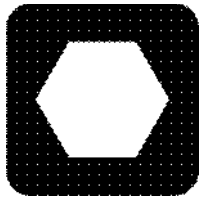


# RT115

## Tier 2

# Parts Manual



# ***Ditch Witch***<sup>®</sup>

## **RT115**


### **Tier 2**

ISSUE NO. 08L-06/11

For Replacement Copy Order **P/N 053-124**

This manual contains information concerning the following models:  
**RT115 Tractor**

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

ID0135295



# FOREWORD

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This manual contains illustrated parts lists to help you select quality ProTech<sup>®</sup> Replacement parts for your Ditch Witch<sup>®</sup> 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

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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 its 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.

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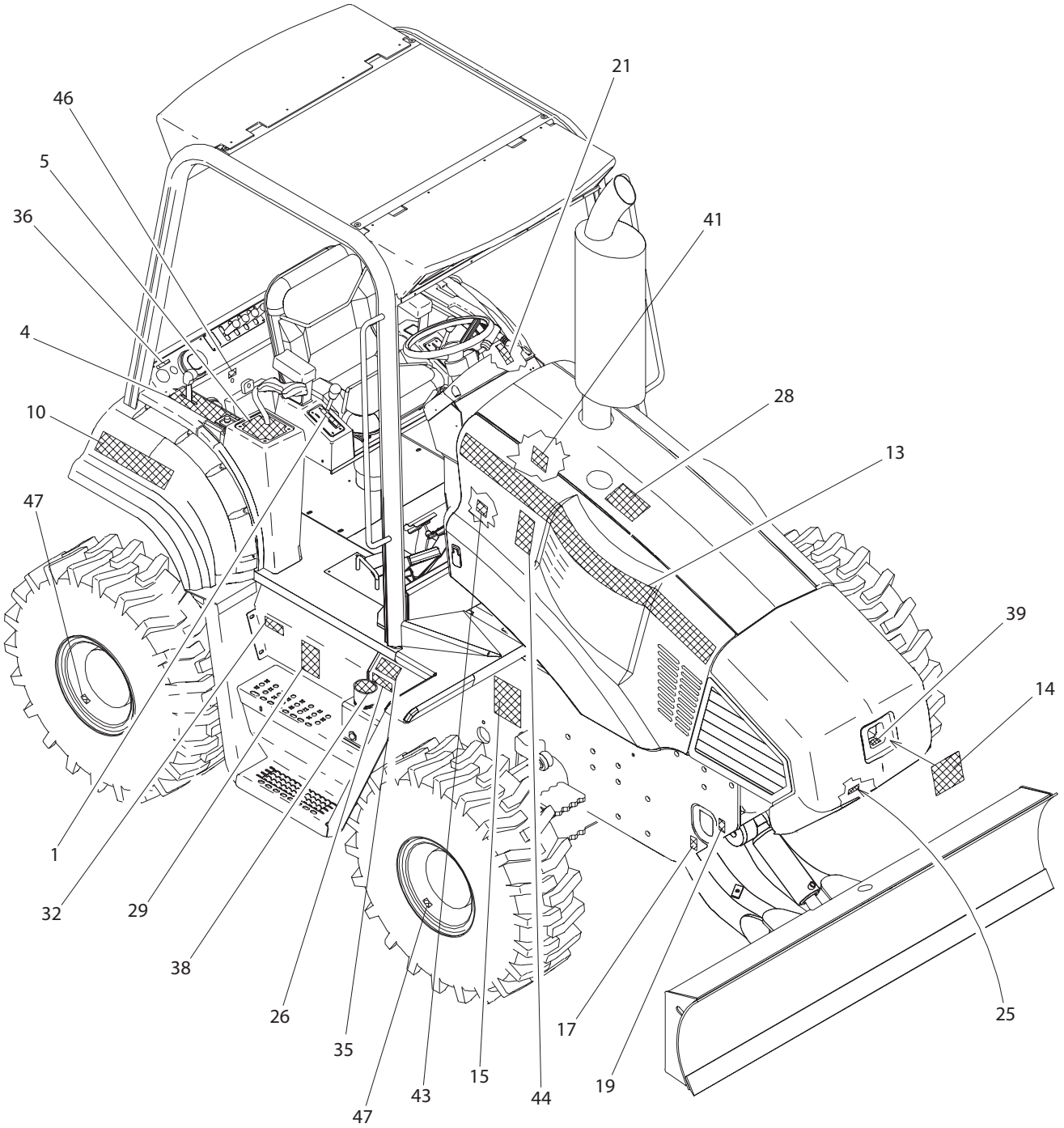
**\*See technical supplement for further  
electrical information ..... #053-112**

## **Miscellaneous**

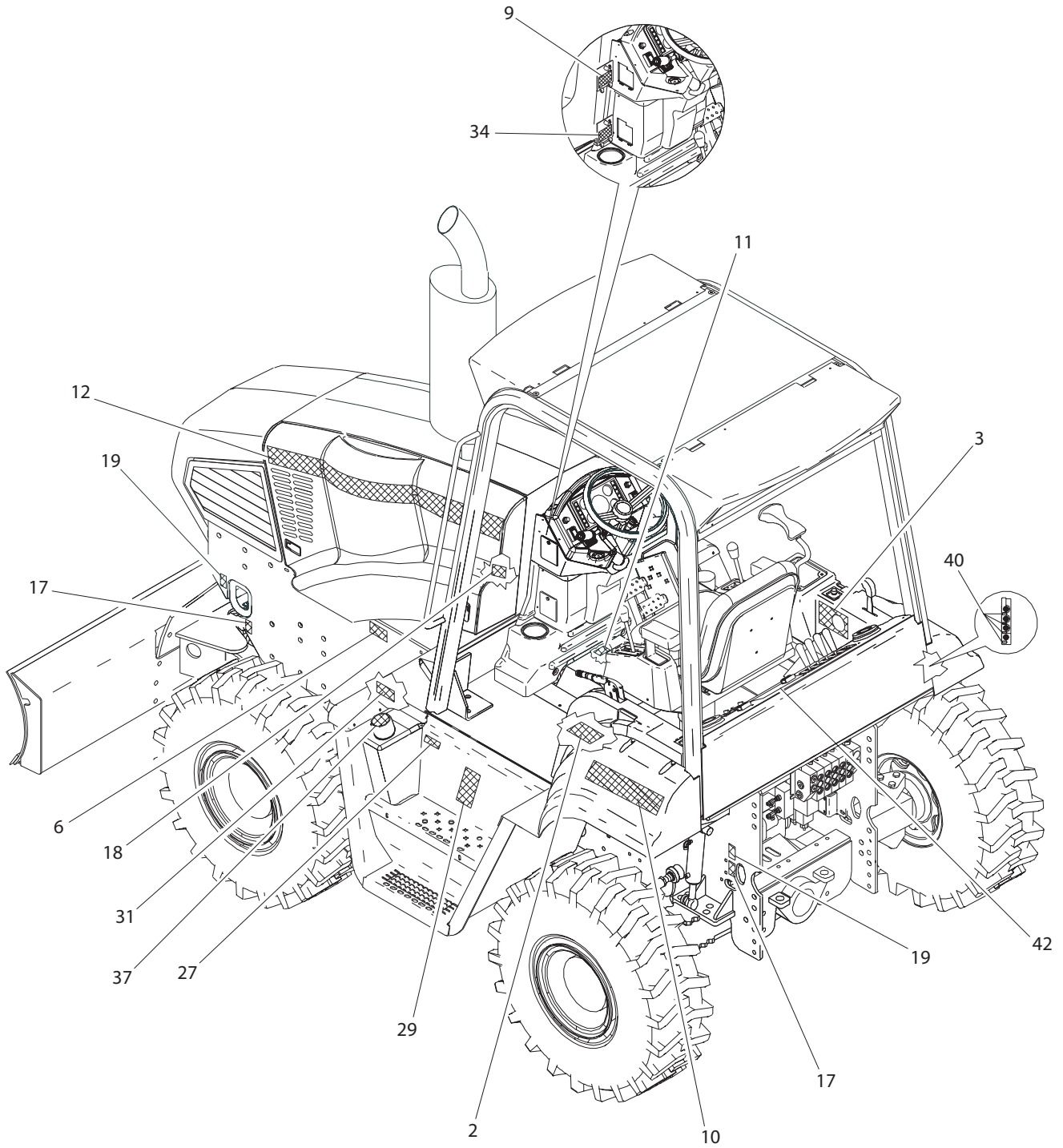
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# DECALS

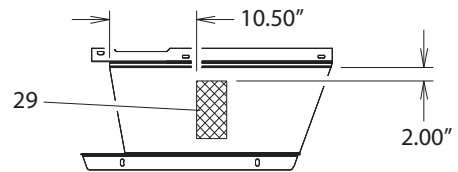
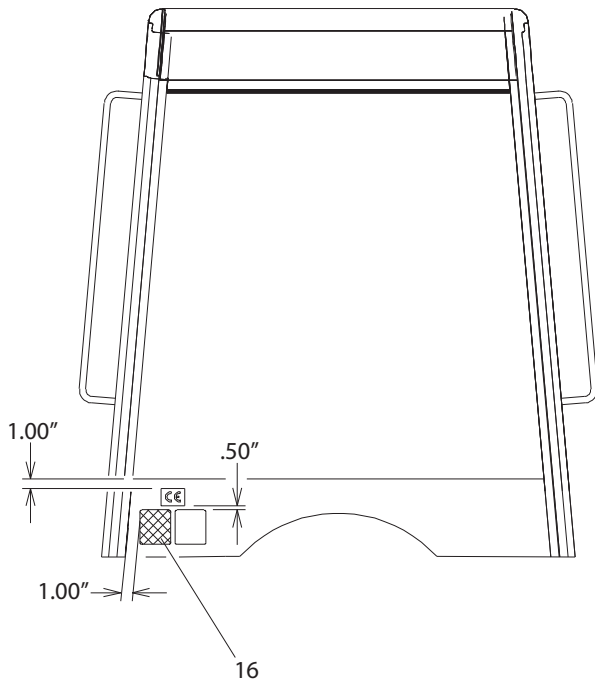
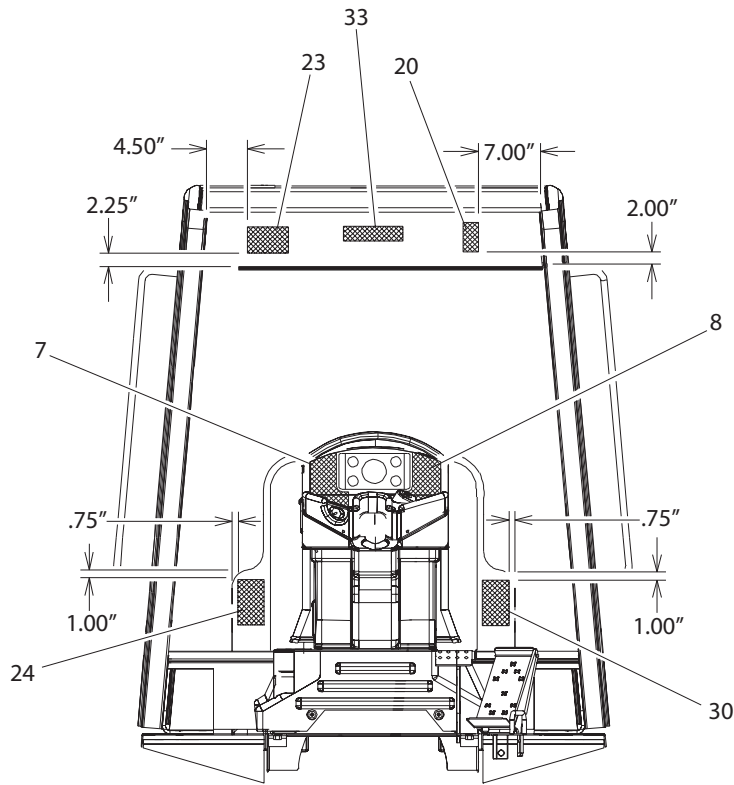
# DECAL LOCATION RT115 TIER II



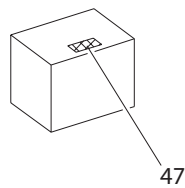
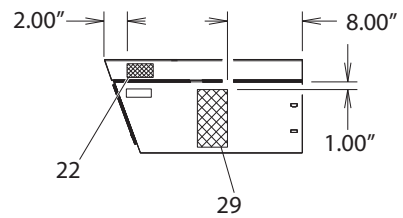
# DECAL LOCATION RT115 TIER II



# DECAL LOCATION RT115 TIER II



BATTERY DOOR



## DECAL LOCATION RT115 TIER II

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	275-905		DECAL KIT - RT115 TIER II	
1	273-092	1	GROUND DRIVE CONTROL	
	700-151	1	GROUND DRIVE CONTROL	SEE FOOTNOTE 3
2	273-263	1	1 AND 2 SHIFT	
3	273-094	1	AXLE LOCK/AUXILIARY	
4	273-095	1	STEER/TILT/THROTTLE	
5	273-100	1	BFB FUNCTIONS	
6	275-400	1	NOTICE OIL LEVEL	
7	700-125	1	ENGINE OVERRIDE/REEL CARRIER	
8	273-103	1	HORN/ROTOWITCH/IGNITION	
9	273-454	1	FUSE PANEL	
10	270-1268	2	DITCH WITCH LOGOTYPE	
	273-108	2	DITCH WITCH-ID	OLD STYLE - SEE FOOTNOTE 1
11	273-109	1	TEST PORTS	
12	700-126	1	LEFT RT115 MODEL ID	
13	700-127	1	RIGHT RT115 MODEL ID	
14	273-246	1	RIGID LOGO PLACARD	
15	273-455	1	LUBRICATION CHART	
16	273-016	1	SOUND POWER II	SEE FOOTNOTE 1
17	274-318	4	TIE DOWN LOCATION	
18	274-375	1	MASTER DISCONNECT SWITCH	
19	274-442	4	LIFT LOCATION	
20	274-724	1	ONE CALL NOTIFICATION	
21	275-361	1	PARKING BRAKE	
22	275-033	1	NOTICE ELECTRICAL SYSTEM	
23	275-048	1	IMPORTANT SAFETY RULES	
24	275-070	1	WARNING RUNAWAY	
25	700-064	1	POWER BEYOND/RETURN/PRESSURE	
26	275-120	1	RESERVOIR (THF)	
27	275-148	1	FUEL TANK (DIESEL)	
28	273-452	1	NOTICE COOLANT	
29	275-185	2	WARNING SINGLE OPERATOR	
30	275-303	1	WARNING ROLLOVER	
31	275-497	1	OIL DRAIN-ID	
32	275-203	1	BATTERY	
33	273-197	1	OVERHEAD CONSOLE	SEE FOOTNOTE 2
34	273-456	1	RELAY PANEL	
35	274-198	1	NOTICE OIL LEVEL	
36	273-457	1	DIAGNOSTIC GAUGE AND CONNECTION	
37	700-062	1	DIESEL FUEL CAP	
38	700-063	1	HYDRAULIC OIL CAP	
39	273-292	1	FRAME NOSE CASTING WEIGHT	
40	273-448	1	CAN MULTIPOINT MODULE	
41	273-459	1	NOTICE EXPLOSION POSSIBLE	
42	273-449	1	CRUISE CONTROL OVERLAY	SEE FOOTNOTE 3
43	273-460	1	PREHEAT RELAY/SOLENOID	
44	274-206	1	STARTING FLUID HAZARD ALERT	
45	273-267	2	DITCH WITCH BATTERY	
46	273-458	1	EDT	SEE FOOTNOTE 1
47	270-2027	4	TIRE PRESSURE LABEL	SEE FOOTNOTE 1

### FOOTNOTES

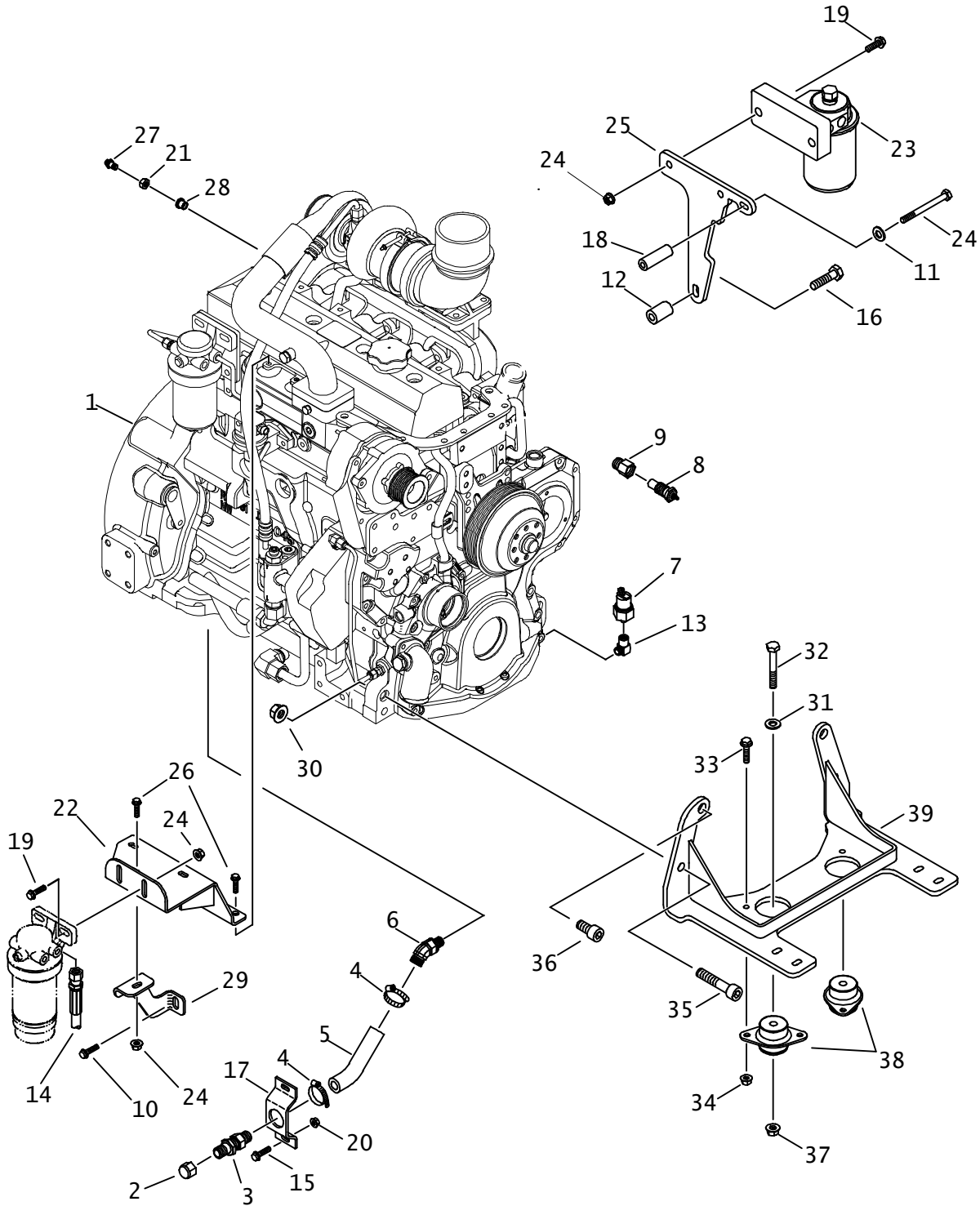
1. NOT PART OF KIT.
2. NOT PART OF KIT. SEE LIGHT KIT 601-329.
3. NOT PART OF KIT. SEE CRUISE CONTROL KIT 605-060.



<b>NOTES:</b>

# **ENGINE COMPONENTS**

# DEERE ENGINE (TIER 2)



## DEERE ENGINE (TIER 2)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	194-370	1	ENGINE 4045TF275115I JD	OBSOLETE
2.	154-324	1	CAP (100F)	
3.	149-624	1	BK S/O COUPLER (100-10H)	
4.	110-353	2	WORM CLAMP (3/4" TO 1-1/2")	
5.	116-044	AR	BULK HOSE (5/8", SOLD PER 1")	USE 1 @ 5.75"
6.	153-160	1	S/O COUPER (18M-10H45)	
7.	215-1203	1	SENDER, OIL PRESSURE (0-80PSI) SD	SEE FOOTNOTE 1
8.	217-565	1	TEMPERATURE SENDER 100 - 280 F	
9.	217-247	1	WATER TEMPERATURE ADAPTER	
10.	107-009	1	FLG LK SCREW (M12-1.75 X 25MM)	
11.	106-396	1	WASHER (M10, HARDENED)	
12.	184-427	1	BOSS	
13.	156-241	2	STREET ELBOW (02N-02NF90)	
14.	159-625	1	FUEL FILTER HOSE (060)	
15.	106-989	2	FLG LK SCREW (M8-1.25 X 35mm)	
16.	106-527	2	SCREW (M14-2.00 X 50mm)	
17.	310-599	1	MOUNT	
18.	178-358	1	SLEEVE	
19.	107-002	2	FLG LK SCREW (M10-1.50 X 30mm)	
20.	106-386	2	FLG LOCKNUT (M8-1.25)	
21.	156-277	1	COMPRESSION NUT (05T)	
22.	323-634	1	FILTER MOUNT	
23.	194-478	-	ENGINE OIL FILTER	
24.	106-124	1	SCREW (M10-1.50 X 110mm)	
25.	315-543	1	FILTER MOUNT	
26.	106-382	4	FLG LK SCREW (M10-1.5 X 20mm)	
27.	156-275	1	TUBE CONNECTOR (04H-05T)	
28.	156-276	1	FERRULE (05T)	
29.	323-365	1	FILTER MOUNT SUPPORT	
30.	106-545	2	LOCKNUT (M16-2.0, PRV TRQ, 10.9)	
31.	105-475	2	WASHER (1/2")	
32.	106-336	2	SCREW (M12-1.75 X 90mm)	
33.	107-001	4	FLG LK SCREW (M10-1.50 X 25mm)	
34.	106-266	4	FLG NUT (M10-1.50)	
35.	107-723	2	SCREW (M16-2.00 X 70mm, SOC)	
36.	106-643	2	SCREW (M16-2.00 X 25mm, SOC)	
37.	106-709	2	FLG LK NUT (M12-1.75)	
38.	116-946	2	ENGINE SHOCK MOUNT	POSITION METAL FACE TO FRAME BOTTOM
39.	337-369	1	FRONT ENGINE BRACKET	

NOT SHOWN:

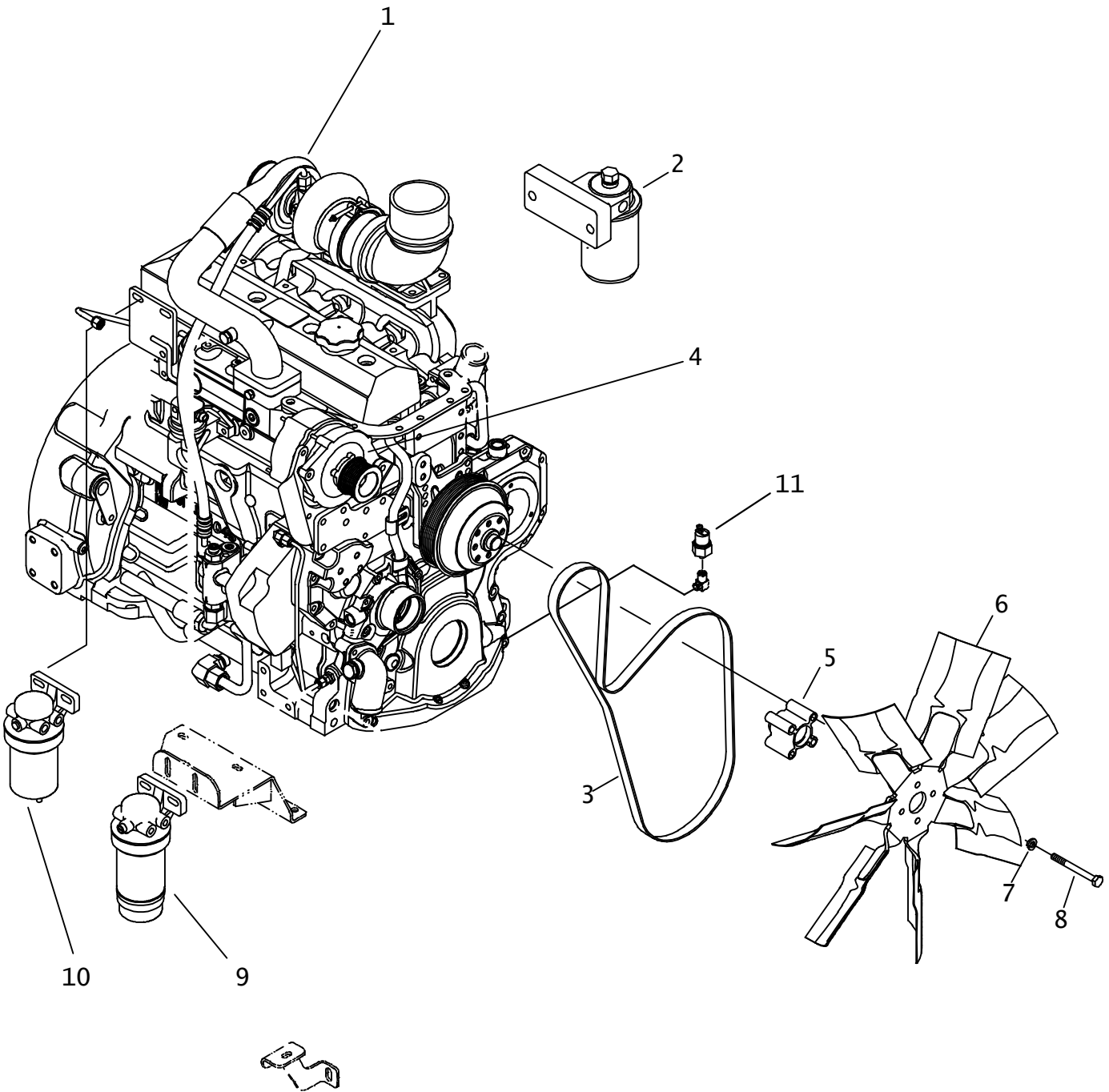
### FOOTNOTES:

1. THE PRESSURE SENDER 215-1203 IS CONNECTED TO THE GAUGE DISPLAY AND THE PRESSURE SENSOR 213-083 (NOT SHOWN) IS CONNECTED TO THE ENGINE ECU.

### NOTE:

REF #2 THRU #29 ARE SUPPLIED WITH ENGINE (194-370).

# DEERE ENGINE SERVICE TIER 2



## DEERE ENGINE SERVICE TIER 2

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	194-370	-	ENGINE 4045TF275115I JD	OBSOLETE
2.	194-478	1	ENGINE OIL FILTER	
	499-944	-	OIL FILTER SEAL RING	
3.	171-010	1	FAN BELT	
4.	217-451	1	ALTERNATOR 95 AMP (REMAN)	
5.	194-442	1	FAN SPACER	
6.	194-394	1	22.5 DIA PULLER FAN	
7.	106-090	4	LOCK WASHER (M10)	
8.	106-206	4	SCREW (M10-1.50 X 90mm)	
9.	194-492	1	PRIMARY FUEL FILTER ELEMENT	
10.	194-498	1	SECONDARY FUEL FILTER	
11.	215-1203	1	SENDER, OIL PRESSURE (0-80PSI) SD	SEE FOOTNOTE I

### NOT SHOWN:

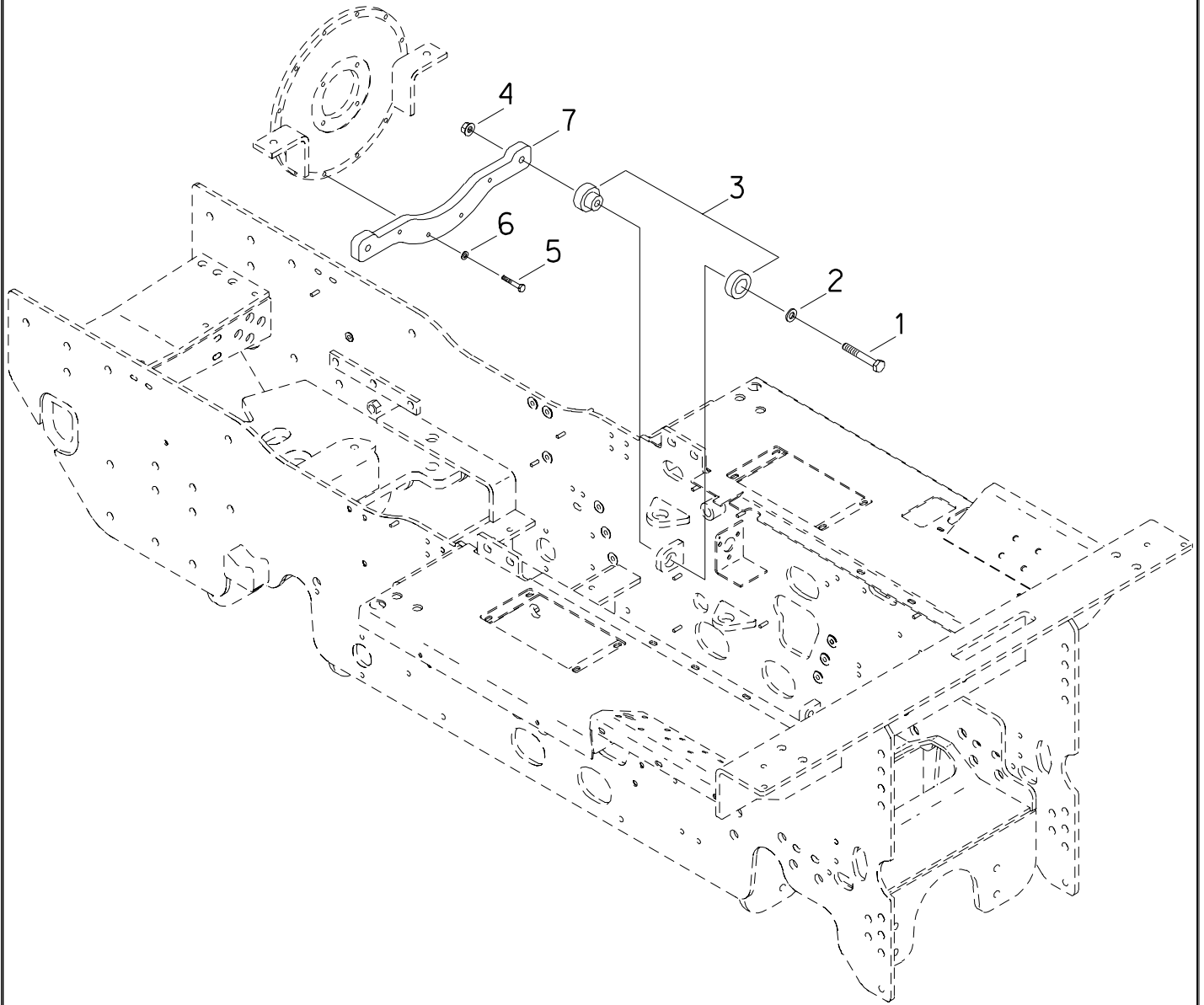
054-087	1	JOHN DEERE TIER II OPER MANUAL	
194-254	1	STARTER	
194-501	1	THERMOSTAT	
165-883	1	GASKET, THERMOSTAT	
213-080	2	WHEEL SPEED SENSOR	
213-081	1	COOLANT TEMPERATURE SENSOR	
213-082	1	ENGINE HEAD TEMPERATURE SENSOR	
159-586	-	SPEED SENSOR O-RING	
213-083	1	OIL PRESSURE SENSOR	SEE FOOTNOTE I
213-085	1	DIODE HARNESS	

### FOOTNOTES

I. THE PRESSURE SENDER 215-1203 IS CONNECTED TO THE GAUGE DISPLAY AND THE PRESSURE SENSOR 213-083 (NOT SHOWN) IS CONNECTED TO THE ENGINE ECU.

