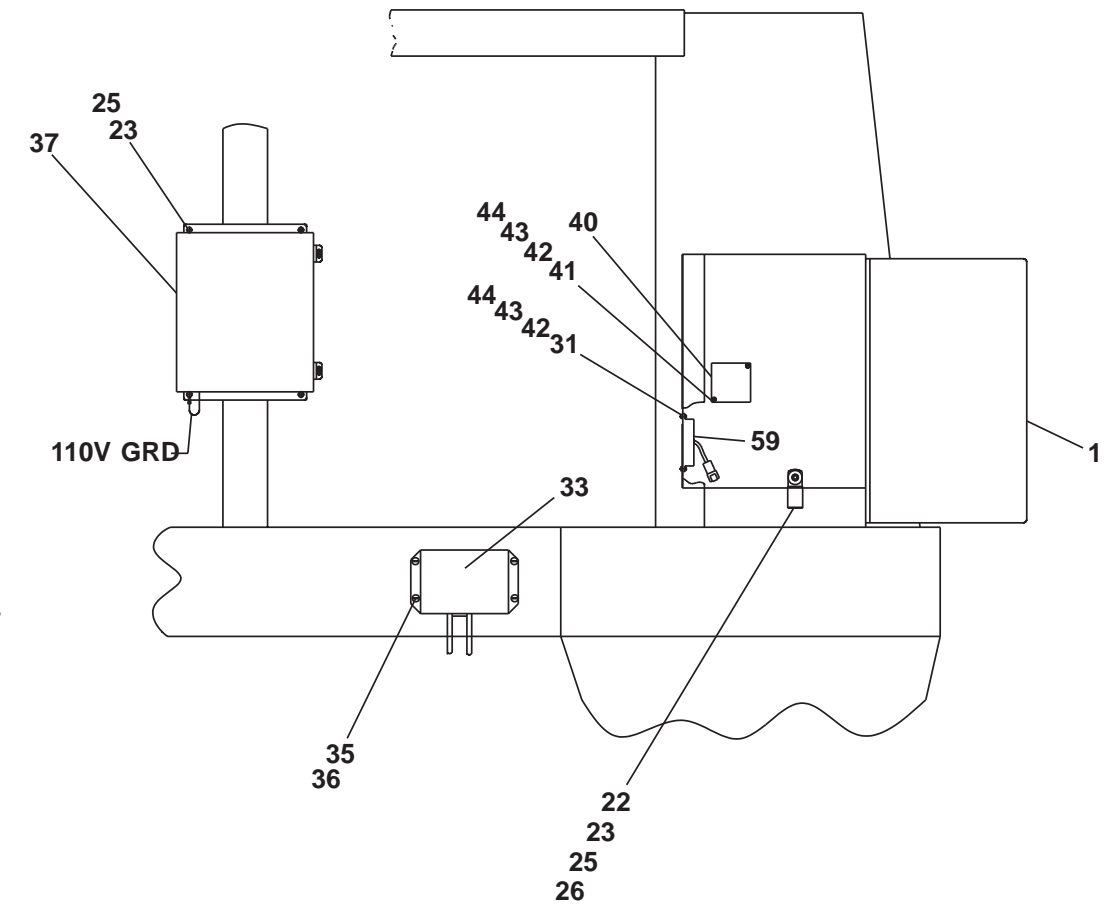
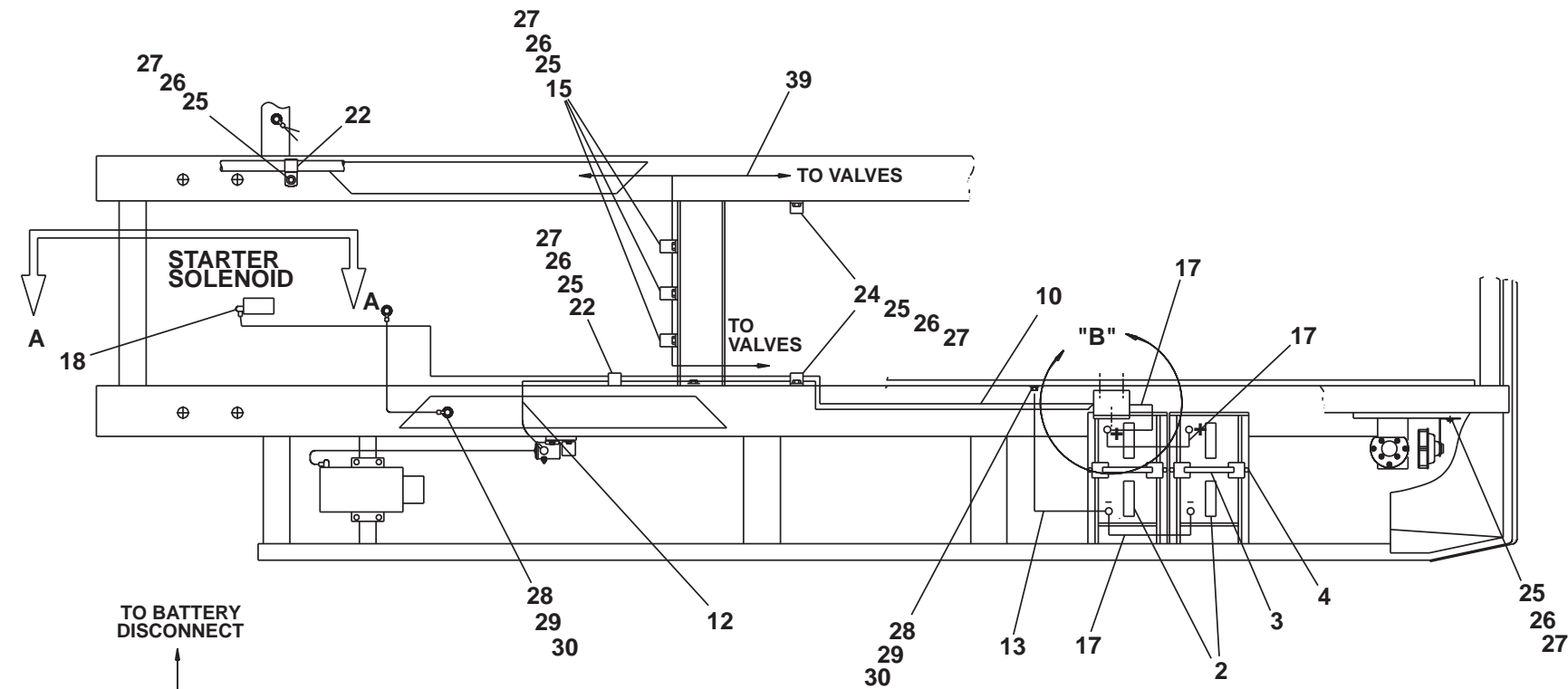
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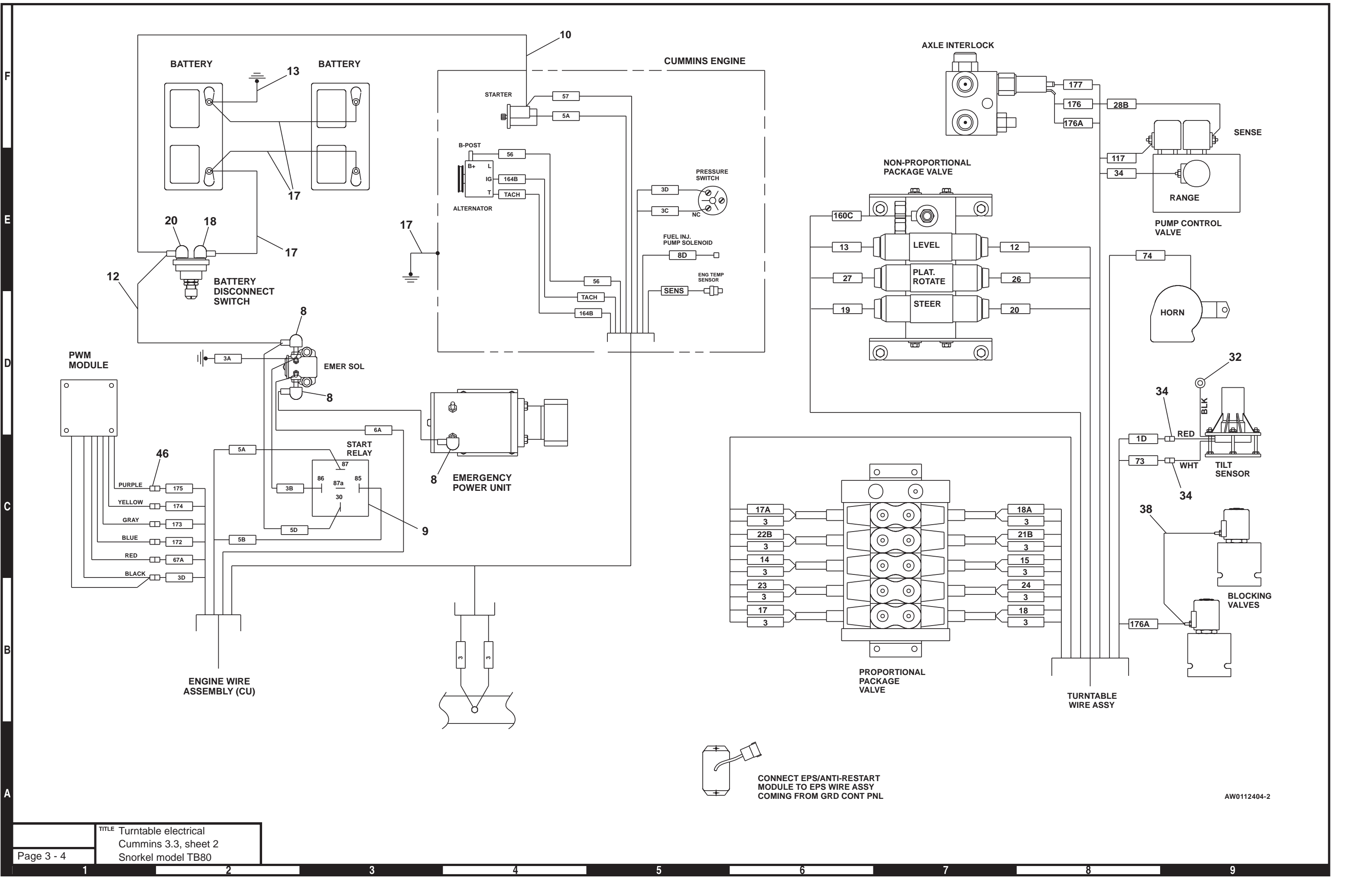
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AW0112404-1

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CONNECT EPS/ANTI-RESTART  
MODULE TO EPS WIRE ASSY  
COMING FROM GRD CONT PNL

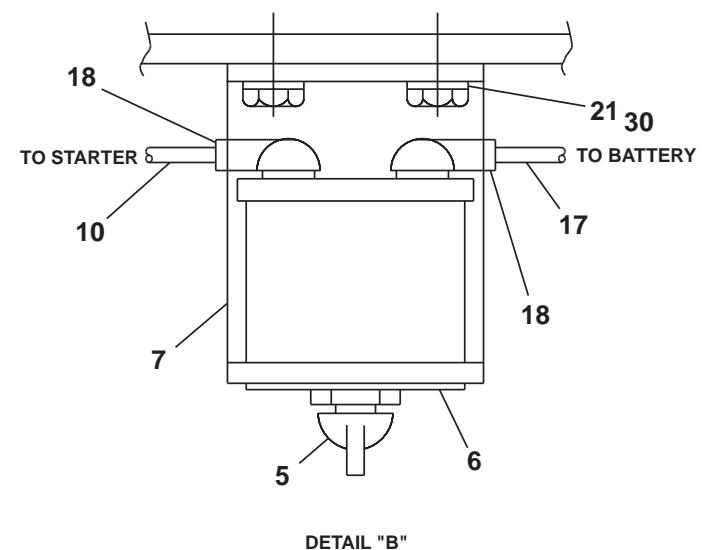
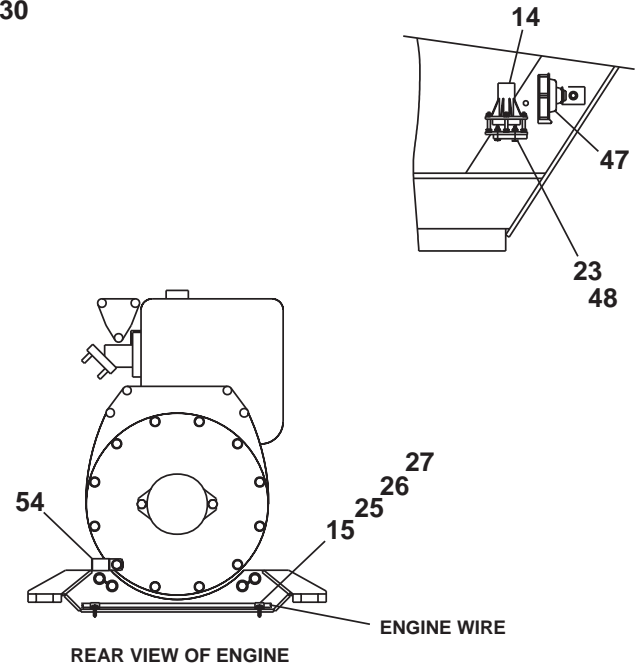
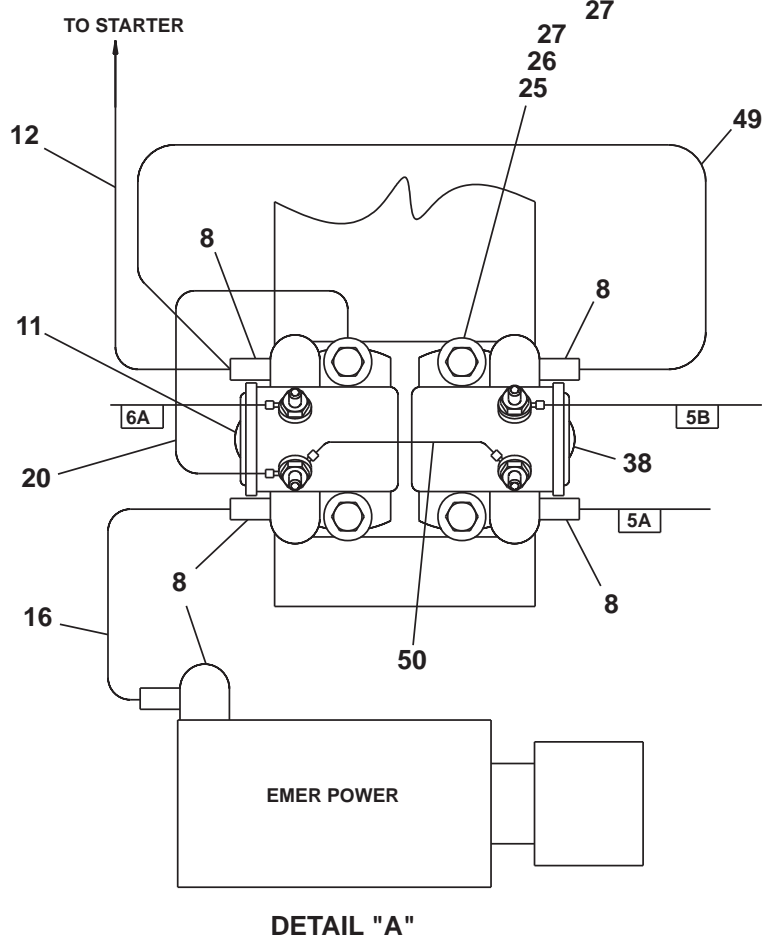
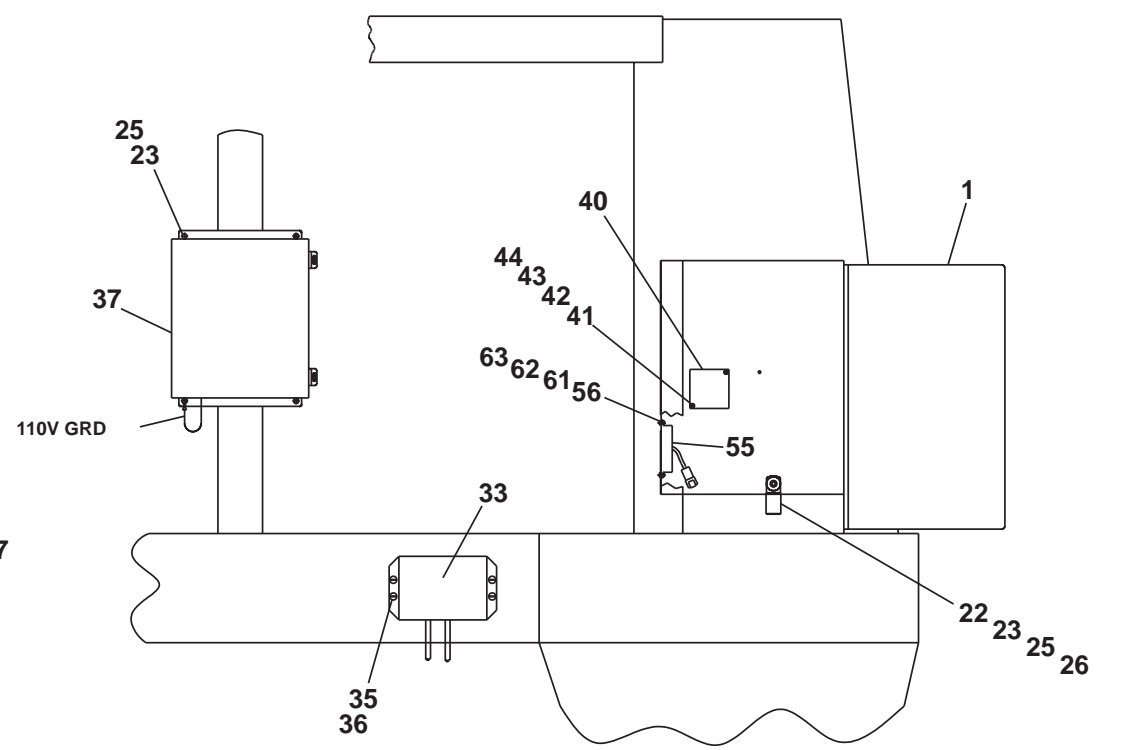
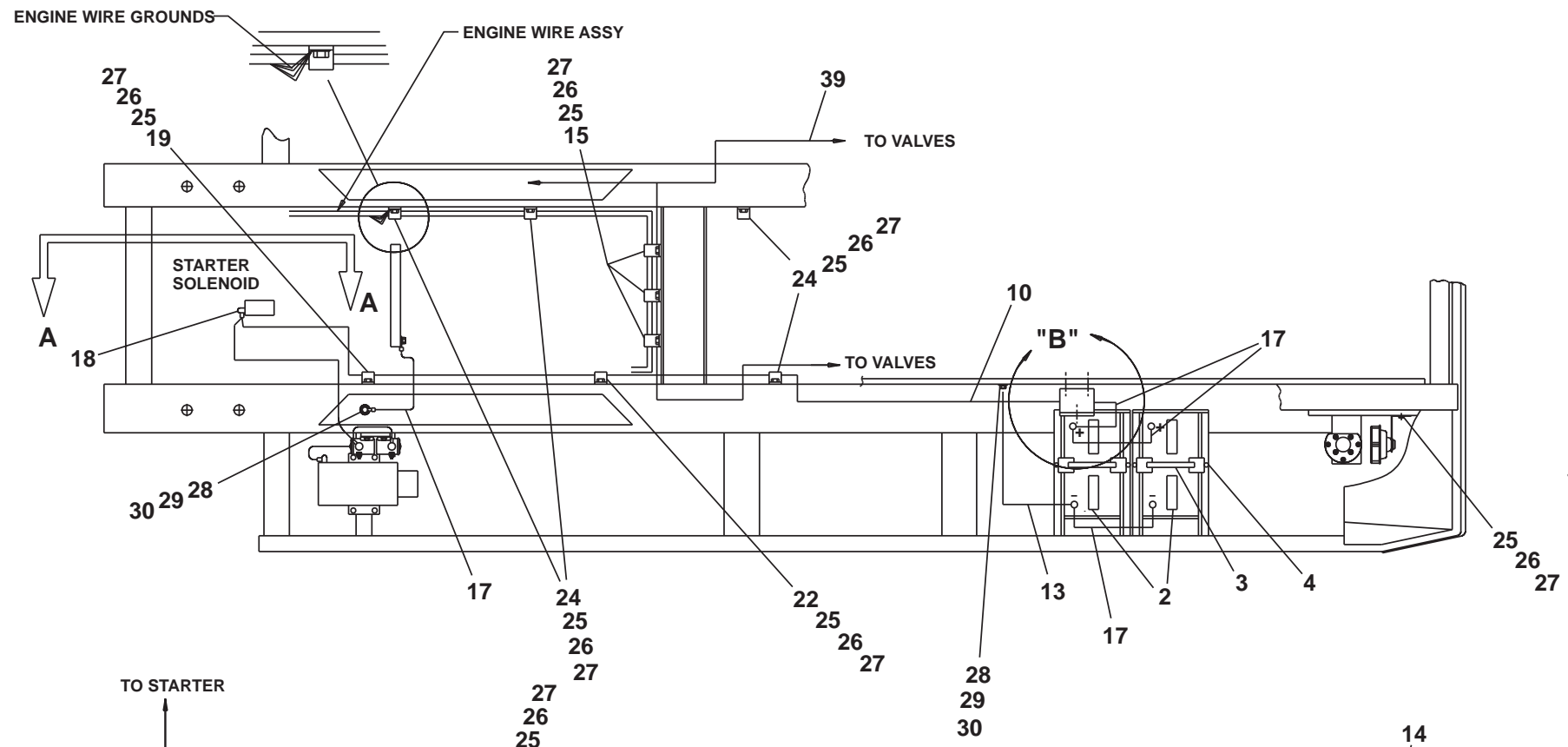
AW0112404-2

TITLE Turntable electrical  
Cummins 3.3, sheet 2  
Snorkel model TB80



## Turntable electrical, Deutz F4L-1011F

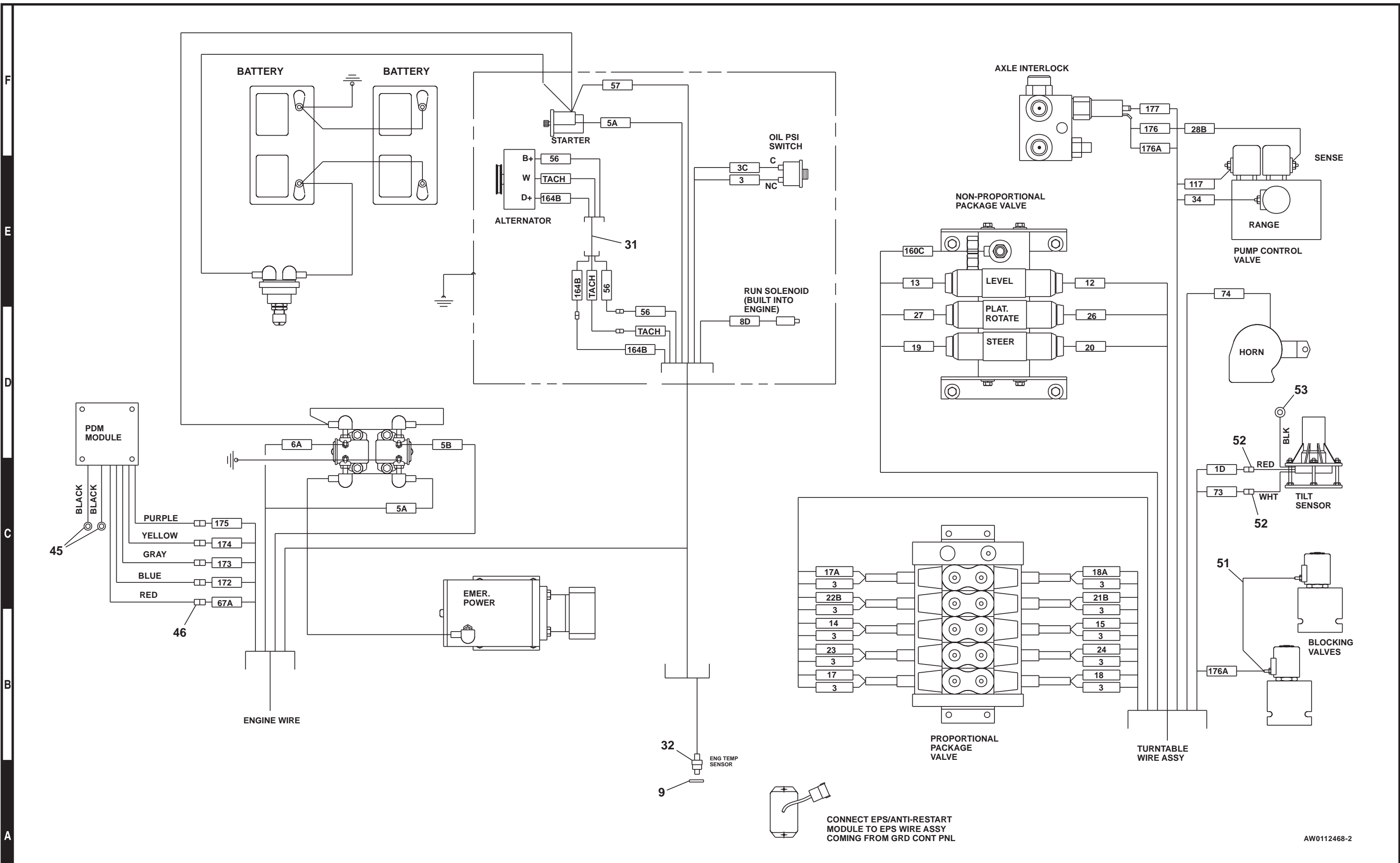
item	part no	qty	description
1	0112398	1	Lower controls, Deutz F4L-1011F - (see page 3-17 for parts breakdown)
2	3050002	2	Battery, 12 volt DC - 550 CCA
3	3050008	2	Battery hold down
4	3050004	4	Battery hold down bolt
5	3020049	1	Switch, battery disconnect
6	0073089	1	Placard, battery disconnect switch
7	0073051	1	Bracket, battery disconnect switch
8	3040268	5	Insulator boot
9	5569837	1	Washer metric M18 copper
10	0110529	1	Battery wire
11	3040506	1	Solenoid, 12 volt DC
12	0151160	1	Jumper wire
13	0080483	1	Jumper wire
14	3020040	1	Tilt alarm sensor 5°
15	5093000	5	Clamp
16	0072323	1	Jumper wire
17	0080484	4	Jumper wire
18	3040269	3	Insulator boot
19	5093027	1	Clamp
20	0071568	1	Jumper wire
21	970249	2	Capscrew 5/16-18 x 7/8 inch long hex head grade 5
22	5093008	2	Clamp
23	5560004	7	Nut 1/4-20 self locking
24	5093006	4	Clamp
25	970029	20	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
26	986019	17	Washer 1/4 medium flat
27	987099	16	Washer 1/4 medium lock
28	970239	2	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
29	986269	2	Washer 5/16 medium flat
30	987109	4	Washer 5/16 medium lock
31	0074579	1	Wire harness, alternator
32	3070039	1	Temperature sensor
33	0082046	1	Actuator module - (included with engine)
34	0082029	1	Mount plate, actuator module
35	5560619	4	Machine screw #10-24 x 3/4 inch long round head
36	987089	4	Washer #10 medium lock
37	0111871	1	Wiring box - (see page 3-20 for parts breakdown)
38	3040507	1	Solenoid, 12 volt DC
39	0111884	1	Wire harness, turntable
40	3040534	1	PWM module
41	5560700	2	Machine screw #6-32 x 1 inch long truss head
42	987349	4	Washer #6 medium lock
43	986159	4	Washer #6 medium flat
44	984009	4	Nut #6-32 hex
45	3044146	2	Terminal #10 ring tongue insulated 22/18 wire
46	3040046	5	Terminal .250 tab male slip-on fully insulated 22/18 wire
47	3040127	1	Horn, 12 volt DC
48	970049	4	Capscrew 1/4-20 x 1 inch long hex head grade 5
49	0151919	1	Jumper wire
50	0151371	1	Jumper wire
51	0071545	1	Jumper wire
52	3040082	2	Terminal .250 tab male fully insulated 16/14 wire
53	3044162	1	Terminal 1/4 ring tongue insulated 16/14 wire
54	5093010	1	Clamp
55	3030122	1	EPS anti-restart module



AW0112468-1

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AW0112468-2

TITLE Turntable electrical  
 Deutz F4L-1011F, sheet 2  
 Snorkel model TB80

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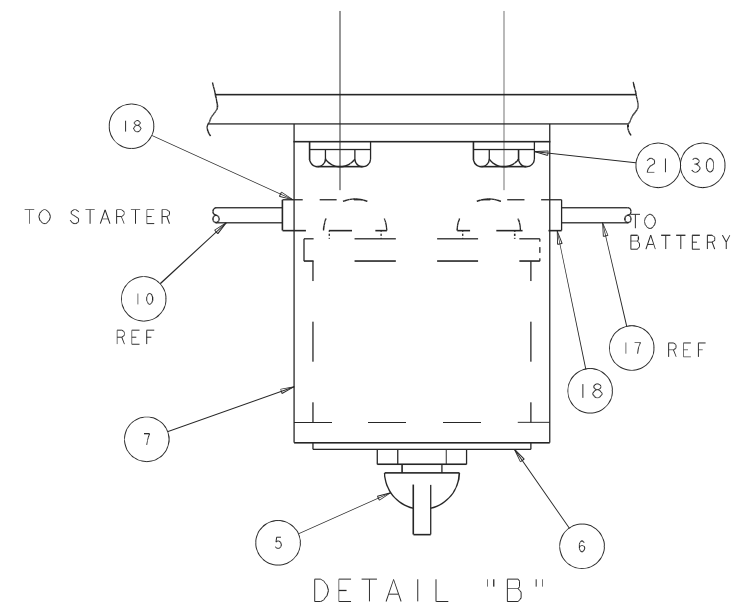
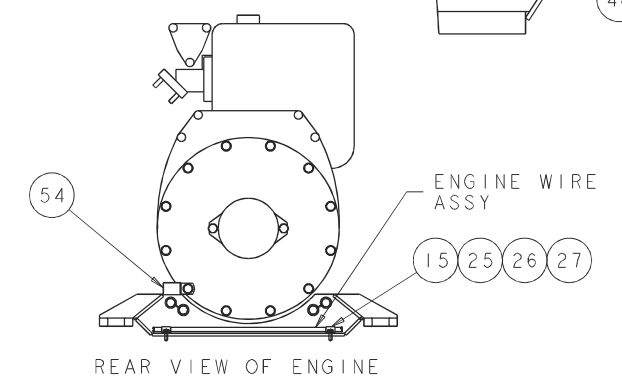
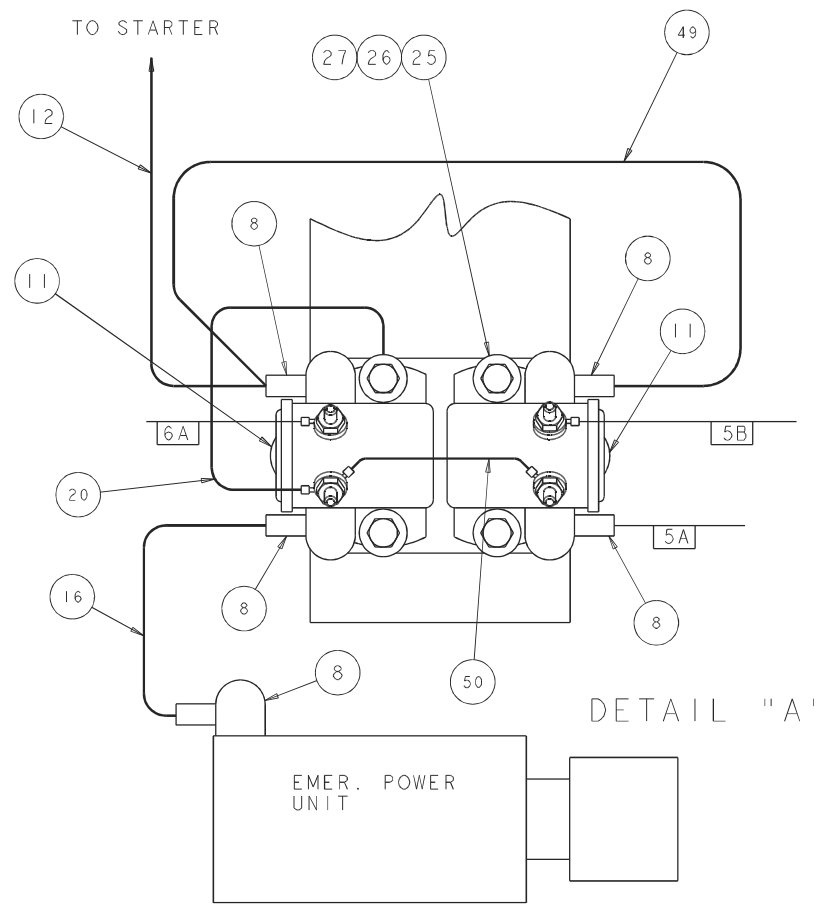
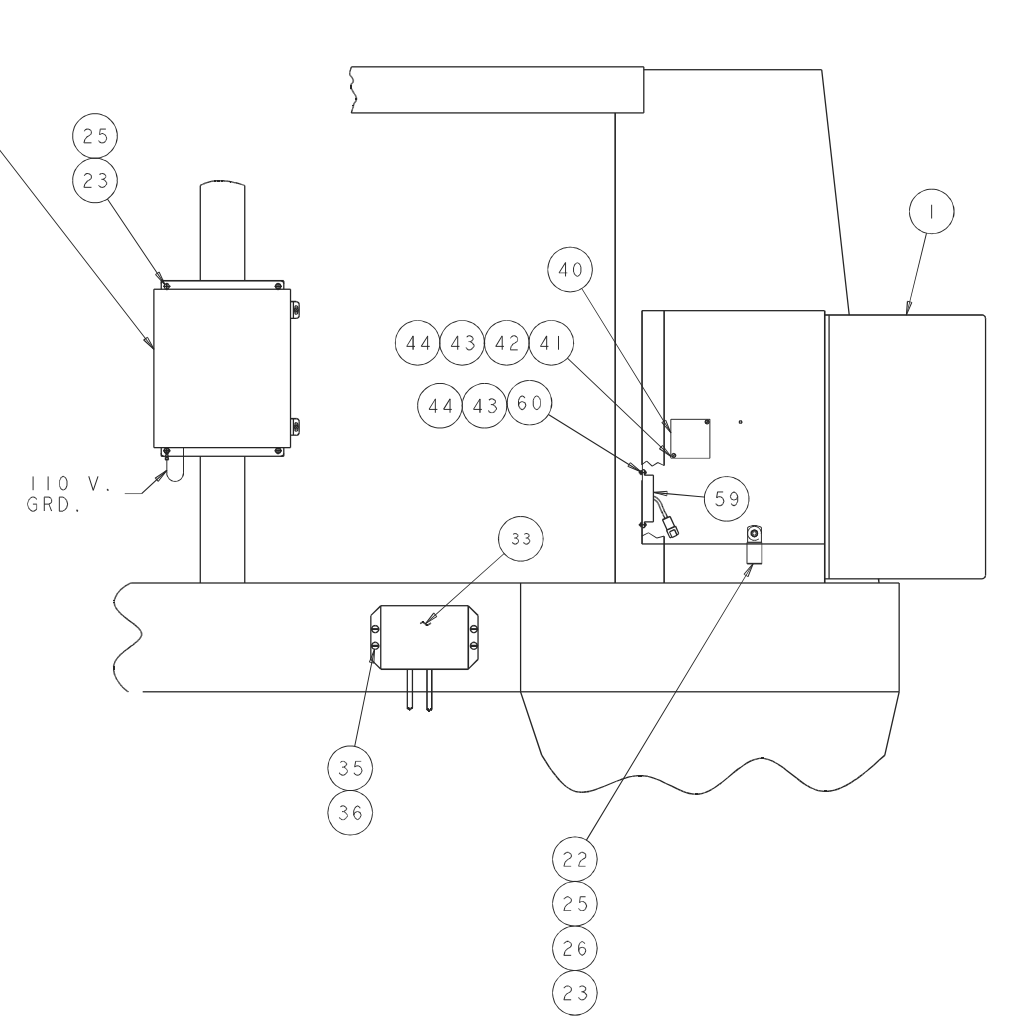
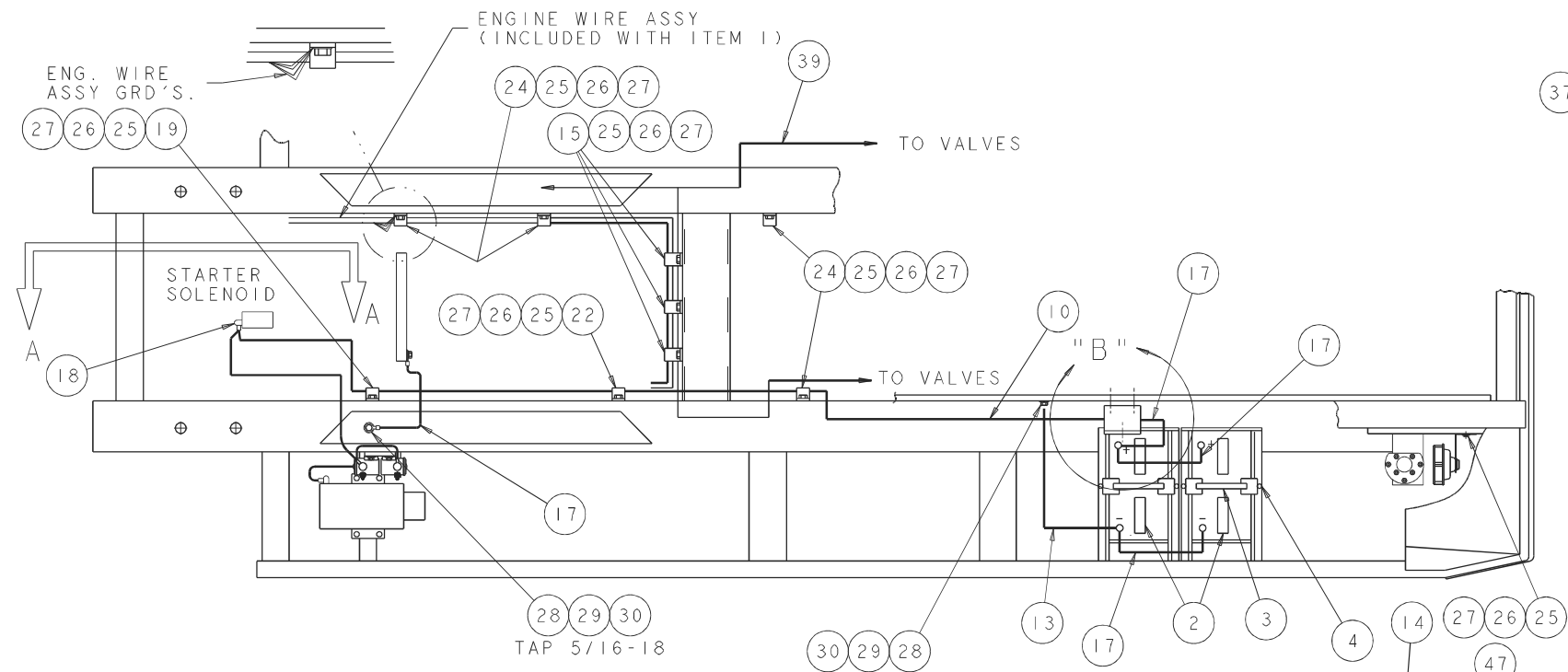
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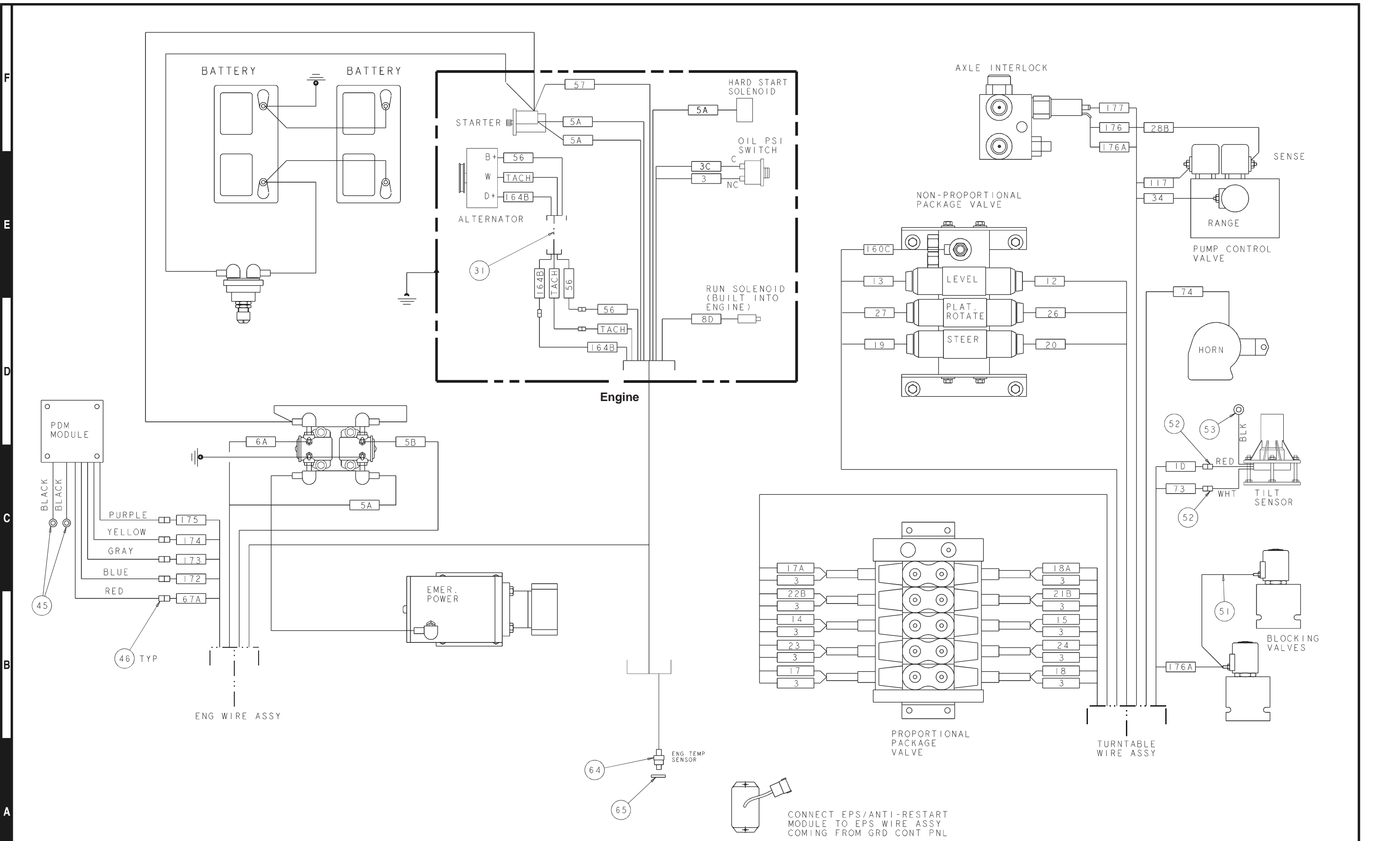


## Turntable Electrical, Deutz F4L-2011F after 7-31-2000

Item	Part No.	Qty.	Description
1	0112398	1	GROUND CONT PANEL ASSY TB80 DZ
2	3050002	2	BTRY 12V GROUP 27
3	3050008	2	BATTERY HOLD DOWN
4	3050004	4	BLT BTRY HLDN .375-16 X 10
5	3020049	1	SW BATTERY DISCONNECT
6	0073089	1	PLAC BATTERY DISCONNECT SWITCH
7	0073051	1	WLDMT BATTERY SWITCH BRACKET
8	3040268	5	BOOT BTRY CABLE END BLACK 4GA
10	0110529	1	WIRE 2/0 R375 R375 106-COLOR:BLACK
11	3040506	2	SOLENOID SWITCH
12	0151160	1	WIRE 4 R313 R375 36 RED
13	0080483	1	WIRE 2/0 R375 R375 28
14	3020040	1	LEVEL SENSOR 5 DEGREE
15	5093000	5	CLP CUSH .437
16	0072323	1	WIRE 4 R313I R375I 28
17	0080484	4	WIRE 2/0 R375 R375 13
18	3040269	3	BOOT BTRY CABLE END BLK 1/0GA
19	5093027	1	CLP CUSH 1.187
20	0071568	1	WIRE 12 R10I R250I 4
21	970249	2	BLT. HEXHD .313-18 .875 GR.5
22	5093008	2	CLP CUSH 1.06
23	5560004	7	NUT LKG .250-20
24	5093006	4	CLP CUSH .937
25	970029	20	BLT HEXHD .250-20 .75 GR.5
26	986019	17	WSHR FLAT .250
27	987099	16	WSHR LOCK .250 MDM
28	970239	2	BLT HEXHD .313-18 .75 GR .5
29	986269	2	WSHR FLAT .313
30	987109	4	WSHR LOCK .313 MDM
31	0074579	1	ALTERNATOR WIRE ASSY
33	0082046	1	ACTUATOR MODULE SUB ASSY
35	974689	4	SCRW RDHD #10-24 .75 PLATED
36	5560654	4	WSHR LOCK #10 PLTD
37	0111871	1	WIRING BOX SUBASSY
39	0111884	1	TRNTBL WIRE ASSY FO LRG
40	3040534	1	CONTROLLER
41	5560700	2	SCRW TRUSS HD #6-32 1.00 PLTD
42	987349	4	WSHR LOCK #6 MDM
43	986159	6	WSHR FLAT #6
44	984009	6	NUT HEX #6-32
45	3044146	2	TERM R10I 22/18
46	3040046	5	TERM MALE250FI 22/18-AMP
47	3040127	1	HORN 12VDC-DELCO
48	970049	5	BLT HEXHD .250-20 1.00 GR .5
49	0151919	1	WIRE 12 R313I R313I 7
50	0151371	1	WIRE 16 R10 R10 5
51	0071545	1	WIRE 16 R8I R8I 4
52	3040082	2	TERM MALE250FI 16/14
53	3044162	1	TERM R250I 16/14
54	5093010	1	CLP CUS 1.50
59	3030122	1	ENG PROTECT MODULE 4-PNT HIGH
60	974239	2	SCR RHD #6-32 .50
64	3070039	1	TEMP SENSOR M18 X 1.5 HIGH
65	5569837	1	WASHER FLAT M18 COPPER







CONNECT EPS/ANTI-RESTART  
MODULE TO EPS WIRE ASSY  
COMING FROM GRD CONT PNL

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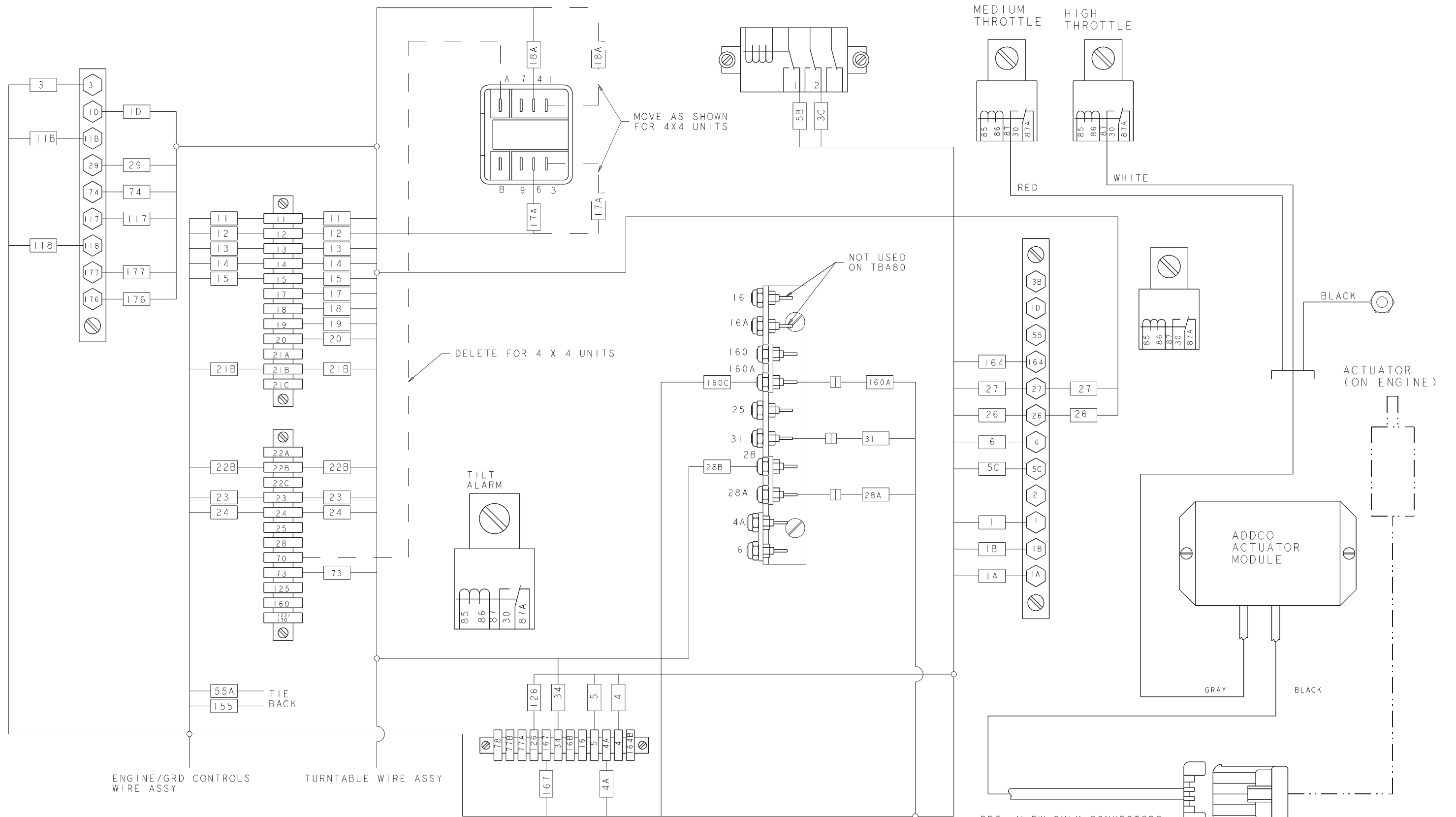
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Wiring Box

REF. VIEW ONLY CONNECTORS SUPPLIED WITH ACTUATOR AND MODULE SUBASSY.

0112468

Turntable Electrical  
Deutz F4L-2011 after 7-31-2000  
TB80

Page 3-9A  
3 of 3





## Turntable electrical, Ford LRG-425

item	part no	qty	description
1	0112466	1	Lower controls, Ford LRG-425 - (see page 3-18 for parts breakdown)
2	3050002	1	Battery, 12 volt DC - 550 CCA
3	3050008	1	Battery hold down
4	3050004	2	Battery hold down bolt
5	3020049	1	Switch, battery disconnect
6	0073089	1	Placard, battery disconnect switch
7	0073051	1	Bracket, battery disconnect switch
8	3040268	3	Insulator boot
9	3040047	1	Terminal .250 tab female slip-on fully insulated 22/18 wire
10	0110529	1	Battery wire
11	3040506	1	Solenoid, 12 volt DC
12	0071563	1	Jumper wire
13	0080483	1	Jumper wire
14	0070705	1	Jumper wire
15	5093004	15	Clamp
16	0072323	1	Jumper wire
17	0080484	7	Jumper wire
18	3040269	2	Insulator boot
19	0151371	1	Jumper wire
20	0071568	1	Jumper wire
21	970469	1	Capscrew 3/8-16 x 1 inch long hex head grade 5
22	986299	1	Washer 3/8 medium flat
23	987119	1	Washer 3/8 medium lock
24	970249	2	Capscrew 5/16-18 x 7/8 inch long hex head grade 5
25	970029	8	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
26	986019	9	Washer 1/4 medium flat
27	987099	6	Washer 1/4 medium lock
28	970449	4	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
29	986269	1	Washer 5/16 medium flat
30	987109	3	Washer 5/16 medium lock
31	0151919	1	Jumper wire
32	3040082	2	Terminal .250 tab male fully insulated 16/14 wire
33	5560004	8	Nut 1/4-20 self locking
34	3040534	1	PWM module
35	5560700	2	Machine screw #6-32 x 1 inch long truss head
36	987349	2	Washer #6 medium lock
37	984009	2	Nut #6-32 hex
38	5093008	1	Clamp
39	0111884	1	Wire harness, turntable
40	0071545	1	Jumper wire
41	3020040	1	Tilt alarm sensor 5°
42	3040127	1	Horn, 12 volt DC
43	970049	8	Capscrew 1/4-20 x 1 inch long hex head grade 5
44	3044162	1	Terminal 1/4 ring tongue insulated 16/14 wire
45	3040046	6	Terminal .250 tab male slip-on fully insulated 22/18 wire
46	3044146	1	Terminal #10 ring tongue insulated 22/18 wire
47	0111894	1	Mount plate, Barber-Coleman governor
48		1	Barber-Coleman governor - (included with engine)
49	5560649	2	Machine screw #10-24 x 1 inch long truss head
50	5560034	2	Nut #10-24 self locking
51	986159	2	Washer #6 medium flat
52	0112094	1	Wiring box, Ford LRG-425 - (see page 3-24 for parts breakdown)
53	5093006	1	Clamp
54	0081558	1	Jumper wire
55	5093010	1	Clamp



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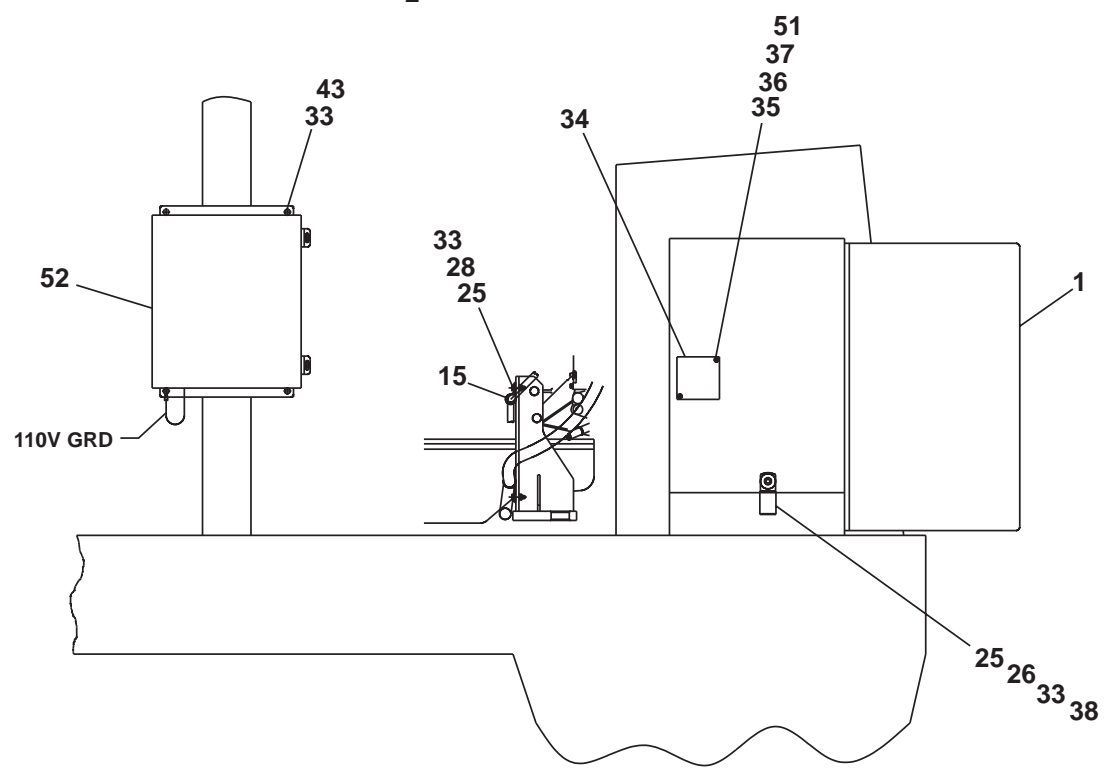
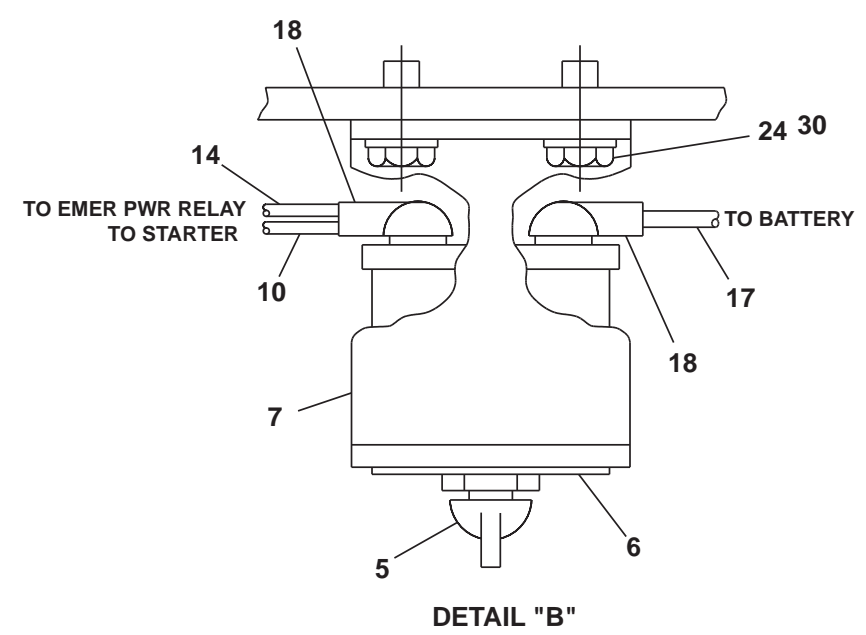
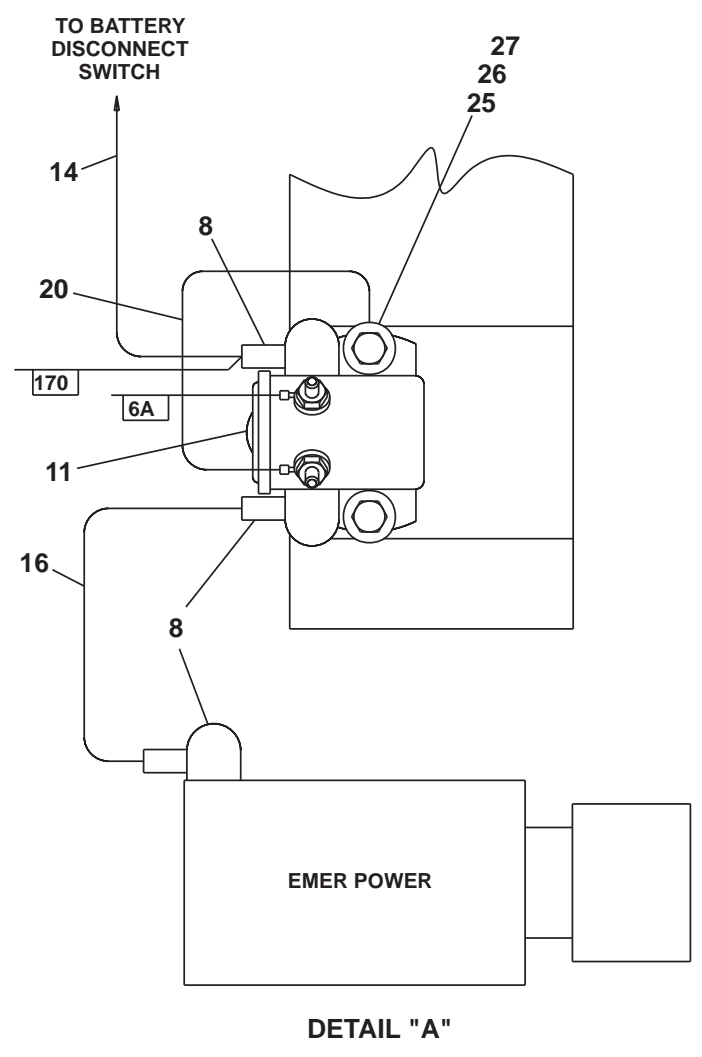
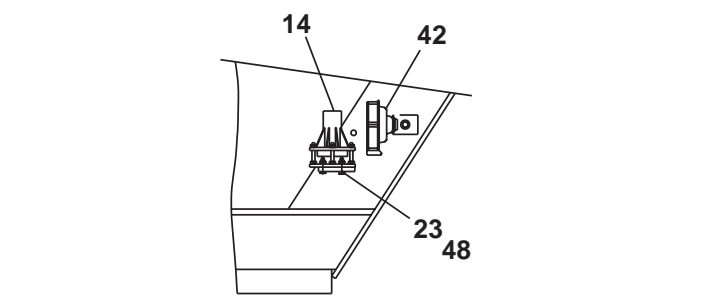
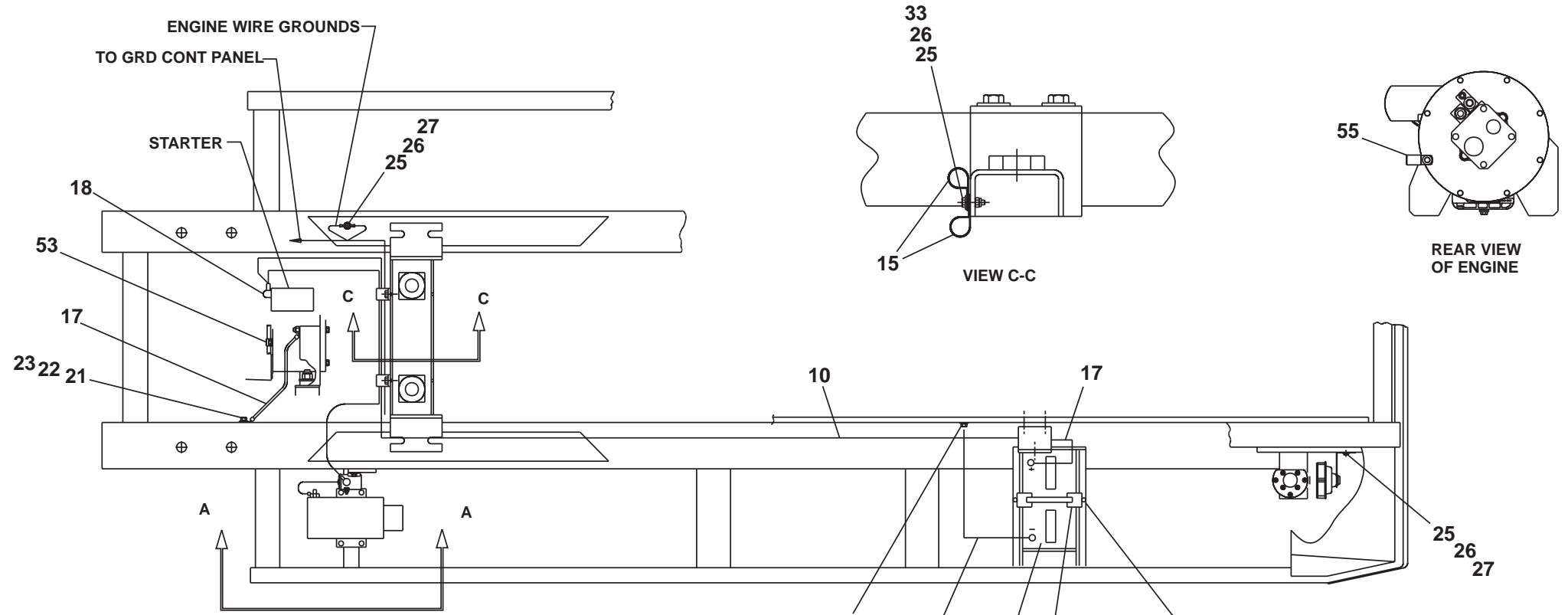
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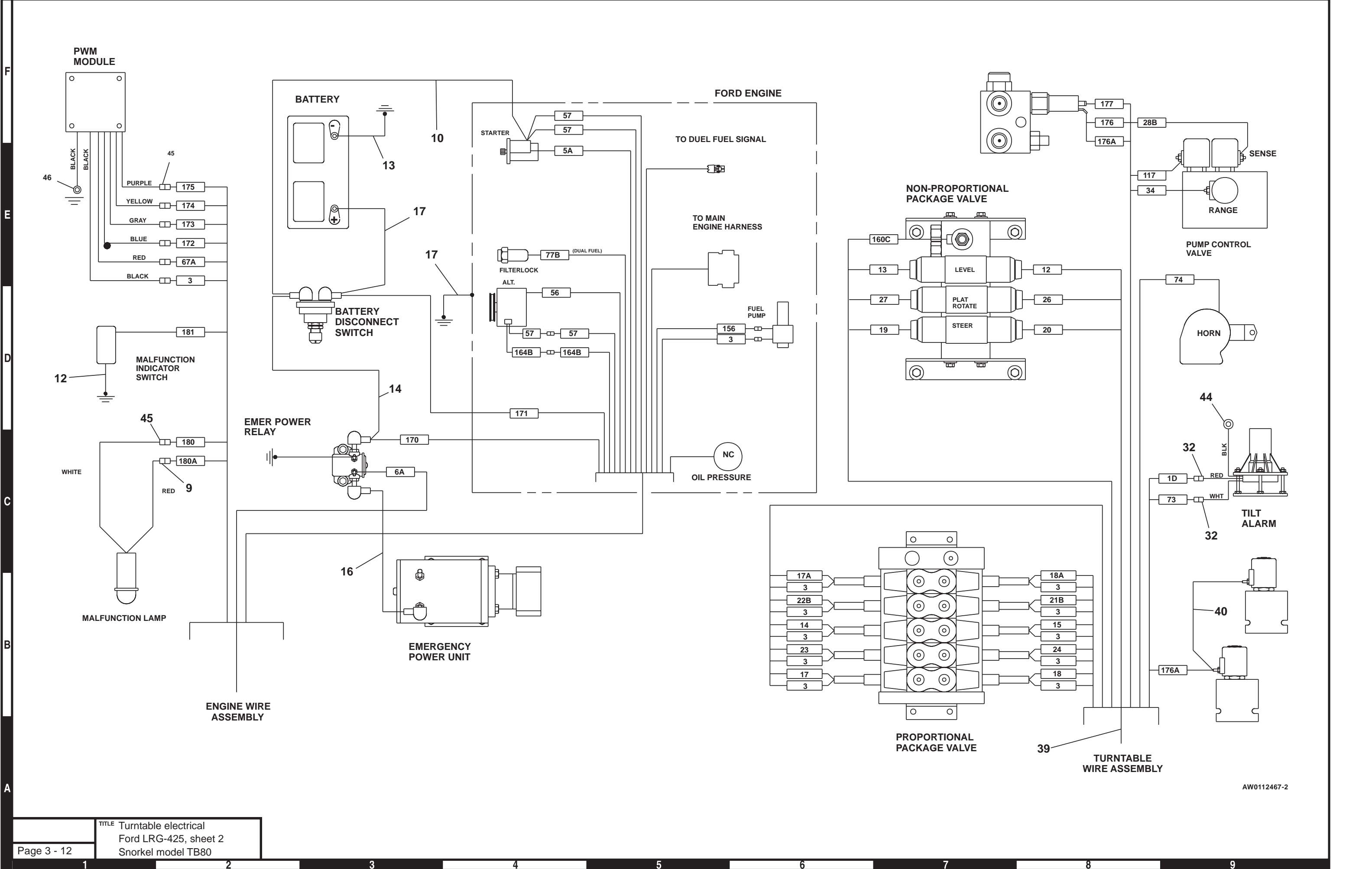
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AW0112467-2

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## Lower controls, Cummins 3.3

item	part no	qty	description
	0112396	1	Lower controls, Cummins 3.3
1	0060373	3	Jumper strap
2	0070730	2	Jumper wire
3	0071588	2	Jumper wire
4	0070746	2	Jumper wire
5	0070747	5	Jumper wire
6	0070753	3	Jumper wire
7	0071541	1	Jumper wire
8	0070735	1	Jumper wire
9	0074592	1	Lower control panel and hinge
10	0082002	1	Rheostat switch
	3040619	1	Replacement switch
	0150647	1	Replacement jumper wire
11	0112149	1	Placard, lower controls
12	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
13	3070040	1	Temperature gauge
14	0073254	1	Diode jumper wire
15	0083300	1	Wire harness, EPS
16	0181104	2	Jumper wire
17	0240483	1	Jumper wire
18	3020013	1	Switch, toggle
19	3020016	3	Switch, toggle
20	3020018	2	Switch, toggle
21	3020087	1	Switch, keyed start
	8030044	1	Replacement key
22	3020048	2	Switch, toggle
23	3020081	2	Switch, toggle
24	3040348	1	Switch knob
25	3040535	1	Circuit breaker, 3 amp capacity
26	3070003	1	Ammeter
27	5560004	1	Nut 1/4-20 self locking
28	0110727	2	Jumper wire
29	0112414	1	Wire harness, engine/lower controls
30	5093006	1	Clamp
31	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
32	986019	1	Washer 1/4 medium flat
33	5560034	2	Nut #10-24 self locking
34	300489	1	Terminal strip, 6 circuit #10 stud
35	5560649	2	Machine screw #10-24 x 1 inch long truss head

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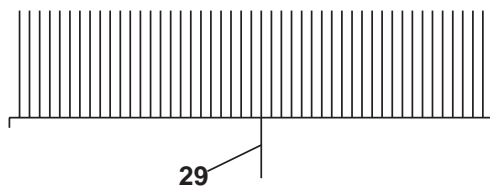
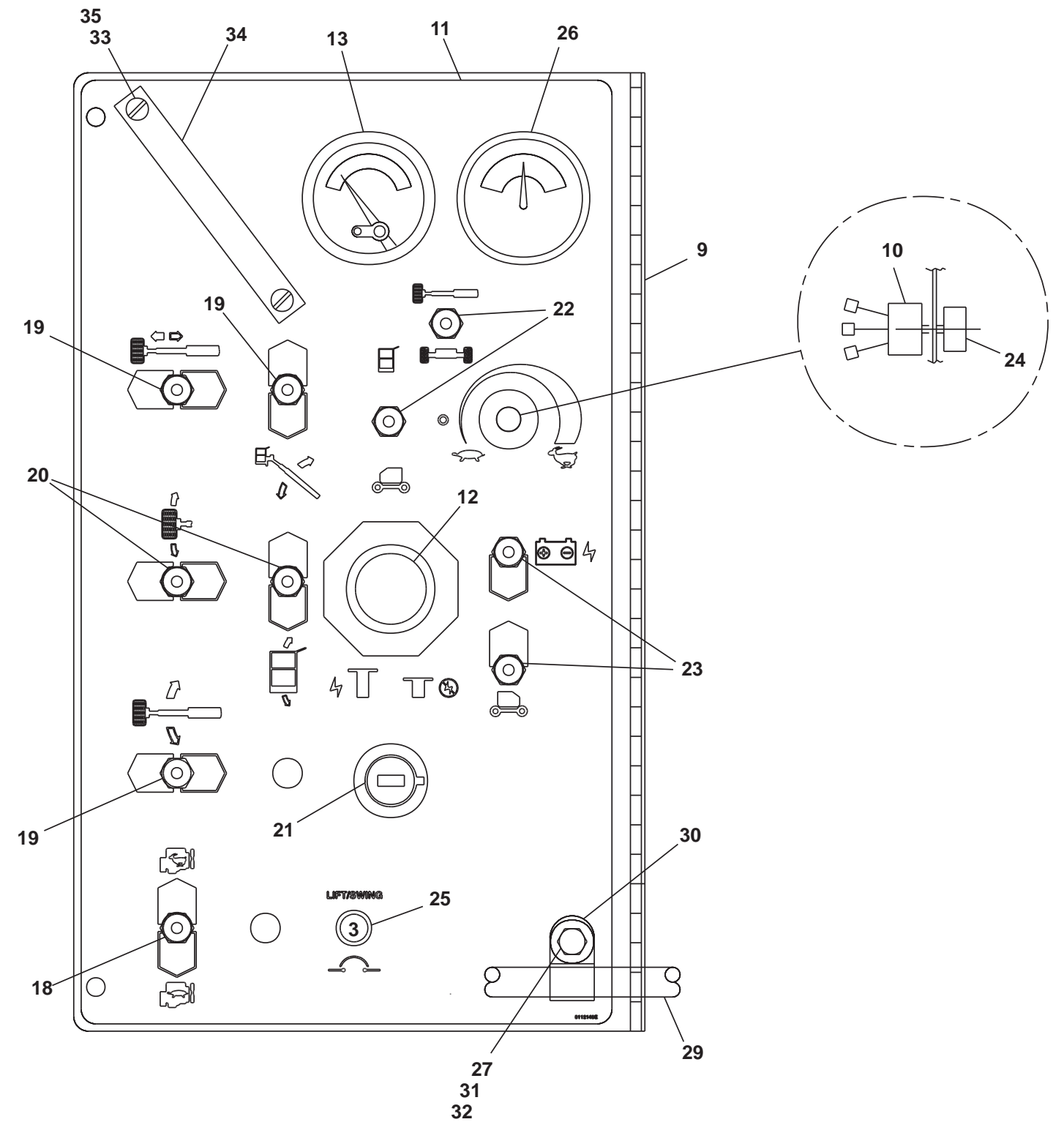
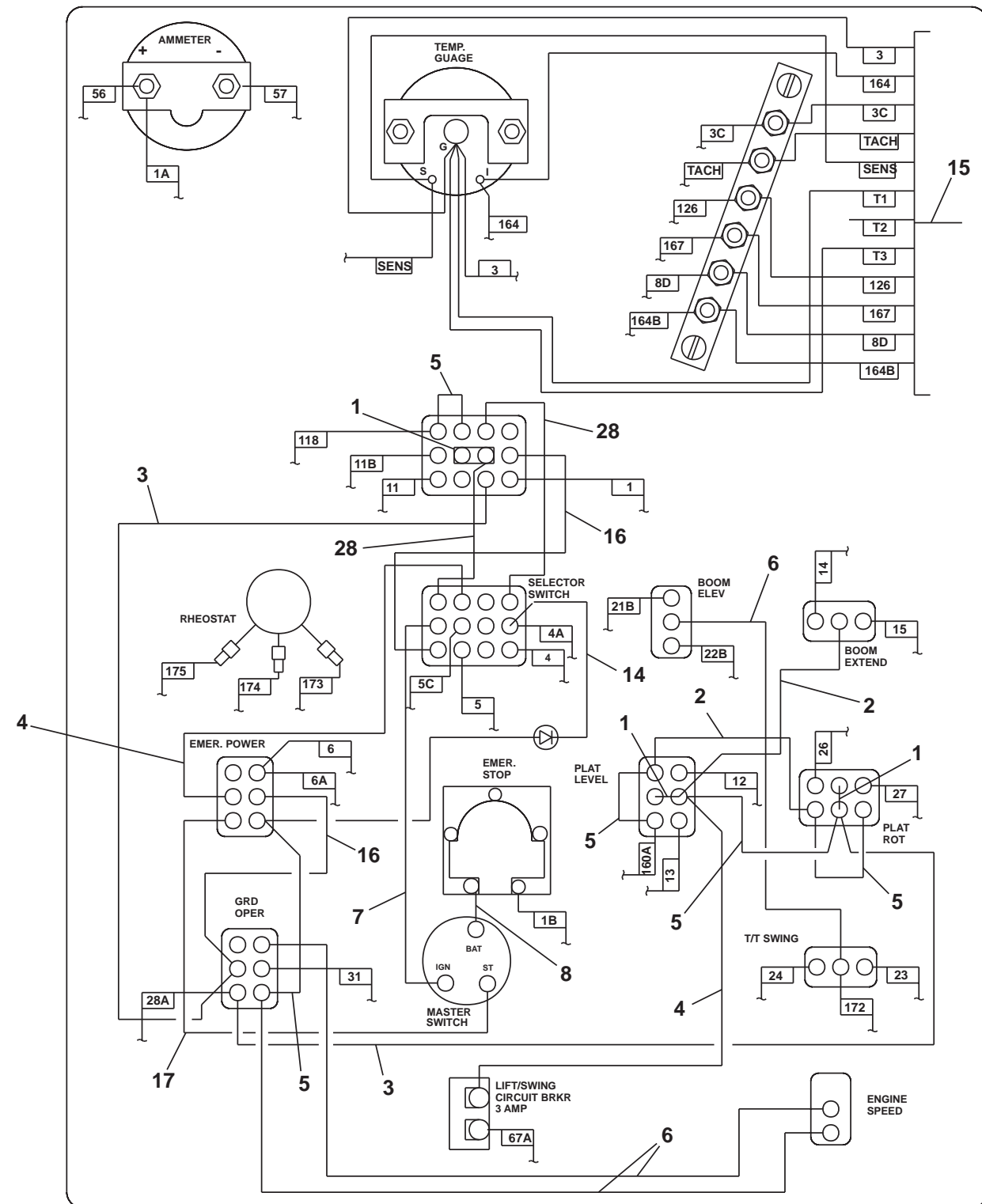
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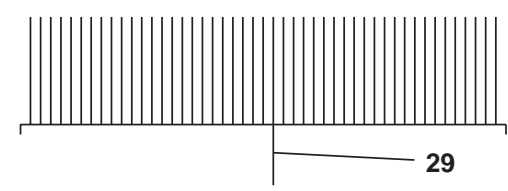
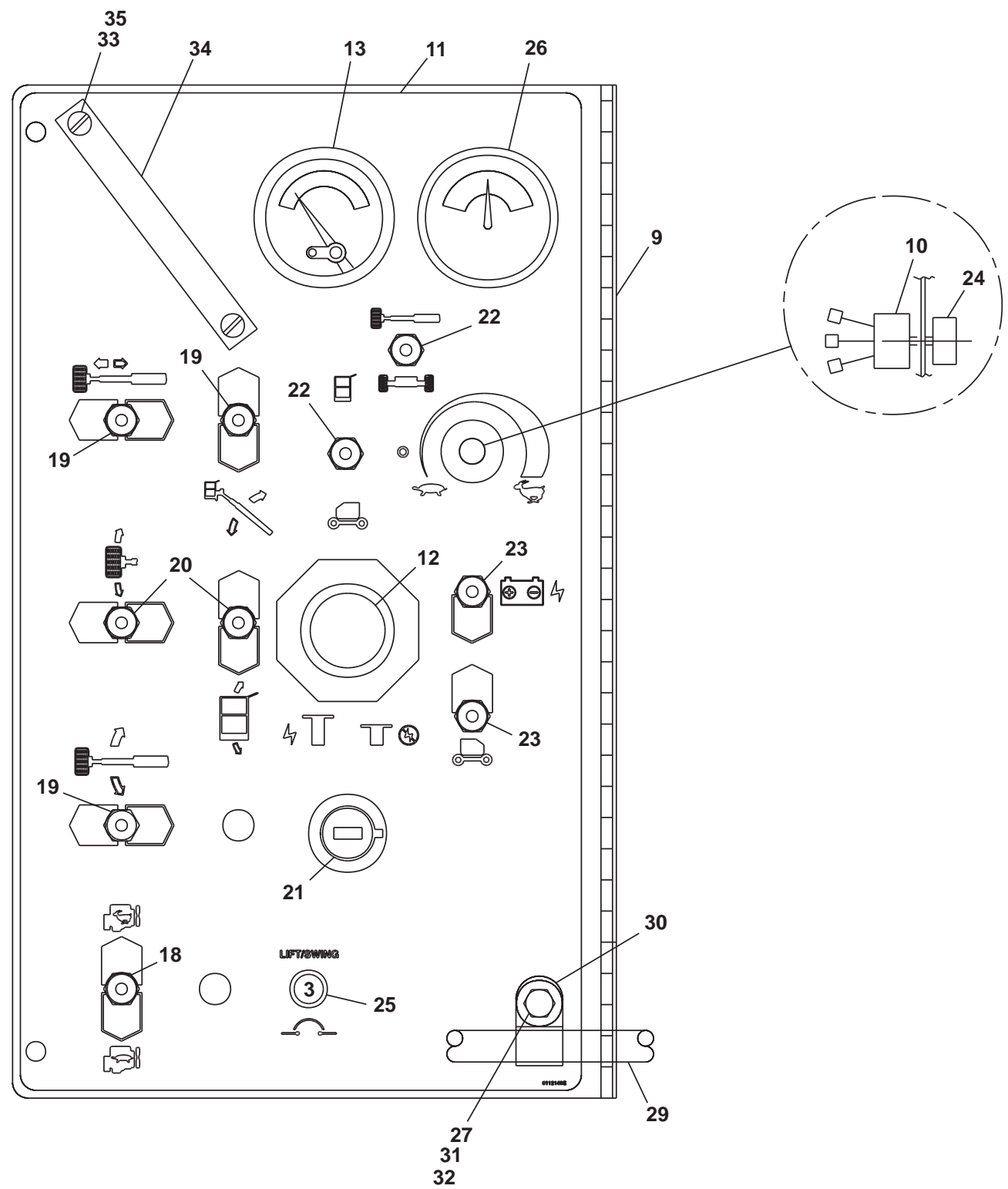
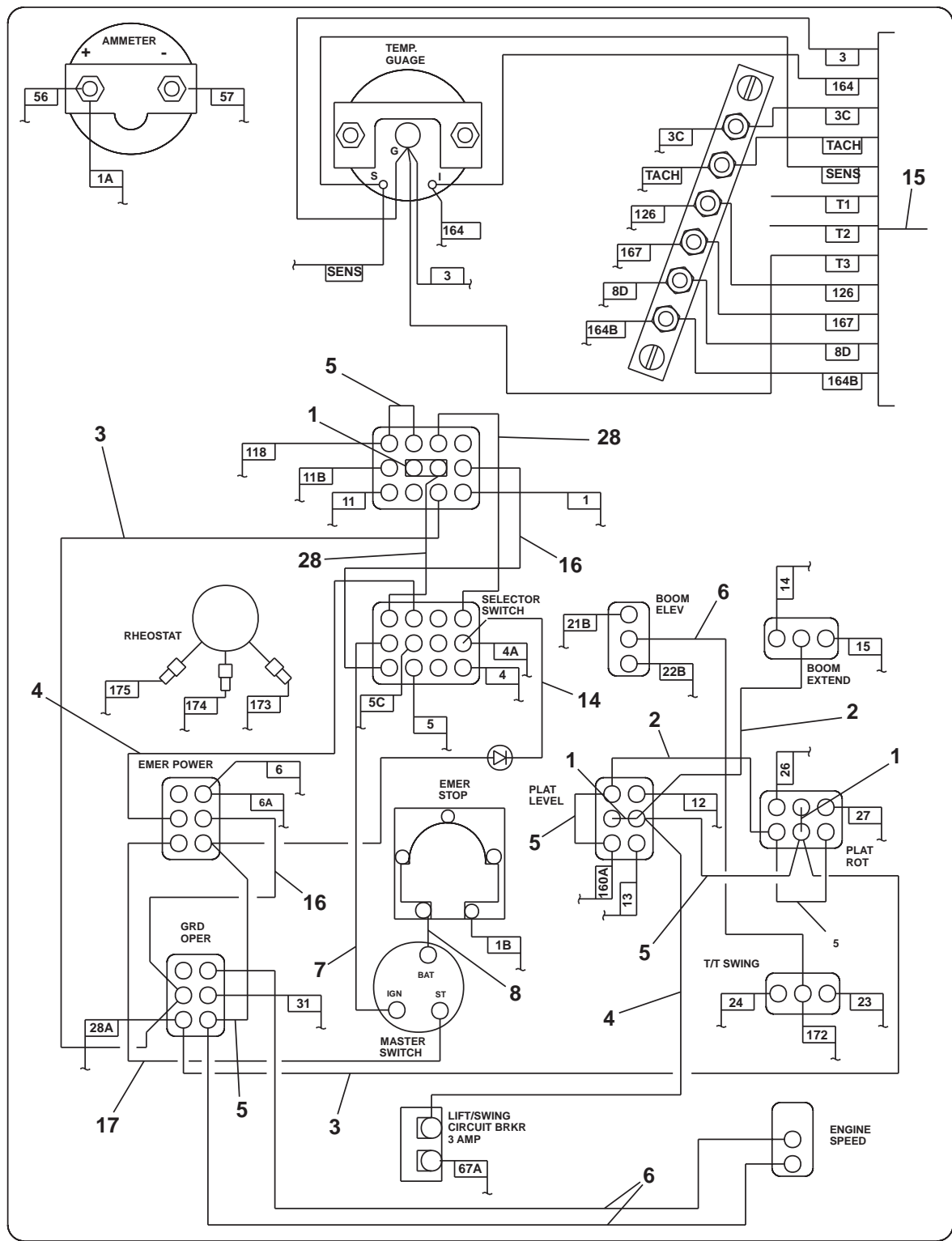
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AW0112398

