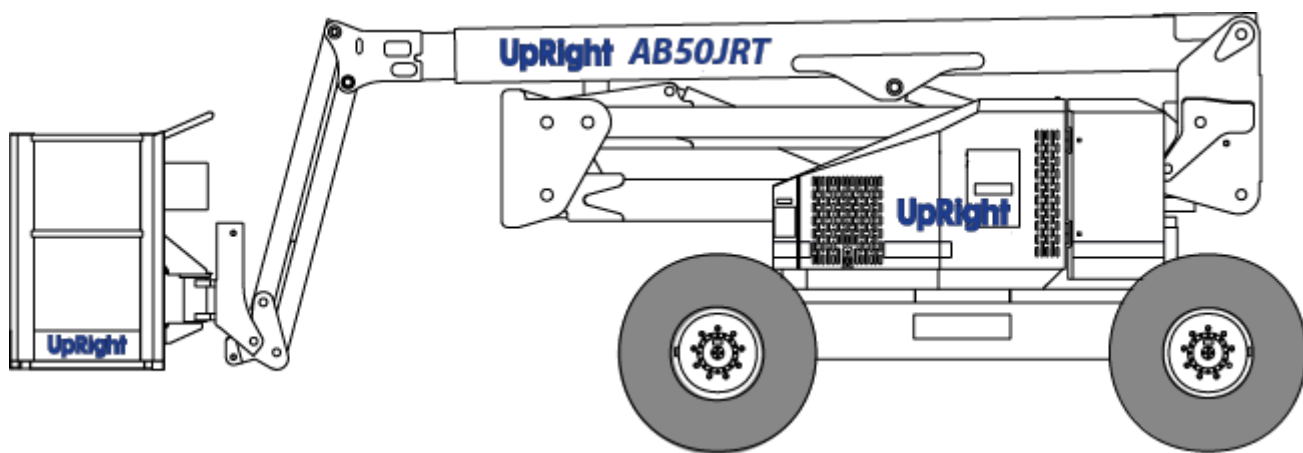


UpRight

POWERED ACCESS



AB50JRT

WORK PLATFORM

Please note:

The Upright AB50JRT is also sold as the Snorkel AB50J in some regions.

Therefore any reference to the Snorkel AB50J also applies to the UpRight AB50JRT.

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

Snorkel

Europe

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

UpRight
POWERED ACCESS

USA

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

www.upright.com

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 AB50J are as follows:

- ✓ Operator's Manual
Snorkel part number - 0163189
- ✓ Repair Parts Manual
Snorkel part number - 0161862
- ✓ ANSI Manual of Responsibilities
ANSI/SIA A92.5-1992

Record machine information here:

Model number

Serial number

Date of purchase

Purchased from

Snorkel dealer or distributor

Parts order form

Fill out completely and fax to (816)-364-6312 attention: Parts Worldwide

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

Part number	Description	Quantity	Price

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

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

Chassis, 2 x 2

item	part no	qty	description
1	0150059	1	Rotation bearing
2	0160563	4	Pin, tie rod
3	0162112-99	4	Retainer, bottom king pin
4	0162084	1	Drive yoke, rear left hand 2 wheel steer - (see page 1-19 for parts breakdown)
5	0162126-99	1	Rear axle
6	25560277	4	Trimlock
7	0162125-99	1	Front axle
8		1	Chassis - (consult factory)
9	0161933-99	1	Tie rod
10	0162163	8	Pin, yoke pivot
11	0161831	1	Pin, axle pivot
12	0162116-99	1	Plate, wear
13	0161984	1	Steer yoke, front right hand - (see page 1-22 for parts breakdown)
14	0161989	1	Steer yoke, front left hand - (see page 1-21 for parts breakdown)
15	0162088	1	Axle lock cylinder, left hand - (see page 2-35 for parts breakdown)
16	0162100	2	Steer cylinder - (see page 2-59 section for parts breakdown)
17	5560169	18	Washer 5/8 hard flat ASTM-F436
18	5560201	18	Capscrew 5/8-11 x 2-1/2 inch long locking hex head grade 8
19	0161836-99	1	Front cover
20	0162749-99	1	Rear cover
21	300542	12	Snap ring 1 inch heavy duty
22	0162087	1	Axle lock valve - (see page 2-37 for parts breakdown)
23	972469	3	Capscrew 3/8-16 x 1 inch long socket flat head
24	5560004	4	Nut 1/4-20 self locking
25	0162195	1	Shift valve, 2 wheel drive - (see page 2-74 for parts breakdown)
26	0162288-99	4	Retainer, top king pin
27	0161768-99	2	Bumper
28	0162220	1	Drive yoke, rear right hand 2 wheel steer - (see page 1-20 for parts breakdown)
29	970029	13	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
30	987099	13	Washer 1/4 medium lock
31	5560078	22	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 8
32	986359	66	Washer 1/2 medium flat
33	987139	66	Washer 1/2 medium lock
34	986019	17	Washer 1/4 medium flat
35	970059	2	Capscrew 1/4-20 x 1-1/2 inch long hex head grade 5
36	0162096	1	Axle lock cylinder, right hand - (see 2-36 section for parts breakdown)
37	0162591	1	Drive valve, 2 x 2 - (see page 2-30 for parts breakdown)
38	2500048	2	Bearing
39	970469	4	Capscrew 3/8-16 x 1 inch long hex head grade 5
40	986299	6	Washer 3/8 medium flat
41	987119	4	Washer 3/8 medium lock
42	0162583	1	Brake valve, rear - (see page 2-39 for parts breakdown)
43	5093012	2	Clamp
44	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
45	5034403	2	Bulkhead union
46	970469	2	Capscrew 3/8-16 x 1 inch long hex head grade 5
47	5560033	2	Nut 3/8-16 self locking
48	5560362	6	Capscrew 1/2-13 x 3-1/4 inch long hex head grade 5
49	986769	2	Machine washer
50	561196	2	Bearing
			Parts list continued on next page

Chassis, 2 x 2

item	part no	qty	description
51	970889	8	Capscrew 1/2-13 x 1 inch long hex head grade 5
52	970929	30	Capscrew 1/2-13 x 2 inch long hex head grade 5
53	0162091-99	1	Plate, rear axle mount tie right hand
54	0162092-99	1	Plate, rear axle mount tie left hand
55	5569892	2	Capscrew 5/16-18 x 4 inch long hex head grade 5
56	986269	2	Washer 5/16 medium flat
57	987109	4	Washer 5/16 medium lock
58	0162090	2	Pin, steer cylinder
59	0162508	2	Pin, tie rod
60	0162666-99	2	Plate, axle cover

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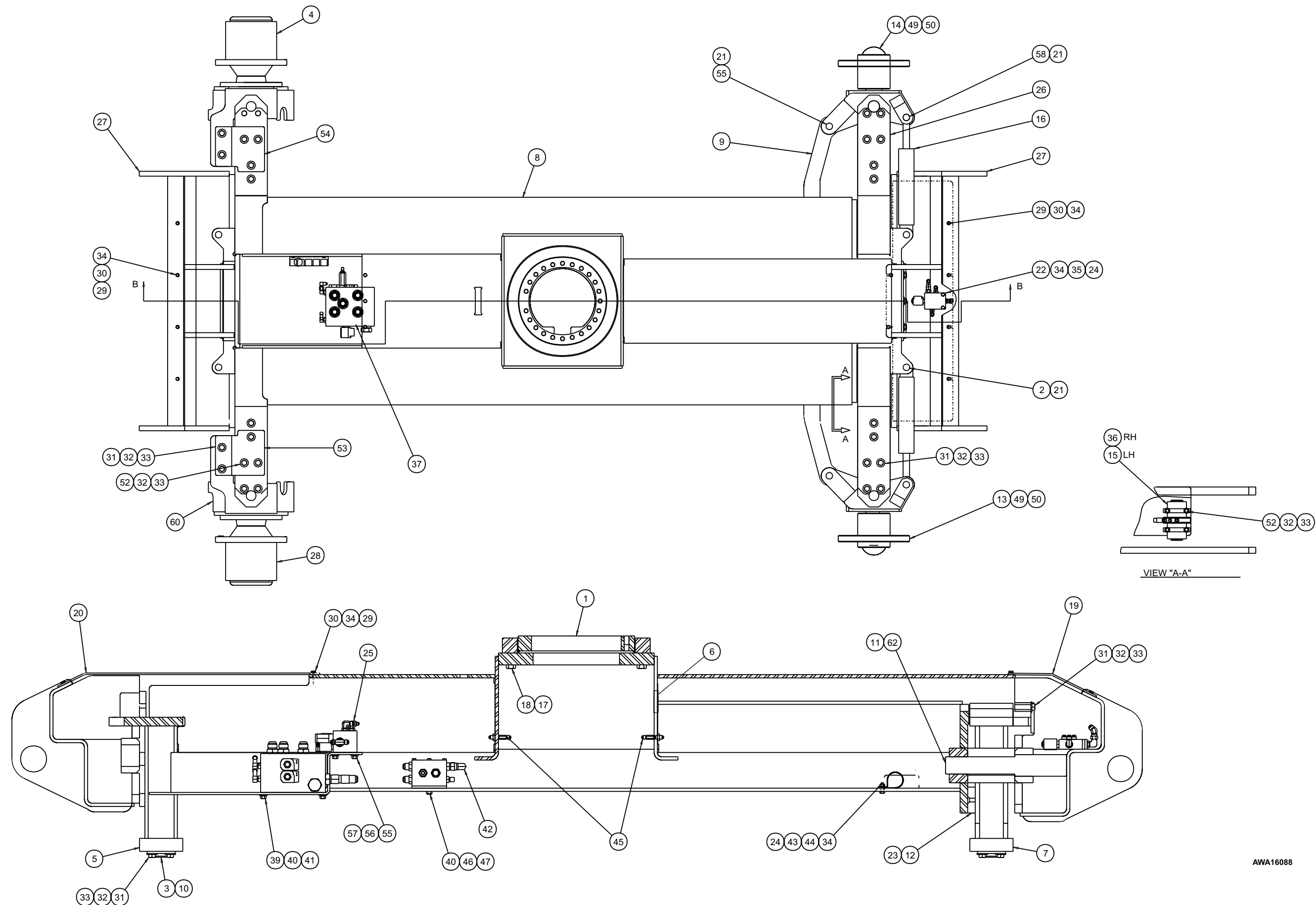
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TITLE Chassis 2 x 2

Snorkel model AB50J



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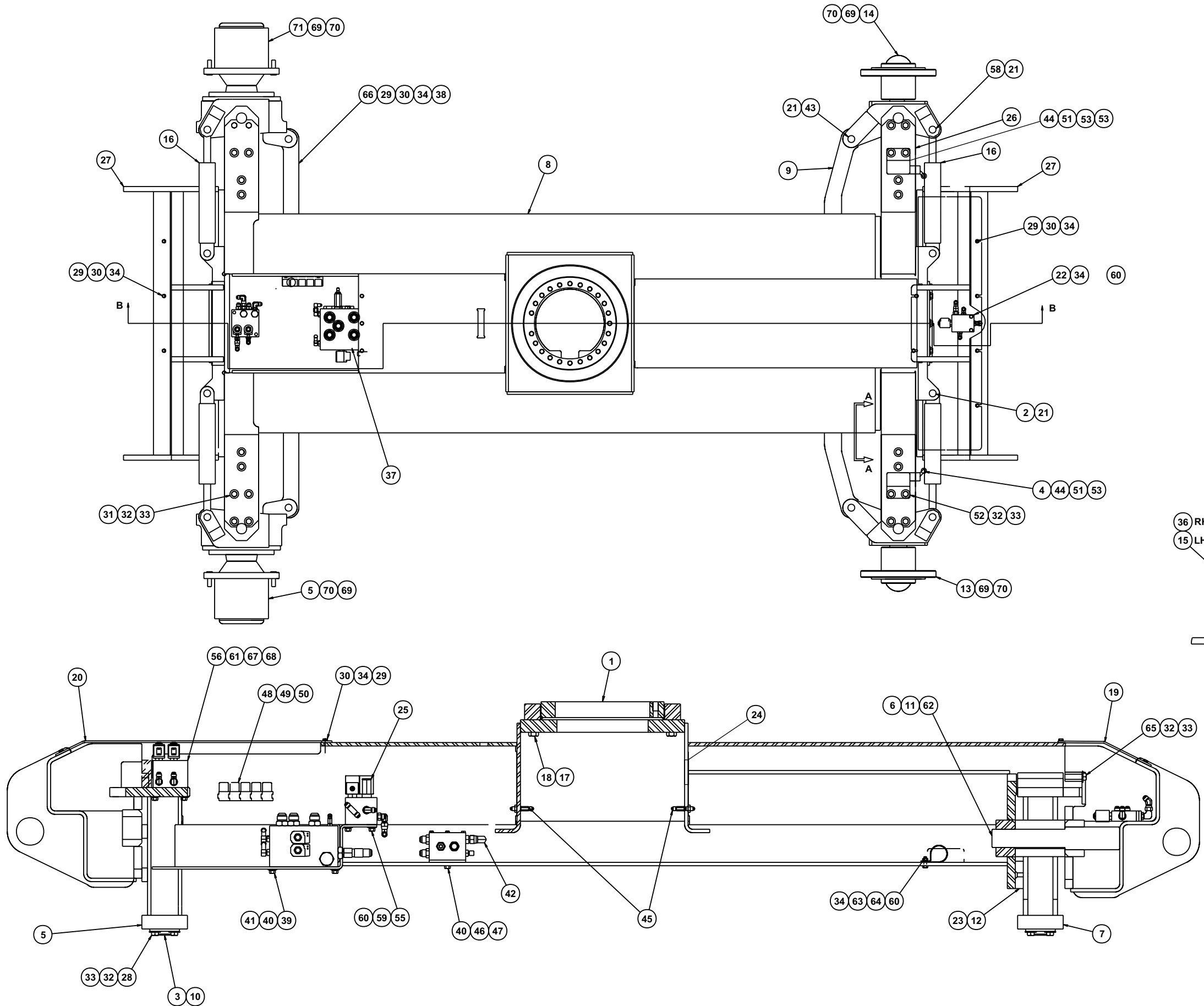
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TITLE Chassis 2 x 4
Snorkel model AB50J

Chassis, 2 x 4

item	part no	qty	description
1	0150059	1	Rotation bearing
2	0160563	4	Pin, tie rod
3	0162112-99	4	Retainer, bottom king pin
4	0162887	1	Switch, front axle right hand - (see page 3-23 for parts breakdown)
5	0162095	1	Drive yoke, rear right hand - (see page 1-18 for parts breakdown)
6	0161444	1	Bushing spacer
7	0162125-99	1	Front axle
8		1	Chassis - (consult factory)
9	0161933-99	1	Tie rod
10	0162163	8	Pin, yoke pivot
11	0161831	1	Pin, axle pivot
12	0162116-99	1	Plate, wear
13	0161984	1	Steer yoke, front right hand - (see page 1-22 for parts breakdown)
14	0161989	1	Steer yoke, front left hand - (see page 1-21 for parts breakdown)
15	0162088	1	Axle lock cylinder, left hand - (see page 2-35 for parts breakdown)
16	0162100	4	Steer cylinder - (see page 2-59 for parts breakdown)
17	5560169	18	Washer 5/8 hard flat ASTM-F436
18	5560201	18	Capscrew 5/8-11 x 2-1/2 inch long locking hex head grade 8
19	0161836-99	1	Front cover
20	0162749-99	1	Rear cover
21	300542	24	Snap ring 1 inch heavy duty
22	0162087	1	Axle lock valve - (see page 2-37 for parts breakdown)
23	972469	3	Capscrew 3/8-16 x 1 inch long socket flat head
24	25560277	4	Trimlock
25	0162195	1	Shift valve, 2 wheel drive - (see page 2-74 for parts breakdown)
26	0162288-99	4	Retainer, top king pin
27	0161768-99	2	Bumper
28	970889	8	Capscrew 1/2-13 x 1 inch long hex head grade 5
29	970029	14	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
30	986019	14	Washer 1/4 medium flat
31	970909	20	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
32	986359	62	Washer 1/2 medium flat
33	987139	62	Washer 1/2 medium lock
34	986019	20	Washer 1/4 medium flat
35	970169	2	Capscrew 1/4-20 x 2 inch long hex head grade 5
36	0162096	1	Axle lock cylinder, right hand - (see page 2-36 for parts breakdown)
37	0162591	1	Drive valve, 2 x 2 - (see page 2-30 for parts breakdown)
38	0162725	1	Target, proximity switch
39	970469	4	Capscrew 3/8-16 x 1 inch long hex head grade 5
40	986299	6	Washer 3/8 medium flat
41	987119	4	Washer 3/8 medium lock
42	0162583	1	Brake valve, rear - (see page 2-39 for parts breakdown)
43	0162508	4	Pin, tie rod
44	5569893	4	Machine screw #10-32 x 1-1/2 inch long hex head
45	5034403	2	Bulkhead union
46	970479	2	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
47	5560033	2	Nut 3/8-16 self locking
48	562326	5	Relay, 12 volt DC
49	5560723	2	Machine screw #10-32 x 1/2 inch long truss head
50	986009	2	Washer #10 medium flat
			Parts list continued on next page

Chassis, 2 x 4

item	part no	qty	description
51	987089	4	Washer #10 medium lock
52	970929	28	Capscrew 1/2-13 x 2 inch long hex head grade 5
53	0162034-99	2	Cover, limit switch
54	0161900	2	Switch, steering - (see page 3-26 for parts breakdown)
55	5569892	2	Capscrew 5/16-18 x 4 inch long hex head grade 5
56	986269	2	Washer 5/16 medium flat
57	987109	8	Washer 5/16 medium lock
58	0162090	4	Pin, steer cylinder
59	986019	2	Washer 1/4 medium flat
60	5560004	8	Nut 1/4-20 self locking
61	5560031	2	Nut 5/16-18 self locking
62	2500048	2	Bearing
63	5093012	4	Clamp
64	970049	4	Capscrew 1/4-20 x 1 inch long hex head grade 5
65	5560362	6	Capscrew 1/2-13 x 3-1/4 inch long hex head grade 5
66	0161799-99	1	Tie rod
67	0162093	1	Rear steer valve - (see page 2-72 for parts breakdown)
68	5560636	2	Capscrew 5/16-18 x 4-1/2 inch long hex head grade 5
69	986769	4	Machine washer
70	561196	4	Bearing
71	0162094	1	Drive yoke, rear left hand - (see page 1-17 for parts breakdown)

Chassis, 4 x 2

item	part no	qty	description
1	0150059	1	Rotation bearing
2	0160563	2	Pin, tie rod
3	0162112-99	4	Retainer, bottom king pin
4	0162084	2	Drive yoke, rear left hand 2 wheel steer - (see page 1-19 for parts breakdown)
5	0162126-99	1	Rear axle
6	25560277	4	Trimlock
7	0162125-99	1	Front axle
8		1	Chassis - (consult factory)
9	0161933-99	1	Tie rod
10	0162163	8	Pin, yoke pivot
11	0161831	1	Pin, axle pivot
12	0162116-99	1	Plate, wear
13	0161988	1	Drive yoke, front right hand - (see page 1-16 for parts breakdown)
14	0162071	1	Drive yoke, front left hand - (see page 1-15 for parts breakdown)
15	0162088	1	Axle lock cylinder, left hand - (see page 2-35 for parts breakdown)
16	0162100	2	Steer cylinder - (see page 2-59 for parts breakdown)
17	5560169	18	Washer 5/8 hard flat ASTM-F436
18	5560201	18	Capscrew 5/8-11 x 2-1/2 inch long locking hex head grade 8
19	0161836-99	1	Front cover
20	0162749-99	1	Rear cover
21	300542	12	Snap ring 1 inch heavy duty
22	0162087	1	Axle lock valve - (see page 2-37 for parts breakdown)
23	972469	3	Capscrew 3/8-16 x 1 inch long socket flat head
24	0162193	1	Brake valve, front - (see page 2-38 for parts breakdown)
25	0162089	1	Shift valve - (see page 2-76 for parts breakdown)
26	0162288-99	4	Retainer, top king pin
27	0161768-99	2	Bumper
28	0162220	1	Drive yoke, rear right hand 2 wheel steer - (see page 1-20 for parts breakdown)
29	970029	13	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
30	987099	13	Washer 1/4 medium lock
31	5560078	22	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 8
32	986359	66	Washer 1/2 medium flat
33	987139	66	Washer 1/2 medium lock
34	986019	17	Washer 1/4 medium flat
35	970059	2	Capscrew 1/4-20 x 1-1/2 inch long hex head grade 5
36	0162096	1	Axle lock cylinder, right hand - (see 2-36 for parts breakdown)
37	0162590	1	Drive valve, 4 wheel drive - (see page 2-31 for parts breakdown)
38	0162086	1	Differential valve, 4 wheel drive - (see page 2-33 for parts breakdown)
39	970449	4	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
40	986299	6	Washer 3/8 medium flat
41	987119	4	Washer 3/8 medium lock
42	5569894	2	Capscrew 7/16-14 x 3/8 inch long socket flat head
43	986179	2	Washer 7/16 medium flat
44	0162508	2	Pin, tie rod
45	5034403	2	Bulkhead union
46	970479	2	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
47	5560033	2	Nut 3/8-16 self locking
48	0162092-99	1	Plate, rear axle mount tie left hand
49	0162091-99	1	Plate, rear axle mount tie right hand
50	561196	2	Bearing
			Parts list continued on next page

Chassis, 4 x 2

item	part no	qty	description
51	970889	8	Capscrew 1/2-13 x 1 inch long hex head grade 5
52	970929	30	Capscrew 1/2-13 x 2 inch long hex head grade 5
53	0162583	1	Brake valve, rear - (see page 2-39 for parts breakdown)
54	986769	2	Machine washer
55	5569892	2	Capscrew 5/16-18 x 4 inch long hex head grade 5
56	986269	2	Washer 5/16 medium flat
57	987109	2	Washer 5/16 medium lock
58	0162090	2	Pin, steer cylinder
59	984129	2	Nut 7/16-14 self locking
60	5560004	4	Nut 1/4-20 self locking
61	5560362	6	Capscrew 1/2-13 x 3-1/4 inch long hex head grade 5
62	2500048	2	Bearing
63	5093012	2	Clamp
64	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
65	0162666-99	2	Plate, axle cover

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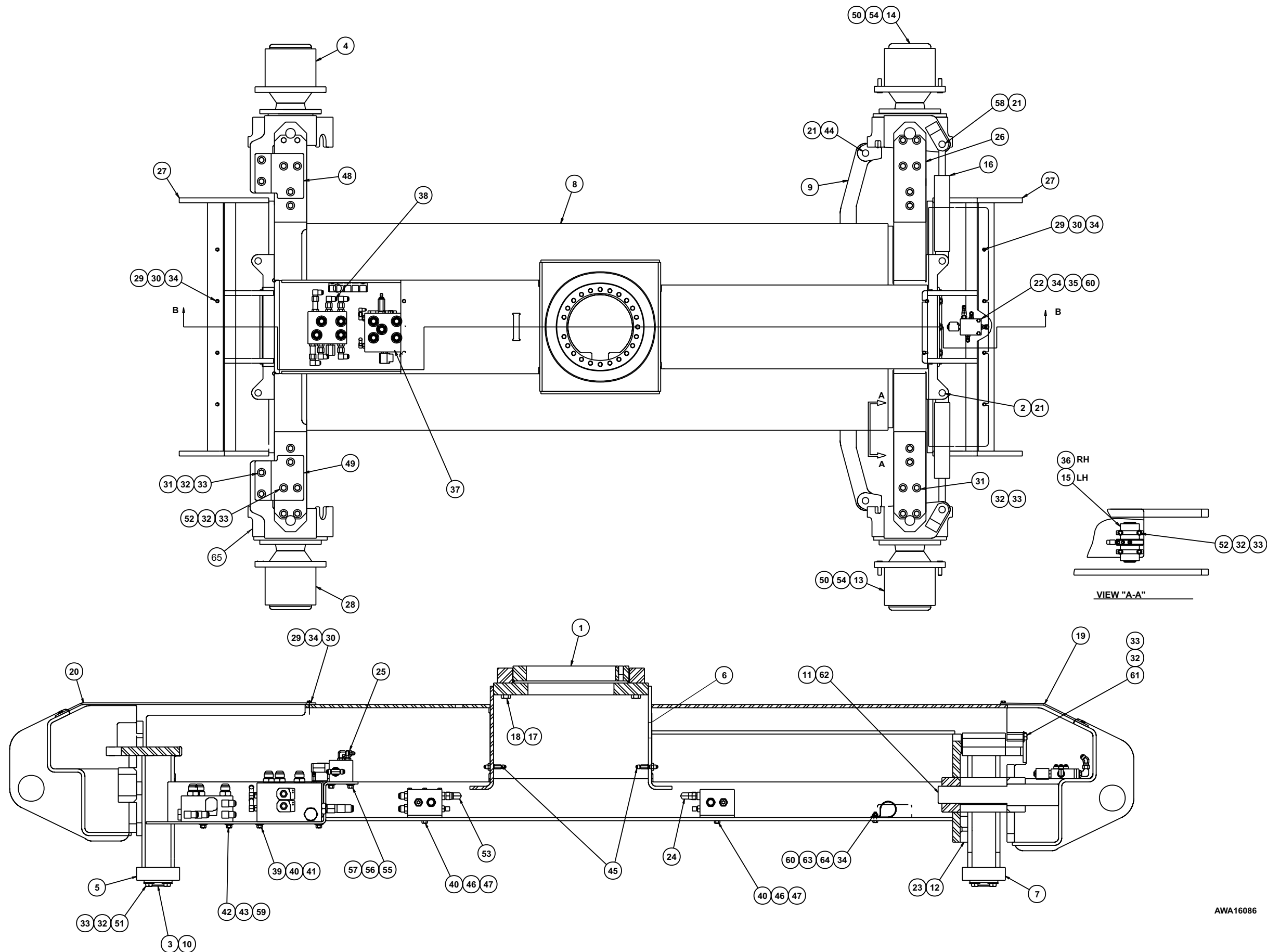
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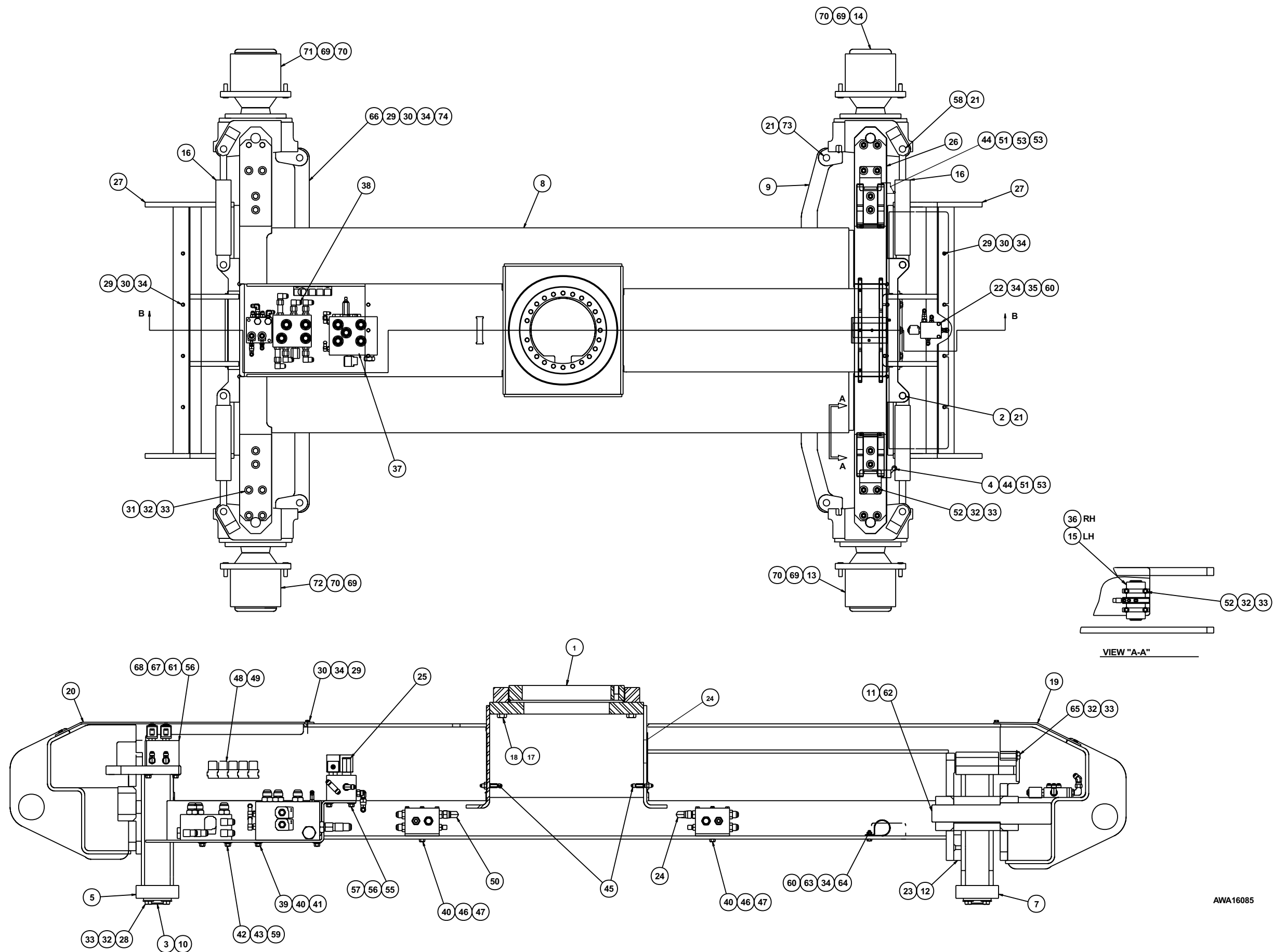
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TITLE Chassis 4 x 2

Snorkel model AB50J



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Chassis, 4 x 4

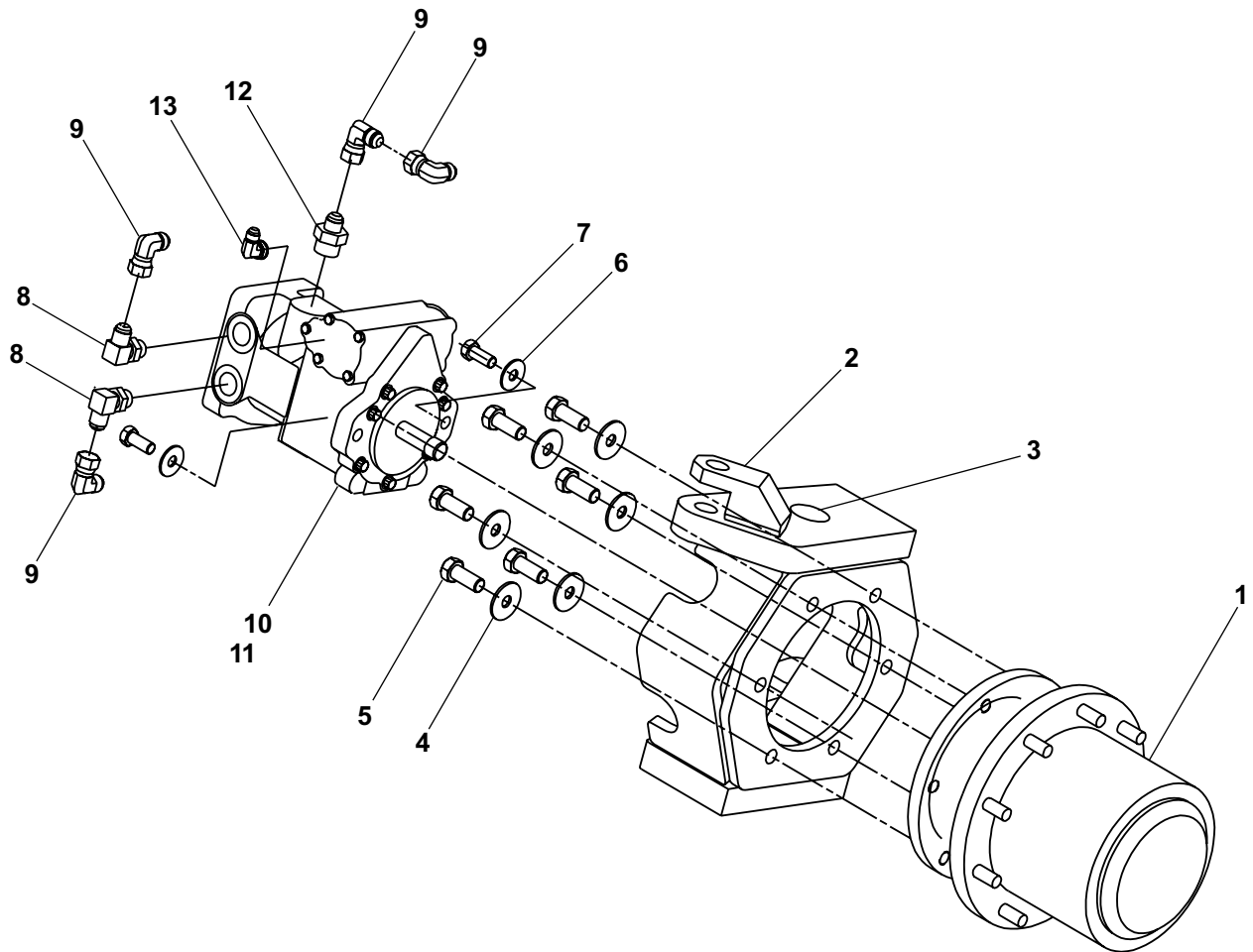
item	part no	qty	description
1	0150059	1	Rotation bearing
2	0160563	4	Pin, tie rod
3	0162112-99	4	Retainer, bottom king pin
4	0162887	1	Switch, front axle right hand - (see page 3-23 for parts breakdown)
5	0162126-99	1	Rear axle
6	25560277	4	Trimlock
7	0162125-99	1	Front axle
8		1	Chassis - (consult factory)
9	0161933-99	1	Tie rod
10	0162163	8	Pin, yoke pivot
11	0161831	1	Pin, axle pivot
12	0162116-99	1	Plate, wear
13	0161988	1	Drive yoke, front right hand - (see page 1-16 for parts breakdown)
14	0162071	1	Drive yoke, front left hand - (see page 1-15 for parts breakdown)
15	0162088	1	Axle lock cylinder, left hand - (see page 2-35 for parts breakdown)
16	0162100	4	Steer cylinder - (see page 2-59 for parts breakdown)
17	5560169	18	Washer 5/8 hard flat ASTM-F436
18	5560201	18	Capscrew 5/8-11 x 2-1/2 inch long locking hex head grade 8
19	0161836-99	1	Front cover
20	0162749-99	1	Rear cover
21	300542	24	Snap ring 1 inch heavy duty
22	0162087	1	Axle lock valve - (see page 2-37 for parts breakdown)
23	972469	3	Capscrew 3/8-16 x 1 inch long socket flat head
24	0162193	1	Brake valve, front - (see page 2-38 for parts breakdown)
25	0162089	1	Shift valve - (see page 2-76 for parts breakdown)
26	0162288-99	4	Retainer, top king pin
27	0161768-99	2	Bumper
28	970889	8	Capscrew 1/2-13 x 1 inch long hex head grade 5
29	970029	14	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
30	987099	14	Washer 1/4 medium lock
31	5560078	20	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 8
32	986359	62	Washer 1/2 medium flat
33	987139	62	Washer 1/2 medium lock
34	986019	20	Washer 1/4 medium flat
35	970059	2	Capscrew 1/4-20 x 1-1/2 inch long hex head grade 5
36	0162096	1	Axle lock cylinder, right hand - (see page 2-36 for parts breakdown)
37	0162590	1	Drive valve, 4 wheel drive - (see page 2-31 for parts breakdown)
38	0162086	1	Differential valve, 4 wheel drive - (see page 2-33 for parts breakdown)
39	970449	4	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
40	986299	8	Washer 3/8 medium flat
41	987119	4	Washer 3/8 medium lock
42	5569894	2	Capscrew 7/16-14 x 3/8 inch long socket flat head
43	986179	2	Washer 7/16 medium flat
44	5569893	4	Machine screw #10-32 x 1-1/2 inch long hex head
45	5034403	2	Bulkhead union
46	970479	4	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
47	5560033	4	Nut 3/8-16 self locking
48	562326	5	Relay, 12 volt DC
49	5560723	2	Machine screw #10-32 x 1/2 inch long truss head
50	0162583	2	Brake valve, rear - (see page 2-39 for parts breakdown)
			Parts list continued on next page

Chassis, 4 x 4

item	part no	qty	description
51	987089	4	Washer #10 medium lock
52	970929	28	Capscrew 1/2-13 x 2 inch long hex head grade 5
53	0162034-99	2	Cover, limit switch
54	0161900	2	Switch, steering - (see page 3-26 for parts breakdown)
55	5569892	2	Capscrew 5/16-18 x 4 inch long hex head grade 5
56	986019	4	Washer 1/4 medium flat
57	5560004	2	Nut 1/4-20 self locking
58	0162090	4	Pin, steer cylinder
59	984129	2	Nut 7/16-14 self locking
60	5560004	6	Nut 1/4-20 self locking
61	5560031	2	Nut 5/16-18 self locking
62	2500048	2	Bearing
63	5093012	4	Clamp
64	970049	4	Capscrew 1/4-20 x 1 inch long hex head grade 5
65	5560362	6	Capscrew 1/2-13 x 3-1/4 inch long hex head grade 5
66	0161799-99	1	Tie rod
67	0162093	1	Rear steer valve - (see page 2-72 for parts breakdown)
68	5560636	2	Capscrew 5/16-18 x 4-1/2 inch long hex head grade 5
69	986769	4	Machine washer
70	561196	4	Bearing
71	0162094	1	Drive yoke, rear left hand - (see page 1-17 for parts breakdown)
72	0162095	1	Drive yoke, rear right hand - (see page 1-18 for parts breakdown)
73	0162508	4	Pin, tie rod
74	0162725	1	Target, proximity switch

Drive yoke, front left hand

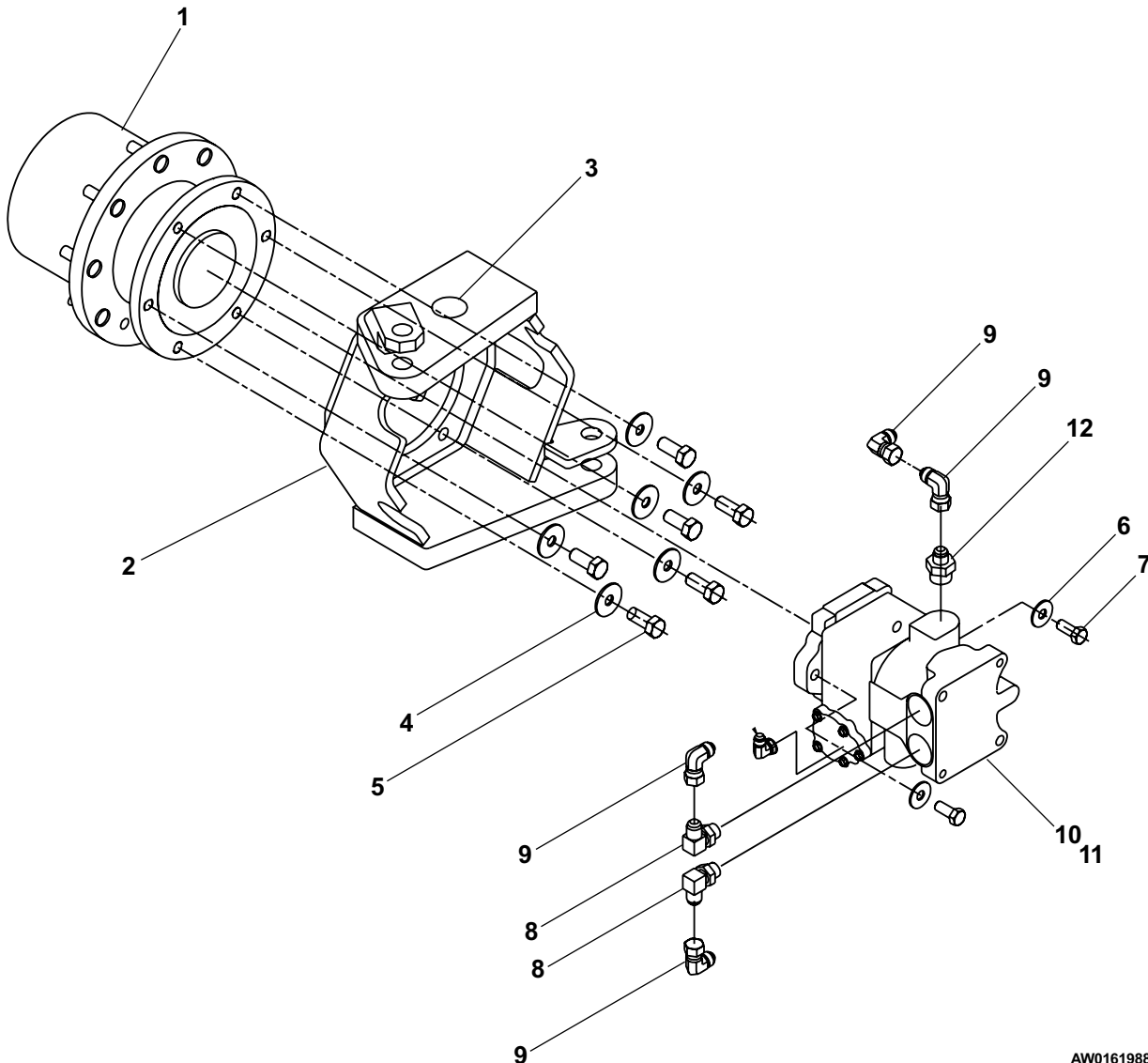
item	part no	qty	description
	0162071	1	Drive yoke, front left hand
1	0160554-99	1	Gear hub - (see page1-54 for parts breakdown)
2	0162119-99	1	Motor mount, left hand
3	2502229	2	Bearing
4	5560169	6	Washer 5/8 hard flat ASTM-F436
5	5560283	6	Capscrew 5/8-11 x 1-1/2 inch long hex head grade 8 locking
6	5560168	2	Washer 1/2 hard flat ASTM-F436
7	5560154	2	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 8
8	5035333	2	Straight thread 90° elbow
9	5037006	2	Swivel nut 90° elbow
10	6031593-79	1	Hydraulic drive motor - (see page 2-70 for parts breakdown)
11	7110155	1	O-ring
12	5065711	1	Straight thread adapter
13	5035318	1	Straight thread 90° elbow



AW0162071

Drive yoke, front right hand

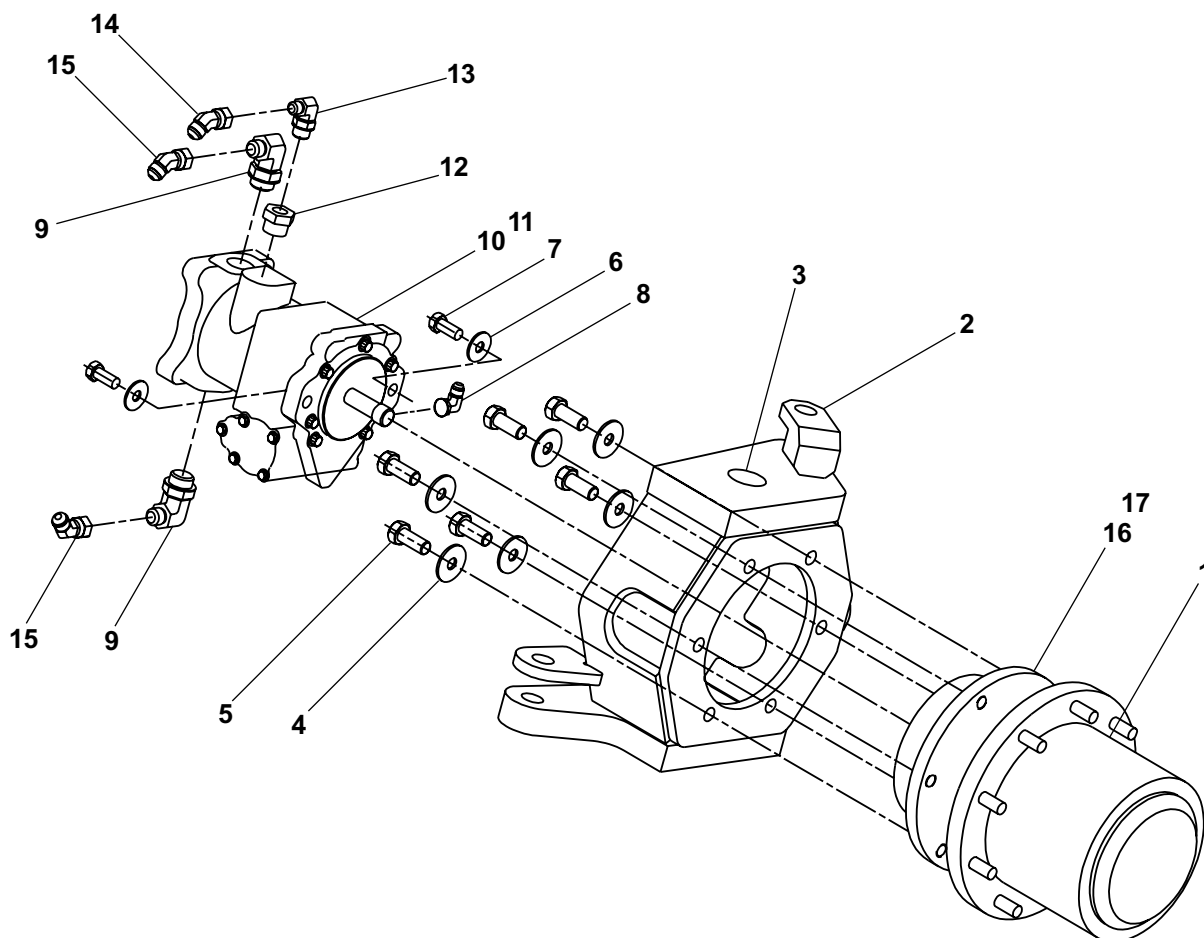
item	part no	qty	description
	0161988	1	Drive yoke, front right hand
1	0160554-99	1	Gear hub - (see page 1-54 for parts breakdown)
2	0162118-99	1	Motor mount, right hand
3	2502229	2	Bearing
4	5560169	6	Washer 5/8 hard flat ASTM-F436
5	5560283	6	Capscrew 5/8-11 x 1-1/2 inch long hex head grade 8 locking
6	5560168	2	Washer 1/2 hard flat ASTM-F436
7	5560154	2	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 8
8	5535333	2	Straight thread 90° elbow
9	5037006	2	Swivel nut 90° elbow
10	6031593-79	1	Hydraulic drive motor - (see page 2-70 for parts breakdown)
11	7110155	1	O-ring
12	5065711	1	Straight thread adapter
13	5035318	1	Straight thread 90° elbow



AW0161988

Drive yoke, rear left hand

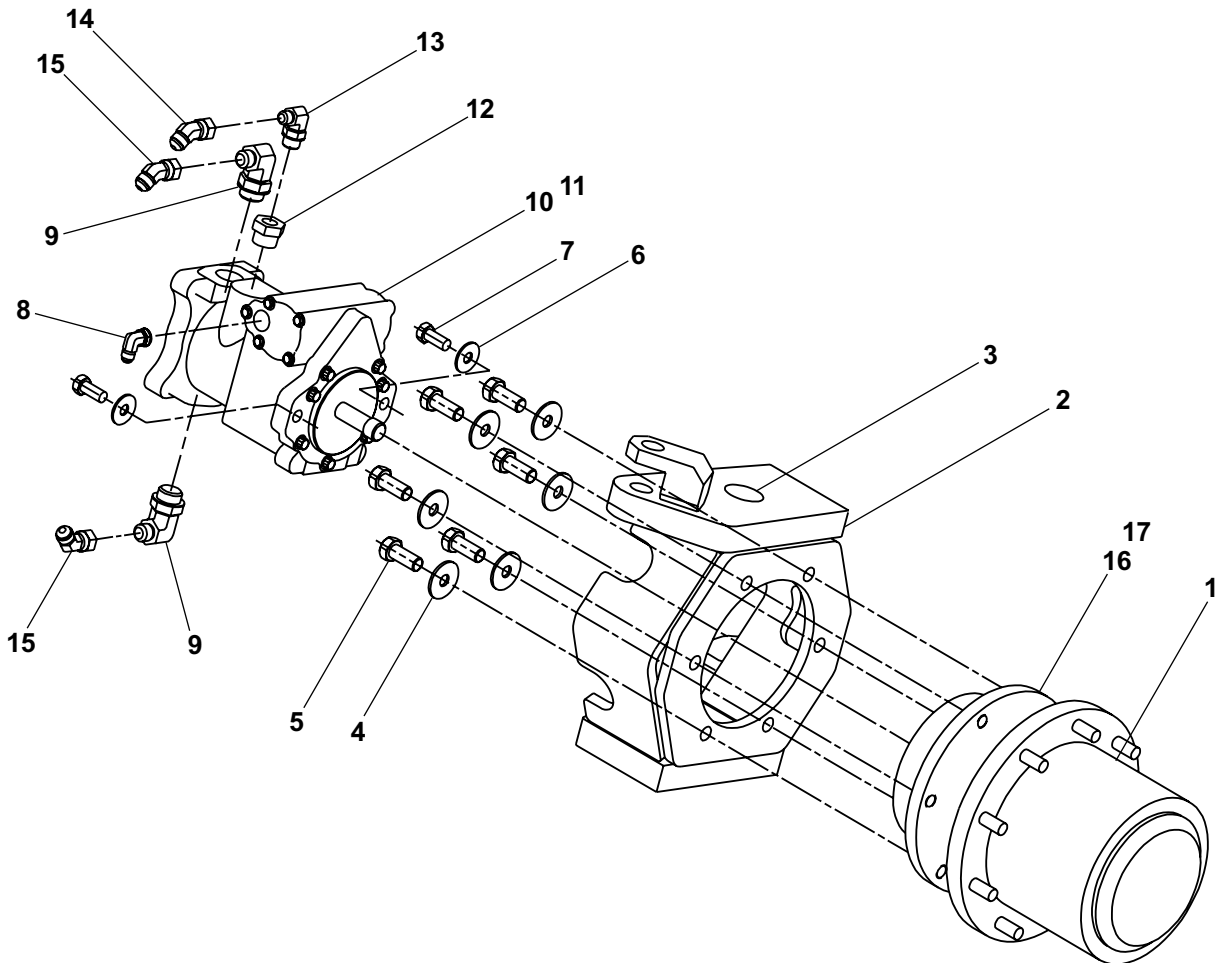
item	part no	qty	description
	0162094	1	Drive yoke, rear left hand
1	0162562-99	1	Gear hub with brake - (see page 1-56 for parts breakdown)
2	0162118-99	1	Motor mount, right hand
3	2502229	2	Bearing
4	5560169	6	Washer 5/8 hard flat ASTM-F436
5	5560283	6	Capscrew 5/8-11 x 1-1/2 inch long hex head grade 8 locking
6	5560168	2	Washer 1/2 hard flat ASTM-F436
7	5560249	2	Capscrew 1/2-13 x 2-1/2 inch long hex head grade 8
8	5035318	1	Straight thread 90° elbow
9	5035329	2	Straight thread 90° elbow
10	6031594-79	1	Hydraulic drive motor - (see page 2-70 for parts breakdown)
11	7110155	1	O-ring
12	5076003	1	Reducer-expander
13	5035320	1	Straight thread 90° elbow
14	5036905	1	Swivel nut 45° elbow
15	5036906	2	Swivel nut 45° elbow
16	5065703	1	Straight thread adapter
17	5037003	1	Swivel nut 90° elbow



AW0162094

Drive yoke, rear right hand

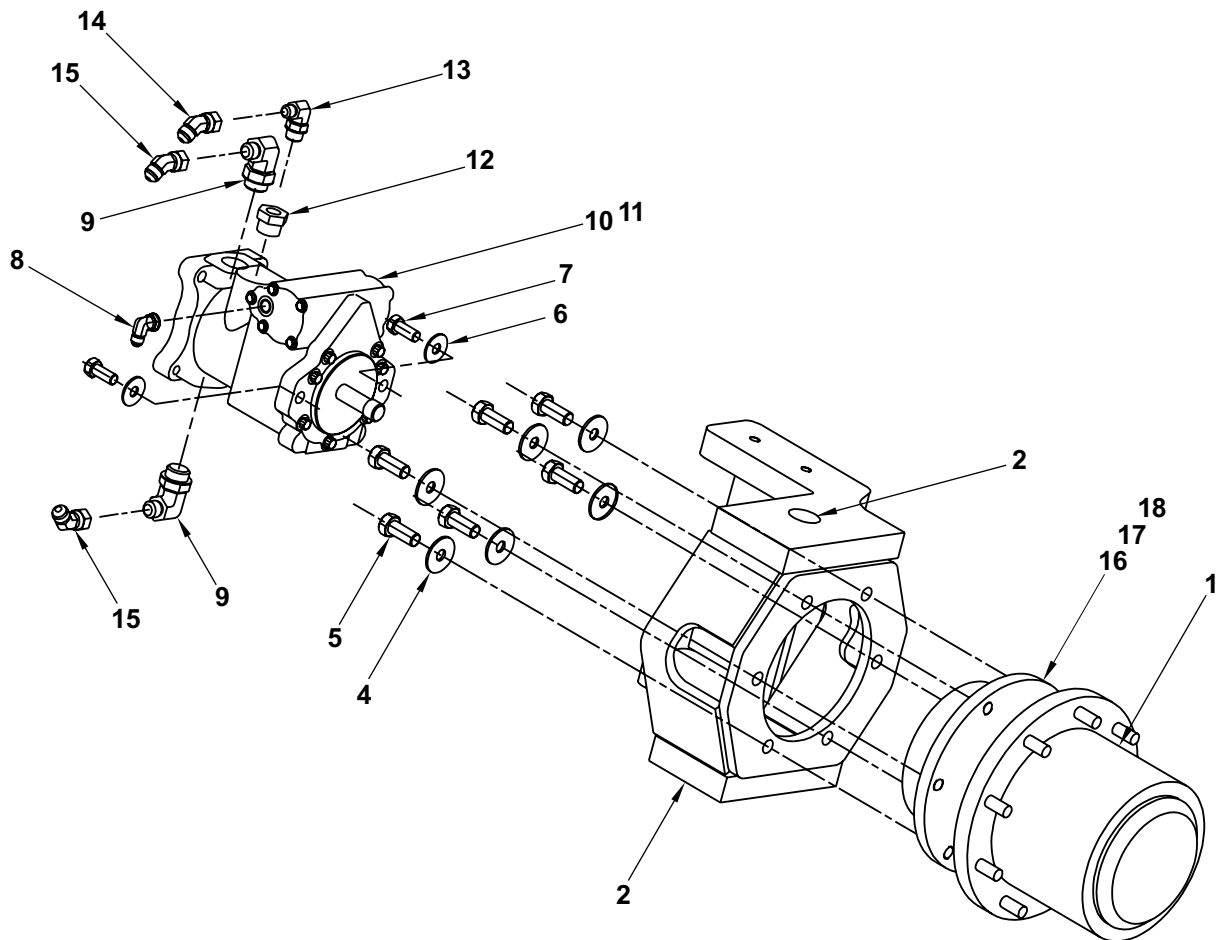
item	part no	qty	description
	0162095	1	Drive yoke, rear right hand
1	0162562-99	1	Gear hub with brake - (see page 1-56 for parts breakdown)
2	0162119-99	1	Motor mount, left hand
3	2502229	2	Bearing
4	5560169	6	Washer 5/8 hard flat ASTM-F436
5	5560283	6	Capscrew 5/8-11 x 1-1/2 inch long hex head grade 8 locking
6	5560168	2	Washer 1/2 hard flat ASTM-F436
7	5560249	2	Capscrew 1/2-13 x 2-1/2 inch long hex head grade 8
8	5035318	1	Straight thread 90° elbow
9	5035329	2	Straight thread 90° elbow
10	6031594-79	1	Hydraulic drive motor - (see page 2-70 for parts breakdown)
11	7110155	1	O-ring
12	5076003	1	Reducer-expander
13	5035320	1	Straight thread 90° elbow
14	5036905	1	Swivel nut 45° elbow
15	5036906	1	Swivel nut 45° elbow
16	5065703	1	Straight thread adapter
17	5037003	1	Swivel nut 90° elbow



AW0162095

Drive yoke, rear left hand 2 wheel steer

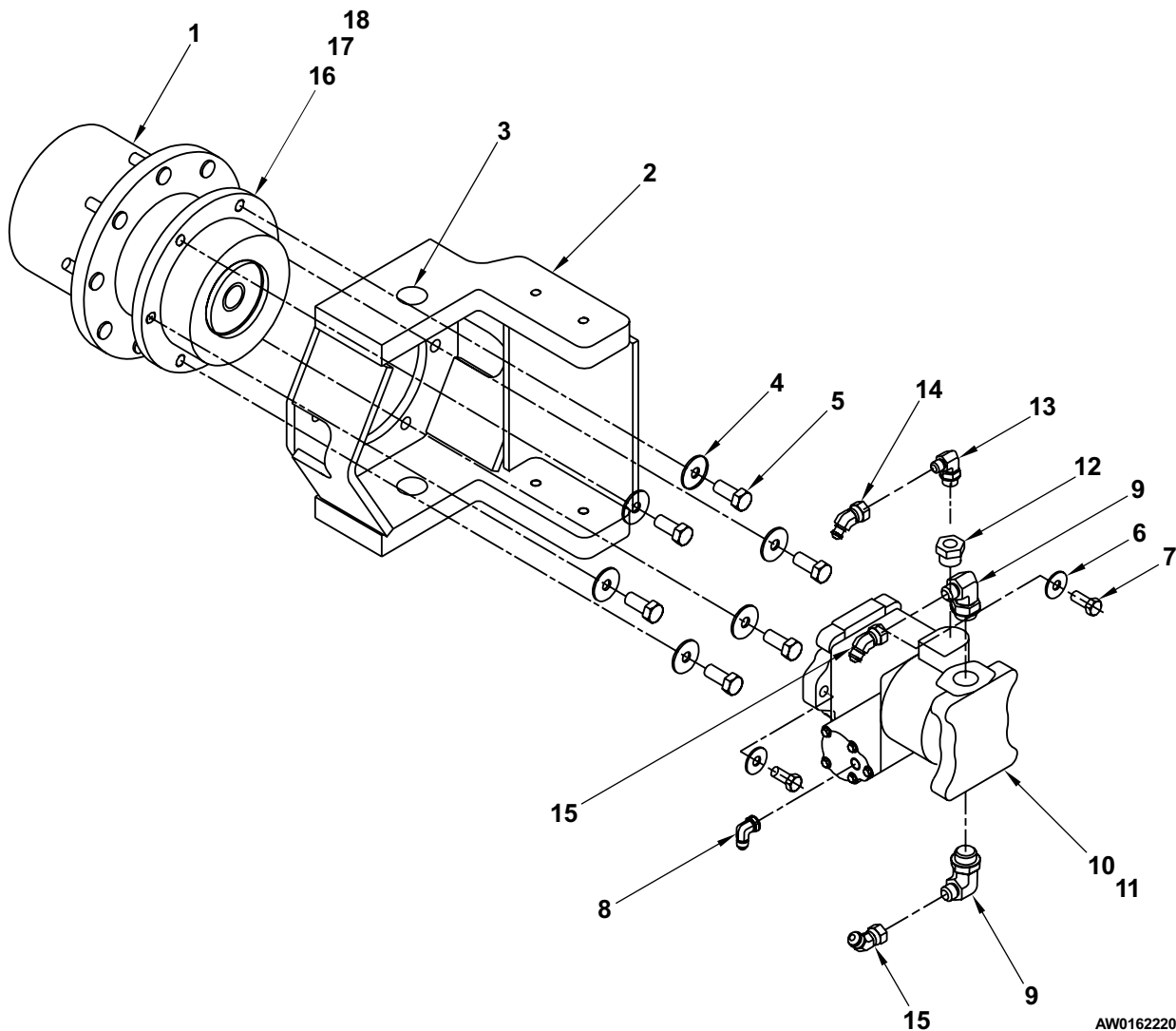
item	part no	qty	description
	0162084	1	Drive yoke, rear left hand 2 wheel steer
1	0162562-99	1	Gear hub with brake - (see page 1-56 for parts breakdown)
2	0162141-99	1	Motor mount
3	2502229	2	Bearing
4	5560169	6	Washer 5/8 hard flat ASTM-F436
5	5560283	6	Capscrew 5/8-11 x 1-1/2 inch long hex head grade 8 locking
6	5560168	2	Washer 1/2 hard flat ASTM-F436
7	5560249	2	Capscrew 1/2-13 x 2-1/2 inch long hex head grade 8
8	5035318	1	Straight thread 90° elbow
9	5035329	2	Straight thread 90° elbow
10	6031594-79	1	Hydraulic drive motor - (see page 2-70 for parts breakdown)
11	7110155	1	O-ring
12	5076003	1	Reducer-expander
13	5035320	1	Straight thread 90° elbow
14	5036905	1	Swivel nut 45° elbow
15	5036906	2	Swivel nut 45° elbow
16	5035703	1	Straight thread 45° elbow
17	5065703	1	Straight thread adapter
18	5037003	1	Swivel nut 90° elbow



AW0162084

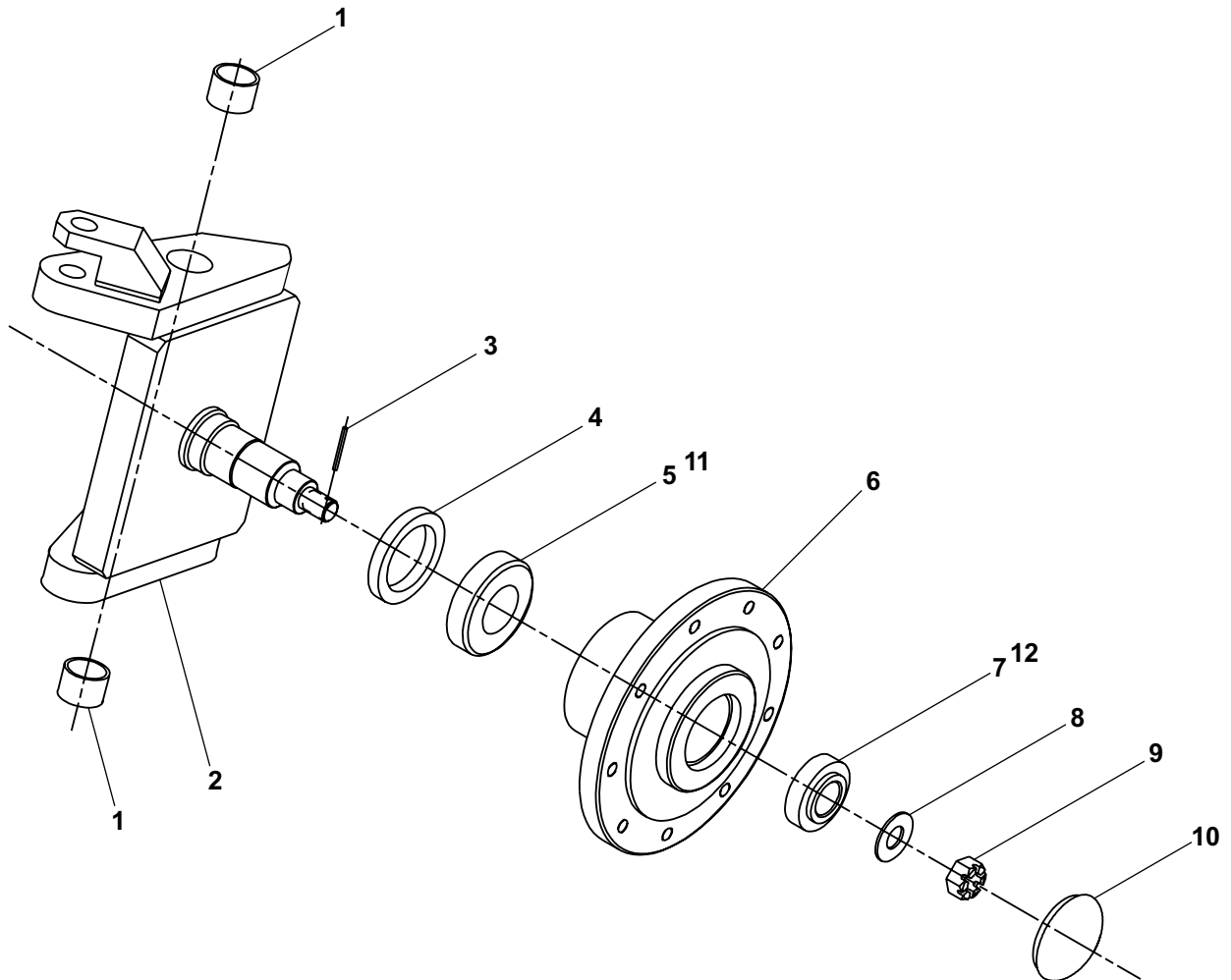
Drive yoke, rear right hand 2 wheel steer

item	part no	qty	description
	0162220	1	Drive yoke, rear right hand 2 wheel steer
1	0162562-99	1	Gear hub with brake - (see page 1-56 for parts breakdown)
2	0162141-99	1	Motor mount
3	2502229	2	Bearing
4	5560169	6	Washer 5/8 hard flat ASTM-F436
5	5560283	6	Capscrew 5/8-11 x 1-1/2 inch long hex head grade 8 locking
6	5560168	2	Washer 1/2 hard flat ASTM-F436
7	5560249	2	Capscrew 1/2-13 x 2-1/2 inch long hex head grade 8
8	5035318	1	Straight thread 90° elbow
9	5035329	2	Straight thread 90° elbow
10	6031594-79	1	Hydraulic drive motor - (see page 2-70 for parts breakdown)
11	7110155	1	O-ring
12	5076003	1	Reducer-expander
13	5035320	1	Straight thread 90° elbow
14	5036905	1	Swivel nut 45° elbow
15	5036906	2	Swivel nut 45° elbow
16	5035703	1	Straight thread 45° elbow
17	5065703	1	Straight thread adapter
18	5037003	1	Swivel nut 90° elbow



Steer yoke, front left hand

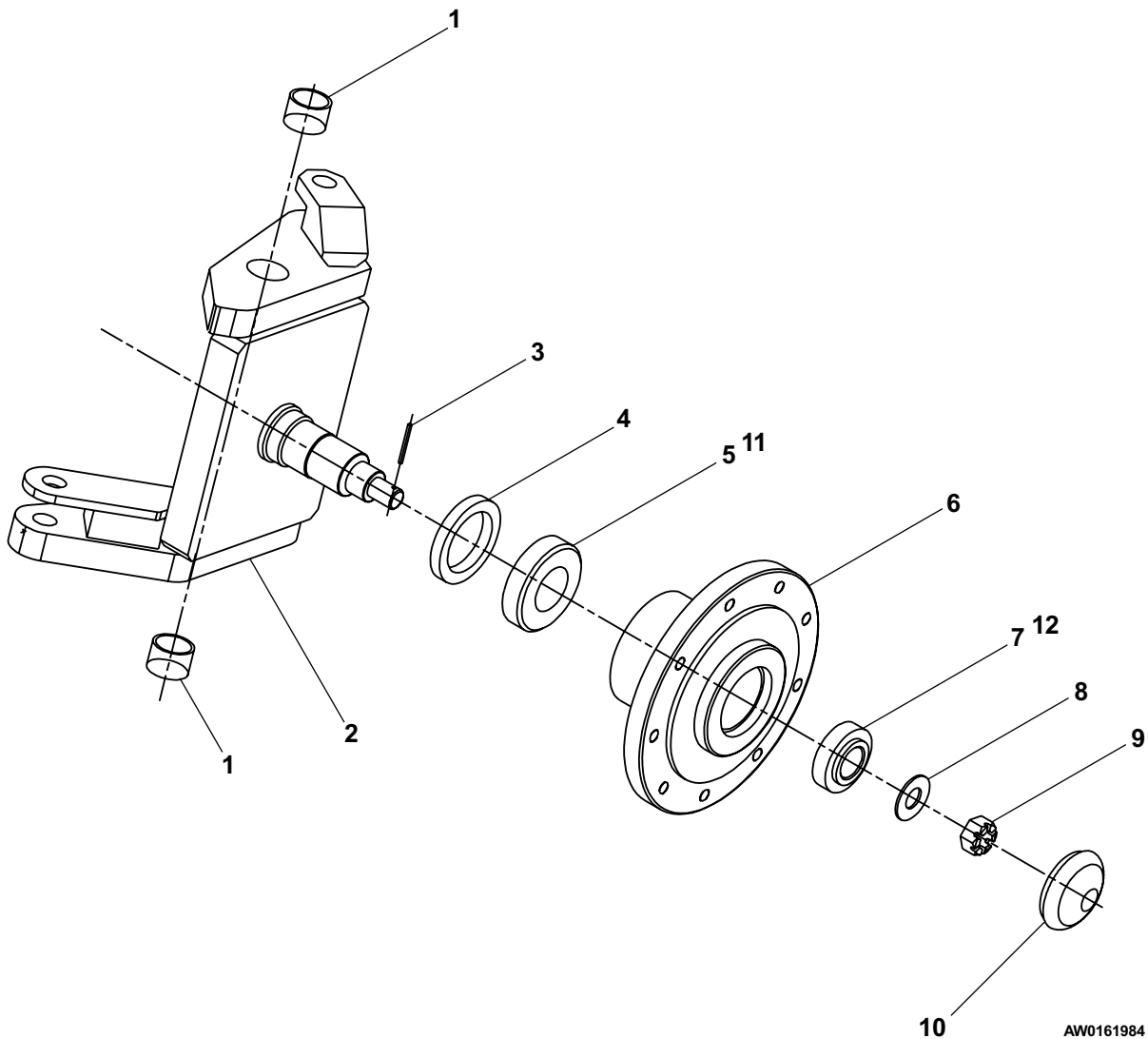
item	part no	qty	description
	0161989	1	Steer yoke, front left hand
1	2502229	2	Bearing
2	0161801-99	1	Steering yoke, left hand
3	988129	1	Cotter pin 5/32 inch diameter x 1-3/4 inch long
4	7150016	1	Seal
5	2560005	1	Bearing cone
6	0163060-99	1	Steering hub
	5560721	9	Replacement wheel bolt
7	2560010	1	Bearing cone
8	5560161	1	Spindle nut washer
9	5560160	1	Spindle nut
10	0150599	1	Hub cap
11	2540005	1	Bearing cup
12	2540010	1	Bearing cup



AW0161989

Steer yoke, front right hand

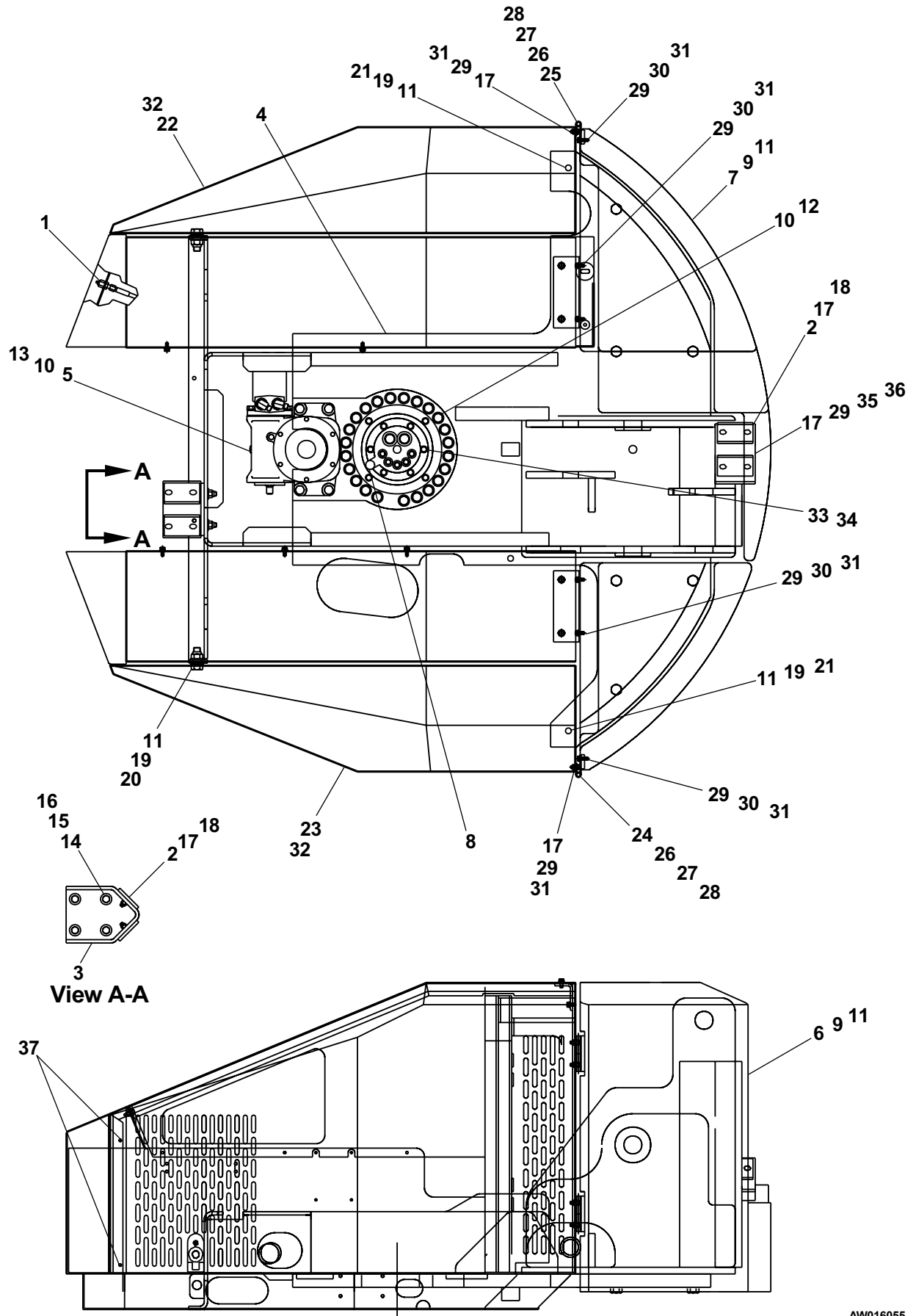
item	part no	qty	description
	0161984	1	Steer yoke, front right hand
1	2502229	2	Bearing
2	0161800-99	1	Steering yoke, right hand
3	988129	1	Cotter pin 5/32 inch diameter x 1-3/4 inch long
4	7150016	1	Seal
5	2560005	1	Bearing cone
6	0163060-99	1	Steering hub
	5560721	9	Replacement wheel bolt
7	2560010	1	Bearing cone
8	5560161	1	Spindle nut washer
9	5560160	1	Spindle nut
10	0150599	1	Hub cap
11	2540005	1	Bearing cup
12	2540010	1	Bearing cup