### NOTE:

# REAR ENGINE SUPPORT



# REAR ENGINE SUPPORT

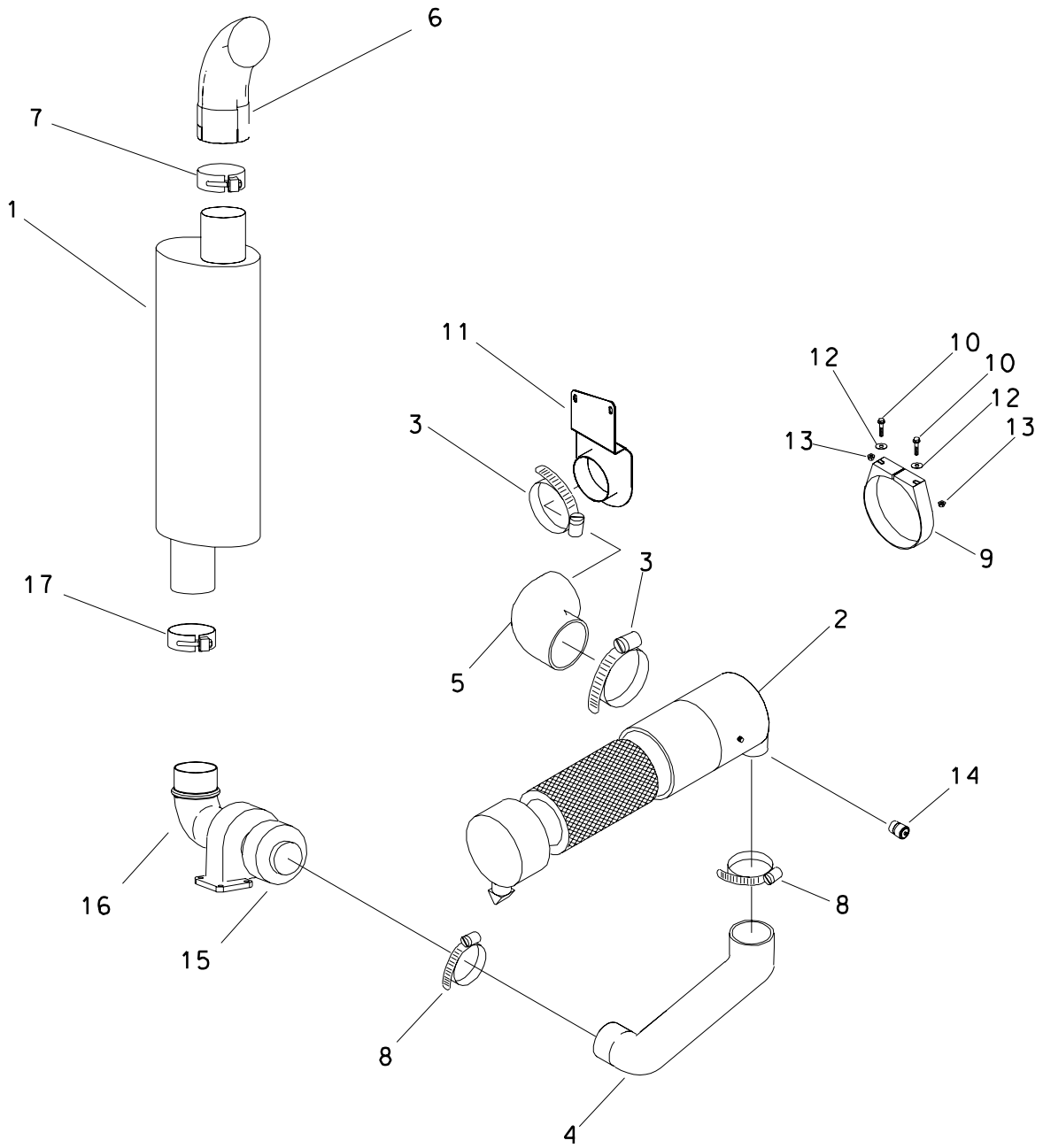
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-132		REAR ENGINE SUPPORT KIT	INCLUDES REF. NO'S 1 THRU 7
1.	105-386	2	BOLT (5/8-NC X 4-1/2")	
2.	105-416	2	WASHER (5/8")	
3.	116-151	2	SHOCK MOUNT	
4.	105-994	2	FLG LOCKNUT (5/8-NC)	
5.	105-839	4	SCREW (M10-1.50 X 55mm)	
6.	106-396	4	WASHER (M10, HARDENED)	
7.	313-646	1	BUMPER PLATE	

### FOOTNOTES

1. REQUIRED OPTION FOR SAW ATTACHMENTS



# MUFFLER AND AIR FILTER

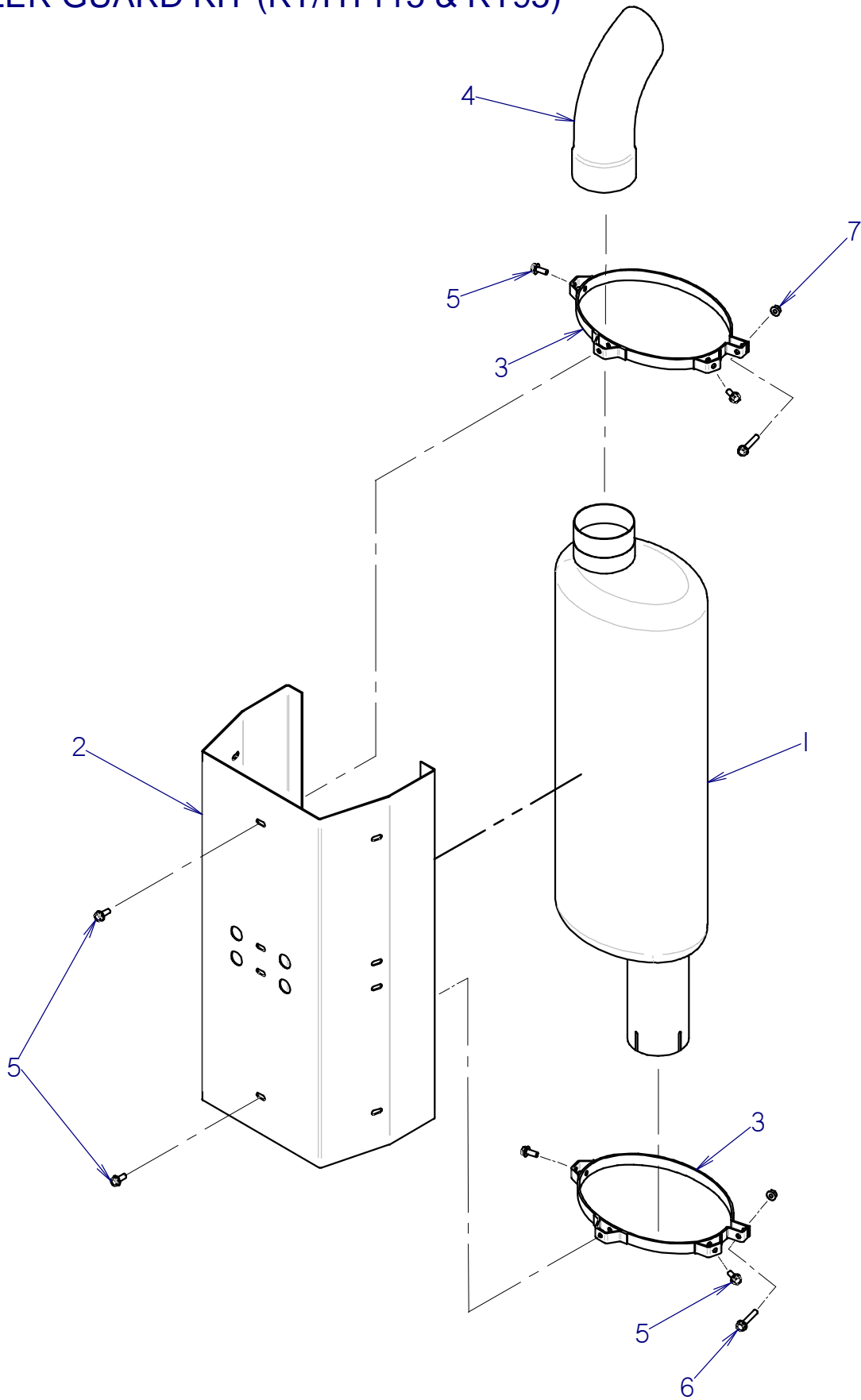


# MUFFLER AND AIR FILTER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	194-201	1	MUFFLER	
2.	194-121	1	AIR CLEANER	
	194-147	1	ELEMENT (PRIMARY)	
	194-148	1	ELEMENT (SECONDARY)	
3.	110-170	2	WORM CLAMP (4-1/8" TO 5")	
4.	149-634	1	ELBOW HOSE (3.000" X 3.500")	
5.	117-852	1	INTAKE ELBOW (4.5")	
6.	196-351	1	EXHAUST TUBE (4" X 12")	
7.	194-027	1	MUFFLER CLAMP (4.143")	
8.	110-367	2	WORM CLAMP (3-1/4" TO 4-1/8")	
9.	309-877	1	MOUNTING BAND (9.330")	
10.	106-989	2	FLG LK SCREW (M8-1.25 X 35mm)	
11.	320-175	1	INLET MOUNT	
12.	105-223	2	WASHER (3/8")	
13.	106-386	2	FLG LOCKNUT (M8-1.25)	
14.	194-788	1	RESTRICTION INDICATOR (25"H2O)	
15.	499-317	-	TURBOCHARGER (REMAN.)	
16.	194-252	-	EXHAUST PIPE ELBOW	
17.	111-138	1	MUFFLER CLAMP (3.59" TO 4.06")	

FOOTNOTES

# MUFFLER GUARD KIT (RT/HT115 & RT95)



## MUFFLER GUARD KIT (RT/HT115 & RT95)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-308		MUFFLER GUARD KIT (RT115)	INCLUDES REF. NO'S 2 & 3
1	194-201	1	MUFFLER	
2	320-491	1	MUFFLER GUARD	
3	111-136	2	MOUNTING CLAMP	INCLUDES REF. NO'S 5, 6 & 7 SEE FOOTNOTE 1
4	196-351	1	EXHAUST TUBE (4" X 12")	
5	105-823	6	FLG LK BOLT (5/16-NC X 3/4")	
6	105-562	2	FLG BOLT (5/16-NC X 1-3/4")	
7	105-003	2	FLG LOCKNUT (5/16-NC)	

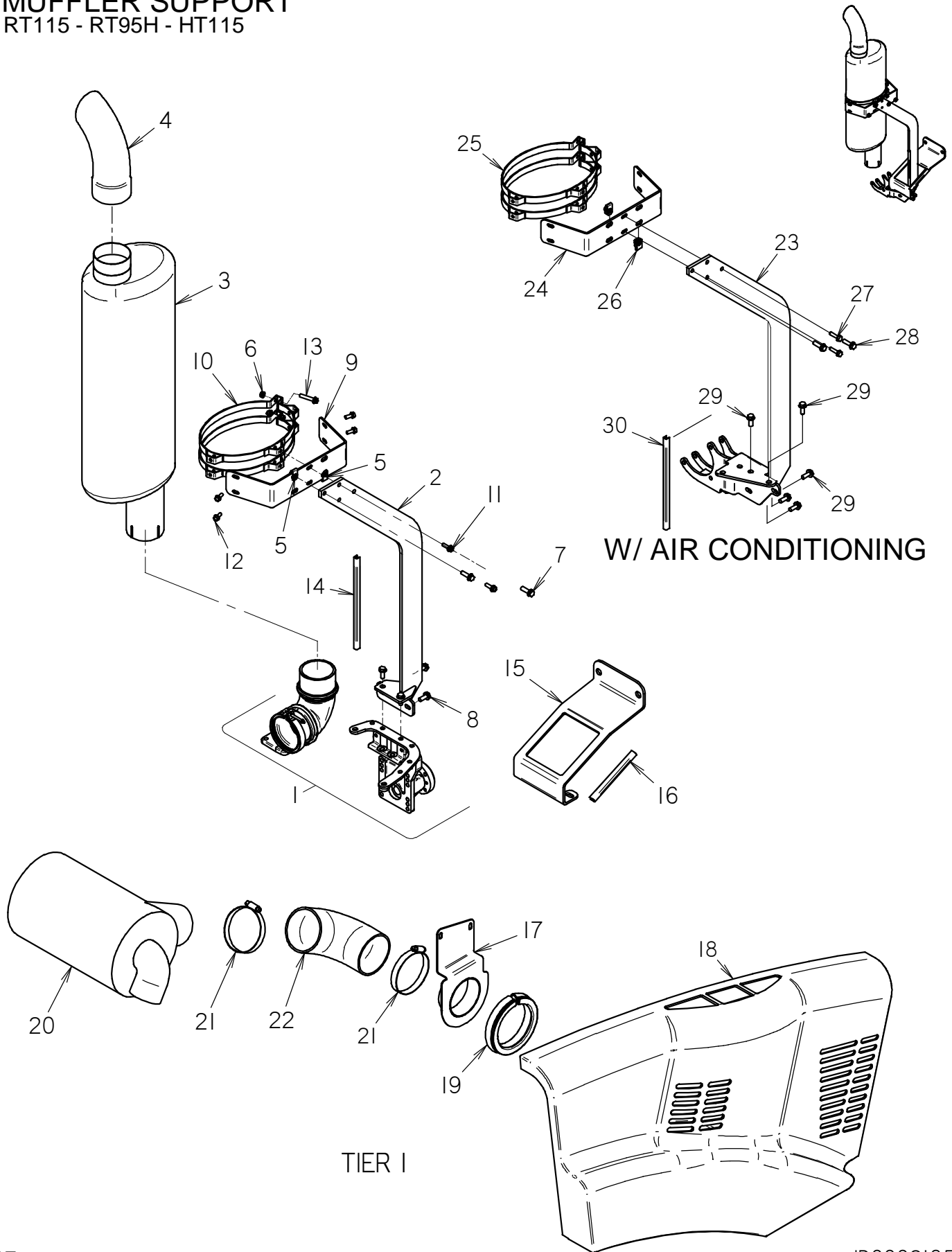
### FOOTNOTES

- I. MOUNTING CLAMP NEEDS TO BE SHAPED TO FIT MUFFLER.

NOTE:

# MUFFLER SUPPORT

RT115 - RT95H - HT115



# MUFFLER SUPPORT

## RT115 - RT95H - HT115

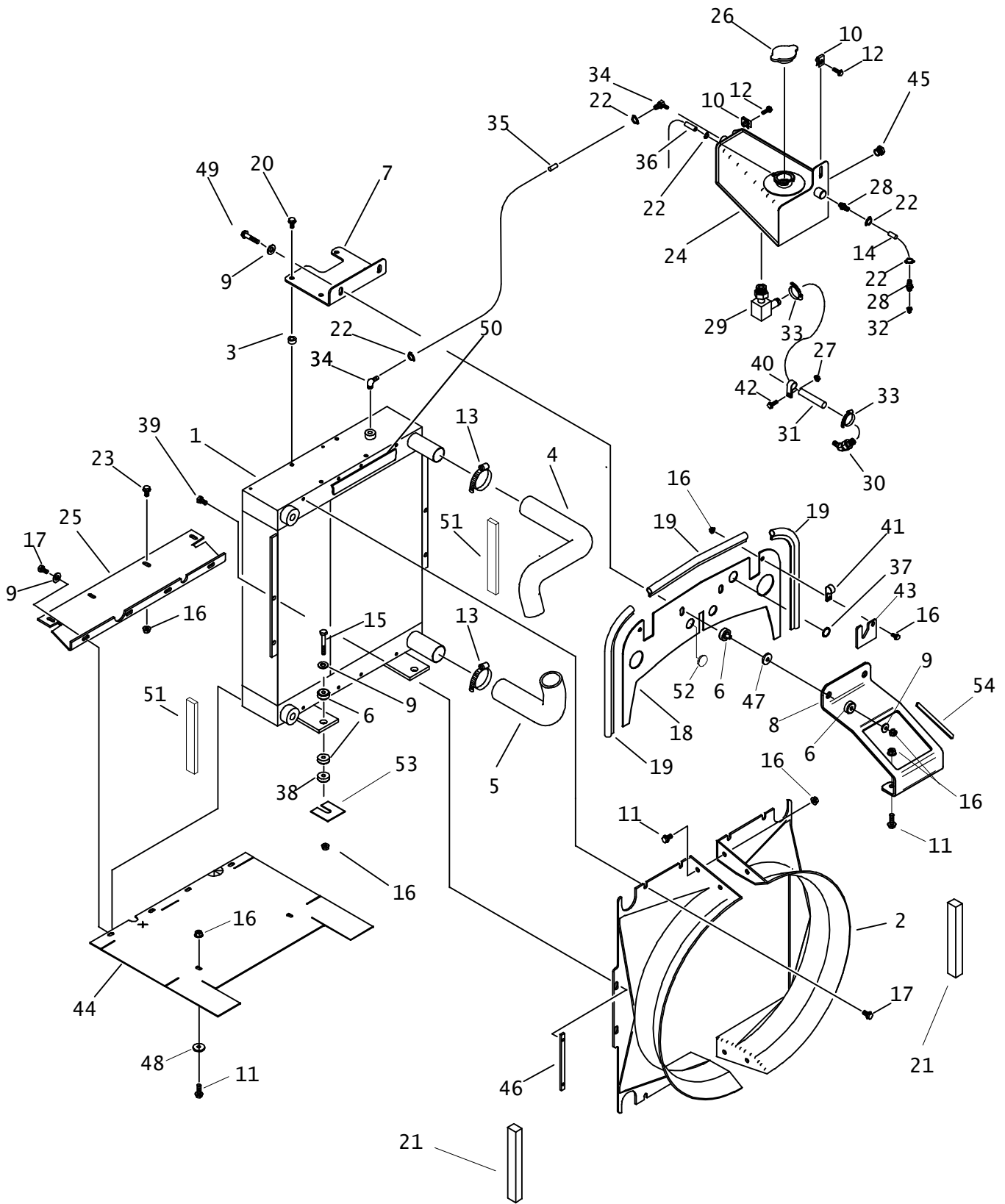
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-368		MUFFLER SUPPORT KIT	INCLUDES REF NO,S 2, 5, 7 - 11 & 14
1	194-370	1	ENGINE ASSY	OBSOLETE, EXHAUST ELBOW AND FAN MOUNT NOT PART OF KIT
2	320-494	1	FRONT SUPPORT	
3	194-201	1	MUFFLER	NOT PART OF KIT
4	196-351	1	EXHAUST TUBE (4" X 12")	NOT PART OF KIT
5	106-719	2	CLIP NUT (3/8-NC)	
6	105-003	2	FLG LOCKNUT (5/16-NC)	INCLUDED WITH MOUNTING CLAMP 111-136
7	105-827	4	FLG LK BOLT (3/8-NC X 1-1/4")	
8	107-001	4	FLG LK SCREW (M10-1.50 X 25MM)	
9	320-932	1	MUFFLER MOUNT PLATE	
10	111-136	2	MOUNTING CLAMP	SHAPE TO FIT MUFFLER
11	105-873	2	FLG LK BOLT (5/16-NC X 1")	
12	105-823	4	FLG LK BOLT (5/16-NC X 3/4")	INCLUDED WITH MOUNTING CLAMP 111-136
13	105-562	2	FLG BOLT (5/16-NC X 1-3/4")	INCLUDED WITH MOUNTING CLAMP 111-136
14	116-461	1	BULK EDGE (3/8", SOLD PER FT)	USE 12"
15	325-634	1	RADIATOR MOUNT	SEE FOOTNOTE 2
16	115-704	1	BULK EDGE (1/4", SOLD PER 1")	USE 1 @ 7"
	191-428		AIR INTAKE CONVERSION KIT	INCL'S REF. NO'S 17-22 & SEE FOOTNOTE 1
17	320-175	1	INLET MOUNT	
18	320-738	1	RIGHT SIDE PANEL W/ AIR INTAKE	
19	117-978	1	BULK EDGE(3/16 W/ 1" BULB)	
20	194-121	1	AIR CLEANER ASSEMBLY	
21	110-170	2	WORM CLAMP (4-1/8" TO 5")	
22	117-852	1	INTAKE ELBOW (4.5")	
	190-1181	-	MUFFLER AND COMPRESSOR MOUNT	FOR UNITS WITH AIR CONDITIONING
23	300-1576	1	MUFFLER AND COMPRESSOR MOUNT	
24	320-932	1	MUFFLER MOUNT PLATE	
25	111-136	2	MOUNTING CLAMP	
26	106-719	2	CLIP NUT (3/8-NC)	
27	105-866	2	FLG LK BOLT (5/16-NC X 1.250")	
28	105-827	2	FLG LK BOLT (3/8-NC X 1-1/4")	
29	107-001	5	FLG LK SCREW (M10-1.50 X 25MM)	
30	116-461	12	BULK EDGE (3/8", SOLD PER FT)	

### FOOTNOTES:

1. 191-428 AIR-INTAKE CONVERSION KIT ONLY USED ON RT115 TIER 1 UNITS.
2. REF #15 (325-634) FOR USE ON RT115/HT115 ONLY. SEE PAGE ENTITLED "RADIATOR/OIL COOLER (TIER 2) FOR REFERENCE.

### NOTE:

# RADIATOR/OIL COOLER (TIER 2)



## RADIATOR/OIL COOLER (TIER 2)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	194-374	1	RADIATOR/OIL COOLER TIER 2 RTH	
2.	362-973	2	FAN SHROUD HALF (RT115)	
3.	184-317	4	ENGINE MOUNT SPACER	
4.	117-864	1	UPPER RADIATOR HOSE	
5.	117-862	1	LOWER RADIATOR HOSE	
6.	116-128	4	SHOCK MOUNT	
7.	318-956	1	FRONT SUPPORT	
8.	325-634	1	RADIATOR MOUNT	
9.	105-118	10	WASHER (3/8")	
10.	107-135	2	CLIP NUT (M8-1.25)	
11.	107-001	8	FLG LK SCREW (M10-1.50 X 25mm)	
12.	106-992	2	FLG LK SCREW (M8-1.25 X 25mm)	
13.	110-134	4	WORM CLAMP (2.062" TO 2.750")	
14.	116-108	AR	BULK HOSE (5/16", SOLD PER 1")	USE 1 @ 24"
15.	106-998	2	FLG LK SCREW (M10-1.50 X 70mm)	
16.	106-266	16	FLG NUT (M10-1.50)	
17.	106-999	14	FLG LK SCREW (M10-1.50 X 20mm)	
18.	319-729	1	BARRIER	
19.	116-421	AR	BULK EDGE (1/8", SOLD PER 1')	45", SEE FOOTNOTE 3
20.	106-497	4	FLG SCREW (M10-1.50 X 35mm)	
21.	116-107	AR	BULK STRIP (1.2", SOLD PER 1")	USE 2 @ 12"
22.	110-249	5	WORM CLAMP (1/4" X 5/8")	
23.	107-002	4	FLG LK SCREW (M10-1.50 X 30mm)	
24.	364-638	1	PRESSURE TANK	
25.	117-937	1	AIR BARRIER	
26.	111-084	1	RADIATOR CAP (16 PSI)	
27.	106-386	1	FLG LOCKNUT (M8-1.25)	
28.	155-162	2	S/O COUPLER (04N-05H)	
29.	514-285	1	S/O COUPLER (08N-10H90)	
30.	153-160	1	S/O COUPLER (18M-10H45)	SEE FOOTNOTE 1
31.	116-750	AR	BULK HOSE (5/8", SOLD PER 1")	USE 1 @ 24"
32.	115-286	1	REDUCER (08N-1/4-NF)	SEE FOOTNOTE 2
33.	110-217	2	WORM CLAMP (7/16" TO 1")	
34.	155-164	2	S/O COUPLER (04N-05H90)	
35.	116-108	AR	BULK HOSE (5/16", SOLD PER 1")	USE 1 @ 12"
36.	116-108	AR	BULK HOSE (5/16", SOLD PER 1")	USE 1 @ 31"

NOT SHOWN:

### FOOTNOTES:

1. CONNECTS INTO ENGINE WATER PUMP
2. CONNECTS INTO ENGINE CYLINDER HEAD
3. REF 19 (116-421) USES THREE PIECES 15" LONG.

NOTE:



## RADIATOR/OIL COOLER (TIER 2)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
37.	502-046	1	GROMMET (3/4")	
38.	179-608	2	SPACER	
39.	106-380	4	FLG LK SCREW (M8-1.25 X 16mm)	
40.	110-333	1	BOLT-ON CLAMP (1")	
41.	110-259	3	BOLT-ON CLAMP (.625")	
42.	106-162	1	FLG SCREW(M8-1.25 X 20mm, GD8)	
43.	117-819	2	FLAP	
44.	117-936	1	AIR BARRIER	
45.	110-549	1	SIGHT GAUGE (12N)	
46.	111-134	2	BOLT CLAMP	
47.	105-975	2	WASHER (3/4")	
48.	105-884	6	WASHER (.531")	
49.	106-997	2	FLG LK SCREW (M10-1.50 X 60MM)	
50.	115-380	AR	WEATHER STRIP (3/8" x 3/4")	
51.	117-888	AR	BULK STRIP (1/2", SOLD PER 1")	USE 2 @ 12"
52.	157-429	2	HOLE PLUG (1.125")	
53.	331-555	AR	SHIM	
54.	115-704	AR	BULK EDGE (1/4", SOLD PER 1")	USE 1 @ 7"

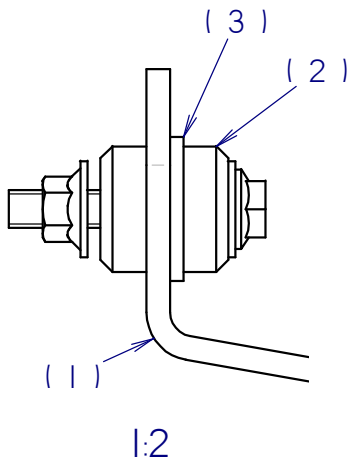
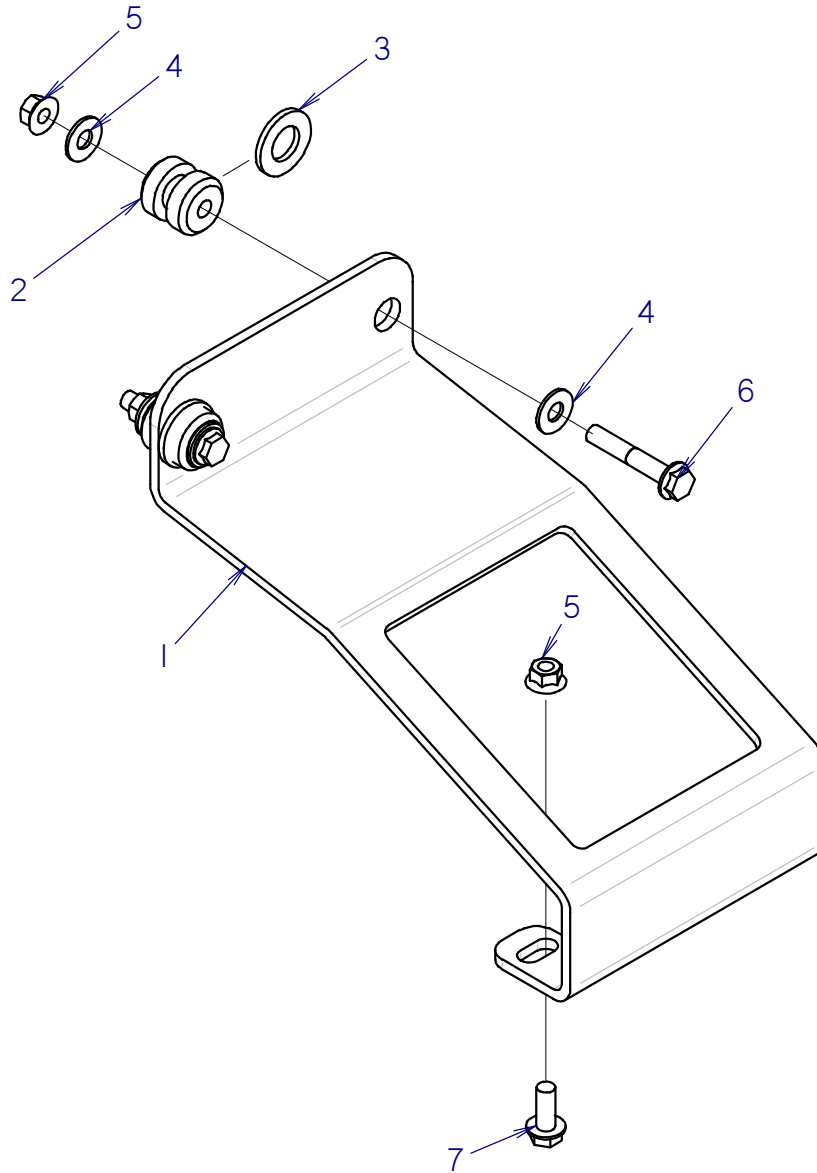
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FOOTNOTES:

NOTE:



# RADIATOR MOUNT KIT HT/RT115



# RADIATOR MOUNT KIT

## HT/RT115

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	325-634	1	RADIATOR MOUNT	
2	116-128	2	SHOCK MOUNT	SEE FOOTNOTE 1
3	105-975	2	WASHER (3/4")	SEE FOOTNOTE 1
4	105-118	4	WASHER (3/8")	
5	106-266	4	FLG NUT (M10-1.50)	
6	106-997	2	FLG LK SCREW (M10-1.50 X 60MM)	
7	107-001	2	FLG LK SCREW (M10-1.50 X 25MM)	

NOT SHOWN:

190-1081

RADIATOR MOUNT KIT

INCLUDES REF 1 THRU 7

FOOTNOTES:

1. AUXILIARY VIEW SHOWS PROPER INSTALLATION OF SHOCK MOUNT (116-128) & WASHER (105-975).

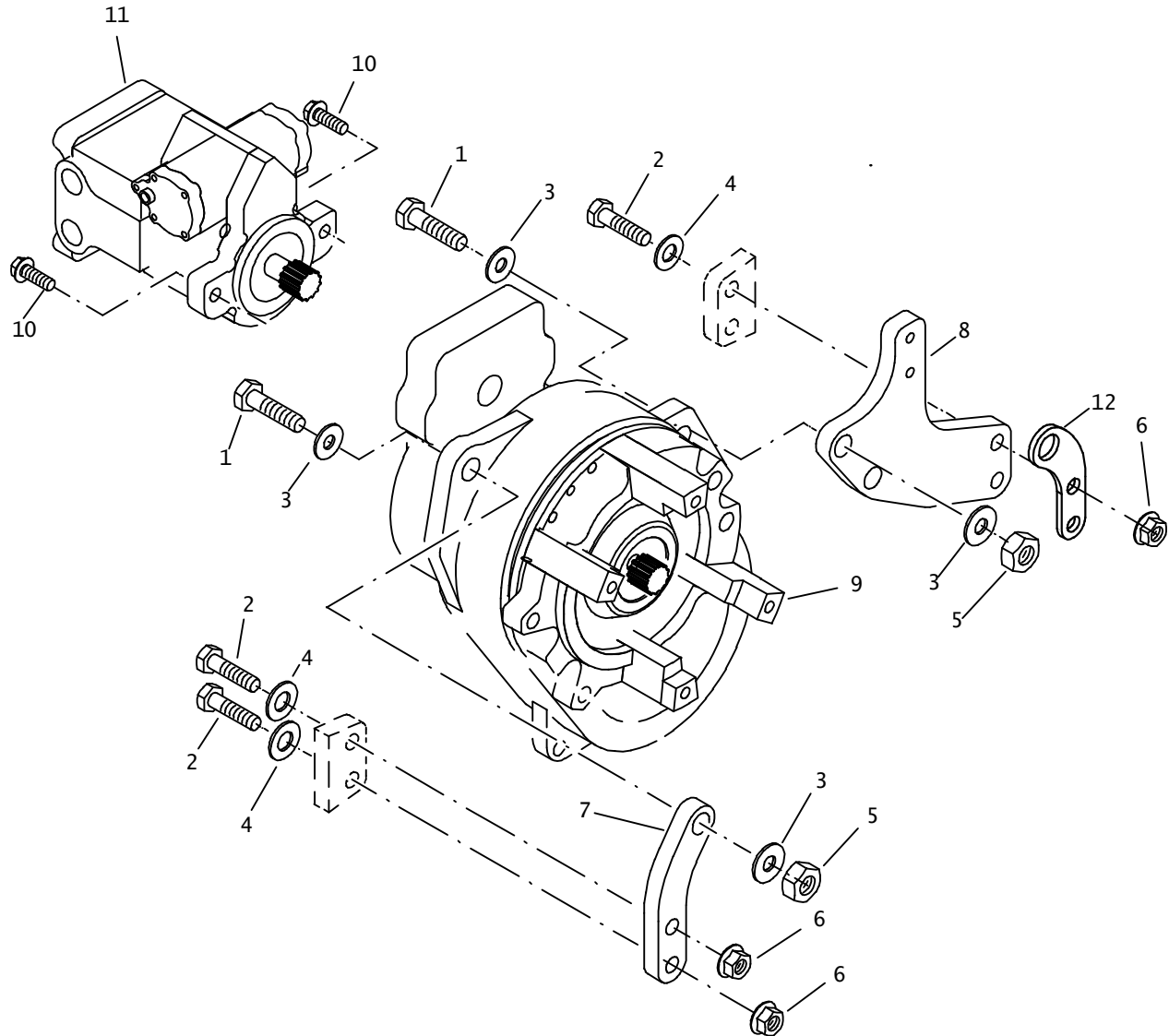
NOTE:

<b>NOTES:</b>

# POWER TRAIN

# GROUND DRIVE TRANSMISSION MOUNT

RT90/RT95/RT115



# GROUND DRIVE TRANSMISSION MOUNT

## RT90/RT95/RT115

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	106-346	3	SCREW (M20-2.50 X 70mm)	
2.	106-666	4	SCREW (M16-2.00 X 65mm, 10.9)	
3.	106-399	6	WASHER (M20, HARDENED)	
4.	106-398	8	WASHER (M16, HARDENED)	
5.	106-665	3	LOCKNUT (M20-2.50, 10.9)	
6.	106-442	4	FLG LOCKNUT (M16-2.00, PRV TRQ)	
7.	306-969	1	RIGHT MOUNT BRACKET	
8.	306-938	1	LEFT MOUNT BRACKET	
9.	166-313	1	GROUND DRIVE TRANSMISSION	
10.	106-469	2	FLG SCREW (M12-1.75 X 30mm)	
11.	<u>153-081</u>	1	HYDRAULIC MOTOR	
	157-359	1	HYDRAULIC MOTOR	
12.	316-822	1	RETURN BRACKET	REFER TO PARTS PAGE "PUMP DRIVE HYDRAULICS"

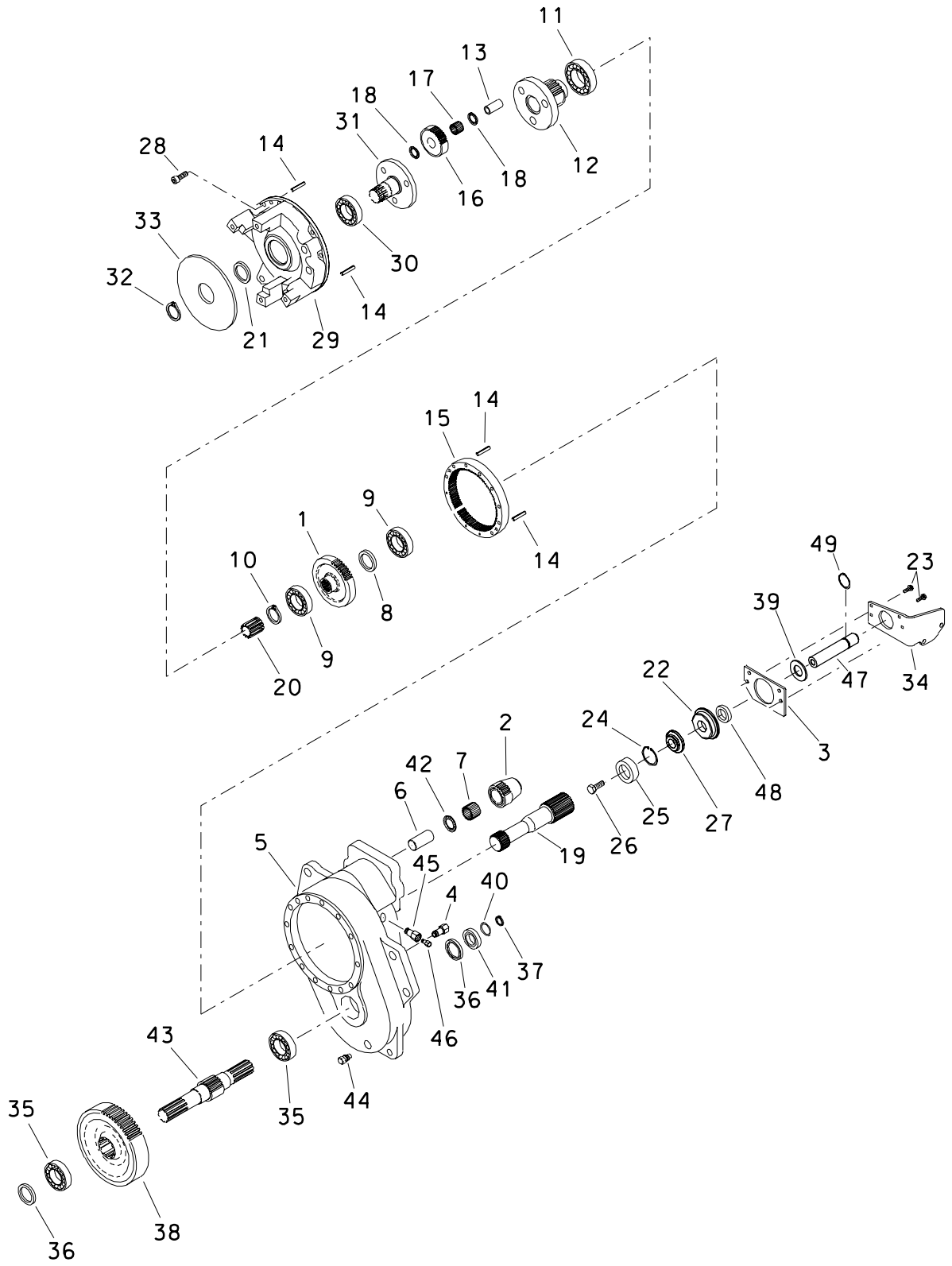
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FOOTNOTES:

NOTE:



# MANUAL SHIFT TRANSMISSION



# MANUAL SHIFT TRANSMISSION

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	166-313		GROUND DRIVE TRANS.	
1.	166-295	1	INPUT GEAR	
2.	166-294	1	INPUT PINION	
3.	331-386	1	SPACER PLATE	
4.	115-178	1	PLUG (06N, SQ FM)	
5.	164-014	1	TRANSMISSION HOUSING	
6.	167-180	1	SHAFT	
7.	126-031	1	NEEDLE BEARING (1.375")	
8.	184-215	1	SPACER	
9.	125-091	2	BALL BEARING (2.165")	
10.	115-525	1	INTERNAL SNAP RING (3.543")	
11.	125-073	1	BALL BEARING (2.362")	
12.	166-080	1	OUTPUT PINION	
13.	183-749	3	PLANET PIN	
14.	105-534	4	DOWEL PIN (.375"X.875")	
15.	165-149	1	RING GEAR	
16.	165-145	3	PLANET GEAR	
17.	126-065	3	BEARING (NEEDLE ROLLER)	
18.	126-009	6	THRUST WASHER RACE (1.000")	
19.	166-279	1	INPUT SHAFT	
20.	165-152	1	SPLINED SLEEVE	
21.	157-552	1	INTERNAL SEAL (1.969")	
22.	184-815	1	SEAL SLEEVE	
23.	106-379	4	FL LK SCREW (M6-1.00 X 20mm)	
24.	115-544	1	INTERNAL SNAP RING (1.188")	
25.	125-119	1	BALL BEARING (.393")	
26.	107-068	1	BOLT (3/8-NF x 1-1/2")	USE LOCTITE 680

FOOTNOTES

# MANUAL SHIFT TRANSMISSION

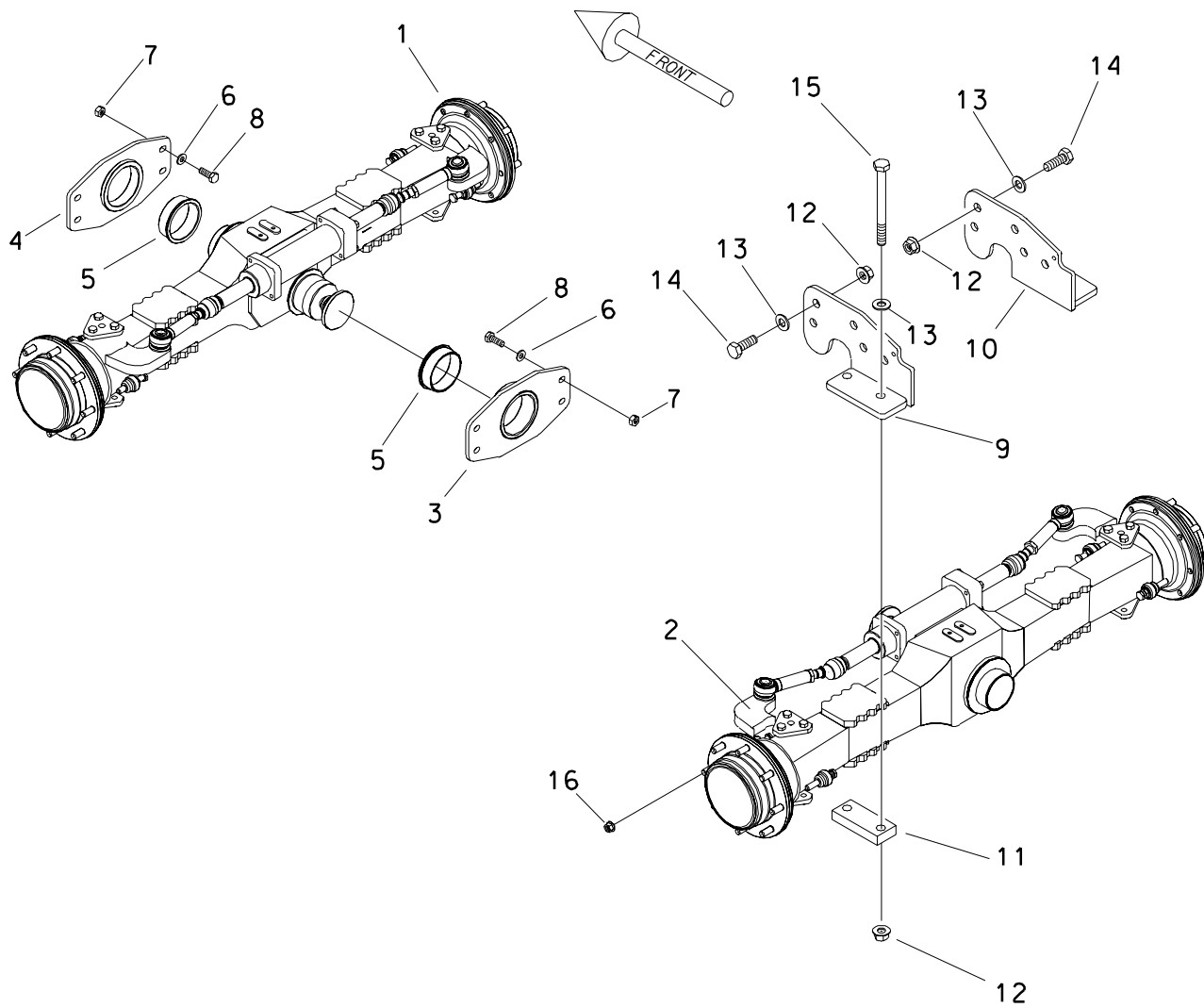
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
27.	184-069	1	KEEPER	
	105-115	1	JAM NUT (5/16-NF)	
28.	107-238	8	SCREW (M10-1.5 X 50mm, SOC)	
29.	166-312	1	TRANSMISSION CAP	
30.	125-040	1	BALL BEARING (1.968")	
31.	169-039	1	BRAKE OUTPUT FLANGE	
32.	115-456	1	EXTERNAL SNAP RING (1.750")	
33.	163-092	1	BRAKE DISC	
34.	307-563	1	SHIFT MOUNT	
35.	125-107	2	BALL BEARING (1.574")	
36.	157-609	2	INTERNAL SEAL	
37.	118-022	1	INTERNAL SNAP RING (3.150")	
38.	165-147	1	OUTPUT GEAR	
39.	326-060	1	WASHER (3/4")	
40.	155-795	1	O-RING (233 D70)	
41.	184-214	1	SEAL RETAINER	
42.	126-059	1	BEARING RACE (1.375")	
43.	167-181	1	OUTPUT SHAFT	
44.	115-211	1	PLUG (08N, SQ, MAG)	
45.	115-127	1	REDUCER (08N-02NF)	
46.	159-003	1	AIR VENT (02N)	
47.	183-643	1	SHIFTER SHAFT	
48.	155-878	1	INTERNAL SEAL (.750")	
49.	115-545	1	EXTERNAL SNAP RING (.75")	

FOOTNOTES



# DIFFERENTIAL

RT90/RT95/RT115



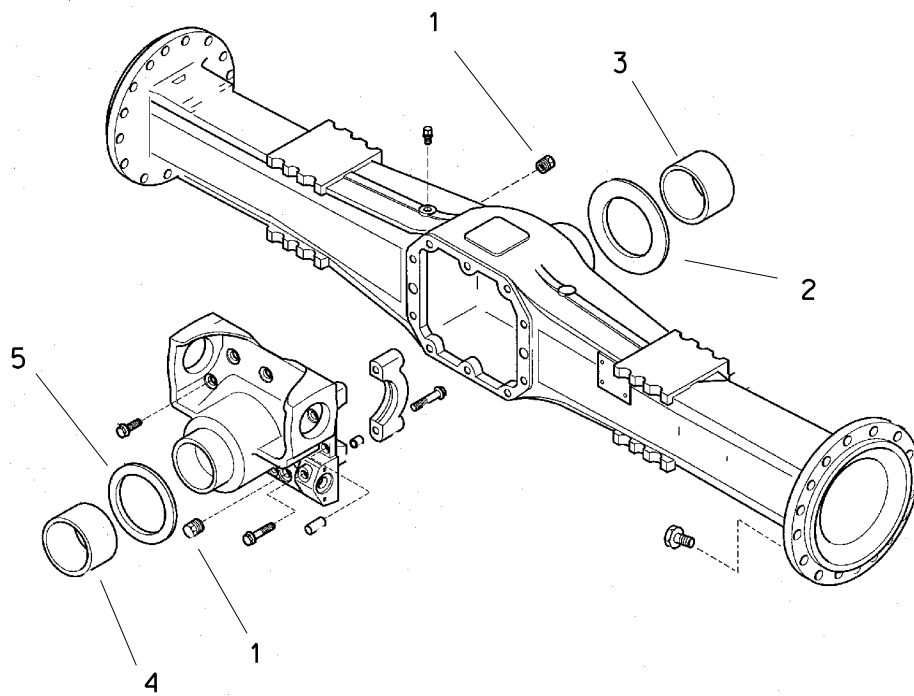
# DIFFERENTIAL

## RT90/RT95/RT115

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	160-455	1	STEERABLE AXLE (26.22)	QTY. OF 2 WITH REAR STEER
2.	160-456	1	RIGID PLANETARY AXLE (28.22)	
	160-455	-	STEERABLE AXLE (26.22)	
3.	306-748	1	AXLE MOUNT	
4.	307-711	1	AXLE MOUNT	
5.	178-365	2	BRONZE BUSHING (4.928")	
6.	106-398	8	WASHER (M16, HARDENED)	
7.	106-355	8	FLG NUT (M16-2.00, 10.9)	
8.	106-616	8	SCREW (M16-2.00 X 55mm, 10.9)	
9.	306-896	1	LEFT AXLE MOUNT	
10.	307-280	1	RIGHT AXLE MOUNT	
11.	307-303	2	CLAMP PLATE	
12.	106-489	14	FLG NUT (M24-3.00, 10.9)	
13.	106-625	14	WASHER (M24)	
14.	107-152	10	SCREW (M24-3.00 X 80mm, 10.9)	
15.	107-089	4	SCREW (M24-3.00 X 260mm, 10.9)	
16.	499-521	32	LUG NUT (M20-1.50)	

FOOTNOTES

AXLE -  
AXLE HOUSING  
RIGID



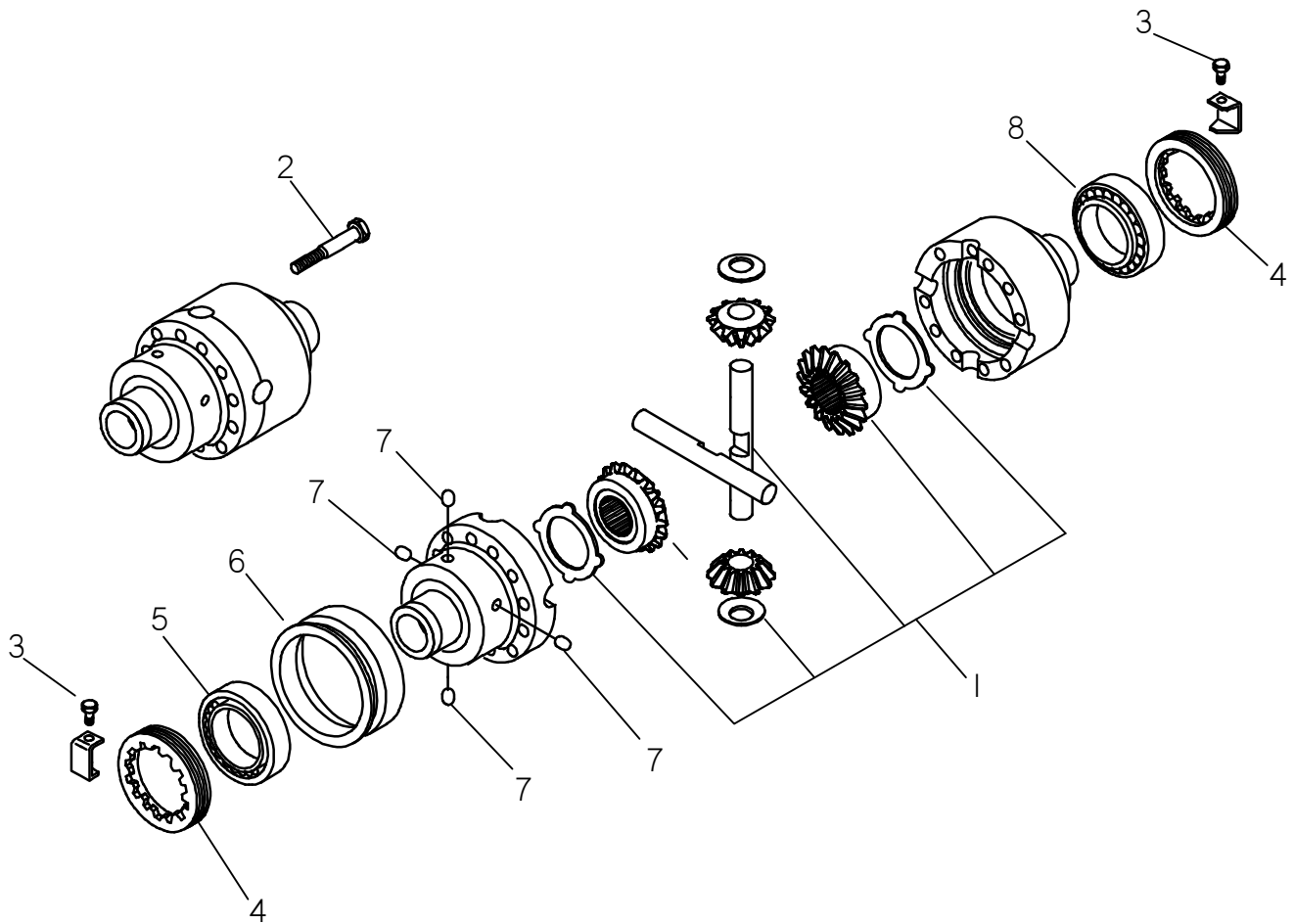
AXLE-  
AXLE HOUSING  
RIGID

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	514-345	2	PLUG (M22-1.50, SOC)	
2.	499-461	1	THRUST WASHER	
3.	499-462	1	BUSHING	
4.	499-470	1	BUSHING	
5.	499-471	1	THRUST WASHER	

FOOTNOTES



# AXLE DIFFERENTIAL RIGID



# AXLE DIFFERENTIAL RIGID

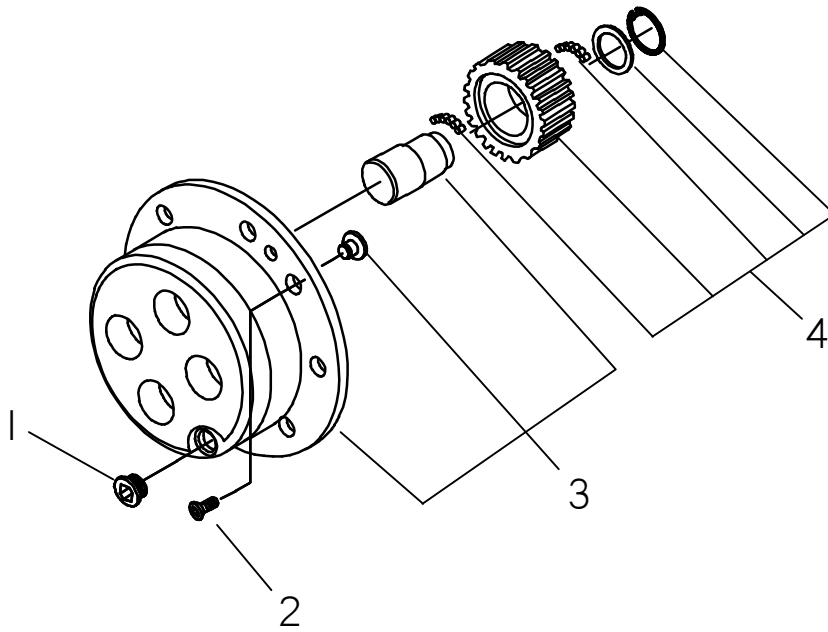
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	499-513	1	DIFFERENTIAL KIT	
2.	107-346	12	LK SCREW (M10-1.50 X 75mm)	
3.	107-348	2	SCREW (M6-1.00 X 10mm)	
4.	501-893	2	RING NUT	
5.	499-484	2	BEARING	USED ON ALL MODELS. SIZE: 90X50X21.75mm
6.	499-485	1	SLEEVE	
7.	499-486	4	PIN	
8.	500-2006	1	BEARING	REPLACES ONE 499-484 ON NEWER MODELS. SIZE: 90X55X23mm

NOT SHOWN:

FOOTNOTES:

NOTE:

# AXLE-REDUCTION GEARS RIDGE



# AXLE-REDUCTION GEARS RIDGE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	114-036	2	PLUG, PLANETARY CARRIER	
2.	107-349	4	SCREW (M8-1.25 X 20mm)	
3.	499-502	2	PLANETARY CARRIER ASS'Y	
4.	499-504	1	PLANET GEAR KIT	4 KITS PER WHEEL ASSEMBLY

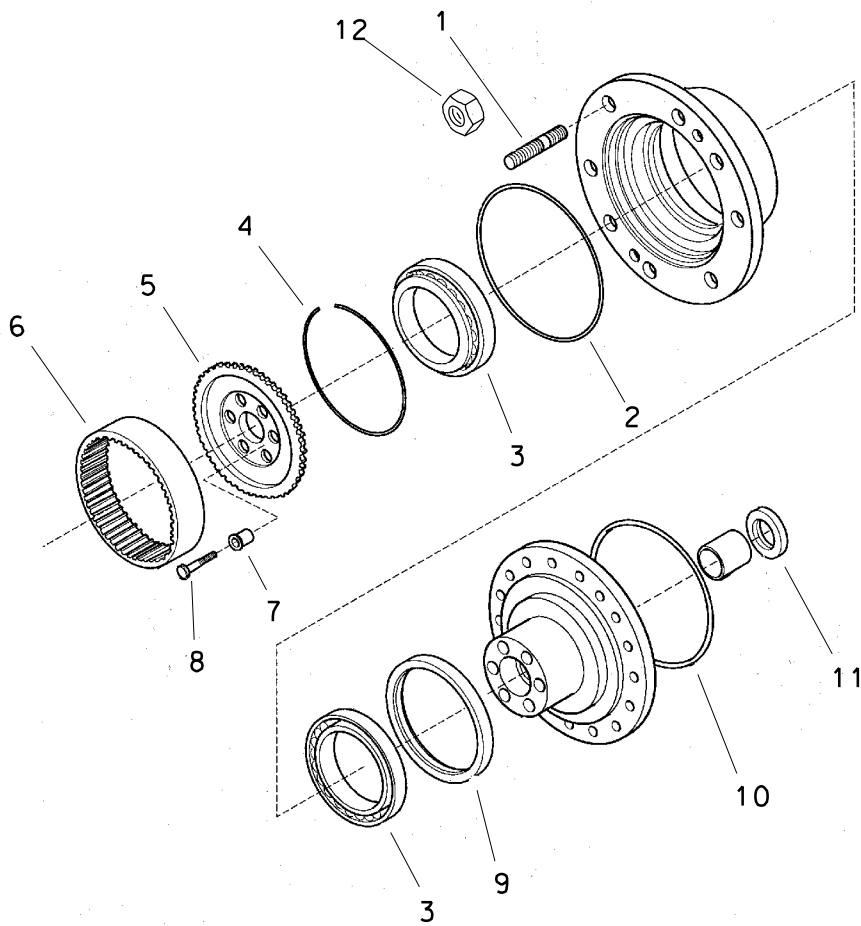
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499-517 2 SPLINE SHAFT Z-12  
 499-518 2 COUPLING  
 499-519 2 SNAPRING (D33)  
 499-520 2 HALF SHAFT

**FOOTNOTES:**

**NOTE:**

AXLE -  
WHEEL HUB  
RIGID

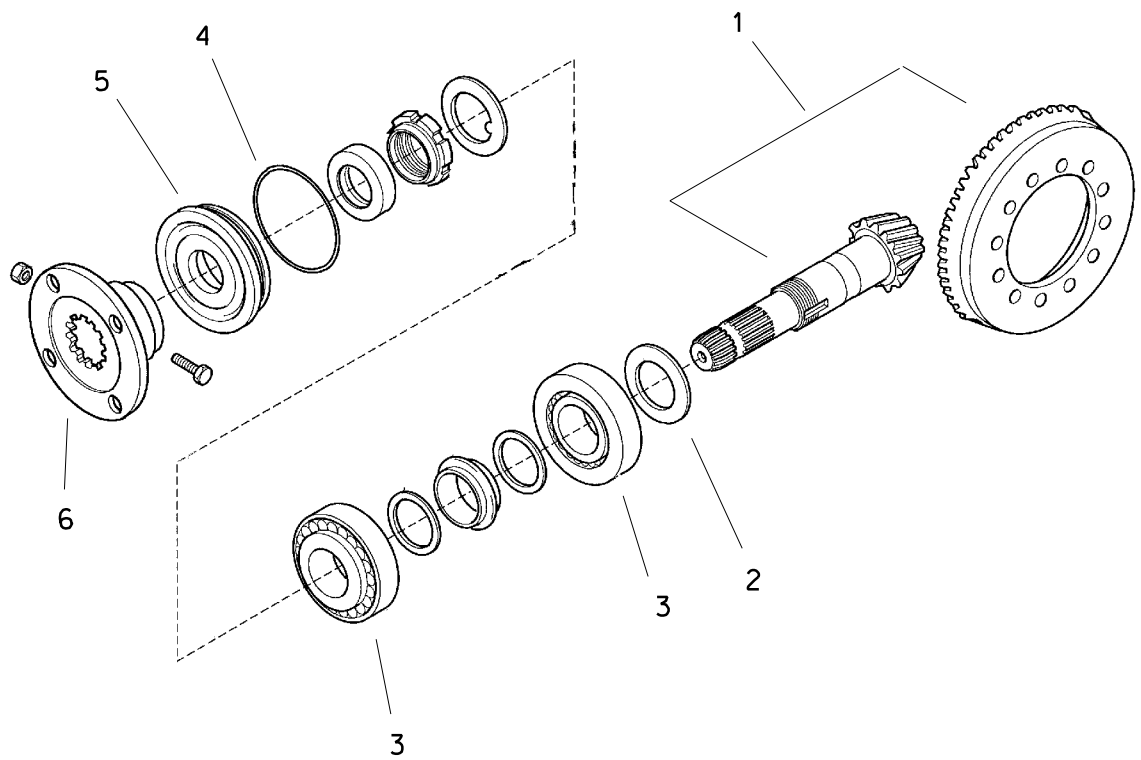


AXLE-  
WHEEL HUB  
RIGID

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	499-499	8	STUD	QTY PER WHEEL ASS'Y
2.	157-224	2	O-RING	
3.	499-498	4	BEARING	
4.	499-501	2	RING	
5.	499-507	2	WHEEL CARRIER	
6.	499-503	2	CROWN GEAR	
7.	499-505	16	CENTERING BUSHING	
8.	499-506	16	BOLT (M12 X 45)	
9.	499-497	2	SEAL RING	
10.	499-515	2	O-RING	
11.	499-516	2	SEAL RING	
12.	499-521	8	LUG NUT (M20 X 1.50)	QTY PER WHEEL ASS'Y

FOOTNOTES

AXLE -  
BEVEL GEAR/PINION SET  
STEERABLE/RIGID



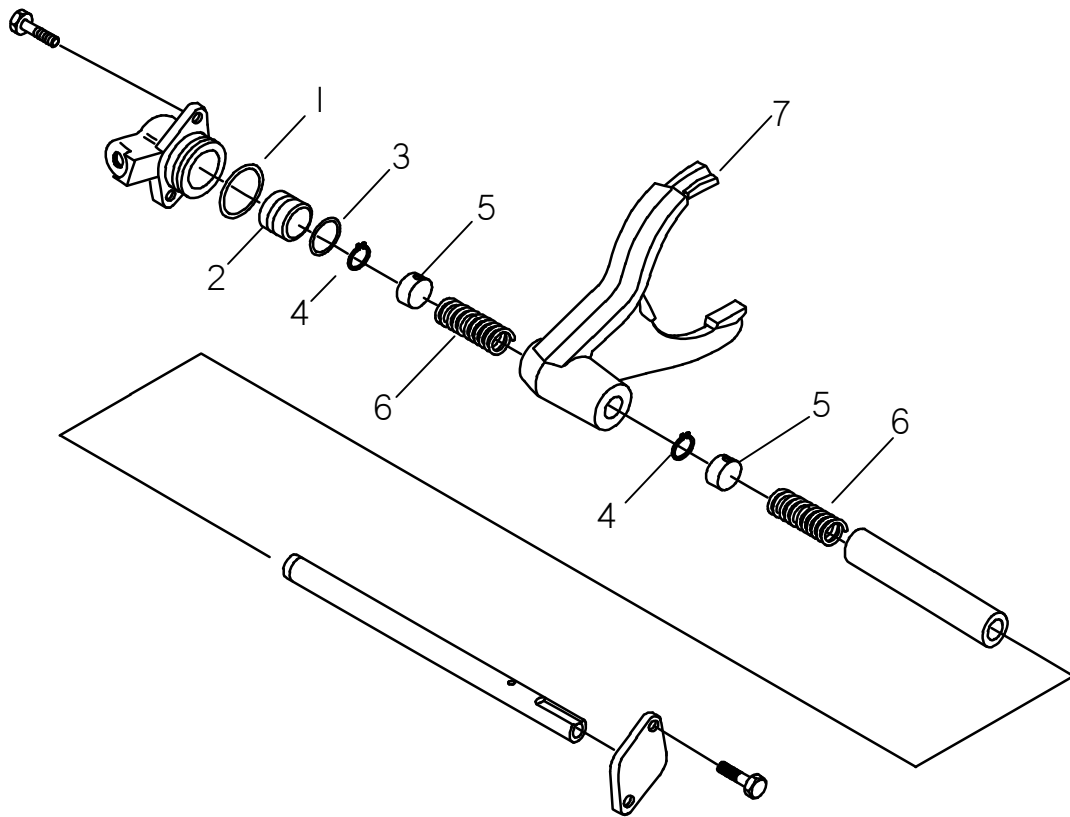
AXLE-  
 BEVEL GEAR/PINION SET  
 STEERABLE/RIGID