## Lower controls, Deutz F4L-1011F

item	part no	qty	description
	0112398	1	Lower controls, Deutz F4L-1011F
1	0060373	3	Jumper strap
2	0070730	2	Jumper wire
3	0071588	2	Jumper wire
4	0070746	2	Jumper wire
5	0070747	5	Jumper wire
6	0070753	3	Jumper wire
7	0071541	1	Jumper wire
8	0070735	1	Jumper wire
9	0074592	1	Lower control panel and hinge
10	0082002	1	Rheostat switch
	3040619	1	Replacement switch
	0150647	1	Replacement jumper wire
11	0112149	1	Placard, lower controls
12	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
13	3070041	1	Temperature gauge
14	0073254	1	Diode jumper wire
15	0083300	1	Wire harness, EPS
16	0181104	2	Jumper wire
17	0240483	1	Jumper wire
18	3020013	1	Switch, toggle
19	3020016	3	Switch, toggle
20	3020018	2	Switch, toggle
21	3020087	1	Switch, keyed start
	8030044	1	Replacement key
22	3020048	2	Switch, toggle
23	3020081	2	Switch, toggle
24	3040348	1	Switch knob
25	3040535	1	Circuit breaker, 3 amp capacity
26	3070003	1	Ammeter
27	5560004	1	Nut 1/4-20 self locking
28	0110727	2	Jumper wire
29	0112167	1	Wire harness, engine/lower controls
30	5093006	1	Clamp
31	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
32	986019	1	Washer 1/4 medium flat
33	5560034	2	Nut #10-24 self locking
34	300489	1	Terminal strip, 6 circuit #10 stud
35	5560649	2	Machine screw #10-24 x 1 inch long truss head

## Lower controls, Ford LRG-425

item	part no	qty	description
	0112466	1	Lower controls, Ford LRG-425
1	0060373	3	Jumper strap
2	0070730	2	Jumper wire
3	0071588	2	Jumper wire
4	0070746	2	Jumper wire
5	0070747	5	Jumper wire
6	0070753	3	Jumper wire
7	0071541	1	Jumper wire
8	0070735	1	Jumper wire
9	0074592	1	Lower control panel and hinge
10	0082002	1	Rheostat switch
	3040619	1	Replacement switch
	0150647	1	Replacement jumper wire
11	0112149	1	Placard, lower controls
12	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
13	3070021	1	Temperature gauge
14	0073254	1	Diode jumper wire
15	0083300	1	Wire harness, EPS
16	0181104	2	Jumper wire
17	0240483	1	Jumper wire
18	3020013	1	Switch, toggle
19	3020016	3	Switch, toggle
20	3020018	2	Switch, toggle
21	3020087	1	Switch, keyed start
	8030044	1	Replacement key
22	3020048	2	Switch, toggle
23	3020081	2	Switch, toggle
24	3040348	1	Switch knob
25	3040535	1	Circuit breaker, 3 amp capacity
26	3070003	1	Ammeter
27	5560004	1	Nut 1/4-20 self locking
28	0110727	2	Jumper wire
29	0112097	1	Wire harness, engine/lower controls
30	5093006	1	Clamp
31	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
32	986019	1	Washer 1/4 medium flat
33	5560034	2	Nut #10-24 self locking
34	300489	1	Terminal strip, 6 circuit #10 stud
35	5560649	2	Machine screw #10-24 x 1 inch long truss head



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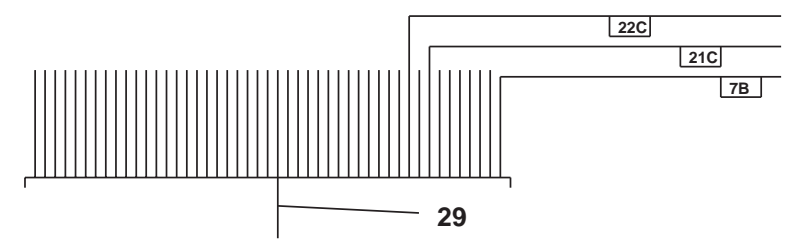
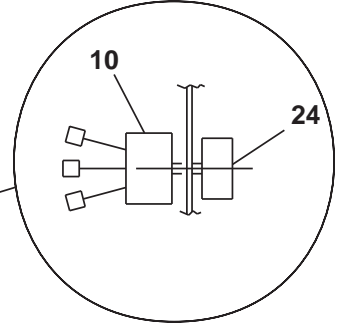
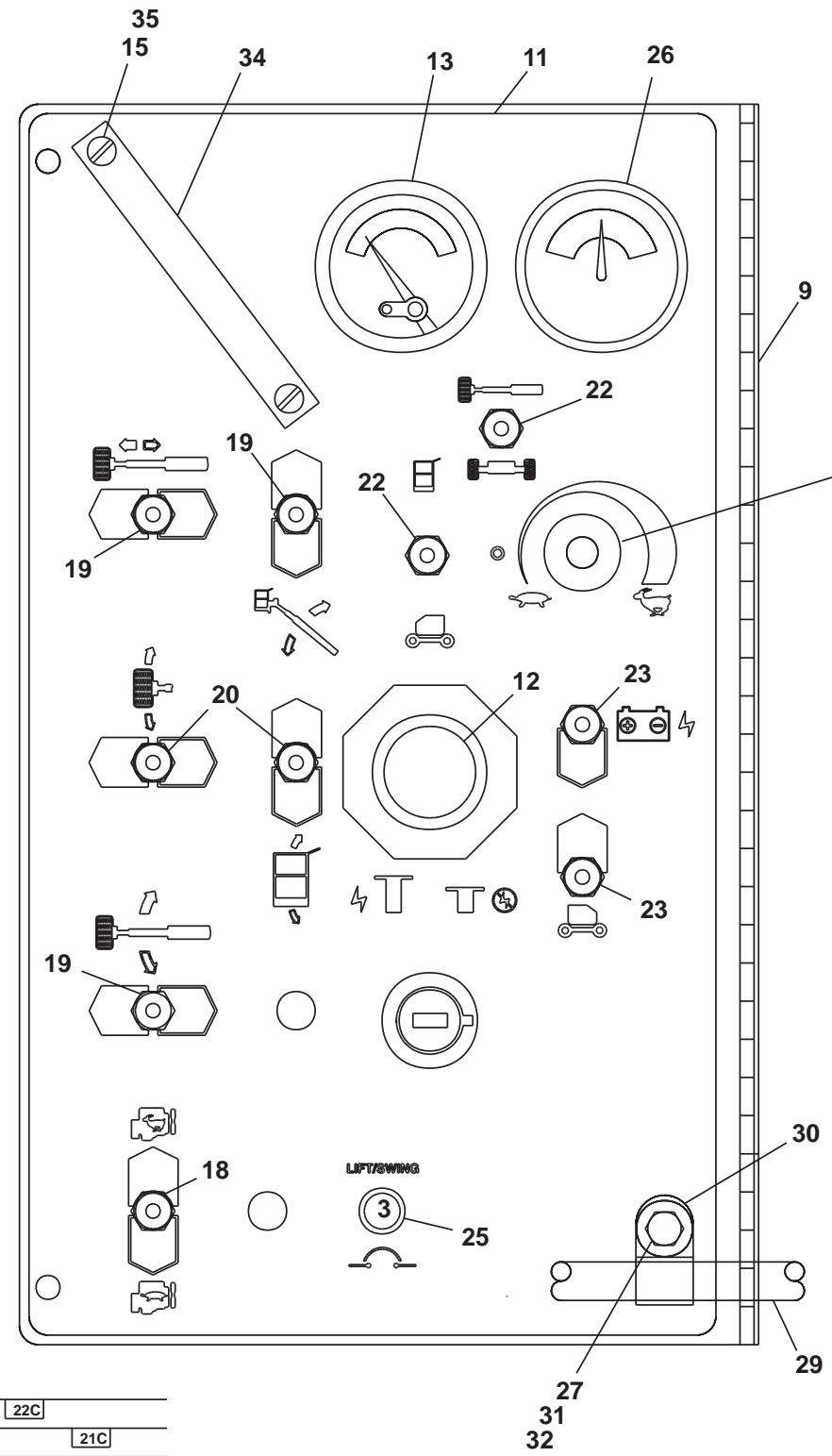
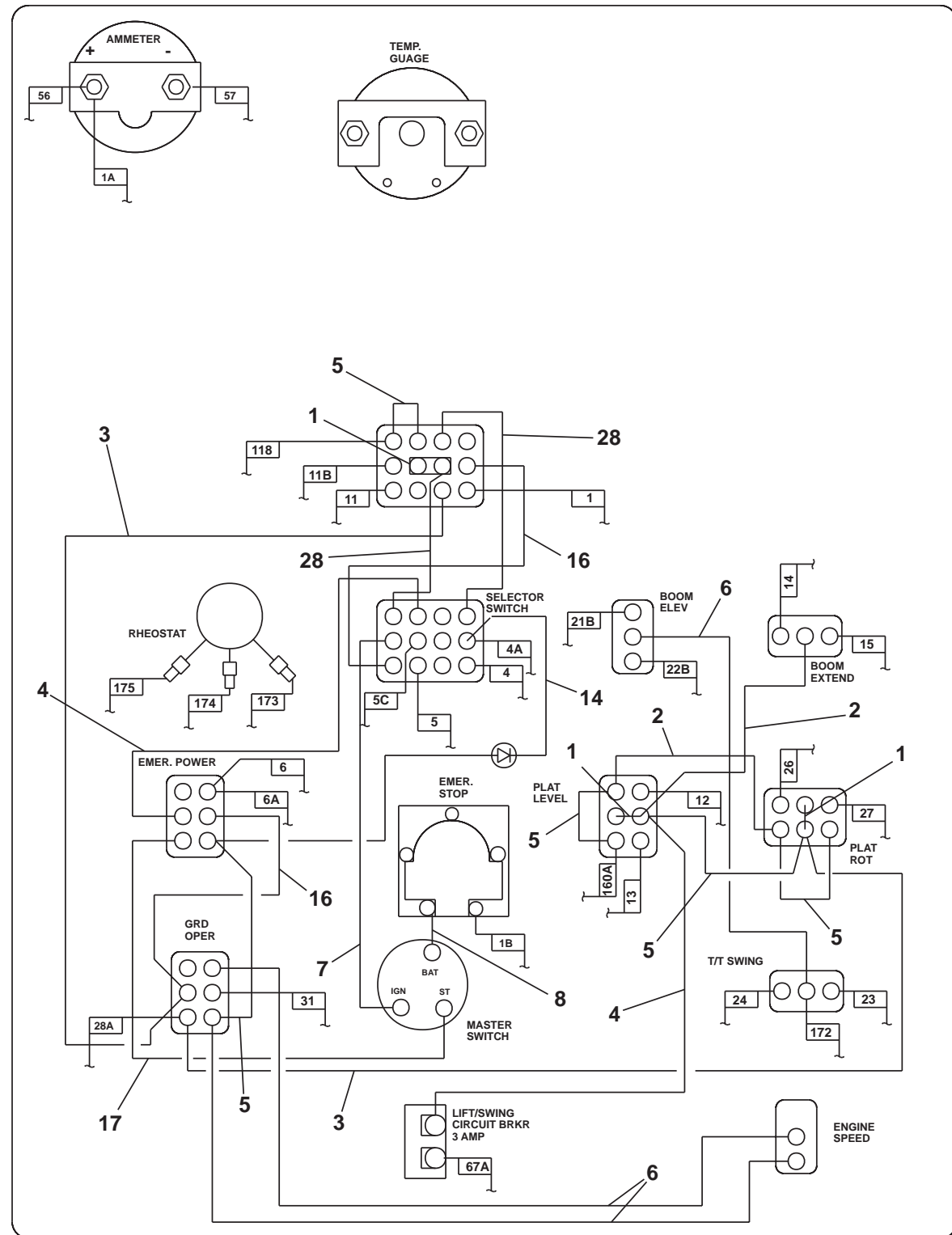
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AW0112466



## Lower Controls, Deutz after 7-31-2000

Item	Part No.	Qty.	Description
1	0060373	3	JUMPER, SWITCH TERMINAL STRAP
2	0070730	2	WIRE 16 R6I R6I 5.5
3	0071588	2	WIRE 12 R6I R8I 10
4	0070746	2	WIRE 16 R6I R6I 9
5	0070747	5	WIRE 16 R6I R6I 3
6	0070753	3	WIRE 16 R6I R6I 12
7	0071541	1	WIRE 12 R6I R10I 14
8	0070735	1	WIRE 12 R6I R10I 24
9	0074592	1	WLDMT PNL & HINGE GRD CONT
10	0082002	1	RHEOSTAT SUB ASSY
11	0112559	1	PLAC GROUND CONT (1-1-2005 AND AFTER)
	0112149	1	PLAC GROUND CONT (7-31-2000 TO 12-31-2004)
12	3020020	1	SW EMER STOP PUSH/PULL-9001 KR9 RH6 10
13	3070041	1	GAUGE TEMP 320 DATCON
14	0073254	1	WIRE 18 R10I R10I 5 DIO SP
16	0181104	2	WIRE 12 R6 R6 6
17	0240483	1	WIRE 16 R6I R10I 8
18	3020013	1	SW TGL SPST ON OFF SEALED
19	3020016	3	SW TGL SPDT (M/OFF/M)
20	3020018	2	SW TGL DPDT (M/OFF/M)
21	3020087	1	KEY SWITCH SINGLE CODE
22	3020048	2	SW TGL 4PDT (ON/ON)SEALED
23	3020081	2	SW TGL DPDT (M/ON) SEALED
24	3040348	1	KNOB RHEOSTAT
25	3040535	1	CIRCUIT BREAKER 3AMP
26	3070003	1	AMMETER
27	5560004	1	NUT. 1/4-20 ESNA
28	0110727	2	WIRE 12 R6I R6I 5
29	0112167	1	ENG WIRE ASSY TB80 DZ
30	5093008	1	CLP CUSH 1.06
31	970029	1	C. SCREW. 1/4-20 X 3/4" LG HH
32	986019	1	WASHER, 1/4 FLAT
34	300489	1	TERMINAL STRIP #10 STUD 6 CIR
35	5560673	2	SCR THRD #10-24 1.00
36	5560034	2	NUT LKG #10-24
37	0083300	1	EPS WIRE ASSY



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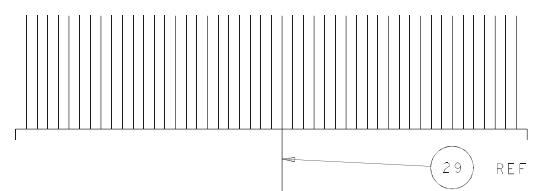
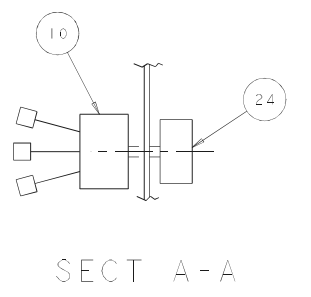
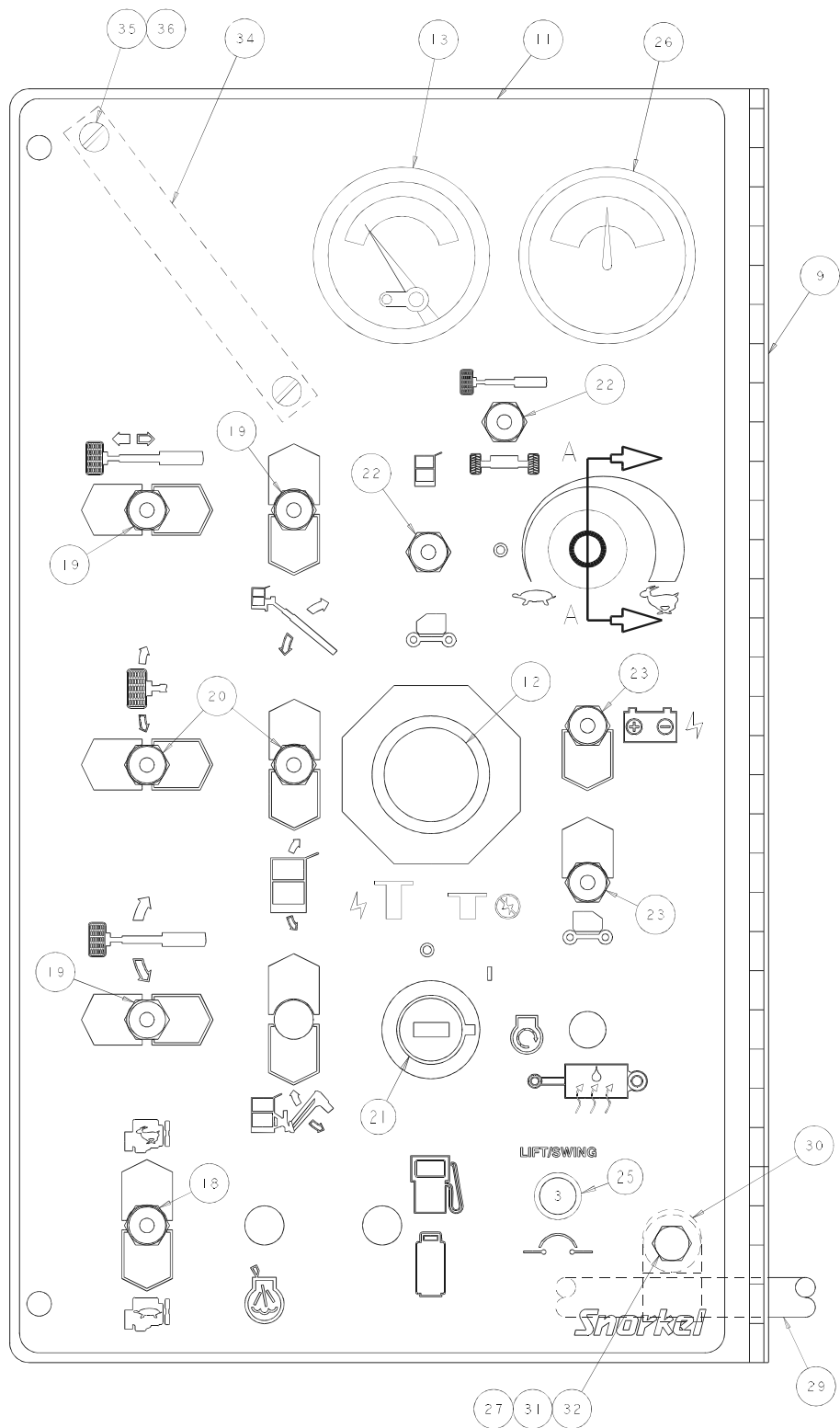
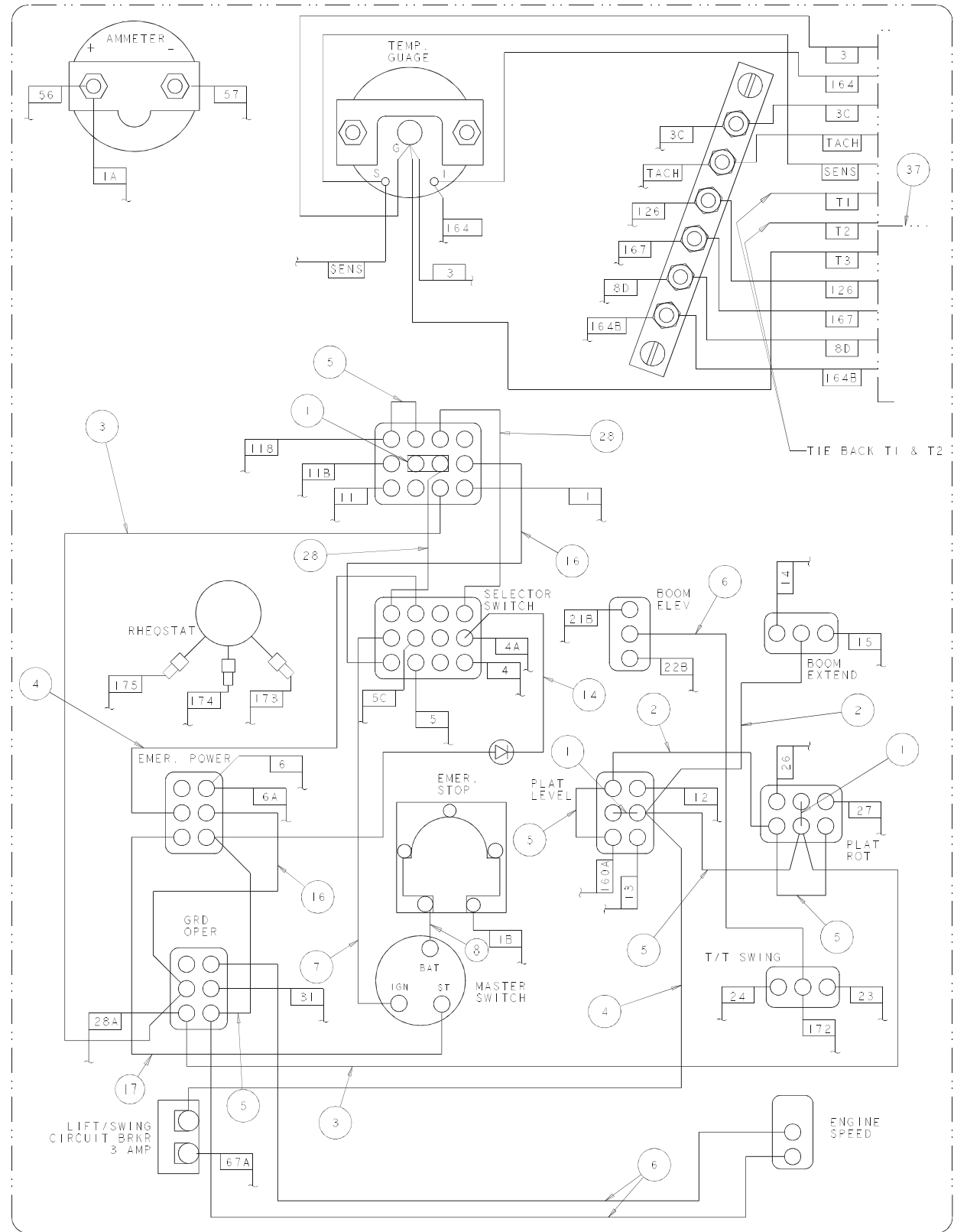
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## Wiring box

item	part no	qty	description
	0111871	1	Wiring box
1	0111872	1	Wiring box, drilled
2	3040411	1	Mini siren, engine alarm
3	3040469	4	Relay, 12 volt DC
4	3040252	2	Circuit breaker, 15 amp capacity
5	3040069	2	Circuit breaker, 25 amp capacity
6	3070001	1	Hour meter
7	0111886	1	Wire harness, internal
8	5093003	1	Clamp
9	3040118	1	Extension with gasket
10	3040121	2	Close-up plug
11	0112165	1	Wiring box panel - (see page 3-28 for parts breakdown)
12	0070967	1	Corrosion inhibitor
13	3045278	1	Flanged electrical outlet with cover
14	0111735	1	Placard, circuit breaker
15	3040386	1	Connector
16	3040387	1	Connector locknut
17	3040295	2	Connector
18	3040110	4	Connector locknut
19	3040298	1	Connector
20	3040285	1	Connector
21	3040187	3	Connector
22	3040070	3	Connector locknut
23	0070921	1	Placard, 125 volts 15 amps
24	5560655	2	Pop rivet #AD32-ABS
25	974239	6	Machine screw #6-32 x 1/2 inch long round head
26	984009	6	Nut #6-32 hex
27	5560609	6	Machine screw #10-24 x 1/2 inch long truss head
28	5560654	3	Washer #10 star tooth lock
29	987089	2	Washer #10 medium lock
30	984049	2	Nut #10-24 hex
31	5560034	7	Nut #10-24 self locking
32	986159	6	Washer #6 medium flat
33	987349	6	Washer #6 medium lock
34	986019	1	Washer 1/4 medium flat
35	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
36	5560004	1	Nut 1/4-20 self locking
37	0070735	1	Jumper wire
38	0181028	1	Jumper wire
39	0240483	1	Jumper wire
40	5560701	4	Machine screw #10-32 x 3/8 inch long round head
41	0071528	1	Jumper wire
42	0073057	1	Jumper wire
43	3040214	1	Relay, 12 volt DC
44	3044708	1	Terminal strip, 10 circuit #8 stud
45	0111873	1	Decal, terminal strip
46	0071561	1	Jumper wire
47	974689	2	Machine screw #10-24 x 3/4 inch long round head
48	974709	1	Machine screw #10-24 x 1 inch long round head
49	5560034	8	Nut #10-24 self locking
50	5569003	1	Grommet
51	0100522	2	Jumper wire
52	0140323	1	Jumper wire
53	0081559	1	Jumper wire
54	3040508	1	Time delay module
55	0111476	1	Jumper wire
56	5560701	4	Machine screw #10-32 x 3/8 inch long round head
57	0151815	1	Jumper wire
58	0070713	1	Jumper wire



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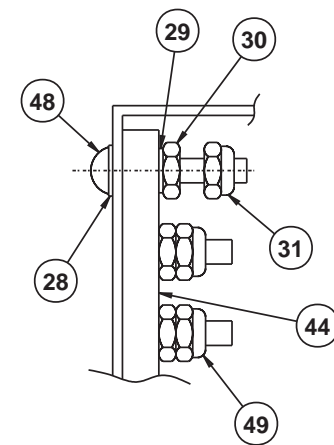
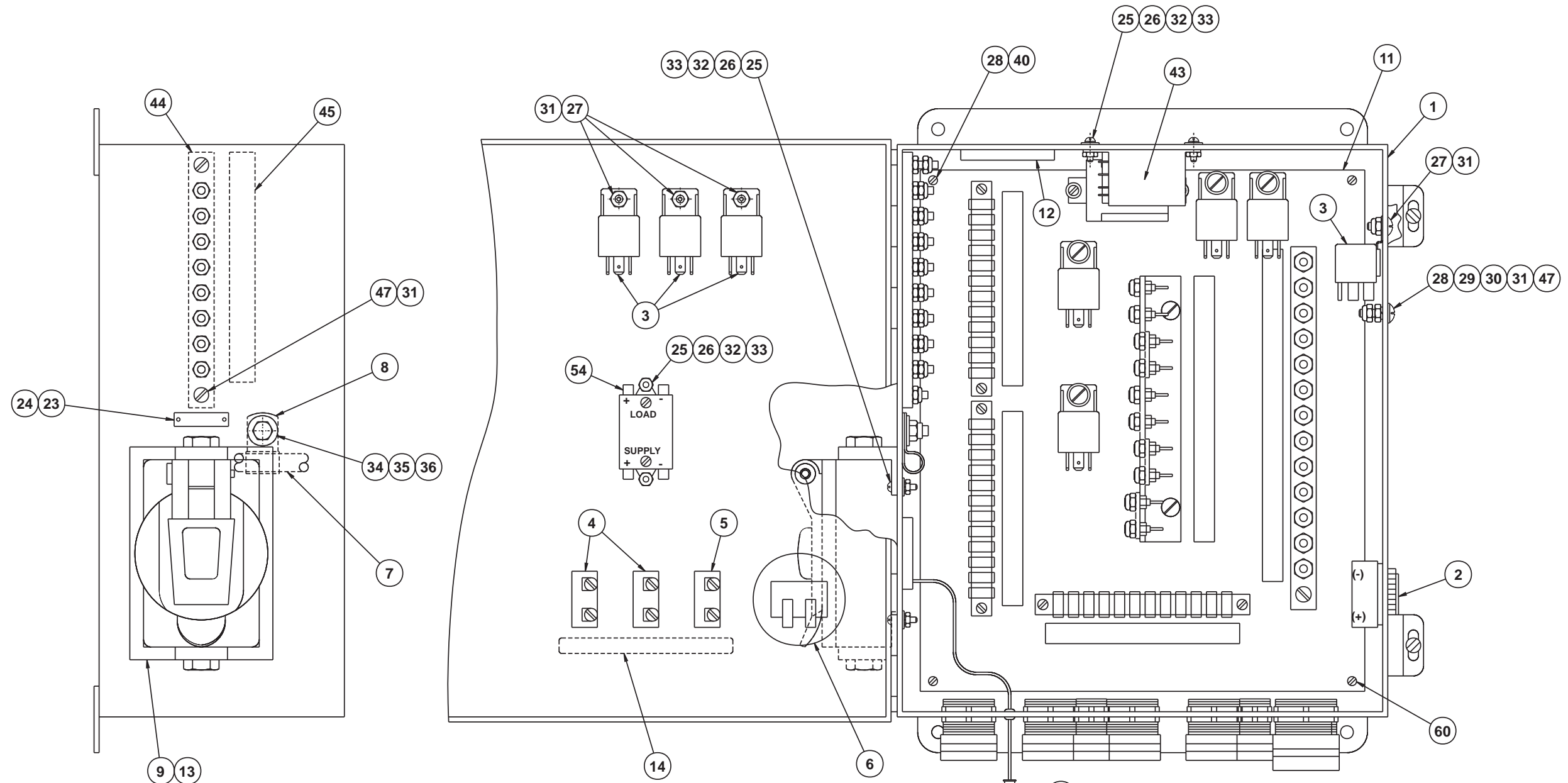
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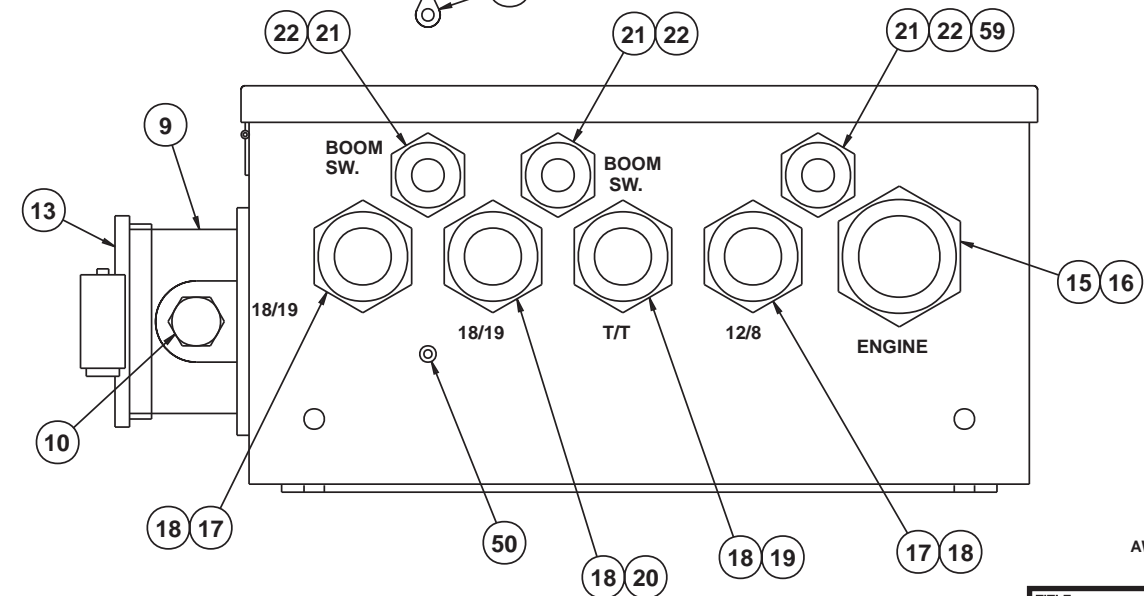
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SECTION A-A



AW011871-1

TITLE Wiring box  
 sheet 1  
 Snorkel model TB80

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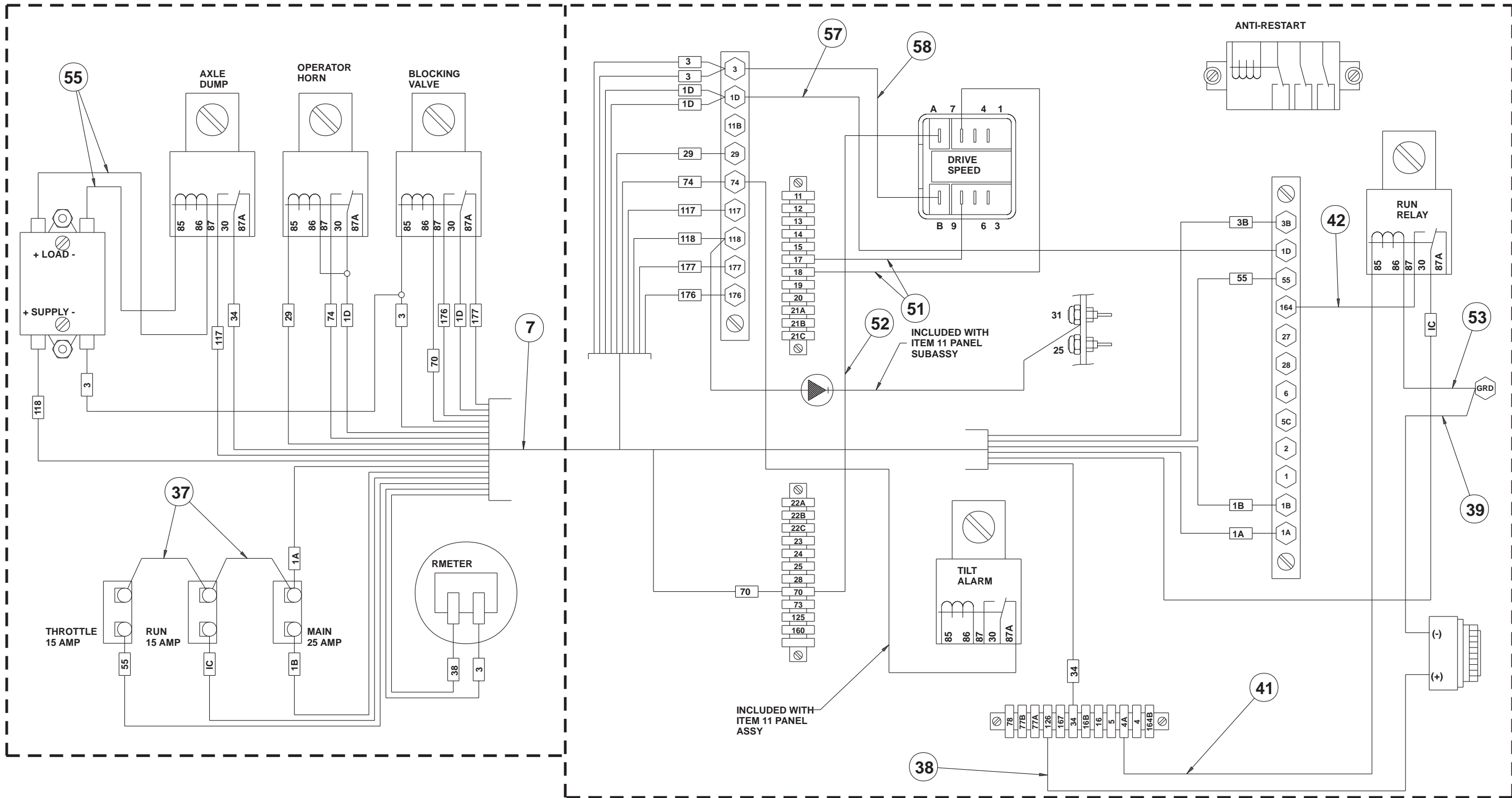
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AW011871-2

TITLE wiring box  
sheet 2  
Snorkel model TB80

1 2 3 4 5 6 7 8 9



## Wiring box, Ford LRG-425

item	part no	qty	description
	0112094	1	Wiring box, Ford LRG-425
1	0111872	1	Wiring box, drilled
2	3040411	1	Mini siren, engine alarm
3	3040469	7	Relay, 12 volt DC
4	3040252	1	Circuit breaker, 15 amp capacity
5	3040069	1	Circuit breaker, 25 amp capacity
6	3070001	1	Hour meter
7	0111886	1	Wire harness, internal
8	5093003	1	Clamp
9	3040118	1	Extension with gasket
10	3040121	2	Close-up plug
11	0112095	1	Wiring box panel - (see page 3-31 for parts breakdown)
12	0070967	1	Corrosion inhibitor
13	3045278	1	Flanged electrical outlet with cover
14	0111735	1	Placard, circuit breaker
15	3040386	1	Connector
16	3040387	1	Connector locknut
17	3040116	2	Connector
18	3040110	4	Connector locknut
19	3040298	1	Connector
20	3040285	1	Connector
21	3040187	3	Connector
22	3040070	3	Connector locknut
23	0070921	1	Placard, 125 volts 15 amps
24	5560655	2	Pop rivet #AD32-ABS
25	974239	4	Machine screw #6-32 x 1/2 inch long round head
26	984009	4	Nut #6-32 hex
27	5560609	7	Machine screw #10-24 x 1/2 inch long truss head
28	5560654	3	Washer #10 star tooth lock
29	987089	2	Washer #10 medium lock
30	984049	2	Nut #10-24 hex
31	5560034	9	Nut #10-24 self locking
32	986159	4	Washer #6 medium flat
33	987349	4	Washer #6 medium lock
34	986019	1	Washer 1/4 medium flat
35	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
36	5560004	1	Nut 1/4-20 self locking
37	0070735	1	Jumper wire
38	0181028	1	Jumper wire
39	0240483	1	Jumper wire
40	0181031	1	Jumper wire
41	3040015	1	Hole plug, 1/2 inch diameter
42	0170623	1	Decal, throttle
43	0071528	5	Jumper wire
44	3044708	1	Terminal strip, 10 circuit #8 stud
45	0111873	1	Decal, terminal strip
46	0071561	1	Jumper wire
47	974689	2	Machine screw #10-24 x 3/4 inch long round head
48	974709	1	Machine screw #10-24 x 1 inch long round head
49	5560038	8	Nut #10-32 self locking
50	5569003	1	Grommet
51	0181113	3	Jumper wire
52	0181111	1	Jumper wire
53	0081559	2	Jumper wire
54	3040508	1	Time delay module
55	0111476	2	Jumper wire
56	0151815	1	Jumper wire
57	970469	1	Capscrew 3/8-16 x 1 inch long hex head grade 5
58	5560701	4	Machine screw #10-32 x 3/8 inch long round head

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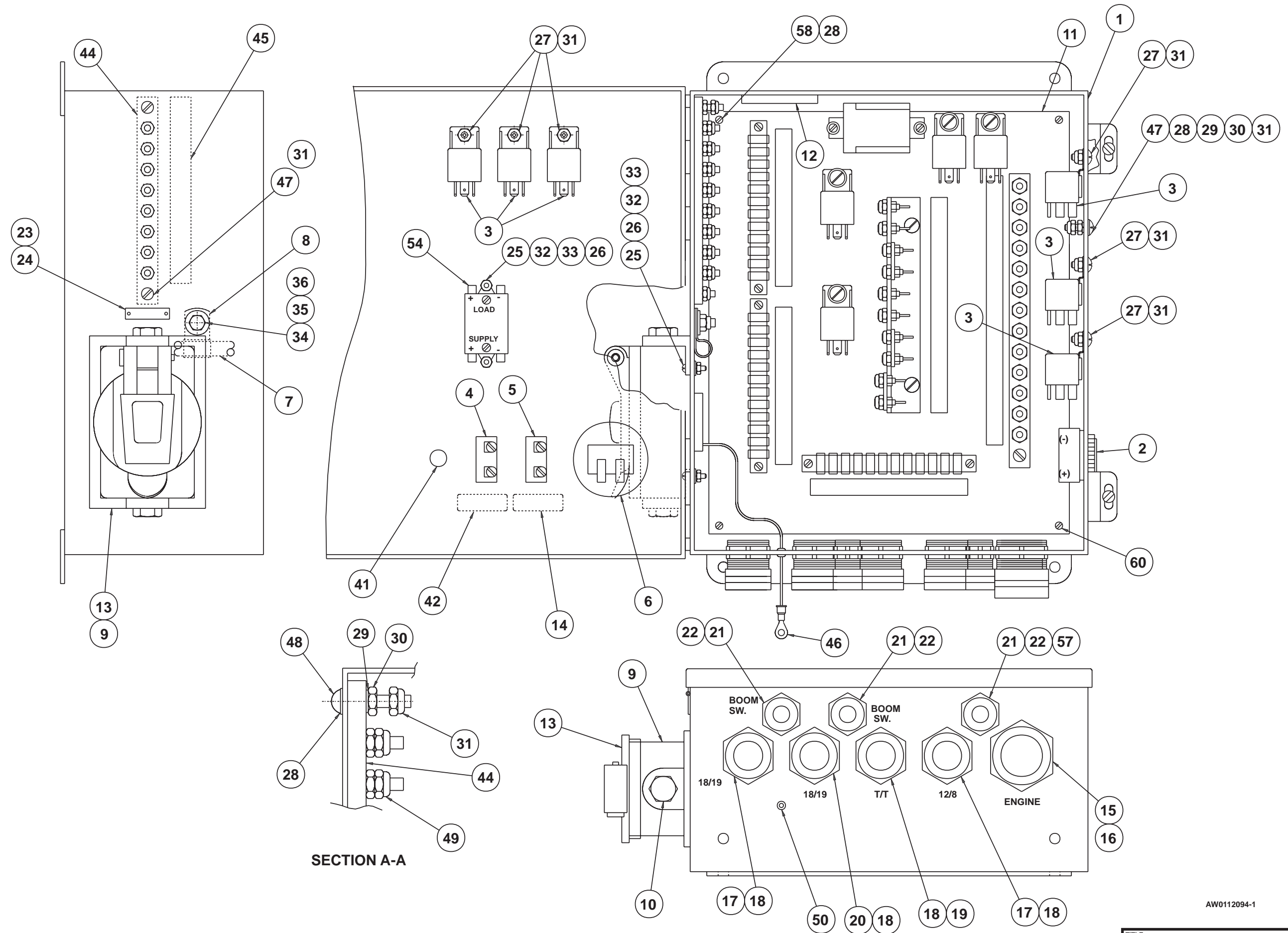
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SECTION A-A

AW0112094-1

TITLE Wiring box  
 Ford LRG-425, sheet 1  
 Snorkel model TB80

1 2 3 4 5 6 7 8 9

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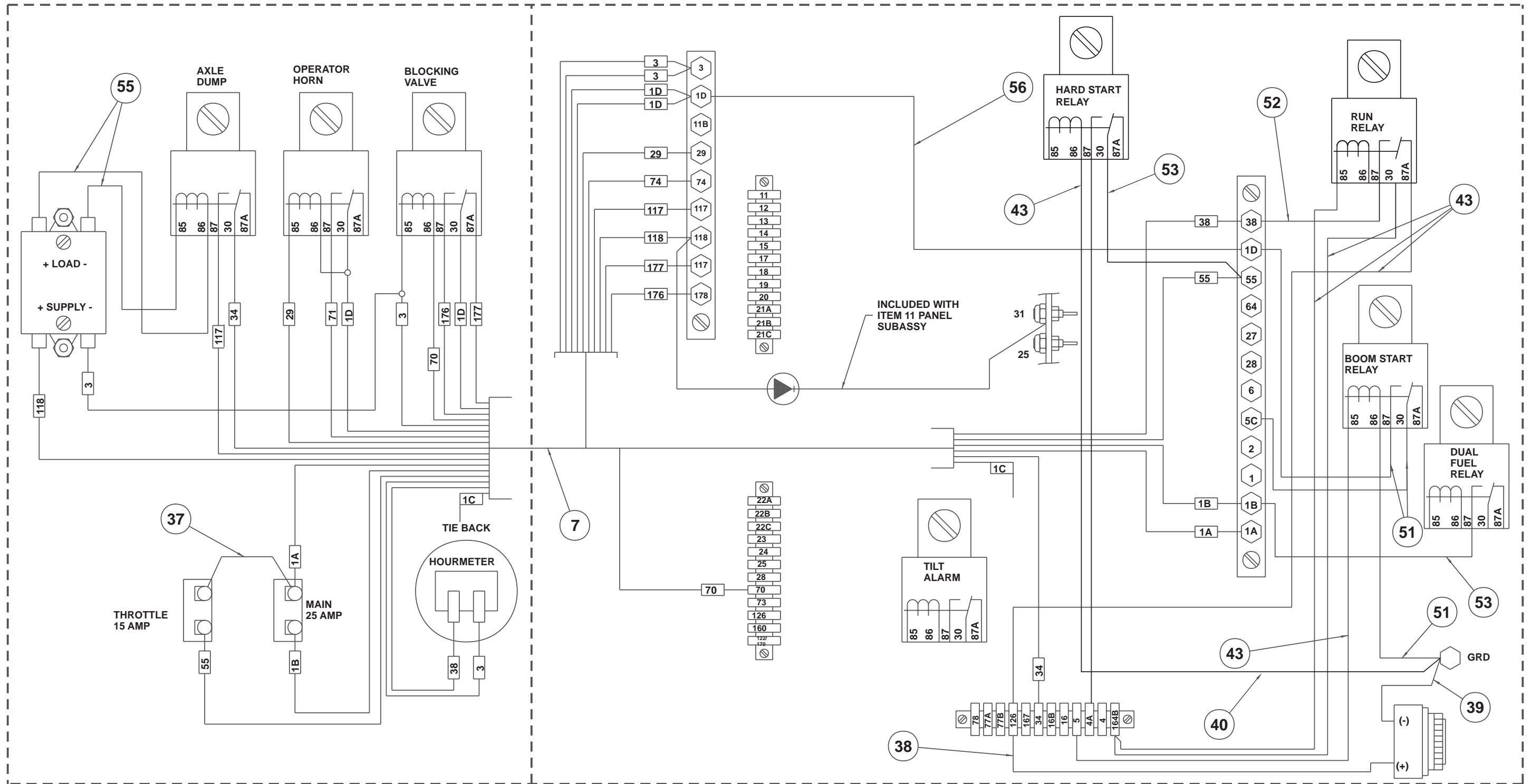
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AW0112094-2

TITLE Wiring box  
 Ford LRG-425, sheet 2  
 Snorkel model TB 80

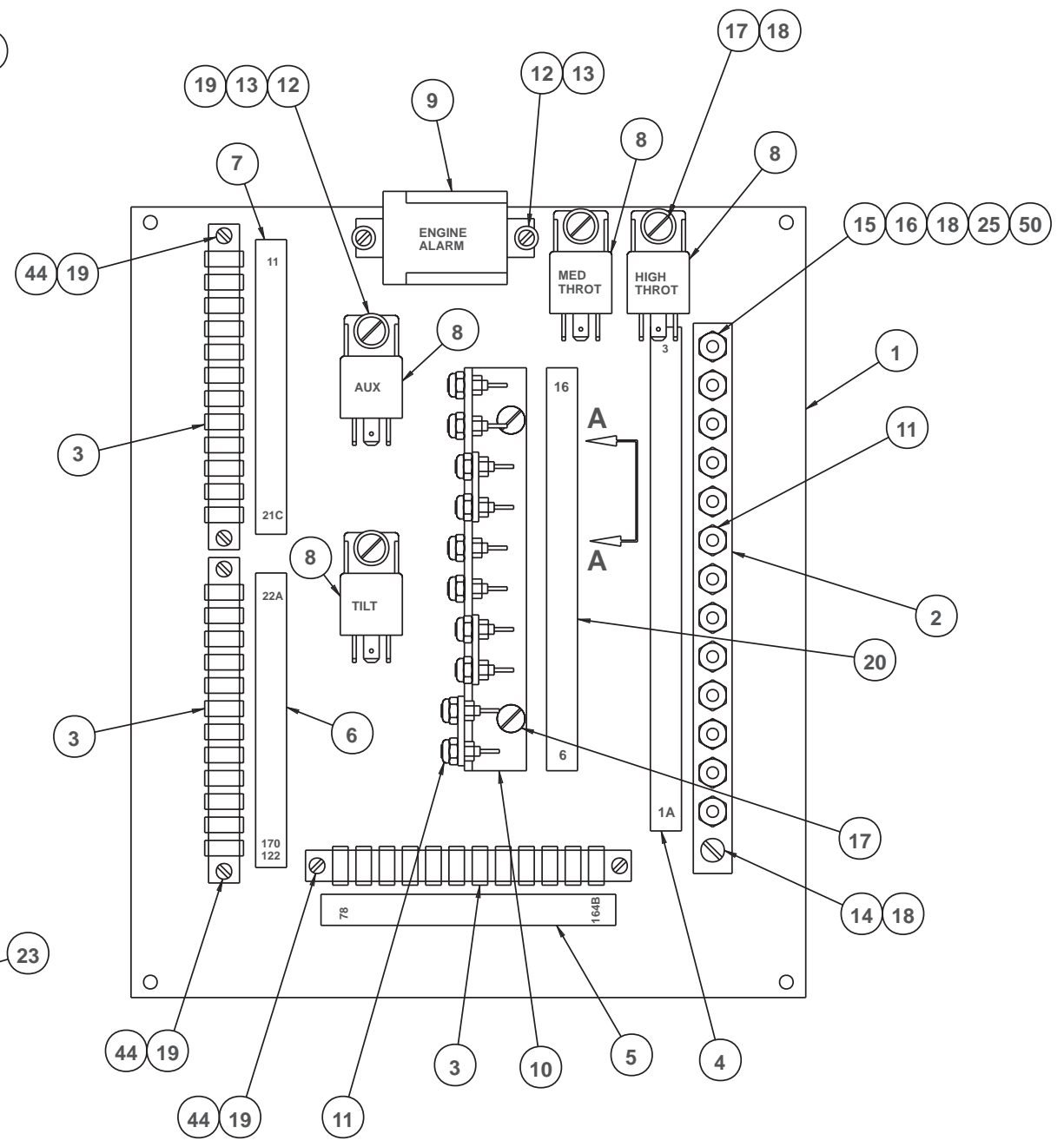
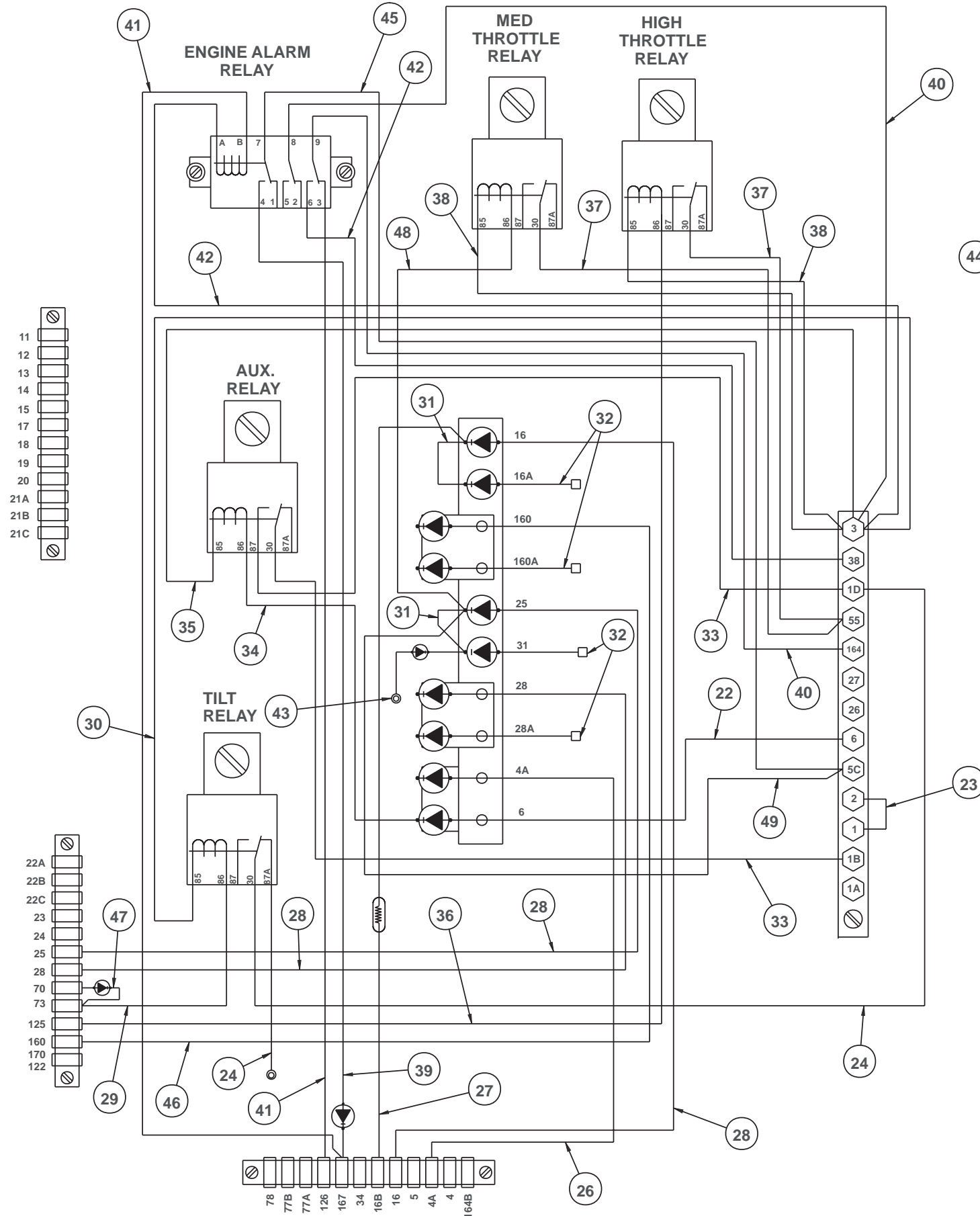


## Wiring box panel

item	part no	qty	description
	0112165	1	Wiring box panel
1	0180796	1	Panel, drilled
2	3044712	1	Terminal strip, 12 circuit #10 stud
3	3040433	3	Terminal strip, 12 circuit .188 tab slip-on
4	0181552	1	Decal, power wire
5	0181553	1	Decal, terminal strip
6	0181107	1	Decal, control wire #2
7	0181106	1	Decal, control wire #1
8	3040469	4	Relay, 12 volt DC
9	3040287	1	Relay, 12 volt DC
10	0150488	1	Diode holder
	3040108		Replacement diode - (order quantity required)
11	5560038	22	Nut #10-32 self locking
12	974239	4	Machine screw #6-32 x 1/2 inch long round head
13	986159	4	Washer #6 medium flat
14	974689	1	Machine screw #10-24 x 3/4 inch long round head
15	974729	1	Machine screw #10-24 x 1-1/4 inch long round head
16	5560034	7	Nut #10-24 self locking
17	5560609	10	Machine screw #10-24 x 1/2 inch long truss head
18	987089	4	Washer #10 medium lock
19	987349	10	Washer #6 medium lock
20	0181554	1	Decal, diode
21	0073631	1	Diode stand off
22	0070681	1	Diode wire - (includes 3040108 diode)
23	0070711	1	Jumper wire
24	0071812	2	Jumper wire
25	5560654	1	Washer #10 star tooth lock
26	0070682	1	Diode wire - (includes 3040108 diode)
27	0181073	1	Resister wire - (5 ohm)
28	0140317	3	Diode wire - (includes 3040108 diode)
29	0151205	1	Jumper wire
30	0081560	1	Jumper wire
31	0070724	2	Jumper wire
32	0181110	4	Diode wire - (includes 3040108 diode)
33	0181031	2	Jumper wire
34	0081559	1	Jumper wire
35	0081515	1	Jumper wire
36	0181030	1	Jumper wire
37	0181136	2	Jumper wire
38	0181111	2	Jumper wire
39	0112164	1	Diode wire - (includes 3040108 diode)
40	0070713	2	Jumper wire
41	0140323	2	Jumper wire
42	0140332	2	Jumper wire
43	0073252	1	Jumper wire
44	974279	6	Machine screw #6-32 x 3/4 inch long round head
45	0090621	1	Jumper wire
46	0110471	1	Diode wire - (includes 3040108 diode)
47	0170335	1	Diode wire - (includes 3040108 diode)
48	0181113	1	Jumper wire
49	0073253	2	Jumper wire
50	984049	1	Nut #10-24 hex



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VIEW A-A

AW0112165

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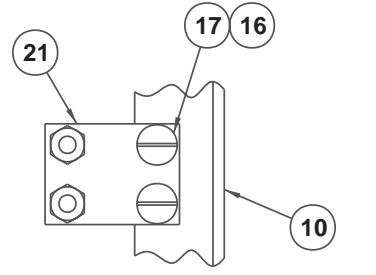
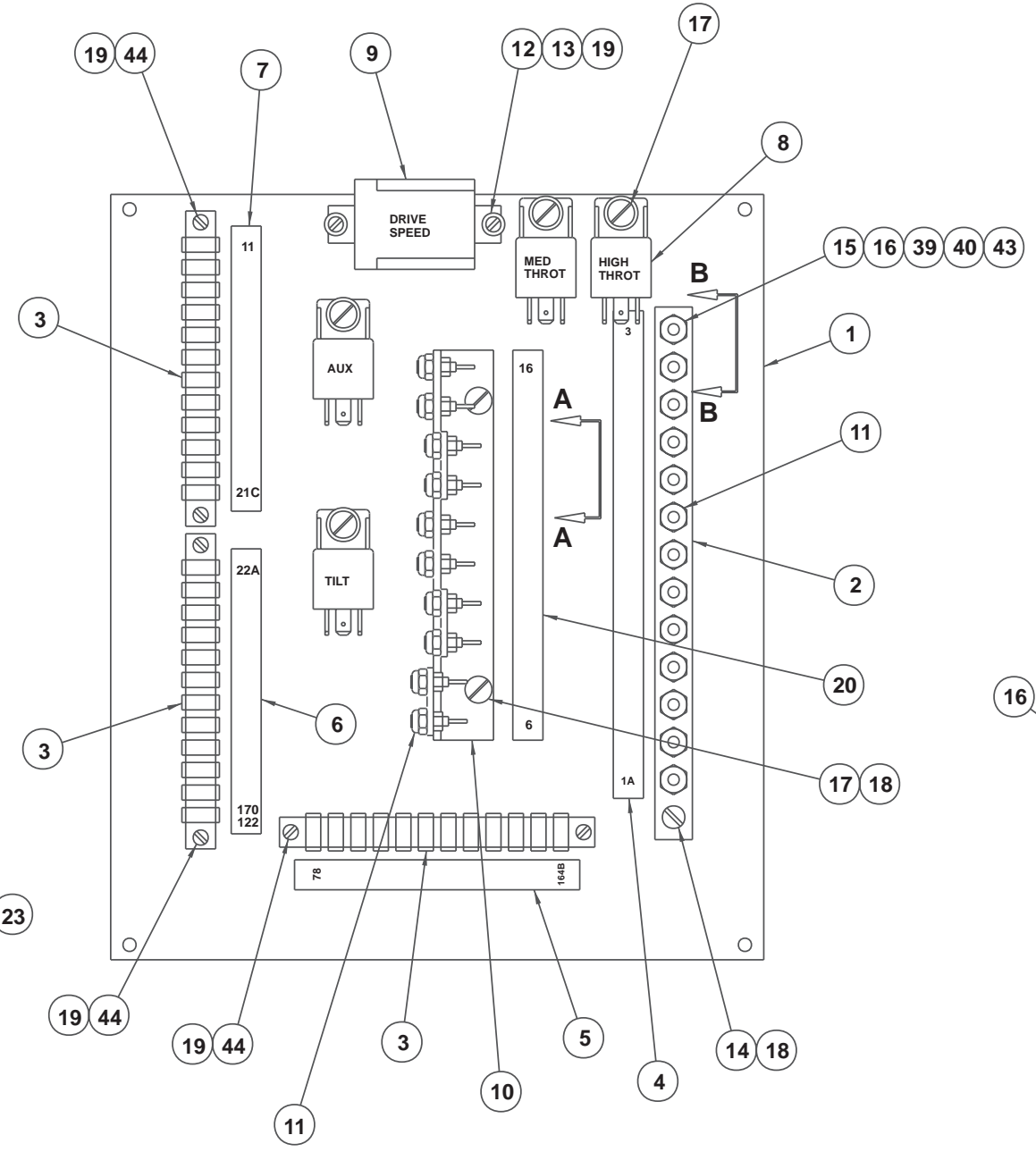
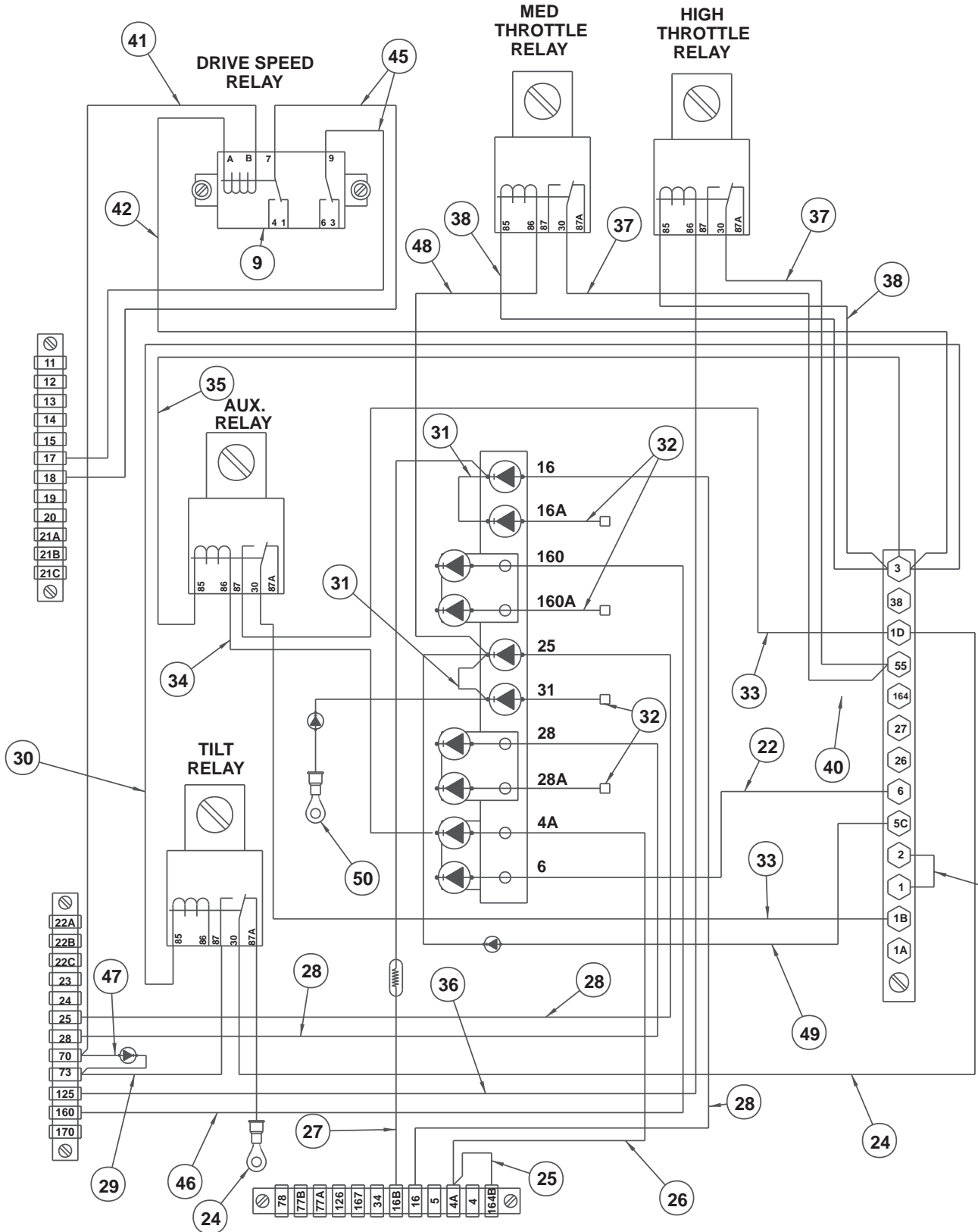
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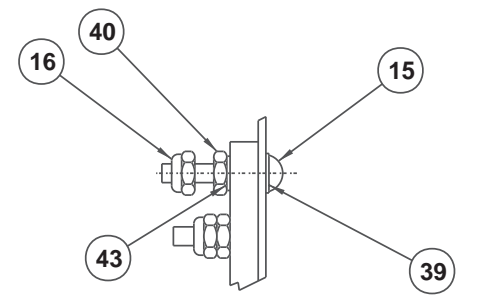
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VIEW A-A



VIEW B-B

AW0112095

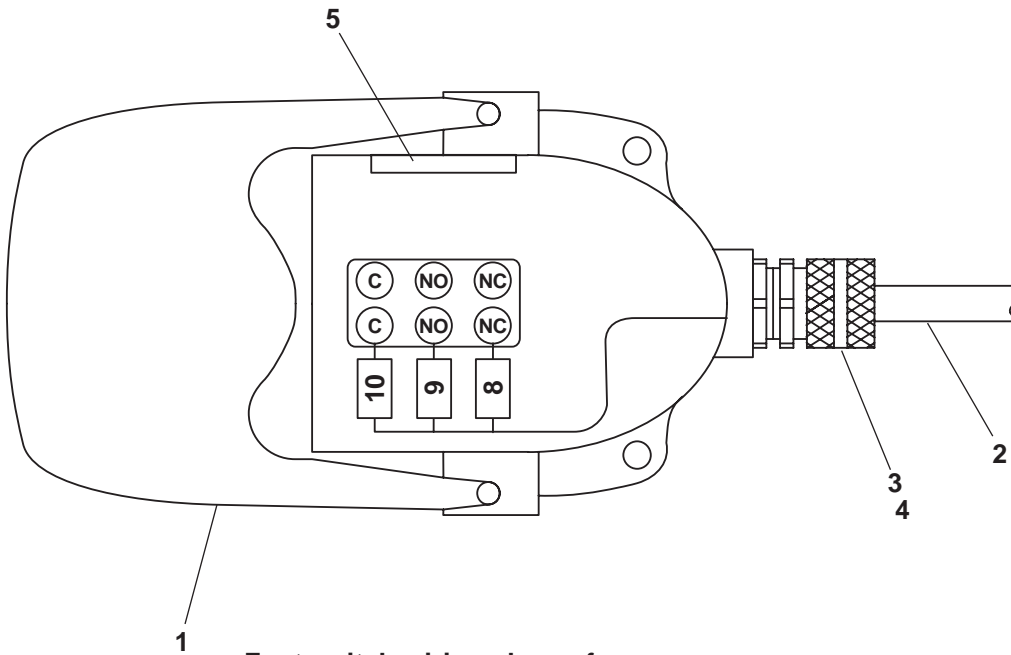
TITLE Wiring box panel  
 Ford LRG-425 wiring box  
 Snorkel model TB80

## Wiring box panel, Ford LRG-425

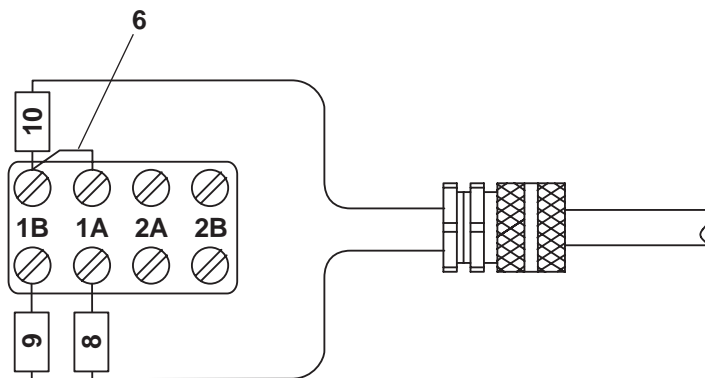
item	part no	qty	description
	0112095	1	Wiring box panel, Ford LRG-425
1	0180796	1	Panel, drilled
2	3044712	1	Terminal strip, 12 circuit #10 stud
3	3040433	3	Terminal strip, 12 circuit .188 tab slip-on
4	0181552	1	Decal, power wire
5	0181553	1	Decal, terminal strip
6	0181107	1	Decal, control wire #2
7	0181106	1	Decal, control wire #1
8	3040469	4	Relay, 12 volt DC
9	3040214	1	Relay, 12 volt DC
10	0150488	1	Diode holder
	3040108		Replacement diode - (order quantity required)
11	5560038	22	Nut #10-32 self locking
12	974239	4	Machine screw #6-32 x 1/2 inch long round head
13	986159	4	Washer #6 medium flat
14	974689	1	Machine screw #10-24 x 3/4 inch long round head
15	974729	1	Machine screw #10-24 x 1-1/4 inch long round head
16	5560034	7	Nut #10-24 self locking
17	5560609	12	Machine screw #10-24 x 1/2 inch long truss head
18	987089	3	Washer #10 medium lock
19	987349	10	Washer #6 medium lock
20	0181554	1	Decal, diode
21	0073631	3	Diode stand off
22	0070681	1	Diode wire - (includes 3040108 diode)
23	0070711	1	Jumper wire
24	0071812	7	Jumper wire
25	0110468	1	Jumper wire
26	0070682	1	Diode wire - (includes 3040108 diode)
27	0181073	1	Resister wire - (5 ohm)
28	0140317	3	Diode wire - (includes 3040108 diode)
29	0151205	1	Jumper wire
30	0081560	1	Jumper wire
31	0070724	2	Jumper wire
32	0181110	4	Diode wire - (includes 3040108 diode)
33	0181031	2	Jumper wire
34	0081559	1	Jumper wire
35	0081515	1	Jumper wire
36	0181030	1	Jumper wire
37	0181136	2	Jumper wire
38	0181111	2	Jumper wire
39	5560654	1	Washer #10 star tooth lock
40	984049	1	Nut #10-24 hex
41	0140323	1	Jumper wire
42	0140332	1	Jumper wire
43	987089	1	Washer #10 medium lock
44	974279	6	Machine screw #6-32 x 3/4 inch long round head
45	0100522	2	Jumper wire
46	0110471	1	Diode wire - (includes 3040108 diode)
47	0170335	1	Diode wire - (includes 3040108 diode)
48	0181113	1	Jumper wire
49	0073253	1	Jumper wire
50	0073252	1	Jumper wire

# Platform foot switch

item	part no	qty	description
1	0071800	1	Platform foot switch
	3020021	1	Foot switch
	3020037	1	Replacement switch, Square D switch
	3020038	1	Replacement switch, Linemaster switch
2	0070596	1	Wire harness, platform foot switch
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)



Foot switch wiring shown for Linemaster switch



Foot switch wiring shown for Square D switch

AW0071800

## Upper control box

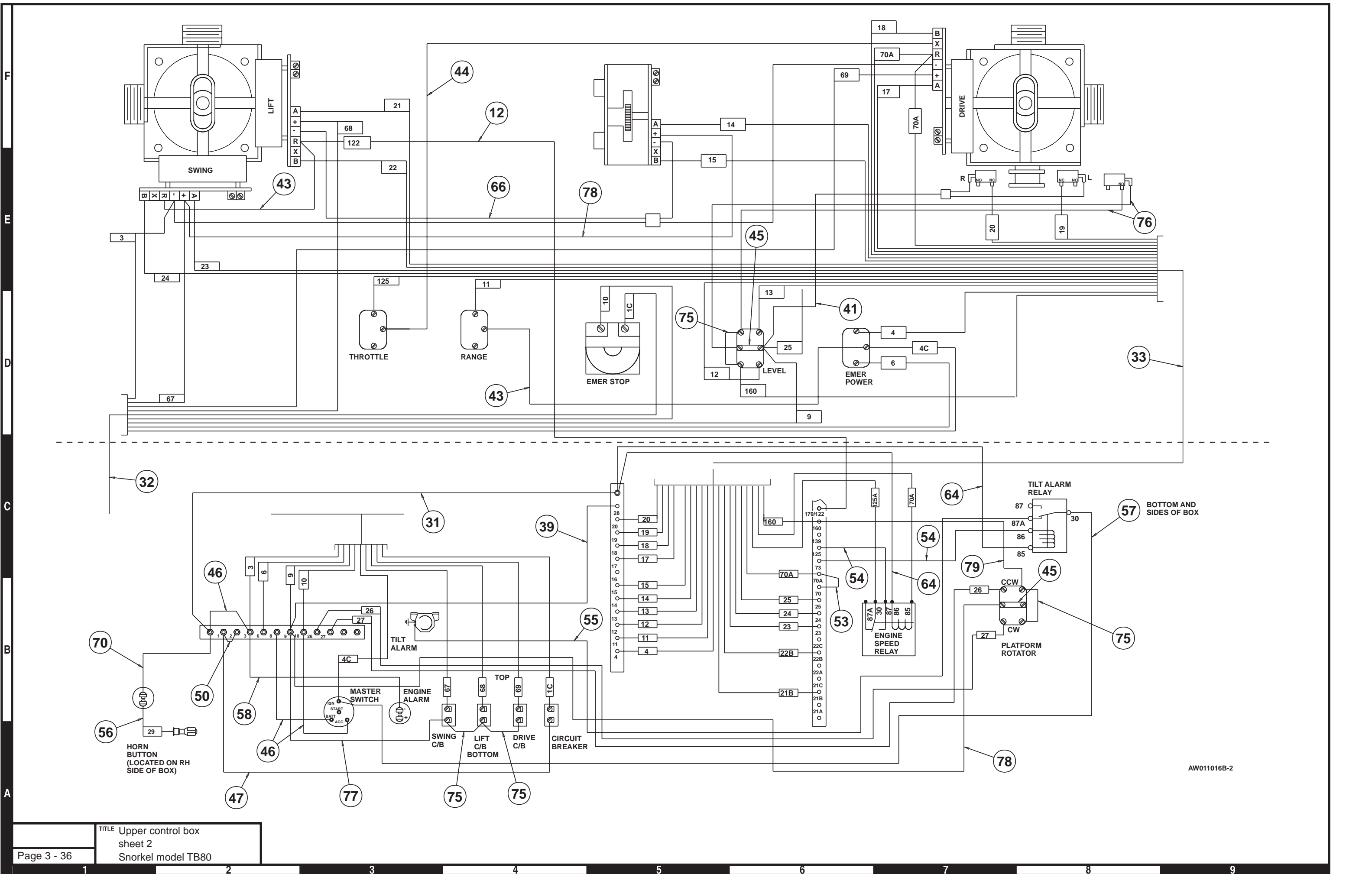
item	part no	qty	description
1	0111928	1	Control box
2	0180846	1	Placard, upper control box front
3	5560663	1	Washer #6 star tooth locking
4	3040068	1	Circuit breaker, 20 amp capacity
5	3020080	1	Switch, toggle
6	3040116	2	Connector
7	3040110	4	Connector locknut
8	3040493	1	Controller, lift/swing - (see page 3-44 for parts breakdown)
9	3040492	1	Controller, drive/steer - (see page 3-40 for parts breakdown)
10	3040285	1	Connector
11	3020018	2	Switch, toggle
12	0101878	1	Jumper wire
13	3020013	2	Switch, toggle
14	5560648	1	Machine screw #10-24 x 3/4 inch long truss head
15	5560034	4	Nut #10-24 self locking
16	0180886	1	Decal, power wire
17	5560038	10	Nut #10-32 self locking
18	3044710	1	Terminal strip, 10 circuit #10 stud
19	3040057	1	Terminal strip, 18 circuit .188 tab slip-on
20	0180887	1	Decal, control wire #1
21	974279	3	Machine screw #6-32 x 3/4 inch
22	986159	4	Washer #6 medium flat
23	987349	4	Washer #6 medium lock
24	984009	4	Nut #6-32 hex
25	3020080	1	Switch, toggle
26	3040469	2	Relay, 12 volt DC
27	3040535	3	Circuit breaker, 3 amp capacity
28	480652	1	Siren, tilt alarm
29	0070967	1	Corrosion inhibitor
30	0072530	1	Decal, danger electrical hazard
31	0151910	1	Jumper wire
32	0180850	1	Wire harness, upper control box power
33	0082007	1	Wire harness, upper control box control
34	3040295	1	Connector
35	3040433	1	Terminal strip, 12 circuit .188 tab slip-on
36	987089	1	Washer #10 medium lock
37	7190001	1	Gasket, weatherproof x 72 inch long
38	0180888	1	Decal, control wire #2
39	0070713	1	Jumper wire
40	974269	1	Machine screw #6-32 x 1 inch long round head
41	0072388	1	Jumper wire
42	986019	2	Washer 1/4 medium flat
43	0070746	2	Jumper wire
44	0070753	1	Jumper wire
45	0060373	2	Jumper strap
46	0070712	3	Jumper wire
47	0181029	1	Jumper wire
48	986009	1	Washer #10 medium flat
49	984069	2	Nut 1/4-20 hex
50	0070711	1	Jumper wire

**Parts list continued on next page**

## Upper control box

item	part no	qty	description
51	5560654	1	Washer #10 star tooth lock
52	984049	1	Nut #10-24 hex
53	0110468	1	Jumper wire
54	0090622	2	Jumper wire
55	0181103	1	Jumper wire
56	0071557	1	Jumper wire
57	0071812	1	Jumper wire
58	0151816	1	Jumper wire
59	3040411	1	Mini siren, engine alarm
60	5560609	2	Machine screw #10-24 x 1/2 inch long truss head
61	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
62	5560004	2	Nut 1/4-20 self locking
63	5569711	1	Grommet
64	0073295	2	Jumper wire
65	5560649	2	Machine screw #10-24 x 1 inch long truss head
66	0110598	1	Jumper wire
67	3026027	1	Switch, push button
68	7140092	1	Switch seal
69	0071269	1	Placard, horn
70	0070733	1	Jumper wire
71	3040525	1	Controller, extend/retract - (see page 3-42 for parts breakdown)
72	0110959	1	Placard, upper control box top
73	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
74	0070922	1	Placard, platform rotation
75	0070747	4	Jumper wire
76	0181028	1	Jumper wire
77	0240483	1	Jumper wire
78	0070758	2	Jumper wire
79	0151556	1	Jumper wire
80	3040116	1	Connector
81	3040110	1	Connector locknut