Turntable

item	part no	qty	description
1	0070772	1	1/4 inch hydraulic hose
2	0160698	4	Riser support pad
3	0160699-99	1	Riser support
4		1	Turntable - (consult factory)
5	0161411-99	1	Swing drive - (see page 1-26 for parts breakdown)
6		1	Counterweight, engine side - (consult factory)
7		1	Counterweight, fuel side - (consult factory)
8	5038702	1	Male 45° elbow
9	5560134	6	Capscrew 3/4-10 x 3-1/4 inch long hex head grade 8
10	5560169	24	Washer 5/8 hard flat ASTM-F436
11	5560170	14	Washer 3/4 hard flat ASTM-F436
12	5560201	20	Capscrew 5/8-11 x 2-1/2 inch long hex head grade 8
13	5560306	4	Capscrew 5/8-11 x 4 inch long hex head grade 8 locking
14	970849	4	Capscrew 1/2-13 x 1-1/4 inch long hex head grade 8
15	5560039	4	Nut 1/2-13 self locking
16	986359	4	Washer 1/2 medium flat
17	5560033	10	Nut 3/8-16 self locking
18	972469	8	Capscrew 3/8-16 x 1 inch long socket flat head
19	5560293	6	Capscrew 3/4-10 x 2 inch long hex head grade 5
20	5560224	4	Nut 3/4-10 self locking
21	987179	4	Washer 3/4 medium lock
22	0161821-99	1	Door, fuel side
23	0161820-99	1	Door, engine side
24	0161942-99	2	Door hinge, right hand
25	0161943-99	2	Door hinge, left hand
26	0161944	2	Shim, .375 inch thick
27	0161945	2	Shim, .250 inch thick
28	0161946	2	Shim, .1345 inch thick
29	986299	22	Washer 3/8 medium flat
30	987119	12	Washer 3/8 medium lock
31	970469	12	Capscrew 3/8-16 x 1 inch long hex head grade 5
32	5510014	2	Switch, sealed lever
33	0161621	1	Centerpost mount - (used on 4 wheel drive - 4 wheel steer only)
34	0161918	1	Centerpost - (used on 4 wheel drive - 4 wheel steer only) (See page 2-40 for centerpost parts breakdown)
35	972479	2	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
36	0162715-99	1	Rear boom rest
37	5569012	4	Rubber bumper

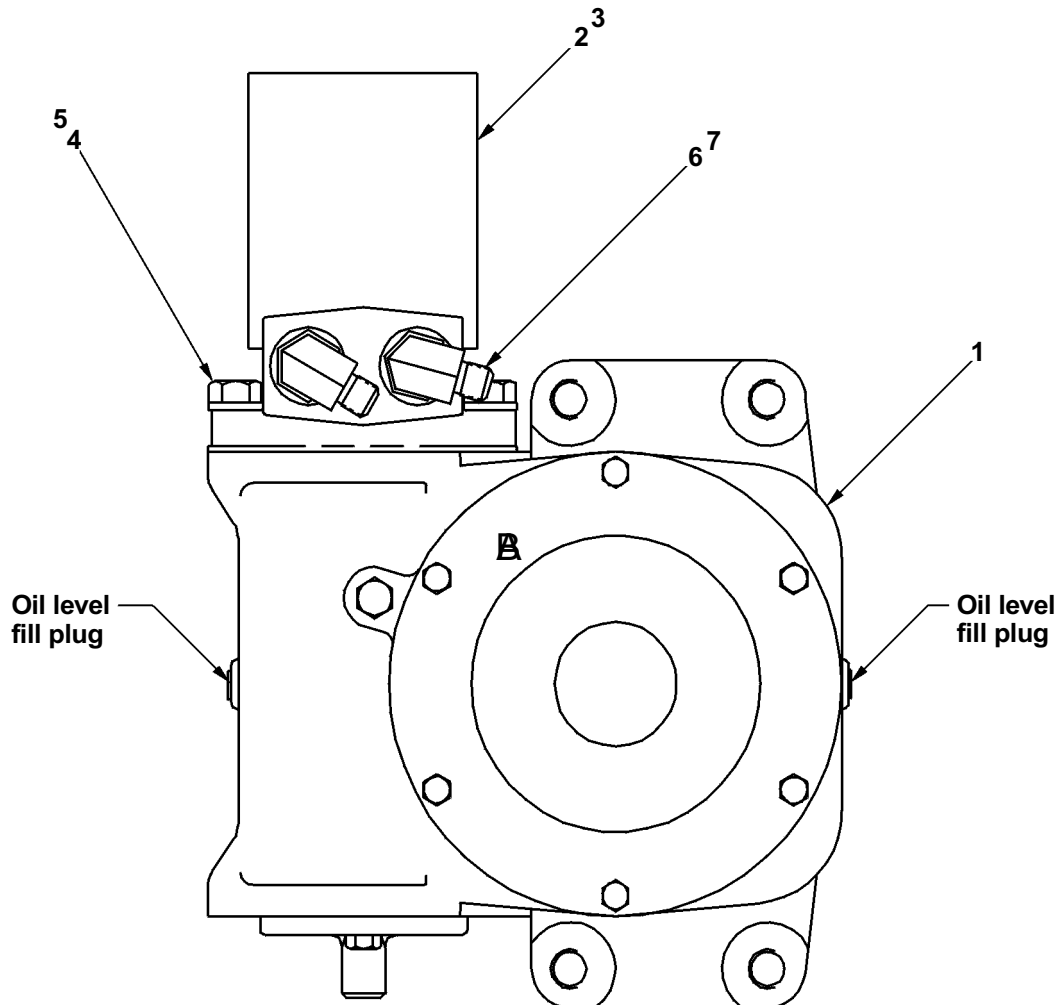
Turntable



AW016055

Swing drive

item	part no	qty	description
	0161411-99	1	Swing drive, complete
1	0160545-99	1	Swing drive - (see page 1-58 for parts breakdown)
2	6030026-99	1	Swing drive motor
	8230073	1	Seal repair kit
3	7110152	1	O-ring
4	987139	2	Washer 1/2 medium lock
5	5560087	2	Capscrew 1/2-13 x 1-1/4 inch long self locking
6	5037005	2	Swivel nut 90° elbow



AWV0161411

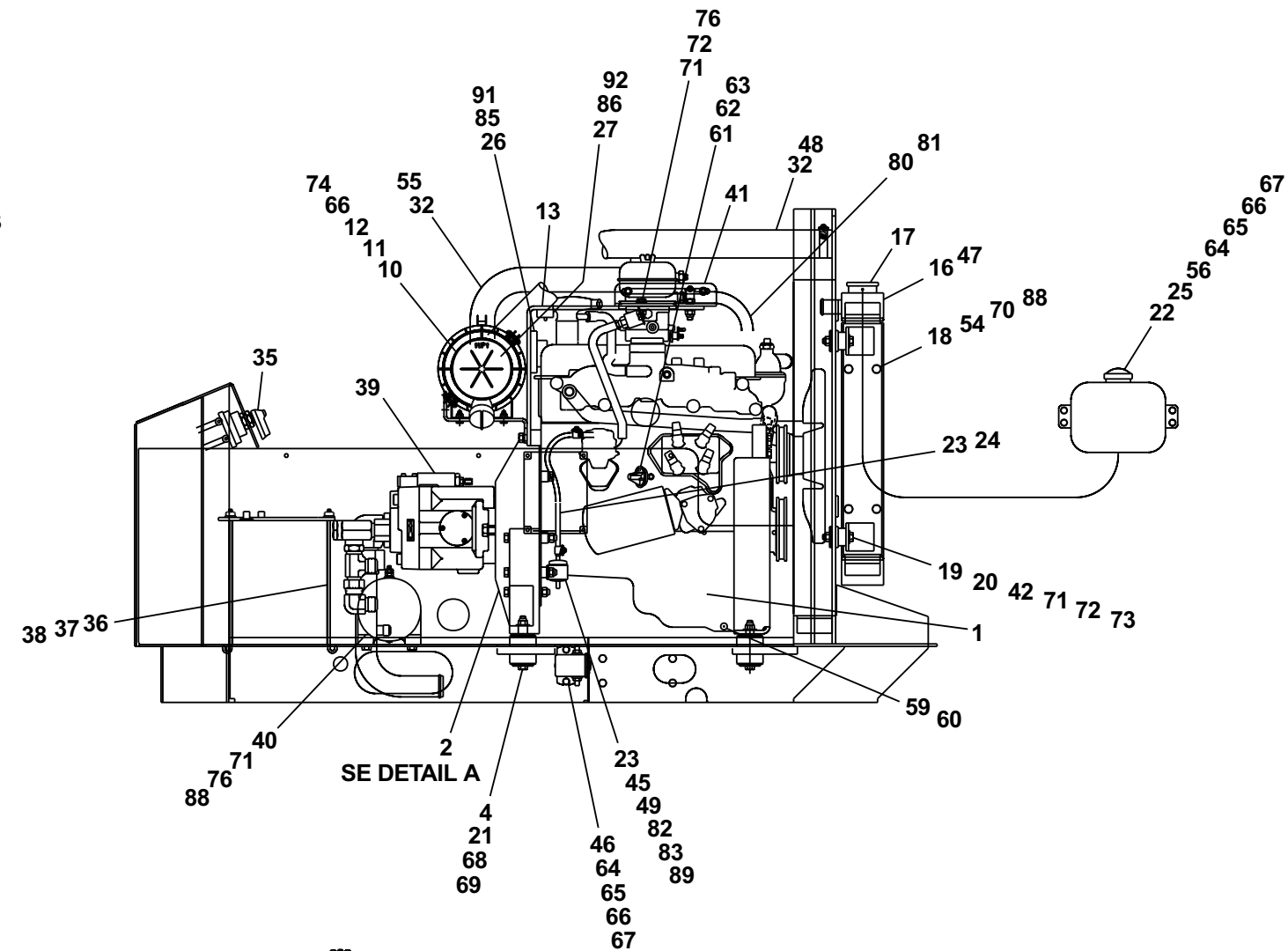
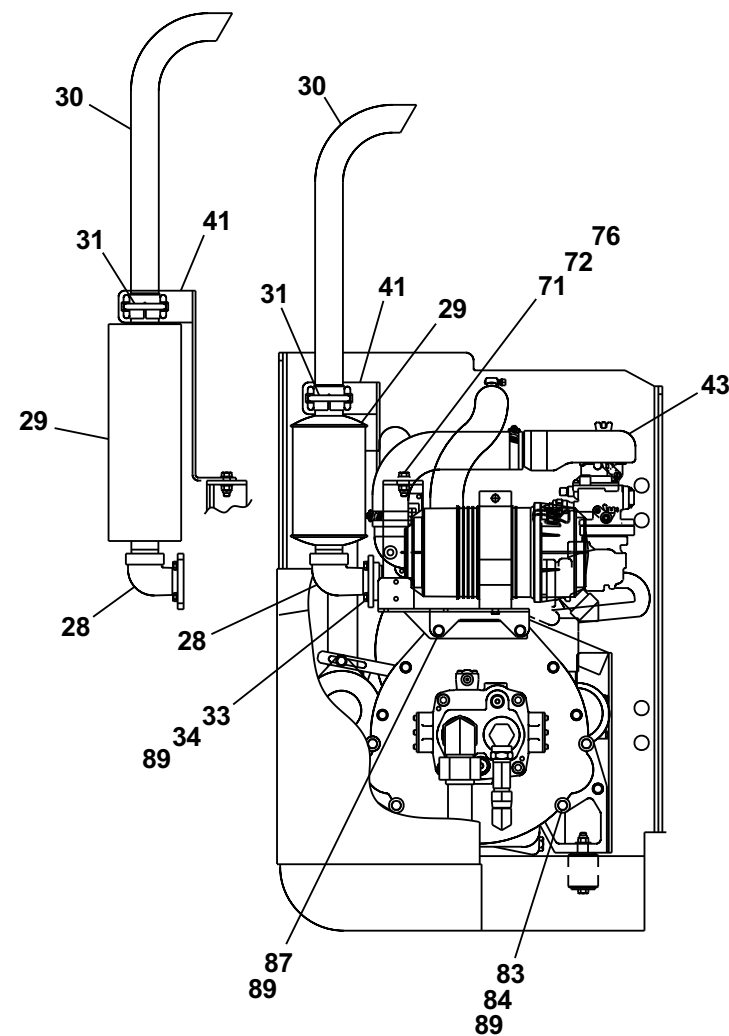
Engine tray, Ford gasoline

item	part no	qty	description
1	7620051	1	Engine, Ford VSG-413 gasoline (before 2-26-01)
	7624749	1	Engine, Ford VSG-413 gasoline (after 2-26-01)
	7630700	1	Replacement carburetor
	7630718	1	Carburetor rebuild kit
	7630319	1	Replacement governor
	7630720	1	Replacement ignition control module
	7630721	1	Replacement ignition distributor
	7630722	1	Replacement oil filter
	7630723	1	Replacement fuel filter
	7630724	2	Replacement spark plug
	7630725	1	Replacement spark plug wire #1
	7630726	1	Replacement spark plug wire #2
	7630727	1	Replacement spark plug wire #3
	7630728	1	Replacement spark plug wire #4
	7630729	1	Replacement starter (7620051 Ford engine)
	7630747	1	Replacement starter (7624749 Ford engine)
2	7630300	1	Flywheel housing coupling kit
3	0152594-99	1	Mount, left hand
4	7630001	1	Engine mount
5	0152643-99	1	Mount, right hand
6	7630697	1	V-belt
7	0152641-99	1	Adjustment bar
8	7630228	1	Alternator
9	7630238	1	Sheave
10	7630357	1	Air cleaner, 90° end - (see page 1-33 for parts breakdown)
11	7630358	1	Mounting bracket
12	0161779-99	1	Air cleaner bracket
13	0162064-99	1	Muffler bracket
14	7630253	1	Hose
15	5550020	4	Clamp
16	7630299-99	1	Radiator
17	7630239	1	Radiator cap - 13 psi
18	0101642-99	2	Radiator mounting bracket
19	7630180	4	Radiator cushion
20	5560179	8	Washer, snubbing
21	0070148	8	Engine mount washer
22	7630227	1	Overflow reservoir
	8060277	1	Replacement reservoir cap
23	5550028	3	Clamp
24	5010011	1	Fuel hose 5/16 inch diameter x 12 inch long
25	5010012	1	Radiator overflow hose 5/16 inch diameter x 24 inch long
26	7630305	1	Spark module - (included with 7620051 engine)
	7630782	1	Spark module - (included with 7624749 engine)
27	7630781	1	External map sensor
28	7734710	1	Pipe elbow 1-1/4 inch NPT 90° street
29	0071310	1	Muffler, spark arrestor
	7630002	1	Muffler, standard
30	0181125-79	1	Exhaust pipe
31	5550005	1	Clamp
32	5550030	4	Clamp
33	0152600-99	1	Exhaust adapter
34	0152599-99	1	Exhaust flange
35	3020049	1	Switch, battery disconnect
36	3050002	1	Battery, 12 volt DC - 550 CCA
37	0150910	2	Battery hold down bolt
38	3050008	1	Battery hold down
			Parts list continued on next page

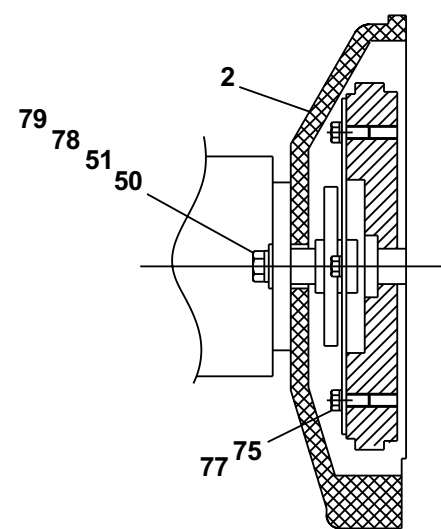
Engine tray, Ford gasoline

item	part no	qty	description
39	0162776	1	Hydraulic pump and fittings - (see page 2-67 for parts breakdown)
40	0161957	1	Emergency power motor/pump - (see page 2-63 for parts breakdown)
41	0161959-99	1	Muffler bracket
42	0162347-99	4	Radiator spacer
43	7630308	1	Air horn kit
44	5560222	1	Washer 3/8 hard flat ASTM-F436
45	7630286	1	Fuel filter
46	3040506	1	Solenoid, 12 volt DC
47	0161454-99	1	Shroud
48	7630706	1	Radiator hose, 26 inch long
49	5093027	1	Clamp
50	5560136	2	Capscrew 1/2-13 self locking drilled head
51	9980012	1	.040 inch diameter stainless steel safety lockwire - (sold in one pound can)
52	0181545-99	1	Upper spacer
53	7630321	1	Hose
54	0162162-99	2	Heat exchanger mount
55	7630360	1	Intake hose, molded
56	0162161-99	1	Overflow bottle mount bracket
57	0162162-99	2	Heat exchanger mount
58	0151920	1	Wire harness, alternator connector
59	5035325	1	Straight thread 90° elbow
60	5063703	1	Cap
61	3040149	1	Oil pressure switch
62	7720201	1	Reducer bushing
63	5090031	1	Street elbow 45°, 1/8 NPT
64	987099	2	Washer 1/4 medium lock
65	986019	2	Washer 1/4 medium flat
66	5560004	3	Nut 1/4-20 self locking
67	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
68	5560039	4	Nut 1/2-13 self locking
69	970989	4	Capscrew 1/2-13 x 3-1/2 inch long hex head grade 5
70	970449	4	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
71	986299	18	Washer 3/8 medium flat
72	5560033	6	Nut 3/8-16 self locking
73	970509	4	Capscrew 3/8-16 x 2 inch long hex head grade 5
74	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
75	5560355	8	Washer metric M8 lock
76	970479	4	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
77	972029	6	Capscrew metric M8-1.25 x 20mm long hex head
78	986359	2	Washer 1/2 medium flat
79	987139	2	Washer 1/2 medium lock
80	5010020	1	Fuel hose, 5/8 inch diameter x 26 inch long
81	5550010	2	Clamp
82	5560364	2	Washer metric M10 flat
83	5560671	3	Nut metric M10 hex
84	5560672	6	Capscrew metric M10-1.5 x 65mm long hex head
85	5560034	4	Nut #10-24 self locking
86	5560610	2	Machine screw #10-24 x 1-1/4 inch long truss head
87	5560626	2	Capscrew metric M10-1.5 x 30mm long hex head
88	987119	2	Washer 3/8 medium lock
89	5560356	20	Washer metric M10 lock
90	5560626	7	Capscrew metric M10-1.5 x 30mm long hex head
91	5560649	2	Machine screw #10-24 x 1 inch long truss head

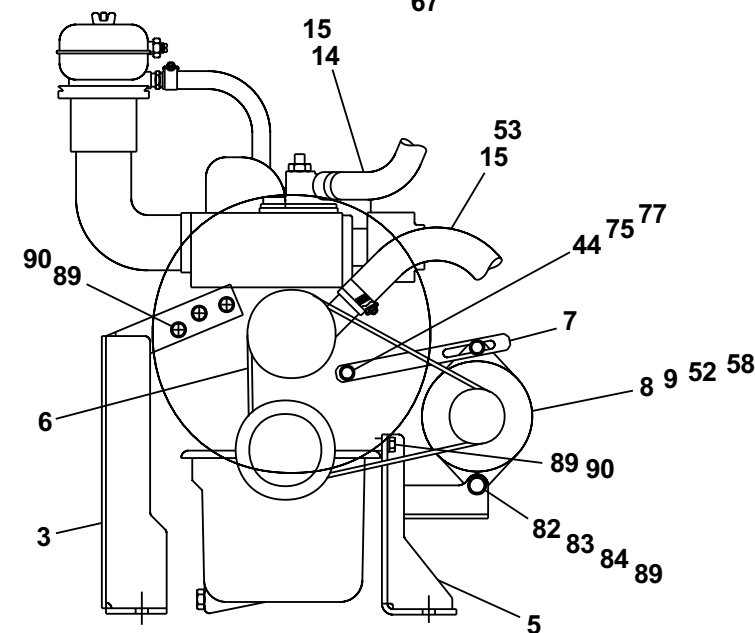
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DETAIL A



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Engine tray, Kubota diesel

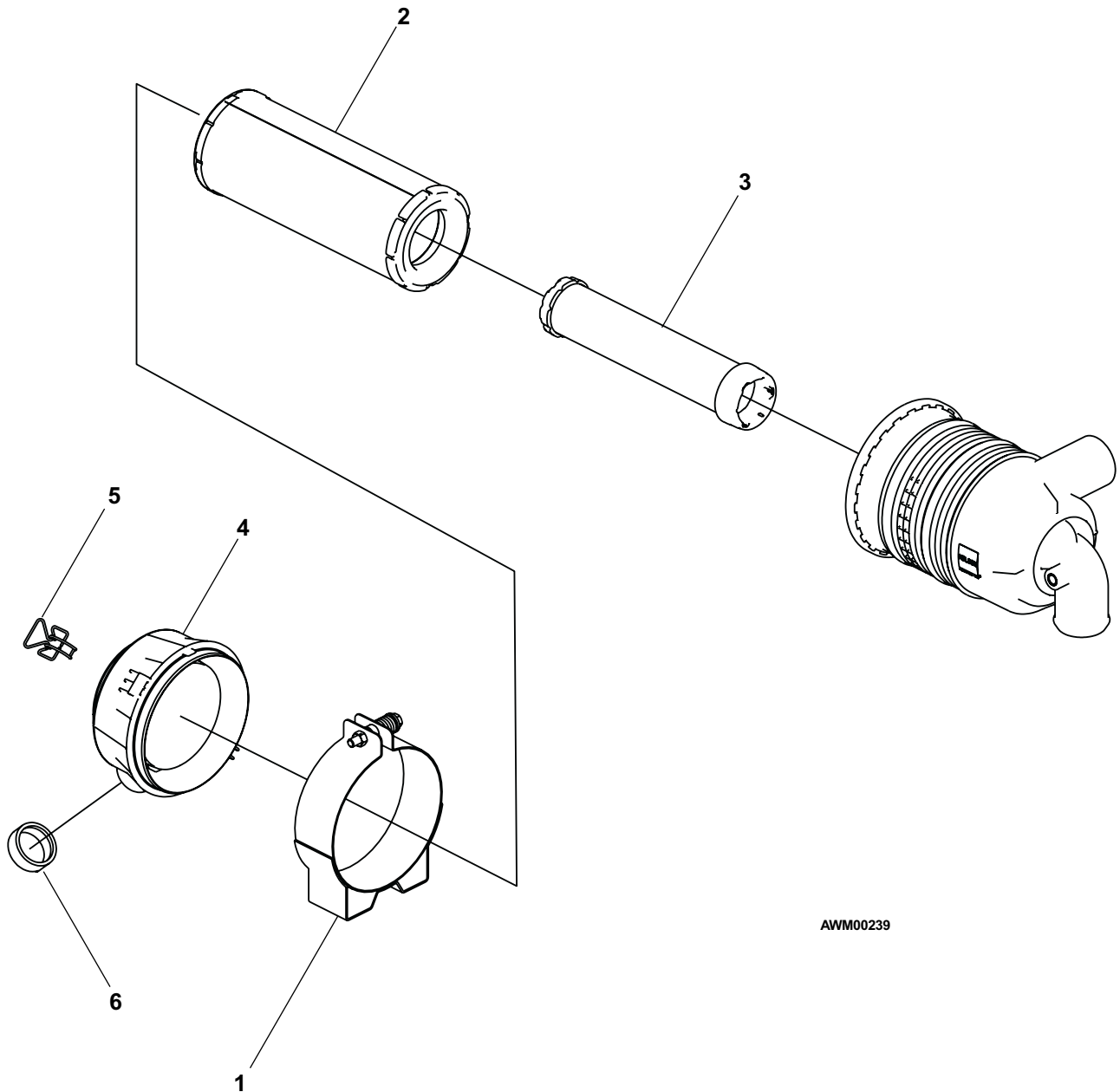
item	part no	qty	description
1	7620046	1	Engine, Kubota V1305-B1 diesel
	7630730	1	Replacement alternator
	7630731	1	Replacement fan/alternator belt
	7630732	1	Replacement fuel shutdown solenoid
	7630733	1	Replacement oil filter
	7630735	1	Replacement low pressure fuel filter
	7630736	1	Replacement glow plug
	7630737	1	Replacement fuel injector
	7630738	1	Replacement starter
2	0161527-99	1	Mount, right hand
3	0161528-99	1	Mount, left hand
4	7630752	4	Engine mount
5	0162698	1	Alternator
6	0162699	1	Actuator module
7	0161956-99	1	Actuator mount
8	7630734	1	Replacement high pressure fuel filter
9	0161960-99	1	Fuel filter mount
10	7630746	1	Air cleaner, straight end
11	7630358	1	Mounting bracket
12	0162070-99	1	Air cleaner bracket
13	0161524	1	Pump housing
14	7630257	1	Hose
15	5550020	4	Clamp
16	7630299-99	1	Radiator
17	7630239	1	Radiator cap - 13 psi
18	0101642-99	2	Radiator mounting bracket
19	7630180	4	Radiator cushion
20	5560179	8	Washer, snubbing
21	0070148	8	Engine mount washer
22	7630227	1	Overflow reservoir
	8060277	1	Replacement reservoir cap
23	5550028	7	Clamp
24	5010011	1	Fuel hose 5/16 inch diameter x 62 inch long
25	5010012	1	Radiator overflow hose 5/16 inch diameter x 24 inch long
26	0161014	1	Placard, battery switch
27	2890006	1	Rod end
28	0151707	1	Exhaust flange
29	0071310	1	Muffler, spark arrestor
	7630002	1	Muffler, standard
30	0181125-79	1	Exhaust pipe
31	5550050	1	Clamp
32	5550030	4	Clamp
33	5560355	6	Washer metric M8 lock
34	7630298	1	Intake hose, molded
35	3020049	1	Switch, battery disconnect
36	3050002	1	Battery, 12 volt DC - 550 CCA
37	0150910	2	Battery hold down bolt
38	3050008	1	Battery hold down
39	0162776	1	Hydraulic pump and fittings - (see page 2-67 for parts breakdown)
40	0161957	1	Emergency power motor/pump - (see page 2-63 for parts breakdown)
41	0161959-99	1	Muffler bracket
	0162186-99	1	Muffler bracket, standard muffler
42	0162347-99	4	Radiator spacer
43	5093012	1	Clamp
44	5560613	2	Washer metric M8 flat
45	7630152	1	Hose
			Parts list continued on next page

Engine tray, Kubota diesel

item	part no	qty	description
46	3040506	2	Solenoid, 12 volt DC
47	0161455-99	1	Shroud
48	0162192	1	Intake hose x 24 inch long
49	5560357	4	Capscrew metric M8-1.25 x 25mm long hex head
50	987919	1	Bushing
51	972029	2	Capscrew metric M8-1.25 x 20mm long hex head
52	0162161-99	1	Overflow bottle mount bracket
53	5560356	16	Washer metric M10 lock
54	987119	10	Washer 3/8 medium lock
55	0162182	2	Heat exchanger mount
56	972019	6	Capscrew metric M10-1.5 x 25mm long hex head
57	5093002	1	Clamp
58	5093000	1	Clamp
59	5093004	1	Clamp
60	5560625	10	Capscrew metric M10-1.5 x 20mm long hex head
61	5560364	16	Washer metric M10 flat
62	970469	2	Capscrew 3/8-16 x 1 inch long hex head grade 5
63		1	Fuel filter - (included with engine, see item 1)
64	987099	1	Washer 1/4 medium lock
65	986019	16	Washer 1/4 medium flat
66	5560004	10	Nut 1/4-20 self locking
67	970029	8	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
68	5560039	4	Nut 1/2-13 self locking
69	970989	4	Capscrew 1/2-13 x 3-1/2 inch long hex head grade 5
70	970449	8	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
71	986299	8	Washer 3/8 medium flat
72	5560033	6	Nut 3/8-16 self locking
73	970519	4	Capscrew 3/8-16 x 2-1/4 inch long hex head grade 5
74	970049	2	Capscrew 1/4-20 x 1 inch long hex head grade 5
75	5560031	7	Nut 5/16-18 self locking
76	970479	2	Capscrew 3/8-16 x 1-1/4 inch long hex head grade 5
77	5560136	2	Capscrew 1/2-13 self locking drilled head
78	5560168	2	Washer 1/2 hard flat ASTM-F436
79	25560083	1	Trim lock x 15 inch long
80		1	Shoulder bolt - (included with left hand mount, item 3)
81	970239	2	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
82	5530017	1	Washer 3/8 curved spring
83	7630323	1	Mounting block
84	970269	3	Capscrew 5/16-18 x 1-1/4 inch long hex head grade 5
85	986269	8	Washer 5/16 medium flat

Air cleaner

item	part no	qty	description
	7630357	1	Air cleaner, 90° end - (used on Ford engine)
	7630746	1	Air cleaner, straight end - (used on Kubota engine)
1	7630358	1	Mounting bracket
2	8140004	1	Primary element
3	8140005	1	Safety element
4	7630712	1	Cover
5	7630713	2	Clip
6	7630714	1	Dust ejector valve

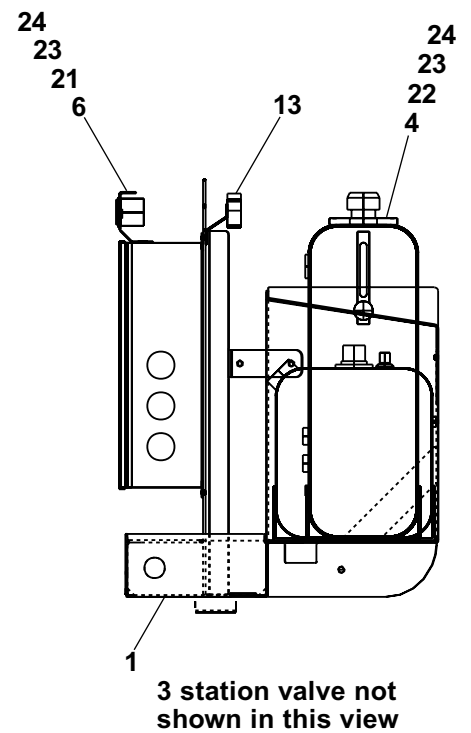
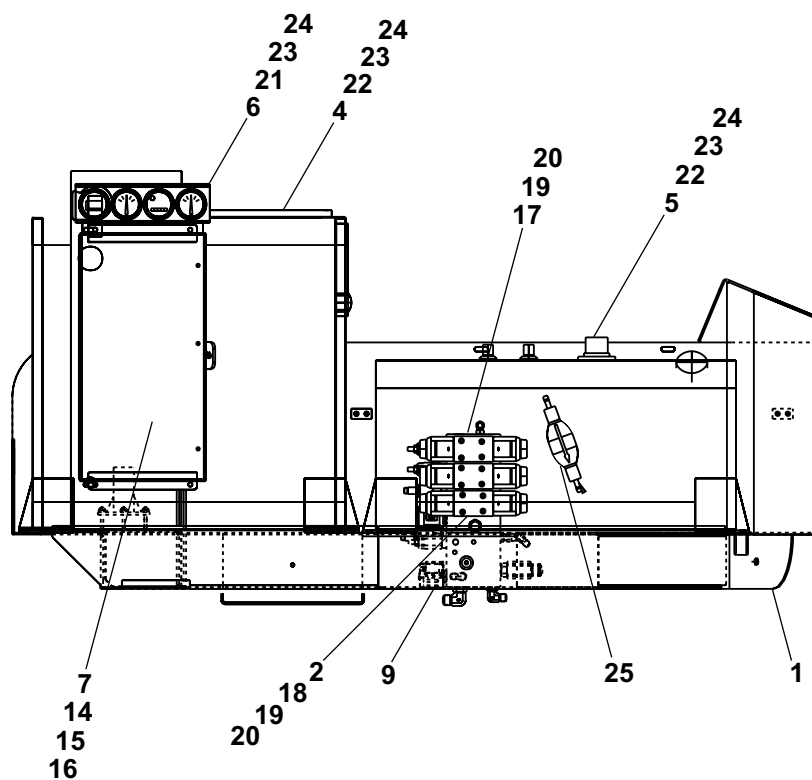
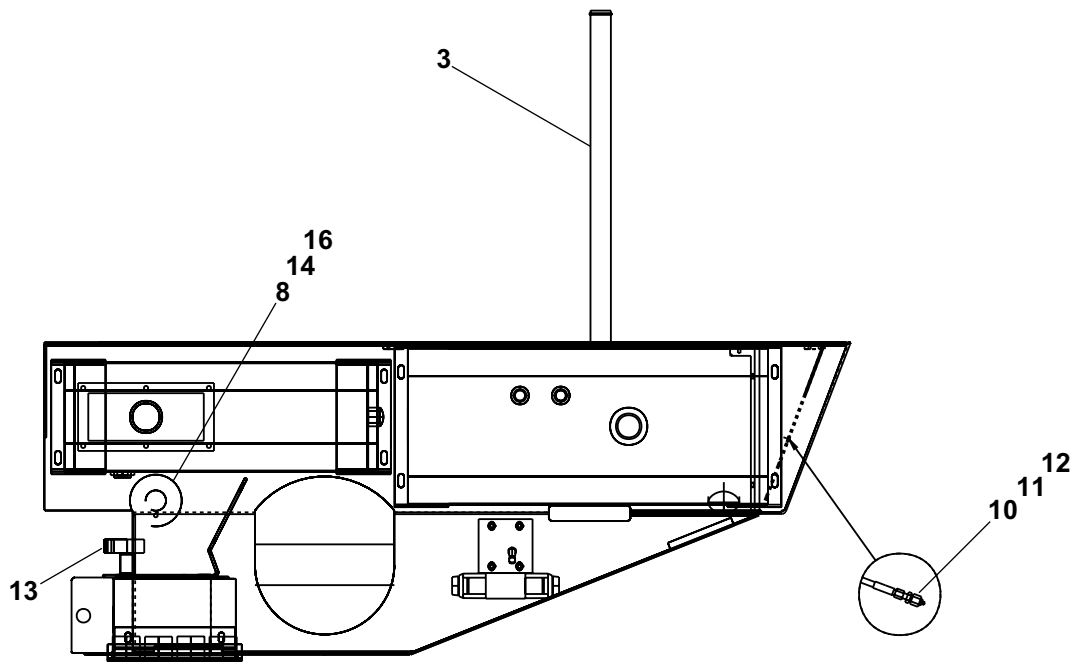


AWM00239

Fuel tray

item	part no	qty	description
1	0161881-99	1	Fuel tray
2	0161909	1	Control valve, 3 station - (see page 2-18 for parts breakdown)
3	0161889	1	Suction tube
4	0162596	1	Hydraulic oil reservoir - (see page 2-64 for parts breakdown)
5	0161905	1	Fuel tank, gasoline fuel
	0161906	1	Fuel tank, diesel fuel
6	0161907	1	Engine gauge panel - (see page 3-20 for parts breakdown)
7	0162077-79	1	Lower control box - (see page 3-16 for parts breakdown)
8	3020040	1	Level sensor 5°
9	0161855	1	Wire harness, turntable valves
10	5570001	1	Grease fitting, 1/8 NPT straight
11	5074401	1	Bulkhead locknut
12	5037102	1	Bulkhead connector
13	3040127	1	Horn, 12 volt DC
14	970029	7	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
15	986019	4	Washer 1/4 medium flat
16	5560004	7	Nut 1/4-20 self locking
17	970219	1	Capscrew 5/16-18 x 1/2 inch long hex head grade 5
18	970239	4	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
19	986269	5	Washer 5/16 medium flat
20	987109	5	Washer 5/16 medium lock
21	970449	2	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
22	970469	7	Capscrew 3/8-16 x 1 inch long hex head grade 5
23	986299	9	Washer 3/8 medium flat
24	5560033	9	Nut 3/8-16 self locking
25	7630216	1	Fuel primer bulb - (used on diesel machines only)

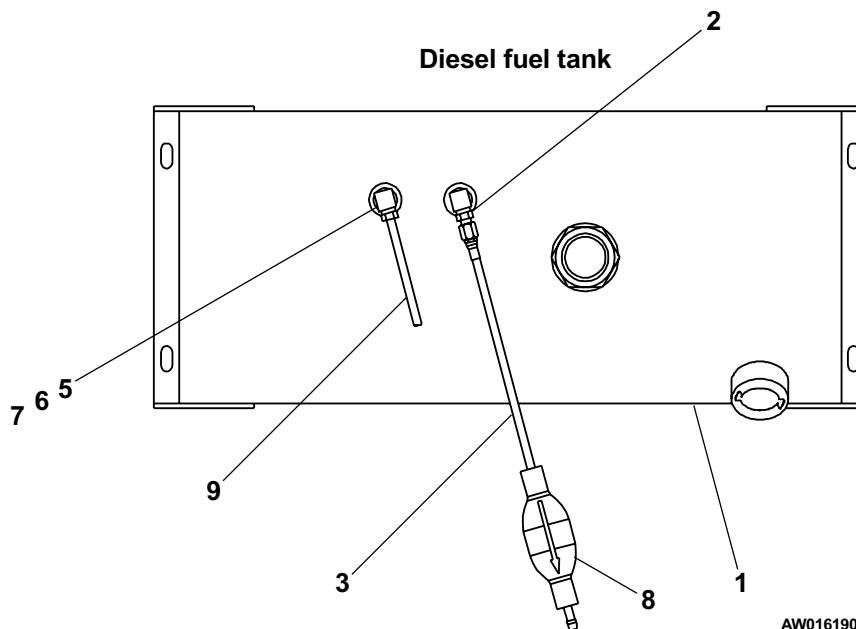
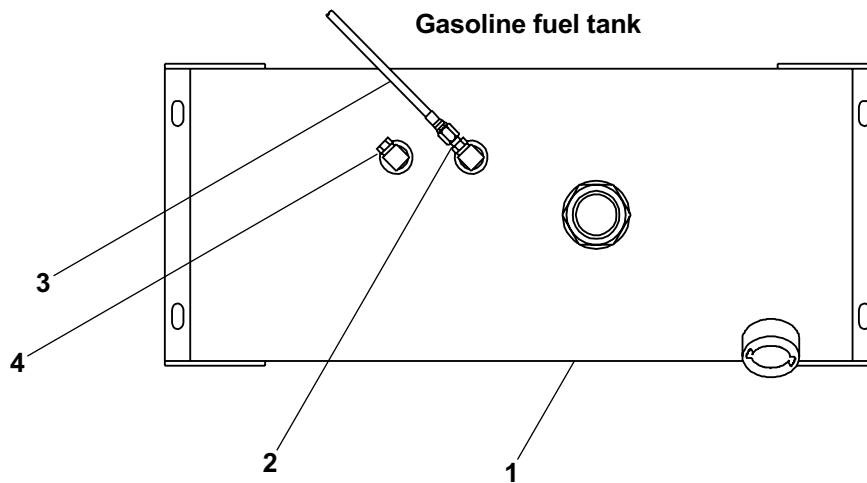
Fuel tray



AW016052

Fuel tank

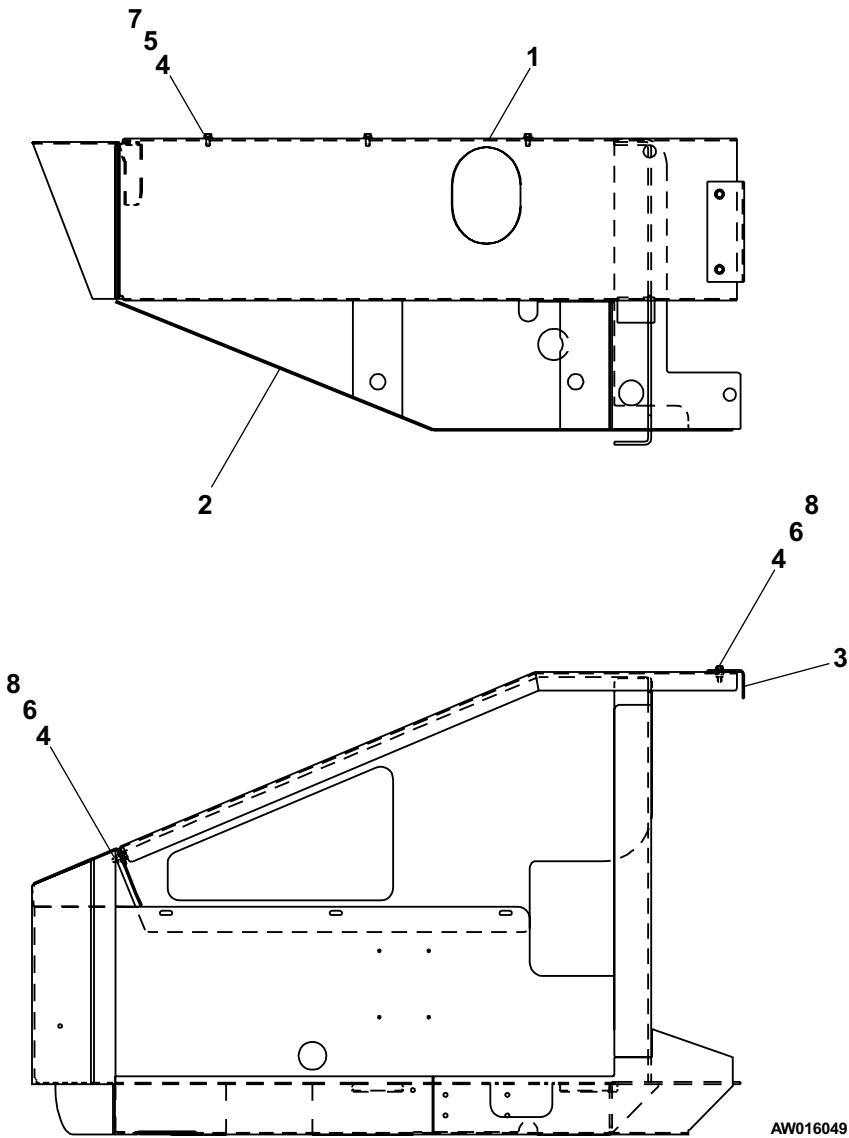
item	part no	qty	description
1	0161905	1	Fuel tank, gasoline fuel
	0161906	1	Fuel tank, diesel fuel
	0160769-99	1	Fuel tank, 15 gallon capacity
	9940001	1	Replacement fuel tank cap
	9949009	1	Replacement fuel gauge
2	5033604	1	Male adapter
3	0152688	1	Fuel hose
4	416246	1	Plug 1/4 NPT hex
Following parts required for diesel fuel tank only			
5	5090024	1	Vacuum fitting 1/8 NPT brass straight
6	5550028	1	Clamp
7	7720201	1	Reducer bushing
8	7630216	1	Fuel primer bulb
9	967359	1	Fuel hose



AW0161905

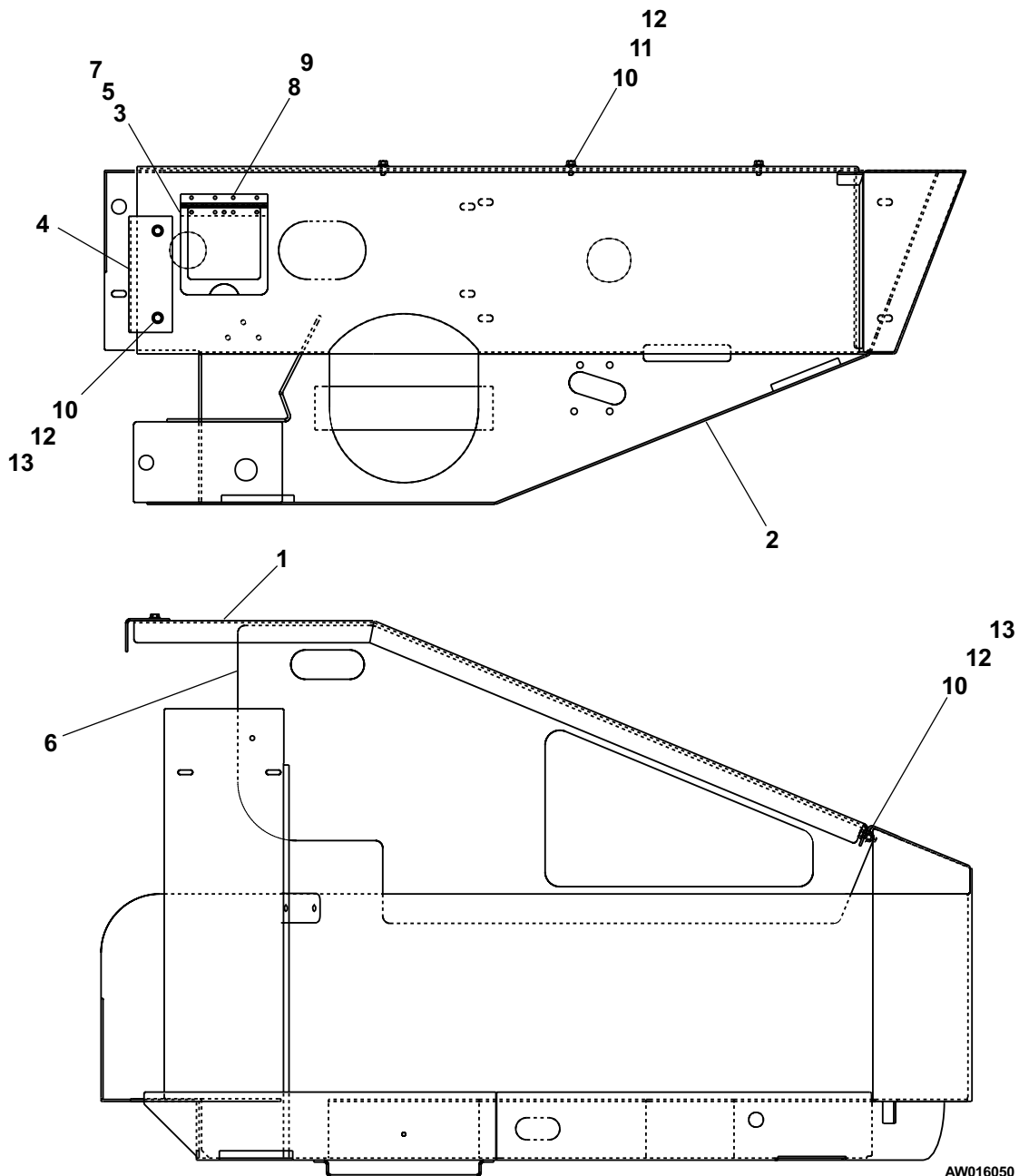
Cowling, engine tray

item	part no	qty	description
1	0162594-99	1	Top sheet, cowling
2	0161880-99	1	Engine tray
3	0162279-99	1	Back plate
4	0161947-99	1	Angle
5	986269	10	Washer 5/16 medium flat
6	5560031	4	Nut 5/16-18 self locking
7	970239	8	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
8	970259	2	Capscrew 5/16-18 x 1 inch long hex head grade 5



Cowling, fuel tray

item	part no	qty	description
1	0162593-99	1	Top sheet, cowling
2	0161881-99	1	Fuel tray
3	0070548	1	Door spring
4	0161947-99	1	Angle
5	560146-99	1	Door
6	0162279-99	1	Back plate
7	5569820	2	Rubber bumper
8	5560034	6	Nut #10-24 self locking
9	5560609	6	Machine screw #10-24 x 1/2 inch long truss head
10	986269	12	Washer 5/16 medium flat
11	5560372	8	Carriage bolt 5/16-18 x 3/4 inch long
12	5560031	10	Nut 5/16-18 self locking
13	970259	2	Capscrew 5/16-18 x 1 inch long hex head grade 5

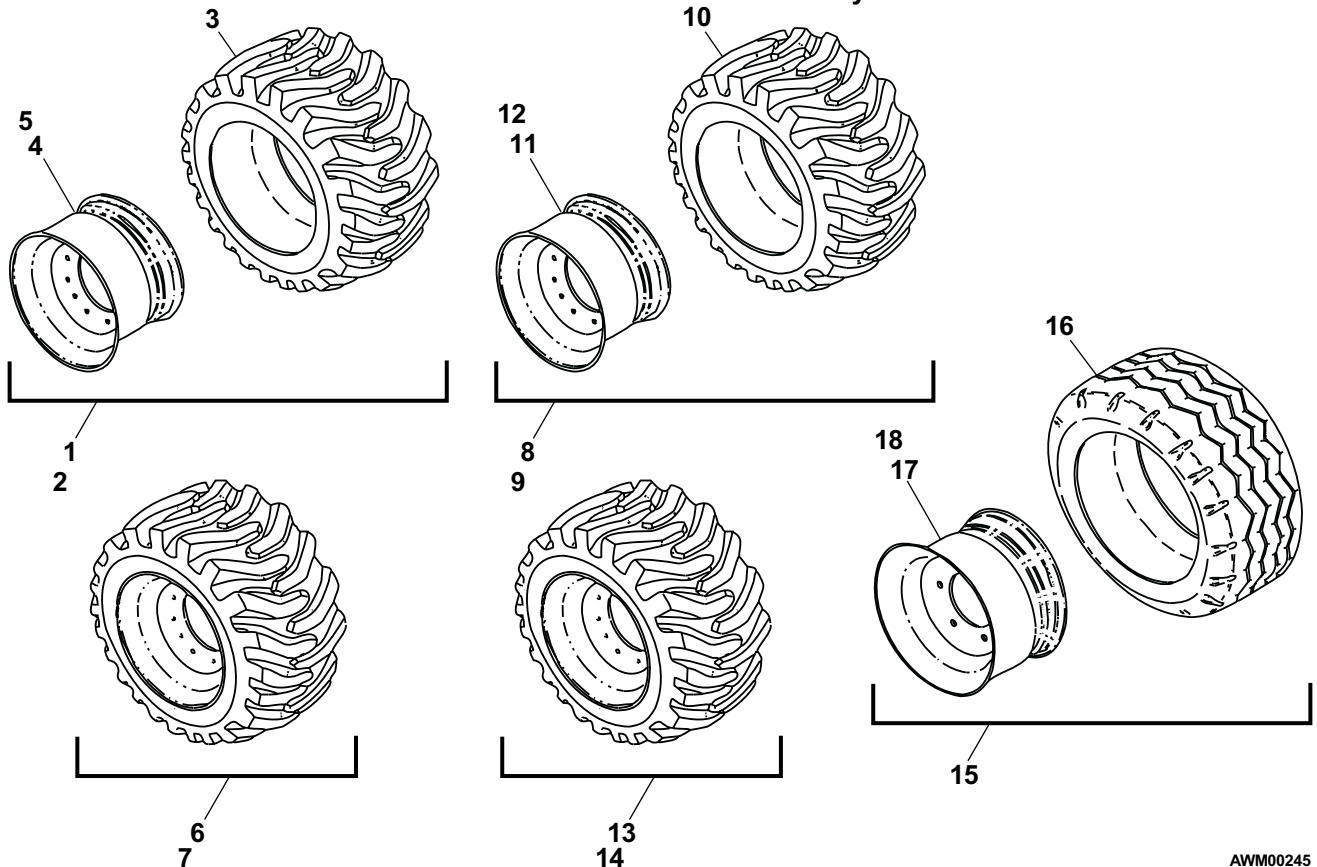


AW016050

Tires and wheels

item	part no	qty	description
Standard 12-16.5 air filled bar lug tire			
1	0161450	2	Tire and wheel, right hand - (includes items 3, 4, and 5)
2	0161451	2	Tire and wheel, left hand - (includes items 3, 4, and 5)
3	7280017	1	Tire, 12-16.5 8 ply bar lug
4	0160591-99	1	Wheel, 16.5 x 8.25
5	7280054	1	Rim valve
Optional 12-16.5 foam filled bar lug tire			
6	0161448	2	Tire and wheel, right hand - 12-16.5 8 ply bar lug
7	0161449	2	Tire and wheel, left hand - 12-16.5 8 ply bar lug
Optional 14-17.5 air filled loader lug tire			
8	0161442	2	Tire and wheel, right hand - (includes items 10, 11, and 12)
9	0161443	2	Tire and wheel, left hand - (includes items 10, 11, and 12)
10	7280070	1	Tire, 14-17.5 8 ply loader lug
11	0161445-99	1	Wheel, 17.5 x 10.5
12	7280054	1	Rim valve
Optional 14-17.5 foam filled loader lug tire			
13	0161440	2	Tire and wheel, right hand - 14-17.5 8 ply loader lug
14	0161441	2	Tire and wheel, left hand - 14-17.5 8 ply loader lug
Optional 33/16LL-16.1 air filled sand/flotation tire			
15	0162339	4	Tire and wheel - 33/16L-16.1 10 ply turf saver - (includes items 16, 17 and 18)
16	7280074	1	Tire, 33/16LL-16.1 10 ply surf saver
17	0162338-99	1	Wheel, 16.1 x 14
18	7280054	1	Rim valve

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

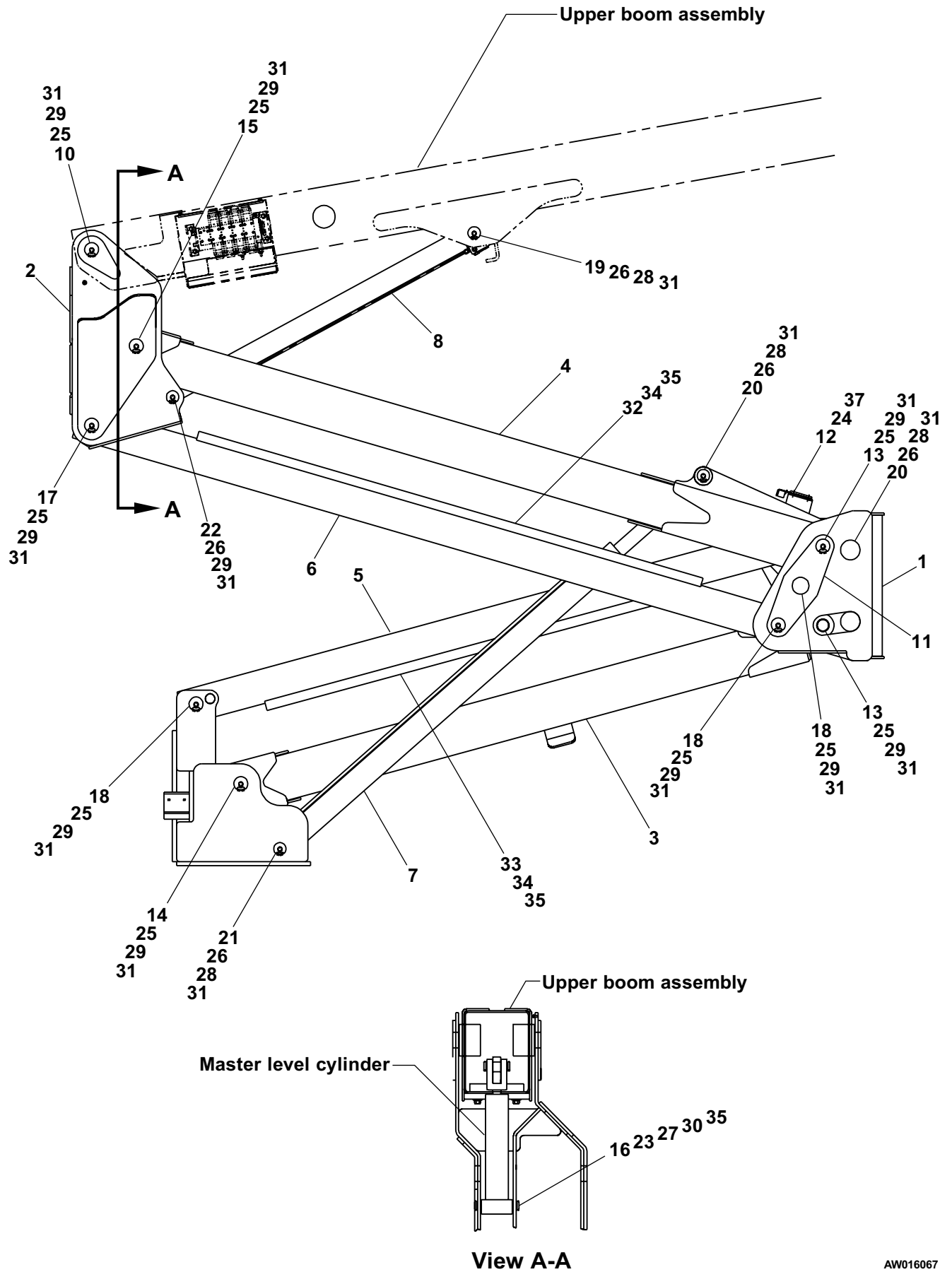


AWM00245

Booms, lower

item	part no	qty	description
1	0160725-99	1	Riser bracket
2	0162148	1	Floating turret
3	0160685-99	1	Bottom arm
4	0160625-99	1	Top arm
5	0160681-99	1	Bottom follower bar
6	0160656-99	1	Top follower bar
7	0161185-99	1	Riser lift cylinder - (see page 2-55 for parts breakdown)
8	0161188-99	1	Main boom lift cylinder - (see page 2-48 for parts breakdown)
9	0162335	1	Switch, main boom - (see page 3-24 for parts breakdown)
10	0160751	1	Pin
11	0160643-99	1	Timing link
12	0160698	1	Riser support pad
13	0160748	2	Pin
14	0160749	1	Pin
15	0160750	1	Pin
16	970469	2	Capscrew 3/8-16 x 1 inch long hex head grade 5
17	0160752	1	Pin
18	0160754	3	Pin
19	0160755	1	Pin
20	0160756	3	Pin
21	0160757	1	Pin
22	0160758	1	Pin
23	0160946	1	Pin
24	972469	2	Capscrew 3/8-16 x 1 inch long socket flat head
25	0160763-99	18	Pin lock
26	0160764-99	12	Pin lock
27	0160972-99	2	Pin lock
28	5590026	12	Retaining ring
29	5590027	18	Retaining ring
30	300542	2	Snap ring 1 inch heavy duty
31	300729	28	Wheel bolt 1/2-20
32	0160976-99	1	Top channel, hose guide
33	0160977-99	1	Bottom channel, hose guide
34	970439	6	Capscrew 3/8-16 x 5/8 inch long hex head grade 5
35	987119	8	Washer 3/8 medium lock
36	986299	6	Washer 3/8 medium flat
37	5560033	2	Nut 3/8-16 self locking

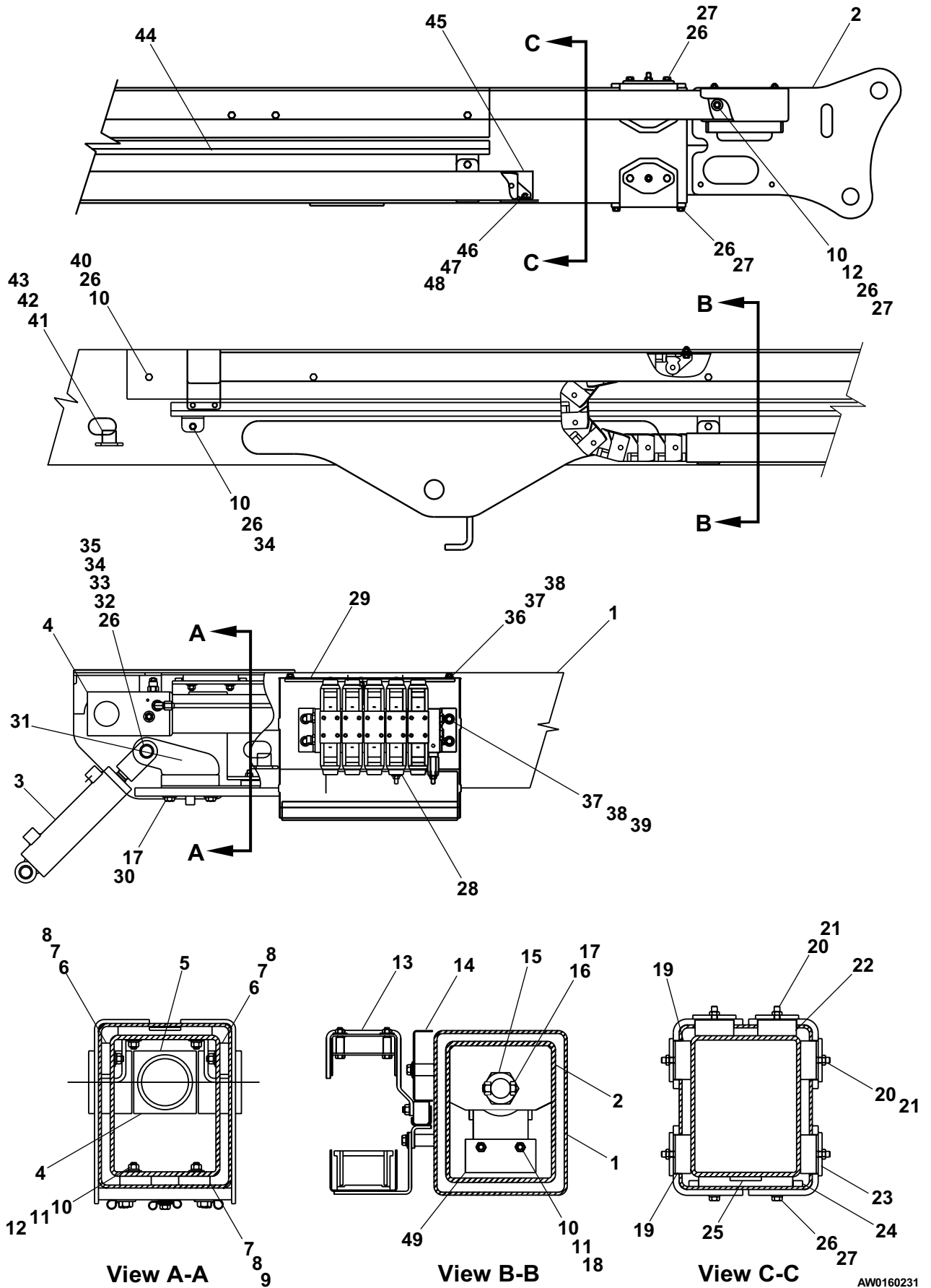
Booms, lower



Booms, upper

item	part no	qty	description
1	0160848-99	1	Base boom
2	0160845-99	1	Intermediate boom
3	0162482	1	Master level cylinder - (see page 2-51 for parts breakdown)
4	0161483	1	Extend cylinder - (see page 2-44 for parts breakdown)
5	0160866	1	Slide pad
6	0150121	2	Slide pad
7	0070838	4	Slide pad shim, .030 inch thick
8	0071272	4	Slide pad shim, .063 inch thick
9	0161766	2	Slide pad
10	986299	23	Washer 3/8 medium flat
11	5560644	12	Capscrew 3/8-16 x 1-1/4 inch long socket flat head
12	5560033	14	Nut 3/8-16 self locking
13	0161467	1	Power trak - (see page 1-46 for parts breakdown)
14	0162218-99	1	Channel, hose guide
15	5560030	1	Nut 1-1/4-12 self locking
16	5560039	1	Nut 1/2-13 self locking
17	5560154	5	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 8
18	5560106	2	Capscrew 3/8-16 x 2-3/4 inch long hex head grade 5
19	0030921	4	Slide pad
20	5560197	6	Set screw 3/8-16 x 1 inch long hex socket flat point
21	5560611	6	Nut 3/8-16 hex jam
22	0162208	2	Slide pad
23	0161105	6	Slide pad retainer plate
24	0160867-99	1	Plate, slide mount
25	0160864	1	Slide pad
26	987119	32	Washer 3/8 medium lock
27	970469	20	Capscrew 3/8-16 x 1 inch long hex head grade 5
28	0161223	1	Control valve, 5 station - (see page 2-26 for parts breakdown)
29	0161203-99	1	Cover, control valve
30	5560168	4	Washer 1/2 hard flat ASTM-F436
31	0160823-99	1	Bracket, master level cylinder
32	0160972-99	2	Pin lock
33	5591100	2	Snap ring
34	970449	3	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
35	0160947	1	Pin
36	970219	2	Capscrew 5/16-18 x 1/2 inch long hex head grade 5
37	986269	10	Washer 5/16 medium flat
38	987109	6	Washer 5/16 medium lock
39	970289	4	Capscrew 5/16-18 x 1-3/4 inch long hex head grade 5
40	970439	5	Capscrew 3/8-16 x 5/8 inch long hex head grade 5
41	0162333	2	Switch, extend - (see page 3-22 for parts breakdown)
42	974739	4	Machine screw #10-24 x 1-1/2 inch long round head
43	5560034	4	Nut #10-24 self locking
44	0161012-99	1	Channel, slide
45	0161013-99	1	Channel, bottom
46	0161784-99	1	Pad, boom switch
47	5560031	2	Nut 5/16-18 self locking
48	970249	2	Capscrew 5/16-18 x 7/8 inch long hex head grade 5
49	0160863	1	Slide block, extend cylinder

Booms, upper

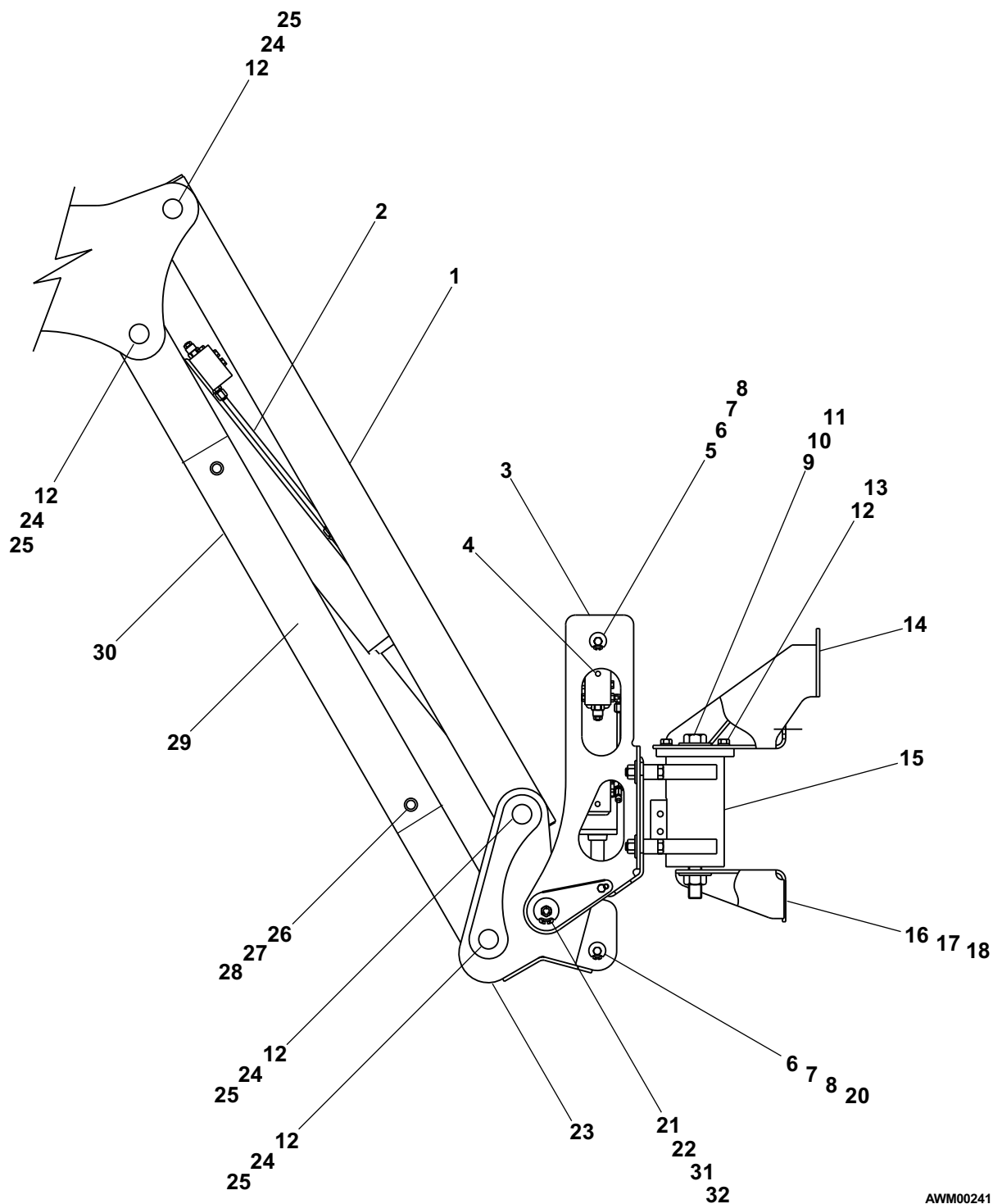


AW0160231

Jib arm

item	part no	qty	description
1	0161865-99	1	Jib arm
2	0162795	1	Jib cylinder - (see page 2-46 for parts breakdown)
3	0161949-99	1	Rotary mount bracket
4	0161189-99	1	Slave level cylinder - (see page 2-57 for parts breakdown)
5	0160948	1	Pin
6	0160972-99	4	Pin
7	5591100	4	Snap ring
8	970449	4	Capscrew 3/8-16 x 3/4 inch long hex head grade 5
9	5560281	1	Capscrew 1-8 x 12 inch long hex head grade 5
10	5560172	1	Washer 1 hard flat ASTM-F436
11	984249	1	Washer 1 inch medium lock
12	970889	10	Capscrew 1/2-13 x 1 inch long hex head grade 5
13	987139	6	Washer 1/2 medium lock
14	0161044-99	1	Platform mounting bracket, upper
15	0161526	1	Platform rotator - (see page 1-51 for parts breakdown)
16	5560195	4	Capscrew 5/8-11 x 2-1/2 inch long hex head grade 5
17	5560169	4	Washer 5/8 hard flat ASTM-F436
18	5560131	4	Nut 5/8-11 self locking
19	0160781-99	1	Platform mounting bracket, lower
20	0160949	1	Pin
21	0160760	1	Pin
22	0160765-99	2	Pin lock
23	0162016-99	1	Jib end
24	0162568-99	4	Pin
25	0082521	4	Banjo pin
26	970439	2	Capscrew 3/8-16 x 5/8 inch long hex head
27	987119	2	Washer 3/8 medium lock
28	986299	2	Washer 3/8 medium flat
29	0161307-99	1	Channel, jib hose carrier
30	0161866-99	1	Jib arm with standoffs
31	300729	2	Wheel bolt 1/2-20
32	302323	2	Retaining ring

Jib arm



AWM00241

Power trak

item	part no	qty	description
	0161467	1	Power trak
1	9920026	25	Power track link
2	0161011-99	1	Top channel
3	9920028	1	Mounting bracket, male
4	9920027	1	Mounting bracket, female
5	970239	4	Capscrew 5/16-18 x 3/4 inch long hex head grade 5
6	986269	10	Washer 5/16 medium flat
7	5560031	10	Nut 5/16-18 self locking
8	5560674	4	Capscrew 5/16-18 x 1-1/2 inch long hex head grade 5
9	0161416-99	2	Clamp bar
10	0162481-99	4	Spacer
11	970259	2	Capscrew 5/16-18 x 1 inch long hex head grade 5
12	0161688	1	Hose clamp
13	970349	2	Capscrew 5/16-18 x 2-3/4 inch long hex head grade 5
14	0160897-99	1	Tip end bracket
15	0160909	1	Side block
16	972469	2	Capscrew 3/8-16 x 1 inch long socket flat head
17	5560033	2	Nut 3/8-16 self locking
18	0161688	1	1/4 inch hydraulic hose - (jib extend)
19	0161688	1	1/4 inch hydraulic hose - (jib retract)
20	0161689	1	1/4 inch hydraulic hose - (rotation clockwise)
21	0161689	1	1/4 inch hydraulic hose - (rotation counter-clockwise)
22	0161690	1	1/4 inch hydraulic hose - (level extend)
23	0161690	1	1/4 inch hydraulic hose - (level retract)
24	0161686	1	Boom wire harness, 12 gauge/8 conductor
25	0161685	1	Boom wire harness, 18 gauge/19 conductor - square 12 pin/round 9 pin connectors
26	0161684	1	Boom wire harness, 18 gauge/19 conductor - square 12 pin/square 8 pin connectors
27	3011203	1	Wire, 12 gauge/3 conductor x 68 feet long

The technical drawing illustrates a cable management system with three views:

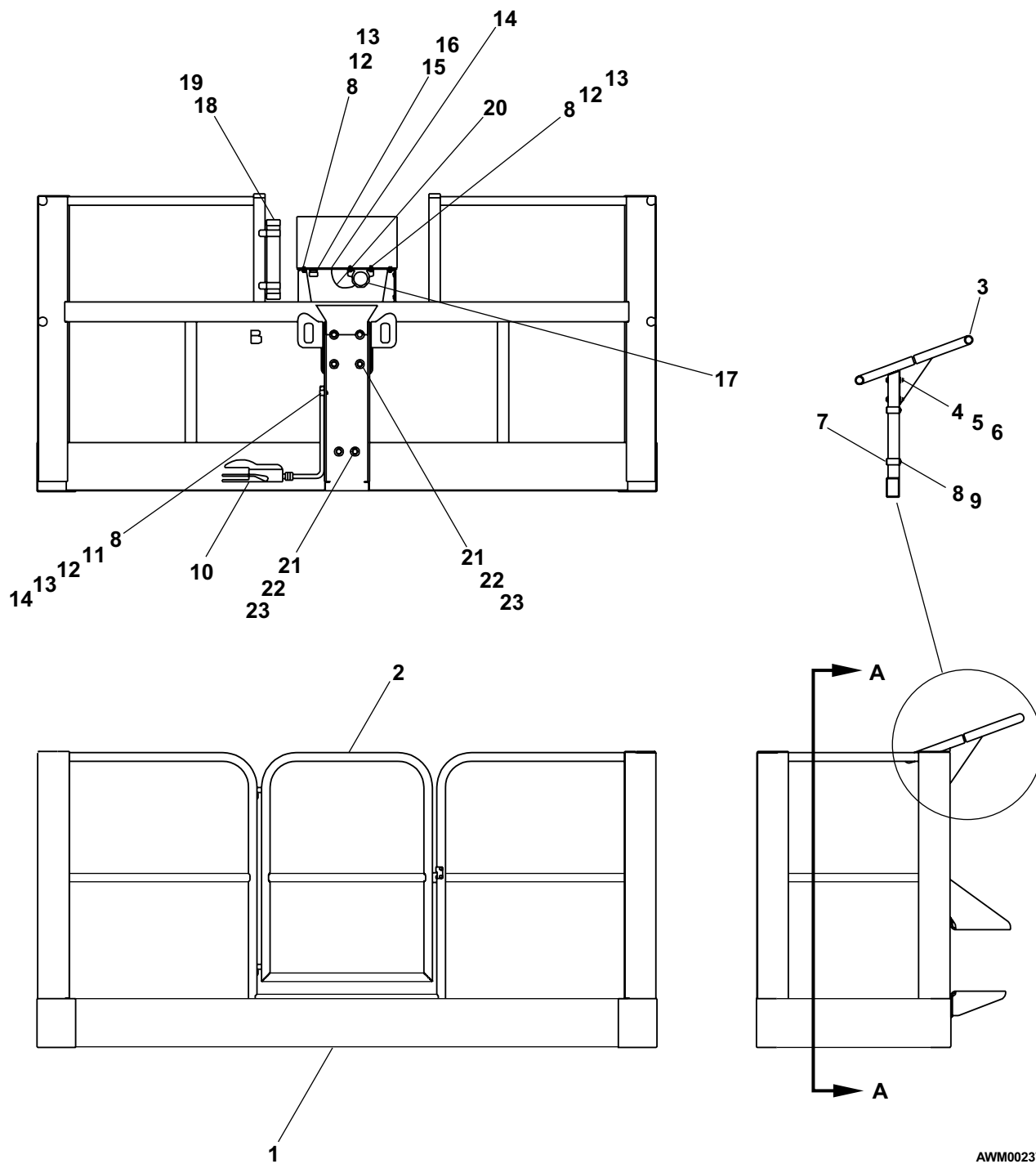
- Top View:** Shows a horizontal cable assembly. On the left, a cable enters a rectangular housing (1) and exits through a series of parallel slots (23-27). The cable is secured by a clamping mechanism (11, 12, 13, 14, 15, 16, 17). The cable is labeled with numbers 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27.
- Side View:** Shows the cable assembly from the side. The cable is labeled with numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27. The cable is shown entering a housing (1) and exiting through a series of parallel slots (23-27). The cable is secured by a clamping mechanism (11, 12, 13, 14, 15, 16, 17). The cable is labeled with numbers 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27.
- Detail View:** A close-up of the clamping mechanism (11, 12, 13, 14, 15, 16, 17) showing the cable (18, 19, 20, 21, 22, 23, 24, 25, 26, 27) being secured by a clamping mechanism (11, 12, 13, 14, 15, 16, 17).