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	499-478	1	BEVEL GEAR SET Z12/32	
2.	499-487	1	SHIM KIT	
			SHIM 2.50mm	
			SHIM 2.60mm	
			SHIM 2.70mm	
			SHIM 2.80mm	
			SHIM 2.90mm	
			SHIM 3.00mm	
			SHIM 3.10mm	
			SHIM 3.20mm	
			SHIM 3.30mm	
			SHIM 3.40mm	
3.	499-479	2	BEARING	
4.	499-480	1	OIL SEAL RING	
5.	499-481	1	O-RING	
6.	499-482	1	FLANGE	

FOOTNOTES



AXLE  
DIFF LOCK  
STEERABLE/RIGID



**AXLE  
DIFF LOCK  
STEERABLE/RIGID**

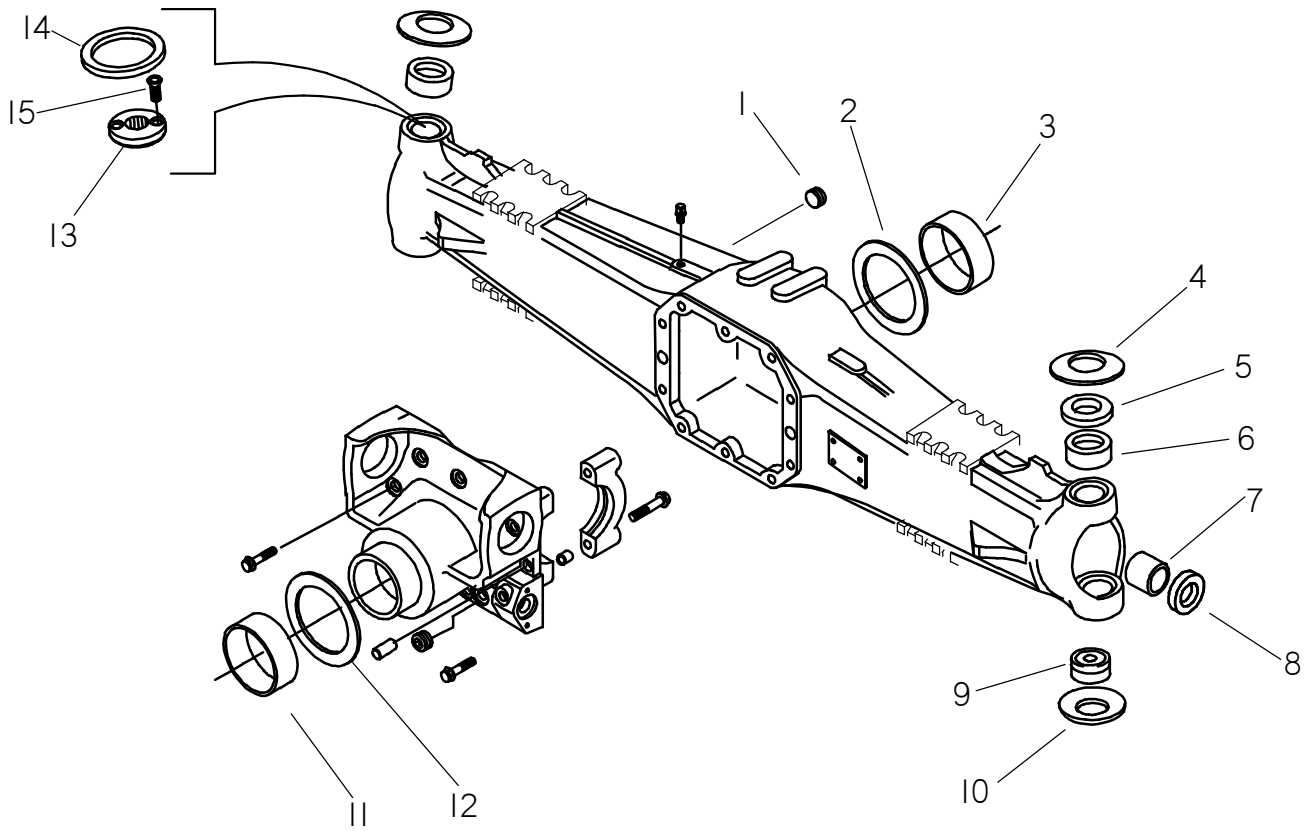
REF PART NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	499-488	1	O-RING	
2.	499-489	1	PISTON	
3.	499-490	1	O-RING	
4.	499-491	2	SNAP RING (D12)	
5.	499-492	2	SPACER	
6.	499-493	2	SPRING	
7.	499-494	1	FORK	

NOT SHOWN:

FOOTNOTES:

NOTE:

**AXLE**  
**AXLE HOUSING**  
**STEERABLE**



# AXLE AXLE HOUSING STEERABLE

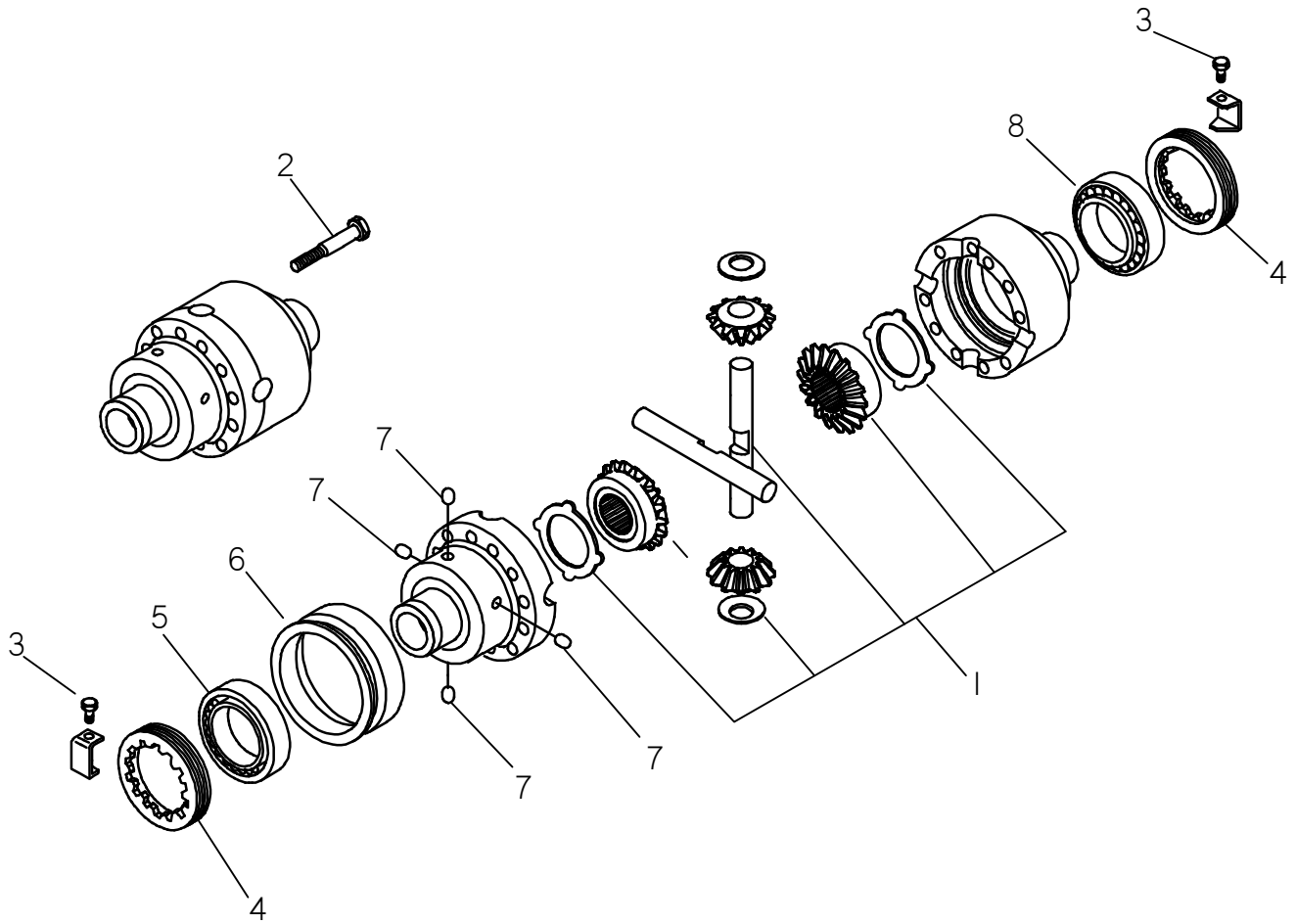
REF PART NO.	NUMBER	QTY	DESCRIPTION	REMARKS
1.	514-345	2	PLUG (M22-1.50, SOC)	
2.	499-461	1	THRUST WASHER	
3.	499-462	1	BUSHING	
4.	499-463	2	BELLEVILLE WASHER	
5.	499-464	1	SPACER	
6.	499-465	2	BUSHING	
7.	499-466	2	BUSHING	
8.	499-467	2	OIL SEAL RING	
	500-1135	2	OIL SEAL	
9.	499-468	2	SPHERICAL BEARING	
10.	499-469	2	BELLEVILLE WASHER	
11.	499-470	1	BUSHING	
12.	499-471	1	THRUST WASHER	
13.	499-472	1	PIN LOCKING WASHER	
14.	500-1697	1	LH BUSH (SPACER)	
15.	500-1698	2	SCREW (M4-.7 x 10mm, 10.9)	

NOT SHOWN:

FOOTNOTES:

NOTE:

# AXLE DIFFERENTIAL STEERABLE



# AXLE DIFFERENTIAL STEERABLE

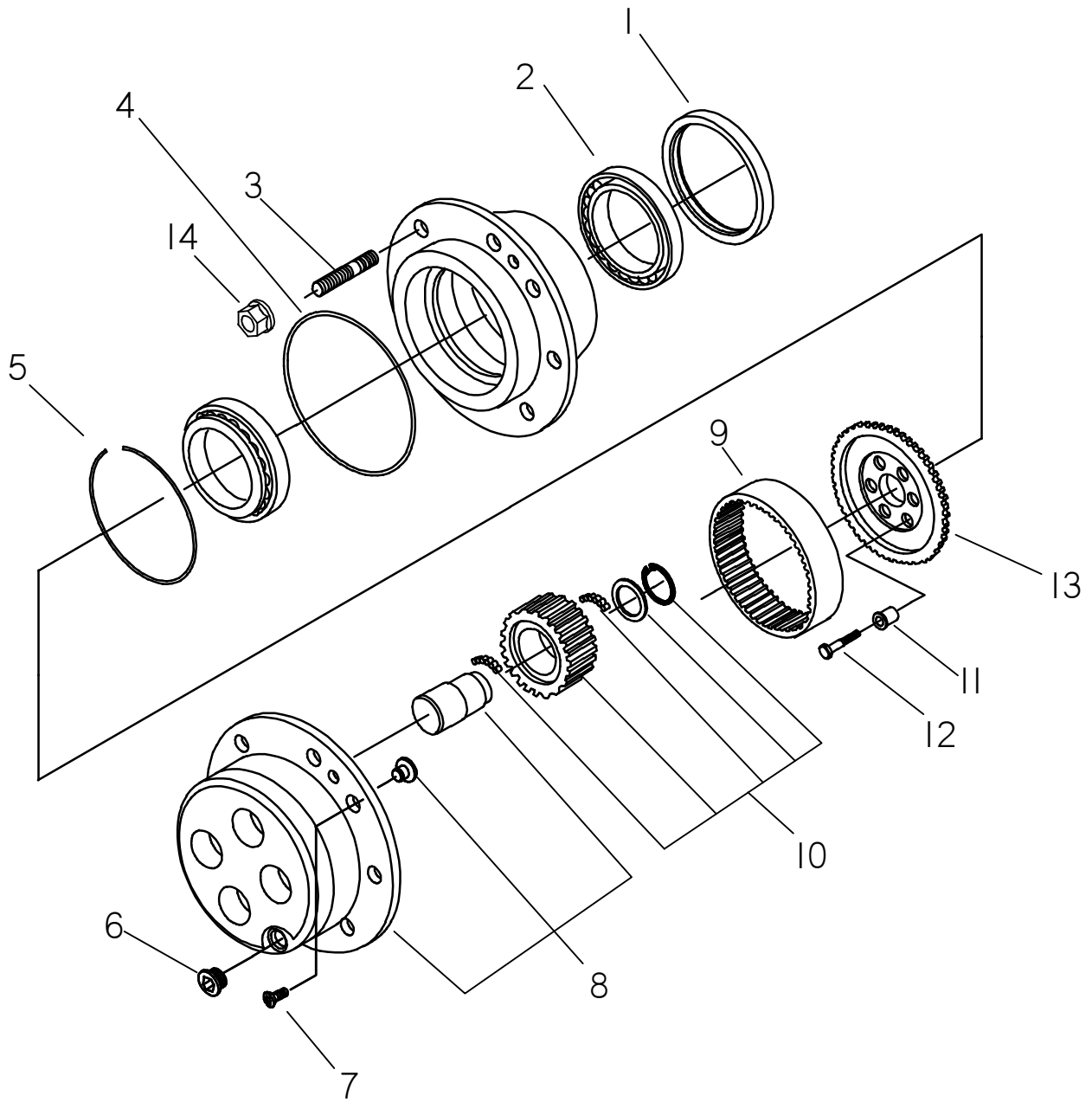
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	499-483	1	DIFFERENTIAL KIT	
2.	107-346	12	LK SCREW (M10-1.50 X 75mm)	
3.	107-348	2	SCREW (M6-1.00 X 10mm)	
4.	501-893	2	RING NUT	
5.	499-484	2	BEARING	USED ON ALL MODELS. SIZE: 90X50X21.75mm
6.	499-485	1	SLEEVE	
7.	499-486	4	PIN	
8.	500-2006	1	BEARING	REPLACES ONE 499-484 ON NEWER MODELS. SIZE: 90X55X23mm

NOT SHOWN:

FOOTNOTES:

NOTE:

# AXLE-WHEEL HUB/REDUCTION GEAR STEERABLE



## AXLE-WHEEL HUB/REDUCTION GEAR STEERABLE

REF PART NO. NUMBER	QTY	DESCRIPTION	REMARKS
1. 499-497	2	SEAL RING	EARLY STYLE 176mm OD
499-940		SEAL KIT	CURRENT PRODUCTION 180mm OD
499-948		OIL SEAL	CURRENT PRODUCTION
2. 499-498	4	BEARING	
3. 499-499	8	STUD	QTY PER WHEEL ASS'Y
4. 157-224	2	O-RING	
5. 499-501	2	RING	
6. 114-036	2	PLUG, PLANETARY CARRIER	
7. 107-349	4	SCREW (M8-1.25 X 20mm)	
8. 499-502	2	PLANETARY CARRIER ASS'Y	
9. 499-503	2	CROWN GEAR	
10. 499-504	1	PLANET GEAR KIT	4 KITS PER WHEEL ASSEMBLY
11. 499-505	12	CENTERING BUSHING	
12. 499-506	12	BOLT (M12 X 45)	
13. 499-507	2	WHEEL CARRIER	
14. 499-521	8	LUG NUT (M20-1.50)	QTY PER WHEEL ASS'Y

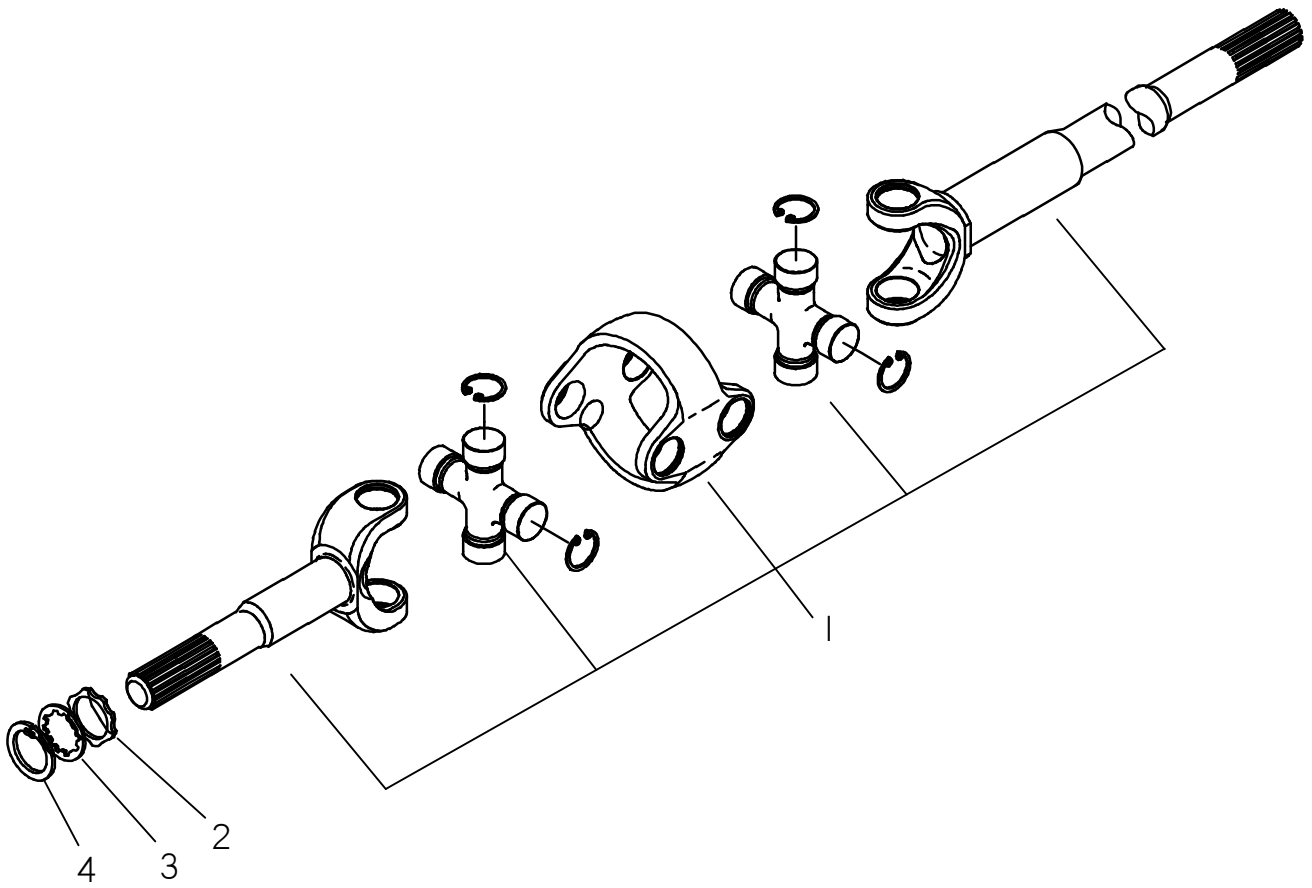
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FOOTNOTES:

NOTE:



**AXLE  
DOUBLE JOINT  
STEERABLE**



# AXLE DOUBLE JOINT STEERABLE

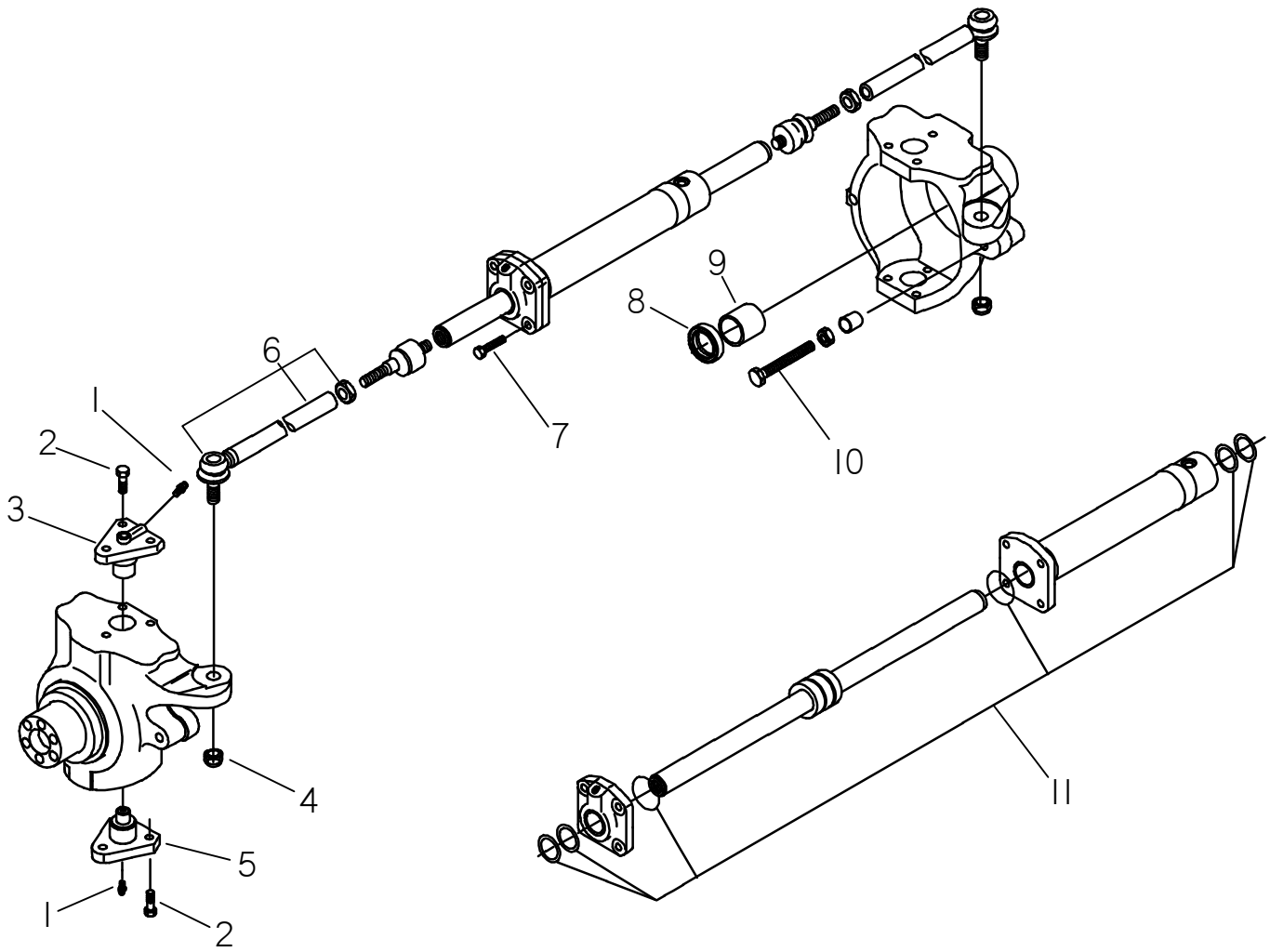
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	499-495	2	DOUBLE JOINT	
2.	500-1266	2	THRUST WASHER	
3.	500-1267	2	WASHER	
4.	500-1268	2	SNAP RING	

NOT SHOWN:

FOOTNOTES:

NOTE:

**AXLE**  
SWIVEL HOUSING & STEERING CYL.  
STEERABLE



# AXLE SWIVEL HOUSING & STEERING CYL. STEERABLE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	115-065	4	ZERK, METRIC (M6 X 1)	
2.	106-472	12	SCREW (M14-2.00 X 35mm)	
3.	499-473	2	KING PIN	
4.	499-474	2	NUT (M20-1.5)	
5.	499-475	2	KING PIN	
6.	499-476	2	STEERING ARM ASS'Y	
7.	107-344	4	LK SCREW (M12-1.75 X 45mm)	
8.	157-747	2	OIL SEAL	
9.	178-172	2	BUSHING	
10.	107-345	4	SCREW (M16-2.00 X 100mm)	
11.	499-477	1	OIL SEAL KIT (CYL)	

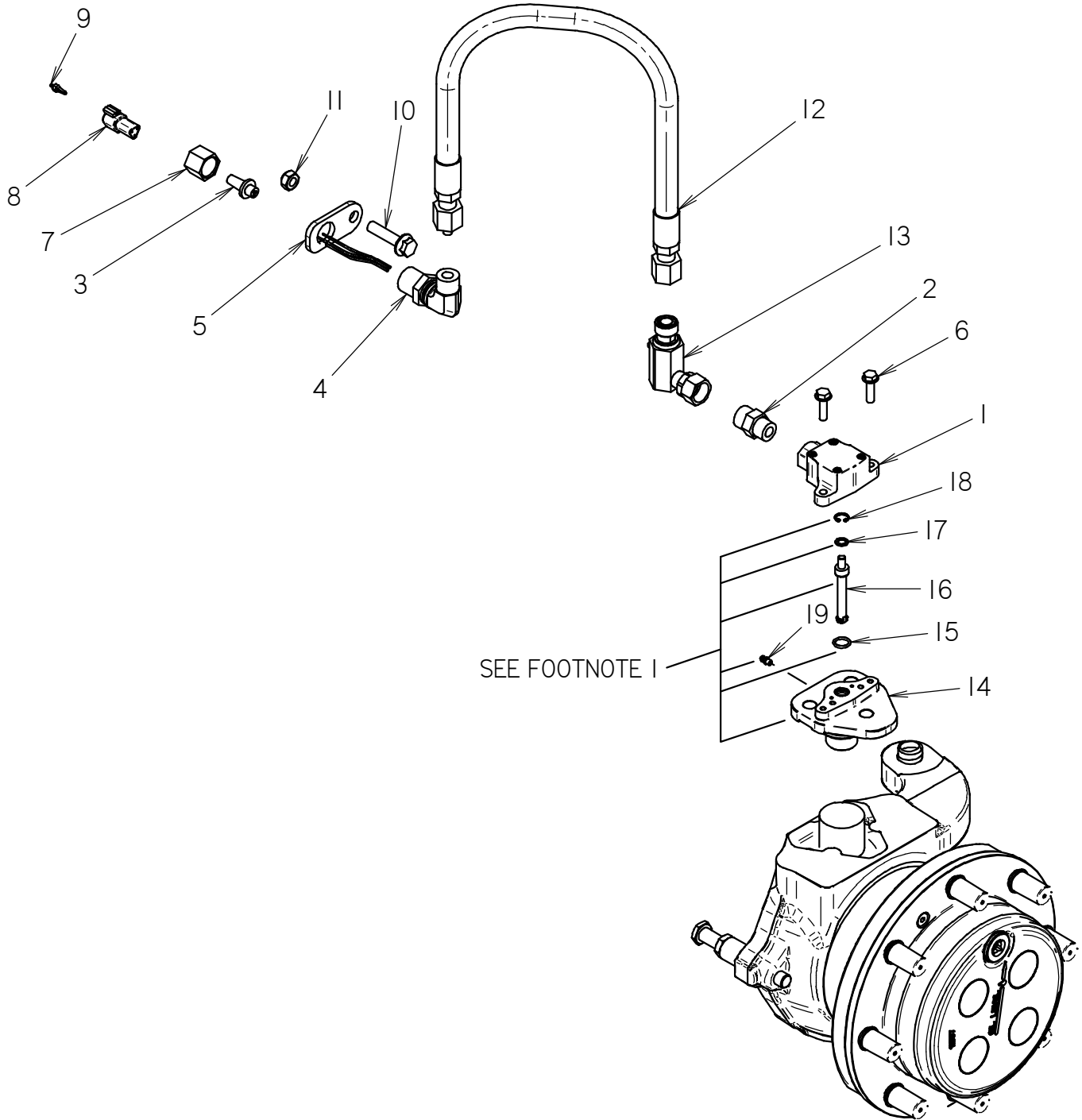
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FOOTNOTES:

NOTE:

# REAR STEER AXLE SENSOR

BEGINS WITH S/N'S: CMWRT95MH90000290, CMWRT95HV90000367, CMWRI5T3C90000132



# REAR STEER AXLE SENSOR

BEGINS WITH S/N'S: CMWRT95MH90000290, CMWRT95HV90000367, CMWRI5T3C90000132

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	215-1503	1	REAR STEER SENSOR	SEE FOOTNOTE 4
2	154-301	1	CONNECTOR (10S-100)	SEE FOOTNOTE 4
3	362-1404	1	WIRE GROMMET	SEE FOOTNOTE 4
4	154-291	1	BK CONNECTOR (100-10090BK)	SEE FOOTNOTE 4
5	300-9066	1	BRACKET	SEE FOOTNOTE 2 & 4
6	106-163	2	FLG SCREW (M8-1.25 X 30MM)	
7	154-310	1	REDUCER NUT (100F)	
8	215-1518	1	3 PIN DEUTSCH CONNECTOR, DT04-3P	SEE FOOTNOTE 4
9	215-1517	1	3 PIN DEUTSCH PLUG, W3P	SEE FOOTNOTE 4
10	107-008	1	FLG LK SCREW (M12-1.75 X 50MM)	
11	106-685	1	LOCKNUT (M12-1.75, PRV TRQ, 10.9)	
12	150-2907	1	HOSE (100FX-22"-3000)	SEE FOOTNOTE 3 & 4
13	150-2843	1	SWIVEL (100-100FX90; DO NOT PRESSURIZE)	SEE FOOTNOTE 4 & 5
14	500-1804	1	KING PIN (REAR STEER)	SEE FOOTNOTE 1
15	499-512	1	O-RING	SEE FOOTNOTE 1
16	500-1801	1	SHAFT	SEE FOOTNOTE 1
17	500-1802	1	WASHER	SEE FOOTNOTE 1
18	500-1803	1	SNAP RING D15	SEE FOOTNOTE 1
19	115-065	1	ZERK (M6 X 1)	SEE FOOTNOTE 1

#### NOT SHOWN:

- 214-133, TERMINAL PIN (DEUTSCH), USE QTY=3 PER AXLE SENSOR ASSEMBLY
- 215-1535, HEAT SHRINK 3/8" ADHESIVE, USE QTY=3 @ 2" FOR A TOTAL OF 6" PER AXLE SENSOR ASSEMBLY
- 215-1546, KEVLAR BRAIDED SLEEVING (1/2"), USE QTY=2 @ 5" FOR A TOTAL OF 10" PER AXLE SENSOR ASSEMBLY

#### FOOTNOTES:

1. PARTS BELONG TO CARRARO REAR STEER KIT 190-1424.
2. BRACKET 300-9066 IS ONLY USED ON THE REAR AXLE SENSOR ASSEMBLIES, 220-1181 AND 220-1183.
3. HOSE 150-2907 USED IN AXLE SENSOR ASSEMBLY 220-1181; USE HOSE 153-294 FOR AXLE SENSOR ASSEMBLY 220-1180, HOSE 515-605 FOR AXLE SENSOR ASSEMBLY 220-1182, AND HOSE 150-1729 FOR AXLE SENSOR ASSEMBLY 220-1183.
4. PARTS BELONG TO AXLE SENSOR ASSEMBLIES; SEE NOTE BELOW FOR DETAILS
5. ONLY USED IN RT90/95/115 AXLE SENSOR ASSEMBLIES 220-1180 AND 220-1181.