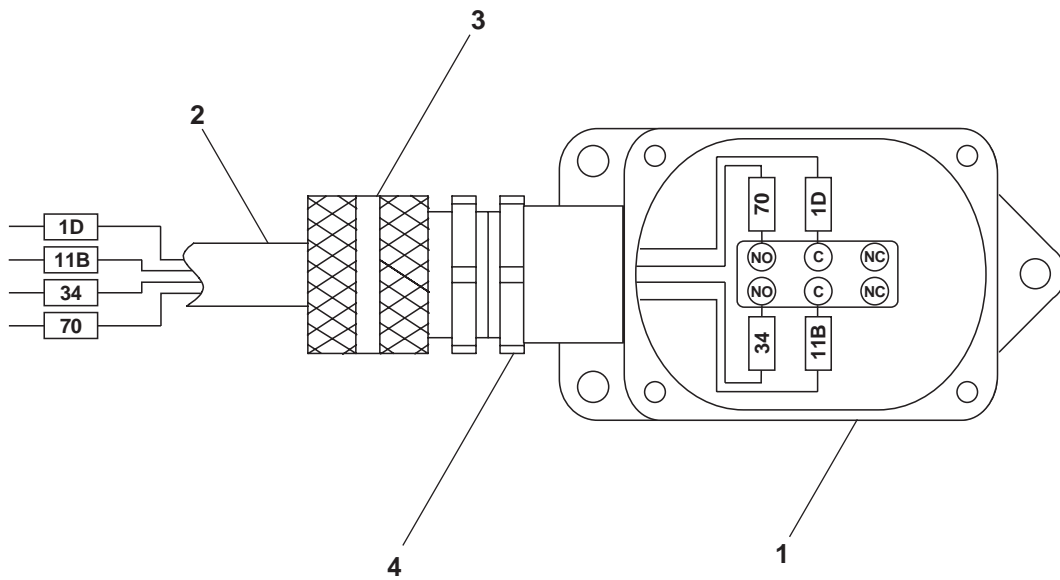
AW011016B-2

TITLE Upper control box  
sheet 2  
Snorkel model TB80



## Boom switch, drive speed

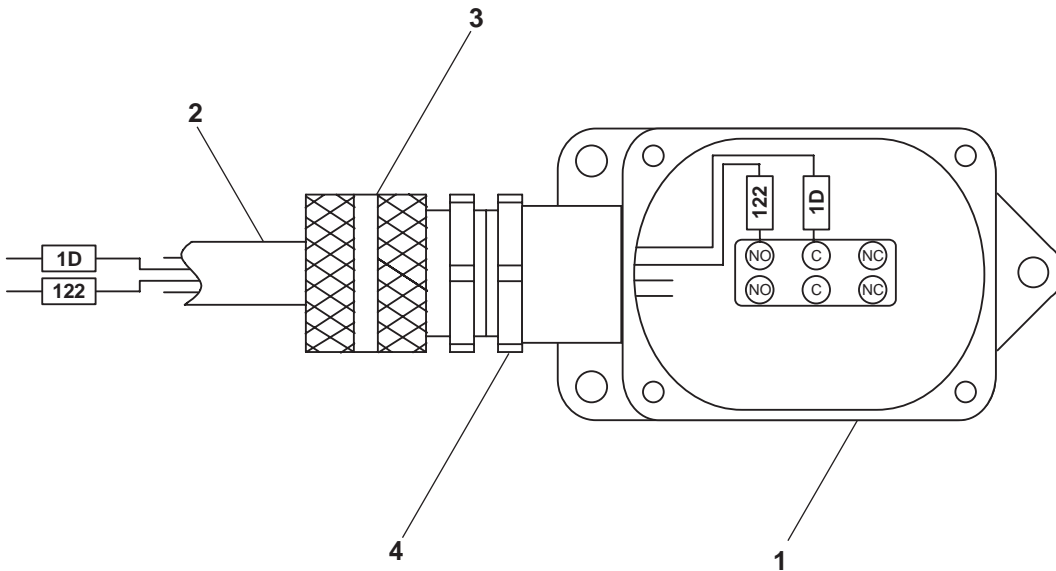
item	part no	qty	description
	0111888	1	Boom switch, drive speed
1	3020019	1	Switch
2	0111890	1	Wire harness, drive speed boom switch
3	3040187	1	Connector
4	3040070	1	Connector locknut



AW011888

## Boom switch, lift/swing speed

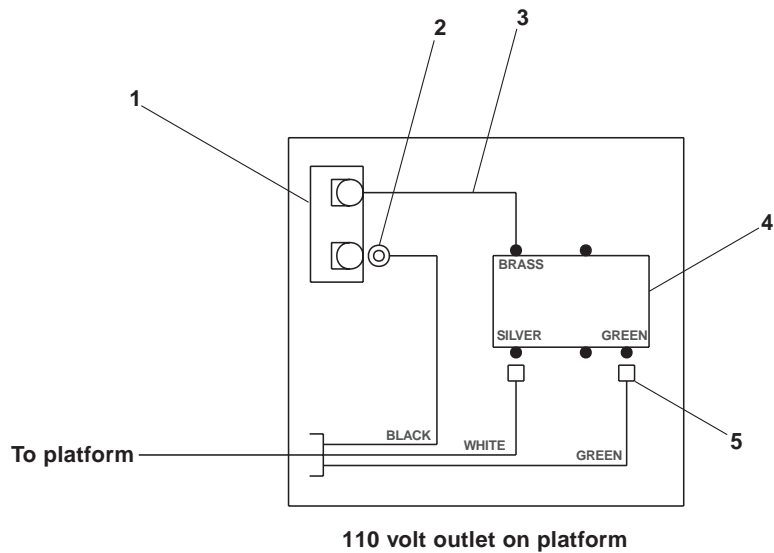
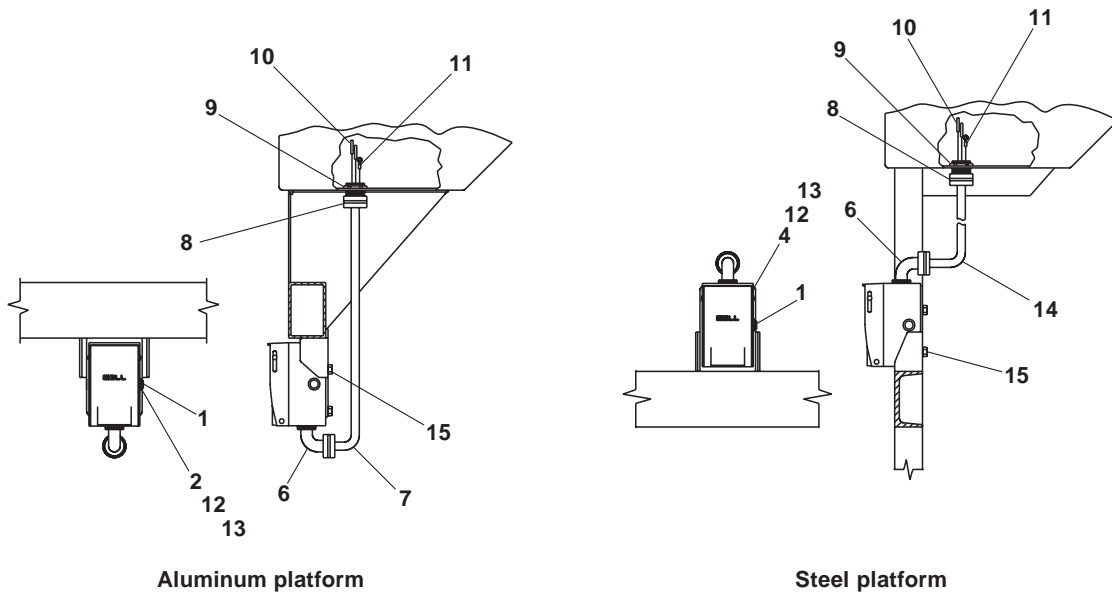
item	part no	qty	description
	0111889	1	Boom switch, lift/swing speed
1	3020019	1	Switch
2	0111891	1	Wire harness, lift/swing speed boom switch
3	3040187	1	Connector
4	3040070	1	Connector locknut



AW011889

## GFCI 110 volt power

item	part no	qty	description
1	3040252	1	Circuit breaker, 15 amp capacity
2	3044854	1	Terminal ring tongue insulated 12/10 wire
3	0071582	1	Jumper wire
4	3040624	1	Electrical outlet, GFCI - 20 amp capacity
5	3040397	2	Terminal #8 spade 12/10 wire
6	3040691	1	Connector
7	0074368	1	Cable, 110 volt power to platform - (used on aluminum platforms only)
8	3040116	1	Connector
9	3040110	1	Connector locknut
10	3044072	2	Terminal butt connector insulated 12/10 wire
11	3044836	1	Terminal ring tongue insulated 12/10 wire
12	0074379	1	Electrical outlet box
13	3040625	1	Cover, GFCI electrical outlet
14	0074369	1	Cable, 110 volt power to platform - (used on steel platforms only)
15	978629	2	Capscrew 1/4-20 x 1/2 inch long hex head self tapping

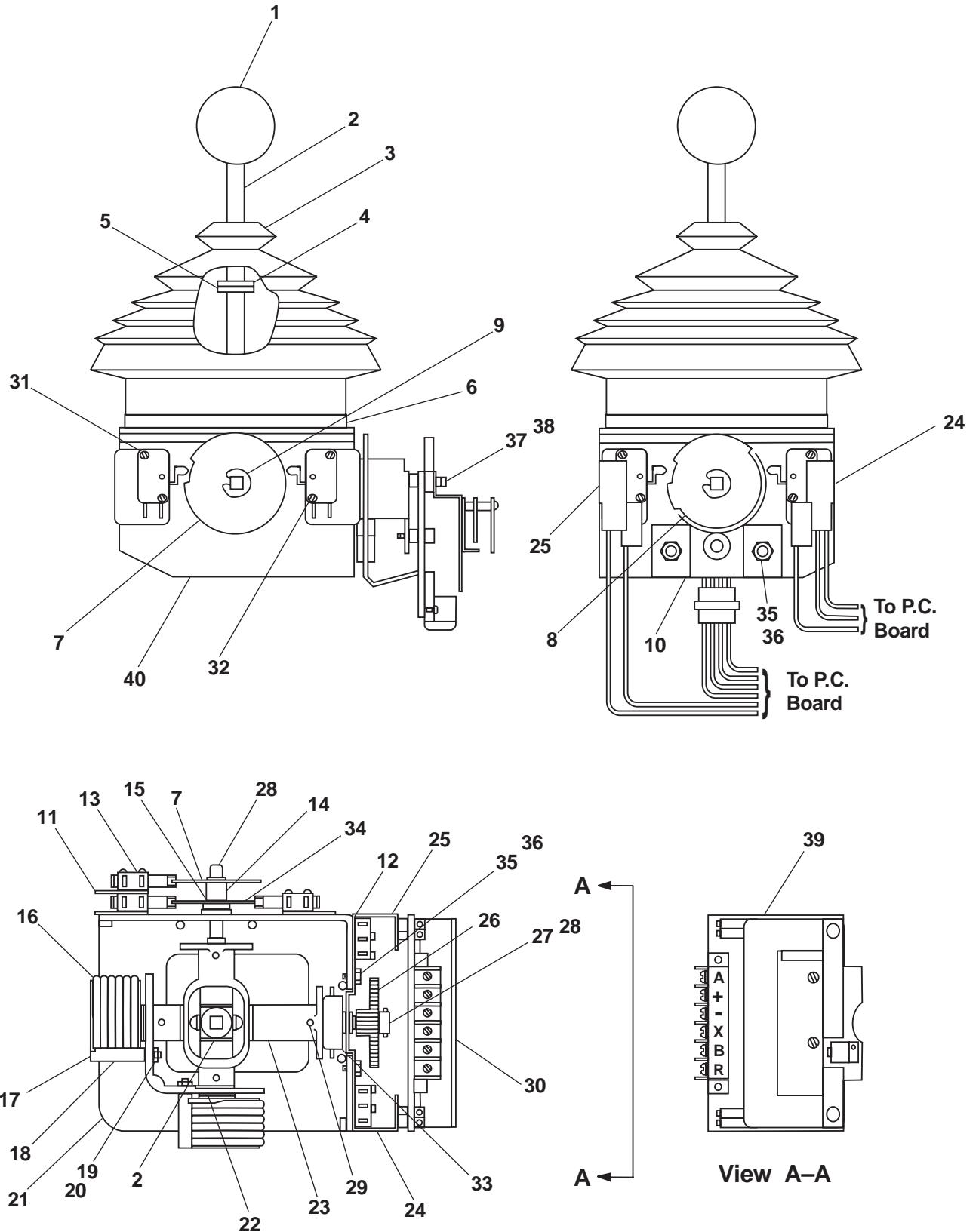


AW007034D

## Controller, drive/steer

item	part no	qty	description
	3040492	1	Controller, drive/steer
1	2660002	1	Knob
2	3040086	1	Shaft
3	3040146	1	Boot
4	8150145	1	Ring
5	8150146	1	Tension clip
6	3040169	1	Boot clamp ring
7	8150147	2	Cam
8	8150009	1	Fixed cam
9	8150135	4	"E" clip
10	8150148	1	Modified bracket
11	8150138	4	Insulator
12	8150139	2	Insulator
13	3020033	6	Microswitch
14	8150136	2	Cam spacer
15	8150149	1	Brass washer
16	8150005	2	Spring return with housing
17	8150004	2	Spring return bolt
18	8150150	2	Washer
19	8150144	2	Washer split 5M black
20	8150143	2	Nut 5M hex
21	8150003	1	Casting, modified
22	3040271	4	Bushing
23	8150094	1	Second axis
24	8150151	1	Bracket, right side
25	8150152	1	Bracket, left side
26	3040073	1	Drive gear
27	3040072	1	Slave gear
28	8150082	2	Blank cam shaft
29	8150013	4	Tension pin
30	8150153	1	Heat sink
31	8150140	4	Screw #4-40 x 1-1/4 inch long
32	8150137	4	Screw #4-40 x 3/4 inch long
33	3040392	1	Pot with bracket and connector
34	8150084	2	Fixed cam
35	8150154	2	Screw metric M4 x 6mm long din 85
36	8150155	2	Washer metric M4
37	8150141	2	Washer metric M3.5 x 16mm long din 85
38	8150156	4	Washer
39	8150142	1	Gate for drive/steer controller
40	3040518	1	Circuit board, 33 Hertz - (trim pots not preset, controller adjustment required)

# Controller, drive/steer

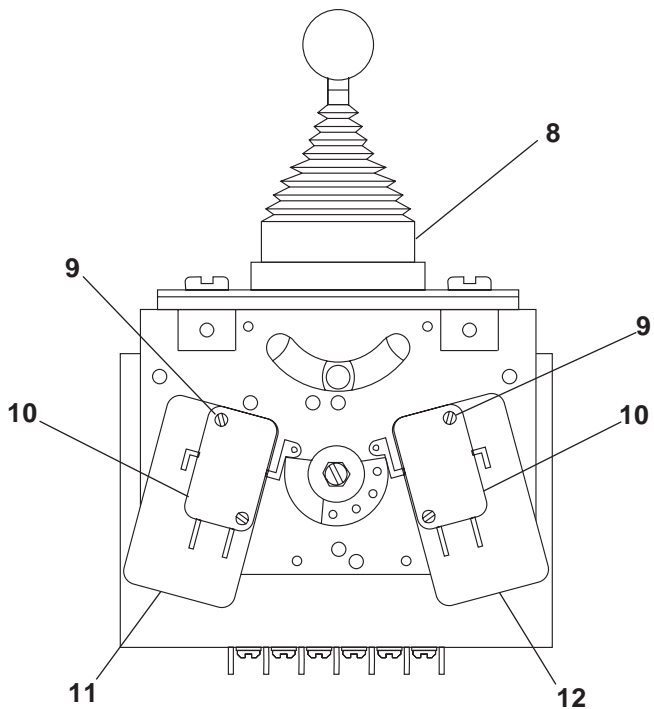
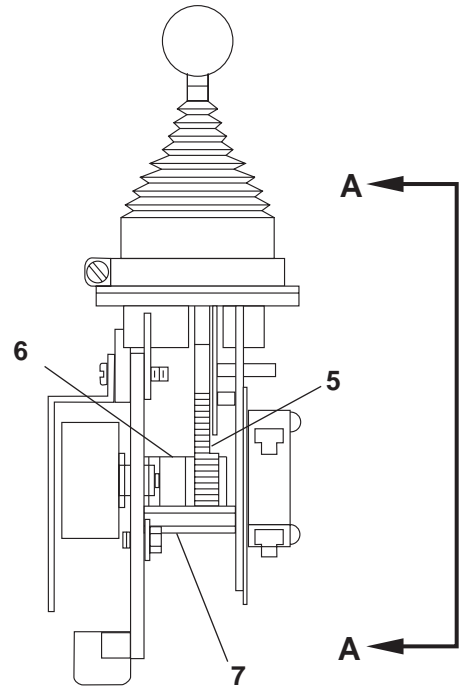
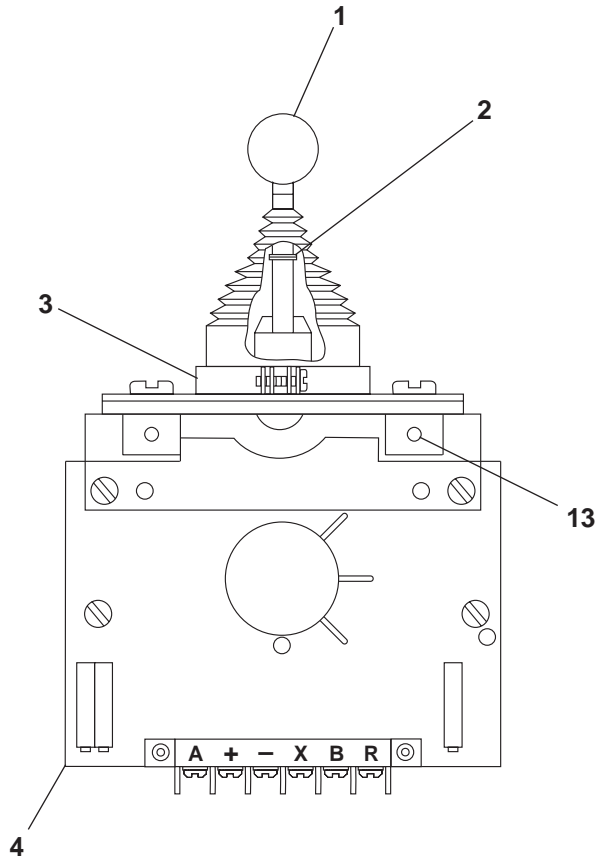


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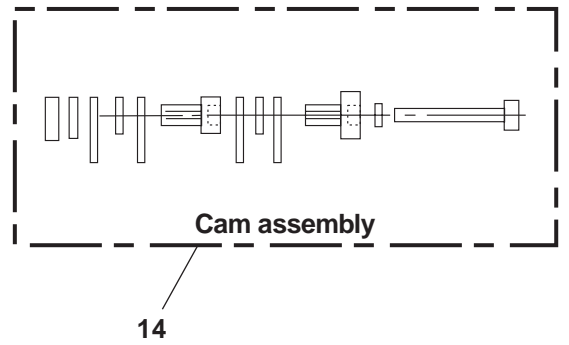
## Controller, extend/retract

item	part no	qty	description
	3040525	1	Controller, extend/retract
1	8150087	1	Knob
2	8150008	1	Tension clip
3	8150090	1	Ring
4	8150210	1	Circuit board
5	8150102	1	Slave gear
6	8150200	1	Coupling
7	8150204	2	Stand-off
8	8150201	1	Boot
9	8150209	2	Screw #4-40 x 7/8 inch long
10	8150202	2	Switch, micro
11	8150072	1	Insulator
12	8150129	1	Insulator
13	8150206	2	Mounting screw metric M3.5 x 12mm long
14	8150208	1	Cam, dual on/off

# Controller, extend/retract



**View A - A**



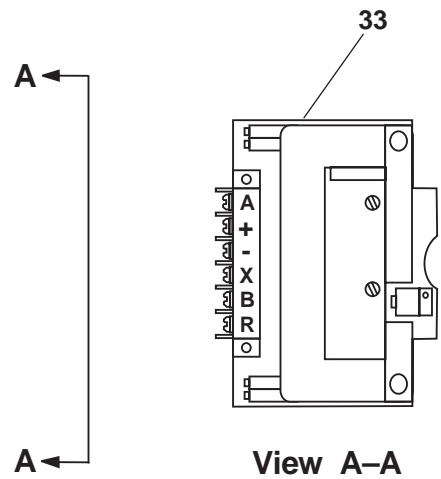
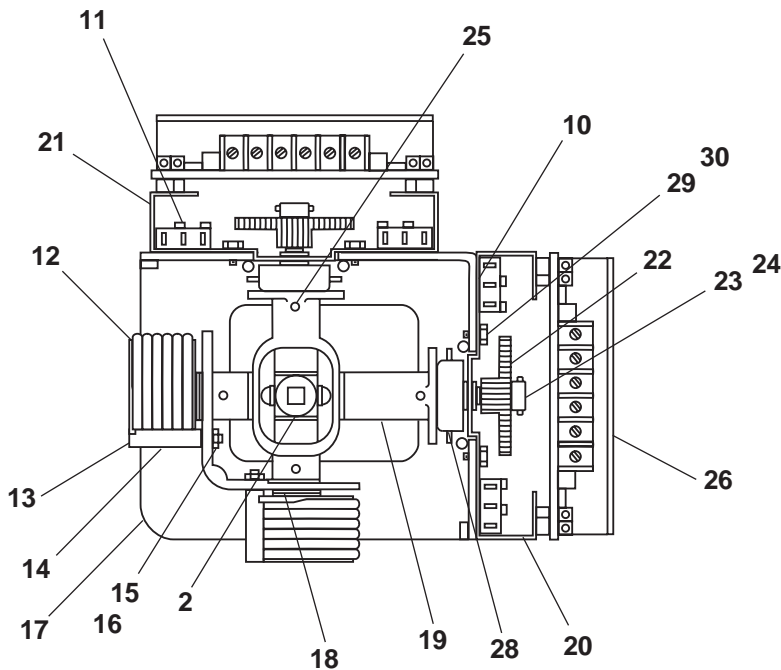
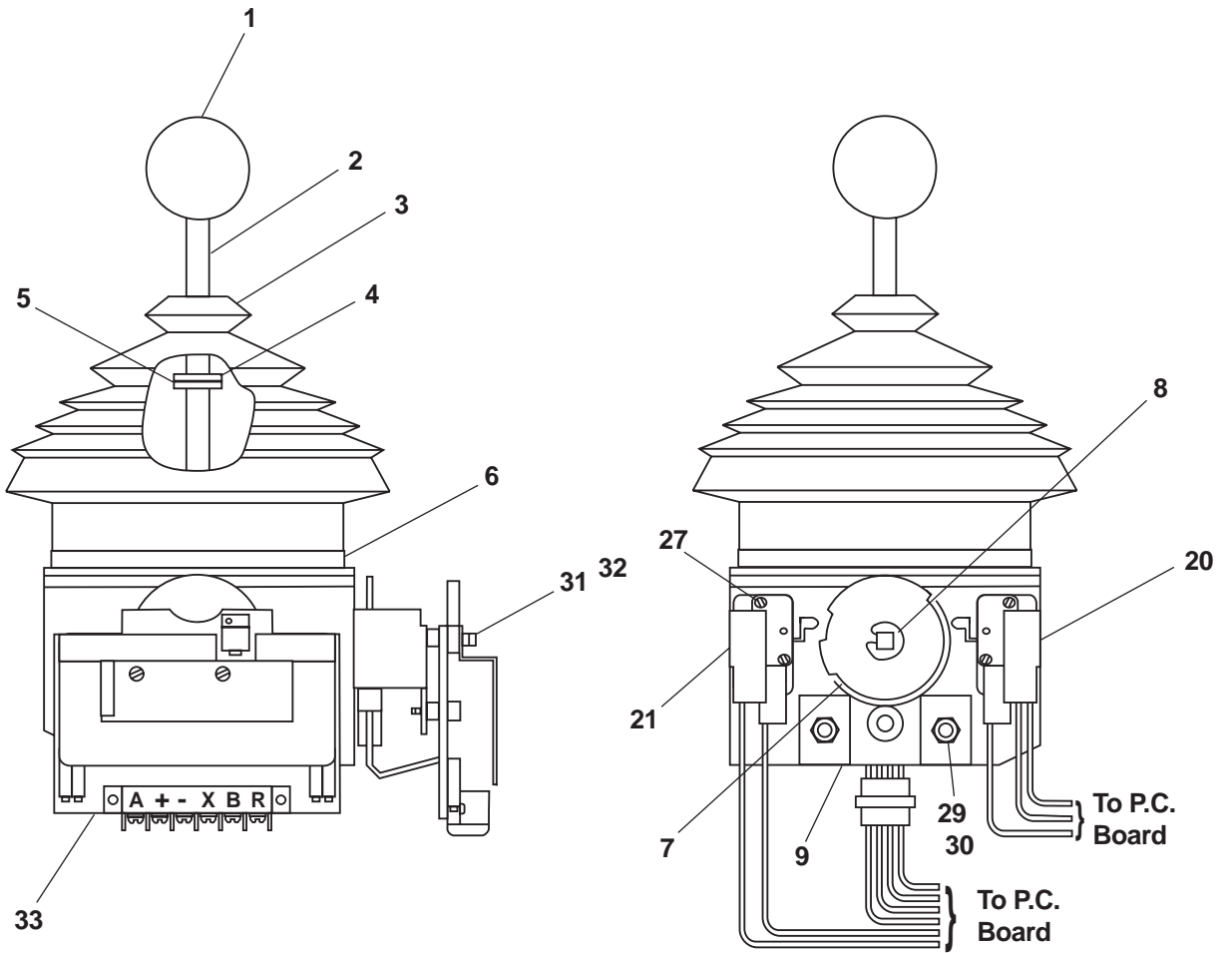
AW3040525

## Controller, lift/swing

item	part no	qty	description
	3040493	1	Controller, lift/swing
1	2660002	1	Knob
2	3040086	1	Shaft
3	3040146	1	Boot
4	8150145	1	Ring
5	8150146	1	Tension clip
6	3040169	1	Boot clamp ring
7	8150009	1	Fixed cam
8	8150135	4	"E" clip
9	8150148	2	Modified bracket
10	8150138	4	Insulator
11	3020033	4	Microswitch
12	8150005	2	Spring return with housing
13	8150004	2	Spring return bolt
14	8150150	2	Washer
15	8150144	2	Washer split 5M black
16	8150143	2	Nut 5M hex
17	8150003	1	Casting, modified
18	3040271	4	Bushing
19	8150094	1	Second axis
20	8150151	2	Bracket, right side
21	8150152	2	Bracket, left side
22	3040073	2	Drive gear
23	3040072	2	Slave gear
24	8150082	4	Blank cam shaft
25	8150013	4	Tension pin
26	8150153	2	Heat sink
27	8150140	8	Screw #4-40 x 1-1/4 inch long
28	3040392	2	Pot with bracket and connector
29	8150154	4	Screw metric M4 x 6mm long din 85
30	8150155	4	Washer metric M4
31	8150141	4	Screw metric M3.5 x 16mm long din 85
32	8150156	8	Washer
33	3040518	1	Circuit board, 33 Hertz - (trim pots not preset, controller adjustment required)



# Controller, lift/swing



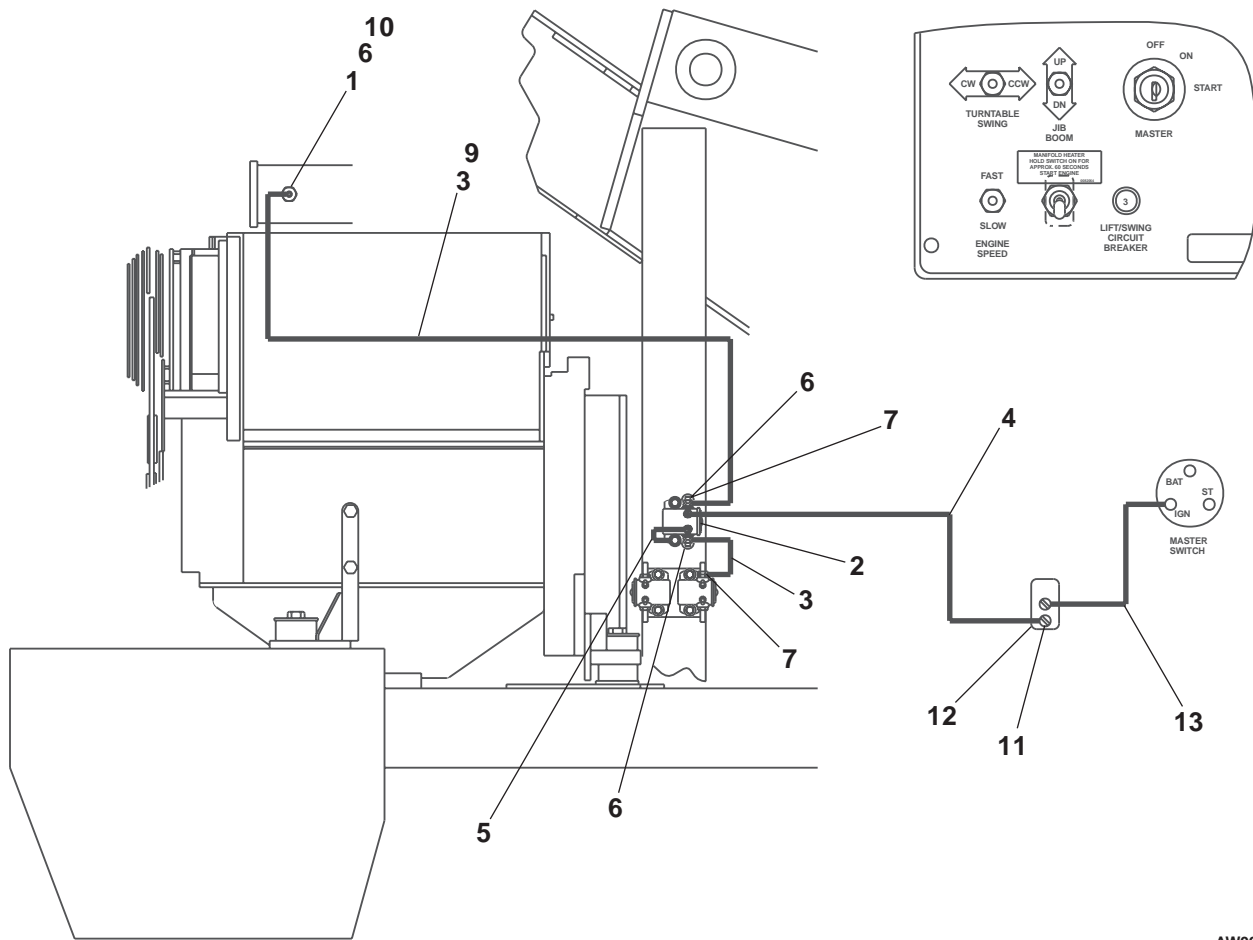
AW3040493





# Air inlet heater, Deutz

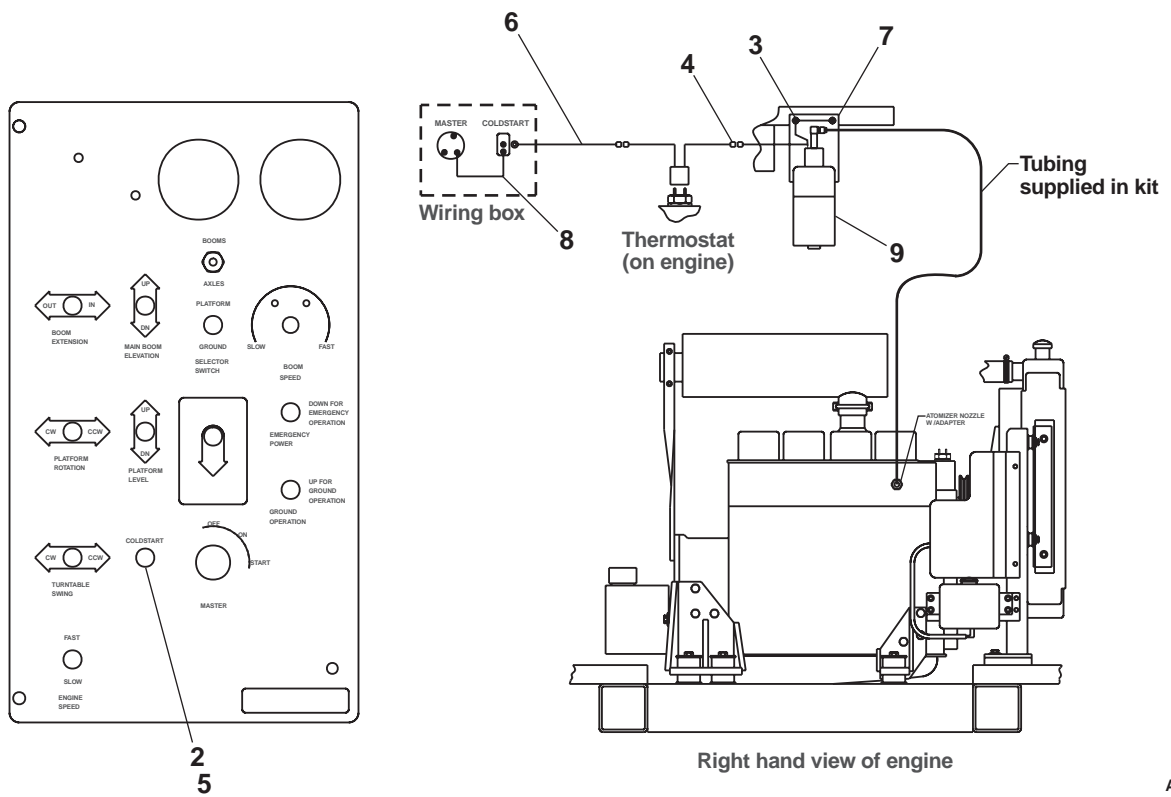
item	part no	qty	description
1	7630215	1	Air inlet heater kit
	8040135	1	Replacement glow plug
2	3040506	1	Solenoid, 12 volt DC
3	3011001	1	Wire, 10 gauge single conductor x 144 inch long
4	3011601	1	Wire, 16 gauge single conductor x 72 inch long
5	0071568	1	Jumper wire
6	3040268	3	Insulator boot
7	3040161	3	Terminal 5/16 stud insulated 8 gauge wire
8	0082064	1	Placard, heater instructions
9	3090006	1	Flexgard tube, 84 inch long
10	3042263	1	Terminal #10 stud insulated 8 gauge wire
11	3044142	1	Terminal #6 stud insulated 22/18 wire
12	3020080	1	Switch, toggle
13	0073781	1	Jumper wire



AW0082058

# Cold start kit, ether

item	part no	qty	description
1	7630014	1	Cold start kit -(kit includes all fittings, nylon tubing and atomizer nozzle - not sold separately)
2	3020080	1	Switch, toggle
3	3044162	1	Terminal 1/4 stud insulated 16/14 wire
4	3040082	1	Terminal .250 tab male fully insulated 16/14 wire
5	0073080	1	Decal, cold start
6	0073056	1	Jumper wire
7	0071699	1	Mounting bracket, cold start
8	0071545	1	Jumper wire
9	9940020	1	Ether cannister

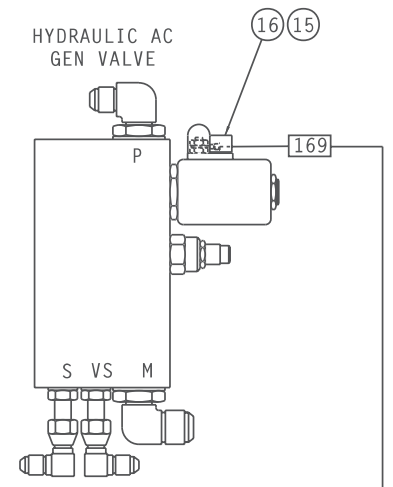
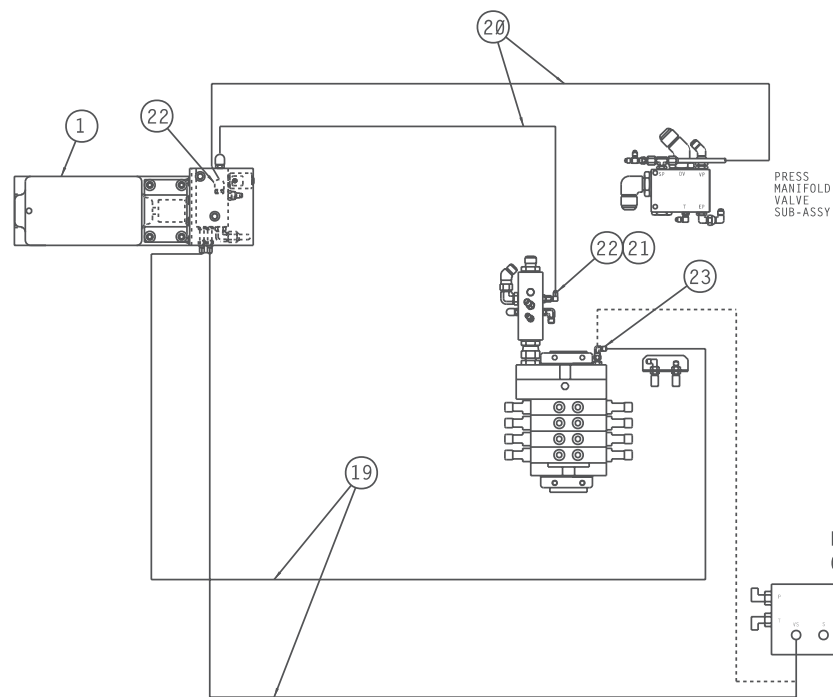


AW0111652

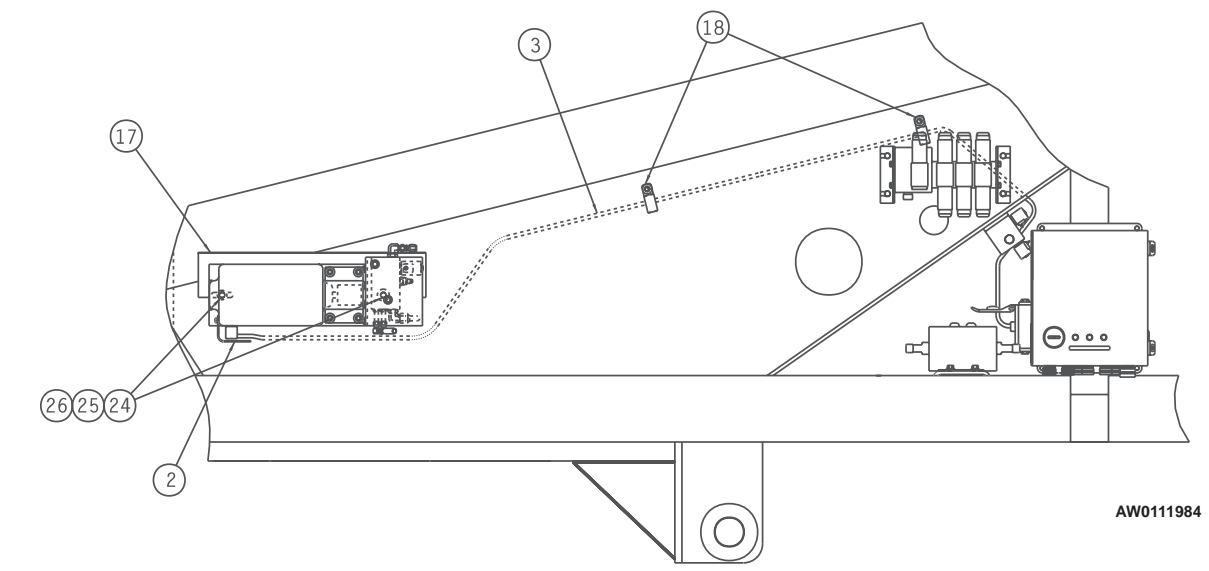
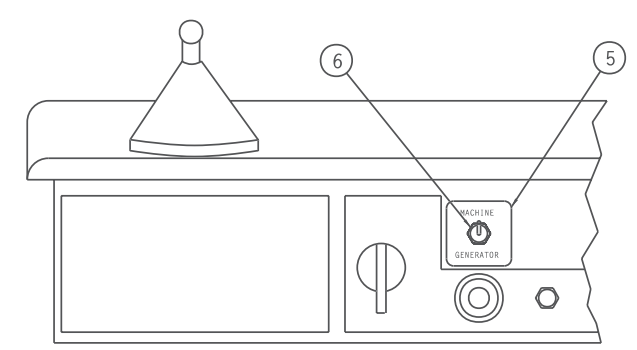
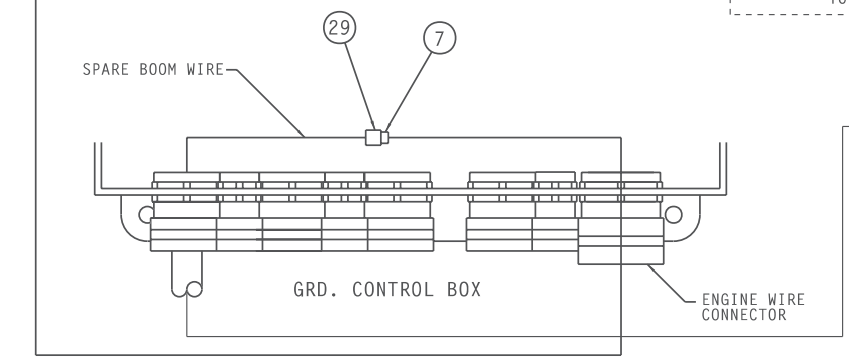
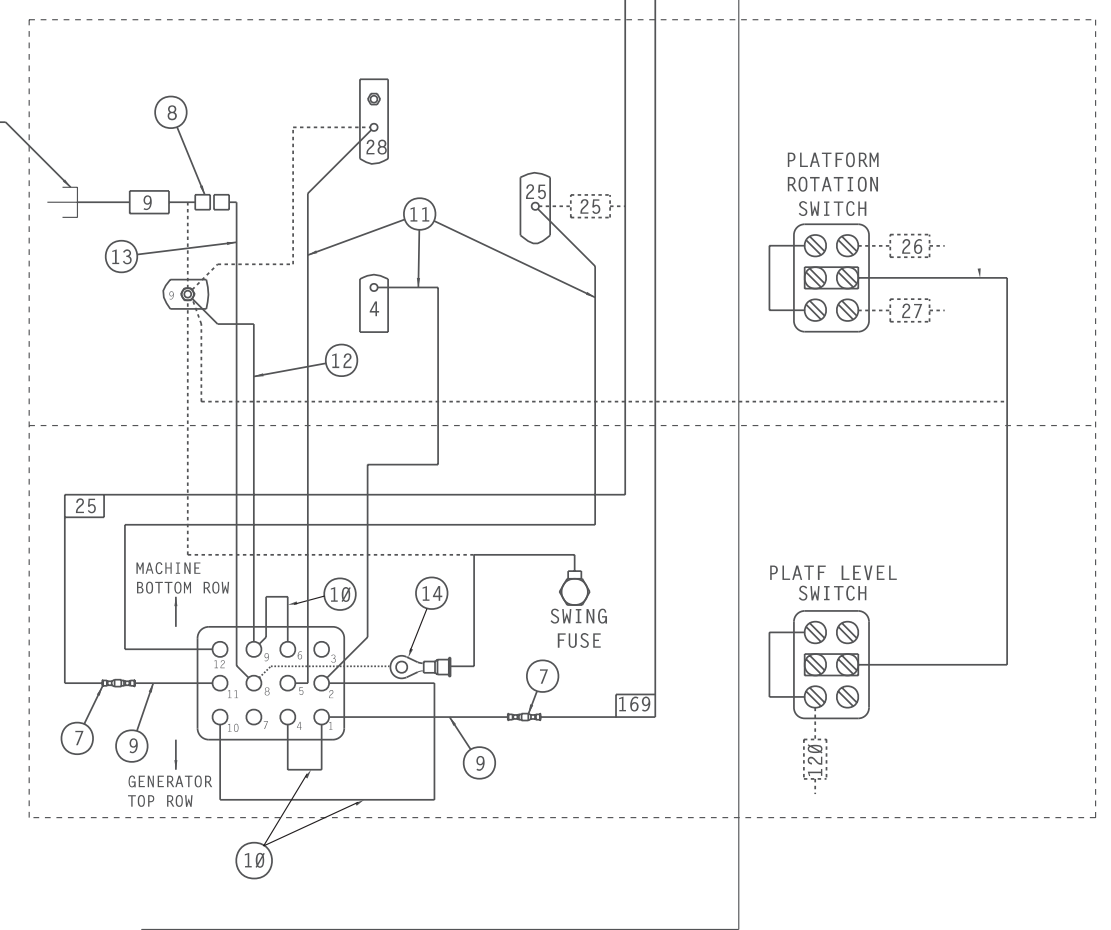
## AC generator mounting

item	part no	qty	description
1	0151471	1	AC generator - (see page 4-7 for parts breakdown
2	0073163	1	Guard, cable retention
3	0112047	1	Cable, 110 volt power AC generator
4	0151583	1	Start-up and test procedure
5	0151459	1	Placard, AC generator
6	3020048	1	Switch, toggle
7	3040046	3	Terminal .250 tab male slip-on fully insulated 22/18 wire
8	3040064	1	Terminal .250 tab male slip-on fully insulated 12/10 wire
9	0090757	2	Jumper wire
10	0070747	3	Jumper wire
11	0071517	3	Jumper wire
12	0071541	1	Jumper wire
13	0181187	1	Jumper wire
14	3044145	1	Terminal #8 stud insulated 22/18 wire
15	3044146	1	Terminal #10 stud insulated 22/18 wire
16	3040452	1	Insulator boot
17	0073543	1	Shield
18	5093012	2	Hose clamp
19	0100271	2	1/4 inch hydraulic hose
20	0080362	2	3/8 inch hydraulic hose
21	5065708	1	Straight thread adapter
22	5037005	2	Swivel nut 90° elbow
23	5037003	1	Swivel nut 90° elbow
24	970479	1	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
25	987109	1	Washer 5/16 medium lock
26	986299	1	Washer 3/8 medium flat
27	5560033	1	Nut 3/8-16 self locking
28	970269	1	Capscrew 5/16-18 x 1-1/4 inch long hex head grade 5
29	3040047	1	Terminal .250 tab female slip-on fully insulated 22/18 wire
30	986269	1	Washer 5/16 medium flat

F  
E  
D  
C  
B  
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INTERNAL WIRE ASSY



PLATFORM BOX

AW0111984

1 2 3 4 5 6 7 8 9

F

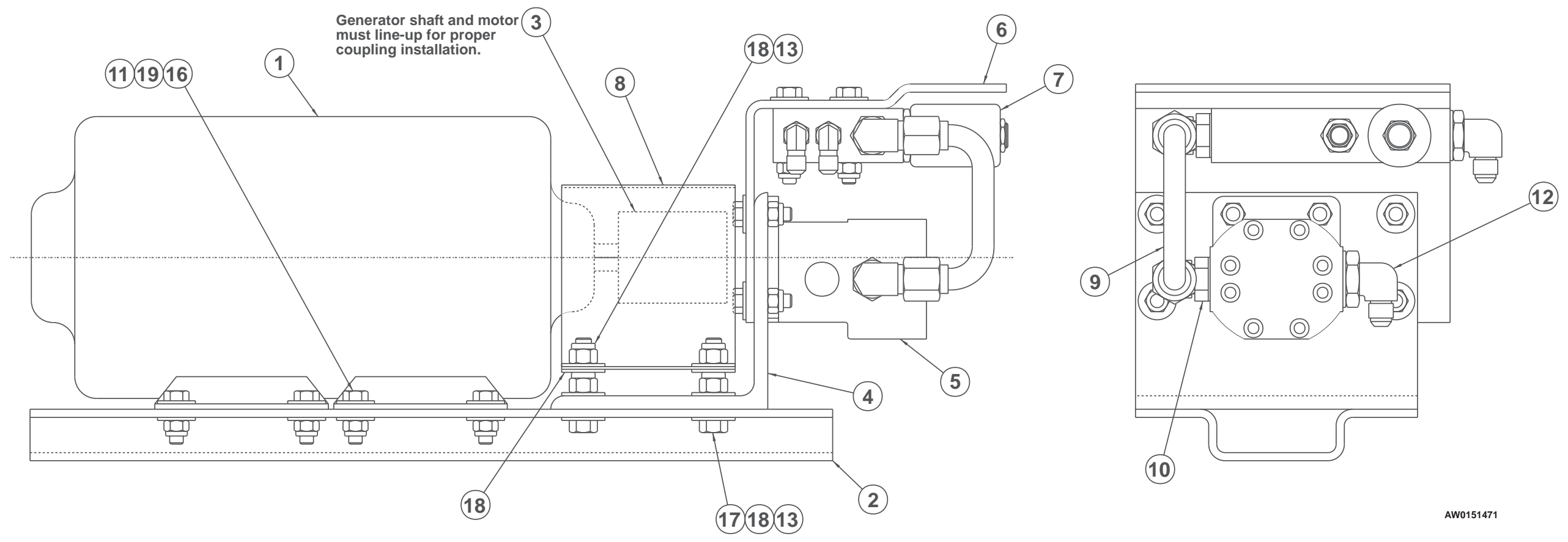
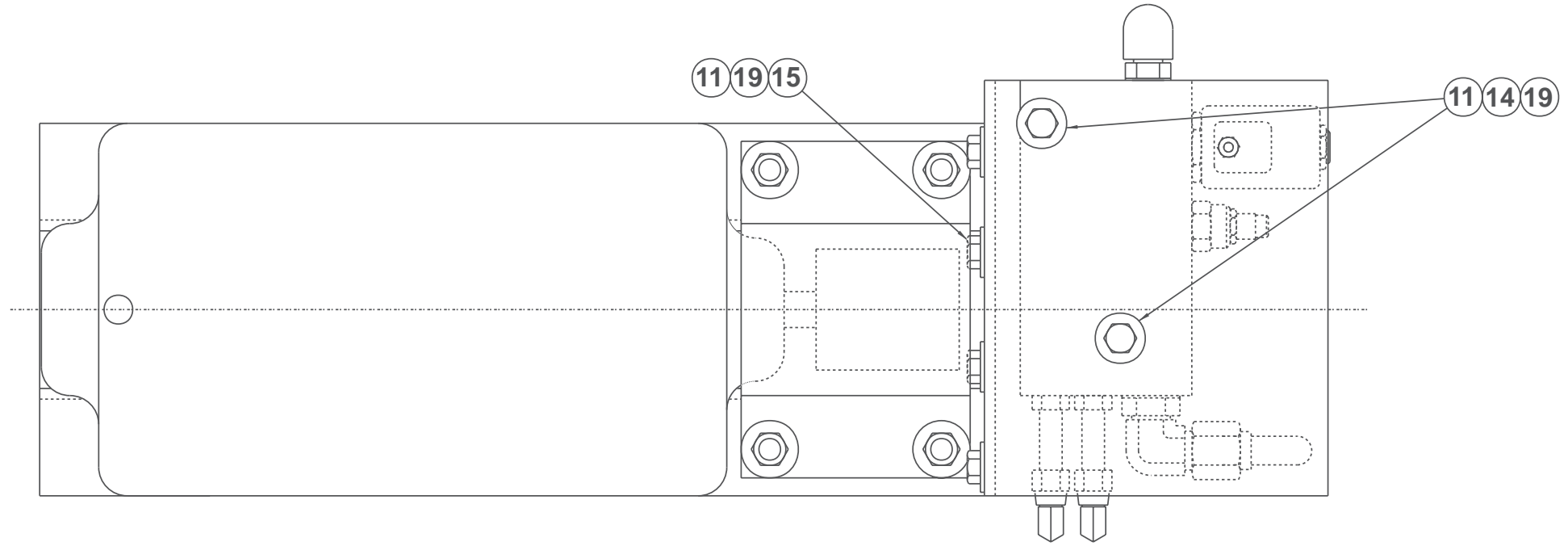
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AW0151471



## AC generator

item	part no	qty	description
	0151471	1	AC generator
1	3080001	1	Generator, AC hydraulic powered
2	0151457	1	Mount plate
3	7240012	1	Coupling
4	0151458	1	Motor mounting angle
5	6030029	1	Hydraulic motor, AC generator
	8020018	1	Seal repair kit
6	0151469	1	Bracket, valve mounting
7	0152831	1	AC generator valve - (see page 2-35 for parts breakdown)
8	0151484	1	Coupling cover
9	0151470	1	1/2 inch hydraulic tube
10	5035306	1	Straight thread 90° elbow
11	5560031	18	Nut 5/16-18 self locking
12	5035320	1	Straight thread 90° elbow
13	5560033	8	Nut 3/8-16 self locking
14	970299	2	Capscrew 5/16-18 x 2 inch long hex head grade 5
15	970269	8	Capscrew 5/16-18 x 1-1/4 inch long hex head grade 5
16	970369	8	Capscrew 5/16-18 x 1 inch long hex head grade 5
17	970499	4	Capscrew 3/8-16 x 1-3/4 inch long hex head grade 5
18	986299	12	Washer 3/8 medium flat
19	986269	30	Washer 5/16 medium flat

## Air line to platform

item	part no	qty	description
1	5240002	1	Hose reel
2	0111094	1	Air hose, 70 feet long
3	5550021	4	Cable guide, 4 roller
4	0080749	2	Cable guide bracket, base boom
5	0111112	1	Cable guide bracket, intermediate boom
6	5093004	2	Hose clamp
7	5560082	1	Trim lock, 1/4 inch x 4 inch long
8	0111091	2	Hose bracket, tip boom
9	0080759	1	Angle
10	970849	2	Capscrew 1/2-13 x 1-1/4 inch long hex head grade 5
11	970426	10	Capscrew 3/8-16 x 7/8 inch long hex head grade 5
12	986359	4	Washer 1/2 medium flat
13	987119	14	Washer 3/8 medium lock
14	5093012	1	Hose clamp
15	5560039	4	Nut 1/2-13 self locking
16	970909	2	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
17	970049	8	Capscrew 1/4-20 x 1 inch long hex head grade 5
18	972489	4	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
19	986019	3	Washer 1/4 medium flat
20	5560004	6	Nut 1/4-20 self locking

F

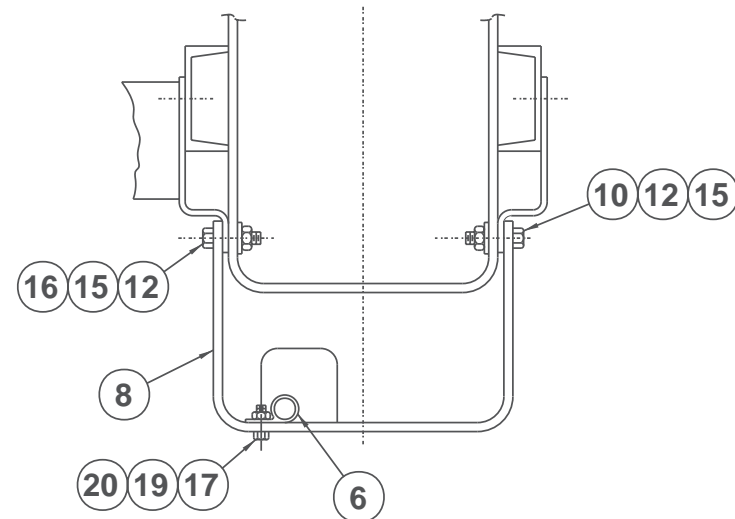
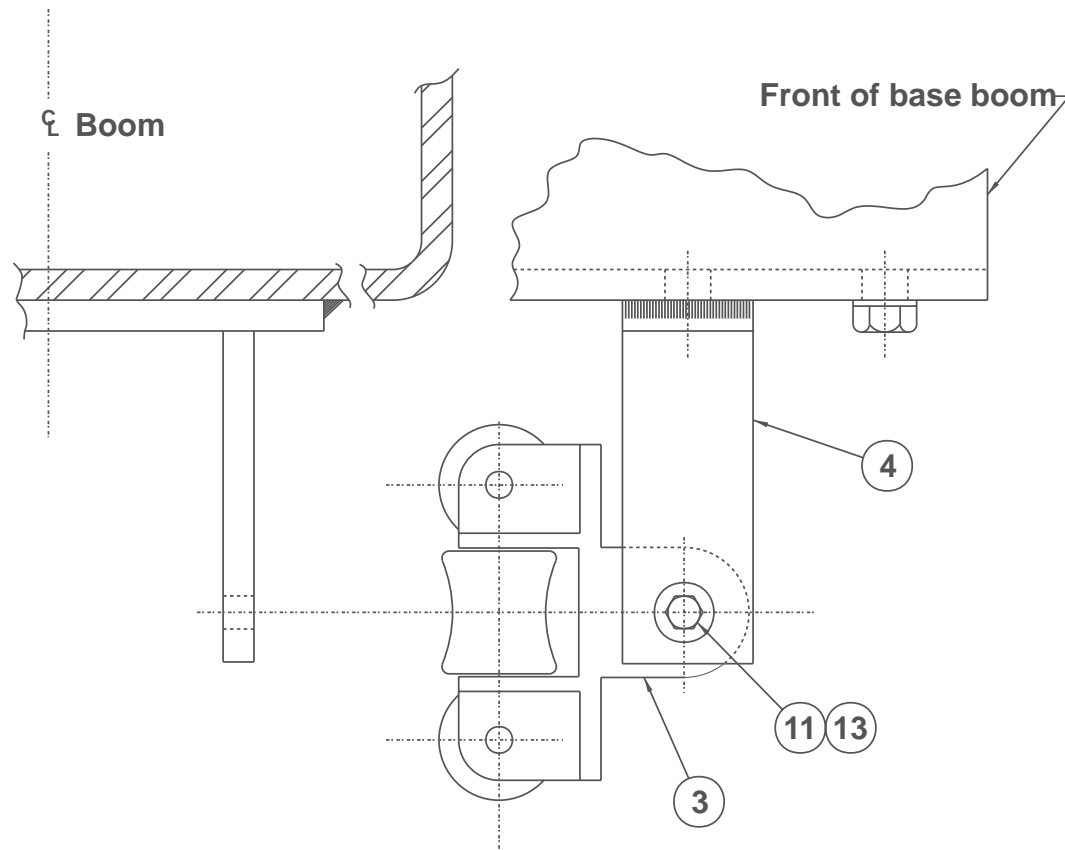
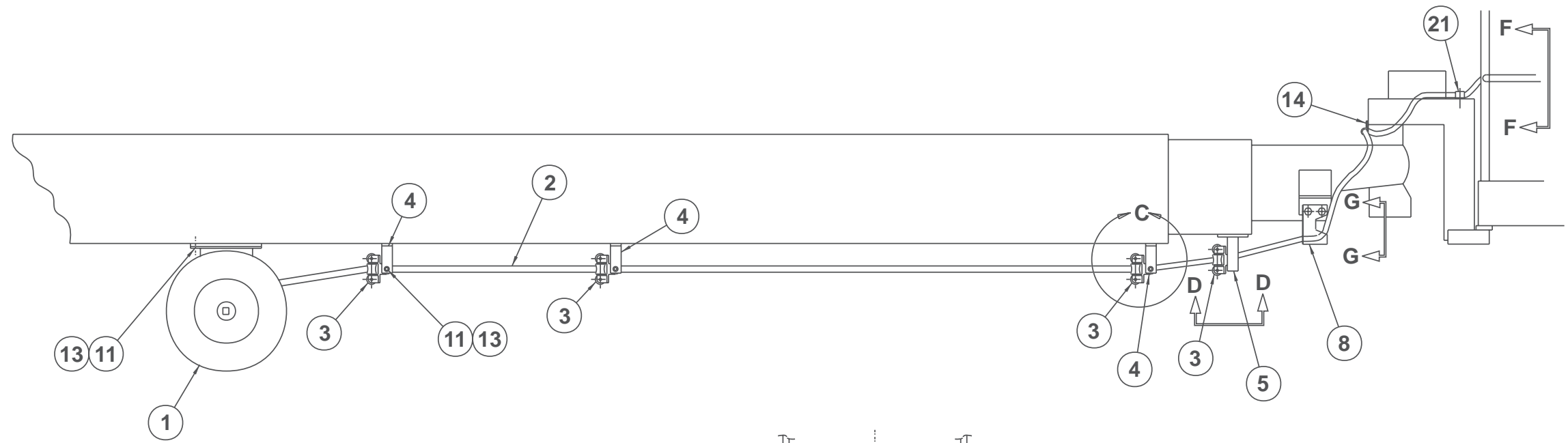
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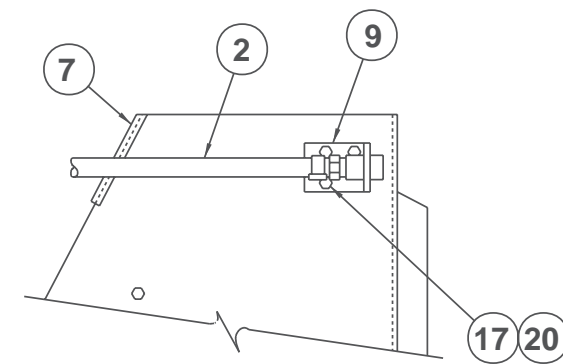
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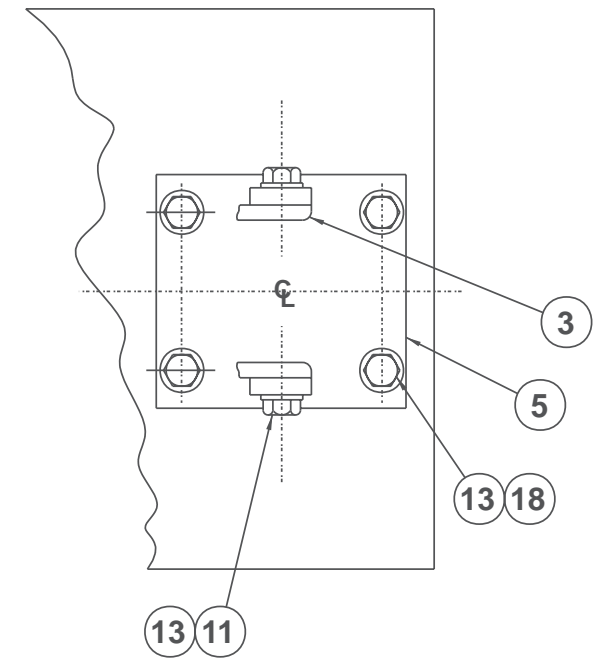


View G-G



Hydraulic rotator

View F-F



View D-D

AW0111090

TITLE	Air line to platform	
	Snorkel model TB80	
		Page 4 - 9

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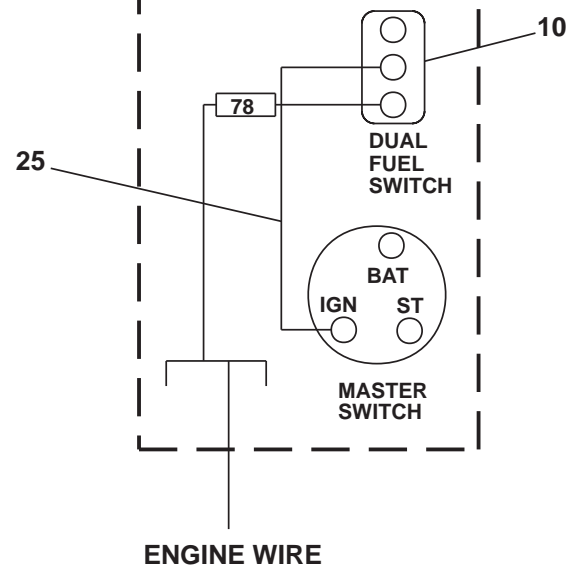
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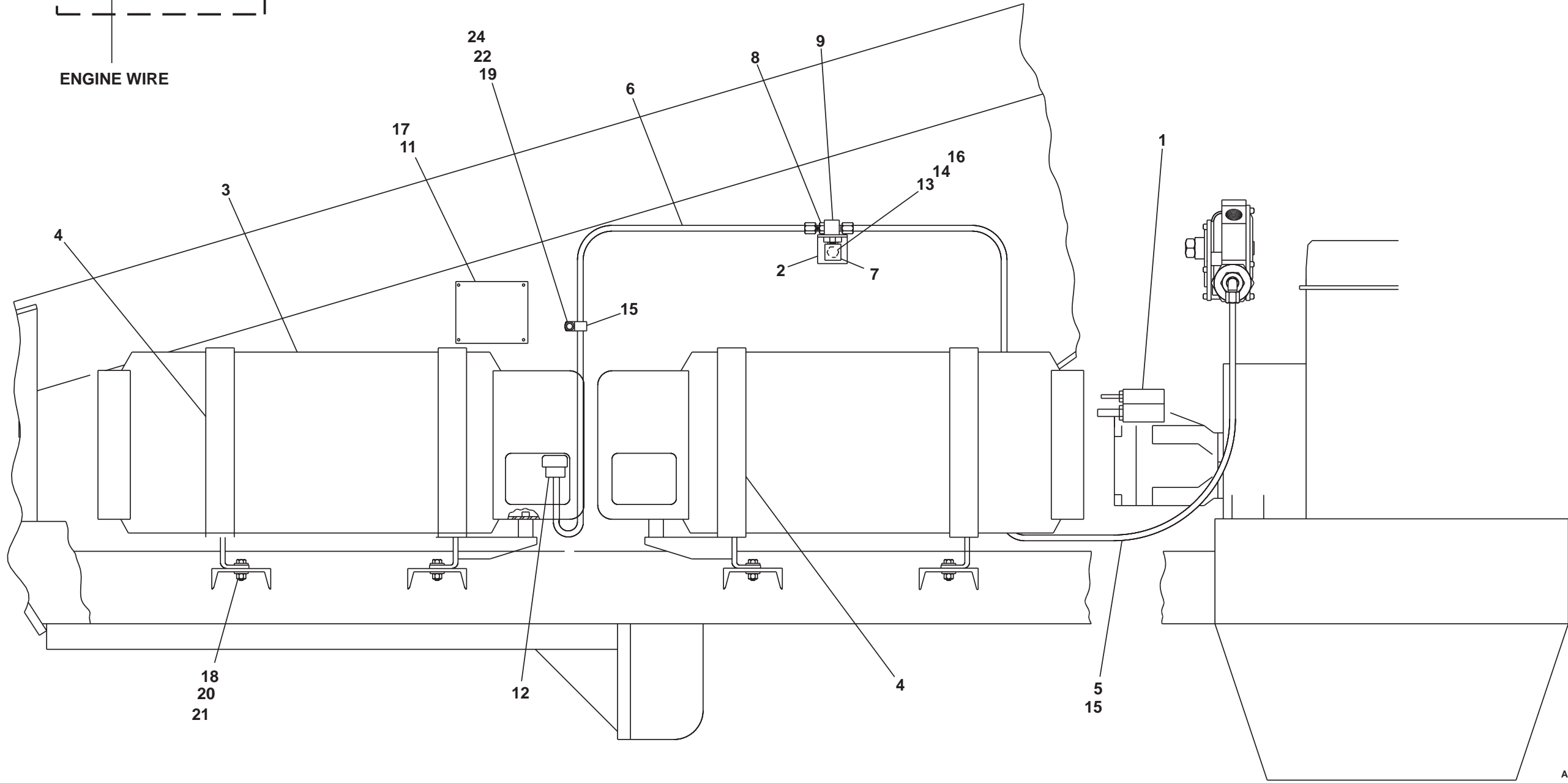
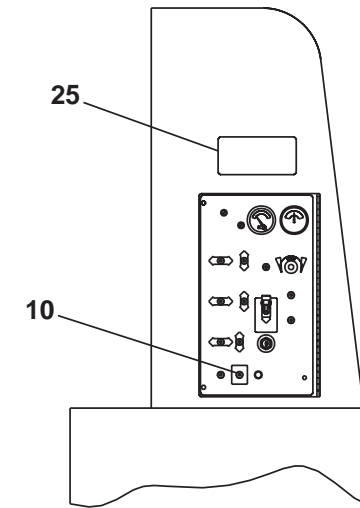
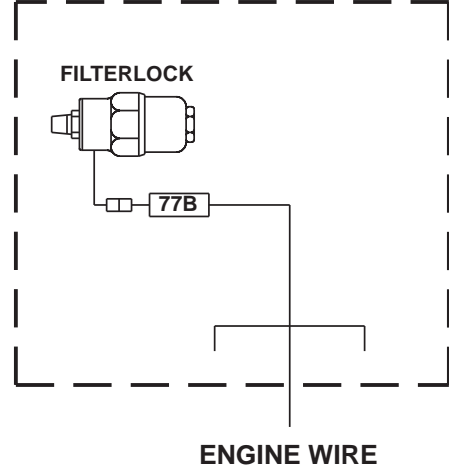
B

A

LOWER CONTROL PANEL



FORD ENGINE



AWA11048A

TITLE Dual fuel  
Ford LRG-425  
Snorkel model TB80

Page 4 - 10

1 2 3 4 5 6 7 8 9

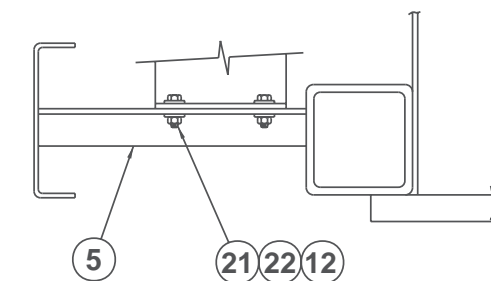
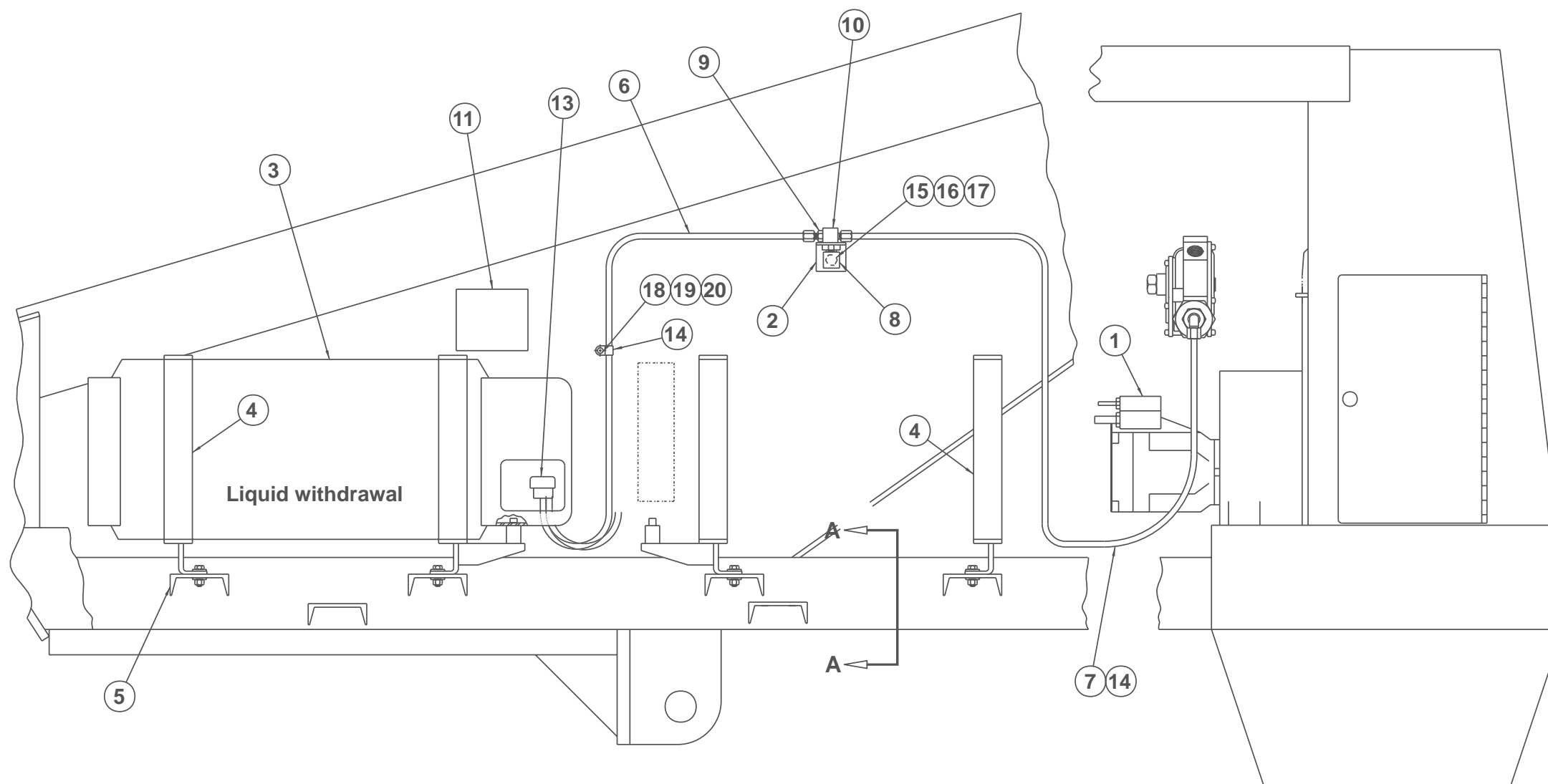
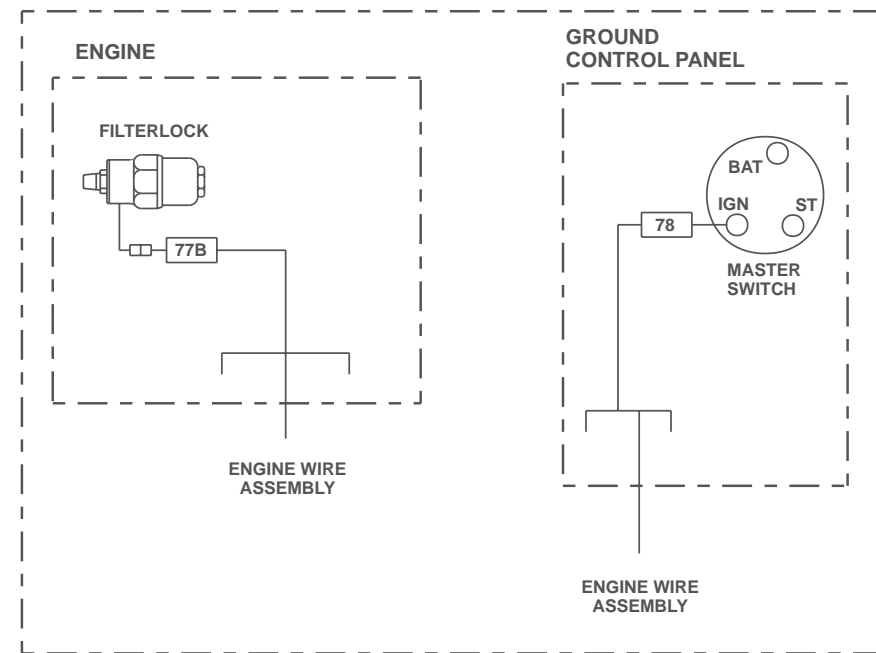
## Dual fuel, Ford LRG-425

item	part no	qty	description
1	0112100	1	Dual fuel engine, Ford LRG-425 - (see page 4-14 for parts breakdown)
2	0080668	1	Relief valve mount bracket
3	9940018	1	LP gas cylinder, liquid withdrawal 43.5 lb capacity
4	0070969	1	Bracket, LP gas cylinder - (includes left and right hand brackets)
5	0072177	1	LP gas fuel hose
6	0080676	1	LP gas fuel hose
7	Kit item	1	Hydrostatic relief valve - (included in dual fuel kit 0073444)
8	Kit item	1	Straight thread adapter 1/4 NPT brass - (included in dual fuel kit 0073444 )
9	Kit item	1	Bulkhead tee - (included in dual fuel kit 0073444)
10	3020013	1	Switch, toggle
11	0081441	1	Decal, caution liquid withdrawal
12	0070974	1	Coupler, female LPG
13	986269	1	Washer 5/16 medium flat
14	5560031	1	Nut 5/16-18 self locking
15	5093004	2	Clamp
16	970369	1	Capscrew 5/16-18 x 1 inch long hex head grade 5
17	5560655	4	Pop rivet #AD32-ABS
18	5560033	8	Nut 3/8-16 self locking
19	986019	1	Washer 1/4 medium flat
20	972489	8	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
21	986299	8	Washer 3/8 medium flat
22	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
23	3044158	1	Terminal #6 stud insulated 16/14 wire
24	5560004	1	Nut 1/4-20 self locking
25	0151815	1	Jumper wire

## LP fuel only, Ford LRG-425

item	part no	qty	description
1	0112100		Dual fuel engine, Ford LRG-425 - (see page 4-14 for parts breakdown)
2	0080668	1	Relief valve mount bracket
3	9940005	1	LP gas cylinder, liquid withdrawal 43.5 lb capacity
4	0070969	1	Bracket, LP gas cylinder - (includes left and right hand brackets)
5	0072135	4	Channel support, LP gas cylinder
6	0080676	1	LP gas fuel hose
7	0072117	1	LP gas fuel hose
8	Kit item	1	Hydrostatic relief valve - (included in dual fuel kit 0073444 )
9	Kit item	1	Straight thread adapter 1/4 NPT brass - (included in dual fuel kit 0073444 )
10	Kit item	1	Bulkhead tee - (included in dual fuel kit 0073444 )
11	0081441	1	Decal, caution liquid withdrawal
12	986299	8	Washer 3/8 medium flat
13	0070974	1	Coupler, female LPG
14	5093002	3	Hose clamp
15	970369	1	Capscrew 5/16-18 x 1 inch long hex head grade 5
16	5560031	1	Nut 5/16-18 self locking
17	986269	1	Washer 5/16 medium flat
18	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
19	984069	1	Nut 1/4-20 hex
20	987099	1	Washer 1/4 medium lock
21	972489	8	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
22	5560033	8	Nut 3/8-16 self locking
23	986299	8	Washer 3/8 medium flat

ENGINE FORD LRG-425



VIEW A-A

AW0082686

TITLE LP fuel only Ford LRG-425 Snorkel model TB80	Page 4 - 13
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F  
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1 2 3 4 5 6 7 8 9



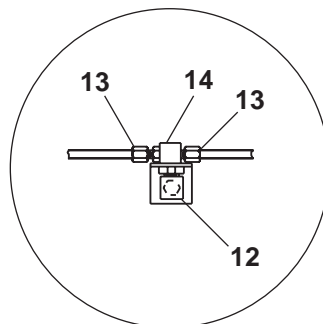
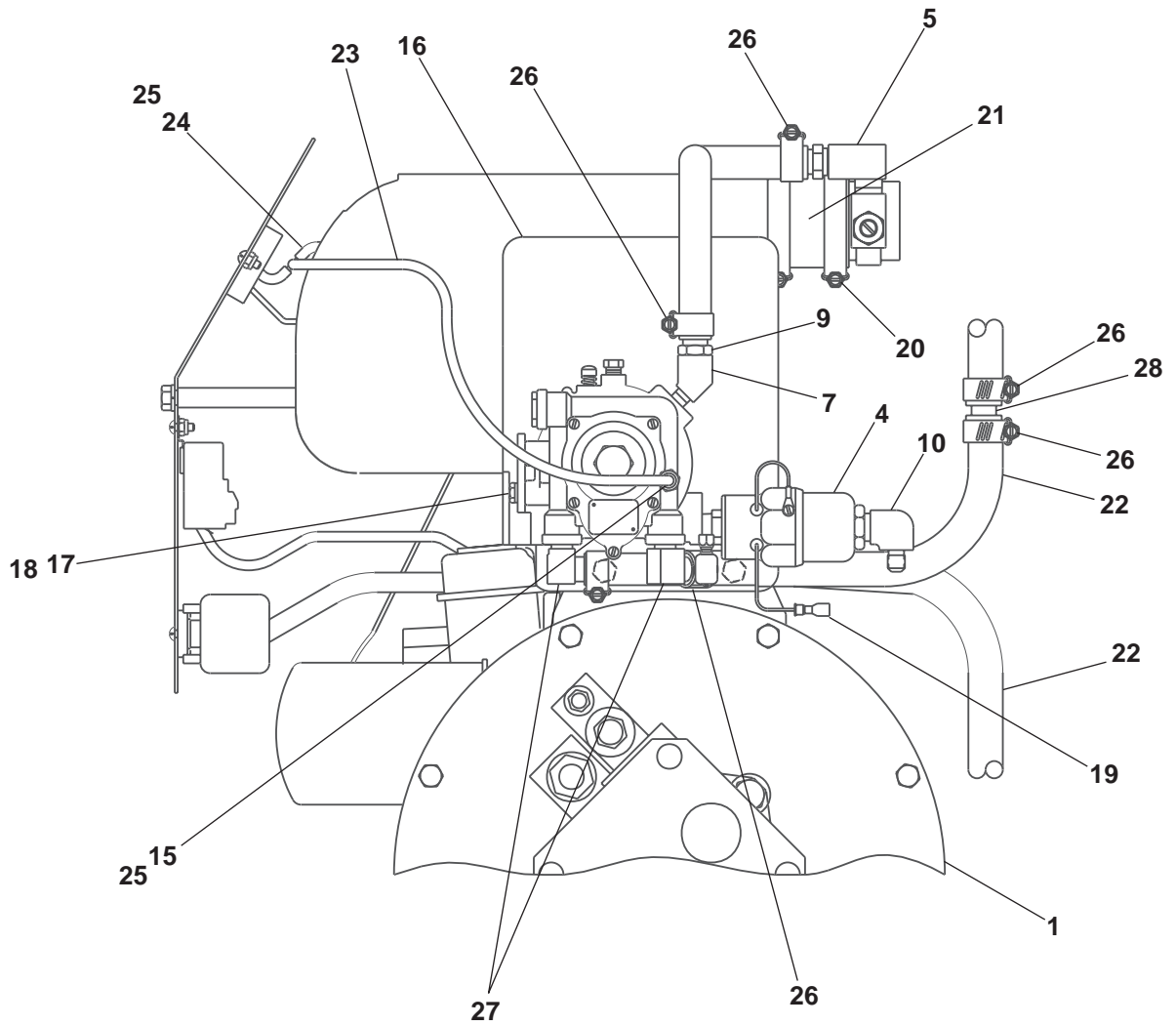




## Dual fuel engine, Ford LRG-425

item	part no	qty	description
	0112100	1	Dual fuel engine, Ford LRG-425
1	0112083	1	Engine, Ford LRG-425
2	0073444	1	Dual fuel kit, liquid cooled - (kit includes items 3 through 14)
3	8020009	1	Regulator
4	8020036	1	Filter lock
5	Kit item	1	Hose adapter - (not sold separately)
6	Kit item	1	LP hose, 5/8 inch diameter x 24 inch long - (not sold separately)
7	Kit item	2	Street 3/8 NPT 90° elbow, brass - (not sold separately)
8	Kit item	2	Street 1/4 NPT 90° elbow, brass - (not sold separately)
9	Kit item	2	Connector 3/8 NPT to 5/8 inch hose, brass - (not sold separately)
10	Kit item	1	Male 1/4 NPT to -6 SAE 90° elbow, brass - (not sold separately)
11	Kit item	1	Street tee 1/8 NPT brass - (not sold separately)
12	Kit item	1	Hydrostatic relief valve - (not sold separately)
13	Kit item	2	Straight thread adapter 1/4 NPT brass - (not sold separately)
14	Kit item	1	Bulkhead tee - (not sold separately)
15	5090024	1	Vacuum fitting 1/8 NPT brass straight
16	0111862	1	Mount plate
17	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
18	987099	2	Washer 1/4 medium lock
19	3040083	1	Terminal .250 tab female fully insulated 16/14 wire
20	5550030	2	Clamp
21	7630327	1	Hose 2 inch flame resistant x 2 inch long
22	5010020	1	Fuel hose, 5/8 inch diameter x 48 inch long
23	5010007	1	Vacuum hose, 3/16 inch diameter x 12 inch long
24	5090044	1	Vacuum line tee
25	5090026	1	Hose clamp
26	5550010	6	Clamp
27	5039501	2	Beaded 90° elbow
28	5039601	1	Splice
29	3020054	1	Vacuum switch - (included with engine)
	8130005	1	Replacement switch

# Dual fuel engine, Ford LRG-425



**These items installed  
on side of turntable.**

AW0112100

## Head lights

item	part no	qty	description
1	3064414	2	Light, flood with round base
2	3020013	1	Switch, toggle
3	3040068	1	Circuit breaker, 20 amp capacity
4	0181376	1	Placard, light switch
5	3040469	1	Relay, 12 volt DC
6	5569003	2	Grommet
7	5093019	4	Clamp
8	3011601	1	Wire, 16 gauge single conductor x 120 inch long
9	3040083	2	Terminal .250 tab female fully insulated 16/14 wire
10	3040082	3	Terminal .250 tab male fully insulated 16/14 wire
11	3044599	2	Terminal .250 tab female slip-on insulated 22/18 wire
12	3044142	1	Terminal #6 stud insulated 22/18 wire
13	3044161	2	Terminal #10 stud insulated 16/14 wire
14	0073250	2	Jumper wire
15	0073781	1	Jumper wire
16	0181187	2	Jumper wire
17	0072293	2	Jumper wire
18	3044852	1	Terminal ring tongue insulated 12/10 wire
19	3040065	1	Terminal .250 tab female slip-on fully insulated 12/10 wire
20	5560692	8	Machine screw #10-24 x 1 inch long pan head
21	5560609	1	Machine screw #10-24 x 1/2 inch long truss head
22	5560034	8	Nut #10-24 self locking
23	3090019	1	Flexgard tube, 120 inch long
24	970029	4	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
25	986019	4	Washer 1/4 medium flat
26	5560004	4	Nut 1/4-20 self locking

F

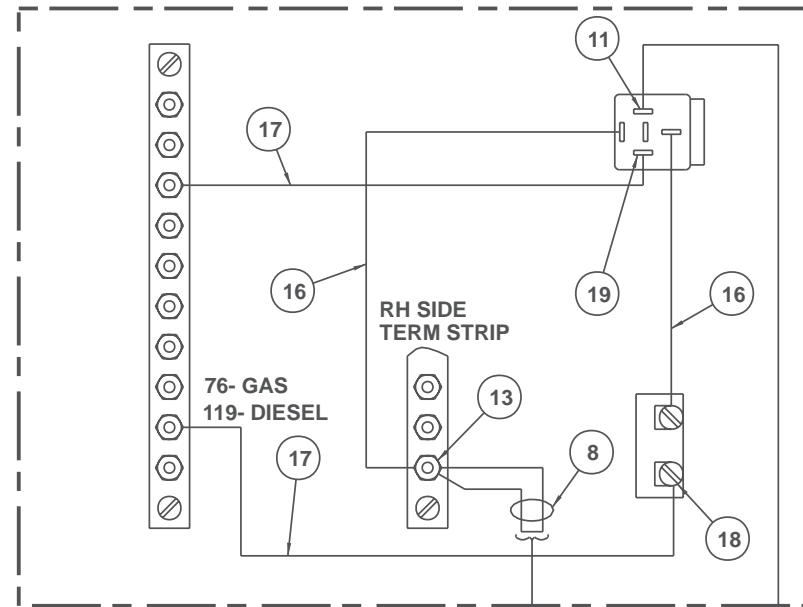
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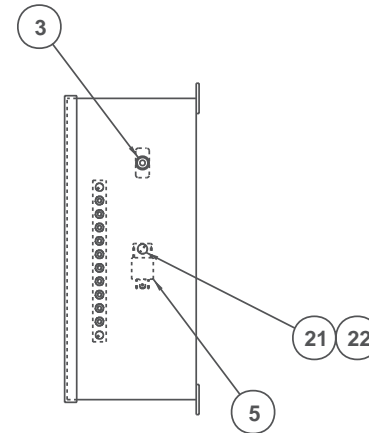
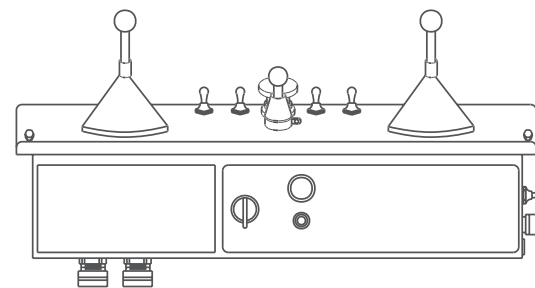
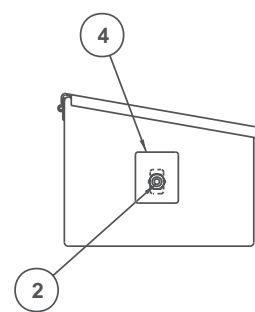
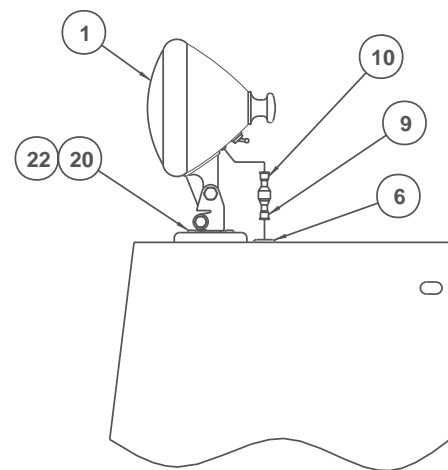
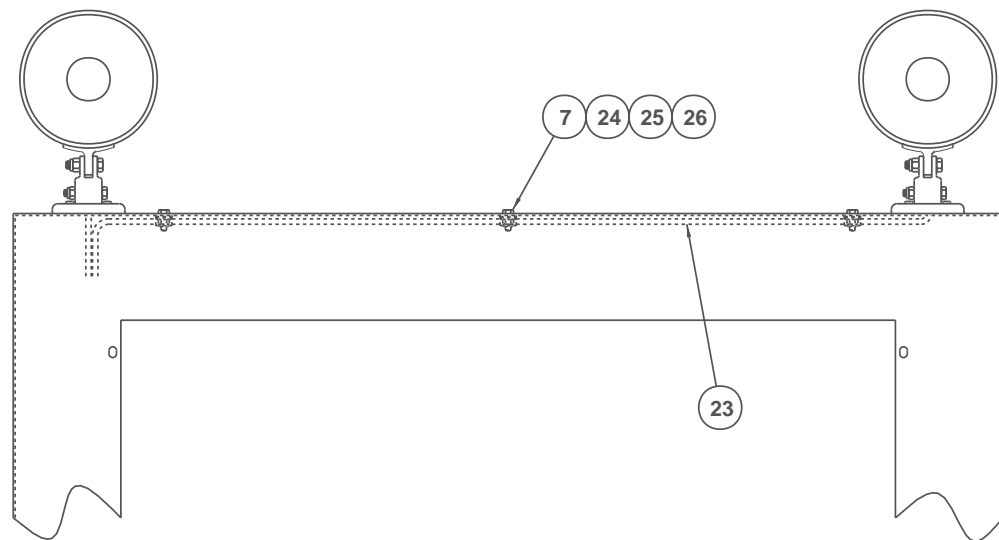
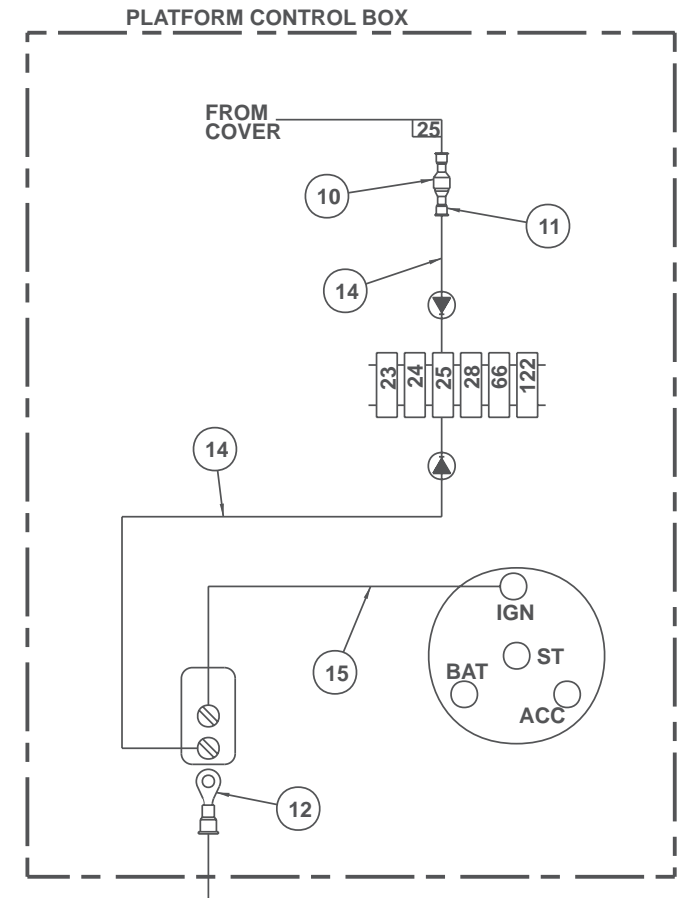
B

A



ROUTE THRU ENGINE WIRE CONNECTOR.  
 USE ITEM 7 AS REQD TO SECURE WIRES.  
 USE ITEM 23 TO GUARD WIRE FROM BEING  
 DAMAGED.

