

# ***Repair Parts Manual***

## ***PRO* 100**

**engine powered  
diesel  
gasoline  
LPG**

**Manufactured 01-97 through 01-01**

# General information

## About this manual:

This repair parts manual covers current production machines only.

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: (816)-364-0317  
<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 Worldwide Fax: (816)-364-6312

Attention: Parts Department

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

<http://www.omniquip.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  
20335 Ventura Blvd. Suite 310  
Woodland Hills, CA 91364-2471 USA

**Manuals**

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

The specific manuals for PRO 100 are as follows:

- ✓ Operator's Manual  
Snorkel part number - 0191402
- ✓ Repair Parts Manual  
Snorkel part number - 0191442
- ✓ Troubleshooting Guide  
Snorkel part number - 0191681
- ✓ ANSI Manual of Responsibilities  
ANSI/SIA A92.5-1992

**Record machine information here:**

Model number

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Serial number

---

Date of purchase

---

Purchased from

---

Snorkel dealer or distributor

---



***PRO***  
**100**

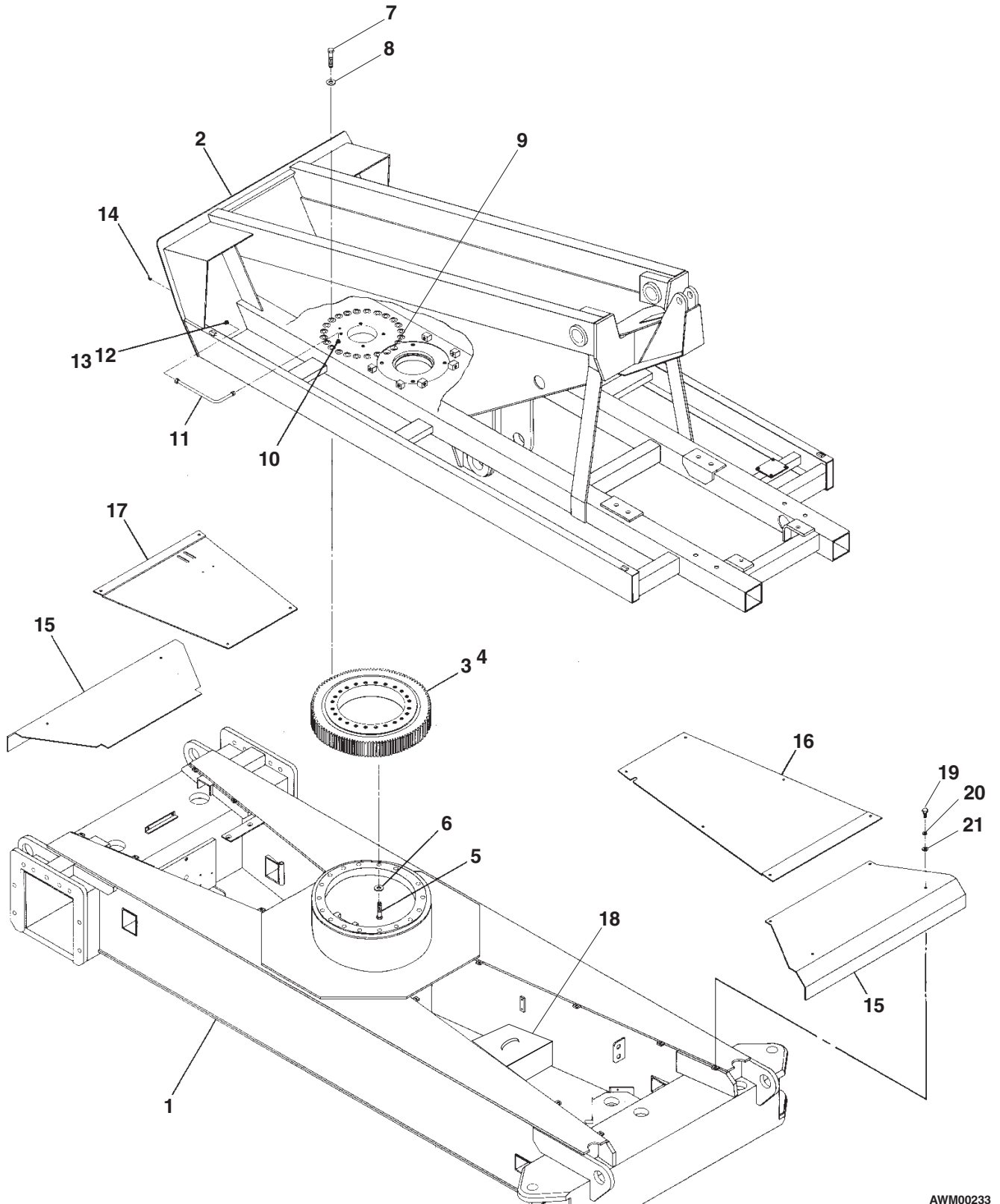


## Chassis/turntable

item	part no	qty	description
1		1	Chassis - (consult factory)
2		1	Turntable - (consult factory)
3	0110756	1	Rotation bearing gear
4	5038703	1	Male 45° elbow
5	5560236	24	Capscrew 3/4-10 self locking
6	5560170	24	Washer 3/4 hard flat ASTM-F436
7	5560223	20	Capscrew 7/8-9 self locking
8	5560171	23	Washer 7/8 hard flat ASTM-F436
9	5560224	3	Nut 3/4-10 self locking
10	3040295	1	Connector
11	0100491	1	1/4 inch hydraulic hose
12	5037102	1	Bulkhead connector
13	5074401	1	Bulkhead locknut
14	5570001	1	Grease fitting, 1/8 NPT straight
15	0111191	1	Access cover, chassis ends
16	0111192	1	Access cover, steer
17	0111193	1	Access cover, drive
18	0191454	1	Chassis ballast - (2 wheel drive units only)
19	970469	16	Capscrew 3/8-16 x 1 inch long hex head grade 5
20	987119	16	Washer 3/8 medium lock
21	986299	16	Washer 3/8 medium flat



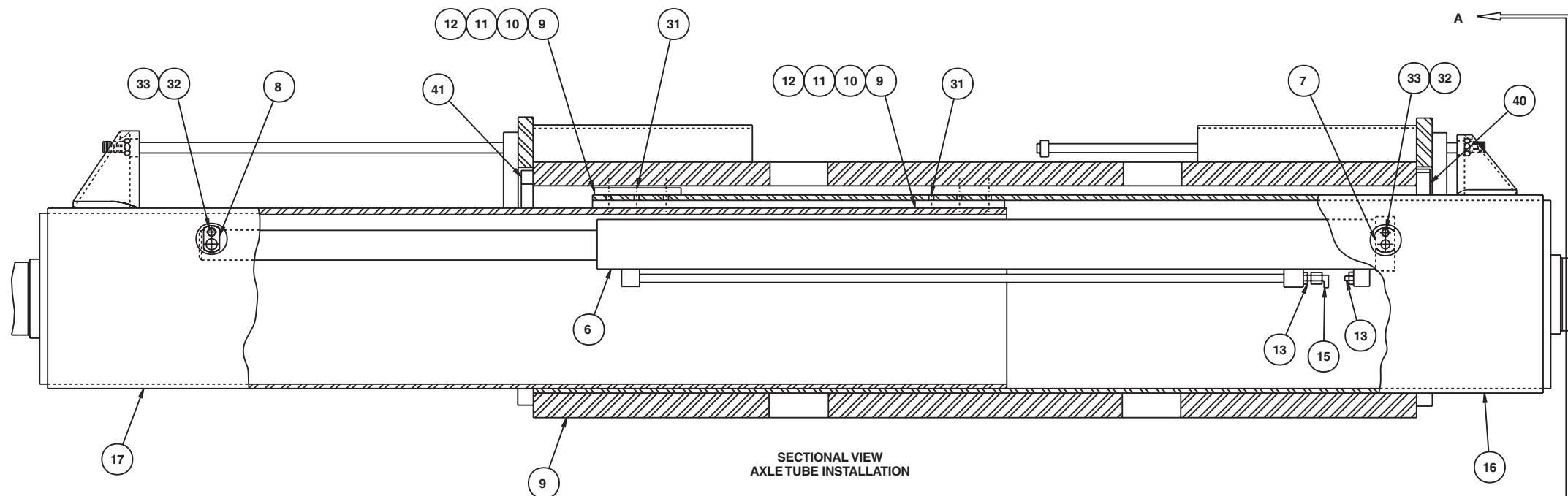
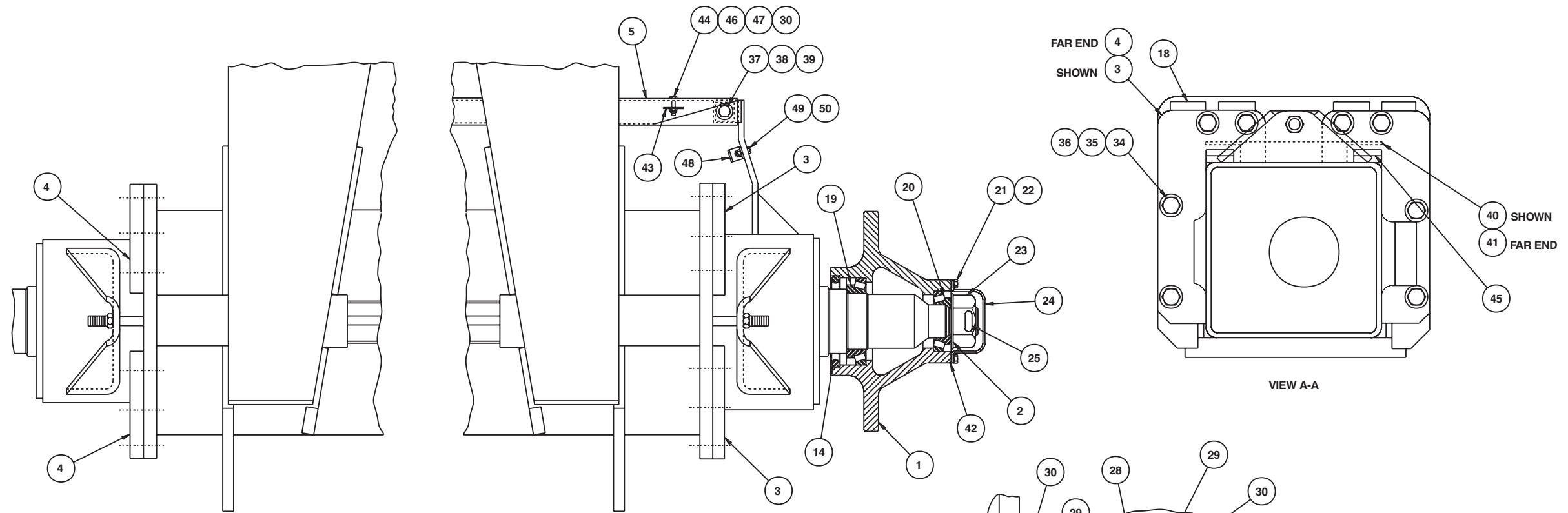
# Chassis/turntable



AWM00233

## Axle, 2 wheel drive

item	part no	qty	description
1	0081023	2	Hub
2	5560025	2	Key washer
3	0190969	2	Flange, right hand
4	0190968	2	Flange, left hand
5	0190713	1	Hose carrier tube
6	0190709	1	Cylinder, axle extend - (see hydraulics section for parts breakdown)
7	0110261	1	Pin, axle extend cylinder base end
8	0110260	1	Pin, axle extend cylinder rod end
9	0080293	4	Slide pad
10	0070030	1	Slide pad shim, .030 inch thick
11	0072567	1	Slide pad shim, .063 inch thick
12	0090141	1	Slide pad shim, .090 inch thick
13	5065707	2	Straight thread adapter
14	7150003	2	Grease seal
15	5037005	1	Swivel nut 90° elbow
16	0191364	1	Axle tube, right hand
17	0191365	1	Axle tube, left hand
18	0110731	8	Stop bar
19	2560006	2	Inner bearing cone
20	2560005	2	Outer bearing cone
21	970009	10	Capscrew 1/4-20 x 1/2 inch long hex head grade 5
22	987099	10	Washer 1/4 medium lock
23	5560026	2	Spindle nut
24	0080186	2	Hub cap
25	5560661	2	Cotter pin 3/8 inch diameter x 2-1/2 inch long
26	0111362	1	Lock pin
27	5580002	1	Snapper pin
28	0110594	1	Pin lock retainer
29	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
30	984069	3	Nut 1/4-20 hex
31	5560679	12	Capscrew 3/8-16 x 5/8 inch long socket flat head
32	970219	2	Capscrew 5/16-18 x 1/2 inch long hex head grade 5
33	987109	2	Washer 5/16 medium lock
34	5560676	16	Capscrew 3/4-10 x 3-1/2 inch long hex head grade 8
35	5560170	32	Washer 3/4 hard flat ASTM-F436
36	5560224	16	Nut 3/4-10 self locking
37	971309	1	Capscrew 5/8-11 x 2 inch long hex head grade 5
38	5560169	1	Washer 5/8 hard flat ASTM-F436
39	5560036	1	Nut 5/8-11 self locking
40	0111303	1	Scraper pad, right hand axle
41	0111304	1	Scraper pad, left hand axle
42	0080185	2	Gasket, hub cap
43	0110779	1	Clamp
44	970069	1	Capscrew 1/4-20 x 1-1/4 inch long hex head grade 5
45	0190972	4	Pad
46	987099	1	Washer 1/4 medium lock
47	986019	1	Washer 1/4 medium flat
48	5093013	1	Clamp
49	970489	1	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
50	5560033	1	Nut 3/8-16 self locking



AW0191372

TITLE Axle, 2 wheel drive

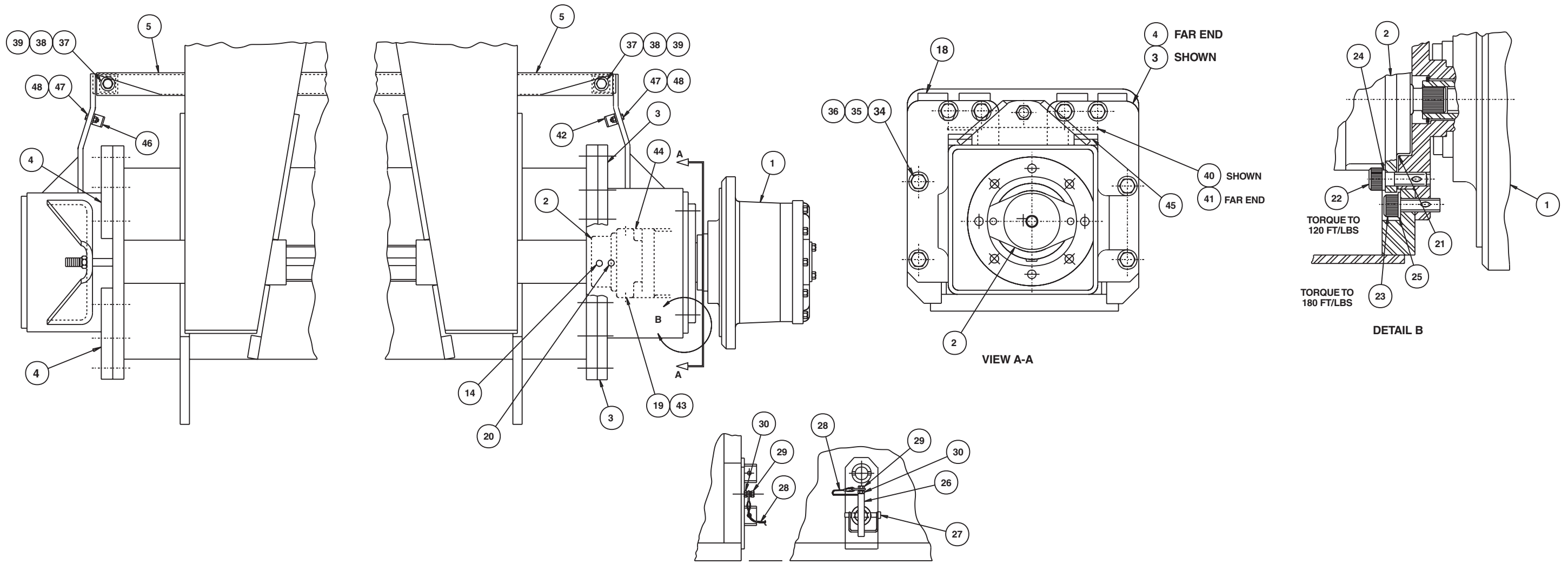
Snorkel model PRO 100



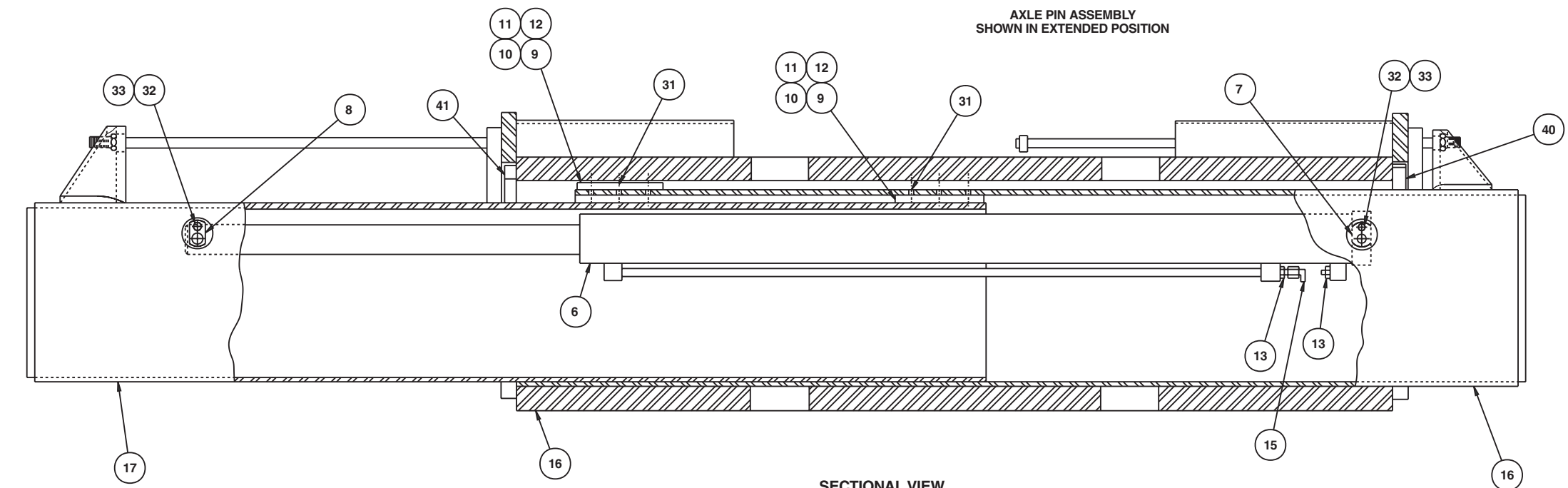
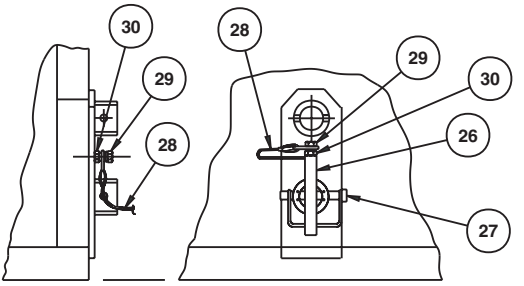
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DWG. 0191372

F  
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A



AXLE PIN ASSEMBLY SHOWN IN EXTENDED POSITION



SECTIONAL VIEW AXLE TUBE INSTALLATION

AW0191373

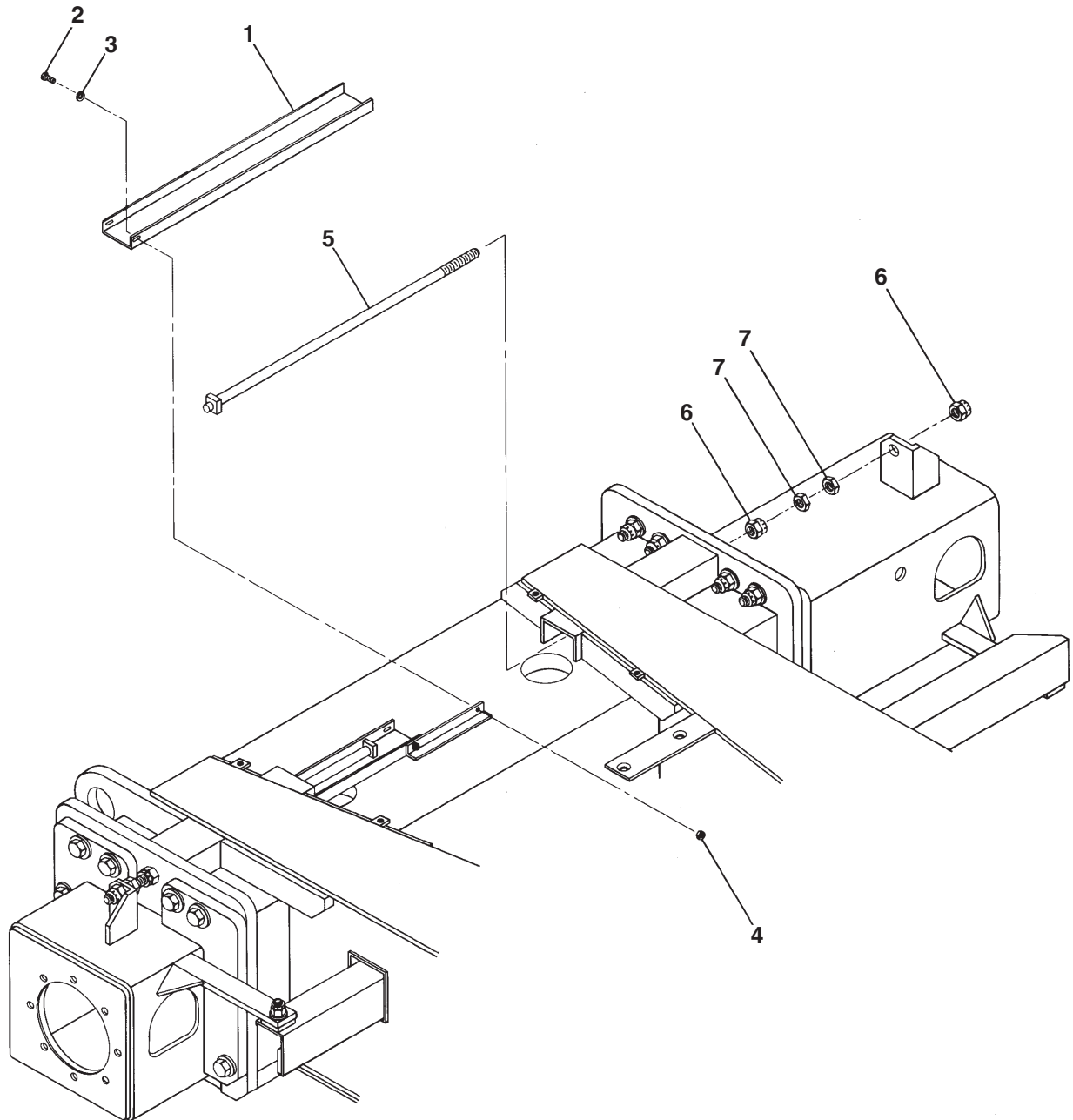
## Axle, 4 wheel drive

item	part no	qty	description
1	0110283	2	Gear hub (see page 1-72 for Auburn gear hub parts breakdown) (see page 1-74 for Fairfield gear hub parts breakdown)
2	6030037	2	Drive motor with brake - (see page 2-34 for parts breakdown)
3	0190969	2	Flange, right hand
4	0190968	2	Flange, left hand
5	0190713	2	Hose carrier tube
6	0190709	1	Cylinder, axle extend - (see hydraulics section for parts breakdown)
7	0110261	1	Pin, axle extend cylinder base end
8	0110260	1	Pin, axle extend cylinder rod end
9	0080293	4	Slide pad
10	0070030	1	Slide pad shim, .030 inch thick
11	0072567	1	Slide pad shim, .063 inch thick
12	0090141	1	Slide pad shim, .090 inch thick
13	5065707	2	Straight thread adapter
14	5035305	2	Straight thread 90° elbow
15	5037005	1	Swivel nut 90° elbow
16	0191362	1	Axle tube, right hand
17	0191363	1	Axle tube, left hand
18	0110731	8	Stop bar
19	5035319	2	Straight thread 90° elbow
20	5035303	2	Straight thread 90° elbow
21	7110159	2	O-ring
22	5560245	4	Capscrew 5/8-11 x 1-1/2 inch long socket head
23	5560099	16	Capscrew special 5/8-11 self locking
24	987159	4	Washer 5/8 medium lock
25	5560169	12	Washer 5/8 hard flat ASTM-F436
26	0111362	1	Lock pin
27	5580002	1	Snapper pin
28	0110594	1	Pin lock retainer
29	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
30	984069	2	Nut 1/4-20 hex
31	5560679	12	Capscrew 3/8-16 x 5/8 inch long socket flat head
32	970219	2	Capscrew 5/16-18 x 1/2 inch long hex head grade 5
33	987109	2	Washer 5/16 medium lock
34	5560676	16	Capscrew 3/4-10 x 3-1/2 inch long hex head grade 8
35	5560170	32	Washer 3/4 hard flat ASTM-F436
36	5560035	16	Nut 3/4-10 self locking
37	971309	2	Capscrew 5/8-11 x 2 inch long hex head grade 5
38	5560169	2	Washer 5/8 hard flat ASTM-F436
39	5560036	2	Nut 5/8-11 self locking
40	0111303	1	Scraper pad, right hand axle
41	0111304	1	Scraper pad, left hand axle
42	5093030	1	Clamp
43	5037008	2	Swivel nut 90° elbow
44	5065715	2	Straight thread adapter
45	0190972	4	Pad
46	5093013	1	Clamp
47	970489	2	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
48	984109	2	Nut 3/8-16 hex

## 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

# Axle stop



AW0111225

# Steering

item	part no	qty	description
1	0110283	2	Gear hub (see page 1-72 for Auburn gear hub parts breakdown) (see page 1-74 for Fairfield gear hub parts breakdown)
2	6030037	2	Drive motor with brake - (see page 2-34 for parts breakdown)
3	0191419	2	Yoke
4	0111135	1	Steering arm
5	0070007	1	Cylinder, steering - (see hydraulics section for parts breakdown)
6	0070442	2	Pin, master level cylinder base end
7	0110323	1	Pin, steering arm
8	0150094	2	Pin, tie rod
9	0110320	2	Lock pin
10	0070033	3	Pin lock
11	5560134	2	Capscrew 3/4-10 x 3-1/4 inch long hex head grade 8
12	2690005	2	Tie rod end
13	0190786	2	Tie rod
14	0190715	4	Pin
15	5070026	2	Cap, wheel service
16	5570001	2	Grease fitting, 1/8 NPT straight
17	0080348	2	Spacer, tie rod mounting
18	2690001	2	Bearing, self aligning
19	7110159	2	O-ring
20	5560099	12	Capscrew special 5/8-11 self locking
21	5560717	6	Machine bushing 3-1/4 inch OD x 2-1/4 inch ID x 10 gauge thick
22	5035319	4	Straight thread 90° elbow
23	5035303	24	Straight thread 90° elbow
24	5569854	6	Machine bushing 3-1/4 inch OD x 2-1/4 inch ID x 14 gauge thick
25	5065707	26	Straight thread adapter
26	5560232	4	Washer
27	5560241	4	Nut
28	2503620	4	Bearing
29	5560202	2	Tie rod hex jam nut for adjustable tie rod
30	5560245	4	Capscrew 5/8-11 x 1-1/2 inch long socket head
31	5560040	4	Nut 5/8-11 self locking
32	0190788	2	Thrust washer
33	0111675	4	Wheel stud wedge
34	2502416	2	Bearing
35	988229	4	Cotter pin 1/4 inch diameter x 2-1/2 inch long
36	5560152	4	Roll pin 5/16 inch diameter x 1-3/4 inch long
37	0111136	1	Bearing spacer
38	5560688	3	Machine bushing 2-1/4 OD x 1-1/2 inch ID x 14 gauge thick
39	984469	2	Nut 3/4-10 hex jam
40	987159	4	Washer 5/8 medium lock
41	5560169	12	Washer 5/8 hard flat ASTM-F436
42	970239	8	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
43	987109	8	Washer 5/16 medium lock
44	986269	2	Washer 5/16 medium flat
45		1	Tires and wheels - (see page 1-82 for parts breakdown)
46	5560689	2	Machine bushing 1-1/2 inch OD x 1 inch ID x 14 gauge thick
47	0090840	2	Thrust bearing
48	5037005	1	Swivel nut 90° elbow
49	984449	16	Nut 5/8-11 hex jam
50	5035305	2	Straight thread 90° elbow
51	0111674	4	Wheel stud



F

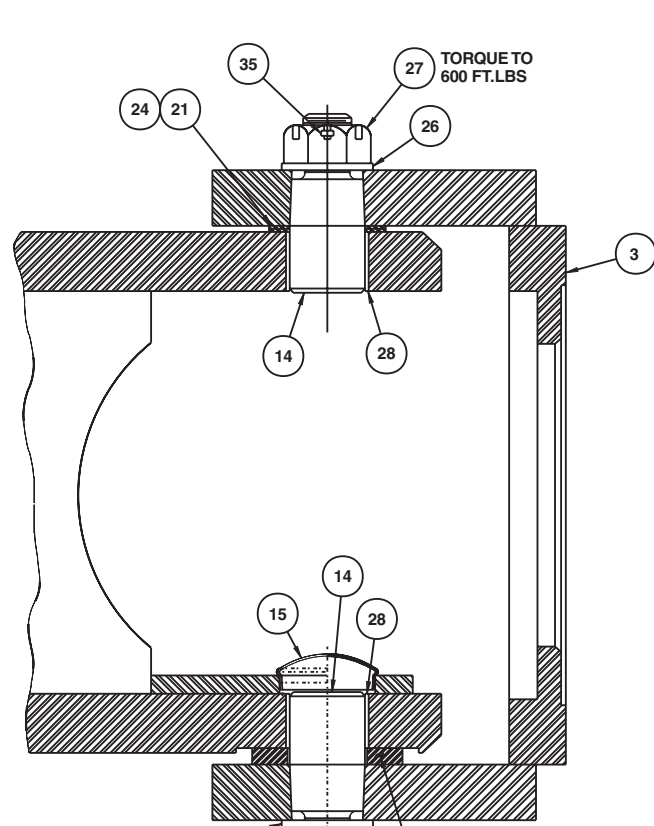
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D

C

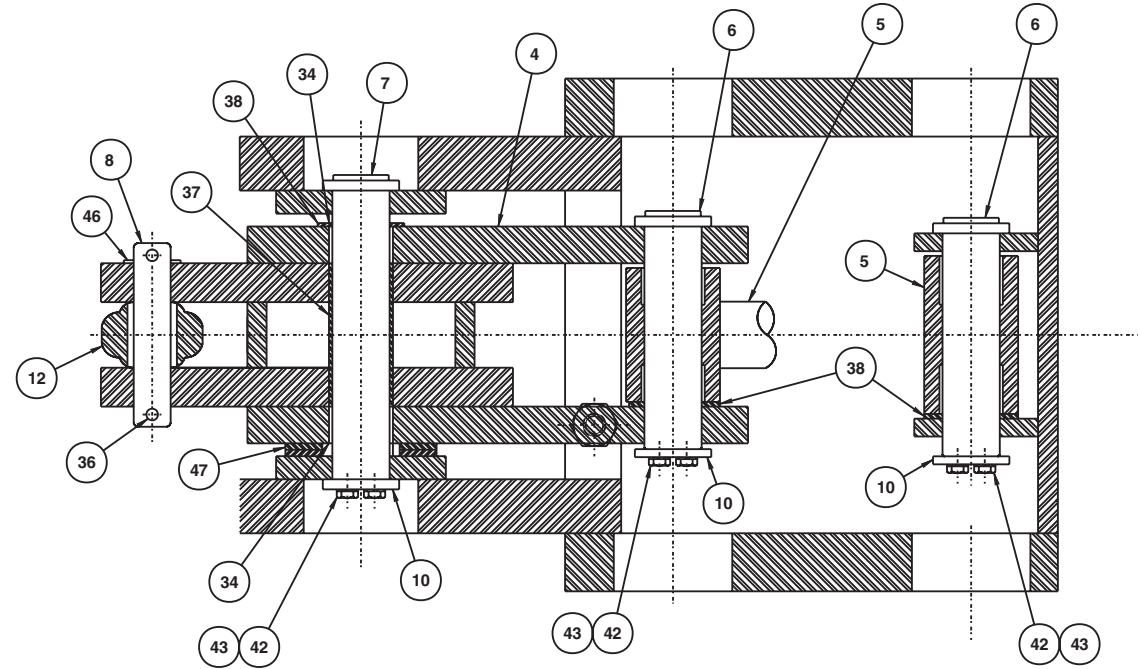
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A

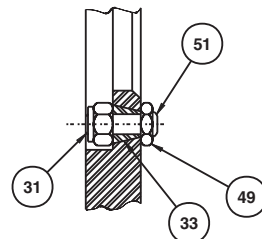


TORQUE TO 600 FT.LBS

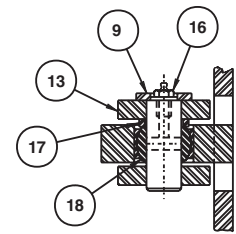
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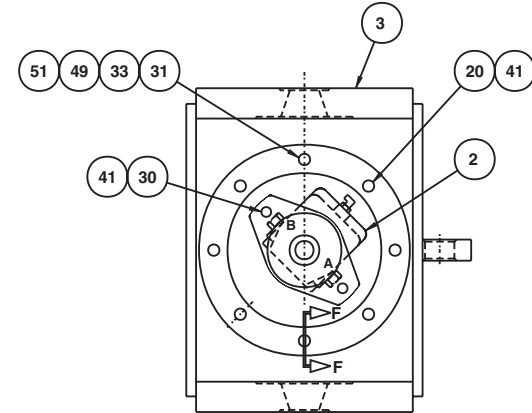
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SECTION F-F

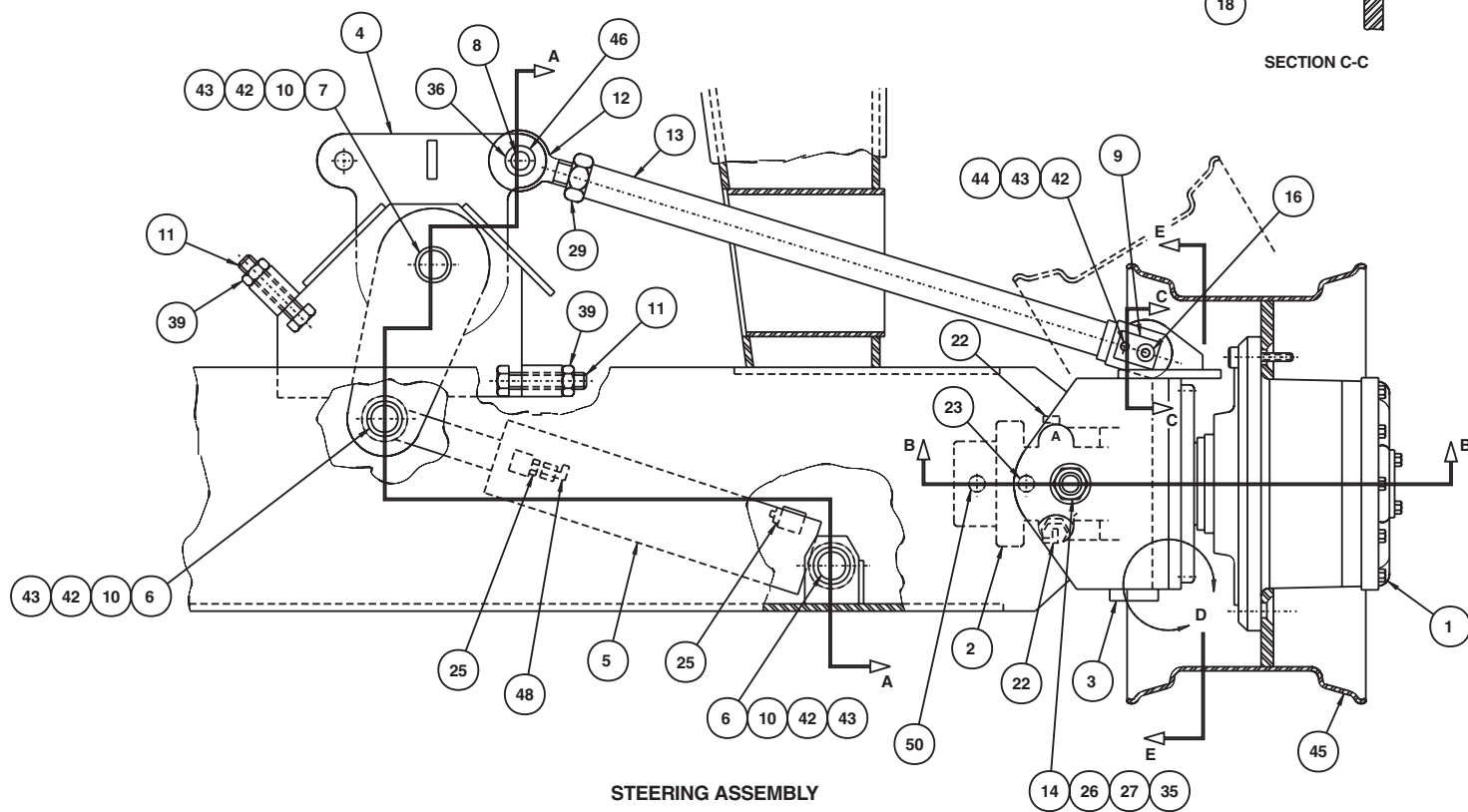


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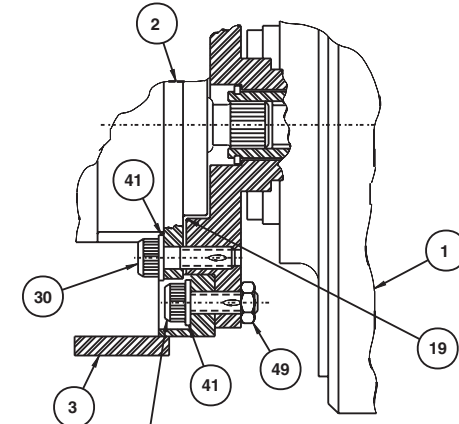
FRONT

VIEW E-E



STEERING ASSEMBLY

TORQUE TO 120 FT.LBS



DETAIL D

AW0191422

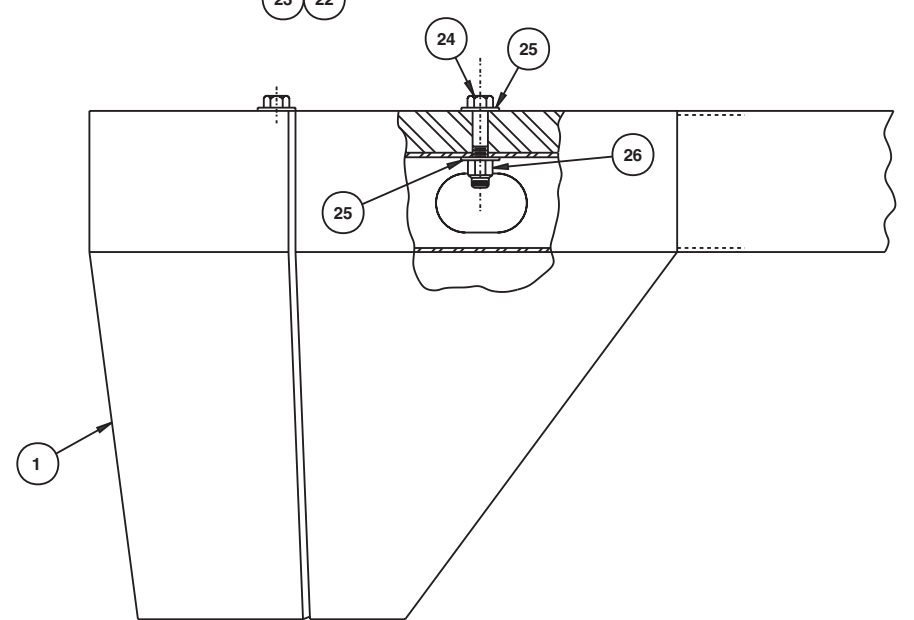
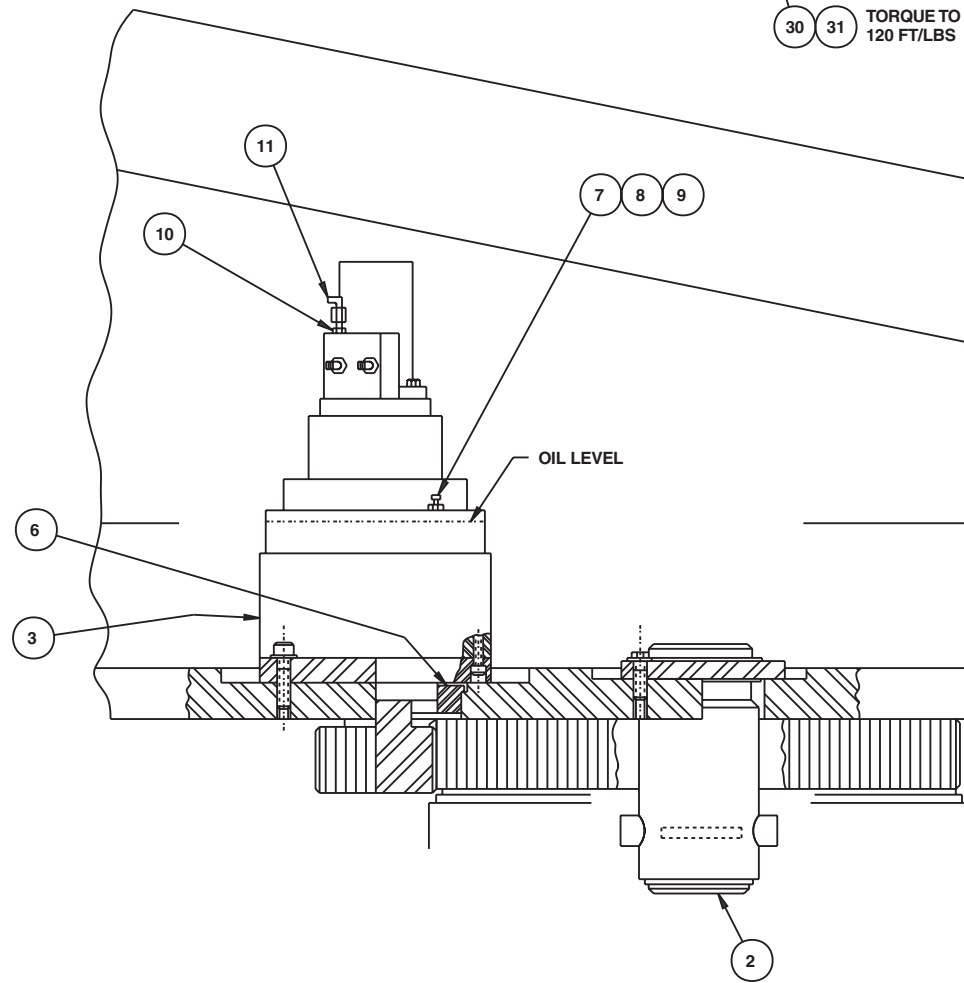
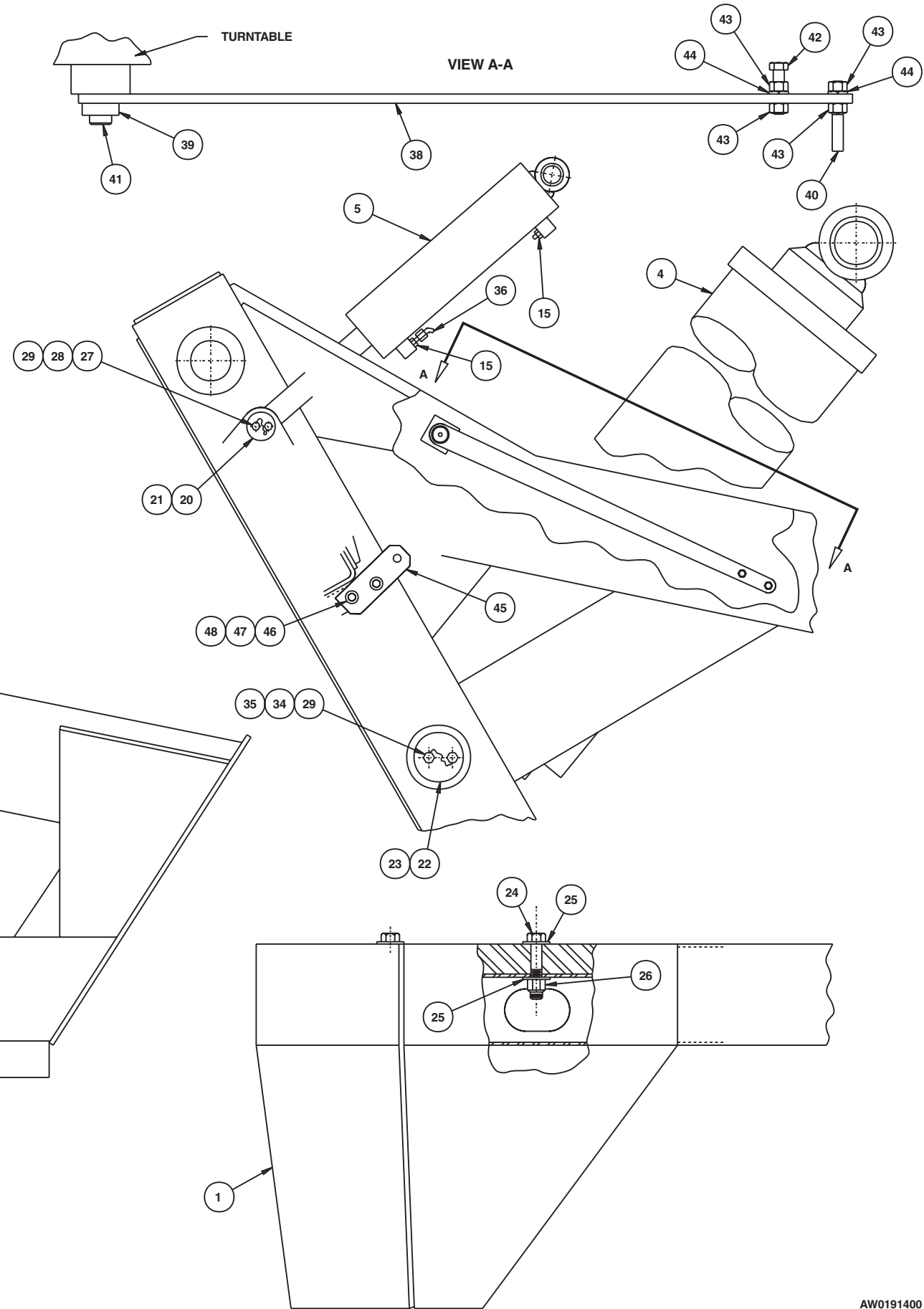
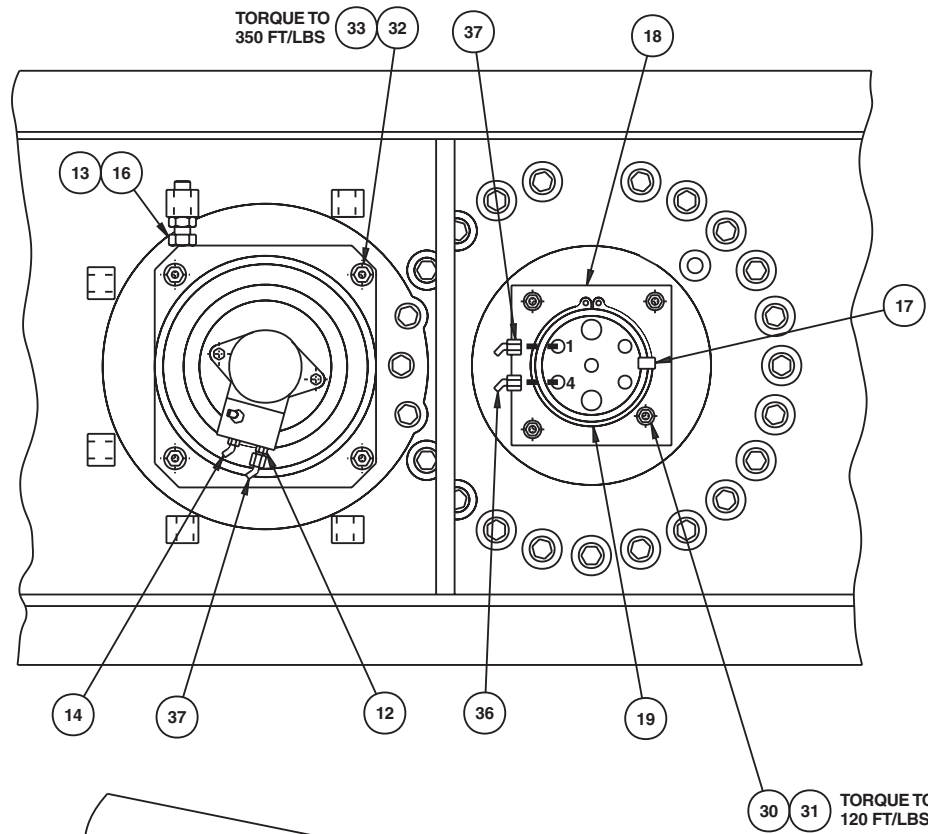
TITLE Steering

DWG. 0191422

Snorkel model PRO 100



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AW0191400

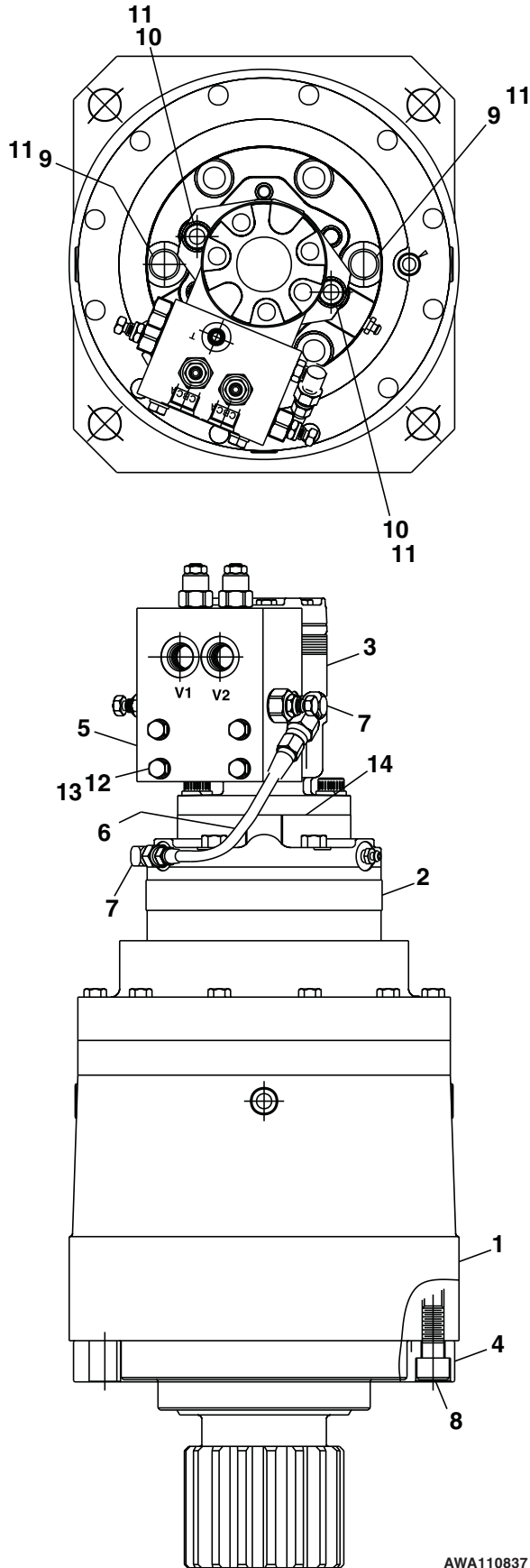
## lift and swing

item	part no	qty	description
1		1	Counterweight - (consult factory)
2	0191178	1	Centerpost and fittings - (see page 2-44 for parts breakdown)
3	0110837	1	Swing drive - (see page 1-14 for parts breakdown)
4	0191399	1	Lift cylinder - (see page 2-49 for parts breakdown)
5		1	Cylinder, master level - (see hydraulics section for parts breakdown)
6	0110942	1	Adjustment ring, Fairfield swing drive
7	7720302	1	Reducer bushing - (before 12-31-99)
8	7720201	1	Reducer bushing - (before 1-02-00)
9	5570008	1	Air vent
10	5065703	1	Straight thread adapter
11	5037003	1	Swivel nut 90° elbow
12	5065709	1	Straight thread adapter
13	984449	6	Nut 5/8-11 hex jam
14	5035706	1	Straight thread 45° elbow
15	5065705	2	Straight thread adapter
16	5560022	6	Adjustment bolt
17	0070472	1	Key
18	0070256	1	Adapter plate, centerpost
19	5590003	2	Retaining ring
20	0070033	1	Pin lock
21	0070442	1	Pin, master level cylinder base end
22	0110235	2	Pin lock
23	0190504	1	Pin
24	971379	4	Capscrew 5/8-11 x 3-3/4 inch long hex head grade 8
25	5560169	8	Washer 5/8 hard flat ASTM-F436
26	5560036	4	Nut 5/8-11 self locking
27	0070473	2	Capscrew 5/16-18 drilled head
28	987109	2	Washer 5/16 medium lock
29	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
30	5560051	4	Capscrew 5/8-11 self locking
31	987159	4	Washer 5/8 medium lock
32	5560100	4	Capscrew 3/4-10 self locking socket head
33	5560170	4	Washer 3/4 hard flat ASTM-F436
34	0110681	4	Capscrew 5/8-11 drilled head
35	987159	4	Washer 5/8 medium lock
36	5036903	2	Swivel nut 45° elbow
37	5036906	2	Swivel nut 45° elbow
38	0191065	1	Link, 60° indicator
39	5560678	1	Washer 5/8 medium flat
40	0191078	1	Rod, 60° indicator
41	5569875	1	Shoulder bolt 1/2-13 x 1-1/2 inch long
42	970489	1	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
43	984109	4	Nut 3/8-16 hex
44	987119	2	Washer 3/8 medium lock
45	0191064	2	Mount plate
46	5560349	2	Capscrew 5/16-18 x 3-1/4 inch long hex head grade 5
47	5560031	2	Nut 5/16-18 self locking
48	986269	4	Washer 5/16 medium flat

## Swing drive

item	part no	qty	description
	0110837	1	Swing drive
1	0110805	1	Swing drive, Fairfield - (see page 1-76 for parts breakdown)
	0110780	1	Swing drive, Gear Products - (see page 1-78 for parts breakdown)
2	0110985	1	Swing drive brake - (see page 1-80 for parts breakdown)
3	6030017	1	Motor, swing drive
	0071089	1	Seal repair kit, TRW motor
	8230073	1	Seal repair kit, White motor
4	0110343	1	Mount plate - (required for Fairfield swing drive only)
5	6010216	1	Motion control valve, turntable swing - (see page 2-81 for parts breakdown)
6	0112272	1	Hose and fittings
7	0112418	2	Elbow 90°
8	0112419	12	Capscrew 5/8-11 x 1-1/2 inch long socket head grade 8
9	0112420	2	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
10	0112421	2	Capscrew 1/2-13 x 1-1/4 inch long hex head grade 5
11	0112422	4	Washer 1/2 split ring lock plated
12	0112423	4	Capscrew 5/16-18 x 3-1/2 inch long hex head grade 5
13	0112424	4	Washer 5/16 medium lock plated
14	0112317	1	Gasket - (included with brake item 2)

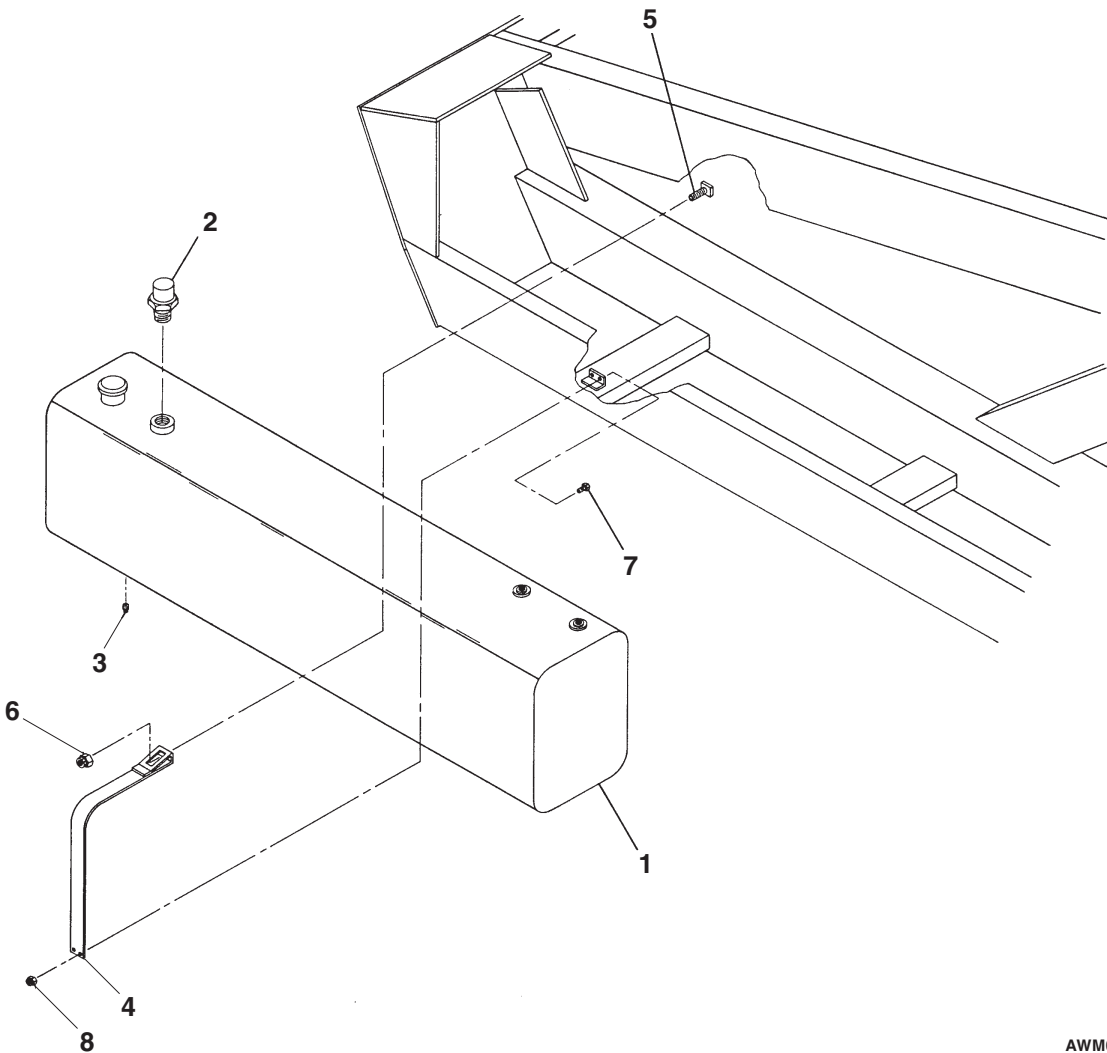
# Swing drive



AWA110837

# Fuel tank

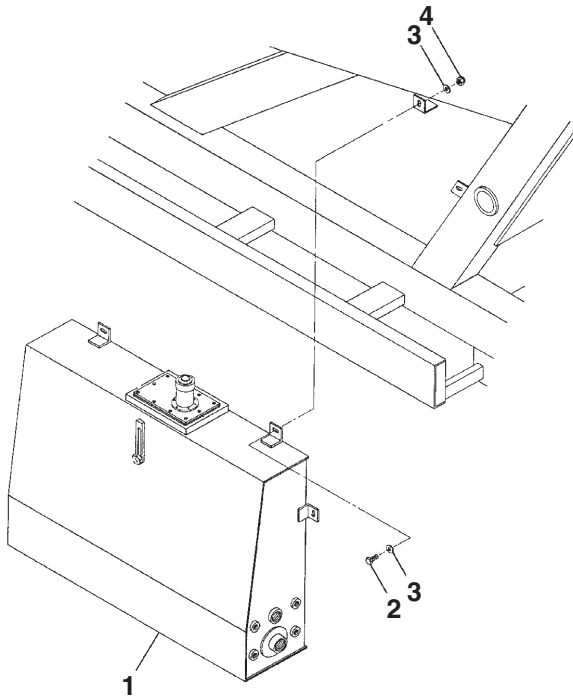
item	part no	qty	description
1	0080030	1	Fuel tank, 40 gallon capacity - (includes cap and fuel gauge)
	9940001	1	Replacement cap, fuel tank
2	0070483	1	Fuel gauge - (includes gauge lens)
	8180014	1	Replacement gauge lens
3	7714202	1	Pipe plug 1/4 NPT square head
4	0071940	2	Fuel tank strap
5	0191002	2	Threaded rod
6	5560033	2	Nut 3/8-16 self locking
7	970049	4	Capscrew 1/4-20 x 1 inch long hex head grade 5
8	5560004	4	Nut 1/4-20 self locking



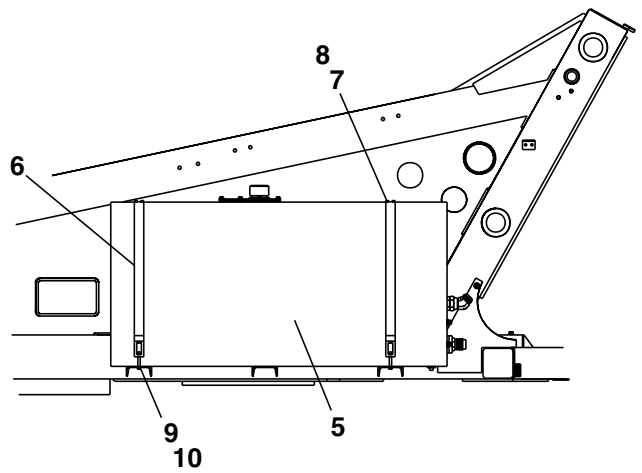
AWM00329

## Hydraulic oil reservoir mounting

item	part no	qty	description
<b>Hydraulic reservoir mounting, metal cowling</b>			
1	0190795	1	Hydraulic oil reservoir, metal cowling - (see page 2-36 for parts breakdown)
2	970479	4	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
3	986299	8	Washer 3/8 medium flat
4	5560033	4	Nut 3/8-16 self locking
<b>Hydraulic reservoir mounting, plastic cowling</b>			
5	0191756	1	Hydraulic oil reservoir, plastic cowling - (see page 2-37 for parts breakdown)
6	0110356	2	Mount strap, hydraulic oil reservoir
7	970029	4	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
8	5560004	4	Nut 1/4-20 self locking
9	970529	2	Capscrew 3/8-16 x 2-1/2 inch long hex head grade 5
10	5560033	2	Nut 3/8-16 self locking



**Reservoir mounting, metal cowling**



**Reservoir mounting, plastic cowling**

AWM00228

## Booms, base end

item	part no	qty	description
1	0191555	1	Booms and hose carrier - (see page 1-21 for parts breakdown)
2	0190504	1	Pin
3	0190506	1	Pin
4	0080028	1	Pin, master level cylinder rod end
5	0110235	4	Pin lock
6	0070033	1	Pin lock
7	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
8	0070473	2	Capscrew 5/16-18 drilled head
9	987109	2	Washer 5/16 medium lock
10	0110681	8	Capscrew 5/8-11 drilled head
11	987159	8	Washer 5/8 medium lock
12	970989	2	Capscrew 1/2-13 x 3-1/2 inch long hex head grade 5
13	5560037	2	Nut 1/2-13 self locking
14	0191676	1	Boom angle sensor
15	0190704	1	Bracket
16	970449	7	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
17	986299	24	Washer 3/8 medium flat
18	987119	24	Washer 3/8 medium lock
19	970429	17	Capscrew 3/8-16 x 1/2 inch long hex head grade 5
20	0090318	1	Battery wire
21	5093012	4	Clamp
22	5093013	3	Clamp
23	5093010	6	Clamp
24	5093006	3	Clamp
25	5093027	2	Clamp
26	5093008	1	Clamp



F

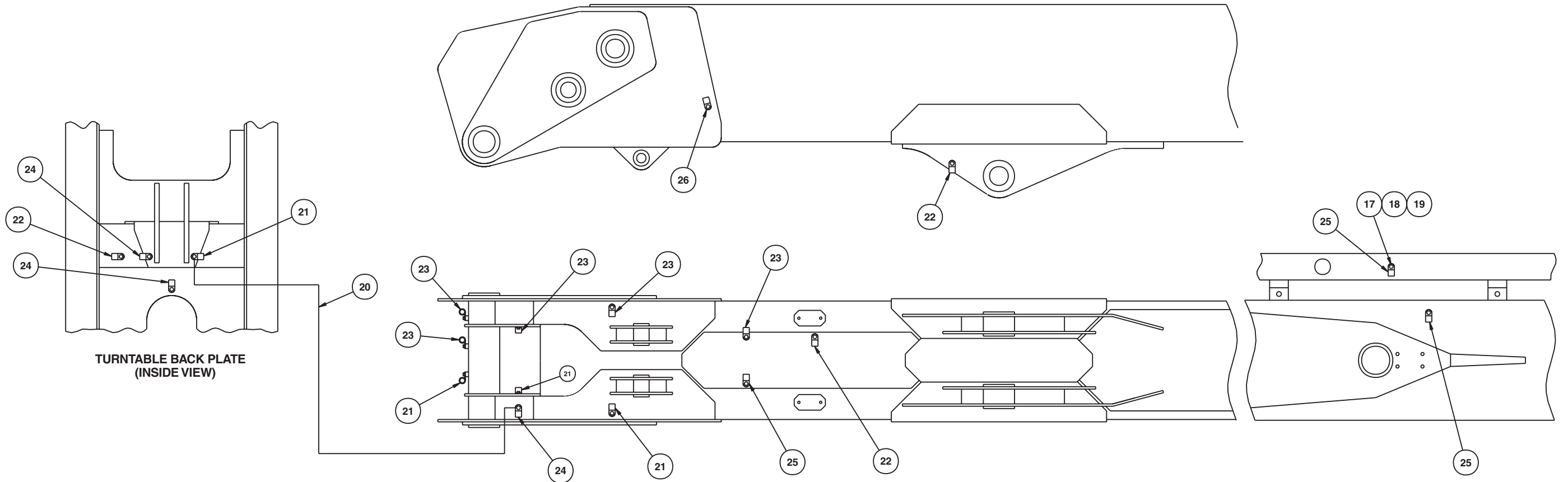
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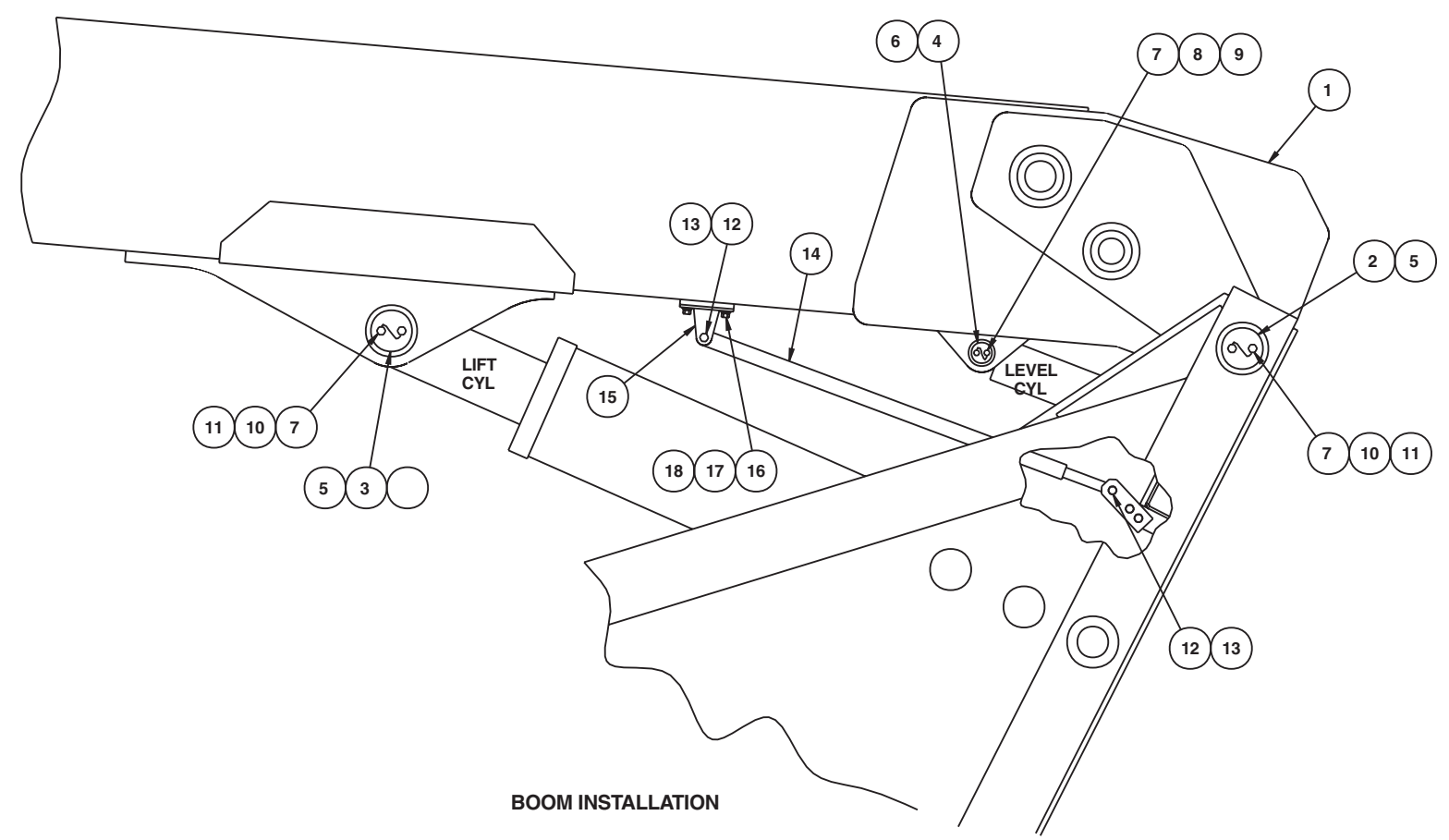
B

A



TURNTABLE BACK PLATE (INSIDE VIEW)

CLAMP INSTALLATION - BOOM



BOOM INSTALLATION

AW0191384

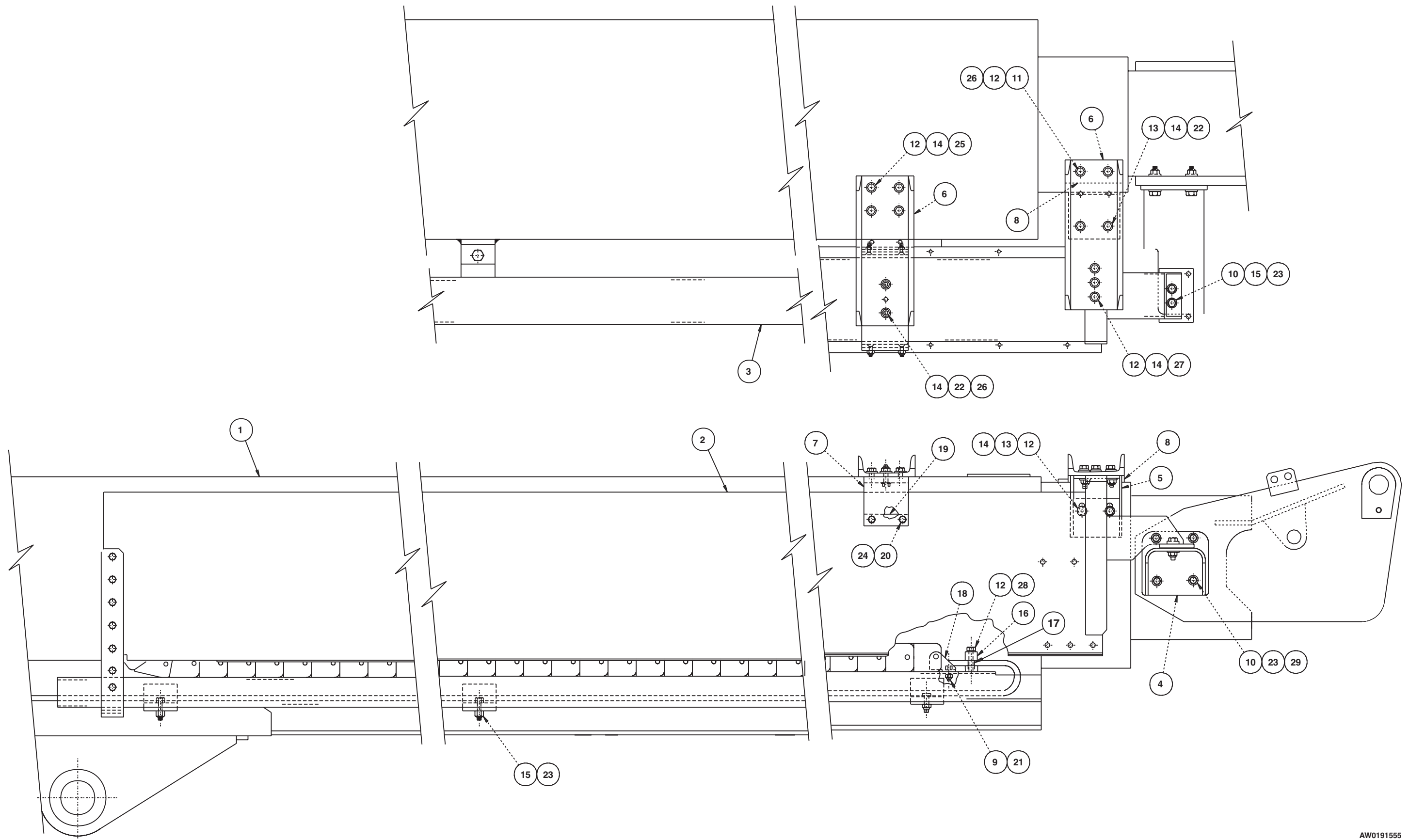
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DWG. 0191384	Snorkel model PRO 100	
		Page 1 - 19

DWG. 0191384

Snorkel model PRO 100

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AW0191555



TITLE booms and hose carrier

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Snorkel model PRO 100

DWG. 0191555

1 2 3 4 5 6 7 8 9

## Booms and hose carrier

item	part no	qty	description
	0191555	1	Booms and hose carrier
1	0191551	1	Booms - (see page 1-22 for parts breakdown)
2	0191388	1	Hose carrier - (see page 1-33 for parts breakdown)
3	0190737	1	Support tube
4	0191090	1	Tube bracket
5	0190626	1	Bracket
6	0190624	3	Channel
7	0190657	1	Bracket
8	0191481	1	Spacer
9	970239	2	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
10	5560168	10	Washer 1/2 hard flat ASTM-F436
11	5560126	2	Threaded insert 3/8-16 thread
12	987119	18	Washer 3/8 medium lock
13	970479	4	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
14	986299	16	Washer 3/8 medium flat
15	970919	12	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 5
16	0110590	1	Tube clamp, upper
17	0150586	2	Spacer
18	0190736	1	End bracket
19	0101371	2	Slide pad
20	5560004	4	Nut 1/4-20 self locking
21	5560031	2	Nut 5/16-18 self locking
22	5560033	4	Nut 3/8-16 self locking
23	5560039	16	Nut 1/2-13 self locking
24	5560331	4	Capscrew 1/4-20 x 1 inch long socket flat head
25	970426	4	Capscrew 3/8-16 x 7/8 inch long hex head grade 5
26	970489	5	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
27	970469	3	Capscrew 3/8-16 x 1 inch long hex head grade 5
28	970509	2	Capscrew 3/8-16 x 2 inch long hex head grade 5
29	970939	4	Capscrew 1/2-13 x 2-1/4 inch long hex head grade 5

## Booms

item	part no	qty	description
	0191551	1	Booms, complete
1	0191073	1	Tip boom
2	0190424	1	Intermediate boom
3	5036905	2	Swivel nut 45° elbow
4	0191550	1	Base boom
5	0190483	2	Wire rope, retract
6	3040263	1	Conduit coupler
7	5037006	2	Swivel nut 90° elbow
8	0190762	1	Extension cylinder - (see page 1-30 for parts breakdown)
9	0180901	1	Jib boom lift cylinder - (see hydraulic section for parts breakdown)
10	0030760	1	3/8 inch hydraulic hose
11	0190479	1	Wiffle, outer
12	0191434	1	1/2 inch hydraulic hose
13	0020267	2	3/8 inch hydraulic hose
14	0073111	1	Slide pad spacer, 1/8 inch thick
15	0073342	2	Slide pad shim, .063 inch thick
16	0070033	4	Pin lock
17	5560244	6	Nut T-weld
18	2500035	2	Bearing
19	0071494	1	Pin, steering arm
20	0110547	3	Conduit
21	0190631	1	Slide pad
22	0191410	1	Boom speed switch - (see page 3-58 for parts breakdown)
23	3040187	4	Connector
24	0191405	1	Back-up EMS switch - (see page 3-57 for parts breakdown)
25	0191409	3	Bracket
26	0191340	1	Whiffle, retract
27	3040262	4	Conduit coupler 1/2 inch
28	5074403	2	Bulkhead locknut
29	5034502	2	Bulkhead straight thread 90° elbow
30	0181221	1	Jib boom - (see page 1-28 for parts breakdown)
31	0191353	2	Cover, debris
32	0180680	1	Pin guard
33	0080293	5	Slide pad
34	0080294	2	Slide pad
35	0190767	1	Slide pad
36	0110703	2	Slide pad
37	0190618	1	Tube
38	0090141	6	Slide pad shim, .090 inch thick
39	0070030	6	Slide pad shim, .030 inch thick
40	0070043	2	Slide pad shim, .030 inch thick
41	0073343	2	Slide pad shim, .090 inch thick
42	0110707	6	Slide pad shim, .090 inch thick
43	0110706	6	Slide pad shim, .030 inch thick
44	0111005	4	Spacer
45	0190849	2	Wire rope anchor
46	0191354	4	Spacer
47	0191339	1	Slide pad holder
48	0110670	1	Pin, cable retainer
49	0190404	2	Sheave cage
50	0111701	2	Sheave, extend cable
			<b>Parts list continued on next page</b>

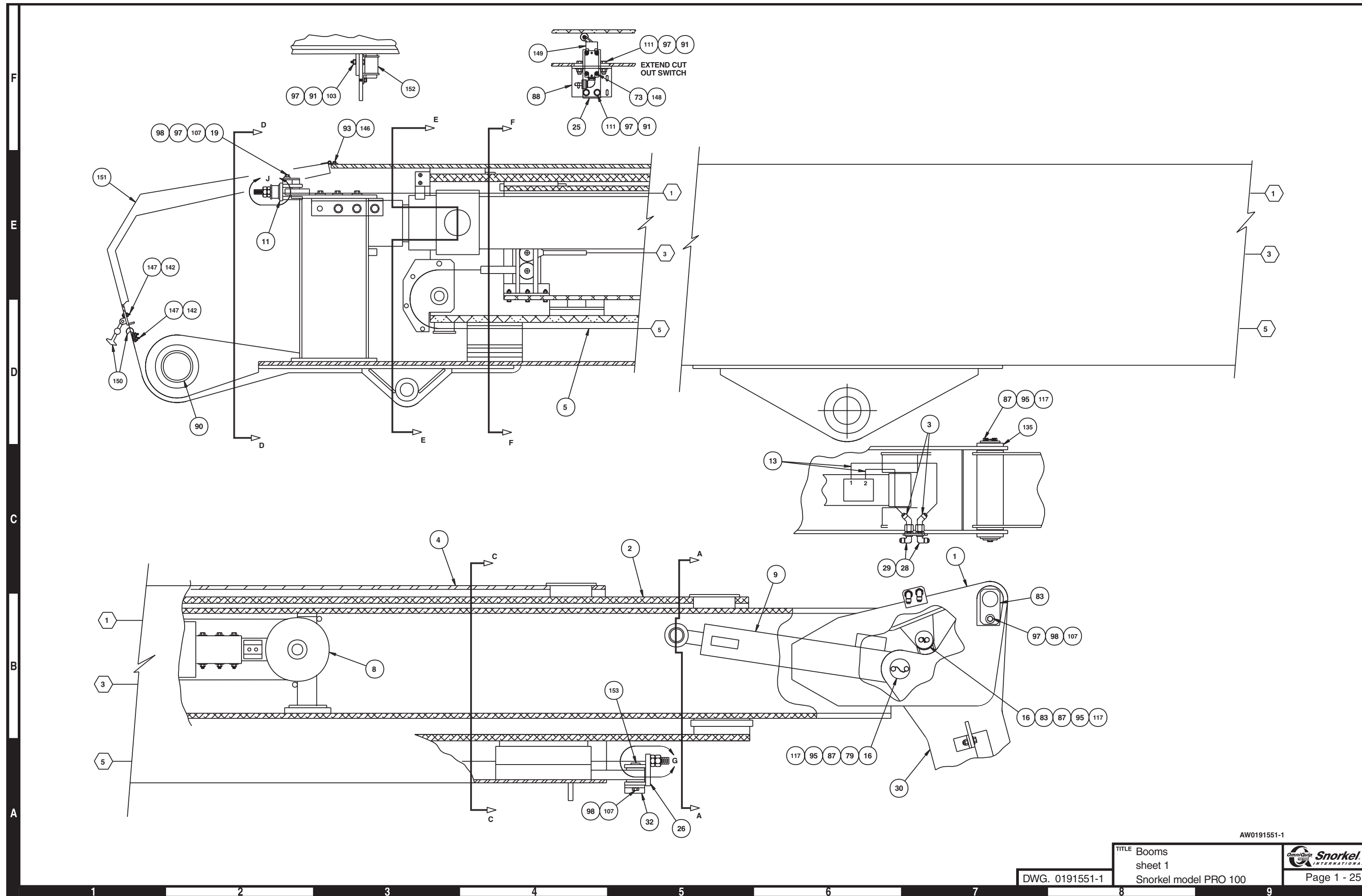
## Booms

item	part no	qty	description
51	0190494	2	Cable guide
52	0060089	2	Slide pad
53	2502028	2	Bearing
54	2502032	1	Bearing
55	0070639	6	Slide pad
56	0110671	1	Pin, retract sheave
57	0111317	1	Cable retainer
58	0110701	6	Slide pad spacer
59	0110190	2	Pin, cylinder anchor
60	0110191	2	Cylinder anchor
61	0191355	3	Spacer
62	5569851	1	Machine bushing 3-3/4 inch OD x 2-1/4 inch ID x 10 gauge thick
63	0190764	1	Pin
64	0191351	2	Mount angle
65	0190769	2	Slide pad
66	0191347	1	Bracket, extension cylinder
67	0191356	9	Spacer
68	0191404	1	Bracket, cam valve
69	0080023	1	Pin lock
70	0191455	1	Slide pad
71	0191352	1	Spacer
72	0191357	1	Spacer
73	5569848	12	Machine screw #10-24 x 2 inch long socket flat head
74	0110696	1	Slide pad
75	5560053	2	Nut 1/2-13 hex jam
76	0090444	2	Slide pad spacer
77	0072682	2	Slide pad
78	0072681	2	Slide pad mount
79	0180612	2	Pin
80	0072683	1	Slide pad spacer, 1/4 inch thick
81	0090138	2	Slide pad spacer
82	5560688	5	Machine bushing 2-1/4 OD x 1-1/2 inch ID x 14 gauge thick
83	0150685	1	Pin
84	0181264	1	Pin
85	0110695	1	Slide pad
86	0110699	1	Pad plate
87	0070473	12	Capscrew 5/16-18 drilled head
88	0191172	3	Switch bracket
89	5530008	22	Washer 7/8 inch curved spring
90	2504857	1	Bearing
91	5560033	46	Nut 3/8-16 self locking
92	5560031	20	Nut 5/16-18 self locking
93	5560004	8	Nut 1/4-20 self locking
94	5560037	18	Nut 1/2-13 self locking
95	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
96	5560154	12	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 8
97	986299	81	Washer 3/8 medium flat
98	987119	71	Washer 3/8 medium lock
99	972559	3	Capscrew 3/8-16 x 1 inch long socket flat head
100	970469	10	Capscrew 3/8-16 x 1 inch long hex head grade 5

**Parts list continued on next page**

## Booms

item	part no	qty	description
101	972449	18	Capscrew 3/8-16 x 3/4 inch long socket flat head
102	5560681	2	Capscrew 3/8-16 x 2-1/4 inch long socket flat head
103	970489	11	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
104	5560644	5	Capscrew 3/8-16 x 1-1/4 inch long socket flat head
105	5560665	13	Capscrew 3/8-16 x 1-3/4 inch long socket
106	978409	10	Capscrew 3/8-16 x 1-1/2 inch long socket flat head
107	970449	24	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
108	970499	1	Capscrew 3/8-16 x 1-3/4 inch long hex head grade 5
109	0191231	2	Slide pad shim, .090 inch thick
110	5560243	12	Capscrew 3/8-16 x 1/2 inch long button head
111	972479	28	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
112	5560015	14	Thread insert 3/8-16
113	970269	6	Capscrew 5/16-18 x 1-1/4 inch long hex head grade 5
114	986269	12	Washer 5/16 medium flat
115	970259	6	Capscrew 5/16-18 x 1 inch long hex head grade 5
116	970239	9	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
117	987109	20	Washer 5/16 medium lock
118	5560331	2	Capscrew 1/4-20 x 1 inch long socket flat head
119	970426	6	Capscrew 3/8-16 x 7/8 inch long hex head grade 5
120	984069	1	Nut 1/4-20 hex
121	5560251	1	Eye bolt 1/4-20 - (before 5-08-00)
122	970599	6	Capscrew 3/8-16 x 4 inch long hex head grade 5
123	0241160	2	Wire rope crimp sleeve
124	970919	2	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 5
125	5560171	4	Washer 7/8 hard flat ASTM-F436
126	5560249	6	Capscrew 1/2-13 x 2-1/2 inch long hex head grade 8
127	0191621	2	Slide pad shim, .063 inch thick
128	5560685	4	Nut 7/8-9 hex jam
129	0191620	1	Slide pad shim, .030 inch thick
130	970479	1	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
131	0191055	1	Boom length sensor, before 5-08-00 - (see page 1-63 for parts breakdown)
	0191693	1	Length transducer - (see page 1-83 for parts breakdown)
132	5093027	2	Clamp
133	970429	5	Capscrew 3/8-16 x 1/2 inch long hex head grade 5
134	5093004	3	Clamp
135	0070132	1	Pin lock
136	5560230	4	Nut 5/8-11 hex jam - drilled
137	5560231	4	Capscrew 5/8-11 x 1-3/4 inch long button head
138	988179	2	Cotter pin 1/8 inch diameter x 1 inch long
139	5560252	2	Machine bushing
140	5560126	20	Threaded insert 3/8-16 thread
141	5560233	4	Spherical washer 7/8 inch
142	5569843	5	Machine screw #8-32 x 1/2 inch long truss head
143	0190905	1	Cable guide
144	984229	4	Nut 7/8-9 hex
145	5560609	5	Machine screw #10-24 x 1/2 inch long truss head
146	970029	5	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
147	5560198	5	Nut #8-32 self locking
148	5560034	17	Nut #10-24 self locking
149	0191411	1	Extend cut-out switch - (see page 3-60 for parts breakdown)
150	5510004	2	Rubber door latch
151	0191425	1	Cover
152	0190876	1	Cam valve - (see page 2-43 for parts breakdown)
153	0090134	1	Pin



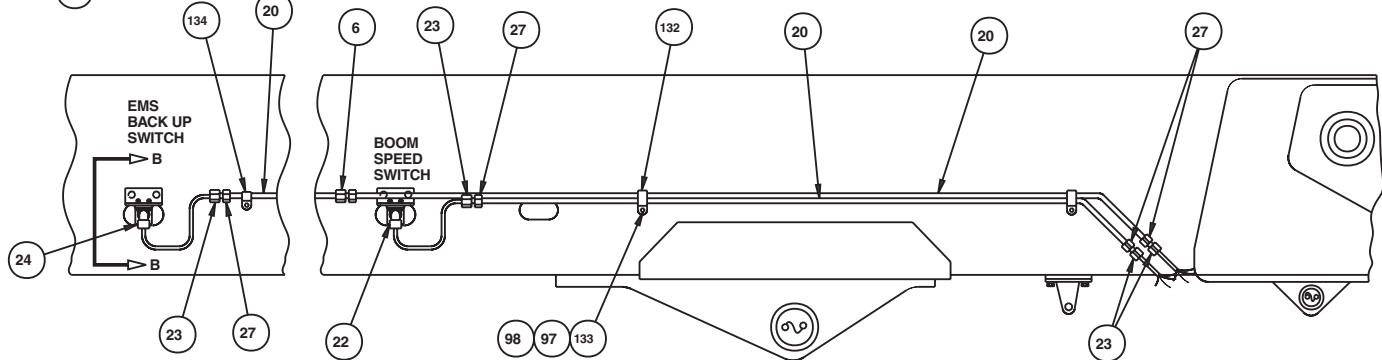
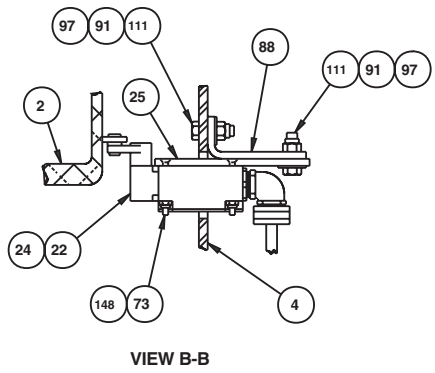
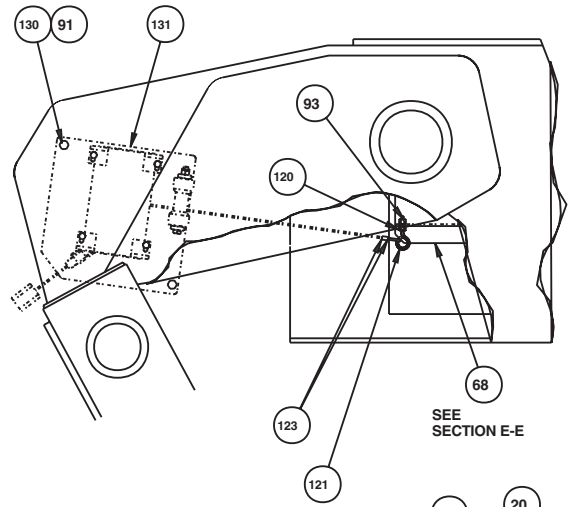
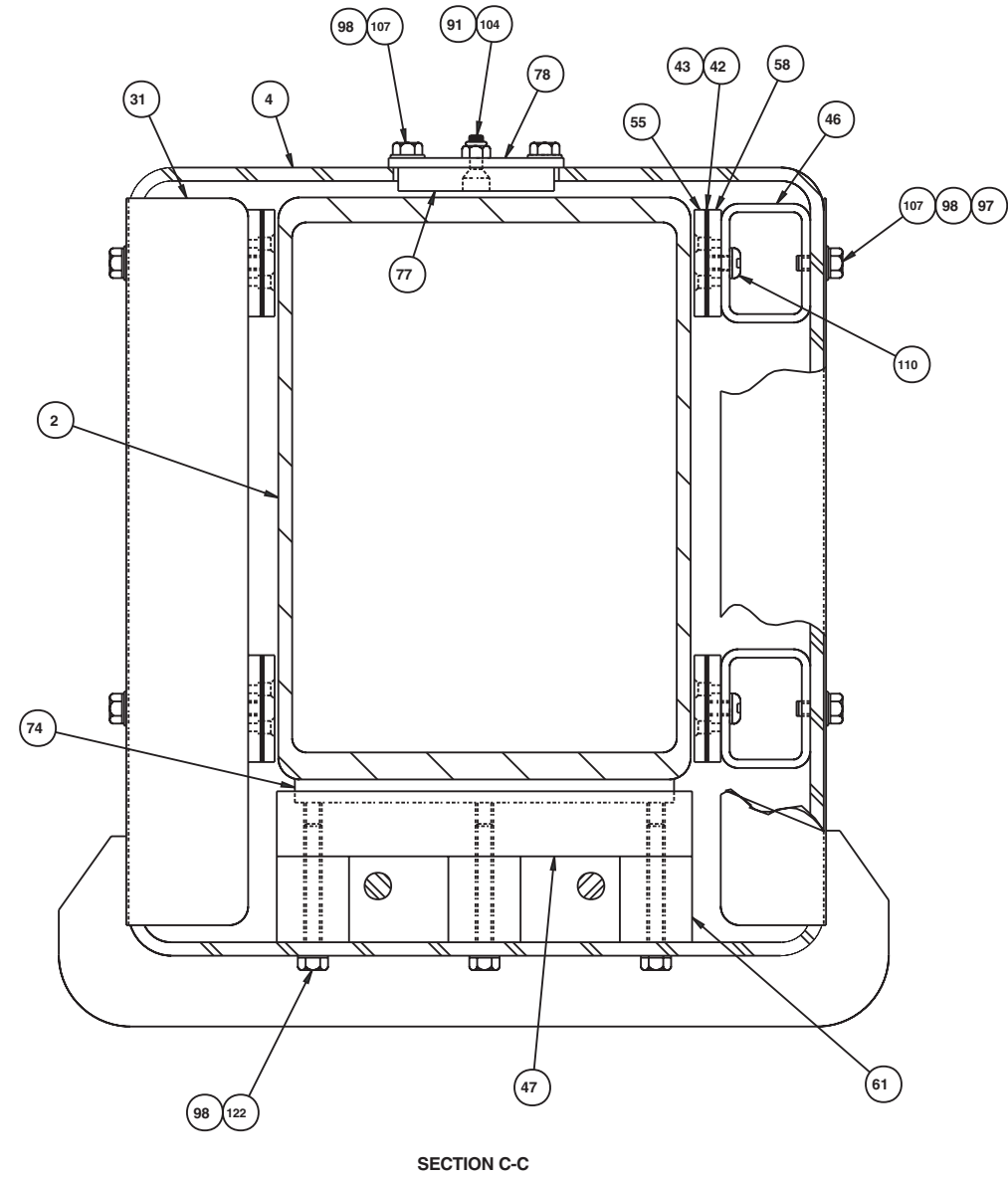
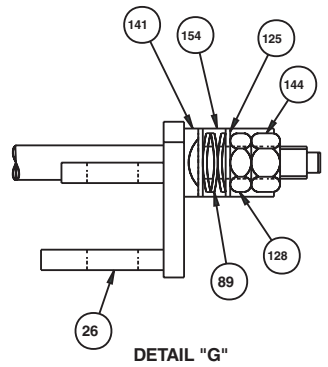
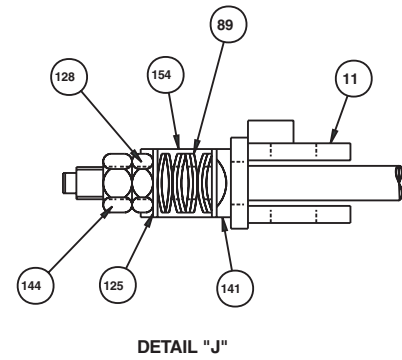
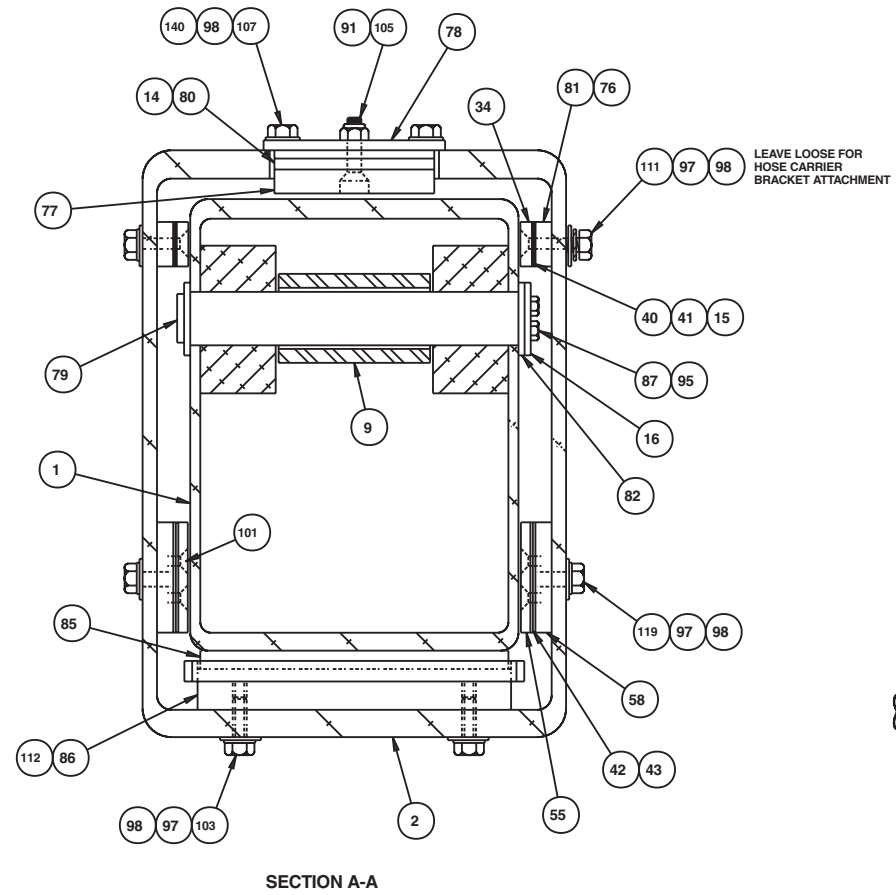
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TITLE Booms  
sheet 1  
Snorkel model PRO 100



DWG. 0191551-1

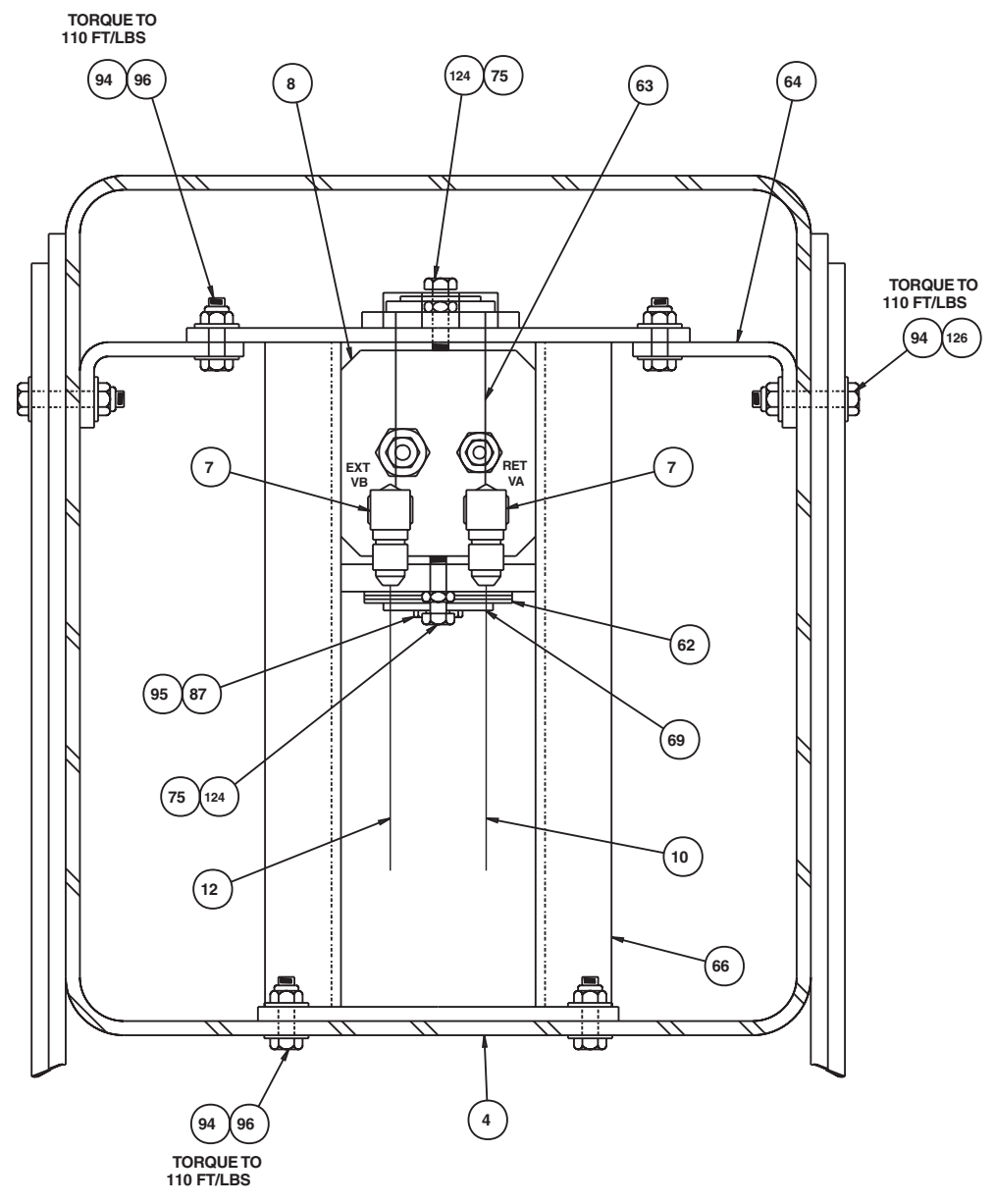
Page 1 - 25



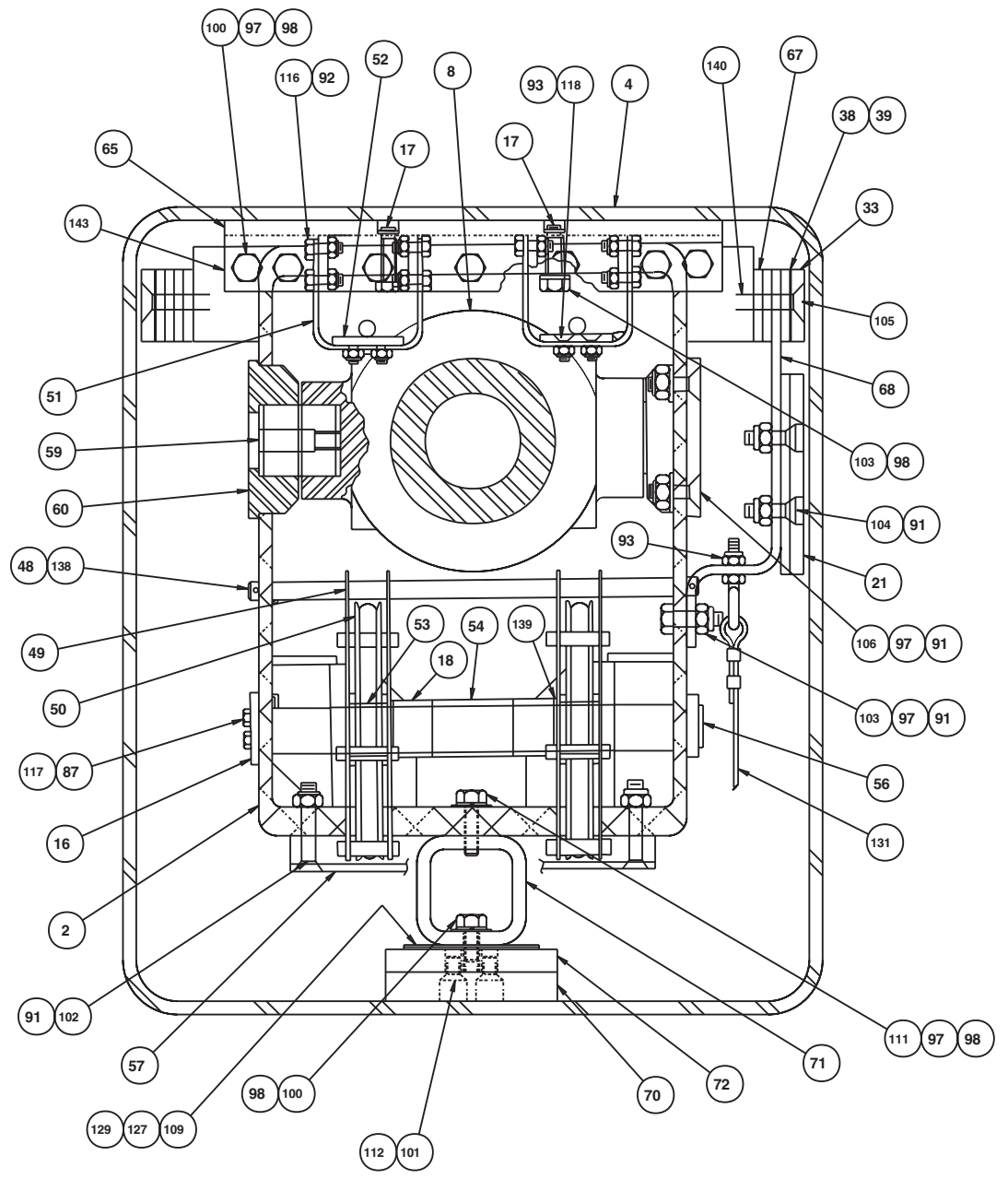
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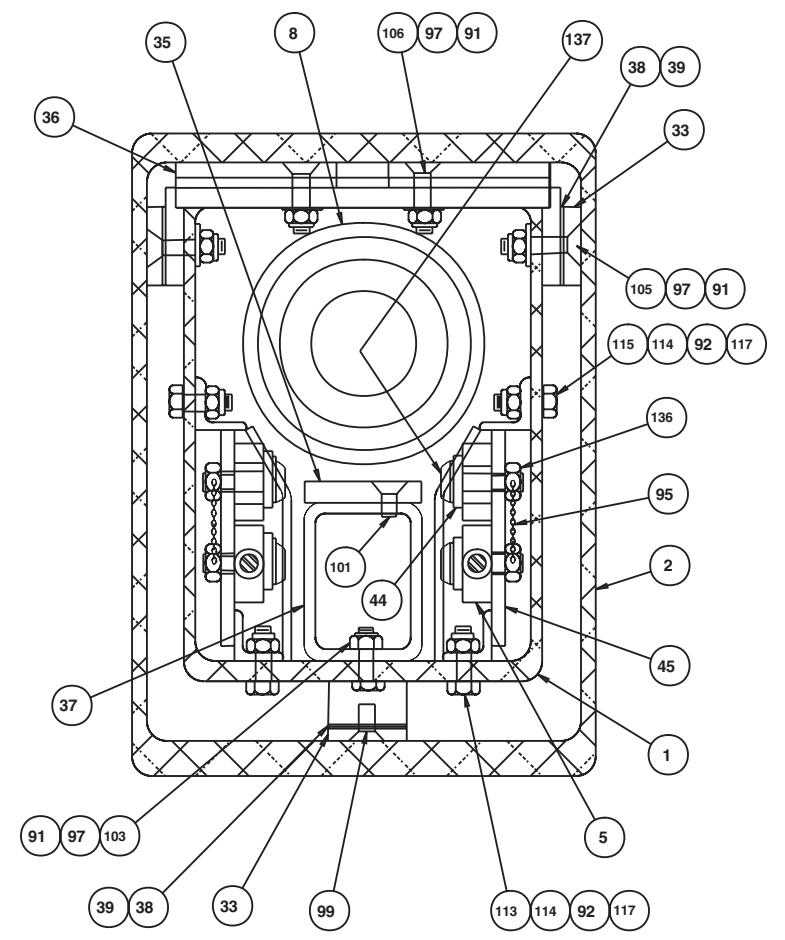
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SECTION D-D



SECTION E-E



SECTION F-F

AW0191551-3

DWG. 0191551-3

TITLE Booms  
sheet 3  
Snorkel model PRO 100

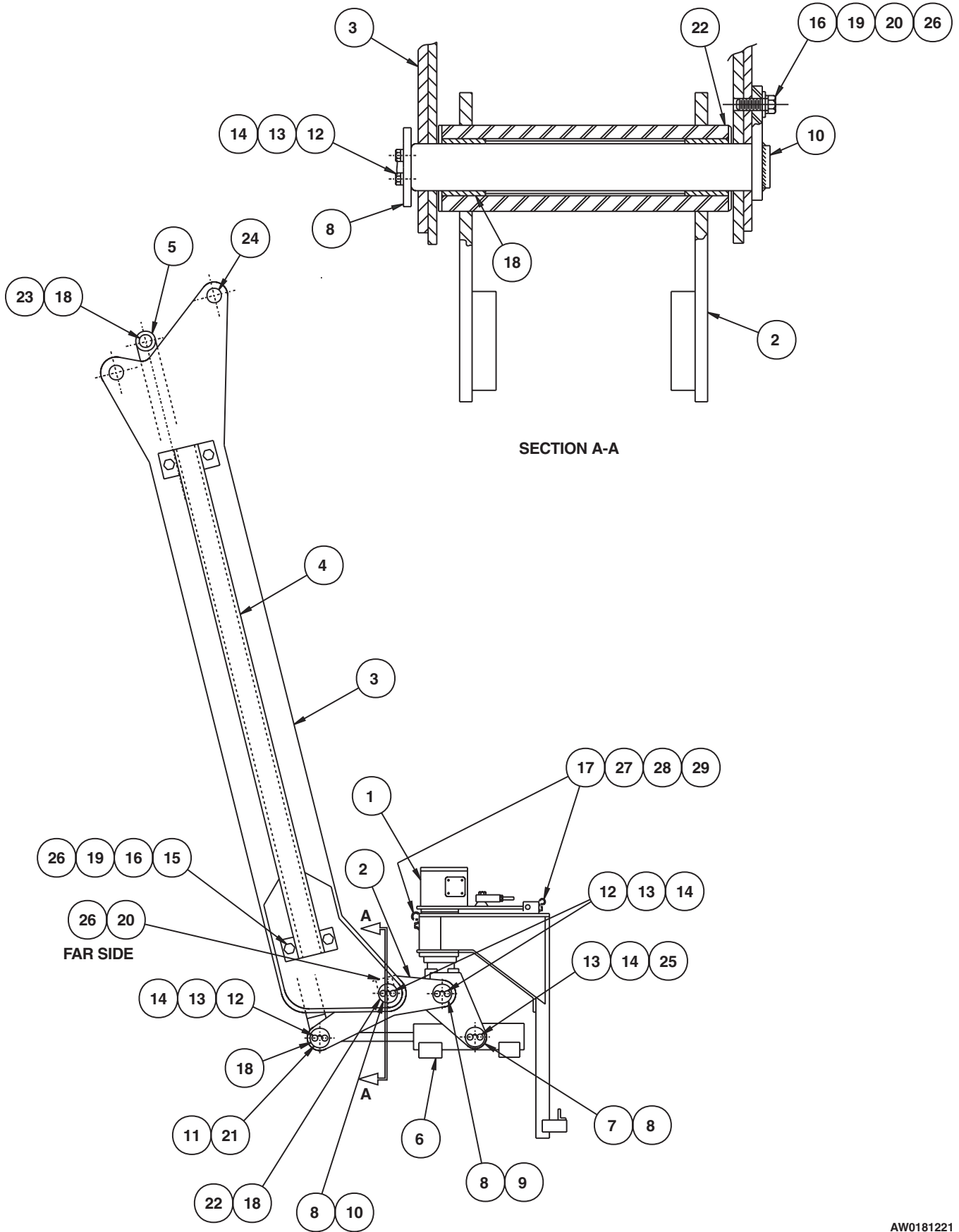


Page 1 - 27

## Jib boom

item	part no	qty	description
	0181221	1	Jib boom, complete
1	0180873	1	Platform rotator - (see page 1-38 for parts breakdown)
2	0180596	1	Bell crank
3	0181126	1	Jib boom
4	0191324	1	Hose carrier tube
5	0180640	1	Leveling link
6		1	Slave level cylinder - (see hydraulics section for selection and parts breakdown)
7	0180521	2	Pin
8	0070033	4	Pin lock
9	0180597	1	Pin
10	0181263	1	Pin
11	0180606	1	Pin
12	0070473	6	Capscrew 5/16-18 drilled head
13	987109	10	Washer 5/16 medium lock
14	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
15	970469	4	Capscrew 3/8-16 x 1 inch long hex head grade 5
16	986299	5	Washer 3/8 medium flat
17	986019	2	Washer 1/4 medium flat
18	2500035	4	Bearing
19	5560015	5	Thread insert 3/8-16
20	970449	1	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
21	0180635	1	Pin lock
22	5560252	1	Machine bushing 2-1/4 inch OD x 1-1/4 inch ID x 14 gauge thick
23	0180941	1	Spacer
24	2500039	1	Bushing
25	5560213	4	Capscrew 5/16-18 drilled head
26	987119	5	Washer 3/8 medium lock
27	987099	2	Washer 1/4 medium lock
28	5093027	2	Clamp
29	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5

