

**660SJ OSCILLATING AXLE
PARTS MANUAL S/N 000003
THROUGH 000017**

660SJ-11-000003 - 660SJ-11-000017

snorkel

660SJ



CE

REPAIR PARTS **MANUAL**

Part Number 1432068
February 2017

Serial numbers 000003 through 000017

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DANGER

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

Do not go closer than 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 platform, boom structure, or any part of the aerial platform contacts a high-voltage electrical conductor, the entire machine can become electrically charged.

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

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

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

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

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

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

California

Proposition 65 Warning

Battery posts, terminals and related accessories contain lead and lead components, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

California

Proposition 65 Warning

Diesel and gasoline engine exhaust and some of its constituents are known by the State of California to cause cancer, birth defects or other reproductive harm.

General Information

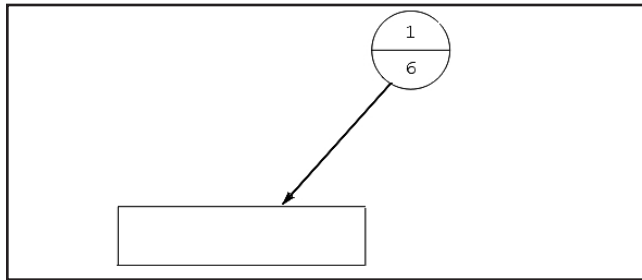
About This Manual

This manual covers 660SJ aerial platforms. Information is included for machines that have been manufactured to conform to all applicable requirements of the following organizations:

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

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

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



While 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.

This machine is covered by a limited warranty that specifically identifies items warrantied by Snorkel and those items covered by original manufacturer's warranty. A copy of the Snorkel Limited Warranty is located on the inside of the back cover of this manual.

Repairs and Maintenance

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

Caution

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

Abbreviations

The following abbreviations may be used in this manual.

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

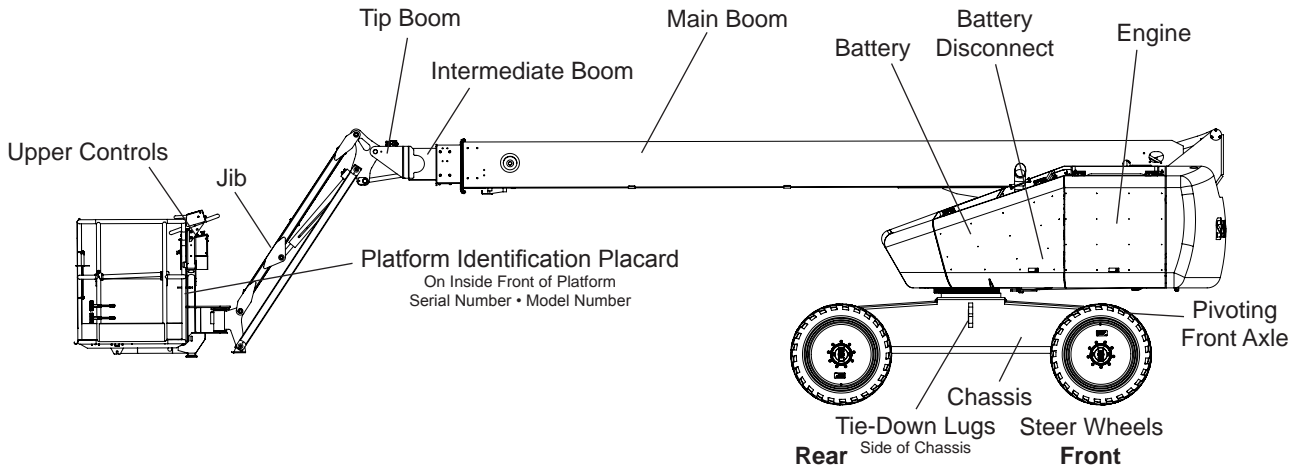
Additional Information

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

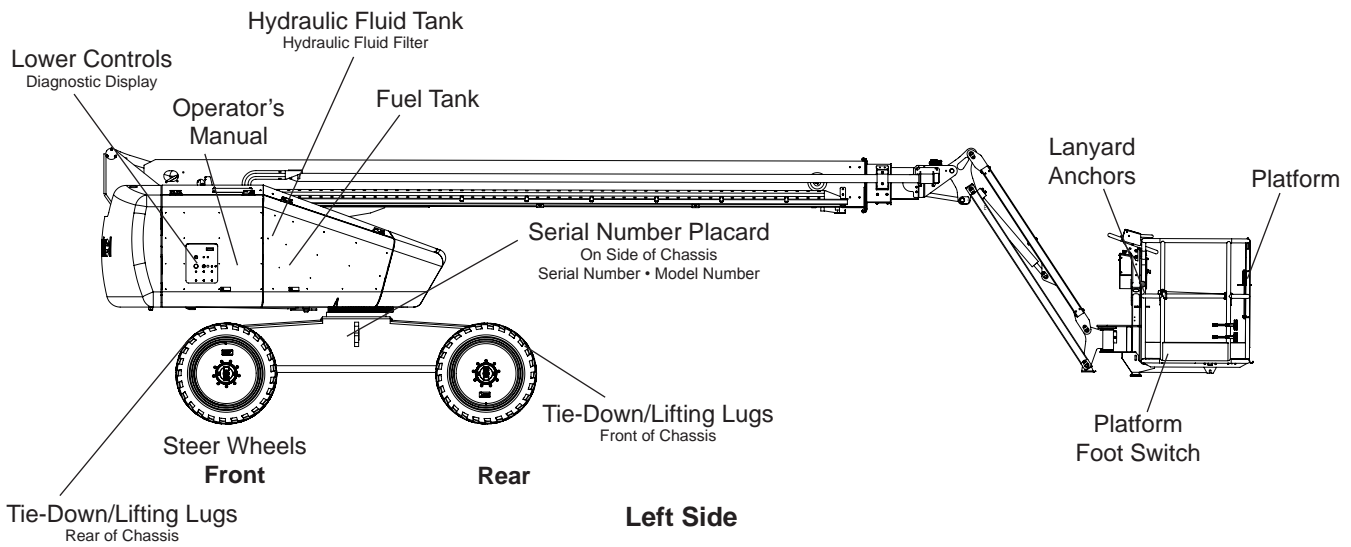
Snorkel International, Inc.
P.O. Box 1160
St. Joseph, MO 64502-1160 USA
Phone: 1-800-255-0317

<http://www.snorkellifts.com>

Component Identification



Right Side



Left Side

Service and Parts Information

Ordering Parts

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

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

Parts orders may be mailed or faxed to the attention of the Parts Department at the following location:

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

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

Attention: Parts Department

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

<http://www.snorkelusa.com>

ANSI and OSHA Compliance

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

ANSI publications clearly identify the responsibilities of all personnel who may be involved with the aerial platform. A reprint of the "Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors and Lessees of ANSI/SIA A92.5-2006 Boom-Supported Elevating Work Platforms" is available from Snorkel dealers or from the factory upon request.

Copies are also available from:

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

Manuals

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

The specific manuals for 660SJ aerial platforms are as follows:

660SJ – Operator's Manual ANSI
Snorkel part number – 1430571

660SJ – Operator's Manual CE
Snorkel part number – 1430692

660SJ – Repair Parts Manual
Snorkel part number – 1432068

ANSI Manual of Responsibilities
ANSI/SIA A92.5-2006
Snorkel part number – 0084053

Machine Information

Model Number: _____

Serial Number: _____

Date of Purchase: _____

Purchased From: _____

Snorkel Dealer or Distributor: _____

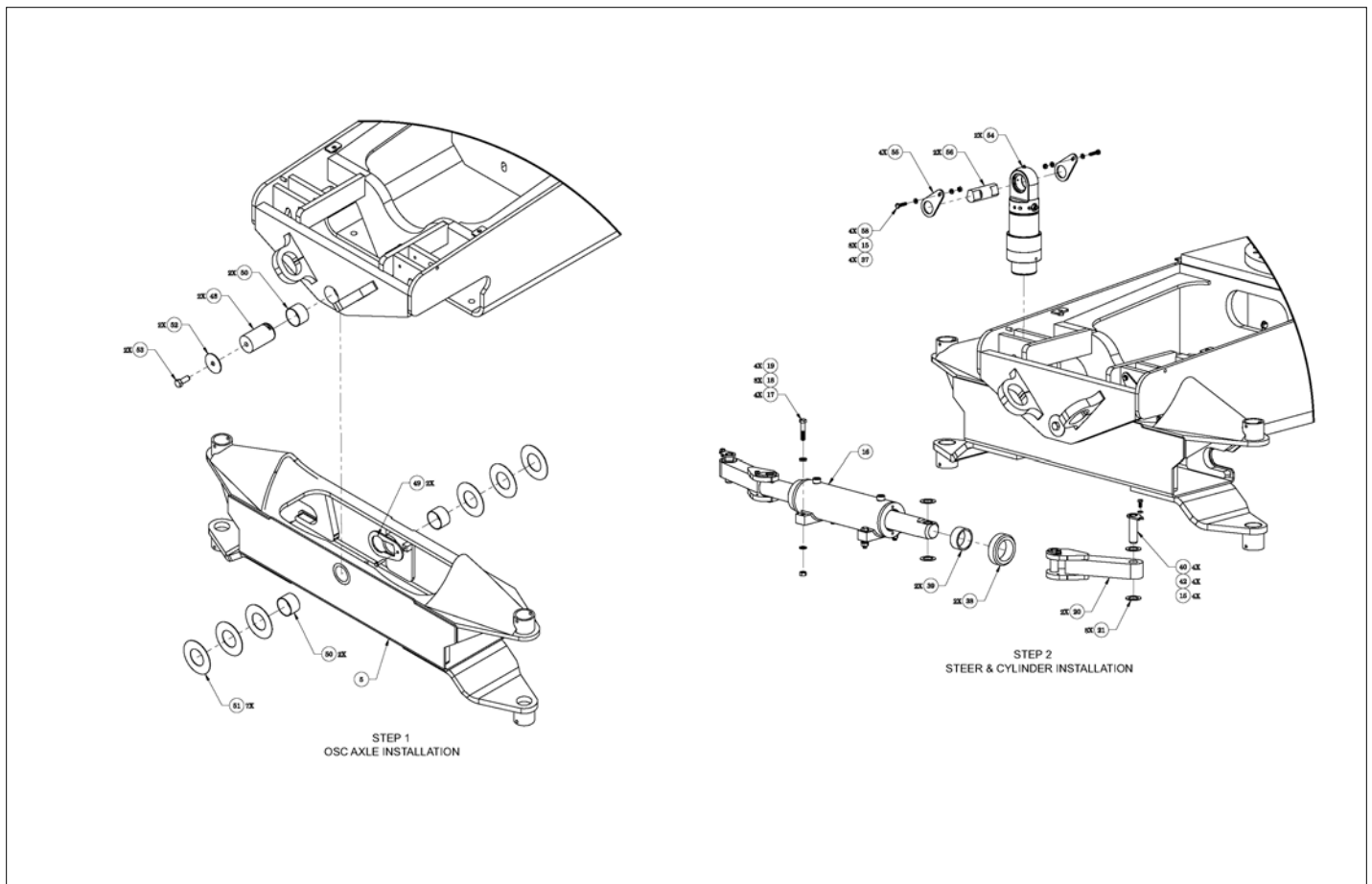
REPAIR PARTS

STEP 3

1 PER EA. UPPER & LOWER PIVOT
1 PER EA. UPPER & LOWER PIVOT

1 DIMENSIONS ARE SHOWN IN INCHES (MILLIMETERS)
WEIGHTS SHOWN IN KILOGRAMS
NOTE: UNLESS OTHERWISE SPECIFIED

ITEM NO.	PART NO.	DESCRIPTION	QTY	SERIAL NUMBER	CHASSIS
1	1431023	WELDMENT, CHASSIS 12" OSC	REF	000011-000003	000011-000003
				000011-000004	000011-000004
	1431736	WELDMENT, CHASSIS 34" OSC		000011-000003	000011-000003
				000011-000004	000011-000004
2	1431180	COVER, TOP CHASSIS 12" OSC		000011-000003	000011-000003
				000011-000004	000011-000004
	1431736	COVER, TOP CHASSIS 34" OSC		000011-000003	000011-000003
				000011-000004	000011-000004
3	1431021	ASSEMBLY, REAR COVER 12" OSC	1	000011-000003	000011-000003
				000011-000004	000011-000004
	1431021	ASSEMBLY, REAR COVER 34" OSC	1	000011-000003	000011-000003
				000011-000004	000011-000004
4		ASSEMBLY, FRONT COVER 12" OSC	1	000011-000003	000011-000003
				000011-000004	000011-000004
		ASSEMBLY, FRONT COVER 34" OSC		000011-000003	000011-000003

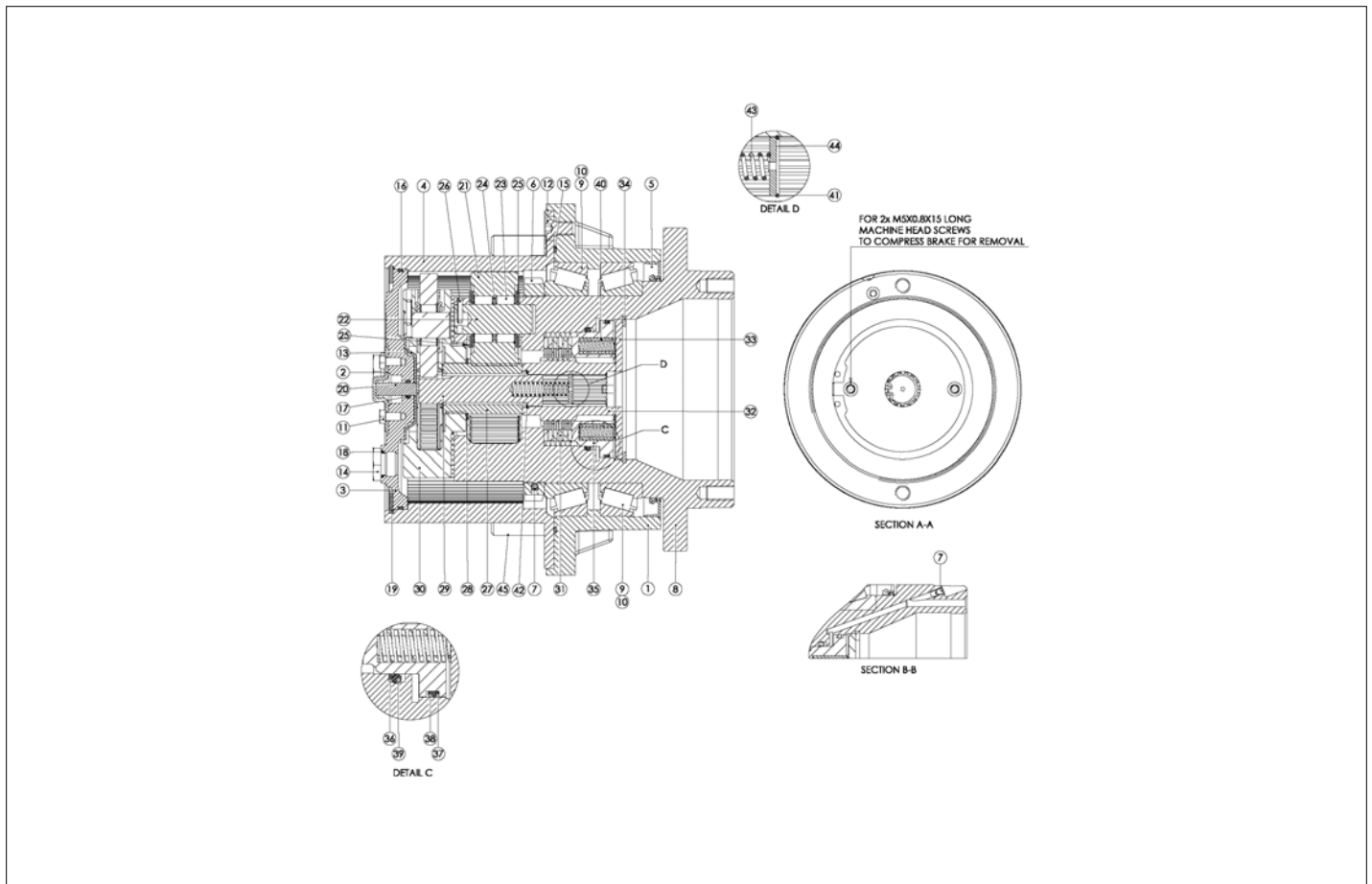


アイテム	部品番号	名前	数量	UOM
Not Shown	1431735 D	CHASSIS ASSEMBLY		EA
1	SEE CHART	JIB BOOM ASSEMBLY		EA
2	SEE CHART	JIB BOOM ASSEMBLY		EA
3	SEE CHART	JIB BOOM ASSEMBLY		EA
4	SEE CHART	JIB BOOM ASSEMBLY		EA
5	1432114	OSCILLATING AXLE WELDMENT	1	EA
6	1431685	MOUNT, TRACTION MANIFOLD	1	EA
7	1431687	CS 3/16 GR50	4	EA
8	106717 001	WHEEL & TIRE ASSEMBLY RH foam FILLED – ansi OPTION/CE STANDARD	2	EA
9	106718 001	WHEEL & TIRE ASSEMBLY LH FOAM FILLED – ansi OPTION/CE STANDARD	2	EA
10	1432102	ASSEMBLY, HYDRAULIC MOTOR TO KNUCKLE LH	1	EA
11	1430611	65MM X 140MM LONG PIN	4	EA
12	2509809	70 OD X 65 ID X 40MM LONG	4	EA
13	2509813	70 OD X 65 ID X 30MM LONG BEARING	4	EA
14	2509812	WSHR, THRUST	4	EA
15	5563543	WSHR, FLAT M10 YL ZN GR 10.9	33	EA
16	5290010	660 STEER CYLINDER	1	EA
17	5563722	SHCS M16 X 1.5 X 75 G12.9 ISO 4762 BLACK OXIDE	4	EA
18	5563546	WASHER, FLAT M16 GR10.9	8	EA
19	5563559	HEX NUT, LK M16X2 GR10.9	4	EA
20	1431299	ASSEMBLY, STEER LINK	2	EA
21	2580431	BSHG THRUST 36MM X 1.5MM	8	EA
22	1430832	BEARING SLEW	1	EA
23	5560216	CAPSCREW 5/8 11 SELF LOCKING	20	EA

アイテム	部品番号	名前	数量	UOM
24	011239 010	WASHER, FLAT ASTM A325 5/8"	20	EA
25	511581 000	HYDRAULIC MOTOR ASSEMBLY FOR REAR	2	EA
26	0260070	O Ring	2	EA
27	0260099	O Ring	2	EA
28	5563116	Bolt, HDD	4	EA
29	116324 000	Wheel Gearbox	2	EA
30	511621 000	ASSEMBLY, TRACTIION MANIFOLD	1	EA
31	5563544	WSHR, FLAT M12 YL ZN GR 10.9	4	EA
32	1431686	WEIGHT, SIDE CAST	2	EA
33	1430627	WEIGHT, INSIDE, LG	2	EA
34	1431079	WEIGHT, CHASSIS NOSE	2	EA
35	5563510	BOLT HXHD M12X1.75X40YZGR10.13	4	EA
36	5563848	LUG NUT-5/8X18 RH, 1.06 FLAT	36	EA
37	5563556	NUT HEX M10X1.5 YL ZN GR10.9	8	EA
38	1431688	BUSHING, STEERING STOP	2	EA
39	2504856	Bearing	2	EA
40	5580016	CLEVIS PIN 1IN X 3IN FLAG	4	EA
41	5563599	HEX HD CAP SCR, 5/8 11 X 1.50	12	EA
42	058508 025	HHCS M10 X 25MM GR10.9 DIN933	25	EA
43	5563765	WASHER, FLAT 5/8 11 BEVELED	12	EA
44	5563689	SCRW M10x100 931 10.9 HCSYZ	4	EA
45	5563530	HHCS M20 X 2.5 X 60 GR 10.9 DIN 933	4	EA
46	5563548	WASHER, FLAT M20	4	EA
47	5563624	WASHER FLAT .438	4	EA
48	1430919	OSC AXLE PIVOT PIN	2	EA

アイテム	部品番号	名前	数量	UOM
49	1430920	3IN PIN SECUREMENT TAB	2	EA
50	1430921	CSB 50 48IB32	4	EA
51	1431819	SPACER, OSC AXLE	7	EA
52	1430923	OSC AXLE PIN BUSHING RETAINER	2	EA
53	510684 050	HHCS M20 X 2.5 X 50 GR 8.8 DIN 931	2	EA
54	6047163	660 SJ OSC AXLE LOCK CYL	2	EA
55	1431010	OSC LOCK CYL PIN RETAINER	4	EA
56	1431009	OSC LOCK CYL PIN TAPERED	2	EA
57	1432020	ASSEMBLY, HYDRAULIC MOTOR TO KNUCKLE RH	1	EA
58	5563504	HHCS, M10X1.5 X50 YL ZN GR10.9	4	EA

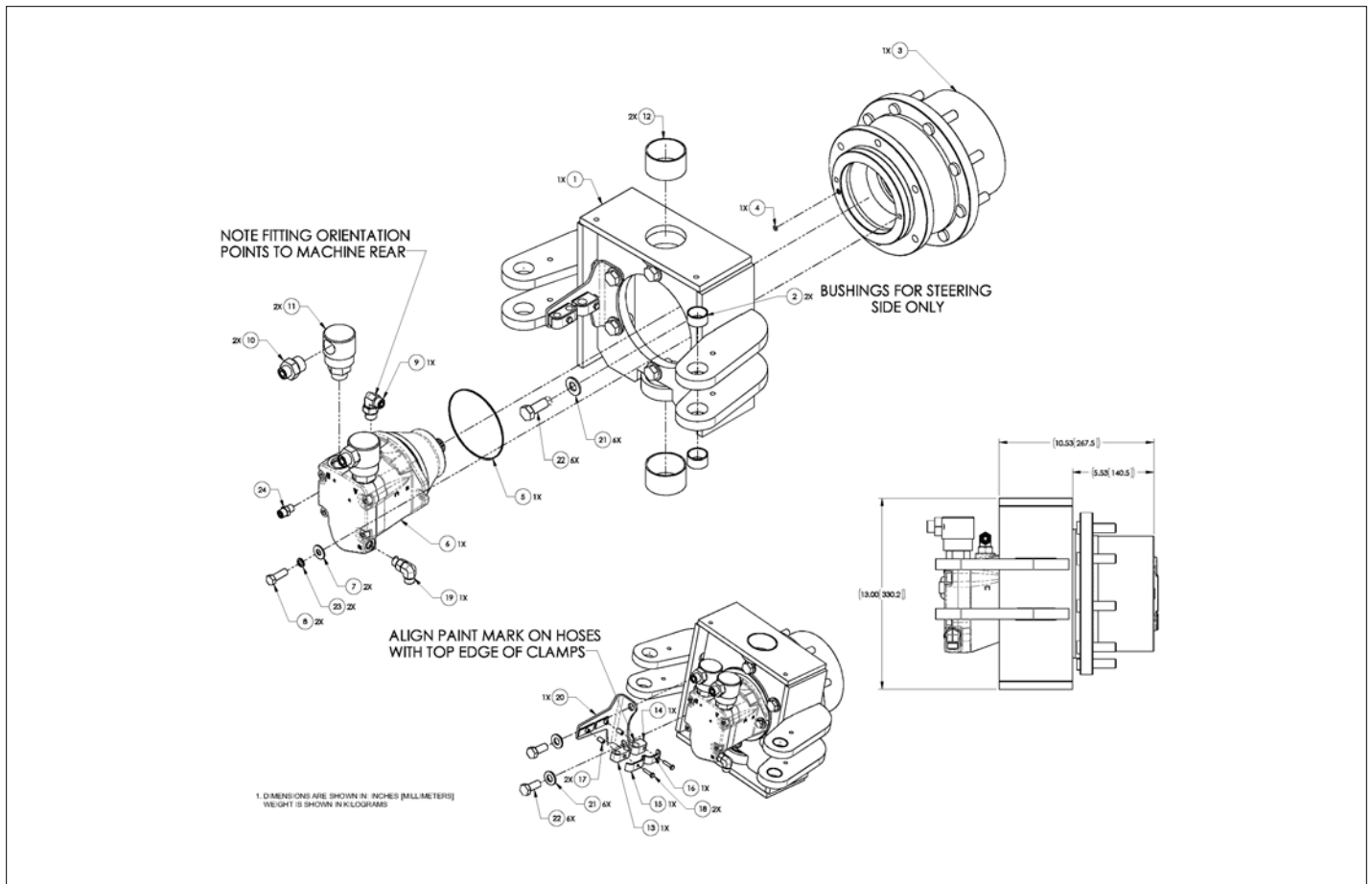
REPAIR PARTS



アイテム	部品番号	名前	数量	UOM
	116324 000	Wheel Gearbox		EA
1	8010399	HOUSING VB07 H1	1	EA
2	8010401	CAP LOCKOUT VB07	1	EA
3	8010400	CAP END VB07	1	EA
4	8010412	SEAL OIL; 0637 60008	1	EA
5	8010412	SEAL OIL; 0637 60008	1	EA
6	056066 014	NUT NYLOCK DIN985 M14 8.0 ZINC PLTD	1	EA
7	058490 006	HEXSETSCREW	3	EA
8	8010406	SPINDLE VB07	1	EA
9	8010409	BEARING CONE 32928	2	EA
10	8010408	BEARING CUP 32928	2	EA
11	056058 012	BLT HEXBOLT 6MM X 12MM DIN931 GR8.8 ZP	2	EA
12	116324 007	CAPSCREW MACH HD M10 X 1.5 X 20	3	EA
13	8010444	THRUSTWASHER SUN VB07	1	EA
14	8010421	FLANGE PLUG MAGNETIC; M18 X 1.5	2	EA
15	8010414	SEAL O RING; 172	1	EA
16	8010411	SEAL O RING 166	1	EA
17	8010413	SEAL O RING; 110	3	EA
18	8010417	O RING (113) VITON MAT'L	2	EA
19	8010432	SNAP RING; GB#180; INTERNAL	1	EA
20	8010434	PLUNGER; VB07	1	EA
21	8010404	GEAR PLANET VB07 46T LS	3	EA
22	8010407	SHAFT SEC. PLANET VB07	3	EA
23	8010410	BEARING NEEDLE VB07	84	EA
24	8010418	SPACER BEARING; VB07 2.2 THICK	3	EA
25	8010443	WASHER BRG RETAINING VB07 1.5MM	12	EA

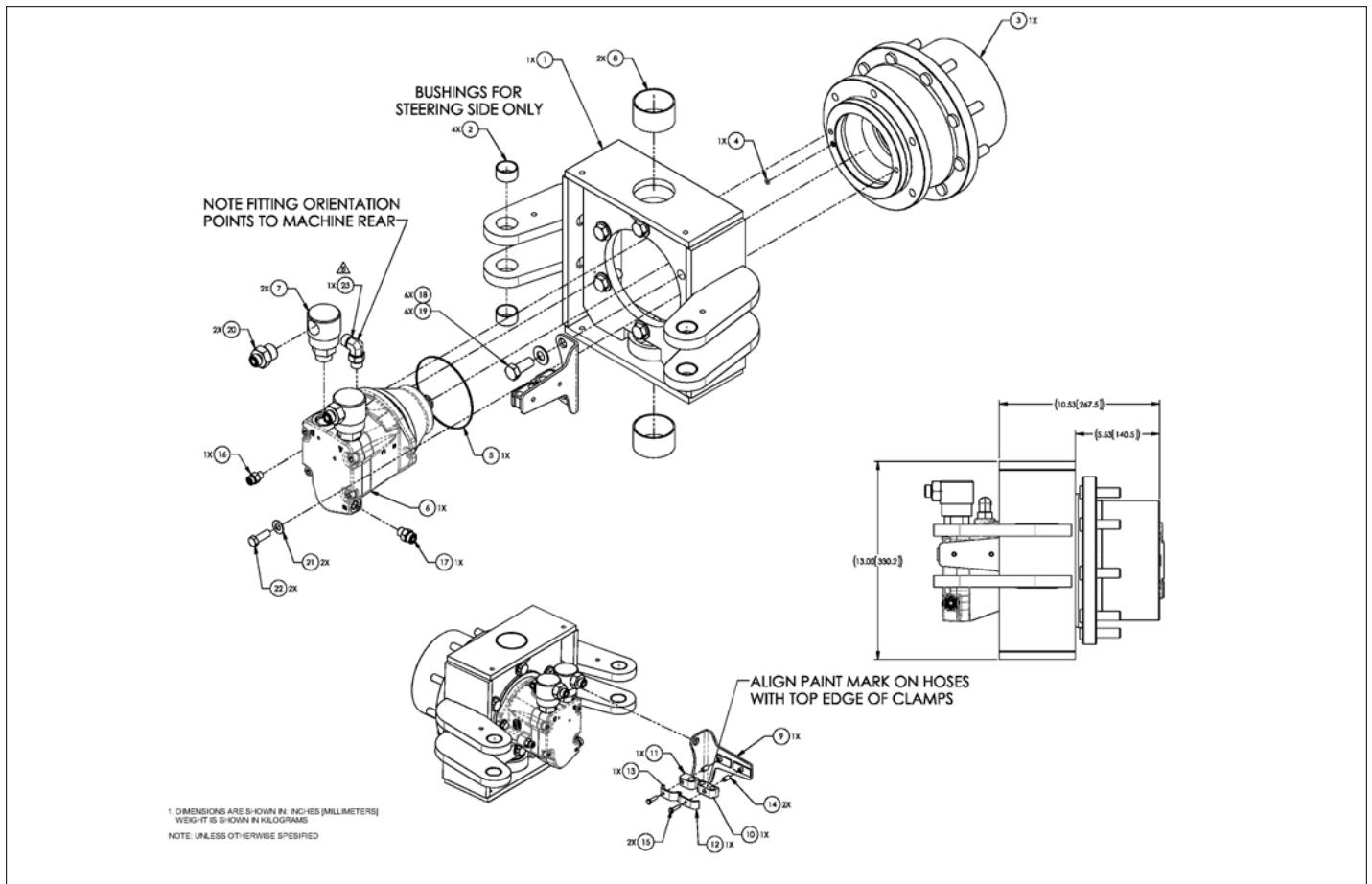
アイテム	部品番号	名前	数量	UOM
26	8010419	ROLL PIN HD; 4MM X19	3	EA
27	8010405	GEAR SUN VB07 25T LS	1	EA
28	8010429	SNAP RING; GB#40	1	EA
29	8010403	INPUT SHAFT VB07 13T	1	EA
30	8010422	CARRIER ASSY; VB07 PRI 10.15	1	EA
31	8010428	BRAKE ASSY; VB07	1	EA
32	8010440	BRAKE ROTOR; VB07	1	EA
33	8010436	PLATE SPRING RETAINING VB07	1	EA
34	8010430	SNAP RING; GB#105; INTERNAL	1	EA
35	8010441	HYDRAULIC PISTON; VB07	1	EA
36	8010438	BACKUP RING; VB07	1	EA
37	8010437	BACKUP RING; VB07	1	EA
38	8010415	SEAL O RING 154	1	EA
39	8010416	SEAL O RING; 237	1	EA
40	8010442	SPRING; VB07	12	EA
41	8010431	SNAP RING; GB#19; INTERNAL	1	EA
42	8010433	SNAP; RING; 5008 93; INTERNAL	1	EA
43	8010439	SPRING; VB07	1	EA
44	8010435	PLUG SPRING RETAINING VB07	1	EA
45	8010420	STUD; 5/8 18 UNFX2A	1	EA
Not Shown	7220055	KIT SEAL TORQUE HUB OMNI GEAR 116324 000	1	EA
Not Shown	7220056	BRAKE KIT TORQUE HUB OMNI GEAR 116324 000	1	EA

REPAIR PARTS



アイテム	部品番号	名前	数量	UOM
Not Shown	1432020 A	HYDRAULIC MOTOR TO KNUCKLE RIGHT HAND ASSEMBLY		EA
1	1431489	WELDMENT, STEER KNUCKLE	1	EA
2	062642 024	BRG 1.25 ID X 1.41 OD X 0.75 L	2	EA
3	116324 000	Wheel Gearbox	1	EA
4	0260070	O Ring	1	EA
5	0260099	O Ring	1	EA
6	104665 000	DRIVE MOTOR HYD 38cc/9.22cc	1	EA
7	986179	WSHR 7/16 FLAT	2	EA
8	5563116	Bolt, HDD	2	EA
9	100434 013	Hyd Fitting 90 Elbow ORFS(08) SAE(08)	1	EA
10	511618 000	8 M ORFF X 12 MB STR FITTING	2	EA
11	106964 001	SWIVEL FITTING, 12MB X 12FB	2	EA
12	2509809	70 OD X 65 ID X 40MM LONG	2	EA
13	11355 006	BODY TUBE CLAMP #1 X 1/2	1	EA
14	11355 012	BODY TUBE CLAMP #0B X 5/8	1	EA
15	100434 013	Hyd Fitting 90 Elbow ORFS(08) SAE(08)	1	EA
16	11356 002	STIRRUP TUBE CLAMP #2, HYDAC	1	EA
17	11354 000	SLEEVE TUBE CLAMP	2	EA
18	512630 025	HHCS M6 X 1 X 25 GR 10.9 DIN 933	2	EA
19	511481 000	FTG, 90 ° , 6MORFF X 6MORB	1	EA
20	1432027	BRACKET HYD HOSE RH	1	EA
21	011239 010	WASHER, FLAT ASTM A325 5/8"	6	EA
22	5560283	HHD BLT.625 11X1.5 GR8	6	EA
23	987129	WSHR 7/17 MED LOCK	2	EA
24	100432 002	Hyd Fitting Straight ORFS(04) SAE(04)	1	EA

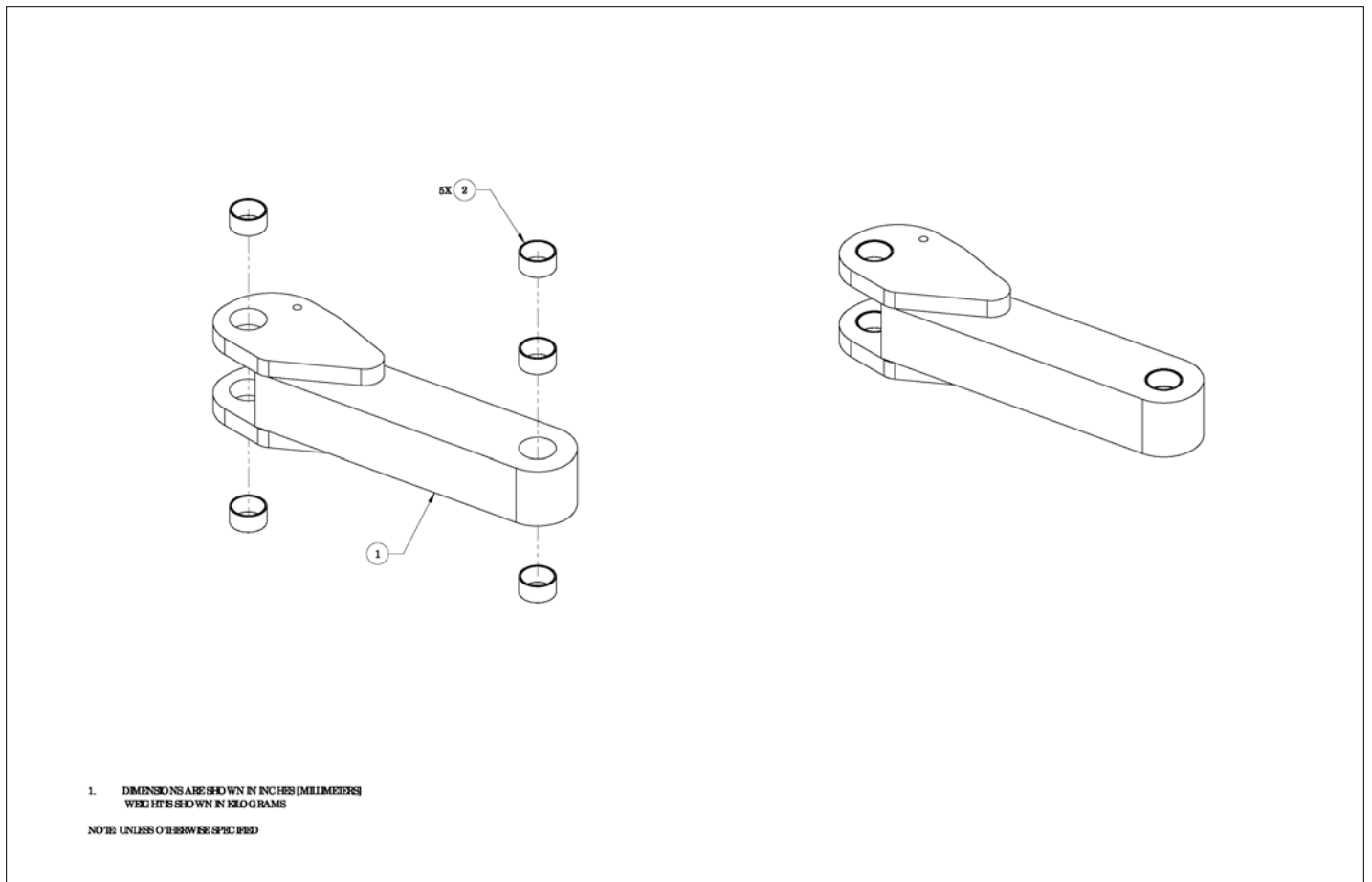
REPAIR PARTS



アイテム	部品番号	名前	数量	UOM
	1432102 B	HYDRAULIC MOTOR TO KNUCKLE LEFT HAND ASSEMBLY		EA
1	1431489	WELDMENT, STEER KNUCKLE	1	EA
2	062642 024	BRG 1.25 ID X 1.41 OD X 0.75 L	4	EA
3	116324 000	Wheel Gearbox	1	EA
	116324 011	BRAKE	1	EA
4	0260070	O Ring	1	EA
5	0260099	O Ring	1	EA
6	104665 000	DRIVE MOTOR HYD 38cc/9.22cc	1	EA
7	106964 001	SWIVEL FITTING, 12MB X 12FB	2	EA
8	2509809	70 OD X 65 ID X 40MM LONG	2	EA
9	1432026	BRACKET HYD HOSE	1	EA
10	11355 006	BODY TUBE CLAMP #1 X 1/2	1	EA
11	11355 012	BODY TUBE CLAMP #0B X 5/8	1	EA
12	100434 013	Hyd Fitting 90 Elbow ORFS(08) SAE(08)	1	EA
13	11356 002	STIRRUP TUBE CLAMP #2, HYDAC	1	EA
14	11354 000	SLEEVE TUBE CLAMP	2	EA
15	512630 025	HHCS M6 X 1 X 25 GR 10.9 DIN 933	2	EA
16	100432 002	Hyd Fitting Straight ORFS(04) SAE(04)	1	EA
17	100432 009	Hyd Fitting Straight ORFS(06) SAE(06)	1	EA
18	5563785	WASHER FLAT .625	6	EA
19	5563787	HHCS.625 11 UNC STL GR8 1.50LG	6	EA
20	100432 025	FTG, STR, 8MORFF X 12MORB	2	EA
21	5563786	WASHER FLAT .438 NARROW PLTD	2	EA
22	5563116	Bolt, HDD	2	EA

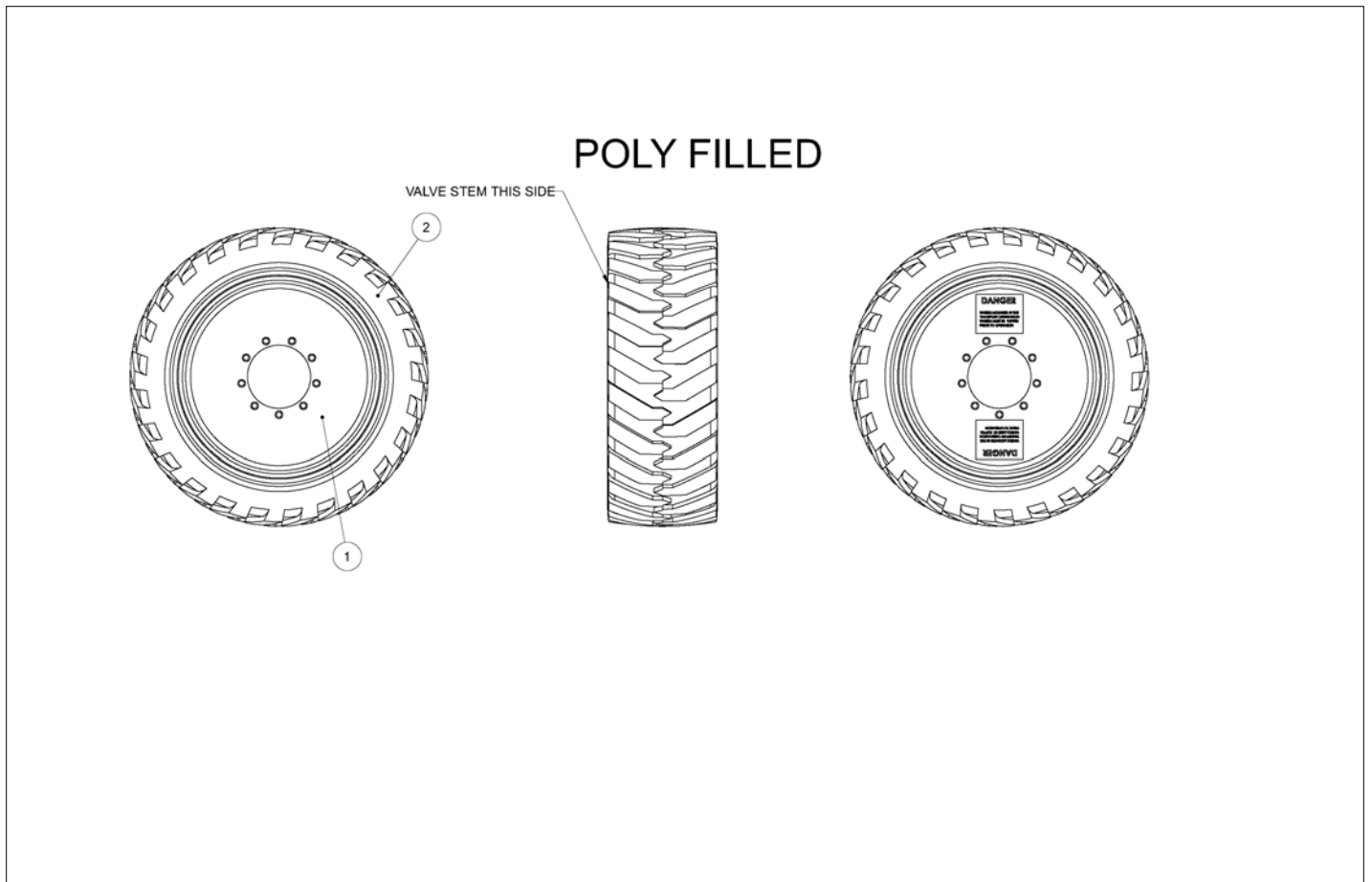
アイテム	部品番号	名前	数量	UOM
23	100434 013	Hyd Fitting 90 Elbow ORFS(08) SAE(08)	1	EA

REPAIR PARTS



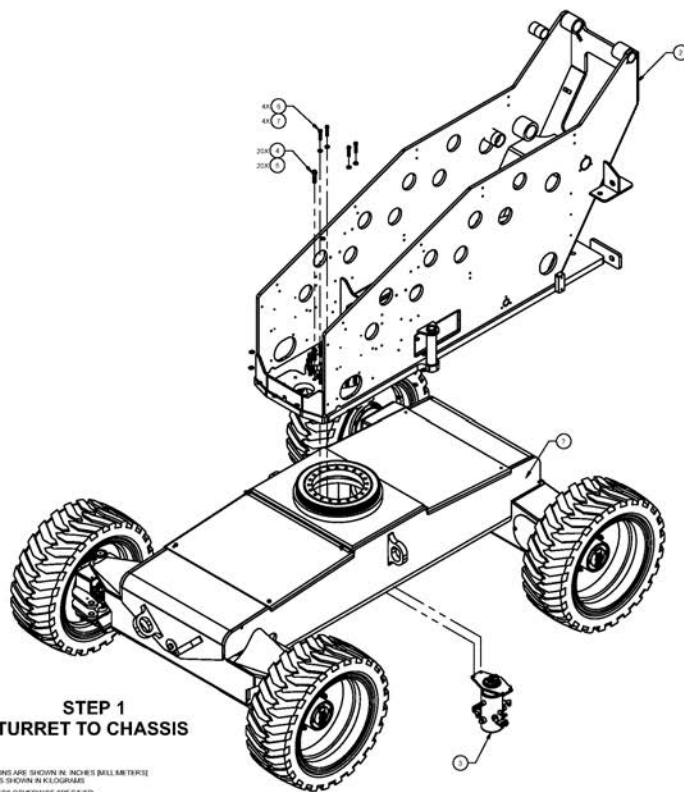
アイテム	部品番号	名前	数量	UOM
Not Shown	1431299 B	STEER LINK ASSEMBLY		EA
1	1431303	WLDMNT, STEER LINK	1	EA
2	062642 024	BRG 1.25 ID X 1.41 OD X 0.75 L	5	EA

REPAIR PARTS



アイテム	部品番号	名前	数量	UOM
	106717 001 A	WHEEL AND TIRE ASSEMBLY		EA
1	0260880	TIRE FOAM FILLED RH	2	EA
	0260881	TIRE FOAM FILLED LH	2	EA
2	106717 003	decal, danger wheel position CE ONLY	4	EA

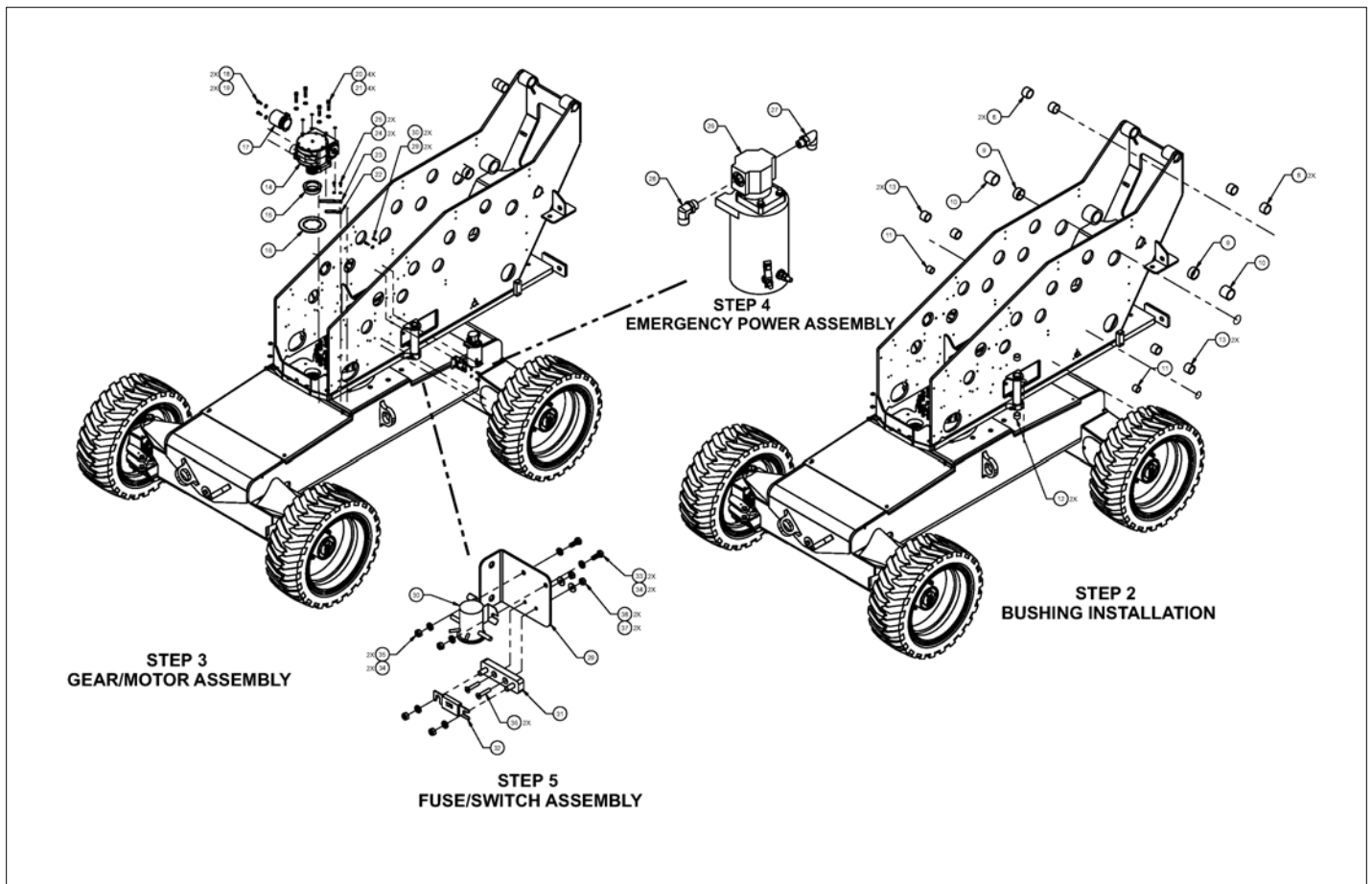
REPAIR PARTS



**STEP 1
TURRET TO CHASSIS**

1. DIMENSIONS ARE SHOWN IN INCHES UNLESS OTHERWISE SPECIFIED
WEIGHT IS SHOWN IN KILOGRAMS
NOTE: UNLESS OTHERWISE SPECIFIED

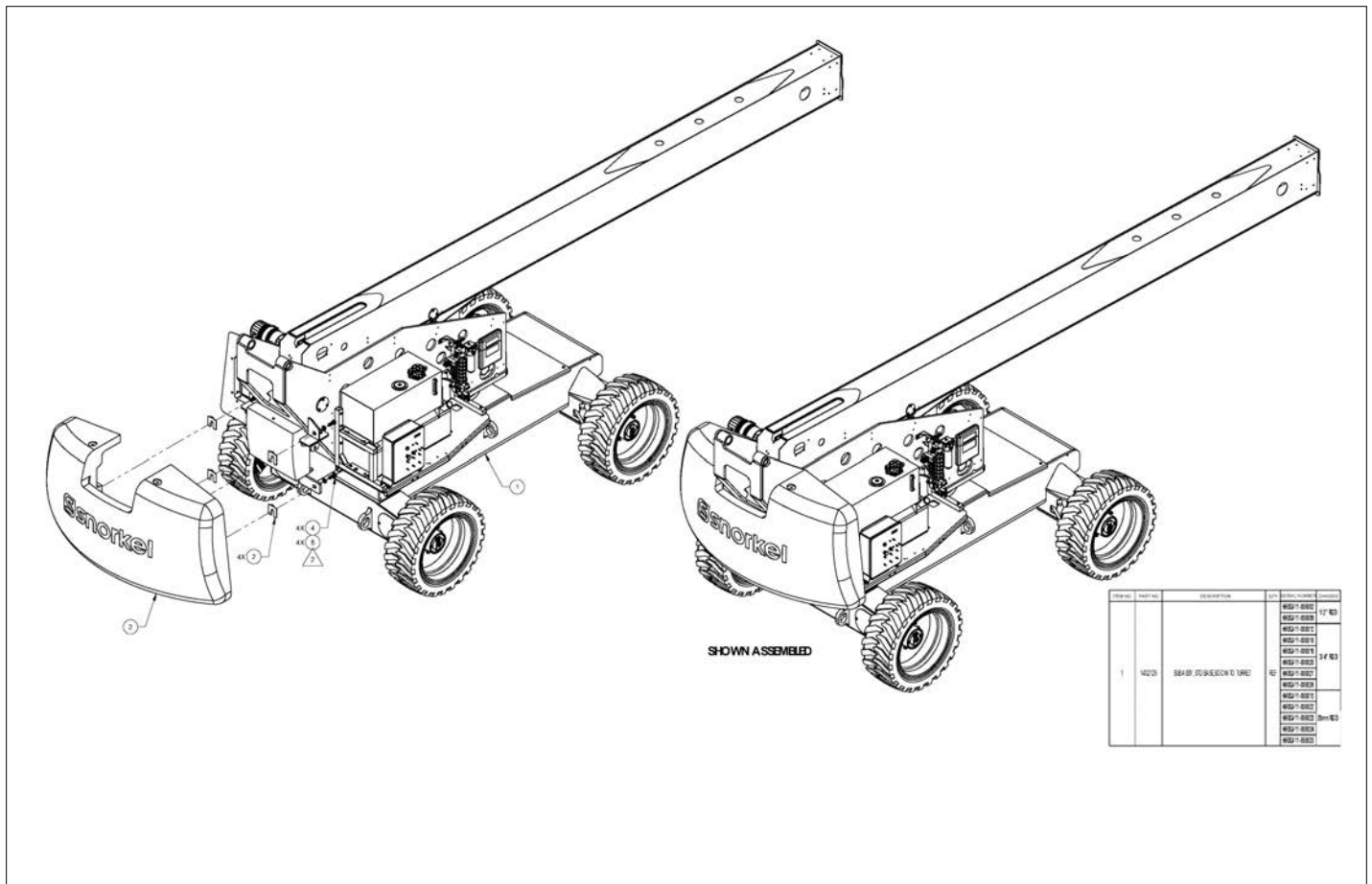
ITEM NO.	PART NO.	DESCRIPTION	QTY.	SERIAL NUMBER	CHASSIS
1	1431735	ASSEMBLY, 660 CHASSIS OSCILLATING 1/2"	REF	660SJ-11-000003	660SJ-11-000011
				660SJ-11-000005	660SJ-11-000013
				660SJ-11-000006	660SJ-11-000014
				660SJ-11-000007	660SJ-11-000016
				660SJ-11-000008	660SJ-11-000017
				660SJ-11-000010	
		ASSEMBLY 660 CHASSIS OSCILLATING 3/4"			3/4" OSC
2	1431150	WELDMENT, TURRET 660 (FLOATING PINS)	REF	660SJ-11-000003	660SJ-11-000011
				660SJ-11-000005	660SJ-11-000013
				660SJ-11-000006	660SJ-11-000014
				660SJ-11-000007	660SJ-11-000016
				660SJ-11-000008	660SJ-11-000017
				660SJ-11-000010	
		WELDMENT, TURRET 660 (FIXED PINS)			3/4" OSC



アイテム	部品番号	名前	数量	UOM
Not Shown	1431167 A	TURRET TO CHASSIS SUB ASSEMBLY		EA
3	511620 000	7 PORT ROTARY MANIFLD ASSY	1	EA
4	5563452	FHCS 3/4 10 x 2.75 GR9 12PT	20	EA
5	5563777	WASHER FLAT, .75 1.25OD X .812ID	20	EA
6	5563593	BOLT HXHD 1/2 13X2 1/2YLZN GR8	4	EA
7	5563625	WASHER, FLAT 1/2" YL ZN GR8	4	EA
8	511302 000	65 ID X 75 OD X 50 MM LONG BEARING	4	EA
9	2504856	Bearing	2	EA
10	2504857	BEARING	2	EA
11	2509849	BUSHING 40X50X6	2	EA
12	104662 000	BUSHING CRG 404830	2	EA
13	2509848	BUSHING, LIFT CYLINDER LOWER	4	EA
14	106755 000	Swing Gearbox	1	EA
15	106759 000	Swing GearBox Eccentric	1	EA
16	106762 000	SWING GEARBOX ECCENTRIC ADJUSTMENT RING	1	EA
17	1430681	SWING MOTOR	1	EA
18	5563589	BOLT HXHD 1/2 13X1 1/4YLZN GR8	2	EA
19	5563621	WASHER, FLAT #10 YL ZN GR8	2	EA
20	511159 000	BOLT, SKTCAPSCREW DIN912 M16 DIN912 M16 1.5 X 70MM 12.9 ZINCPLATED	4	EA
21	500281 000	WSHR M16 HARDEND STL DIN 6016 PLTD	4	EA
22	106794 000	Eccentric Lock	1	EA
23	106793 000	ECCENTRIC HOLD DOWN	1	EA
24	058508 025	HHCS M10 X 25MM GR10.9 DIN933	4	EA

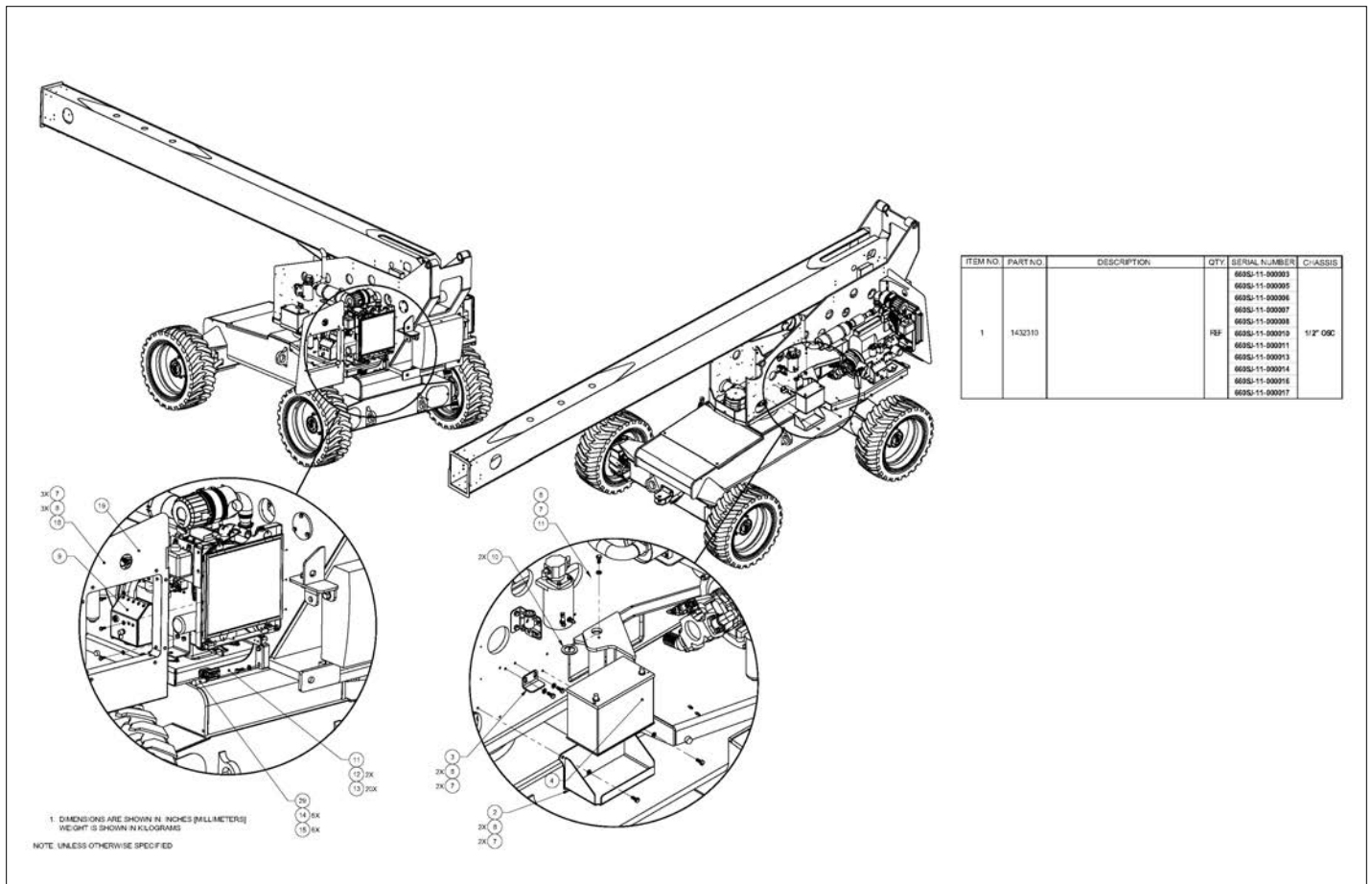
アイテム	部品番号	名前	数量	UOM
25	5563543	WSHR, FLAT M10 YL ZN GR 10.9	4	EA
26	6020058	EMERGENCY PWR UNIT TB/ATB	1	EA
27	100434 008	6MB X 6M ORFF 90 ° FITTING	1	EA
28	100434 013	Hyd Fitting 90 Elbow ORFS(08) SAE(08)	1	EA
29	511325 000	E PUMP RELAY BRKT	1	EA
30	3040506	SOLENOID 12V 150	1	EA
31	010149 000	FUSE BLOCK	1	EA
32	010148 001	FUSE BUSS	1	EA
33	5563482	BOLT HXHD M6X1X16 YL ZN GR10.9	2	EA
34	5563541	WASHER, FLAT, M6, STEEL, C10.9, YELLOW ZINC	6	EA
35	5563554	NUT HEX M6X1 YL ZN PLT GR10.9	4	EA
36	513876 025	Bolt,CskSktFltMachScrew,DIN799	2	EA
37	5563048	FLAT WASHER M 5	2	EA
38	510569 005	NUT HEX LKG M5 0.8	2	EA

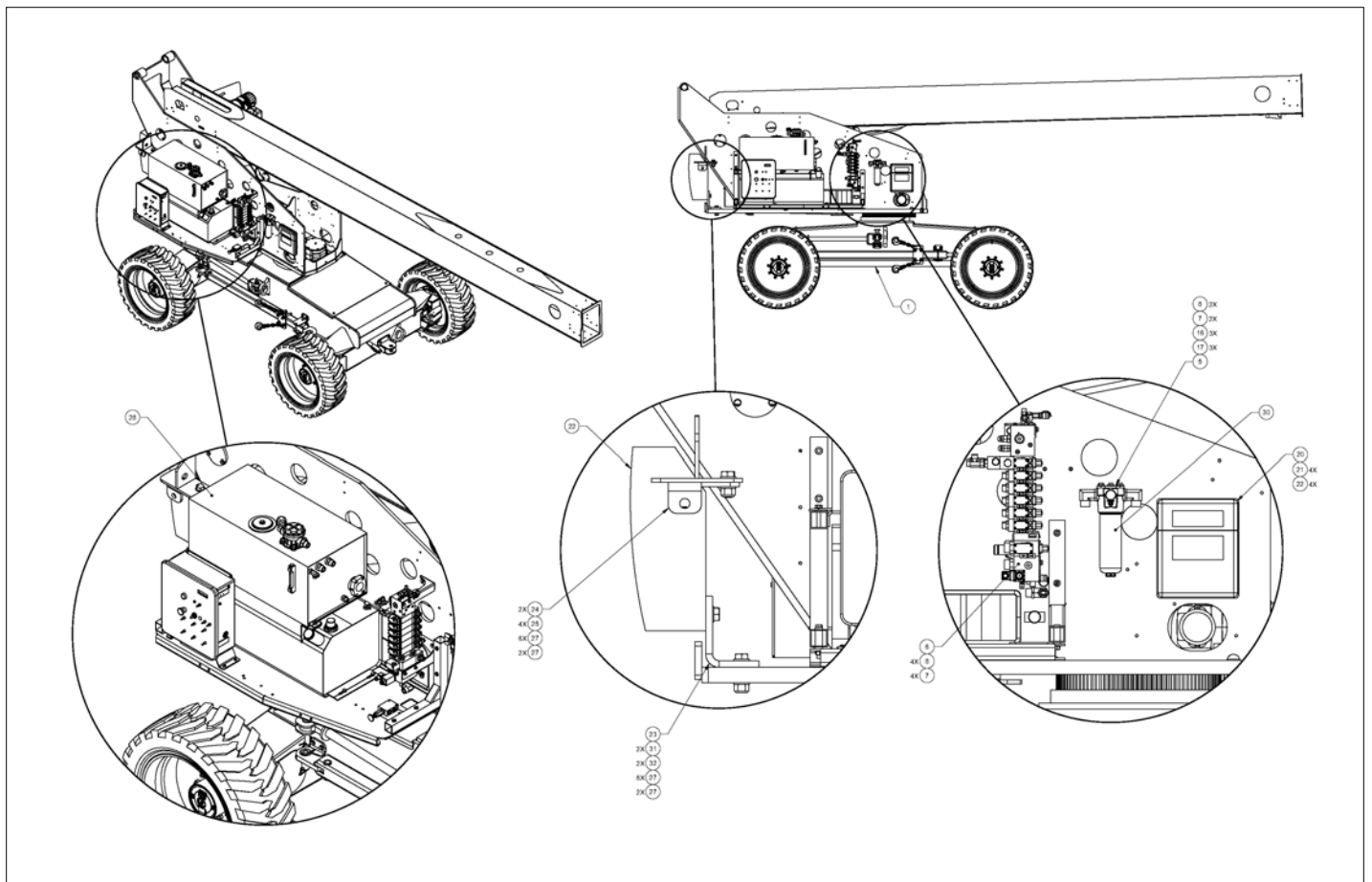
REPAIR PARTS



アイテム	部品番号	名前	数量	UOM
Not Shown	1432129 A	COUNTERWEIGHT TO TURRET ASSEMBLY		EA
1	SEE CHART	JIB BOOM ASSEMBLY		EA
2	1430798	600S & 660SJ COUNTER WEIGHT	1	EA
Not Shown	1431844	SHIM .125" THK, 1.25" HOLE	4	EA
4	5563533	BOLT, HXHD M24X3X60YLZN GR10.9	4	EA
5	5563549	WASHER, FLAT M24 YL ZN GR 10.9	4	EA

REPAIR PARTS

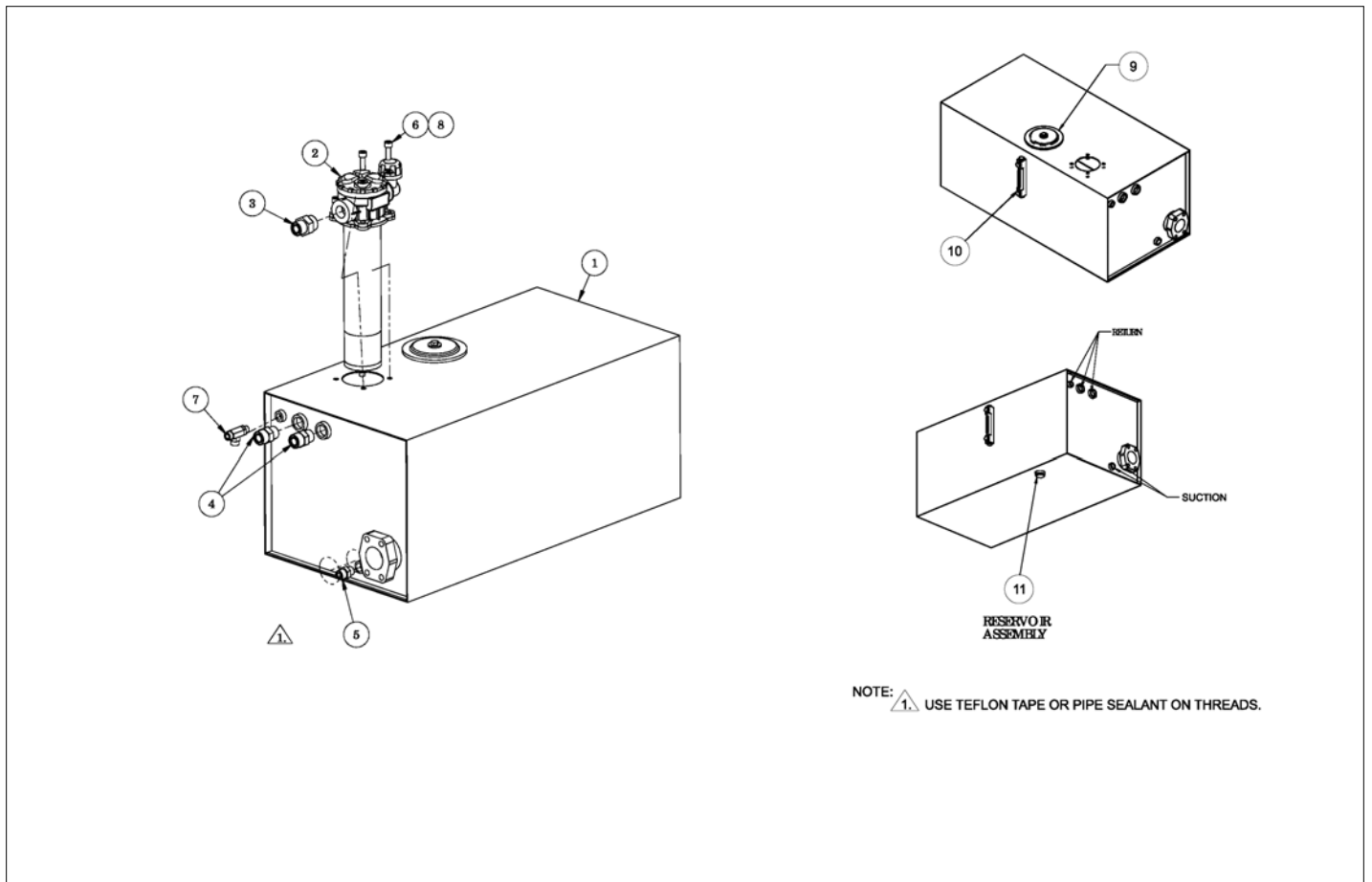





アイテム	部品番号	名前	数量	UOM
	1432311 B	TURRET COMPONENTS ASSEMBLY		EA
1	1432310	SEE CHART	REF	EA
2	1431368	TRAY BATTERY	1	EA
3	1431843	BRACKET BATTERY	1	EA
4	104848 000	12V BATTERY 800CCA	1	EA
5	1431833	Bracket Pressure Filter	1	EA
6	1432076	MAIN MANIFOLD ASSY OSC	1	EA
7	5563543	WSHR, FLAT M10 YL ZN GR 10.9	14	EA
8	058508 025	HHCS M10 X 25MM GR10.9 DIN933	14	EA
9	1431374	ENGINE SWING OUT ASSEMBLY	1	EA
10	104640 000	UHMW THRUST WASHER	2	EA
11	104713 000	TRAY PIN WELDMENT	1	EA
12	1431567	Wldmnt, Eng Tray Mnt	1	EA
13	5563510	BOLT HXHD M12X1.75X40YZGR10.13	2	EA
14	5563544	WSHR, FLAT M12 YL ZN GR 10.9	2	EA
15	5563490	BOLT HXHD M8X1.25X20 YZ GR10.9	6	EA
16	5563542	WSHR, FLAT M8 YL ZN GR 10.9	8	EA
17	5563577	BOLT HHS 3/8 16 X .375 YLZN GR10.9	3	EA
18	5563623	WASHER, FLAT 3/8 GR8	3	EA
19	1431403	ASY, RADIATOR SHROUD	1	EA
20	562386	Literature Compartment	1	EA
21	5563482	BOLT HXHD M6X1X16 YL ZN GR10.9	4	EA
22	5563541	WASHER, FLAT, M6, STEEL, C10.9, YELLOW ZINC	4	EA
23	1430838	COUNTERWEIGHT, 660SJ JIB ADDON	1	EA
24	1432221	MOUNT JIB COUNTER WEIGHT	1	EA

アイテム	部品番号	名前	数量	UOM
25	1430895	CS 1/2 GR50 CW ANGLE BRKT	2	EA
Not Shown	5563533	BOLT, HXHD M24X3X60YLZN GR10.9	4	EA
27	5563549	WASHER, FLAT M24 YL ZN GR 10.9	12	EA
28	5563563	NUT, HEX M24X3 YL ZN PLT GR10.9	4	EA
29	1430731	HYDRAULIC TANK MODULE ASSEMBLY	1	EA
30	5516361	Pull Action Clamp w/Toggle Loc	1	EA
31	1432101	ASSY, HP FILTER	1	EA
32	5563709	SCRW M24 3.0.x80 10.9 HCSYZ	2	EA
Not Shown	5563535	BOLT, HX HD M24X3X70 YL ZN GR10.9	2	EA

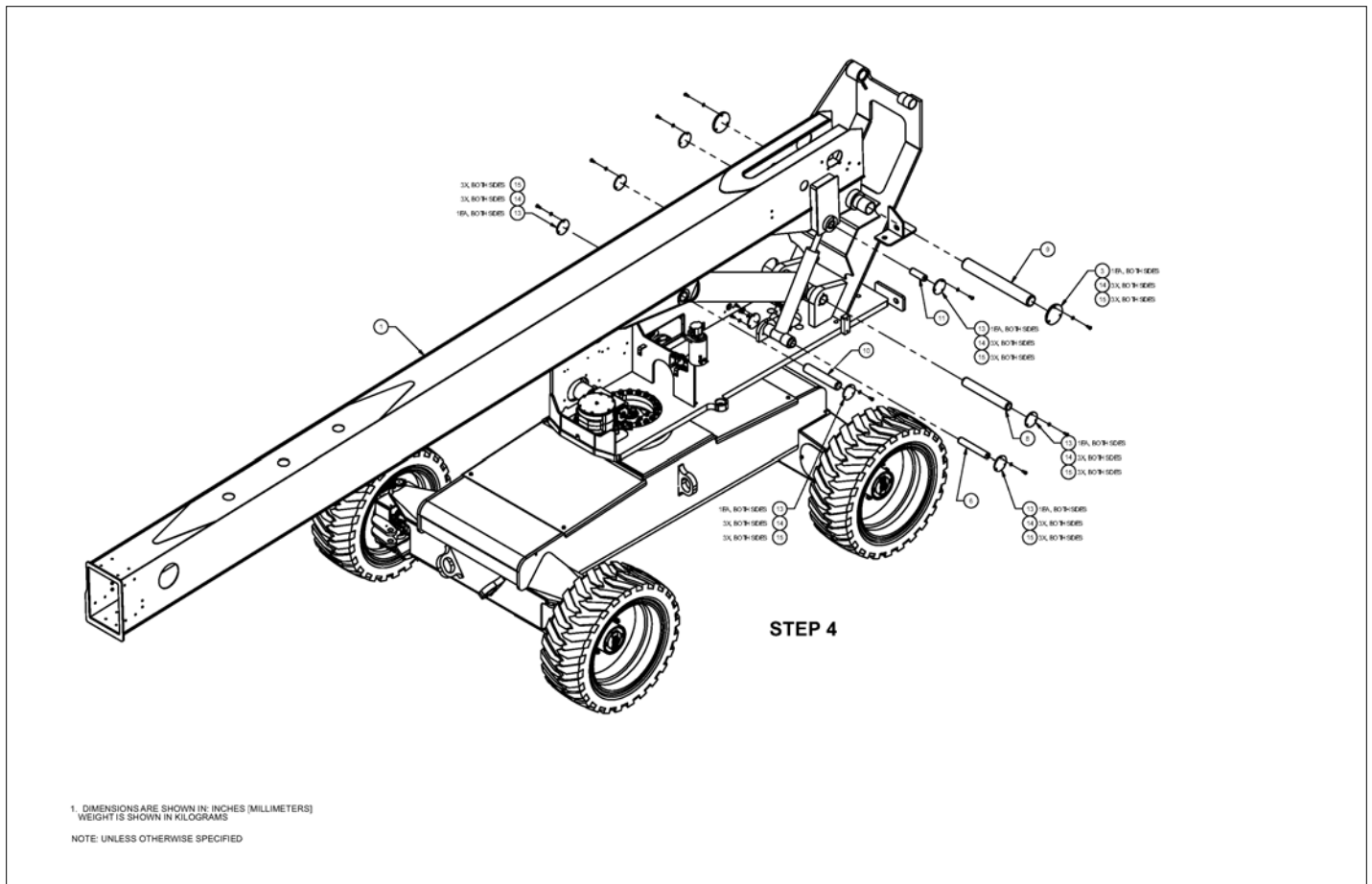
REPAIR PARTS

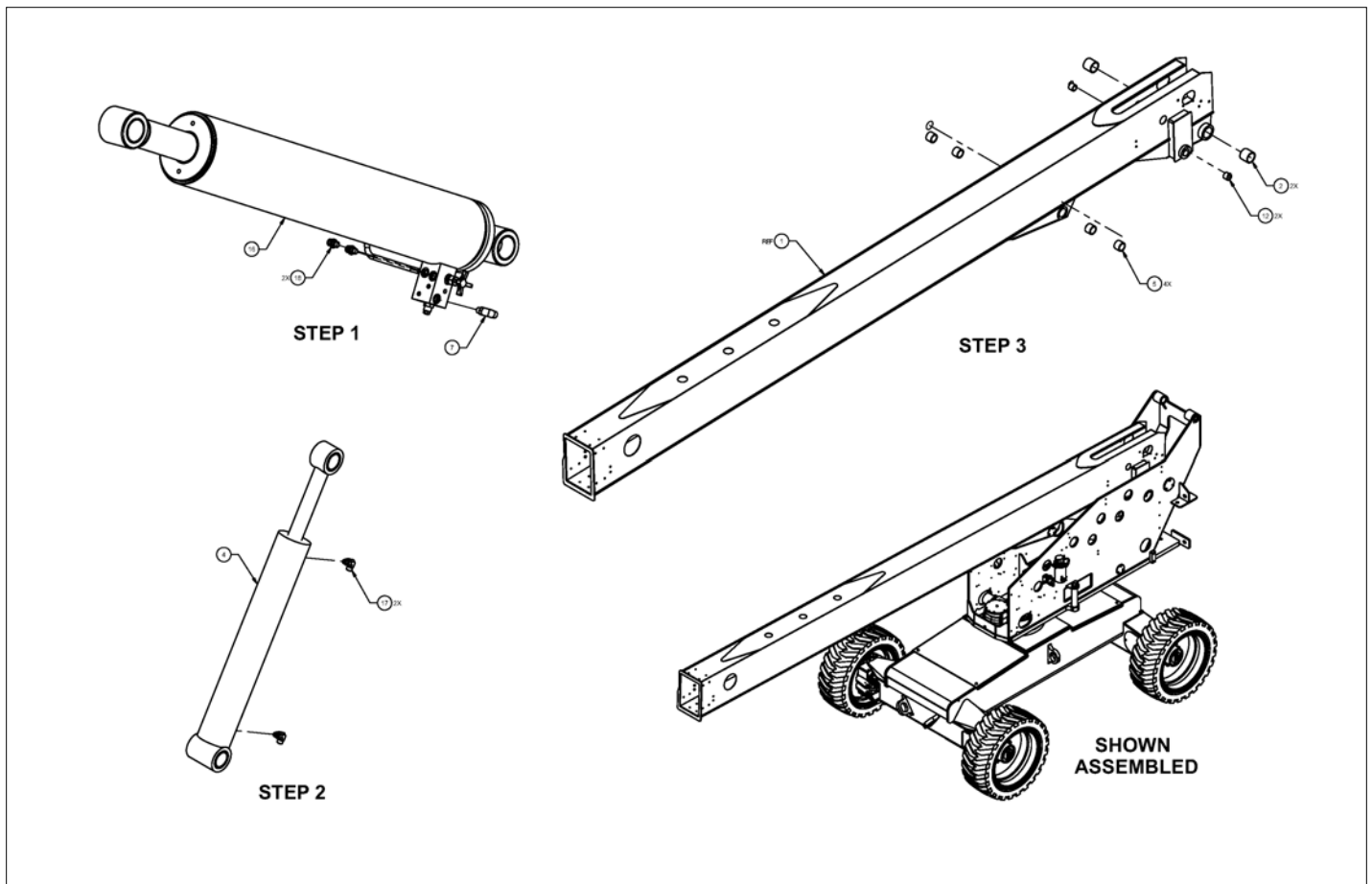


NOTE:  USE TEFLON TAPE OR PIPE SEALANT ON THREADS.