SPARE BOOM  
 WIRE



PLATFORM CONTROL BOX  
 FRONT VIEW

WIRING BOX  
 SIDE VIEW

AW011666

TITLE	Head lights	
	Snorkel model TB80	
		Page 4 - 17

F

E

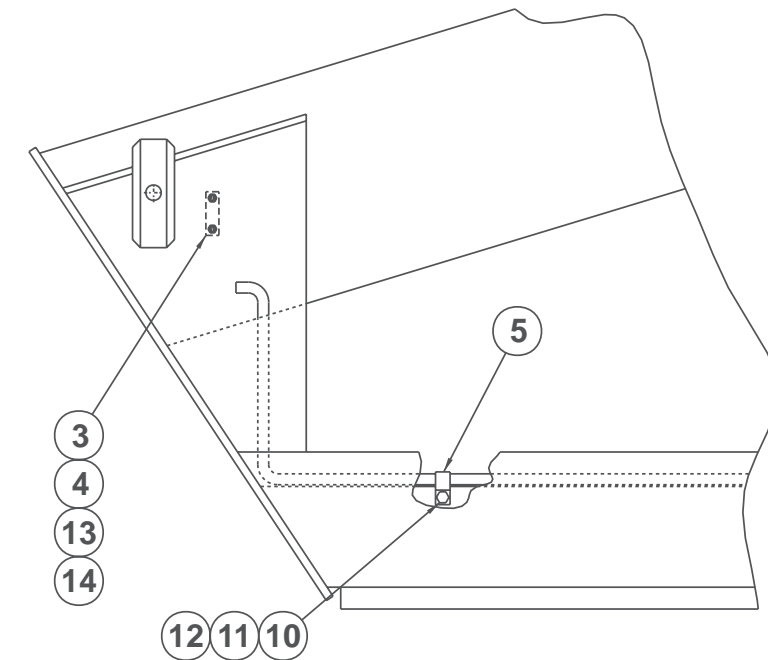
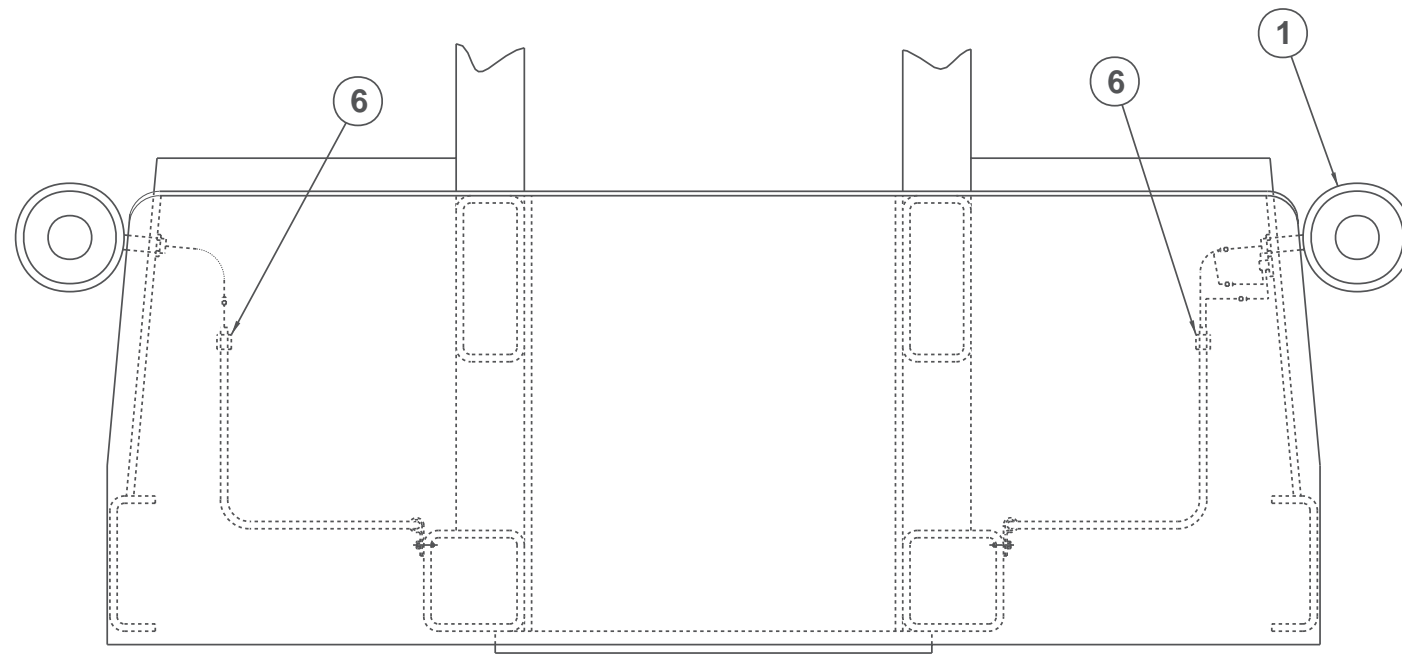
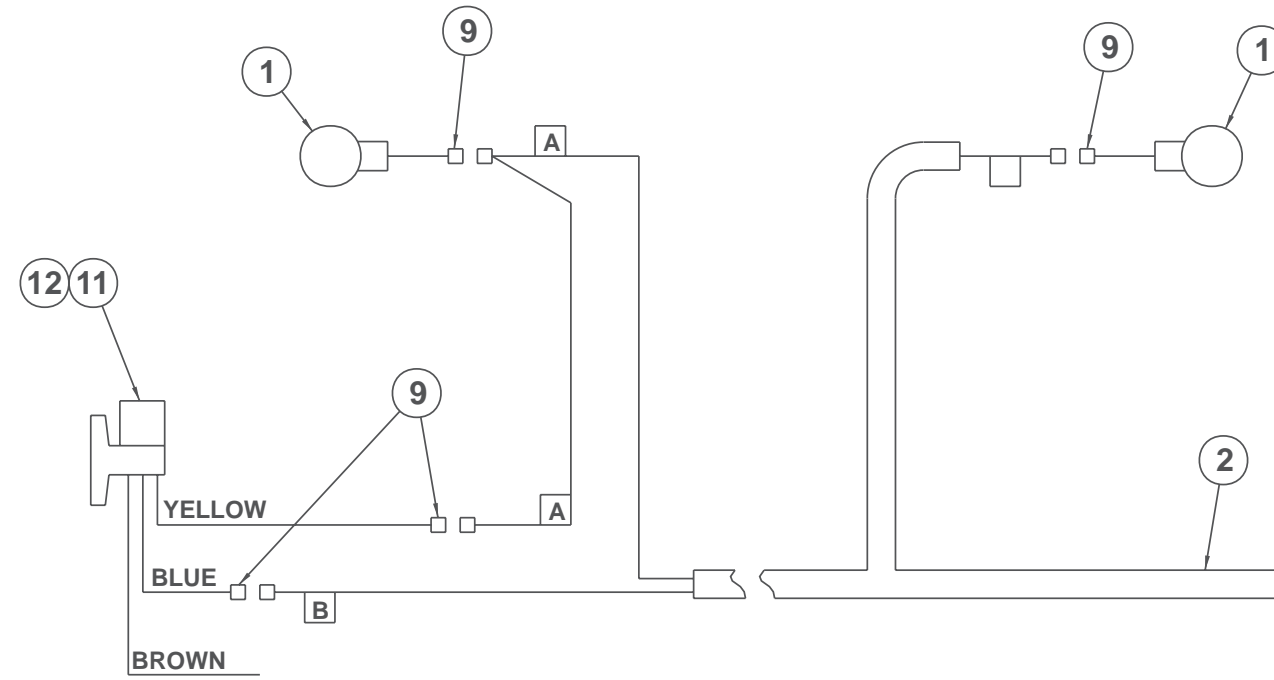
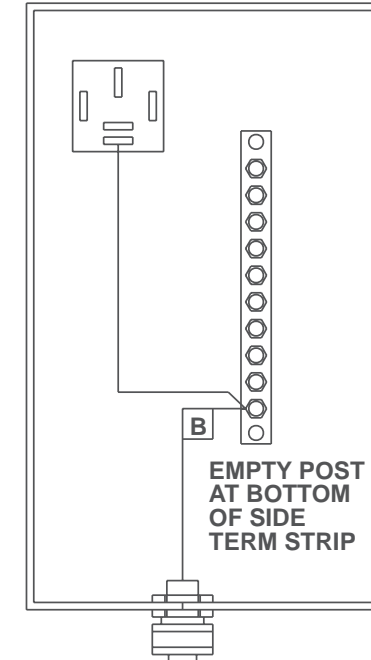
D

C

B

A

### SIDE VIEW OF WIRING BOX



AW011667

TITLE Tail lights

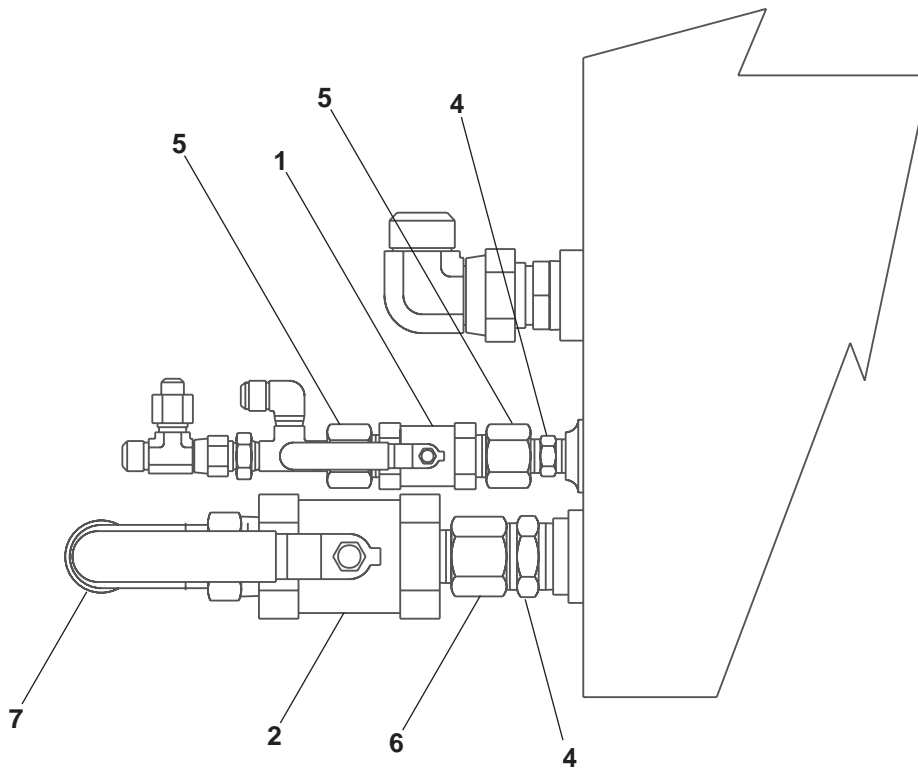
Snorkel model TB80

## Tail lights

item	part no	qty	description
1	3060017	2	Light, turn signal
2	0111669	1	Wire harness, tail lights
3	3060019	1	Flasher
4	3060018	1	Flasher base
5	5093002	2	Clamp
6	3040113	2	Mounting base
7	3040300	1	Connector
8	3040070	1	Connector locknut
9	3040083	4	Terminal .250 tab female fully insulated 16/14 wire
10	970099	2	Capscrew 1/4-20 x 5/8 inch long hex head grade 5
11	987099	2	Washer 1/4 medium lock
12	986019	2	Washer 1/4 medium flat
13	974679	2	Machine screw #10-24 x 5/8 inch long round head
14	5560034	2	Nut #10-24 self locking

## Isolation valve

item	part no	qty	description
1	6010495	1	Ball valve, 3/4 NPT
2	6010498	1	Ball valve, 1-1/2 NPT
3	7740014	1	Close nipple 1/2 NPT
4	7740110	1	Close nipple 1-1/4 NPT
5	7720604	2	Reducer bushing 3/4 x 1/2
6	7721210	1	Reducer bushing 1-1/2 x 1-1/4
7	5031008	1	Street elbow 90° 1-1/2 NPT

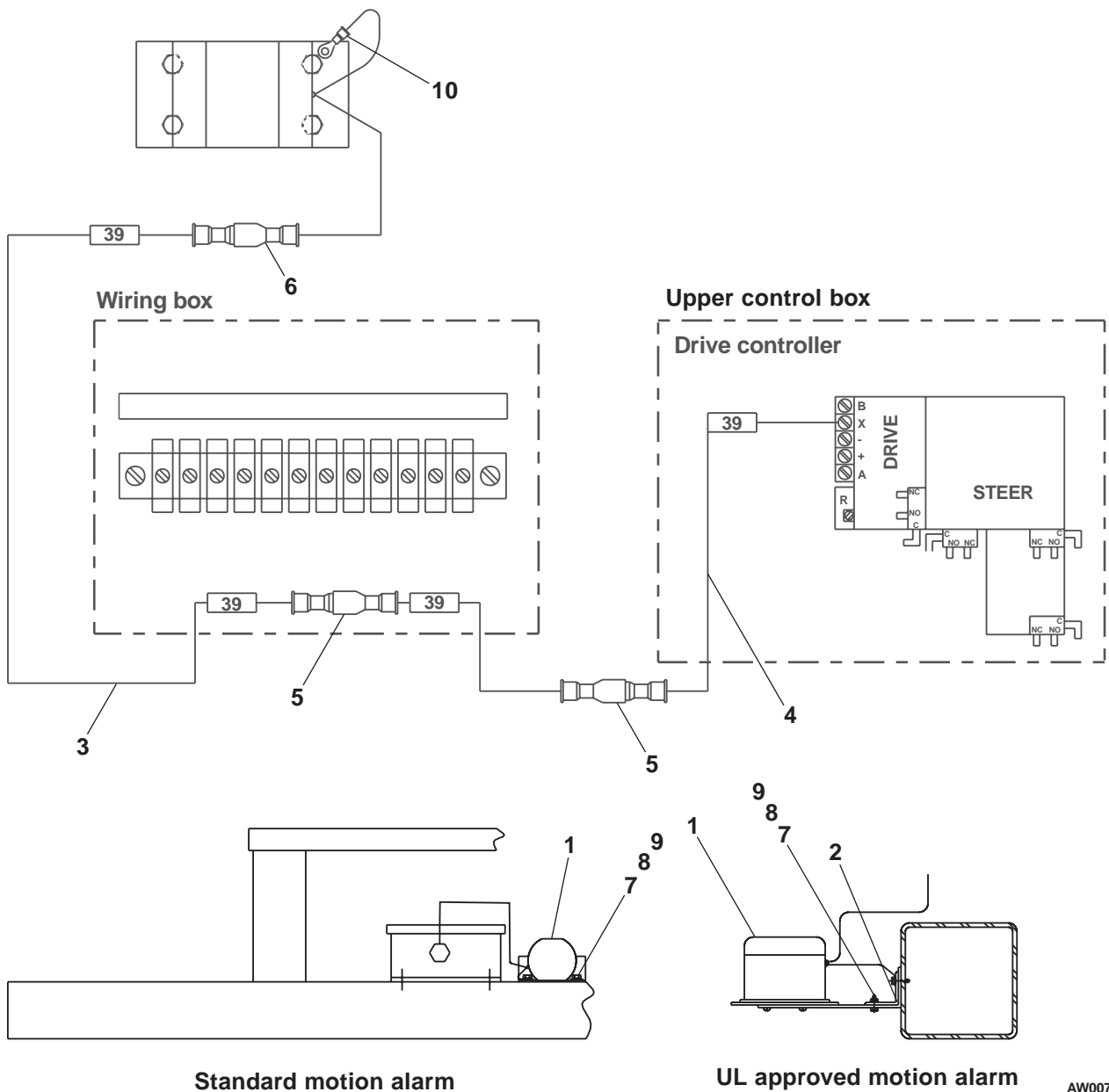


AW011022B



# Motion alarm, drive

item	part no	qty	description
1	3040129	1	Motion warning alarm, standard
	3040462	1	Motion warning alarm, UL approved
2	0081422	1	Mount angle - (used with UL approved warning alarm only)
3	0073642	1	Jumper wire
4	0073071	1	Jumper wire
5	3040046	2	Terminal .250 tab male slip-on fully insulated 22/18 wire
6	3040082	1	Terminal .250 tab male fully insulated 16/14 wire
7	970029	4	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
8	987099	4	Washer 1/4 medium lock
9	986019	4	Washer 1/4 medium flat
10	3044162	1	Terminal 1/4 stud insulated 16/14 wire



AW0073066

## Hydraulic warm-up

item	part no	qty	description
1	0082053	1	Hydraulic warm-up valve - (see page 2-60 for parts breakdown)
2	3020013	2	Switch, toggle
3	3020078	1	Temperature switch
4	0071792	1	Placard, warm-up switch
5	0071793	1	Decal, hydraulic warm-up instructions
6	0071844	2	Jumper wire
7	5065705	1	Straight thread adapter
8	0181398	1	Diode jumper wire
9	0181285	1	Diode jumper wire
10	3040047	1	Terminal .250 tab female slip-on fully insulated 22/18 wire
11	0020290	4	1/4 inch hydraulic hose
12	5036703	1	Swivel nut run tee
13	5037003	1	Swivel nut 90° elbow
14	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
15	986019	2	Washer 1/4 medium flat
16	987099	2	Washer 1/4 medium lock
17	3044142	1	Terminal #6 stud insulated 22/18 wire

F

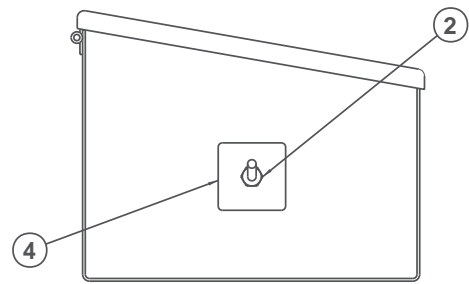
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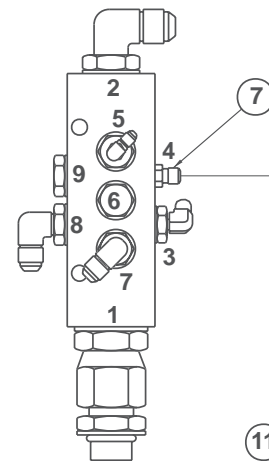
B

A

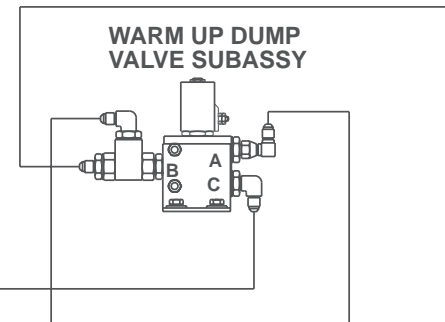


PLATFORM CONTROL BOX

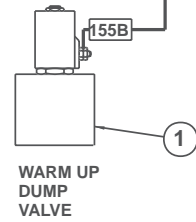
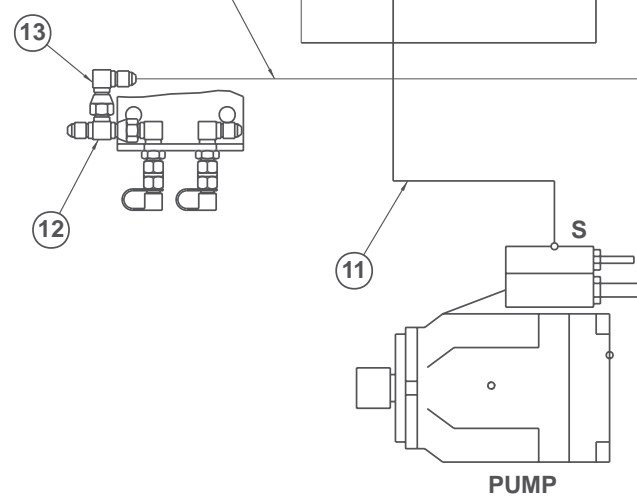
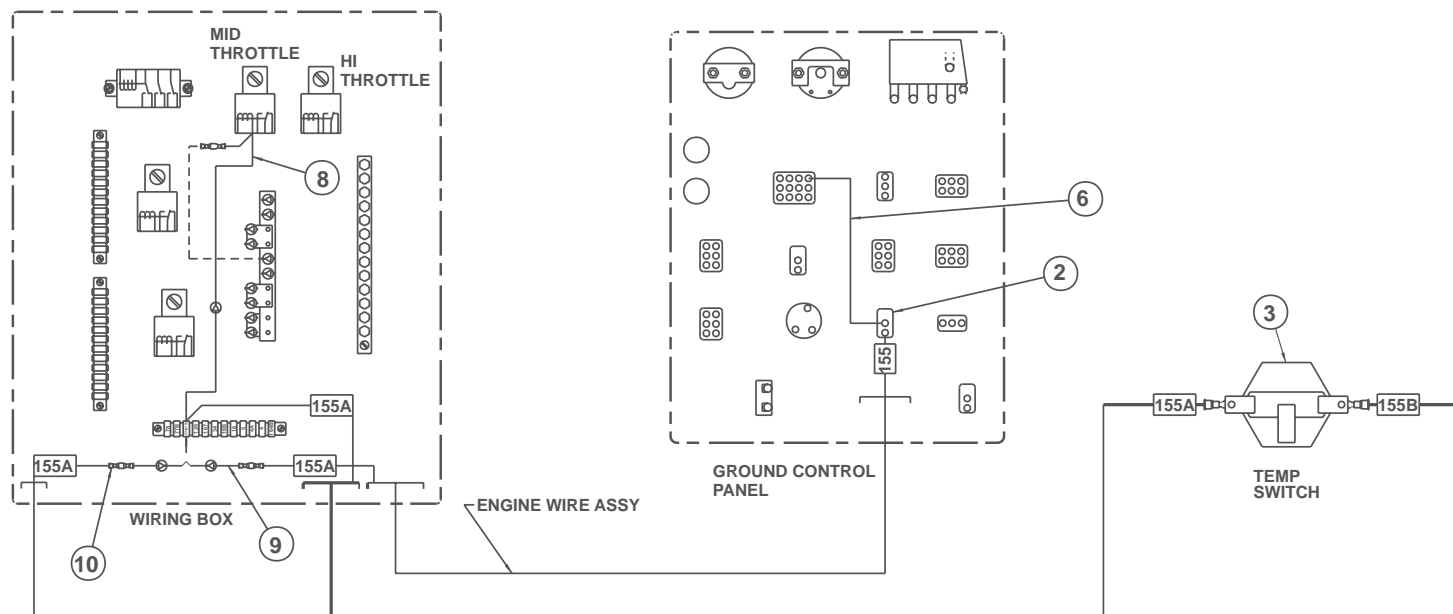
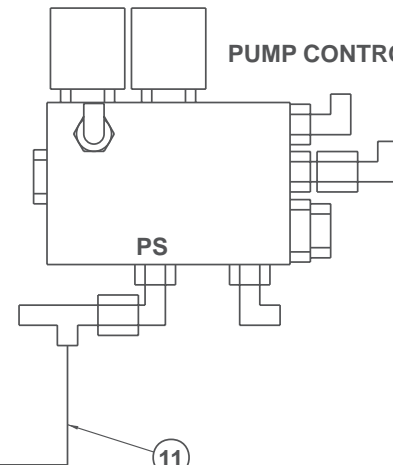
RETURN MANIFOLD ON PROP VALVE SUBASSY



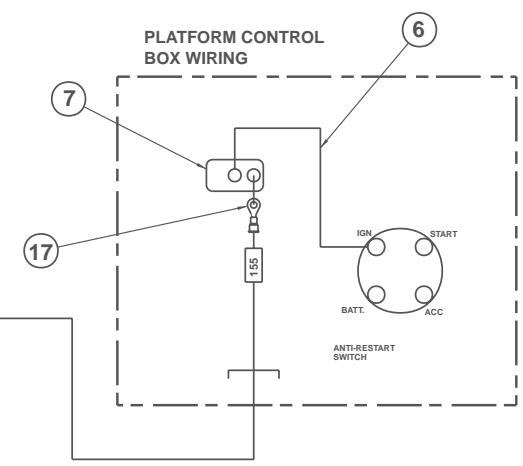
WARM UP DUMP VALVE SUBASSY



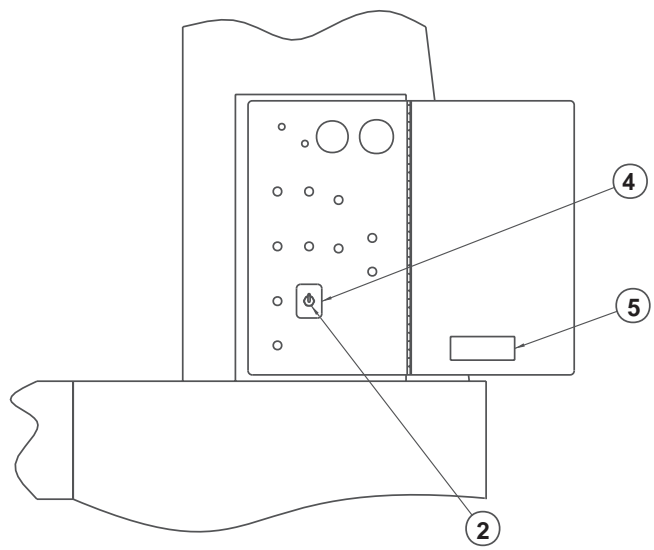
PUMP CONTROL VALVE



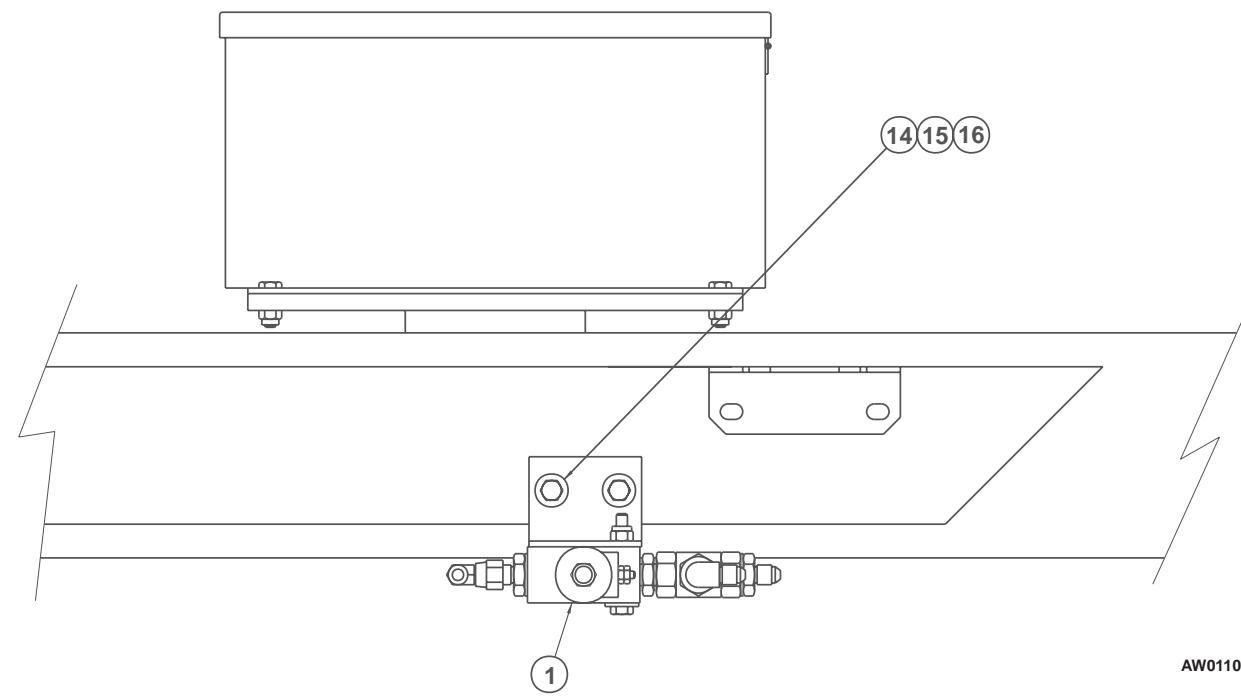
WARM UP DUMP VALVE



PLATFORM CONTROL BOX WIRING



TURNTABLE WIRE ASSY



AW011021A

F

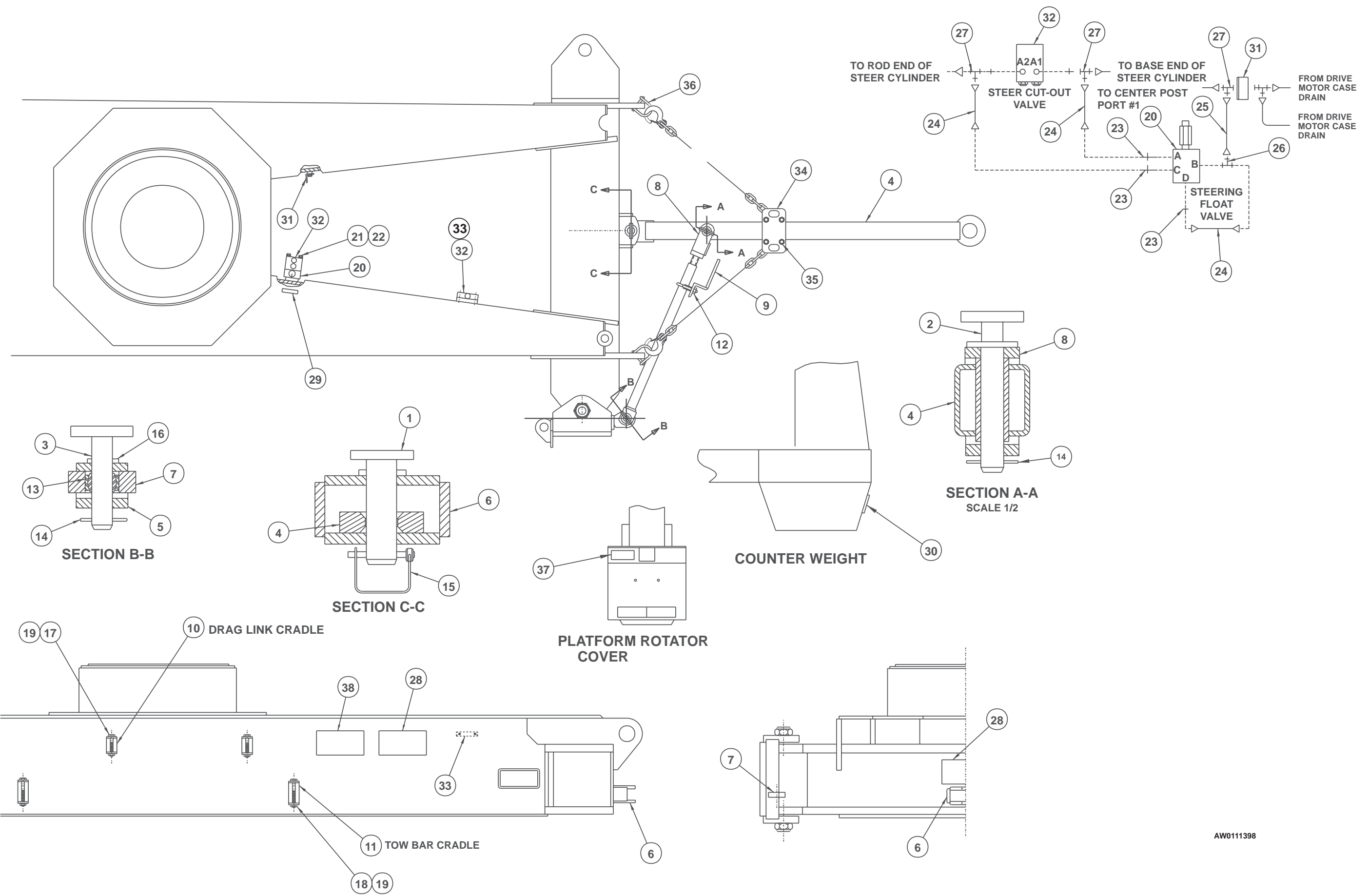
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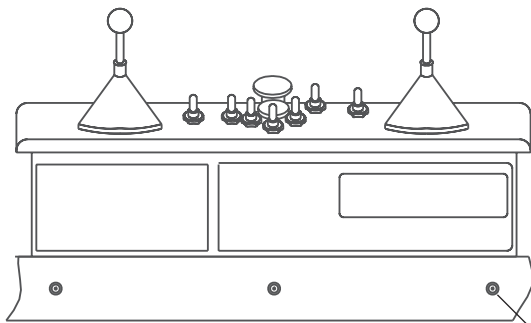
AW0111398

## Tow package

item	part no	qty	description
1	0110831	1	Pin, tow bar
2	0110833	1	Pin, drag link
3	0110493	1	Pin, drag link - outer
4	0110463	1	Tow bar
5	0111130	1	Tie rod
6	0111464	1	Bracket, chassis
7	0080884	1	Steering lug
8	0111465	1	Tie rod end
9	0111520	1	Rotator stop
10	0110836	2	Drag link storage cradle
11	0112032	2	Tow bar storage cradle
12	5550005	1	Clamp
13	2690001	1	Bearing, self aligning
14	5561550	2	Cotter pin
15	5580002	1	Snapper pin
16	5560189	2	Roll pin 3/16 inch diameter x 1-1/4 inch long
17	971009	2	Capscrew 1/2-13 x 4 inch long hex head grade 5
18	5560647	2	Capscrew 1/2-13 x 5 inch long hex head grade 5
19	5560039	2	Nut 1/2-13 self locking
20	6010616	1	Steering float valve
21	5560369	2	Capscrew 1/4-20 x 4 inch long hex head grade 5
22	986019	2	Washer 1/4 medium flat
23	5065707	3	Straight thread adapter
24	0060297	3	1/4 inch hydraulic hose
25	0070780	1	1/4 inch hydraulic hose
26	5036105	1	Straight thread run tee
27	5036705	3	Swivel nut run tee
28	0082171	2	Decal, towing instructions
29	0090760	1	Decal, float valve
30	0082203	1	Decal, danger crushing hazard
31	0111426	1	Mount angle
32	0111490	1	Steer cut out valve - (see page 2-66 for parts breakdown)
33	0181921	1	Mounting bar
34	0181676	1	Chain/plate
35	0181675	2	Carriage bolt, special 3/4-16 x 5-1/2 inch long
36	5560287	2	Pin
37	0082164	1	Decal, danger do not ride
38	0082160	1	Decal, danger tow package

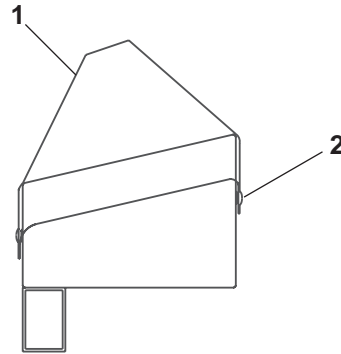
## Upper control box cover

item	part no	qty	description
1	0073076	1	Upper control box cover, standard
	0074782	1	Upper control box cover, fire resistant
2	5560657	3	Pop rivet 1/8 inch aluminum #RVT-AD48 ABS
3	5560656	3	Pop rivet 1/8 inch aluminum #RVT-AD46 ABS

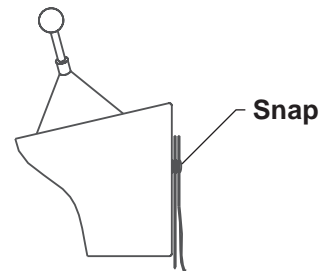


Front view - Upper control box

3



Side view - cover installed

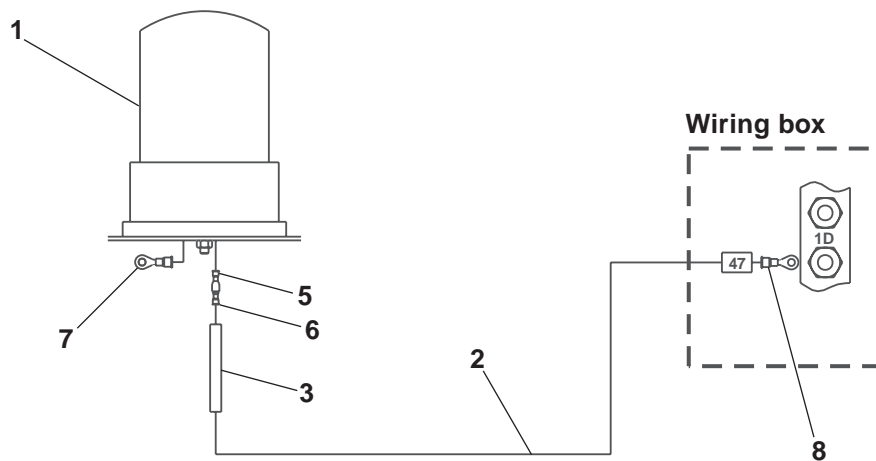
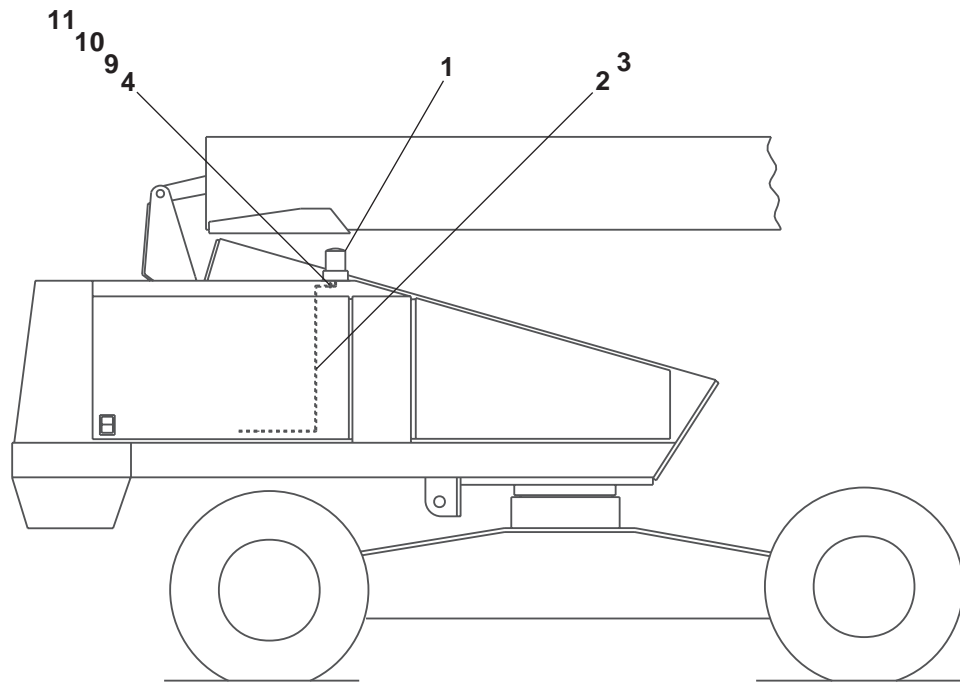


Side view  
cover shown  
in stowed position

AW0071654

## Warning light, dual beacon

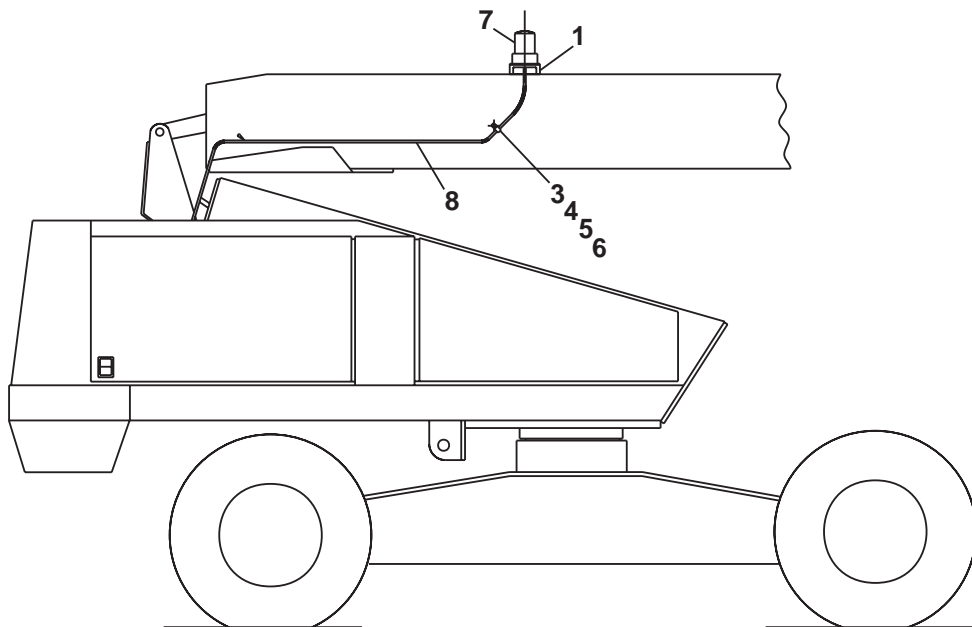
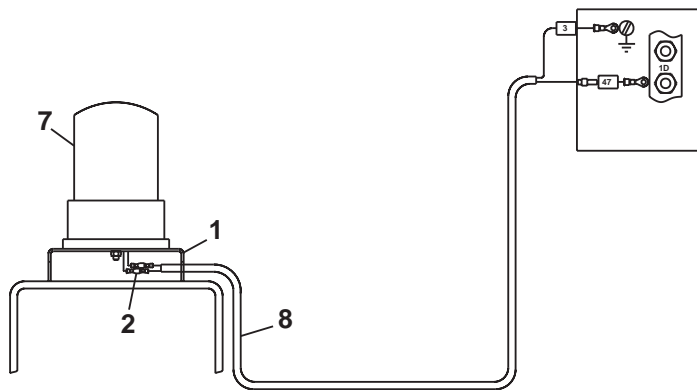
item	part no	qty	description
1	3060083	2	Warning light, amber lens
	3060084	2	Warning light, red lens
	8160047	1	Replacement bulb
2	3011601	1	Wire, 16 gauge single conductor x 240 inch long
3	3090019	1	Flexgard tube, 240 inch long
4	5093019	6	Clamp
5	3040046	2	Terminal .250 tab male slip-on fully insulated 22/18 wire
6	3040083	2	Terminal .250 tab female fully insulated 16/14 wire
7	3044146	2	Terminal #10 stud insulated 22/18 wire
8	3044161	2	Terminal #10 stud insulated 16/14 wire
9	970029	6	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
10	986019	6	Washer 1/4 medium flat
11	987099	6	Washer 1/4 medium lock



AW0112142

## Warning light, single beacon

item	part no	qty	description
1	0074877	1	Mounting bracket
2	3040046	2	Terminal .250 tab male slip-on fully insulated 22/18 wire
3	986019	1	Washer 1/4 medium flat
4	987099	1	Washer 1/4 medium lock
5	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
6	5093019	1	Clamp
7	3060083	1	Warning light, amber lens
	3060084	1	Warning light, red lens
	8160047	1	Replacement bulb
8	3014708	1	Wire harness, warning light

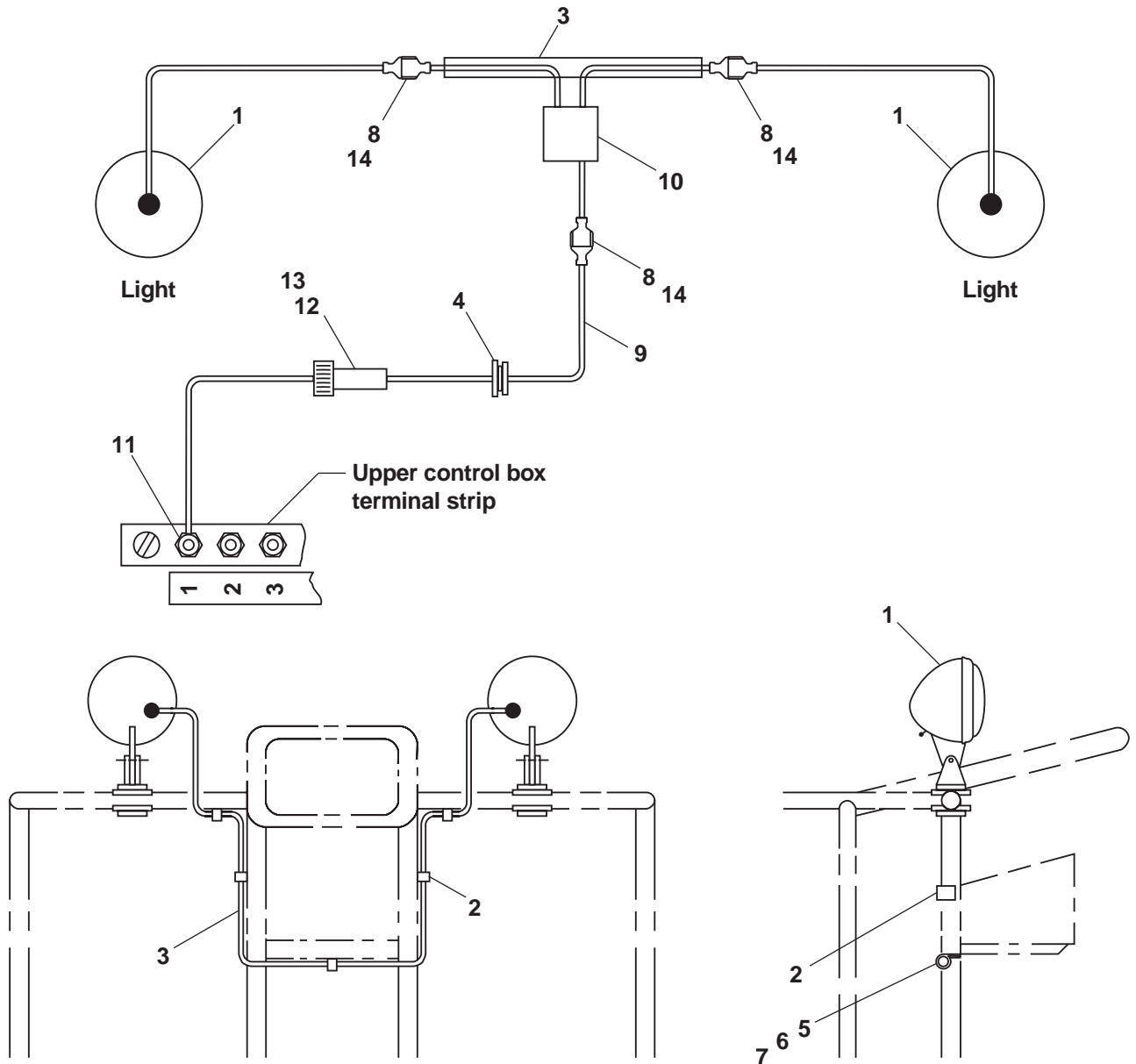


AWA08112B-3



# Work lights

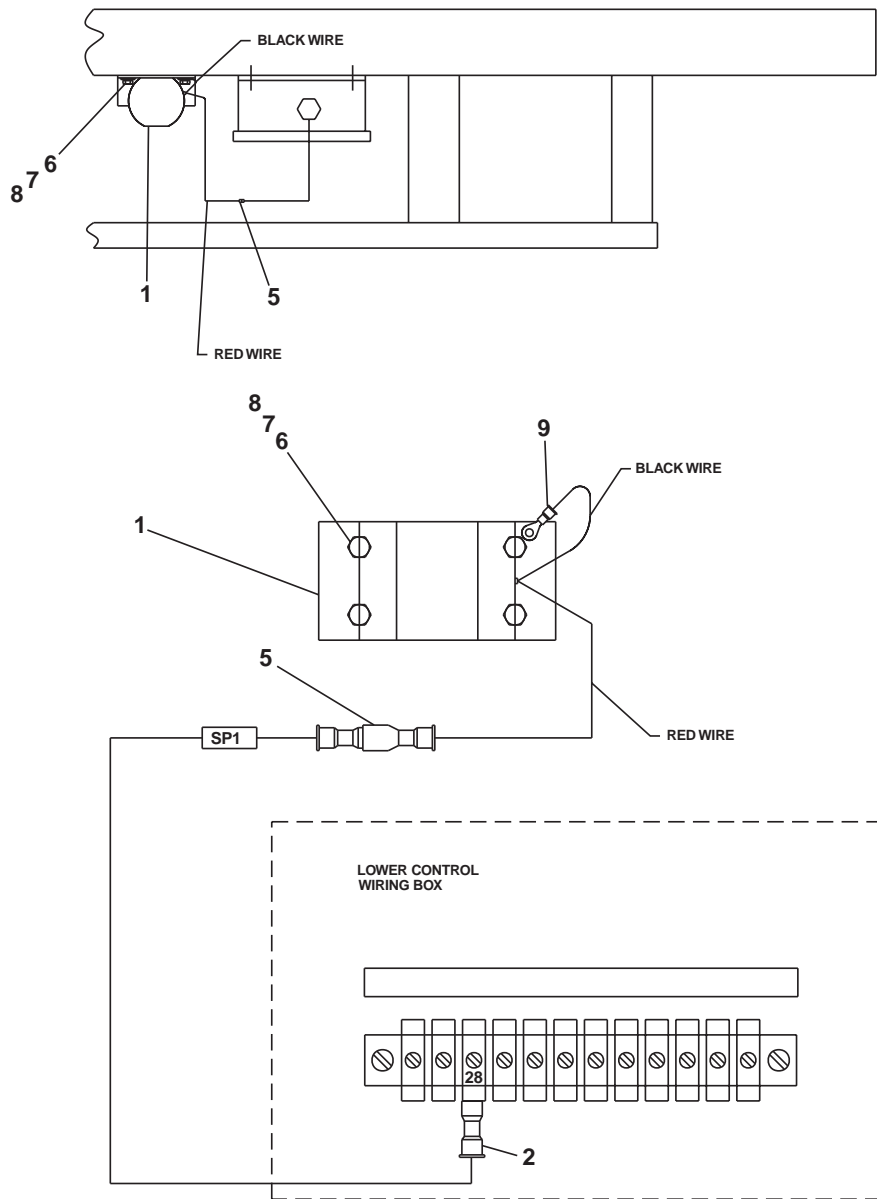
item	part no	qty	description
1	3064413	2	Light, incandescent with clamp bracket
	3067620	2	Light, halogen with clamp bracket
2	5093019	7	Clamp
3	3090019	1	Flexgard tube, 80 inch long
4	5569003	1	Grommet
5	970029	7	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
6	986019	7	Washer 1/4 medium flat
7	987099	7	Washer 1/4 medium lock
8	3040082	3	Terminal .250 tab male fully insulated 16/14 wire
9	3011601	1	Wire, 16 gauge single conductor x 80 inch long
10	3040114	1	Connector, in-line 16/14 wire
11	3044161	1	Terminal #10 stud insulated 16/14 wire
12	3040038	1	Fuse holder, in-line
13	3040039	1	Fuse, 10 amp capacity
14	3040083	3	Terminal .250 tab female fully insulated 16/14 wire



AW0080768

## Motion alarm, all motion

item	part no	qty	description
1	3040129	1	Motion warning alarm, standard
2	3046697	1	Terminal .188 tab female slip-on insulated 16/14 wire
3	3040082	1	Terminal .250 tab male fully insulated 16/14 wire
4	970029	4	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
5	987099	4	Washer 1/4 medium lock
6	986019	4	Washer 1/4 medium flat
7	3044162	1	Terminal 1/4 ring tongue insulated 16/14 wire



AW0074926-3

**A**

AC generator, 4-7  
 Generator, AC hydraulic powered, 4-7  
 Hydraulic motor, AC generator, 4-7  
 AC generator valve, 2-35, 4-7  
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 Access cover, drive, 1-2  
 Access cover, steer, 1-2  
 Access door, 1-58  
 Accumulator, 2-10, 2-34  
 Actuator, 1-49  
 Adapter plate, centerpost, 1-14  
 Adjustment bolt, 1-14  
 Adjustment ring, swing drive, 1-14  
 Air cleaner, 1-42, 1-57  
 Air cleaner bracket, 1-42, 1-57  
 Air cleaner hose coupler, 1-42  
 Air cleaner mount bracket, 1-42  
 Air inlet heater kit, 4-2  
 Air inlet hood, 1-56, 1-57  
 Air inlet tube, 1-56, 1-57  
 Air intake hose adapter, 1-42  
 Air intake tube, 1-56  
 Air intake tube clamp, 1-42  
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***TB85J***



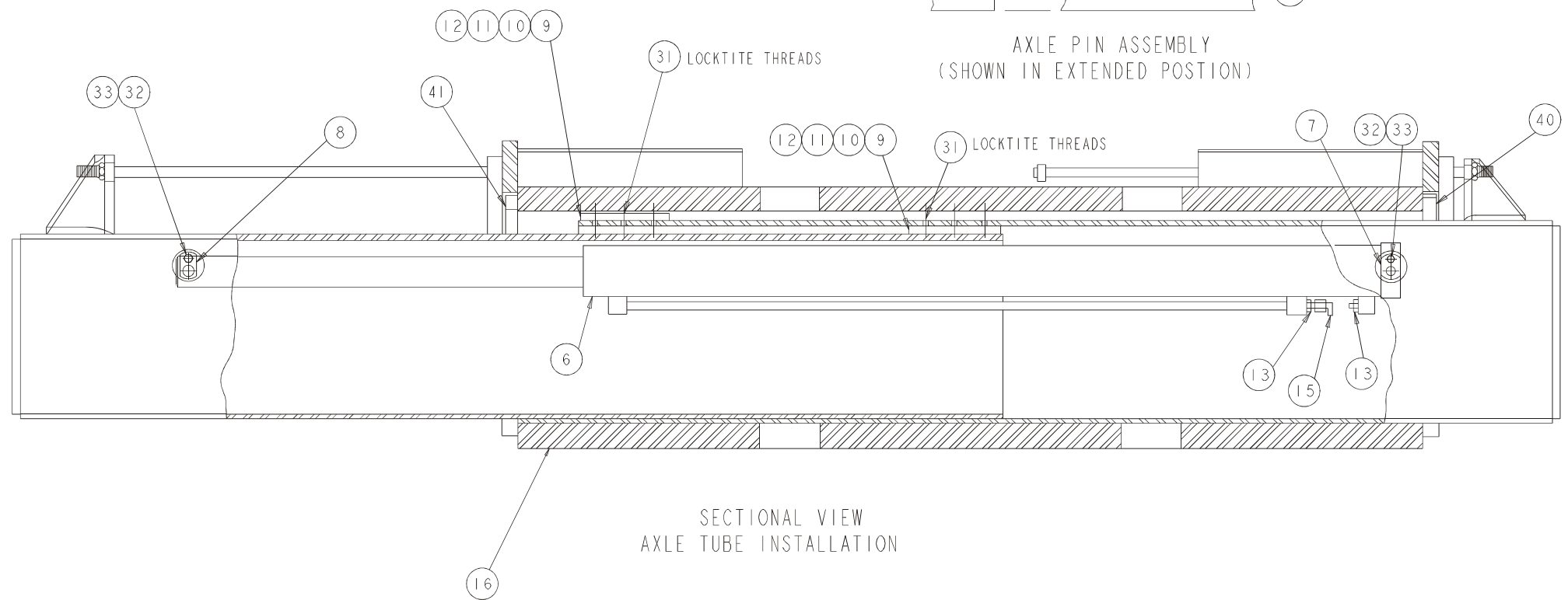
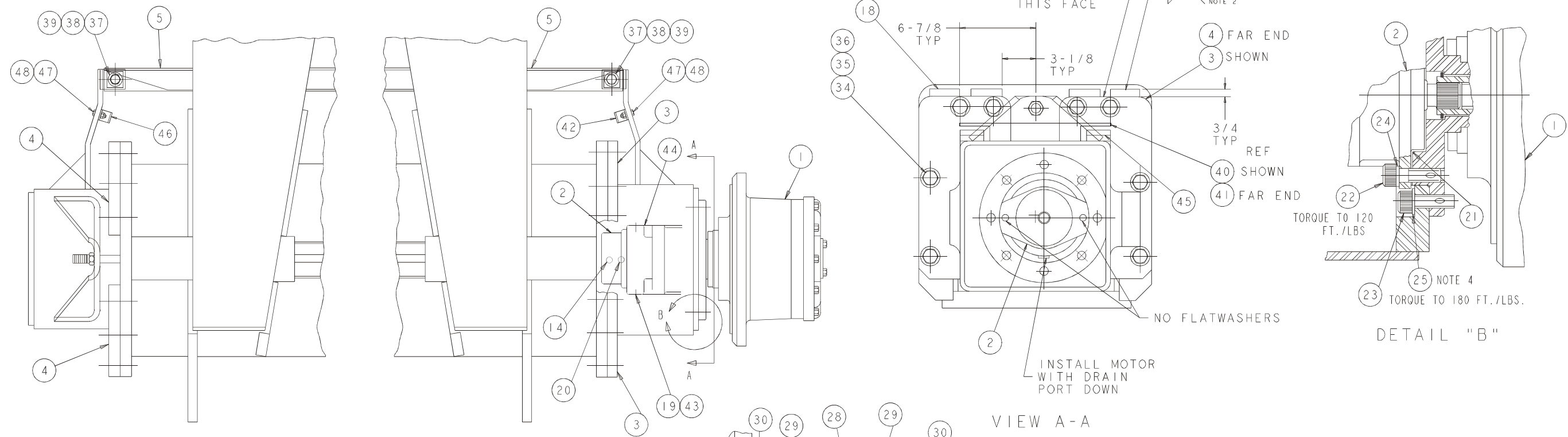


## Extendable Axle

Item	Part No.	Qty.	Description
1	0110283	2	POWER WHEEL
2	6030037	2	VR DRIVE MTR W/BRAKE
3	0190969	2	END FLANGE-RH
4	0190968	2	END FLANGE-LH
5	0190713	2	WLDMT HOSE CARRIER TUBE DRIVE
6	0190709	1	CYLINDER ASSY EXTENDING AXLES
7	0110261	1	WLDMT PIN AXLE EXT CYL DR
8	0110260	1	WLDMT PIN AXLE EXT CYL
9	0080293	4	SL PAD 2.00 6.00 .38
10	0070030	4	SHIM 2.00 5.88 .030
11	0072567	4	SL PAD 2.00 5.88 .063
12	0090141	4	SHIM SLIDE PAD .090 THK
13	5065707	2	FTG ADPTR STRTHD-6B-6S STL
14	5035305	2	FTG ELB90STRTHD-6B-6S STL
15	5037005	1	FTG ELB90SWVL-6S-6S STL
16	0191392	1	CHASSIS/AXLES ASSY PRO-100 4X4
18	0110731	8	STOP BAR
19	5035319	2	FTG ELB90STRTHD-16B-12S STL
20	5035303	2	FTG ELB90STRTHD-4B-4S STL
21	7110159	2	O-RING
22	5560245	4	BLT SKTHD LKG .625-11 1.50-5/8
23	5560099	16	BLT SKTHD LKG .625-11 1.75
24	987159	4	LOCKWASHER 5/8 MED
25	5560169	12	FLATWASHER 5/8 HARDENED
26	0111362	1	PIN
27	5580002	1	PIN SNAPPER
28	0110594	1	RTNR LOCK PIN AXLES
29	970049	2	CAPSCREW 1/4-20 X 1" LG HEX HD GR5
30	984069	2	NUT 1/4-20 HEX
31	970439	12	CAPSCREW 3/8-16 X 5/8" LG HHCS
32	970219	2	CAPSCREW 5/16-18 X 1/2" LG HEX SOC BUTTON HD
33	987109	2	LOCKWASHER 5/16 MED
34	5560676	16	CAPSCREW 3/4-10 X 3 1/2" LG HEX HD GR 8
35	5560170	32	FLATWASHER 3/4 HARDENED
36	5560035	16	NUT 3/4-10 ESNA
37	971309	2	CAP SCREW 5/8-11 X 2" LG HEX HD GR 5
38	5560169	2	FLATWASHER 5/8 HARDENED
39	5560036	2	NUT 5/8-11 ESNA
40	0111303	1	PAD
41	0111304	1	SCRAPER PAD-L H
42	5093030	1	CLP CUSH 2.50
43	5037008	2	FTG ELB90SWVL-12S-12S STL
44	5065715	2	FTG ADPTR STRTHD-16B-12S STL
45	0190972	4	WLDMT PAD
46	5093013	1	CLP CUSH 2.00
47	970489	2	BLT HEXHD .375-16 1.50 GR5
48	5560033	2	NUT LKG .375-16



F  
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B  
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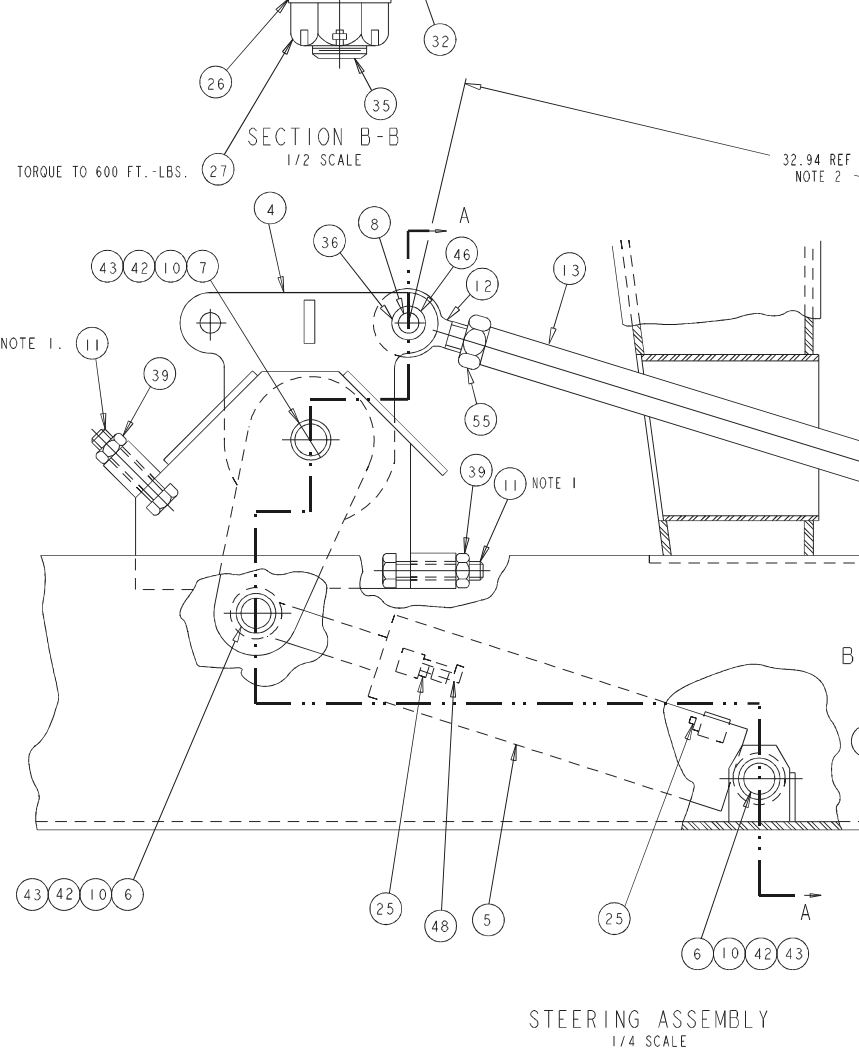
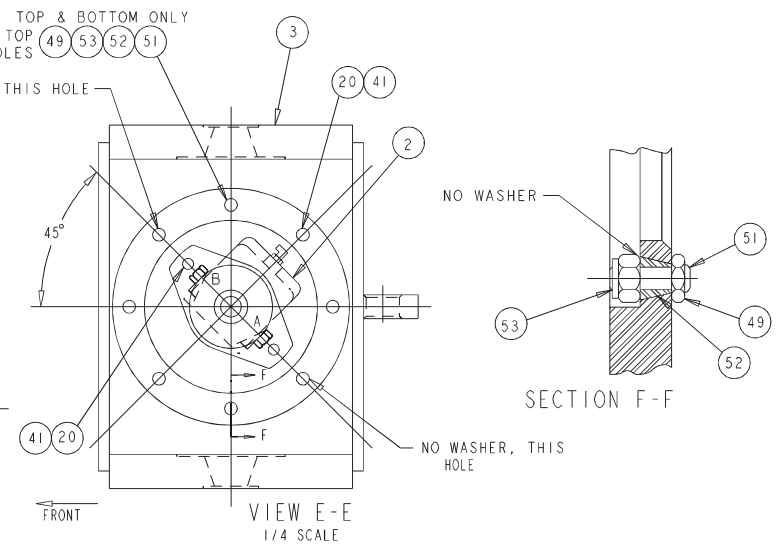
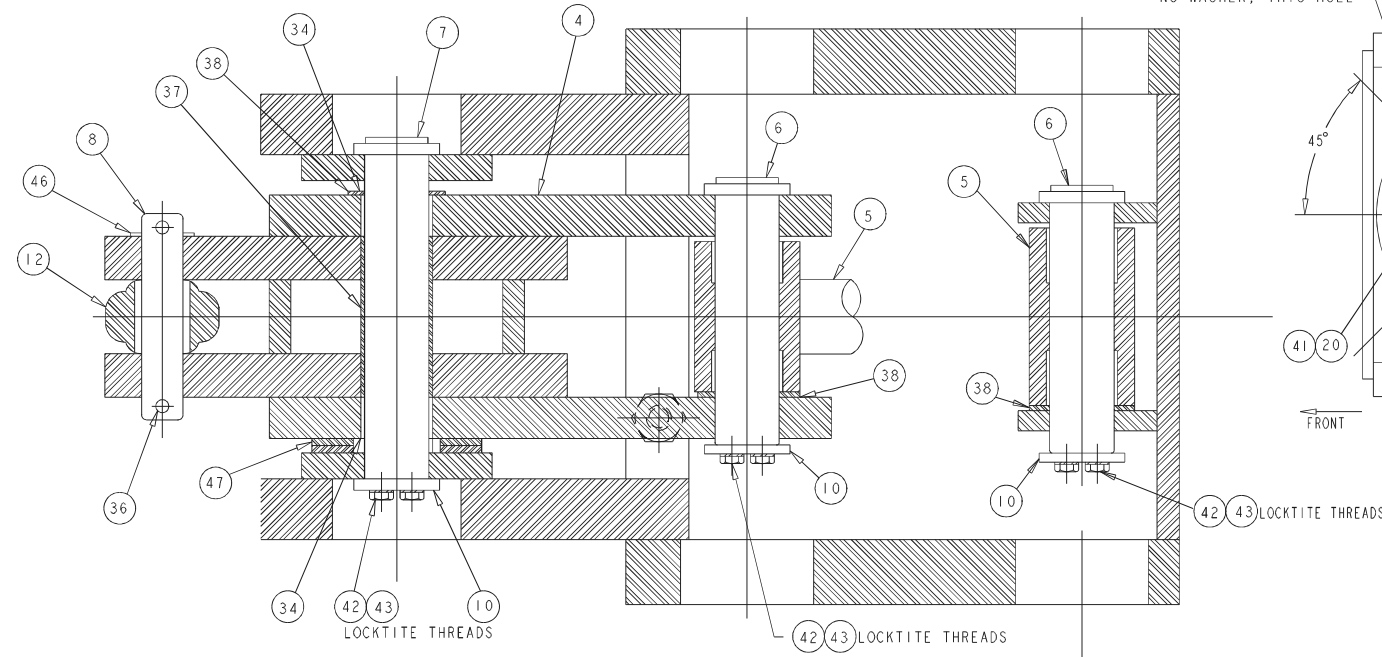
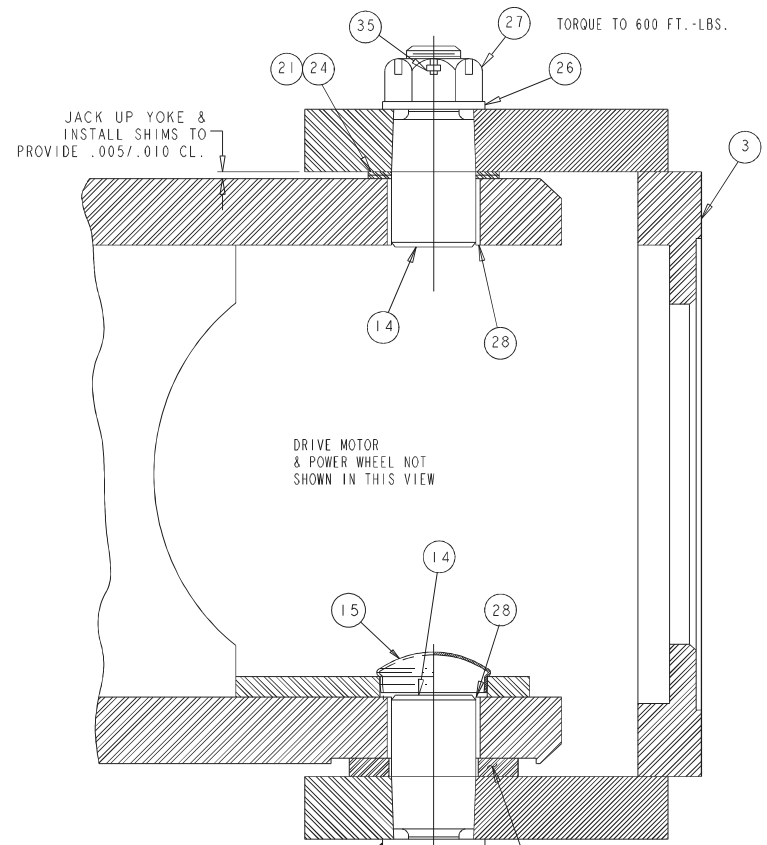




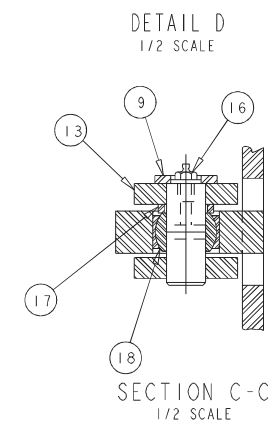
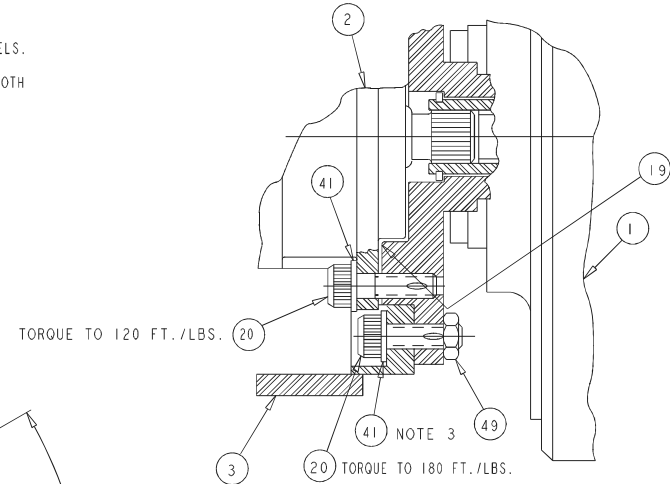
## Steering

Item	Part No.	Qty.	Description
1	0110283	2	POWER WHEEL
2	6030037	2	VR DRIVE MTR W/BRAKE
3	0191419	2	WLDMT YOKE MACHINED
4	0111135	1	STEERING ARM
5	0074799	1	CYL 3.50 9.50 1.75 LEVEL/STEER
6	0070442	2	PIN LVL CYL TO TRNTBL
7	0110323	1	PIN
8	0150094	2	PIN STRG CYL (ROD END)
9	0110320	2	WELDMT PIN STEERING YOKE
10	0070033	3	PIN LOCK-2 X 7 GA FLATWASHER
11	5560134	2	BLT HEXHD FULTHRD .75-10 3.25
12	2690005	2	ROD END 1.00ID
13	0190786	2	TIE ROD
14	0190715	4	PIN KING FR WHL DR
15	5070026	2	CAP WHEEL SERVICE
16	5570001	2	GREASE FTG 1/8-27NPT
17	0080348	2	SPACER TIE ROD MOUNTING
18	2690001	2	BUSHING, SPHER 1.50ID
19	7110159	2	O-RING
20	5560099	12	BLT SKTHD LKG .625-11 1.75-CER
21	5560717	6	MACH BUSHING 3/4 O D X 2 1/4 I D X 10 GA.
22	5035319	4	FTG ELB90STRTHD-16B-12S STL
23	5035303	2	FTG ELB90STRTHD-4B-4S STL
24	5569854	6	MACH BUSH 3/4 O.D X 2 1/4 ID X 14 GA.
25	5065707	2	FTG ADPTR STRTHD-6B-6S STL-PH
26	5560232	16	WASHER STRL
27	5560241	4	NUT SPDL SLTD 1.50-12-1-1/2-12
28	2503620	4	BEARING 2.25ID 2.50OD 1.25LG
32	0190788	2	WASHER THR MOD
34	2502416	2	BEARING 1.50ID 1.00LG
35	988229	4	COTTER PIN 1/8 DIA. X 2 1/2 LG
36	5560152	4	PIN ROLL .313 2.00LG-5/16 X 2
37	0111136	1	SPACER-ADD PLATED TO EWS-1-21
38	5560688	3	MACH BUSH 2 1/4 O D X 1 1/2 I D X 14 GA
39	984469	2	JAM NUT 3/4-10
40	987159	4	LOCKWASHER 5/8 MED
41	5560169	12	FLATWASHER 5/8 HARDENED
42	970239	8	CAPSCREW 5/16-18 X 3/4" LG. HEX HD GR5
43	987109	8	LOCKWASHER, 5/16 MED.
44	986269	2	FLATWASHER, 5/16
45		REF	TIRE & WHEEL INSTALLATION
46	986619	2	MACH BUSHING 1 1/2 O D X 1 ID X 14 GA.
47	0090840	2	THRUST BEARING
48	5037005	1	FTG ELB90SWVL-6S-6S STL
49	984446	16	JAM NUT 5/8-11 HD
50	5035305	2	FTG ELB90STRTHD-6B-6S STL-PH 6
51	0111674	4	STUD .625-11 X 2.50 LG GR 8
52	0111675	4	WEDGE STUD(WEDGE DRIVE FLANGE)
53	5560131	4	NUT LKG .625-11 HIGH STRENGTH
54	5560245	4	BLT SKTHD LKG .625-11 1.50-5/8
55	5560202	2	NUT JAM HEX 1.250-12 GR 8-





- NOTES:
1. POSITION WHEEL AT 28° INSIDE CUT AND POSITION ADJ. BOLT ITEM 11, SO THAT IT CONTACTS STEERING ARM. TYP. BOTH WHEELS.
  2. WHEEL ALIGNMENT: WITH STEERING ARM CENTERED IN CHASSIS BOTH WHEELS TO BE IN STRAIGHT AHEAD POSITION (NO TOE-IN).
  3. SEE VIEW E-E FOR HOLES WITHOUT FLAT WASHERS.



