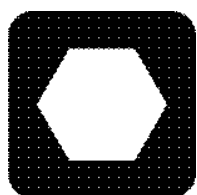


JT922

Parts Manual



Ditch Witch®

JT922

ISSUE NO. 06PL-06/11

For Replacement Copy Order **P/N 053-1134**

This manual contains information concerning the following models:
JT922 & JT922T4i Directional Drilling System

Copyright 2007, 2009, 2011 by The Charles Machine Works, Inc.



Ditch Witch, Ditch Witch, CMW, AutoCrowd, Jet Trac, Roto Witch, Subsite, Fluid Miser, Power Pipe, Super Witch, Pierce Arrow, Zahn, The Underground, and The Underground Authority Worldwide are registered trademarks of The Charles Machine Works, Inc.

ID0176431

FOREWORD

This manual contains illustrated parts lists to help you select quality ProTech[®] Replacement parts for your Ditch Witch[®] equipment. Using other replacement parts will lessen the productivity of your equipment.

- ◆ Part numbers enclosed in a box are no longer available from The Charles Machine Works, Inc. Your local Ditch Witch dealer may be able to locate the part for you.
- ◆ Footnotes provide more information to help you identify parts shown in the manual.
- ◆ Assembly instructions and Tech Bits articles referenced in footnotes are available through your local Ditch Witch dealer.
- ◆ Description and specifications in this book were current at publication. However, The Charles Machine Works, Inc. reserves the right to improve equipment, so this manual might not reflect the most current improvements.
- ◆ Instructions on recommended equipment use and maintenance are in the Operator's Manual that was shipped with your equipment.

Keep the following in mind when ordering ProTech replacement parts:

- ◆ Specify parts you need by part number and description, not by illustration reference numbers.
- ◆ Have equipment model and serial number on hand to help ensure you get the right parts for your machine whether it's old or new.

Thank you for buying and using Ditch Witch equipment and ProTech replacement parts.

WARRANTY

DW WARRANTY Policy
July, 2005

POLICY 1: DITCH WITCH® EQUIPMENT AND REPLACEMENT PARTS LIMITED WARRANTY POLICY

Subject to the limitation and exclusions herein, free replacement parts will be provided at any authorized Ditch Witch dealership for any Ditch Witch equipment or parts manufactured by The Charles Machine Works, Inc. (CMW) that fail due to a defect in material or workmanship within one (1) year of first commercial use (Exception: 2 years for all SK500 Attachments). Free labor will be provided at any authorized Ditch Witch dealership for installation of parts under this warranty during the first year following "initial commercial" use of the serial numbered Ditch Witch equipment on which it is installed. The customer is responsible for transporting their equipment to an authorized Ditch Witch dealership for all warranty work.

EXCLUSIONS FROM PRODUCT WARRANTY

- All incidental or consequential damages.
- All defects, damages, or injuries caused by misuse, abuse, improper installation, alteration, neglect, or uses other than those for which products were intended.
- All defects, damages, or injuries caused by improper training, operation, or servicing of products in a manner inconsistent with manufacturer's recommendations.
- All engines and engine accessories (these are covered by original manufacturer's warranty).
- Tires, belts, and other parts which are subject to another manufacturer's warranty. (Such warranty will be available to purchaser.)
- ALL IMPLIED WARRANTIES NOT EXPRESSLY STATED HEREIN, INCLUDING ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY.

IF THE PRODUCTS ARE PURCHASED FOR COMMERCIAL PURPOSES, AS DEFINED BY THE UNIFORM COMMERCIAL CODE, THEN THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE HEREOF AND THERE ARE NO IMPLIED WARRANTIES OF ANY KIND WHICH EXTEND TO A COMMERCIAL BUYER. ALL OTHER PROVISIONS OF THIS LIMITED WARRANTY APPLY INCLUDING THE DUTIES IMPOSED.

Ditch Witch products have been tested to deliver acceptable performance in most conditions. This does not imply they will deliver acceptable performance in all conditions. Therefore, to assure suitability, products should be operated under anticipated working conditions prior to purchase.

Defects will be determined by an inspection within thirty (30) days of the date of failure of the product or part by CMW or its authorized dealer. CMW will provide the location of its inspection facilities or it's nearest authorized dealer upon inquiry. CMW reserves the right to supply remanufactured replacement parts under this warranty as it deems appropriate.

Extended warranties are available upon request from your local Ditch Witch dealer or CMW.

Some states do not allow exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply. Further, some states do not allow exclusion of or limitation of how long an implied warranty lasts, so the above limitation may not apply. This limited warranty gives product owner specific legal rights and the product owner may also have other rights which vary from state to state.

For information regarding this limited warranty, contact CMW's Product Support Department, P.O. Box 66, Perry, OK 73077-0066, or contact your local Ditch Witch dealer.

CONTENTS

Decals

Decal Location – JT922/JT922S	8
-------------------------------------	---

Engine Components

Engine and Accessories	14
Engine and Accessories - Begins	16
Engine Installation	16
Engine Mounts	18
Exhaust System	20
Exhaust System - Begins	22
Air Filter	24
Air Filter - Begins	26
Battery	28
Battery Cables	30
Fuel Tank	32
Electrical Components	34
Front Engine Cover	36
Engine Enclosure Top	38
Engine Enclosure Top - Begins	40
Engine Enclosure	42
Engine Enclosure - Begins	44
Engine Access Panel	46
Engine Access Panel - Begins	48
Rear Cover	50
Rear Cover - Begins	52
Setup Valve	54
Engine Skid Mounting	56

Frame Components

Cylinder Grease	64
Drill Frame	65
Front Idler	62
Hose Carrier	80
Rotation Gearbox	78
Spindle Drive	76
Stabilizer & Pivot	68
Thrust Drive	74
Tracks	60
Wrench, Rotating	72
Wrench, Stationary	70

Operator's Station

Left Console	88
Operators Station	84
Right Console	86
Wrench Valve	90

Hydraulics

Anchor Hydraulics	114
Anchor Valve Hydraulics	112
Anchor Valve Service Parts	110
Carriage Hydraulics	136
Drilling Fluid Motor Hydraulics	116
Ground Drive Hydraulics	106
Hose Carrier Hydraulics	134
Hydraulic Cooler Bypass - Begins	102
Hydraulic Cooler Bypass - Ends	100

Hydraulic Cylinder (2.0"x1.0")	150
Hydraulic Cylinder (3.5"x1.75"x2.0")	148
Hydraulic Cylinder (3.5"x2.0")	152
Hydraulic Filter	98
Hydraulic Pump	94
Hydraulic Reservoir	96
Joystick Service Parts	126
Manifold Service Parts	118
Pilot Manifold Service Parts	124
Pilot Pressure and Return	120
Pilot Pressure and Return - Begins	122
Stabilizer/Tilt Hydraulics	108
Thrust/Rotation & Setup Supply	104
Thrust/Rotation Gauges	138
Thrust/Rotation Pilot Hydraulics	128
Thrust/Rotation Pilot Hydraulics - Begins	130
Thrust/Rotation Valve Hydraulics	132
Wrench Valve Hydraulics	142
Wrench Valve Service Parts	140
Wrench, Rotating Hydraulics	146
Wrench, Stationary Hydraulics	144

Anchor Systems

Anchor System	156
---------------------	-----

Fluid Systems

Drilling Fluid Plumbing	166
Drilling Fluid Pump Inlet – 13 Gal	164
Drilling Fluid Pump Inlet – 9 Gal	162
Mud Pump – 13 GPM	170
Mud Pump – 9 GPM	168
Water Tank	160

Accessories

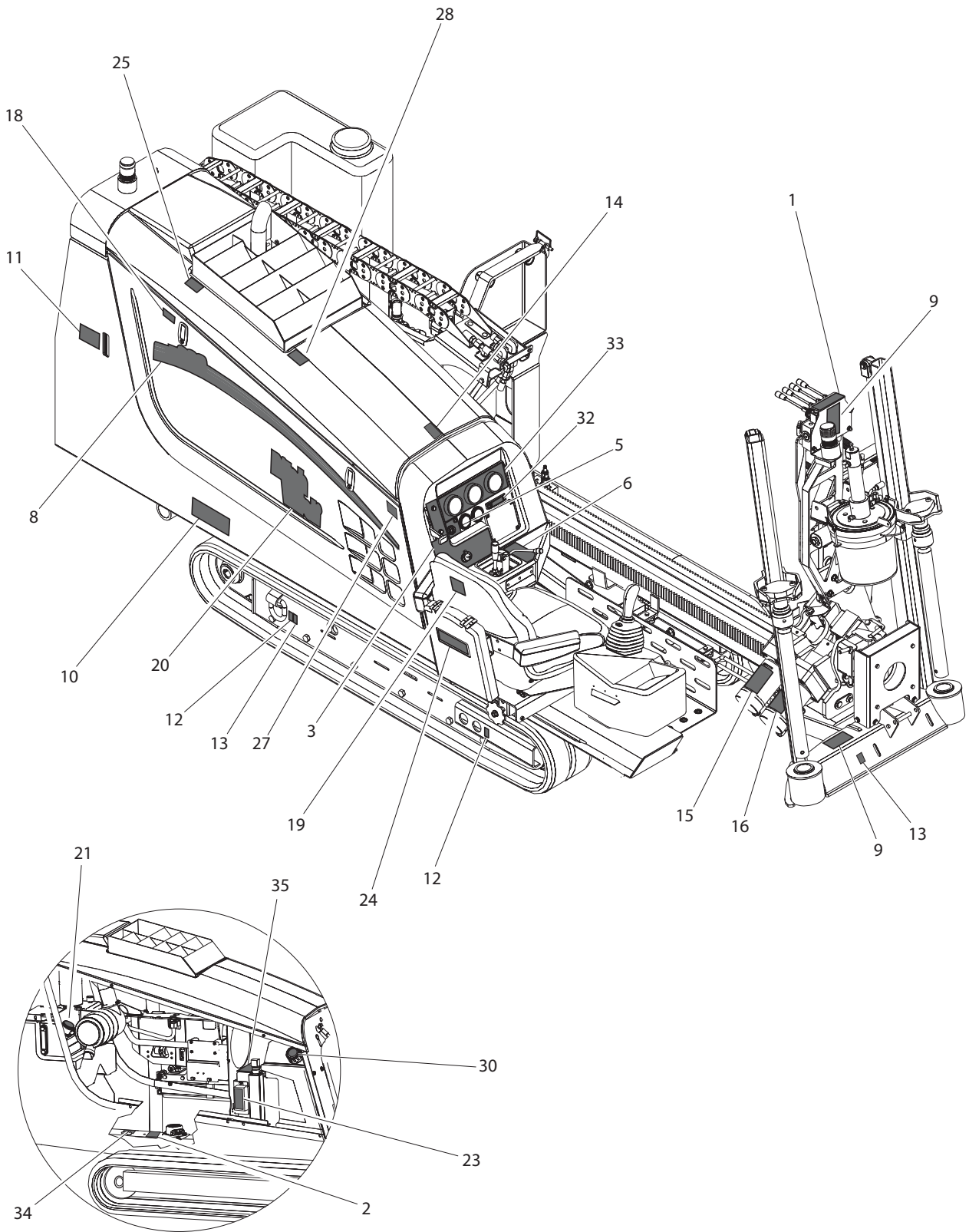
Auto Luber Assembly	174
Canopy	180
Grease Pump – Low Output	178
Grounding Cables	190
Lubricator Mount, Nozzle & Applicator	176
T18B Tie Down Kit	184
Umbrella Kit	182
Wash Wand	188
Wash Wand Plumbing	186

Miscellaneous

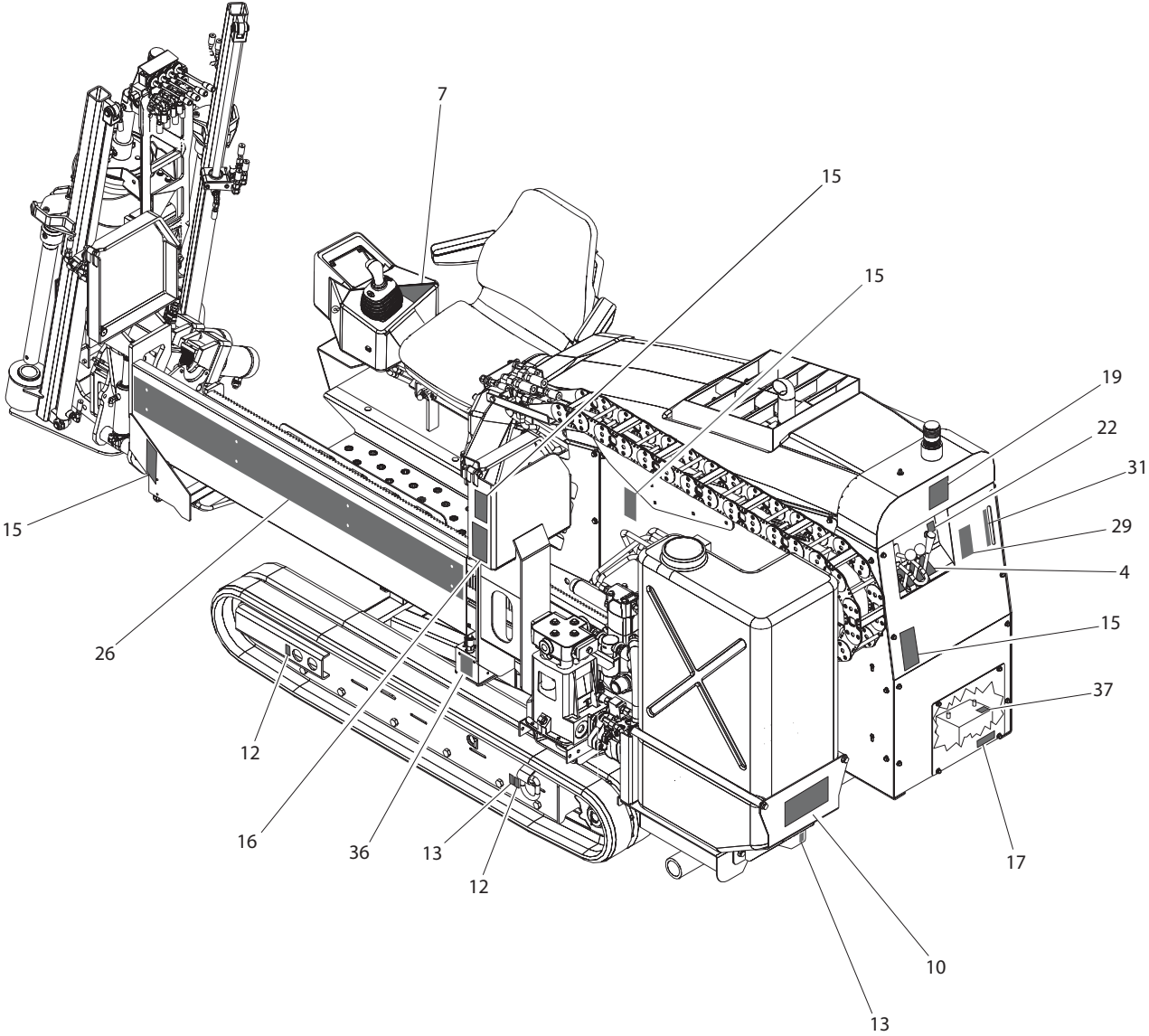
Bolt/Nut Torque Chart	194
Filters	198
Optional Kits	198
Parts Manual Change Request	199
Related Publications	198
Replacement O-Ring Chart	197
Warranty Registration	202

DECALS

DECAL LOCATION JT922



DECAL LOCATION JT922



DECAL LOCATION JT922

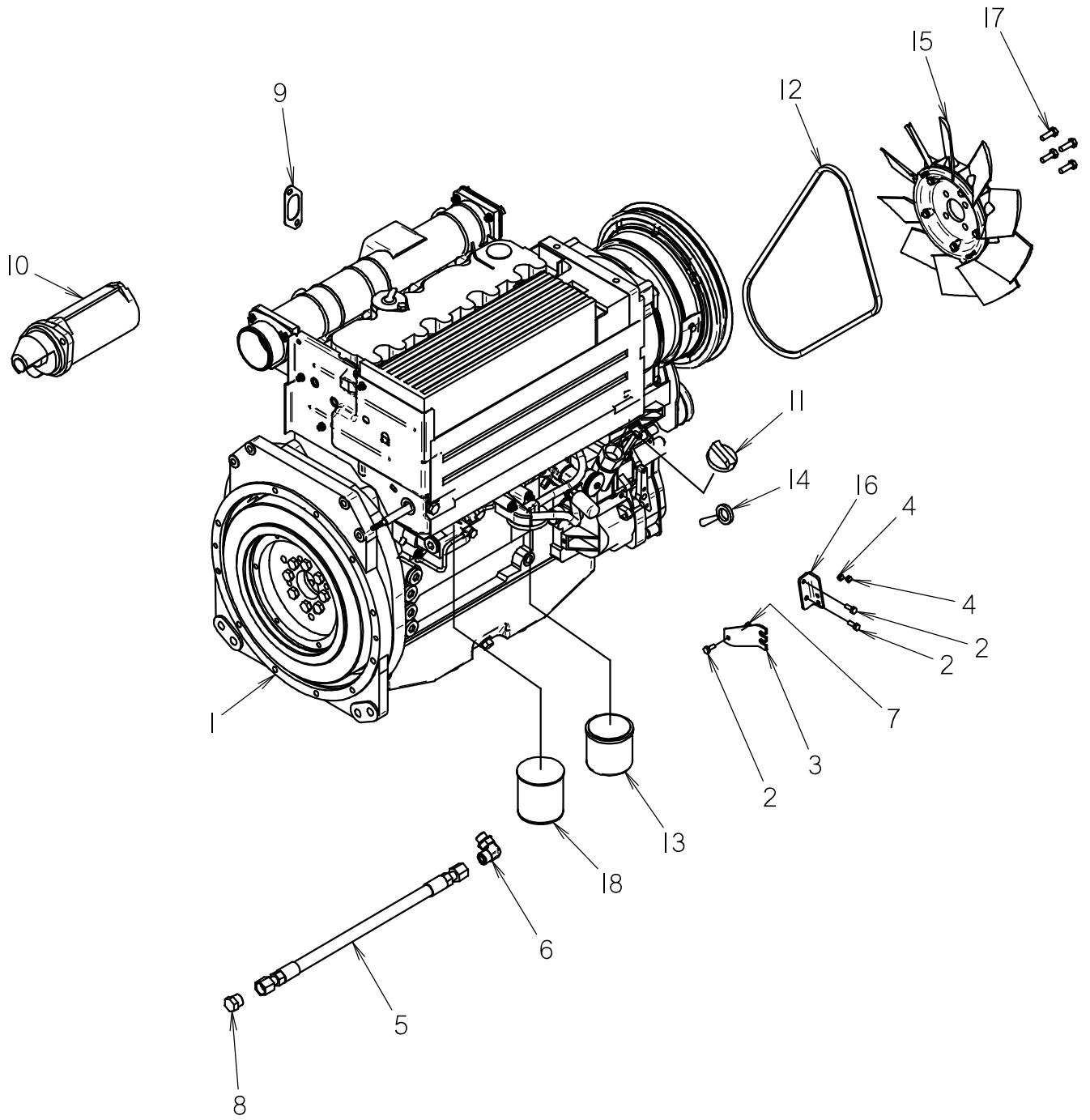
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	270-1501		DECAL KIT - JT922	
1	700-071	1	FRONT ANCHOR	
2	270-1452	1	FUSE BLOCK	
3	270-1489	1	JT922 CONSOLE DECAL	
4	270-1496	1	TRACK CONTROL	
5	270-1497	1	IGNITION SWITCH	
6	270-1498	1	DRILLING FLUID DECAL	
7	270-1499	1	THRUST AND ROTATE	
8	270-1500	1	JT922 MODEL ID	
9	273-278	2	DANGER WRENCH	
10	274-049	2	DANGER ELECTROCUTION	
11	274-198	1	NOTICE OIL LEVEL	
12	274-442	4	LIFT LOCATION	
13	274-318	4	TIE DOWN LOCATION	
14	274-780	1	JET TRAC PATENT	
15	273-546	5	WARNING MOVING PARTS	
16	270-1506	2	DANGER ROTATING SHAFT	
17	275-203	1	BATTERY	
18	275-400	1	NOTICE OIL LEVEL	
19	275-450	2	LOGO PLACARD	
20	700-158	1	DITCH WITCH LOGOTYPE	
21	700-063	1	HYDRAULIC OIL TANK	
22	700-116	1	TRACKER CONTROL	
23	270-1896	1	ELECTRICAL PANEL (BUSSMAN)	PLACE ON INSIDE OF BUSSMAN COVER
24	275-048	1	IMPORTANT SAFETY RULES	
25	273-423	1	CAUTION HOT PARTS	
26	270-1502	1	JT922 MODEL ID PIPEBOX	
27	274-291	1	SOUND POWER	SEE FOOTNOTE I
28	273-459	1	NOTICE EXPLOSION POSSIBLE	
29	275-383	1	NOTICE SLOPE PARKING DECAL	
30	700-062	1	DIESEL FUEL CAP	
31	270-1271	1	THROTTLE CONTROL	
32	270-1578	1	LED DISPLAY	
33	270-1869	1	GAUGE PANEL	
34	700-212	1	MASTER DISCONNECT SWITCH	
35	270-1898	1	TEST PORT LOCATIONS A	
36	270-1899	1	TEST PORT LOCATIONS B	
37	273-267	1	DITCH WITCH BATTERY	

FOOTNOTES

I. NOT PART OF KIT

ENGINE COMPONENTS

ENGINE AND ACCESSORIES



ENGINE AND ACCESSORIES

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	195-1024	1	ENGINE (DEUTZ F4L2011)	
2	106-231	3	SCREW (M6-1.00 X 16MM)	
3	300-4181	1	CABLE MOUNT	
4	108-133	2	CABLE STOP	
5	515-255	1	HOSE (080FX-18"-3000)	
6	159-595	1	ELBOW (M18X1.50-080)	
7	106-106	1	NUT (M6-1.00)	
8	154-331	1	PLUG (080)	
9	165-727	1	EXHAUST MANIFOLD GASKET	
10	194-548	1	STARTER	
11	194-570	1	OIL FILL CAP	
12	170-453	1	BELT (10MM X 1175MM)	
13	195-807	1	FUEL FILTER ELEMENT (PRIMARY)	
14	194-563	1	DIP STICK	
15	195-1068	1	FAN	
16	300-4182	1	THROTTLE BRACKET	
17	105-806	4	SCREW (M8-1.25 X 25MM)	TORQUE TO 16 FT-LBS, USE LOCKTITE 242 OR EQUIVALENT
18	195-849	1	ELEMENT (12NF,3.562" SPIN-ON)	

NOT SHOWN:

195-1389 FUEL LIFT PUMP

SERVICE PART & SEE FOOTNOTE 1

FOOTNOTES:

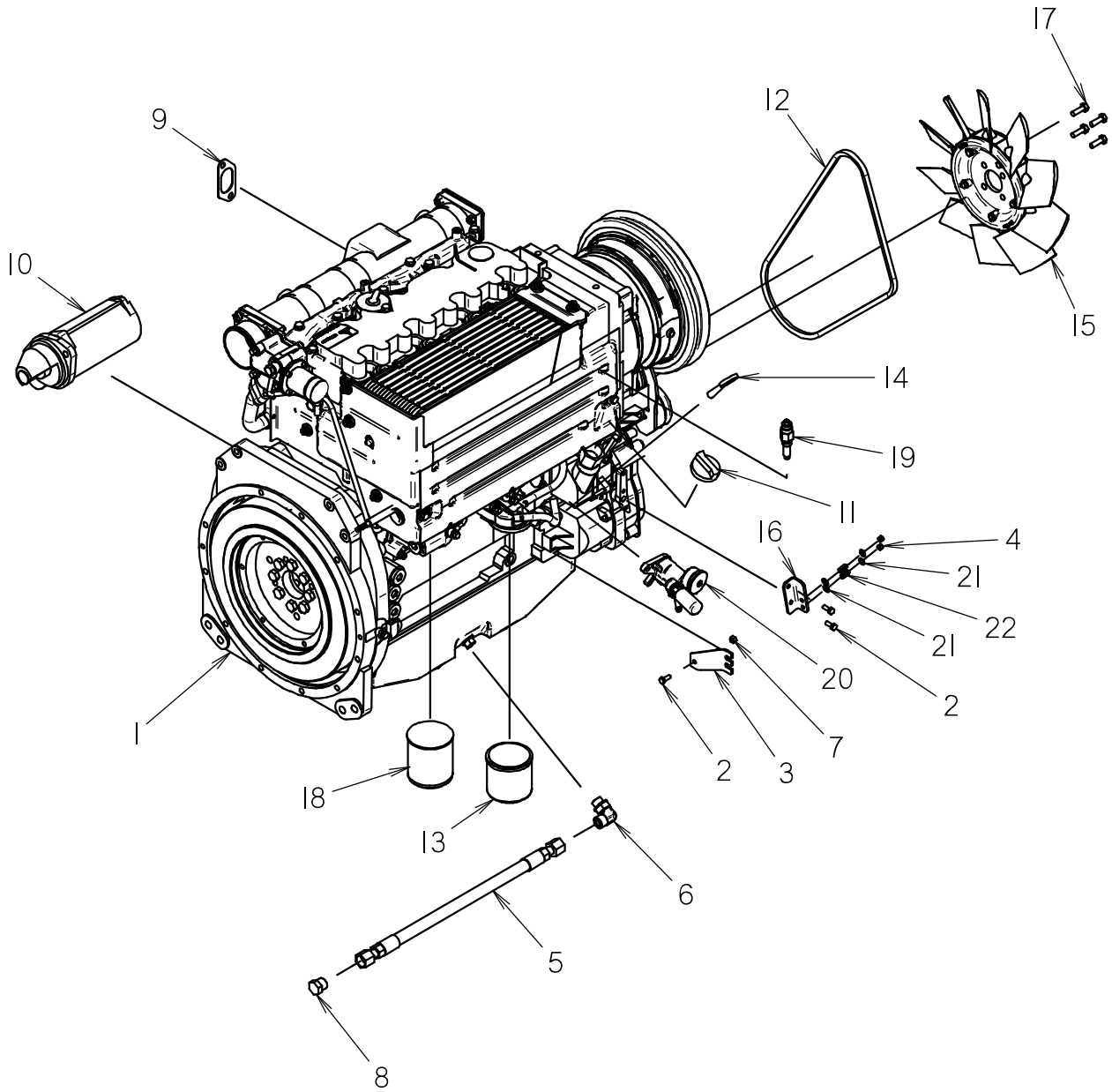
1. IF FUEL LIFT PUMP 195-1389 IS USED THE IN-LINE FILTER WILL NOT BE REQUIRED.

NOTE:

ENGINE AND ACCESSORIES

JT922 T4i

BEGINS WITH S/N: CMWJT922P80000309



ENGINE AND ACCESSORIES

JT922 T4i

BEGINS WITH S/N: CMWJT922P80000309

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	195-1071	1	ENGINE (DEUTZ)	
2	106-231	3	SCREW (M6-1.00 X 16MM)	
3	300-4181	1	CABLE MOUNT	
4	108-133	2	CABLE STOP	
5	515-255	1	HOSE (080FX-18"-3000)	
6	159-595	1	ELBOW (M18X1.50-080)	
7	106-106	1	NUT (M6-1.00)	
8	154-331	1	PLUG (080)	
9	165-727	1	EXHAUST MANIFOLD GASKET	
10	195-1392	1	STARTER, 9 TOOTH	
11	194-570	1	OIL FILL CAP	
12	170-453	1	BELT (10MM X 1175MM)	
13	195-807	1	FUEL FILTER ELEMENT (PRIMARY)	
14	194-563	1	DIP STICK	
15	195-1068	1	FAN	
16	300-4182	1	THROTTLE BRACKET	
17	105-806	4	SCREW (M8-1.25 X 25MM)	
18	195-849	1	ELEMENT (12NF,3.562" SPIN-ON)	
19	215-1321	1	TEMPERATURE SWITCH	
20	195-1389	1	FUEL LIFT PUMP	
21	107-310	4	WASHER (#10)	SEE FOOTNOTE 1
22	115-618	2	COMPRESSION SPRING (.625")	SEE FOOTNOTE 1

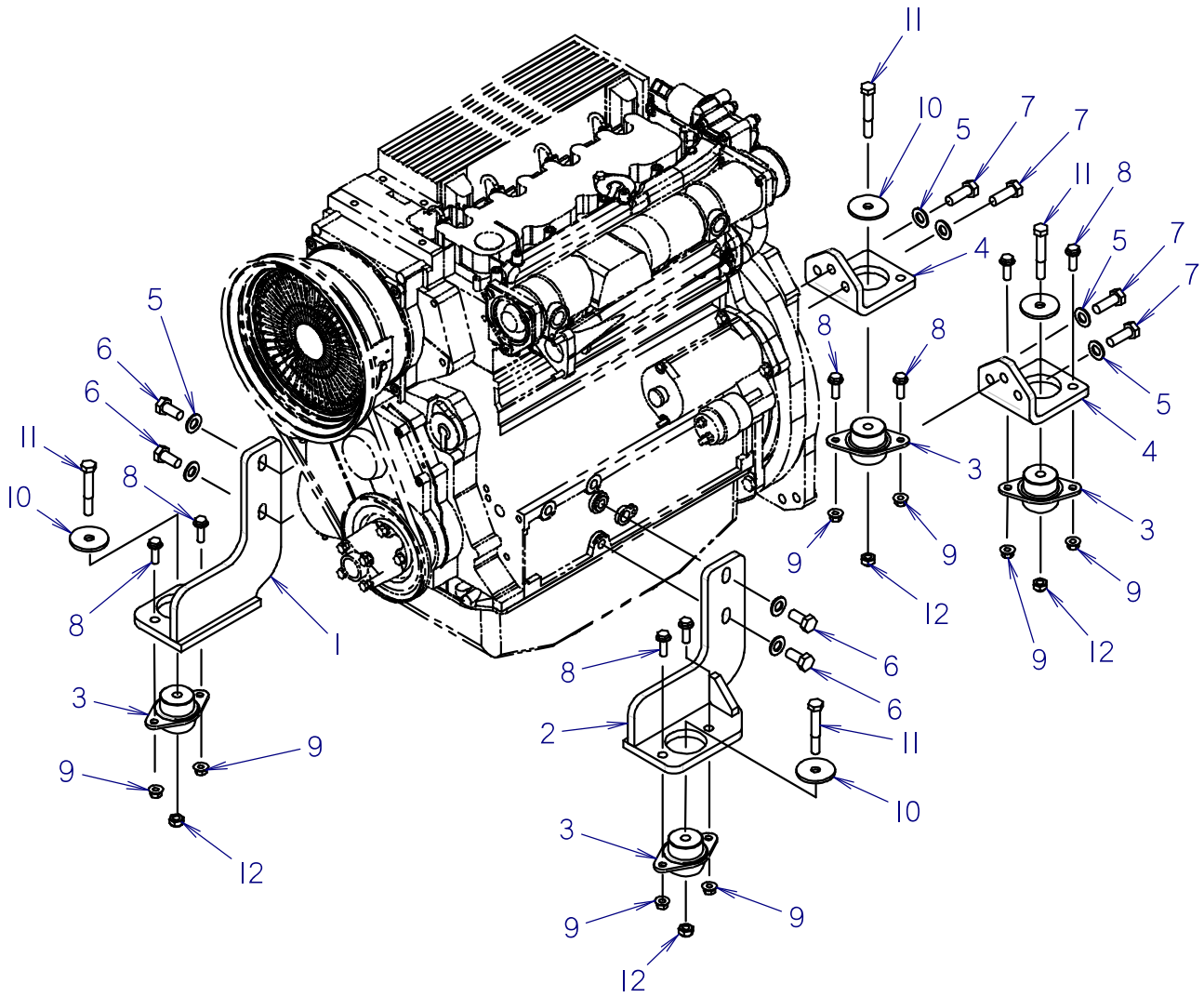
NOT SHOWN:

FOOTNOTES:

1. PARTS, ALONG WITH THROTTLE CABLE 195-1501, BELONG TO KIT 190-1467. SEE INSTALLATION INSTRUCTIONS ID0230528 FOR DETAILS.

NOTE:

ENGINE MOUNTS



ENGINE MOUNTS

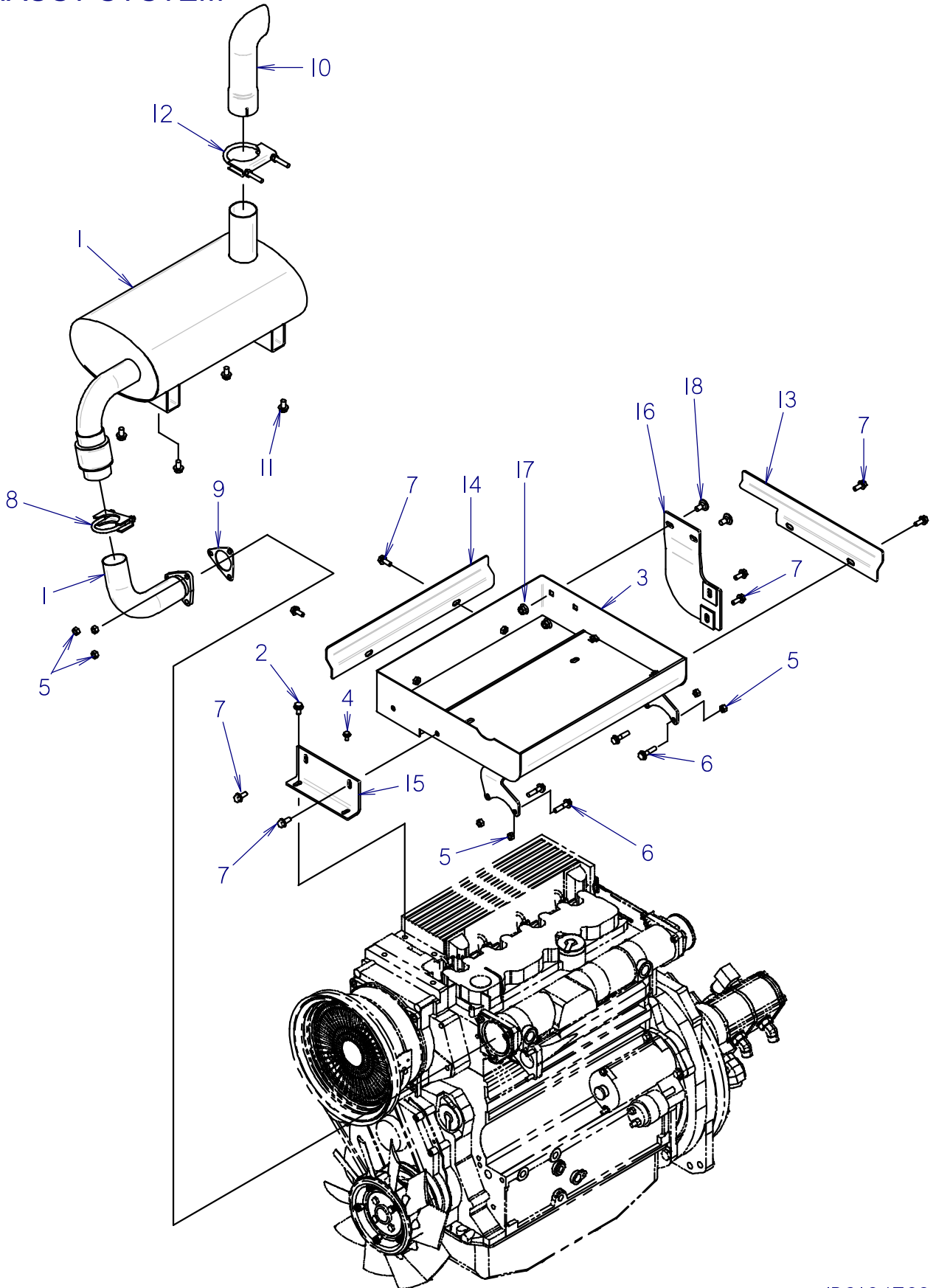
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-3442	1	RIGHT ENGINE MOUNT	
2	300-3446	1	LT ENGINE MOUNT	
3	116-487	4	SHOCK MOUNT	
4	300-2801	2	REAR ENGINE MOUNT	
5	106-598	8	WASHER (9/16" HARDENED)	
6	106-596	4	LK SCREW (M14-2.00X30MM,EPXY)	
7	106-597	4	LK SCREW (M14-2.00X40MM,EPXY)	
8	106-383	8	FLG LK SCREW (M10-1.50 X 30MM)	
9	106-266	8	FLG NUT (M10-1.50)	
10	105-475	4	WASHER (1/2")	
11	106-700	4	SCREW (M12-1.75 X 80MM)	
12	106-685	4	LOCKNUT(M12-1.75,PRV TRQ,10.9)	

NOT SHOWN:

FOOTNOTES:

NOTE:

EXHAUST SYSTEM



EXHAUST SYSTEM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	195-1050	1	MUFFLER	
2	106-380	1	FLG LK SCREW (M8-1.25 X 16MM)	
3	300-2821	1	BLOWER BOX	
4	106-378	1	FLG LK SCREW (M6-1.00 X 12MM)	
5	106-078	7	NUT (M8-1.25)	
6	106-989	4	FLG LK SCREW (M8-1.25 X 35MM)	
7	106-162	8	FLG SCREW (M8-1.25 X 20MM, GD8)	
8	195-1118	1	MUFFLER CLAMP (2")	
9	194-438	1	EXHAUST GASKET	
10	195-1080	1	EXHAUST STACK	
11	501-153	4	FLG LK BOLT (3/8-NC X 5/8")	
12	196-354	1	MUFFLER CLAMP (2.5")	
13	300-4091	1	RETAINER	
14	300-4090	1	RETAINER	
15	300-2814	1	TAB	
16	300-4089	1	BOX SUPPORT	
17	106-387	2	FLG LOCKNUT (M10-1.50)	
18	107-700	2	CARRIAGE BOLT (M10-1.50X20MM)	

NOT SHOWN:

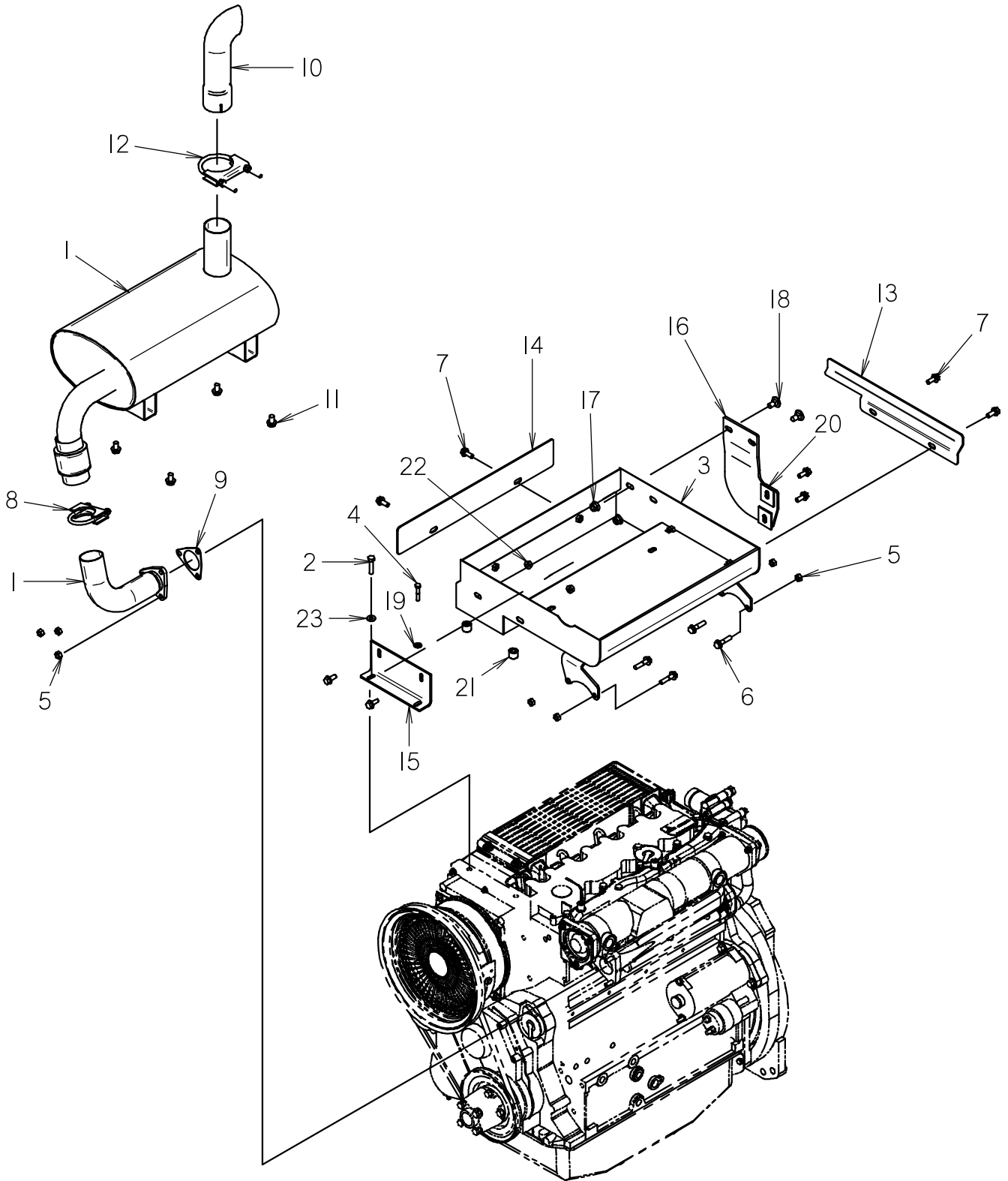
FOOTNOTES:

NOTE:

EXHAUST SYSTEM

JT922 T4i

BEGINS WITH S/M: CMWJT922P0000309



EXHAUST SYSTEM

JT922 T4i

BEGINS WITH S/M: CMWJT922P0000309

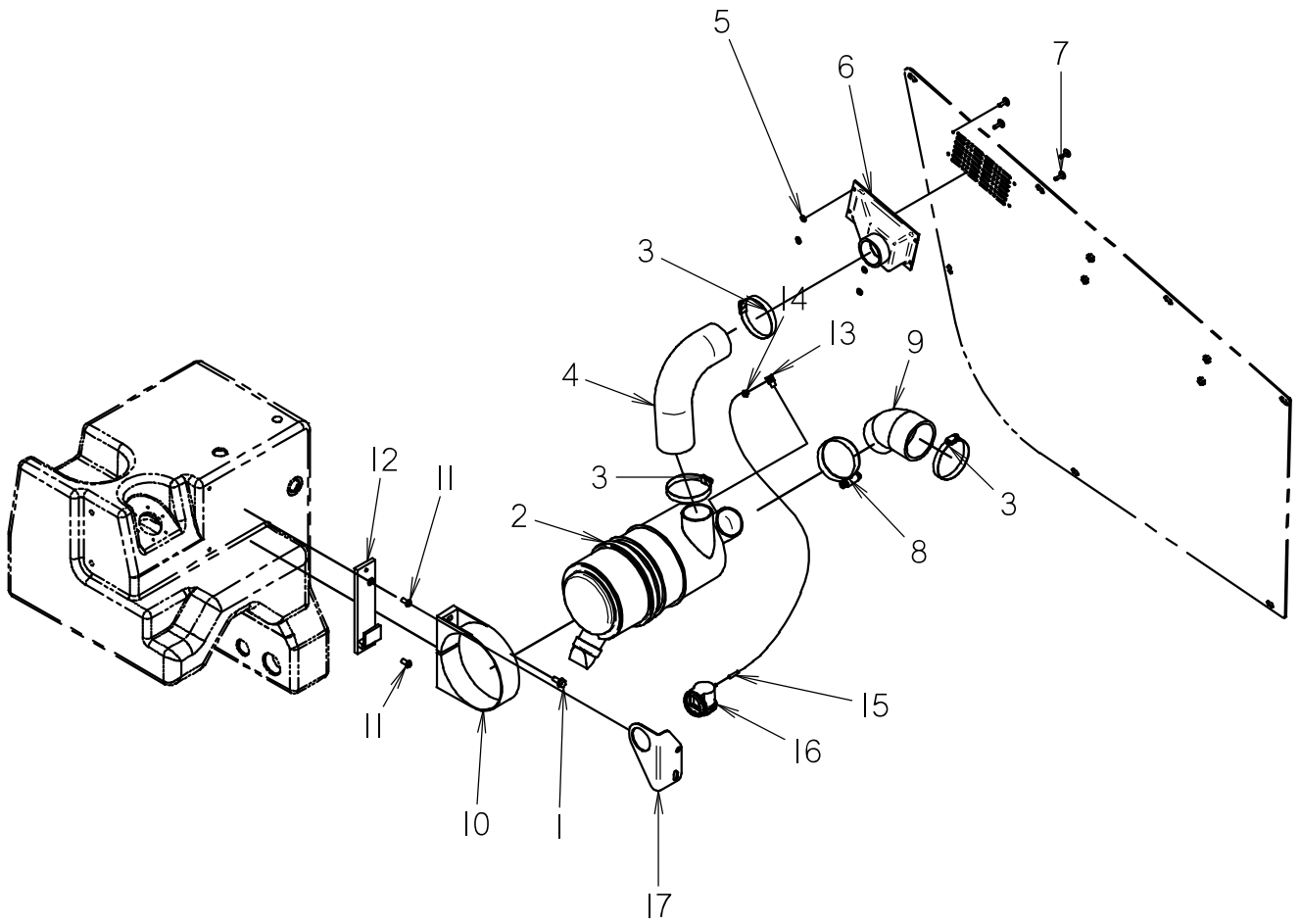
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	195-1050	1	MUFFLER	
2	107-492	1	SCREW (M8-1.25 X 35MM,ALL THD)	
3	300-4405	1	BLOWER BOX	
4	502-651	1	SCREW (M6-1.00 X 35MM)	
5	106-078	7	NUT (M8-1.25)	
6	106-989	4	FLG LK SCREW (M8-1.25 X 35MM)	
7	106-162	8	FLG SCREW (M8-1.25 X 20MM, GD8)	
8	195-1118	1	MUFFLER CLAMP (2")	
9	194-438	1	EXHAUST GASKET	
10	195-1080	1	EXHAUST STACK	
11	501-153	4	FLG LK BOLT (3/8-NC X 5/8")	
12	196-354	1	MUFFLER CLAMP (2.5")	
13	300-4091	1	RETAINER	
14	300-6960	1	RETAINER	
15	300-2814	1	TAB	
16	300-2820	1	BOX BRACKET	
17	106-387	2	FLG LOCKNUT (M10-1.50)	
18	107-700	2	CARRIAGE BOLT (M10-1.50X20MM)	
19	106-389	1	WASHER (M8)	
20	300-3614	2	PLATE SPACER	
21	300-7818	2	BUSHING, 3/4 OD	
22	106-386	2	FLG LOCKNUT (M8-1.25)	
23	105-095	1	WASHER (1/4")	

NOT SHOWN:

FOOTNOTES:

NOTE:

AIR FILTER



AIR FILTER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	106-162	1	FLG SCREW (M8-1.25 X 20MM, GD8)	
2	194-297	1	AIR FILTER	
3	110-169	3	WORM CLAMP (2.812" TO 3.750")	
4	195-1117	1	AIR INTAKE HOSE	
5	107-310	4	WASHER (#10)	
6	313-093	1	SHROUD, AIR INTAKE	
7	110-348	4	POP RIVET (3/16" X .664")	
8	110-311	1	WORM CLAMP (1-5/16" TO 3-1/4")	
9	105-1114	1	AIR FILTER HOSE	
10	149-165	1	MOUNTING CLAMP (6.79")	
11	106-774	2	BOLT (M8-1.25 X 16MM,BUT SOC)	
12	300-3732	1	AIR FILTER BRACKET	
13	156-241	1	STREET ELBOW (02N-02NF90)	
14	155-150	1	S/O COUPLER (02N-02H)	
15	116-192	14	BULK HOSE (7/64", SOLD PER 1')	
16	215-150	1	RESTRICTION INDICATOR(20",H2O)	
17	300-4156	1	BRACKET	

NOT SHOWN:

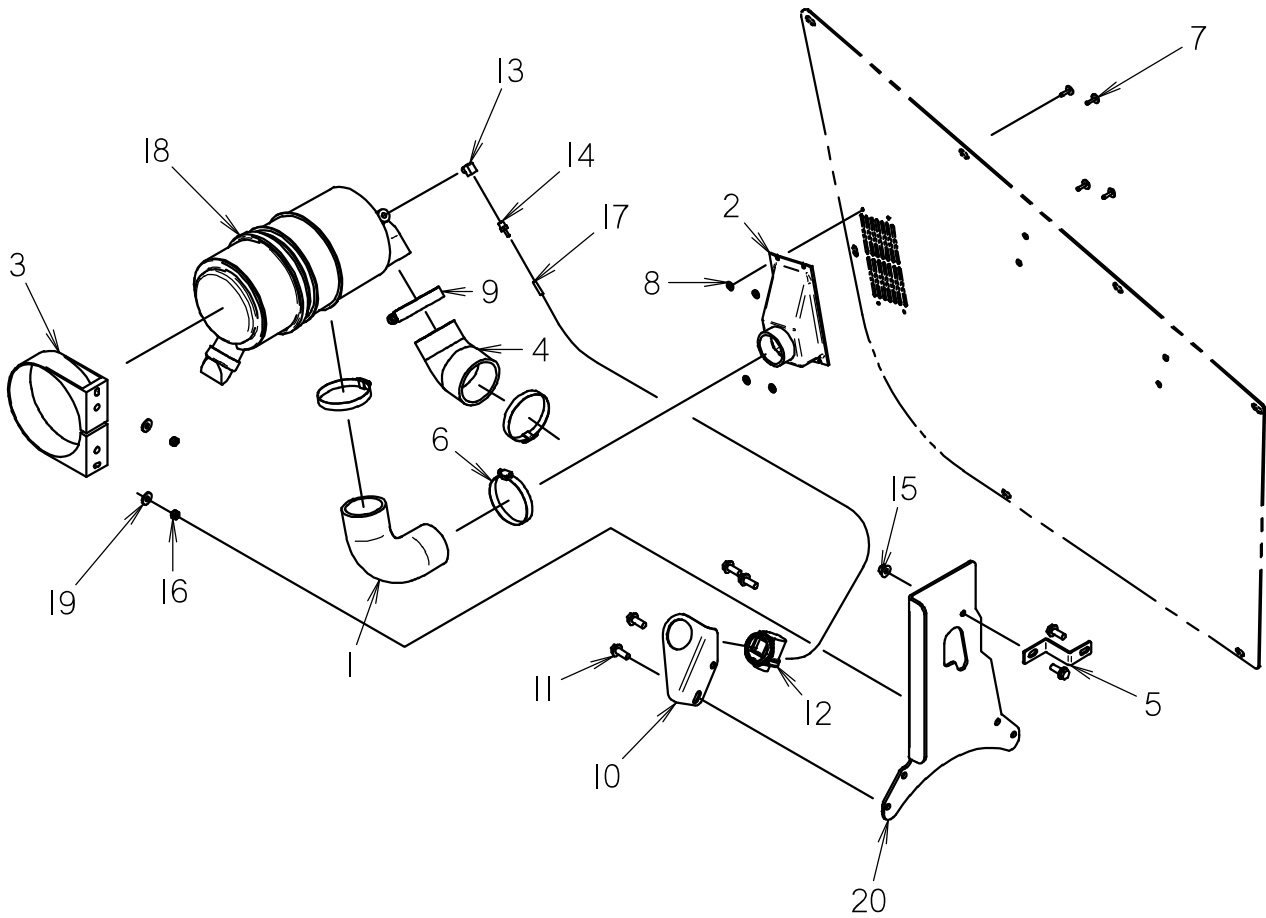
FOOTNOTES:

NOTE:

AIR FILTER

JT922 T4i

BEGINS WITH S/N: CMWJT922P0000309



AIR FILTER

JT922 T4i

BEGINS WITH S/N: CMWJT922P0000309

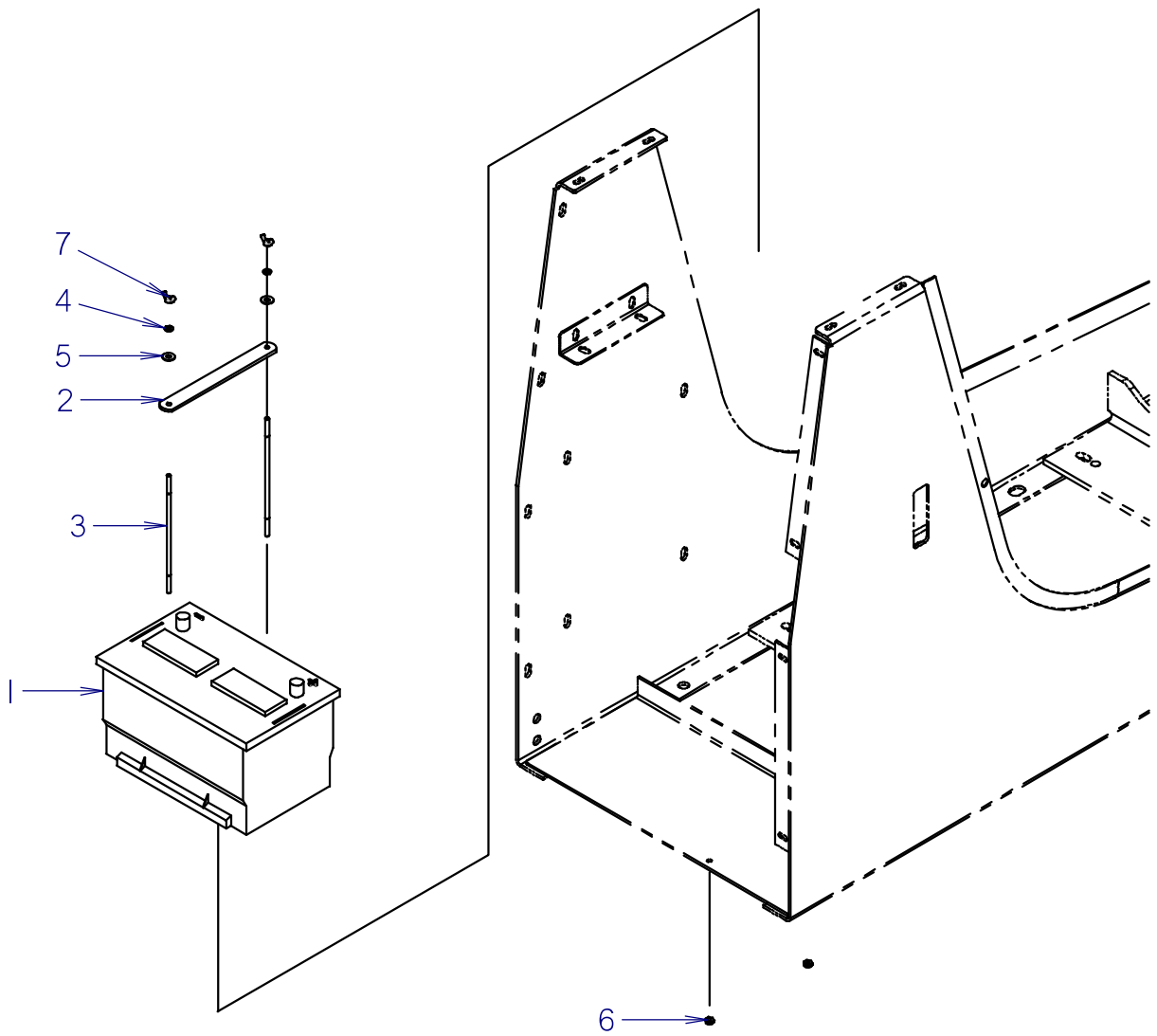
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	195-1322	1	AIR INTAKE HOSE	
2	313-093	1	SHROUD, AIR INTAKE	
3	149-165	1	MOUNTING CLAMP (6.79")	
4	105-1114	1	AIR FILTER HOSE	
5	300-6706	1	Clip Mount	
6	110-169	3	WORM CLAMP (2.812" TO 3.750")	
7	110-348	4	POP RIVET (3/16" X .664")	
8	105-284	4	WASHER (3/16")	
9	110-311	1	WORM CLAMP (1-5/16" TO 3-1/4")	
10	300-4156	1	BRACKET	
11	106-724	6	FLG SCREW (M10-1.50 X 25MM)	
12	215-150	1	RESTRICTION INDICATOR(20"H2O)	
13	156-241	1	STREET ELBOW (02N-02NF90)	
14	155-150	1	S/O COUPLER (02N-02H)	
15	106-266	1	FLG NUT (M10-1.50)	
16	105-089	2	LOCKNUT (5/16-NC)	
17	116-192	14	BULK HOSE (7/64", SOLD PER 1")	
18	194-297	1	AIR FILTER	
19	105-117	2	WASHER (5/16")	
20	300-6961	1	FILTER MOUNT	

NOT SHOWN:

FOOTNOTES:

NOTE:

BATTERY



BATTERY

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	213-104	1	BATTERY (12V, 875CCA)	
2	300-3379	1	BATTERY HOLD DOWN	
3	300-3380	2	TIE-DOWN ROD	
4	105-079	2	LOCK WASHER (1/4)	
5	105-095	2	WASHER (1/4")	
6	105-085	2	LOCKNUT (1/4"-NC)	
7	195-339	2	WING NUT (1/4-NC)	

NOT SHOWN:

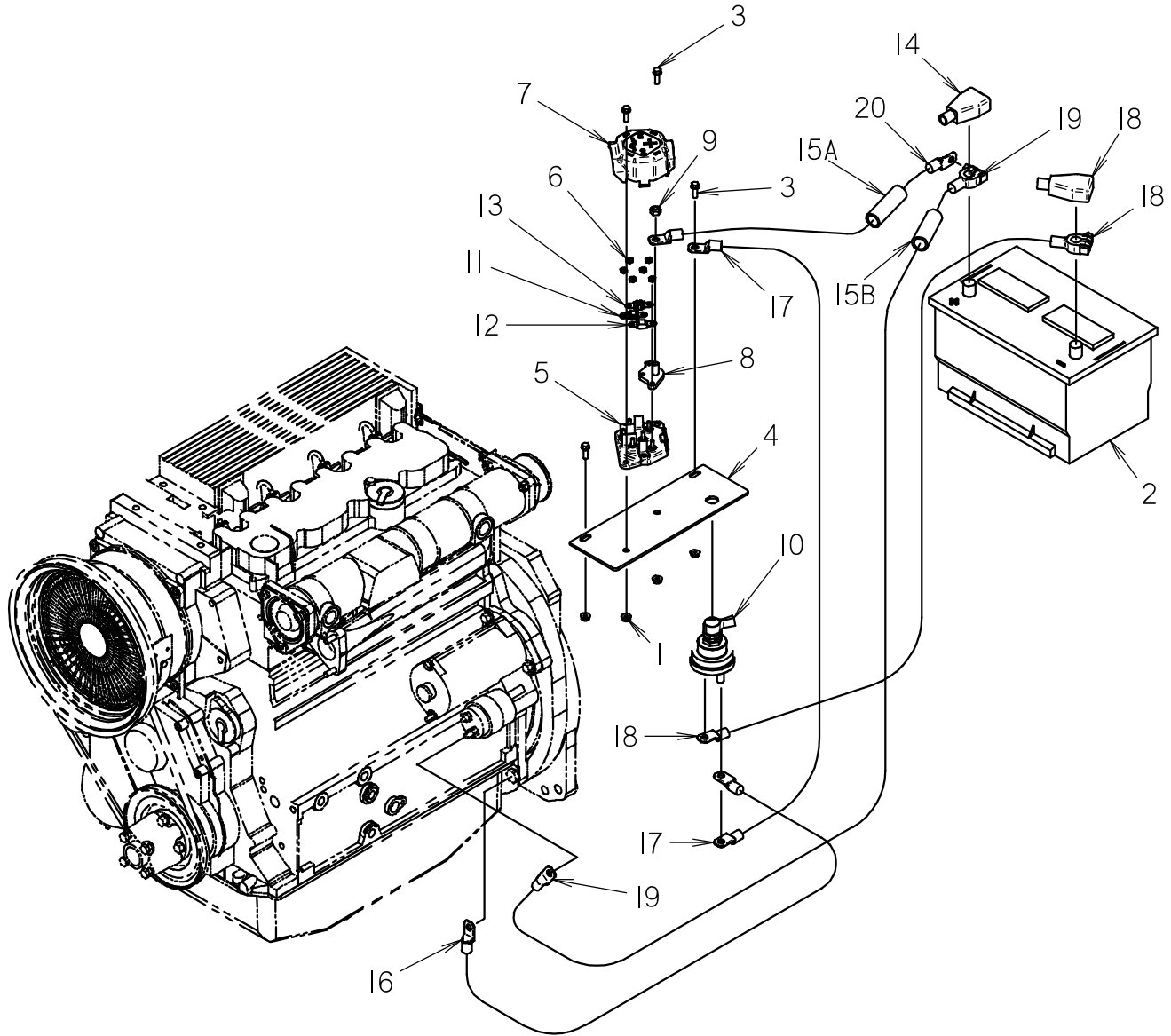
FOOTNOTES:

NOTE:

BATTERY CABLES

T4I

BEGINS WITH S/N: CMWJT922P80000309



BATTERY CABLES

T4I

BEGINS WITH S/N: CMWJT922P80000309

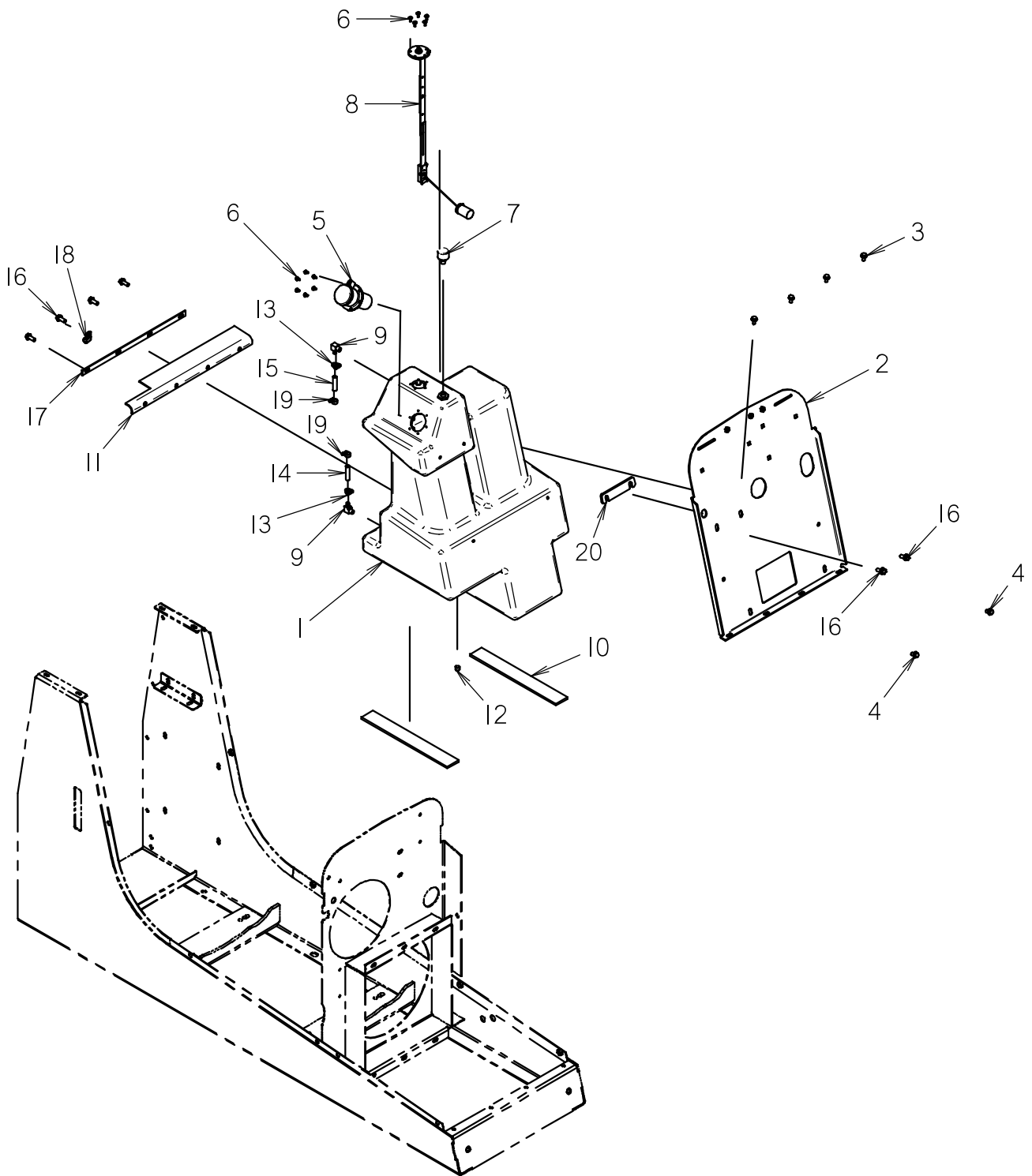
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	105-832	4	FLG LOCKNUT (1/4-NC)	
2	213-104	1	BATTERY (12V, 875CCA)	
3	106-159	4	FLG SCREW (1/4-NC X 3/4")	
4	300-3263	1	BRACKET	
5	215-1009	1	MAIN FUSE HOLDER BASE	
6	106-048	6	LOCKNUT (#10-24)	
7	215-1010	1	MAIN FUSE HOLDER COVER	
8	215-1011	1	BUSSBAR (MAIN FUSE HOLDER)	
9	105-047	1	LOCKNUT (3/8-NC)	
10	217-819	1	BATTERY DISCONNECT SWITCH	
11	211-1000	1	BK/AMI 80 AMP FUSE	
12	211-311	1	BK/AMI 100 AMP FUSE	
13	211-310	1	BK/AMI 60 AMP FUSE	
14	116-193	1	TERMINAL COVER (RED)	
15	116-389	75	BULK TUBING (3/4" SOLD PER FT)	15A USE 1 @ 30", 15B USE 1 @ 45"
16	215-1035	1	BAT CABLE (1 GA X 55", BLK)	
17	213-002	1	BAT CABLE (6GA X 12.0", BLACK)	
18	215-1029	1	BAT CABLE (1 GA X 28", BLK)	
19	215-310	1	BAT CABLE (1 GA X 50", RED)	
20	215-333	1	BAT CABLE (4 GA X 35", RED)	

NOT SHOWN:

FOOTNOTES:

NOTE:

FUEL TANK



FUEL TANK

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	362-1077	1	FUEL TANK	
2	300-3903	1	FRONT FIREWALL WELDMENT	
3	106-380	4	FLG LK SCREW (M8-L25 X 16MM)	
4	501-153	2	FLG LK BOLT (3/8-NC X 5/8")	
5	364-567	1	FILL NECK	
6	105-214	11	FLG SCREW (#10-24 X .5")	
7	111-021	1	BREATHER CAP (TANK)	
8	215-1362	1	FUEL SENDER	
9	155-164	2	S/O COUPLER (04N-05H90)	
10	117-1009	2	SUPPORT MAT	
11	362-1126	1	RUBBER BELTING (.20" THICK)	
12	115-444	1	PLUG (04N, SOC, SSI)	
13	110-528	2	SNAP-ON CLAMP (.531" TO .593")	
14	116-108	39	BULK HOSE (5/16", SOLD PER 1')	1 @ 39"
15	116-108	34	BULK HOSE (5/16", SOLD PER 1')	1 @ 34"
16	105-826	6	FLG LK BOLT (3/8-NC X 1")	
17	300-4088	1	SUPPORT BAR	
18	110-126	1	BOLT-ON CLAMP (1/2")	
19	110-249	2	WORM CLAMP (1/4" TO 5/8")	
20	300-5006	1	SHIM	

NOT SHOWN:

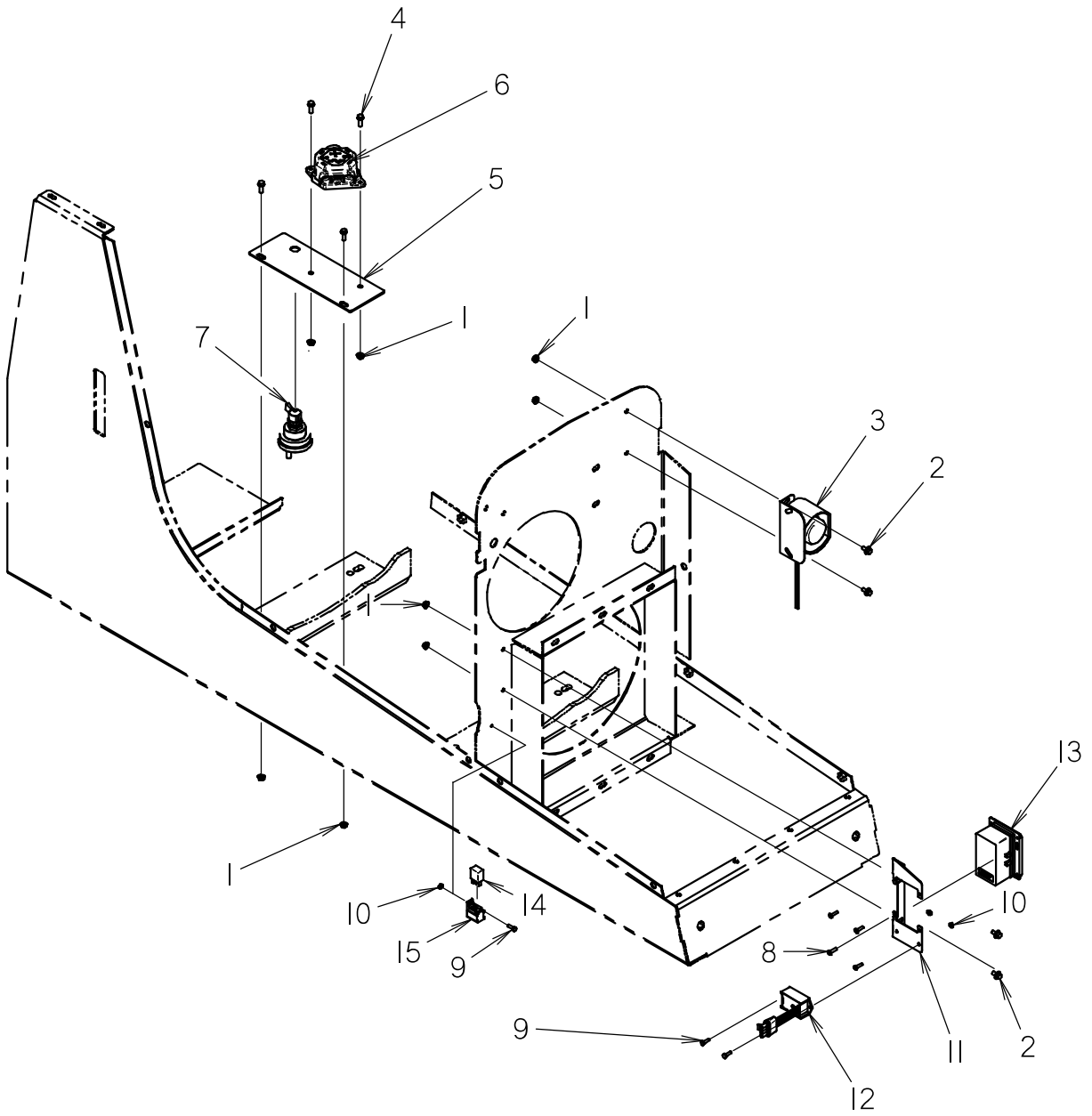
FOOTNOTES:

NOTE:

11

ID0168926

ELECTRICAL COMPONENTS



ELECTRICAL COMPONENTS

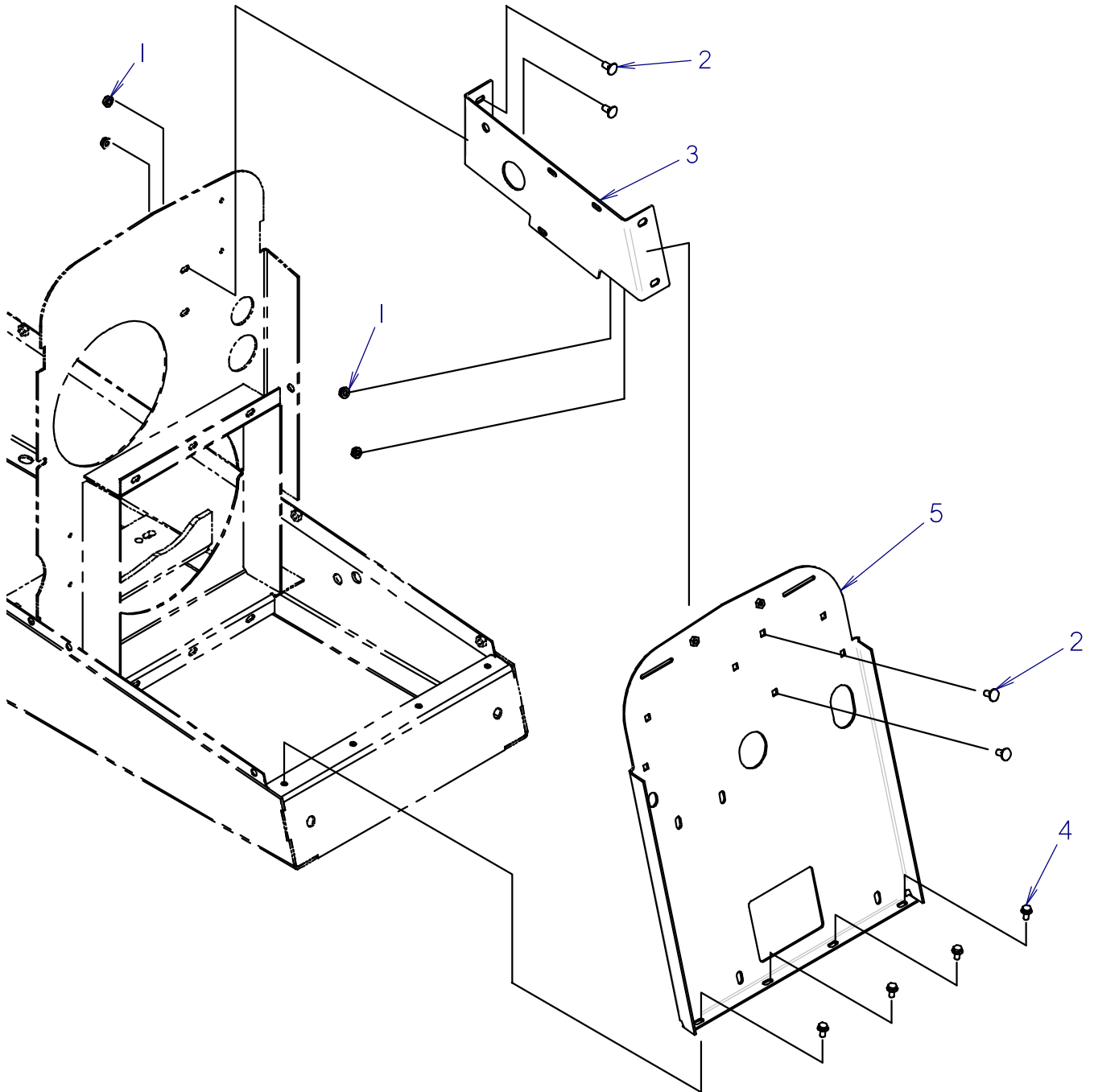
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	105-832	8	FLG LOCKNUT (1/4-NC)	
2	105-836	4	FLG LK BOLT (1/4-NC X 1/2")	
3	306-602	1	ALARM	
4	106-159	4	FLG SCREW (1/4-NC X 3/4")	
5	300-3263	1	BRACKET	
6	350-1616	1	MAIN FUSE HOLDER (3 BK/AMI FUSES)	
7	217-819	1	BATTERY DISCONNECT SWITCH	
8	105-649	4	BOLT (#10-32 X .75", BUT)	
9	107-781	3	HEX SCREW (#10-24 X 5/8")	
10	105-811	3	LOCKNUT (#10-24)	
11	300-4086	1	MOUNTING BRACKET	
12	217-937	1	START BYPASS DELAY TIMER	
13	215-1177	1	JT922 ENGINE FRAME HARNESS	
14	217-710	1	MICRO RELAY (SPDT)	BEGINS WITH S/N: CMWJT922JA0000402
15	215-1566	1	JT922 HOME SWITCH HARNESS	BEGINS WITH S/N: CMWJT922JA0000402

NOT SHOWN:

FOOTNOTES:

NOTE:

FRONT ENGINE COVER



FRONT ENGINE COVER

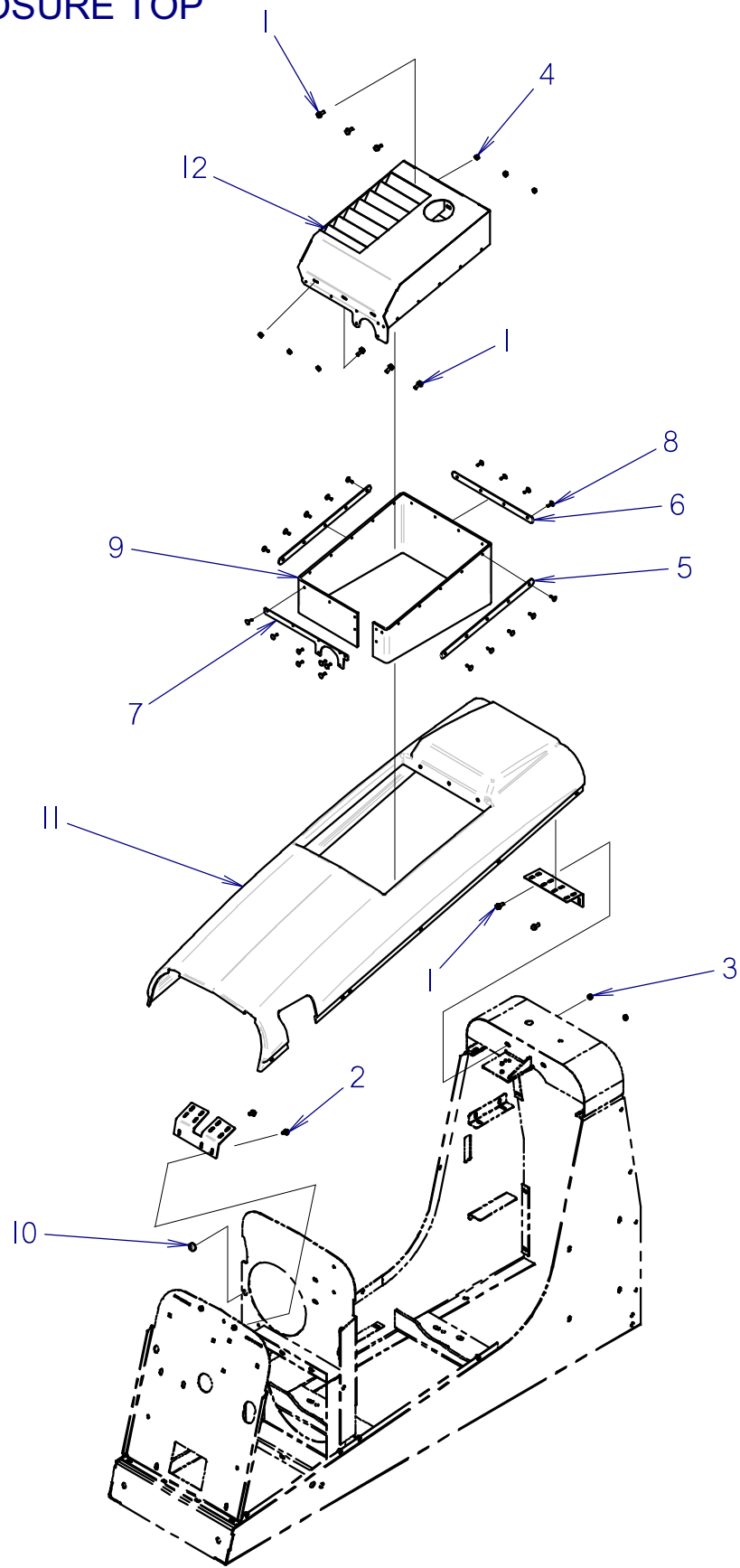
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	105-834	4	FLG LOCKNUT (3/8-NC)	
2	105-835	4	CARRIAGE BOLT (3/8-NC X 3/4")	
3	300-2712	1	VALVE MOUNT	
4	106-380	4	FLG LK SCREW (M8-1.25 X 16MM)	
5	300-3903	1	FRONT FIREWALL WELDMENT	

NOT SHOWN:

FOOTNOTES:

NOTE:

ENGINE ENCLOSURE TOP



ENGINE ENCLOSURE TOP

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	106-162	8	FLG SCREW (M8-1.25 X 20MM, GD8)	
2	106-380	2	FLG LK SCREW (M8-1.25 X 16MM)	
3	106-386	2	FLG LOCKNUT (M8-1.25)	
4	106-561	6	LOCKNUT (M8-1.25,PRV TRQ,10.9)	
5	300-3987	2	SIDE BACKING STRIP	
6	300-3989	1	REAR BACKING STRIP	
7	300-3988	1	FRONT BACKING STRIP	
8	110-348	21	POP RIVET (3/16" X .664")	
9	362-1118	1	SKIRT	
10	115-349	1	GROMMET (1/2")	
11	362-1082	1	HOOD ASSEMBLY	
12	300-4734	1	LOUVER BOX	

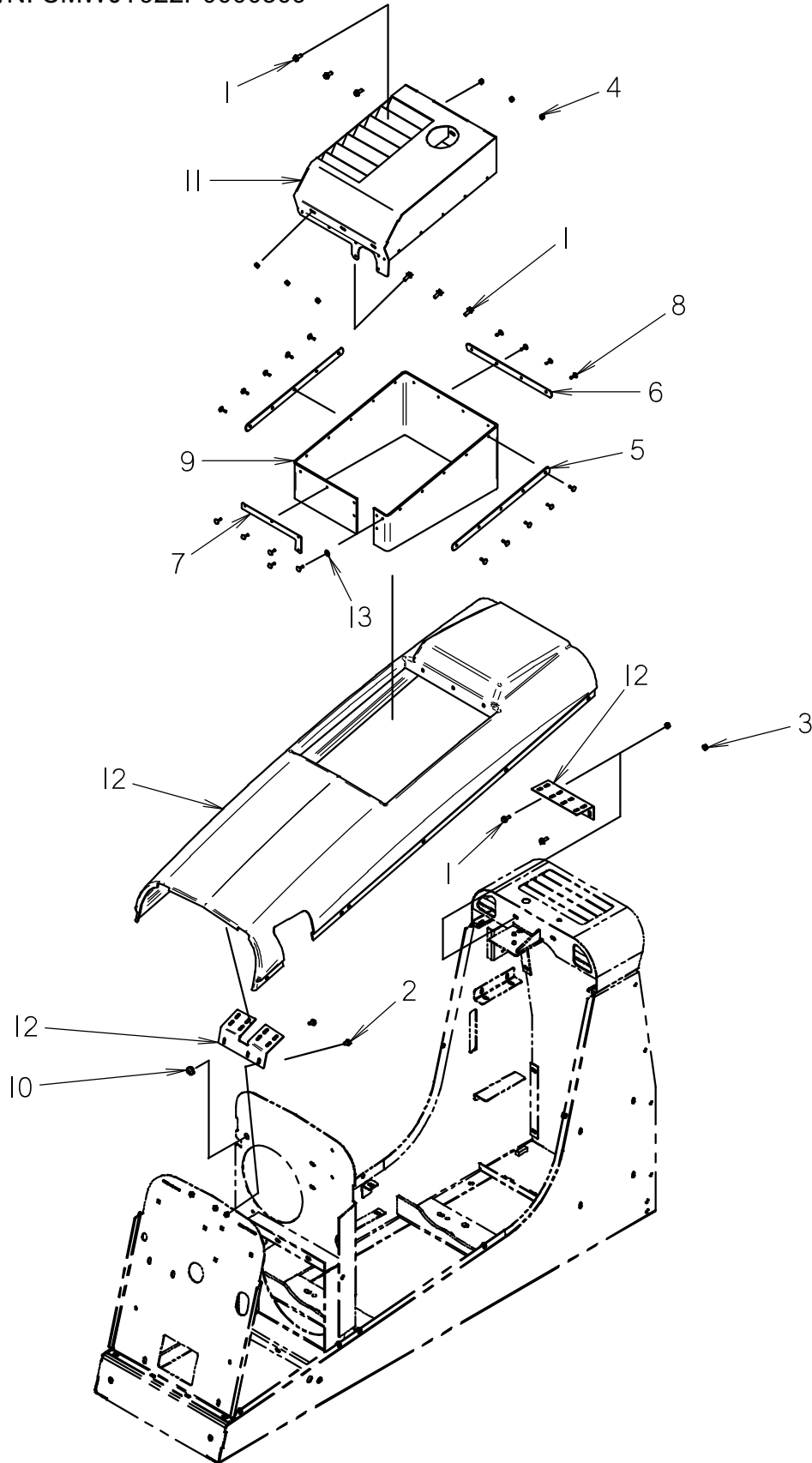
NOT SHOWN:

FOOTNOTES:

NOTE:

ENGINE ENCLOSURE TOP

JT922 T4i
BEGINS WITH S/N: CMWJT922P0000309



ENGINE ENCLOSURE TOP

JT922 T4i

BEGINS WITH S/N: CMWJT922P0000309

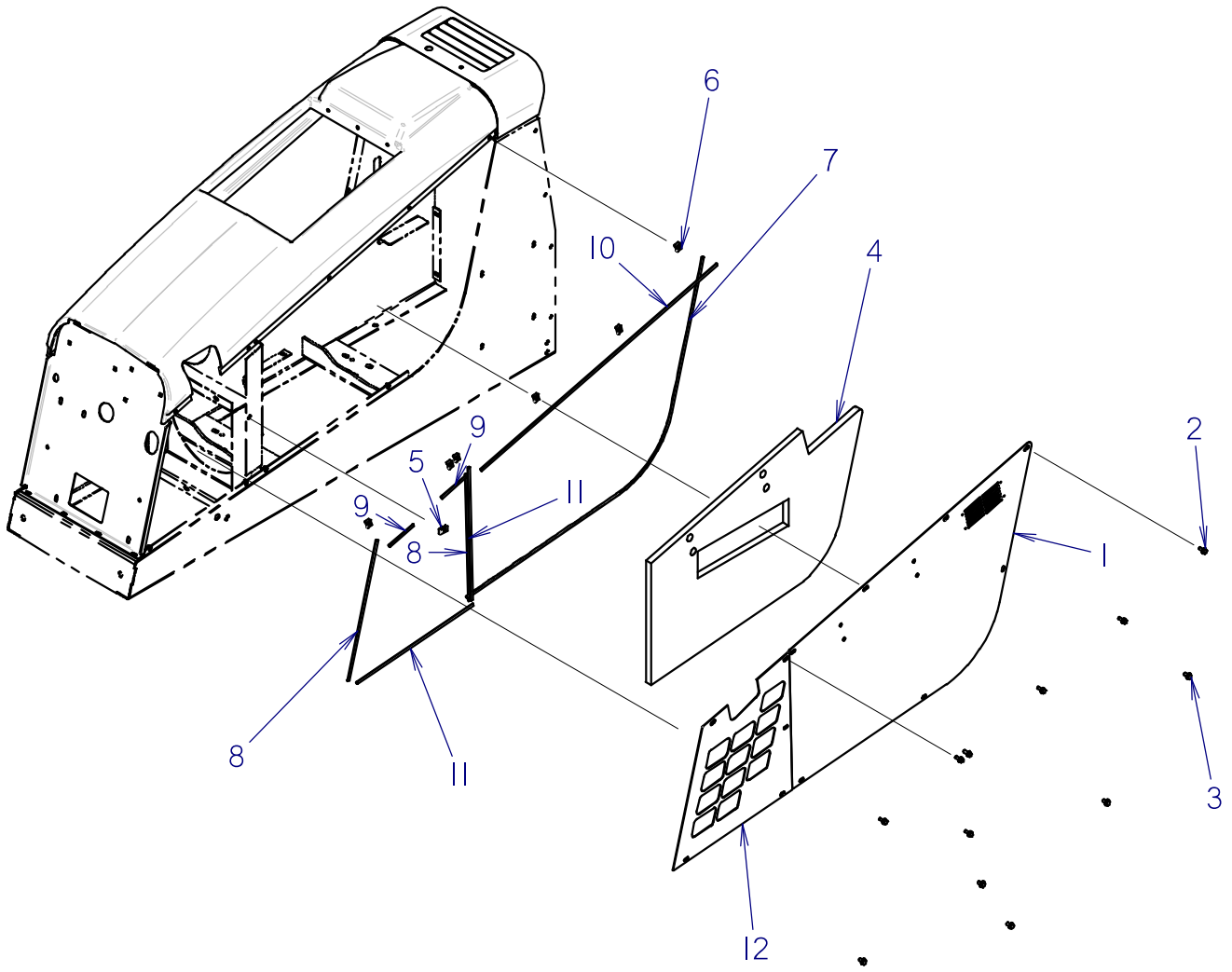
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	106-162	8	FLG SCREW (M8-1.25 X 20MM, GD8)	
2	106-380	2	FLG LK SCREW (M8-1.25 X 16MM)	
3	106-386	2	FLG LOCKNUT (M8-1.25)	
4	106-561	6	LOCKNUT (M8-1.25,PRV TRQ,10.9)	
5	300-3987	2	SIDE BACKING STRIP	
6	300-3989	1	REAR BACKING STRIP	
7	300-3988	1	FRONT BACKING STRIP	
8	110-348	19	POP RIVET (3/16" X .664")	
9	362-1118	1	SKIRT	
10	115-349	1	GROMMET (1/2")	
11	300-4734	1	LOUVER BOX	
12	362-1082	1	HOOD ASSEMBLY	
13	105-095	1	WASHER (1/4")	

NOT SHOWN:

FOOTNOTES:

NOTE:

ENGINE ENCLOSURE



ENGINE ENCLOSURE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-3612	1	REAR FIXED PANEL WELDMENT	
2	106-162	7	FLG SCREW (M8-1.25 X 20MM, GD8)	
3	107-585	5	FLG LK SCREW (M10-1.50 X 16MM)	
4	362-1203	1	LEFT PANEL INSULATION	
5	107-135	1	CLIP NUT (M8-1.25)	
6	106-551	6	CLIP NUT (M8-1.25)	
7	116-724	83	BULK SEAL (3/32", SOLD PER FT.)	
8	116-724	40	BULK SEAL (3/32", SOLD PER FT.)	2 @ 20"
9	116-724	9	BULK SEAL (3/32", SOLD PER FT.)	1 @ 4", 1 @ 5"
10	116-724	44	BULK SEAL (3/32", SOLD PER FT.)	
11	116-724	42	BULK SEAL (3/32", SOLD PER FT.)	2 @ 21"
12	300-6538	1	ACCESS PANEL	

NOT SHOWN:

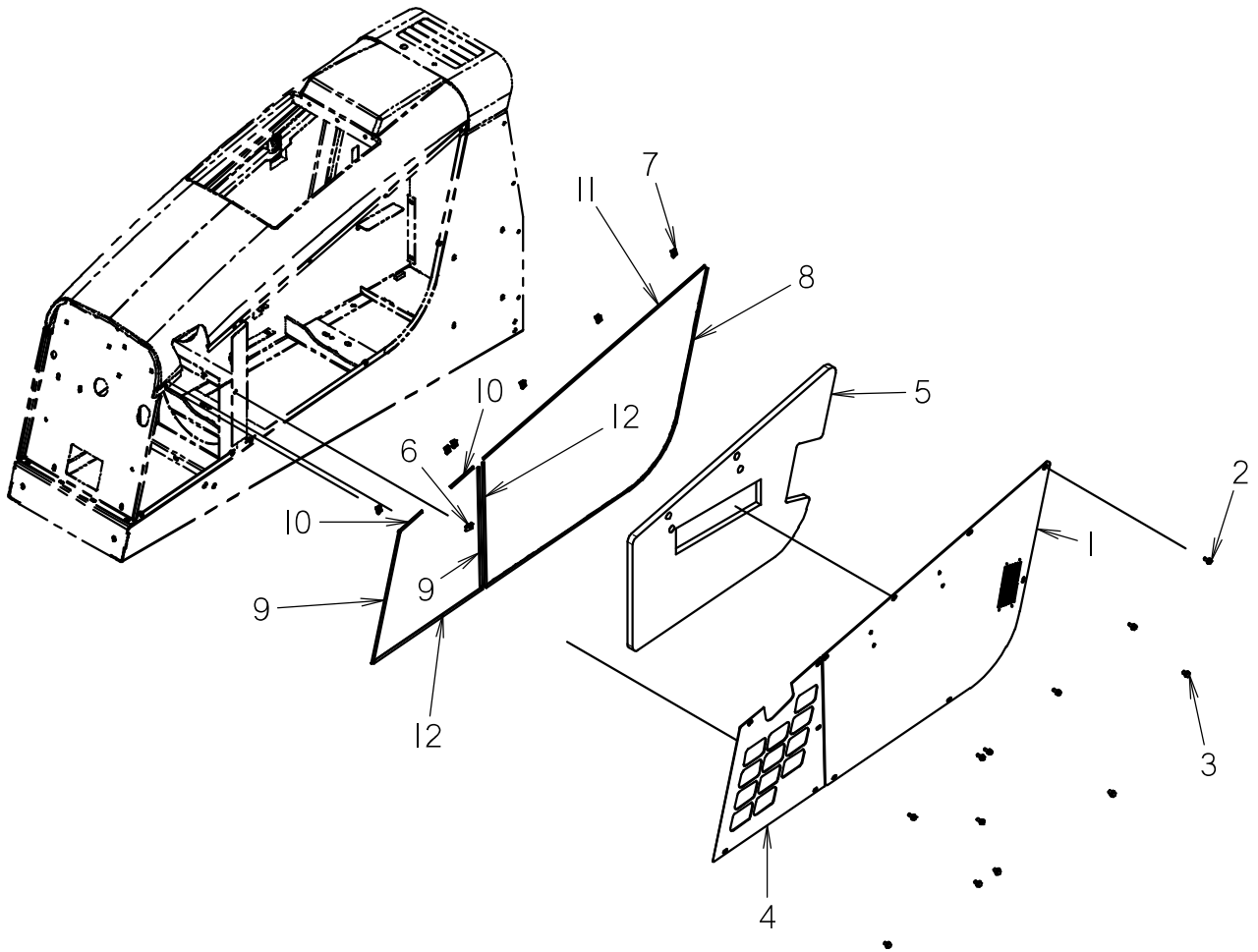
FOOTNOTES:

NOTE:

ENGINE ENCLOSURE

JT922 T4i

BEGINS WITH S/N: CMWJT922P80000309



ENGINE ENCLOSURE

JT922 T4i

BEGINS WITH S/N: CMWJT922P80000309

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-6709	1	REAR FIXED PANEL WELDMENT	
2	106-162	7	FLG SCREW (M8-1.25 X 20MM, GD8)	
3	107-585	5	FLG LK SCREW (M10-1.50 X 16MM)	
4	300-6538	1	ACCESS PANEL	
5	362-1276	1	LEFT PANEL INSULATION	
6	107-135	1	CLIP NUT (M8-1.25)	
7	106-551	6	CLIP NUT (M8-1.25)	
8	116-724	83	BULK SEAL (3/32", SOLD PER FT.)	
9	116-724	40	BULK SEAL (3/32", SOLD PER FT.)	2 @ 20"
10	116-724	9	BULK SEAL (3/32", SOLD PER FT.)	1 @ 4", 1 @ 5"
11	116-724	44	BULK SEAL (3/32", SOLD PER FT.)	
12	116-724	42	BULK SEAL (3/32", SOLD PER FT.)	2 @ 21"

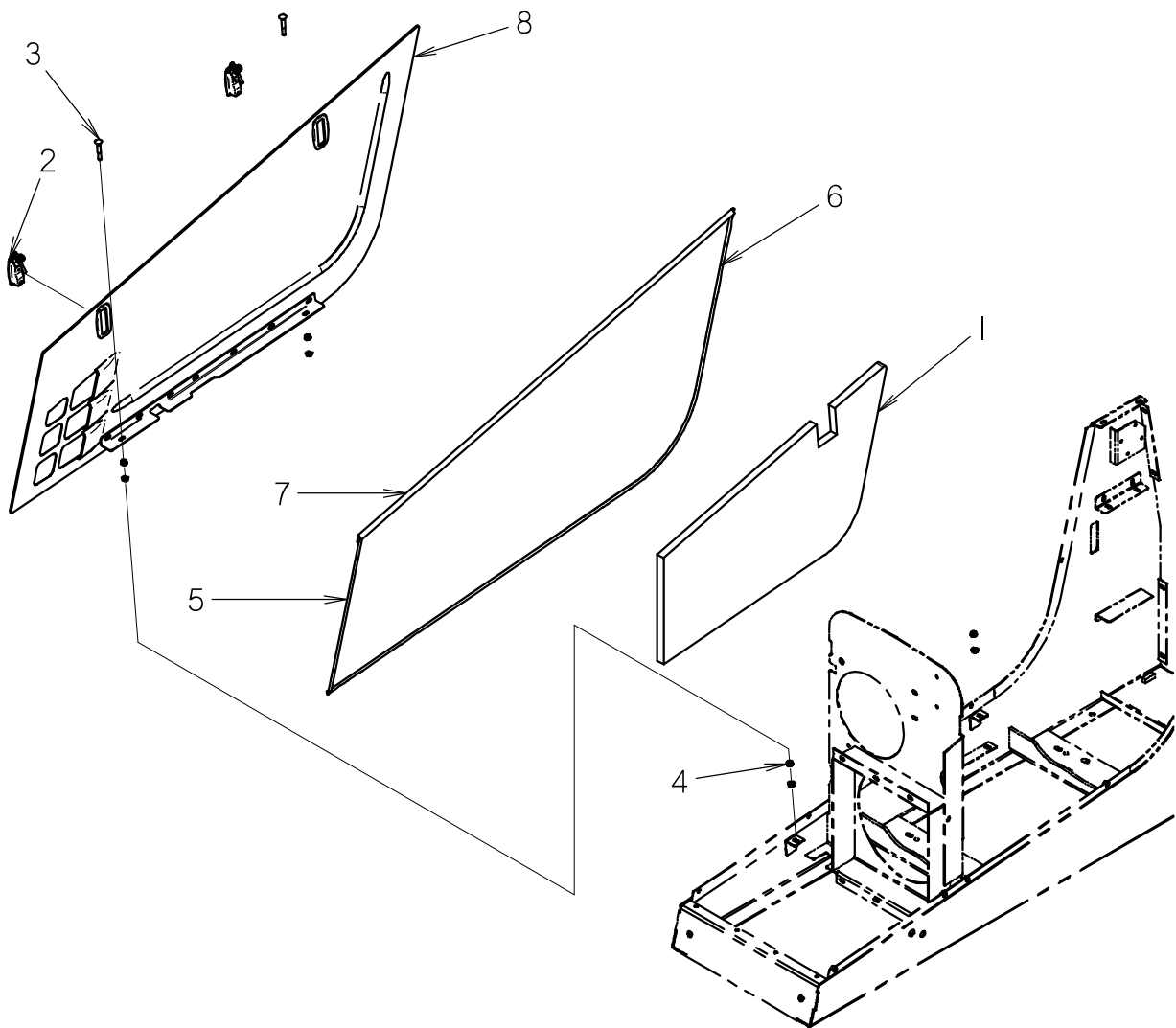
NOT SHOWN:

FOOTNOTES:

NOTE:

ENGINE ACCESS PANEL

ENDS WITH S/N: CMWJT922C80000324



ENGINE ACCESS PANEL

ENDS WITH S/N: CMWJT922C80000324

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	362-1204	1	RIGHT PANEL INSULATION	
2	117-558	2	LATCH, ADJUST LEVER (LOCKING)	
3	105-882	2	CARRIAGE BOLT(3/8-NC X 2-1/2")	
4	105-834	8	FLG LOCKNUT (3/8-NC)	
5	116-724	19	BULK SEAL (3/32" SOLD PER FT.)	1 @ 19"
6	116-724	85	BULK SEAL (3/32", SOLD PER FT)	1 @ 85"
7	118-183	62	BULK EDGE (SOLD PER INCH)	1 @ 62"
8	362-1116	1	SIDE PANEL ASSEMBLY	

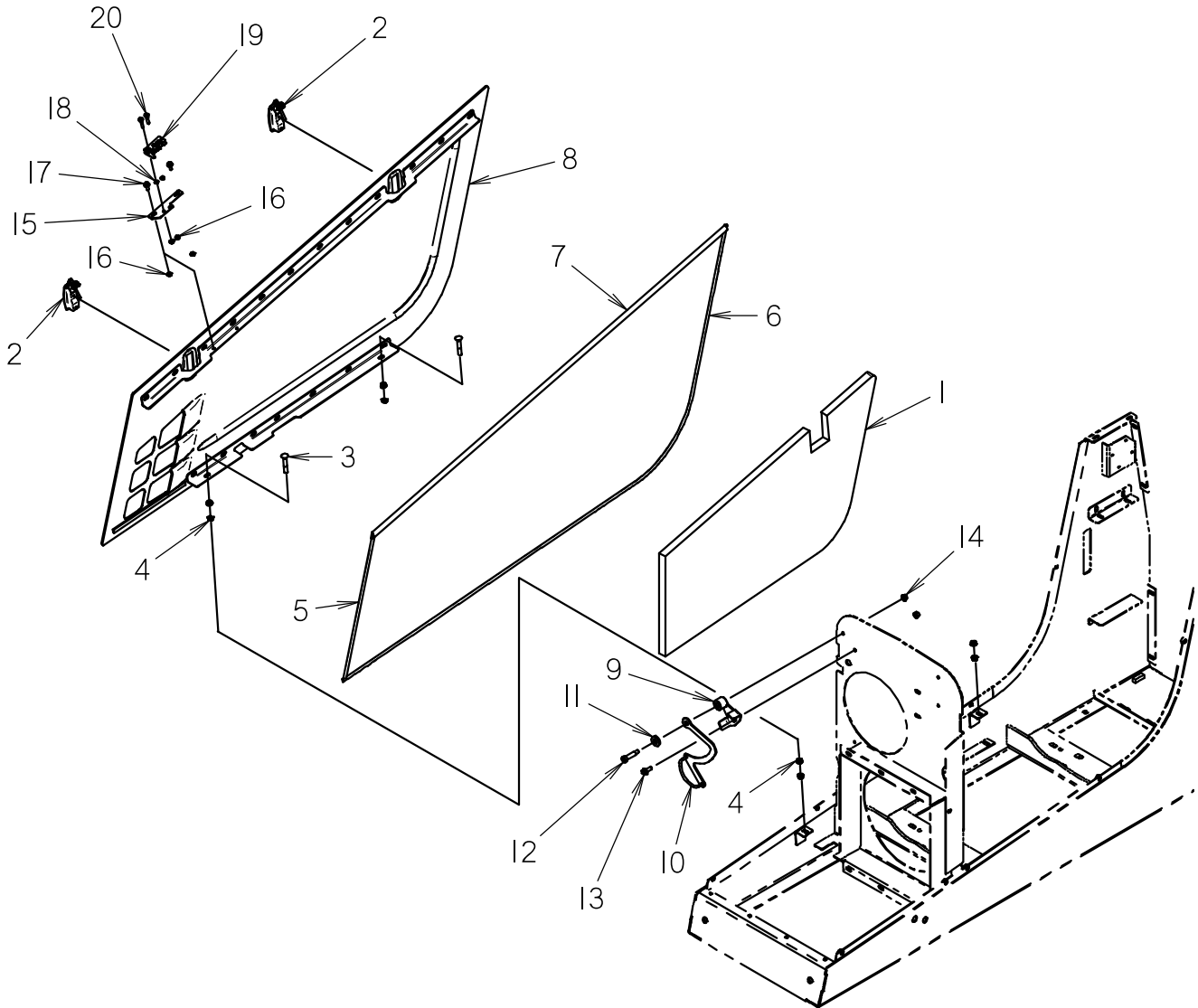
NOT SHOWN:

FOOTNOTES:

NOTE:

ENGINE ACCESS PANEL

BEGINS WITH S/N: CMWJT922T80000325



ENGINE ACCESS PANEL

BEGINS WITH S/N: CMWJT922T80000325

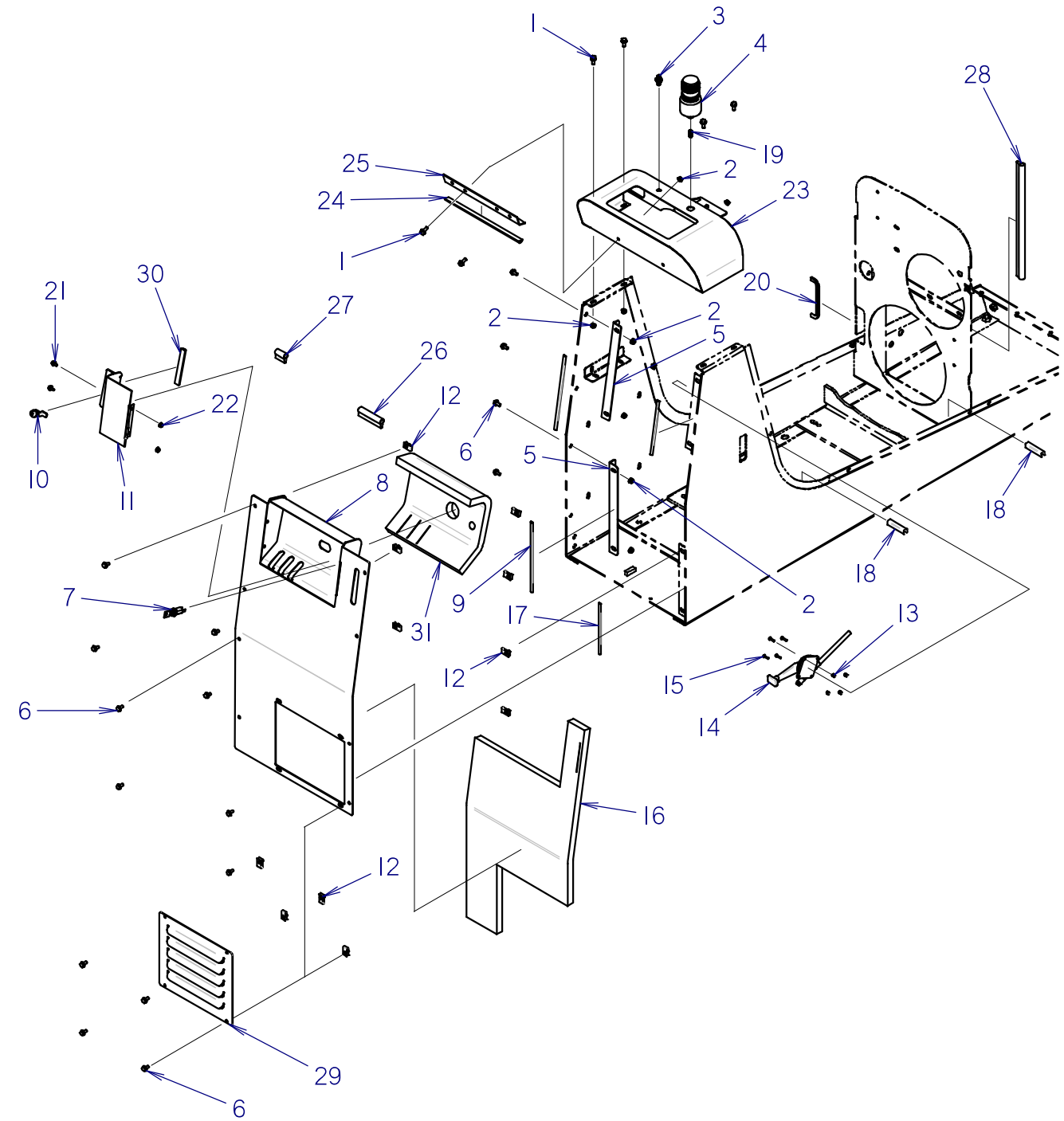
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	362-1204	1	RIGHT PANEL INSULATION	
2	117-558	2	LATCH, ADJUST LEVER (LOCKING)	
3	105-882	2	CARRIAGE BOLT(3/8-NC X 2-1/2")	
4	105-834	8	FLG LOCKNUT (3/8-NC)	
5	116-724	19	BULK SEAL (3/32" SOLD PER FT.)	1 @ 19"
6	116-724	85	BULK SEAL (3/32", SOLD PER FT.)	1 @ 85"
7	118-183	62	BULK EDGE (SOLD PER INCH)	1 @ 62"
8	362-1116	1	SIDE PANEL ASSEMBLY	
9	300-8350	1	MOUNT PLATE	
10	300-8344	1	LATCH BAR	
11	106-784	1	WASHER	
12	106-132	1	SHLD BLT (1/2" X 1-1/2", 3/8-NC)	
13	105-826	1	FLG LK BOLT (3/8-NC X 1")	
14	106-194	2	FLANGE LOCKNUT (3/8-NC)	
15	300-8286	1	LATCH MOUNT	
16	105-085	4	LOCKNUT (1/4"-NC)	
17	105-820	2	FLG LK BOLT (1/4-NC X 3/4")	
18	105-079	2	LOCK WASHER (1/4)	
19	105-1368	1	HOOD LATCH	
20	105-856	2	BOLT (1/4-NC X 1 1/4")	