# Jib boom



AW0181221

## Extension cylinder

item	part no	qty	description
	0190762	1	Extension cylinder, complete
1	0190761	1	Support bracket
2	0190688	1	Extension cylinder - (see hydraulics section for parts breakdown)
3	0190482	2	Wire rope, extend
4	0111701	2	Sheave, extend cable
5	2502028	2	Bearing
6	0191071	1	Slide pad
7	0110645	1	Pin, extend sheave
8	0070033	1	Pin lock
9	0071341	3	Slide pad shim, .063 inch thick
10	5065709	2	Straight thread adapter
11	6010488	1	Cartridge counterbalance valve - (factory preset, do not reset)
	6091190	1	Seal repair kit
12	6010882	1	Cartridge counterbalance valve - (preset by factory, do not reset)
	6091190	1	Seal repair kit
13	5560037	3	Nut 1/2-13 self locking
14	5560254	8	Thrust washer
15	0070141	3	Slide pad
16	0070473	2	Capscrew 5/16-18 drilled head
17	5560644	4	Capscrew 3/8-16 x 1-1/4 inch long socket flat head
18	972449	6	Capscrew 3/8-16 x 3/4 inch long socket flat head
19	971009	3	Capscrew 1/2-13 x 4 inch long hex head grade 5
20	5560033	4	Nut 3/8-16 self locking
21	0191070	1	Plate, slide pad mounting
22	5560168	6	Washer 1/2 hard flat ASTM-F436
23	5560005	2	Anchor bolt
24	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)

F

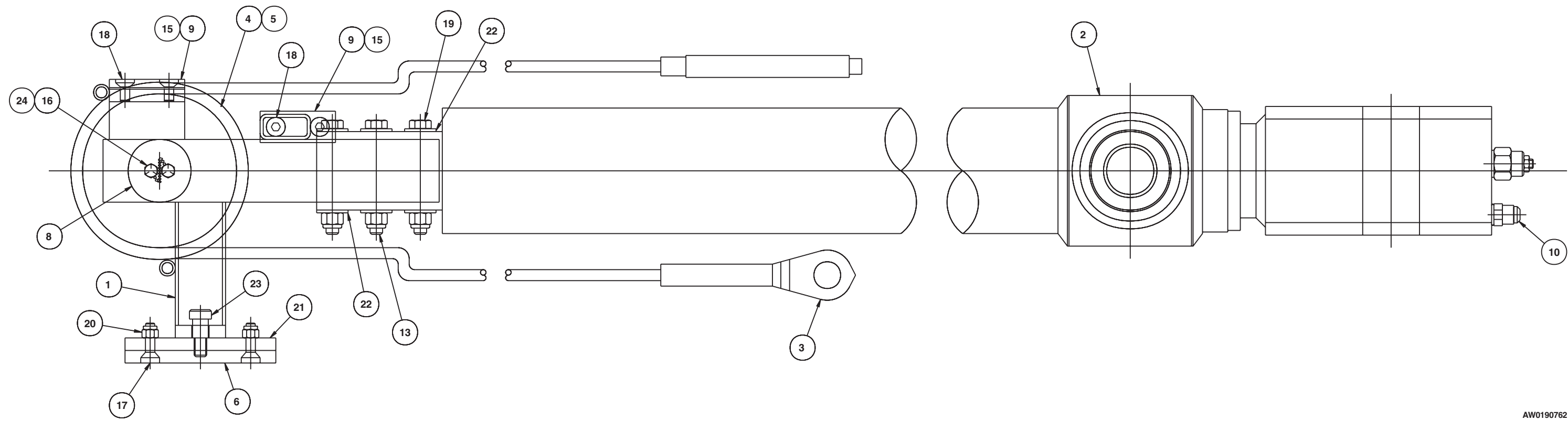
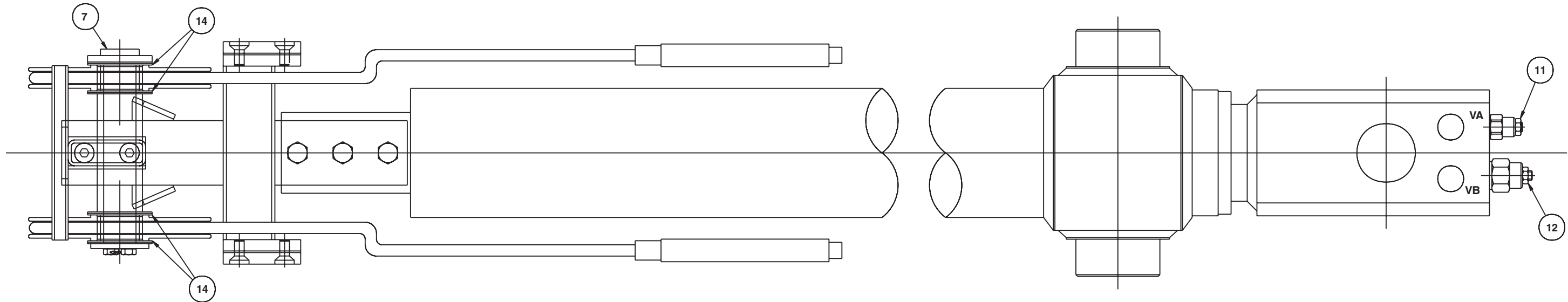
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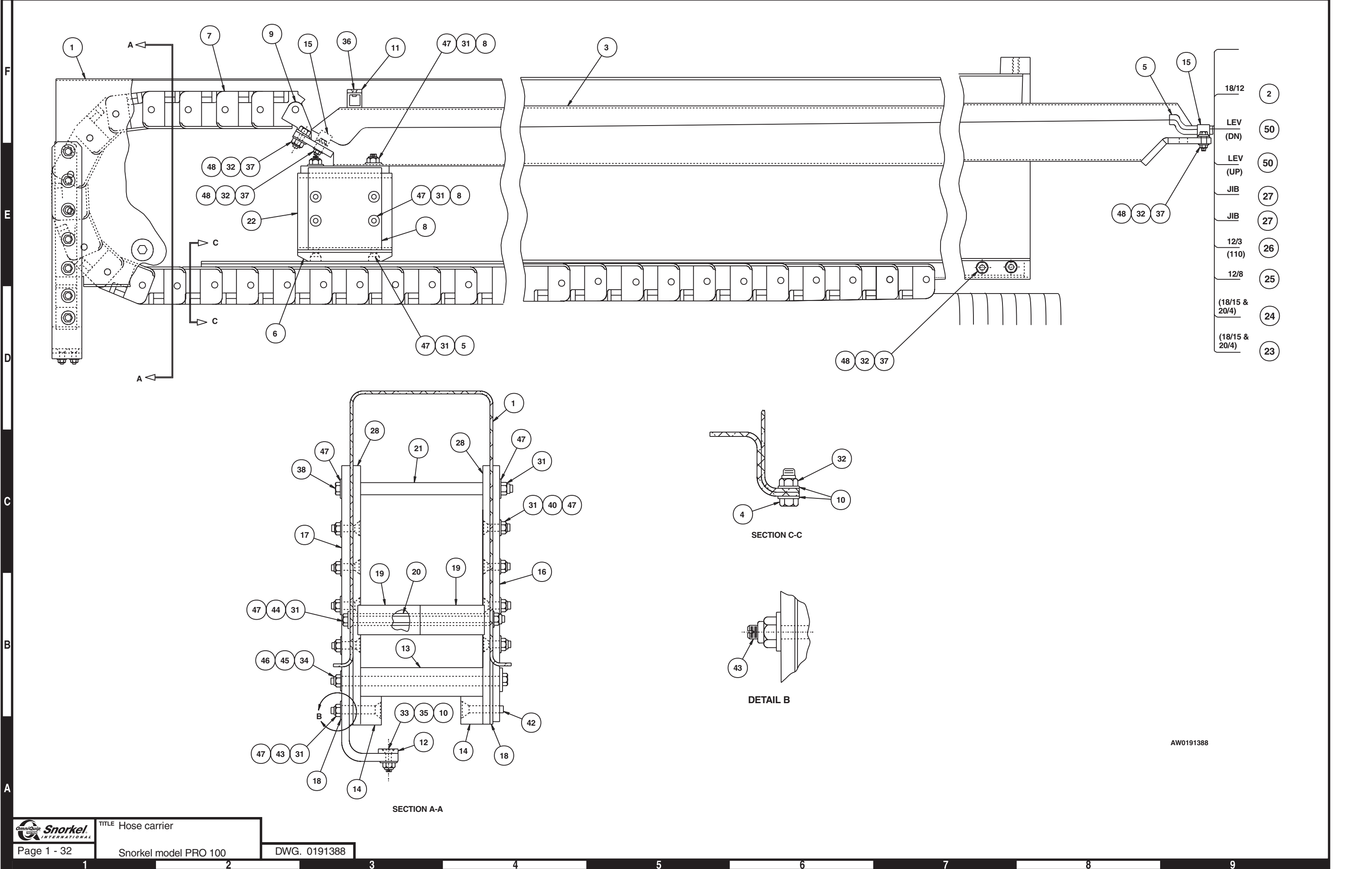
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AW0190762

DWG. 0190762	TITLE Extension cylinder Snorkel model TB 120	 Page 1 - 31
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18/12	(2)
LEV (DN)	(50)
LEV (UP)	(50)
JIB	(27)
JIB	(27)
12/3 (110)	(26)
12/8	(25)
(18/15 & 20/4)	(24)
(18/15 & 20/4)	(23)

SECTION A-A

SECTION C-C

DETAIL B

AW0191388

## Hose carrier

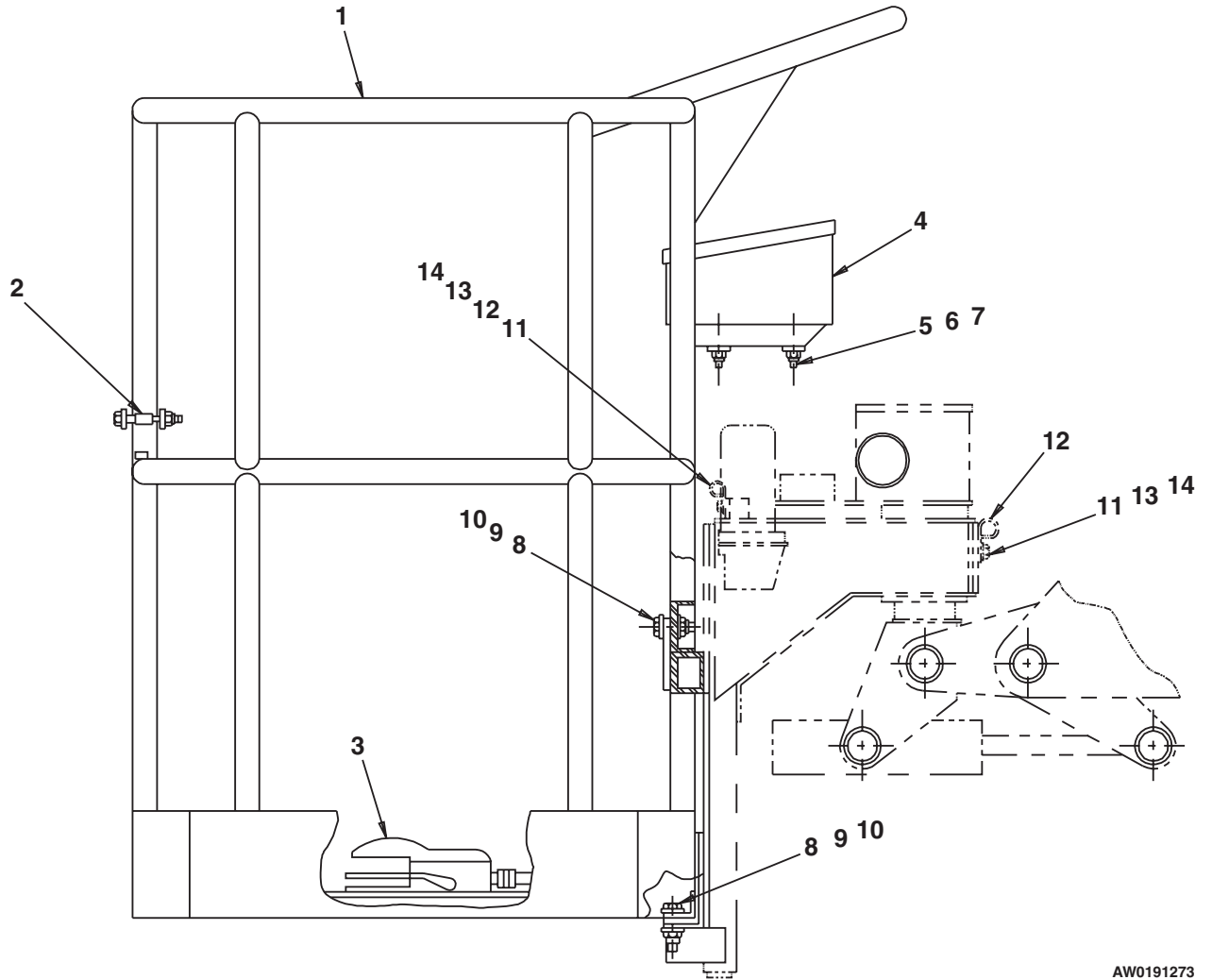
item	part no	qty	description
	0191388	1	Hose carrier
1	0190740	1	Outer cover
2	3010009	1	Control wire #1, 18 gauge/19 conductor x 124 feet long - (terminals not included)
	3046972		Replacement terminal
3	0190734	1	Tube
4	970239	12	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
5	5090034	1	Hose guard x 48 inch long
6	0190631	3	Slide pad
7	9920017	134	Plastic track link
8	970479	4	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
9	9920018	1	End bracket
10	5560644	12	Capscrew 3/8-16 x 2 inch long socket flat head
11	0101379	1	Slide pad
12	0060089	1	Slide pad
13	0110841	1	Slide pad
14	0110842	2	Slide pad
15	5093012	2	Clamp
16	0191597	1	Bar, inside mounting
17	0191599	1	Mounting bracket
18	0190756	2	Shim
19	0181270	2	Roller
20	0110227	1	Spacer
21	0191596	1	Spacer
22	0191394	1	Spacer
23	3010014	1	Conductor, shielded 124 feet long
24	3010014	1	Conductor, shielded 124 feet long
25	3010006	1	Power wire, 12 gauge/8 conductor x 124 feet long - (terminals not included)
	3044854		Replacement terminal
26	0191480	1	Wire 12 gauge/3 conductor x 124 feet long
27	0191432	2	5/16 inch hydraulic hose
28	0191598	2	Bar
29	0191433	2	3/16 inch hydraulic hose
30	987119	3	Washer 3/8 medium lock
31	5560033	25	Nut 3/8-16 self locking
32	5560031	22	Nut 5/16-18 self locking
33	5560004	4	Nut 1/4-20 self locking
34	5560037	1	Nut 1/2-13 self locking
35	5560331	2	Capscrew 1/4-20 x 1 inch long socket flat head
36	5560330	2	Capscrew 1/4-20 x 3/4 inch long socket flat head
37	970259	10	Capscrew 5/16-18 x 1 inch long hex head grade 5
38	0191609	1	Capscrew 3/8-16 x 8-3/4 inch long hex head grade 5
39	972479	3	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
40	972429	8	Capscrew 3/8-16 x 1/2 inch long socket flat head
41	5560645	1	Capscrew 3/8-16 x 5-1/2 inch long hex head grade 5
42	972509	1	Capscrew 3/8-16 x 2 inch long socket flat head
43	972429	1	Capscrew 3/8-16 x 1/2 inch long socket flat head
44	970639	1	Capscrew 3/8-16 x 8 inch long hex head grade 5
45	5569861	1	Capscrew 1/2-13 x 9 inch long hex head grade 5
46	986359	2	Washer 1/2 medium flat
47	986299	38	Washer 3/8 medium flat
48	986269	19	Washer 5/16 medium flat
49	986019	26	Washer 1/4 medium flat

## Platform mounting

item	part no	qty	description
1		1	Platform weldment - (consult factory)
2		1	Platform gate - (see page 1-36 for proper platform gate)
3	0071800	1	Platform foot switch - (see page 3-53 for parts breakdown)
4	0191272	1	Upper control box - (see page 3-49 for parts breakdown)
5	970529	4	Capscrew 3/8-16 x 2-1/2 inch long hex head grade 5
6	986299	8	Washer 3/8 medium flat
7	5560033	4	Nut 3/8-16 self locking
8	970909	4	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
9	986359	8	Washer 1/2 medium flat
10	5560039	4	Nut 1/2-13 self locking
11	987099	2	Washer 1/4 medium lock
12	5093027	2	Clamp
13	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
14	986019	2	Washer 1/4 medium flat



# Platform mounting

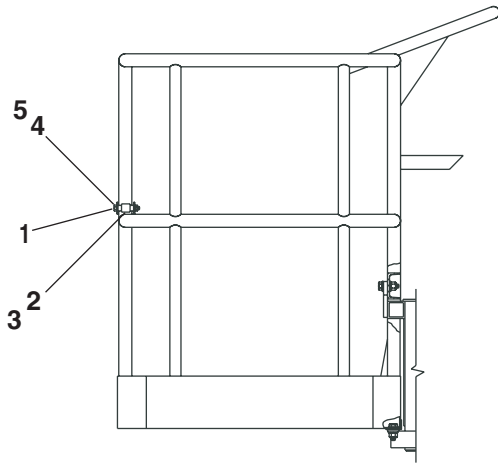


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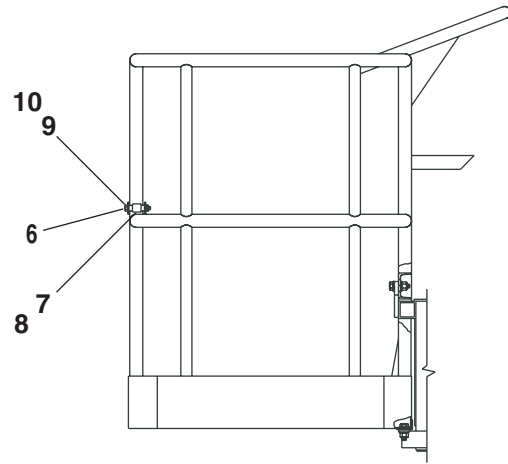
## Platform gate

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

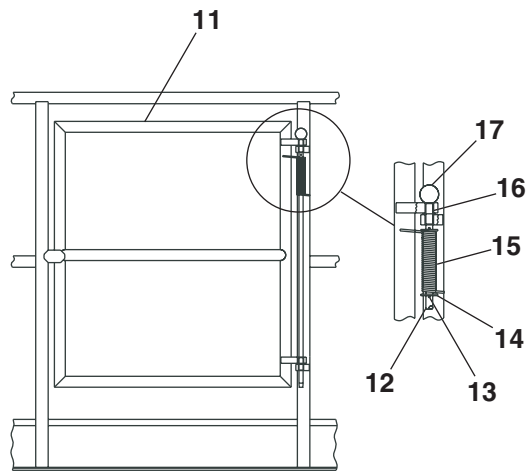
# Platform gate



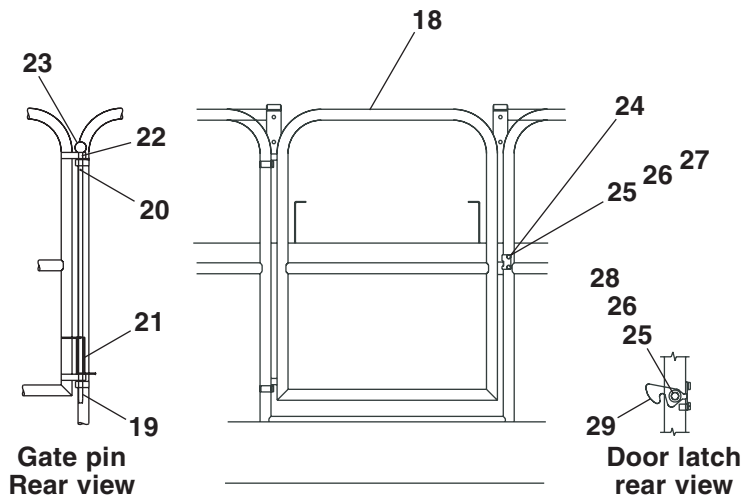
Gravity gate, steel platform



Gravity gate, aluminum platform



Swinging gate, steel platform

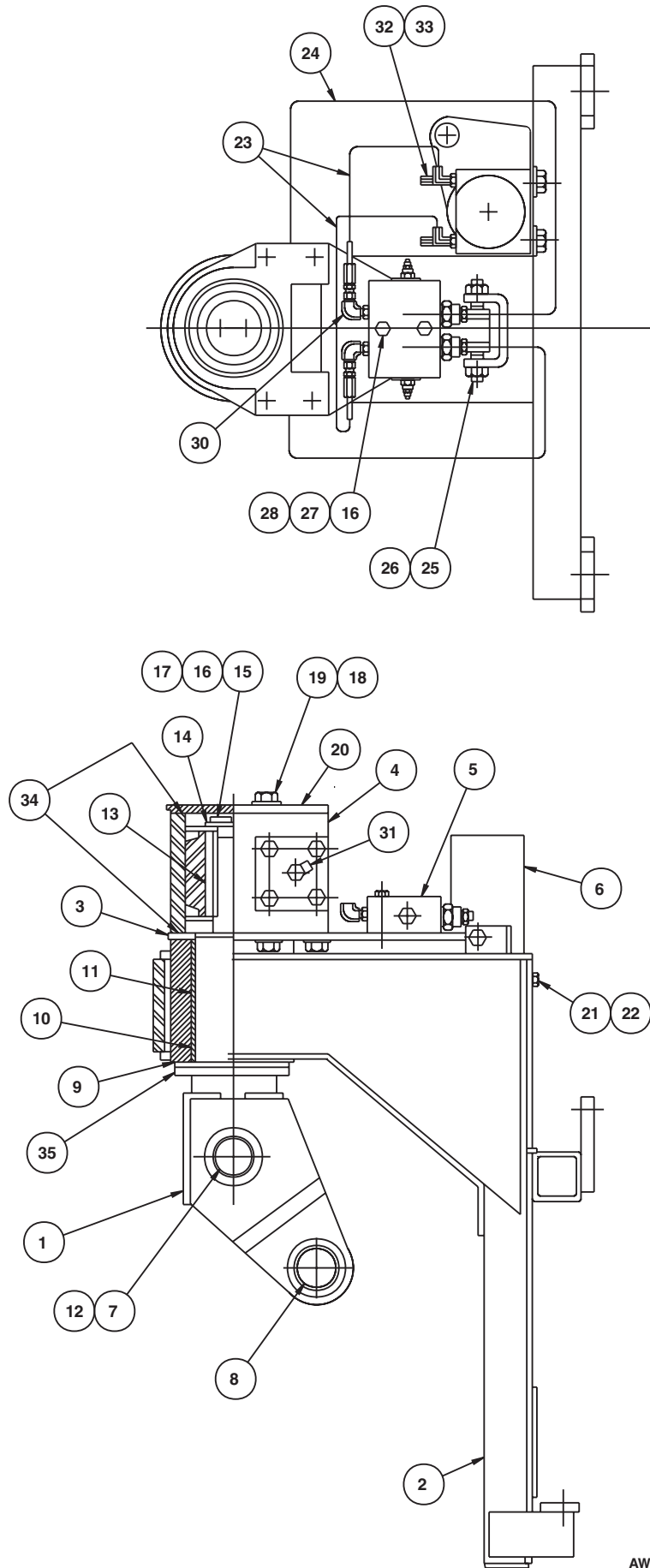


Swinging gate, aluminum platform

## Platform rotator

item	part no	qty	description
	0180873	1	Platform rotator
1	0180516	1	Pylon
2	0180509	1	Rotator frame
3	0170575	1	Torque plate
4	0070570	1	Platform rotator, Helac - see page 2-82 for parts breakdown
	0110771	1	Platform rotator, Parker - see page 2-83 for parts breakdown)
5	6010541	1	Dual crossover relief valve - (see page 2-71 for parts breakdown)
6	6020042	1	Hydraulic power unit
	6090049	1	Reservoir with cap
	8150066	1	Replacement motor
7	2502032	2	Bearing
8	2500038	2	Bearing
9	0072561	1	Thrust bearing
10	2504856	2	Bearing
11	0072562	1	Bearing spacer
12	0180768	1	Spacer
13	0070916	1	Key
14	0070132	1	Pin lock
15	0070473	2	Capscrew 5/16-18 drilled head
16	987109	4	Washer 5/16 medium lock
17	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
18	970889	6	Capscrew 1/2-13 x 1 inch long hex head grade 5
19	987139	6	Washer 1/2 medium lock
20	0072508	1	Cover plate, platform rotator
21	970449	2	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
22	987119	2	Washer 3/8 medium lock
23	0070908	2	1/4 inch hydraulic hose
24	0020283	2	1/4 inch hydraulic hose
25	5560217	2	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 5
26	984409	2	Nut 1/2-13 hex jam drilled
27	970509	2	Capscrew 3/8-16 x 2 inch long hex head grade 5
28	986269	2	Washer 5/16 medium flat
29		1	Grease, Conoco Super Sta - (consult factory)
30	5035318	4	Straight thread 90° elbow
31	5035303	2	Straight thread 90° elbow
32	5036103	2	Straight thread run tee
33	5063701	2	Cap
34	7110157	1	O-ring - (used on Helac rotator only)
	7110348	1	O-ring - (used on Parker rotator only)
35	0072555	1	Collar

# Platform rotator



AW0180873

## Engine mounting, Continental

item	part no	qty	description
1	0190807	1	Engine, Continental TM-27 - (see page 1-43 for parts breakdown)
2	7630242	1	Radiator - (does not include radiator cap)
3	0180441	2	Bracket, radiator support
4	0180444	2	Angle, radiator
5	0181154	1	Shield
6	7630080	1	Radiator hose
7	7630136	1	Radiator hose
8	5550038	4	Clamp
9	7630259	1	Radiator cap - 15 PSI
10	5010012	1	Radiator overflow hose 5/16 inch diameter x 36 inch long
11	7630180	4	Radiator cushion
12	5560179	8	Washer, snubbing
13	5560033	4	Nut 3/8-16 self locking
14	5560004	8	Nut 1/4-20 self locking
15	0180832	1	Mount plate, overflow reservoir
16	7714202	1	Pipe plug 1/4 NPT square head
17	5550028	2	Clamp
18	7630227	1	Overflow reservoir
	8060277	1	Replacement reservoir cap
19	7630117	6	Engine mount
20	0071599	12	Engine mount washer
21	5560169	6	Washer 5/8 hard flat ASTM-F436
22	5560036	6	Nut 5/8-11 self locking
23	5560639	6	Capscrew 5/8-11 x 4-1/2 inch long hex head grade 5
24	7630181	1	Drain cock
25	5090032	1	Fitting, straight barbed
26	5010011	1	Fuel hose 5/16 inch diameter x 120 inch long
27	986299	4	Washer 3/8 medium flat
28	970519	4	Capscrew 3/8-16 x 2-1/4 inch long hex head grade 5
29	970049	6	Capscrew 1/4-20 x 1 inch long hex head grade 5
30	986019	4	Washer 1/4 medium flat
31	970889	4	Capscrew 1/2-13 x 1 inch long hex head grade 5
32	986359	4	Washer 1/2 medium flat
33	987139	4	Washer 1/2 medium lock
34	970239	4	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
35	986269	4	Washer 5/16 medium flat
36	987109	4	Washer 5/16 medium lock
37	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5

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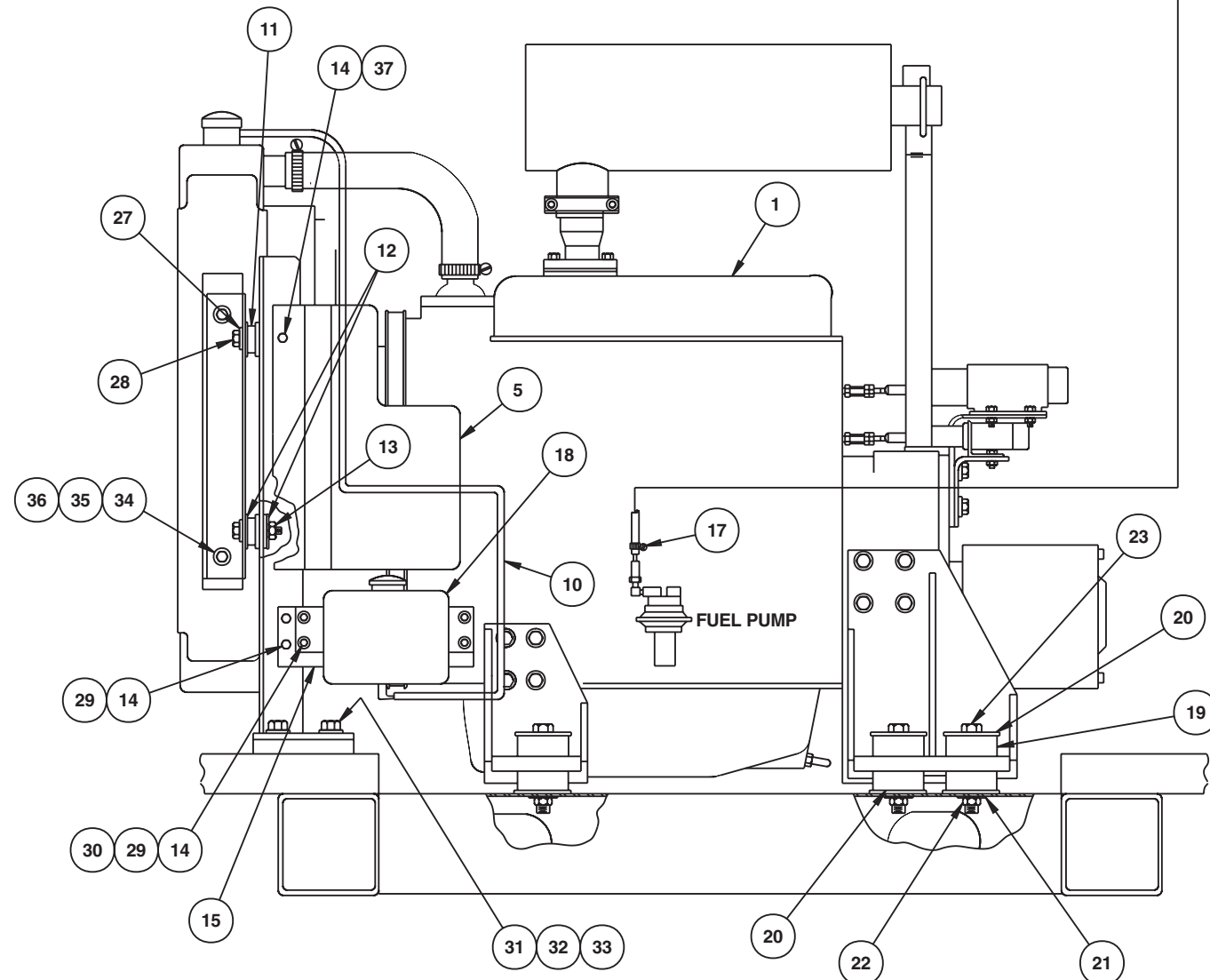
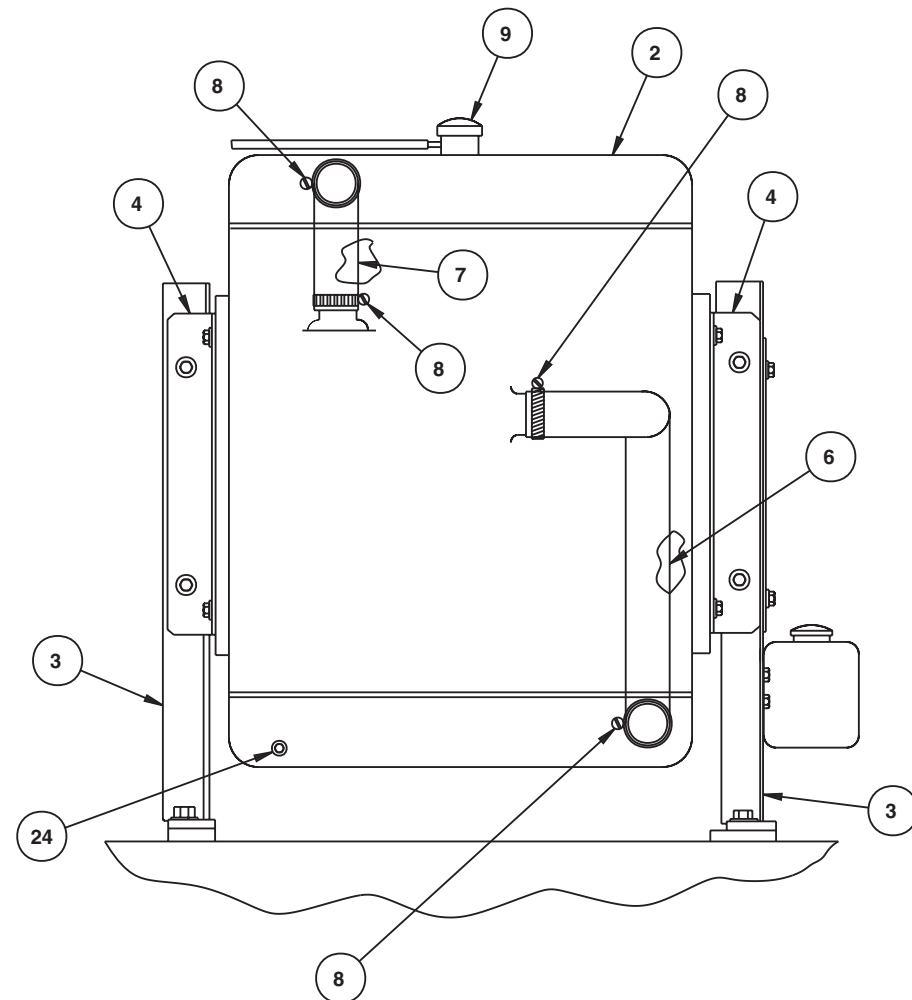
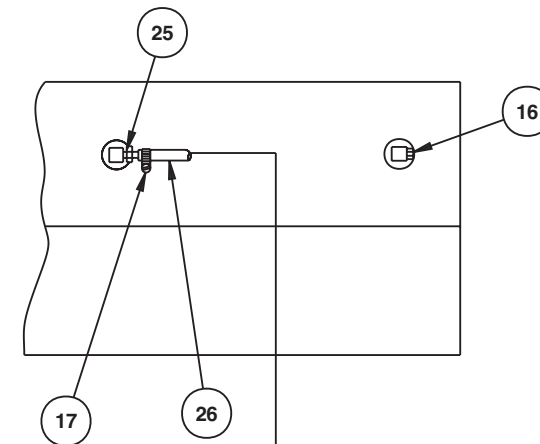
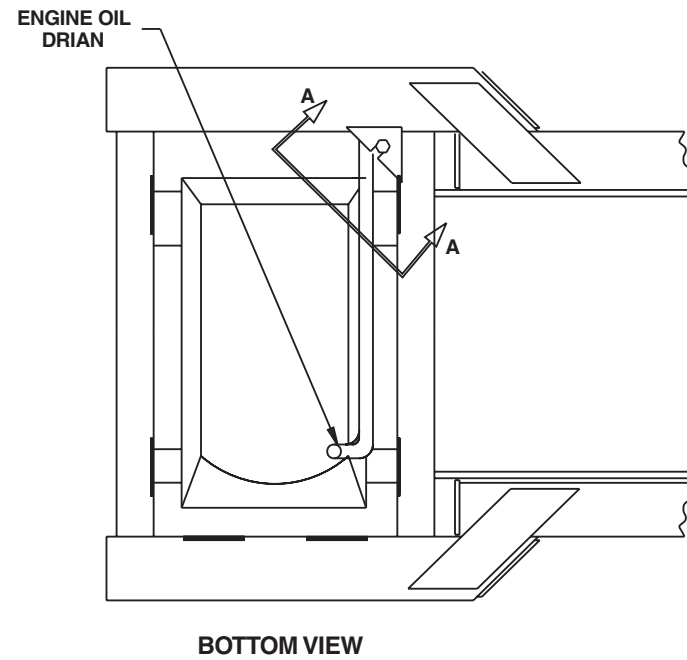
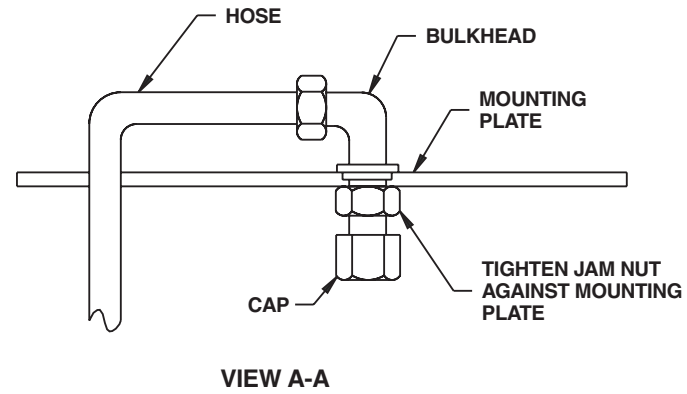
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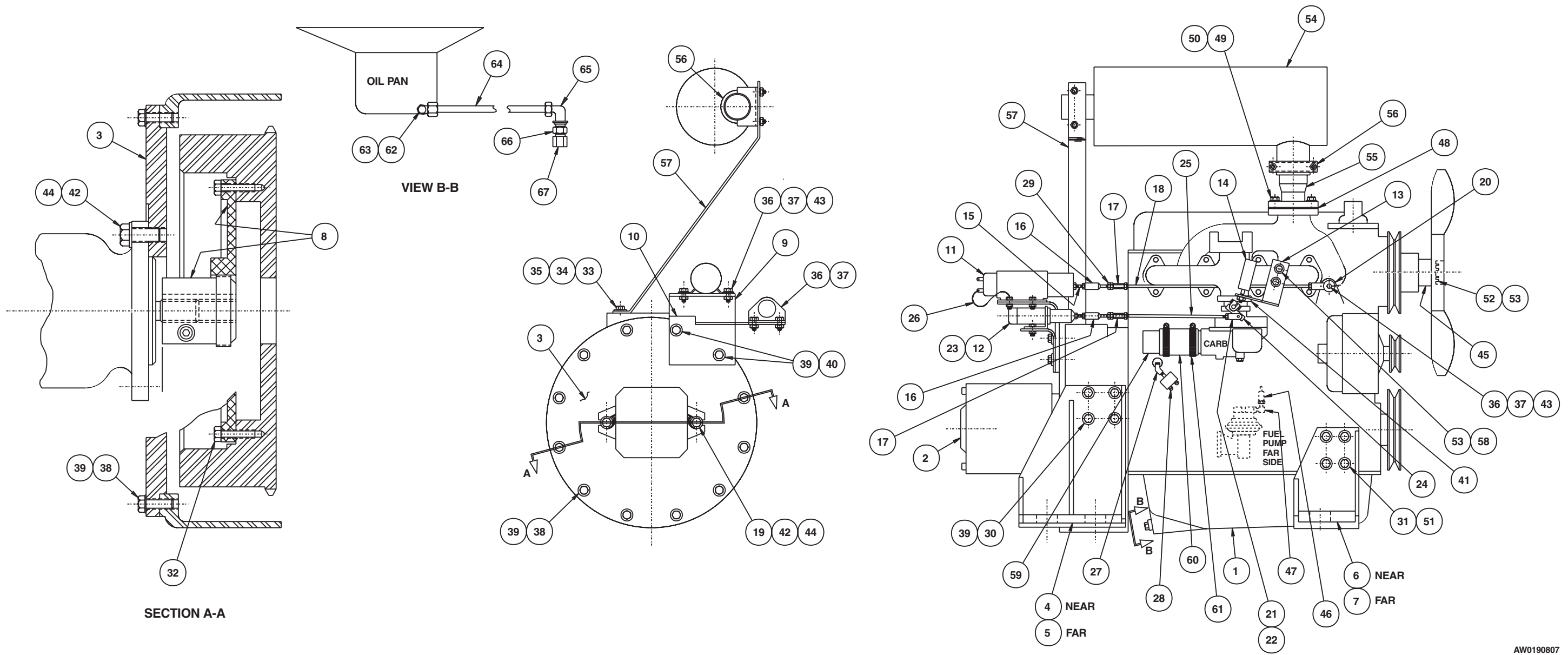
TITLE Engine mounting  
 Continental  
 Snorkel model PRO 100



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AW0190807



TITLE Engine, Continental

1 2 3 4 5 6 7 8 9



## Engine, Continental

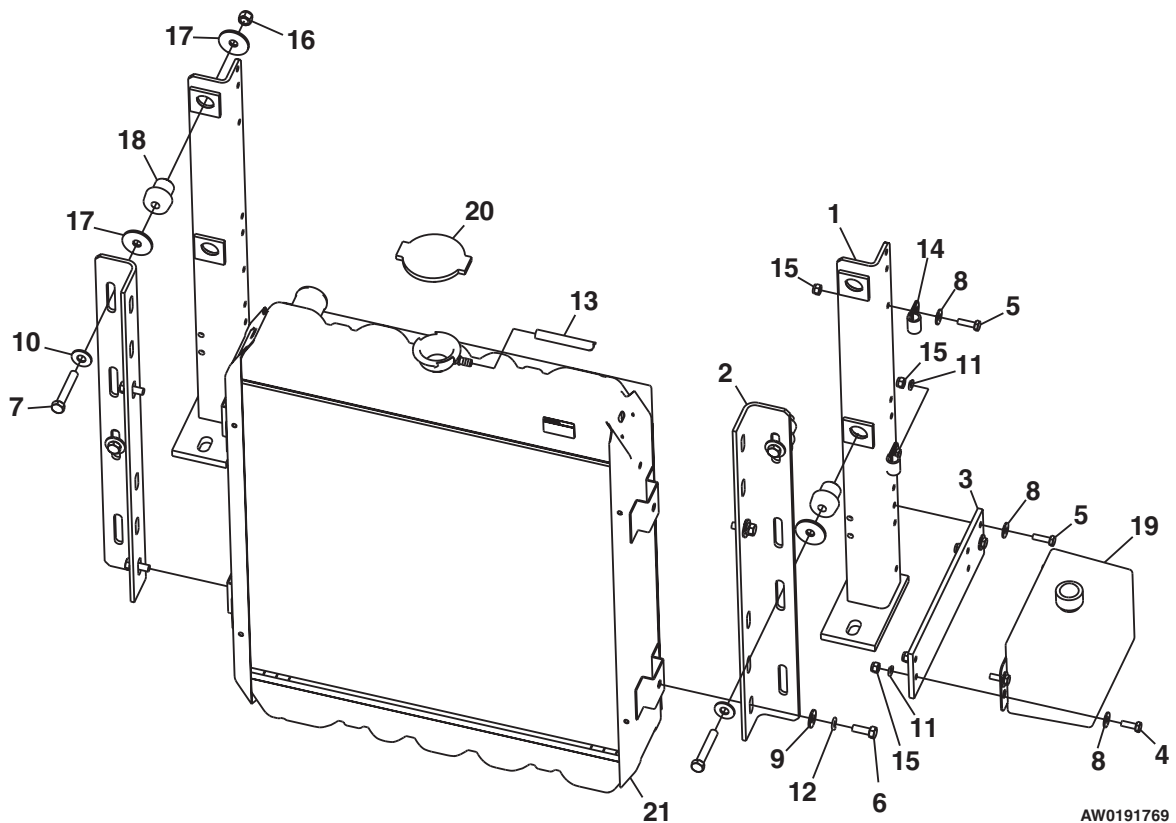
item	part no	qty	description
	0190807	1	Engine, Continental
1	7620025	1	Engine, Continental TM-27
2	0191326	1	Hydraulic pump and fittings - (see page 2-79 for parts breakdown)
3	0081226	1	Engine adapter
4	0180451	1	Motor mount, rear right hand
5	0180452	1	Motor mount, rear left hand
6	0180445	1	Motor mount, front right hand
7	0180446	1	Motor mount, front left hand
8	7630249	1	Flexible coupling
9	0111452	1	Mount angle
10	0111509	1	Mounting bracket
11	3040488	1	Solenoid
12	3040063	1	Solenoid
13	0111454	1	Bracket
14	3040494	1	Solenoid
15	0073638	1	Stud, jump size
16	2650001	2	Swivel, in-line
17	5560094	2	Coupler nut
18	0111484	1	Rod
19	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
20	2690004	1	Rod end
21	2610001	1	Yoke
22	2620001	1	Clevis pin
23	3040466	1	Return spring
24	0111495	1	Throttle arm
25	0151353	1	Control rod
26	0071959	1	Jumper wire
27	5090031	1	Street elbow 45°, 1/8 NPT
28	3020095	1	Switch, oil pressure
29	982129	8	Nut 1/4-28 hex
30	970509	8	Capscrew 3/8-16 x 2 inch long hex head grade 5
31	5560207	8	Capscrew metric M14-2.00 x 30mm long hex head
32	970469	6	Capscrew 3/8-16 x 1 inch long hex head grade 5
33	987109	1	Washer 5/16 medium lock
34	970259	1	Capscrew 5/16-18 x 1 inch long hex head grade 5
35	986269	1	Washer 5/16 medium flat
36	970049	7	Capscrew 1/4-20 x 1 inch long hex head grade 5
37	5560004	7	Nut 1/4-20 self locking
38	970479	10	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
39	987119	20	Washer 3/8 medium lock
40	970499	2	Capscrew 3/8-16 x 1-3/4 inch long hex head grade 5
41	5560697	1	Nut 3/8-24 hex jam
42	5560136	2	Capscrew 1/2-13 self locking drilled head
43	986019	10	Washer 1/4 medium flat
44	5560168	2	Washer 1/2 hard flat ASTM-F436
45	7630260	1	Spacer
46	7630153	1	Fuel filter
47	5090006	1	Street 90° elbow, 1/8 NPT
48	7630256	1	Exhaust gasket
49	5560625	2	Capscrew metric M10-1.5 x 20mm long hex head
50	5560356	2	Washer metric M10 lock
			<b>Parts list continued on next page</b>

## Engine, Continental

item	part no	qty	description
51	5560377	8	Washer metric M14 lock
52	5560634	4	Capscrew metric M8-1.25 x 45mm long hex head
53	5560355	6	Washer metric M8 lock
54	7630255	1	Muffler
55	0180983	1	Exhaust pipe
56	5550014	2	Clamp
57	0180982	1	Brace
58	5560357	2	Capscrew metric M8-1.25 x 25mm long hex head
59	0081365	1	Air intake tube
60	0181162	1	Air intake hose
61	5550030	2	Clamp
62	5065740	1	Straight thread adapter
63	5037005	1	Swivel nut 90° elbow
64	0040297	1	1/2 inch hydraulic hose
65	5034503	1	Bulkhead straight thread 90° elbow
66	984479	1	Nut 3/4-16 hex jam
67	5063704	1	Cap

## Radiator mounting, Cummins 3.3

item	part no	qty	description
	0191769	1	Radiator mounting, Cummins 3.3
1	0074630	2	Radiator bracket
2	0083153	2	Radiator mount angle
3	0191782	1	Overflow bottle mount bracket
4	970029	4	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
5	970039	4	Capscrew 1/4-20 x 7/8 inch long hex head grade 5
6	970249	4	Capscrew 5/16-18 x 7/8 inch long hex head grade 5
7	970519	4	Capscrew 3/8-16 x 2-1/4 inch long hex head grade 5
8	986019	8	Washer 1/4 medium flat
9	986269	4	Washer 5/16 medium flat
10	986299	4	Washer 3/8 medium flat
11	987099	6	Washer 1/4 medium lock
12	987109	4	Washer 5/16 medium lock
13	5010011	1	Fuel hose 5/16 inch diameter x 48 inch long
14	5093001	2	Clamp
15	5560004	8	Nut 1/4-20 self locking
16	5560033	4	Nut 3/8-16 self locking
17	5560179	8	Washer, snubbing
18	7630180	4	Radiator cushion
19	7630227	1	Overflow reservoir
	8060277	1	Replacement reservoir cap
20	7630239	1	Radiator cap - 13 psi
21	7630756	1	Radiator



## Engine mounting, Cummins 4B before 3-30-98

item	part no	qty	description
1	0191183	1	Engine, Cummins 4B - (see page 1-49 for parts breakdown)
2	7630262	1	Radiator hose, lower
3	5550030	2	Clamp
4	7630259	1	Radiator cap - 15 PSI
5	7630247	1	Radiator
6	5560179	8	Washer, snubbing
7	970519	4	Capscrew 3/8-16 x 2-1/4 inch long hex head grade 5
8	5560033	4	Nut 3/8-16 self locking
9	7630180	4	Radiator cushion
10	0180998	1	Angle, radiator mounting
11	0180441	2	Bracket, radiator support
12	7630181	1	Drain cock
13	970239	4	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
14	987109	4	Washer 5/16 medium lock
15	970049	6	Capscrew 1/4-20 x 1 inch long hex head grade 5
16	5560004	8	Nut 1/4-20 self locking
17	986019	4	Washer 1/4 medium flat
18	0180832	1	Mount plate, overflow reservoir
19	970889	4	Capscrew 1/2-13 x 1 inch long hex head grade 5
20	987139	4	Washer 1/2 medium lock
21	7630227	1	Overflow reservoir
	8060277	1	Replacement reservoir cap
22	7630263	1	Radiator hose, upper
23	5550050	2	Clamp
24	5560639	6	Capscrew 5/8-11 x 4-1/2 inch long hex head grade 5
25	0071599	12	Engine mount washer
26	5560169	6	Washer 5/8 hard flat ASTM-F436
27	5560036	6	Nut 5/8-11 self locking
28	7630117	6	Engine mount
29	5033604	1	Male adapter
30	5010005	1	Hose 3/8 inch diameter x 96 inch long
31	5090030	1	Vacuum fitting
32	7720201	1	Reducer bushing
33	5560168	4	Washer 1/2 hard flat ASTM-F436
34	986269	4	Washer 5/16 medium flat
35	986299	4	Washer 3/8 medium flat
36	0071722	1	3/16 inch hydraulic hose
37	5550028	3	Clamp
38	5010012	1	Radiator overflow hose 5/16 inch diameter x 36 inch long
39	0181154	1	Shield
40	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
41	0180997	1	Angle, radiator mounting

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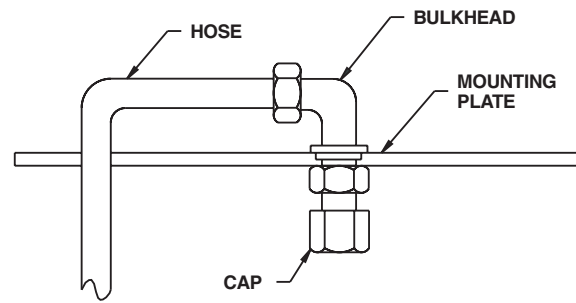
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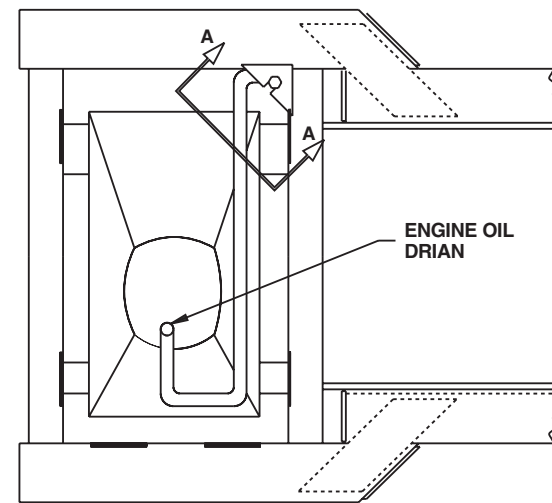
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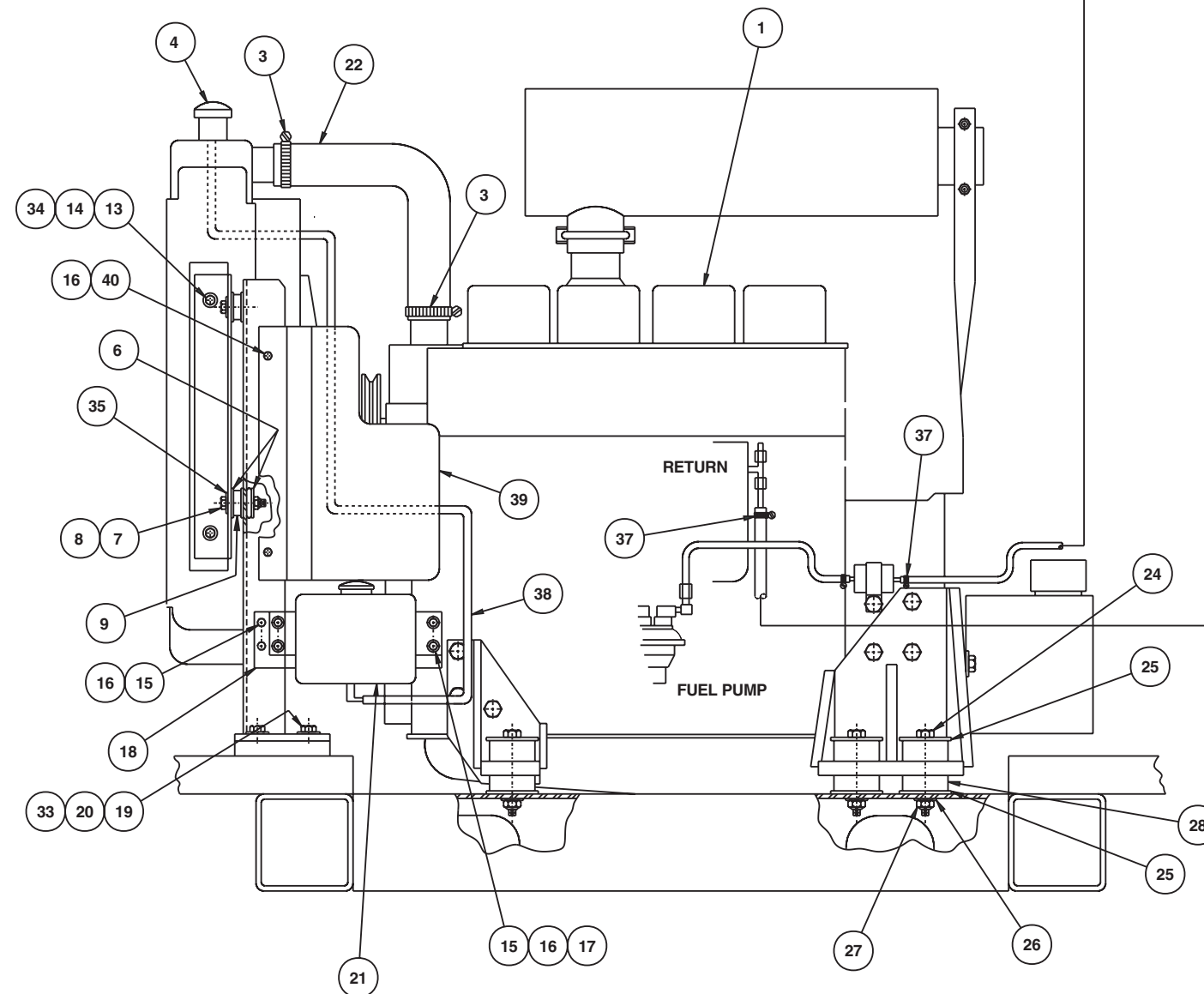
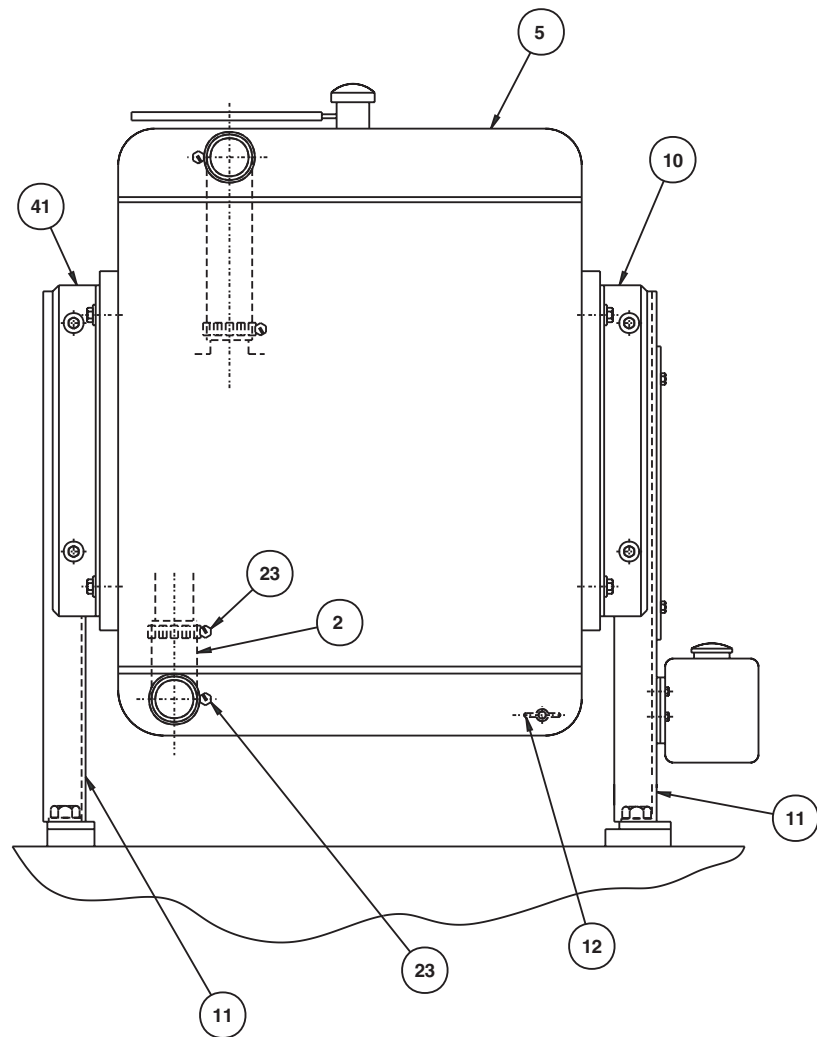
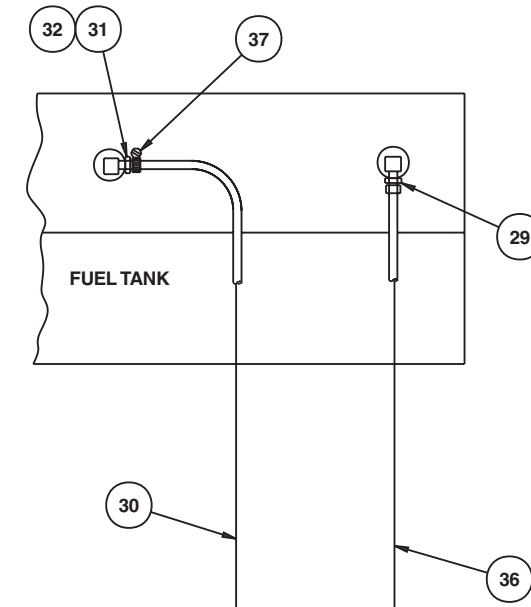
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VIEW A-A



BOTTOM VIEW



AW0191182

TITLE Engine mounting  
Cummins before 3-30-98  
Snorkel model PRO 100



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DWG. 0191182

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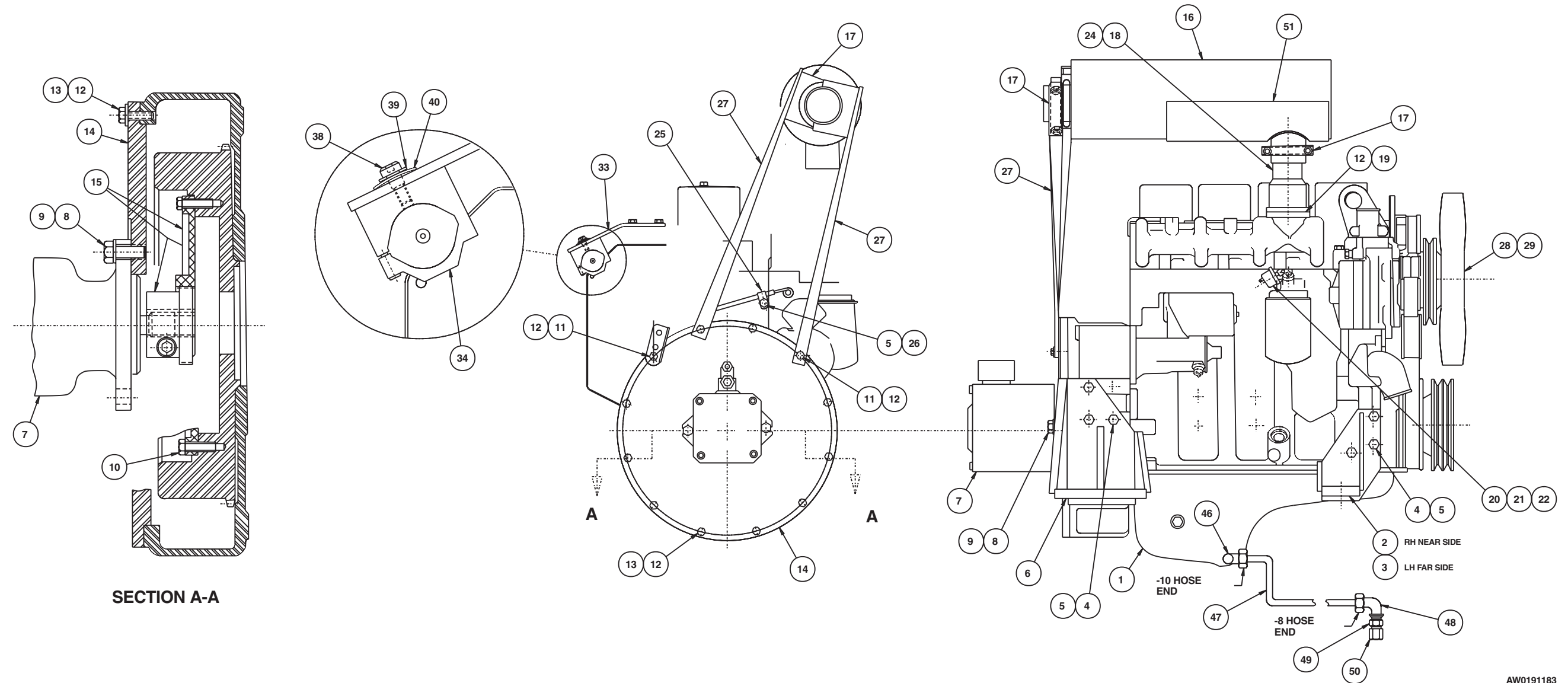
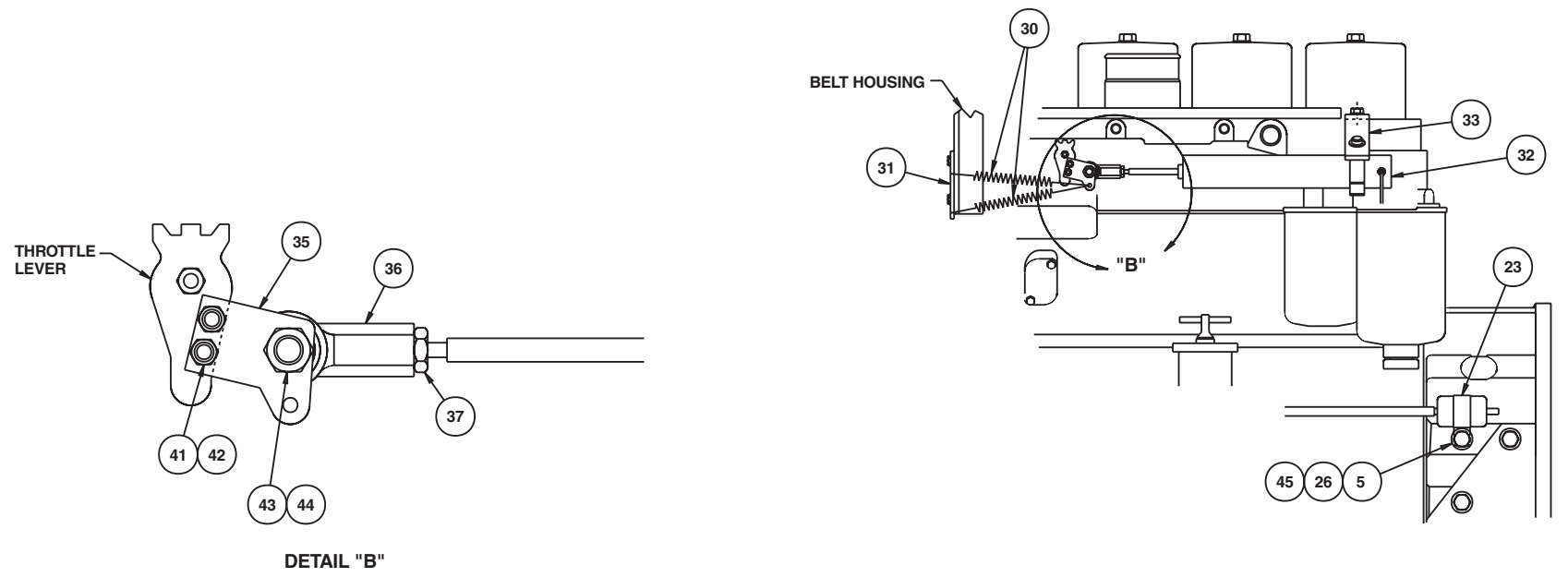
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AW0191183

## Engine, Cummins 4B before 3-30-98

item	part no	qty	description
	0181183	1	Engine, Cummins 4B before 3-30-98
1	7620026	1	Engine, Cummins 4B
2	0180458	1	Engine mount, front right hand
3	0180459	1	Engine mount, front left hand
4	5560694	12	Capscrew metric M12-1.75 x 35mm long hex head
5	5560614	14	Washer metric M12 lock
6	0180467	2	Engine mount, rear
7	0191326	1	Hydraulic pump and fittings - (see page 2-79 for parts breakdown)
8	5560136	2	Capscrew 1/2-13 self locking drilled head
9	5560168	2	Washer 1/2 hard flat ASTM-F436
10	970479	6	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
11	972049	3	Capscrew metric M10-1.5 x 40mm long hex head
12	5560356	13	Washer metric M10 lock
13	5560617	9	Capscrew metric M10-1.5 x 35mm long hex head
14	0080691	1	Plate, engine adapter
15	7630248	1	Flexible coupling
16	7630334	1	Muffler, standard
17	5550026	3	Clamp
18	0181287	1	Exhaust flange
19	971999	4	Capscrew M10-1.5 x 25mm long hex head
20	5090006	1	Street 90° elbow, 1/8 NPT
21	5090031	1	Street elbow 45°, 1/8 NPT
22	3020095	1	Switch, oil pressure
23	5093012	1	Clamp
24	7630264	1	Gasket
25	5093002	1	Clamp
26	5560631	2	Capscrew metric M12-1.75 x 20mm long hex head
27	0190694	2	Muffler support bracket
28	5560634	4	Capscrew metric M8-1.25 x 45mm long hex head
29	5560355	4	Washer metric M8 lock
30	0080825	2	Spring - (included with actuator)
31	0181684	1	Spring retaining bracket
32	20082045	1	Throttle actuator
33	0191205	1	Bracket
34	7630323	1	Mounting block
35	0191204	1	Throttle plate
36	2690006	1	Rod end
37	5560697	1	Nut 3/8-24 hex jam
38	8060077	1	Shoulder bolt 3/8-16 x 3/8 inch long
39	986299	1	Washer 3/8 medium flat
40	5530017	1	Washer 3/8 curved spring
41	5560716	2	Machine screw #10-24 x 3/8 inch long truss head
42	5560034	2	Nut #10-24 self locking
43	970499	1	Capscrew 3/8-16 x 1-3/4 inch long hex head grade 5
44	5560033	1	Nut 3/8-16 self locking
45	5560699	1	Washer metric M12 flat
46	5035326	1	Straight thread 90° elbow
47	0040440	1	1/2 inch hydraulic hose
48	5034503	1	Bulkhead straight thread 90° elbow
49	984479	1	Nut 3/4-16 hex jam
50	5063704	1	Cap
51	0191269	1	Muffler support

## Engine mounting, Cummins 4B after 3-30-98

item	part no	qty	description
1	0191629	1	Engine, Cummins 4B - (see page 1-53 for parts breakdown)
2	7630262	1	Radiator hose, lower
3	5550030	2	Clamp
4	7630239	1	Radiator cap - 13 psi
5	7630247	1	Radiator
6	5560179	8	Washer, snubbing
7	970519	4	Capscrew 3/8-16 x 2-1/4 inch long hex head grade 5
8	5560033	4	Nut 3/8-16 self locking
9	7630180	4	Radiator cushion
10	0180998	1	Angle, radiator mounting
11	0180441	2	Bracket, radiator support
12	7630181	1	Drain cock
13	970239	4	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
14	987109	4	Washer 5/16 medium lock
15	970049	6	Capscrew 1/4-20 x 1 inch long hex head grade 5
16	5560004	8	Nut 1/4-20 self locking
17	986019	4	Washer 1/4 medium flat
18	0180832	1	Mount plate, overflow reservoir
19	970889	4	Capscrew 1/2-13 x 1 inch long hex head grade 5
20	987139	4	Washer 1/2 medium lock
21	7630227	1	Overflow reservoir
	8060277	1	Replacement reservoir cap
22	7630263	1	Radiator hose, upper
23	5550050	2	Clamp
24	5560639	6	Capscrew 5/8-11 x 4-1/2 inch long hex head grade 5
25	0071599	12	Engine mount washer
26	5560169	6	Washer 5/8 hard flat ASTM-F436
27	5560036	6	Nut 5/8-11 self locking
28	7630117	6	Engine mount
29	5090032	1	Fitting, straight barbed
30	5010005	1	Hose 3/8 inch diameter x 96 inch long
31	5090030	1	Vacuum fitting
32	7720201	1	Reducer bushing
33	5560168	4	Washer 1/2 hard flat ASTM-F436
34	986269	4	Washer 5/16 medium flat
35	986299	4	Washer 3/8 medium flat
36	5010011	1	Fuel hose 5/16 inch diameter x 108 inch long
37	5550028	4	Clamp
38	5010012	1	Radiator overflow hose 5/16 inch diameter x 108 inch long
39	0181154	1	Fan shield - (before 7-24-00)
	0191894	1	Fan shield - (after 7-24-00)
40	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
41	0180997	1	Angle, radiator mounting



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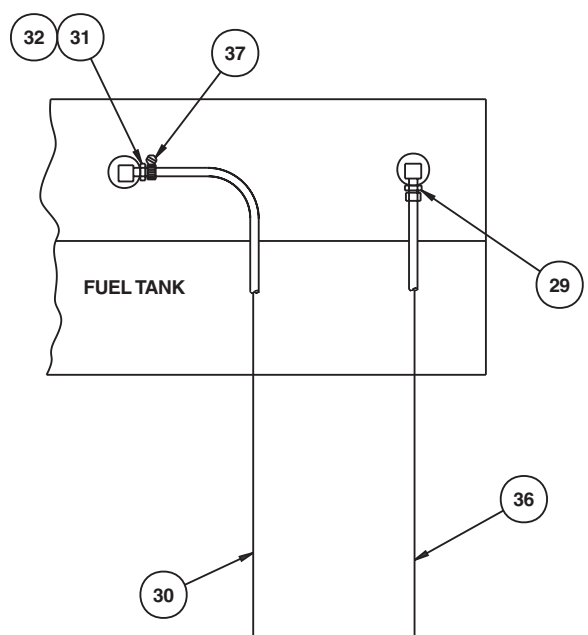
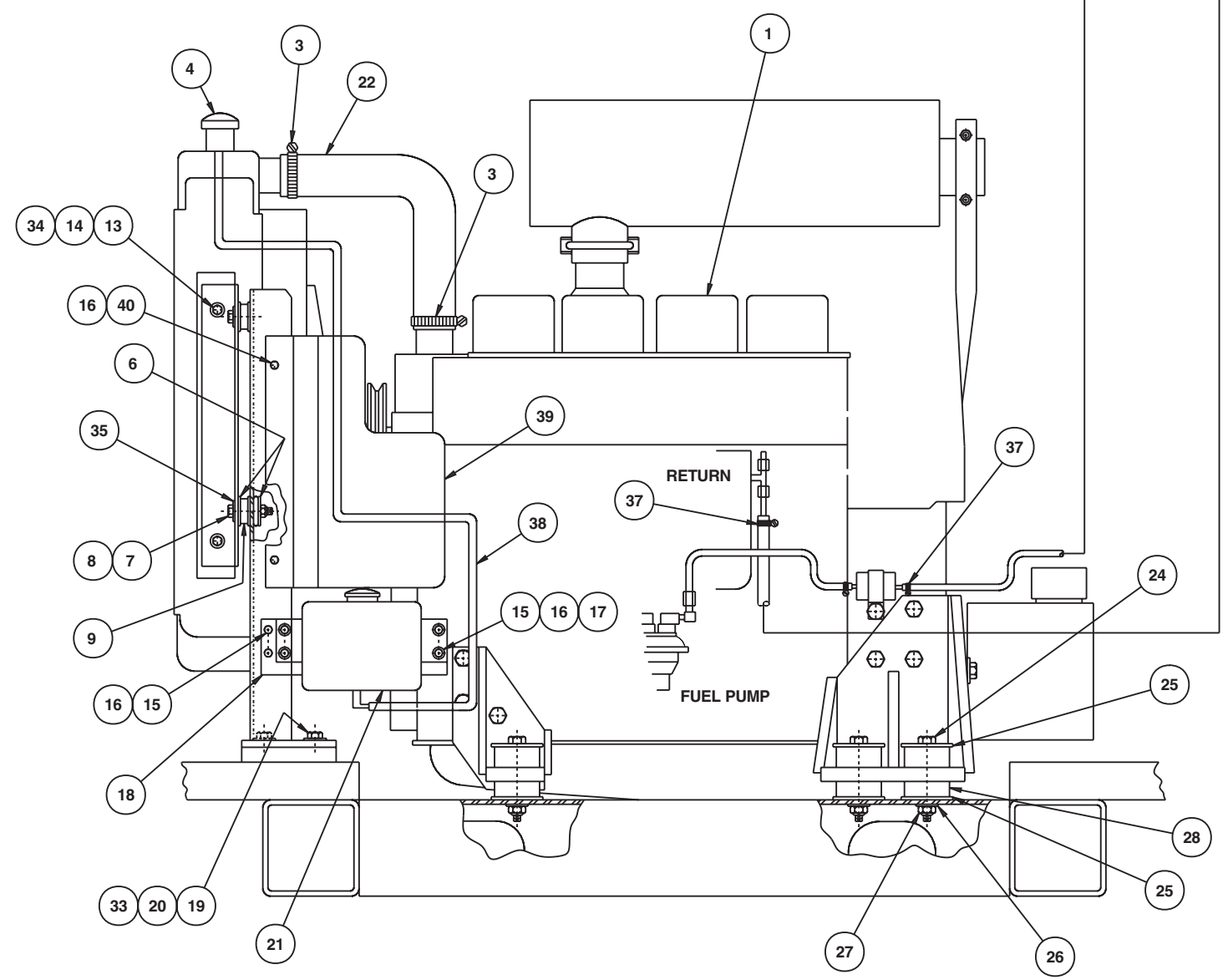
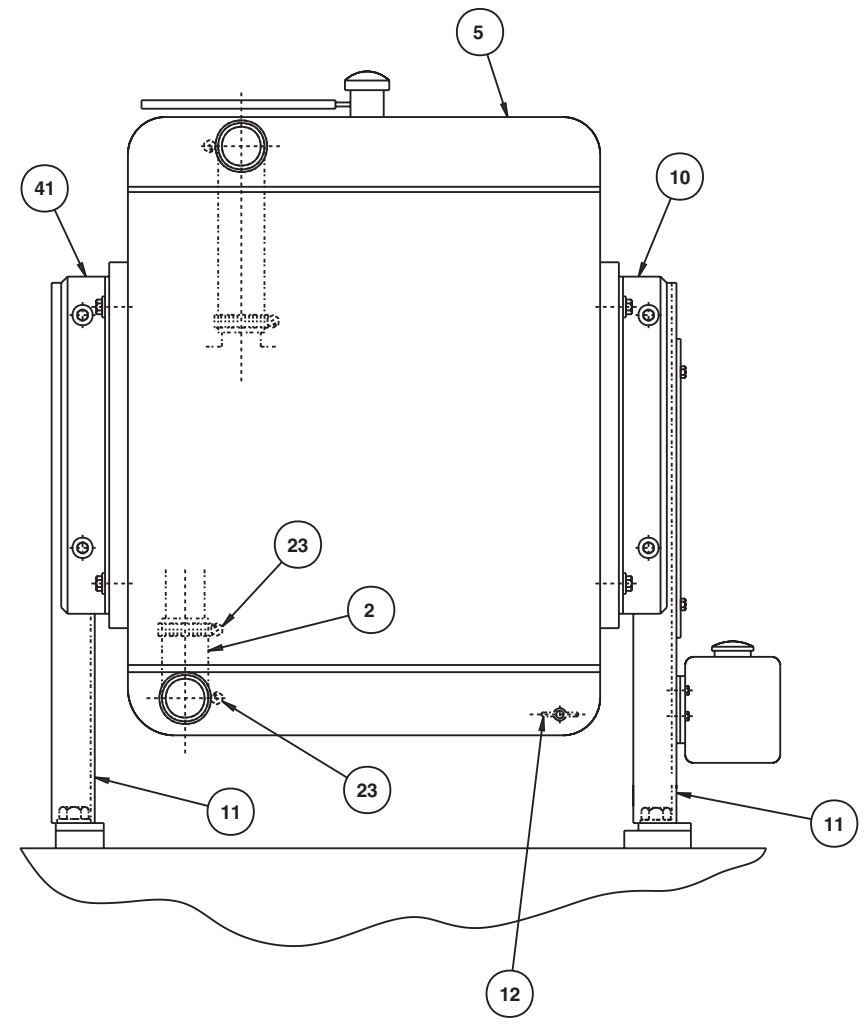
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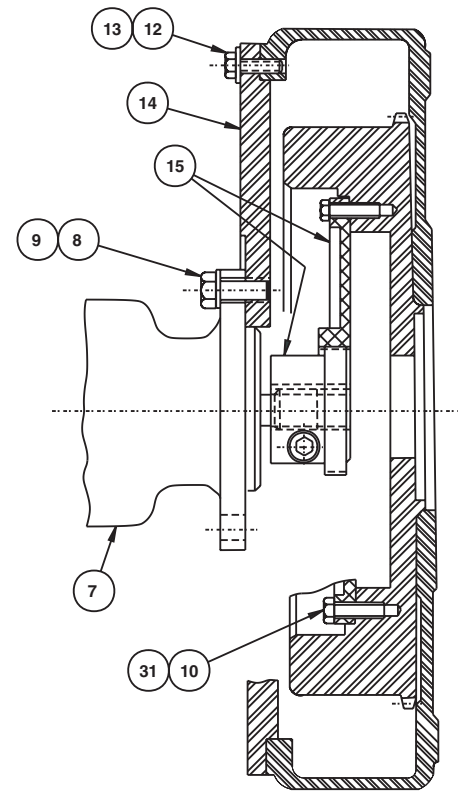
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TITLE Engine mounting  
 Cummins after 3-30-98  
 Snorkel model PRO 100

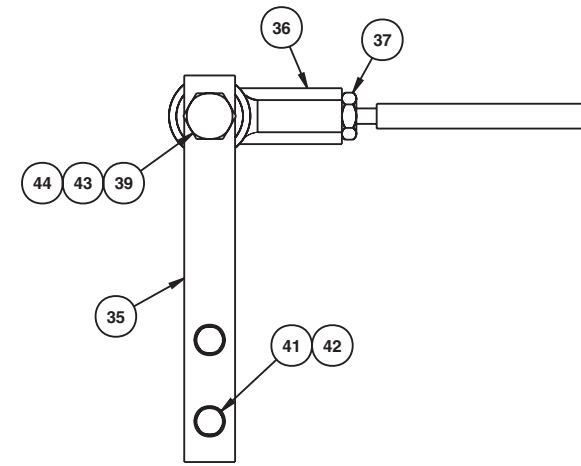
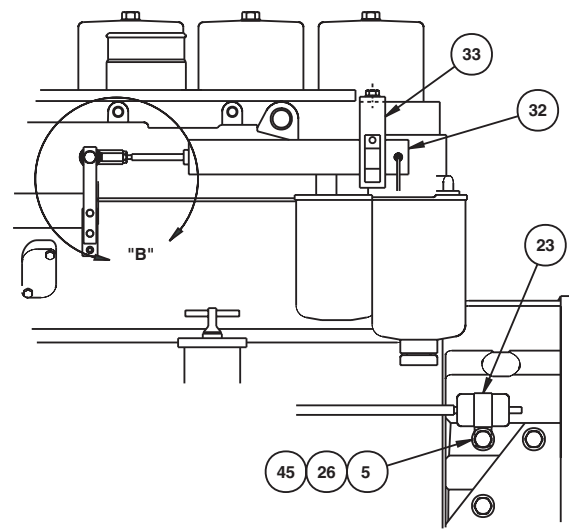


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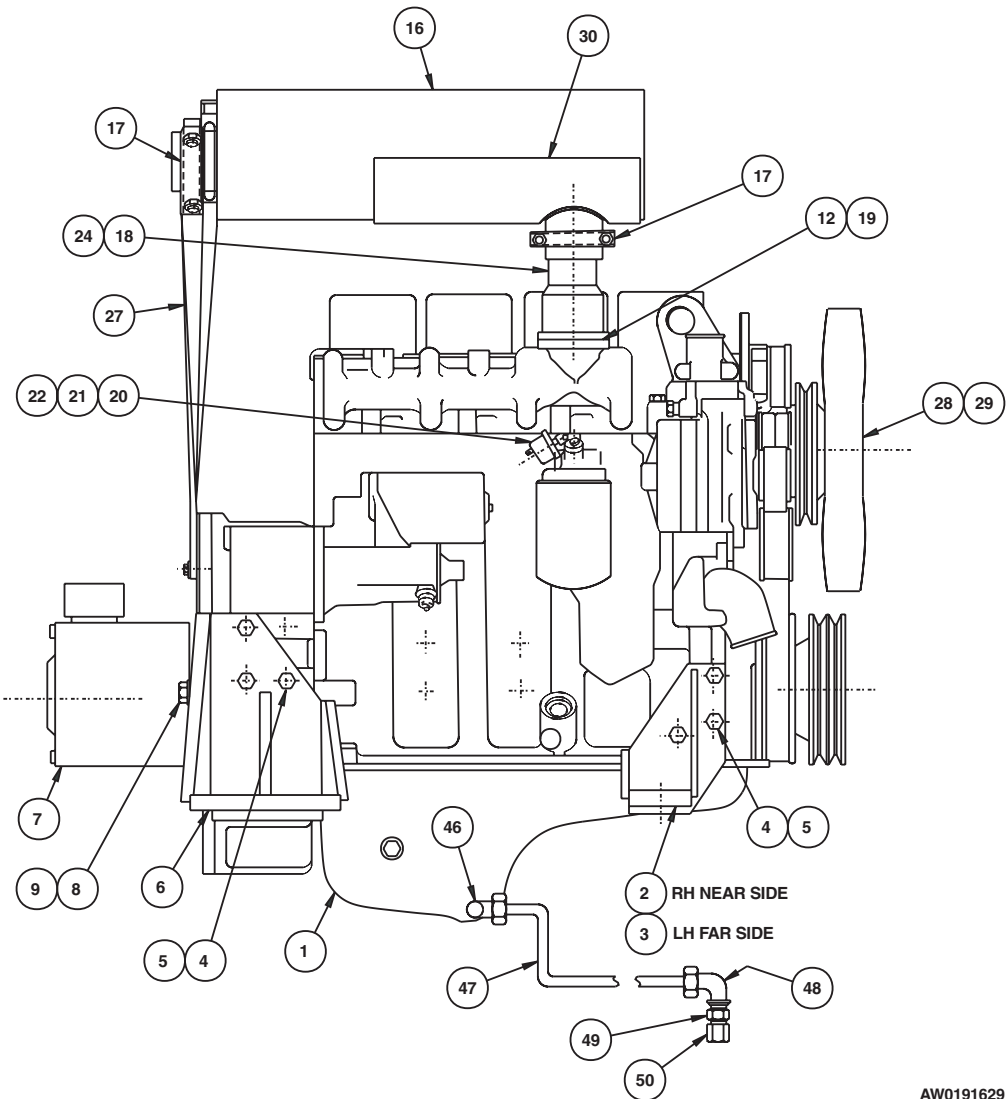
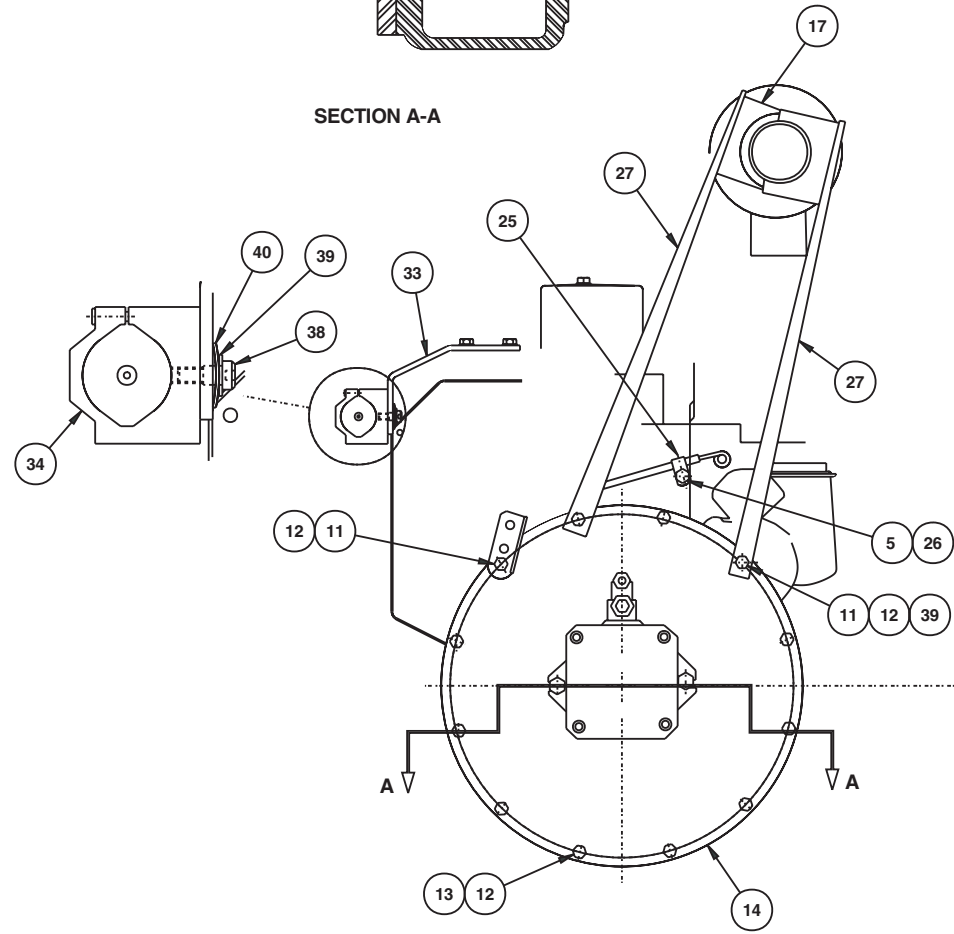
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SECTION A-A



DETAIL "B"



TITLE Engine  
Cummins after 3-30-98  
Snorkel model PRO 100

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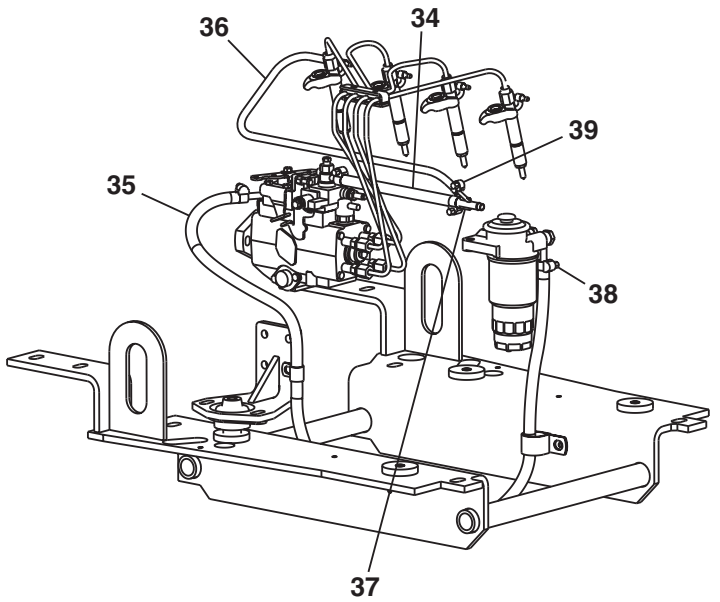
## Engine, Cummins 4B after 3-30-98

item	part no	qty	description
	0191629	1	Engine, Cummins after 3-30-98
1	7620026	1	Engine, Cummins 4B
2	0180458	1	Engine mount, front right hand
3	0180459	1	Engine mount, front left hand
4	5560694	12	Capscrew metric M12-1.75 x 35mm long hex head
5	5560614	14	Washer metric M12 lock
6	0180467	2	Engine mount, rear
7	0191326	1	Hydraulic pump and fittings - (see page 2-79 for parts breakdown)
8	5560136	2	Capscrew 1/2-13 self locking drilled head
9	5560168	2	Washer 1/2 hard flat ASTM-F436
10	970479	6	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
11	972049	3	Capscrew metric M10-1.5 x 40mm long hex head
12	5560356	13	Washer metric M10 lock
13	5560617	9	Capscrew metric M10-1.5 x 35mm long hex head
14	0080691	1	Plate, engine adapter
15	7630248	1	Flexible coupling
16	7630334	1	Muffler, standard
17	5550026	3	Clamp
18	0181297	1	Exhaust flange
19	971999	4	Capscrew metric M10-1.5 x 25mm long hex head
20	5090006	1	Street 90° elbow, 1/8 NPT
21	5090031	1	Street elbow 45°, 1/8 NPT
22	3020095	1	Switch, oil pressure
23	5093012	1	Clamp
24	7630264	1	Gasket
25	5093002	1	Clamp
26	5560631	2	Capscrew metric M12-1.75 x 20mm long hex head
27	0190694	2	Muffler support bracket
28	5560634	4	Capscrew metric M8-1.25 x 45mm long hex head
29	5560355	4	Washer metric M8 lock
30	0191269	1	Muffler support
31	987119	6	Washer 3/8 medium lock
32	20082045	1	Throttle actuator
33	0191635	1	Bracket
34	7630323	1	Mounting block
35	0191636	1	Throttle lever
36	2690006	1	Rod end
37	5560697	1	Nut 3/8-24 hex jam
38	8060077	1	Shoulder bolt 3/8-16 x 3/8 inch long
39	986299	6	Washer 3/8 medium flat
40	5530017	1	Washer 3/8 curved spring
41	974639	2	Machine screw #10-24 x 3/8 inch long round head
42	5560034	2	Nut #10-24 self locking
43	970489	1	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
44	5560033	1	Nut 3/8-16 self locking
45	5560699	1	Washer metric M12 flat
46	5035326	1	Straight thread 90° elbow
47	0040440	1	1/2 inch hydraulic hose
48	5034503	1	Bulkhead straight thread 90° elbow
49	984479	1	Nut 3/4-16 hex jam
50	5063704	1	Cap

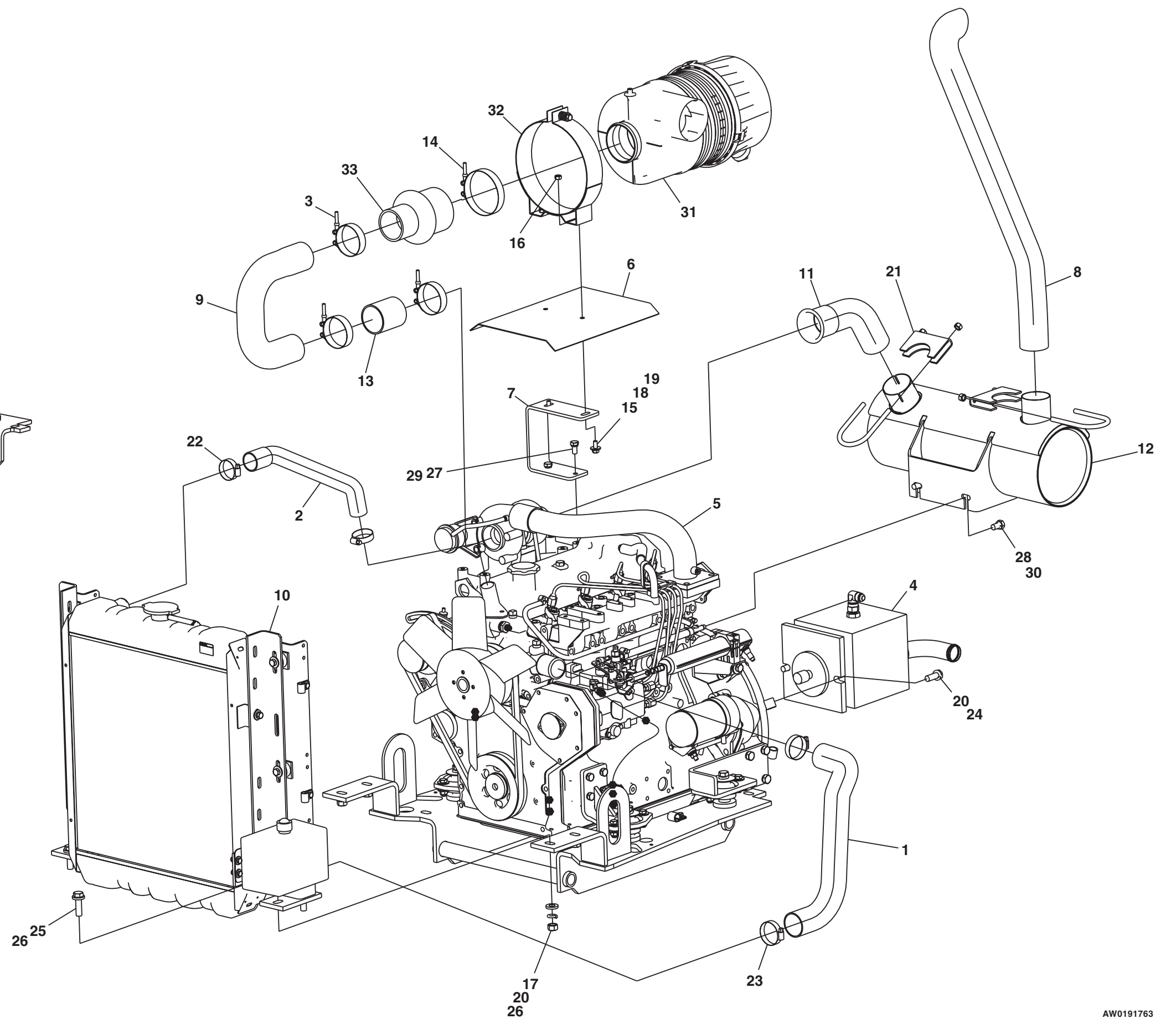
## Engine mounting, Cummins 3.3

item	part no	qty	description
1	0074684	1	Lower radiator hose
2	0074685	1	Upper radiator hose
3	0083165	3	Clamp, T-bolt
4	0191326	1	Hydraulic pump and fittings - (see page 2-79 for parts breakdown)
5	0191762	1	Engine, Cummins 3.3 - (see page 1-57 for parts breakdown)
6	0191765	1	Heat shield
7	0191766	1	Mount, air cleaner
8	0191767	1	Tail pipe
9	0191768	1	Air cleaner elbow
10	0191769	1	Radiator mounting, Cummins 3.3 - (see page 1-45 for parts breakdown)
11	0191771	1	Exhaust pipe
12	0191772	1	Muffler
13	0191835	1	Air intake hose
14	0191883	1	Clamp, T-bolt
15	970239	2	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
16	984089	2	Nut 5/16-18 hex
17	984149	4	Nut 1/2-13 hex
18	986269	2	Washer 5/16 medium flat
19	987109	2	Washer 5/16 medium lock
20	987139	6	Washer 1/2 medium lock
21	5550026	2	Clamp
22	5550038	2	Clamp
23	5550040	2	Clamp
24	5560136	2	Capscrew 1/2-13 self locking drilled head
25	5560154	4	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 8
26	5560168	8	Washer 1/2 hard flat ASTM-F436
27	5560356	2	Washer metric M10 lock
28	5560614	2	Washer metric M12 lock
29	5560625	2	Capscrew metric M10-1.5 x 20mm long hex head
30	5560631	2	Capscrew metric M12-1.75 x 20mm long hex head
31	7630757	1	Air cleaner
32	7630760	1	Mounting bracket, air cleaner
33	7630761	1	Air cleaner reducer hose
34	5010005	1	Hose 3/8 inch diameter x 9 inch long
35	5010005	1	Hose 3/8 inch diameter x 60 inch long
36	5010027	1	Fuel hose 3/16 inch diameter x 24 inch long
37	5093044	1	Nylon tee
38	5550006	4	Clamp
39	5550028	2	Clamp

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DETAIL: FUEL LINE ROUTING



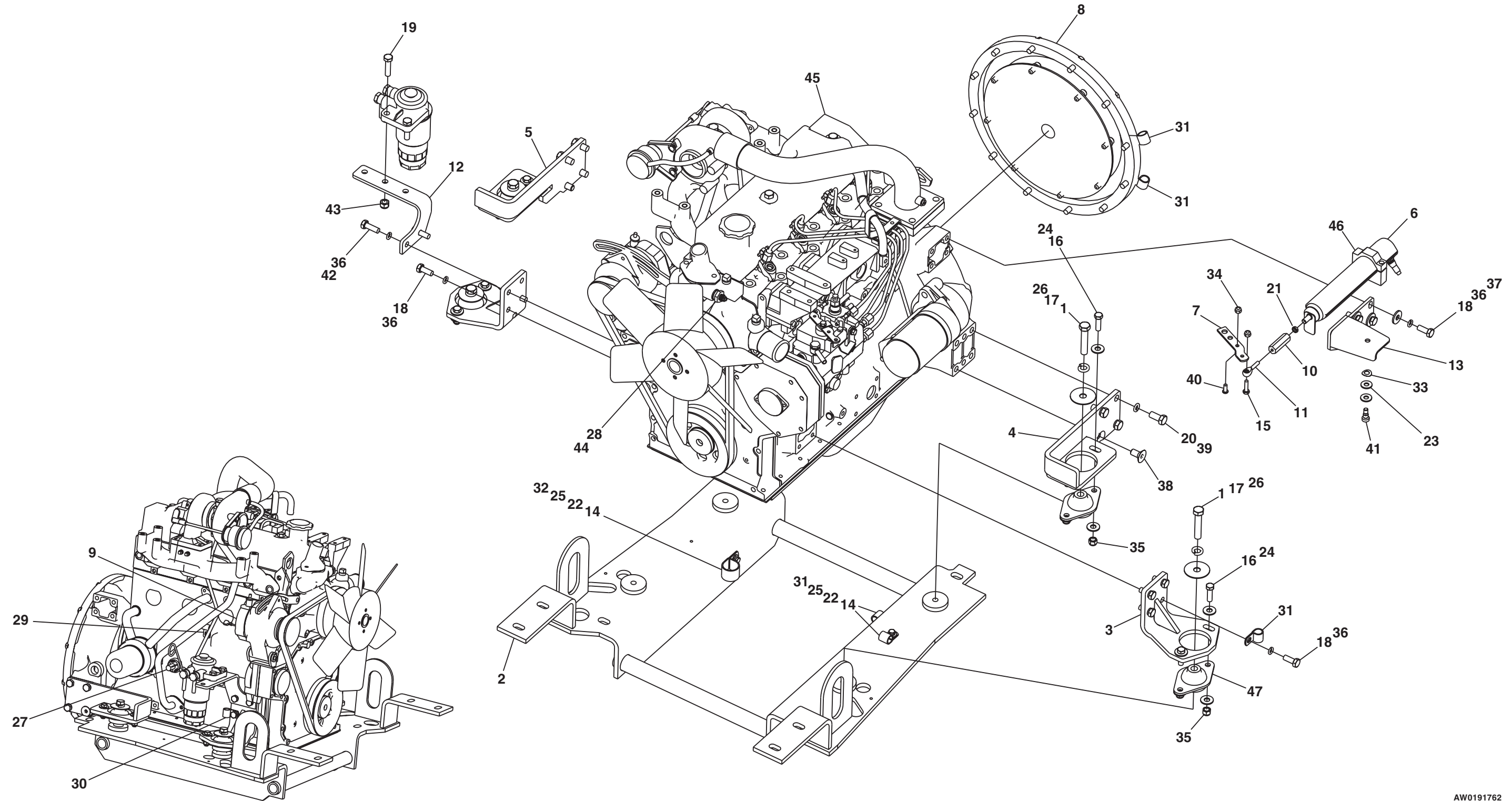
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TITLE Engine mounting  
Cummins 3.3  
Snorkel model PRO 100



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## Engine, Cummins 3.3

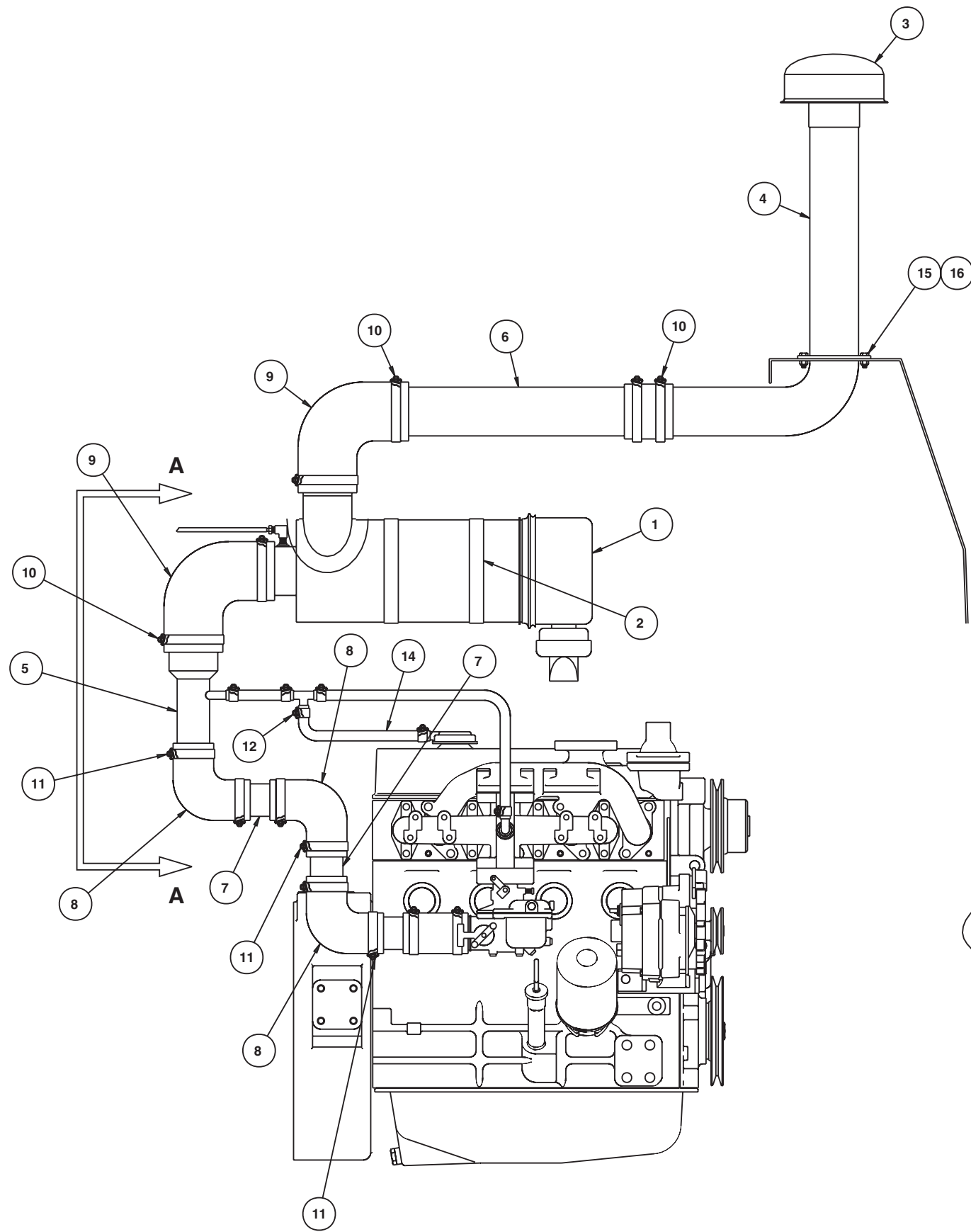
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	0191762	1	Engine, Cummins 3.3 complete
1	0070148	4	Engine mount washer
2	0074615	1	Engine tray
3	0074622	2	Front engine mount bracket
4	0074625	1	Rear engine mount bracket, left hand
5	0074628	1	Rear engine mount bracket, right hand
6	20082045	1	Throttle actuator
7	0083155	1	Throttle lever extension
8	0083437	1	Flywheel coupling
9	0083512	1	Jumper wire
10	0083586	1	Throttle actuator coupler
11	0083587	1	Rod end
12	0191823	1	Mounting bracket, fuel filter
13	0191876	1	Throttle actuator bracket
14	970029	3	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
15	970049	1	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	970949	4	Capscrew 1/2-13 x 2-1/2 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	972059	6	Capscrew metric M12-1.7 x 25mm long hex head
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	3070038	1	Temperature sensor
29	5093000	1	Clamp
30	5093002	1	Clamp
31	5093021	5	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	5560719	2	Nut metric M10-1.50 self locking
44	5569838	1	Washer metric M16 flat copper
45	7620063	1	Engine, Cummins 3.3
46	7630323	1	Mounting block
47	7630707	4	Engine isolator

## Exhaust and air cleaner, Continental

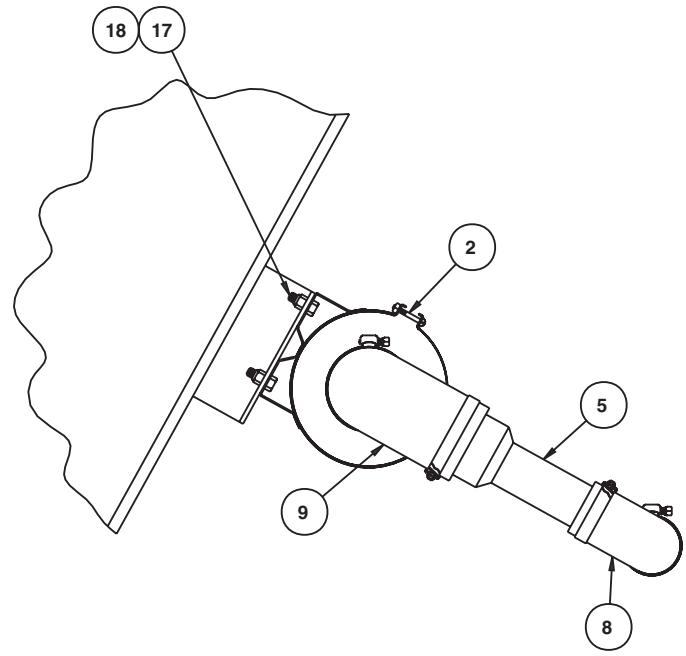
item	part no	qty	description
1	7630003	1	Air cleaner - (see page 1-62 for parts breakdown)
2	7630005	2	Air cleaner mounting band
3	7630004	1	Air inlet hood
4	0190690	1	Air intake tube
5	0181027	1	Air intake tube
6	0080368	1	Air intake tube
7	0081365	2	Air intake tube
8	7630197	3	Elbow, 2 inch 90° rubber
9	7630016	2	Elbow, 3 inch 90° rubber
10	5550050	6	Clamp
11	5550040	6	Clamp
12	5550006	6	Clamp
13	0191043	1	Tail pipe
14	5010002	1	Hose x 24 inch long
15	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
16	5560004	2	Nut 1/4-20 self locking
17	970469	4	Capscrew 3/8-16 x 1 inch long hex head grade 5
18	5560033	4	Nut 3/8-16 self locking



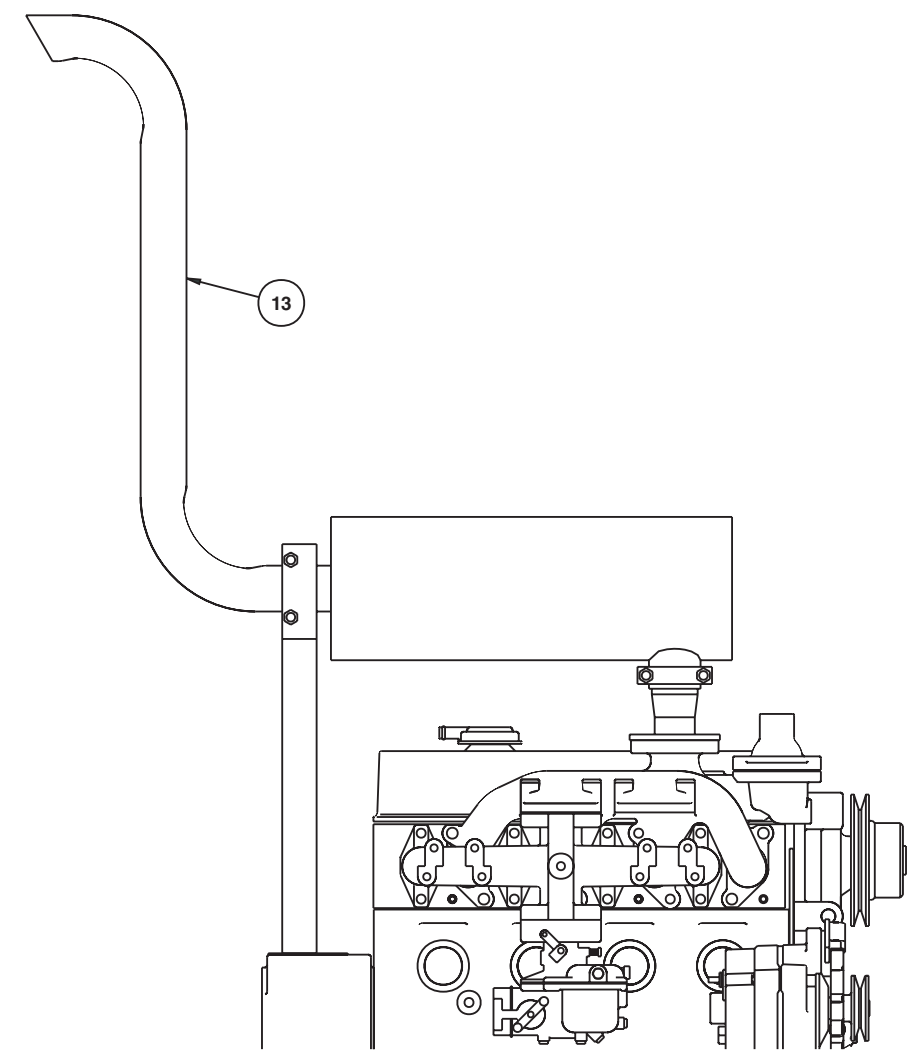
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**AIR CLEANER INSTALLATION**