STEERING ASSEMBLY  
1/4 SCALE

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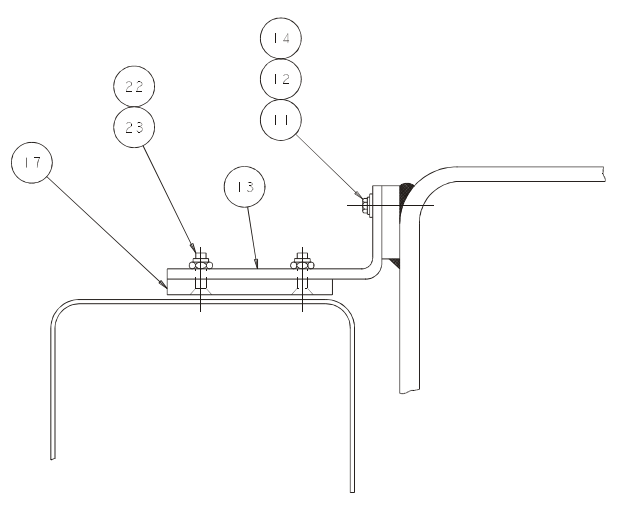


## Booms and Hose Carrier

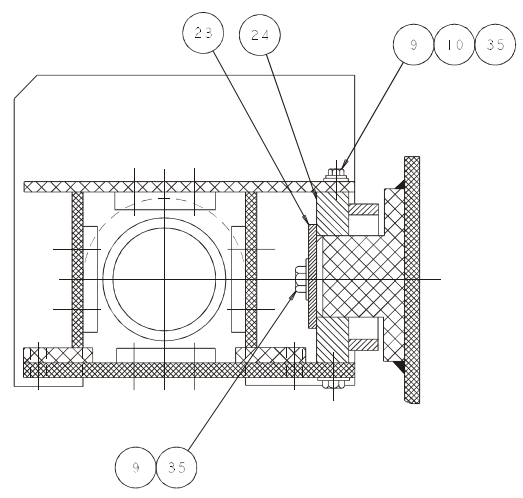
Item	Part No.	Qty.	Description
1	0112546	1	BOOMS ASSY 85J
2	0112550	1	HOSE CARRIER ASSY, TB85J
3	970429	4	C. SCREW, 3/8 - 16 X 1/2" LG. HH. GR. 5
4	0072015	1	PIN CLV MOD-5/8 X 4 CLEVIS PIN - MACH. END Z/Y
5	5560014	1	PIN HAIRPIN CLIP .625
6	971089	8	C. SCREW 1/2 - 13 X 1 - 1/2" LG. HH GR.5
7	5560039	8	NUT, 1/2 - 13 ESNA
8	986359	8	WASHER, 1/2 FLAT
9	970469	6	C. SCREW, 3/8 - 16 X 1" LG. HH GR. 5
10	986039	6	WASHER, 3/8 FLAT
11	970369	6	C. SCREW, 5/16 - 18 X 1" LG. HH GR. 5
12	987109	6	WASHER, 5/16 MED. LOCK
13	0072951	2	GUIDE BAR
14	583556	6	WASHER, 1/4 MED. FLAT (5/16 I.D.)
15	0111120	2	BAR
16	0110581	2	SPACER
17	0070029	2	SL PAD 2.00 4.00 .330
18	0172220	1	JIB/ROTATOR ASSY
22	970469	4	M. SCREW, 3/8 - 16 X 1 - 1/2 LG. FLAT HD SOC
23	0070506	1	PIN LOCK
24	0110602	1	WLDMT PIN JOINT PLATE
25	0112071	1	WLDMT TUBE BRACKET
26	5093009	1	CLP CUS 1.12
27	0110840	1	WLDMT SUPPORT TUBE
28	0110592	2	MOUNT LUG-ADD PLATING NOTE
29	0110590	1	TUBE CLAMP-BAR ST.W/BONDED RUBBER FACE-1" X 5" X 3/4" NR55
30	970469	1	C/SCREW, 3/8 - 16 X 1 - 1/2 LG. HH GR. 5"
32	5560686	1	C. SCREW, 3/8 - 16 X 6" LG. HH GR. 5
33	5560033	6	NUT, 3/8 - 16 ESNA
34	970509	2	C. SCREW, 3/8 - 16 X 2" LG. HH GR. 5
35	987119	12	WASHER, 3/8 MED. LOCK



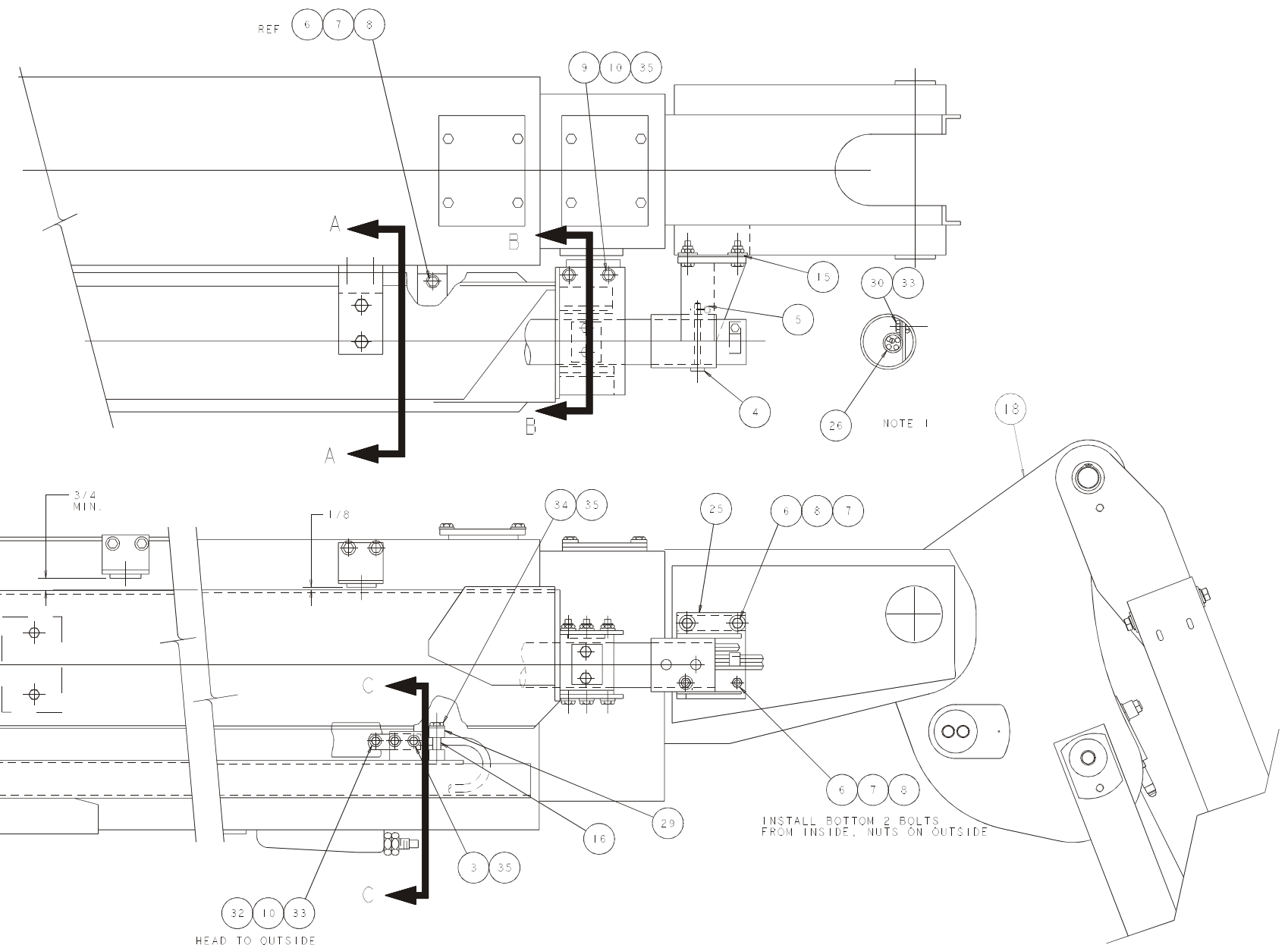
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SECTION A-A



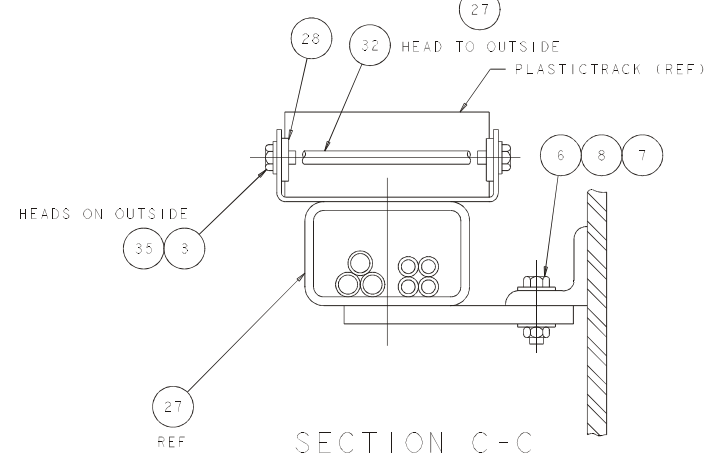
SECTION B-B



INSTALL BOTTOM 2 BOLTS FROM INSIDE, NUTS ON OUTSIDE

HEAD TO OUTSIDE

NOTES:  
1. CLAMP WIRES AND ROTATOR HOSES. DO NOT CLAMP LEVEL HOSE. PULL SLACK OUT OF WIRES AND HOSES BEFORE CLAMPING. DO NOT APPLY TENSION TO WIRES AND HOSES WHEN CLAMPING.



SECTION C-C



## Booms

Item	Part No.	Qty.	Description
1	0110891	1	WLDMT BASE BOOM
2	0110630	1	WLDMT INTER BOOM
3	0110631	1	WLDMT TIP BOOM
4	0110628	1	EXTEND CYL S/A
5	0172230	1	SLAVE LEVEL CYLINDER ASSY.
6	0110661	1	PIN LVL CYL TO TIP BOOM
7	0070033	2	PIN LOCK-2 X 7 GA FLATWASHER - 2 HOLES Z/P
8	9980012	AR	.040 DIA. S.S. SAFETY LOCKWIRE
9	0110699	1	WLDMT PAD PLATE INT BOOM LR
10	0080293	8	SL PAD 2.00 6.00 .38
11	0090444	2	SPACER-SLIDE PAD
12	0070030	22	SHIM 2.00 5.88 .030
13	0072681	2	SLIDE PAD MOUNT
14	0110700	1	WLDMT PAD PLATE BASE BOOM LR
15	0070486	2	SPACER-1/4-SIDE PAD
16	0110547	1	CONDUIT 1/2- X 10 FEET LONG (THIN WALL)
17	0110665	2	WLDMT WIRE ROPE ANCHOR
18	0110186	2	WIRE ROPE ASSY-RETRACT
19	0110703	4	SL PAD 4.00 6.00 .50
20	0110705	1	CABLE SUPPORT-LH
21	0060089	2	SL PAD 1.00 2.00 .25
22	0110190	2	PIN CYL AHR
23	0110191	2	CYLINDER ANCHOR
24	0110670	1	PIN CA RET-NO REV
25	0110671	1	PIN RETR SHV
26	2502032	1	BEARING 1.25 ID 1.50 OD 2.00LG
27	988179	2	COTTER PIN, 1/8 DIA. X 1" LG
29	0111700	2	CABLE SHEAVE WIRE ROPE TBA80
30	0111322	2	SHEAVE CAGE
31	0111888	1	BOOM SWITCH ASSY
32	0071216	2	GUARD-BOOM SWITCH
33	0071921	2	SPACER
34	0071922	2	SPACER
35	0151860	2	HOSE-8-8S-8S 79 100R2
36	5093000	1	CLP CUSH .437
37	0110704	1	CABLE SUPPORT-RH
38	0080522	1	HOSE-8-8S-8S 42 100R2
39	0111889	1	BOOM SWITCH ASSY LIFT/SWING
40	5093004	3	CLP CUSH .75
41	2502028	2	BEARING 1.25ID 1.75OD 1.00LG
42	970049	4	M. SCR. 1/4 - 20 I.O.F.H. SOC. CAD PL
43	5560004	4	NUT, 1/4-20 ESNA
44	0070473	4	BLT DRH .313-18 X 3/4 GR.5
45	970369	6	C. SCREW, 5/16-18 X 1" LG. HH
46	970339	6	C. SCREW, 5/16-18 X 1-1/4" LG. HH.
47	5560031	12	NUT, 5/16-18 ESNA
48	987109	12	WASHER, 5/16 MEDIUM LOCK
49	583556	12	WASHER, 5/16 FLAT
50	970439	16	M. SCR. 3/8-16 5/8 F.H. SOC. CAD
51	970449	22	M. SCR. 3/8-16 3/4 F.H. SOC. CAD
52	970489	6	M. SCR. 3/8-16 1-1/2 F.H. SOC. CAD
53	970479	16	M. SCR. 3/8-16 1-1/4 F.H. SOC. CAD
54	0072682	2	SL PAD 4.50 DIA .625
55	970499	11	M. SCR. 3/8-16 1-3/4 F.H. SOC. CAD
56	5560146	2	BLT SHLDR .625 1.00-5/8 X 1 SHOULDER BOLT
57	5560681	8	M. SCR. 3/8-16 2-1/4 F.H. SOC. CAD
58	5560682	3	M. SCR. 3/8-16 2-1/2 F.H. SOC CAD
59	970439	10	C. SCREW, 3/8-16 X 5/8" LG. HH
60	970449	18	C. SCREW, 3/8-16 X 3/4" LG HH

## Booms

Item	Part No.	Qty.	Description
61	970469	8	C. SCREW, 3/8-16 X 1" LG HH
62	0111317	1	CABLE RETAINER
63	970489	6	C. SCREW, 3/8-16 X 1-1/2" LG HH
64	5560033	50	NUT, 3/8-16 ESNA
65	0072683	2	SLIDE PAD SPACER
66	987119	36	WASHER, 3/8 MEDIUM LOCK
67	986039	48	WASHER, 3/8 FLAT
68	5560005	2	BLT SHLDR .625-5/8 X 3/4 SHOULDER BOLT
69	5560053	4	NUT HEX JAM .500-13-1/2-13 DRILLED FOR TIE WIRE
70	0111005	2	SPACER-EXTEND CABLE
71	974709	6	M. SCREW, #10-24 X 1" LG TRUSS HEAD
72	986009	6	WASHER #10 FLAT
73	984049	6	NUT, #10-24 HEX
74	984469	4	NUT, 3/4-10 HEX JAM
75	5560170	4	WASHER, 3/4 HARD FLAT
76	5074401	2	FTG LKNT BHD-4 STL
77	5034501	2	FTG ELB90BHD-4S-4S STL
78	987099	4	WASHER, 1/4 MEDIUM LOCK
79	0070768	2	HOSE-4-4S-4S 18.5 100R1
80	970009	4	C. SCREW, 1/4-20 X 1/2" LG HH PLATED
81	0110695	1	SLIDE PAD LWR INT BOOM OUTER
82	0070639	4	SL PAD 3.00 6.00 .38
83	0110706	6	SHIM 3.00 6.00 .030
84	0110701	2	SPACER INT BOOM OUTER LOWER
85	0110696	1	SLIDE PAD LWR BASE BOOM OUTER
86	0110702	2	SPACER BASE BOOM OUTER LOWER-A DD PLATING NOTE
87	0110707	6	SHIM 3.00 6.00 .090
88	0090141	10	SHIM SLIDE PAD .090 THK
89	2504847	REF	BEARING
90	5560171	4	WASHER, 7/8 HARD, FLAT ASTM F-436
91	5560685	4	NUT, 7/8-9 HEX JAM
92	0110976	2	SPACER X 5/8 LG
93	0110977	2	SPACER X 1-1/8 LG.
95	3040187	2	CONN .500 .313-.438
96	0073111	1	SLIDE PAD SPACER
97	0080294	2	SL PAD 1.25 6.00 .38
98	0070043	2	SHIM 1.25 5.88 .030
99	0073343	2	SHIM .090
100	5560015	20	THREAD INSERT SCREW LOCK .375
101	2500035	2	BEARING 1.25ID 1.50OD 1.25LG
104	0111324	2	RETAINER

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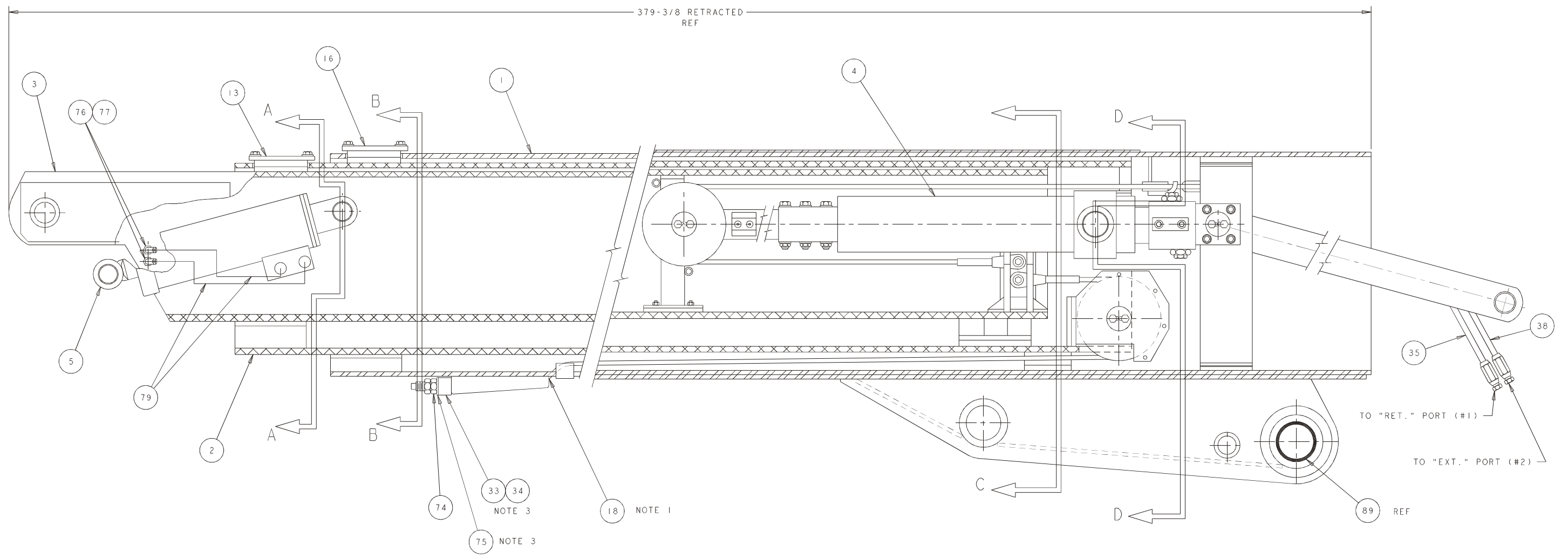
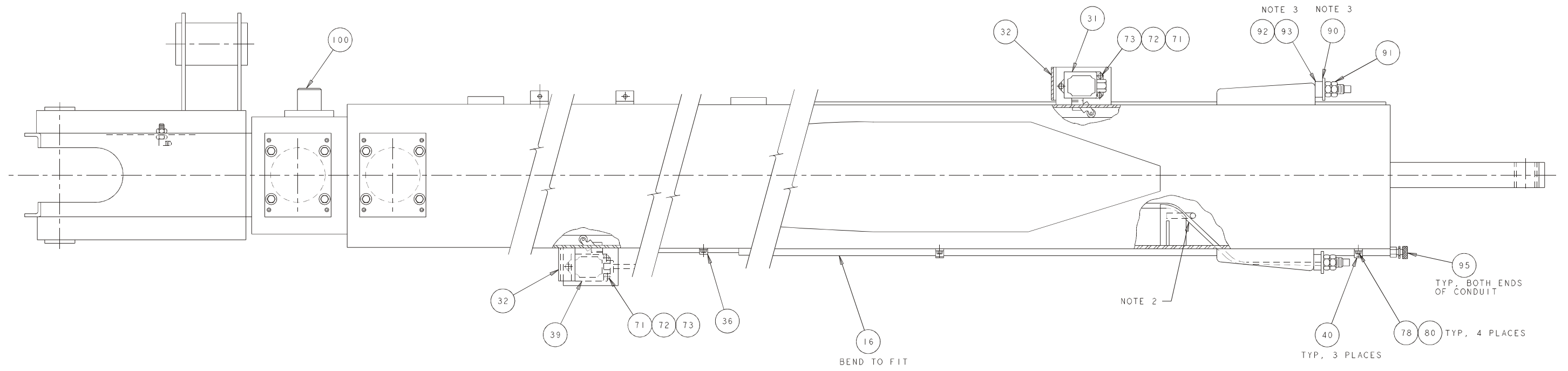
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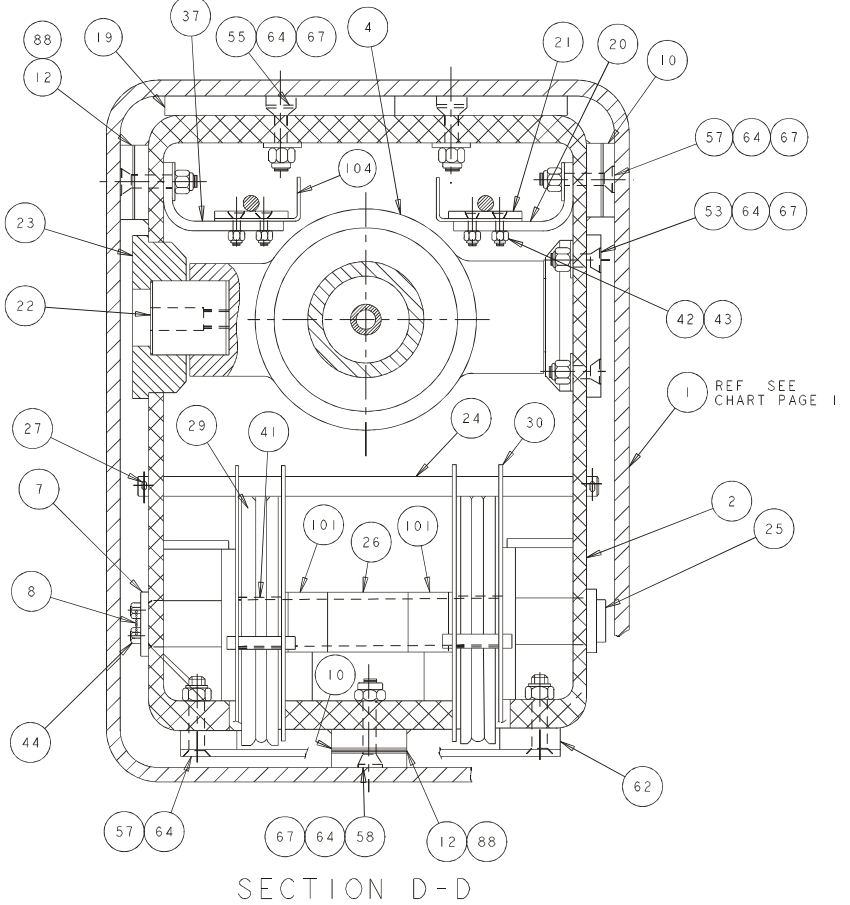
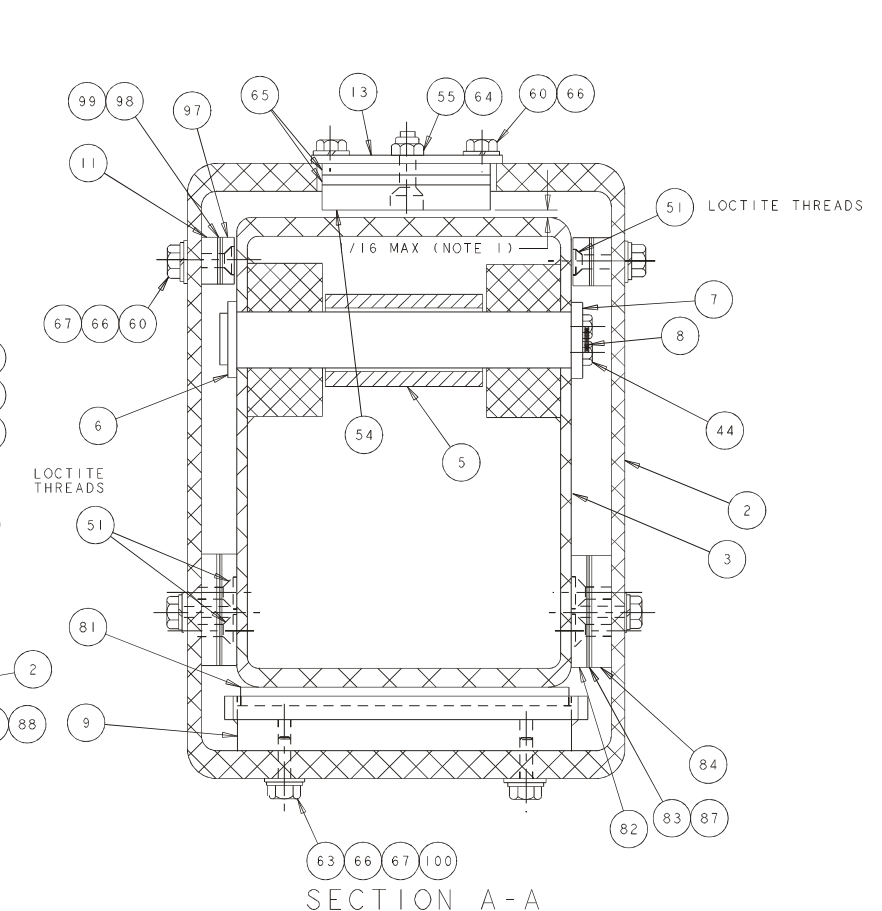
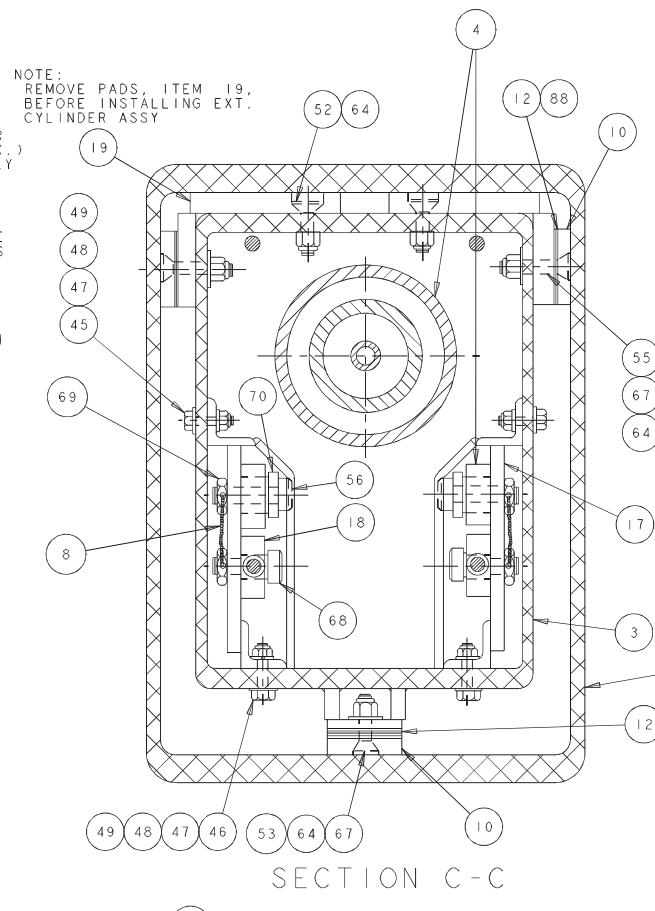
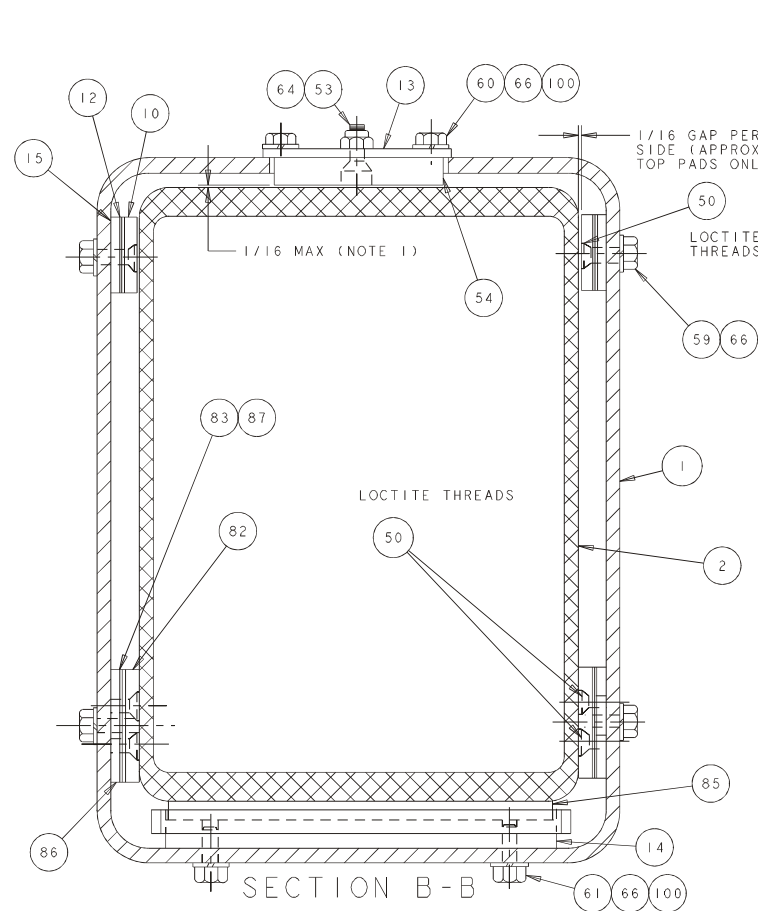
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## Hose Carrier

Item	Part No.	Qty.	Description
1	0110206	1	WLDMT HOSE CARRIER
2	0110571	1	WLDMT CARRIER TUBE
3	3010009	106 ft	CONTROL CABLE #18-12
4	3010006	106 ft	CONTROL CABLE #12-8-1.14
5	0110219	2	HOSE-3-4S-4S 1014
6	0112549	2	HOSE-4-4S-4S 1050 R7
7	0100105	4	SL PAD 2.00 2.50 .375
8	972479	8	CAPSCREW, 3/8-16 X 1 1/4 LG. FLAT SOC. HD. PLATED
9	5560033	29	NUT, 3/8-16
10	986039	43	WASHER, 3/8 FLAT
11	970489	5	CAPSCREW, 3/8-16 X 1 1/2 LG. FLAT SOC. HD. PLATED
12	0110583	1	PIN
13	988169	2	COTTER PIN, 1/8 X 3/4 LG
14	0110842	2	SL PAD 1.50 1.50 1.100
15	970519	2	CAPSCREW, 3/8-16 X 2 1/4 LG FLAT SOC. HD. PLATED
16	3010005	106 ft	CONTROL CABLE #18-19-1.48
17	0110841	1	SL PAD 1.50 6.250 1.50
18	0070031	1	SL PAD 2.00 6.00 .330
19	0110227	10	SPACER-ADD PLATED TO ES-1-21 REV A
20	970639	10	CAPSCREW, 3/8-16 X 8" LG. HEX HD. GR. 5
21	9920017	118	TRACK, LINK
22	5560687	1	CAPSCREW, 1/2-13 X 8" LG. HEX HD. GR 5
23	986359	2	WASHER, 1/2" FLAT
24	5560039	1	NUT, 1/2-13
26	970529	4	CAPSCREW, 3/8-16 X 2 1/2 LG. HEX HD. GR. 5
28	0110603	1	SLIDE PAD HOSE CARRIER ASSY
29	0110610	1	ANCHOR PLATE BOTTOM



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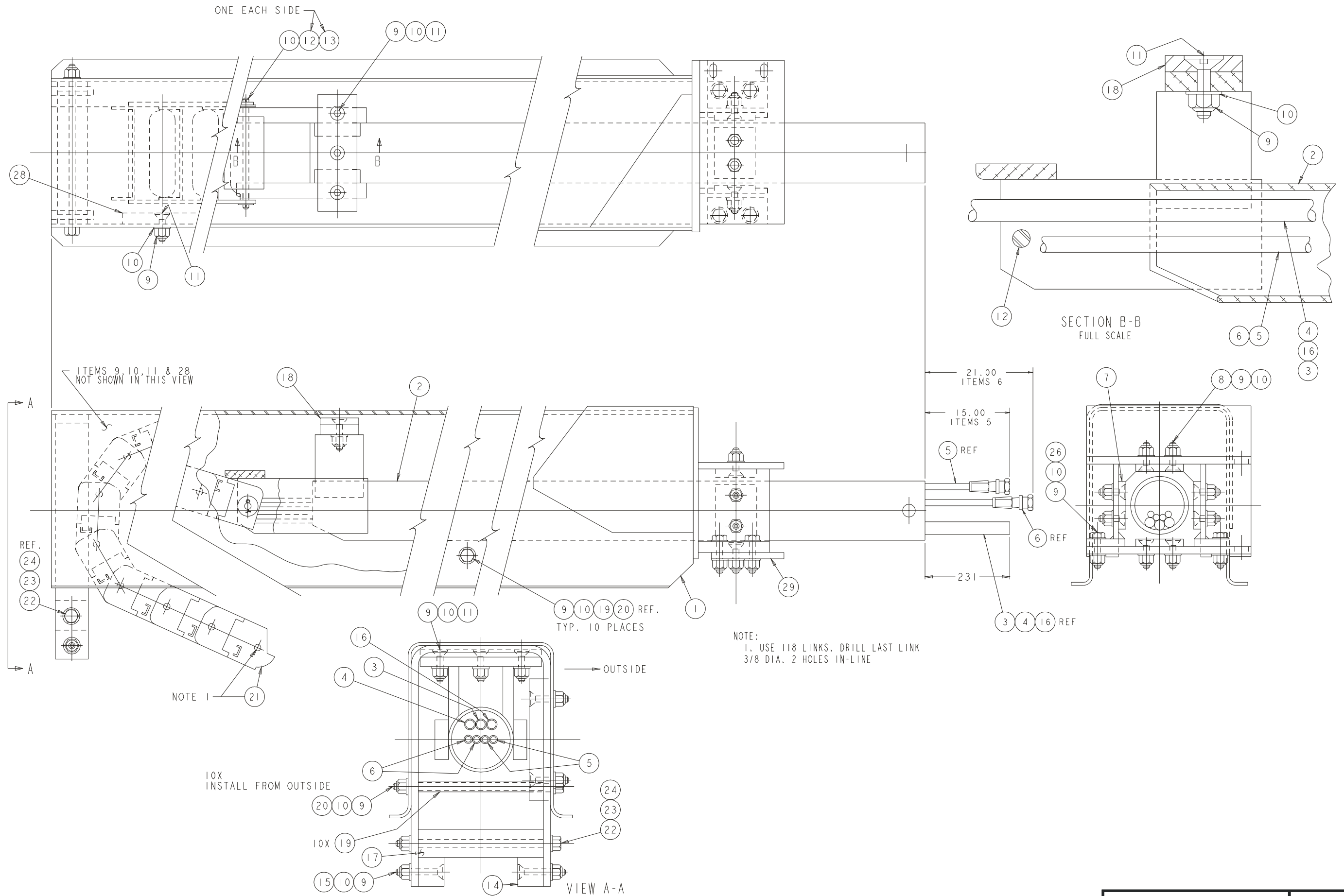
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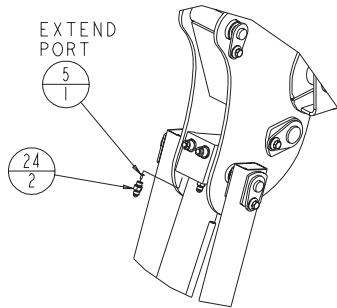
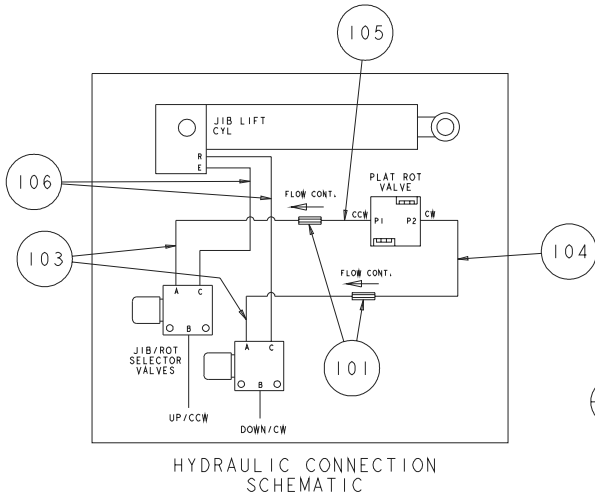




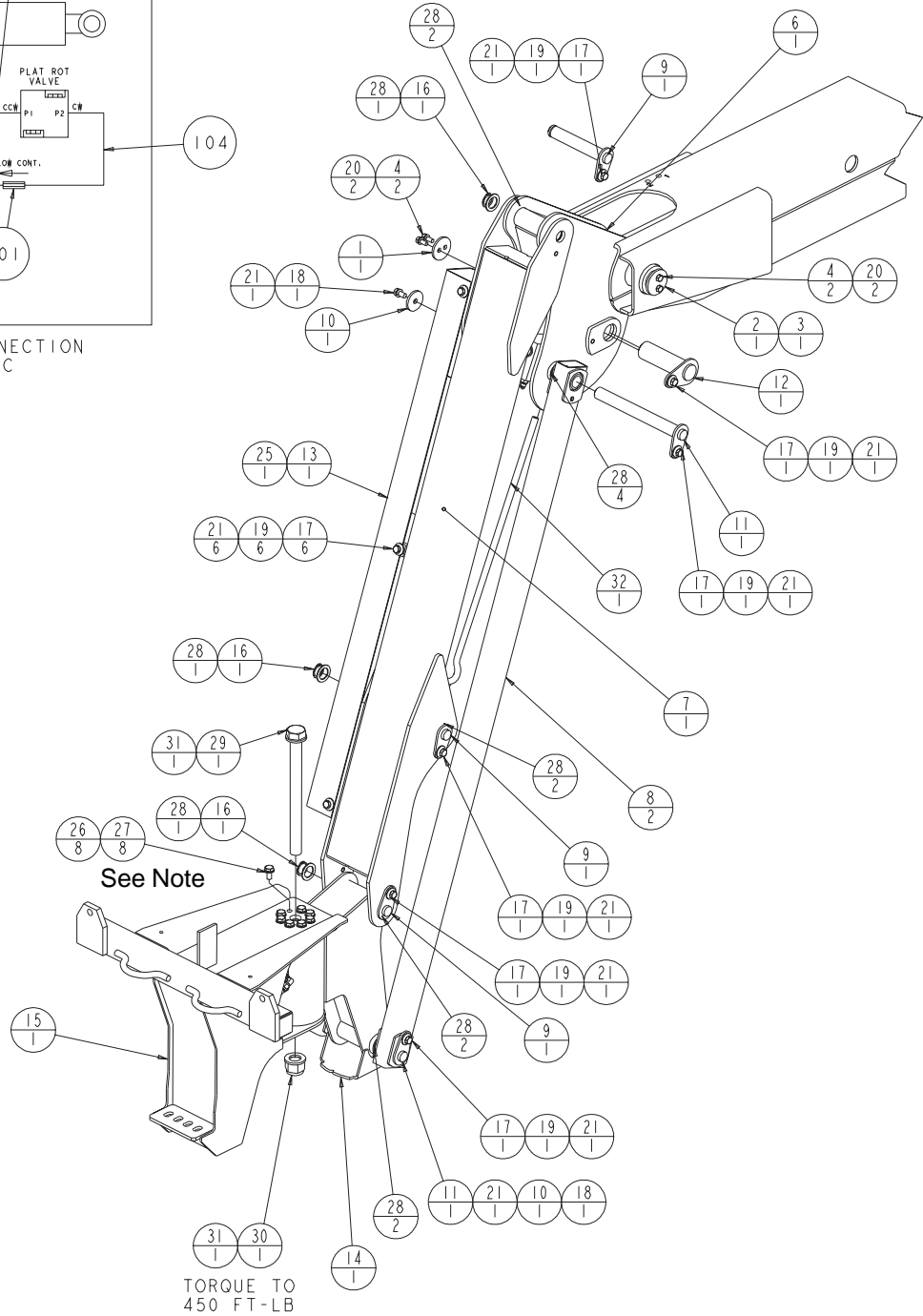
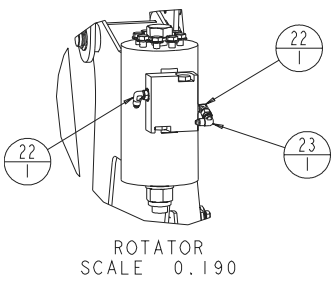
## Jib

Item	Part No.	Qty.	Description
1	0070033	1	PIN LOCK-2 X 7 GA FLATWASHER - 2 HOLES Z/P
2	0070132	1	PIN LOCK-2-1/4 X 3/16 F/W - 2 HOLES Z/Y
3	0070446	1	PIN LIFT CYL TO BASEBOOM-REV C
4	0070473	4	BLT .313-18 0.75 GR5 DRILLED HEAD
5	0151918	1	ORIFICE .035
6	0172187	1	WLDMT, JIB INNER QUADRANT
7	0172195	1	WLDMT, UPPER JIB ARM
8	0172199	2	WLDMT, LOWER JIB STRUT
9	0172213	3	WLDMT, PIN 1.0 DIA X 5.79 GRIP
10	0172214	2	END CAP 1.0 DIA PIN
11	0172216	2	WLDMT, PIN 1.0 DIA X 9.43 GRIP
12	0172228	1	WLDMT,PIN 1.50 DIA X 4.88 GRIP
13	0172231	1	COVER, HOSE 5' JIB
14	0172233	1	WLDMT, ROTATOR
15	0172307	1	WLDMT, BASKET MTG BRKT
16	300542	3	SNAP RING 1.00 ID HEAVY DUTY
17	970439	12	BLT .375-16 .625
18	970449	2	BLT .375-16 .750 GR5
19	986299	12	WSHR FLAT .38
20	987109	4	WSHR LOCK .313
21	987119	14	WSHR LOCK .375
22	5035303	2	FTG ELB90STRTHD-4B-4S STL
23	5037003	1	FTG ELB90SWVL-4S-4S STL
24	5065703	2	FTG ADPTR STRTHD-4B-4S STL
25	5560083	2 ft	HOSE GUIDE .125 RUBBER EDGE
26	5560222	8	WASHER HARD FLAT .375 SP
27	5560625	8	BLT 10MM 1.50P 20MM
28	5560689	15	BSHG MCHRY 1.00ID 1.50OD 14GA
29	5569989	1	BLT HEXHD M24-3.0X280MM GR8.8
30	5569990	1	NUT LKG M24-3.0P
31	5569991	2	WSHR HARD FLAT M24
32	6047114	1	CYL,31.53LG X 24.45ST X 2.50BR
101	6019067	2	VALVE, CHECK 0.015 DIA ORIFICE
103	0050137	2	HOSE-4-4S-4S 36 100R1
104	0322684	1	HOSE-4-4S-4S 60 SP
105	0100269	1	HOSE-4-4S-4S 55 100R1
106	0070772	2	HOSE-4-4S-4S 54 100R1—4 JIC 3 7 DEG. SWIVEL BOTH ENDS-REV.B

# Jib



JIB CYLINDER  
SCALE 0.150



Note: Lubricate with anti-seize  
Torque to 27 ft/lb

1 — Item Number  
2 — Quantity At This Location

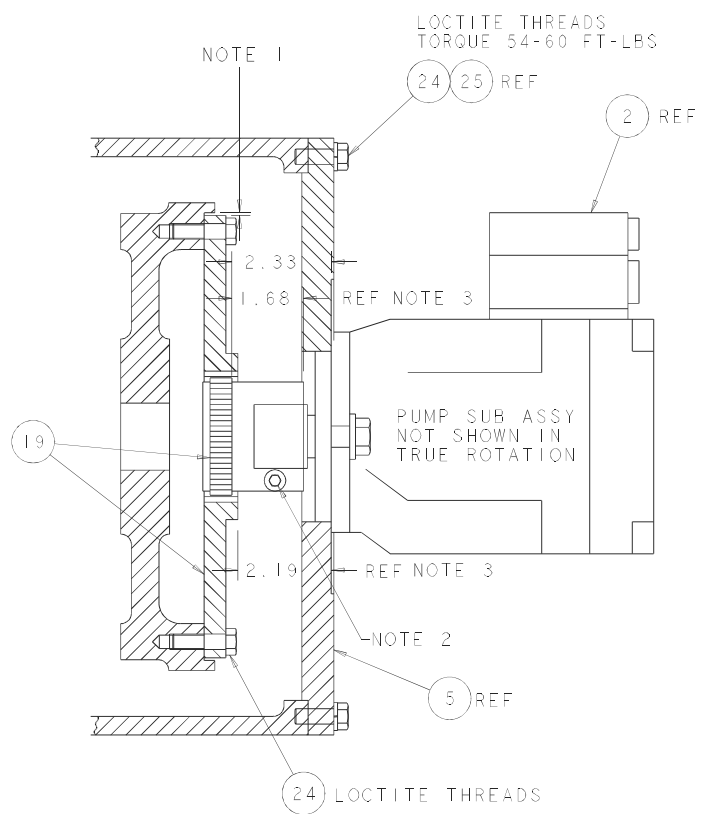
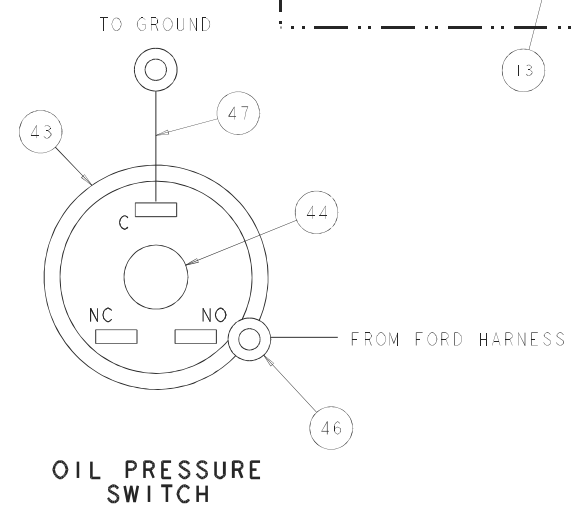
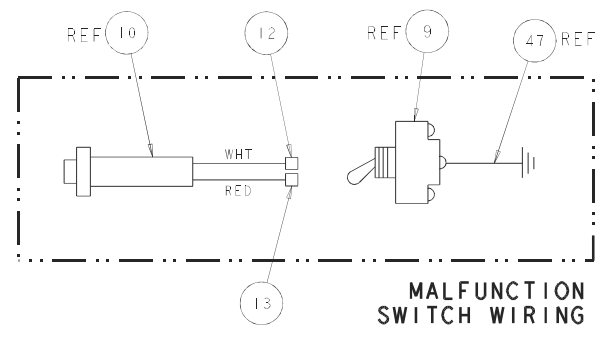
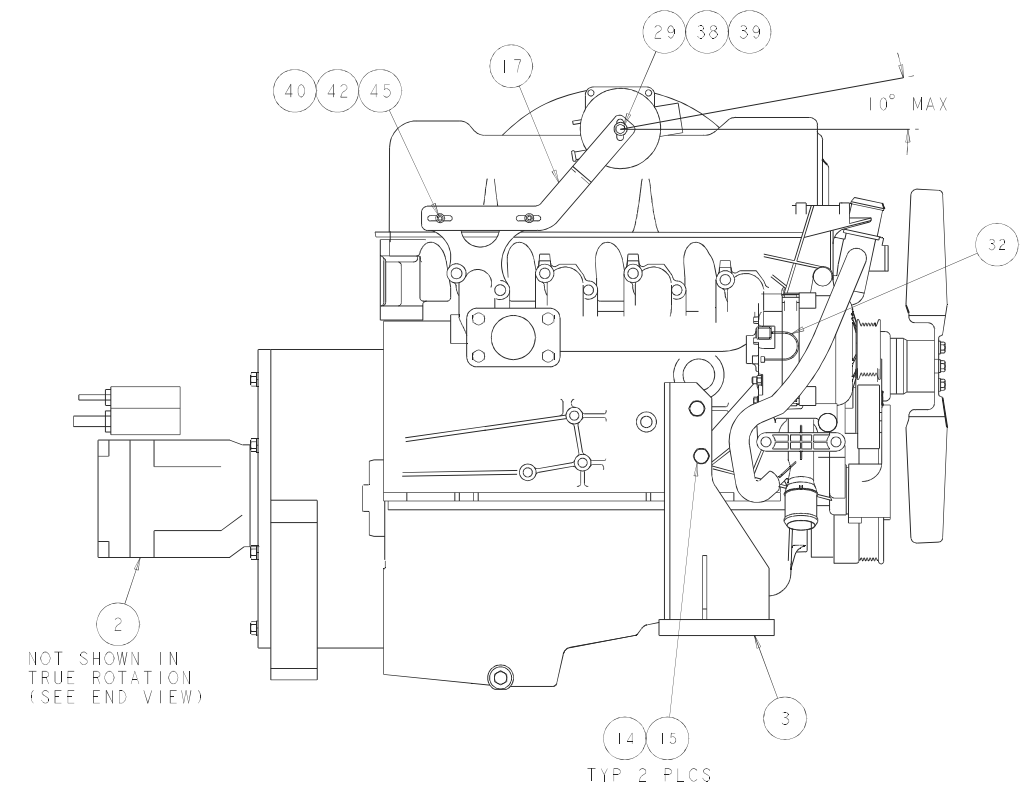
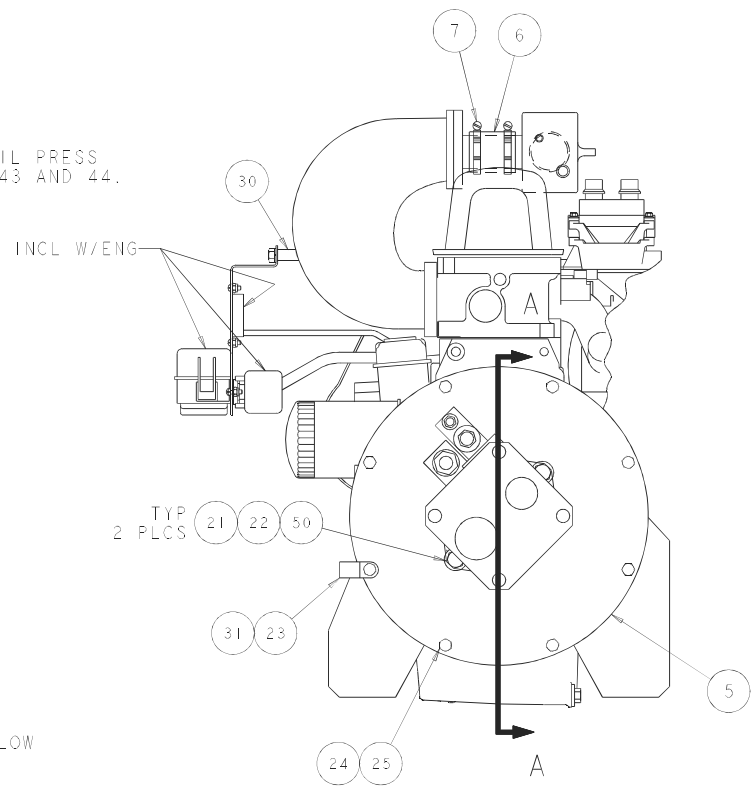
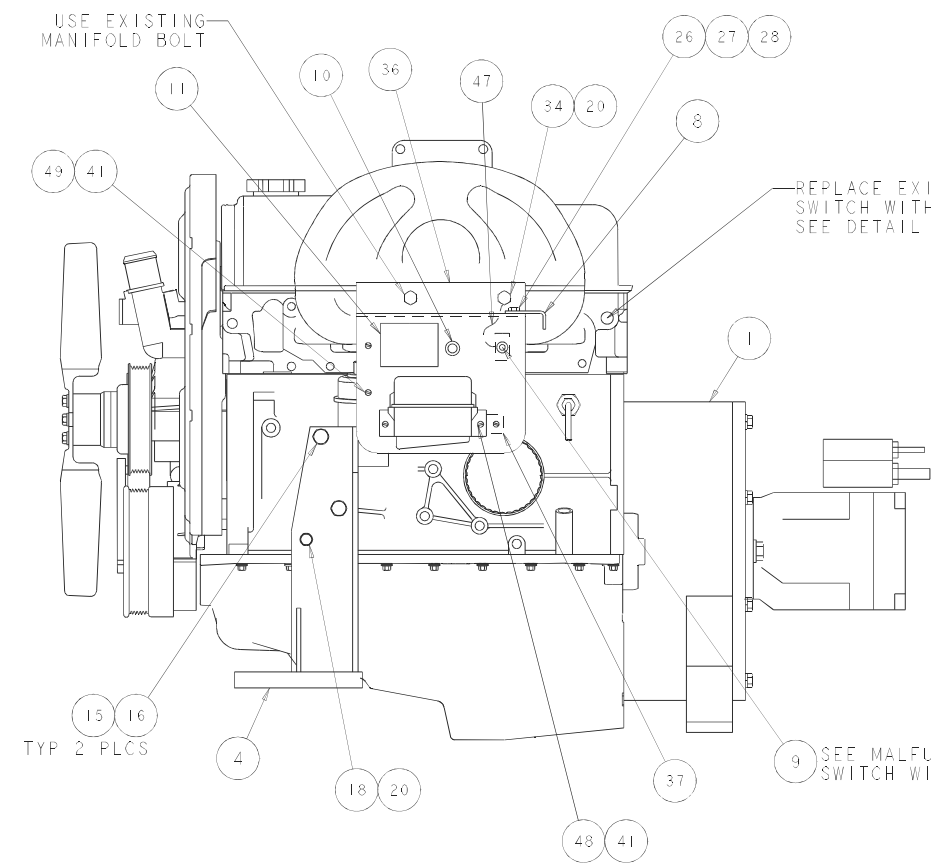
## Engine, Ford LRG 425

Item	Part No.	Qty.	Description
1	7624752	1	ENGINE, FORD LRG425 DUAL FUEL
2	0111578	1	PUMP SUB ASSY TBA80C
3	0111838	1	WLDMT RH MOTOR MOUNT
4	0111839	1	WLDMT LH MOTOR MOUNT
5	0080827	1	ENGINE ADAPTER FO
6	7630327	0.16 ft	HOSE, 2" ID FLAME RESISTANT
7	5550040	2	CLP WORM DRV #40
8	0083929	1	BRKT, DIPSTICK BRACE (FO)
9	3020080	1	SW TGL SPDT (M/NONE/ON)
10	7630688	1	INDICATOR LAMP
11	0112092	1	DECAL ENG DIGN TROUBLE CODE
12	3040046	1	TERM MALE250FI 22/18
13	3040047	1	TERM FEM250FI 22/18
14	5560652	2	BLT HEXHD M10 X 1.5 70 MM CLS 8.8
15	5560356	4	WSHR LOCK M10
16	972019	2	BLT HEXHD M10 X 1.5 25 MM CLS 8.8
17	0083948	1	BRACE, MIXER (FO)
18	5560357	1	BLT HEXHD M8 X 1.25 25MM CLS 8.8
19	7630249	1	FLEXIBLE COUPLING
20	5560355	3	WSHR LOCK M8
21	5560136	2	BLT LKG .500-13 1.25 GR5 DRILL-NYLOCK-DRILLED
22	5560168	2	WASHER HARD FLAT .500 SP
23	986299	1	WSHR FLAT .375
24	972479	13	BLT HEXHD .375-16 1.25 GR. 5
25	987119	14	WSHR LOCK .375 MDM
26	970369	2	BLT .313-18 X 1.00 LG HH
27	5560031	2	NUT LKG .313-18
28	986269	2	WSHR FLAT .313
29	970009	1	BLT HEXHD .250-20 X .50 LG GR5
30	0083908	1	SPACER, .63 OD X 13GA X 1.00
31	5093006	2	CLP CUSH .937
32	0111869	1	ALTERNATOR WIRE ASSY
34	5560622	1	BLT HEXHD 8MM - 1.25 P X 30MM CLS 8.8
36	0083907	1	COVER PLATE
37	0112087	1	ENGINE HARNESS BRACKET
38	986019	1	WASHER FLAT .25
39	987099	1	WASHER LOCK .25
40		2	NUT HEX M5
41	5560034	5	NUT HEXHD #10-24 LKG
42		2	WASHER FLAT M5
43	3020095	1	SWITCH PRESSURE 6 PSI
44	7720201	1	REDUCER BUSHING,1/4NPT 1/8NPT
45		2	WASHER LOCK M5
46	3044145	1	TERM R8I 22/18
47	0071563	2	WIRE 16 R8I R313I 7
48	974659	3	SC TRSHD #10-24 .5 LG PLATED
49	974729	2	SCR TRSHD #10-24 1.25 LG PLATE
50	9980012	AR	.040 SS SAFETY LOCKWIRE





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- NOTES:
1. ANY CLEARANCE SHALL BE EQUALIZED ON OPPOSITE SIDES OF FLANGE WITH A FEELER GAUGE. CLEARANCE SHALL NOT EXCEED .005.
  2. APPLY LOCTITE TO HUB THREADS FOR CROSSBOLT. TORQUE 3/8-16 CROSSBOLT TO 45 FT/LBS.
  3. INDICATED "REF" DIMENSIONS TO BE CHECKED AT ASSEMBLY TO VERIFY CORRECT PARTS AND ENGAGEMENT.

SECTION A-A



## Engine and Mounting, Ford LRG 425

Item	Part No.	Qty.	Description
1	0112561	1	ASSY, ENGINE (FO) TIER 2
2	7630677	1	RADIATOR FORD 425 EFI
3	0180441	2	RADIATOR SUPPORT
4	0081860	2	ANGLE RADIATOR MTG TB-A60 FO
5	7630180	4	RADIATOR CUSHION
6	5560179	8	WASHER SPCL FLAT
7	7630332	1	HOSE LOWER RADIATOR FO LRG423
8	7630749	1	RADIATOR HOSE, FLEXIBLE 1.5ID
9	5550030	4	CLP WORM DRV #32
10	7630117	4	MOUNT,ENGINE
11	0071599	8	WASHER ENG MTG DSL
12	0180832	1	MTG PLATE OVERFLOW
13	7630227	1	OVERFLOW BOTTLE 2QT
14	5010011	34 ft	HOSE SAE30R2-05 .312 FUEL 5/16" SAE30R6
15	970909	6	CAPSCREW 1/2-13 X 1-1/2" LG H.H.
16	5560039	6	NUT 1/2-13 ESNA
17	5550028	4	CLP WORM DRV SAE #4 TYPE M
18	0083783	1	MOUNT PLATE, EPM (FO)
19	970469	2	BLT .375-16 X 1.00
21		REF	DRAIN COCK (INCL WITH ITEM 2)
22	970239	4	CAPSCREW 5/16-18 X 3/4" LG H.H.
23	987109	4	LOCKWASHER 5/16" MED
24	970889	4	CAPSCREW 1/2-13 X 1" LG H.H.
25	986359	4	FLATWASHER 1/2"
26	987439	4	LOCKWASHER 1/2" MED
27	5560639	4	CAPSCREW 5/8-11 X 4-1/2" LG H.H.
28	5560169	4	FLATWASHER 5/8" HARDENED
29	5560036	8	NUT 5/8-11 ESNA
30	970049	6	CAPSCREW 1/4-20 X 1" LG H.H.
31	5560004	14	NUT 1/4-20 ESNA
32	986019	4	FLATWASHER 1/4"
33	0111349	2	MOTOR MOUNT
34	986269	4	FLATWASHER 5/16"
35	7630239	1	RADIATOR CAP 13 PSI
36	970519	4	CAPSCREW 3/8-16 X 2-1/4" LG H.H.
37	986299	4	FLATWASHER 3/8"
38	5560033	6	NUT 3/8-16 ESNA
39	969989	4	BLT .25-20 X 1.75
42	0111713	1	WLDMT MOTOR MOUNT REAR
43	971329	4	CPSCRW, 5/8-16 X 2-1/2 LG. HEX HD GR5
44	5560678	8	WASHER, 5/8 FLAT
45	970069	4	CPSCRW, 1/4-20 X 1.25 LG HEX HD GR5
46	0110200	1	HOSE-16-16S-16S 22
47	0111883	1	HOSE SUCTION 1.50 ID - 24 LG
48	5058824	1	HOSE CLAMP
49	7630678	REF	FUEL LINE CONNECTOR (INCL WITH ITEM 1)
50	7630679	REF	FUEL LINE CONNECTOR (INCL WITH ITEM 1)
51	7630680	REF	FUEL LINE CONNECTOR (INCL WITH ITEM 1)
52	7630681	REF	PRESSURE REGULATOR (INCL WITH ITEM 1)
53	7630682	REF	FUEL PUMP (INCL WITH ITEM 1)
54	7630683	REF	FUEL FILTER (INCL WITH ITEM 1)
55	7630686	REF	HIGH PRESSURE HOSE (INCL WITH ITEM 1)
56	7630685	REF	PRESSURE REGULATOR CLAMP (INCL WITH ITEM 1)
57	7630691	REF	HIGH PRESSURE FUEL CLAMP (INCL WITH ITEM 1)
58		REF	ENGINE CONTROL CLAMP (INCL WITH ITEM 1)
64	5010006	4 ft	HOSE VACUUM .25 ID 6MM
65	5090026	2	CLAMP HOSE FOR .187 ID VACUUM
66	5018829	5 ft	HOSE, .75 ID LPG
67	5010020	5 ft	HOSE .625ID 16MM PH #831-10
68	5550020	4	CLP WORM DRV #20

Item	Part No.	Qty.	Description
69	5550010	2	CLP WORM DRV #10
70	5098336	1	FTG ELB 90 HOSE BEAD-10-6N BR
71	5098335	1	FTG STR HOSE BEAD-10-6N BR
72	5560698	4	BLT M6-1.0 X 20MM
73	5560629	4	WSHR LOCK M6
75	0083915	1	BRKT, DUAL FUEL (FO)

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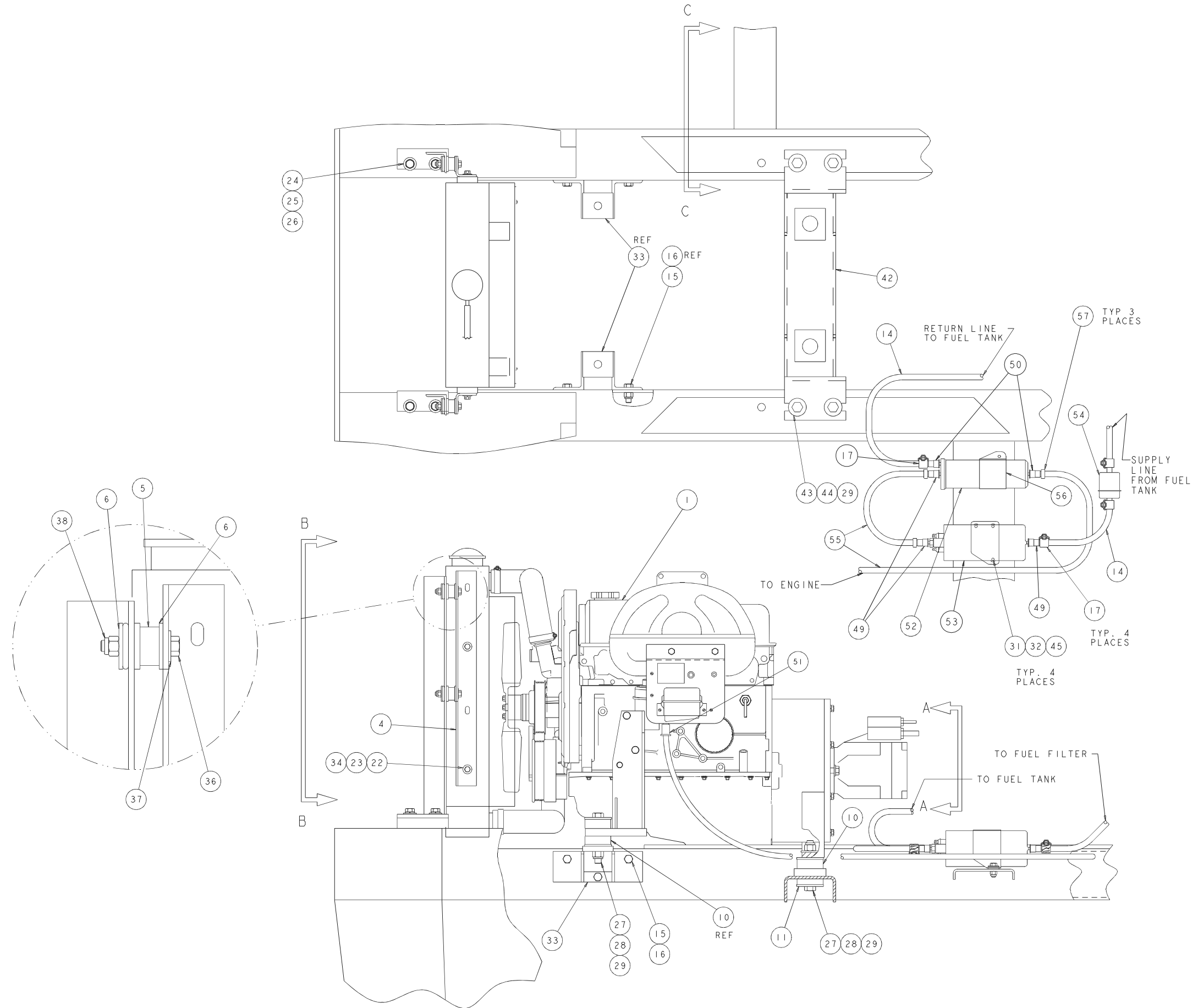
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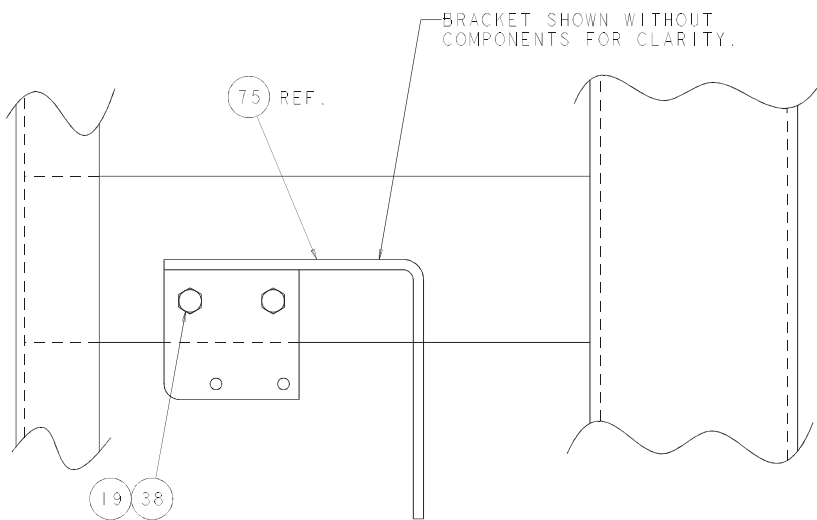
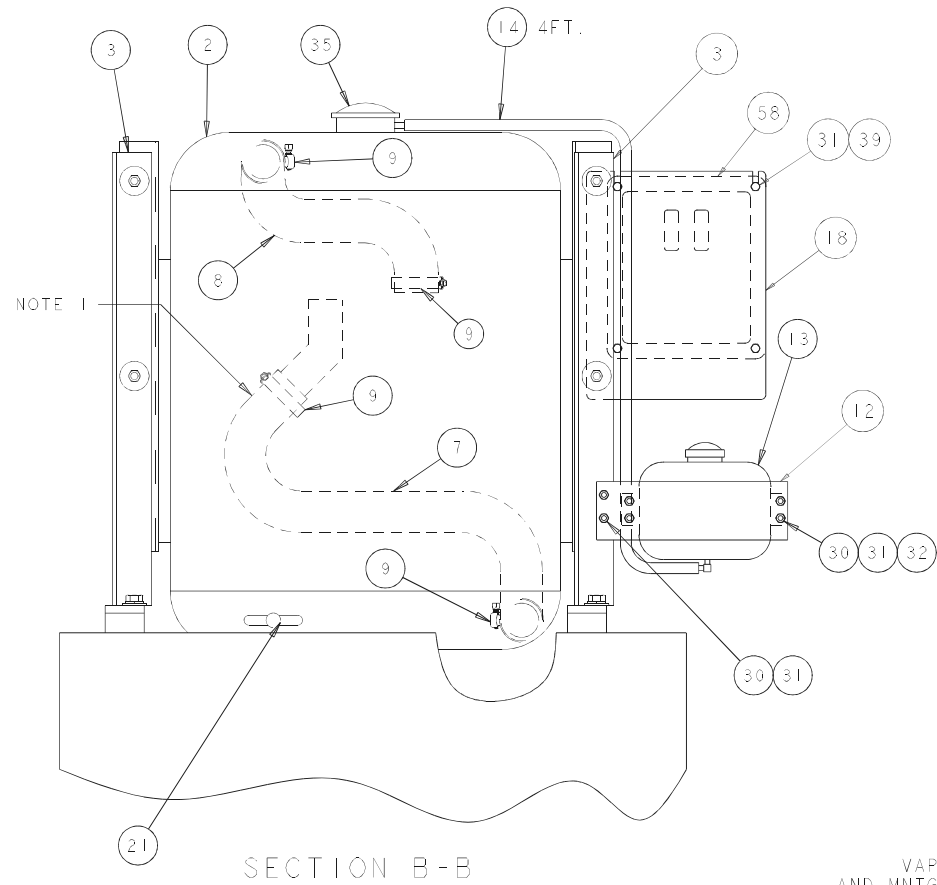


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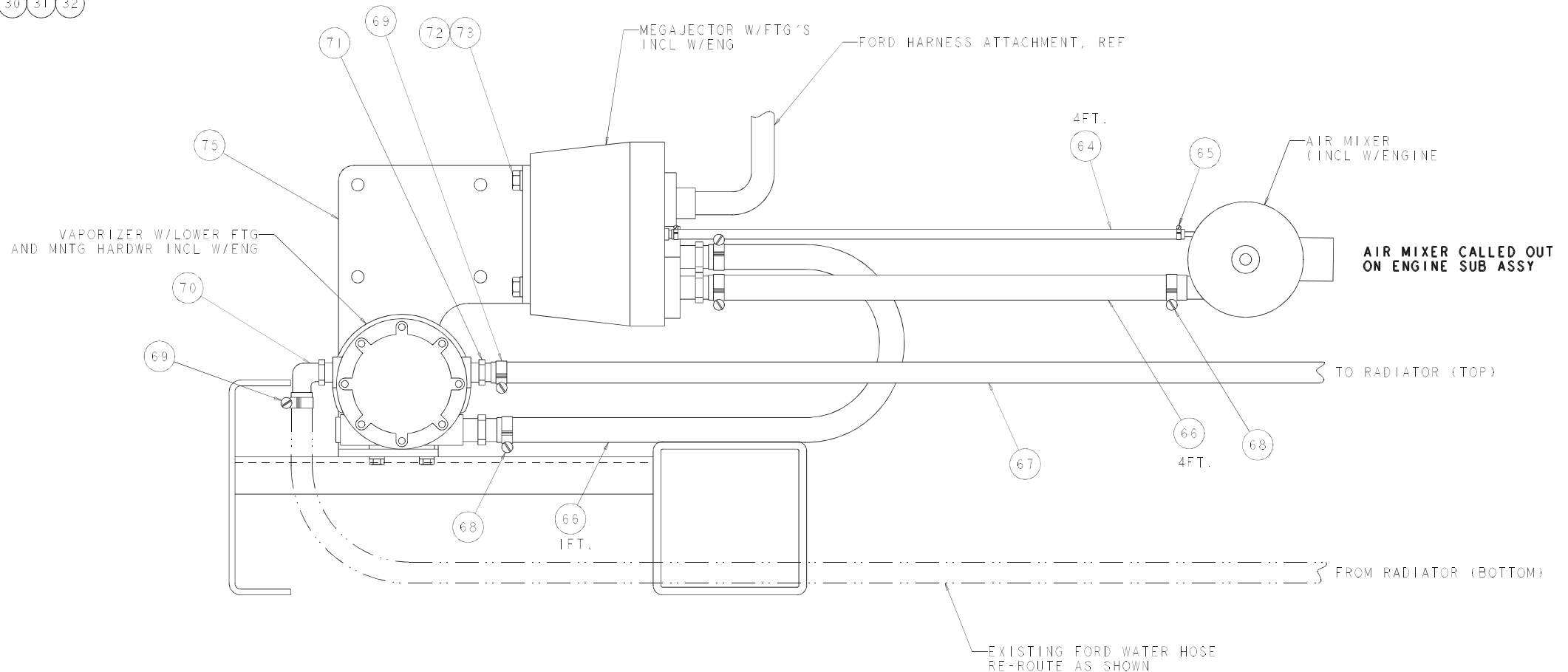
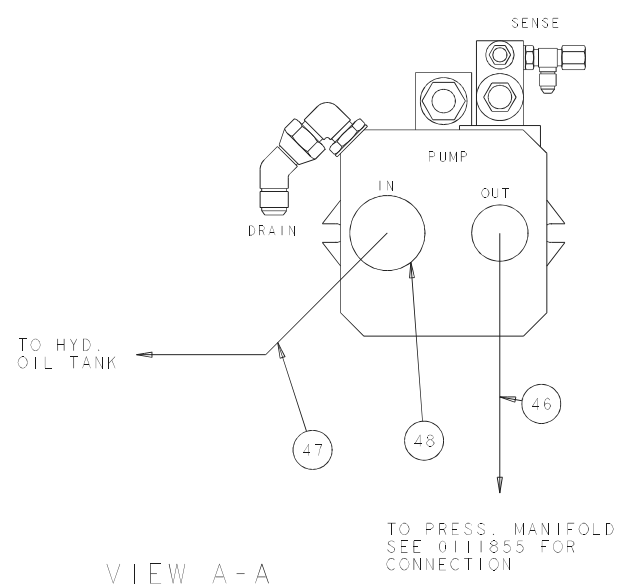
Engine and Mounting  
Ford LRG 425 - TB85J

Page 5-21

1 2 3 4 5 6 7 8 9



NOTES:  
 1. CUT APPROX. 2" OF HOSE OFF OF 1-1/2 I.D.  
 END, IF REQUIRED.