View A-A AWM00242

AB50J – 02-01 and after

Platform

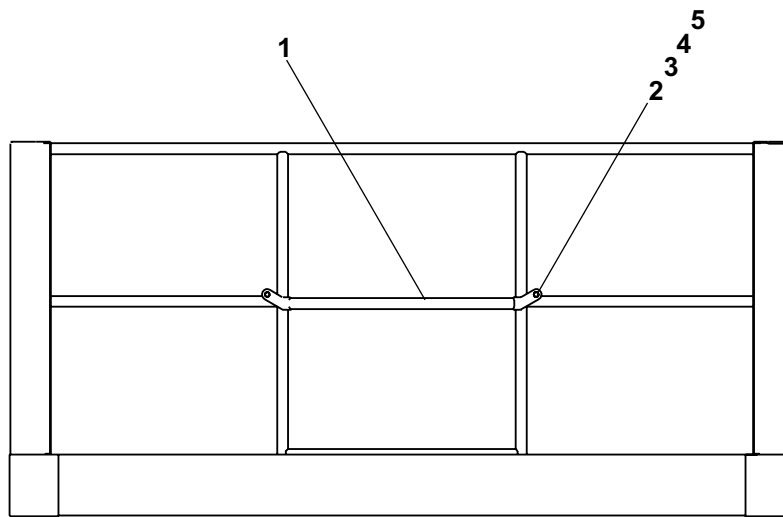
item	part no	qty	description
1		1	Platform - (consult factory)
2		1	Platform gate - (see page 1-50 for proper platform gate)
3	0161652-99	1	Upper control box handrail
4	5560033	6	Nut 3/8-16 self locking
5	970529	4	Capscrew 3/8-16 x 2-1/2 inch long hex head grade 5
6	986299	8	Washer 3/8 medium flat
7	5093013	2	Clamp
8	986019	14	Washer 1/4 medium flat
9	978629	2	Capscrew 1/4-20 x 1/2 inch long hex head self tapping
10	0161491	1	Platform foot switch - (see page 3-21 for parts breakdown)
11	5093004	1	Clamp
12	970029	7	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
13	984069	7	Nut 1/4-20 hex
14	987099	2	Washer 1/4 medium lock
15	3040110	1	Connector locknut
16	3040116	1	Connector
17	480652	1	Siren, tilt alarm
18	0101397	1	Document tube
19	7050003	2	Cap, document tube
20	0070709	1	Jumper wire
21	970909	6	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
22	986359	12	Washer 1/2 medium flat
23	984069	6	Nut 1/2-13 hex



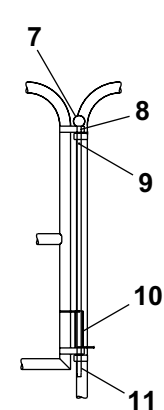
AWM00237

Platform gate

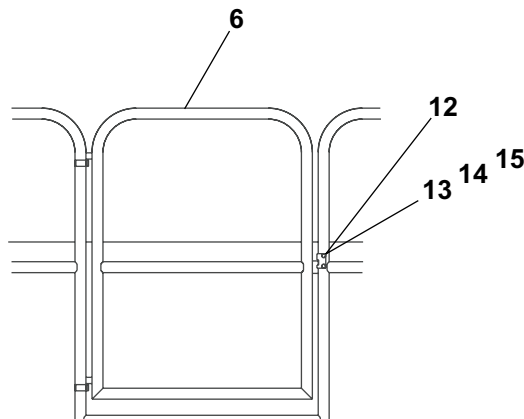
item	part no	qty	description
Gravity gate for 5, 6 and 8 foot aluminum platforms			
	016117728	1	Gravity gate service kit - (kit includes items 1 through 5)
1	0161177-89	1	Gravity gate, aluminum platform
2	0161182-89	2	Roller, aluminum gravity gate
3	0161184-89	2	Roller spacer, aluminum gravity gate
4	970519	2	Capscrew 3/8-16 x 2-1/4 inch long hex head grade 5
5	5560033	2	Nut 3/8-16 self locking
Swinging gate for 5, 6 and 8 foot aluminum platforms			
6	0160970-89	1	Swinging gate, aluminum platform
7	2667500	1	Knob, gate hinge pin
8	2572007	2	Bearing
9	5560056	1	Roll pin 1/8 inch diameter x 1 inch long
10	0071837	1	Torsion spring
11	0322724	1	Pin, gate hinge
12	0161472-89	1	Latch stop
13	987099	2	Washer 1/4 medium lock
14	984529	3	Nut sert 1/4-20
15	970099	3	Capscrew 1/4-20 x 5/8 inch long hex head grade 5
16	986019	1	Washer 1/4 medium flat
17	300891-89	1	Door latch



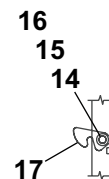
Gravity gate, aluminum platform



**Gate pin
Rear view**



Swinging gate, aluminum platform

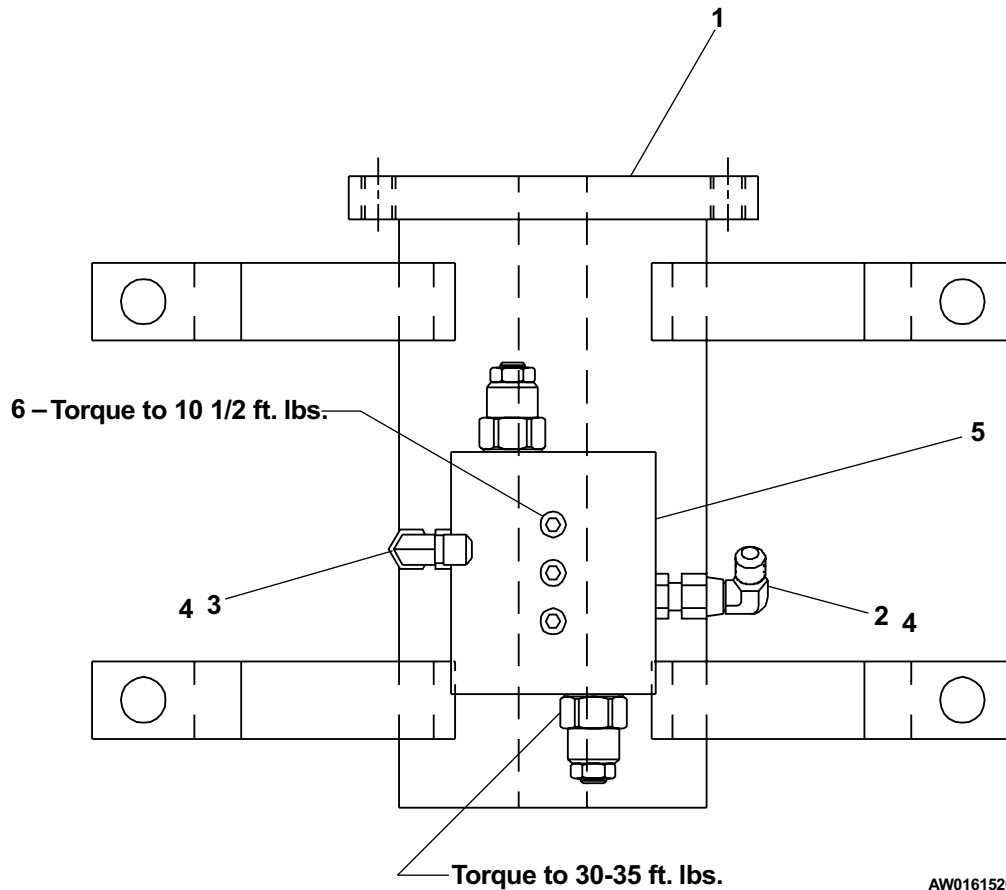


**Door latch
rear view**

AWM00238

Platform rotator

item	part no	qty	description
	0161526	1	Platform rotator
1	0161808-99	1	Hydraulic platform rotator - (see page 2-66 for parts breakdown)
2	5065703	1	Straight thread adapter
3	5037003	2	Swivel nut 90° elbow
4	5035303	1	Straight thread 90° elbow
5	6018912	1	Dual counterbalance valve - (factory preset, do not reset)
	6010794	1	Replacement cartridge
6	978419	3	Capscrew 1/4-20 x 1-1/2 inch long socket head

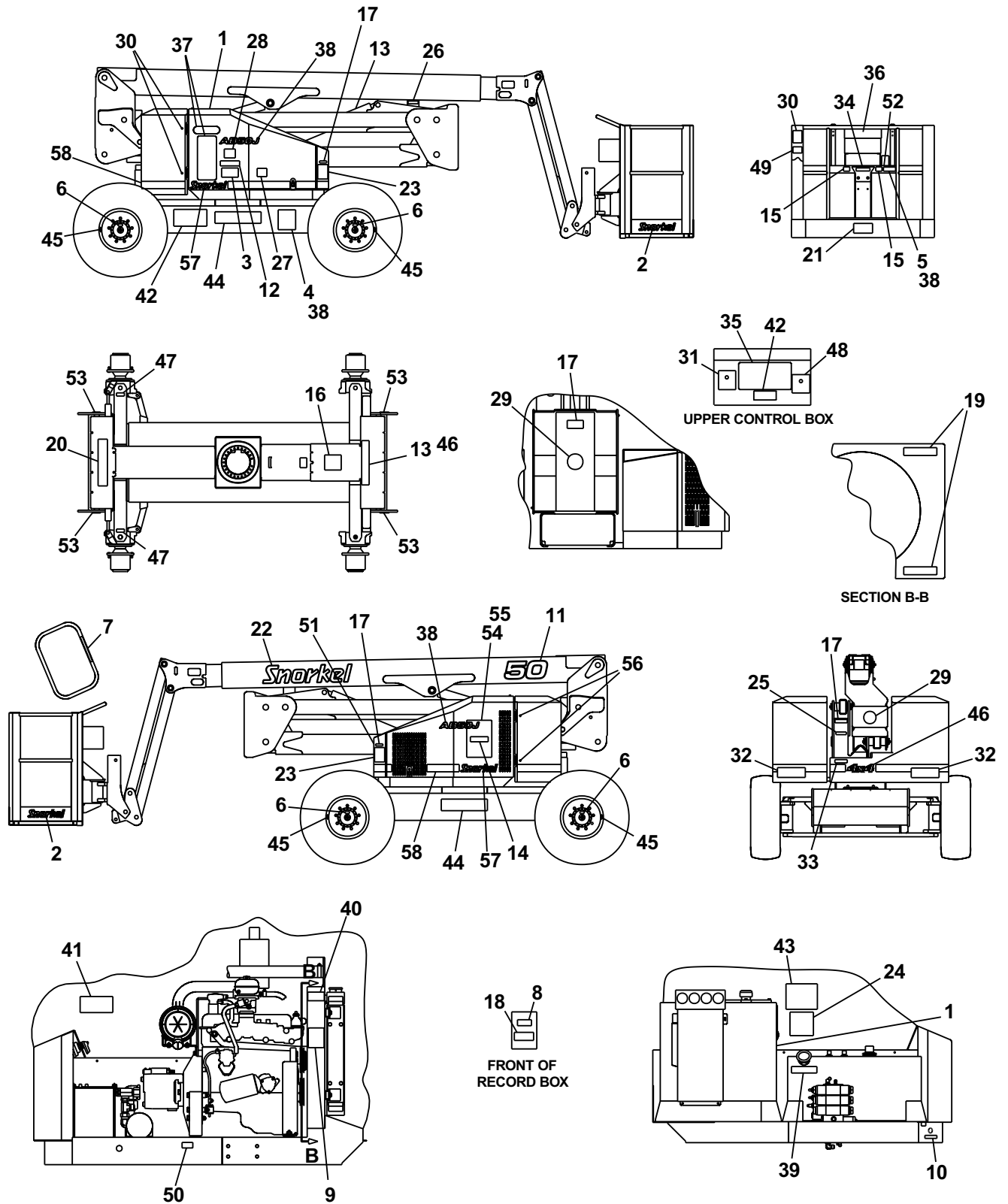


AW0161526

Placards and decals

item	part no	qty	description
1	0071927	2	Decal, hydraulic oil
2	569295	2	Decal, Snorkel brand logo
3	0162337	1	Decal, emergency lowering procedures
4	0070901	1	Placard, caution serial number
5	0071425	1	Placard, platform identification
6	0072277	4	Placard, lug nut torque
7	0072531	1	Decal, danger electrical hazard
8	0073224	1	Decal, notice manual reorder
9	0074372	1	Placard, engine rpm
10	0073492	1	Decal, rotate while greasing
11	0074910	2	Decal, 50 logo
12	0074209	1	Placard, pre-start instructions
13	0074311	8	Decal, danger cylinder failure - (1 per cylinder)
14	0073491	1	Decal, safe operation information
15	0150448	2	Decal, attach fall restraint
16	0150452	1	Decal, directional arrows forward/reverse
17	0150602	4	Decal, danger descending boom
18	0073043	1	Decal, operating manual enclosed
19	0151410	2	Decal, danger rotating engine parts
20	0151917	1	Decal, directional arrows
21		1	Placard, platform capacity - (consult factory)
22	0083727	2	Decal, Snorkel brand logo
23	0161205	2	Placard, danger electrical hazard
24	7030003	1	Decal, lube recommendations
25	0161329	1	Decal, patents applied for
26	451986	1	Placard, danger do not alter switch
27	0323899	1	Decal, danger electrical hazard
28	0323897	1	Decal, danger you must not operate
29	7030004	2	Decal, OmniQuip logo
30	0161819	1	Decal, emergency lowering procedures
31	0161937	1	Danger tipover hazard
32	0323896	2	Decal, danger electrical hazard
33	0181562	1	Placard, ANSI standard
34	0181654	1	Decal, danger inspect unit
35	0161402	1	Placard, upper control box front
36	0161401	1	Placard, upper control box top
37	0161212	1	Placard, upper control box
38	0163179	2	Decal, AB50J logo
39	0071926	1	Decal, diesel fuel
40	0151396	1	Decal, do not use ether
41	0074316	1	Decal, caution governor damage
42	0161667	1	Dual fuel system
43	0081441	1	Placard, caution liquid withdrawal
44	0073298	2	Placard, danger foam filled tires
45	0070421	4	Placard, tire pressure - (1 per wheel)
46	0074913	2	Decal, 4 x 4 logo
47	451986	2	Placard, danger do not alter switch
48	0161936	1	Decal, crab steer
49	0161699	1	Decal, caution do not run engine
50	0181634	1	Decal, engine block heater
51	0150606	1	Decal, 125 volt 15 amp power to platform
52	0070921	1	Placard, 125 volts 15 amps
53	0083427	4	Decal, lift/tie down symbol
54	562386	1	Literature compartment
55	7050004	1	Record pouch
56	5569012	4	Rubber bumper
57	0112471	2	Decal, Snorkel brand logo
58	0074921	2	Decal, 4 inch stripe

Placards and decals



AWA16096H

Gear hub

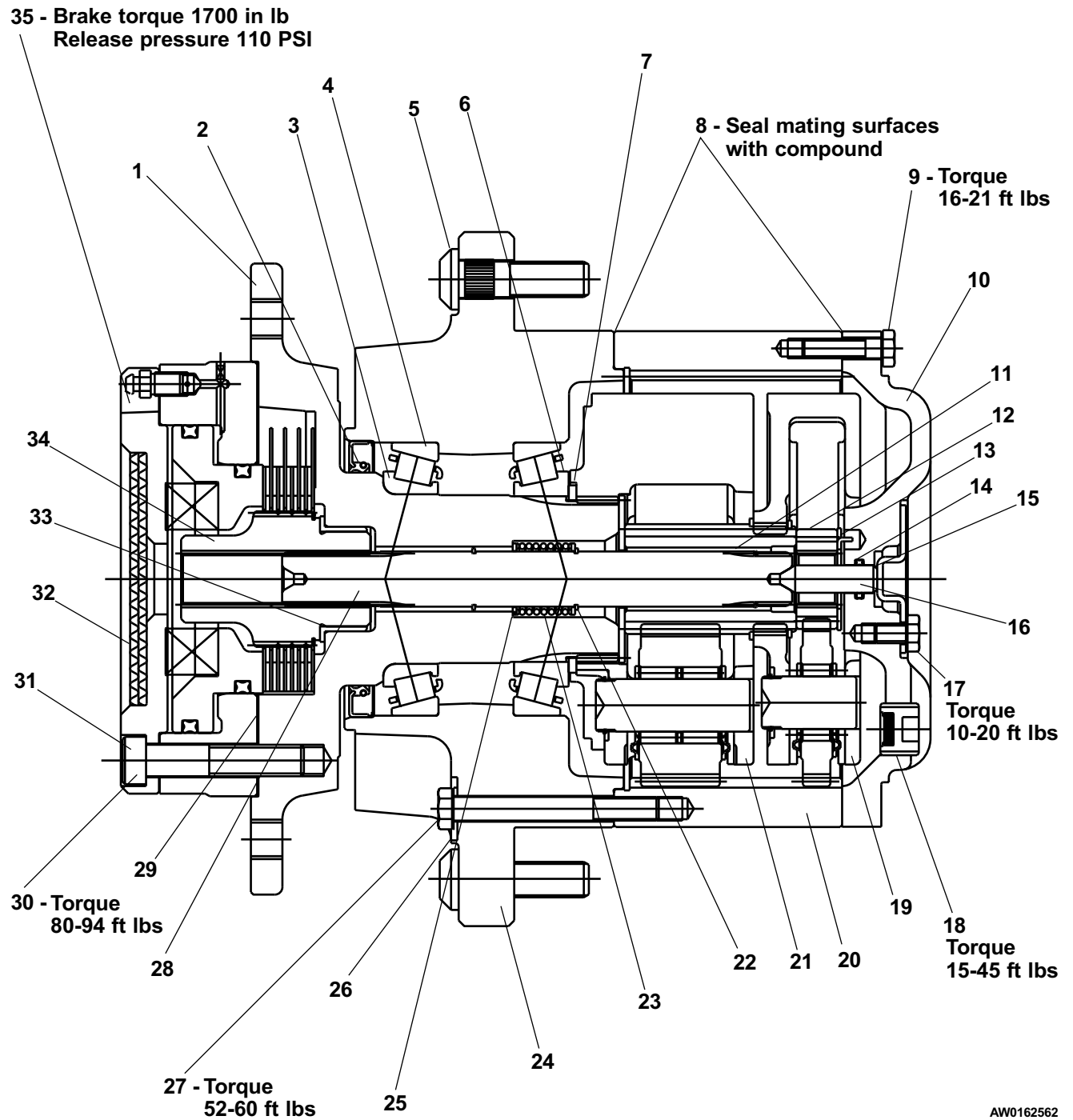
item	part no	qty	description
	0160554-99	1	Gear hub
	8010207	1	Seal repair kit
1	6091168	1	Spindle
2	8010026	1	Oil seal
3	7220023	1	Bearing cone
4	8010024	2	Bearing cup
5	6091177	9	Wheel bolt
6	7220025	1	Bearing cone
7	7220026	1	Retaining ring to fit .107 - .111 inch gap
	7220027	1	Retaining ring to fit .112 - .116 inch gap
	7220028	1	Retaining ring to fit .117 - .121 inch gap
	7220029	1	Retaining ring to fit .122 - .126 inch gap
	7220030	1	Retaining ring to fit .127 - .131 inch gap
	7220031	1	Retaining ring to fit .132 - .136 inch gap
	7220032	1	Retaining ring to fit .137 - .141 inch gap
8	6091151	1	Sealing compound, 2 places
9	6091147	8	Hex head bolt
10	8010137	1	Cover
11	7220035	1	Retaining ring
12	6091163	1	Primary sun gear
13	8010075	1	Thrust washer
14	8010149	1	O-ring
15	7220022	1	Disengage cover
16	8010143	1	Plunger
17	8010168	2	Hex head bolt
18	6091154	1	Pipe plug
19	6091152	1	Primary carrier
20	6091172	1	Ring gear
21	8010047	1	Secondary carrier
22	8010148	2	Retaining ring
23	8010014	1	Disengage spring
24	6091173	1	Hub
25	8010043	2	Thrust washer
26	6091153	12	Flat washer
27	6091175	12	Hex head bolt
28	6091157	1	Input shaft
29	6091162	1	Shipping plug
30	6091149	1	Coupling



Gear hub with brake

item	part no	qty	description
	0162562-99	1	Gear hub with brake
	8010207	1	Seal repair kit
1	6091185	1	Spindle
2	8010026	1	Oil seal
3	7220023	1	Bearing cone
4	8010024	2	Bearing cup
5	6091177	9	Wheel bolt
6	7220022	1	Bearing cone
7	7220026	1	Retaining ring to fit .107 - .111 inch gap
	7220027	1	Retaining ring to fit .112 - .116 inch gap
	7220028	1	Retaining ring to fit .117 - .121 inch gap
	7220029	1	Retaining ring to fit .122 - .126 inch gap
	7220030	1	Retaining ring to fit .127 - .131 inch gap
	7220031	1	Retaining ring to fit .132 - .136 inch gap
	7220032	1	Retaining ring to fit .137 - .141 inch gap
8	6091151	ref	Sealing compound, 2 places
9	6091147	8	Hex head bolt
10	8010137	1	Cover
11	7220035	1	Retaining ring
12	6091163	1	Primary sun gear
13	8010075	1	Thrust washer
14	8010149	1	O-ring
15	7220080	1	Disengage cover
16	8010143	1	Plunger
17	8010168	2	Hex head bolt
18	6091154	1	Pipe plug
19	6091180	1	Primary carrier
20	6091172	1	Ring gear
21	6091181	1	Secondary carrier
22	8010148	2	Retaining ring
23	8010014	1	Disengage spring
24	6091173	1	Hub
25	8010043	2	Thrust washer
26	6091153	12	Flat washer
27	6091175	12	Hex head bolt
28	6091157	1	Input shaft
29	6091182	4	Gasket
30	6091184	4	Flat washer
31	6091179	1	Hex head bolt
32	6091162	1	Shipping plug
33	7220041	1	Bearing
34	6091186	1	Splined adapter
35	6091183	1	Brake

Gear hub with brake

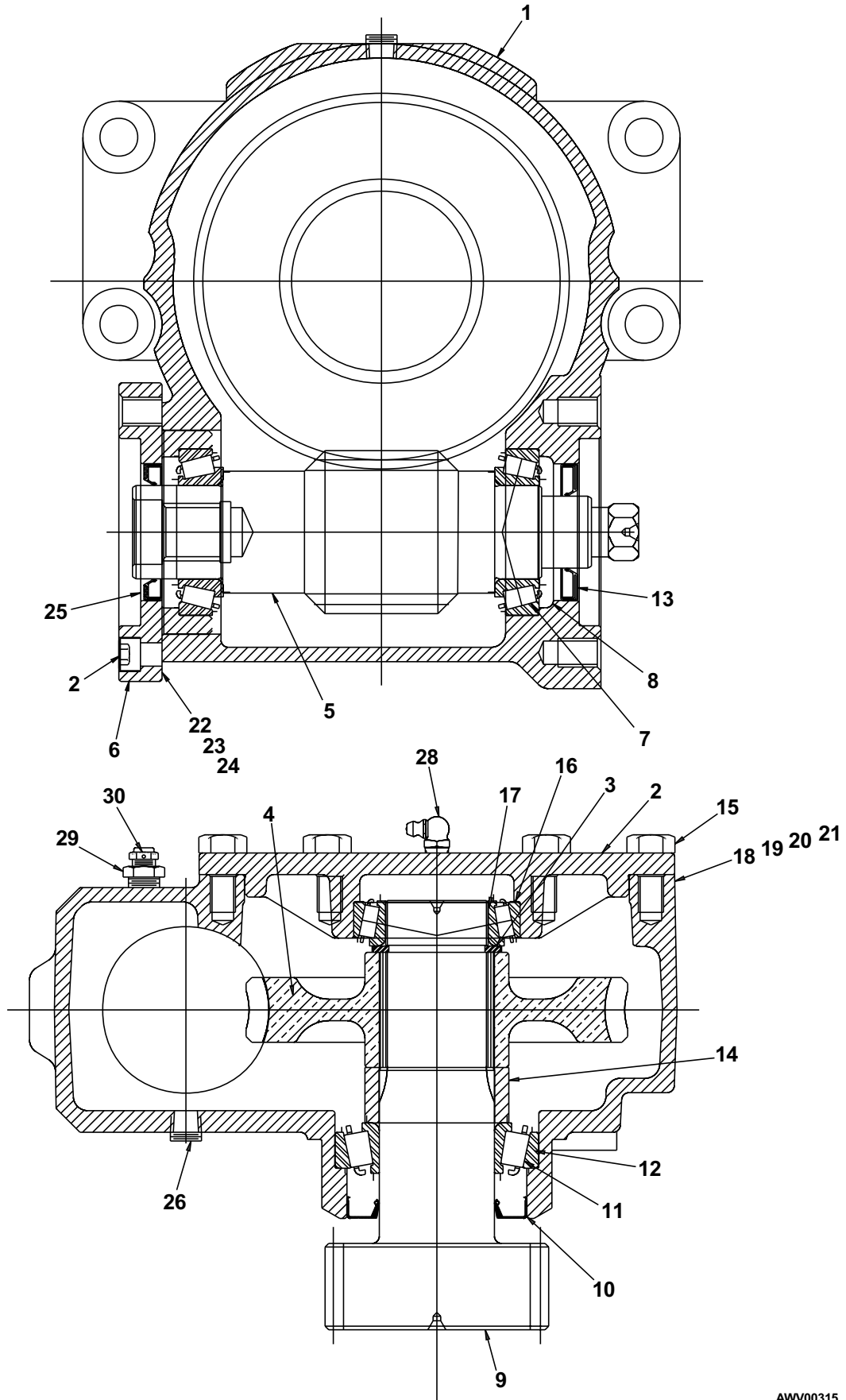


AW0162562

Swing drive, Perfection Gear

item	part no	qty	description
	0160545-99	1	Swing drive, Perfection Gear
		1	Seal repair kit - (kit includes items 10, 13, and 18 through 25)
1	0163001	1	Housing
2	0163002	1	Gear cap
3	0163003	1	Snap ring
4	0163004	1	Worm gear
5	0163005	1	Worm
6	0163006	1	Motor adapter
7	0172035	2	Bearing cup
8	0172036	1	Bearing cone
9	0163007	1	Pinion
10	0163008	1	Oil seal
11	0163009	1	Bearing cone
12	0163010	1	Bearing cup
13	0163011	1	Oil seal
14	0163012	1	Spacer
15	0163013	6	Capscrew 7/16-14 x 1-1/8 inch long hex head grade 5
16	0163014	1	Bearing cup
17	0163015	1	Bearing cone
18	0163016	2	Shim, .010 inch thick
19	0163017	2	Shim, .0075 inch thick
20	0163018	2	Shim, .005 inch thick
21	0163019	2	Shim, .003 inch thick
22	0172049	2	Shim, .0075 inch thick
23	0172048	2	Shim, .005 inch thick
24	0172047	2	Shim, .003 inch thick
25	0112307	1	Oil seal
26	0172050	4	Pipe plug
27	0163020	4	Capscrew 3/9-16 x 1 inch long socket head
28	0163021	1	Grease fitting, 1/8 NPT 90°
29	0172054	1	Reducer bushing
30	0172053	1	Pressure vent plug

Swing drive, Perfection Gear



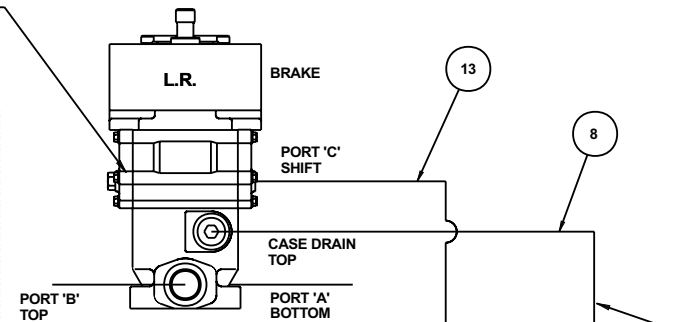
AWV00315

Hydraulic hoses, chassis 2 x 2

item	part no	qty	description
1	0180778	1	5/8 inch hydraulic hose
2	0080939	1	3/4 inch hydraulic hose
3	0161384	1	1/4 inch hydraulic hose
4	0070780	2	1/4 inch hydraulic hose
5	0020270	4	3/8 inch hydraulic hose
6	0100422	2	3/8 inch hydraulic hose
7	5090048	1	Hose guard x 25 feet long
8	0070764	2	3/8 inch hydraulic hose
9	5036705	1	Swivel nut run tee
10	0121161	2	1/4 inch hydraulic hose
11	0060315	3	1/2 inch hydraulic hose
12	0070792	1	1/2 inch hydraulic hose
13	0070772	4	1/4 inch hydraulic hose
14	0080522	4	1/2 inch hydraulic hose
15	0020266	1	3/8 inch hydraulic hose
16	0090298	2	1/4 inch hydraulic hose
17	5034104	1	Union tee
18	0020275	3	3/8 inch hydraulic hose
19	0080360	2	1/4 inch hydraulic hose

F
E
D
C
B
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NOTE:
"SHIFT BLOCK"
FACES UP L.R.



CENTERPOST POSITIONS	
POS. #	DESCRIPTION OF USE
1	R.H. STEER
2	CASE DRAIN
3	L.H. STEER
4	NOT USED (PLUGGED)
5	LOAD SENSE
6	PRESSURE
7	TANK RETURN

27 APPROXIMATELY 27" ON ALL EXPOSED MOTOR HOSES
2 PLACES TYP. ZIPTIE HOSES ACCORDINGLY.

CENTERPOST
S/A, 2WD

BRKING SUBASSEMBLY
NOT SHOWN FOR CLARITY

SUBASSEMBLY
VALVE,DRIVE,2WD

SUBASSEMBLY
VALVE,SHIFT,2WD

SUBASSEMBLY,AXLE
INTERLOCK,RH

AXLE LOCK VALVE

SUBASSEMBLY,AXLE
INTERLOCK,LH

SUBASSEMBLY
STEER CYL

NOTE:
"SHIFT BLOCK"
FACES DOWN
R.R.

NOTE: L.F. = LEFT FRONT
R.F. = RIGHT FRONT
L.R. = LEFT REAR
R.R. = RIGHT REAR

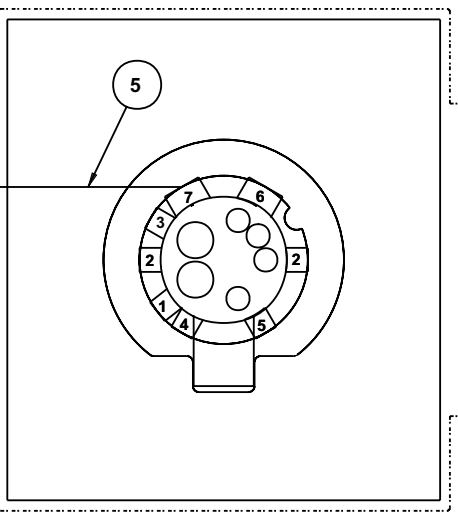
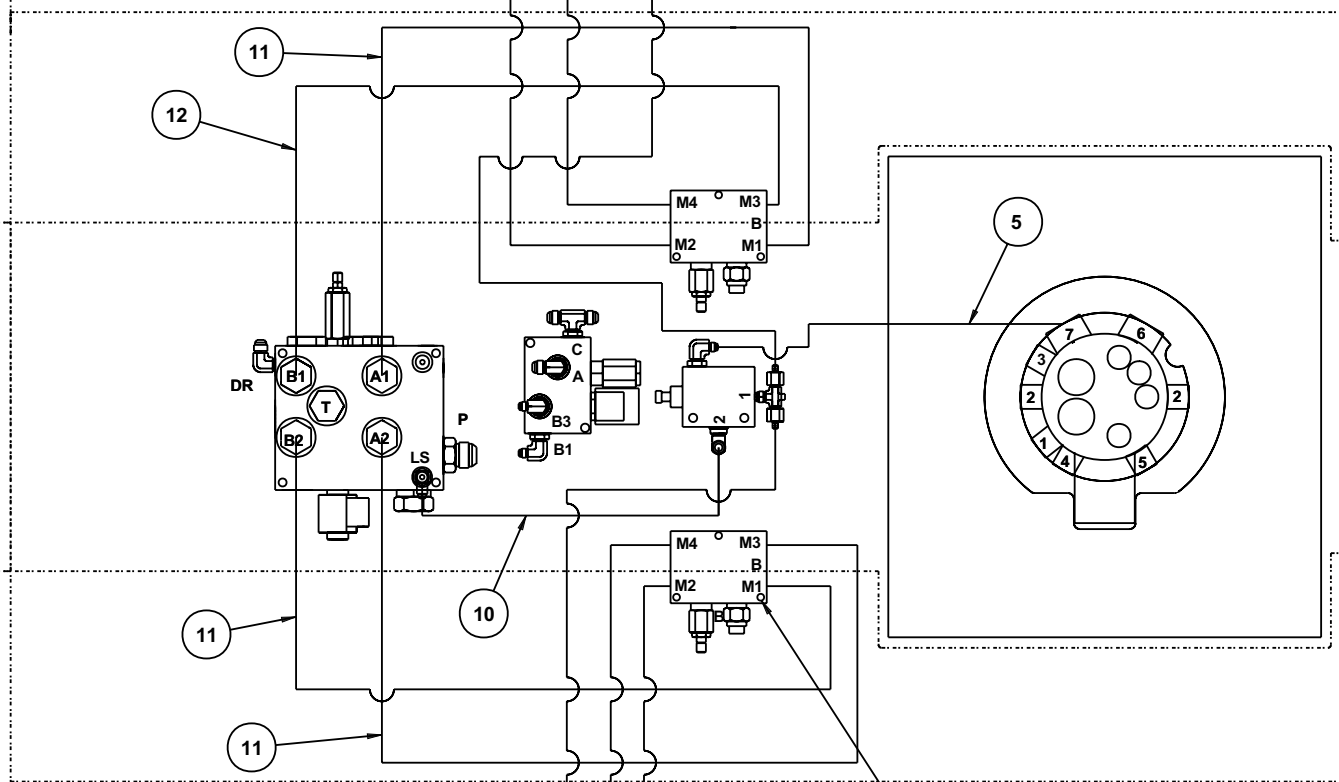
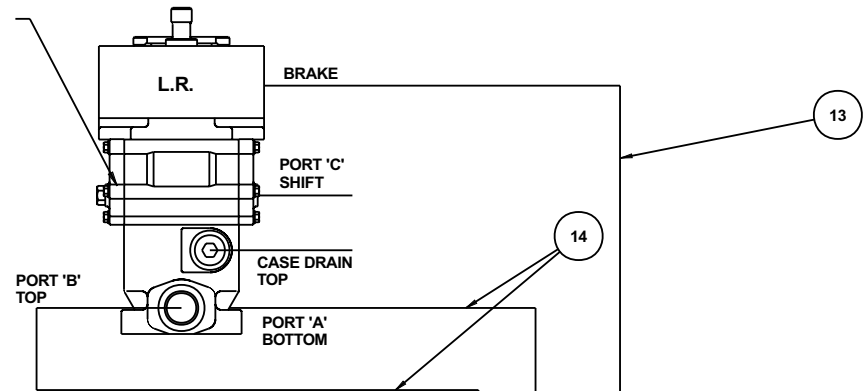
AW0162185-3

TITLE Hydraulic hoses
chassis 2 x 2, sheet 1
Snorkel model AB50J

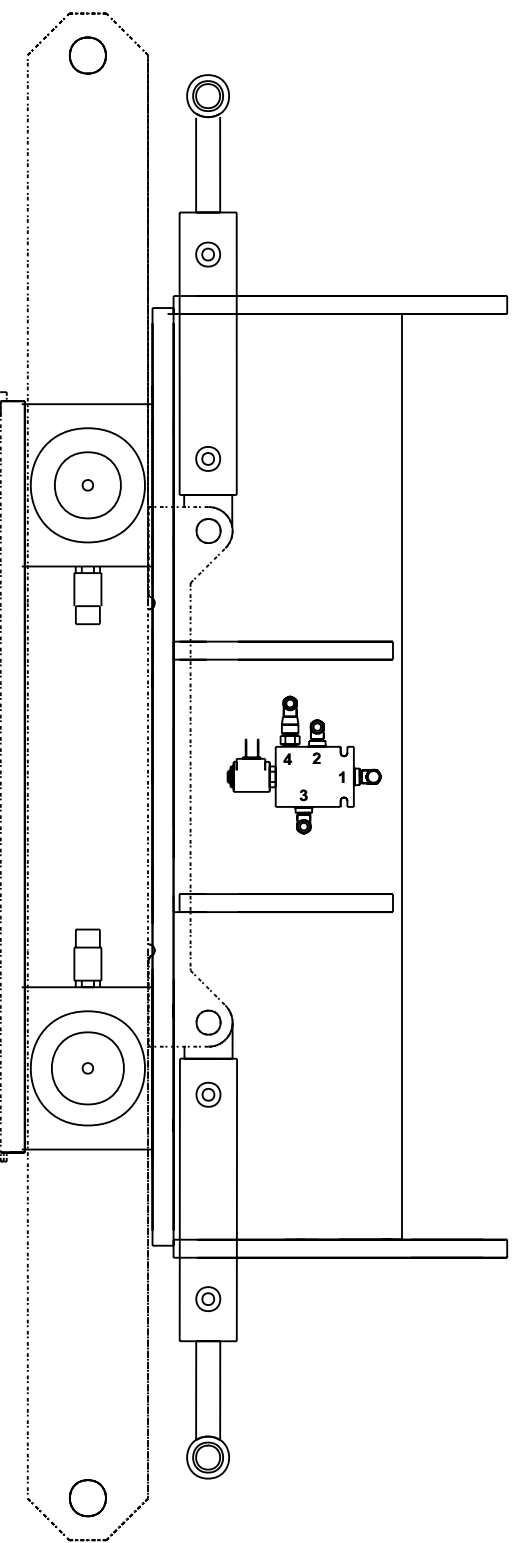
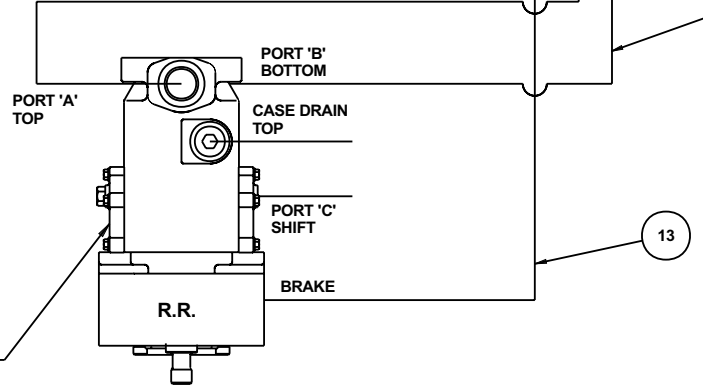
 Snorkel
INTERNATIONAL
Page 2 - 3

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NOTE:
"SHIFT BLOCK"
FACES UP L.R.



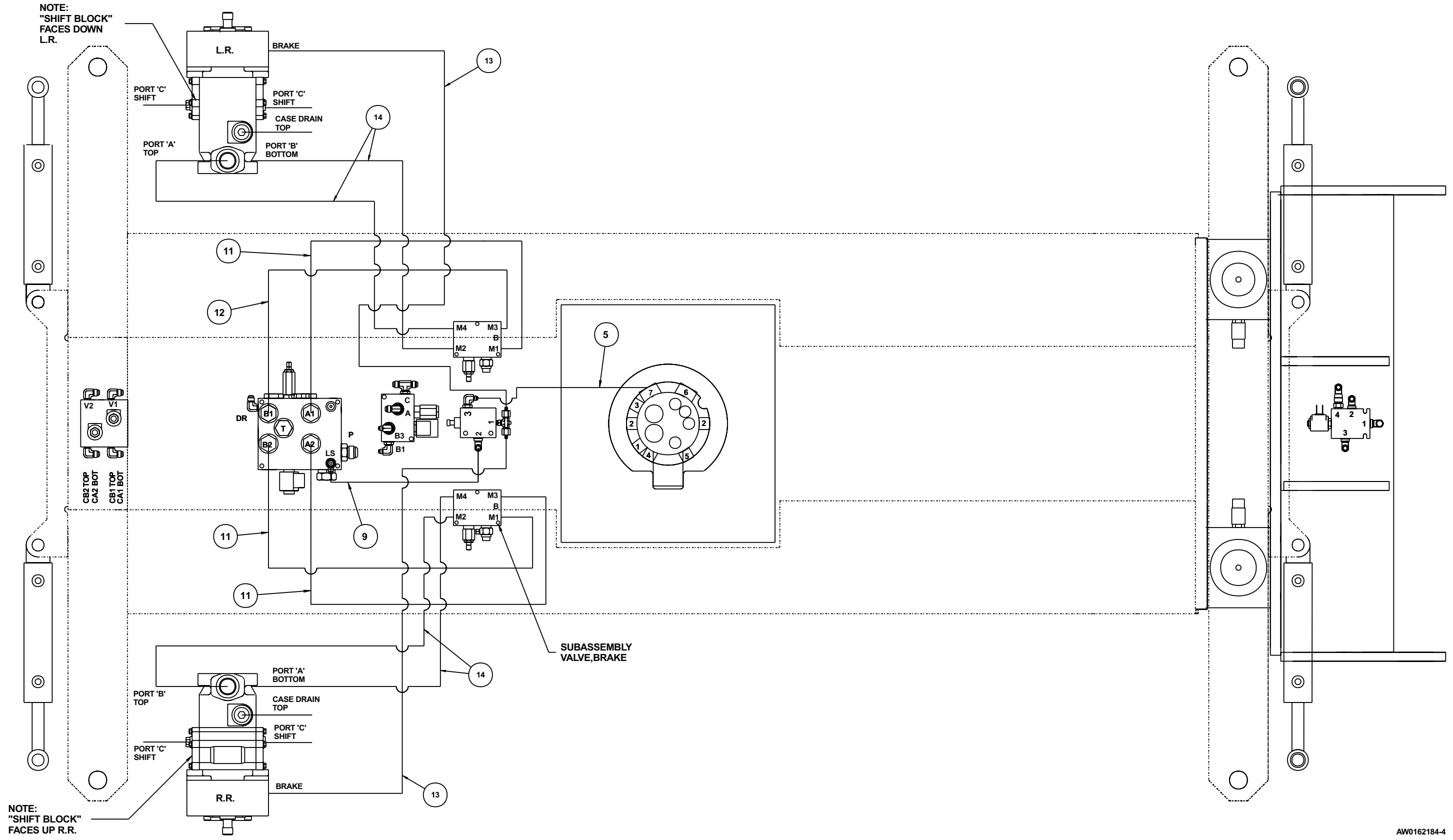
SUBASSEMBLY
VALVE, BRAKE



NOTE:
"SHIFT BLOCK"
FACES DOWN
R.R.

AW0162185-4

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AW0162184-4

Hydraulic hoses, chassis 2 x 4

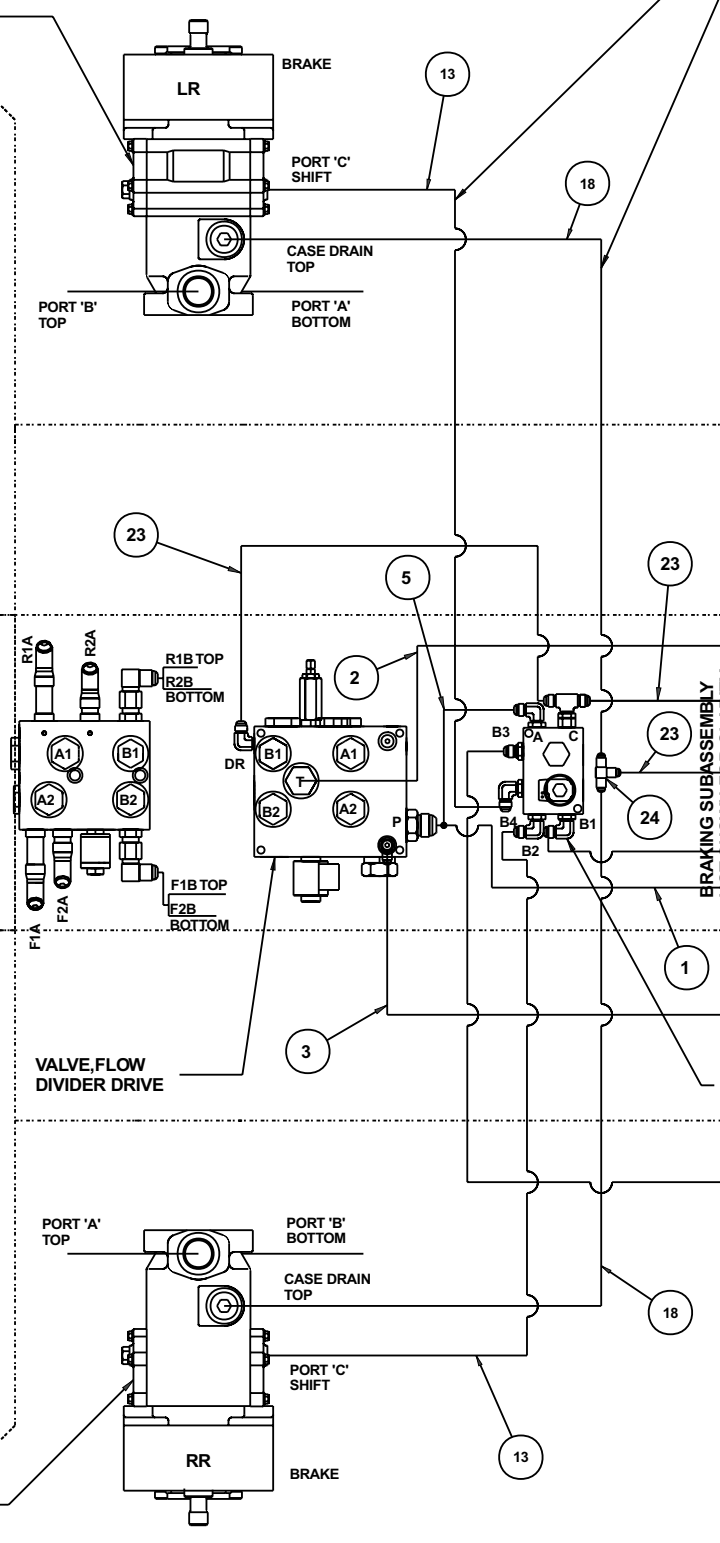
item	part no	qty	description
1	0180778	1	5/8 inch hydraulic hose
2	0080939	1	3/4 inch hydraulic hose
3	0161384	1	1/4 inch hydraulic hose
4	0070780	2	1/4 inch hydraulic hose
5	0020270	4	3/8 inch hydraulic hose
6	0100422	2	3/8 inch hydraulic hose
7	5090048	1	Hose guard x 25 feet long
8	0070764	2	3/8 inch hydraulic hose
9	0181161	1	1/4 inch hydraulic hose
10	0070781	2	1/4 inch hydraulic hose
11	0060315	3	1/2 inch hydraulic hose
12	0070792	1	1/2 inch hydraulic hose
13	0070772	2	1/4 inch hydraulic hose
14	0080522	4	1/2 inch hydraulic hose
15	0020266	1	3/8 inch hydraulic hose
16	0090298	4	1/4 inch hydraulic hose
17	0070911	2	1/4 inch hydraulic hose
18	0080299	2	1/4 inch hydraulic hose
19	0050397	2	3/8 inch hydraulic hose
20	5036705	1	Swivel nut run tee
21	5034104	1	Union tee
22	0020275	4	3/8 inch hydraulic hose

Hydraulic hoses, chassis 4 x 2

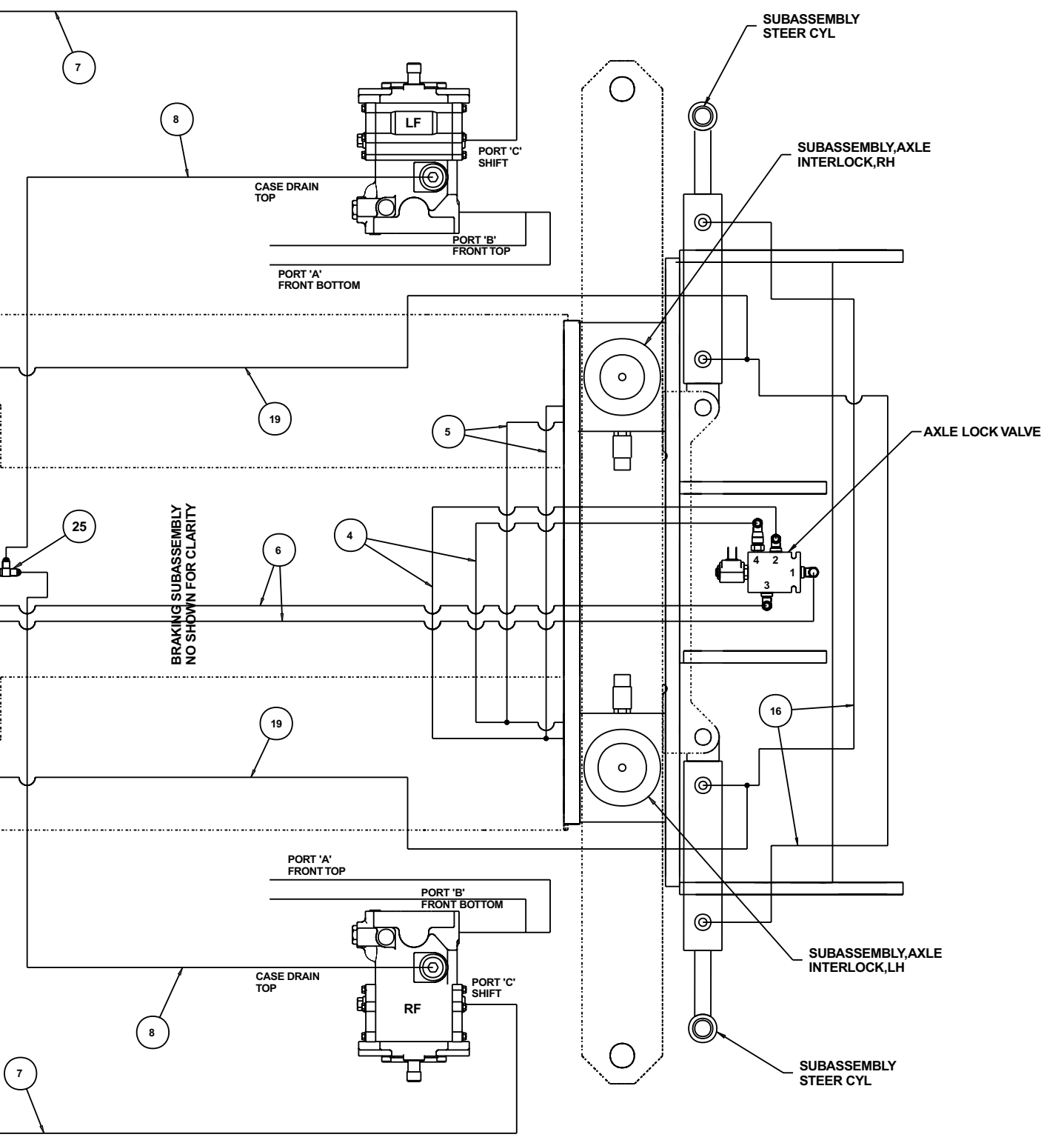
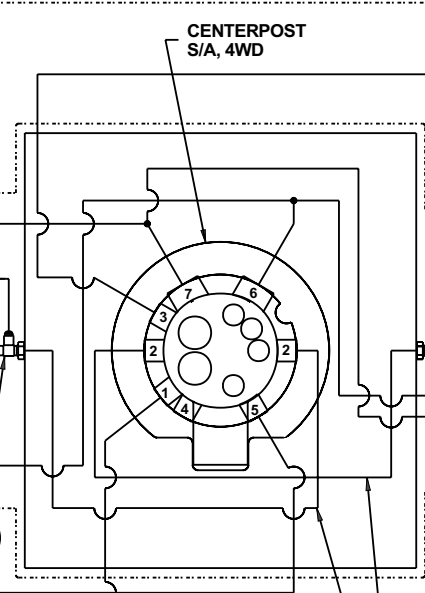
item	part no	qty	description
1	0180778	1	5/8 inch hydraulic hose
2	0080939	1	3/4 inch hydraulic hose
3	0161384	1	1/4 inch hydraulic hose
4	0070780	2	1/4 inch hydraulic hose
5	0020270	4	3/8 inch hydraulic hose
6	0100422	2	3/8 inch hydraulic hose
7	0101896	2	1/4 inch hydraulic hose
8	0070953	2	3/8 inch hydraulic hose
9	0180784	4	1/2 inch hydraulic hose
10	0181161	1	1/4 inch hydraulic hose
11	0070792	1	1/2 inch hydraulic hose
12	0060315	3	1/2 inch hydraulic hose
13	0070772	4	1/4 inch hydraulic hose
14	0080522	8	1/2 inch hydraulic hose
15	0020266	2	3/8 inch hydraulic hose
16	0090298	2	1/4 inch hydraulic hose
17	5090048	1	Hose guard x 25 feet long
18	0070764	2	3/8 inch hydraulic hose
19	0080360	2	1/4 inch hydraulic hose
20	0162133	1	3/4 inch hydraulic tube
21	0162132	1	3/4 inch hydraulic tube
22	0162107	2	3/4 inch hydraulic tube
23	0020275	3	3/8 inch hydraulic hose
24	5034104	1	Union tee
25	5036705	2	Swivel nut run tee

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NOTE:
"SHIFT BLOCK"
FACES UP L.R., L.F.



CENTERPOST POSITIONS	
POS. #	DESCRIPTION OF USE
1	R.H. STEER
2	CASE DRAIN
3	L.H. STEER
4	NOT USED (PLUGGED)
5	LOAD SENSE
6	PRESSURE
7	TANK RETURN



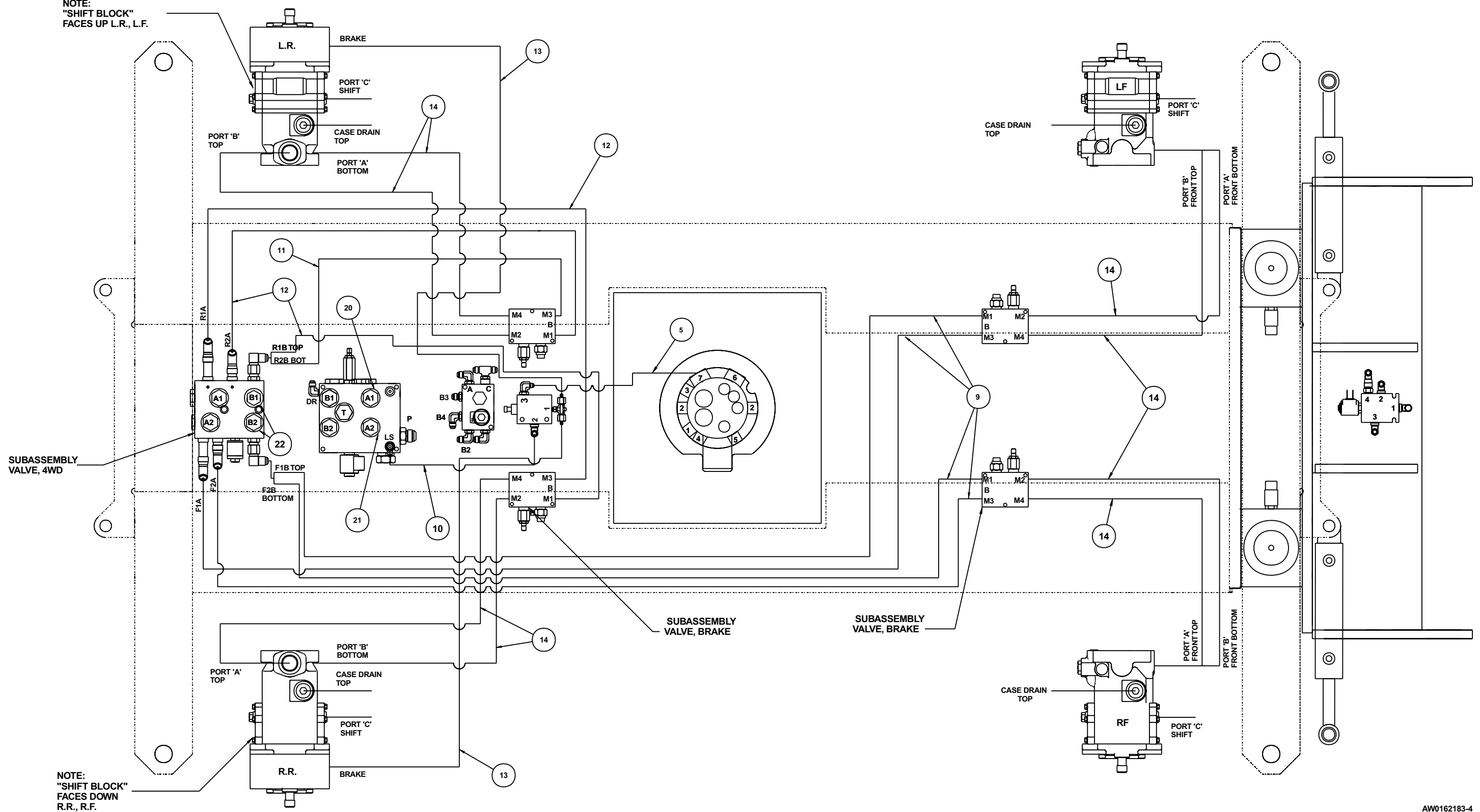
NOTE: L.F. = LEFT FRONT
R.F. = RIGHT FRONT
L.R. = LEFT REAR
R.R. = RIGHT REAR

AW0162183-3

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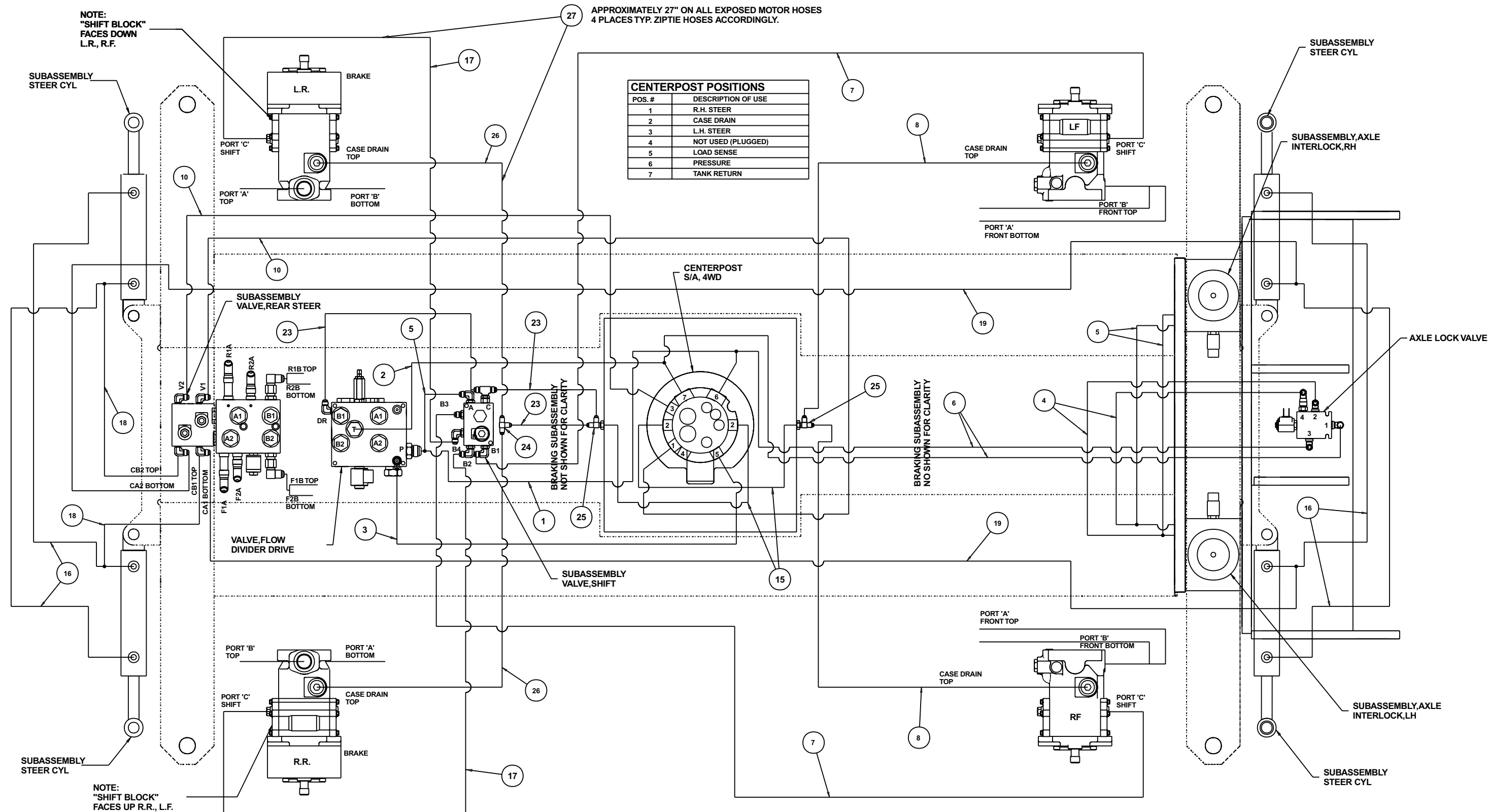
NOTE:
"SHIFT BLOCK"
FACES UP L.R., L.F.

NOTE:
"SHIFT BLOCK"
FACES DOWN
R.R., R.F.



AW0162183-4

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A



NOTE: L.F. = LEFT FRONT
R.F. = RIGHT FRONT
L.R. = LEFT REAR
R.R. = RIGHT REAR

AW0162182-3

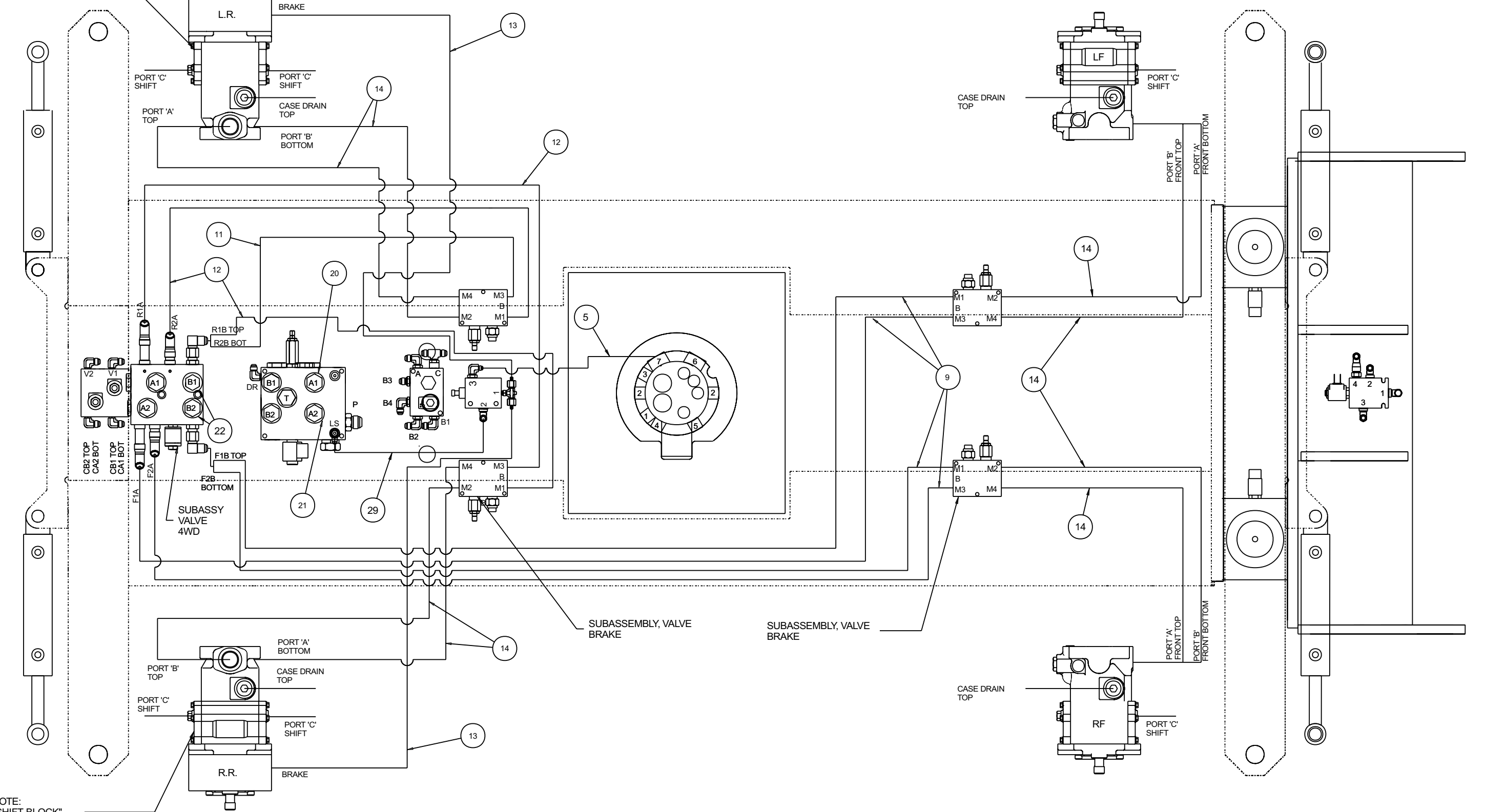
TITLE Hydraulic hoses
chassis 4 x 4, sheet 1
Snorkel model AB50J

Snorkel
INTERNATIONAL
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1 2 3 4 5 6 7 8 9

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NOTE:
"SHIFT BLOCK"
FACES DOWN
L.R., R.F.



NOTE:
"SHIFT BLOCK"
FACES UP R.R., L.F.