**VIEW A-A  
(TRUE ROTATION)**



**EXHAUST INSTALLATION**

AW0191038

DWG. 0191038

TITLE Exhaust and air cleaner  
Continental  
Snorkel model PRO 100

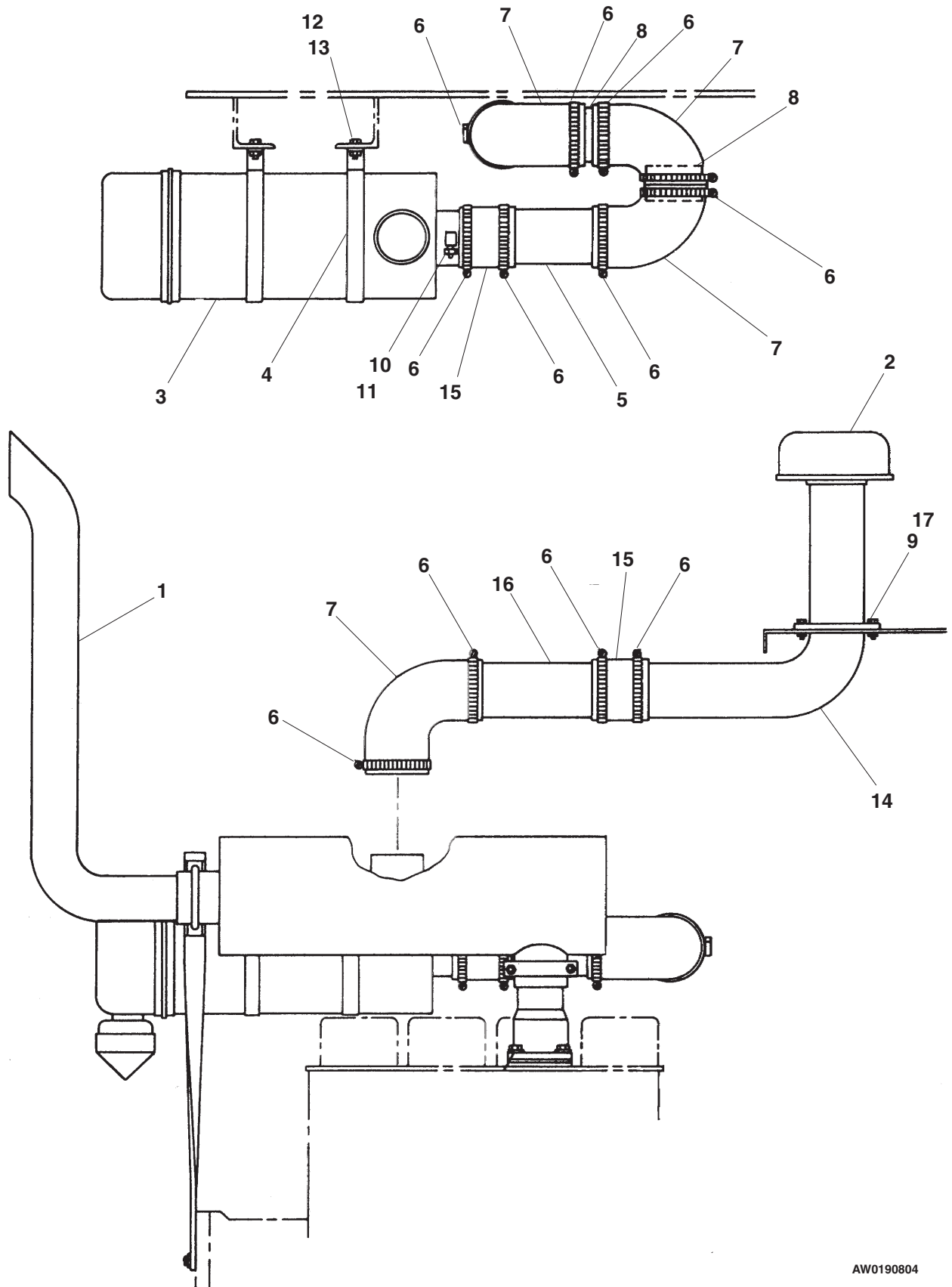


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## Exhaust and air cleaner, Cummins 4B

item	part no	qty	description
1	0190692	1	Tail pipe
2	7630004	1	Air inlet hood
3	7630003	1	Air cleaner - (see page 1-62 for parts breakdown)
4	7630005	2	Air cleaner mounting band
5	0081052	1	Air intake tube
6	5550050	12	Clamp
7	7630016	4	Elbow, 3 inch 90° rubber
8	0190805	2	Air inlet tube
9	5560004	2	Nut 1/4-20 self locking
10	5090027	1	Street 90° elbow 1/8 NPT brass
11	5090024	1	Vacuum fitting 1/8 NPT brass straight
12	5560033	4	Nut 3/8-16 self locking
13	970469	4	Capscrew 3/8-16 x 1 inch long hex head grade 5
14	0190690	1	Air intake tube
15	0081053	2	Air intake hose
16	0190689	1	Air inlet tube
17	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5

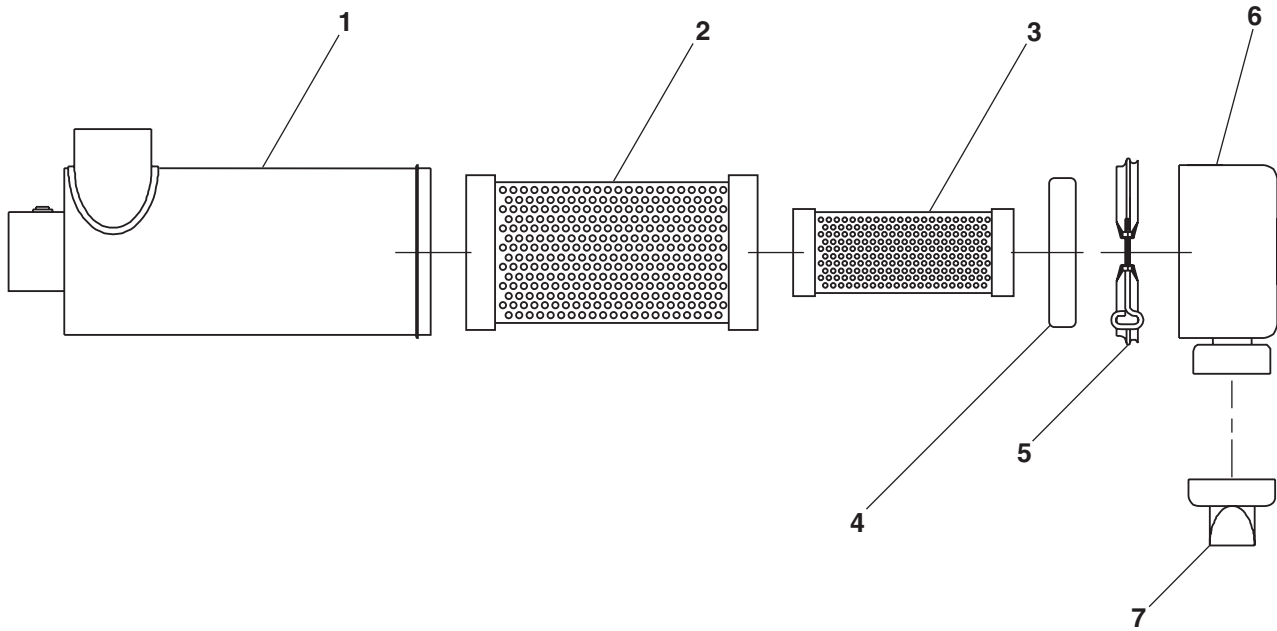
# Exhaust and air cleaner, Cummins 4B



AW0190804

# Air cleaner

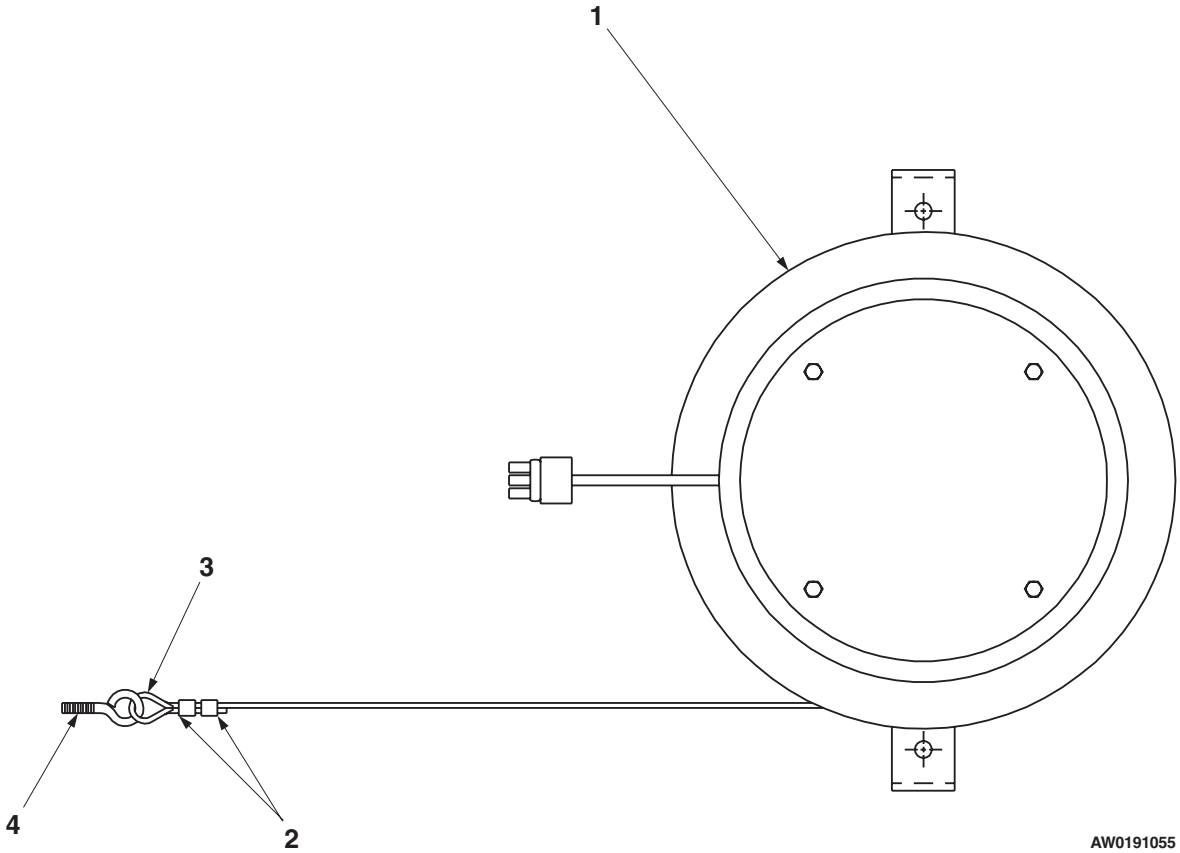
item	part no	qty	description
	7630003	1	Air cleaner
1		1	Housing - (not sold separately)
2	8040106	1	Primary filter element
3	8040107	1	Secondary filter element
4	8040112	1	Cleaner cap baffle
5	8040114	1	Clamp
6	8040111	1	Dust cap
7	8040115	1	Vacuator valve



AW7630003

# Boom length sensor

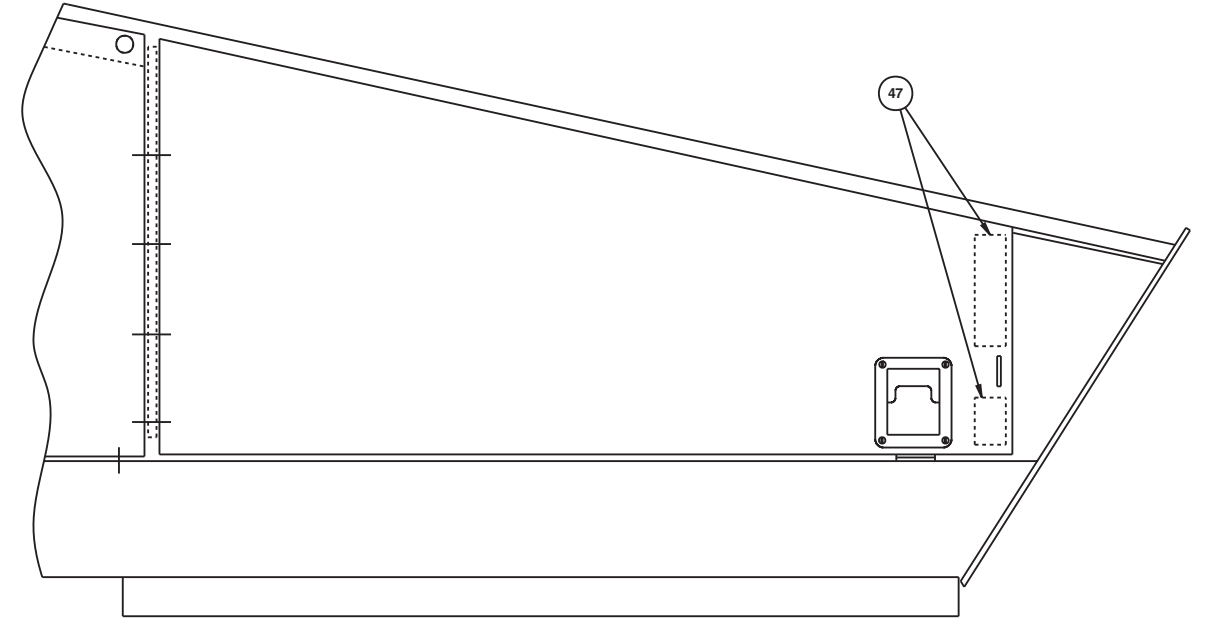
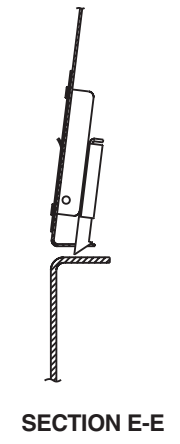
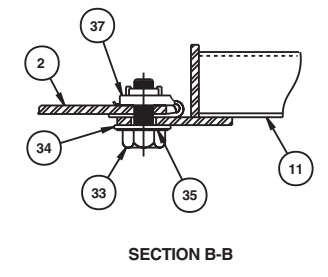
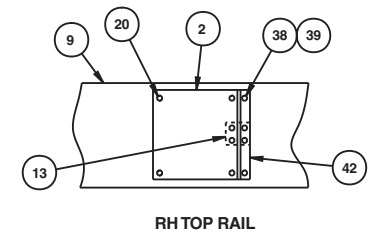
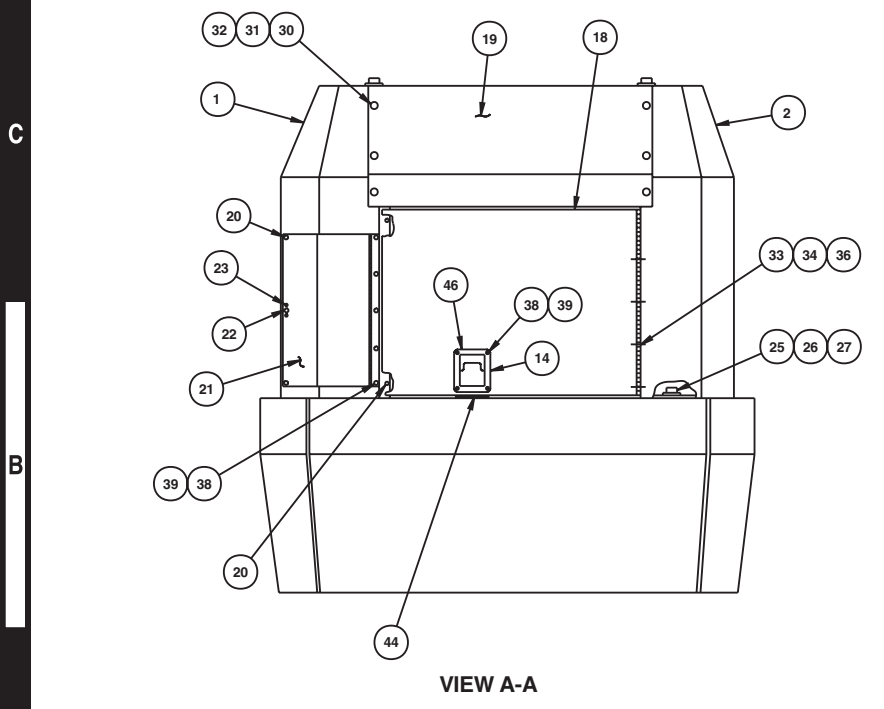
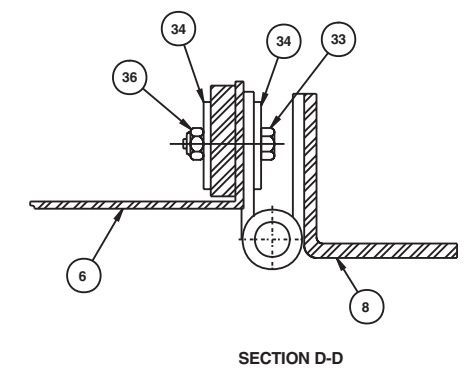
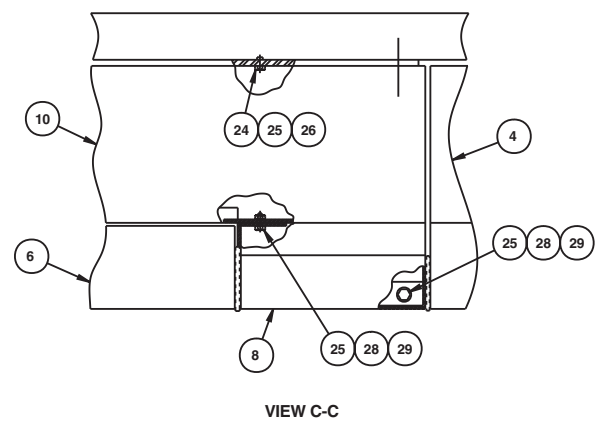
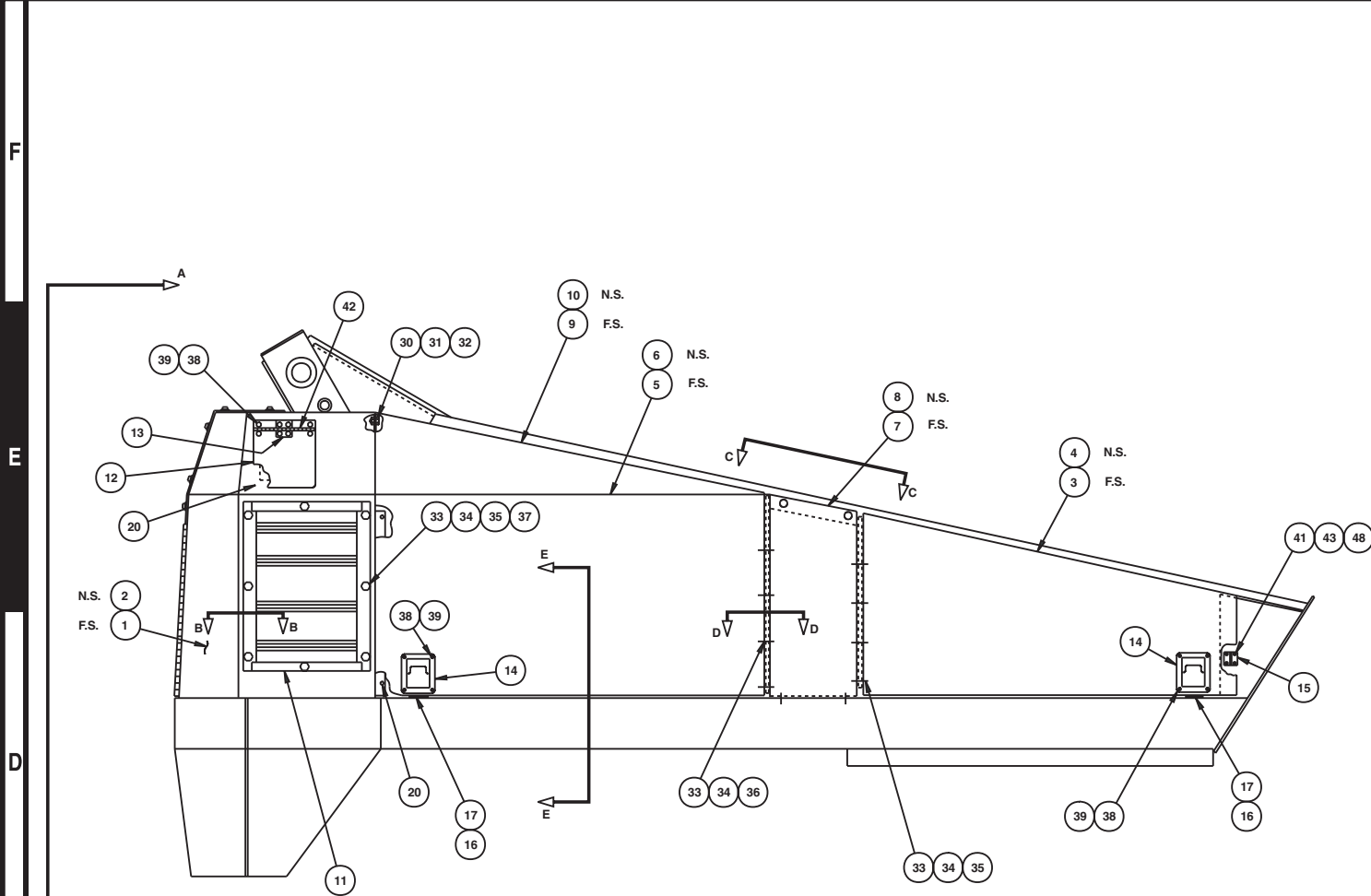
item	part no	qty	description
	0191055	1	Boom length sensor
	5520109	1	Replacement cable, 34 feet long
1	3030076	1	Boom length sensor
2	0241160	2	Wire rope crimp sleeve
3	964989	1	Cable thimble
4	5560251	1	Eye bolt 1/4-20



AW0191055

## Metal cowling

item	part no	qty	description
1	0190547	1	Cowling, front right hand
2	0190548	1	Cowling, front left hand
3	0190523	1	Door, rear right hand
4	0190522	1	Door, rear left hand
5	0190513	1	Door, front right hand
6	0190514	1	Door, front left hand
7	0190695	1	Door post, right hand
8	0190696	1	Door post, left hand
9	0190697	1	Top rail, right hand
10	0190698	1	Top rial, left hand
11	0190549	1	Shroud
12	0070555	2	Air cleaner access door
13	0070548	2	Door spring
14	0070539	5	Door latch
15	5560135	3	Staple plate
16	0071441	4	Spacer, door striker
17	0170793	4	Striker
18	0190518	1	Engine access door
19	0190521	1	Front cover
20	5569012	12	Rubber bumper
21	0190546	1	Access door
22	5510003	1	Replacement latch and knob
23	991879	2	Pop rivet .188 diameter 1/4 domed aluminum
24	970869	4	Capscrew 1/2-13 x 3/4 inch long hex head grade 5
25	986359	22	Washer 1/2 medium flat
26	987139	14	Washer 1/2 medium lock
27	970889	10	Capscrew 1/2-13 x 1 inch long hex head grade 5
28	970849	8	Capscrew 1/2-13 x 1-1/4 inch long hex head grade 5
29	5560037	8	Nut 1/2-13 self locking
30	970469	16	Capscrew 3/8-16 x 1 inch long hex head grade 5
31	986299	16	Washer 3/8 medium flat
32	5560033	16	Nut 3/8-16 self locking
33	970259	33	Capscrew 5/16-18 x 1 inch long hex head grade 5
34	986269	58	Washer 5/16 medium flat
35	987109	8	Washer 5/16 medium lock
36	5560031	25	Nut 5/16-18 self locking
37	5560097	8	Speed nut 5/16-18
38	5560609	41	Machine screw #10-24 x 1/2 inch long truss head
39	5560034	41	Nut #10-24 self locking
40	5560648	12	Machine screw #10-24 x 3/4 inch long truss head
41	987089	12	Washer #10 medium lock
42	0070554	2	Hinge, air cleaner access door
43	984049	12	Nut #10-24 hex
44	0070549	1	Door striker
45	5560333	1	Rubber strip x 22 inch long
46	0191511	2	Spacer



AW0190799

## Plastic cowling

item	part no	qty	description
1	0070548	1	Door spring
2	0074408-99	4	Door hinge
3	0074461	1	Gas spring
4	0074602-99	1	Record box mount bracket
5	0082321	2	Gas spring
6	0082321	2	Gas spring
7	0190549-99	1	Shroud
8	0191678-89	1	Cover, turntable rear
9	0191704-99	1	Front cowling
10	0191706-99	8	Door stop
11	0191912	4	Hinge
12	0191712-99	1	Door, mid left hand
13	0191714-99	1	Door, mid right hand
14	0191717-89	1	Door, rear right hand
15	0191718-89	1	Door, rear left hand
16	0191725-99	1	Cover, top right hand
17	0191726-99	1	Cover, top left hand
18	0191732-99	1	Door, front right hand
19	0191734-99	2	Cowling mount plate
20	0191735-99	1	Cover, top cowling
21	0191740-99	2	Gas spring mount
22	0191744-99	2	Cowling, side
23	0191780-99	2	Gas spring mount
24	0191815-99	1	Door, front left hand
25	0191817-99	1	Access door
26	0191821	1	Hinge
27	0070555-99	1	Air cleaner access door
28	970049	4	Capscrew 1/4-20 x 1 inch long hex head grade 5
29	970369	8	Capscrew 5/16-18 x 1 inch long hex head grade 5
30	970479	8	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
31	970469	1	Capscrew 3/8-16 x 1 inch long hex head grade 5
32	970489	4	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
33	970849	20	Capscrew 1/2-13 x 1-1/4 inch long hex head grade 5
34	972439	24	Carriage bolt 3/8-16 x 1-1/4 inch long
35	974659	8	Machine screw #10-24 x 1/2 inch long round head
36	984109	24	Nut 3/8-16 hex
37	986269	16	Washer 5/16 medium flat
38	986299	51	Washer 3/8 medium flat
39	986359	20	Washer 1/2 medium flat
40	987089	40	Washer #10 medium lock
41	987119	24	Washer 3/8 medium lock
42	987139	20	Washer 1/2 medium lock
43	5510022-99	7	Latch adjust lever
44	5560004	4	Nut 1/4-20 self locking
45	5560031	17	Nut 5/16-18 self locking
46	5560033	17	Nut 3/8-16 self locking
47	5560034	8	Nut #10-24 self locking
48	5560311	10	Ball stud
49	5560722	36	Machine screw #10-32 x 3/8 inch long truss head
50	5560723	4	Machine screw #10-32 x 1/2 inch long truss head
51	5569012	2	Rubber bumper
52	0191910	6	Hinge with studs



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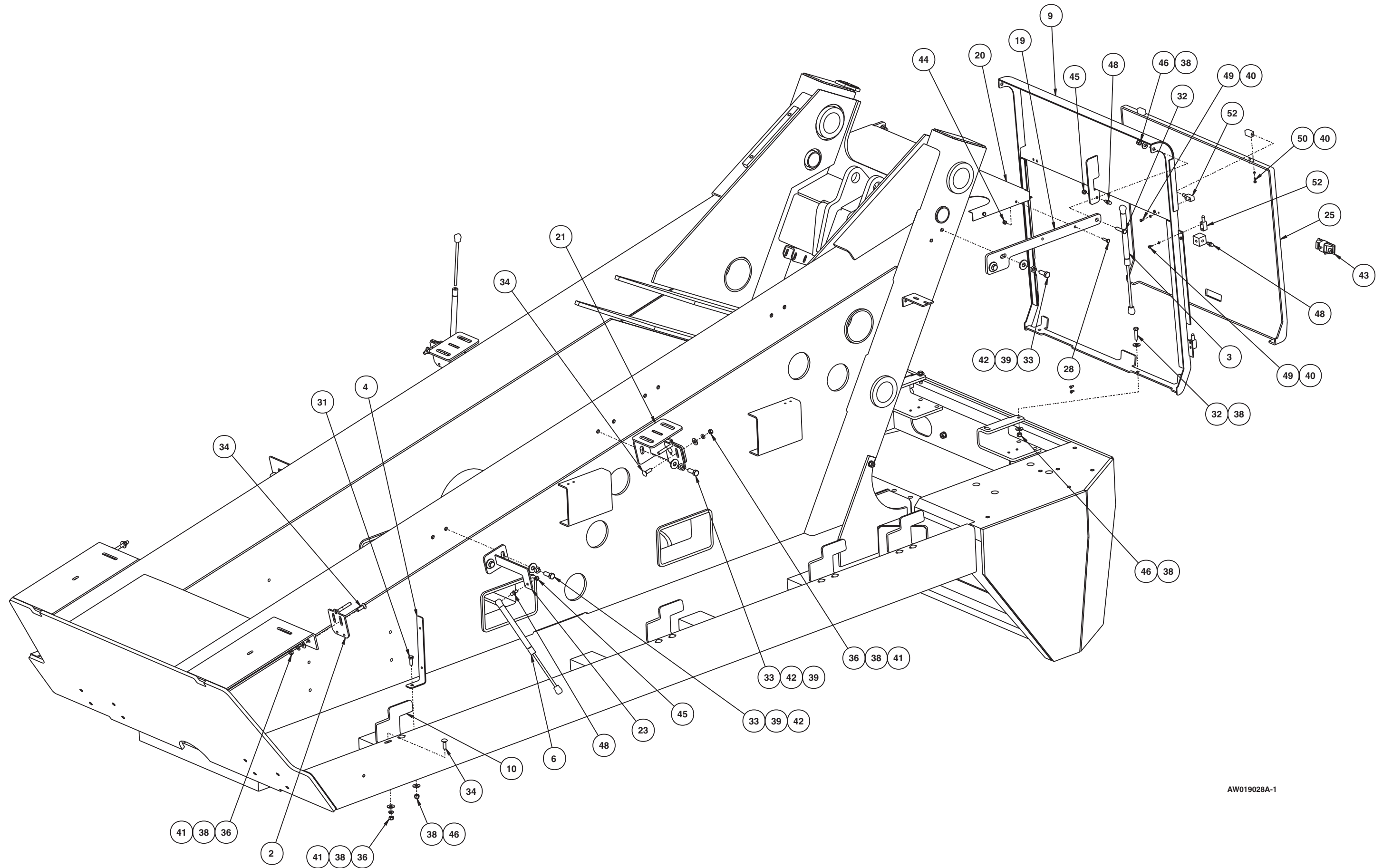
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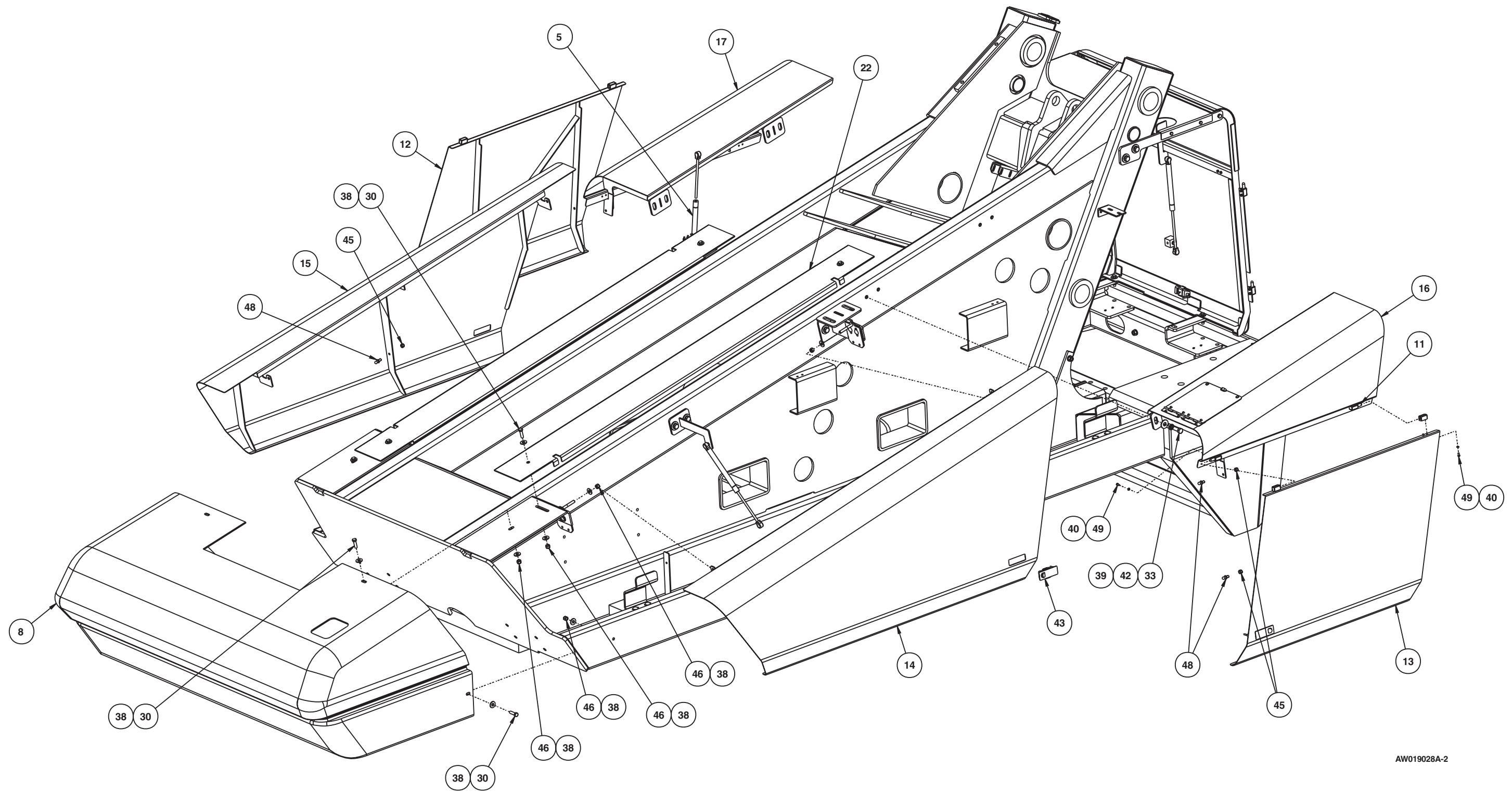
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TITLE Plastic cowling  
 sheet 1  
 Snorkel model PRO 100



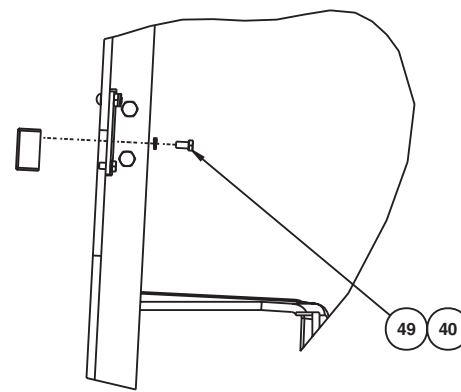
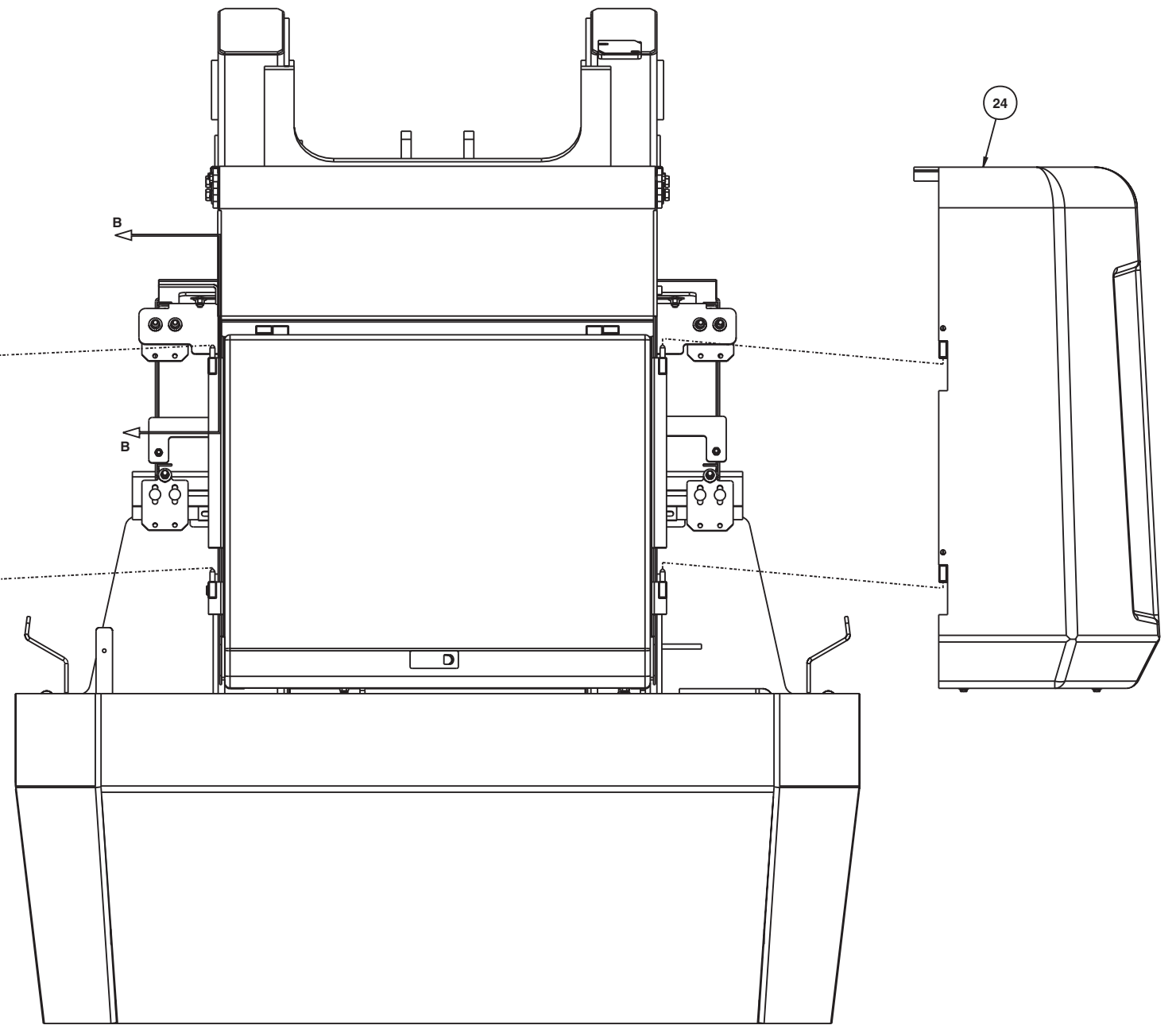
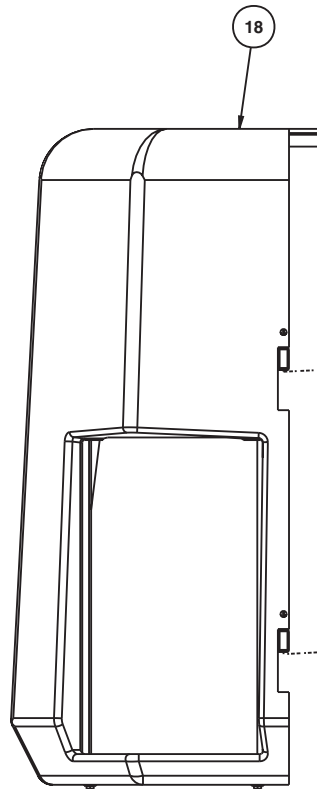
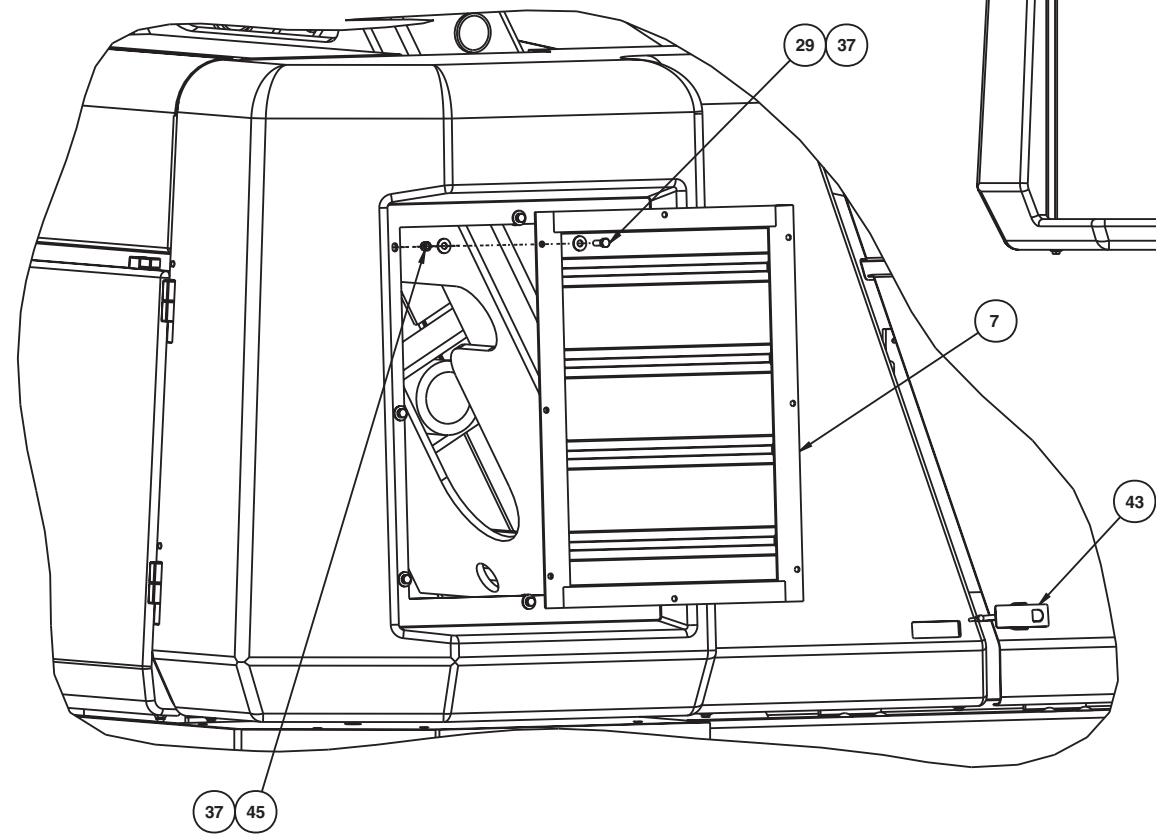
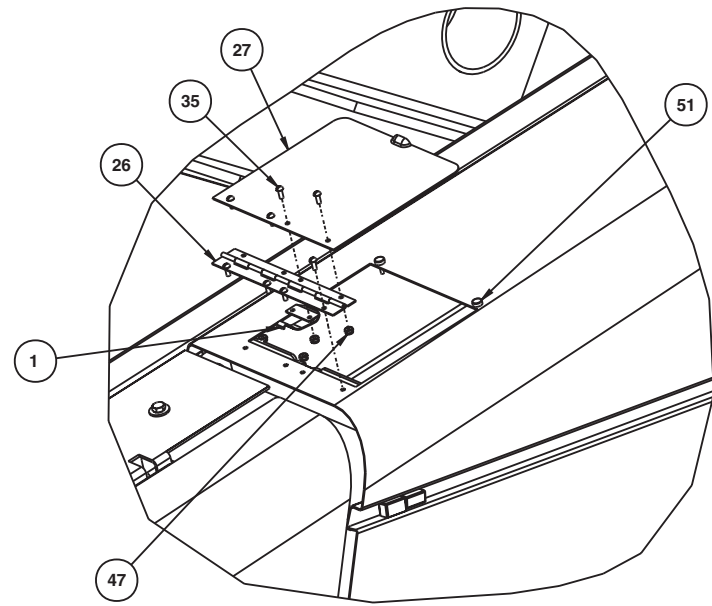
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AW019028A-2

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SECTION B-B

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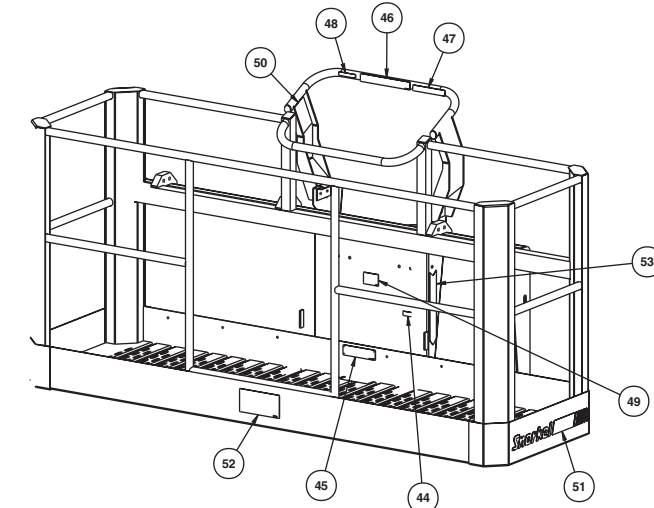
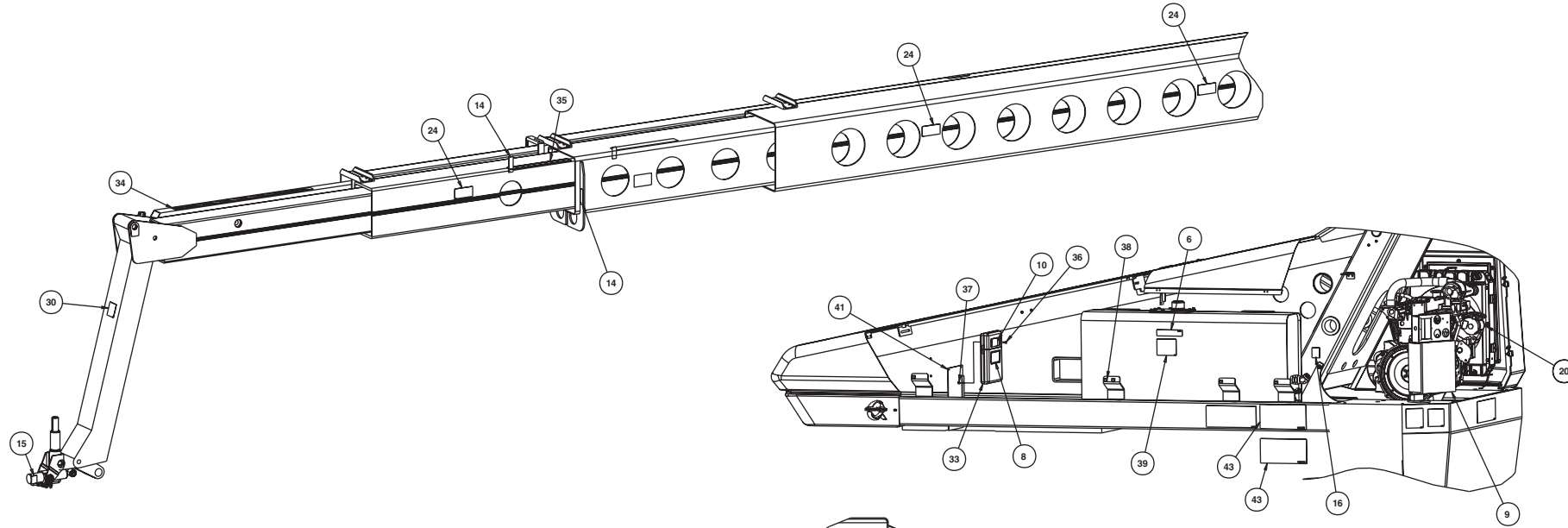
TITLE Plastic cowling  
sheet 3  
Snorkel model PRO 100

AW019028A-3

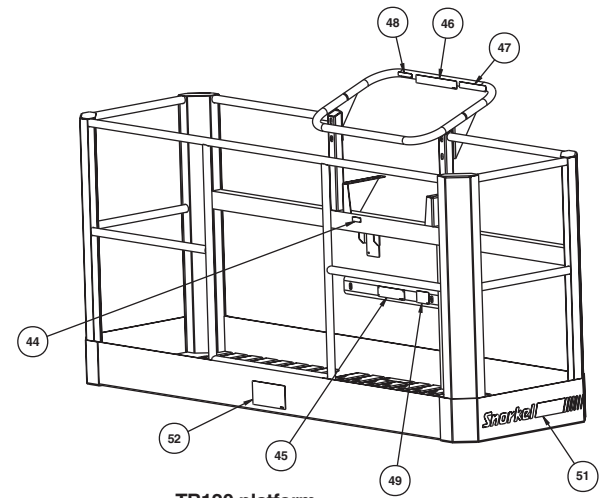
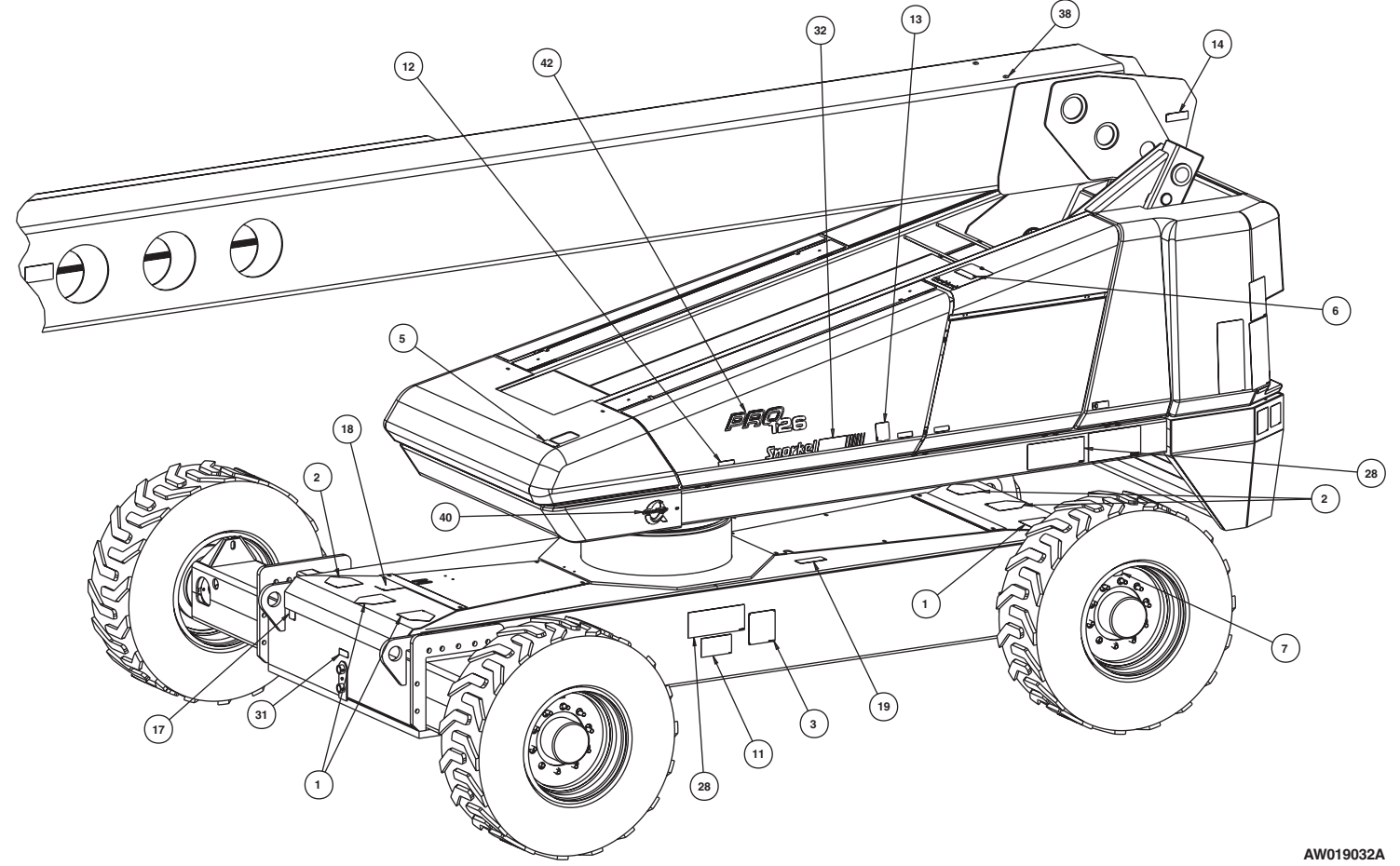
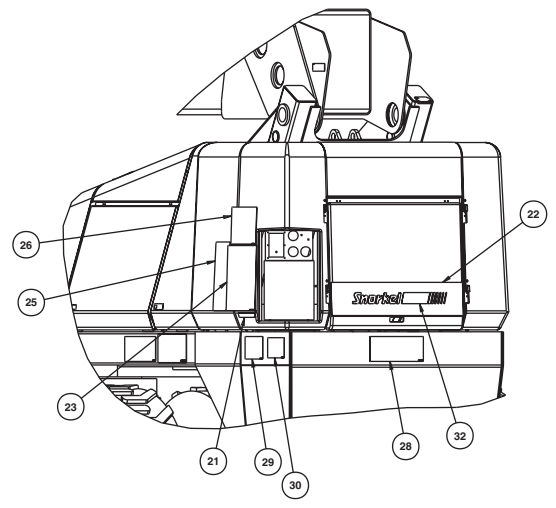
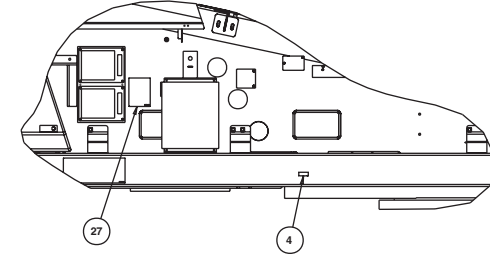


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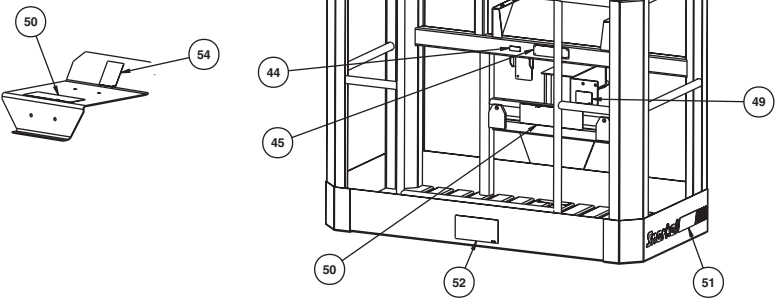
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PRO126 self-stowing platform



TB120 platform



PRO100 & PRO126 non-stowing platform

AW019032A

## Placards and decals

item	part no	qty	description
1	0070540	3	Decal, yellow arrow
2	0070541	3	Decal, blue arrow
3	0070901	1	Placard, caution serial number
4	0070921	1	Placard, 125 volts 15 amps
5	0071926	1	Decal, diesel fuel
6	0071927	2	Decal, hydraulic oil
7	0072276	4	Placard, lug nut torque
8	0073043	1	Decal, operating manual enclosed
9	0073139	1	Crankcase oil tag - (used for shipping only)
10	0073224	1	Decal, notice manual reorder
11	0073298	2	Placard, danger foam filled tires
12	0073491	1	Decal, safe operation information
13	0073585	2	Decal, made in USA
14	0073667	3	Decal, inspect wire ropes
15	0074311	8	Decal, danger cylinder failure - (1 per cylinder)
16	0074372	1	Placard, engine rpm
17	0083427	4	Decal, lift/tie down
18	0110708	1	Placard, danger axle/jack
19	0111343	1	Decal, high range selector valve
20	0151410	2	Decal, danger rotating engine parts
21	0181562	1	Placard, ANSI standard
22	0190937	1	Decal, rear door
23	0190988	1	Decal, lower control instructions
24	0190989	3	Decal, danger do not reach
25	0191173	1	Placard, EMS operation
26	0191244	1	Decal, lower controls symbols
27	0191491	1	Decal, danger EMS tampering
28	0323896	5	Decal, danger electrical hazard
29	0323897	1	Decal, danger you must not operate
30	0323899	2	Decal, danger electrical hazard
31	451986	1	Placard, danger do not alter switch
32	560239	3	Decal, Snorkel brand logo
33	562386	1	Record box
34	969249	408	Decal, warning stripes x 408 inch long
35	969449	22	Decal, stripe x 22 inch long
36	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
37	5560004	2	Nut 1/4-20 self locking
38	5560080	12	Bumper
39	7030003	1	Decal, lube recommendations
40	7030004	2	Decal, OmniQuip logo
41	7050004	1	Record pouch
42	0191390	2	Decal, PRO 100 logo
43	0191887	1	Decal, lift/tie down
44	0070921	1	Placard, 125 volts 15 amps
45	0071425	1	Placard, platform identification
46	0072531	1	Decal, danger electrical hazard
47	0073668	1	Decal, caution do not use boom
48	0111342	1	Decal, high range selector location
49	0150448	1	Decal, attach fall restraint
50	0191245	2	Decal, upper controls symbols
51	560239	2	Decal, Snorkel brand logo
52		1	Placard, platform capacity - (consult factory)
53	0191252	2	Decal, platform latches - (used on PRO 126 self-stowing only)
54	0323899	1	Decal, danger electrical hazard - (used on TB 120 only)

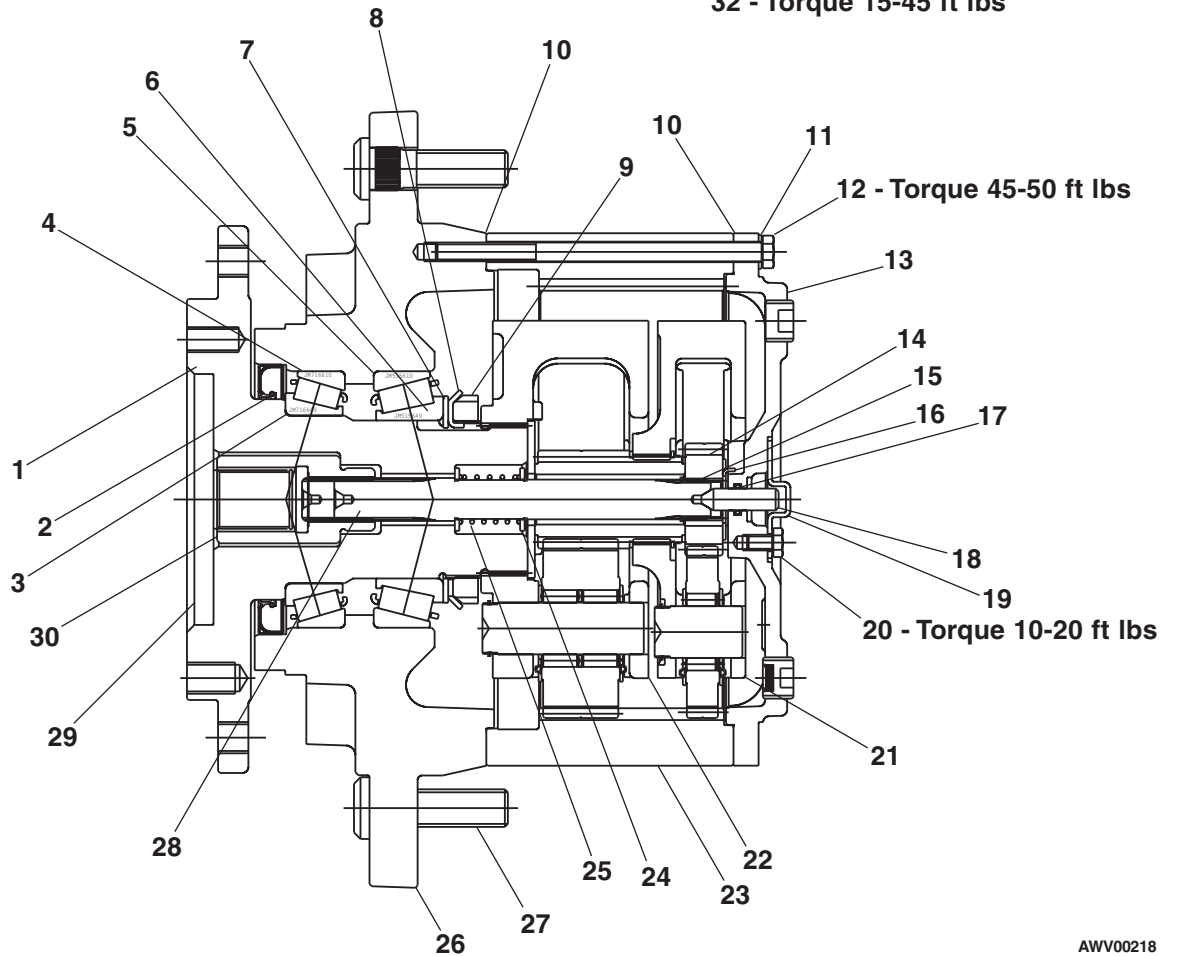
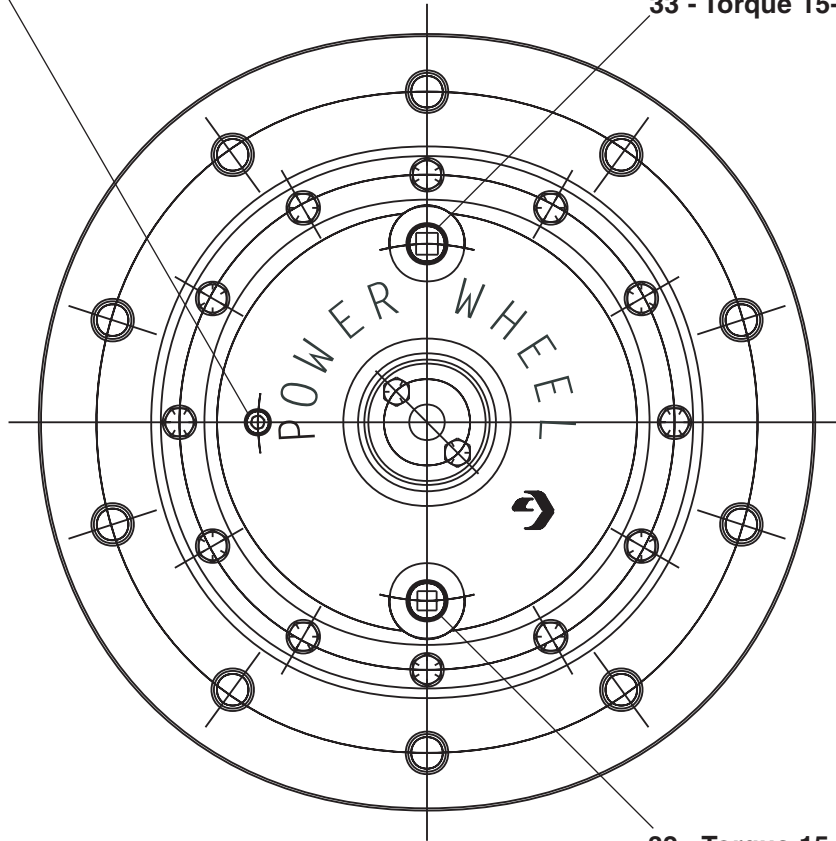
## Gear hub, Auburn

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

31 - Torque 15-45 ft lbs

33 - Torque 15-45 ft lbs



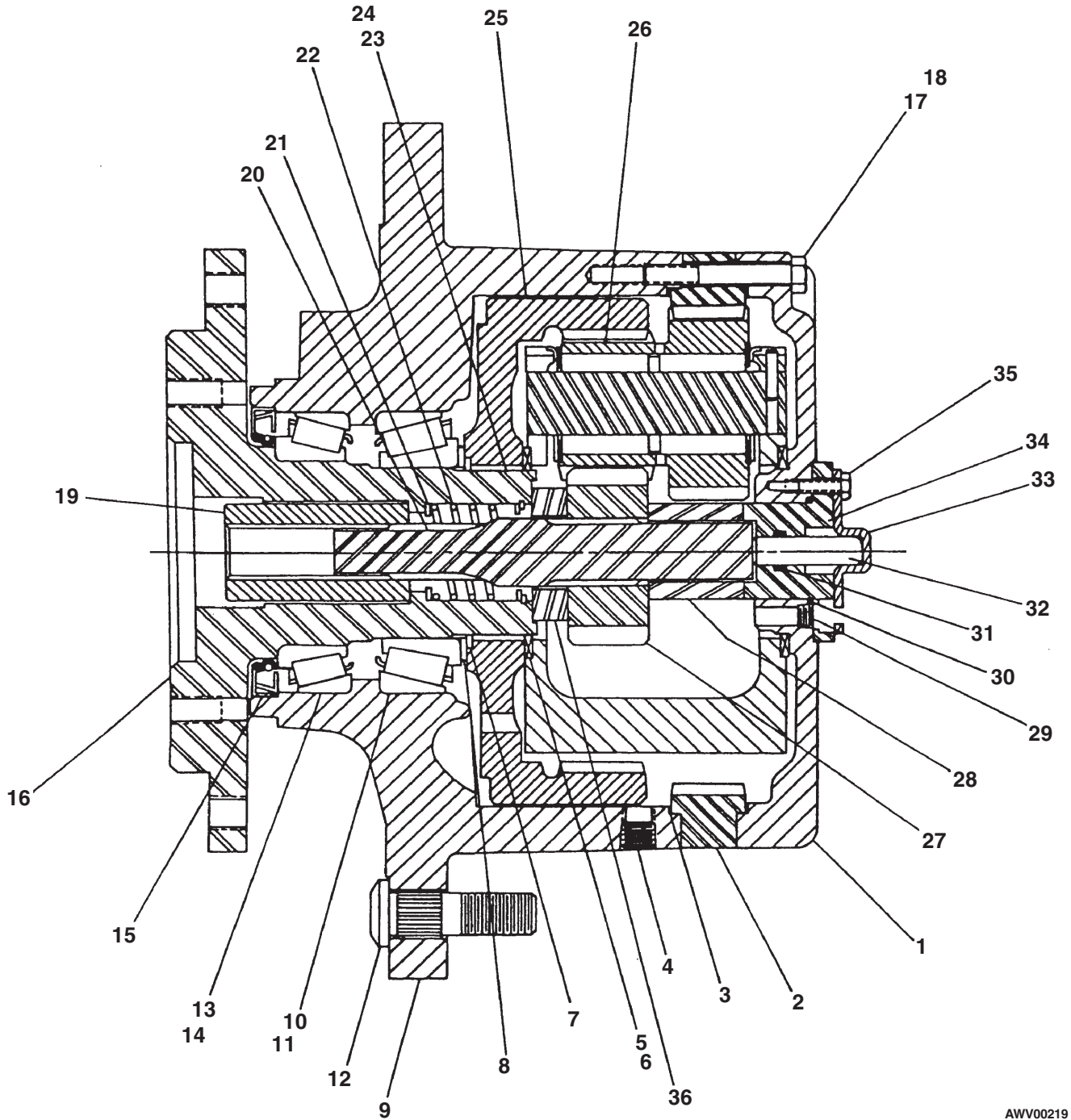
AWV00218

## Gear hub, Fairfield

item	part no	qty	description
	0110283	1	Gear hub, Fairfield
1	0112214	1	Cover
2	0112207	1	Ring gear
3	8060010	2	O-ring
4	0112203	1	Pipe plug
5	8060073	2	Thrust bearing
6	8060074	4	Thrust bearing
7	8060071	1	Retaining ring
8	8060070	1	Thrust washer
9	8060072	1	Housing
10	0112202	1	Bearing cone
11	0112201	1	Bearing cup
12	8060075	10	Stud
13	0112200	1	Bearing cone
14	0112199	1	Bearing cup
15	8060009	1	Lip seal
16	0112198	1	Spindle
17	8060077	4	Shoulder bolt 3/8-16
18	8060068	8	Capscrew 3/8-16
19	0112210	1	Coupling
20	0112209	1	Input shaft
21	8060138	2	Thrust washer
22	0112211	1	Spring
23	8060139	1	Retaining ring
24	8060140	1	Retaining ring
25	0112206	1	Internal gear
26	0112204	1	Carrier
27	0112205	1	Sun gear
28	0112208	1	Input spacer
29	8060241	1	Pipe plug
30	8060013	1	U-ring
31	8060129	1	O-ring
32	8060034	1	Disengage rod
33	8060035	1	Disengage cap
34	0112215	1	Cap cover
35	8060038	4	Capscrew 1/4-20
36	8060244	1	Thrust spacer



# Gear hub, Fairfield

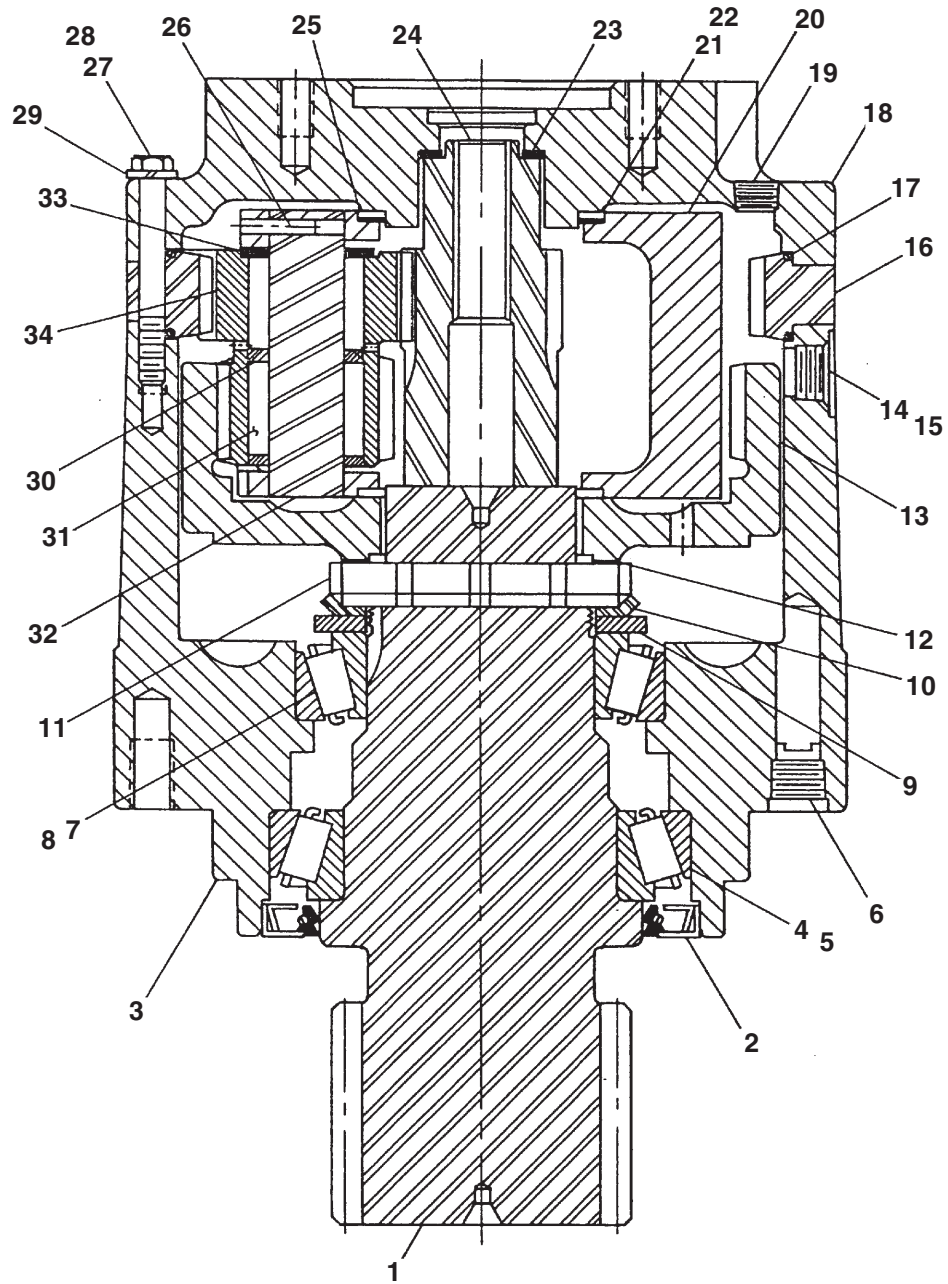


AWV00219

## Swing drive, Fairfield

item	part no	qty	description
	0110805	1	Swing drive, Fairfield
	0110688	1	Seal repair kit - (kit includes items 2 and 17)
1	8060105	1	Output shaft
2	Kit item	1	Seal - (not sold separately)
3	8060251	1	Hub
4	8060106	1	Bearing cup
5	8060107	1	Bearing cone
6	8060213	3	Magnetic pipe plug
7	8060108	1	Bearing cup
8	8060109	1	Bearing cone
9	8060243	1	Tanged washer
10	8060253	1	Lock washer
11	8060254	1	Lock nut
12	8060071	1	Retaining ring
13	8060256	1	Internal gear
14	8060257	2	Plug
15	8060212	1	Pipe plug
16	8060259	1	Ring gear
17	Kit item	2	O-ring - (not sold separately)
18	8060260	1	Cover
19	8060212	1	Pipe plug
20	8060262	1	Carrier
21	8060263	4	Thrust washer
22	8060073	2	Thrust bearing
23	8060122	1	Thrust washer
24	8060008	1	Input gear
25	8060102	6	Thrust washer
26	8060266	3	Roll pin
27	8060267	8	Bolt
28	8060268	4	Shoulder bolt
29	8060269	4	Lock washer
30	8060103	3	Spacer
31	8060084	4	Needle roller
32	8060101	3	Pinion shaft
33	8060104	6	Thrust washer
34	8060272	3	Cluster gear

# Swing drive, Fairfield

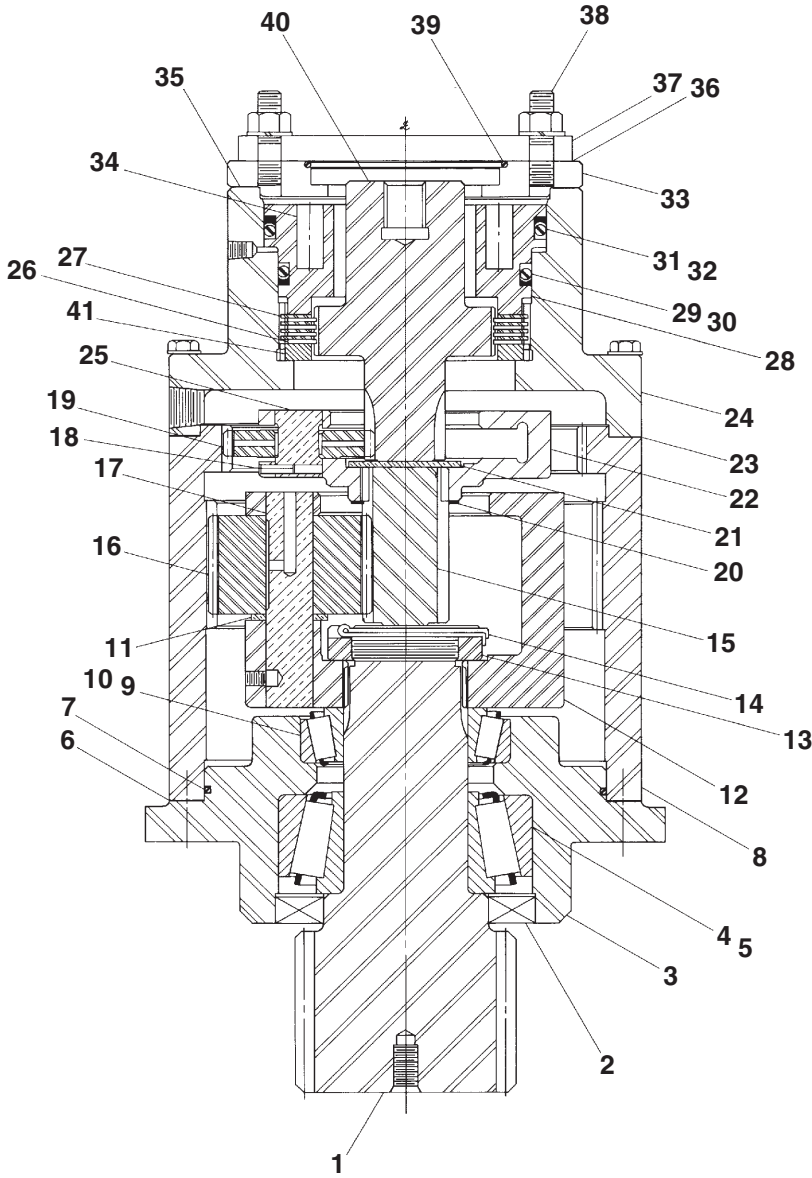


AWV00220

## Swing drive, Gear Products

item	part no	qty	description
	0110780	1	Swing drive, Gear Products
	8070148	1	Seal repair kit - (kit includes items 2, 6, 7, 23, 29, 31, 32, 35 and 36)
1	8070321	1	Output shaft
2	Kit item	1	Seal - (not sold separately)
3	8070323	1	Base
4	8070345	1	Bearing cone
5	8070346	1	Bearing cup
6	Kit item	1	Base gasket - (not sold separately)
7	Kit item	1	O-ring - (not sold separately)
8	8070325	1	Main housing
9	8070348	1	Bearing cone
10	8070349	1	Bearing cup
11	8070350	3	Thrust bearing
12	8070326	1	Secondary planet carrier
13	8070327	1	Nut
14	8070328	1	Cotter pin
15	8070329	1	Output shaft
16	8070330	3	Secondary planet gear
17	8070331	3	Secondary planet shaft
18	8070332	3	Roll pin
19	8070333	3	Primary planet gear
20	8070351	1	Snap ring
21	8070334	1	Bronze spacer
22	8070335	1	Primary planet carrier
23	Kit item	1	Top ring gear gasket - (not sold separately)
24	8070337	1	Brake cylinder
25	8070355	3	Primary planet shaft
26	8070006	4	Friction disc
27	8070005	4	Friction disc
28	8070113	1	Brake piston
29	Kit item	1	O-ring - (not sold separately)
30	8070165	1	Back-up ring
31	Kit item	1	O-ring - (not sold separately)
32	Kit item	1	Back-up - (not sold separately)
33	8070338	1	Cover
34	8070004	16	Brake spring
35	Kit item	1	Top cover gasket - (not sold separately)
36	Kit item	1	Motor gasket - (not sold separately)
37	8070339	1	Mounting hole cover
38	8070340	2	Stud
39	8070352	1	O-ring
40	8070192	1	Input shaft
41	8070168	1	Back-up plate
42	8070341	1	Vent
43	8070342	3	Fill plug
44	8070343	1	Brake port plug

# Swing drive, Gear Products

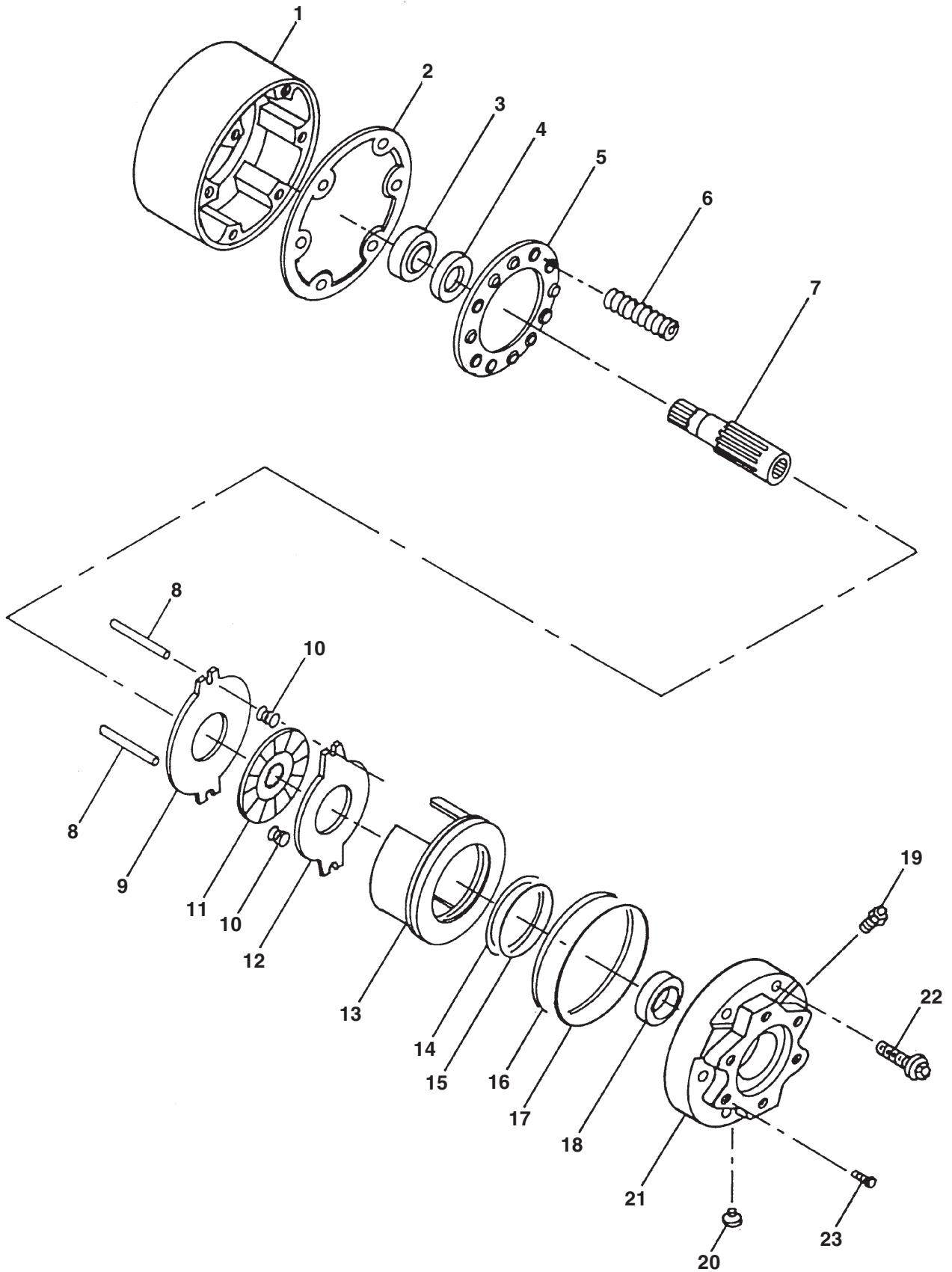


AWV00221

## Swing drive brake

item	part no	qty	description
	0110985	1	Swing drive brake
	0111701	1	Seal repair kit - (kit includes items 2, 4, 15, 16, and 17)
1	8060261	1	Housing
2	Kit item	1	Gasket - (not sold separately)
3	8060184	1	Ball bearing
4	Kit item	1	Oil seal - (not sold separately)
5	8060252	1	Spring retainer
6	8060030	6	Compression spring
7	8060250	1	Splined shaft
8	8060246	2	Torque pin
9	8060181	1	Primary disc
10	8060031	2	Compression spring
11	8060182	1	Rotating disc
12	8060183	1	Stationary disc
13	8060247	1	Piston
14	8060245	1	Packing back-up ring
15	Kit item	1	O-ring - (not sold separately)
16	Kit item	1	Packing back-up ring - (not sold separately)
17	Kit item	1	O-ring - (not sold separately)
18	8060185	1	Ball bearing
19	8060218	1	Bleeder screw
20	8060219	1	Protective plug
21	8060220	1	Power plate
22	8060225	4	Capscrew, hex flanged
23	8060226	1	Pressure relief valve

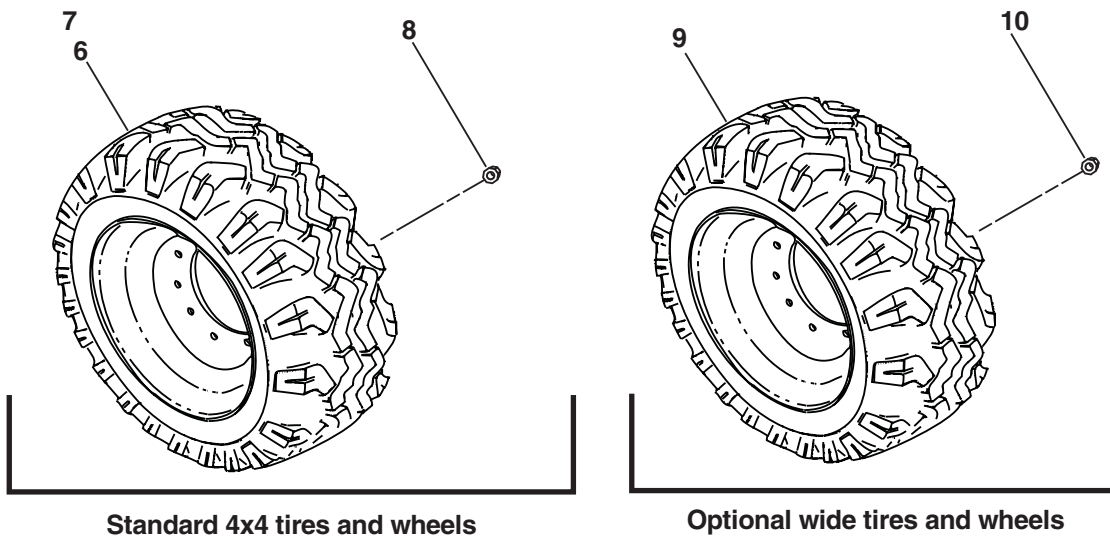
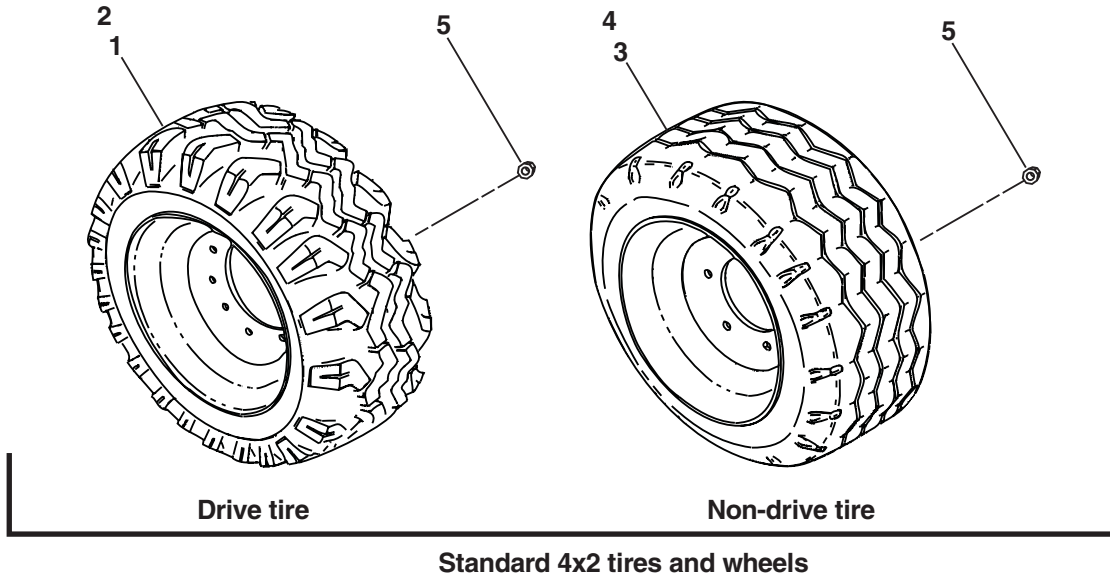
# Swing drive brake



AWV00222

## Tires and wheels

item	part no	qty	description
<b>Standard on 4x2, 15- 22.5 foam filled tires and wheels</b>			
1	0110537	1	Tire and wheel, foam filled 15- 22.5 16 ply, right hand drive
2	0111795	1	Tire and wheel, foam filled 15- 22.5 16 ply, left hand drive
3	0110538	1	Tire and wheel, foam filled 15- 22.5 16 ply, right hand non-drive
4	0112018	1	Tire and wheel, foam filled 15- 22.5 16 ply, left hand non-drive
5	7280010	40	Wheel nut
<b>Standard on 4x4, 15- 22.5 foam filled tires and wheels</b>			
6	0110537	2	Tire and wheel, foam filled 15- 22.5 16 ply, right hand drive
7	0111795	2	Tire and wheel, foam filled 15- 22.5 16 ply, left hand drive
8	7280010	40	Wheel nut
<b>Optional on 4x2 and 4x4, 18- 22.5 foam filled wide tires</b>			
9	0190412	4	Tire and wheel, 18-22.5 16 ply foam filled wide tread drive
10	7280010	40	Wheel nut



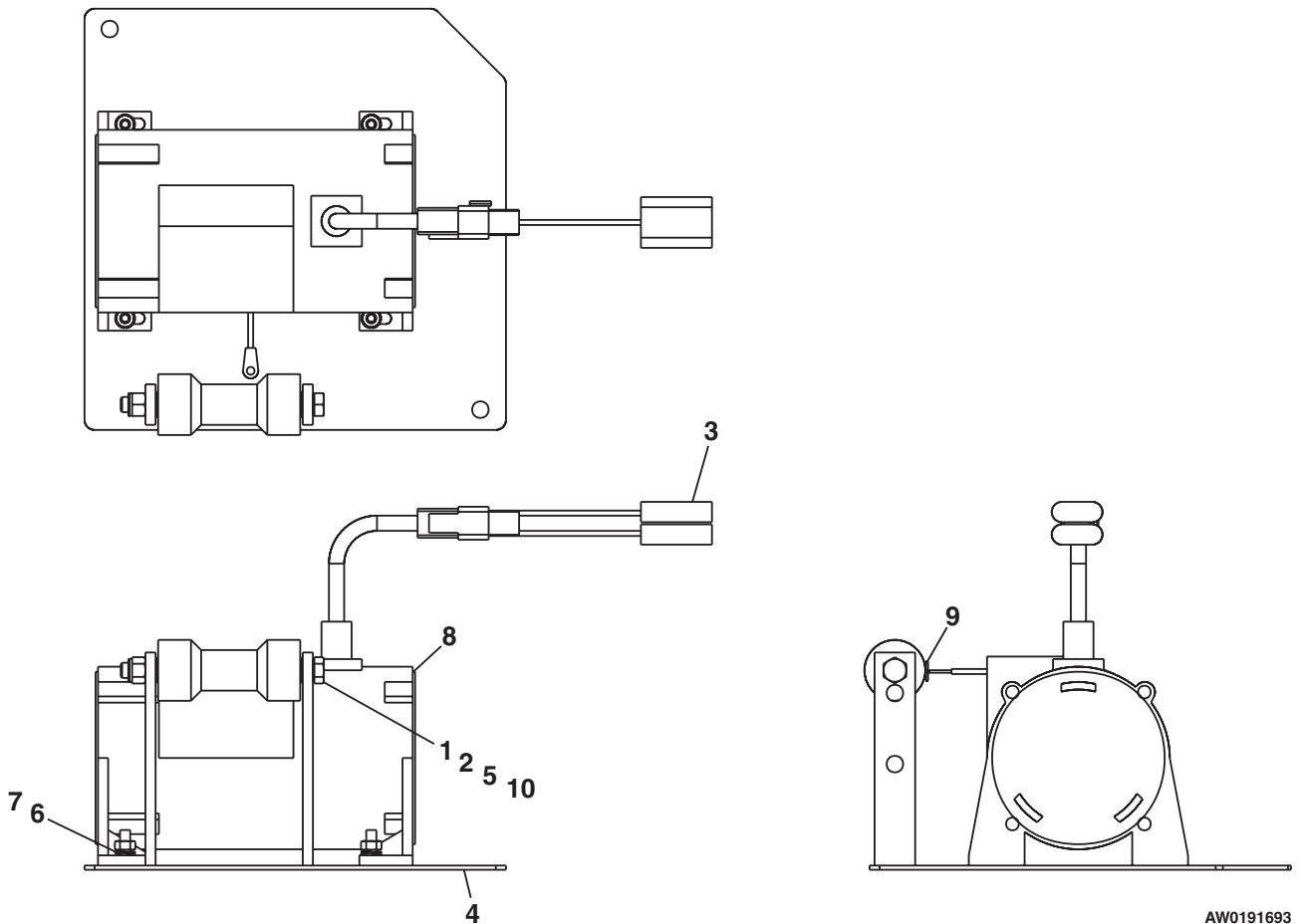
**Do not mix tire sizes or brands on any one machine.**

AWM00236



## Length transducer

item	part no	qty	description
	0191693	1	Length transducer
1	0190842	1	Plastic roller
2	0190844	1	Spacer
3	0191673	1	Adapter harness, string pot
4	0191692	1	Mounting bracket
5	970619	1	Capscrew 3/8-16 x 4-3/4 inch long hex head grade 5
6	984069	4	Nut 1/4-20 hex
7	987099	4	Washer 1/4 medium lock
8	3030116	1	String pot length transducer
9	5098332	1	Split ring
10	5560033	1	Nut 3/8-16 self locking



AW0191693



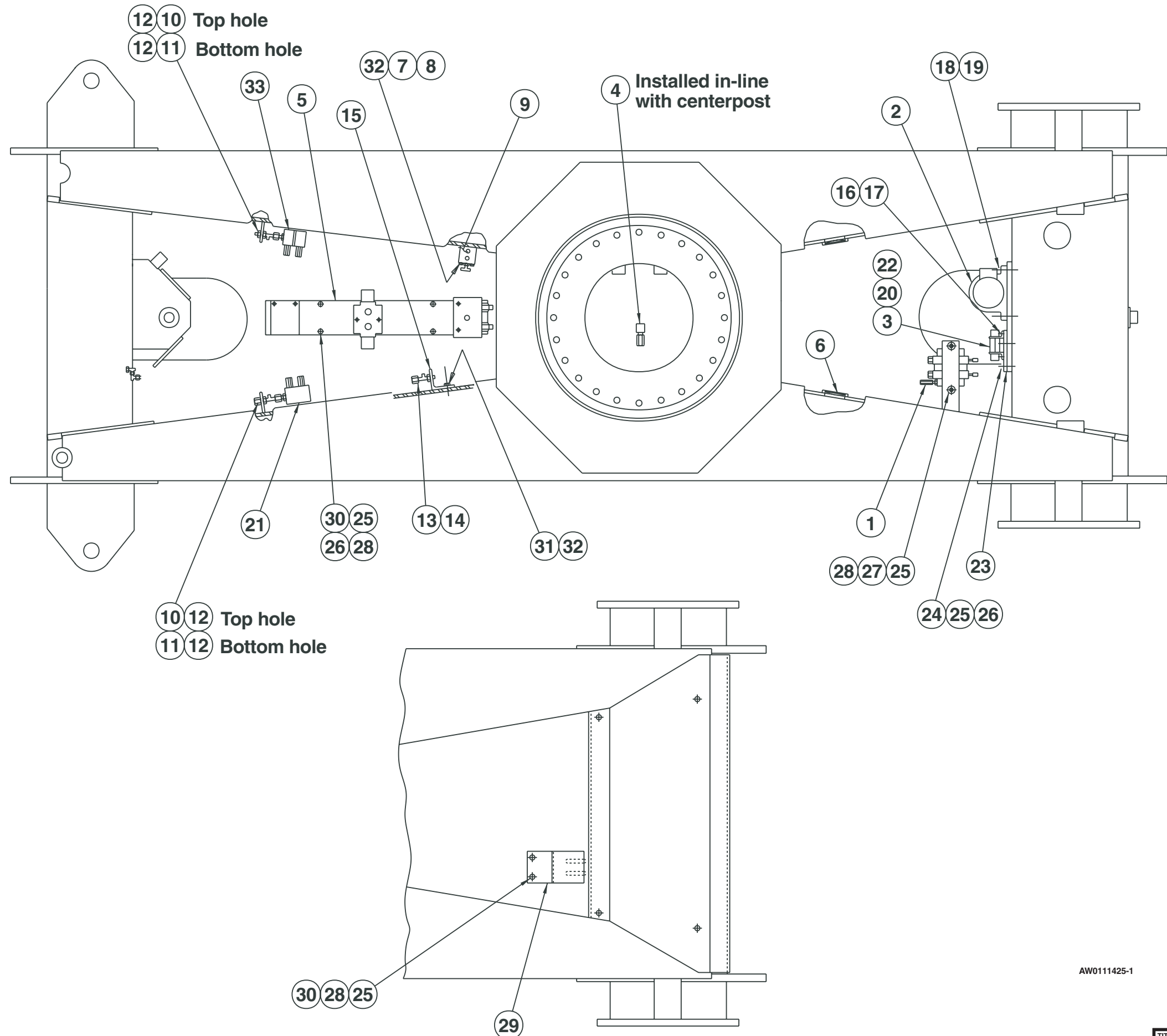
***PRO***  
**100**



## Chassis hydraulic equipment, 2 wheel drive

item	part no	qty	description
1	0111291	1	Control valve, axle jacking - (see page 2-26 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 2-88 for parts breakdown)
5	0111431	1	Drive control valve, 2 wheel drive - (see page 2-28 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 2-86 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 2-74 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	972559	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 2-73 for parts breakdown)

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TITLE Chassis hydraulic equipment  
2 wheel drive  
Snorkel model PRO 100



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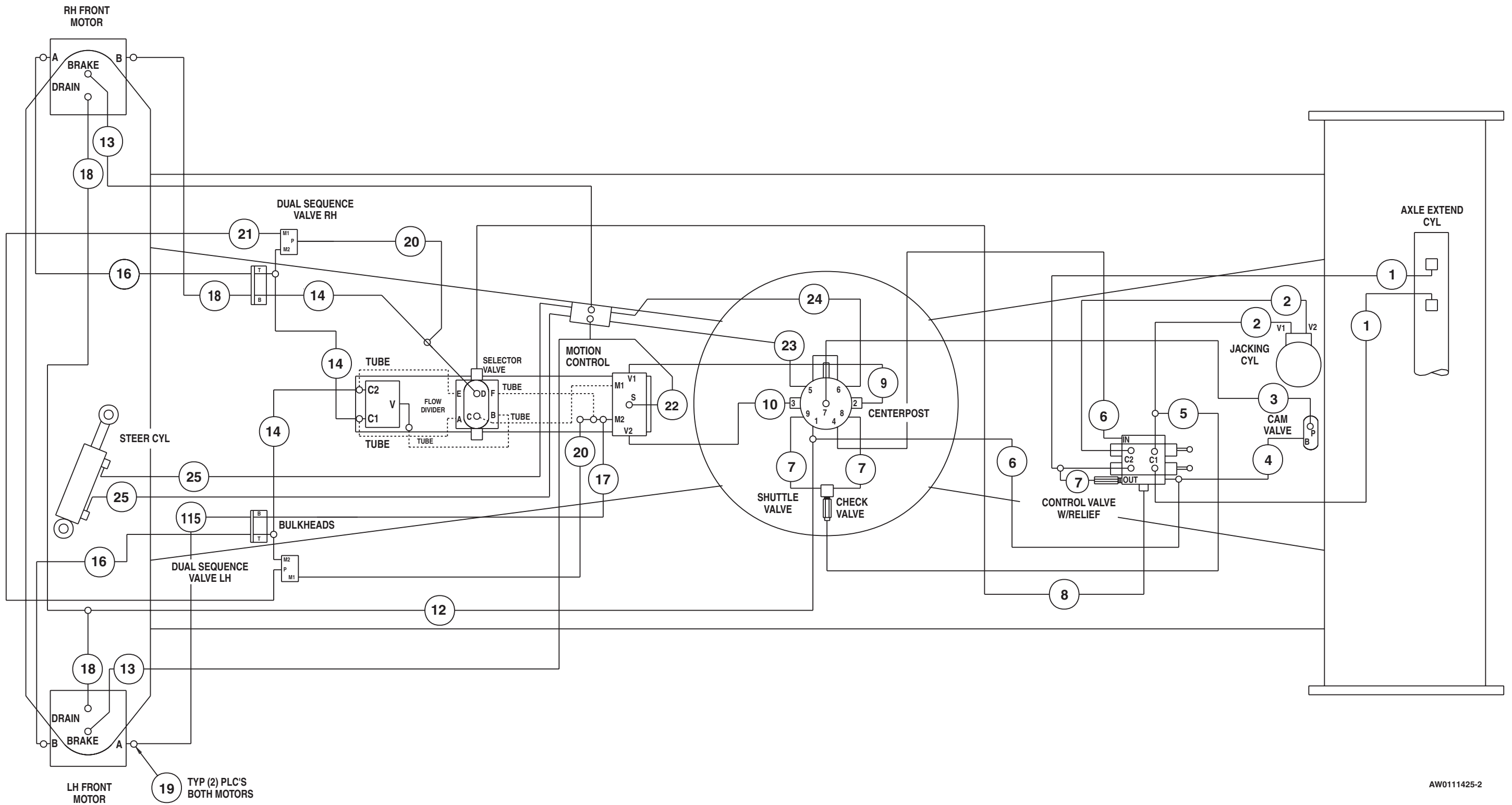
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AW0111425-2



TITLE Chassis hydraulic hoses  
 2 wheel drive  
 Snorkel model PRO 100



## Chassis hydraulic hoses, 2 wheel drive

item	part no	qty	description
1	0100270	2	1/4 inch hydraulic hose
2	0070799	2	1/4 inch hydraulic hose
3	0080386	1	1/4 inch hydraulic hose
4	0080359	1	1/4 inch hydraulic hose
5	0070781	1	1/4 inch hydraulic hose
6	0070782	1	1/4 inch hydraulic hose
7	0070773	2	1/4 inch hydraulic hose
8	0100271	3	1/4 inch hydraulic hose
9	0080941	1	3/4 inch hydraulic hose
10	0080939	1	3/4 inch hydraulic hose
11	0080524	1	3/4 inch hydraulic hose
12	0020279	1	3/8 inch hydraulic hose
13	0070771	2	1/4 inch hydraulic hose
14	0323804	3	3/4 inch hydraulic hose
15	0110173	2	3/4 inch hydraulic hose
16	0110171	2	3/4 inch hydraulic hose
17	0081080	1	3/8 inch hydraulic hose
18	0111286	1	3/8 inch hydraulic hose
19	5080015	4	Last chance filter
20	0073040	2	1/2 inch hydraulic hose
21	0020280	2	1/4 inch hydraulic hose
22	0070765	1	1/4 inch hydraulic hose
23	0070780	1	1/4 inch hydraulic hose
24	0090299	1	1/4 inch hydraulic hose
25	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 2-26 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 2-88 for parts breakdown)
5	0111273	1	Anti-cavitation valve - (see page 2-40 for parts breakdown)
6	0111344	1	High range speed selector valve - (see page 2-78 for parts breakdown)
7	0111264	1	Drive control valve, 4 wheel drive - (see page 2-28 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	972559	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 2-87 for parts breakdown)
34	0111535	1	Series parallel package, right hand - (see page 2-30 for parts breakdown)
35	0111536	1	Series parallel package, left hand - (see page 2-32 for parts breakdown)
36	0111530	1	Dual sequence valve, 4 wheel drive - (see page 2-75 for parts breakdown)
37	0111528	1	Dual sequence valve, left hand - (see page 2-74 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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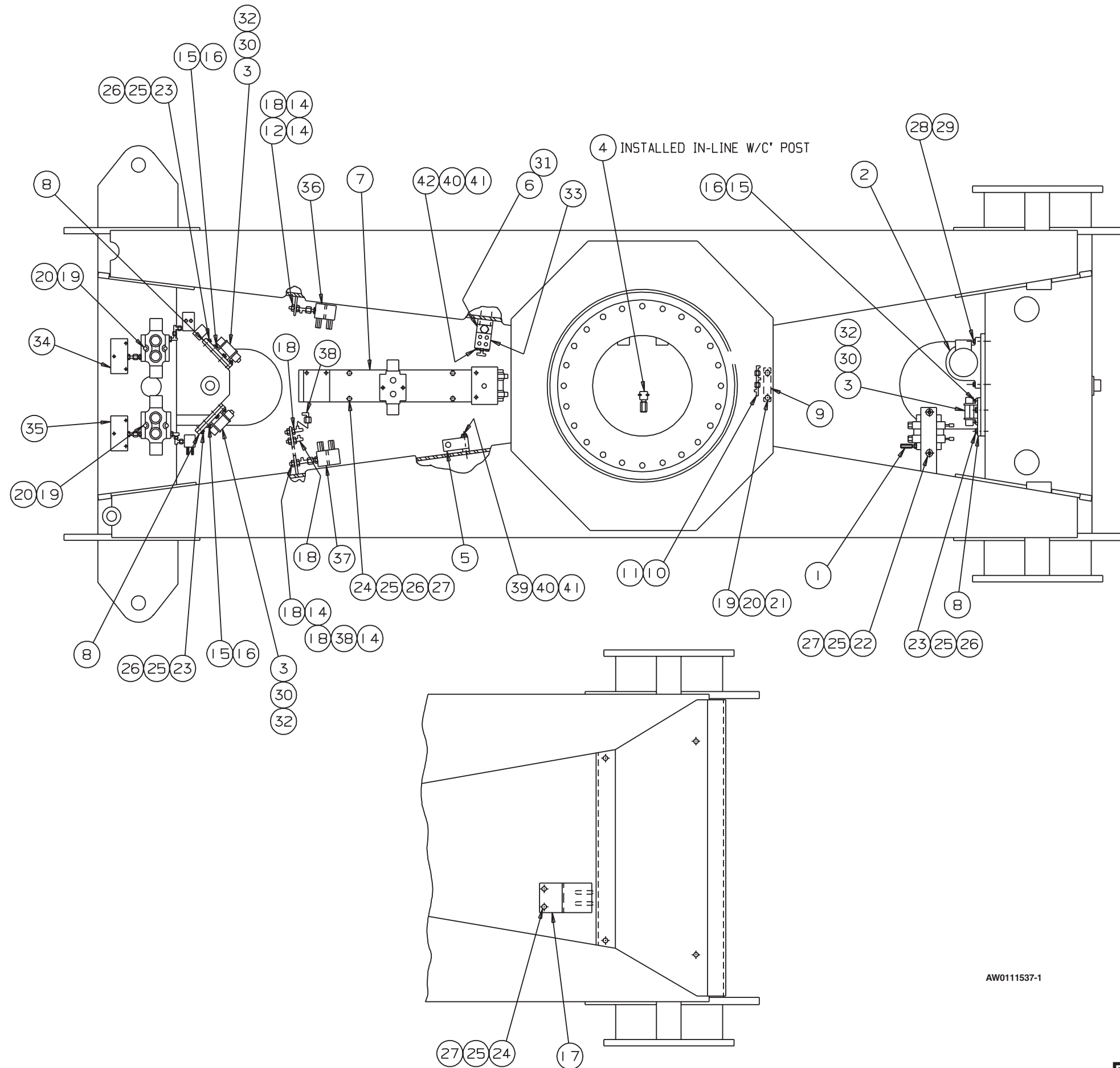
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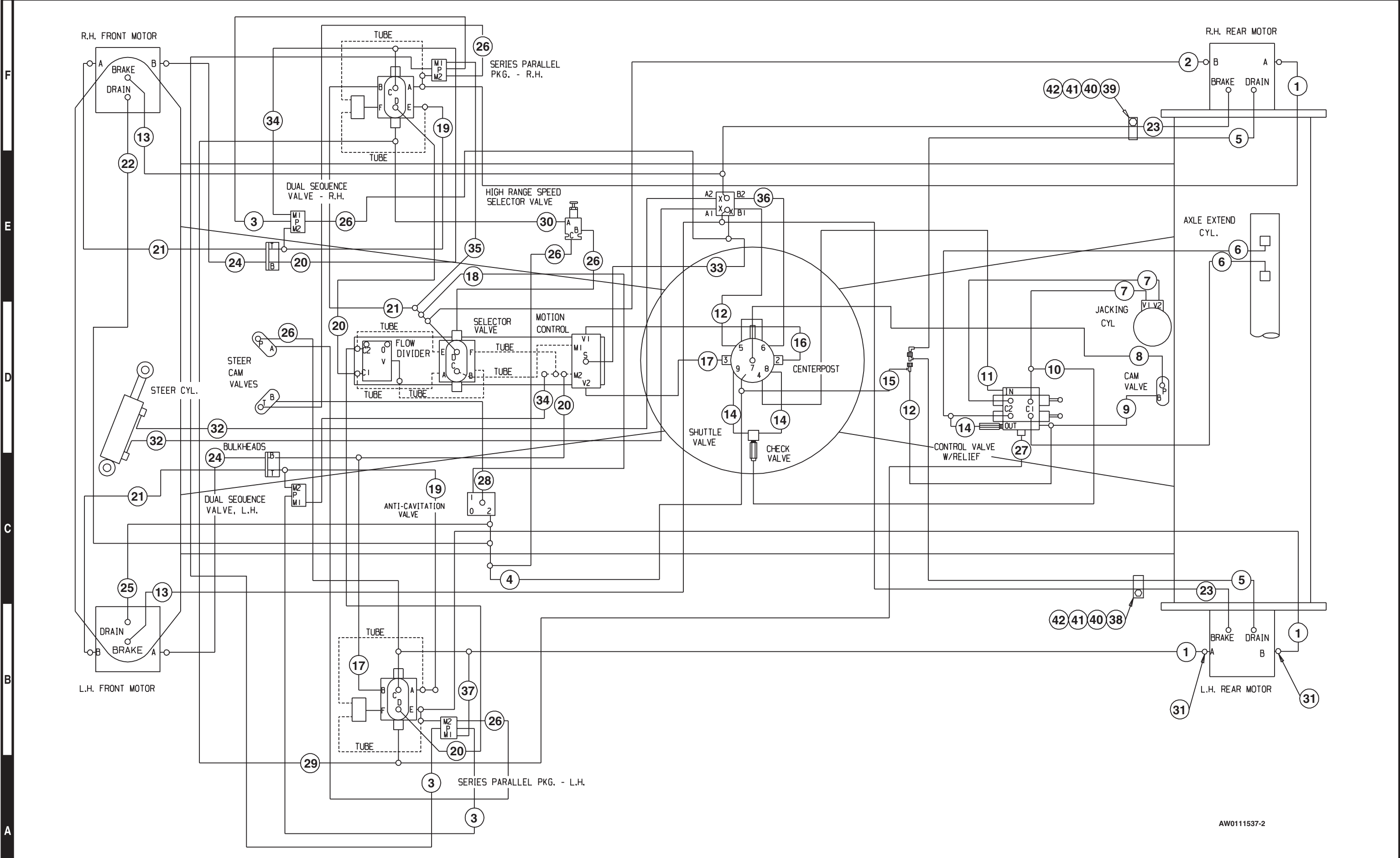
AW011537-1