VIEW C-C  
 DUAL FUEL INSTALL

## Exhaust and Air Cleaner, Ford LRG 425

Item	Part No.	Qty.	Description
1	0071995	1	TUBE RDCR 2.50-2.00 2.50 LG
2	0083909	1	BRACE, CATALYTIC CONVERTOR (FO)
3	0083911	1	WELDMT, EXHAUST PIPE (FO)
4	0083914	1	HEAT SHIELD (FO)
5	0083919	1	WELDMT, CATALYTIC CONVRTR (FO)
6	0083946	1	COVER, OXYGEN SENSOR (FO)
7	0112577	1	WLDMT, AIR INLET
8	970029	2	BLT .25-20 .750 GR5
9	970239	2	BLT .313-18 .750 GR5
10	970419	5	BLT .375-16 1.25 GR5
11	970469	2	BLT .375-16 1.00 GR5
12	986009	3	WSHR FLAT 10
13	986019	4	WSHR FLAT .250
14	986269	2	WSHR FLAT .313
15	986299	5	WSHR FLAT .38
16	987119	4	WSHR LOCK .375
17	5010020	2 ft	HOSE .625ID 16MM
18	5093000	3	CLP CUSH .437
19	5550040	4	CLP WORM DRV #40
20	5560004	2	NUT LKG .250-20
21	5560031	2	NUT LKG .313-18
22	5560033	3	NUT LKG .375-16
23	5560034	3	NUT LKG 10-24
24	5560356	4	WSHR LOCK M10
25	5560364	2	WSHR FLAT M10
26	5560625	4	BLT 10MM-1.50P 20MM
27	5560673	3	SCR TRHD 10-24 1.00
28	7630015	1	ELBOW 90 DEGREE 2.5
29	7630140	1	FILTER MINDER GAUGE
30	7630196	1	AIR INLET HOOD
31	7630197	1	ELBOW 2" 90 RUBBER
32	7630755	1	AIR CLEANER
33	7630759	1	MTG BRKT 6.50" AIR CLEANER
34	7630796	1	DIFFUSER DISCS
35	7630797	1	MUFFLER ADAPTER





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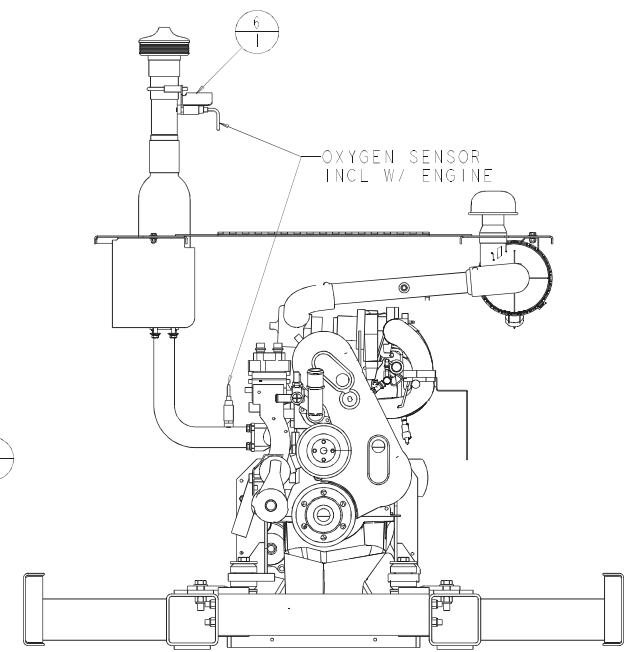
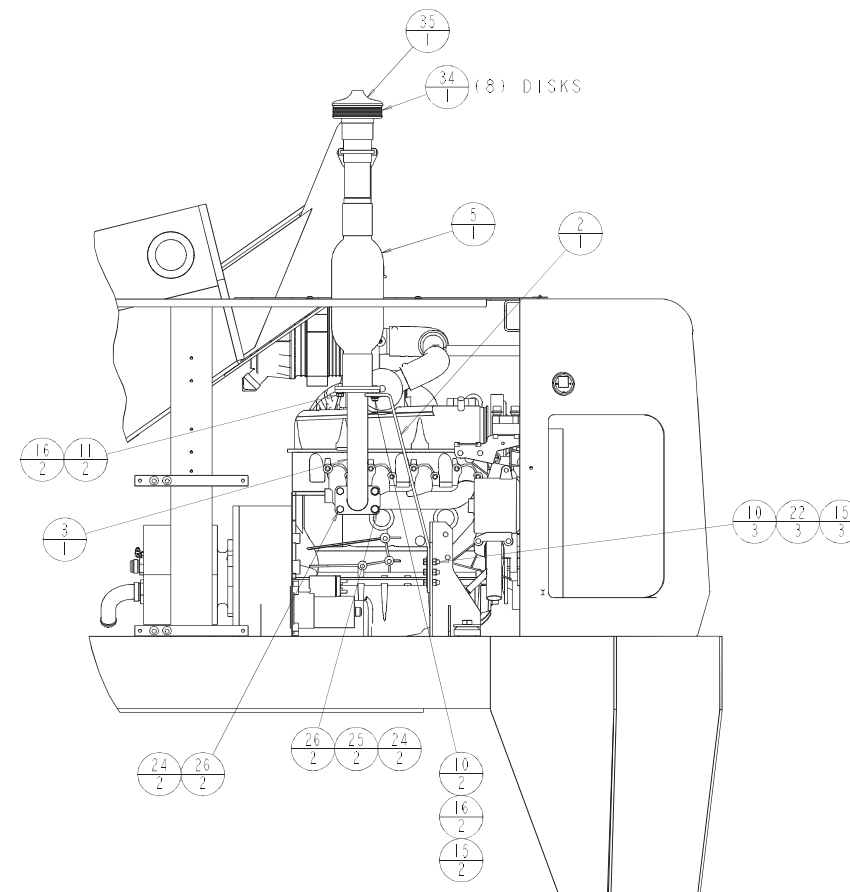
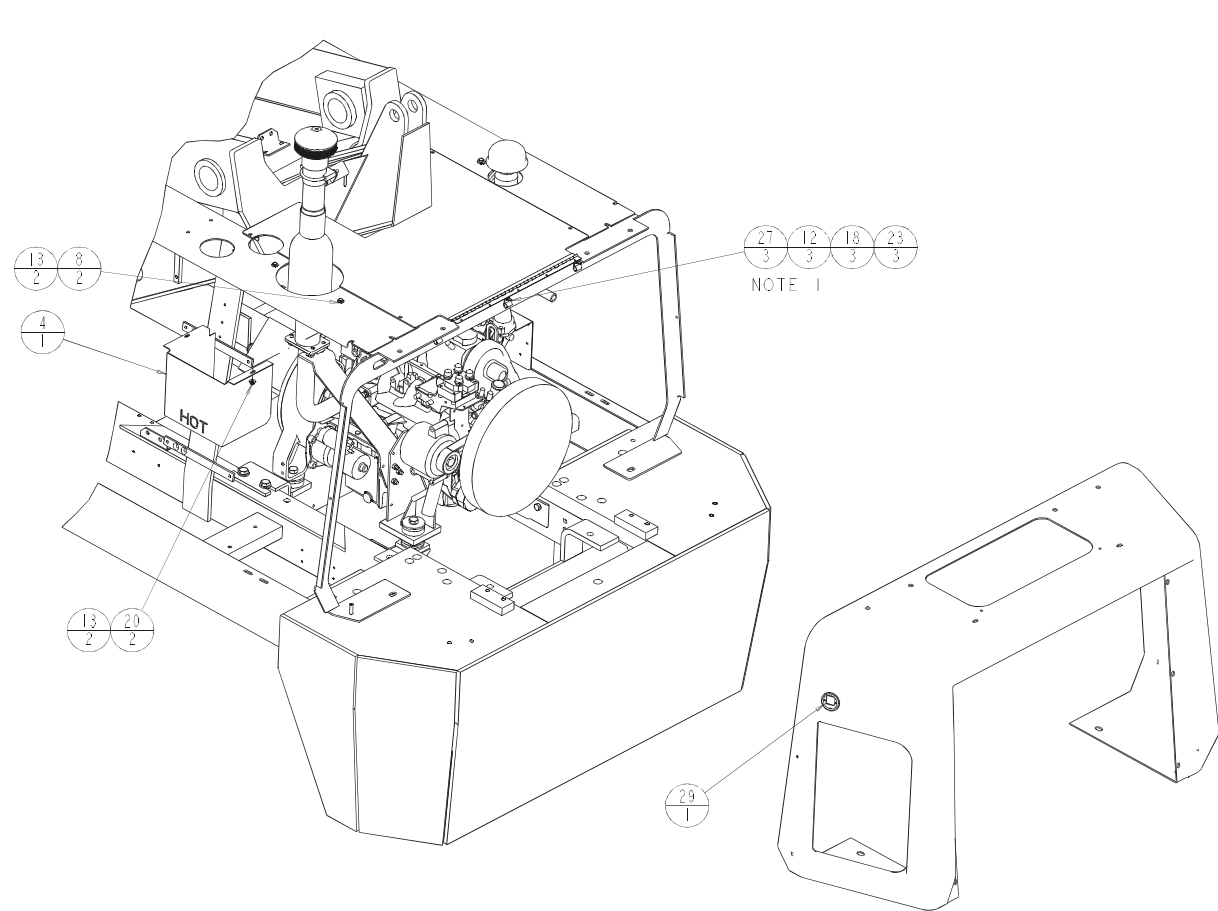
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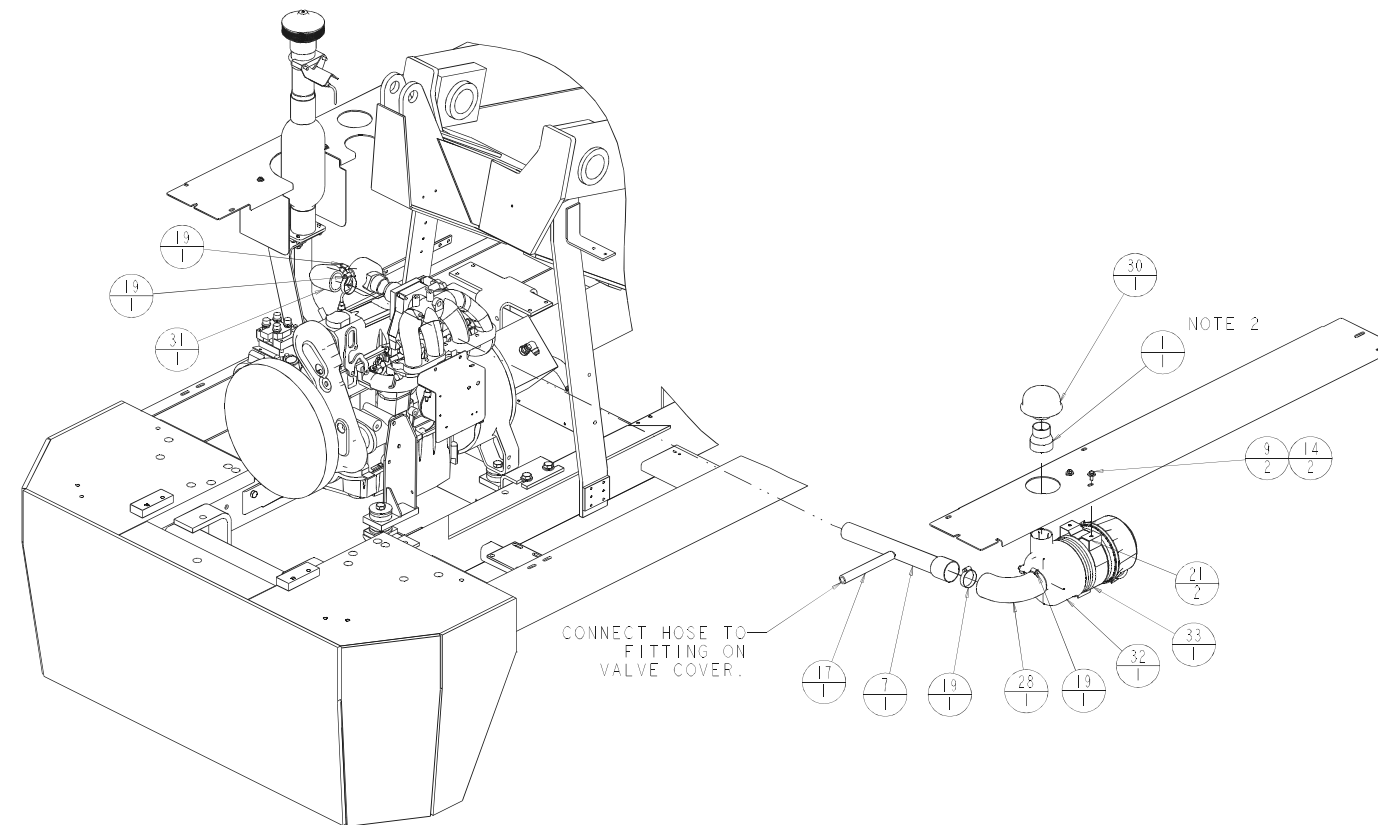
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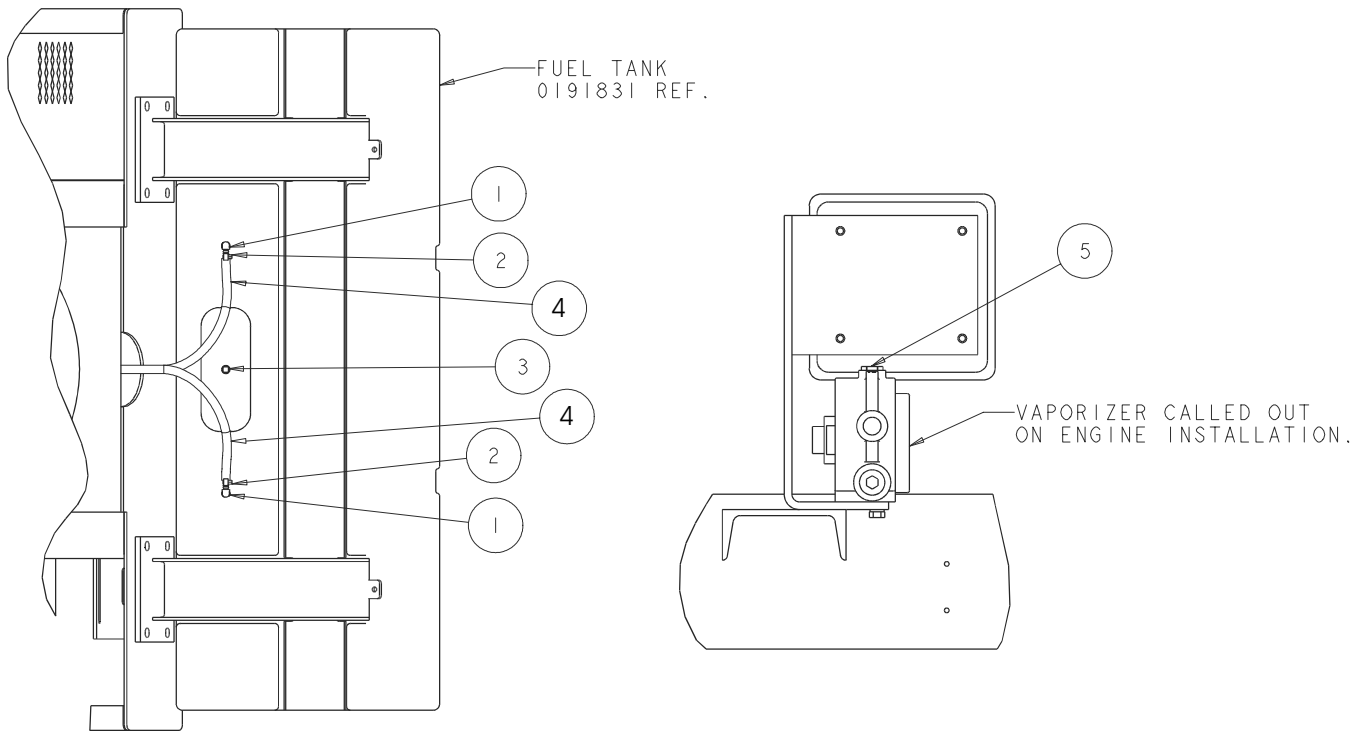
NOTES:  
 1. ROUTE FILTER MINDER HOSE THRUIGHT CLAMPS.  
 2. POP RIVET AIR INLET TUBE TO AIR CLEANER, (3) PLCS.





## Fuel Tank Fittings, Ford LRG 425

Item	Part No.	Qty.	Description
1	5093039	2	FTG ELB90 MALE-6N-5H
2	5550028	2	CLP WORM DRV SAE #4
3	7714203	1	PIPE PLUG, 3/8" NPT SQ.HD. BLK.
4	5010011	30 ft	HOSE SAE30R2-05 .312 FUEL 5/16" SAE30R6
5	5098337	1	FTG PL HEXHD-4N BR





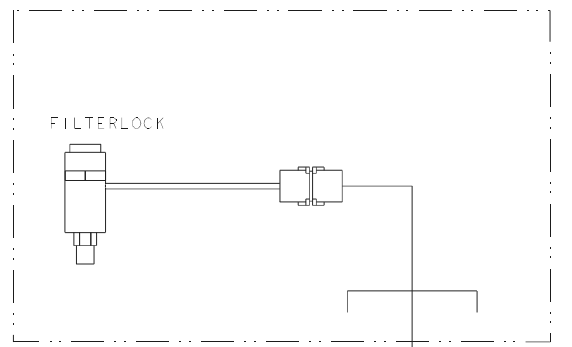
## LP Fuel Only, Ford LRG 425

Item	Part No.	Qty.	Description
1	0083949	1	ASSY, FILTERLOCK
2	0080668	1	BULKHEAD TEE MTG ANGLE
3	9940018	1	LP TANK - FILLED 43.5 LB LIQUID WITHDRAWAL
4	0070969	2	BRACKET ASSY LPG CYLINDER
5	0072177	1	HOSE-5-6S45-4N 108 LPG
6	0080676	1	HOSE-5-6S45-4N 45 LPG
7	7630703	1	HYDROSTATIC RELIEF VALVE, LPG
8	5090049	1	FTG MALE CONN SAE45-6LPG-4N BR
9	7630704	1	FTG TEE BULKHEAD LPG
11	0081441	1	DECAL CAUTN LIQ WITHDRAWAL LP
12	0070974	1	COUPLER FEMALE LPG 7141 F
13	986269	1	FLATWASHER 5/16"
14	5560031	1	NUT 5/16-18 ESNA
15	5093004	2	CLP CUSH .75
16	970369	1	CAPSCREW 5/16-18 X 1" LG H.H.
17		4	POP RIVET
18	5560033	8	NUT, 3/8-16 ESNA
19	986019	1	WASHER 1/4 FLAT
20	970489	8	CAPSCREW 3/8-16 X 1-1/2" LG H.H.
21	986299	8	FLATWASHER 3/8"
22	970029	1	CAPSCREW 1/4-20 X 3/4" LG H.H.
23	967259	1	FTG ELB45 SAE45 -6LPG-4N BR
24	5560004	1	NUT, 1/4-20 ESNA

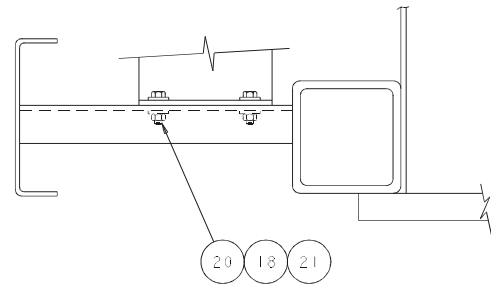


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RIGHT SIDE OF TURNTABLE

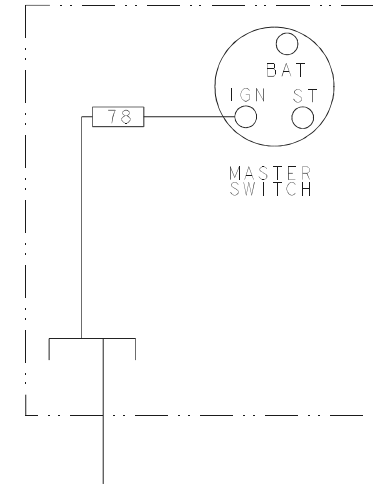


MAIN FORD HARNESS



VIEW B-B

GROUND CONTROL PANEL



ENGINE WIRE ASSEMBLY (FO)

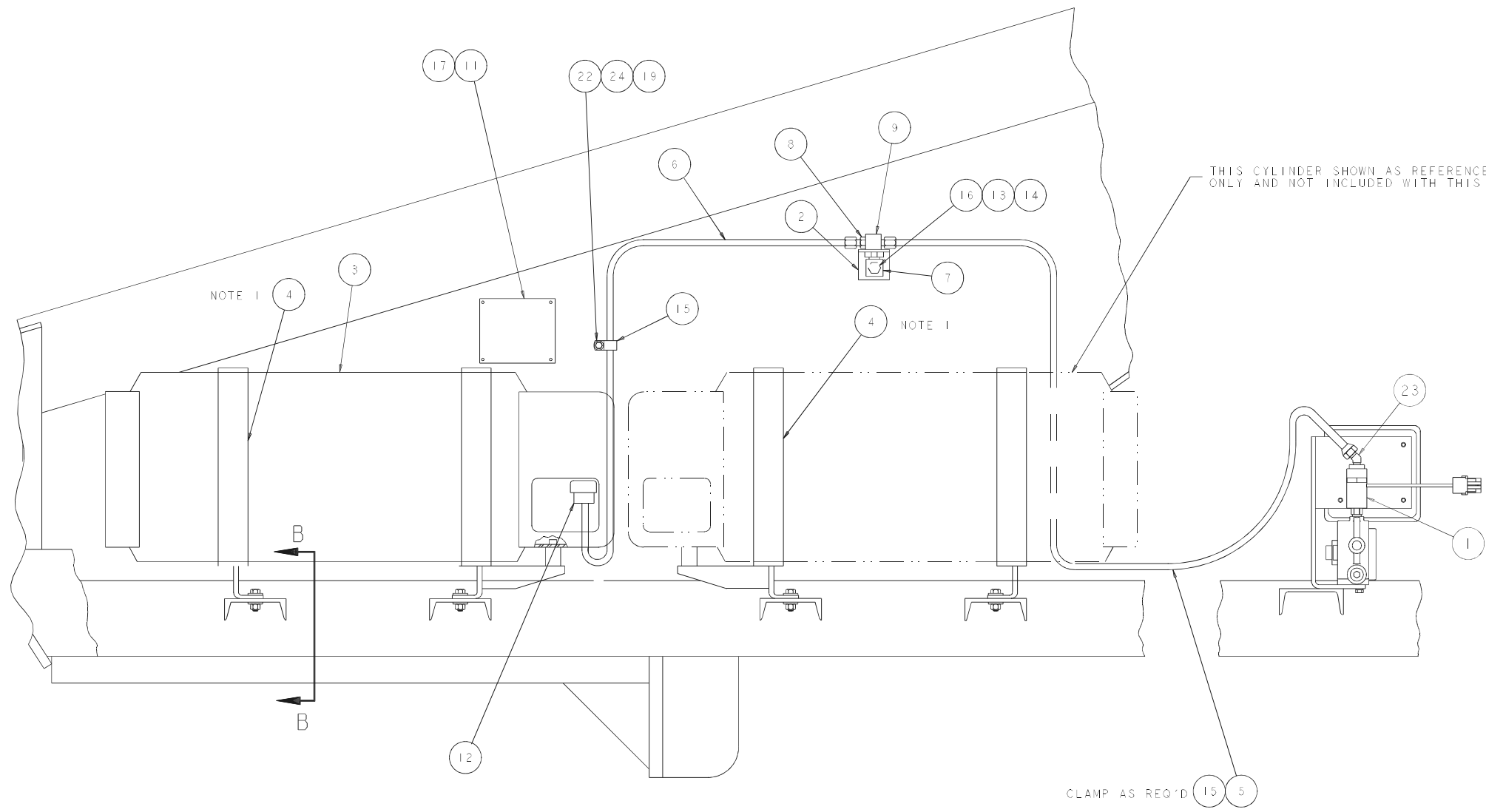
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NOTES:  
1. BRACKET ASSEMBLY, ITEM 4, INCLUDES (1)RH AND (1)LH BRACKET.





## LP Tank, Dual Fuel Ford LRG 425

Item	Part No.	Qty.	Description
1	0083949	1	ASSY, FILTERLOCK
2	0080668	1	BULKHEAD TEE MTG ANGLE
3	9940018	1	LP TANK - FILLED 43.5 LB LIQUID WITHDRAWAL
4	0070969	2	BRACKET ASSY LPG CYLINDER
5	0072177	1	HOSE-5-6S45-4N 108 LPG
6	0080676	1	HOSE-5-6S45-4N 45 LPG
7	7630703	1	HYDROSTATIC RELIEF VALVE, LPG
8	5090049	1	FTG MALE CONN SAE45-6LPG-4N
9	7630704	1	FTG TEE BULKHEAD LPG
10	3020013	1	SW TGL SPST ON OFF SEALED
11	0081441	1	DECAL CAUTN LIQ WITHDRAWAL LP
12	0070974	1	COUPLER FEMALE LPG 7141 F
13	986269	1	FLATWASHER 5/16"
14	5560031	1	NUT 5/16-18 ESNA
15	5093004	2	CLP CUSH .75
16	970369	1	CAPSCREW 5/16-18 X 1" LG H.H.
17		4	POP RIVET
18	5560033	8	NUT, 3/8-16 ESNA
19	986019	1	WASHER 1/4 FLAT
20	970489	8	CAPSCREW 3/8-16 X 1-1/2" LG H.H.
21	986299	8	FLATWASHER 3/8"
22	970029	1	CAPSCREW 1/4-20 X 3/4" LG H.H.
23	967259	1	FTG ELB45 SAE45 -6LPG-4N BR
24	5560004	1	NUT. 1/4-20 ESNA
25	0151815	1	WIRE 16 R10I R10I 12
26	0090493	1	DECAL DUAL FUEL INSTRUCTIONS



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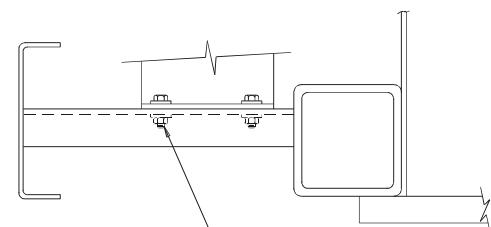
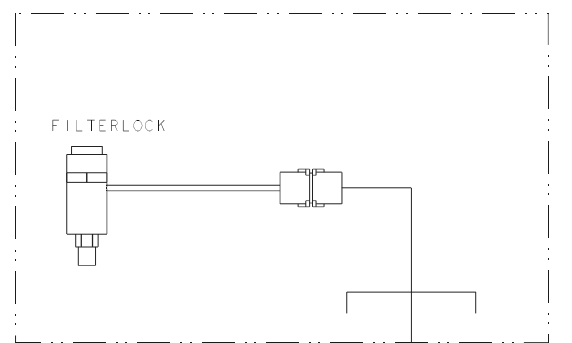
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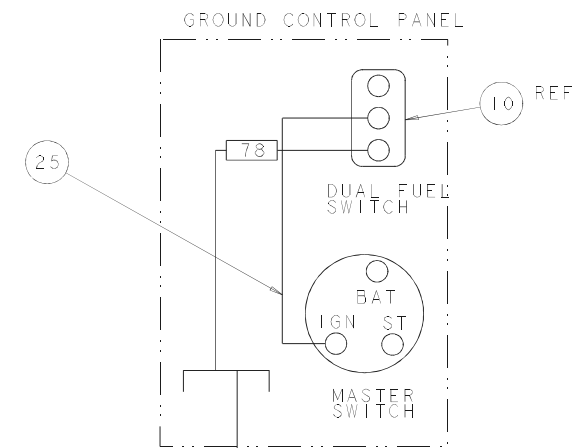
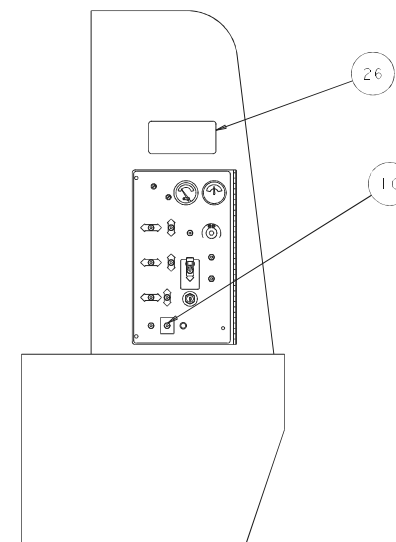
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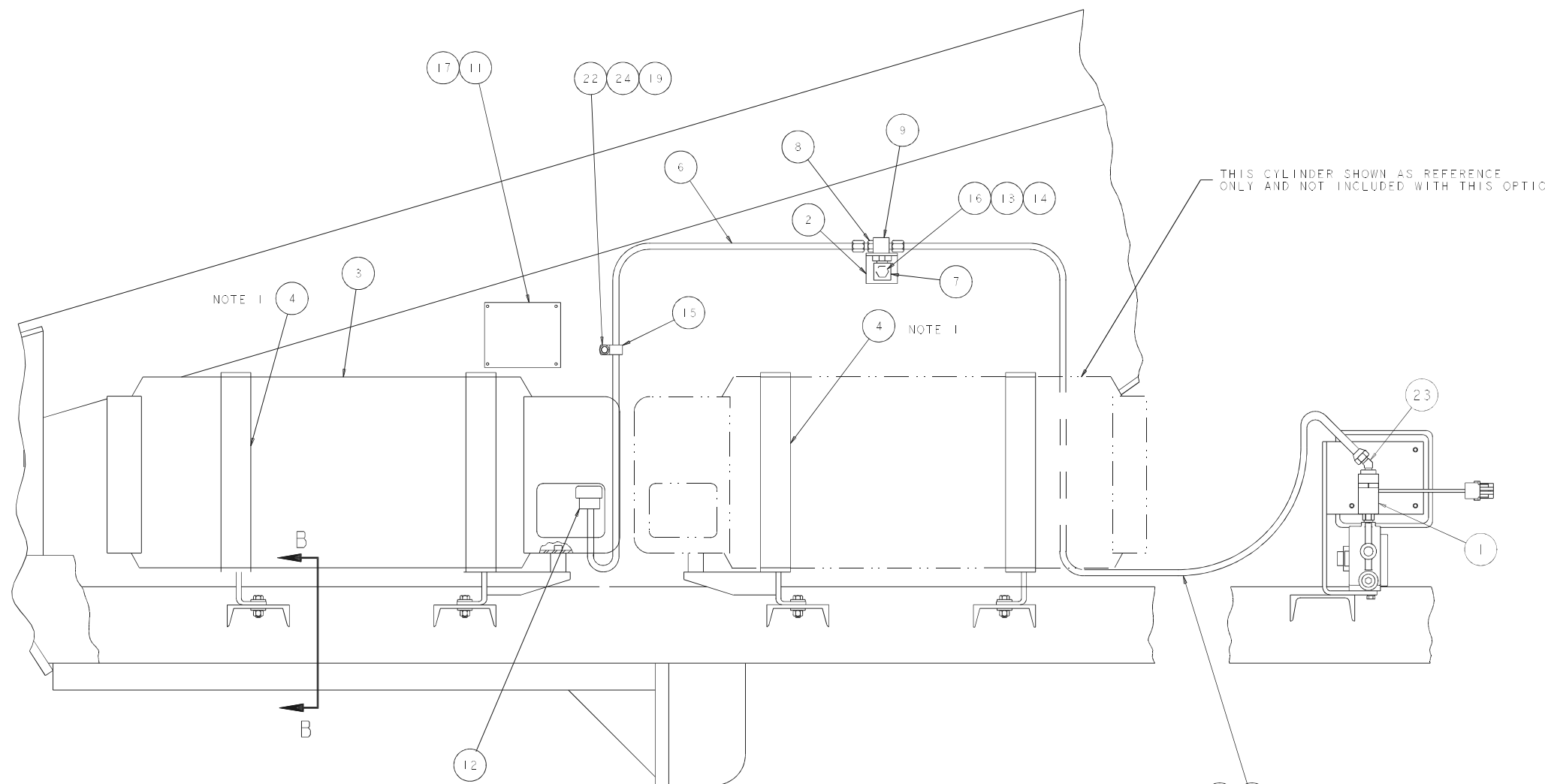
RIGHT SIDE OF TURNTABLE



VIEW B-B



ENGINE WIRE ASSEMBLY (FO)

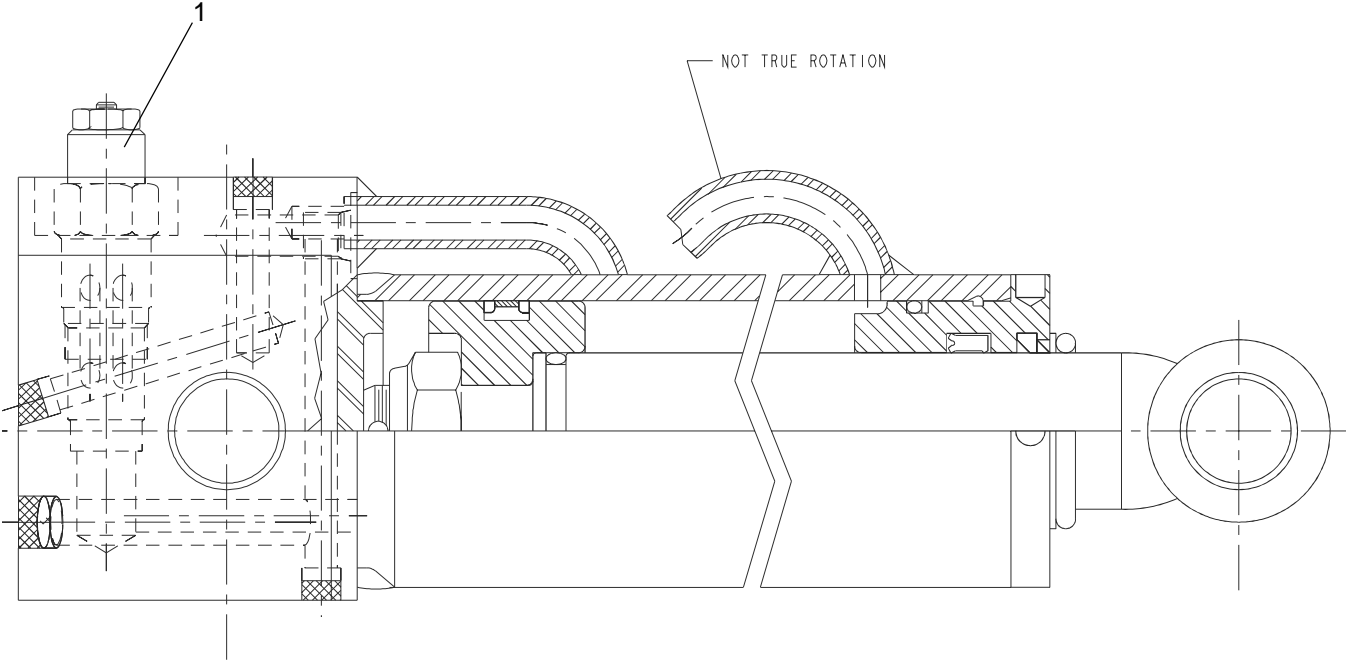


NOTES:  
1. BRACKET ASSEMBLY, ITEM 4, INCLUDES (1)RH AND (1)LH BRACKET.



# Cylinder, Jib – Green

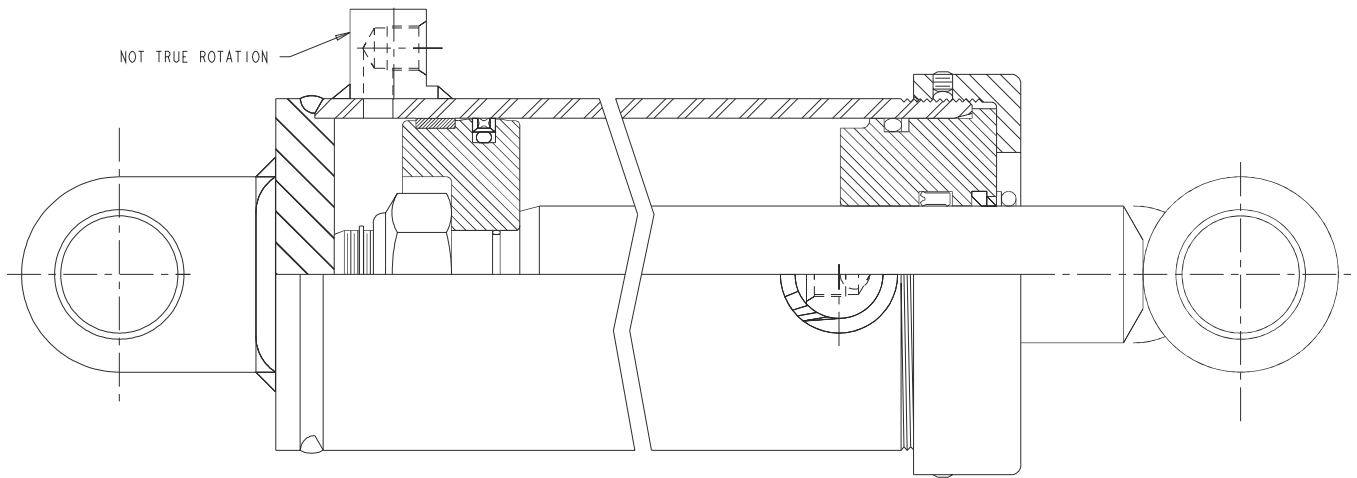
Item	Part No.	Qty.	Description
1	6047114	1	CYLINDER, JIB – GREEN
	8071006	1	SEAL KIT
	6010606	2	CARTRIDGE, COUNTERBALANCE





## Cylinder, Master Level – Green

Item	Part No.	Qty.	Description
	0172223	1	CYLINDER, MASTER LEVEL – GREEN
	8071007	1	SEAL KIT

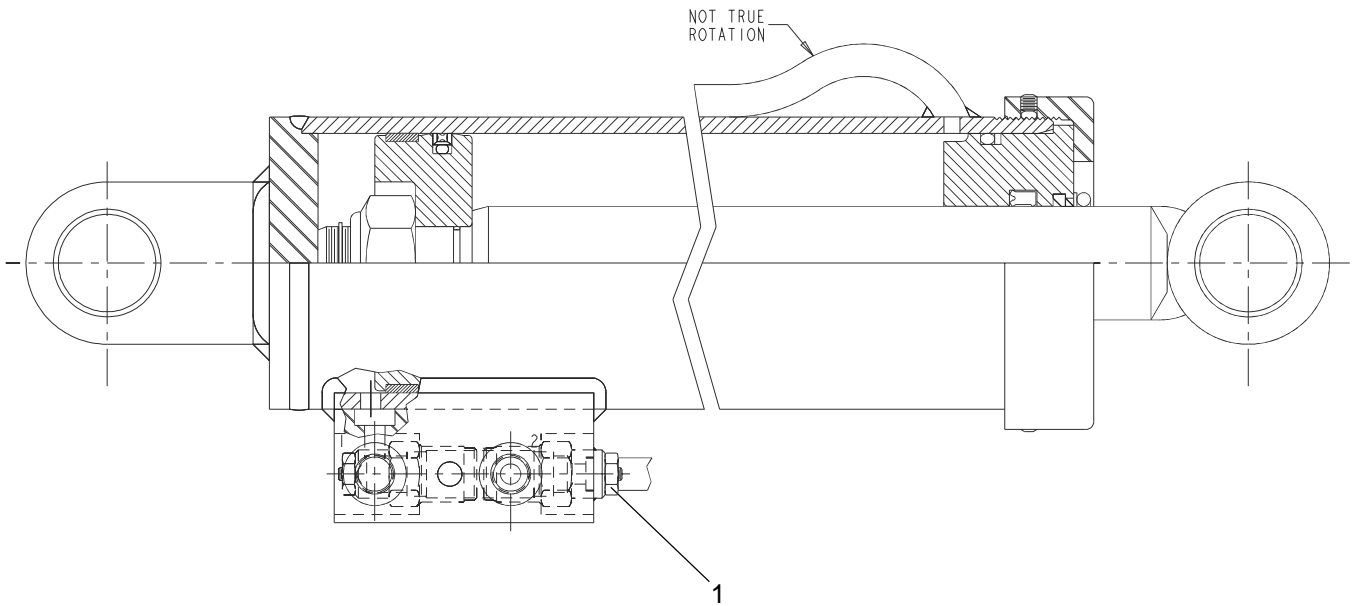






## Cylinder, Slave Level – Green

Item	Part No.	Qty.	Description
1	0172224	1	CYLINDER, SLAVE LEVEL – GREEN
	8071007	1	SEAL KIT
	5035318	2	FTG ELB 90 STRTHD-6B-4S STL-PH4
	6019068	2	CARTRIDGE, COUNTERBALANCE





### Turntable Electrical, Cummins 3.3

Item	Part No.	Qty.	Description
1	0112542	1	GRD CONT PANEL ASSY TB85J (CU)
2	3050002	2	BTRY 12V GROUP 27
3	3050008	2	BATTERY HOLD DOWN
4	3050004	4	BLT BTRY HLDN .375-16 X 10 - PLATED
5	3020049	1	SW BATTERY DISCONNECT
6	0073089	1	PLAC BATTERY DISCONNECT SWITCH
7	0073051	1	WLDMT BATTERY SWITCH BRACKET
8	3040268	3	BOOT BTRY CABLE END
9	3040469	1	RELAY SPDT 12V 30AM
10	0110529	1	WIRE 2/0 R375 R375 106-COLOR:BLACK
11	3040506	1	SOLENOID SWITCH
12	0070705	1	WIRE 4 R313I R375I 81 RED
13	0080483	1	WIRE 2/0 R375 R375 28
14	3020040	1	LEVEL SENSOR 5 DEGREE
15	5093002	3	CLP CUSH .562
16	0072323	1	WIRE 4 R313I R375I 28
17	0080484	4	WIRE 2/0 R375 R375 13
18	3040269	2	BOOT BTRY CABLE END BLK 1/0GA
20	3040270	1	BOOT BTRY CABLE END Y-TYPE
21	5560641	2	BLT HEXHD. .313-18 X .88 GR5
22	5093008	3	CLP CUSH 1.06
23	5560004	9	NUT LKG .25-20 ESNA
24	5093006	4	CLP CUSH .937
25	970029	17	BLT HEXHD. .25-20 X .75 GR5
26	986019	12	WSHR FLAT .25
27	987099	14	WSHR LOCK .25 MDM
28	970239	2	BLT HEXHD .313-18 X .75 GR5
29	583556	2	WSHR FLAT .313
30	987109	4	WSHR LOCK .313 MDM
33	0082046	1	ACTUATOR MODULE SUB ASSY
35	974659	2	SCR RHD #10-24 X .50 PLATED
36	5560654	5	WSHR LOCK #10
37	0111871	1	WIRING BOX SUBASSY
39	0111884	1	TRNTBL WIRE ASSY FO LRG
40	3040534	1	CONTROLLER
41	974269	2	M. SCREW. #6-32 X 1" LG. TRUSS HD
42	987349	4	WASHER, #6 MEDIUM LOCK
43	986159	4	WASHER, #6 FLAT
44	984009	4	NUT, #6-32 HEX
45	3044146	2	TERM R10I 22/18
46	3040046	6	TERM MALE250FI 22/18
47	3040127	1	HORN 12VDC
48	970049	4	C. SCREW, 1/4-20 X 1" LG. H.H.
51	0071545	1	WIRE 16 R8I R8I 4
52	3040082	2	TERM MALE250FI 16/14
53	3044162	1	TERM R250I 16/14
59	3030122	1	ENG PROTECT MODULE
60	974239	2	SCR RHD #6-32 .50



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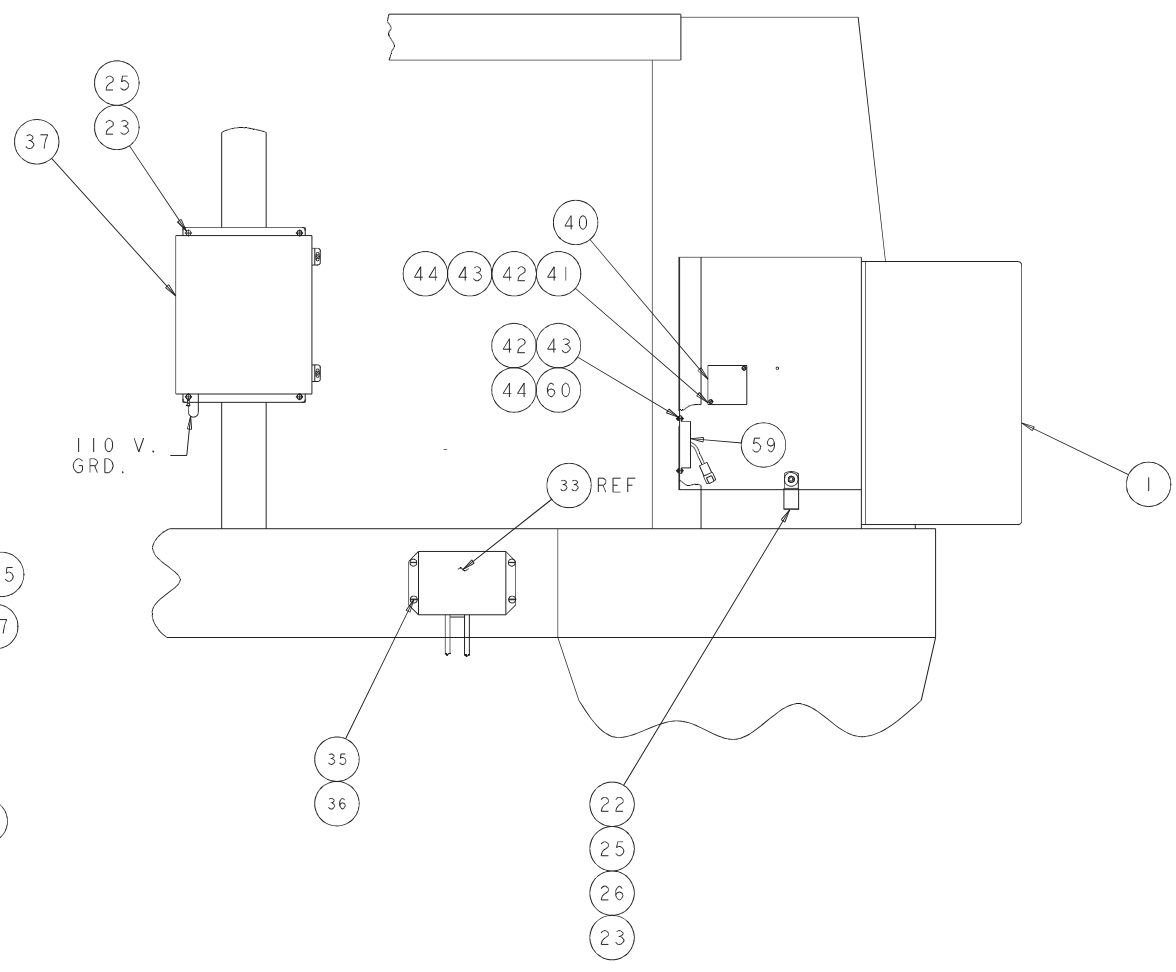
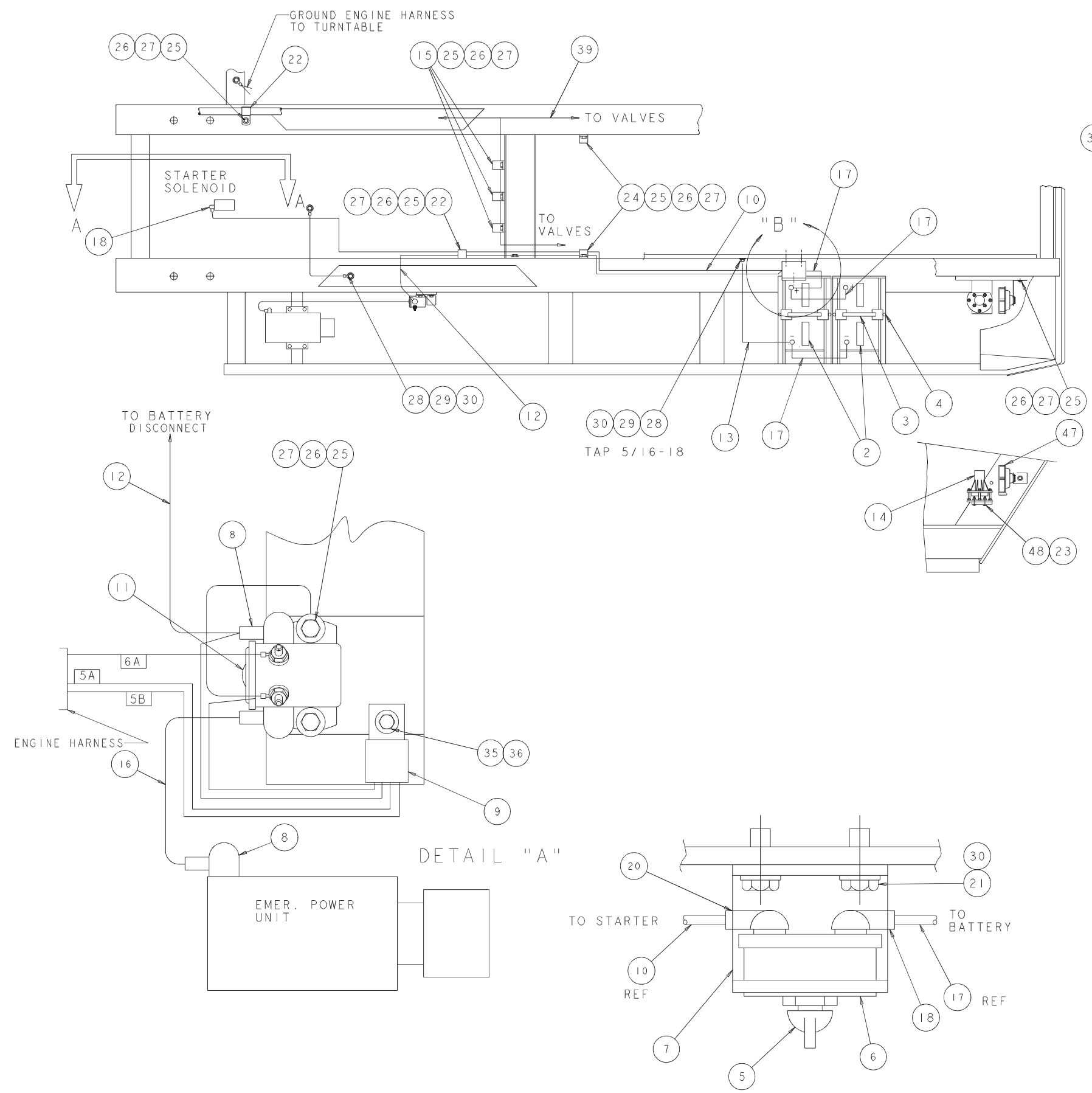
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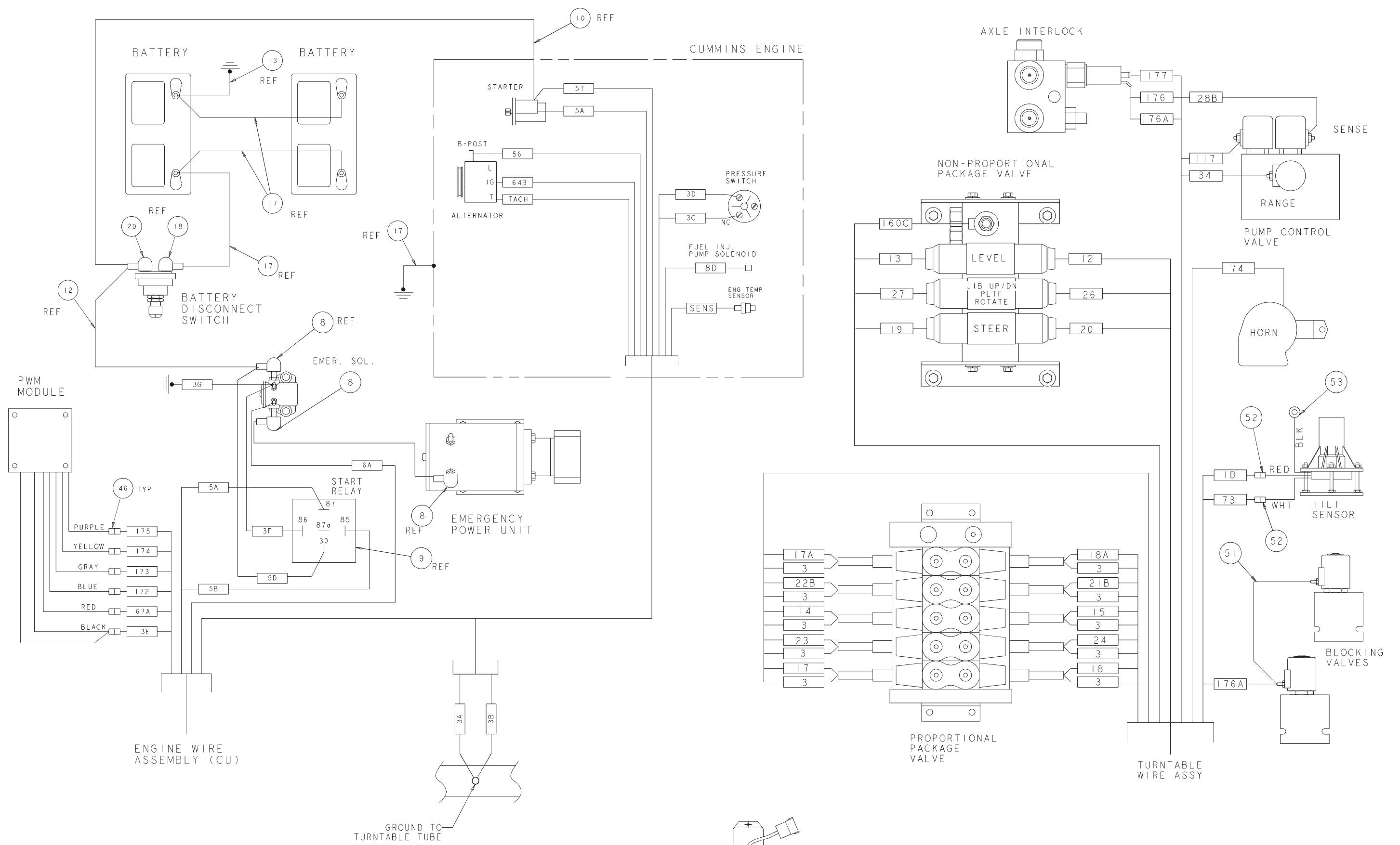
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CONNECT EPS/ANTI-RESTART  
MODULE TO EPS WIRE ASSY  
COMING FROM GRD CONT PNL

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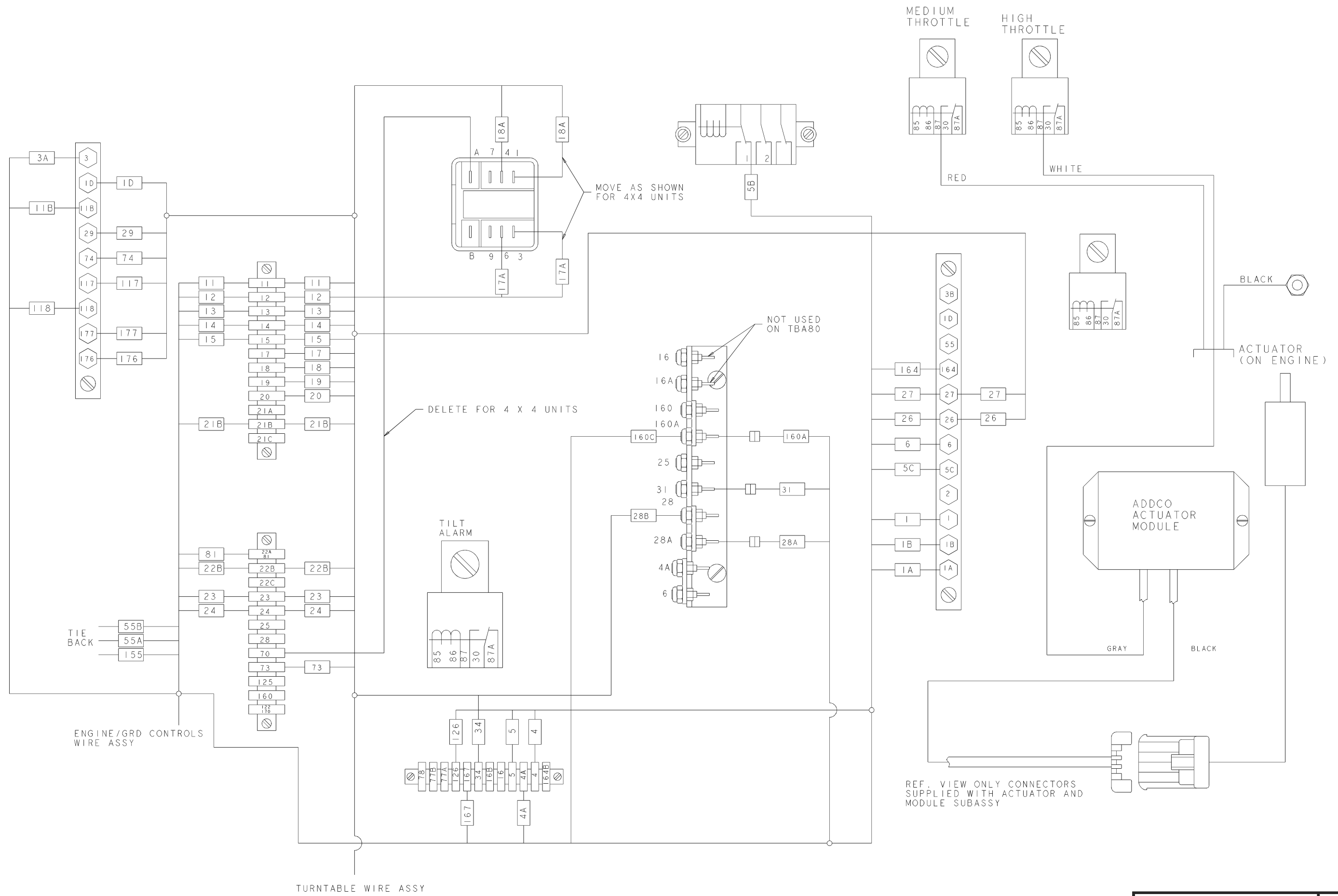
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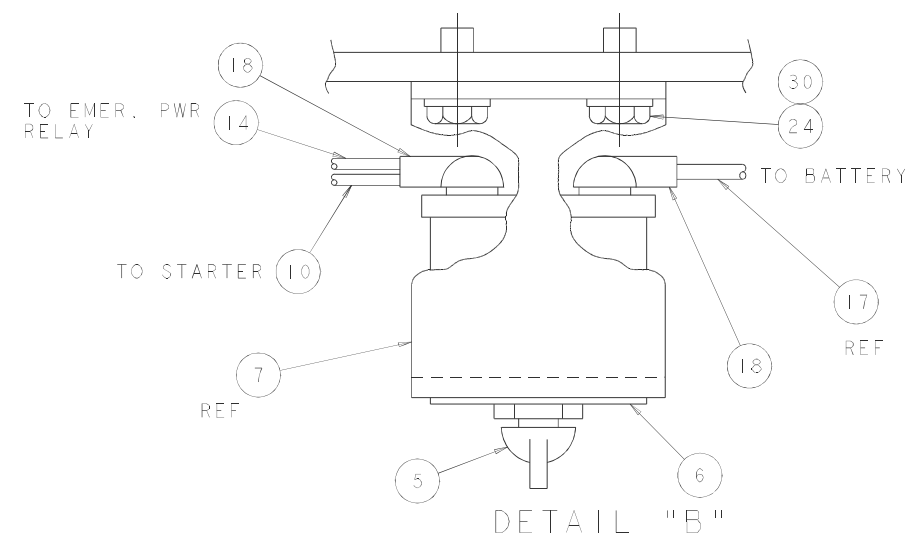
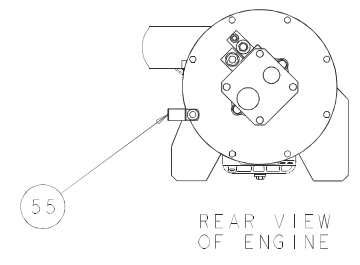
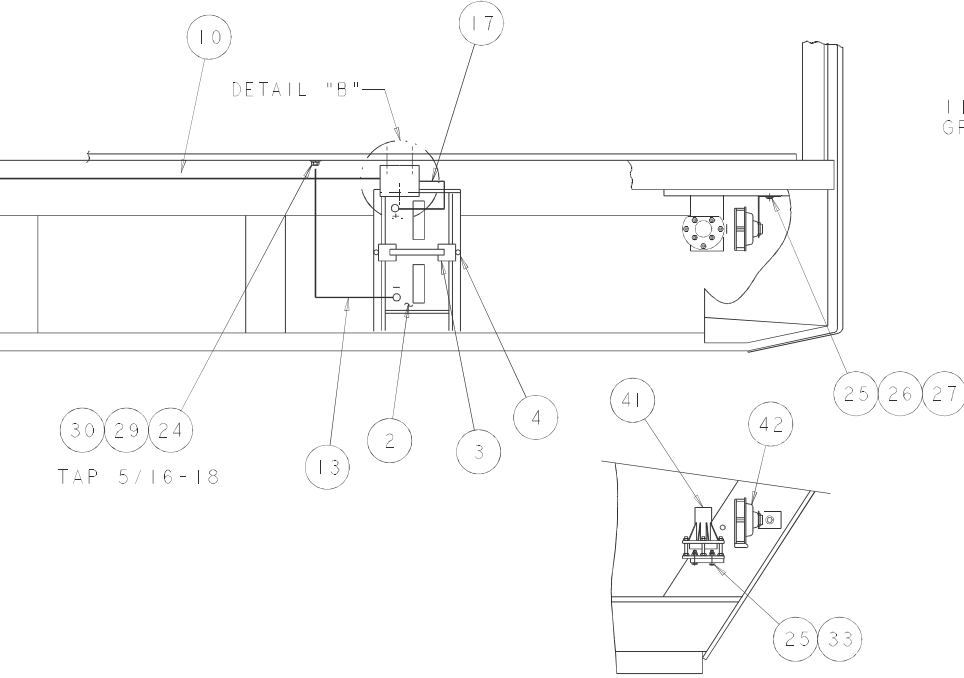
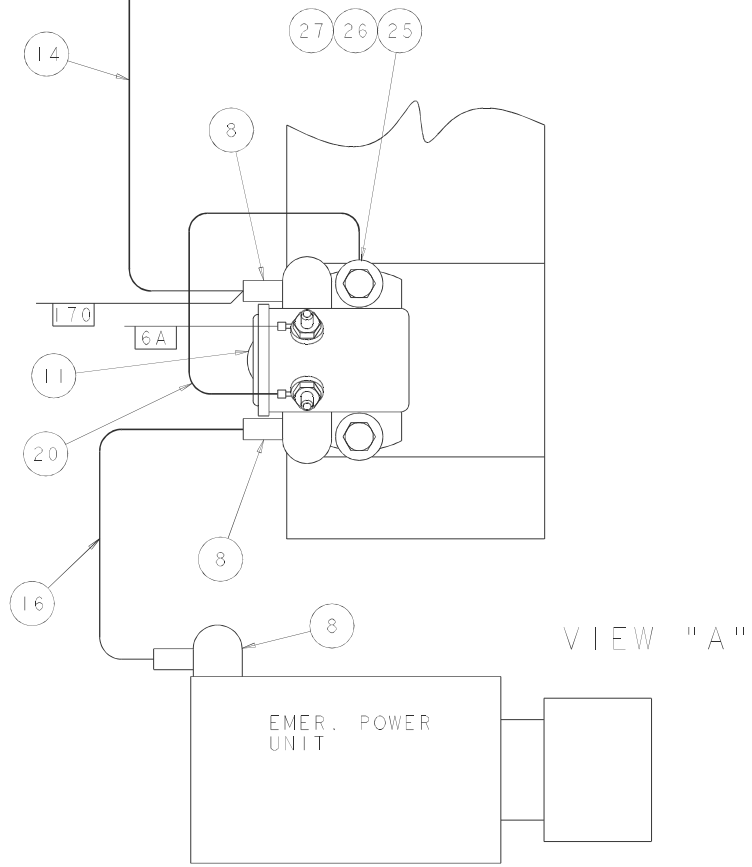
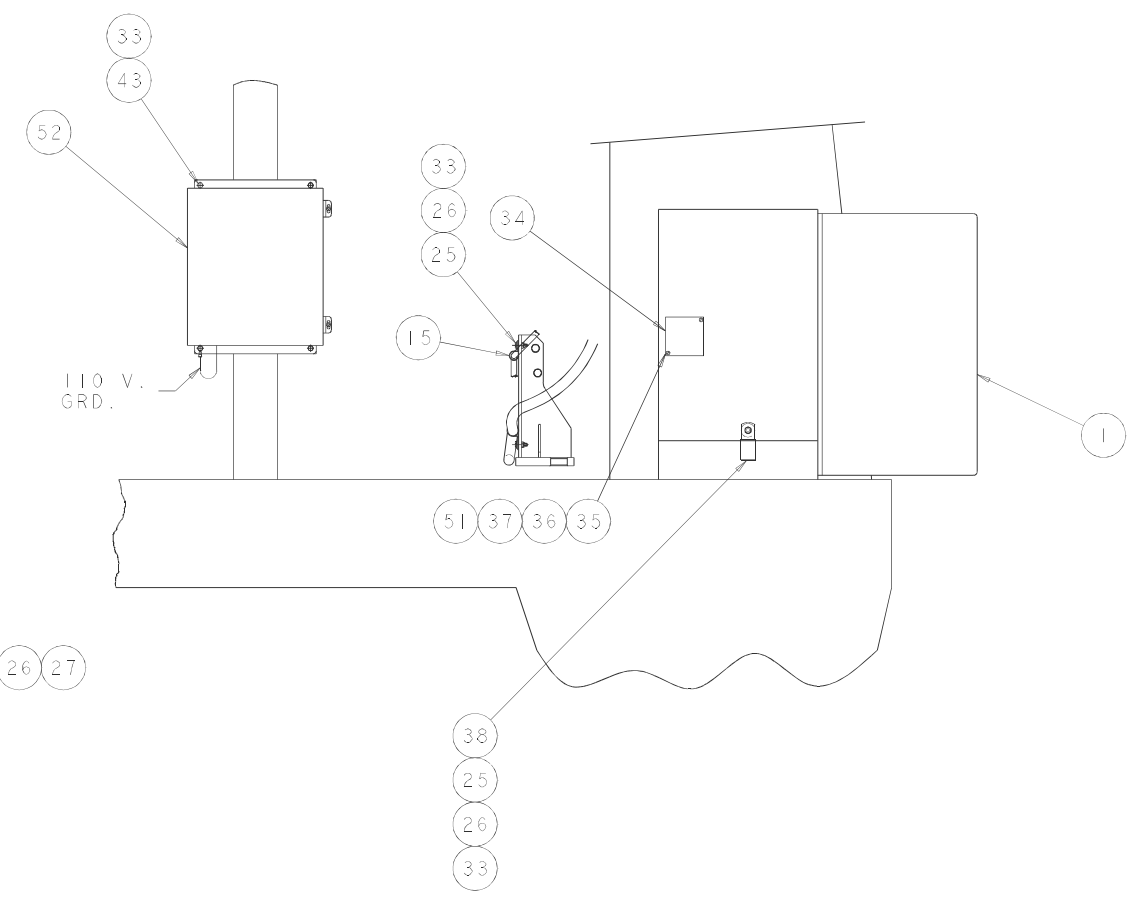
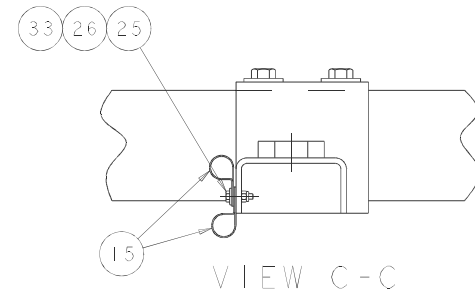
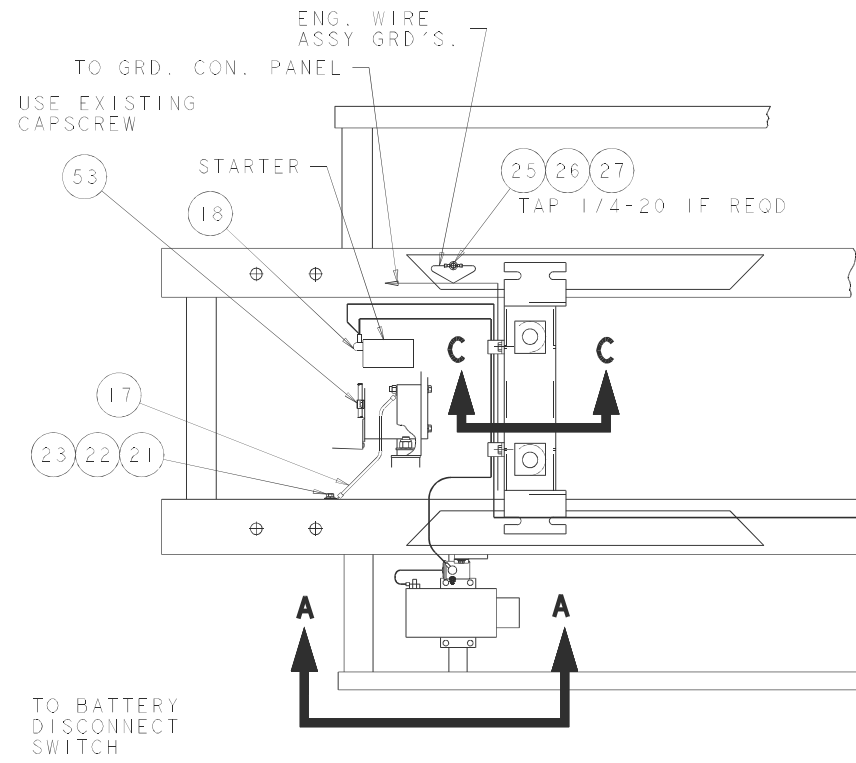


## Turntable Electrical, Ford LRG 425

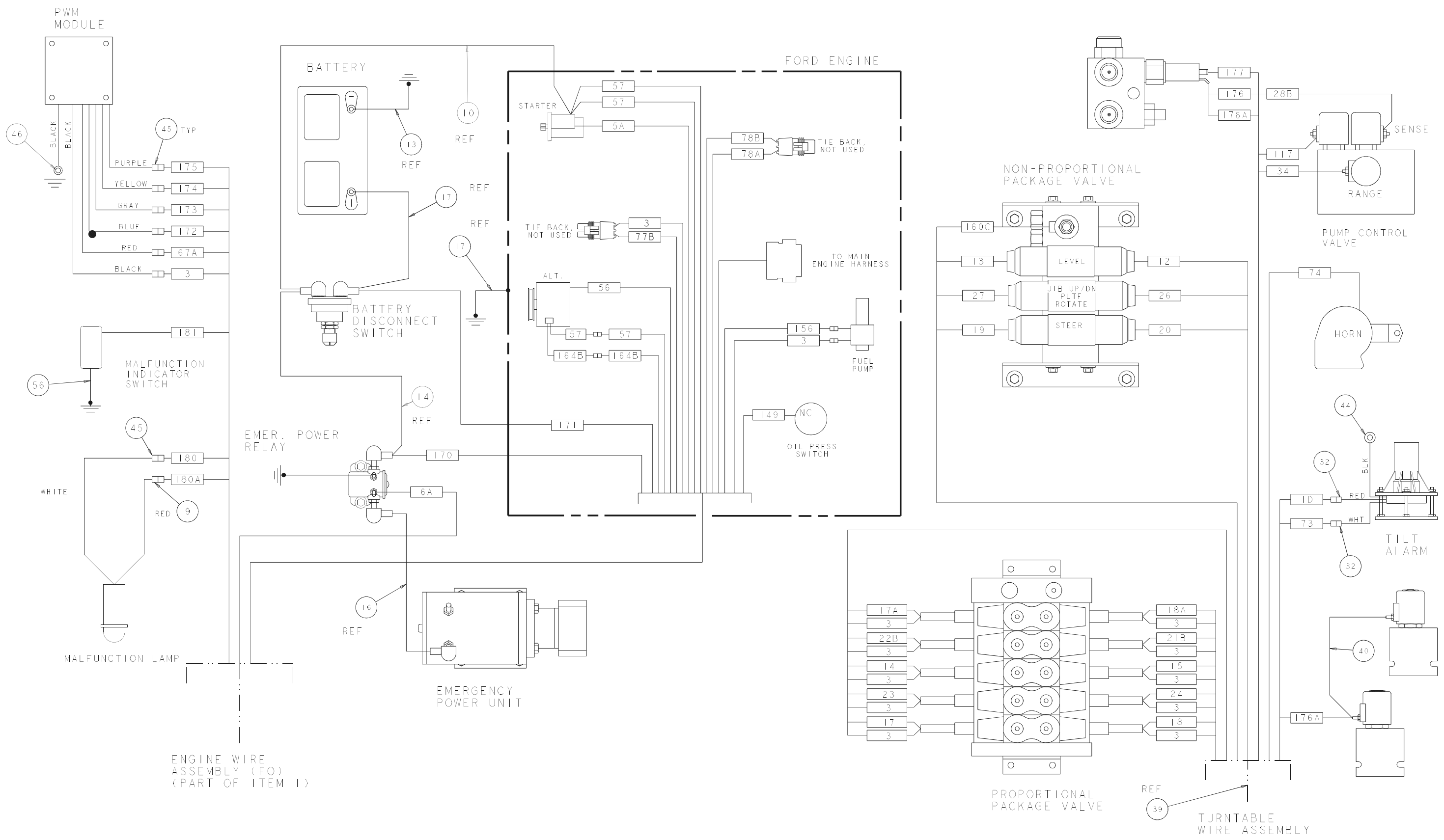
Item	Part No.	Qty.	Description
1	0112540	1	GRD CONT PANEL ASSY TB85J (FO)
2	3050002	1	BTRY 12V
3	3050008	1	BATTERY HOLD DOWN
4	3050004	2	BLT BTRY HLDN .375-16 X 10
5	3020049	1	SW BATTERY DISCONNECT
6	0073089	1	PLAC BATTERY DISCONNECT SWITCH
7	0073051	1	WLDMT BATTERY SWITCH BRACKET
8	3040268	3	BOOT BTRY CABLE END BLACK 4GA
9	3040047	1	TERM FEM250FI 22/18
10	0110529	1	WIRE 2/0 R375 R375 106-COLOR:BLACK
11	3040506	1	SOLENOID SWITCH
13	0080483	1	WIRE 2/0 R375 R375 28
14	0070705	1	WIRE 4 R313I R375I 81 RED
15	5093004	5	CLP CUSH .75
16	0072323	1	WIRE 4 R313I R375I 28
17	0080484	2	WIRE 2/0 R375 R375 13
18	3040269	2	BOOT BTRY CABLE END BLK 1/0GA
20	0071568	1	WIRE 12 R10I R250I 4
21	970469	1	C/S, 3/8-16 X 1 LG HH
22	986299	1	WASHER, 3/8 FLAT
23	987119	1	WASHER, 3/8 MEDIUM LOCK
24	970249	2	C/S 5/16-18 X 7/8 LG. HH
25	970029	11	C/S, 1/4-20 X 3/4 LG. HH
26	986019	9	WASHER, 1/4 FLAT
27	987099	6	WASHER, 1/4 MEDIUM LOCK
29	986269	1	WASHER, 5/16 FLAT
30	987109	3	WASHER, 5/16 MEDIUM LOCK
32	3040082	2	TERM MALE250FI 16/14
33	5560004	11	NUT, 1/4-20 ESNA
34	3040534	1	CONTROLLER
35	974299	2	SCREW RDH 6-32 X 1.50
36	987349	2	WASHER, #6 MEDIUM LOCK
37	984009	2	NUT, #6-32 HEX
38	5093008	1	CLP CUSH 1.06
39	0111884	1	TRNTBL WIRE ASSY FO LRG
40	0071545	1	WIRE 16 R8I R8I 4
41	3020040	1	LEVEL SENSOR 5 DEGREE
42	3040127	1	HORN 12VDC
43	970049	8	C/S, 1/4-20 X 1 LG. HH
44	3044162	1	TERM R250I 16/14 PANDUIT
45	3040046	6	TERM MALE250FI 22/18-AMP
46	3044146	1	TERM R10I 22/18
51	986159	2	WASHER, #6 FLAT
52	0112094	1	WIRING BOX ASSY
53	5093006	1	CLP CUSH .937
55	5093010	1	CLP CUS 1.50
56	0071563	1	WIRE 16 R8I R313I 7



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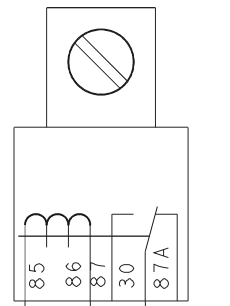
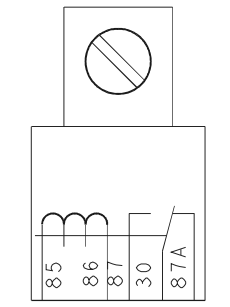
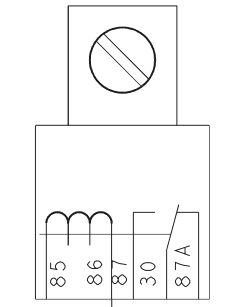
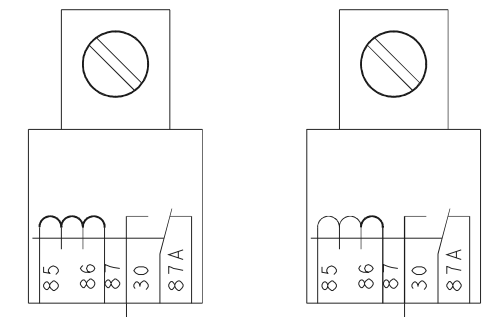
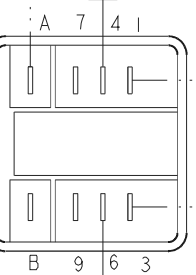
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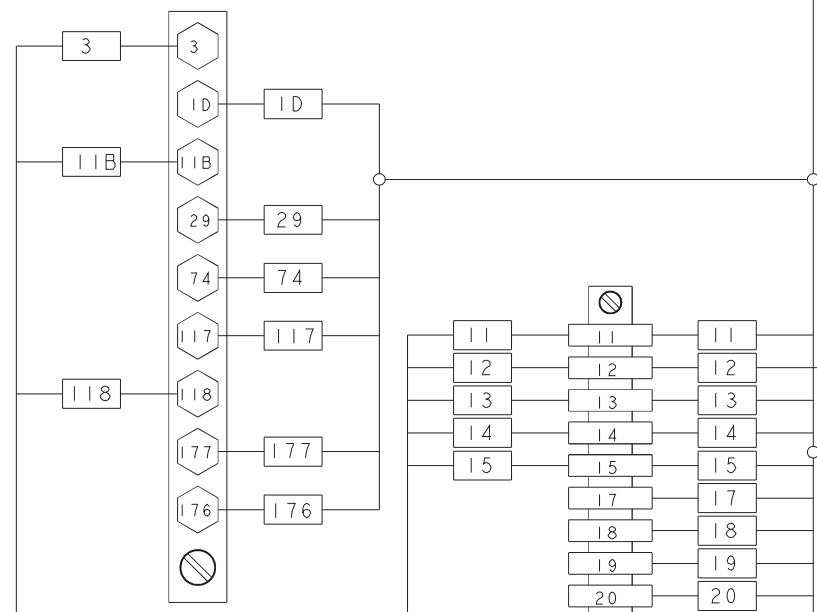
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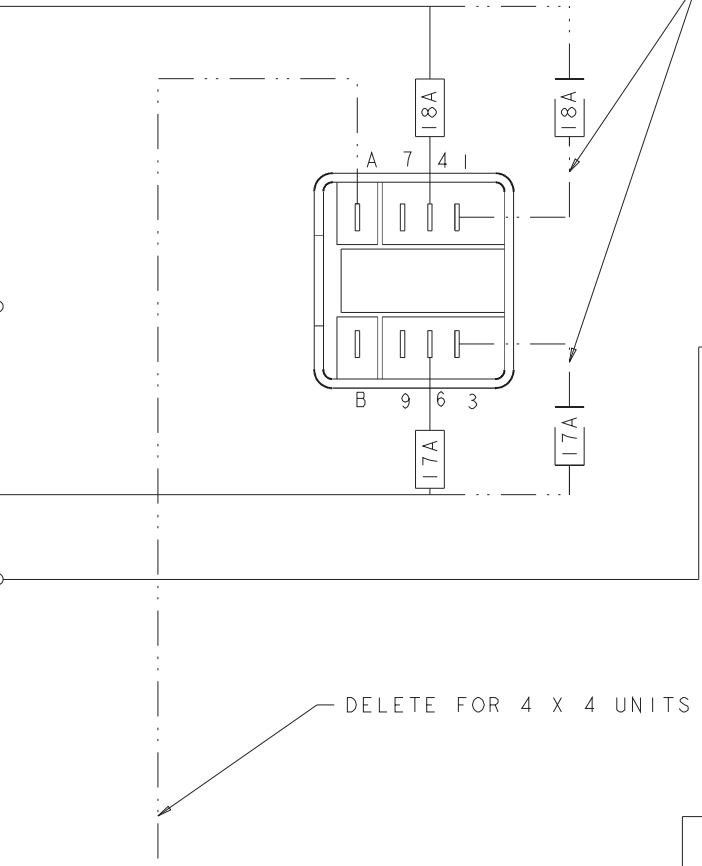
MOVE AS SHOWN FOR 4 X 4 UNITS