アイテム	部品番号	名前	数量	UOM
Not Shown	1430748 B	HYDRAULIC TANK ASSEMBLY		EA
1	1430744	HYDRAULIC TANK	1	EA
2	6019326	RETURN FILTER MP	1	EA
3	100432 029	FTG, STR, 12MORFF X 16MORB	1	EA
4	100432 027	Hyd Fitting Straight ORFS(12) SAE(12)	2	EA
5	100432 015	FTG, STR, 8MORFF X 8MORB	1	EA
6	058504 030	Bolt, SktCapScrew DIN912 M10 x	4	EA
7	104764 000	6 MORFF X 6MB X 6 MORFF RUN TEE	1	EA
8	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	4	EA
9	6091942	CAP, HYD TANK 660SJ	1	EA
10	6091943	SIGHT GAGE, HYD TANK 660SJ	1	EA
11	6091944	PLUG, HYD TANK 660SJ	1	EA

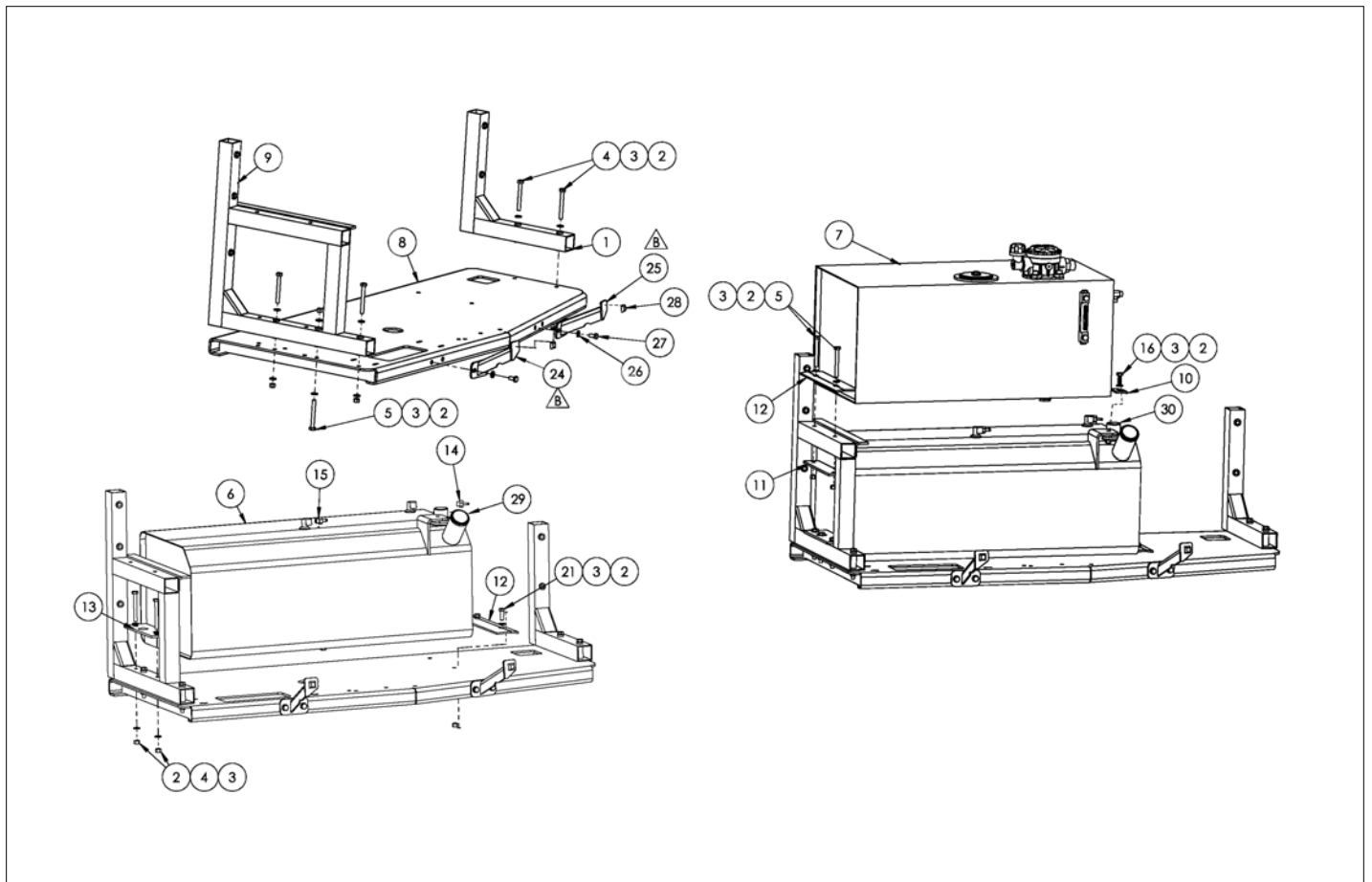
REPAIR PARTS

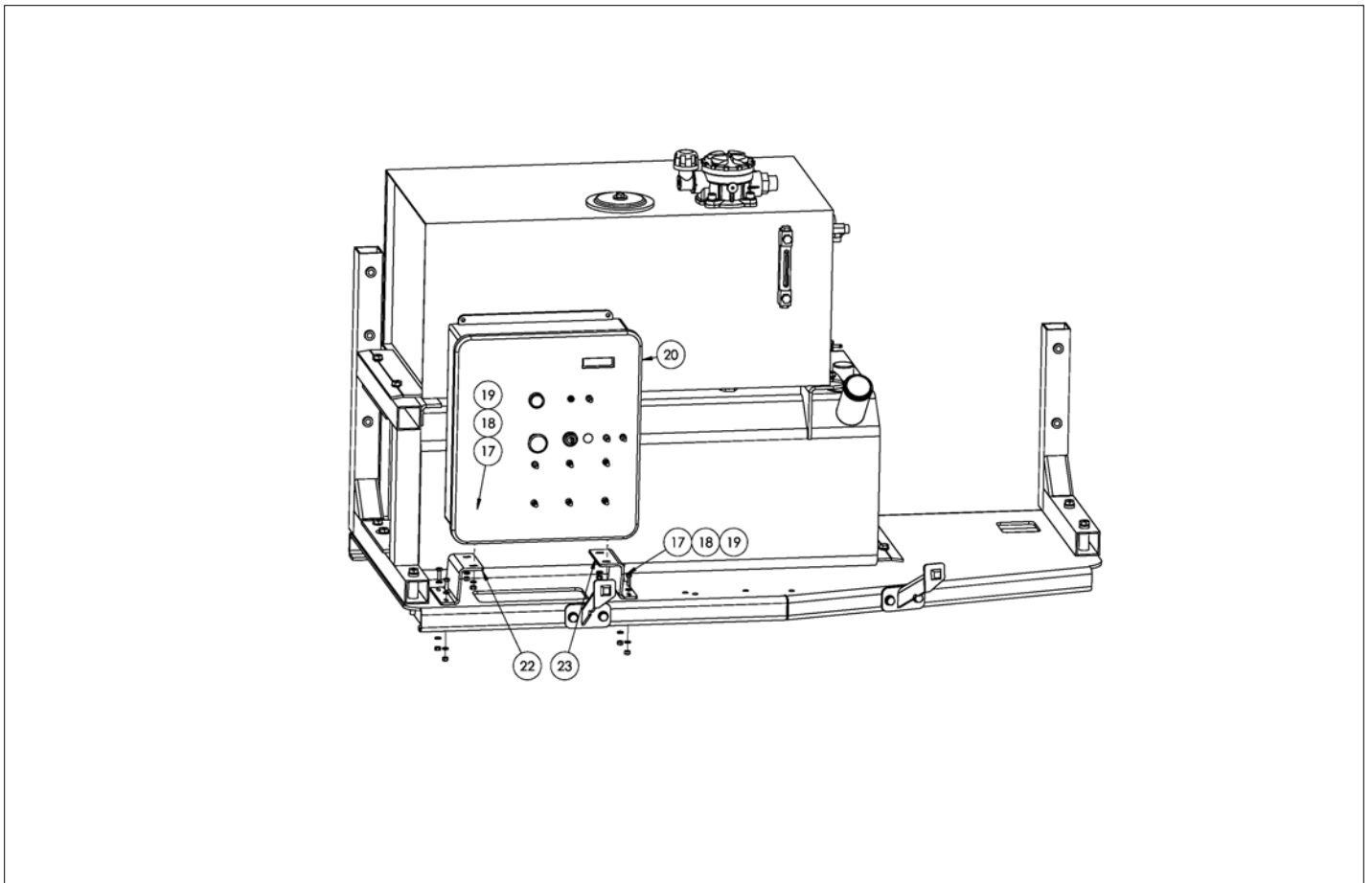




アイテム	部品番号	名前	数量	UOM
Not Shown	1432310 A	BOOM TO TURRET SUB ASSEMBLY		EA
1	511541 500	BASE BOOM WELDMENT	1	EA
2	2504857	BEARING	2	EA
3	1431003	PLATE, RETAINER PIN	2	EA
4	100553	CYLINDER, MASTER	1	EA
5	2509848	BUSHING, LIFT CYLINDER LOWER	4	EA
6	1431509	MASTER CYLINDER BASE FLT	1	EA
7	100434 008	6MB X 6M ORFF 90 ° FITTING	1	EA
8	1431510	LIFT CYLINDER END PLATE	1	EA
9	1431002	PIN MAIN BOOM	1	EA
10	1431554	PIN, BOOM LIFT CYL END	1	EA
11	1431555	PIN, MASTER CYLINDER ROD END	1	EA
12	2509849	BUSHING 40X50X6	2	EA
13	1431508	PLATE, FLOATING PIN COVER	8	EA
14	058508 025	HHCS M10 X 25MM GR10.9 DIN933	12	EA
15	5563543	WSHR, FLAT M10 YL ZN GR 10.9	12	EA
16	1431076	BOOM LIFT CYLINDER	1	EA
17	100434 002	FITTING 4MORFF X 4MORB 90 °	2	EA
18	100432 009	Hyd Fitting Straight ORFS(06) SAE(06)	2	EA

REPAIR PARTS

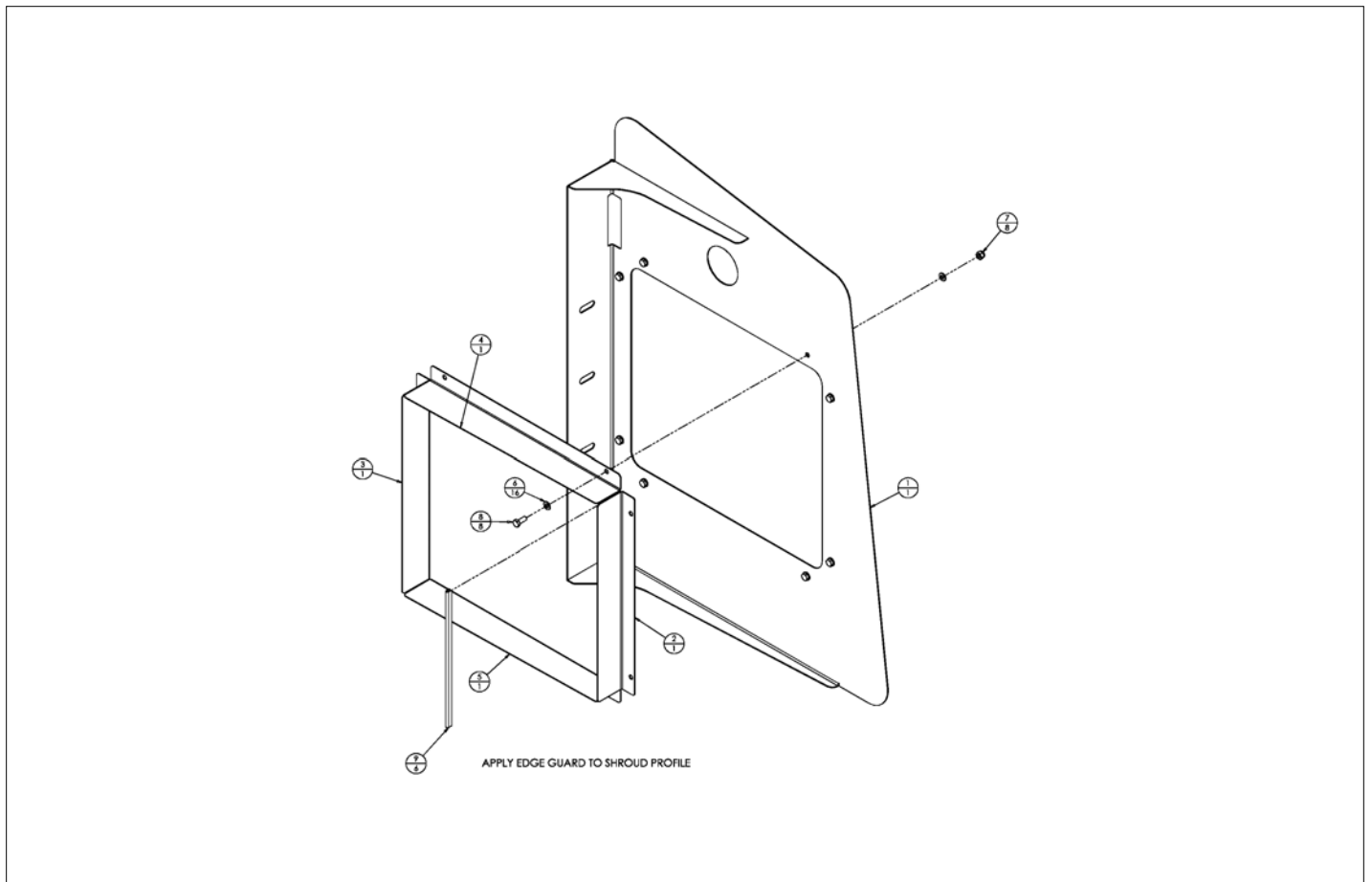




アイテム	部品番号	名前	数量	UOM
Not Shown	1430731 C	HYDRAULIC TANK MODULE ASSEMBLY		EA
1	106776 000	MODULE SUPPORT WELDMENT SHORT	1	EA
2	056064 010	Nut NylockNut DIN985 M10 10.0	12	EA
3	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	19	EA
4	5569917	BLT HEX HD M10 90MM GR 8.8	5	EA
5	056060 090	BLT HEXHD M10 X 90MM DIN 931 8.8 ZP	4	EA
6	1430743	FUEL TANK, LOW FILL	1	EA
7	1430748	HYDRAULIC TANK ASSEMBLY	1	EA
8	1430713	HYD MODULE BASE WLDMT	1	EA
9	1430766	MODULE SUPPORT WLDMT LONG	1	EA
10	1430773	CS 3/16 A36 TANK HOLD DOWN TAB	1	EA
11	1430772	WSHR TUBE	1	EA
12	1430771	TANK HOLD DOWN TAB 1	2	EA
13	1430770	TANK SUPPORT ANGLE	1	EA
14	010178 001	FITTING BARBED 1/4" NPT X 3/16"	1	EA
15	010178 003	FITTING BARBED	1	EA
16	058509 030	Bolt, HexBolt DIN931 M10 x 30mm 10.9 Dacromet	1	EA
17	056058 020	Bolt, HexBolt DIN931 M6 x 20mm	8	EA
18	056069 006	WSHR STEELFLATWSHE M6 DIN125A	16	EA
19	056064 006	NUT NYLOCK DIN985 M6 10.0 ZP	8	EA
20	1430788	LOWER CONTROL BOX ASSEMBLY SJ DIESEL	1	EA
21	056060 030	BOLT HEXBOLT DIN931 M10 X 30MM 8.8 ZP	2	EA

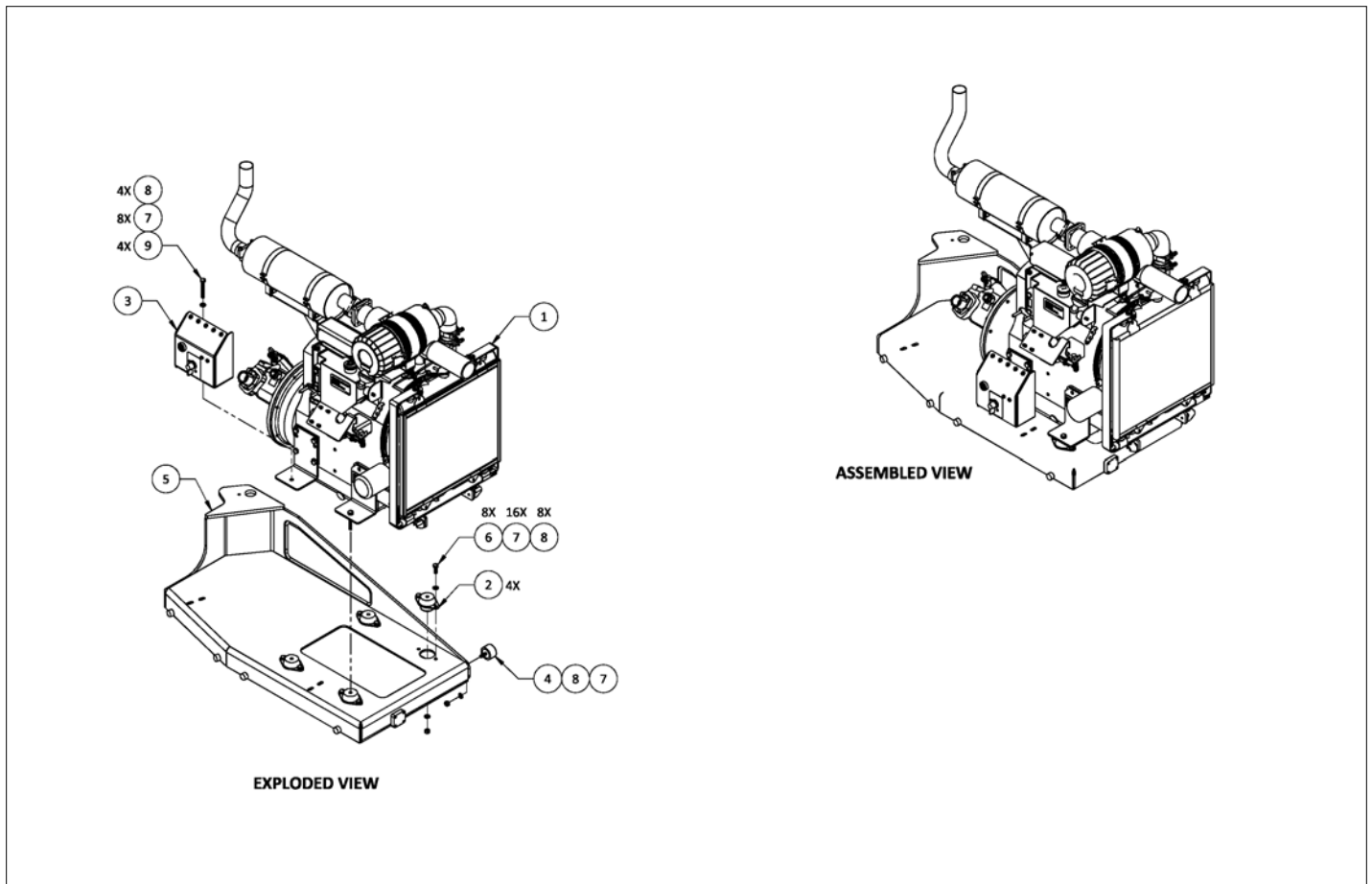
アイテム	部品番号	名前	数量	UOM
22	1430896	LOWER CONTROL BRKT LEFT	1	EA
23	1430897	LOWER CONTROL BRKT RIGHT	1	EA
24	1431145	LATCH WLDMT	1	EA
25	1431148	LATCH WLDMT	1	EA
26	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	4	EA
27	058493 020	BOLT HEXSETSCREW DIN933 M10 X 20MM 8.8 ZP	4	EA
28	5560080	BUMPER ADHESIVE BACK	2	EA
29	0084570	Filler Cap	1	EA
30	0070483	Fuel Gauge, 375mm (14.75")	1	EA

REPAIR PARTS



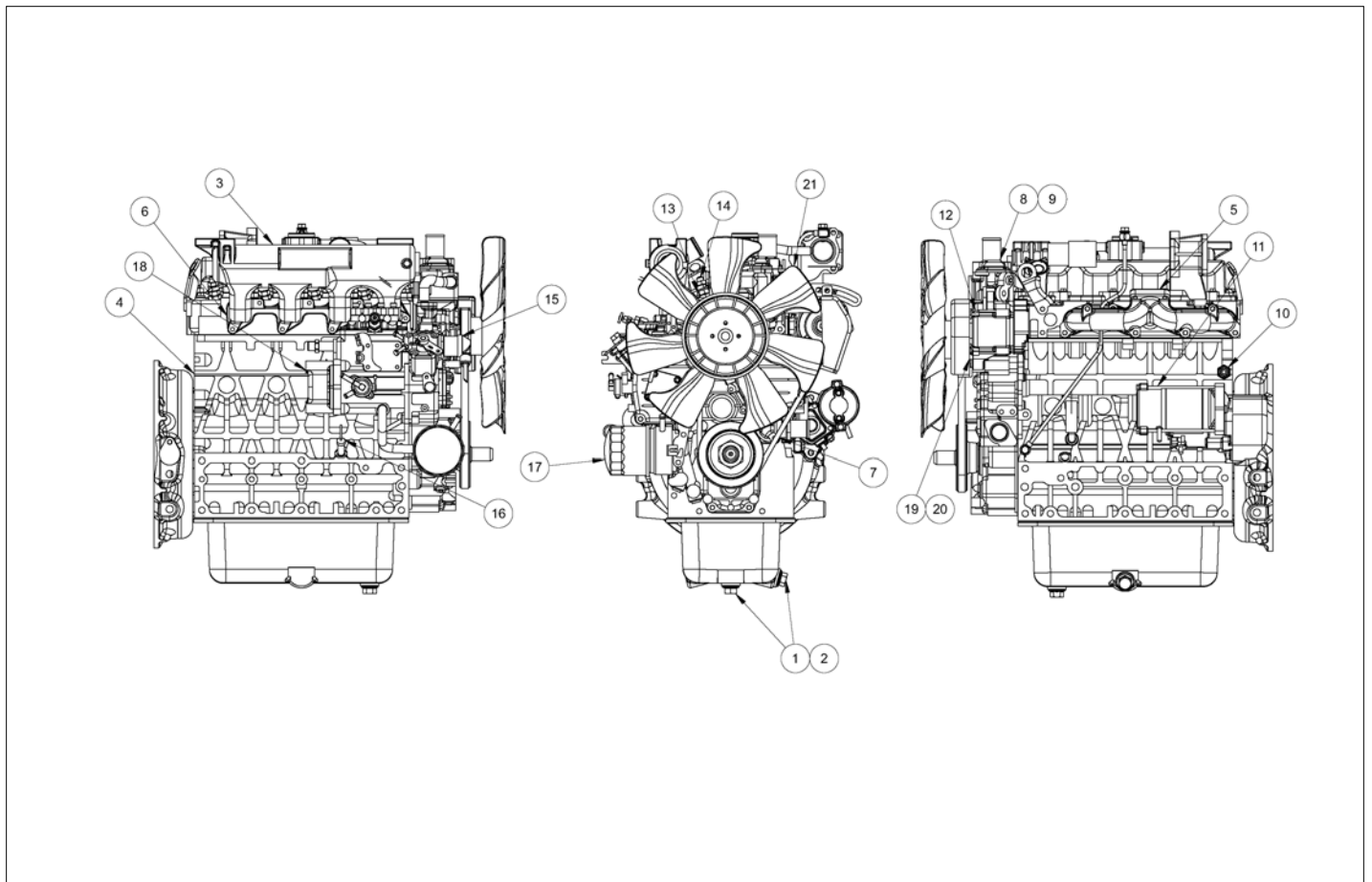
アイテム	部品番号	名前	数量	UOM
Not Shown	1431403 B	RADIATOR SHROUD ASSEMBLY		EA
1	1431404	SHROUD, RADIATOR	1	EA
2	1431990	SHROUD RAD	1	EA
3	1431991	SHROUD RAD, RH	1	EA
4	1431992	SHROUD RAD, TOP	1	EA
5	1431993	SHROUD RAD, BOTTOM	1	EA
6	056069 008	WASHER, STEELFLATWASHER DIN12M8 FLAT WASHER DIN 125	16	EA
7	056064 008	NUT HEX M8 1.25 GR10.9 SELF LOCKING DIN 985	8	EA
8	510681 020	HHCS M8X1.25X20 G10.9 ISO 4014 DIN 933	8	EA
9	9920035	TRIMSEAL X3/16G TRIM LOK	1	EA

REPAIR PARTS



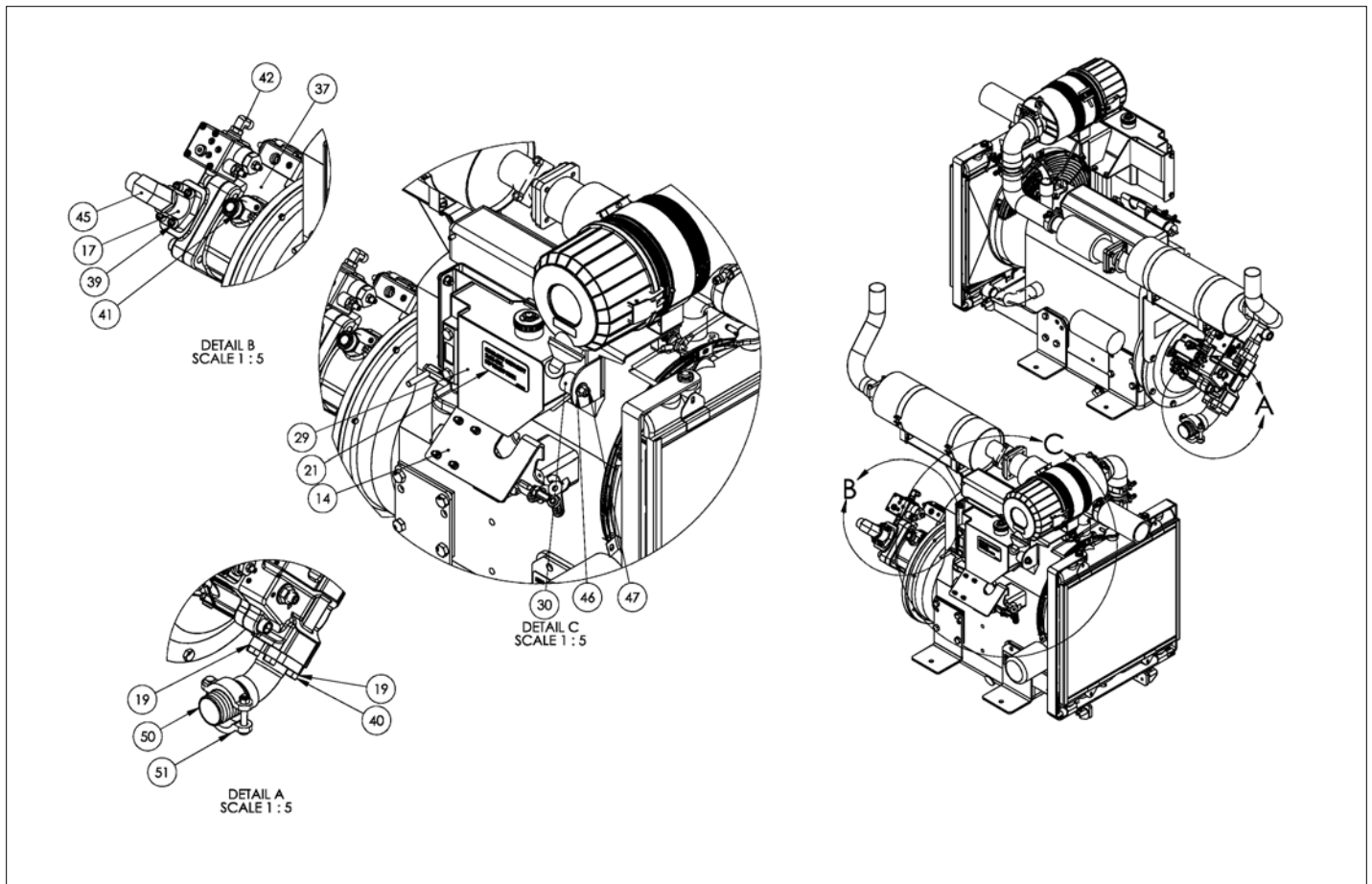
アイテム	部品番号	名前	数量	UOM
Not Shown	1431374 A	ENGINE SWING OUT ASSEMBLY		EA
1	1430726	ENGINE ASSY KUBOTA DIESEL 660SJ	1	EA
2	100209 000	ISOLATOR ENGINE	4	EA
3	1432155	ASSY BAT CNTL PNL KU	1	EA
4	1431885	RUBBER STOP FOR OVERFLOW	1	EA
5	1431479	WELDMENT, ENG TRAY KU V2403	1	EA
6	5563500	BOLT HXHD M10X1.5X30 YZ GR10.9	8	EA
7	5563543	WSHR, FLAT M10 YL ZN GR 10.9	25	EA
8	5563556	NUT HEX M10X1.5 YL ZN GR10.9	13	EA
9	5563740	BOLT HX HD M10X1.5X75 ZN PLT GR10.9	4	EA

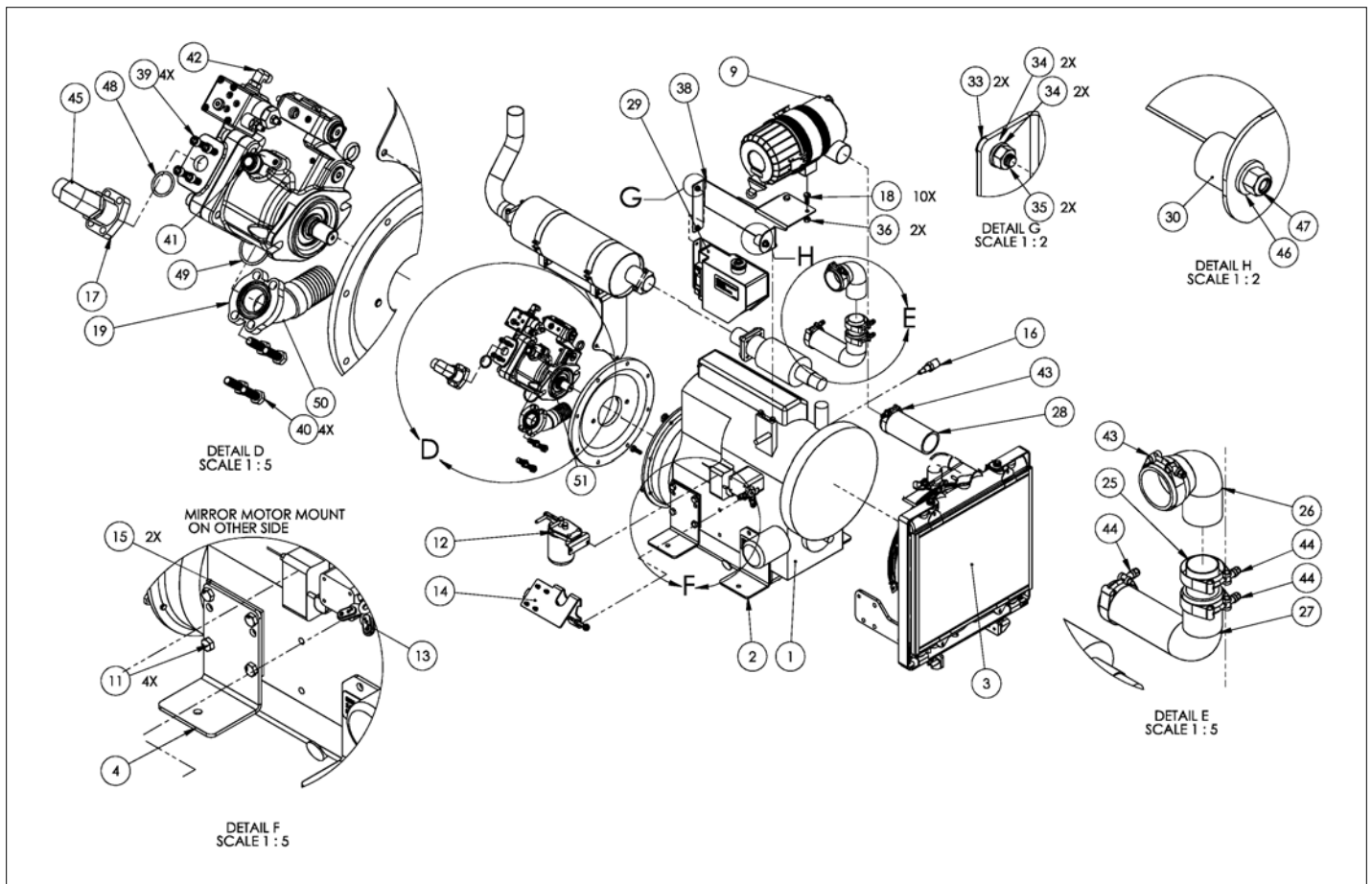
REPAIR PARTS

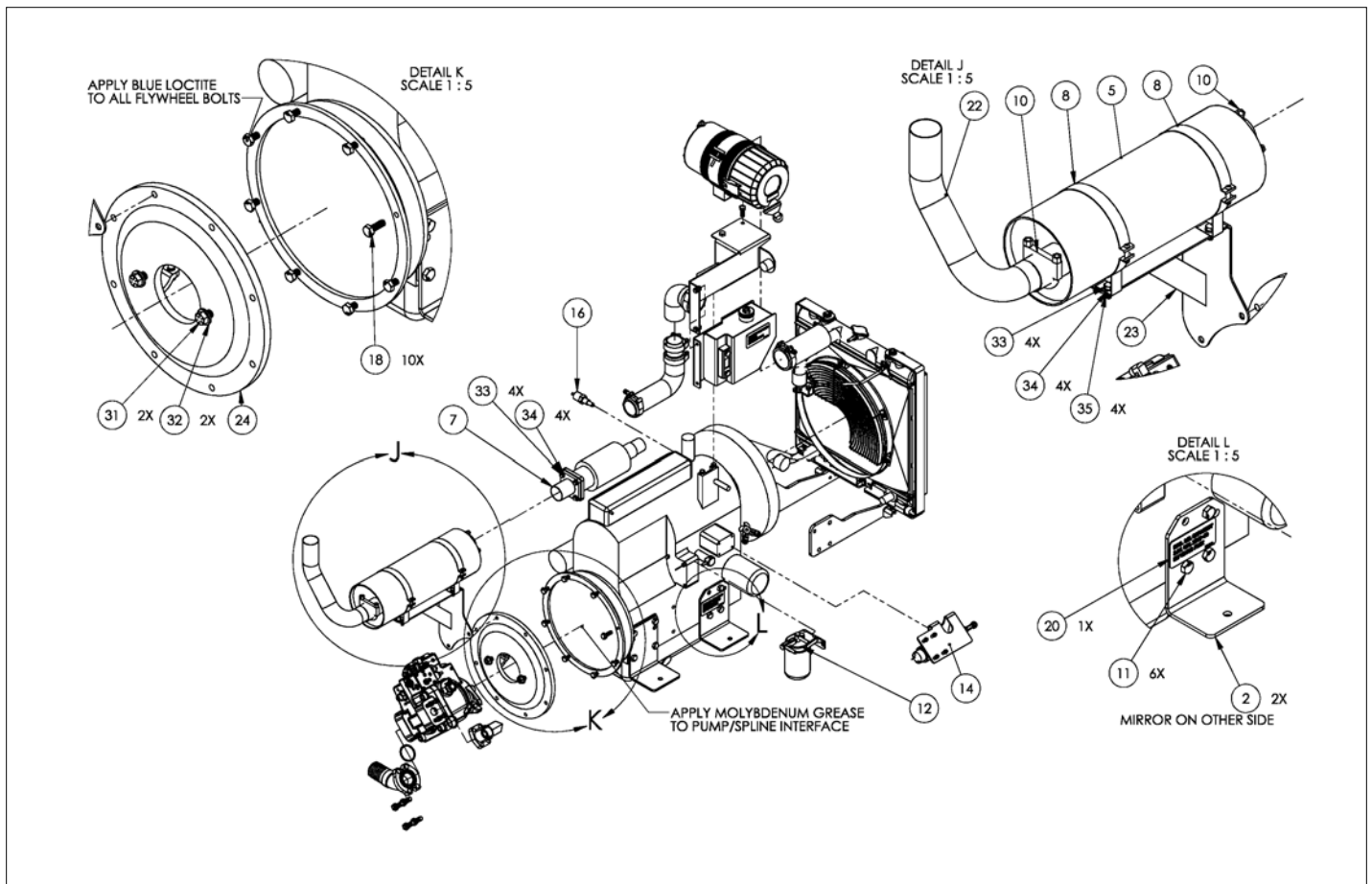


アイテム	部品番号	名前	数量	UOM
Not Shown	104673 000 A	KUBOTA V2403 TURBO DIESEL ENGINE		EA
1	7630948	OIL DRAIN PLUG	2	EA
2	104673 100	OIL DRAIN PLUG GASKET	2	EA
3	104763 101	UPPER GASKET KIT	1	EA
4	104673 102	LOWER GASKET KIT	1	EA
5	104673 103	MUFFLER GASKET	1	EA
6	104673 104	INTAKE MANIFOLD GASKET	1	EA
7	104673 105	FAN BELT	1	EA
8	104673 106	THERMOSTAT	1	EA
9	260466	THERMOSTAT HSG. GASKET	1	EA
10	067614 023	OIL PRESSURE SWITCH	1	EA
11	104673 107	STARTER ASSY	1	EA
12	104673 108	ALTERNATOR ASSY	1	EA
13	104673 109	GLOW PLUG	4	EA
14	104673 110	INJECTOR NOZZLE KIT	4	EA
15	104673 111	FUEL STOP SOLENOID	1	EA
16	104673 112	DIP STICK	1	EA
17	104673 113	OIL FILTER	1	EA
18	104743 000	FUEL FILTER & BRKT DIESEL	1	EA
19	104673 114	ASSY WATER PUMP	1	EA
20	104673 115	GASKET WATER PUMP	1	EA
21	104673 116	FAN	1	EA

REPAIR PARTS





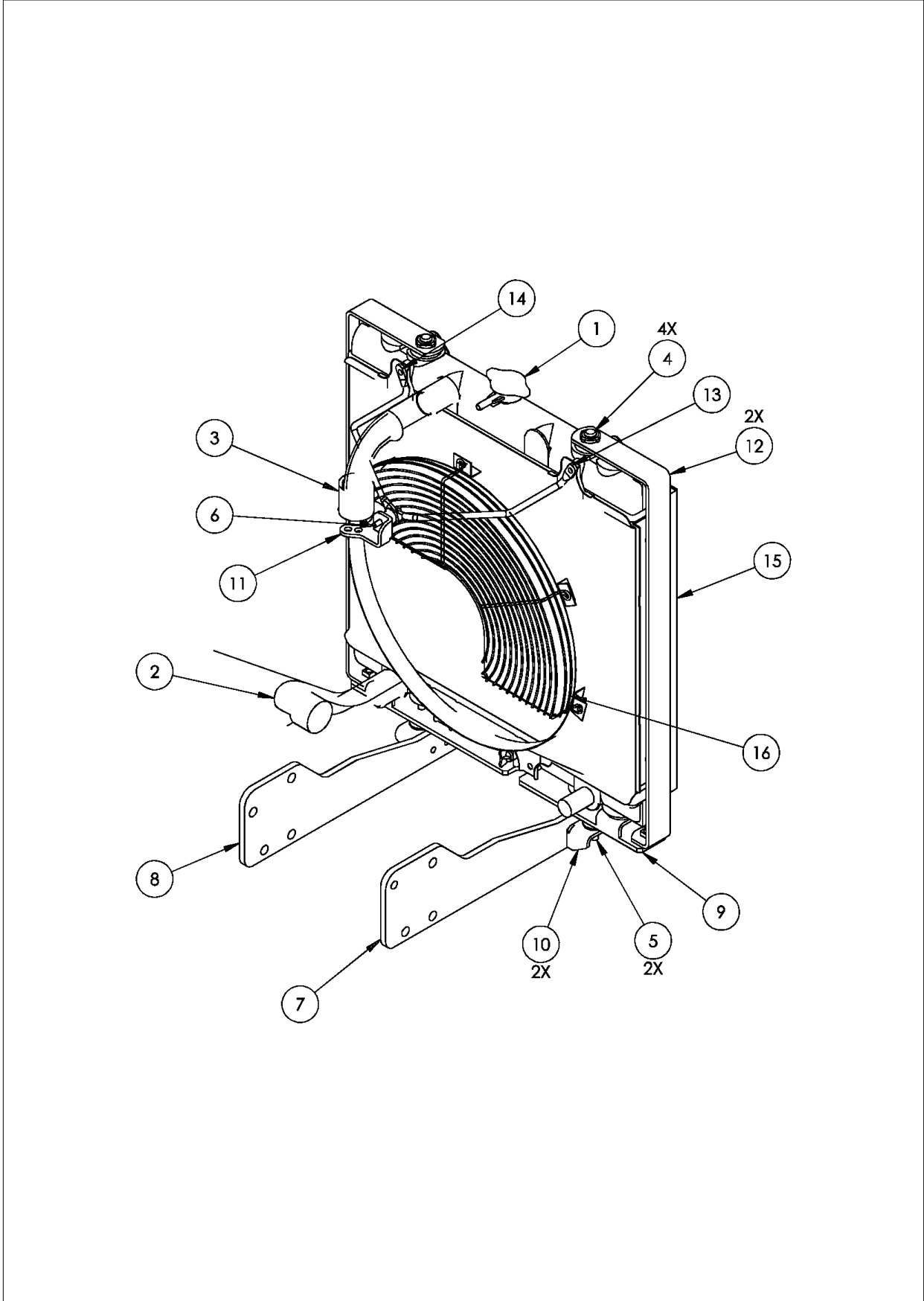


アイテム	部品番号	名前	数量	UOM
Not Shown	1430726 E	KUBOTA ENGINE ASSEMBLY DIESEL 660SJ		EA
1	104673 000	KUBOTA ENGINE V2403 M T E3B KEA2 REPLACEMENT PARTS	1	EA
2	104711 000	ENGINE MOUNT FRONT	2	EA
3	104701 000	RADIATOR KIT	1	EA
4	104712 000	ENGINE MOUNT REAR	2	EA
5	1430841	MUFFLER, END INLET, END OUTLET OFFSET 2"	1	EA
7	104735 400	EXHAUST OUTLET AT TURBO	1	EA
8	100180 041	CLAMP, MUFFLER #P00235 1	2	EA
9	7630755	AIR CLEANER CUMMINS 3.3 KUBOTA WG2403 TIER 3 AND TIER 4 ASSEMBLY	1	EA
10	013259 008	MUFFLER CLAMP 2"	2	EA
11	5563510	BOLT HXHD M12X1.75X40YZGR10.13	14	EA
12	104743 000	FUEL FILTER & BRKT DIESEL	1	EA
13	104744 000	THROTTLE LINKAGE WELDMENT	2	EA
14	104618 000	THROTTLE BRACKET ASSY	1	EA
15	104778 000	MOTOR MOUNT SPACER	2	EA
16	3028812	TEMP SWITCH .375 NPT M SPST NC	1	EA
17	511605 000	SAE PORT BLOCK ADAPTER 16ORB 16	1	EA
18	5563500	BOLT HXHD M10X1.5X30 YZ GR10.9	10	EA
19	511604 000	SPLIT FLANGE 1.50	1	EA
20	7030165	DECAL, ENGINE OIL CAPACITY	1	EA
21	7030166	DECAL, COOLANT CAPACITY	1	EA
22	1430851	EXHAUST TAIL PIPE	1	EA
23	1431375	MUFFLER MOUNT	1	EA

アイテム	部品番号	名前	数量	UOM
24	104703 000	HOUSING ADAPTER KIT AB62 POLARIS HAYES	1	EA
25	1431577	ADPTR, TUBE INTK V2403	1	EA
26	1431574	TUBE, INTK TOP V2403	1	EA
27	1431575	TUBE, INTK BTM V2403	1	EA
28	1431576	TUBE, INTK TO FLTR V2403	1	EA
29	25743 000	OVERFLOW RESERVOIR	1	EA
30	1431886	RUBBER STOP FOR ENGINE TRAY	1	EA
31	5563589	BOLT HXHD 1/2 13X1 1/4YLZN GR8	2	EA
32	5563625	WASHER, FLAT 1/2" YL ZN GR8	2	EA
33	5563490	BOLT HXHD M8X1.25X20 YZ GR10.9	12	EA
34	5563542	WSHR, FLAT M8 YL ZN GR 10.9	14	EA
35	5563555	NUT HEX M8X1.25 YL ZN GR10.9	6	EA
36	5563556	NUT HEX M10X1.5 YL ZN GR10.9	2	EA
37	6029697	LOAD SENSE PUMP HENGLI	1	EA
38	1431458	BRKT, RDR OVFLW TNK V2403	1	EA
39	5563775	SHCS 3/8 16X1.5 BLOX GR8	4	EA
40	5563590	HHCS .500 13 UNC STL GR8 1.50 LG ZP	4	EA
41	5028025	FTG, STR, 12MORFF X 8MORB	1	EA
42	100434 002	FITTING 4MORFF X 4MORB 90 °	1	EA
43	5059722	BOLT CLAMP TIGHT SEAL	2	EA
44	5059725	CLAMP BOLT TIGHT SEAL 2.31 TO 2.625 ID	3	EA
45	104762 000	FTG 12MORFF X 16MORB 90 °	1	EA
46	5563623	WASHER, FLAT 3/8 GR8	1	EA
47	5563633	NUT, HEX 3/8 16 YL ZN PLT GR8	1	EA

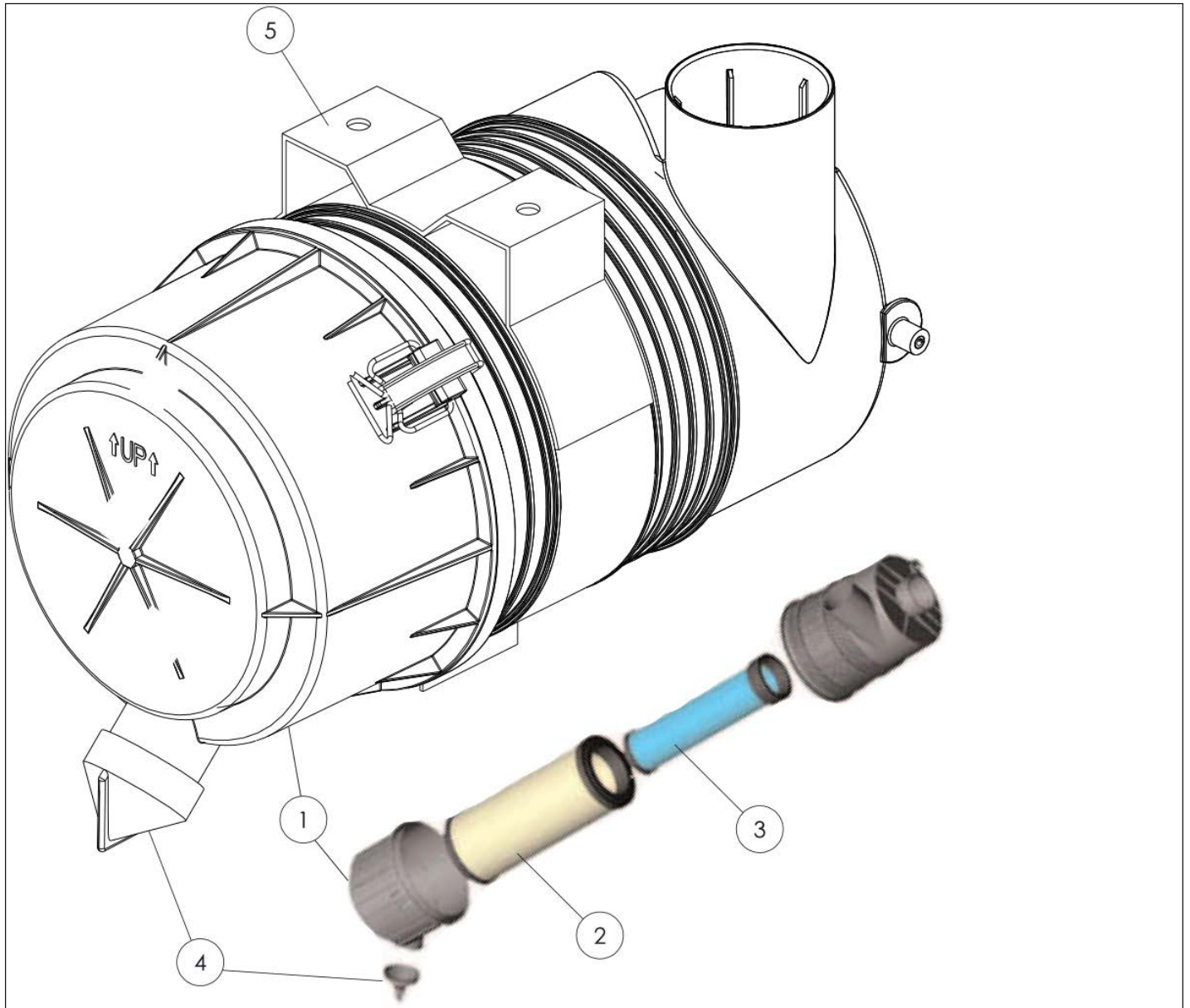
アイテム	部品番号	名前	数量	UOM
48	7119925	O RING 219 NBR 90	1	EA
49	7119926	O RING, 225 NBR 90	1	EA
50	5260037	INLT ADPTR BRB TO SPLT FLNG	1	EA
51	5059726	HOSE CLAMP 2" PARKER 88DB 32	1	EA

REPAIR PARTS



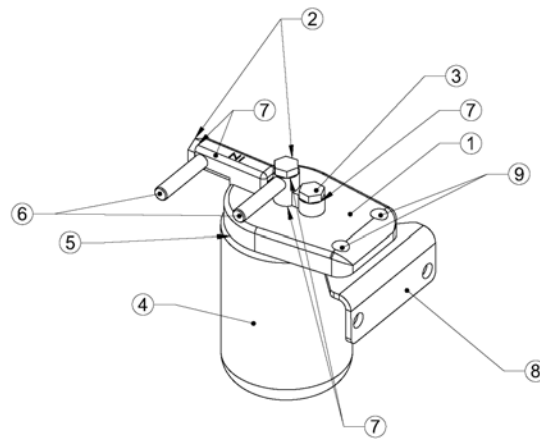
アイテム	部品番号	名前	数量	UOM
*	104701 000 A	RADIATOR KUBOTA V2403		EA
1	1431994	RADIATOR CAP	1	EA
2	1430538	HOSE, WATER	1	EA
3	1430539	HOSE, WATER	1	EA
4	1430541	CUSHION	4	EA
5	1430542	CUSHION	2	EA
6	1430543	CUSHION	1	EA
7	1430544	SUPPORT 1, RADIATOR	1	EA
8	1430545	SUPPORT 2, RADIATOR	1	EA
9	1430546	STAY	1	EA
10	1430547	STAY 1, RADIATOR	2	EA
11	1430548	STAY 2, RADIATOR	1	EA
12	1430549	STAY 3, RADIATOR	2	EA
13	1430550	SUPPORT IN, RADIATOR	1	EA
14	1430551	SUPPORT EX, RADIATOR	1	EA
15	1430552	NET, RADIATOR	1	EA
16	1430553	COVER, FAN	1	EA

REPAIR PARTS



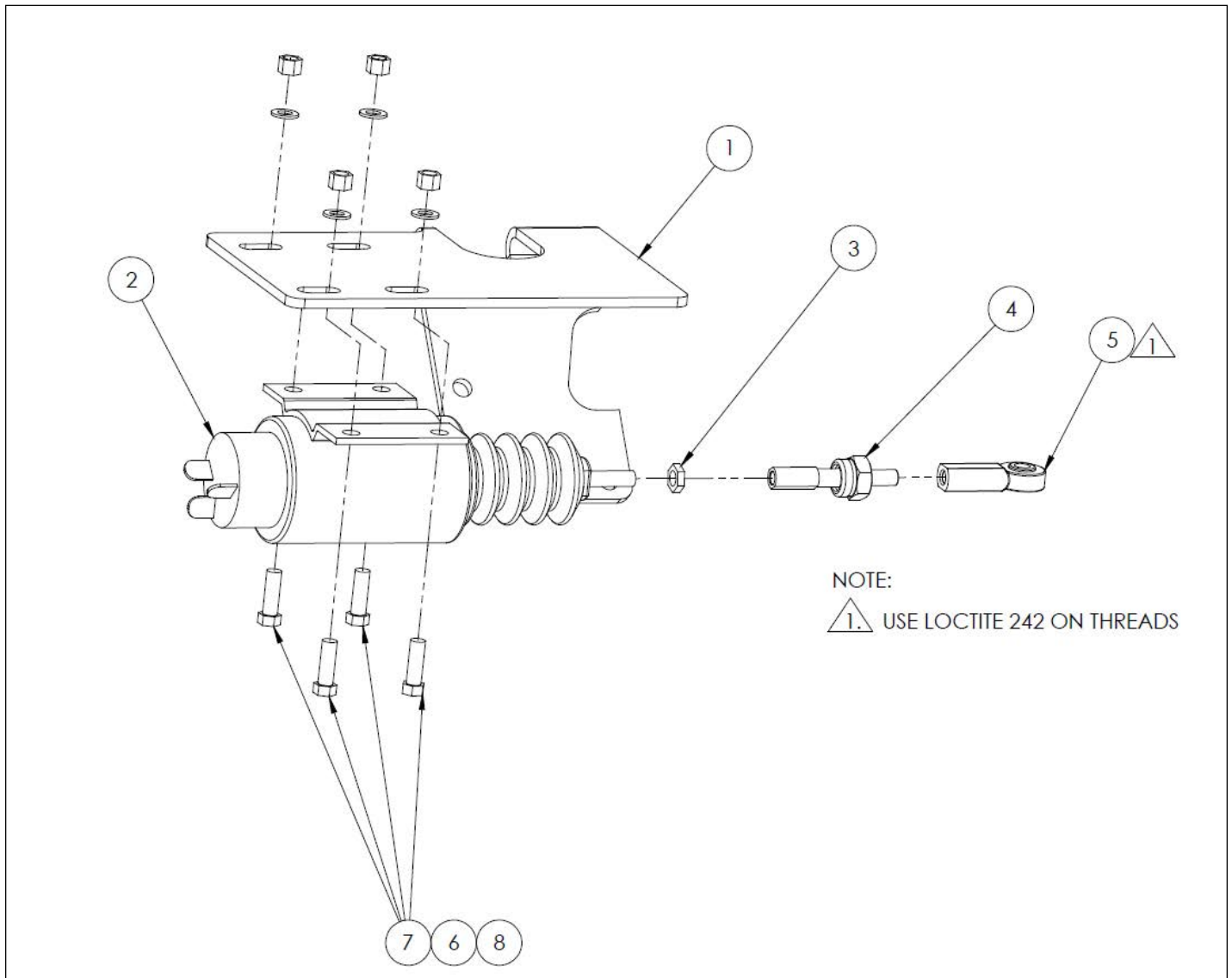
アイテム	部品番号	名前	数量	UOM
	7630755 B	AIR CLEANER ASSEMBLY CUMMINS 45 HP CUMMINS 65 HP FORD LRG 425 GM T3 2.4L KUBOTA V1505T TIER 3 V2403		EA
	8140014	cap retainer clip	3	EA
1	8140013	cover	1	EA
2	8050097	PRIMARY ELEMENT	1	EA
	8140011	element	1	EA
3	8050098	SAFETY ELEMENT	1	EA
4	8050099	EXTERNAL EJECTOR	1	EA
	068903 009	DUST EJECTOR	1	EA
5	8050100	METAL BRACKET	1	EA

REPAIR PARTS



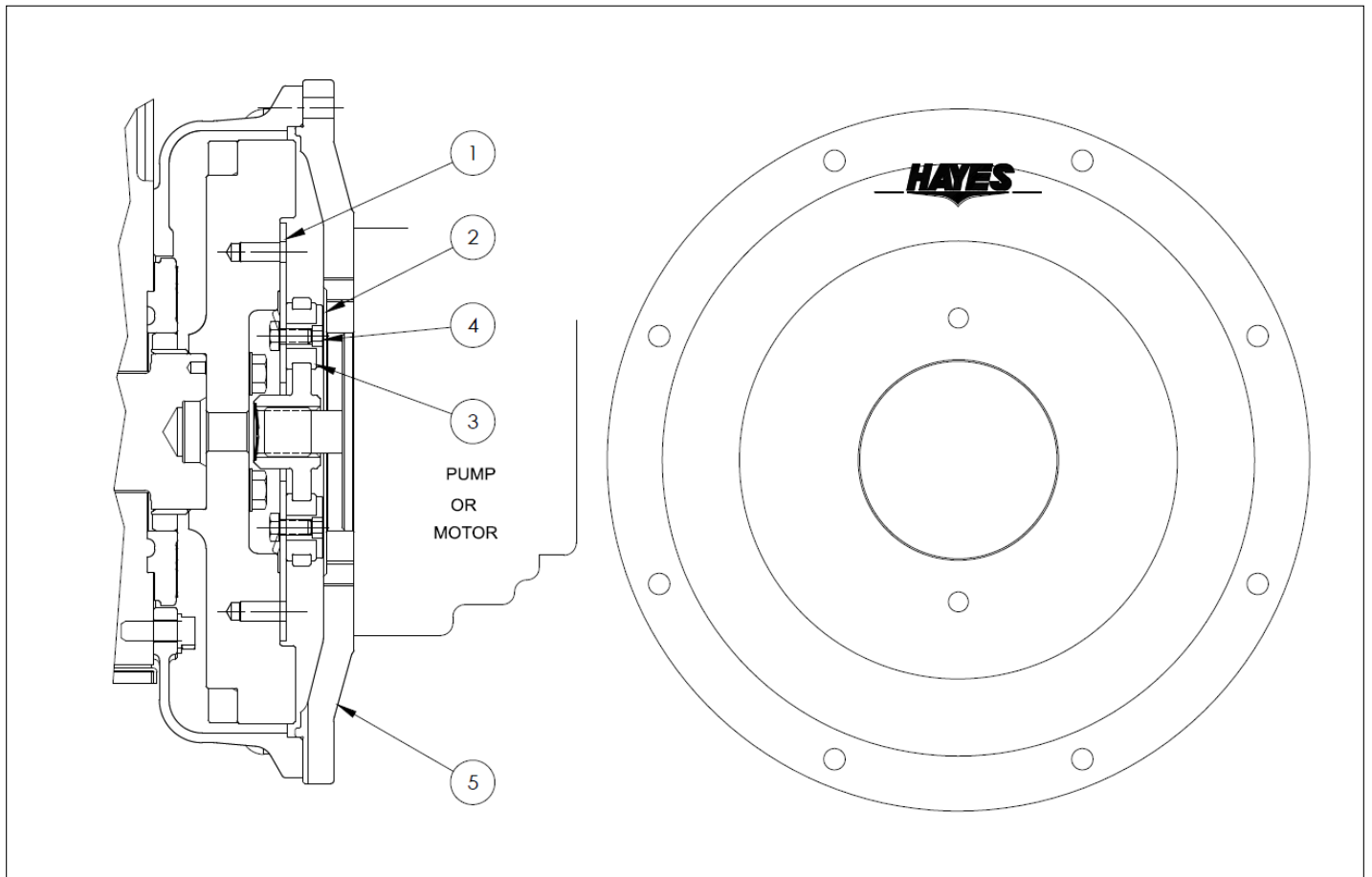
アイテム	部品番号	名前	数量	UOM
Not Shown	104743 000	FUEL FILTER & BRKT DIESEL	1	EA
1	6091847	COVER	1	EA
2	6091848	BOLT, JOINT	2	EA
3	6091849	PLUG	1	EA
4	5089682	FUEL FILTER FOR V2403T	1	EA
5	6091850	GASKET	1	EA
6	6091851	CONNECTOR	2	EA
7	6091582	GASKET (VO)	5	EA
8	6091853	HOLDER, FUEL FILTER	1	EA
9	6091854	BOLT JOINT	2	EA

REPAIR PARTS



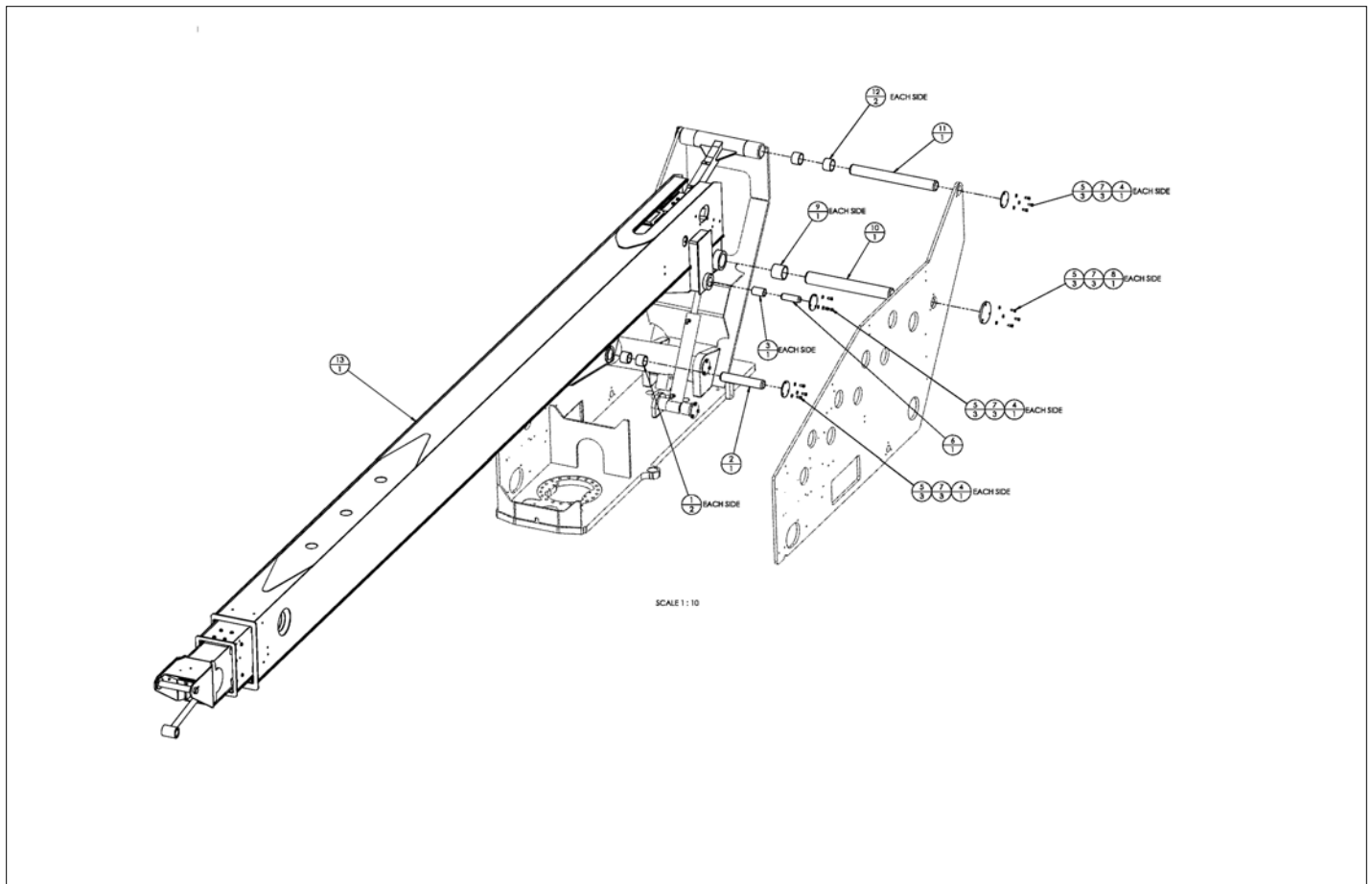
アイテム	部品番号	名前	数量	UOM
Not Shown	104618 000	THROTTLE BRACKET ASSY		EA
1	104737 000	THROTTLE BRACKET	1	EA
2	3040174	SOLENOID, THROTTLE	1	EA
3	011261 000	JAM NUT .250 28	1	EA
4	064423 000	SWIVEL, IN LINE	1	EA
5	011760 004	ROD END	1	EA
6	510588 006	WSHR FLAT M6	4	EA
7	056058 018	BOLT, HEXBOLT DIN 931 M6 X 16MM 8.8 ZP	4	EA
8	056064 006	NUT NYLOCK DIN985 M6 10.0 ZP	4	EA

REPAIR PARTS



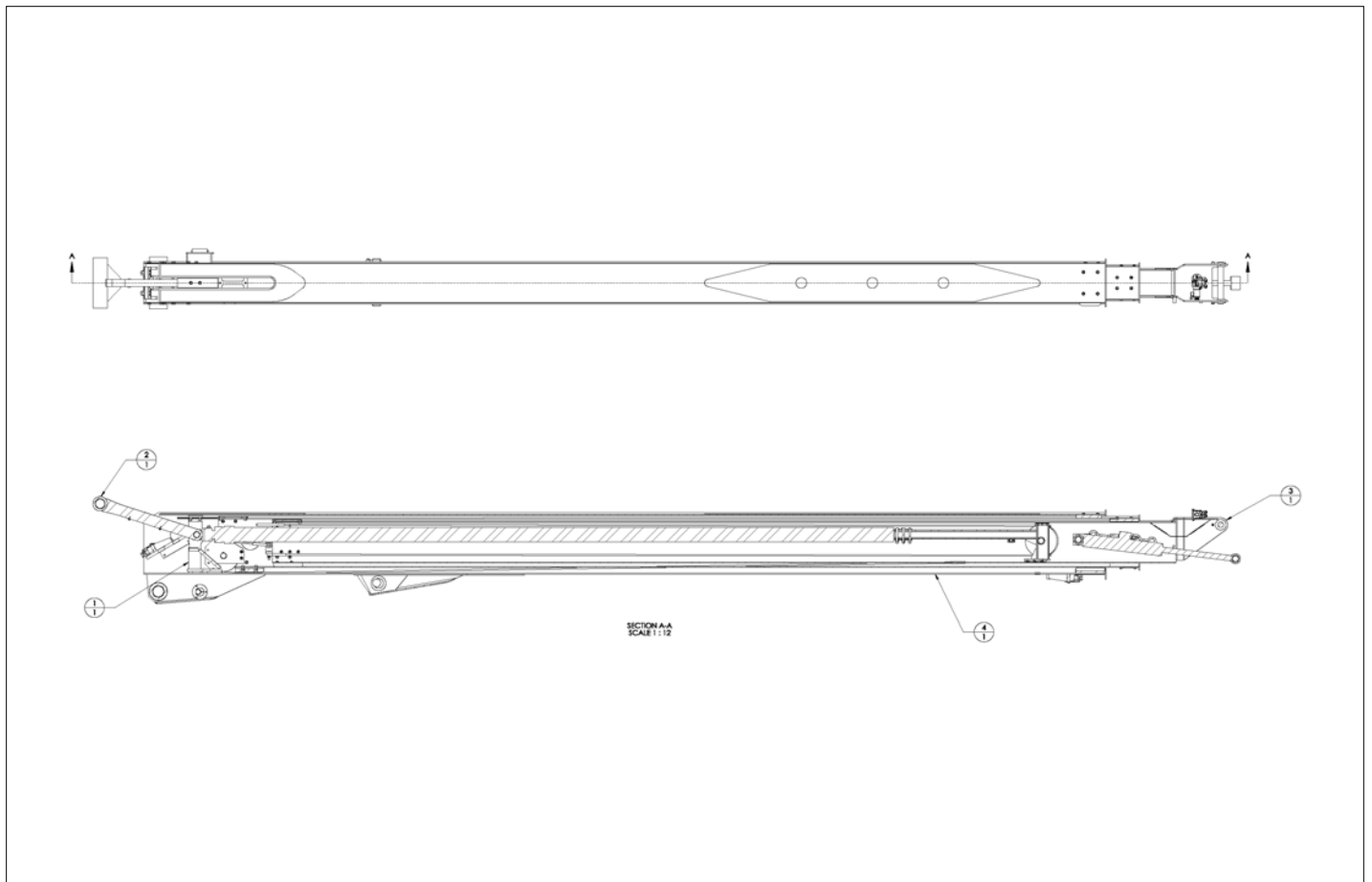
アイテム	部品番号	名前	数量	UOM
Not Shown	104703 000 A	FLYWHEEL ASSY		EA
1	104703 100	FLYWHEEL PLATE	1	EA
2	104703 101	COUPLING HUB	1	EA
3	104703 102	NEOPRENE INSERT	8	EA
4	104703 103	THREADED BUSHING	8	EA
5	104703 104	HOUSING	1	EA

REPAIR PARTS



アイテム	部品番号	名前	数量	UOM
Not Shown	1432246 A	MAIN BOOM INSTALLATION		EA
1	2509848	BUSHING, LIFT CYLINDER LOWER	4	EA
2	1431554	PIN, BOOM LIFT CYL END	1	EA
3	2509849	BUSHING 40X50X6	2	EA
4	1431508	PLATE, FLOATING PIN COVER	6	EA
5	058508 025	HHCS M10 X 25MM GR10.9 DIN933	24	EA
6	1431555	PIN, MASTER CYLINDER ROD END	1	EA
7	5563543	WSHR, FLAT M10 YL ZN GR 10.9	24	EA
8	1431003	PLATE, RETAINER PIN	2	EA
9	2504857	BEARING	2	EA
10	1431002	PIN MAIN BOOM	1	EA
11	1431511	PIN, INTERACTIVE LINK	1	EA
12	511302 000	65 ID X 75 OD X 50 MM LONG BEARING	4	EA
13	1432247	MAIN BOOM ASSEMBLY	1	EA

REPAIR PARTS

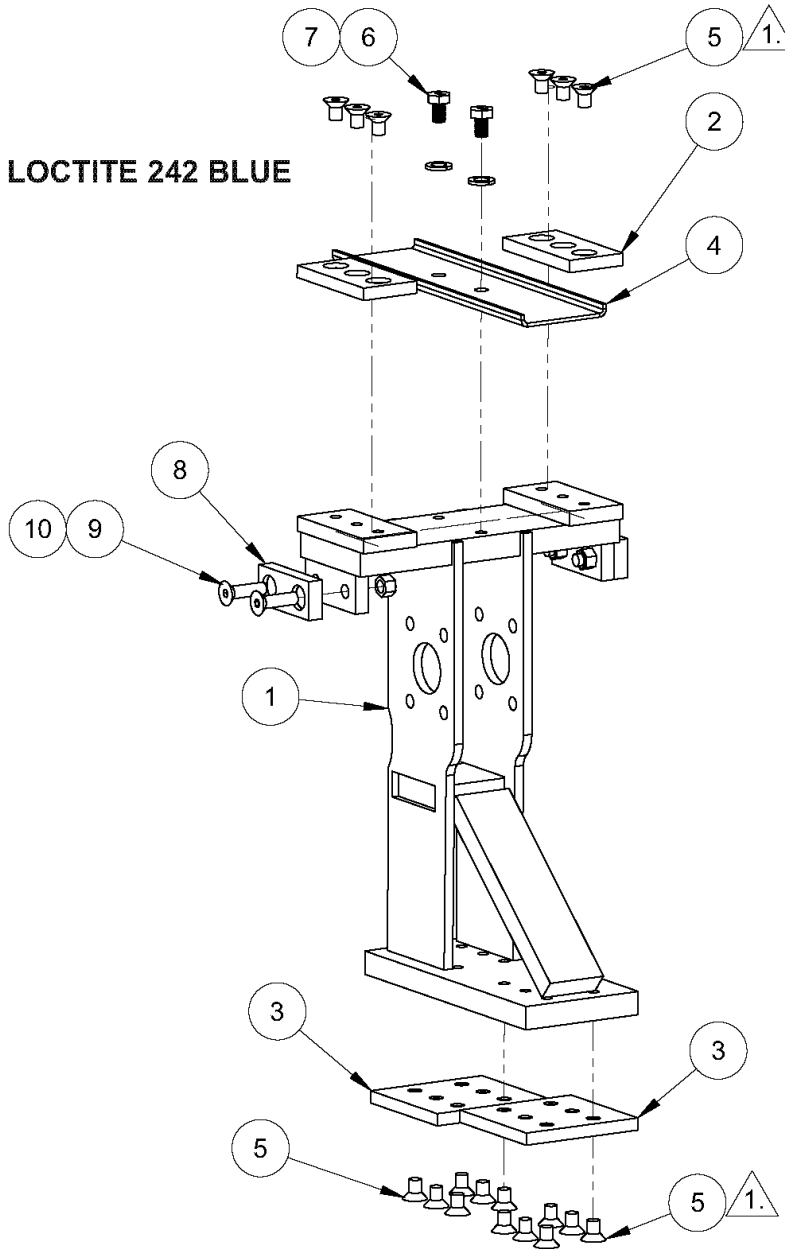


アイテム	部品番号	名前	数量	UOM
	1432247	MAIN BOOM ASSEMBLY		EA
1	1430722	CYLINDER SUPPORT ASSEMBLY	1	EA
2	1430721	BOOMS TO TURRET	1	EA
3	1430723	TIP BOOM TO INTERMEDIATE BOM ASSEMBLY	1	EA
4	511541 500	BASE BOOM WELDMENT	1	EA

REPAIR PARTS

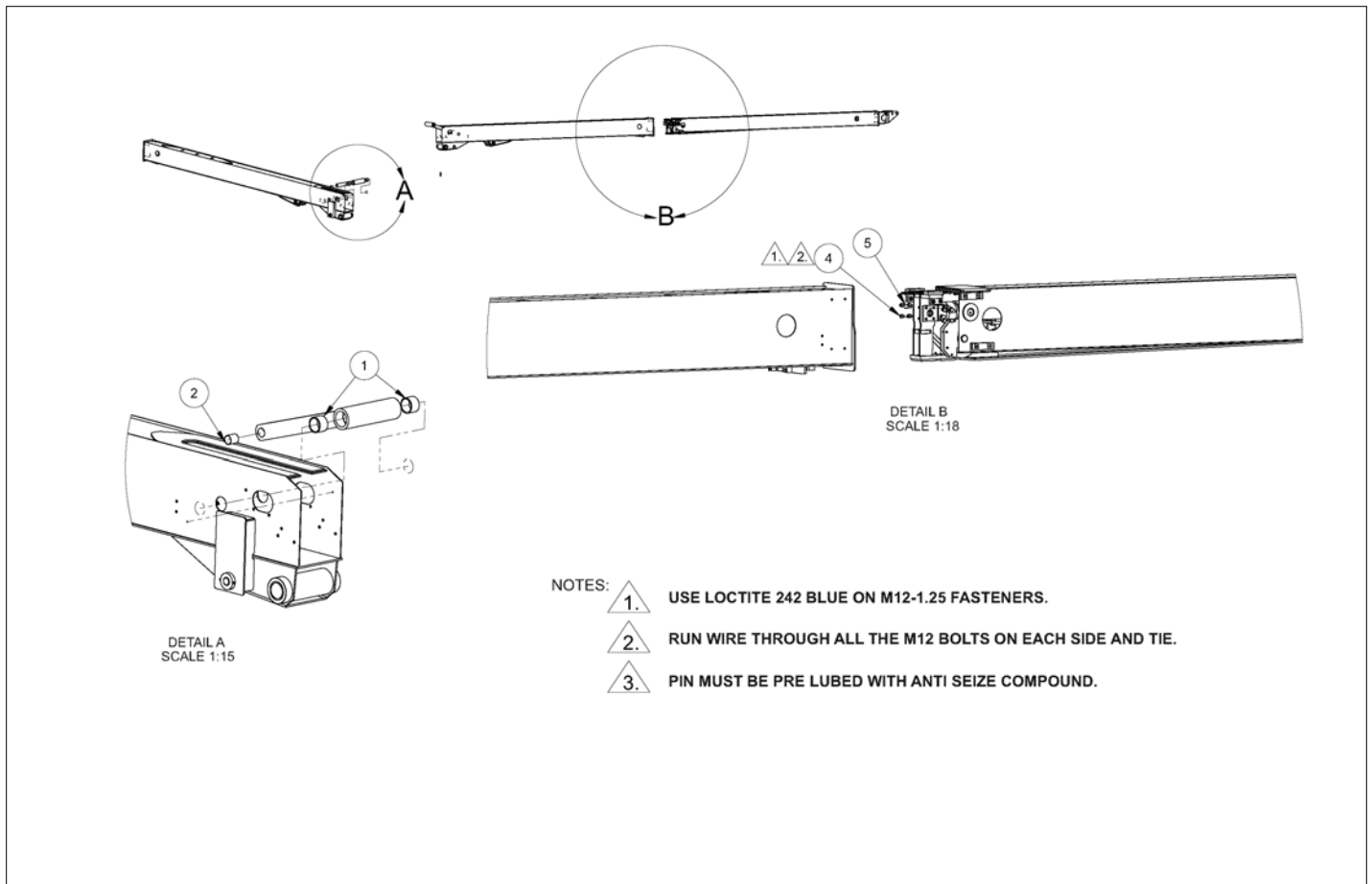
NOTE:

1. USE LOCTITE 242 BLUE



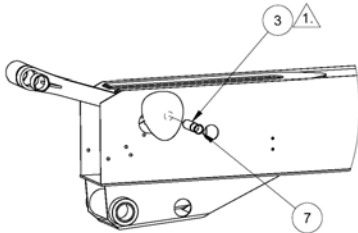
アイテム	部品番号	名前	数量	UOM
Not Shown	1430722 A	CYLINDER SUPPORT ASSEMBLY		EA
1	511553 400	WELDMENT CYL SUPPT	1	EA
2	511211 400	SLIDE PAD	2	EA
3	511219 300	SLIDE PAD, BOTTOM CYLINDER SUPPORT	2	EA
4	511303 000	COVER INTERACTIVE LINK SLOT	1	EA
5	512727 016	CSK SKT FLT MACH SCREW M10 1.5 X 16 10.9	18	EA
6	056060 015	BOLT, HEX BOLT DIN931 M10 X 15MM 8.8 ZINC PLTD	2	EA
7	056021 012	Washer, SpringWasher DIN127B M	2	EA
8	511601 000	TOWER SLIDE WEAR PAD	2	EA
9	512727 030	BOLT, CSK SKT FIT MACHINE SCREW DIN7991 M10 X 30MM 10.9 ZINC PLTD	4	EA
10	056064 010	Nut NylockNut DIN985 M10 10.0	4	EA

REPAIR PARTS

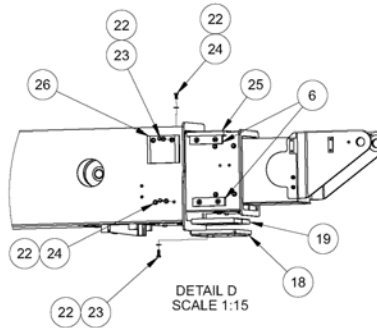




TO PIN INTERACTIVE LINK TO TOWER.
RETRACT BOOM LIFT CYL ALL THE WAY.
THEN THRU SLOTS ON SIDE OF BOOM
YOU WILL BE ABLE TO SEE AND PIN LINK



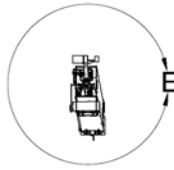
DETAIL C
SCALE 1:15



DETAIL D
SCALE 1:15

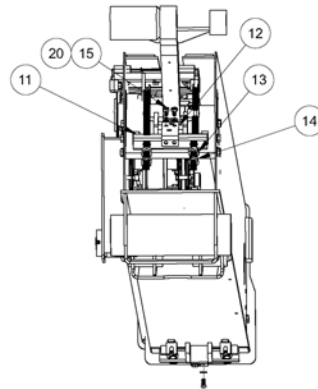
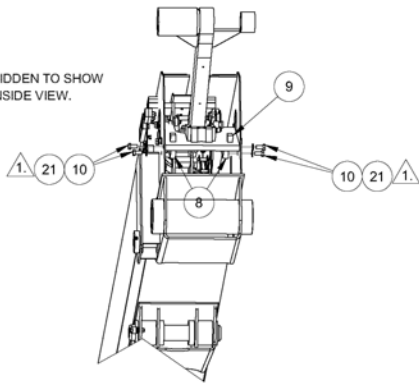
NOTE:  PIN MUST BE PRE LUBED WITH ANTI SEIZE COMPOUND.