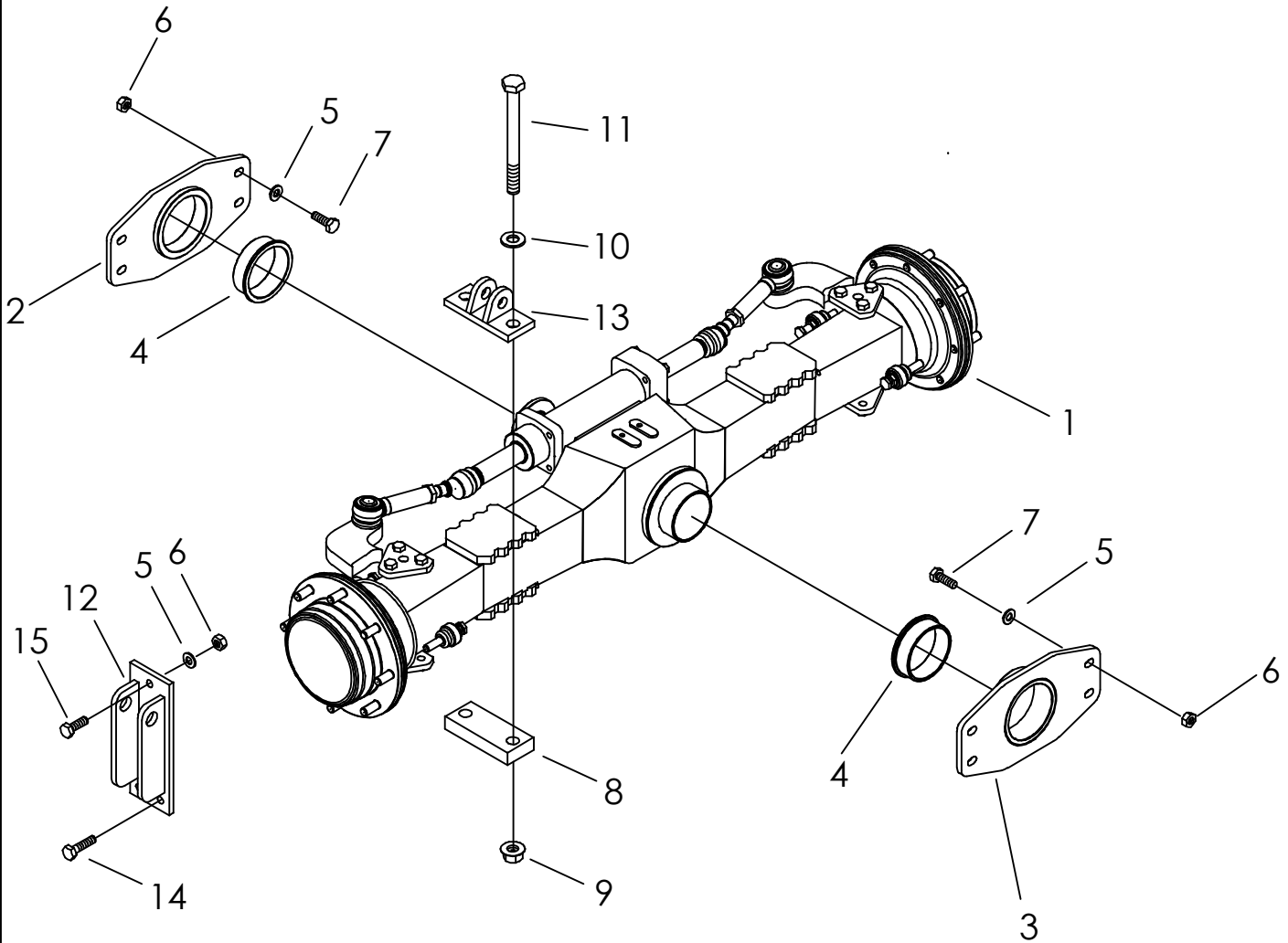
#### NOTE:

- RT90/95/115 FRONT AXLE SENSOR ASSEMBLY IS P/N 220-1180
- RT90/95/115 REAR AXLE SENSOR ASSEMBLY IS P/N 220-1181
- RT70/75 FRONT AXLE SENSOR ASSEMBLY IS P/N 220-1182
- RT70/75 REAR AXLE SENSOR ASSEMBLY IS P/N 220-1183

**TILT FRAME DIFFERENTIAL MOUNT**

RT90/RT95/RT115 BEGINS WITH S/N CMWRT95MLB0000374

CMW 15T3CB0000220, CMW15QPB0000161, CMWRT95HVB0000410



## TILT FRAME DIFFERENTIAL MOUNT

RT90/RT95/RT115 BEGINS WITH S/N CMWRT95MLB0000374

CMW 15T3CB0000220, CMW15QPB0000161, CMWRT95HVB0000410

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	160-456	-	RIGID PLANETARY AXLE (28.22)	
	160-455	-	STEERABLE AXLE (26.22)	
2.	306-748	1	AXLE MOUNT	
3.	307-711	1	AXLE MOUNT	
4.	178-365	2	BRONZE BUSHING (4.928")	
5.	106-398	14	WASHER (M16, HARDENED)	
6.	106-545	14	LOCKNUT (M16-2.0, PRV TRQ, 10.9)	
7.	106-616	8	SCREW (M16-2.00 X 55mm, 10.9)	
8.	307-303	2	CLAMP PLATE	
9.	106-489	4	FLG NUT (M24-3.00, 10.9)	
10.	106-625	4	WASHER (M24)	
11.	107-089	4	SCREW (M24-3.00 X 260mm, 10.9)	
12.	301-1942	2	TILT CYLINDER MOUNT	SEE FOOTNOTE 1
13.	301-1940	2	TILT CYLINDER AXLE MOUNT	SEE FOOTNOTE 1
14.	106-666	4	SCREW (M16-2.00 X 65mm, 10.9)	
15.	106-340	2	SCREW (M16-2.00 X 50mm)	

NOT SHOWN:

### FOOTNOTES:

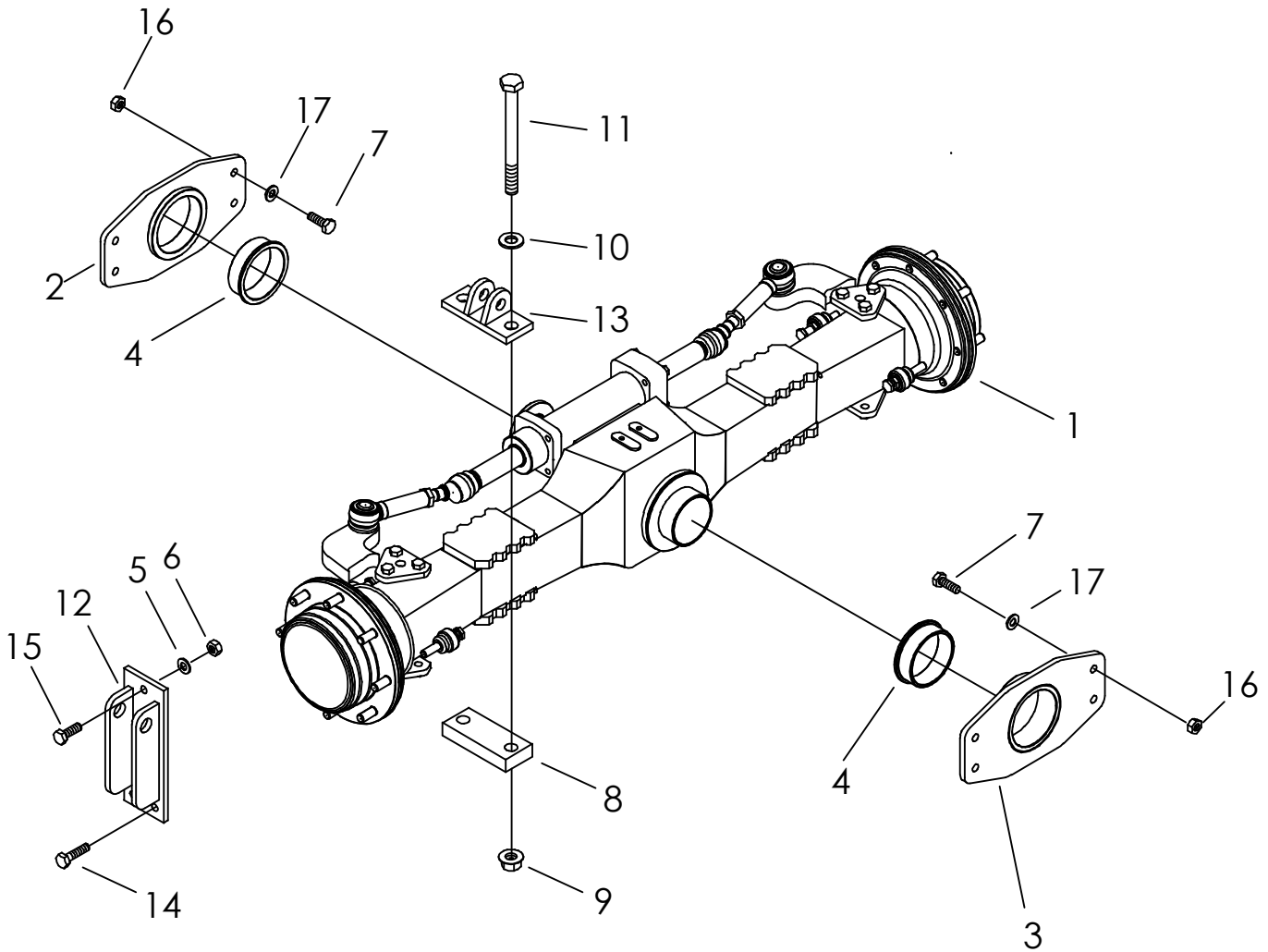
1. OLDER UNITS USED TILT MOUNTS 306-891 AND 306-893. IF REPLACING ONE OF THESE COMPONENTS ALL 4 PARTS MUST BE REPLACED BY 301-1940 AND 301-1942.

NOTE:



**TILT FRAME DIFFERENTIAL MOUNT**

RT95M - RT95H - RT115 BEGINS WITH S/N CMWRT95HVB0000410, CMWRT95MLB0000374  
CMWRT15T3CB0000220, CMWRT115QPB0000161. T2 & T3 UNITS



## TILT FRAME DIFFERENTIAL MOUNT

RT95M - RT95H - RT115 BEGINS WITH S/N CMWRT95HVB0000410, CMWRT95MLB0000374  
CMWRT15T3CB0000220, CMWRT115QPB0000161. T2 & T3 UNITS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	160-456	-	RIGID PLANETARY AXLE (28.22)	
	160-455	-	STEERABLE AXLE (26.22)	
2.	301-0186	1	AXLE MOUNT	
3.	301-0187	1	AXLE MOUNT	
4.	178-365	2	BRONZE BUSHING (4.928")	
5.	106-398	6	WASHER (M16, HARDENED)	
6.	106-545	6	LOCKNUT (M16-2.0, PRV TRQ, 10.9)	
7.	106-831	8	SCREW (M20-2.50 X 60mm, 10.9)	
8.	307-303	2	CLAMP PLATE	
9.	106-489	4	FLG NUT (M24-3.00, 10.9)	
10.	106-625	4	WASHER (M24)	
11.	107-089	4	SCREW (M24-3.00 X 260mm, 10.9)	
12.	301-1942	2	TILT CYLINDER MOUNT	SEE FOOTNOTE 1
13.	301-1940	2	TILT CYLINDER AXLE MOUNT	SEE FOOTNOTE 1
14.	106-666	4	SCREW (M16-2.00 X 65mm, 10.9)	
15.	106-340	2	SCREW (M16-2.00 X 50mm)	
16.	106-356	8	FLG NUT (M20-2.50, 10.9)	
17.	106-399	8	WASHER (M20, HARDENED)	

NOT SHOWN:

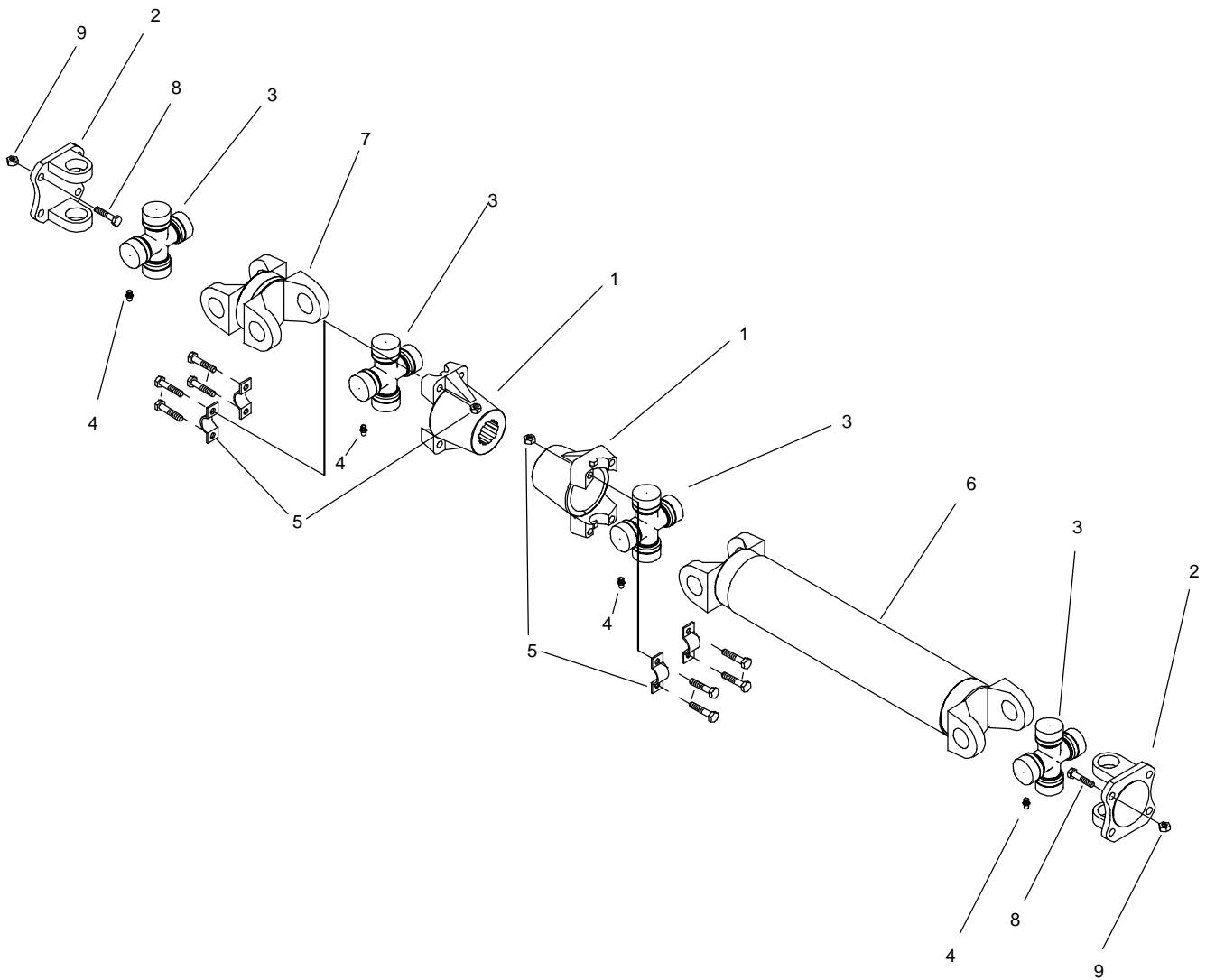
### FOOTNOTES:

1. OLDER UNITS USED TILT MOUNTS 306-891 AND 306-893. IF REPLACING ONE OF THESE COMPONENTS ALL 4 PARTS MUST BE REPLACED BY 301-1940 AND 301-1942.

NOTE:

# HYDROSTATIC DRIVE LINE

RT90/RT95/RT115



# HYDROSTATIC DRIVE LINE

## RT90/RT95/RT115

REF PART NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	182-199	2	410 (SERIES) HUB MACHINING	
2.	182-173	2	FLANGE YOKE	
3.	182-145	4	CROSS/BEARING KIT (1-3/16")	
4.	115-003	4	ZERK (1/4-NF, STR)	
5.	182-204	4	U-BOLT KIT	
6.	166-236	1	FRONT DRIVE LINE	
7.	182-142	1	DOUBLE CENTER YOKE	
8.	105-119	8	BOLT (7/16 NF X 1-1/2")	
9.	105-120	8	NUT (7/16 NF)	USE LOCTITE 242 OR EQUIVALENT

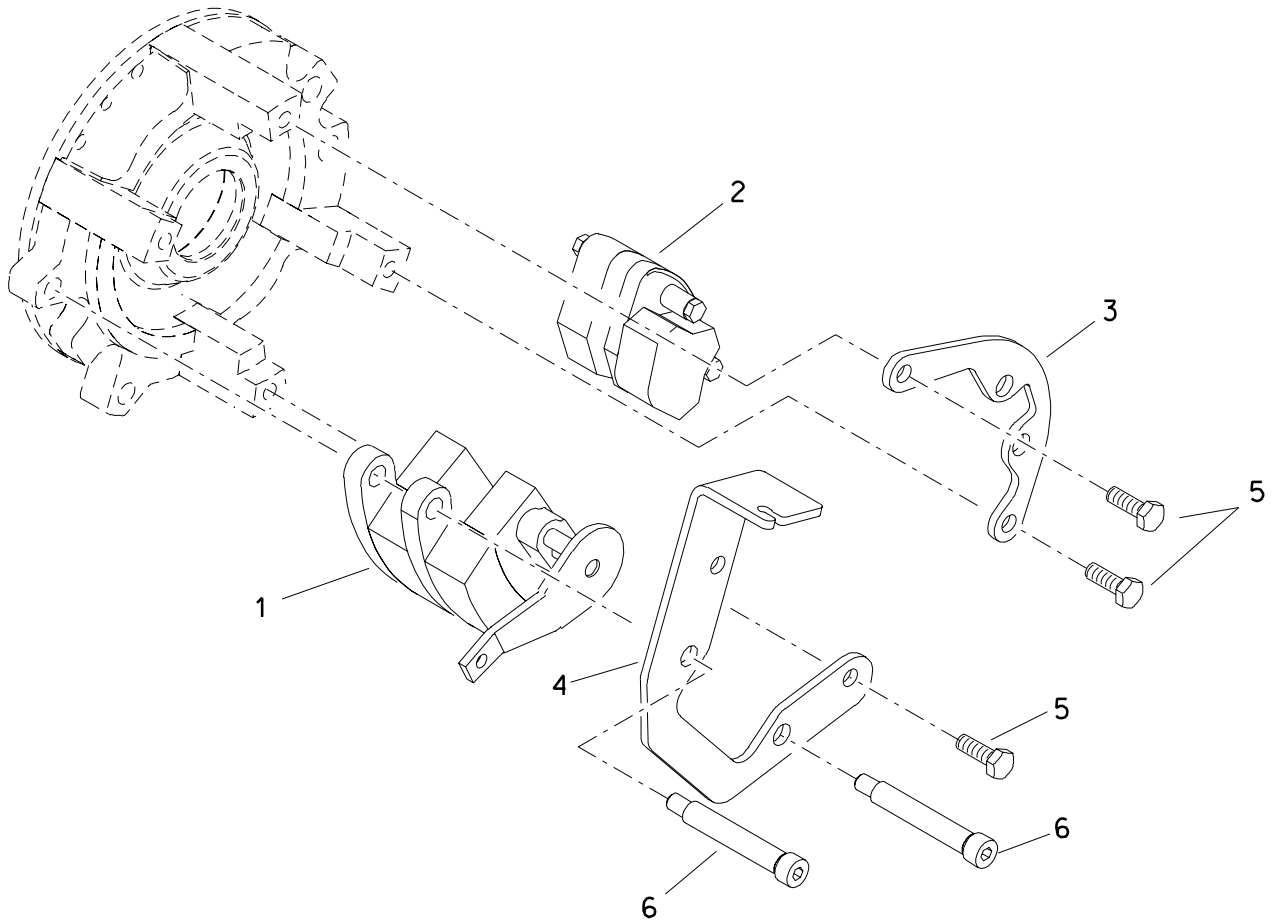
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FOOTNOTES:

NOTE:

# BRAKE CALIPERS

## HYDROSTATIC



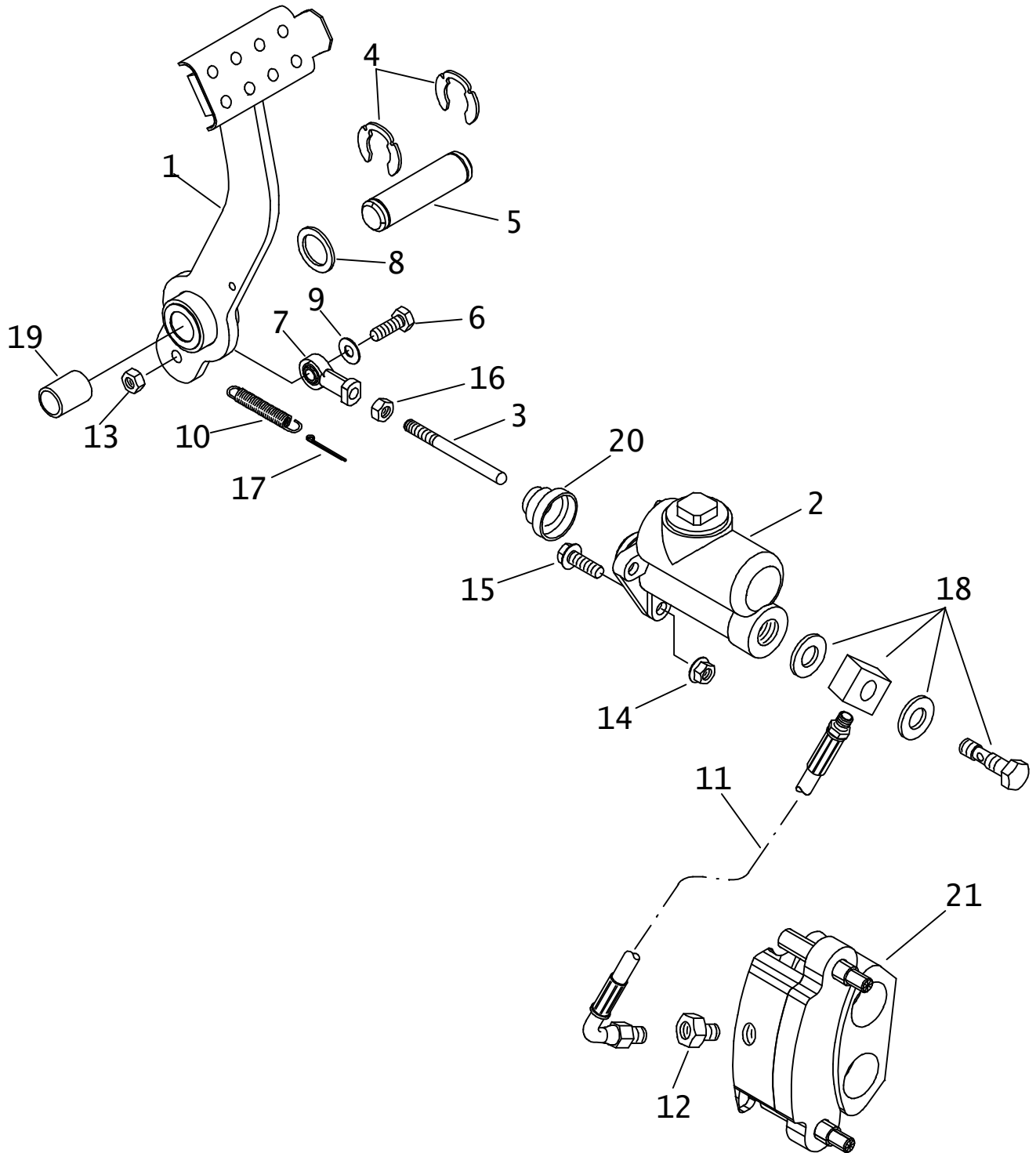
# BRAKE CALIPERS

## HYDROSTATIC

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	160-773	1	BRAKE CALIPER	PARKING
	115-600	1	EXTENSION SPRING	
	505-073	1	FRICTION PAD KIT	PAIR
2.	163-088	1	BRAKE CALIPER	SERVICE - INCLUDES HARDWARE
	160-665	2	BRAKE BLEEDER VALVE	
	505-068	2	PAD PIN	
	505-069	2	CUP SPRING	
	505-095	1	BRAKE PAD	PAIR
	505-080	1	CALIPER PISTON	
	505-081	1	DUST BOOT	
	505-082	1	SQUARE RING (223 D70)	
3.	309-264	1	SERVICE BRAKE BRACKET	
4.	309-382	1	BRAKE BRACKET	
5.	106-559	4	SCREW (M12-1.75 X 25mm)	
6.	107-498	2	SHLD_BLT (M16 X 120mm, M12-1.75)	

FOOTNOTES

# SERVICE BRAKE SYSTEM



# SERVICE BRAKE SYSTEM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	306-996	1	BRAKE PEDAL	
2	163-219	1	MASTER CYLINDER	
	191-293		SEAL REPAIR KIT	
	505-026		MASTER CYL CAP (1-5/8 SAE)	COMES WITH GASKET
	165-724		CAP GASKET	
3	361-887	1	MASTER CYLINDER ROD	
4	115-484	2	EXTERNAL SNAP RING (1.000")	
5	178-383	1	PIN (1.000" X 3.900")	
6	107-242	1	LK BOLT (3/8-NC X1-1/2", NLK)	
7	110-102	1	ROD END (3/8-NF, FM)	
8	110-078	1	MACH BUSHING (1.000", 14GA)	
9	106-415	1	WASHER (.406")	
10	115-613	1	EXTENSION SPRING	
11	149-861	1	BRAKE HOSE (3/16T X 19")	
12	156-282	1	FLARE FITTING (03TM-04TFM)	
13	105-053	1	NUT (3/8-NC)	
14	106-266	3	FLG NUT (M10-1.50)	
15	107-002	3	FLG LK SCREW (M10-1.50 X 30mm)	
16	105-093	1	NUT (3/8-NF)	
17	105-504	1	COTTER PIN (.187 X .750)	
18	149-863	1	BANJO S/O CONNECTOR (08-05T)	SEE FOOTNOTE I
19	125-407	1	BRONZE BUSHING (1.000")	
20	115-329	1	DUST COVER	
21	163-088		BRAKE CALIPER	USED ON HYDROSTAT MACHINES
	505-095		BRAKE PAD (PAIR)	
	160-534		BRAKE CALIPER	USED ON POWERSHIFT MACHINES
	505-083		BRAKE PAD (PAIR)	

NOT SHOWN:

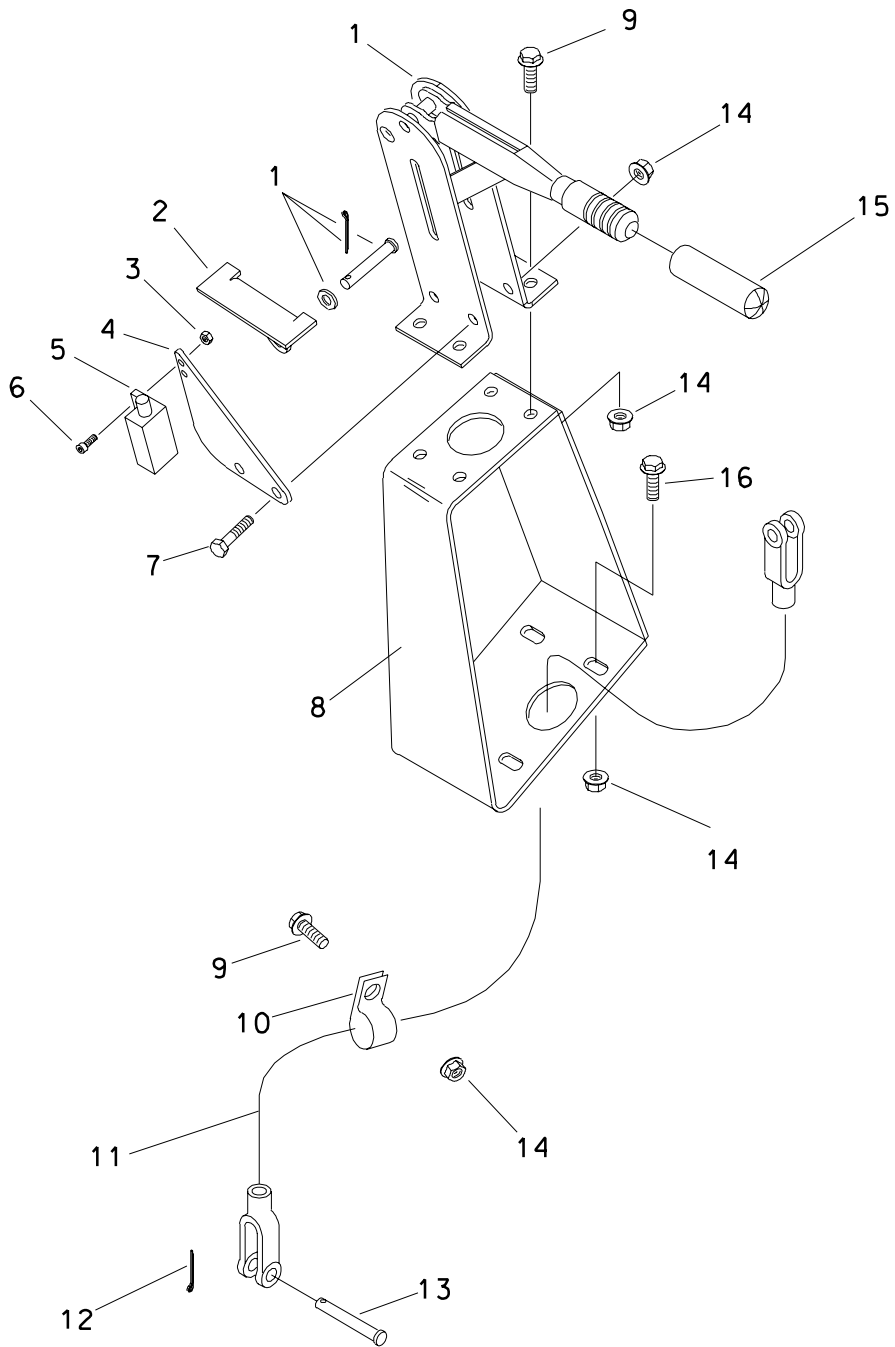
FOOTNOTES:

I. BANJO CONNECTOR (REF #18) COMES WITH 2X 502-178 (REF #22)

NOTE:



## PARK BRAKE



## PARK BRAKE

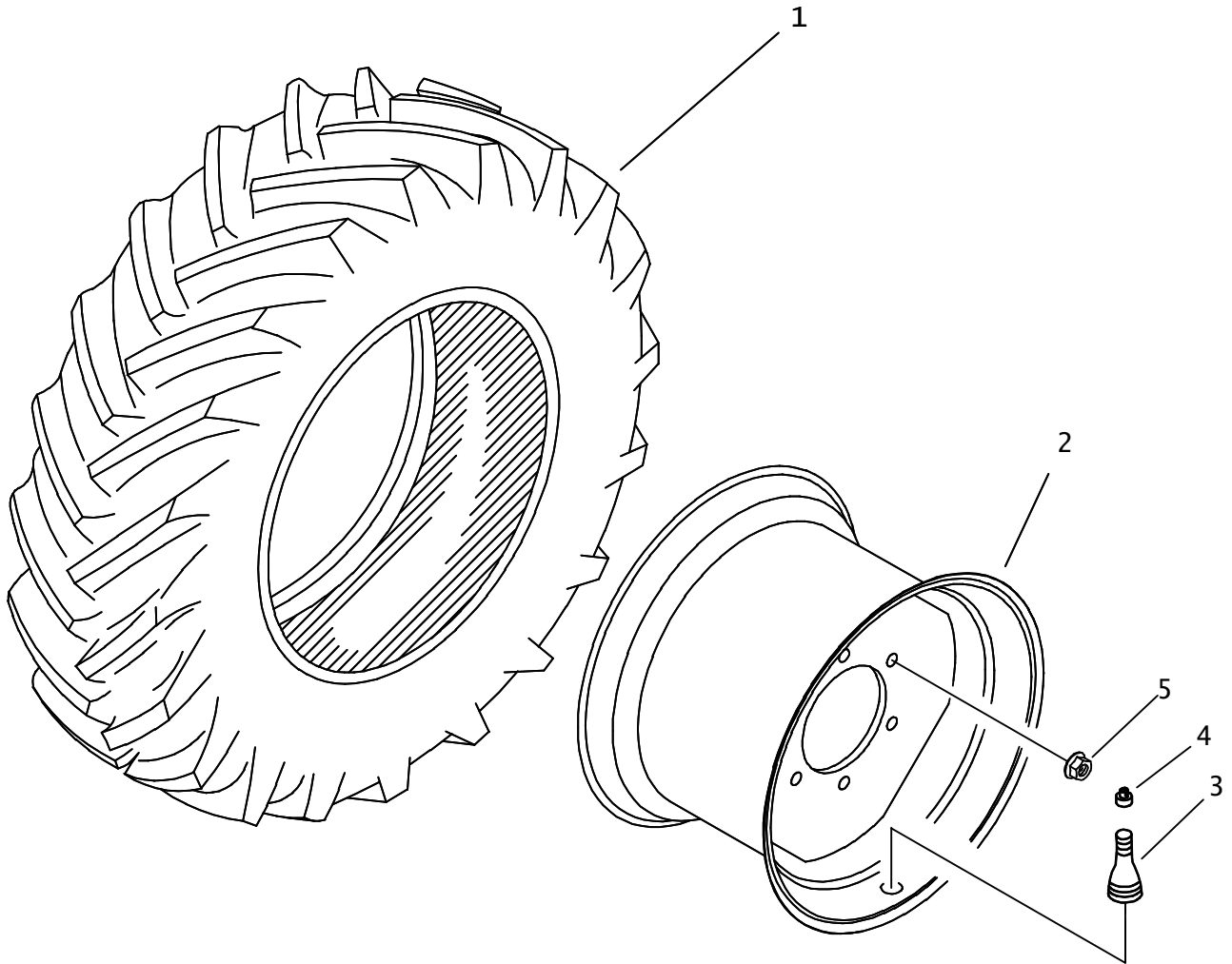
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	160-744	1	PARKING BRAKE LEVER	
2.	309-413	1	ACTUATOR BRACKET	
3.	105-680	2	NUT (M4, W/LK WSHR)	
4.	309-412	1	SWITCH BRACKET	
5.	217-705	1	PLUNGER SWITCH	
6.	106-715	2	SCREW (M4-0.70 X 12mm, SOC)	
7.	106-328	2	SCREW (M8-1.25 X 40mm)	
8.	309-383	1	PARK BRAKE BRACKET	
9.	106-991	5	FLG LK SCREW (M8-1.25 X 20mm)	
10.	110-373	1	BOLT ON CLAMP (13/16")	
11.	194-183	1	BRAKE CABLE	USED ON POWER SHIFT
	194-184	1	BRAKE CABLE	USED ON HYDROSTATIC
12.	105-508	1	COTTER PIN (3/32" X 1")	
13.	110-053	1	CLEVIS PIN (3/8" X 1.078")	
14.	106-386	11	FLG LOCKNUT (M8-1.25)	
15.	110-469	1	GRIP (7/8", ORANGE)	
16.	106-162	4	FLG SCREW (M8-1.25 X 20mm)	SEE FOOTNOTE 1

## FOOTNOTES

1. USE LOCTITE 242 (BLUE) WHEN INSTALLING BOLTS.

# TIRE & WHEEL

38 X 18.00-20 E16TL



# TIRE & WHEEL

## 38 X 18.00-20 E16TL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	205-1126	4	T/W (38 X 18.00-20 16PLY)	INCL. REF. #'S 1, 2, 3
1.	205-1125	4	TIRE (38 X 18.00-20.0, E16TL)	16 PLY
2.	205-473	4	WHEEL (20.0 X 14 WD W/8) HP	
3.	205-168	4	VALVE STEM (.625")	INCL. REF #4
4.	205-165	4	VALVE CAP (.305"-32)	
5.	499-521	-	LUG NUT (M20-1.50)	

NOT SHOWN:

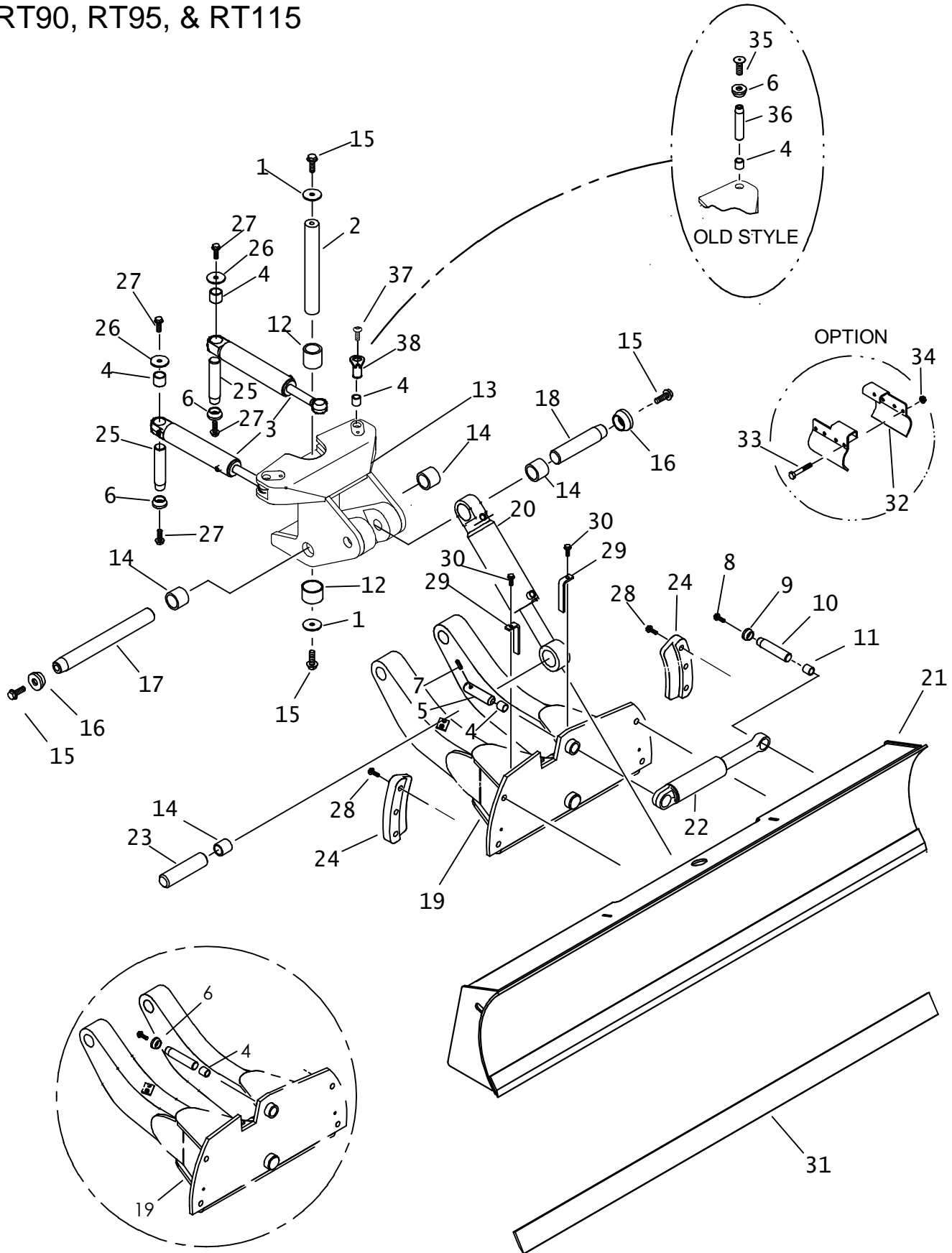
FOOTNOTES:

NOTE:  
REPLACES 205-456



# **FRAME COMPONENTS**

# BACKFILL BLADE ASSEMBLY RT90, RT95, & RT115



SEE FOOTNOTE 2

## BACKFILL BLADE ASSEMBLY RT90, RT95, & RT115

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-416	2	WASHER (5/8")	
2.	178-572	1	PIN (1.75" X 12.75")	
3.	151-057	-	CYL (2.0" X 1.25" X 8.0")	
4.	125-771	5	COMPOSITION BUSHING (1.25")	
5.	300-7763	1	PIN	SEE FOOTNOTE 2
6.	181-982	1	TAPERED INSERT (1.25")	
7.	107-434	1	ROLL PIN 3/8 X 1-5/8	
8.	106-164	1	FLG LK SCREW (M10-1.50 X 30mm)	
9.	181-981	1	TAPERED INSERT (1")	
10.	183-767	1	TAPERED PIN (25.4mm X 60mm)	
11.	125-770	1	COMPOSITION BUSHING (1")	
12.	125-822	2	COMPOSITION BUSHING (1.750")	
13.	331-475	1	PIVOT	
14.	125-773	4	COMPOSITION BUSHING (1.750")	
15.	106-470	4	FLG SCREW (M16-2.00 X 40mm)	
16.	181-975	2	TAPERED INSERT (1.75")	
17.	178-584	1	TAPERED PIN (1.750" X 13.90")	
18.	183-768	1	TAPERED PIN (44.4mm X 205mm)	
19.	308-921	1	LIFT ARM	
20.	151-070	-	CYL (3" X 1.75" X 8")	
21.	300-8635	1	LOW ANGLE BACKFILL BLADE, 80"	SEE FOOTNOTE 1
22.	151-202	-	CYL (2" X 1" X 3.38")	
23.	178-532	1	PIN (1.750" X 7.000")	
24.	314-104	2	TILT BLADE RETAINER	
25.	178-394	2	TAPERED PIN (1.250" X 4.250")	
26.	105-475	2	WASHER (1/2")	
27.	105-830	4	FLG LK BOLT (1/2-NC X 1-1/4")	
28.	106-012	6	FLANGE BOLT (5/8-NC X 3")	
29.	309-138	2	RETAINER	
30.	106-383	2	FLG LK SCREW (M10-1.50 X 30mm)	
31.	331-751	1	80" CUTTING EDGE	
32.	322-360	2	FITTING GUARD (3.0" CYL)	OPTION
33.	106-330	4	SCREW (M8-1.25 X 70mm)	OPTION
34.	106-386	4	FLG LOCKNUT (M8-1.25)	OPTION
35.	105-1187	2	SCREW (M10-1.5 X 35mm)	USE LOCTITE 242
36.	105-1188	2	TAPERED PIN (1.250" X 2.560")	
37.	107-537	2	SCREW (M10-1.5 X 20mm)	USE LOCTITE 242
38.	300-8460	2	TAB PIN (1.250" X 2.57")	

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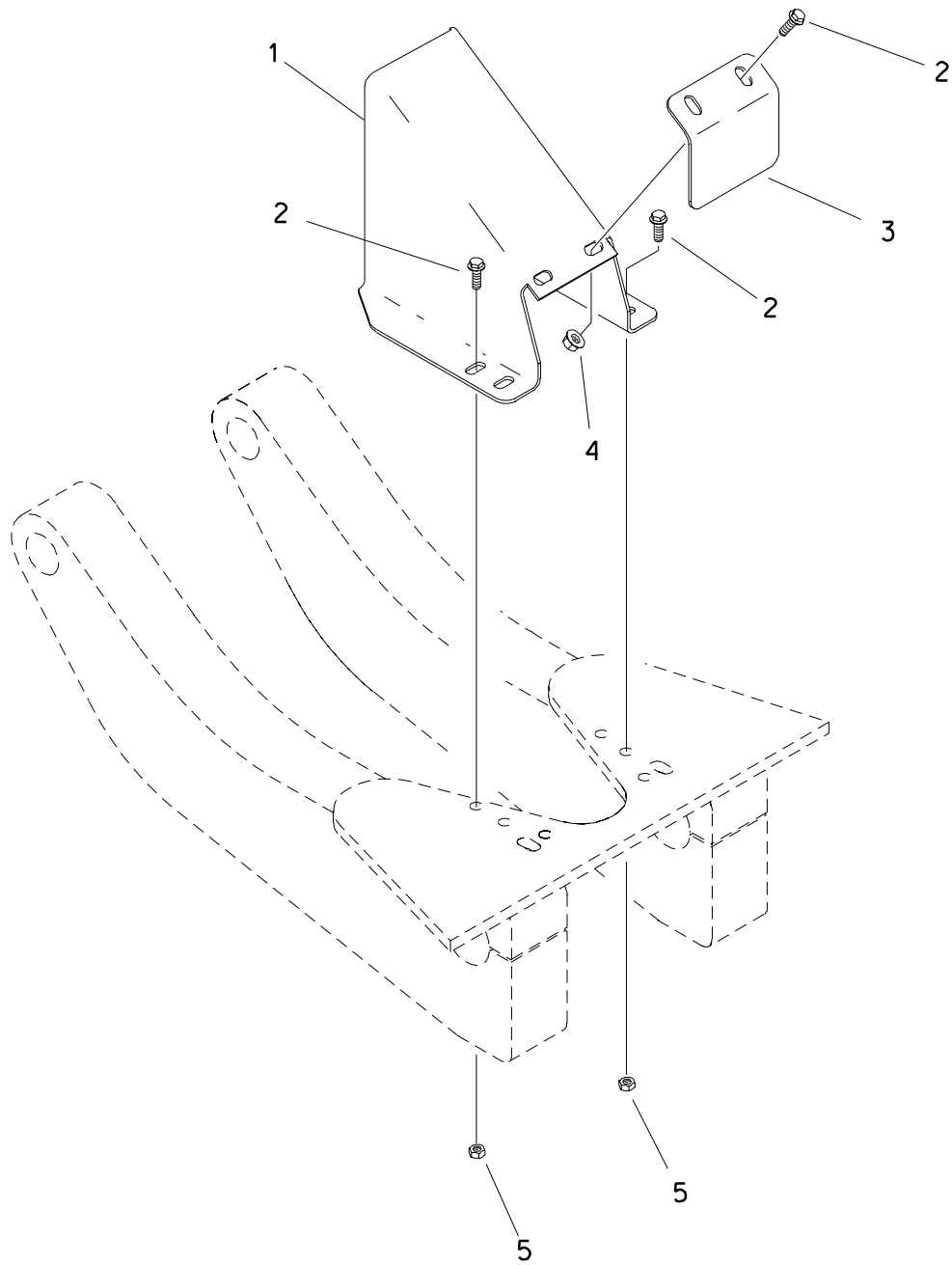
### FOOTNOTES:

- BACKFILL BLADE 300-4321 IS SUPERSEDED BY 300-8635 ON RT90, RT95, AND RT115.  
RT95M BEGINS WITH S/N CMWRT95MJ90000296  
RT95H BEGINS WITH S/N CMWRT95HK90000364  
RT115 BEGINS WITH S/N CMWRI5T3K90000130
- EARLIER MODELS USE P/N 183-766 TAPERED PIN (31.7mm X 90MM) WITH 106-469 FLG SCREW (M12-1.75 X 30mm)

NOTE:



# BFB CYLINDER GUARD



# BFB CYLINDER GUARD

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-285		CYLINDER GUARD KIT	INCLUDES REF NUMBERS 1-5 & SEE FOOTNOTE 1
1.	319-787	1	CYLINDER GUARD	
2.	106-724	6	FLG SCREW (M10-1.50 X 25mm)	
3.	319-789	1	COVER	
4.	106-387	2	FLG LOCKNUT (M10-1.50)	
5.	106-758	4	LOCKNUT (M10-1.50)	

### NOTE

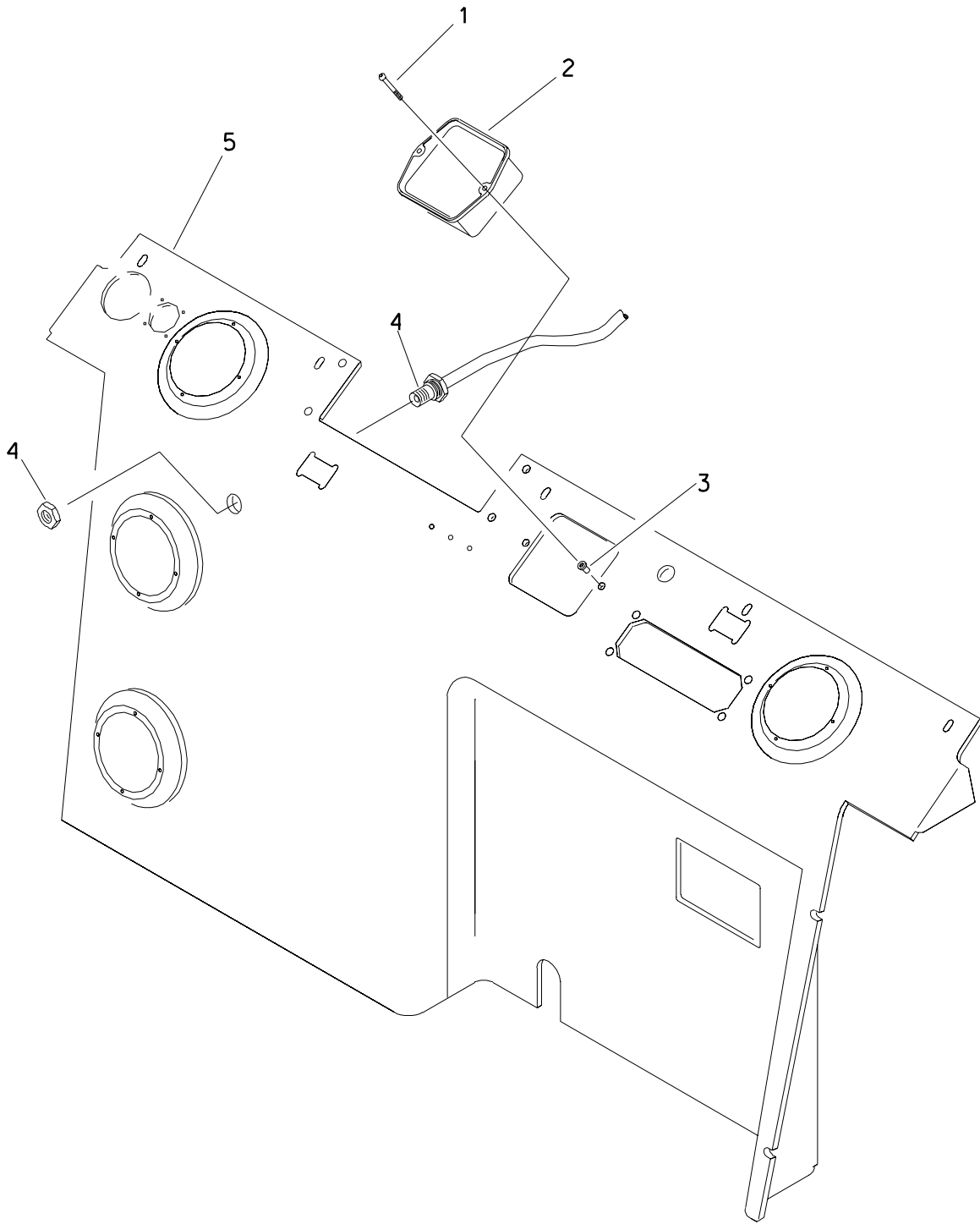
REFER TO INSTALLATION INSTRUCTIONS 051-336 FOR INSTALLING BFB CYLINDER GUARD.

### FOOTNOTES

1. THIS OPTION CANNOT BE USED WITH AUX. MANIFOLD KIT 191-272 BECAUSE OF INTERFERENCE.

# TRENCH DEPTH METER MODULE

RT70/RT75/RT90/RT95/RT115



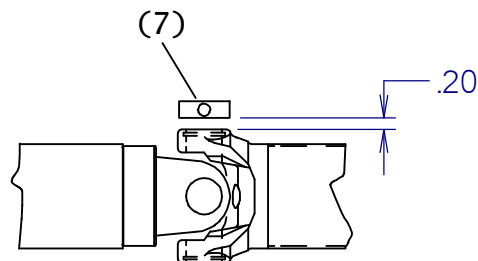
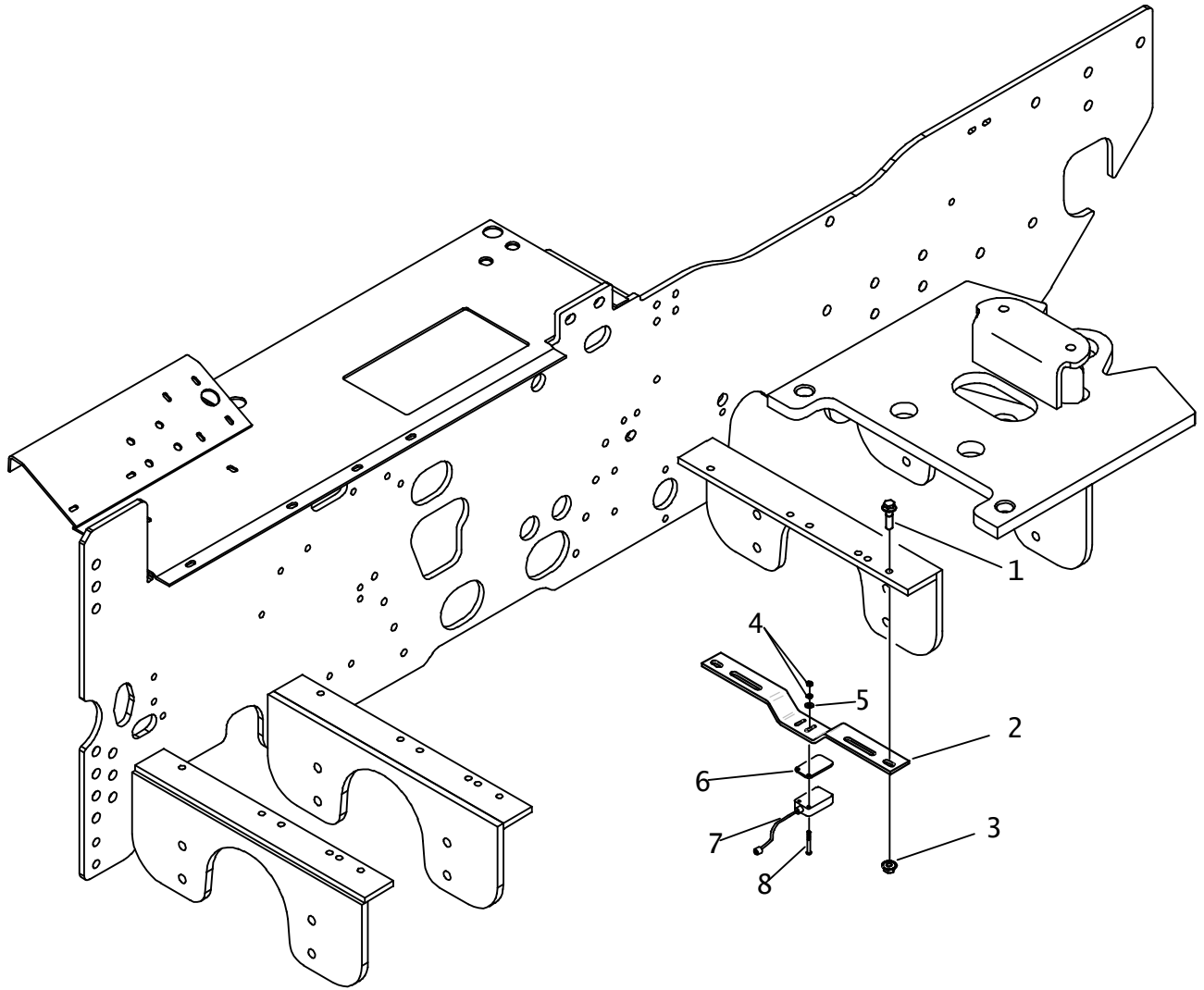
# TRENCH DEPTH METER MODULE

RT70/RT75/RT90/RT95/RT115

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	107-580	2	SCREW (M4-0.70 X 16mm, BUT SOC)	
2.	220-086	1	TRENCH DEPTH METER	
3.	107-358	2	WELLNUT (M4-0.7 X 12.67mm LG)	
4.	213-075	1	TDM HARNESS	
5.	319-745	-	REAR PANEL	

FOOTNOTES

# TRENCH DEPTH METER/ODOMETER MT



## TRENCH DEPTH METER/ODOMETER MT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	107-004	3	FLG LK SCREW (M12-1.75 X 45mm)	RT95 / RT115 & SEE FOOTNOTE 2
2.	315-744	1	SENSOR BRACKET	
3.	106-709	3	FLG LK NUT (M12-1.75)	RT95 / RT115 & SEE FOOTNOTE 2
4.	105-680	2	NUT (M4, W/LK WSHR)	
5.	107-597	2	WASHER (M4)	
6.	107-451	AR	SHIM (.135")	SEE FOOTNOTE 1
7.	214-692	1	PROXIMITY SWITCH	
8.	107-414	2	SCREW (M4-0.70 X 30mm, BUT SOC)	

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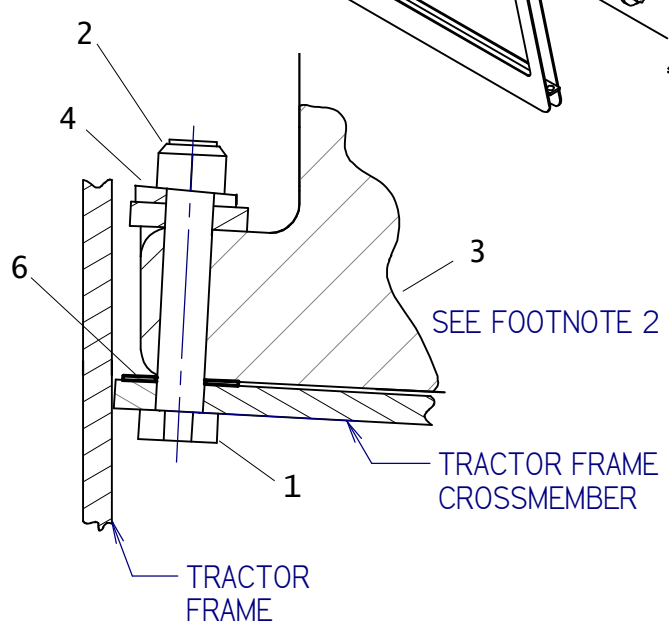
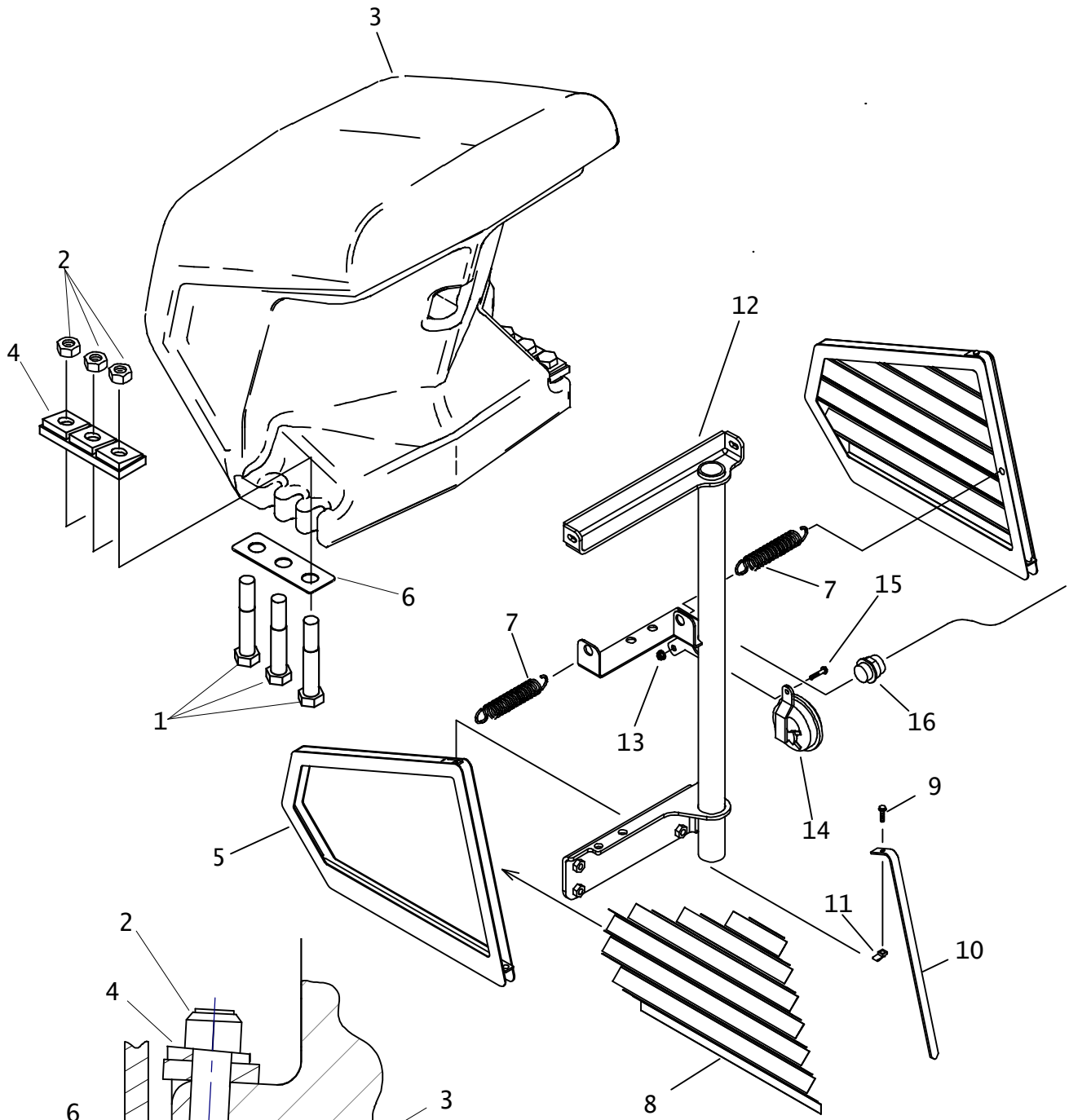
### FOOTNOTES

- SHIMS (107-451) ARE USED TO ADJUST SPACING OF PROXIMITY SWITCH (214-692) FROM THE DRIVE SHAFT.
- RT75 USES 2X 105-003 (FLG LOCKNUT 5/16-NC) & 2X 105-190 (BOLT 5/16-NC X 2-3/4")

NOTE

# COUNTERWEIGHT / GRILLE

ENDS WITH SERIAL NUMBER (SEE NOTES)



SEE FOOTNOTE 2

TRACTOR FRAME CROSSMEMBER

TRACTOR FRAME

## COUNTERWEIGHT / GRILLE

### ENDS WITH SERAIL NUMBER (SEE NOTES)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	106-633	6	SCREW (M20-2.5 X 130mm)	SEE FOOTNOTE 1, 3 & 4
2.	106-665	6	LOCKNUT (M20-2.50, 10.9)	SEE FOOTNOTE 4
3.	375-370	1	CASTING (FRAME NOSE)	SEE FOOTNOTE 3
4.	327-389	2	CLAMP BAR	SEE FOOTNOTE 2 & 4
5.	313-825	2	GRILLE	SEE FOOTNOTE 4
6.	118-400	2	SHIM (.075")	
7.	117-386	2	EXTENSION SPRING	
8.	308-723	2	SCREEN	
9.	106-987	2	FLG LK SCREW (M6-1.00 X 16mm)	
10.	178-873	2	SCREEN RETAINER	
11.	106-574	2	CLIP NUT(M6-1.00)	
12.	320-729	-	FRONT HOOD SUPPORT	
13.	106-385	1	FLG LOCKNUT (M6-1.00)	
14.	306-609	1	HIGH FREQUENCY HORN	
15.	106-161	1	FLG SCREW (M6-1.00 X 20MM)	
16.	214-971	1	FRAME HARNESS	