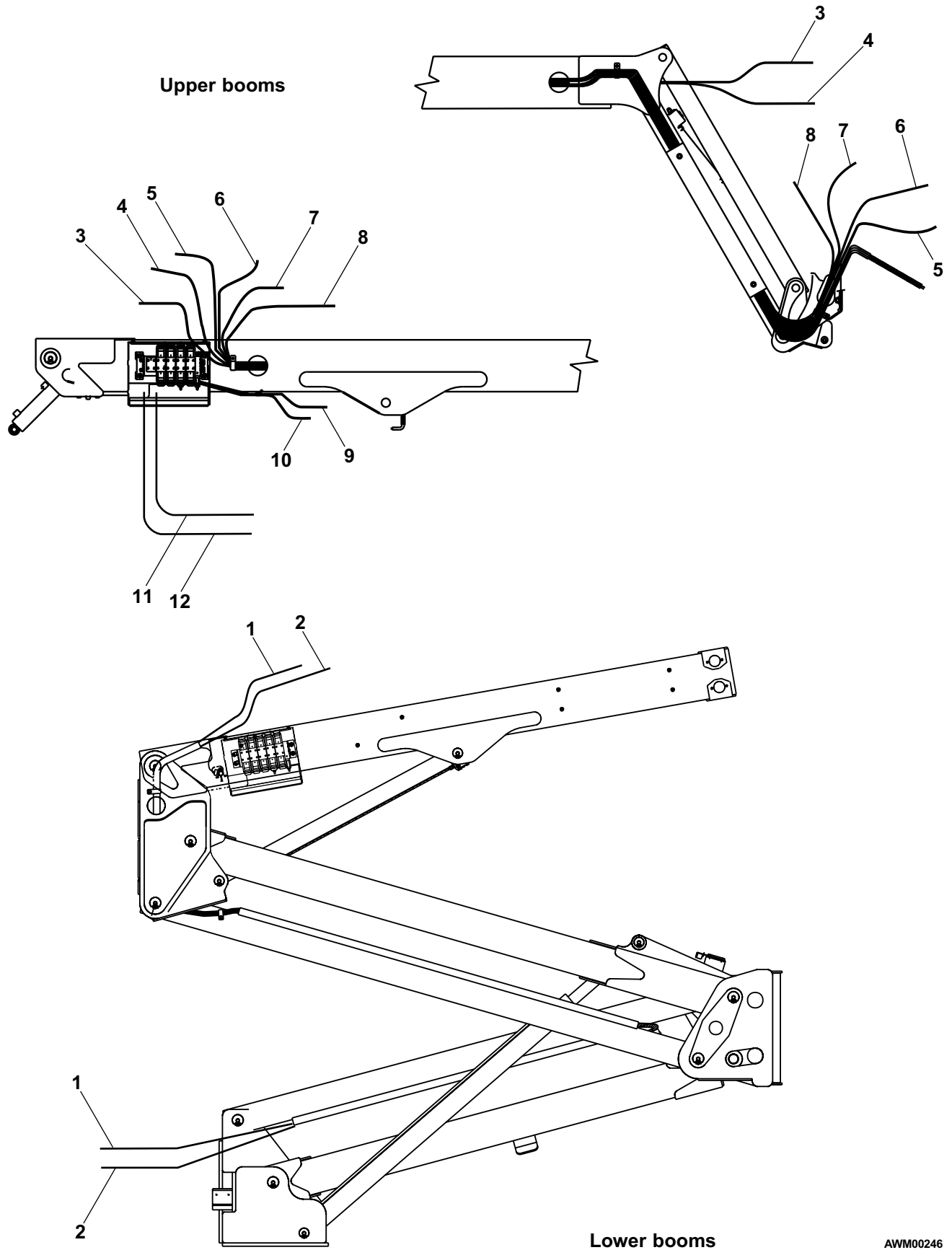
AW0162182-4

Hydraulic hoses, chassis 4 x 4

item	part no	qty	description
1	0180778	1	5/8 inch hydraulic hose
2	0080939	1	3/4 inch hydraulic hose
3	0161384	1	1/4 inch hydraulic hose
4	0070780	2	1/4 inch hydraulic hose
5	0020270	4	3/8 inch hydraulic hose
6	0100422	2	3/8 inch hydraulic hose
7	0101896	2	1/4 inch hydraulic hose
8	0070953	2	3/8 inch hydraulic hose
9	0180784	4	1/2 inch hydraulic hose
10	0070781	2	Hose guard x 25 feet long
11	0070792	1	1/2 inch hydraulic hose
12	0060315	3	1/2 inch hydraulic hose
13	0070772	2	1/4 inch hydraulic hose
14	0080522	8	1/2 inch hydraulic hose
15	0020266	2	3/8 inch hydraulic hose
16	0090298	4	1/4 inch hydraulic hose
17	0070911	2	1/4 inch hydraulic hose
18	0090299	2	1/4 inch hydraulic hose
19	0050397	2	3/8 inch hydraulic hose
20	0162133	1	3/4 inch hydraulic tube
21	0162132	1	3/4 inch hydraulic tube
22	0162107	2	3/4 inch hydraulic tube
23	0020275	3	3/8 inch hydraulic hose
24	5034104	1	Union tee
25	5036705	2	Swivel nut run tee
26	0070764	2	3/8 inch hydraulic hose
27	5090048	1	Hose guard x 25 feet long
28	0181161	1	1/4 inch hydraulic hose

Hydraulic hoses, booms

item	part no	qty	description
			Lower booms hydraulic hoses
1	0161923	1	3/8 inch hydraulic hose - (centerpost tank to control valve))
2	0161928	1	3/8 inch hydraulic hose - (pressure to flow control on control valve)
			Upper boom hydraulic hoses
3	0161688	1	1/4 inch hydraulic hose - (jib extend)
4	0161688	1	1/4 inch hydraulic hose - (jib retract)
5	0161689	1	1/4 inch hydraulic hose - (rotation clockwise)
6	0161689	1	1/4 inch hydraulic hose - (rotation counter-clockwise)
7	0161690	1	1/4 inch hydraulic hose - (level extend)
8	0161690	1	1/4 inch hydraulic hose - (level retract)
9	0161399	1	3/8 inch hydraulic hose - (boom up)
10	0161399	1	3/8 inch hydraulic hose - (boom down)
11	0161398	1	3/8 inch hydraulic hose - (extend cylinder extend)
12	0161398	1	3/8 inch hydraulic hose - (extend cylinder retract)



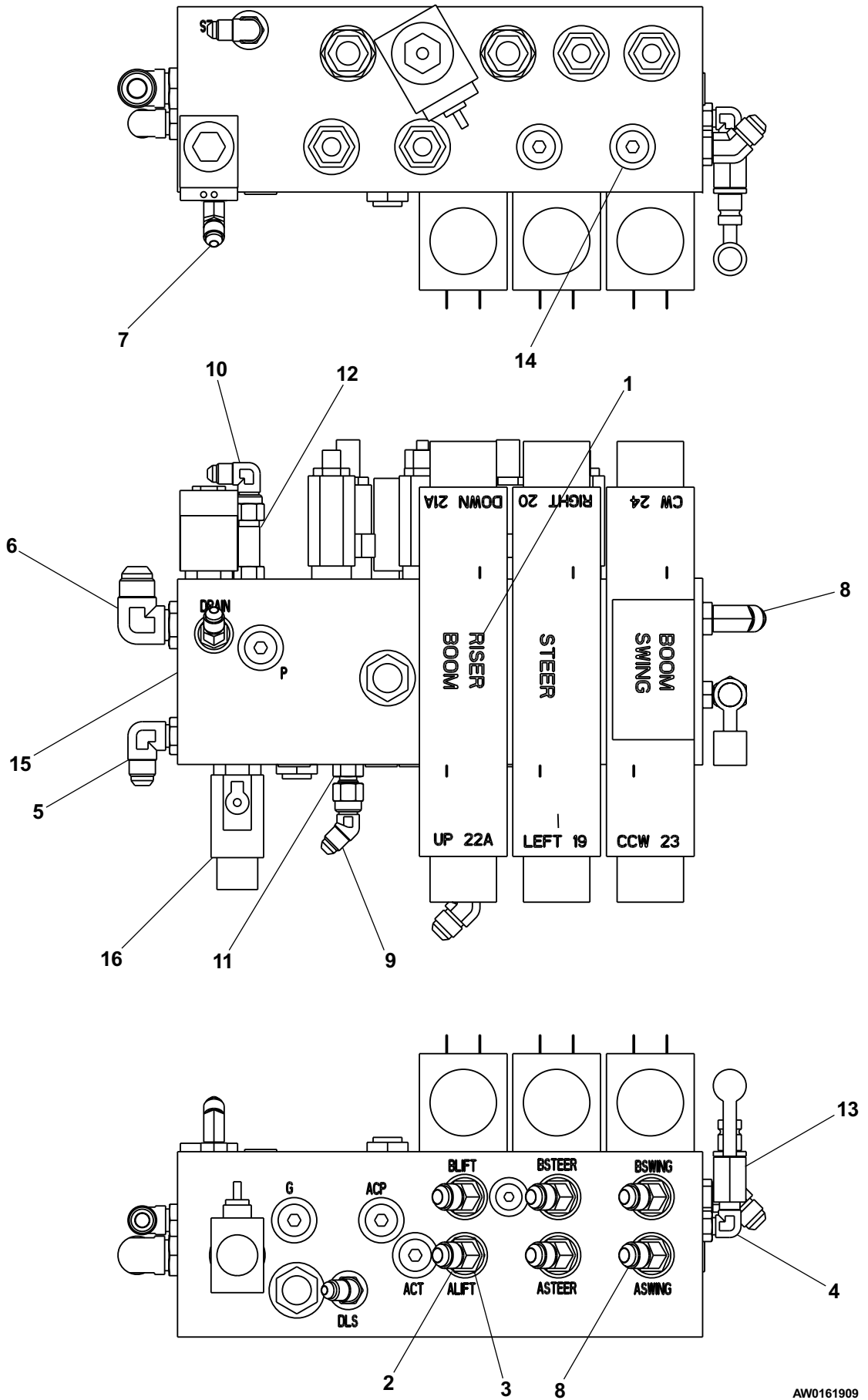
Hydraulic hoses, turntable

item	part no	qty	description
1	0020273	1	3/8 inch hydraulic hose
2	0020279	5	3/8 inch hydraulic hose
3	0060290	1	3/8 inch hydraulic hose - (2 wheel drive machine)
	0060290	2	3/8 inch hydraulic hose - (4 wheel drive machine)
4	0100277	1	1/2 inch hydraulic hose
5	0070764	1	3/8 inch hydraulic hose
6	0070771	1	1/4 inch hydraulic hose
7	0070772	1	1/4 inch hydraulic hose
8	0080931	1	3/4 inch hydraulic hose
9	0080939	1	3/4 inch hydraulic hose
10	0090402	2	3/8 inch hydraulic hose
11	0100278	1	1/4 inch hydraulic hose
12	0151213	1	1/2 inch hydraulic hose
13	0161889	1	Suction tube
14	0162217	1	Check valve - (see page 2-42 for parts breakdown)
15	0162219	1	1-1/2 inch suction hose
16	0180777	2	5/8 inch hydraulic hose
17	5036805	1	Swivel nut branch tee
18	5037005	1	Swivel nut 90° elbow
19	5550030	2	Clamp

Control valve, 3 station

item	part no	qty	description
	0161909	1	Control valve, 3 station
1	0161471	1	Decal set
2	0161835	1	Check valve, .062 inch
3	5025003-99	1	Swivel adapter
4	5035303	1	Straight thread 90° elbow
5	5035305	1	Straight thread 90° elbow
6	5035306	1	Straight thread 90° elbow
7	5035703	1	Straight thread 45° elbow
8	5035705	7	Straight thread 45° elbow
9	5036903	1	Swivel nut 45° elbow
10	5037003	1	Swivel nut 90° elbow
11	5065703	1	Straight thread adapter
12	5065803	1	Long straight thread adapter
13	5070005	1	Diagnostic nipple, male
14	5075305	5	Hex plug
15	6010152	1	Control valve package, 3 station - (see page 2-20 for parts breakdown)
16	6010591	1	Solenoid valve and coil
	0180802	1	Seal repair kit
	6010392	1	Replacement cartridge
	3040496	1	Replacement coil, 12 volt DC

Control valve, 3 station

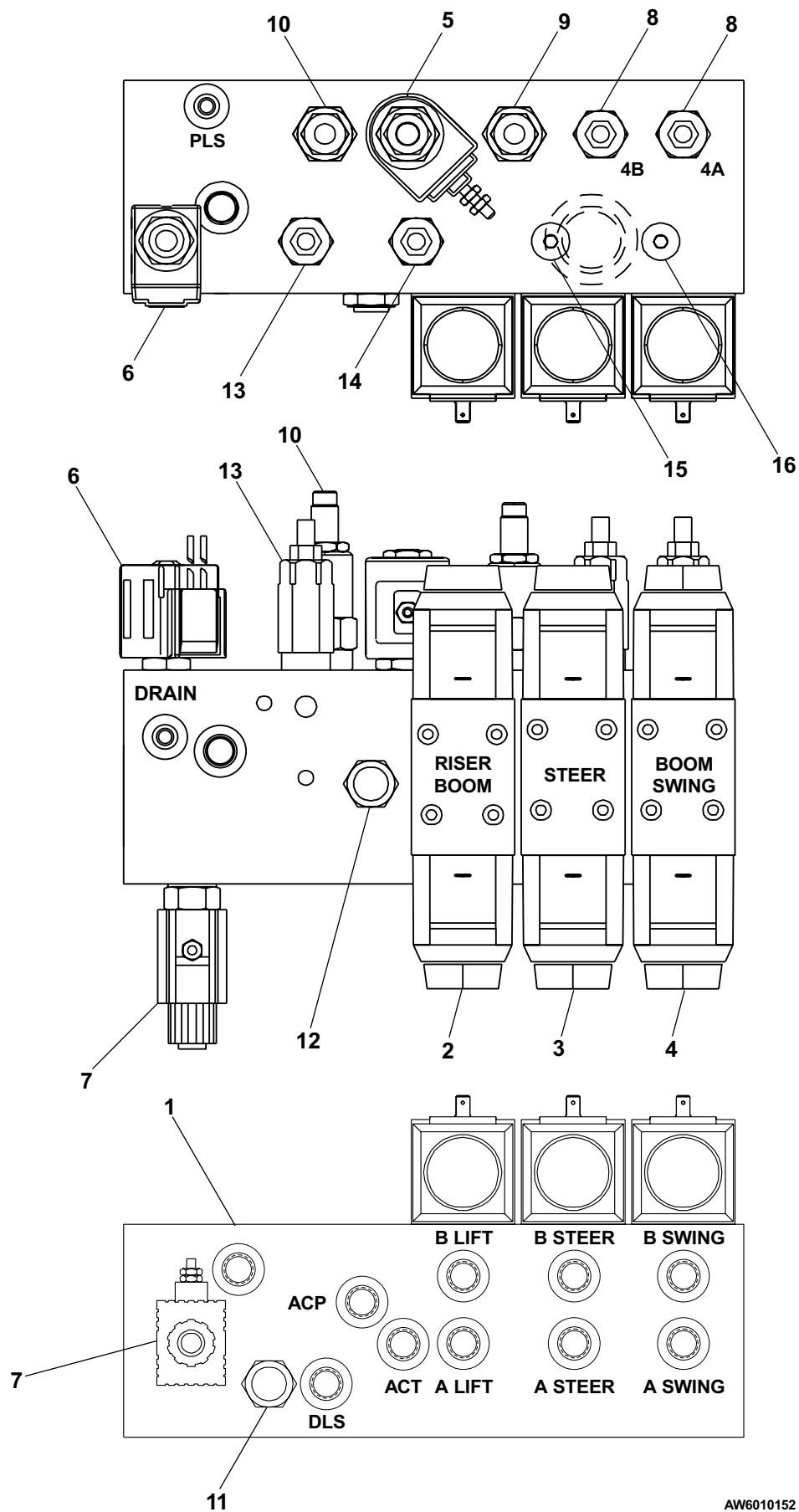


AW0161909

Control valve package, 3 station

item	part no	qty	description
	6010152	1	Control valve package, 3 station
1	6091026	1	Manifold body
2	6091222	1	Riser boom control valve
	6091144	1	Seal repair kit
	6091145	1	Replacement solenoid, 12 volt DC
	28220087	1	Bolt kit
3	6091223	1	Steer control valve
	6091144	1	Seal repair kit
	6091145	1	Replacement solenoid, 12 volt DC
	28220087	1	Bolt kit
4	6091223	1	Boom swing control valve
	6091144	1	Seal repair kit
	6091145	1	Replacement solenoid, 12 volt DC
	28220087	1	Bolt kit
5	6091134	1	Main system flow solenoid valve
	3049854	1	Seal repair kit
	6091140	1	Replacement solenoid, 10 volt DC
	6091135	1	Replacement cartridge valve
6	6091218	1	Load sense dump solenoid valve
	3049865	1	Seal repair kit
	6091142	1	Replacement solenoid, 10 volt DC
	6091136	1	Replacement cartridge valve
7	6010591	1	Solenoid valve and coil
	0180802	1	Seal repair kit
	6010392	1	Replacement cartridge
	3040496	1	Replacement coil, 12 volt DC
8	6091219	2	Pressure relief cartridge valve - (factory preset, do not reset)
	3049853	1	Seal repair kit
9	6091220	1	Pressure reducing cartridge valve - (factory preset, do not reset)
	3049854	1	Seal repair kit
10	6091032	1	Pressure sequence cartridge valve
	3049855	1	Seal repair kit
11	6091033	1	Shuttle valve
	3049865	1	Seal repair kit
12	6091221	1	Flow regulator cartridge valve
	3049853	1	Seal repair kit
13	6091224	1	Relief valve cartridge - (factory preset, do not reset)
	3049853	1	Seal repair kit
14	6091225	1	Relief valve cartridge - (factory preset, do not reset)
	3049853	1	Seal repair kit
15	6091037	1	Orifice plug, .035 inch diameter
16	6091038	1	Orifice plug, .060 inch diameter

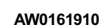
Control valve package, 3 station



AW6010152

Control valve, 4 station

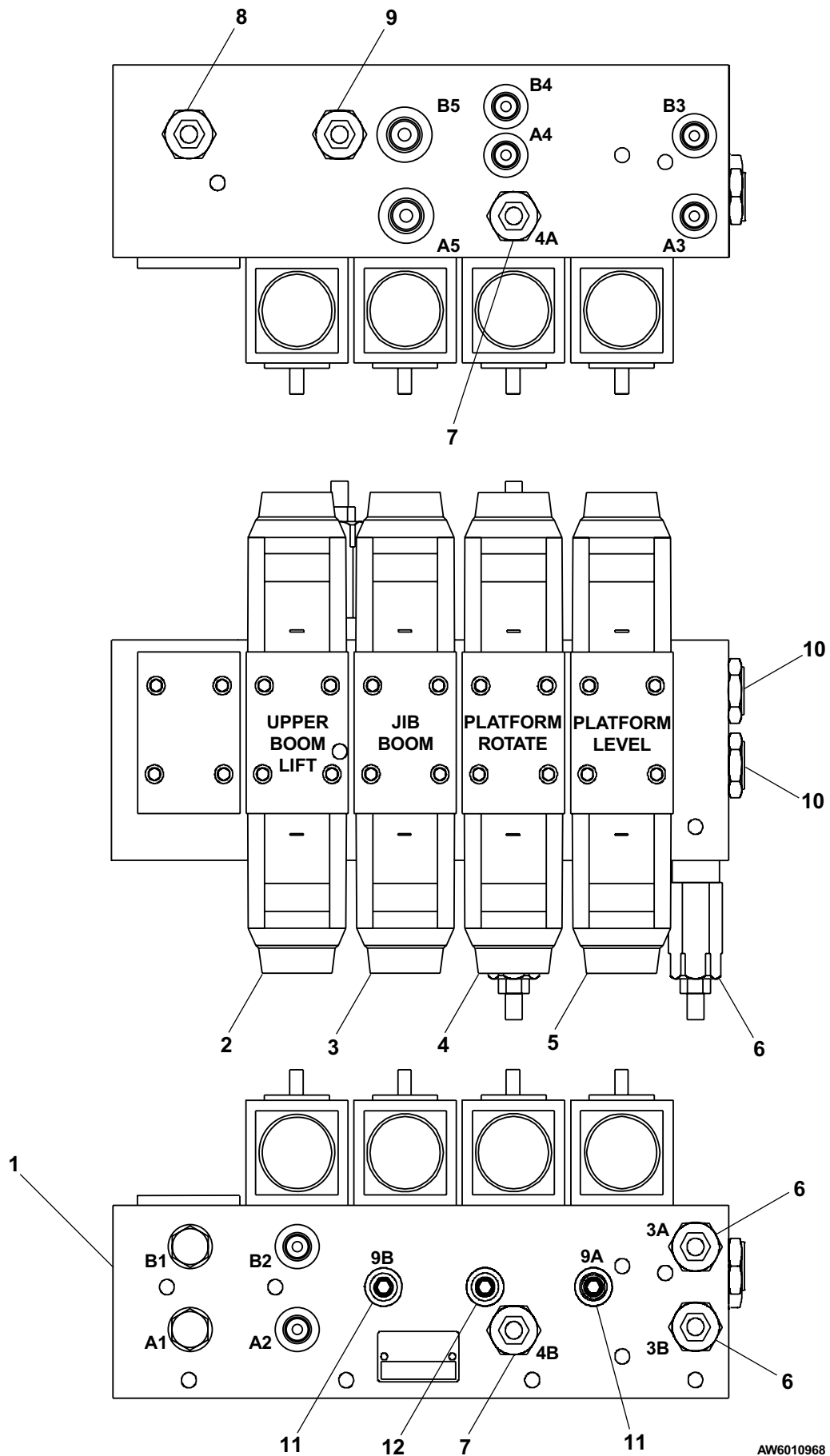
item	part no	qty	description
	0161910	1	Control valve, 4 station
1	6010968	1	Control valve package, 4 station - (see page 2-24 for parts breakdown)
2	5035705	4	Straight thread 45° elbow
3	5065805	2	Long straight thread adapter
4	5035303	4	Straight thread 90° elbow
5	5065703	2	Straight thread adapter
6	5037003	1	Swivel nut 90° elbow
7	5037005	2	Swivel nut 90° elbow
8	0161471	1	Decal set



Control valve package, 4 station

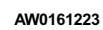
item	part no	qty	description
	6010968	1	Control valve package, 4 station
1	6091015	1	Manifold body
2	6010697	1	Upper boom lift control valve
	3040551	2	Replacement solenoid, 12 volt DC
3	6091017	1	Jib boom control valve
	3040551	2	Replacement solenoid, 12 volt DC
4	6091018	1	Platform rotate control valve
	3040551	2	Replacement solenoid, 12 volt DC
5	6091018	1	Platform level control valve
	3040551	2	Replacement solenoid, 12 volt DC
6	6091019	2	Relief valve cartridge, level - (factory preset, do not reset)
	3049853	1	Relief valve cartridge seal repair kit
7	6091020	2	Relief valve cartridge, platform rotate - (factory preset, do not reset)
	3049853	1	Relief valve cartridge seal repair kit
8	6091021	1	Relief valve cartridge, boom lift - (factory preset, do not reset)
	3049853	1	Relief valve cartridge seal repair kit
9	6091022	1	Relief valve cartridge, extend - (factory preset, do not reset)
	3049853	1	Relief valve cartridge seal repair kit
10	6091023	2	Check valve cartridge
	3049856	1	Check valve cartridge seal repair kit
11	6091024	2	Orifice plug, .030 inch diameter
12	6091025	1	Orifice plug, .020 inch diameter

Control valve package, 4 station



Control valve, 5 station

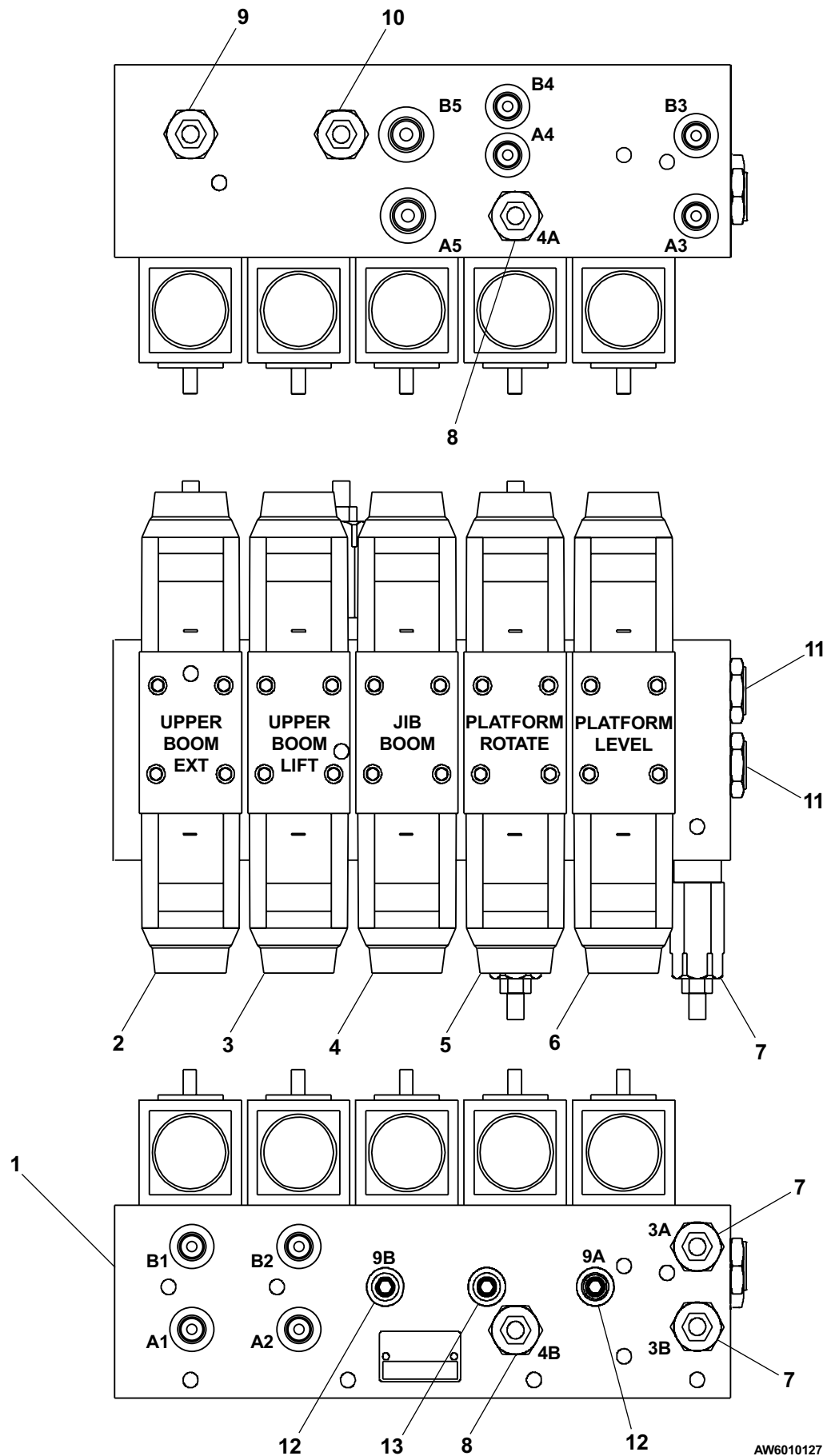
item	part no	qty	description
	0161223	1	Control valve, 5 station
1	6010127	1	Control valve package, 5 station - (see page 2-28 for parts breakdown)
2	5035705	6	Straight thread 45° elbow
3	5065805	2	Long straight thread adapter
4	5035303	4	Straight thread 90° elbow
5	5065703	1	Straight thread adapter
6	5037003	1	Swivel nut 90° elbow
7	5037005	2	Swivel nut 90° elbow
8	0161471	1	Decal set



Control valve package, 5 station

item	part no	qty	description
	6010127	1	Control valve package, 5 station
1	6091015	1	Manifold body
2	6091016	1	Upper boom extend control valve
	3040551	2	Replacement solenoid, 12 volt DC
3	6010697	1	Upper boom lift control valve
	3040551	2	Replacement solenoid, 12 volt DC
4.	6091017	1	Jib boom control valve
	3040551	2	Replacement solenoid, 12 volt DC
5	6091018	1	Platform rotate control valve
	3040551	2	Replacement solenoid, 12 volt DC
6	6091018	1	Platform level control valve
	3040551	2	Replacement solenoid, 12 volt DC
7	6091019	2	Relief valve cartridge, level - (factory preset, do not reset)
	3049853	1	Relief valve cartridge seal repair kit
8	6091020	2	Relief valve cartridge, platform rotate - (factory preset, do not reset)
	3049853	1	Relief valve cartridge seal repair kit
9	6091021	1	Relief valve cartridge, boom lift - (factory preset, do not reset)
	3049853	1	Relief valve cartridge seal repair kit
10	6091022	1	Relief valve cartridge, extend - (factory preset, do not reset)
	3049853	1	Relief valve cartridge seal repair kit
11	6091023	2	Check valve cartridge
	3049856	1	Check valve cartridge seal repair kit
12	6091024	2	Orifice plug, .030 inch diameter
13	6091025	1	Orifice plug, .020 inch diameter

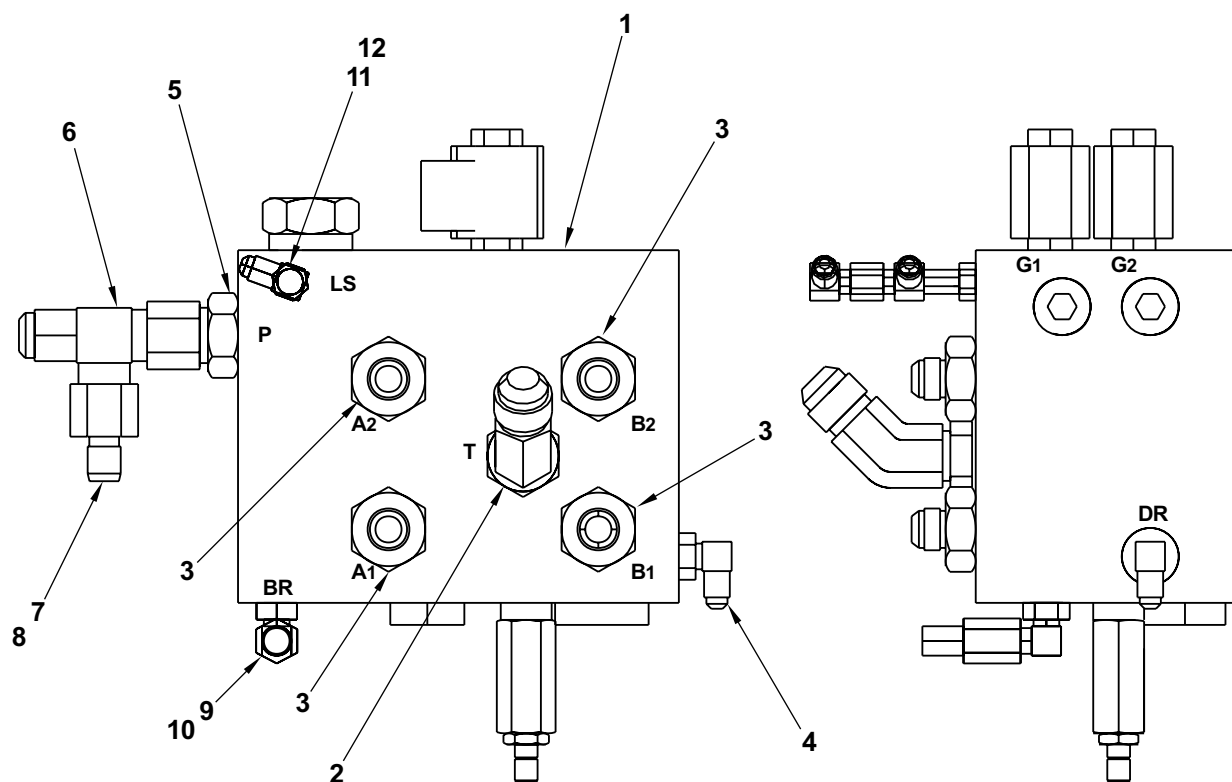
Control valve package, 5 station



AW6010127

Drive valve, 2 x 2

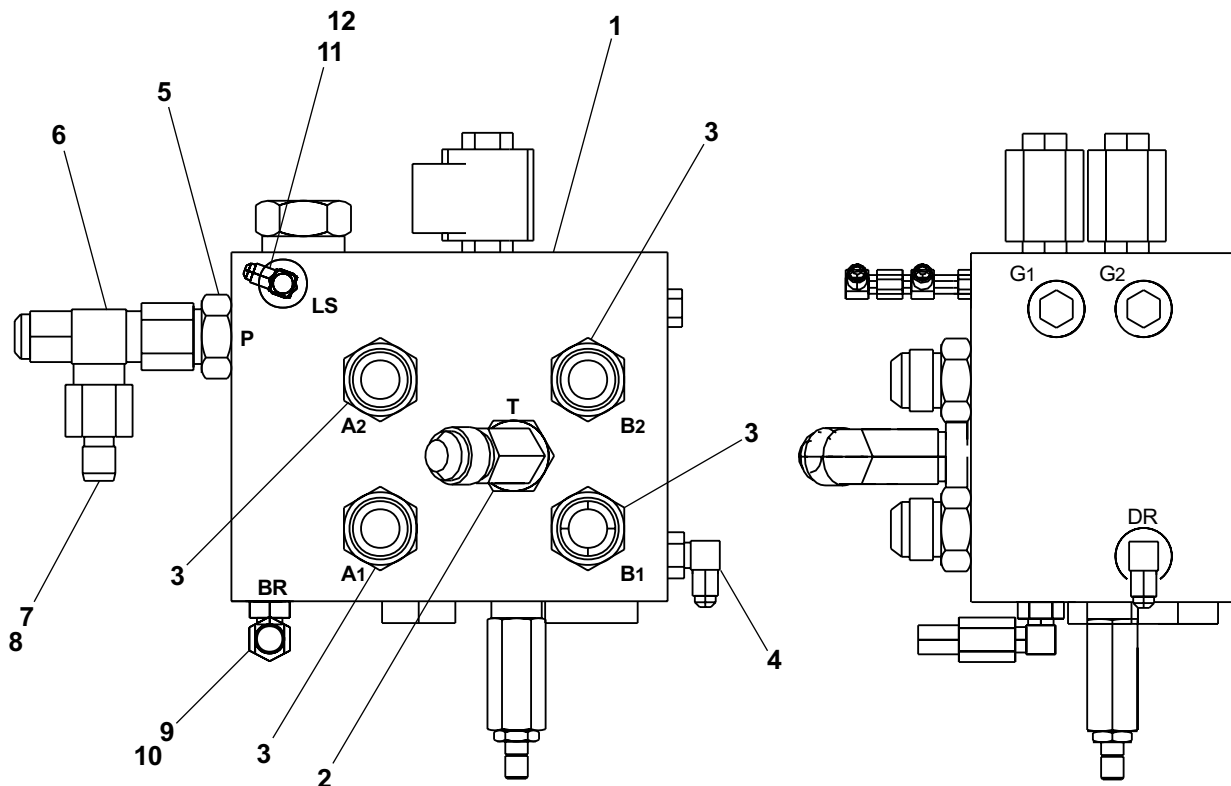
item	part no	qty	description
	0162591	1	Drive valve 2 x 2
1	6010956	1	Drive valve - (see page 2-32 for parts breakdown)
2	5035708	1	Straight thread 45° elbow
3	5065711	4	Straight thread adapter
4	5035305	1	Straight thread 90° elbow
5	5065713	1	Straight thread adapter
6	5036707	1	Swivel nut run tee
7	5064004	1	Tube end reducer
8	5063907	1	Fitting nut
9	5035303	1	Straight thread 90° elbow
10	5070005	1	Diagnostic nipple
11	5036103	1	Straight thread run tee
12	5037003	1	Swivel nut 90° elbow



AW0162591

Drive valve, 4 wheel drive

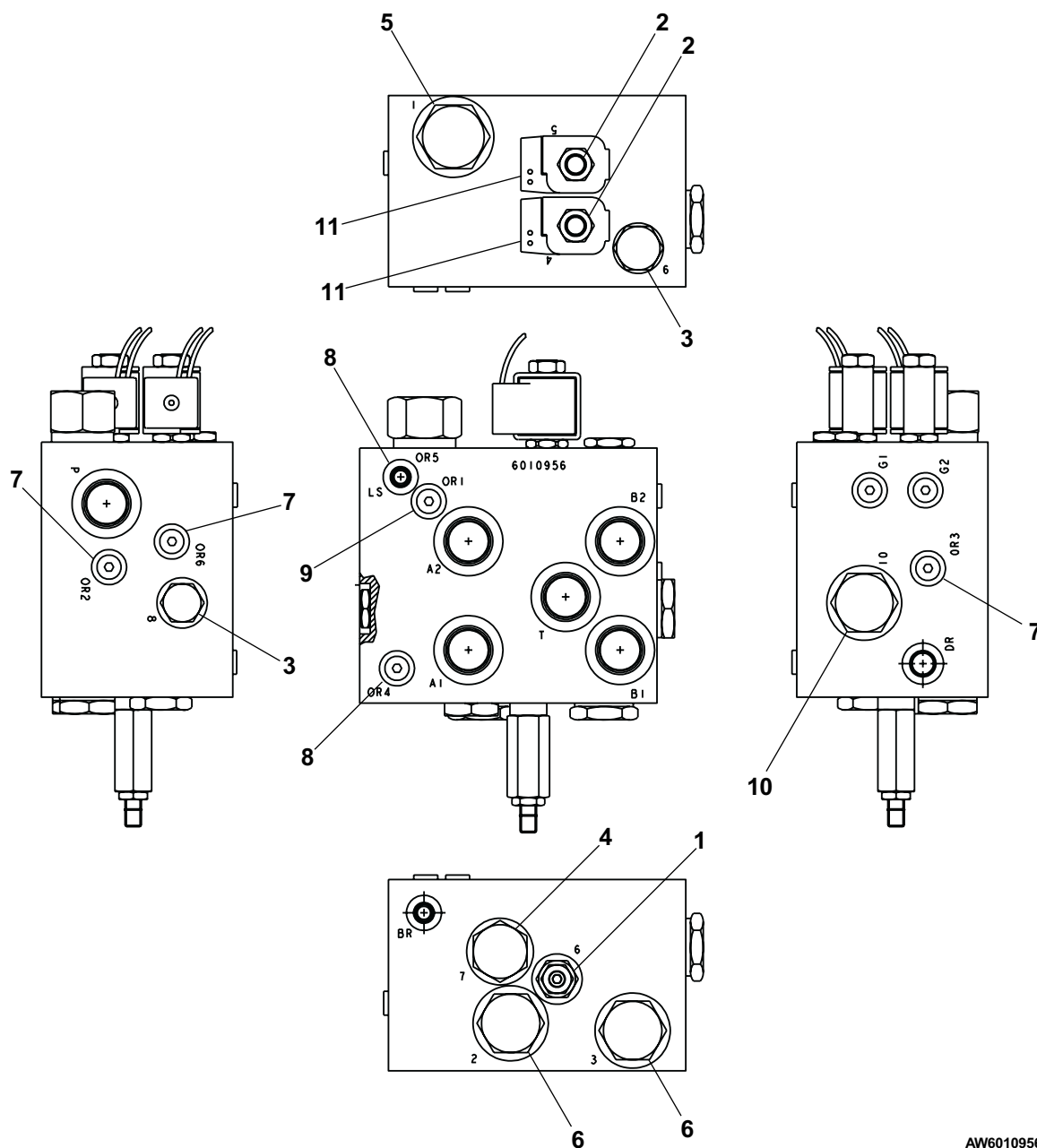
item	part no	qty	description
	0162590	1	Drive valve, 4 wheel drive
1	6010956	1	Drive valve - (see page 2-32 for parts breakdown)
2	5035708	1	Straight thread 45° elbow
3	5065714	4	Straight thread adapter
4	5035305	1	Straight thread 90° elbow
5	5065713	1	Straight thread adapter
6	5036707	1	Swivel nut run tee
7	5064004	1	Tube end reducer
8	5063907	1	Fitting nut
9	5035303	2	Straight thread 90° elbow
10	5070005	1	Diagnostic nipple - (used on standard machines)
	5070028	1	Diagnostic nipple - (used on CE machines only)
11	5036103	1	Straight thread run tee
12	5037003	1	Swivel nut 90° elbow



AW0162590

Drive valve

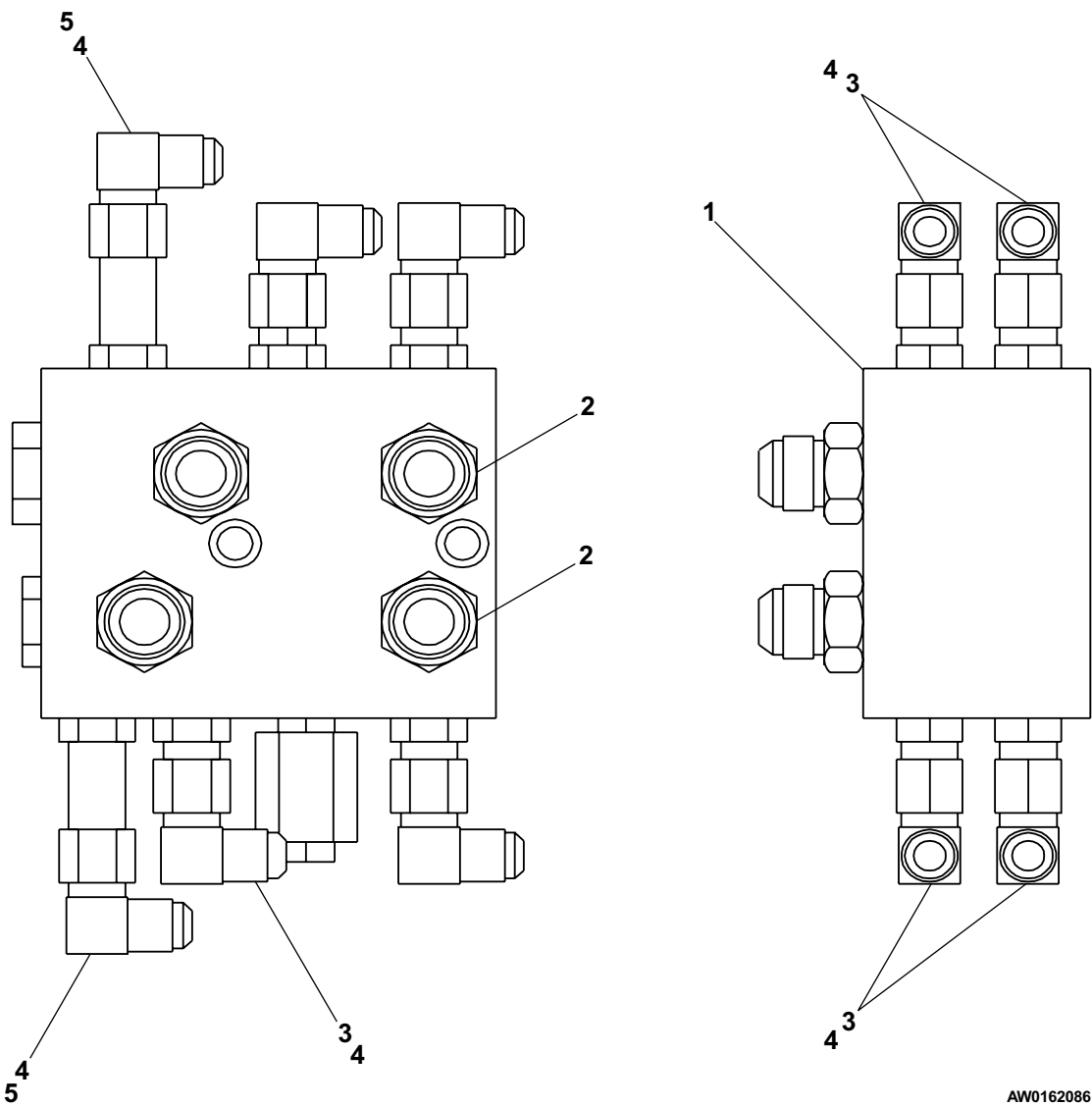
item	part no	qty	description
	6010956	1	Drive valve
1	6010982	1	Relief valve
2	6010969	2	Proportional pressure regulator
3	6010984	2	Check valve
4	6010985	1	Flow divider/combiner
5	6010986	1	Flow compensator
6	6010987	2	Flow diverter
7	6010988	3	Orifice plug, .031 inch diameter
8	6010989	2	Orifice plug, .020 inch diameter
9	6010990	1	Screened orifice plug, .020 inch diameter
10	6010991	1	Shuttle valve
11	3040902	2	Solenoid coil, 12 volt DC



AW6010956

Differential valve, 4 wheel drive

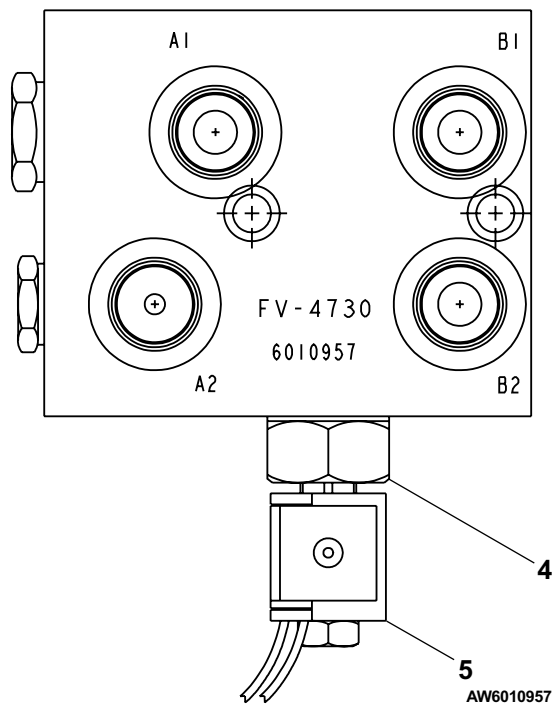
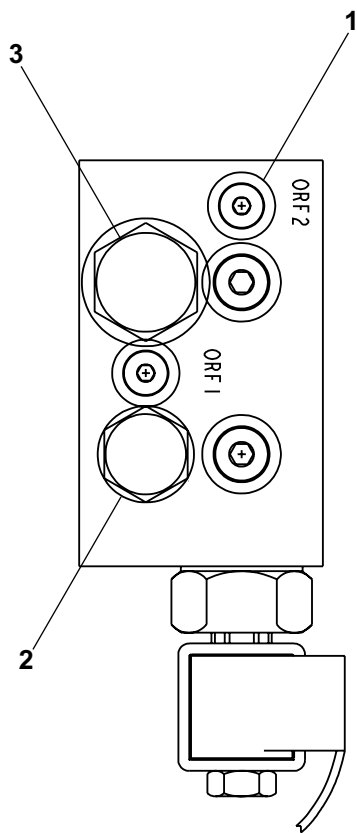
item	part no	qty	description
	0162086	1	Differential valve, 4 wheel drive
1	6010957	1	Differential valve - (see page 2-34 for parts breakdown)
2	5065714	4	Straight thread adapter
3	5065709	6	Straight thread adapter
4	5037006	8	Swivel nut 90° elbow
5	5065806	2	Long straight thread adapter



AW0162086

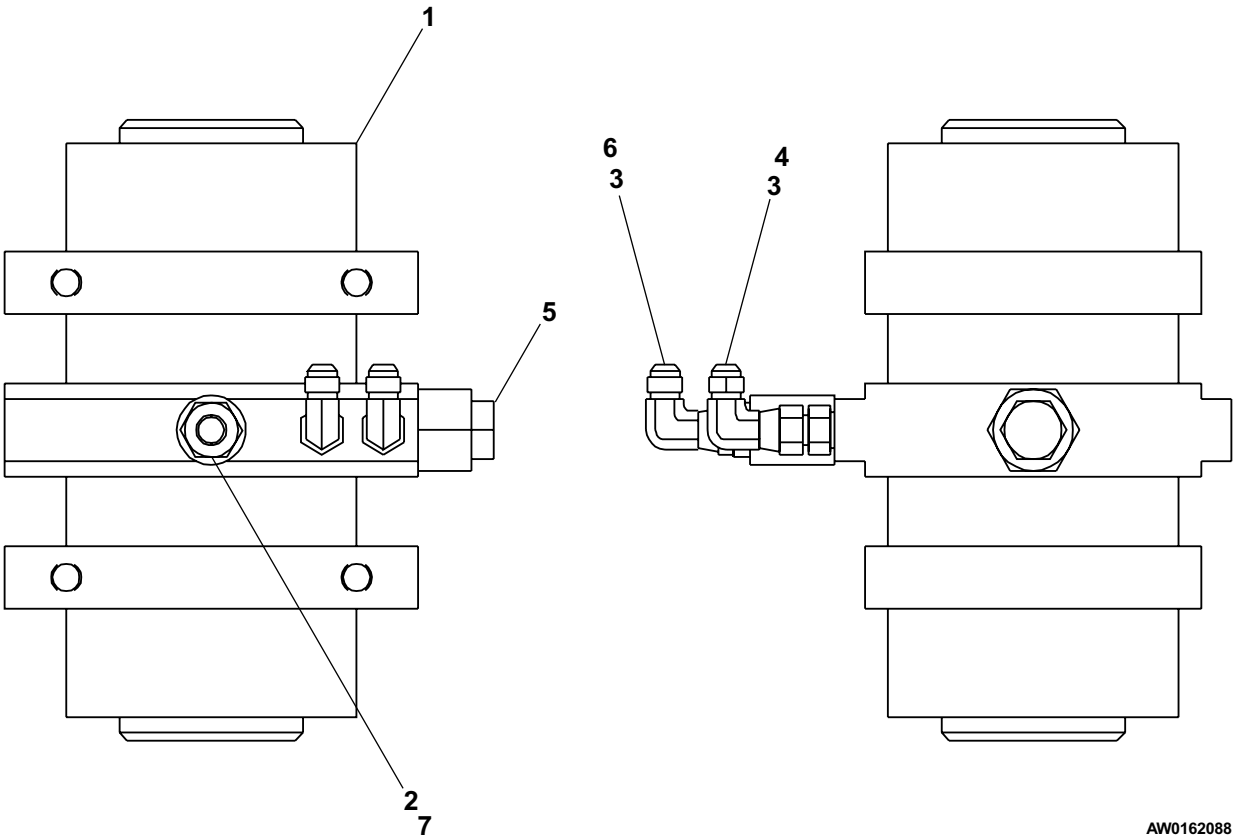
Differential valve

item	part no	qty	description
	6010957	1	Differential valve
1	6010988	2	Orifice plug, .031 inch diameter orifice
2	6010992	1	Flow divider/combiner
3	6010985	1	Flow divider/combiner
4	6010993	1	Solenoid valve, normally closed
5	3040727	1	Coil, 10 volt DC



Axle lock cylinder, left hand

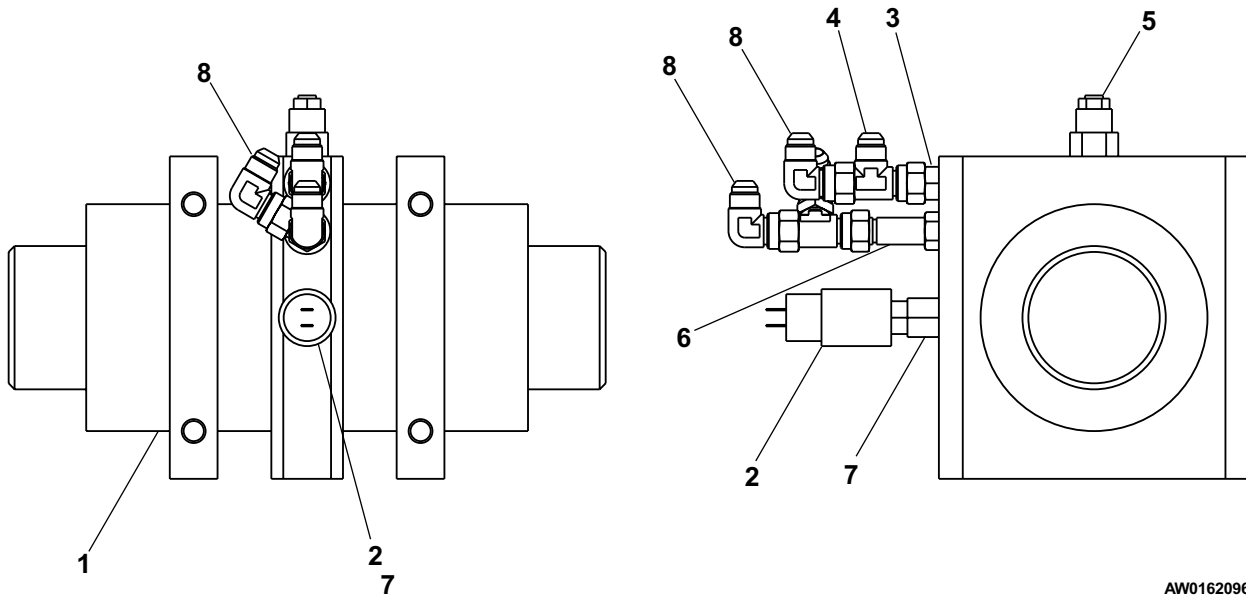
item	part no	qty	description
	0162088	1	Axle lock cylinder, left hand
1	0161802-99	1	Cylinder, axle lock - (see page 2-43 for parts breakdown)
2	3020142	1	Pressure switch - (2325 psi pressure)
3	5065707	1	Straight thread adapter
4	5036705	2	Swivel nut run tee
5	6010606	1	Cartridge holding valve - (factory preset, do not reset)
6	5065805	1	Long straight thread adapter
7	5076009	1	Reducer-expander



AW0162088

Axle lock cylinder, right hand

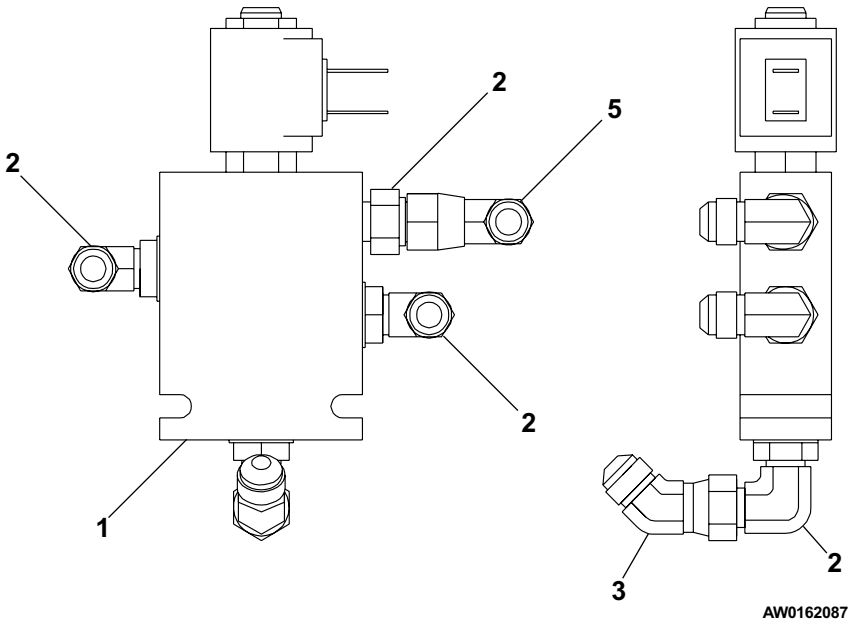
item	part no	qty	description
	0162096	1	Axle lock cylinder, right hand
1	0161802-99	1	Cylinder, axle lock - (see page 2-43 for parts breakdown)
2	3020142	1	Pressure switch - (2325 psi pressure)
3	5065707	1	Straight thread adapter
4	5036705	2	Swivel nut run tee
5	6010606	1	Cartridge holding valve - (factory preset, do not reset)
6	5065805	1	Long straight thread adapter
7	5076009	1	Reducer-expander
8	5037005	3	Swivel nut 90° elbow



AW0162096

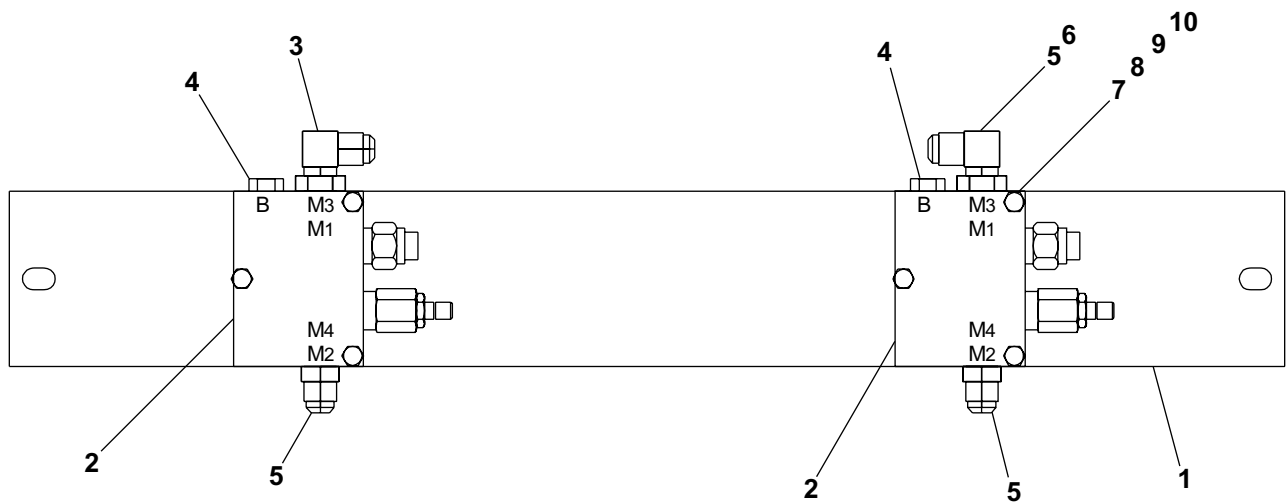
Axle lock valve

item	part no	qty	description
1	0162087	1	Axle lock valve, complete
	6010330	1	Axle lock valve
	6010978	1	Seal repair kit
	6010975	1	Valve body
	6010976	1	Cartridge solenoid valve
	6010977	1	Solenoid coil, 12 volt DC
2	5035305	3	Straight thread 90° elbow
3	5036905	1	Swivel nut 45° elbow
4	5065707	1	Straight thread adapter
5	5037005	1	Swivel nut 90° elbow



Brake valve, front

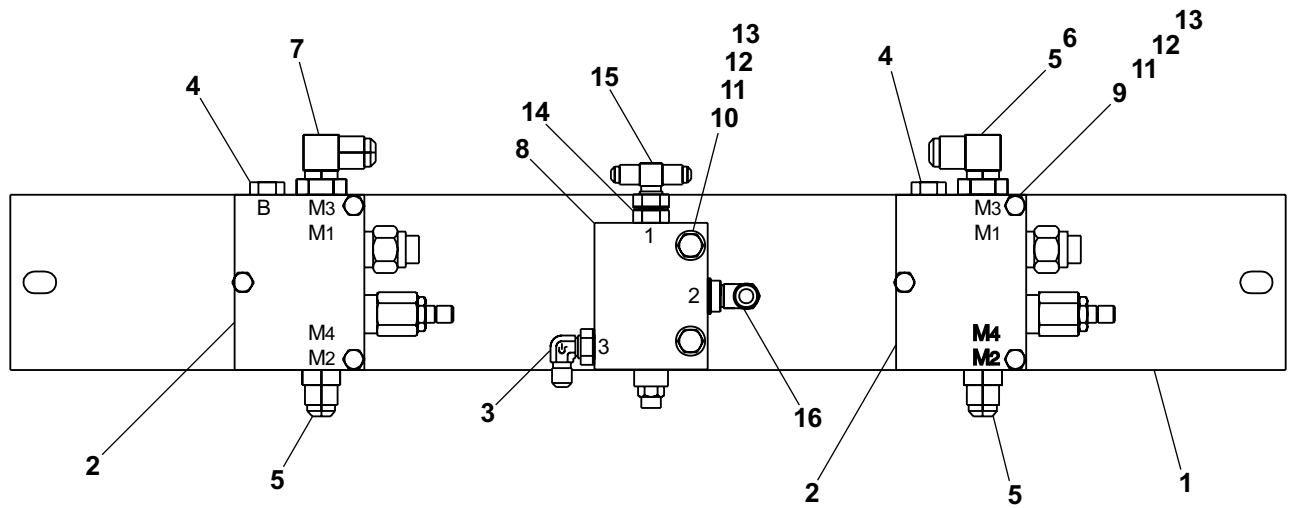
item	part no	qty	description
	0162193	1	Brake valve, front
1	0162160-99	1	Valve mount plate
2	6010947	1	Dynamic brake valve - (see page 2-62 for parts breakdown)
3	5035306	1	Straight thread 90° elbow
4	5075203	1	Hex head plug
5	5065709	7	Straight thread adapter
6	5037006	1	Swivel nut 90° elbow
7	5560369	6	Capscrew 1/4-20 x 4 inch long hex head grade 5
8	986019	14	Washer 1/4 medium flat
9	987099	6	Washer 1/4 medium lock
10	984069	6	Nut 1/4-20 hex



AW0162193

Brake valve, rear

item	part no	qty	description
	0162583	1	Brake valve, rear
1	0162160-99	1	Valve mount plate
2	6010947	2	Dynamic brake valve - (see page 2-62 for parts breakdown)
3	5035305	1	Straight thread 90° elbow
4	5075203	2	Hex head plug
5	5065709	7	Straight thread adapter
6	5037006	1	Swivel nut 90° elbow
7	5035306	1	Straight thread 90° elbow
8	6018913	1	Pressure reducing valve - (see page 2-71 for parts breakdown)
9	5560369	6	Capscrew 1/4-20 x 4 inch long hex head grade 5
10	969999	2	Capscrew 1/4-20 x 2-1/4 inch long hex head grade 5
11	986019	16	Washer 1/4 medium flat
12	987099	8	Washer 1/4 medium lock
13	984069	8	Nut 1/4-20 hex
14	5065705	1	Straight thread adapter
15	5036803	1	Swivel nut branch tee
16	5035318	1	Straight thread 90° elbow

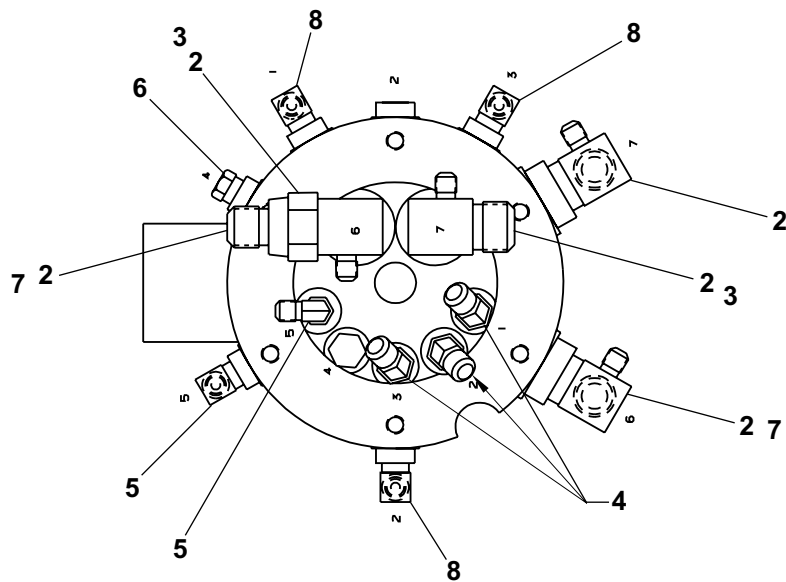
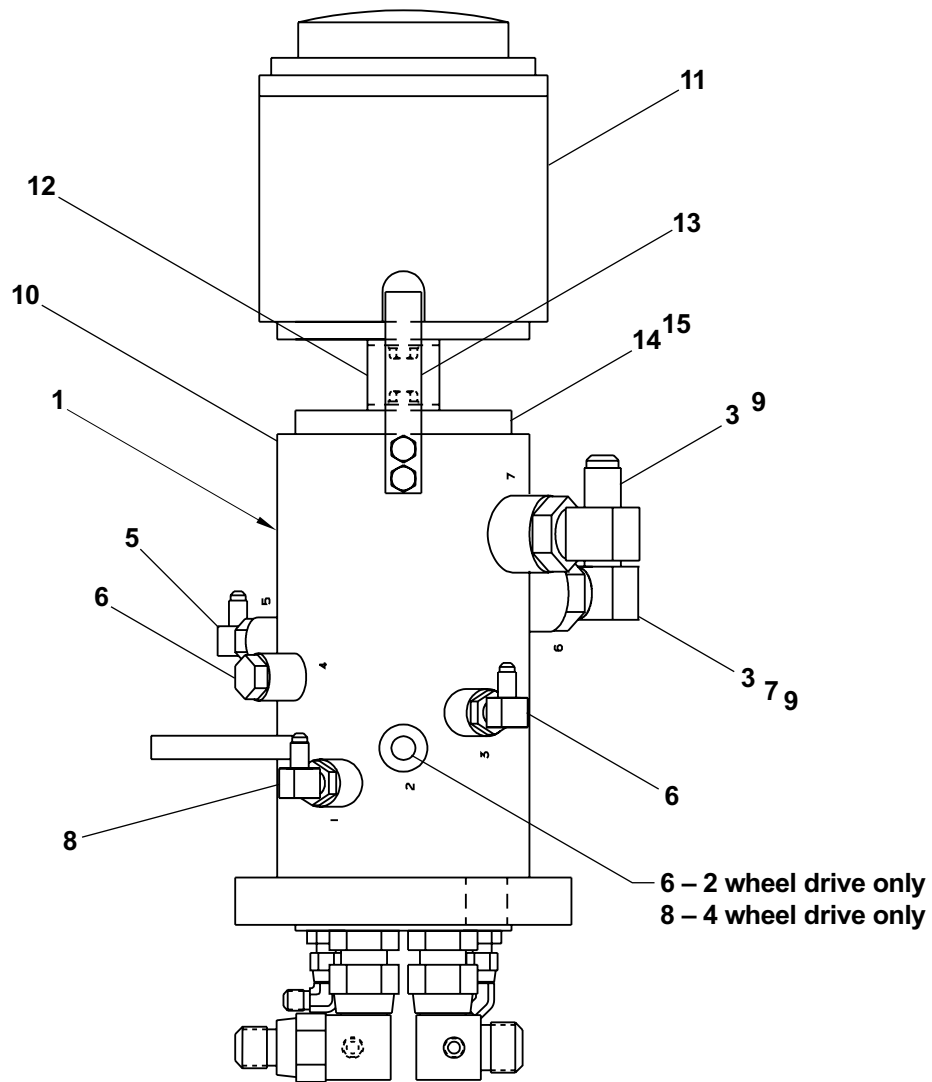


AW0162583

Centerpost

item	part no	qty	description
	0161918	1	Centerpost
1	0161476	1	Centerpost and collector ring
2	0140500	4	Special swivel nut 90° elbow with side port
3	5065714	4	Straight thread adapter
4	5065705	3	Straight thread adapter
5	5035318	2	Straight thread 90° elbow
6	5075205	3	Hex head plug
7	5064011	2	Tube end reducer
8	5035305	4	Straight thread 90° elbow
9	0140288	2	Swivel nut 90° elbow
10	0161439	1	Centerpost and manifold
	0162484	1	Seal repair kit
11	0161438	1	Collector ring
12	0162487	1	Adapter spool
13	0162488	1	Torque arm
14	0162497	1	Retaining ring
15	0161498	1	Internal ring

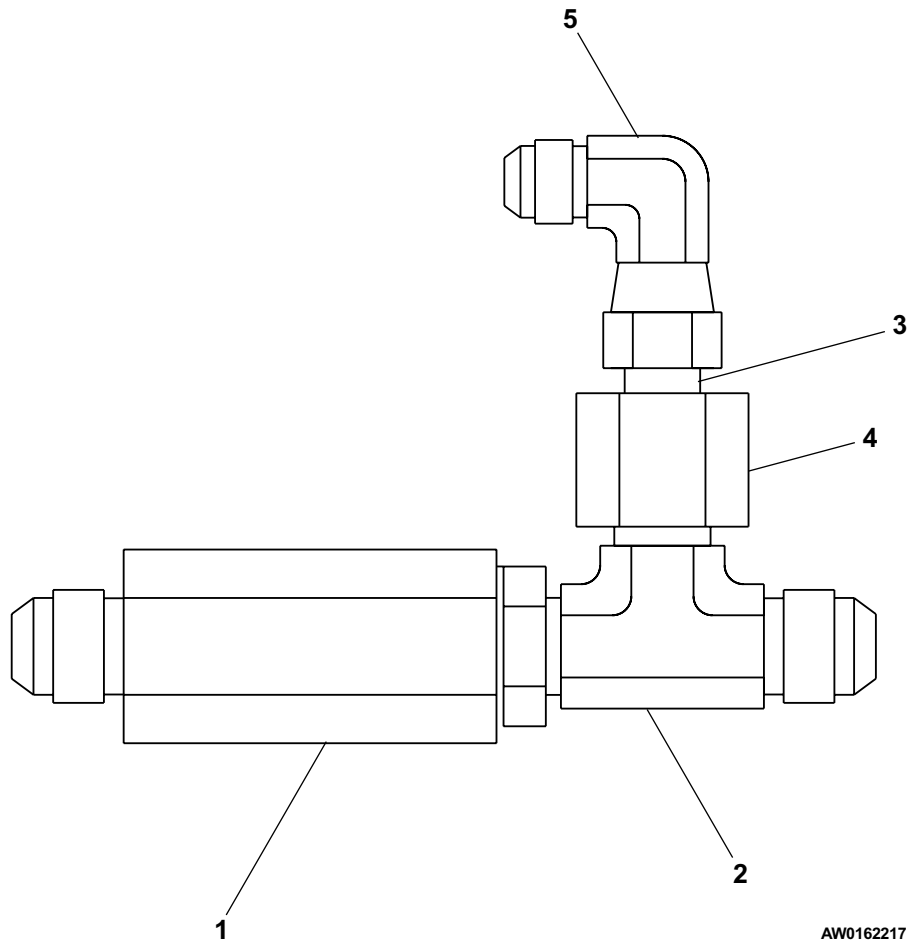
Centerpost



AW0161918

Check valve

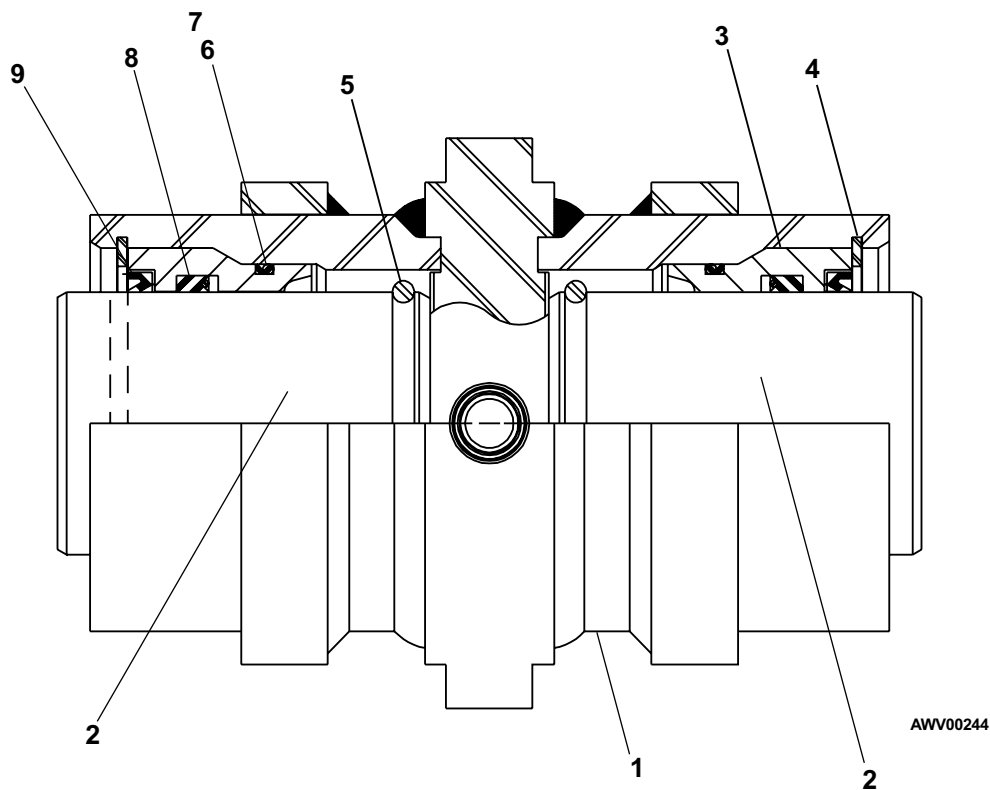
item	part no	qty	description
	0162217	1	Check valve
1	6010468	1	Check valve
2	5036107	1	Straight thread run tee
3	5064004	1	Tube end reducer
4	5063907	1	Fitting nut
5	5037005	1	Swivel nut 90° elbow



AW0162217

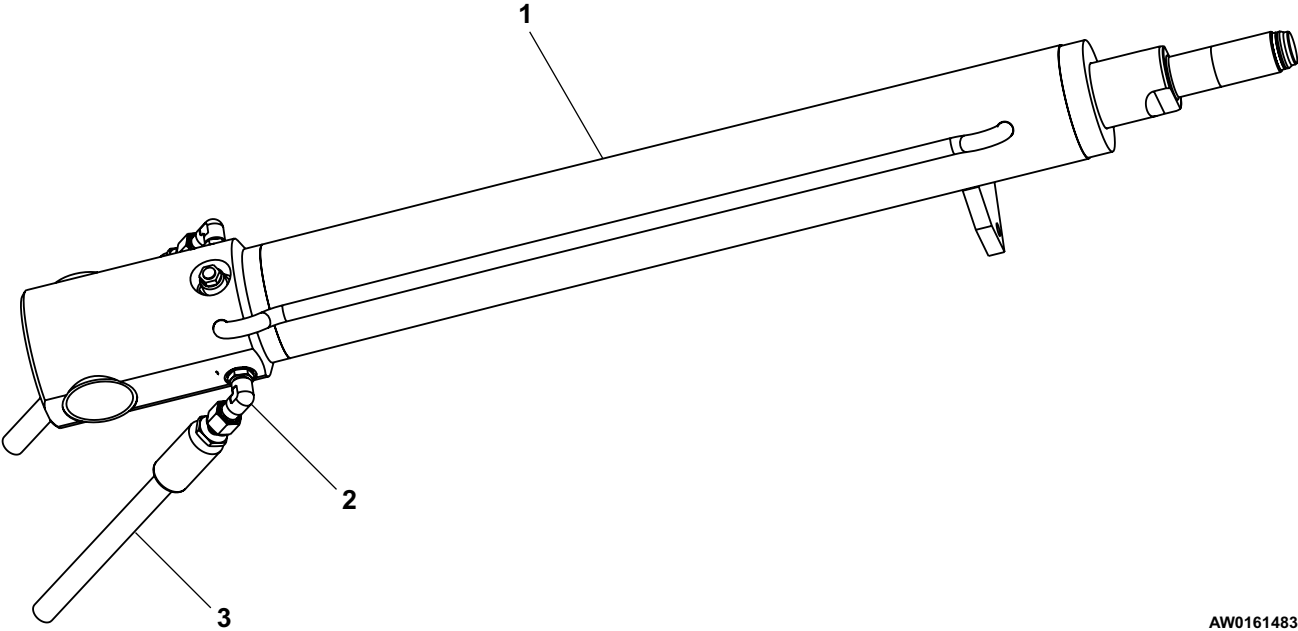
Cylinder, axle lock - GBI

item	part no	qty	description
	0161802-99	1	Cylinder, axle lock - GBI
	0162467	1	Seal repair kit - (kit includes items 6 through 9)
1	6091105	1	Tube
2	6091106	2	Rod
3	8070826	2	Head gland
4	8070825	2	Snap ring
5	8070824	2	Wire ring
6	Kit item	2	Back-up - (not sold separately)
7	Kit item	2	O-ring - (not sold separately)
8	Kit item	2	U-cup - (not sold separately)
9	Kit item	2	Wiper - (not sold separately)



Extend cylinder

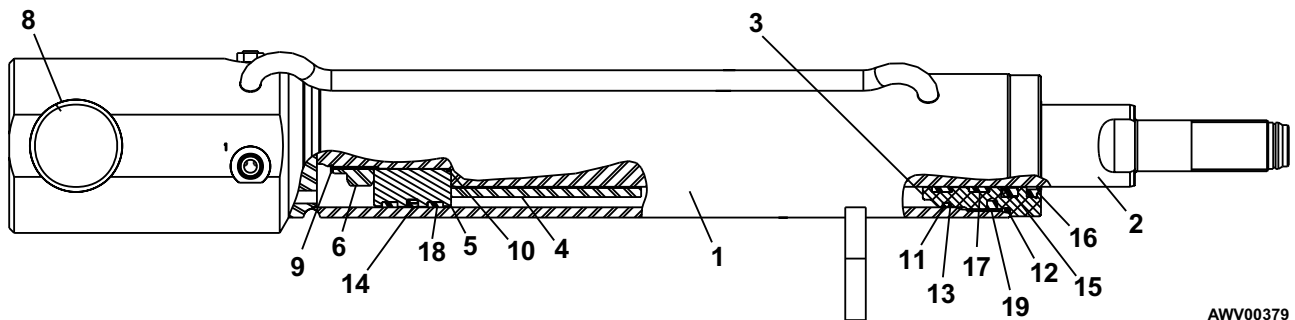
item	part no	qty	description
	0161483	1	Extend cylinder
1	0163143	1	Cylinder, extension - (see page 2-45 for parts breakdown)
2	5035305	2	Straight thread 90° elbow
3	0161398	2	3/8 inch hydraulic hose



AW0161483

Cylinder, extension - Rosenboom

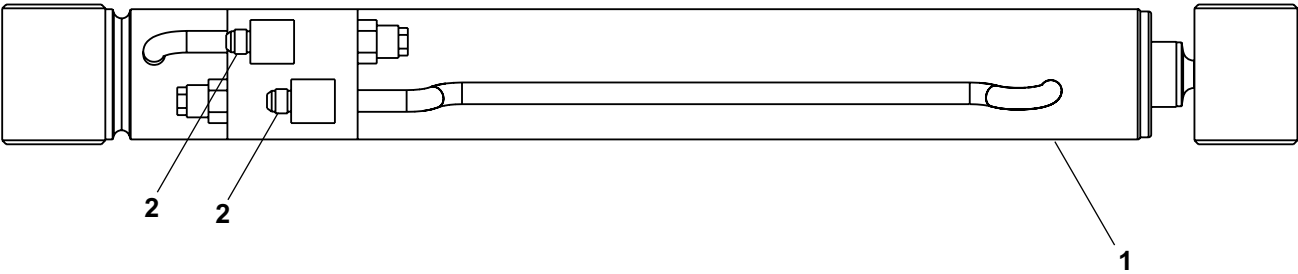
item	part no	qty	description
	0163143	1	Cylinder, extension - Rosenboom
	6091380	1	Seal repair kit - (kit includes items 9 through 19)
1		1	Tube - (not sold separately)
2	6091382	1	Rod
3	6091378	1	Head gland
4	6091383	1	Rod spacer
5	6091377	1	Piston
6	6091293	1	Locking nut 1-1/4-12
7	6090294	1	Counterbalance holding valve - (factory preset, do not reset)
8	2500040	2	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	O-ring - (not sold separately)
13	Kit item	1	Back-up - (not sold separately)
14	Kit item	1	Diso-pac - (not sold separately)
15	Kit item	1	U-cup - (not sold separately)
16	Kit item	1	Rod wiper - (not sold separately)
17	Kit item	2	Wearband - (not sold separately)
18	Kit item	2	Wearband - (not sold separately)
19	Kit item	1	Locking insert - (not sold separately)



AWV00379

Jib cylinder

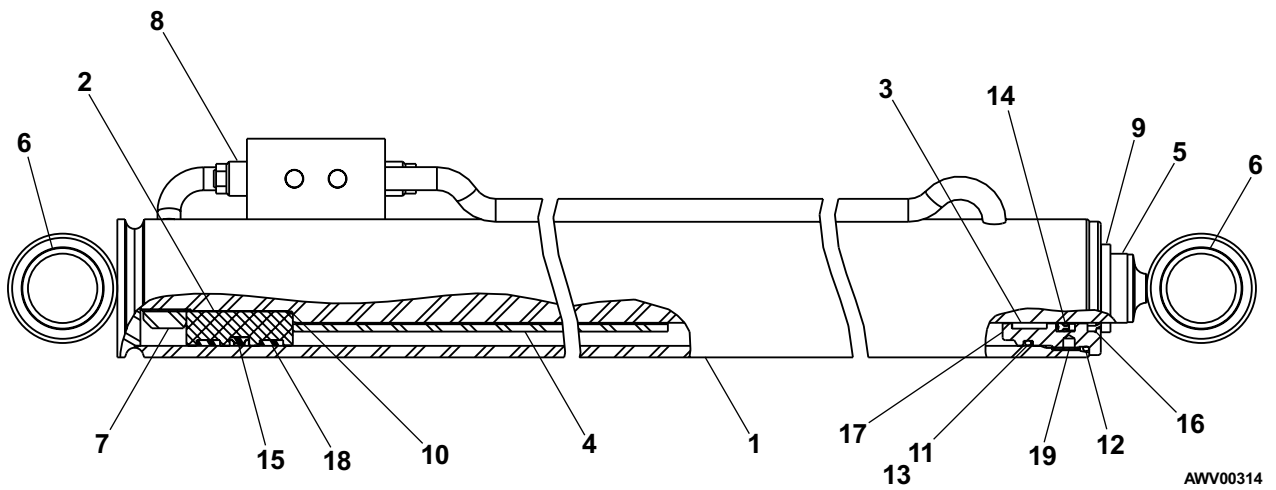
item	part no	qty	description
	0162795	1	Jib cylinder
1	0162783-99	1	Cylinder, jib - (see page 2-47 for parts breakdown)
2	5035321	2	Straight thread 90° elbow