NOTE:  TORQUE M12 HARDWARE TO 65FT LBS.

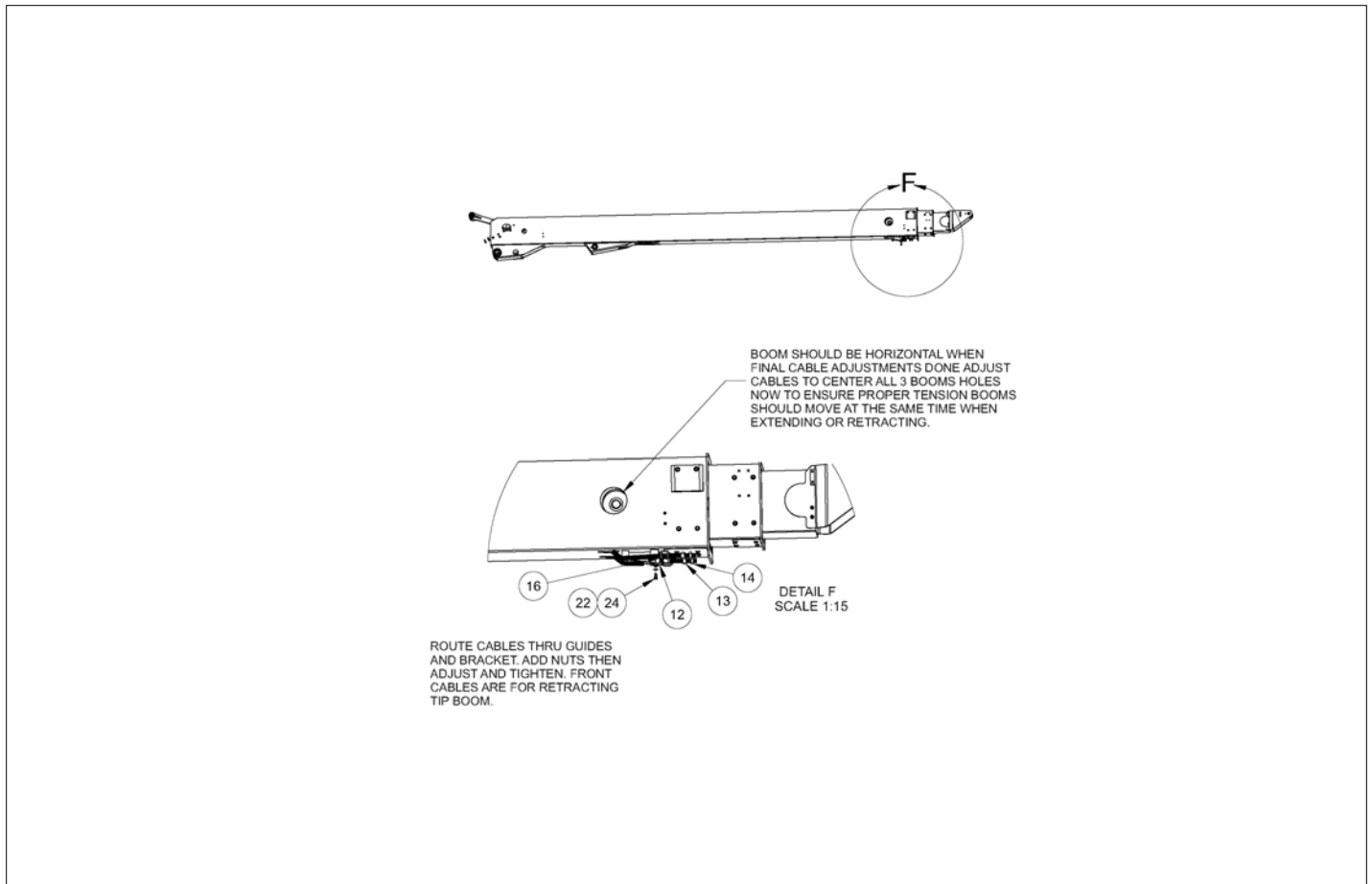


ROUTE CABLES OVER GUIDES AND THRU BRACKET, ADD NUTS ADJUST CABLES AND TIGHTEN. REAR CABLES ARE FOR EXTENDING TIP BOOM.

TURRET HIDDEN TO SHOW BETTER INSIDE VIEW.



DETAIL E
SCALE 1:10



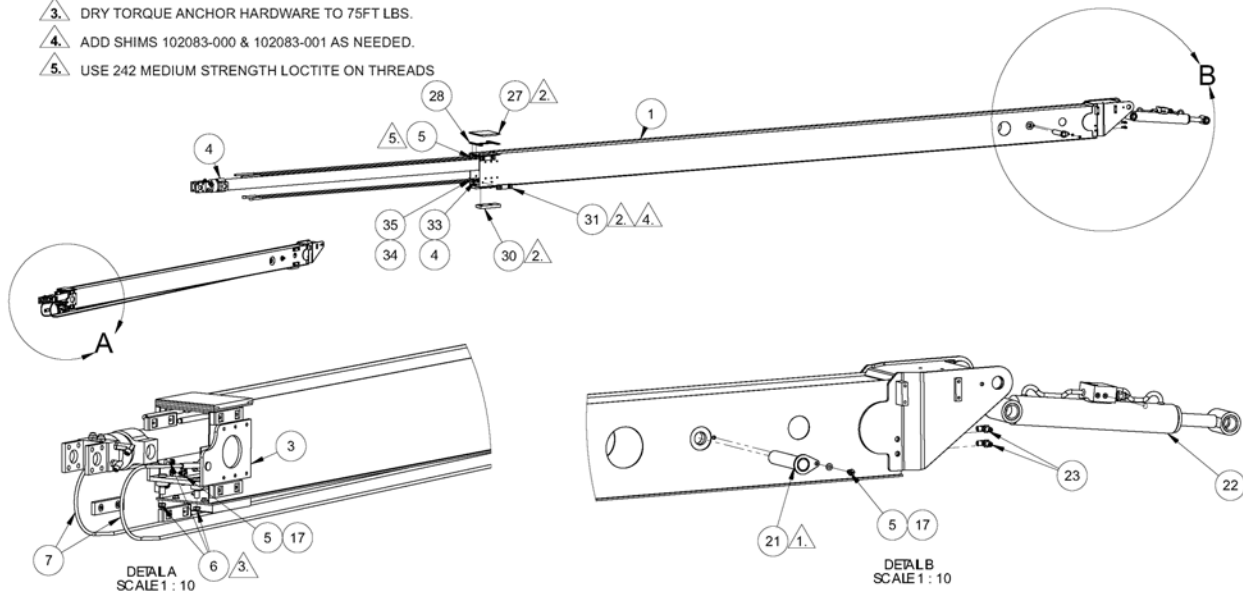
アイテム	部品番号	名前	数量	UOM
	1430721 A	BOOMS TO TURRET ASSEMBLY		EA
1	511302 000	65 ID X 75 OD X 50 MM LONG BEARING	2	EA
2	511335 000	BUSHING 4050DU, 40mm ID 50mm LG DU STYLE	1	EA
3	511214 000	PIN, EXTEND CYL @ LINK	1	EA
4	514281 020 DR	BOLT, HEX SETSCREW, DIN961 M12 x 1.25 x 20mm 10.9 ZINC PLTD	8	EA
5	9980012	.040 S. S. SAFETY LOCKWIRE	2	EA
6	511628 000	SIDE WEAR PAD	4	EA
7	511336 000	EXTERNAL RETAINING RING 40MM	2	EA
8	1430732	SUPPORT, ANCHOR	2	EA
9	511228 000	WELDMENT ANCHOR WIRE ROPE	1	EA
10	056065 025	HHD BLT M12 1.75X25 GR8.8	11	EA
11	511229 000	WELDMENT SWIVEL ANCHOR	1	EA
12	302363	BRACKET	2	EA
13	984209	HEX NUT .750 10 USC 2A GR5 ZINC PLT	4	EA
14	984469	NUT, 3/4 10 HEX JAM	4	EA
15	056060 015	BOLT, HEX BOLT DIN931 M10 X 15MM 8.8 ZINC PLTD	2	EA
16	511554 000	WELDMENT SWIVEL ANCHOR	1	EA
17	511239 400	INTERACTIVE LINK	1	EA
18	1430836	TRAY,WEAR PAD WELDMENT	1	EA
19	1430868	WEARPAD BASE BOOM	2	EA
20	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	3	EA
21	056069 012	WASHER DIN125A M12 ZP	11	EA
22	986299	WASHER, FLAT, .375 STANDARD, PLATED	18	EA
23	970469	HHD BLT .375 16 X 1.00 GR5	6	EA

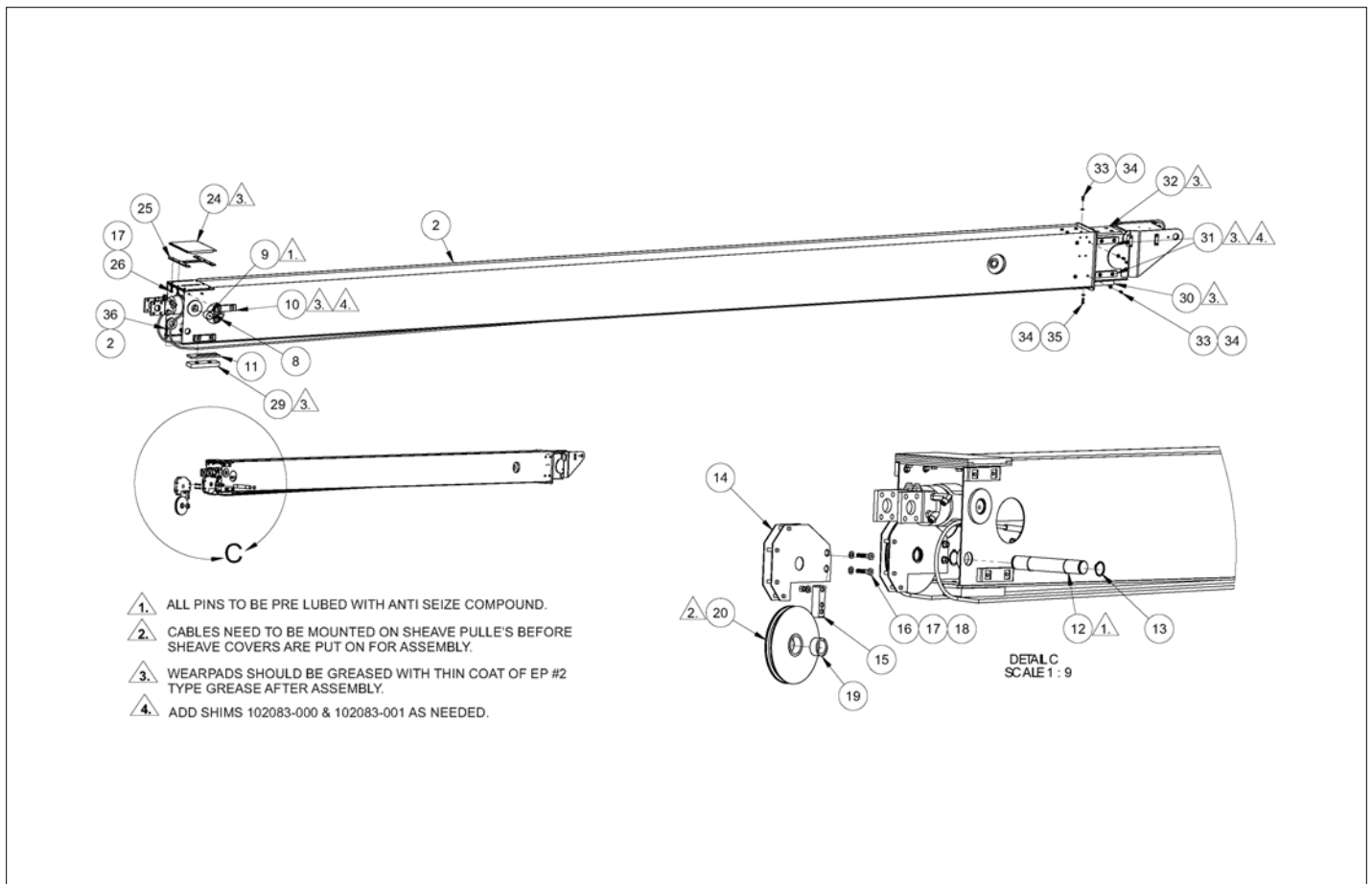
アイテム	部品番号	名前	数量	UOM
24	970449	HHD BLT .375 16 X .750 GR5	12	EA
25	511632 000	WEAR PAD BASE TOP	1	EA
26	1430698	GUIDE, CARRIER TRACK	1	EA

REPAIR PARTS

NOTES:

- 1. ALL PINS TO BE PRE LUBED WITH ANTI SEIZE COMPOUND.
- 2. WEARPADS SHOULD BE GREASED WITH THIN COAT OF EP #2 TYPE GREASE AFTER ASSEMBLY.
- 3. DRY TORQUE ANCHOR HARDWARE TO 75FT LBS.
- 4. ADD SHIMS 102083-000 & 102083-001 AS NEEDED.
- 5. USE 242 MEDIUM STRENGTH LOCTITE ON THREADS

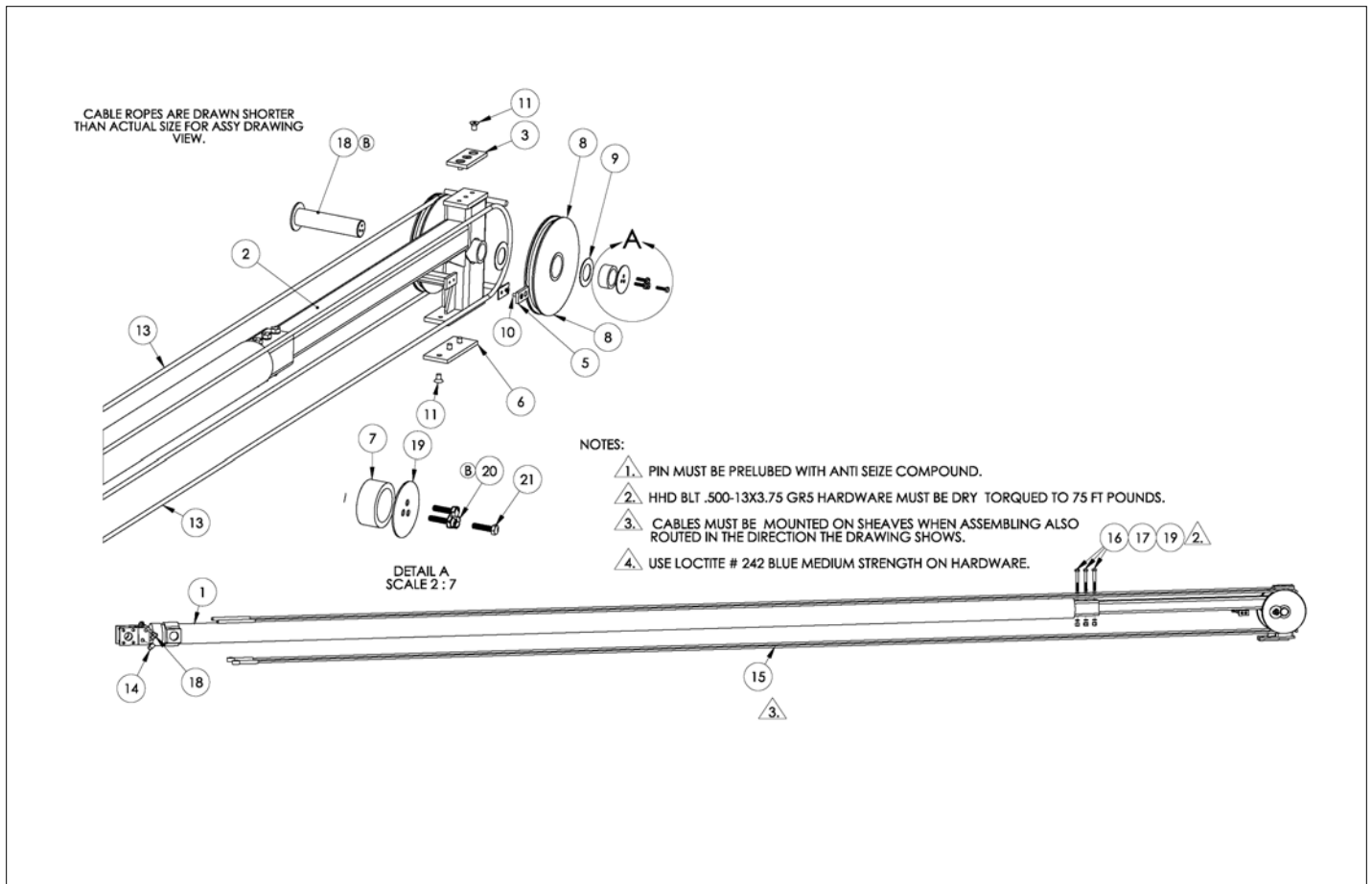




アイテム	部品番号	名前	数量	UOM
	1430723 B	TIP BOOM TO INTERMEDIATE BOOM ASSY		EA
	TCB 19.013	660SJ GEN I BOOM UP DATE S/N 660SJ 11 161200002 660SJ 11 170600039		EA
1	511545 000	TIP BOOM WELDMENT	1	EA
2	511544 501	INTERMEDIATE BOOOM WELDMENT	1	EA
3	511291 400	ANCHOR WELDMENT WIRE ROPE	1	EA
4	1430724	TELESCOPE ASSEMBLY	1	EA
5	056060 015	BOLT, HEX BOLT DIN931 M10 X 15MM 8.8 ZINC PLTD	19	EA
6	5560009	NUT 1/2 13 SELF LOCKING	4	EA
7	1431077	WIRE ROPE ASSY RETRACT, (3/8 DIA)	2	EA
8	8010383	45MM INTERNAL SNAP RING DIN 472	2	EA
9	511224 000	PIN, CYLINDER ANCHOR	2	EA
10	102050 000	BEARING SLIDE PAD	4	EA
11	1430867	SHIM, INTER BOTTOM WEAR PAD	1	EA
12	1430993	RETRACT SHEAVE PIN	1	EA
13	968419	SNAP RING 1.50 EXT	4	EA
14	511384 500	SHEAVE COVER	2	EA
15	0074639	SL PAD 1.00 3.563 1.00	2	EA
16	056060 045	Bolt, HexBolt DIN931 M10 x 45mm 8.8 ZincPlated	4	EA
17	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	27	EA
18	056064 010	Nut NylockNut DIN985 M10 10.0	4	EA
19	2500047	BRG 1.50ID 2.00OD .875	2	EA
20	0081776	SHEAVE	2	EA
21	106566 100	SLAVE CYLINDER BASE PIN	1	EA

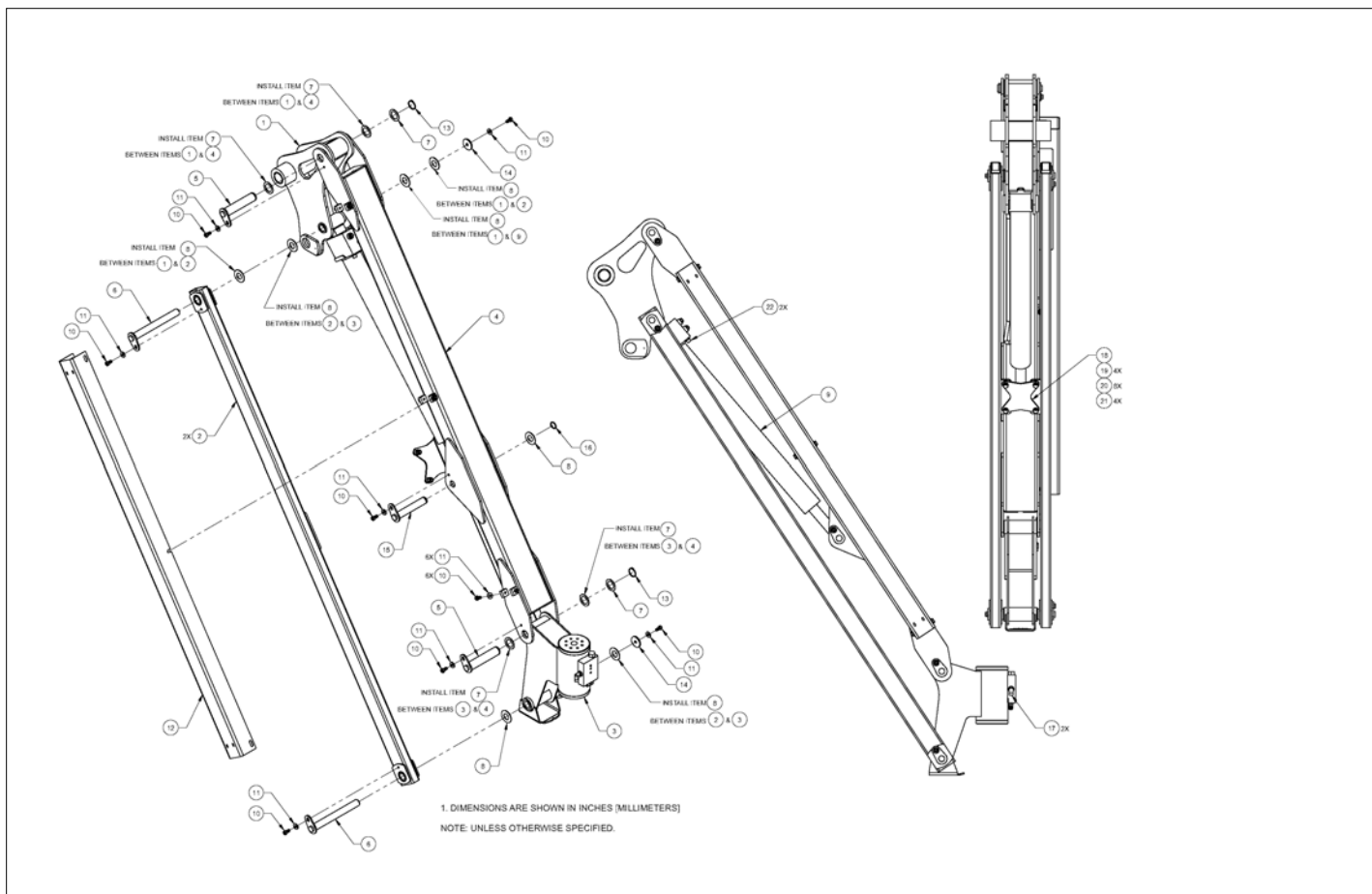
アイテム	部品番号	名前	数量	UOM
22	106540 100	SLAVE LEVEL CYLINDER	1	EA
23	511347 000	4MORFF X 4MORFF 90 ° UNION FITTING	2	EA
24	511390 000	WEARPAD INTERMEDIATE TOP	1	EA
25	511389 000	WEARPAD RETAINER INTERMEDIATE	1	EA
26	056060 020	HEX HD BOLT M10 1.50 X 20MM GR 8.8	6	EA
27	511396 000	WEARPAD INTERMEDIATE TOP	1	EA
28	511397 000	WEARPAD RETAINER TIP BOOM	1	EA
29	511626 000	WEARPAD INTERMEDIATE BOTTOM	1	EA
30	511627 000	WEARPAD TIP BOTTOM	4	EA
31	511628 000	SIDE WEAR PAD	8	EA
32	511629 000	TOP WEARPAD	1	EA
33	970449	HHD BLT .375 16 X .750 GR5	28	EA
34	986299	WASHER, FLAT, .375 STANDARD, PLATED	37	EA
35	970469	HHD BLT .375 16 X 1.00 GR5	8	EA
36	972479	BLT HEXHD .375 16 1.25 GR5	2	EA

REPAIR PARTS



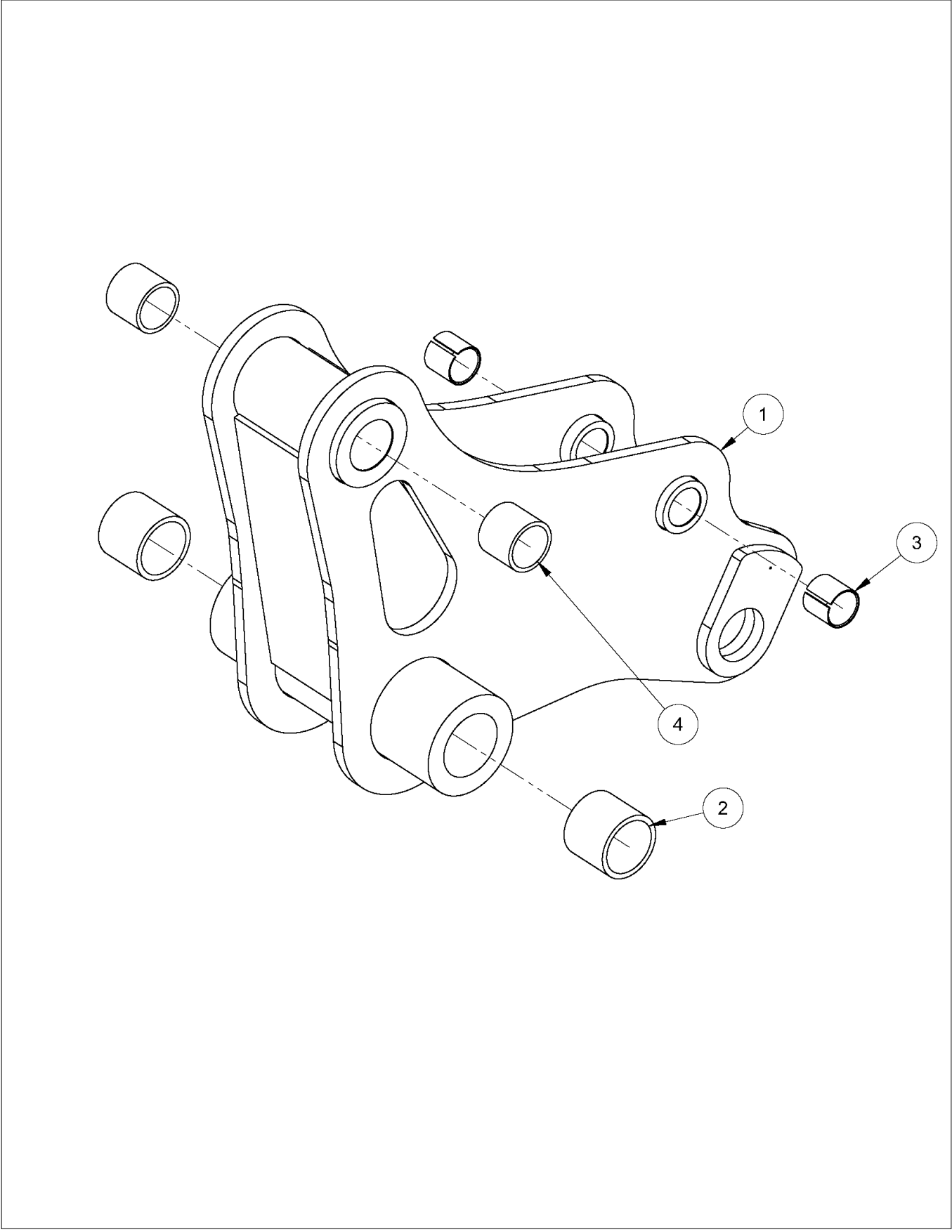
アイテム	部品番号	名前	数量	UOM
	1430724 B	TELESCOPE CYLINDER ASSEMBLY		EA
1	1430666	EXTEND CYLINDER, 3.50X 173 X 2.25	1	EA
2	511205 500	WELDMENT, SHEAVE MOUNT	1	EA
3	511211 000	SLIDE PAD	1	EA
Not Shown	511218 000	Shim, Slide Pad 2mm	2	EA
5	511210 000	Slide Pad Hose Cable Assembly	2	EA
6	511551 000	WEAR PAD, CYLINDER SUPPORT BOTTOM FRONT	1	EA
7	2500047	BRG 1.50ID 2.00OD .875	2	EA
8	0081776	SHEAVE	2	EA
9	5560256	BRG THR 1.50ID 2.50OD .059	4	EA
10	510567 016	CSK SKT FLT MACH SCREW M6 1.0 X 16 10.9	4	EA
11	512727 016	CSK SKT FLT MACH SCREW M10 1.5 X 16 10.9	6	EA
Not Shown	100434 008	6MB X 6M ORFF 90 ° FITTING	1	EA
13	1431078	WIRE ROPE EXTEND, (3/8 dia)	2	EA
14	971009	CAP SCREW 1/2 13 X 4 INCH LONG HEX HEAD GRADE 5	3	EA
15	5560039	NUT HEX LKG .500 13	3	EA
16	511624 000	6MB X 6MORFF 90 ° FITTING LONG	1	EA
17	986359	FLATWASHER 1/2"	6	EA
18	1431977	WLDMT, PIN SHEAVE PULLEY TIP	1	EA
19	1434170	RETAINER SHIEVE PULLY CSK	1	EA
20	1431981	PLT, LKG TAP BOLT SCMNT SHVE PIN	1	EA
21	5563484	BOLT HXHD M6X1X25 YL ZN GR10.9	3	EA

REPAIR PARTS



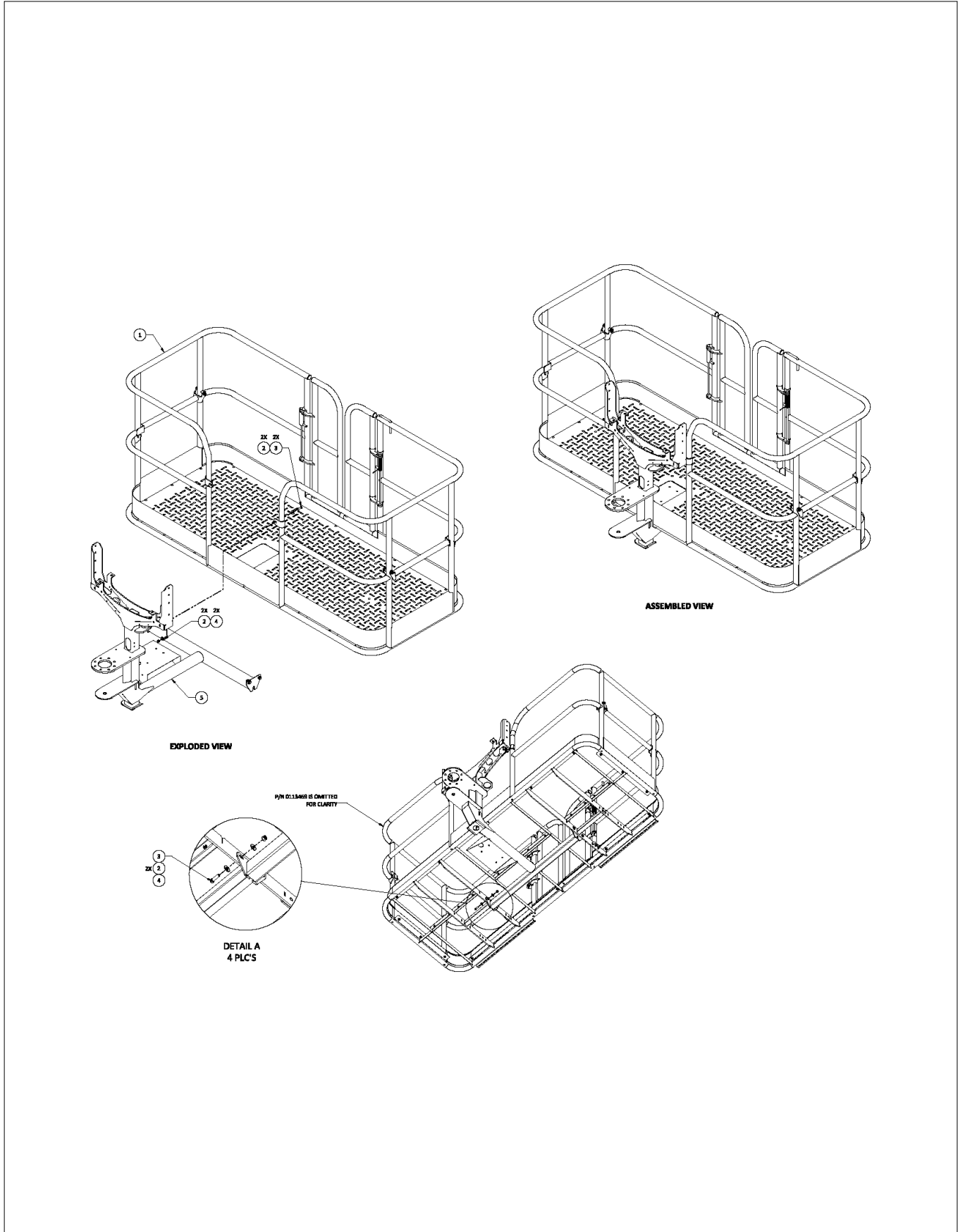
アイテム	部品番号	名前	数量	UOM
Not Shown	1430842 C	JIB ASSEMBLY 78" 460SJ 660SJ		EA
1	1430860	QUADRANT ASSEMBLY	1	EA
2	0420732	WLDMT JIB ARM LOWER 7' JIB	2	EA
3	0420114	ASSEMBLY, ROTATOR PLATF	1	EA
4	0420731	WLDMT ARM JIB UPPER 7'	1	EA
5	1431664	PIN, 1.25 DIA X 5.915 GRIP	2	EA
6	0172216	PIN TEARDROP 1.0 X 9.43	2	EA
7	5560712	MACH BSHG 1.25 ID X 1.88 OD X	6	EA
8	5560713	MACH BSHG 1.00IDX2.00ODX.075	7	EA
9	0420111	CYLINDER JIB	1	EA
10	5563577	BOLT HHS 3/8 16 X .375 YLZN GR10.9	13	EA
11	5563623	WASHER, FLAT 3/8 GR8	13	EA
12	0420878	COVER HOSE 7' JIB	1	EA
13	300541	1.25 SNAPRING	2	EA
14	0172214	END CAP	2	EA
15	0172213	WELDMENT 1.0 5.79 GRIP	1	EA
16	300542	1.00 SNAPRING	1	EA
17	100434 002	FITTING 4MORFF X 4MORB 90 °	2	EA
18	0420132	PLT TIE 7' JIB	1	EA
19	058508 025	HHCS M10 X 25MM GR10.9 DIN933	4	EA
20	5563543	WSHR, FLAT M10 YL ZN GR 10.9	8	EA
21	5563556	NUT HEX M10X1.5 YL ZN GR10.9	4	EA
22	100432 004	Hyd Fitting Straight ORFS(04) SAE(06)	2	EA

REPAIR PARTS



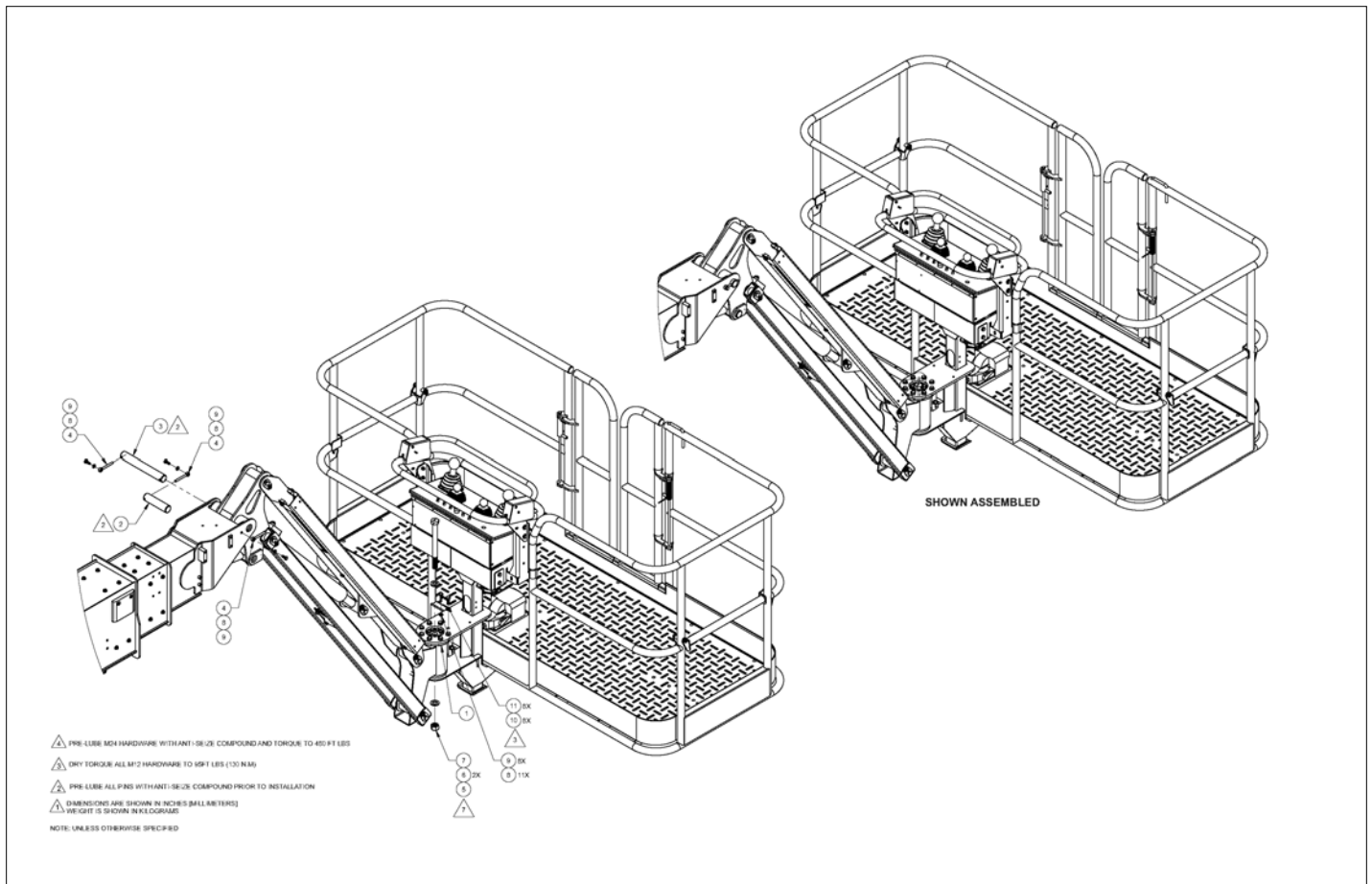
アイテム	部品番号	名前	数量	UOM
Not Shown	1430860 A	QUADRANT ASSEMBLY		EA
1	1430843	WELDMENT, JIB INNER QUADRANT	1	EA
2	2509717	BEARING 40 48 40	2	EA
3	2500060	BEARING 1.0ID X 1.125OD X 1.00LG	2	EA
4	2500035	BEARING	2	EA

REPAIR PARTS



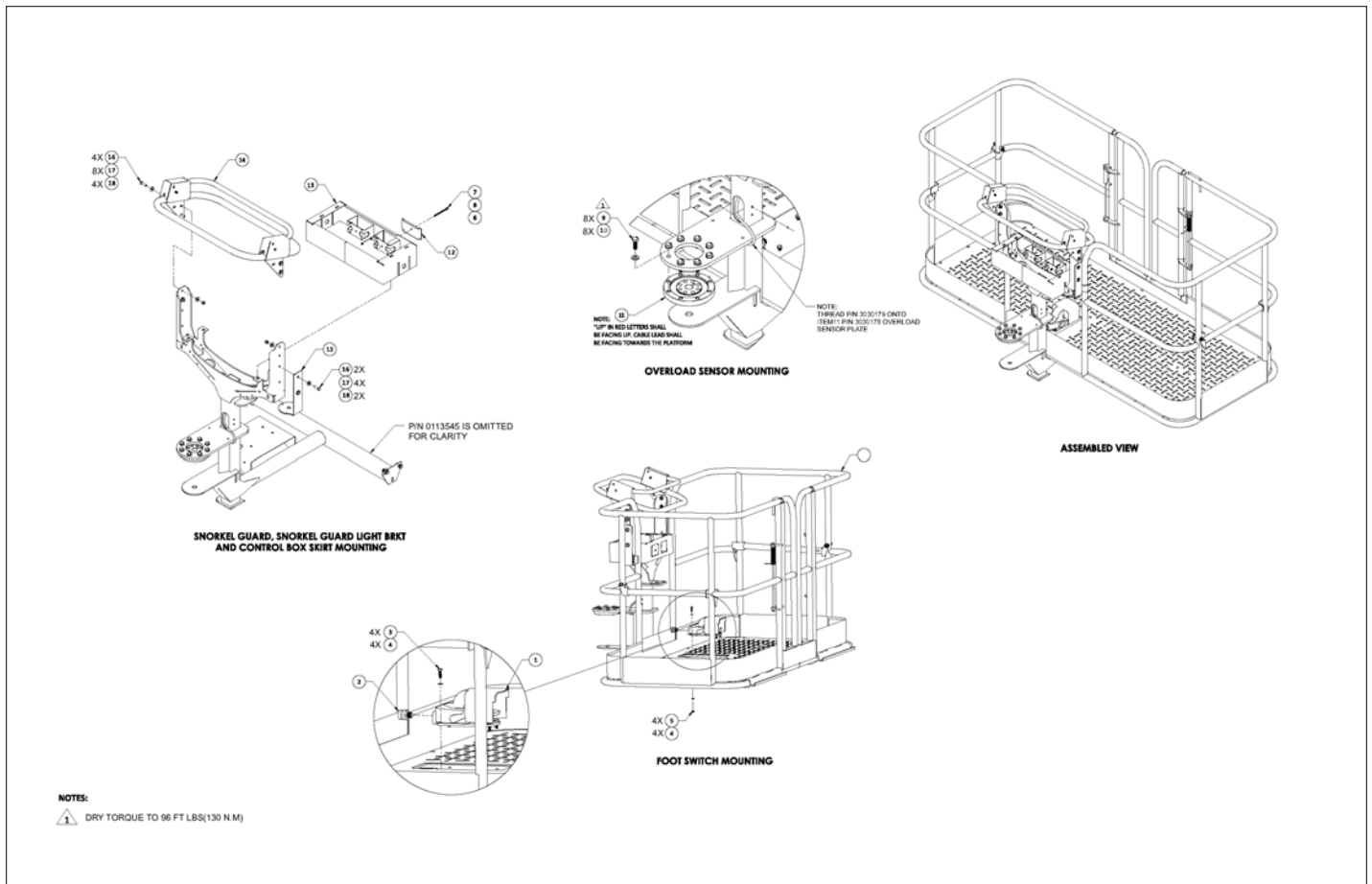
アイテム	部品番号	名前	数量	UOM
	1432066 A	ASSEMBLY, PLATFORM MOUNT		EA
1	0113545	ASSY, SD PLATFORM	1	EA
2	986299	WASHER, FLAT, .375 STANDARD, PLATED	2	EA
3	972479	BLT HEXHD .375 16 1.25 GR5	6	EA
4	5560033	.375 16UNC HEX LOCK NUT	6	EA
5	1432064	WELDMENT PLATFORM MOUNT	1	EA

REPAIR PARTS



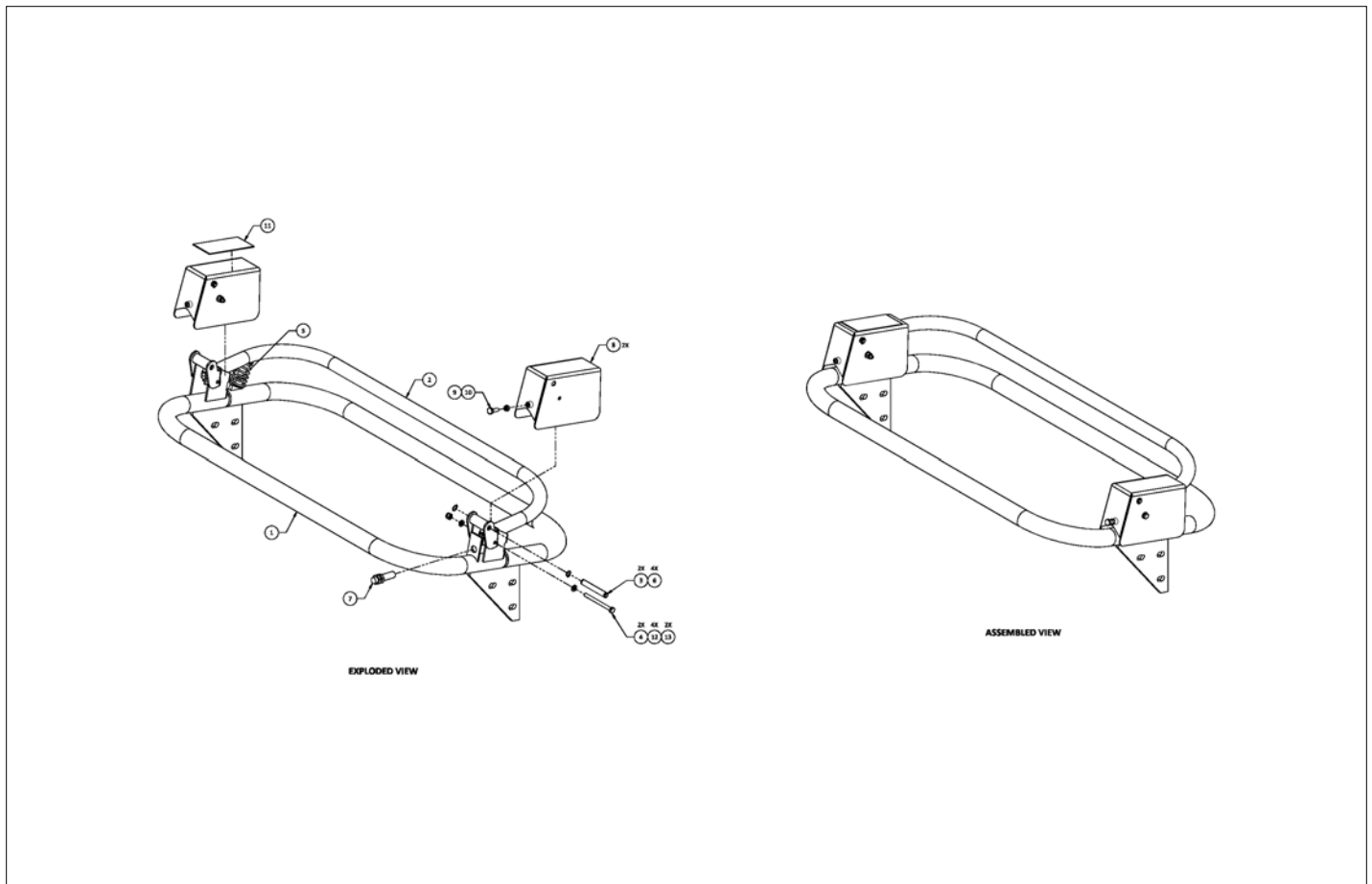
アイテム	部品番号	名前	数量	UOM
Not Shown	1430720 B	PLATFORM, JIB TO BOOM ASSEMBLY		EA
1	116346 000	overload cell – CE ONLY BEFORE SN 01 0004 (Not illustrated)	1	EA
2	1430852	SLAVE CYL ROD PIN	1	EA
3	106568 100	TIP BOOM PIVOT PIN	1	EA
4	065214 000	ROD END 3/8"	3	EA
5	512649 280	BOLT, HexBolt, DIN931, M24 x 280m	1	EA
6	5563549	WASHER, FLAT M24 YL ZN GR 10.9	2	EA
7	5563563	NUT, HEX M24X3 YL ZN PLT GR10.9	1	EA
8	058508 025	HHCS M10 X 25MM GR10.9 DIN933	11	EA
9	5563543	WSHR, FLAT M10 YL ZN GR 10.9	11	EA
10	5663509	WASHER, FLAT M6 YL ZN GR 10.9	8	EA
11	5563544	WSHR, FLAT M12 YL ZN GR 10.9	8	EA

REPAIR PARTS



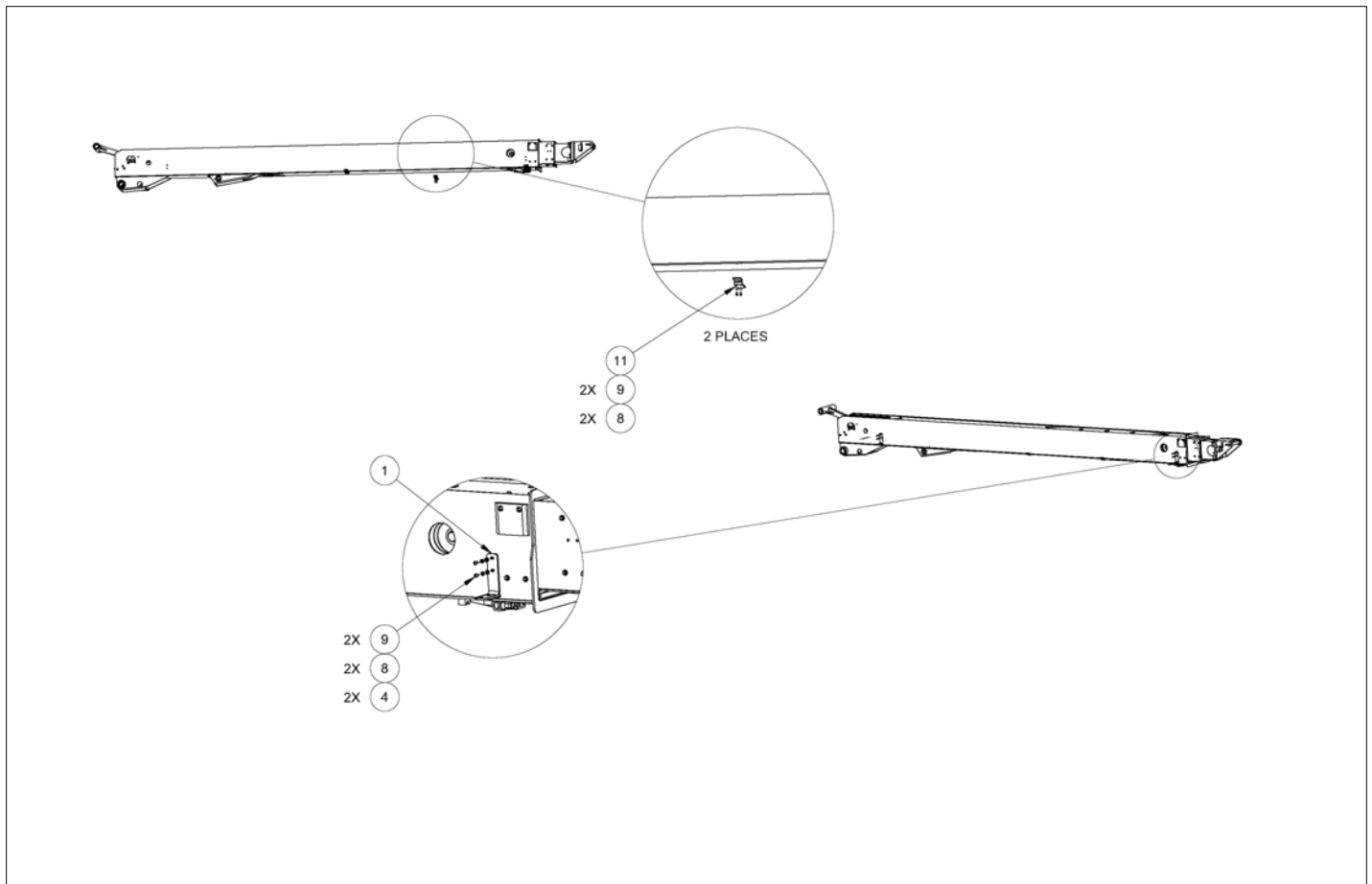
アイテム	部品番号	名前	数量	UOM
	1432065 B	PLATFORM COMPONENTS 660SJ ASSEMBLY		EA
1	3020021	Foot Switch	1	EA
2	3040116	CONN .75 .500 .625	1	EA
3	5563491	BOLT HXHD M8X1.25X25YLZNGR10.9	4	EA
4	5563542	WSHR, FLAT M8 YL ZN GR 10.9	8	EA
5	5563555	NUT HEX M8X1.25 YL ZN GR10.9	4	EA
6	5563554	NUT HEX M6X1 YL ZN PLT GR10.9	1	EA
7	5563778	BOLT, HEXHD M6 X 1 X 90 ZN PLT GR8.8	1	EA
8	5563541	WASHER, FLAT, M6, STEEL, C10.9, YELLOW ZINC	1	EA
9	5663509	WASHER, FLAT M6 YL ZN GR 10.9	8	EA
10	5563544	WSHR, FLAT M12 YL ZN GR 10.9	8	EA
11	3030188	OVERLOAD SENSOR PLATE	1	EA
12	0113634	PLATE, 120V COVER	1	EA
13	0113450	WLDMT CONTROL BOX SKIRT	1	EA
14	1432230	ASSY SNORKEL GUARD 660SJ	1	EA
15	1431693	BRACKET SNORKEL GUARD LIGHT	1	EA
16	972479	BLT HEXHD .375 16 1.25 GR5	6	EA
17	986299	WASHER, FLAT, .375 STANDARD, PLATED	12	EA
18	5560033	.375 16UNC HEX LOCK NUT	6	EA
19	1432066	ASSY PLATFORM MOUNT	1	EA

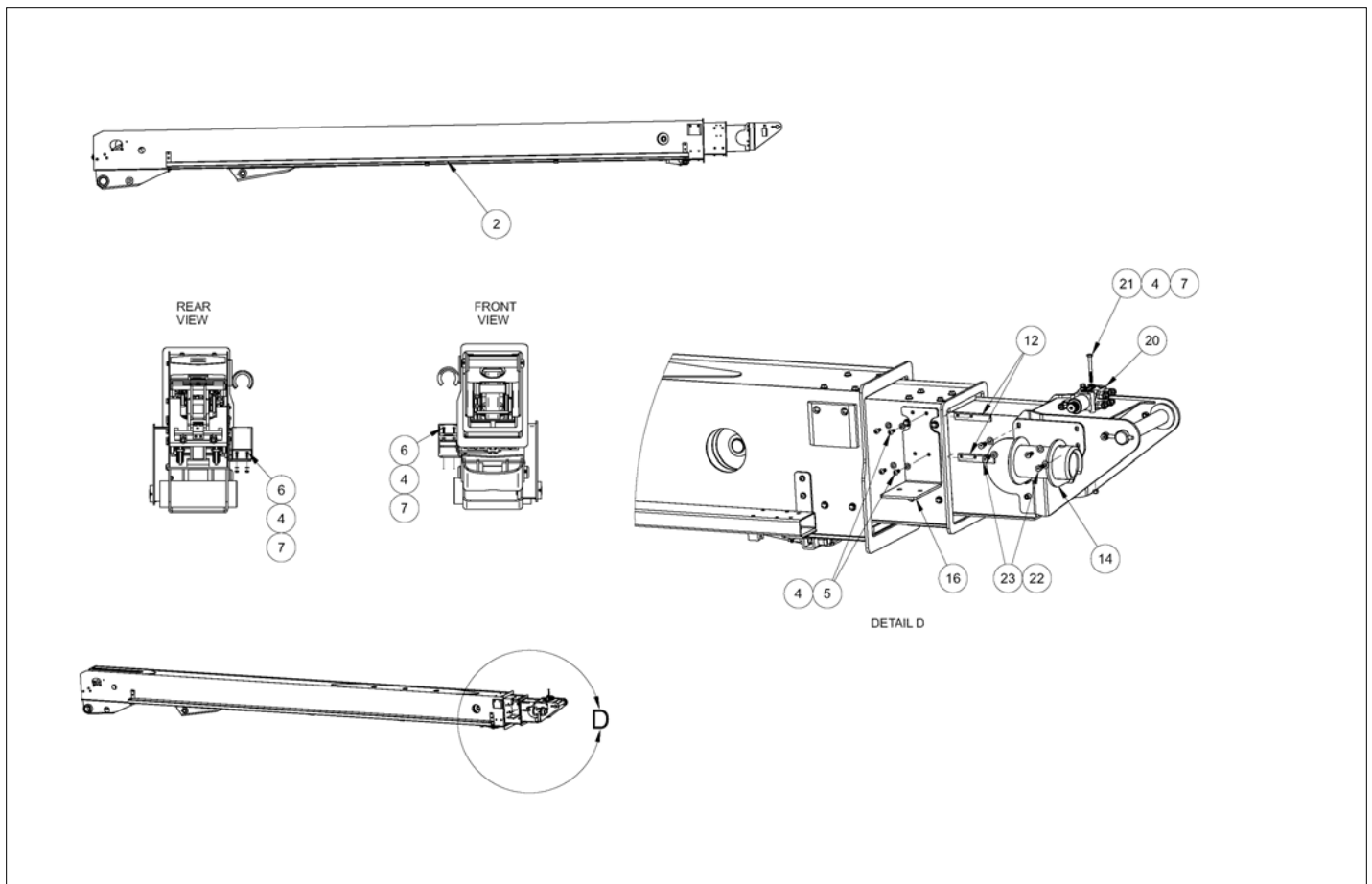
REPAIR PARTS

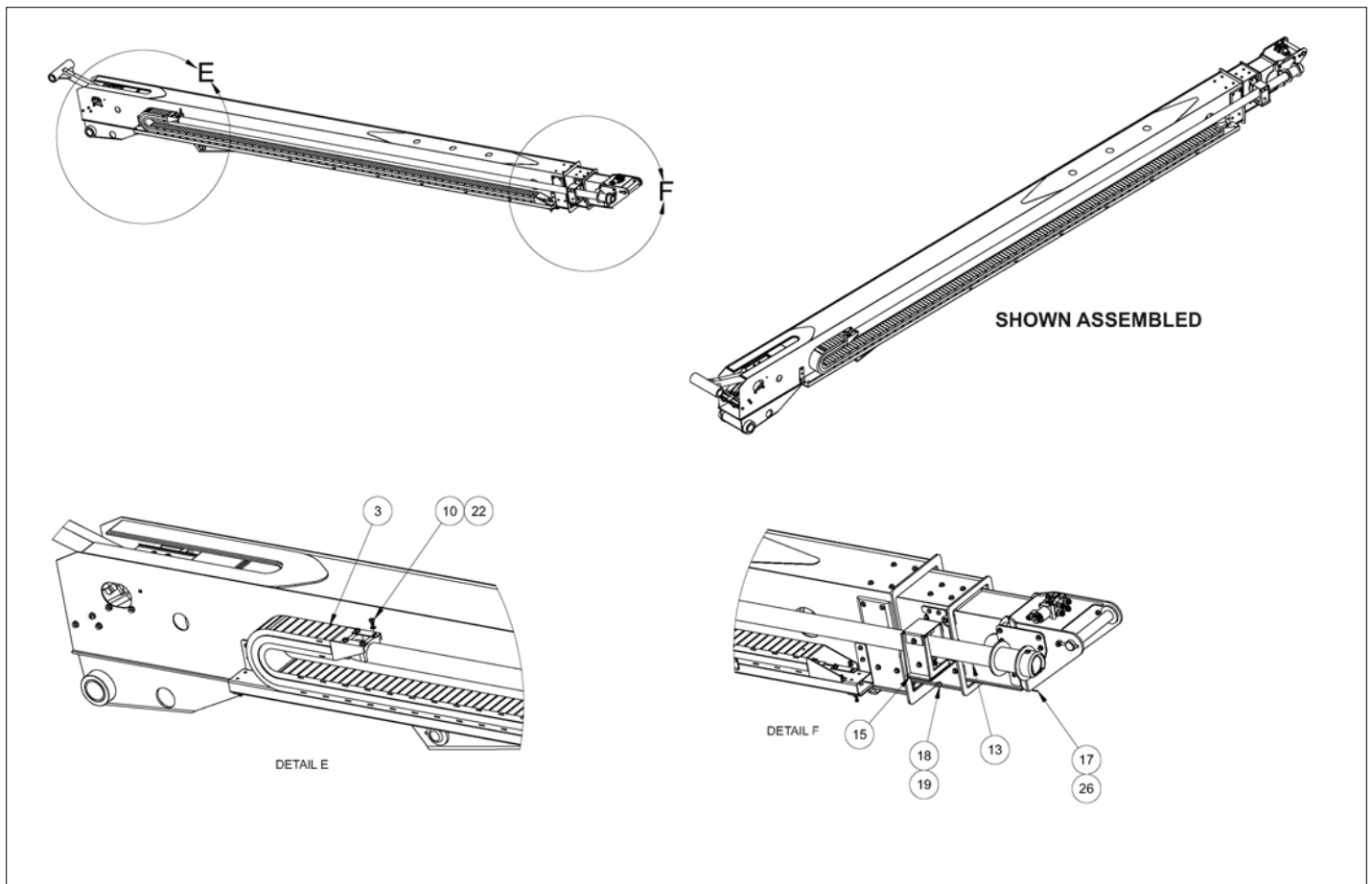


アイテム	部品番号	名前	数量	UOM
	1432230 A	SNORKEL GUARD ASSEMBLY		EA
1	0113519	WLDMT, SNORKEL GUARD	1	EA
2	0113529	WLDMT ACTIVATION BAR	1	EA
3	0113528	PIN .375 X 2.31 GRIP	2	EA
4	5563789	HHCS M6X1X70 G10.9 ISO 4014 DIN 931	2	EA
5	0113530	SPRING ANTI ENTRAPMENT	1	EA
6	5593018	RETAINING RING, EXTERNAL, .375 DIA, BASIC	4	EA
7	3028844	IFS241 (IFM PROXY)	1	EA
8	0113538	WLDMT SHEILD	2	EA
9	984069	NUT HEX .250 20	1	EA
10	970029	BLT .25 20 .750	1	EA
11	7030163	DECAL SNORKEL GUARD OVERRIDE OPERATION	1	EA
12	056069 006	WSHR STEELFLATWSHE M6 DIN125A	4	EA
13	056066 006	Nut NylockNut DIN985 M6 8.0 Zi	2	EA

REPAIR PARTS



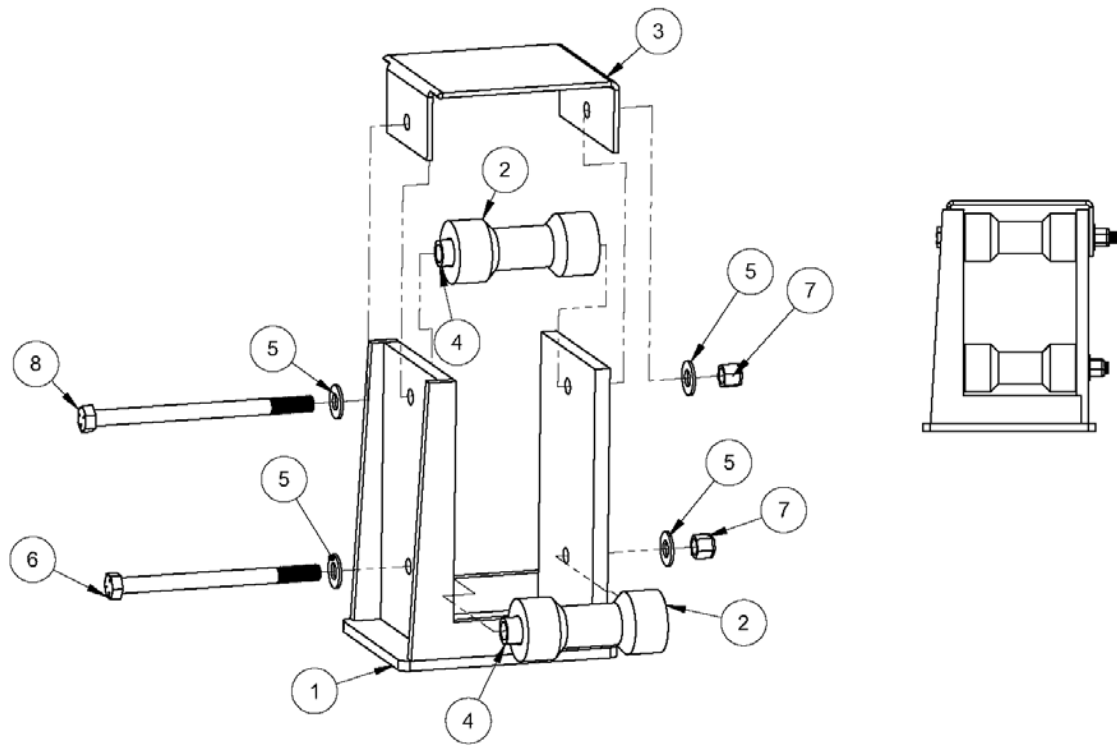




アイテム	部品番号	名前	数量	UOM
Not Shown	1430719 B	CARRIER TRACK INSTALLATION		EA
1	511566 000	CAT TRACK SUPPORT BRKT	2	EA
2	511595 001	CAT TRACK TUBE @BASE BOOM	1	EA
3	1430991	CARRIER TRACK PRE ASSEMBLY	1	EA
4	056069 008	WASHER, STEELFLATWASHER DIN12M8 FLAT WASHER DIN 125	18	EA
5	500595 020	Bolt, SktButCapScrew DIN9427 M	8	EA
6	500595 025	Bolt, SktButCapScrew DIN9427	4	EA
7	056064 008	NUT HEX M8 1.25 GR10.9 SELF LOCKING DIN 985	10	EA
8	056021 008	Washer SpringWasher DIN127B M8	8	EA
9	500595 016	BLT SKTBUTCAPSCREW M8 X 16MM DIN9427 GR10.9 Z P	8	EA
10	056060 015	BOLT, HEX BOLT DIN931 M10 X 15MM 8.8 ZINC PLTD	4	EA
11	1430734	CS 1/4 A36 SUPPORT	2	EA
12	1430682	NUT PLATE, CARRIER TRACK MOUNT	2	EA
13	1430753	CARRIER TUBE WLDMNT	1	EA
14	1430756	CARRIER TUBE BRKT WLDMT	1	EA
15	1430765	HOSE CARRIER TUBE GUIDE ASSY	1	EA
16	1430760	CS 1/4 GR50 GUIDE BRKT	1	EA
17	5560014	PIN HAIRPIN CLIP.625	1	EA
18	056064 012	NUT HEX M12 X 1.75 GR 10.9 SELF LOCKING DIN 985	2	EA
19	056065 030	BLT 12MM 1.75P 30MM	2	EA
20	1430830	SELECTOR VALVE ASSY	1	EA
21	056059 075	BOLT, HEXBOLT M8 X 75MM 8.8 ZP	2	EA