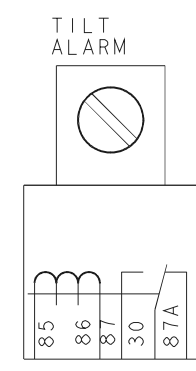
GRD



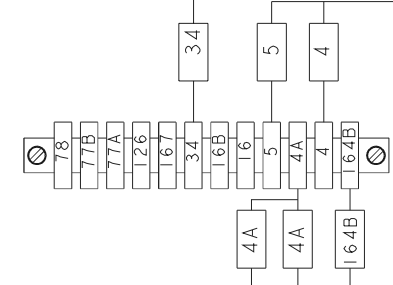
ENGINE/GRD CONTROLS WIRE ASSY



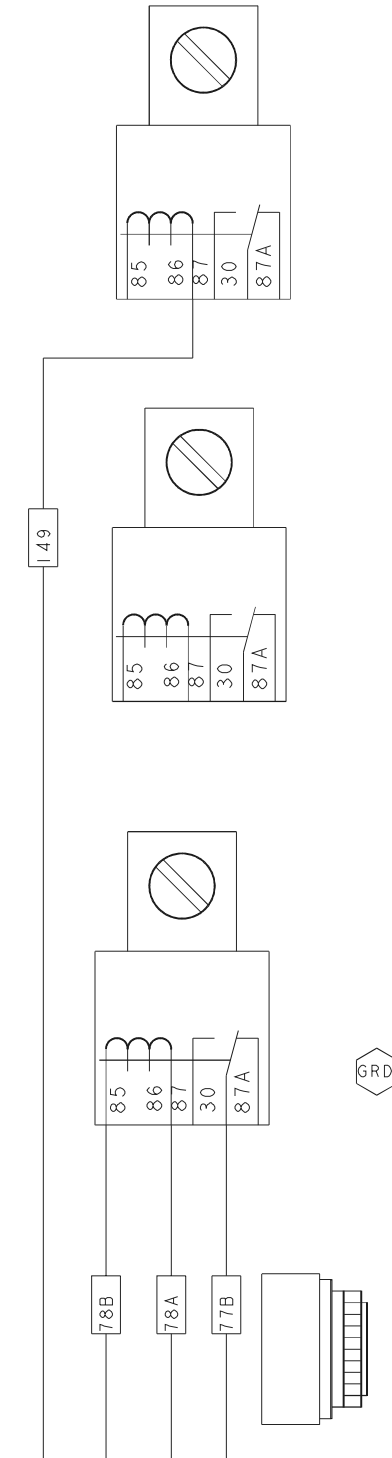
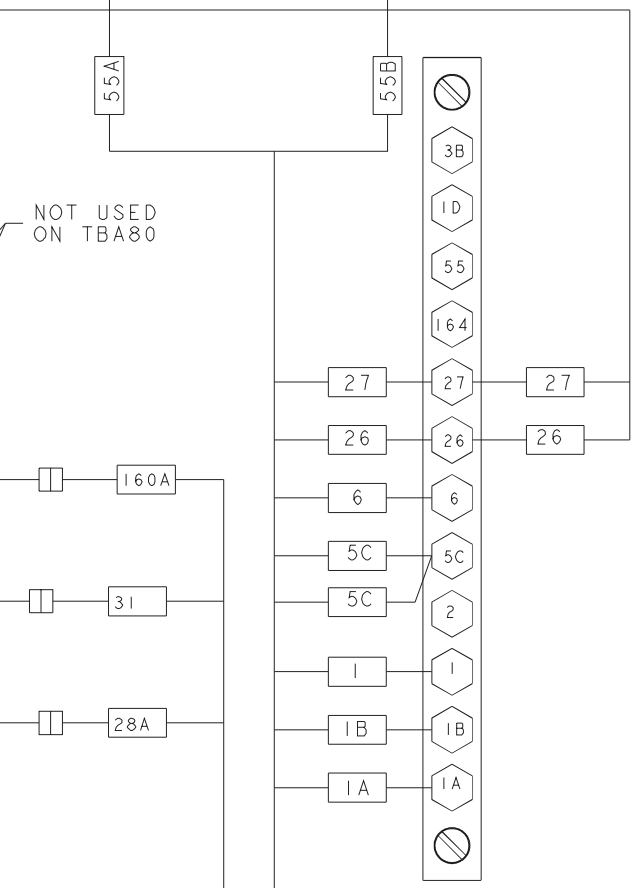
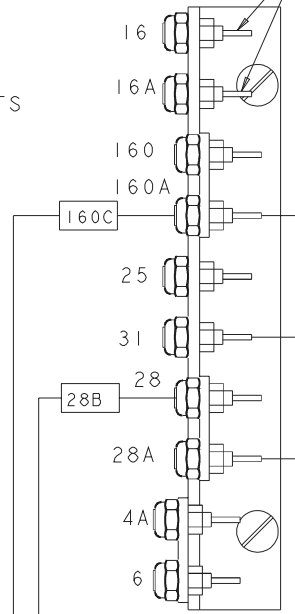
TURNTABLE WIRE ASSY



TILT ALARM



NOT USED ON TBA80



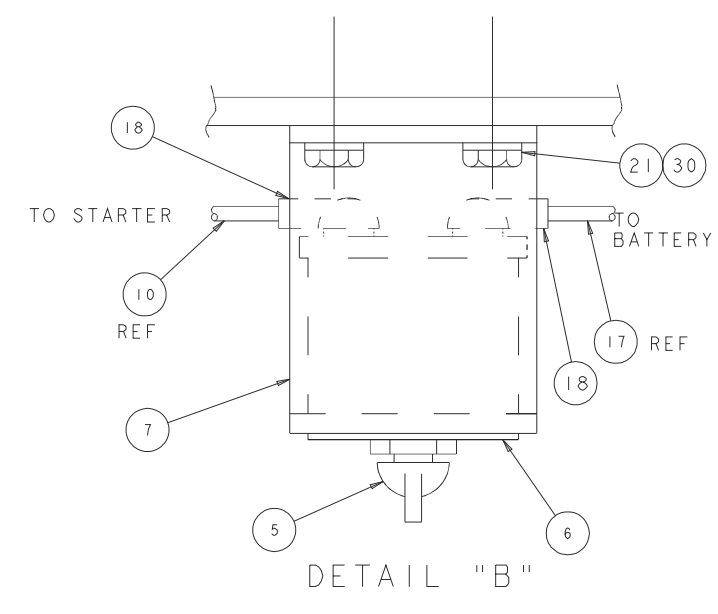
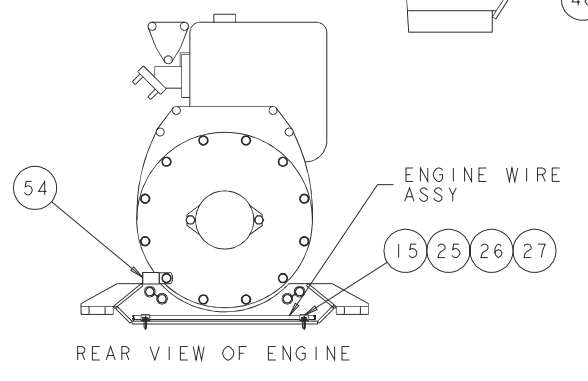
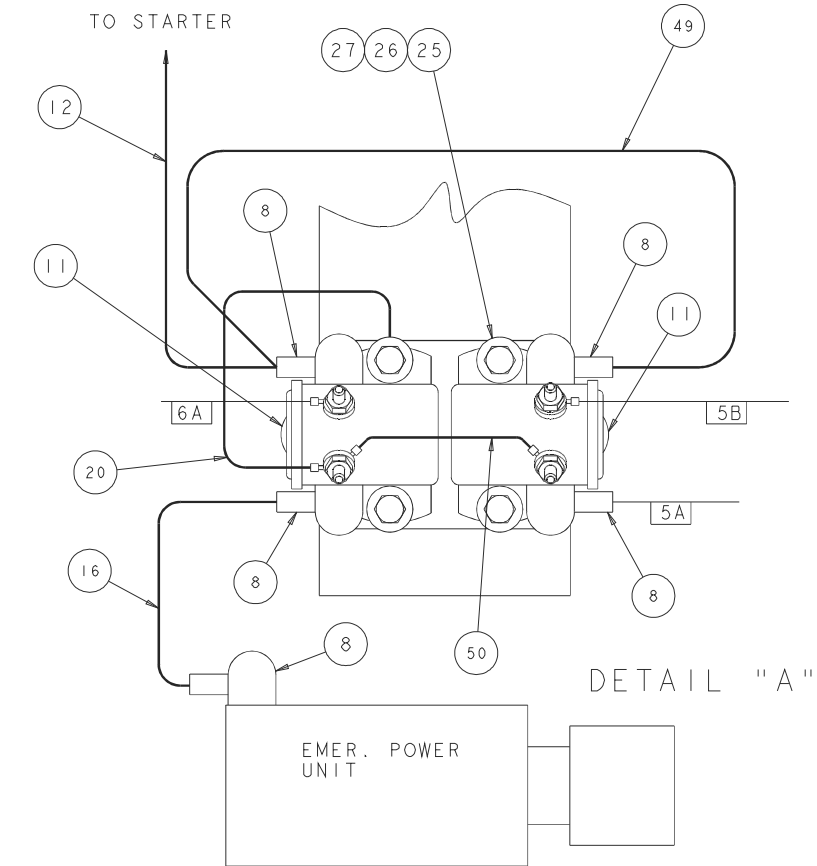
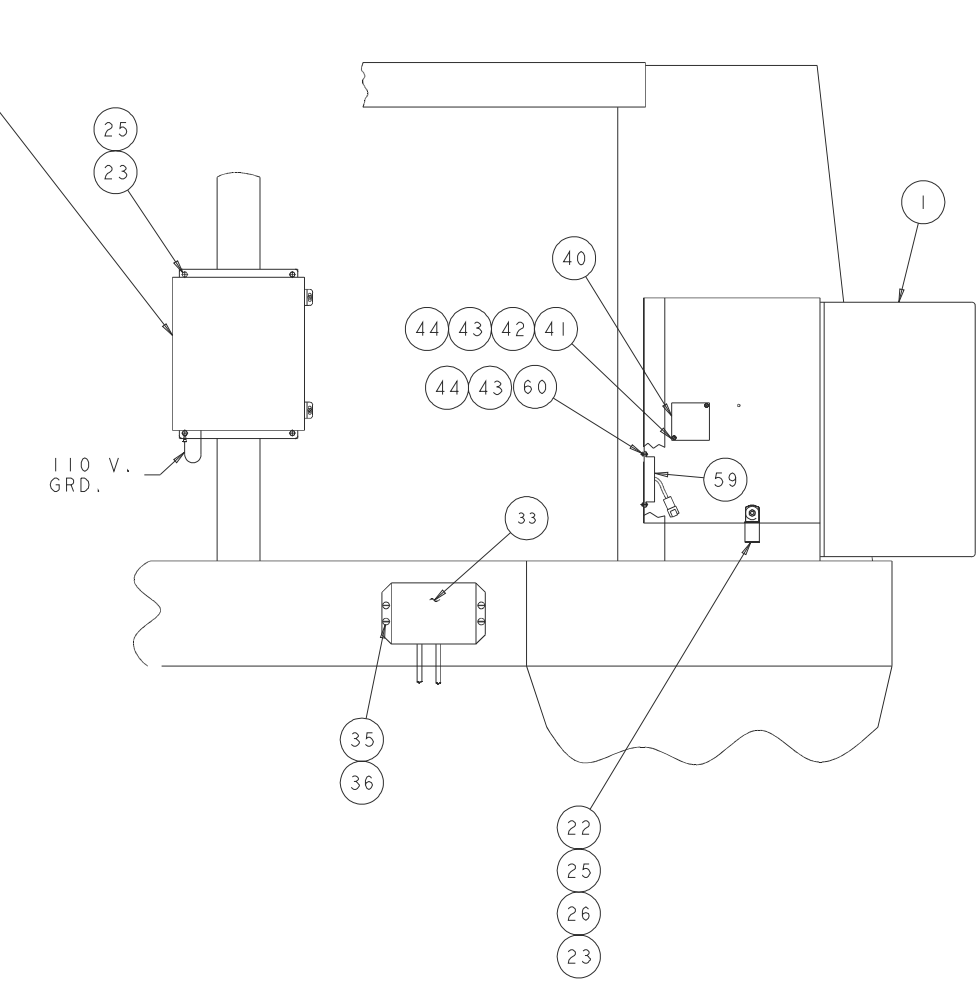
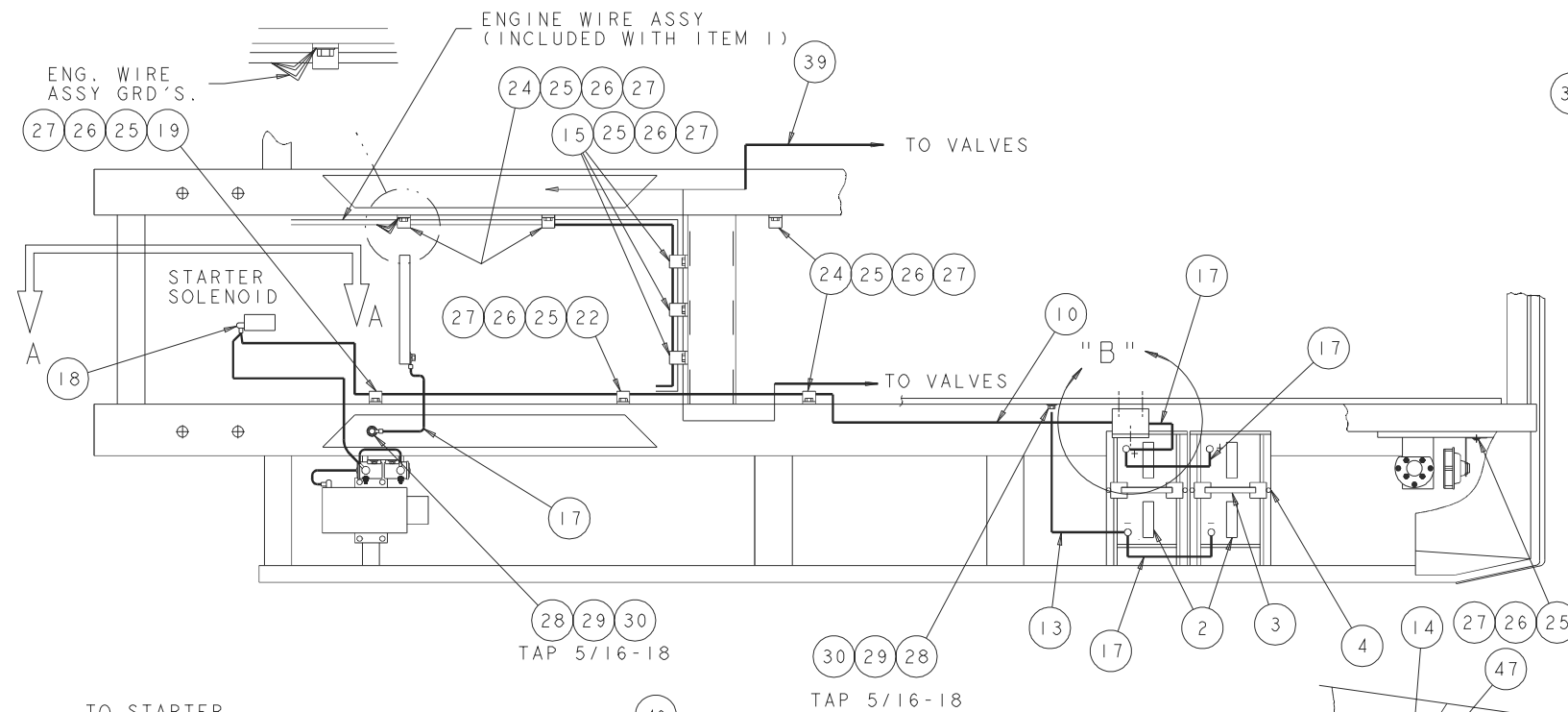


## Turntable Electrical, Deutz F4L-2011F

Item	Part No.	Qty.	Description
1	0112541	1	GRD CONT PANEL ASSY TB85J (DZ)
2	3050002	2	BTRY 12V
3	3050008	2	BATTERY HOLD DOWN
4	3050004	4	BLT BTRY HLDN .375-16 X 10
5	3020049	1	SW BATTERY DISCONNECT
6	0073089	1	PLAC BATTERY DISCONNECT SWITCH
7	0073051	1	WLDMT BATTERY SWITCH BRACKET
8	3040268	5	BOOT BTRY CABLE END BLACK 4GA
10	0110529	1	WIRE 2/0 R375 R375 106
11	3040506	2	SOLENOID SWITCH
12	0151160	1	WIRE 4 R313 R375 36 RED
13	0080483	1	WIRE 2/0 R375 R375 28
14	3020040	1	LEVEL SENSOR 5 DEGREE
15	5093000	5	CLP CUSH .437
16	0072323	1	WIRE 4 R313I R375I 28
17	0080484	4	WIRE 2/0 R375 R375 13
18	3040269	3	BOOT BTRY CABLE END BLK 1/0GA
19	5093027	1	CLP CUSH 1.187
20	0071568	1	WIRE 12 R10I R250I 4
21	970249	2	BLT. HEXHD .313-18 .875 GR. 5
22	5093008	2	CLP CUSH 1.06
23	5560004	7	NUT LKG .250-20
24	5093006	4	CLP CUSH .937
25	970029	20	BLT HEXHD .250-20 .75 GR .5
26	986019	17	WSHR FLAT .250
27	987099	16	WSHR LOCK .250 MDM
28	970239	2	BLT HEXHD .313-18 .75 GR .5
29	986269	2	WSHR FLAT .313
30	987109	4	WSHR LOCK .313 MDM
31	0074579	1	ALTERNATOR WIRE ASSY
33	0082046	1	ACTUATOR MODULE SUB ASSY
35	974689	4	SCRW RDHD #10-24 .75 PLATED
36	5560654	4	WSHR LOCK #10 PLTD
37	0111871	1	WIRING BOX SUBASSY
39	0111884	1	TURNTABLE WIRE ASSY
40	3040534	1	CONTROLLER
41	5560700	2	SCRW TRUSS HD #6-32 1.00 PLTD
42	987349	4	WSHR LOCK #6 MDM
43	986159	6	WSHR FLAT #6
44	984009	6	NUT HEX #6-32
45	3044146	2	TERM R10I 22/18
46	3040046	5	TERM MALE250FI 22/18
47	3040127	1	HORN 12VDC
48	970049	4	BLT HEXHD .250-20 1.00 GR .5
49	0151919	1	WIRE 12 R313I R313I 7
50	0151371	1	WIRE 16 R10 R10 5
51	0071545	1	WIRE 16 R8I R8I 4
52	3040082	2	TERM MALE250FI 16/14
53	3044162	1	TERM R250I 16/14
54	5093010	1	CLP CUS 1.50
59	3030122	1	ENG PROTECT MODULE 4-PNT HIGH
60	974239	2	SCR RHD #6-32 .50
64	3070039	1	TEMP SENSOR M18 X 1.5 HIGH
65	5569837	1	WASHER FLAT M18 COPPER







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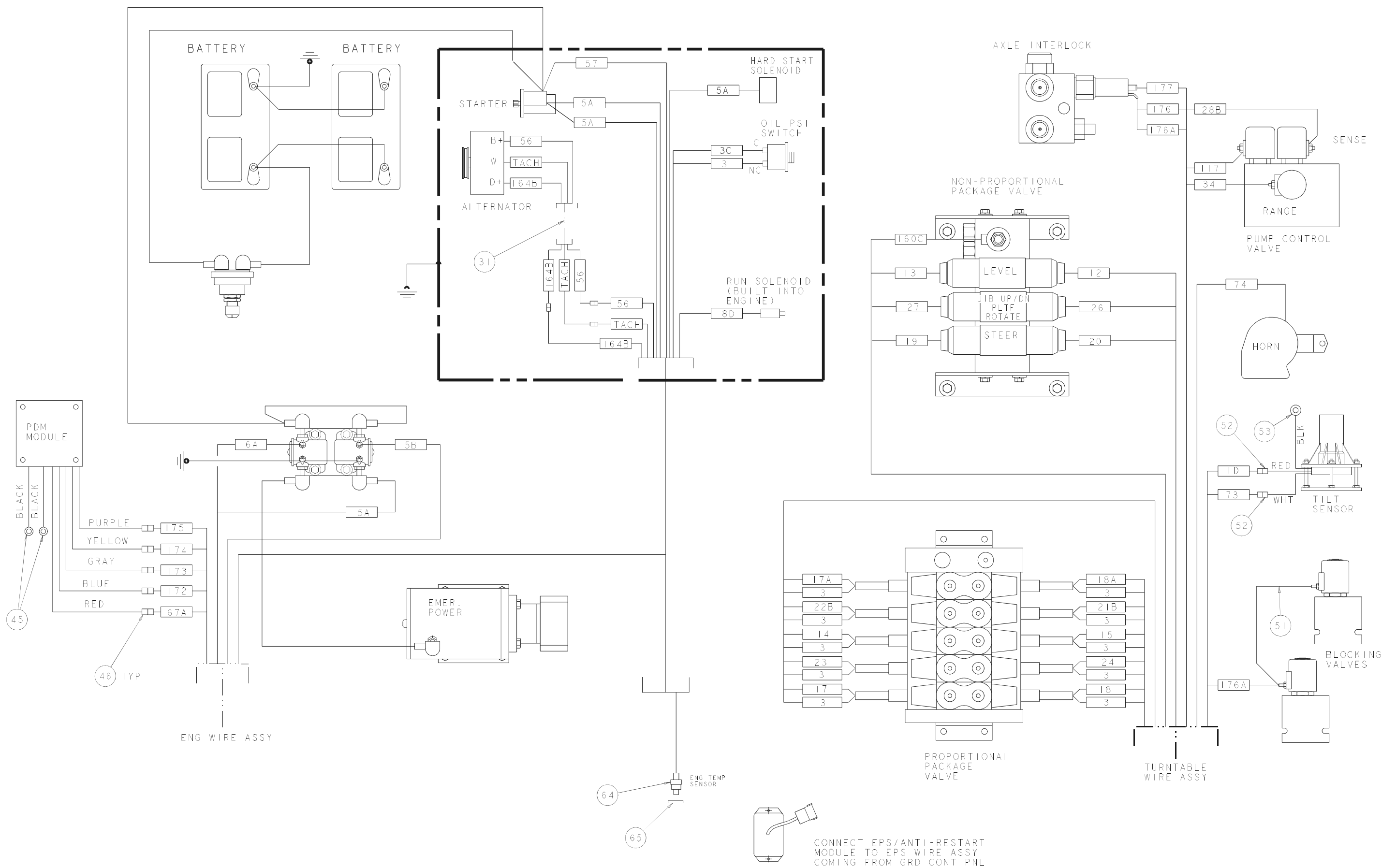
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CONNECT EPS/ANTI-RESTART  
MODULE TO EPS WIRE ASSY  
COMING FROM GRD CONT PNL

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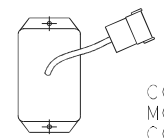
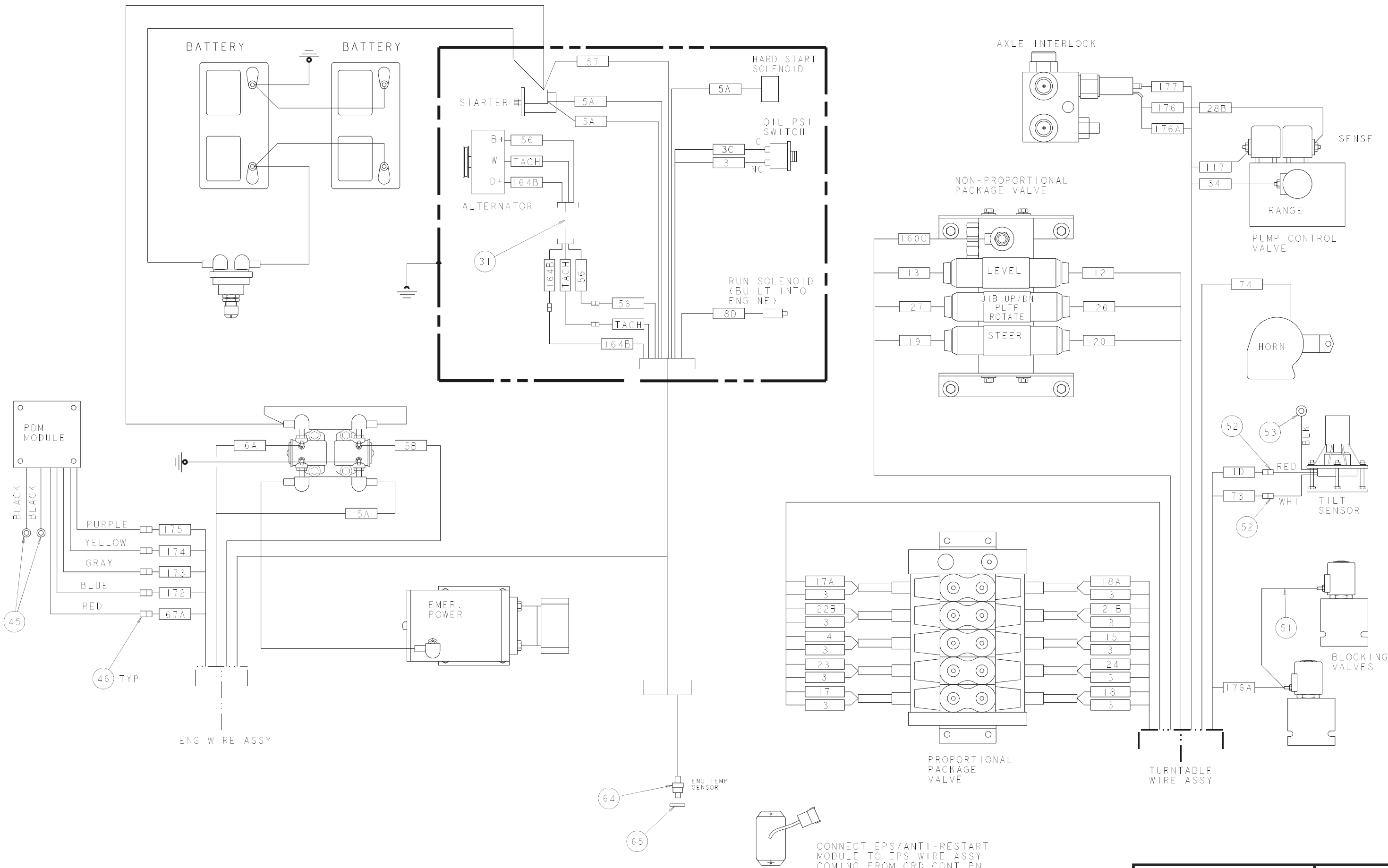
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CONNECT EPS/ANTI-RESTART  
MODULE TO EPS WIRE ASSY  
COMING FROM GRD CONT PNL



## Booms, Electrical

Item	Part No.	Qty.	Description
1	0111871	REF	WIRING BOX SUB-ASSY
2	0111894	REF	TURNTABLE WIRE ASSY
3	0071800	1	FOOT SWITCH ASSEMBLY
4	0112532	1	PLAT CONT BOX ASSY TB85J
5	3044854	12	TERM R10I 12/10
6	3046972	41	TERM FEM188I 22/18
8	3040047	1	TERM FEM250FI 22/18
9	5093008	2	CLP CUSH 1.06
10	5093010	3	CLP CUS 1.50
11	3044142	1	TERM R6I 22/18-PN18-6R-M
12	0172311	1	PLAT/JIB SELECTOR WIRE ASSY
13	970029	2	CAPSCREW, 1/4-20 X 3/4" LG H.H. GR 5"
14	986019	5	WASHER, 1/4 FLAT
15	987099	2	WASHER, 1/4 MEDIUM LOCK
16	5560004	3	NUT, 1/4-20 ESNA
17	970049	3	CAPSCREW, 1/4-20 X 1" LG. H.H. GR 5
18	0071532	1	WIRE 18 R10I R10I 5
19	970438	1	BLT. .375-16 X .63 LG HH
20	987119	1	WASHER, LOCK .375
21	3044146	1	TERM R10I 22/18
22	986039	1	WASHER, FLAT .375
23	563536	12 in	HOSE GUARD, SPIRAL 3/4" ID
24	5093024	1	CLP CUSH 1.25
25	5090034	9 ft	SLEEVE HOSE ABRASION GUARD



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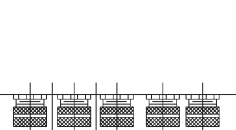
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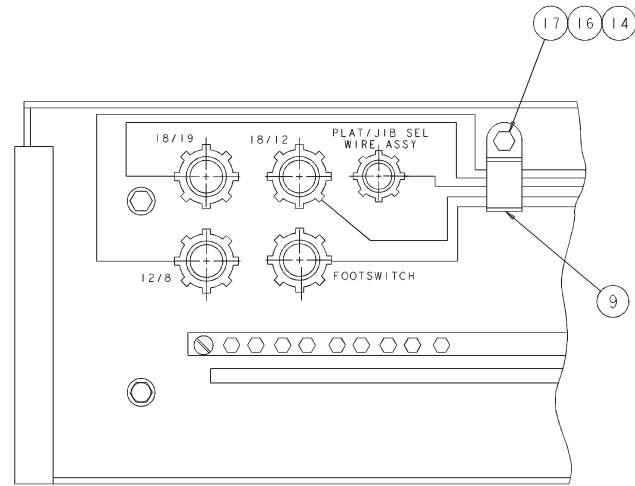
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WIRING BOX

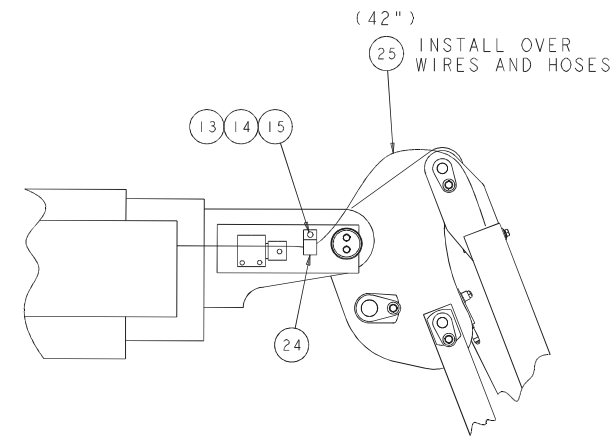
FRONT VIEW  
WIRING BOX



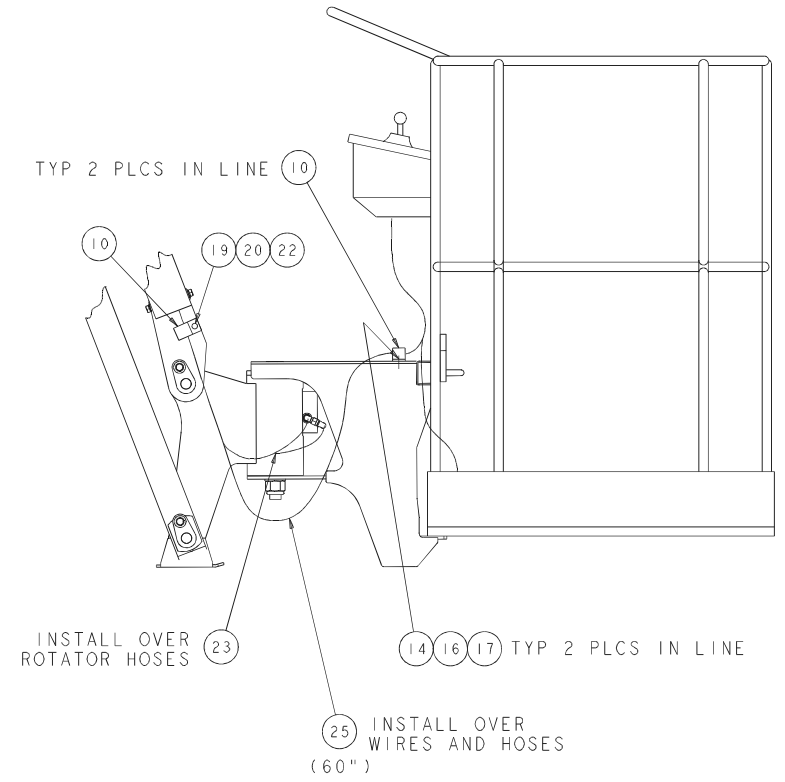
18/19 CONTROL WIRE #1  
 DRIVE BOOM SWITCH  
 18/12 CONTROL WIRE #2  
 LIFT/SWING BOOM SWITCH  
 TURNABLE WIRE ASSY  
 12/8 POWER WIRE  
 ENG./GRD. CONT. WIRE ASSY.



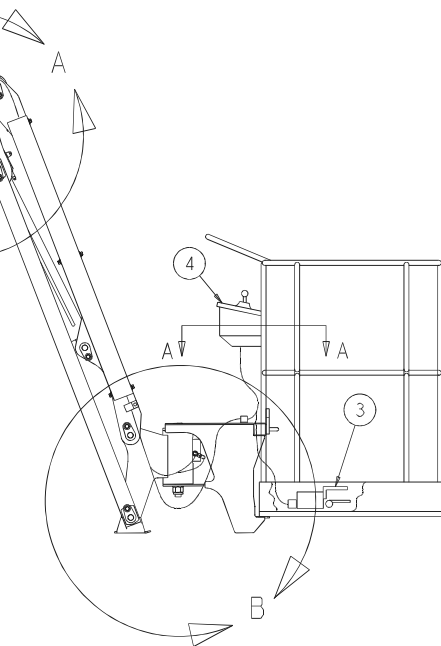
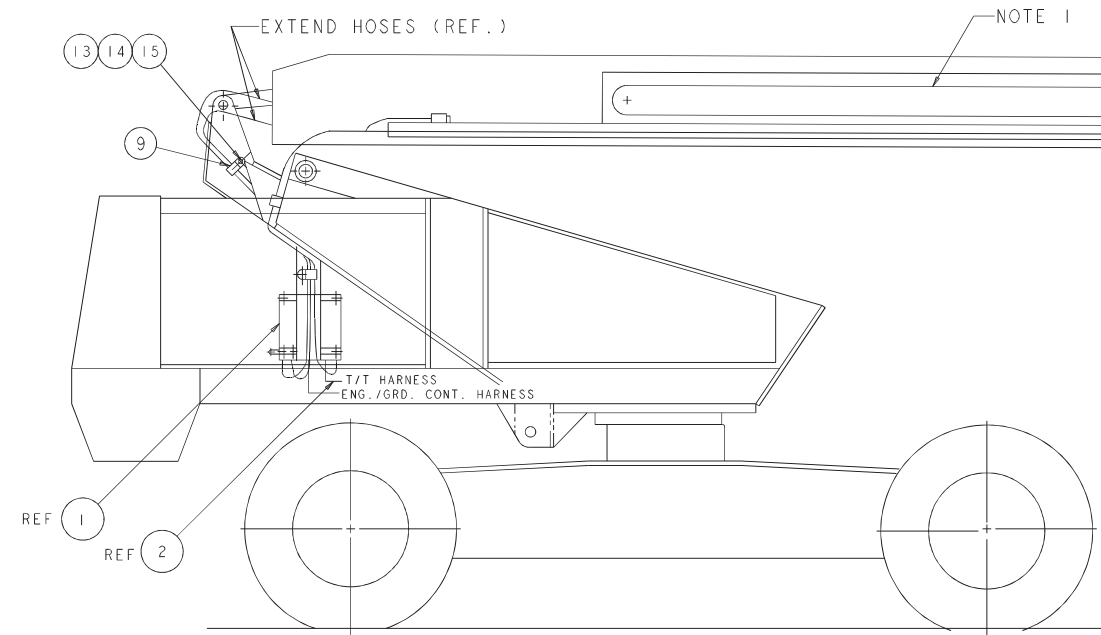
TOP VIEW  
 PLATFORM CONTROL BOX  
 COVER OPEN



DETAIL "A"



DETAIL "B"



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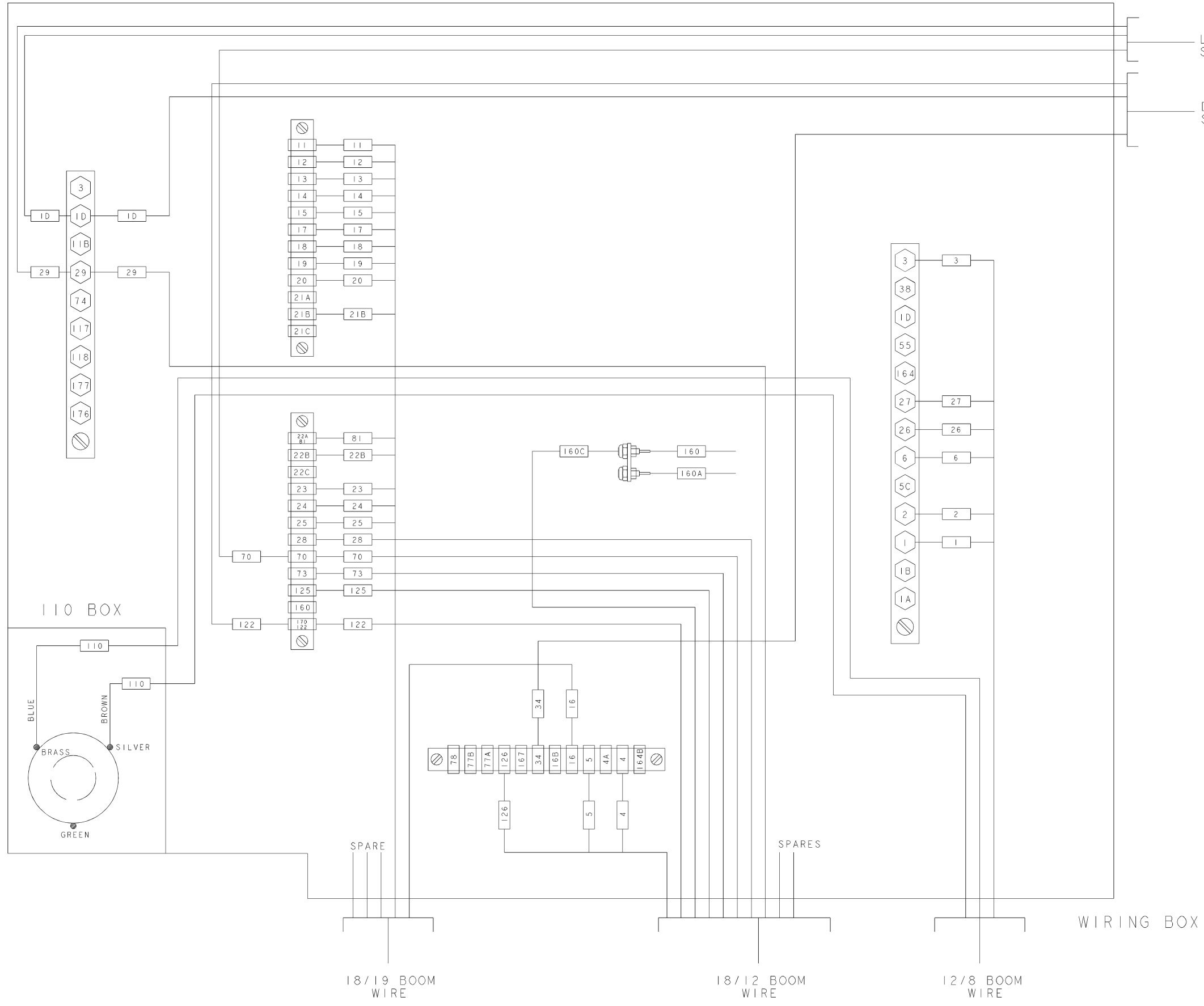
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LIFT/SWING SWITCH WIRE

DRIVE/BOOM SWITCH WIRE

18/19 CONDUCTOR WIRE

SNORKEL WIRE NO.	DESCRIPTION	B. REX WIRE NO.	BRAND REX WIRE COLOR	TERMINAL WIRING BOX
11	RANGE (LOW MOTOR SPD)	12	BLACK/RED	ITEM 6
12	LEVEL - DOWN	13	BLUE/RED	ITEM 6
13	LEVEL - UP	14	ORANGE/RED	ITEM 6
14	BOOM - EXTEND	15	YELLOW/RED	ITEM 6
15	BOOM - RETRACT	6	BROWN	ITEM 6
16	HYD. SPEED	3	BLUE	ITEM 6
17	DRIVE - FORWARD	4	ORANGE	ITEM 6
18	DRIVE - REVERSE	10	YELLOW/BLACK	ITEM 6
19	STEER - LEFT	16	BROWN/RED	ITEM 6
20	STEER - RIGHT	8	BLUE/BLACK	ITEM 6
21B	MAIN BOOM DOWN	19	ORANGE/BLUE	ITEM 6
---	SPARE	18	RED/BLUE	---
22B	MAIN BOOM UP	7	RED/BLACK	ITEM 6
81	6-WAY VALVE	9	ORANGE/BLACK	ITEM 6
23	SWING - CCW	17	BLACK/BLUE	ITEM 6
24	SWING - CW	11	BROWN/BLACK	ITEM 6
25	THROTTLE - MED.	1	BLACK	ITEM 6
---	SPARE	5	YELLOW	---
---	SPARE	2	RED	---

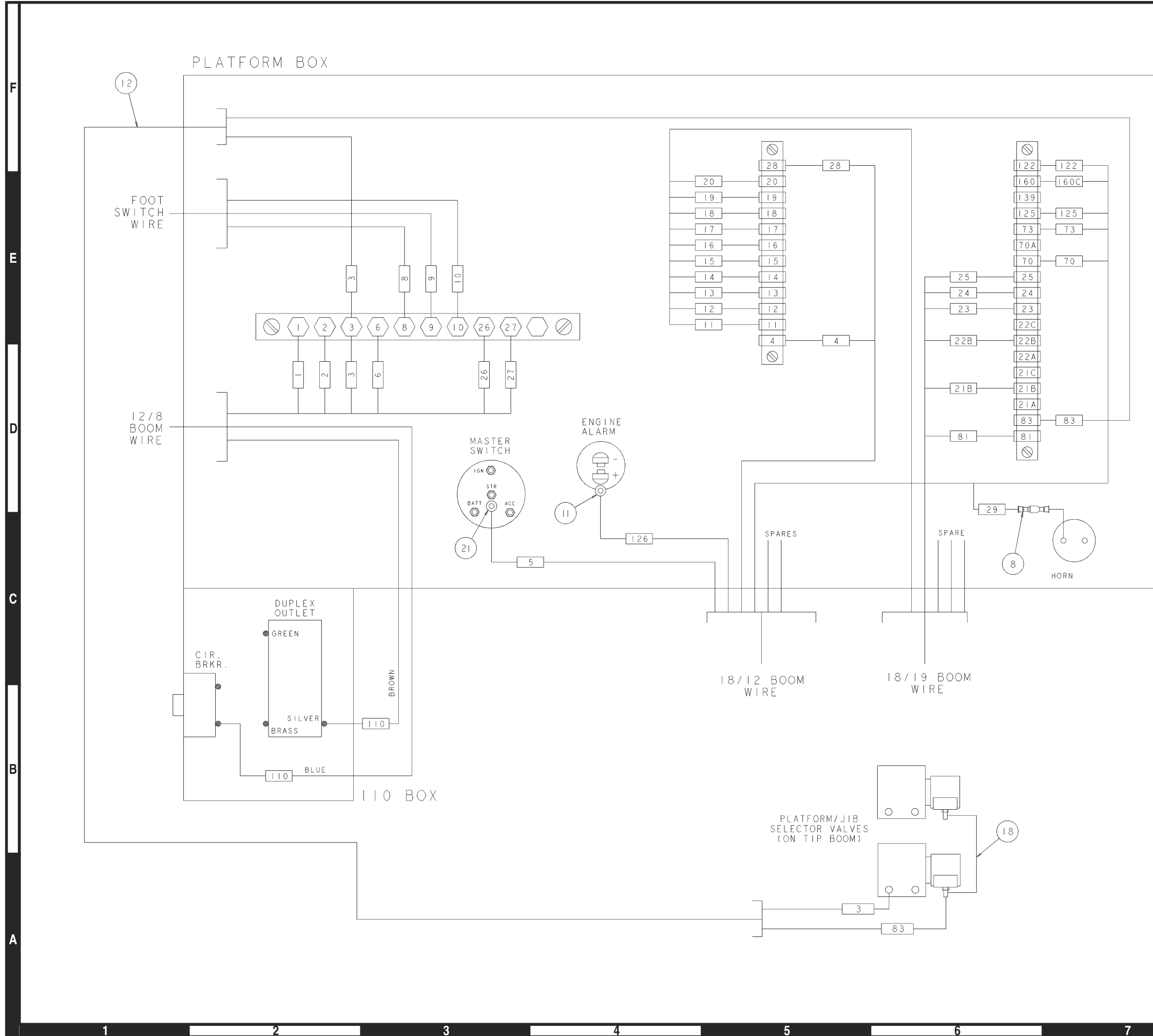
18/12 CONDUCTOR WIRE

SNORKEL WIRE NO.	DESCRIPTION	B. REX WIRE NO.	BRAND REX WIRE COLOR	TERMINAL WIRING BOX
4	RUN - FROM PLATFORM	1	BLACK	ITEM 6
5	START - FROM PLATFORM	11	BROWN/BLACK	ITEM 6
28	SENSE LINE DUMP	12	BLACK/RED	ITEM 6
70	HI/LO SPEED SIGNAL	2	RED	ITEM 6
73	TILT SIGNAL POWER - RELAY	8	BLUE/BLACK	ITEM 6
125	THROTTLE (HIGH)	7	RED/BLACK	ITEM 6
160	HYD. VALVE SIGNAL	9	ORANGE/BLACK	ITEM 6
126	ENGINE KILL SIGNAL	4	ORANGE	ITEM 6
29	HORN	6	BROWN	ITEM 21
122	LOW SPEED LIFT/SWING	10	YELLOW/BLACK	ITEM 6
---	SPARE	5	YELLOW	---
---	SPARE	3	BLUE	---

12/8 CONDUCTOR WIRE

SNORKEL WIRE NO.	DESCRIPTION	B. REX WIRE NO.	BRAND REX WIRE COLOR	TERMINAL WIRING BOX
1	POWER TO PLATFORM	2	RED	ITEM 5
2	POWER TO PLATFORM	7	RED/BLACK	ITEM 5
3	GROUND	1	BLACK	ITEM 5
6	EMER. POWER	4	ORANGE	ITEM 5
26	PLATFORM ROT. - CW	5	YELLOW	ITEM 5
27	PLATFORM ROT. - CCW	8	BLUE/BLACK	ITEM 5
110	110 VLOT - NEUTRAL	6	BROWN	---
110	110 VOLT - POWER	3	BLUE	---





18/19 CONDUCTOR WIRE				
SNORKEL WIRE NO.	DESCRIPTION	B. REX WIRE NO.	BRAND REX WIRE COLOR	TERMINAL PLATFORM BOX
11	RANGE (LOW MOTOR SPD)	12	BLACK/RED	ITEM 6
12	LEVEL - DOWN	13	BLUE/RED	ITEM 6
13	LEVEL - UP	14	ORANGE/RED	ITEM 6
14	BOOM - EXTEND	15	YELLOW/RED	ITEM 6
15	BOOM - RETRACT	6	BROWN	ITEM 6
16	HYD. SPEED	3	BLUE	ITEM 6
17	DRIVE - FORWARD	4	ORANGE	ITEM 6
18	DRIVE - REVERSE	10	YELLOW/BLACK	ITEM 6
19	STEER - LEFT	16	BROWN/RED	ITEM 6
20	STEER - RIGHT	8	BLUE/BLACK	ITEM 6
21B	MAIN BOOM - DOWN	19	ORANGE/BLUE	ITEM 6
---	SPARE	18	RED/BLUE	ITEM 6
22B	MAIN BOOM - UP	7	RED/BLACK	ITEM 6
81	6-WAY VALVE	9	ORANGE/BLACK	ITEM 6
23	SWING - CCW	17	BLACK/BLUE	ITEM 6
24	SWING - CW	11	BROWN/BLACK	ITEM 6
25	THROTTLE - MED.	1	BLACK	ITEM 6
---	SPARE	5	YELLOW	ITEM 6
---	SPARE	2	RED	ITEM 6

18/12 CONDUCTOR WIRE				
SNORKEL WIRE NO.	DESCRIPTION	B. REX WIRE NO.	BRAND REX WIRE COLOR	TERMINAL PLATFORM BOX
4	RUN - FROM PLATFORM	1	BLACK	ITEM 6
5	START - FROM PLATFORM	11	BROWN/BLACK	ITEM 21
28	SENSE LINE DUMP	12	BLACK/RED	ITEM 6
70	HI/LO SPEED SIGNAL	2	RED	ITEM 6
73	TILT SIGNAL POWER - RELAY	8	BLUE/BLACK	ITEM 6
125	THROTTLE (HIGH)	7	RED/BLACK	ITEM 6
160	HYD. VALVE SIGNAL	9	ORANGE/BLACK	ITEM 6
126	ENGINE KILL SIGNAL	4	ORANGE	ITEM 11
29	HORN	6	BROWN	ITEM 6
122	LOW SPEED LIFT/SWING	10	YELLOW/BLACK	ITEM 6
---	SPARE	5	YELLOW	---
---	SPARE	3	BLUE	---

12/8 CONDUCTOR WIRE				
SNORKEL WIRE NO.	DESCRIPTION	B. REX WIRE NO.	BRAND REX WIRE COLOR	TERMINAL PLATFORM BOX
1	POWER TO PLATFORM	2	RED	ITEM 5
2	POWER TO PLATFORM	7	RED/BLACK	ITEM 5
3	GROUND	1	BLACK	ITEM 5
6	EMER. POWER	4	ORANGE	ITEM 5
26	PLATFORM ROT. - CW	5	YELLOW	ITEM 5
27	PLATFORM ROT. - CCW	8	BLUE/BLACK	ITEM 5
110	110 VOLT (NEUTRAL)	6	BROWN	---
110	110 VOLT (POWER)	3	BLUE	---



### Lower Controls, Cummins 3.3

Item	Part No.	Qty.	Description
1	0060373	4	JUMPER, SWITCH TERMINAL STRAP
2	0070730	1	WIRE 16 R6I R6I 5.5
3	0071588	2	WIRE 12 R6I R8I 10
4	0070746	2	WIRE 16 R6I R6I 9
5	0070747	6	WIRE 16 R6I R6I 3
6	0070753	3	WIRE 16 R6I R6I 12
7	0071541	1	WIRE 12 R6I R10I 14
8	0070735	1	WIRE 12 R6I R10I 24
9	0074592	1	WLDMT PNL & HINGE GRD CONT
10	0082002	1	RHEOSTAT SUB ASSY
11	0112559	1	PLAC GROUND CONT PANEL
12	3020020	1	SW EMER STOP PUSH/PULL
13	3070040	1	GAUGE TEMP 320
15	0111477	2	WIRE 16 R6I R6I 10 DIO
16	0181104	6	WIRE 12 R6 R6 6
17	0240483	1	WIRE 16 R6I R10I 8
18	3020013	1	SW TGL SPST ON OFF SEALED
19	3020016	3	SW TGL SPDT (M/OFF/M)
20	3020018	3	SW TGL DPDT (M/OFF/M)
21	3020087	1	KEY SWITCH SINGLE CODE
22	3020048	2	SW TGL 4PDT (ON/ON)SEALED
23	3020081	2	SW TGL DPDT (M/ON) SEALED
24	3040348	1	KNOB RHEOSTST
25	3040535	1	CIRCUIT BREAKER 3AMP
26	3070003	1	AMMETER
27	5560004	1	NUT, 1/4-20 ESNA
28	0110727	2	WIRE 12 R6I R6I 5
29	0112414	1	ENGINE WIRE ASSEMBLY, TB80
30	5093006	1	CLP CUSH .937
31	970029	1	C. SCREW. 1/4-20 X 3/4" LG HH
32	986019	1	WASHER, 1/4 FLAT
34	300489	1	TERMINAL STRIP #10 STUD 6 CIR
35	5560649	2	SCR THRD #10-24 1.00
36	5560034	2	NUT LKG #10-24
37	0083300	1	EPS WIRE ASSY



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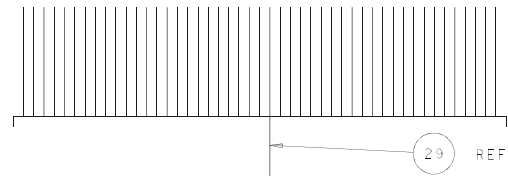
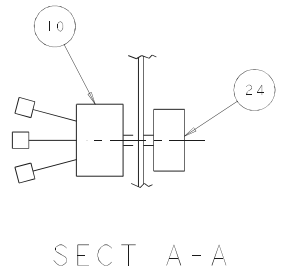
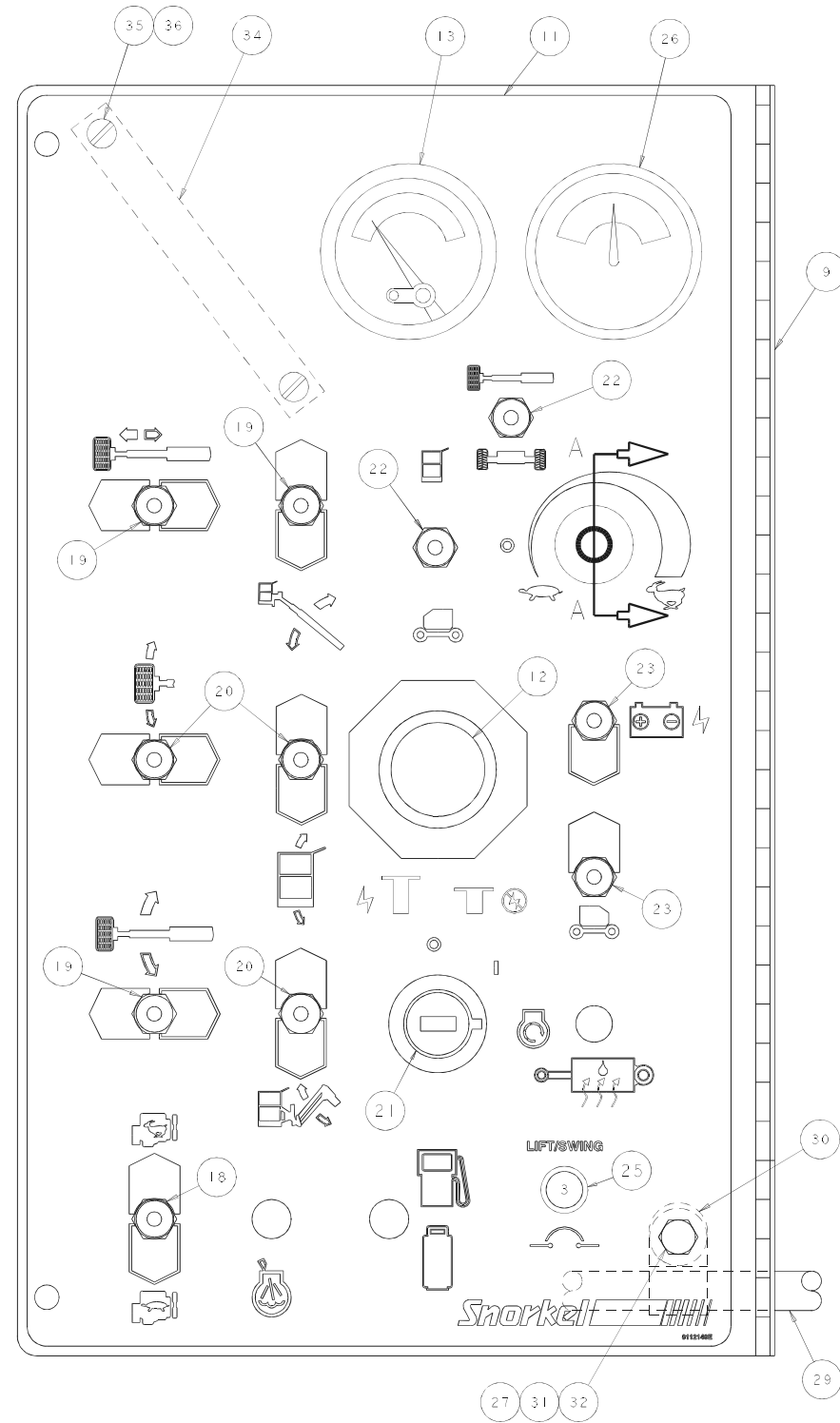
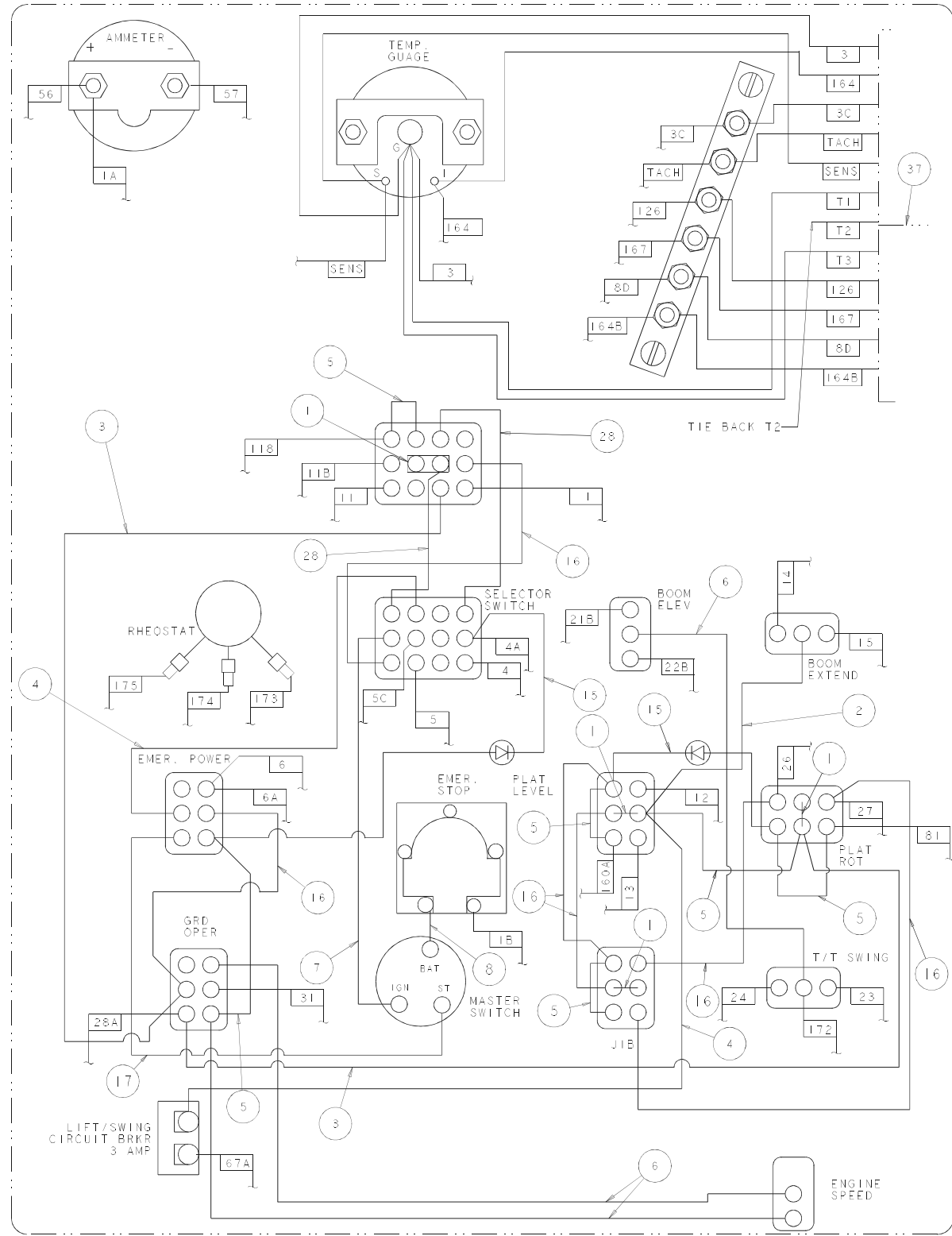
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## Lower Controls, Ford LRG 425

Item	Part No.	Qty.	Description
1	0060373	3	JUMPER, SWITCH TERMINAL STRAP
2	0070730	2	WIRE 16 R6I R6I 5.5
3	0071588	2	WIRE 12 R6I R8I 10
4	0070746	2	WIRE 16 R6I R6I 9
5	0070747	5	WIRE 16 R6I R6I 3
6	0070753	3	WIRE 16 R6I R6I 12
7	0071541	1	WIRE 12 R6I R10I 14
8	0070735	1	WIRE 12 R6I R10I 24
9	0074592	1	WLDMT PNL & HINGE GRD CONT
10	0082002	1	RHEOSTAT SUB ASSY
11	0112559	1	PLAC GROUND CONT PANEL
12	3020020	1	SW EMER STOP PUSH/PULL
13	3070021	1	TEMP GAUGE 250 DEG 8FT #10-75
14	0073254	1	WIRE 18 R10I R10I 5 DIO SP
16	0181104	2	WIRE 12 R6 R6 6
17	0240483	2	WIRE 16 R6I R10I 8
18	3020013	2	SW TGL SPST ON OFF SEALED
19	3020016	3	SW TGL SPDT (M/OFF/M)
20	3020018	3	SW TGL DPDT (M/OFF/M)
21	3020087	1	KEY SWITCH SINGLE CODE
22	3020048	2	SW TGL 4PDT (ON/ON)SEALED
23	3020081	2	SW TGL DPDT (M/ON) SEALED
24	3040348	1	KNOB RHEOSTAT
25	3040535	1	CIRCUIT BREAKER 3AMP
26	3070003	1	AMMETER
27	5560004	1	NUT, 1/4-20 ESNA
28	0110727	2	WIRE 12 R6I R6I 5
29	0083922	1	WIRE ASSY, ENGINE (FO) 425
30	5093006	1	CLP CUSH .937
31	970029	1	C. SCREW, 1/4-20 X 3/4" LG HH
32	986019	1	WASHER, 1/4 FLAT





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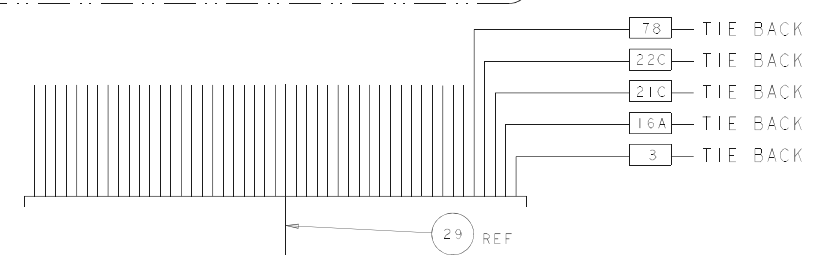
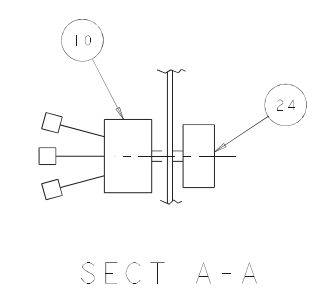
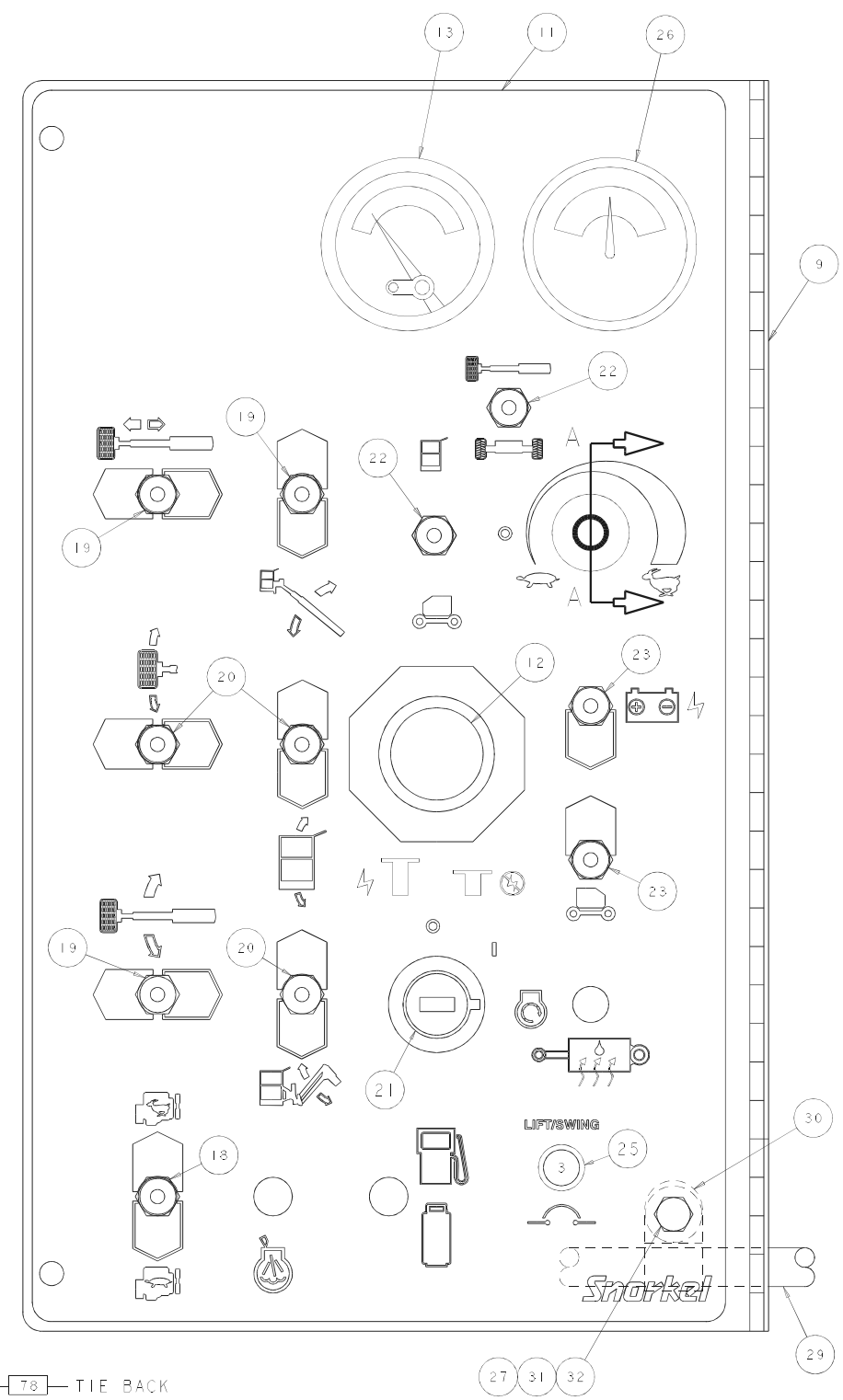
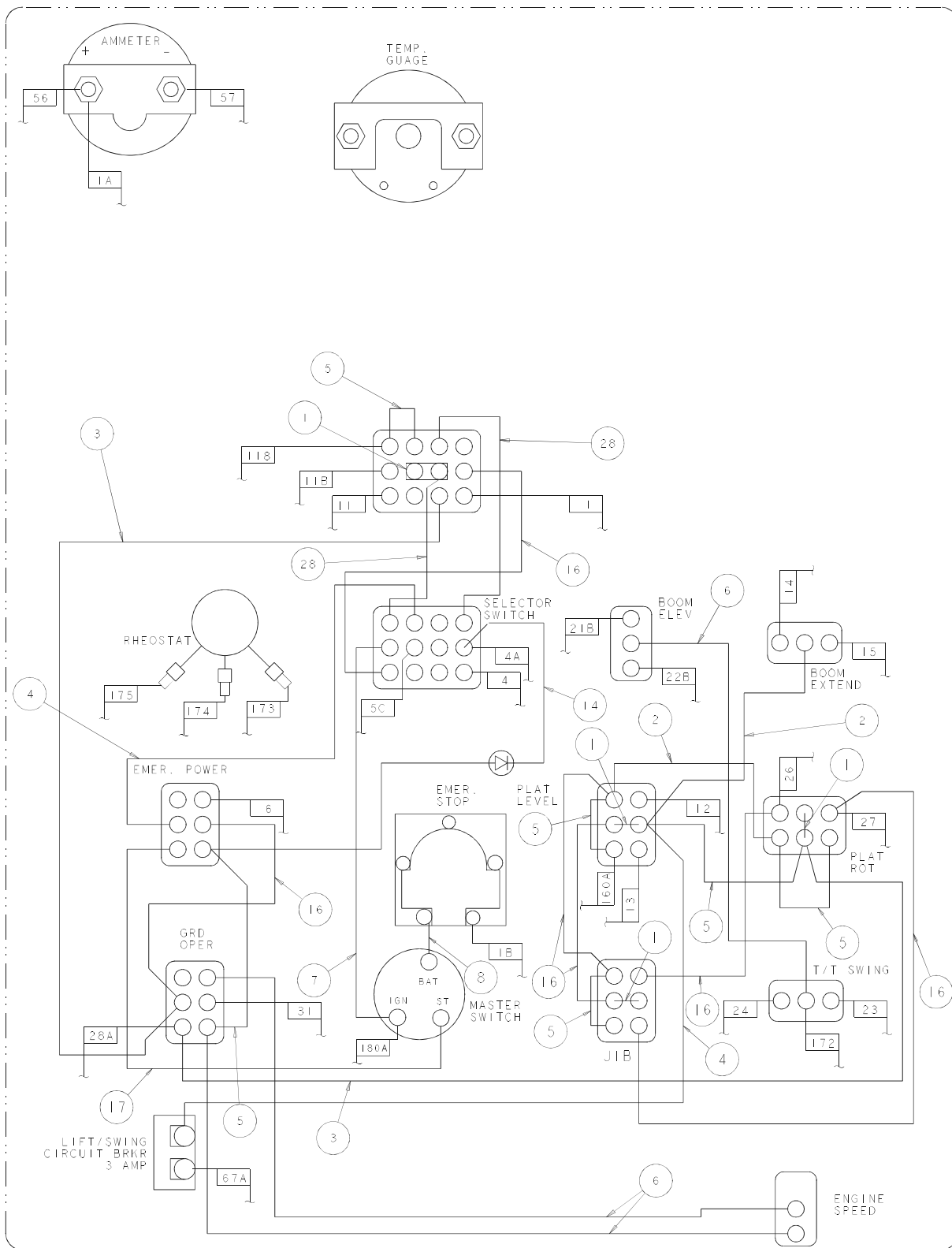
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## Lower Controls, Deutz F4L-2011F

Item	Part No.	Qty.	Description
1	0060373	4	JUMPER, SWITCH TERMINAL STRAP
2	0070730	1	WIRE 16 R6I R6I 5.5
3	0071588	2	WIRE 12 R6I R8I 10
4	0070746	2	WIRE 16 R6I R6I 9
5	0070747	6	WIRE 16 R6I R6I 3
6	0070753	3	WIRE 16 R6I R6I 12
7	0071541	1	WIRE 12 R6I R10I 14
8	0070735	1	WIRE 12 R6I R10I 24
9	0074592	1	WLDMT PNL & HINGE GRD CONT
10	0082002	1	RHEOSTAT SUB ASSY
11	0112559	1	PLAC GROUND CONT PANEL
12	3020020	1	SW EMER STOP PUSH/PULL
13	3070041	1	GAUGE TEMP 320 DATCON OIL HIGH
15	0111477	2	WIRE 16 R6I R6I 10 DIO
16	0181104	6	WIRE 12 R6 R6 6
17	0240483	1	WIRE 16 R6I R10I 8
18	3020013	1	SW TGL SPST ON OFF SEALED
19	3020016	3	SW TGL SPDT (M/OFF/M)
20	3020018	3	SW TGL DPDT (M/OFF/M)
21	3020087	1	KEY SWITCH SINGLE CODE
22	3020048	2	SW TGL 4PDT (ON/ON)SEALED
23	3020081	2	SW TGL DPDT (M/ON) SEALED
24	3040348	1	KNOB RHEOSTAT
25	3040535	1	CIRCUIT BREAKER 3AMP
26	3070003	1	AMMETER
27	5560004	1	NUT, 1/4-20 ESNA
28	0110727	2	WIRE 12 R6I R6I 5
29	0112167	1	ENG WIRE ASSY TB80 DZ
30	5093006	1	CLP CUSH .937
31	970029	1	C. SCREW, 1/4-20 X 3/4" LG HH
32	986019	1	WASHER, 1/4 FLAT
34	300489	1	TERMINAL STRIP #10 STUD
35	5560673	2	SCR THRD #10-24 1.00
36	5560034	2	NUT LKG #10-24
37	0083300	1	EPS WIRE ASSY



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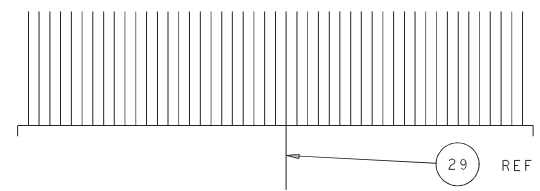
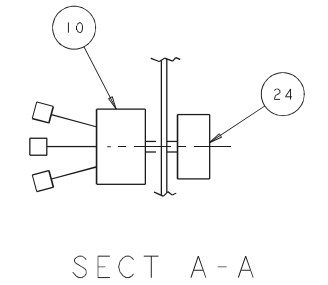
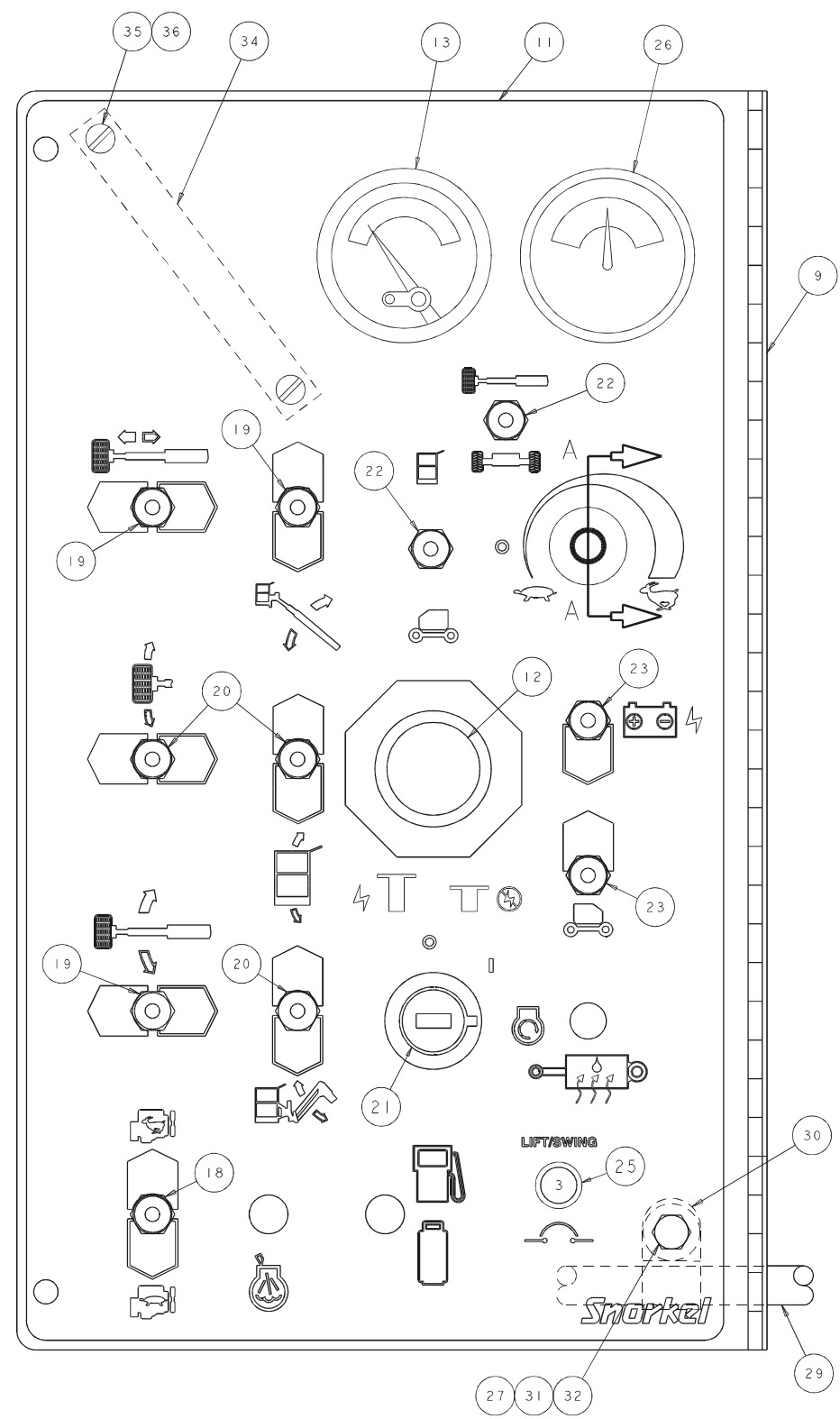
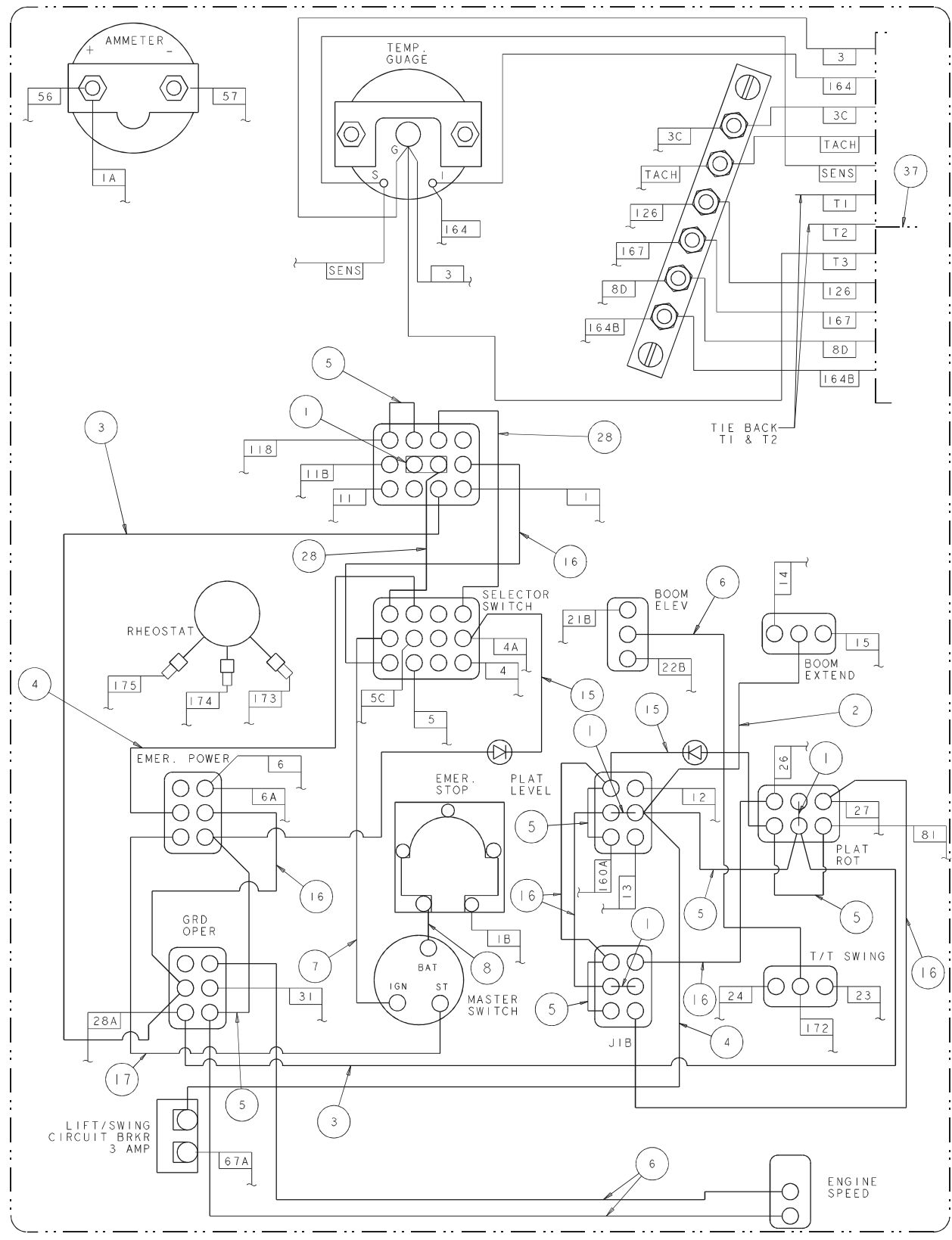
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## Upper Control Box

Item	Part No.	Qty.	Description
1	0111928	1	WLDMT PLATF CONT BOX
2	0180846	1	PLAC PLATF CONT BOX FRONT
3	986159	1	WSHR 6 STAR TOOTH
4	3040068	1	CIRCUIT BREAKER 20 AMP-W58XC4C 12A-20V
5	3020090	1	SW ANTI-RESTART IGNITION
6	3040116	2	CONN .75 .500-.625
7	3040110	4	NUT LKG. .750 HUB
8	3040493	1	CONTROLLER
9	3040492	1	CONTROLLER
10	3040285	1	CONN .75 .375-.500
11	3020018	3	SW TGL DPDT (M/OFF/M)
12	0101878	1	WIRE 16 R6 FEM188I 30
13	3020013	2	SW TGL SPST ON OFF SEALED
14	974689	1	SCR RHD MACH 10-24 .750
15	5560034	11	NUT LKG 10-24
16	0180886	1	DECAL TERM STRIP HORIZ 10TERM
17	5560038	10	NUT LKG 10-32
18	3044710	1	TERM STRIP (10) #10 STUD
19	3040057	1	TERMINAL STRIP 18 CIRCUIT
20	0180887	1	DECAL TERM STRIP HORIZ 13TERM
21	974279	3	SCR RHD 6-32 .750
22	986159	4	WSHR FLAT 6 WRT
23	987349	4	WSHR LOCK 6
24	984009	4	NUT HEX 6-32
25	3020080	1	SW TGL SPDT (M/NONE/ON) SEALED
26	3040469	3	RELAY SPDT 12V 30AM
27	3040535	3	CIRCUIT BREAKER 3AMP
28	480652	1	ALARM 97DBA DUAL TONE 12/24V
29	0070967	1	CORROSION INHIBITOR STICK
30	0072530	1	DECAL DNGR ELEC HAZARD
31	0151910	1	WIRE 16 R6 R10 14
32	0180850	1	WIRE ASSY, PLAT CONT BOX
33	0082007	1	WIRE ASSEMBLY - CONTROL
34	3040295	1	CONN .75 .625-.75
35	3040433	1	TERMINAL STRIP (12) .188 TAB
36	987359	1	WSHR LOCK 10
37	7190001	72 in	GASKET WEATHERPROOF 6.00LG-1/8 " X 1/2"
38	0180888	1	DECAL TERM STRIP HORIZ 16TERM
39	0070713	1	WIRE 18 R10I FEM188I 10
40	974269	1	SCR RHD 6-32 1.00
41	0072388	1	WIRE 18 SEE DWG
42	986019	3	WSHR FLAT .250 WRT
43	0070746	7	WIRE 16 R6I R6I 9
44	0070753	1	WIRE 16 R6I R6I 12
45	0060373	2	JUMPER, SWITCH TERMINAL STRAP
46	0070712	3	WIRE 12 R10I R10I 5
47	0181029	1	WIRE 12 R6 R10 19.5
48	986009	1	WSHR FLAT 10
49	984069	2	NUT HEX. .250-20
50	0070711	1	WIRE 12 R10I R10I 3
51	986009	1	WSHR 10 STAR TOOTH
52	984049	1	NUT HEX 10-24
53	0110468	1	WIRE 16 FEM188I FEM188I 4
54	0090622	2	WIRE 18 FEM188I FEM250I 9
55	0181103	1	WIRE 16 R10 FEM250FI 15
56	0071557	1	WIRE 18 R8I MALE250FI 7
57	0071812	1	WIRE 16 R10 FEM250FI 18
58	0151816	1	WIRE 16 R10I R10I 7.5
59	3040411	1	ALARM MINI SIREN 6-28VDC
60	974659	3	SCR TRHD 10-24 .500