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TITLE Chassis hydraulic equipment  
 4 wheel drive  
 Snorkel model PRO 100



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AW0111537-2

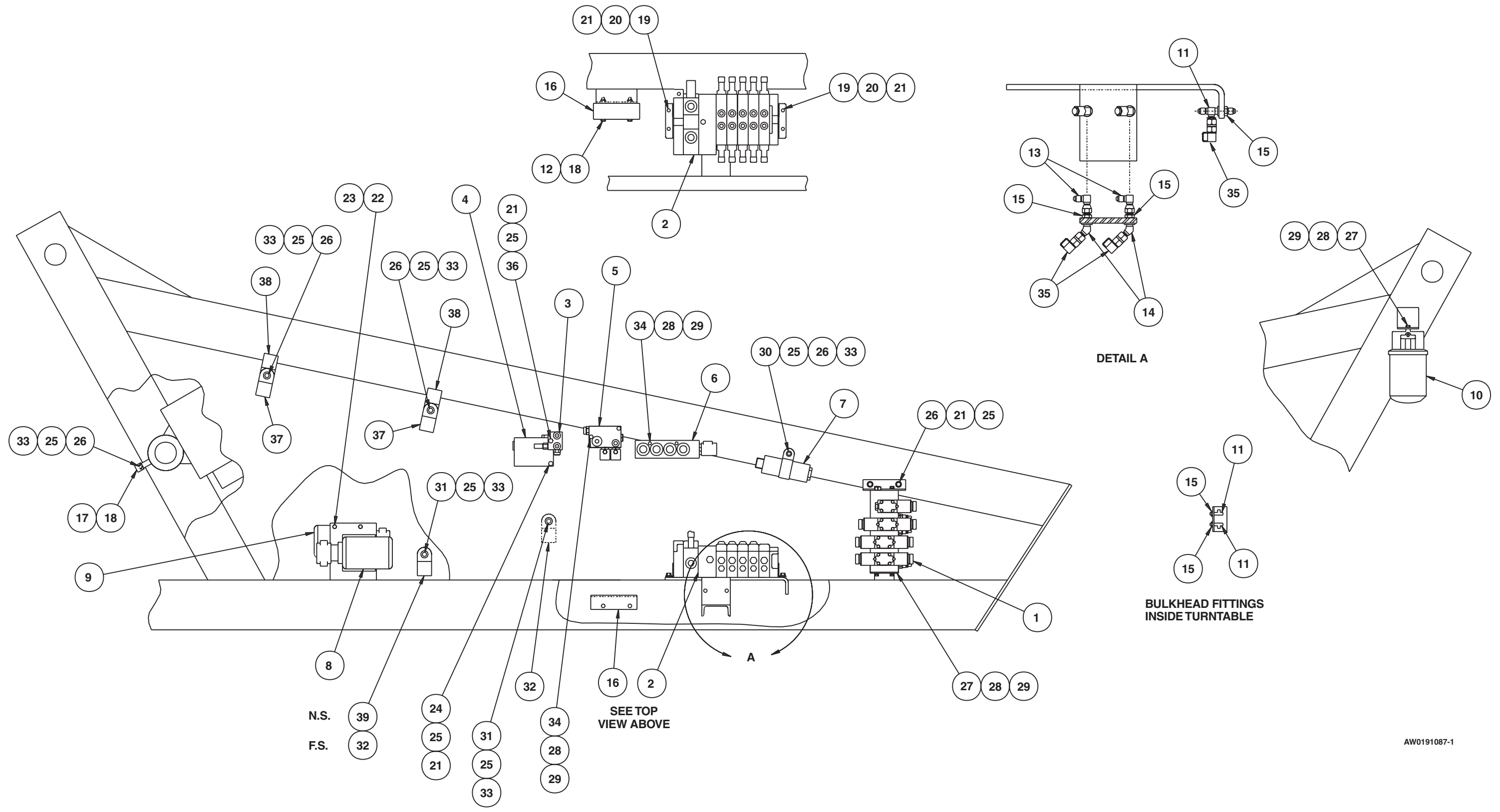
## Chassis hydraulic hoses, 4 wheel drive

item	part no	qty	description
1	0111282	3	3/4 inch hydraulic hose
2	0111283	1	3/4 inch hydraulic hose
3	0040276	3	1/4 inch hydraulic hose
4	0110285	1	3/4 inch hydraulic hose
5	0090402	2	3/8 inch hydraulic hose
6	0100270	2	1/4 inch hydraulic hose
7	0070779	2	1/4 inch hydraulic hose
8	0080386	1	1/4 inch hydraulic hose
9	0080359	1	1/4 inch hydraulic hose
10	0070781	1	1/4 inch hydraulic hose
11	0070782	1	1/4 inch hydraulic hose
12	0070780	2	1/4 inch hydraulic hose
13	0070771	2	1/4 inch hydraulic hose
14	0070773	3	1/4 inch hydraulic hose
15	0020276	1	3/8 inch hydraulic hose
16	0080941	1	3/4 inch hydraulic hose - (before 2-01-00)
	0080939	1	3/4 inch hydraulic hose - (after 2-01-00)
17	0110173	2	3/4 inch hydraulic hose
18	0110173	1	3/4 inch hydraulic hose
19	0323804	2	3/4 inch hydraulic hose
20	0080524	4	3/4 inch hydraulic hose
21	0110171	3	3/4 inch hydraulic hose
22	0111286	1	3/8 inch hydraulic hose
23	0100491	2	1/4 inch hydraulic hose
24	0110173	2	3/4 inch hydraulic hose
25	0081080	1	3/8 inch hydraulic hose
26	0020280	6	1/4 inch hydraulic hose
27	0111346	1	1/4 inch hydraulic hose
28	0101278	1	1/4 inch hydraulic hose
29	0070768	1	1/4 inch hydraulic hose
30	0070911	1	1/4 inch hydraulic hose
31	5080015	8	Last chance filter
32	0070783	2	1/4 inch hydraulic hose
33	0070765	1	1/4 inch hydraulic hose
34	0073040	2	1/2 inch hydraulic hose
35	0070792	1	1/2 inch hydraulic hose
36	0090299	1	1/4 inch hydraulic hose
37	0020424	1	1/2 inch hydraulic hose
38	5093013	1	Clamp
39	5093014	1	Clamp
40	970469	2	Capscrew 3/8-16 x 1 inch long hex head grade 5
41	986299	4	Washer 3/8 medium flat
42	5560033	2	Nut 3/8-16 self locking

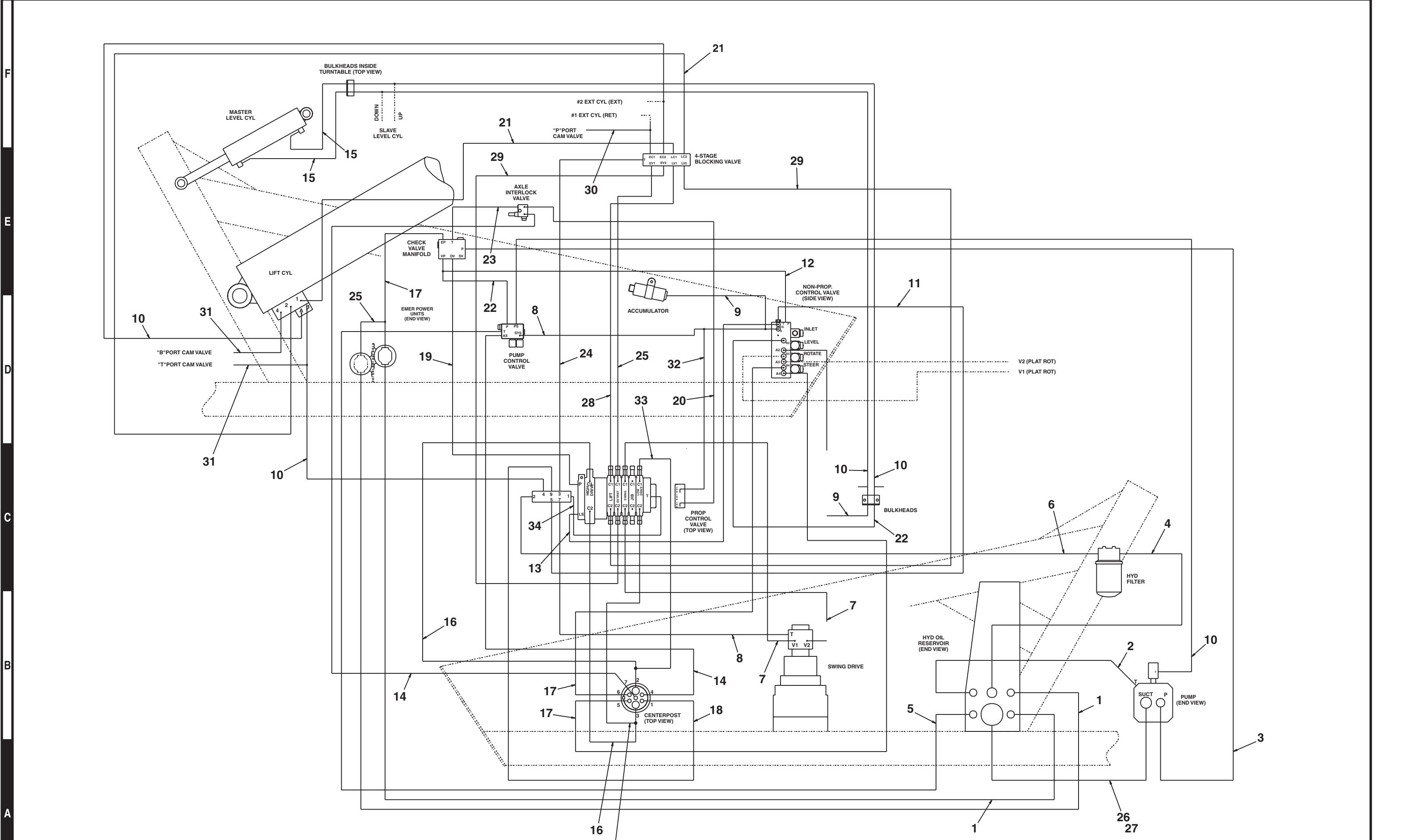
## Hydraulic equipment, turntable

item	part no	qty	description
1	0190833	1	Control valve, non-proportional before 1-4-99 - (see page 2-14 for parts breakdown)
	0191605	1	Control valve, non-proportional after 1-4-99 - (see page 2-18 for parts breakdown)
2	0191180	1	Control valve, proportional - (see page 2-22 for parts breakdown)
3	0190878	1	Axle interlock valve - (see page 2-41 for parts breakdown)
4	0190836	1	Check valve manifold - (see page 2-46 for parts breakdown)
5	0190837	1	Pump control valve - (see page 2-85 for parts breakdown)
6	0190879	1	Blocking valve - (see page 2-42 for parts breakdown)
7	0190870	1	Accumulator - (see page 2-39 for parts breakdown)
8	0190840	1	Emergency power unit, left hand - (see page 2-76 for parts breakdown)
9	0190839	1	Emergency power unit, right hand - (see page 2-77 for parts breakdown)
10	0191458	1	Hydraulic oil return filter - (see page 2-80 for parts breakdown)
11	5035403	4	Bulkhead run tee
12	5560106	2	Capscrew 3/8-16 x 2-3/4 inch long hex head grade 5
13	5037003	2	Swivel nut 90° elbow
14	5034601	2	Bulkhead 45° elbow
15	5074401	6	Bulkhead locknut
16	0191179	1	Pressure manifold - (see page 2-84 for parts breakdown)
17	5093010	1	Clamp
18	5560033	2	Nut 3/8-16 self locking
19	970479	4	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
20	984109	4	Nut 3/8-16 hex
21	987119	8	Washer 3/8 medium lock
22	970709	6	Capscrew 7/16-14 x 1 inch long hex head grade 5
23	987129	6	Washer 7/16 medium lock
24	970529	1	Capscrew 3/8-16 x 2-1/2 inch long hex head grade 5
25	986299	11	Washer 3/8 medium flat
26	970449	6	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
27	970239	4	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
28	987109	8	Washer 5/16 medium lock
29	986269	8	Washer 5/16 medium flat
30	5093014	1	Clamp
31	970429	3	Capscrew 3/8-16 x 1/2 inch long hex head grade 5
32	5093030	2	Clamp
33	987119	7	Washer 3/8 medium lock
34	5560641	4	Capscrew 5/16-18 x 3-1/2 inch long hex head grade 5
35	5070005	4	Diagnostic nipple
36	970589	1	Capscrew 3/8-16 x 4-1/2 inch long hex head grade 5
37	5093016	2	Clamp
38	5093012	3	Clamp
39	5093008	1	Clamp

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AW0191087-1



TITLE Turntable hydraulic hoses

## Hydraulic hoses, turntable

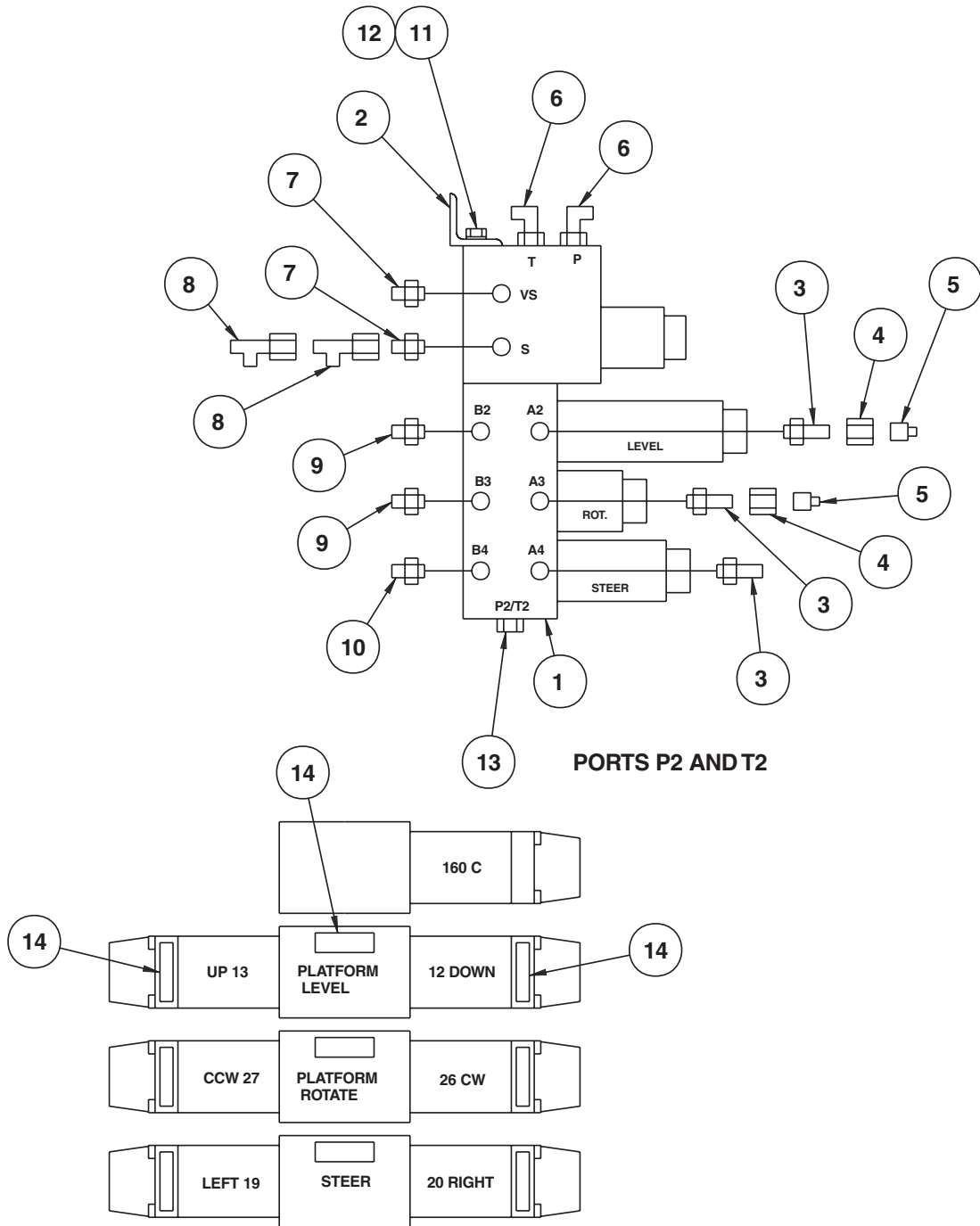
item	part no	qty	description
1	0080522	2	1/2 inch hydraulic hose
2	0070792	1	1/2 inch hydraulic hose
3	0190596	1	1-1/4 inch hydraulic hose
4	0180944	1	1/4 inch hydraulic hose
5	0101896	1	1/4 inch hydraulic hose
6	0190916	1	1/2 inch hydraulic hose
7	0073040	2	1/2 inch hydraulic hose
8	0050137	2	1/4 inch hydraulic hose
9	0180946	2	1/4 inch hydraulic hose
10	0101897	5	1/4 inch hydraulic hose
11	0081080	1	3/8 inch hydraulic hose
12	0100422	1	3/8 inch hydraulic hose
13	0100278	1	1/4 inch hydraulic hose
14	0081136	2	1/4 inch hydraulic hose
15	0070910	2	1/4 inch hydraulic hose
16	0080543	2	3/4 inch hydraulic hose
17	0080362	3	3/8 inch hydraulic hose
18	0151861	1	1 inch hydraulic hose
19	0180781	1	1/4 inch hydraulic hose
20	0070772	1	1/4 inch hydraulic hose
21	0190599	2	1/4 inch hydraulic hose
22	0040276	2	1/4 inch hydraulic hose
23	0181161	1	1/4 inch hydraulic hose
24	0020276	1	3/8 inch hydraulic hose
25	0070786	2	3/8 inch hydraulic hose
26	0190915	1	1-1/2 inch suction hose
27	5058824	2	Clamp, suction hose
28	0070927	1	1/2 inch hydraulic hose
29	0070791	2	1/2 inch hydraulic hose
30	0090988	1	1/4 inch hydraulic hose
31	0100491	2	1/4 inch hydraulic hose
32	0070769	1	1/4 inch hydraulic hose
33	0110732	2	1/2 inch hydraulic hose
34	0191241	1	1 inch hydraulic hose

## Control valve, non-proportional before 1-4-99

item	part no	qty	description
	0190833	1	Control valve, non-proportional before 1-4-99
1	6010669	1	Valve, non-proportional - (see page 2-16 for parts breakdown)
2	0190616	1	Angle
3	5065805	3	Long straight thread adapter
4	5063905	2	Fitting nut
5	5064001	2	Tube end reducer
6	5035320	2	Straight thread 90° elbow
7	5065703	2	Straight thread adapter
8	5036703	2	Swivel nut run tee
9	5065705	2	Straight thread adapter
10	5065707	1	Straight thread adapter
11	5560636	2	Capscrew 5/16-18 x 4-1/2 inch long hex head grade 5
12	987109	2	Washer 5/16 medium lock
13	5075205	2	Hex head plug
14	0082010	1	Decal set, non-proportional control valve



# Control valve, non-proportional before 1-4-99



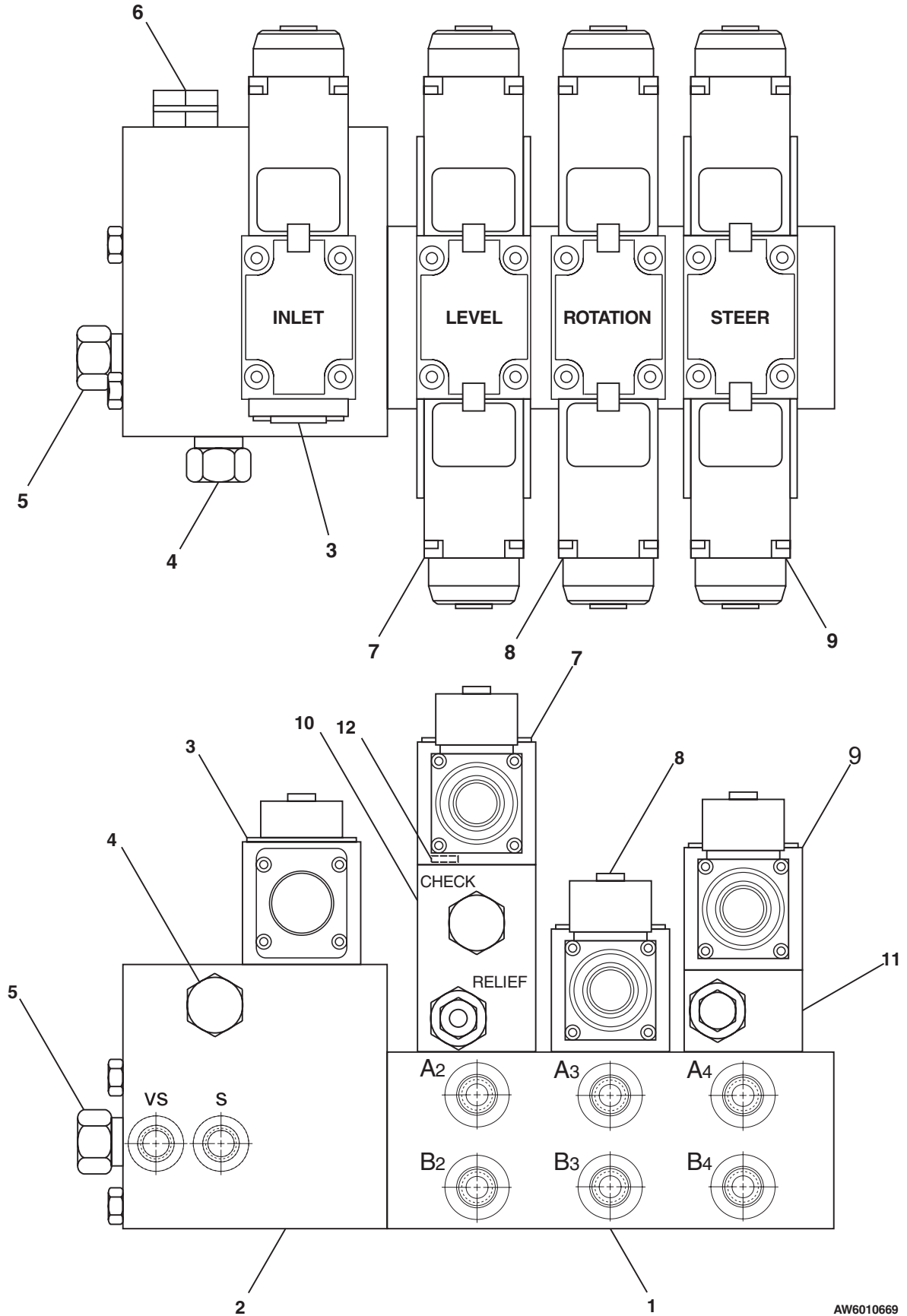
**DECAL SET INSTALLATION**

AW0190833

## Valve, non-proportional before 1-4-99

item	part no	qty	description
	6010669	1	Valve, non-proportional before 1-4-99
	0181171	1	Seal repair kit
1	6010917	1	Manifold, 3 station
2	6010918	1	Manifold, single station
	7110113	1	Face seal o-rings
3	6010906	1	4-way inlet section control valve
	3040430	1	Replacement solenoid, 12 volt DC
4	6010419	1	Flow control cartridge valve, 3 GPM
	0180801	1	Seal repair kit
5	6010531	1	Shuttle valve
	0150562	1	Seal repair kit
6	6010746	1	Directional control valve, pilot operated - normally open
7	6010904	1	Level control valve
	3040430	2	Replacement solenoid, 12 volt DC
8	6010904	1	Rotation control valve
	3040430	2	Replacement solenoid, 12 volt DC
9	6010908	1	Steer control valve
	3040430	2	Replacement solenoid, 12 volt DC
10	6010584	1	Level sandwich valve
	6010620	1	Replacement cartridge, pressure relief
	0150562	1	Seal repair kit
	6010426	1	Check valve
	0150563	1	Seal repair kit
11	6010409	1	Steer sandwich valve
	6010322	1	Replacement cartridge, pressure relief
	0150563	1	Seal repair kit
12	8180030	1	Orifice, 1mm diameter

# Valve, non-proportional before 1-4-99

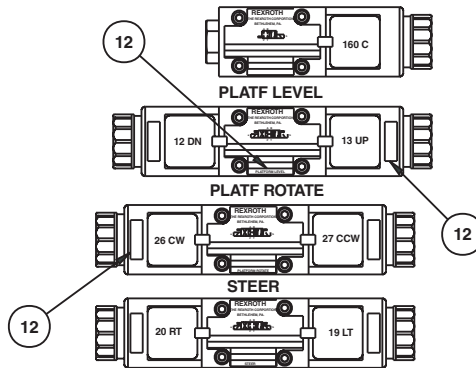
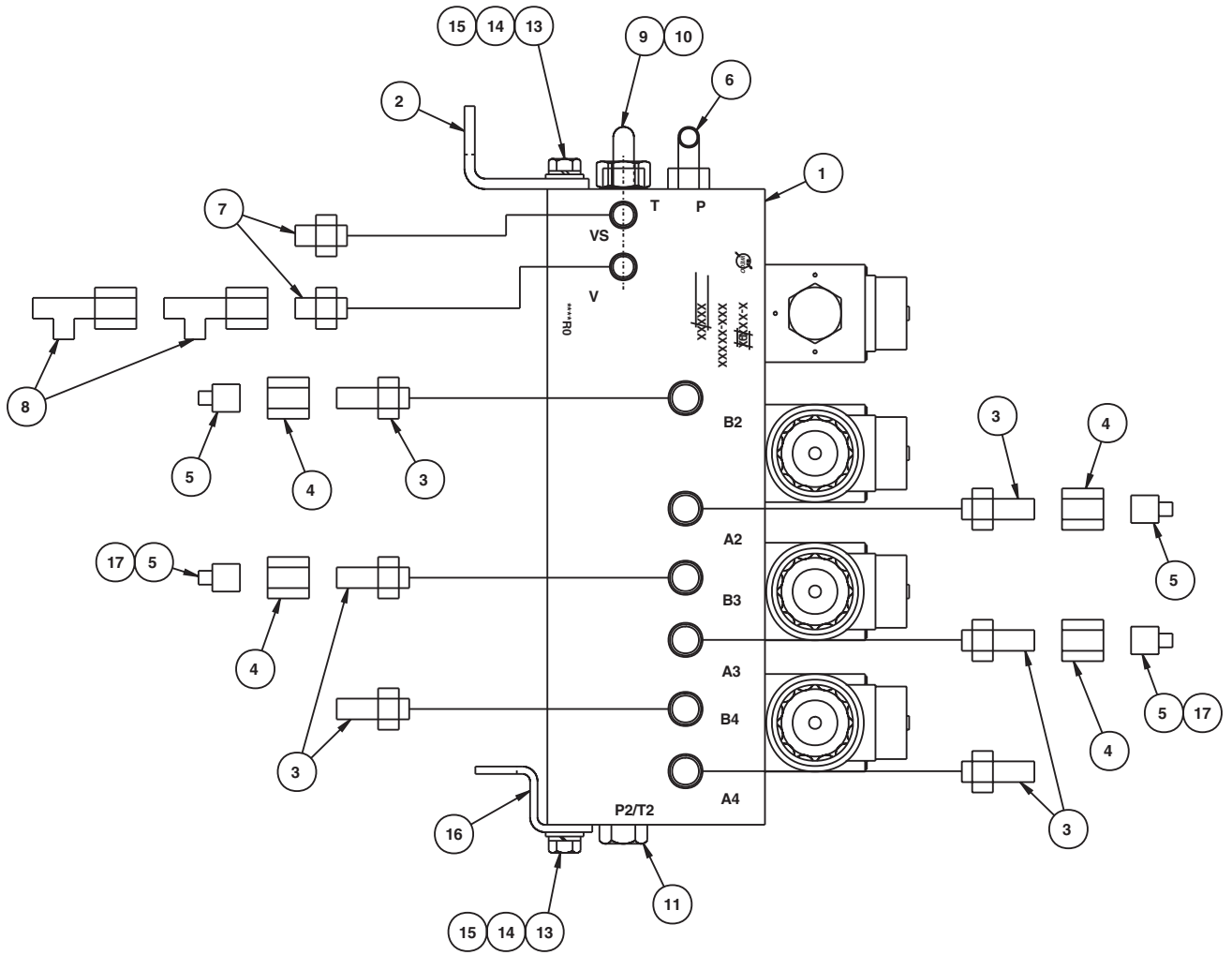


AW6010669

## Control valve, non-proportional after 1-4-99

item	part no	qty	description
	0191605	1	Control valve, non-proportional after 1-4-99
1	6010974	1	Valve, non-proportional - (see page 2-20 for parts breakdown)
2	0191640	1	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	4	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
14	987109	4	Washer 5/16 medium lock
15	986269	4	Washer 5/16 medium flat
16	0191642	1	Step angle
17	5063701	2	Cap

# Control valve, non-proportional after 1-4-99

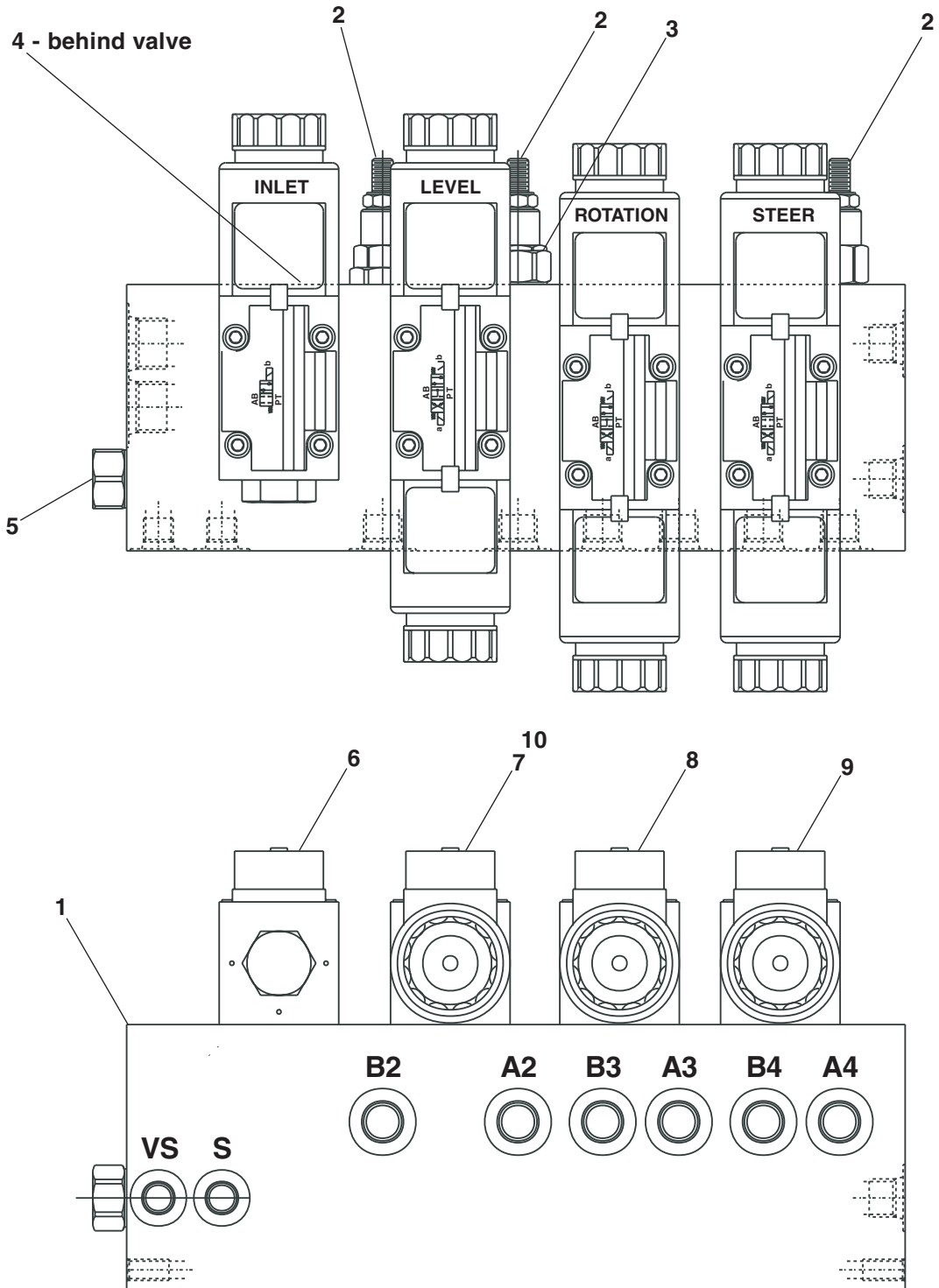


AW0191605

## Valve, non-proportional after 1- 4-99

item	part no	qty	description
	6010974	1	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
8	6010904	1	Directional control valve section, rotate
9	6010908	1	Directional control valve section, steer
10	8230111	1	Orifice, 1.0 mm diameter orifice

# Valve, non-proportional after 1-4-99



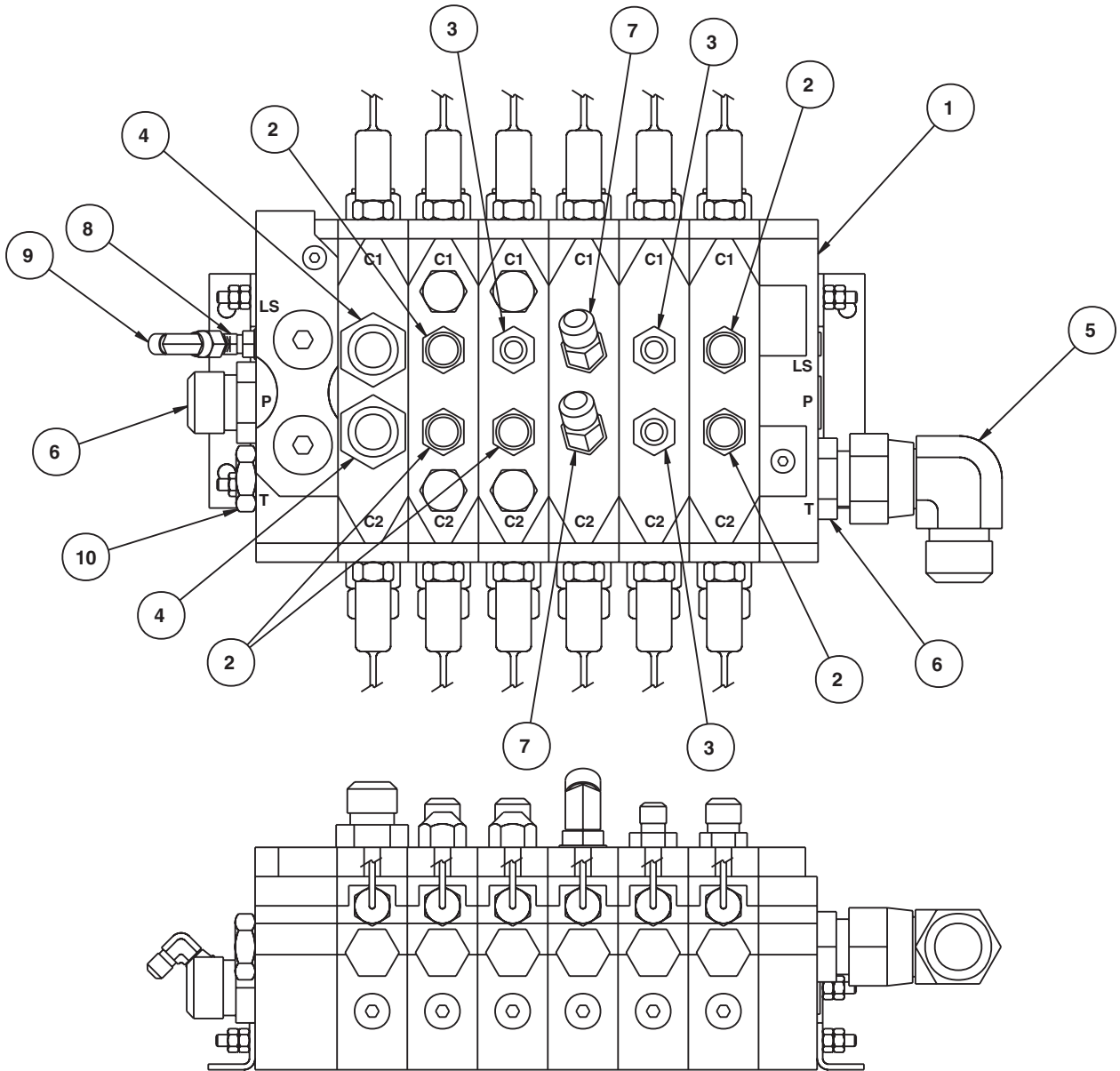
AW6010974

## Control valve, proportional

item	part no	qty	description
	0191180	1	Control valve, proportional
1	6010842	1	Valve, proportional - (see page 2-24 for parts breakdown)
2	5065709	5	Straight thread adapter
3	5065708	3	Straight thread adapter
4	5065731	2	Straight thread adapter
5	5037010	1	Swivel nut 90° elbow
6	5065719	2	Straight thread adapter
7	5035706	2	Straight thread 45° elbow
8	5035703	1	Straight thread 45° elbow
9	5037003	1	Swivel nut 90° elbow
10	5075208	1	Hex head plug



# Control valve, proportional

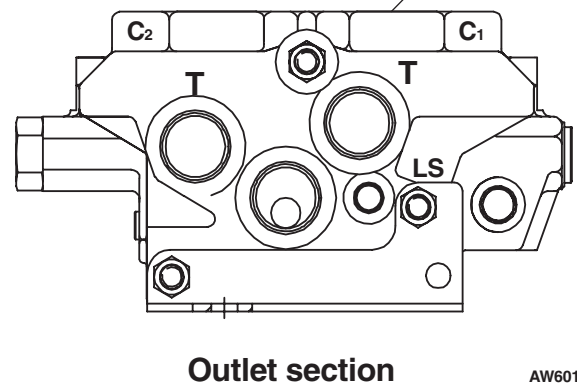
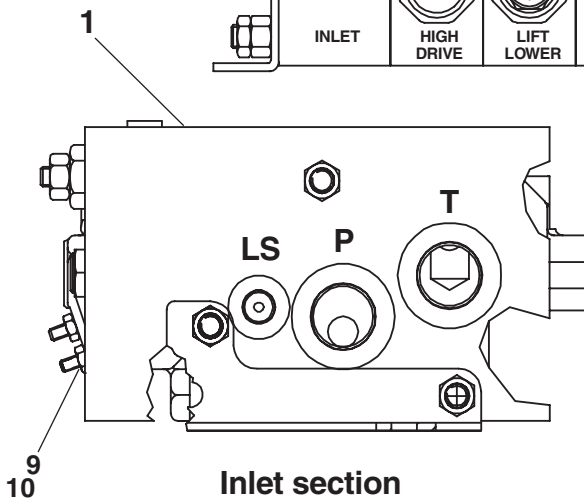
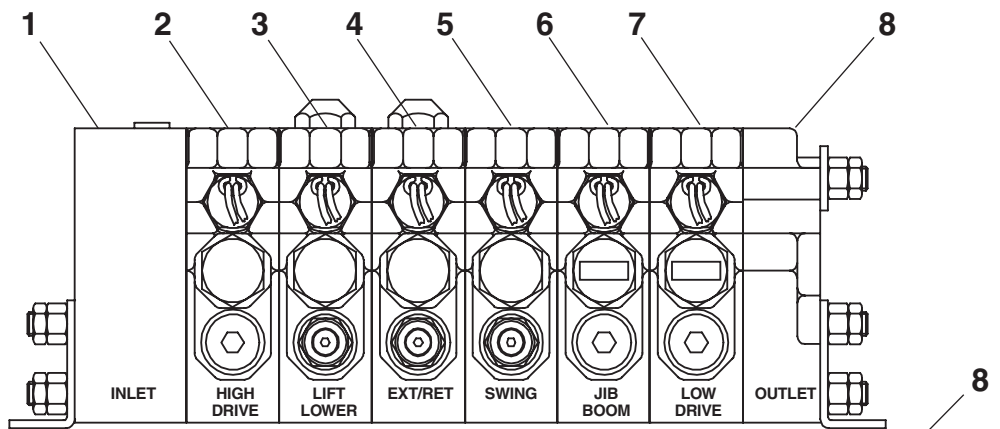
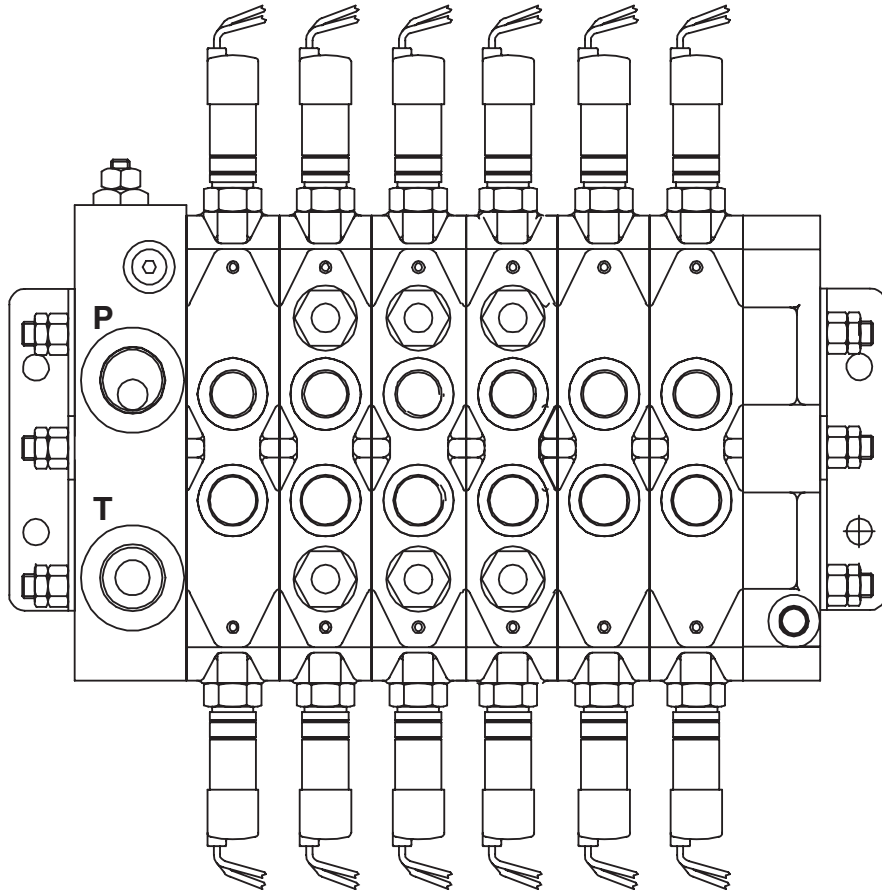


AW0191180

## Valve, proportional

item	part no	qty	description
1	6010842	1	Valve, proportional
	6010860	1	Inlet section
	8010245	1	O-ring seal kit for valve section
2	6010861	1	Drive control valve, high drive
	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	6010867	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	6010868	1	Extend/retract 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)
5	6010869	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	6010870	1	Jib boom 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)
7	6010862	1	Drive control valve, low drive
	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)
8	6010871	1	Outlet section
	8010245	1	O-ring seal kit for valve section
9	8010273	2	Nut/washer
10	8010274	2	Set screw

# Valve, proportional

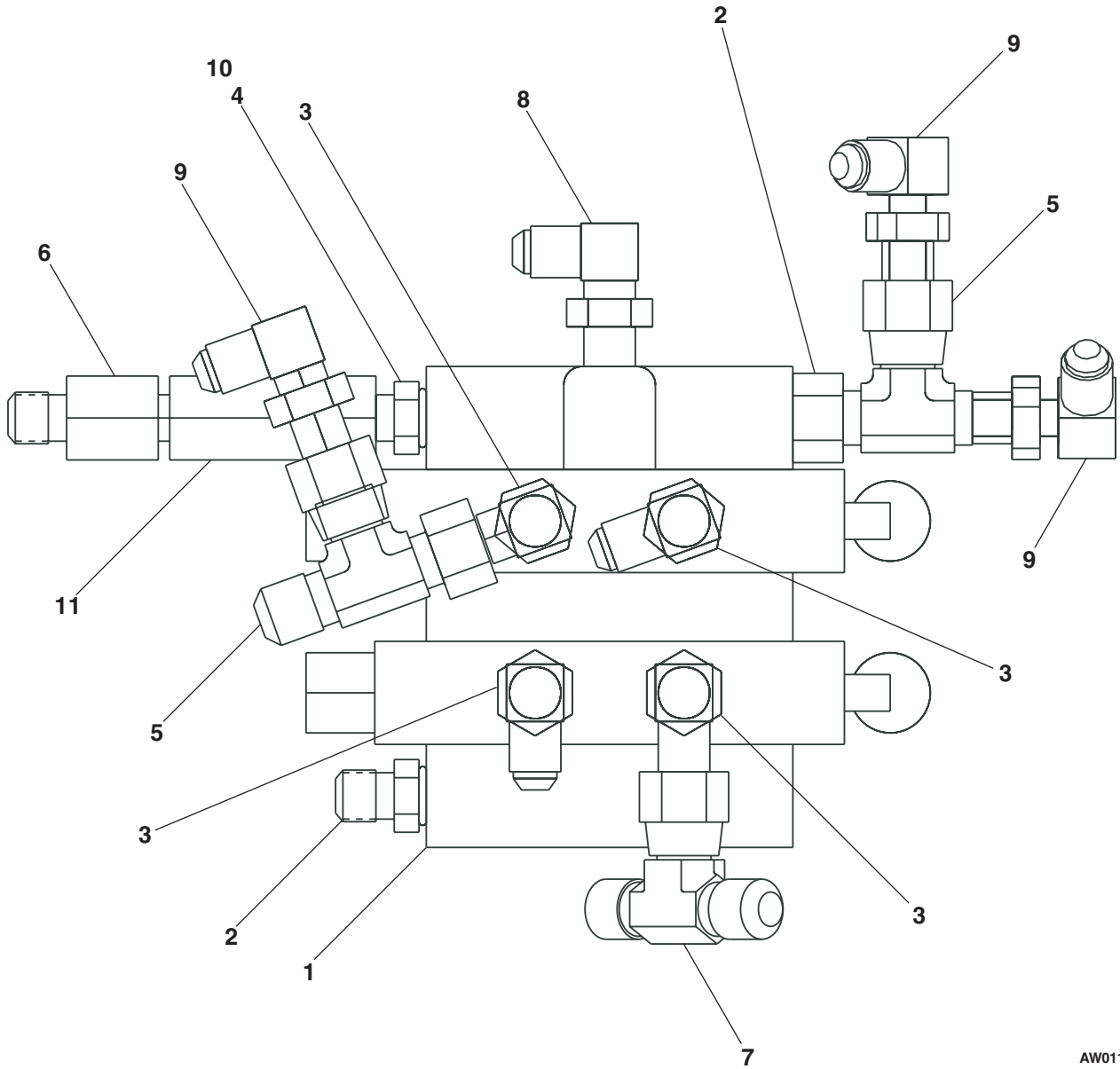


AW6010842

## 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	1	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

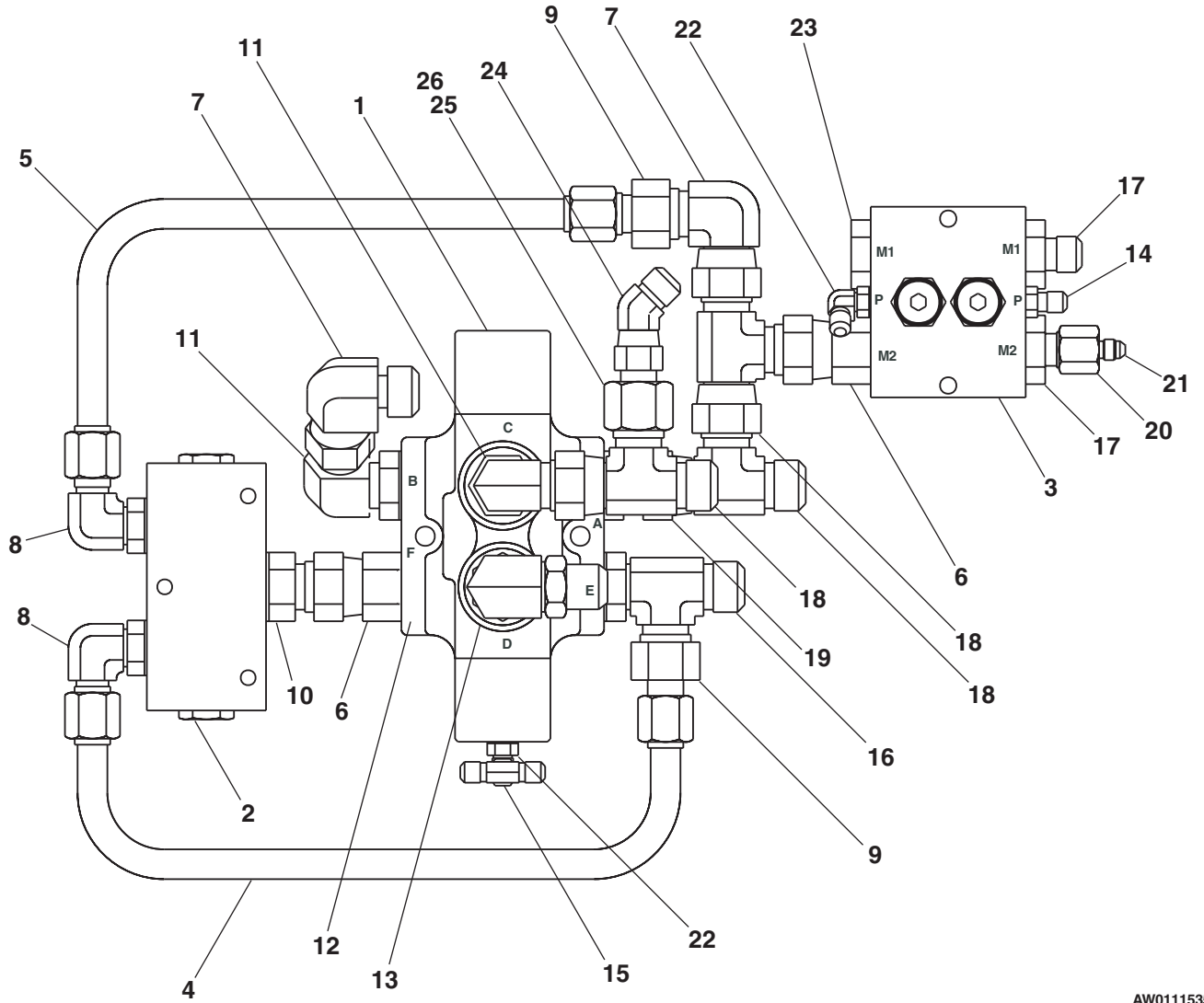


## Series parallel package, right hand

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

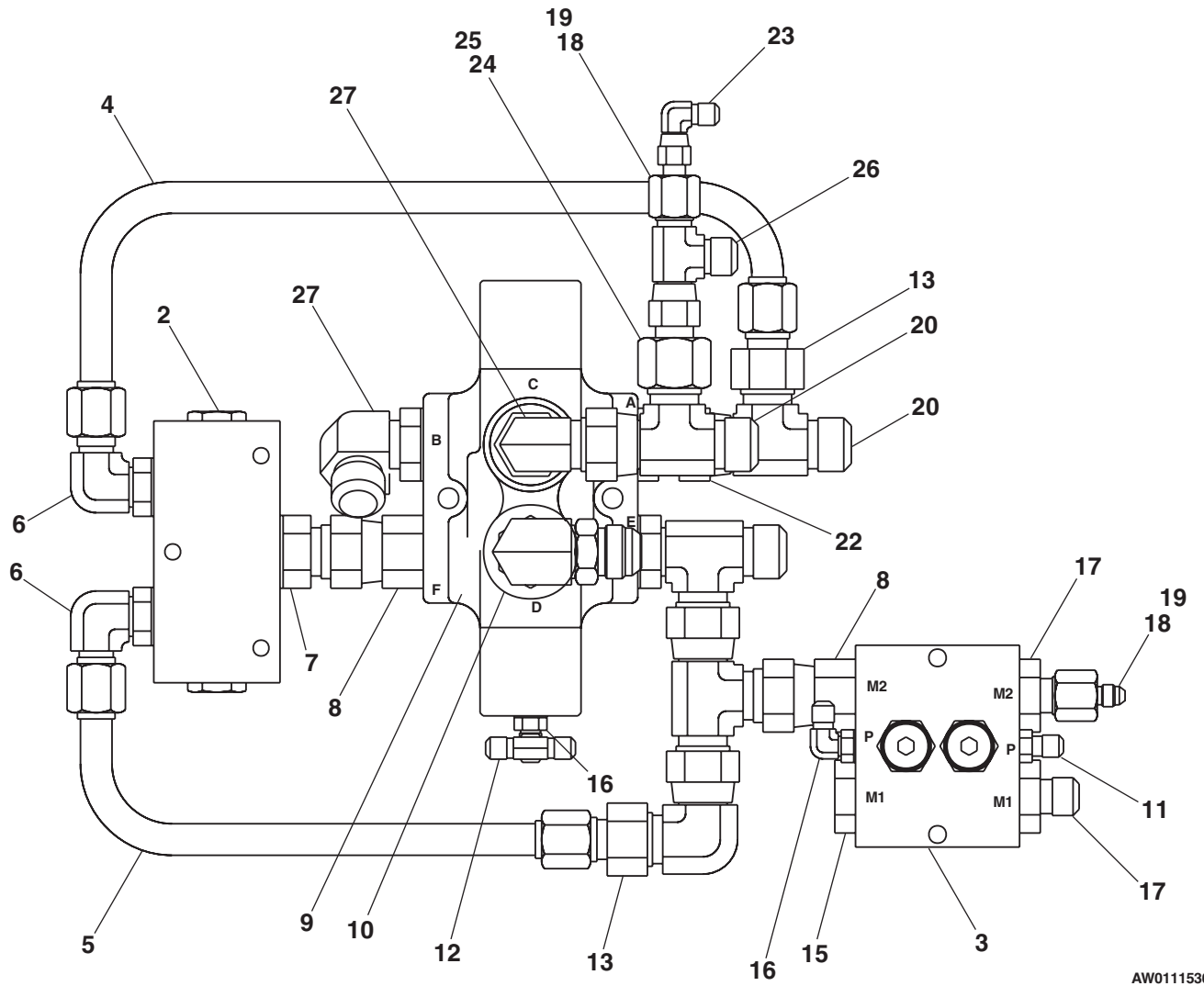


AW0111535

## Series parallel package, left hand

item	part no	qty	description
1	0111536	1	Series parallel package, left hand
	0080529		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

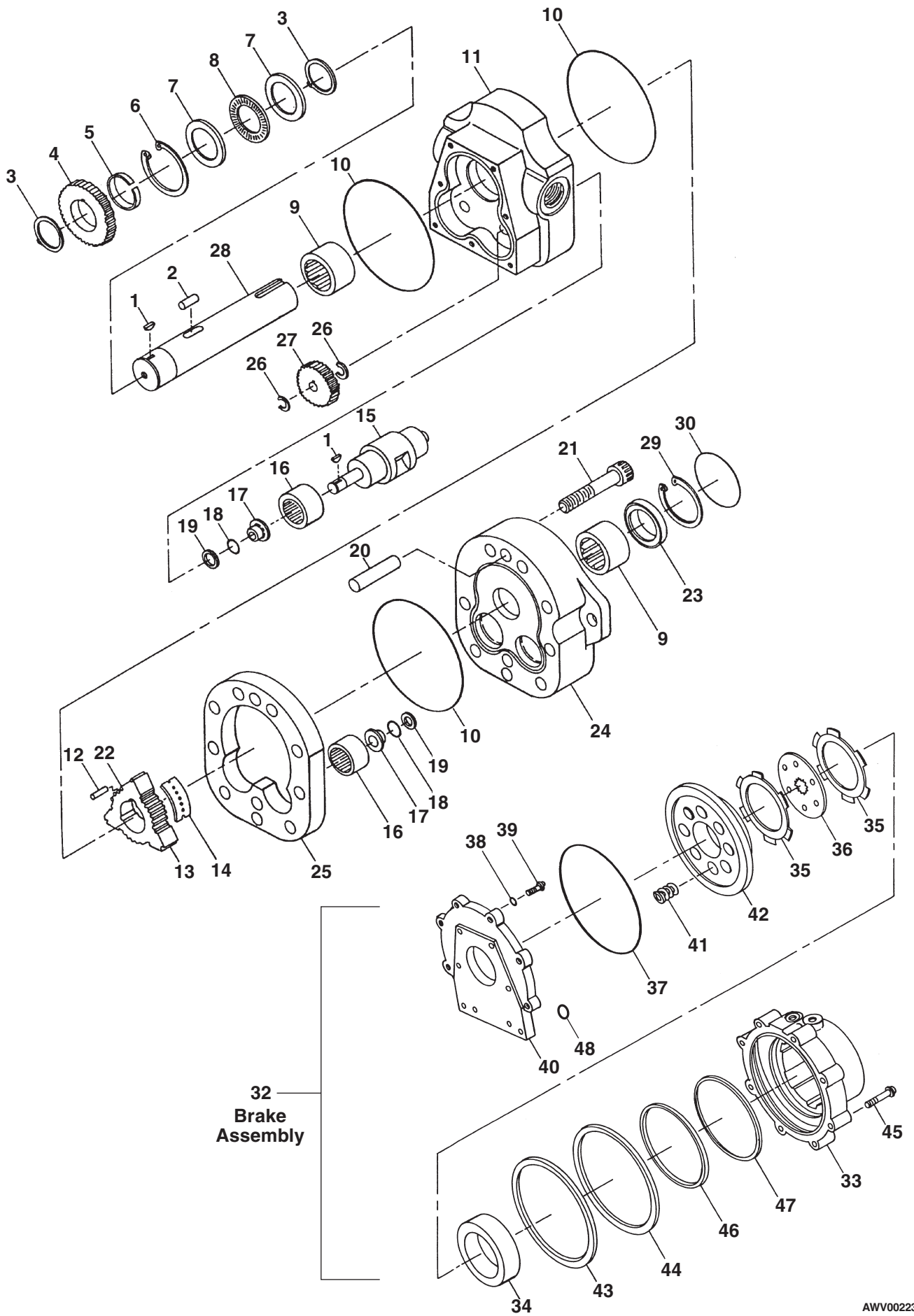


AW0111536

## 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	1	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)

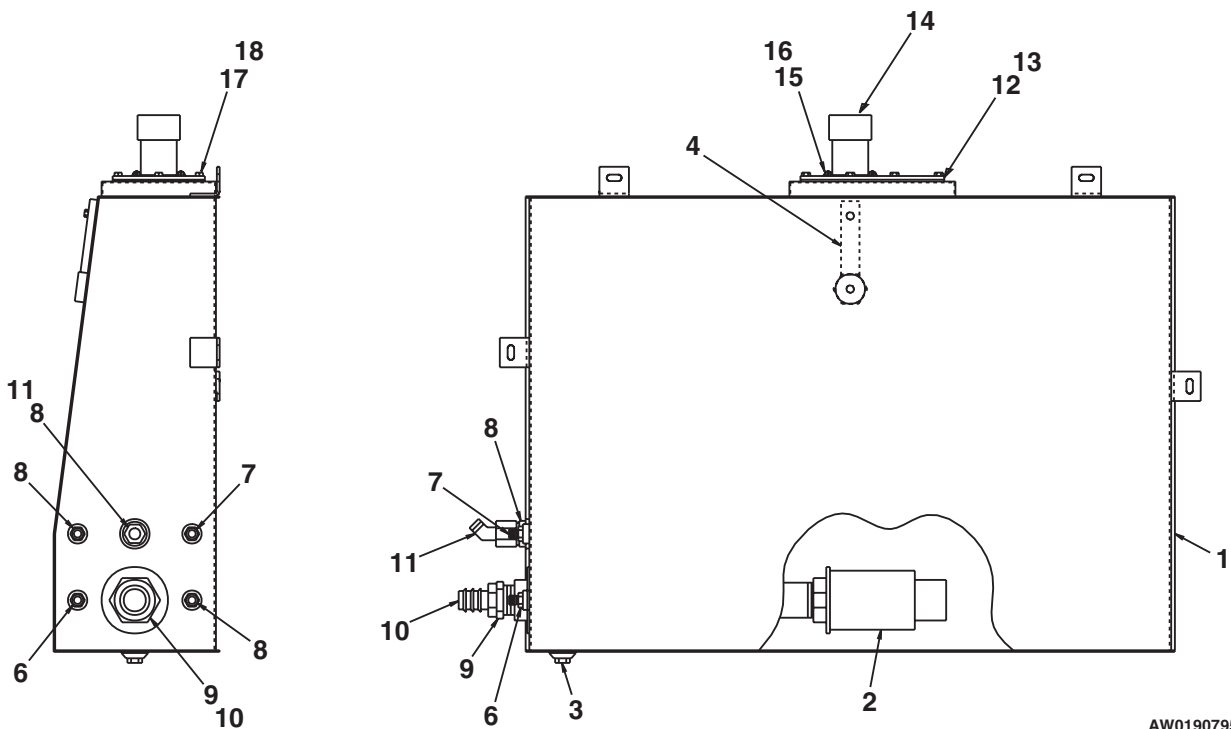
# Drive motor with brake



AWV00223

## Hydraulic oil reservoir, metal cowling

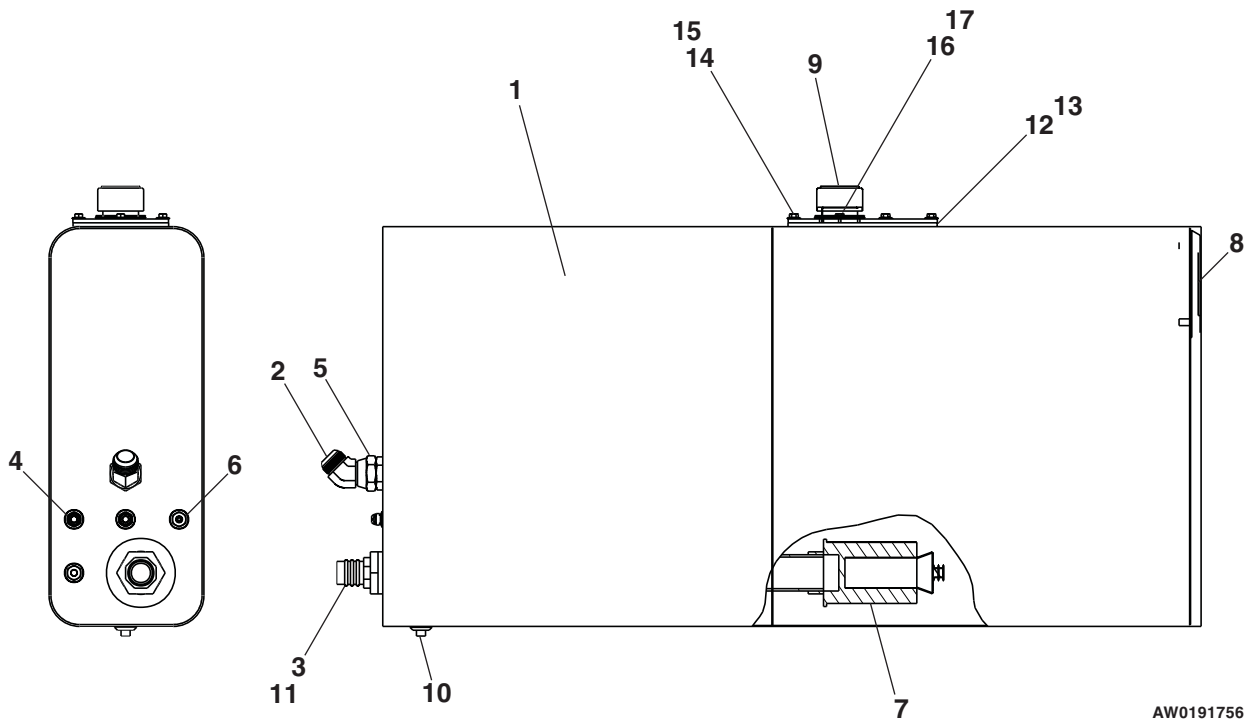
item	part no	qty	description
	0190795	1	Hydraulic oil reservoir, complete
1	0190733	1	Hydraulic oil reservoir
2	5080018	1	Filter, sump strainer
3	7714204	1	Plug, 1/2 inch NPT square head
4	5090007	1	Liquid level gauge with thermometer
5	5065709	1	Straight thread adapter
6	5065708	2	Straight thread adapter
7	5065732	1	Straight thread adapter
8	5065721	1	Straight thread adapter
9	7721612	1	Reducer bushing
10	5037305	1	Straight connector
11	5036911	1	Swivel nut 45° elbow
12	0110368	1	Cover gasket
13	0110367	1	Cover plate
14	5090040	1	Filler breather cap, high neck
15	5560609	6	Machine screw #10-24 x 1/2 inch long truss head
16	987089	6	Washer #10 medium lock
17	970259	10	Capscrew 5/16-18 x 1 inch long hex head grade 5
18	987109	10	Washer 5/16 medium lock



AW0190795

## Hydraulic oil reservoir, plastic cowling

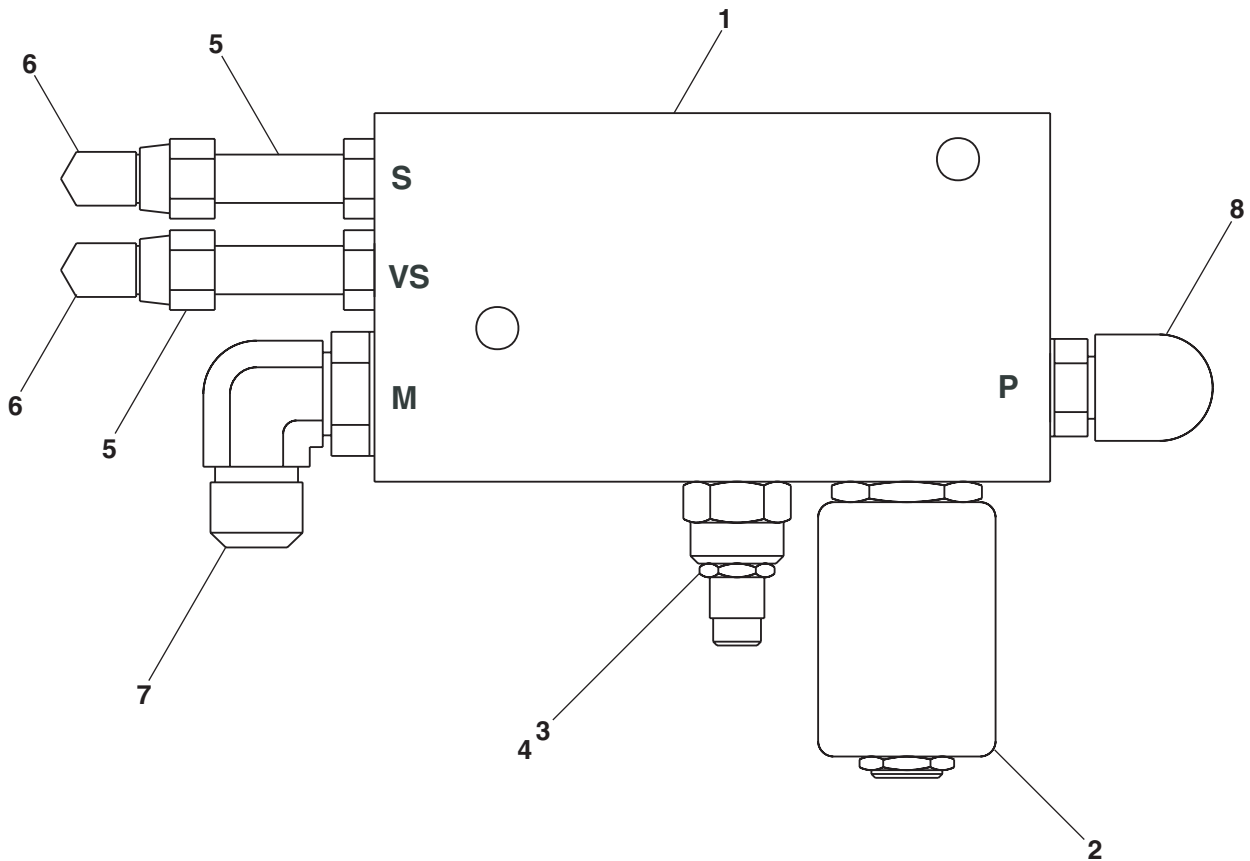
item	part no	qty	description
	0191756	1	Hydraulic oil reservoir, complete
1	0191755	1	Hydraulic oil reservoir
2	5036911	1	Swivel nut 45° elbow
3	5037305	1	Straight connector
4	5065709	3	Straight thread adapter
5	5065721	1	Straight thread adapter
6	5065732	1	Straight thread adapter
7	5080018	1	Filter, sump strainer
8	5090007	1	Liquid level gauge with thermometer
9	5090008	1	Filler/breather cap
10	7714204	1	Pipe plug 1/2 NPT square head
11	7721612	1	Reducer bushing
12	0110367	1	Cover plate
13	0110368	1	Cover gasket
14	970259	10	Capscrew 5/16-18 x 1 inch long hex head grade 5
15	987109	10	Washer 5/16 medium lock
16	5560609	6	Machine screw #10-24 x 1/2 inch long truss head
17	987089	6	Washer #10 medium lock



AW0191756

# 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

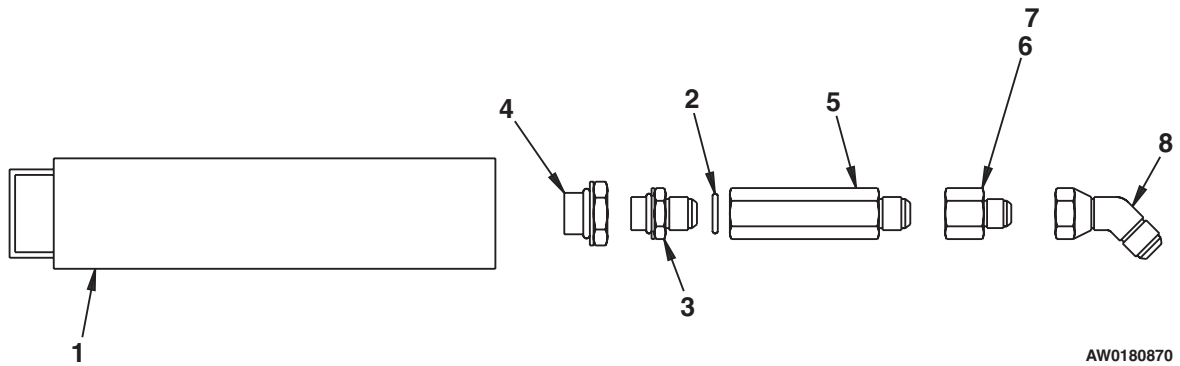


AW0152831



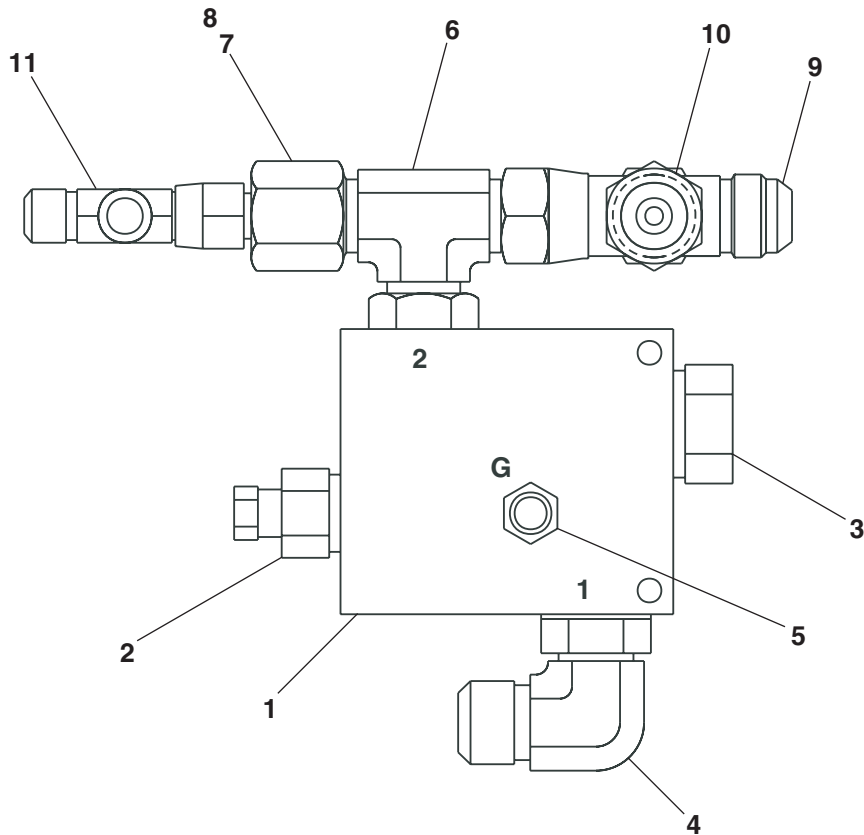
# Accumulator

item	part no	qty	description
	0180870	1	Accumulator - (shipped charged)
1	6070006	1	Accumulator - (shipped uncharged, charge to 450 psi with dry nitrogen before use)
2	7110906	1	O-ring
3	5065708	1	Straight thread adapter
4	5076003	1	Straight thread adapter
5	6010636	1	Check valve, orificed
6	5064001	1	Tube end reducer
7	5063905	1	Fitting nut
8	5036903	1	Swivel nut 45° elbow



## Anti-cavitation valve

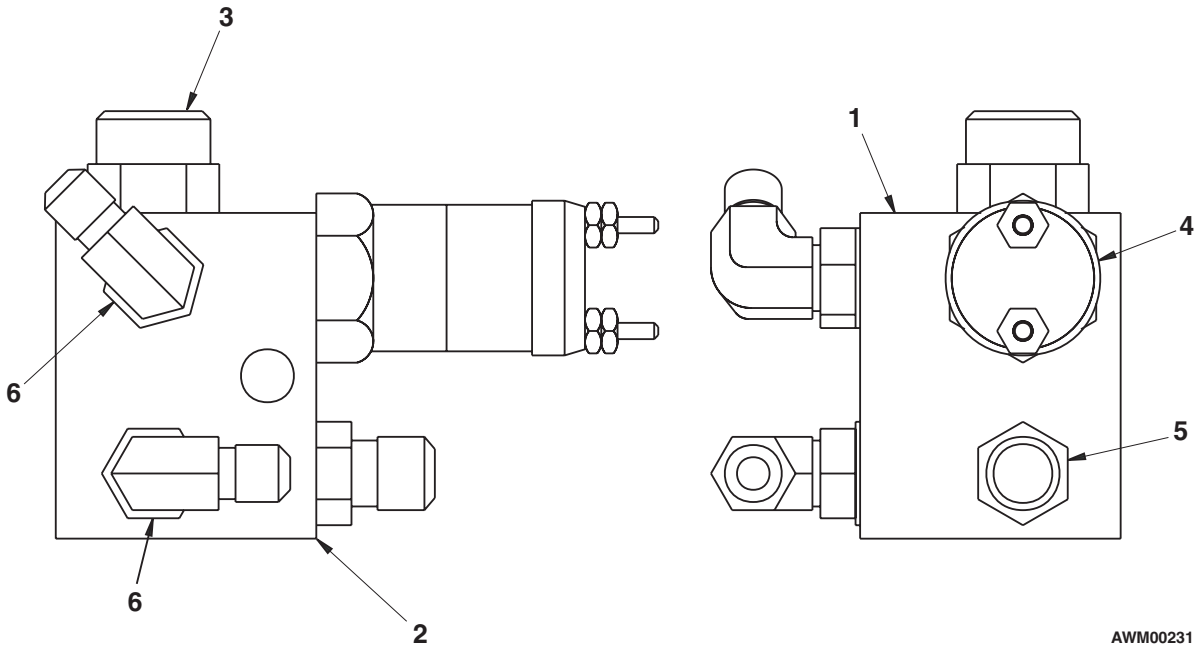
item	part no	qty	description
	0111273	1	Anti-cavitation valve
1	6010492	1	Valve, anti-cavitation - (valve includes items 2 and 3)
	0110683	1	Seal repair kit
2	8230099	1	Relief valve cartridge - (factory preset, do not reset)
3	6010563	1	Check valve cartridge
4	5035307	1	Straight thread 90° elbow
5	5065703	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

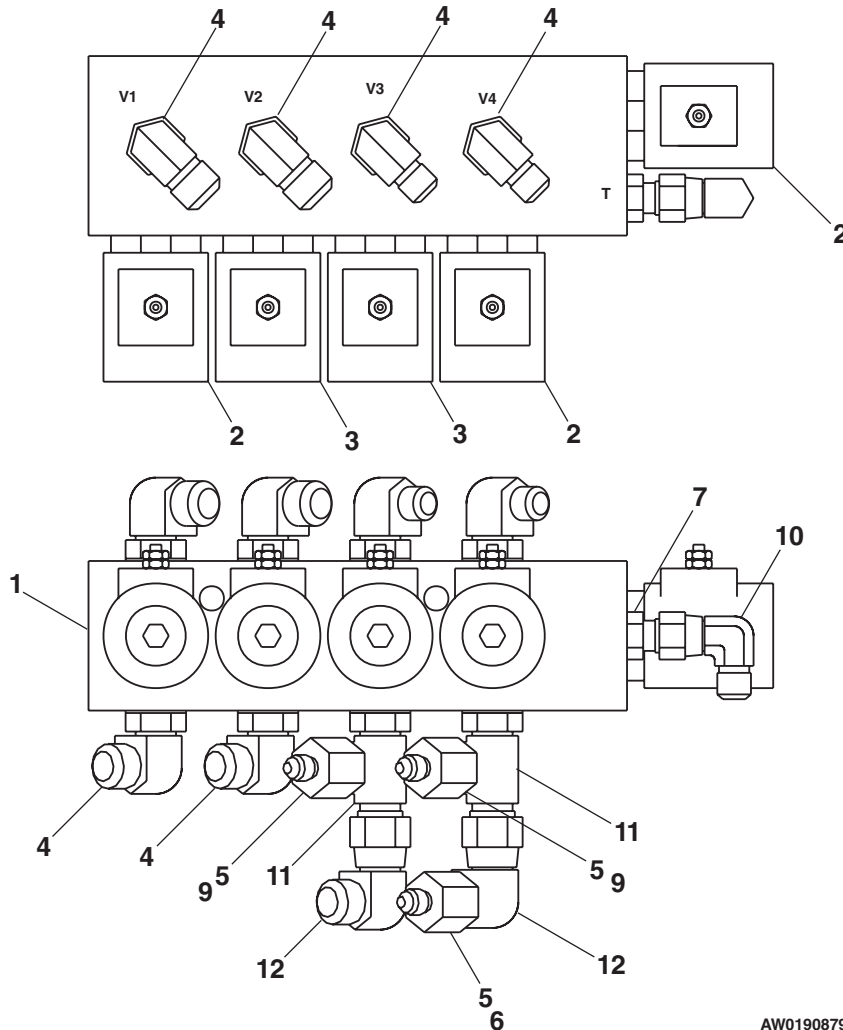
item	part no	qty	description
	0190878	1	Axle interlock valve
1	6010723	1	Valve, axle interlock - (valve includes items 2 and 3)
2	6010735	1	Valve body, Fluid Tech
	6010913	1	Valve body, Weco
3	6010734	1	Flow control valve, Fluid Tech
	6010914	1	Flow control valve, Weco
4	3020077	1	Pressure switch
5	5065705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



AWM00231

# Blocking valve

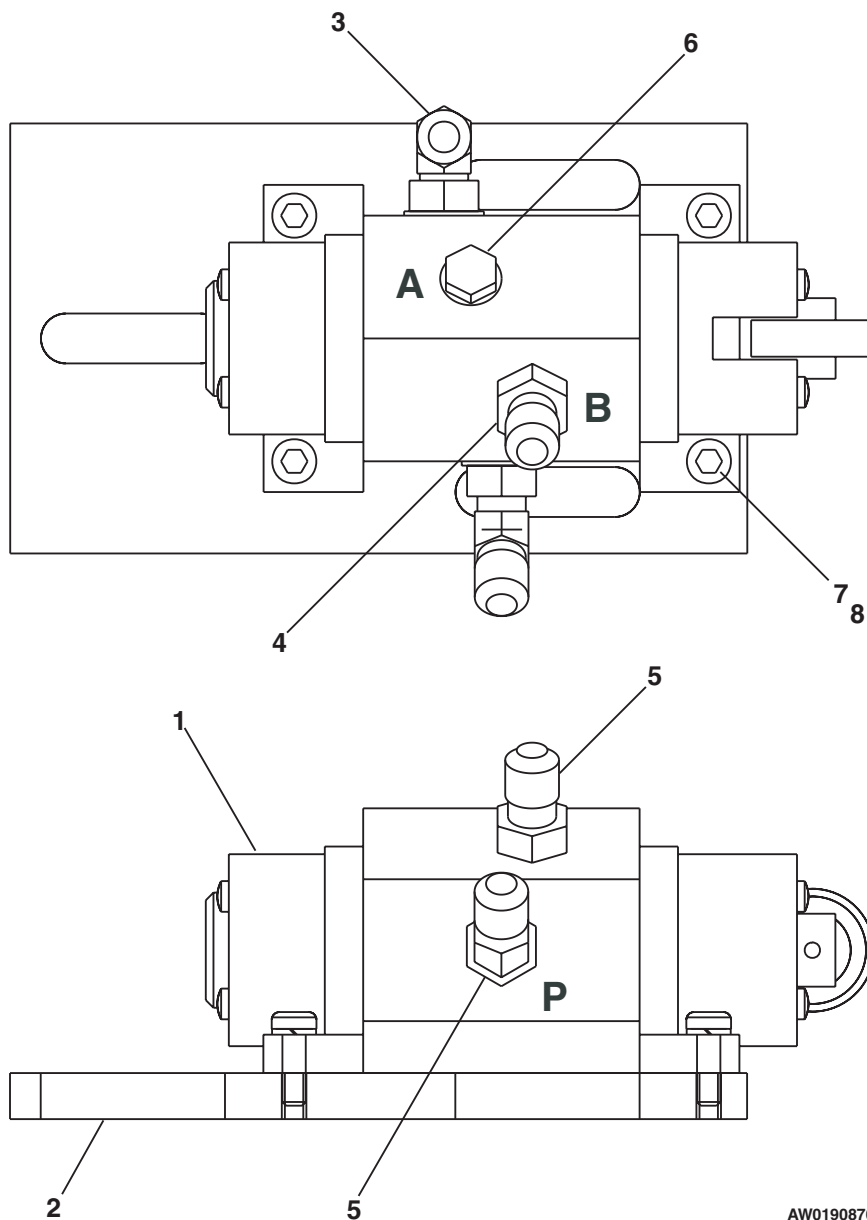
item	part no	qty	description
1	0190879	1	Blocking valve, complete
	6010721	1	Blocking valve - (includes items 2 and 3)
	6010728	1	Replacement relief valve, Fluid Tech
	8080124	1	Seal repair kit
	6010732	1	Replacement relief valve, Weco
2	6010726	3	Solenoid, Fluid Tech
	3040457	1	Solenoid coil, 12 volt DC
	6010911	3	Solenoid, Weco
	3040457	1	Solenoid coil, 12 volt DC
3	6010727	2	Solenoid, Fluid tech
	6010856	1	Seal repair kit
	3040457	1	Solenoid coil, 12 volt DC
	6010912	1	Solenoid, Weco
	3040457	1	Solenoid coil, 12 volt DC
4	5035306	5	Straight thread 90° elbow
5	5063906	3	Fitting nut
6	5064003	1	Tube end reducer
7	5065707	1	Straight thread adapter
8	5035320	1	Straight thread 90° elbow
9	5064002	2	Tube end reducer
10	5037005	1	Swivel nut 90° elbow
11	5036106	2	Straight thread run tee
12	5037006	2	Swivel nut 90° elbow



AW0190879

## Cam valve

item	part no	qty	description
	0190876	1	Cam valve, complete
1	6010222	1	Cam valve
	0110714	1	Seal repair kit
2	0110495	1	Base plate, cam valve
3	5035303	1	Straight thread 90° elbow
4	5065703	1	Straight thread adapter
5	5035703	1	Straight thread 45° elbow
6	5075203	1	Hex head plug
7	5569880	4	Machine screw #10-24 x 5/8 inch long socket head
8	987089	4	Washer #10 medium lock

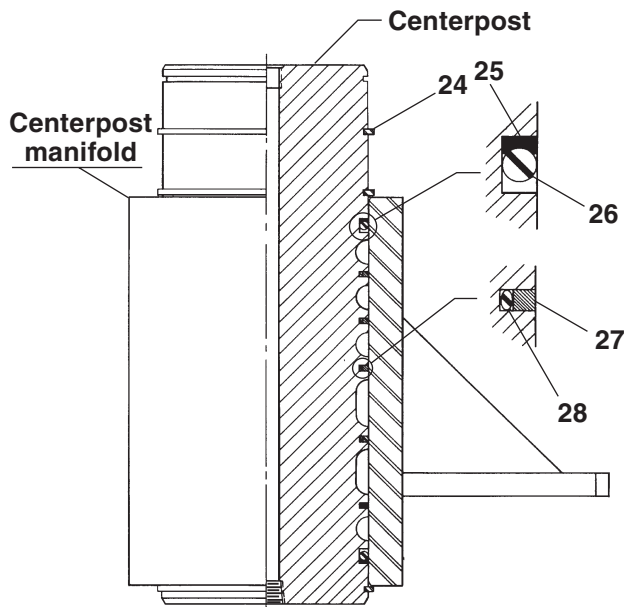


AW0190876

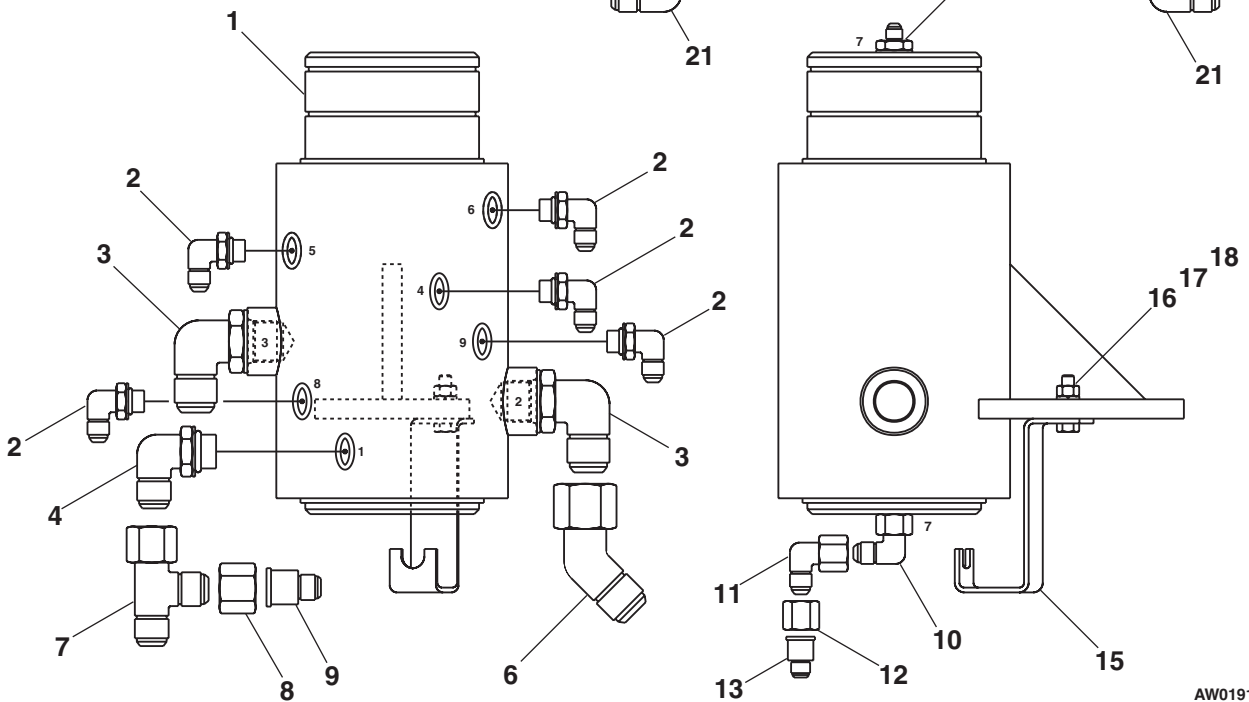
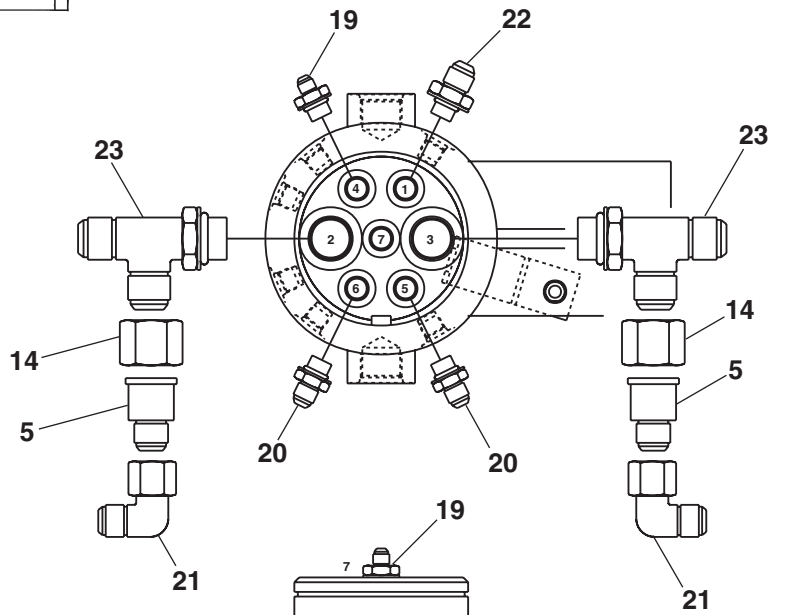
## Centerpost and fittings

item	part no	qty	description
	0191178	1	Centerpost and fittings
1	0110465	1	Centerpost and manifold - (includes centerpost, manifold and seals)
	0110466	1	Centerpost
	0110467	1	Manifold
	0070991	1	Seal repair kit - (kit includes items 25 through 28)
2	5035305	5	Straight thread 90° elbow
3	5035308	2	Straight thread 90° elbow
4	5035307	1	Straight thread 90° elbow
5	5064008	2	Tube end reducer
6	5036908	1	Swivel nut 45° elbow
7	5036707	1	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	5063908	2	Fitting nut
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	5037006	2	Swivel nut 90° elbow
22	5065728	1	Straight thread adapter
23	5036108	2	Straight thread run tee
24	5590003	3	Retaining ring
25	Kit item	2	Parbak seal - (not sold separately)
26	Kit item	2	O-ring - (not sold separately)
27	Kit item	5	Seal ring - (not sold separately)
28	Kit item	5	O-ring - (not sold separately)

# Centerpost and fittings



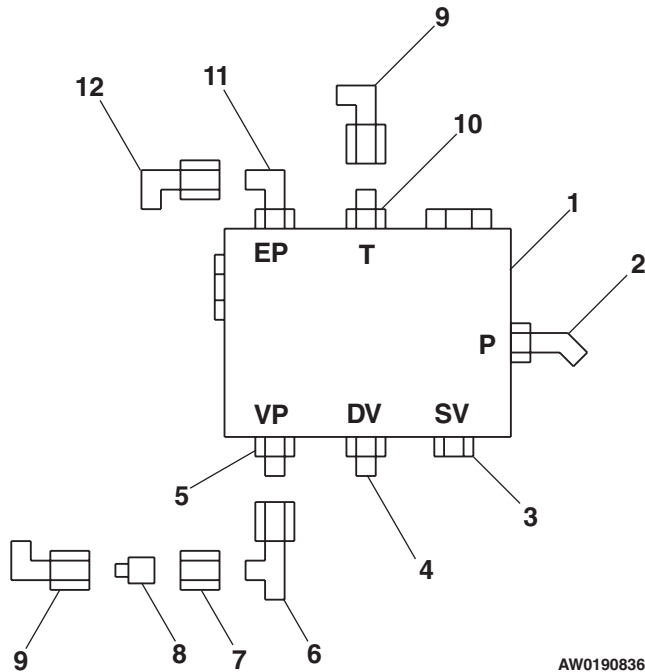
Centerpost seals



AW0191178

# Check valve manifold

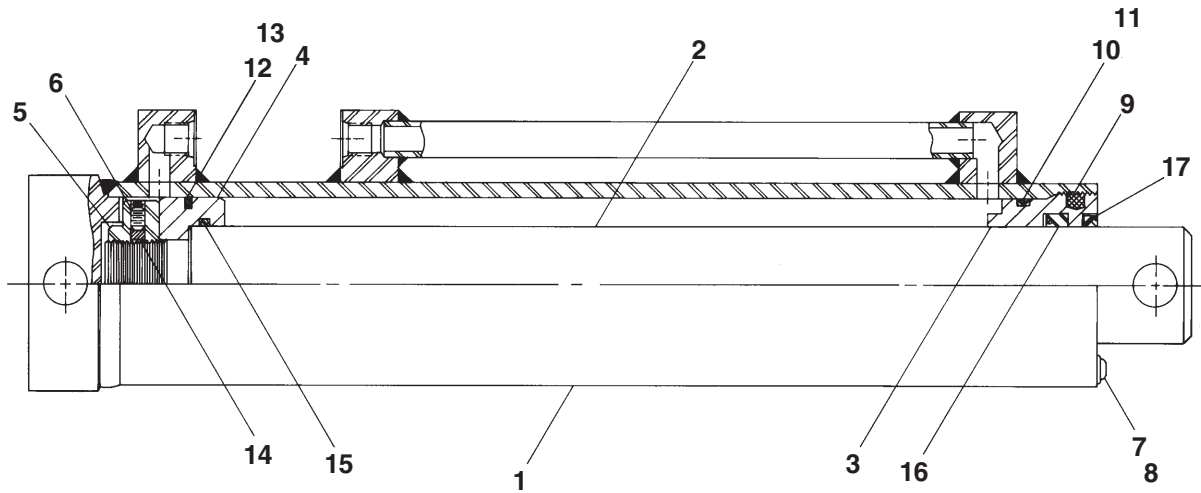
item	part no	qty	description
1	0190836	1	Check valve manifold
	6010579	1	Pressure manifold valve
	6010605	1	Seal repair kit
	6010565	1	Check valve cartridge
2	5035710	1	Straight thread 45° elbow
3	5075205	1	Hex head plug
4	5065718	1	Straight thread adapter
5	5065708	1	Straight thread adapter
6	5036705	1	Swivel nut run tee
7	5063905	1	Fitting nut
8	5064001	1	Tube end reducer
9	5037003	2	Swivel nut 90° elbow
10	5065703	1	Straight thread adapter
11	5035305	1	Straight thread 90° elbow
12	5037005	1	Swivel nut 90° elbow





## Cylinder, axle extend - GBI

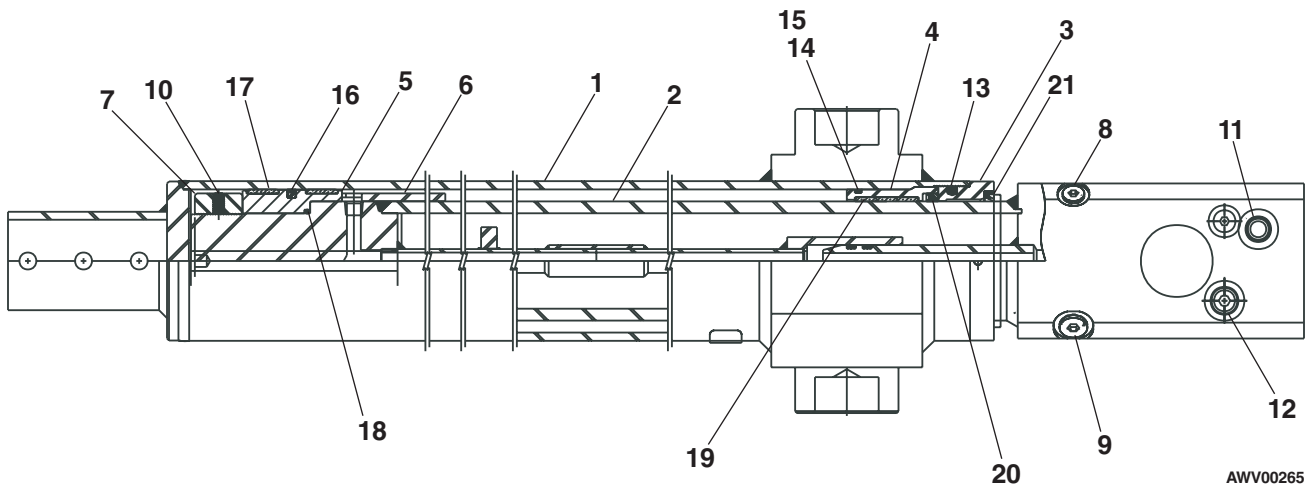
item	part no	qty	description
	0190709	1	Cylinder, axle extend - GBI
	0190917	1	Seal repair kit - (kit includes items 9 through 17)
1		1	Tube - (not sold separately)
2	8070827	1	Rod
3	8070357	1	Retainer
4	8070358	1	Piston
5	8070360	1	Nut
6	8070361	1	Set screw
7	8070362	1	Capscrew
8	8070363	1	Lock washer
9	Kit item	1	Nylon plug - (not sold separately)
10	Kit item	1	O-ring - (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	Teflon ring - (not sold separately)
14	Kit item	1	Bronze plug - (not sold separately)
15	Kit item	1	O-ring - (not sold separately)
16	Kit item	1	U-ring - (not sold separately)
17	Kit item	1	Wiper - (not sold separately)



AWV00261

## Cylinder, extension - GBI

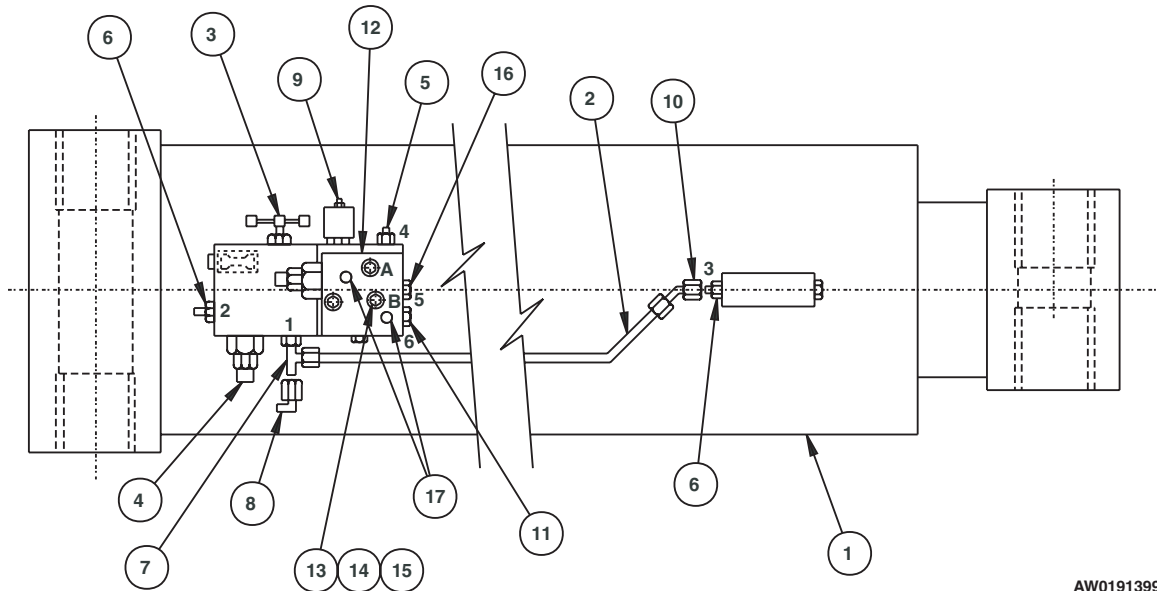
item	part no	qty	description
	0190688	1	Cylinder, extension - GBI
	8070804	1	Seal repair kit - (kit includes items 11 through 21)
1		1	Case - (not sold separately)
2	8070817	1	Rod
3	8070387	1	Thread ring
4	8070395	1	Head gland
5	8070396	1	Piston
6	8070816	1	Spacer
7	8070815	1	Ring nut
8	8070368	3	Port plug
9	8070814	5	Port plug
10	8070367	2	Set screw
11	Kit item	5	O-ring - (not sold separately)
12	Kit item	3	O-ring - (not sold separately)
13	Kit item	3	Nylon plug - (not sold separately)
14	Kit item	1	Back-up - (not sold separately)
15	Kit item	1	O-ring - (not sold separately)
16	Kit item	1	Teflon seal - (not sold separately)
17	Kit item	2	Wear ring - (not sold separately)
18	Kit item	1	O-ring - (not sold separately)
19	Kit item	3	Wear ring - (not sold separately)
20	Kit item	1	U-cup - (not sold separately)
21	Kit item	1	Wiper - (not sold separately)



AWV00265

# Lift cylinder

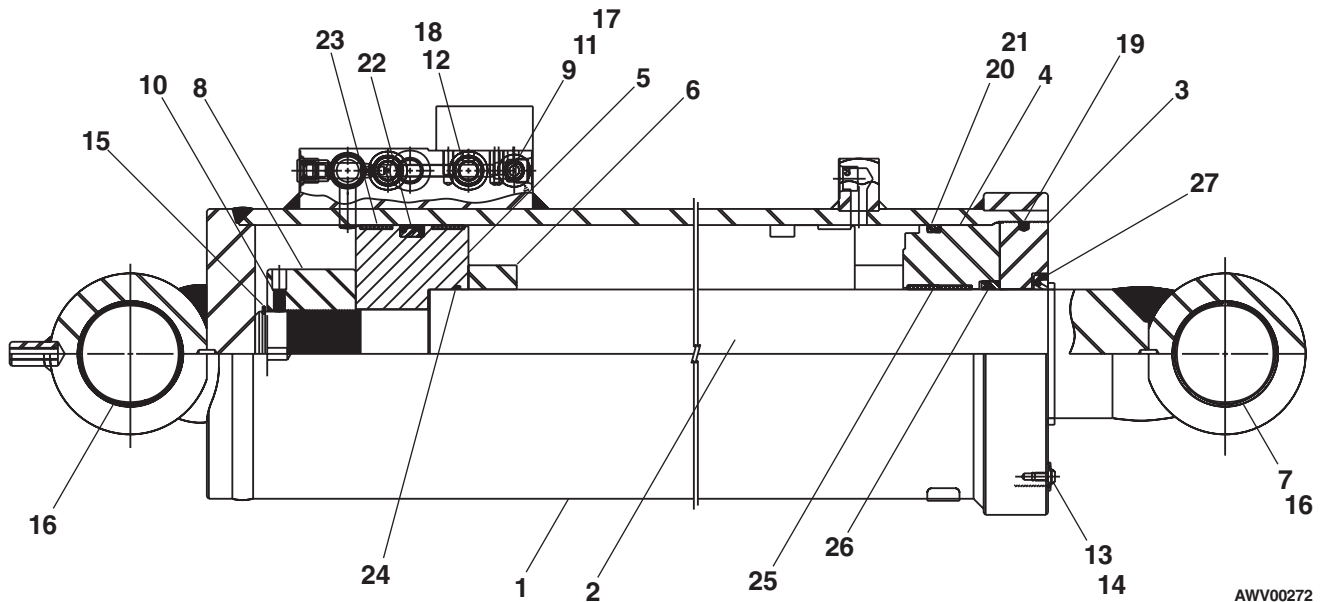
item	part no	qty	description
	0191399	1	Lift cylinder
1	0191368	1	Cylinder, lift
2	0190612	1	1/2 inch hydraulic tube
3	6010292	1	Manual bleed down cartridge valve
4	6010663	1	Holding valve cartridge
5	5065705	1	Straight thread adapter
6	5065709	2	Straight thread adapter
7	5036106	1	Straight thread run tee
8	5037006	1	Swivel nut 90° elbow
9	6010508	1	Cartridge valve with coil
	6010533	1	Seal repair kit
	6010509	1	Replacement cartridge valve
	3040457	1	Replacement coil, 12 volt DC
10	5036906	1	Swivel nut 45° elbow
11	6010724	1	Check valve cartridge
12	6010722	1	Lift cylinder add-on valve
	6010731	1	Replacement valve body
	6010469	1	Replacement counterbalance valve cartridge
	6010514	1	Replacement check valve cartridge
	7110013	1	O-ring
13	970299	3	Capscrew 5/16-18 x 2 inch long hex head grade 5
14	987109	3	Washer 5/16 medium lock
15	986269	3	Washer 5/16 medium flat
16	561176	1	Check valve cartridge
17	7110013	2	O-ring - (included with add-on valve item 12)



AW0191399

## Cylinder, lift - GBI

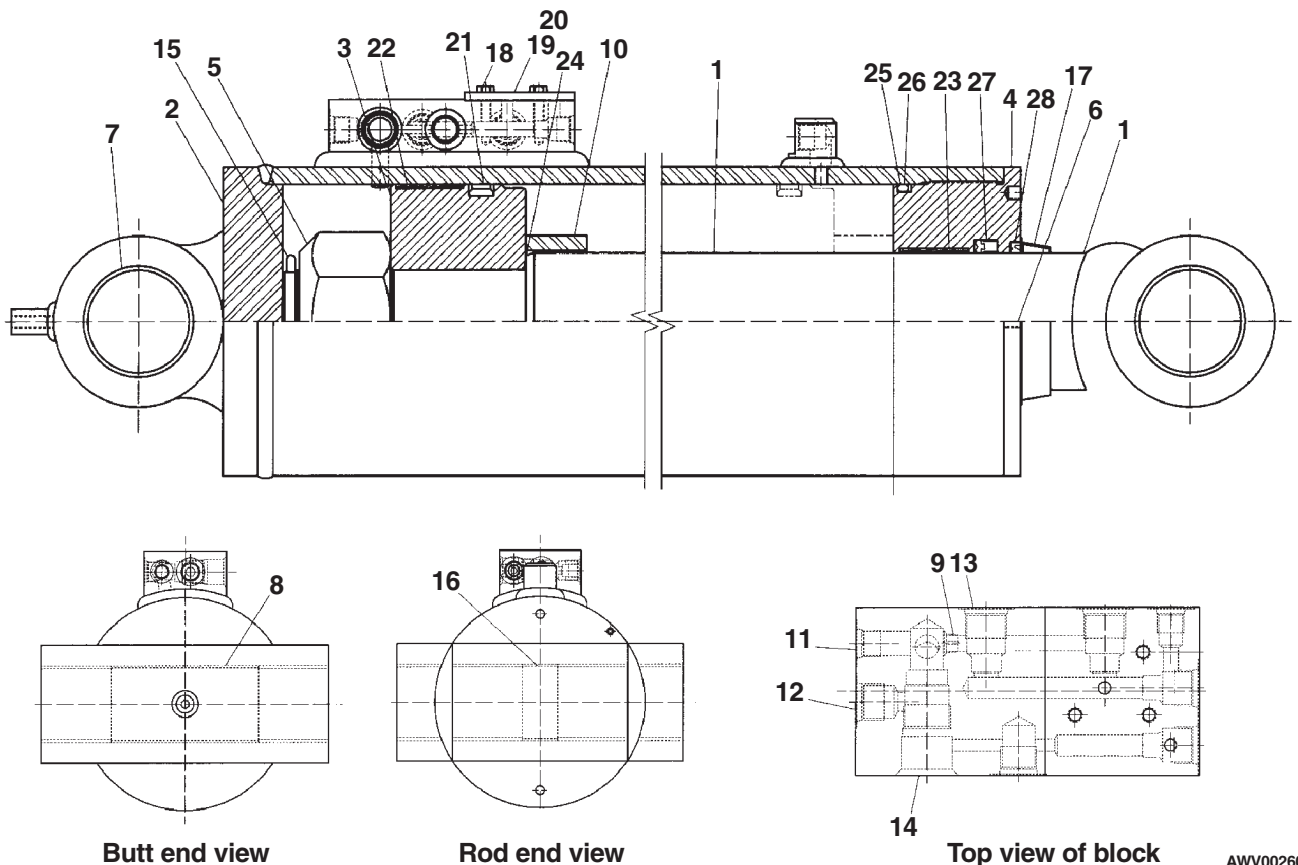
item	part no	qty	description
	0191368	1	Cylinder, lift - GBI
	8070589	1	Seal repair kit - (kit includes items 17 through 27)
1		1	Tube - (not sold separately)
2	8070684	1	Rod
3	8070683	1	Retainer
4	8070682	1	Bearing
5	8070681	1	Piston
6	8070680	1	Spacer
7	8070679	1	Spacer
8	8070678	1	Nut
9	8070677	1	Pipe plug
10	8070676	2	Set screw
11	8070542	1	Port plug
12	8070368	1	Port plug
13	8070370	1	Lock washer
14	8070371	1	Capscrew
15	8070672	1	Retaining ring
16	8070671	4	Bushing
17	Kit item	1	O-ring - (not sold separately)
18	Kit item	1	O-ring - (not sold separately)
19	Kit item	1	Nylon plug - (not sold separately)
20	Kit item	1	Back-up - (not sold separately)
21	Kit item	1	O-ring - (not sold separately)
22	Kit item	1	Quad seal - (not sold separately)
23	Kit item	2	Wear ring - (not sold separately)
24	Kit item	1	O-ring - (not sold separately)
25	Kit item	2	Wear ring - (not sold separately)
26	Kit item	1	U-ring - (not sold separately)
27	Kit item	1	Wiper - (not sold separately)



AWV00272

# Cylinder, lift - Prince

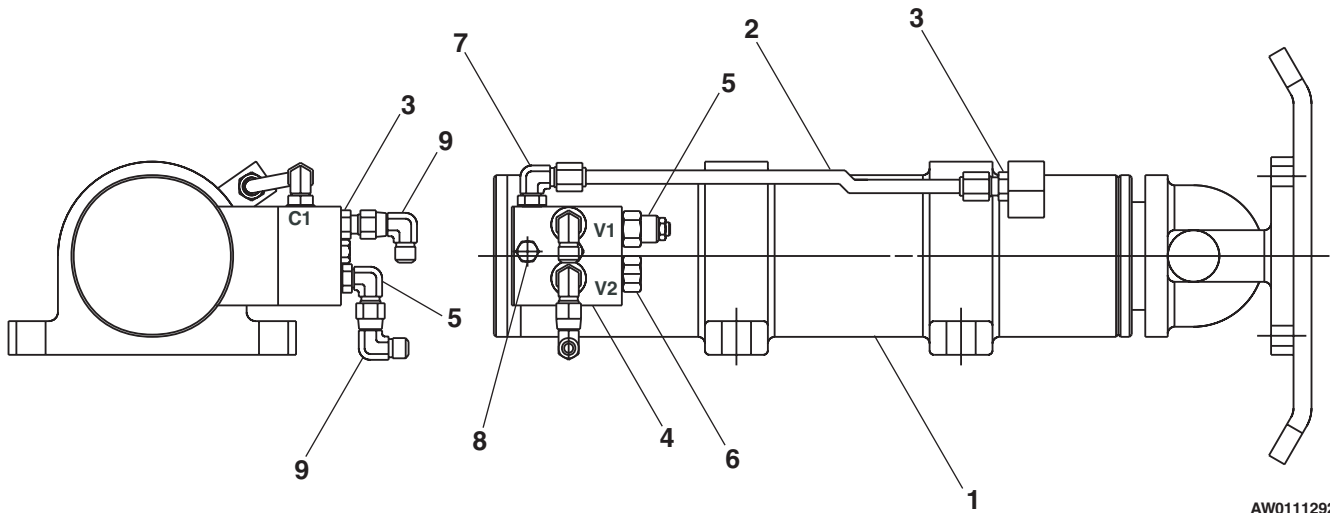
item	part no	qty	description
	0191368	1	Cylinder, lift - Prince
	8160064	1	Seal repair kit - (kit includes items 21 through 28)
1	8160122	1	Piston rod
2		1	Butt and tube - (not sold separately)
3	8160124	1	Piston
4	8160149	1	Gland
5	8160125	1	Locknut
6	8160126	1	Set screw
7	8160127	4	Bushing
8	8160128	1	Spacer
9	8160129	1	Orifice plug
10	8160130	1	Spacer
11	8160131	2	Port plug
12	8160132	5	Port plug
13	8160133	2	Port plug
14	8160134	1	Port plug
15	8160135	1	Cotter pin
16	8160136	1	Spacer
17	8160137	1	Rod and wiper cover
18	8160138	3	Hex head capscrew
19	8160139	1	Port cover
20	8160140	2	O-ring
21	Kit item	1	Capped T-seal - (not sold separately)
22	Kit item	2	Bearing ring - (not sold separately)
23	Kit item	2	Bearing ring - (not sold separately)
24	Kit item	1	O-ring - (not sold separately)
25	Kit item	1	O-ring - (not sold separately)
26	Kit item	1	BU-washer - (not sold separately)
27	Kit item	1	Deep Z-seal - (not sold separately)
28	Kit item	1	Wiper - (not sold separately)