NOT SHOWN:

FOOTNOTES:

NOTE:

REAR COVER



REAR COVER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	106-162	8	FLG SCREW (M8-1.25 X 20MM, GD8)	
2	106-386	9	FLG LOCKNUT (M8-1.25)	
3	211-055	1	ANTENNA BULKHEAD CONNECTOR	
4	217-296	1	STROBE LIGHT (AMBER)	
5	300-3359	2	BRACKET	
6	106-380	16	FLG LK SCREW (M8-1.25 X 16MM)	
7	214-908	1	ON-OFF KEY SWITCH	
8	300-3382	1	REAR COVER	
9	116-724	22	BULK SEAL (3/32", SOLD PER FT.)	2 @ 11"
10	117-915	1	CAM LOCK	
11	300-3962	1	DOOR WELDMENT	
12	107-135	11	CLIP NUT (M8-1.25)	
13	106-055	4	#10-24 NC NUTSERT	
14	194-549	1	THROTTLE CONTROL CABLE	
15	106-049	4	BOLT (#10-24 X 3/4", PLPS)	
16	105-1161	1	REAR PANEL INSULATION	
17	116-724	16	BULK SEAL (3/32", SOLD PER FT.)	2 @ 8"
18	116-259	8	BULK EDGE (1/2", SOLD PER FT)	2 @ 4"
19	216-026	14	FLEX-GUARD (25")	
20	115-671	9	BULK EDGE (1/16", SOLD PER 1')	
21	105-836	2	FLG LK BOLT (1/4-NC X 1/2")	
22	105-832	2	FLG LOCKNUT (1/4-NC)	
23	300-6530	1	ARCH	
24	118-183	14	BULK EDGE (SOLD BY FOOT)	
25	300-6006	1	SEAL BRACKET	
26	116-421	4	BULK EDGE (1/8", SOLD PER 1')	
27	116-421	2	BULK EDGE (1/8", SOLD PER 1')	
28	116-421	18	BULK EDGE (1/8", SOLD PER 1')	
29	300-6007	1	BATTERY COVER	
30	118-183	5	BULK EDGE (SOLD BY FOOT)	
31	362-1237	1	INSULATION	

NOT SHOWN:

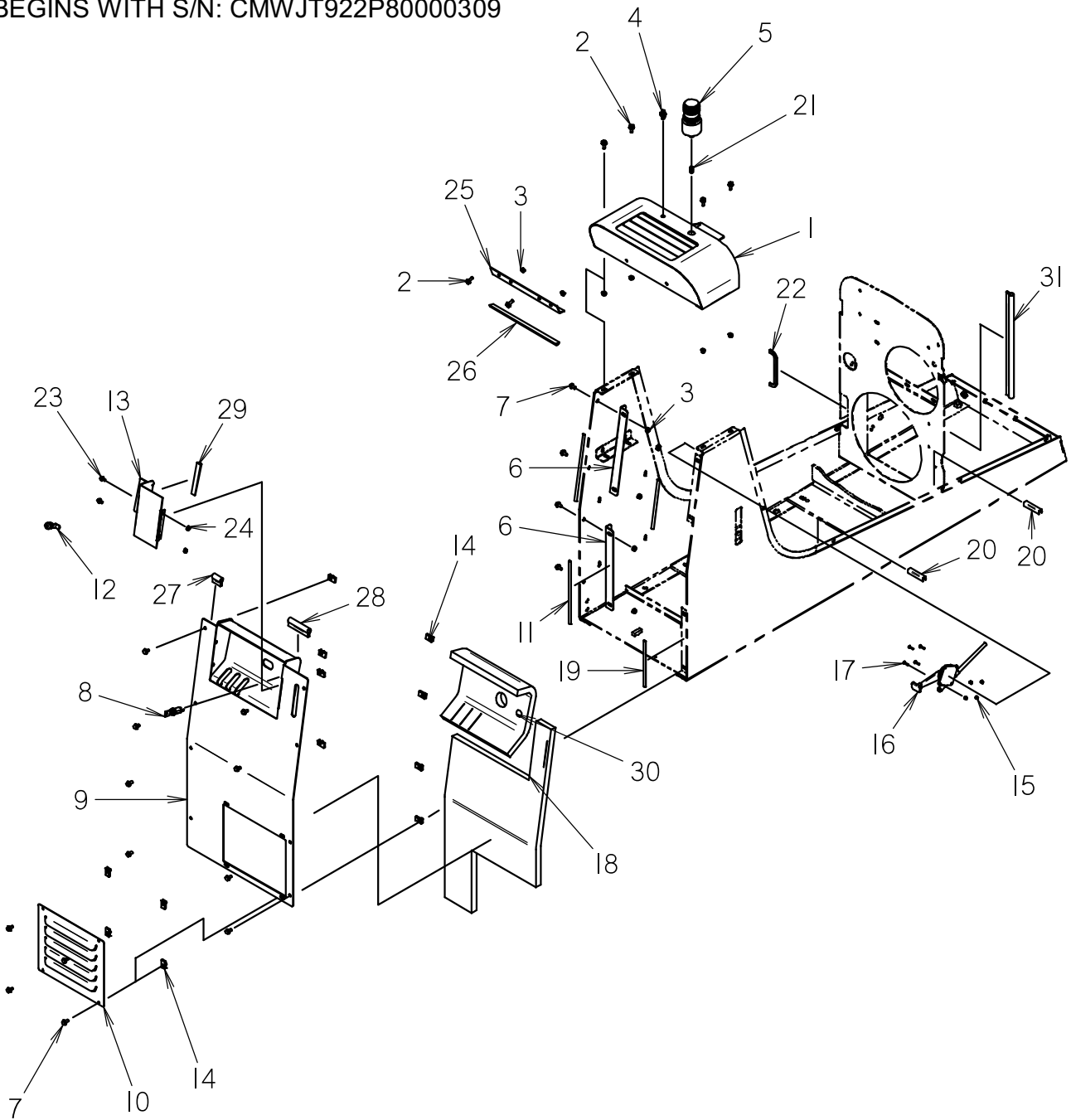
FOOTNOTES:

NOTE:

REAR COVER

JT922 T4i

BEGINS WITH S/N: CMWJT922P80000309



REAR COVER

JT922 T4i

BEGINS WITH S/N: CMWJT922P80000309

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-7596	1	ARCH	
2	106-162	6	FLG SCREW (M8-1.25 X 20MM, GD8)	
3	106-386	10	FLG LOCKNUT (M8-1.25)	
4	211-055	1	ANTENNA BULKHEAD CONNECTOR	
5	217-296	1	STROBE LIGHT (AMBER)	
6	300-3359	2	BRACKET	
7	106-380	16	FLG LK SCREW (M8-1.25 X 16MM)	
8	214-908	1	ON-OFF KEY SWITCH	
9	300-3382	1	REAR COVER	
10	300-6007	1	BATTERY COVER	
11	116-724	22	BULK SEAL (3/32", SOLD PER FT.)	2 @ 22"
12	117-915	1	CAM LOCK	KEY, PAIR 214-961
13	300-3962	1	DOOR WELDMENT	
14	107-135	12	CLIP NUT (M8-1.25)	
15	106-055	4	#10-24 NC NUTSERT	
16	195-1501	1	THROTTLE CONTROL CABLE	SEE FOOTNOTE 1
17	106-049	4	BOLT (#10-24 X 3/4", PLPS)	
18	105-1161	1	REAR PANEL INSULATION	
19	116-724	16	BULK SEAL (3/32", SOLD PER FT.)	2 @ 8"
20	116-259	8	BULK EDGE (1/2", SOLD PER FT)	2 @ 4"
21	216-026	14	FLEX-GUARD (25")	
22	115-671	9	BULK EDGE (1/16", SOLD PER 1")	
23	105-836	2	FLG LK BOLT (1/4-NC X 1/2")	
24	105-832	2	FLG LOCKNUT (1/4-NC)	
25	300-6006	1	SEAL BRACKET	
26	118-183	14	BULK EDGE (SOLD BY FOOT)	
27	116-421	2	BULK EDGE (1/8", SOLD PER 1")	
28	116-421	4	BULK EDGE (1/8", SOLD PER 1")	
29	118-183	5	BULK EDGE (SOLD BY FOOT)	
30	362-1237	1	INSULATION	
31	116-421	18	BULK EDGE (1/8", SOLD PER 1")	

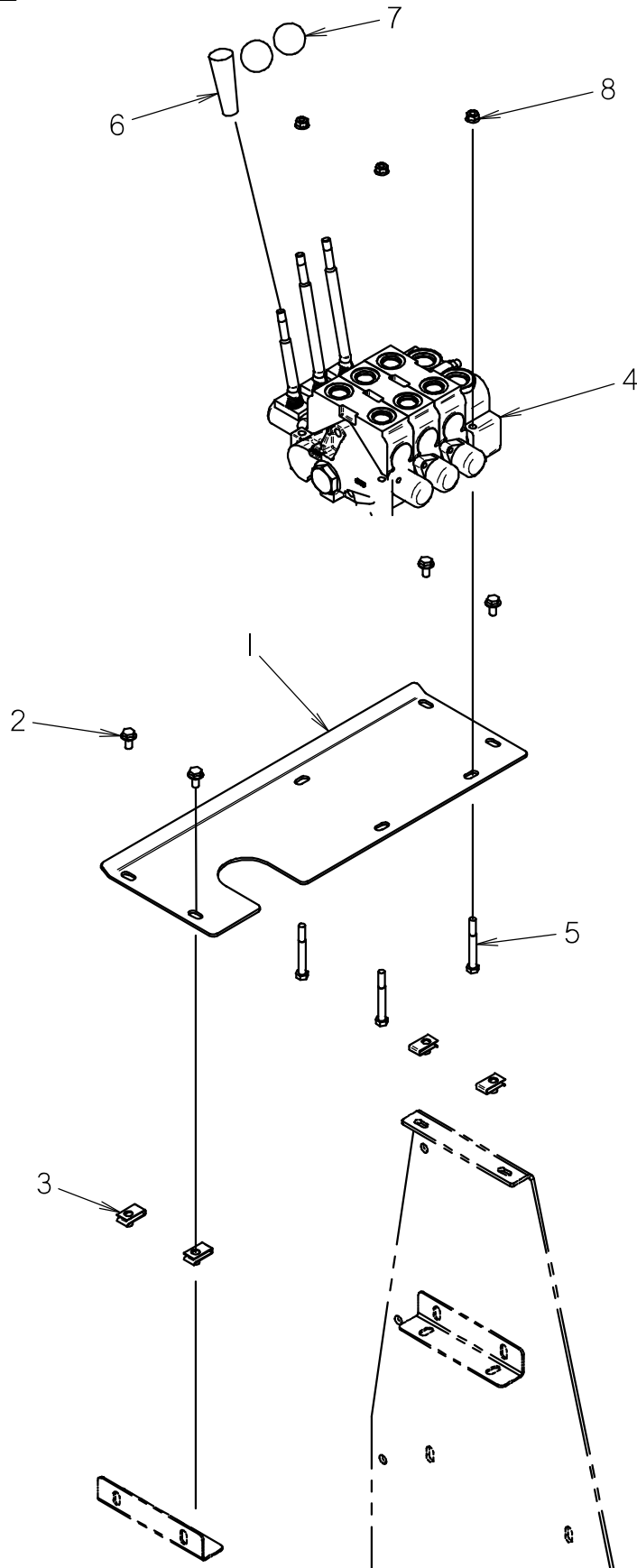
NOT SHOWN:

FOOTNOTES:

1. IF REPLACING THROTTLE CABLE, ORDER KIT 190-1467, WHICH INCLUDES THROTTLE CABLE 195-1501, SPRING 115-615, AND WASHERS 107-310. SEE PARTS PAGE ID0205412 FOR LOCATION OF THE SPRING AND WASHERS, AND INSTALLATION INSTRUCTIONS ID0230528 FOR DETAILS.

NOTE:

SETUP VALVE



SETUP VALVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-2610	1	VALVE MOUNT	
2	106-380	4	FLG LK SCREW (M8-1.25 X 16MM)	
3	107-135	4	CLIP NUT (M8-1.25)	
4	150-1944	1	3 SPOOL VALVE	SEE FOOTNOTES 1, 2, & 3
5	106-330	3	SCREW (M8-1.25 X 70MM)	
6	110-442	1	HANDLE (3/8-NC, GREEN)	
7	110-590	2	KNOB (3/8-NC, ORANGE)	
8	106-386	3	FLG LOCKNUT (M8-1.25)	

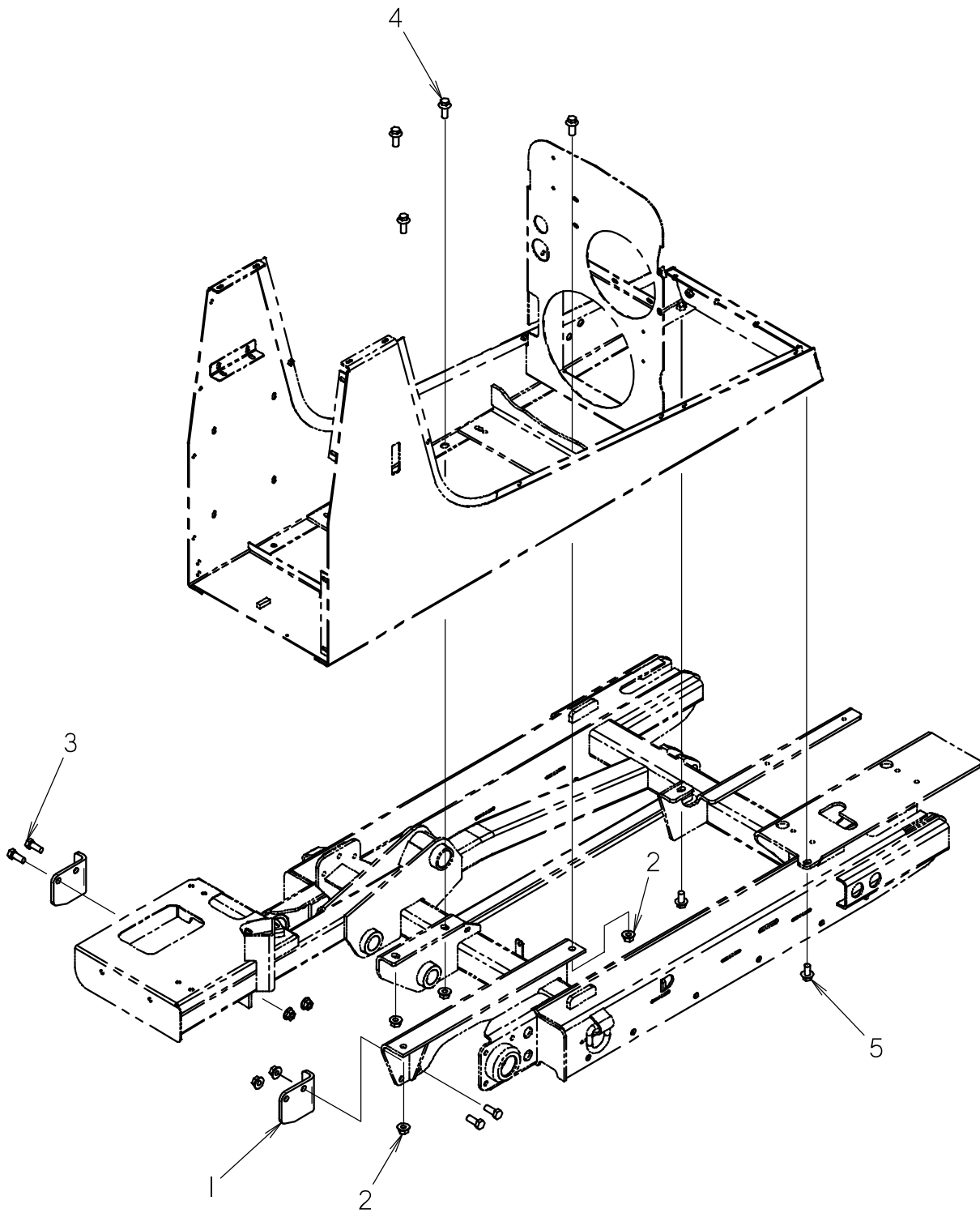
NOT SHOWN:

FOOTNOTES:

1. INLET COVER RELIEF VALVE CARTRIDGE KIT P/N: 500-1399
2. STABILIZER SECTION CHECK CARTRIDGE KIT P/N: 499-029
3. SEAL KIT P/N 190-1656

NOTE:

ENGINE SKID MOUNTING



ENGINE SKID MOUNTING

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-4781	2	SKID PLATE	
2	106-355	8	FLG NUT (M16-2.00, 10.9)	
3	106-478	4	SCREW (M16-2.00 X 40MM, 10.9)	
4	106-470	4	FLG SCREW (M16-2.0 X 40MM)	LOCTITE 277
5	106-471	2	FLG SCREW (M16-2.00 X 30MM)	LOCTITE 277

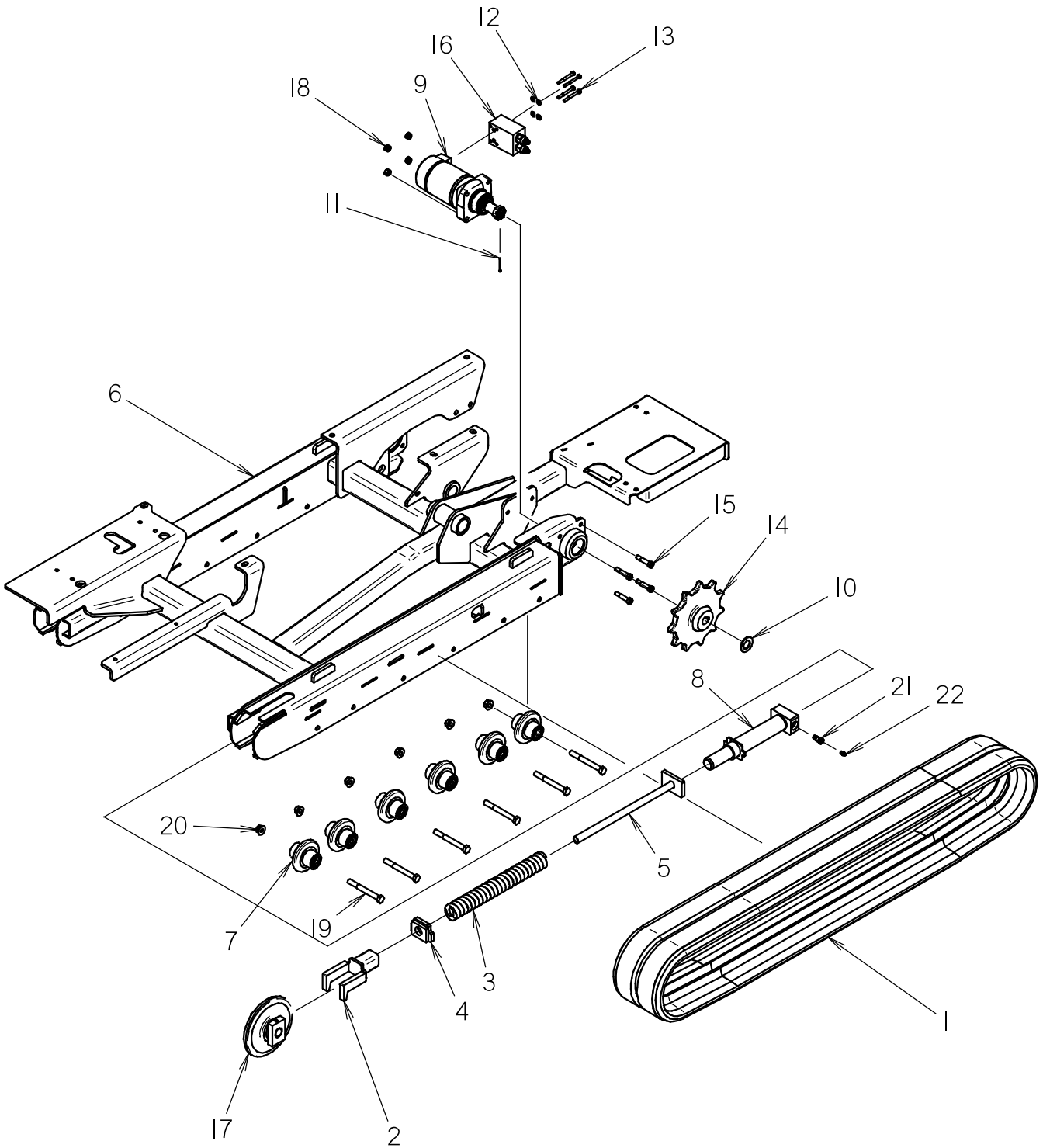
NOT SHOWN:

FOOTNOTES:

NOTE:

FRAME COMPONENTS

TRACKS



TRACKS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	362-1036	2	RUBBER TRACK (230MM,56P,72MM)	
2	353-403	2	YOKE WELDMENT	
3	117-057	2	COMPRESSION SPRING	
4	300-3245	2	SPRING PLATE	
5	300-3248	2	STOP TUBE	
6	300-3219	1	TRACK FRAME	
7	170-335	12	IDLER ROLLER	
8	151-161	2	GREASE CYLINDER	
9	150-1314	2	GEROLER MOTOR	TIGHTEN CASTLE NUT 300-400 FT-LBS
10	105-1352	2	WASHER (1.265)	
11	105-501	2	COTTER PIN (.125" X 2.0")	
12	105-095	8	WASHER (1/4")	
13	105-170	8	BOLT (5/16-NC X 3")	
14	140-1086	2	MOTOR SPROCKET	
15	106-197	8	BOLT (1/2-NC X 2-1/2", GD8)	
16	150-1488	2	COUNTERBALANCE VALVE	
17	170-336	2	FRONT IDLER ROLLER	
18	105-065	8	LOCKNUT (1/2-NC)	
19	107-337	11	SCREW (M16-2.00 X 150MM, 10.9)	
20	106-442	12	FLG LKNUT (M16-2.0,PRVTRQ10.9)	
21	159-093	2	RELIEF VALVE (5/8-NF, 02N)	
22	115-019	2	ZERK (02N)	

NOT SHOWN:

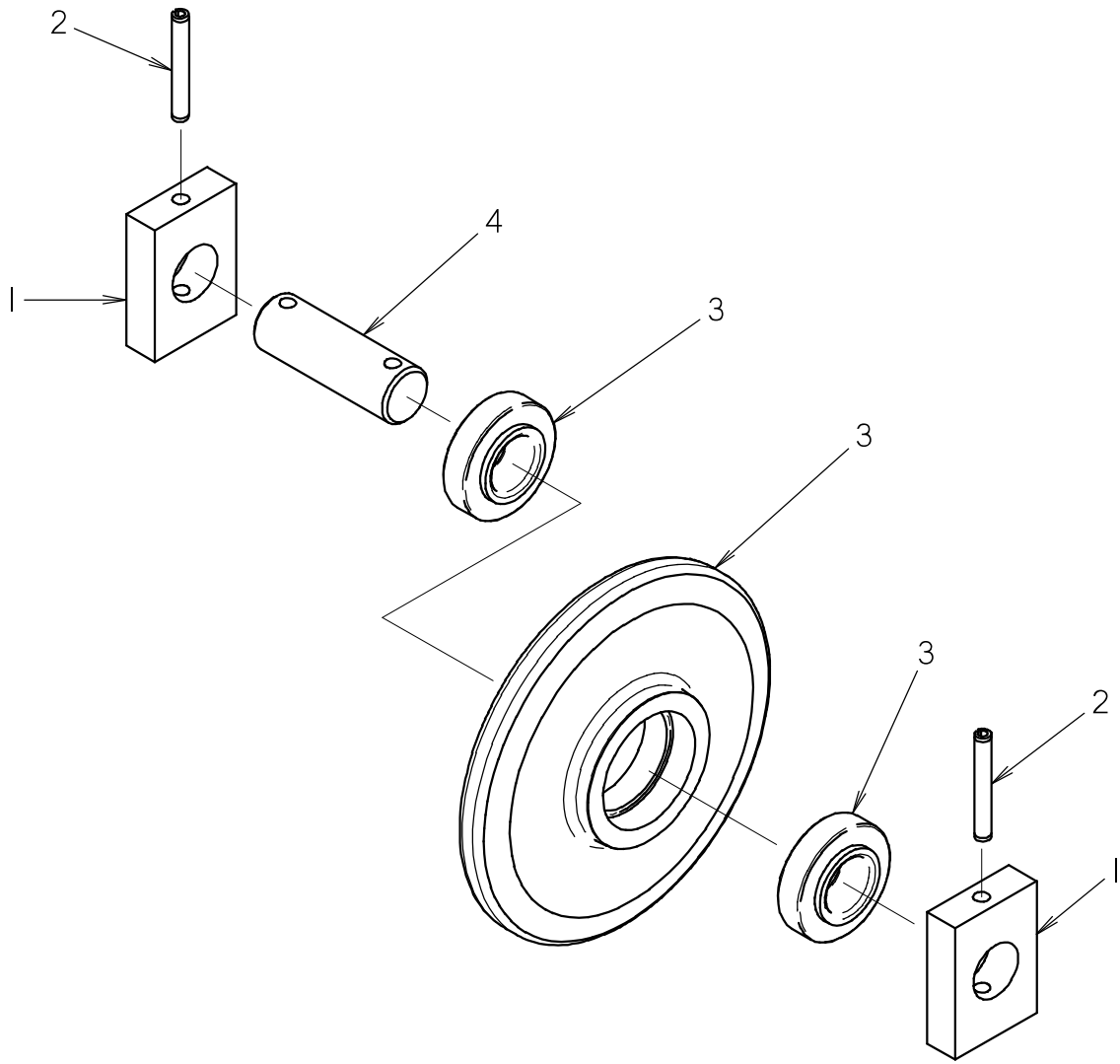
FOOTNOTES:

NOTE:

FRONT IDLER

ENDS WITH S/N: CMWSK350P60000600
ENDS WITH S/N: CMWSK650A60000427

ENDS WITH S/N: CMWSK500H60000254
ENDS WITH S/N: CMWXT850C60000125



FRONT IDLER

ENDS WITH S/N: CMWSK350P60000600

ENDS WITH S/N: CMWSK500H60000254

ENDS WITH S/N: CMWSK650A60000427

ENDS WITH S/N: CMWXT850C60000125

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	I70-336	-	FRONT IDLER ROLLER	INCLUDES REF NO.'S I-4
I	353-477	2	BLOCK, PUSH	
2	I05-561	2	ROLL PIN (3/8" X 2-3/4")	
3	I70-342	1	IDLER ROLLER SUB	SEE FOOTNOTE I
4	I67-307	1	SHAFT, IDLER	

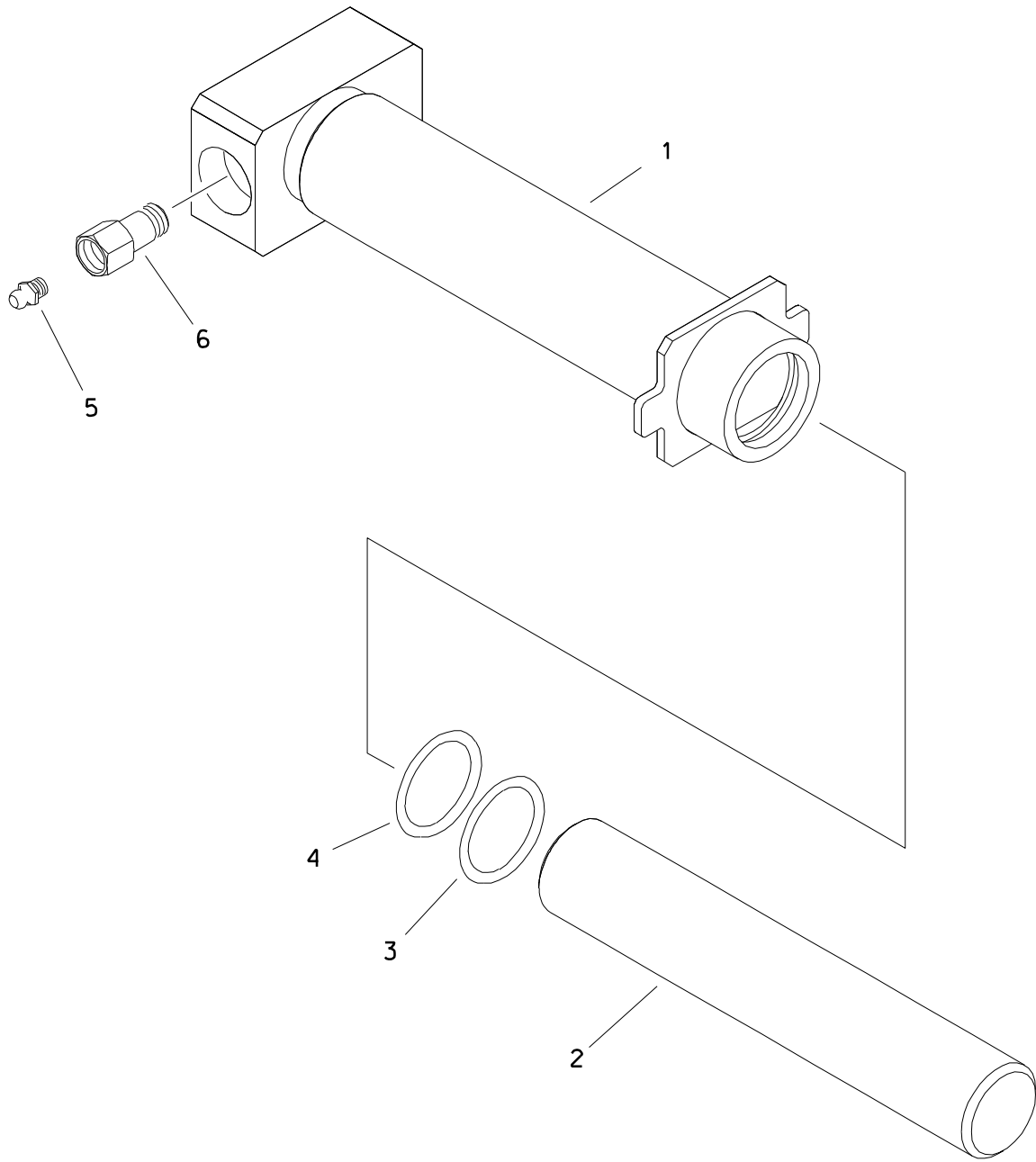
NOT SHOWN:

FOOTNOTES:

I. FOR REPLACEMENT BEARINGS, USE PART NUMBER I25-005.

NOTE:

GREASE CYLINDER

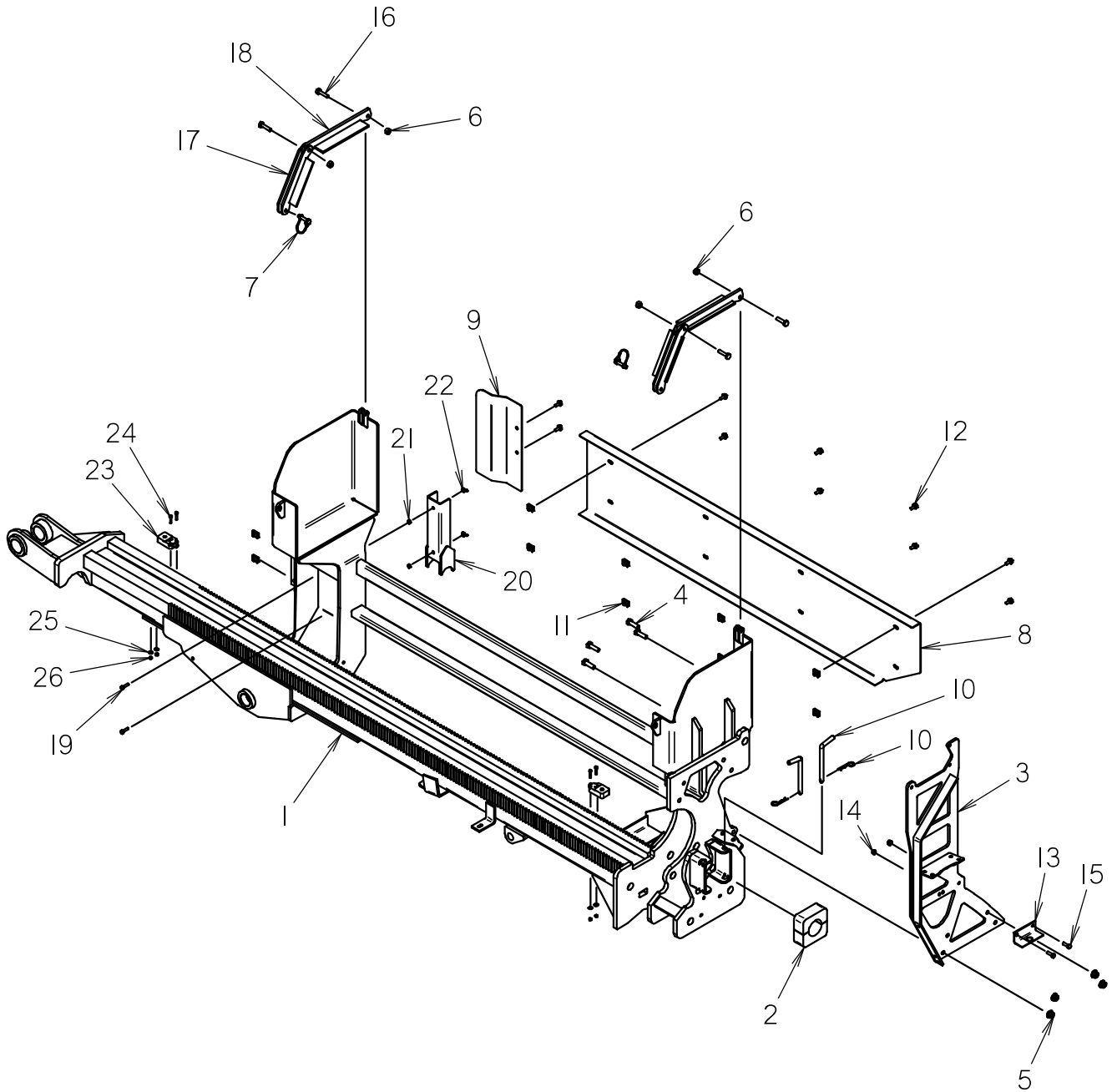


GREASE CYLINDER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-161		GREASE CYLINDER	INCL REF NO.'S 1 - 4
1.	353-404	1	GREASE CYLINDER	
2.	153-501	1	CYLINDER ROD	
3.	155-732	1	BACKUP RING (224 D90)	
4.	155-704	1	O-RING (224 D70)	
5.	115-019	1	ZERK (Q2N)	
6.	159-093	1	RELIEF VALVE (5/8-NF, Q2N)	

FOOTNOTES

DRILL FRAME



DRILL FRAME

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	301-1154	1	DRILL FRAME	
2	362-1060	2	PIPE GUIDE	BEGINS WITH S/N CMWJT922EB0000488, SEE FOOTNOTE I
3	316-861	1	MOUNT	
4	106-333	4	SCREW (M12-1.75 X 40MM, 8.8)	
5	106-709	4	FLG LK NUT (M12-1.75)	
6	105-894	4	LOCKNUT(M10-1.50,PRV TRQ,10.9)	
7	110-368	2	SNAPPER PIN (3/8" X 1-1/2")	
8	300-4489	1	COVER	
9	300-4491	1	COVER	
10	107-870	2	PULL PIN (5 X 5")	
11	106-551	10	CLIP NUT (M8-1.25)	
12	106-991	10	FLG LK SCREW (M8-1.25 X 20MM)	
13	300-4081	1	BULKHEAD BRACKET	
14	106-386	2	FLG LOCKNUT (M8-1.25)	
15	105-806	2	SCREW (M8-1.25 X 25MM)	
16	105-271	4	SCREW (M10-1.50 X 40MM)	
17	301-1145	2	RETAINER LINK	
18	301-1148	2	RETAINER LINK	
19	105-197	2	BOLT (1/4-NC X 1")	
20	300-4092	1	CYLINDER LOCK	
21	105-078	2	NUT (1/4-NC)	
22	195-339	2	WING NUT (1/4-NC)	
23	215-1175	2	PROXIMITY SWITCH	
24	106-426	4	SCREW (M5-0.80 X 25MM, SOC)	
25	105-2 4	4	WASHER (3/16")	
26	106-850	4	LOCKNUT (M5-0.80)	

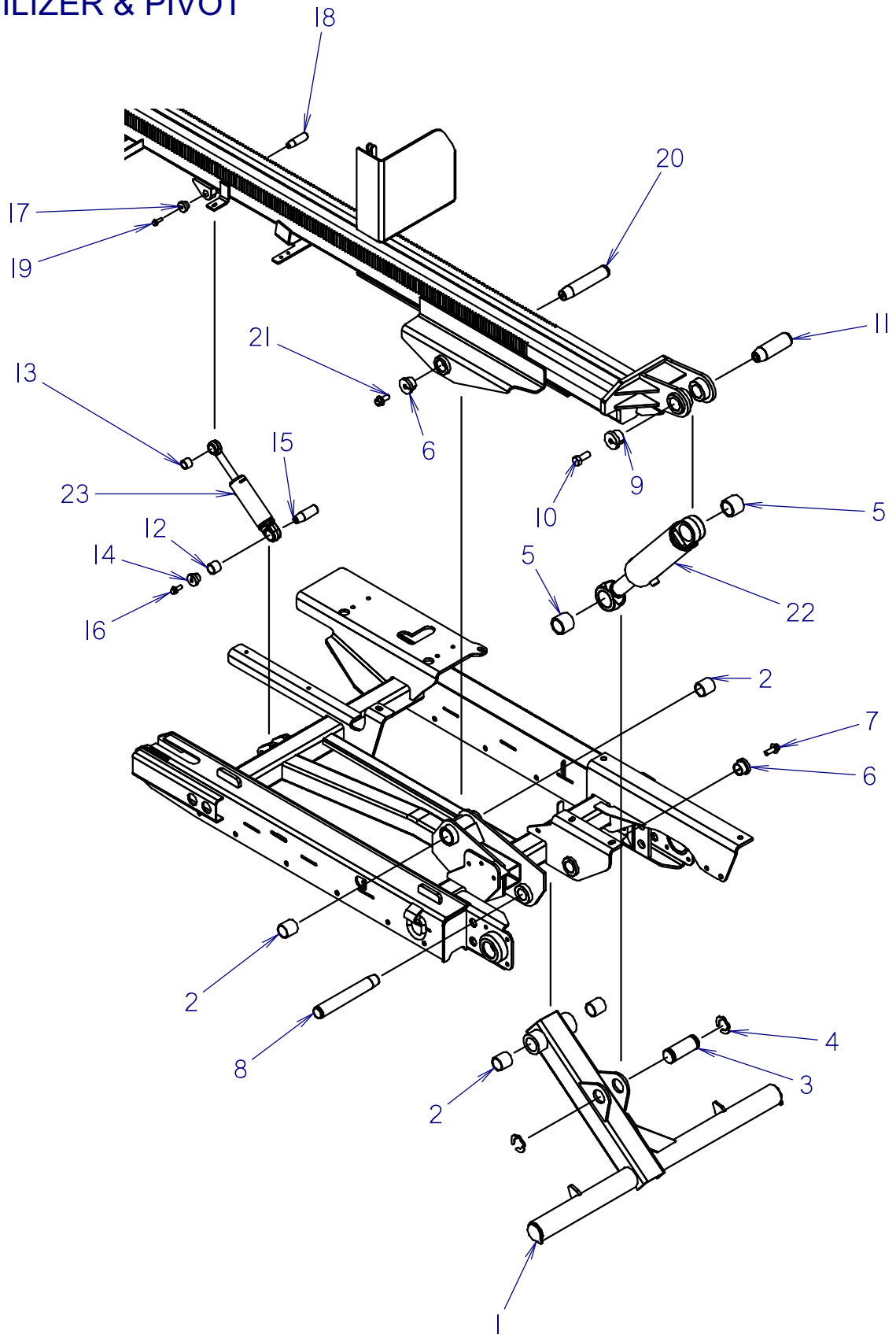
NOT SHOWN:

FOOTNOTES:

I. USE 362-1057 FOR FINE THREADED PIPE.

NOTE:

STABILIZER & PIVOT



STABILIZER & PIVOT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-3422	1	STABILIZER	
2	125-438	4	COMPOSITION BUSHING (1.75")	
3	300-3381	1	PIN	
4	115-781	2	KLIP RING (2.000")	
5	125-754	2	COMPOSITION BUSHING (2")	
6	181-975	2	TAPERED INSERT (1.75")	
7	106-470	1	FLG SCREW (M16-2.0 X 40MM)	
8	179-239	1	TAPERED PIN (44.4MM X 288MM)	
9	184-064	1	TAPERED INSERT (2")	
10	106-607	1	SCREW (M20-2.50 X 50MM, 10.9)	
11	179-188	1	TAPERED PIN (50.8mm X 158mm)	
12	125-771	1	COMPOSITION BUSHING (1.25")	
13	125-770	1	COMPOSITION BUSHING (1")	
14	181-982	1	TAPERED INSERT (1.25")	
15	183-938	1	TAPERED PIN (31.7MM X 95MM)	
16	106-469	1	FLG SCREW (M12-1.75 X 30MM)	
17	181-981	1	TAPERED INSERT (1")	
18	183-820	1	25.4 X 86 TAPERED PIN	
19	106-383	1	FLG LK SCREW (M10-1.50 X 30MM)	
20	178-190	1	BAR, 1.75 X 8 TPRD PIN W/CMFR	
21	105-969	1	FLG BOLT (5/8-NC X 1-1/2",GD8)	
22	151-116	1	CYL (3.5 X 2.00 X 10.0)	
23	151-038	1	CYL (2.0 X 1.0 X 4.0)	

NOT SHOWN:

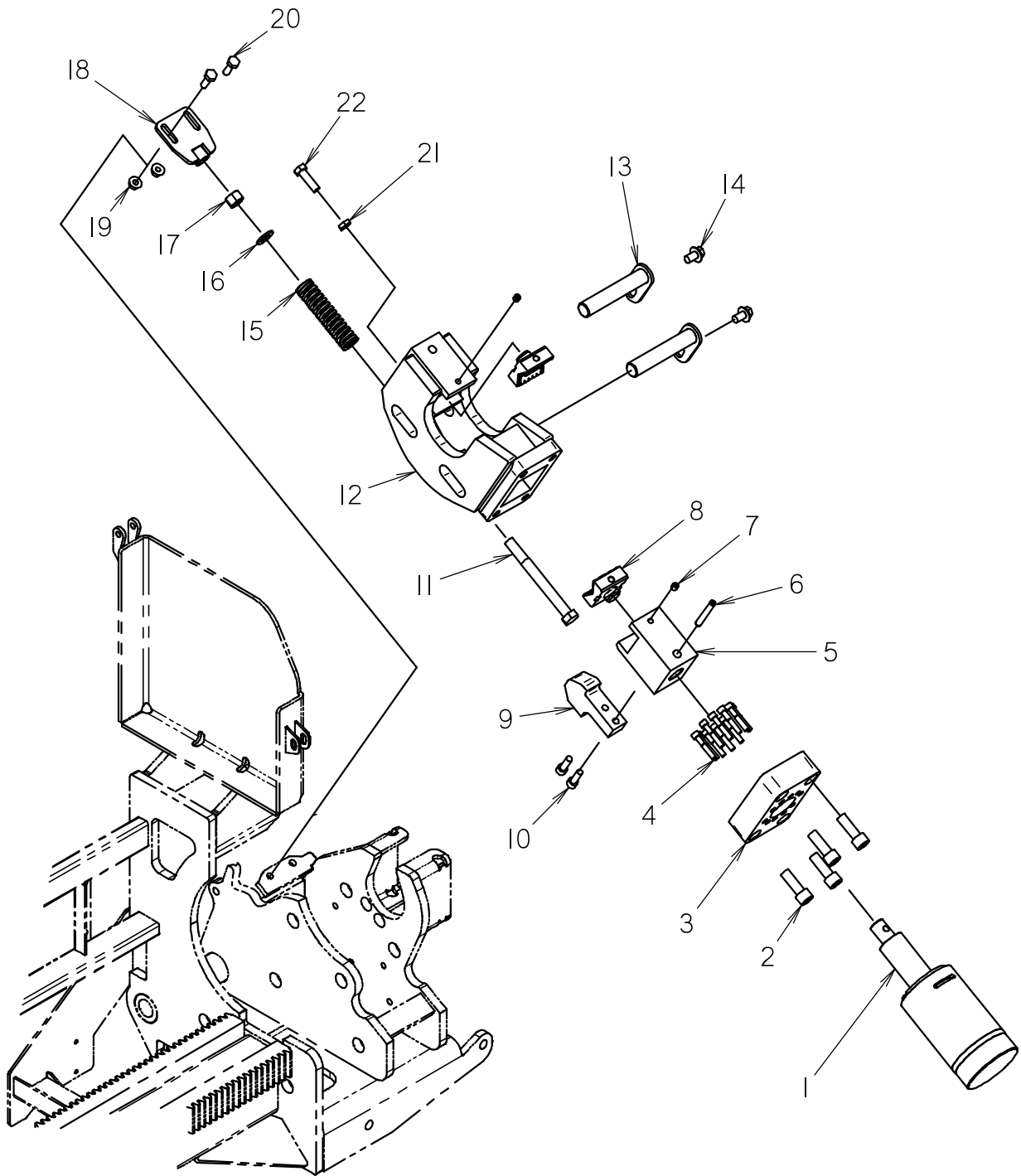
300-3986 - STABILIZER PAD

OPTIONAL EQUIPMENT

FOOTNOTES:

NOTE:

STATIONARY WRENCH



STATIONARY WRENCH

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	151-213	1	CYL (3.5" X 1.75" X 2.0")	
2	107-884	4	SCREW (M16-2.00 X 45MM, SOC)	USE LOCTITE 242 OR EQUIVALENT
3	316-545	1	CYLINDER HEAD PLATE	
4	107-894	10	SCREW (M8-1.25 X 45MM, SOC)	TORQUE TO 28 FT-LBS, USE LOCTITE 277 OR EQUIVALENT
5	300-1927	1	JAW	
6	105-561	1	ROLL PIN (3/8" X 2-3/4")	
7	106-529	2	SET SCREW (M10-1.50 X 10MM)	USE LOCTITE 242 OR EQUIVALENT
8	357-222	2	JAW INSERT	BEGINS WITH S/N CMWJT922EB0000488. SEE FOOTNOTE I
9	362-1083	1	STOP	
10	106-755	2	SCREW (M10-1.50 X 30MM, SOC)	
11	107-118	1	SCREW (M16-2.00 X 160MM, I0.9)	
12	300-3256	1	WRENCH	
13	318-511	2	WRENCH PIN - SHORT	
14	105-1012	2	FLG LK SCREW (M12-1.75 X 20MM)	
15	118-115	1	COMPRESSION SPRING	
16	106-392	1	WASHER (M16)	
17	106-545	1	LOCKNUT (M16-2.0,PRV TRQ,I0.9)	
18	300-1947	1	SPRING STOP	
19	106-387	2	FLG LOCKNUT (M10-1.50)	
20	107-612	2	SCREW (M10-1.50 X 30MM, CL I0.9)	
21	107-669	1	JAM NUT (M12-1.75)	
22	106-333	1	SCREW (M12-1.75 X 40MM, 8.8)	

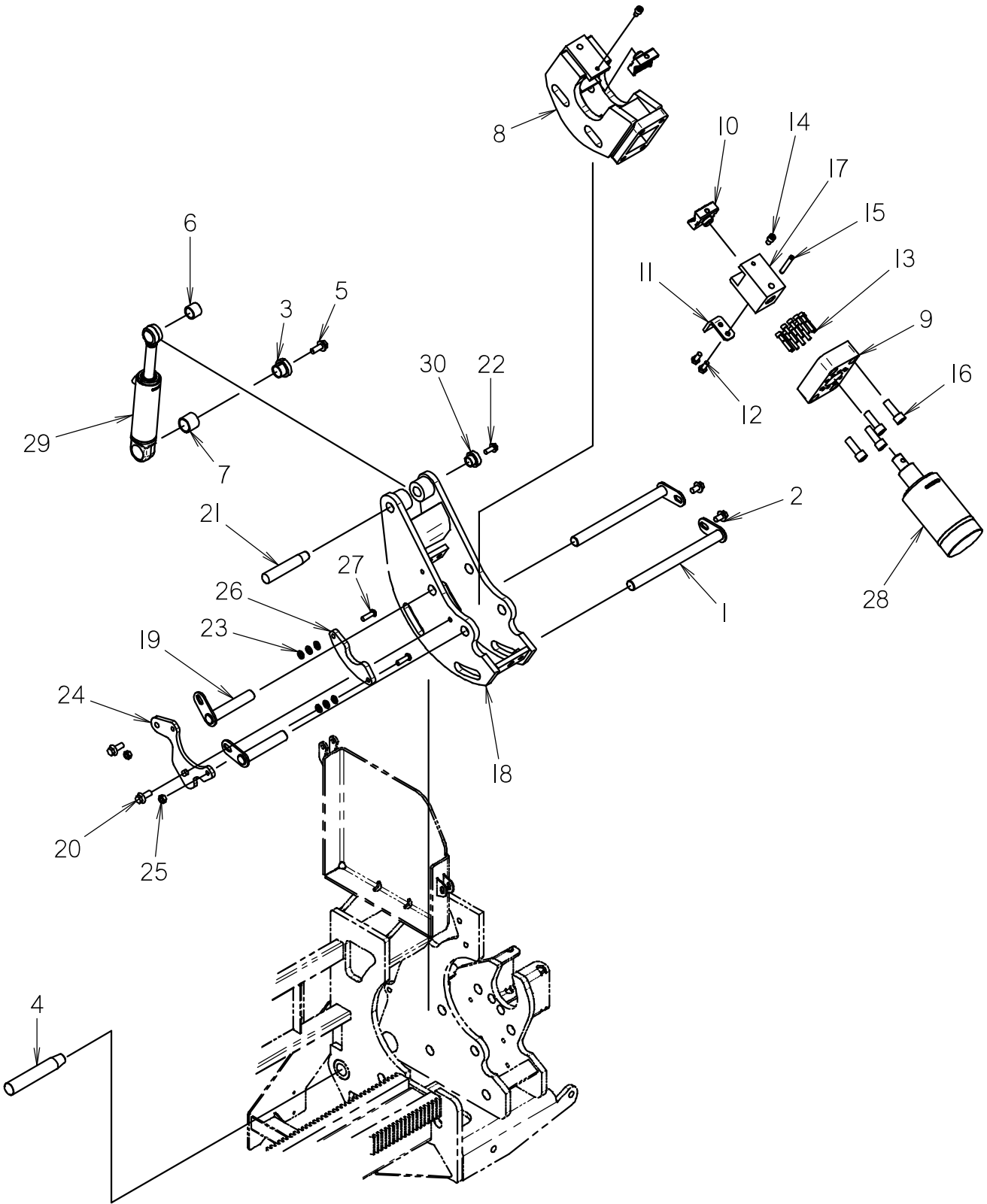
NOT SHOWN:

FOOTNOTES:

I. FOR FINE THREAD PIPE, USE 300-1995

NOTE:

ROTATING WRENCH



ROTATING WRENCH

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	318-512	2	WRENCH PIN - LONG	
2	105-1012	2	FLG LK SCREW (M12-1.75 X 20MM)	
3	181-982	1	TAPERED INSERT (1.25")	
4	178-225	1	TAPERED PIN, 1.25 x 7.15	
5	106-469	1	FLG SCREW (M12-1.75 X 30MM)	
6	125-770	1	COMPOSITION BUSHING (1.000")	
7	125-771	1	COMPOSITION BUSHING (1.25")	
8	300-3256	1	WRENCH	
9	316-545	1	CYLINDER HEAD PLATE	
10	357-222	2	JAW INSERT	BEGINS WITH S/N CMWJT922EB0000488. SEE FOOTNOTE 1
11	300-3276	1	STOP	
12	105-245	2	SCREW (M10-1.50 X 25MM)	
13	107-894	10	SCREW (M8-1.25 X 45MM, SOC)	TORQUE TO 28 FT-LBS, USE LOCTITE 277 OR EQUIVALENT
14	106-847	2	SCREW (M10-1.50 X 16MM, SOC)	USE LOCTITE 242 OR EQUIVALENT
15	105-561	1	ROLL PIN (3/8" X 2-3/4")	
16	107-884	4	SCREW (M16-2.00 X 45MM, SOC)	USE LOCTITE 242 OR EQUIVALENT
17	300-1927	1	JAW	
18	324-918	1	ROTATING WRENCH	
19	318-511	2	WRENCH PIN - SHORT	
20	107-010	2	FLG LK SCREW (M12-1.75 X 30MM)	
21	179-987	1	TAPERED PIN (1" X 5.50")	
22	106-724	1	FLG SCREW (M10-1.50 X 25MM)	
23	106-390	6	WASHER (M10)	
24	300-2905	1	PIPE REST MOUNT	
25	105-894	2	LOCKNUT (M10-1.50, PRV TRQ, 10, 9)	
26	362-1220	1	PIPE REST	
27	107-421	2	SCREW (M10-1.50 X 35MM, BUT SOC)	
28	151-213	1	CYL (3.5" X 1.75" X 2.0")	
29	151-038	1	CYL (2.0 X 1.0 X 4.0)	
30	181-981	1	TAPERED INSERT (1")	