AWM00268

Cylinder, jib - Rosenboom

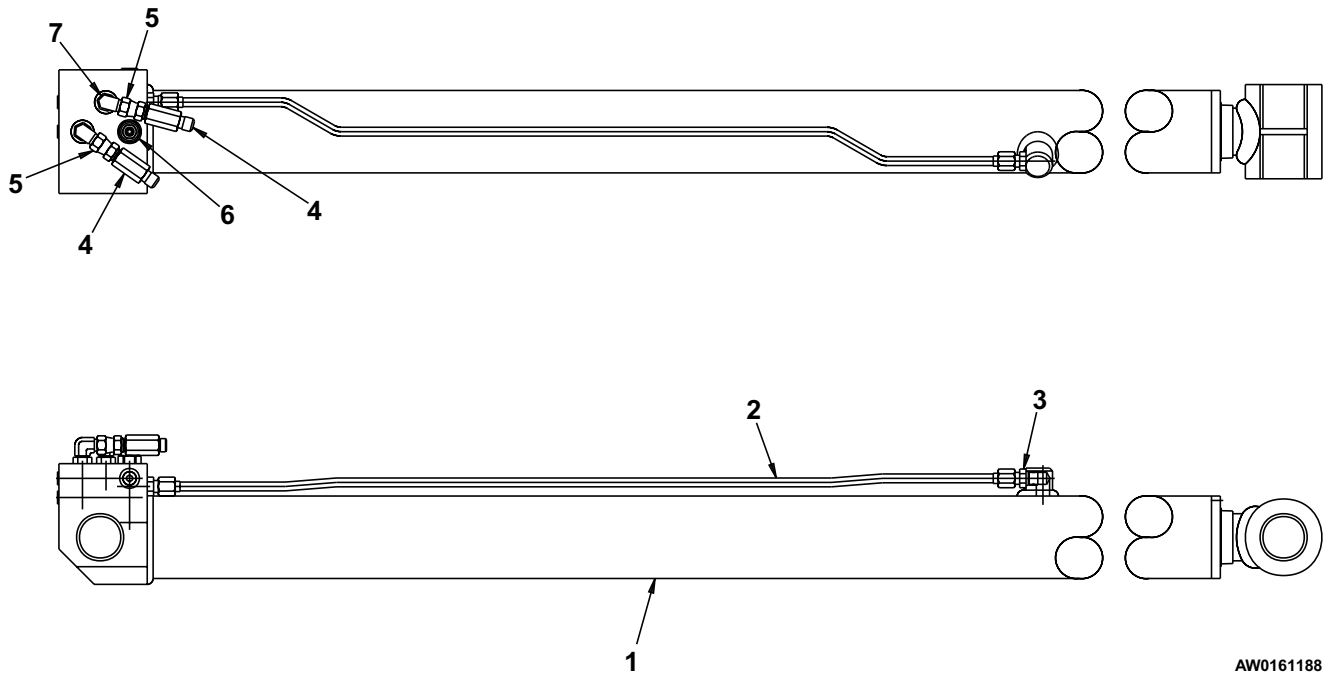
item	part no	qty	description
	0162783-99	1	Cylinder, jib - Rosenboom
	0162478	1	Seal repair kit - (kit includes items 10 through 19)
1		1	Tube - (not sold separately)
2	6091233	1	Piston
3	6091234	1	Head gland
4	6091235	1	Rod spacer
5	6091236	1	Rod
6	561126	4	Bearing
7	6091237	1	Locking nut
8	6010488	2	Cartridge counterbalance valve - (factory preset, do not reset)
	6091190	1	Seal repair kit
9	6091238	1	Square ring - (paint screen)
10	Kit item	1	O-ring - (not sold separately)
11	Kit item	1	O-ring - (not sold separately)
12	Kit item	1	O-ring - (not sold separately)
13	Kit item	1	Back-up ring - (not sold separately)
14	Kit item	1	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	Wearband - (not sold separately)
19	Kit item	1	Locking insert - (not sold separately)



AWV00314

Main boom lift cylinder

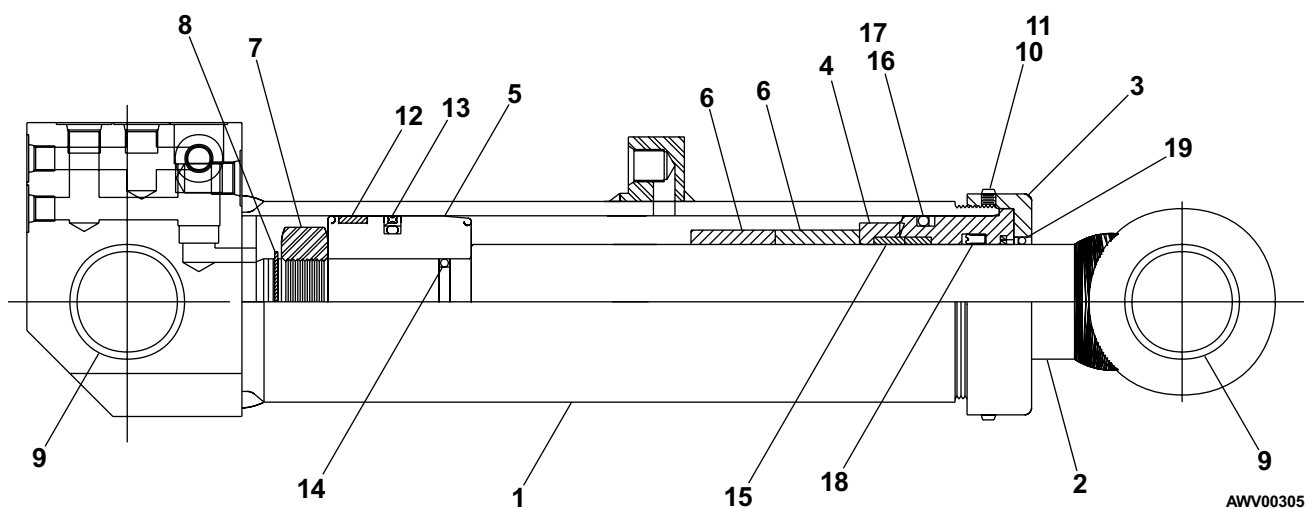
item	part no	qty	description
1	0161188-99	1	Main boom lift cylinder
	0160542-99	1	Cylinder, main boom lift (see page 2-49 for Green cylinder) (see page 2-50 for Prince cylinder)
2	0160797	1	Transfer tube
3	5065707	2	Straight thread adapter
4	0161835	2	Check valve, .062 inch diameter
5	5025003-99	2	Swivel adapter
6	6010488	1	Cartridge counterbalance valve - (factory preset, do not reset)
	6091190	1	Seal repair kit
7	5035305	2	Straight thread 90° elbow



AW0161188

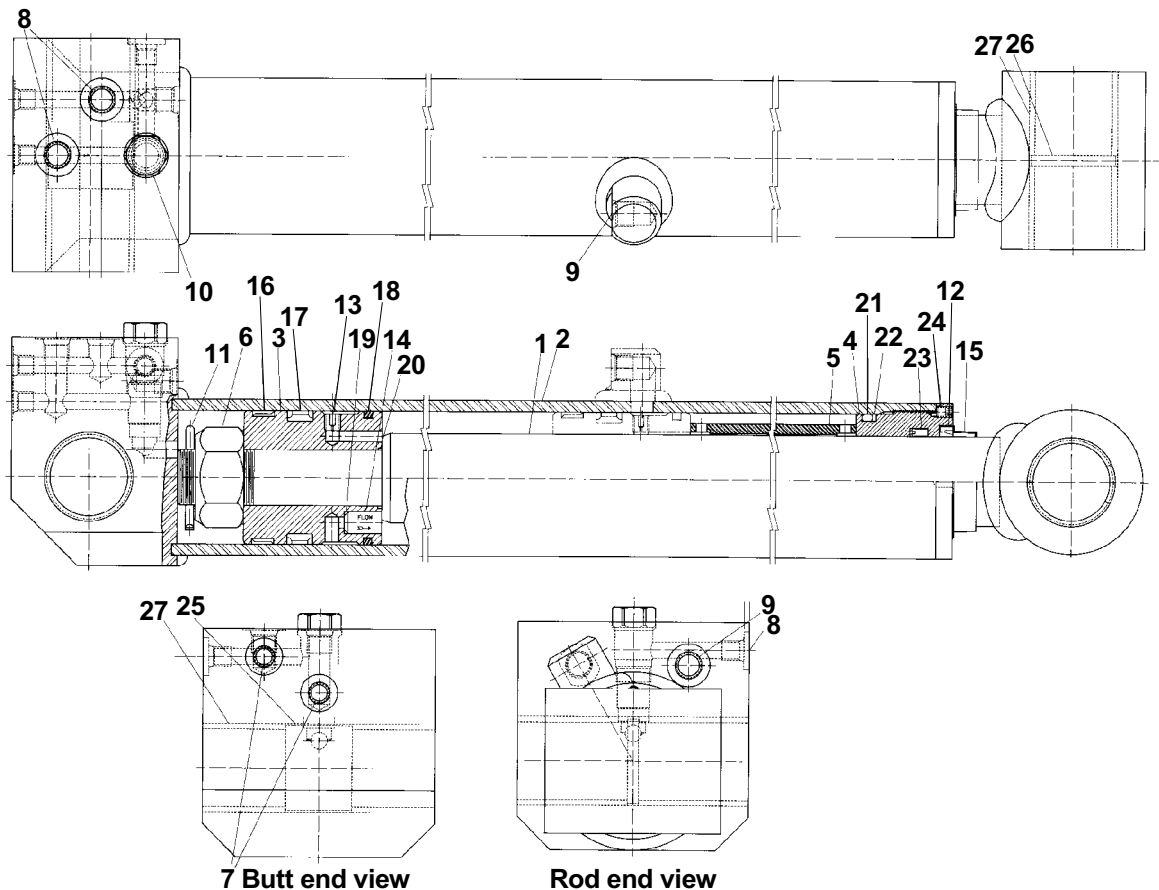
Cylinder, main boom lift - Green

item	part no	qty	description
	0160542-99	1	Cylinder, main boom lift - Green
	8070847	1	Seal repair kit - (kit includes items 12 through 19)
1		1	Cylinder barrel - (not sold separately)
2	8070842	1	Rod
3	8070845	1	Cap
4	8070844	1	Gland
5	8070843	1	Piston
6	8070846	2	Stop tube
7	8070840	1	Jam lock nut
8	8070839	1	Retaining ring
9	8070836	4	Bearing
10	6091058	2	Nylon ball
11	5560339	2	Set screw
12	Kit item	1	Wear ring - (not sold separately)
13	Kit item	1	Piston seal - (not sold separately)
14	Kit item	1	O-ring - (not sold separately)
15	Kit item	2	Wear 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	Rod wiper - (not sold separately)
19	Kit item	1	Rod seal - (not sold separately)



Cylinder, main boom lift - Prince

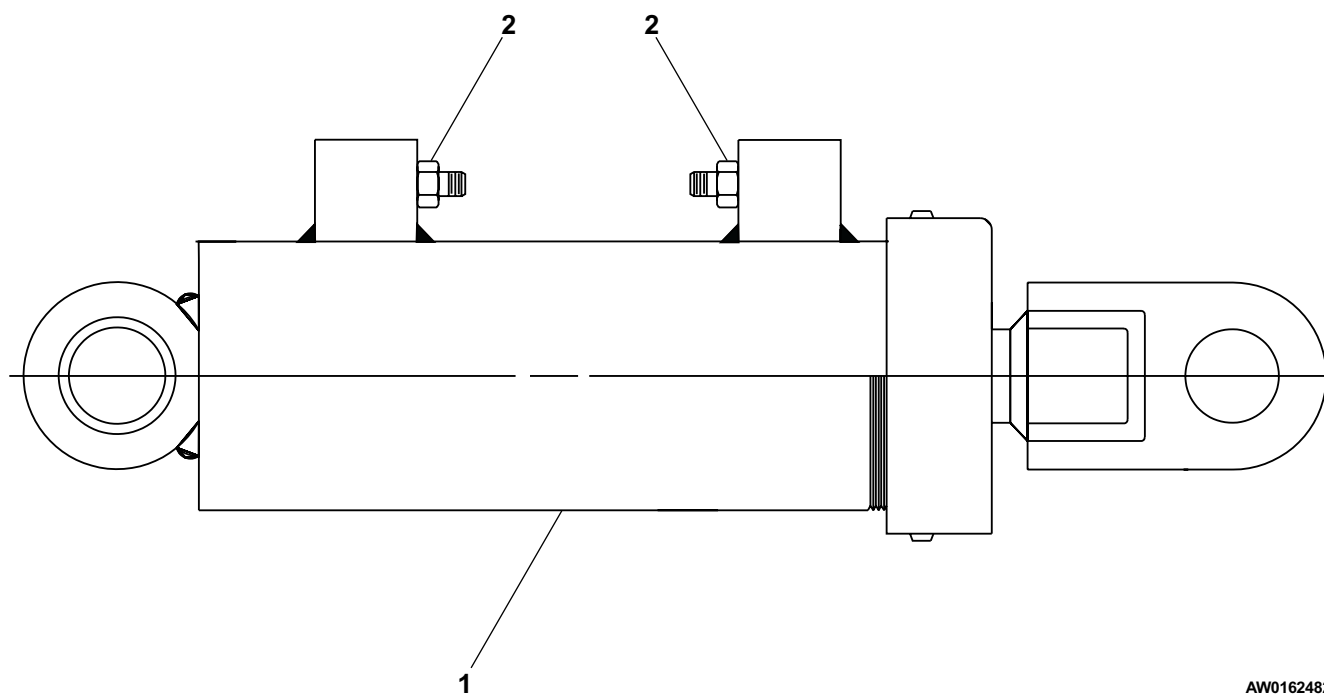
item	part no	qty	description
	0160542-99	1	Cylinder, main boom lift - Prince
	0161755	1	Seal repair kit - (kit includes items 16 through 24)
1	6091084	1	Piston rod
2		1	Butt and tube - (not sold separately)
3	6091086	1	Piston
4	6091087	1	Gland
5	8160170	1	Spacer
6	6091082	1	Locknut
7	8160171	2	Plug, shipping
8	8160173	1	Plug, shipping
9	8160131	4	Plug, shipping
10	8160172	1	Counterbalance cavity plug
11	8160211	1	Cotter pin
12	6091083	1	Set screw
13	8160240	1	Orifice plug
14	8160241	1	Check valve
15	8160242	1	Rod and wiper cover
16	Kit item	1	Bearing ring - (not sold separately)
17	Kit item	1	Capped T-seal - (not sold separately)
18	Kit item	1	Piston ring - (not sold separately)
19	Kit item	1	O-ring - (not sold separately)
20	Kit item	1	O-ring - (not sold separately)
21	Kit item	1	O-ring - (not sold separately)
22	Kit item	1	BU-washer - (not sold separately)
23	Kit item	1	U-cup - (not sold separately)
24	Kit item	1	Wiper - (not sold separately)
25	8160251	1	Spacer
26	8160252	1	Spacer
27	8160253	4	Bushing



AWV00252

Master level cylinder

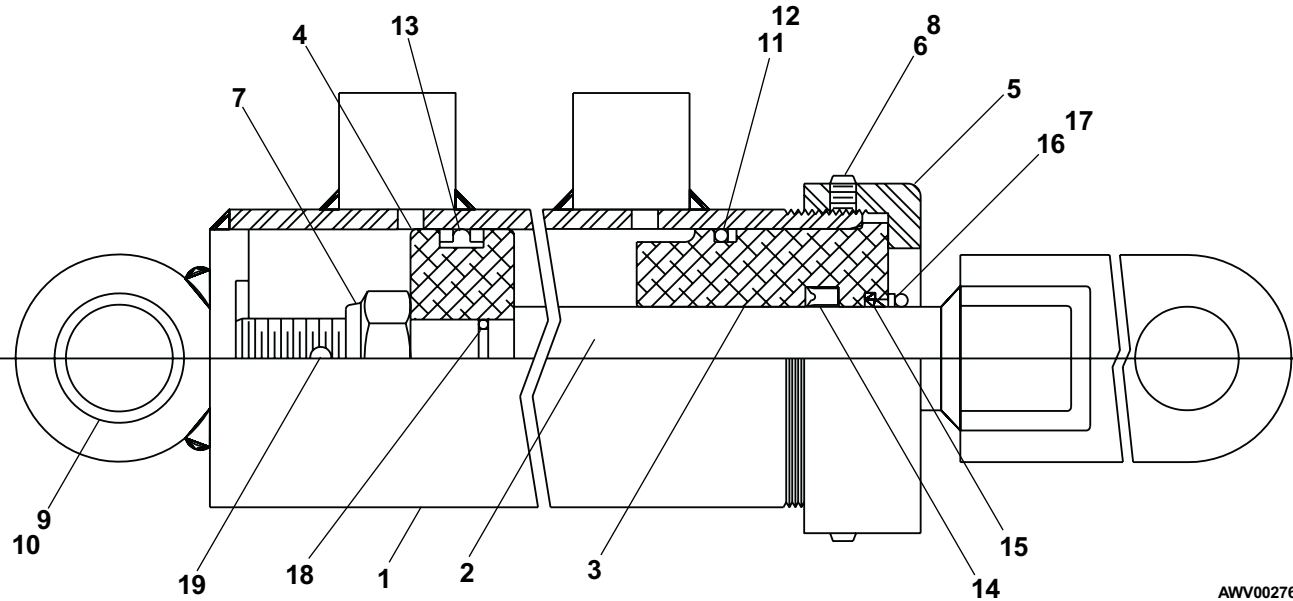
item	part no	qty	description
1	0162482	1	Master level cylinder
	0150045-99	1	Cylinder, master level - (see page 2-52 for Green cylinder)
	0150045-99	1	Cylinder, master level - (see page 2-53 for Prince cylinder)
	0153278-99	1	Cylinder, master level - (see page 2-54 for Rosenboom cylinder)
2	5065703	2	Straight thread adapter



AW0162482

Cylinder, master level - Green

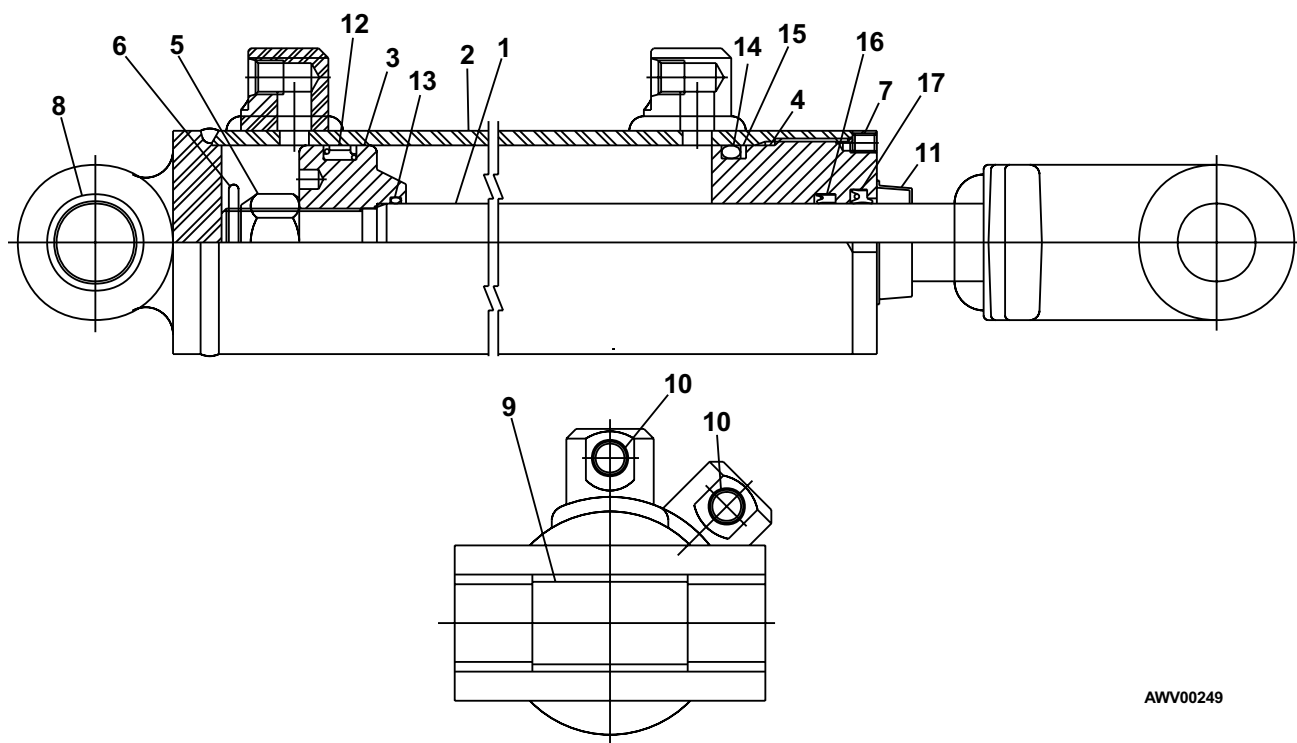
item	part no	qty	description
	0150045-99	1	Cylinder, master level - Green
	0150556	1	Seal repair kit - (kit includes items 11 through 19)
1		1	Cylinder barrel - (not sold separately)
2	6091132	1	Rod
3	6091061	1	Gland
4	6091131	1	Piston
5	8070462	1	Cap
6	5560339	2	Set screw
7	6091093	1	Full lock nut
8	6091058	2	Nylon ball
9	8070832	2	Bearing
10	8070831	1	Bearing spacer
11	Kit item	1	O-ring - (not sold separately)
12	Kit item	1	Back-up - (not sold separately)
13	Kit item	1	Piston seal - (not sold separately)
14	Kit item	1	Rod seal - (not sold separately)
15	Kit item	1	Dust seal - (not sold separately)
16	Kit item	1	Oil seal - (not sold separately)
17	Kit item	1	U-cup seal - (not sold separately)
18	Kit item	1	O-ring - (not sold separately)
19	Kit item	1	Cotter pin - (not sold separately)



AWV00276

Cylinder, master level - Prince

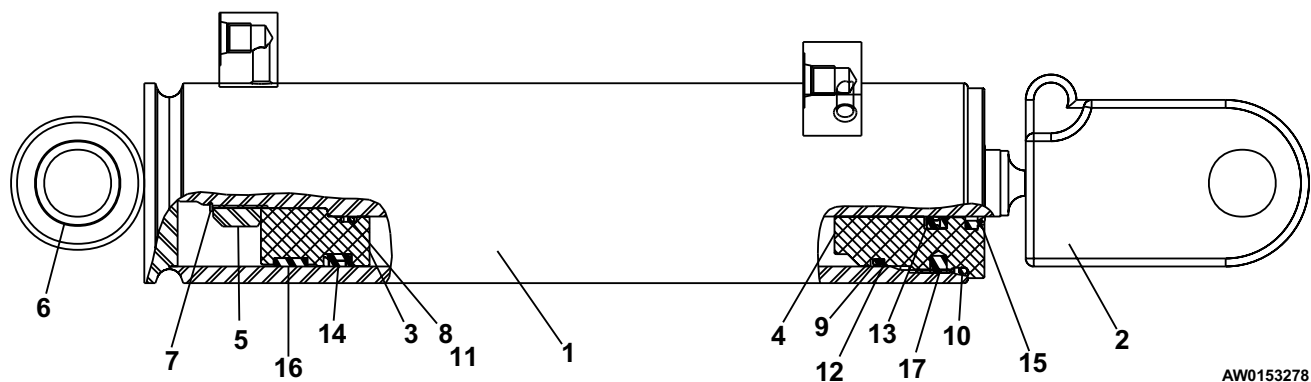
item	part no	qty	description
	0150045-99	1	Cylinder, master level - Prince
	8160051	1	Seal repair kit - (kit includes items 12 through 17)
1	8160183	1	Piston rod
2		1	Butt and tube - (not sold separately)
3	8160185	1	Piston
4	8160186	1	Gland
5	6091104	1	Locknut
6	8160174	1	Cotter pin
7	8160187	1	Set screw
8	8160188	2	Bushing
9	8160189	1	Spacer
10	8160171	2	Plug, shipping
11	8160175	1	Rod and wiper cover
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)



AWV00249

Cylinder, master level - Rosenboom

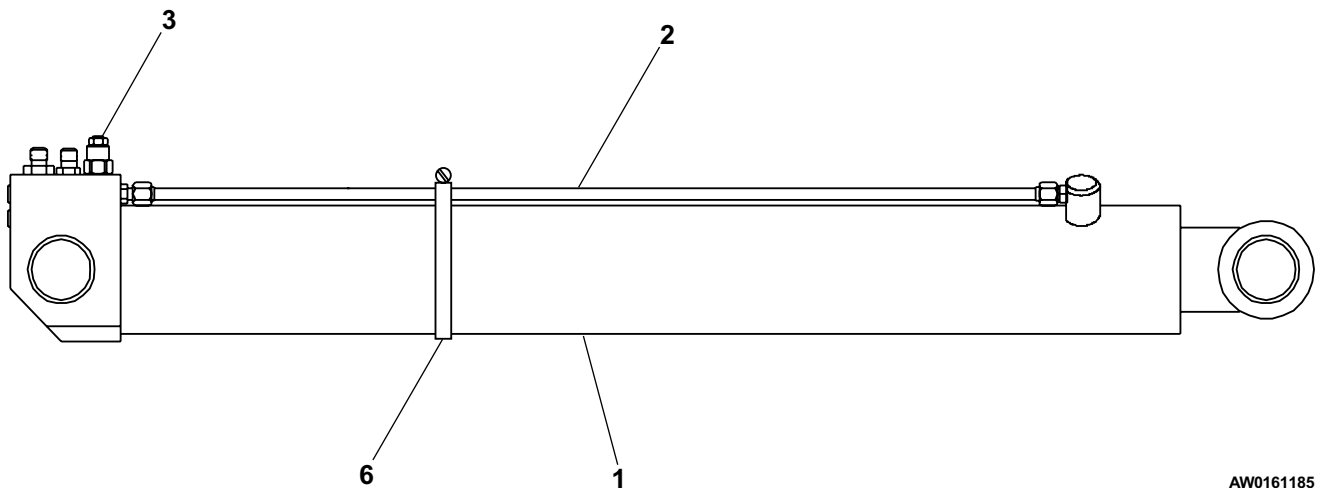
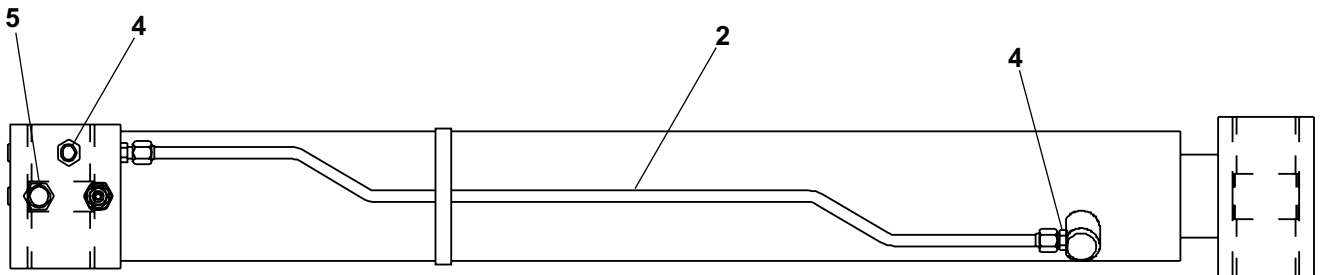
item	part no	qty	description
	0153278-99	1	Cylinder, master level - Rosenboom
	6091333	1	Seal repair kit - (kit includes items 7 through 17)
1		1	Tube - (not sold separately)
2	6091372	1	Rod
3	6091331	1	Piston
4	6091336	1	Head gland
5	6091282	1	Locknut
6	2500034	2	Bearing
7	Kit item	1	Snap ring - (not sold separately)
8	Kit item	1	O-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	2	Backup ring - (not sold separately)
12	Kit item	1	Backup ring - (not sold separately)
13	Kit item	1	Deep Z-seal - (not sold separately)
14	Kit item	1	Capped T-seal - (not sold separately)
15	Kit item	1	Rod wiper - (not sold separately)
16	Kit item	1	Wearband - (not sold separately)
17	Kit item	1	Locking insert - (not sold separately)



AW0153278

Riser lift cylinder

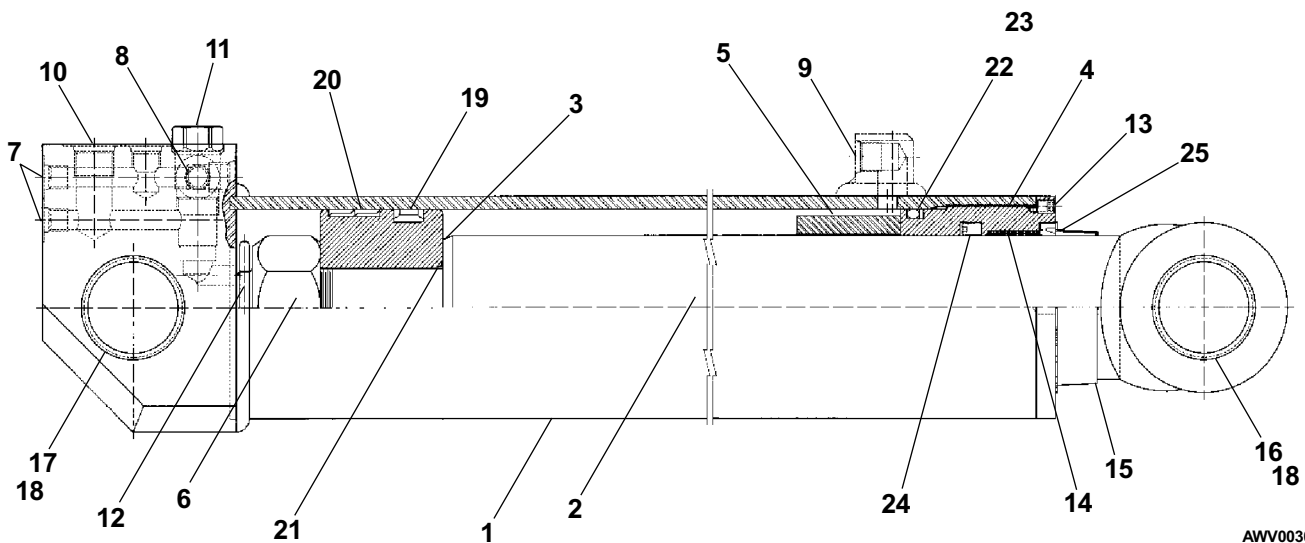
item	part no	qty	description
	0161185-99	1	Riser lift cylinder
1	0160523-99	1	Cylinder, riser lift - (see page 2-56 for Prince cylinder)
2	0160796	1	Transfer tube
3	6010794	1	Cartridge holding valve - (factory preset, do not reset)
	0150563	1	Seal repair kit
4	5065707	1	Straight thread adapter
5	5065708	3	Straight thread adapter
6	5550105	1	Clamp



AW0161185

Cylinder, riser lift - Prince

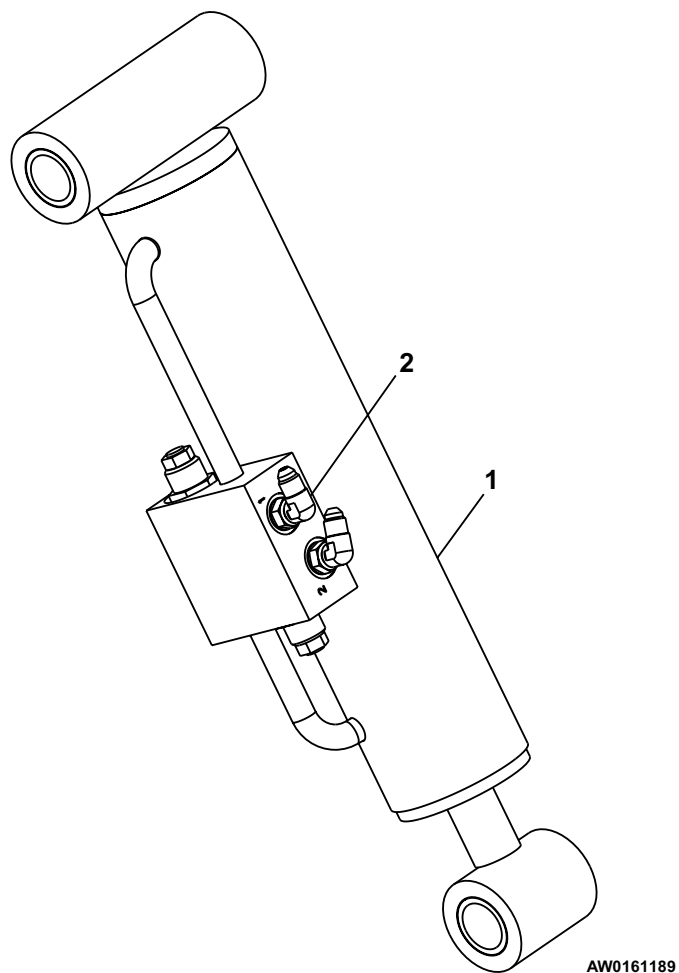
item	part no	qty	description
	0160523-99	1	Cylinder, riser lift - Prince
	0161758	1	Seal repair kit - (kit includes items 19 through 25)
1		1	Butt and tube - (not sold separately)
2	6091088	1	Rod
3	6091090	1	Piston
4	6091091	1	Gland
5	6091092	1	Spacer
6	6091093	1	Full lock nut
7	8160171	2	Plug, shipping
8	8160173	1	Plug, shipping
9	8160131	3	Plug, shipping
10	8160132	1	Plug
11	8160172	1	Counterbalance cavity plug
12	8160212	1	Cotter pin
13	6091083	1	Set screw
14	8160325	1	Bushing
15	8160326	1	Rod wiper and cover
16	8160251	1	Bushing spacer
17	8160333	1	Bushing spacer
18	8160253	4	Bushing
19	Kit item	1	Capped T seal - (not sold separately)
20	Kit item	2	Bearing ring - (not sold separately)
21	Kit item	1	O-ring - (not sold separately)
22	Kit item	1	O-ring - (not sold separately)
23	Kit item	1	BU-washer - (not sold separately)
24	Kit item	1	U-cup - (not sold separately)
25	Kit item	1	Wiper - (not sold separately)



AWV00309

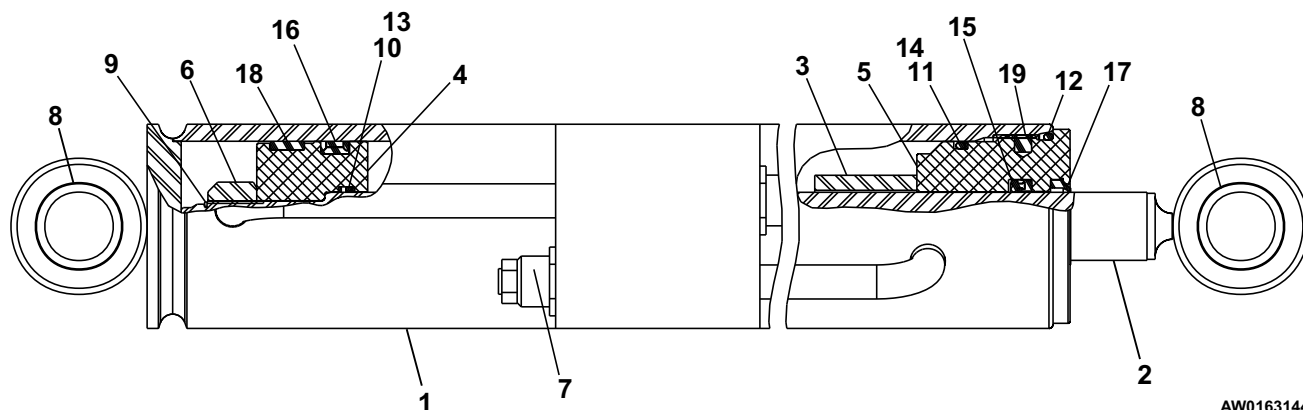
Slave level cylinder

item	part no	qty	description
1	0161189-99	1	Slave level Cylinder
1	0163144	1	Cylinder, slave level - (see page 2-58 for parts breakdown)
2	5035305	2	Straight thread 90° elbow



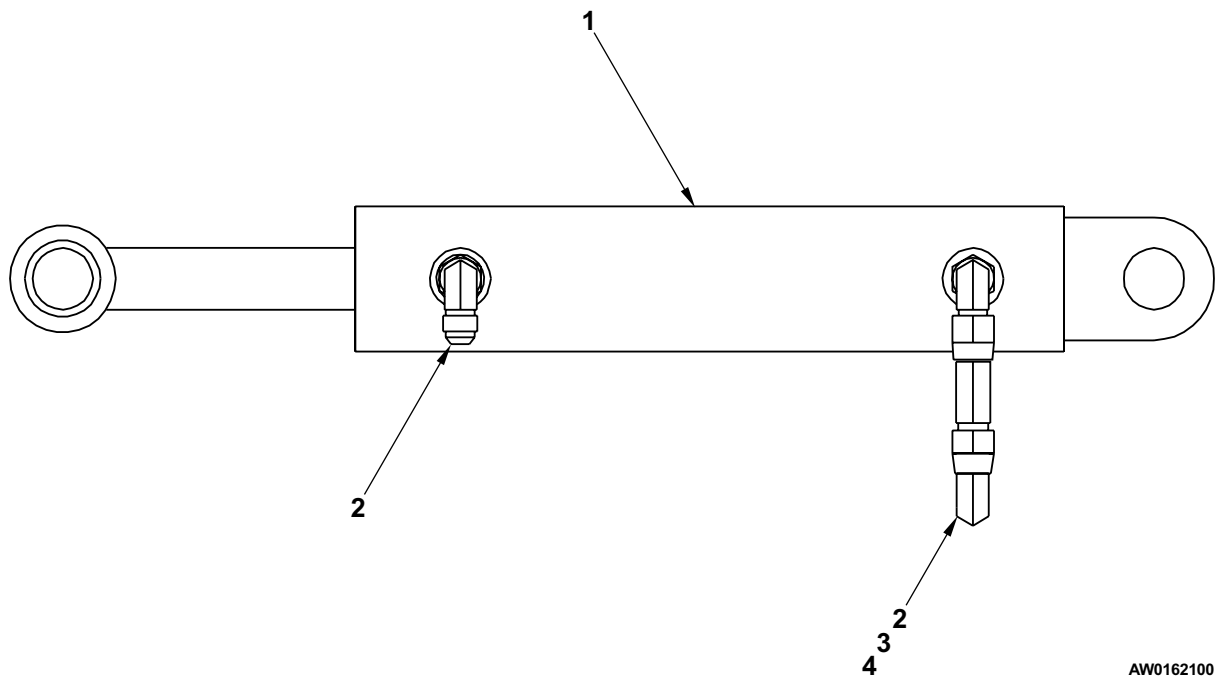
Cylinder, slave level - Rosenboom

item	part no	qty	description
	0163144	1	Cylinder, slave level - Rosenboom
	6091333	1	Seal repair kit - (kit includes items 9 through 19)
1		1	Tube - (not sold separately)
2	6091369	1	Rod
3	6091370	1	Rod spacer
4	6091331	1	Piston
5	6091336	1	Head gland
6	6091282	1	Locknut
7	6010794	2	Cartridge holding valve - (factory preset, do not reset)
	0150563	1	Seal repair kit
8	2500034	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	O-ring - (not sold separately)
13	Kit item	2	Back-up - (not sold separately)
14	Kit item	1	Back-up - (not sold separately)
15	Kit item	1	Deep Z-seal - (not sold separately)
16	Kit item	1	Capped T-seal - (not sold separately)
17	Kit item	1	Rod wiper - (not sold separately)
18	Kit item	1	Wearband - (not sold separately)
19	Kit item	1	Locking insert - (not sold separately)



Steer cylinder

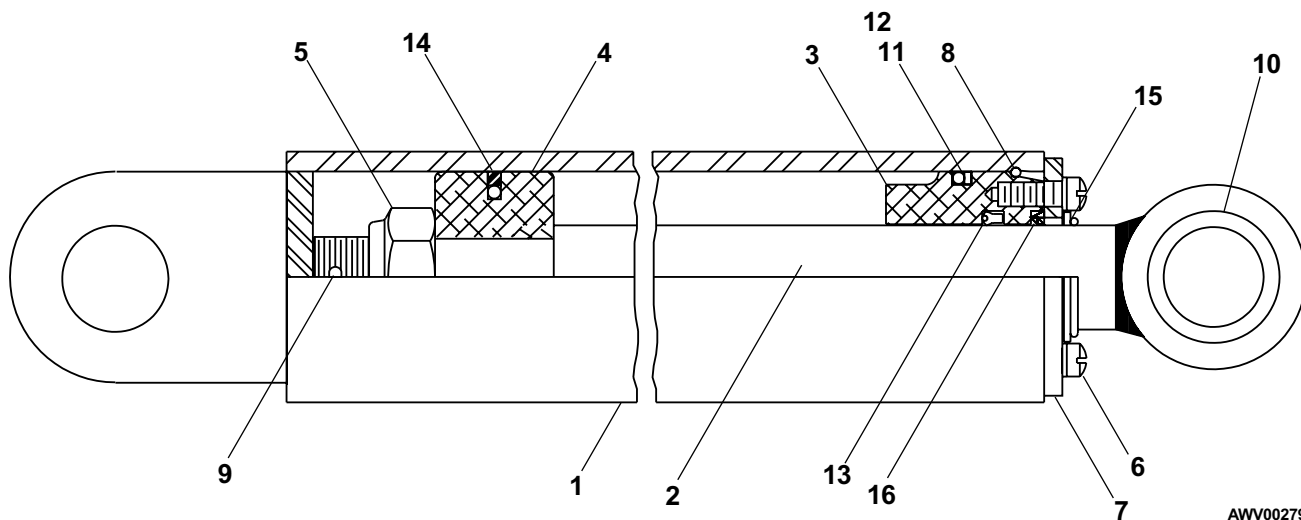
item	part no	qty	description
1	0162100	1	Steer cylinder
	0161911-99	1	Cylinder, steering (see page 2-60 for Green cylinder) (see page 2-61 for Prince cylinder)
2	5035305	2	Straight thread 90° elbow
3	5036705	1	Swivel nut run tee
4	5037005	1	Swivel nut 90° elbow



AW0162100

Cylinder, steering - Green

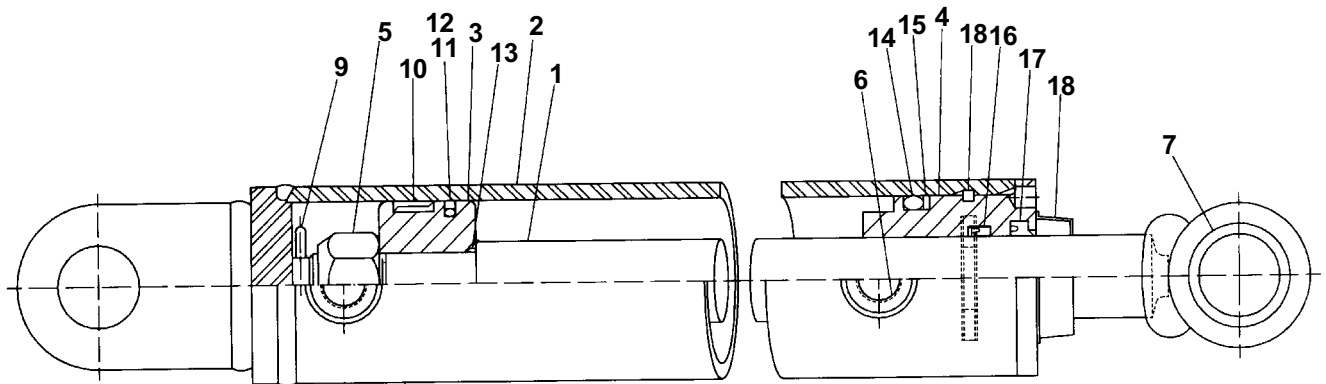
item	part no	qty	description
	0161911-99	1	Cylinder, steering - Green
	0150557		Seal repair kit - (kit includes items 11 through 16)
1		1	Cylinder barrel - (not sold separately)
2	8070245	1	Rod
3	8070204	1	Sleeve
4	6091094	1	Piston
5	6091093	1	Full lock nut
6	6091099	2	Machine screw
7	6091098	1	Washer
8	8070244	1	Lockwire
9	8070354	1	Retaining ring
10	2500061	1	Bearing
11	Kit item	1	O-ring - (not sold separately)
12	Kit item	1	Back-up - (not sold separately)
13	Kit item	1	Rod seal - (not sold separately)
14	Kit item	1	Piston seal - (not sold separately)
15	Kit item	1	Oil seal - (not sold separately)
16	Kit item	1	Dust seal - (not sold separately)



AWV00279

Cylinder, steering - Prince

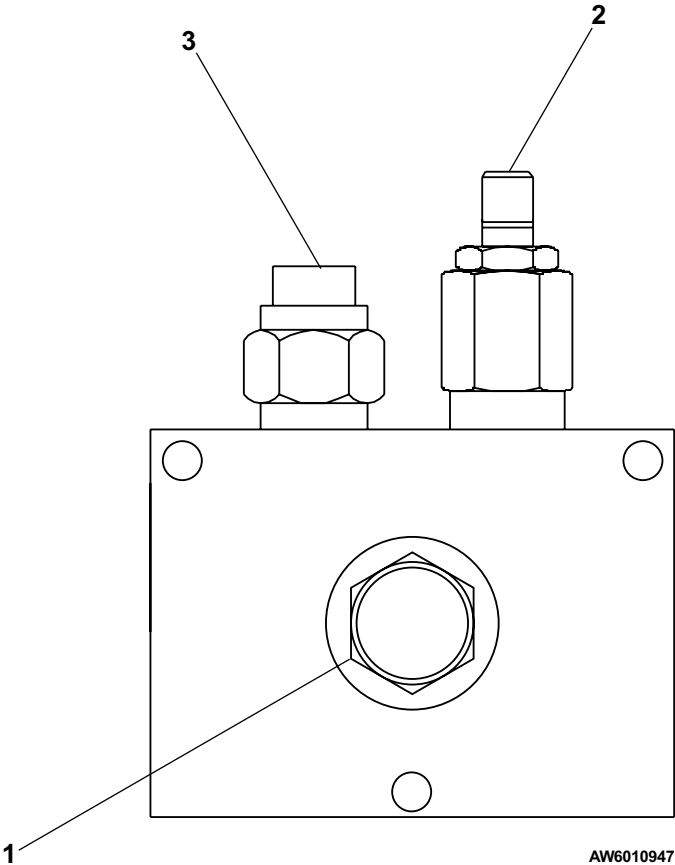
item	part no	qty	description
	0161911-99	1	Cylinder, steering - Prince
	160234	1	Seal repair kit - (kit includes items 10 through 18)
1	8160221	1	Piston rod
2		1	Butt and tube - (not sold separately)
3	8160223	1	Piston
4	8160224	1	Gland
5	8160225	1	Locknut
6	8160131	2	Port plug
7	8160226	1	Bushing
8	8160175	1	Rod and wiper cover
9	8160174	1	Cotter pin
10	Kit item	1	Wear ring - (not sold separately)
11	Kit item	1	Teflon seal - (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	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)
18	Kit item	1	Square wire retainer - (not sold separately)



AWV00256

Dynamic brake valve

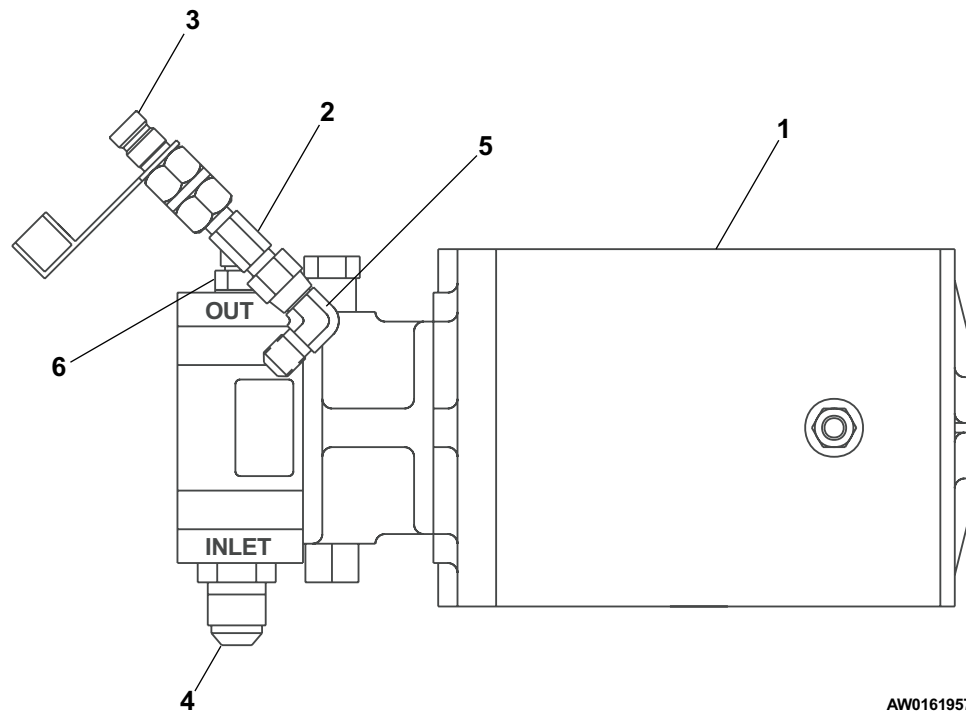
item	part no	qty	description
1	6010947	1	Dynamic brake valve
2	6010979	1	Shuttle valve
3	6010980	2	Sequence valve
3	6010981	2	Counterbalance valve



AW6010947

Emergency power pump

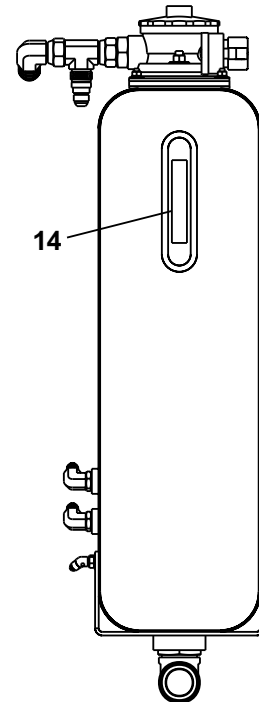
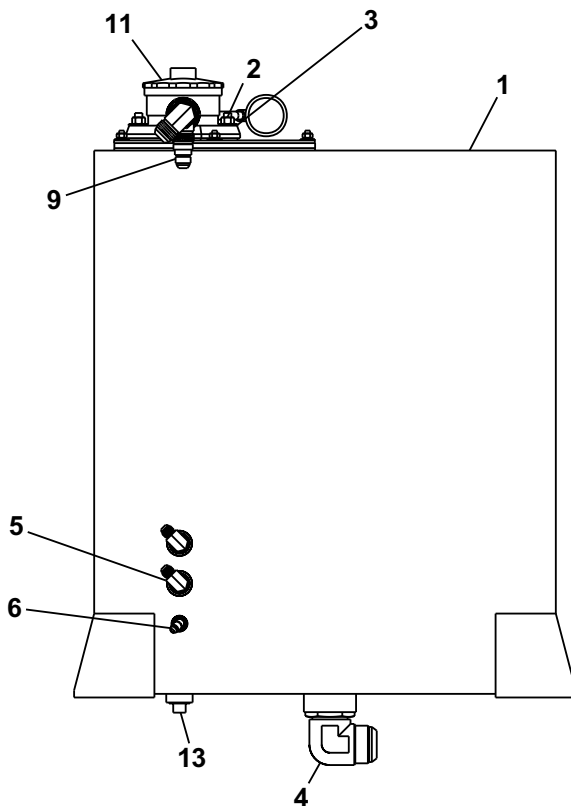
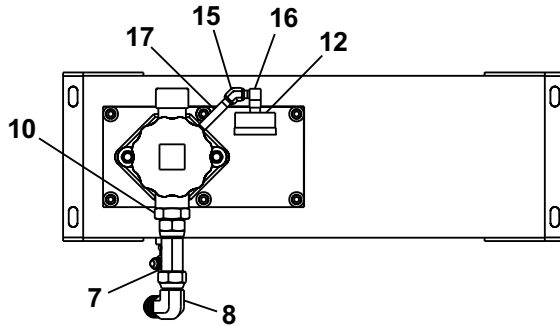
item	part no	qty	description
	0161957	1	Emergency power pump
1	6020058	1	Emergency power unit
2	5036805	1	Swivel nut branch tee
3	5070010	1	Diagnostic nipple - (used on standard machines)
	5070027	1	Diagnostic nipple - (used on CE machines only)
4	5065709	1	Straight thread adapter
5	5037005	1	Swivel nut 90° elbow
6	5035305	1	Straight thread 90° elbow



AW0161957

Hydraulic oil reservoir

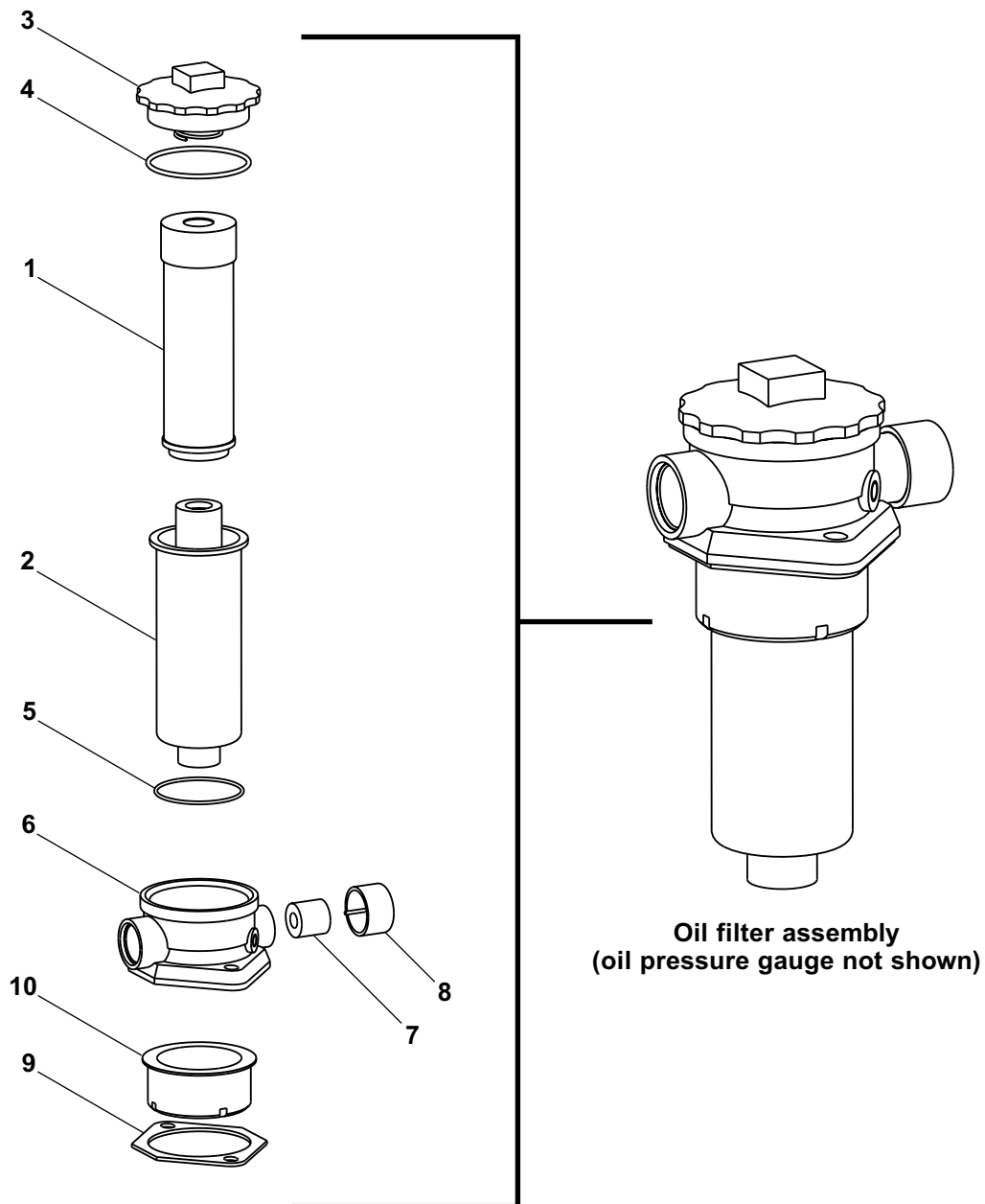
item	part no	qty	description
1	0162596	1	Hydraulic oil reservoir
	0162701-99	1	Hydraulic oil reservoir, 16.5 gallon capacity
	0162703	1	Replacement cover plate
	0162794	1	Replacement cover plate gasket
2	984109	2	Nut 3/8-16 hex
3	986299	2	Washer 3/8 medium flat
4	5035313	1	Straight thread 90° elbow
5	5035320	2	Straight thread 90° elbow
6	5035703	1	Straight thread 45° elbow
7	5036708	1	Swivel nut run tee
8	5037008	1	Swivel nut 90° elbow
9	5064008	1	Tube end reducer
10	5065715	1	Straight thread adapter
11	5080069	1	Hydraulic oil filter - (see page 2-65 for parts breakdown)
12	5080081	1	Oil pressure gauge - (included with hydraulic oil filter)
13	5089663	1	Magnetic plug
14	5090007	1	Liquid level gauge with thermometer
15	7734401	1	Pipe 45° elbow, 1/8 inch NPT
16	7734701	1	Street 90° elbow, 1/8 inch NPT
17	7740120	1	Nipple, 1/8 inch NPT x 2-1/2 inch long



AW0162596

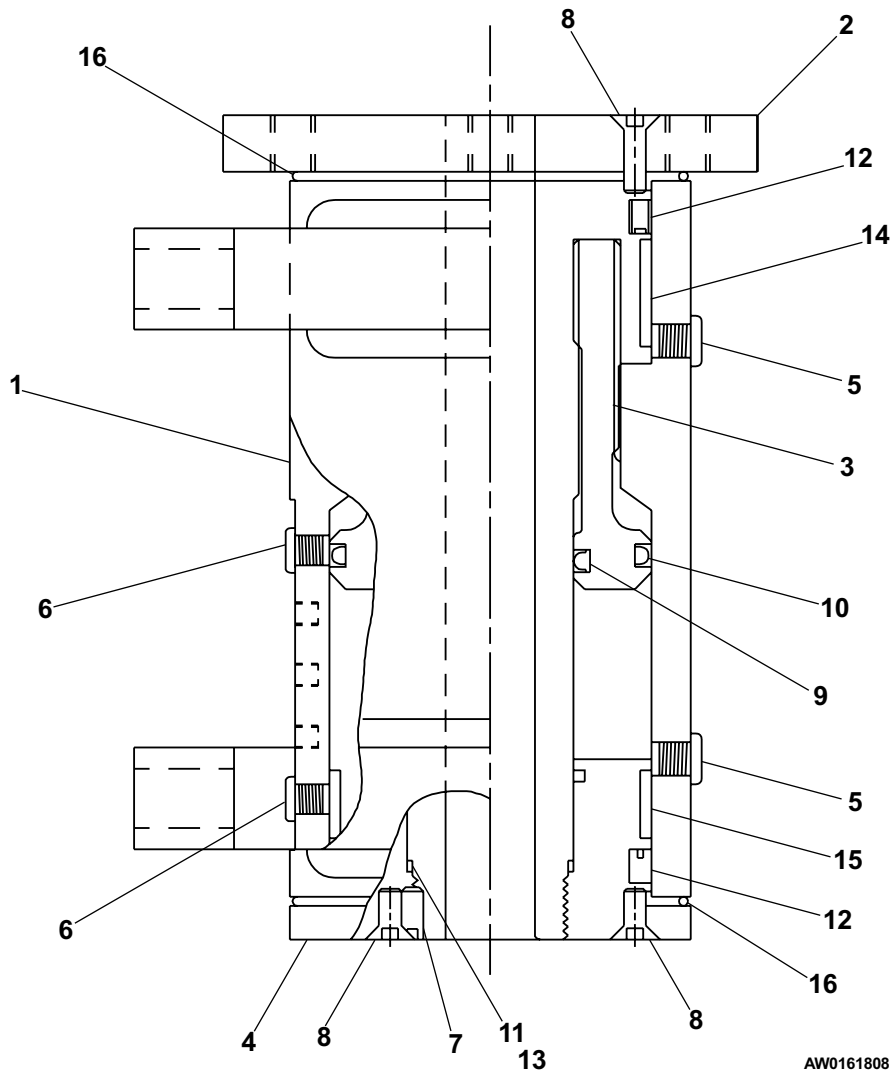
Hydraulic oil filter

item	part no	qty	description
	5080069	1	Hydraulic oil filter - (includes oil pressure gauge)
	5080081	1	Oil pressure gauge
1	5080070	1	Filter, 8 inch - 3 micron
2	5080075	1	Filter bowl
3	5080072	1	Cover
4	5080074	1	Cover o-ring
5	5080076	1	Bowl o-ring
6	5080077	1	Head
7	5080078	1	Air breather
8	5080079	1	Air breather cover
9	5080080	1	Bowl gasket
10	5080082	1	Air diffuser



Hydraulic platform rotator

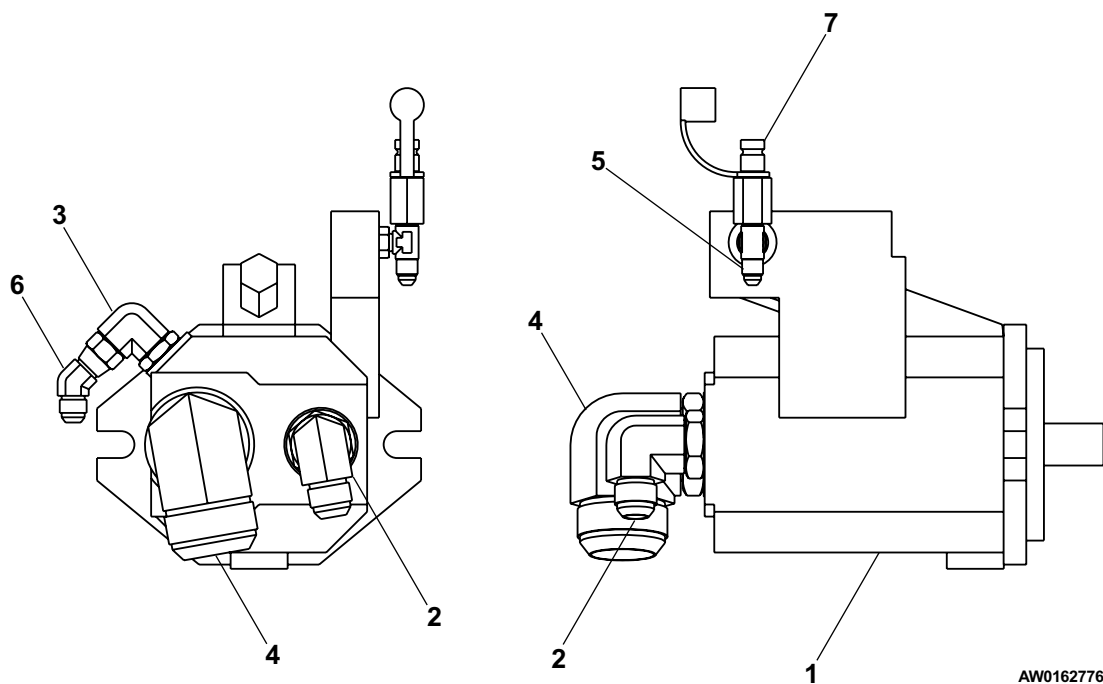
item	part no	qty	description
	0161808-99	1	Hydraulic platform rotator
1	0162525	1	Housing
2	0162626	1	Shaft
3	0162627	1	Piston sleeve
4	0162628	1	End cap
5	0162633	1	Hardware kit
6	Kit item	2	plug - (not sold separately)
7	Kit item	1	Plug - (not sold separately)
8	Kit item	2	Dowel pin - (not sold separately)
9	Kit item	6	Capscrew - (not sold separately)
10	8080111	1	Seal kit
11	Kit item	1	Seal - (not sold separately)
12	Kit item	1	Seal - (not sold separately)
13	Kit item	1	O-ring - (not sold separately)
14	Kit item	2	U-cup seal - (not sold separately)
15	Kit item	1	Back-up ring - (not sold separately)
16	0162634	1	Bearing kit
17	Kit item	1	Wear ring - (not sold separately)
18	Kit item	1	Wear ring - (not sold separately)
19	Kit item	2	Thrust washer - (not sold separately)



AW0161808

Hydraulic pump and fittings

item	part no	qty	description
	0162776	1	Hydraulic pump and fittings
1	0162777-79	1	Hydraulic pump - (see page 2-68 for parts breakdown)
2	5035317	1	Straight thread 90° elbow
3	5035320	1	Straight thread 90° elbow
4	5035332	1	Straight thread 90° elbow
5	5036503	1	Straight thread branch tee
6	5036905	1	Swivel nut 45° elbow
7	5070005	1	Diagnostic nipple - (used on standard machines)
	5070028	1	Diagnostic nipple - (used on CE machines only)



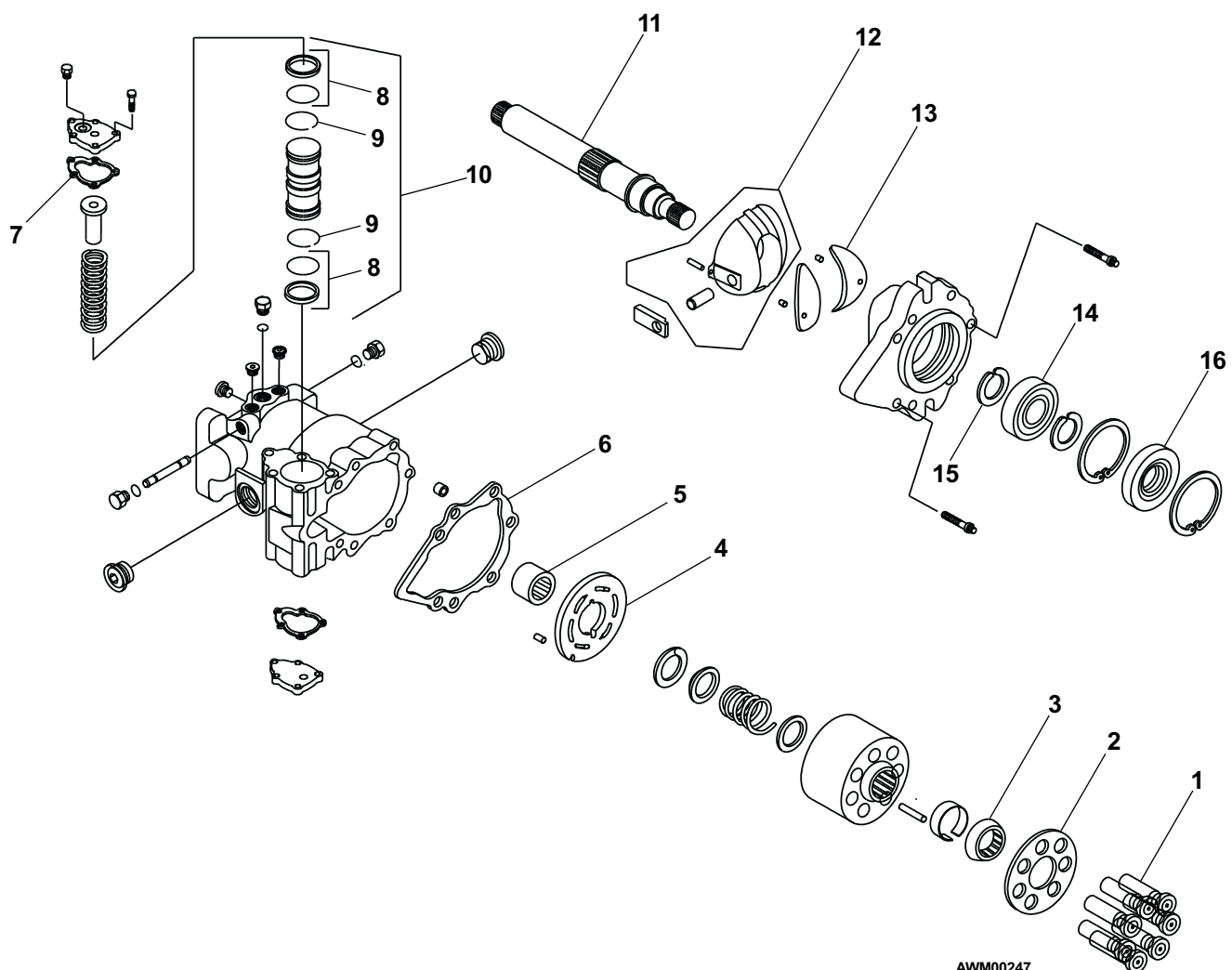
Hydraulic pump

item	part no	qty	description
	0162777-79	1	Hydraulic pump
	0162778	1	Seal repair kit - (kit includes items 5, 7, 9, 17 and 18)
1	0162587	1	Pump housing
2	0162858	1	Rotary group
3	0162859	1	DFRI control
4	0162860	1	Pump plug
5	Kit item	1	O-ring - (not sold separately)
6	0162861	1	Seeger-V-ring
7	Kit item	1	Shaft seal - (not sold separately)
8	0182862	1	Pump rod
9	Kit item	1	O-ring - (not sold separately)
10	0162863	1	Piston
11	0182864	1	Pump plug
12	0182865	1	Shaft
13	0162866	1	Tapered roller bearing
14	0182867	2	Swash plate bearing
15	0182868	1	Swash plate
16	0162869	1	Tapered roller bearing
17	Kit item	1	O-ring - (not sold separately)
18	Kit item	1	O-ring - (not sold separately)
19	0162870	1	Dowel pin
20	0162871	1	Block port
21	0162872	4	Capscrew
22	0162873	1	Spring
23		1	Preload shim - (contact factory for correct shim)



Hydraulic drive motor

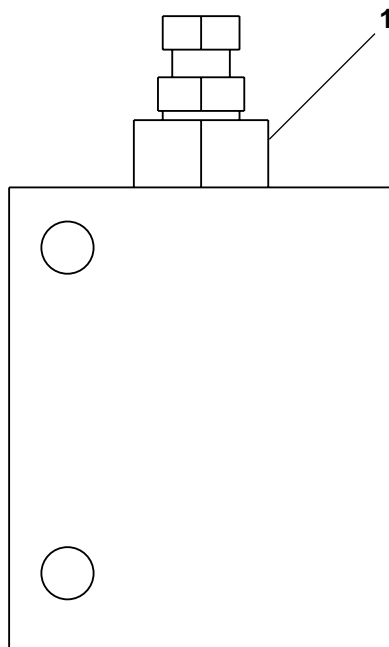
item	part no	qty	description
	6031593-79	1	Hydraulic drive motor - (4 wheel drive machines)
	6031594-79	1	Hydraulic drive motor - (2 wheel drive machines)
1	6091119	7	Piston
2	6091120	1	Slipper guide
3	6091121	1	Retainer guide
4	6091108	1	Motor valve plate
5	6091114	1	Needle bearing
6	6091113	1	Front cover gasket
7	6091115	2	Servo gasket
8	6091122	1	Servo piston ring kit
9	6091116	2	Bearing ring
10	6091123	1	Servo piston kit
11	6091118	1	Shaft, 13 tooth spline
12	6091109	1	Variable swash plate
13	6091110	1	Journal bearing
14	6091111	1	Ball bearing
15	6091112	2	Ring
16	6091117	1	Lip seal



AWM00247

Pressure reducing valve

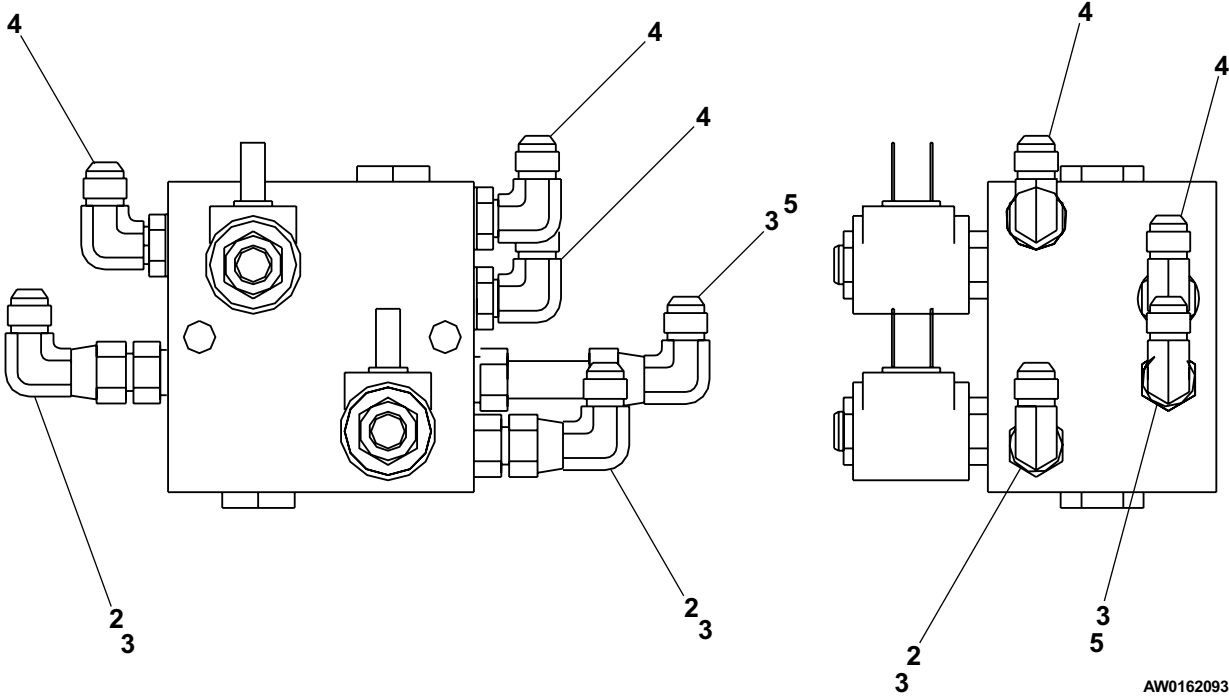
item	part no	qty	description
1	6018913	1	Pressure reducing valve
	6091190	1	Seal repair kit
	6091189	1	Pressure reducing cartridge - (factory preset, do not reset)



AW6018913

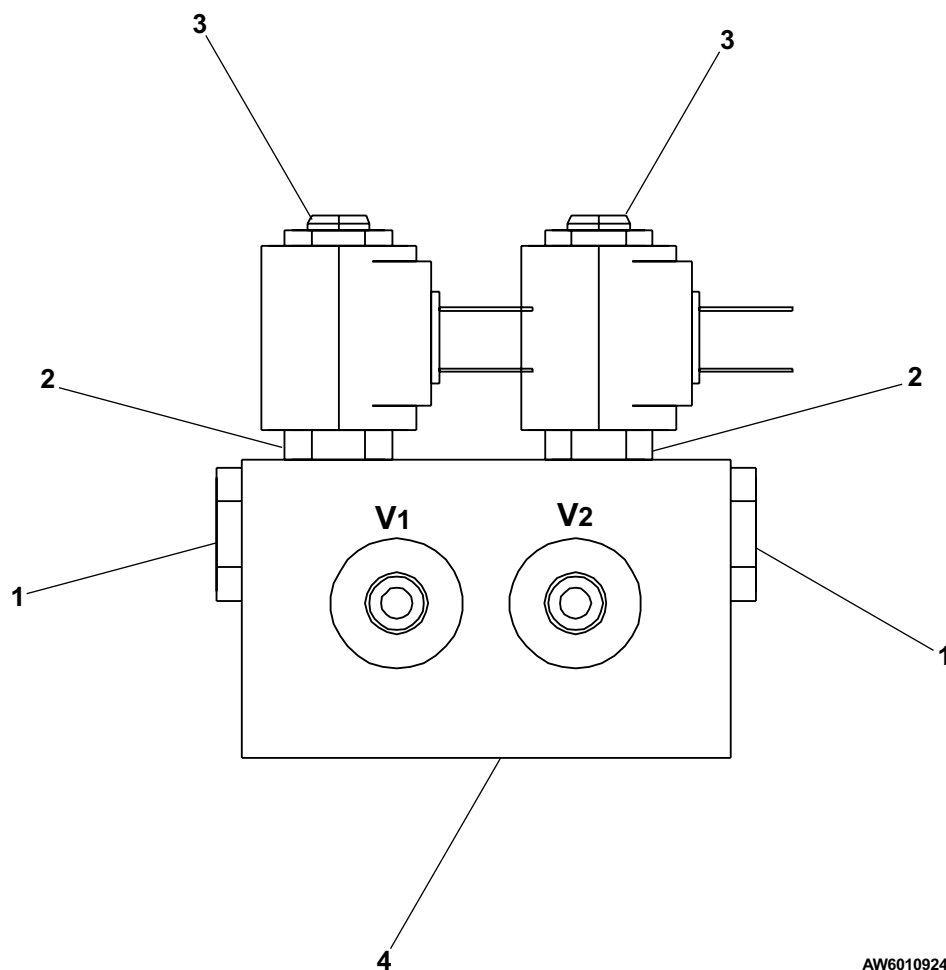
Rear steer valve

item	part no	qty	description
	0162093	1	Rear steer valve
1	6010924	1	Valve, rear steer - (see page 2-73 for parts breakdown)
2	5065707	2	Straight thread adapter
3	5037005	3	Swivel nut 90° elbow
4	5035305	3	Straight thread 90° elbow
5	5065805	1	Long straight thread adapter