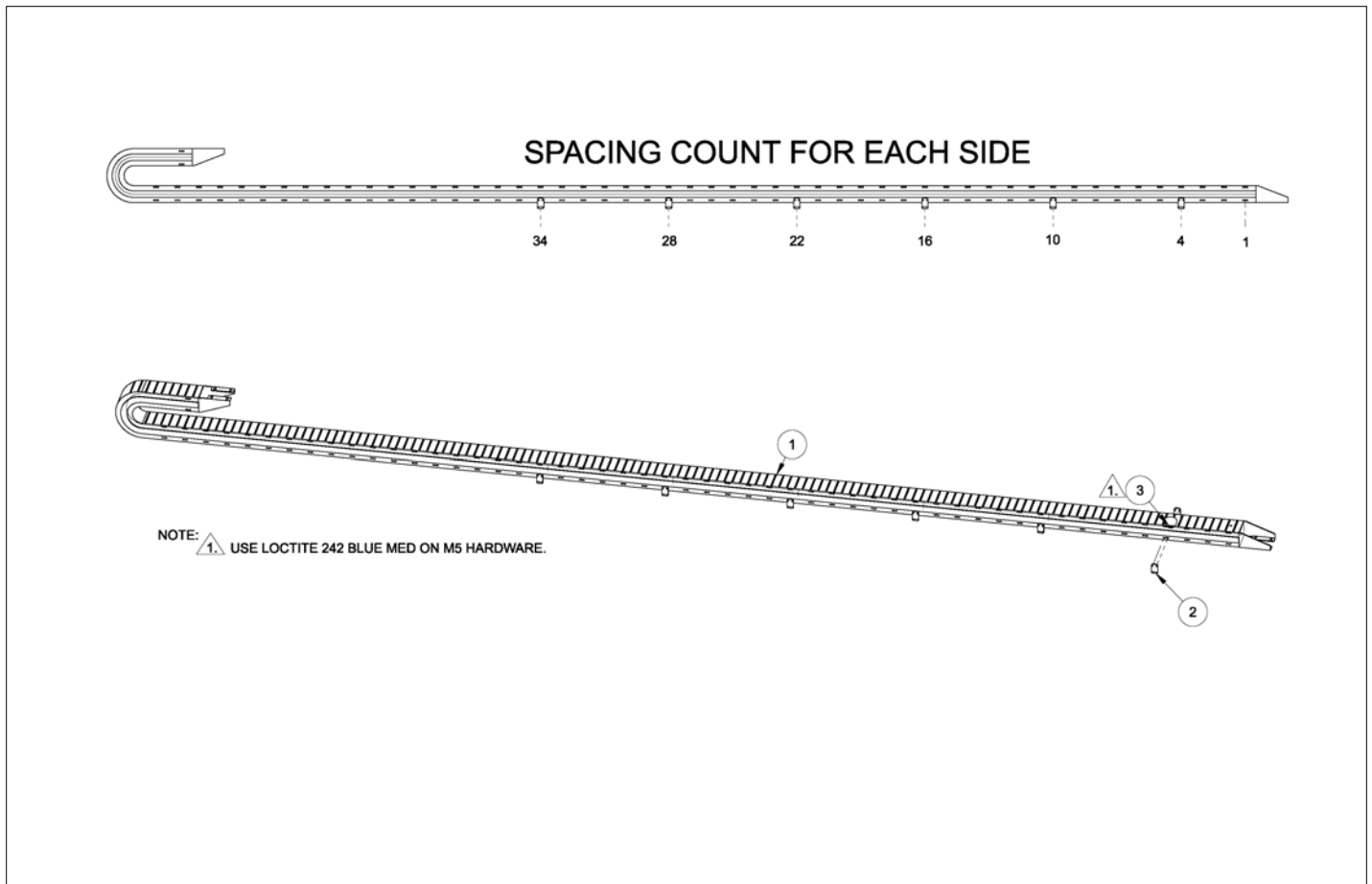
アイテム	部品番号	名前	数量	UOM
22	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	9	EA
23	056060 020	HEX HD BOLT M10 1.50 X 20MM GR 8.8	4	EA
24	1431524	HOSE PRTR SQ TB CAT TRACK	1	EA
25	1431525	HOSE PRTR RD TB CAT TRACK	1	EA
26	0072015	CLEVIS PIN	1	EA

REPAIR PARTS



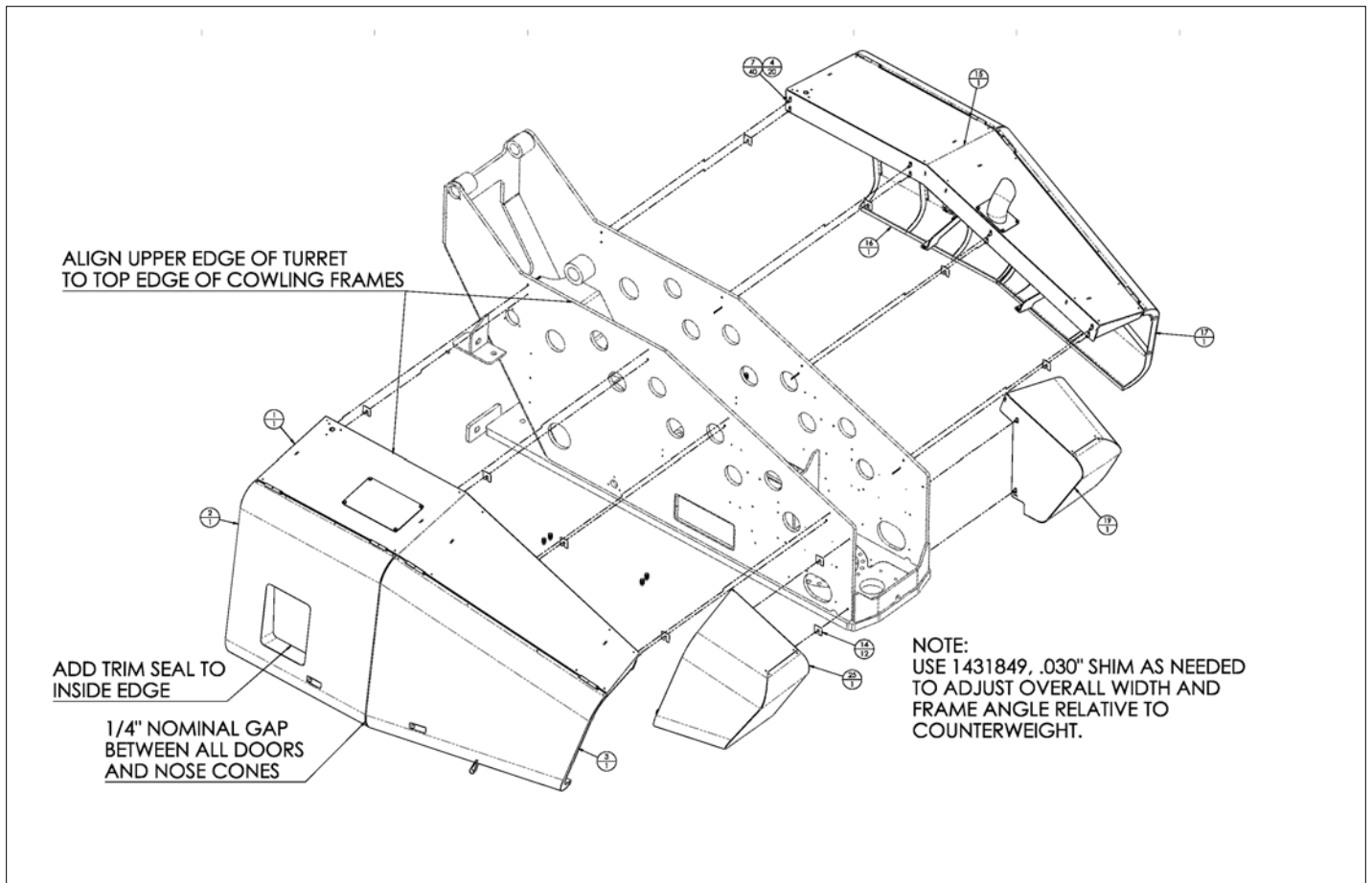
アイテム	部品番号	名前	数量	UOM
Not Shown	1430765 A	HOSE CARRIER TUBE GUIDE ASSEMBLY		EA
1	1430761	HOSE CARRIER TUBE GUIDE WELDMENT	1	EA
2	0190842	PLASTIC ROLLER 1.50/1.00 X 3.50	2	EA
3	0084677	TOP COVER	1	EA
4	0181271	SPACER	2	EA
5	986299	WASHER, FLAT, .375 STANDARD, PLATED	4	EA
6	970629	BLT HHD .375 16 X 5 GR5	1	EA
7	5560033	.375 16UNC HEX LOCK NUT	2	EA
8	5560645	BLT HEXHD .375 16 5.50 GR5 BIN	1	EA

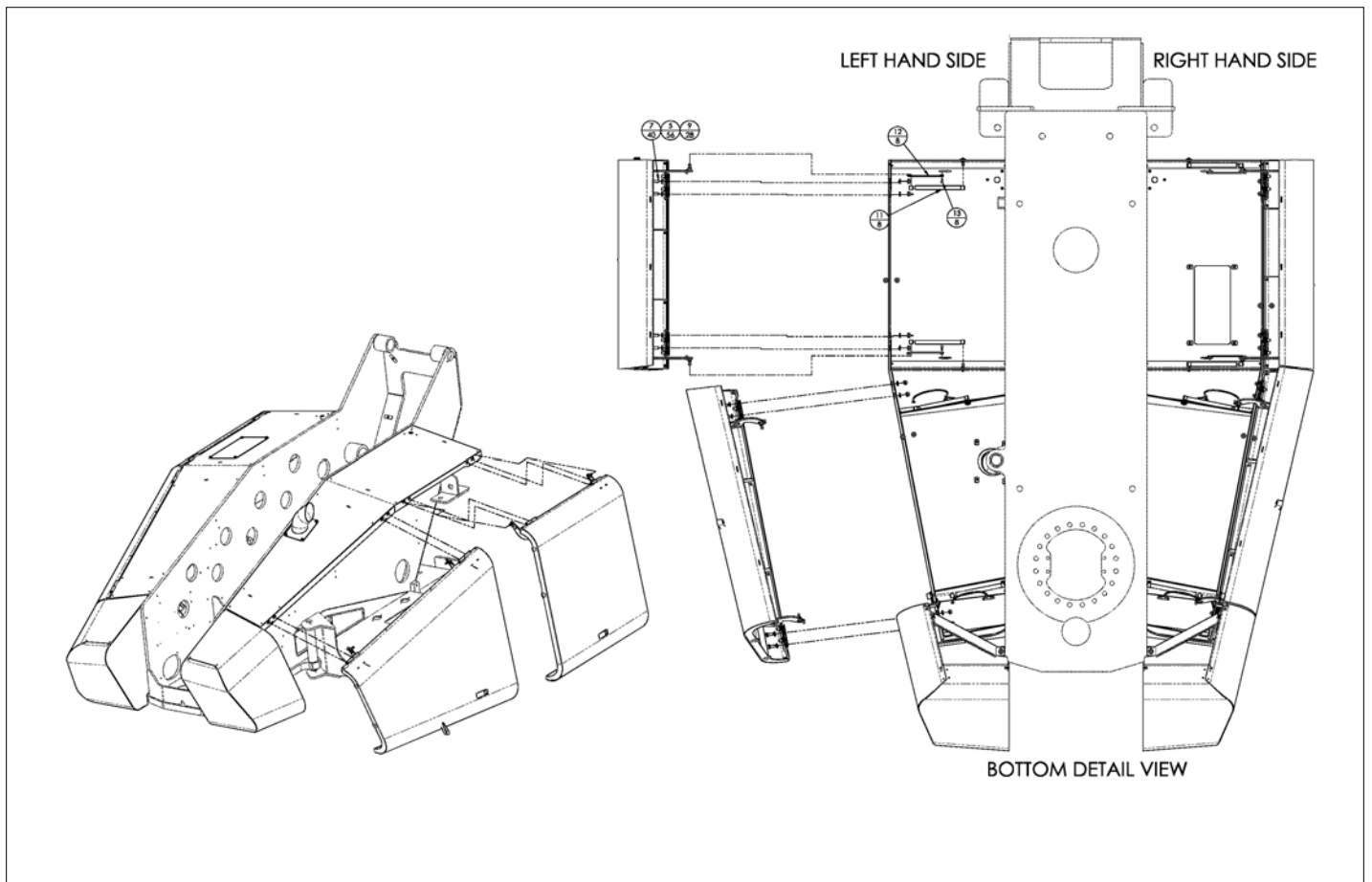
REPAIR PARTS

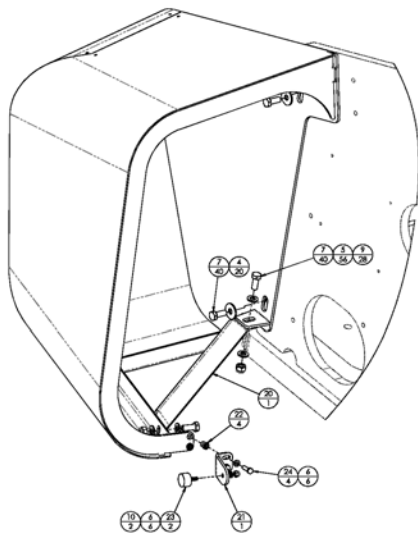


アイテム	部品番号	名前	数量	UOM
Not Shown	1430991 A	CARRIER TRACK PRE ASSEMBLY		EA
1	511557 300	CABLE TRACK	1	EA
2	1430735	GUIDE, CARRIER TRACK	12	EA
3	505082 008	SKT BUT CAP SCREW M5 0.8 X 5MM GR10.9	24	EA

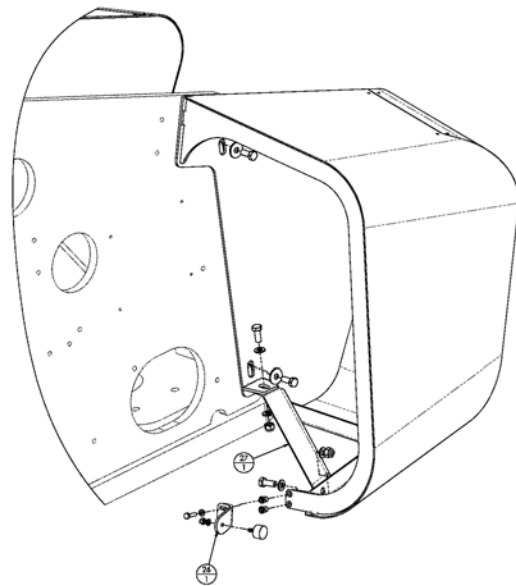
REPAIR PARTS



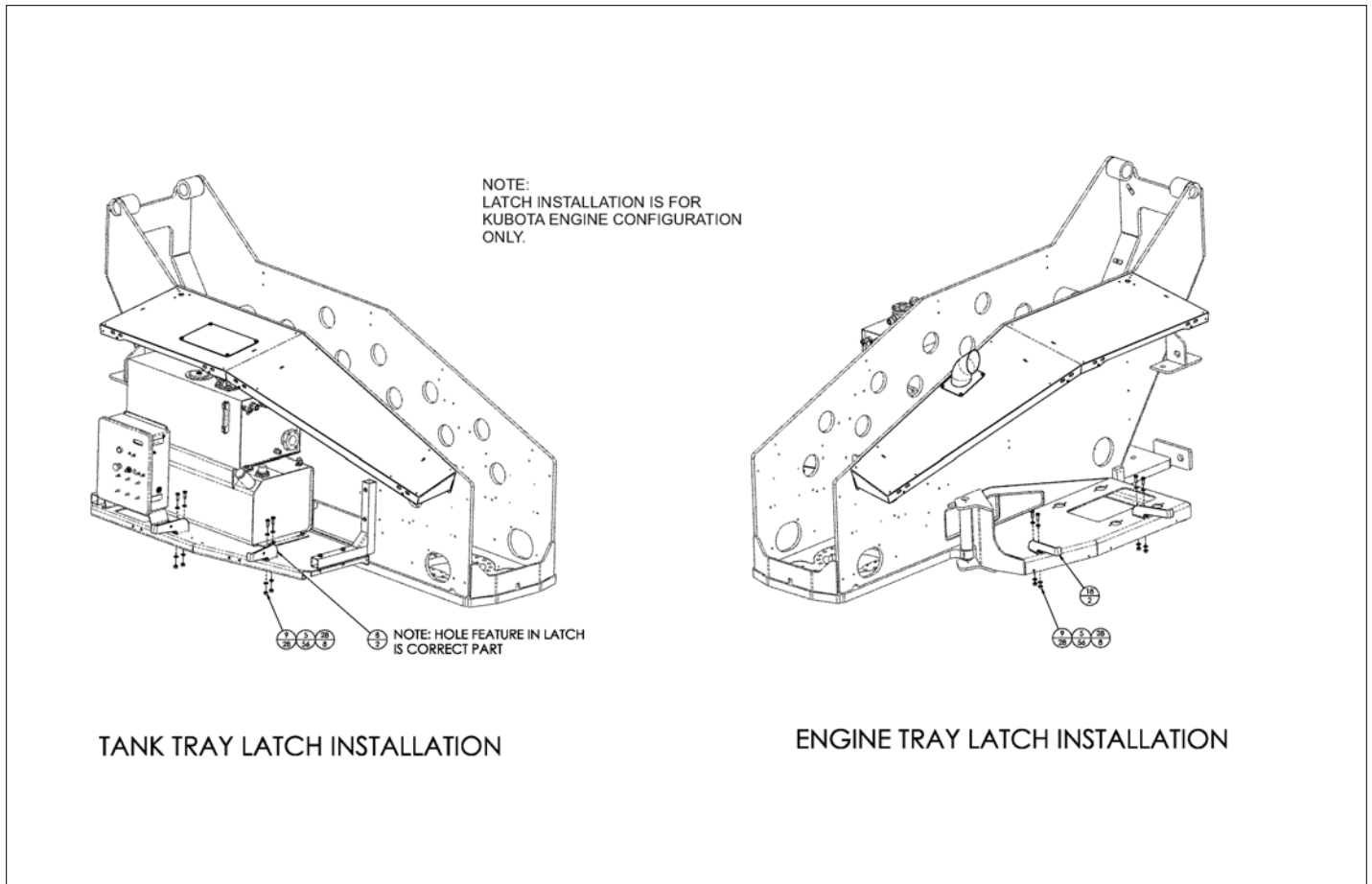




RIGHT HAND VIEW-NOSE CONE



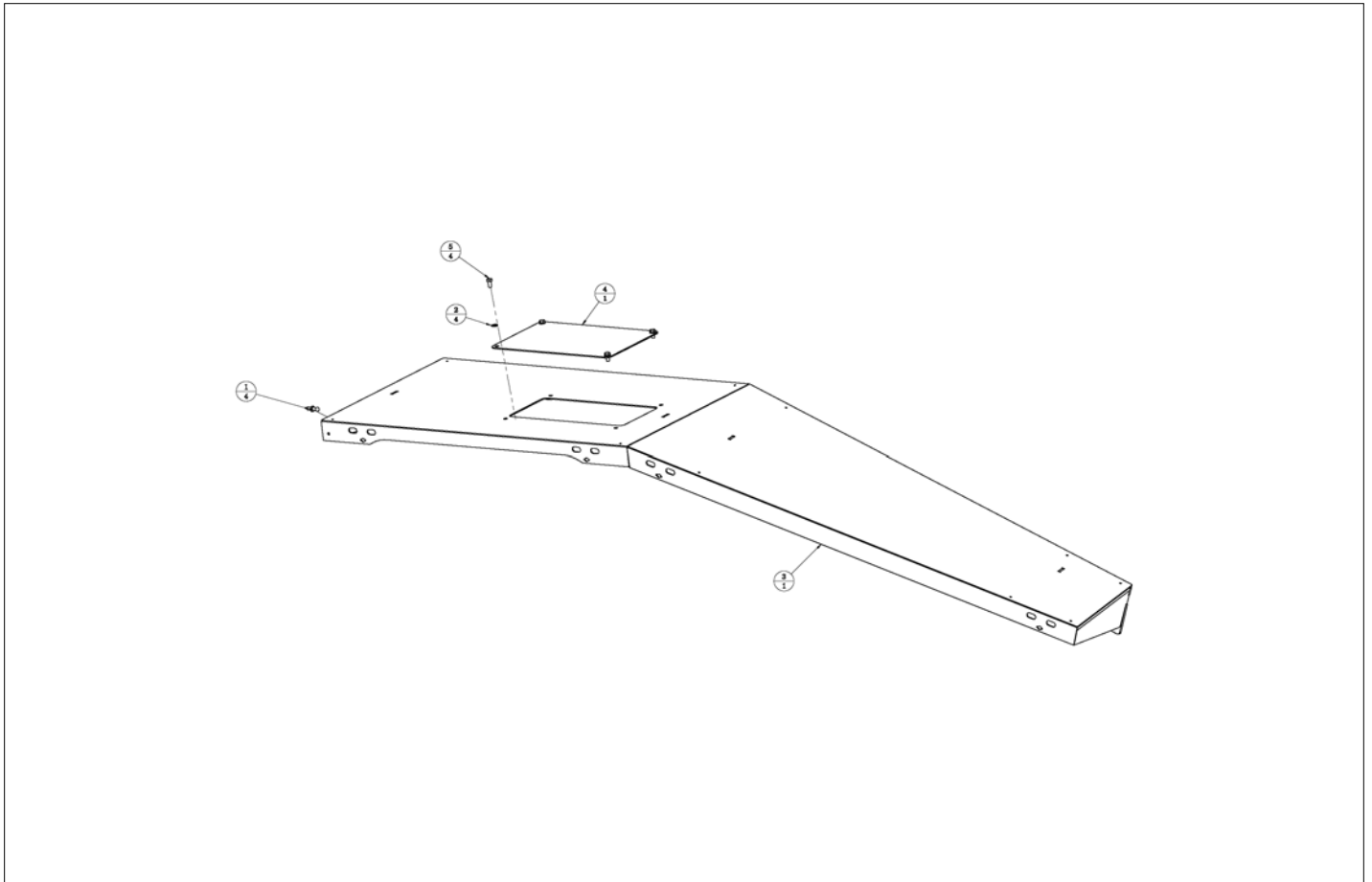
LEFT HAND VIEW-NOSE CONE



アイテム	部品番号	名前	数量	UOM
Not Shown	1431891 B	COWLING INSTALLATION KUBOTA		EA
1	1431897	FRAME ASSY LH	1	EA
2	1431898	DOOR ASSY LH REAR	1	EA
3	1431899	DOOR ASSY LH FRONT	1	EA
4	508247 010	Washer, Penny Washer, DIN9021, M1	20	EA
5	056069 010	Washer, Steel Flat Washer DIN125A M10 Zinc Plated	56	EA
6	510561 006	Washer, Steel Flat Washer DIN125	6	EA
7	058508 025	HHCS M10 X 25MM GR10.9 DIN933	40	EA
8	1431460	MOUNT BUMPER	2	EA
9	056064 010	Nut Nylock Nut DIN985 M10 10.0	28	EA
10	056064 006	NUT NYLOCK DIN985 M6 10.0 ZP	2	EA
11	5516368	GAS SPRING 150#x15.25	8	EA
12	1431539	CABLE DOOR	8	EA
13	5534390	SHOULDR BOLT 6mm x4MM	8	EA
14	1431849	SHIM COWLING, .030"	12	EA
15	1431893	FRAME ASSY RH	1	EA
16	1431895	DOOR ASSY RH REAR	1	EA
17	1431894	DOOR ASSY RH FRONT	1	EA
18	1431459	MOUNT BUMPER	2	EA
19	1431959	NOSE CONE RH	1	EA
20	1432042	SUPPORT RH NOSECONE	1	EA
21	1431967	BRACKET BUMPER	1	EA
22	5076533	RIVNUT M6x1.0 x 4.2 GRIP	4	EA
23	5563642	BUMPER RUBBER M6X1.0	2	EA
24	512630 025	HHCS M6 X 1 X 25 GR 10.9 DIN 933	4	EA

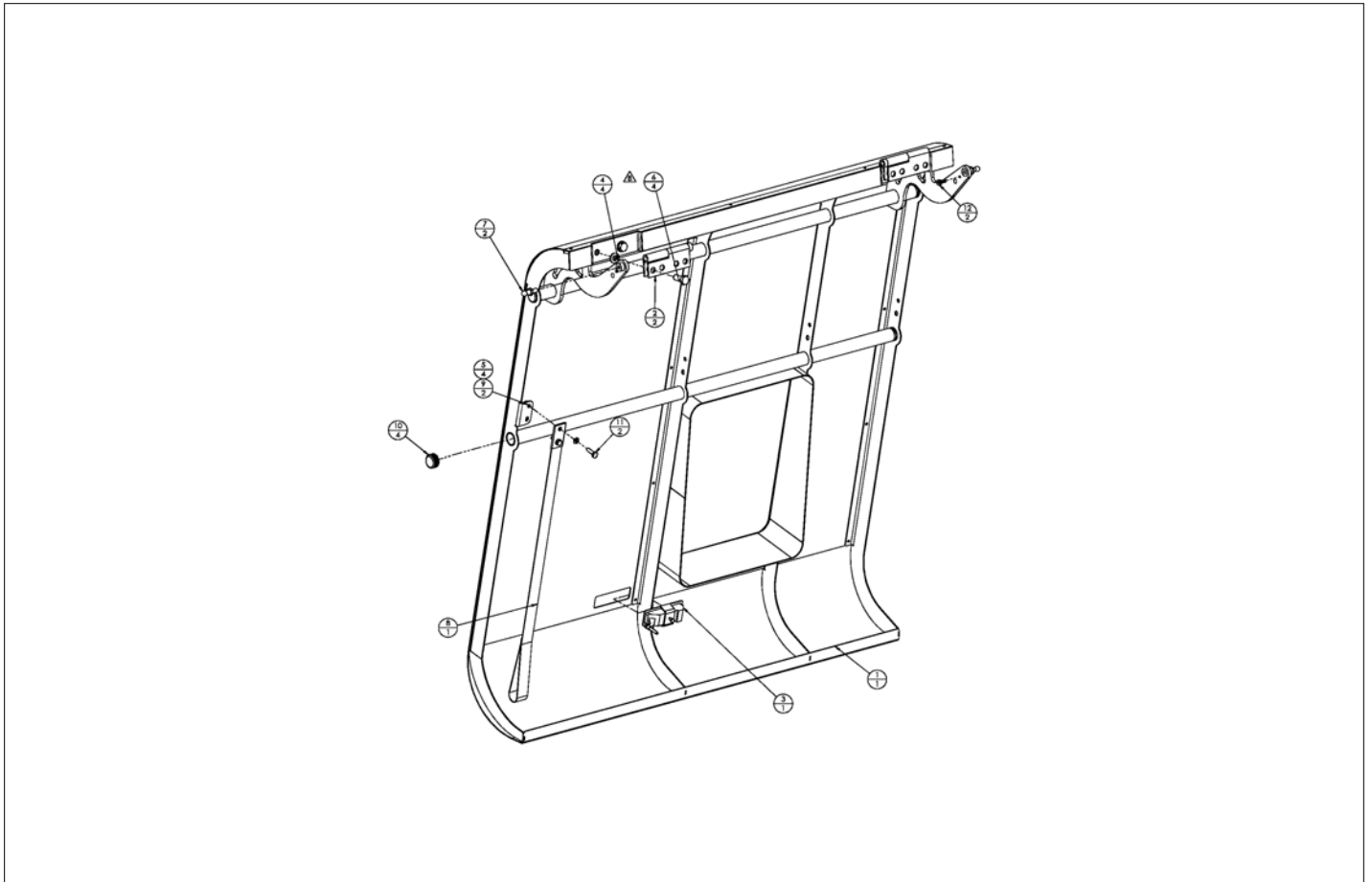
アイテム	部品番号	名前	数量	UOM
25	1431968	NOSE CONE LH WA	1	EA
26	1431966	BRACKET BUMPER	1	EA
27	1432043	SUPPORT LH NOSE CONE	1	EA
28	058509 030	Bolt, HexBolt DIN931 M10 x 30mm 10.9 Dacromet	8	EA

REPAIR PARTS



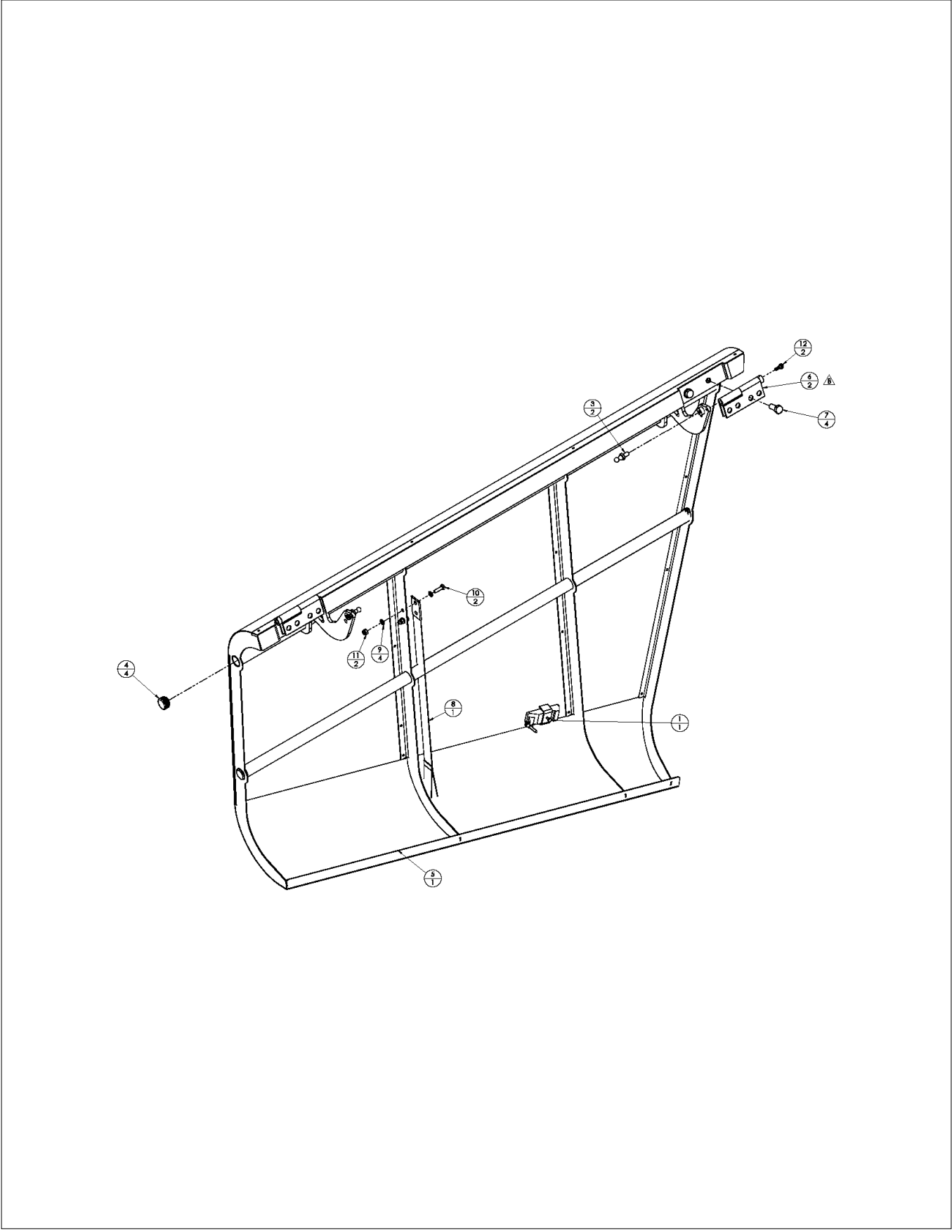
アイテム	部品番号	名前	数量	UOM
	1431897 B	FRAME LEFT HAND ASSEMBLY		EA
1	5534385	10 MM BALL STUD, .3125 18	4	EA
2	056069 008	WASHER, STEELFLATWASHER DIN12M8 FLAT WASHER DIN 125	4	EA
3	1431933	FRAME WA LH	1	EA
4	1431544	COVER HAND	1	EA
5	510681 016	HHCS M8X1.25X16 G10.9 ISO 4014	4	EA

REPAIR PARTS



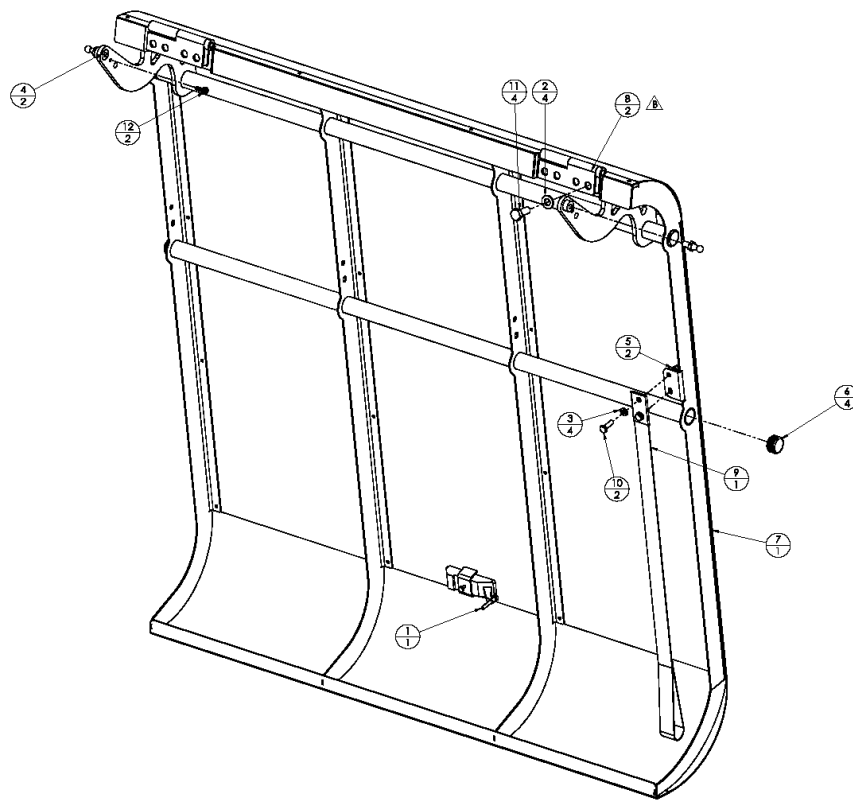
アイテム	部品番号	名前	数量	UOM
Not Shown	1431898A	DOOR ASSEMBLY LH REAR		EA
1	1431953	DOOR WA LH REAR	1	EA
2	5516370	HINGE .375 PIN ASSY	2	EA
3	5510022	ADJUSTABLE LEVER LATCH	1	EA
4	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	4	EA
5	056069 006	WSHR STEELFLATWSHE M6 DIN125A	4	EA
6	058508 025	HHCS M10 X 25MM GR10.9 DIN933	4	EA
7	5534385	10 MM BALL STUD, .3125 18	2	EA
8	5516357	STRAP NYLON, 24 INCH	1	EA
9	056064 006	NUT NYLOCK DIN985 M6 10.0 ZP	2	EA
10	2540015	PLUG PIPE, .84 .93" ID	4	EA
11	512630 020	HHCS M6 X X 20 G10.9 DIN 933	2	EA
12	5534390	SHOULDR BOLT 6mm x4MM	2	EA

REPAIR PARTS



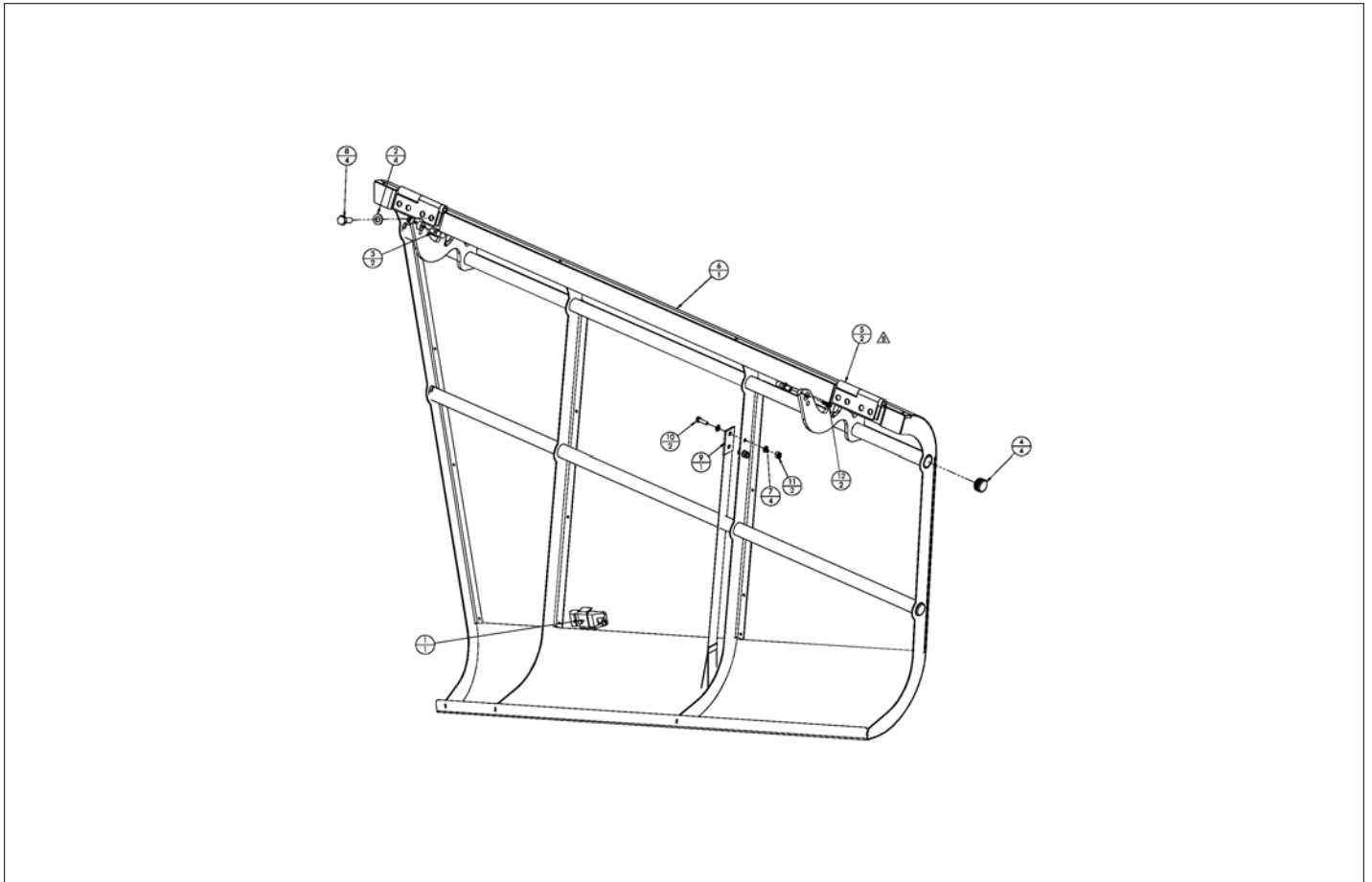
アイテム	部品番号	名前	数量	UOM
	1431899B	DOOR LEFT HAND FRONT ASSEMBLY		EA
1	5510022	ADJUSTABLE LEVER LATCH	1	EA
Not Shown	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	4	EA
3	5534385	10 MM BALL STUD, .3125 18	2	EA
4	2540015	PLUG PIPE, .84 .93" ID	4	EA
5	1431946	DOOR WA LH FRONT	1	EA
6	5516370	HINGE .375 PIN ASSY	2	EA
7	058508 025	HHCS M10 X 25MM GR10.9 DIN933	4	EA
8	5516357	STRAP NYLON, 24 INCH	1	EA
9	056069 006	WSHR STEELFLATWSHE M6 DIN125A	4	EA
10	512630 020	HHCS M6 X X 20 G10.9 DIN 933	2	EA
11	056064 006	NUT NYLOCK DIN985 M6 10.0 ZP	2	EA
12	5534390	SHOULDR BOLT 6mm x4MM	2	EA

REPAIR PARTS



アイテム	部品番号	名前	数量	UOM
	1431895B	DOOR RIGHT HAND REAR ASSEMBLY		EA
1	5510022	ADJUSTABLE LEVER LATCH	1	EA
2	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	4	EA
3	056069 006	WSHR STEELFLATWSHE M6 DIN125A	4	EA
4	5534385	10 MM BALL STUD, .3125 18	4	EA
5	056064 006	NUT NYLOCK DIN985 M6 10.0 ZP	2	EA
6	2540015	PLUG PIPE, .84 .93" ID	4	EA
7	1431912	DOOR WA RH REAR	1	EA
8	5516370	HINGE .375 PIN ASSY	2	EA
9	5516357	STRAP NYLON, 24 INCH	1	EA
10	512630 020	HHCS M6 X X 20 G10.9 DIN 933	2	EA
11	058508 025	HHCS M10 X 25MM GR10.9 DIN933	4	EA
12	5534390	SHOULDR BOLT 6mm x4MM	2	EA

REPAIR PARTS



アイテム	部品番号	名前	数量	UOM
	1431894 B	DOOR RIGHT HAND FRONT ASSEMBLY		EA
1	5510022	ADJUSTABLE LEVER LATCH	1	EA
2	056069 010	Washer, SteelFlatWasher DIN125A M10 ZincPlated	4	EA
3	5534385	10 MM BALL STUD, .3125 18	2	EA
4	2540015	PLUG PIPE, .84 .93" ID	4	EA
5	5516370	HINGE .375 PIN ASSY	2	EA
6	1431922	DOOR WA RH FRONT	1	EA
7	056069 006	WSHR STEELFLATWSHE M6 DIN125A	4	EA
8	058508 025	HHCS M10 X 25MM GR10.9 DIN933	4	EA
9	5516357	STRAP NYLON, 24 INCH	1	EA
10	512630 020	HHCS M6 X X 20 G10.9 DIN 933	2	EA
11	056064 006	NUT NYLOCK DIN985 M6 10.0 ZP	2	EA
12	5534390	SHOULDR BOLT 6mm x4MM	2	EA

REPAIR PARTS

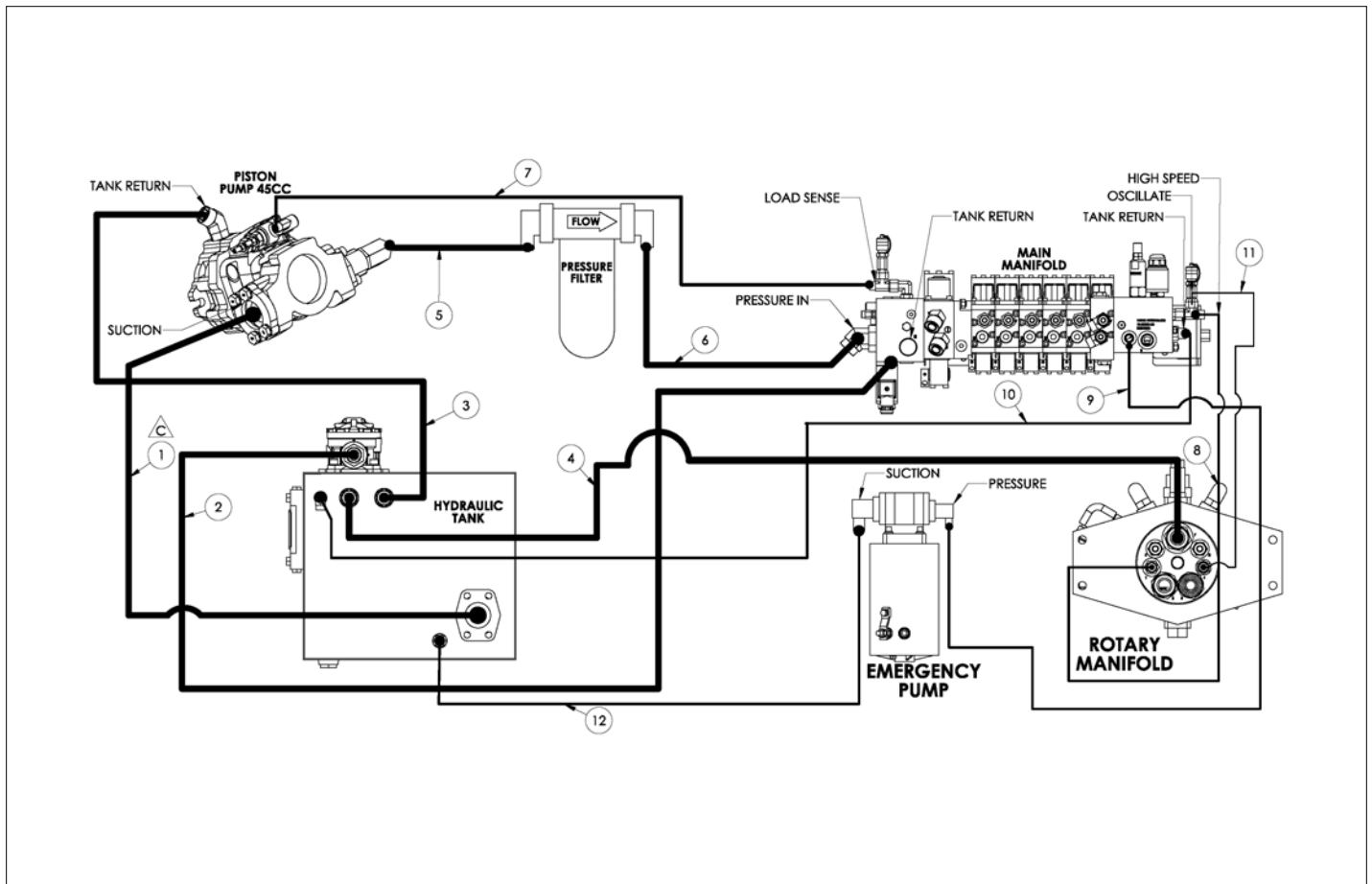
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(BOM FOR REFERENCE ONLY)**

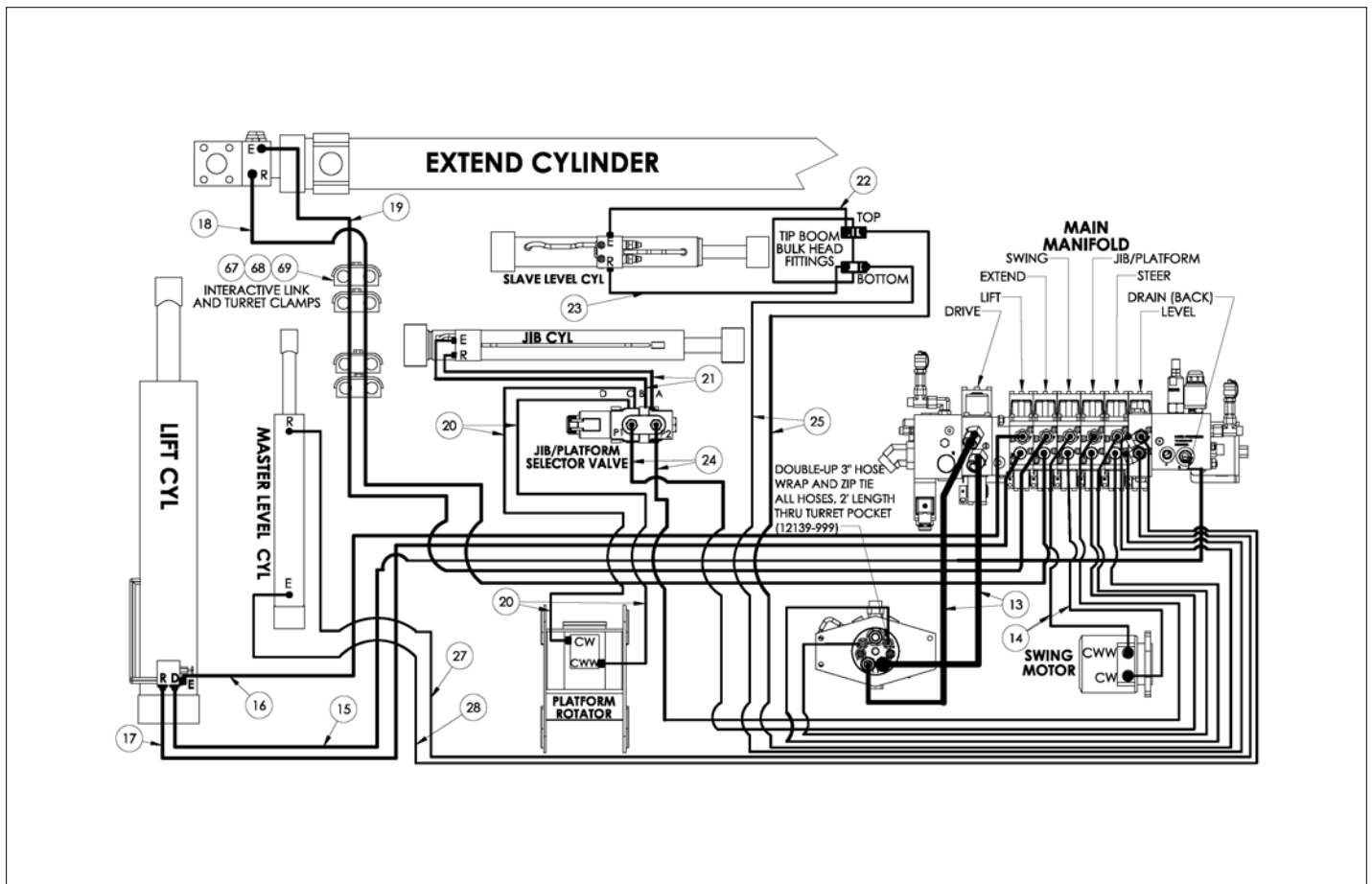
アイテム	部品番号	名前	数量	UOM
	1431876	KIT DECALS 660 OSC		EA
Not Shown	0070540	DECAL, YELLOW ARROW	5	EA
Not Shown	0070541	DECAL, BLUE ARROW	5.0	EA
Not Shown	0071425	PLACARD, PLATFORM IDENTIF	1	EA
Not Shown	0071793	DECAL, HYDRAULIC WARMUP INSTRUCTIONS – OPTION	1	EA
Not Shown	0071926	DECAL, DIESEL FUEL	1	EA
Not Shown	0071927	DECAL, HYDRAULIC OIL	2	EA
Not Shown	0072531	DECAL, ELECTROCUTION HAZ	2	EA
Not Shown	0073298	Decal, Foam Tyres	2	EA
Not Shown	0073667	DECAL INSPECT WIRE ROPES	1	EA
Not Shown	0074209	PLACARD, PRE START INSTRUCTION	1	EA
Not Shown	0074210	DECAL, DANGER ELEC/TIP HAZARD	3	EA
Not Shown	0074316	DECAL, CAUTION GOVERNOR DAMAGE	1	EA
Not Shown	0083426	Decal, Lifting and Tie Down	6	EA
Not Shown	0083733	DECAL, SNORKEL BRAND LOGO 10.0	2	EA
Not Shown	150448	Decal, lanyard attachment	1	EA
Not Shown	0151410	DECAL, DANGER ROTATING PARTS	2	EA
Not Shown	161014	PLAC BATTERY OFF/ON	1	EA
Not Shown	190989	DECAL, DANGER DO NOT REACH	3	EA

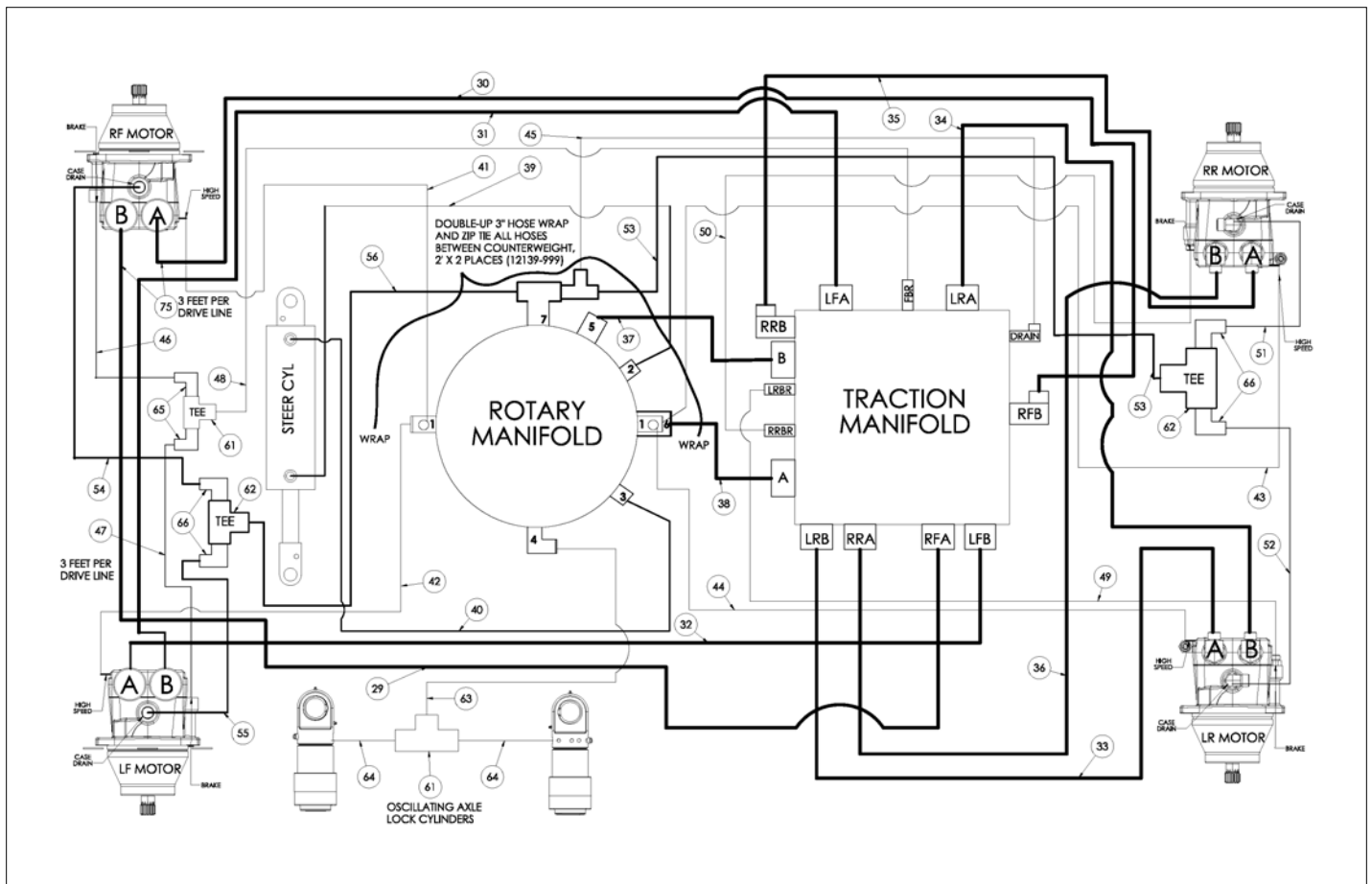
アイテム	部品番号	名前	数量	UOM
Not Shown	323896	DECAL, DANGER ELECT HAZARD	2	EA
Not Shown	323897	DECAL, DANGER MUST NOT OPERATE	2	EA
Not Shown	569295	DECAL, SNORKEL BRAND LOGO 3.00	6	EA
Not Shown	1430864	DECAL, MAIN CONTROL PANEL	1	EA
Not Shown	1431697	DECAL, MAIN CONTROL PANEL UPPR	1	EA
Not Shown	1431454	DECAL WEIGHT CAPACITY	2	EA
Not Shown	1431455	DECAL, SNORKEL ID	1	EA
Not Shown	1431648	DECAL, SNORKEL 660SJ LG	1	EA
Not Shown	7030165	DECAL, ENGINE OIL CAPACITY	1	EA
Not Shown	7030166	DECAL, COOLANT CAPACITY	1	EA
Not Shown	7030169	DECAL, HYDRAULIC CAPACITY	1	EA
Not Shown	7030170	DECAL, FUEL CAPACITY	1	EA
Not Shown	7030171	DECAL, WHEEL TORQUE	4	EA
Not Shown	7030172	DECAL, ROTATION BEARING 3/4"	1	EA
Not Shown	7030173	DECAL, ROTATION BEARING 5/8"	1	EA
Not Shown	7030068	DECAL, SNORKELLIFTS.COM	2	EA
Not Shown	0075881	DECAL, CIRCUIT BREAKER 660	1	EA
Not Shown	0075885	DECAL, ENGINE MONITOR 660	1	EA
Not Shown	0075883	DECAL, ENGINE RPM 660	1	EA

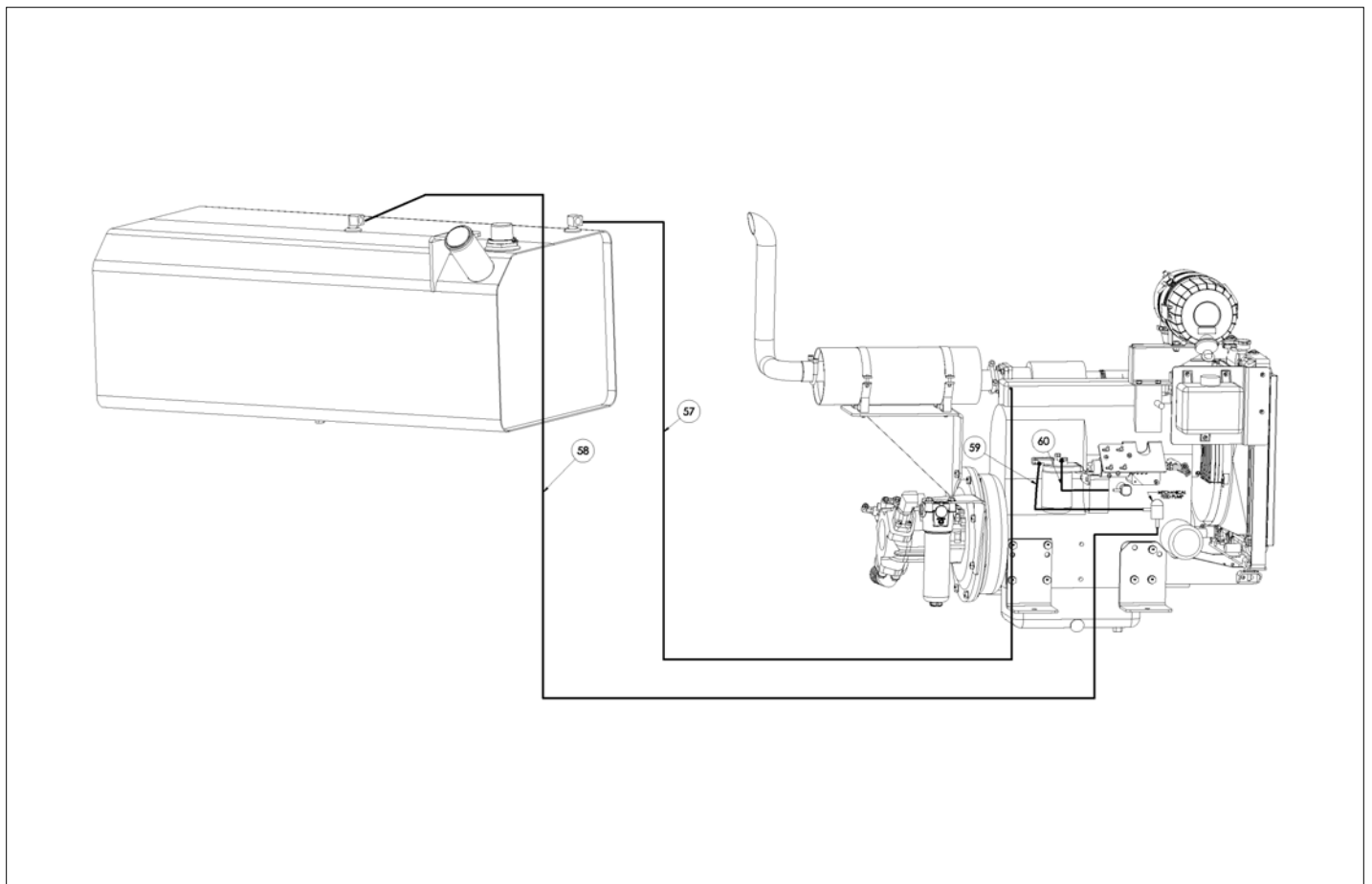
アイテム	部品番号	名前	数量	UOM
Not Shown	0075887	DECAL, MANIFOLD DRIVE	1	EA
Not Shown	0075888	DECAL, MANIFOLD LIFT	1	EA
Not Shown	0075889	DECAL, MANIFOLD EXTEND	1	EA
Not Shown	0075890	DECAL, MANIFOLD SWING	1	EA
Not Shown	0075891	DECAL, MANIFOLD JIB/PLATFORM	1	EA
Not Shown	0075892	DECAL, MANIFOLD STEER	1	EA
Not Shown	0075893	DECAL, MANIFOLD LEVEL	1	EA
Not Shown	0075894	DECAL, MANIFOLD SHIFT	1	EA
Not Shown	0075895	DECAL, MANIFOLD OSCILLATE	1	EA

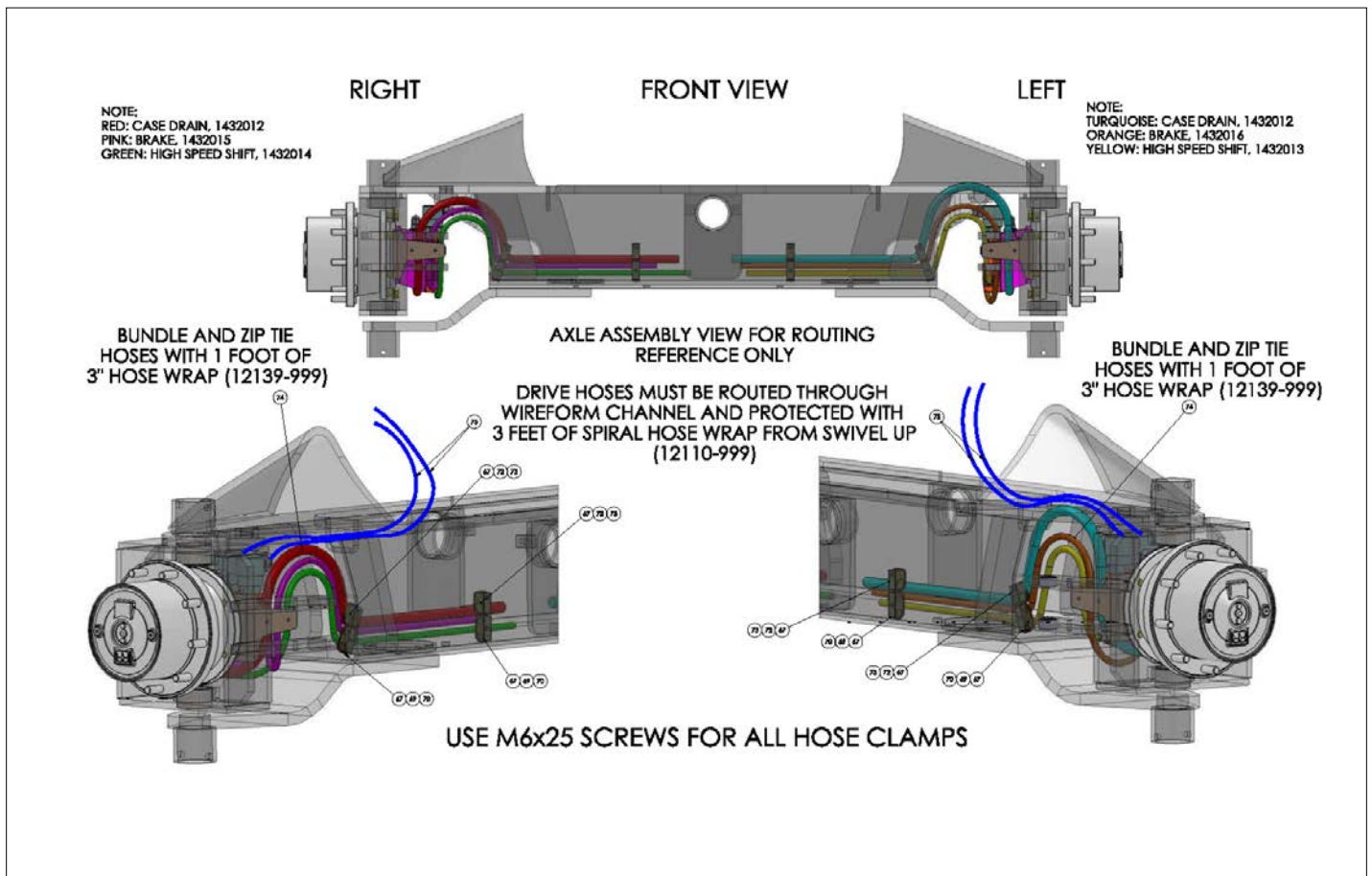
HYDRAULICS











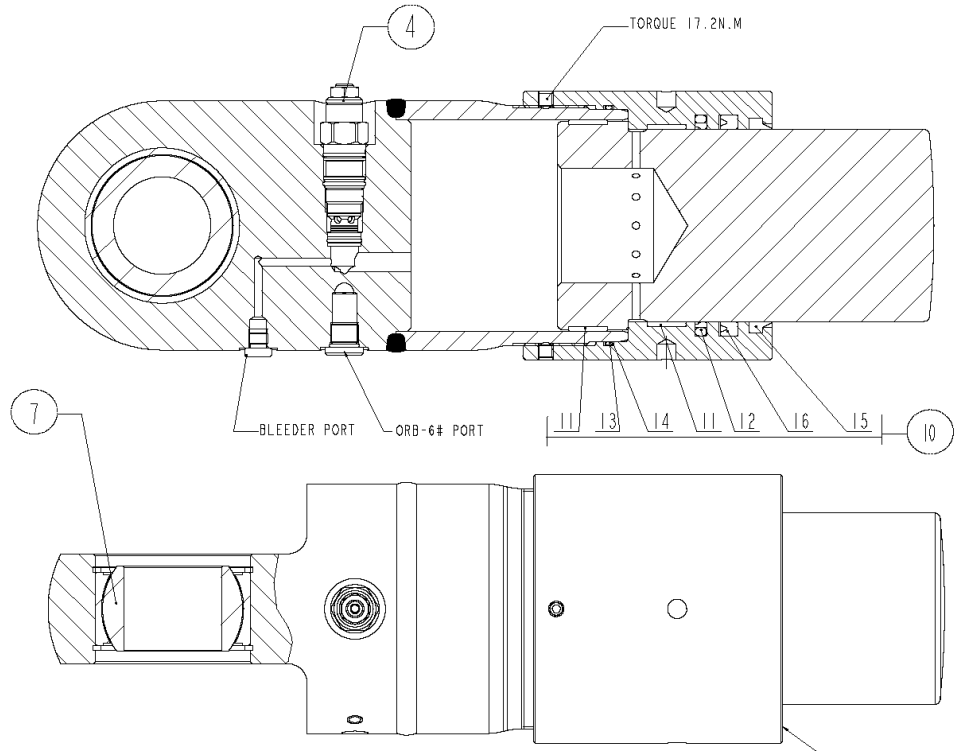
アイテム	部品番号	名前	数量	UOM
	1431728F	HYDRAULIC HOSES, 660SJ OSC		EA
1	1432092	2" SUCTN HOSE 7219 2000025 32	1	EA
2	1430963	HYD HOSE 451 TC TYPE 3/4" 12F	1	EA
3	1430961	HYD HOSE 471 TC 12 3000 PSI	1	EA
4	1430964	HYD HOSE 451 TC TYPE 3/4" 3000 PSI 12FORFF STR X 12FORFF STR X78"	1	EA
5	1430595	CS 1 1/2 A36 Tie Down	1	EA
6	1430960	HYD HOSE 787TC 10 TYPE 5/8" 10	1	EA
7	1430958	HYD HOSE 471 TC TYPE 1/4" 4FO	1	EA
8	1430969	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
9	1430970	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
10	1430966	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
11	1430967	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
12	1430968	HYD HOSE 451 TC TYPE 1/2" 8FO	1	EA
13	1430965	HYD HOSE 787TC 10 TYPE 5/8" 1	2	EA
14	1430972	HYD HOSE 451 TC TYPE 3/8" 6FO	2	EA
15	1430974	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
16	1430976	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
17	1430975	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
18	1430977	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA

アイテム	部品番号	名前	数量	UOM
19	1430977	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
20	1430985	HYD HOSE 451 TC TYPE 1/4" 4FO	2	EA
21	1430984	HYD HOSE 451 TC TYPE 1/4" 4FO	2	EA
22	1430981	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
23	1430982	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
24	1430983	HYD HOSE 451 TC TYPE 1/4" 6FO	2	EA
25	1430980	HYD HOSE 451 TC TYPE 1/4" 4FO	2	EA
26	1430971	HYD HOSE 451 TC TYPE 3/8" 6FO	2	EA
27	1430978	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
28	1430979	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
29	1430939	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
30	1430938	HYD HOSE 787TC 8 TYPE 1/2" 8FO	1	EA
31	1430939	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
32	1430939	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
33	1430941	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
34	1430942	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
35	1430942	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
36	1431643	HYD HOSE 787TC 8 5000PSI 8FORF	1	EA
37	1430944	HYD HOSE 787TC 10 TYPE 5/8" 10	1	EA

アイテム	部品番号	名前	数量	UOM
38	1430945	HYD HOSE 787TC 10 TYPE 5/8" 10	1	EA
39	1430946	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
40	1430946	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
41	1432014	HYD HOSE 471 TC 4, 101.5"	1	EA
42	1432013	HYD HOSE 471 TC 4, 101.5"	1	EA
43	1430948	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
44	1430948	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
45	1430949	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
46	1432015	HYD HOSE 471 TC 4, 66.5"	1	EA
47	1432016	HYD HOSE 471 TC 4, 66.5"	1	EA
48	1432017	HYD HOSE 471 TC 4, 97"	1	EA
49	1430952	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
50	1430952	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
51	1432061	HYD HOSE 471 TC 8, 48"	1	EA
52	1432061	HYD HOSE 471 TC 8, 48"	1	EA
53	1432062	HYD HOSE 471 TC 8, 64"	1	EA
54	1432012	HYD HOSE 471 TC 8, 67.5"	1	EA
55	1432012	HYD HOSE 471 TC 8, 67.5"	1	EA
56	1432018	HYD HOSE 471 TC 8, 44.5"	1	EA
57	967359	HOESAE30R2 03 TYPE 3 3/16 in	1	EA
58	012733 099	1/4" 50PSI FUEL HOSE X 12"	1	EA
59	012733 099	1/4" 50PSI FUEL HOSE X 12"	1	EA
60	012733 099	1/4" 50PSI FUEL HOSE X 12"	1	EA
61	104769 000	FTG, 4MORFF X 4MORFF X 4MORFF UTEE	2	EA

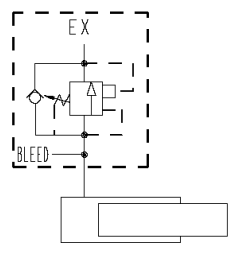
アイテム	部品番号	名前	数量	UOM
62	511617 000	FTG, 8MORFF X 8MORFF X 8MORFF UTEE	2	EA
63	1431731	HYD HOSE 471 TC 4, 3000PSI 49"	1	EA
64	1431732	HYD HOSE 471 TC 4, 3000PSI 12"	2	EA
65	100435 001	FTG 4 MORFFX X 4 FORFF90	2	EA
66	100435 003	FTG, 90 ° , 8MORFF X 8FORFF	4	EA
67	11354 000	SLEEVE TUBE CLAMP	12	EA
68	11355 002	BODY CLAMP HYDAC	4	EA
69	11356 000	STIRRUP CLAMP HYDAC	4	EA
70	11355 006	BODY TUBE CLAMP #1 X 1/2	4	EA
71	11356 001	STIRRUP TUBE CLAMP #2	4	EA
72	11355 014	BODY CLAMP HYDAC 00264713	4	EA
73	11356 002	STIRRUP TUBE CLAMP #2, HYDAC	4	EA
74	12139 999	GUARD HOSE WRAP SL 3.0 1050B	12	EA
75	12110 999	GUARD SPIRAL WRAP .83 PSG25	12	EA

HYDRAULICS



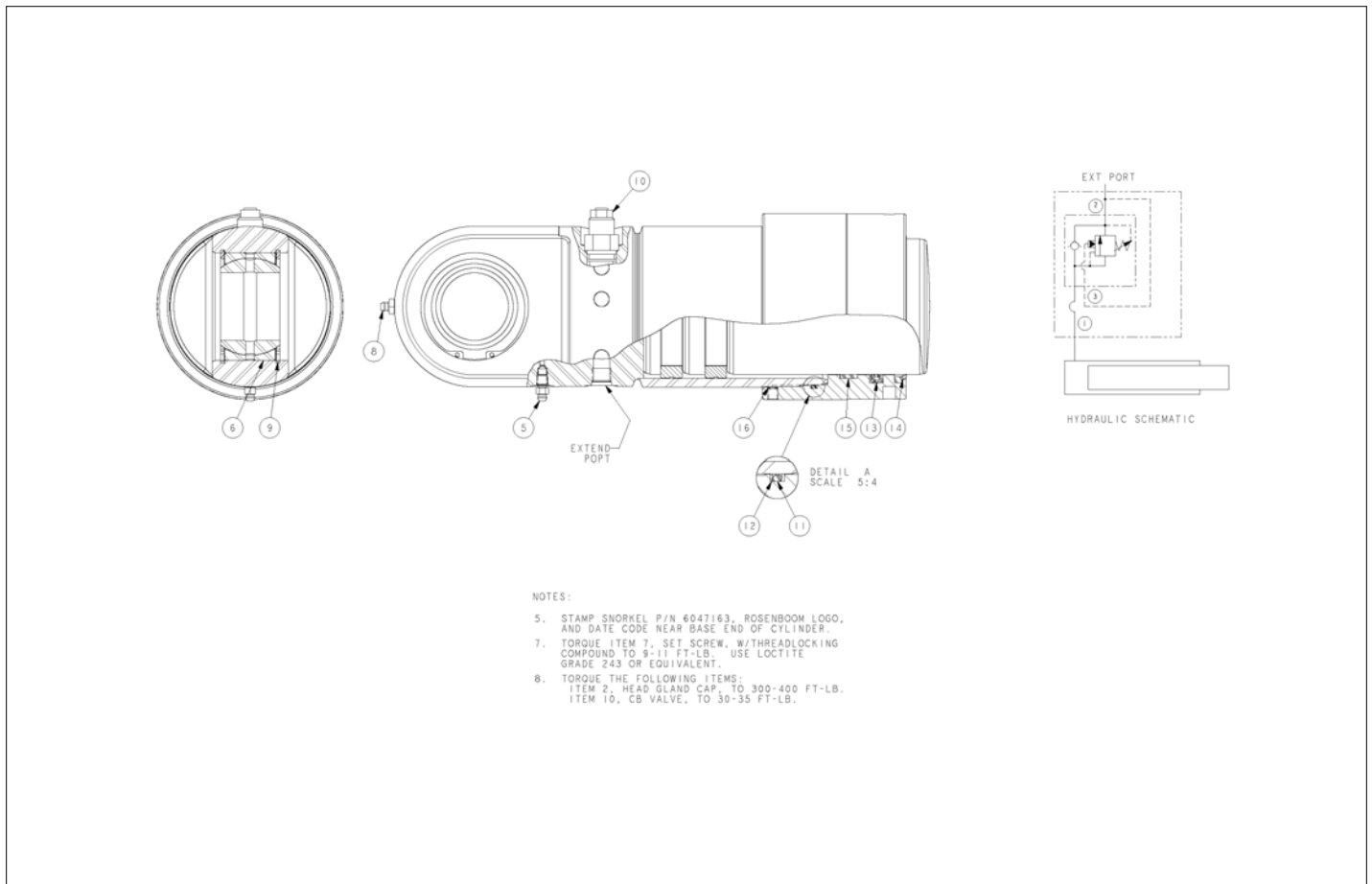
STAMP:
Snorkel P/N:5290013
Date code: MM-DD-YYYY