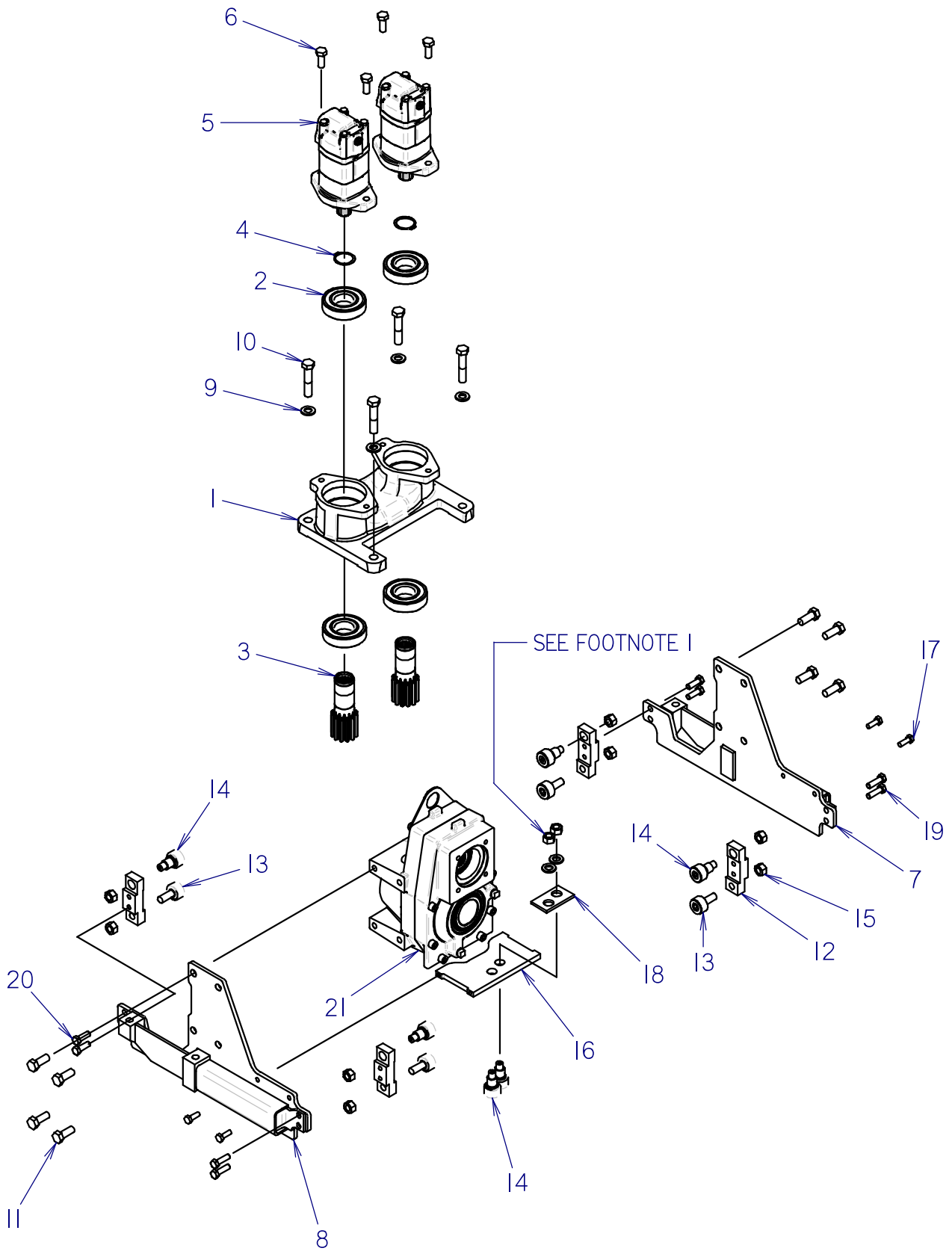
NOT SHOWN:

FOOTNOTES:

1. USE 300-1995 FOR FINE THREADED PIPE.

NOTE:

THRUST DRIVE



THRUST DRIVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-1771	1	MOTOR PLATE	
2	125-044	4	BEARING (FAFNIR 309PP)	
3	160-1038	2	PINION	
4	115-456	2	SNAP RING	
5	150-1395	2	GEORLER MOTOR	
6	106-472	4	SCREW (M14-2.0 X 35MM)	TORQUE TO 88 FT-LBS, USE LOCTITE 242 OR EQUIVALENT
7	300-2943	1	RIGHT SIDE PLATE	
8	300-2944	1	LEFT SIDE PLATE	
9	106-398	6	WASHER (M16, HARDENED)	
10	107-197	4	SCREW (M16-2.00 X 80MM, 10.9)	TORQUE TO 200 FT-LBS, USE LOCTITE 242 OR EQUIVALENT
11	105-998	8	SCREW (M16-2.00 X 40MM)	TORQUE TO 140 FT-LBS, USE LOCTITE 242 OR EQUIVALENT
12	300-3185	4	ROLLER MOUNT BAR	
13	140-1042	4	ROLLER (1.50")	
14	140-1053	6	ROLLER EC (1.50")	
15	105-390	10	NUT (5/8-NF)	TORQUE TO 100 FT-LBS EXCEPT AS NOTED IN FOOTNOTE I
16	300-3186	1	ROLLER MOUNT PLATE	
17	106-079	4	SCREW (M10-1.50 X 30MM)	TORQUE TO 32 FT-LBS, USE LOCTITE 242 OR EQUIVALENT
18	300-3281	1	SPACER PLATE	
19	106-547	4	SCREW (M12-1.75 X 40MM, 10.9)	TORQUE TO 80 FT-LBS, USE LOCTITE 242 OR EQUIVALENT
20	107-206	4	HHCS M12-1.75 X 35MM, 10.9 ZP	TORQUE TO 80 FT-LBS, USE LOCTITE 242 OR EQUIVALENT
21	166-1006	1	GEAR BOX (1.78 I, ROTATION)	

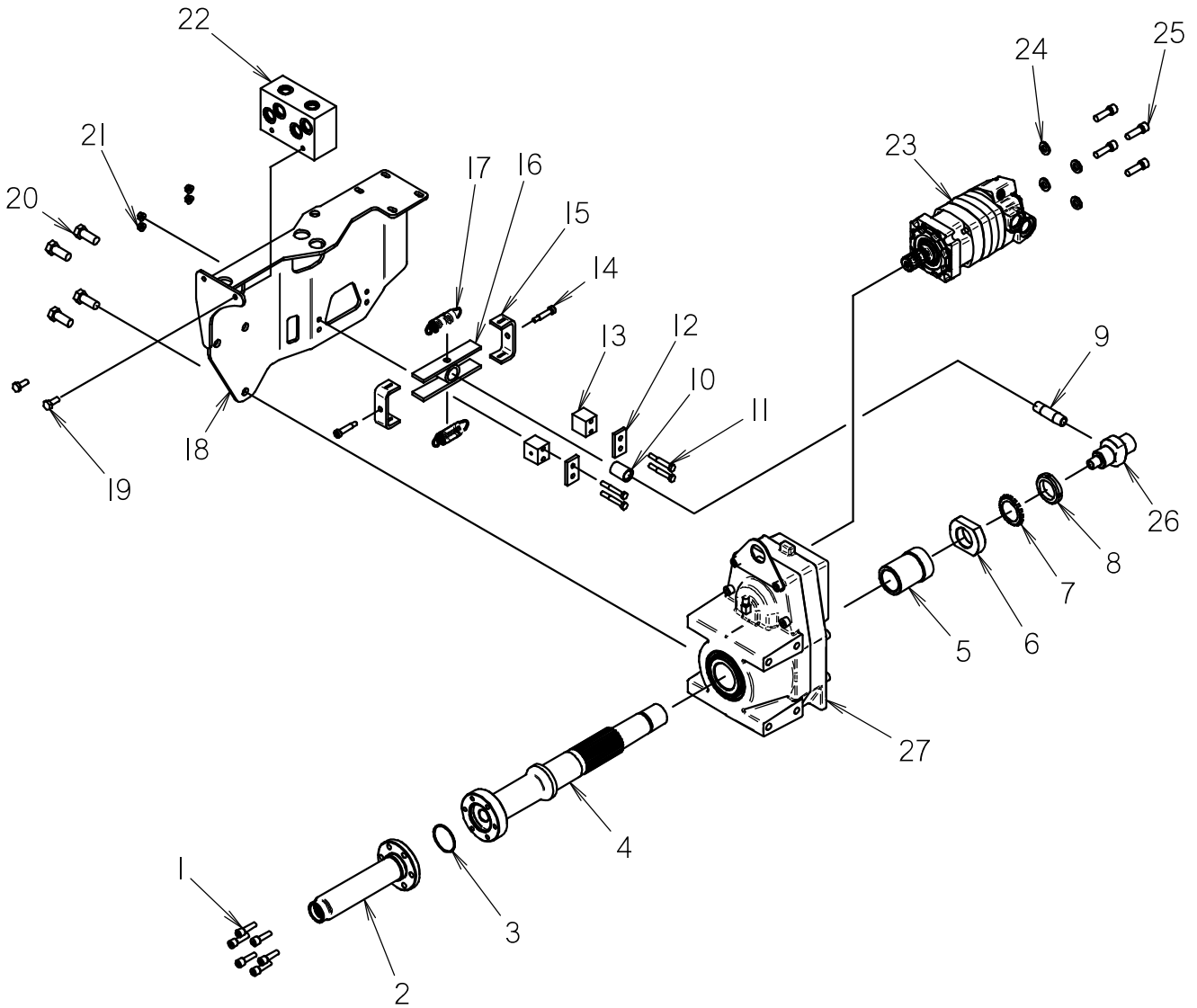
NOT SHOWN:

FOOTNOTES:

I. TORQUE TO 45 FT-LBS TWO NUTS NOTED ON GRAPHIC PAGE.

NOTE:

SPINDLE DRIVE



SPINDLE DRIVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	106-081	6	SCREW (M10-1.50 X 35MM, SOCI)	TORQUE TO 55 FT-LBS, USE LOCTITE 242 OR EQUIVALENT
2	300-2340	1	SAVER SUB	FINE THREAD. SEE FOOTNOTE 1 FOR COARSE THREAD
3	157-019	1	O-RING (139 D90)	
4	300-2342	1	SLIDING SPINDLE SHAFT	APPLY 256-666 GREASE TO SPLINES
5	177-034	1	SHAFT SPACER	
6	106-865	1	NUT	
7	185-074	1	TANG LOCK WASHER (1.792")	
8	185-067	1	THRUST LOCKNUT (1.767-NF-18)	
9	115-124	1	PIPE NIPPLE (1/2-NPT X 3" LG)	
10	115-155	1	COLLAR (08NF)	
11	106-570	4	SCREW (M8-1.25 X 60MM)	
12	300-3832	2	CAP PLATE	
13	300-3825	2	MOUNT BLOCK	
14	107-223	2	SHLD BLT (M10 X 35MM, M8-1.25)	USE LOCTITE 242 OR EQUIVALENT
15	300-3823	2	EXTENSION BRACKET	
16	300-3826	1	SLIDE	
17	105-1151	2	EXTENSION SPRING	
18	300-3284	1	HOSE CARRIER MOUNT	
19	105-245	2	SCREW (M10-1.50 X 25MM)	
20	105-998	4	SCREW (M16-2.00 X 40MM)	TORQUE TO 140 FT-LBS, USE LOCTITE 242 OR EQUIVALENT
21	106-386	4	FLG LOCKNUT (M8-1.25)	
22	300-3280	1	MANIFOLD BLOCK	
23	158-881	1	MOTOR	
24	106-397	4	WASHER (M12, HARDENED)	
25	107-044	4	SCREW (M12-1.75 X 40MM, SOCI)	USE LOCTITE 242 OR EQUIVALENT
26	150-1462	1	WATER SWIVEL (1-08)	
27	166-1006	1	GEAR BOX (1.781, ROTATION)	

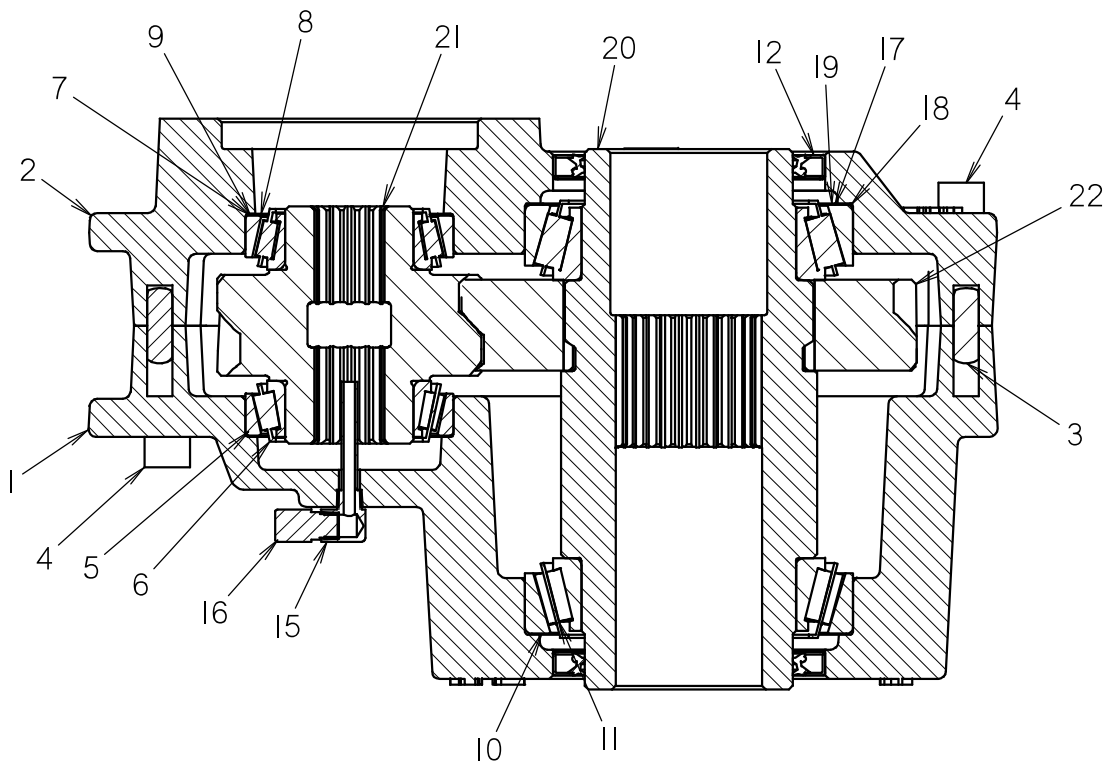
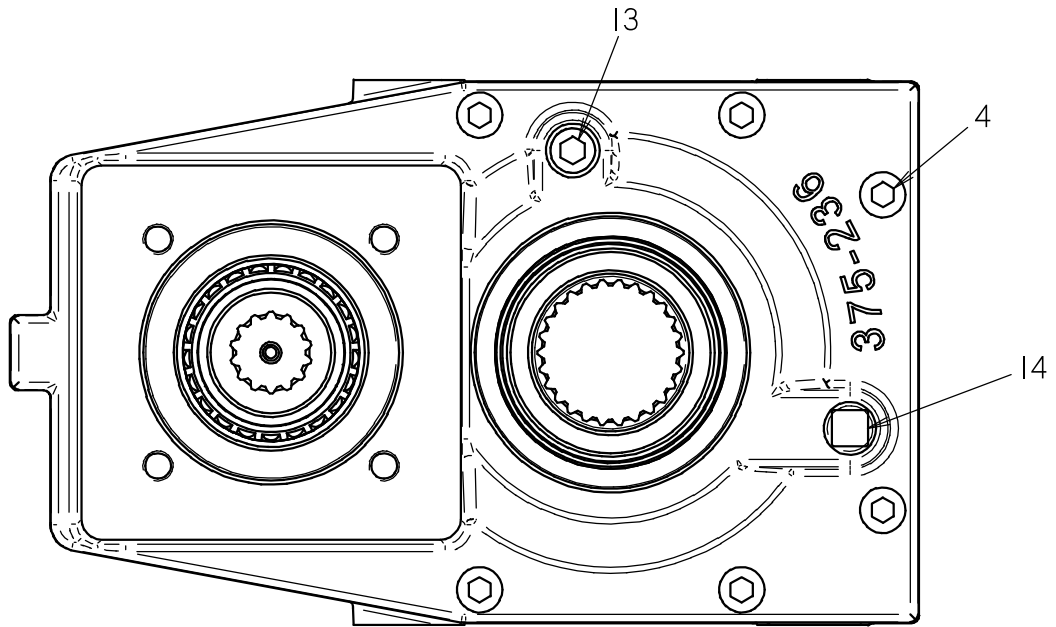
NOT SHOWN:

FOOTNOTES:

1. 300-7767 SAVER SUB (COARSE THREAD)

NOTE:

ROTATION GEARBOX



ROTATION GEARBOX

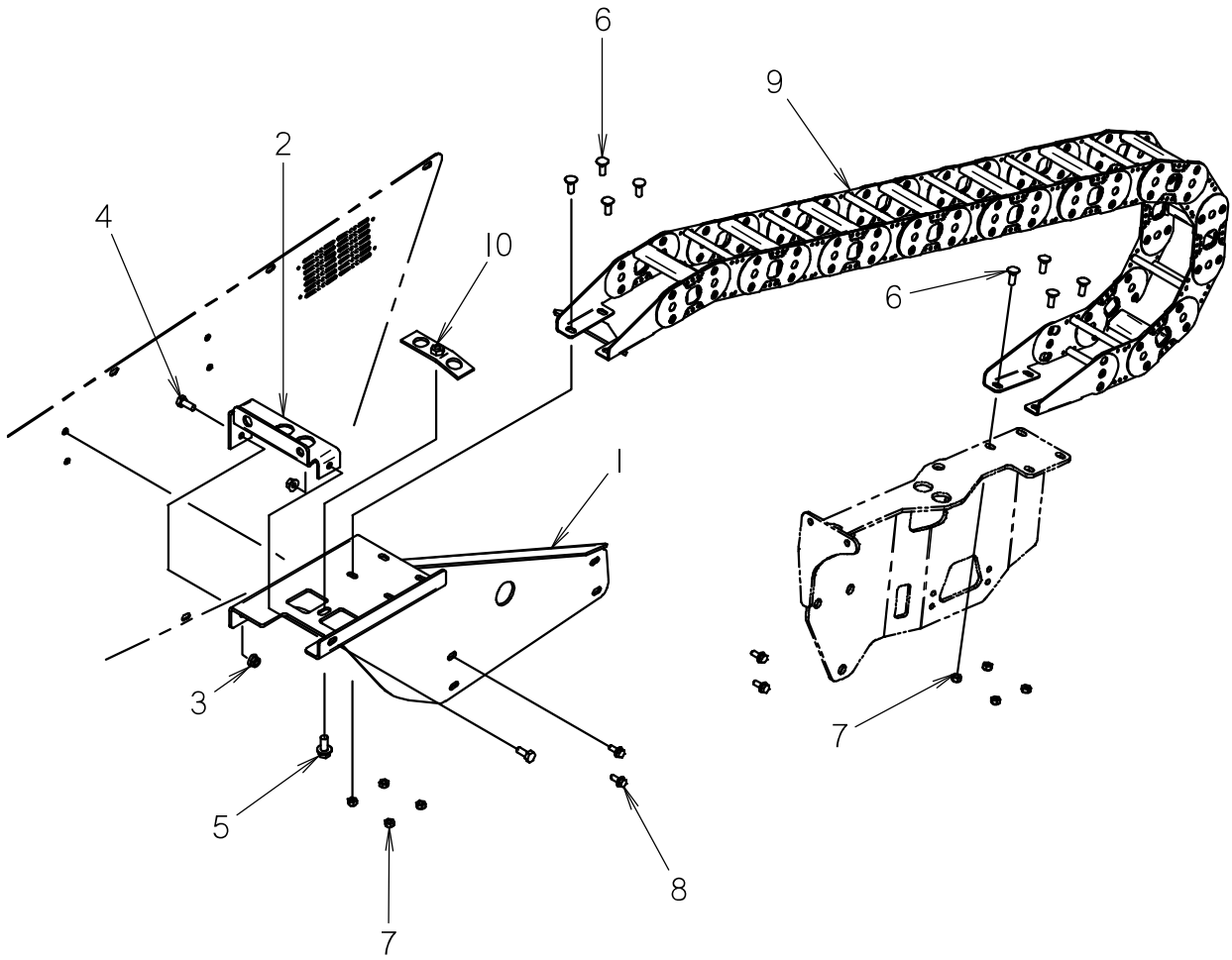
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	166-113		GEAR BOX (1.781, ROTATION)	
1	162-002	1	GEARBOX HOUSING	
2	162-001	1	COVER "B"	
3	106-866	2	DOWEL PIN (M10 X 30MM)	
4	106-771	10	SCREW (M12-1.75 X 60MM, SOC)	
5	126-099	2	TAPERED RACE (3.25")	
6	126-100	2	BEARING CONE	
7	165-800	5	SHIM (.002")	
8	165-801	5	SHIM (.003")	
9	165-802	5	SHIM (.007")	
10	126-076	2	TAPERED RACE (5.118")	
11	126-075	2	TAPERED BEARING (3.346")	
12	155-869	2	INTERNAL SEAL (3.250")	
13	115-165	1	PLUG (O8N, SOC)	
14	115-211	1	PLUG (O8N, SQ, MAG)	
15	514-123	1	PICKUP TUBE (O2N-O2NF90-2")	
16	159-003	1	AIR VENT (O2N)	
17	165-828	5	SHIM	
18	165-829	5	SHIM	
19	165-830	5	SHIM	
20	162-003	1	OUTPUT SHAFT	
21	165-187	1	INPUT PINION	
22	165-188	1	OUTPUT GEAR	

NOT SHOWN:

FOOTNOTES:

NOTE:

HOSE CARRIER



HOSE CARRIER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-3364	1	UPPER HOSE CARRIER MOUNT	
2	300-3363	1	BULKHEAD BRACKET	
3	106-387	2	FLG LOCKNUT (M10-1.50)	
4	105-245	2	SCREW (M10-1.50 X 25MM)	
5	106-806	1	FLG LK SCREW (M12-1.75 X 25MM)	
6	105-600	8	CARRIAGE BOLT (3/8-NC X 1")	
7	105-047	8	LOCKNUT (3/8-NC)	
8	106-162	4	FLG SCREW (M8-1.25 X 20MM, GD8)	
9	300-2025	1	HOSE CARRIER	SEE FOOTNOTE 1 FOR SERVICE PARTS
10	300-3361	1	BULKHEAD PLATE	

NOT SHOWN:

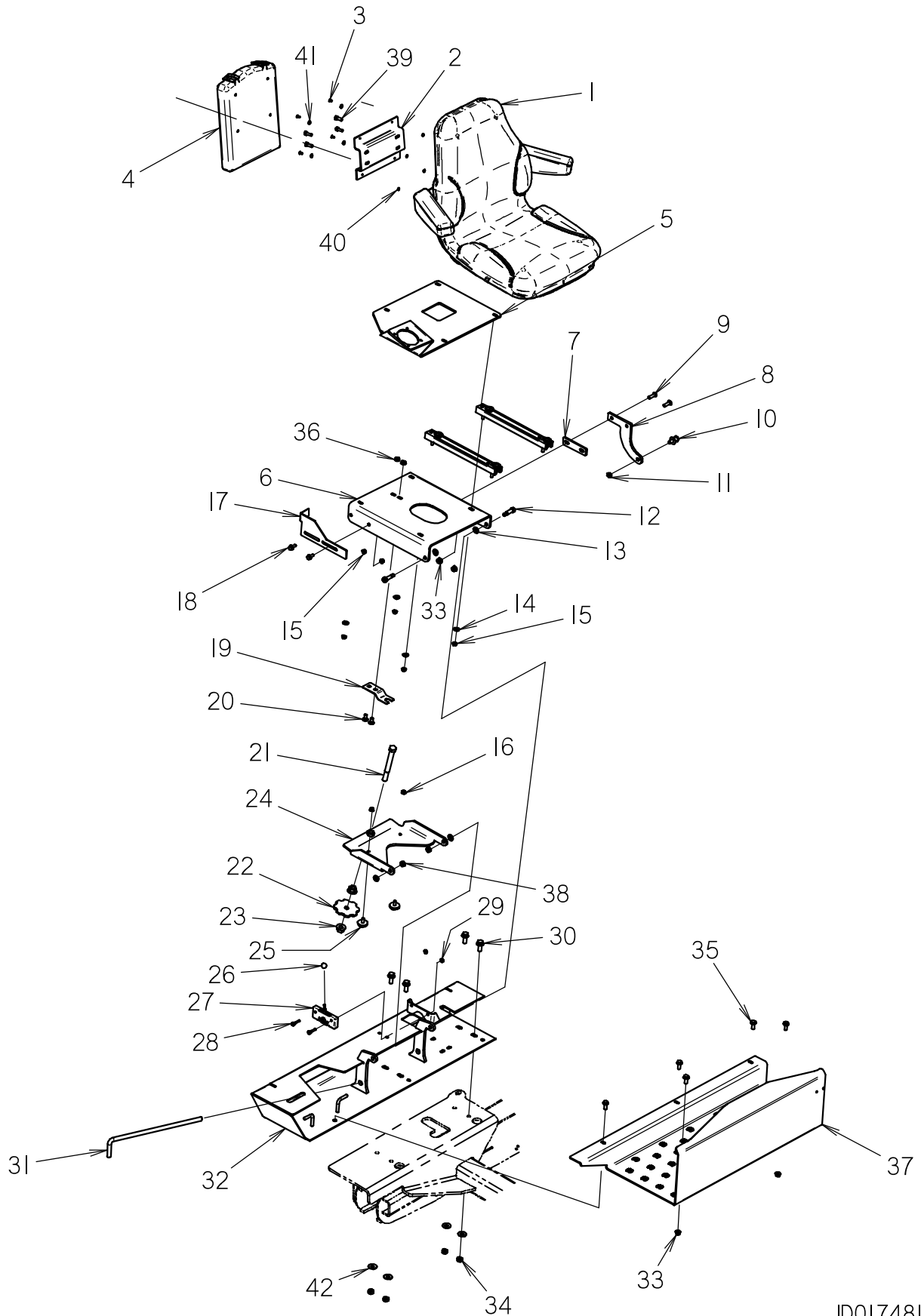
FOOTNOTES:

1. REPAIR LINK 500-1908, EZ OUT 500-1909, ROUND BAR 500-1917, FLAT BAR 500-1918

NOTE:

OPERATOR'S STATION

OPERATOR STATION



OPERATOR STATION

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	105-1062	1	SEAT ASSEMBLY	SEE FOOTNOTE I
2	300-2673	1	MANUAL BOX MOUNT	
3	110-560	4	POP RIVET (3/16" X 1/2", ALUM)	
4	318-588	1	MANUAL COMPARTMENT	
5	300-3180	1	JOYSTICK MOUNT	
6	300-2672	1	SEAT MOUNT PLATE	
7	300-3737	1	SPACER	
8	300-3733	1	STRIKER MOUNT	
9	106-674	2	BOLT (M10-1.50 X 30MM,BUT SOC)	
10	106-223	1	SHLD BLT (675"X.700",7/16-NC)	
11	105-151	1	LOCKNUT (7/16-NC)	
12	106-535	2	SHLD BLT (M12 X 30MM,M10-1.50)	
13	106-391	4	WASHER (M12)	
14	105-117	4	WASHER (5/16")	
15	106-386	6	FLG LOCKNUT (M8-1.25)	
16	105-003	2	FLG LOCKNUT (5/16-NC)	
17	300-4007	1	SLIDE STOP	
18	106-162	2	FLG SCREW (M8-1.25 X 20MM, GD8)	
19	300-4031	1	BRACKET	
20	105-835	2	CARRIAGE BOLT (3/8-NC X 3/4")	
21	106-983	1	SCREW (M16-2.00 X 150MM, 10.9)	
22	300-2676	1	ADJUSTMENT WHEEL	
23	106-355	2	FLG NUT (M16-2.00, 10.9)	
24	300-4029	1	SEAT BASE	
25	116-525	2	BUMPER	
26	362-1160	1	KNOB	
27	110-564	1	HOOD LATCH	
28	105-856	2	BOLT (1/4-NC X 1 1/4")	
29	105-832	2	FLG LOCKNUT (1/4-NC)	
30	106-469	4	FLG SCREW (M12-1.75 X 30MM)	
31	215-799	1	VOLTAGE STAKE	
32	300-3325	1	OPERATOR STATION MOUNT	
33	106-387	4	FLG LOCKNUT (M10-1.50)	
34	106-685	4	LOCKNUT(M12-1.75,PRV TRQ,10.9)	
35	105-799	5	FLG LK SCREW (M10-1.50 X 25MM)	
36	105-834	2	FLG LOCKNUT (3/8-NC)	
37	300-3179	1	FLOOR PLATE	
38	105-894	2	LOCKNUT(M10-1.50,PRV TRQ,10.9)	
39	105-806	4	SCREW (M8-1.25 X 25MM)	
40	106-205	4	WASHER (191")	
41	107-310	4	WASHER (#10)	
42	105-059	4	WASHER (7/16")	

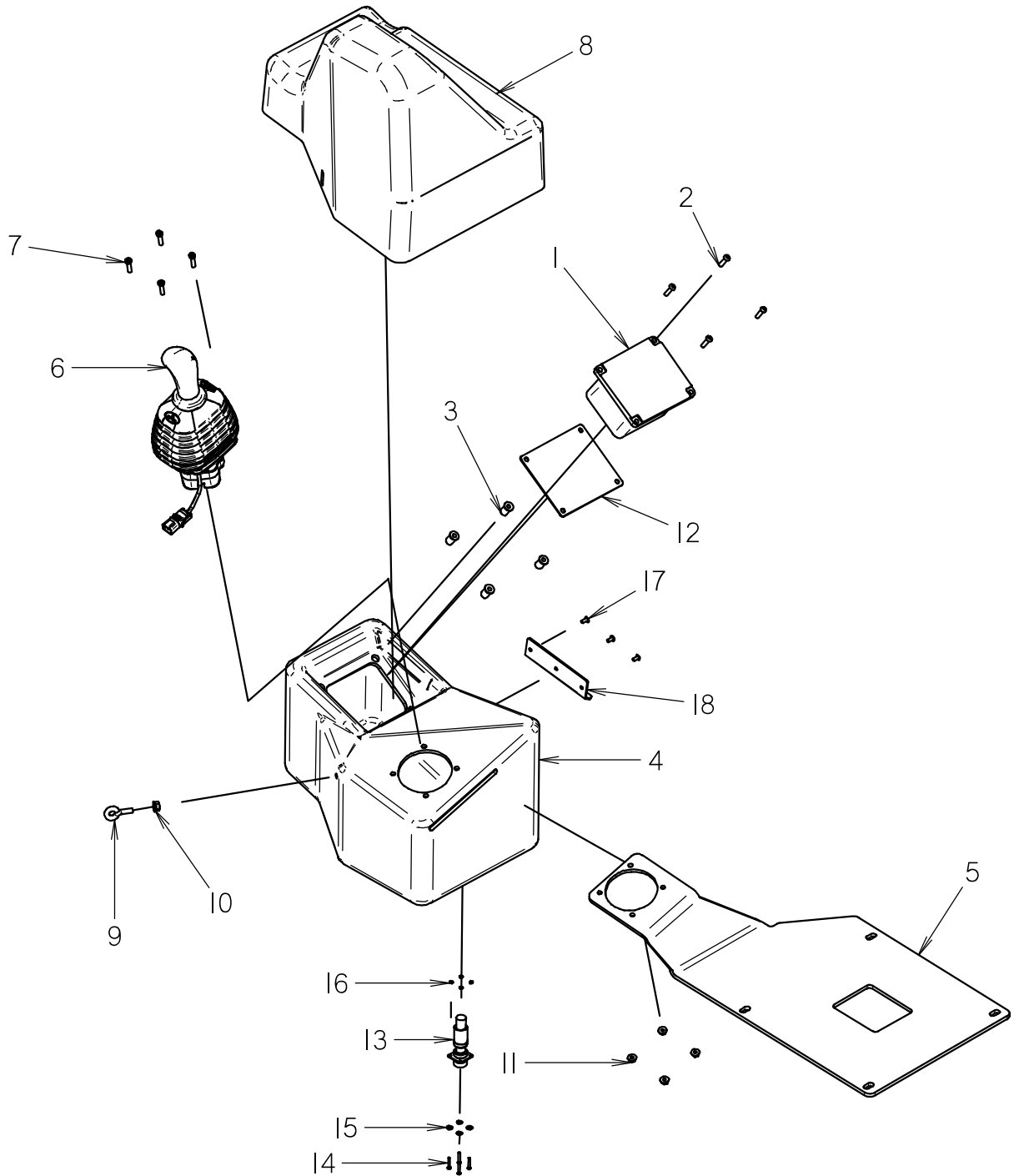
NOT SHOWN:

FOOTNOTES:

I. REPLACEMENT PART 105-1138 SEAT SLIDE (2X)

NOTE:

RIGHT CONSOLE



RIGHT CONSOLE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	N/A	1	REMOTE DISPLAY	
2	107-312	4	SCREW (M6-1.00 X 25MM, BUT SOC)	
3	107-871	4	WELLNUT (M6-1.00 X 20.35MM LG)	
4	362-1046	1	RIGHT CONSOLE	
5	300-3180	1	JOYSTICK MOUNT	
6	150-1179	1	JOYSTICK	
7	107-322	4	SCREW (M6-1.00X25MM,SOC,12.9)	
8	362-1093	1	WEATHER COVER	
9	107-570	1	EYE BOLT (M8-1.25 X 20MM)	
10	106-386	1	FLG LOCKNUT (M8-1.25)	
11	106-385	4	FLG LOCKNUT (M6-1.00)	
12	348-896	1	COVER PLATE	
13	214-415	1	90D MODULE TO RIG CABLE	
14	107-269	4	SCREW (#4-40 X 3/4", PAN)	
15	106-013	4	WASHER (3/16")	
16	105-662	4	NUT (#4-40)	
17	110-560	3	POP RIVET (3/16" X 1/2", ALUM)	
18	300-3538	1	BRACKET	

NOT SHOWN:

FOOTNOTES:

NOTE:

LEFT CONSOLE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	362-1045	1	LEFT CONSOLE	
2	215-133	1	FUEL GAUGE	
3	215-128	1	HOUR METER	
4	306-603	1	AUDIO ALARM	
5	107-358	2	WELLNUT (M4-0.7 X 12.67MM LG)	
6	107-393	2	SCREW (M4-0.70 X 16MM, BX)	
7	220-1024	1	ESID MODULE	
8	107-312	10	SCREW (M6-1.00 X 25MM, BUT SOCI)	
9	300-4725	1	THROTTLE BRACKET	
10	195-1501	1	THROTTLE CONTROL CABLE	SEE FOOTNOTE 2
11	106-162	2	FLG SCREW (M8-1.25 X 20MM, GD8)	
12	106-386	2	FLG LOCKNUT (M8-1.25)	
13	105-834	5	FLG LOCKNUT (3/8-NC)	
14	214-563	1	RED LED (12V DC)	
15	110-560	3	POP RIVET (3/16" X 1/2", ALUM)	
16	110-737	1	PULL PIN (5/16" X 2")	
17	300-3538	1	BRACKET	
18	362-1094	1	WEATHER COVER	
19	107-781	4	HEX SCREW (#10-24 X 5/8")	
20	105-186	4	NUT (#10-24)	
21	105-600	3	CARRIAGE BOLT (3/8-NC X 1")	
22	110-449	2	POP RIVET (3/16" X .690")	
23	107-310	2	WASHER (#10)	
24	300-3252	1	GAUGE MOUNT PANEL	SEE FOOTNOTE 1
25	258-062	1	PRESSURE GAUGE (1500 PSI)	FLUID GAUGE
26	258-045	2	PRESSURE GAUGE (4000 PSI)	
27	107-871	10	WELLNUT (M6-1.00 X 20.35MM LG)	
28	105-826	2	FLG LK BOLT (3/8-NC X 1")	
29	105-117	5	WASHER (5/16")	
30	214-852	1	IGNITION SWITCH	
31	220-664	1	INDICATOR ASSEMBLY	
32	214-301	1	ACCESSORY SOCKET	
33	217-907	1	ROCKER SWITCH (DPDT) ON-ON	BEGINS WITH S/N: CMWJT922JA0000402

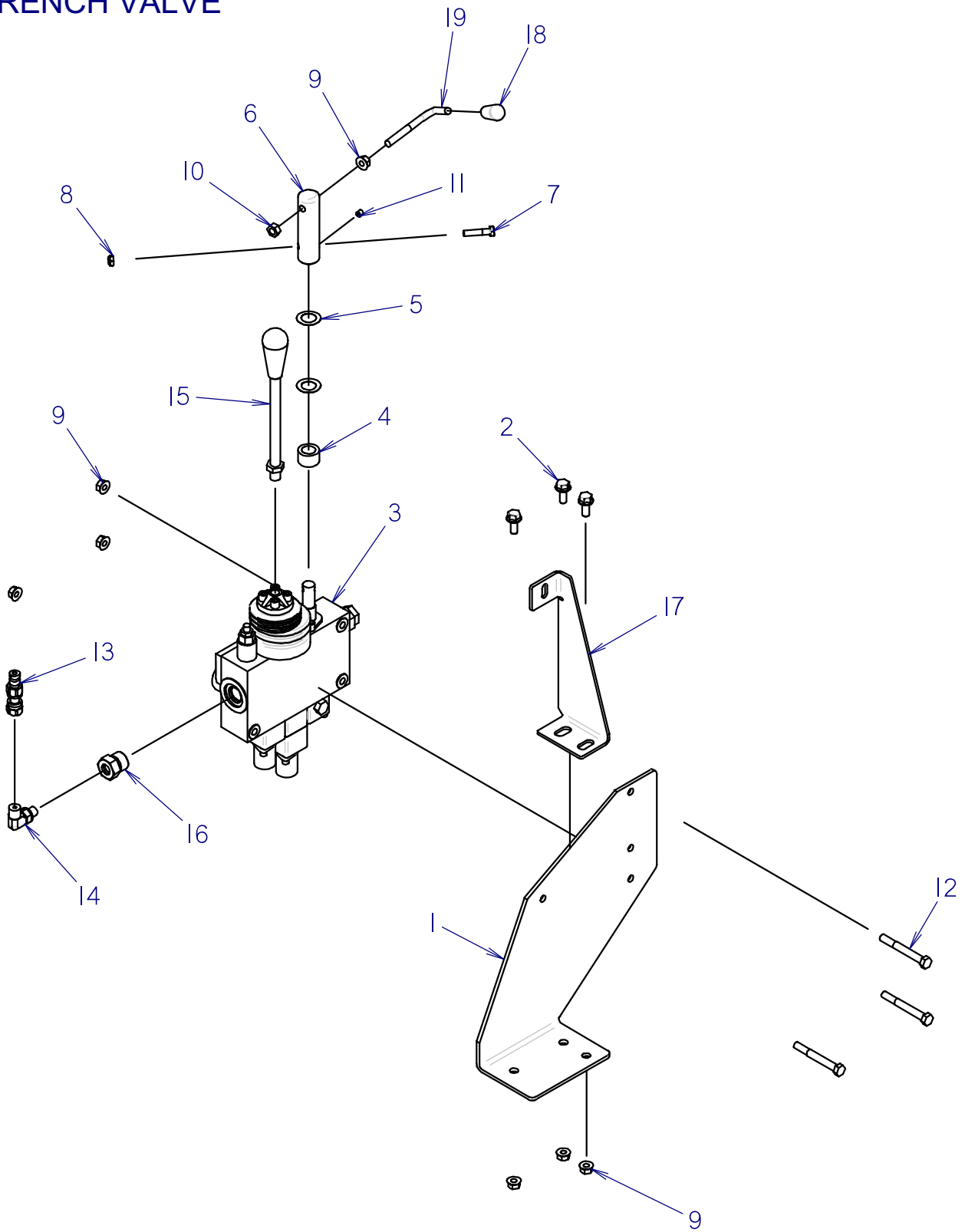
NOT SHOWN:

FOOTNOTES:

1. CENTER GAUGE, THRUST, RIGHT GAUGE, ROTATION
2. IF REPLACING THROTTLE CABLE, ORDER KIT 190-1467, WHICH INCLUDES THROTTLE CABLE 195-1501, SPRING 115-615, AND WASHERS 107-310. SEE PARTS PAGE ID0205412 FOR LOCATION OF THE SPRING AND WASHERS, AND INSTALLATION INSTRUCTIONS ID0230528 FOR DETAILS.

NOTE:

WRENCH VALVE



WRENCH VALVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-3177	1	CONTROL VALVE MOUNT	
2	106-162	3	FLG SCREW (M8-1.25 X 20MM, GD8)	
3	150-1981	1	WRENCH VALVE	
4	178-266	1	SPACER	
5	110-085	2	SPRING WASHER	
6	302-767	1	TUBE	
7	105-856	1	BOLT (1/4-NC X 1 1/4")	
8	105-085	1	LOCKNUT (1/4"-NC)	
9	106-386	7	FLG LOCKNUT (M8-1.25)	
10	106-561	1	LOCKNUT (M8-1.25,PRV TRQ,10.9)	
11	105-712	1	SET SCREW (1/4-NC X 1/4", CUP)	
12	106-330	3	SCREW (M8-1.25 X 70MM)	
13	159-156	1	QDC ADAPTER (02-040F)	
14	154-252	1	CONNECTOR (04S-04090)	
15	500-1328	1	HANDLEVER	
16	155-181	1	REDUCER (10S-04SF)	
17	300-3629	1	GUSSET	
18	116-906	1	KNOB (5/16,NC,BLACK)	
19	150-1926	1	LEVER (5/16")	

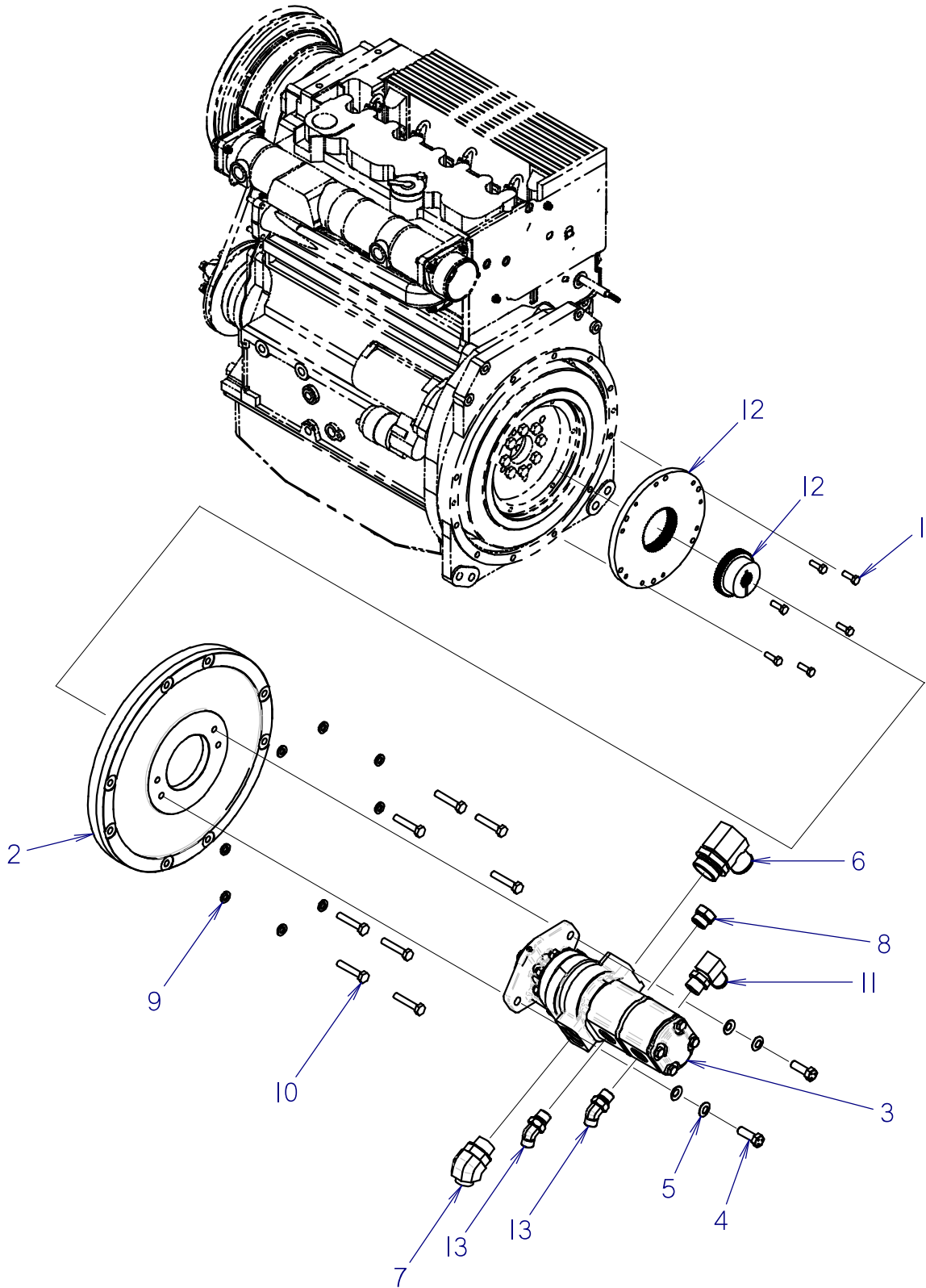
NOT SHOWN:

FOOTNOTES:

NOTE:

HYDRAULICS

HYDRAULIC PUMP



HYDRAULIC PUMP

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	105-806	6	SCREW (M8-1.25 X 25MM)	TORQUE TO 16 FT-LBS, USE LOCKTITE 242 OR EQUIVALENT
2	194-763	1	MOUNT PLATE	
3	150-1436	1	TRIPLE GEAR HYDRAULIC PUMP	SEE FOOTNOTE 1
4	105-062	2	BOLT (1/2-NC X 1-1/2", FER)	
5	105-058	4	BELLEVILLE WASHER (1/2")	
6	514-135	1	S/O COUPLER (24S-24H90)	
7	154-358	1	CONNECTOR (120-16S45)	
8	500-302	1	PLUG (-12 S)	
9	105-073	8	LOCK WASHER (7/16")	
10	105-839	8	SCREW (M10-1.50 X 55MM)	
11	155-146	1	S/O COUPLER (12S-16H90)	
12	195-1031	1	FLYWHEEL/PUMP COUPLING	TORQUE SOCKET HEAD SCREW TO 45 FT-LBS
13	154-264	2	CONNECTOR (080-10S45)	

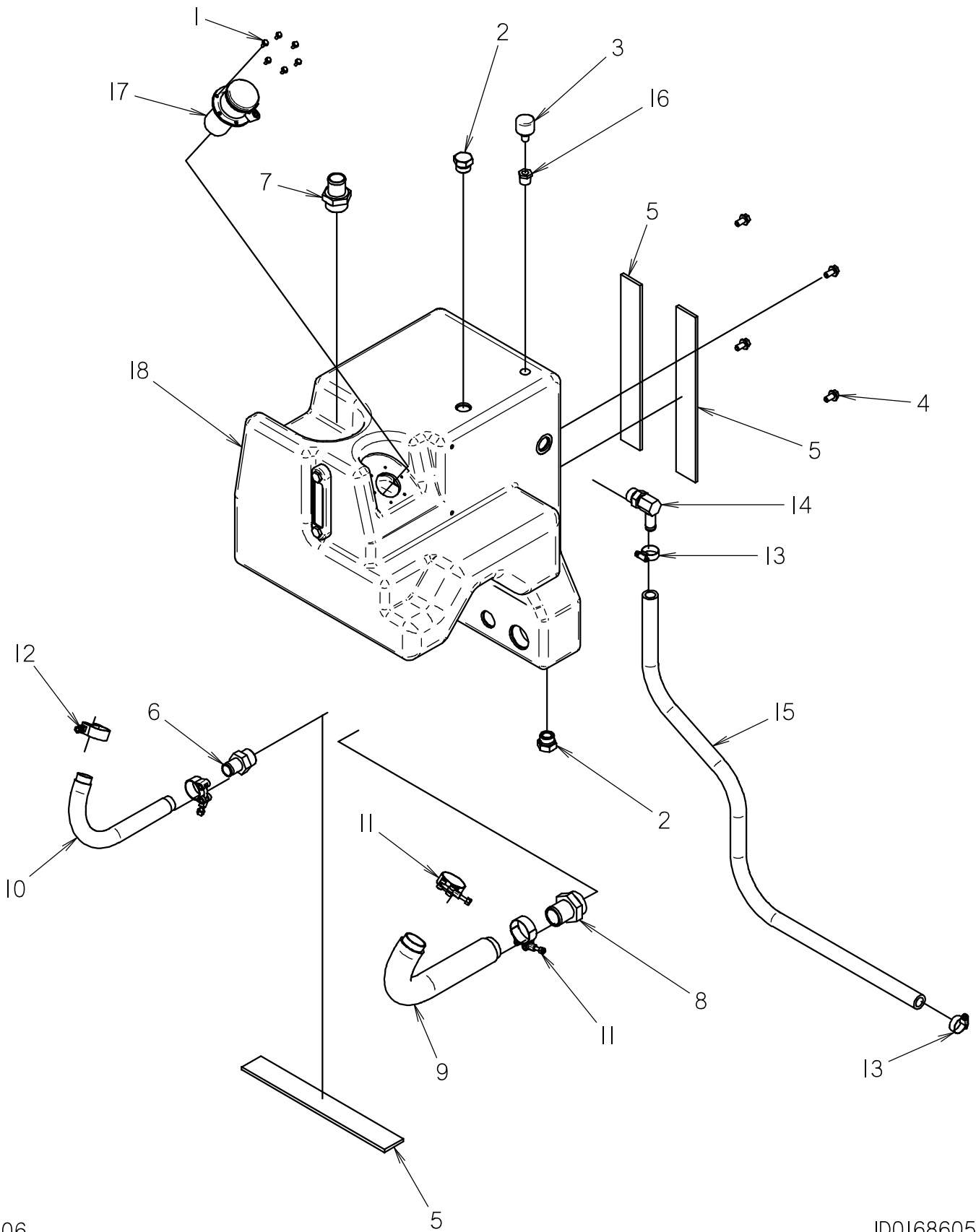
NOT SHOWN:

FOOTNOTES:

- I. SEAL REPAIR KIT P/N: 500-1367

NOTE:

HYDRAULIC RESERVOIR



HYDRAULIC RESERVOIR

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	105-214	6	FLG SCREW (#10-24 X .5")	
2	500-302	2	PLUG (12 S)	
3	111-021	1	BREATHER CAP (TANK)	
4	105-825	4	FLG LK BOLT (3/8-NC X 3/4)	
5	117-1009	3	SUPPORT MAT	
6	514-088	1	S/O COUPLER (16S-16H)	
7	155-004	1	S/O COUPLER (20S-20H)	
8	514-138	1	-24 SAE -24H STREIGHT	
9	116-588	20	BULK HOSE, 11-1/2, SOLD PER 1")	1 @ 20"
10	116-460	15	BULK HOSE	1 @ 15"
11	111-028	2	T-BOLT CLAMP (1.75"-2.00")	
12	111-027	2	T-BOLT CLAMP (1.25" - 1.50")	
13	110-026	2	WORM CLAMP (1/2" TO 1-1/4")	
14	155-174	1	S/O COUPLER (12S-12H90)	
15	116-636	42	BULK HOSE (3/4", SOLD PER FT)	1 @ 42"
16	115-135	1	REDUCER (08N-04NF)	
17	364-567	1	FILL NECK	
18	362-1048	1	HYDRAULIC RESERVOIR	

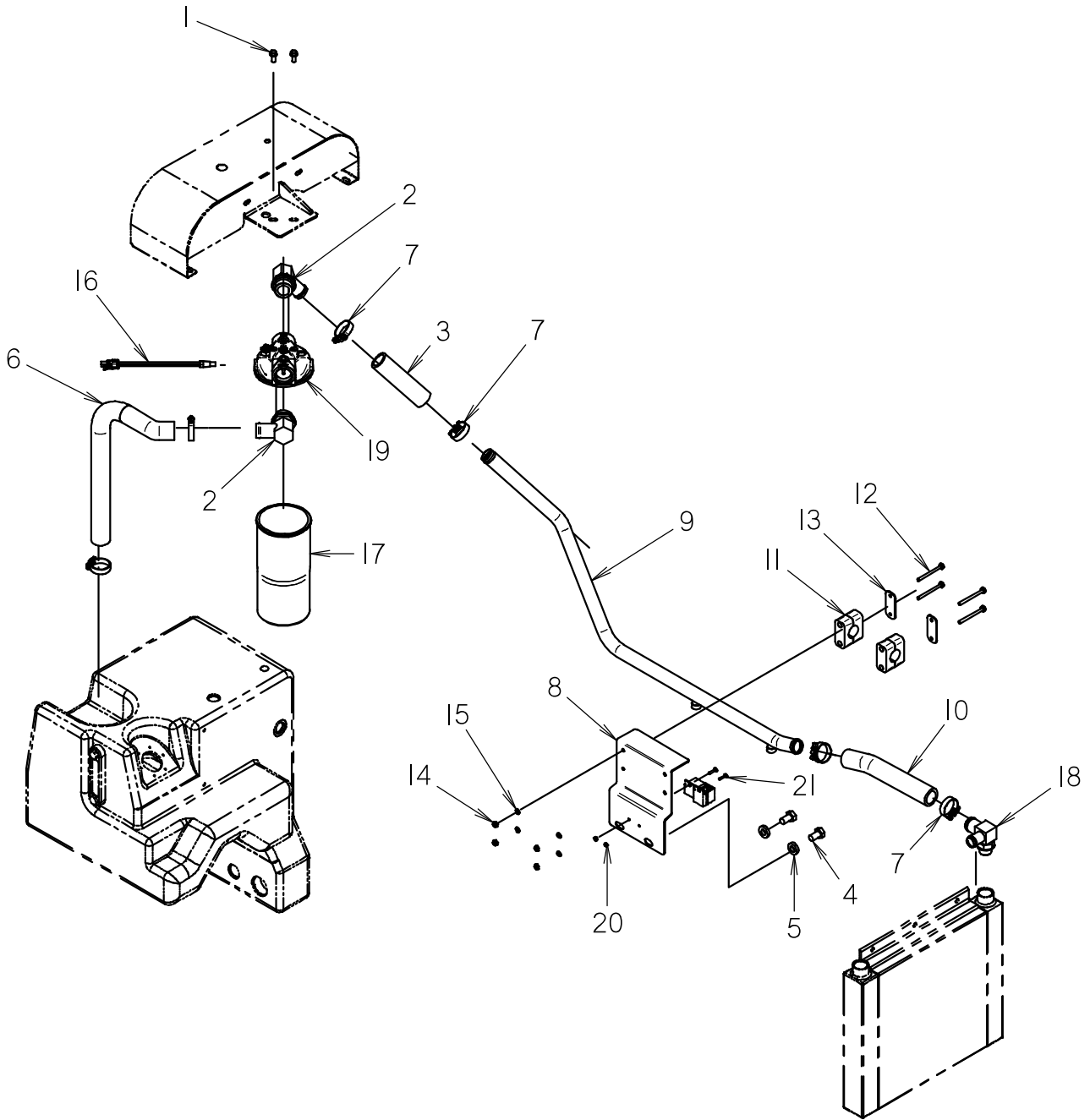
NOT SHOWN:

150-1570 SIGHT GAUGE

FOOTNOTES:

NOTE:

HYDRAULIC FILTER



HYDRAULIC FILTER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	105-823	2	FLG LK BOLT (5/16-NC X 3/4")	
2	155-168	2	S/O COUPLER (20S-20H90)	
3	116-587	6	BULK HOSE (1-1/4",SOLD PER FT)	1 @ 6"
4	106-118	2	SCREW (M14-2.0 X 25MM)	
5	105-244	2	WASHER	
6	116-587	20	BULK HOSE (1 1/4", SOLD PER FT.)	1 @ 20"
7	149-342	6	T-BOLT CLAMP (1.687")	
8	300-3299	1	BRACKET	
9	150-1510	1	HARDLINE	
10	116-587	11	BULK HOSE (1-1/4",SOLD PER FT)	1 @ 11"
11	110-852	2	BLT-ON CLP(1.25",SOLD PER SET)	
12	107-283	4	BOLT (1/4-NC X 3")	
13	322-362	2	BACKUP SPACER	
14	105-085	4	LOCKNUT (1/4"-NC)	
15	105-079	4	LOCK WASHER (1/4)	
16	214-854	1	TEMPERATURE SWITCH(1/4NPT,MALE)	
17	153-792	1	FILTER ELEMENT (10 MICRON)	
18	150-1531	1	S/O BR TEE (16S-20H-16H)	
19	157-458	1	FILTER HEAD	INCLUDES 500-1613, OIL TEMP INDICATOR
20	106-350	2	NUT, HEX, #8-32	
21	106-349	2	SCREW (8-32 X 3/4" PAN)	

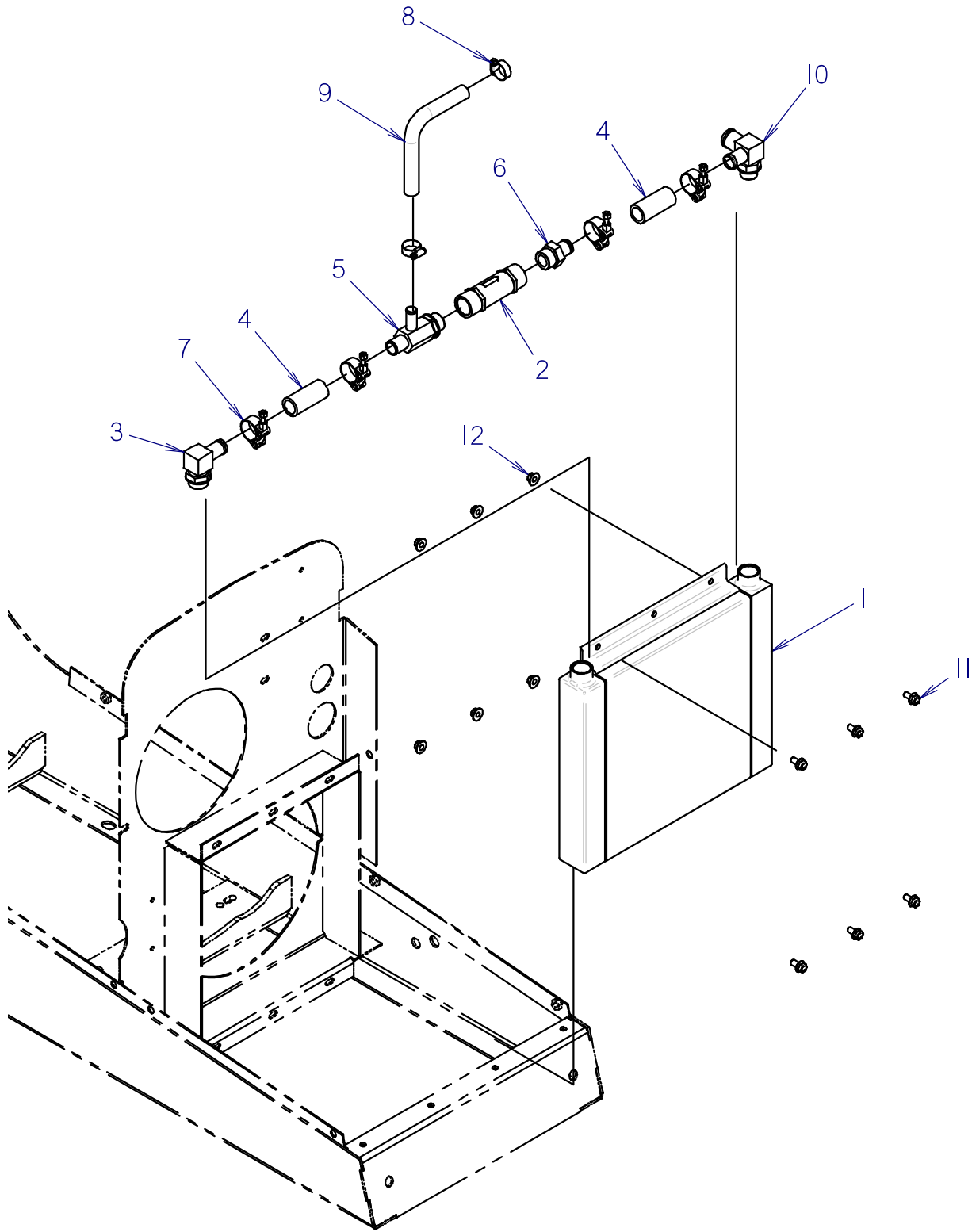
NOT SHOWN:

FOOTNOTES:

NOTE:

HYDRAULIC COOLER BYPASS

ENDS WITH S/N: CMWJT922A70000153



HYDRAULIC COOLER BYPASS

ENDS WITH S/N: CMWJT922A70000153

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	150-1282	1	HYDRAULIC OIL COOLER	
2	153-436	1	FLOW CHECK (16SF-16SF)	
3	154-188	1	S/O COUPLER (16S-16H90)	
4	116-460	6	BULK HOSE, (1" SOLD PER 1')	2 @ 3"
5	159-637	1	S/O RUN TEE (16S-16H-12H)	
6	514-088	1	S/O COUPLER (16S-16H)	
7	111-027	4	T-BOLT CLAMP (1.25" - 1.50")	
8	110-026	2	WORM CLAMP (1/2" TO 1-1/4")	
9	116-636	10	BULK HOSE, (3/4", SOLD PER 1')	1 @ 10"
10	150-1531	1	S/O BR TEE (16S-20H-16H)	
11	105-825	6	FLG LK BOLT (3/8-NC X 3/4)	
12	105-814	6	FLG LOCKNUT (3/8-NC)	

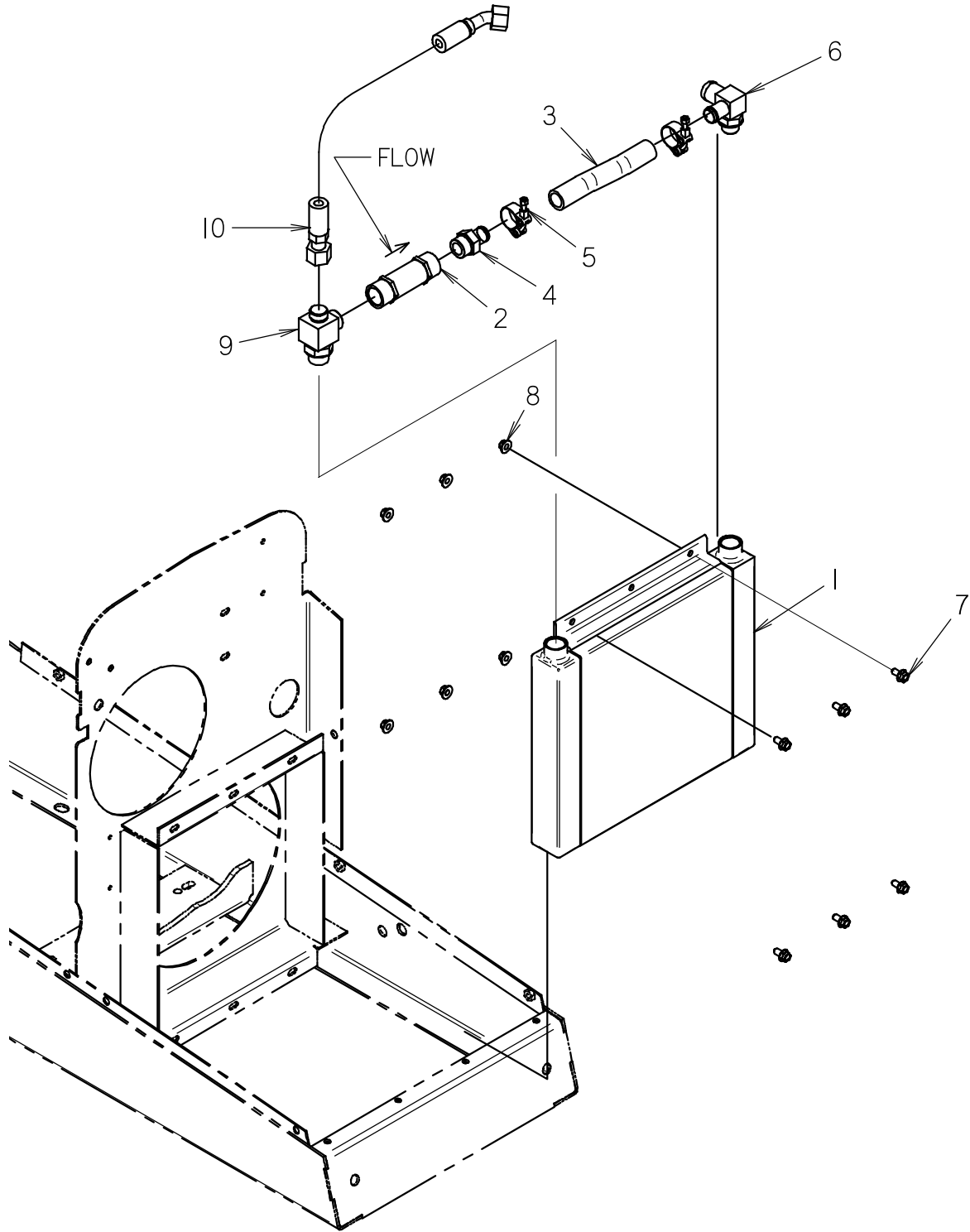
NOT SHOWN:

FOOTNOTES:

NOTE:

HYDRAULIC COOLER BYPASS

BEGINS WITH S/N: CMWJT922A70000154



HYDRAULIC COOLER BYPASS

BEGINS WITH S/N: CMWJT922A70000154

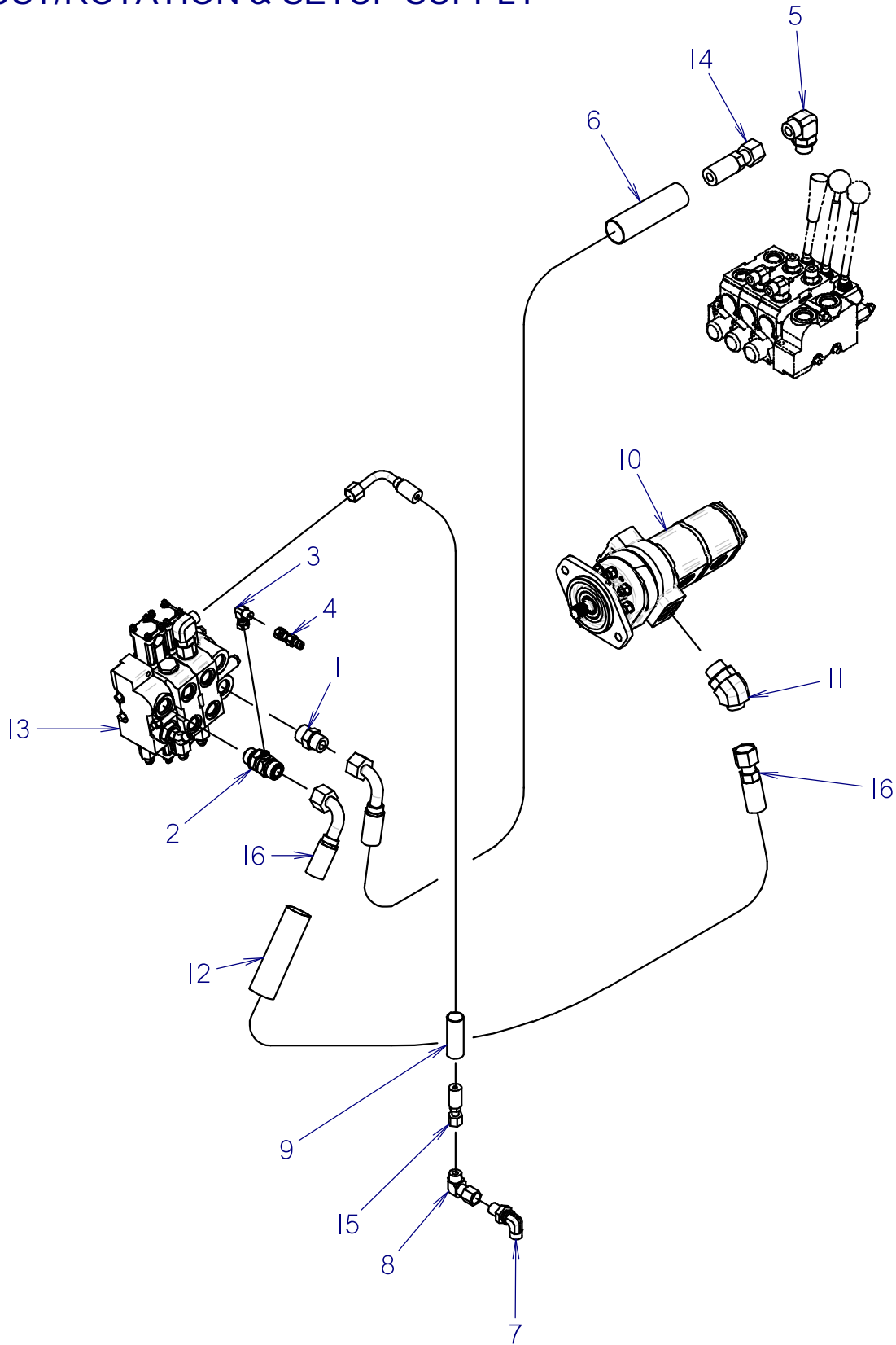
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	150-1282	1	HYDRAULIC OIL COOLER	
2	153-436	1	FLOW CHECK (16SF-16SF)	
3	116-460	9	BULK HOSE, (1",SOLD PER 1")	1 @ 9"
4	514-088	1	S/O COUPLER (16S-16H)	
5	111-027	2	T-BOLT CLAMP (1.25" - 1.50")	
6	150-1531	1	S/O BR TEE (16S-20H-16H)	
7	105-825	6	FLG LK BOLT (3/8-NC X 3/4)	
8	105-814	6	FLG LOCKNUT (3/8-NC)	
9	150-1970	1	RUN TEE (16S-16S-120)	
10	150-1975	1	HOSE (120FX45-22-3000)	

NOT SHOWN:

FOOTNOTES:

NOTE:

THRUST/ROTATION & SETUP SUPPLY



THRUST/ROTATION & SETUP SUPPLY

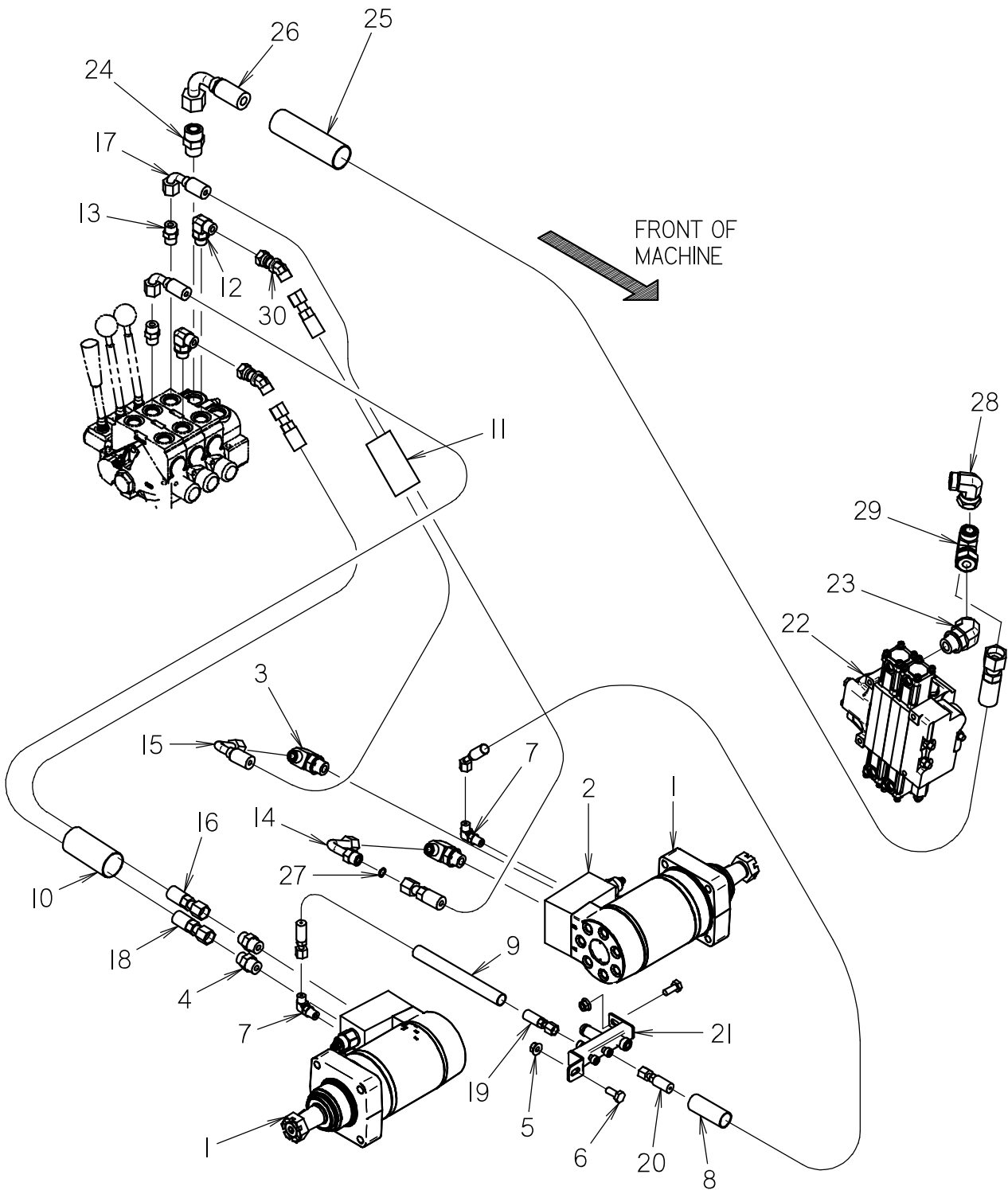
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	154-269	1	CONNECTOR (12S-120)	
2	149-815	1	TEE (12S-120-040, SPECIAL)	
3	154-255	1	UNION (040-040FX90)	
4	159-156	1	QDC ADAPTER (02-040F)	
5	154-270	1	CONNECTOR (12S-12090)	
6	117-312	1	ABRASION SLEEVE (1.59" X 80")	
7	154-396	1	BK CONNECTOR (080-08090BK)	
8	154-256	1	UNION (080-080FX90)	
9	117-684	1	ABRASION SLEEVE (1.00" X 26")	
10	150-1436	1	TRIPLE GEAR HYDRAULIC PUMP	
11	154-358	1	CONNECTOR (120-16S45)	
12	115-938	1	ABRASION SLEEVE (1.59" X 66")	
13	150-1174	1	VALVE	
14	515-218	1	HOSE (120FX90-80"-3000)	
15	515-379	1	HOSE (080FX90L-28"-3000)	
16	150-1641	1	HOSE (120FX90-68"-3000)	

NOT SHOWN:

FOOTNOTES:

NOTE:

GROUND DRIVE HYDRAULICS



GROUND DRIVE HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	I50-1314	2	GEROLER MOTOR	SEE FOOTNOTES 1 & 2
2	I50-1488	2	COUNTERBALANCE VALVE	SEE FOOTNOTE 3
3	I54-322	2	CONNECTOR (080-10S90)	
4	I54-279	2	CONNECTOR (080-10S)	
5	I06-387	2	FLG LOCKNUT (M10-1.50)	
6	I05-245	2	SCREW (M10-1.50 X 25MM)	
7	I54-226	2	CONNECTOR (040-06S90)	
8	I17-714	1	ABRASION SLEEVE (1.00" X 54")	
9	I17-993	1	ABRASION SLEEVE (1.00" X 23")	
10	I17-686	1	ABRASION SLEEVE (1.75" X 43")	
11	I15-934	1	ABRASION SLEEVE (1.75" X 100")	
12	I54-235	2	CONNECTOR (08S-08090)	
13	I54-233	2	CONNECTOR (08S-080)	
14	I50-1800	1	HYD LINE (-08)	
15	I50-1344	1	HOSE (080FX90L-108"-3000)	
16	I50-1565	1	HOSE (080FX-54"-3000)	
17	I53-301	1	HOSE (080FX90S-108"-3000)	
18	I54-884	1	HOSE (080FX90-60"-3000)	
19	I55-735	1	HOSE (040FX-22"-3000)	
20	I54-898	1	HOSE (040FX45-54"-3000)	
21	I50-1548	1	RETURN MANIFOLD	
22	I50-1174	1	VALVE	
23	I54-251	1	CONNECTOR (12S-12045)	
24	I54-269	1	CONNECTOR (12S-120)	
25	I17-312	1	ABRASION SLEEVE (1.59" X 80")	
26	I50-1945	1	HOSE (120FX90M-84"-3000)	
27	I57-039	1	O-RING (014 D90)	
28	I54-457	1	UNION (120-120FX90)	
29	I54-456	1	UN BR TEE (120FX-120-120)	BEGINS WITH S/N: CMWJT922A70000154
30	I50-1789	2	CONNECTOR (080-080FX45)	BEGINS WITH S/N:

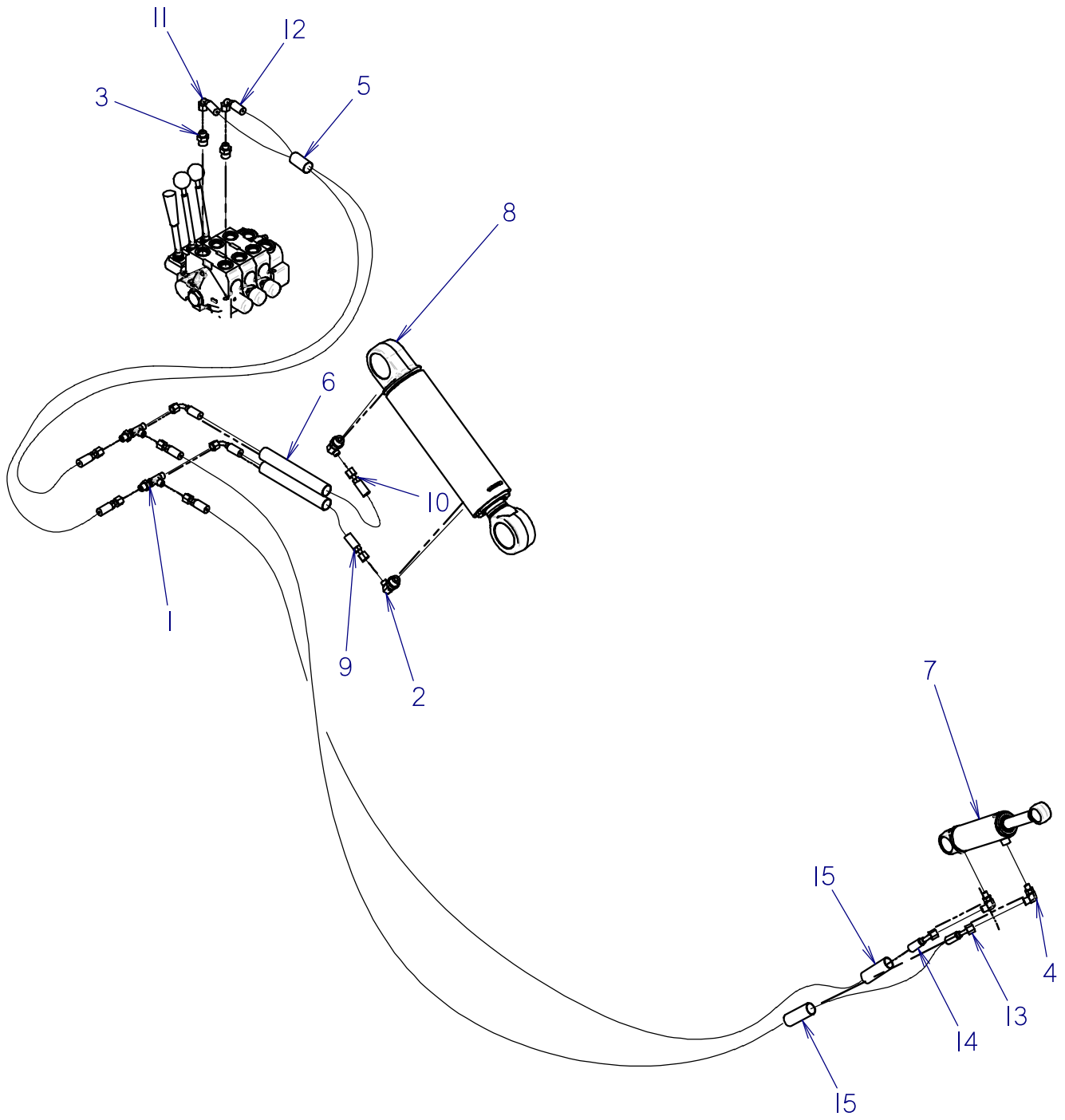
NOT SHOWN:

FOOTNOTES:

1. SEAL REPAIR KIT P/N: 500-510
2. DRIVE SHAFT ONLY P/N: 500-1391
3. COUNTERBALANCE CARTRIDGE KIT (2 PER MANIFOLD) P/N: 500-1304

NOTE:

STABILIZER/TILT HYDRAULICS



STABILIZER/TILT HYDRAULICS

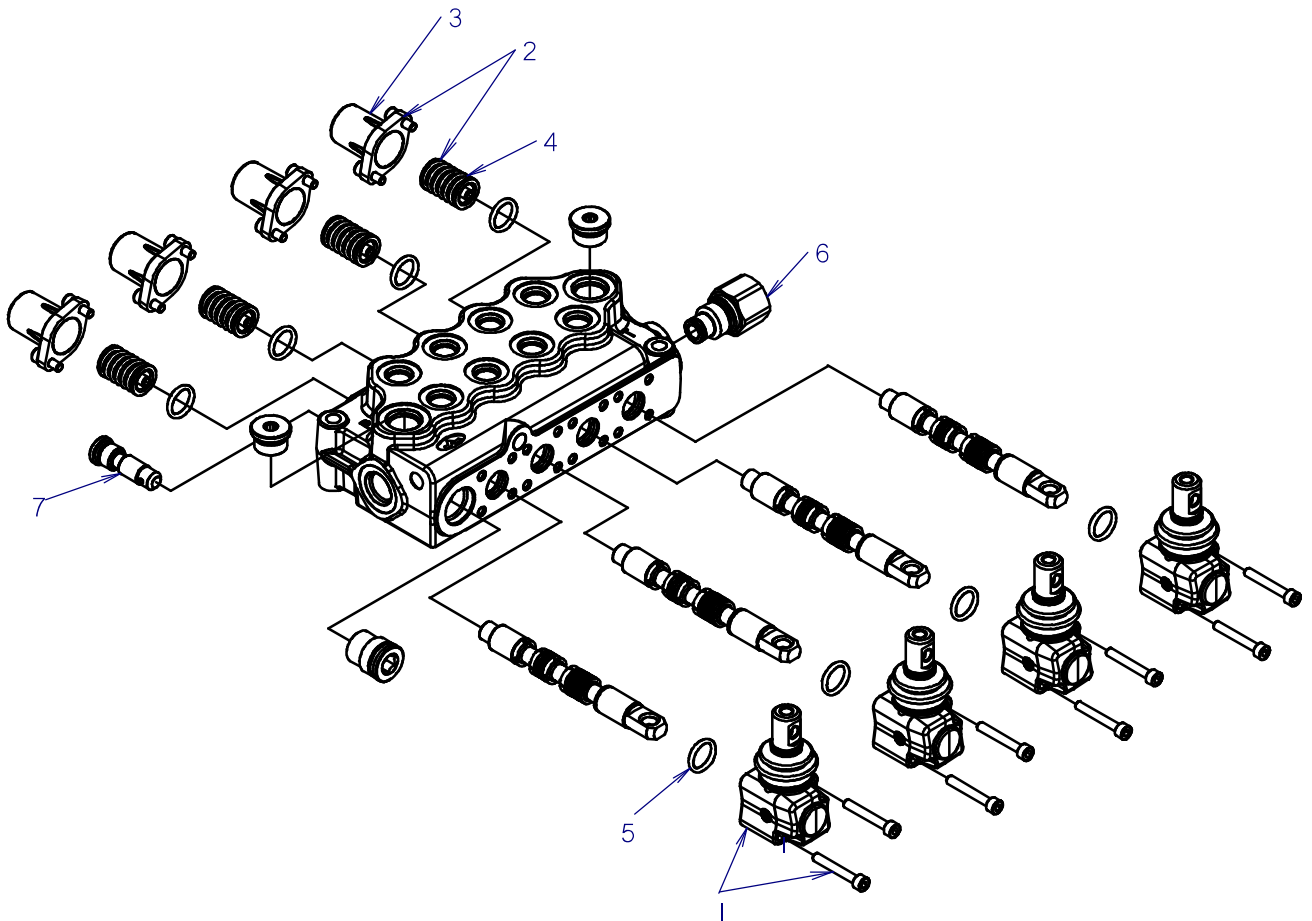
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	I54-424	2	BK RUN TEE (040-040-040BK)	
2	I54-276	2	CONNECTOR (040-08S90)	
3	I54-261	2	CONNECTOR (040-08S)	
4	I54-252	2	CONNECTOR (04S-04090)	
5	I17-612	1	ABRASION SLEEVE (1.00" X 46")	
6	I17-607	2	ABRASION SLEEVE (1.00" X 21")	
7	I51-038	1	CYL (2.0 X 1.0 X 4.0)	
8	I51-116	1	CYL (3.5 X 2.00 X 10.0)	
9	515-041	1	HOSE (040FX90-20"-3000)	
10	515-041	1	HOSE (040FX90-20"-3000)	
11	515-257	1	HOSE (040FX90S-54"-3000)	
12	515-729	1	HOSE (040FX90-52"-3000)	
13	I50-1643	1	HOSE (040FX45-96"-3000)	
14	I50-1642	1	HOSE (040FX45-92"-3000)	
15	I17-209	2	ABRASION SLEEVE (1.00" X 90")	

NOT SHOWN:

FOOTNOTES:

NOTE:

ANCHOR VALVE SERVICE PARTS



ANCHOR VALVE SERVICE PARTS

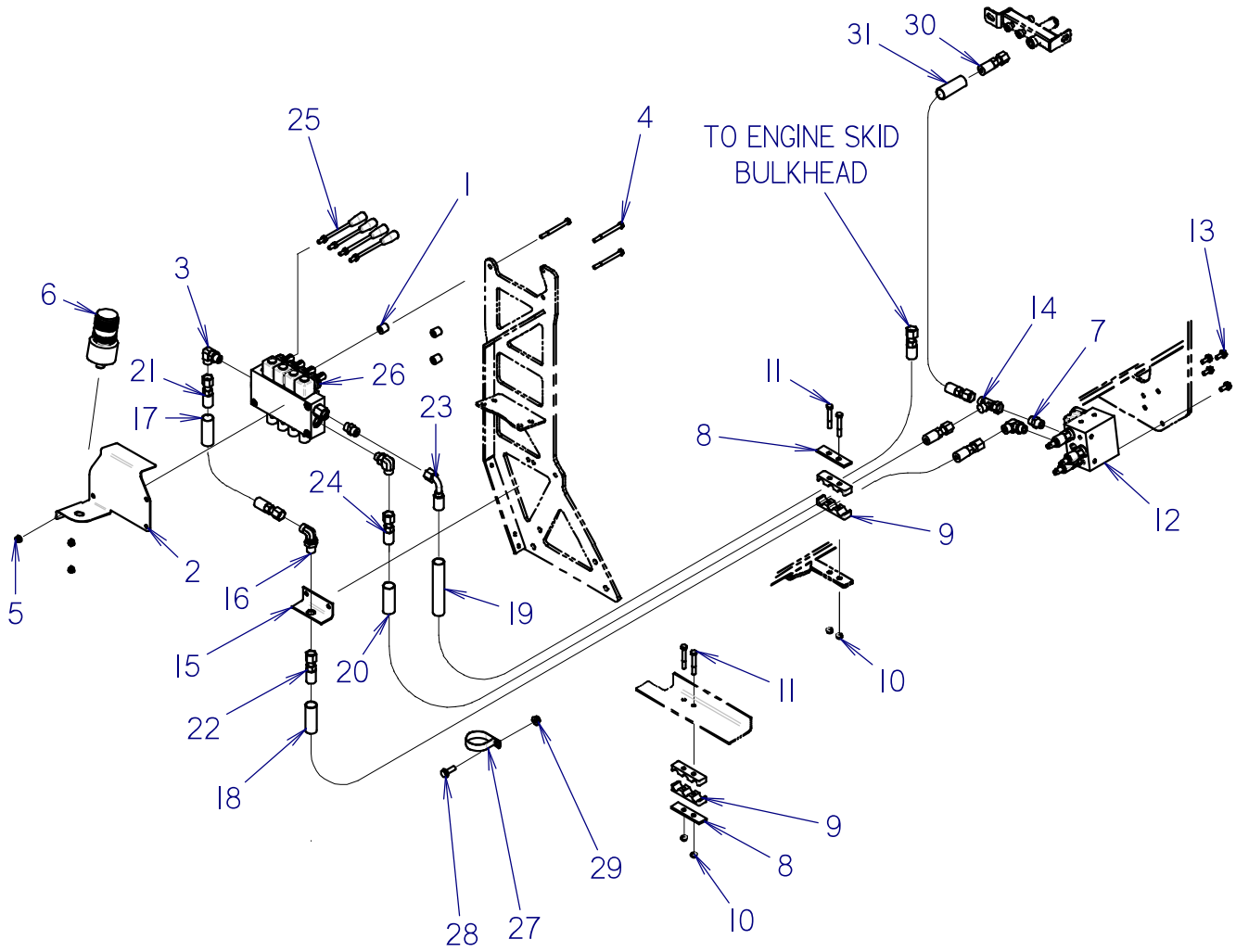
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	150-1307	-	4 SPOOL MONOBLOCK DIRECTIONAL VALVE	
1	499-143	4	LEVER BOX KIT	
2	153-063	4	SPOOL BONNET AND CONTROL KIT	INCLUDES REF NO. 3 & 4
3	500-1373	4	SPOOL BONNET	
4	499-142	4	SPOOL CONTROL KIT	
5	157-218	8	O-RING (D70)	
6	500-969	1	POWER BEYOND SLEEVE	
7	149-664	1	LOAD CHECK	

NOT SHOWN:

FOOTNOTES:

NOTE:

ANCHOR VALVE HYDRAULICS



ANCHOR VALVE HYDRAULICS

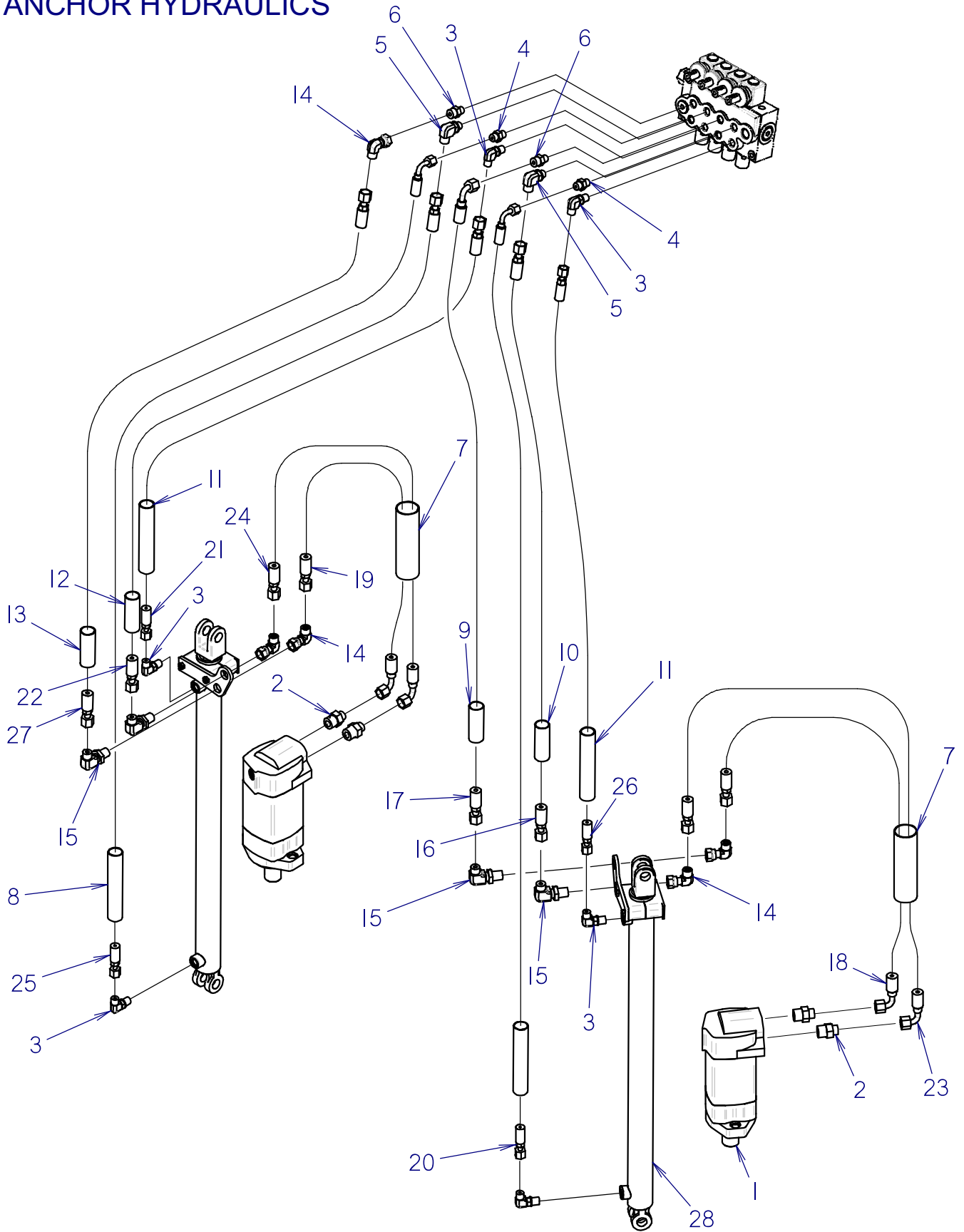
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	179-501	3	SPACER	
2	319-330	1	LIGHT MOUNT	
3	154-235	3	CONNECTOR (08S-08090)	
4	107-078	3	SCREW (M8-1.25 X 90MM)	
5	106-386	3	FLG LOCKNUT (M8-1.25)	
6	217-297	1	STROBE LIGHT (GREEN)	
7	154-233	2	CONNECTOR (08S-080)	
8	322-202	2	HOSE CLAMP BAR	
9	110-323	4	HOSE CLAMP (3/4")	
10	107-096	4	LOCKNUT (M8-1.25, NLK)	
11	106-570	4	SCREW (M8-1.25 X 60MM)	
12	150-1289	1	HYDRAULIC MANIFOLD - PILOT PRESSURE	
13	106-162	4	FLG SCREW (M8-1.25 X 20MM, GDB)	
14	154-266	1	UNION RUN TEE (080FX-080-080)	
15	300-4081	1	BULKHEAD BRACKET	
16	154-396	1	BK CONNECTOR (080-08090BK)	
17	117-409	1	ABRASION SLEEVE (1.00" X 28")	
18	117-213	1	ABRASION SLEEVE (1.00" X 96")	
19	117-399	1	ABRASION SLEEVE (1.00" X 130")	
20	117-986	1	ABRASION SLEEVE (1.00" X 120")	
21	154-721	1	HOSE (080FX-28"-3000)	
22	155-495	1	HOSE (080FX-96"-3000)	
23	150-1574	1	HOSE (080FX90-128"-3000)	
24	154-778	1	HOSE (080FX-120"-3000)	
25	500-908	4	LEVER (M8-1.25, BLACK)	
26	150-1307	1	HYD CONTROL VALVE (4-SPOOL)	
27	110-555	1	CLAMP (1-7/8")	
28	106-383	1	FLG LK SCREW (M10-1.50 X 30MM)	
29	106-387	1	FLG LOCKNUT (M10-1.50)	
30	150-1645	1	HOSE (080FX-22"-3000)	
31	117-607	1	ABRASION SLEEVE (1.00" X 21")	

NOT SHOWN:

FOOTNOTES:

NOTE:

ANCHOR HYDRAULICS



ANCHOR HYDRAULICS

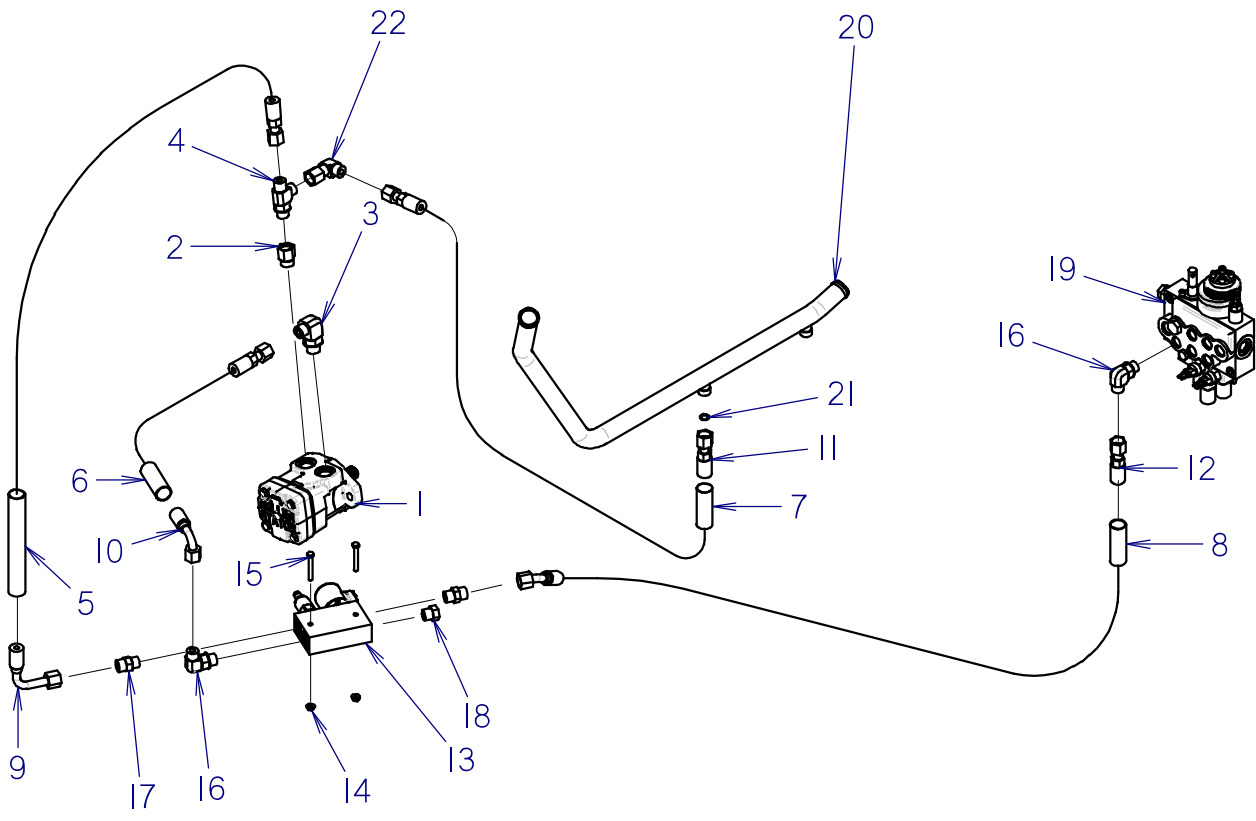
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	I58-700	2	HYD MOTOR	
2	I54-369	4	CONNECTOR (060-I0S)	
3	I54-226	6	CONNECTOR (040-06S90)	
4	I54-220	2	CONNECTOR (040-06S)	
5	I54-342	2	CONNECTOR (06S-06090)	
6	I54-221	2	CONNECTOR (06S-060)	
7	I17-679	2	ABRASION SLEEVE (1.59" X 32")	
8	I17-994	2	ABRASION SLEEVE (1.00" X 53")	
9	I17-684	1	ABRASION SLEEVE (1.00" X 26")	
10	I17-409	1	ABRASION SLEEVE (1.00" X 28")	
11	I17-280	2	ABRASION SLEEVE (1.00" X 25")	
12	I17-611	1	ABRASION SLEEVE (1.00" X 22")	
13	I17-989	1	ABRASION SLEEVE (1.00" X 24")	
14	I54-228	5	UNION (060-060FX90)	
15	I54-229	4	BK CONNECTOR (060-06090BK)	
16	515-711	1	HOSE (060FX-25"-3000)	
17	I49-335	1	HOSE (060FX90M-26"-3000)	
18	I57-822	1	HOSE (060FX90-30" -3000)	
19	515-707	1	HOSE (040FX90-32" -3000)	
20	I57-910	1	HOSE (040FX90M-53" -3000)	
21	515-755	1	HOSE (040FX-25" -3000)	
22	I57-936	1	HOSE (06DFX-22" -3000)	
23	515-707	1	HOSE (060FX90-32"-3000)	
24	515-707	1	HOSE (060FX90-32"-3000)	
25	I57-910	1	HOSE (040FX90M-53"-3000)	
26	515-755	1	HOSE (040FX-25"-3000)	
27	I54-807	1	HOSE (060FX-24"-3000)	
28	I51-214	2	HYD CYL	

NOT SHOWN:

FOOTNOTES:

NOTE:

DRILLING FLUID MOTOR HYDRAULICS



DRILLING FLUID MOTOR HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	150-1262	1	GEROLER GEAR MOTOR	SEE FOOTNOTE 1
2	155-193	1	REDUCER (10S-08SF)	
3	154-322	1	CONNECTOR (080-10S90)	
4	154-299	1	RUN TEE (08S-080-080)	
5	117-676	1	ABRASION SLEEVE (1.00" X 30")	
6	117-608	1	ABRASION SLEEVE (1.00" X 15")	
7	117-413	1	ABRASION SLEEVE (1.00" X 84")	
8	117-713	1	ABRASION SLEEVE (1.00" X 76")	
9	154-907	1	HOSE (080FX90-32"-3000)	
10	150-1656	1	HOSE (080FX90-14"-3000)	
11	154-678	1	HOSE (080FX-86"-3000)	
12	515-068	1	HOSE (080FX45-76"-3000)	
13	150-1630	1	HYDRAULIC MANIFOLD - RELIEF AND SHUT-OFF	SEE FOOTNOTES 2, 3 & 4
14	106-385	2	FLG LOCKNUT (M6-1.00)	
15	107-025	2	SCREW (M6-1.00 X 50MM)	
16	154-235	2	CONNECTOR (08S-08090)	
17	154-233	2	CONNECTOR (08S-080)	
18	154-381	1	PLUG (08S)	
19	150-1981	1	WRENCH VALVE	
20	150-1510	1	HARDLINE	
21	157-039	1	O-RING (014 D90)	
22	154-256	1	UNION (080-080FX90)	

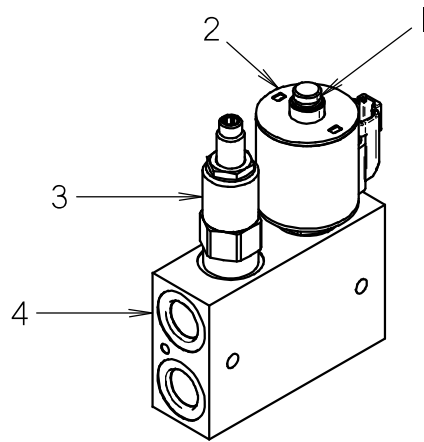
NOT SHOWN:

FOOTNOTES:

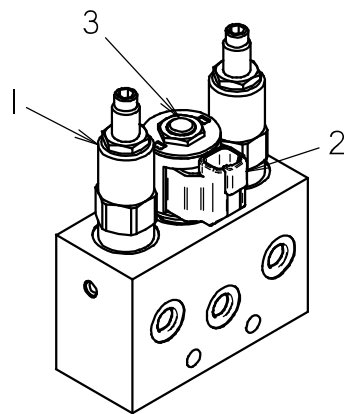
1. USE WITH 9 GALLON PUMP, USE 150-1511 WITH 13 GALLON PUMP; SEAL REPAIR KIT P/N: 500-1368 FOR BOTH MOTORS
2. SOLENOID VALVE CARTRIDGE ONLY P/N: 500-1329
3. SOLENOID COIL ONLY (12VDC W/DIODE) P/N: 500-1330
4. RELIEF VALVE CARTRIDGE P/N: 500-1331

NOTE:

MANIFOLD SERVICE PARTS

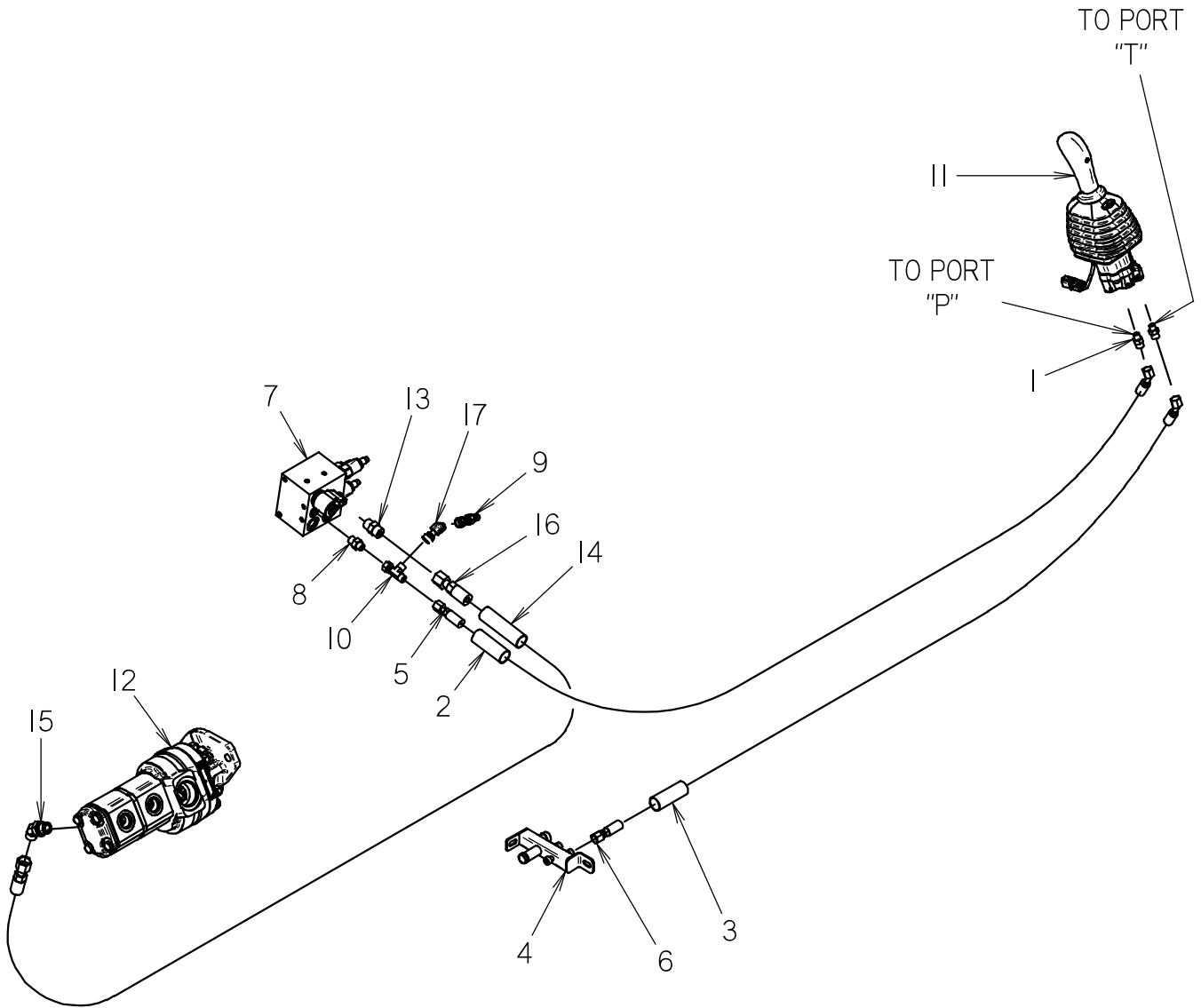


	I50-I630		HYDRAULIC MANIFOLD - RELIEF AND SHUT-OFF
1	500-I329	1	SOLENOID VALVE CARTRIDGE
2	500-I330	1	SOLENOID COIL, 12 VDC W/ZENER DIODE
3	500-I331	1	RELIEF VALVE CARTRIDGE
4	500-I336	1	MANIFOLD BODY