AWV00260

## Jacking cylinder before 12-04-2000

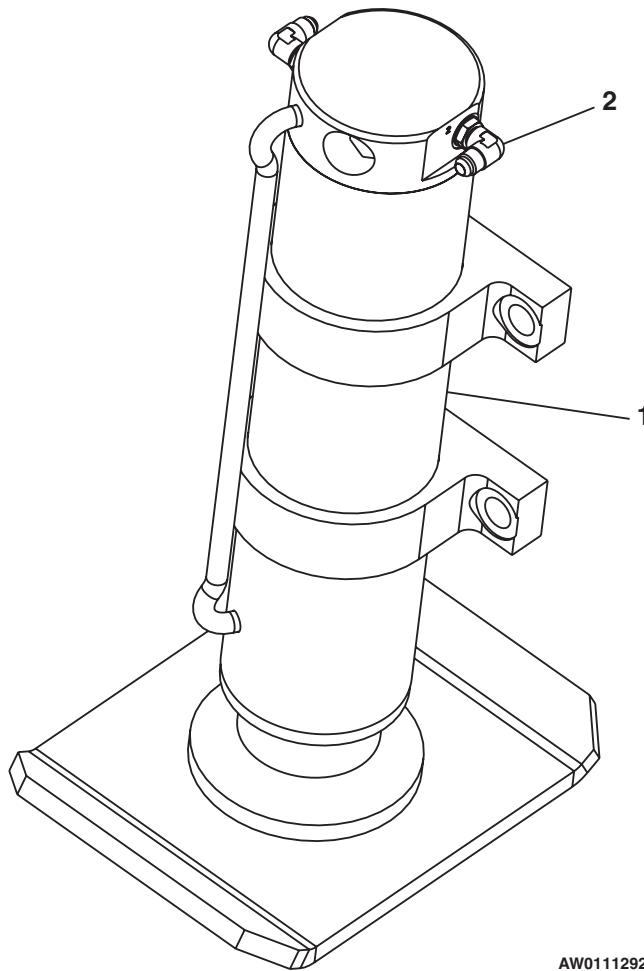
item	part no	qty	description
1	0111292	1	Jacking cylinder
	0112033	1	Cylinder, jacking (see page 2-54 for GBI jacking cylinder) (see page 2-56 for Seabee jacking cylinder)
2	0110499	1	3/8 inch hydraulic tube
3	5065707	2	Straight thread adapter
4	6010221	1	Holding valve, jacking cylinder - (valve includes items 5, and 6)
	0110685	1	Seal repair kit
5	6010488	1	Counterbalance cartridge - (factory preset, do not reset)
6	6010426	1	Check valve
7	5035305	2	Straight thread 90° elbow
8	970519	2	Capscrew 3/8-16 x 2-1/4 inch long hex head grade 5
9	5037005	2	Swivel nut 90° elbow



AW011292

## Jacking cylinder after 12-04-2000

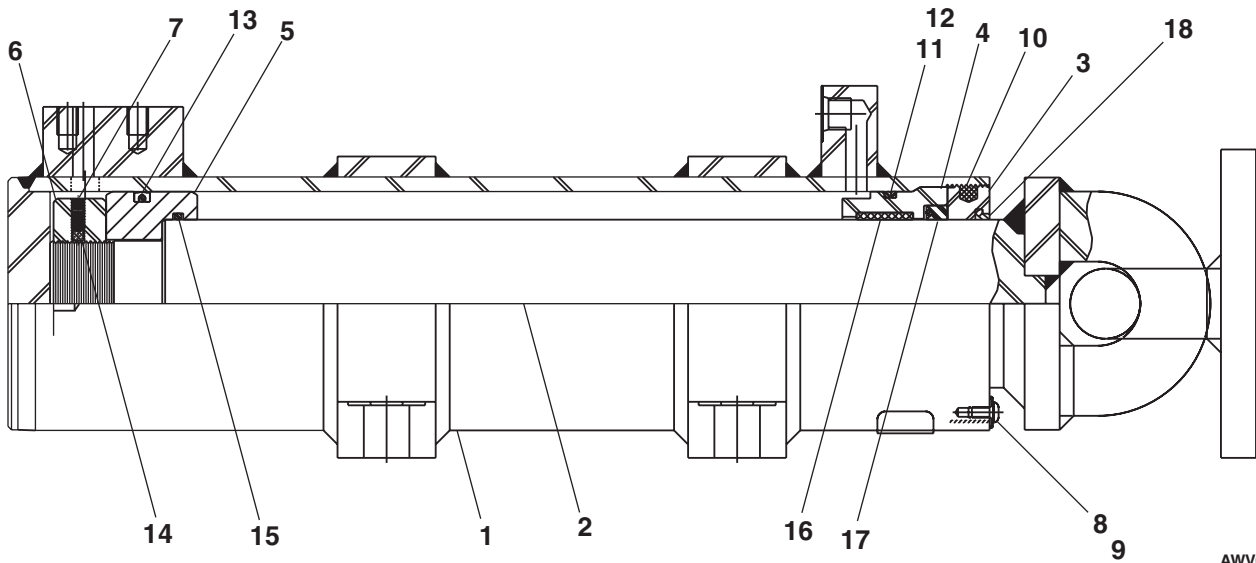
item	part no	qty	description
	0111292	1	Jacking cylinder
1	0112379	1	Cylinder, jacking - (see page 2-55 for parts breakdown)
2	5035305	2	Straight thread 90° elbow



AW0111292

## Cylinder, jacking - GBI

item	part no	qty	description
	0112033	1	Cylinder, jacking - GBI
	8070254	1	Seal repair kit - (kit includes items 10 through 18)
1		1	Tube - (not sold separately)
2	8070380	1	Rod
3	8070381	1	Retainer
4	8070382	1	Bearing
5	8070383	1	Piston
6	8070384	1	Nut
7	8070385	1	Set screw
8	8070300	1	Lock washer
9	8070301	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	PSP seal - (not sold separately)
14	Kit item	1	Bronze plug - (not sold separately)
15	Kit item	1	O-ring - (not sold separately)
16	Kit item	1	Wear ring - (not sold separately)
17	Kit item	1	U-ring - (not sold separately)
18	Kit item	1	Wiper, AN - (not sold separately)

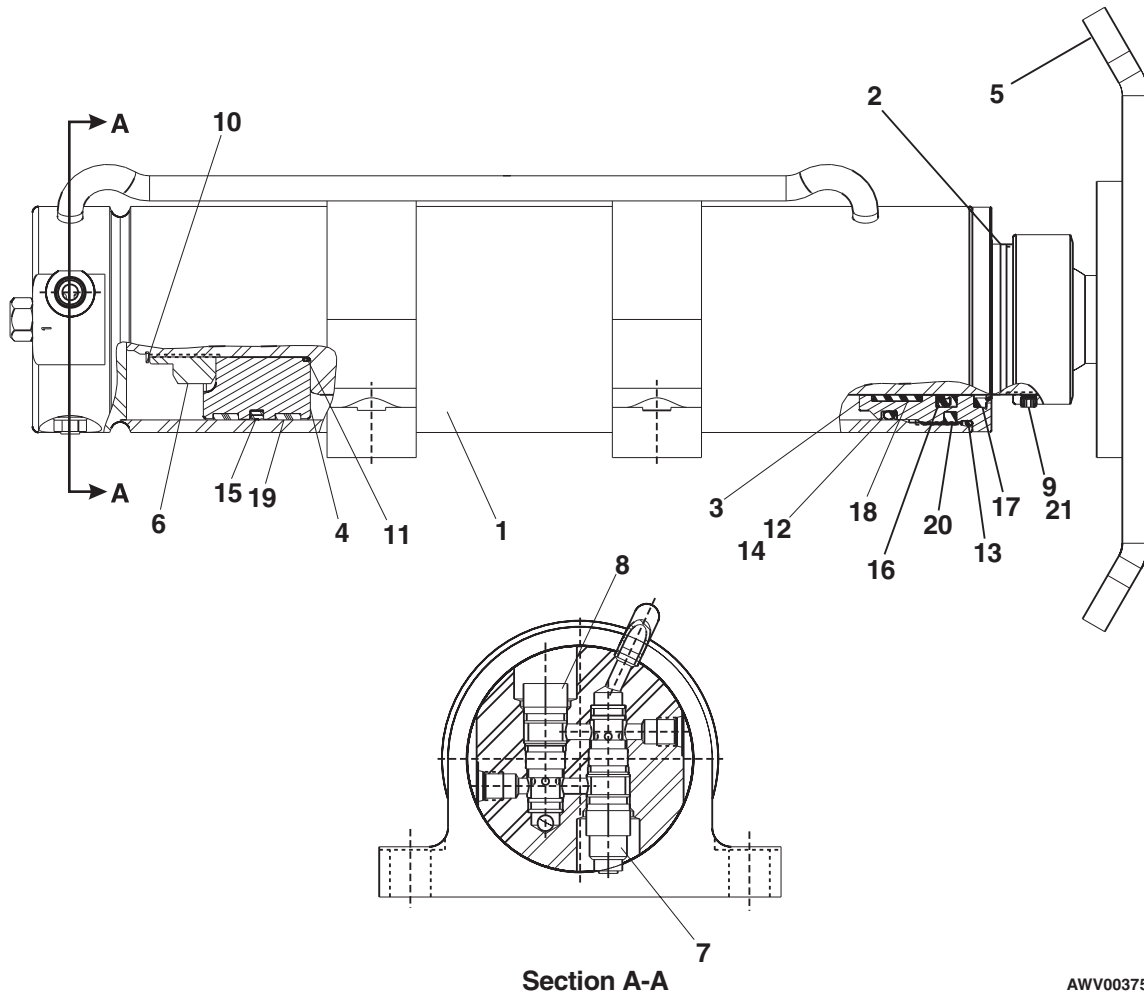


AWV00230



## Cylinder, jacking - Rosenboom

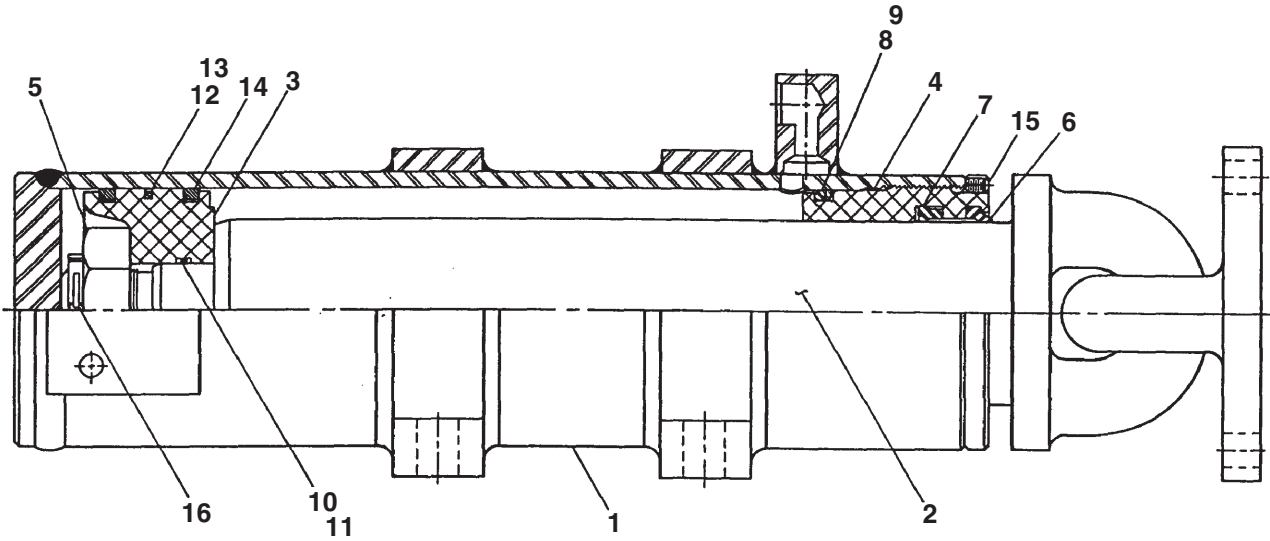
item	part no	qty	description
	0112379	1	Cylinder, jacking - Rosenboom
	6091355	1	Seal repair kit - (kit includes items 10 through 21)
1		1	Tube - (not sold separately)
2	6091354	1	Rod
3	6091351	1	Head gland
4	6091350	1	Piston
5	6091362	1	Jack shoe
6	6091272	1	Locknut
7	6010488	1	Cartridge counterbalance valve - (factory preset, do not reset)
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, jacking - Seabee

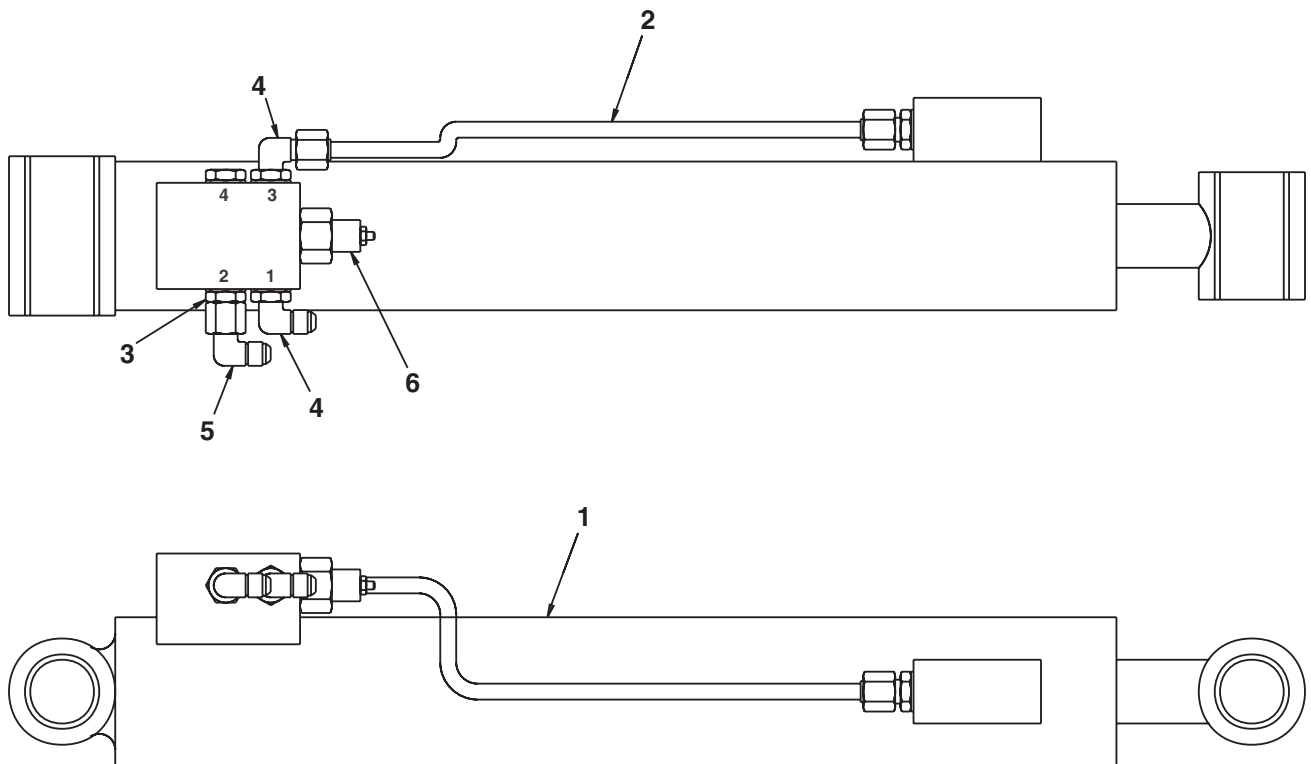
item	part no	qty	description
	0112033	1	Cylinder, jacking - Seabee
	0110536	1	Seal repair kit - (kit includes items 6 through 14)
1		1	Case - (not sold separately)
2	8190146	1	Shaft
3	8190147	1	Piston
4	205089	1	Head gland
5	8190148	1	Piston nut
6	Kit item	1	Wiper - (not sold separately)
7	Kit item	1	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	Kit item	2	Cast iron piston ring - (not sold separately)
15	8190129	1	Set screw
16	8190149	1	Cotter key



AWV00231

## Jib boom lift cylinder before 10-23-2000

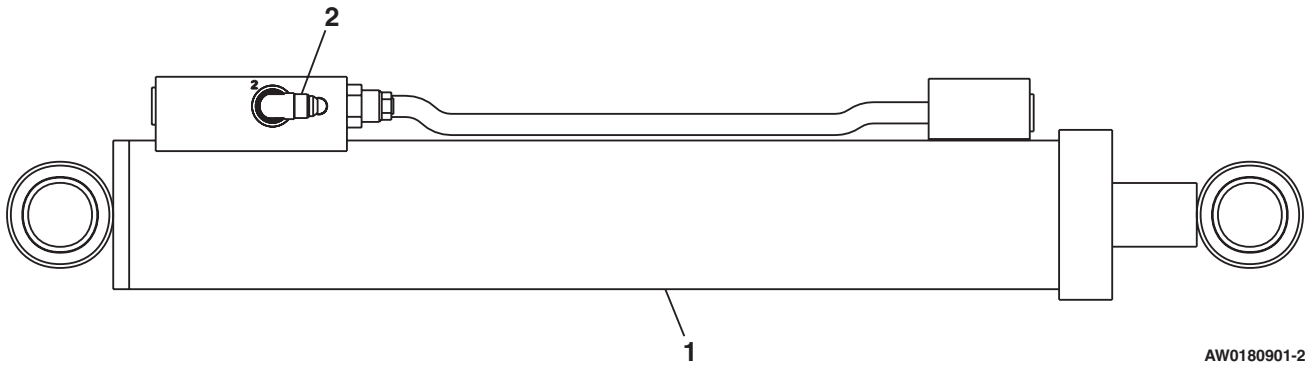
item	part no	qty	description
	0180901	1	Jib boom lift cylinder
1	0191129	1	Cylinder, jib boom lift - (see page 2-59 for GBI cylinder parts breakdown)
2	0191261	1	3/8 inch hydraulic tube
3	5065707	2	Straight thread adapter
4	5035305	2	Straight thread 90° elbow
5	5037005	1	Swivel nut 90° elbow
6	6010794	1	Cartridge holding valve - (factory preset, do not reset)



AW0180901

## Jib boom lift cylinder after 10-23-2000

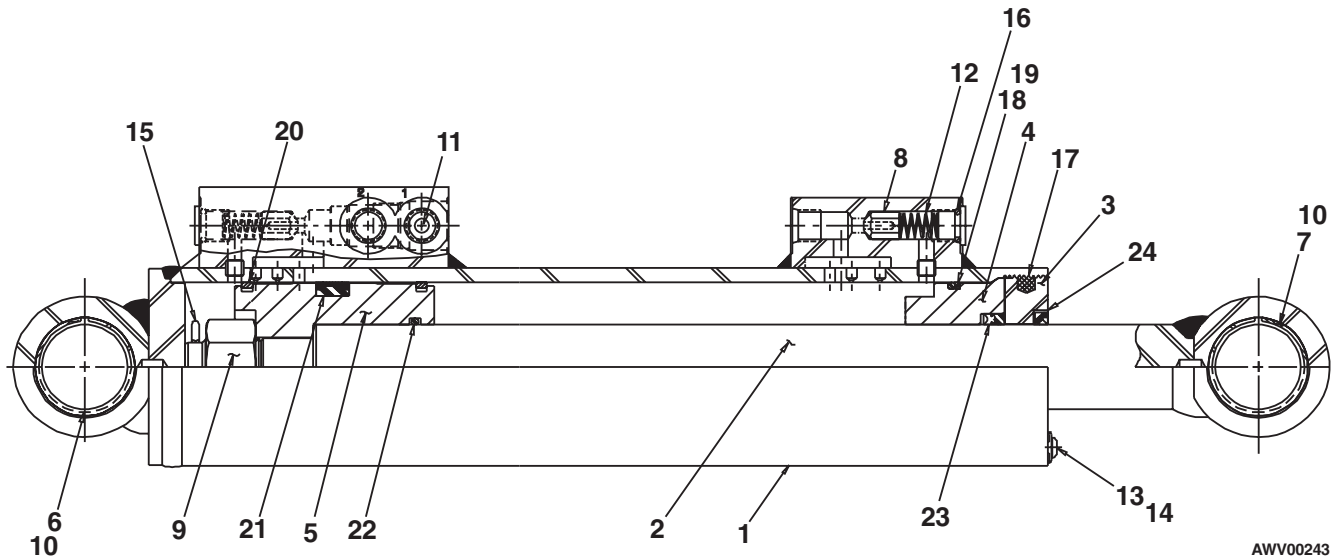
item	part no	qty	description
1	0180901	1	Jib boom lift cylinder
1	0191811	1	Cylinder, jib boom lift - (see page 2-60 for parts breakdown)
2	5035305	2	Straight thread 90° elbow



AW0180901-2

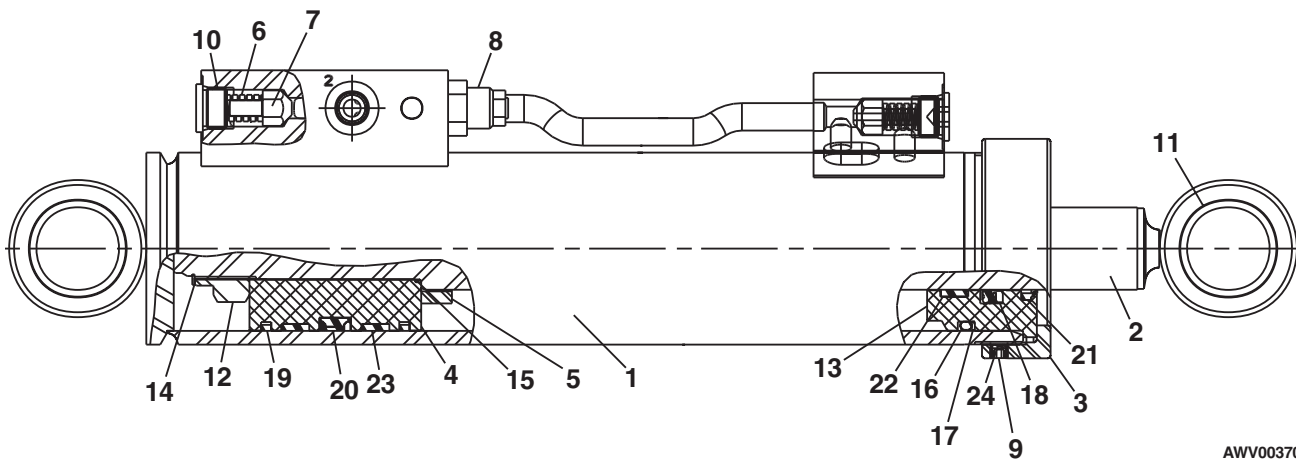
## Cylinder, jib boom lift - GBI

item	part no	qty	description
	0191129	1	Cylinder, jib boom lift - GBI
	0191262	1	Seal repair kit - (kit includes items 15 through 24)
1		1	Case - (not sold separately)
2	8070755	1	Rod
3	8070225	1	Thread ring
4	8070754	1	Head gland
5	8070753	1	Piston
6	8070752	1	Bushing spacer
7	8070751	1	Bushing spacer
8	8070012	2	Poppet
9	8070543	1	Nut
10	8070750	4	Bushing
11	8070368	2	Port plug
12	8070369	2	Spring
13	8070362	1	Lock washer
14	8070363	1	Capscrew
15	Kit item	1	Cotter pin - (not sold separately)
16	Kit item	2	O-ring - (not sold separately)
17	Kit item	1	Nylon plug - (not sold separately)
18	Kit item	1	Back-up - (not sold separately)
19	Kit item	1	O-ring - (not sold separately)
20	Kit item	2	C. I. ring - (not sold separately)
21	Kit item	1	CST ring - (not sold separately)
22	Kit item	1	O-ring - (not sold separately)
23	Kit item	1	U-cup - (not sold separately)
24	Kit item	1	Wiper - (not sold separately)



## Cylinder, jib boom lift - Rosenboom

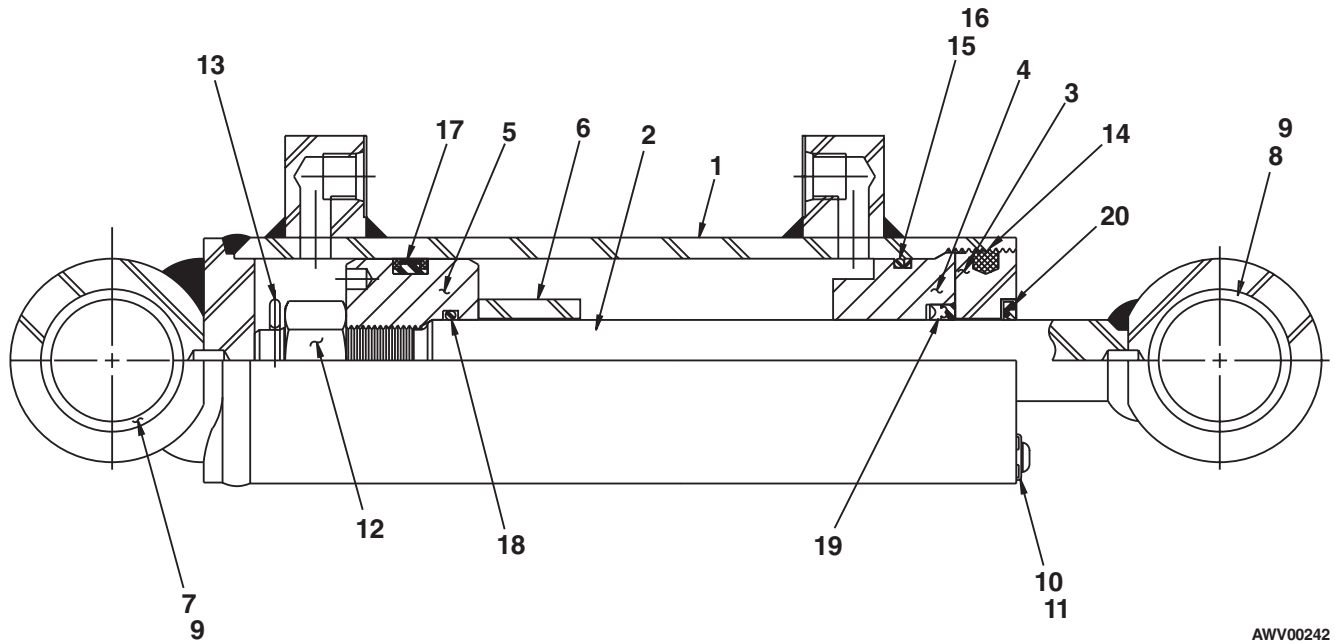
item	part no	qty	description
	0191811	1	Cylinder, jib boom lift - Rosenboom
	6091294	1	Seal repair kit - (kit includes items 14 through 24)
1		1	Tube - (not sold separately)
2	6091292	1	Rod
3	6091288	1	Head gland cap
4	6091289	1	Piston
5	6091291	1	Rod spacer
6	6091246	2	Spring
7	6091241	2	Poppet
8	6010794	1	Cartridge holding valve - (factory preset, do not reset)
	0150563	1	Seal repair kit
9	5569835	1	Set screw 5/16-18 x 1/4 inch long
10	5075306	2	Hex plug
11	2502229	4	Bearing
12	6091293	1	Locking nut 1-1/4-12
13	6091311	1	Head gland
14	Kit item	1	Snap ring - (not sold separately)
15	Kit item	1	O-ring - (not sold separately)
16	Kit item	1	O-ring - (not sold separately)
17	Kit item	1	Back-up - (not sold separately)
18	Kit item	1	Deep Z-seal - (not sold separately)
19	Kit item	2	Cast iron ring - (not sold separately)
20	Kit item	1	Capped T-seal - (not sold separately)
21	Kit item	1	Rod wiper - (not sold separately)
22	Kit item	1	Wearband - (not sold separately)
23	Kit item	2	Wearband - (not sold separately)
24	Kit item	1	Locking insert - (not sold separately)



AWV00370

## Cylinder, master level - GBI

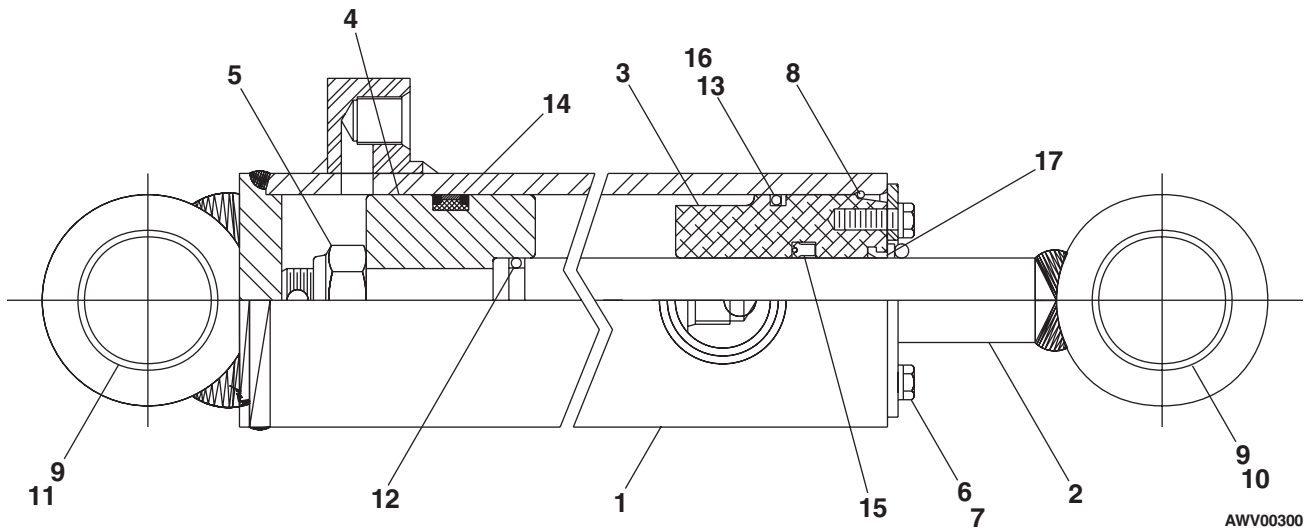
item	part no	qty	description
	0081757	1	Cylinder, master level - GBI
	8070222	1	Seal repair kit - (kit includes items 13 through 20)
1		1	Tube - (not sold separately)
2	8070690	1	Rod
3	8070238	1	Retainer
4	8070587	1	Bearing
5	8070667	1	Piston
6	8070666	1	Spacer
7	8070689	1	Bushing spacer
8	8070688	1	Bushing
9	8070687	4	Bushing
10	8070300	1	Lock washer
11	8070301	1	Capscrew
12	8070649	1	Nut
13	Kit item	1	Cotter pin - (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	Quad seal - (not sold separately)
18	Kit item	1	O-ring - (not sold separately)
19	Kit item	1	U-ring - (not sold separately)
20	Kit item	1	Wiper - (not sold separately)



AWV00242

## Cylinder, master level - Green

item	part no	qty	description
	0081757	1	Cylinder, master level - Green
	8070447	1	Seal repair kit - (kit includes items 11 through 16)
1		1	Cylinder barrel - (not sold separately)
2	8070442	1	Rod
3	8070441	1	Sleeve
4	8070422	1	Piston
5	8070466	1	Full lock nut
6	8070444	2	Capscrew
7	8070446	1	Washer
8	8070445	1	Lockwire
9	8070834	4	Bearing
10	8070864	1	Bearing spacer
11	8070865	1	Bearing spacer
12	Kit item	1	O-ring - (not sold separately)
13	Kit item	1	O-ring - (not sold separately)
14	Kit item	2	Piston seal - (not sold separately)
15	Kit item	1	Rod seal - (not sold separately)
16	Kit item	1	Back-up - (not sold separately)
17	Kit item	1	Rod wiper - (not sold separately)

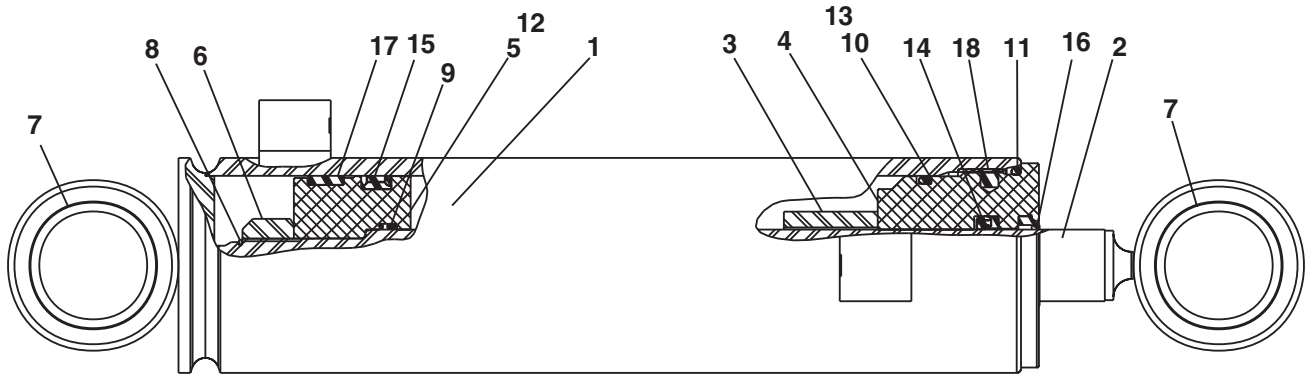


AWV00300



## Cylinder, master level - Rosenboom

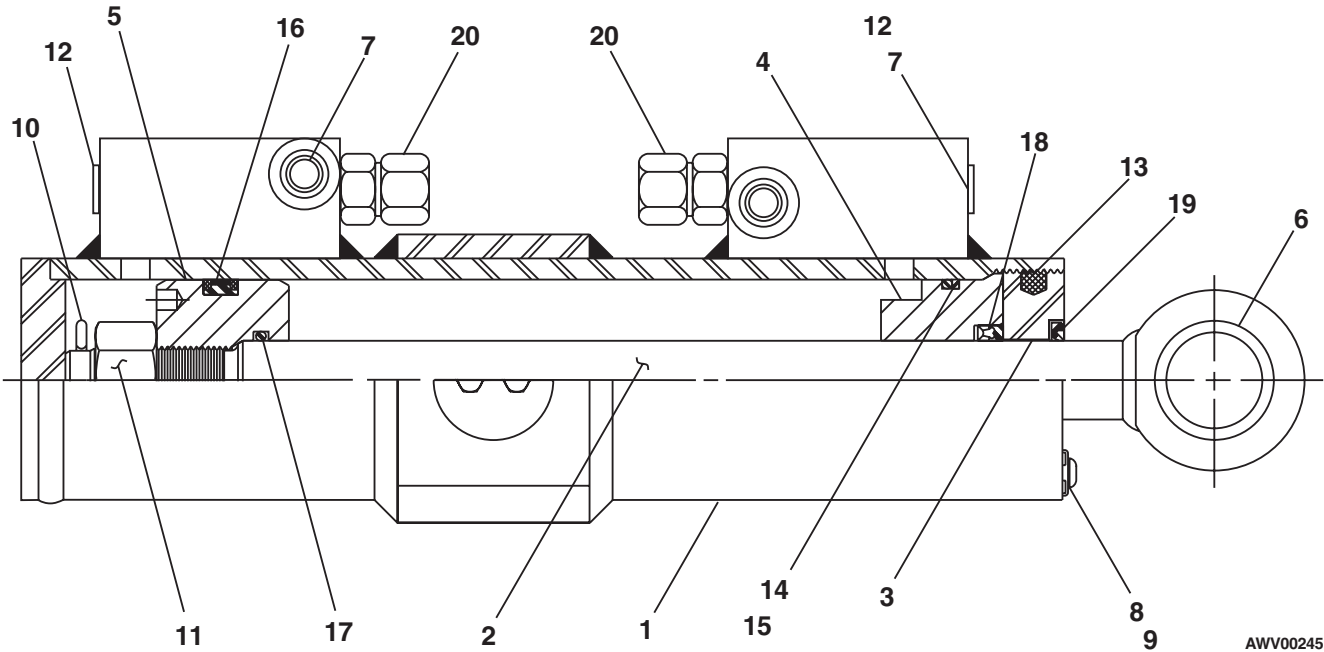
item	part no	qty	description
	0083694-99	1	Cylinder, master level - Rosenboom
	6091333	1	Seal repair kit - (kit includes items 8 through 18)
1		1	Tube - (not sold separately)
2	6091419	1	Rod
3	6091420	1	Rod spacer
4	6091336	1	Head gland
5	6091331	1	Piston
6	6091282	1	Locknut
7	2502229	4	Bearing
8	Kit item	1	Snap ring - (not sold separately)
9	Kit item	1	O-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	2	Backup ring - (not sold separately)
13	Kit item	1	Backup ring - (not sold separately)
14	Kit item	1	Deep Z-seal - (not sold separately)
15	Kit item	1	Capped T-seal - (not sold separately)
16	Kit item	1	Rod wiper - (not sold separately)
17	Kit item	1	Wearband - (not sold separately)
18	Kit item	1	Locking insert - (not sold separately)



AW0083694

## Cylinder, slave level -GBI

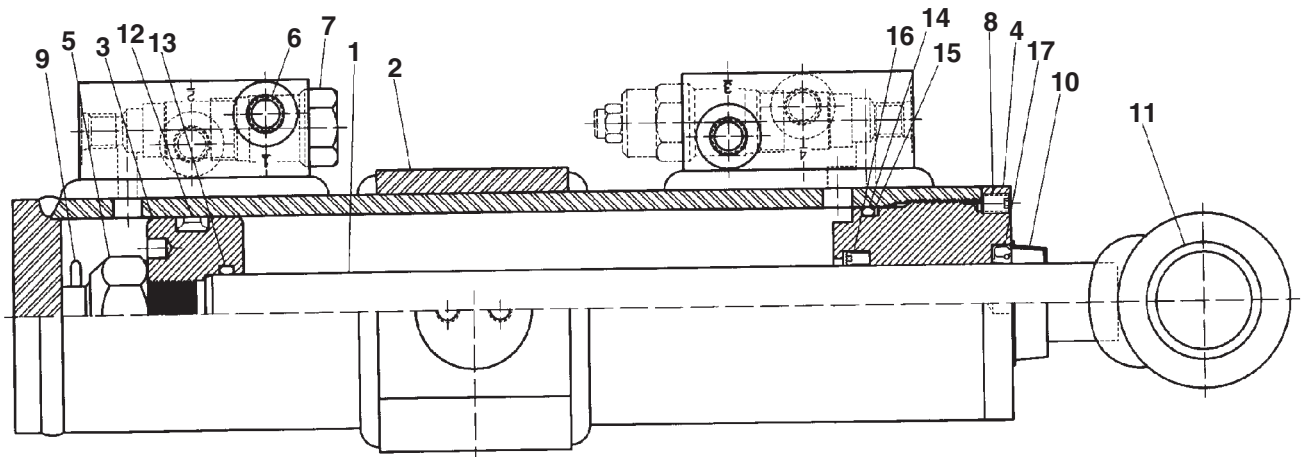
item	part no	qty	description
	0180522	1	Cylinder, slave level - GBI
	0181086	1	Seal repair kit - (kit includes items 12-19)
1		1	Case - (not sold separately)
2	8070239	1	Rod
3	8070238	1	Thread ring
4	8070587	1	Head gland
5	8070667	1	Piston
6	8070801	1	Bushing
7	8070542	2	Port plug
8	8070362	1	Lock washer
9	8070363	1	Capscrew
10	8070800	1	Snap ring
11	8070799	1	Nut
12	Kit item	2	O-ring - (not sold separately)
13	Kit item	1	Nylon plug - (not sold separately)
14	Kit item	1	Back-up - (not sold separately)
15	Kit item	1	O-ring - (not sold separately)
16	Kit item	1	CST ring - (not sold separately)
17	Kit item	1	O-ring - (not sold separately)
18	Kit item	1	U-cup - (not sold separately)
19	Kit item	1	Wiper - (not sold separately)
20	6010686	1	Cartridge holding valve - (preset by factory, do not reset
	0150562	1	Seal repair kit



AWV00245

## Cylinder, slave level - Prince

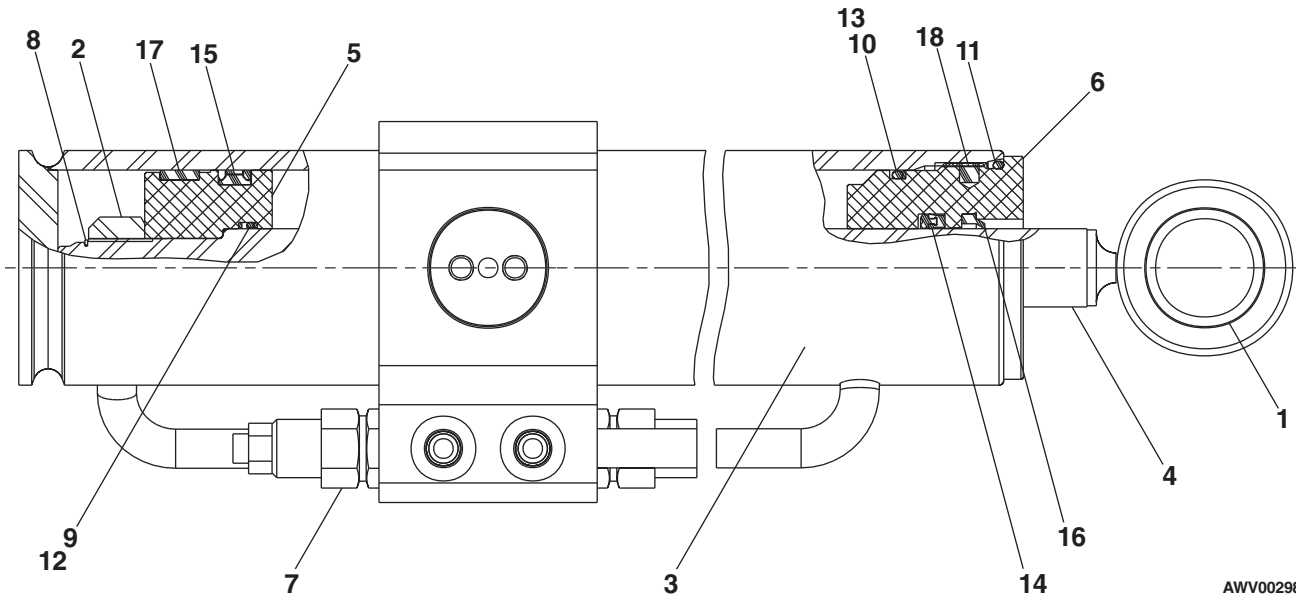
item	part no	qty	description
	0180522	1	Cylinder, slave level - Prince
	8160060	1	Seal repair kit - (kit includes items 12 through 17)
1	28160079	1	Piston rod
2		1	Butt and tube - (not sold separately)
3	6091102	1	Piston
4	28160080	1	Gland
5	6091104	1	Locknut
6	8160171	8	Port plug
7	8160172	2	Counterbalance cavity plug
8	6091083	1	Set screw
9	8160174	1	Cotter pin
10	8160175	1	Wiper cover
11	8160176	1	Bushing
12	Kit item	1	Capped T-seal - (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	BU-washer - (not sold separately)
16	Kit item	1	U-cup - (not sold separately)
17	Kit item	1	Wiper - (not sold separately)



AWV00257

## Cylinder, slave level - Rosenboom

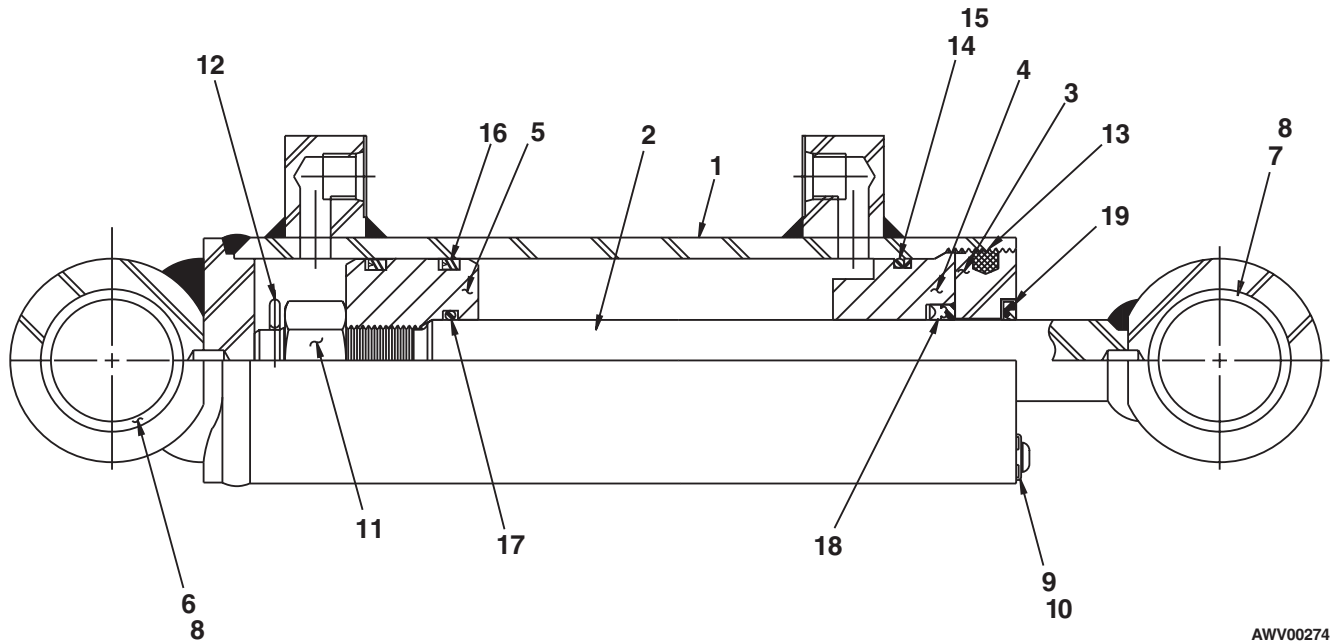
item	part no	qty	description
	0181914	1	Cylinder, slave level - Rosenboom
	6091333	1	Seal repair kit - (kit includes items 8 through 18)
1	2500026	2	Bearing
2	6091282	1	Locknut
3		1	Tube - (not sold separately)
4	6091330	1	Rod
5	6091331	1	Piston
6	6091332	1	Head gland
7	6091335	2	Counterbalance holding valve - (preset by factory, do not reset)
8	Kit item	1	Snap ring - (not sold separately)
9	Kit item	1	O-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	2	Backup ring - (not sold separately)
13	Kit item	1	Backup ring - (not sold separately)
14	Kit item	1	Deep Z-seal - (not sold separately)
15	Kit item	1	Capped T-seal - (not sold separately)
16	Kit item	1	Rod wiper - (not sold separately)
17	Kit item	1	Wearband - (not sold separately)
18	Kit item	1	Locking insert - (not sold separately)



AWV00298

## Cylinder, steering - GBI

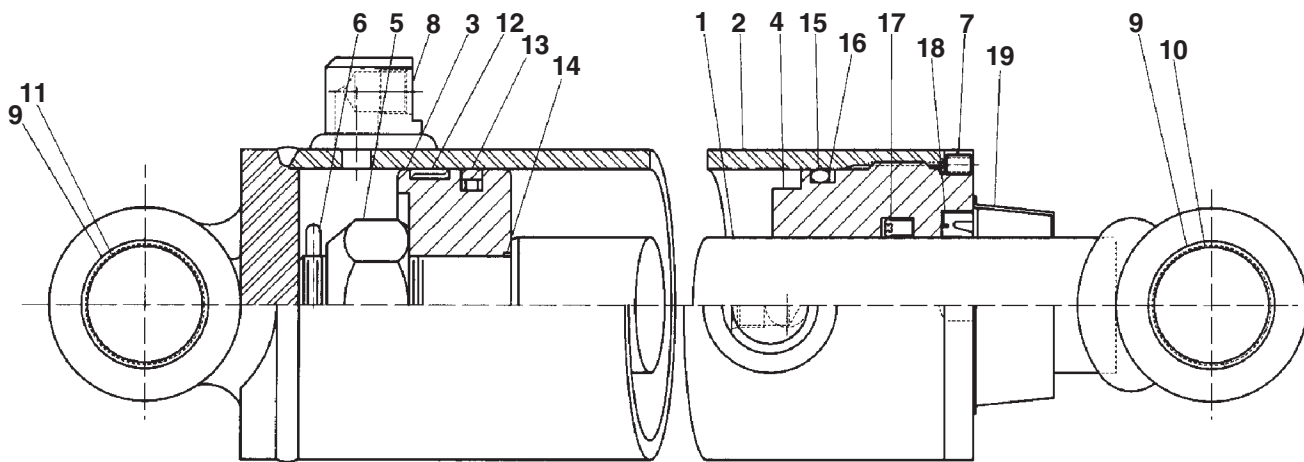
item	part no	qty	description
	0070007	1	Cylinder, steering - GBI
	8070611	1	Seal repair kit - (kit includes items 12 through 19)
1	8070623	1	Rod
2		1	Tube - (not sold separately)
3	8070621	1	Retainer
4	8070620	1	Bearing
5	8070619	1	Piston
6	8070618	1	Spacer
7	8070184	1	Spacer
8	8070616	4	Bushing
9	8070033	1	Nut
10	8070300	1	Lock washer
11	8070301	1	Capscrew
12	Kit item	1	Cotter pin - (not sold separately)
13	Kit item	1	Nylon plug - (not sold separately)
14	Kit item	1	Back-up - (not sold separately)
15	Kit item	1	O-ring - (not sold separately)
16	Kit item	2	U-ring - (not sold separately)
17	Kit item	1	O-ring - (not sold separately)
18	Kit item	1	U-ring - (not sold separately)
19	Kit item	1	Wiper - (not sold separately)



AWV00274

## Cylinder, steering - Prince

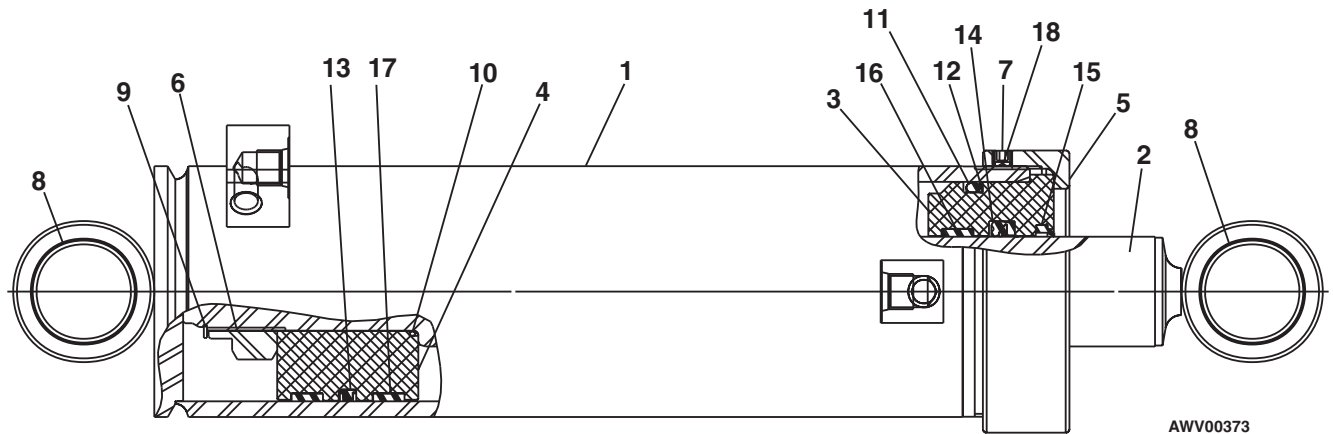
item	part no	qty	description
	0070007	1	Cylinder, steering - Prince
	8160088	1	Seal repair kit - (kit includes items 12 through 18)
1	8160207	1	Piston rod
2		1	Butt and tube - (not sold separately)
3	8160209	1	Piston
4	8160210	1	Gland
5	6091082	1	Locknut
6	8160212	1	Cotter pin
7	6091083	1	Set screw
8	8160131	2	Port plug
9	8160199	4	DU bushing
10	8160213	1	Spacer
11	8160214	1	Spacer
12	Kit item	1	Wear ring - (not sold separately)
13	Kit item	1	Teflon seal - (not sold separately)
14	Kit item	1	O-ring - (not sold separately)
15	Kit item	1	O-ring - (not sold separately)
16	Kit item	1	BU-washer - (not sold separately)
17	Kit item	1	U-cup - (not sold separately)
18	Kit item	1	Wiper - (not sold separately)
19	8160219	1	Rod and wiper cover



AWV00246

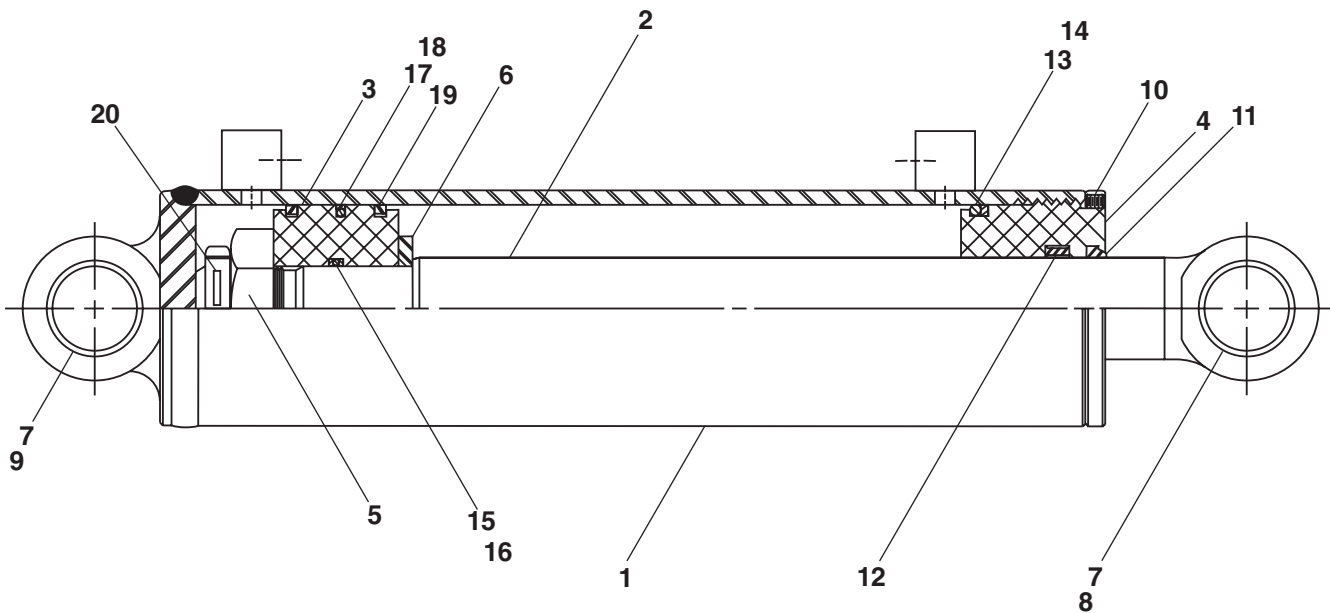
## Cylinder, steering - Rosenboom

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
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, steering - Seabee

item	part no	qty	description
	0070007	1	Cylinder, steering - Seabee
	0072833	1	Seal repair kit - (kit includes items 11 through 20)
1		1	Case - (not sold separately)
2	8190060	1	Rod
3	8190038	1	Piston
4	8190074	1	Head gland
5	8190123	1	Piston nut
6	8190124	1	Thrust plate
7	2502416	4	Bearing
8	8190066	1	Bearing spacer
9	8190067	1	Bearing spacer
10	8190129	1	Set screw
11	Kit item	1	Wiper - (not sold separately)
12	Kit item	1	U-cup - (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	O-ring - (not sold separately)
16	Kit item	2	Back-up - (not sold separately)
17	Kit item	1	Piston seal - (not sold separately)
18	Kit item	1	O-ring - (not sold separately)
19	Kit item	2	Piston ring - (not sold separately)
20	Kit item	1	Cotter pin - (not sold separately)

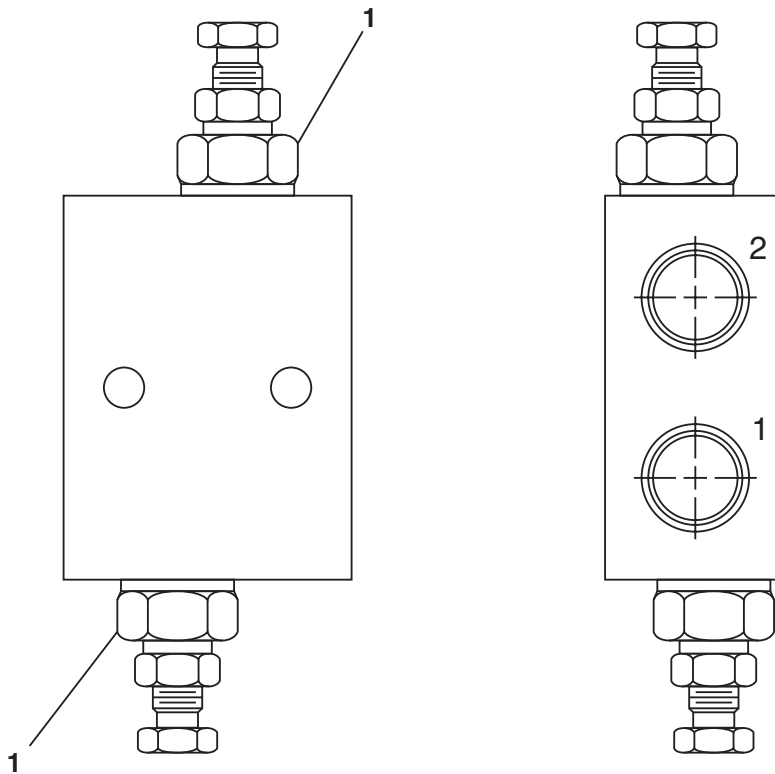


AWV00206



## Dual crossover relief valve

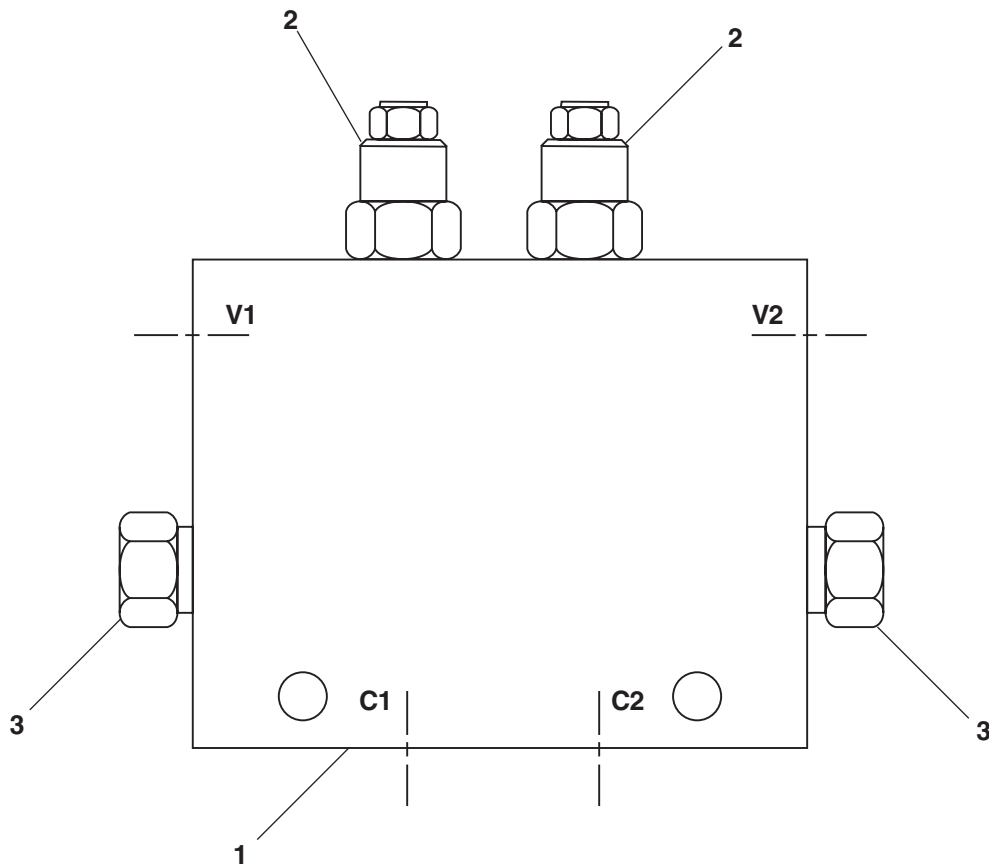
item	part no	qty	description
1	6010541 6010578	2	Dual crossover relief valve Crossover relief cartridge - (preset by factory, do not reset)



AW6010541

## Dual holding valve, platform rotation

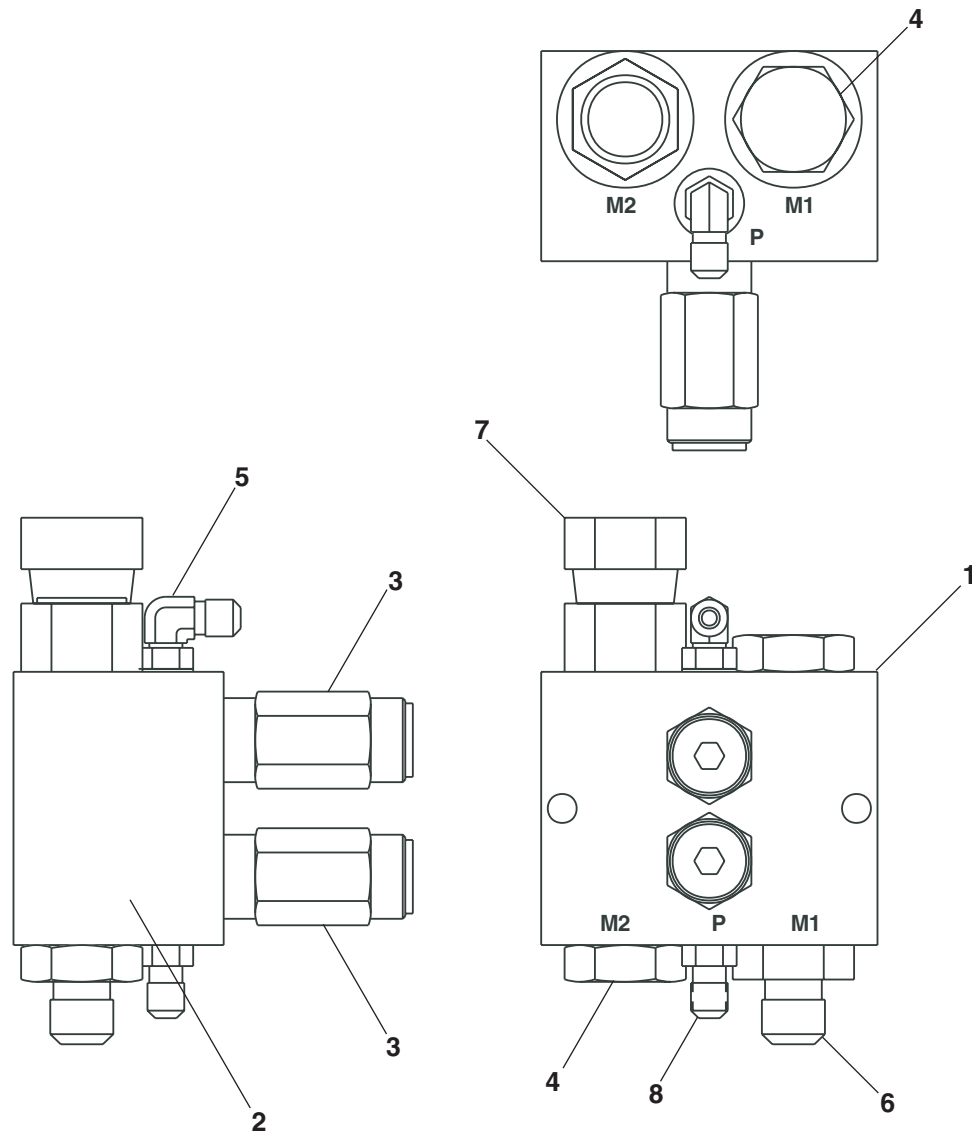
item	part no	qty	description
1	6010628	1	Dual holding valve, platform rotation
2	6010794	2	Cartridge holding valve - (preset by factory, do not reset)
	0150563	1	Seal repair kit
3	6010640	2	Flow control cartridge



AW6010628

## Dual sequence valve, right hand

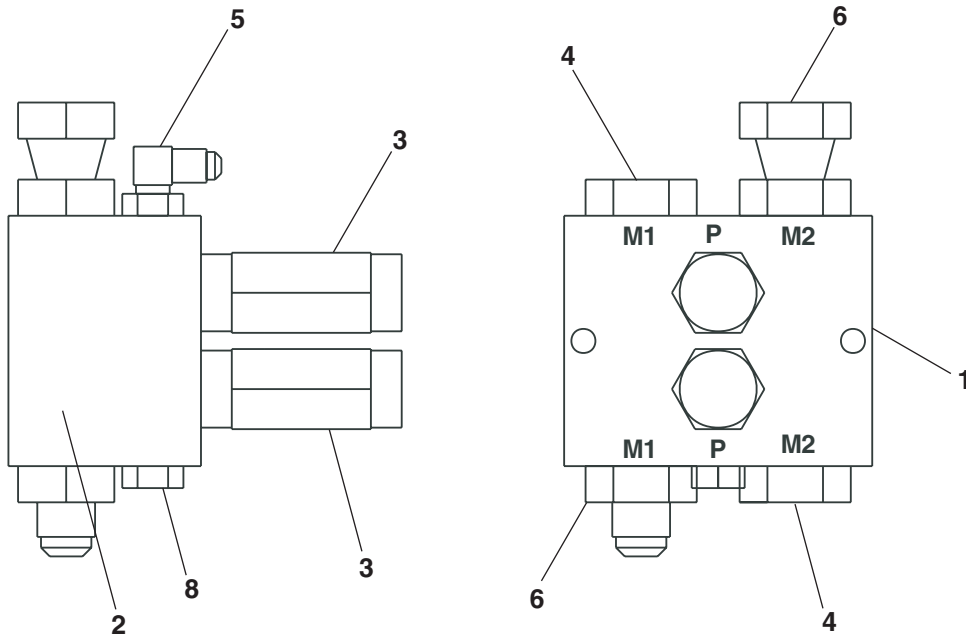
item	part no	qty	description
	0111527	1	Dual sequence valve, right hand
1	6010613	1	Dual sequence valve, Fluid Tech or Weco - (includes items 2 and 3)
2	6010614	1	Valve body, Fluid Tech
	6010624	1	Valve body, Weco
3	6010615	2	Cartridge sequence valve, Fluid Tech- (preset at factory, do not reset)
	6010269	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

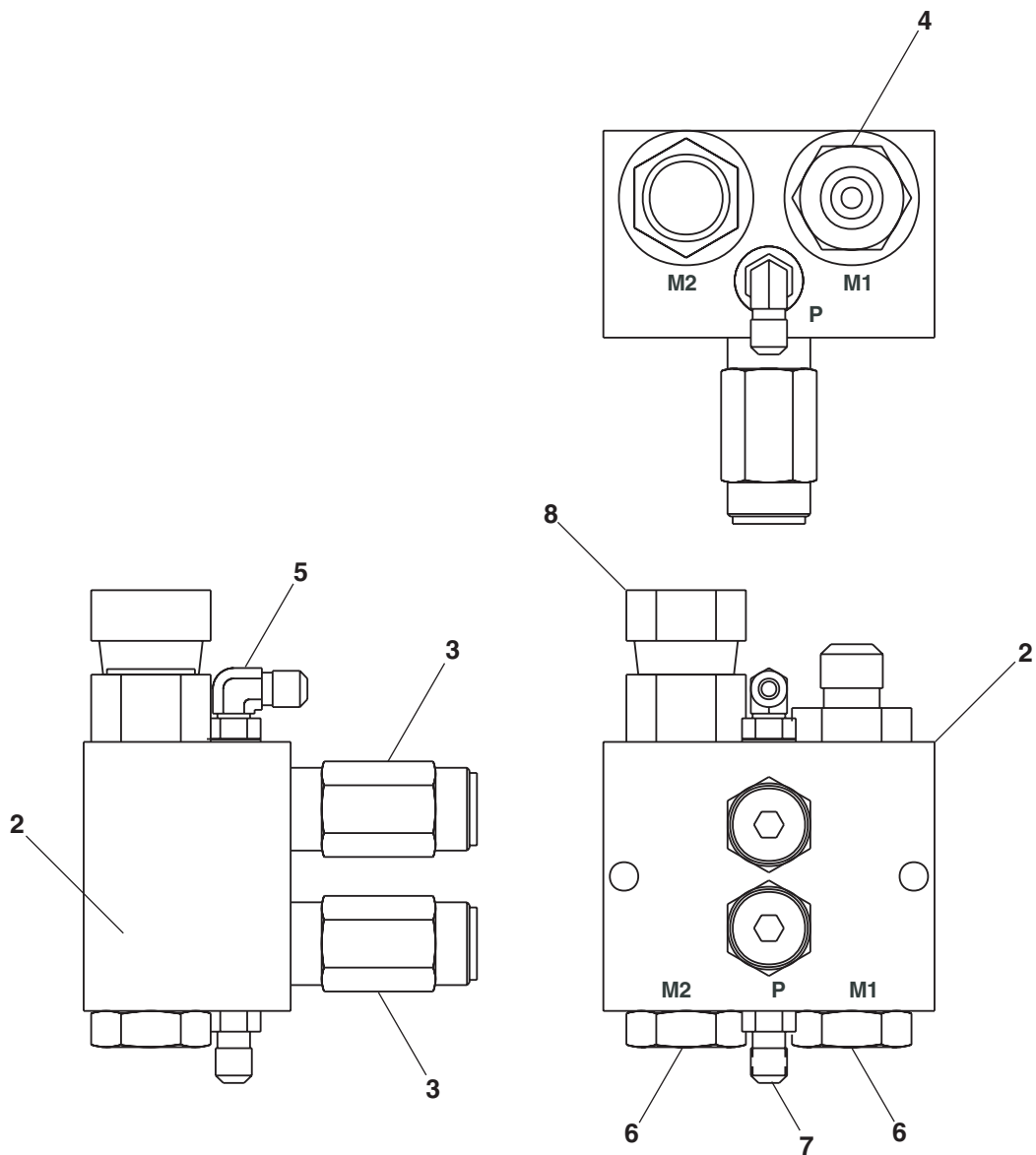
item	part no	qty	description
	0111528	1	Dual sequence valve, left hand
1	6010613	1	Dual sequence valve, Fluid Tech or Weco - (includes items 2 and 3)
2	6010614	1	Valve body, Fluid Tech
	6010624	1	Valve body, Weco
3	6010615	2	Cartridge sequence valve, Fluid Tech- (preset at factory, do not reset)
	6010269	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

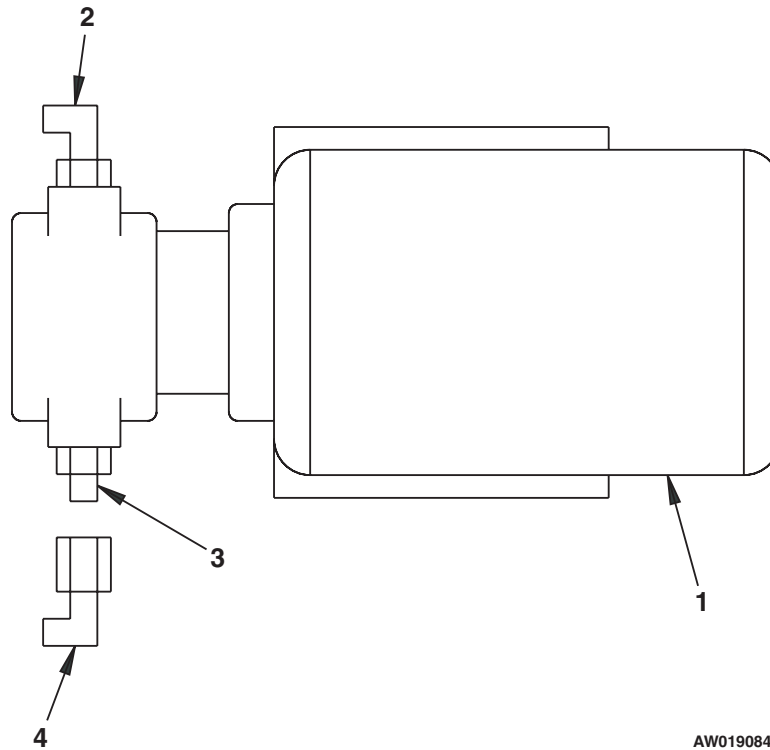
item	part no	qty	description
	0111530	1	Dual sequence valve, 4 wheel drive
1	6010613	1	Dual sequence valve, Fluid Tech or Weco - (includes items 2 and 3)
2	6010614	1	Valve body, Fluid Tech
	6010624	1	Valve body, Weco
3	6010615	2	Cartridge sequence valve, Fluid Tech- (preset at factory, do not reset)
	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

## Emergency power unit, left hand

item	part no	qty	description
	0190840	1	Emergency power unit, left hand
1	6020058	1	Emergency power motor/pump
2	5035305	1	Straight thread 90° elbow
3	5065709	1	Straight thread adapter
4	5037006	1	Swivel nut 90° elbow



AW0190840

## Emergency power unit, right hand

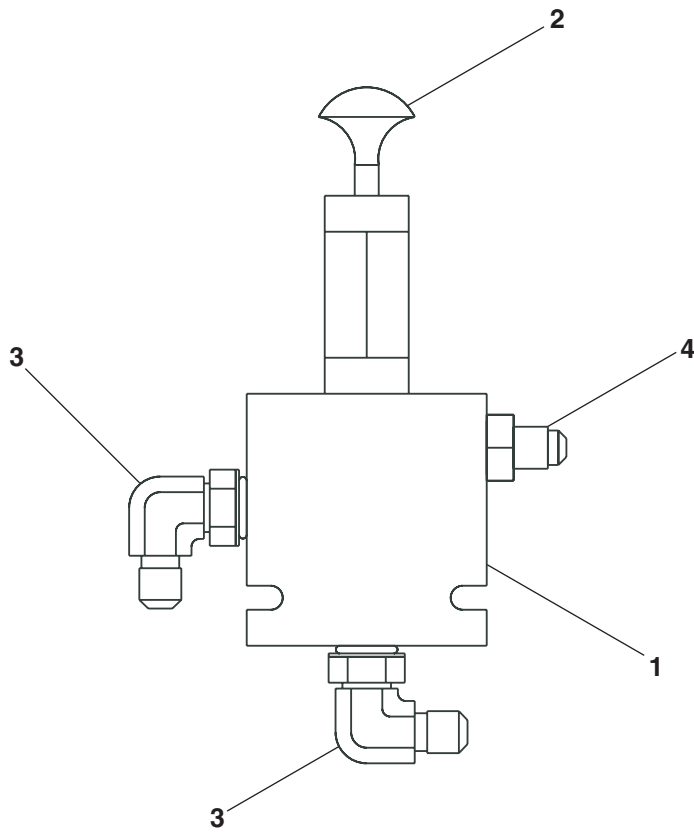
item	part no	qty	description
	0190839	1	Emergency power unit, right hand
1	6020058	1	Emergency power motor/pump
2	5035305	1	Straight thread 90° elbow
3	5036705	1	Swivel nut run tee
4	5065709	1	Straight thread adapter
5	5037006	1	Swivel nut 90° elbow



AW0190839

## 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

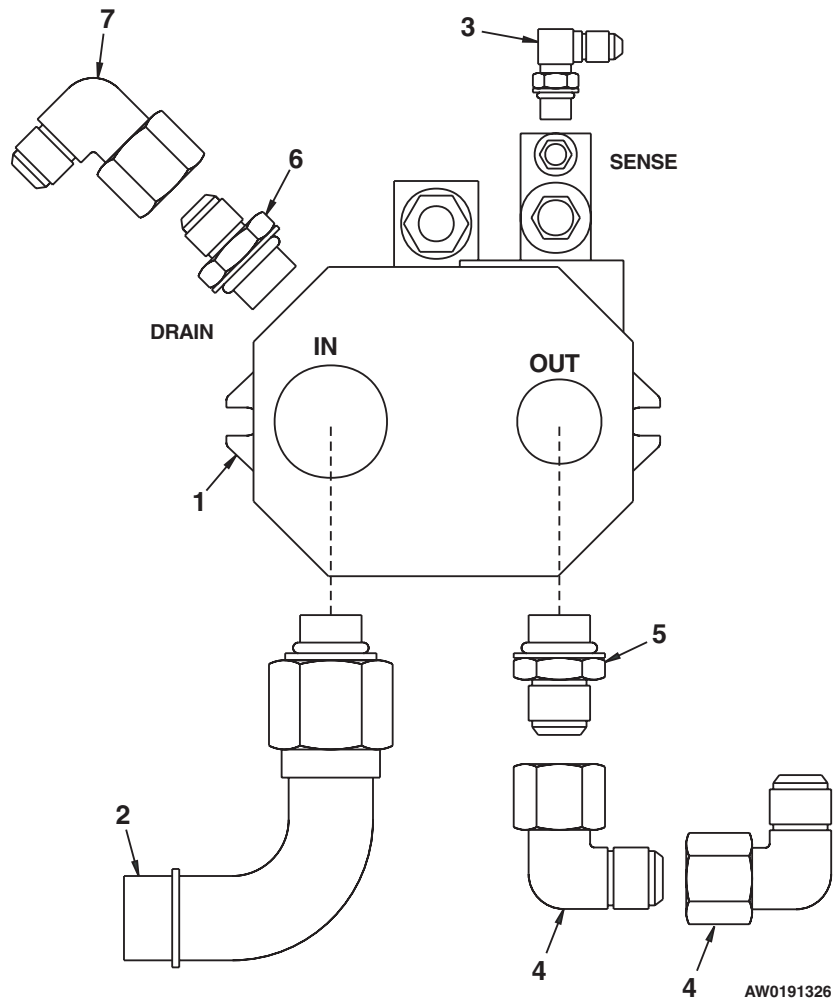


AW0111344



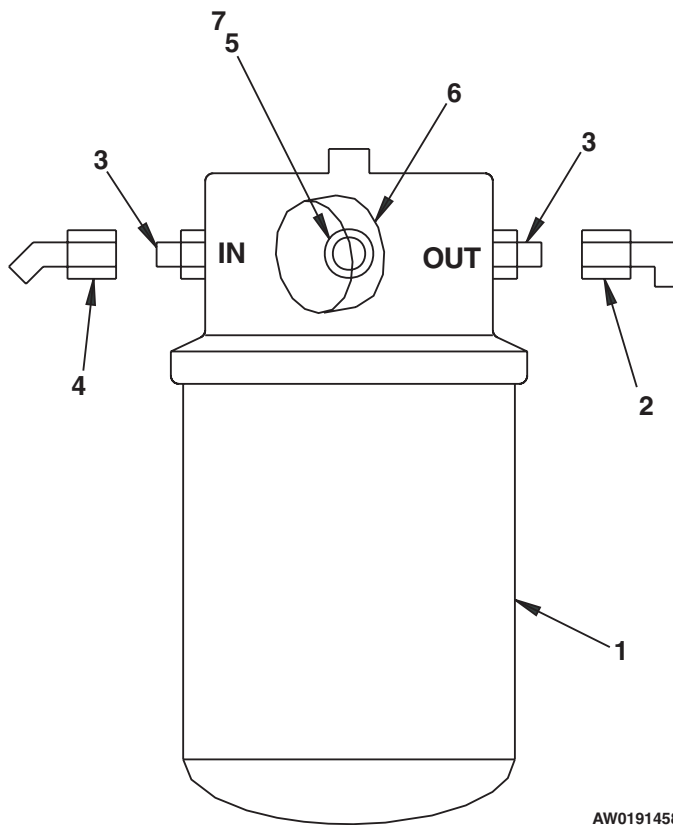
## Hydraulic pump and fittings

item	part no	qty	description
1	0191326	1	Hydraulic pump and fittings
	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
	8180023	1	Replacement compensator - Rexroth pump
2	5038005	1	Beaded 90° elbow
3	5035303	1	Straight thread 90° elbow
4	5037010	2	Swivel nut 90° elbow
5	5065718	1	Straight thread adapter
6	5065710	1	Straight thread adapter
7	5037006	1	Swivel nut 90° elbow



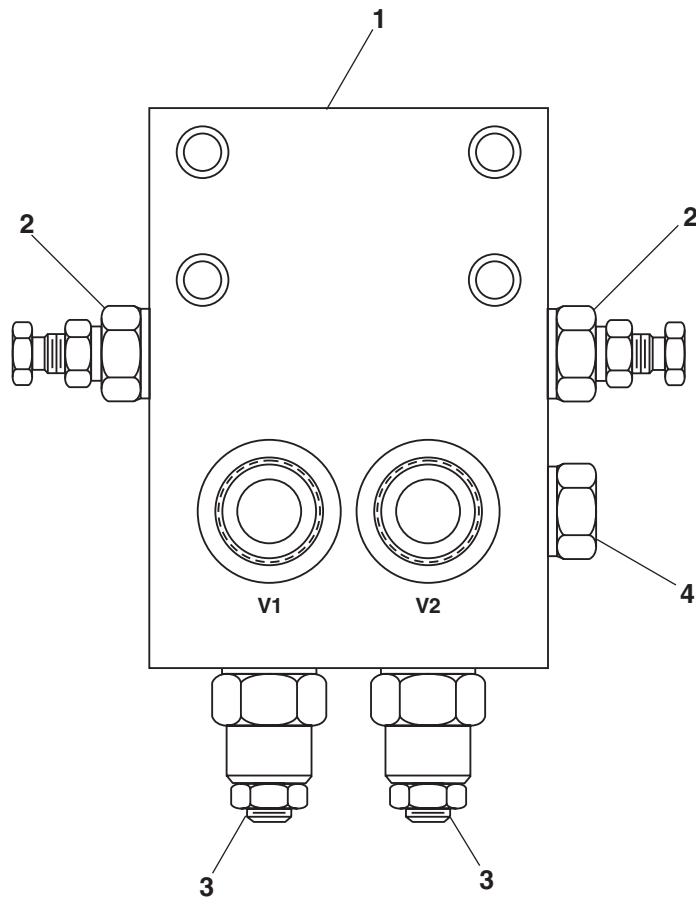
## Hydraulic oil return filter

item	part no	qty	description
	0191458	1	Hydraulic oil return filter
1	5080044	1	Filter - (includes gauge)
2	5037011	1	Swivel nut 90° elbow
3	5065721	2	Straight thread adapter
4	5036911	1	Swivel nut 45° elbow
5	5090031	1	Street elbow 45°, 1/8 NPT
6	7630140	1	Filter condition indicator
7	5090006	1	Street 90° elbow, 1/8 NPT



## Motion control valve, turntable swing

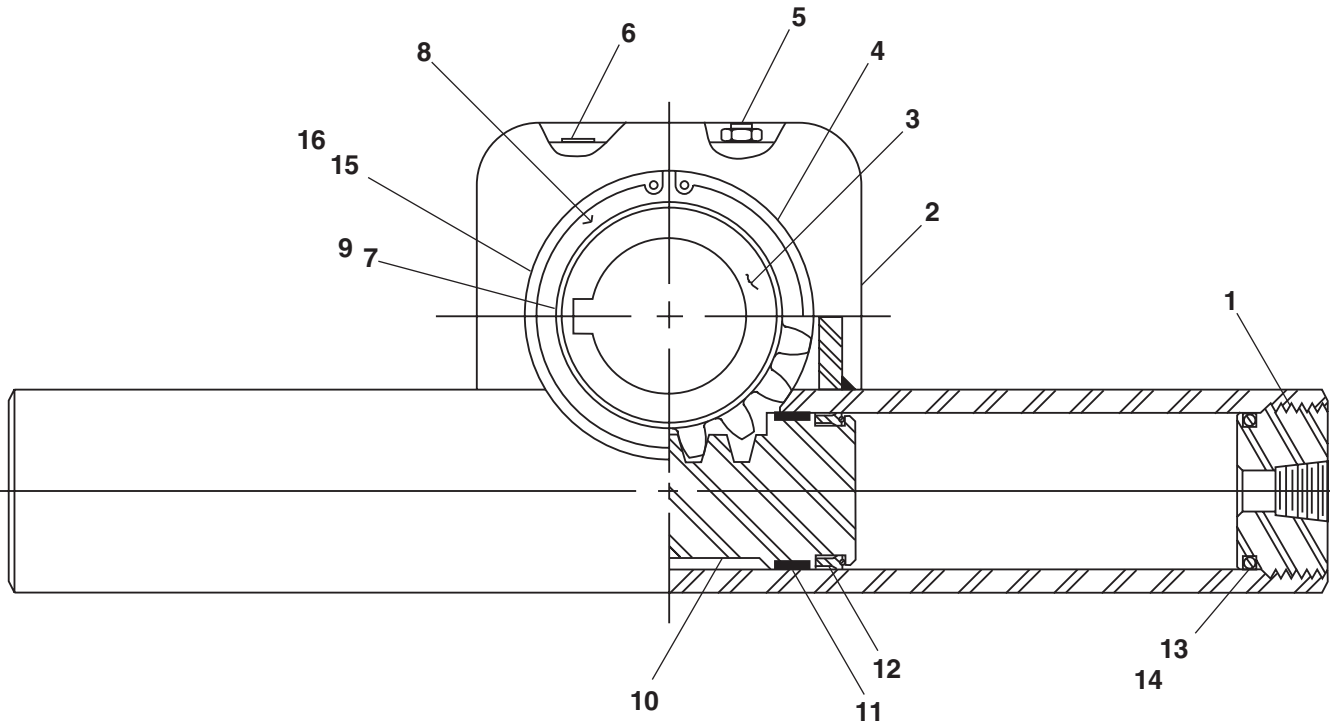
item	part no	qty	description
1	6010216	1	Motion control valve, turntable swing - (valve includes items 2, 3 and 4)
	0110682	1	Seal repair kit
2	6010255	2	Sequence valve cartridge - (factory preset, do not reset)
3	6010256	2	Counterbalance cartridge - (factory preset, do not reset)
4	6010531	1	Shuttle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



AW6010216

## Platform rotator, Helac

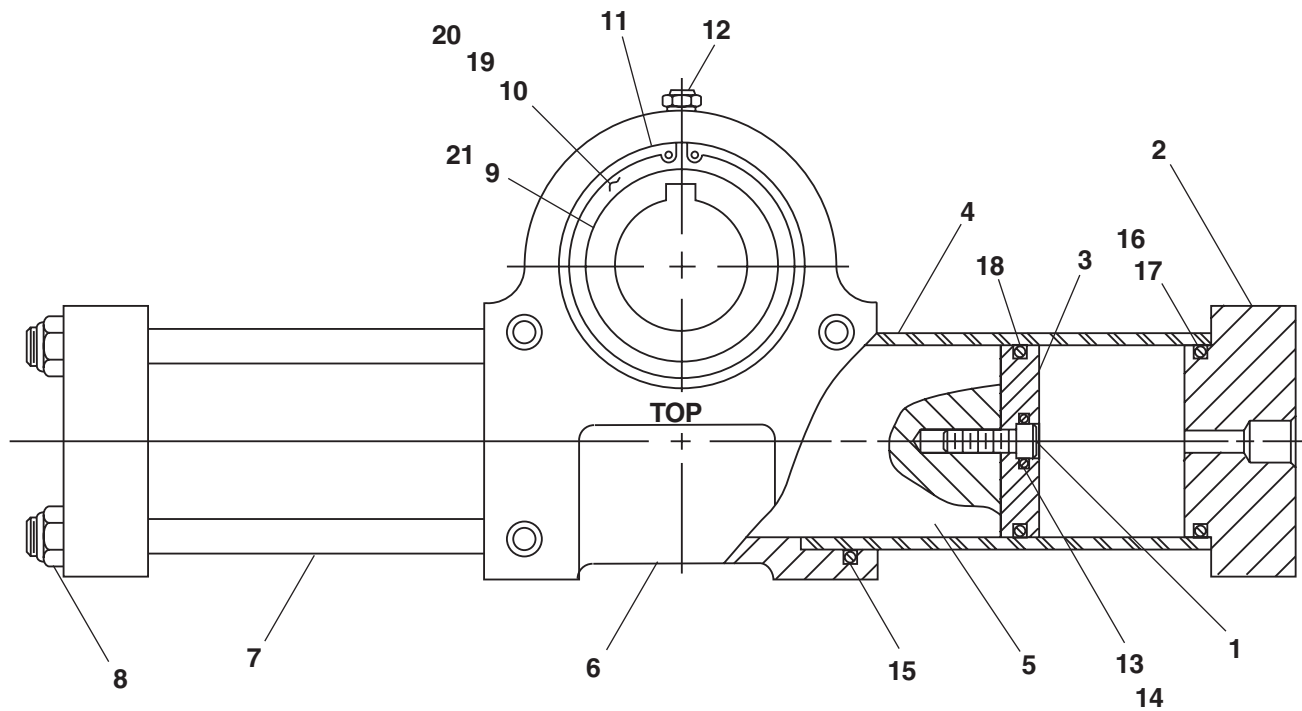
item	part no	qty	description
	0070570	1	Platform rotator, Helac
	0073223	1	Seal repair kit - (kit includes items 12 through 16)
	0074709	1	Bearing kit - (wear guides only, kit includes items 7, 9 and 11)
1	8080119	2	End cap
2	8080114	1	Housing, foot mounted
3	8080115	1	Pinion
4	8080099	2	Snap ring
5	8080100	1	Relief valve
6	8080116	2	Filler plug
7	Kit item	2	Wear guides - (not sold separately)
8	8080117	2	Shaft bearing
9	Kit item	1	Wear guides - (not sold separately)
10	8080118	2	Rack
11	Kit item	2	Wear guides - (not sold separately)
12	Kit item	2	Polypak seal - (not sold separately)
13	Kit item	2	O-ring - (not sold separately)
14	Kit item	2	Back-up - (not sold separately)
15	Kit item	2	O-ring - (not sold separately)
16	Kit item	2	Polypak seal - (not sold separately)



AWV00213

## Platform rotator, Parker

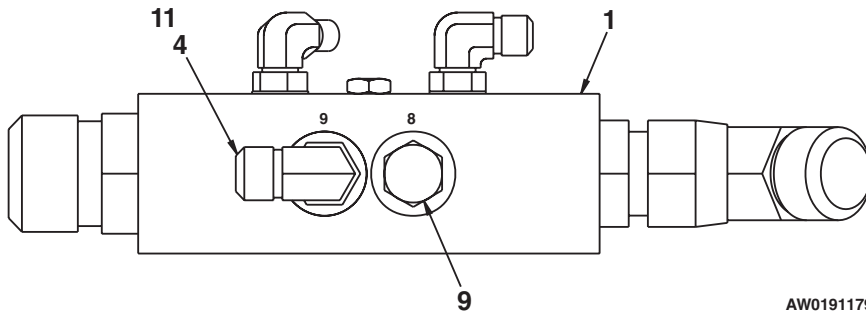
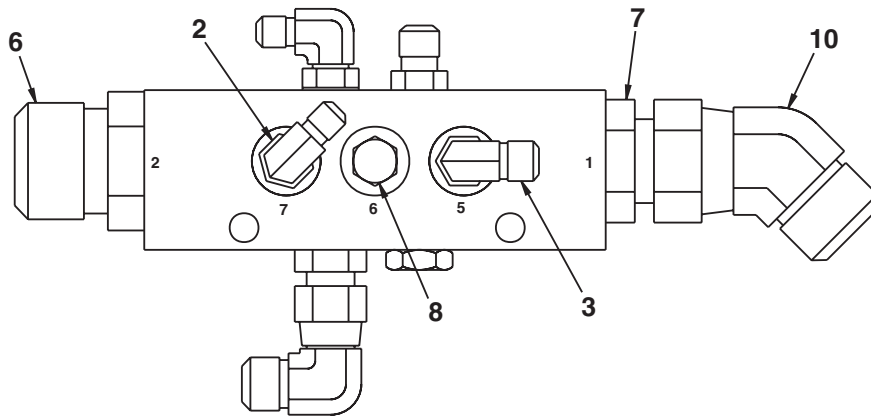
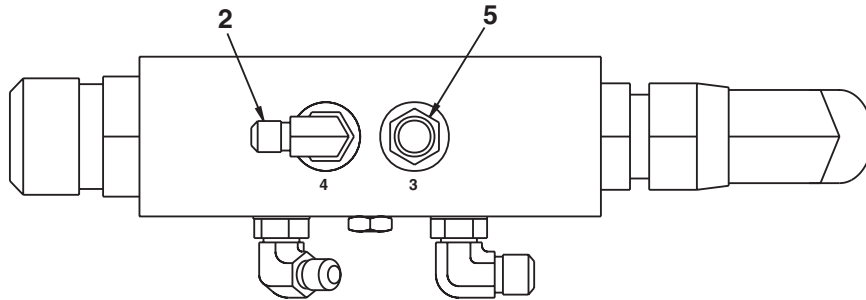
item	part no	qty	description
	0110771	1	Platform rotator - (includes rotator and spacer)
	0070570	1	Platform rotator, Parker
	0071275	1	Seal repair kit - (kit includes items 13 through 21)
	0140492	1	Spacer
1	8080018	2	Rack bolt
2	8080016	2	End cap
3	8080015	2	Piston
4	8080040	2	Cylinder
5	8080060	1	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

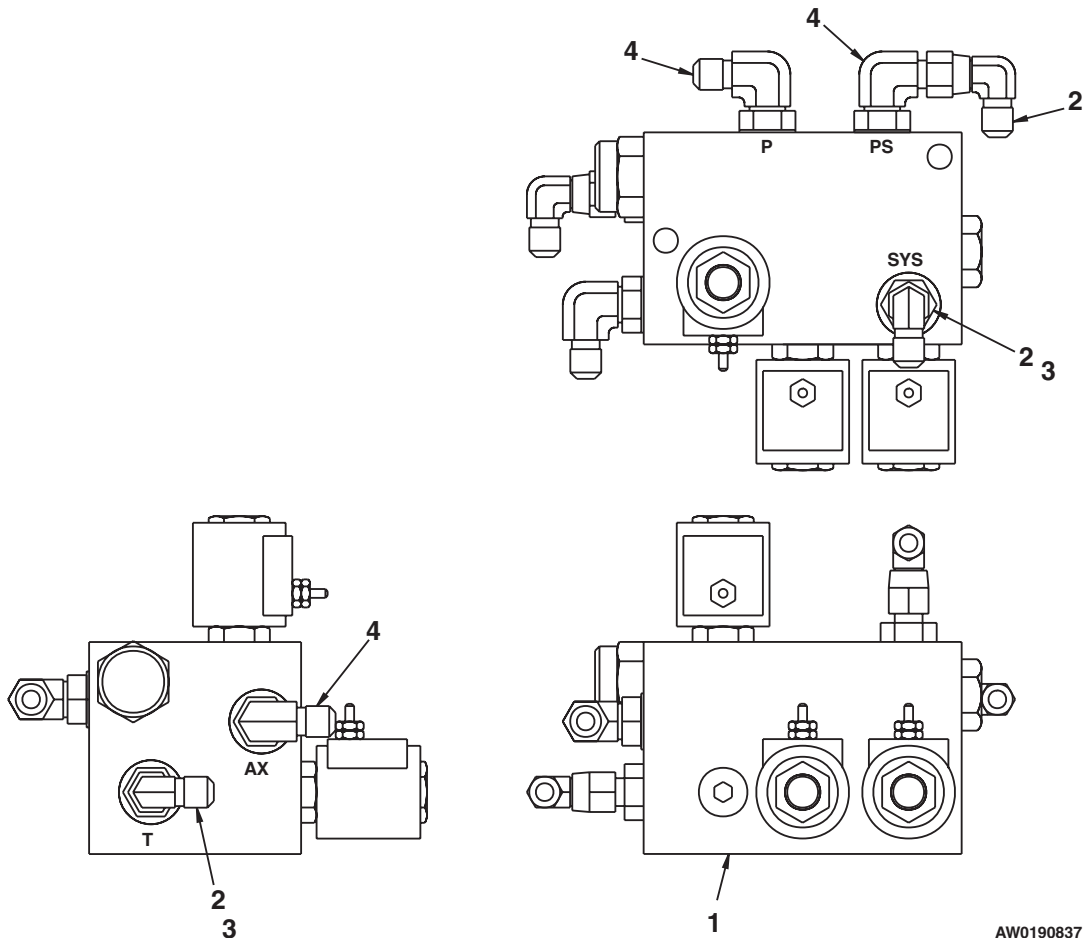
item	part no	qty	description
	0191179	1	Pressure manifold, complete
1	0110156	1	Pressure manifold
2	5035318	2	Straight thread 90° elbow
3	5035305	1	Straight thread 90° elbow
4	5065709	1	Straight thread adapter
5	5065707	1	Straight thread adapter
6	5065737	1	Straight thread adapter
7	5065718	1	Straight thread adapter
8	5075205	1	Hex head plug
9	5075206	1	Hex head plug
10	5036910	1	Swivel nut 45° elbow
11	5037006	1	Swivel nut 90° elbow



AW0191179

# Pump control valve

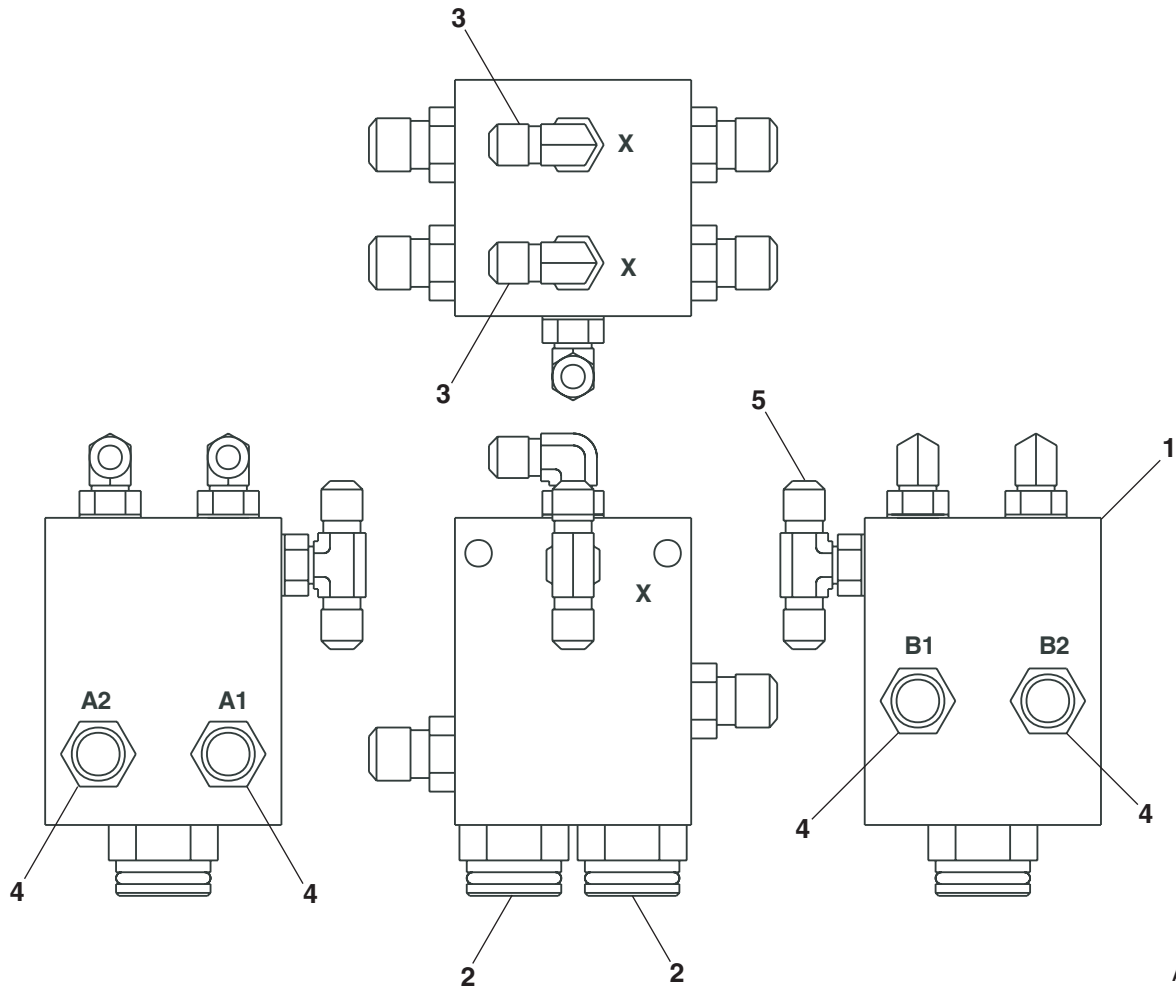
item	part no	qty	description
1	0190837	1	Pump control valve, complete
	6010672	1	Pump control valve
	6010472	3	3-way solenoid valve
	6010473	1	Replacement solenoid coil, 10 volt DC
	6010736	1	Flow regulator
	6010737	1	Shuttle valve
2	5037003	3	Swivel nut 90° elbow
3	5065705	2	Straight thread adapter
4	5035318	3	Straight thread 90° elbow



AW0190837

## 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	3-way cartridge valve
3	5035303	2	Straight thread 90° elbow
4	5065707	4	Straight thread adapter
5	5036503	1	Straight thread branch tee

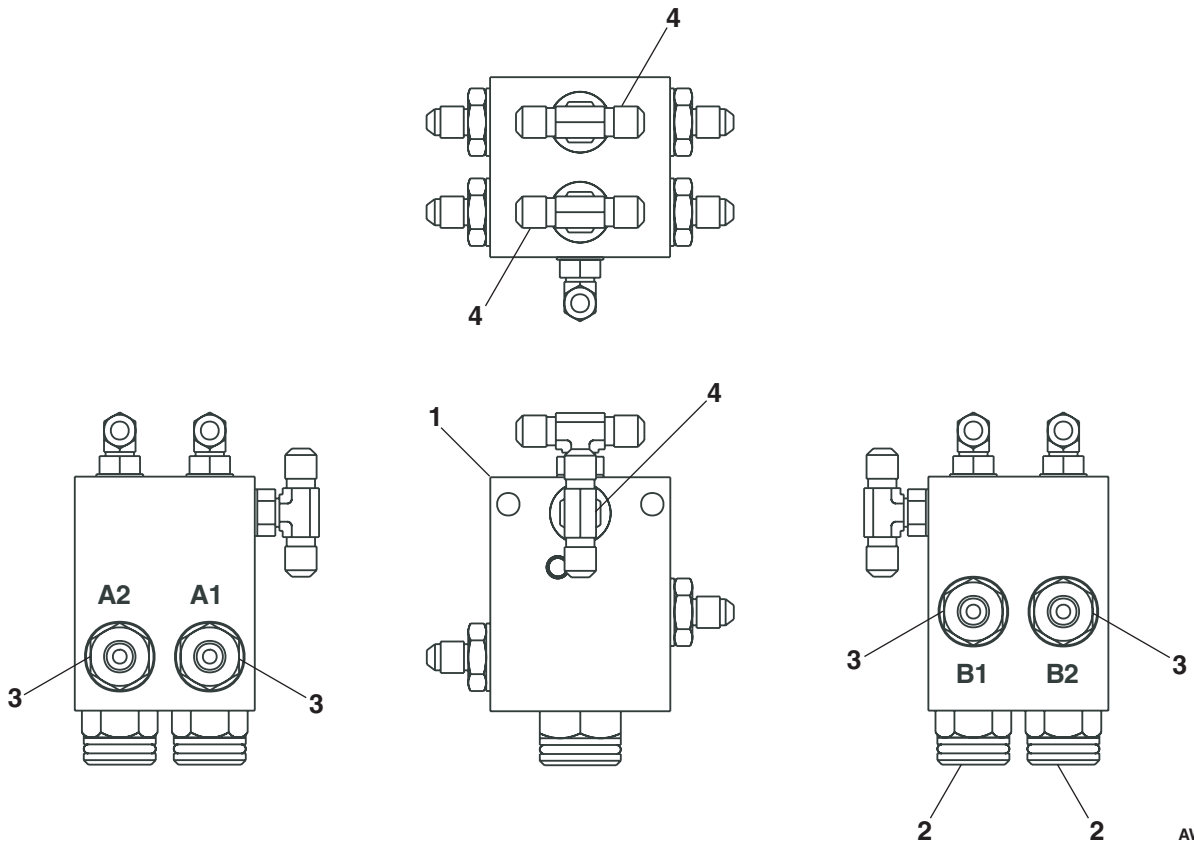


AW0111490



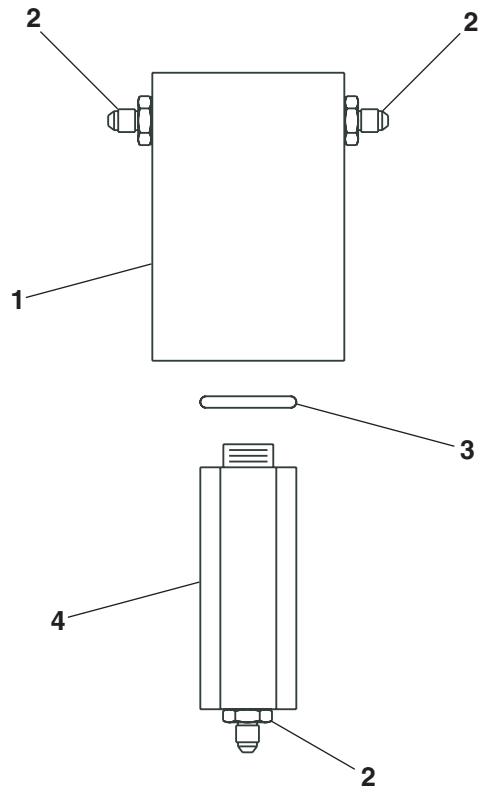
## Steer cut-out valve, 4 wheel drive

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	3-way cartridge valve
3	5065707	4	Straight thread adapter
4	5036503	3	Straight thread branch tee



# 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

***PRO***  
**100**





## Turntable electrical, Continental

item	part no	qty	description
1	0191301	1	Wiring box, continental - (see page 3-19 for parts breakdown)
2	0191382	1	Junction wiring box - (see page 3-41 for parts breakdown)
3	0190601	1	Bracket
4	0190600	1	Bracket
5	0191580	1	Boom lift cut-out switch - (see page 3-56 for parts breakdown)
6	3040127	1	Horn, 12 volt DC
7	3020103	1	Tilt alarm sensor
8	3050002	3	Battery, 12 volt DC - 550 CCA
9	3050008	2	Battery hold down
10	3050004	4	Battery hold down bolt
11	0150910	2	Battery hold down bolt
12	0150810	1	Battery box
13	0150811	1	Insulator angle
14	0150813	1	Battery hold down angle
15	3020061	1	Battery disconnect switch
16	0073089	1	Placard, battery disconnect switch
17	3040506	3	Solenoid, 12 volt DC
18	3044162	1	Terminal 1/4 stud insulated 16/14 wire
19	3040082	2	Terminal .250 tab male slip-on fully insulated 16/14 wire
20	0071542	1	Jumper wire
21	5560033	2	Nut 3/8-16 self locking
22	970489	2	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
23	5093006	3	Clamp
24	0080484	5	Jumper wire
25	0190985	1	Jumper wire
26	0110529	1	Battery wire
27	970429	2	Capscrew 3/8-16 x 1/2 inch long hex head grade 5
28	970449	5	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
29	986299	3	Washer 3/8 medium flat
30	987119	6	Washer 3/8 medium lock
31	970049	14	Capscrew 1/4-20 x 1 inch long hex head grade 5
32	5560004	14	Nut 1/4-20 self locking
33	970889	2	Capscrew 1/2-13 x 1 inch long hex head grade 5
34	987139	2	Washer 1/2 medium lock
35	986359	2	Washer 1/2 medium flat
36	984149	2	Nut 1/2-13 hex
37	970009	4	Capscrew 1/4-20 x 1/2 inch long hex head grade 5
38	987099	12	Washer 1/4 medium lock
39	986019	14	Washer 1/4 medium flat
40	0191181	1	Wire harness, turntable
41	0191255	1	Wire harness, Continental engine
42	3030112	1	Motionpac controller, primary
43	0191488	1	Template, motionpac controller
44	970029	8	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
45	5560648	4	Machine screw #10-24 x 3/4 inch long truss head
46	5560034	4	Nut #10-24 self locking
47	0072951	1	Guide bar
48	3050021	1	Isolator, multi-battery
49	0191578	1	Proximity switch - (see page 3-61 for parts breakdown)
50	0191603	1	Wire harness, drive speed controller

**Parts list continued on next page**

## Turntable electrical, Continental

item	part no	qty	description
51	0191243	1	Wire harness, instrument panel
52	0191189	1	Wire harness, power wire
53	0191188	1	Wire harness, control #2
54	0191187	1	Wire harness, control #1
55	3030077	1	Wire harness, motionpac primary
56	978109	2	Drive screw #4 x 5/16 inch long PK type U
57	3044142	4	Terminal #6 stud insulated 22/18 wire
58	3044146	5	Terminal #10 stud insulated 22/18 wire
59	3040047	10	Terminal .250 tab female slip-on fully insulated 22/18 wire
60	3046972	12	Terminal .188 tab female slip-on insulated 22/18 wire
61	3040046	2	Terminal .250 tab male slip-on fully insulated 22/18 wire
62	3040360	1	Terminal #10 stud insulated 2 gauge wire
63	0090959	2	Jumper wire
64	0070712	2	Jumper wire
65	0071568	2	Jumper wire
66	0181026	1	Diode wire
67	0090319	1	Jumper wire
68	3046697	1	Terminal .188 tab female slip-on insulated 16/14 wire
69	0080519	1	Jumper wire
70	3040268	7	Insulator boot
71	3040452	7	Insulator boot
72	0190984	1	Jumper wire
73	0181025	1	Jumper wire
74	0191165	1	Jumper wire
75	3040269	4	Insulator boot
76	3090019	1	Flexgard tube, 110 inch long
77	0070698	1	Battery ground wire
78	3040083	1	Terminal .250 tab female slip-on fully insulated 16/14 wire
79	3040065	1	Terminal .250 tab female slip-on fully insulated 12/10 wire
80	3044721	1	Terminal strip, 6 circuit #10 stud
81	0191011	1	Decal, terminal strip
82	5560609	2	Machine screw #10-24 x 1/2 inch long truss head
83	0191014	1	Wire harness, terminal strip
84	0071575	1	Jumper wire
85	5560038	6	Nut #10-32 self locking
86	0191002	2	Threaded rod
87	987109	2	Washer 5/16 medium lock
88	970259	2	Capscrew 5/16-18 x 1 inch long hex head grade 5
89	0191602	1	Angle proximity switch mount
90	0191649	4	Washer, boom switch mount