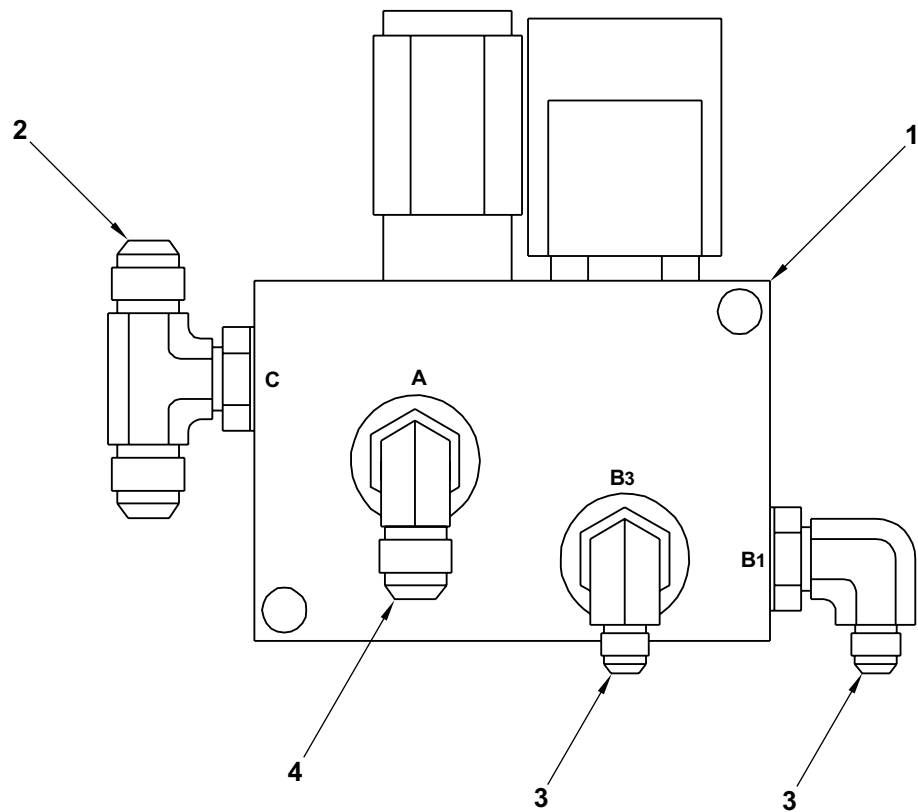
Valve, rear steer

item	part no	qty	description
1	6010924	1	Valve, rear steer
	6018941	2	Pilot check valve
	6010996	1	Seal repair kit
2	6018945	2	Solenoid valve
	6010997	1	Seal repair kit
	585436	1	Replacement solenoid coil, 10 volt DC
3	564086	2	Solenoid coil, 12 volt DC
4	6010995	1	Valve body



Shift valve, 2 wheel drive

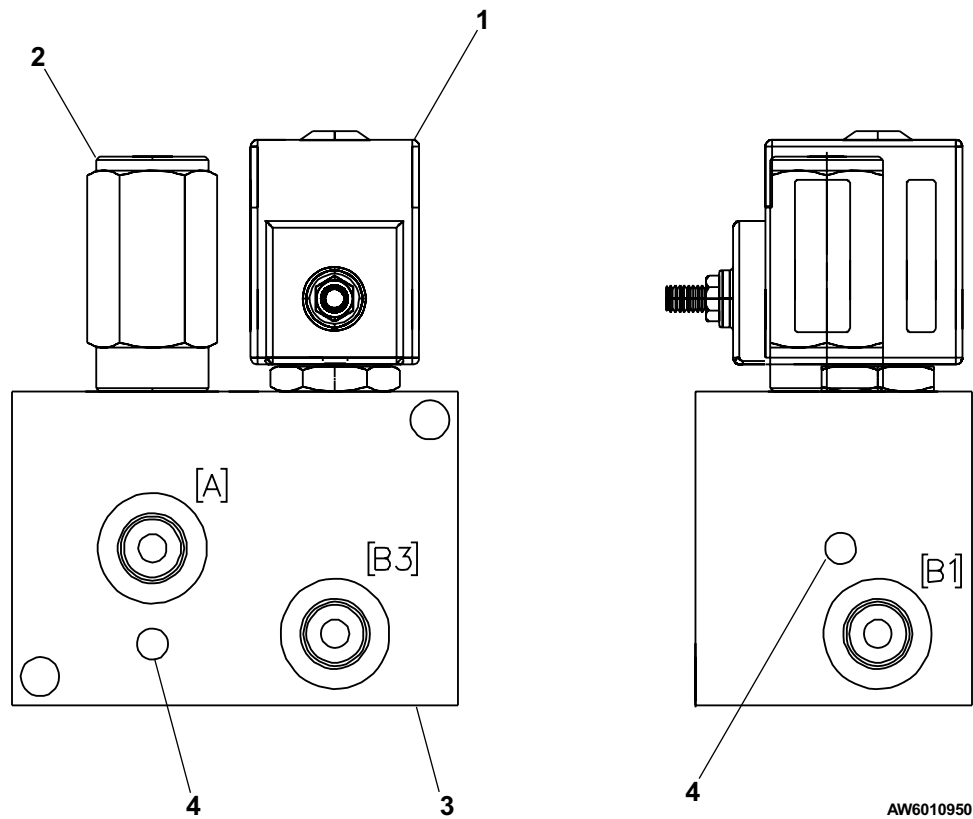
item	part no	qty	description
	0162195	1	Shift valve, 2 wheel drive
1	6010950	1	Valve, 2 wheel drive shift - (see page 2-75 for parts breakdown)
2	5036505	1	Straight thread branch tee
3	5035318	2	Straight thread 90° elbow
4	5035305	1	Straight thread 90° elbow



AW0162195

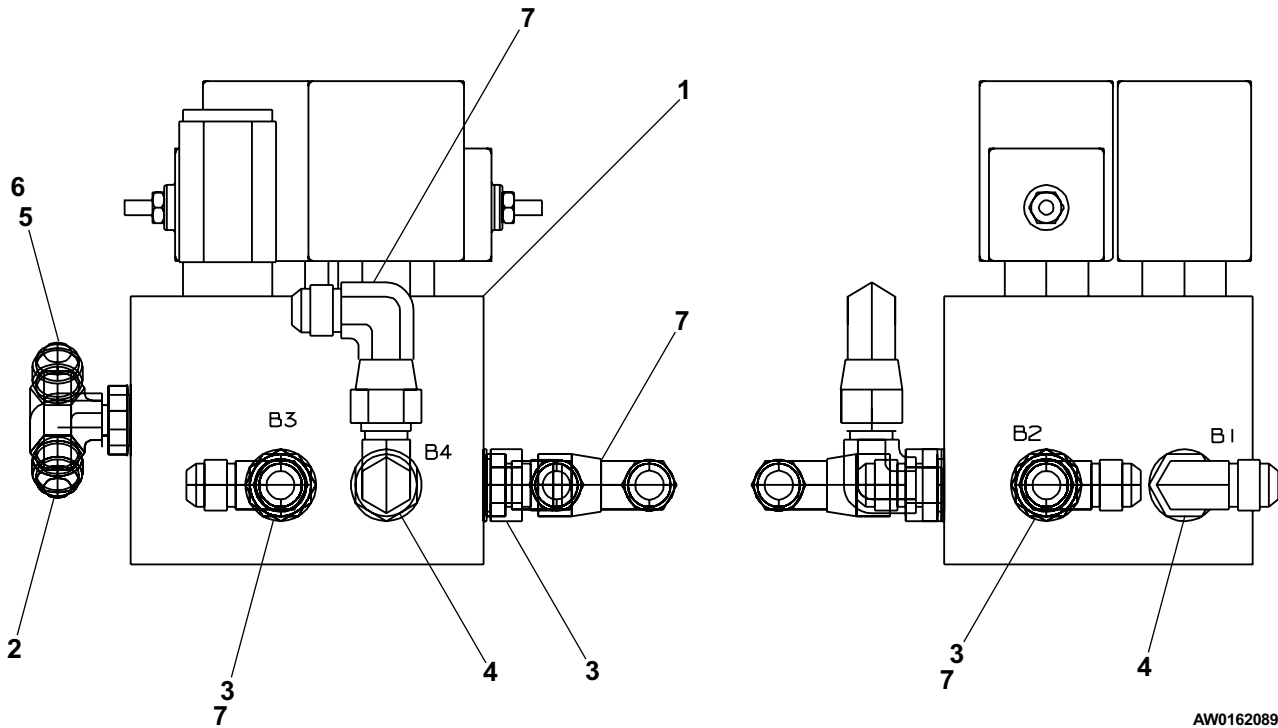
Valve, 2 wheel drive shift

item	part no	qty	description
1	6010950	1	Valve, 2 wheel drive shift
	6091053		Solenoid valve
	6091143	1	Replacement 3-way valve cartridge
	3049854	1	Seal repair kit
	6091140	1	Replacement coil, 10 volt DC
2	6091054	1	Pressure reducing valve
	3049854	1	Seal repair kit
3	6091057	1	Manifold
4	6091056	5	Expander plug



Shift valve, 4 wheel drive

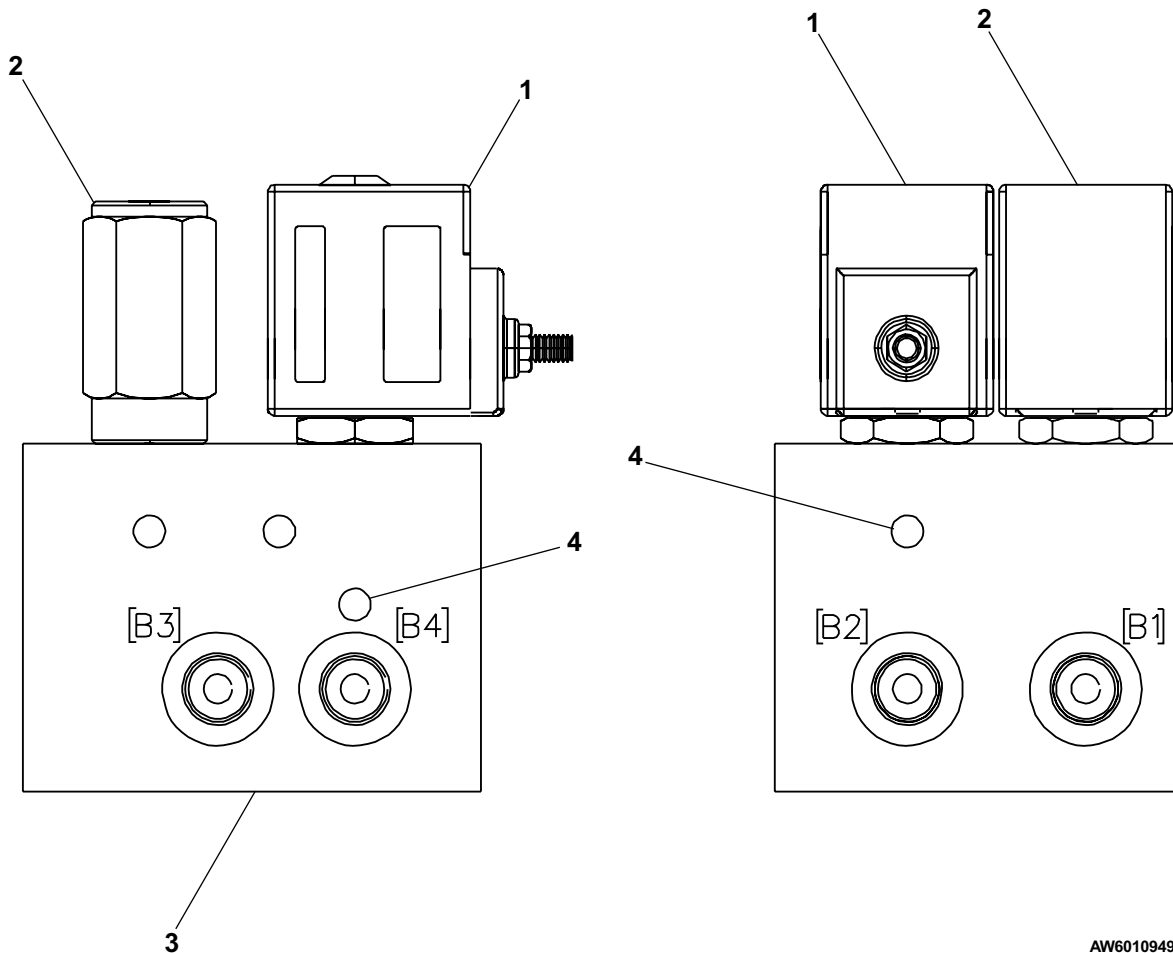
item	part no	qty	description
	0162089	1	Shift valve, 4 wheel drive
1	6010949	1	Valve, 4 wheel drive shift - (see page 2-77 for parts breakdown)
2	5035305	1	Straight thread 90° elbow
3	5065705	2	Straight thread adapter
4	5035318	2	Straight thread 90° elbow
5	5036805	1	Swivel nut branch tee
6	5065707	1	Straight thread adapter
7	5037003	3	Swivel nut 90° elbow



AW0162089

Valve, 4 wheel drive shift

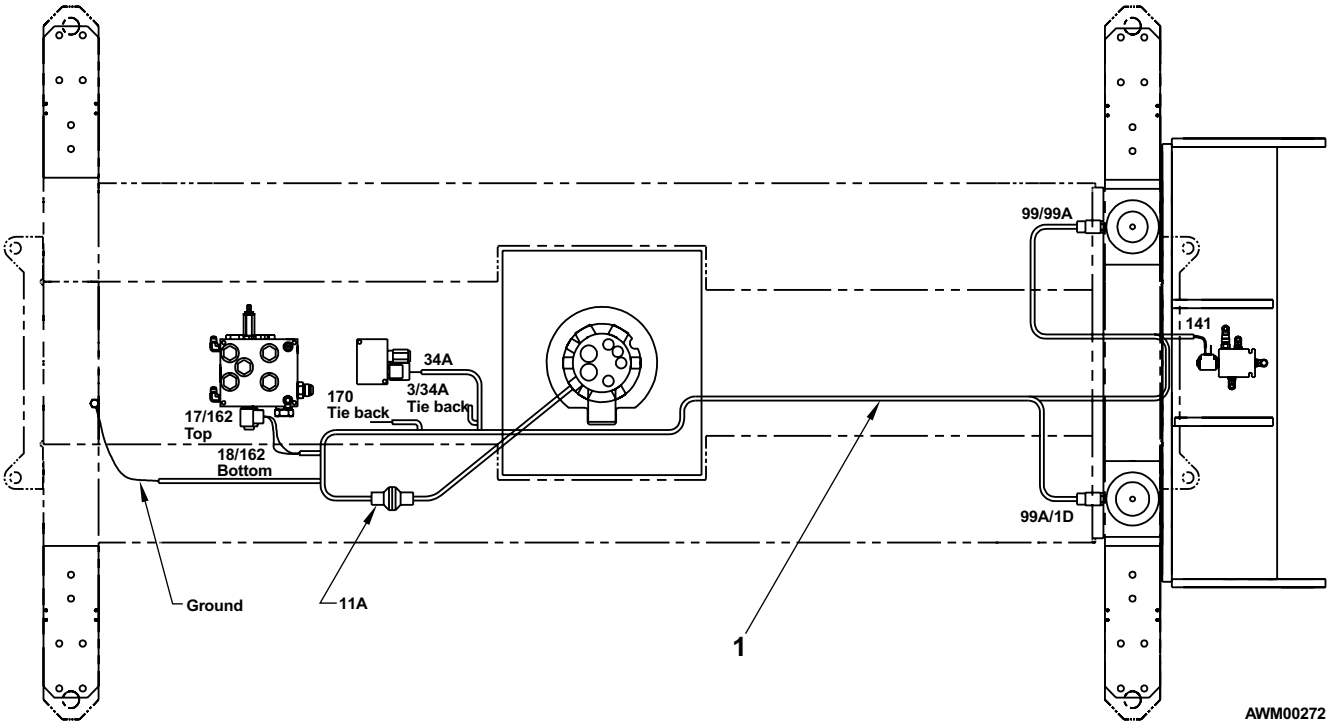
item	part no	qty	description
1	6010949	1	Valve, 4 wheel drive shift
	6091053	2	Solenoid valve
	6091143	1	Replacement 3-way valve cartridge
	3049854	1	Seal repair kit
	6091140	1	Replacement coil, 10 volt DC
2	6091054	1	Pressure reducing valve
	3049854	1	Seal repair kit
3	6091055	1	Manifold
4	6091056	7	Expander plug



AW6010949

Chassis wiring, 2 x 2

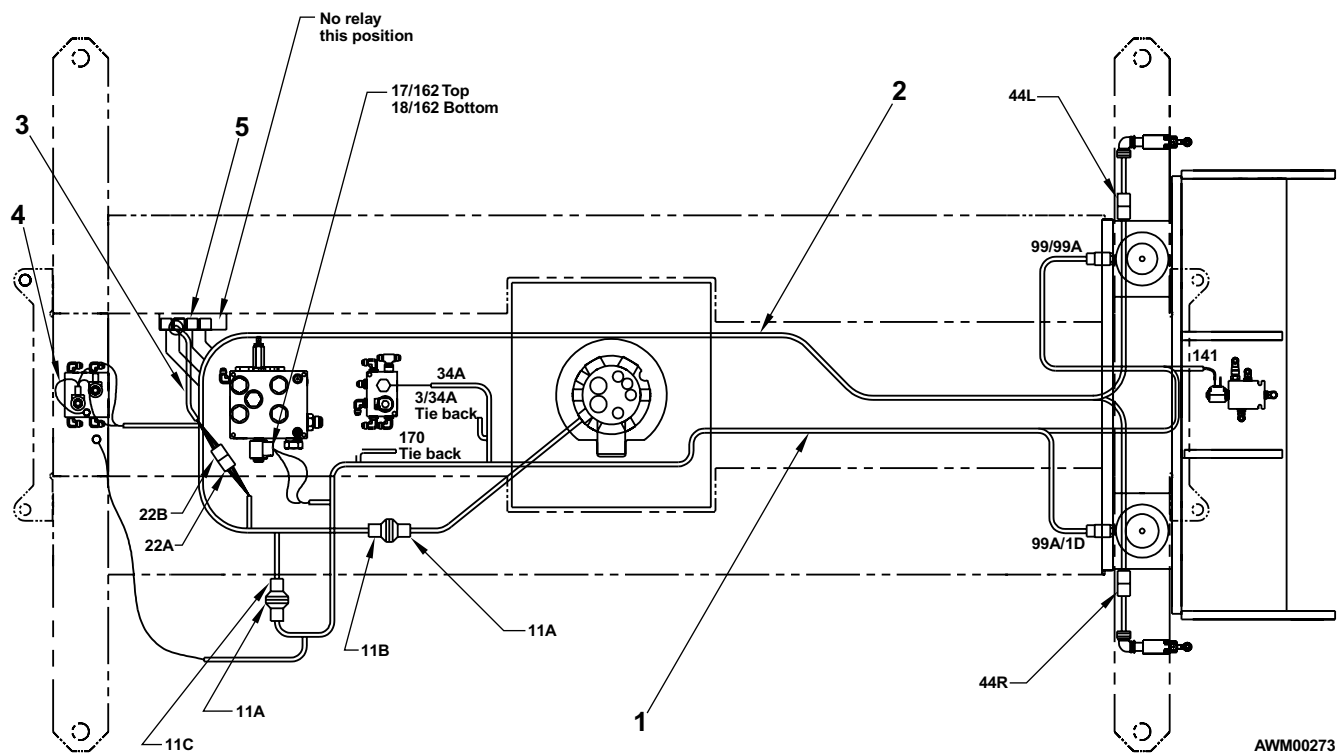
item	part no	qty	description
1	0161897	1	Wire harness, chassis



AWM00272

Chassis wiring, 2 x 4

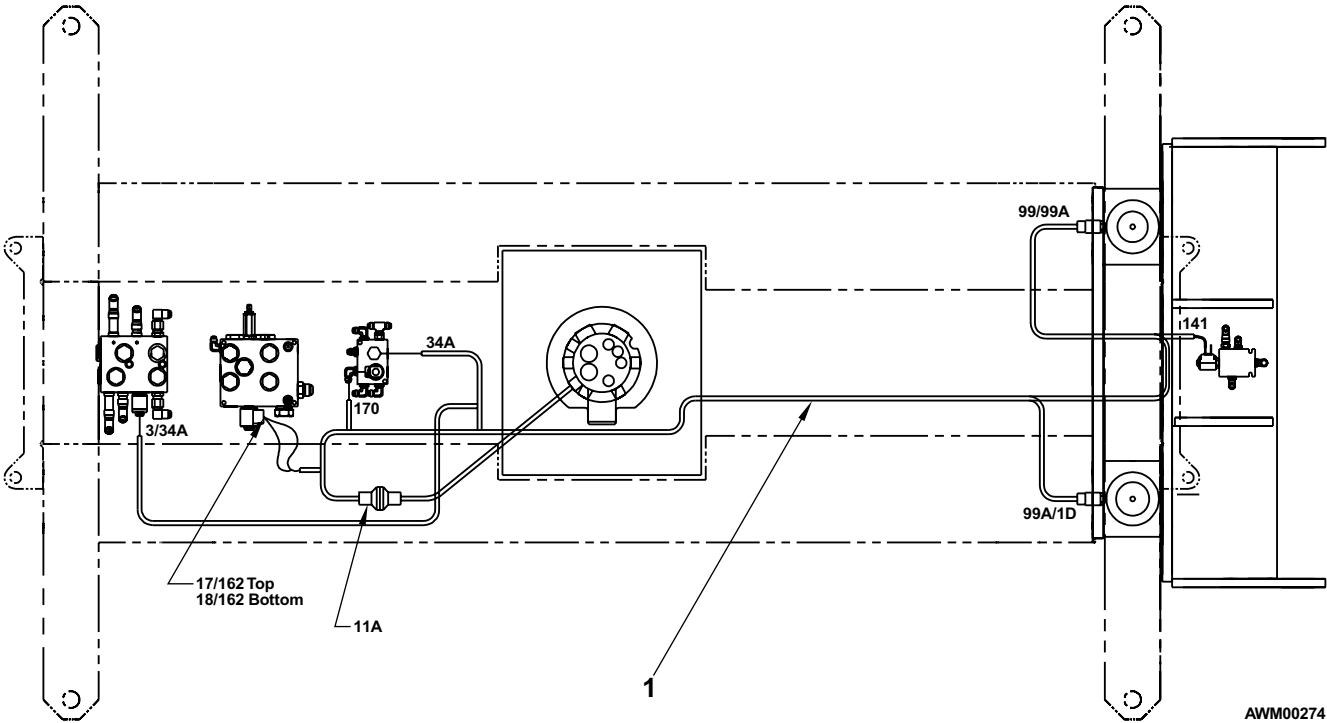
item	part no	qty	description
1	0161897	1	Wire harness, chassis
2	0162174	1	Wire harness, 4 wheel steering
3	0161902	1	Switch, rear steering
4	0162326	1	Jumper wire, 4 wheel steer
5	562326	4	Relay, 12 volt DC



AWM00273

Chassis wiring, 4 x 2

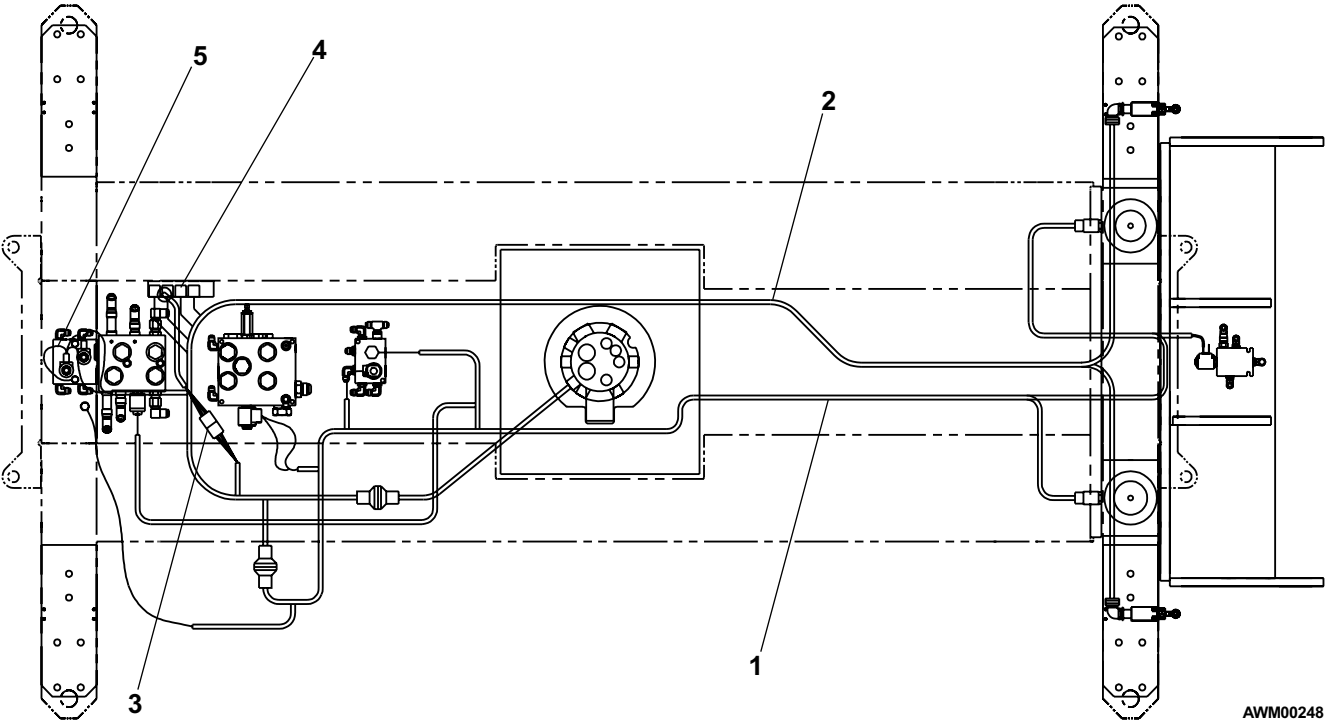
item	part no	qty	description
1	0161897	1	Wire harness, chassis



AWM00274

Chassis wiring, 4 x 4

item	part no	qty	description
1	0161897	1	Wire harness, chassis
2	0162174	1	Wire harness, 4 wheel steering
3	0161902	1	Switch, rear steering
4	562326	4	Relay, 12 volt DC
5	0162326	1	Jumper wire, 4 wheel steer

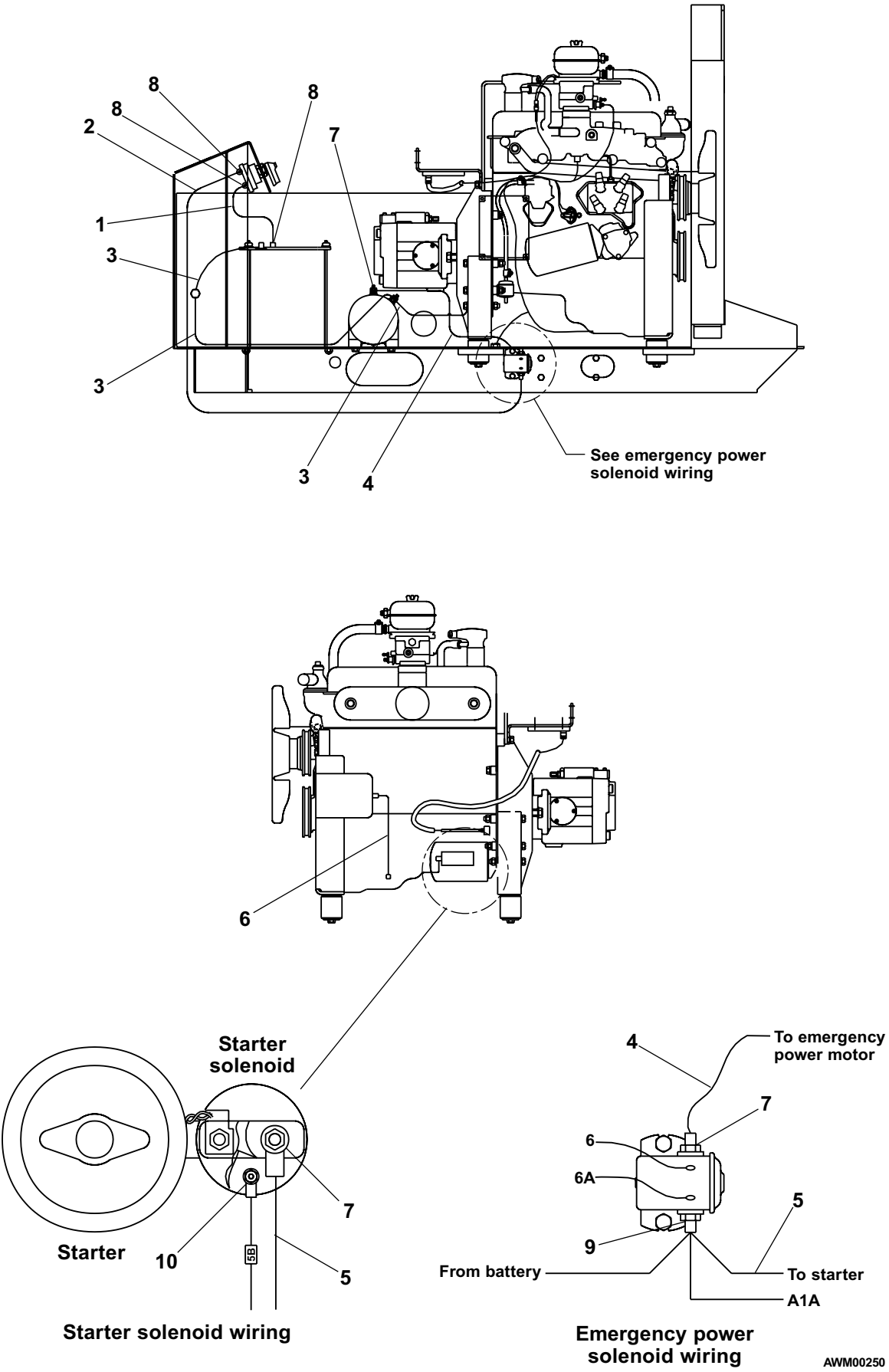


AWM00248

Engine tray wiring, Ford engine

item	part no	qty	description
1	0090317	1	Jumper wire
2	0090959	1	Jumper wire
3	0090318	3	Jumper wire
4	0072323	1	Jumper wire
5	0162847	1	Jumper wire
6	0151920	1	Wire harness, alternator connector
7	3040268	4	Insulator boot
8	3040269	4	Insulator boot
9	3040270	1	Insulator boot
10	3040452	1	Insulator boot
11	0161853	1	Wire harness, Ford 7620051 engine
	0163185	1	Wire harness, Ford 7624749 engine

Engine tray wiring, Ford engine

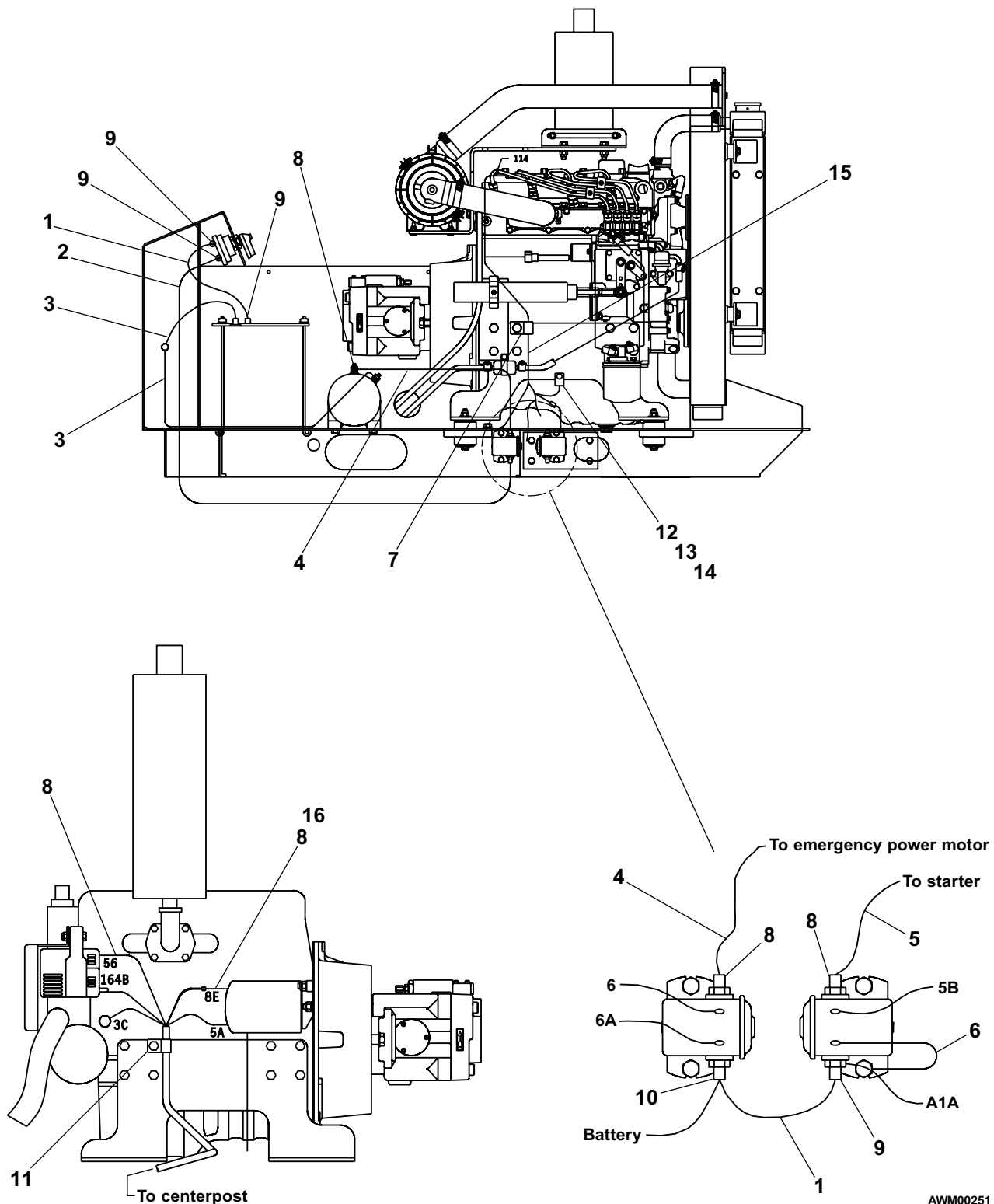


AWM00250

Engine tray wiring, Kubota engine

item	part no	qty	description
1	0090317	2	Jumper wire
2	0090959	1	Jumper wire
3	0090318	3	Jumper wire
4	0072323	1	Jumper wire
5	0090315	1	Jumper wire
6	0071959	1	Jumper wire
7	5093000	1	Clamp
8	3040268	5	Insulator boot
9	3040269	4	Insulator boot
10	3040270	1	Insulator boot
11	5093002	2	Clamp
12	3040502	1	Relay, 12 volt DC
13	5560609	1	Machine screw #10-24 x 1/2 inch long truss head
14	5560356	1	Washer metric M10 lock
15	0161856	1	Wire harness, Kubota engine
16	3040082	1	Terminal .250 tab male fully insulated 16/14 wire

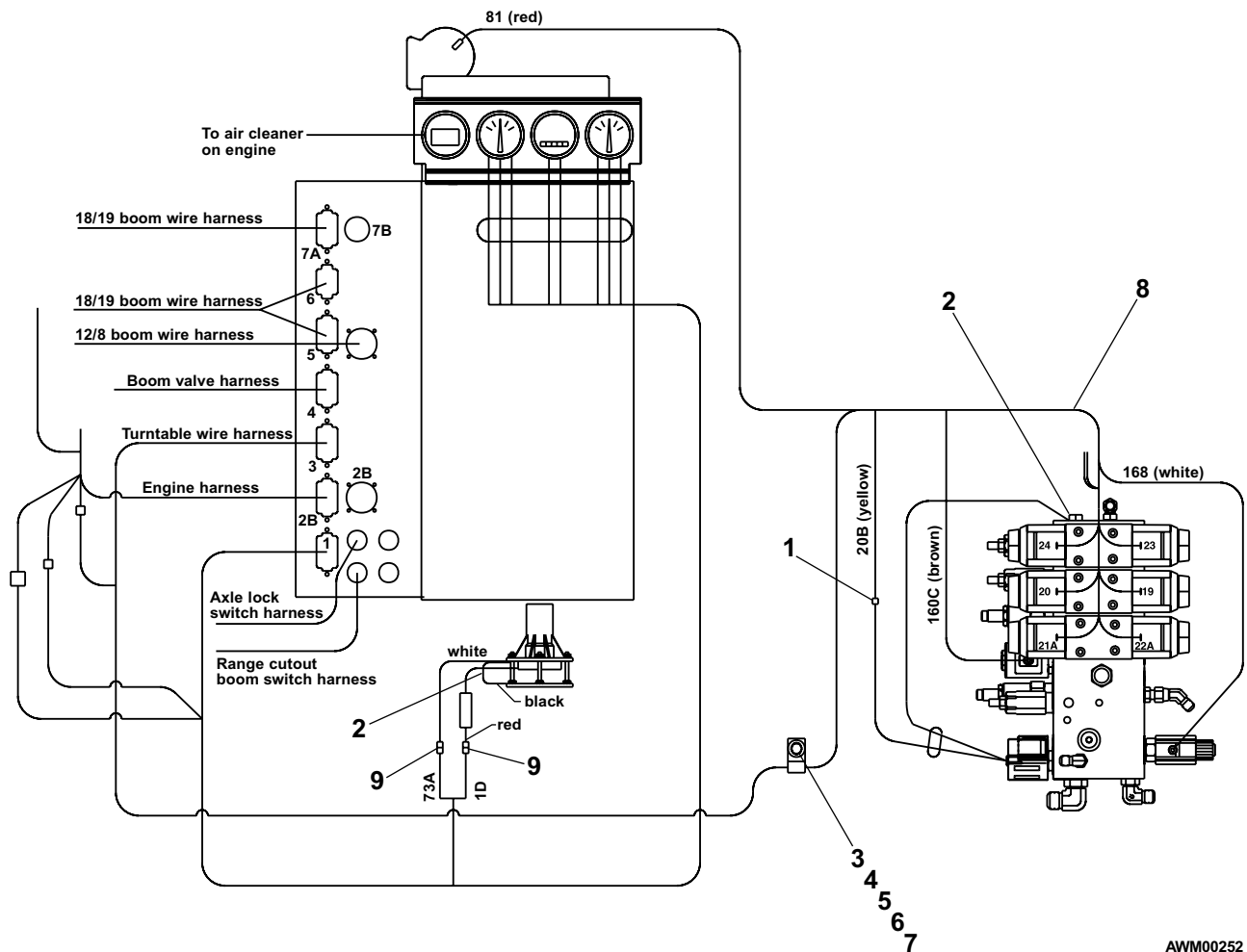
Engine tray wiring, Kubota engine



Fuel tray wiring

item	part no	qty	description
1	3040082	1	Terminal .250 tab male fully insulated 16/14 wire
2	3044163	2	Terminal ring tongue insulated 16/14 wire
3	5093002	1	Clamp
4	970029	1	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
5	987099	1	Washer 1/4 medium lock
6	986019	2	Washer 1/4 medium flat
7	984069	1	Nut 1/4-20 hex
8	0161855	1	Wire harness, turntable valve
9	3040046	2	Terminal .250 tab male fully insulated 22/18 wire

Fuel tray wiring

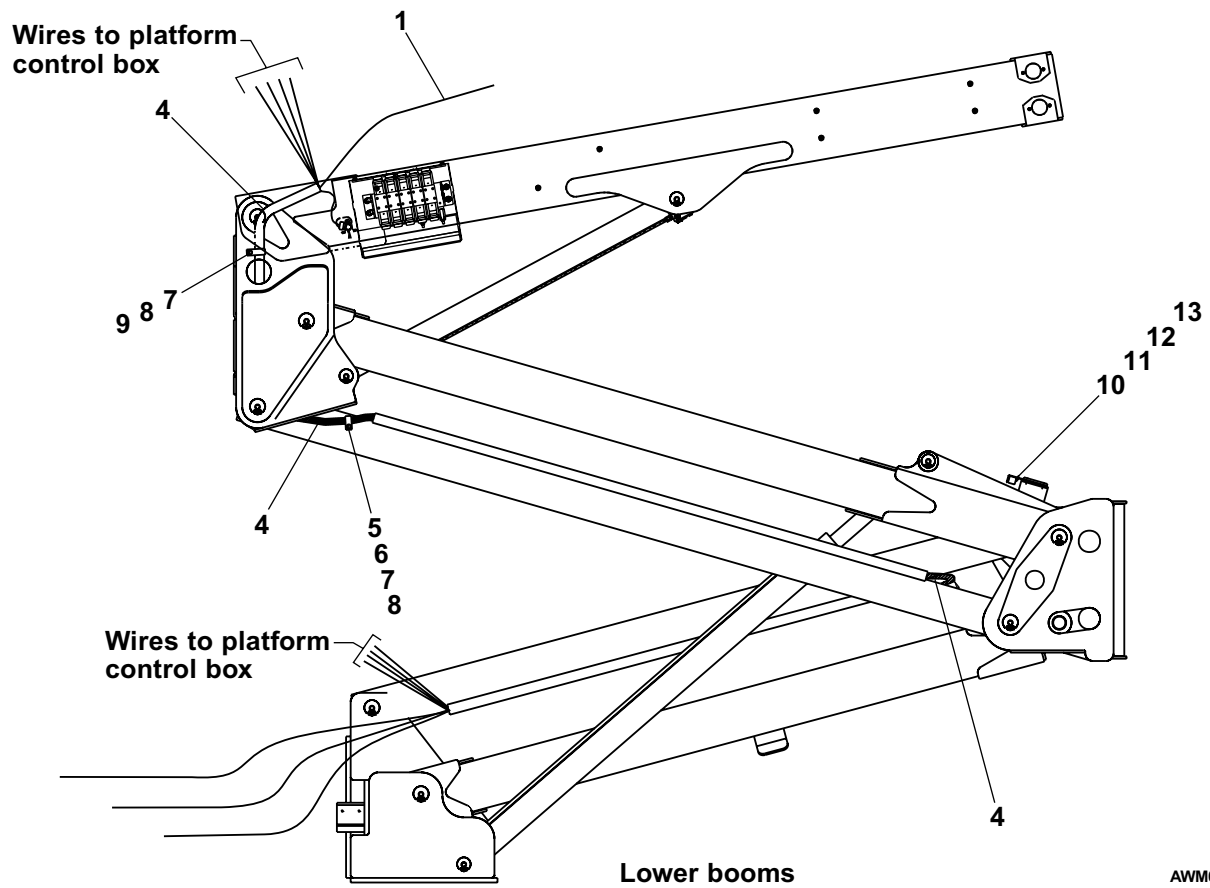
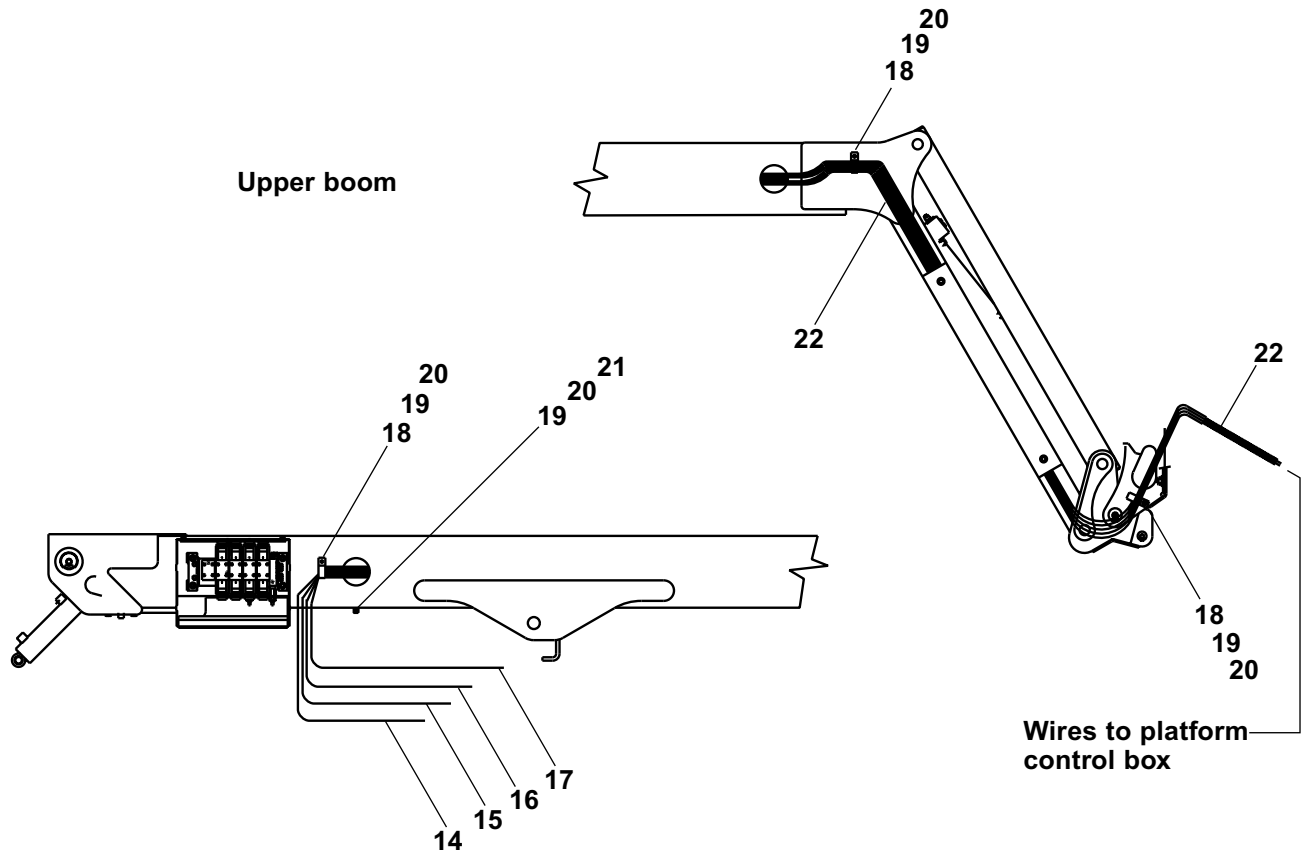


AWM00252

Booms wiring

item	part no	qty	description
			Lower booms wiring
1	0161974	1	Wire harness, 5 station control valve
2	0161991	1	Wire harness, high range
3	0162164	1	Wire harness, axle lock valve
4	5090048	1	Hose guard x 25 feet long
5	5093028	1	Clamp
6	5093010	1	Clamp
7	986299	3	Washer 3/8 medium flat
8	970469	3	Capscrew 3/8-16 x 1 inch long hex head grade 5
9	5093014	1	Clamp
10	0162331	1	Switch, riser - (see page 3-25 for parts breakdown)
11	974749	2	Machine screw #10-24 x 1-3/4 inch long round head
12	5560034	2	Nut #10-24 self locking
13	0162318-99	1	Bracket, riser switch
			Upper boom wiring
14	0161686	1	Boom wire harness, 12 gauge/8 conductor
15	0161685	1	Wire harness, boom - 18 gauge/19 conductor - square 12 pin/round 9 pin connectors
16	0161684	1	Wire harness, boom - 18 gauge/19 conductor - square 12 pin/square 8 pin connectors
17	3011203	1	Wire, 12 gauge/3 conductor x 68 feet long
18	5093028	3	Clamp
19	987119	4	Washer 3/8 medium lock
20	970426	4	Capscrew 3/8-16 x 7/8 inch long hex head grade 5
21	5093021	2	Clamp
22	5090048	1	Hose guard x 25 feet long

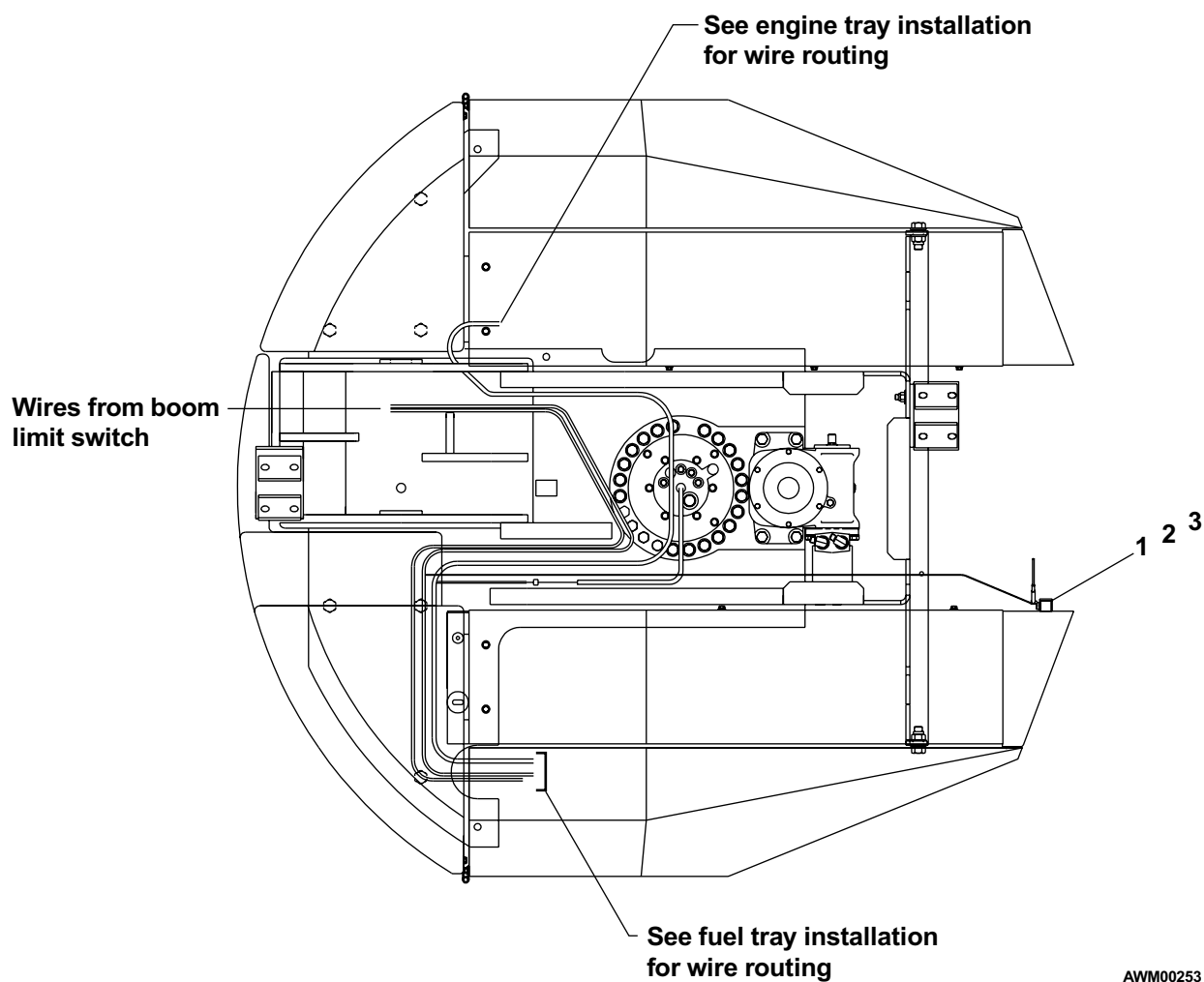
Booms wiring



AWM00254

Turntable wiring

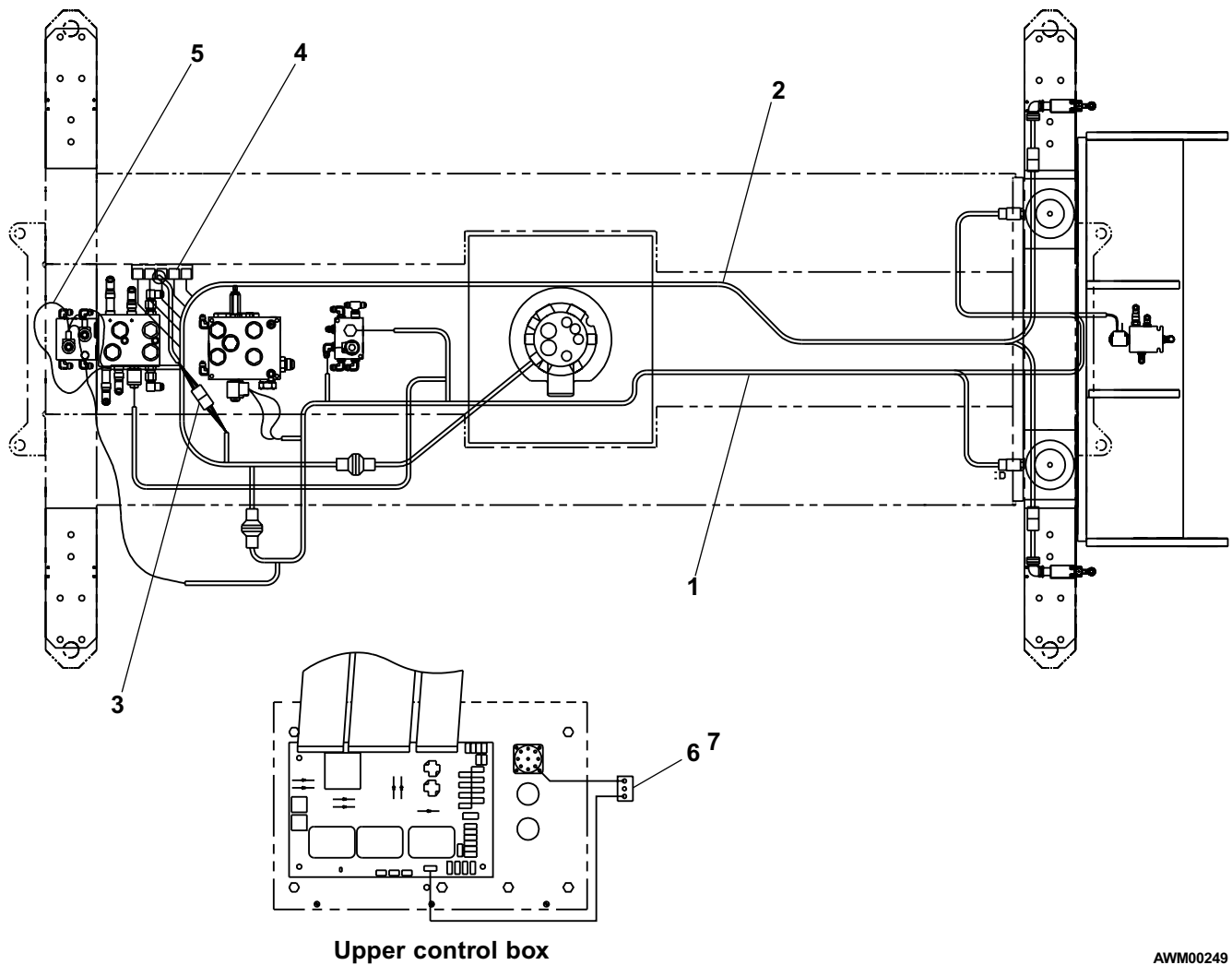
item	part no	qty	description
1	0162334	1	Switch, turntable - (see page 3-27 for parts breakdown)
2	974749	2	Machine screw #10-24 x 1-3/4 inch long round head
3	5560034	2	Nut #10-24 self locking



AWM00253

Crab steer wiring

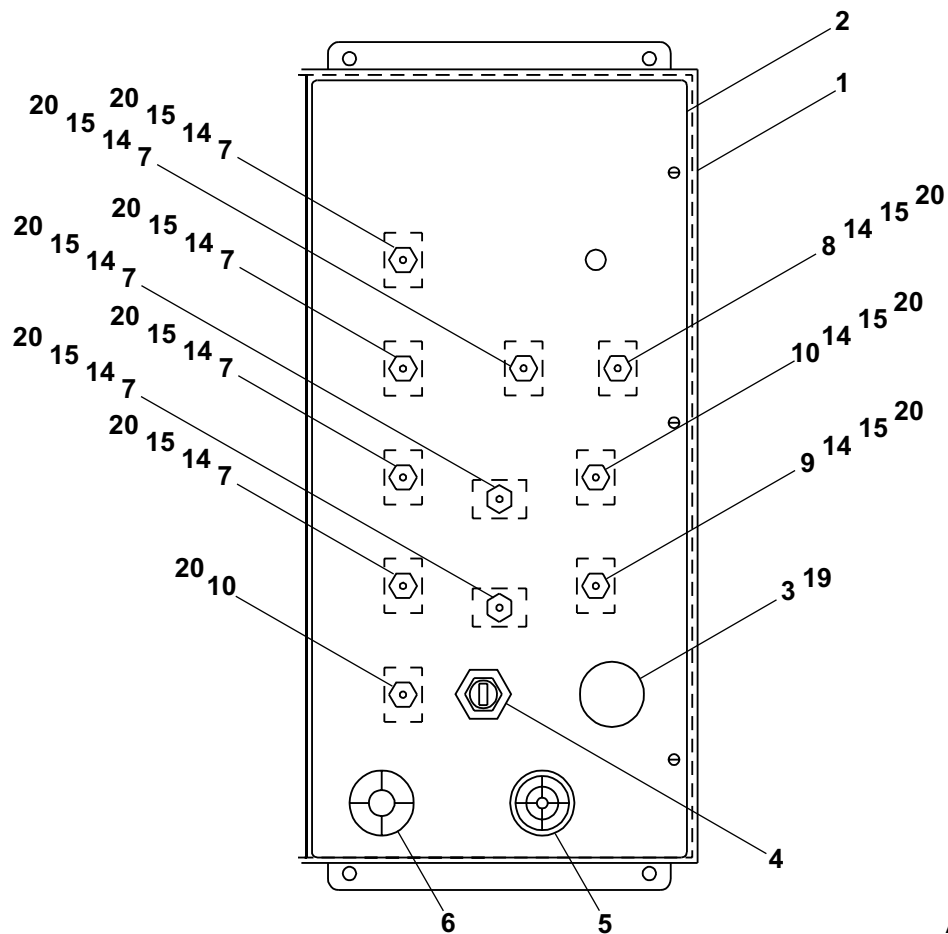
item	part no	qty	description
1	0161897	1	Wire harness, chassis
2	0162174	1	Wire harness, 4 wheel steering
3	0161902	1	Switch, rear steering
4	562326	5	Relay, 12 volt DC
5	0162326	1	Jumper wire, 4 wheel steer
6	3020081	1	Switch, toggle
7	0161936	1	Decal, crab steer



AWM00249

Lower control box

item	part no	qty	description
	0162077-79	1	Lower control box, complete
1	0162038-99	1	Lower control box
2	0161212	1	Placard, upper control box
3	3040497	1	Rheostat switch
4	3020087	1	Switch, keyed start
	8030044	1	Replacement key
5	3040411	1	Mini siren, engine alarm
6	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
7	3020018	7	Switch, toggle
8	3020097	1	Switch, toggle
9	3020014	1	Switch, toggle
10	3020015	2	Switch, toggle
11	3030008	1	Switch board
12	562326	12	Relay, 12 volt DC
13	3030009	1	Relay board
14	3020137	35	Screw pin 3/8 inch hex
15	3020138	18	Screw pin 3/16 inch hex
16	3049832	2	Thermal circuit breaker, 10 amp
17	3040687	1	Thermal circuit breaker, 20 amp
18	3040689	1	Time delay module
19	3040348	1	Switch knob
20	3020141	11	Switch seal
21	3049836	2	Ribbon cable, 20 conductor 18 gauge
22	3040694	1	Corrosion inhibitor
23	3049841	1	BHD #1
24	3049840	1	BHD #2
25	3040469	1	Relay, 12 volt DC
26	3040696	1	Voltage feed thru stud 1/4 inch
27	3040678	1	Rheostat, adjustable
28	3040576	2	Relay with mounting tab
29	3040469	1	Relay, 12 volt DC

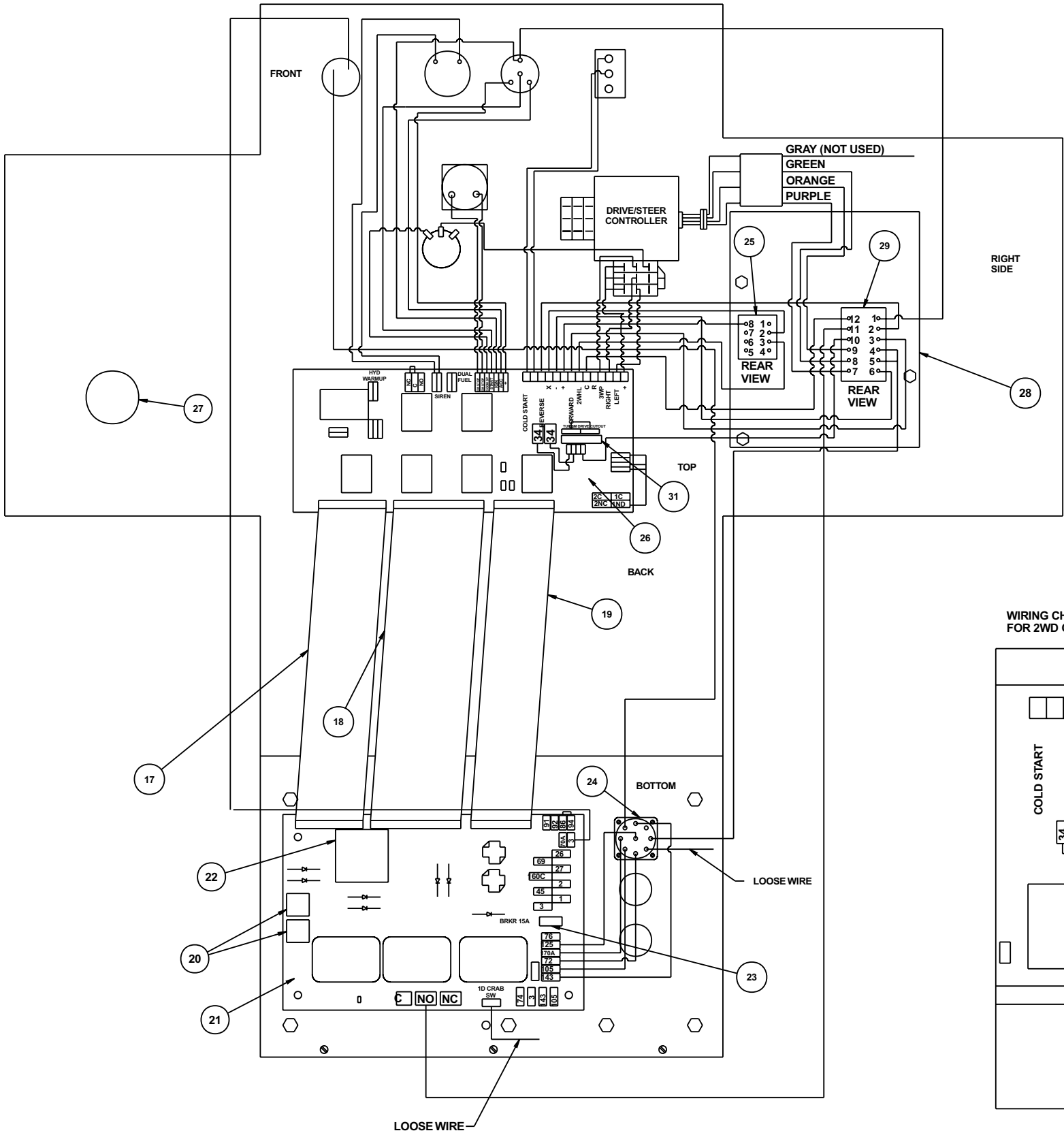


Upper control box

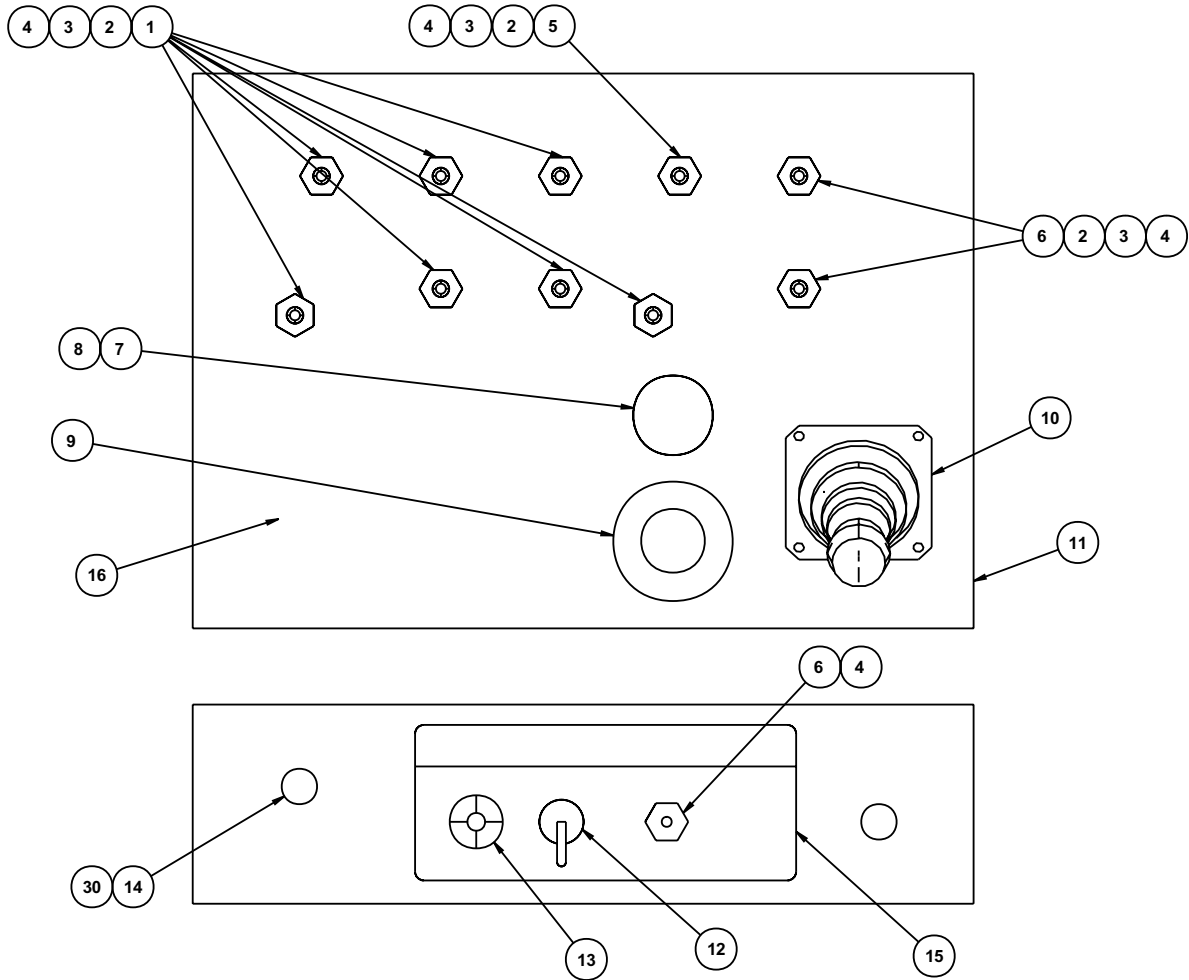
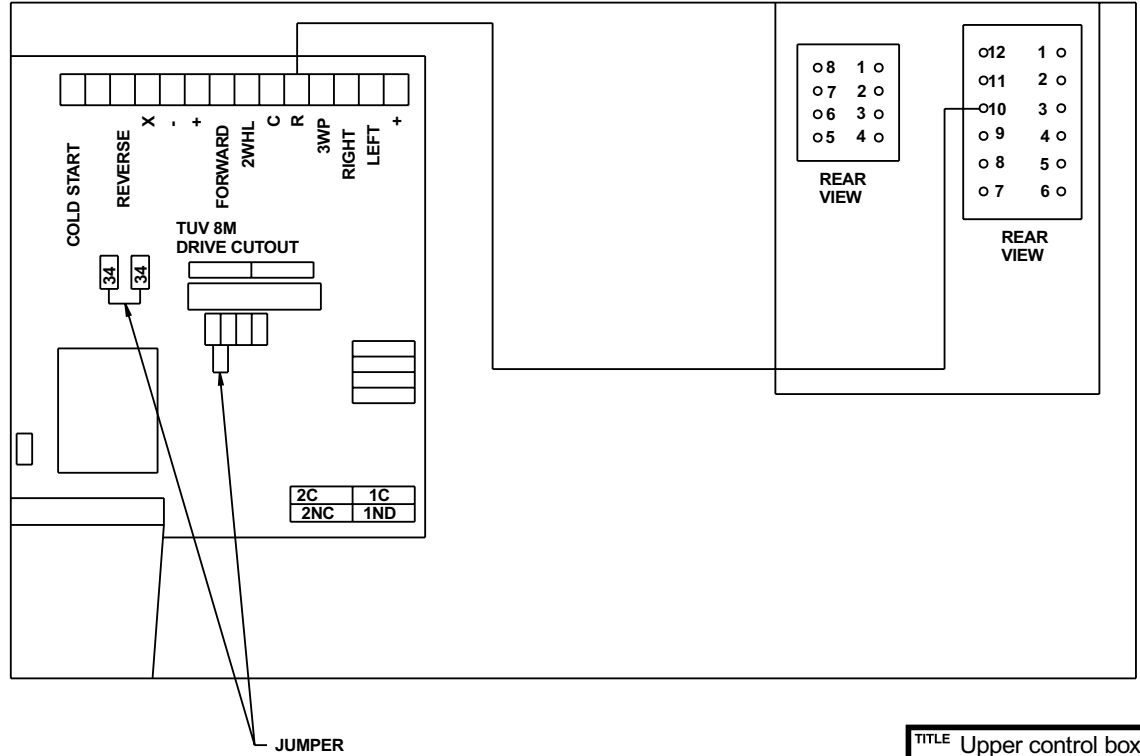
item	part no	qty	description
	0162578-99	1	Upper control box
1	3020018	7	Switch, toggle
2	3020137	32	Screw pin 3/8 inch hex
3	3020138	18	Screw pin 3/16 inch hex
4	3020141	11	Switch seal
5	3020089	1	Switch, toggle
6	3020015	3	Switch, toggle
7	3040348	1	Switch knob
8	3040497	1	Rheostat switch
9	3020020	1	Switch, emergency stop push/pull
	3040194	1	Replacement switch knob
10	3040685	1	Controller, dual axis
11	0160237	1	Upper control box
12	3020090	1	Switch, anti-restart
13	3040411	1	Mini siren, engine alarm
14	3069514	1	Bulb
15	0161402	1	Placard, upper control box front
16	0161401	1	Placard, upper control box top
17	3049833	1	Ribbon cable, 12 conductor 18 gauge
18	3049835	1	Ribbon cable, 22 conductor 18 gauge
19	3049834	1	Ribbon cable, 18 conductor 18 gauge
20	562326	2	Relay, 12 volt DC
21	3030010	1	Relay circuit board
22	3049909	1	Relay
23	3040686	1	Thermal circuit breaker, 15 amp
24	3040696	1	Voltage feed thru stud
25	0162576	1	Wire harness, 8 pin PWM drive card
26	3030011	1	Switch board
27	3040694	1	Corrosion inhibitor
28	0162555	1	PWM drive card, 2 wheel drive machine - (must be ordered separate of control box)
	0162556	1	PWM drive card, 4 wheel drive machine - (must be ordered separate of control box) (specify 2 wheel drive or 4 wheel drive machine when placing your order)
29	0162575	1	Wire harness, 12 pin PWM drive card
30	3049515	1	Light socket
31	3049831	1	Fuse, 3 amp - 250 volt

F
E
D
C
B
A

WIRING IN 4WD CONFIGURATION



WIRING CHANGES FOR 2WD CONFIGURATION



AWA16157

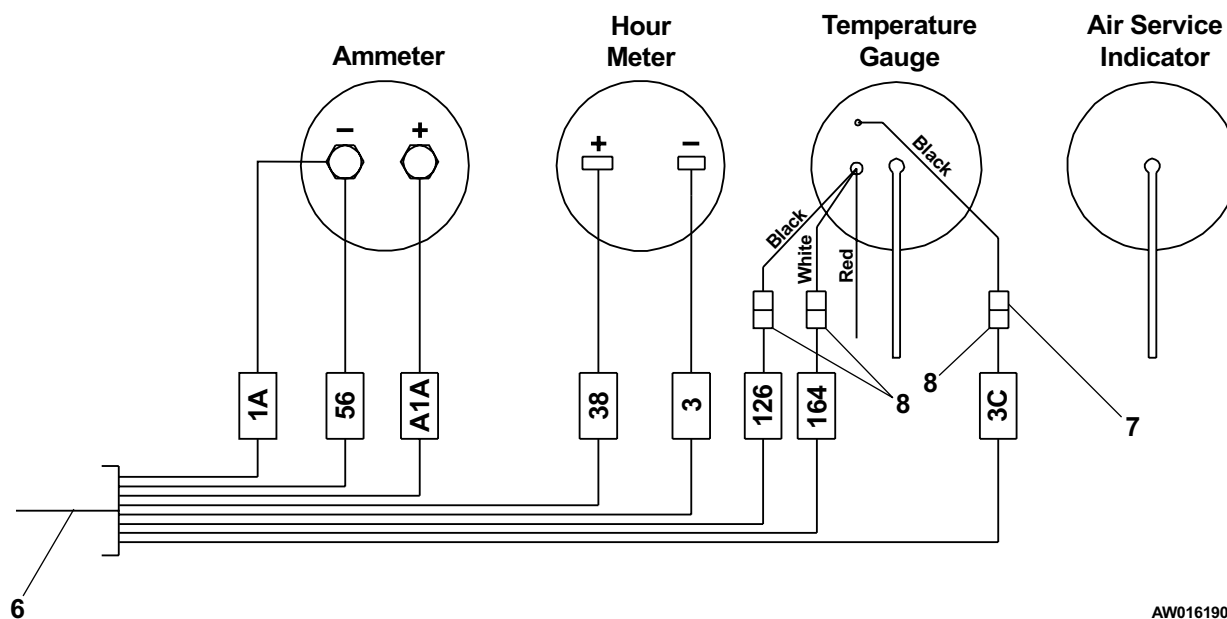
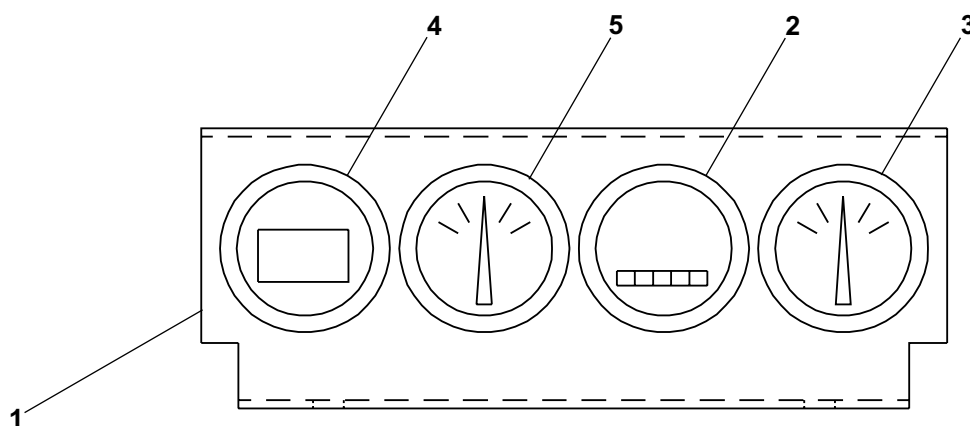
TITLE Upper control box