HYDRAULIC SCHEMATIC



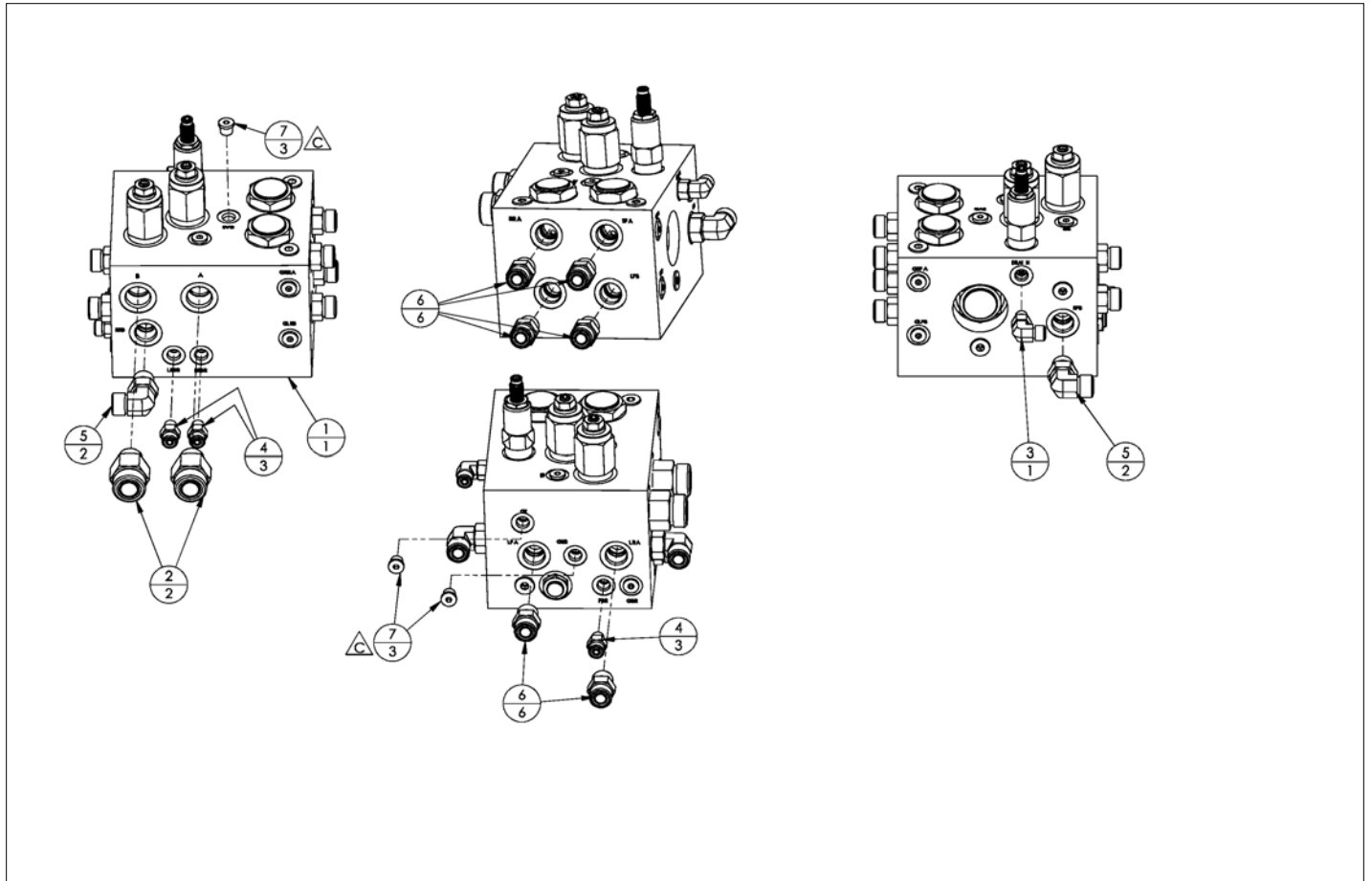
アイテム	部品番号	名前	数量	UOM
	5290013	AXLE LOCK CYLINDER HENGLI		EA
4	6091953	THROTTLE BALANCING VALVE	1	EA
7	6091954	BEARING	1	EA
10	6091955	SEAL KIT (INCLUDES ITEMS 11 16)	1	EA

HYDRAULICS



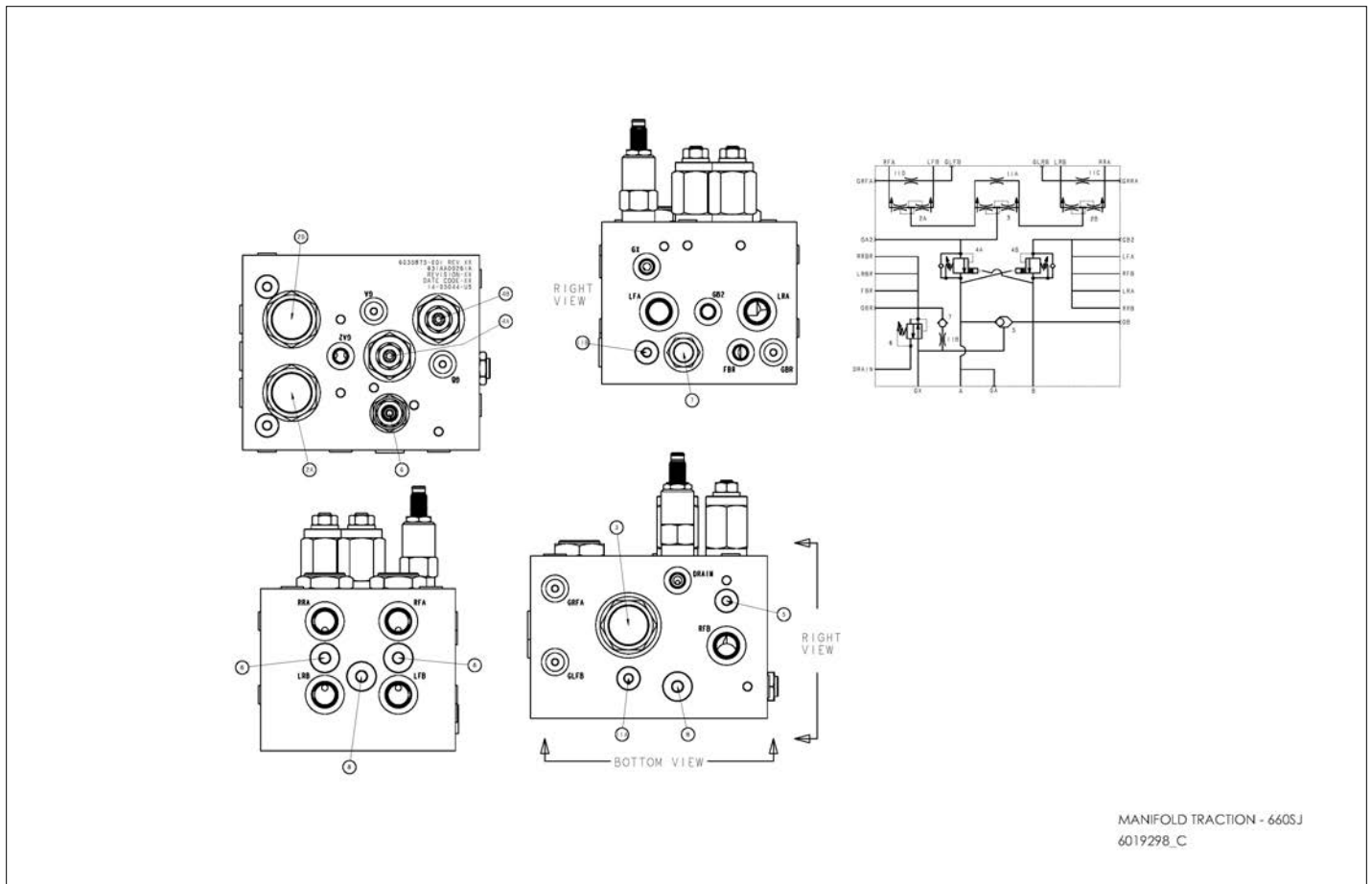
アイテム	部品番号	名前	数量	UOM
Not Shown	6047163	660 SJ OSC AXLE LOCK CYL	1	EA
5	6047177	BEARING	1	EA
6	106771 105	BLEEDER SCREW	1	EA
8	6091838	1/8 27 STR. SELFTAP LUBE FIT	1	EA
9	6091839	INT. SNAP RING, 3.156 BORE	2	EA
10	6091840	C/B VALVE CBAH LJNI (3500)	1	EA
Not Shown	6091837	SEAL KIT	1	EA
11	KIT ITEM	O RING	1	EA
12	KIT ITEM	BACKUP RING	1	EA
13	KIT ITEM	DEEP Z SEAL	1	EA
14	KIT ITEM	HD ROD WIPER, SEALED OD	1	EA
15	KIT ITEM	WAREBAND	1	EA
16	KIT ITEM	LOCKING RING	1	EA

HYDRAULICS



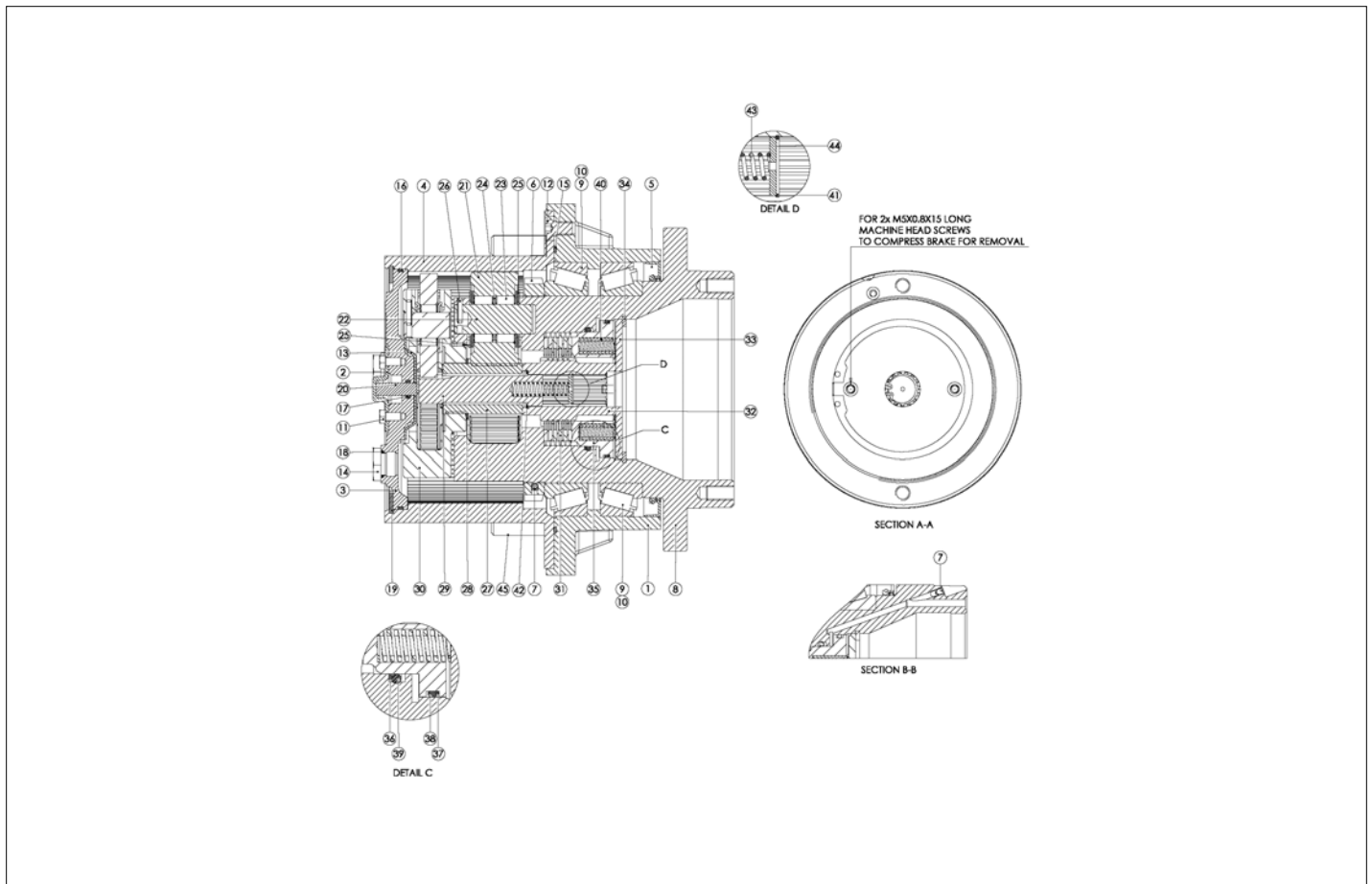
アイテム	部品番号	名前	数量	UOM
Not Shown	511621 000 C	TRACTION MANIFOLD ASSEMBLY		EA
1	6019298	TRACTION MANIFOLD	1	EA
2	511585 000	GTG STR 10 MORB X 12 MORFS	2	EA
3	100434 002	FITTING 4MORFF X 4MORB 90 °	1	EA
4	100432 002	Hyd Fitting Straight ORFS(04) SAE(04)	3	EA
5	100434 013	Hyd Fitting 90 Elbow ORFS(08) SAE(08)	2	EA
6	100432 015	FTG, STR, 8MORFF X 8MORB	6	EA
7	5075303	ADAPTER PLUG SOCKET 4 SAE	3	EA

HYDRAULICS



アイテム	部品番号	名前	数量	UOM
Not Shown	6019298	TRACTION MANIFOLD	1	EA
2	6091832	FLOW DIVIDER COMBINER	2	EA
3	6091833	FLOW DIVIDER COMBINER	1	EA
4	6091834	OVERCENTER VALVE	2	EA
6	6091835	PRESSURE REDUCING VALVE	1	EA
7	6091836	CHECK VALVE	1	EA

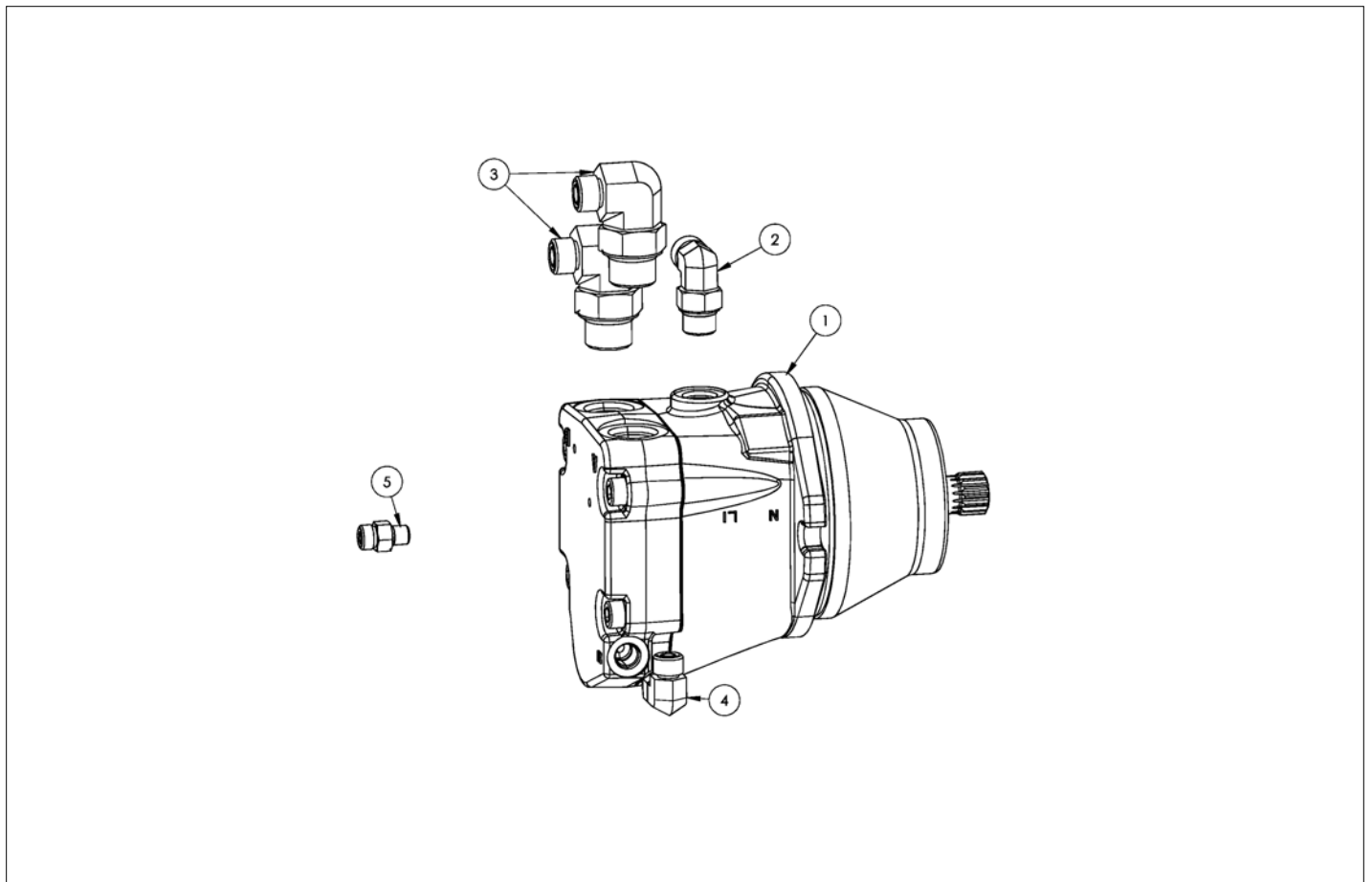
HYDRAULICS



アイテム	部品番号	名前	数量	UOM
	116324 000	Wheel Gearbox		EA
1	8010399	HOUSING VB07 H1	1	EA
2	8010401	CAP LOCKOUT VB07	1	EA
3	8010400	CAP END VB07	1	EA
4	8010412	SEAL OIL; 0637 60008	1	EA
5	8010412	SEAL OIL; 0637 60008	1	EA
6	056066 014	NUT NYLOCK DIN985 M14 8.0 ZINC PLTD	1	EA
7	058490 006	HEXSETSCREW	3	EA
8	8010406	SPINDLE VB07	1	EA
9	8010409	BEARING CONE 32928	2	EA
10	8010408	BEARING CUP 32928	2	EA
11	056058 012	BLT HEXBOLT 6MM X 12MM DIN931 GR8.8 ZP	2	EA
12	116324 007	CAPSCREW MACH HD M10 X 1.5 X 20	3	EA
13	8010444	THRUSTWASHER SUN VB07	1	EA
14	8010421	FLANGE PLUG MAGNETIC; M18 X 1.5	2	EA
15	8010414	SEAL O RING; 172	1	EA
16	8010411	SEAL O RING 166	1	EA
17	8010413	SEAL O RING; 110	3	EA
18	8010417	O RING (113) VITON MAT'L	2	EA
19	8010432	SNAP RING; GB#180; INTERNAL	1	EA
20	8010434	PLUNGER; VB07	1	EA
21	8010404	GEAR PLANET VB07 46T LS	3	EA
22	8010407	SHAFT SEC. PLANET VB07	3	EA
23	8010410	BEARING NEEDLE VB07	84	EA
24	8010418	SPACER BEARING; VB07 2.2 THICK	3	EA
25	8010443	WASHER BRG RETAINING VB07 1.5MM	12	EA

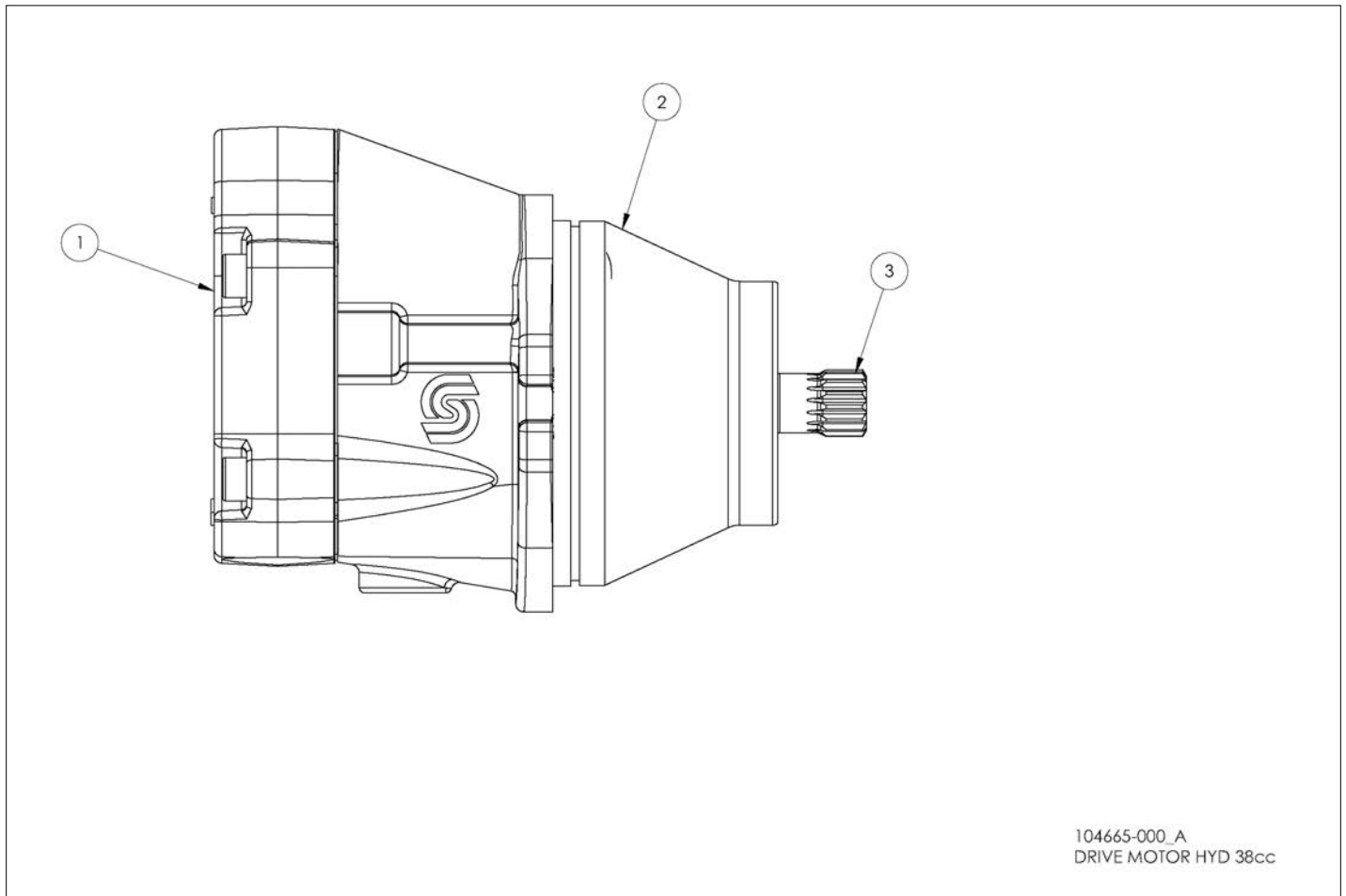
アイテム	部品番号	名前	数量	UOM
26	8010419	ROLL PIN HD; 4MM X19	3	EA
27	8010405	GEAR SUN VB07 25T LS	1	EA
28	8010429	SNAP RING; GB#40	1	EA
29	8010403	INPUT SHAFT VB07 13T	1	EA
30	8010422	CARRIER ASSY; VB07 PRI 10.15	1	EA
31	8010428	BRAKE ASSY; VB07	1	EA
32	8010440	BRAKE ROTOR; VB07	1	EA
33	8010436	PLATE SPRING RETAINING VB07	1	EA
34	8010430	SNAP RING; GB#105; INTERNAL	1	EA
35	8010441	HYDRAULIC PISTON; VB07	1	EA
36	8010438	BACKUP RING; VB07	1	EA
37	8010437	BACKUP RING; VB07	1	EA
38	8010415	SEAL O RING 154	1	EA
39	8010416	SEAL O RING; 237	1	EA
40	8010442	SPRING; VB07	12	EA
41	8010431	SNAP RING; GB#19; INTERNAL	1	EA
42	8010433	SNAP; RING; 5008 93; INTERNAL	1	EA
43	8010439	SPRING; VB07	1	EA
44	8010435	PLUG SPRING RETAINING VB07	1	EA
45	8010420	STUD; 5/8 18 UNFX2A	1	EA
Not Shown	7220055	KIT SEAL TORQUE HUB OMNI GEAR 116324 000	1	EA
Not Shown	7220056	BRAKE KIT TORQUE HUB OMNI GEAR 116324 000	1	EA

HYDRAULICS



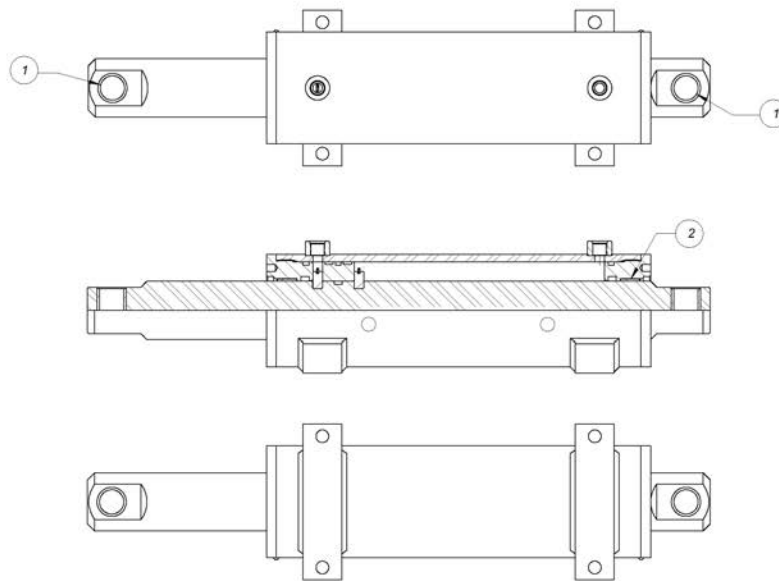
アイテム	部品番号	名前	数量	UOM
	511581 000 B	HYDRAULIC MOTOR REAR ASSEMBLY		EA
1	104665 000	DRIVE MOTOR HYD 38cc/9.22cc	1	EA
2	100434 013	Hyd Fitting 90 Elbow ORFS(08) SAE(08)	1	EA
3	100434 015	Hyd Fitting 90 Elbow ORFS(08) SAE(12)	1	EA
4	511481 000	FTG, 90 ° , 6MORFF X 6MORB	2	EA
5	100432 002	Hyd Fitting Straight ORFS(04) SAE(04)	1	EA

HYDRAULICS



アイテム	部品番号	名前	数量	UOM
Not Shown	104665 000 A	DRIVE MOTOR HYD 38cc		EA
1	8190343	SEAL KIT FOR 116325 000 MOTOR	1	EA
2	106751 101	CYLINDER BLOCK KIT	1	EA
3	104665 100	SHAFT	1	EA

HYDRAULICS

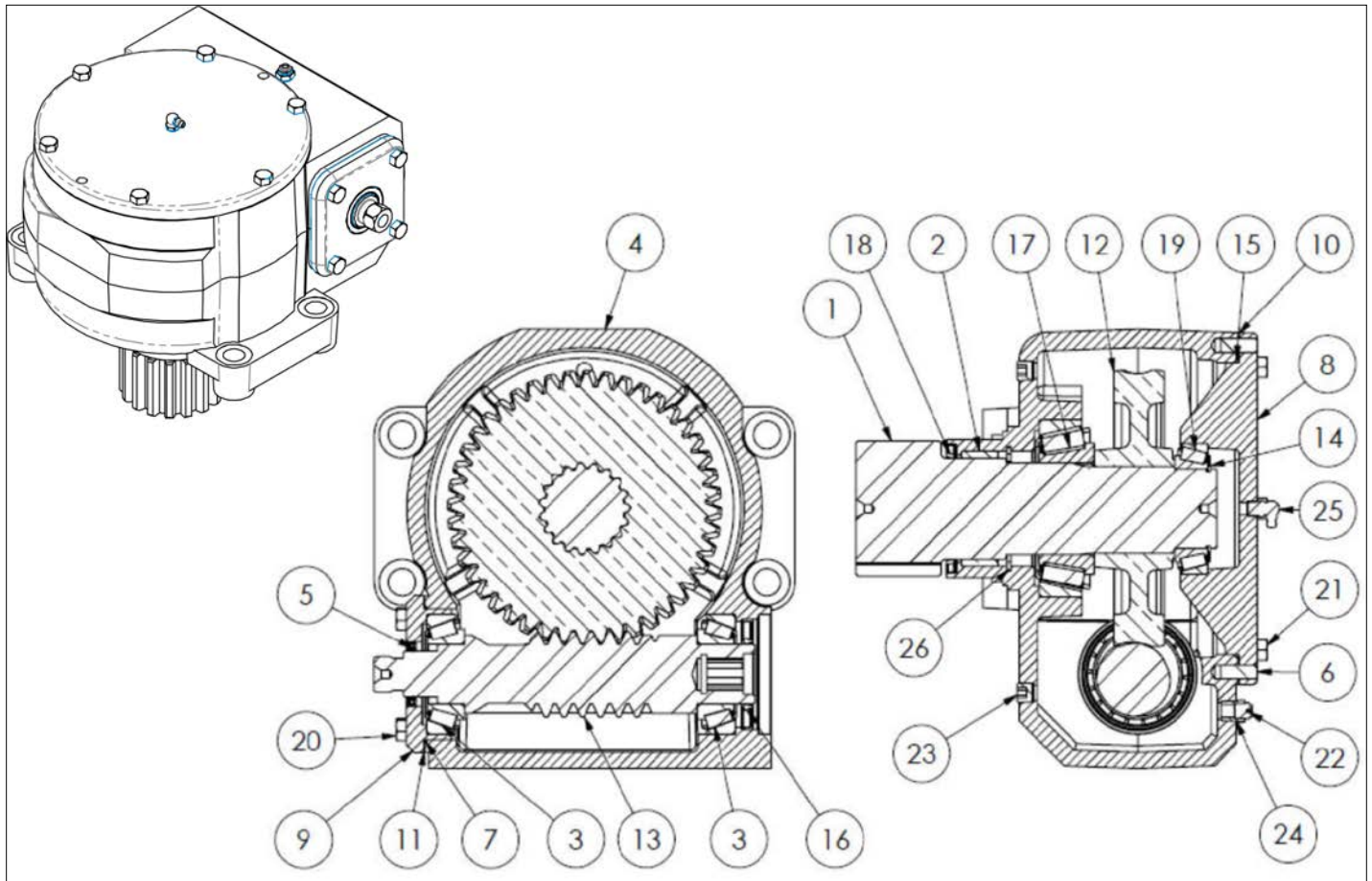


5. ALL SEALS ARE COMPATIBLE WITH PETROLEUM BASE FLUIDS

5290010 CYL STR OSC / RGD
HYDRATECH

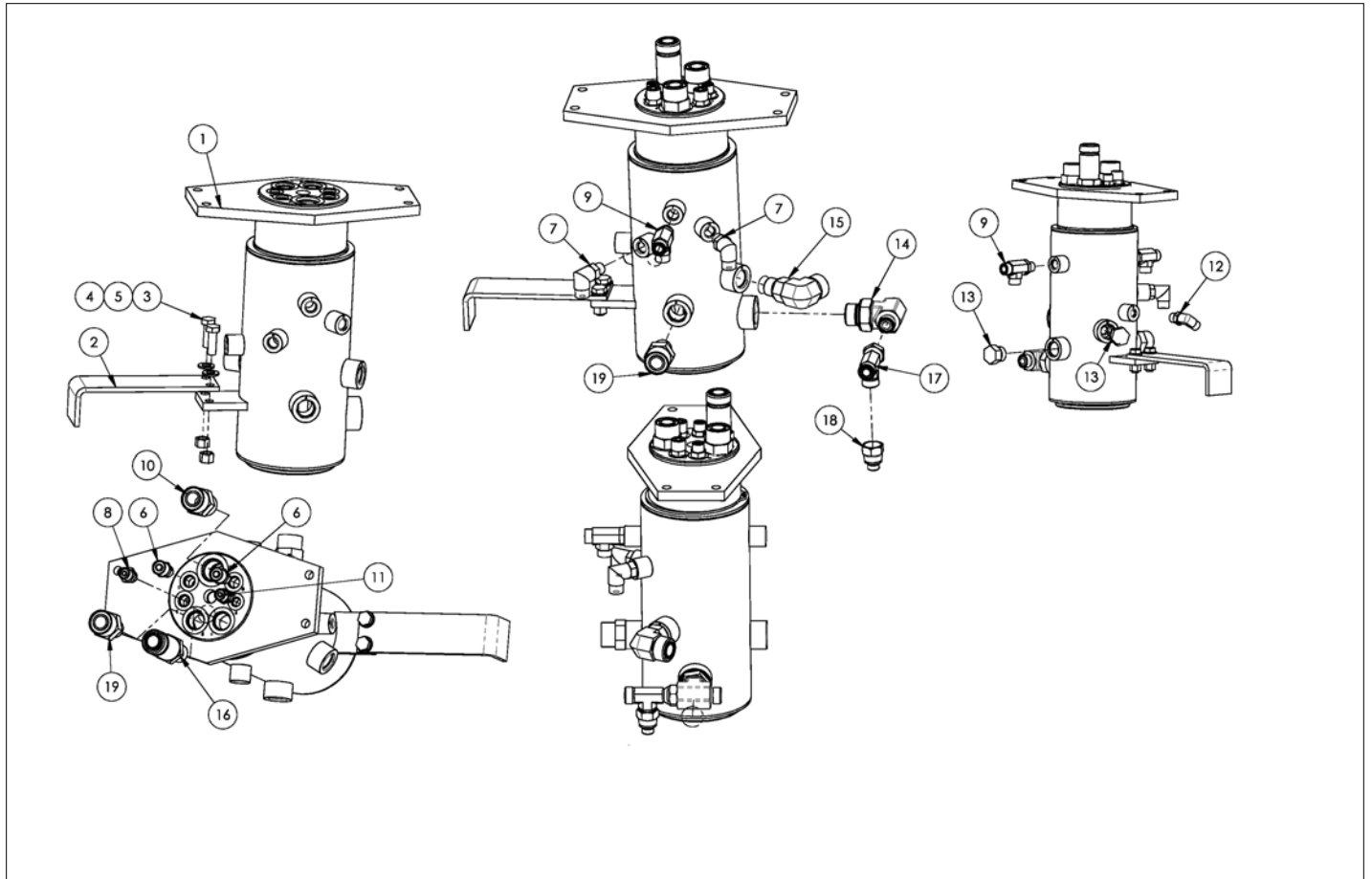
アイテム	部品番号	名前	数量	UOM
Not Shown	5290010	660 STEER CYLINDER	1	EA
1	6091842	COMPOSITE BUSHING	2	EA
2	6091841	SEAL KIT (COMPONENTS IN KIT NOT SHOWN)	1	EA

HYDRAULICS



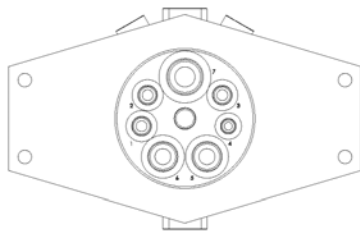
アイテム	部品番号	名前	数量	UOM
	106755 000 A	SWING DRIVE GEARBOX		EA
1	106755 100	PINION, OUTPUT	1	EA
2	106755 101	BUSHING, BRONZE	1	EA
3	106755 102	BRG, ROLL CUP M802011 & CONE M802048	2	EA
4	N/A	NOT SOLD SEPARATELY	N/A	EA
5	106755 103	SEAL, OIL #12172PTC	1	EA
6	106755 104	PIN, DOWELL 3/8x1"	2	EA
7	106755 105	O RING, PARKER 2 043	1	EA
8	106755 106	CAP, BLIND GEAR	1	EA
9	106755 107	CAP, WORM	1	EA
10	N/A	NOT SOLD SEPARATELY	N/A	EA
11	N/A	NOT SOLD SEPARATELY	N/A	EA
12	106755 108	WORM GEAR 44:1	1	EA
13	106755 109	WORM 44:1	1	EA
14	106755 110	SNAP RING EXT MRRXAN 215	1	EA
15	106755 111	O RING, PARKER 2 170	1	EA
16	106755 112	SEAL, OIL#16422	1	EA
17	106755 113	BRG, ROLLER CUP HM212011 & CONE HM212049 1		EA
18	106755 114	SEAL, OIL #27271	1	EA
19	106755 115	BRG, ROLL SET 32011XM 90KMI	1	EA
20	106755 116	3/8 16X1"LG HHCS	4	EA
21	106755 117	3/8 16X1 1/8"LG HHCS	6	EA
22	106755 118	VENT, PRESSURE 1 5 PSIG	1	EA
23	106755 119	1/4 18 NPTF HEX PLUG	2	EA
24	106755 120	BUSHING, RED 1/4 1/8 NPTF	1	EA
25	106755 121	GREASE FITTING #1613 B	1	EA
26	106755 122	SNAP RING INT HO315STPA	1	EA

HYDRAULICS



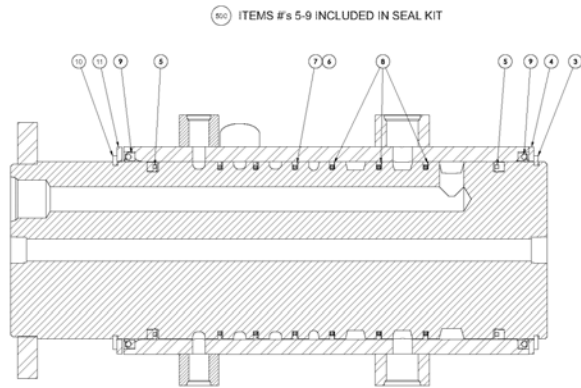
アイテム	部品番号	名前	数量	UOM
Not Shown	1432072 A	7 PORT ROTARY MANIFOLD ASSEMBLY		EA
1	1430782	ROTARY MANIFOLD	1	EA
2	1430679	ROTARY MANIFOLD STOP	1	EA
3	5560626	BLT HEXHD M10 1.5 X 30MM GR8	2	EA
4	5560719	NUT HEX LKG M 10 1.50 GR 8.8	2	EA
5	986009	WSHR FLAT 10	2	EA
6	100432 009	Hyd Fitting Straight ORFS(06) SAE(06)	2	EA
7	100434 008	6MB X 6M ORFF 90 ° FITTING	2	EA
8	100432 004	Hyd Fitting Straight ORFS(04) SAE(06)	1	EA
9	104764 000	6 MORFF X 6MB X 6 MORFF RUN TEE	2	EA
10	100432 027	Hyd Fitting Straight ORFS(12) SAE(12)	1	EA
11	100432 002	Hyd Fitting Straight ORFS(04) SAE(04)	1	EA
12	100434 002	FITTING 4MORFF X 4MORB 90 °	1	EA
13	511619 000	#10 HEX PLUG ORB	2	EA
14	5033083	SWV TEE 12MORB X 8MORFF X 8MORFF SUB FOR 100435 003 SN 660SJ 04 0075 AND AFTER	1	EA
15	5033064	FTG, 90 °, 12MORFF X 10MORB, PARKER 12 10 C5OLO	1	EA
16	5028034	12 ORFM X 10 ORFM FF5OLO LONG FTG	1	EA
17	5033071	FTG RT 8MORFFX8MORFFX8FORFF	1	EA
18	5111675	FTG 8 ORFF X 4 ORFM REDUCER	1	EA
19	511585 000	GTG STR 10 MORB X 12 MORFS	2	EA

HYDRAULICS



PORT INFORMATION TABLE

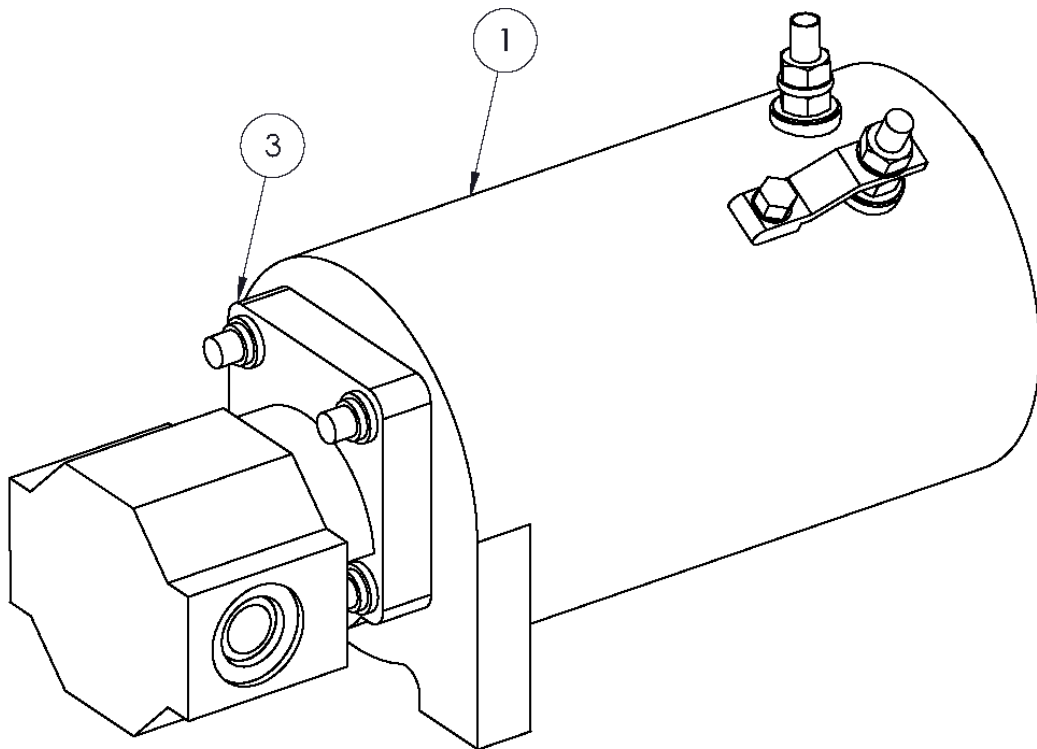
PORT NO.	FUNCTION	OPERATING PRESSURE, PSI	FEARLESS® PRESSURE, PSI
1	STEER A	4500	4750
2	STEER B	4500	4750
3	AXLE LOCK	4500	4750
4	SPEED CONTROL	4500	4750
5	DRIVE B	4500	9000
6	DRIVE A	4500	9000
7	CASE DRAIN	300	750



アイテム	部品番号	名前	数量	UOM
Not Shown	1430782	ROTARY MANIFOLD	1	EA
3	6091814	RETAINING RING	2	EA
4	6091813	THRUST RING	2	EA
500	6091812	SEAL KIT	1	EA
5	KIT ITEM	POLYSEAL SQUARE B	2	EA
6	KIT ITEM	O RING SQUARE	6	EA
7	KIT ITEM	CAP SEAL	3	EA
8	KIT ITEM	CAP SEAL	3	EA
9	KIT ITEM	POLYSEAL SQUARE B	2	EA
10	6091814	RETAINING RING	2	EA
11	6091813	THRUST RING	2	EA

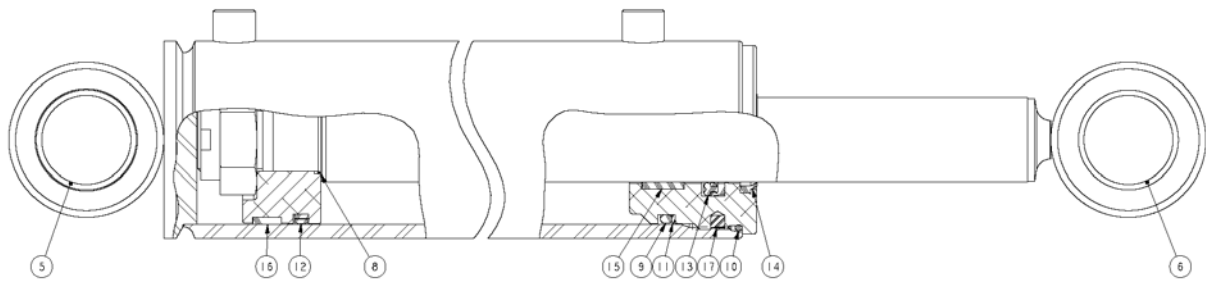
HYDRAULICS

6020058
EMERGENCY POWER UNIT ASSEMBLY



アイテム	部品番号	名前	数量	UOM
	6020058 B	EMERGENCY POWER UNIT WUXI DELI		EA
1	6029699	GEAR PUMP	1	EA
2	6029698	DC MOTOR	1	EA

HYDRAULICS

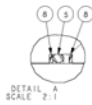
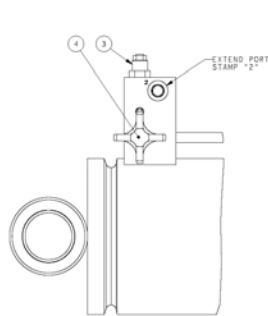
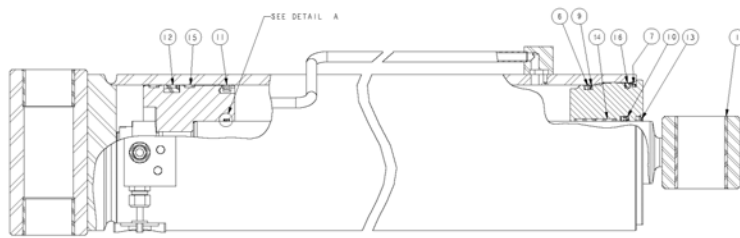


NOTES:

5. STAMP TANFIELD ENGINEERING P/N 100553-100, RMT LOGO, AND DATE CODE NEAR BASE END OF CYLINDER.
7. TORQUE ITEM 7, LOCKNUT, w/THREADLOCKING COMPOUND TO 350-380 FT-LB. USE LOCTITE GRADE 271 OR EQUIVALENT.
8. TORQUE ITEM 3, HEAD GLAND, TO 250-300 FT-LB.

アイテム	部品番号	名前	数量	UOM
	100553 100A	MASTER LEVEL CYLINDER ROSENBOOM		EA
5	100553 104	JOURNAL BEARING	2	EA
6	100553 106	JOURNAL BEARING	1	EA
	100553 108	SEAL KIT (10 THRU 19)	1	EA

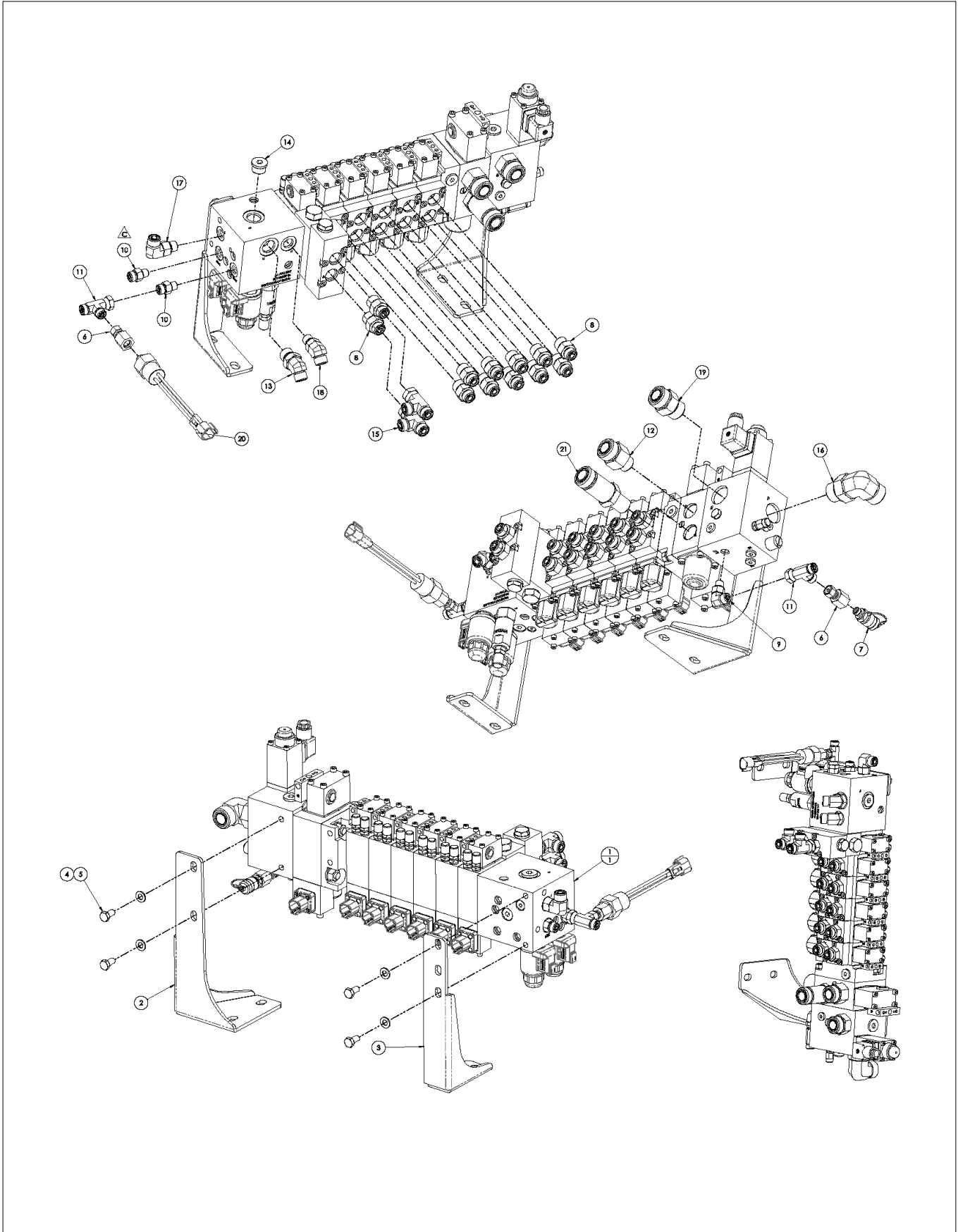
HYDRAULICS



- NOTES:
- 6. STAMP SNOPKEL P/N 143107E, ROSENBOOM LOGO, AND DATE CODE NEAR BASE END OF CylINDER.
 - 8. TORQUE ITEM 8, LOCKNUT, w/THREADLOCKING COMPOUND TO 2,000-2,200 FT-LB. USE LOCTITE GRADE 271 OR EQUIVALENT.
 - 9. TORQUE THE FOLLOWING ITEMS:
 ITEM 3, HEAD GLEND, TO 550-600 FT-LB.
 ITEM 2, SEAL, VALVE, TO 30-35 FT-LB.
 ITEM 8, SHUT-OFF VALVE, TO 30-35 FT-LB.

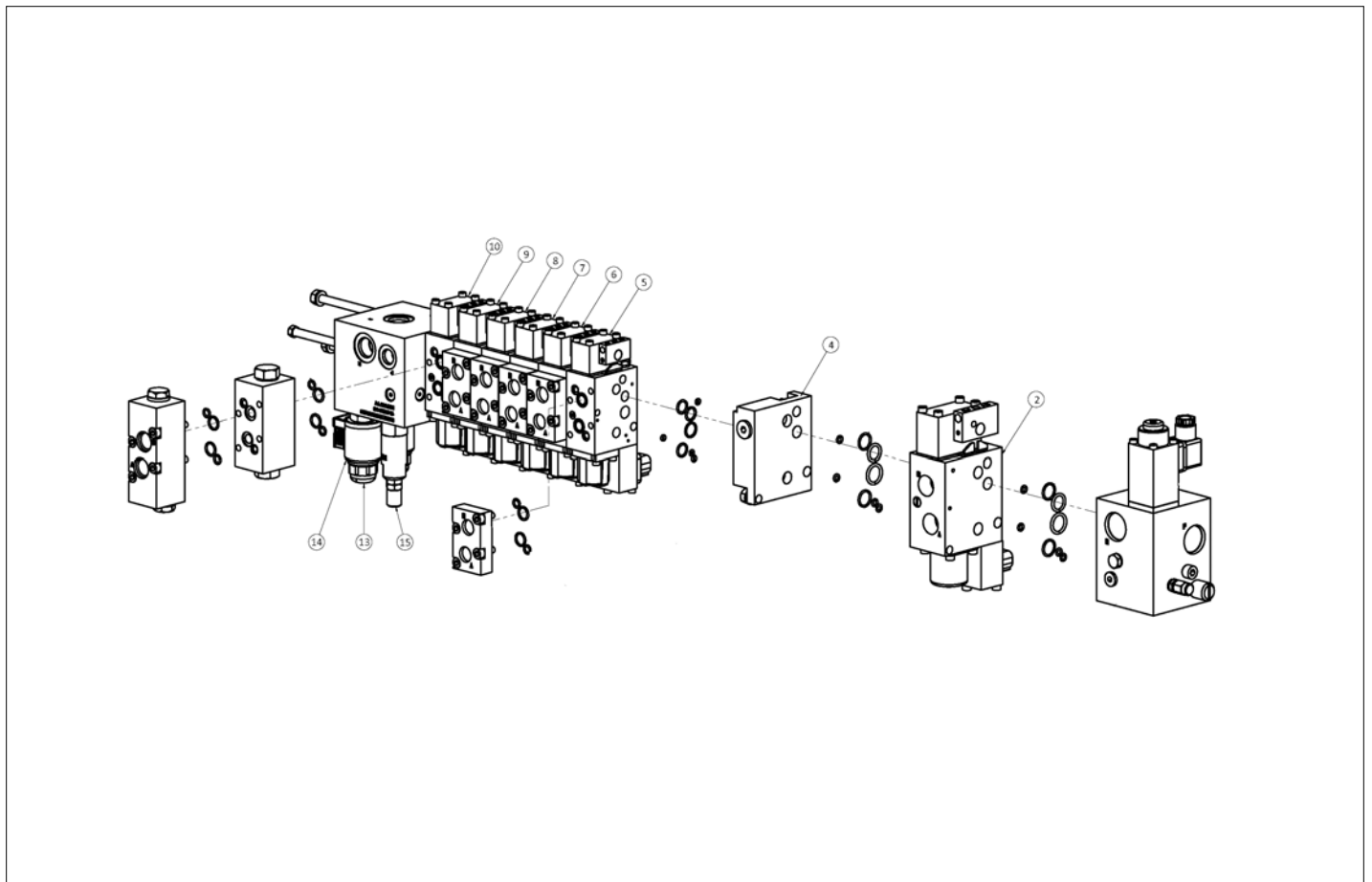
アイテム	部品番号	名前	数量	UOM
	1431076 A	LIFT CYLINDER ROSENBOOM		EA
1	6091881	SEAL KIT	4	EA
3	6091314	COUNTER BALANCE VALVE	1	EA
4	6010115	CARTRIDGE NEEDLE VALVE	1	EA
	6091802	SEAL KIT		EA
5	KIT ITEM	O RING	1	EA
6	KIT ITEM	O RING	1	EA
7	KIT ITEM	O RING	1	EA
8	KIT ITEM	BACKUP RING, DYNAMIC	2	EA
9	KIT ITEM	BACKUP RING	1	EA
10	KIT ITEM	DZR SEAL	1	EA
11	KIT ITEM	CAST IRON PISTON RING	1	EA
12	KIT ITEM	CAPPED T SEAL	1	EA
13	KIT ITEM	HD ROD WIPER, SEALED OD	1	EA
14	KIT ITEM	PRECISION WEARBAND	2	EA
15	KIT ITEM	PRECISION WEARBAND	2	EA
16	KIT ITEM	LOCKING INSERT	2	EA

HYDRAULICS



アイテム	部品番号	名前	数量	UOM
Not Shown	1432076C	MANIFOLD ASSEMBLY OSC		EA
1	6019349	HYD MANIFOLD OSC AXLE	1	EA
2	1431495	BRACKET, BOTTOM HAWE VLV MNT	1	EA
3	1431494	BRACKET, TOP HAWE VALVE MOUNT	1	EA
4	056069 008	WASHER, STEELFLATWASHER DIN12M8 FLAT WASHER DIN 125	4	EA
5	510681 016	HHCS M8X1.25X16 G10.9 ISO 4014	4	EA
6	511587 016	ORFS SWIVEL/SAE ORB ADAPTER	2	EA
7	063965 001	PLUG TEST PORT	1	EA
8	511339 000	FTG, STR, 6MORFF X 8MORB	12	EA
9	100434 002	FITTING 4MORFF X 4MORB 90 °	1	EA
10	100432 002	Hyd Fitting Straight ORFS(04) SAE(04)	2	EA
11	5033035	TEE RUN SWVL, 4FORRFS X 4FORFS X 4 MORFS	2	EA
12	511585 000	GTG STR 10 MORB X 12 MORFS	1	EA
13	511257 000	8MB X 6M ORFF 45 ° FITTING	1	EA
14	5075306	HEX PLUG	1	EA
15	511356 000	FTG 6FORF 6MORF X 6MORF RUN TEE	2	EA
16	100434 021	Hyd Fitting 90 Elbow ORFS(12) SAE(12)	1	EA
17	511481 000	FTG, 90 ° , 6MORFF X 6MORB	1	EA
18	100433 005	FTG, 45 ° , 6MORFF X 6MORB	1	EA
19	100432 027	Hyd Fitting Straight ORFS(12) SAE(12)	1	EA
20	3014766	SWITCH PRESS 200PSI #4SAE	1	EA
21	5028034	12 ORFM X 10 ORFM FF5OLO LONG FTG	1	EA

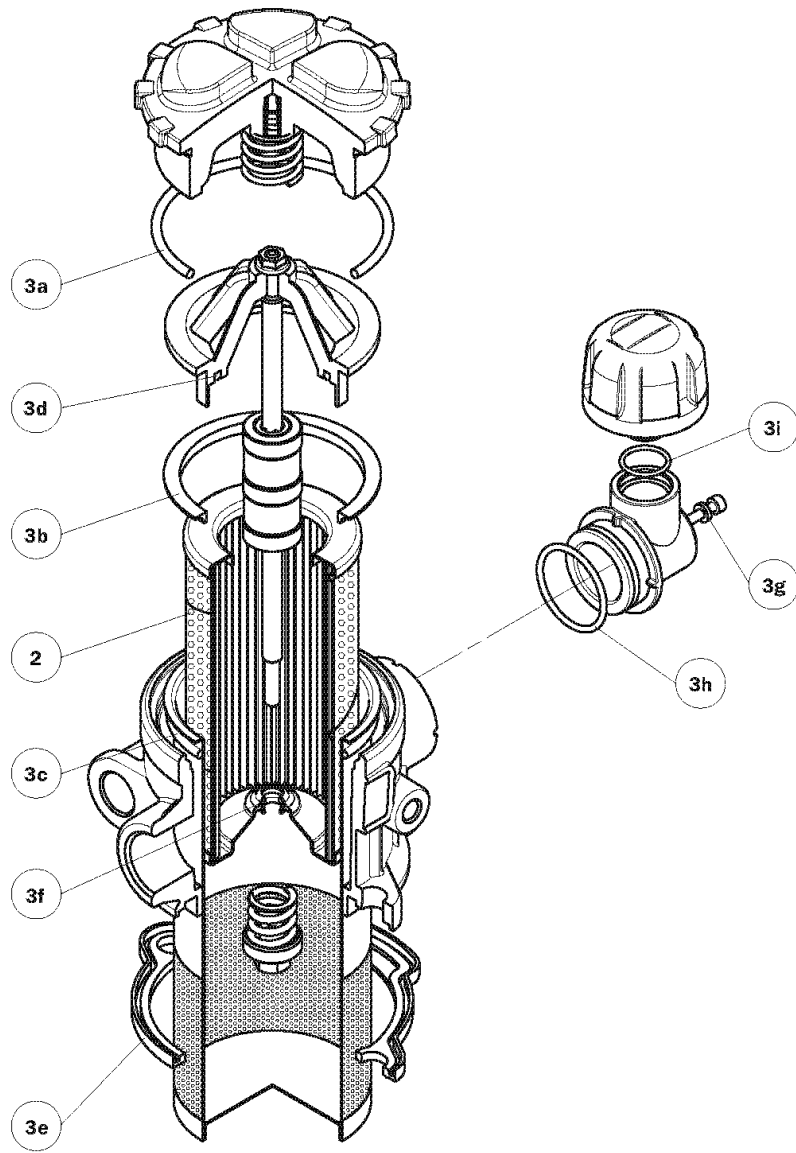
HYDRAULICS



アイテム	部品番号	名前	数量	UOM
	6019349A	MAIN HYDRAULIC MANIFOLD OSCILLATING AXLE		EA
2	6091815	CONTROL VALVE HAWE (INLET SECTION)	1	EA
	6091816	PRESSURE LIMITING VALVE	1	EA
	6091817	SEAL KIT FOR 6091815	1	EA
	6091818	IDLE CIRCULATION VALVE 12V	1	EA
3	6091819	VALVE SECTION, DRIVE	1	EA
	6091598	SEAL KIT	1	EA
	6091820	COIL, 12VDC	1	EA
4	6091821	ADAPTER SECTION SZ3 TO SZ2	1	EA
	6091822	SEAL KIT FOR 6091821	1	EA
5	6091823	VALVE SECTION, BOOM	1	EA
	8080150	SEAL KIT WORK SECTION (HAWE)	1	EA
	8080151	COIL (for valve 6019057)	1	EA
6	6091824	VALVE SECTION, TELESCOPE	1	EA
	8080150	SEAL KIT WORK SECTION (HAWE)	1	EA
	8080151	COIL (for valve 6019057)	1	EA
7	6091825	VALVE SECTION, SWING	1	EA
	8080150	SEAL KIT WORK SECTION (HAWE)	1	EA
	8080151	COIL (for valve 6019057)	1	EA
8	6091826	VALVE SECTION, JIB PLAT ROT	1	EA
	8080150	SEAL KIT WORK SECTION (HAWE)	1	EA
	8080151	COIL (for valve 6019057)	1	EA
9	6091827	VALVE SECTION, STEER	1	EA
	8080150	SEAL KIT WORK SECTION (HAWE)	1	EA
	8080151	COIL (for valve 6019057)	1	EA

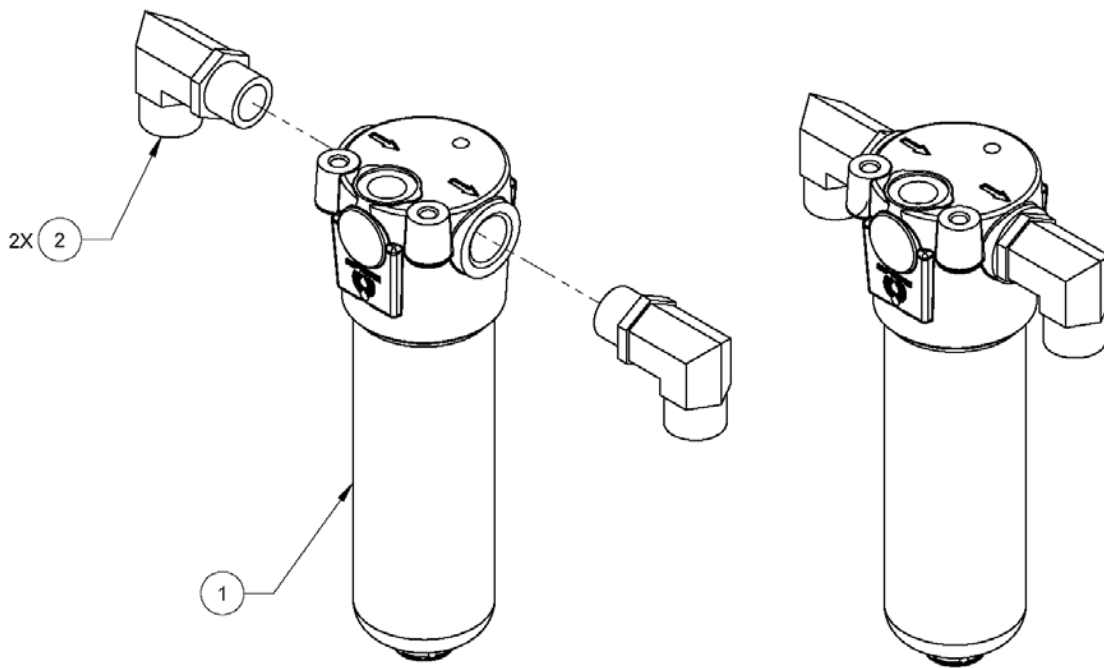
アイテム	部品番号	名前	数量	UOM
10	6091828	VALVE SECTION, LEVEL	1	EA
	8080150	SEAL KIT WORK SECTION (HAWE)	1	EA
	8080151	COIL (for valve 6019057)	1	EA
	6091829	SEAL KIT INTERMEDIATE PLATE	1	EA
13	6019221	CARTRIDGE 3 WAY	2	EA
14	6091830	COIL, 12VDC	2	EA
15	6091831	PRESSURE REDUCING CARTRIDGE	1	EA

HYDRAULICS



アイテム	部品番号	名前	数量	UOM
Not Shown	6019326 A	FILTER, IN TANK RETURN	1	EA
2	6091861	FILTER, ELEMENT REPLACEMENT	1	EA
Not Shown	6091860	SEAL KIT	1	EA
3a	KIT ITEM	COVER SEAL	1	EA
3b	KIT ITEM	EXTERNAL SEAL	1	EA
3c	KIT ITEM	DEFUSER SEAL	1	EA
3d	KIT ITEM	INSERT ASSEMBLY, INTERNAL SEAL	1	EA
3e	KIT ITEM	HEAD SEAL	1	EA
3f	KIT ITEM	FILTER ELEMENT SEAL	1	EA
3g	KIT ITEM	AIR BREATHER SCREW SEAL	1	EA
3h	KIT ITEM	PLUG ANTI SPLASH SEAL	1	EA
3l	KIT ITEM	SAP50 SEAL	1	EA

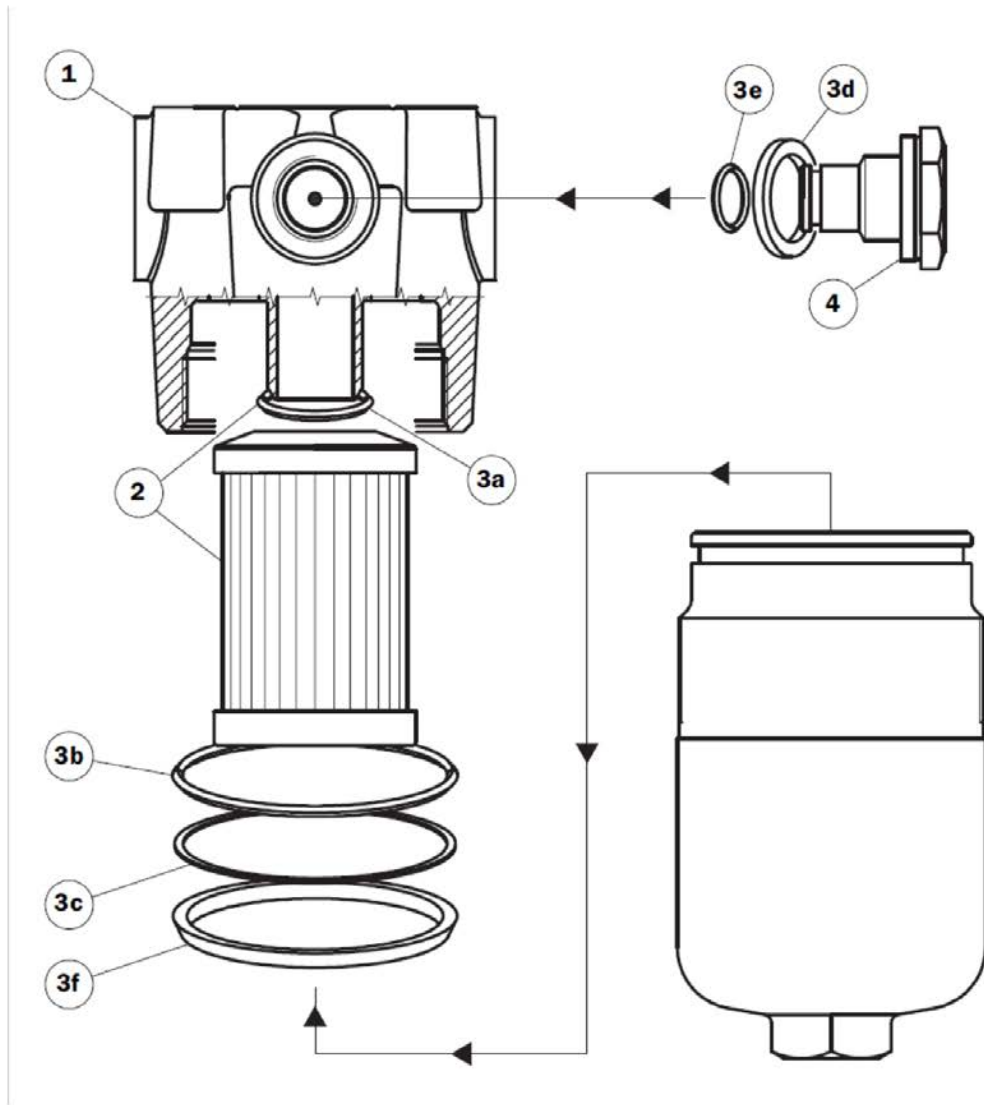
HYDRAULICS



SHOWN ASSEMBLED

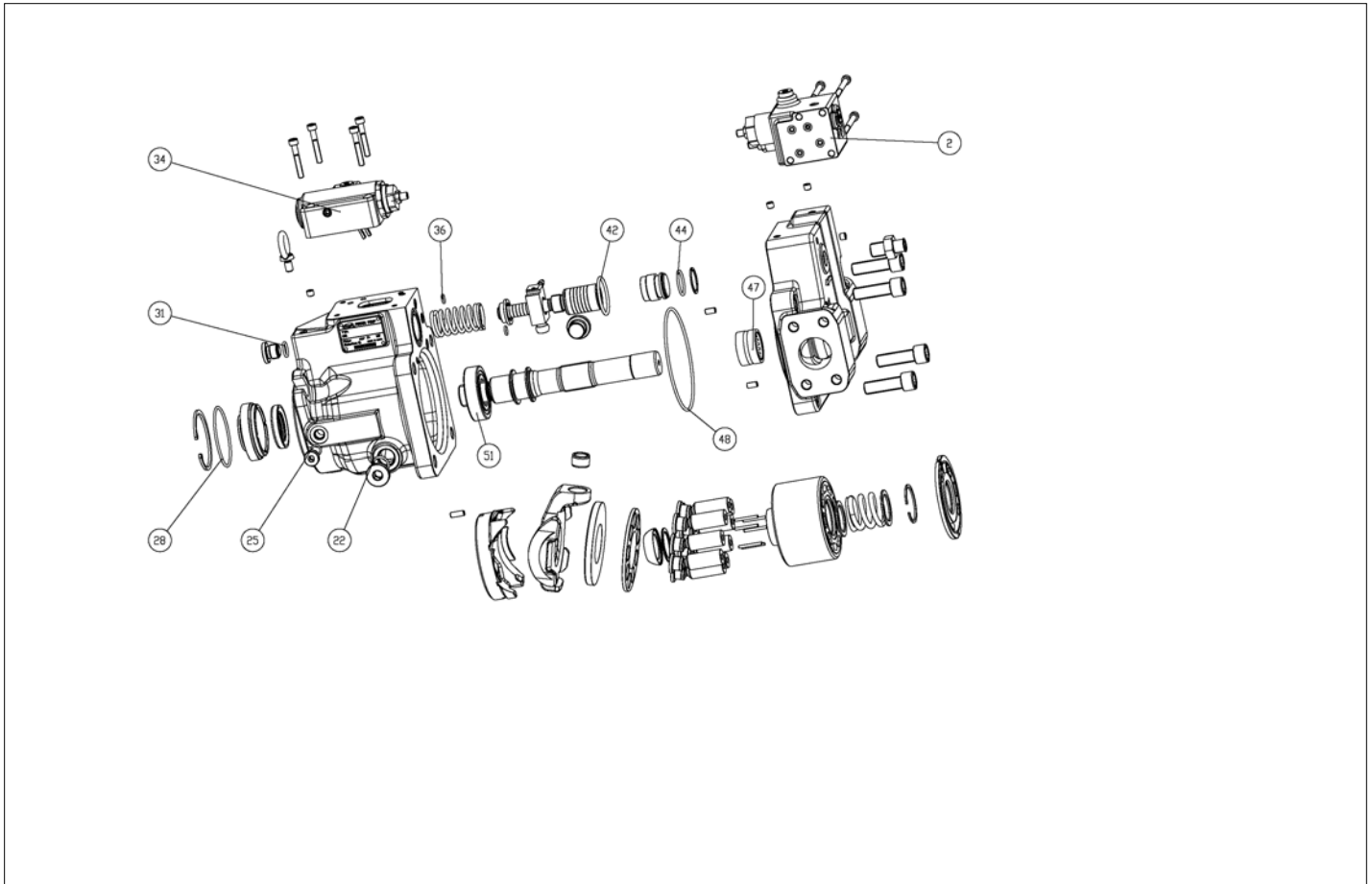
アイテム	部品番号	名前	数量	UOM
Not Shown	1432101 A	HP FILTER ASSEMBLY		EA
1	6019325	Pressure Filter	1	EA
2	100434 021	Hyd Fitting 90 Elbow ORFS(12) SAE(12)	2	EA

HYDRAULICS



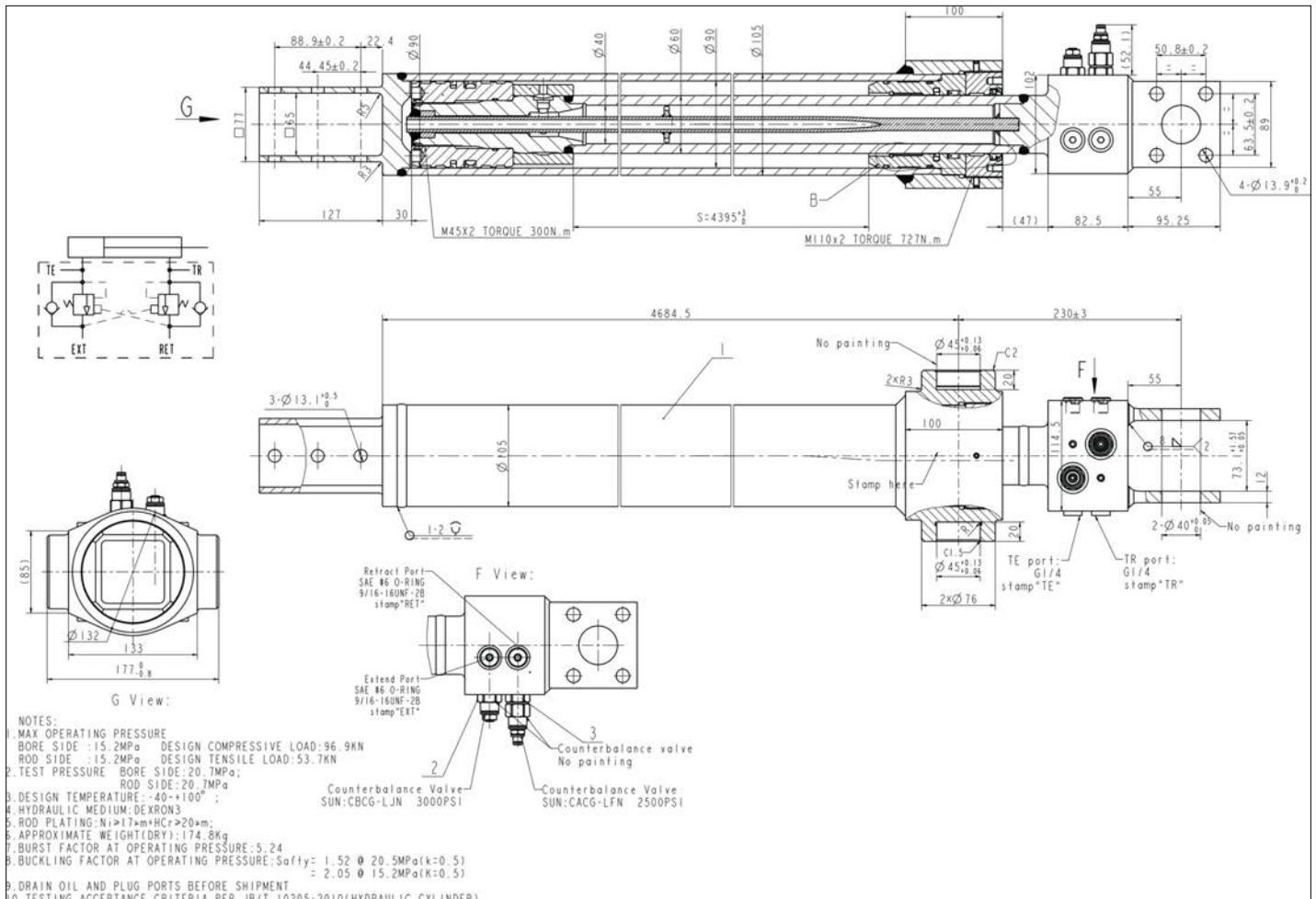
アイテム	部品番号	名前	数量	UOM
Not Shown	6019325 A	PRESSURE FILTER ASSEMBLY		EA
1	6019325	Pressure Filter	1	EA
2	6091845	REPLACEMENT FILTER ELEMENT	1	EA
Not Shown	6091846	SEAL KIT FOR 6019325	1	EA
3A	KIT ITEM	O RING FOR FILTER ELEMENT	1	EA
3B	KIT ITEM	O RING FOR HOUSING	1	EA
3C	KIT ITEM	ANTI EXTRUSION RING	1	EA
3D	KIT ITEM	GASKET	1	EA
3E	KIT ITEM	O RING	1	EA
3F	KIT ITEM	PROTECTOR SEAL	1	EA
4	PNNA	INDICATOR	1	EA