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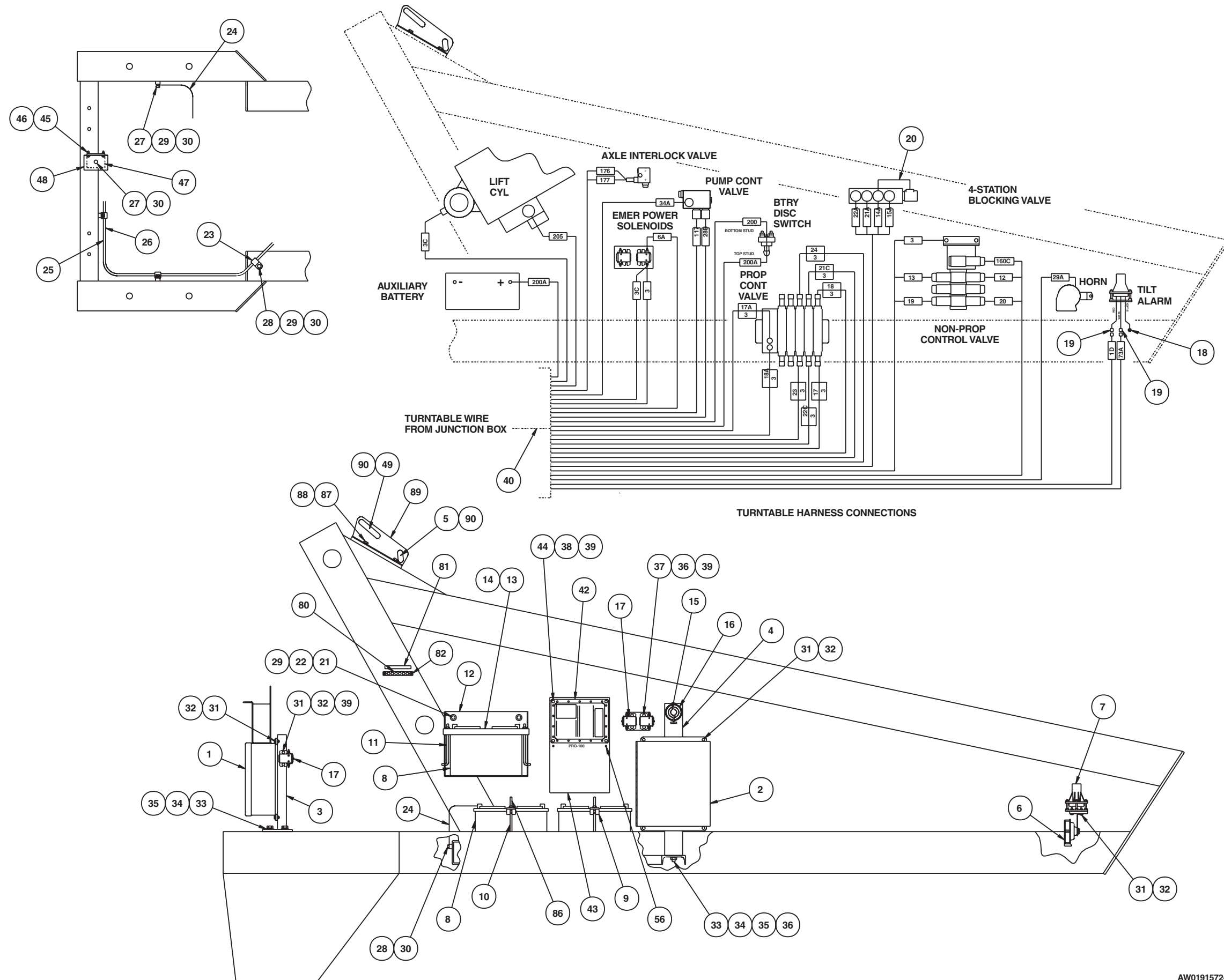
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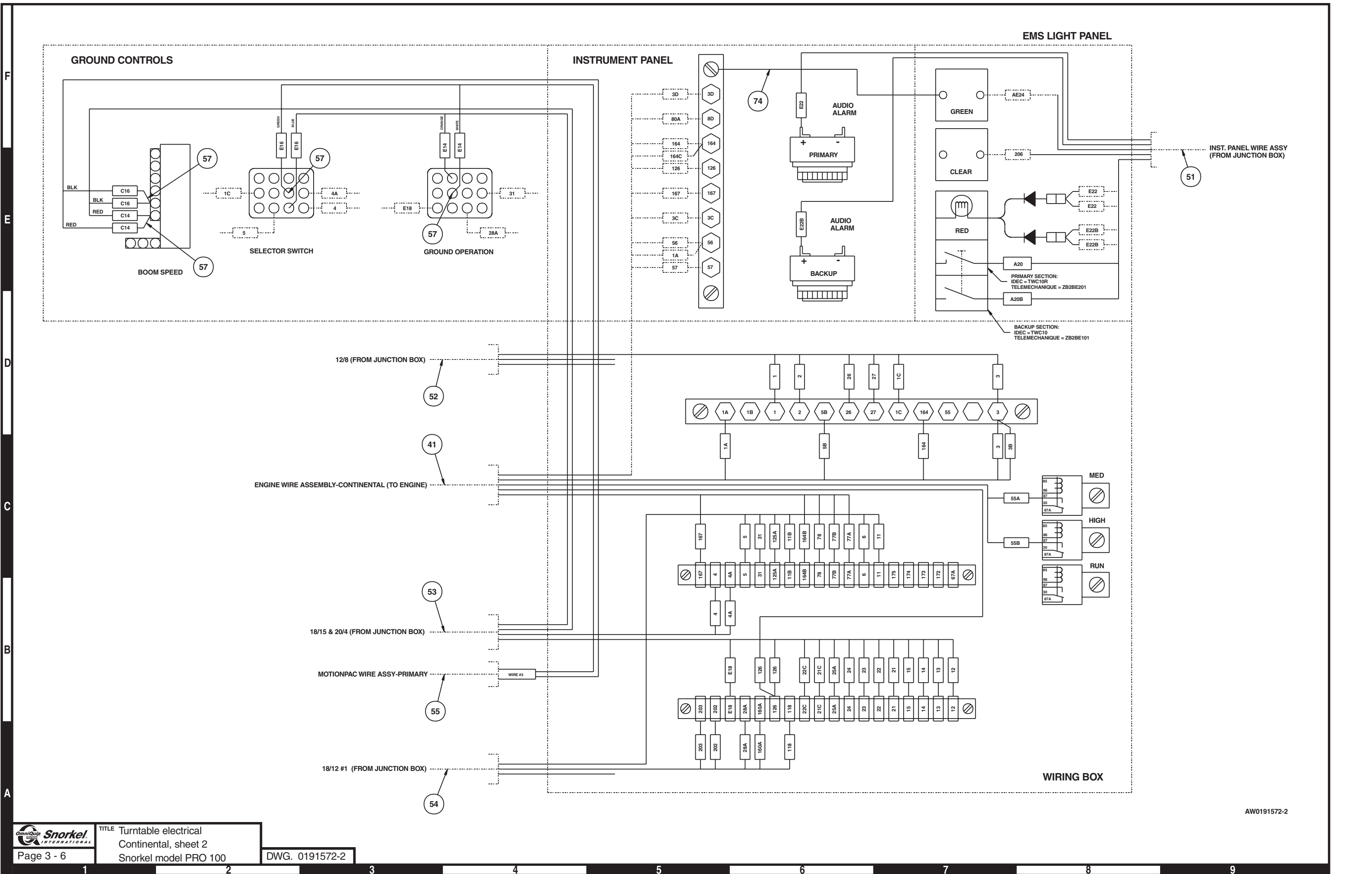
TITLE Turntable electrical  
 Continental, sheet 1  
 Snorkel model PRO 100



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DWG. 0191572-1

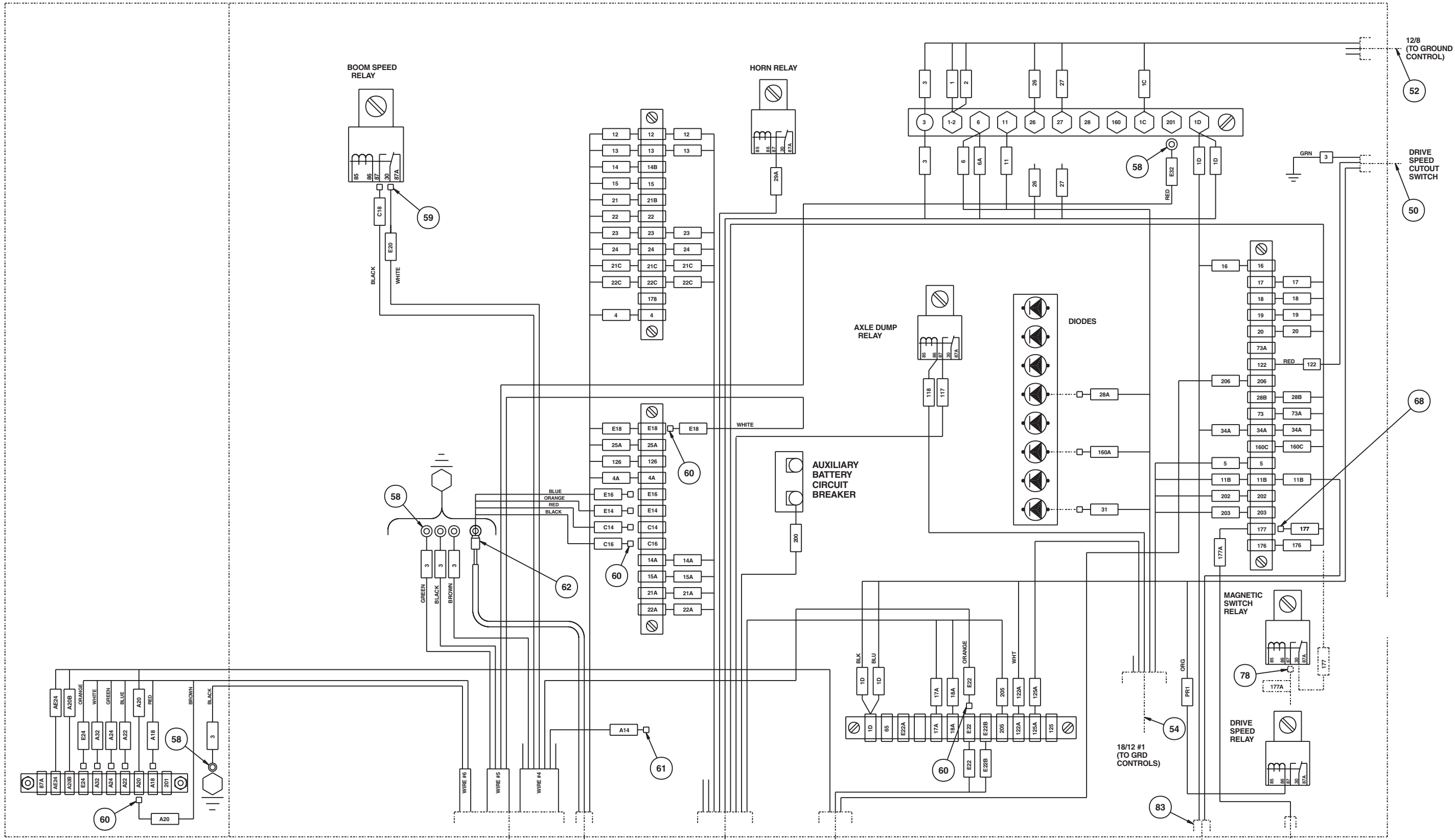
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JUNCTION BOX

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COVER

55 MOTIONPAC WIRE ASSY (PRIMARY) 53 18/15 & 20/4 (TO GRD CONT) 40 TURNTABLE WIRE ASSY 51 INSTRUMENT PANEL WIRE ASSY (TO INST PANEL) 54 18/12 #1 (TO GRD CONTROLS) 83 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

WIRE ASSEMBLY TO BOOM EXTEND CUTOUT & BOOM LIFT CUTOUT SWITCHES TERMINAL STRIP  
INTERNAL WIRE ASSY

AW0191572-3

DWG. 0191572-3	TITLE	Turntable electrical
		Continental, sheet 3
		Snorkel model PRO 100
		Page 3 - 7



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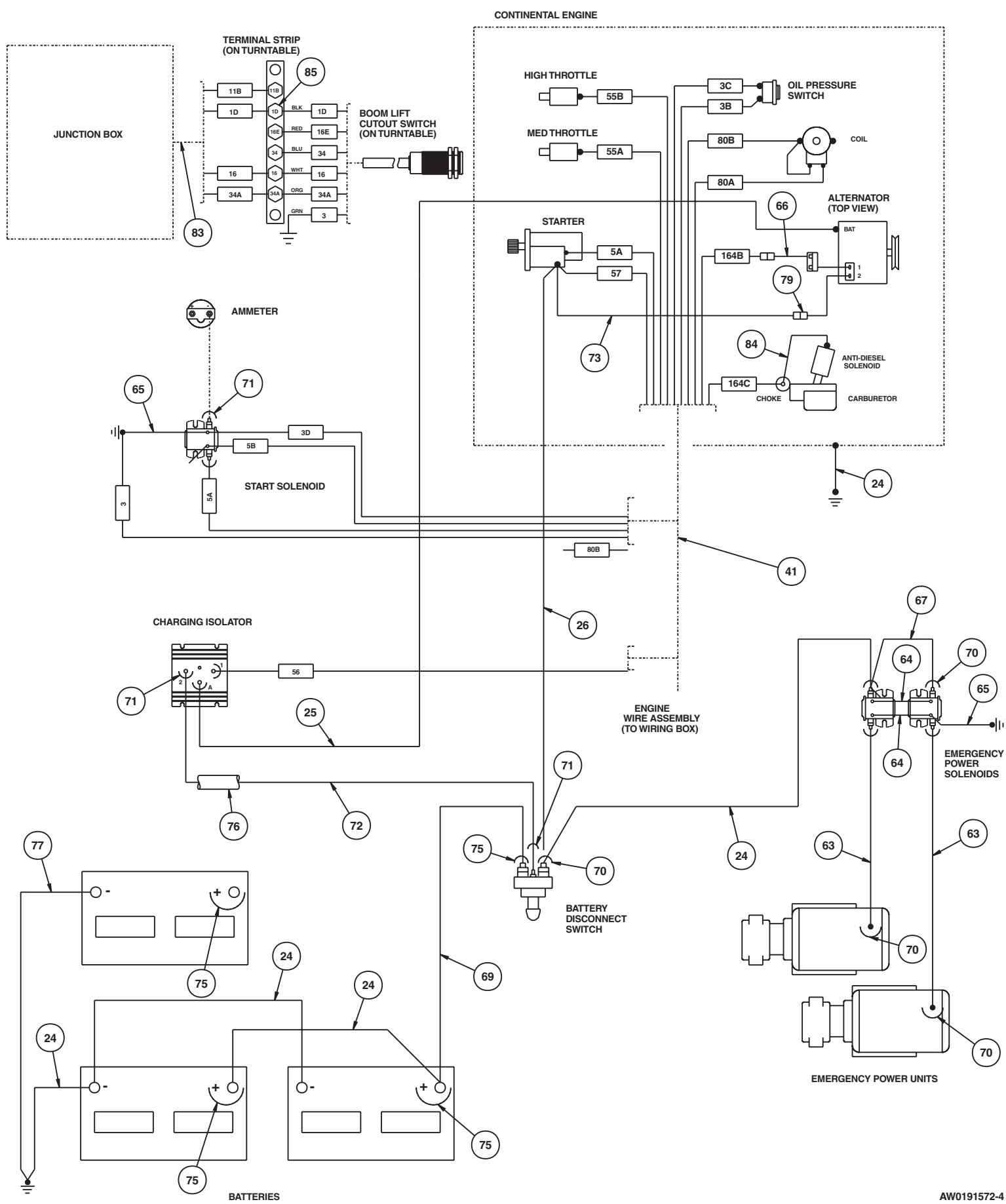
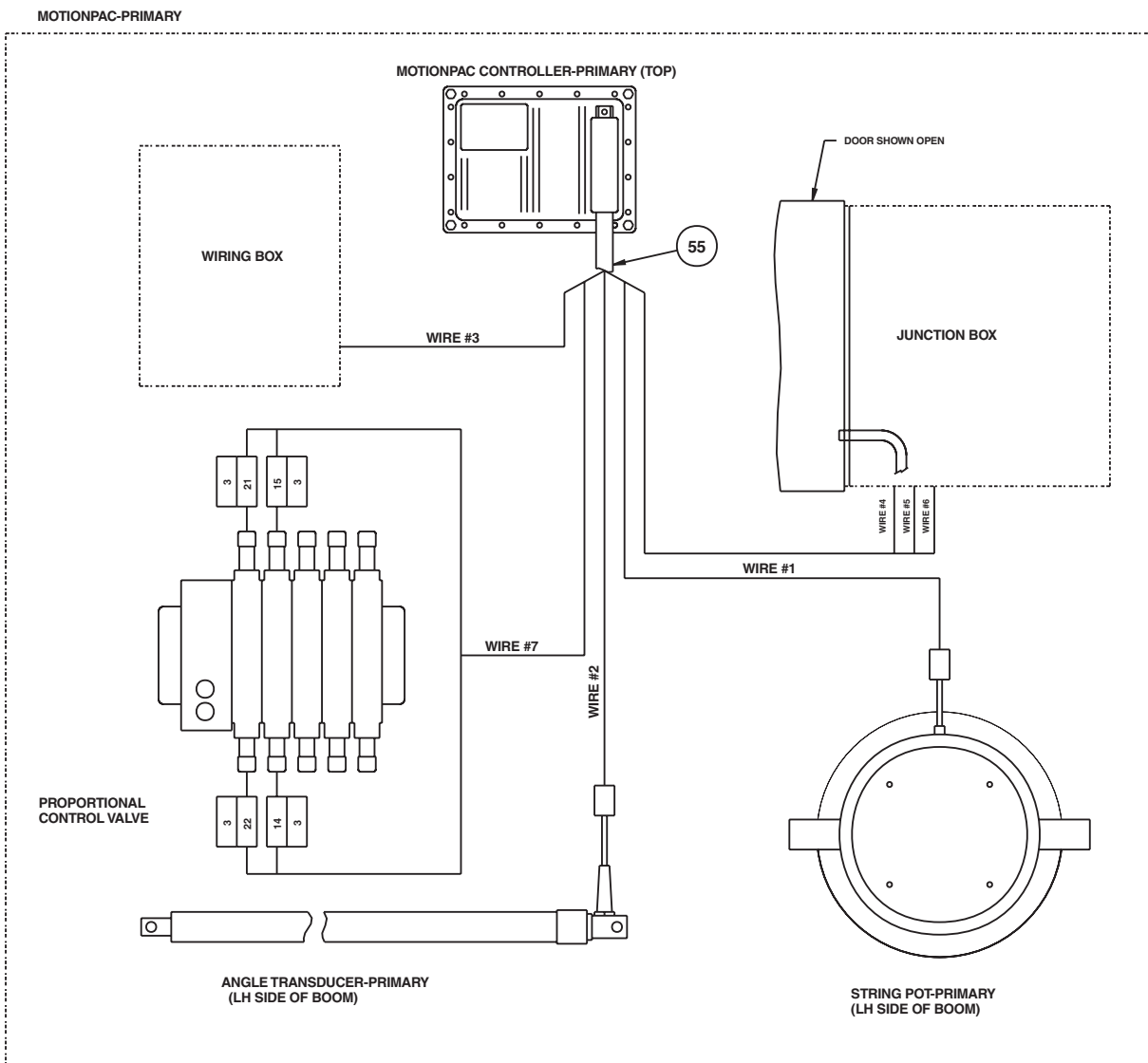
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## Turntable electrical, Cummins

item	part no	qty	description
1	0191089	1	Wiring box, Cummins - (see page 3-25 for parts breakdown)
2	0191382	1	Junction wiring box - (see page 3-41 for parts breakdown)
3	0190601	1	Bracket
4	0190600	1	Bracket
5	0191580	1	Boom lift cut-out switch - (before 2-21-00) - (see page 3-56 for parts breakdown)
	0191789	1	Boom lift switch - (after 2-21-00) - (see page 3-55 for parts breakdown)
6	3040127	1	Horn, 12 volt DC
7	3020103	1	Tilt alarm sensor
8	3050002	3	Battery, 12 volt DC - 550 CCA
9	3050008	2	Battery hold down
10	3050004	4	Battery hold down bolt
11	0150910	2	Battery hold down bolt
12	0150810	1	Battery box
13	0150811	1	Insulator angle
14	0150813	1	Battery hold down angle
15	3020061	1	Battery disconnect switch
16	0073089	1	Placard, battery disconnect switch
17	3040506	3	Solenoid, 12 volt DC
18	3044162	1	Terminal 1/4 stud insulated 16/14 wire
19	3040082	2	Terminal .250 tab male slip-on fully insulated 16/14 wire
20	0071542	1	Jumper wire
21	5560033	2	Nut 3/8-16 self locking
22	970489	2	Capscrew 3/8-16 x 1-1/2 inch long hex head grade 5
23	5093006	3	Clamp
24	0080484	5	Jumper wire
25	0190985	1	Jumper wire
26	0110529	1	Battery wire
27	970429	2	Capscrew 3/8-16 x 1/2 inch long hex head grade 5
28	970449	5	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
29	986299	3	Washer 3/8 medium flat
30	987119	6	Washer 3/8 medium lock
31	970049	14	Capscrew 1/4-20 x 1 inch long hex head grade 5
32	5560004	14	Nut 1/4-20 self locking
33	970889	2	Capscrew 1/2-13 x 1 inch long hex head grade 5
34	987139	2	Washer 1/2 medium lock
35	986359	2	Washer 1/2 medium flat
36	984149	2	Nut 1/2-13 hex
37	970009	4	Capscrew 1/4-20 x 1/2 inch long hex head grade 5
38	987099	12	Washer 1/4 medium lock
39	986019	14	Washer 1/4 medium flat
40	0191181	1	Wire harness, turntable
41	0191254	1	Wire harness, Cummins engine
42	3030112	1	Motionpac controller, primary
43	0191488	1	Template, motionpac controller
44	970029	8	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
45	5560648	4	Machine screw #10-24 x 3/4 inch long truss head
46	5560034	4	Nut #10-24 self locking
47	0072951	1	Guide bar
48	3050021	1	Isolator, multi-battery
49	0191578	2	Proximity switch - (before 2-21-00) - (see page 3-61 for parts breakdown)
	0191791	1	Drive speed switch - (after 2-21-00) - (see page 3-59 for parts breakdown)
50	0191603	1	Wire harness, drive speed controller
			<b>Parts list continued on next page</b>

## Turntable electrical, Cummins

item	part no	qty	description
51	0191243	1	Wire harness, instrument panel
52	0191189	1	Wire harness, power wire
53	0191188	1	Wire harness, control #2
54	0191187	1	Wire harness, control #1
55	3030077	1	Wire harness, motionpac primary
56	978109	2	Drive screw #4 x 5/16 inch long PK type U
57	3044142	4	Terminal #6 stud insulated 22/18 wire
58	3044146	5	Terminal #10 stud insulated 22/18 wire
59	3040047	10	Terminal .250 tab female slip-on fully insulated 22/18 wire
60	3046972	12	Terminal .188 tab female slip-on insulated 22/18 wire
61	3040046	2	Terminal .250 tab male slip-on fully insulated 22/18 wire
62	3040360	1	Terminal #10 stud insulated 2 gauge wire
63	0090959	2	Jumper wire
64	0070712	2	Jumper wire
65	0071568	2	Jumper wire
66	0191165	1	Jumper wire
67	0090319	1	Jumper wire
68	3046697	1	Terminal .188 tab female slip-on insulated 16/14 wire
69	0080519	1	Jumper wire
70	3040268	7	Insulator boot
71	3040452	7	Insulator boot
72	0190984	1	Jumper wire
73	3044161	1	Terminal #10 stud insulated 16/14 wire
74	0191649	4	Washer, boom switch mount - (before 2-21-00)
75	3040269	4	Insulator boot
76	3090019	1	Flexgard tube, 110 inch long
77	0070698	1	Battery ground wire
78	3040083	1	Terminal .250 tab female slip-on fully insulated 16/14 wire
79	0191602	1	Angle proximity switch mount - (before 2-21-00)
80	3044721	1	Terminal strip, 6 circuit #10 stud
81	0191011	1	Decal, terminal strip
82	5560609	2	Machine screw #10-24 x 1/2 inch long truss head
83	0191014	1	Wire harness, terminal strip
84	0150951	1	Diode jumper wire - (includes 3040293 diode)
85	5560038	6	Nut #10-32 self locking
86	0191002	2	Threaded rod
87	987109	2	Washer 5/16 medium lock
88	970259	2	Capscrew 5/16-18 x 1 inch long hex head grade 5

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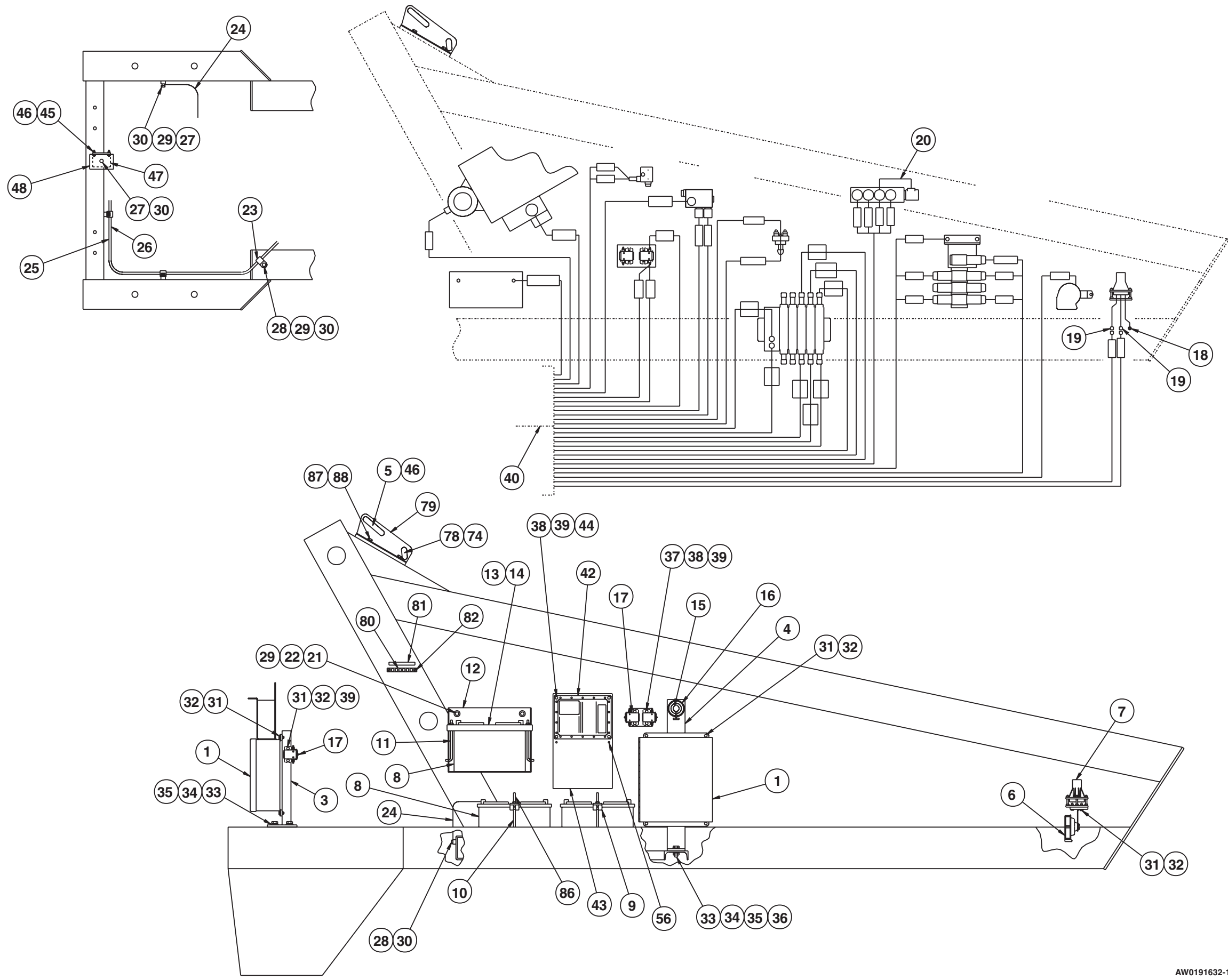
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AW0191632-1

TITLE Turntable electrical  
 Cummins, sheet 1  
 Snorkel model PRO 100



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DWG. 0191632-1

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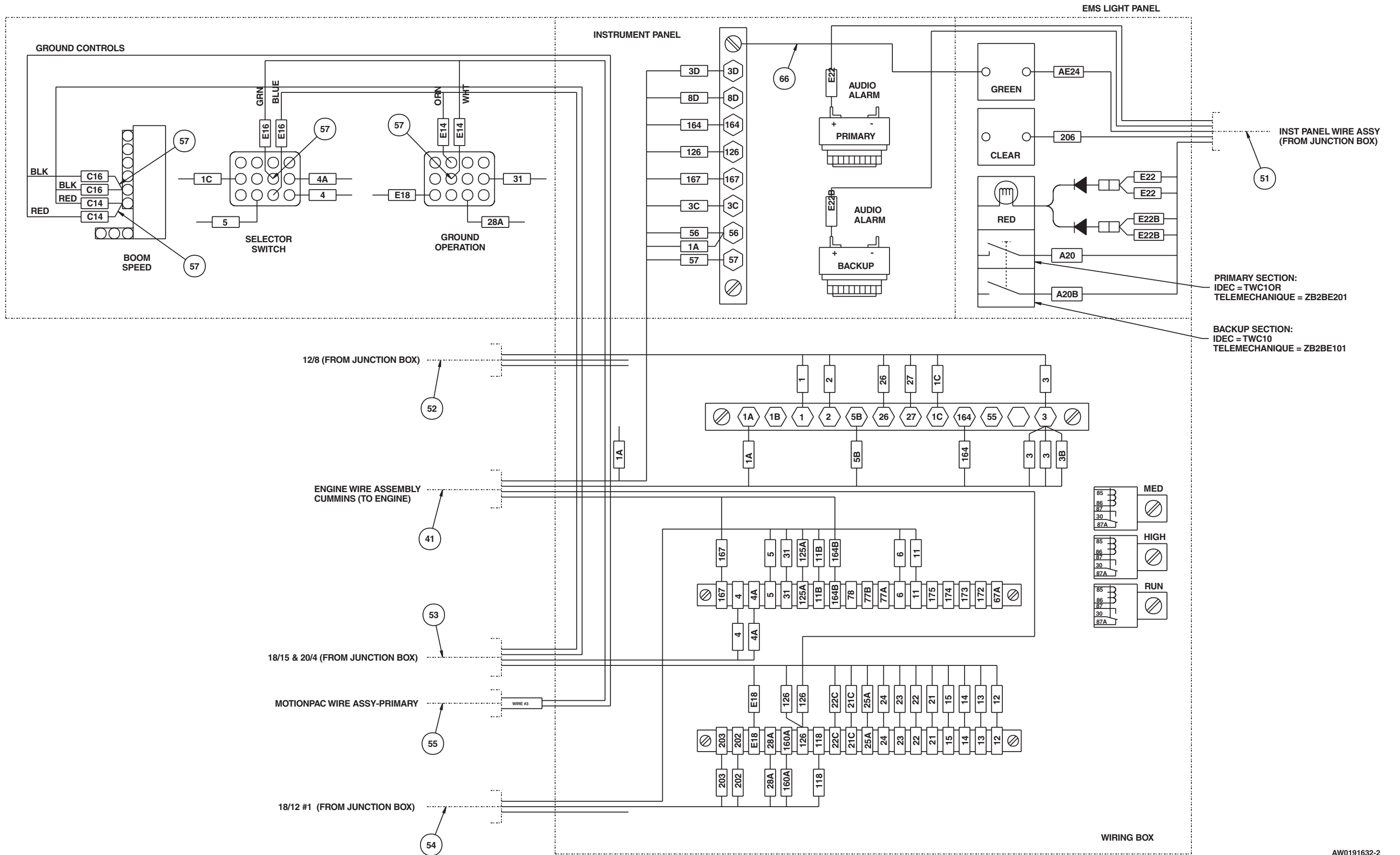
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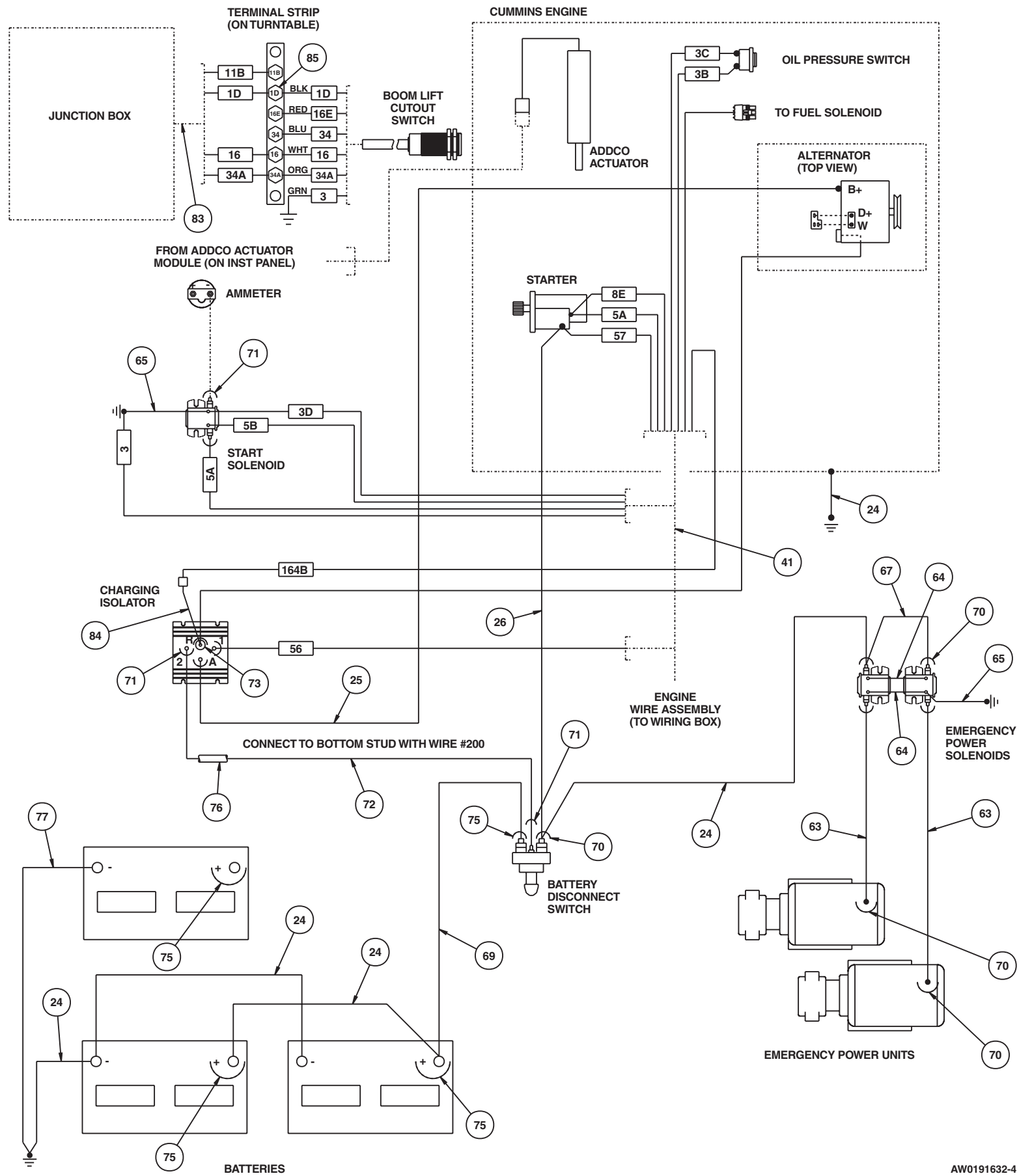
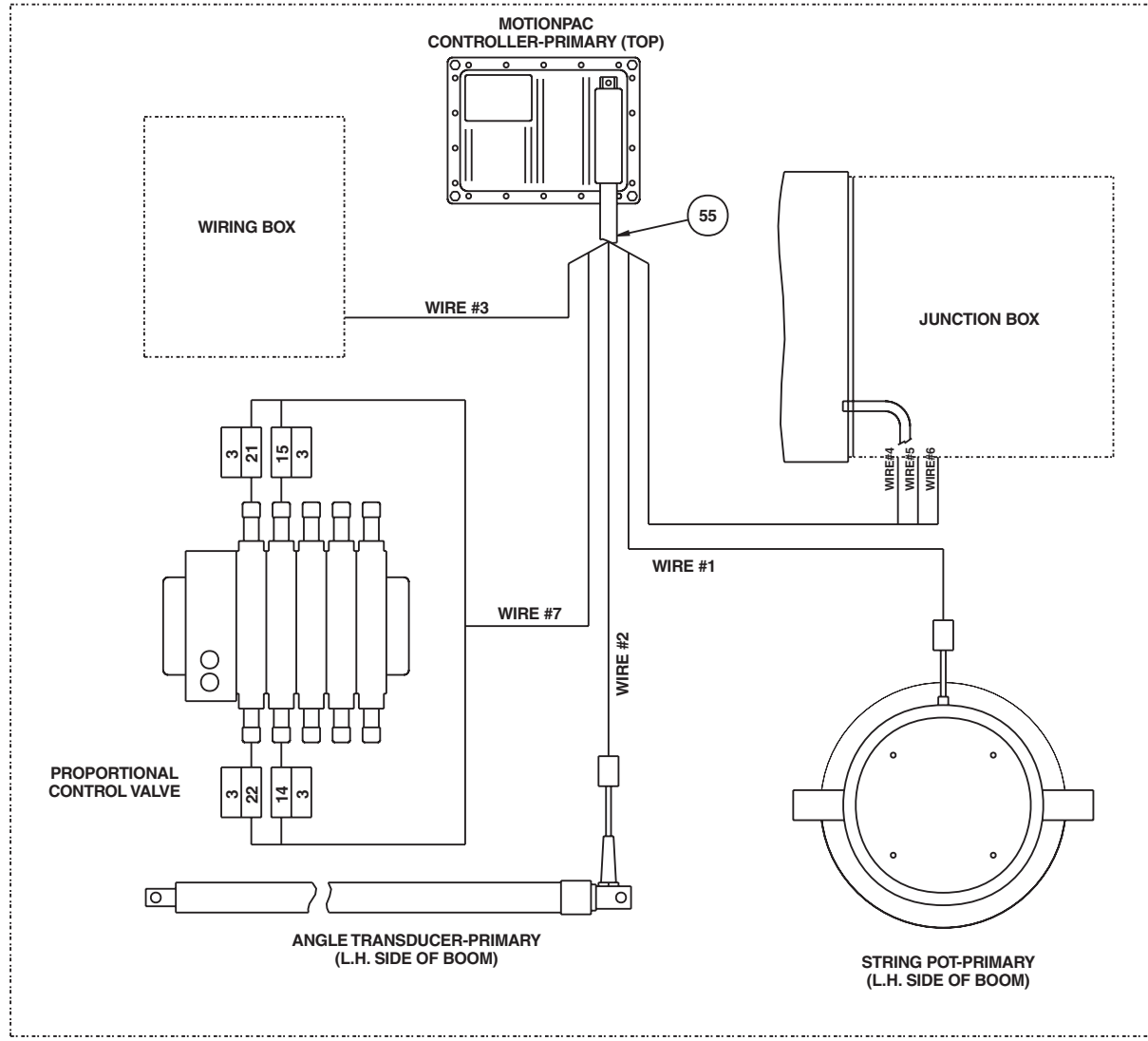
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MOTIONPAC-PRIMARY



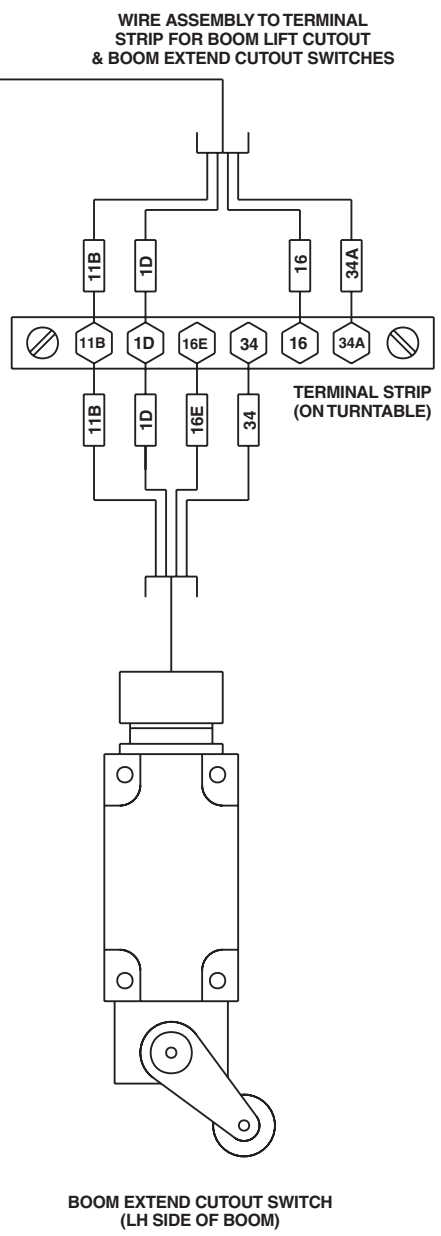
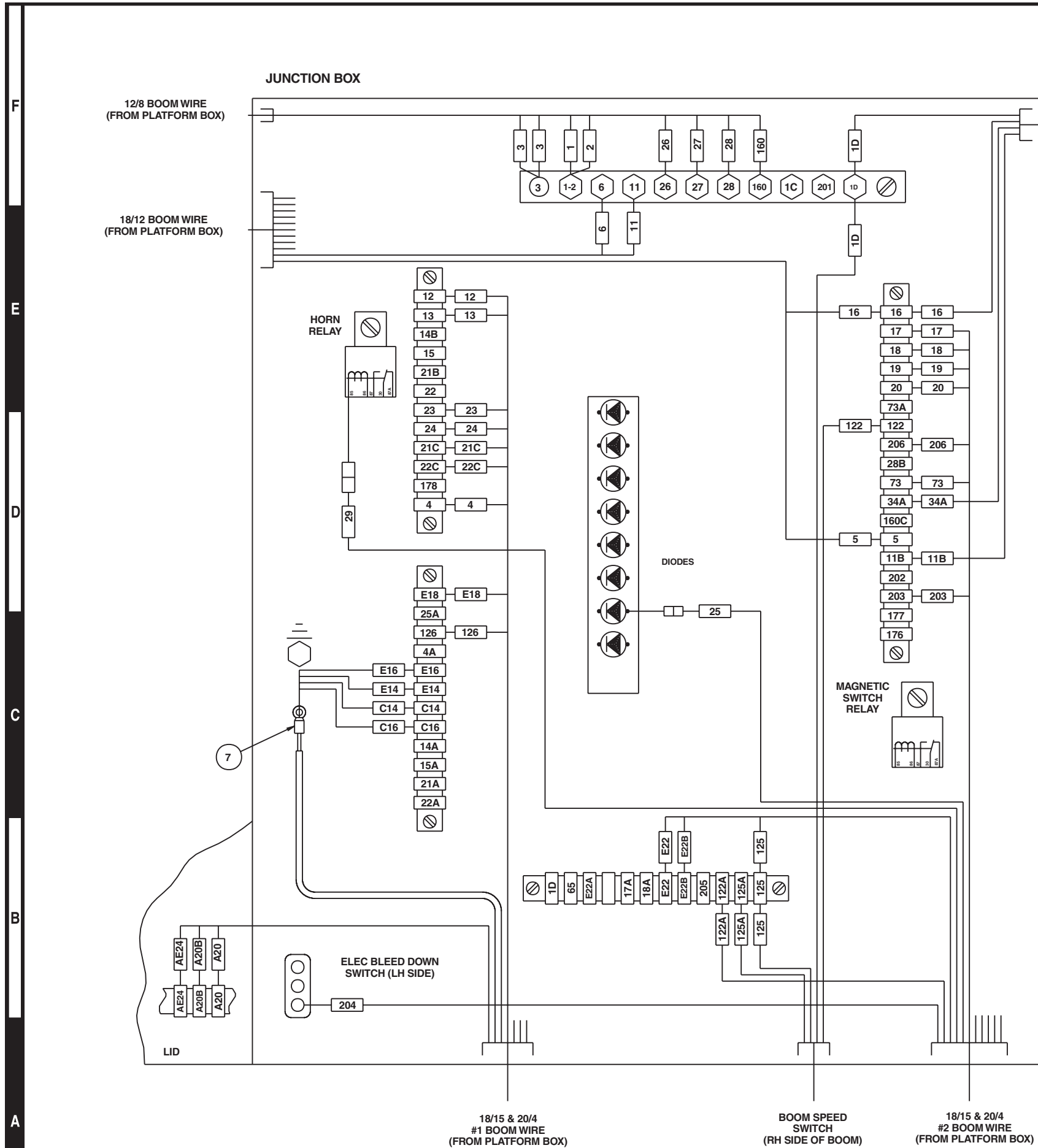
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## Boom electrical

item	part no	qty	description
1	3040047	1	Terminal .250 tab female slip-on fully insulated 22/18 wire
2	3040046	2	Terminal .250 tab male slip-on fully insulated 22/18 wire
3	3044146	4	Terminal #10 stud insulated 22/18 wire
4	3046972	56	Terminal .188 tab female slip-on insulated 22/18 wire
5	3044142	5	Terminal #6 stud insulated 22/18 wire
6	3044854	16	Terminal ring tongue insulated 12/10 wire



18/15 & 20/4 #1 BOOM WIRE					
SNORKEL WIRE NO.	BRAND REX WIRE COLOR	BRAND REX WIRE NO.	FUNCTION	TERMINAL JUNCTION BOX	TERMINAL PLATFORM BOX
4	BLUE/BLACK	8	IGNITION	ITEM 4	ITEM 4
12	BLUE/RED	13	LEVEL-DOWN	ITEM 4	ITEM 4
13	ORANGE/RED	14	LEVEL-UP	ITEM 4	ITEM 4
C14	RED	2	+5 VOLTS	ITEM 4	ITEM 4
E14	ORANGE	4	"X" EXTEND/RETRACT	ITEM 4	ITEM 4
C16	BLACK	1	GROUND	ITEM 4	ITEM 4
E16	BLUE	3	"Y" LIFT/LOWER	ITEM 4	ITEM 4
E18	BLACK/BLUE	17	VALVE GROUNDING	ITEM 4	ITEM 4
A20	BROWN	6	BDU	ITEM 4	ITEM 4
A20B	YELLOW	5	BDU	ITEM 4	ITEM 4
21C	ORANGE/BLACK	9	PLATFORM ROTATE-CW	ITEM 4	ITEM 4
22C	BROWN/RED	16	PLATFORM ROTATE-CCW	ITEM 4	ITEM 4
23	RED/BLUE	18	SWING-CCW	ITEM 4	ITEM 4
24	BROWN/BLACK	11	SWING-CW	ITEM 4	ITEM 4
AE24	YELLOW/RED	15	BDU	ITEM 4	ITEM 4
126	BLACK/RED	12	ENGINE WARNING	ITEM 4	ITEM 4
-	RED/BLACK	7	SPARE	NONE	NONE
-	ORANGE/BLUE	19	SPARE	NONE	NONE
-	YELLOW/BLACK	10	SPARE	NONE	NONE

18/15 & 20/4 #2 BOOM WIRE					
SNORKEL WIRE NO.	BRAND REX WIRE COLOR	BRAND REX WIRE NO.	FUNCTION	TERMINAL JUNCTION BOX	TERMINAL PLATFORM BOX
17	RED/BLUE	18	DRIVE-FORWARD	ITEM 4	ITEM 4
18	YELLOW/BLACK	10	DRIVE-REVERSE	ITEM 4	ITEM 4
19	BROWN/RED	16	STEER-LEFT	ITEM 4	ITEM 4
20	BLUE/BLACK	8	STEER-RIGHT	ITEM 4	ITEM 4
E22	YELLOW/RED	15	AUDIO ALARM-PRIMARY	ITEM 4	ITEM 5
E22B	BROWN/BLACK	11	AUDIO ALARM-BACKUP	ITEM 4	ITEM 5
25	ORANGE/RED	14	MEDIUM THROTTLE	ITEM 1	ITEM 4
29	BLACK/BLUE	17	HORN	ITEM 2	ITEM 2
73	BROWN	6	LEVEL SENSOR	ITEM 4	ITEM 4
122A	BLUE/RED	13	POWER TO "R" TERMINAL	ITEM 4	ITEM 4
125	ORANGE/BLACK	9	HIGH THROTTLE	ITEM 4	ITEM 4
203	RED/BLACK	7	BLEED DOWN FROM GROUND	ITEM 4	ITEM 4
204	YELLOW	5	BLEED DOWN SIGNAL	ITEM 5	ITEM 5
206	BLACK/RED	12	EMS ENVELOPE LIGHT	ITEM 4	ITEM 4
-	ORANGE/BLUE	19	SPARE	NONE	NONE
-	BLACK	1	SPARE SHIELDED	NONE	NONE
-	RED	2	SPARE SHIELDED	NONE	NONE
-	BLUE	3	SPARE SHIELDED	NONE	NONE
-	ORANGE	4	SPARE SHIELDED	NONE	NONE

18/12 BOOM WIRE					
SNORKEL WIRE NO.	BRAND REX WIRE COLOR	BRAND REX WIRE NO.	FUNCTION	TERMINAL JUNCTION BOX	TERMINAL PLATFORM BOX
5	BLACK/RED	12	START SIGNAL	ITEM 4	ITEM 3
6	BLUE/BLACK	8	EMERGENCY POWER	ITEM 3	ITEM 4
11	YELLOW/BLACK	10	PLATFORM RANGE	ITEM 3	ITEM 4
16	BLUE	3	AXLE INTERLOCK TO PLAT.	ITEM 4	ITEM 3
-	YELLOW	5	SPARE	NONE	NONE
-	ORANGE	4	SPARE	NONE	NONE
-	RED	2	SPARE	NONE	NONE
-	BLACK	1	SPARE	NONE	NONE
-	BROWN	6	SPARE	NONE	NONE
-	RED/BLACK	7	SPARE	NONE	NONE
-	BLUE/BLACK	9	SPARE	NONE	NONE
-	BROWN/BLACK	11	SPARE	NONE	NONE

12/8 BOOM WIRE					
SNORKEL WIRE NO.	BRAND REX WIRE COLOR	BRAND REX WIRE NO.	FUNCTION	TERMINAL JUNCTION BOX	TERMINAL PLATFORM BOX
1	RED	2	POWER TO PLATFORM-12 VOLT	ITEM 6	ITEM 6
2	RED/BLACK	7	POWER TO PLATFORM-12 VOLT	ITEM 6	ITEM 6
3	BLACK	1	GROUND	ITEM 6	ITEM 6
3	BLUE	3	GROUND	ITEM 6	ITEM 6
26	ORANGE	4	PLATFORM ROTATION-CW	ITEM 6	ITEM 6
27	BLUE/BLACK	8	PLATFORM ROTATION-CCW	ITEM 6	ITEM 6
28	BROWN	6	SENSE LINE DUMP-SIGNAL	ITEM 6	ITEM 6
160	YELLOW	5	NON-PROP. 3-WAY	ITEM 6	ITEM 6

AW0191277

TITLE Boom electrical

DWG. 0191277

Snorkel model PRO 100



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## Wiring box, Continental

item	part no	qty	description
	0191301	1	Wiring box, Continental
1	0190931	1	Wiring box
2	0191140	1	Wiring box panel - (see page 3-31 for parts breakdown)
3	0191132	1	Wire harness, wiring box internal
4	0191133	1	Instrument panel
5	3030086	2	Audio alarm
6	3040082	1	Terminal .250 tab male slip-on fully insulated 16/14 wire
7	3030087	1	Resistor bridge and pot
8	3040534	1	PWM module
9	3020013	1	Switch, toggle
10	3040535	1	Circuit breaker, 3 amp capacity
11	3040252	2	Circuit breaker, 15 amp capacity
12	3040069	1	Circuit breaker, 25 amp capacity
13	0191137	1	Placard, lower controls
14	3070001	1	Hour meter
15	3020087	1	Switch, keyed start
	8030044	1	Replacement key
16	3020048	2	Switch, toggle
17	3020107	1	Switch, toggle
18	3020081	1	Switch, toggle
19	3020016	2	Switch, toggle
20	3020018	4	Switch, toggle
21	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
22	3040185	2	Contact block
23	3020108	1	Light module
24	3040298	1	Connector
25	3040110	3	Connector locknut
26	3040070	2	Connector locknut
27	3040295	2	Connector
28	3040115	1	Connector
29	0070967	1	Corrosion inhibitor
30	7630140	1	Filter condition indicator
31	3070003	1	Ammeter
32	3020093	1	Switch, magnetic
33	0111623	1	Placard, engine protection system
34	5093008	1	Clamp
35	5560707	4	Machine screw #10-32 x 3/8 inch long pan head
36	3040348	1	Switch knob
37	5560034	16	Nut #10-24 self locking
38	974289	2	Machine screw #6-32 x 1-1/4 inch long round head
39	984009	2	Nut #6-32 hex
40	986159	2	Washer #6 medium flat
41	987349	2	Washer #6 medium lock
42	970469	2	Capscrew 3/8-16 x 1 inch long hex head grade 5
43	5560033	2	Nut 3/8-16 self locking
44	5560648	2	Machine screw #10-24 x 3/4 inch long truss head
45	5560703	2	Washer #10 star tooth lock
46	987089	1	Washer #10 medium lock
47	3070016	1	Temperature gauge
48	3040047	1	Terminal .250 tab female slip-on fully insulated 22/18 wire
49	0070747	5	Jumper wire
50	0071549	1	Jumper wire
			<b>Parts list continued on next page</b>

## Wiring box, Continental

item	part no	qty	description
51	0070746	3	Jumper wire
52	0070730	7	Jumper wire
53	0070742	1	Jumper wire
54	0071541	1	Jumper wire
55	0060373	2	Jumper strap
56	0240483	2	Jumper wire
57	0181104	5	Jumper wire
58	0073295	1	Jumper wire
59	0070735	1	Jumper wire
60	0073254	3	Diode jumper wire
61	0071589	1	Jumper wire
62	984049	1	Nut #10-24 hex
63	3090020	1	Flexgard tube, 12 inch long
64	5560038	8	Nut #10-32 self locking
65	0191238	1	Diode wire
66	3044146	5	Terminal #10 stud insulated 22/18 wire
67	3046972	5	Terminal .188 tab female slip-on insulated 22/18 wire
68	0070753	8	Jumper wire
69	5569849	6	Machine screw #10-32 x 5/8 inch long self tapping
70	0191136	1	Cover plate
71	5560135	1	Staple plate
72	0073492	1	Decal, rotate while greasing
73	5037102	1	Bulkhead connector
74	5074401	1	Bulkhead locknut
75	5570001	1	Grease fitting, 1/8 NPT straight
76	0070711	4	Jumper wire
77	0191417	1	Jumper wire
78	0111512	1	Jumper bar
79	986359	1	Washer 1/2 medium flat
80	3060099	1	EMS warning light, clear
	8010211	1	Replacement lens, clear
81	3060100	1	EMS warning light, green
	8010213	1	Replacement lens, green
82	3060097	1	EMS warning light, red
	8010192	1	Replacement lens, red
83	0071564	3	Jumper wire
84	3044708	1	Terminal strip, 10 circuit #8 stud
85	0151816	4	Jumper wire
86	3040187	1	Connector
87	0191166	1	Jumper wire
88	0191232	1	Jumper wire
89	0191174	1	Decal, EMS lights

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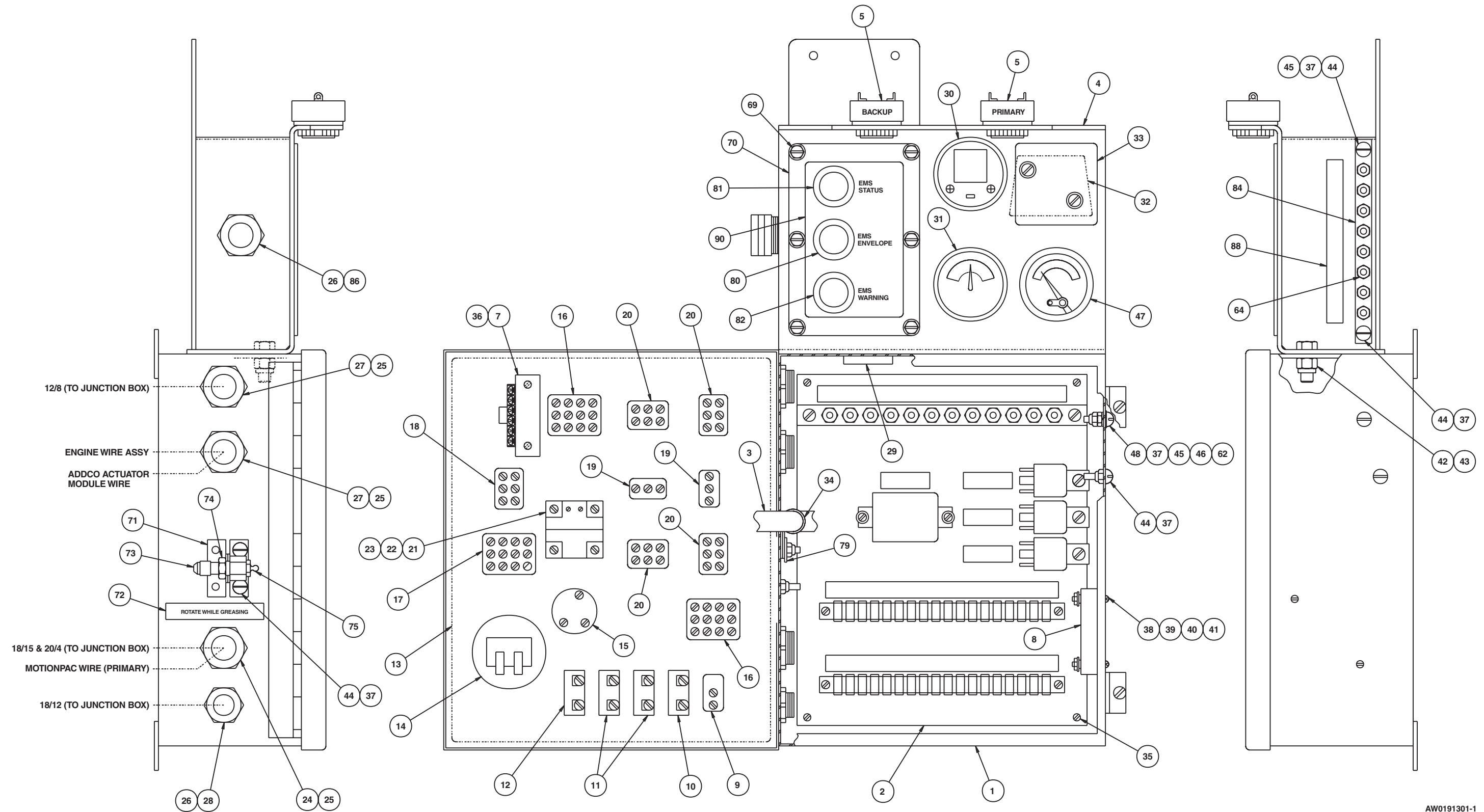
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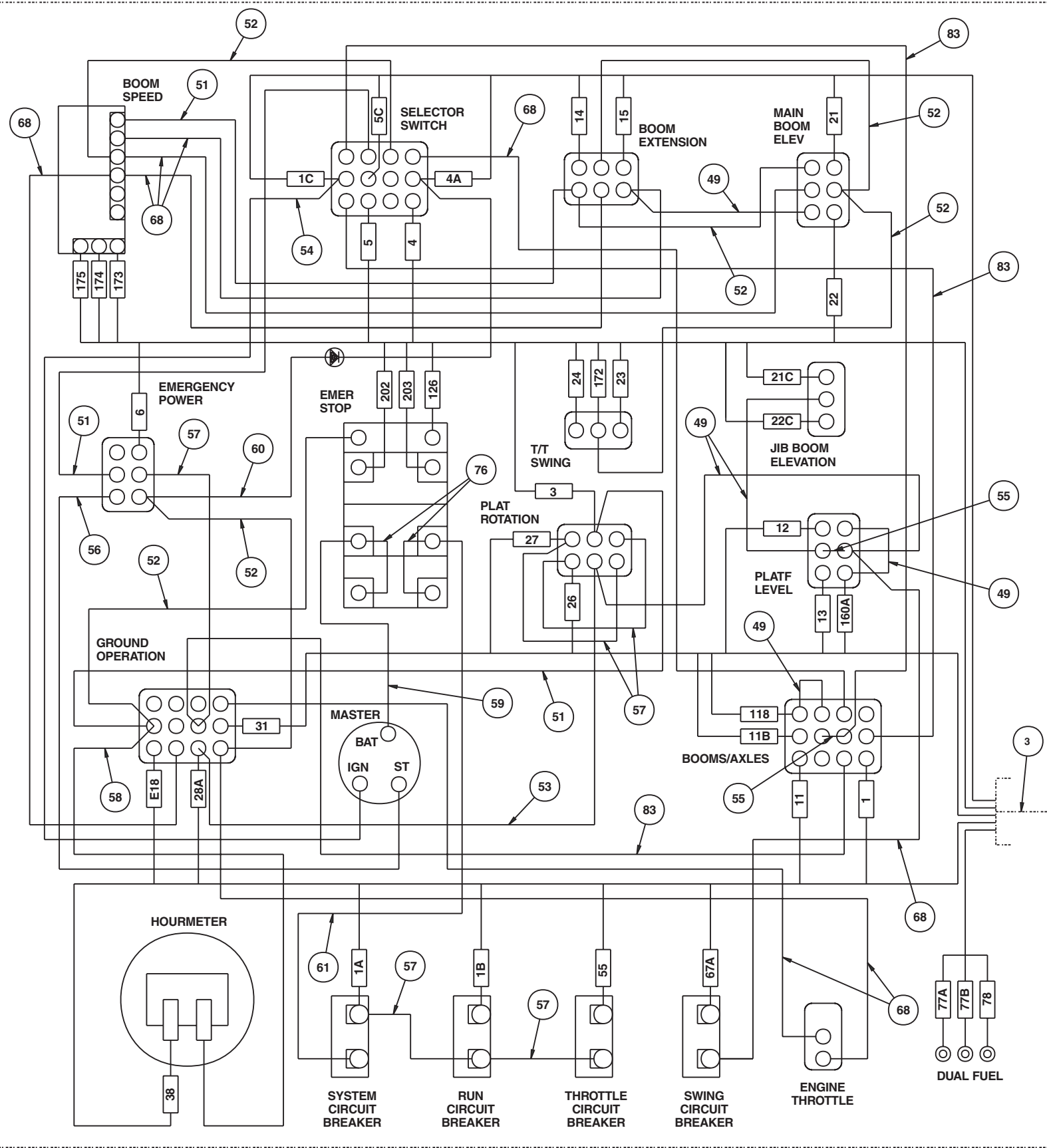
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TITLE Wiring box, Continental  
 sheet 1  
 Snorkel model PRO 100

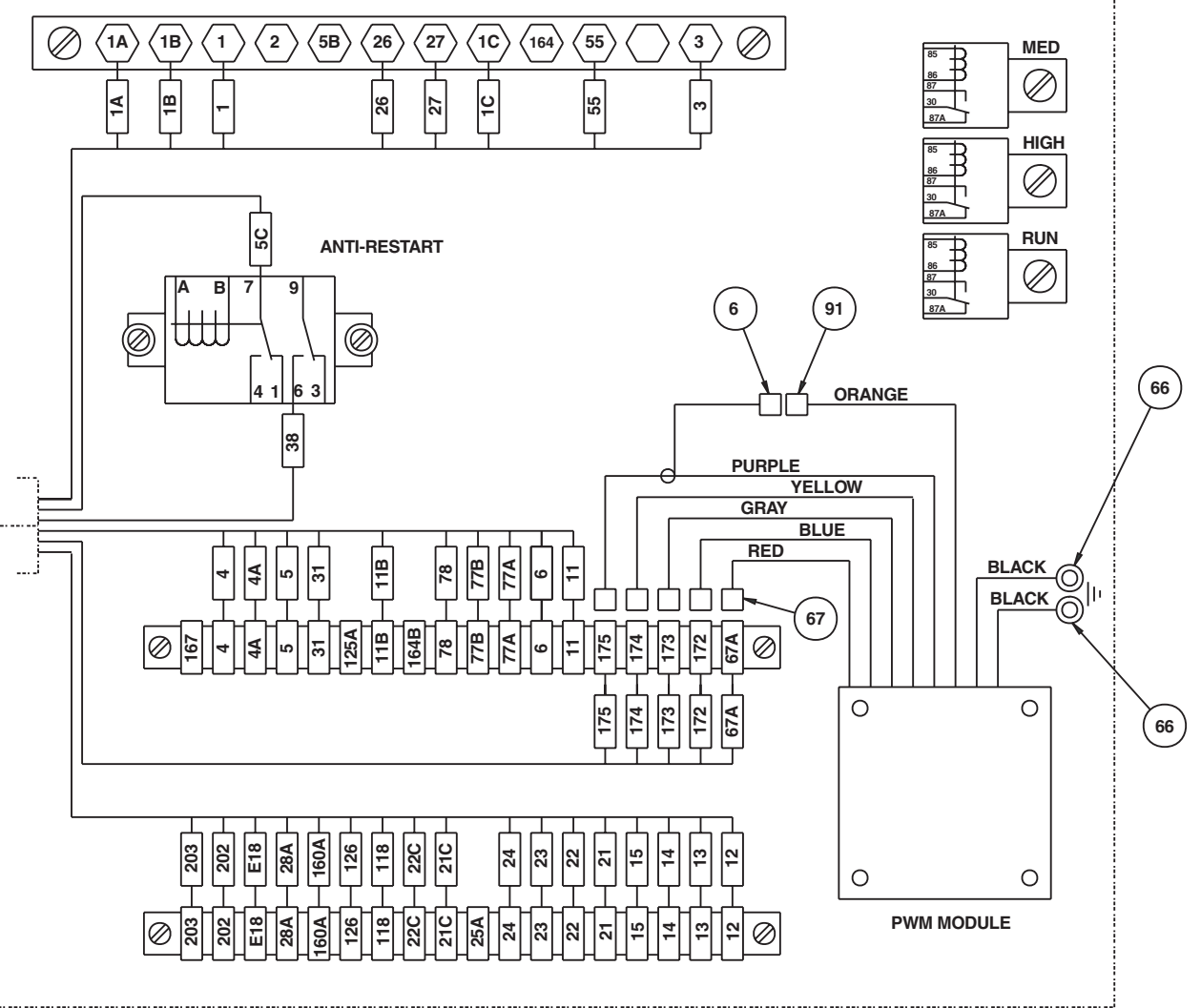


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GROUND CONTROLS



WIRING BOX

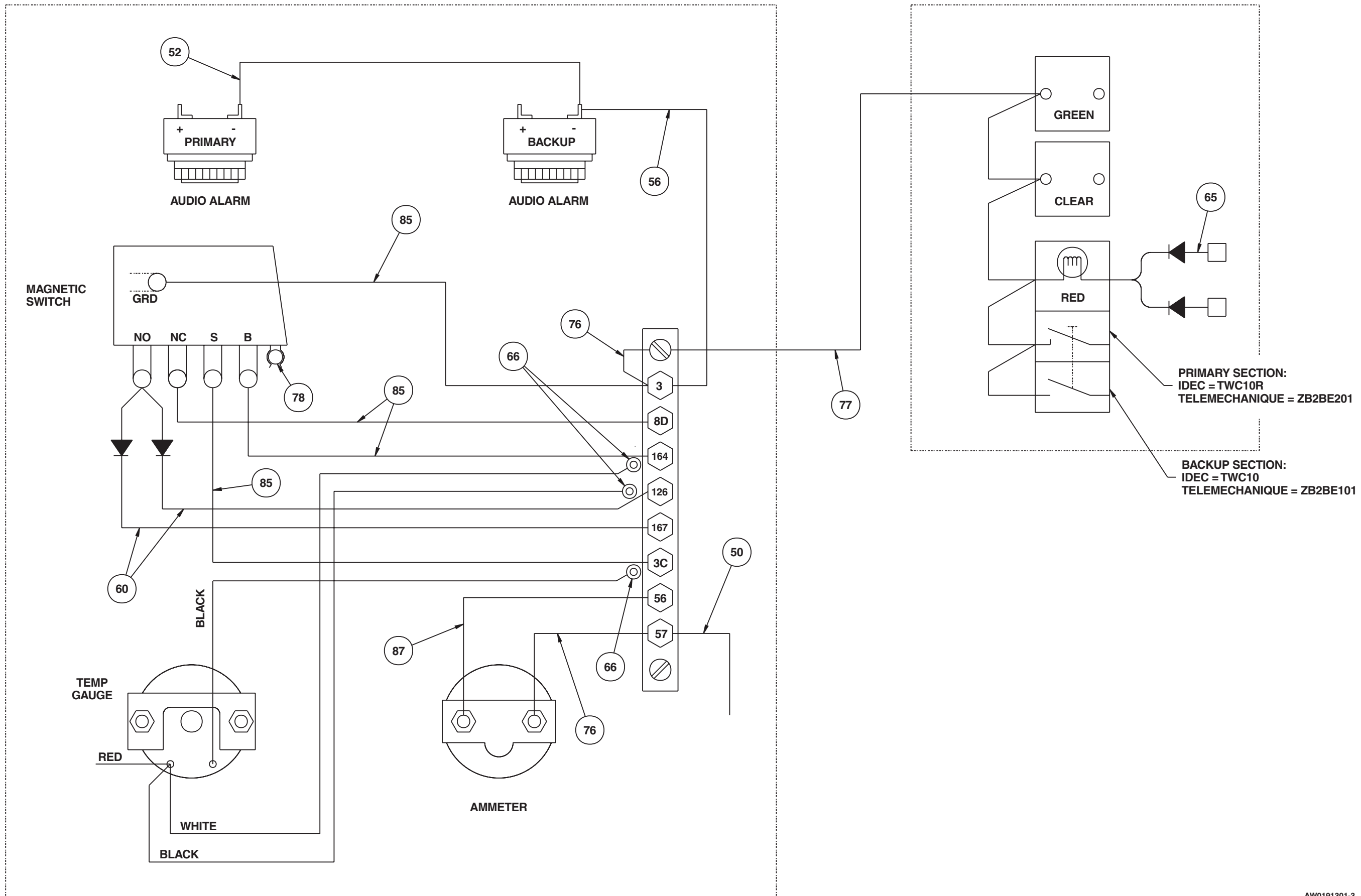


AW0191301-2



INSTRUMENT PANEL

EMS LIGHT PANEL



AW0191301-3

TITLE Wiring box, Continental  
sheet 3  
Snorkel model PRO 100



DWG. 0191301-3

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## Wiring box, Cummins

item	part no	qty	description
	0191089	1	Wiring box, Cummins
1	0190931	1	Wiring box
2	0191140	1	Wiring box panel - (see page 3-31 for parts breakdown)
3	0191132	1	Wire harness, wiring box internal
4	0191133	1	Instrument panel
5	3030086	2	Audio alarm
6	3040082	1	Terminal .250 tab male slip-on fully insulated 16/14 wire
7	3030087	1	Resistor bridge and pot
8	3040534	1	PWM module
9	3020013	1	Switch, toggle
10	3040535	1	Circuit breaker, 3 amp capacity
11	3040252	2	Circuit breaker, 15 amp capacity
12	3040069	1	Circuit breaker, 25 amp capacity
13	0191137	1	Placard, lower controls
14	3070001	1	Hour meter
15	3020087	1	Switch, keyed start
	8030044	1	Replacement key
16	3020048	2	Switch, toggle
17	3020107	1	Switch, toggle
18	3020081	1	Switch, toggle
19	3020016	2	Switch, toggle
20	3020018	4	Switch, toggle
21	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
22	3040185	2	Contact block
23	3020108	1	Light module
24	3040298	1	Connector
25	3040110	3	Connector locknut
26	3040070	2	Connector locknut
27	3040295	2	Connector
28	3040115	1	Connector
29	0070967	1	Corrosion inhibitor
30	7630140	1	Filter condition indicator
31	3070003	1	Ammeter
32	3020093	1	Switch, magnetic
33	0111623	1	Placard, engine protection system
34	5093008	1	Clamp
35	5560707	4	Machine screw #10-32 x 3/8 inch long pan head
36	3040348	1	Switch knob
37	5560034	18	Nut #10-24 self locking
38	974289	2	Machine screw #6-32 x 1-1/4 inch long round head
39	984009	2	Nut #6-32 hex
40	986159	2	Washer #6 medium flat
41	987349	2	Washer #6 medium lock
42	970469	2	Capscrew 3/8-16 x 1 inch long hex head grade 5
43	5560033	2	Nut 3/8-16 self locking
44	5560648	5	Machine screw #10-24 x 3/4 inch long truss head
45	5560703	2	Washer #10 star tooth lock
46	987089	1	Washer #10 medium lock
47	3070016	1	Temperature gauge
48	5560649	1	Machine screw #10-24 x 1 inch long truss head
49	0070747	5	Jumper wire
50	0071549	1	Jumper wire
			<b>Parts list continued on next page</b>

## Wiring box, Cummins

item	part no	qty	description
51	0070746	3	Jumper wire
52	0070730	7	Jumper wire
53	0070742	1	Jumper wire
54	0071541	1	Jumper wire
55	0060373	2	Jumper strap
56	0240483	2	Jumper wire
57	0181104	5	Jumper wire
58	0073295	1	Jumper wire
59	0070735	1	Jumper wire
60	0073254	3	Diode jumper wire
61	0071589	1	Jumper wire
62	984049	1	Nut #10-24 hex
63	3090020	1	Flexgard tube, 12 inch long
64	5560038	8	Nut #10-32 self locking
65	0191238	1	Diode wire
66	3044146	6	Terminal #10 stud insulated 22/18 wire
67	3046972	5	Terminal .188 tab female slip-on insulated 22/18 wire
68	0070753	8	Jumper wire
69	5569849	6	Machine screw #10-32 x 5/8 inch long self tapping
70	0191136	1	Cover plate
71	5560135	1	Staple plate
72	0073492	1	Decal, rotate while greasing
73	5037102	1	Bulkhead connector
74	5074401	1	Bulkhead locknut
75	5570001	1	Grease fitting, 1/8 NPT straight
76	0070711	4	Jumper wire
77	3040047	3	Terminal .250 tab female slip-on fully insulated 22/18 wire
78	0111512	1	Jumper bar
79	986019	1	Washer 1/4 medium flat
80	3060099	1	EMS warning light, clear
	8010211	1	Replacement lens, clear
81	3060100	1	EMS warning light, green
	8010193	1	Replacement lens, green
82	3060097	1	EMS warning light, red
	8010192	1	Replacement lens, red
83	0071564	3	Jumper wire
84	3044708	1	Terminal strip, 10 circuit #8 stud
85	0151816	4	Jumper wire
86	0191417	1	Jumper wire
87	0191166	1	Jumper wire
88	0191232	1	Jumper wire
89	5560004	6	Nut 1/4-20 self locking
90	20082046	1	Actuator module - (included with engine)
91	0082029	1	Mount plate, actuator module
92	0191174	1	Decal, EMS lights
93	3040187	1	Connector
94	7630230	3	Sandwich mount
95	974659	2	Machine screw #10-24 x 1/2 inch long round head

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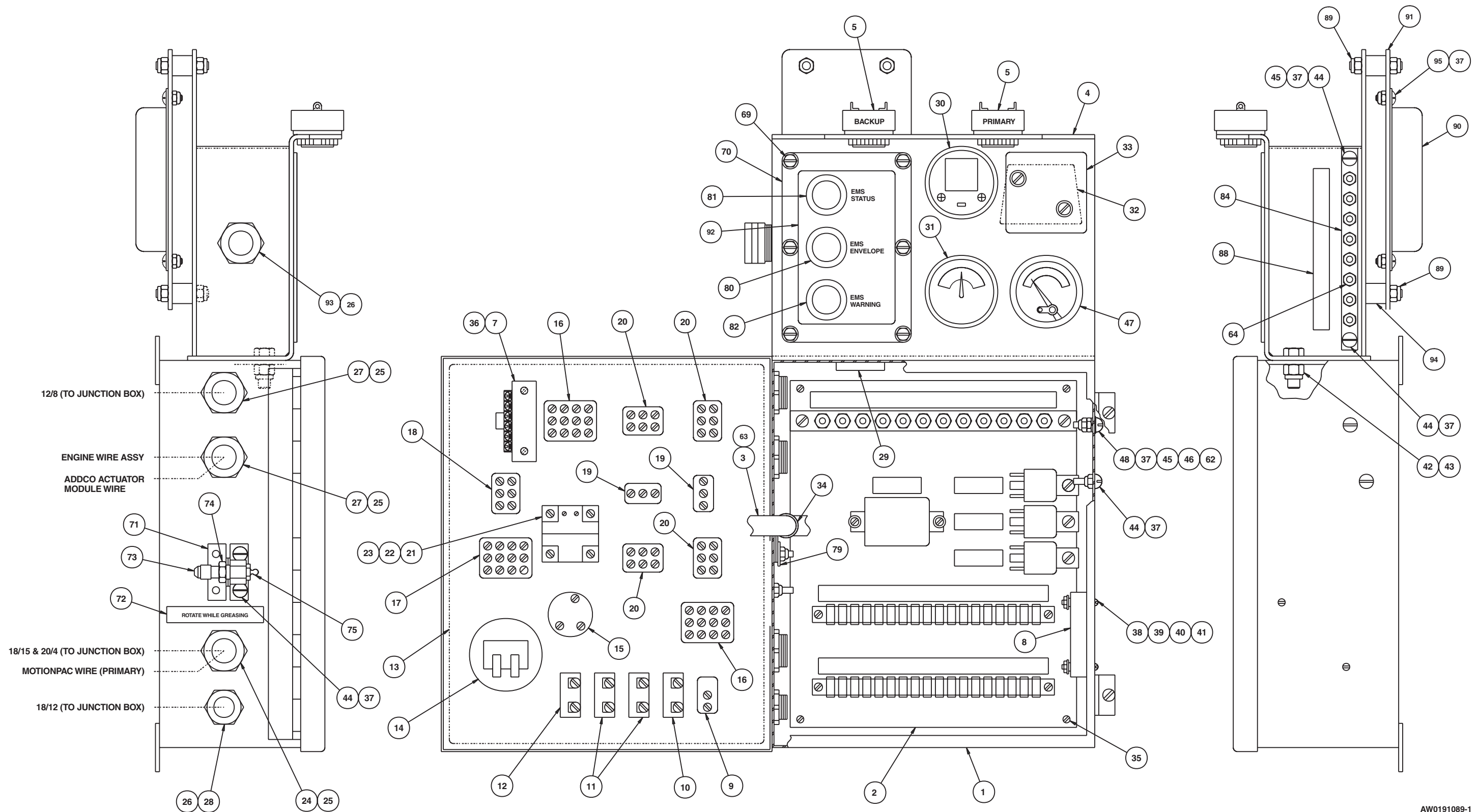
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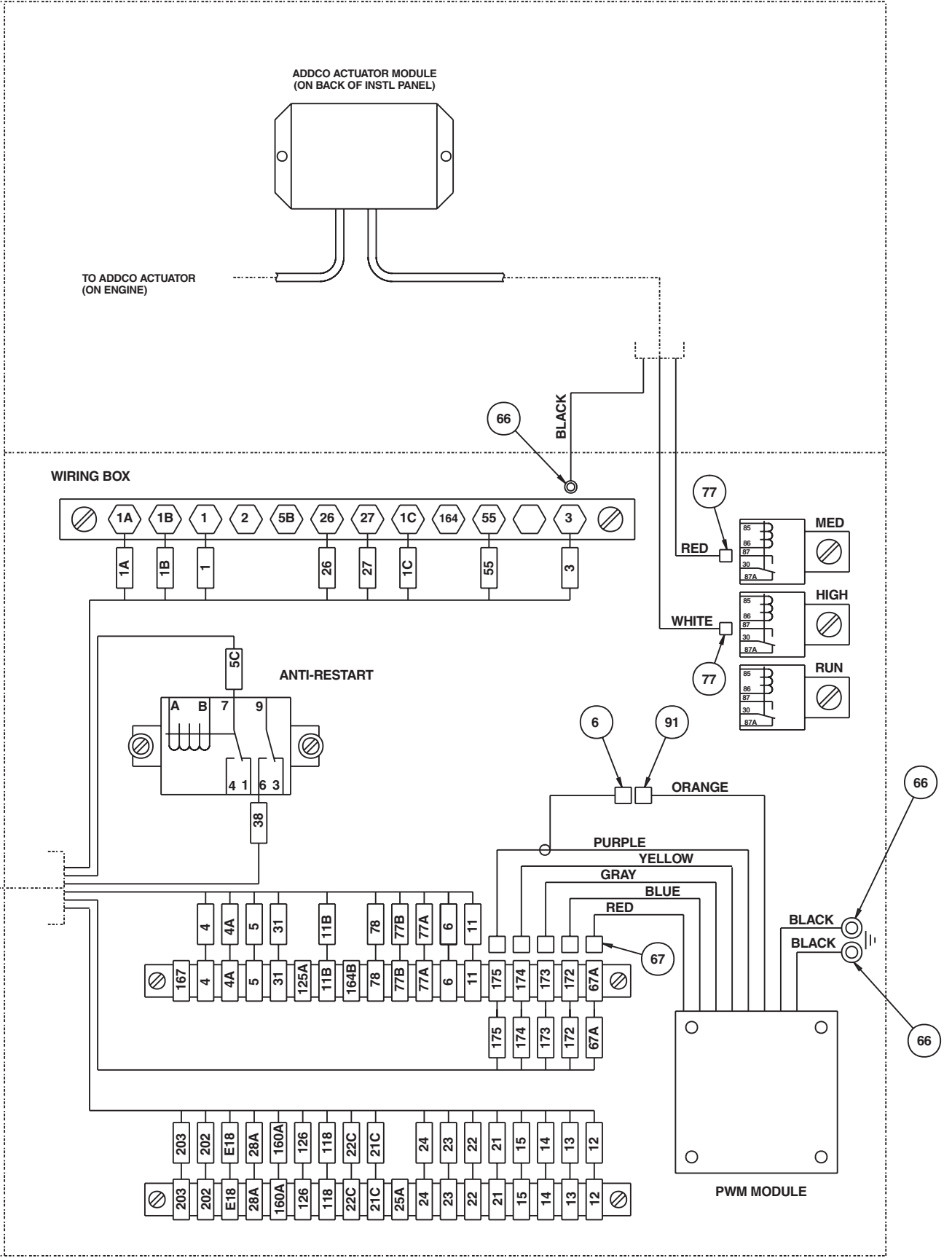
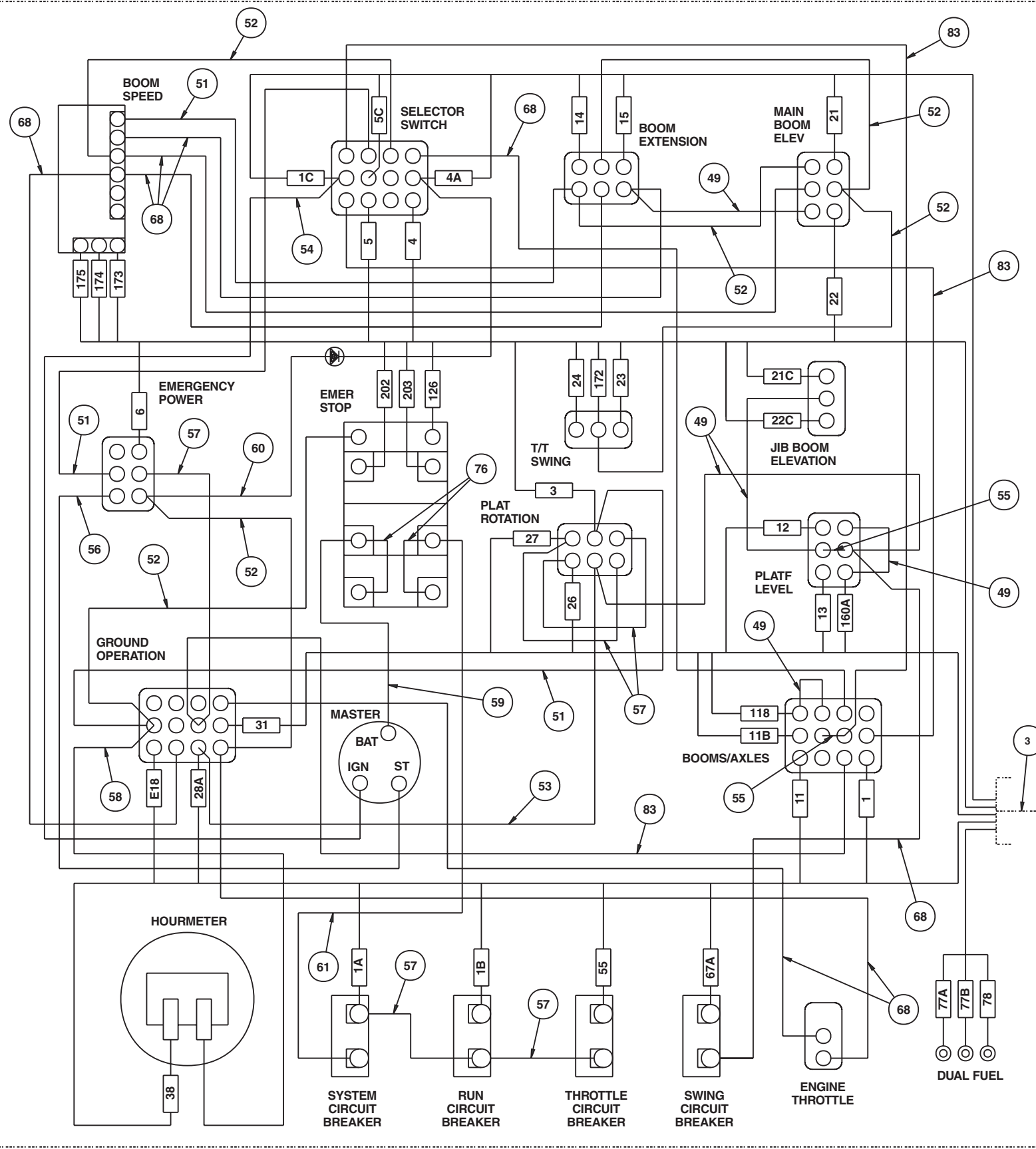
DWG. 0191089-1

TITLE Wiring box, Cummins  
 sheet 1  
 Snorkel model PRO 100



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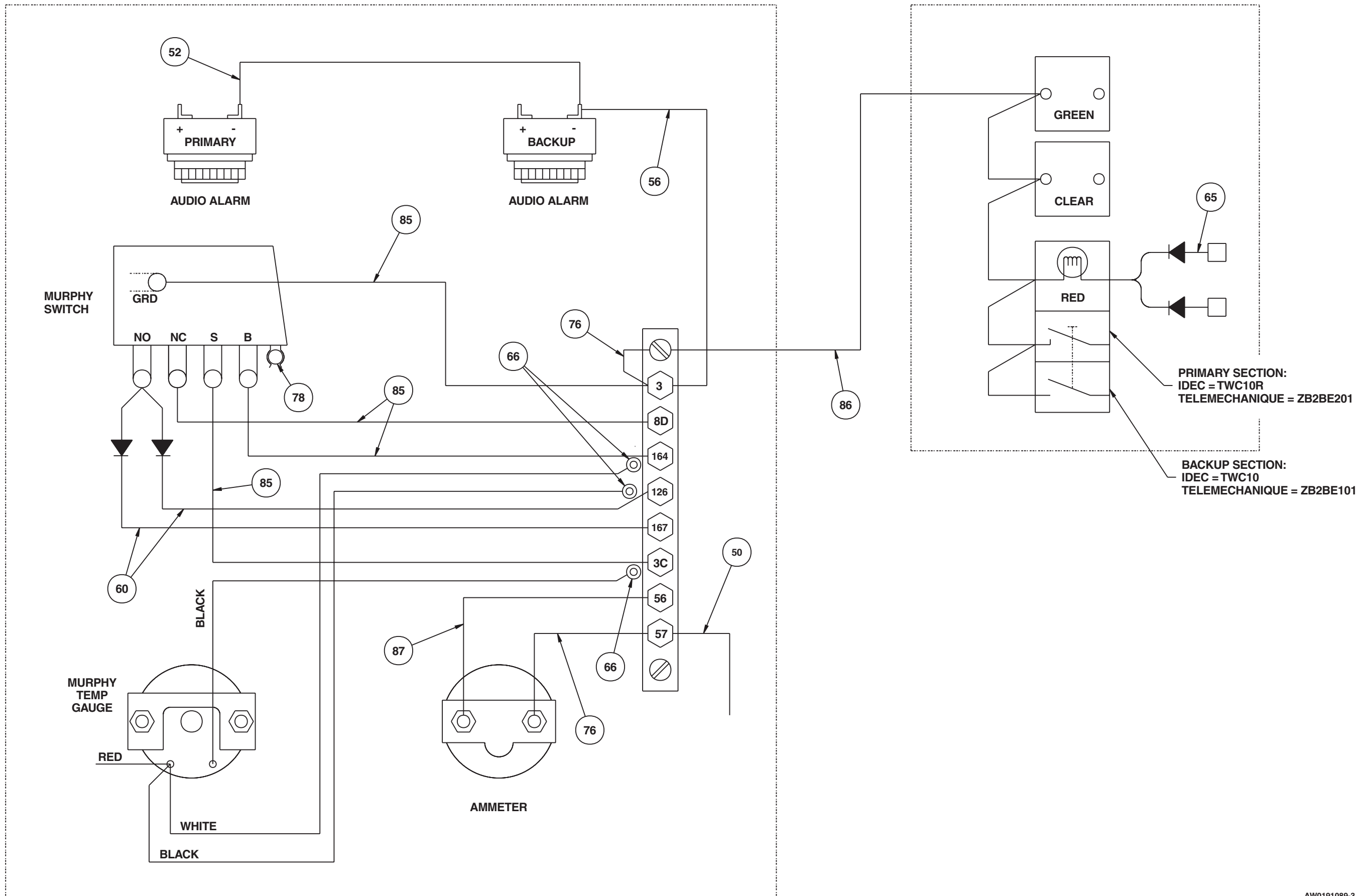
GROUND CONTROLS



AW0191089-2

INSTRUMENT PANEL

EMS LIGHT PANEL



AW0191089-3

TITLE Wiring box, Cummins  
sheet 3  
Snorkel model PRO 100



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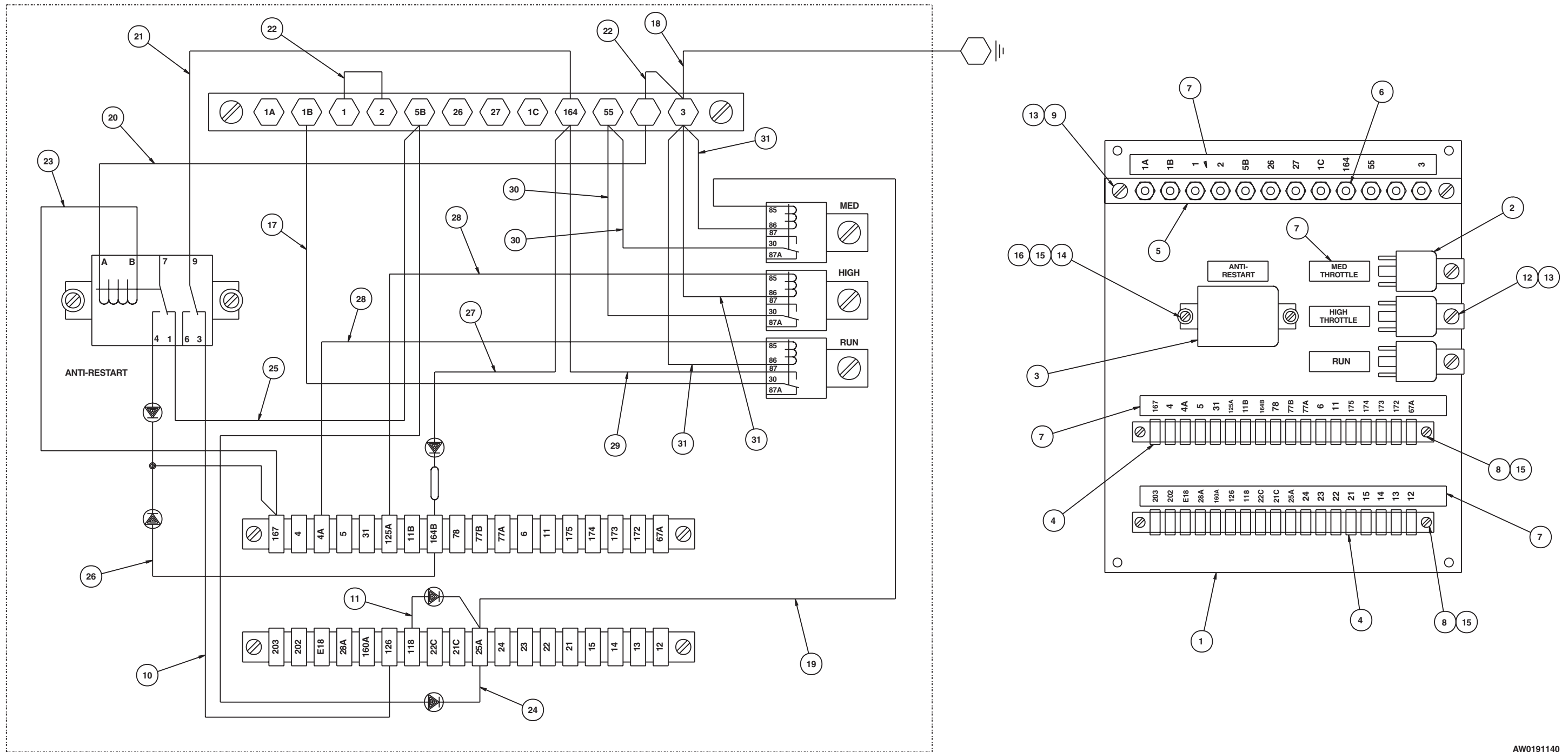
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AW0191140



## Wiring box panel

item	part no	qty	description
	0191140	1	Wiring box panel
1	0072950	1	Panel, drilled
2	3040469	3	Relay, 12 volt DC
3	3040214	1	Relay, 12 volt DC
4	3040057	2	Terminal strip, 18 circuit .188 tab slip-on
5	3044712	1	Terminal strip, 12 circuit #10 stud
6	5560038	12	Nut #10-32 self locking
7	0191232	1	Jumper wire
8	974279	4	Machine screw #6-32 x 3/4 inch long round head
9	974689	2	Machine screw #10-24 x 3/4 inch long round head
10	0071840	1	jumper wire
11	0170335	1	Diode wire
12	974659	3	Machine screw #10-24 x 1/2 inch long round head
13	987089	5	Washer #10 medium lock
14	974239	2	Machine screw #6-32 x 1/2 inch long round head
15	987349	6	Washer #6 medium lock
16	986159	2	Washer #6 medium flat
17	0090975	1	Jumper wire
18	0070712	1	Jumper wire
19	0181030	1	Diode wire
20	0070713	1	Jumper wire
21	0090621	1	Jumper wire
22	0070711	2	Jumper wire
23	0110468	1	Jumper wire
24	0073618	1	Jumper wire
25	0071552	1	Jumper wire
26	0181432	1	Diode wire
27	0181434	1	Diode wire - (used on machines before 11-09-1999)
28	0151205	2	Jumper wire
29	0072418	1	Jumper wire
30	0181136	2	Jumper wire
31	0071555	3	Jumper wire



## Wiring box, Cummins 3.3

item	part no	qty	description
	0191872	1	Wiring box, Cummins 3.3
1	0190931	1	Wiring box
2	0191140	1	Wiring box panel - (before 11-6-00) - (see page 3-31 for parts breakdown)
	0191893	1	Wiring box panel, Cummins 3.3 - (after 11-6-00) - (see page 3-39 for parts breakdown)
3	0191132	1	Wire harness, wiring box internal
4	0191889	1	Instrument panel
5	3030086	2	Audio alarm
6	0191829	1	Wire harness, EPS
7	3030087	1	Resistor bridge and pot
8	3040534	1	PWM module
9	3020013	1	Switch, toggle
10	3040535	1	Circuit breaker, 3 amp capacity
11	3040252	2	Circuit breaker, 15 amp capacity
12	3040069	1	Circuit breaker, 25 amp capacity
13	0191137	1	Placard, lower controls
14	3070001	1	Hour meter
15	3020087	1	Switch, keyed start
	8030044	1	Replacement key
16	3020048	2	Switch, toggle
17	3020107	1	Switch, toggle
18	3020081	1	Switch, toggle
19	3020016	2	Switch, toggle
20	3020018	4	Switch, toggle
21	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
22	3040185	2	Contact block
23	3020108	1	Light module
24	3040298	1	Connector
25	3040110	3	Connector locknut
26	3040070	2	Connector locknut
27	3040295	2	Connector
28	3040115	1	Connector
29	0070967	1	Corrosion inhibitor
30	7630140	1	Filter condition indicator
31	3070003	1	Ammeter
32	3030122	1	EPS anti-restart module
33	0191892	1	Placard, engine protection system
34	5093008	1	Clamp
35	5560707	4	Machine screw #10-32 x 3/8 inch long pan head
36	3040348	1	Switch knob
37	5560034	14	Nut #10-24 self locking
38	974289	2	Machine screw #6-32 x 1-1/4 inch long round head
39	984009	2	Nut #6-32 hex
40	986159	2	Washer #6 medium flat
41	987349	2	Washer #6 medium lock
42	970469	2	Capscrew 3/8-16 x 1 inch long hex head grade 5
43	5560033	2	Nut 3/8-16 self locking
44	5560648	9	Machine screw #10-24 x 3/4 inch long truss head
45	5560703	2	Washer #10 star tooth lock
46	987089	1	Washer #10 medium lock
47	3070040	1	Temperature gauge
48	5560673	1	Machine screw #10-24 x 1 inch long truss head
49	0070747	5	Jumper wire
50	3044704	1	Terminal strip, 4 circuit #10 stud
			<b>Parts list continued on next page</b>

## Wiring box, Cummins 3.3

item	part no	qty	description
51	0070746	3	Jumper wire
52	0070730	7	Jumper wire
53	0070742	1	Jumper wire
54	0071541	1	Jumper wire
55	0060373	2	Jumper strap
56	0240483	2	Jumper wire
57	0181104	5	Jumper wire
58	0073298	1	Placard, danger foam filled tires
59	0070735	1	Jumper wire
60	0073254	1	Diode jumper wire
61	0071589	1	Jumper wire
62	984049	1	Nut #10-24 hex
63	3090020	1	Flexgard tube, 12 inch long
64	3040082	1	Terminal .250 tab male slip-on fully insulated 16/14 wire
65	5560038	12	Nut #10-32 self locking
66	3044146	3	Terminal #10 stud insulated 22/18 wire
67	3046972	5	Terminal .188 tab female slip-on insulated 22/18 wire
68	0070753	8	Jumper wire
69	5569849	6	Machine screw #10-32 x 5/8 inch long self tapping type T
70	0191136	1	Cover plate
71	5560135	1	Staple plate
72	0073492	1	Decal, rotate while greasing
73	5037102	1	Bulkhead connector
74	5074401	1	Bulkhead locknut
75	5570001	1	Grease fitting, 1/8 NPT straight
76	0070711	4	Jumper wire
77	3040047	3	Terminal .250 tab female slip-on fully insulated 22/18 wire
78	0191238	1	Diode wire
79	0191417	1	Jumper wire
80	3060099	1	EMS warning light, clear
	8010211	1	Replacement lens, clear
81	3060100	1	EMS warning light, green
	8010193	1	Replacement lens, green
82	3060091	1	EMS warning light, red
	8010192	1	Replacement lens, red
83	0071564	3	Jumper wire
84	3044708	1	Terminal strip, 10 circuit #8 stud
85	0151816	2	Jumper wire
86	974659	4	Machine screw #10-24 x 1/2 inch long round head
87	0191166	1	Jumper wire
88	0191232	1	Decal set, wiring box
89	3040187	1	Connector
90	20082046	1	Actuator module - (included with engine)
91	0191174	1	Decal, EMS lights

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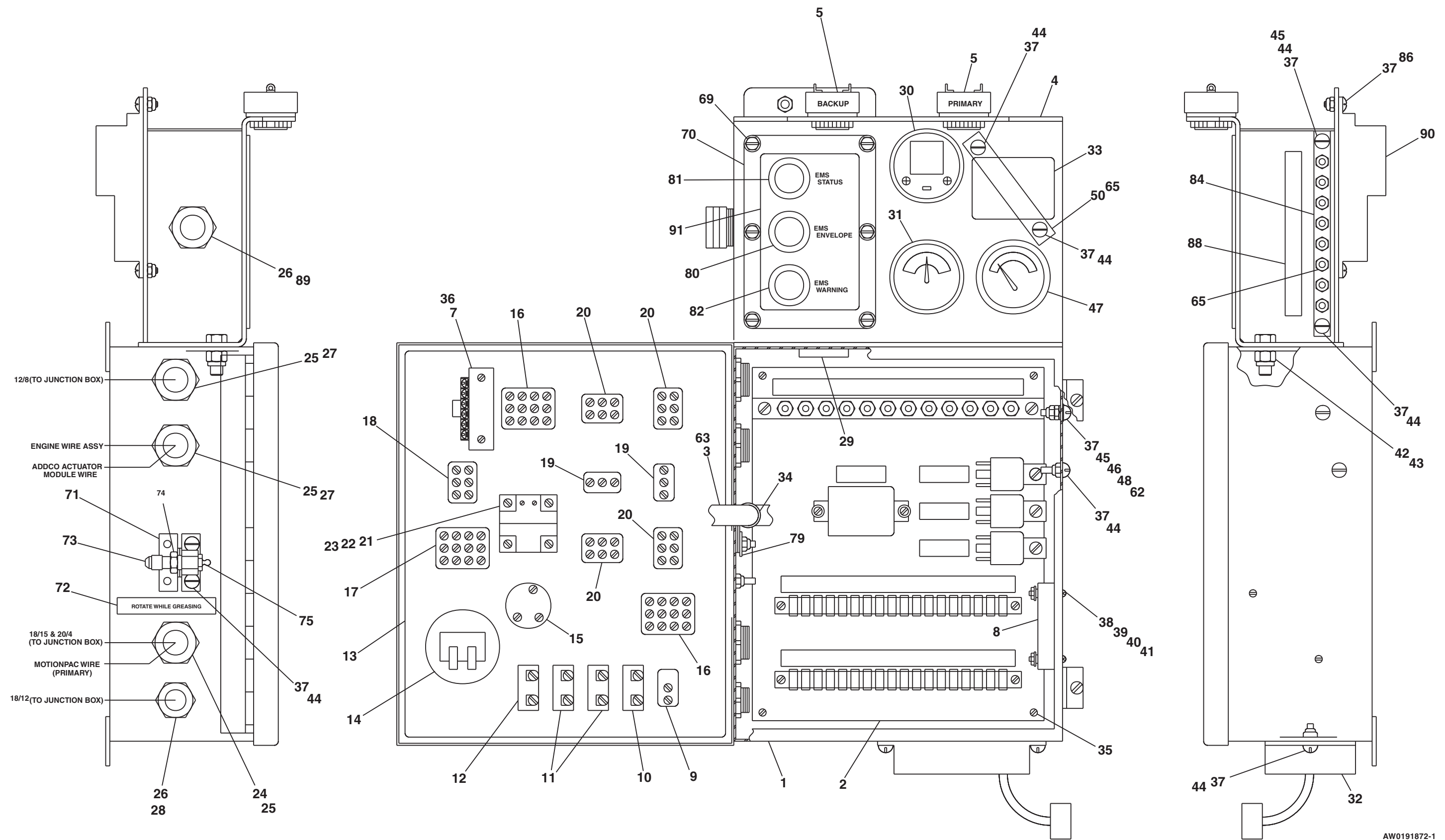
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12/8(TO JUNCTION BOX)

ENGINE WIRE ASSY

ADDCO ACTUATOR  
MODULE WIRE

ROTATE WHILE GREASING

18/15 & 20/4  
(TO JUNCTION BOX)

MOTIONPAC WIRE  
(PRIMARY)

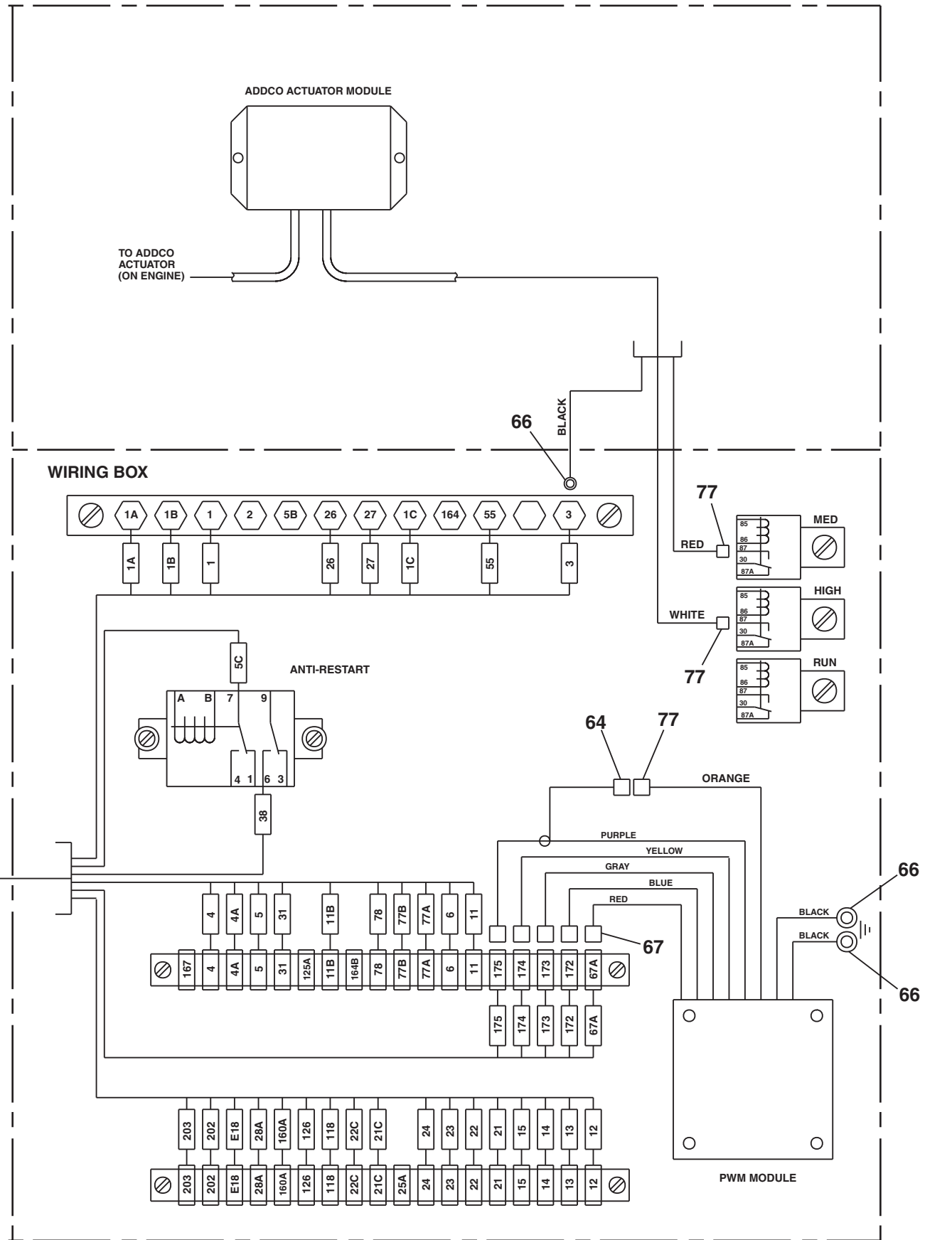
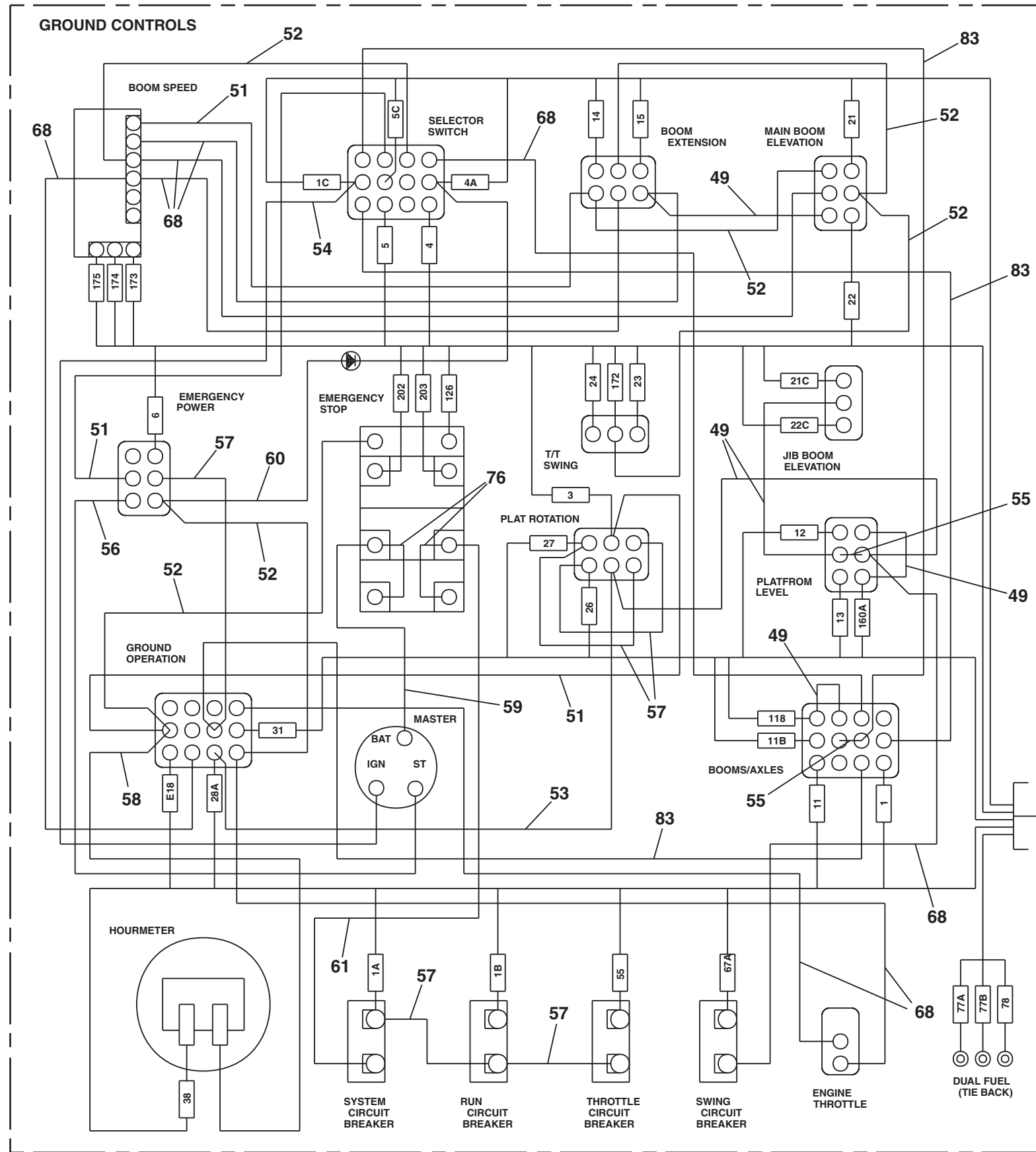
18/12(TO JUNCTION BOX)