	I50-3072		HYDRAULIC MANIFOLD
1	500-I810	2	PRESSURE REDUCING VALVE
2	500-I811	1	SOLENOID COIL, 12 VDC W/ZENER DIODE
3	500-I311	1	SOLENOID VALVE, 2W-2P, NC

PILOT PRESSURE AND RETURN



PILOT PRESSURE AND RETURN

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	I54-278	2	CONNECTOR (04S-040)	
2	I17-209	1	ABRASION SLEEVE (1.00" X 90")	
3	I17-213	1	ABRASION SLEEVE (1.00" X 96")	
4	I50-I548	1	RETURN MANIFOLD	
5	I50-I636	1	HOSE (040FX45-90"-3000)	
6	I50-I637	1	HOSE (040FX45-98"-3000)	
7	I50-I289	1	HYDRAULIC MANIFOLD - PILOT PRESSURE	
8	I54-220	1	CONNECTOR (040-06S)	
9	I59-I56	1	QDC ADAPTER (02-040F)	
10	I54-265	1	UNION RUN TEE (040FX-040-040)	
11	I50-I179	1	JOYSTICK	
12	I50-I436	1	TRIPLE GEAR HYDRAULIC PUMP	
13	I54-233	1	CONNECTOR (08S-080)	
14	I17-400	1	ABRASION SLEEVE (1.00" X 72")	
15	I54-264	1	CONNECTOR (080-10S45)	
16	I50-I644	1	HOSE (080FX-69"-3000)	
17	I50-I959	1	CONNECTOR (040-040FX45)	

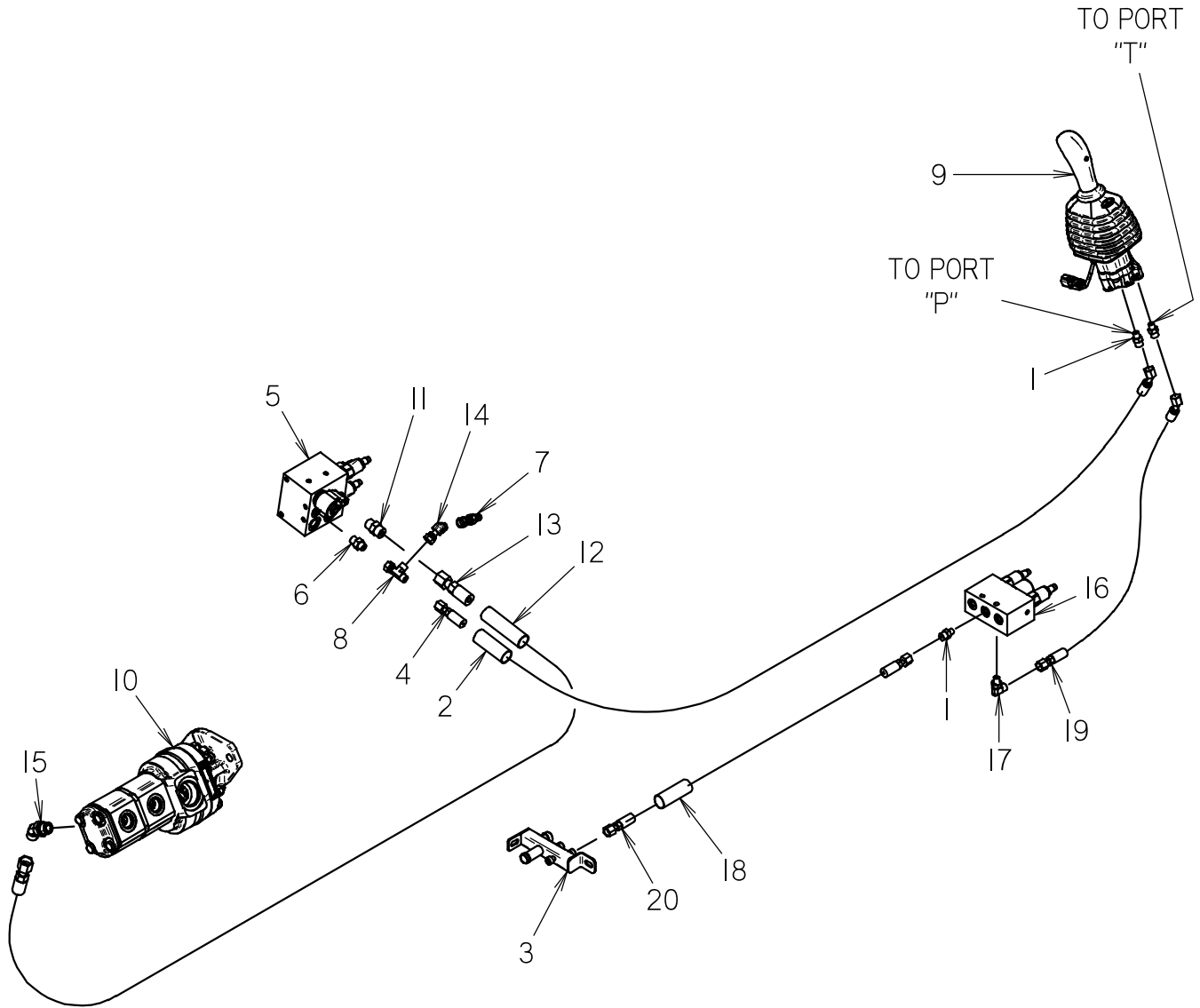
NOT SHOWN:

FOOTNOTES:

NOTE:

PILOT PRESSURE AND RETURN

BEGINS WITH S/N: CMWJT922JA0000402



PILOT PRESSURE AND RETURN BEGINS WITH S/N: CMWJT922JA0000402

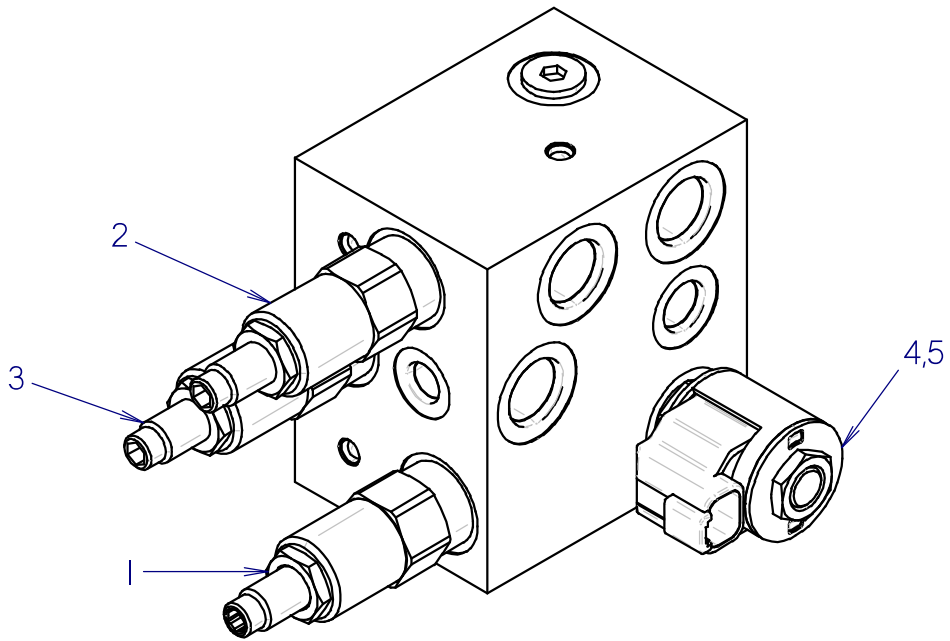
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	I54-278	3	CONNECTOR (04S-040)	
2	I17-209	1	ABRASION SLEEVE (1.00" X 90")	
3	I50-1548	1	RETURN MANIFOLD	
4	I50-1636	1	HOSE (040FX45-90"-3000)	
5	I50-1289	1	HYDRAULIC MANIFOLD - PILOT PRESSURE	
6	I54-220	1	CONNECTOR (040-06S)	
7	I59-156	1	QDC ADAPTER (02-040F)	
8	I54-265	1	UNION RUN TEE (040FX-040-040)	
9	I50-1179	1	JOYSTICK	
10	I50-1436	1	TRIPLE GEAR HYDRAULIC PUMP	
11	I54-233	1	CONNECTOR (08S-080)	
12	I17-400	1	ABRASION SLEEVE (1.00" X 72")	
13	I50-1644	1	HOSE (080FX-69"-3000)	
14	I50-1959	1	CONNECTOR (040-040FX45)	
15	I54-264	1	CONNECTOR (080-10S45)	
16	I50-3072	1	HYDRAULIC MANIFOLD	
17	I54-252	1	CONNECTOR (04S-04090)	
18	I17-702	1	ABRASION SLEEVE (1.00" X 68")	
19	I54-963	1	HOSE (040FX45-24"-3000)	
20	I54-670	1	HOSE (040FX-70"-3000)	

NOT SHOWN:

FOOTNOTES:

NOTE:

PILOT MANIFOLD SERVICE PARTS



PILOT MANIFOLD SERVICE PARTS

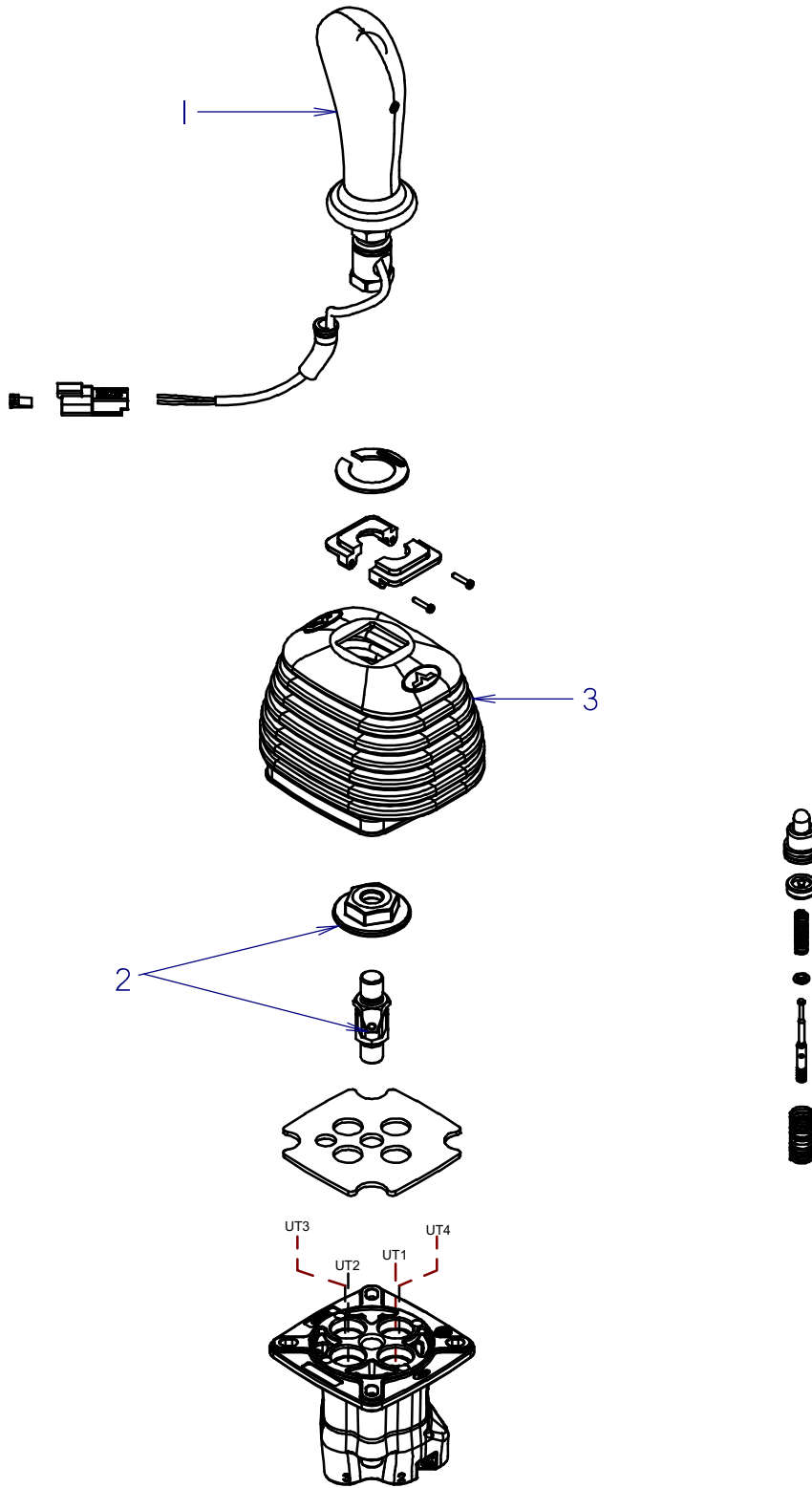
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	150-1289		HYDRAULIC MANIFOLD - PILOT PRESSURE	
1	500-1136	1	PRESSURE REDUCING RELIEF VALVE	
2	500-1306	1	SEQUENCE VALVE (40-400 PSI)	
3	500-1305	1	RELIEF VALVE CARTRIDGE	
4	500-1307	1	SOLENOID VALVE CARTRIDGE	
5	500-1311	1	E-COIL W/ ZENER DIODE	

NOT SHOWN:

FOOTNOTES:

NOTE:

JOYSTICK SERVICE PARTS



JOYSTICK SERVICE PARTS

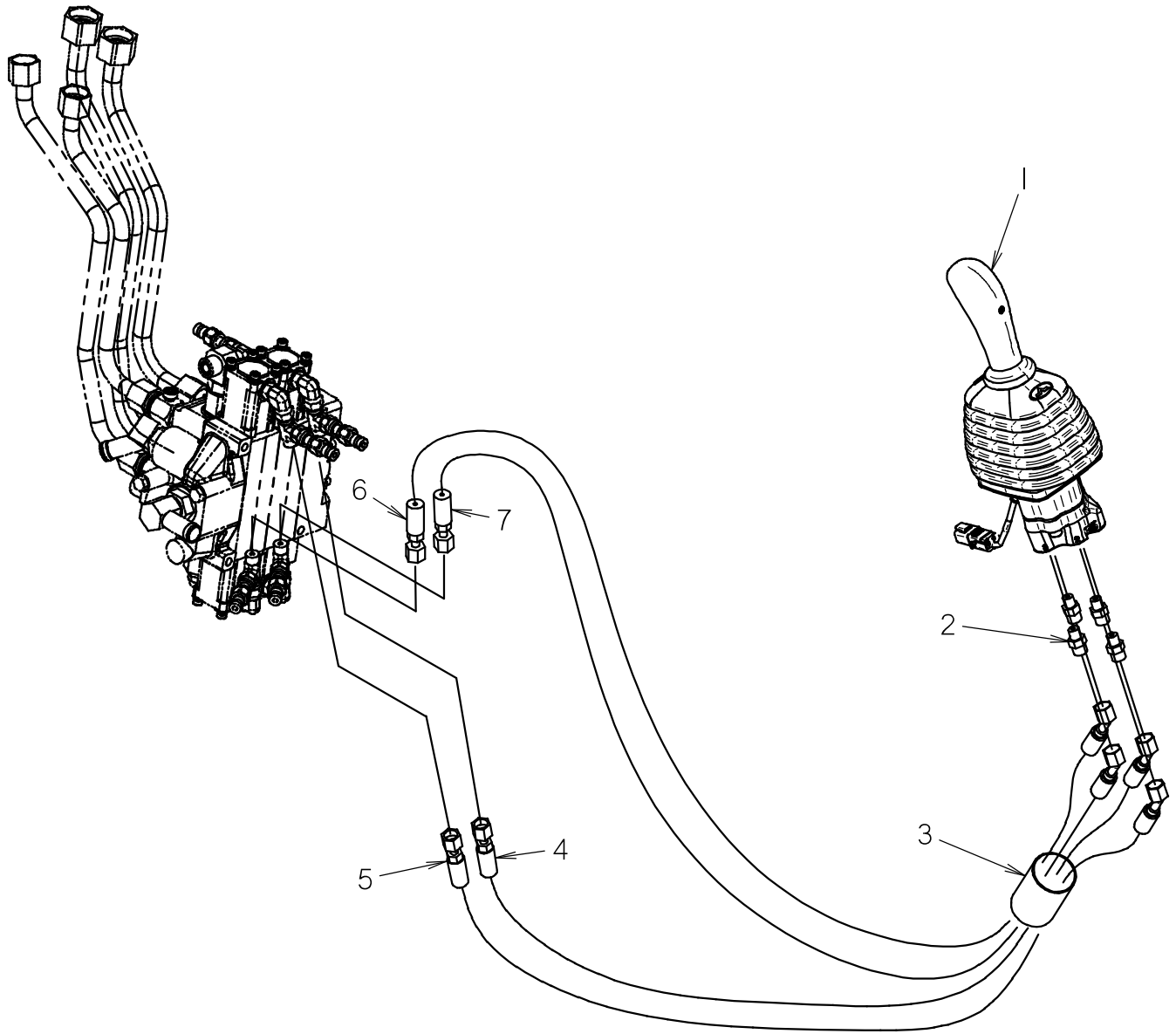
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	150-1179		2 AXIS HYDRAULIC PILOT JOYSTICK & I SWITCH	
1	500-1375	1	JOYSTICK HANDLE W/SWITCH	
2	500-1376	1	UNIVERSAL JOYSTICK JOINT KIT	
3	500-1102	1	JOYSTICK, RUBBER BOOT	

NOT SHOWN:

FOOTNOTES:

NOTE:

THRUST/ROTATION PILOT HYDRAULICS



THRUST/ROTATION PILOT HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	I50-1179	1	JOYSTICK	
2	I54-278	4	CONNECTOR (04S-040)	
3	I15-935	1	ABRASION SLEEVE (1.75" X 70")	
4	I54-965	1	HOSE (040FX45-84"-3000)	TO PORT #1 ON I50-1179
5	I54-965	1	HOSE (040FX45-84"-3000)	TO PORT #2 ON I50-1179
6	I50-1636	1	HOSE (040FX45-90"-3000)	TO PORT #4 ON I50-1179
7	I50-1636	1	HOSE (040FX45-90"-3000)	TO PORT #3 ON I50-1179

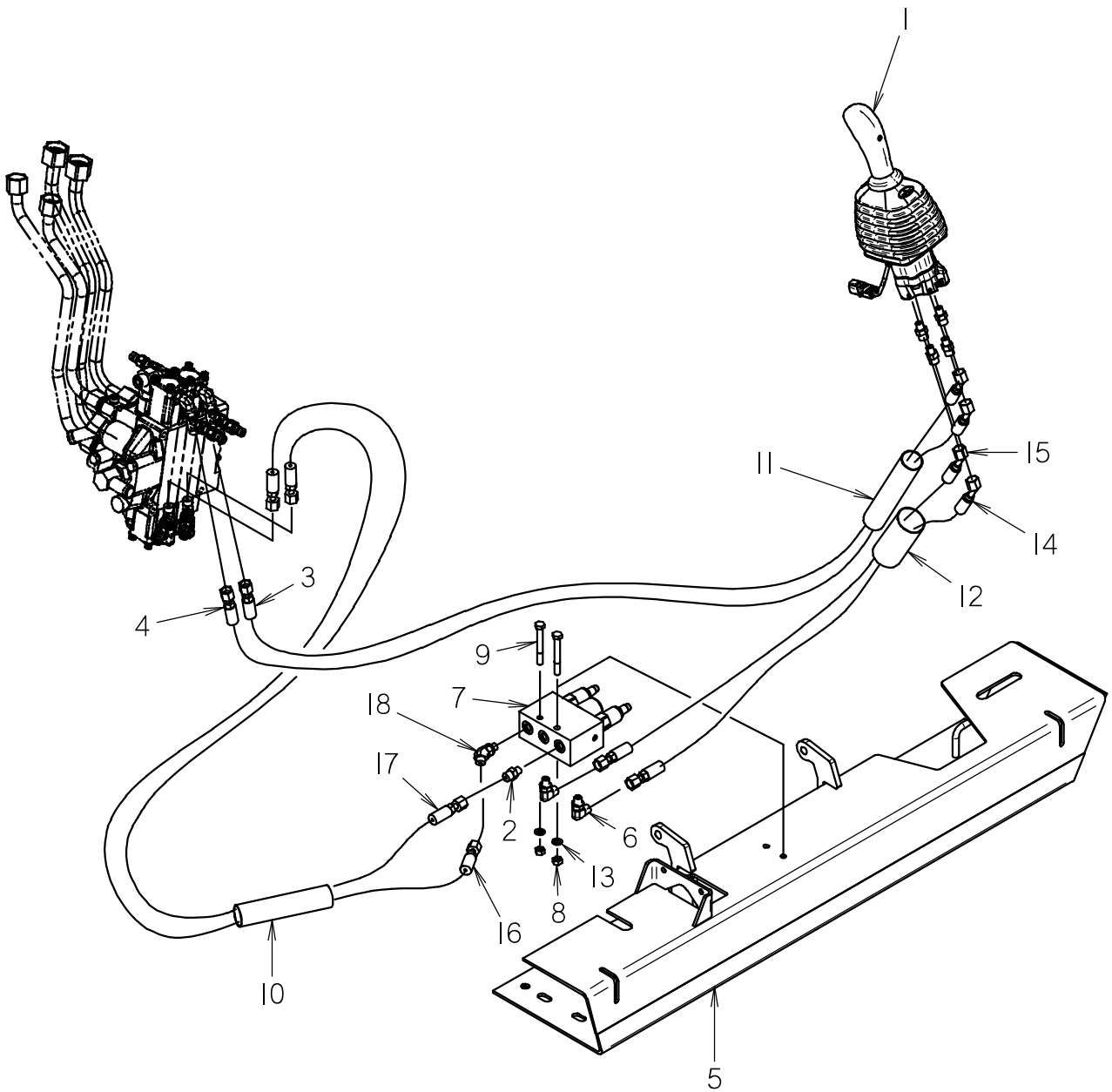
NOT SHOWN:

FOOTNOTES:

NOTE:

THRUST/ROTATION PILOT HYDRAULICS

BEGINS WITH S/N: CMWJT922JA0000402



THRUST/ROTATION PILOT HYDRAULICS

BEGINS WITH S/N: CMWJT922JA0000402

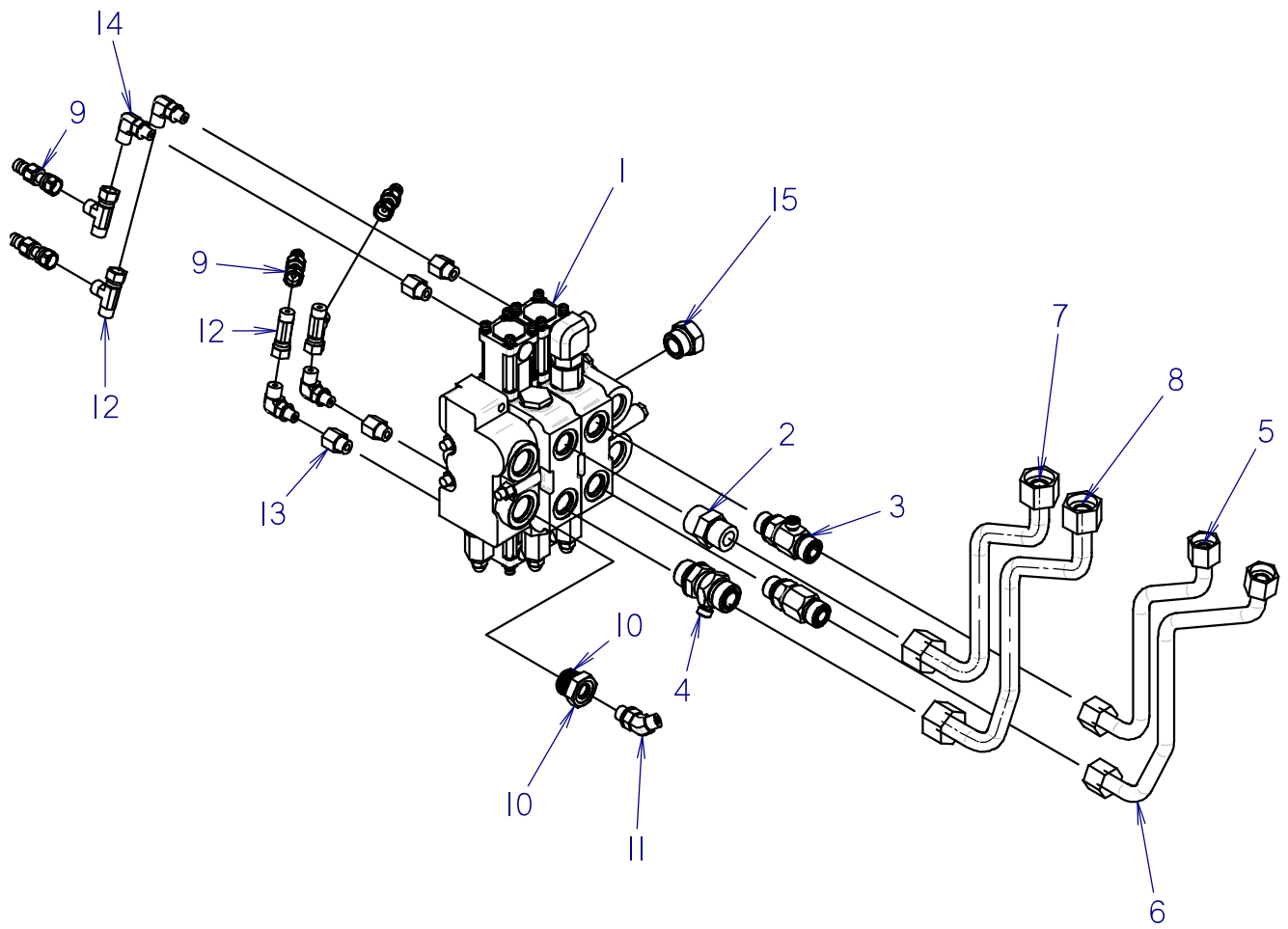
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	I50-1179	1	JOYSTICK	
2	I54-278	5	CONNECTOR (04S-040)	
3	I54-965	1	HOSE (040FX45-84"-3000)	TO PORT #1 ON I50-1179
4	I54-965	1	HOSE (040FX45-84"-3000)	TO PORT #2 ON I50-1179
5	300-3325	1	OPERATOR STATION MOUNT	
6	I54-252	2	CONNECTOR (04S-04090)	
7	I50-3072	1	HYDRAULIC MANIFOLD	
8	I06-561	2	LOCKNUT (M8-1.25,PRV TRQ,10.9)	
9	I06-330	2	SCREW (M8-1.25 X 70MM)	
10	I17-214	1	ABRASION SLEEVE (1.25" X 40")	
11	I18-270	1	ABRASION SLEEVE (1.25" X 70")	
12	I17-564	1	ABRASION SLEEVE(1.75" X 15")	
13	I06-389	2	WASHER (M8)	
14	I54-963	1	HOSE (040FX45-24"-3000)	TO PORT #4 ON I50-1179 AND I50-3072
15	I54-963	1	HOSE (040FX45-24"-3000)	TO PORT #3 ON I50-1179 AND I50-3072
16	I54-681	1	HOSE (040FX-62"-3000)	TO CLOCKWISE ROTATION PORT
17	I54-681	1	HOSE (040FX-62"-3000)	TO THRUST PORT
18	I54-263	1	CONNECTOR (04S-04045)	

NOT SHOWN:

FOOTNOTES:

NOTE:

THRUST/ROTATION VALVE HYDRAULICS



THRUST/ROTATION VALVE HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	I50-I174	1	VALVE	SEE FOOTNOTES 1 & 2
2	I54-269	1	CONNECTOR (I2S-I20)	
3	514-041	2	RUN TEE (I0S-I00-040)	
4	I49-815	1	TEE (I2S-I20-040, SPECIAL)	
5	I50-I616	1	HYD LINE (-I0)	
6	I50-I617	1	HYD LINE (-I0)	
7	I50-I620	1	HYD LINE (-I2)	
8	I50-I621	1	HYD LINE (-I2)	
9	I59-I56	4	QDC ADAPTER (O2-040F)	
10	I55-I29	1	REDUCER (I2S-06SF)	
11	I54-250	1	CONNECTOR (O40-06S45)	
12	I54-265	4	UNION RUN TEE (O40FX-040-040)	
13	I55-254	4	REDUCER (O6S-04SF)	
14	I54-252	4	CONNECTOR (O4S-04090)	
15	500-302	1	PLUG (-I2 S)	SEE FOOTNOTE 3

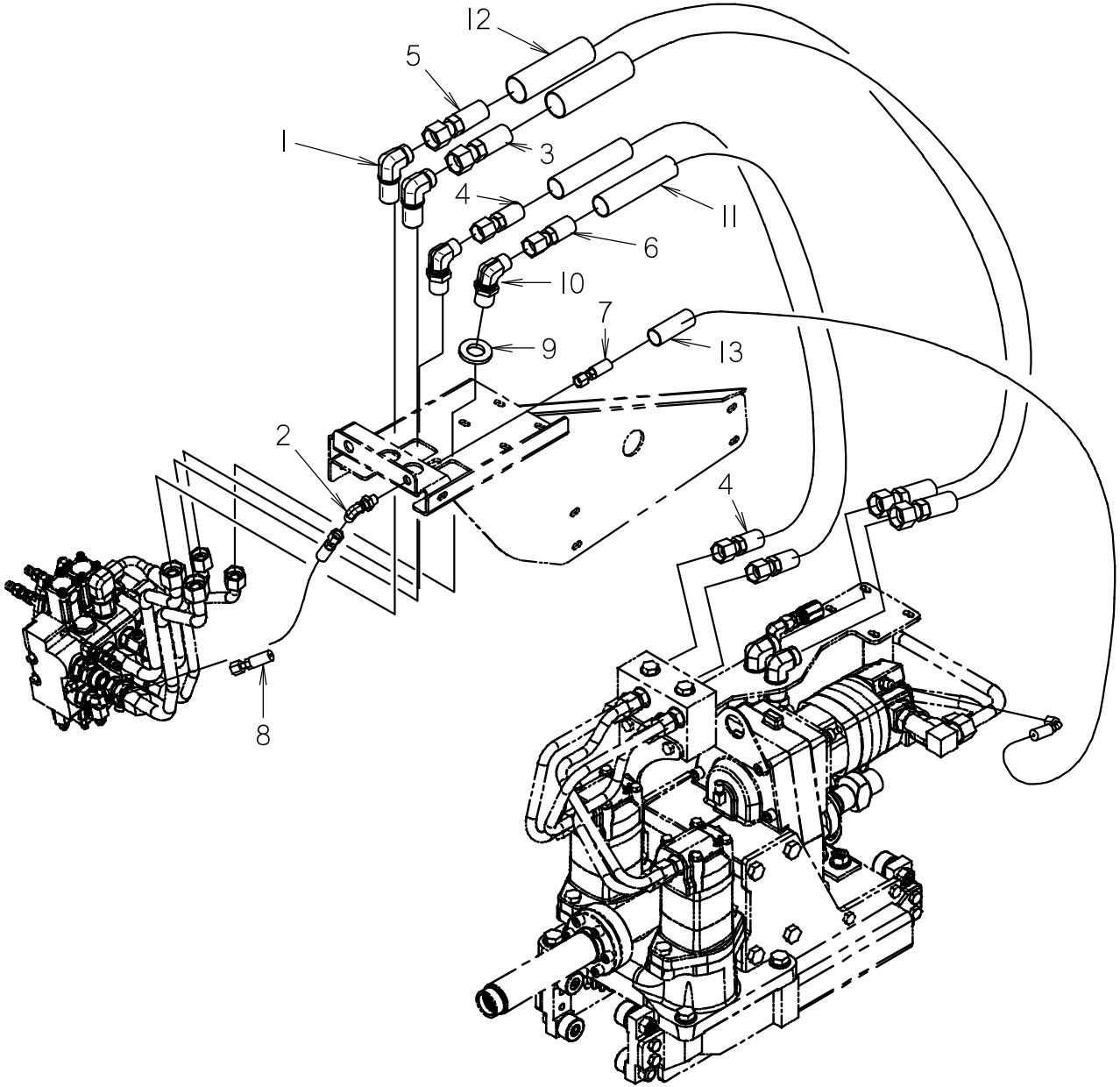
NOT SHOWN:

FOOTNOTES:

1. INLET COVER RELIEF VALVE CARTRIDGE KIT P/N: 500-I392
2. WORK PORT RELIEF VALVE CARTRIDGE KIT P/N: 500-I393
3. BEFORE S/N: CMWJT922A70000154 ,I55-I74 S/O COUPLER (I2S-I2H90) IS USED

NOTE:

HOSE CARRIER HYDRAULICS



HOSE CARRIER HYDRAULICS

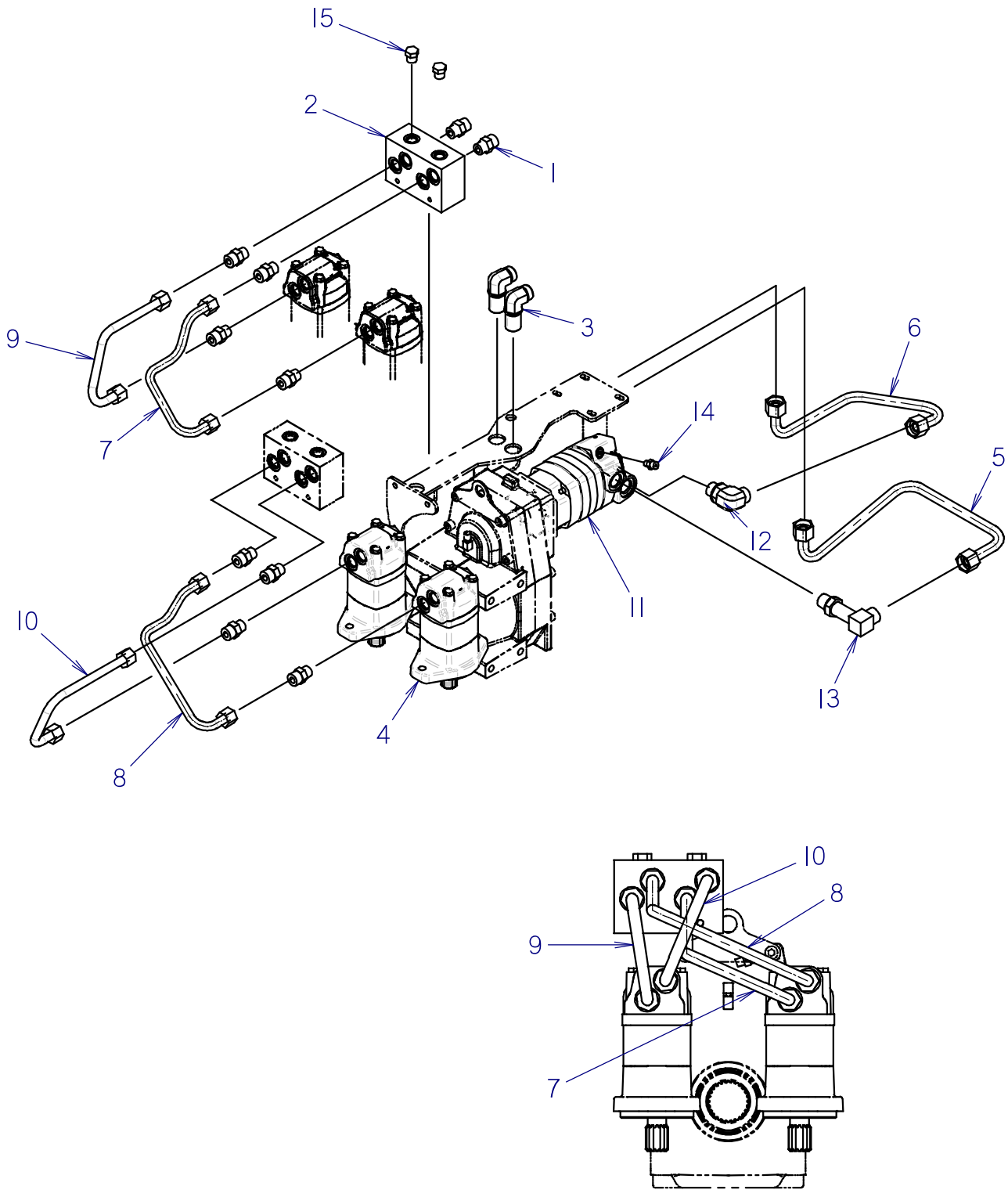
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	156-482	2	BK CONNECTOR (120-12090BK)	
2	154-355	1	BK CONNECTOR (040-04090BK)	
3	150-1532	1	HOSE (120FX-95"-3000)	
4	150-1533	1	HOSE (100FX-98"-3000)	
5	150-1532	1	HOSE (120FX-95"-3000)	
6	150-1533	1	HOSE (100FX-98"-3000)	
7	155-488	1	HOSE (040FX90-106"-3000)	
8	515-249	1	HOSE (040FX-26"-3000)	
9	106-144	1	WASHER (1")	
10	154-291	2	BK CONNECTOR (100-10090BK)	
11	117-210	2	ABRASION SLEEVE (1.25" X 100")	
12	116-787	2	ABRASION SLEEVE (1.59" X 95")	
13	105-1103	1	ABRASION SLEEVE (1.00" X 108")	

NOT SHOWN:

FOOTNOTES:

NOTE:

CARRIAGE HYDRAULICS



CARRIAGE HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	154-301	10	CONNECTOR (10S-100)	
2	300-3280	1	MANIFOLD BLOCK	
3	156-482	2	BK CONNECTOR (120-12090BK)	
4	150-1395	2	GEROLER MOTOR	SEE FOOTNOTE 1
5	150-1474	1	HYD LINE (-12)	
6	150-1473	1	HYD LINE (-12)	
7	150-1470	1	HYD LINE (-10)	
8	150-1467	1	HYD LINE (-10)	
9	150-1469	1	HYD LINE (-10)	
10	150-1468	1	HYD LINE (-10)	
11	158-881	1	MOTOR	SEE FOOTNOTES 2 & 3
12	154-270	1	CONNECTOR (12S-12090)	
13	154-338	1	CONNECTOR (12S-12090, XL)	
14	154-278	1	CONNECTOR (04S-040)	
15	154-381	2	PLUG (08S)	

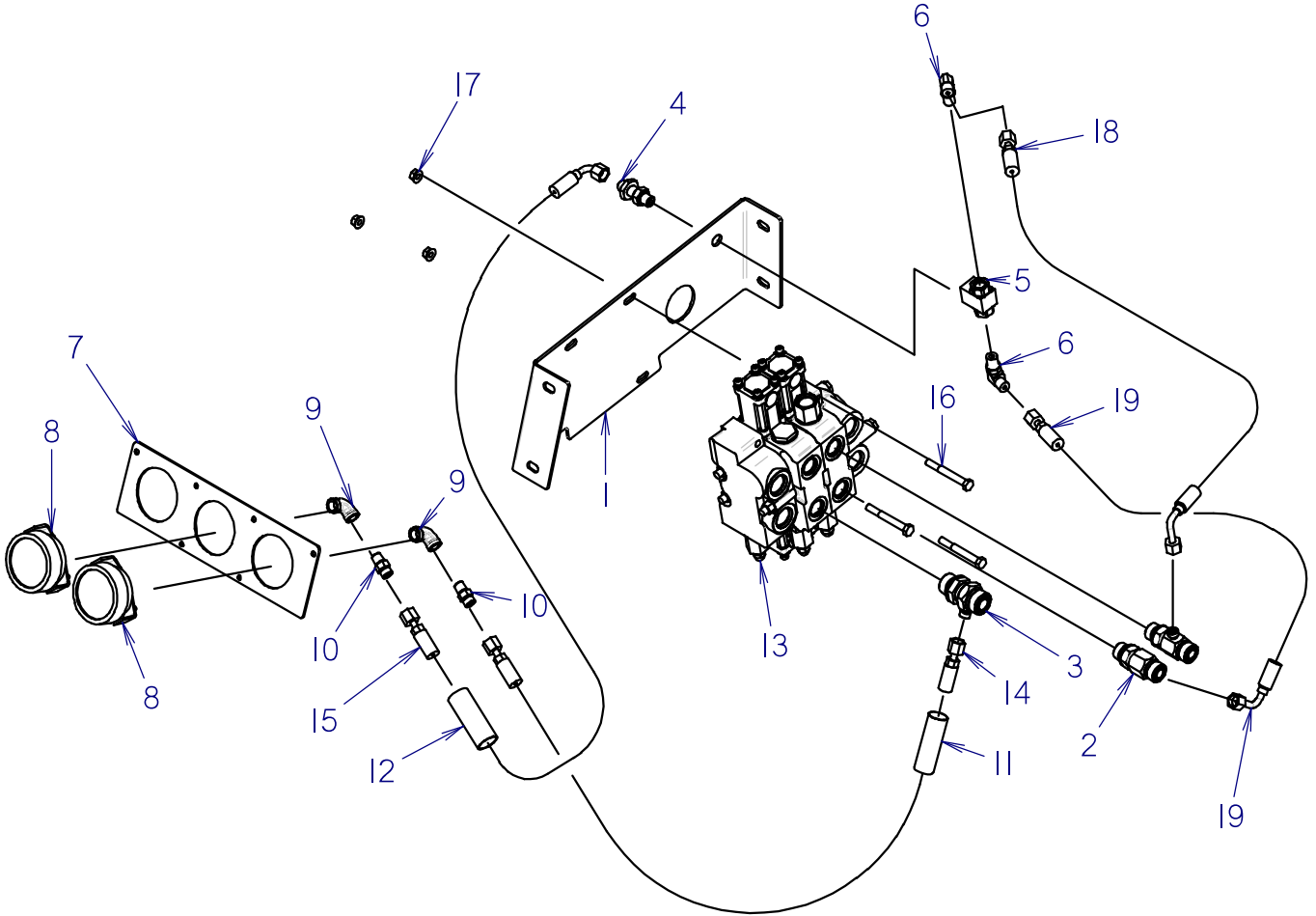
NOT SHOWN:

FOOTNOTES:

1. SEAL REPAIR KIT P/N: 500-658
2. SEAL REPAIR KIT, REAR P/N: 500-711
3. SHAFT SEAL REPAIR KIT P/N: 500-758

NOTE:

THRUST/ROTATION GAUGES



THRUST/ROTATION GAUGES

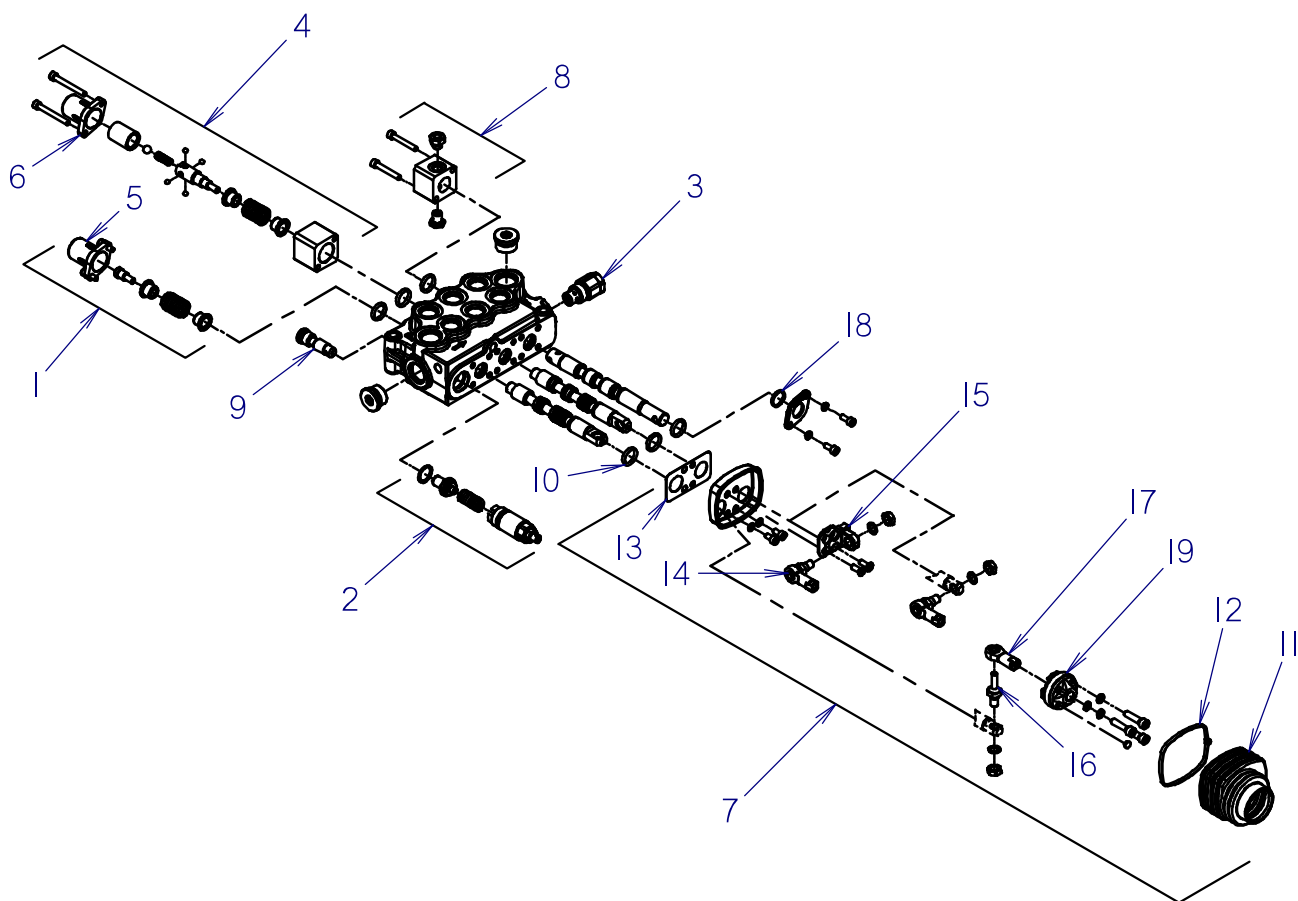
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	300-2712	1	VALVE MOUNT	
2	514-041	2	RUN TEE (I0S-I00-040)	
3	149-815	1	TEE (I2S-I20-040, SPECIAL)	
4	153-238	1	BK CONNECTOR (040-06S)	
5	158-600	1	LSVI LOAD SHUTTLE	
6	154-226	2	CONNECTOR (040-06S90)	
7	300-3252	1	GAUGE MOUNT PANEL	
8	258-045	2	PRESSURE GAUGE (4000 PSI)	
9	149-896	2	STREET ELBOW(I04NF-04NF90)	
10	154-339	2	CONNECTOR (04N-040)	
11	I05-I104	1	ABRASION SLEEVE (I.00" X 17")	
12	I17-718	1	ABRASION SLEEVE (I" X 36")	
13	150-I174	1	VALVE	
14	154-682	1	HOSE (040FX-I7"-3000)	
15	154-728	1	HOSE (040FX90S-36"-3000)	
16	106-330	3	SCREW (M8-I.25 X 70MM)	
17	106-386	3	FLG LOCKNUT (M8-I.25)	
18	159-889	1	HOSE (040FX90L-8"-3000)	
19	159-889	1	HOSE (040FX90L-8"-3000)	

NOT SHOWN:

FOOTNOTES:

NOTE:

WRENCH VALVE SERVICE PARTS



WRENCH VALVE SERVICE PARTS

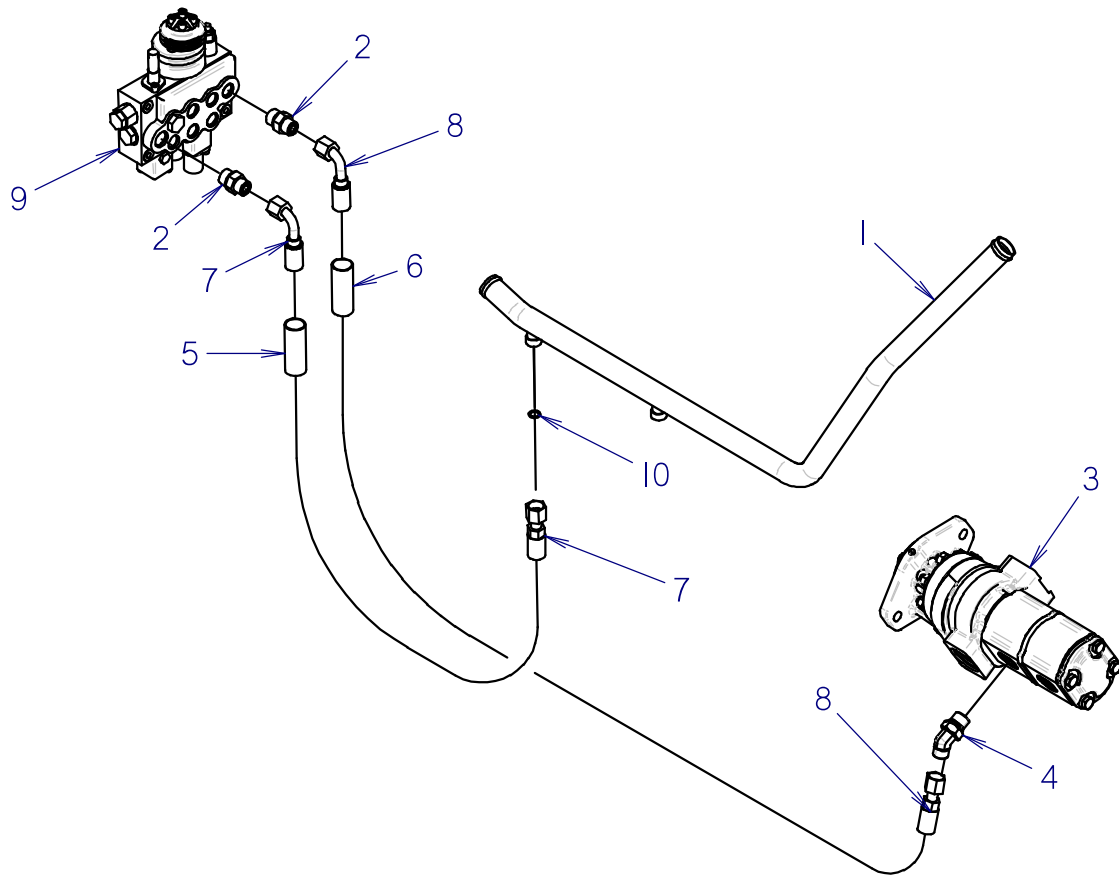
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	150-1182		3 SPOOL DIRECTIONAL VALVE	
1	500-1369	1	SPOOL CONTROL KIT	INCLUDES REF NO. 5
2	500-1370	1	RELIEF VALVE CARTRIDGE	
3	500-1371	1	VRC BACK-PRESSURE CARTRIDGE	
4	500-1372	1	SPOOL CONTROL KIT	INCLUDES REF NO. 6
5	500-1373	1	SPOOL BONNET	
6	500-1374	1	SPOOL BONNET	
7	499-006	1	JOYSTICK LINKAGE ASSEMBLY	INCLUDES REF NO. 11 THRU 17,19
8	499-459	1	ROTARY DETENT KIT	
9	149-664	1	LOAD CHECK	
10	157-218	6	O-RING	
11	499-135	1	RUBBER BELLOW	
12	499-137	1	BELLOW CLAMP	
13	157-744	1	SEAL, JOYSTICK	
14	499-139	2	ARTICULATED JOINT	
15	499-166	1	FULCRUM	
16	499-133	1	ROD END PULL	
17	499-138	1	ROD END	
18	153-067	1	O-RING	
19	499-134	1	ARTICULATION HOLDER	

NOT SHOWN:

FOOTNOTES:

NOTE:

WRENCH VALVE HYDRAULICS



WRENCH VALVE HYDRAULICS

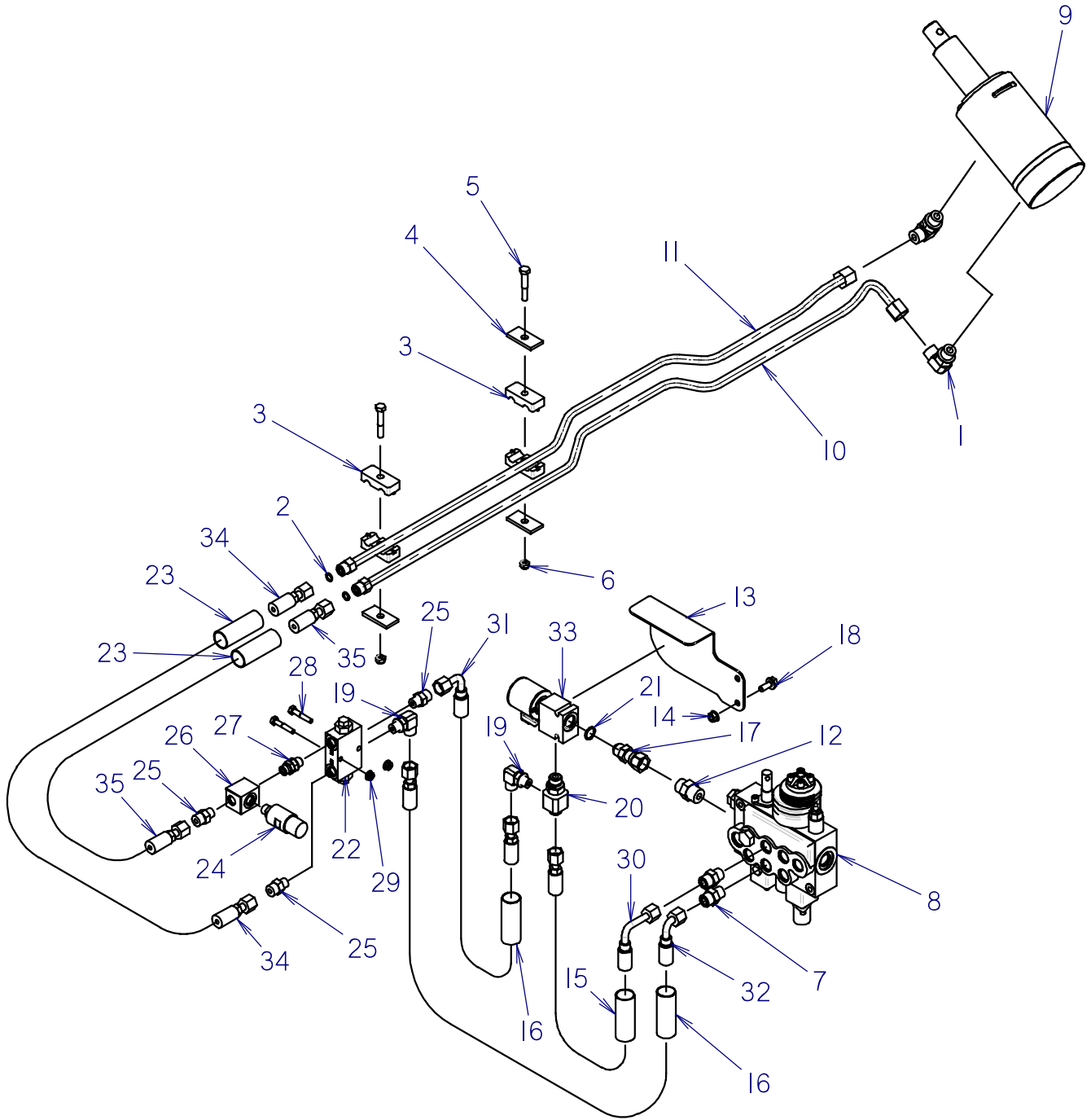
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	150-1510	1	HARDLINE	
2	154-279	2	CONNECTOR (080-10S)	
3	150-1436	1	TRIPLE GEAR HYDRAULIC PUMP	
4	154-264	1	CONNECTOR (080-10S45)	
5	118-062	1	ABRASION SLEEVE (1.00" X 62")	
6	117-213	1	ABRASION SLEEVE (1.00" X 96")	
7	154-884	1	HOSE (080FX90-60"-3000)	
8	515-745	1	HOSE (080FX90M-94"-3000)	
9	150-1182	1	WRENCH VALVE	
10	157-039	1	O-RING (014 D90)	

NOT SHOWN:

FOOTNOTES:

NOTE:

STATIONARY WRENCH HYDRAULICS



STATIONARY WRENCH HYDRAULICS

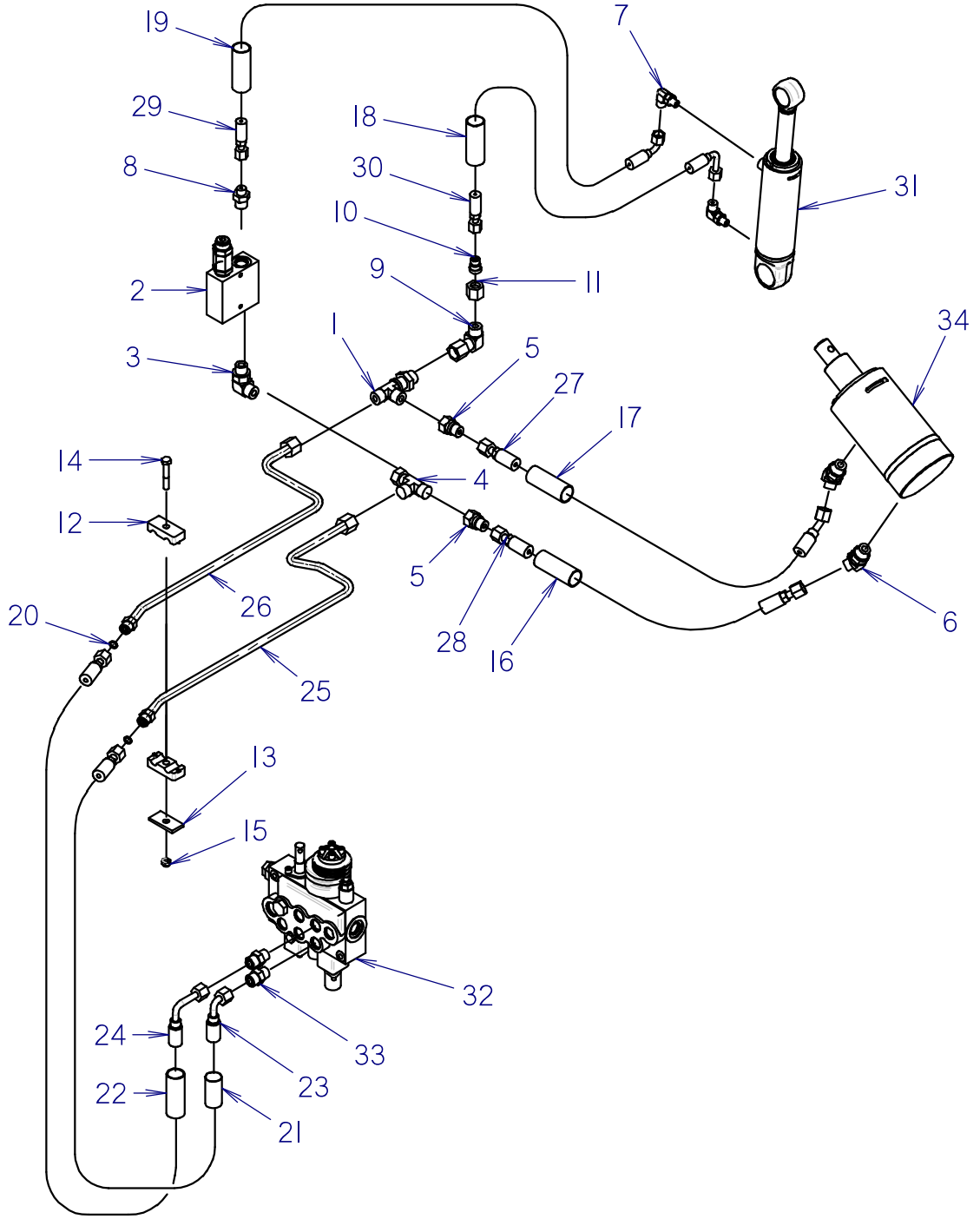
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	154-235	2	CONNECTOR (08S-08090)	
2	157-038	2	O-RING (012 D90)	
3	110-270	4	BOLT-ON CLAMP (9/16", HALF)	
4	305-256	3	BACKUP SPACER	
5	106-329	2	SCREW (M8-1.25 X 50MM)	
6	107-096	2	LOCKNUT (M8-1.25, NLK)	
7	154-222	2	CONNECTOR (060-08S)	
8	150-1981	1	WRENCH VALVE	
9	151-213	1	CYL (3.5" X 1.75" X 2.0")	
10	157-494	1	HYD LINE (-08)	
11	157-495	1	HYD LINE (-08)	
12	154-279	1	CONNECTOR (080-10S)	
13	300-5983	1	COVER	
14	106-386	1	FLG LOCKNUT (M8-1.25)	
15	117-611	1	ABRASION SLEEVE (1.00" X 22")	
16	117-989	2	ABRASION SLEEVE (1.00" X 24")	
17	156-732	1	CONNECTOR (08J-080)	
18	106-162	1	FLG SCREW (M8-1.25 X 20MM, GD8)	
19	154-342	2	CONNECTOR (06S-06090)	
20	150-1629	1	RUN TEE (08S-060-06SF)	
21	155-706	1	O-RING (908 D90)	
22	149-136	1	HYD LOCKOUT VALVE	
23	117-387	2	ABRASION SLEEVE (1.00" X 42")	
24	215-1319	1	PRESSURE SWITCH	
25	154-221	3	CONNECTOR (06S-060)	
26	150-1206	1	TEE (06SF-06SF-06SF)	
27	155-153	1	CONNECTOR (06S-06S)	
28	105-818	2	BOLT (1/4-NC X 1-1/2")	
29	105-832	2	FLG LOCKNUT (1/4-NC)	
30	515-657	1	HOSE (060FX90L-23"-3000)	
31	157-951	1	HOSE (060FX90M-25"-3000)	
32	153-316	1	HOSE (060FX90S-25"-3000)	
33	150-1982	1	SOLENOID VALVE 2W-2P-NC	
34	159-845	1	HOSE (060FX-44"-3000)	
35	159-845	1	HOSE (060FX-44"-3000)	

NOT SHOWN:

FOOTNOTES:

NOTE:

ROTATING WRENCH HYDRAULICS



ROTATING WRENCH HYDRAULICS

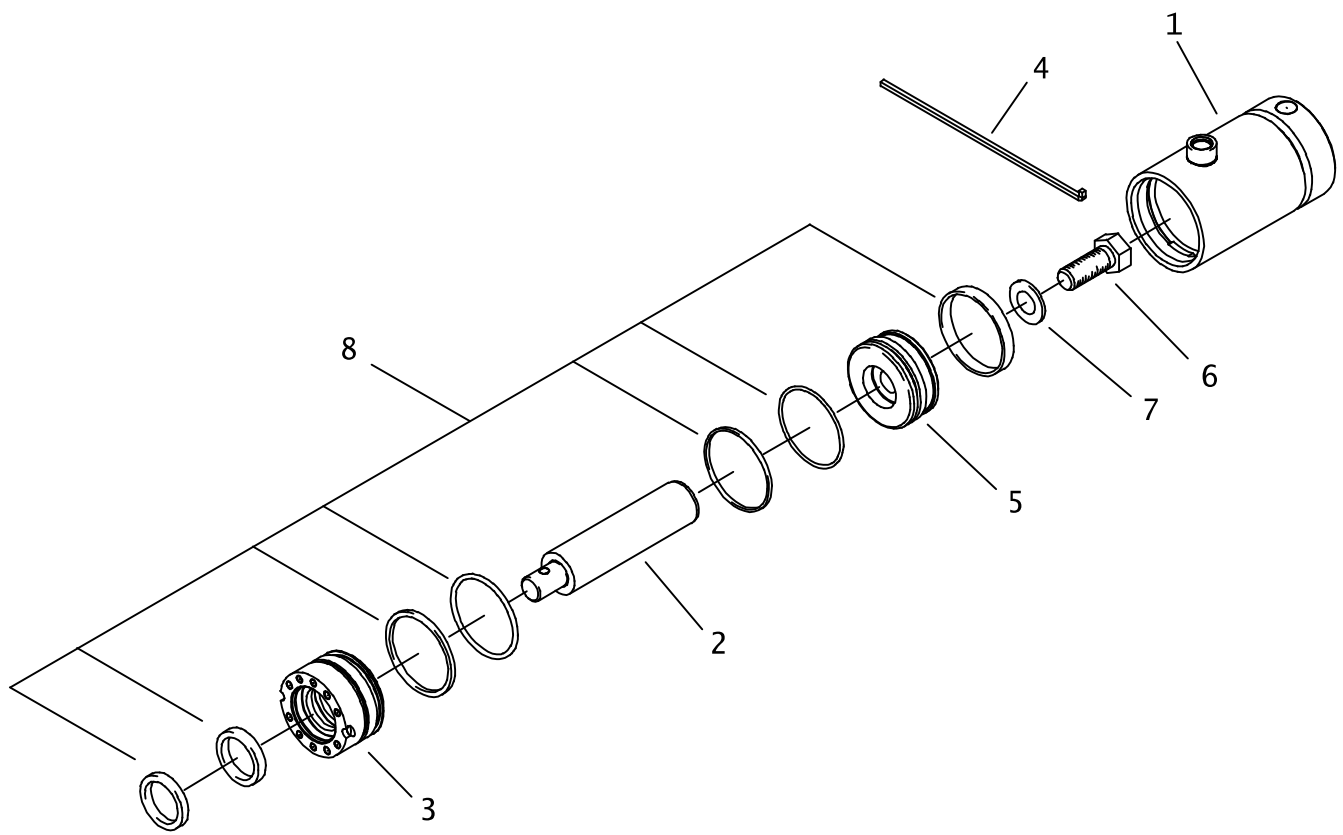
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	154-295	1	BK RUN TEE (080-080-080BK)	
2	157-249	1	SEQUENCE VALVE	
3	154-235	1	CONNECTOR (08S-08090)	
4	154-266	1	UNION RUN TEE (080FX-080-080)	
5	154-262	2	REDUCER (060-080F)	
6	154-225	2	CONNECTOR (060-08S45)	
7	154-252	2	CONNECTOR (04S-04090)	
8	154-261	1	CONNECTOR (040-08S)	
9	154-256	1	UNION (080-080FX90)	
10	154-248	1	REDUCER STEM (040)	
11	154-272	1	REDUCER NUT (080F)	
12	110-270	2	BOLT-ON CLAMP (9/16", HALF)	
13	305-256	1	BACKUP SPACER	
14	106-329	1	SCREW (M8-1.25 X 50MM)	
15	107-096	1	LOCKNUT (M8-1.25, NLK)	
16	117-684	1	ABRASION SLEEVE (1.00" X 26")	
17	117-409	1	ABRASION SLEEVE (1.00" X 28")	
18	117-278	1	ABRASION SLEEVE (1.00" X 14")	
19	117-671	1	ABRASION SLEEVE (1" X 12")	
20	157-038	2	O-RING (012 D90)	
21	117-612	1	ABRASION SLEEVE (1.00" X 46")	
22	117-218	1	ABRASION SLEEVE (1" X 52")	
23	154-881	1	HOSE (060FX90-46"-3000)	
24	515-748	1	HOSE (060FX90L-50"-3000)	
25	150-1618	1	HYD LINE (-08)	
26	150-1619	1	HYD LINE (-08)	
27	157-937	1	HOSE (060FX45-29"-3000)	
28	159-846	1	HOSE (060FX-26"-3000)	
29	515-598	1	HOSE (040FX90-12"-3000)	
30	515-599	1	HOSE (040FX90-13"-3000)	
31	151-038	1	CYL (2.0 X 1.0 X 4.0)	
32	150-1182	1	WRENCH VALVE	
33	154-222	2	CONNECTOR (060-08S)	
34	151-213	1	CYL (3.5" X 1.75" X 2.0")	

NOT SHOWN:

FOOTNOTES:

NOTE:

HYDRAULIC CYLINDER 3.5" X 1.75" X 2.0"



HYDRAULIC CYLINDER 3.5" X 1.75" X 2.0"

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-213	-	CYL (3.5 X 1.75 X 2.0)	INCL REF NO.'S 1 THRU 15
1.	153-849	1	BARREL	
2.	153-845	1	CYL ROD	
3.	153-846	1	CYLINDER GLAND	
4.	149-302	1	LOCK RING (3.5")	
5.	149-301	1	CYL PISTON (3.5" X 1.75")	
6.	106-122	1	BOLT (7/8-NC X 2-1/4", GD8)	SEE FOOTNOTE 1
7.	105-363	1	WASHER (7/8")	
8.	190-174	1	SEAL REPAIR KIT	

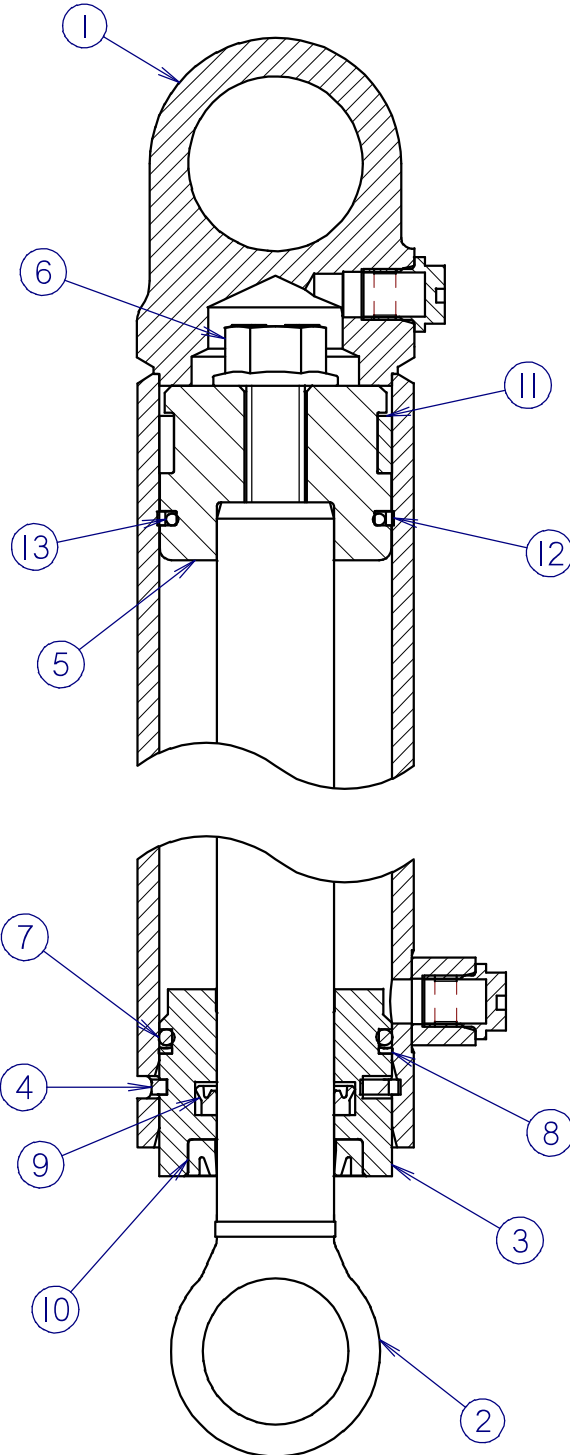
NOT SHOWN:

FOOTNOTES:

- I. LUBRICATE WITH WD-40 OR EQUAL TORQUE TO 410-460 FT LBS (566-624 NM)

NOTE:

HYDRAULIC CYLINDERS (2.0" X 1.0")



HYDRAULIC CYLINDERS (2.0" X 1.0")

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-094	-	CYL (2.0 X 1.0 X 2.0)	SEE FOOTNOTES 1 & 2
1	152-029	1	CYLINDER BARREL (2.0 X 2.0)	
2	153-007	1	CYLINDER ROD (1.00 X 2.0)	
	149-667	-	CYL (2.0 X 1.0 X 2.5)	SEE FOOTNOTES 1 & 2
1	149-761	1	CYLINDER BARREL (2.0 X 2.5)	
2	149-728	1	CYLINDER ROD (1.00 X 2.5)	
	151-027	-	CYL (2.0 X 1.0 X 3.0)	SEE FOOTNOTES 1 & 2
1	150-282	1	CYLINDER BARREL (2.0 X 3.0)	
2	150-414	1	CYLINDER ROD (1.00 X 3.0)	
	151-038	-	CYL (2.0 X 1.0 X 4.0)	SEE FOOTNOTES 1 & 2
1	150-290	1	CYLINDER BARREL (2.0 X 4.0)	
2	150-421	1	CYLINDER ROD (1.00 X 4.0)	
	151-039	-	CYL (2.0 X 1.0 X 5.0)	SEE FOOTNOTES 1 & 2
1	150-291	1	CYLINDER BARREL (2.0 X 5.0)	
2	150-422	1	CYLINDER ROD (1.00 X 5.0)	
	151-044	-	CYL (2.0 X 1.0 X 6.0)	SEE FOOTNOTES 1 & 2
1	150-294	1	CYLINDER BARREL (2.0 X 6.0)	
2	150-424	1	CYLINDER ROD (1.00 X 6.0)	
	151-031	-	CYL (2.0 X 1.0 X 8.0)	SEE FOOTNOTES 1 & 2
1	150-285	1	CYLINDER BARREL (2.0 X 8.0)	
2	150-417	1	CYLINDER ROD (1.00 X 8.0)	
	151-076	-	CYL (2.0 X 1.0 X 10.0)	SEE FOOTNOTES 1 & 2
1	152-017	1	CYLINDER BARREL (2.0 X 10.0)	
2	150-444	1	CYLINDER ROD (1.00 X 10.0)	
	149-668	-	CYL (2.0 X 1.0 X 12.0)	SEE FOOTNOTES 1 & 2
1	150-286	1	CYLINDER BARREL (2.0 X 12.0)	
2	149-729	1	CYLINDER ROD (1.00 X 12.0)	
3	150-772	1	CYLINDER HEAD (2.0 X 1.00)	
4	150-778	1	LOCK RING (2.0)	
5	150-775	1	CYLINDER PISTON (2.0 X 1.00)	
6	106-096	1	FLG BOLT (1/2-NC X 1-3/4",GD8)	SEE FOOTNOTE 3
7	157-022	1	O-RING (224 D90)	
8	155-732	1	BACKUP RING (224 D90)	
9	157-540	1	U-SEAL (1.000")	
10	157-537	1	WIPER SEAL (1.000")	
11	125-774	1	WEAR RING	
12	157-534	1	BACKUP RING (131 D90)	
13	157-018	1	O-RING (131 D90)	

NOT SHOWN:

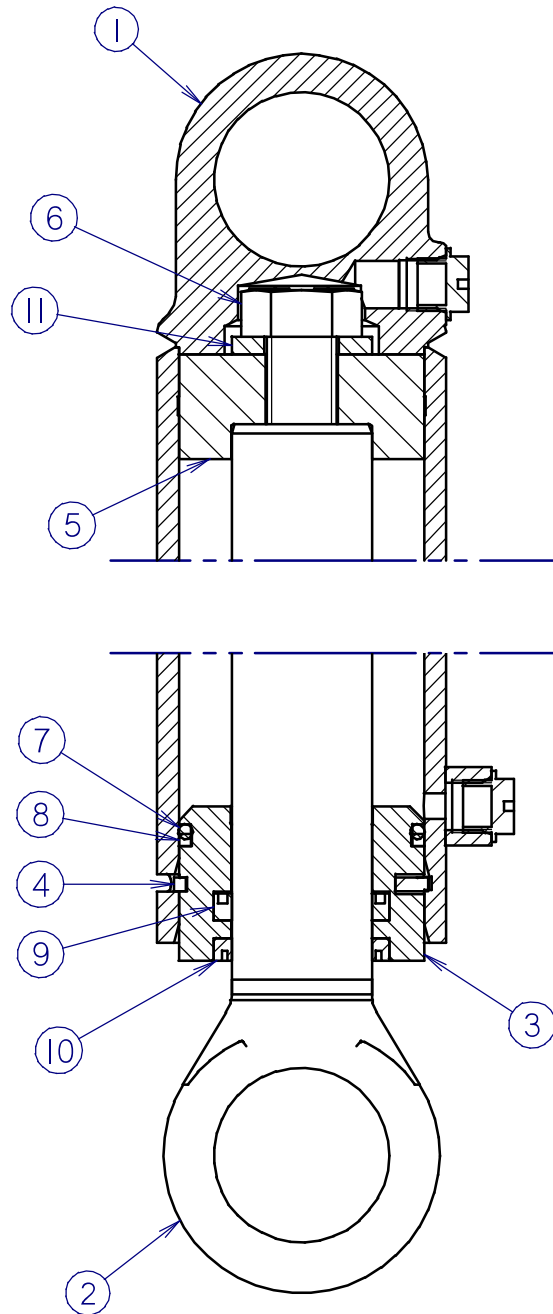
259-100	U-SEAL INSTALLER (1" - 1.499")
259-235	1.00 ROD WIPER TOOL
259-239	WIPER/SEAL INSTALLER (2")
259-241	PISTON INSTALLER (2")
259-188	CYL HEAD SPANNER - TWO PIN

FOOTNOTES:

- REF. #1 & #2 ARE SPECIFIC TO EACH CYLINDER, REF. #3 THRU #13 ARE COMMON FOR ALL THE ABOVE LISTED CYLINDERS
- SEAL REPAIR KIT P/N: 190-165
- APPLY LOCTITE 277 OR EQUIVALENT, TORQUE TO 90-100 FT-LBS

NOTE:

HYDRAULIC CYLINDERS (3.5" X 2.0")



HYDRAULIC CYLINDERS (3.5" X 2.0")

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-123	-	CYL (3.5 X 2.0 X 4.0)	SEE FOOTNOTES 1 & 2
1	152-037	1	CYLINDER BARREL (3.5 X 4.0)	
2	153-021	1	CYLINDER ROD (2.00 X 4.0)	
	151-178	-	CYL (3.5 X 2.0 X 5.0)	SEE FOOTNOTES 1 & 2
1	150-300	1	CYLINDER BARREL (3.5 X 5.0)	
2	150-440	1	CYLINDER ROD (2.00 X 5.0)	
	149-692	-	CYL (3.5 X 2.0 X 5.0)	SEE FOOTNOTES 1 & 2
1	150-296	1	CYLINDER BARREL (3.5 X 6.0)	
2	149-735	1	CYLINDER ROD (2.00 X 6.0)	
	149-693	-	CYL (3.5 X 2.0 X 8.0)	SEE FOOTNOTES 1 & 2
1	152-006	1	CYLINDER BARREL (3.5 X 8.0)	
2	149-736	1	CYLINDER ROD (2.00 X 8.0)	
	151-116	-	CYL (3.5 X 2.0 X 10.0)	SEE FOOTNOTES 1 & 2
1	152-040	1	CYLINDER BARREL (3.5 X 10.0)	
2	153-016	1	CYLINDER ROD (2.00 X 10.0)	
	151-047	-	CYL (3.5 X 2.0 X 12.0)	SEE FOOTNOTES 1 & 2
1	150-297	1	CYLINDER BARREL (3.5 X 12.0)	
2	150-429	1	CYLINDER ROD (2.00 X 12.0)	
	149-694	-	CYL (3.5 X 2.0 X 16.0)	SEE FOOTNOTE 1 & 2
1	149-737	1	CYLINDER ROD (2.00 X 16.0)	
2	149-805	1	CYLINDER BARREL (3.5 X 16.0)	
	149-695	-	CYL (3.5 X 2.0 X 20.0)	SEE FOOTNOTES 1 & 2
1	149-765	1	CYLINDER BARREL (3.5 X 20.0)	
2	149-738	1	CYLINDER ROD (2.00 X 20.0)	
	149-696	-	CYL (3.5 X 2.0 X 24.0)	SEE FOOTNOTES 1 & 2
1	149-766	1	CYLINDER BARREL (3.5 X 24.0)	
2	149-739	1	CYLINDER ROD (2.00 X 24.0)	
	149-697	-	CYL (3.5 X 2.0 X 30.0)	SEE FOOTNOTES 1 & 2
1	149-767	1	CYLINDER BARREL (3.5 X 30.0)	
2	149-740	1	CYLINDER ROD (2.00 X 30.0)	
3	150-759	1	CYLINDER HEAD (3.5 X 2.00)	
4	149-302	1	LOCK RING (3.5)	
5	150-992	1	CYLINDER PISTON (3.5 X 2.00)	INCL. MOLDED-ON WEAR RING
6	106-145	1	BOLT (I-NC X 2-1/4", GD8)	SEE FOOTNOTE 3
7	157-030	1	O-RING (338 D90)	
8	157-032	1	BACKUP RING (338 D90)	
9	157-559	1	U-SEAL (2.000")	
10	157-558	1	WIPER SEAL (2.000")	
11	106-144	1	WASHER (1")	

FOOTNOTES

- REF. #1 & #2 ARE SPECIFIC TO EACH CYLINDER, REF. #3 THRU #11 ARE COMMON FOR ALL THE ABOVE LISTED CYLINDERS.
- SEAL REPAIR KIT P/N: 190-175
- APPLY LOCTITE 277 OR EQUIVALENT, TORQUE TO 630-700 FT-LBS

NOT SHOWN:

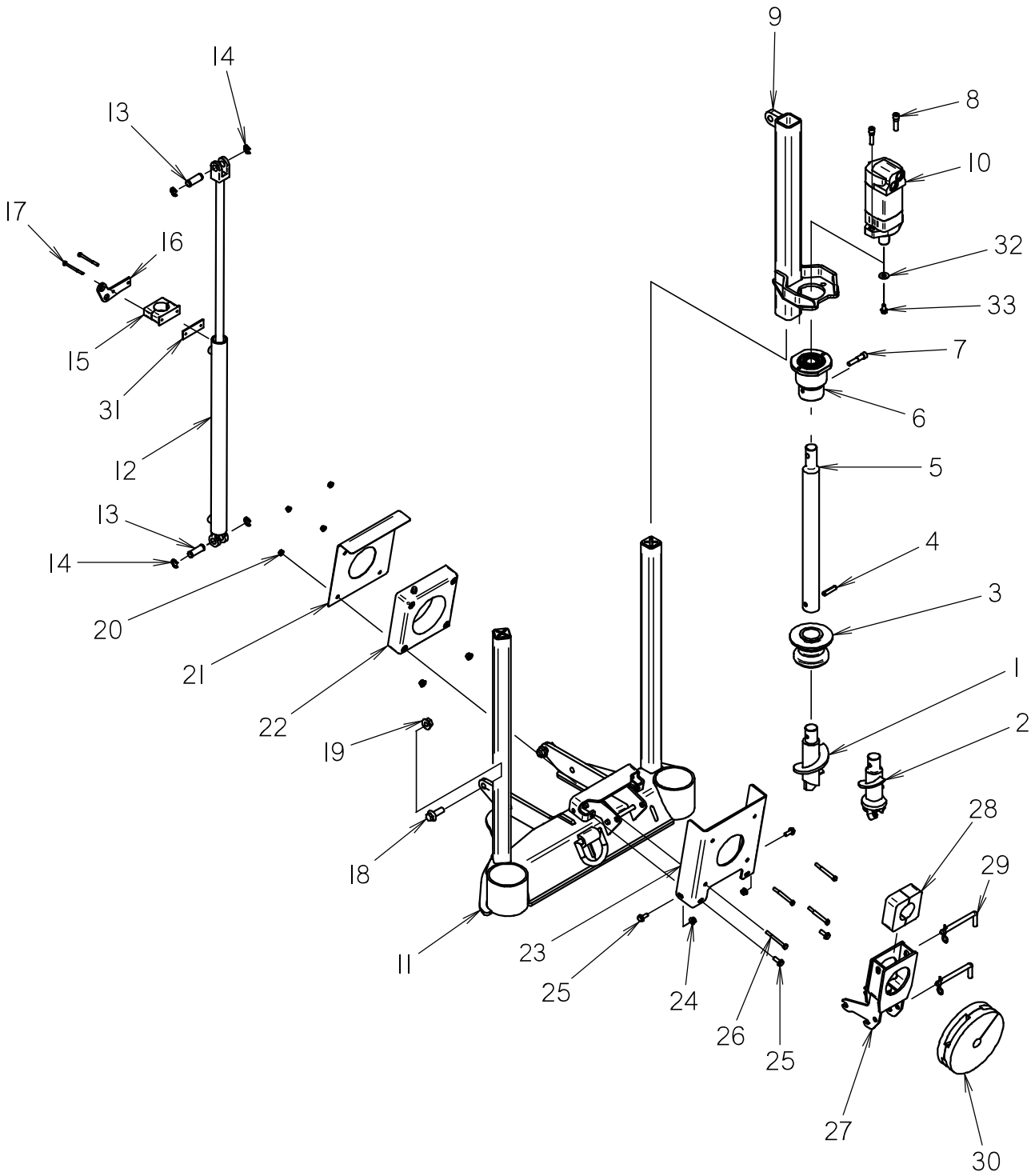
- 259-040 U-SEAL INSTALLER (1.5" - UP)
- 259-239 WIPER/SEAL INSTALLER (2")
- 259-244 PISTON SEAL INSTALLER (3.5")
- 259-245 PISTON INSTALLER (3.5")
- 259-188 CYL HEAD SPANNER - TWO PIN

A

809-368

ANCHOR SYSTEMS

ANCHOR SYSTEM



ANCHOR SYSTEM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	327-460	1	AUGER (4")	SEE FOOTNOTE 1
2	327-457	1	ROCK ANCHOR	
3	158-238	2	CENTERING CAP	
4	107-331	2	ROLL PIN (M12 X 50MM)	
5	166-617	2	SHAFT	
6	350-2174	2	ANCHOR DRIVE COUPLER	SEE FOOTNOTE 3
7	106-771	2	SCREW (M12-1.75 X 60MM, SOCI)	
8	106-707	4	SCREW (M12-1.75 X 45MM, SOCI)	
9	316-767	2	UPPER TUBE	
10	158-700	2	HYD MOTOR	SEE FOOTNOTE 5 FOR SERVICE PARTS
11	300-2951	1	ANCHOR FRAME	
12	151-214	2	HYD CYL	SEE FOOTNOTE 2
13	179-736	4	PIN	
14	115-503	8	KLIP RING (750")	
15	318-631	2	BOLT-ON CLAMP (1.875)	
16	318-658	2	BULKHEAD BRACKET	
17	107-196	4	BOLT (1/4-NC X 3.0, GD5)	
18	107-336	6	FLG SCREW (M16-2.00X45MM,10.9)	
19	106-355	6	FLG NUT (M16-2.00, 10.9)	
20	106-386	4	FLG LOCKNUT (M8-1.25)	
21	300-2168	1	COVER	
22	215-1081	1	CURRENT TRANSFORMER	
23	300-2131	1	TRANSFORMER COVER	
24	106-266	4	FLG NUT (M10-1.50)	
25	106-724	4	FLG SCREW (M10-1.50 X 25MM)	
26	106-602	4	SCREW (M8-1.25 X 80MM)	
27	300-3930	1	PIPE GUIDE MOUNT	
28	362-1060	2	PIPE GUIDE	BEGINS WITH S/N CMWJT922EB0000488 SEE FOOTNOTE 6
29	107-870	2	PULL PIN (5 X 5")	
30	149-578	1	SPLIT ROD WIPER 1.25" ID	
31	110-972	2	WELD PLATE	
32	105-794	2	WASHER (M12)	
33	105-825	2	FLG LK BOLT (3/8-NC X 3/4)	

NOT SHOWN:

327-499	ANCHOR DRIVER	
106-685	LOCKNUT (M12-1.75,PRV TRQ, 10.9)	SEE FOOTNOTE 4
105-156	BOLT (3/8-NC X 1-1/2")	SEE FOOTNOTE 4

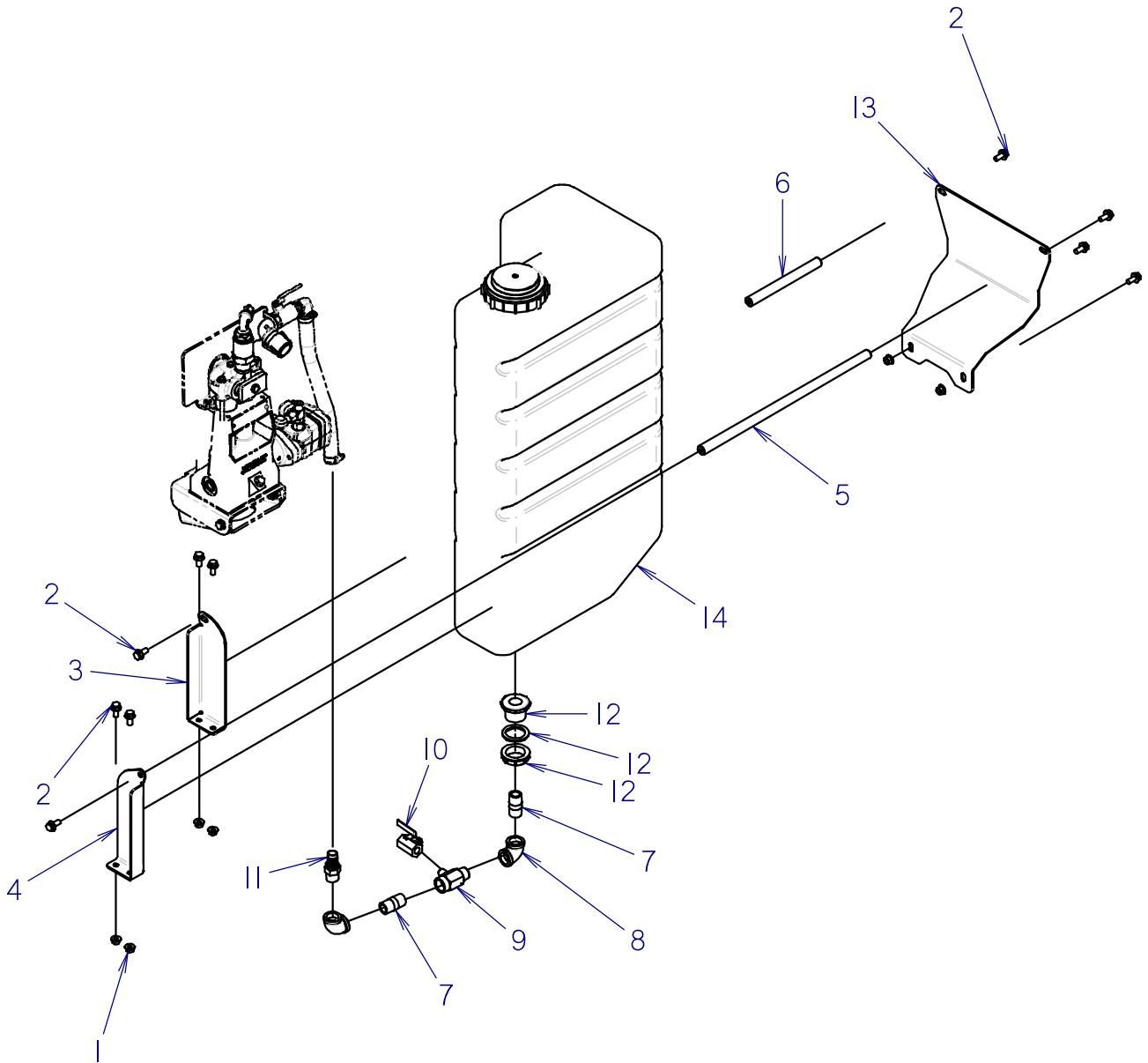
FOOTNOTES:

1. 131-259 INSERT BIT - CARBIDE TIPPED
2. 500-1542 SEAL KIT
3. SUPERSEDES 327-499
4. USED WITH 327-499, NOT USED WITH 350-2174
5. 105-909 KEY (5/16" X 1-1/8")
6. USE 362-1057 FOR FINE THREAD PIPE.

NOTE:

FLUID SYSTEMS

WATER TANK



WATER TANK

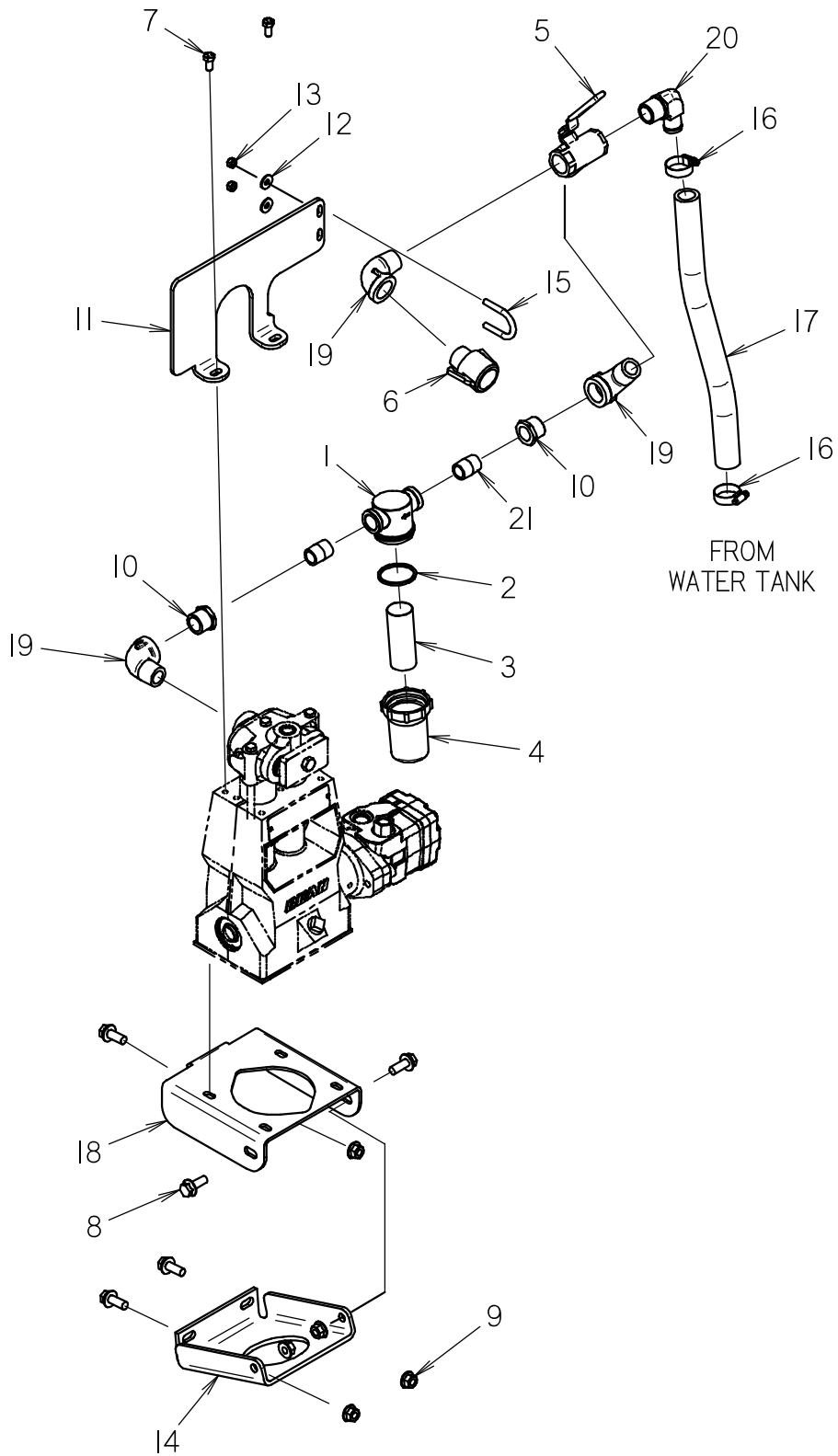
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	106-354	6	FLANGE NUT (M12-1.75)	
2	106-806	10	FLG LK SCREW (M12-1.75 X 25MM)	
3	300-3390	1	RIGHT BRACKET	
4	300-3391	1	LEFT BRACKET	
5	300-3392	1	LONG BAR	
6	300-3393	1	SHORT BAR	
7	115-206	2	NIPPLE (1/6N-2.5")	
8	115-208	2	ELBOW (1/6NF-1/6NF90)	
9	514-024	1	BRANCH TEE (08N-1/6N-1/6NF)	
10	158-579	1	SHUT-OFF (08NF-08NF)	
11	155-136	1	S/O COUPLER (1/6N-1/6H)	
12	157-490	1	BK CONNECTOR (1/6NF POLY)	
13	300-3387	1	TANK SUPPORT	1 @ 20"
14	362-1078	1	WATER TANK	SEE FOOTNOTE 1

NOT SHOWN:

FOOTNOTES:
 1. 157-488 CAP/LID

NOTE:

DRILLING FLUID PUMP INLET (9 GALLON PUMP)



DRILLING FLUID PUMP INLET (9 GALLON PUMP)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	153-133	1	STRAINER (12NF)	INCLUDES REF NO.'S 2, 3 & 4
2	153-676	1	FILTER GASKET	
3	153-198	1	SCREEN (20 MESH)	
4	153-677	1	FILTER BOWL	
5	149-113	1	3-WAY SHUT-OFF (16NF) VALVE	
6	149-137	1	FHC CONNECTOR	
7	105-032	2	BOLT (3/8-NC X 3/4")	
8	106-469	5	FLG SCREW (M12-1.75 X 30MM)	
9	106-354	5	FLANGE NUT (M12-1.75)	
10	115-151	2	REDUCER (16N-12NF)	
11	300-3803	1	STRAINER BRACKET	
12	105-117	2	WASHER (5/16")	
13	105-089	2	LOCKNUT (5/16-NC)	
14	300-3695	1	SUPPORT PLATE	
15	107-563	1	U-BOLT (5/16-NC X 1-3/8")	
16	110-353	2	WORM CLAMP (3/4" TO 1-1/2")	
17	116-460	20	BULK HOSE (1")	
18	300-3405	1	PUMP MOUNT	
19	115-440	3	STREET ELBOW (16N-16NF90)	
20	155-137	1	S/O COUPLER (16N-16H90)	
21	115-163	2	ALL THREAD (12N) SCH 80	

NOT SHOWN:

FOOTNOTES:

NOTE:

DRILLING FLUID PUMP INLET (13 GALLON PUMP)

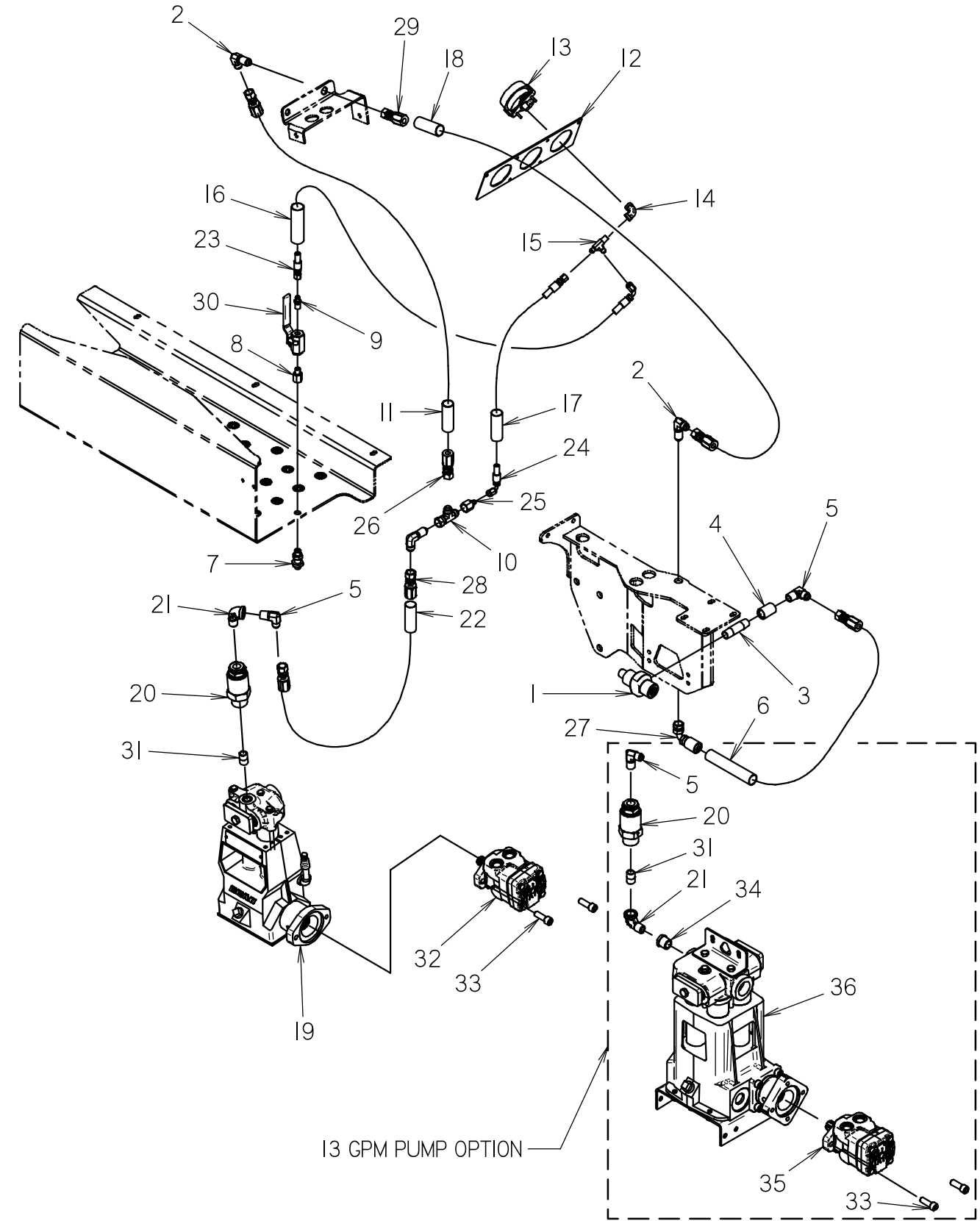
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	153-133	1	STRAINER (12NF)	INCLUDES REF NO.'S 2, 3 & 4
2	153-676	1	FILTER GASKET	
3	153-198	1	SCREEN (20 MESH)	
4	153-677	1	FILTER BOWL	
5	115-163	2	ALL THREAD (12N) SCH 80	
6	115-260	1	REDUCER (20N-12NF)	
7	300-4236	1	MOUNT BRACKET	
8	107-563	1	U-BOLT (5/16-NC X 1-3/8")	
9	115-151	1	REDUCER (16N-12NF)	
10	300-5228	1	SUPPORT BRACKET	
11	105-117	2	WASHER (5/16")	
12	149-137	1	FHC CONNECTOR	
13	105-089	2	LOCKNUT (5/16-NC)	
14	155-137	1	S/O COUPLER (16N-16H90)	
15	110-353	2	WORM CLAMP (3/4" TO 1-1/2")	
16	106-079	6	SCREW (M10-1.50 X 30MM)	
17	149-113	1	3-WAY SHUT-OFF (16NF) VALVE	
18	106-469	2	FLG SCREW (M12-1.75 X 30MM)	
19	106-632	1	FLG LK SCR (M12-1.75X35MM,SER)	
20	106-354	3	FLANGE NUT (M12-1.75)	
21	106-387	8	FLG LOCKNUT (M10-1.50)	
22	116-460	17	BULK HOSE (1", SOLD PER FT)	
23	300-4237	1	PUMP MOUNT	
24	106-724	2	FLG SCREW (M10-1.50 X 25MM)	

NOT SHOWN:

FOOTNOTES:

NOTE:

DRILLING FLUID PLUMBING



13 GPM PUMP OPTION

DRILLING FLUID PLUMBING

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	150-1462	1	WATER SWIVEL (1-08)	
2	154-148	3	BK CONNECTOR (08J-08J90BK)	
3	115-124	1	PIPE NIPPLE (1/2-NPT X 3" LG)	
4	115-155	1	COLLAR (08NF)	
5	154-320	3	CONNECTOR (08N-08J90)	
6	117-280	1	ABRASION SLEEVE (1.00" X 25")	
7	153-238	1	BK CONNECTOR (040-06S)	
8	153-264	1	REDUCER (04N-06SF)	
9	154-020	1	CONNECTOR (04N-04J)	
10	154-135	1	UN RUN TEE (08JFX-08J-08J)	
11	117-717	1	ABRASION SLEEVE (1.00" X 40")	
12	300-3252	1	GAUGE MOUNT PANEL	
13	258-062	1	PRESSURE GAUGE (1500 PSI)	
14	149-896	1	STREET ELBOW(04NF-04NF90)	
15	154-117	1	RUN TEE (04N-04J-04J)	
16	117-411	1	ABRASION SLEEVE (1.00" X 32")	
17	117-718	1	ABRASION SLEEVE (1" X 36")	
18	117-213	1	ABRASION SLEEVE (1.00" X 96")	
19	158-465	1	MUD PUMP	
20	149-324	2	FLOW CHECK (08NF-08NF/64PSI)	
21	115-115	2	STREET ELBOW (08N-08NF90)	
22	117-702	1	ABRASION SLEEVE (1.00" X 68")	
23	150-1640	1	HOSE (04JFX90-32"-3000)	
24	150-1639	1	HOSE (04JFX90-36"-3000)	
25	154-259	1	REDUCER (04J-08JF)	
26	150-1638	1	HOSE (08JFX-40"-3000)	
27	150-1456	1	HOSE (1-08JFX90S-24"-3000)	
28	150-1572	1	HOSE (08JFX-70"-3000)	
29	150-1534	1	HOSE (08JFX-95"-3000)	
30	120-071	1	BALL VALVE	
31	115-191	2	NIPPLE (08N)	
32	150-1262	1	GEROLER GEAR MOTOR	
33	106-204	4	BOLT 1/2 - NC X 1.50", SOC1	TORQUE TO 100 FT-LBS, USE LOCKTITE 242 OR EQUIVALENT
34	115-126	1	REDUCER (12N-08NF)	
35	150-1511	1	GEROLER GEAR MOTOR	
36	158-1005	1	DRILLING FLUID PUMP	SEE FOOTNOTE 1