## Upper Control Box

Item	Part No.	Qty.	Description
61	970029	3	BLT .25-20 .750 GR5
62	5560004	3	NUT LKG .250-20
63	5569711	1	GROMMET .438ID .938OD .125
64	0073295	3	WIRE 16 R6I FEM250FI 8
65	974709	2	SCR TRHD 10-24 1.00
66	0110598	1	WIRE 18 SEE DWG
67	3026027	1	SW PUSH BUTTON
68	7140092	1	SEAL KIT 600-0002
69	0071269	1	DECAL, HORN
70	0070733	1	WIRE 16 R8I R10I 24
71	3040525	1	CONTROLLER SINGLE AXIS 63HZ
72	0181030	1	WIRE 16 FEM188 FEM250FI 15
73	0071534	1	WIRE 10 R10I FEM188I 21
74	0172238	2	WIRE 16 R6I DIO 30
75	0172237	1	WIRE 16 250FFI DIO 16
76	0172236	1	WIRE 16 188FI DIO 16
77	0073728	1	WIRE 16 R10 FEM188I 18
78	0172240	1	DIODE HOLDER-6PLC
79	0073631	2	DIODE STAND-OFF 2-DIODE
80	0172235	1	DECAL, DIODES
81	5093009	1	CLP CUS 1.12
82	0172234	1	CAPACITOR WIRE ASSY
83	974659	4	SCR RHD MACH 10-24 X .50
84	3040300	1	CONN .500 .188-.313
85	3040070	1	NUT LKG .500 HUB
86	3040082	1	TERM MALE250FI 16/14
87	0151205	1	WIRE 16 FEM188 FEM250FI 7
88	0070747	3	WIRE 16 R6I R6I 3
			<b>US Machines Only</b>
100	0112551	3	PLAC PLATF CONT BOX TOP
101	3020020	1	SW EMER STOP PUSH/PULL
103	0070747	2	WIRE 16 R6I R6I 3
104	0181028	2	WIRE 16 RG FEM187 10.5
105	0240483	1	WIRE 16 R6I R10I 8
106	0070758	1	WIRE 16 R6I R10I 20
108	3040116	3	CONN .75 .500-.625
109	3040110	5	NUT LKG .750 HUB
			<b>CE Machines Only</b>
151	3020097	1	SW TGL DPDT ON/ON SEALED
152	0071558	2	WIRE 16 R6I R6I 30
153	0070758	3	WIRE 16 R6I R10I 20
154	0151556	1	WIRE 16 R6 FEM187I 6
155	0112551E	1	PLAC PLATF CONT BOX TOP CE
158	0181028	1	WIRE 16 R6 FEM187 10.5
161	3040410	1	HOLE PLUG 1.125
162	974219	4	SCR RHD 6-32 .375



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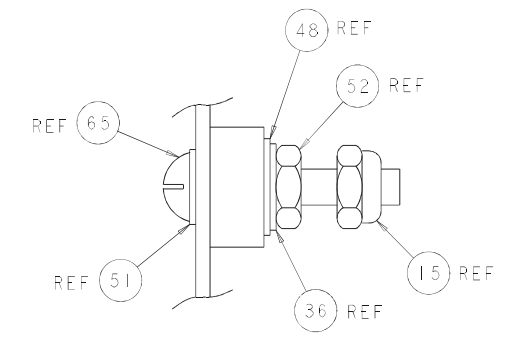
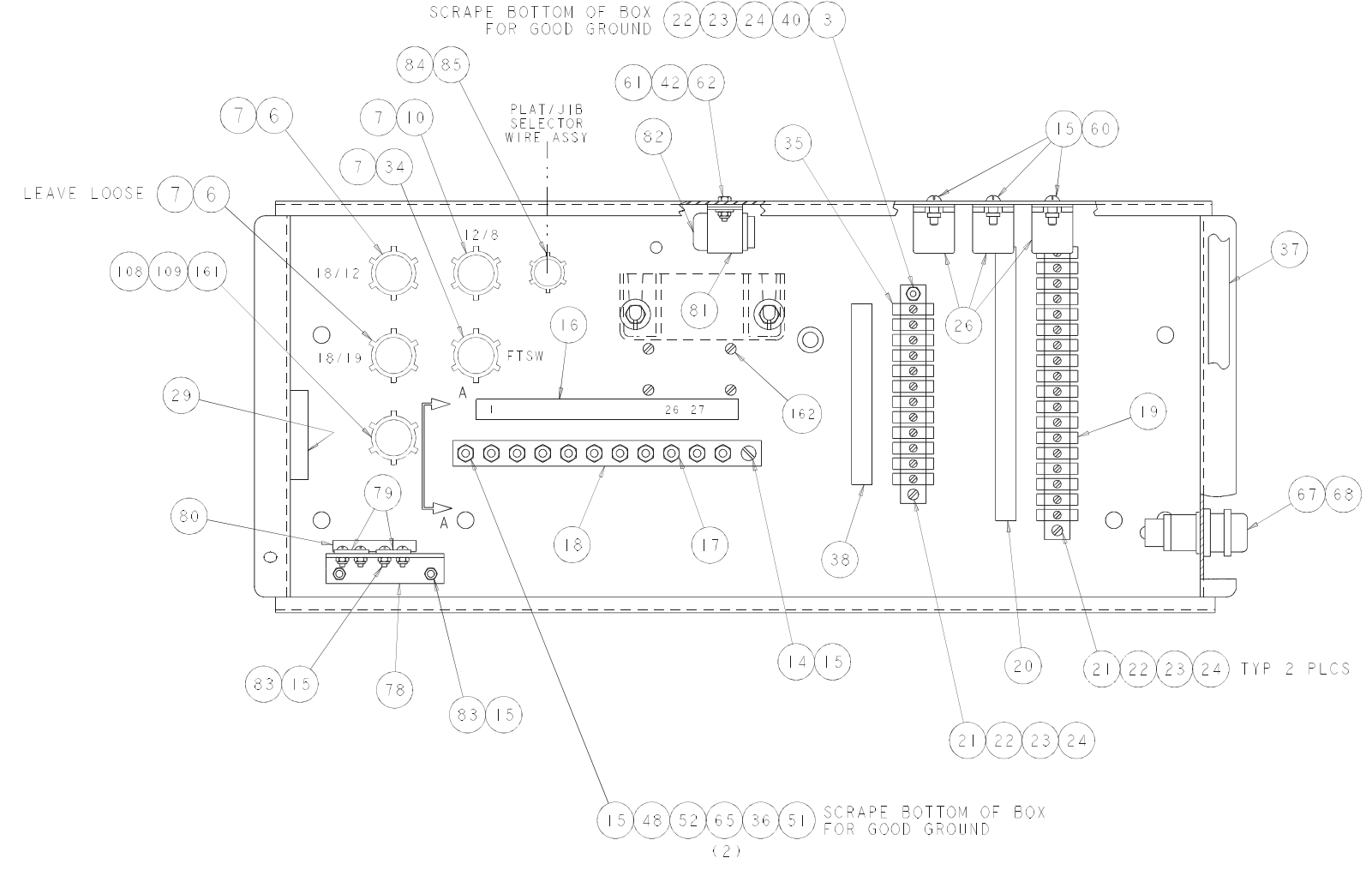
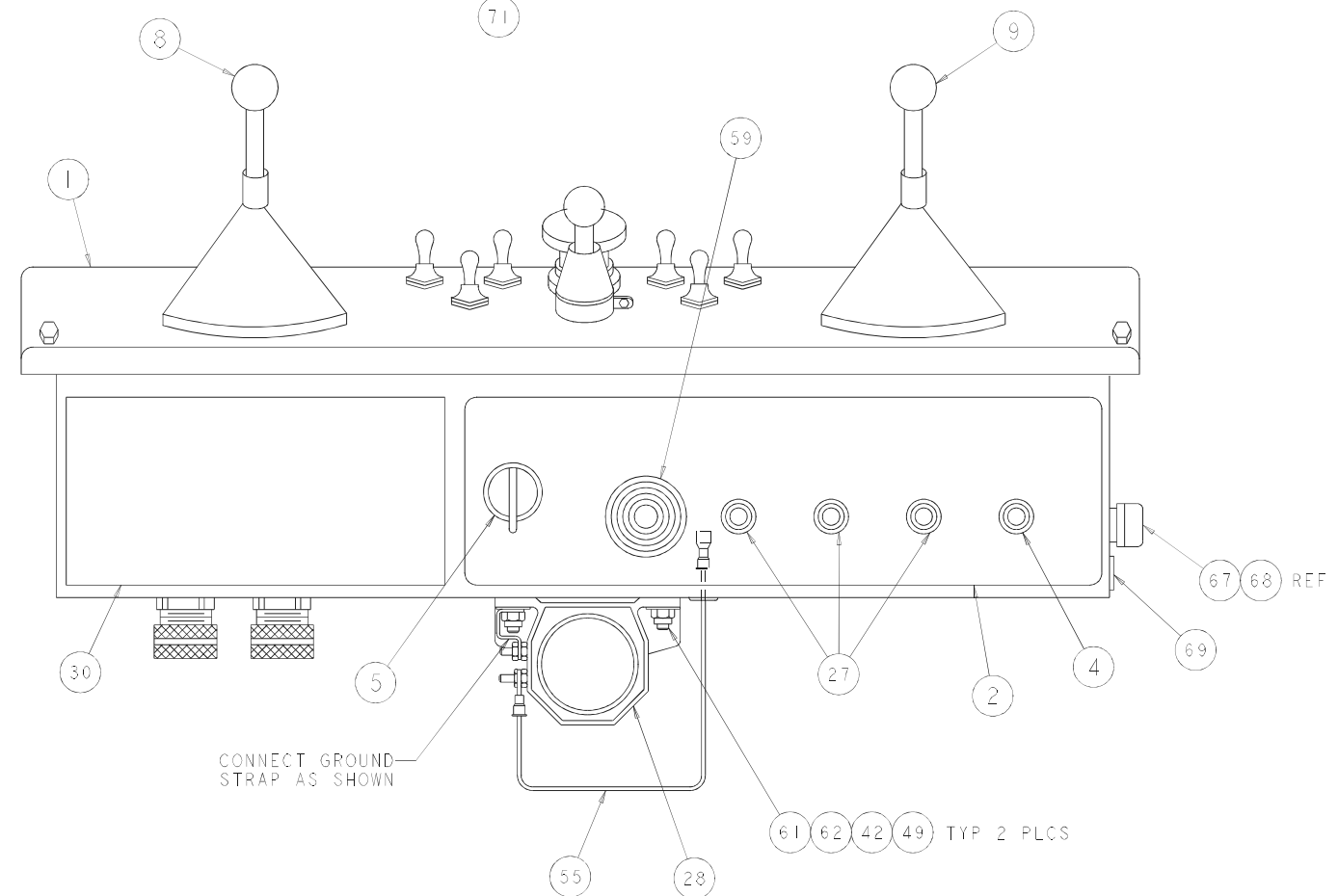
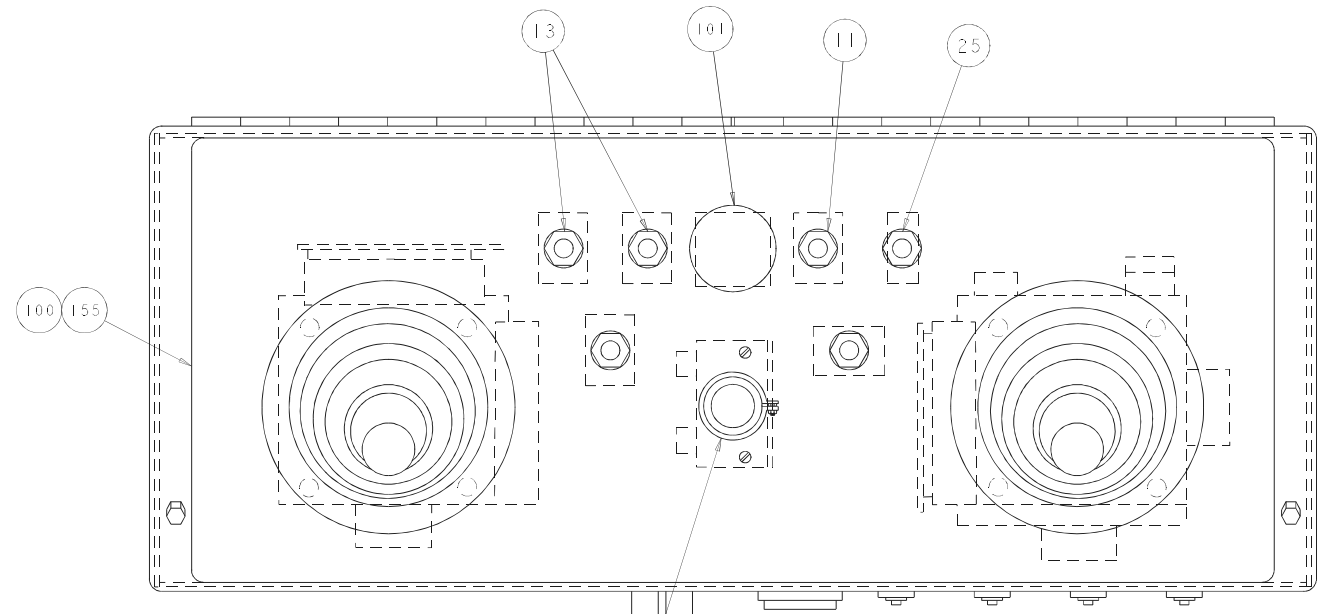
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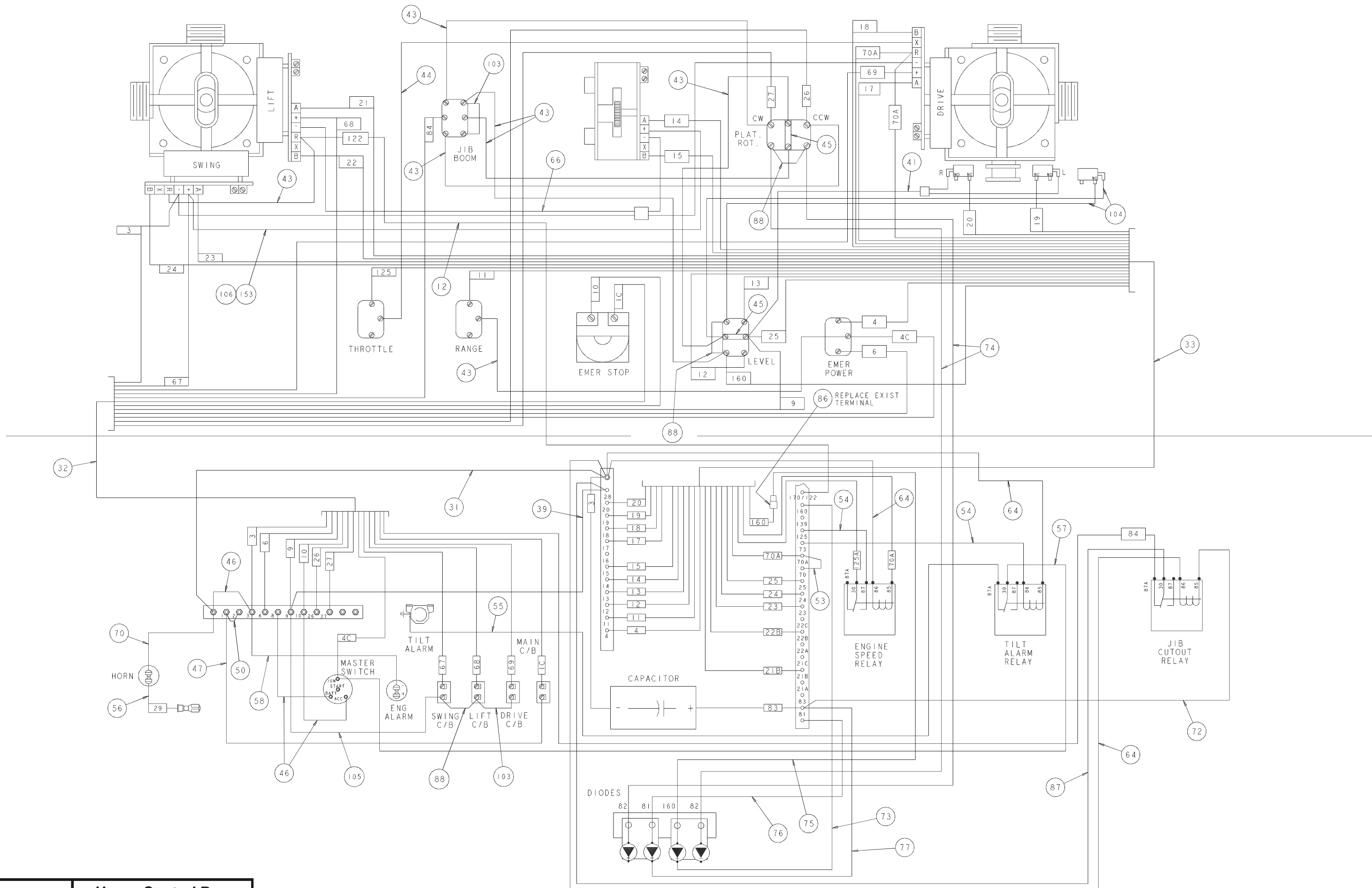
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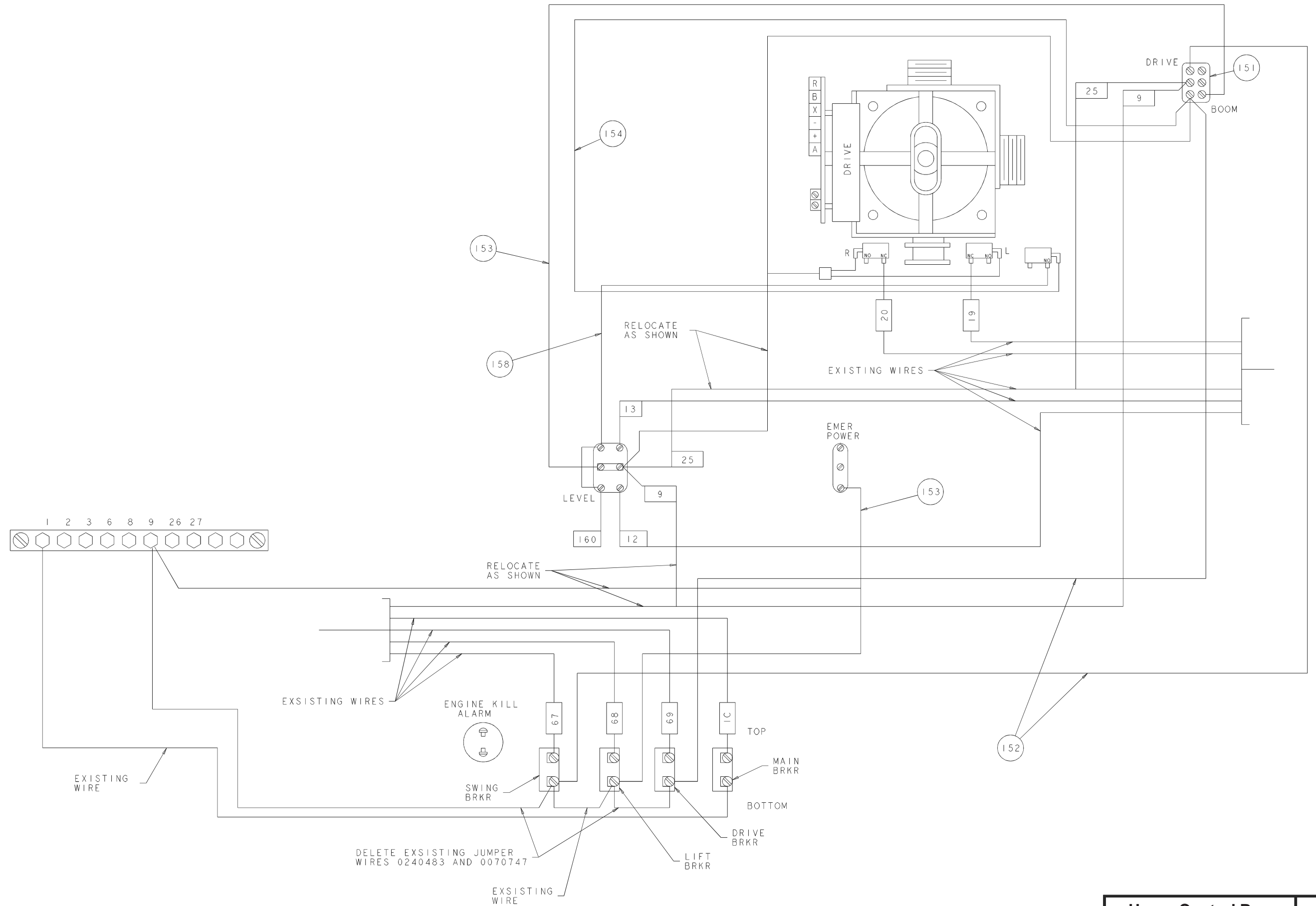


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CE WIRING SCHEMATIC



DELETE EXSISTING JUMPER WIRES 0240483 AND 0070747



## Maintenance information

The parts drawings located in the repair parts sections, are designed for use as a guide for proper disassembly of the machine and components as well as for parts replacement. Always refer to the hydraulic system installation drawings and the electrical wiring diagram before removing or disassembling associated parts.

### ▲CAUTION

**Do not attempt to disconnect or remove any hydraulic line before reading and understanding all text concerning the system hydraulics. In most cases, disassembly of the machine will be obvious from the illustration.**

When disassembling or reassembling components, complete the procedural steps 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.

The following list is a gentle reminder 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 objects to rest in an unstable condition.
- ✓ Always make sure work platform is in stowed position - blocked or the weight removed by a suitable lifting device before disconnecting the hydraulic hose from the motor/pump unit to the lift cylinder.
- ✓ When raising a portion of the machine, be sure that adequate blocking is properly positioned - Do not depend on 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.

Parts should be thoroughly inspected before restoring to service at the time of reassembly. Burrs, nicks or scratches may be removed from machined surfaces by honing or polishing with #600 crocus cloth, followed by a thorough cleaning in 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 manifold installations. Replace any part having imperfect threads. In general, units that have been disassembled can be reassembled by reversing the order of disassembly.

Remember that the service life of a machine can be increased by keeping dirt and foreign materials out of the vital components. Precautions have been taken to safeguard against this; shields, covers, seals and filters are provided to keep air and oil supplies clean; however, these items must be maintained on a scheduled basis in order to function properly.

At any time air or oil lines are disconnected, clean surrounding areas as well as the opening and fittings themselves. 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 unit. This will assure that they are correctly reinstalled.

Proper assembly is critical to the successful rebuilding of any unit. 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.

## Maintenance schedules

Snorkel has established a Preventive Maintenance Schedule that includes Daily Maintenance (Operator's Inspection), 90 Day or 150 Hour (frequent) Maintenance and Yearly or 500 Hour (annual) Maintenance, to detect any defective, damaged or improperly secured parts and provide information regarding lubrication and other minor maintenance items.

The Maintenance Schedule following, outlines the requirements of these maintenance checks for each time interval. The Operator's Prestart Inspection must be performed by a trained operator. All other maintenance and inspections must be performed by a trained service technician only.

Note that the 90 Day or 150 hour (frequent) and yearly or 500 hour (annual) Maintenance, require use of the Preventive Inspection Maintenance Checklist to pinpoint all inspection items. Retain a copy of these forms for your records.

They also require that all placards and decals on the unit are to be inspected.

All placards and decals must be in place and legible. Use the placards installation drawing and parts listing in the repair parts section 1 of this manual to check these placards and decals.

Snorkel recommends that you make additional copies of the Preventive Inspection Maintenance Checklist forms for your use in performing these inspections.

### ▲ DANGER

**Failure to perform the Preventive Maintenance at the intervals outlined in the Maintenance Schedule may result in a unit being operated with a defect that could result in INJURY or DEATH of the unit operator. Do not allow a unit to be operated that has been found to be defective.**

Repair all defects before returning the unit to service.

### Daily maintenance (operator's inspection)

Components	Service Required
Axle/boom interlock	Check operation
Emergency power motor/pump	Check operation
Air filter	Check condition
Engine oil	Check oil level
Fuel leaks	Visually inspect (hoses, connections, etc.)
Fuel tank cap	Visually inspect (installation)
Engine coolant	Check fluid level
Engine fuel level	Check fuel gauge
Bolts and fasteners	Visually inspect (looseness)
Platform gate	Visually inspect (operation)
Slide pads	Visually inspect (boom wear marks)
Structural damage and welds	Visually inspect (weld cracks, dents)
Tires and wheels	Visually inspect (condition)
Battery fluid level	Check fluid level
Battery terminals	Visually inspect (corrosion)
Charging system	Visually inspect (belt, gauge)
Control switches	Visually inspect (operation)
Wiring harnesses	Visually inspect (installation, condition)
Hydraulic leaks	Visually inspect (hoses, tubes, fittings)
Hydraulic oil	Check fluid level
Placards and decals	Visually inspect (installation, condition)

## Maintenance schedules

### 90 day or 150 hour maintenance (trained service technician)

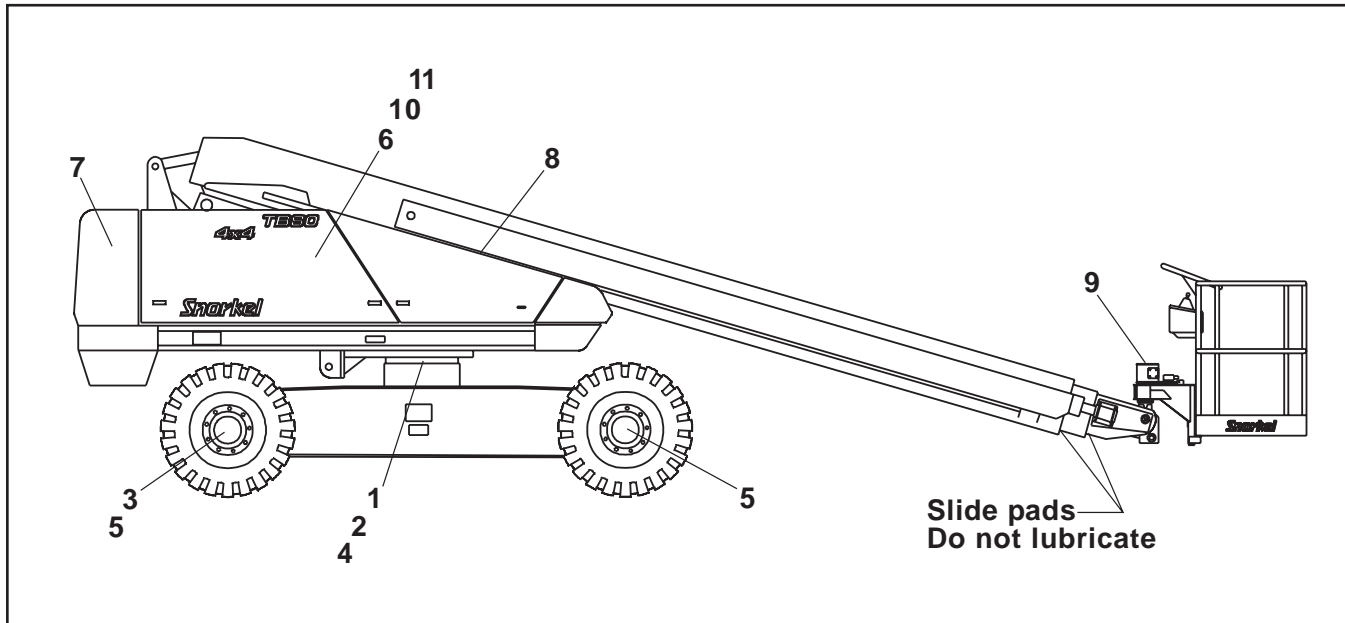
Components	Service Required	Recommended Lubricant or Further Instructions
Daily maintenance	Perform maintenance as per schedule	
Preventive inspection maintenance checklist	Perform inspection, complete form	Retain copy of checklist
Placards and decals inspection	Inspect using drawing and parts listing in section 1 (repair parts)	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° Mobilgrease CM-P Below 32° Mobilgrease CM-L
Rotation bearing teeth & pinion	Lubricate	Mobil Mobiltac 375NC
Tie rods	Lubricate	Conoco Super Sta #2 Above 32° Mobilgrease CM-P Below 32° Mobilgrease CM-L
Gear hubs	Check fluid level, fill if low	Mobil Mobilube HD 80W-90
Swing drive	Check fluid level, fill if low	Mobil Mobilube HD 80W-90
Platform rotator	Refill if disassembled for repairs	Consult factory
Platform controller	Check smooth operation & speeds	
Batteries	Check specific gravity	1.260/1.275 at 80° F.
Hydraulic return filter	Check condition	Replace if dirty
Engine RPM	Check for proper engine RPM	See engine manufactures owner's manual
Engine oil and filter	Replace per engine owners manual	
Engine fuel filter	Check condition	Replace every 6 months or if dirty

### Yearly or 500 hour maintenance (trained service technician)

Components	Service Required	Recommended Lubricant or Further Instructions
90 day or 150 hour maintenance	Perform maintenance per schedule	
Hydraulic oil reservoir	Clean and replace fluid	Above 10° Mobil DTE-13M Below 10° Mobil DTE-11M
Hydraulic return filter	Replace	After 1st. 50 hours, thereafter at recommended interval
Hydraulic reservoir suction filter	Clean and reinstall	
Hydraulic pressures	Check pressures	
Gear hubs	Replace fluid	Mobil Mobilube HD 80W-90
Swing drive	Replace fluid	Mobil Mobilube HD 80W-90
Engine coolant	Check Condition	See engine manufacturer's owner's manual
Front wheel bearings	Clean and repack	Conoco Super Sta #2 Above 32° Mobilgrease CM-P Below 32° Mobilgrease CM-L

# Service information

## Lubrication illustration



The illustration locates the lubrication points.

### Lubricants

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

Refer to the above lubrication illustration for location of item numbers.

### Pressure gun application

Service all fittings as indicated in the 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. Lubrication fitting is located on the left side 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.

### Tie rods

Tie rods (item 3.): Lubricate at recommended interval using lubricant as outlined in the maintenance schedule.

### Swing drive

To check oil level, remove check plug located on the side of the gear box (item 4.). Unit is full if oil is level with bottom of fill hole or just starts to run out.

### Gear hubs

Gear hubs (item 5.): 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.*

### Hydraulic oil reservoir

Hydraulic oil reservoir (item 6.): The fluid level should be kept between the low and full marks on the sight gauge indicator and should be checked with all cylinders fully retracted and the platform in 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.



## Service information

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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 Snorkel Customer Service Department, St. Joseph, Missouri, for further information.

### **Engine**

Engine (item 7.): Refer to the engine manufacturer's instruction manual or consult your local engine service representative if engine adjustments or repairs are needed. The engine **MUST** be operated in accordance with manufacturer's instructions and serviced at recommended intervals.

### **Door hinges and latches**

Door hinges and latches (item 8.): After lubricating, remove any excess oil or over spray so it will not collect dirt or debris.

### **Platform rotator**

Platform rotator (item 9.): Platform rotators will require lubrication only if disassembled for repairs.

Consult factory for proper lubricant if replacement of platform rotator is required.

### **Hydraulic oil return filter**

Return filter (item 10.): The hydraulic oil return filter is located on the left side of the turntable near the hydraulic oil reservoir.

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 15 PSI. If pressure readings are above 15 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 engine is running at maximum RPM and 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 70 degrees.

### **Note:**

*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 11.): A 100 mesh strainer is located within the hydraulic oil reservoir and filters the pump suction flow.

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

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

### **Batteries**

Batteries (not shown): Batteries will have longer life if the water level is maintained and they are kept charged. The unit will have better starting characteristics with a fully charged battery.

In cold weather the battery should be maintained at full charge to keep from freezing. An extremely low or dead battery 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.

## Capscrew torque chart

GRADE BOLT	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 Q & T	MED. CARBON ALLOY STEEL Q & T
MIN. TENSILE STRENGTH	64,000 P.S.I.	105,000 P.S.I.	133,000 P.S.I.	150,000 P.S.I.
BOLT SIZE	RECOMMENDED TORQUE VALUES (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

**The following rules apply to the chart**

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

Dealer \_\_\_\_\_  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Model Number \_\_\_\_\_ Serial Number \_\_\_\_\_  
 Date received by dealer \_\_\_\_\_ Date of report \_\_\_\_\_

<b>Check box and complete this report to receive a free Repair Parts Manual for this machine.</b>		
<b>OK</b>	OK - No service required	This report must be completed and returned to the Snorkel Service Department within 15 working days after delivery of machine to Dealer in order to validate warranty.
<b>✓</b>	Corrective action required	
<b>X</b>	Corrected, record description of corrective action	

**Inspection Procedure Codes**

(1) Weld cracks, dents and/or rust
(2) Installation
(3) Leaks
(4) Operation
(5) Condition
(6) Tightness
(7) Residue buildup

	Check	OK	✓	X
<b>A Chassis</b>				
1	Structural (1)			
2	Steering cylinder pin caps (2,6)			
3	Steering linkage (4)			
4	Tires (5)			
5	Hydraulic tubes and hoses (3,5)			
6	Axle lock pin (2)			
7	Axle interlock cam valve (4)			
8	Jacking and axle extend cylinder (3,4,6)			
9	Jacking cylinder holding valve (4)			
10	Drive motor brake (4)			
11	Torque all wheel lug nuts per placard on wheel (6)			
12	Right drive motors (3)			
13	Left drive motors (3)			
14	Lubrication points			
15	Tie-down/lifting lugs (1,5)			
<b>B Turntable</b>				
1	Structural (1)			
2	Torque turntable top bolts @ 475 ft. lbs. (6)			
3	Torque turntable bottom bolts @ 350 ft. lbs. (6)			
4	Hydraulic tubes and hoses (3,5)			
5	Centerpost (3)			
6	Centerpost securing bolts (6)			
7	Lift cylinder pin caps and tie wire (2,6)			
8	Emergency bleed down valve (4)			
9	Cowling (5,6)			
10	Wire harness (2,5)			
11	Lift cylinder and holding valves (3,4)			
12	Master level cylinder pin caps and tie wire (2,6)			
13	Master level cylinder and holding valves (3,4)			
14	Rotation brake (4)			
15	Rotation backlash (5)			
16	Correct Operator's Manual in document holder			
17	System pressure (4)			
18	Lubrication points			

	Check	OK	✓	X
<b>C Lower Controls</b>				
1	Controls selector switch in ground position – upper controls do not work (4)			
2	Controls selector switch in platform position – lower controls do not work (4)			
3	Engine Start – Stop (4)			
4	Throttle High – Low (4)			
5	Ground operation switch (4)			
6	Turntable rotation CW – CCW (4)			
7	Boom Up – Down (4)			
8	Boom extension In – Out (4)			
9	Jib Up – Down (4) – TB85J only			
10	Platform level Up – Down (4)			
11	Platform rotation CW – CCW (4)			
12	Emergency power, all functions (4)			
13	Platform rotation CW – CCW (4)			
14	Boom/axle selector switch – ground and platform controls do not work when in axle position (4)			
<b>D Booms</b>				
1	Structural (1)			
2	Lift cylinder pin caps and tie wire (2,6)			
3	Hydraulic tubes and hoses (3,5)			
4	Extension cylinder pin caps and tie wire (2,6)			
5	Extension cylinder and holding valve (3,4)			
6	Extend/retract wire ropes and sheaves (2,5,6)			
7	Jib boom pin caps and snap rings (2,6) – TB85J only			
8	Jib cylinder pin caps and snap rings (2,6) – TB85J only			
9	Jib cylinder and holding valves (3,4) – TB85J only			
10	Slave level cylinder pin caps and tie wire (2,6)			
11	Slave level cylinder and holding valves (3,4)			
12	Hose carrier tube (7)			
13	Hose carrier support (7)			
14	Plastic hose track (5)			
15	Electrical wires (5)			
<b>E Platform</b>				
1	Structural (1)			
2	Entry gate (4)			
3	Hydraulic tubes and hoses (3,5)			
4	Platform mounting bolts (2,6)			
<b>F Upper Controls</b>				
1	Foot switch, unit will not start when engaged (4)			
2	Foot switch, functions operate when engaged (4)			
3	Engine Start – Stop (4)			
4	Throttle High – Low (4)			
5	Turntable rotation CW – CCW (4)			
6	Boom Up – Down (4)			
7	Boom extension In – Out (4)			
8	Jib Up – Down (4) – TB85J only			
9	Platform level Up – Down (4)			



## **Boom/Axle Interlock System Inspection**

The boom/axle interlock system is designed to prevent raising or extending the boom unless the axle is extended with the lock pin in place, and to prevent retracting the axles unless the boom is in the stowed position (retracted and down). From the lower controls, check the interlock system as follows to confirm proper operation. If any of the following tests are not successfully completed, the malfunction must be corrected before putting the machine in service.

### **Limited Lift and Extend with Axles Retracted**

With the axles retracted, the boom down and retracted, the boom/axles switch in the boom position, and the control selector switch in the lower control position, raise the boom and verify that it stops raising slightly above horizontal. Lower the boom. Extend the boom and verify that it stops extending at approximately seven (7) feet of extension. Retract the boom.

### **Limited Lift and Extend with Axles Extended and Not Pinned**

With the axles extended, the boom down and retracted, the boom/axles switch in the boom position, the control selector switch in the lower control position, and axle lock pin not in place, raise the boom and verify that it stops slightly above horizontal. Lower the boom. Extend the boom and verify that it stops at approximately seven feet of extension. Retract the boom.

### **Axle System Inoperative with Boom in Working Position**

With the axles extended and locked in position, the boom horizontal and extended approximate ten feet, the boom/axles switch in the axle position, the control selector switch in the lower control position, verify that the jack will not lower and the axles will not retract.

### **Boom/Axles Switch Operation**

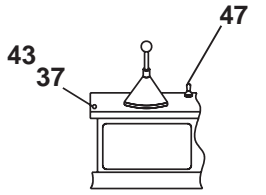
With the axles in any position, the boom down and retracted, the control selector switch in the lower control position, and the boom/axle switch in the axle position, verify that the boom can not be raised above horizontal or extended farther than seven feet. Place the boom/axle switch in the boom position and verify that the jack and axle controls do not operate their respective functions.

Note: If corrective action is required on any item, attach sheet indicating problem and action taken.

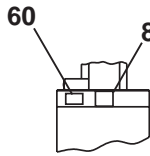


# TB80 TB85J

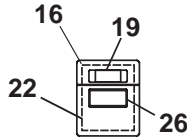
## Predelivery and Inspection Record



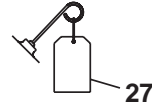
UPPER CONTROL BOX



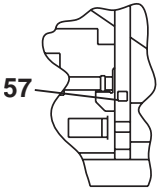
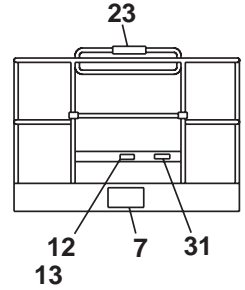
ROTATOR COVER



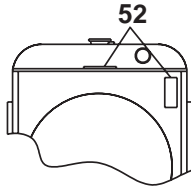
RECORD BOX



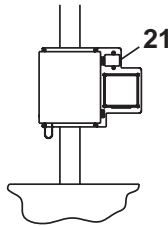
DIPSTICK



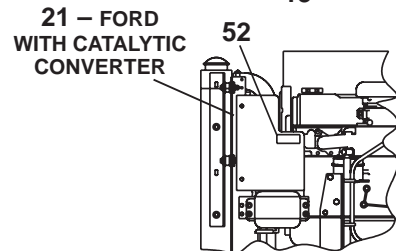
BLOCK HEATER  
CUMMINS ENGINE



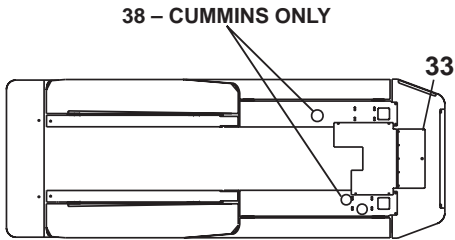
RADIATOR  
FORD/CUMMINS



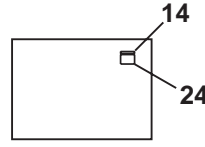
WIRING BOX - FORD  
BEFORE CATALYTIC CONVERTER  
WAS ADDED



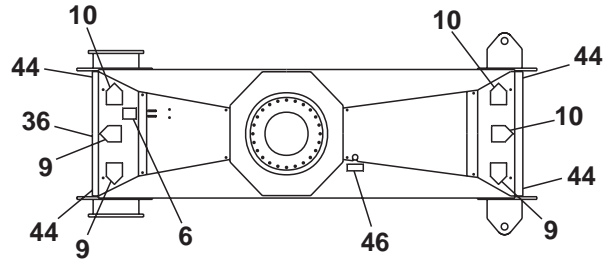
FORD ENGINE  
(SIDE VIEW)



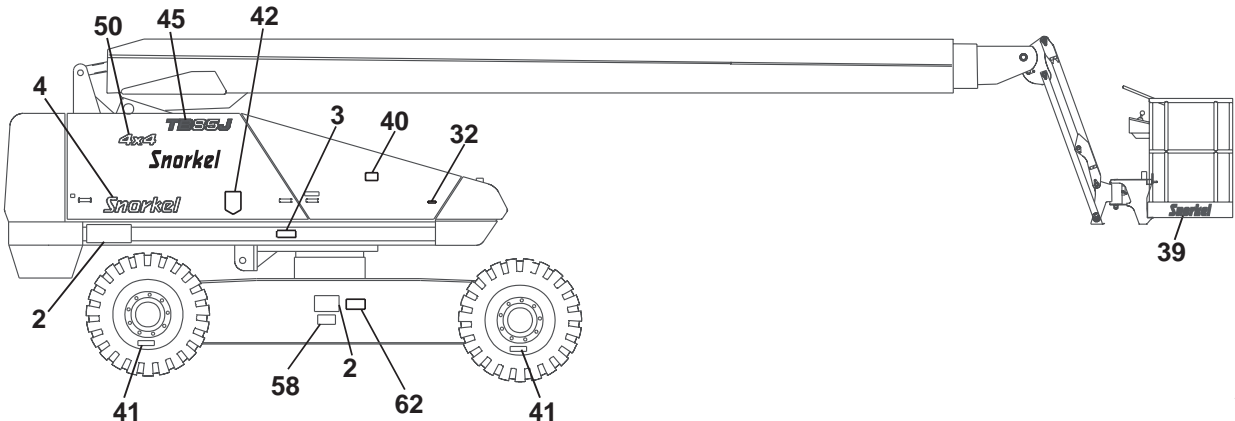
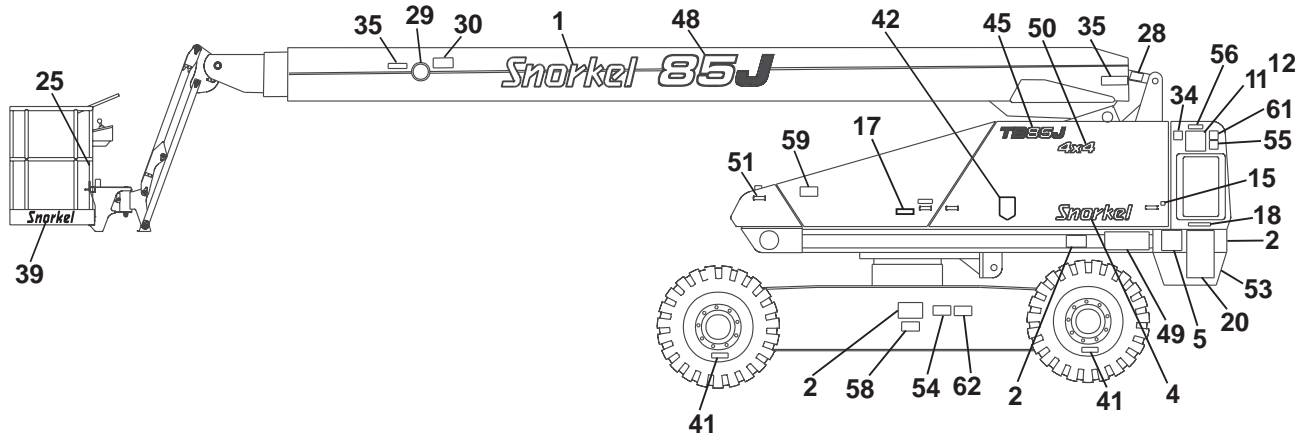
TURNTABLE - TOP VIEW



HYDRAULIC OIL  
RESERVOIR



TOP VIEW OF CHASSIS







F

E

D

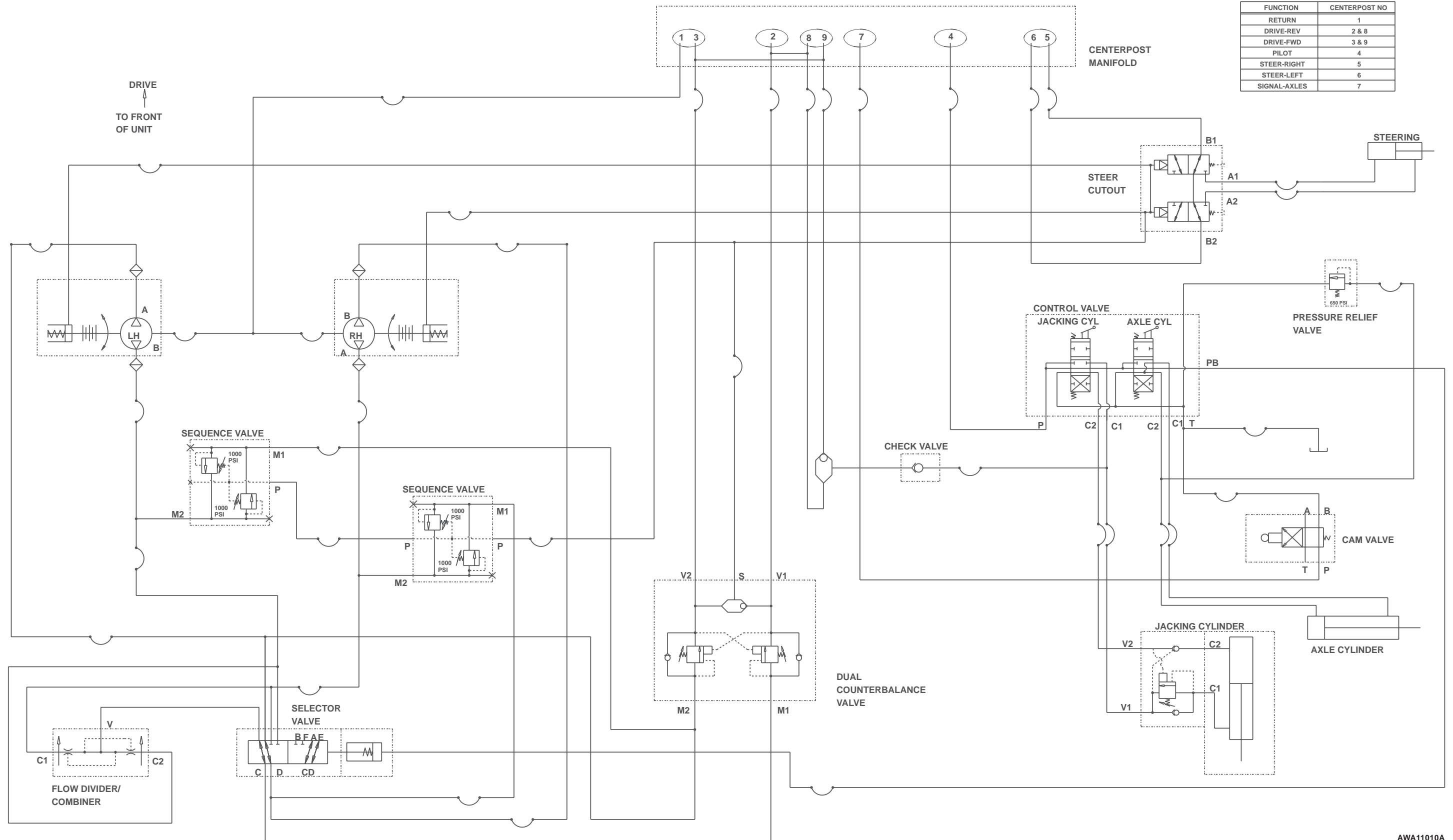
C

B

A

OIL FLOW CHART

FUNCTION	CENTERPOST NO
RETURN	1
DRIVE-REV	2 & 8
DRIVE-FWD	3 & 9
PILOT	4
STEER-RIGHT	5
STEER-LEFT	6
SIGNAL-AXLES	7



AWA11010A

TITLE Hydraulic schematic  
 chassis, 2 wheel drive  
 Snorkel model TB80

1 2 3 4 5 6 7 8 9

F

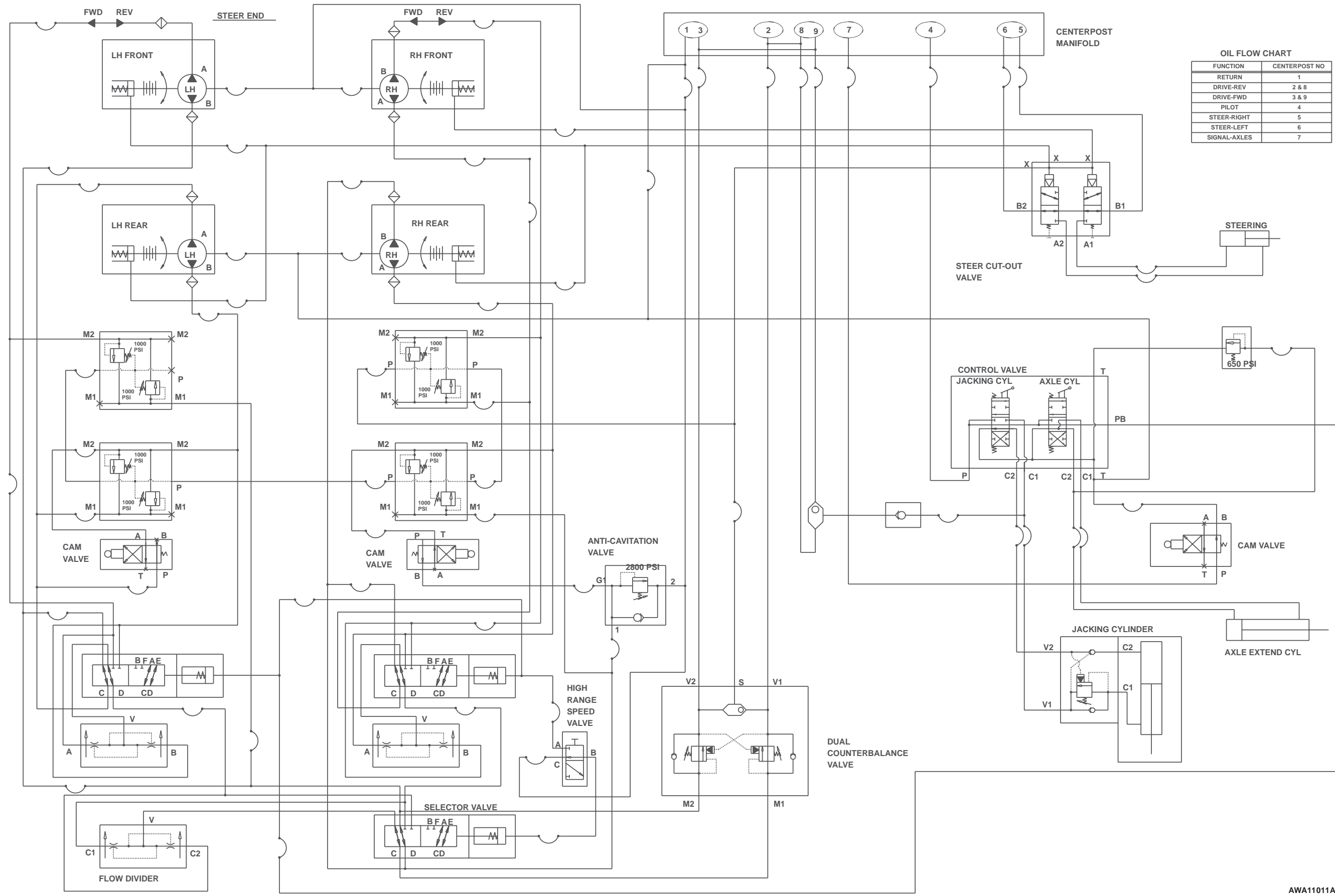
E

D

C

B

A



**OIL FLOW CHART**

FUNCTION	CENTERPOST NO
RETURN	1
DRIVE-REV	2 & 8
DRIVE-FWD	3 & 9
PILOT	4
STEER-RIGHT	5
STEER-LEFT	6
SIGNAL-AXLES	7

AWA11011A

TITLE Hydraulic schematic  
chassis, 4 wheel drive  
Snorkel model TB80

F

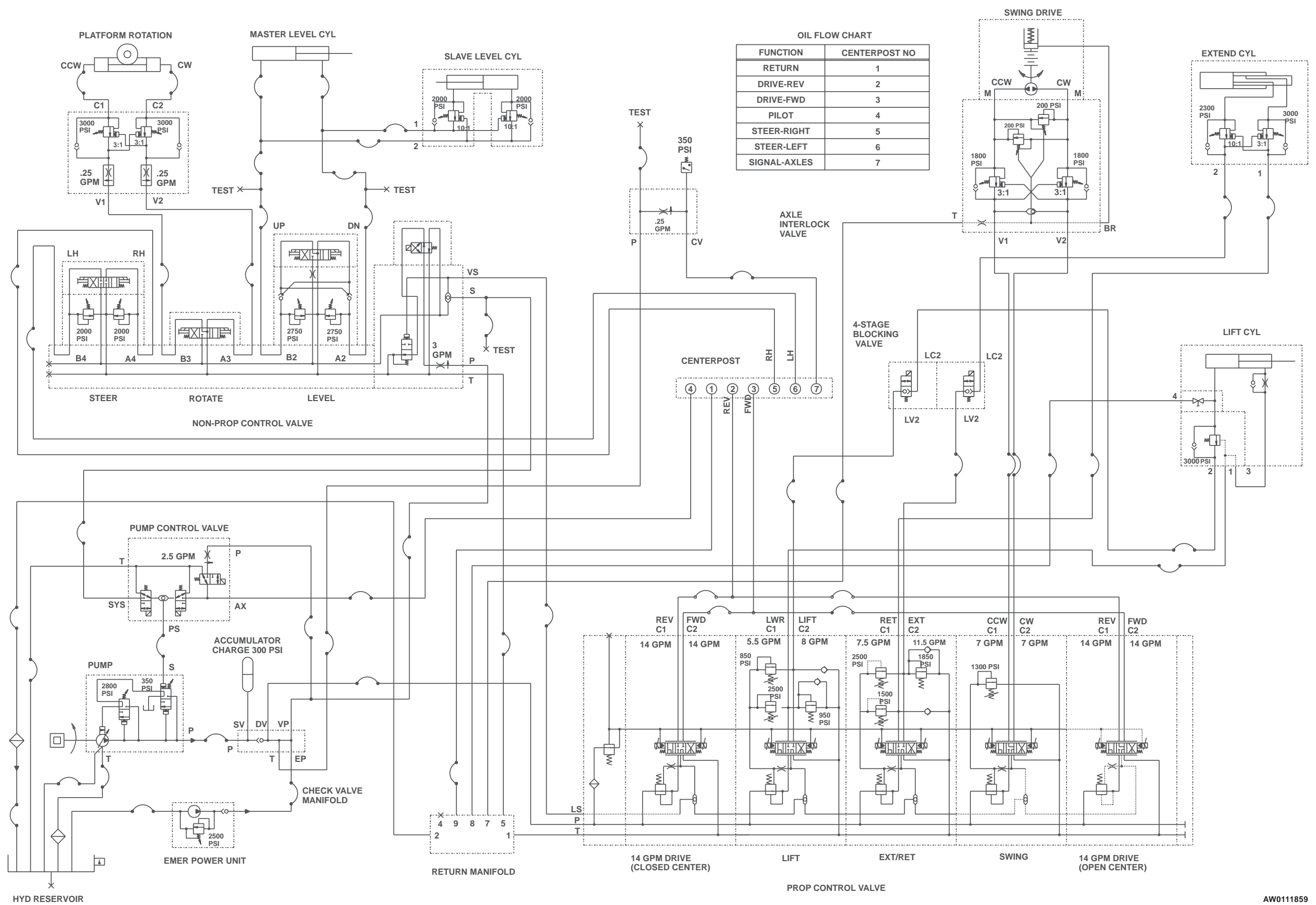
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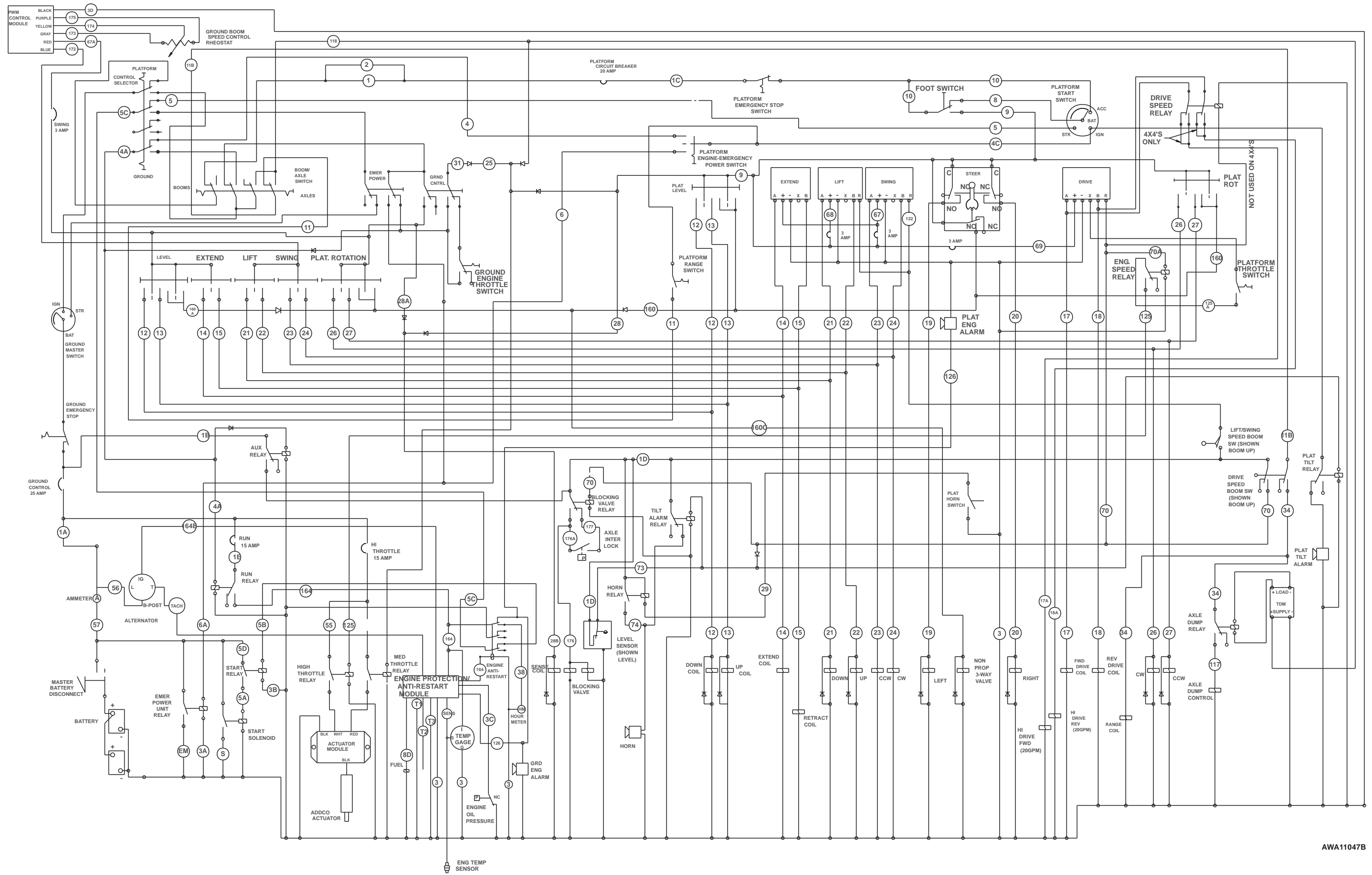
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C

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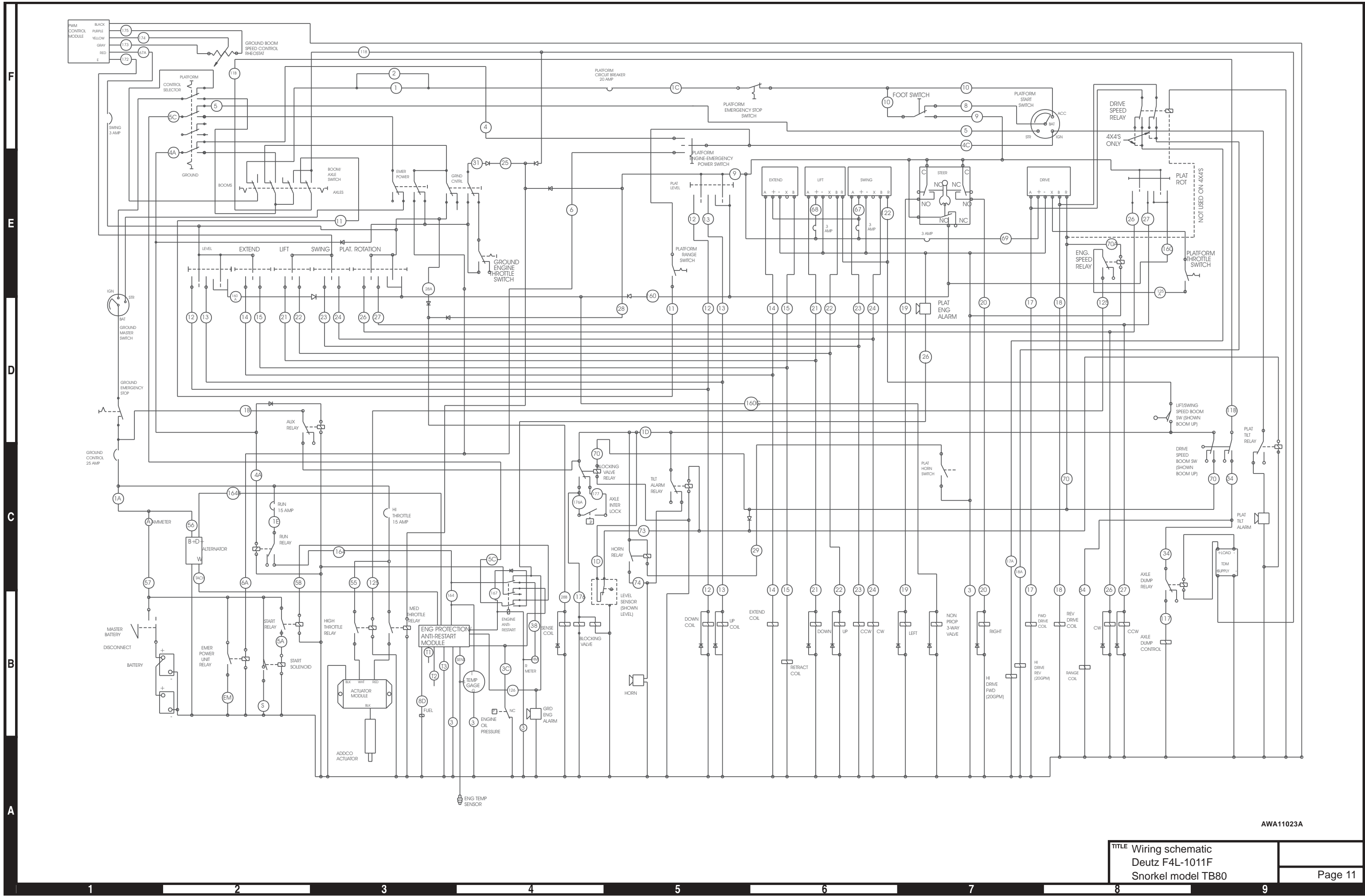
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AWA11047B

TITLE Wiring schematic  
Cummins 3.3  
Snorkel model TB80



AWA11023A



F

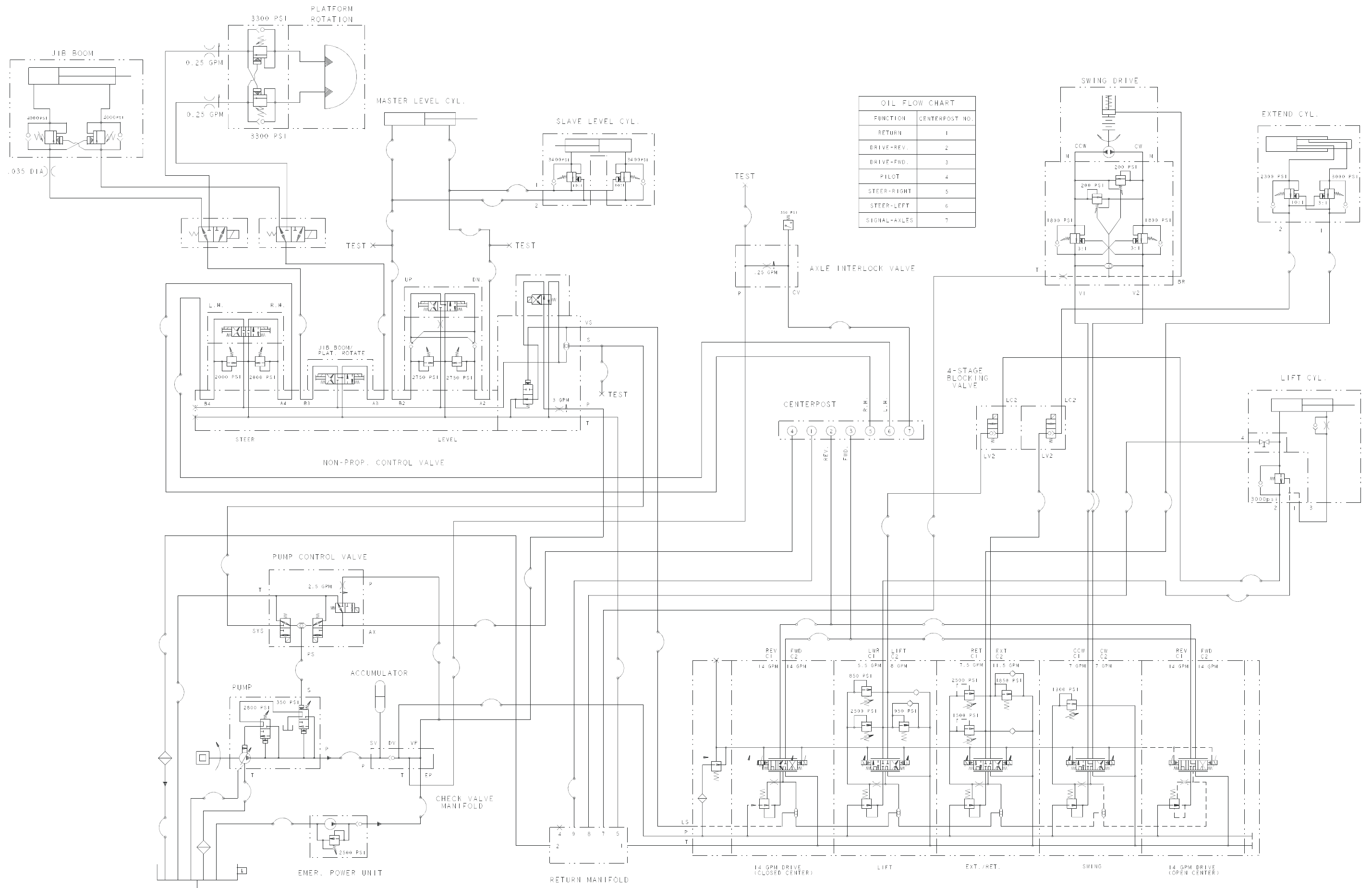
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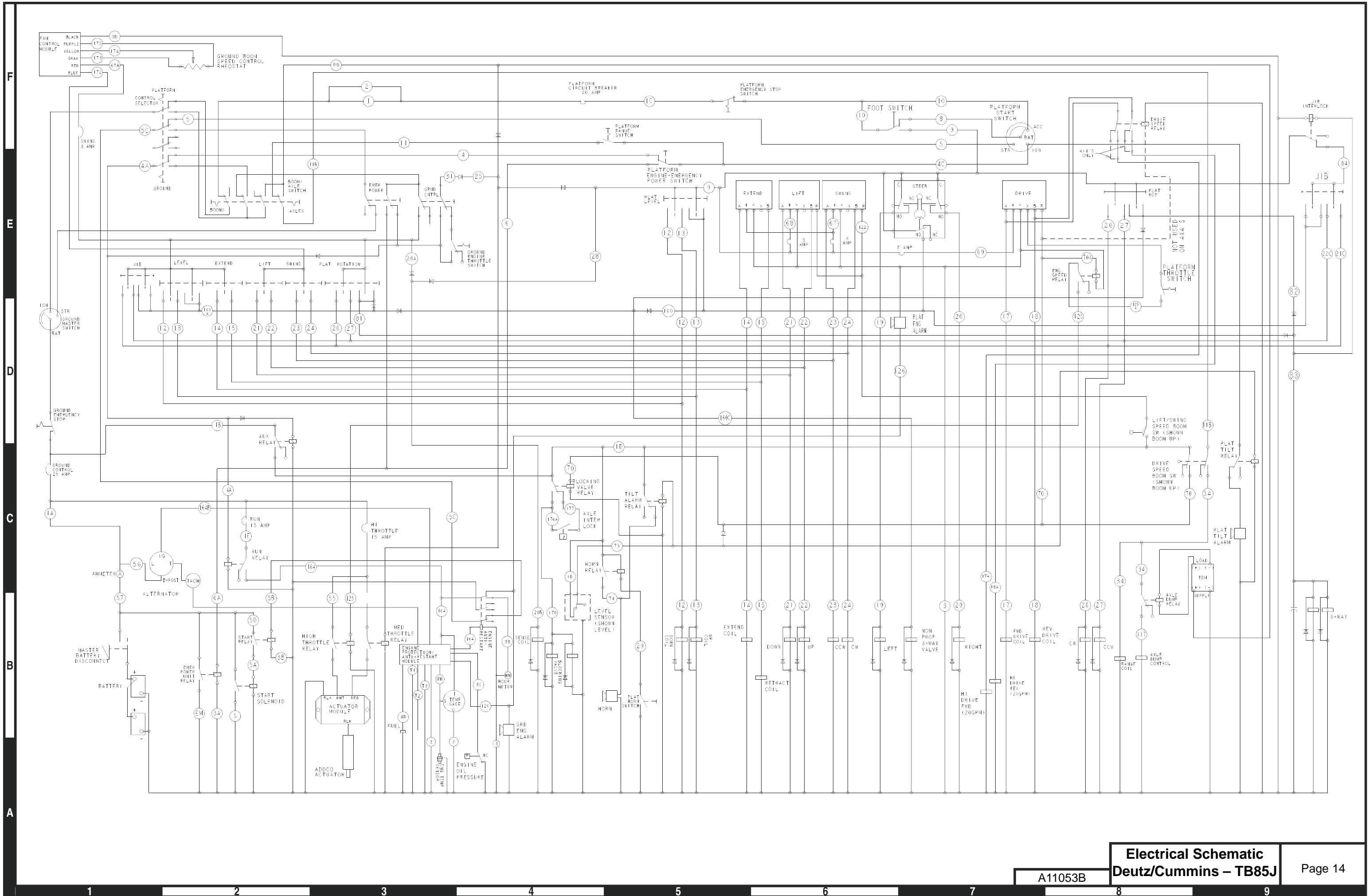


OIL FLOW CHART

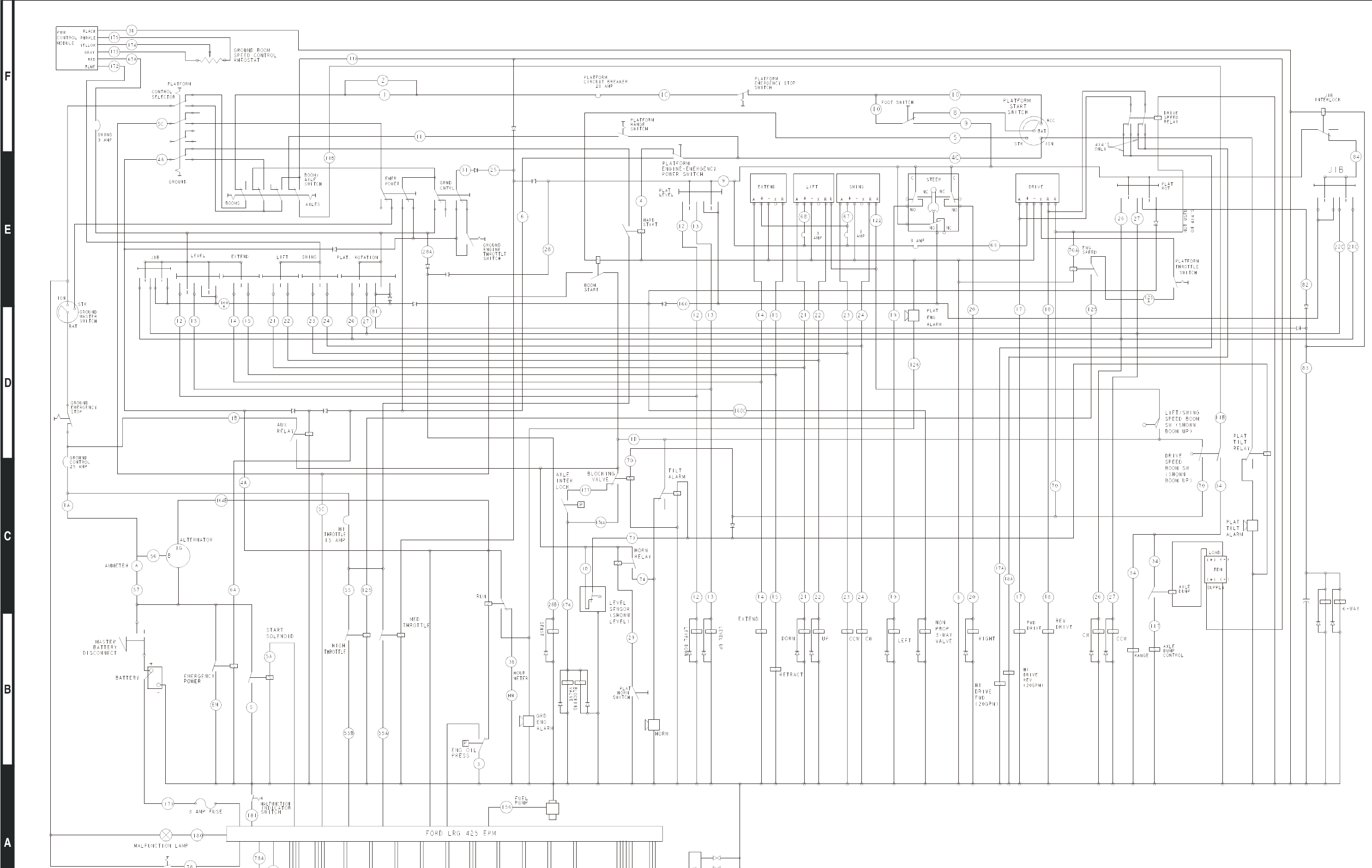
FUNCTION	CENTERPOST NO.
RETURN	1
DRIVE-REV.	2
DRIVE-FWD.	3
PILOT	4
STEER-RIGHT	5
STEER-LEFT	6
SIGNAL-AXLES	7











F  
E  
D  
C  
B  
A

1 2 3 4 5 6 7 8 9

**Electrical Schematic**  
**Ford - TB85J**

A11057A



# LIMITED WARRANTY

Snorkel warrants each new machine manufactured and sold by it to be free from defects in material and workmanship for a period of one (1) year from date of delivery to a Customer or for one year after the machine has been placed in first service in a Dealer rental fleet, whichever comes first. Any part or parts which, upon examination by the Snorkel Service Department, are found to be defective, will be replaced or repaired, at the sole discretion of Snorkel, through its local Authorized Dealer at no charge.

Snorkel further warrants the structural components; specifically, the mainframe chassis, turntable, booms and scissor arms, of each new machine manufactured by it to be free from defects in material and workmanship for an additional period of four (4) years. Any such part or parts which, upon examination by the Snorkel Service Department, are found to be defective will be replaced or repaired by Snorkel through its local Authorized Dealer at no charge; however, any labor charges incurred as a result of such replacement or repair will be the responsibility of the Customer or Dealer.

The Snorkel Service Department must be notified within forty-eight (48) hours of any possible warranty situation during the applicable warranty period. Personnel performing warranty repair or replacement must obtain specific approval by Snorkel Service Department prior to performing any warranty repair or replacement.

Customer and Dealer shall not be entitled to the benefits of this warranty and Snorkel shall have no obligations hereunder unless the "Pre-Delivery and Inspection Report" has been properly completed and returned to the Snorkel Service Department within ten (10) days after delivery of the Snorkel product to Customer or Dealer's rental fleet. Snorkel must be notified, in writing, within ten (10) days, of any machine sold to a Customer from a Dealer's rental fleet during the warranty period.

At the direction of the Snorkel Service Department, any component part(s) of Snorkel products to be replaced or repaired under this warranty program must be returned freight prepaid to the Snorkel Service Department for inspection. All warranty replacement parts will be shipped freight prepaid (standard ground) from the Snorkel Service Department or from Snorkel's Vendor to Dealer or Customer.

## REPLACEMENT PARTS WARRANTY

Any replacement or service part made or sold by Snorkel is not subject to the preceding **Limited Warranty** beyond the normal warranty period of the machine upon which the part was installed.

### **THIS WARRANTY EXCLUDES AND SNORKEL DOES NOT WARRANT:**

1. Engines, motors, tires and batteries which are manufactured by suppliers to Snorkel, who furnish their own warranty. Snorkel will, however, to the extent permitted, pass through any such warranty protection to the Customer or Dealer.
2. Any Snorkel product which has been modified or altered outside Snorkel's factory without Snorkel's written approval, if such modification or alteration, in the sole judgment of Snorkel's Engineering and/or Service Departments, adversely affects the stability, reliability or service life of the Snorkel product or any component thereof.
3. Any Snorkel product which has been subject to misuse, improper maintenance or accident. "Misuse" includes but is not limited to operation beyond the factory-rated load capacity and speeds. "Improper maintenance" includes but is not limited to failure to follow the recommendations contained in the Snorkel Operation, Maintenance, Repair Parts Manuals. Snorkel is not responsible for normal maintenance, service adjustments and replacements, including but not limited to hydraulic fluid, filters and lubrication.
4. Normal wear of any Snorkel component part(s). Normal wear of component parts may vary with the type application or type of environment in which the machine may be used; such as, but not limited to sandblasting applications.
5. Any Snorkel product that has come in direct contact with any chemical or abrasive material.
6. Incidental or consequential expenses, losses, or damages related to any part or equipment failure, including but not limited to freight cost to transport the machine to a repair facility, downtime of the machine, lost time for workers, lost orders, lost rental revenue, lost profits or increased cost.

This warranty is expressly in lieu of all other warranties, representations or liabilities of Snorkel, either expressed or implied, unless otherwise amended in writing by Snorkel's President, Vice President-Engineering, Vice President-Sales or Vice President-Marketing.

**SNORKEL MAKES NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THIS LIMITED WARRANTY. SNORKEL MAKES NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND DISCLAIMS ALL LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO INJURY TO PERSONS OR PROPERTY.**

The Customer shall make all warranty claims through its local Authorized Dealer and should contact the Dealer from whom the Snorkel product was purchased for warranty service. Or, if unable to contact the Dealer, contact the Snorkel Service Department for further assistance.

Effective July 1995





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**Lokaler Vertriebshändler:**

**Distributeur local:**

**El Distribuidor local:**

**Il Distributore locale:**

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