TITLE Wiring box / lower controls  
 Cummins 3.3, sheet 1  
 Snorkel model PRO 100



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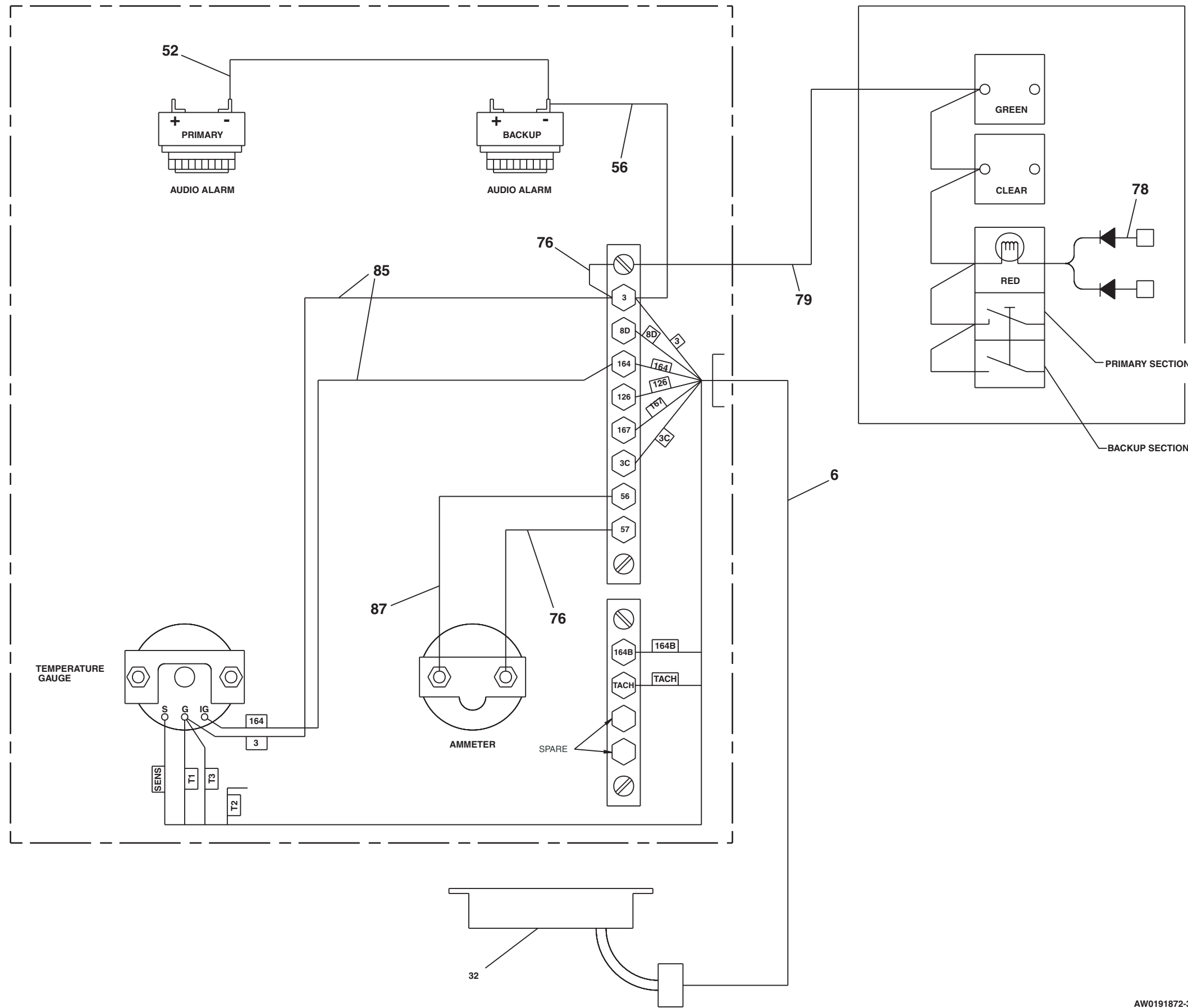
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AW0191872-2

INSTRUMENT PANEL

EMS LIGHT PANEL



AW0191872-3

TITLE Wiring box / lower controls  
 Cummins 3.3, sheet 3  
 Snorkel model PRO 100



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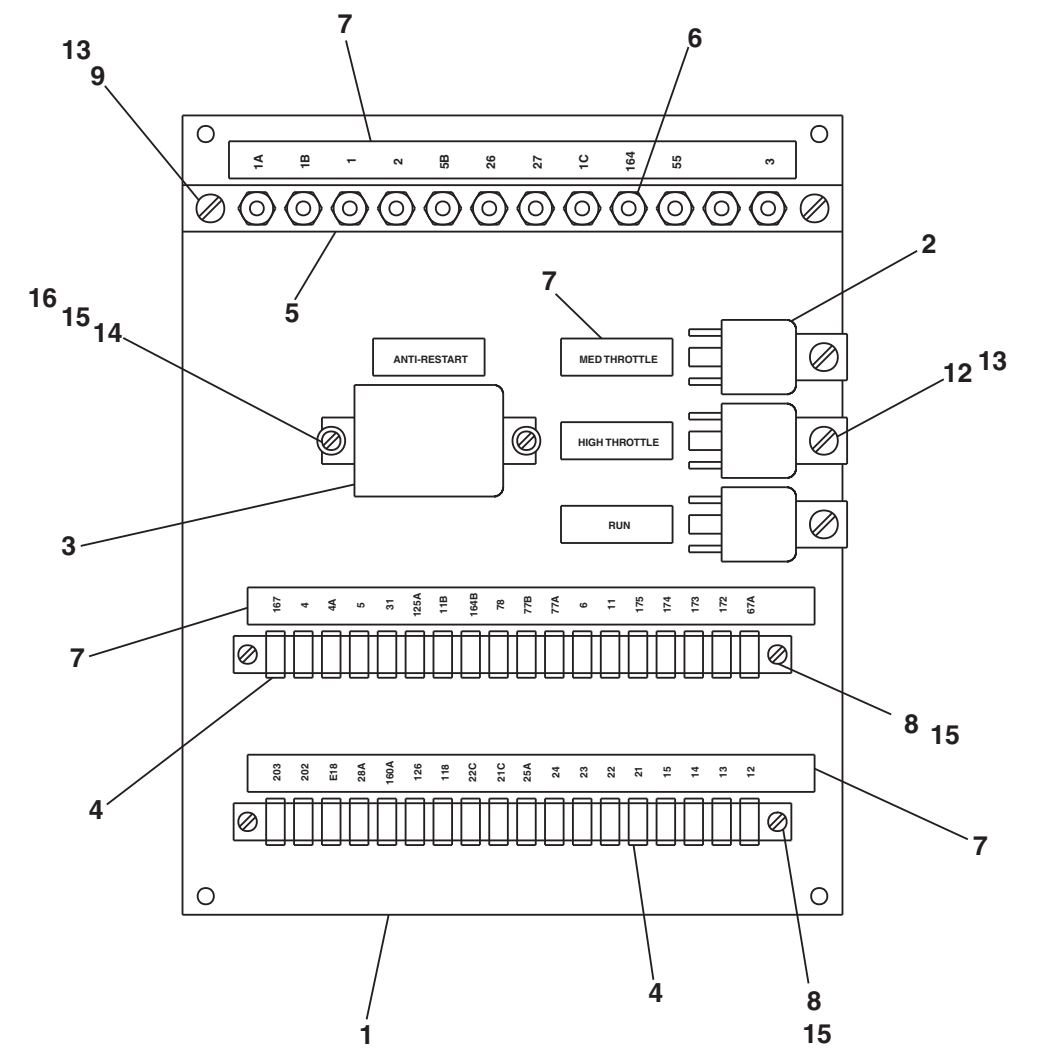
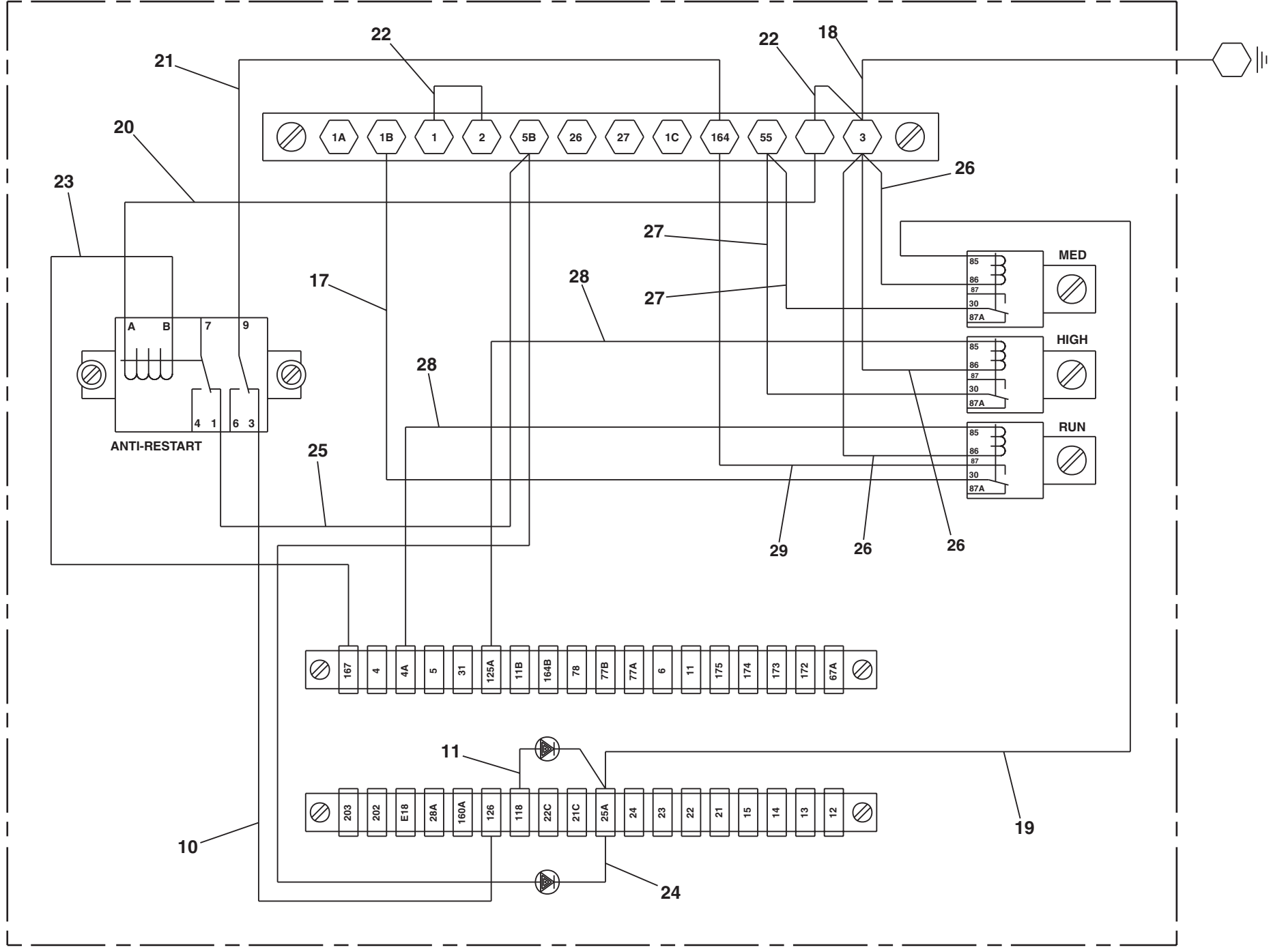
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AW0191893



## Wiring box panel, Cummins 3.3

item	part no	qty	description
	0191893	1	Wiring box panel, Cummins 3.3
1	0072950	1	Panel, drilled
2	3040469	3	Relay, 12 volt DC
3	3040214	1	Relay, 12 volt DC
4	3040057	2	Terminal strip, 18 circuit .188 tab slip-on
5	3044712	1	Terminal strip, 12 circuit #10 stud
6	5560038	12	Nut #10-32 self locking
7	0191232	1	Decal set, wiring box
8	974279	4	Machine screw #6-32 x 3/4 inch long round head
9	974689	2	Machine screw #10-24 x 3/4 inch long round head
10	0071840	1	Jumper wire
11	0170335	1	Diode wire - (includes 3040108 diode)
12	974659	3	Machine screw #10-24 x 1/2 inch long round head
13	987089	5	Washer #10 medium lock
14	974239	2	Machine screw #6-32 x 1/2 inch long round head
15	987349	6	Washer #6 medium lock
16	986159	2	Washer #6 medium flat
17	0090975	1	Jumper wire
18	0070712	1	Jumper wire
19	0181030	1	Jumper wire
20	0070713	1	Jumper wire
21	0090621	1	Jumper wire
22	0070711	2	Jumper wire
23	0110468	1	Jumper wire
24	0073618	1	Jumper wire
25	0071552	1	Jumper wire
26	0071555	3	Jumper wire
27	0181136	2	Jumper wire
28	0151205	2	Jumper wire
29	0072418	1	Jumper wire

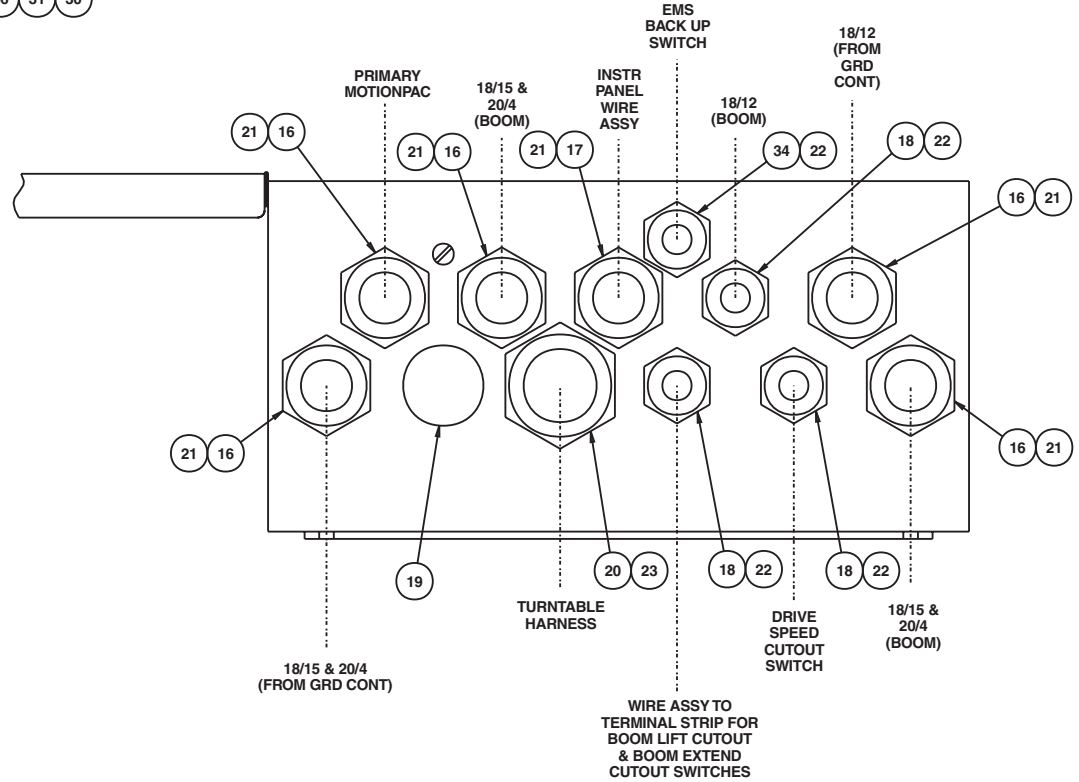
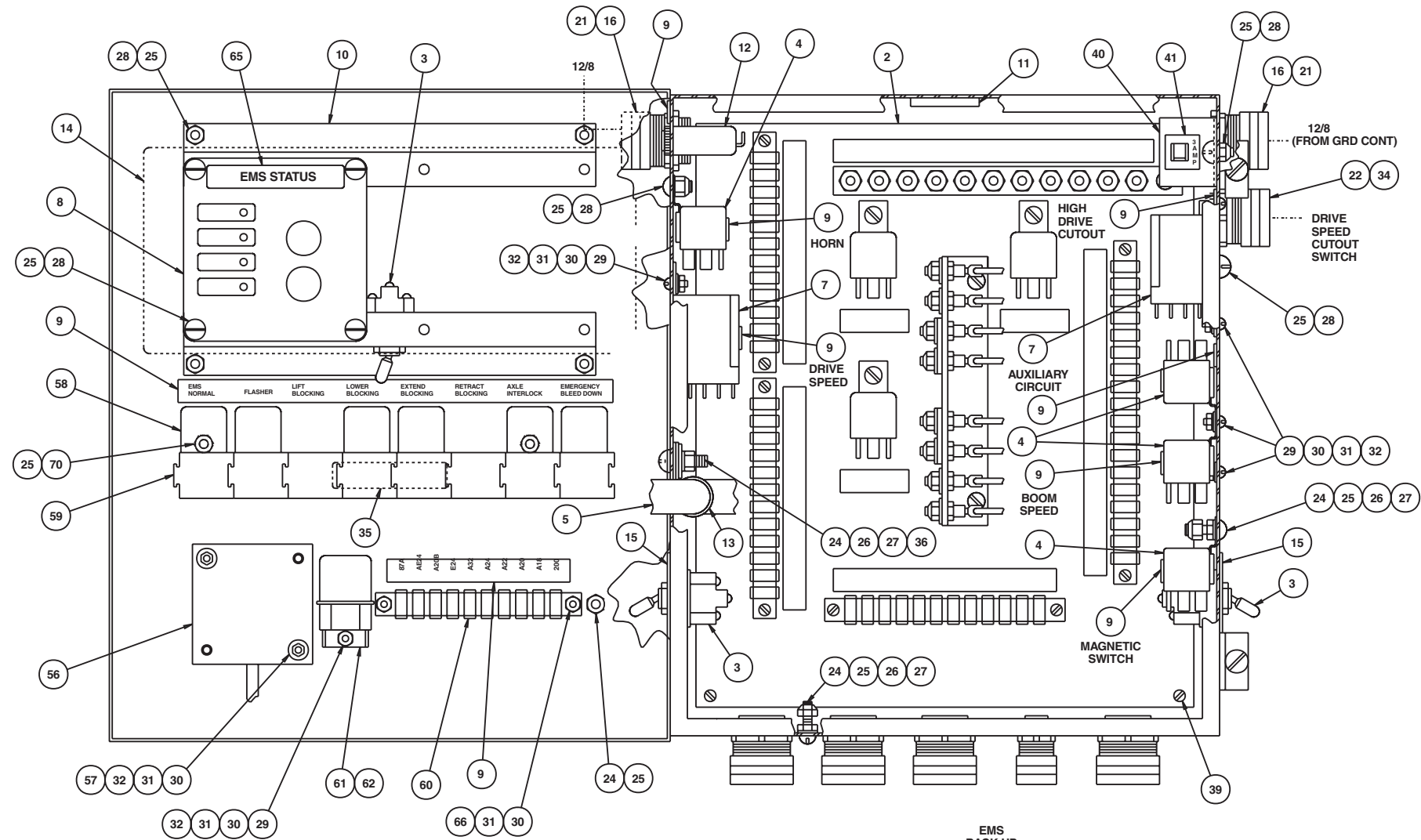


## Junction wiring box

item	part no	qty	description
	0191382	1	Junction wiring box
1	0191146	1	Junction box, drilled
2	0191145	1	Junction wiring box panel - (see page 3-46 for parts breakdown)
3	3020080	3	Switch, toggle
4	3040469	4	Relay, 12 volt DC
5	0191157	1	Wire harness, junction wiring box internal
6	3046697	1	Terminal .188 tab female slip-on insulated 16/14 wire
7	3040214	2	Relay, 12 volt DC
8	3030084	1	Base display unit
9	0191233	1	Decal set, junction wiring box
10	0191162	2	Mount bracket, basic display unit
11	0070967	1	Corrosion inhibitor
12	3040535	1	Circuit breaker, 3 amp capacity
13	5093004	1	Clamp
14	0190995	1	Decal, electric/manual emergency bleed down
15	0190992	2	Decal, emergency bleed down
16	3040116	7	Connector
17	3040285	1	Connector
18	3040187	3	Connector
19	3040016	1	Hole plug, 1 inch diameter
20	3040386	1	Connector
21	3040110	8	Connector locknut
22	3040070	5	Connector locknut
23	3040387	1	Connector locknut
24	974689	15	Machine screw #10-24 x 3/4 inch long round head
25	5560034	15	Nut #10-24 self locking
26	987089	3	Washer #10 medium lock
27	984049	3	Nut #10-24 hex
28	5560609	13	Machine screw #10-24 x 1/2 inch long truss head
29	974239	7	Machine screw #6-32 x 1/2 inch long round head
30	984009	11	Nut #6-32 hex
31	987349	11	Washer #6 medium lock
32	986159	9	Washer #6 medium flat
33	0071555	3	Jumper wire
34	3040115	2	Connector
35	0191236	1	Decal, EMS CB location
36	986009	1	Washer #10 medium flat
37	5560004	1	Nut 1/4-20 self locking
38	970009	1	Capscrew 1/4-20 x 1/2 inch long hex head grade 5
39	5560667	4	Machine screw #10-24 x 3/8 inch long pan head
40	0111324	1	Cable guide
41	3040560	1	Circuit breaker, 2.5 amp capacity
42	0190974	1	Jumper wire
43	0071840	2	jumper wire
44	0190973	2	Jumper wire
45	0073057	1	Jumper wire
46	0071530	1	Jumper wire
47	0071528	2	Jumper wire
48	0070719	2	Jumper wire
49	0151556	1	Jumper wire
50	0071558	1	Jumper wire
			<b>Parts list continued on next page</b>

## Junction wiring box

item	part no	qty	description
51	0071812	2	Jumper wire
52	0191154	2	Jumper wire
53	0191260	1	Jumper wire
54	0071536	3	Jumper wire
55	0191056	1	Jumper wire
56	3030093	1	Light module, EMS
57	974299	2	Machine screw #6-32 x 1-1/2 inch long round head
58	562326	6	Relay, 12 volt DC
59	584486	8	Relay socket
60	3040257	1	Terminal strip, 10 circuit slip-on
61	3060019	1	Flasher
62	3060018	1	Flasher base
63	3044146	1	Terminal #10 stud insulated 22/18 wire
64	3030504	1	Terminal .250 tab female locking type
65	0190999	1	Decal, EMS status
66	974269	2	Machine screw #6-32 x 1 inch long round head
67	0191228	1	Wire harness, BDU
68	3040083	8	Terminal .250 tab female slip-on fully insulated 16/14 wire
69	0181112	3	Jumper wire
70	974639	2	Machine screw #10-24 x 3/8 inch long round head
71	0091207	1	Jumper wire
72	0191225	2	Jumper wire
73	0191226	1	Jumper wire
74	0181030	3	Diode wire
75	0191227	2	Jumper wire
76	0151205	1	Jumper wire
77	0071844	1	Jumper wire
78	3046972	4	Terminal .188 tab female slip-on insulated 22/18 wire



AW0191382-1

DWG. 0191382-1	TITLE Junction wiring box sheet 1	
	Snorkel model PRO 100	



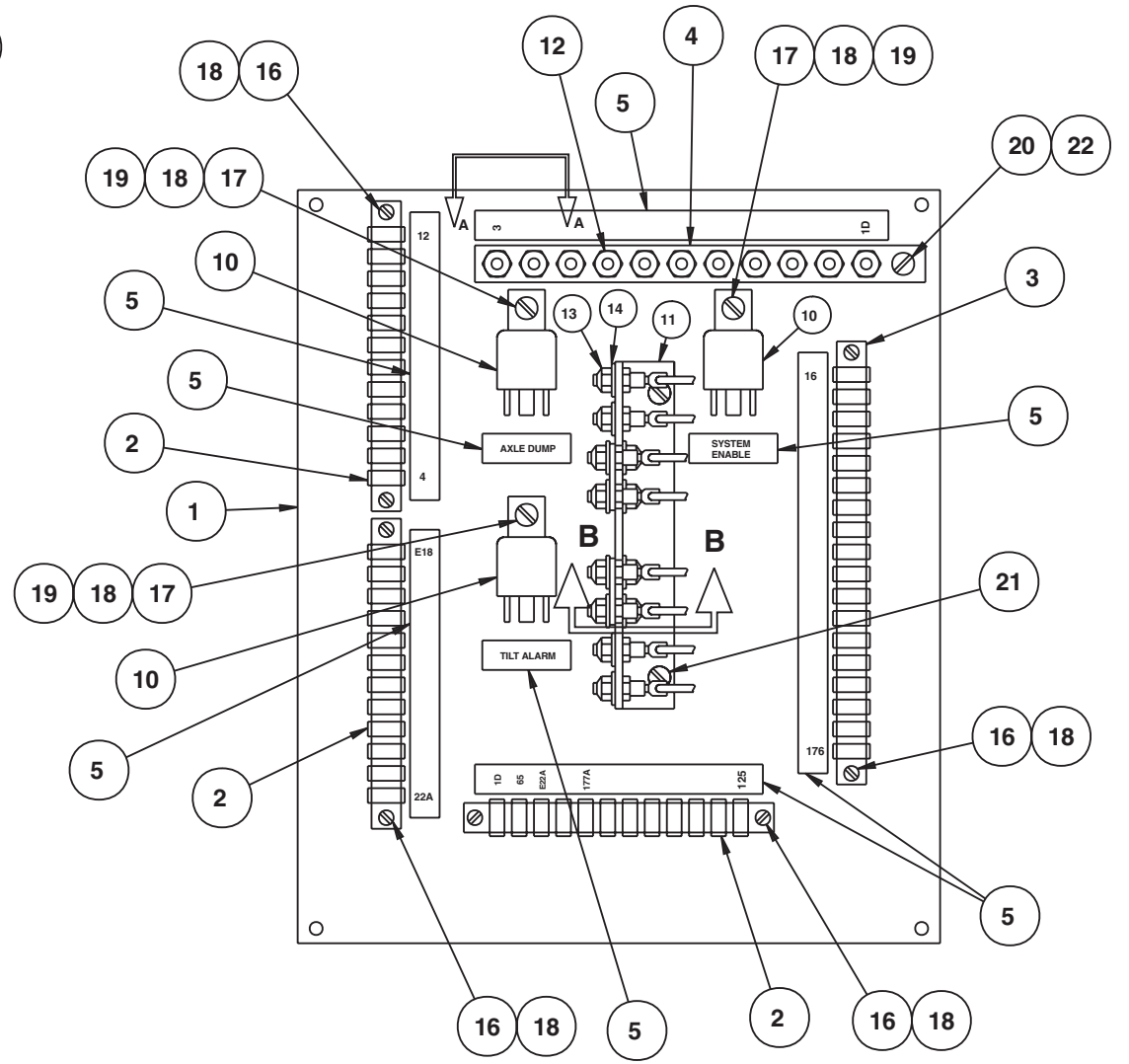
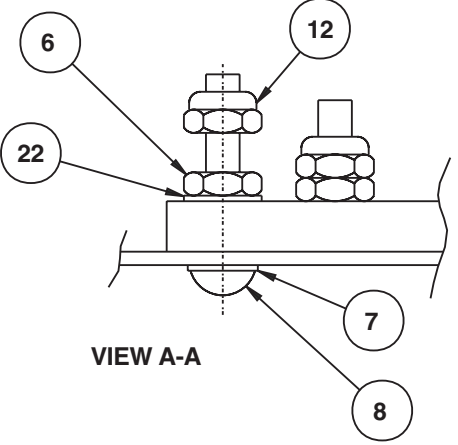
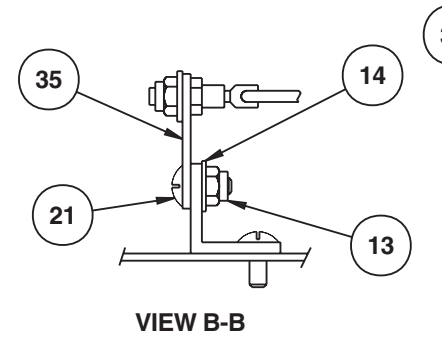
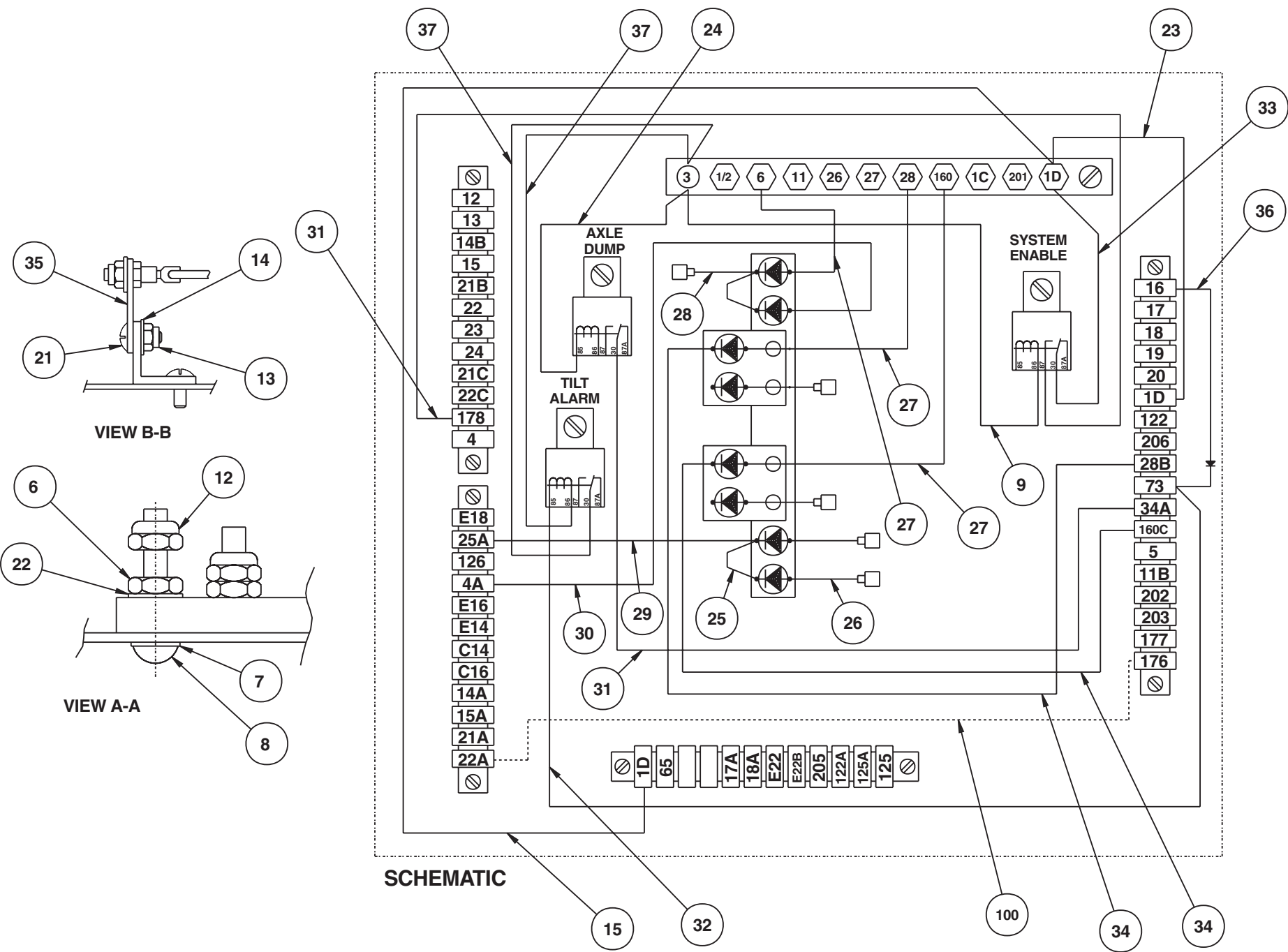


## Junction wiring box panel

item	part no	qty	description
	0191145	1	Junction wiring box panel
1	0180796	1	Panel, drilled
2	3040433	3	Terminal strip, 12 circuit .188 tab slip-on
3	3040057	1	Terminal strip, 18 circuit .188 tab slip-on
4	3044710	1	Terminal strip, 10 circuit #10 stud
5	0191233	1	Decal set, junction wiring box
6	984049	1	Nut #10-24 hex
7	5560341	1	Washer 1/4 star tooth lock
8	5560610	1	Machine screw #10-24 x 1-1/4 inch long truss head
9	0081515	1	Jumper wire
10	3040469	3	Relay, 12 volt DC
11	0150488	1	Diode holder
	3040108		Replacement diode
12	5560034	15	Nut #10-24 self locking
13	5560038	8	Nut #10-32 self locking
14	986009	12	Washer #10 medium flat
15	0073727	1	Jumper wire
16	974279	8	Machine screw #6-32 x 3/4 inch long round head
17	974239	3	Machine screw #6-32 x 1/2 inch long round head
18	987349	11	Washer #6 medium lock
19	986159	3	Washer #6 medium flat
20	974689	1	Machine screw #10-24 x 3/4 inch long round head
21	5560609	6	Machine screw #10-24 x 1/2 inch long truss head
22	987089	2	Washer #10 medium lock
23	0071552	1	Jumper wire
24	0071555	1	Jumper wire
25	0070724	2	Jumper wire
26	0181110	4	Diode wire - (includes 3040108 diode)
27	0070681	3	Jumper wire
28	0090621	1	Jumper wire
29	0070719	1	Jumper wire
30	0110471	1	Diode wire
31	0181030	2	Diode wire
32	0090622	1	Jumper wire
33	0073057	1	Jumper wire
34	0070713	2	Jumper wire
35	0073631	2	Diode stand off
36	0170335	1	Diode wire
37	0081559	2	Jumper wire



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AW0191145



## Upper control box

item	part no	qty	description
	0191272	1	Upper control box
1	0191147	1	Control box
2	3040492	1	Controller, drive/steer - (see page 3-62 for parts breakdown)
3	3040526	1	Controller, extend/retract - (see page 3-64 for parts breakdown)
4	3040568	1	Controller, lift/swing - (see page 3-66 for parts breakdown)
5	0191138	1	Placard, upper control box top
6	0191139	1	Placard, EMS instructions
7	0073781	1	Jumper wire
8	7190001	1	Gasket, weatherproof x 78 inch long
9	3020018	2	Switch, toggle
10	3044142	2	Terminal #6 stud insulated 22/18 wire
11	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
12	3020108	1	Light module
13	3040185	1	Contact block
14	3020013	2	Switch, toggle
15	3060069	1	Warning light, tilt
16	0151910	3	Jumper wire
17	0191417	1	Jumper wire
18	562326	2	Relay, 12 volt DC
19	0191156	1	Jumper wire
20	3040057	2	Terminal strip, 18 circuit .188 tab slip-on
21	0090621	1	Jumper wire
22	0070967	1	Corrosion inhibitor
23	3040295	1	Connector
24	3040110	5	Connector locknut
25	0190992	2	Decal, emergency bleed down
26	0191150	1	Placard, upper control box front
27	3026027	1	Switch, push button
28	7140092	1	Switch seal
29	3040535	3	Circuit breaker, 3 amp capacity
30	3040068	1	Circuit breaker, 20 amp capacity
31	480652	1	Siren, tilt alarm
32	3020090	1	Switch, anti-restart
33	0323899	1	Decal, danger electrical hazard
34	0190994	1	Decal, emergency bleed down
35	3020080	3	Switch, toggle
36	0191238	1	Diode wire
37	5093004	1	Clamp
38	5569711	1	Grommet
39	3044708	2	Terminal strip, 10 circuit #8 stud
40	3030086	2	Audio alarm
41	0191152	1	Decal set, upper control box
42	5560034	28	Nut #10-24 self locking
43	5093010	1	Clamp
44	0070732	1	Jumper wire
45	0191022	2	Resistor wire
46	0073728	1	Jumper wire
47	3060100	1	EMS warning light, green
48	5560004	6	Nut 1/4-20 self locking
49	970029	4	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
50	5560716	2	Machine screw #10-24 x 3/8 inch long truss head
			<b>Parts list continued on next page</b>

## Upper control box

item	part no	qty	description
51	974689	4	Machine screw #10-24 x 3/4 inch long round head
52	974279	4	Machine screw #6-32 x 3/4 inch long round head
53	987349	4	Washer #6 medium lock
54	984009	4	Nut #6-32 hex
55	986019	4	Washer 1/4 medium flat
56	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
57	0191151	1	Wire harness, upper control box internal
58	0181074	1	Jumper wire
59	0070747	3	Jumper wire
60	0060373	1	Jumper strap
61	0070730	1	Jumper wire
62	0070746	1	Jumper wire
63	0181031	2	Jumper wire
64	0152126	1	Jumper wire
65	3046972	1	Terminal .188 tab female slip-on insulated 22/18 wire
66	0191154	2	Jumper wire
67	3040015	1	Hole plug, 1/2 inch diameter
68	0191155	1	Jumper wire
69	0152123	3	Jumper wire
70	3040031	2	Hole plug, 3/4 inch diameter
71	0070713	3	Jumper wire
72	3061815	1	Light bulb
73	0181104	3	Jumper wire
74	0073542	1	Jumper wire
75	0070712	2	Jumper wire
76	0070711	1	Jumper wire
77	0071541	1	Jumper wire
78	0240483	2	Jumper wire
79	0091202	1	Jumper wire
80	0071590	1	Jumper wire
81	5560341	9	Washer 1/4 star tooth lock
82	0071558	1	Jumper wire
83	3040533	1	Controller, jib elevation - (see page 3-68 for parts breakdown)
84	0170519	1	Jumper wire
85	0071517	1	Jumper wire
86	3040116	3	Connector
87	974729	2	Machine screw #10-24 x 1-1/4 inch long round head
88	3040285	1	Connector
89	0151815	1	Jumper wire
90	0150530	1	Jumper wire
91	3060099	1	EMS warning light, clear
	8010211	1	Replacement lens, clear
92	3060097	1	EMS warning light, red
	8010192	1	Replacement lens, red
93	584486	3	Relay socket
94	986009	2	Washer #10 medium flat

F

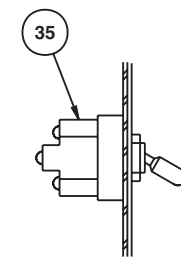
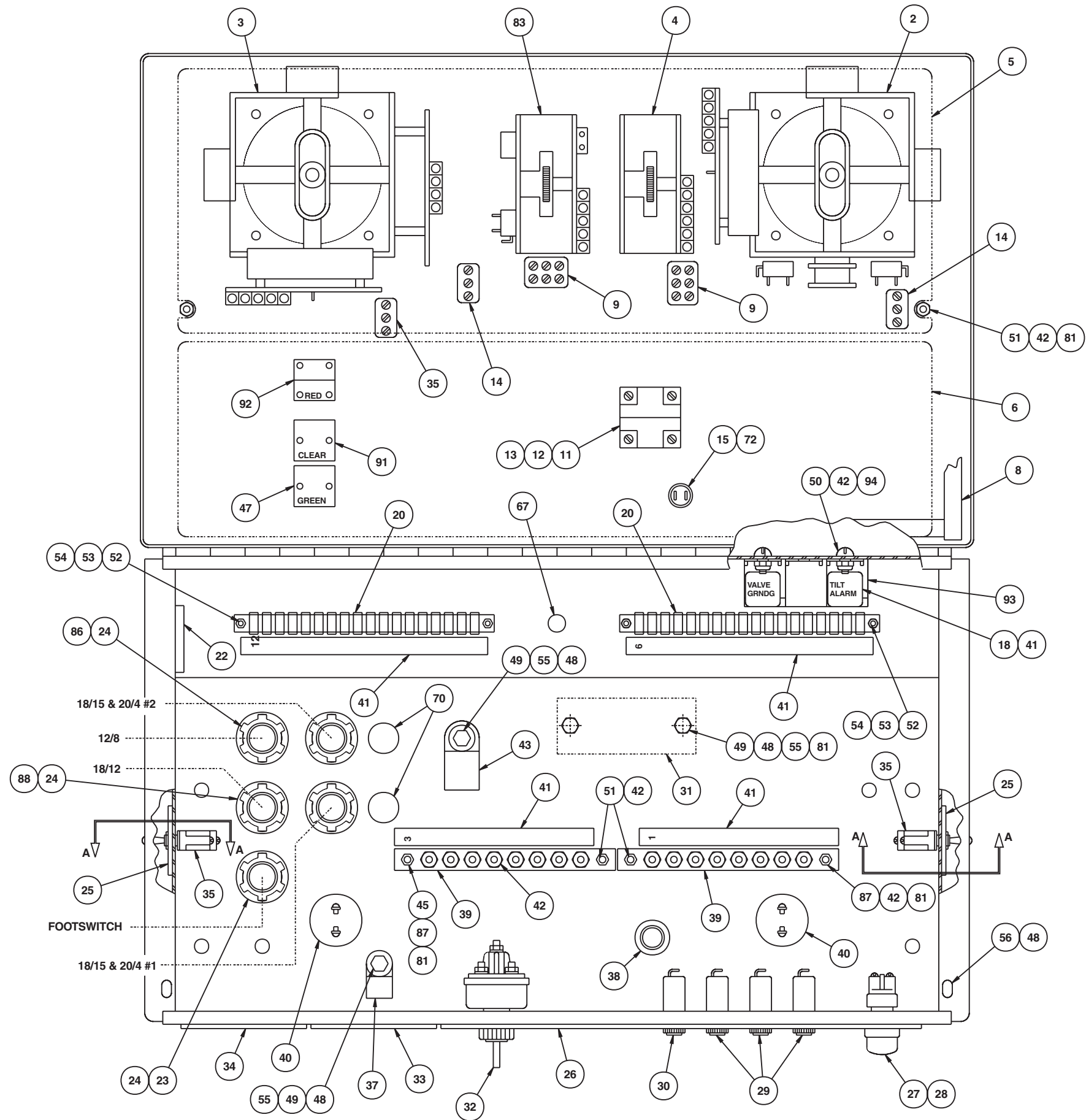
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SECTION A-A

AW0191272

DWG. 0191272-1

TITLE Upper control box  
 sheet 1  
 Snorkel model PRO 100



Page 3 - 51

F

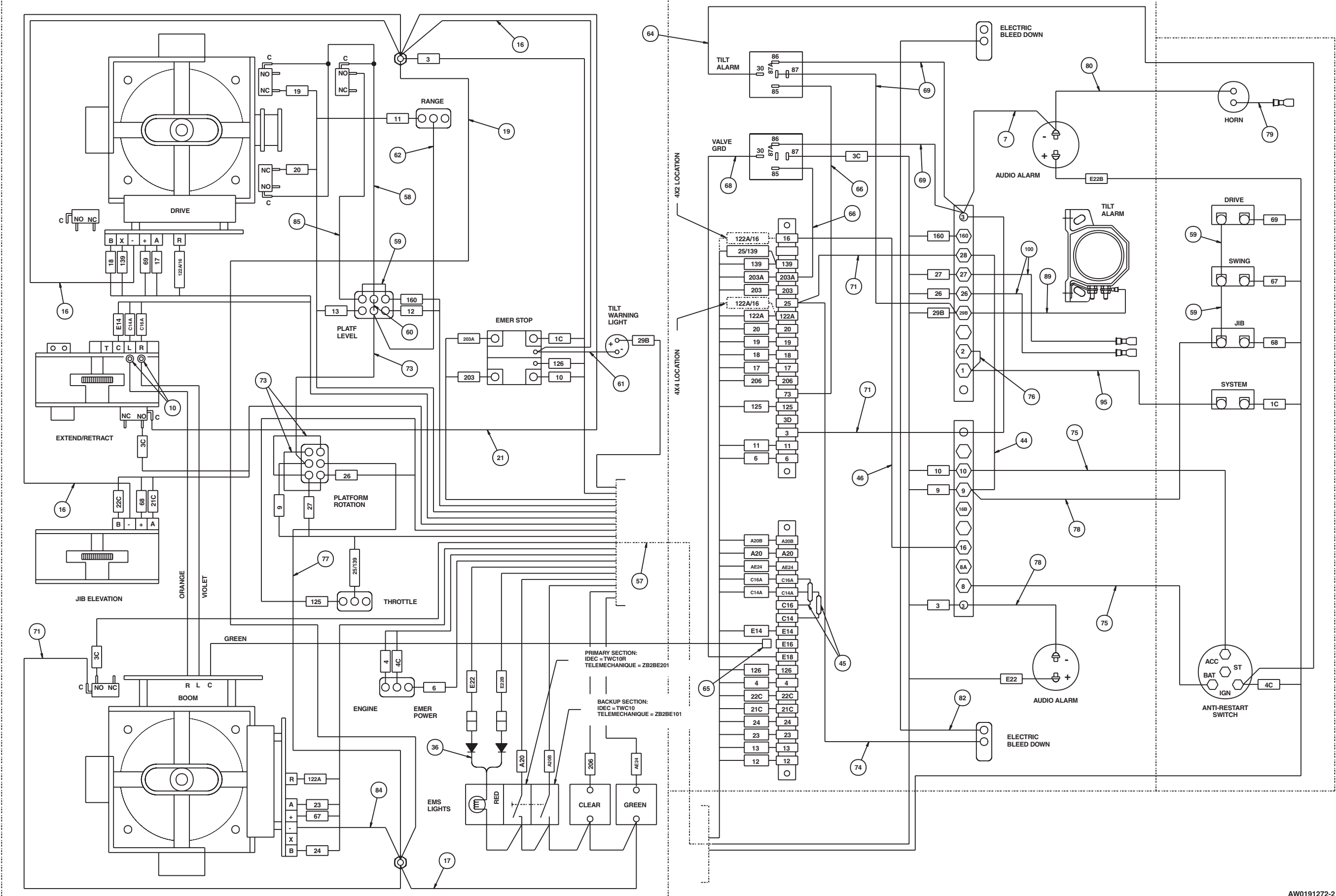
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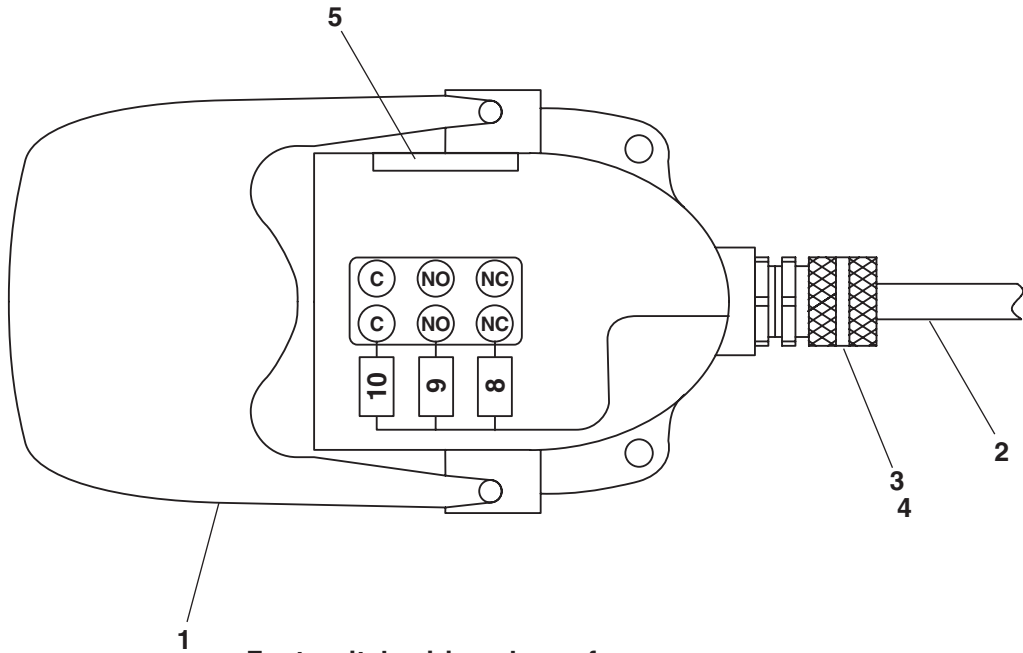
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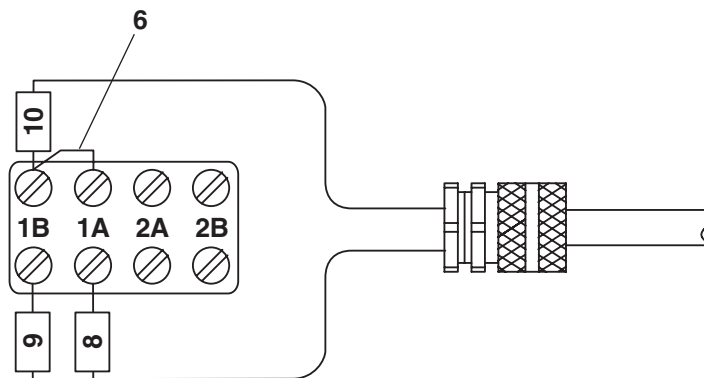
AW0191272-2

# 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	Locknut
5	0070967	1	Corrosion inhibitor
6	0060373	1	Jumper strap - (used on Square D switch only)



Foot switch wiring shown for Linemaster switch

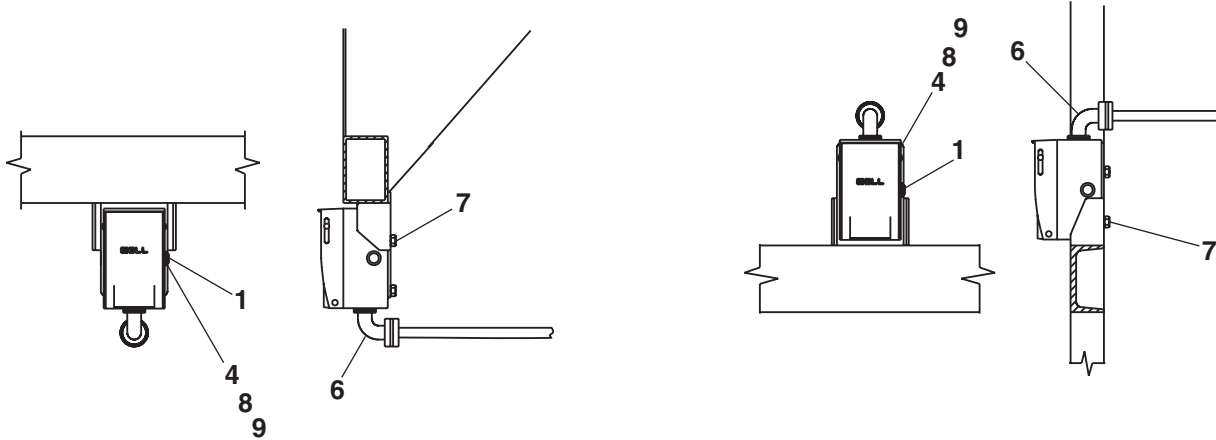


Foot switch wiring shown for Square D switch

AW0071800

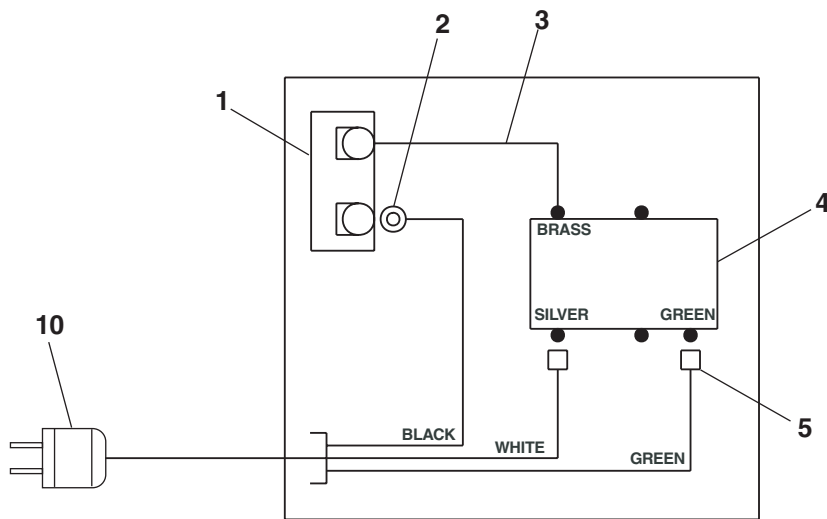
# GFCI 110 volt electrical outlet

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	978629	2	Capscrew 1/4-20 x 1/2 inch long hex head self tapping
8	0074379	1	Electrical outlet box
9	3040625	1	Cover, electrical outlet box
10	3040368	1	Plug connector
11	3040272	1	Plug



**Aluminum platform**

**Steel platform**



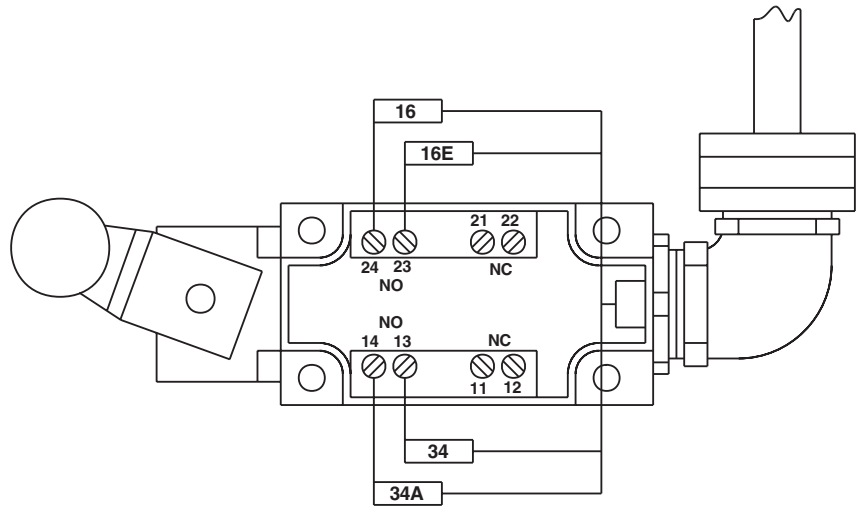
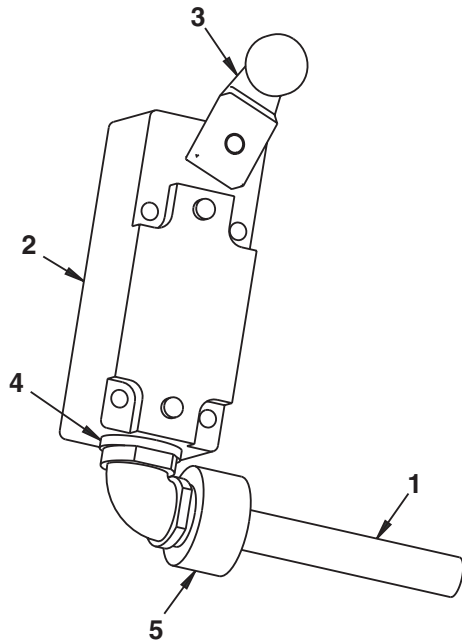
**110 volt outlet on platform**

AW0191592



## Boom lift switch

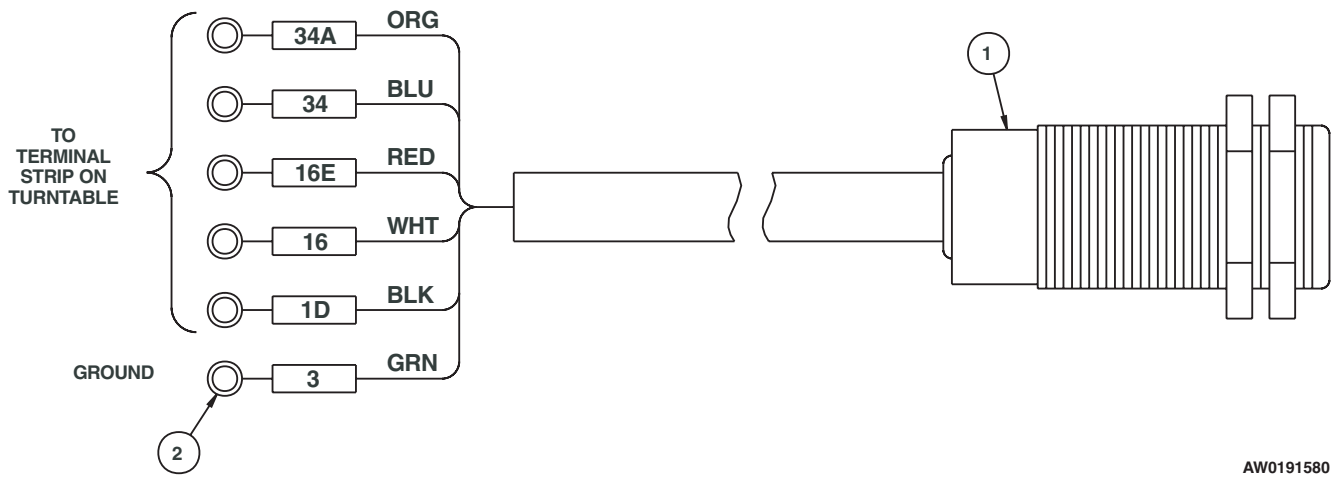
item	part no	qty	description
	0191789	1	Boom lift switch
1	0190944	1	Wire harness, boom lift switch
2	3020059	1	Switch
3	3020072	1	Switch roller
4	3040070	1	Connector locknut
5	3040358	1	Connector



AW0191789

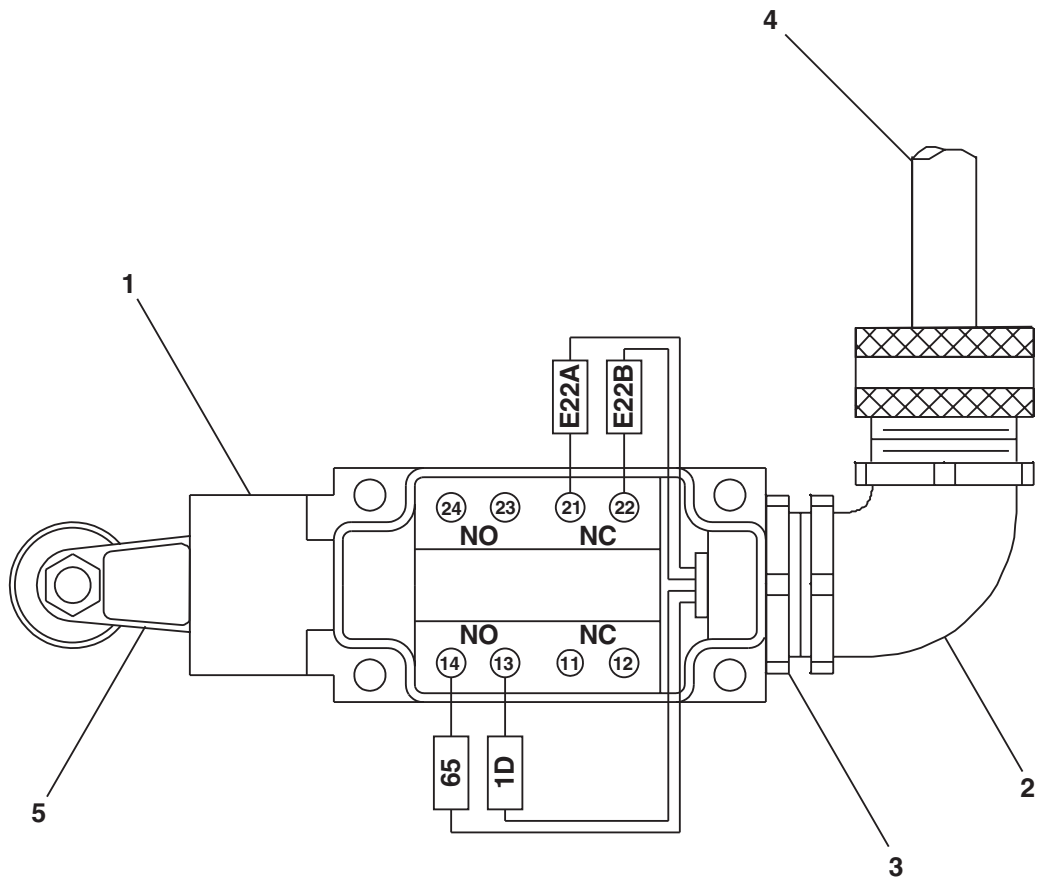
## Boom lift cut-out switch

item	part no	qty	description
1	0191580	1	Boom lift cut-out switch
1	3020120	1	Switch, proximity
2	3044146	6	Terminal #10 stud insulated 22/18 wire



## Back-up EMS switch

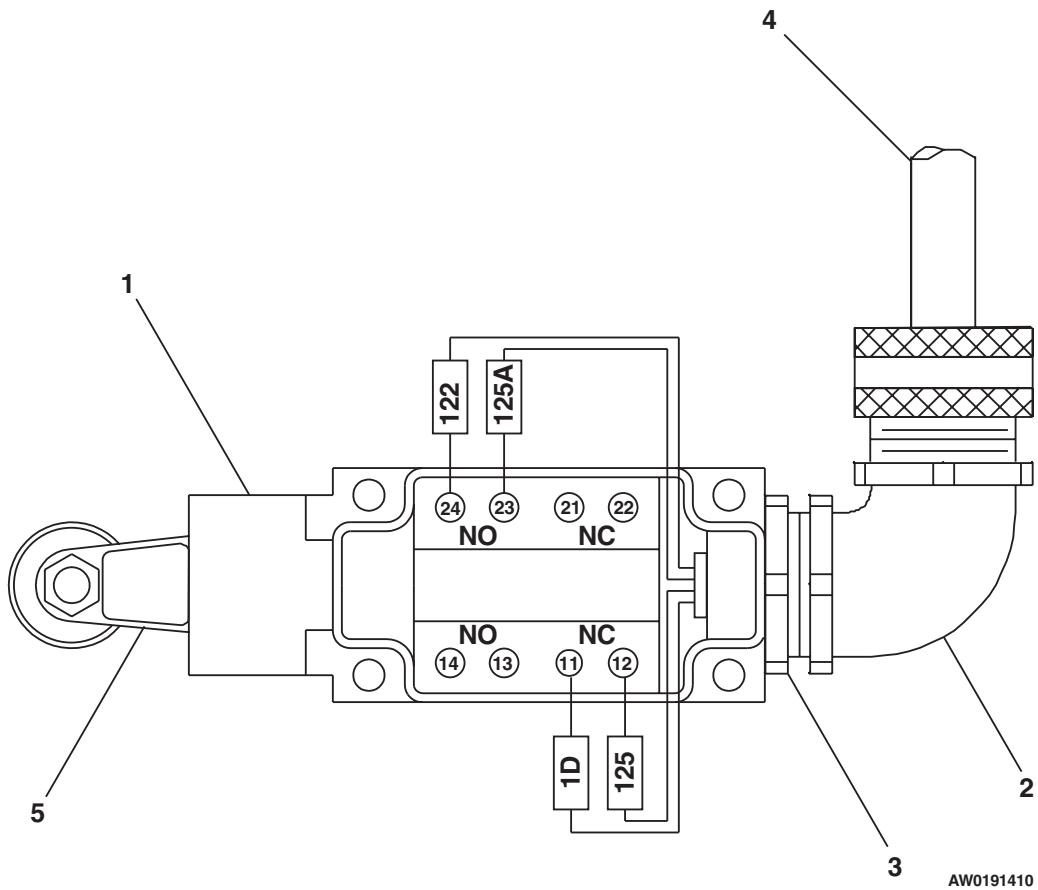
item	part no	qty	description
	0191405	1	Back-up EMS switch
1	3020059	1	Switch
2	3040358	1	Connector
3	3040070	1	Connector locknut
4	0191406	1	Wire harness, back-up EMS switch
5	3020123	1	Switch roller



AW0191405

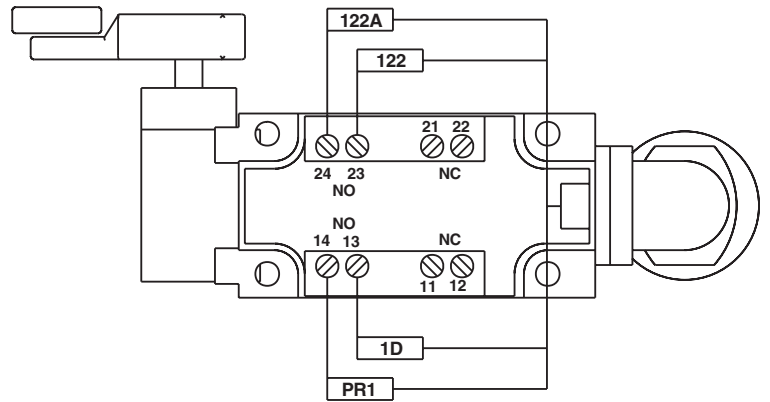
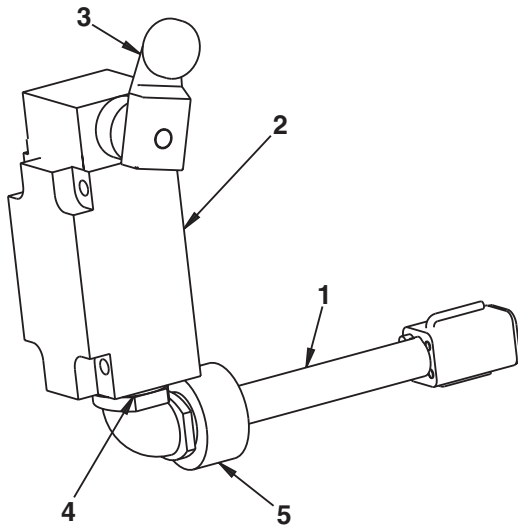
# Boom speed switch

item	part no	qty	description
	0191410	1	Boom speed switch
1	3020059	1	Switch
2	3040358	1	Connector
3	3040070	1	Connector locknut
4	0191431	1	Wire harness, boom speed switch
5	3020072	1	Switch roller



## Drive speed switch

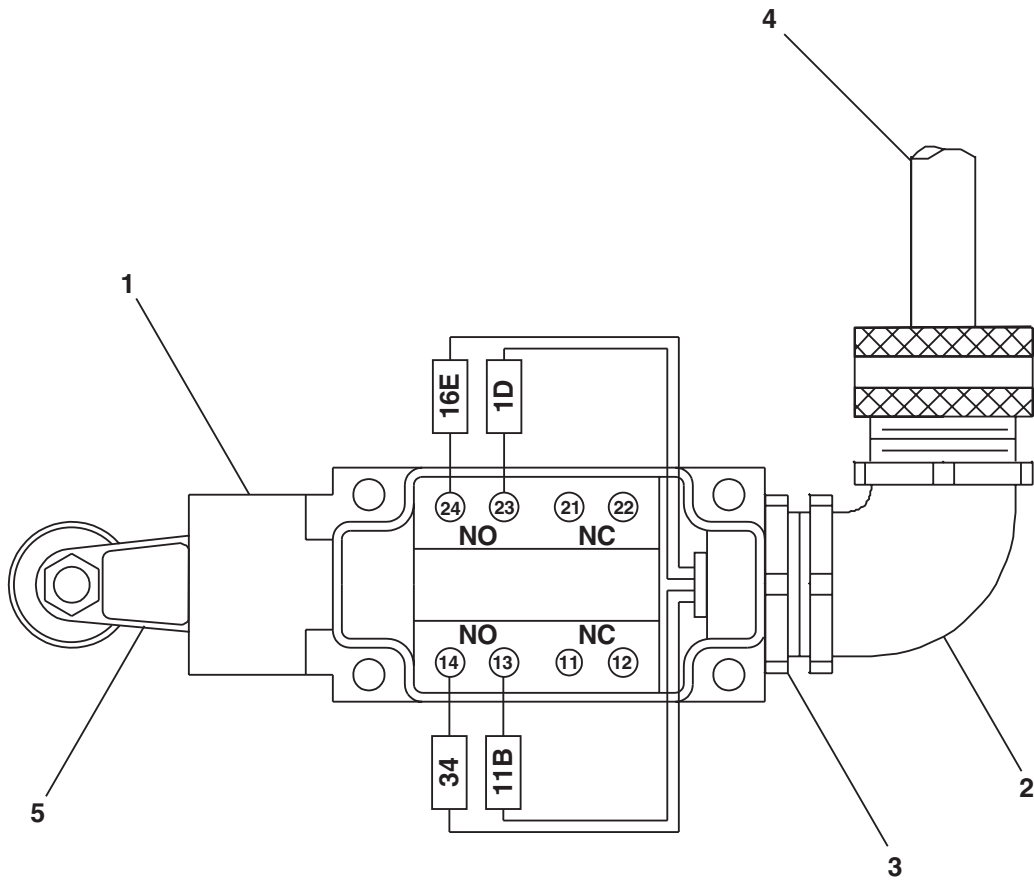
item	part no	qty	description
	0191791	1	Drive speed switch
1	0191790	1	Wire harness, drive speed switch
2	3020059	1	Switch
3	3020072	1	Switch roller
4	3040070	1	Connector locknut
5	3040358	1	Connector



AW0191791

## Extend cut-out switch

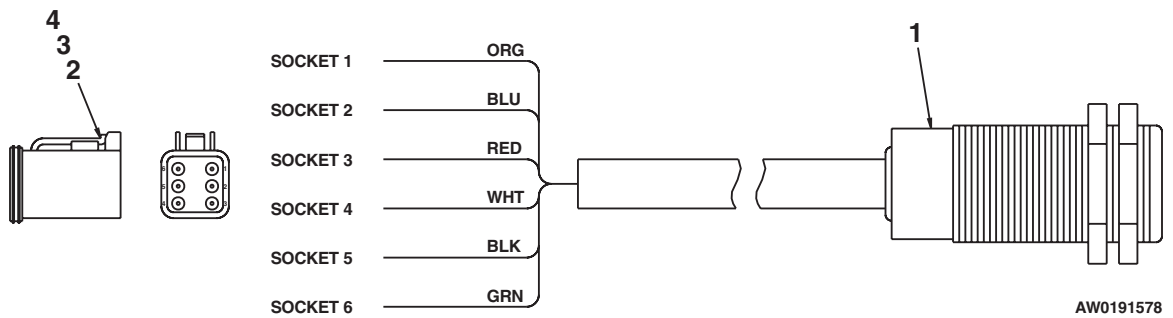
item	part no	qty	description
	0191411	1	Extend cut-out switch
1	3020059	1	Switch
2	3040358	1	Connector
3	3040070	1	Connector locknut
4	0191430	1	Wire harness, extend cut-out switch
5	3020072	1	Switch roller



AW0191411

# Proximity switch

item	part no	qty	description
	0191578	1	Proximity switch
1	3020120	1	Switch, proximity
2	3049859	1	Connector, 6 pin plug
3	3049860	1	Lock wedge, 6 pin plug
4	3040342	6	Socket contact

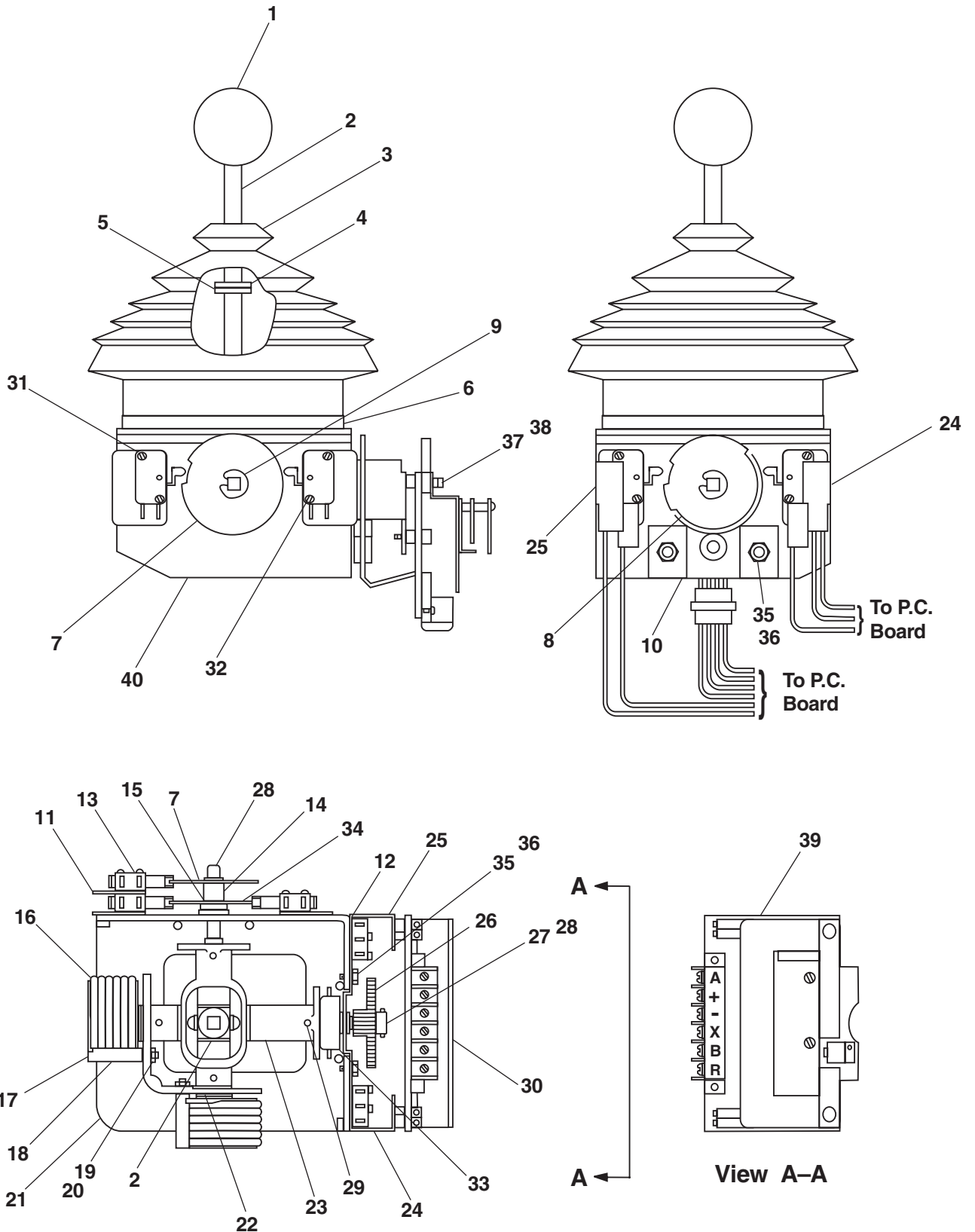


## Controller, drive/steer

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

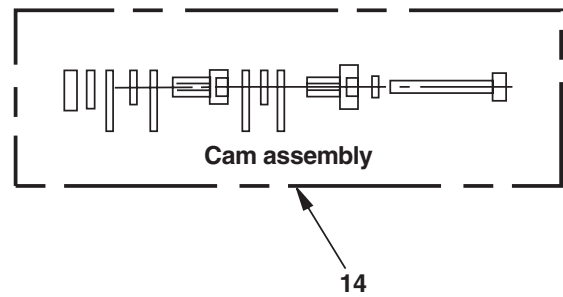
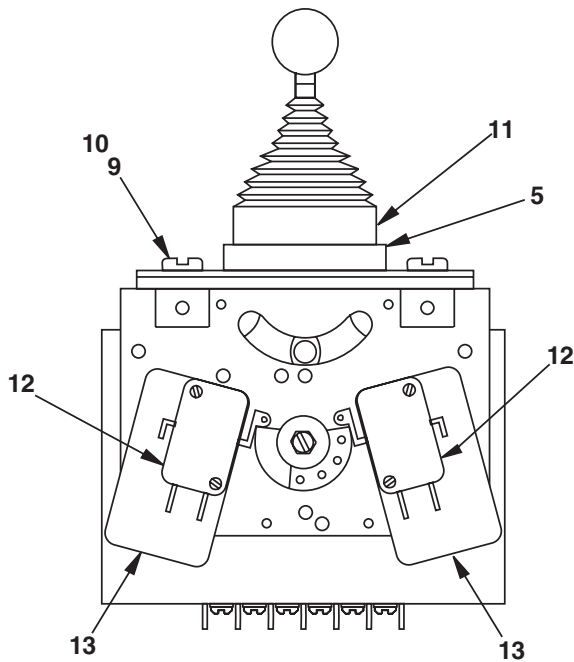
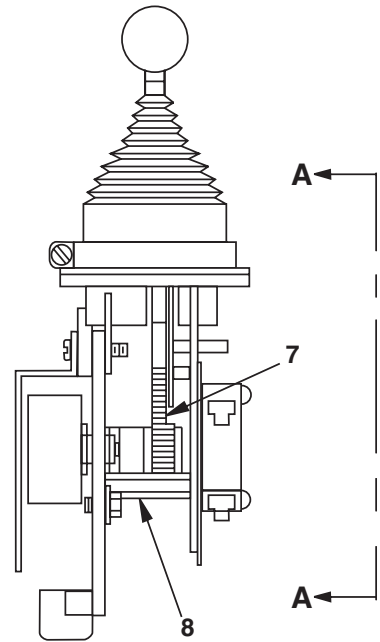
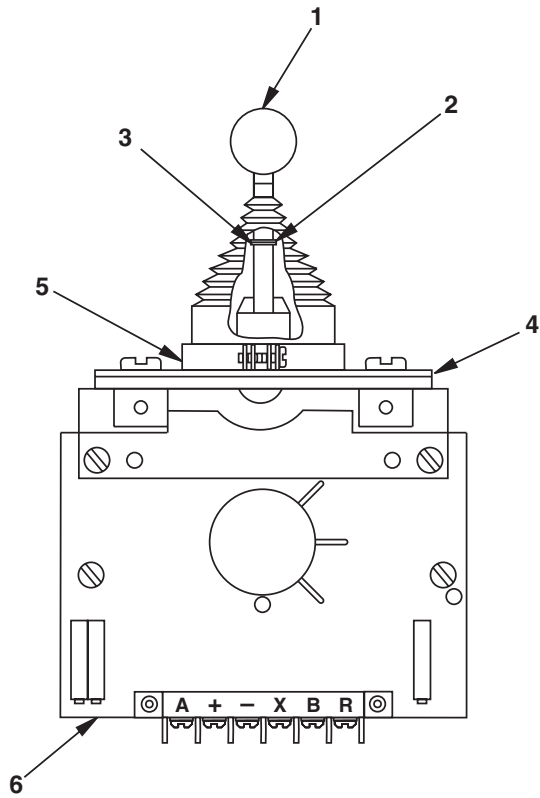


AW3040492

## Controller, extend/retract

item	part no	qty	description
	3040526	1	Controller, extend/retract
	3040392	1	Replacement potentiometer
1	8150087	1	Knob
2	8150008	1	Tension clip
3	8150205	1	Washer
4	3040170	1	Gasket
5	8150090	1	Boot clamp
6		1	Circuit board assembly - (not sold separately)
7	8150102	1	Slave gear
8	8150211	2	Standoff
9	8150212	2	Mounting screw
10	8150213	2	Washer
11	3040359	1	Boot
12	3020033	2	Microswitch
13	8150139	2	Insulator
14		1	Cam assembly - (not sold separately)

# Controller, extend/retract



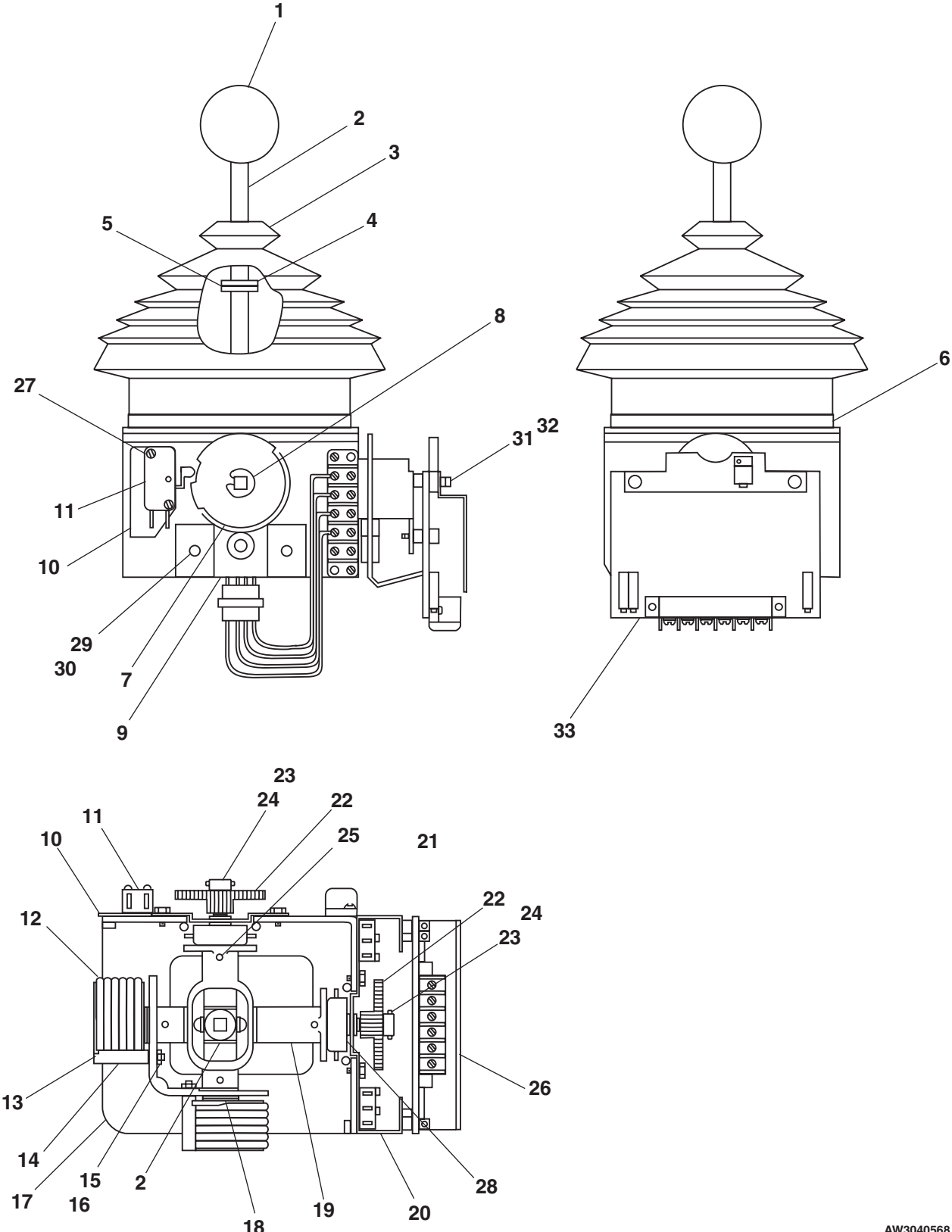
View A - A

AWV00313

## Controller, lift/swing

item	part no	qty	description
	3040568	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	3	Insulator
11	3020033	3	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 hex 5M
17	8150003	1	Casting, modified
18	3040271	4	Bushing
19	8150094	1	Second axis
20	8150151	1	Right side bracket
21	8150152	1	Left side bracket
22	3040073	2	Drive gear
23	3040072	2	Slave gear
24	8150214	4	Blank cam shaft
25	8150013	4	Tension pin
26	8150153	1	Heat sink
27	8150137	6	Screw #4-40 x 3/4 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	5569883	2	Screw metric M3.5 x 14MM long din 85
32	8150156	4	Washer
33	3040518	1	Circuit board, 33 Hertz - (trim pots not preset, controller adjustment required)

# Controller, lift/swing

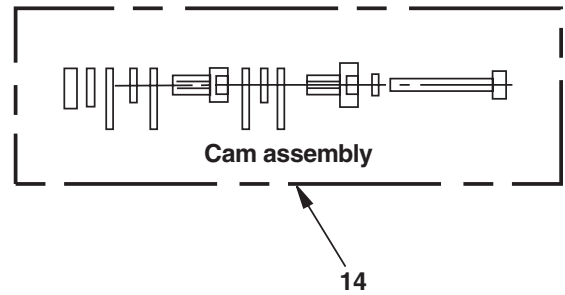
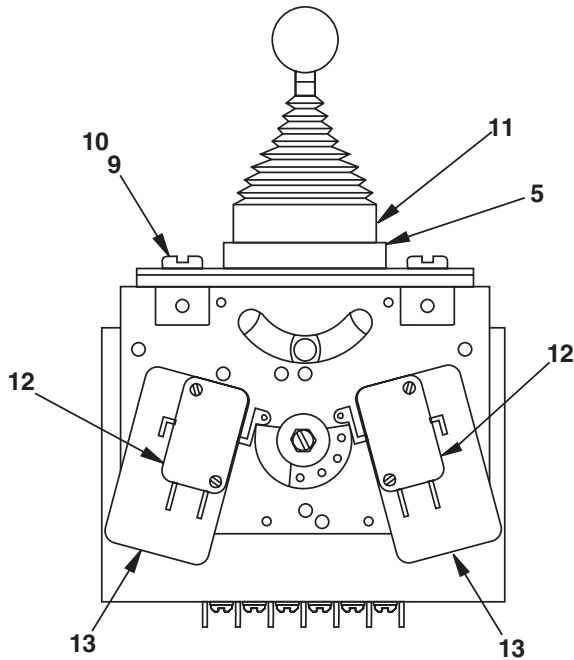
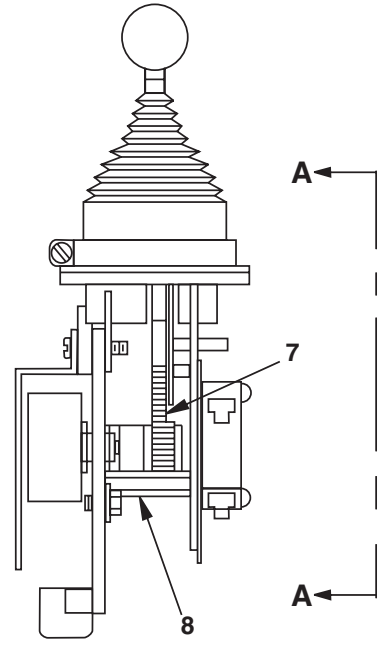
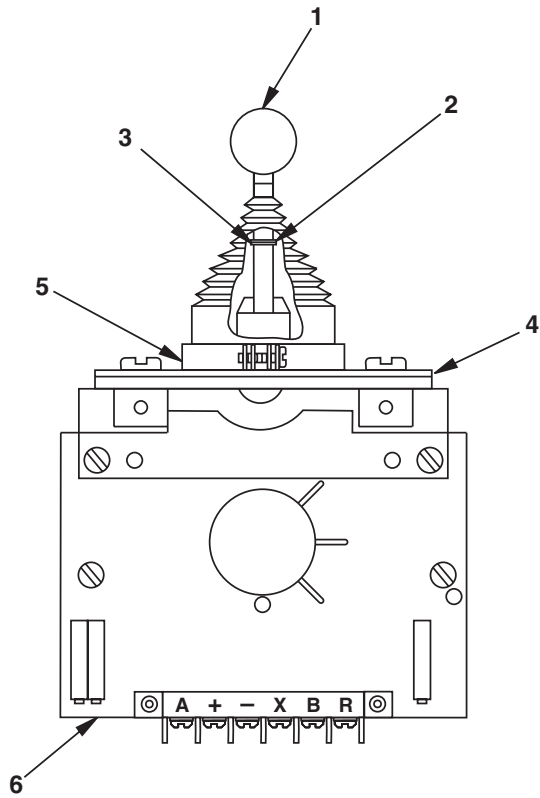


AW3040568

## Controller, jib elevation

item	part no	qty	description
	3040533	1	Controller, jib elevation
1	8150087	1	Knob
2	8150008	1	Tension clip
3	8150205	1	Washer
4	3040170	1	Gasket
5	8150090	1	Boot clamp
6		1	Circuit board assembly - (not sold separately)
7	8150102	1	Slave gear
8	8150211	2	Standoff
9	8150212	2	Mounting screw
10	8150213	2	Washer
11	3040359	1	Boot
12	3020033	2	Microswitch
13	8150139	2	Insulator
14		1	Cam assembly - (not sold separately)

# Controller, jib elevation



View A - A

AWV00313





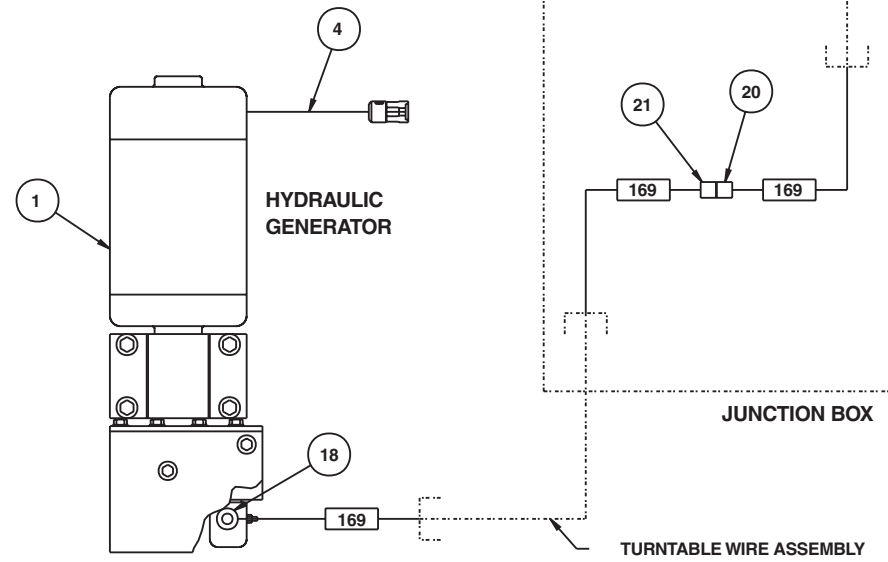
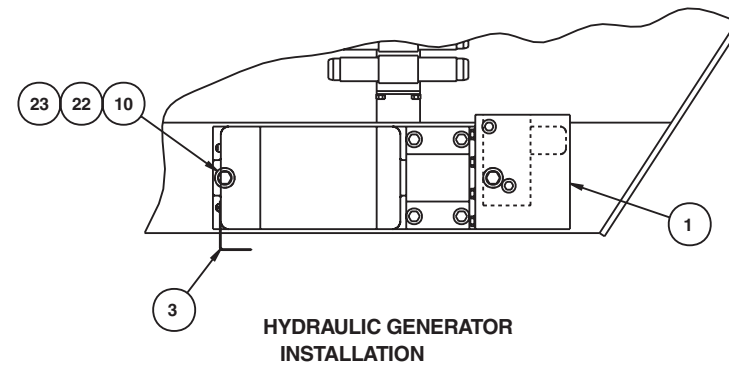
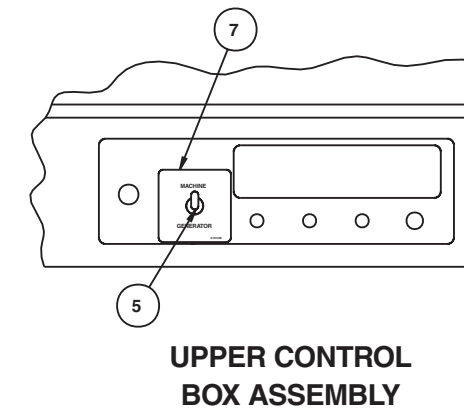
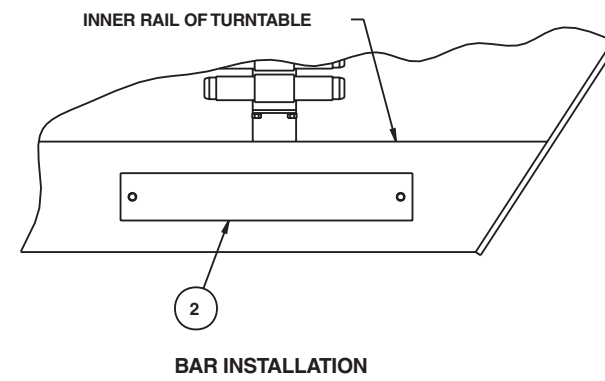
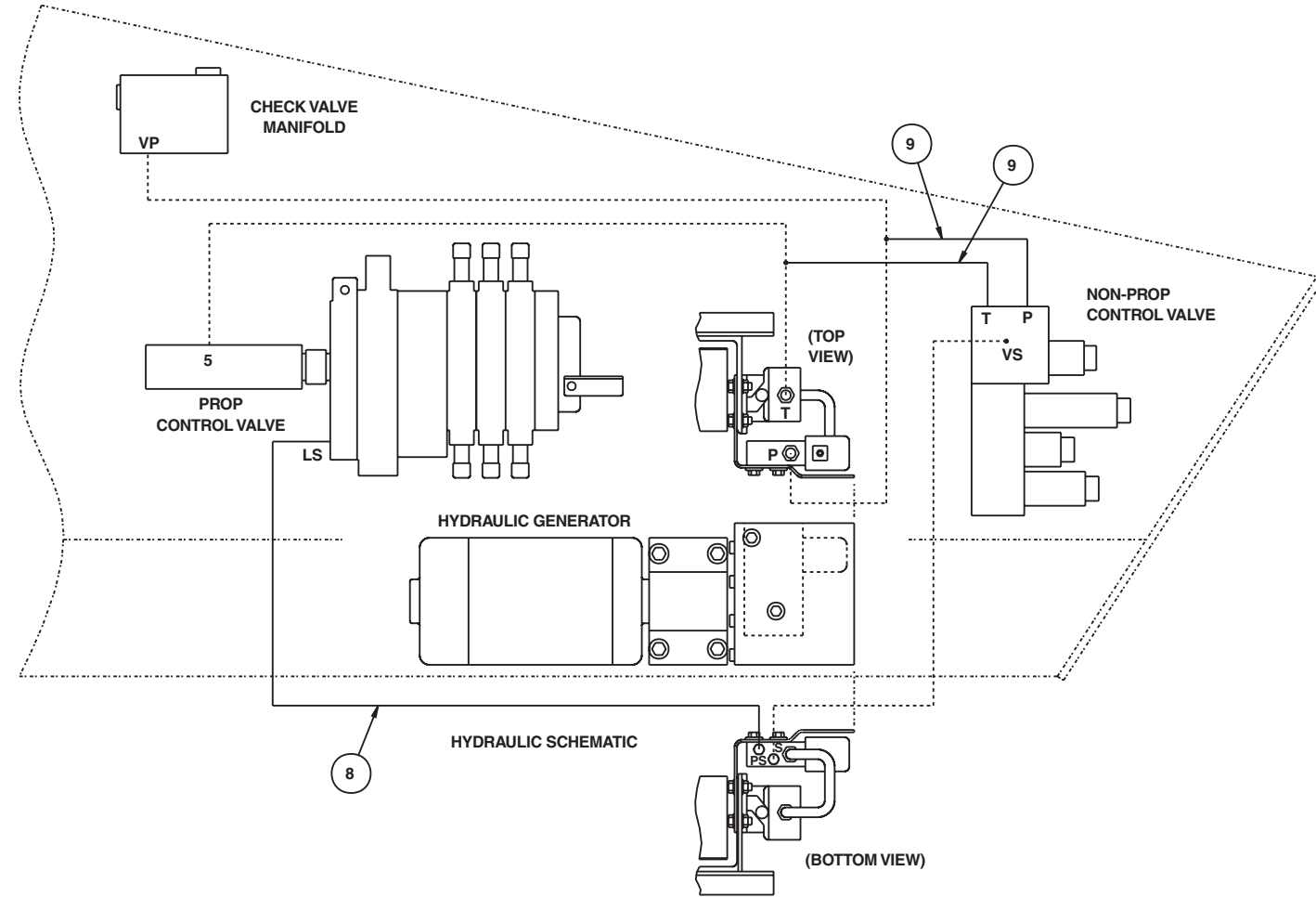
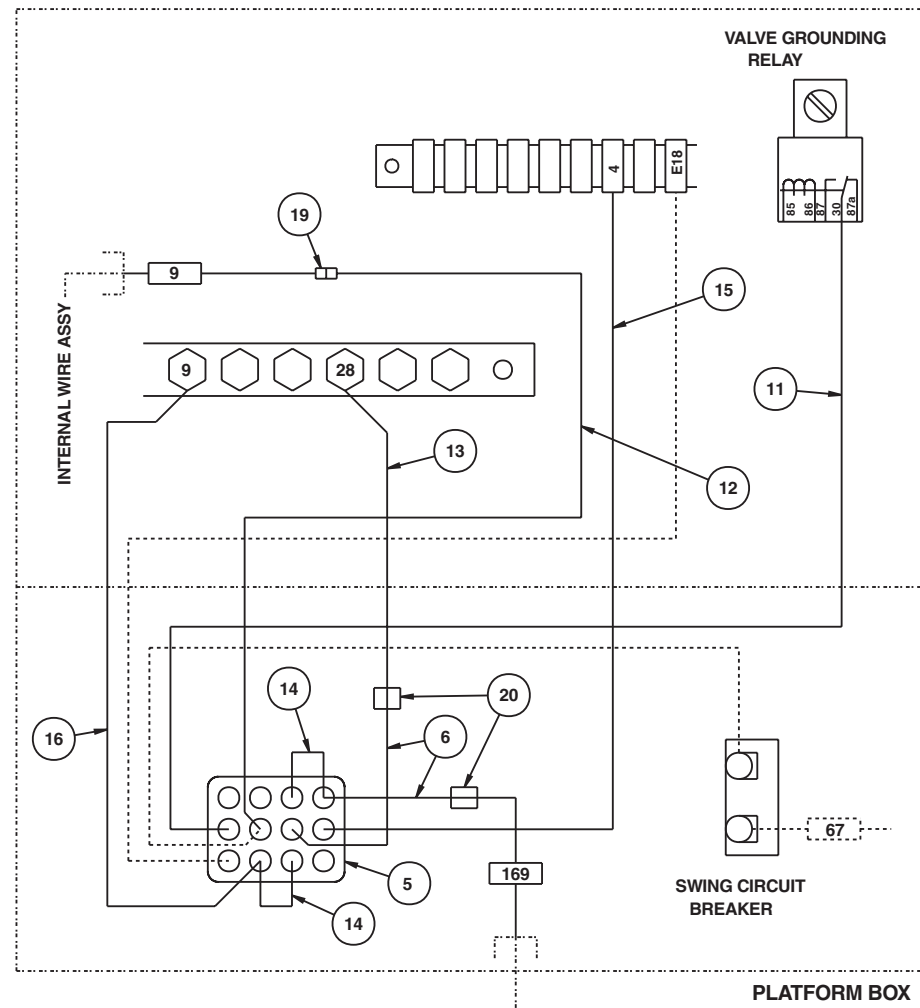
***PRO***  
**100**



## AC generator mounting

item	part no	qty	description
1	0191015	1	AC generator - (see page 4-5 for parts breakdown)
2	0151513	1	Bar
3	0073163	1	Guard, cable retention
4	0073077	1	Wire harness, AC generator 110 volt
5	3020048	1	Switch, toggle
6	0090757	2	Jumper wire
7	0151459	1	Placard, AC generator
8	0070772	1	1/4 inch hydraulic hose
9	0070786	2	3/8 inch hydraulic hose
10	986359	2	Washer 1/2 medium flat
11	0150756	1	Jumper wire
12	0181187	1	Jumper wire
13	0170519	1	Jumper wire
14	0070747	2	Jumper wire
15	0071538	1	Jumper wire
16	0071565	1	Jumper wire
17	3044142	1	Terminal #6 stud insulated 22/18 wire
18	3044161	1	Terminal #10 stud insulated 16/14 wire
19	3040064	1	Terminal .250 tab male slip-on fully insulated 12/10 wire
20	3040046	3	Terminal .250 tab male slip-on fully insulated 22/18 wire
21	3040083	1	Terminal .250 tab female slip-on fully insulated 16/14 wire
22	970889	2	Capscrew 1/2-13 x 1 inch long hex head grade 5
23	987139	2	Washer 1/2 medium lock

**ELECTRICAL SCHEMATIC**



AW0190081

TITLE AC generator mounting



DWG. 0190081

Snorkel model PRO 100

Page 4 - 3

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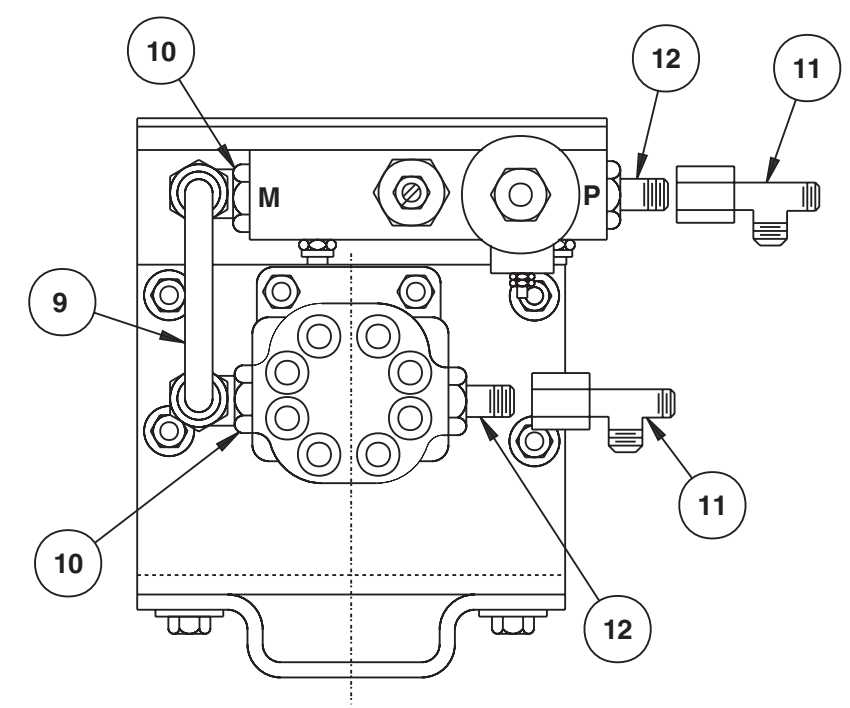
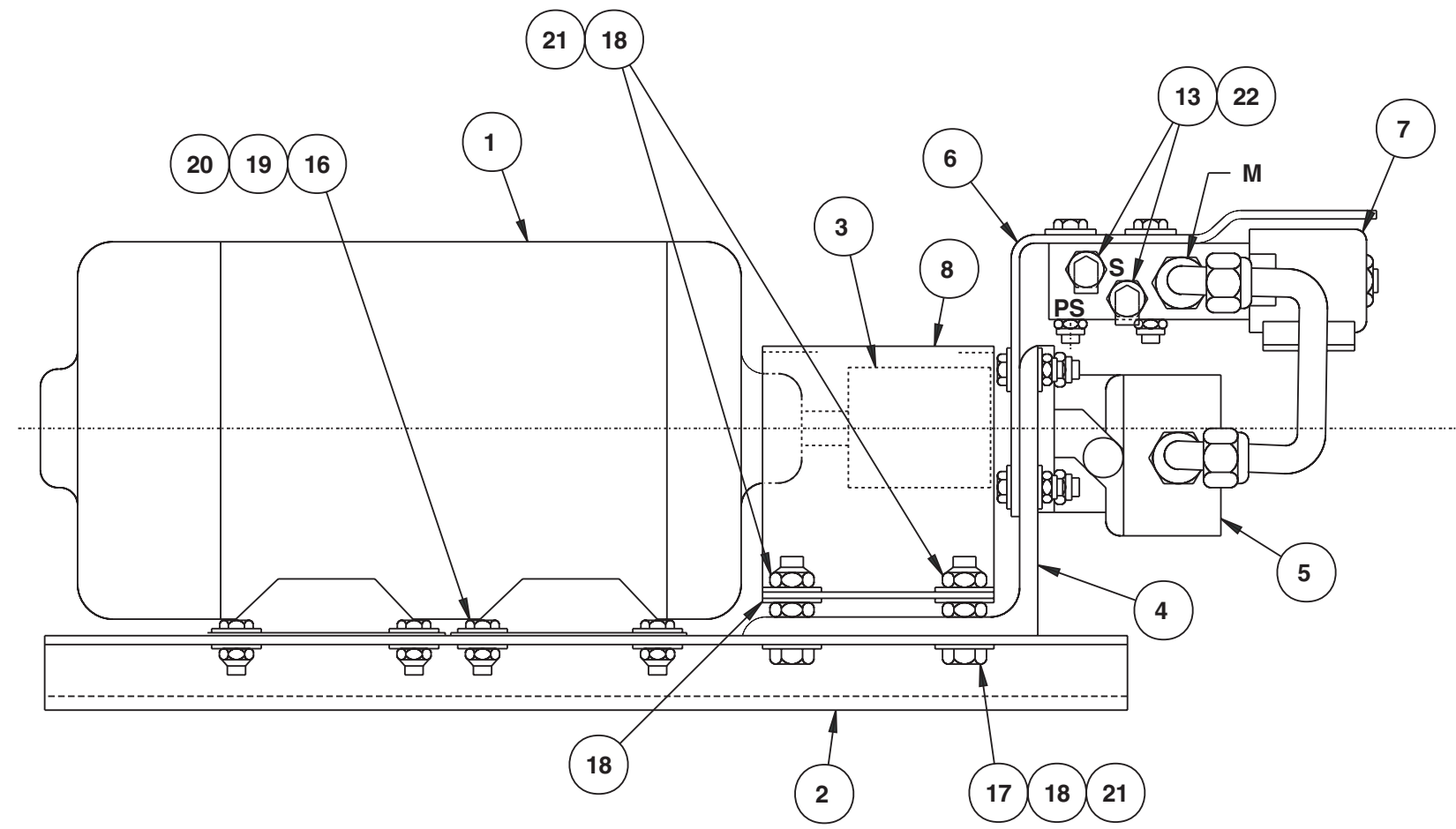
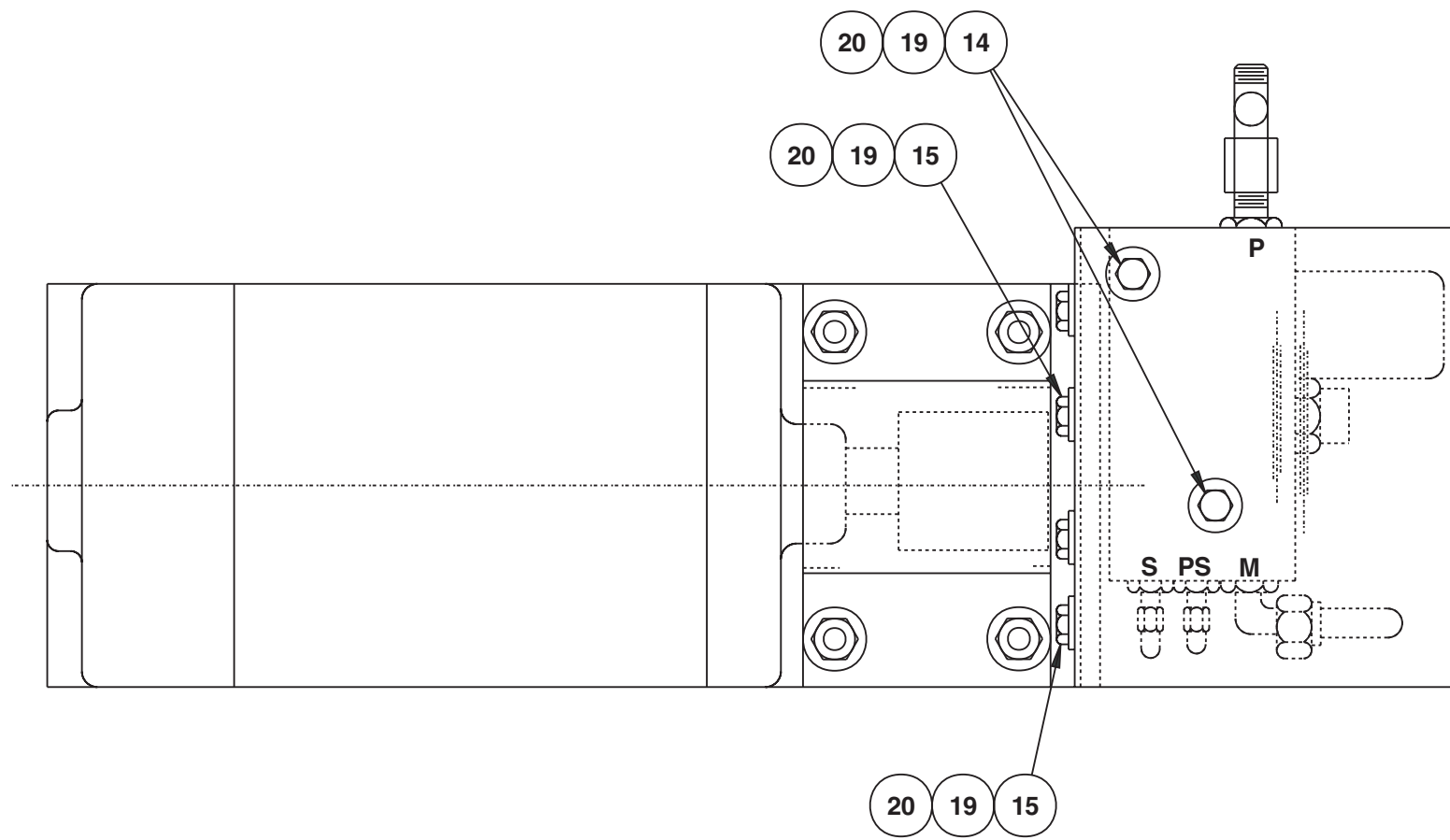
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AW0191015



## AC generator

item	part no	qty	description
	0151015	1	AC generator
1	3080001	1	Generator, AC hydraulic powered
2	0151457	1	Mounting plate
3	7240012	1	Coupling
4	0151458	1	Motor mounting angle
5	6030029	1	Hydraulic motor, AC generator
	8020028	1	Seal repair kit
6	0151469	1	Bracket, valve mounting
7	6010489	1	Valve, AC generator - (see page 2-38 for parts breakdown)
8	0151484	1	Coupling cover
9	0151470	1	1/2 inch hydraulic tube
10	5035306	2	Straight thread 90° elbow
11	5036705	2	Swivel nut run tee
12	5065708	2	Straight thread adapter
13	5065803	2	Long straight thread adapter
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
20	5560031	18	Nut 5/16-18 self locking
21	5560033	8	Nut 3/8-16 self locking
22	5037003	2	Swivel nut 90° elbow

## Air line to platform

item	part no	qty	description
1	0181276	1	Bulkhead
2	0080759	1	Angle
3	5260013	2	Hose end 1/2 NPT - 1/2 barbed
4	5550010	2	Clamp
5	5010024	1	Air hose, 1/2 inch diameter - 198 ft
6	7714204	2	Plug, 1/2 inch NPT square head
7	7734504	1	Pipe 90° elbow, 1/2 inch NPT
8	7740420	1	Nipple, 1/2 NPT x 2-1/2 inch long
9	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
10	5560004	2	Nut 1/4-20 self locking
11	5093004	1	Clamp