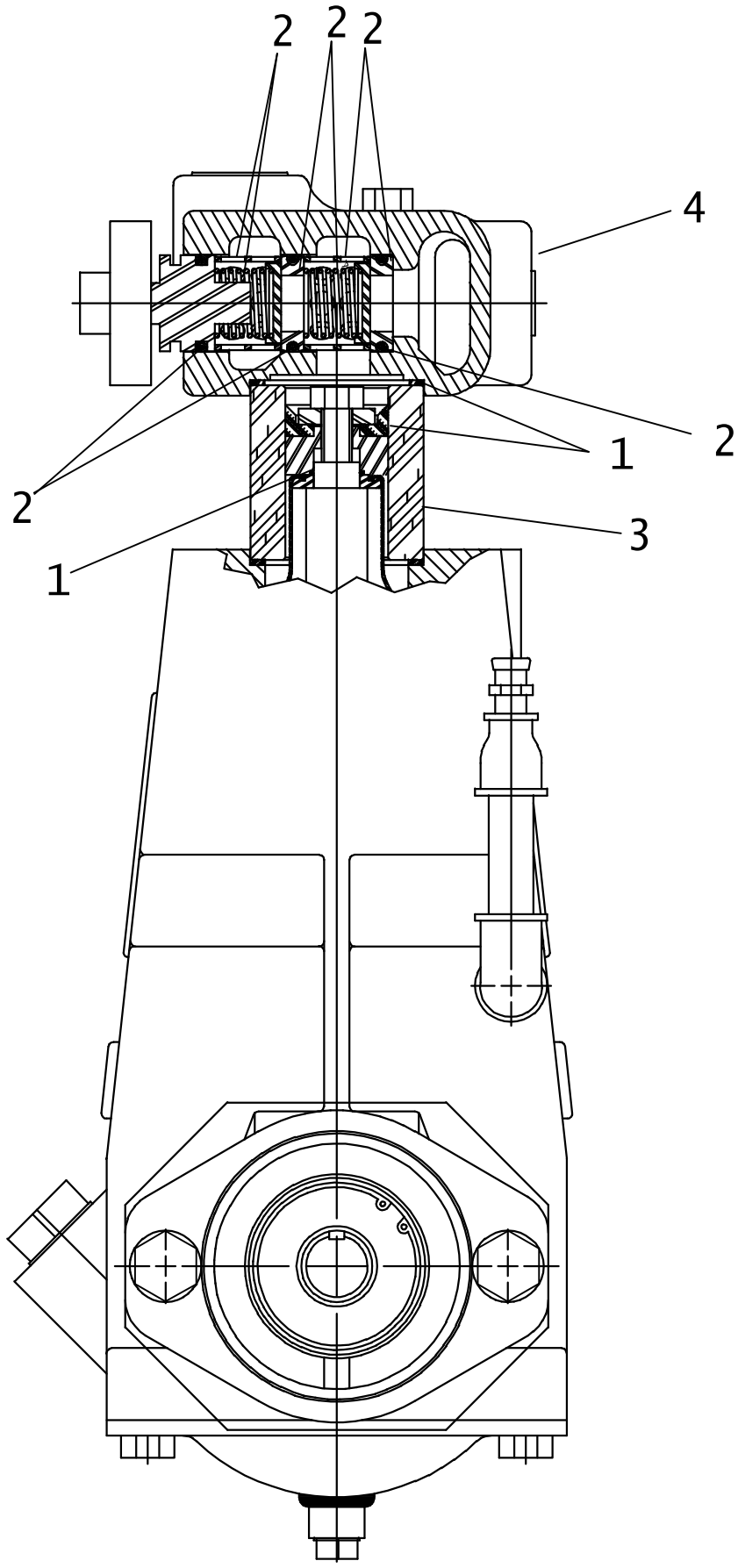
NOT SHOWN:

FOOTNOTES:

1. 191-1007 PACKING KIT

NOTE:

MUD PUMP
9 GPM



MUD PUMP

9 GPM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	158-465	-	MUD PUMP	BEGINS WITH S/N 2N2090
1.	190-933	1	PACKING REPAIR KIT (MUD PUMP)	
2.	190-815	2	VALVE REPAIR KIT	
3.	500-903	2	CERAMIC CYLINDER	
4.	499-015	1	FLUID CYLINDER (HEAD)	

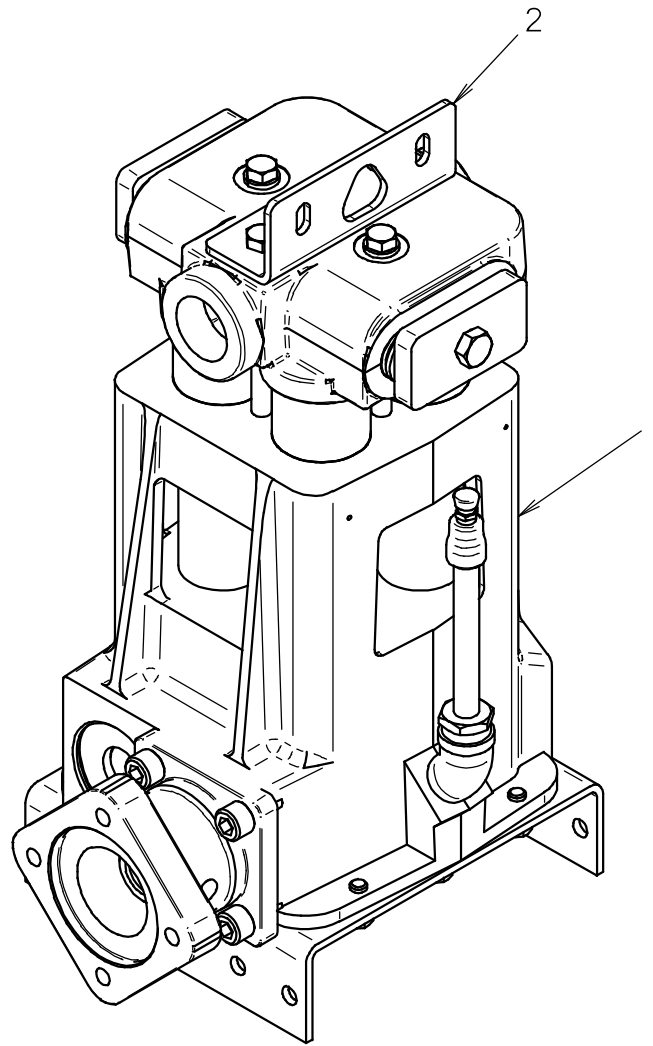
NOT SHOWN:

499-086 2 VALVE COVER

FOOTNOTES:

NOTE:

MUD PUMP
13 GPM



MUD PUMP

13 GPM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	158-1005		DRILLING FLUID PUMP	INCLUDES BRACKET
2	300-5172	1	BRACKET	

NOT SHOWN:

191-034 1 PACKING REPAIR KIT
 157-751 4 SEAL, CRANKSHAFT
 499-059 4 PACKING HOLDER
 499-058 4 CERAMIC CYLINDER (1-3/8")

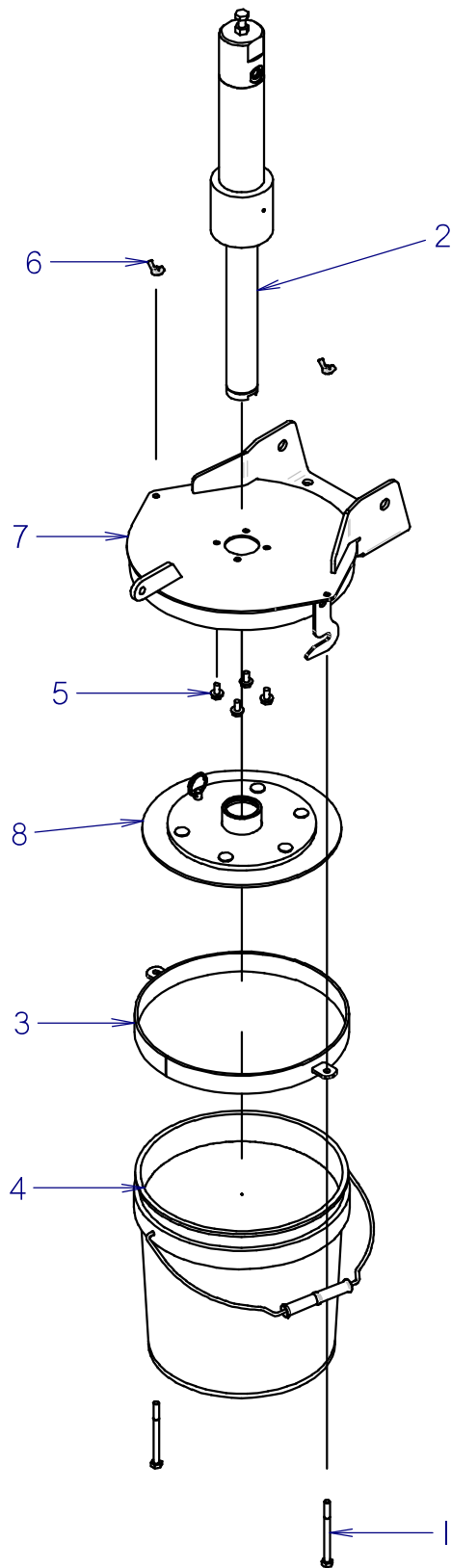
FOOTNOTES:

NOTE:

NOTES:

ACCESSORIES

AUTO LUBER ASSEMBLY



AUTO LUBER ASSEMBLY

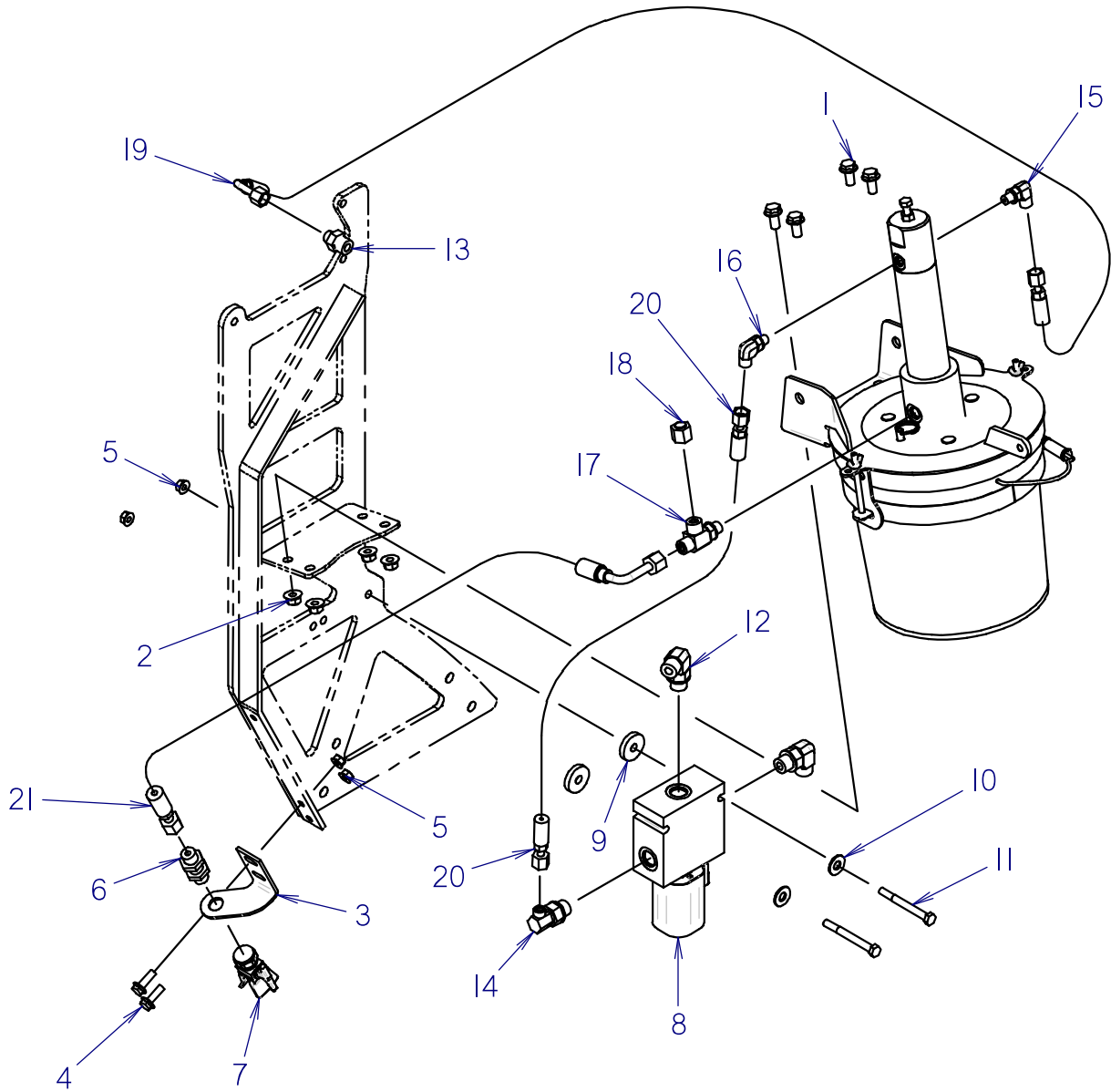
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	105-297	2	BOLT (1/4-NC X 3-1/4")	
2	350-1760	1	GREASE PUMP - LOW OUTPUT	
3	350-399	1	BASE	
4	259-858	1	TOOL JNT LUBE, STD SPRY 2 GAL	
5	106-378	4	FLG LK SCREW (M6-1.00 X 12MM)	
6	195-339	2	WING NUT (1/4-NC)	
7	350-400	1	COVER WELDMENT	
8	350-1932	1	TOOL JOINT LUBE FOLLOWER	

NOT SHOWN:

FOOTNOTES:

NOTE:

LUBRICATOR MOUNT, NOZZLE & APPLICATOR



LUBRICATOR MOUNT, NOZZLE & APPLICATOR

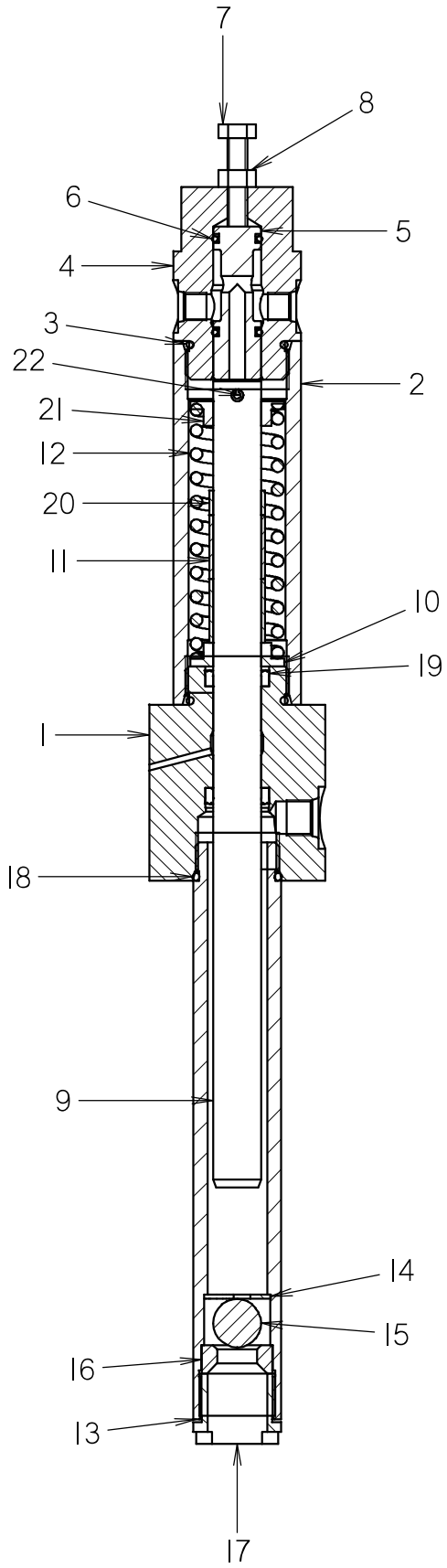
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	106-382	4	FLG LK SCREW (M10-1.50 X 20MM)	
2	106-387	4	FLG LOCKNUT (M10-1.50)	
3	318-409	1	NOZZEL BRACKET	
4	106-381	2	FLG LK SCREW (M8-1.25 X 25MM)	
5	106-386	4	FLG LOCKNUT (M8-1.25)	
6	514-163	1	BK CONNECTOR (060-060BK)	
7	149-399	1	SPRAY NOZZLE (65)	
8	150-1397	1	2 POSITION 3 WAY SOLENOID VALVE	
9	105-886	2	WASHER (.410")	
10	105-118	2	WASHER (3/8")	
11	106-602	2	SCREW (M8-1.25 X 80MM)	
12	154-235	2	CONNECTOR (08S-08090)	
13	154-261	1	CONNECTOR (040-08S)	
14	154-276	1	CONNECTOR (040-08S90)	
15	154-401	1	CONNECTOR (04S-04090, ORF)	
16	154-252	1	CONNECTOR (04S-04090)	
17	154-345	1	RUN TEE (06S-060-060)	
18	154-326	1	CAP (060F)	
19	154-857	1	HOSE (040FX90-19"-3000)	
20	154-783	1	HOSE (040FX-24"-3000)	
21	150-1585	1	HOSE (060FX90L-24"-3000)	OPTIONAL: 153-585 HEATED HOSE

NOT SHOWN:

FOOTNOTES:

NOTE:

GREASE PUMP - LOW OUTPUT



GREASE PUMP - LOW OUPUT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	350-1760	-	GREASE PUMP - LOW OUTPUT	
1	350-687	1	PUMP BODY	
2	350-682	1	BARREL	
3	155-702	2	O-RING (920 D90)	
4	350-686	1	CYLINDER CAP	
5	350-421	1	ADJUSTING SPOOL	
6	157-049	2	O-RING (113 D70)	
7	107-492	1	SCREW (M8-1.25 X 35MM,ALL THD)	
8	106-078	1	NUT (M8-1.25)	
9	166-280	1	PLUNGER	SEE FOOTNOTE I
10	350-671	1	ROD GUIDE	
11	125-424	2	BRONZE BUSHING (.750")	
12	117-228	1	COMPRESSION SPRING	
13	350-693	1	PUMP BARREL	
14	301-0196	1	RETAINER CLIP	SUPERSEDES RETAINER CLIP 105-653
15	125-125	1	DETENT BALL (.750")	
16	350-691	1	VALVE SEAT	
17	350-692	1	INLET TUBE	
18	155-748	1	O-RING (916 D90)	
19	117-227	2	SEAL (POLY PAK)	
20	125-422	1	BRONZE BUSHING (.751")	
21	178-467	1	ROD CAP	SEE FOOTNOTE I
22	105-525	1	ROLL PIN (3/16" X 1-1/4")	SEE FOOTNOTE I

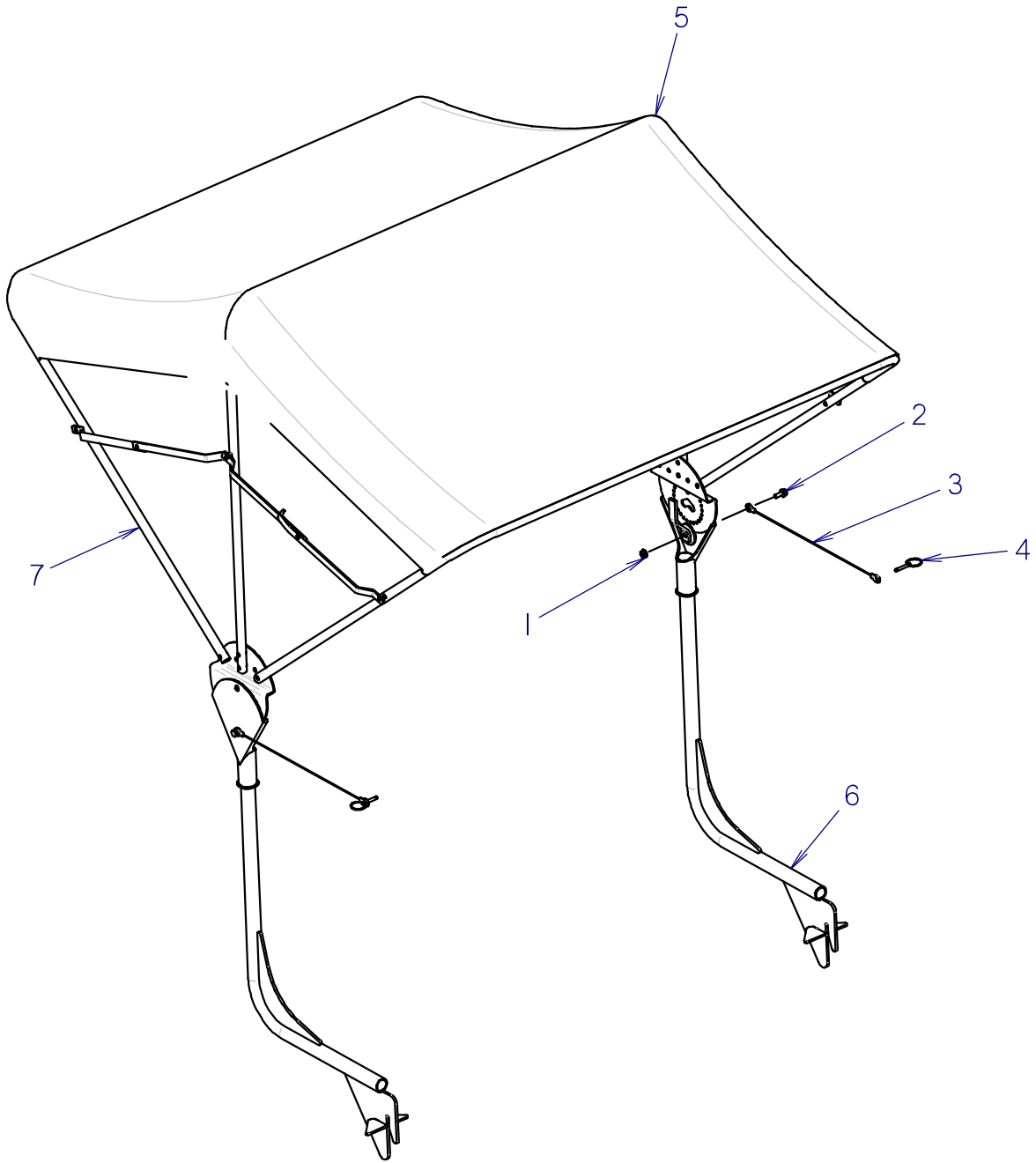
NOT SHOWN:

FOOTNOTES:

I. USE 166-280, 178-467 & 105-525 TO SUPERCEDE 308-603

NOTE:

CANOPY



CANOPY

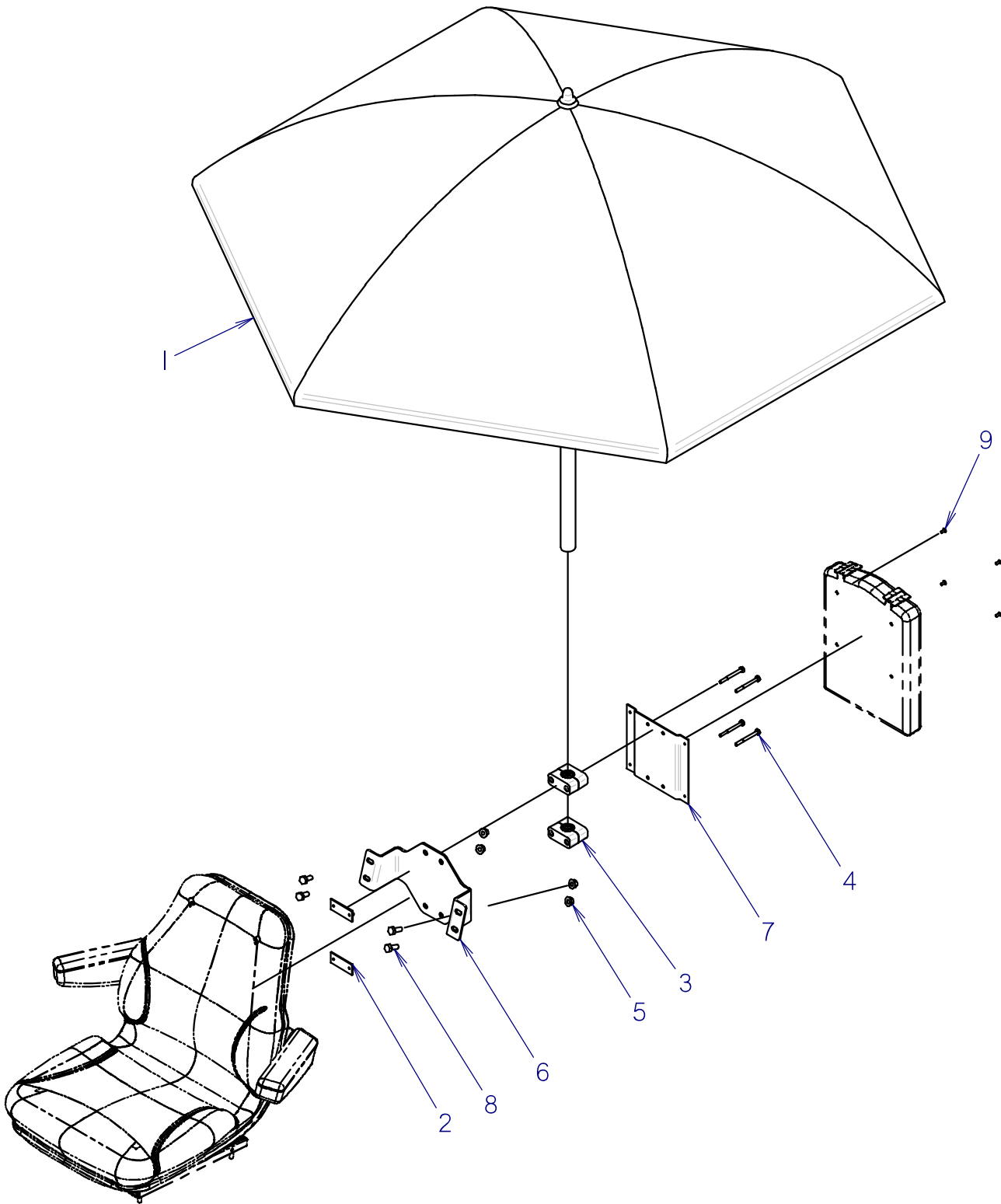
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	106-385	1	FLG LOCKNUT (M6-1.00)	
2	106-712	2	FLG SCREW (M6-1.00 X 16MM)	
3	110-239	2	LANYARD CABLE (13.5")	
4	110-284	2	PULL PIN (3/16" X 13/16")	
5	362-1125	1	CANOPY	
6	300-3662	2	CANOPY MOUNT	
7	362-1139	1	CANOPY BRACKETS	

NOT SHOWN:

FOOTNOTES:

NOTE:

UMBRELLA KIT



UMBRELLA KIT

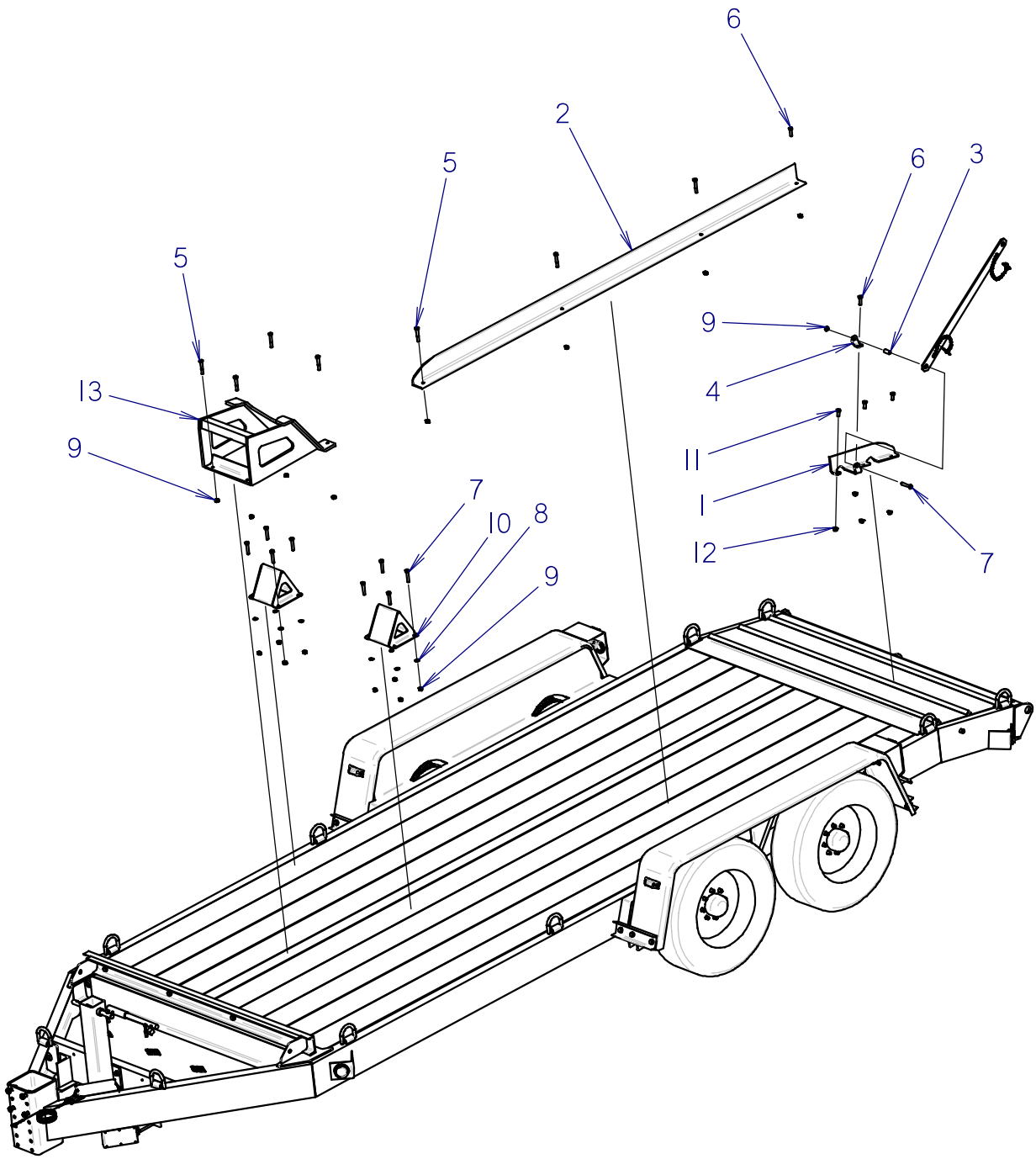
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	190-1290		UMBRELLA KIT	INCLUDES REF #1 THRU #9
1	344-700	1	UMBRELLA	
2	322-363	2	WELD PLATE	
3	111-026	2	BOLT-ON CLAMP (1-1/4", PAIR)	
4	107-743	4	BOLT (1/4-NC X 2.75, GD5)	
5	106-387	4	FLG LOCKNUT (M10-1.50)	
6	303-321	1	UMBRELLA MOUNT	
7	300-6038	1	MOUNT PLATE	
8	105-245	4	SCREW (M10-1.50 X 25MM)	
9	110-560	4	POP RIVET (3/16" X 1/2", ALUM)	

NOT SHOWN:

FOOTNOTES:

NOTE:

T18B TIE DOWN KIT



T18B TIE DOWN KIT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	I90-I293		T18B TIE DOWN KIT	INCLUDES ITEMS I THRU 13 & TIE DOWN ASSEMBLIES NOT SHOWN
I	323-738	1	GUIDE PLATE	
2	323-737	1	GUIDE RAIL	
3	178-351	1	BUSHING	
4	323-739	1	BRACKET	
5	107-308	7	SCREW (M12-L75 X 75MM)	
6	106-333	2	SCREW (M12-L75 X 40MM, 8.8)	
7	107-507	9	SCREW (M12-L75 X 65MM)	
8	106-391	8	WASHER (M12)	
9	106-685	17	LOCKNUT(M12-L75,PRV TRQ,10.9)	
I0	323-951	2	STOP	
11	105-273	3	SCREW (M12-L75 X 30MM)	
I2	106-709	4	FLG LK NUT (M12-L75)	
I3	300-6624	1	FRONT MOUNT	

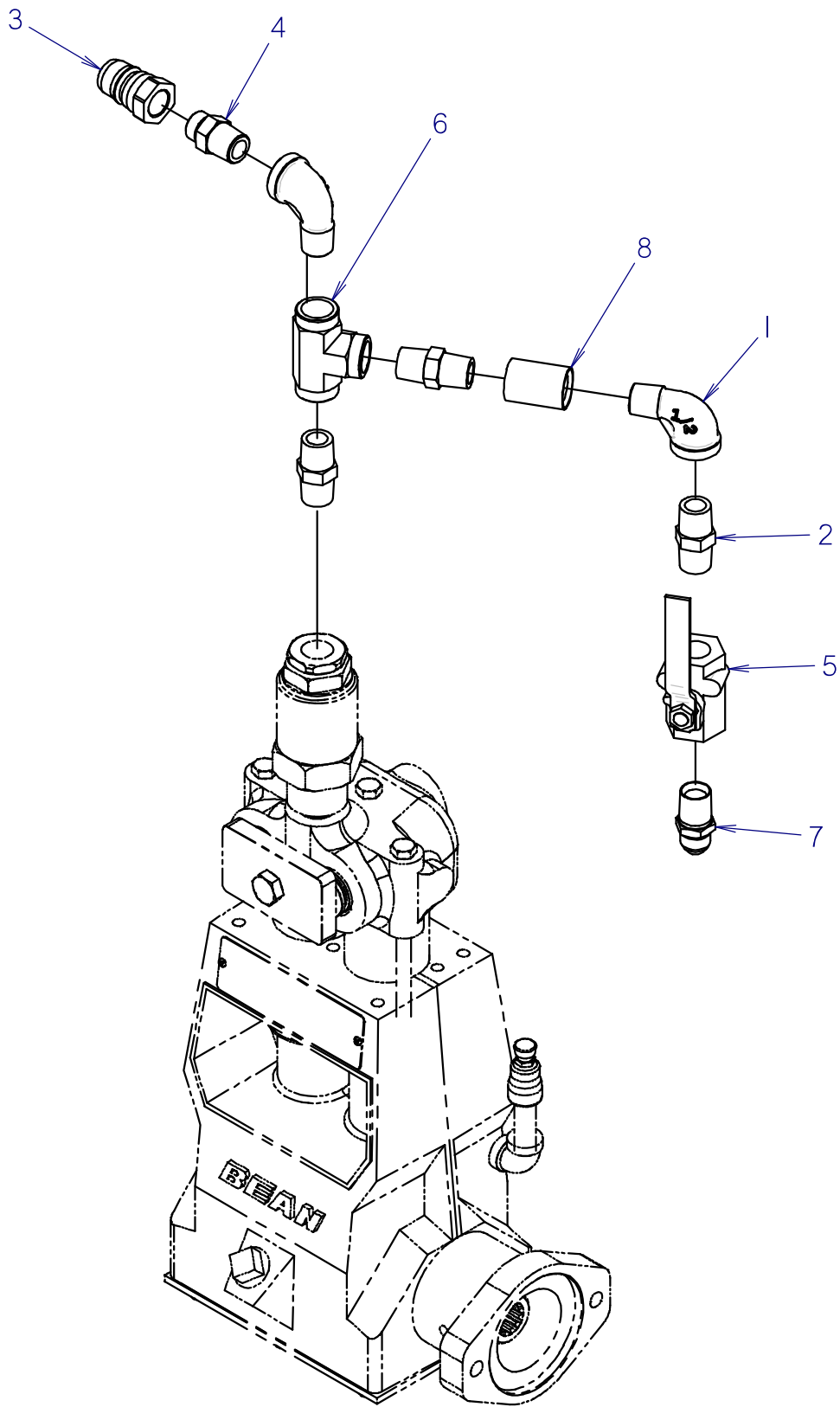
NOT SHOWN:

324-I001 2 TIE DOWN ASSEMBLY

FOOTNOTES:

NOTE:

WASH WAND PLUMBING



WASH WAND PLUMBING

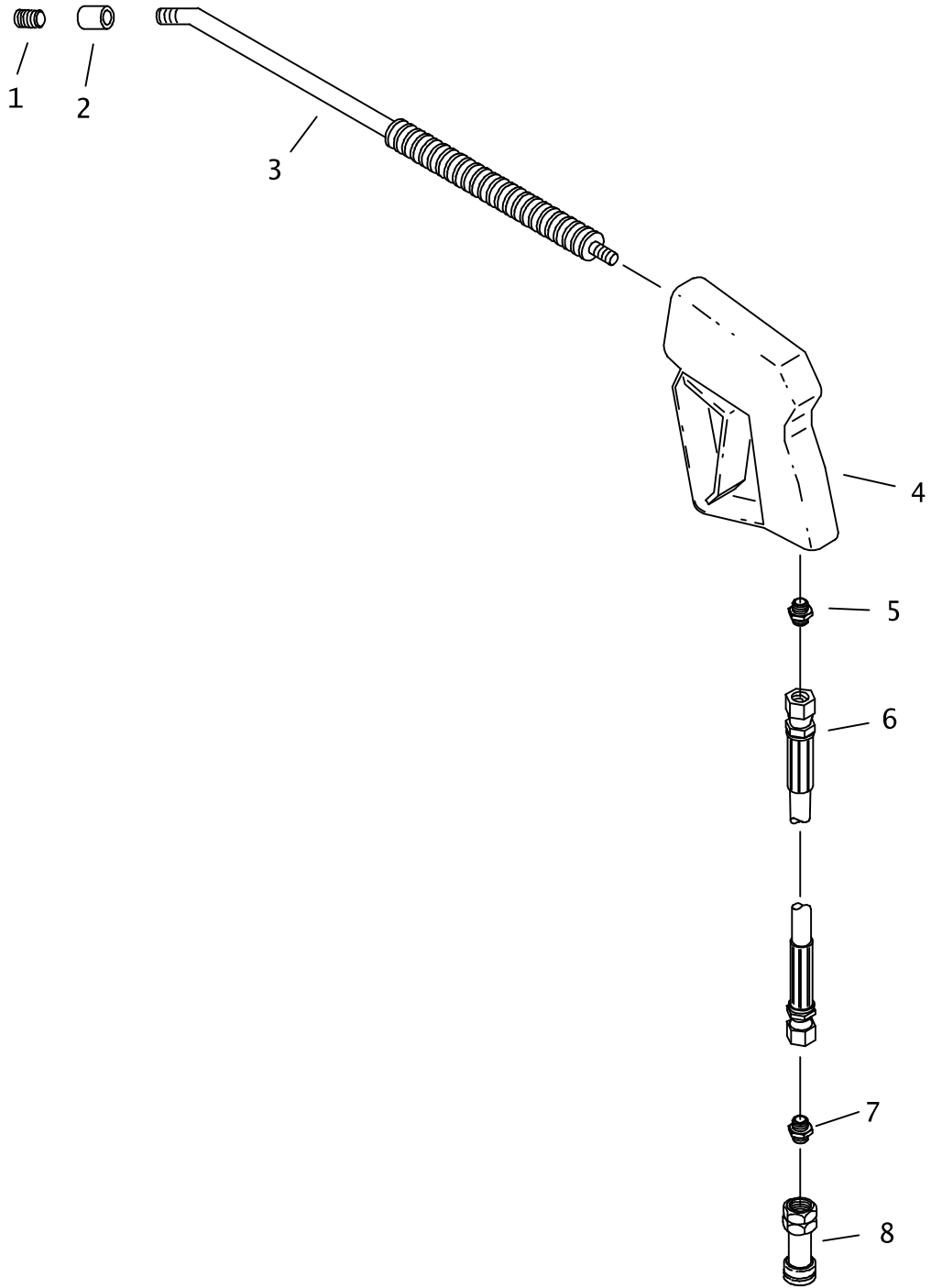
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	115-115	2	STREET ELBOW (08N-08NF90)	
2	155-210	3	CONNECTOR (08N-08N)	
3	159-089	1	QDC ADAPTER (08-08SF)	
4	514-240	1	CONNECTOR (08N-08S)	
5	158-579	1	SHUT-OFF (08NF-08NF)	
6	514-241	1	TEE (08N-08N-08N)	
7	154-097	1	CONNECTOR (08N-08J)	
8	115-155	1	COLLAR (08NF)	

NOT SHOWN:

FOOTNOTES:

NOTE:

WASH WAND



WASH WAND

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	350-1861	-	WASH WAND ACCESSORY KIT	SEE FOOTNOTE 1
1.	155-242	1	NOZZLE (04N, ORF .047", TC)	
2.	115-170	1	COLLAR (04NF)	
3.	259-353	1	WASH WAND (04N-36")	
4.	259-197	1	SPRAY GUN	
	190-938	-	REPAIR KIT, SPRAY GUN	
5.	514-141	1	CONNECTOR (06N-080)	
6.	154-804	1	HOSE (080FX-290"-3000)	
7.	154-233	1	CONNECTOR (08S-080)	
8.	159-088	1	QDC BODY (08-08SF)	
	190-186	-	SEAL REPAIR KIT	

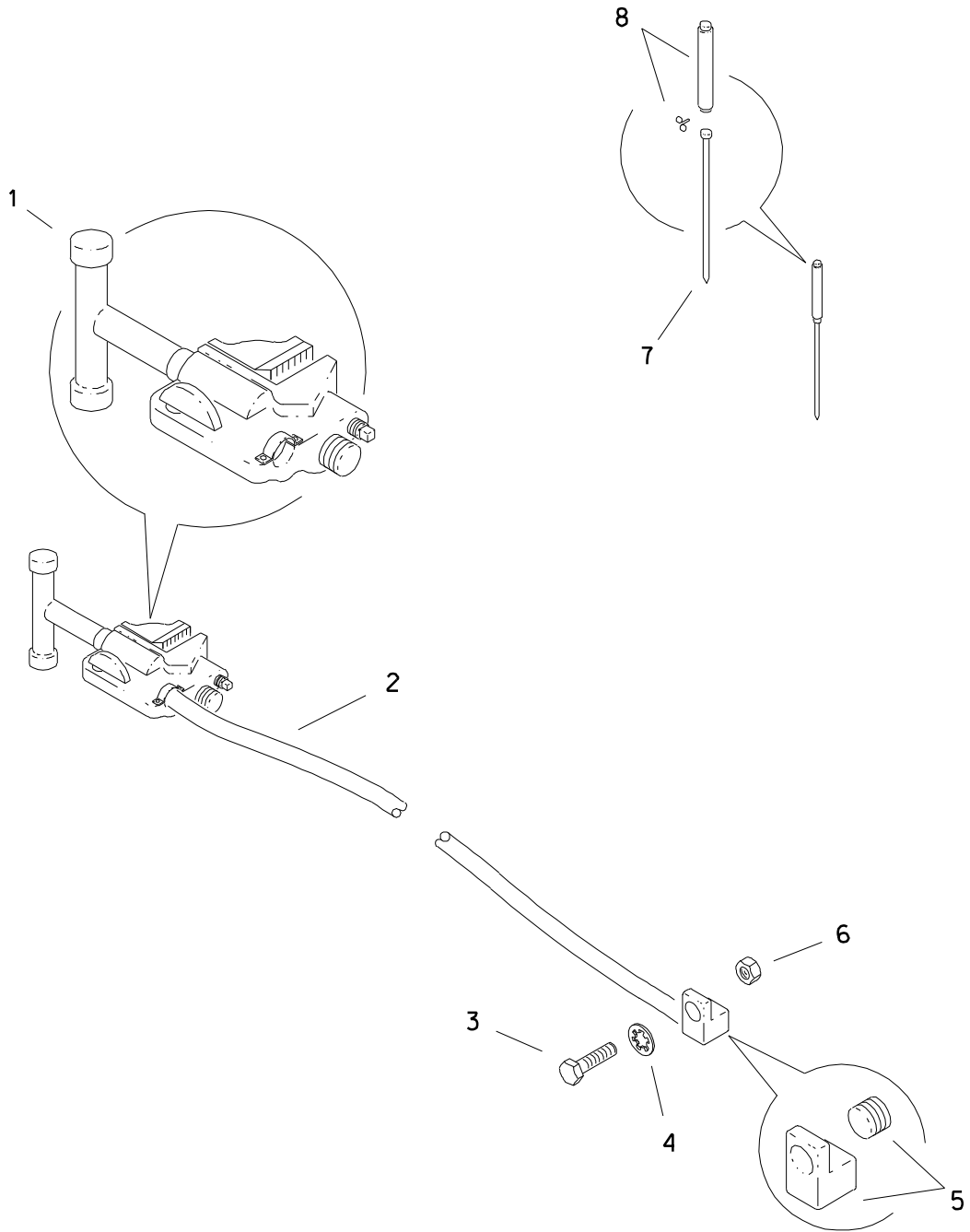
NOT SHOWN:

FOOTNOTES:

1. INCL REF NO.'S 1 THRU 8 & PARTS ON "WASH WAND PLUMBING" PAGE.

NOTE:

GROUNDING CABLES



GROUNDING CABLES

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	215-769	1	GROUND CLAMP	
2	215-813	1	GROUND CABLE (1/0 GA X 25')	INCL REF NO.'S 1 AND 5
	215-768	AR	GROUND CABLE (1/0 GA)	USE 25 FT
3	106-462	1	BOLT (3/8-NC X 1-1/4", SIL BRZ)	
4	106-220	1	INT STAR WASHER (3/8", SIL BRZ)	
5	215-773	1	RING LUG TERMINAL (27/64")	
6	106-454	1	LOCKNUT (3/8-NC, SIL BRZ)	
7	215-775	1	GROUND ROD	
8	215-776	1	SLIDE DRIVER	

FOOTNOTES

MISCELLANEOUS

SAE Bolt and Nut Torque Value Chart

Grade 5: UNC or UNF Thread

Size	Hex nut, or bolt tapped into hex nut, or d&t hole		Hex top deformed locknut		Flange nut, locknut, or bolt tapped into flange nut or d&t* hole	
	ft•lb	N•m	ft•lb	N•m	ft•lb	N•m
1/4	12	16	8	11	20	27
5/16	25	34	15	20	45	60
3/8	40	54	25	34	75	100
7/16	65	90	40	55	125	170
1/2	100	135	60	80	190	260
9/16	150	200	90	125	270	370
5/8	200	270	120	165	370	500
3/4	350	475	210	285	650	880
7/8	560	760	340	460	1250	1425
1	840	1140	500	680	1580	2145
1-1/8	1030	1400	320	840	1950	3645
1-1/4	1460	1980	880	1195	2760	3475

Grade 8: UNC or UNF Thread

Size	Hex nut, or bolt tapped into hex nut, or d&t hole		Hex top deformed locknut		Flange nut, locknut, or bolt tapped into flange nut or d&t* hole	
	ft•lb	N•m	ft•lb	N•m	ft•lb	N•m
1/4	14	19	10	14	24	33
5/16	30	40	18	25	50	70
3/8	55	73	35	50	90	125
7/16	85	115	50	70	140	190
1/2	130	175	80	110	220	300
9/16	190	260	110	150	310	420
5/8	260	355	160	245	430	585
3/4	450	610	270	365	750	1015
7/8	730	990	440	600	1210	1640
1	1090	1480	650	880	1320	2465
1-1/8	1550	2100	930	1260	2580	3500
1-1/4	2180	2955	1310	1780	3640	4935

*drilled and tapped

Metric Bolt and Cap Screw Torque Values

Size	Class 4.8				Class 8.8 and 9.8				Class 10.9				Class 12.9			
	Lubricated		Dry		Lubricated		Dry		Lubricated		Dry		Lubricated		Dry	
	N•m	ft•lb	N•m	ft•lb	N•m	ft•lb	N•m	ft•lb	N•m	ft•lb	N•m	ft•lb	N•m	ft•lb	N•m	ft•lb
M6	4.8	3.5	6	4.5	9	6.5	11	8.5	13	9.5	17	12	15	11.5	19	14.5
M8	12	8.5	15	11	22	16	28	20	32	24	40	30	37	28	47	35
M10	23	17	29	21	43	32	55	40	63	47	80	60	75	55	95	70
M12	40	29	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	47	80	60	120	88	150	110	175	130	225	165	205	150	260	190
M16	100	73	125	92	190	140	240	175	275	200	350	225	320	240	400	300
M18	135	100	175	125	260	195	330	250	375	275	475	350	440	325	560	410
M20	190	140	240	180	375	275	475	350	530	400	675	500	625	460	800	580
M22	260	190	330	250	510	375	650	475	725	540	925	675	850	625	1075	800
M24	330	250	425	310	650	475	825	600	925	675	1150	850	1075	800	1350	1000
M27	490	360	625	450	950	700	1200	875	1350	1000	1700	1250	1600	1150	2000	1500
M30	675	490	850	625	1600	950	1650	1200	1850	1350	2300	1700	2150	1600	2700	2000
M33	900	675	1150	850	1750	1300	2200	1650	2500	1850	3150	2350	2900	2150	3700	2750
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2750	4750	3500

Do not use these values if a different torque value or tightening procedure is given for specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class fasteners.

Fasteners should be replaced with the same or higher property class. If higher property class fasteners are used, these should only be tightened to strength of original.

Make sure fastener threads are clean and that the threads are properly started. This will prevent them from cross threading or galling when tightened.

Tighten plastic insert or crimped type steel locknuts to approximately 50% of dry torque indicated on chart. Apply torque to the nut - not the bolt head. Tighten toothed or serrated type locknuts to full torque value.

LUBRICATED means coated with lubricant. DRY means plain or zinc plated without any type of lubricant.

Hydraulic Cylinder Bolt Torque Chart

Bolt Size (inch)	Bolt Part No.	Cylinder Repair Kit Part No.	Torque (ft•lb)	Torque (N•m)
1/2	106-096	190-165	90-100	120-135
5/8	106-097	190-166 & 190-169	180-200	245-270
3/4	106-098	190-167 & 190-170	290-325	395-440
7/8	106-122	190-172 & 190-174	410-640	550-625
1	106-145	190-175 & 190-189	630-700	855-950
1-1/8	106-146	190-177	770-850	1045-1170

As a general rule:

- 1/2-inch bolts are used in cylinders with 1-inch rods
- 5/8-inch bolts are used in cylinders with 1 1/4-inch rods
- 3/4-inch bolts are used in cylinders with 1 1/2-inch rods
- 7/8-inch bolts are used in cylinders with 1 3/4-inch rods
- 1-inch bolts are used in cylinders with 2-inch rods (one with 1 3/4-inch)
- 1-1/8-inch bolts are used in cylinders with 2-1/4-inch rods

IMPORTANT: Do not reuse cylinder piston bolts when rebuilding a hydraulic cylinder. Each cylinder repair kit contains a new bolt. Use it. Lubricate lightly and torque to value shown on chart.

SAE & ORS Hydraulic Fitting Replacement O-Ring Chart

Fraction Size	Dash Size	SAE (Port Seal O-Ring)		ORS (Face Seal O-Ring)	
		Thread Size	O-Ring P/N	Thread Size	O-Ring P/N
1/16	1	NA	NA	NA	NA
1/8	2	5/16 - 24	NA	NA	NA
3/16	3	3/8 - 24	NA	NA	NA
1/4	4	7/16 - 20	155-760	9/16 - 18	157-037
5/16	5	1/2 - 20	NA	NA	NA
3/8	6	9/16 - 18	155-705	11/16 - 16	157-038
1/2	8	3/4 - 16	155-706	13/16 - 16	157-039
5/8	10	7/8 - 14	155-707	1 - 14	157-040
3/4	12	1-1/16 - 12	155-709	1-3/16 - 12	157-017
7/8	14	1-3/16 - 12	155-747	NA	NA
1	16	1-5/16 - 12	155-748	1-7/16 - 12	155-714
1-1/4	20	1-5/8 - 12	155-702	1-11/16 - 12	NA
1-1/2	24	1-7/8 - 12	157-001	2 - 12	NA
2	32	2-1/2 - 12	NA	NA	NA
2-1/2	40	3 - 12	NA	NA	NA
3	48	3-1/2 - 12	NA	NA	NA

Thread size indicates the diameter of the threaded area in fractions of an inch and number of threads per inch.

NA = not a current CMW part numbered o-ring, or dash size does not occur in current CMW applications

SAE = straight thread fitting that seals by sandwiching a hard o-ring between a shoulder on the male part and an angular surface at the mouth of the female port.

ORS = o-ring face seal; a type of fitting that seals by compressing a hard, captive o-ring between two flat parallel faces, one grooved for the o-ring and the other plain to act as the sealing surface

JT922 Tier 4i

Related Publications

	Component	Ass'y	P/N
<u>Model:</u>			
	JT922 Parts Manual		053-1134
	JT922 Operators Manual		053-1146
	JT922 Technical Supplement		053-1147
 <u>Engine:</u>			
	Deutz Parts Manual – F4L2011	195-1071 ...	053-115
	Deutz..... Operators Manual - F4L2011.....		054-115
	Deutz..... Service (Shop) Manual - F4L2011		055-074

Filters

<u>Engine:</u>			
	Air Filter Parts Ass'y		194-297
	Element (primary)		194-759
	Element (secondary)		194-758
	Oil Filter Element (spin-on) - Deutz		195-849
	Fuel Filter Element (spin-on)		195-807
 <u>Hydraulic:</u>			
	Oil Filter Element (1-1/2-UNF, spin-on, Replacement)		153-792

Optional Kits

O-ring Repair Kit - FLG, ORS & SAE (15 different O-rings)	190-051
O-ring Repair Kit - Field Service (46 different O-rings)	190-052



**Ditch
Witch**

Parts Manual Change Request

(Please print clearly)

Date: _____ Dealer No. (required): _____

Your Name: _____ Position: _____

Phone: _____ Fax: _____ E-mail: _____

Publication Information:

Parts Manual No.: _____ - _____ Model: _____

Illustration Part No.:	Manual Page No.:
1. _____ - _____	1. _____
2. _____ - _____	2. _____
3. _____ - _____	3. _____

Nature of Change Request:

- Text
 Graphics
 Missing Information

Describe change requested (if possible, include copy of publication page with changes marked.):

**Please fax completed form to
Parts Manual Department (580) 572-3525**

Thank you for taking the time to submit this request. We will contact you if further information is needed to process your request.

**A Note To
Ditch Witch
Equipment Owners:**

If your equipment was purchased through a Ditch Witch dealer, there is no need to read further.

However, if you purchased from any other source, please fill out the form on the reverse side and return it to us.

This will enable you to receive updates on this equipment as well as information on new products of interest.

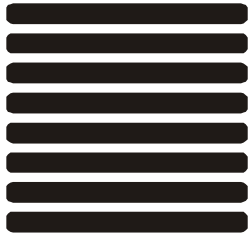
Thanks for using Ditch Witch equipment.

(Please Fold Along This Line And Seal At Bottom With Tape)



**NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES**

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO 23 PERRY OKLAHOMA



POSTAGE WILL BE PAID BY

**The Charles Machine Works, Inc.
P.O. Box 66
Perry, Oklahoma 73077-9989**



Ditch Witch® Registration Card

Please Type or Print All Information

Purchaser's Company Name

Attention

Street Address or P.O. Box

City County

State Zip Nation

()

Phone Number With Area Code

Model S rial Number

Attachments/Accessories Serial Numbers

Attachments/Accessories Serial Numbers

Attachments/Accessories Serial Numbers

Name of Ditch Witch Dealership

Your Signature