HYDRAULICS



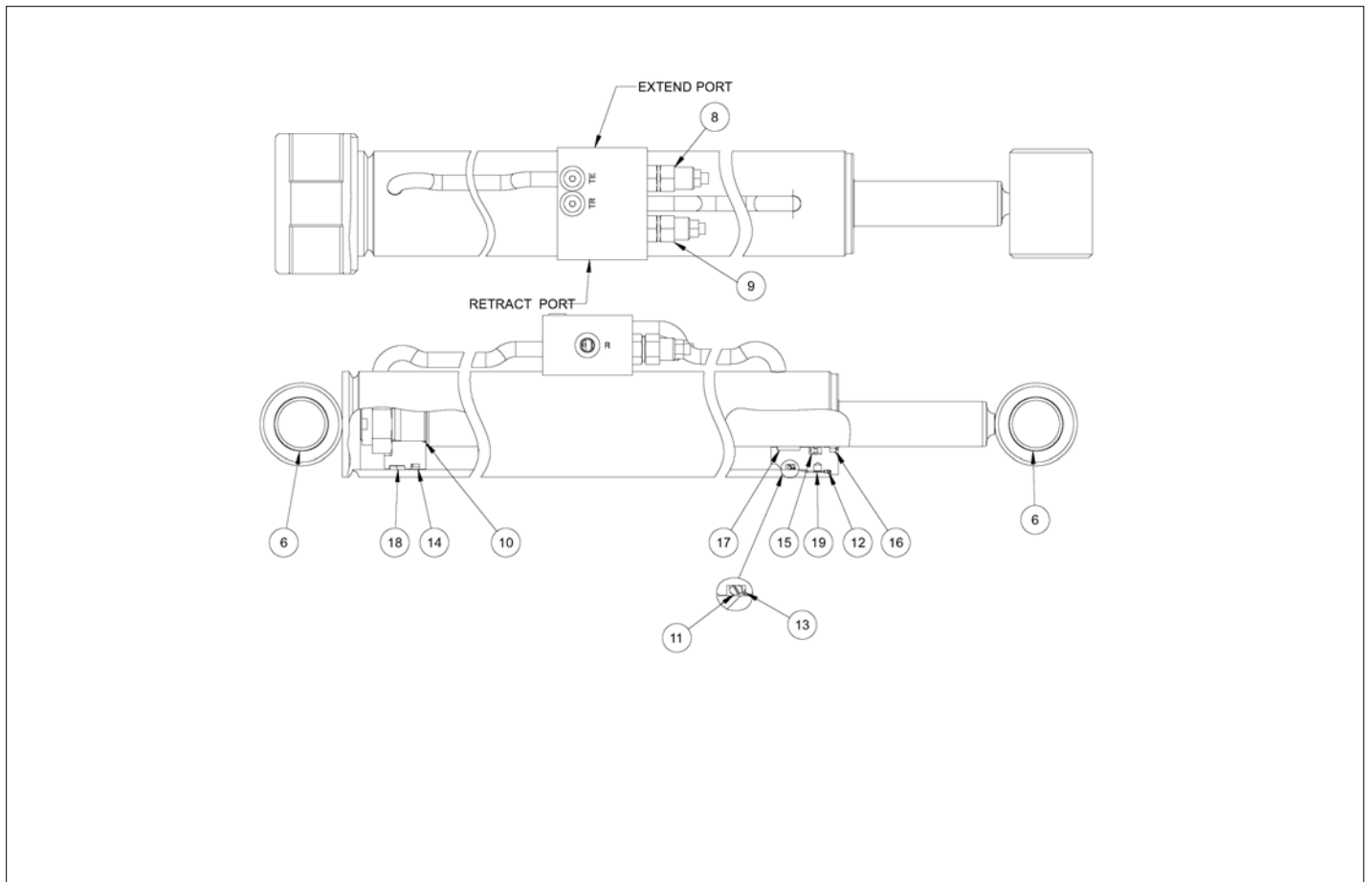
アイテム	部品番号	名前	数量	UOM
	6029697	LOAD SENSE PUMP HENGLI	1	EA
2	6091855	CONTROL VALVE	1	EA
34	6091856	TORQUE LIMIT CONTROL	1	EA
47	6091857	NEEDLE BRARING	1	EA
51	6091858	CYLINDER ROLLER BEARING	1	EA
	6091859	SEAL KIT	1	EA
22	KIT ITEMS	KIT ITEMS	2	EA
25	KIT ITEMS	KIT ITEMS	1	EA
28	KIT ITEMS	KIT ITEMS	1	EA
31	KIT ITEMS	KIT ITEMS	1	EA
36	KIT ITEMS	KIT ITEMS	3	EA
42	KIT ITEMS	KIT ITEMS	1	EA
44	KIT ITEMS	KIT ITEMS	1	EA
48	KIT ITEMS	KIT ITEMS	1	EA

HYDRAULICS



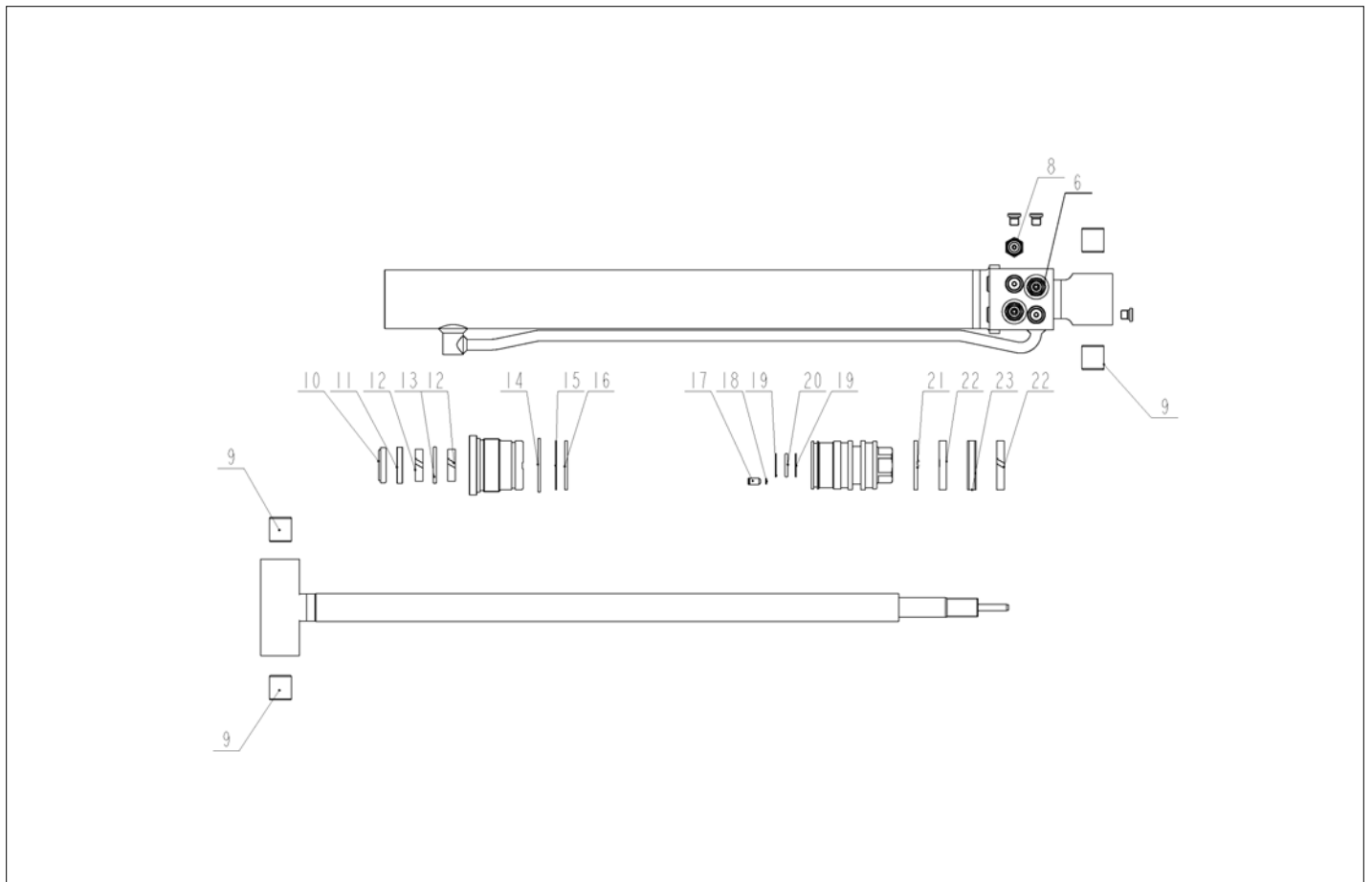
アイテム	部品番号	名前	数量	UOM
	1430666 D	EXTEND CYLINDER ROSENBOOM		EA
9	6091794	COUNTERBALANCE VALVE 3000 PSI	1	EA
10	106815 010	COUNTERBALANCE VALVE 2500 PSI	1	EA
1	6091266	SEAL REPAIR KIT includes items 11 through 20	1	EA
11	KIT ITEM	O RING	1	EA
12	KIT ITEM	O RING	1	EA
13	KIT ITEM	BACKUP RING, DYNAMIC	2	EA
14	KIT ITEM	BACK UP RING	1	EA
15	KIT ITEM	DISO PAC	1	EA
16	KIT ITEM	BS U CUP	1	EA
17	KIT ITEM	HD ROD WIPER, SEALED OD	1	EA
18	KIT ITEM	PRECISION WEARBAND	2	EA
19	KIT ITEM	PRECISION WEARBAND	2	EA
20	KIT ITEM	LOCKING INSERT	1	EA

HYDRAULICS



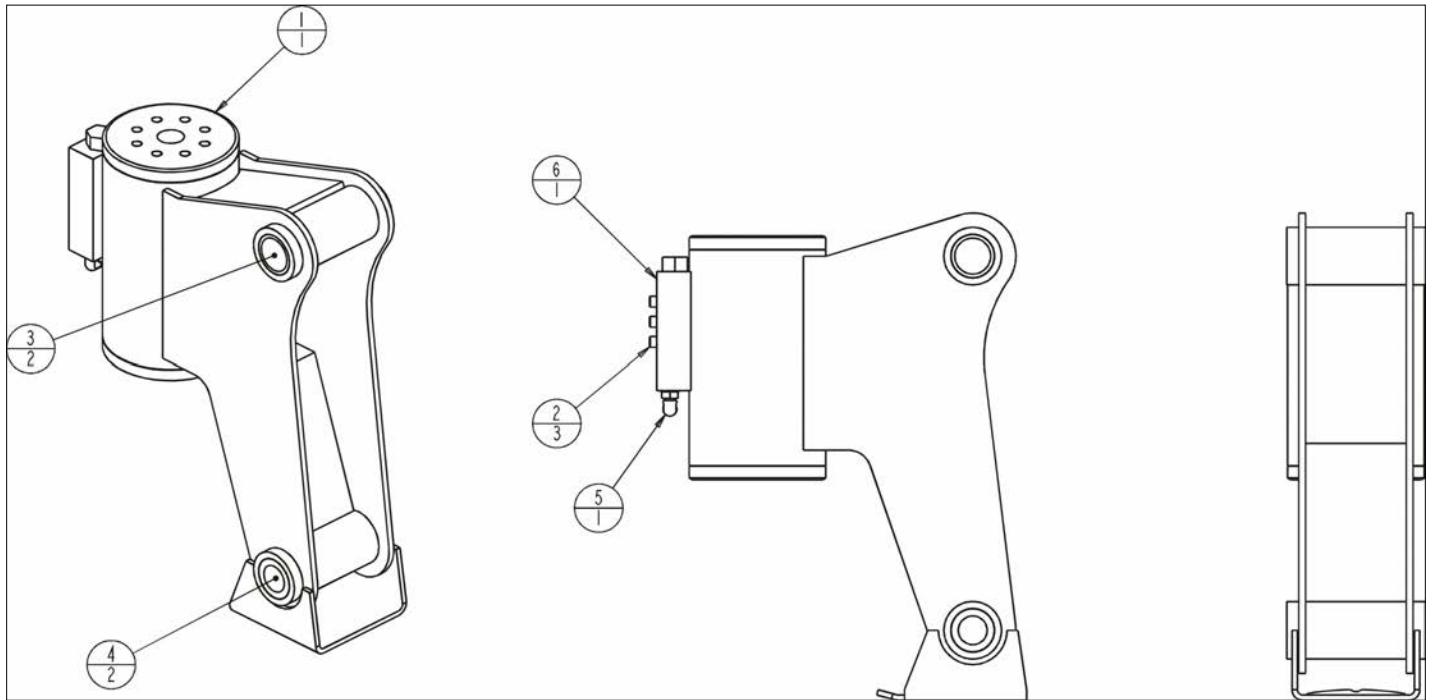
アイテム	部品番号	名前	数量	UOM
	106540 100 A	SLAVE LEVEL CYLINDER ROSENBOOM		EA
6	100553 105	JOURNAL BEARING	4	EA
8	106540 108	CB VALVE (3000)	1	EA
9	106540 109	CB VALVE (1500)	1	EA
	100553 108	SEAL KIT (10 THRU 19)	1	EA
10	KIT ITEM	O RING	1	EA
11	KIT ITEM	O RING	1	EA
12	KIT ITEM	O RING	1	EA
13	KIT ITEM	BACKUP RING	1	EA
14	KIT ITEM	DISO PAC	1	EA
15	KIT ITEM	DEEP Z SEAL	1	EA
16	KIT ITEM	HD ROD WIPER, SEAL OD	1	EA
17	KIT ITEM	WEARBAND	1	EA
18	KIT ITEM	WEARBAND	1	EA
19	KIT ITEM	LOCKING INSERT	1	EA

HYDRAULICS



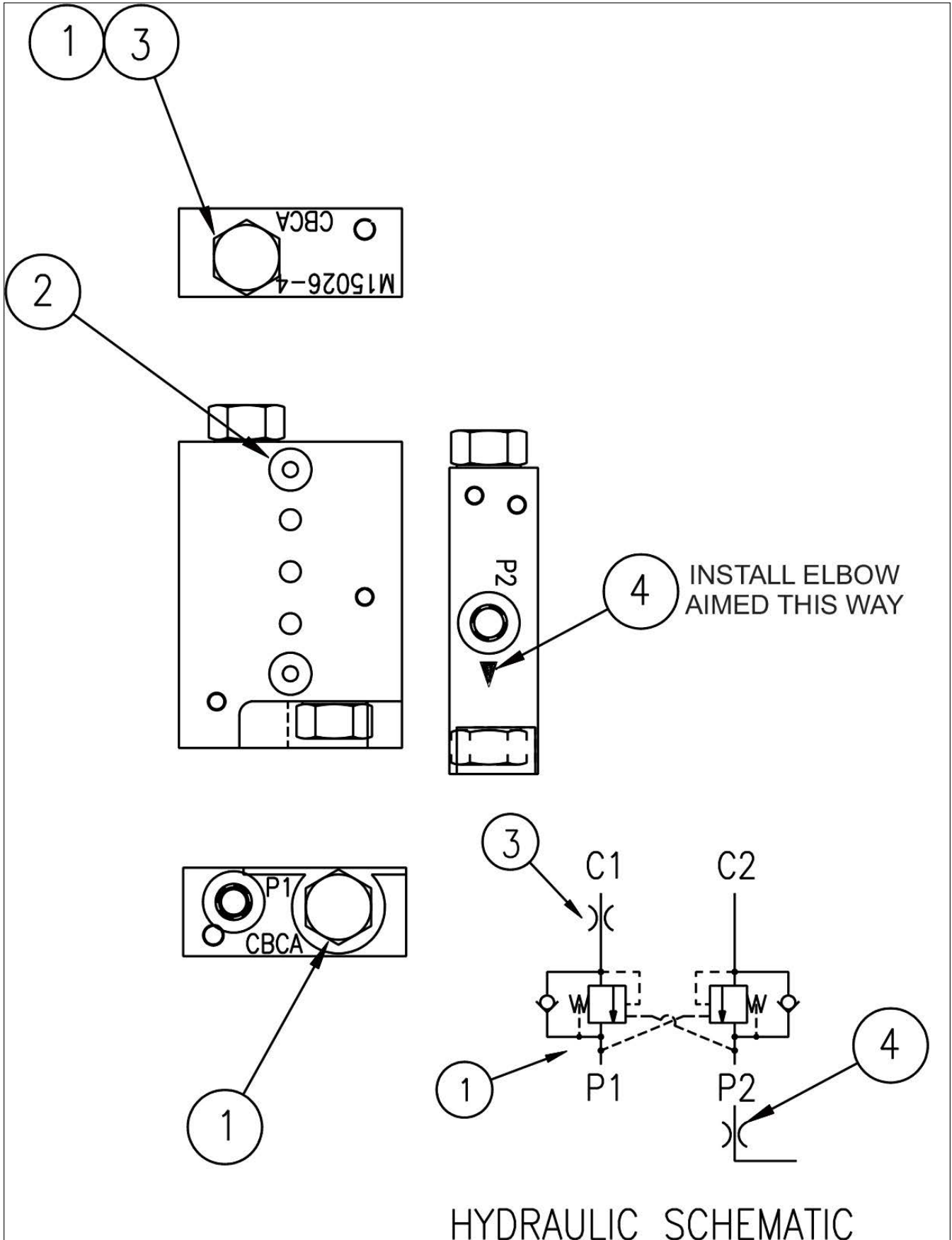
アイテム	部品番号	名前	数量	UOM
Not Shown	0420111 H	JIB CYLINDER HENGLI		EA
6	6047189	COUNTER BALANCE VALVE	2	EA
8	6091901	CHECK VALVE 0420111 CYLINDER	1	EA
9	561196	BRG 1.00ID X 1.125OD X 1.25LG	4	EA
Not Shown	6091897	SEAL KIT 0420111 CYLINDER	1	EA
10	KIT ITEM	WIPER RING	1	EA
11	KIT ITEM	ROD SEAL	1	EA
12	KIT ITEM	WEAR RING	1	EA
13	KIT ITEM	BUFFER RING	1	EA
14	KIT ITEM	O RING	1	EA
15	KIT ITEM	BACK UP RING	1	EA
16	KIT ITEM	O RING	1	EA
17	KIT ITEM	CHECK VALVE	1	EA
18	KIT ITEM	O RING	1	EA
19	KIT ITEM	BACK UP RING	1	EA
20	KIT ITEM	O RING	1	EA
21	KIT ITEM	PISTON RING	1	EA
22	KIT ITEM	WEAR RING	1	EA
23	KIT ITEM	PISTON SEAL	1	EA

HYDRAULICS



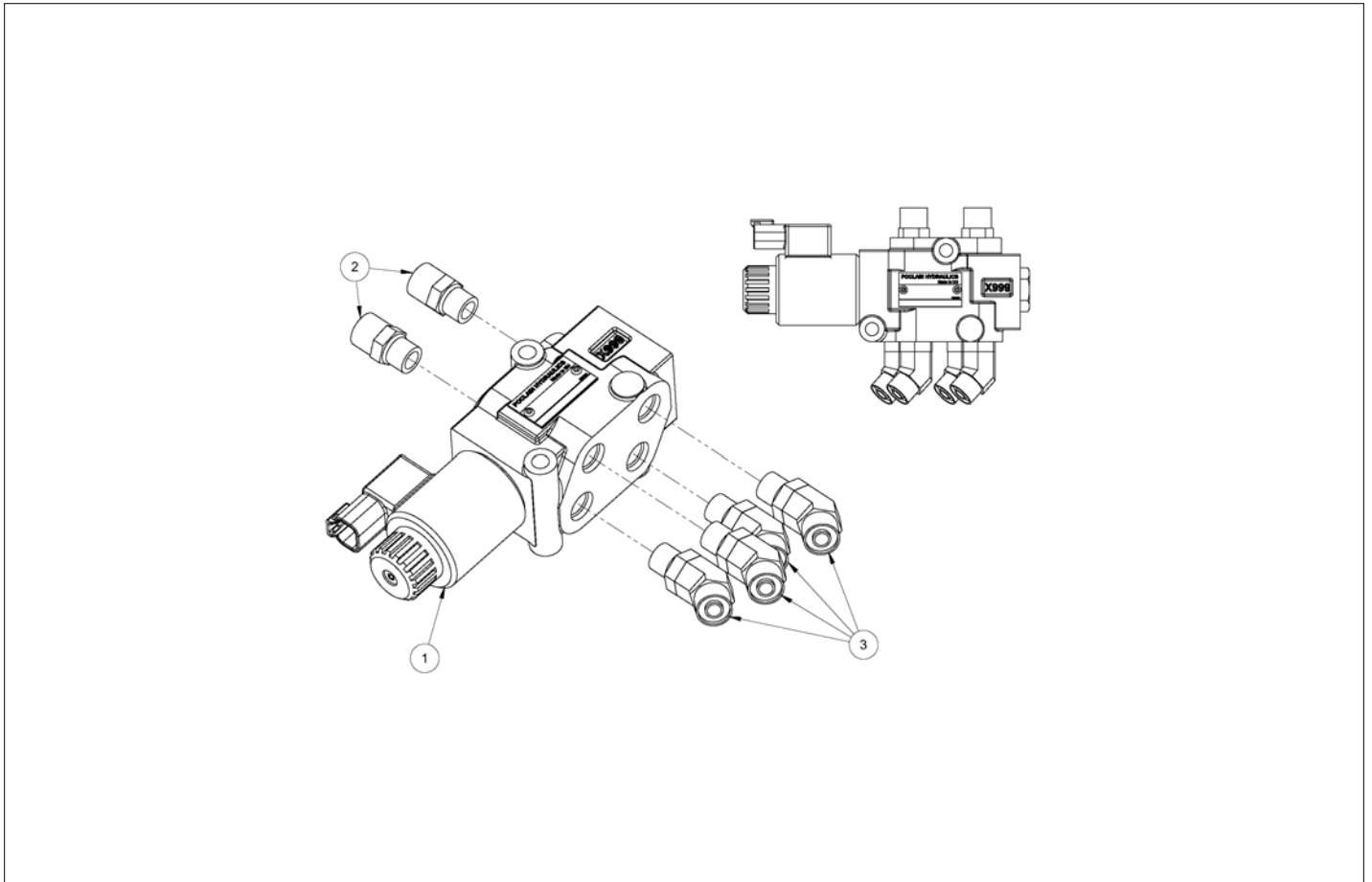
アイテム	部品番号	名前	数量	UOM
	0420114 D	PLATFORM ROTATOR ASSEMBLY		EA
*	8080152	SEAL KIT	1	EA
1	0420113	WLDMT ROTATOR PLATF	1	EA
2	978419	BLT SKTHD .250 20 X 1.50 GR8 P	3	EA
3	2500051	BASE END BRG 1.25ID X 1.50OD (10001174 FISHER CYL)	2	EA
4	2509677	BUSHING BOTTOM	2	EA
5	5035303	FTG ELB90STRTHD 4B 4S STL	2	EA
6	6019089	VALVE DUAL COUNTERBALANCE	1	EA
NOT SHOWN	6019169	ORIFICE ELBOW FITTING	1	EA

HYDRAULICS



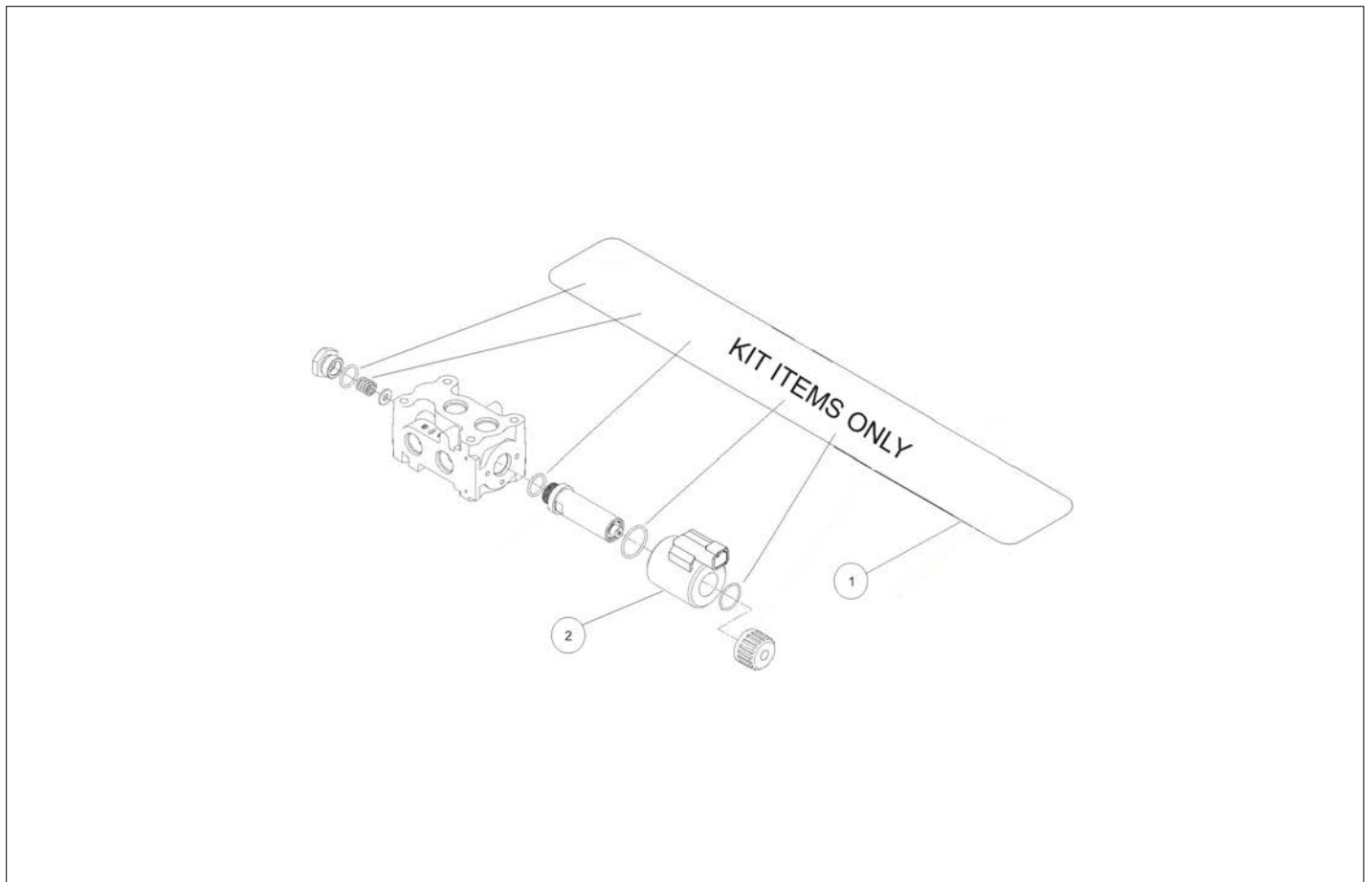
アイテム	部品番号	名前	数量	UOM
Not Shown	6019089 B	DUAL COUNTERBALANCE VALVE HELAC ROTATOR		EA
1	6019277	VALVE COUNTERBALANCE (SET 3350PSI)	2	EA
2	6019278	O RING SEAL SIZE 110 70 DURO	2	EA
4	6019279	ORIFICE 1/4 IN NPT PLUG DRILLED .015 IN	1	EA
6	6019169	ORIFICE ELBOW FITTING	1	EA

HYDRAULICS



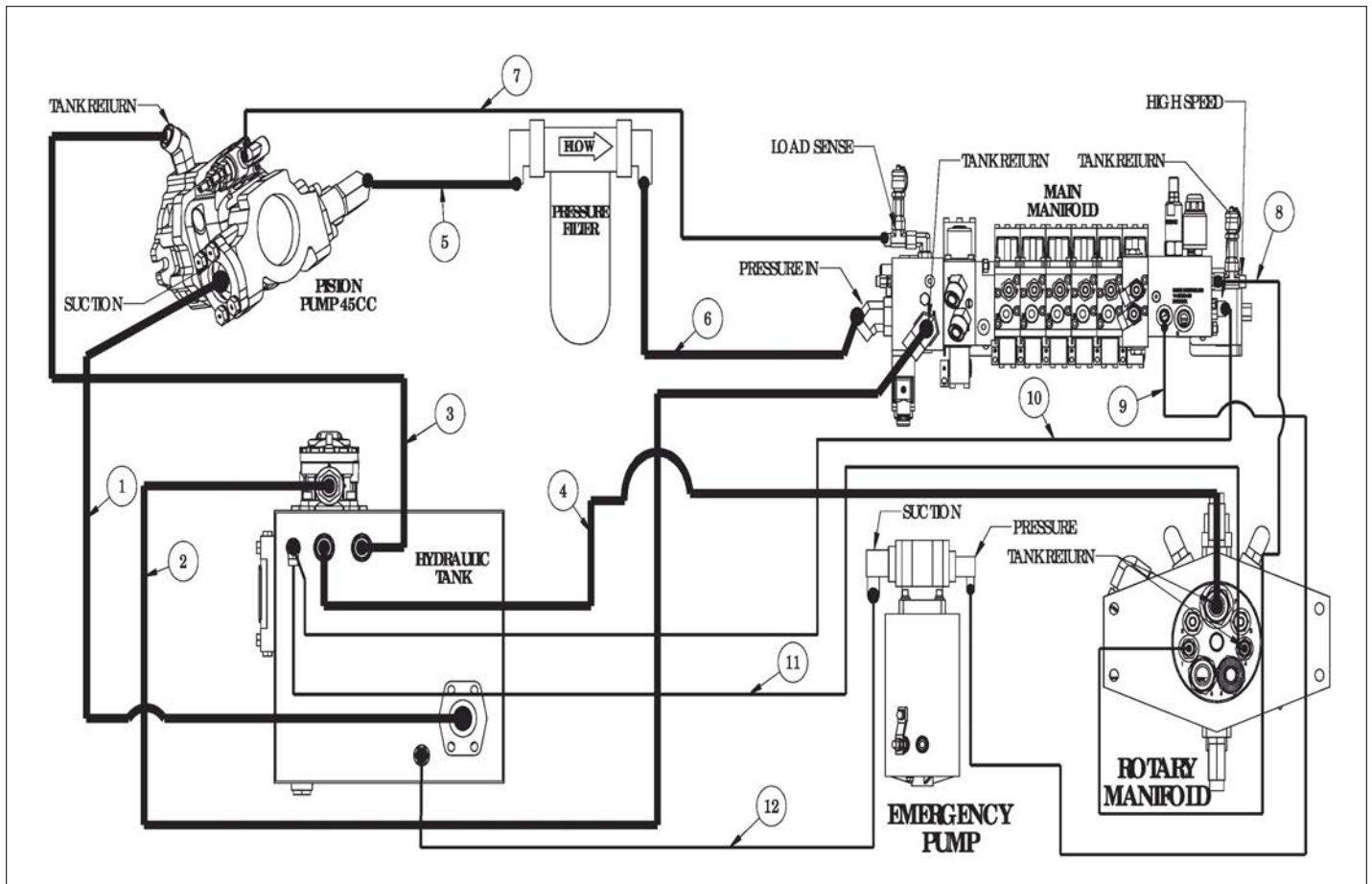
アイテム	部品番号	名前	数量	UOM
Not Shown	1430830 A	SELECTOR VALVE ASSEMBLY		EA
1	6019324	SELECTOR VALVE 12VDC	1	EA
2	100432 009	Hyd Fitting Straight ORFS(06) SAE(06)	2	EA
3	100433 005	FTG, 45 ° , 6MORFF X 6MORB	4	EA

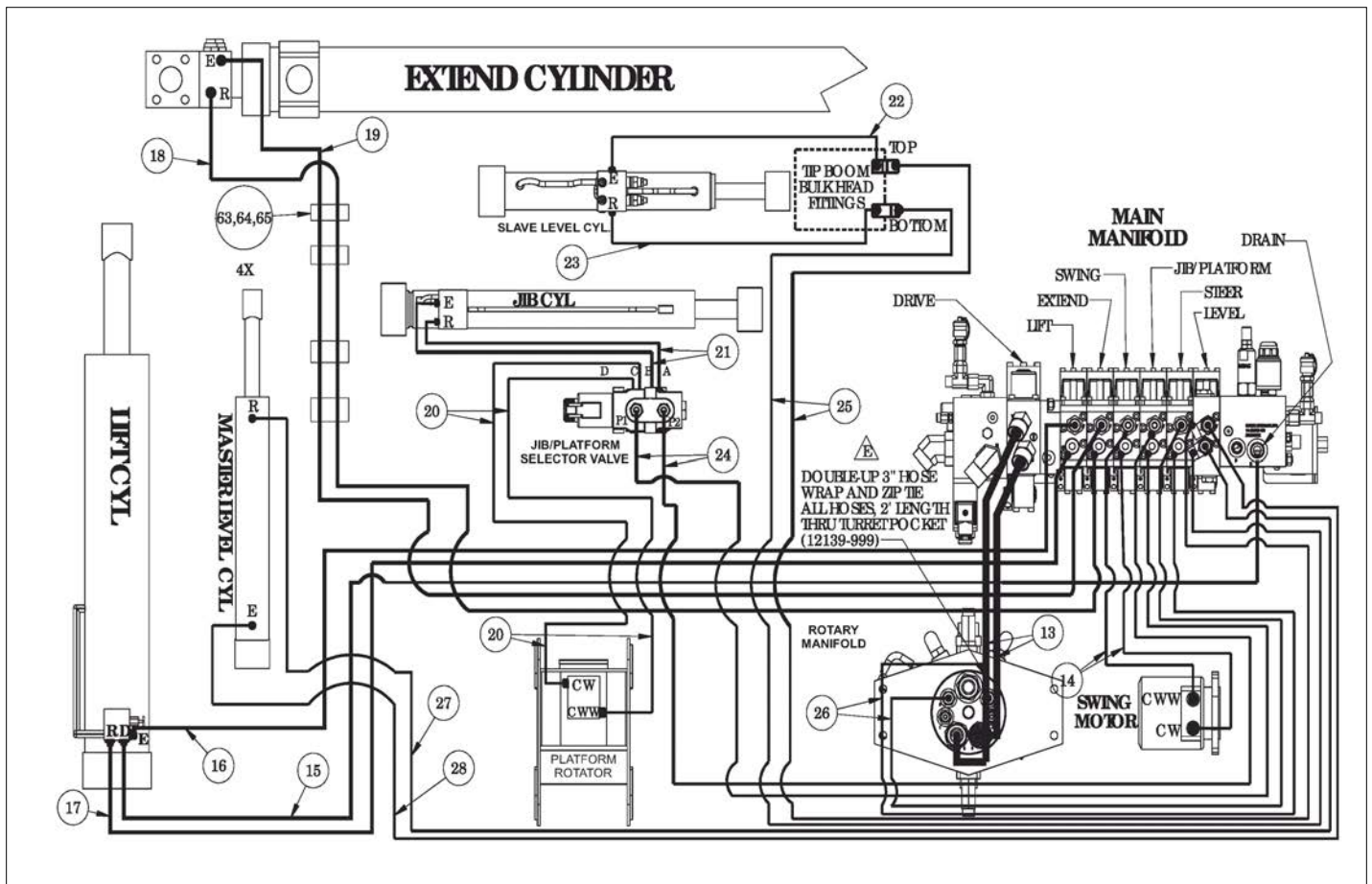
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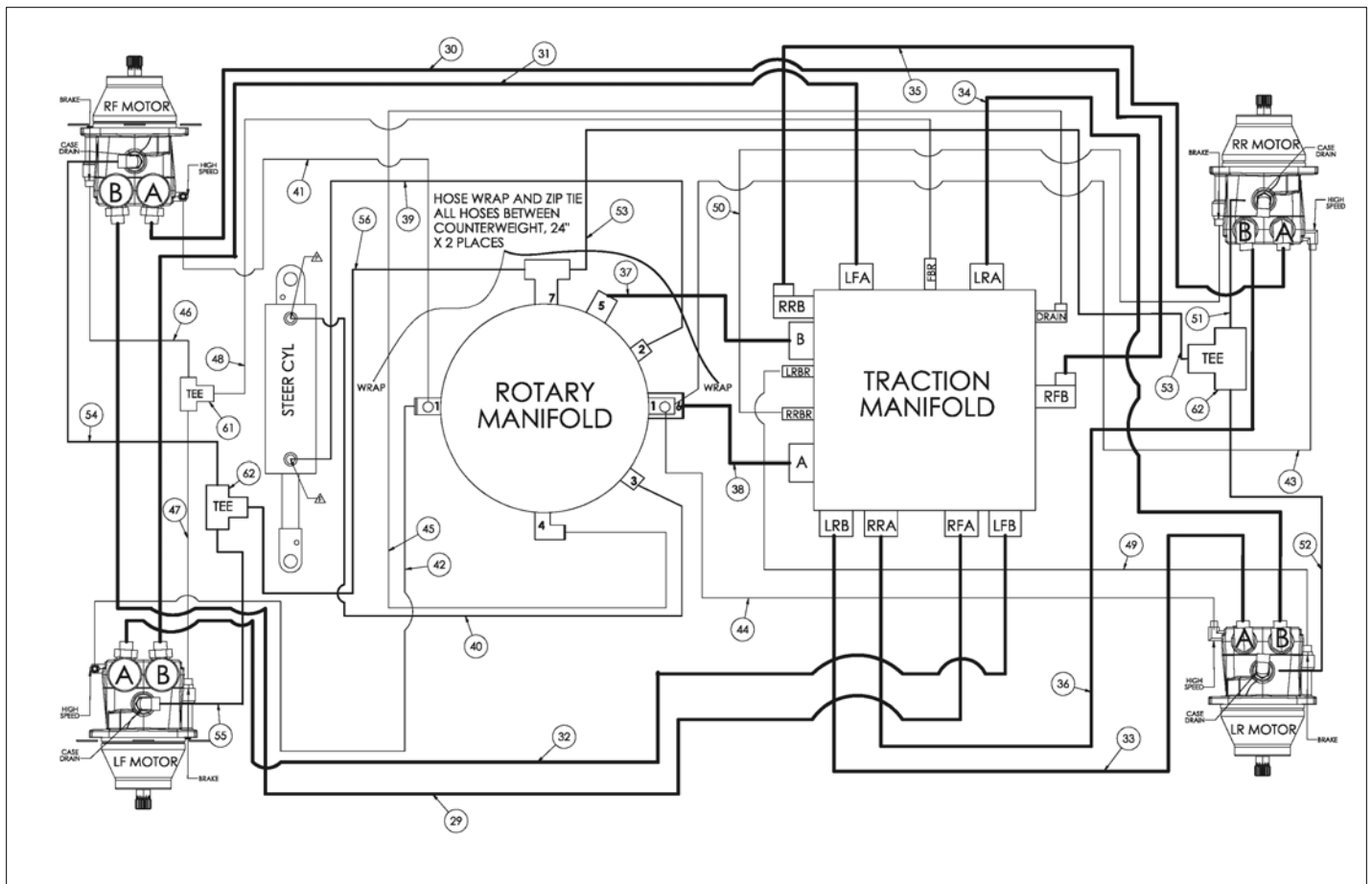


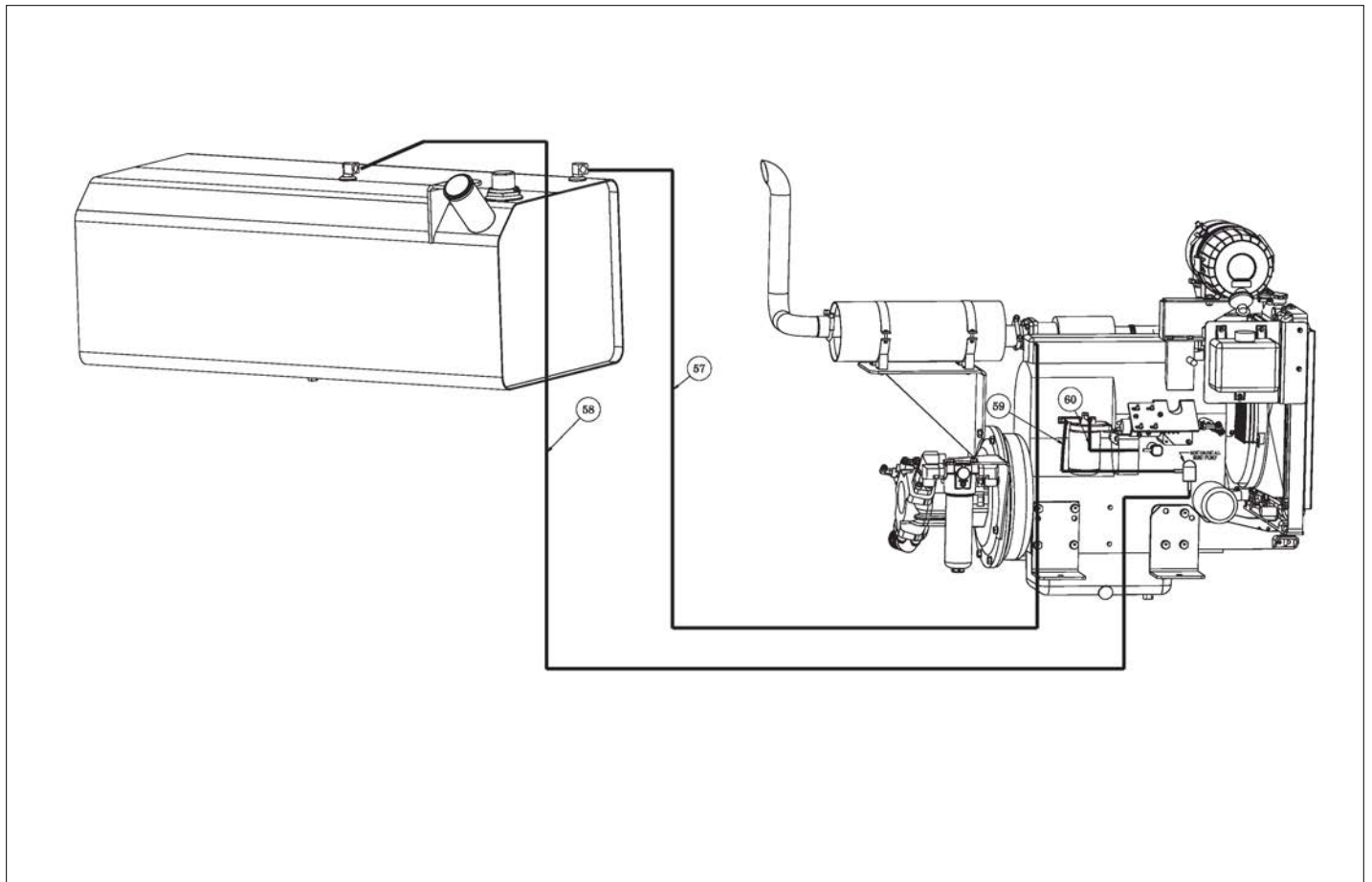
アイテム	部品番号	名前	数量	UOM
	6019324	SELECTOR VALVE 12VDC		EA
1	6091843	SEAL KIT FOR 6019324 VALVE	1	EA
2	6091844	COIL 12 VDC	1	EA

HYDRAULICS









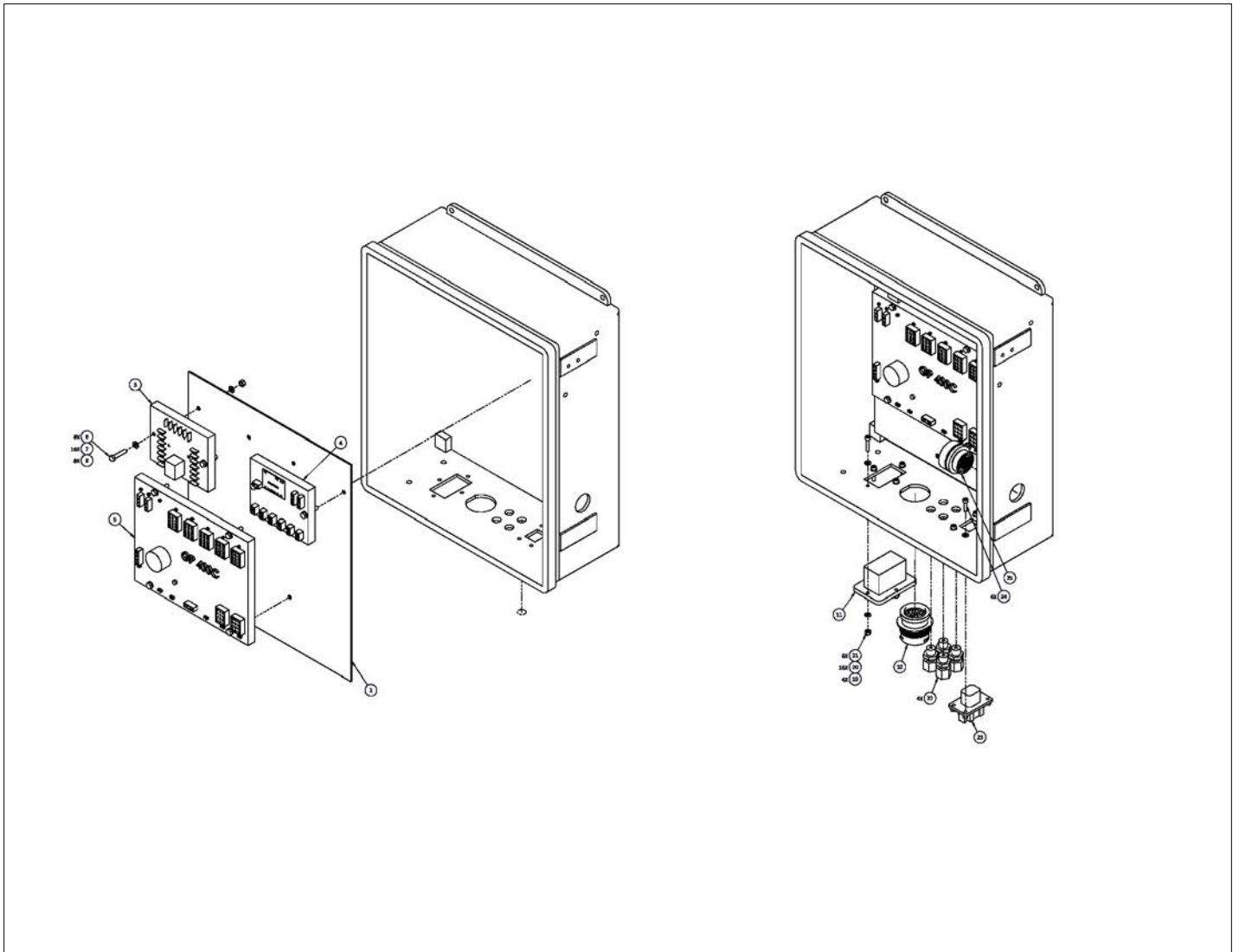
アイテム	部品番号	名前	数量	UOM
Not Shown	511630 000 F	HYD HOSE DIAGRAM 660SJ (KIT)		EA
1	1432092	2" SUCTN HOSE 7219 2000025 32	1	EA
2	1430963	HYD HOSE 451 TC TYPE 3/4" 12F	1	EA
3	1430961	HYD HOSE 471 TC 12 3000 PSI	1	EA
4	1460964	HYD HOSE 451 TC TYPE 3/4" 12F	1	EA
5	1430595	CS 1 1/2 A36 Tie Down	1	EA
6	1430960	HYD HOSE 787TC 10 TYPE 5/8" 10	1	EA
7	1430958	HYD HOSE 471 TC TYPE 1/4" 4FO	1	EA
8	1430969	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
9	1430970	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
10	1430966	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
11	1430967	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
12	1430968	HYD HOSE 451 TC TYPE 1/2" 8FO	1	EA
13	1430965	HYD HOSE 787TC 10 TYPE 5/8" 1	2	EA
14	1430972	HYD HOSE 451 TC TYPE 3/8" 6FO	2	EA
15	1430974	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
16	1430976	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
17	1430975	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
18	1430977	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA

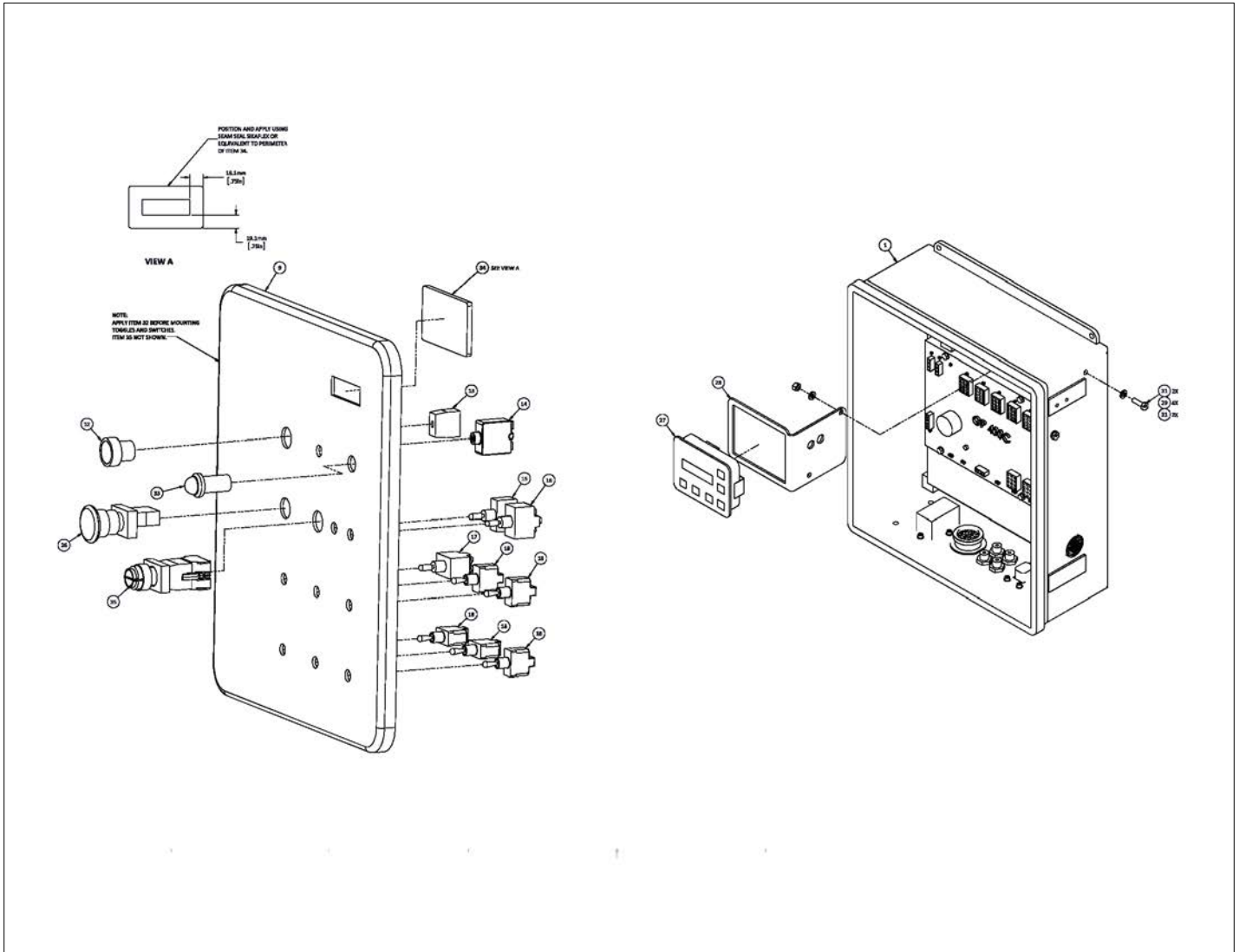
アイテム	部品番号	名前	数量	UOM
19	1430977	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
20	1430985	HYD HOSE 451 TC TYPE 1/4" 4FO	2	EA
21	1430984	HYD HOSE 451 TC TYPE 1/4" 4FO	2	EA
22	1430981	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
23	1430982	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
24	1430983	HYD HOSE 451 TC TYPE 1/4" 6FO	2	EA
25	1430980	HYD HOSE 451 TC TYPE 1/4" 4FO	2	EA
26	1430971	HYD HOSE 451 TC TYPE 3/8" 6FO	2	EA
27	1430978	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
28	1430979	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
29	1430939	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
30	1430938	HYD HOSE 787TC 8 TYPE 1/2" 8FO	1	EA
31	1430939	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
32	1430939	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
33	1430941	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
34	1430942	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
35	1430942	HYD HOSE 787TC 8 TYPE 1/2" 8F	1	EA
36	1431643	HYD HOSE 787TC 8 5000PSI 8FORF	1	EA
37	1430944	HYD HOSE 787TC 10 TYPE 5/8" 10	1	EA

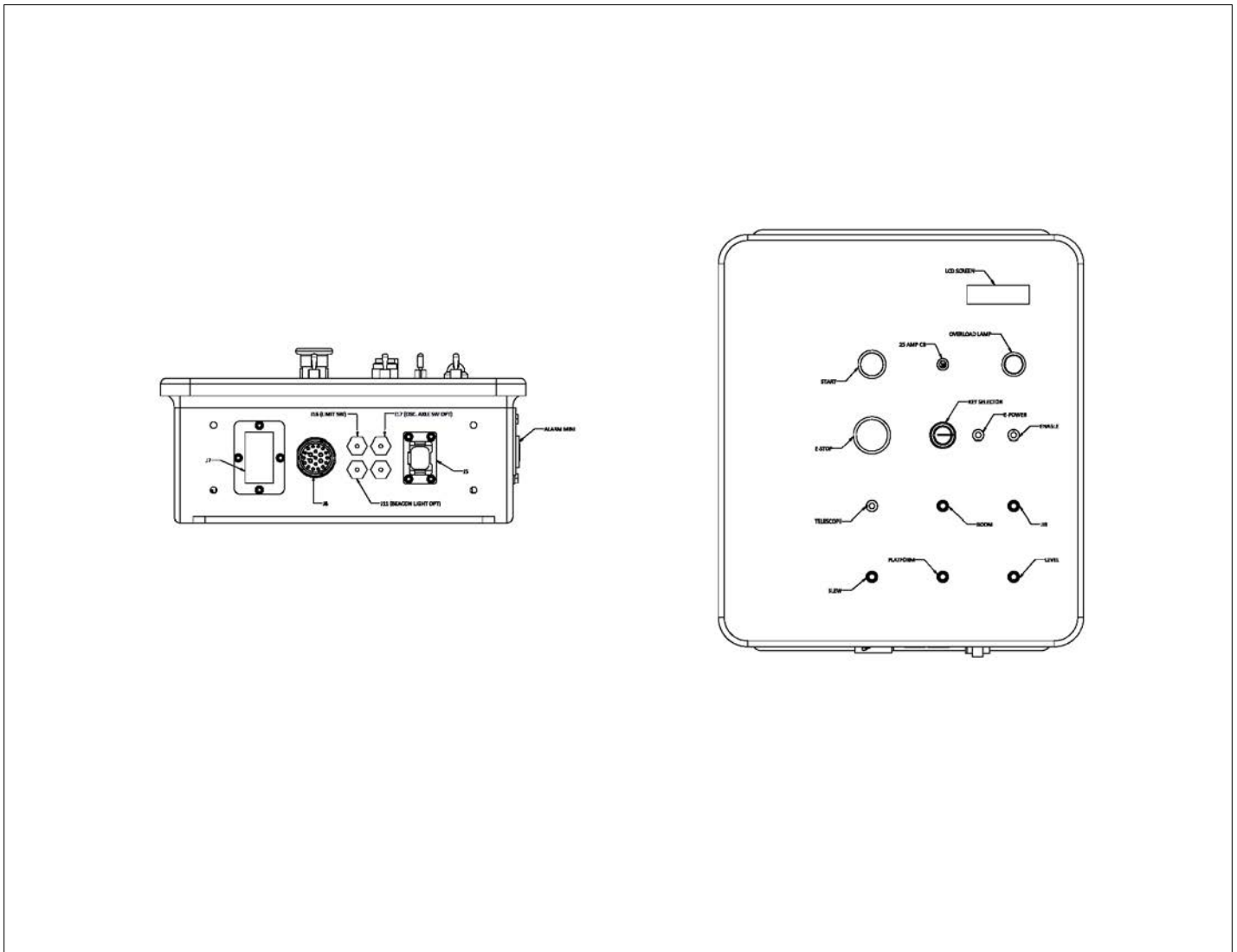
アイテム	部品番号	名前	数量	UOM
38	1430945	HYD HOSE 787TC 10 TYPE 5/8" 10	1	EA
39	1430946	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
40	1430946	HYD HOSE 451 TC TYPE 3/8" 6FO	1	EA
41	1430947	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
42	1430947	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
43	1430948	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
44	1430948	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
45	1430949	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
46	1430950	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
47	1430950	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
48	1430951	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
49	1430952	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
50	1430952	HYD HOSE 451 TC TYPE 1/4" 4FO	1	EA
51	1430953	HYD HOSE 451 TC TYPE 1/2" 8FO	1	EA
52	1430953	HYD HOSE 451 TC TYPE 1/2" 8FO	1	EA
53	1430954	HYD HOSE 451 TC TYPE 1/2" 8FO	1	EA
54	1430955	HYD HOSE 451 TC TYPE 1/2" 8FO	1	EA
55	1430955	HYD HOSE 451 TC TYPE 1/2" 8FO	1	EA
56	1430956	HYD HOSE 451 TC TYPE 1/2" 8FO	1	EA

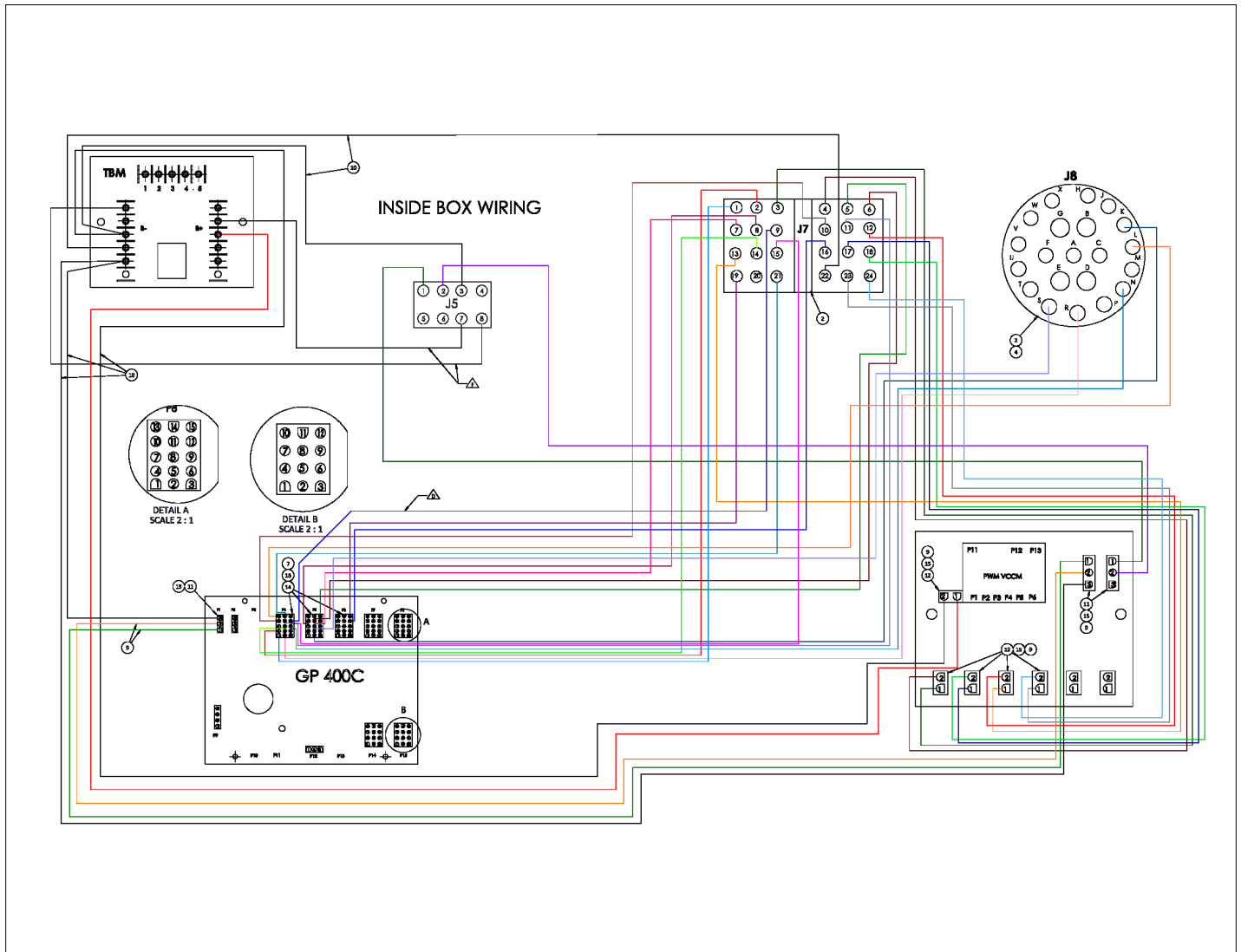
アイテム	部品番号	名前	数量	UOM
57	967359	HOSES/AE30R2 03 TYPE 3 3/16 in	1	EA
58	012733 099	1/4" 50PSI FUEL HOSE X 12"	1	EA
59	012733 099	1/4" 50PSI FUEL HOSE X 12"	1	EA
60	012733 099	1/4" 50PSI FUEL HOSE X 12"	1	EA
61	104769 000	FTG, 4MORFF X 4MORFF X 4MORFF UTEE	1	EA
62	511617 000	FTG, 8MORFF X 8MORFF X 8MORFF UTEE	2	EA
63	11355 002	BODY CLAMP HYDAC	4	EA
64	100434 013	Hyd Fitting 90 Elbow ORFS(08) SAE(08)	4	EA
65	11354 000	SLEEVE TUBE CLAMP	4	EA
Not Shown	12139 999	GUARD HOSE WRAP SL 3.0 1050B	12	EA

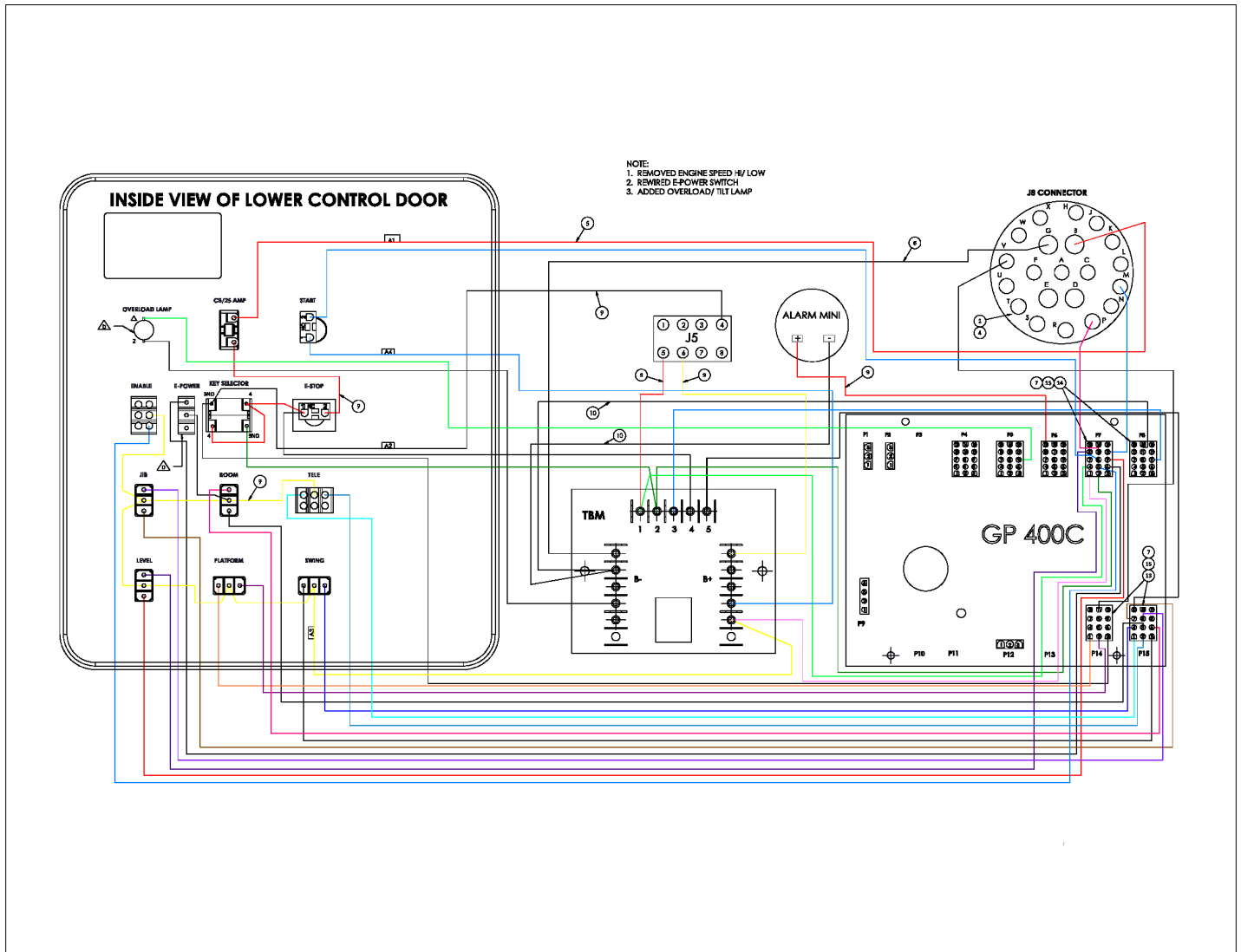
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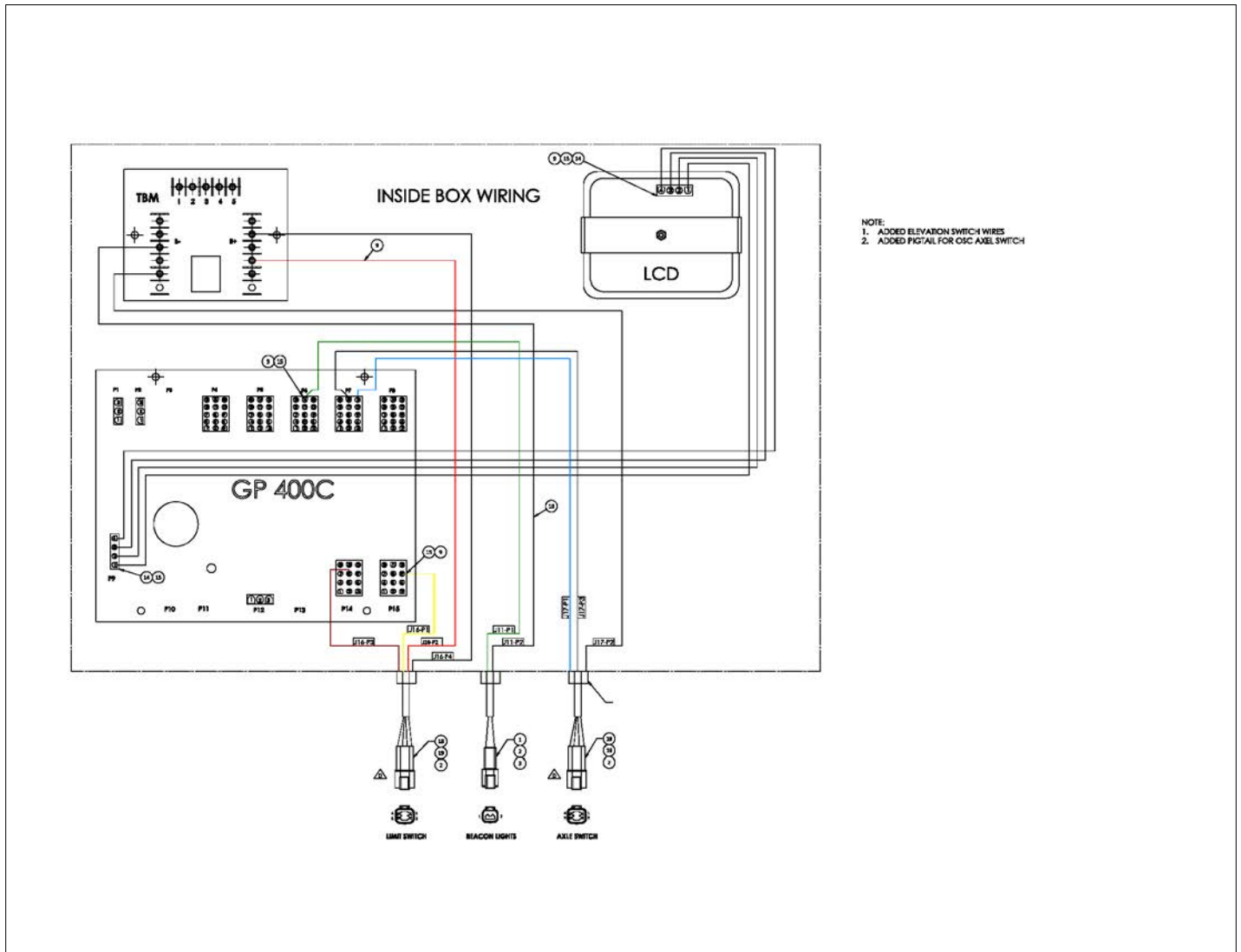










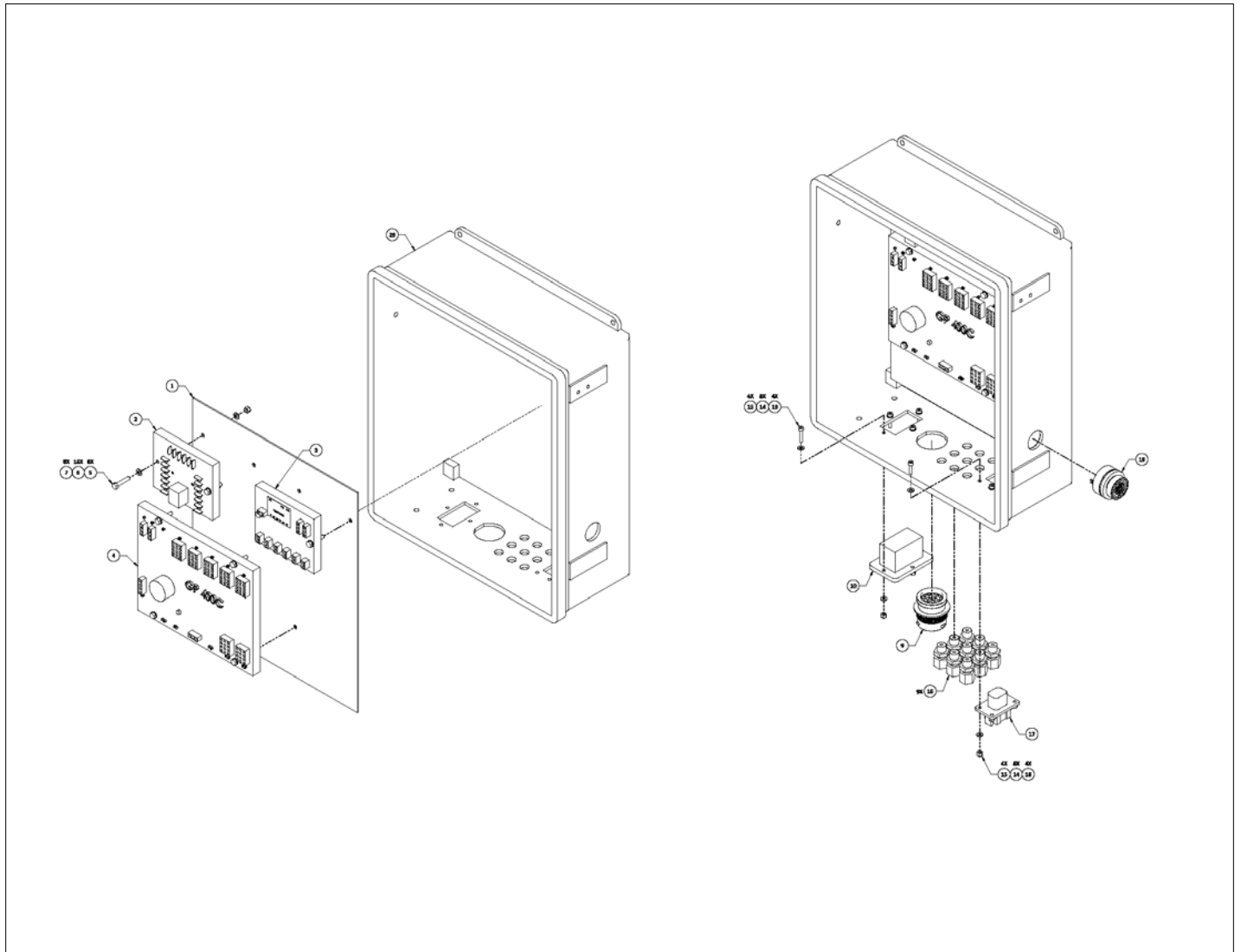


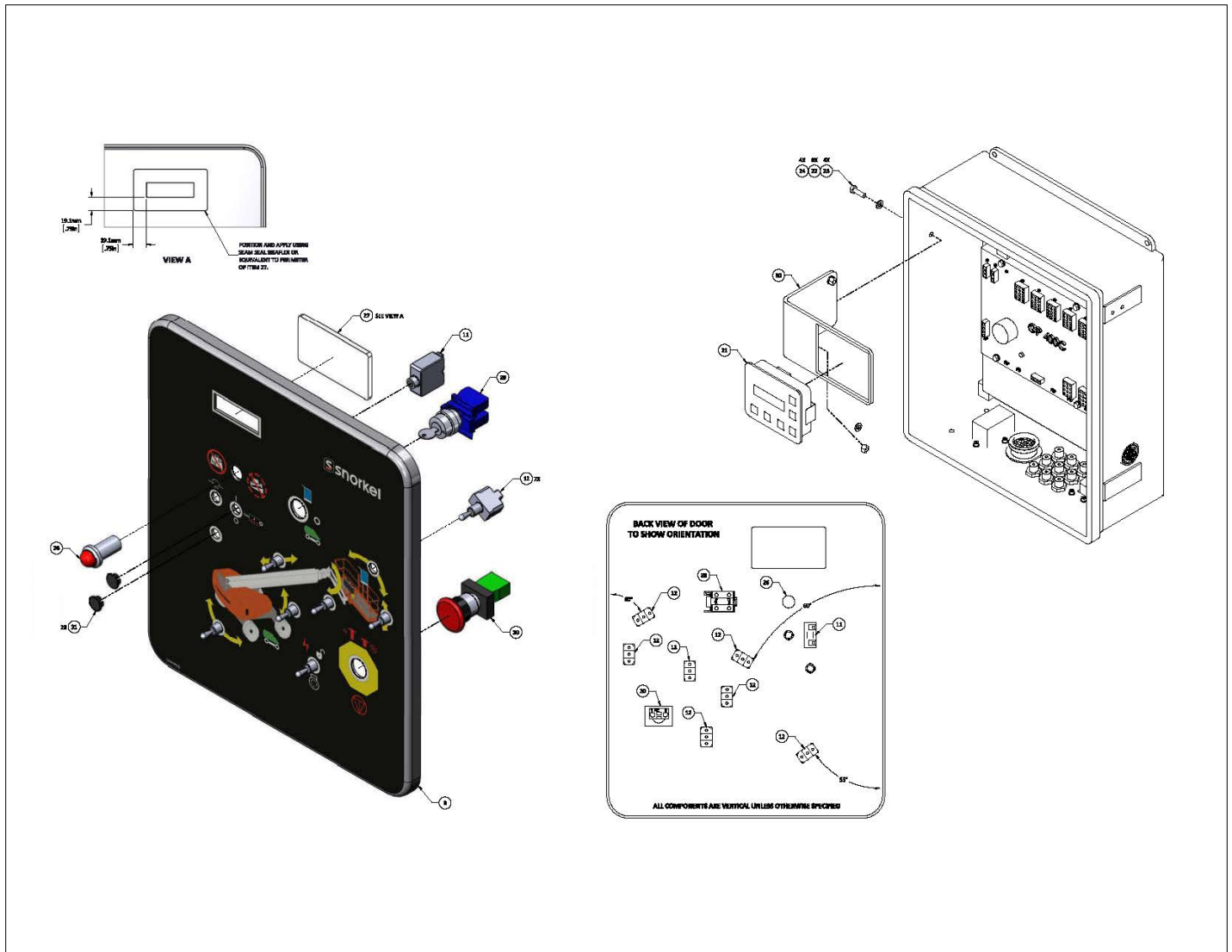
アイテム	部品番号	名前	数量	UOM
Not Shown	1430788 G 1 3	LOWER CONTROL BOX ASSEMBLY SJ DIESEL		EA
1	1430785	LOWER BOX SHELL	1	EA
2	1430787	BACKING PLATE	1	EA
3	3030181	Trionics TBM	1	EA
4	3030174	VALVE CURRENT CONTROL MODULE	1	EA
5	512941 000	GP400C	1	EA
6	056057 025	Bolt, HexBolt DIN931 M5 x 25mm	8	EA
7	056069 005	Washer SteelFlatWasher DIN125A	16	EA
8	056064 005	Nut, NylockNut DIN985 M5 10.0	8	EA
9	1430786	LID LOWER CONTROL	1	EA
10	100338 001	RECPT. DEUTSCH	1	EA
11	015790 011	DEUTSCH 24PIN CONN DRC 12 24PA	1	EA
12	67654 000	PUSH BUTTON MOMENTARY BLK	1	EA
13	64443 001	SWITCH CONTACT BLOCK N/O & MOUNT	1	EA
14	3040069	CIRCUIT BREAKER 25AMP	1	EA
15	3020080	TOGGLE SWITCH	1	EA
16	3020081	SW TGL DPDT (M/ON) SEALED	1	EA
17	3020018	SWITCH TOGGLE DPDT MOM/OFF/MOM	1	EA
18	3020016	Switch, Toggle Honeywell INTI 7	5	EA
19	058500 020	Bolt, SktCapScrew DIN912 M4 x	4	EA
20	056069 004	Wshr, SteelFlatWshr M4 DIN125	16	EA
21	056066 004	NUT NYLOCK DIN985 M4 8.0 ZP	8	EA
22	029925 000	CONNECTOR CABLE HEYC (Not illustrated)	4	EA