#### FOOTNOTES

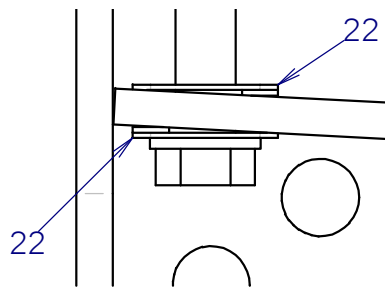
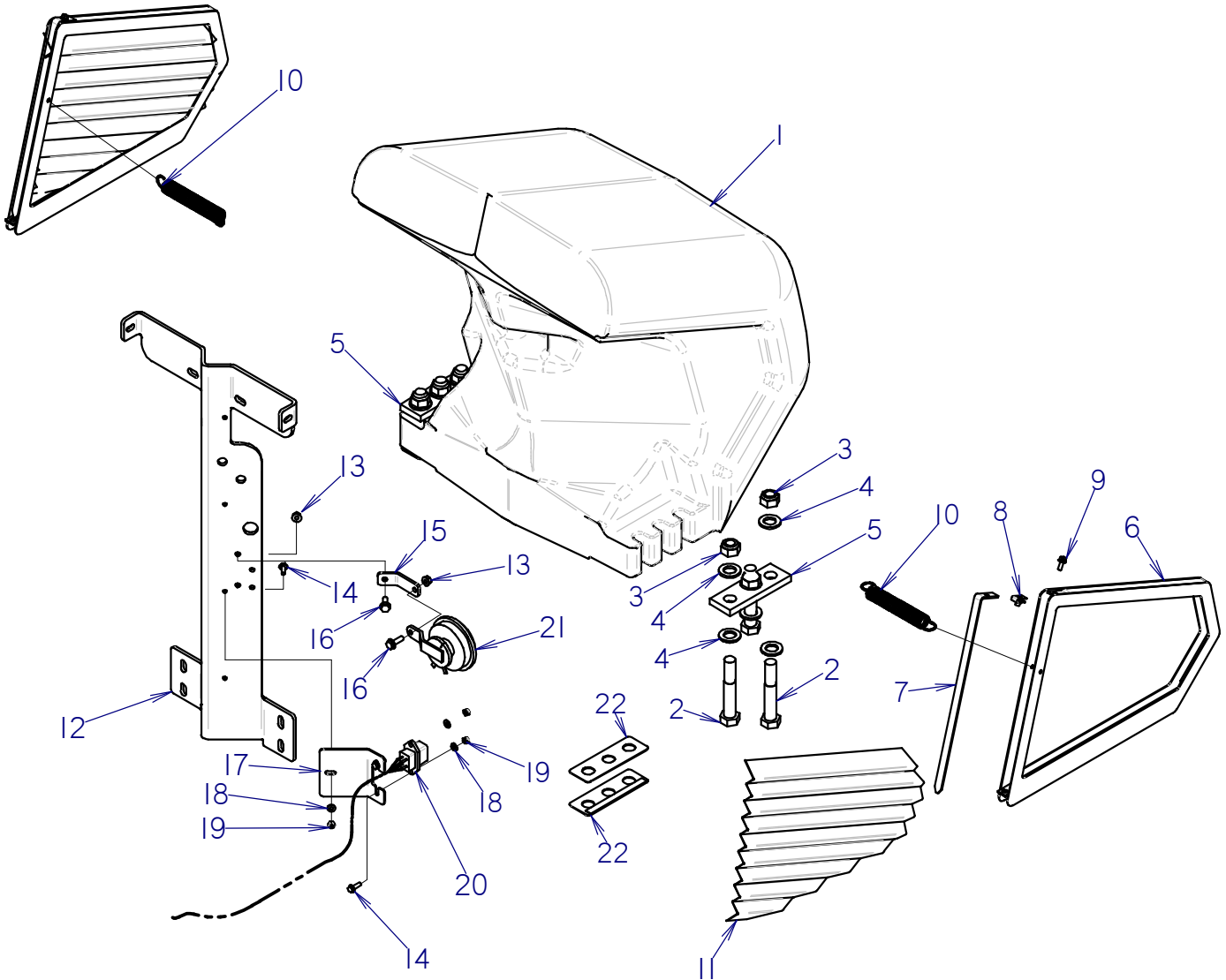
- 1- TORQUE BOLT TO 350 FT/LB (475 N/m)
- 2- INSTALL REF #4 (327-389) WITH THICK EDGE TO FRAME.
- 3- REFER TO NOSE CASTING INSTALLATION INSTRUCTIONS 051-420.
- 4- 104-186, BOLT AND SHIM KIT, INCLUDES 1,2,4 & 6.

#### NOTE:

1. HT115 ENDS WITH S/N 5Z0675
2. RT115 ENDS WITH S/N 5Z0676



# COUNTERWEIGHT/GRILLE (RT SERIES) BEGINS WITH SERIAL NUMBER (SEE NOTES)



SEE FOOTNOTE 2

## COUNTERWEIGHT/GRILLE (RT SERIES) BEGINS WITH SERIAL NUMBER (SEE NOTES)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	375-457	1	NOSE CASTING	
2	106-626	6	SCREW (M20-2.50 X 120MM, 10.9)	SEE FOOTNOTE 1, 2 & 3
3	106-665	6	LOCKNUT (M20-2.50, 10.9)	
4	106-399	12	WASHER (M20, HARDENED)	
5	307-531	2	CLAMP BAR	
6	313-825	2	GRILLE	
7	178-873	2	SCREEN RETAINER	
8	106-574	2	CLIP NUT (M6-1.00)	
9	106-987	2	FLG LK SCREW (M6-1.00 X 16MM)	
10	117-386	2	EXTENSION SPRING	
11	308-723	2	SCREEN	
12	307-909	1	FRONT HOOD SUPPORT	
13	106-386	2	FLG LOCKNUT (M8-1.25)	
14	106-161	3	FLG SCREW (M6-1.00 X 20MM)	
15	323-673	1	HORN BRACKET	
16	106-992	2	FLG LK SCREW (M8-1.25 X 25MM)	
17	318-726	1	PLATE	
18	105-284	3	WASHER (3/16")	
19	106-237	3	LOCKNUT (M6-1.00,PRV TRQ,NLK)	
20	217-267	1	HYDROSTAT FRAME HARNESS	
21	306-609	1	HIGH FREQUENCY HORN	
22	329-358	4	SHIM	SEE FOOTNOTE 2

NOT SHOWN

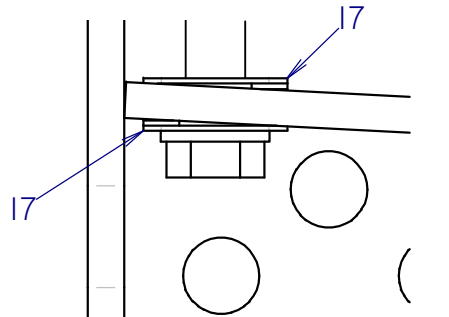
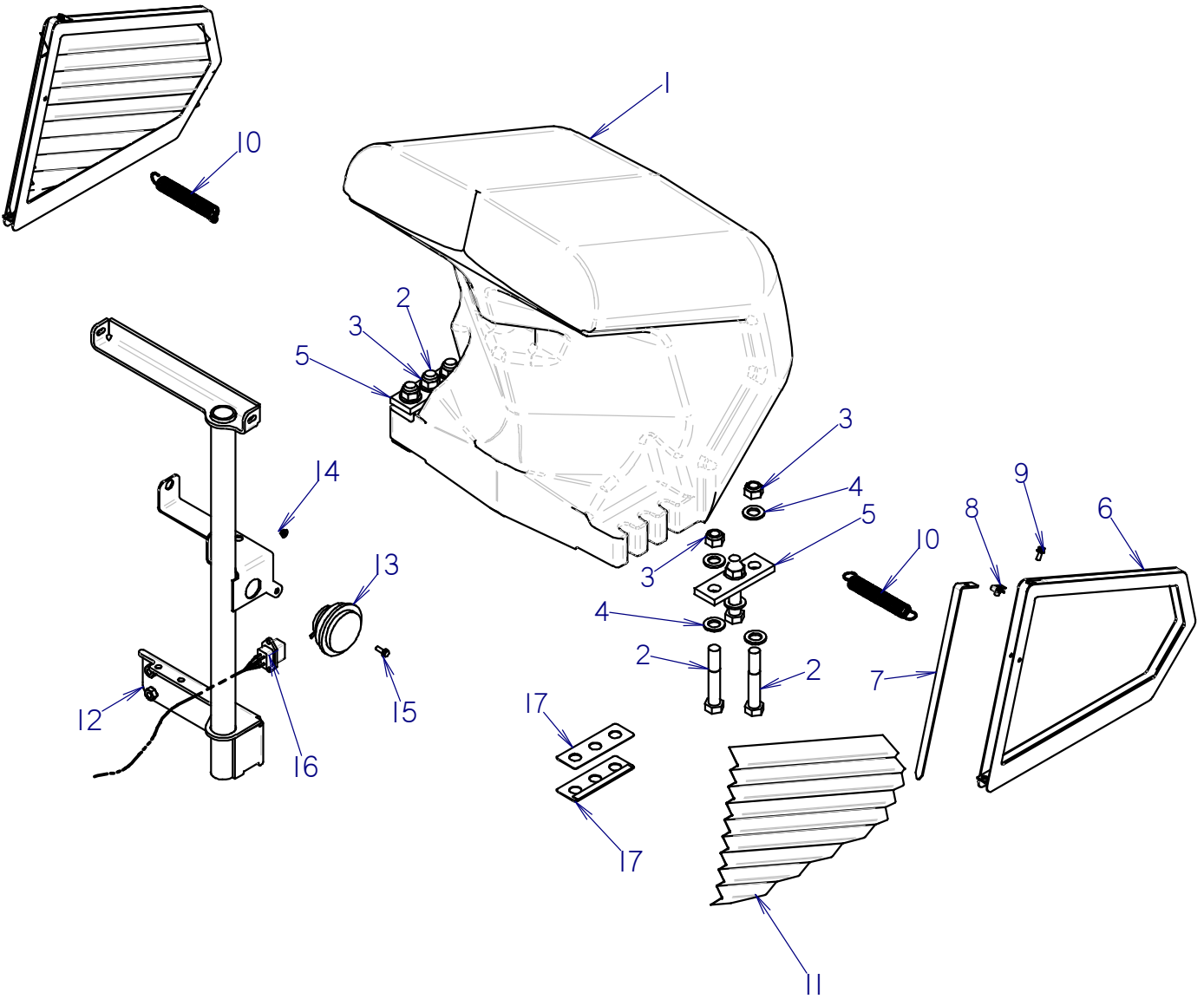
### FOOTNOTES

1. TORQUE BOLT TO 350 ft/lbs.
2. USE SHIMS (REF #22) WHEN MOUNTING NEW CAST NOSE (375-457) ONTO TRACTOR FRAME BEFORE SERIAL NUMBERS LISTED IN FOOTNOTES 4 & 5.
3. REFER TO NOSE CASTING INSTALLATION INSTRUCTIONS 051-420 FOR CORRECT TORQUE SEQUENCE.

### NOTE

1. RT75 BEGINS WITH SERIAL NUMBER 5Z0664.
2. RT95/RT115 BEGINS WITH SERIAL NUMBER 5Z0677.

# COUNTERWEIGHT/GRILLE BEGINS WITH S/N 5Z0677.



SEE FOOTNOTE 2

## COUNTERWEIGHT/GRILLE BEGINS WITH S/N 5Z0677.

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	375-457	1	NOSE CASTING	
2	106-626	6	SCREW (M20-2.50 X 120MM, 10.9)	SEE FOOTNOTE 1,2 & 3
3	106-665	6	LOCKNUT (M20-2.50, 10.9)	
4	106-399	10	WASHER (M20, HARDENED)	
5	307-531	2	CLAMP BAR	
6	313-825	2	GRILLE	
7	178-873	2	SCREEN RETAINER	
8	106-574	2	CLIP NUT (M6-1.00)	
9	106-987	2	FLG LK SCREW (M6-1.00 X 16MM)	
10	117-386	2	EXTENSION SPRING	
11	308-723	2	SCREEN	
12	320-729	1	FRONT HOOD SUPPORT	
13	306-609	1	HIGH FREQUENCY HORN	
14	106-385	1	FLG LOCKNUT (M6-1.00)	
15	106-161	1	FLG SCREW (M6-1.00 X 20MM)	
16	214-971	1	FRAME HARNESS	
17	329-358	4	SHIM	SEE FOOTNOTE 2

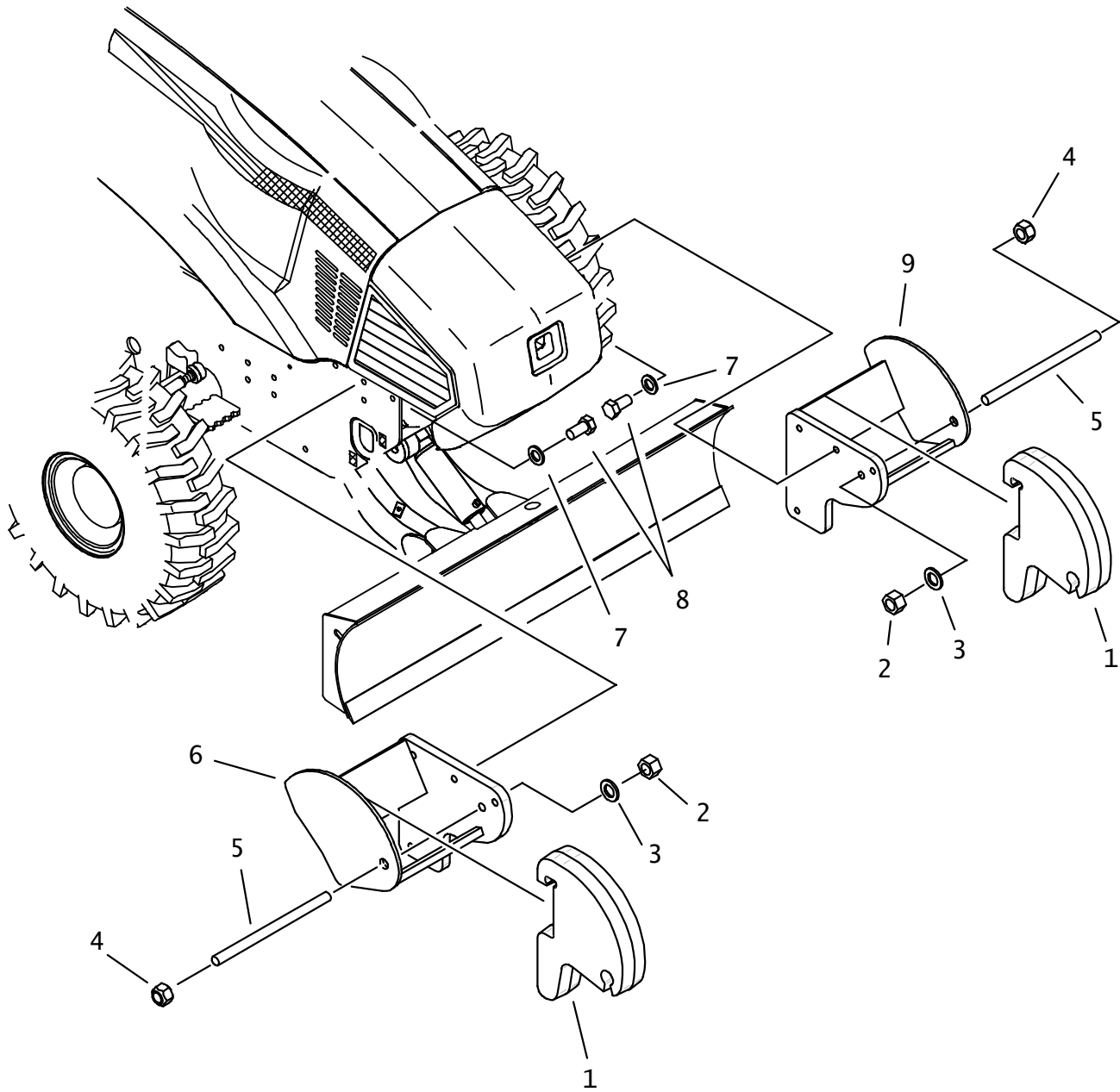
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### FOOTNOTES

1. TORQUE BOLT TO 350 ft/lbs.
2. USE SHIMS (REF #17) WHEN MOUNTING NEW CAST NOSE (375-457) ONTO TRACTOR FRAME BEFORE S/N 5Z0676.
3. REFER TO NOSE CASTING INSTALLATION INSTRUCTIONS 051-420 FOR CORRECT TORQUE SEQUENCE.

NOTE

# FRONT COUNTERWEIGHT



## FRONT COUNTERWEIGHT

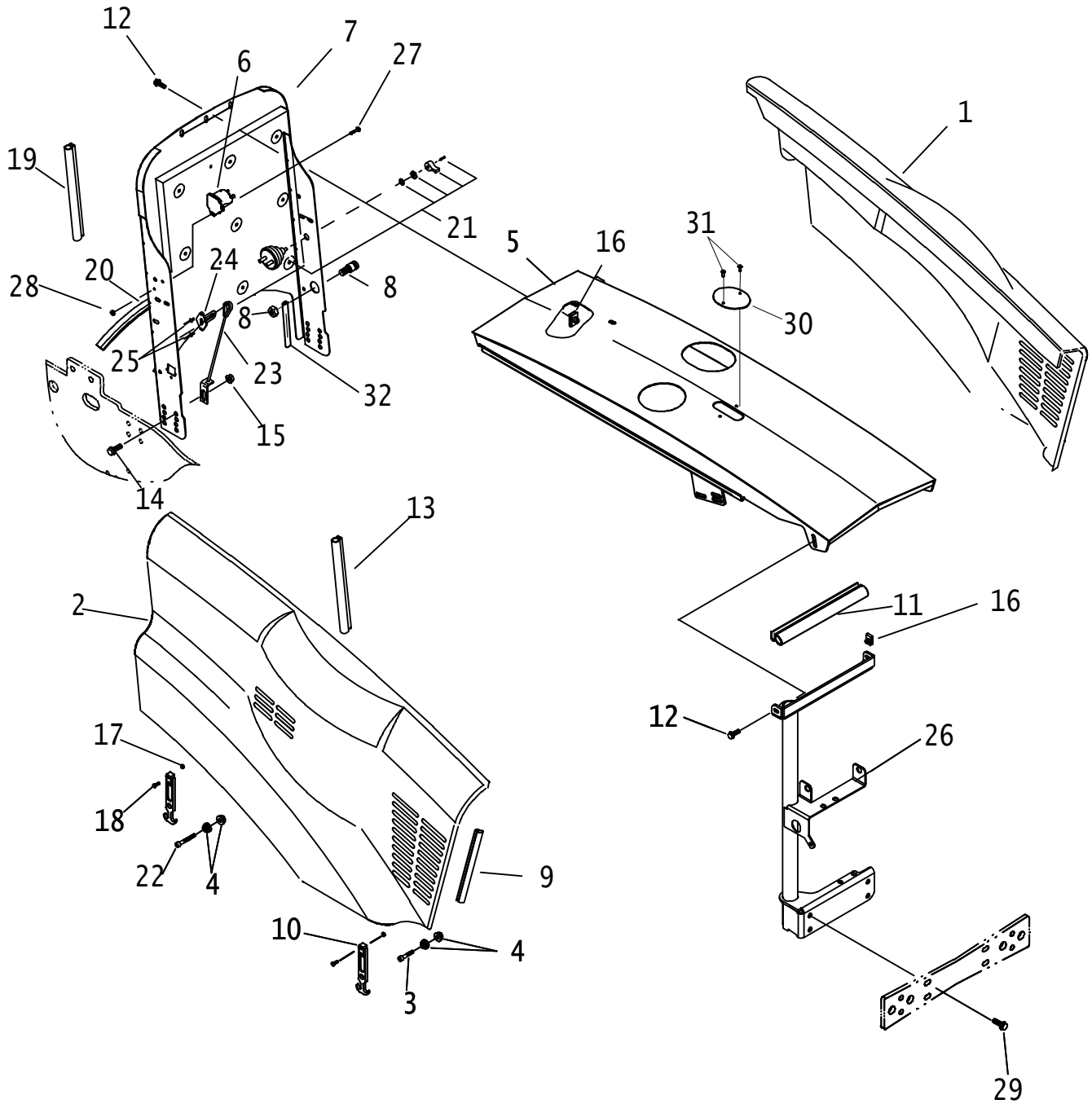
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	100-863	-	COUNTERWEIGHT KIT	INCLUDES REF. NO'S 1-9
1.	375-369	8	WEIGHT CASTING	
2.	106-352	2	NUT (M24-3.00)	USED ONLY WITH 3 WEIGHTS OR LESS
3.	106-488	2	WASHER (M24, HARDENED)	USED ONLY WITH 3 WEIGHTS OR LESS
4.	106-587	2	LOCKNUT (M24-3.0, PRV TRQ, 10.9)	
5.	179-605	2	ALL THREAD ROD (M24 X 15.00)	
6.	319-948	1	RIGHT WEIGHT RACK	
7.	106-399	8	WASHER (M20, HARDENED)	
8.	106-611	8	SCREW (M20-2.50 X 40MM, 10.9)	
9.	319-947	1	LEFT WEIGHT RACK	

NOT SHOWN:

FOOTNOTES:

NOTE:

# ENGINE ENCLOSURE



# ENGINE ENCLOSURE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-227		SIDE PANEL LOCK KIT	INCLUDES REF #'S 23,24 & 25.
1.	307-463	1	LEFT SIDE PANEL	
2.	320-738	1	RIGHT SIDE PANEL W/ AIR INTAKE	
3.	106-081	2	SCREW (M10-1.50 X	
4.	106-387	8	FLG LOCKNUT (M10-1.50)	
5.	319-808	1	MID HOOD	
6.	214-979	1	PREHEAT SOLENOID	
7.	310-716	1	FIREWALL	
	111-043	9	INSULATION STUD	
	117-341	1	SOUND INSULATION	
8.	211-087	1	BATTERY JUMPER TERMINALS (RED)	
9.	117-344	AR	BULK EDGE (3/16", SOLD PER 1')	USE 2 @ 25"
10.	110-681	4	DRAW LATCH	
11.	117-344	AR	BULK EDGE (3/16", SOLD PER 1')	USE 1 @ 16"
12.	107-001	7	FLG LK SCREW (M10-1.50 X 25mm)	
13.	117-978	AR	BULK EDGE (3/16 W/ 1" BULB)(FT)	USE 18"
14.	107-003	8	FLG LK SCREW (M12-1.75 X 35mm)	
15.	106-709	8	FLG LK NUT (M12-1.75)	
16.	106-558	5	CLIP NUT (M10-1.50)	
17.	106-048	8	LOCKNUT (#10-24)	
18.	106-408	8	BOLT (#10-24 X 1-1/4", SOC,	
19.	116-489	AR	BULK EDGE (1/8", SOLD PER 1')	USE 2 @ 21"
20.	116-421	AR	BULK EDGE (1/8", SOLD PER 1')	USE 1 @ 26"
21.	217-819	1	BATTERY DISCONNECT SWITCH	INCLUDES HARDWARE
22.	106-725	2	SCREW (M10-1.50 X 65mm, SOC)	
23.	194-345	2	LOCK CABLE	
24.	318-523	2	LOCK BRACKET	
25.	110-348	4	POP RIVET(3/16" X .664")	
26.	320-729	1	FRONT HOOD SUPPORT	
27.	106-379	2	FLG LK SCREW (M6-1.00 X 20mm)	
28.	106-538	2	LOCKNUT (M6-1.00, PRV TRQ, 10.9)	
29.	105-831	4	FLG LK BOLT (1/2-NC X 1-1/2")	
30.	325-791	1	HOOD CAP	
31.	106-313	2	POP RIVET (1/8" X 3/8" ALUM)	
32.	115-686	2	BULK EDGE (5/32", SOLD PER 1')	5-1/2" EACH

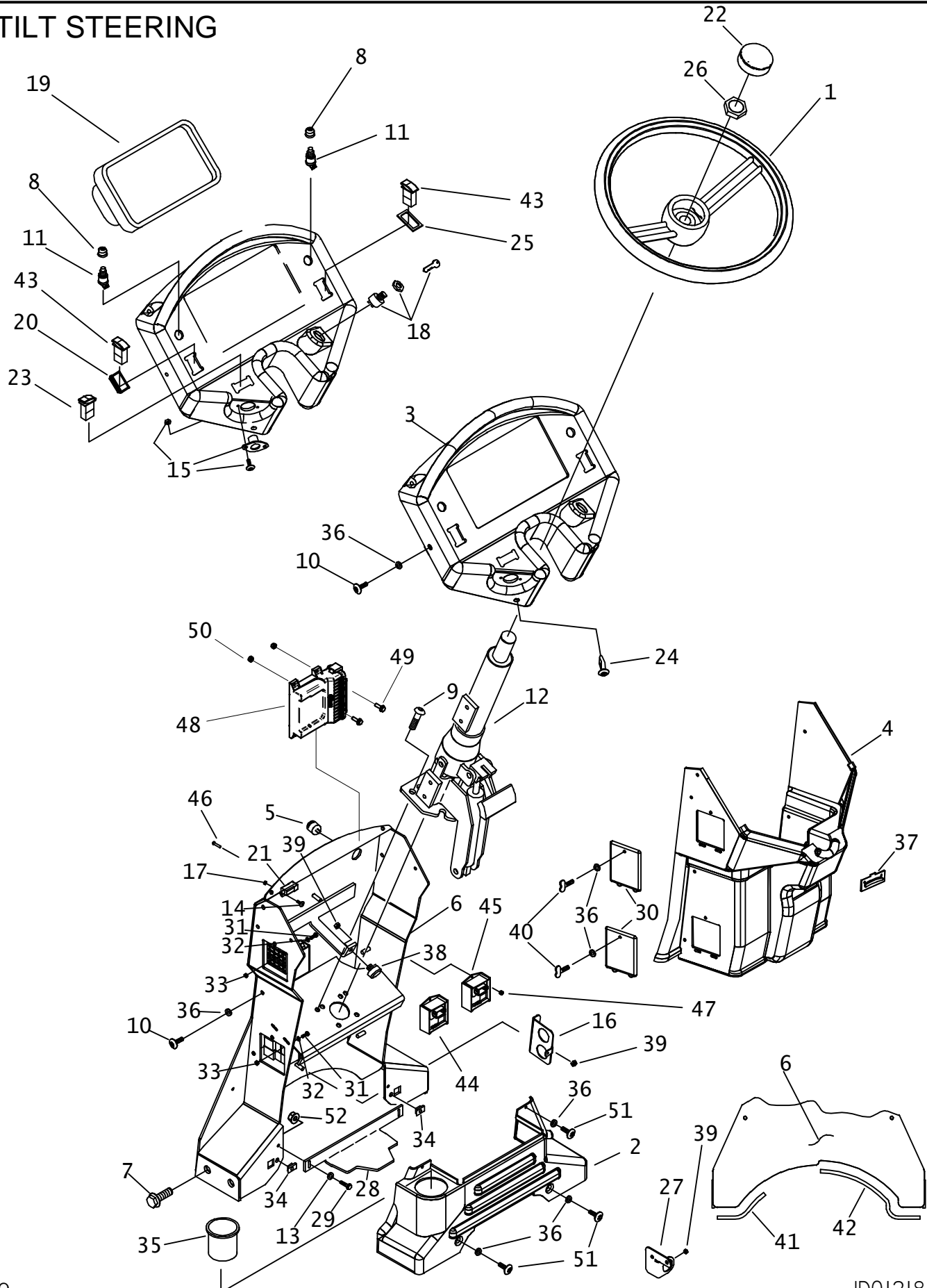
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FOOTNOTES:

NOTE:



# TILT STEERING



# TILT STEERING

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	160-428	1	STEERING WHEEL	
2.	318-557	1	CONSOLE BASE	
3.	318-555	1	MAIN CONSOLE	
4.	318-556	1	CONSOLE CENTER SECTION	
5.	306-603	1	AUDIO ALARM	
6.	315-142	1	PEDESTAL	
7.	106-470	4	FLG SCREW (M16-2.0 X 40mm)	
8.	306-608	2	BUTTON COVER	
9.	106-029	4	BOLT (3/8-NC X 3/4", BUT SOC)	
10.	105-1550	14	SCREW (M6-1.00 X 25MM)	
11.	306-607	2	HORN BUTTON	
12.	306-433	1	STEERING COLUMN	
	499-855	-	KNOB KIT	
	499-856	-	TILT LEVER KIT	
	499-857	-	SHAFT KIT	
	499-858	-	GAS SPRING KIT ( CYLINDER )	
13.	105-095	2	WASHER (1/4")	
14.	107-580	2	SCREW (M4-0.70 X 16mm, BUT SOC)	
15.	214-301	1	ACCESSORY SOCKET	
	105-185	2	BOLT (#10-24 X 1/2", RD SLT)	
	106-048	2	LOCKNUT (#10-24)	
16.	319-737	1	DEUTSCH BULKHEAD MOUNT	
17.	105-680	2	NUT (M4, W/LKWSHR)	
18.	214-852	1	IGNITION SWITCH	
19.	211-273	1	5-GAUGE CLUSTER	
20.	362-823	2	COVER	
21.	217-704	1	PLUNGER SWITCH	
22.	110-730	1	STEERING WHEEL CAP	
23.	217-762	1	ROCKER SWITCH (SPDT)	
24.	107-805	2	PLASTIC FASTENER	
25.	165-817	1	SWITCH GASKET	
26.	105-361	1	JAM NUT (13/16 NF)	
27.	319-849	2	BULKHEAD CONNECTOR MOUNT SHEET	SEE FOOTNOTE 1
28.	314-487	1	BRACE	
29.	106-381	2	FLG LK SCREW (M8-1.25 X 25MM)	
30.	318-560	2	ACCESS DOOR	
31.	107-280	9	SCREW (M5 X 14mm)	
32.	106-388	9	WASHER (M6)	

## NOT SHOWN:

CONNECTOR CAP (TURK RS-CC), P/N: 211-078, QTY = 1  
 DIODE CONNECTOR, P/N: 214-449, QTY = 1

## FOOTNOTES:

## NOTE:

## TILT STEERING

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
33.	106-850	9	LOCKNUT (M5-0.80)	
34.	106-574	2	CLIP NUT (M6-1.00)	
35.	308-888	1	CUP HOLDER	
36.	107-801	16	WASHER (M6)	
37.	110-208	1	LEVEL INDICATOR	
38.	116-525	1	BUMPER	
39.	105-003	4	FLG LOCKNUT (5/16-NC)	
40.	107-800	2	WING SCREW (M6-1 X 25mm)	
41.	115-686	13	BULK EDGE (5/32",SOLD PER 1")	
42.	115-686	6	BULK EDGE (5/32",SOLD PER 1")	
43.	217-764	2	ROCKER SWITCH (SPDT)	SEE FOOTNOTE 2
44.	220-569	1	UNIVERSAL CRUISE CONTROL MODULE	SEE FOOTNOTE 3
45.	217-239	1	CONTROL MODULE REAR STEER ASSY	SEE FOOTNOTE 4
46.	105-815	4	BOLT (#10-24 X 1", PAN SLT)	SEE FOOTNOTE 5
47.	106-048	4	LOCKNUT (#10-24)	SEE FOOTNOTE 5
48.	220-1241	1	30 PIN CONTROLLER V3	SEE FOOTNOTE 6
49.	106-161	2	FLG SCREW (M6-1.00 X 20MM)	SEE FOOTNOTE 6
50.	106-538	2	LOCKNUT (M6-1.00,PRV TRQ,10.9)	SEE FOOTNOTE 6
51.	105-1552	4	SCREW (M6-1.00 X 16MM)	
52.	106-386	2	FLG LOCKNUT (M8-1.25)	