Snorkel model AB50J



Engine gauge panel

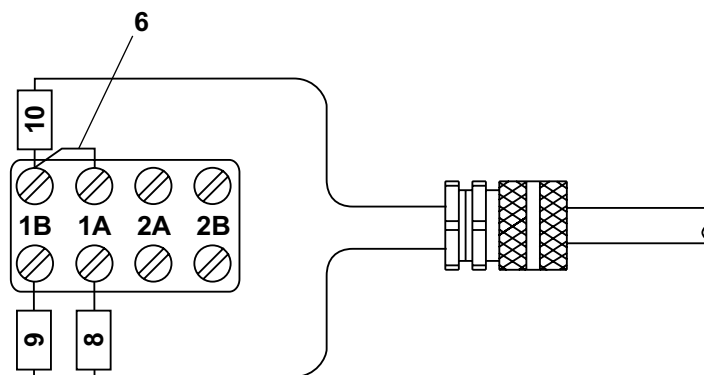
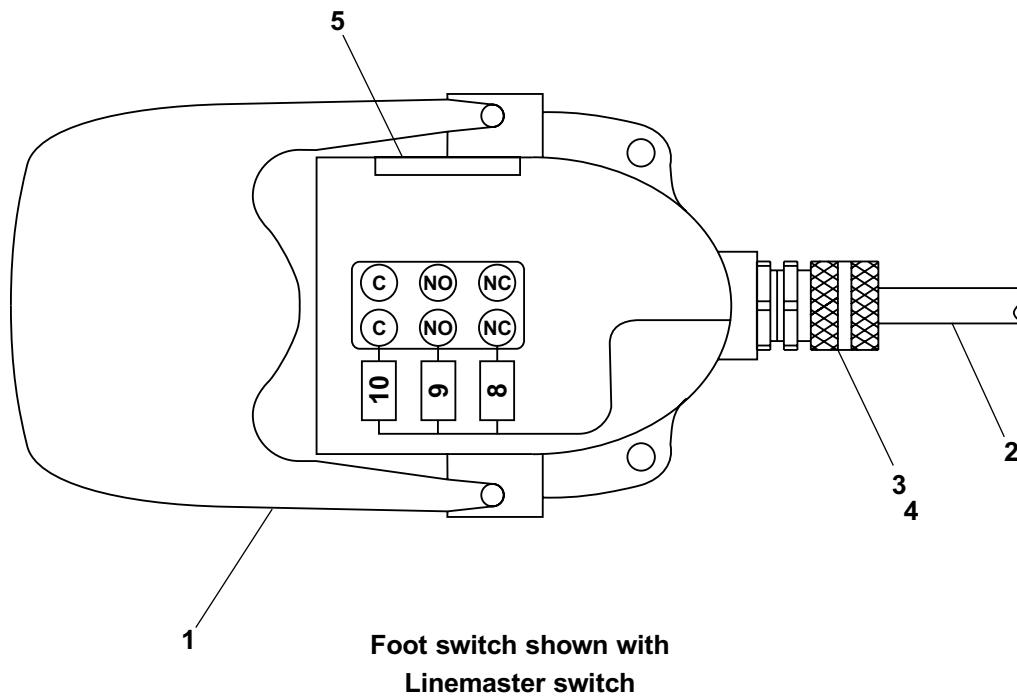
item	part no	qty	description
	0161907	1	Engine gauge panel
1	0161917-99	1	Gauge panel
2	3070001	1	Hour meter
3	3070003	1	Ammeter
4	7630140	1	Filter condition indicator
5	3070025	1	Temperature gauge
6	0161854	1	Wire harness, engine gauge panel
7	3040082	1	Terminal .250 tab male fully insulated 16/14 wire
8	3040046	2	Terminal .250 tab male fully insulated 22/18 wire



AW0161907

Platform foot switch

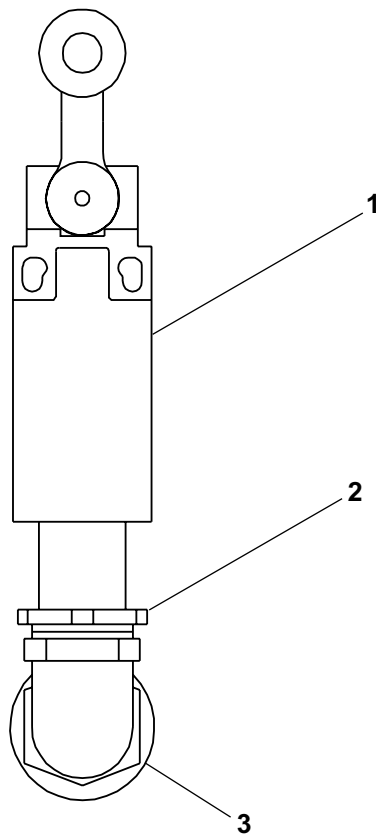
item	part no	qty	description
1	0161491	1	Platform foot switch
	3020021	1	Foot switch
	3020037	1	Replacement switch, Square D switch
	3020038	1	Replacement switch, Linemaster switch
2	0161490	1	Wire harness, foot switch
3	3040116	1	Connector
4	3040110	1	Connector locknut
5	0070967	1	Corrosion inhibitor
6	0060373	1	Jumper strap - (used on Square D switch only)



AW0161491

Switch, extend

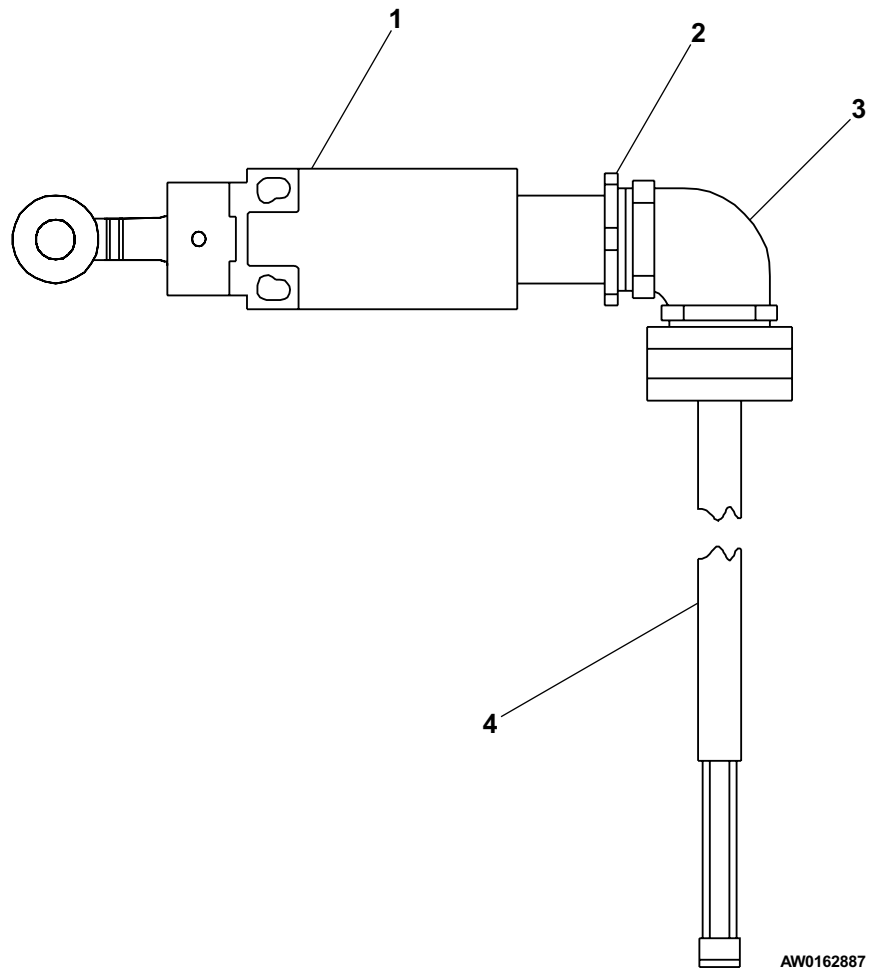
item	part no	qty	description
	0162333	1	Switch, extend
1	3020140	1	Limit switch
2	3040070	1	Connector locknut
3	3040358	1	Connector



AW0162333

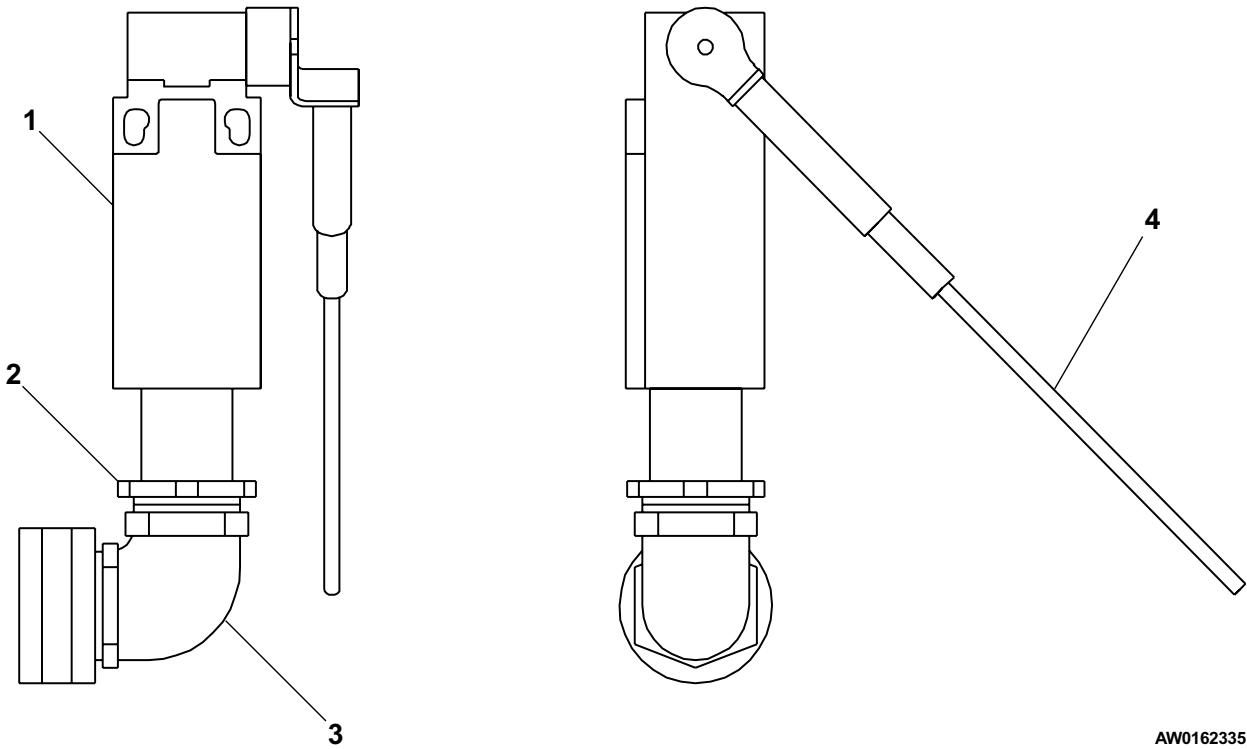
Switch, front axle right hand

item	part no	qty	description
	0162887	1	Switch, front axle right hand
1	3020140	1	Limit switch
2	3040070	1	Connector locknut
3	3040358	1	Connector
4	0161899	1	Wire harness, steering switch



Switch, main boom

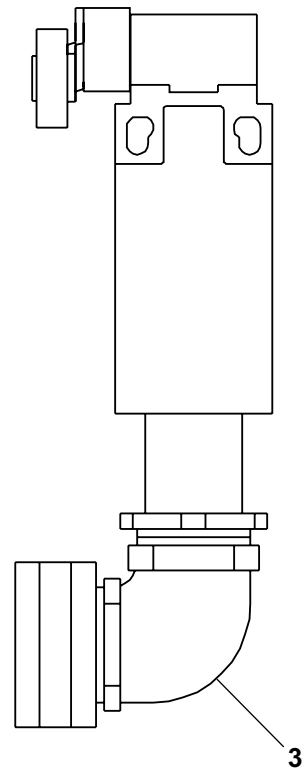
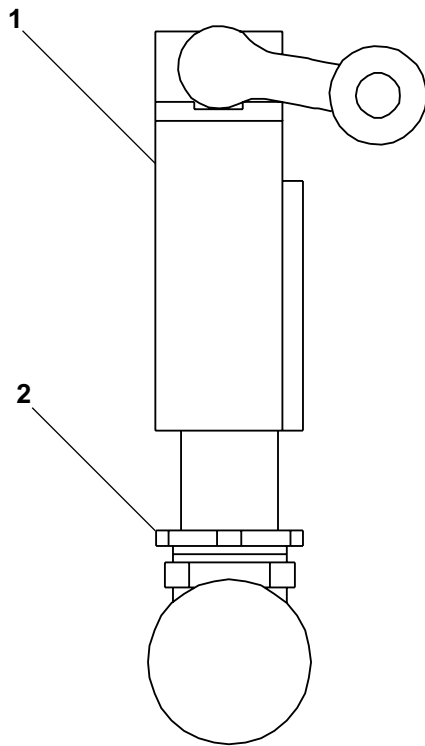
item	part no	qty	description
	0162335	1	Switch, main boom
1	3020140	1	Limit switch
2	3040070	1	Connector locknut
3	3040358	1	Connector
4	0151684	1	Limit switch lever



AW0162335

Switch, riser

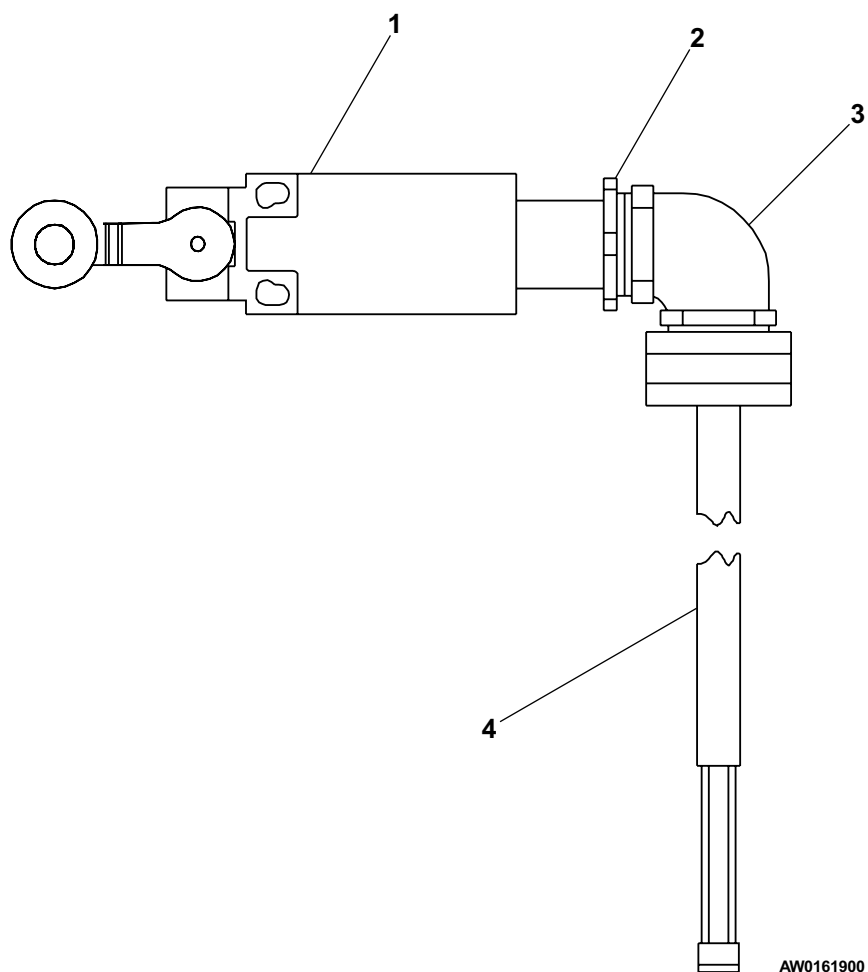
item	part no	qty	description
1	0162331	1	Switch, riser
2	3020140	1	Limit switch
3	3040070	1	Connector locknut
3	3040358	1	Connector



AW0162331

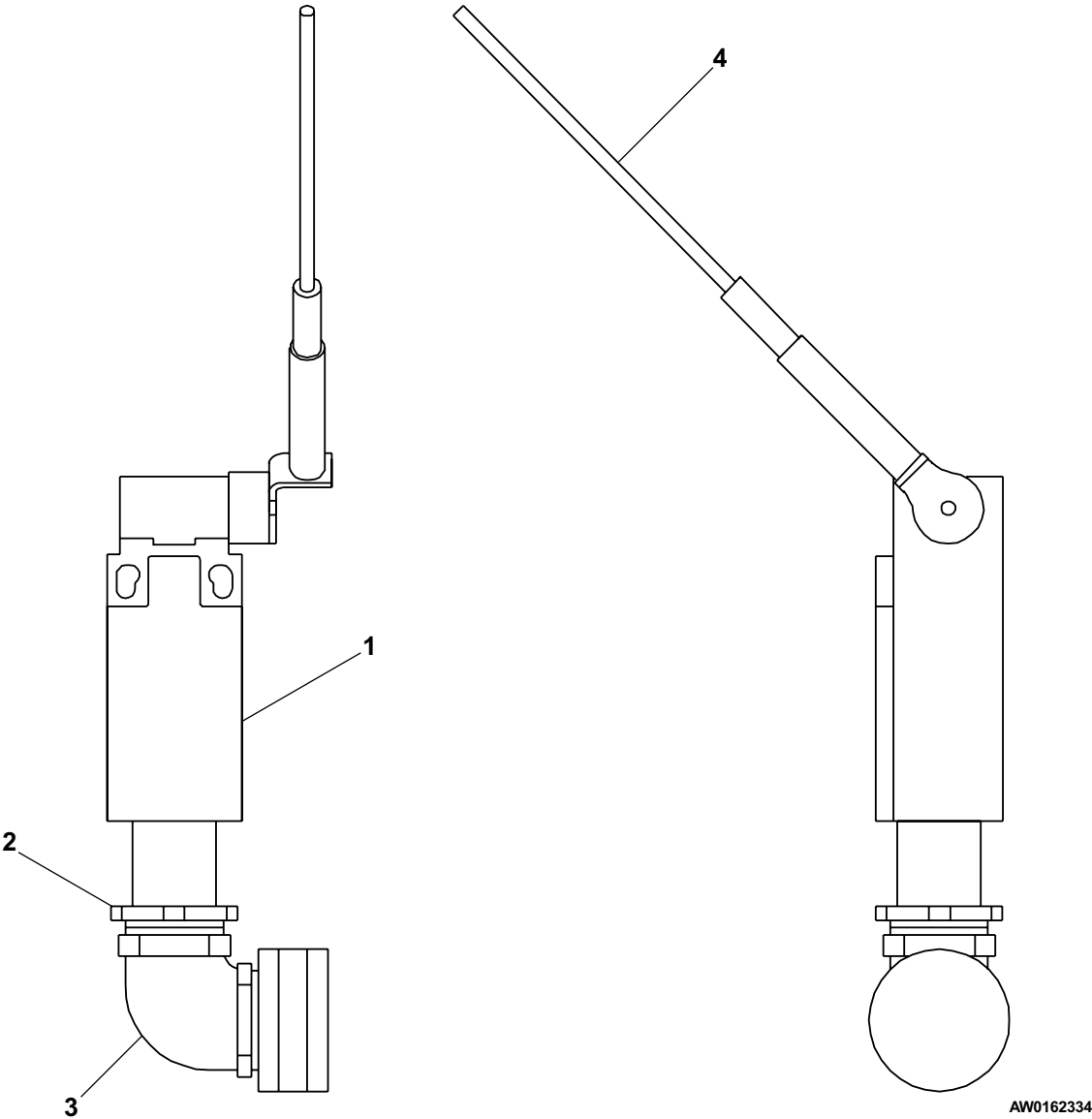
Switch, steering

item	part no	qty	description
	0161900	1	Switch, steering
1	3020140	1	Limit switch
2	3040070	1	Connector locknut
3	3040358	1	Connector
4	0161899	1	Wire harness, steering switch



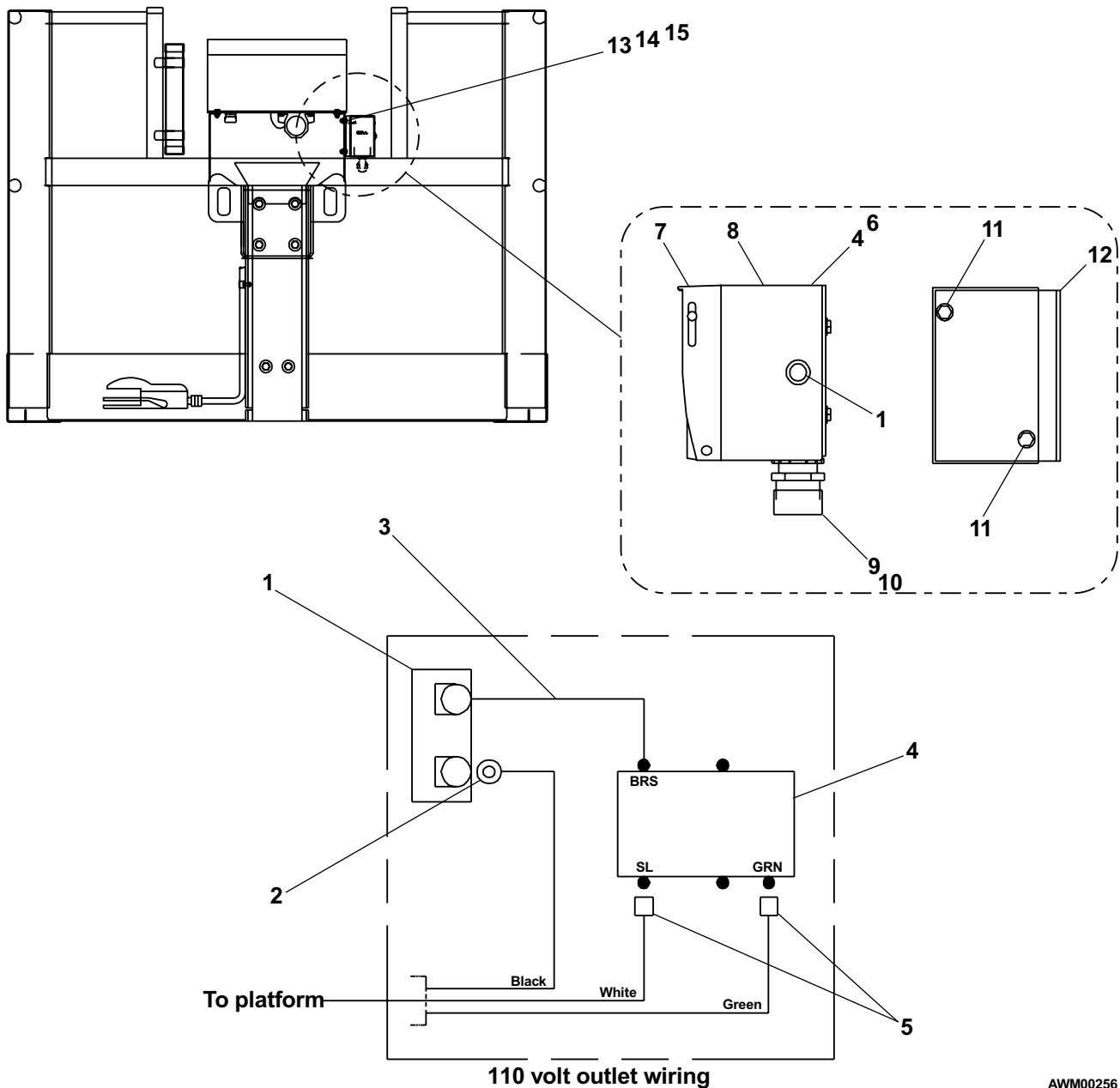
Switch, turntable

item	part no	qty	description
	0162334	1	Switch, turntable
1	3020140	1	Limit switch
2	3040070	1	Connector locknut
3	3040358	1	Connector
4	0151684	1	Limit switch lever



Power to platform, 110 volt

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	0074379	1	Electrical outlet box
7	3040625	1	Cover, GFCI electrical outlet
8	3040272	1	Plug
9	3040110	1	Connector locknut
10	3040116	1	Connector
11	5560258	2	Machine screw #8 x 3/4 inch long self tapping
12	0162060-99	1	Mounting plate
13	970099	2	Capscrew 1/4-20 x 5/8 inch long hex head grade 5
14	986019	2	Washer 1/4 medium flat
15	984069	2	Nut 1/4-20 hex

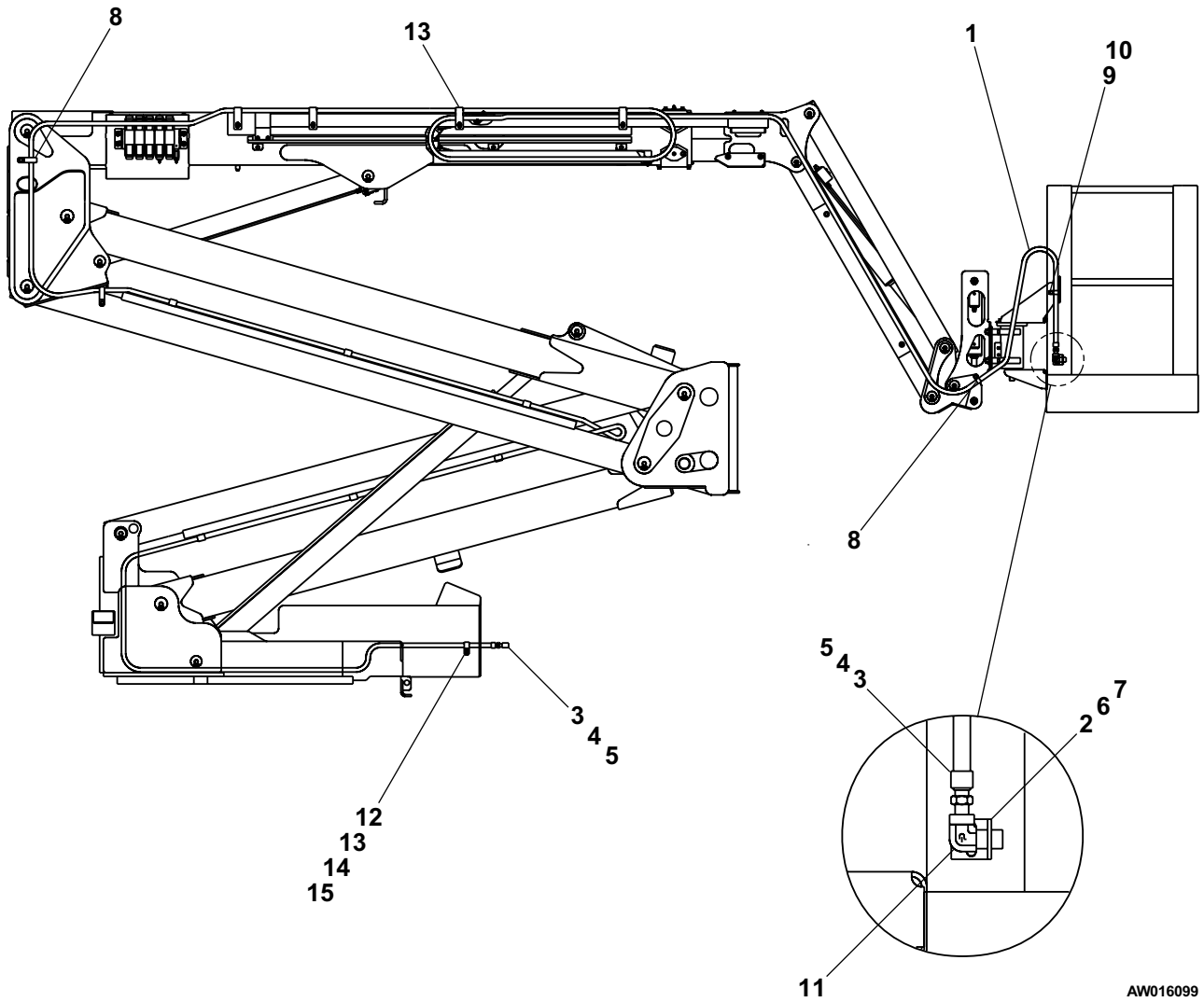


AWM00256

Air line to platform

item	part no	qty	description
1	5010024	1	Air hose, 1/2 inch diameter x 75 feet long
2	0151743-99	1	Angle, air hose
3	5260012	2	Pipe fitting, 1/2 inch diameter x 3/8 inch NPT
4	7714203	2	Hex head plug
5	5550010	2	Clamp
6	5560004	2	Nut 1/4-20 self locking
7	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
8	5093030	4	Clamp
9	5093006	1	Clamp
10	970439	1	Capscrew 3/8-16 x 5/8 inch long hex head grade 5
11	5011003	1	Street elbow 90° black
12	5560031	1	Nut 5/16-18 self locking
13	0162058	8	Clamp
14	986269	1	Washer 5/16 medium flat
15	970259	1	Capscrew 5/16-18 x 1 inch long hex head grade 5

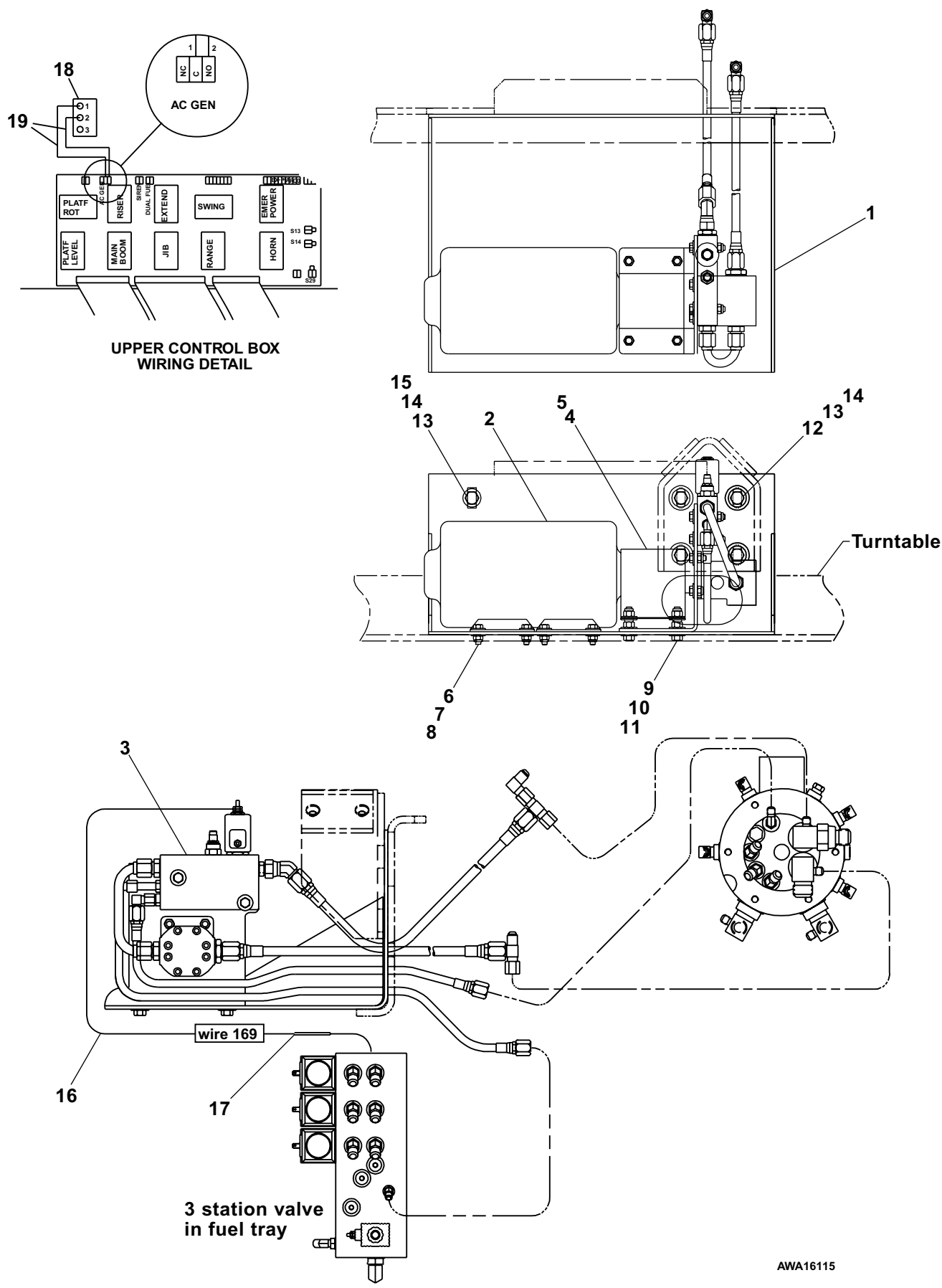
Air line to platform



AC generator

item	part no	qty	description
1	0162181-99	1	Auxiliary battery tray
2	3080001	1	Generator, AC hydraulic powered
3	0161912	1	AC hydraulic motor - (see page 4-6 for parts breakdown)
4	7240012	1	Coupling
5	0151484-99	1	Coupling cover
6	970259	8	Capscrew 5/16-18 x 1 inch long hex head grade 5
7	986269	8	Washer 5/16 medium flat
8	5560031	8	Nut 5/16-18 self locking
9	970499	4	Capscrew 3/8-16 x 1-3/4 inch long hex head grade 5
10	5560033	8	Nut 3/8-16 self locking
11	986299	16	Washer 3/8 medium flat
12	970909	4	Capscrew 1/2-13 x 1-1/2 inch long hex head grade 5
13	5560354	2	Carriage bolt 1/2-13 x 1-1/2 inch long
14	984069	6	Nut 1/2-13 hex
15	986359	6	Washer 1/2 medium flat
16	0162349	1	Wire, AC generator
17		1	Heat shrink tubing - (not sold separately)
18	3020047	1	Switch, toggle
19	0071555	2	Jumper wire

AC generator

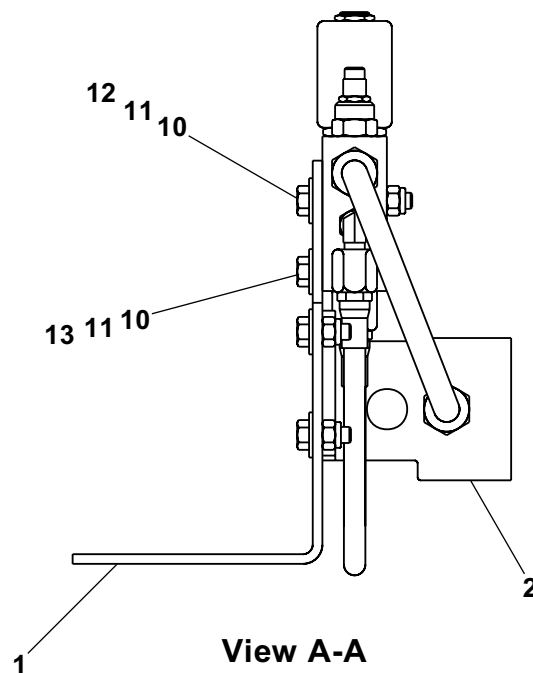
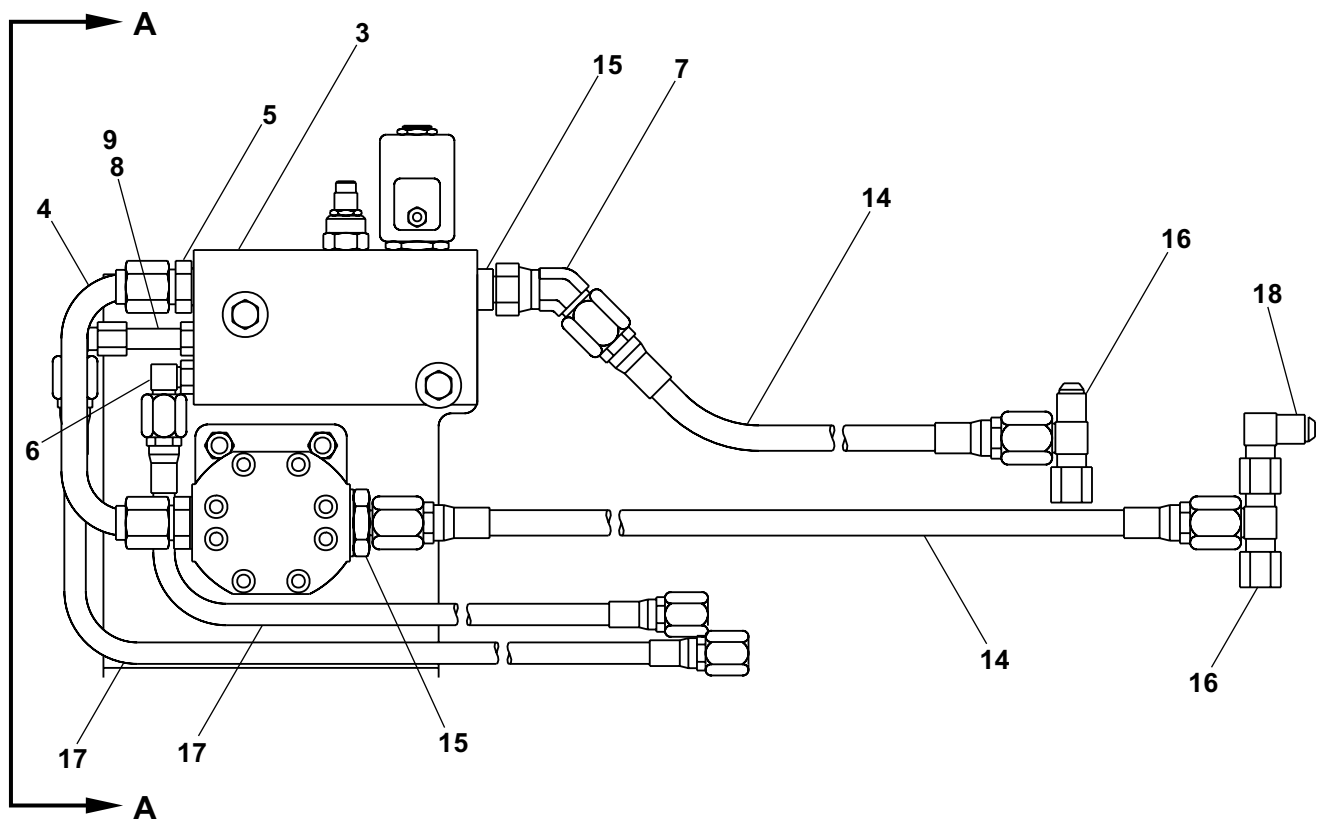


AWA16115

AC hydraulic motor

item	part no	qty	description
	0161912	1	AC hydraulic motor
1	0161814	1	Mounting bracket
2	6030029	1	Hydraulic motor, AC generator
	8020018	1	Seal repair kit
3	6010489	1	Valve, AC generator
	6010508	1	Replacement cartridge with coil
	3040467	1	Replacement coil
	6010509	1	Replacement cartridge
	6010510	1	Replacement shuttle valve cartridge
	6018901	1	Flow control valve
4	0162348	1	1/2 inch hydraulic tube
5	5065709	2	Straight thread adapter
6	5035303	1	Straight thread 90° elbow
7	5036905	1	Swivel nut 45° elbow
8	5065803	1	Straight thread adapter
9	5037003	1	Swivel nut 90° elbow
10	986269	6	Washer 5/16 medium flat
11	5560033	6	Nut 3/8-16 self locking
12	970299	2	Capscrew 5/16-18 x 2 inch long hex head grade 5
13	970269	4	Capscrew 5/16-18 x 1-1/4 inch long hex head grade 5
14	0050401	2	3/8 inch hydraulic hose
15	5065708	2	Straight thread adapter
16	5036705	2	Swivel nut run tee
17	0070772	2	1/4 inch hydraulic hose
18	5037005	1	Swivel nut 90° elbow

AC hydraulic motor



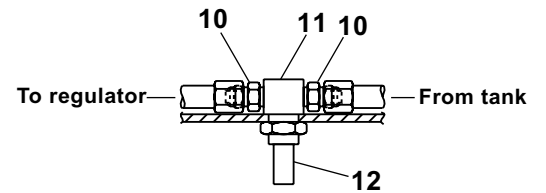
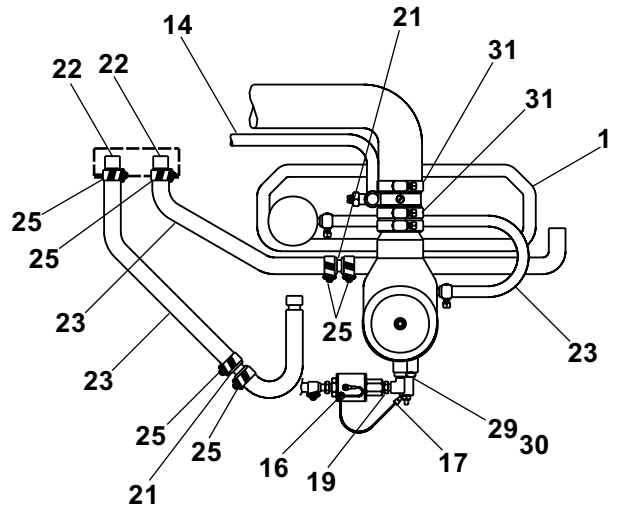
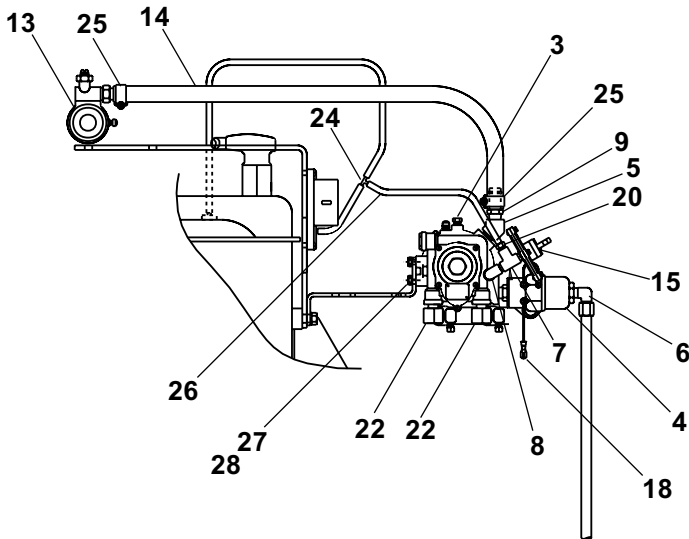
View A-A

AW0161912

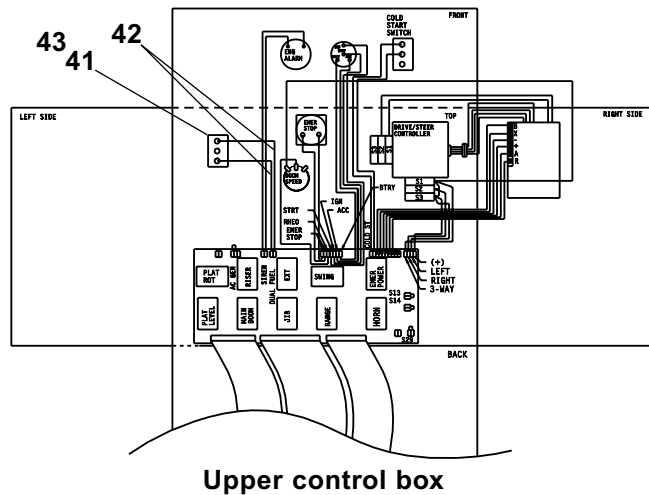
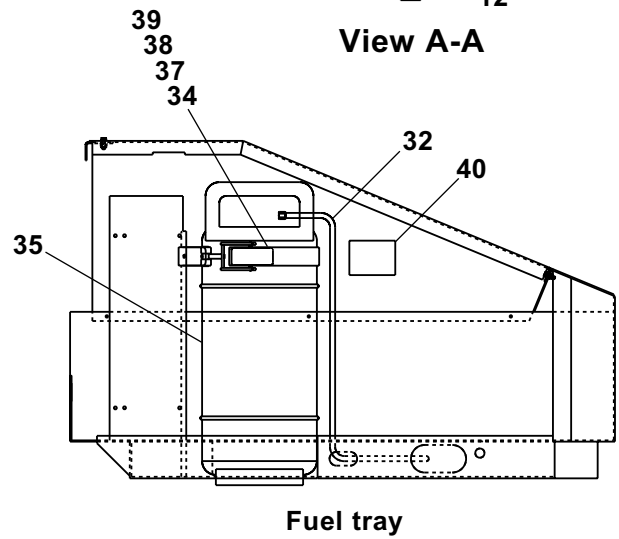
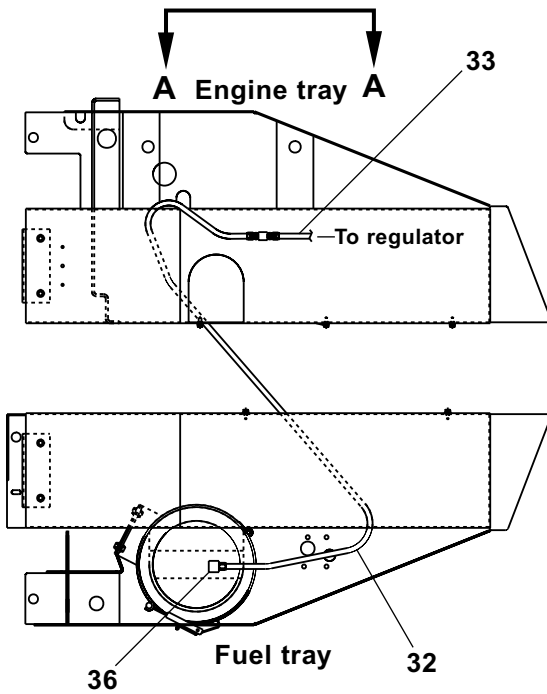
Dual fuel, Ford engine

item	part no	qty	description
1	7620051	1	Engine, Ford VSG-413 gasoline (before 2-26-01)
	7624749	1	Engine, Ford VSG-413 gasoline (after 2-26-01)
2	0151899	1	Dual fuel kit, liquid withdrawal - (kit includes items 3 through 14)
3	Kit item	1	Regulator - (not sold separately)
4	Kit item	1	Filter lock - (not sold separately)
5	Kit item	1	Street 3/8 NPT 45° elbow - (not sold separately)
6	Kit item	1	Male 1/4 NPT 90° elbow brass - (not sold separately)
7	Kit item	1	Street tee 1/8 NPT brass - (not sold separately)
8	Kit item	1	Street 1/8 NPT 90° elbow - (not sold separately)
9	Kit item	1	Hose connector - (not sold separately)
10	Kit item	2	Connector - (not sold separately)
11	Kit item	1	Bulkhead tee - (not sold separately)
12	Kit item	1	Hose adapter - (not sold separately)
13	Kit item	1	Relief valve - (not sold separately)
14	Kit item	1	LP fuel hose - (not sold separately)
15	3020054	1	Vacuum switch - (included with engine, item 1)
	8130005	1	Replacement switch
16	5230005	1	Gasoline fuel shut-off valve
17	3044146	1	Terminal #10 stud insulated 22/18 wire
18	3040083	1	Terminal .250 tab female fully insulated 16/14 wire
19	5090011	1	Nipple 1/8 NPT brass
20	5090024	1	Vacuum fitting 1/8 NPT brass straight
21	5039601	2	Splice
22	5039501	2	Beaded 90° elbow
23	5010020	1	Fuel hose, 5/8 inch diameter x 66 inch long
24	5090044	1	Vacuum line tee
25	5550010	8	Clamp
26	5010007	1	Vacuum hose, 3/16 inch diameter x 12 inch long
27	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
28	987099	2	Washer 1/4 medium lock
29	7630335	1	Shut-off solenoid
30	5560034	1	Nut #10-24 self locking
31	5550030	2	Clamp
32	0072177	1	LP gas fuel hose
33	0101724	1	LP gas fuel hose
34	0070969-99	1	Bracket, LP gas cylinder - (includes left and right hand brackets)
35	9940005	1	LP gas cylinder, liquid withdrawal 43.5 lb capacity
36	0070974	1	Coupler, female LPG
37	970469	4	Capscrew 3/8-16 x 1 inch long hex head grade 5
38	984109	4	Nut 3/8-16 hex
39	986299	4	Washer 3/8 medium flat
40	0081441	1	Decal, caution liquid withdrawal
41	3020097	1	Switch, toggle
42	0070715	2	Jumper wire
43	3020141	1	Switch seal

Dual fuel, Ford engine



View A-A



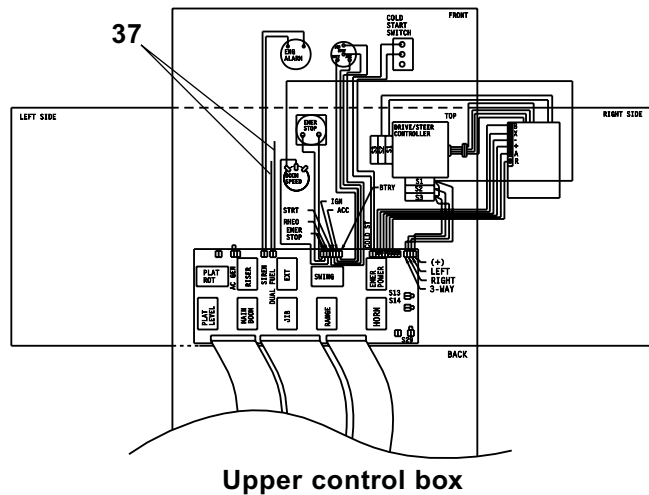
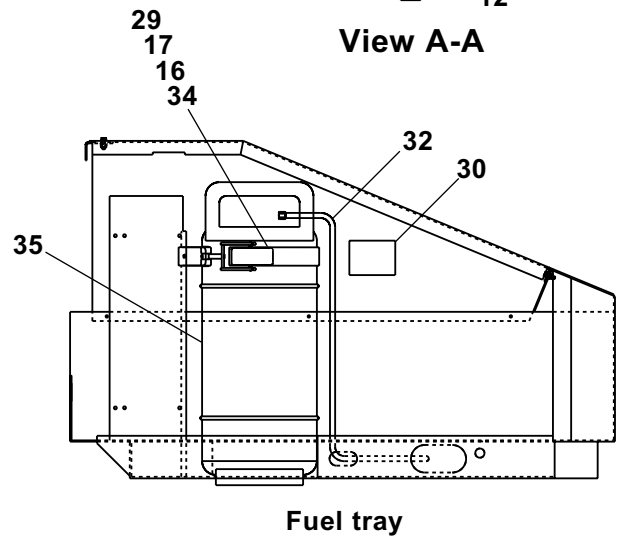
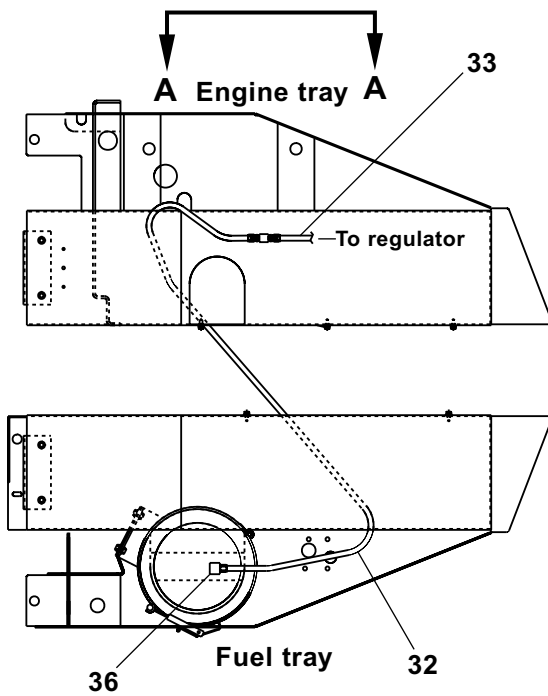
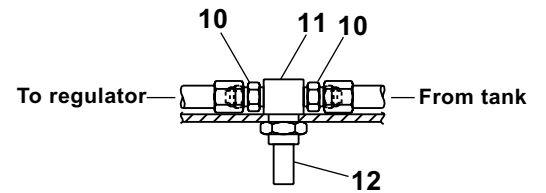
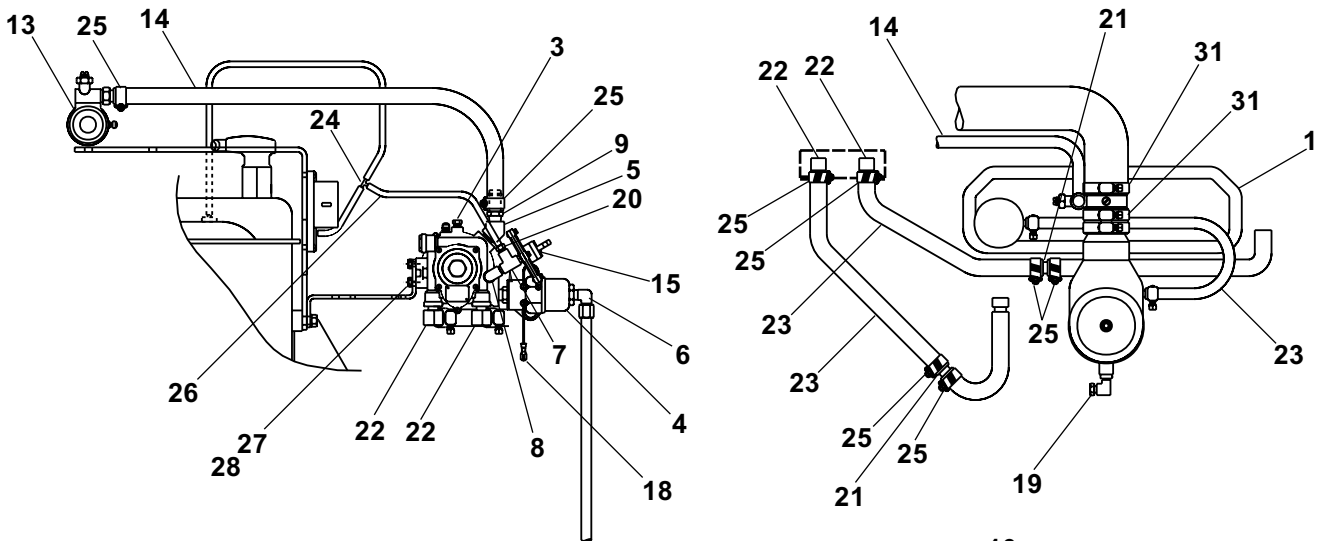
Upper control box

AWA16082

LP fuel only, Ford engine

item	part no	qty	description
1	7620051	1	Engine, Ford VSG-413 gasoline (before 2-26-01)
	7624749	1	Engine, Ford VSG-413 gasoline (after 2-26-01)
2	0151899	1	Dual fuel kit, liquid withdrawal - (kit includes items 3 through 14)
3	Kit item	1	Regulator - (not sold separately)
4	Kit item	1	Filter lock - (not sold separately)
5	Kit item	1	Street 3/8 NPT 45° elbow - (not sold separately)
6	Kit item	1	Male 1/4 NPT 90° elbow brass - (not sold separately)
7	Kit item	1	Street tee 1/8 NPT brass - (not sold separately)
8	Kit item	1	Street 1/8 NPT 90° elbow - (not sold separately)
9	Kit item	1	Hose connector - (not sold separately)
10	Kit item	2	Connector - (not sold separately)
11	Kit item	1	Bulkhead tee - (not sold separately)
12	Kit item	1	Hose adapter - (not sold separately)
13	Kit item	1	Relief valve - (not sold separately)
14	Kit item	1	LP fuel hose - (not sold separately)
15	3020054	1	Vacuum switch - (included with engine, item 1)
	8130005	1	Replacement switch
16	970469	4	Capscrew 3/8-16 x 1 inch long hex head grade 5
17	984109	4	Nut 3/8-16 hex
18	3040083	1	Terminal .250 tab female fully insulated 16/14 wire
19	7710013	1	Pipe plug 1/8 NPT square head
20	5090024	1	Vacuum fitting
21	5039601	2	Splice
22	5039501	2	Beaded 90° elbow
23	5010020	1	Fuel hose, 5/8 inch diameter x 66 inch long
24	5090044	1	Vacuum line tee
25	5550010	8	Clamp
26	5010006	1	Vacuum hose, 1/4 inch diameter x 9 inch long
27	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
28	987099	2	Washer 1/4 medium lock
29	986299	4	Washer 3/8 medium flat
30	0081441	1	Decal, caution liquid withdrawal
31	5550040	2	Clamp
32	0072177	1	LP gas fuel hose
33	0101724	1	LP gas fuel hose
34	0070969-99	1	Bracket, LP gas cylinder - (includes left and right hand brackets)
35	9940005	1	LP gas cylinder, liquid withdrawal 43.5 lb capacity
36	0070974	1	Coupler, female LPG
37	0111476	2	Jumper wire
38	7630309	1	Fuel pump close out plate - (not shown, replaces fuel pump)

LP fuel only, Ford engine



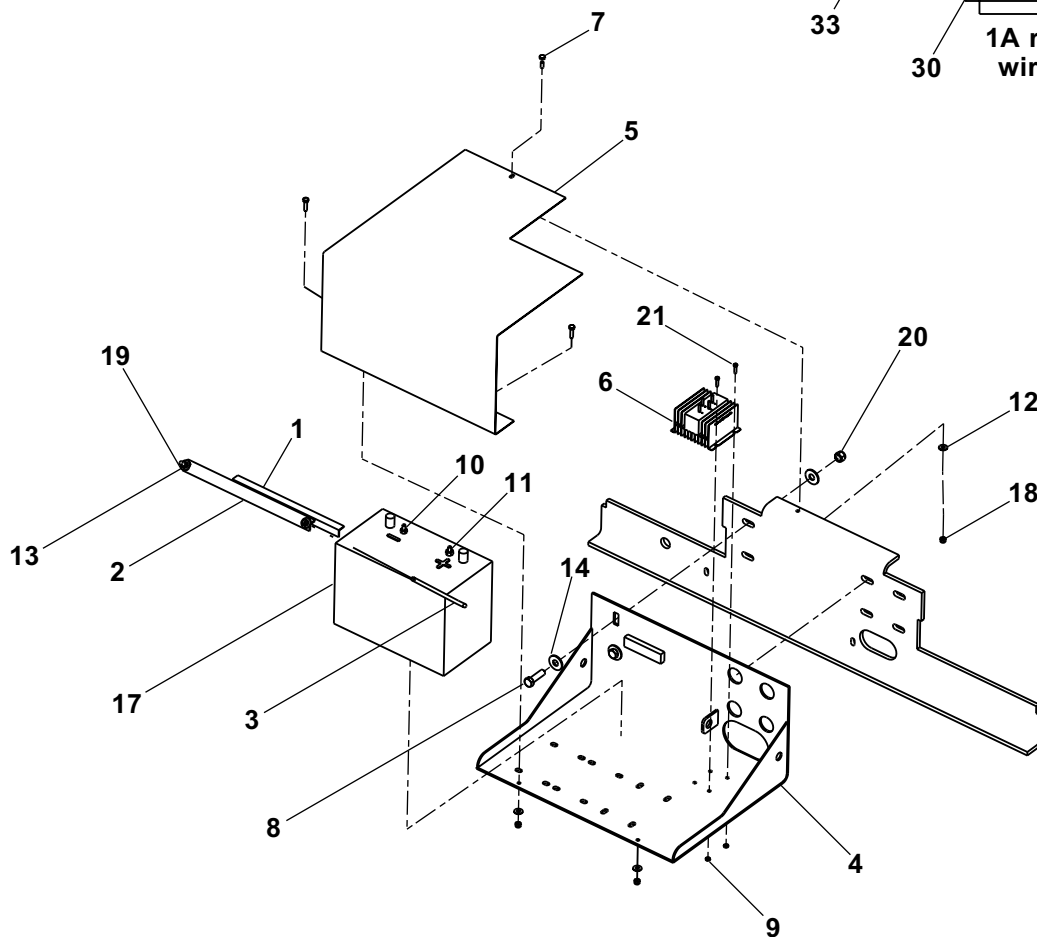
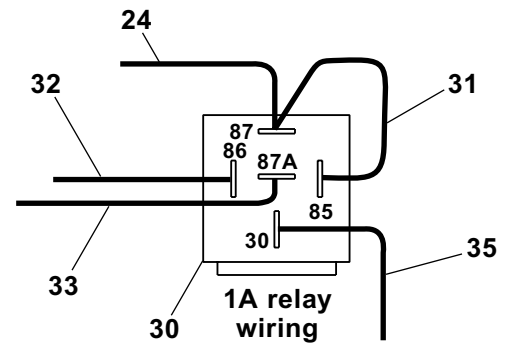
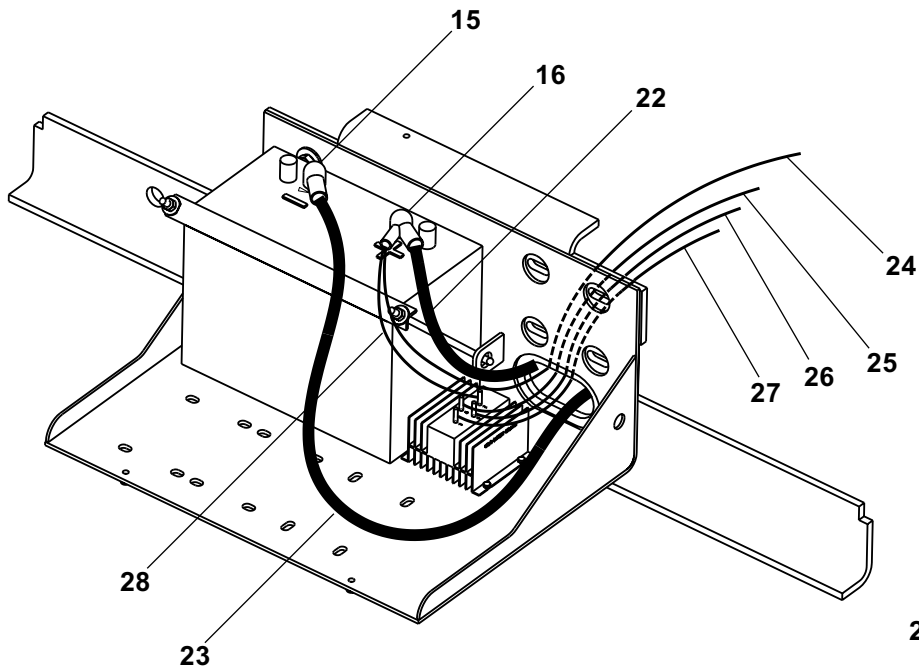
Upper control box

AWA16083

Battery, extra for Ford

item	part no	qty	description
1	0150811	1	Insulator angle
2	0150813-99	1	Battery hold down angle
3	0150910	2	Battery hold down bolt
4	0162181-99	1	Auxiliary battery tray
5	0162507-99	1	Cover, battery tray
6	0162936	1	Battery isolator
7	970049	3	Capscrew 1/4-20 x 1 inch long hex head grade 5
8	970919	2	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 5
9	984049	2	Nut #10-24 hex
10	984089	1	Nut 5/16-18 hex
11	984109	1	Nut 3/8-16 hex
12	986019	3	Washer 1/4 medium flat
13	986269	2	Washer 5/16 medium flat
14	986359	4	Washer 1/2 medium flat
15	3040269	1	Insulator boot
16	3040270	1	Insulator boot
17	3050002	1	Emergency power battery, 12 volt DC 550 CCA
18	5560004	3	Nut 1/4-20 self locking
19	5560031	2	Nut 5/16-18 self locking
20	5560039	2	Nut 1/2-13 self locking
21	5560619	2	Capscrew #10-24 x 3/4 inch long round head
22	0090959	1	Jumper wire
23	0151159	1	Wire
24	0162970	1	Jumper wire - (emergency power battery + post to 87 post on 1A relay)
25	0162971	1	Jumper wire - (battery isolator A to ammeter)
26	0162972	1	Jumper wire - (battery isolator E to 6A on emergency power contactor)
27	0162973	1	Jumper wire - (battery isolator I to + on starter battery)
28	0162974	1	Jumper wire - (emergency power battery + post to 2 post on battery isolator)
29	0090318	1	Battery wire - (starter battery – post to battery disconnect switch)
30	3040469	1	Relay, 12 volt DC
31	0162975	1	Jumper wire - (1A relay 85 post to 87A post)
32	0162976	1	Diode wire - (1A relay 86 post to connector #1 - pin 11 in lower control box)
33	0162977	1	Jumper wire - (starter battery + post to 1A relay 87A post)
34	0162978	1	Jumper wire - (lower control box circuit 45)
35	0162979	1	Jumper wire - (1A relay 30 post to wire #1A in gauge panel harness)

Battery, extra for Ford

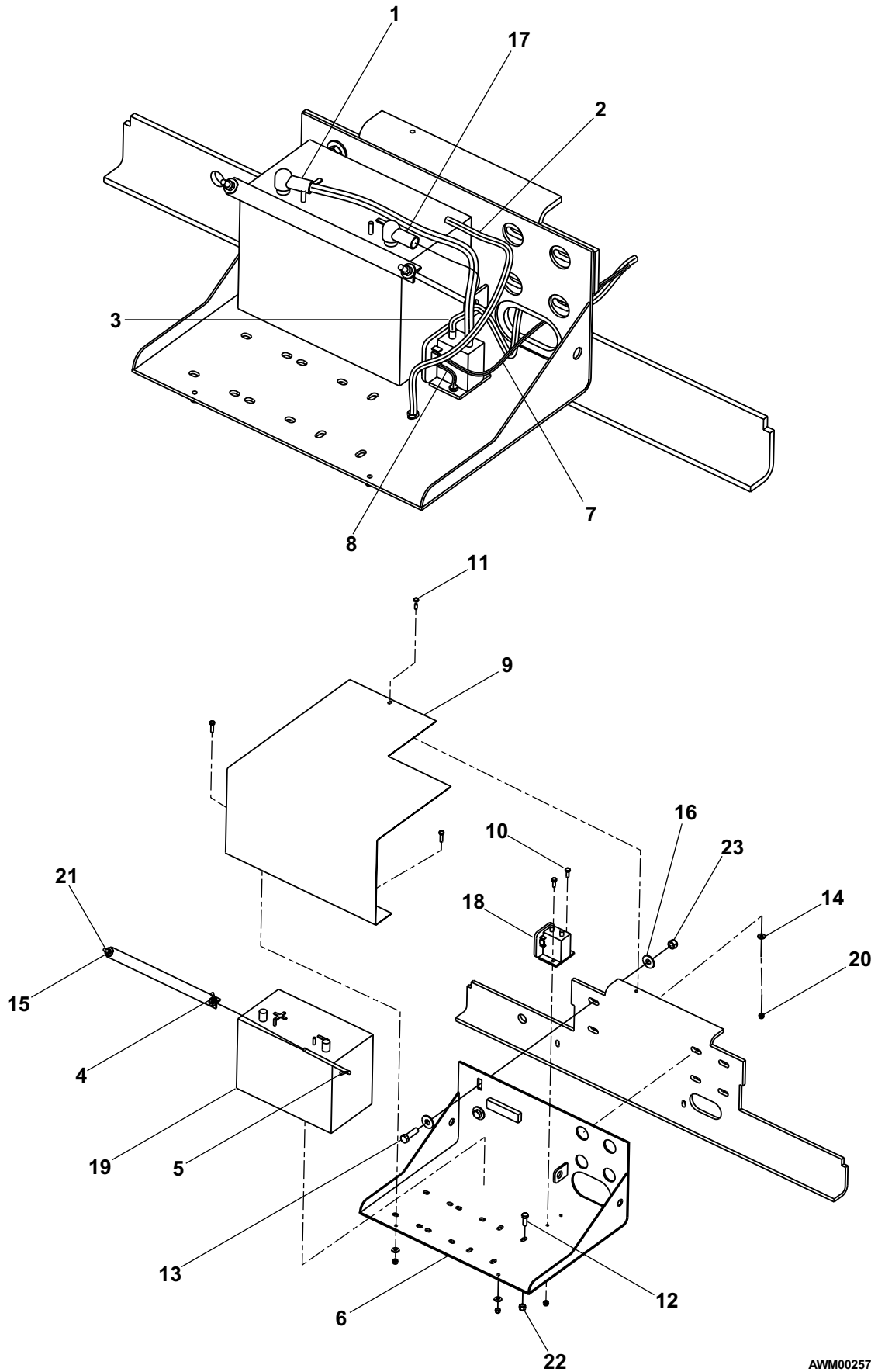


AWA16172

Battery, extra for Kubota

item	part no	qty	description
1	0090315	1	Wire
2	0090318	1	Battery wire
3	0090959	1	Jumper wire - (battery separator to battery disconnect switch)
4	0150813-99	1	Battery hold down angle
5	0150910	2	Battery hold down bolt
6	0162181-99	1	Auxiliary battery tray
7	0162502	1	Ground wire - (battery separator to key switch at lower controls)
8	0162506	1	Ground wire
9	0162507-99	1	Cover, battery tray
10	970029	2	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
11	970049	3	Capscrew 1/4-20 x 1 inch long hex head grade 5
12	970469	1	Capscrew 3/8-16 x 1 inch long hex head grade 5
13	970919	2	Capscrew 1/2-13 x 1-3/4 inch long hex head grade 5
14	986019	3	Washer 1/4 medium flat
15	986269	2	Washer 5/16 medium flat
16	986359	4	Washer 1/2 medium flat
17	3040269	2	Insulator boot
18	3049897	1	Battery separator
19	3050002	1	Battery, 12 volt DC - 550 CCA
20	5560004	5	Nut 1/4-20 self locking
21	5560031	2	Nut 5/16-18 self locking
22	5560033	1	Nut 3/8-16 self locking
23	5560039	2	Nut 1/2-13 self locking

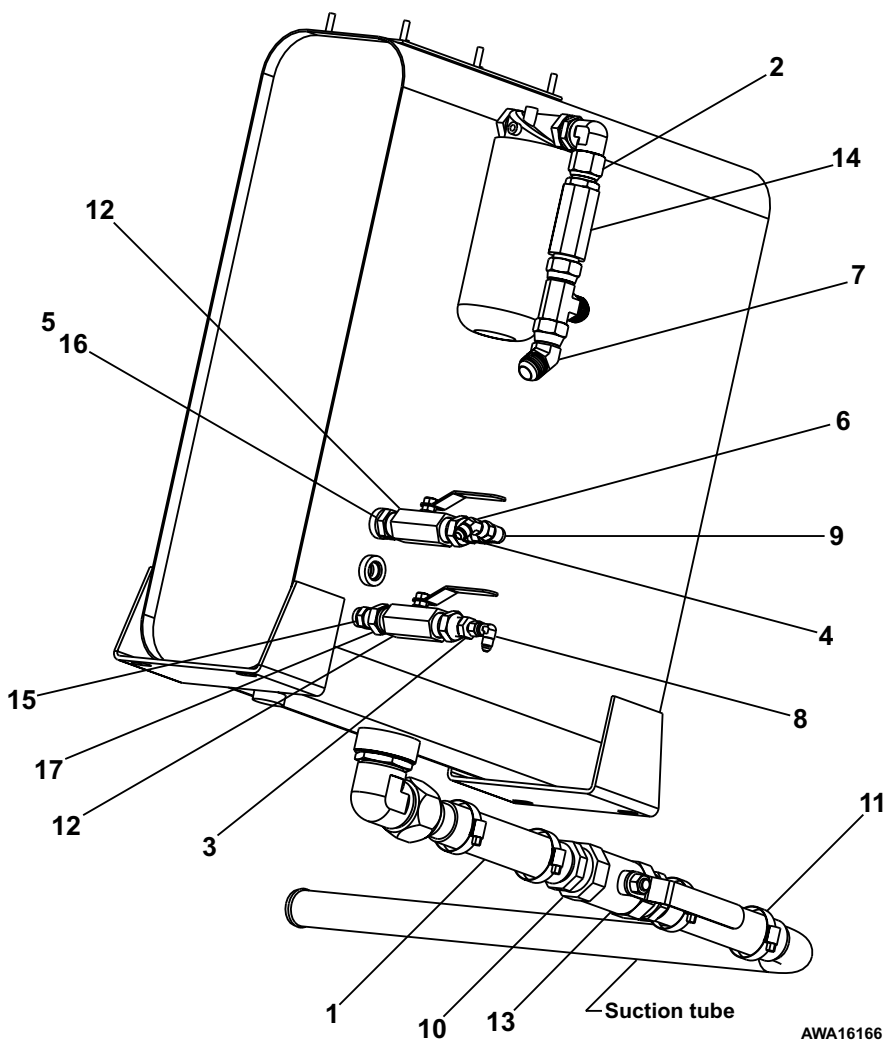
Battery, extra for Kubota



AWM00257

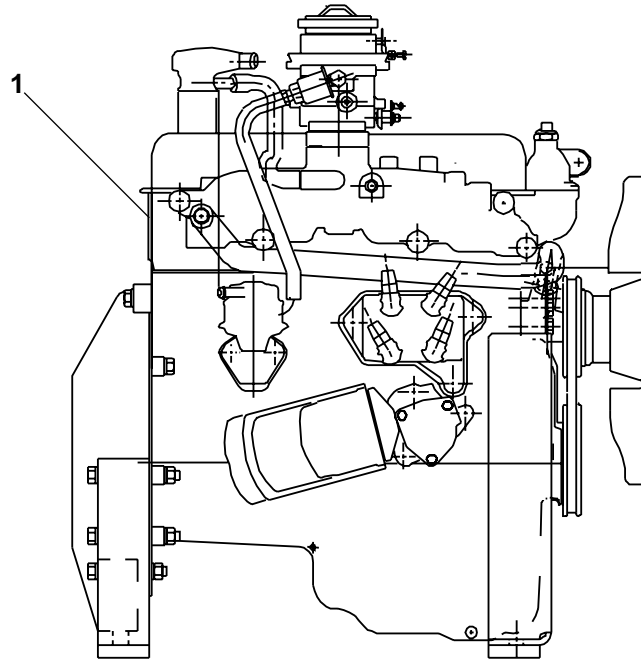
Isolation valve

item	part no	qty	description
1	0162219	1	1-1/2 inch suction hose x 14-1/2 inch long
2	5020001	1	Elbow, special swivel
3	5033605	2	Male adapter
4	5033611	1	Male adapter
5	5033615	1	Male adapter
6	5036905	1	Swivel nut 45° elbow
7	5036908	1	Swivel nut 45° elbow
8	5037003	1	Swivel nut 90° elbow
9	5037005	1	Swivel nut 90° elbow
10	5037305	2	Straight connector
11	5550030	4	Clamp
12	6010495	2	Ball valve, 3/4 NPT
13	6010498	1	Ball valve, 1-1/2 NPT
14	6011313	1	Check valve, in line
15	7119904	1	O-ring
16	7119908	1	O-ring
17	7720604	3	Reducer bushing 3/4 x 1/2