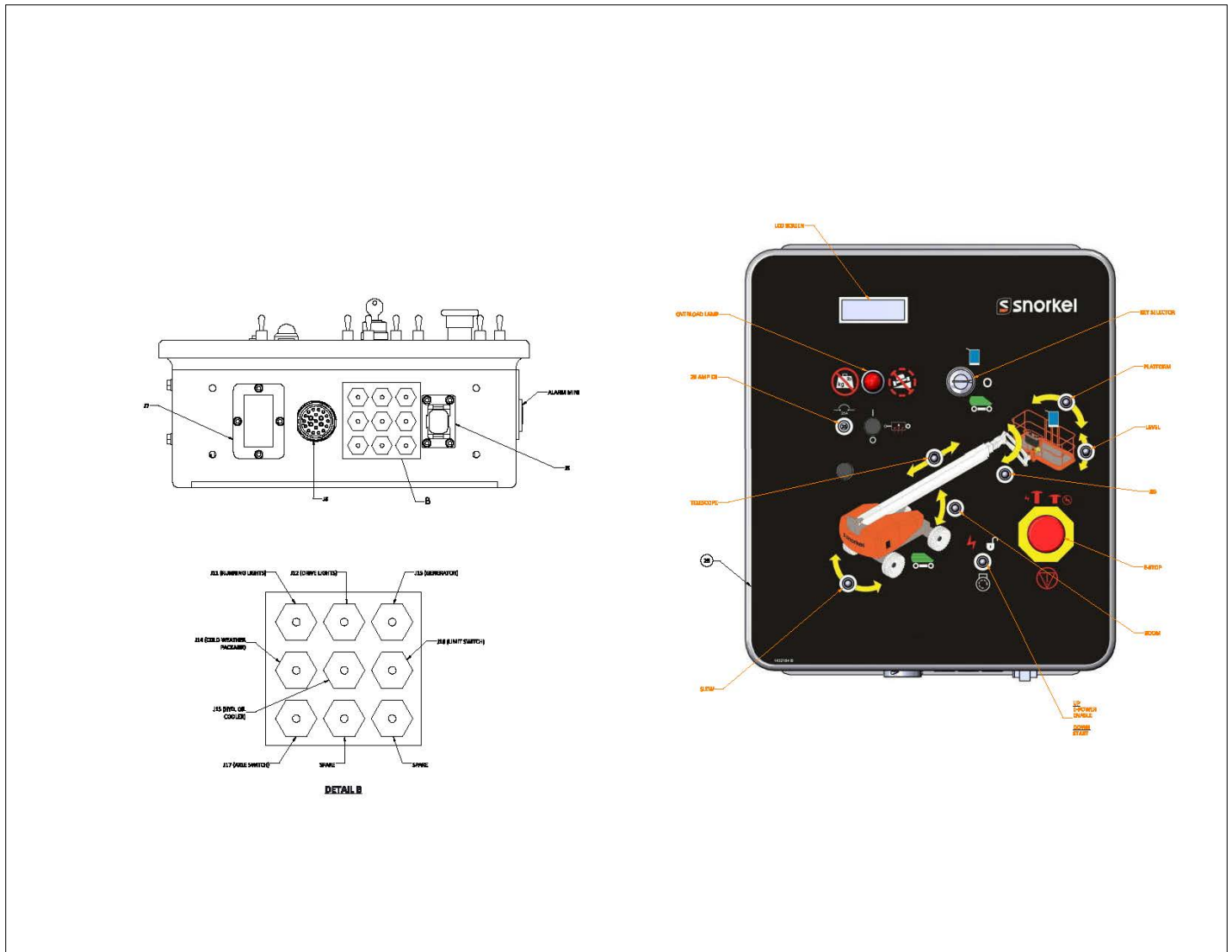
アイテム	部品番号	名前	数量	UOM
23	3049971	DEUTSCH 8 PIN BLKHD RCPT CONN	1	EA
24	510563 016	Bolt, SktCapScrew DIN912 M4 x	4	EA
25	3040411	Alarm Buzzer	1	EA
26	3028810	PUSH/PULL EMERGENCY STOP	1	EA
27	3087803	EZCal Panel Trionics	1	EA
28	1430866	MOUNT LCD SCREEN	1	EA
29	056069 006	WSHR STEELFLATWSHE M6 DIN125A	4	EA
30	056058 020	Bolt, HexBolt DIN931 M6 x 20mm	2	EA
31	056064 006	NUT NYLOCK DIN985 M6 10.0 ZP	2	EA
32	1430864	DECAL, MAIN CONTROL PANEL	1	EA
33	3069524	LIGHT RED LED 12V	1	EA
34	1431983	WINDOW, CLEAR PLEXIGLASS	1	EA
35	3028813	KEYED SELECTOR SWITCH (MARCH 2014 AND BEFORE)	1	EA
Not Shown	1430788 G 4 6	LOWER CONTROL BOX WIRING SJ660 DIESEL		EA
1	3028879	CNCTR 2WAY PLUG GREY DT04 2P	1	EA
2	3040341	PIN CONTACT SIZE 16 16/18 GA	44	EA
3	3049808	LOCK WEDGE 2 PIN DEUTSCH RECEP	1	EA
4	3040650	SOCKET CONTACT 12 DEUTSCH DEU	3	EA
5	3011201	WIRE 12GA RED SINGLE CONDUCTOR	A/R	EA
6	3011251	WIRE 12GA SINGLE CONDUCTOR BLK	A/R	EA
7	3011801	WIRE 18GA SINGLE CONDUCTOR WHT	A/R	EA
Not Shown	3040700	LOCK WEDGE 8 PIN REC	1	EA

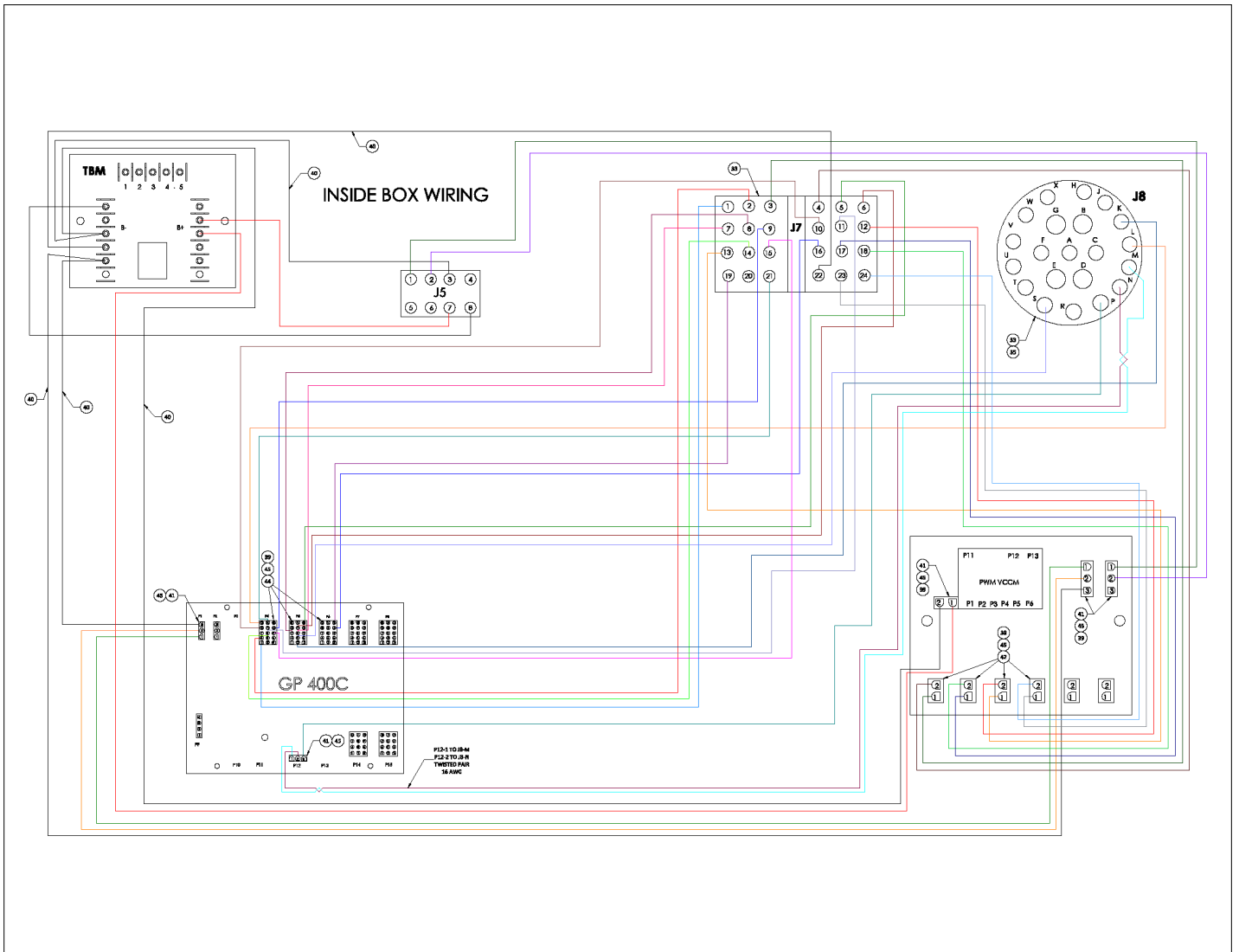
アイテム	部品番号	名前	数量	UOM
9	3011641	WIRE 16GA SINGLE CONDUCTOR WHT	A/R	EA
10	3011601	WIRE 16GA SINGLE CONDUCTOR BLK	A/R	EA
11	3220199	CONNECTOR AMP 3 PIN	3	EA
12	3220181	CONN AMP 2PIN P/N:1 480698 0	5	EA
13	3220024	CONNECTOR AMP 12 PIN 1 480 708	2	EA
14	3220142	CONNECTOR AMP 15 PIN PLUG	5	EA
15	3049986	AMP SOCKET CONTACT	73	EA
Not Shown	3011802	CABLE 18GA/2 CONDUCTOR WIRE 18/2 TYPE SJOBLACK JACKETCABL	A/R	EA
Not Shown	3220163	CONNECTOR AMP 4 PIN 1 480702 0	2	EA
18	3028875	CNCTR 4WAY PLUG GREY DT04 4P	2	EA
19	3028884	LOCK WEDGE 4 PIN DEUTSCH W4 P	2	EA

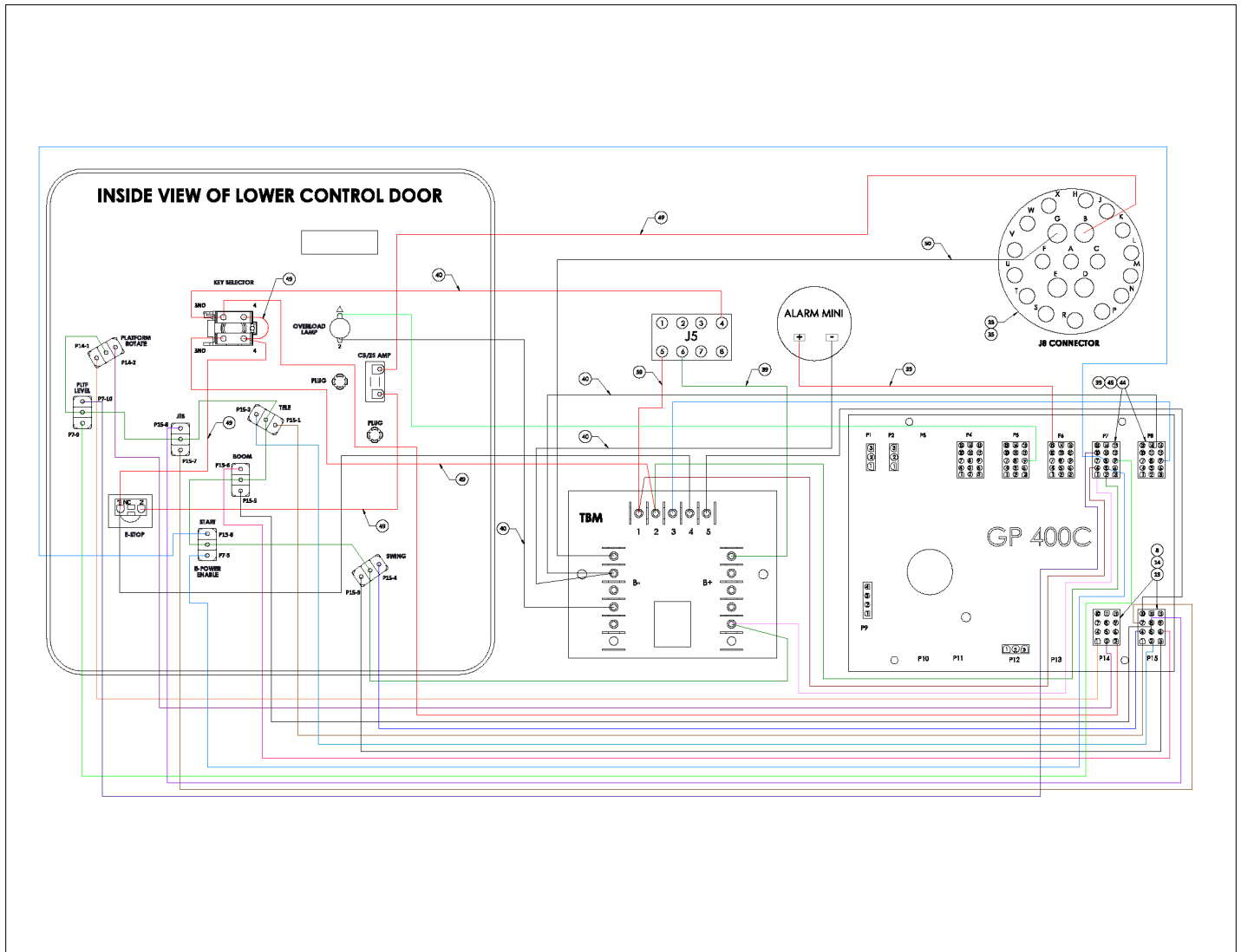
ELECTRICAL

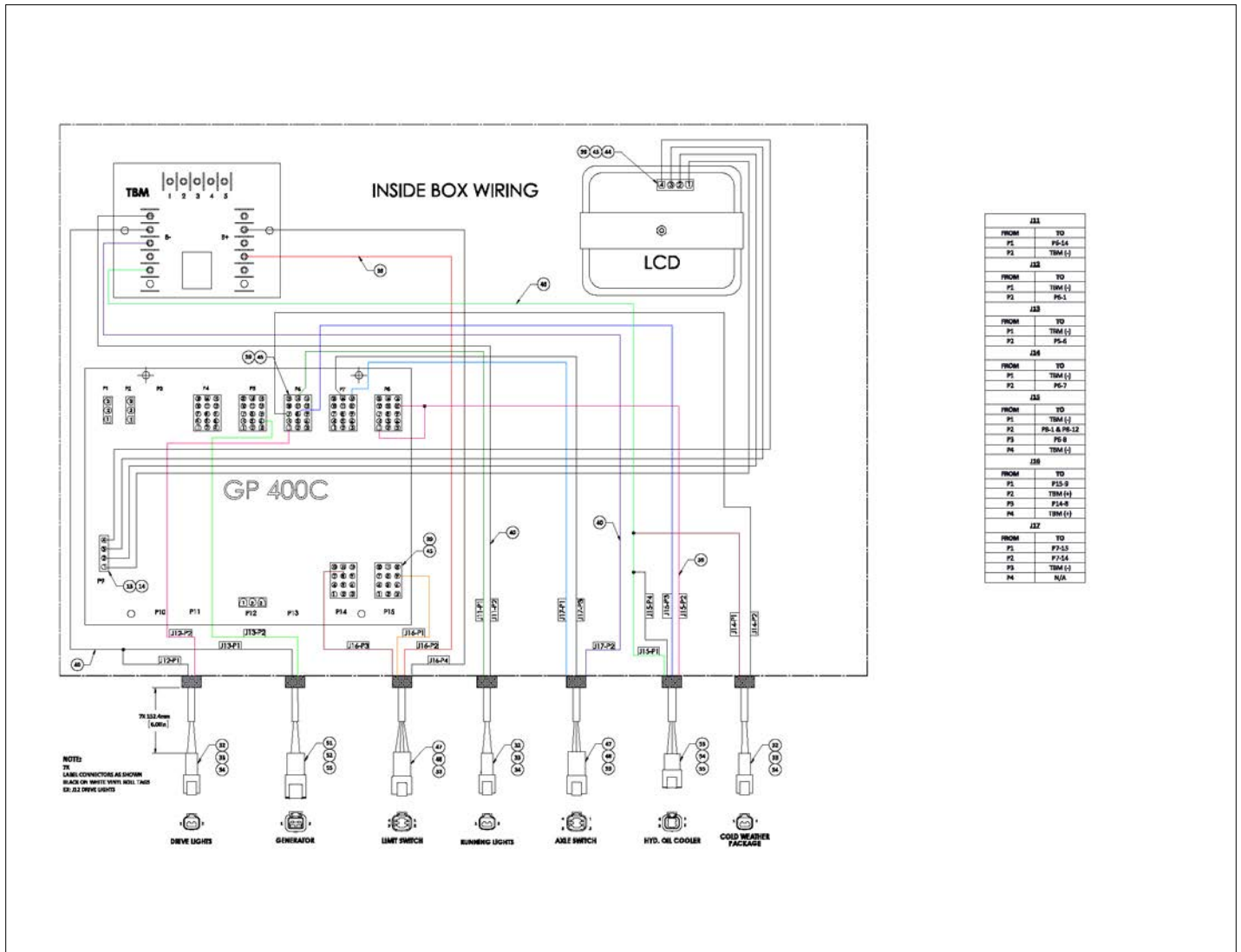










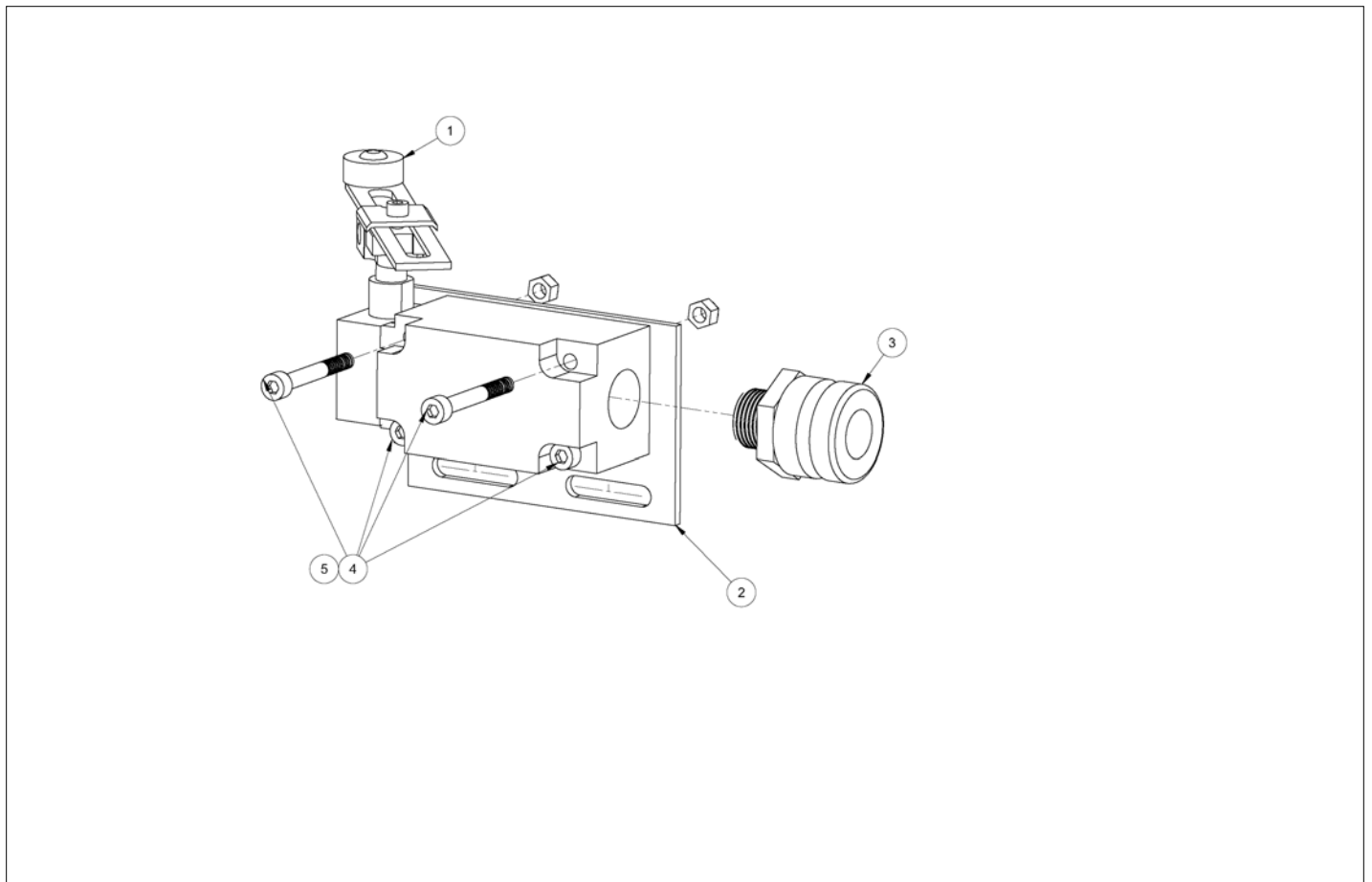


アイテム	部品番号	名前	数量	UOM
	1432928 A	GROUND CONTROL BOX CUMMINS 660SJ		EA
1	1430787	BACKING PLATE	1	EA
2	3030181	Trionics TBM	1	EA
3	3030174	VALVE CURRENT CONTROL MODULE	1	EA
4	512941 000	GP400C	1	EA
5	056057 025	Bolt, HexBolt DIN931 M5 x 25mm	8	EA
6	056069 005	Washer SteelFlatWasher DIN125A	16	EA
7	056064 005	Nut, NylockNut DIN985 M5 10.0	8	EA
8	1432105	LID LOWER CONTROL	1	EA
9	100338 001	RECPT. DEUTSCH	1	EA
10	015790 011	DEUTSCH 24PIN CONN DRC 12 24PA	1	EA
11	3040069	CIRCUIT BREAKER 25AMP	1	EA
12	3020016	Switch, Toggle Honeywell INTI 7	7	EA
13	058500 020	Bolt, SktCapScrew DIN912 M4 x	4	EA
14	056069 004	Wshr, SteelFlatWshr M4 DIN125	16	EA
15	056066 004	NUT NYLOCK DIN985 M4 8.0 ZP	8	EA
16	029925 000	CONNECTOR CABLE HEYC (Not illustrated)	9	EA
17	3049971	DEUTSCH 8 PIN BLKHD RCPT CONN	1	EA
18	510569 016	Nut, NylockNut DIN985 M16 10.0 StainlessSteel	4	EA
19	3040411	Alarm Buzzer	1	EA
20	3028810	PUSH/PULL EMERGENCY STOP	1	EA
21	3087803	EZCal Panel Trionics	1	EA
22	056069 006	WSHR STEELFLATWSHE M6 DIN125A	4	EA

アイテム	部品番号	名前	数量	UOM
23	056058 020	Bolt, HexBolt DIN931 M6 x 20mm	2	EA
24	056064 006	NUT NYLOCK DIN985 M6 10.0 ZP	2	EA
25	1432184	DECAL LOWER CONTROL PANEL CUMMINS	1	EA
26	3069524	LIGHT RED LED 12V	1	EA
27	1431983	WINDOW, CLEAR PLEXIGLASS	1	EA
28	3028886	ASY KEY SW 3 POS CPTV2XNO	1	EA
29	1432929	SHELL, LWR CTL CMNS	1	EA
30	1432197	BRKT LCD SCREEN CUMMINS	1	EA
31	5563889	PLUG PLASTIC SNAP IN ID.50"BLK	2	EA
32	3028879	CNCTR 2WAY PLUG GREY DT04 2P	3	EA
33	3040341	PIN CONTACT SIZE 16 16/18 GA	46	EA
34	3049808	LOCK WEDGE 2 PIN DEUTSCH RECEP	2	EA
35	3040650	SOCKET CONTACT 12 DEUTSCH DEU	3	EA
Not Shown	3011201	WIRE 12GA RED SINGLE CONDUCTOR	A/R	EA
Not Shown	3011251	WIRE 12GA SINGLE CONDUCTOR BLK	A/R	EA
Not Shown	3040700	LOCK WEDGE 8 PIN REC	1	EA
39	3011641	WIRE 16GA SINGLE CONDUCTOR WHT	A/R	EA
40	3011601	WIRE 16GA SINGLE CONDUCTOR BLK	A/R	EA
41	3220199	CONNECTOR AMP 3 PIN	3	EA
42	3220181	CONN AMP 2PIN P/N:1 480698 0	5	EA
Not Shown	3220024	CONNECTOR AMP 12 PIN 1 480 708	2	EA

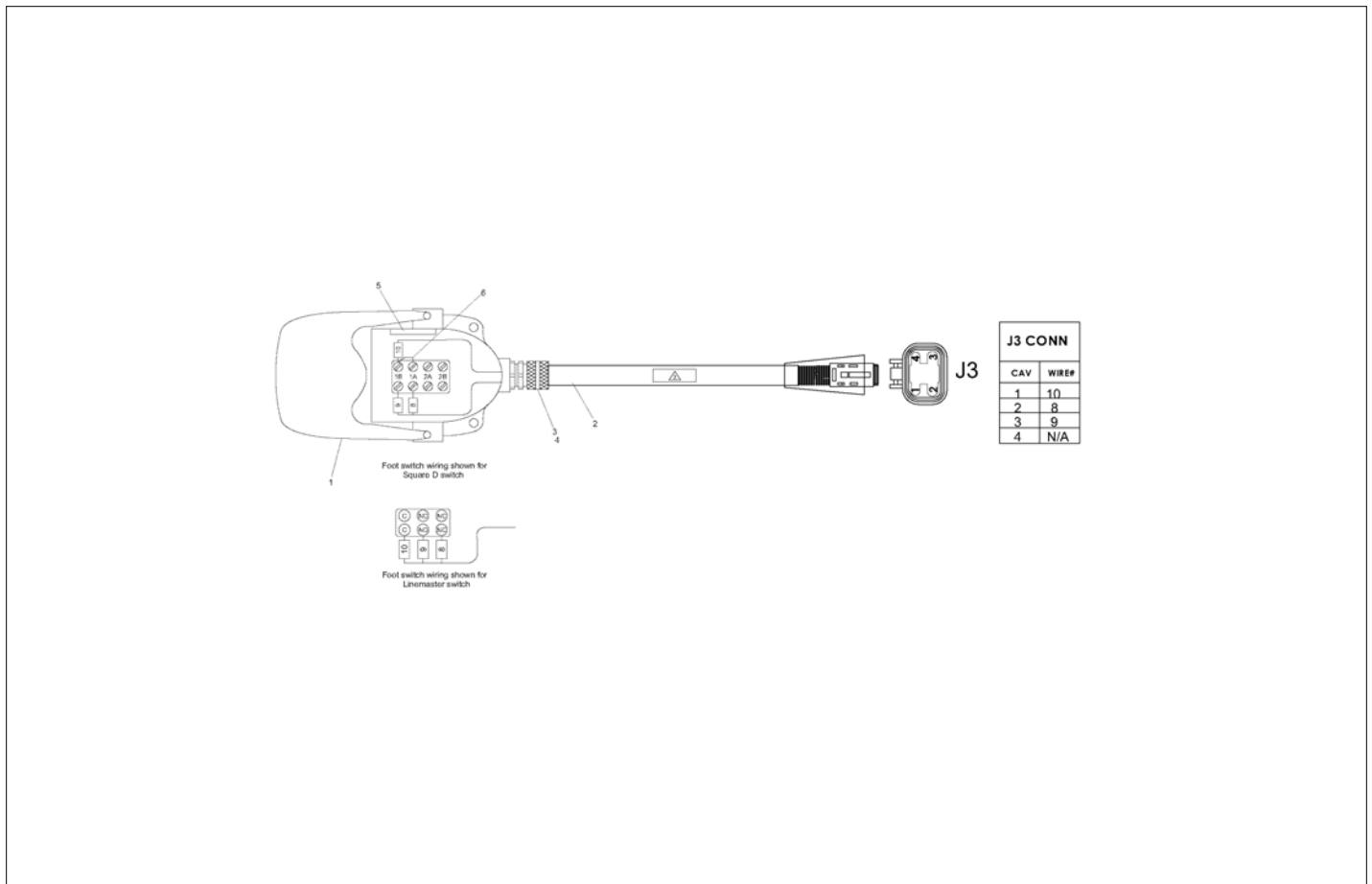
アイテム	部品番号	名前	数量	UOM
44	3220142	CONNECTOR AMP 15 PIN PLUG	5	EA
45	3049986	AMP SOCKET CONTACT	73	EA
Not Shown	3220163	CONNECTOR AMP 4 PIN 1 480702 0	2	EA
47	3028875	CNCTR 4WAY PLUG GREY DT04 4P	2	EA
48	3028884	LOCK WEDGE 4 PIN DEUTSCH W4 P	2	EA
49	3014785	WIRE 10GA SINGLE COND RED	A/R	EA
50	3014786	WIRE 10GA SINGLE COND BLACK	A/R	EA
51	12554 009	RECEPTACLE 2 WIRE	1	EA
52	12554 016	WEDGELOCK FOR DTP04 2P	1	EA
53	12554 008	CONNECTOR DEUTSCH DTP04 4P	1	EA
54	12554 018	WEDGELOCK FOR DTP04 4P	1	EA
55	12554 026	PIN SIZE 12 (12 14GA) DTP	6	EA

ELECTRICAL



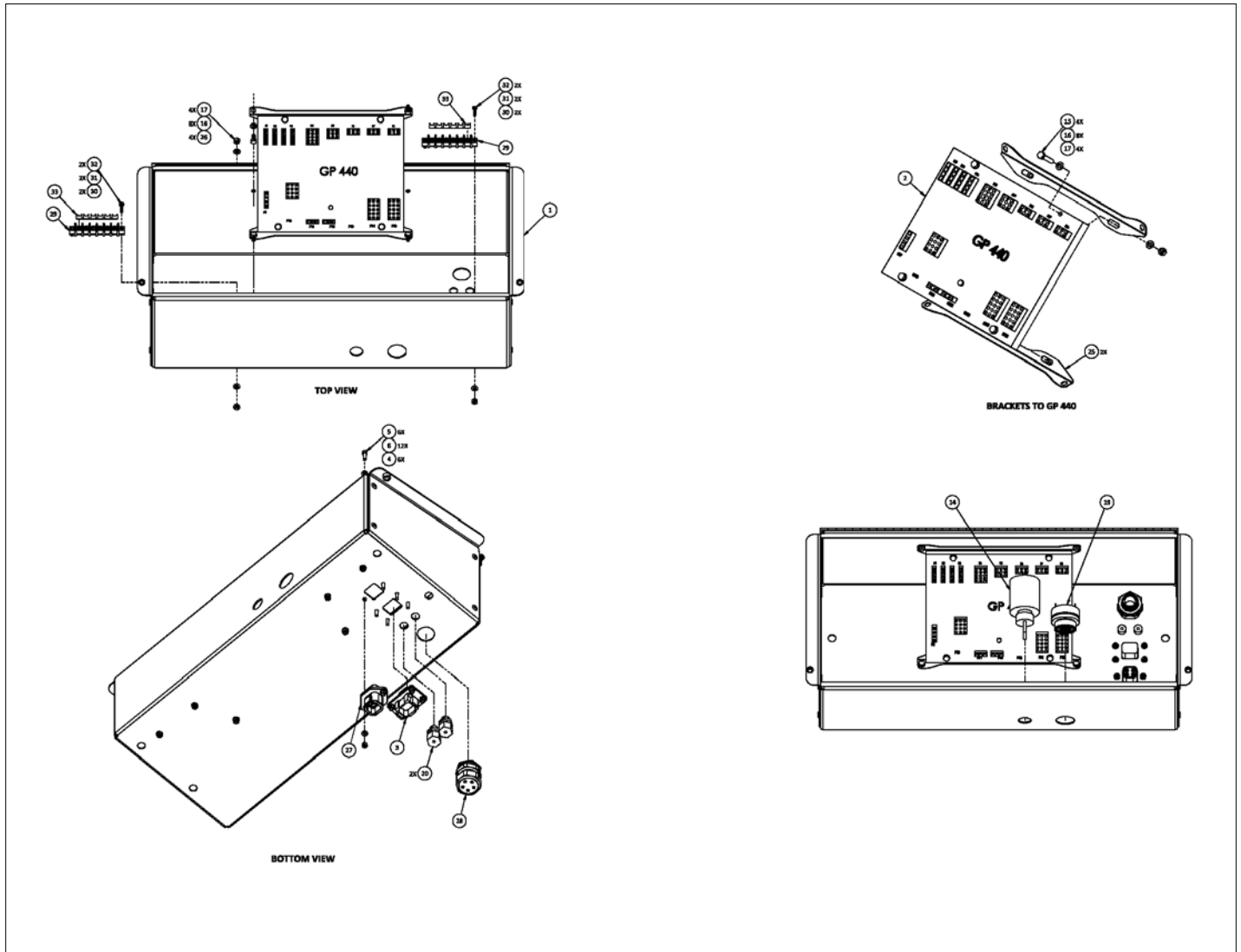
アイテム	部品番号	名前	数量	UOM
Not Shown	1430935	LIMIT SWITCH ASSEMBLY		EA
1	0260347	ASS'Y. LIMIT SWITCH	1	EA
2	1430704	MNT BRKT, LIMIT SW	1	EA
3	3040116	CONN .75 .500 .625	1	EA
4	058501 040	SKT CAP SCREW M5 0.8 X 40MM GR12.9 ZINC	4	EA
5	056064 005	Nut, NylockNut DIN985 M5 10.0	4	EA

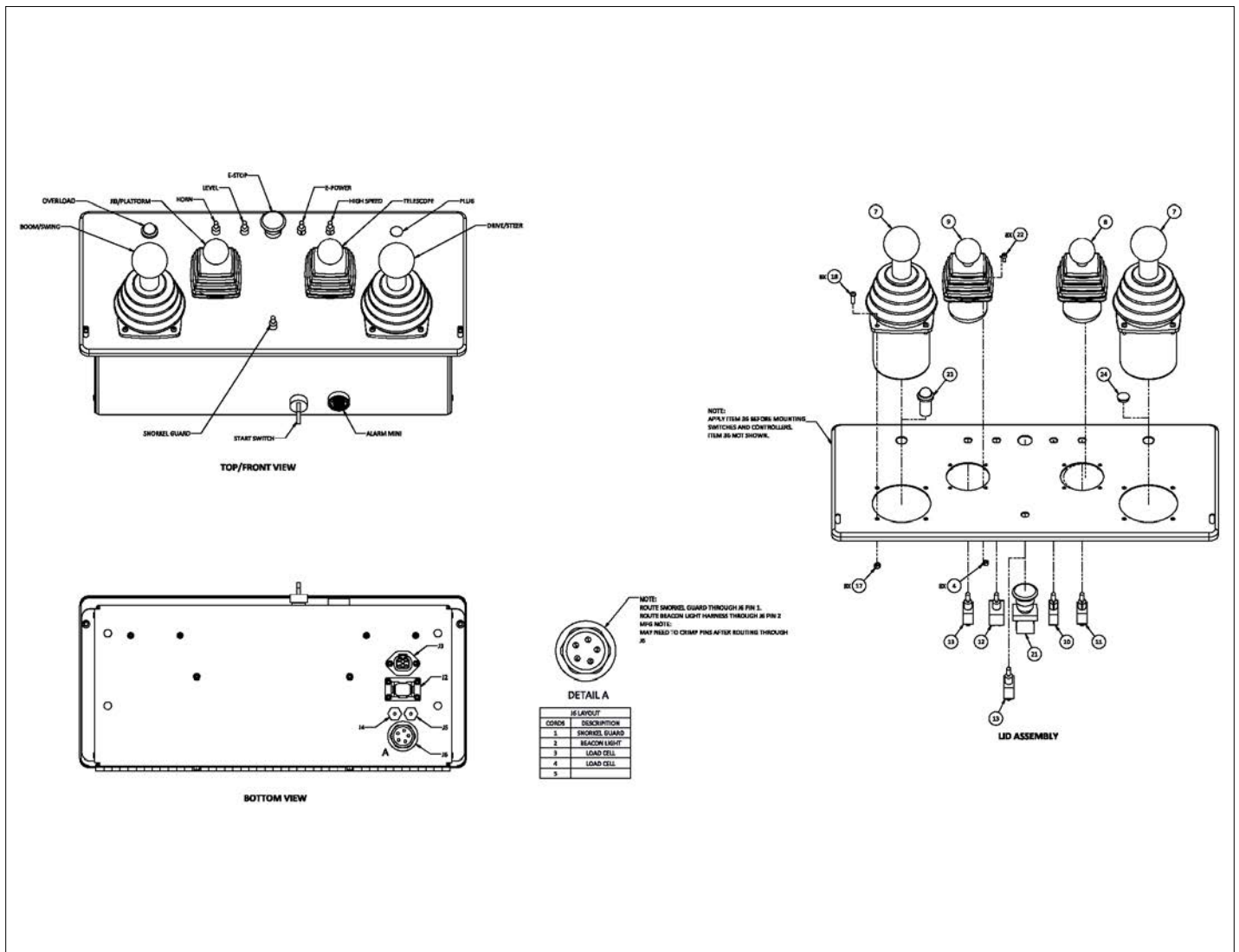
ELECTRICAL

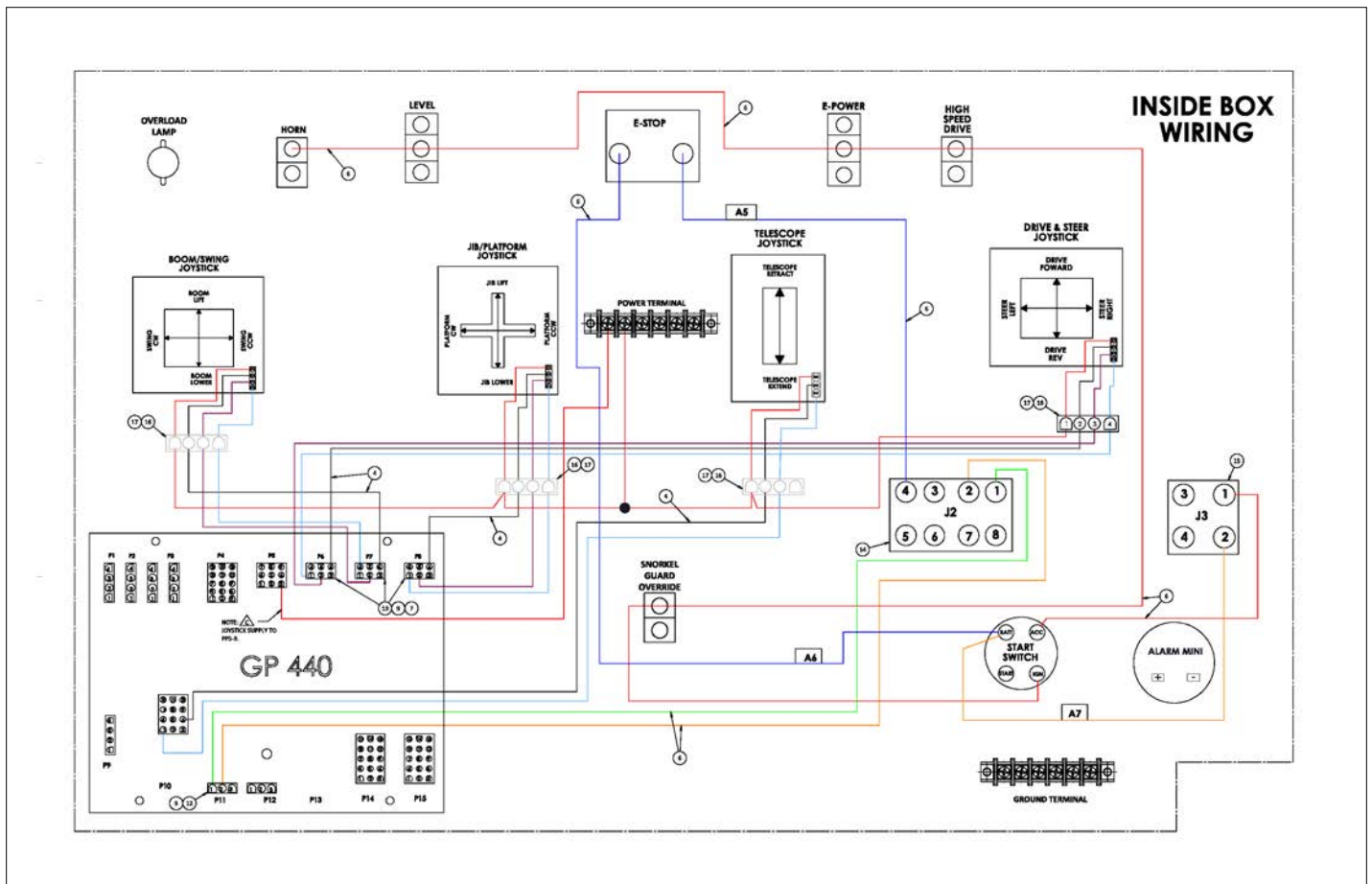


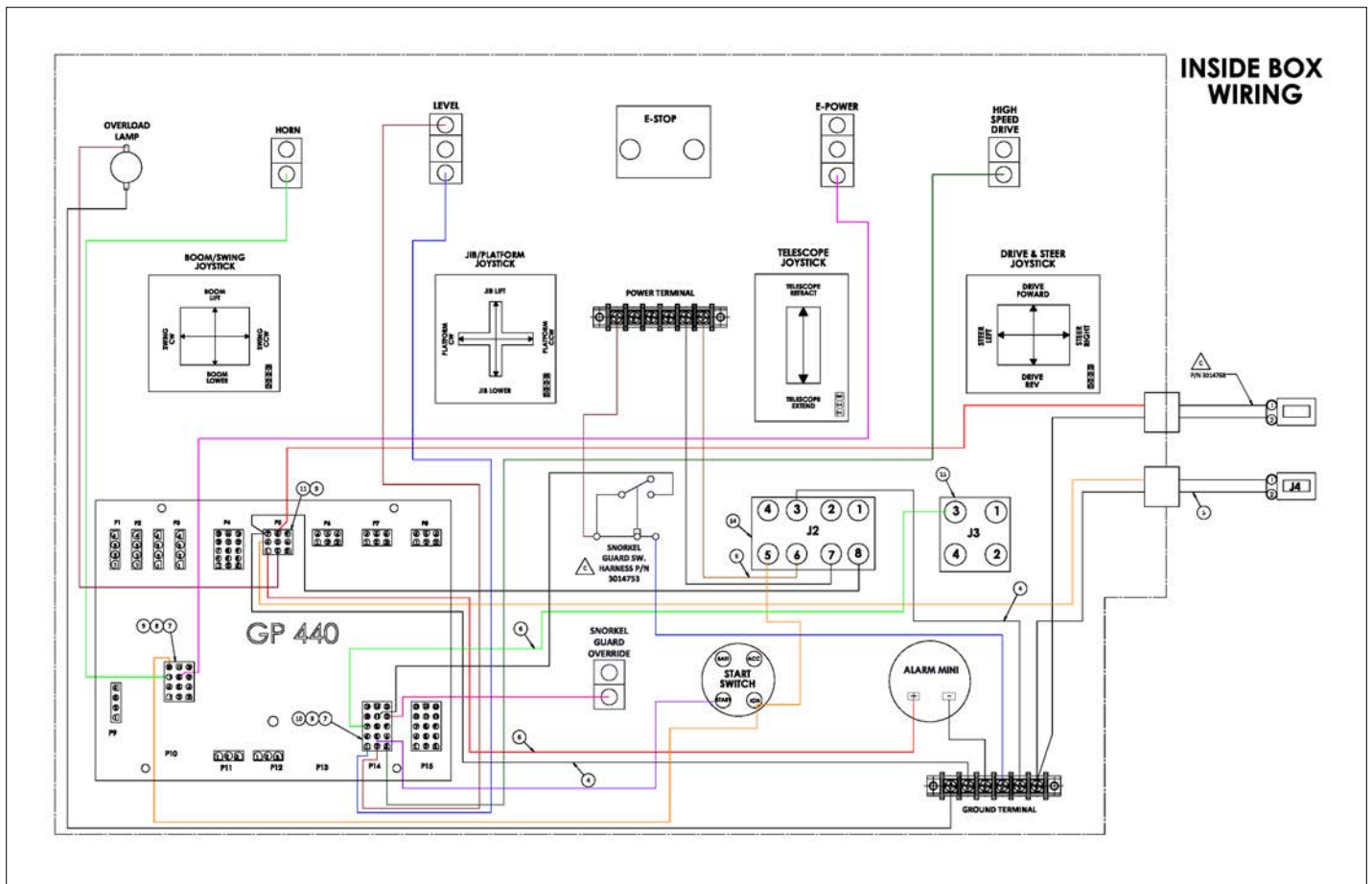
アイテム	部品番号	名前	数量	UOM
	3020021 J	FOOT SWITCH		EA
1	3020021	Foot Switch	1	EA
	3020037	REPLACEMENT SWITCH, SQUARE D SWITCH, 4 POLE	1	EA
	3020038	REPLACEMENT SWITCH, LINEMASTER SWITCH	1	EA
2	511633 000	FOOT SWITCH HARNESS	1	EA
3	3040116	CONN .75 .500 .625	1	EA
4	3040110	NUT LKG HUB .750 SAMEAS 962129	1	EA
5	0070967	CORROSION INHIBITOR STICK BACK	1	EA
6	0060373	JUMPER SWITCH TERMINAL STRAP	1	EA

ELECTRICAL







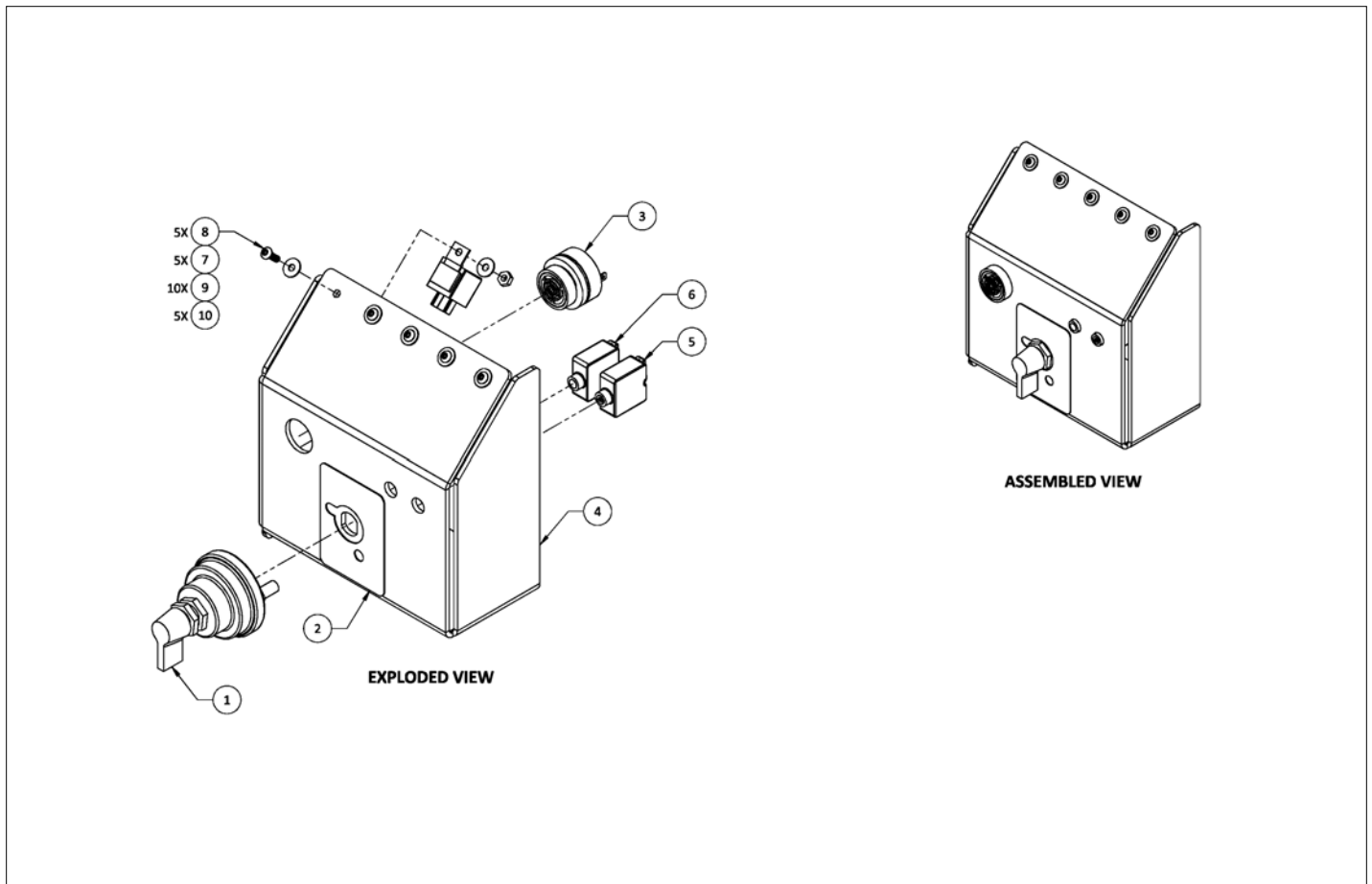


アイテム	部品番号	名前	数量	UOM
Not Shown	1430807 C 1 2	UPPER CONTROL ASSEMBLY 660SJ DIESEL		EA
1	1430806	UPPER CONTROL SHELL BOX	1	EA
2	3030173	GP440	1	EA
3	3049971	DEUTSCH 8 PIN BLKHD RCPT CONN	1	EA
4	056066 004	NUT NYLOCK DIN985 M4 8.0 ZP	14	EA
5	510563 016	Bolt, SktCapScrew DIN912 M4 x	6	EA
6	056069 004	Wshr, SteelFlatWshr M4 DIN125	12	EA
7	3028852	BOOM TURRET AND DRIVE STICK CONTROLLER	2	EA
8	3028854	SINGLE AXIS TELESCOPE CONTROLLER 600S/660SJ	1	EA
9	3028853	TWO AXIS JIB AND PLATFORM JOYSTICK CONTROLLER 600S/660SJ	1	EA
10	3020080	TOGGLE SWITCH	1	EA
11	3020013	Switch, Toggle Honeywell INTI 2	1	EA
12	012798 000	SW TGL SPDT (M/ON) SEALED	1	EA
13	3020015	Switch, Toggle Honeywell INTI 6	2	EA
14	3020090	SW ANTI RESTART IGNITION	1	EA
15	058492 025	BOLT HEXSETSCREW DIN933 M8 X 25MM 8.8 ZP	4	EA
16	056069 005	Washer SteelFlatWasher DIN125A	16	EA
17	056064 005	Nut, NylockNut DIN985 M5 10.0	16	EA
18	505082 016	Bolt, SktButCapScrew DIN9427 M	8	EA
19	3040411	Alarm Buzzer	1	EA
20	029925 000	CONNECTOR CABLE HEYC (Not illustrated)	2	EA
21	3028810	PUSH/PULL EMERGENCY STOP	1	EA
22	058500 010	Bolt, SktCapScrew DIN912 M4 x	8	EA

アイテム	部品番号	名前	数量	UOM
23	3069524	LIGHT RED LED 12V	1	EA
24	066516 005	.68 plug	1	EA
25	1431549	BRKT, GP440 UPR CTL	2	EA
26	5563692	BOLT HXHD M5X.8X12 YL ZN PLT GR 8.8	4	EA
27	3220089	DEUTSCH 4 PIN BLKHD CON DTP04 4P L012	1	EA
28	3028877	GRIP CORD MULTICORD 1.43" HEX 3/4 NPT	1	EA
29	3028880	TERMINAL BLOCK SINGLE ROW 699 GP 06	2	EA
30	5563694	WASHER FLAT #6 YL ZN PLT GR8	4	EA
31	5563695	LOCKNUT HEX 6 32 ZN PLT	4	EA
32	5563693	SCREW PAN HD 6 32 X 5/8" ZN PLT	4	EA
33	3028881	JUMPER RJS TYPE 601RJS 06	2	EA
34	3014768	HARNESS, BEACON LIGHT TO GP400	1	EA
35	3014753	SNORKEL GUARD SENSOR (CABLE, M12 X 2M L)	1	M
36	1431697	DECAL, MAIN CONTROL PANEL UPPR	1	EA
Not Shown	1430807 C 3 4	UPPER CONTROL ASSEMBLY		EA
Not Shown	3049804	CONNECTOR 2 PIN DEUTSCH RECEP	1	EA
Not Shown	3040341	PIN CONTACT SIZE 16 16/18 GA	2	EA
Not Shown	3049808	LOCK WEDGE 2 PIN DEUTSCH RECEP	1	EA
4	3011601	WIRE 16GA SINGLE CONDUCTOR BLK	A/R	EA
5	3011802	CABLE 18GA/2 CONDUCTOR WIRE 18/2 TYPE SJOBLACK JACKETCABL	A/R	EA

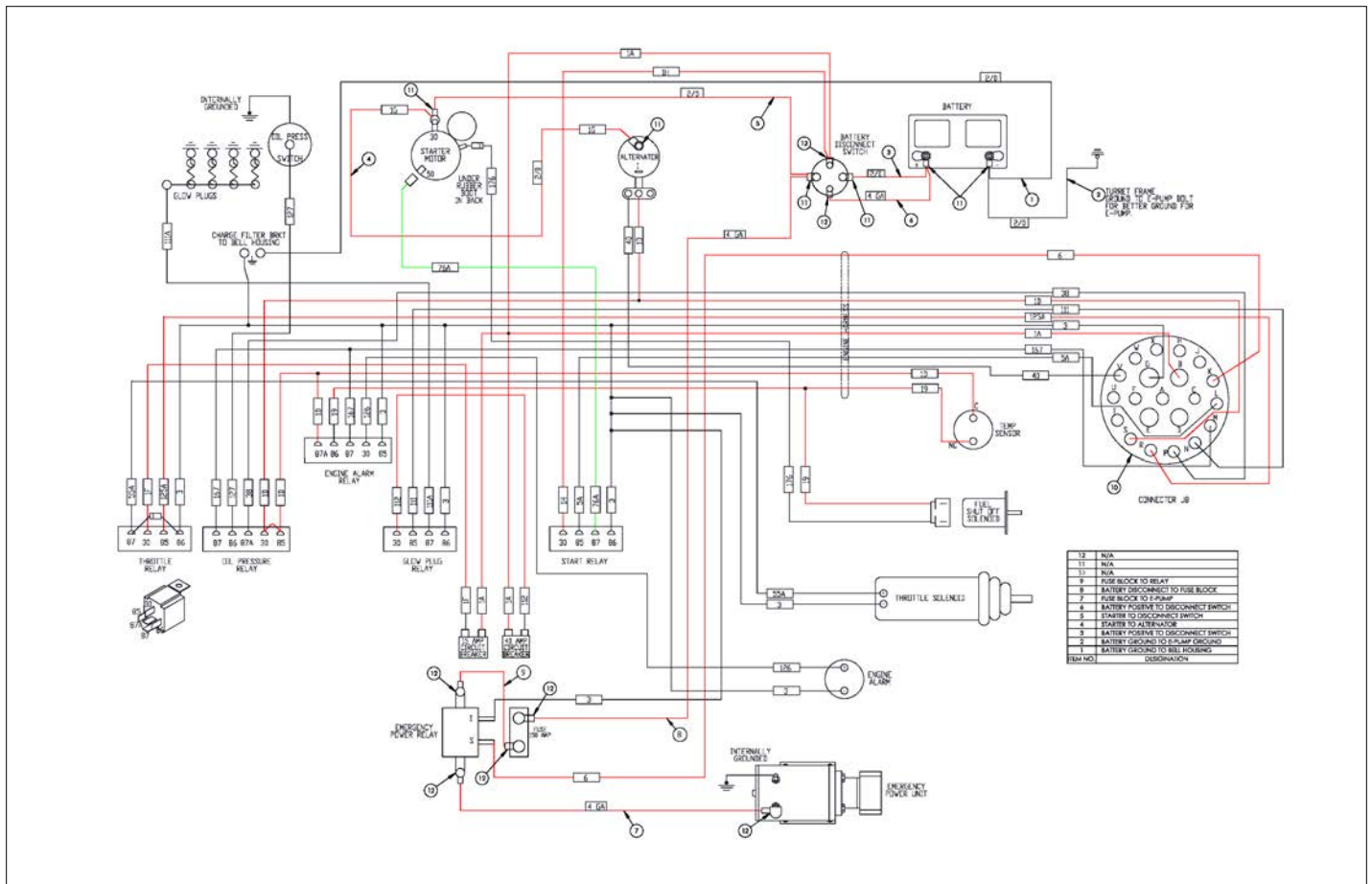
アイテム	部品番号	名前	数量	UOM
6	3011641	WIRE 16GA SINGLE CONDUCTOR WHT	A/R	EA
7	3011801	WIRE 18GA SINGLE CONDUCTOR WHT	A/R	EA
8	3220024	CONNECTOR AMP 12 PIN 1 480 708	1	EA
9	3049986	AMP SOCKET CONTACT	30	EA
10	3220142	CONNECTOR AMP 15 PIN PLUG	1	EA
11	3220132	CONN AMP 9 PIN PLUG	1	EA
12	3220199	CONNECTOR AMP 3 PIN	1	EA
13	3220025	CONNECTOR AMP 6 PIN	3	EA
14	3040341	PIN CONTACT SIZE 16 16/18 GA	6	EA
15	3040650	SOCKET CONTACT 12 DEUTSCH DEU	3	EA
16	3220244	CONNECTOR CAP 4 PIN	4	EA
17	3220245	PIN CONTACT	15	EA

ELECTRICAL



アイテム	部品番号	名前	数量	UOM
Not Shown	1432155 A	KUBOTA BATTERY CONTROL PANEL ASSEMBLY		EA
1	3020061	Battery Disconnect Nut	1	EA
2	0161014	PLACard BATTERY OFF/ON	1	EA
3	3040411	Alarm Buzzer	1	EA
4	5516363	BRACKET, BATTERY DISCONNECT V2403	1	EA
5	3041641	CIRCUIT BREAKER 40 AMP	1	EA
6	3040252	Circuit Breaker 15AMP	1	EA
7	3040469	RELAY SPDT 12V 30AMP SONG	5	EA
8	5563762	SCS, BUTTON HD, M5 X 0.8 X 16 ZN PLT GR10.9	5	EA
9	5563048	FLAT WASHER M 5	10	EA
10	510569 005	NUT HEX LKG M5 0.8	5	EA

ELECTRICAL



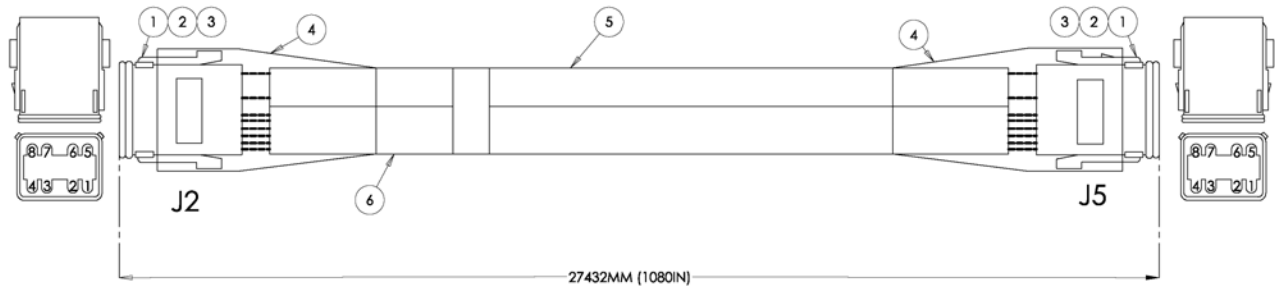
アイテム	部品番号	名前	数量	UOM
Not Shown	3014793	INSTALLATION, ENGINE CABLE ASSEMBLY		EA
1	3014795 01	WIRE VARIABLE LENGTH W/TERMINAL	1	EA
2	3014795 02	WIRE VARIABLE LENGTH W/TERMINAL	1	EA
3	3014795 03	WIRE VARIABLE LENGTH W/TERMINAL	1	EA
4	3014795 04	WIRE VARIABLE LENGTH W/TERMINAL	1	EA
5	3014795 05	WIRE VARIABLE LENGTH W/TERMINAL	1	EA
6	3014795 06	WIRE VARIABLE LENGTH W/TERMINAL	1	EA
7	3014795 07	WIRE VARIABLE LENGTH W/TERMINAL	1	EA
8	3014795 08	WIRE VARIABLE LENGTH W/TERMINAL	1	EA
9	3014795 09	WIRE VARIABLE LENGTH W/TERMINAL	1	EA
10	3014794	HARNESS KUBOTA DIESEL 2403MT 660SJ/600S	1	EA
11	3040269	Boot Cable Entry Black 1/0 GA	6	EA
12	3040268	BOOT BTRY CABLE END BLK	7	EA

ELECTRICAL

J2			
CAV	WIRE NUMBER	REX/COLOR	AWG
1	1T	WHITE	20
2	2T	BROWN	20
3	3	GRN/YEL	18
4	A5	BLK#1	18
5	A6	BLK#2	18
6	B1	BLK#3	18
7	B1	BLK#4	18
8	3	BLK#5	18

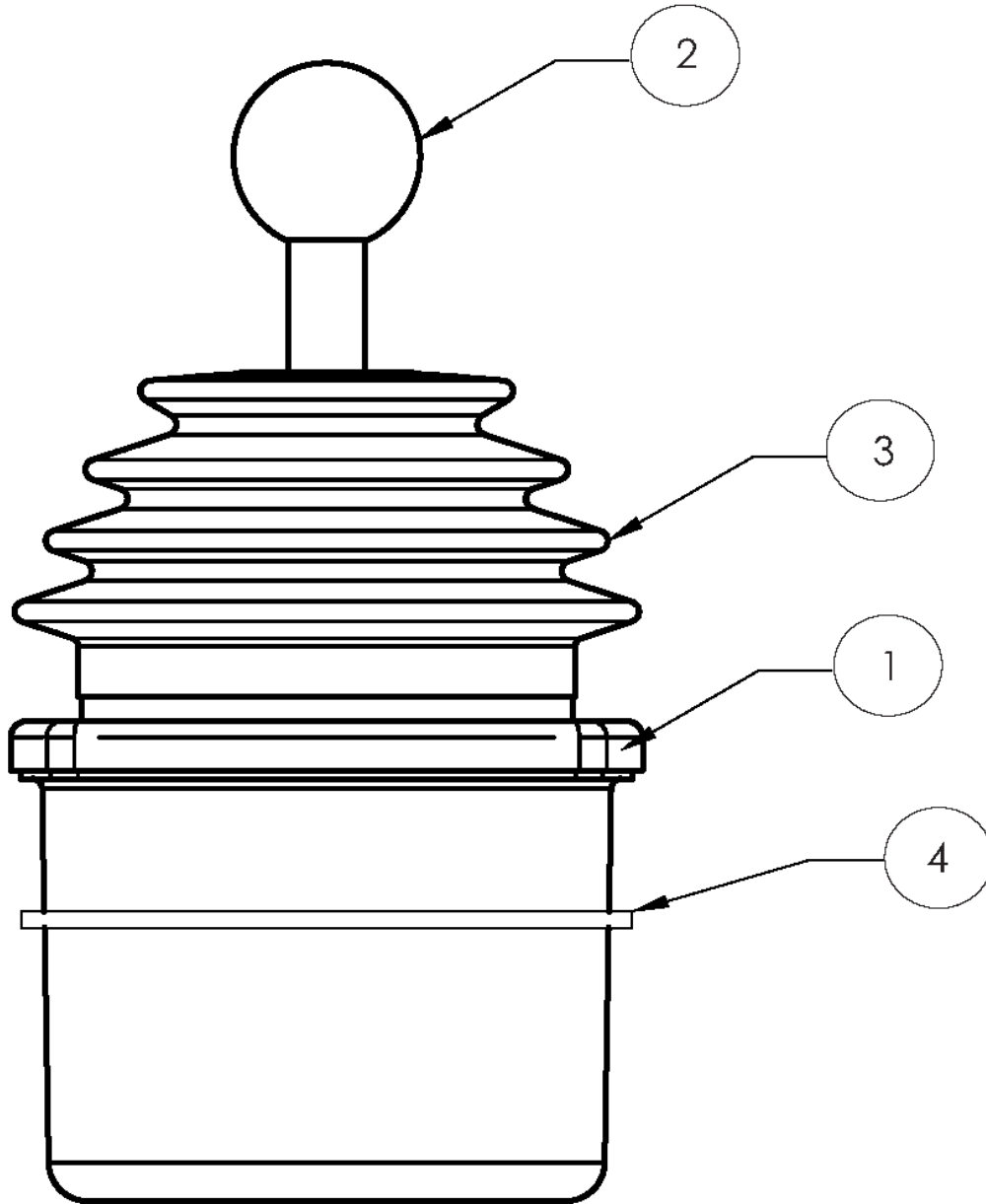
J5			
CAV	WIRE NUMBER	REX/COLOR	AWG
1	1T	WHITE	20
2	2T	BROWN	20
3	3	GRN/YEL	18
4	A5	BLK#1	18
5	A6	BLK#2	18
6	B1	BLK#3	18
7	B1	BLK#4	18
8	3	BLK#5	18

HARNESS SHOULD BE BUILT AND HELD TO ES6-2 & ES6-4 STANDARDS.