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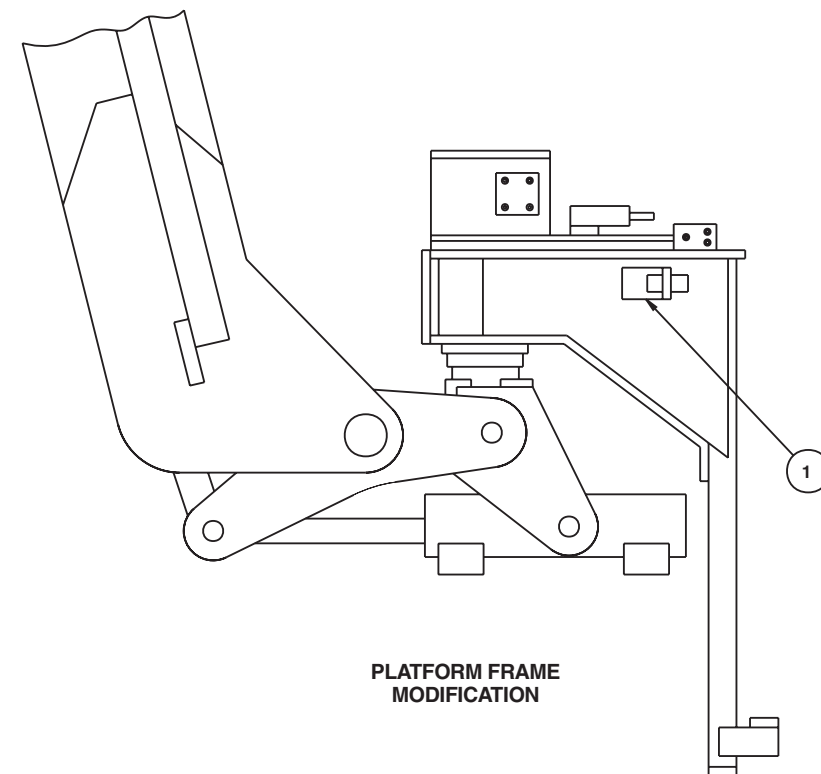
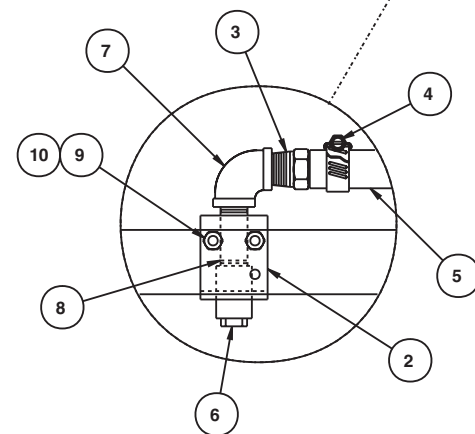
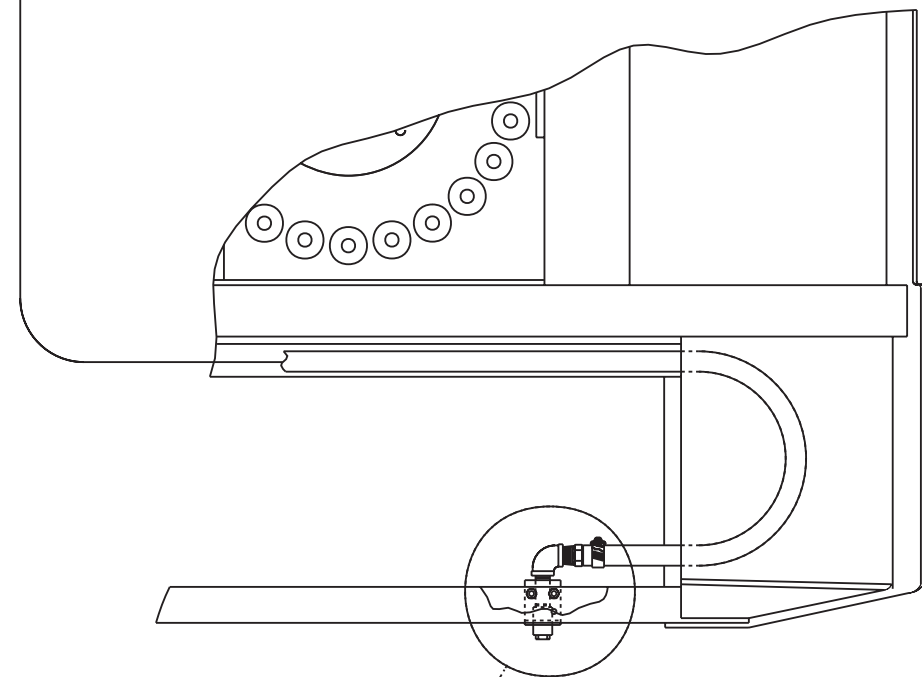
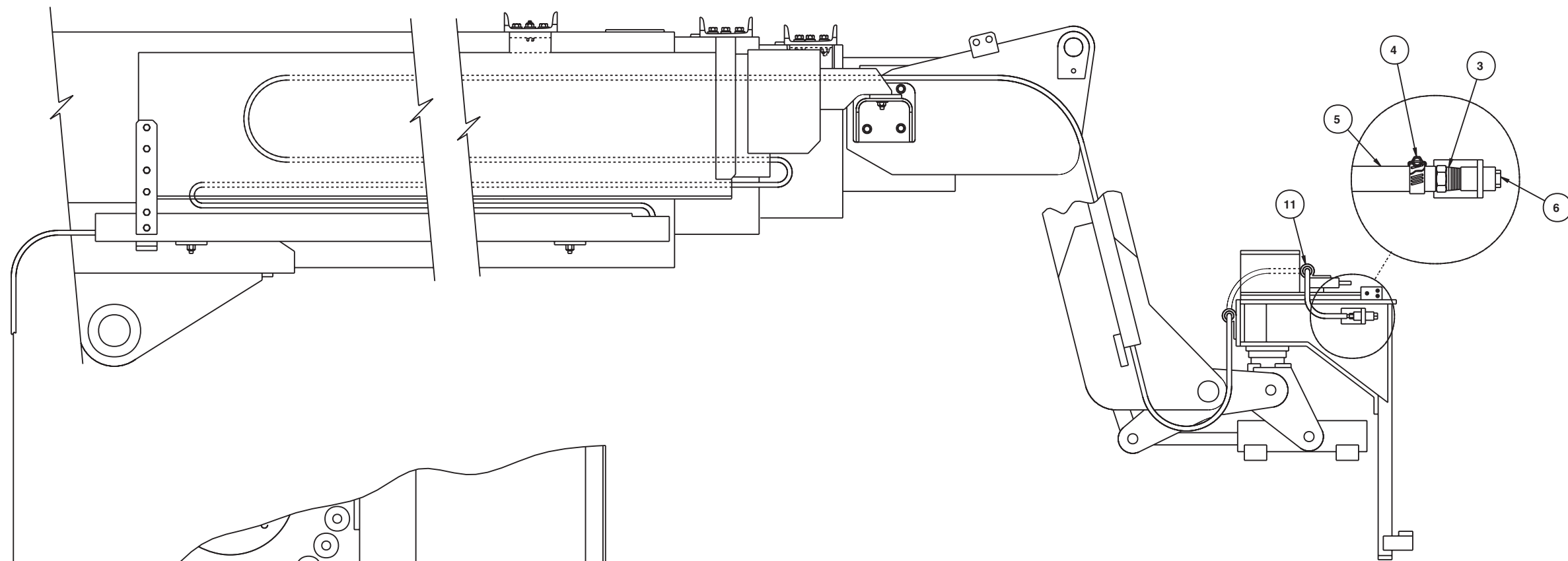
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PLATFORM FRAME  
MODIFICATION

AW0190097

TITLE Air line to platform

Snorkel model PRO 100



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DWG. 0190097

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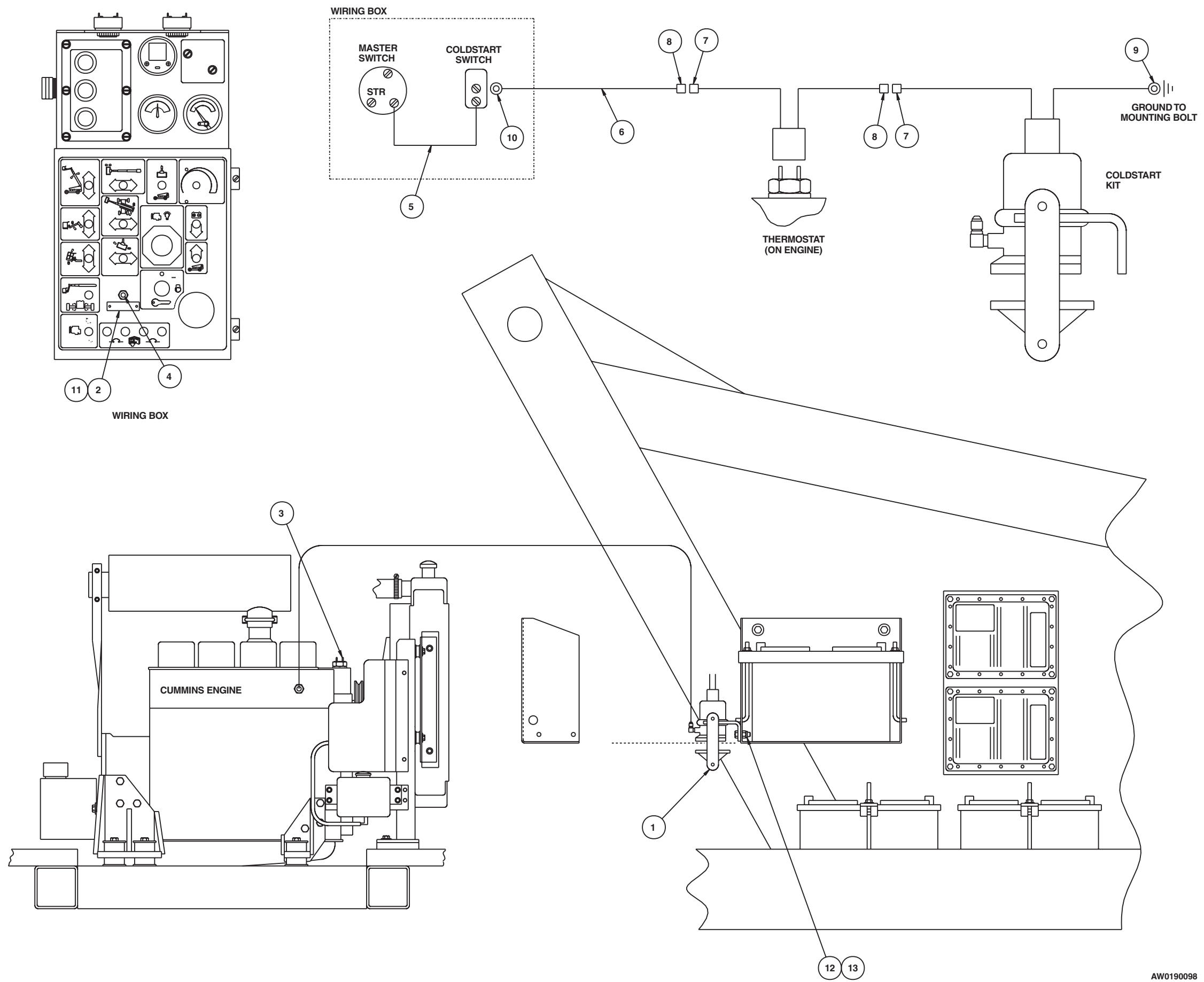
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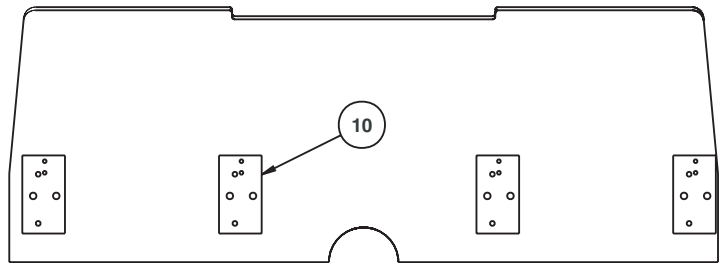
## Coldstart, Cummins

item	part no	qty	description
1	7630014	1	Cold start kit (kit includes all fittings, nylon tubing and atomizer nozzle - these parts not sold separately)
2	0073080	1	Decal, cold start
3	7630270	1	Thermostat
4	3020080	1	Switch, toggle
5	0101462	1	Jumper wire
6	3011201	1	Wire 12 gauge single conductor x 180 inch long
7	3040064	2	Terminal .250 tab male slip-on fully insulated 12/10 wire
8	3040065	2	Terminal .250 tab female slip-on fully insulated 12/10 wire
9	3044856	1	Terminal ring tongue insulated 12/10 wire
10	3044852	1	Terminal ring tongue insulated 12/10 wire
11	5560655	2	Pop rivet #AD32-ABS
12	970259	2	Capscrew 5/16-18 x 1 inch long hex head grade 5
13	5560031	2	Nut 5/16-18 self locking

## Dual fuel, Continental

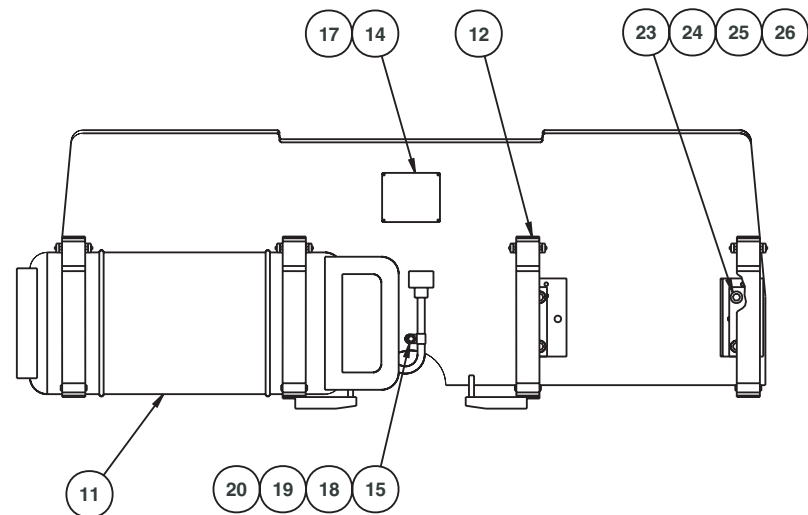
item	part no	qty	description
1	0191046	1	Dual fuel engine, Continental - (see page 4-14 for parts breakdown)
2	3020017	1	Switch, toggle
3	0090492	1	Placard, dual fuel switch
4	0090493	1	Decal, dual fuel instructions
5	0073649	1	Diode wire
6	Kit Item	1	Hydrostatic relief valve - (included in dual fuel kit 0073444)
7	Kit Item	1	Bulk head tee - (included in dual fuel kit 0073444)
8	Kit Item	1	Connector 1/4 NPT x 3/8 tube, brass - (included in dual fuel kit 0073444)
9	0072177	2	LP gas fuel hose
10	0081553	4	Bracket
11	9940005	1	LP gas cylinder, liquid withdrawal 43.5 lb capacity
12	0070969	2	Bracket, LP gas cylinder - (includes left and right hand brackets)
13	0070974	1	Coupler, female LPG
14	0081441	1	Placard, caution liquid withdrawal
15	5093004	4	Clamp
16	0080668	1	Relief valve mount bracket
17	5560655	4	Pop rivet #AD32-ABS
18	970029	3	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
19	987099	3	Washer 1/4 medium lock
20	986019	3	Washer 1/4 medium flat
21	970239	1	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
22	987109	1	Washer 5/16 medium lock
23	970479	8	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
24	987119	8	Washer 3/8 medium lock
25	986299	8	Washer 3/8 medium flat
26	984109	8	Nut 3/8-16 hex

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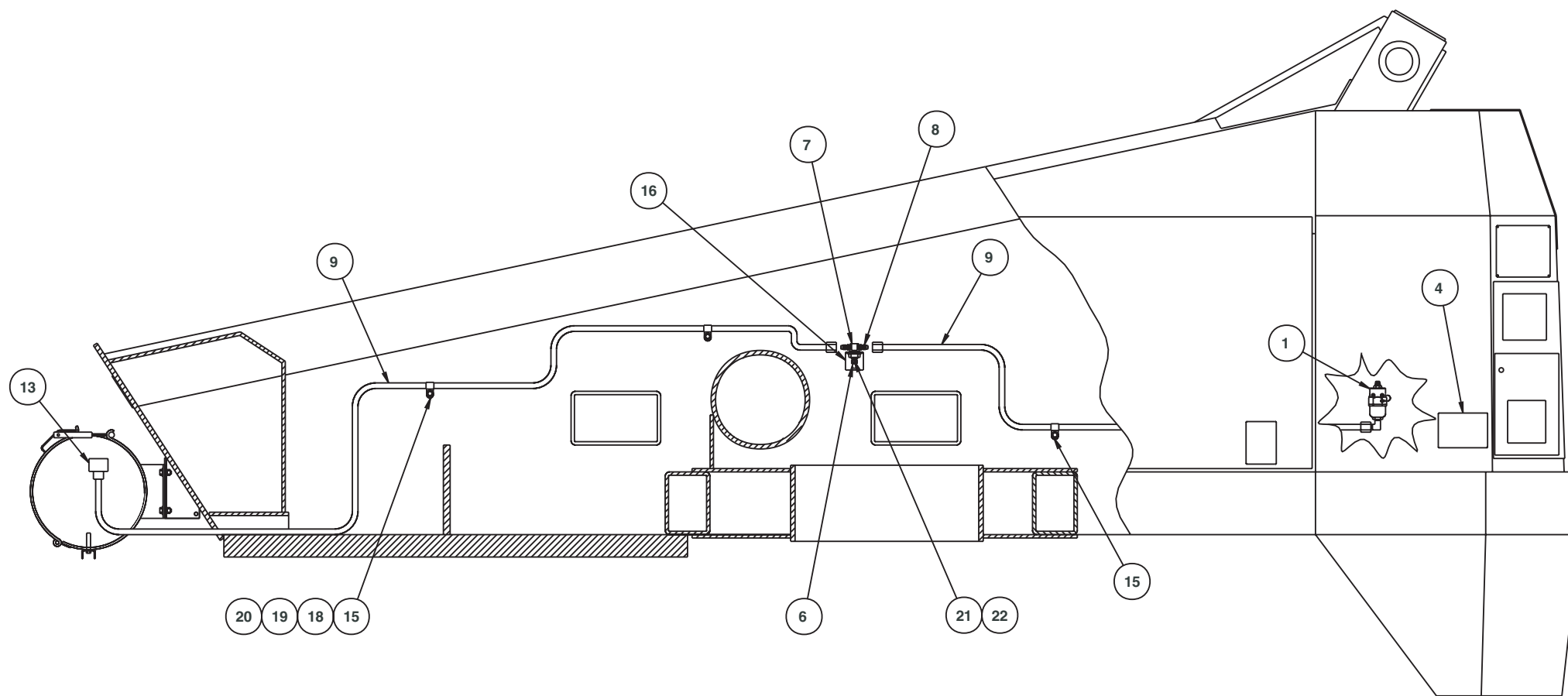


BRACKET LOCATIONS

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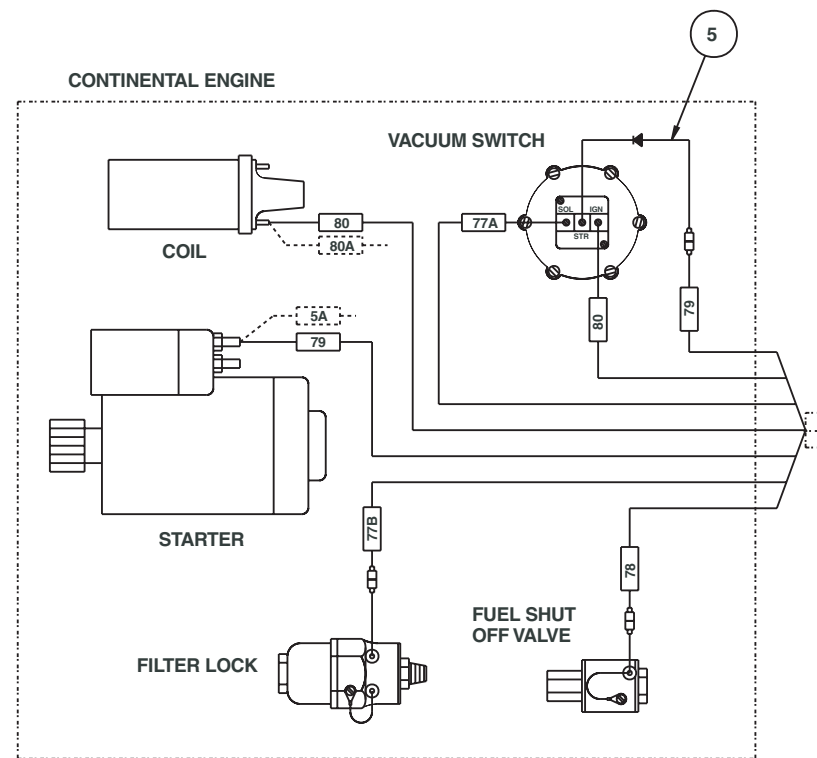


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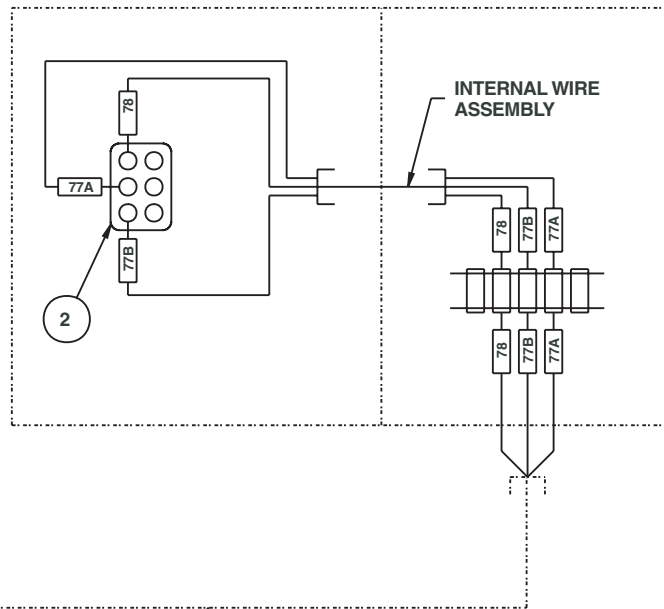
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CONTINENTAL ENGINE

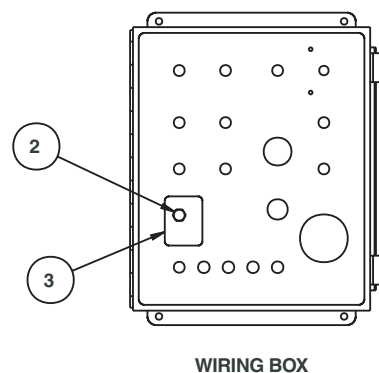


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WIRING BOX



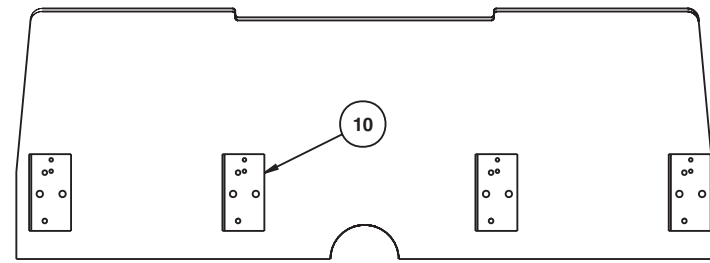
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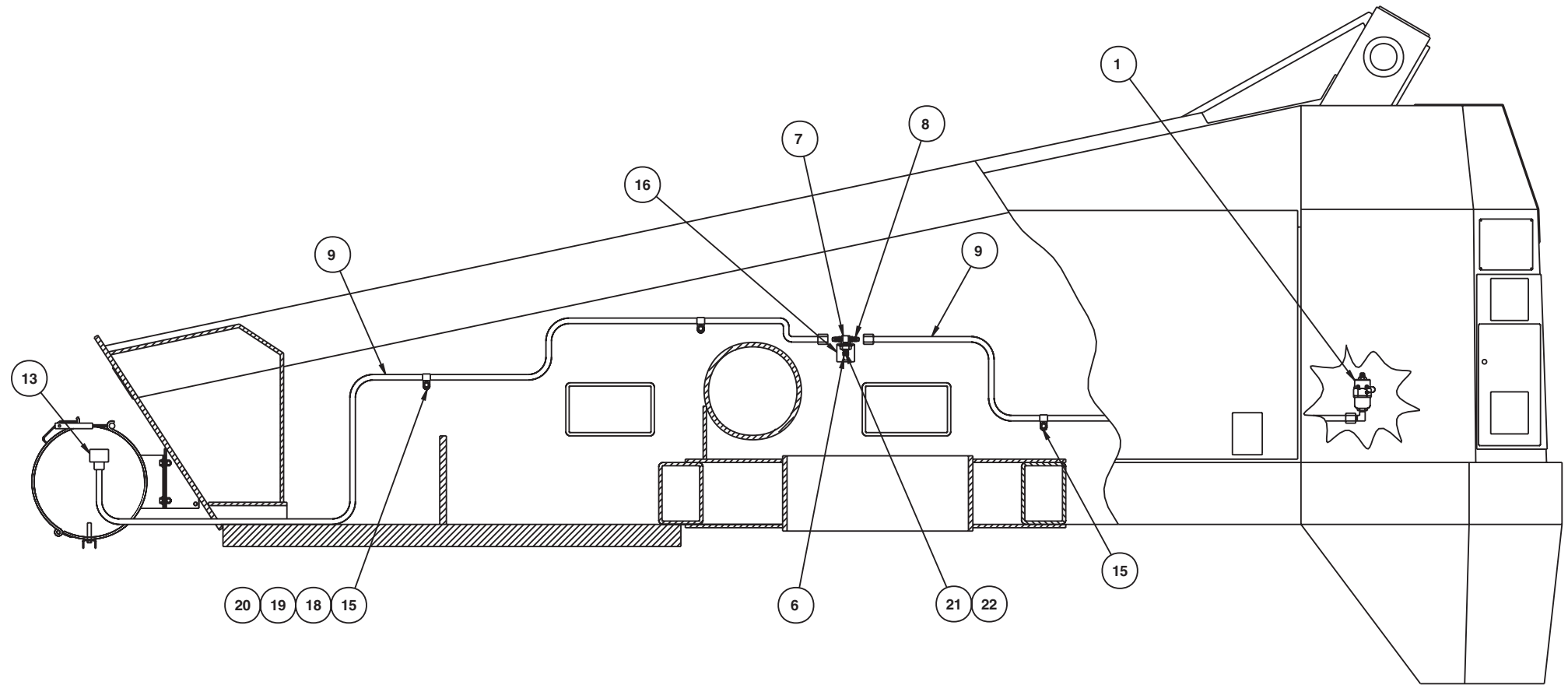
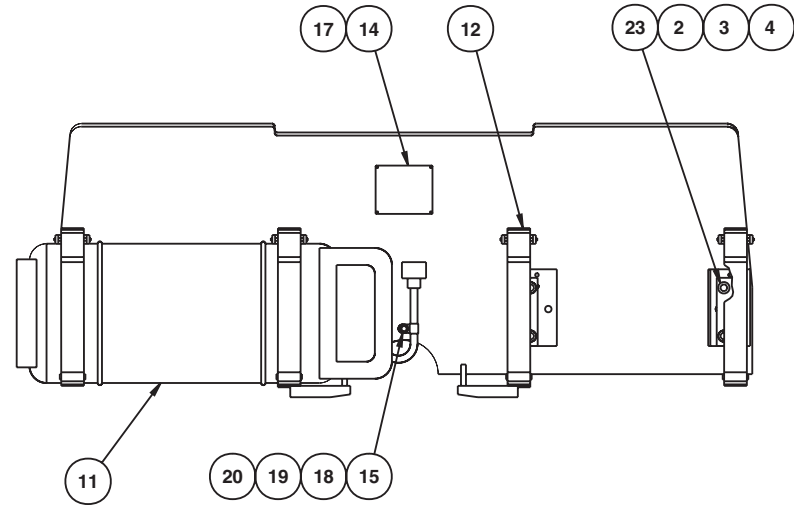
WIRING BOX

ENGINE WIRE ASSEMBLY

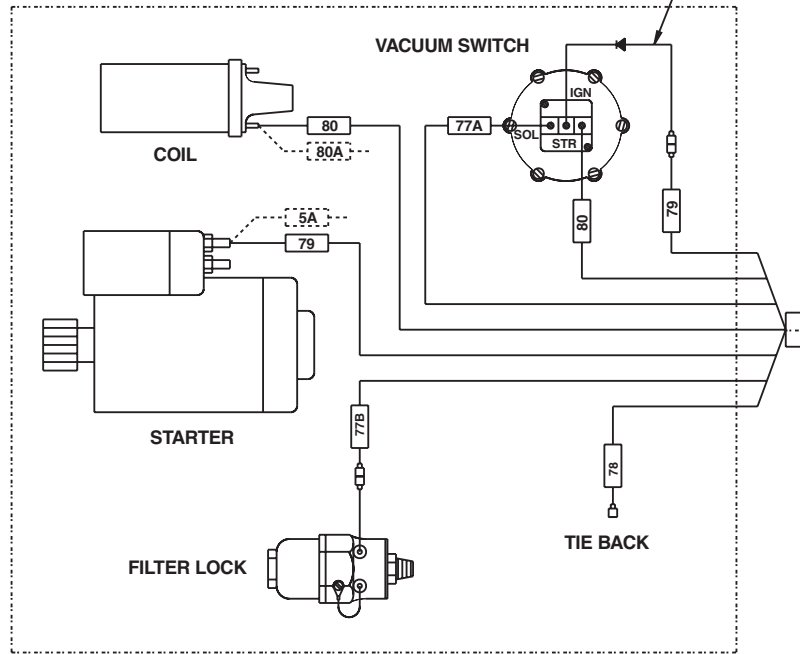
AW0190082



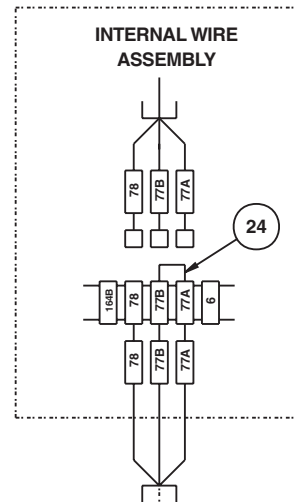
BRACKET LOCATIONS



CONTINENTAL ENGINE



WIRING BOX



ENGINE WIRE ASSEMBLY

AW0190094

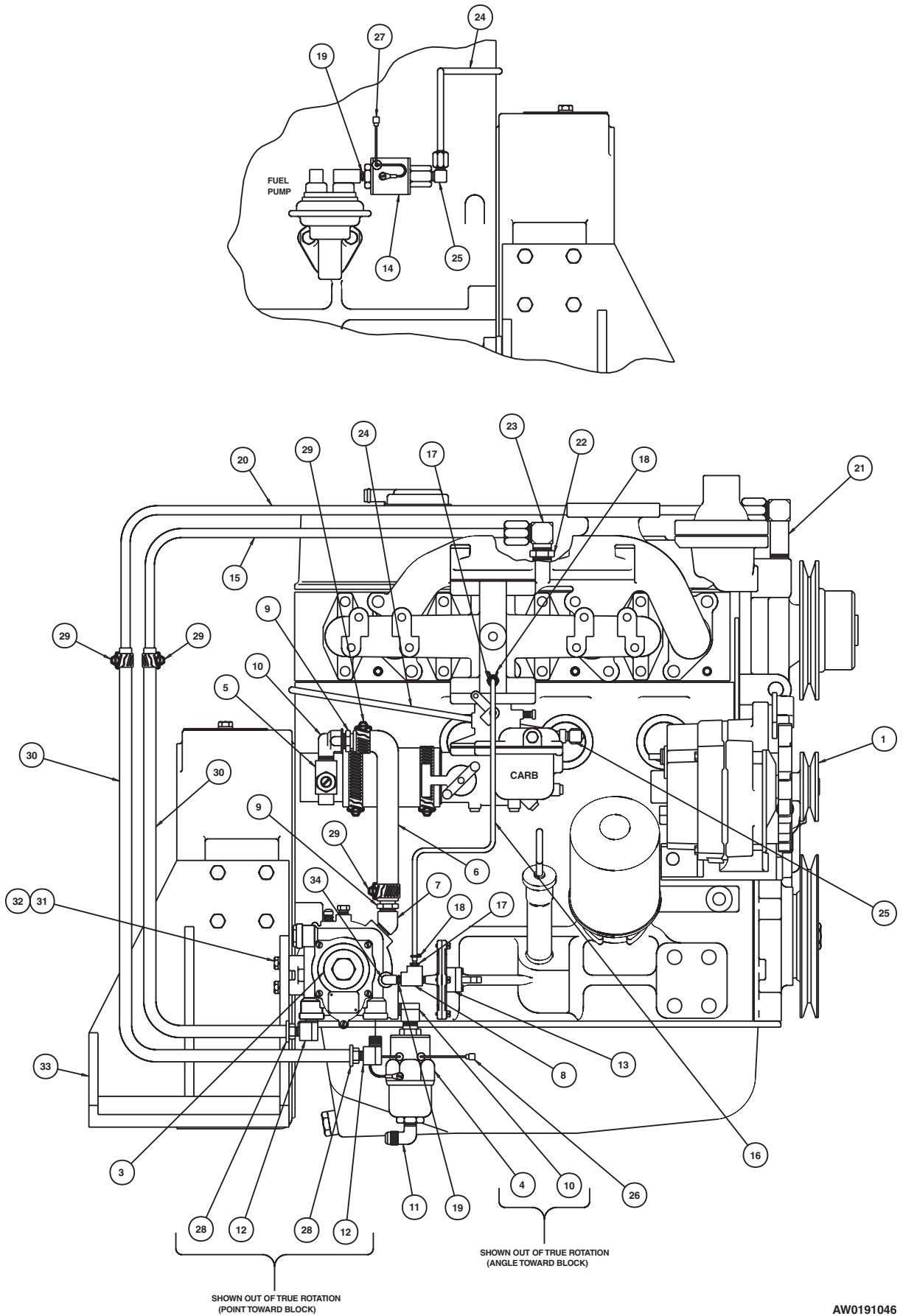
## LP fuel, Continental

item	part no	qty	description
1	0181249	1	LP fuel engine, Continental - (see page 4-16 for parts breakdown)
2	987119	8	Washer 3/8 medium lock
3	986299	8	Washer 3/8 medium flat
4	984109	8	Nut 3/8-16 hex
5	0073649	1	Diode wire
6	Kit Item	1	Hydrostatic relief valve - (included in dual fuel kit 0073444)
7	Kit Item	1	Bulk head tee - (included in dual fuel kit 0073444)
8	Kit Item	1	Connector 1/4 NPT x 3/8 tube, brass - (included in dual fuel kit 0073444)
9	0072177	2	LP gas fuel hose
10	0081553	4	Mounting bracket
11	9940005	1	LP gas cylinder, liquid withdrawal 43.5 lb capacity
12	0070969	2	Bracket, LP gas cylinder - (includes left and right hand brackets)
13	0070974	1	Coupler, female LPG
14	0081441	1	Placard, caution liquid withdrawal
15	5093004	4	Clamp
16	0080668	1	Relief valve mount bracket
17	5560655	4	Pop rivet #AD32-ABS
18	970029	3	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
19	987099	3	Washer 1/4 medium lock
20	986019	3	Washer 1/4 medium flat
21	970239	1	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
22	987109	1	Washer 5/16 medium lock
23	970479	8	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
24	0071530	1	Jumper wire

## Dual fuel engine, Continental

item	part no	qty	description
	0191046	1	Dual fuel engine, Continental
1	0190807	1	Engine, Continental - (see page 1-43 for parts breakdown)
2	0073444	1	Dual fuel kit, liquid cooled - (kit includes items 3 through 11)
3	Kit Item	1	Regulator - (not sold separately)
4	Kit Item	1	Filterlock - (not sold separately)
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	1	Street 3/8 NPT 45° elbow, brass - (not sold separately)
8	Kit Item	1	Street tee 1/8 NPT, brass - (not sold separately)
9	Kit Item	1	Hose adapter - (not sold separately)
10	Kit Item	1	Street 3/8 NPT 90° elbow, brass - (not sold separately)
11	Kit Item	1	Street 1/4 NPT 90° elbow, brass - (not sold separately)
12	5090021	1	Elbow 90° street 3/8 NPT brass
13	3020054	1	Vacuum switch - (included with engine)
	8130005	1	Replacement switch
14	5230005	1	Gasoline fuel shut-off valve
15	0111515	1	Coolant line 3/8 inch diameter
16	5010006	1	Vacuum hose, 1/4 inch diameter x 13 inch long
17	5090024	2	Vacuum fitting 1/8 NPT brass straight
18	5090026	2	Clamp
19	5090011	2	Nipple 1/8 NPT brass
20	0111514	1	Coolant line 3/8 inch diameter
21	5031815	1	Elbow 90° male 3/8 NPT
22	7720403	1	Reducer bushing 1/2NPT x 3/8 NPT
23	5033709	1	Male 90° elbow
24	0111513	1	Fuel line 1/4 inch diameter
25	5090013	2	Elbow 90° male 1/8 NPT brass
26	3040083	1	Terminal .250 tab female slip-on fully insulated 16/14 wire
27	3040047	1	Terminal .250 tab female slip-on fully insulated 22/18 wire
28	5054601	2	Adapter 1/4 NPT x 3/8 hose
29	5550010	4	Clamp
30	5010005	1	Hose x 21 inch long
31	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
32	987099	2	Washer 1/4 medium lock
33	0181070	1	Motor mount, rear right hand
34	5090006	1	Street 90° elbow, 1/8 NPT

# Dual fuel engine, Continental



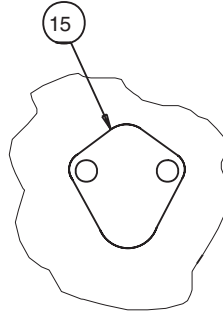
AW0191046

## LP fuel engine, Continental

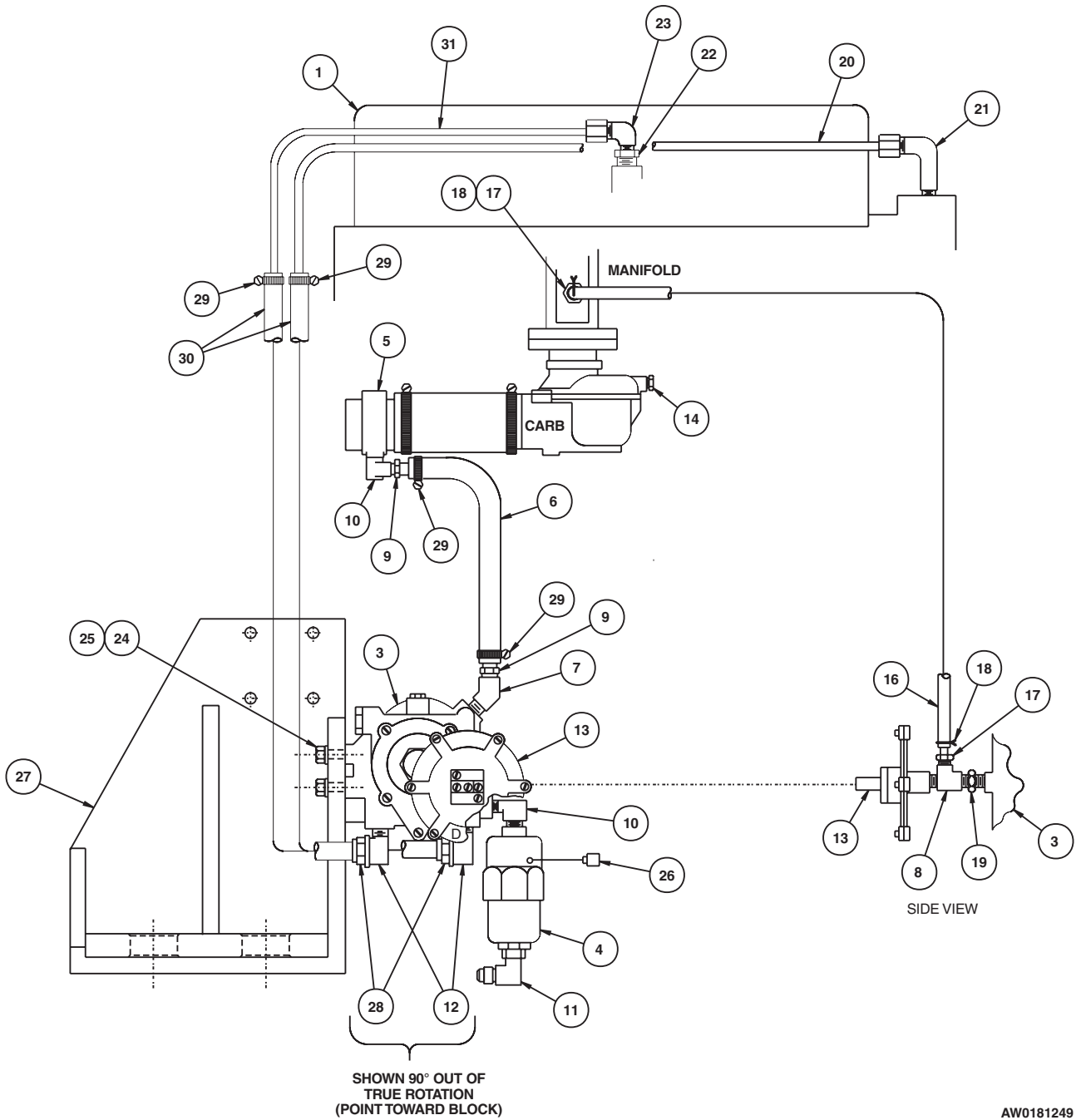
item	part no	qty	description
	0181249	1	LP fuel engine, Continental
1	0190807	1	Engine, Continental - (see page 1-43 for parts breakdown)
2	0073444	1	Dual fuel kit, liquid cooled - (kit includes items 3 through 1)
3	Kit Item	1	Regulator - (not sold separately)
4	Kit Item	1	Filterlock - (not sold separately)
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	1	Street 3/8 NPT 45° elbow, brass - (not sold separately)
8	Kit Item	1	Street tee 1/8 NPT, brass - (not sold separately)
9	Kit Item	1	Hose adapter - (not sold separately)
10	Kit Item	1	Street 3/8 NPT 90° elbow, brass - (not sold separately)
11	Kit Item	1	Street 1/4 NPT 90° elbow, brass - (not sold separately)
12	5090021	2	Elbow 90° street 3/8 NPT brass
13	3020054	1	Vacuum switch - (included with engine)
	8130005	1	Replacement switch
14	7714201	1	Pipe plug 1/8 NPT square head
15	0181250	1	Cover
16	5010006	1	Vacuum hose, 1/4 inch diameter x 13 inch long
17	5090024	2	Vacuum fitting 1/8 NPT brass straight
18	5090026	2	Clamp
19	5090011	1	Nipple 1/8 NPT brass
20	0111514	1	Coolant line 3/8 inch diameter
21	5031815	1	Elbow 90° male 3/8 NPT
22	7720403	1	Reducer bushing 1/2NPT x 3/8 NPT
23	5033709	1	Male 90° elbow
24	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
25	987099	2	Washer 1/4 medium lock
26	3040083	1	Terminal .250 tab female slip-on fully insulated 16/14 wire
27	0181070	1	Motor mount, rear right hand
28	5054601	2	Adapter 1/4 NPT x 3/8 hose
29	5550010	4	Clamp
30	5010005	1	Hose x 21 inch long
31	0111515	1	Coolant line 3/8 inch diameter



# LP fuel engine, Continental



FUEL PUMP REMOVAL  
(FAR SIDE OF ENGINE)



AW0181249

## Headlights and taillights

item	part no	qty	description
1	3067619	2	Headlight, halogen flood
2	3060017	2	Light, turn signal
3	3020013	1	Switch, toggle
4	3060018	1	Flasher base
5	3060019	1	Flasher
6	0181376	1	Placard, light switch
7	3040469	1	Relay, 12 volt DC
8	0073250	2	Jumper wire
9	0071589	1	Jumper wire
10	0072418	1	Jumper wire
11	0151817	1	Jumper wire
12	3011201	1	Wire 12 gauge single conductor x 50 feet long
13	3040065	8	Terminal .250 tab female slip-on fully insulated 12/10 wire
14	3040064	6	Terminal .250 tab male slip-on fully insulated 12/10 wire
15	3044852	1	Terminal ring tongue insulated 12/10 wire
16	5560692	8	Machine screw #10-24 x 1 inch long pan head
17	5560034	11	Nut #10-24 self locking
18	5560609	1	Machine screw #10-24 x 1/2 inch long truss head
19	974679	2	Machine screw #10-24 x 5/8 inch long round head
20	3090006	1	Flexgard tube, 50 feet long
21	5093001	4	Clamp

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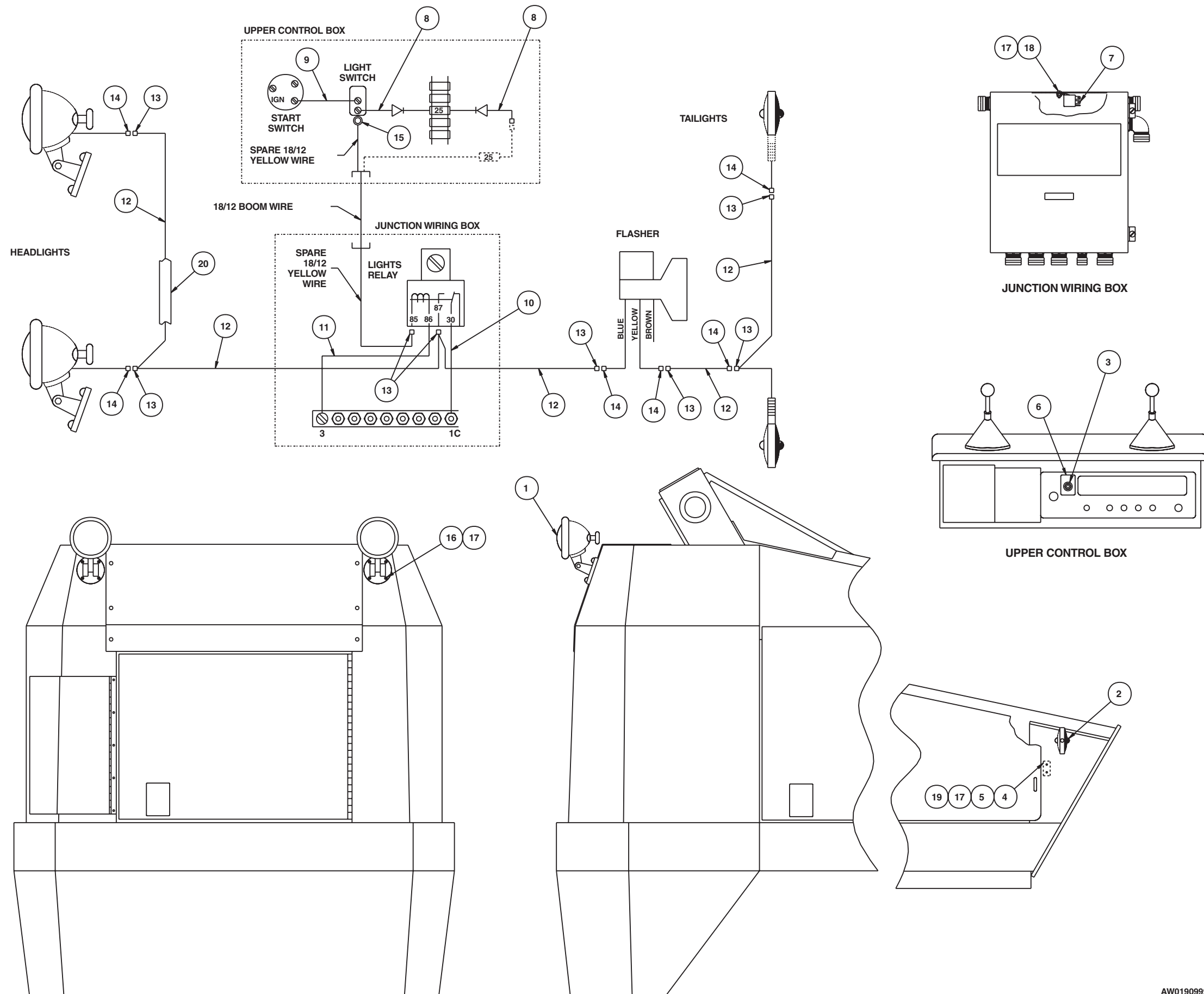
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AW0190999

TITLE Headlights and tailights

DWG. 0190099

Snorkel model PRO 100



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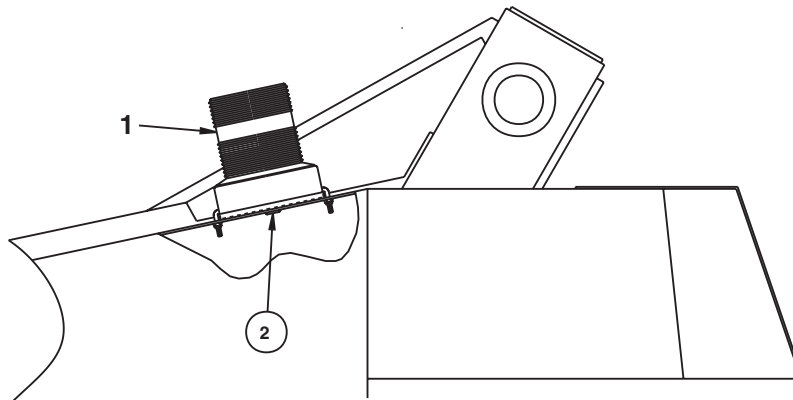
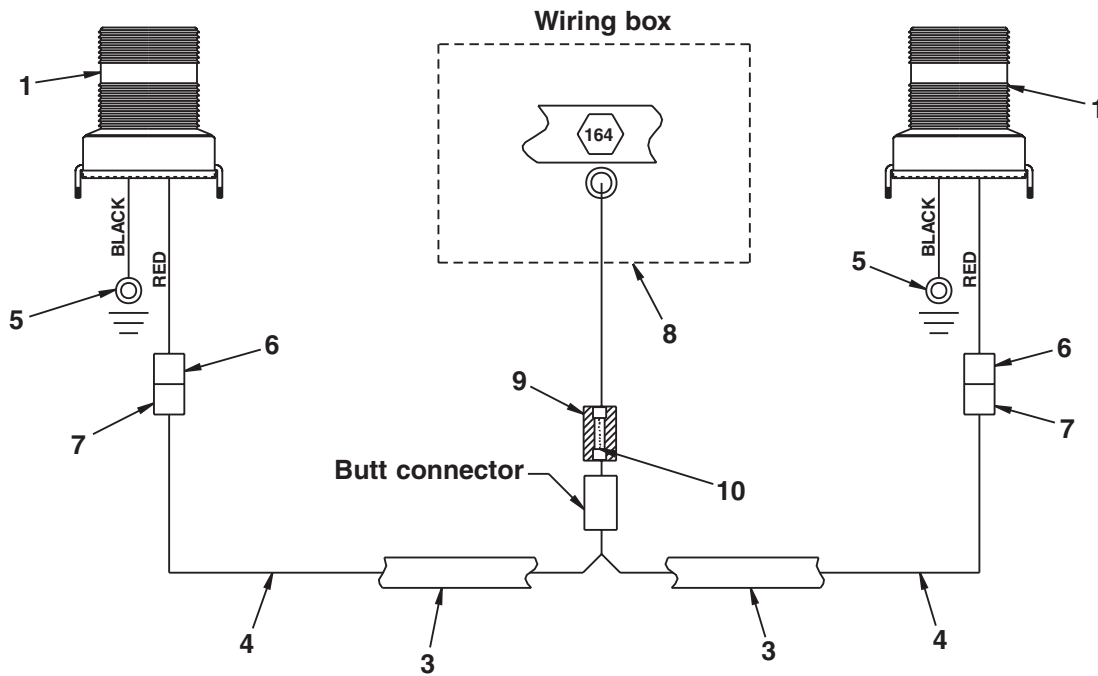


## Hydraulic warm-up

item	part no	qty	description
1	3020078	1	Temperature switch
2	3040092	1	Terminal strip, 6 circuit slip-0n
3	0191435	1	Placard, warm-up at lower controls
4	3020013	2	Switch, toggle
5	0071793	1	Decal, hydraulic warm-up instructions
6	0191436	1	Placard, warm-up at upper controls
7	0070746	1	Jumper wire
8	0181285	1	Diode jumper wire
9	0181398	1	Diode jumper wire
10	3040047	4	Terminal .250 tab female slip-on fully insulated 22/18 wire
11	3046972	1	Terminal .188 tab female slip-on insulated 22/18 wire
12	3044145	2	Terminal #8 stud insulated 22/18 wire
13	3044146	1	Terminal #10 stud insulated 22/18 wire
14	3044142	2	Terminal #6 stud insulated 22/18 wire
15	3090006	1	Flexgard tube, 23 feet long
16	3011801	1	Wire 18 gauge single conductor x 25 feet long
17	0071844	1	Jumper wire
18	0150951	1	Diode jumper wire - (includes 3040293 diode)
19	3040046	1	Terminal .250 tab male slip-on fully insulated 22/18 wire

# Beacon, dual amber

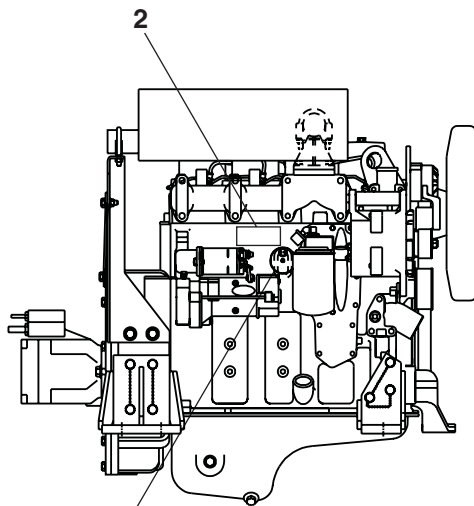
item	part no	qty	description
1	3060043	2	Beacon, amber lens
2	5569711	2	Grommet
3	3090019	1	Flexgard tube, 216 inch long
4	3011601	1	Wire, 16 gauge single conductor x 120 feet long
5	3044162	2	Terminal 1/4 stud insulated 16/14 wire
6	3040083	2	Terminal .250 tab female slip-on fully insulated 16/14 wire
7	3040082	2	Terminal .250 tab male slip-on fully insulated 16/14 wire
8	3044161	2	Terminal #10 stud insulated 16/14 wire
9	3040038	1	Fuse holder, in-line
10	3040039	1	Fuse, 10 amp capacity



AW0190096

# Engine block heater

item	part no	qty	description
1	7630289	1	Engine block heater with cord, Cummins 4B engine
	7630276	1	Engine block heater with cord, Continental TM-27 engine
2	0181634	1	Decal, engine block heater



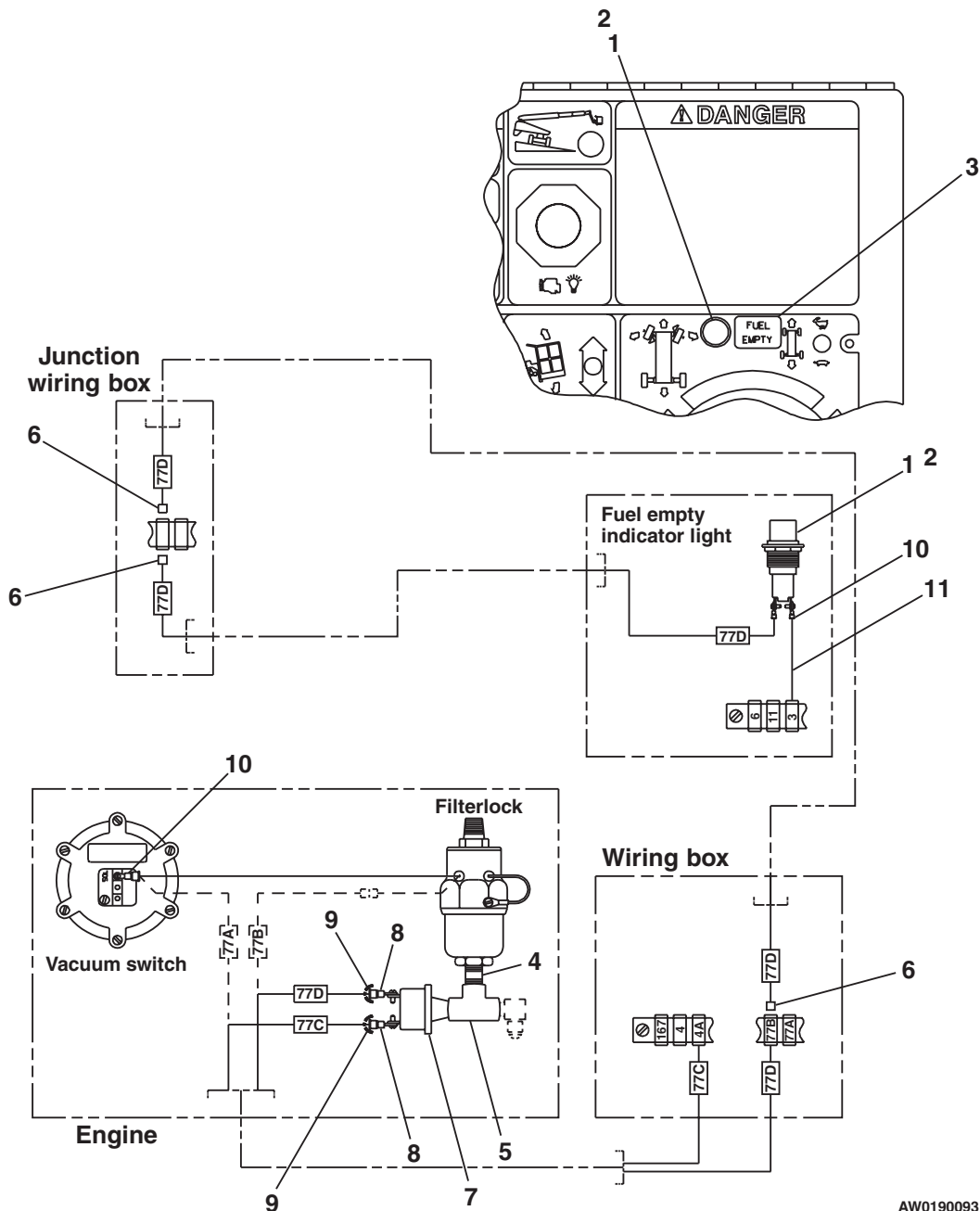
1 - install with element pointed down as shown

Cummins 4B engine

AWM00235

# Fuel empty indicator

item	part no	qty	description
1	3060079	1	Indicator light
2	3061815	1	Light bulb
3	0181571	1	Placard, fuel empty
4	5090043	1	Close nipple 1/4 NPT
5	5090042	1	Street tee 1/4 NPT
6	3046972	3	Terminal .188 tab female slip-on insulated 22/18 wire
7	3020116	1	Pressure switch, 40 psi
8	3044161	2	Terminal #10 stud insulated 16/14 wire
9	3040452	2	Insulator boot
10	3044142	2	Terminal #6 stud insulated 22/18 wire
11	0073542	1	Jumper wire

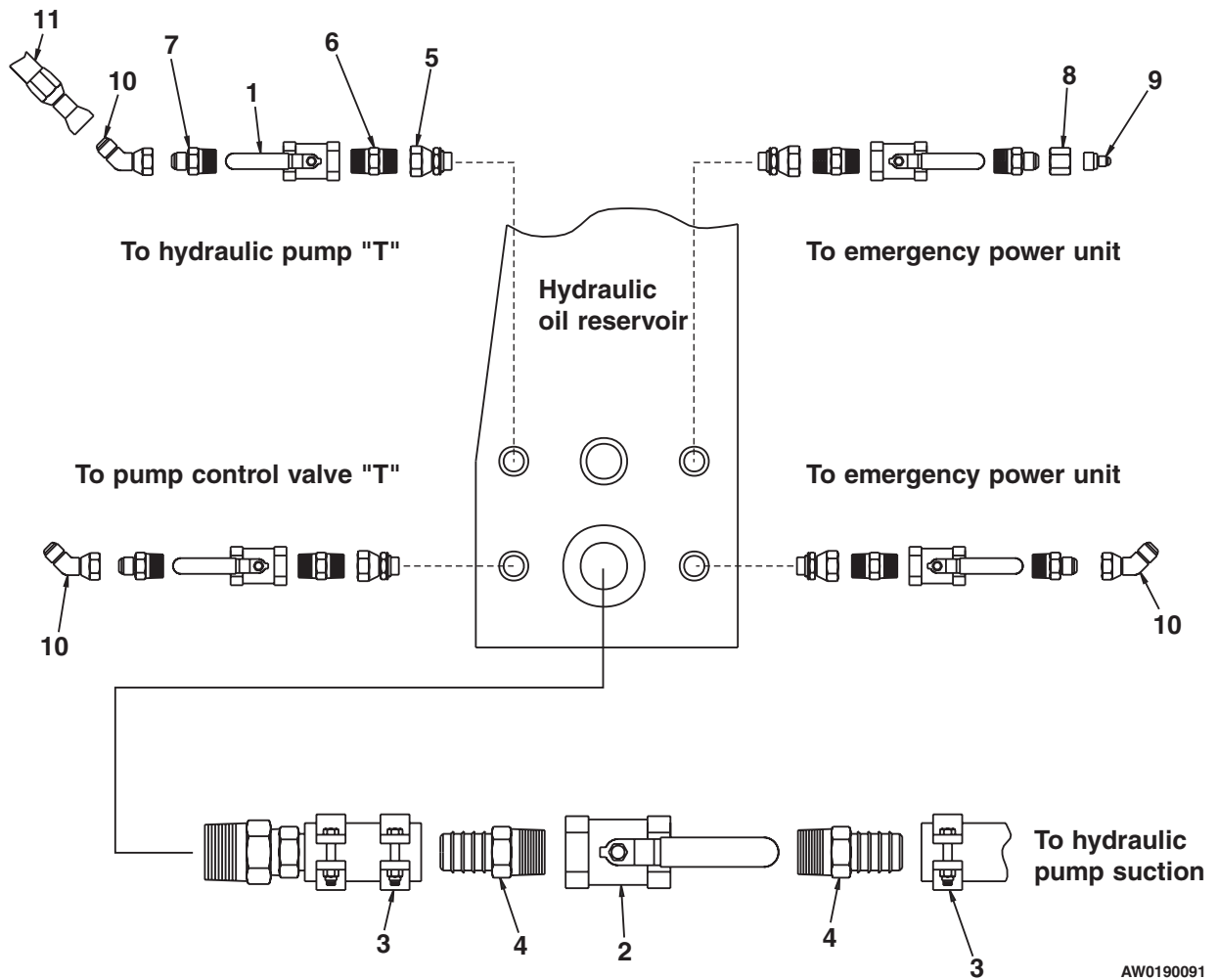


AW0190093



## Isolation valve

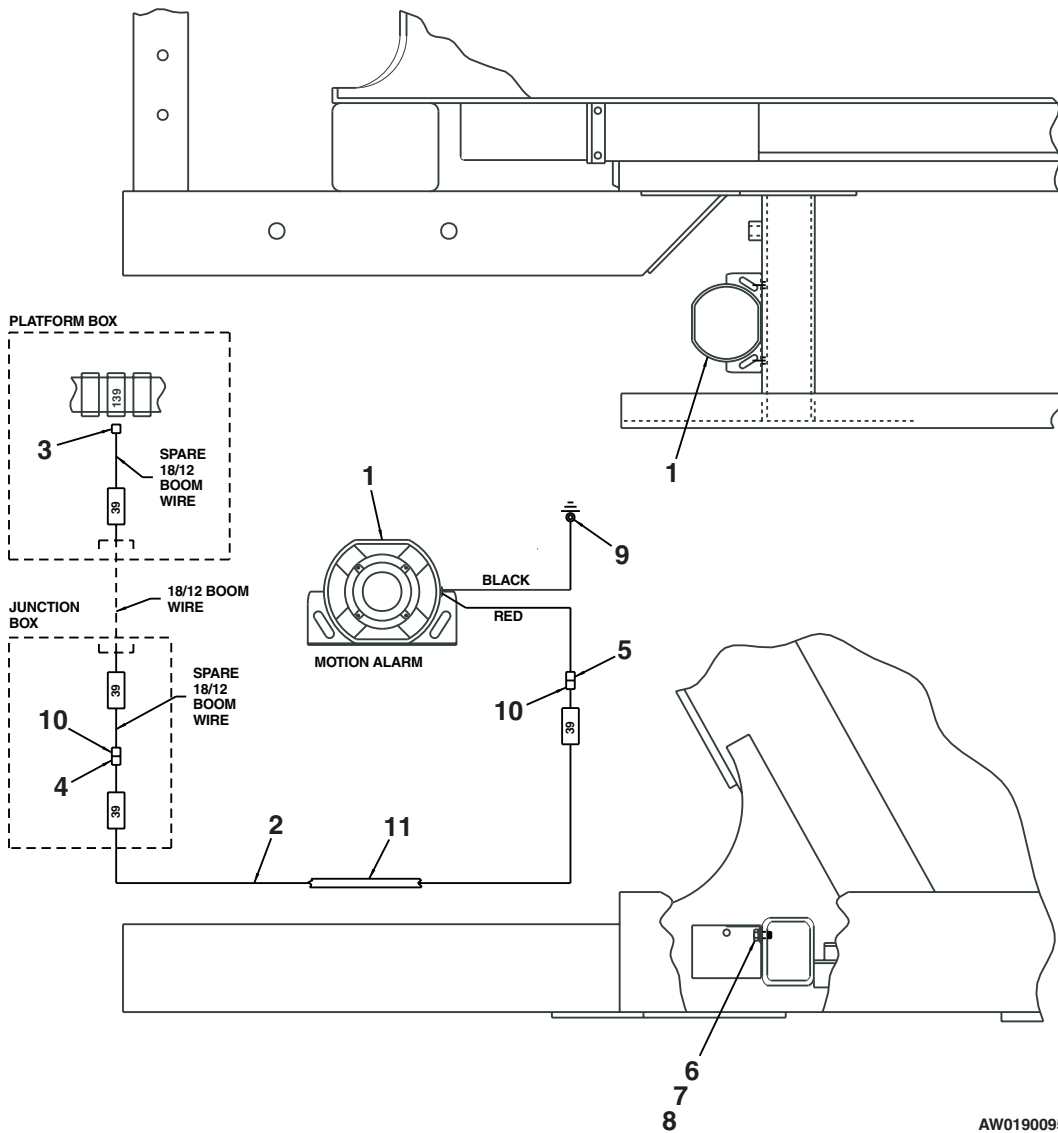
item	part no	qty	description
1	6010495	4	Ball valve, 3/4 NPT
2	6010498	1	Ball valve, 1-1/2 NPT
3	5058824	2	Clamp, suction hose
4	5037305	2	Straight connector
5	5022903	4	Adapter union, 3/4 NPT
6	5060505	4	Male pipe nipple, 3/4 NPT
7	5033615	4	Male adapter
8	5063906	1	Fitting nut
9	5064002	1	Tube end reducer
10	5036906	3	Swivel nut 45° elbow
11	0070927	1	1/2 inch hydraulic hose



AW0190091

# Motion alarm, drive

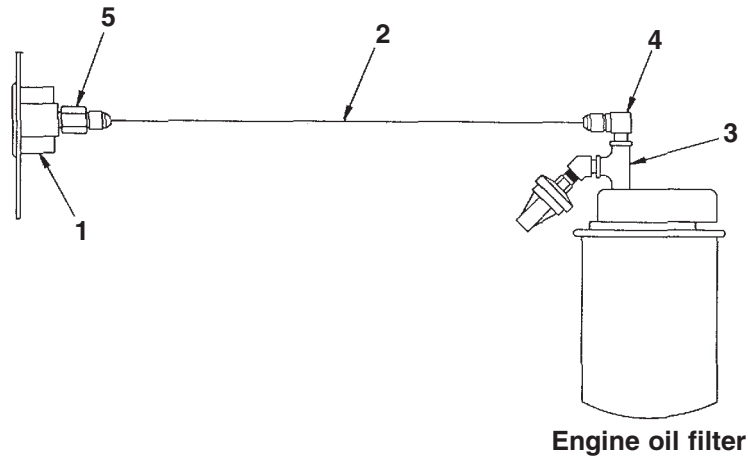
item	part no	qty	description
1	3040129	1	Motion warning alarm, standard
2	3011801	1	Wire 18 gauge single conductor x 72 feet long
3	3046972	1	Terminal .188 tab female slip-on insulated 22/18 wire
4	3040046	1	Terminal .250 tab male slip-on fully insulated 22/18 wire
5	3040082	1	Terminal .250 tab male slip-on fully insulated 16/14 wire
6	970239	1	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
7	987109	2	Washer 5/16 medium lock
8	986269	2	Washer 5/16 medium flat
9	3044163	2	Terminal ring tongue insulated 16/14 wire
10	3040047	1	Terminal .250 tab female slip-on fully insulated 22/18 wire
11	3090019	2	Flexgard tube, 60 inch long



AW0190095

## Oil pressure gauge, Cummins

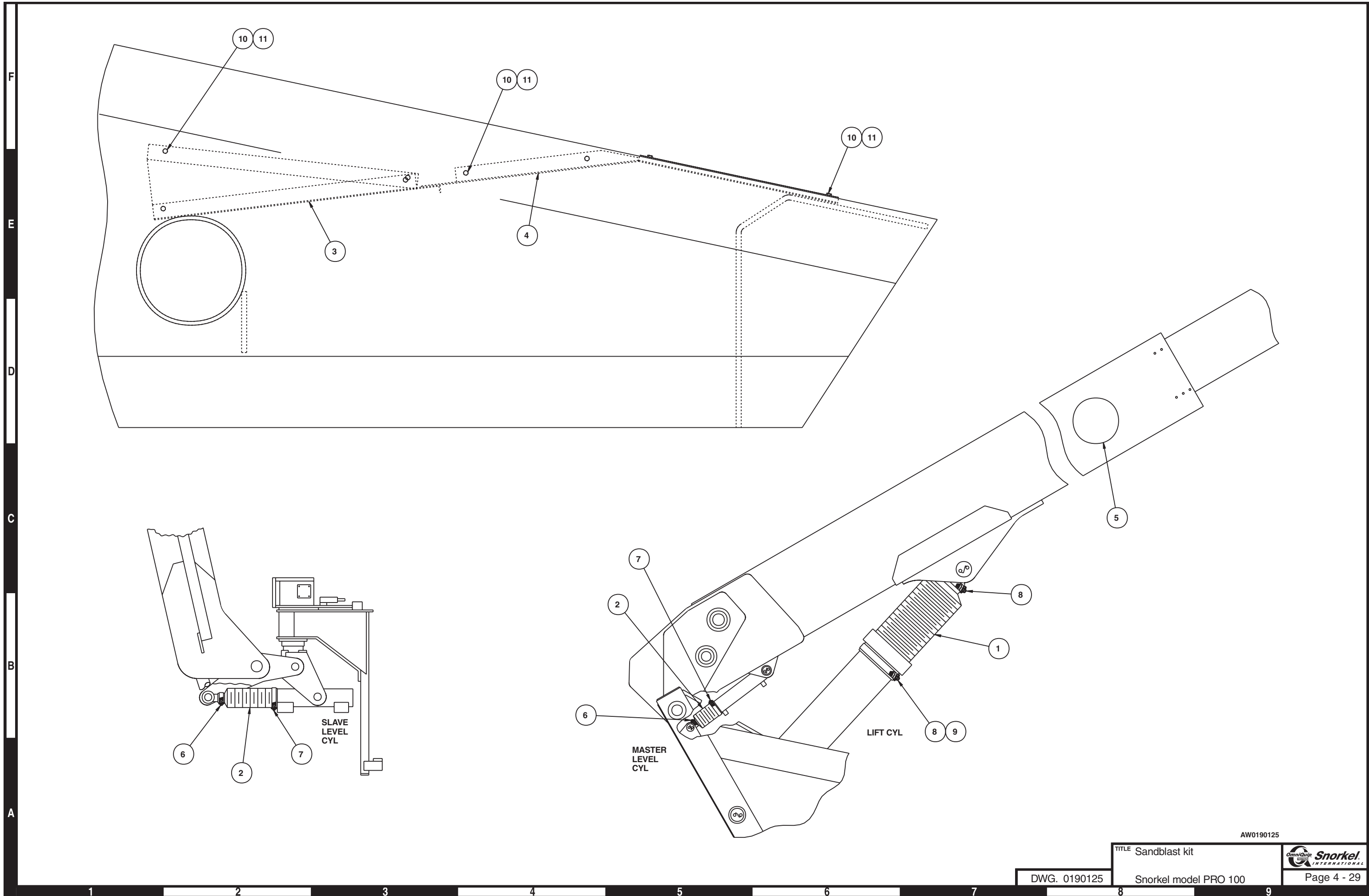
item	part no	qty	description
1	5210009	1	Oil pressure gauge
2	0070772	1	1/4 inch hydraulic hose
3	5090018	1	Pipe tee
4	5033703	1	Male 90° elbow
5	5038801	1	Female adapter



AW0190126

## Sandblast kit

item	part no	qty	description
1	0191459	1	Bellows, lift cylinder
2	0181159	2	Bellows, slave level cylinder
3	0191059	1	Cover, turntable
4	0191060	1	Cover, turntable
5	0191061	20	Cover, base boom
6	5550020	2	Clamp
7	5550050	2	Clamp
8	5550105	2	Clamp
9	5550152	1	Clamp
10	970029	12	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
11	987099	12	Washer 1/4 medium lock



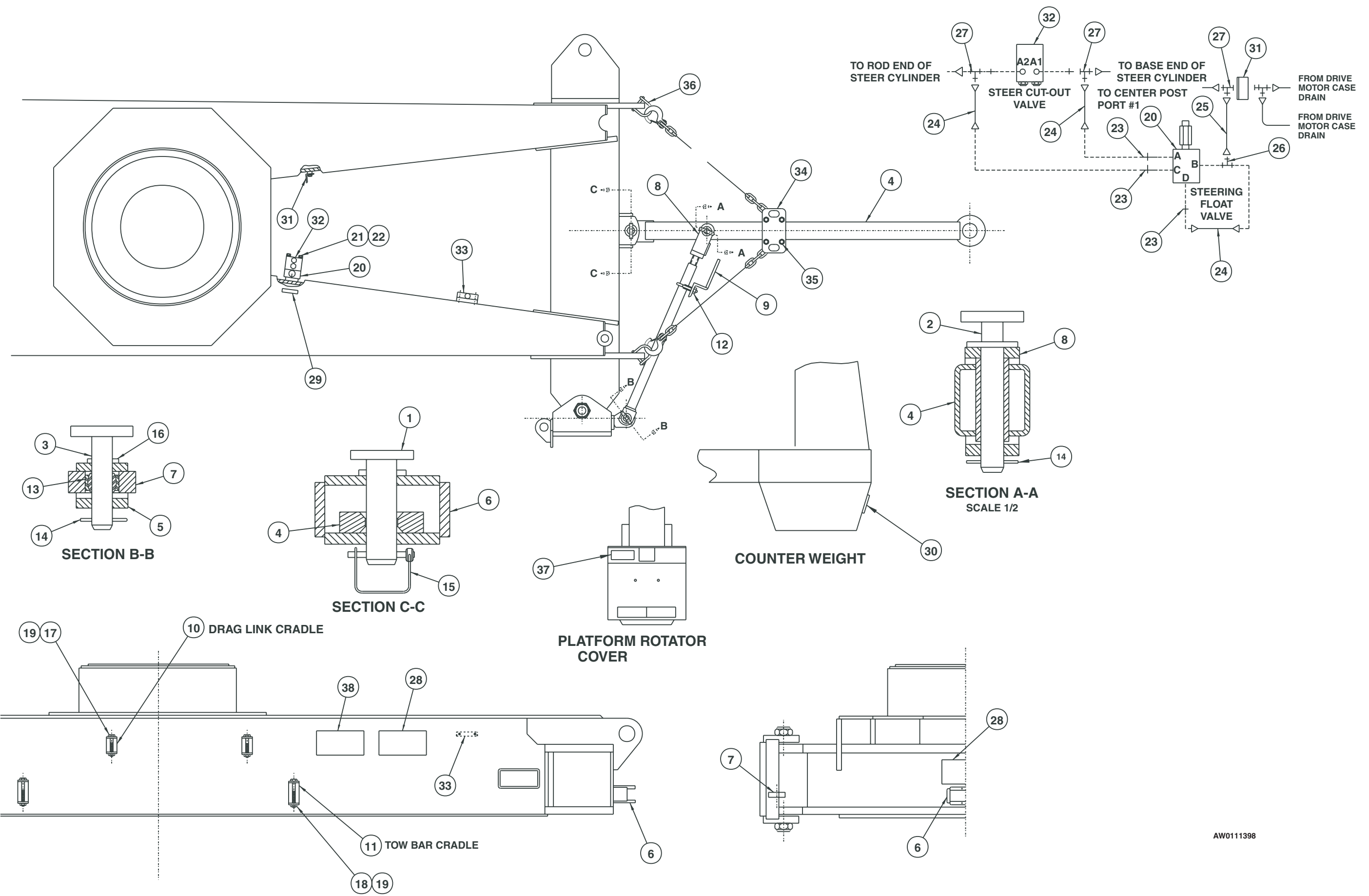
AW0190125

TITLE Sandblast kit	
Snorkel model PRO 100	

DWG. 0190125

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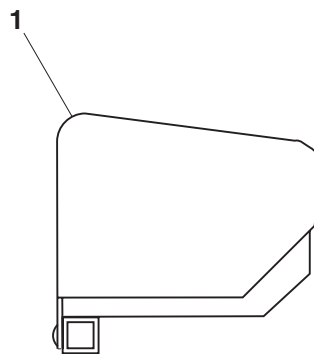
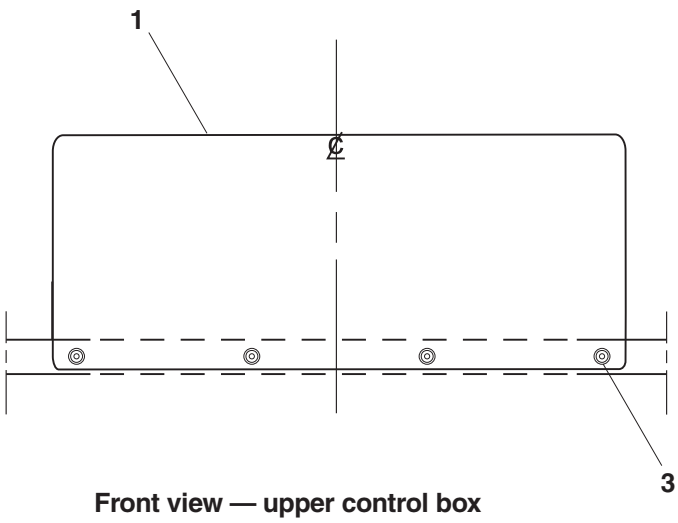
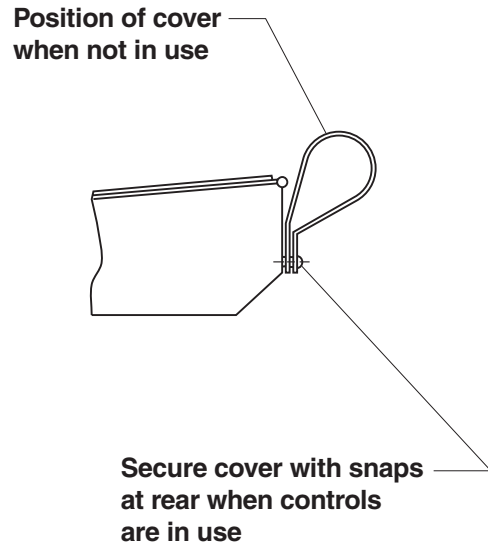
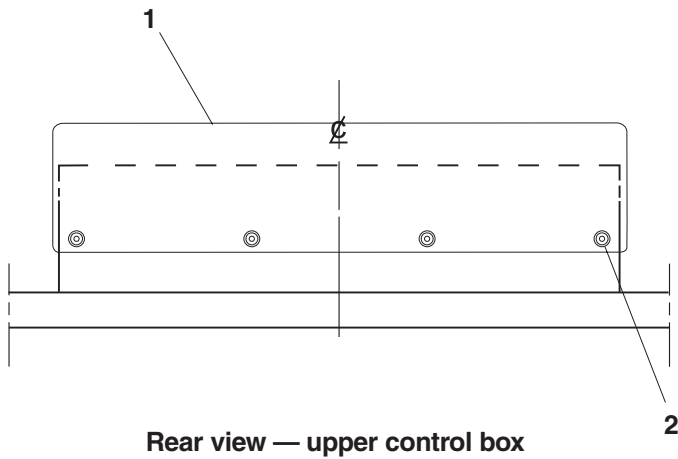
AW0111398

## 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
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 2-86 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	0191315	1	Cover, upper control box
2	5560657	4	Pop rivet 1/8 inch aluminum #RVT-AD48 ABS
3	5560656	4	Pop rivet 1/8 inch aluminum #RVT-AD46 ABS



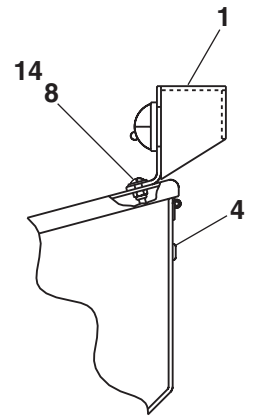
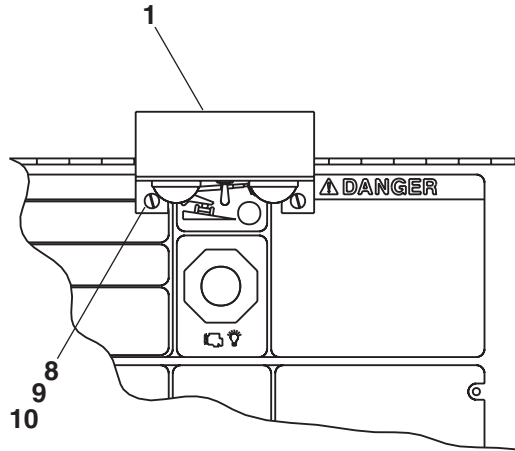
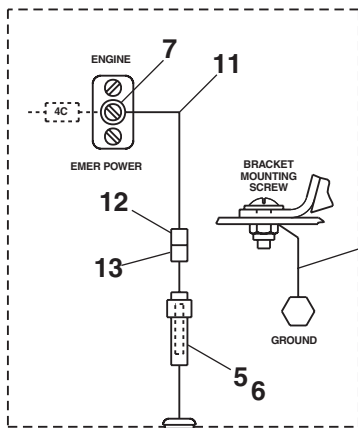
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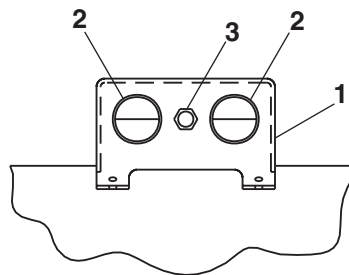
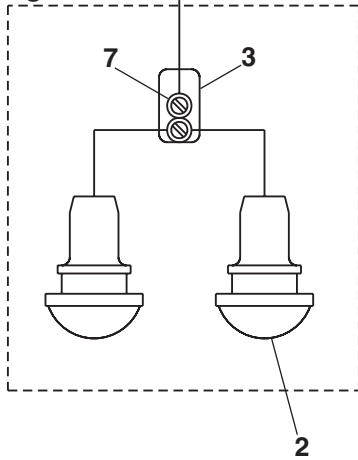
# Upper control box lights

item	part no	qty	description
1	0072004	1	Light bracket
2	3060008	2	Light
3	3020013	1	Switch, toggle
4	5569003	1	Grommet
5	3040038	1	Fuse holder, in-line
6	3040039	1	Fuse, 10 amp capacity
7	3044158	4	Terminal #6 stud insulated 16/14 wire
8	5560703	2	Washer #10 star tooth lock
9	5560648	2	Machine screw #10-24 x 3/4 inch long truss head
10	5560034	2	Nut #10-24 self locking
11	3011601	1	Wire, 16 gauge single conductor x 12 inch long
12	3040083	1	Terminal .250 tab female slip-on fully insulated 16/14 wire
13	3040082	1	Terminal .250 tab male slip-on fully insulated 16/14 wire
14	0151815	1	Jumper wire

Upper control box



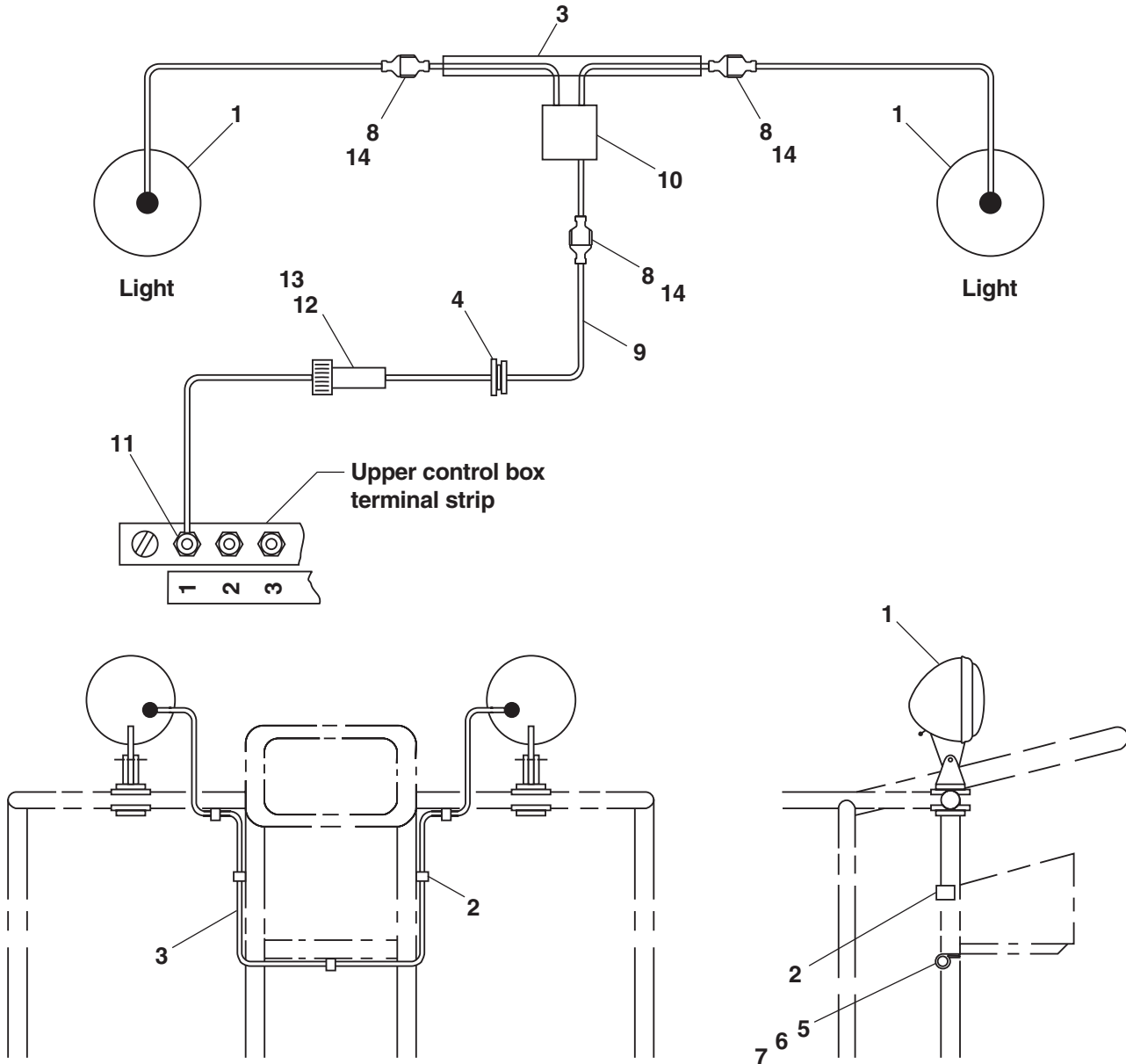
Light bracket



AW0190092

# 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	Hose 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 slip-on 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 slip-on fully insulated 16/14 wire



AW0080768

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# 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





## 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 Daily Maintenance and 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
Platform rotator hydraulic power unit	Check fluid level and operation
Envelope management system <i>EMS</i>	Check operation as outlined on page 6
Placards and decals	Visually inspect (installation, condition)

## Maintenance schedules

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

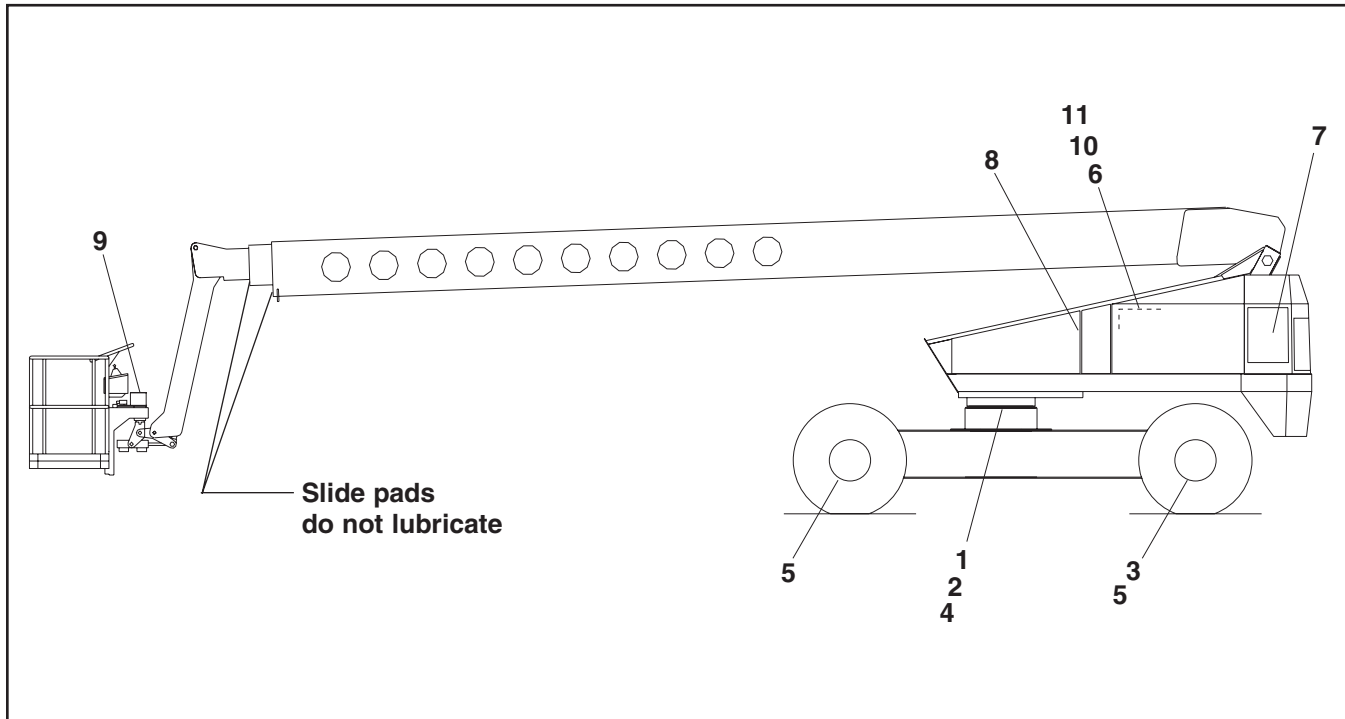
Components	Service Required	Recommended Lubricant or Further Instructions
Daily maintenance	Perform maintenance as per schedule	
Preventive inspection maintenance checklist	Perform inspection, complete form	Retain copy of checklist
Placards and decals inspection	Inspect using drawing and parts listing 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
Platform rotator hyd. power unit	Replace fluid	Mobil Mobilube HD 80W-90
Front wheel bearings (two wheel drive machines)	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 of the PRO 100.

## 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 lower control box.

## 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

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

## Gear hubs

Gear hubs (item 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.

## Service information

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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.

### **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.

## Engines

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.): On PRO 100 models, the hydraulic oil return filter is located in the cowling 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 90 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.

## Service information

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### Boom/Axle Interlock System Inspection:

If following inspection of the unit reveals the systems are not functioning properly, **DO NOT** allow personnel to operate the unit in an elevated position until the problem has been located and corrected. **DEATH** or serious **INJURY** of personnel may occur, if the unit should become unstable and overturn.

### Boom/axles Stowed Platform Interlock System:

The Boom/Axle interlock system is designed to prevent raising or extending the boom unless axle is extended and lock pin is in place and to prevent retracting the axle unless the boom is in the stowed (travel) position (retracted and down). The Boom/Axle interlock system is to be checked 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 axle retracted.

With axle retracted, boom down and retracted, Boom/Axles switch on "BOOM", Platform/Ground switch in either position, raise boom and check for automatic stop slightly above horizontal. Lower boom. Extend boom and check for automatic stop at approximately seven (7) feet of extension. Retract boom.

#### Limited lift and extend with axle extended and not pinned.

With axle extended, boom down and retracted, Boom/Axles switch on "Boom", Platform/Ground switch in either position, and lock pin not in place, raise boom and check for automatic stop slightly above horizontal. Lower boom. Extend boom and check for automatic stop at approximately seven (7) feet of extension. Retract boom.

#### Axle system inoperative with boom in working position.

With axle extended and locked, Boom horizontal and extended approximately ten (10) feet, Boom/Axles switch on "Axles", Platform/Ground switch on "Ground", check that you cannot raise or retract axle.

#### Boom/Axles switch operation.

Axle and boom may be in any position. Platform/Ground switch on "Ground", check that when switch is set on "Axles" the boom cannot be raised beyond horizontal or extended beyond seven (7) feet and that no other boom function operate. When the switch is set on "Boom" that the axles system in inoperative (cannot lift or extend axles).

### Envelope Management System (EMS):

Use the following procedures to assure that the EMS system is operating properly prior to use of the unit by operating personnel.

1. Disconnect primary boom angle transducer, primary EMS should error out. **ONLY** boom retract should function until inside boom speed switch, then **ONLY** boom lower should function.
2. Disconnect primary boom angle transducer, primary EMS should error out. **ONLY** boom retract should function until inside boom speed switch, then **ONLY** boom lower should function.
3. Disconnect primary boom angle transducer, primary EMS should error out. **ONLY** boom retract should function until inside boom speed switch, then **ONLY** boom lower should function.
4. Disconnect backup boom angle transducer, backup EMS should error out then the primary EMS should error out. **ONLY** boom retract should function until inside boom speed switch, then **ONLY** boom lower should function.
5. Pull out three (3) feet of primary boom length transducer string, primary EMS should error out, boom elevation and extension functions should not work.
6. With boom retracted and horizontal, open manual bleed down valve. Primary EMS should error out, boom elevation and extension functions should not work.
7. Power up EMS and let unit sit for ten (10) to fifteen (15) minutes without operating booms; Backup EMS should give five (5) quick beeps once every minute.
8. Without depressing foot switch, hold Raise/Lower or Extend/Retract controller full on; Boom should not move and EMS should error out within thirty (30) seconds.

If the EMS system is not operating properly, follow the procedures outlined in the ENVELOPE MANAGEMENT SYSTEM (EMS) CALIBRATION MANUAL for your unit to recalibrate the system to proper working order.

Recalibration of your unit will require the following test wire harnesses:

- Part no. 0191024 – 2 way test harness
- Part no. 0191025 – 3 way test harness

# Preventive inspection maintenance

## 90 day or 150 hour checklist

OK	OK - No Service Required
✓	Corrective Action Required
X	Corrected, (Record description of corrective action).

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

Inspection Procedures Codes
(1) Weld cracks, dents and/or rust
(2) Installation
(3) Leaks
(4) Operation
(5) Condition
(6) Tightness
(7) Residue buildup
(8) See placards and decals inspection chart





Check	OK	✓	X
<b>Chassis</b>			
Structural (1)			
Steering cylinder pin caps (2,6)			
Steering linkage (4)			
Tires (5)			
Hydraulic tubes and hoses (3,5)			
Decals and placards (2,8)			
Axle lock pin (2)			
Axle interlock cam valve (4)			
Jacking and axle extend cylinder (3,4,6)			
Jacking cylinder holding valve (4)			
Drive motor brake (4)			
Torque all wheel lug nuts per placard on wheel (6)			
Right drive motors (3)			
Left drive motors (3)			
Lubrication points			
<b>Turntable</b>			
Structural (1)			
Torque turntable top bolts @475 ft. lbs. (6)			
Torque turntable bottom bolts @350 ft. lbs. (6)			
Hydraulic tubes and hoses (3,5)			
Centerpost (3)			
Centerpost securing bolts (6)			
Lift cylinder pin caps and tie wire (2,6)			
Lift cylinder and holding valves (3,4)			
Emergency bleed down valve (4)			
Cowling (5,6)			
Wire harness (2,5)			
Decals and placards (2,8)			
Master level cylinder pin caps and tie wire (2,6)			
Master level cylinder and holding valves (3,4)			
Rotation brake (4)			
Rotation backlash (5)			
Correct operators manual in document holder			
System pressure			
Lubrication points			
<b>Lower control station</b>			
Station selector switch - ground controls platform controls DO NOT work (4)			
Station selector switch - platform controls ground controls DO NOT work (4)			
Ground control switches (4)			
Turntable rotation (4)			
Boom UP - DOWN (4)			
Boom extension IN - OUT (4)			
Platform leveling UP - DOWN (4)			
Emergency power, all functions (4)			
Platform rotation (4)			

Check	OK	✓	X
<b>Lower control station (continued)</b>			
Boom/axle selector switch - ground and platform controls DO NOT work when in axle position (4)			
Emergency bleed down (4)			
Emergency shutdown control (4)			
<b>Booms</b>			
Structural (1)			
Lift cylinder pin caps and tie wire (2,6)			
Hydraulic hoses and tubes (3,5)			
Extension cylinder pin caps and tie wire (2,6)			
Extension cylinder and holding valve (3,4)			
Hose carrier tube (7)			
Hose carrier support (7)			
Plastic hose track (5)			
Electrical wires (5)			
Extend/retract wire ropes (2,5,6)			
Decals and placards (2,8)			
<b>Platform</b>			
Structural (1)			
Decals and placards (2,8)			
Gravity gate (4)			
Hydraulic hoses and tubes (3,5)			
Slave level cylinder pin caps and tie wire (2,6)			
Slave level cylinder and holding valve (3,4)			
Platform mounting bolts (2,6)			
<b>Platform rotator</b>			
Structural (1)			
Hydraulic rotator actuator (3)			
Platform rotation holding valve (4)			
Mounting bolts and pin caps (2,6)			
<b>Envelope management system EMS</b>			
Boom angle transducer (4,5)			
Boom length transducers (4,5)			
Primary EMS harness (5)			
Backup EMS harness (5)			
<b>Upper control station</b>			
Foot switch, unit will not start when engaged (4)			
Foot switch, functions operate when engaged (4)			
Engine START-STOP (4)			
Electric throttle (4)			
Turntable rotation (4)			
Boom UP - DOWN (4)			
Boom extension IN-OUT (4)			
Platform leveling UP-DOWN (4)			
Platform rotation (4)			
Drive range HIGH-LOW (4)			
Emergency power, all functions (4)			
Emergency shutdown control (4)			
Gradual start to stop, lift/swing/drive controls (4)			
Speed limit switch, 2 speed lift and swing (4)			
Speed limit switch, drive (4)			
Auto retract of jacking cylinder when driving (4)			
Boom/axle interlock system (4)			
Tilt alarm (4)			
110 volt AC power to platform (2,4)			
Horn (4)			





## 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.
<b>BOLT SIZE</b>	<b>RECOMMENDED TORQUE VALUES (FT · LBS)</b>			
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.



F

E

D

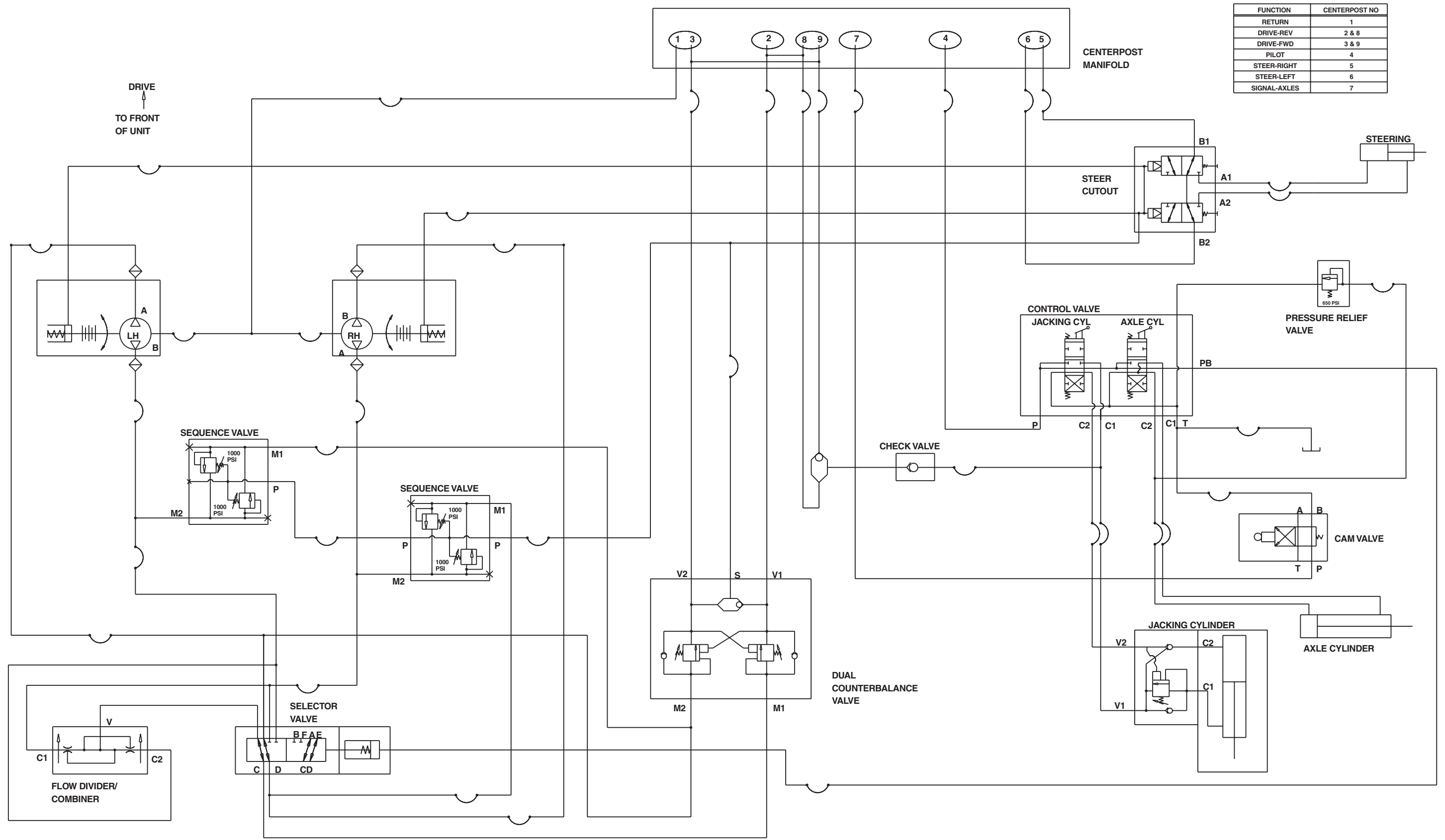
C

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

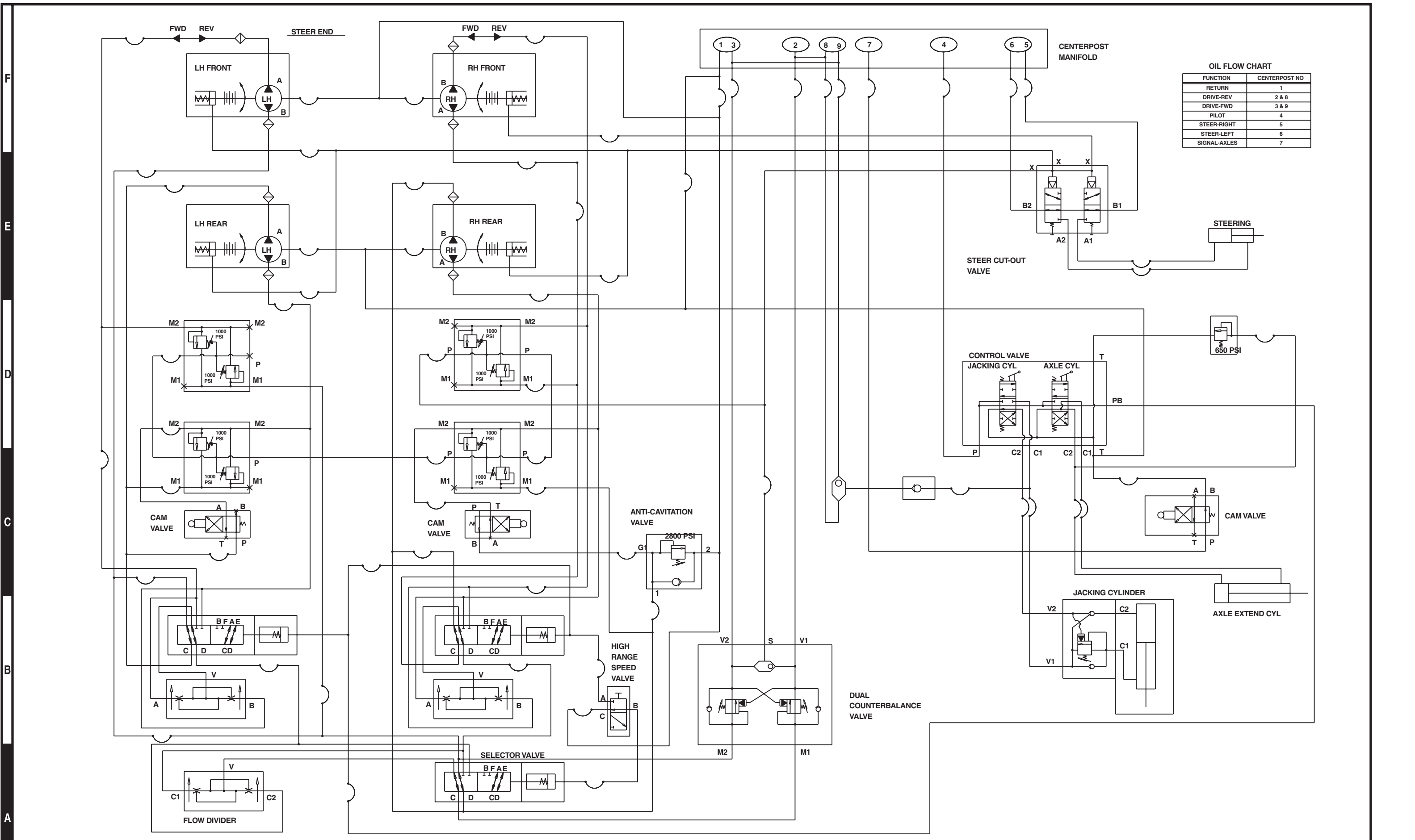


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TITLE Hydraulic schematic  
 chassis - 2 wheel drive  
 Snorkel model PRO 100



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**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

F

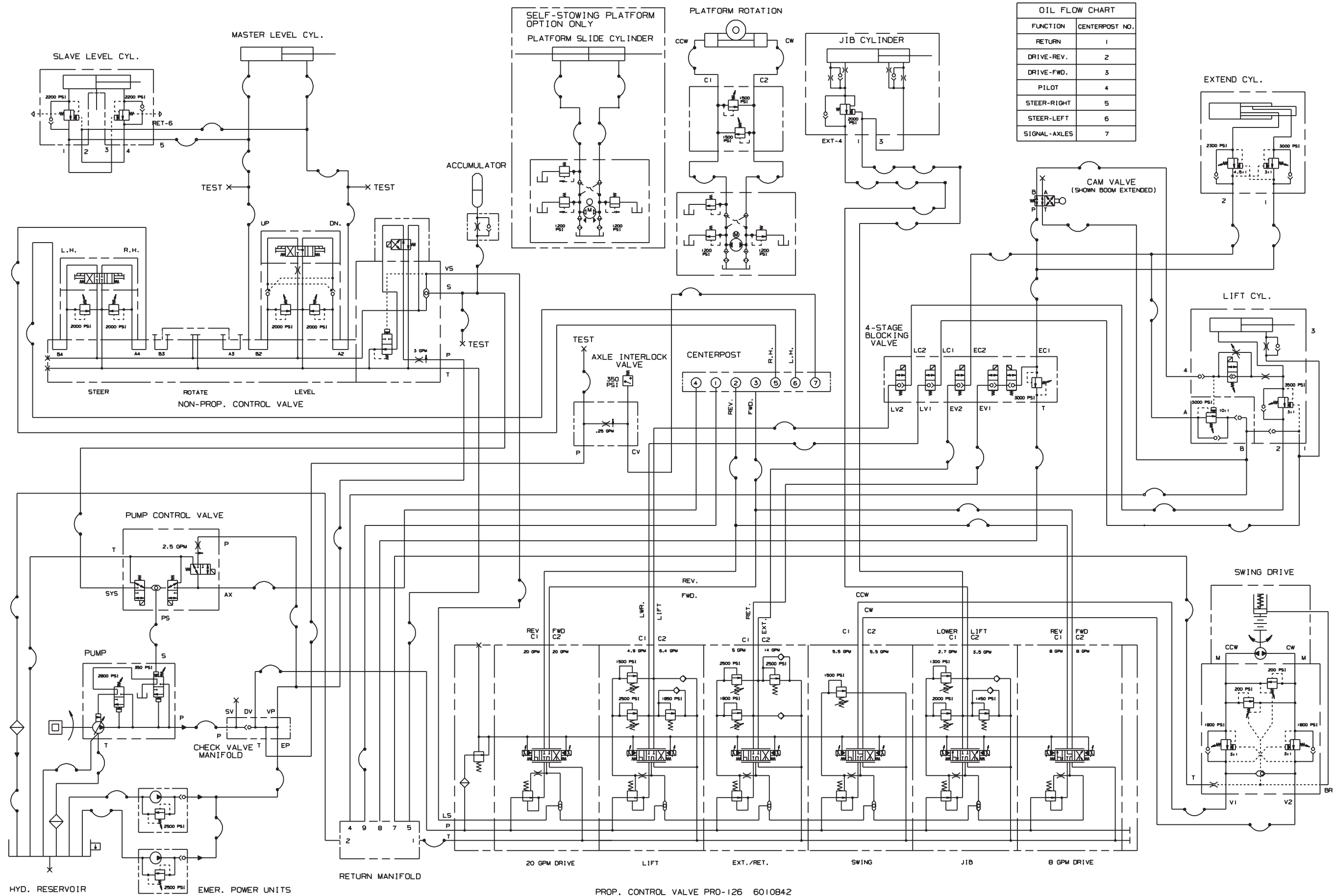
E

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C

B

A



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

TITLE Hydraulic schematic  
turntable and booms  
Snorkel model PRO 100