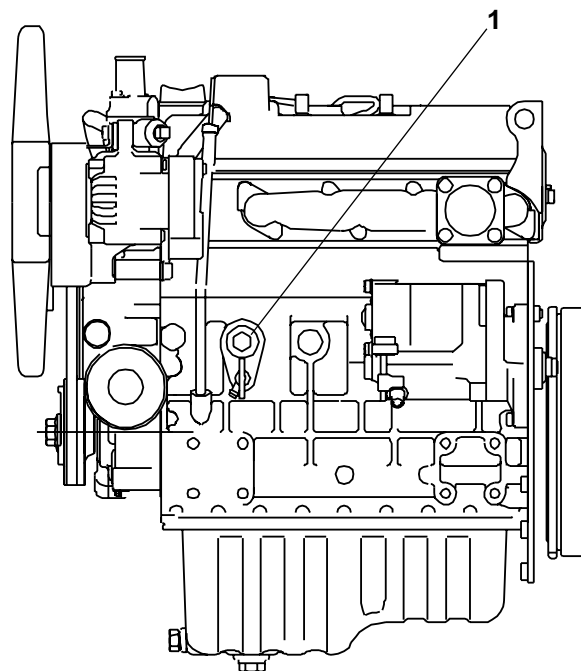


Engine block heater

item	part no	qty	description
1	7630338	1	Engine block heater with cord, Ford VSG-413 engine
	7630287	1	Engine block heater with cord, Kubota engine
2	0181634	1	Decal, engine block heater - (decal located as close to plug as possible)



Ford engine

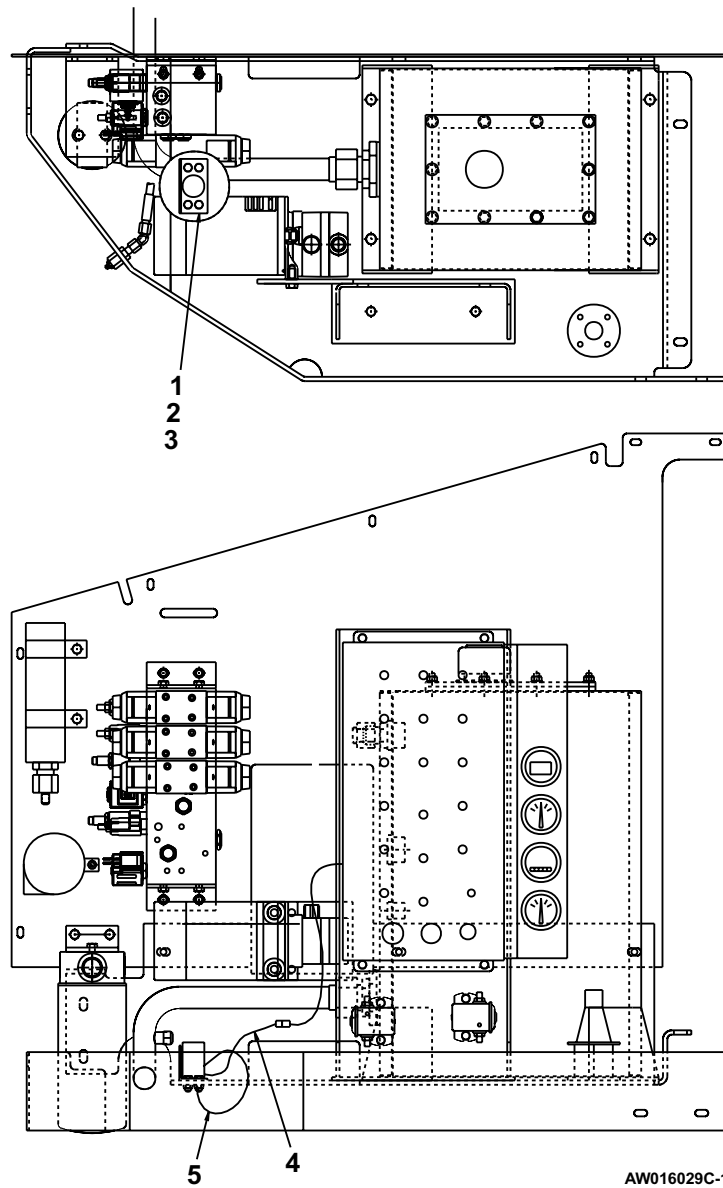


Kubota engine

AWM00260

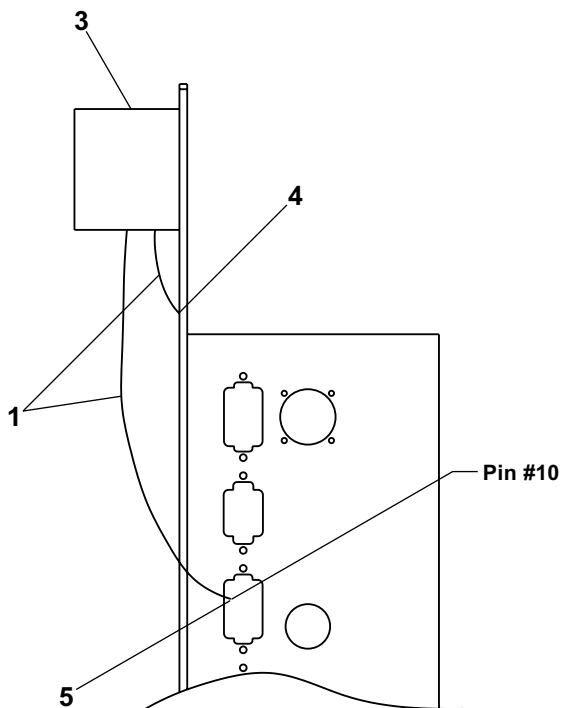
Motion alarm

item	part no	qty	description
1	3040593	1	Any function alarm or descent only alarm
2	5560648	4	Alarm
3	5560034	4	Machine screw #10-24 x 3/4 inch long truss head
4	0152536	1	Nut #10-24 self locking
5	0152537	1	Jumper wire
			Jumper wire

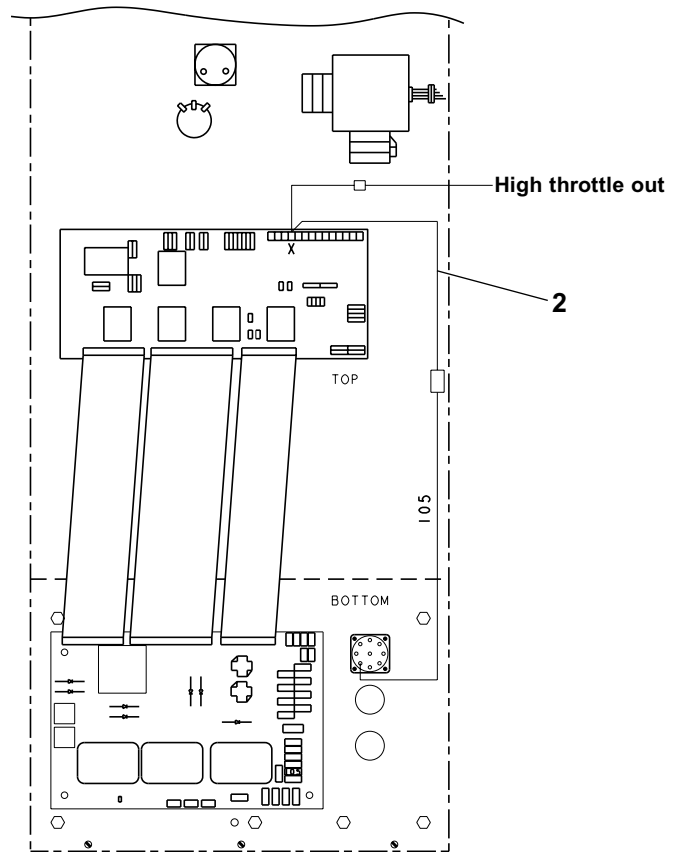


Motion alarm, drive

item	part no	qty	description
1	3011601	1	Wire 16 gauge single conductor x 30 inch long
2	0162305	1	Jumper wire, upper control box
3	3040593	1	Alarm
4	3044162	1	Terminal 1/4 ring tongue insulated 16/14 wire
5	3040342	1	Socket contact



Lower control box

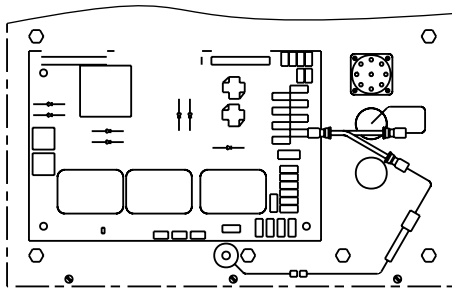


Upper control box

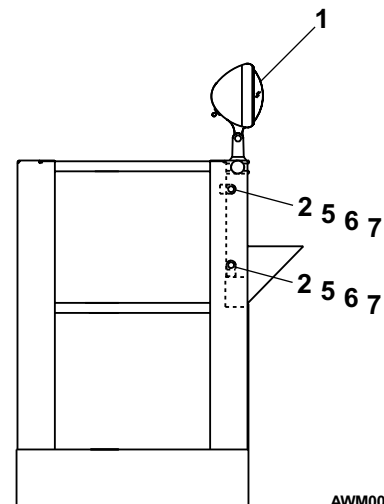
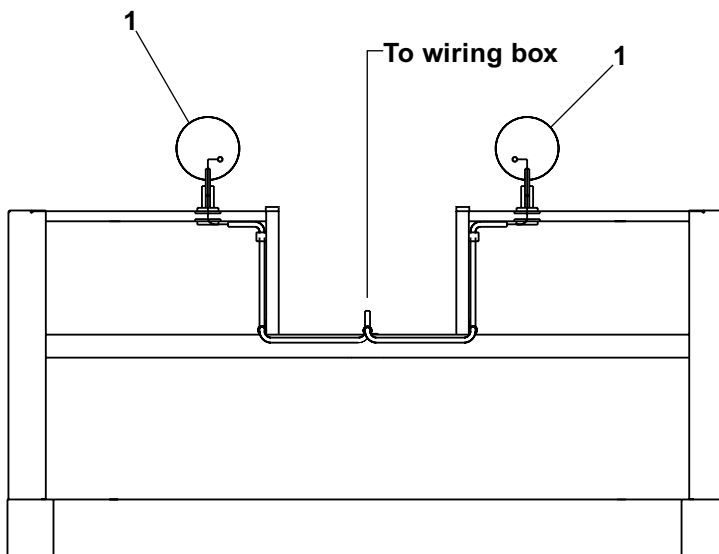
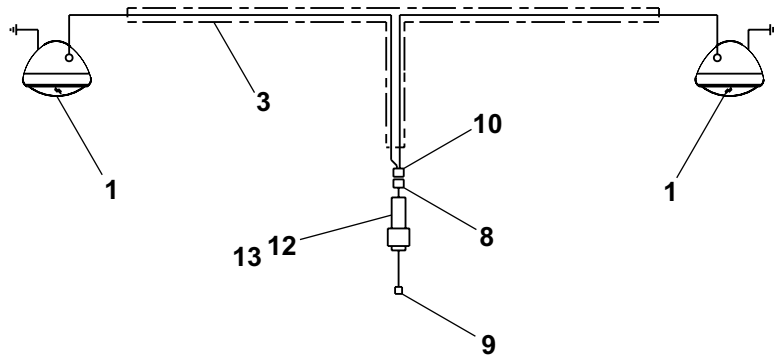
AW016029C-2

Platform lights

item	part no	qty	description
1	3064413	2	Light, incandescent with clamp bracket
2	5093019	5	Hose clamp
3	3090019	1	Flexgard tube
4	5569711	1	Grommet
5	970029	5	Capscrew 1/4-20 x 3/4 inch long hex head grade 5
6	987099	5	Washer 1/4 medium lock
7	986019	5	Washer 1/4 medium flat
8	3040082	1	Terminal .250 tab male fully insulated 16/14 wire
9	3040083	1	Terminal .250 tab female fully insulated 16/14 wire
10	3040065	1	Terminal .250 tab female slip-on fully insulated 12/10 wire
11	0162350	1	Wire harness, platform lights
12	3040038	1	Fuse holder, in-line
13	3040039	1	Fuse, 10 amp capacity



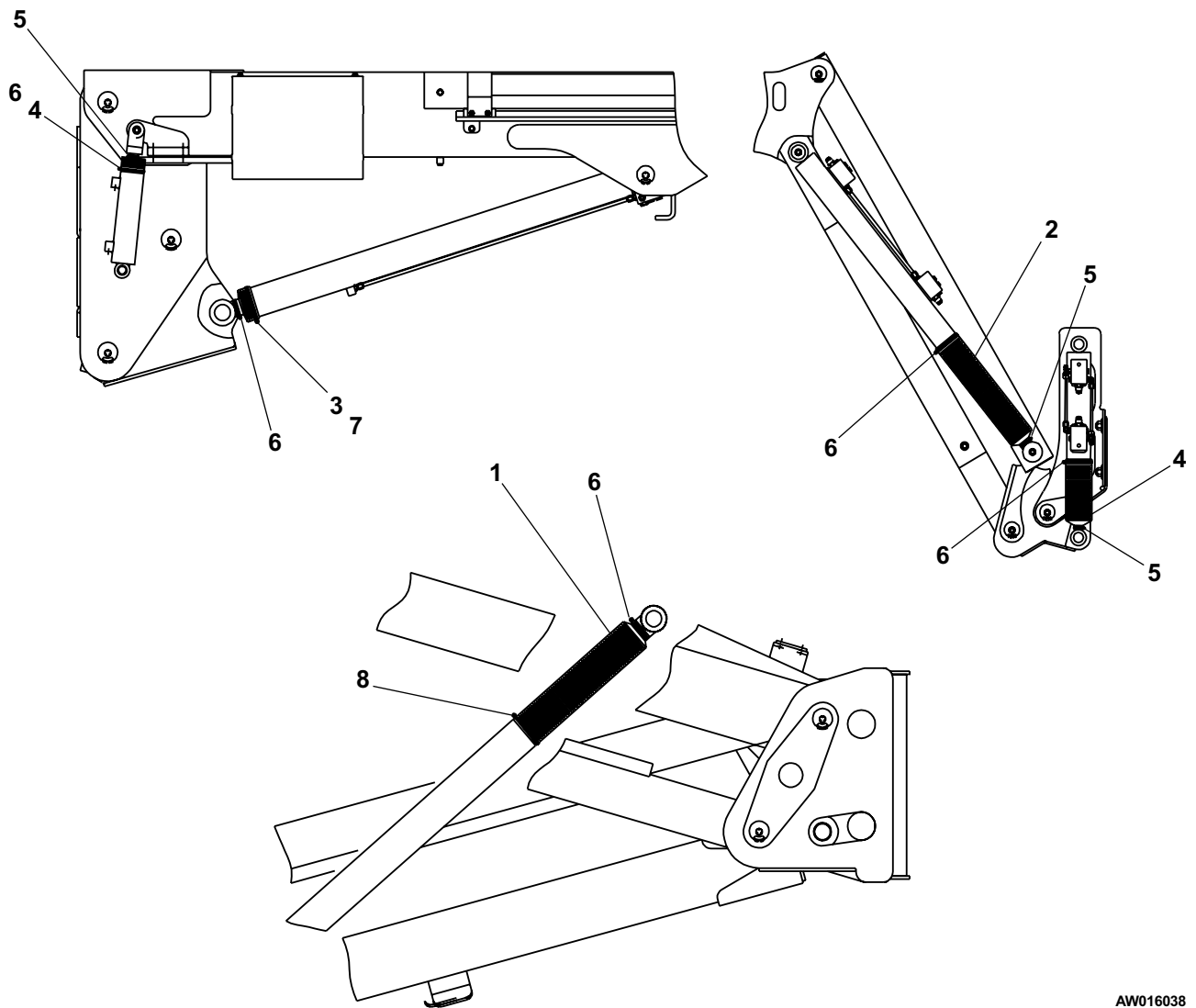
Wiring box



AWM00265

Sandblast kit

item	part no	qty	description
1	0161700	1	Bellows, riser cylinder
2	0161701	1	Bellows, jib cylinder
3	0161702	1	Bellows, lift cylinder
4	0161703	2	Bellows, level cylinder
5	5550020	3	Clamp
6	5550030	5	Clamp
7	5550050	1	Clamp
8	5550060	1	Clamp

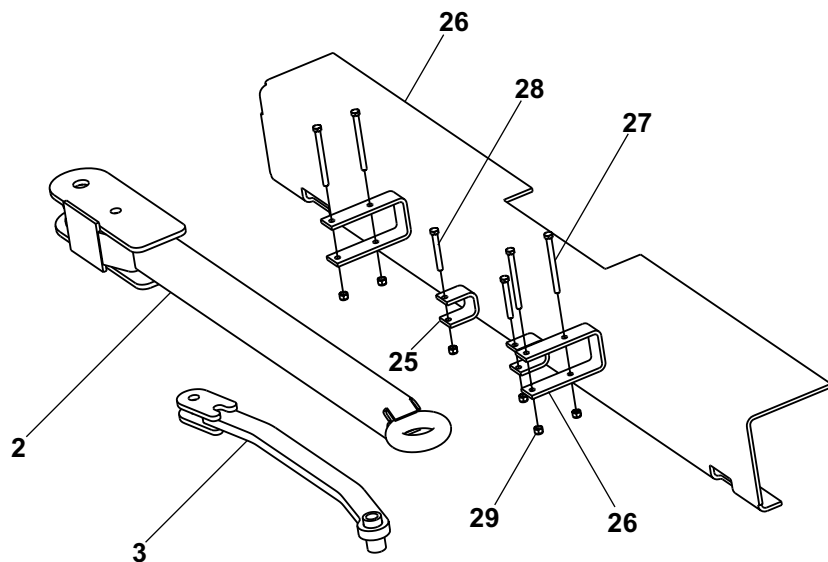


AW016038

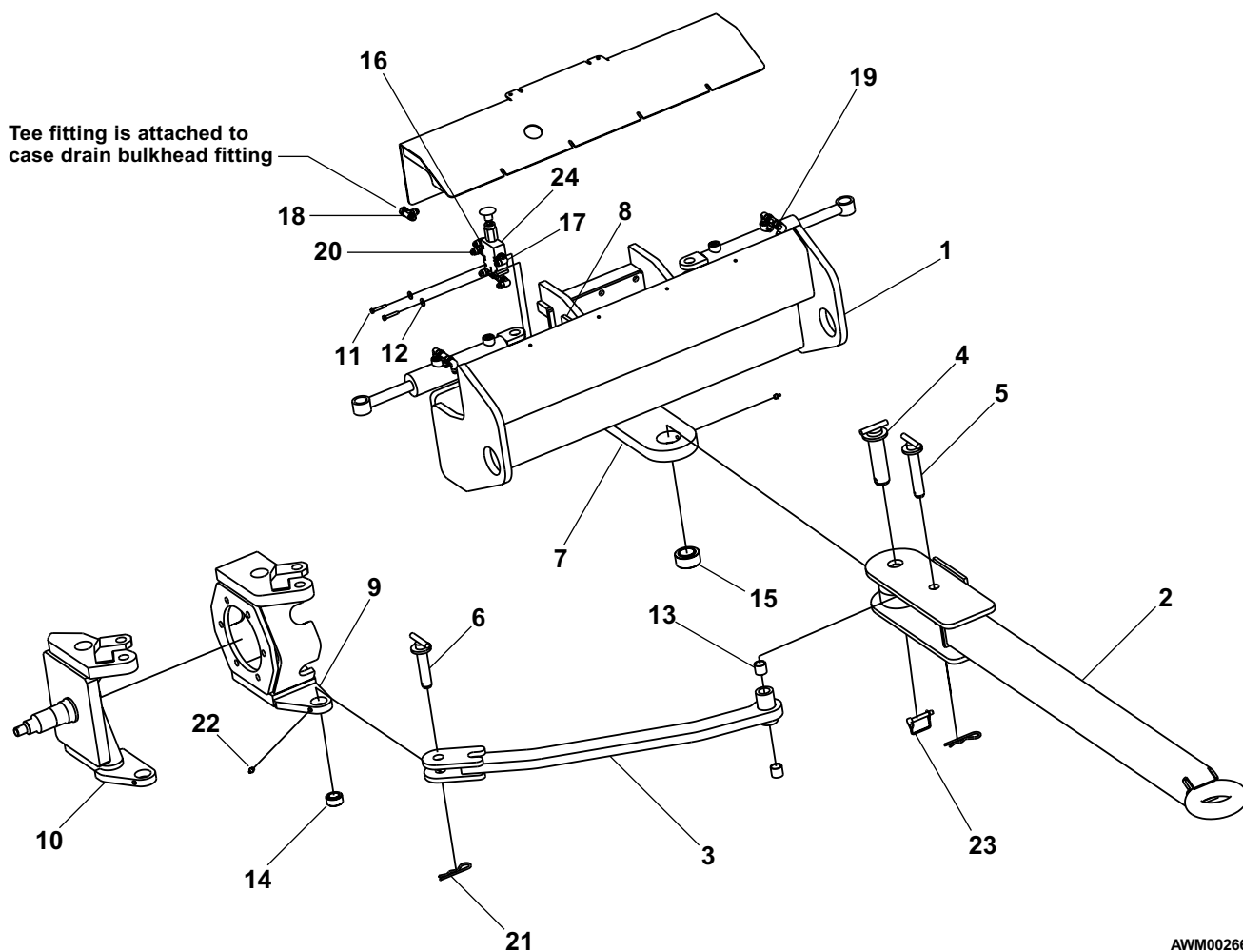
Tow package

item	part no	qty	description
1	0161768-99	1	Bumper
2	0161992-99	1	Tow bar
3	0161966	1	Tie bar
4	0161999	1	Pin, tow bar mount
5	0162001	1	Tie rod wheel end
6	0162003	1	Tie rod tow bar end
7	0162006	1	Tow bar tongue
8	0162447-99	1	Mount, float valve
9	0162454	1	Plate, drive yoke
10	0162455	1	Plate, steer yoke
11	970059	2	Capscrew 1/4-20 x 1-1/2 inch long hex head grade 5
12	986019	2	Washer 1/4 medium flat
13	2500060	2	Bearing
14	2690001	1	Bushing, 1 inch spherical plain
15	2690008	1	Bushing, 1-1/2 inch spherical plain
16	5035305	4	Straight thread 90° elbow
17	5036505	1	Straight thread branch tee
18	5036705	3	Swivel nut run tee
19	5037005	5	Swivel nut 90° elbow
20	5065707	1	Straight thread adapter
21	5561550	2	Hairpin clip pin
22	5570001	2	Grease fitting
23	5580002	1	Snapper pin
24	6010616	1	Float valve
25	0110836-99	2	Drag link storage cradle
26	0181678-99	2	Tow bar cradle
27	488276	4	Capscrew 1/2-13 x 6 inch long hex head grade 5
28	971009	2	Capscrew 1/2-13 x 4 inch long hex head grade 5
29	5560039	6	Nut 1/2-13 self locking

Tow package



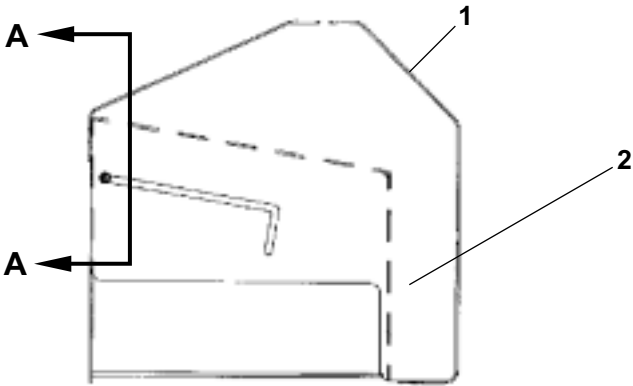
Tow bar cradle layout



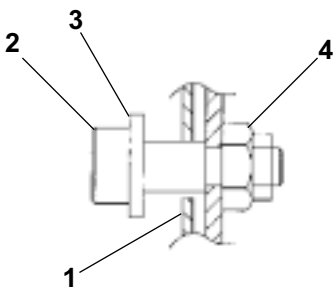
AWM00266

Upper control box cover

item	part no	qty	description
1	0162297-99	1	Cover, upper control box
2	5560304	4	Shoulder screw with locking pettet
3	5560629	2	Washer metric M6 flat
4	984049	4	Nut #10-24 hex



Upper controls box

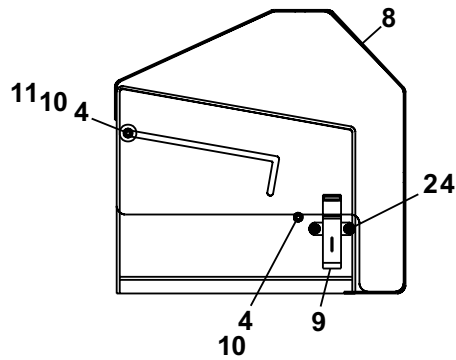


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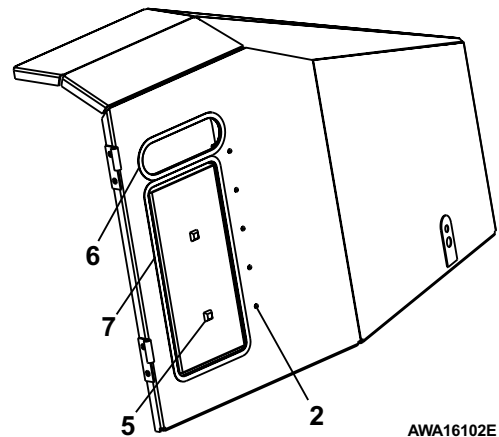
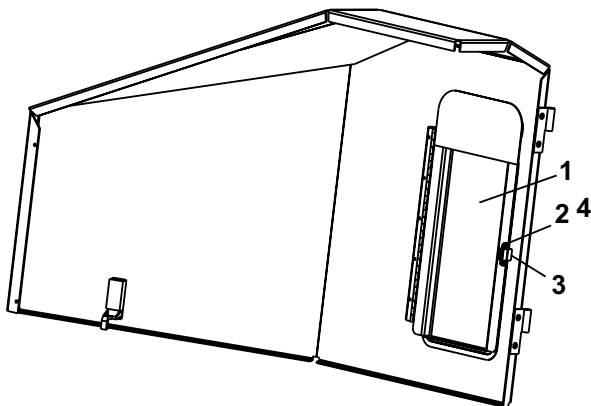
AW0160072

Vandalism protection

item	part no	qty	description
1	0162300-99	1	Cover, lower control box
2	974659	9	Machine screw #10-24 x 1/2 inch long round head
3	5516324	2	Pull to open catch
4	5560034	6	Nut #10-24 self locking
5	5560080	2	Bumper
6	25560083	1	Trim lock x 24 inch long
7	25560083	1	Trim lock x 72 inch long
8	0162297-99	1	Cover, upper control box
9	5510015	1	Tension latch
10	5560304	4	Shoulder screw with locking pettet
11	5560629	2	Washer metric M6 flat



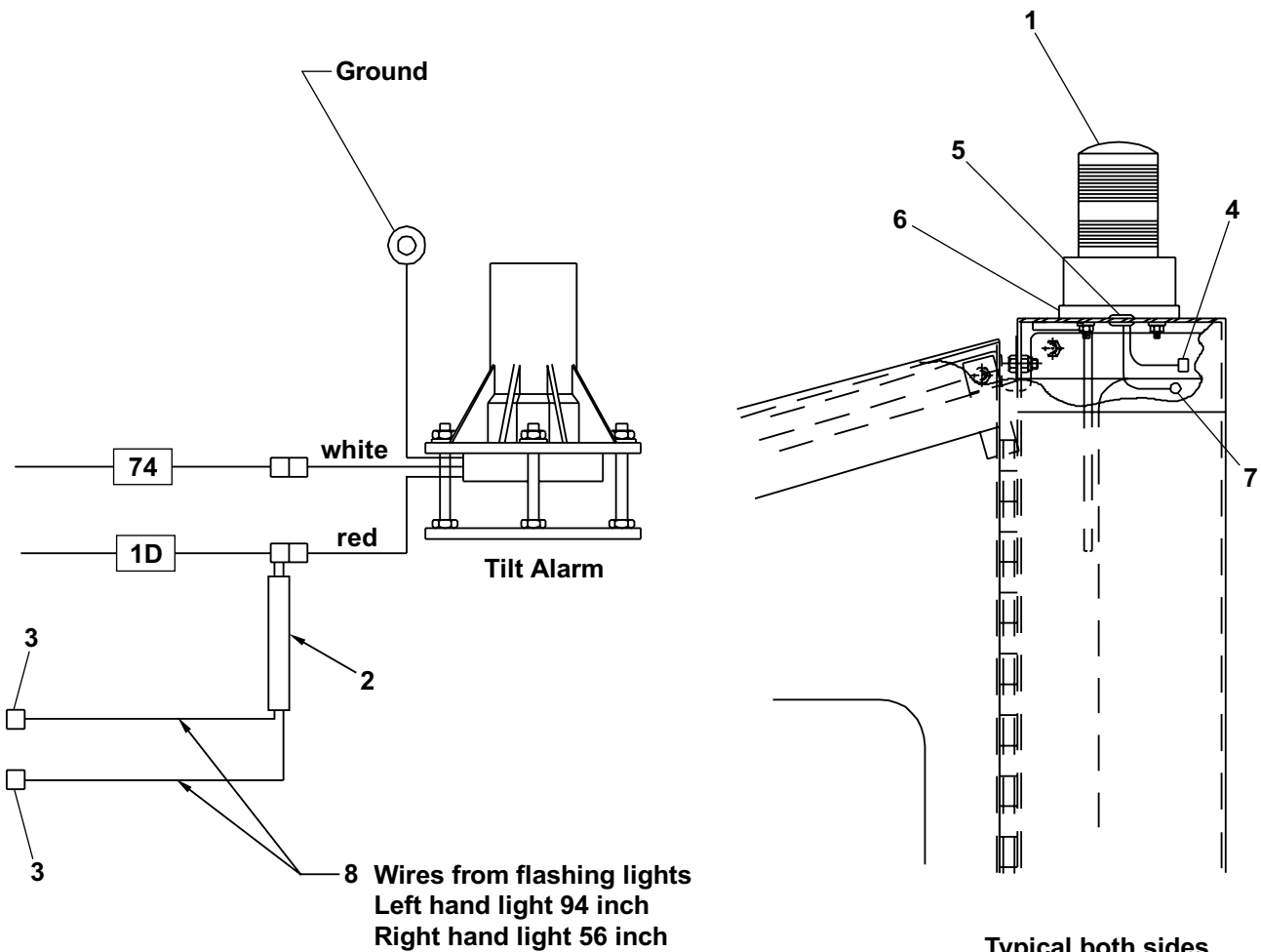
UPPER CONTROL BOX



AWA16102E

Warning lights

item	part no	qty	description
1	3060083	1	Warning light, amber lens
	3060084	1	Warning light, red lens
	8160047	1	Replacement bulb
2	3090019	1	Flexgard tube, 150 inch long
3	3040082	2	Terminal .250 tab male fully insulated 16/14 wire
4	3040083	2	Terminal .250 tab female fully insulated 16/14 wire
5	5569003	2	Grommet
6	3040113	2	Mounting base
7	3044164	2	Terminal #10 ring tongue insulated 16/14 wire
8	3011601	1	Wire 16 gauge single conductor x 150 inch long



AW016028

A

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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
Engine fuel level	Check fuel tank level (full)
Fuel tank cap	Visually inspect (installation, tightness)
Engine oil level	Check oil level (between dipstick lines)
Fuel leaks	Visually inspect (hoses, connections, etc.)
Engine coolant level	Check fluid level and radiator hoses
Wiring harnesses	Visually inspect (installation, condition)
Battery terminals	Visually inspect (no corrosion)
Battery fluid level	Check fluid level (1/4" or 6 mm below filler neck)
Hydraulic oil	Check fluid level (between lines on gauge)
Hydraulic oil leaks	Visually inspect (hoses, tubes)
Tires and wheels	Visually inspect (condition)
Bolts and fasteners	Visually inspect (looseness)
Structural damage and welds	Visually inspect (weld cracks, dents)
Lanyard anchor points	Visually inspect (condition)
Platform gate	Visually inspect (operation)
Platform guardrails	Visually inspect (condition)
Air filter	Check condition (gauge)
Charging system	Visually inspect (belt, gauge)
Control switches and alarms	Actuate and inspect (operation)
Level sensor	Check operation
Emergency power	Check operation (causes correct motion)
Slide pads	Visually inspect (boom wear marks)
Placards and decals	Visually inspect (installation, condition)
Optional items	Check operation

Maintenance schedules

90 day or 150 hour maintenance (trained service technician)

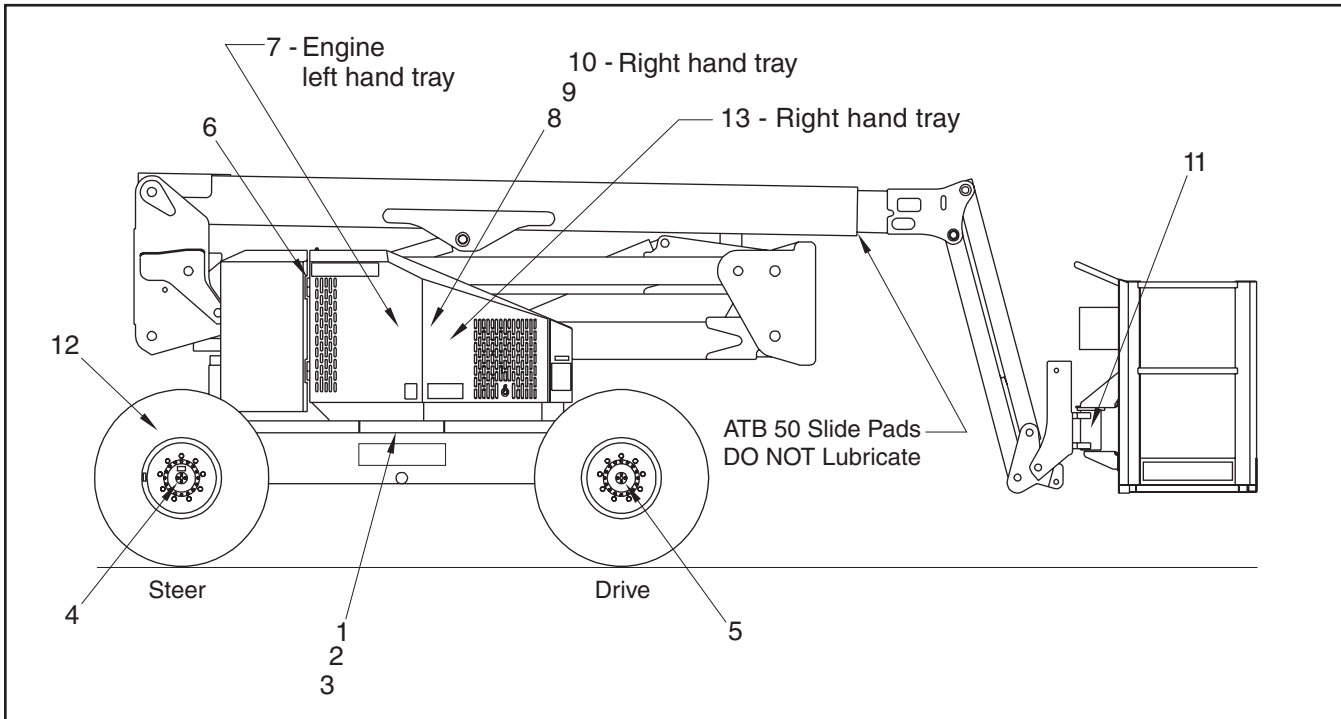
Components	Service Required	Recommended Lubricant or Further Instructions
Daily maintenance	Perform maintenance as per schedule	
Preventive inspection maintenance checklist	Perform inspection, complete form	Retain copy of checklist
Placards and decals inspection	Inspect using drawing and parts listing in section 1 (repair parts)	Replace any missing or unreadable decals/placards
Door hinges and latches	Lubricate	SAE 10W oil or spray lure
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
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	Check smooth operation	Repair or replace if not working properly
Platform controller	Check smooth operation & speeds	
Batteries	Check specific gravity	1.260/1.275 at 80° F.
Hydraulic return filter	Check condition	Replace if dirty
Engine RPM	Check for proper engine RPM	See engine manufactures owner's manual
Engine oil and filter	Replace per engine owners manual	
Engine fuel filter	Check condition	Replace every 6 months or if dirty

Yearly or 500 hour maintenance (trained service technician)

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

Service information

Lubrication illustration



The illustration locates the lubrication points of the AB50J.

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 front plate of the turntable.

Rotation gear teeth and pinion

Rotation gear teeth and pinion (item 2.): Gear teeth and gear box pinion should be lubricated with a spray-on type open gear lubricant.

Swing drive

Swing drive (item 3.): To check oil level:

1. Remove check plug located on the side of the gear box.
2. Unit is full if oil is level with bottom of fill hole or just starts to run out.
3. If low, fill until lubricant flows from port, reinstall plug.

Tie rods

Tie rods (item 4.): Lubricate at recommended interval using lubricant as outlined in the maintenance schedule.

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.

Door hinges and latches

Door Hinges and Latches (item 6.): Lubricate at recommended interval using specific lubricants as outlined in the maintenance schedule.

After lubricating, remove any excess oil or over spray so it will not collect dirt and debris.

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.

Hydraulic oil reservoir

Hydraulic oil reservoir (item 8.): The fluid level should be kept between the low and full marks on the sight gauge indicator and should be checked with all cylinders fully retracted and the platform in stowed position.

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

Any time the hydraulic oil is changed or added, it is absolutely necessary that only clean hydraulic oil is used.

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.

Return filter

Return filter (item 9.): On AB50J models, the hydraulic oil return filter is mounted in the right hand tray assembly close to the hydraulic oil reservoir.

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

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 is equipped with a hydraulic pressure gauge to indicate the filter element condition.

A by-pass relief within the filter base is provided and is set to by-pass at 25 PSI. If pressure readings are above 25 PSI, the filter should be changed.

The filter condition indicator is accurate only when the machine is running at maximum RPM and the pump is discharging maximum flow, which occurs only during full speed driving.

This requires that the indicator be observed while the unit is in motion, booms fully retracted and in stowed position, drive range switch in "LO" position, and drive controller fully forward. Oil temperature should be at least 70 degrees.

▲CAUTION

Use extreme caution while observing the condition indicator because of the motion of the drive wheels. The condition indicator is best observed from outside the track of the vehicle wheels to avoid a possible unsafe condition.

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

Suction filter

Suction filter (item 10.): A 100 mesh suction filter is located within the hydraulic oil reservoir and filters the pump suction flow.

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

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

Platform rotator

Platform rotator (item 11.): The platform rotator required lubrication only if disassembled for repairs.

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

Emergency power battery

Emergency power battery (item 12.): The AB50J is equipped with a 12 volt battery for use in an emergency situation if the main battery power should fail.

This battery should be maintained as outlined in the Batteries section that follows.

Batteries

Batteries (item 13.): 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 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.

Lead-acid batteries produce flammable and explosive gases. **NEVER** allow smoking, flames or sparks around batteries.

90 day or 150 hour checklist

Serial Number[illegible][illegible]





Check	OK	✓	X
Platform Control Station (Continued)			
Emergency power, all functions (4)			
Emergency stop (4)			
Gradual start to stop, drive/steer controls (4)			
Drive speed limit switch, boom lift (4)			
Drive speed limit switch, boom extend (4)			
110 volt AC power to platform (2,4)			
Boom extension IN - OUT (4)			
Platform leveling UP - DOWN (4)			
Platform rotation (4)			
Drive range HIGH - MID - LOW - booms stowed (4)			
Drive speed SLOW - boom raised (4)			
Optional Equipment			
Air line to platform (2,4)			
Dual fuel system (2,4)			
Horn (2,4)			
All motion warning alarm (2,4)			
Operation warning light (2,4,6)			
Optional platform (2,4,6)			
Platform work lights (2,4)			
Sandblast protection (2,4)			
110 volt AC hydraulic generator (2,4)			
LP gas system (4)			
Vandalism protection (2,4)			
Engine shutdown, low oil pressure (2,4)			
Descent alarm (2,4)			
Extra battery (2,4)			
Travel alarm (2,4)			
Sound suppression (2,4)			
Platform swinging gate (2,4)			

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

All items have been properly checked and tested and found to be operating satisfactory or necessary corrective action has been completed.

AB50J – revised December 2001

Capscrew torque chart

GRADE BOLT	SAE GRADE 1 OR 2	SAE GRADE 5	SAE GRADE 6	SAE GRADE 8
MARKING				
DEFINITION	INDETERMINATE QUALITY	MINIMUM COMMERCIAL QUALITY	MEDIUM COMMERCIAL QUALITY	BEST COMMERCIAL QUALITY
MATERIAL	LOW CARBON STEEL	MEDIUM CARBON STEEL TEMPERED	MEDIUM CARBON STEEL Q & T	MED. CARBON ALLOY STEEL Q & T
MIN. TENSILE STRENGTH	64,000 P.S.I.	105,000 P.S.I.	133,000 P.S.I.	150,000 P.S.I.
BOLT SIZE	RECOMMENDED TORQUE VALUES (FT. LBS)			
1/4	5	7	10	10.5
5/16	9	14	19	22
3/8	15	25	34	37
7/16	24	40	55	60
1/2	37	60	85	92
9/16	53	88	120	132
5/8	74	120	167	180
3/4	120	200	280	296
7/8	190	302	440	473
1	282	466	660	714

The following rules apply to the chart

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

F

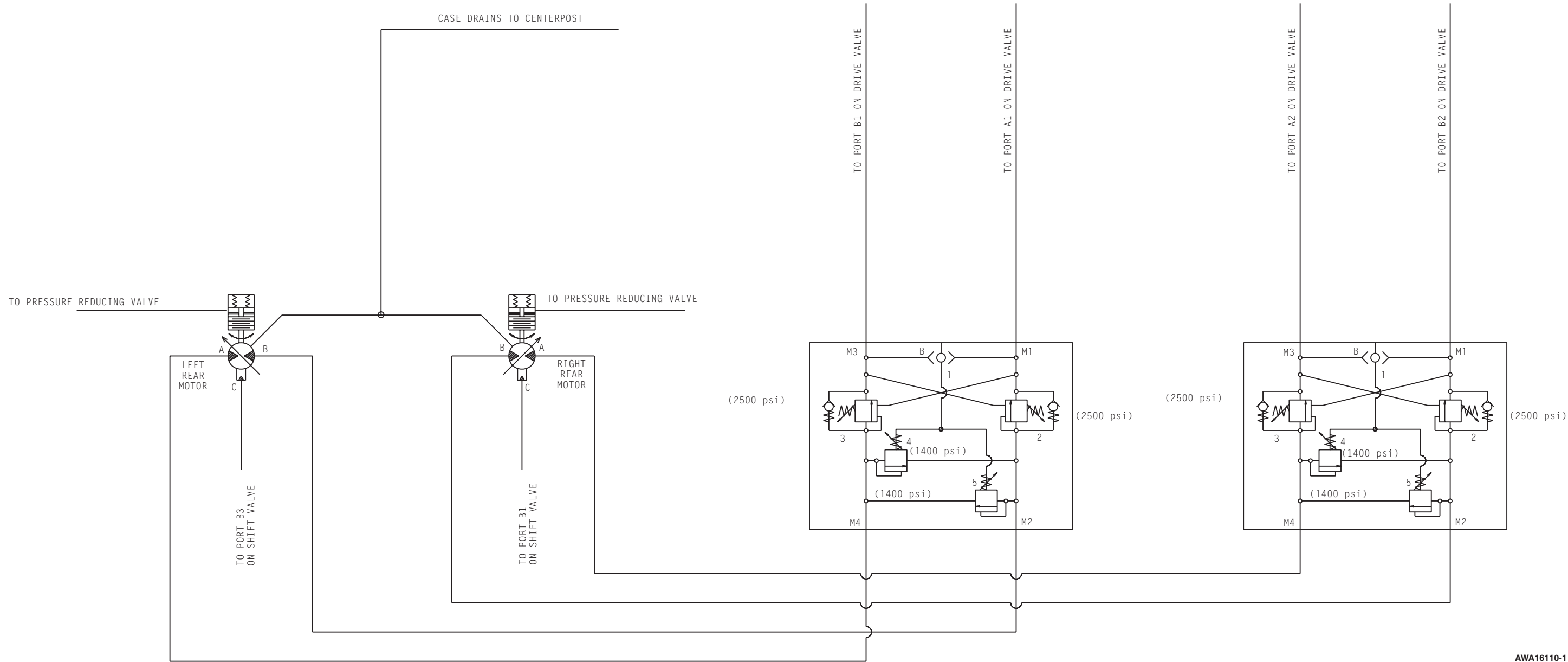
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D

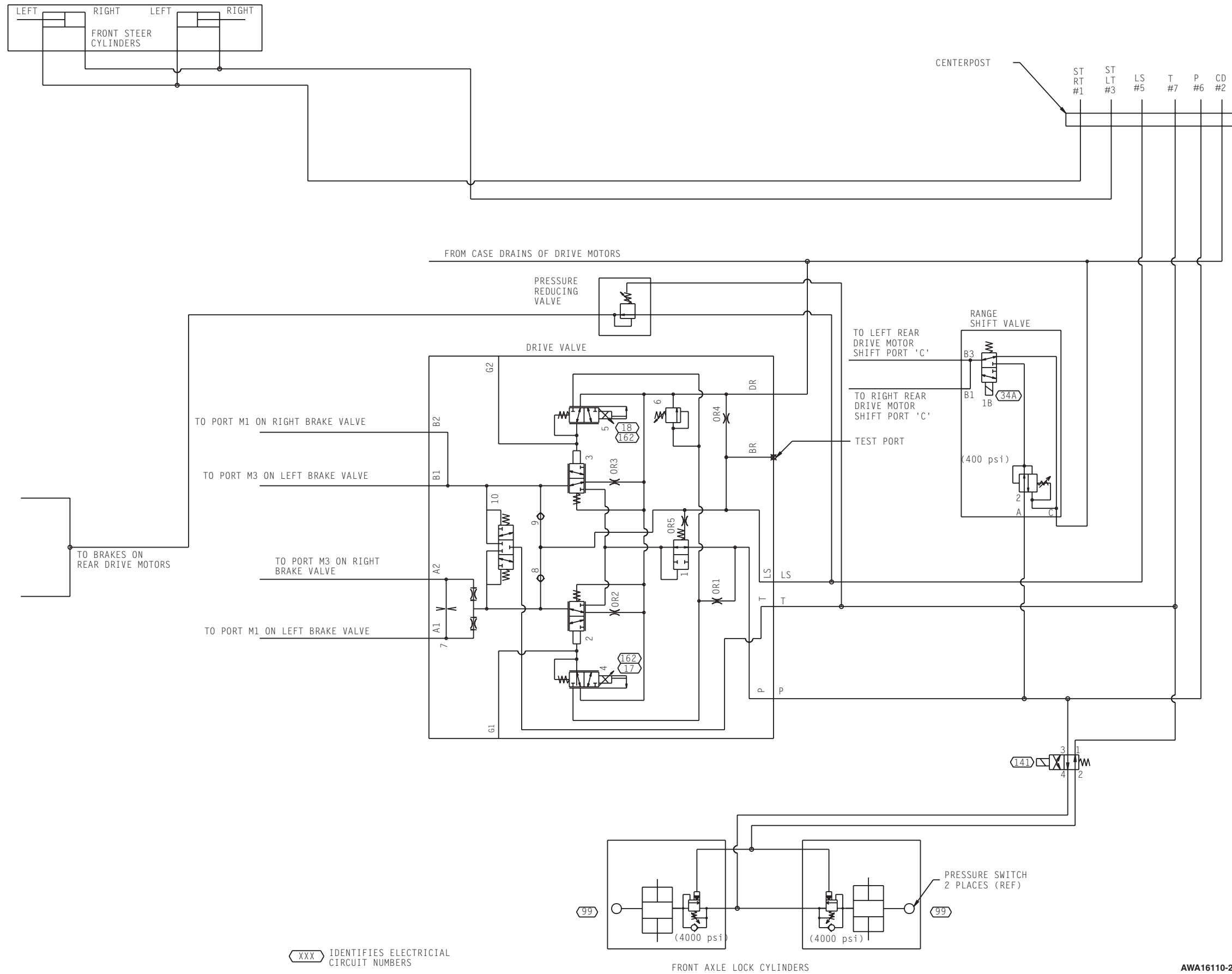
C

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AWA16110-1



AWA16110-2

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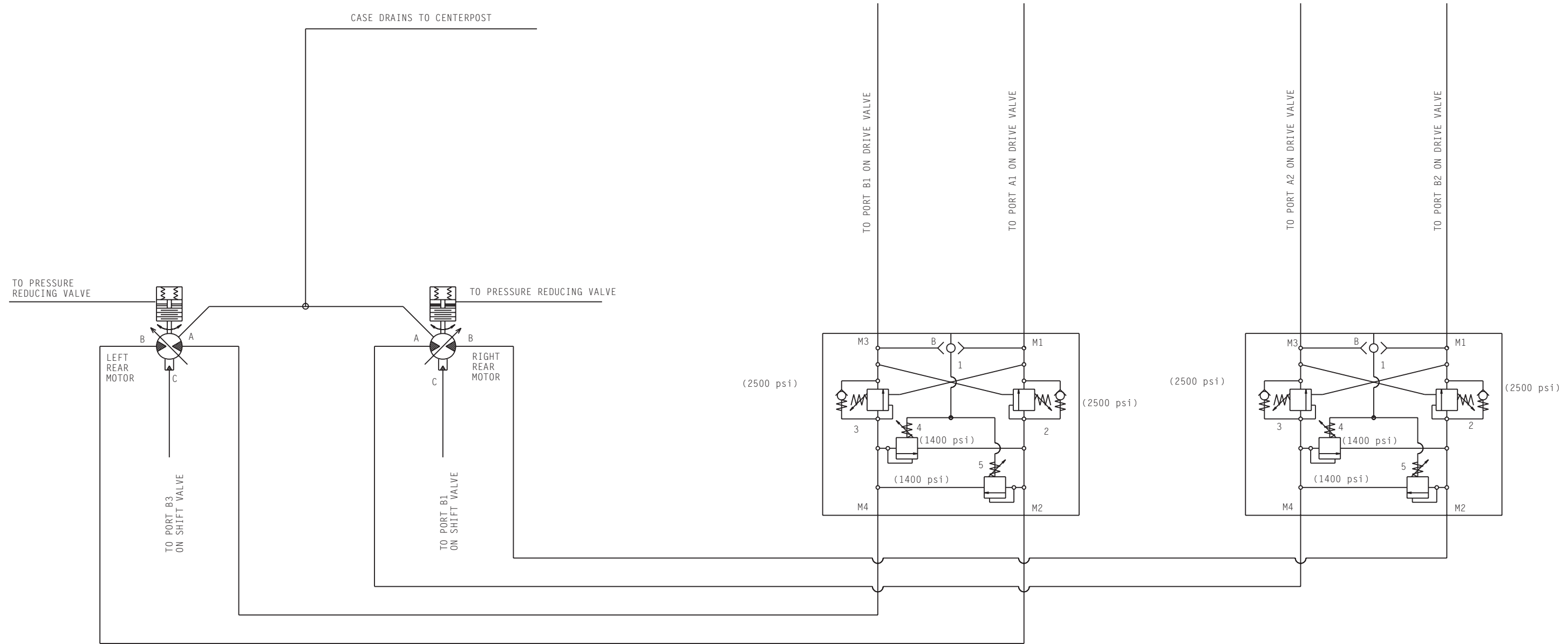
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XXX IDENTIFIES ELECTRICAL
CIRCUIT NUMBERS

AWA16109C-1

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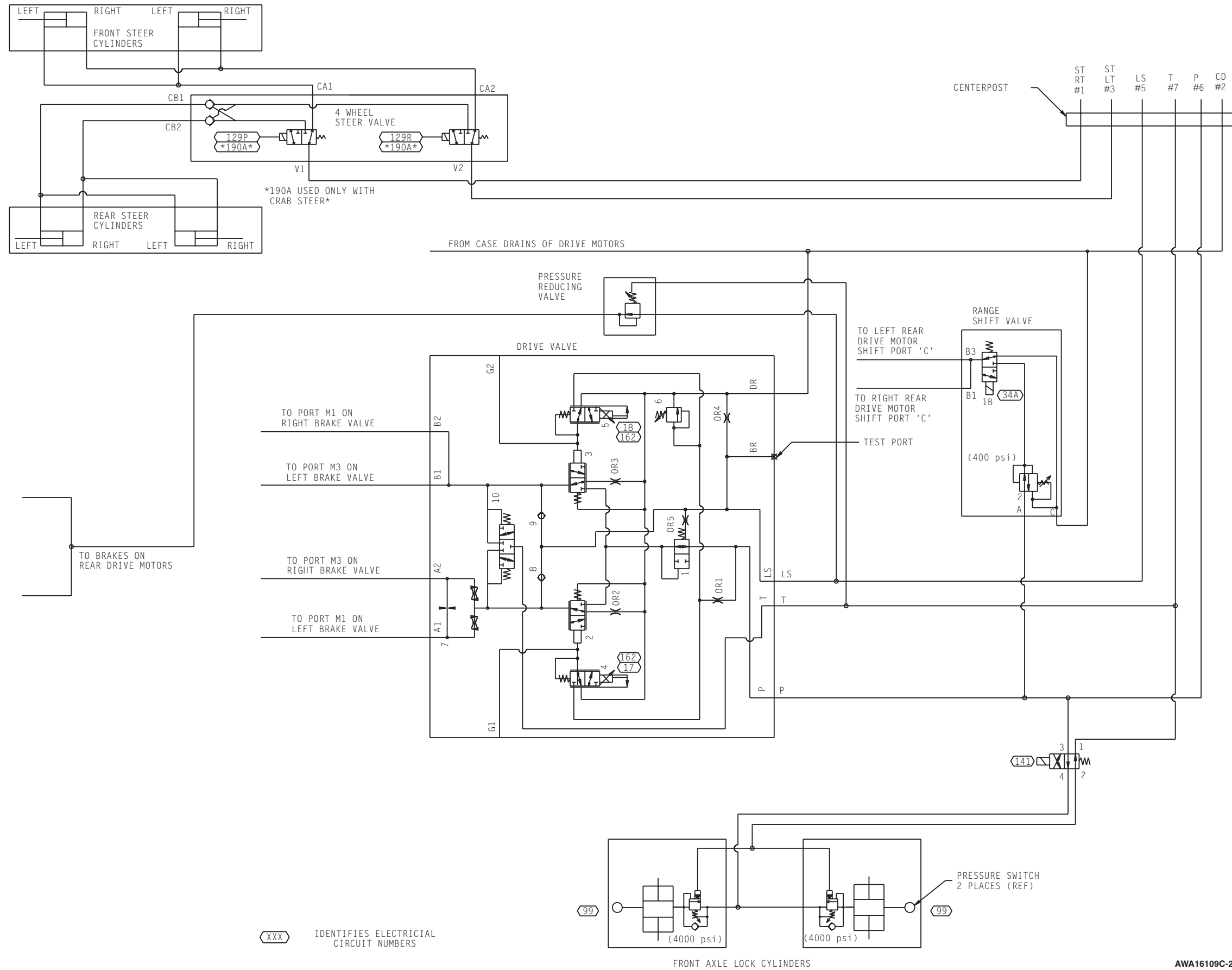
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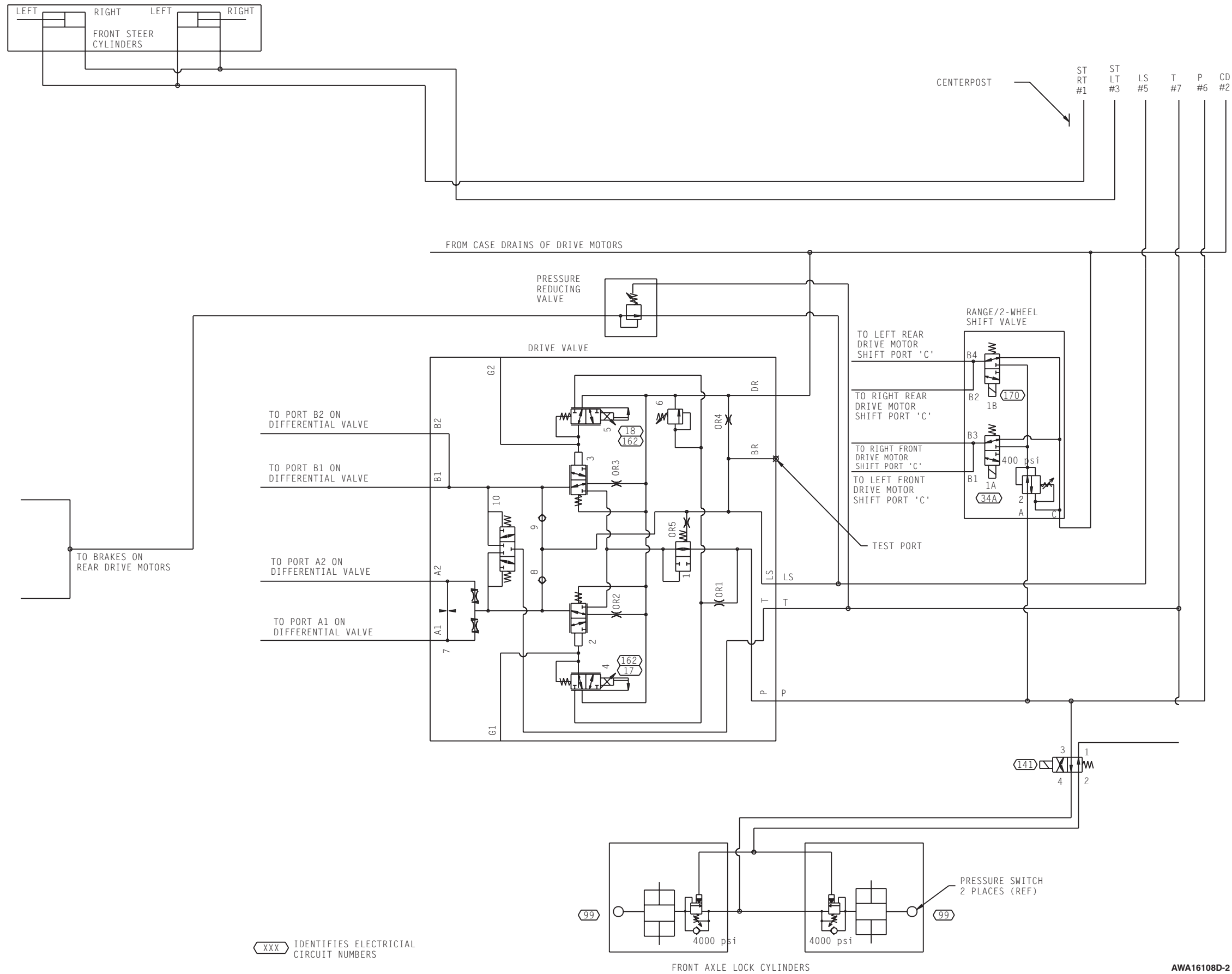
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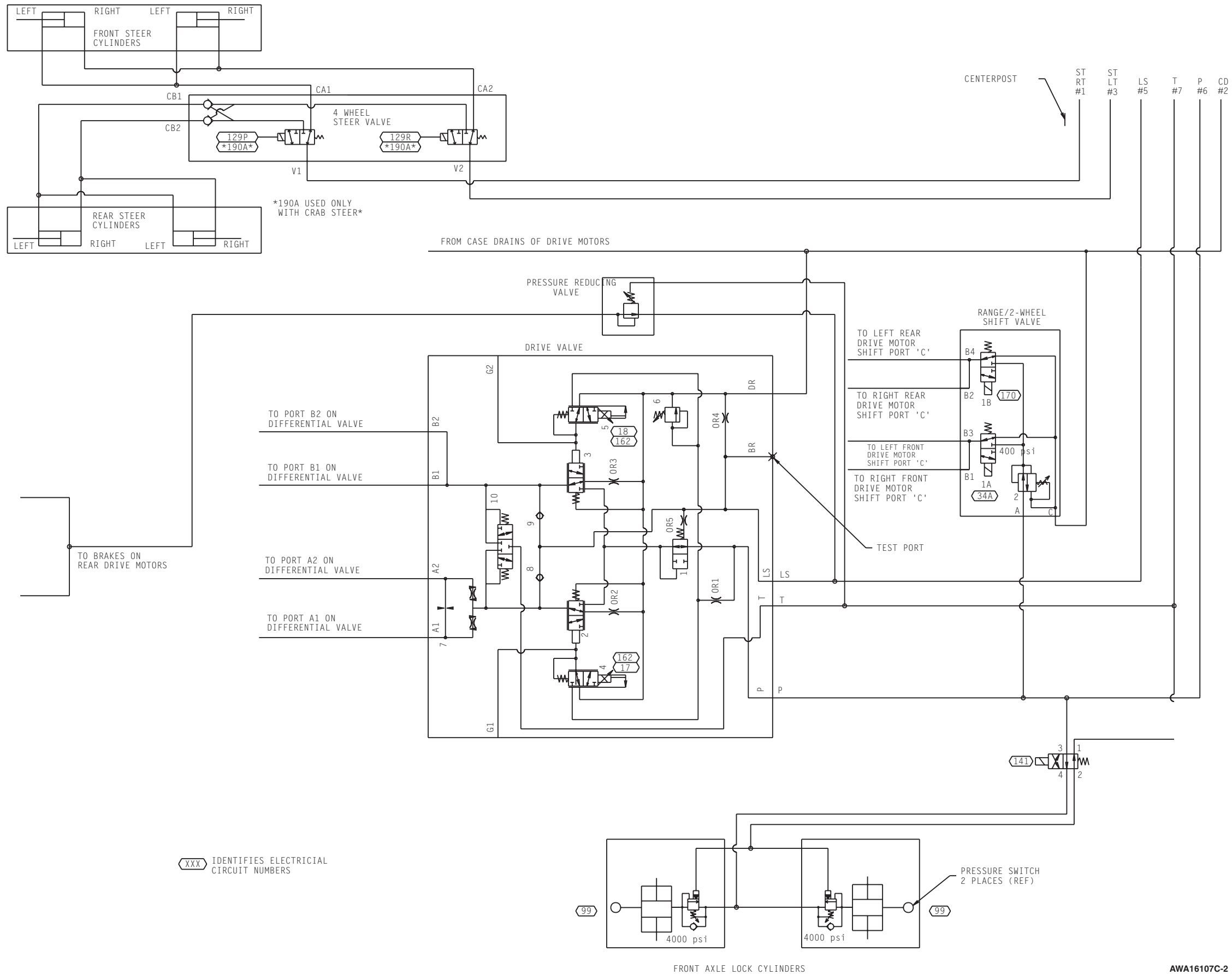


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AWA16108D-2



AWA16107C-2

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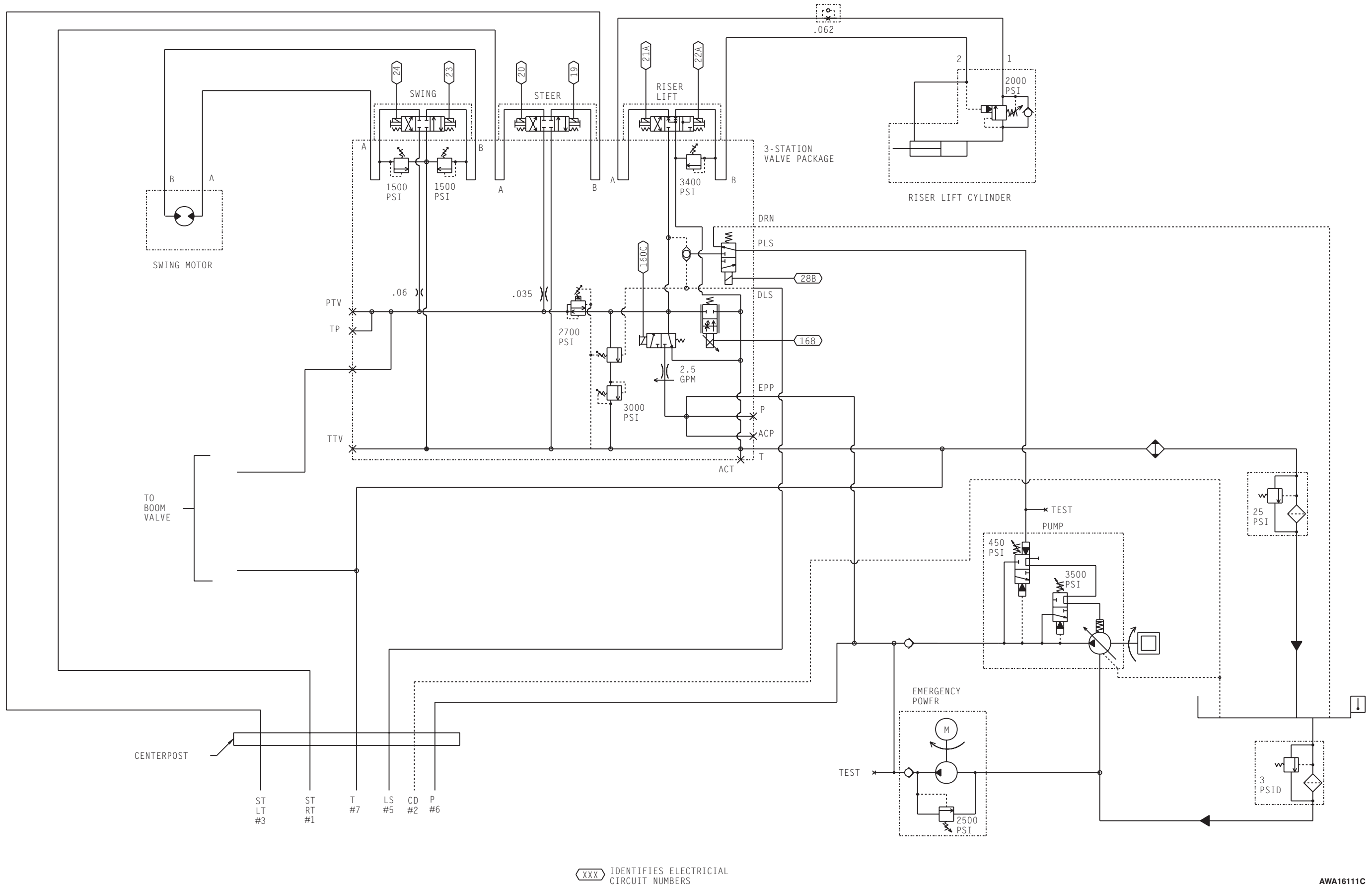
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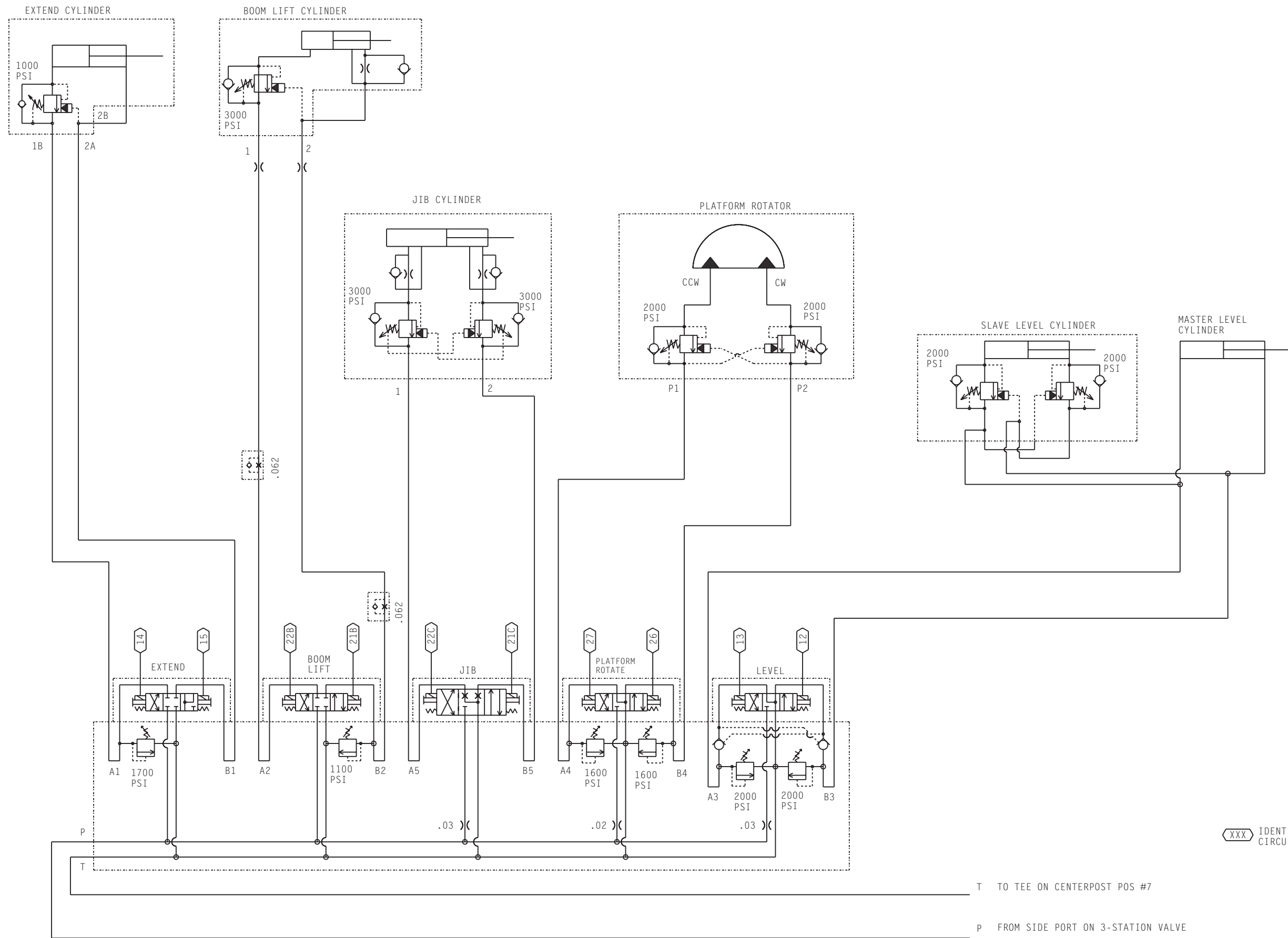
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XXX IDENTIFIES ELECTRICAL
CIRCUIT NUMBERS

T TO TEE ON CENTERPOST POS #7

P FROM SIDE PORT ON 3-STATION VALVE

AWA16112C

F

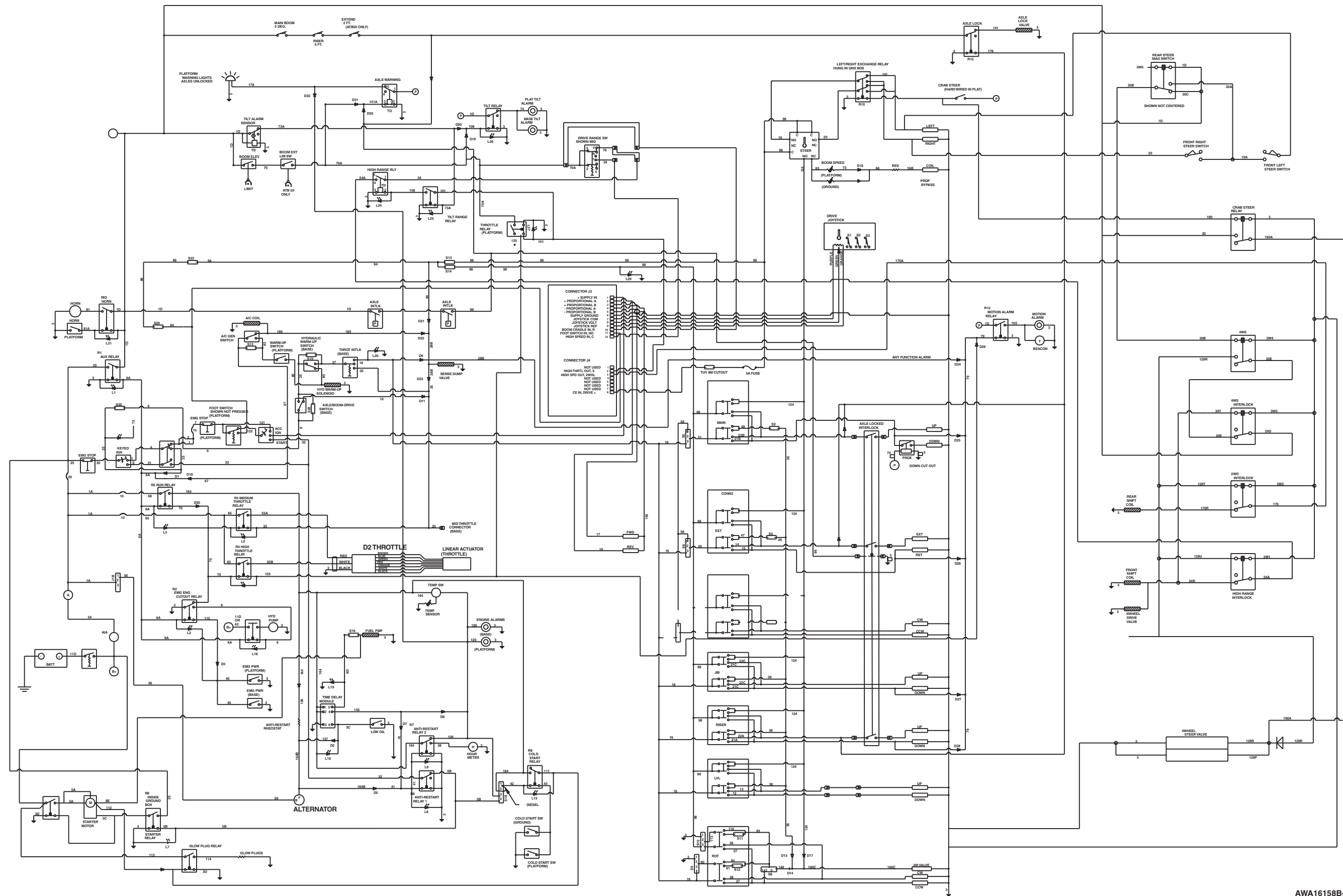
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AWA16158B-1

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Lokaler Vertriebshändler:

Distributeur local:

El Distribuidor local:

Il Distributore locale:

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