アイテム	部品番号	名前	数量	UOM
Not Shown	511612 000	UPPER CABLE ASSY		EA
1	3049829	CONNECTOR 8 PIN PLUG	2	EA
2	3049842	LOCK WEDGE 8 PIN PLUG	2	EA
3	3040342	SOCKET CONTACT SIZE 16 16/18GA	16	EA
4	3090028	BOOT 8 PIN PLUG DT8S BT	2	EA
5	3014736	20 GA 2COND CABLE (27432MM 1080 IN)	A/R	EA
6	3014737	18GA 7 COND CABLE (27432MM 1080 IN)	A/R	EA

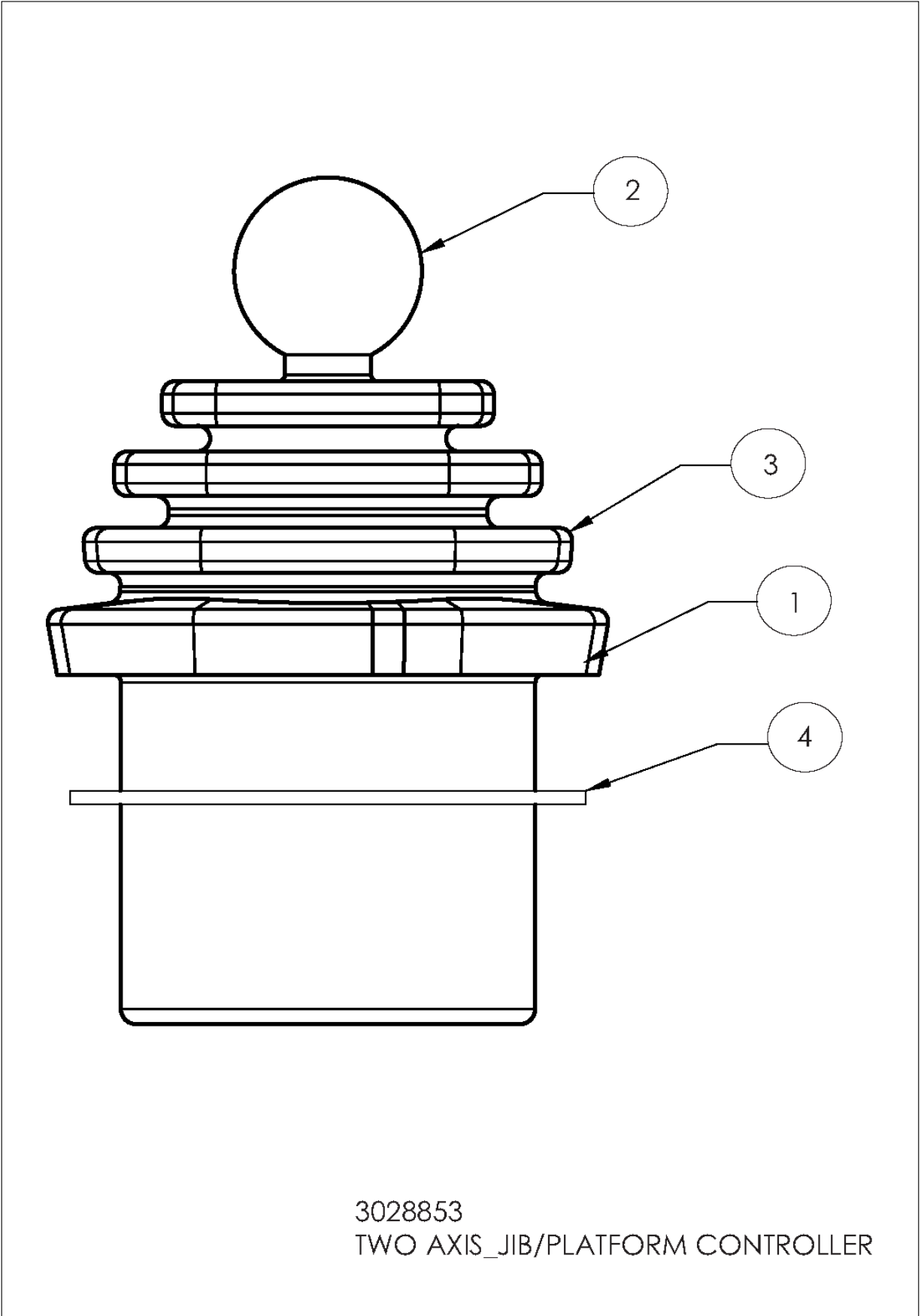
ELECTRICAL



3028852
BOOM TURRET_DRIVE CONTROLLER

アイテム	部品番号	名前	数量	UOM
Not Shown	3028852	BOOM TURRET AND DRIVE STICK CONTROLLER		EA
1	3028852	BOOM TURRET AND DRIVE STICK CONTROLLER	1	EA
2	3220267	KNOB	1	EA
3	3220268	BOOT JS8 10MM SHAFT	1	EA
4	3220269	GASKET JS ENCLOSURE	1	EA

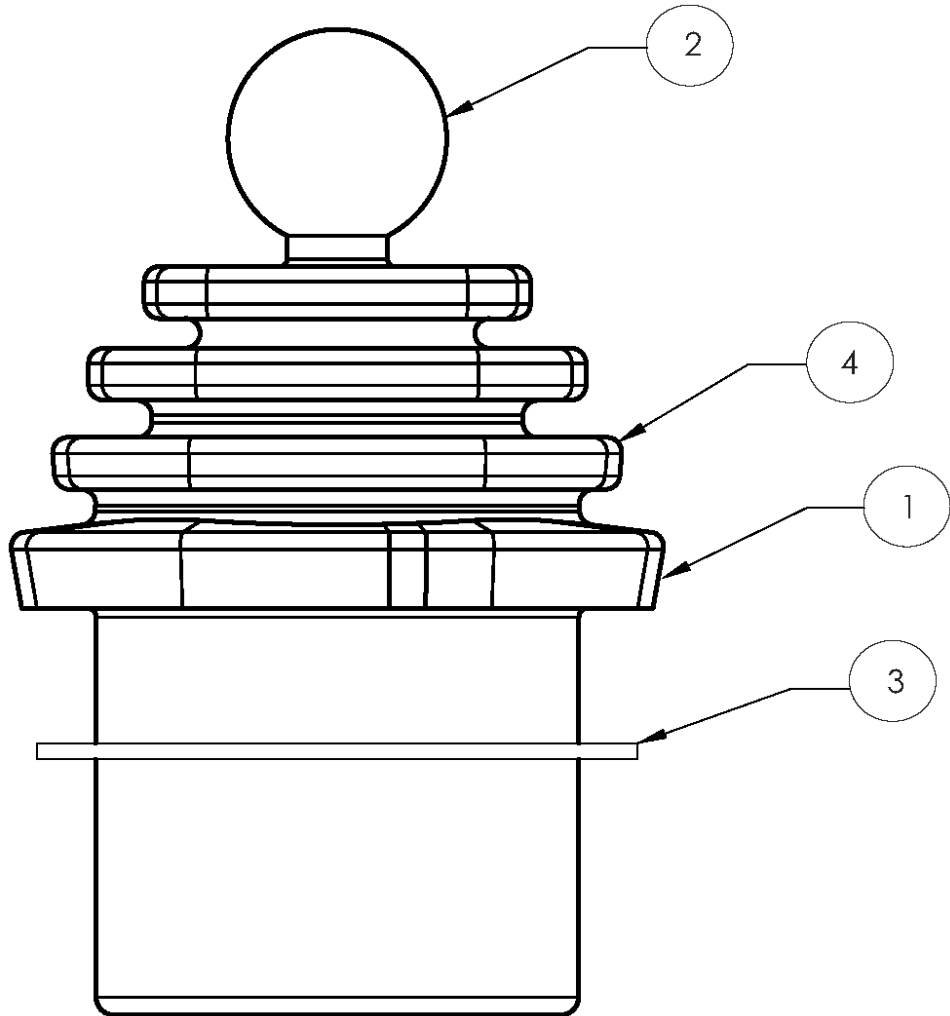
ELECTRICAL



3028853
TWO AXIS_JIB/PLATFORM CONTROLLER

アイテム	部品番号	名前	数量	UOM
Not Shown	3028853	TWO AXIS JIB AND PLATFORM JOYSTICK CONTROLLER 600S/660SJ		EA
1	3028853	TWO AXIS JIB AND PLATFORM JOYSTICK CONTROLLER 600S/660SJ	1	EA
2	3220267	KNOB	1	EA
3	3220270	GASKET B9 1/8" THICK	1	EA
4	3220271	BOOT JS9	1	EA

ELECTRICAL



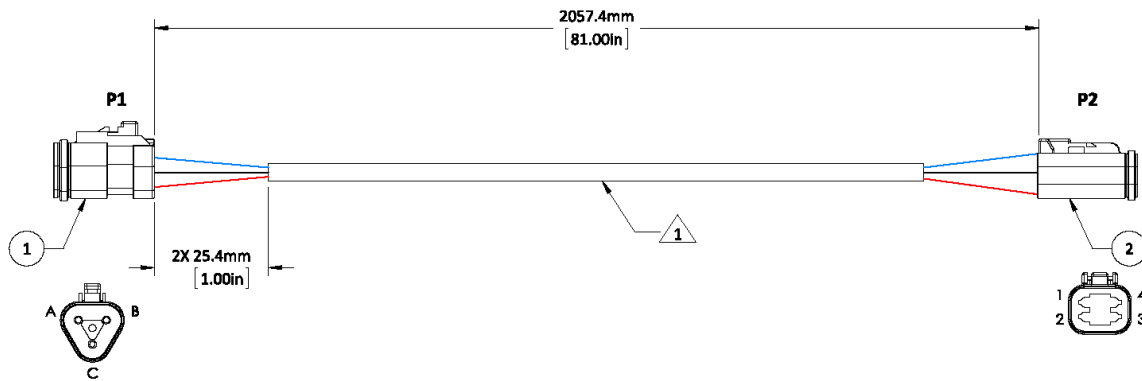
3028854
SINGLE AXIS TELESCOPE CONTROLLER

アイテム	部品番号	名前	数量	UOM
Not Shown	3028854	SINGLE AXIS TELESCOPE CONTROLLER 600S/660SJ		EA
1	3028854	SINGLE AXIS TELESCOPE CONTROLLER 600S/660SJ	1	EA
2	3220267	KNOB	1	EA
3	3220270	GASKET B9 1/8" THICK	1	EA
4	3220271	BOOT JS9	1	EA

アイテム	部品番号	名前	数量	UOM
Not Shown	1432141 A	CABLE HARNESS KIT KUBOTA		EA
1	3014793	INSTALLATION, ENGINE CABLE ASSEMBLY	1	EA
2	3014780	HARNESS, MAIN MAINFOLD BLOCK	1	EA
3	3014769	HARNESS, SOLENOID DIN TO DT PLUG	1	EA
4	3014787	ASSY HORN	1	EA
5	3014788	LIGHT, AMBER BEACON	2	EA
6	3014781	HARNESS LWR CNTRL BOX TO AMBR	1	EA
7	511612 000	UPPER CABLE ASSY	1	EA
8	3014764	HARNESS, ELEV SWITCH DT06 4S	1	EA
9	3014763	HARNESS, LWR CTL TO LMT SW	1	EA
10	3014765	HARNESS, BEACON LIGHT BLU	1	EA
11	511633 000	FOOT SWITCH HARNESS	1	EA
12	511625 000	SELECTOR VALVE HARNESS	1	EA
13	511611 000	LOWER CABLE ASSEMBLY	1	EA
14	12139 999	GUARD HOSE WRAP SL 3.0 1050B	10ft	EA
15	3014762	HARNESS, LWR CTL TO PRS SW	1	EA

ELECTRICAL

WIRING SCHEMATIC				
FROM	TO	DESIGNATION	AWG	WIRE COLOR
P1-A	P2-1	NO	16	RED
P1-B	P2-2	COM	16	BLK
P1-C	P2-3	NC	16	BLU



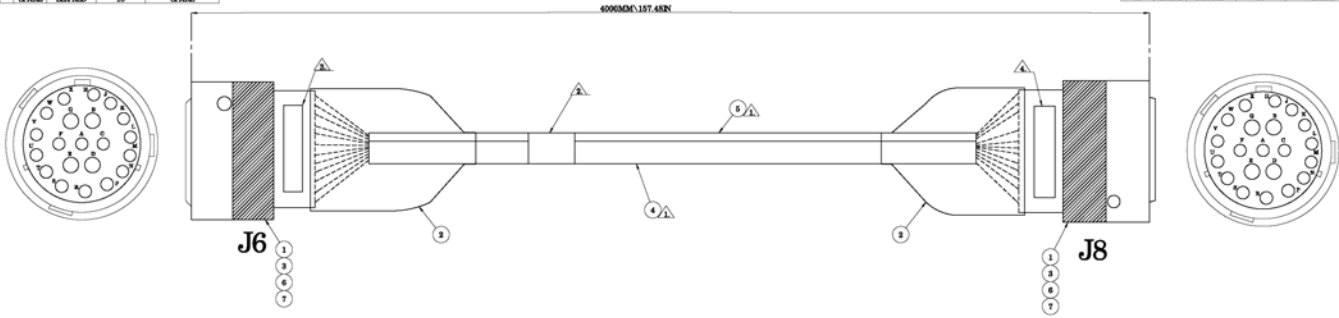
アイテム	部品番号	名前	数量	UOM
Not Shown	3014762A	LOWER CONTROL TO PRESSURE SWITCH HARNESS		EA
1	3028872	CONNECTOR, 3 WAY PLUG GREY	1	EA
2	3049888	CONNECTOR 4 PIN	1	EA

ELECTRICAL

ITEM 1				
CAV	WIRING	WIRE COLOR	GUAGE	DESCRIPTION
A	1A	GRN	12	MAIN POWER
B				
C				
D				
E	SPARE	WHI	12	SPARE
F				
G	3	BLACK	12	GROUND
H				
I				
J				
K	6	YEL	18	5 PLUMP
L	5A	RED	18	5 PLUMP
M	107	BRN	18	ENG INFL ALARM
N	111	ORG	18	CLUTCH/SHOULDR
P	38	RED/BLK	18	OLE PRESSURE
R	100A	RED/BLK	18	SHOULDR RELAY
S	1D	ORG/BLK	18	ALIX POWER
T	SPARE	YEL/BLK	18	SPARE
U	SPARE	BLK	18	SPARE
V	40	RED	18	ALTERNATOR TACH
W	SPARE	BRN/BLK	18	SPARE
X	SPARE	BLN/RED	18	SPARE

ITEM 2				
CAV	WIRING	WIRE COLOR	GUAGE	DESCRIPTION
A	1A	GRN	12	MAIN POWER
B				
C				
D				
E	SPARE	WHI	12	SPARE
F				
G				
H				
I				
J				
K	6	YEL	18	5 PLUMP
L	5A	RED	18	5 PLUMP
M	107	BRN	18	ENG INFL ALARM
N	111	ORG	18	CLUTCH/SHOULDR
P	38	RED/BLK	18	OLE PRESSURE
R	100A	RED/BLK	18	SHOULDR RELAY
S	1D	ORG/BLK	18	ALIX POWER
T	SPARE	YEL/BLK	18	SPARE
U	SPARE	BLK	18	SPARE
V	40	RED	18	ALTERNATOR TACH
W	SPARE	BRN/BLK	18	SPARE
X	SPARE	BLN/RED	18	SPARE

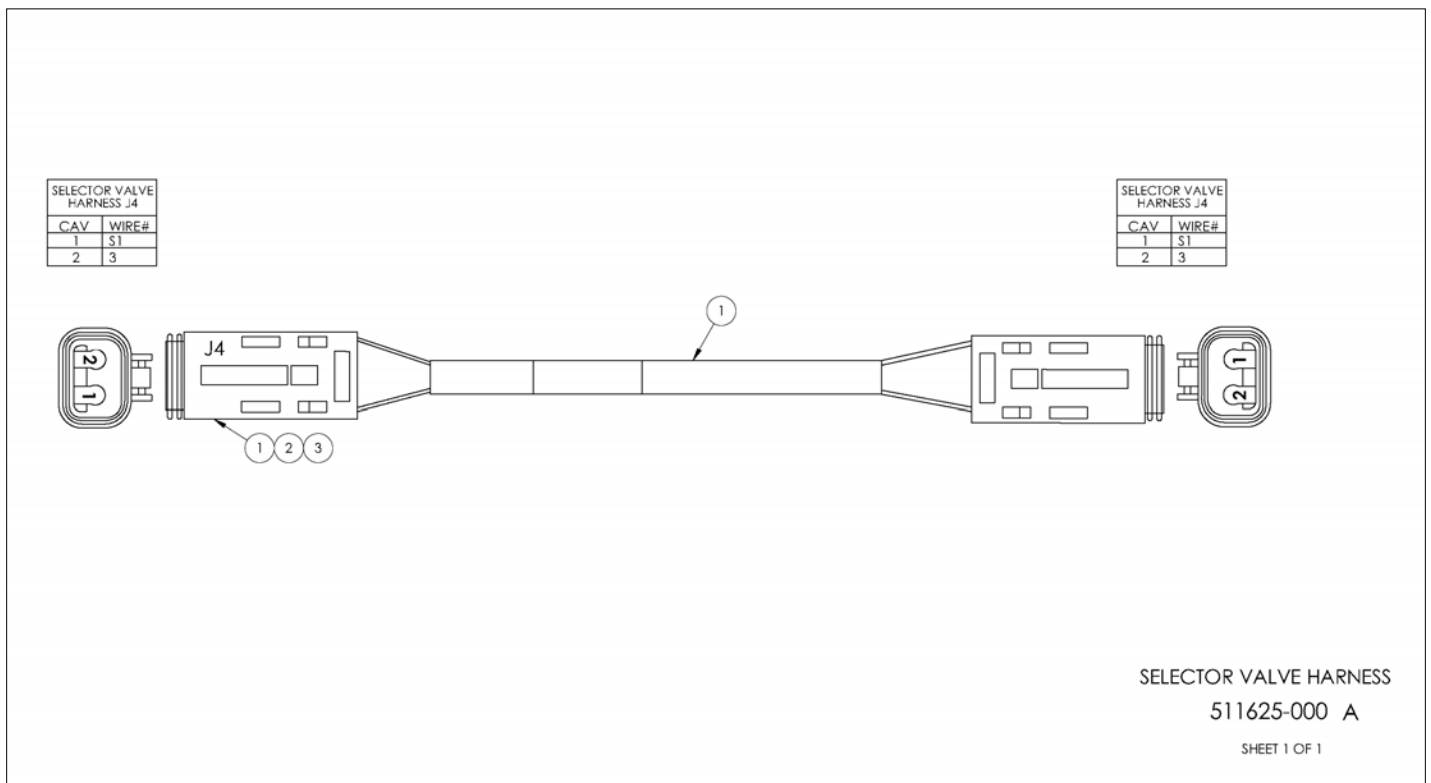
- NOTES:**
1. FOR ITEMS 4 & 5 REMOVE APPROXIMATELY 80MM (3.140IN) OF THE JACKET FROM BOTH ENDS OF THE CABLE. THE JACKET SHALL EXTEND A MINIMUM OF 10MM (.393IN) INSIDE THE BOOT.
 2. LABEL HARNESS WITH DRAWING NUMBER #511611-000.
 3. LABEL PLUG J6 AT THIS END.
 4. LABEL PLUG J8 AT THIS END.



HARNESS SHOULD BE BUILT AND HELD TO ES6-2 & ES6-4 STANDARDS

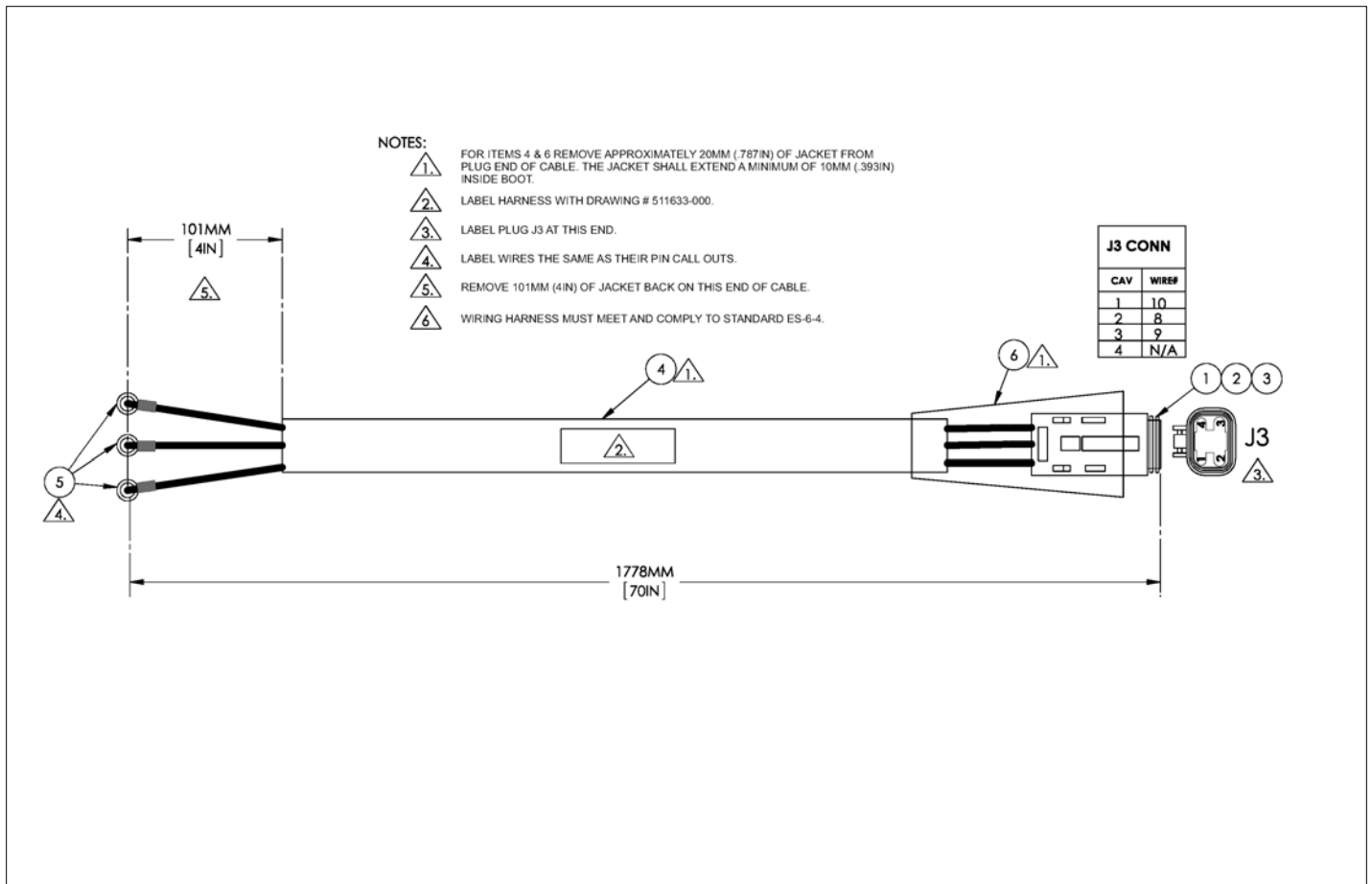
アイテム	部品番号	名前	数量	UOM
Not Shown	511611 000 A	LOWER CABLE ASSEMBLY		EA
1	100338 000	DEUTSCH PLUG HDP 26 24 21SN	2	EA
2	100338 005	DEUTSCH BOOT HD 3024BT	2	EA
3	068764 000	SEAL PLUG DEUTSCH 114017	12	EA
4	3010009	CABLE 18GA/12 CONDUCTOR	A/R	EA
5	3011203	CABLE 12GA/3 CONDUCTOR WIRE SO	A/R	EA
6	3040341	PIN CONTACT SIZE 16 16/18 GA	18	EA
7	3040650	SOCKET CONTACT 12 DEUTSCH DEU	4	EA

ELECTRICAL



アイテム	部品番号	名前	数量	UOM
Not Shown	511625 000	SELECTOR VALVE HARNESS		EA
1	3049803	CONNECTOR 2 PIN DEUTSCH PLUG	2	EA
2	3049807	LOCK WEDGE 2 PIN DEUTSCH PLUG	2	EA
3	3040342	SOCKET CONTACT SIZE 16 16/18GA	4	EA
Not Shown	3011802	CABLE 18GA/2 CONDUCTOR WIRE 18/2 TYPE SJOBLACK JACKETCABL	A/R	EA

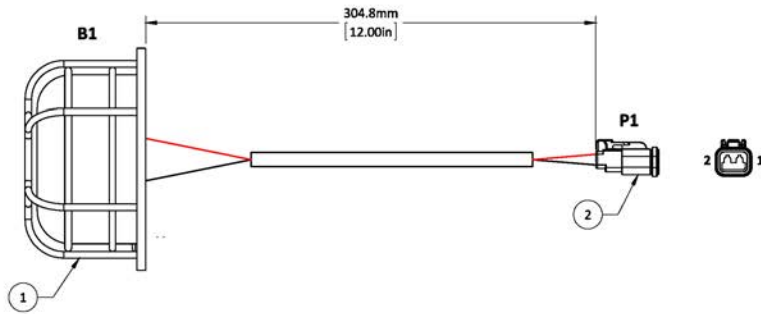
ELECTRICAL



アイテム	部品番号	名前	数量	UOM
	511633 000 B	FOOT SWITCH HARNESS		EA
1	3220108	CONNECTOR 4 PIN 12GA PLUG	1	EA
2	3220109	WEDGE LOCK 4 PIN	1	EA
3	3040650	SOCKET CONTACT 12 DEUTSCH DEU	3	EA
4	3011204	CABLE 12GA/3 CONDUCTOR WIRE	A/R	EA
5	3044853	TERM R8I 12/10	3	EA
6	3220161	BOOT DEUTSCH/LADD	1	EA

ELECTRICAL

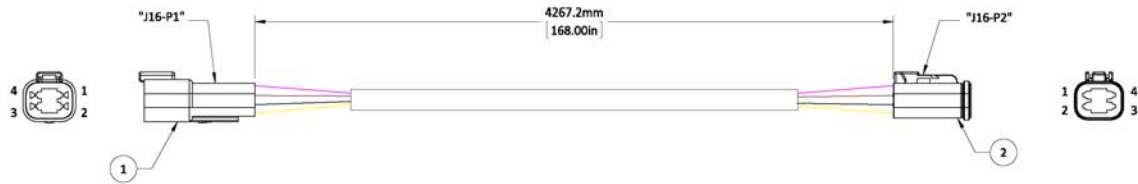
WIRING SCHEMATIC				
FROM	TO	DESIGNATION	AWG	WIRE COLOR
B1-RED	P1-1	VIN+	20	RED
B1-BLK	P1-2	VIN-	20	BLK



アイテム	部品番号	名前	数量	UOM
	3014765 A	BEACON LIGHT HARNESS		EA
1	514404 001	FLASHING BEACON BLUE	1	EA
2	3028878	DEUTSCH	1	EA

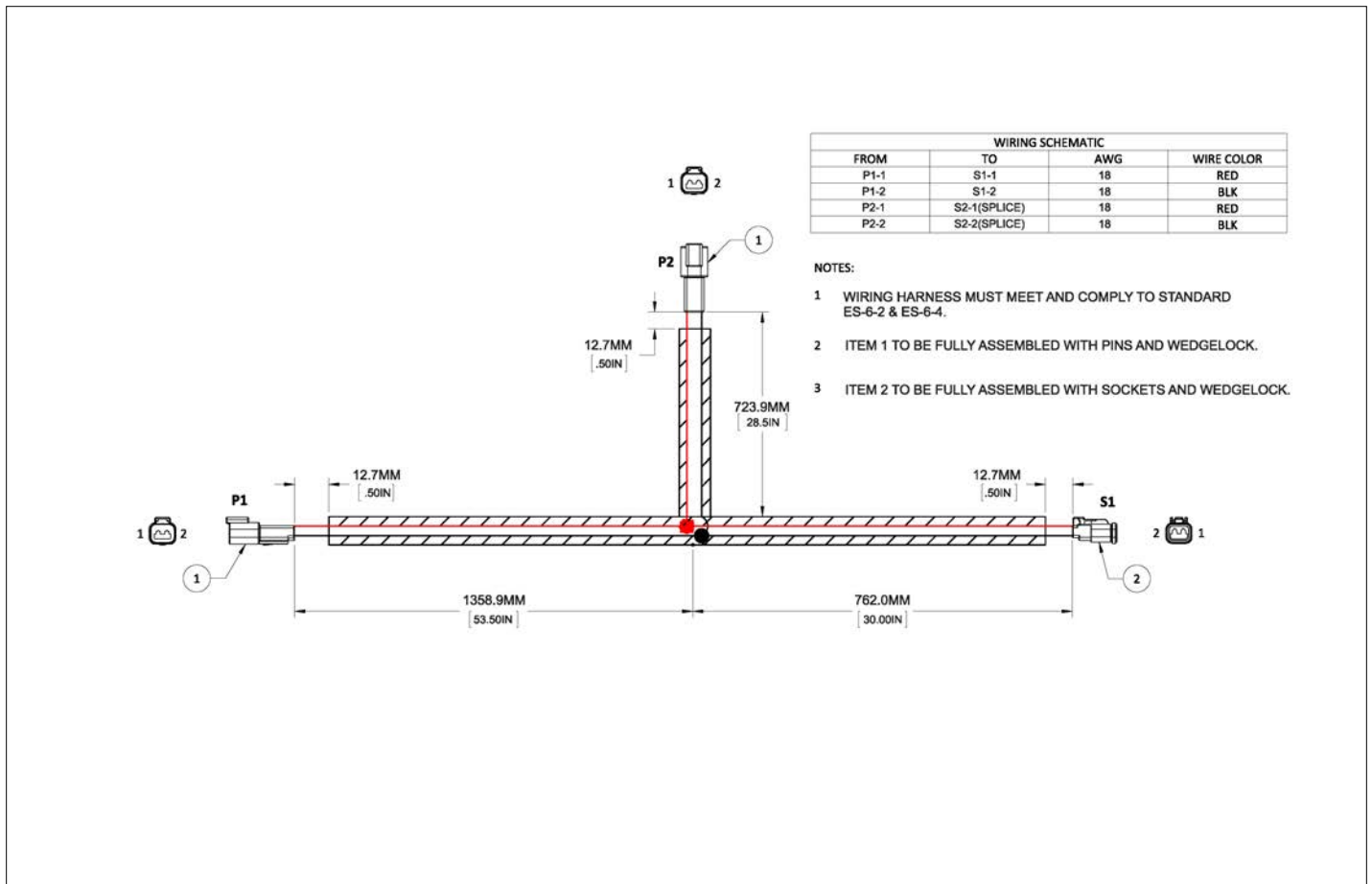
ELECTRICAL

WIRING SCHEMATIC				
FROM	TO	DESIGNATION	AWG	WIRE COLOR
P1-1	P2-1	NO	16	PINK
P1-2	P2-2	B+	16	BROWN
P1-3	P2-3	NC	16	WHITE
P1-4	P2-4	B+	16	YELLOW



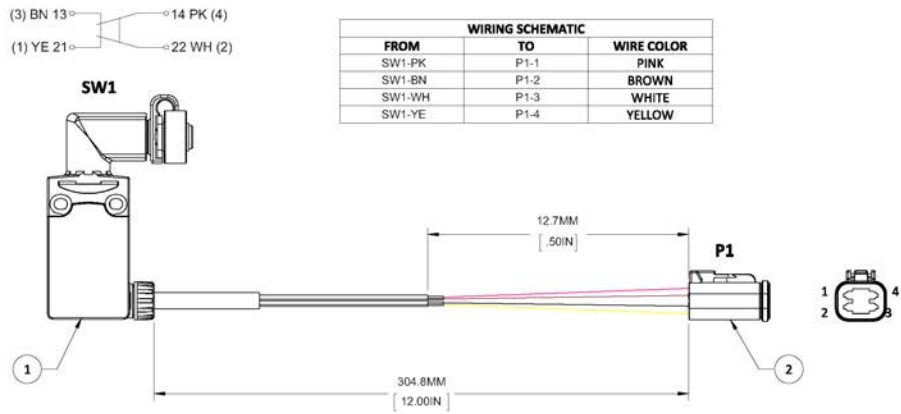
アイテム	部品番号	名前	数量	UOM
Not Shown	3014763 A	LOWER CONTROL TO LIMIT SWITCH HARNESS		EA
1	3028875	CNCTR 4WAY PLUG GREY DT04 4P	1	EA
2	3049888	CONNECTOR 4 PIN	1	EA

ELECTRICAL



アイテム	部品番号	名前	数量	UOM
Not Shown	3014781 A	LOWER CONTROL BOX TO AMBER LIGHT HARNESS		EA
1	3028879	CNCTR 2WAY PLUG GREY DT04 2P	2	EA
2	3028878	DEUTSCH	1	EA

ELECTRICAL

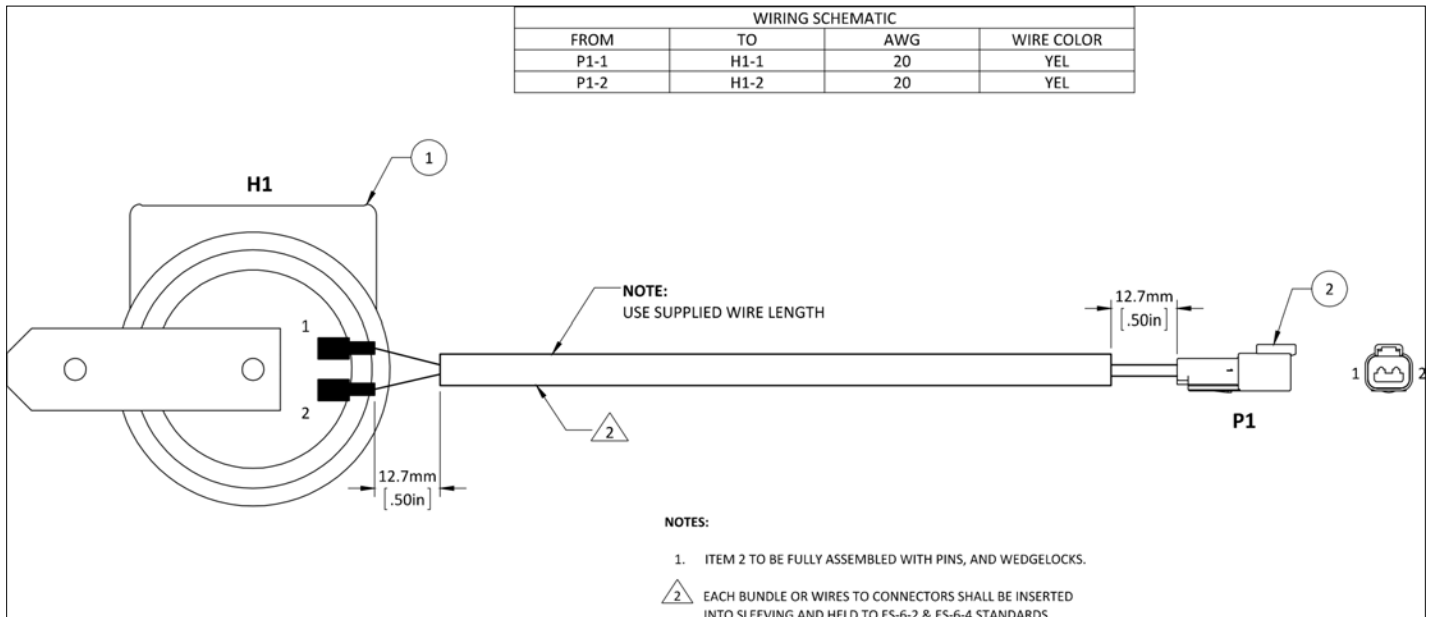


NOTES:

- 1. ITEM 2 TO BE FULLY ASSEMBLED WITH PINS, AND WEDGELOCKS.

アイテム	部品番号	名前	数量	UOM
Not Shown	3014764 A	ELEVATION SWITCH TO DT06 4S HARNESS		EA
1	3028869	SWITCH SAFETY SPDT SHMRSL PS116	1	EA
2	3049888	CONNECTOR 4 PIN	1	EA

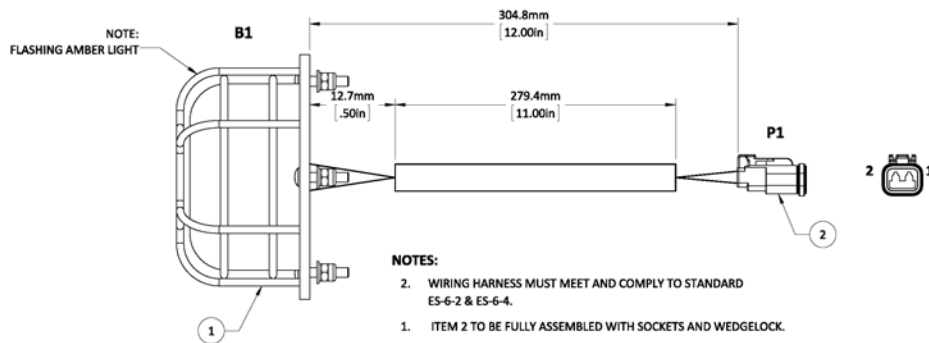
ELECTRICAL



アイテム	部品番号	名前	数量	UOM
	3014787 A	HORN ASSEMBLY		EA
1	3028879	CNCTR 2WAY PLUG GREY DT04 2P	1	EA
2	3040127	HORN 12VDC	1	EA

ELECTRICAL

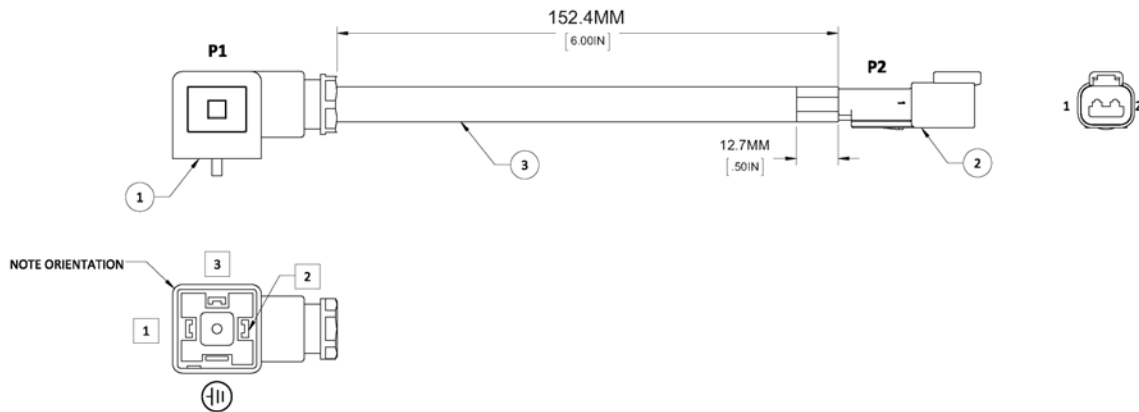
WIRING SCHEMATIC				
FROM	TO	DESIGNATION	AWG	WIRE COLOR
B1-RED	P1-1	VIN +	20	RED
B1-BLK	P1-2	VIN -	20	BLK



アイテム	部品番号	名前	数量	UOM
	3014788 A	AMBER RUNNING LIGHT HARNESS		EA
1	514404 000	BEACON WITH GUARD ANBER FLASHING	1	EA
2	3028878	DEUTSCH	1	EA

ELECTRICAL

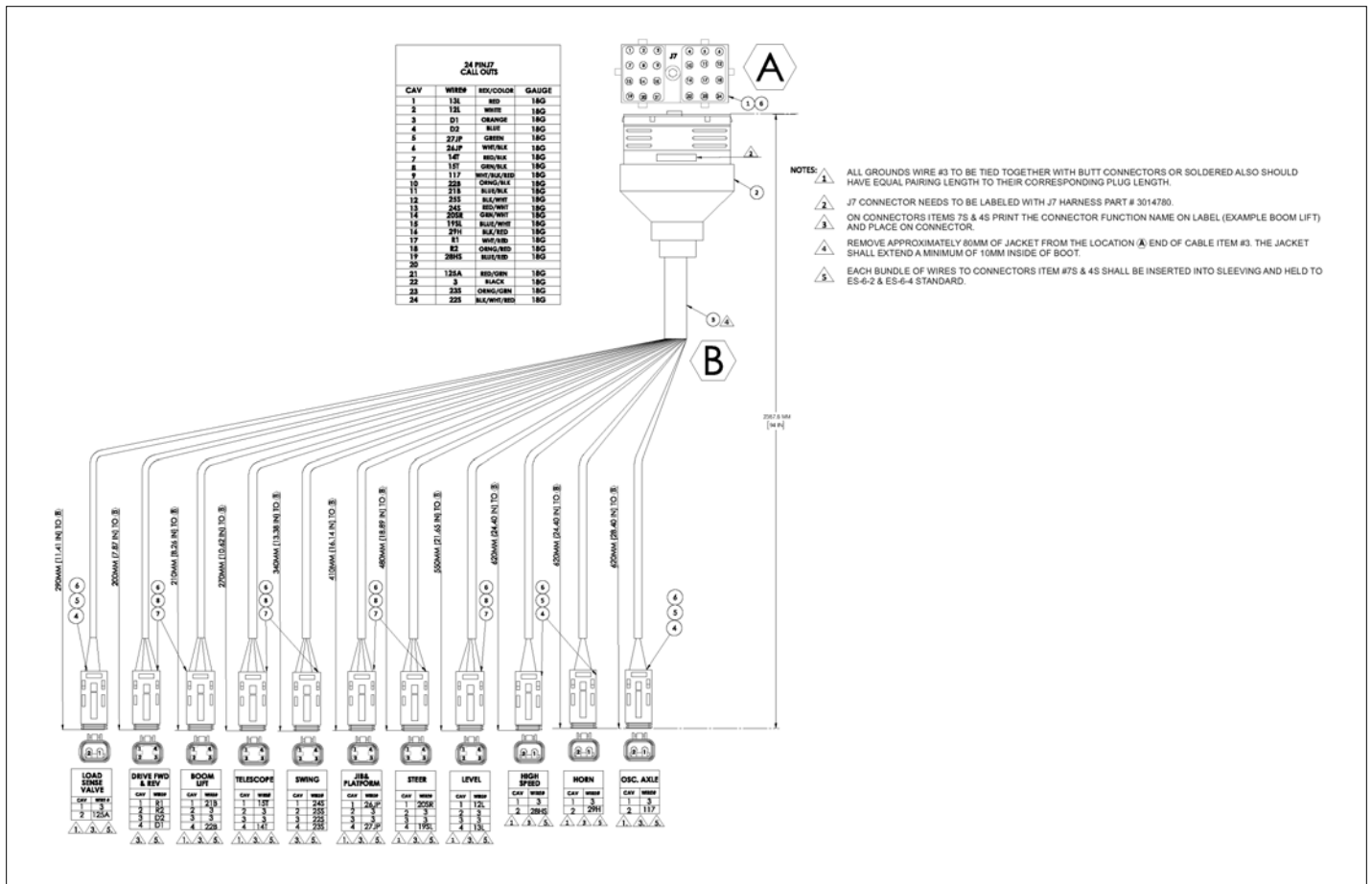
WIRING SCHEMATIC			
FROM	TO	AWG	WIRE COLOR
P1-1	P2-2	16	WHT
P1-2	P2-1	16	WHT



- NOTES:**
- 1 ITEM 3 TO BE INSERTED .50" INSIDE OF P1.
 - 2 ITEM 2 TO BE FULLY ASSEMBLED WIT PINS, AND WEDGELOCK.

アイテム	部品番号	名前	数量	UOM
Not Shown	3014769 A	SOLENOID DIN TO DT PLUG HARNESS		EA
1	3028882	VALVE CONNECTOR, 4 POS., TYPE A DIN 43650	1	EA
2	3028879	CNCTR 2WAY PLUG GREY DT04 2P	1	EA
3	3028883	CABLE, 16 AWG, 2 COND. O.D. .417"	1	EA

ELECTRICAL



アイテム	部品番号	名前	数量	UOM
Not Shown	3014780 A	MAIN MANIFOLD HARNESS 660SJ GEN 1		EA
1	015790 012	CONNECTOR, 24 PIN	1	EA
2	015790 013	BOOT BLACK	1	EA
3	3014752	CABLT, 24 COND, 18GA	A/R	EA
4	3049803	CONNECTOR 2 PIN DEUTSCH PLUG	4	EA
5	3049807	LOCK WEDGE 2 PIN DEUTSCH PLUG	4	EA
6	3040342	SOCKET CONTACT SIZE 16 16/18GA	59	EA
7	3049888	CONNECTOR 4 PIN	7	EA
8	3049890	LOCK WEDGE 4 PIN	7	EA

Maintenance

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

Caution

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

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

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

Maintenance Schedules

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

This schedule includes the following:

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

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

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

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

Warning

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

Repair all defects before returning the machine to service.

General Information

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

Danger

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

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

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

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

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

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

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

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

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

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

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

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

“Safety First” is a good slogan.

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

Daily Prestart Inspection

Item	Inspect For	Ok
Operator's Manual	In place, all pages readable and intact	
Engine		
Oil level	Between full and add marks	
Coolant	Proper fluid level	
Radiator	Cap tight, good condition and clean	
Fuel tank and line	Tank full, cap in place and tight/ no leaks	
Electrical System		
Battery	Condition and charged for proper operation	
Battery fluid level and terminals	Proper level/clean, connectors tight	
Cables and wiring harness	No wear or physical damage	
Hydraulic System		
Fluid level	Between full and add marks	
Hose, tubes and fittings	No leaks	
Cold weather warm-up kit	Proper operation	
Tires	Good condition	
Wheels	All wheel lug nuts present and properly torqued	
Lower Control Station		
Operating controls	Proper operation	
Emergency stop and emergency power	Shuts off lower controls/proper operation	
Level Sensor	Sounds tilt alarm	
Flashing Light	Proper operation	
All Motion Alarm	Sounds when machine is operated and/or driven	
Structures		
Weldments – Chassis, turntable, booms, platform, etc.	Welds intact, no damage or deformation – whiffle bracket straight	
Slide pads	In place, no damage or deformation	
Fasteners	In place and tight	
Wire ropes	No deformation or broken strands	
Upper Control Station		
Guardrail system and lanyard anchors	Welds intact, no damage or deformation	
Operating controls – Boom functions, drive, brakes, etc.	Proper operation	
Emergency stop and emergency power	Shuts off upper controls/proper operation	
Horn	Sounds when activated	
Snorkel Guard	Proper operation	
Placards and Decals	In place and readable	

Performed by: _____ Date: _____

Frequent Inspection and Maintenance – Every 90 Days or 150 Hours

Item	Procedure	Information	OK
Chassis			
Structural	Check for damage and cracked welds		
Steering cylinder snap rings	Verify that all fasteners are in place and are tight		
Oscillating axle lock cylinders and fasteners	Verify that all fasteners are in place		
Steering linkage	Check for proper operation		
Tires	Check for wear and damage		
Hydraulic tubes and hoses	Check for leaks, wear, and damage		
Drive motor brake	Check for proper operation		
Torque drive and steer wheel lug nuts per placard on wheel	Torque lug bolts/nuts to proper value on machine placard	Front: 180 to 200 ft lb Rear: 180 to 200 ft lb	
Right drive motors	Check for leaks		
Left drive motors	Check for leaks		
Tie-down and lifting lugs	Check for damage and cracked welds		
Decals and placards	Check for damage and readability Order replacements as necessary		
Turntable			
Structural	Check for damage and cracked welds		
Torque turntable top bolts	Torque to proper value	380 ft lbs	
Torque turntable bottom bolts	Torque to proper value	240 ft lbs	
Hydraulic tubes and hoses	Check for leaks, wear, and damage		
Centerpost	Check for leaks, wear, and damage		
Centerpost mounting bolts	Verify that all fasteners are in place and are tight		
Lift cylinder pin caps and tie wire	Verify that all fasteners are in place and are tight		
Lift cylinder and holding valve	Check for leaks, wear, damage, and for proper operation		
Master level cylinder pin caps and tie wire	Verify that all fasteners are in place and are tight		
Master level cylinder and holding valves	Check for leaks, wear, damage, and for proper operation		
Emergency bleed down valve	Check for proper operation		
Cowling	Check for wear/damage and that fasteners are in place and are tight		
Wire harness	Check for wear/damage and that fasteners are in place and are tight		
Rotation brake	Check for proper operation		
Rotation backlash	Check for wear and damage		
Operator's Manual	Proper manual in document holder		
System pressure	Check maximum system pressure	4,900 – 5,000 psi	
Decals and placards	Check for damage and readability Order replacements as necessary		

Frequent Inspection and Maintenance – Every 90 Days or 150 Hours

Item	Procedure	Information	OK
Lower Controls			
Control switch in the lower controls position	Check for proper operation	With selector in the lower controls position, upper controls do not work	
Station selector switch in the upper controls position	Check for proper operation	With selector in the upper controls position, lower controls do not work	
Engine Start – Stop	Check for proper operation		
Throttle High – Low	Check for proper operation		
Turntable CW – CCW	Check for proper operation		
Boom elevation Up – Down	Check for proper operation		
Boom Extend – Retract	Check for proper operation		
Jib Up – Down	Check for proper operation		
Jib rotation CW – CCW	Check for proper operation		
Platform level Up – Down	Check for proper operation		
Platform rotation CW – CCW	Check for proper operation		
Emergency power, all functions	Check for proper operation		
Emergency stop	Check for proper operation		
Booms			
Structural	Check for damage and cracked welds		
Lift cylinder pin caps and tie wire	Verify that all fasteners are in place and are tight		
Hydraulic tubes and hoses	Check for leaks, wear, and damage		
Extension cylinder pin caps and bolt retainer	Verify that all fasteners are in place and are tight		
Extension cylinder and holding valve	Check for leaks, wear, damage, and for proper operation		
Jib boom pin caps and snap rings	Verify that all fasteners are in place and properly installed		
Jib cylinder pin caps and snap rings	Verify that all fasteners are in place and properly installed		
Jib cylinder and holding valve	Check for leaks, wear, damage, and for proper operation		
Slave level cylinder pin caps and tie wire	Verify that all fasteners are in place and are tight		
Slave level cylinder and holding valves	Check for leaks, wear, damage, and for proper operation		
Hose carrier tube and support	Check for residue buildup/proper operation		
Plastic hose track	Check for wear and damage		
Electrical wires	Check for wear and damage		
Decals and placards	Check for damage and readability Order replacements as necessary		
Extension System			
Sheaves and wire rope anchors	Check for wear and damage		
Wire ropes	Check for wear and damage		
Cables	Check for proper installation		
Cables	Properly tensioned		
Whiffle bracket	Check for proper installation	Bracket should be straight	

Frequent Inspection and Maintenance – Every 90 Days or 150 Hours

Item	Procedure	Information	OK
Platform			
Structural	Check for damage and cracked welds		
Entry Gate	Check for proper operation		
Hydraulic tubes and hoses	Check for leaks, wear, and damage		
Slave level cylinder pin caps and tie wire	Verify that all fasteners are in place and are tight		
Slave level cylinder holding valves	Check for leaks, wear, damage, and for proper operation		
Decals and placards	Check for damage and readability Order replacements as necessary		
Upper Control Station			
Foot switch	Check for proper operation	Functions should be operational when foot switch is engaged	
Engine Start – Stop	Check for proper operation		
Throttle High – Low	Check for proper operation		
Turntable CW – CCW	Check for proper operation		
Boom elevation Up – Down	Check for proper operation		
Boom Extend – Retract	Check for proper operation		
Jib Up – Down	Check for proper operation		
Platform level Up – Down	Check for proper operation		
Platform rotation CW – CCW	Check for proper operation		
Drive speed	Boom up and/or extended Low – 0.75 mph	0.75 mph = 100 ft in 86 to 96 sec	
	Boom down and retracted High – 3.5 mph	3.5 mph = 100 ft in 18 to 21 sec	
Drive range – boom stowed	Check for proper operation	Slow speed only with boom raised	
Engine choke – gas engine only	Check for proper operation		
Emergency power, all functions	Check for proper operation		
Emergency stop	Check for proper operation		
Horn	Check for proper operation		
Gradual start to stop lift/swing/ drive controls	Check for proper operation		
Speed limit switch	Check for proper operation		
Tilt alarm	Check for proper operation	5° NonCE/3.5° CE	
110 volt AC power to platform	Check for proper operation		
Hydraulic Oil Reservoir			
Filler/breather cap and tank	Check for wear/securely fasten		
Hydraulic fluid level	Check for proper level	Dexron III ATF	
Hydraulic filter	Replace after the first 50 hours, every 90 days or 150 hours thereafter Inspect filter for foreign matter that could indicate component wear		

Frequent Inspection and Maintenance – Every 90 Days or 150 Hours

Item	Procedure	Information	OK
Engine			
Charging system	Check for proper operation		
Air filter	Check for wear and damage		
Hour meter	Check for proper operation		
Belts and hoses	Check for wear and damage		
Hydraulic pump	Check for proper operation		
Battery terminals	Clean terminals and check cable condition		
Battery voltage	Check for proper voltage		
Indicator gauges	Check for wear/damage and proper operation		
Engine oil	Check for wear and damage/level	Between add and full	
Engine coolant	Check level	Between add and full	
Engine Start – Stop	Check for proper operation		
Electric throttle	Check for proper operation		
Electric choke, if equipped	Check for proper operation		
Engine governor setting	Check for proper operation		
Platform Rotator			
Structural	Check for damage and cracked welds		
Hydraulic rotator actuator	Check for leaks, wear, and damage		
Platform rotation holding valve	Check for proper operation		
Mounting bolts and pin caps	Verify that all fasteners are in place and are tight		
Options			
110 volt AC generator	Check for proper operation		
220 volt AC generator	Check for proper operation		
Dual fuel system	Check condition and for proper operation		
LP gas system and control	Check condition and for proper operation		
Drive motion alarm	Check for proper operation		
Flashing light	Check for proper operation		
Cold weather start kit – diesel only	Check for proper operation		
Hydraulic system cold weather warm up kit	Check for proper operation		
Driving lights	Check for proper operation		
Platform work lights	Check for proper operation		
Platform control cover	Check condition and for proper operation		
Sandblast protection kit	Check for proper operation		
Airline to platform	Check for proper operation		
Spark arrestor muffler – Deutz only	Check for wear and damage		
Platform welder	Check condition and for proper operation		
Platform glazier package	Check condition and for proper operation		
Optional platform	Verify that all fasteners are in place and are tight		

Frequent Maintenance – Every 90 Days or 150 Hours

Item	Procedure	Information	OK
Daily maintenance	Perform maintenance as per schedule	Retain copy of checklist	
Preventive inspection maintenance checklist	Perform inspection, complete form	Retain copy of checklist	
Placards and decals inspection	Inspect using drawing and parts listing in Section 1 – Repair Parts Manual	Replace any missing or unreadable decals/placards	
Door hinges and latches	Lubricate	SAE 10W oil or spray lubricant	
Rotation bearing	Lubricate	Conoco Super Sta #2 Above 32° F Mobilgrease CM-P Below 32° F Mobilgrease CM-L	
Rotation bearing teeth and pinion	Lubricate	Mobil Mobiltac 375NC	
Tie rods	Lubricate	Conoco Super Sta #2 Above 32° F Mobilgrease CM-P Below 32° F Mobilgrease CM-L	
Gear hubs	Check fluid level, fill if low	Mobil Mobilube HD 80W-90	
Swing drive	Check fluid level, fill if low	Mobil Mobilube HD 80W-90	
Platform rotator	Refill if disassembled for repairs	Consult factory	
Platform controller	Check smooth operation/speeds		
Batteries	Check specific gravity	1.260/1.275 at 80° F (26° C)	
Hydraulic return filter	Check condition	Replace if dirty	
Engine rpm	Check for proper engine rpm	See engine owner's manual	
Engine oil and filter	Replace per engine owner's manual	See engine owner's manual	
Engine fuel filter	Check condition	Replace every 6 months or if dirty	

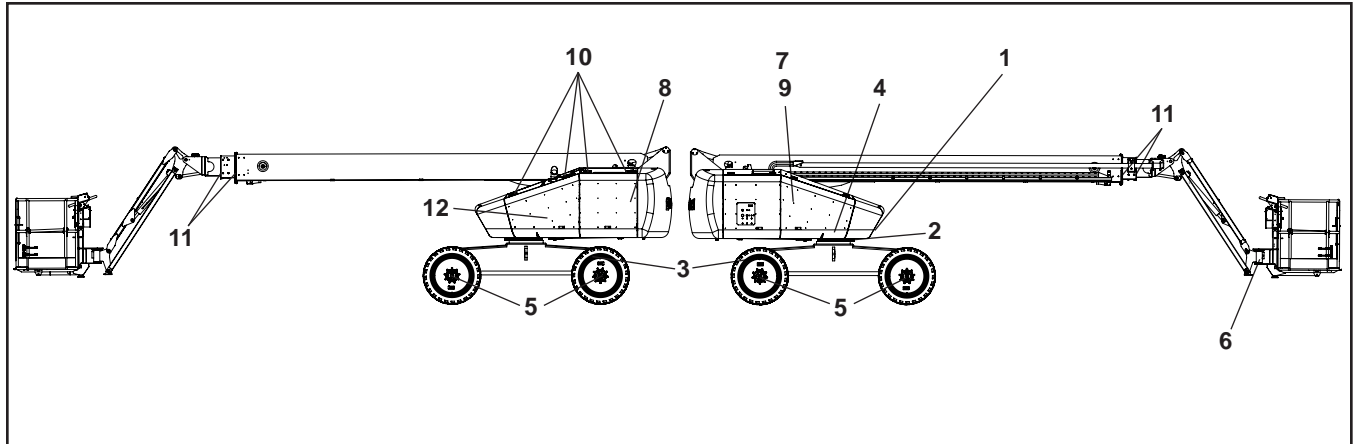
Performed by: _____ Date: _____

Annual Maintenance – Every 500 Hours

Item	Procedure	Information	OK
90 day or 150 hour maintenance	Perform maintenance per schedule	Retain copy of checklist	
Hydraulic oil reservoir	Clean and replace fluid	Dexron III ATF	
Hydraulic return filter	Replace	After first 50 hours, then at recommended interval	
Hydraulic high pressure filter	Clean and reinstall		
Hydraulic pressures	Pump setting	Standby pressure: 300 psi	
	Function pressures	Boom up: 2,900 – 3,000 psi	
		Boom down: 1,750 – 1,850 psi	
		Steer: 1,100 – 1,200 psi	
		Level: 2,800 – 2,950 psi	
		Extend/Retract: 2,850 – 2,950 psi	
Swing: 1,450 – 1,550 psi			
Gear hubs	Replace fluid	Mobil Mobilube HD 80W-90	
Swing drive	Replace fluid	Mobil Mobilube HD 80W-90	
Engine coolant	Check condition	See engine owner's manual	

Performed by: _____ Date: _____

Lubrication Points



Lubrication

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

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

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

Rotation Bearing

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

Rotation Gear Teeth and Pinion

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

Tie Rods

Tie rods – Item 3. Lubricate at recommended interval using lubricant as outlined in the maintenance schedule.

Swing Drive

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

Gear Hubs

Gear hubs – Item 5. To check and fill Gear hubs:

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

Note

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

Platform Rotator

Platform Rotator – Item 6. Platform rotators will require lubrication only if disassembled for repairs. Consult factory for proper lubricant if replacement of platform rotator is required.

Hydraulic Oil Reservoir

Hydraulic oil reservoir – Item 7. The fluid level should be kept between the full and add marks on the sight gauge and should be checked with the machine in the stowed position.

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

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

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 for further information.

Engine

Engine – Item 8. 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 Return Filter

Return filter – Item 9. The hydraulic oil return filter is mounted inside of the hydraulic oil reservoir.

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

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

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

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

Warning

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

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

Door Hinges and Latches

Door hinges and latches – Item 10. After lubricating, remove any excess lubricant or over spray so it will not collect dirt or debris.

Slide Pads

Slide pads – Item 11. Check slide pads for excessive wear and replace as required. Slide pads do not require lubrication.

Batteries

Batteries – Item 12. Batteries will have longer life if the water level is maintained and they are kept charged. The engine will have better starting characteristics with a fully charged battery. In cold weather the battery should be maintained at full charge to keep from freezing. An extremely low or dead battery can freeze in cold weather. Make sure connections are clean and tight.

Make sure charging equipment is operating properly.

Danger

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

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

Battery Care and Maintenance





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

1. New batteries need to be cycled several times before reaching full capacity (20-50 cycles, depending on type). Usage should be limited during this period.
2. Always recharge batteries fully, immediately after use. Batteries perform best when they are fully charged. More capacity and longer life will result from this practice.
3. The deeper the discharge, the fewer number of cycles a lead-acid battery will deliver. Deep discharges deteriorate the battery quicker than lighter shallow cycles.
4. Battery cables should be intact and connectors kept tight at all times. Systematic inspection is recommended.
5. Batteries should be kept clean – free of dirt and corrosion – at all times. Always keep the top of batteries clean. A film on top of the battery can cause the current to migrate between the posts, accelerating self discharge.
6. A fully charged battery will give you the best and longest service. Be sure the batteries are fully charged before testing or using. A fully charged battery, without a drain or load, after the surface charge has dissipated, is 6.35 volts for a 6 volt battery.
7. Batteries should not be discharged below 20% of capacity (approximately 1.8 volts per cell under normal operating load; 1.98 volts open circuit; 1.145 specific gravity). Proper battery sizing will help avoid excessive discharge.
8. Battery chargers should be sized to fully charge batteries in an eight hour period. Chargers should be kept in proper operating condition.
9. Do not use a mismatched charger of any type; i.e., a 12 volt charger on a 24 volt pack or a 24 volt charger on a 12 volt pack. An undersized charger will never

get the job done, no matter how long it tries. An oversized charger will cause excess gassing and heat that could possibly result in a battery meltdown and/or explosion.

10. Never charge a lead-acid battery with a sealed (gel cell) battery charger. The lead-acid battery needs higher voltage to finish its charge. Without it the battery will never come back to 100% and sulfation can occur.
11. Always allow batteries to cool off after charging. The cooling time is very important because heat is generated during the recharge and discharge cycles. Without the cooling time the heat grows, accelerating grid corrosion which is one of the major causes of battery failure. Charging practice should enable batteries to cool before use.
12. Deep cycle batteries need to be equalized periodically. Equalizing is an extended, low current charge performed after the normal charge cycle. It helps keep cells in balance. Actively used batteries should be equalized once per week. Manually timed chargers should have the charge time extended approximately 3 hours. Automatically controlled chargers should be unplugged and reconnected after completing a charge cycle.
13. In situations where multiple batteries are connected in series, parallel or series-parallel, a replacement battery's should be of the same size, age and usage level as the companion batteries. Do not put a new battery in a pack that has 50 or more cycles. Either replace all the batteries with new batteries or install a good used battery's in place of the bad. New batteries should be given a full charge before use.
14. Periodic battery testing is an important preventative maintenance procedure. Hydrometer readings of each cell (fully charged) give an indication of balance and true charge level. Imbalance could mean the need for equalizing and is often a sign of improper charging or a bad cell. Voltage checks (open circuit, charged and discharged) can locate a bad cell or weak battery. Load testing will pick out a bad cell when other methods fail. The point is to look for the abnormal. A weak cell or battery will cause premature failure of companion cells or batteries respectively.
15. As batteries age, their maintenance requirements change, Generally their specific gravity is higher and gassing voltage goes up. This means longer charging time and/or higher finish rate (higher amperage at the end of charge). Usually, older batteries need to be watered more often and their capacity decreases.
16. "Opportunity charging", a short partial charge during an extended duty cycle, is a controversial subject. Generally, the practice is a "crutch" to make up for undersized batteries. The correct approach is to install adequate battery capacity. If this is impossible because of lack of space in the battery compartment or extreme operating conditions (24 hour intermittent use, as an example), "opportunity charging" is better than excessive battery discharging. However, the practice can cause batteries to overheat, require more watering and usually will shorten battery life. "Opportunity charging" is a trade off; something to avoid if possible. One charging cycle per day is preferable.
17. Extreme temperatures can substantially affect battery performance and charging. Cold reduces battery capacity and retards charging. Heat increases water usage and can result in overcharging. Very high temperature can cause "thermal run away" which may lead to an explosion or fire. If extreme temperature is an unavoidable part of an application, consult a battery/charger specialist about ways to deal with the problem.
18. An overly discharged battery might need to be cycled a few times before it can recover fully. If a battery begins to heat before coming up to a full charge, it might be necessary to discharge the battery and recharge it a few times. The charge and discharge cycle might help the current acceptance of the battery and facilitate its recovery to a usable condition.
19. Inactivity can be harmful to deep cycle batteries. If they sit for several months, a "boost" charge should be given – more frequently in warm climate (about once a month) than in cold (every 2-3 months).
20. Never store a battery in a discharged state. The sulfate that forms during discharge can make the battery impossible to recharge fully.

Fastener Torque Chart

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

Torque chart information:

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

Fastener Torque Chart – Metric System

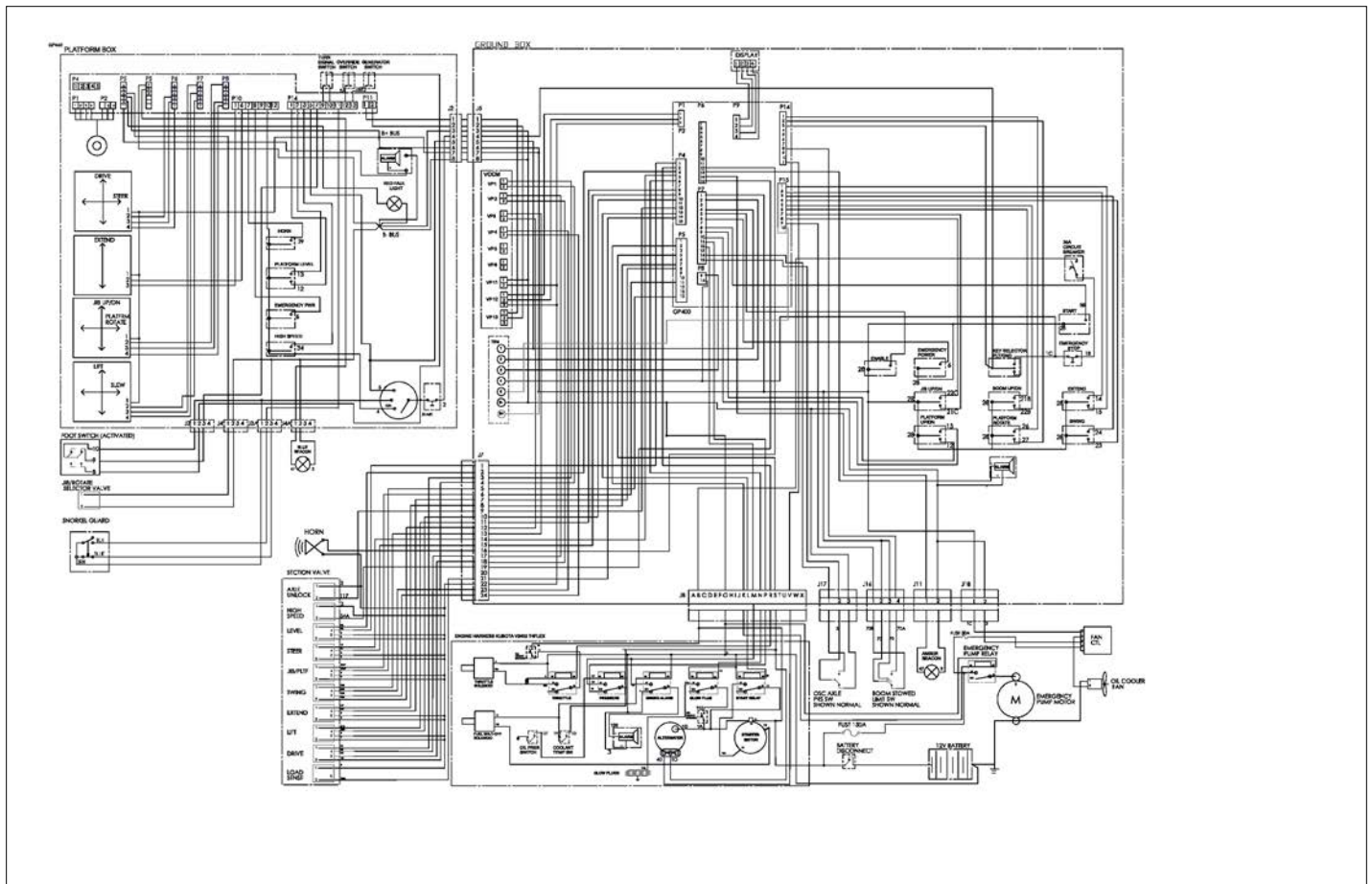
Capscrew Size	Grade 8.8					Grade 10.9				
	In-LBS Dry	In-LBS Lubed	FT-LBS Dry	FT-LBS Lubed	Clamp Load (lb)	In-LBS Dry	In-LBS Lubed	FT-LBS Dry	FT-LBS Lubed	Clamp Load (lb)
M4 - 0.7	27	20			861	36	24			1,173
M5 - 0.8	55	41			1,394	72	60			1,895
M6 - 1.0	93	70			1,971	132	96			2,686
M8 - 1.25	228	168	19	14	3,591	312	228			4,889
M8 - 1.0	240	180	20	15	3,844	336	252			5,232
M10 - 1.5			37	28	5,693			51	38	7,744
M10 - 1.25			39	30	6,008			54	41	8,171
M12 - 1.75			65	49	8,273			89	66	11,257
M12 - 1.25			71	53	9,037			96	72	12,297
M14 - 2.0			103	77	11,285			140	107	15,354
M14 - 1.5			114	85	12,263			155	114	16,691
M16 - 2.0			162	122	15,404			221	166	20,963
M16 - 1.5			173	129	16,388			236	177	22,311
M18 - 2.5			222	167	19,423			235	176	
M18 - 1.5										
M20 - 2.5			317	236	24,042			428	321	32,720
M20 - 1.5			350	262	26,695			479	358	36,316
M22 - 2.5			428	321	30,651			452	339	
M22 - 1.5										
M24 - 3.0			546	409	34,642			745	557	47,141
M24 - 2.0			594	446	37,676			811	605	51,277
M27 - 3.0			796	597	45,039			1,084	811	61,292
M27 - 2.0			863	645	58,785			1,173	848	66,226
M30 - 3.5			1084	811	55,054			1,475	1106	74,915
M30 - 3.0			1121	841	56,908			1,527	1143	77,444
M30 - 2.0			1202	900	60,932			1,630	1224	82,917

Rev D

Torque chart information:

- Consult manufacturers' specific recommendations, when available.
- The chart may be used with both coarse and fine thread fasteners lightly lubricated.
- Increase torque by 20% when multiple tapered tooth (shake proof) lock washers are used.
- Foot/pound equivalent may be obtained by dividing by 12.
- Inch/pound equivalent may be obtained by multiplying by 12.
- Newton/meter equivalent may be obtained by multiplying inch/pound by 0.1130.
- Newton/meter equivalent may be obtained by multiplying foot/pound by 1.3558.

SCHEMATICS



GP440 I/O LIST

P1-1	VCCM-P12-1
P1-2	VCCM-P12-2
P1-3	VCCM-P12-3
P12-1	J1939 THROTTLE ACTUATOR (CAN H)
P12-2	J1939 THROTTLE ACTUATOR (CAN L)
P4-1	PLATFORM LEVEL UP
P4-2	THROTTLE RELAY
P4-4	PLATFORM LEVEL DOWN
P4-5	STEER RIGHT
P4-6	GLOW PLUG RELAY
P4-7	SNORKEL GUARD BLUE FLASHING LIGHT
P4-8	BOOM LIFT DOWN
P4-9	STEER LEFT
P4-10	BOOM LIFT UP
P4-12	AXLE OSCILLATE VALVE (ENERGIZED=NO LOCK)
P4-13	STARTER RELAY
P4-14	LOAD SENSE DUMP VALVE
P4-15	BRAKE RELEASE VALVE
P5-2	EMERGENCY POWER RELAY
P5-3	HOUR METER
P5-5	IGNITION RELAY / THROTTLE ACTUATOR SUPPLY
P5-6	GENERATOR (OUTPUT TO RELAY)
P5-7	BOOM RETRACT
P5-8	BOOM EXTEND
P5-9	TIPT/OVERLOAD LAMP
P5-11	JIB DOWN / PLATFORM ROTATE CW
P5-15	JIB UP / PLATFORM ROTATE CCW
P7-8	ENGINE START
P7-9	PLATFORM LEVEL UP
P7-10	PLATFORM LEVEL DOWN
P7-11	OIL PRESSURE ALARM
P7-12	ENGINE ALARM
P7-14	AXLE LOCK PRESSURE SW (NC)
P7-15	AXLE LOCK PRESSURE SW (NO)
P8-9	TBM #3
P8-14	TBM B-
P15-1	BOOM EXTEND
P15-2	BOOM RETRACT
P15-3	SWING CW
P15-4	SWING CCW
P15-5	BOOM UP
P15-6	BOOM DOWN
P15-7	JIB UP / PLATFORM ROTATE CCW
P15-8	JIB DOWN / PLATFORM ROTATE CW
P15-9	ELEVATION SW. (NO)
P15-10	TBM#5 (BOOST SUPPLY)
P14-1	PLATFORM ROTATE CCW
P14-2	PLATFORM ROTATE CW
P14-8	ELEVATION SW. (NC)
P14-11	ALTERNATOR-TACH PULSE

GP440C I/O LIST

P1-1	LOAD CELL BROWN
P1-2	LOAD CELL YELLOW
P1-3	LOAD CELL PINK
P1-4	LOAD CELL GRAY
P2-2	LOAD CELL WHITE
P2-3	LOAD CELL GREEN
P11-1	P12-1
P11-2	P12-2
P6-1	DRIVE
P6-2	STEER
P7-1	LIFT
P7-2	SWING
P8-1	JIB
P8-2	PLATFORM ROTATE
P5-1	UPPER ALARM
P5-2	OVERLOAD (ON) / TILT (FLASHING) LAMP
P5-3	12V SUPPLY FROM TBM B+
	PLATFORM ROTATE ENABLE VALVE
P5-4	(JIBFUNCTION WHEN DISABLE)
P5-7	BATTERY GROUND SUPPLY
P5-8	SNORKEL GUARD BLUE FLASHING LIGHT
P10-1	BOOM EXTEND/RETRACT
P10-7	HORN SWITCH
P10-8	EMERGENCY POWER (MOM)
P10-10	IGNITION
P14-1	PLATFORM LEVEL UP
P14-2	PLATFORM LEVEL DOWN
	DRIVE HIGH SPEED TURN P6-15
P14-3	ONLY IF ELEV. SW P15-9 IS AT 12V
P14-5	START SW (MOM)
P14-7	ENABLE FOOT SW
P14-9	LEFT TURN SIGNAL SW
P14-10	RIGHT TURN SIGNAL SW
P14-11	SNORKEL GUARD PROXI SW
P14-12	SNORKEL GUARD OVERRIDE SW
P14-13	GENERATOR (NO FUNCTIONS ALLOWED IF ON)
P4-1	LEFT TURN SIGNAL LIGHT
P4-2	RIGHT TURN SIGNAL LIGHT
P4-3	TAIL LIGHT

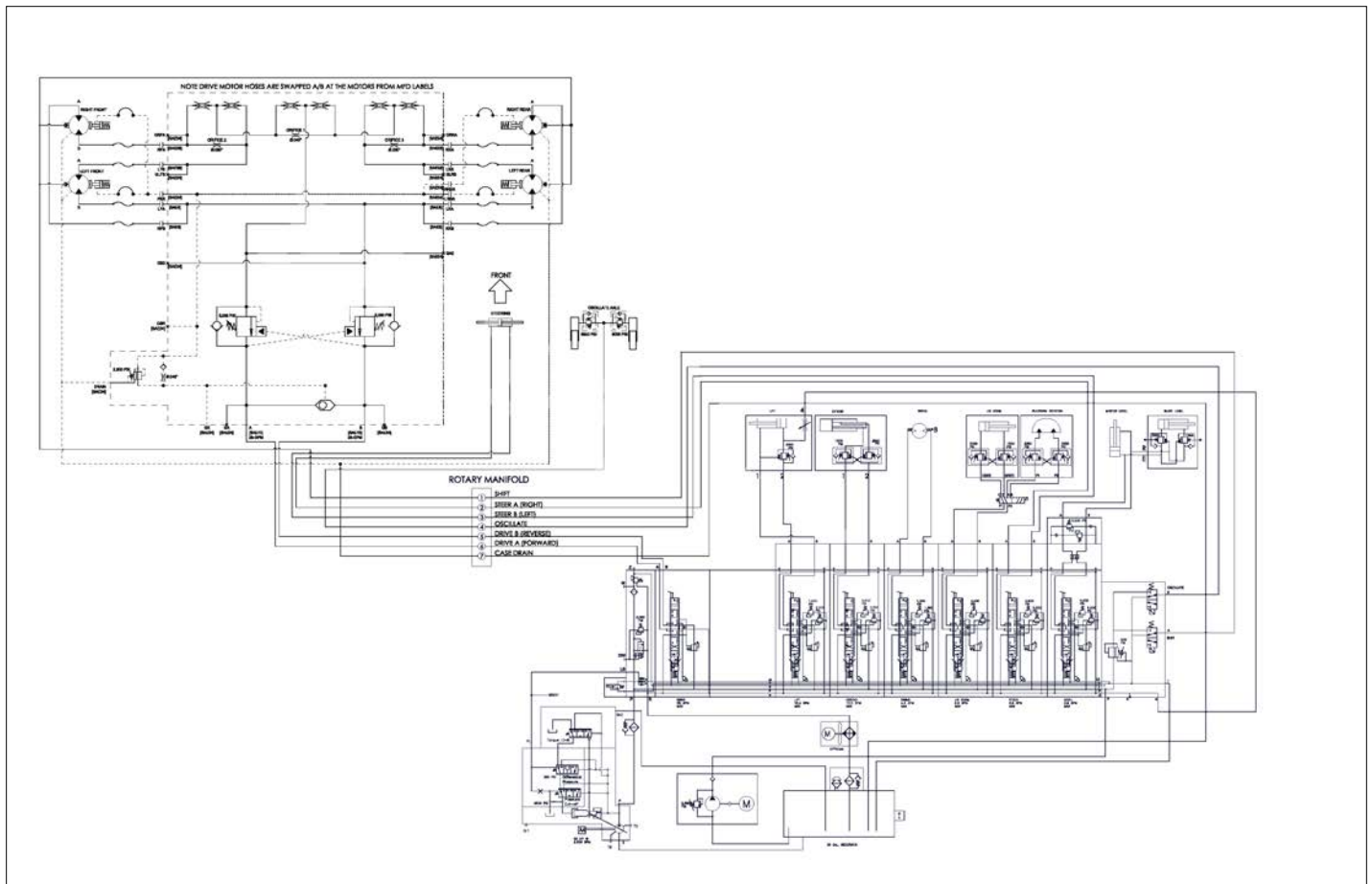
VCCM I/O LIST

VEHICLE NAME 660SJ	
VEHICLE # 6	
COMMENTS 1	
MIN AND MAX CURRENT VALUES ADDED IN MAY 2016	
PIN #	
VP1-1	VALVE 1 POSITIVE SUPPLY
VP1-2	CURRENT CONTROL PWM OUTPUT DRIVE FWD PROP. VALVE
	VALVE 1 MINIMUM CURRENT 0.3A
	VALVE 1 MAXIMUM CURRENT 1.3A
VP2-1	VALVE 2 POSITIVE SUPPLY
VP2-2	CURRENT CONTROL PWM OUTPUT DRIVE REVERSE PROP. VALVE
	VALVE 2 MINIMUM CURRENT 0.3A
	VALVE 2 MAXIMUM CURRENT 1.3A
VP3-1	VALVE 3 POSITIVE SUPPLY
VP3-2	CURRENT CONTROL PWM OUTPUT SWING CW PROP. VALVE
	VALVE 3 MINIMUM CURRENT 0.3A
	VALVE 3 MAXIMUM CURRENT 1.3A
VP4-1	VALVE 4 POSITIVE SUPPLY
VP4-2	CURRENT CONTROL PWM OUTPUT SWING CCW PROP. VALVE
	VALVE 4 MINIMUM CURRENT 0.3A
	VALVE 4 MAXIMUM CURRENT 1.3A

TERMINAL	FROM:	TO:
B+		P7-1 GP400 B+ SUPPLY TO ALL I/O
B-	B- BATTERY	B- SUPPLY TO ALL I/O TP P8-14 OF GP
1	PLATFORM SELECT SWITCH	P7-4 OF GP400
2	GROUND SELECT SWITCH	P7-2 OF GP400
3		P8-9 OF GP400
4	AFTER EMS GND	
5		P15-10

アイテム	部品番号	名前	数量	UOM
Not Shown	1432222 B	ELECTRIC SCHEMATIC		EA

SCHEMATICS



アイテム	部品番号	名前	数量	UOM
Not Shown	1432231 B	HYDRAULIC SCHEMATIC		EA

A	4-20
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