NOT SHOWN:

### FOOTNOTES:

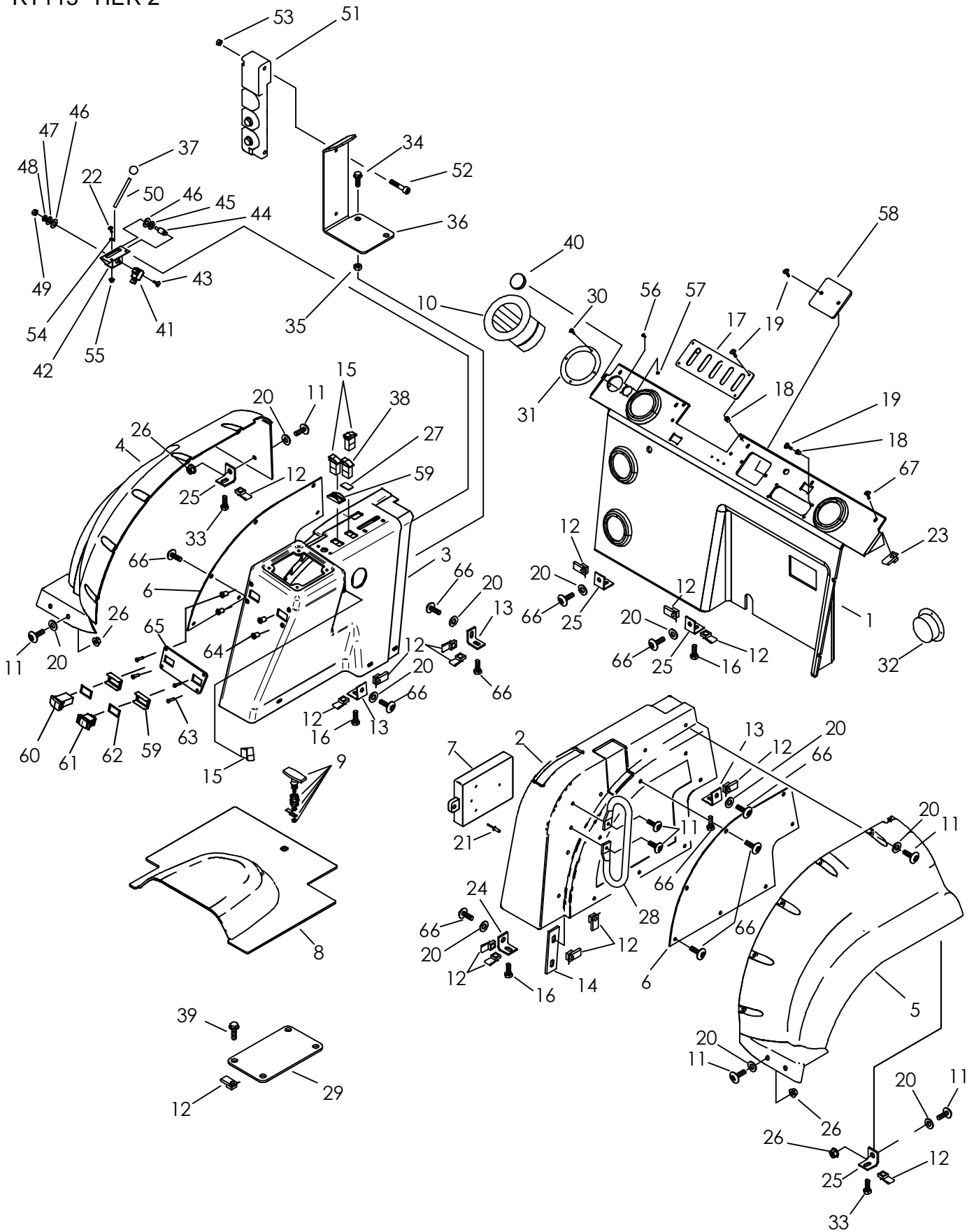
- 1) MOUNT (1) TO STUD ON L/H SIDE & (1) TO HOLE IN FRONT OF SHIFT LEVER SUPPORT ON R/H SIDE OF FRAME RAIL
- 2) 1 USED WITH ROTOWITCH OPTION, & 1 USED WITH REEL CARRIER OPTION
- 3) 1 USED WITH CRUISE CONTROL OPTION
- 4) 1 USED WITH REAR STEER OPTION
- 5) 2 USED WITH CRUISE CONTROL OPTION & 2 USED WITH REER STEER OPTION
- 6) USED WITH REAR STEER OPTION OR REAR STEER AND CRUISE CONTROL OPTION WHEN UPDATED WITH THE REAR STEER KIT 190-1454. CRUISE ONLY OPTION USES MODULE 220-569 @ 1X, BOLTS 105-815 @ 2X, AND NUTS 106-048 @ 2X.

NOTE:



# FENDERS AND COVERS

## RT115 TIER 2



# FENDERS AND COVERS

## RT115 TIER 2

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	319-746	1	REAR PANEL W/O AC DUCT	
	319-745	1	REAR PANEL W/ AC DUCT	
2.	306-491	1	LEFT FENDER	
3.	306-490	1	RIGHT FENDER	
4.	313-225	1	RIGHT OUTSIDE FENDER	
5.	313-226	1	LEFT OUTSIDE FENDER	
6.	308-897	2	PANEL	
7.	250-622	1	MANUAL COMPARTMENT	
8.	313-238	1	FLOOR PLATE	
9.	107-461	1	LOCKING LATCH	
10.	120-085	4	ADJUSTABLE LOUVER (23-0005)	
11.	107-778	26	SCREW (M8-1.25 X 30mm,BUT SOC)	
12.	107-135	38	CLIP NUT (M8-1.25)	
13.	306-796	5	TAB	
14.	309-816	2	STRAP	
15.	217-762	3	ROCKER SWITCH (SPDT)	SEE FOOTNOTE 1
16.	106-992	8	FLG LK SCREW (M8-1.25 X 25mm)	
17.	307-644	1	COVER	
18.	107-358	10	WELLNUT (M4-0.7 X 12.67mm LG)	
19.	107-580	10	SCREW (M4-0.70 X 16mm,BUT SOC)	
20.	107-629	37	WASHER (M8)	
21.	110-348	3	POP RIVET (3/16" X .664")	
22.	106-640	2	SCREW (M6-1.00 X 20mm, BUT. SOC.)	
23.	106-574	5	CLIP NUT (M6-1.00)	
24.	306-795	1	TAB	
25.	309-434	6	TAB	
26.	106-386	9	FLG LOCKNUT (M8-1.25)	
27.	362-823	6	COVER	SEE FOOTNOTE 2 & 7
28.	117-360	2	GRAB HANDLE	
29.	309-847	1	FUEL SENDER COVER	
30.	106-155	20	SCREW (#4-40 X 1", PAN PLPS)	
31.	120-084	4	HOSE ADAPTER (23-0048)	
32.	120-123	1	HOSE ADAPTER (23-0090)	
33.	106-989	2	FLG LK SCREW (M8-1.25 X 35mm)	
34.	106-724	2	FLG SCREW (M10-1.50 X 25mm)	
35.	105-894	2	LOCKNUT(M10-1.50,PRV TRQ,10.9)	
36.	320-680	1	J-BOX MOUNT PLATE	
37.	110-590	1	KNOB (3/8-NC, ORANGE)	
38.	217-764	1	ROCKER SWITCH (SPDT)	SEE FOOTNOTE 3
39.	106-992	4	FLG LK SCREW (M8-1.25 X 25mm)	

### FOOTNOTES:

- 1) 1 REQUIRED WITH AXLE LOCK,  
1 REQUIRED WITH STEER SELECT &  
1 REQUIRED WITH REEL WINDER
- 2) 1 REQUIRED PER FOLLOWING OPTION NOT USED: FRAME TILT, REAR STEER, AXLE LOCK, REEL WINDER
- 3) 1 REQUIRED WITH FRAME TILT OPTION
- 4) BEGINS WITH S/N CMW RT115J70000229.
- 5) CAN DIAGNOSTIC TOOL 260-1062 -NOT SHOWN- BEGINS WITH S/N CMWRT115J70000229.

## FENDERS AND COVERS

### RT115 TIER 2

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
40.	111-067	1	EXPANSION PLUG	SEE FOOTNOTES 4 & 5
41.	217-304	1	THROTTLE SENSOR	
42.	319-498	1	THROTTLE BRACKET	
43.	105-815	2	BOLT (#10-24 X 1", PAN SLT)	
44.	179-554	1	THROTTLE PIVOT PIN	
45.	106-598	1	WASHER (9/16", HARDENED)	
46.	107-529	2	WASHER (1.250", UHMW)	
47.	105-118	1	WASHER (3/8")	
48.	105-805	1	BELLEVILLE WASHER (3/8")	
49.	105-287	1	LOCKNUT (3/8-NC)	
50.	117-342	1	ROD	
51.	213-061	1	CAN MULTIPOINT MODULE	
52.	505-070	2	BOLT (1/4-NC X 2", SOC)	
53.	105-085	2	LOCKNUT (1/4-NC)	
54.	107-744	2	WASHER (M6)	
55.	106-385	2	FLG LOCKNUT (M6-1.00)	
56.	107-269	4	SCREW (#4-40 X 3/4", PAN)	
57.	105-662	4	NUT (#4-40)	
58.	322-871	1	TDM COVER	
59.	110-854	6	SWITCH ACTUATOR GUARD	SEE FOOTNOTE 1 & 3
60.	217-072	1	ROCKER SWITCH	SEE FOOTNOTE 6 & 7
61.	217-817	1	ROCKER SWITCH (SEALED)	SEE FOOTNOTE 6 & 7
62.	165-817	2	SWITCH GASKET	SEE FOOTNOTE 6 & 7
63.	107-312	4	SCREW (M6-1.00X25MM, BUT SOC)	SEE FOOTNOTE 6
64.	107-871	4	WELLNUT (M6-1.00 X 20.35MM LG)	SEE FOOTNOTE 6
65.	300-9262	1	SWITCH MOUNT	SEE FOOTNOTE 6
66.	106-163	22	FLG SCREW (M8-1.25 X 30MM)	
67.	105-1549	7	SCREW (M6-1.00 X 20MM)	

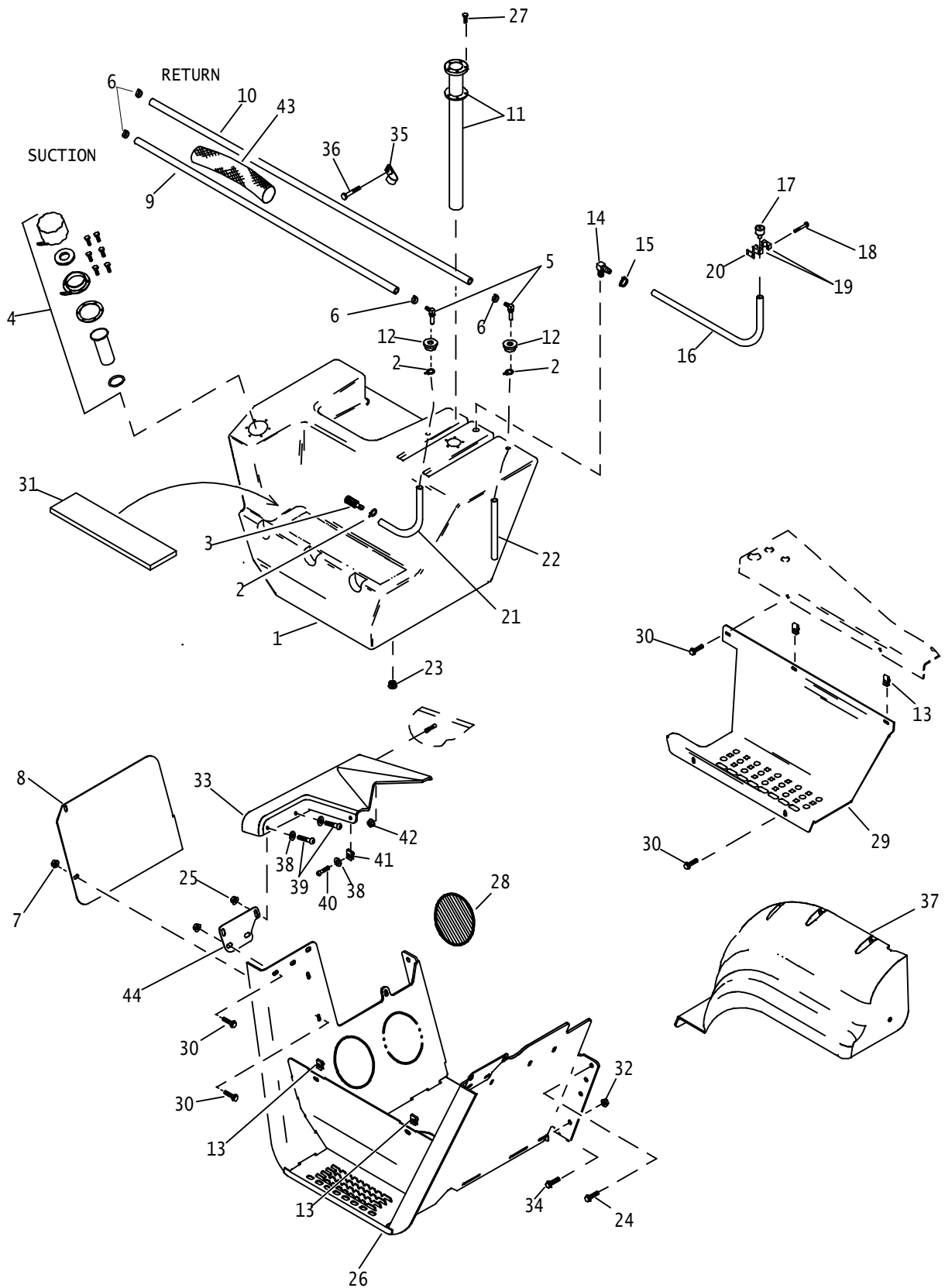
#### FOOTNOTES:

- 6) USED WITH REAR STEER SYSTEM.
- 7) UNITS WITHOUT REAR STEER USE PLUGS 362-823 INSTEAD OF SWITCHES.





# FUEL TANK



# FUEL TANK

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	194-165	1	FUEL TANK	
2.	110-563	3	SPRING CLAMP (3/8")	
3.	156-268	1	FUEL STRAINER (04H)	
	194-505	1	FUEL PICKUP (04H)	BEGINS WITH S/N
4.	364-567	1	FILL NECK	SEE FOOTNOTE 3
	153-760	1	CAP	
	153-594	2	GASKET, FILL NECK CAP	
	153-607	1	FLANGE GASKET	
	153-761	1	FLANGE	
	107-781	6	HEX SCREW (#10-24 X 5/8")	
	153-606	1	STRAINER BASKET	
5.	156-269	2	S/O COUPLER (04H-05H90)	
6.	110-528	4	SNAP-ON CLAMP (.531" TO .593")	
7.	106-387	4	FLG LOCKNUT (M10-1.50)	BEGINS WITH S/N _____.
8.	319-484	1	COVER	
9.	116-108	AR	BULK HOSE (5/16", SOLD PER 1")	USE 1 @ 65"
10.	116-108	AR	BULK HOSE (5/16", SOLD PER 1")	USE 1 @ 51"
11.	214-650	1	FUEL SENDER	
	165-704	1	GASKET	
12.	116-325	2	GROMMET (.362")	
13.	106-558	4	CLIP NUT (M10-1.50)	
14.	156-108	1	S/O COUPLER (08N-08H90)	
15.	110-217	1	WORM CLAMP(7/16" TO 1")	
16.	116-322	AR	BULK HOSE (1/2",SOLD PER 1")	USE 1 @ 48"
17.	111-021	1	BREATHER CAP (TANK)	
18.	105-818	2	BOLT (1/4-NC X 1-1/2")	
19.	110-411	1	BOLT-ON CLAMP (3/4", SET)	
20.	322-289	1	BACKUP (BOLT-ON)	
21.	118-096	AR	BULK FUEL TUBING (1/4", PER FT)	USE 1 @ 24"
22.	118-096	AR	BULK FUEL TUBING (1/4", PER FT)	USE 1 @ 20"
23.	114-002	1	PLUG (06N, SOC)	
24.	105-829	2	FLG LK BOLT(1/2 NC X 1")	
25.	106-386	2	FLG LOCKNUT (M8-1.25)	

NOT SHOWN:

#### FOOTNOTES:

- ARRANGE LINER PADS IN AN EVEN PATTERN ON INTERIOR SURFACES OF THE SIDE PLATES, BOTTOM PLATE AND KICK PLATE. USE .12 THICK AND .25 THICK TO PROVIDE A SNUG FIT FOR THE TANK. APPLY AND ADJUST THE LINER PADS UNTIL THE LEAST MOVEMENT POSSIBLE HAS BEEN ACCOMPLISHED. ONCE FILLED THE TANK SHOULD NOT SHIFT.
- LAYER SUPPORT MAT BETWEEN LEDGE OF TANK AND UNDERSIDE OF STEP UNTIL FIRM PRESSURE IS REQUIRED TO ALIGN SLOTS AND INSERT SCREWS
- ORIENT PADLOCK LUGS AWAY FROM STAIRWELL

NOTE:

# FUEL TANK

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
26.	300-9750	1	CRADLE WELDMENT	
27.	105-1190	5	BOLT (#10-24 X 1-1/4")	
28.	117-425 AR		LINER PAD (.12"THK)	SEE FOOTNOTE 1
	117-463 AR		LINER PAD (.25"THK)	
29.	313-821	1	TREAD, FUEL	
30.	107-001	12	FLG LK SCREW (M10-1.50 X 25mm)	
31.	117-442 AR		SUPPORT MAT	SEE FOOTNOTE 2
32.	106-198	2	FLG LOCKNUT (1/2 NC, GD8)	
33.	313-911	1	LEFT AIR DEFLECTOR	
34.	105-831	2	FLG LOCK BOLT (1/2-NC X 1-1/2")	
35.	110-333	1	BOLT ON CLAMP (1")	
36.	105-033	1	BOLT (5/16-NC X 2")	
37.	313-226	-	LEFT OUTSIDE FENDER	
38.	107-629	3	WASHER (M8)	
39.	107-778	2	SCREW (M8-1.25 X 30mm, BUT SOC)	
40.	106-640	1	SCREW (M6-1.00 X 20mm, BUT SOC)	
41.	106-574	1	CLIP NUT (M6-1.00)	
42.	105-003	1	FLG LOCKNUT (5/16-NC)	
43.	117-671	1	ABRASION SLEEVE (1" X 12")	
44.	319-452	1	CONNECTOR PLATE	BEGINS WITH S/N _____.

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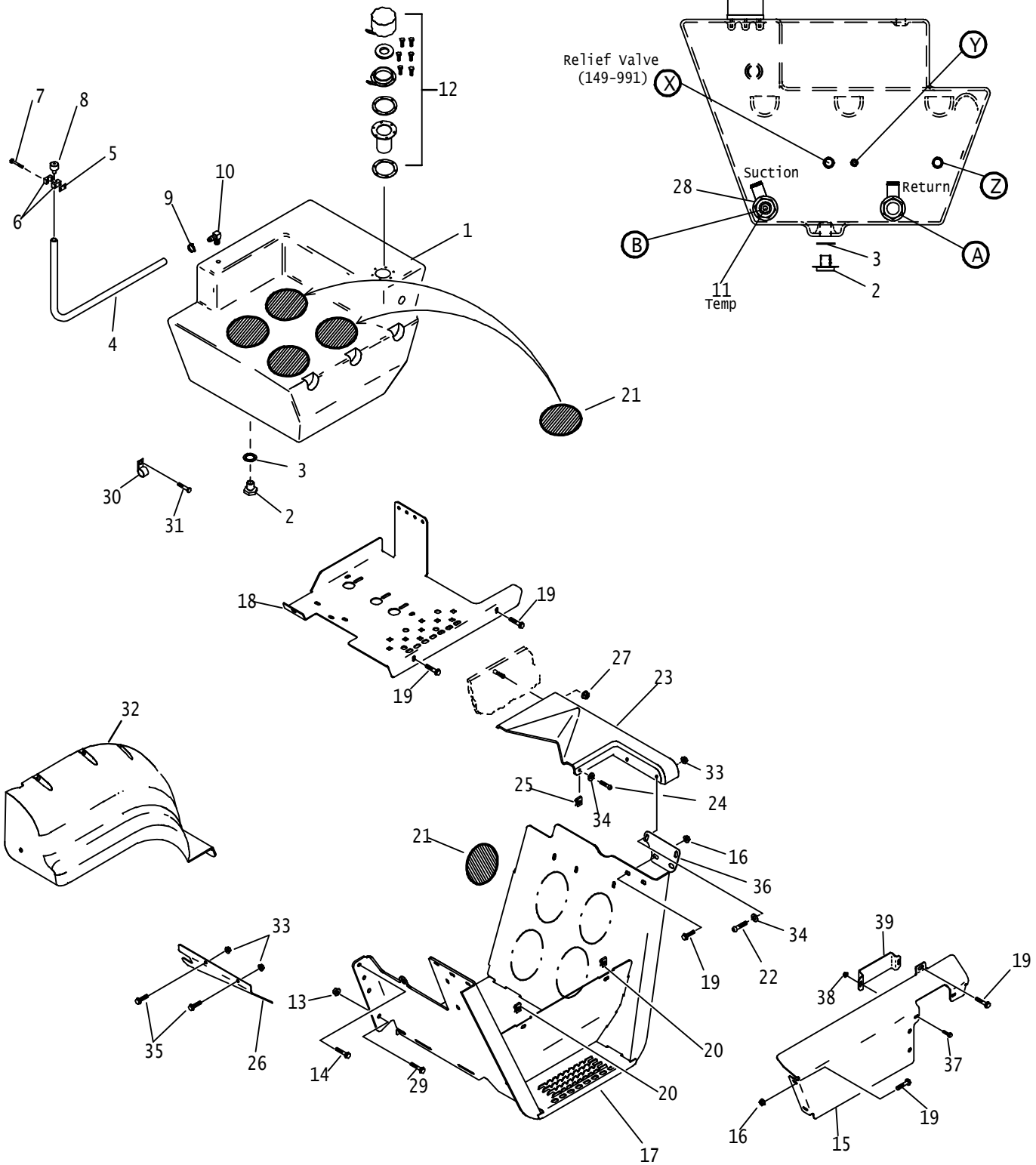
FOOTNOTES:

NOTE:



# HYDRAULIC RESERVOIR

RT90 / RT95 / RT115  
BEGINS WITH S/N 5X0710



**HYDRAULIC RESERVOIR**

RT90 / RT95 / RT115

BEGINS WITH S/N 5X0710

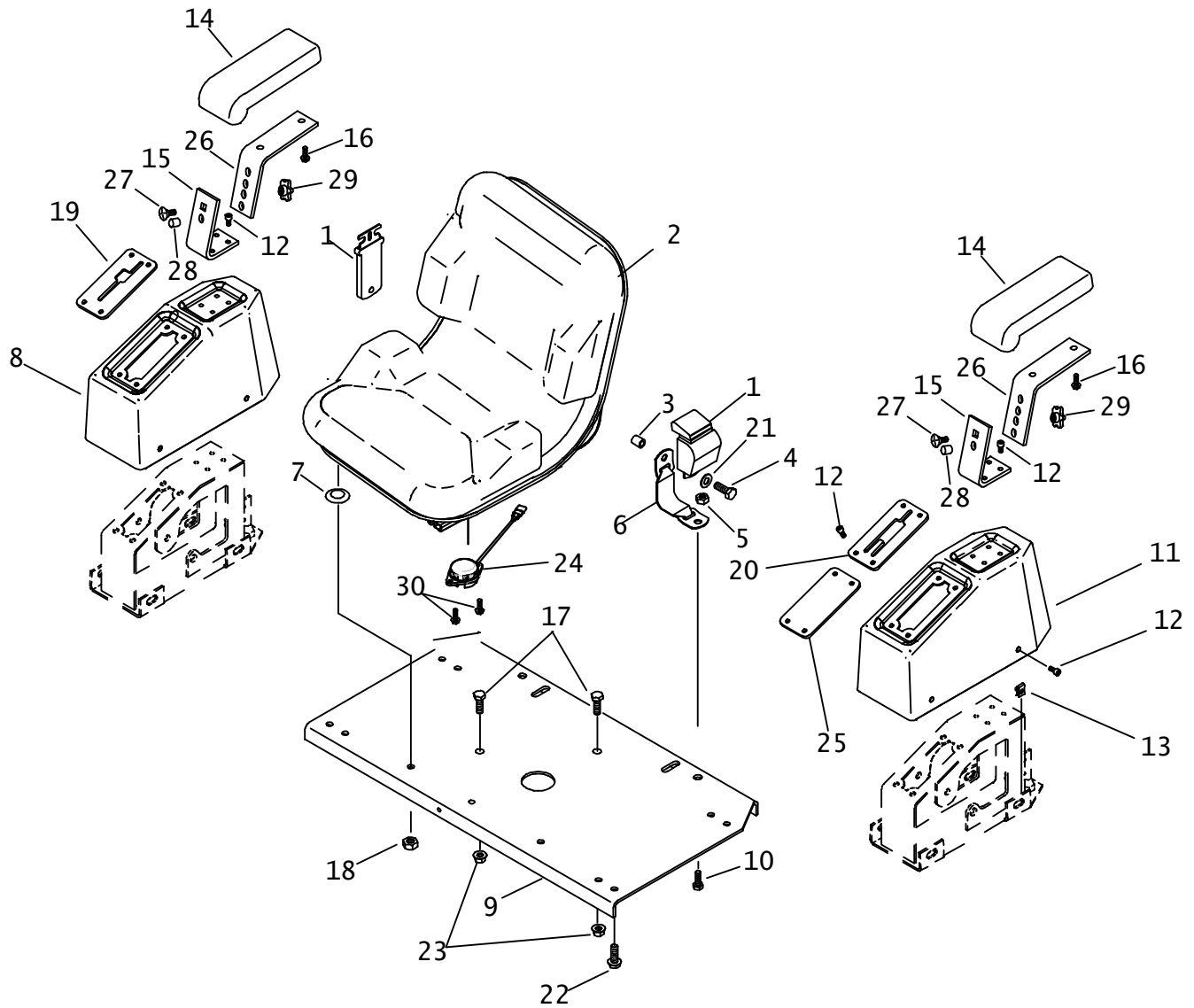
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	150-1388	1	HYDRAULIC RESERVOIR	
	121-040	-	SIGHT GLASS	
2.	157-466	1	DRAIN PLUG (1-UNF, .375 ORF)	
3.	500-749	1	O-RING (211 D70)	
4.	116-322	AR	BULK HOSE (1/2", SOLD PER 1")	USE 1 @ 48"
5.	322-289	1	BACKUP (BOLT-ON)	
6.	110-411	1	BOLT-ON CLAMP (3/4", SET)	
7.	105-818	2	BOLT (1/4-NC X 1-1/2")	
8.	111-021	1	BREATHER CAP (TANK)	
9.	110-217	1	WORM CLAMP (7/16" TO 1")	
10.	156-108	1	S/O COUPLER (08N-08H90)	
11.	214-854	-	TEMPERATURE SWITCH	
12.	364-567	1	FILL NECK	SEE FOOTNOTE 2
	153-760	1	CAP	
	153-594	1	GASKET, FILL NECK CAP	
	153-607	1	FLANGE GASKET	
	153-606	1	STRAINER BASKET	
	153-761	1	FLANGE	
	107-781	6	HEX SCREW (#10-24 X 5/8)	
13.	106-198	2	FLG LOCKNUT (1/2-NC, GD8)	
14.	105-829	6	FLG LK BOLT (1/2-NC X 1")	
15.	320-118	1	BATTERY COVER	SEE FOOTNOTE 3
16.	106-387	6	FLG LOCKNUT (M10-1.50)	
17.	300-9750	1	CRADLE WELDMENT	
18.	320-116	1	BATTERY TRAY STEP	
19.	107-001	12	FLG LK SCREW (M10-1.50 X 25mm)	
20.	106-558	4	CLIP NUT (M10-1.50)	
21.	117-425	AR	LINER PAD (.12"THK)	SEE FOOTNOTE 1
	117-463	AR	LINER PAD (.25"THK)	SEE FOOTNOTE 1
22.	107-778	2	SCREW (M8-1.25 X 30mm, BUT SOC)	
23.	313-910	1	RIGHT AIR DEFLECTOR	
24.	106-640	1	SCREW (M6-1.00 X 20mm, BUT SOC)	
25.	106-574	1	CLIP NUT (M6-1.00)	
26.	315-440	1	TOP MUD SHIELD	
27.	105-003	1	FLG LOCKNUT (5/16-NC)	
28.	157-987	1	S/O COUPLER (20S-16H90,04NF)	
	514-446	1	REDUCER (24S-20SF)	
29.	105-831	2	FLG LK BOLT (1/2-NC X 1-1/2")	
30.	110-333	1	BOLT-ON CLAMP (1")	
31.	105-033	1	BOLT (5/16-NC X 2")	
32.	313-225	-	RIGHT OUTSIDE FENDER	
33.	106-386	4	FLG LOCKNUT (M8-1.25)	
34.	107-629	3	WASHER (M8)	
35.	106-162	2	FLG SCREW (M8-1.25 X 20mm)	
36.	319-452	1	CONNECTOR PLATE	
37.	106-379	2	FLG LK SCREW (M6-1.00 X 20mm)	
38.	106-353	2	FLG NUT (M6-1.00)	
39.	323-279	1	COVER	

## FOOTNOTES

1. ARRANGE LINER PADS IN AN EVEN PATTERN ON INTERIOR SURFACES OF THE SIDE PLATES, BOTTOM PLATE AND AND KICK PLATE. USE .12" THICK AND .25" THICK TO PROVIDE A SNUG FIT FOR THE TANK. APPLY AND ADJUST THE LINER PADS UNTIL THE LEAST MOVEMENT POSSIBLE HAS BEEN ACCOMPLISHED. ONCE FILLED THE TANK SHOULD NOT SHIFT.
2. ORIENT PADLOCK LUGS AWAY FROM STAIRWELL.
3. REFER TO PAGE "BATTERY INSTALLATION" FOR BATTERY INSTALLATION DETAILS.

# SEAT PLATFORM

RT70M - RT90M - RT70H - RT90H  
RT115 - RT115T2



# SEAT PLATFORM

RT70M - RT90M - RT70H - RT90H  
RT115 - RT115T2

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	117-924	1	SEAT BELT SET W/5.75" TONGUE	
	117-925	-	SEAT BELT TONGUE (5.75")	
2.	117-429	1	SEAT	
	115-445		REPLACEMENT SEAT	
	115-428		ADJUSTABLE TRACK	
3.	184-252	2	BUSHING (.562" X 1" X .590")	
4.	106-333	2	SCREW (M12-1.75 X 40mm, 8.8)	
5.	106-031	2	LOCKNUT (M12-1.75, NLK)	
6.	115-430	2	SEAT BELT TETHER	
7.	105-267	4	CUP WASHER (5/16")	
8.	309-431	1	RIGHT SEAT CONSOLE	
9.	314-594	1	SEAT BASE	
10.	105-273	2	SCREW (M12-1.75 X 30mm)	
11.	305-649	1	LEFT SEAT CONSOLE	
12.	107-312	32	SCREW (M6-1.00 X 25mm, BUT SOC)	
13.	106-574	8	CLIP NUT (M6-1.00)	
14.	117-314	2	ARMREST	
15.	309-294	2	LOWER ARMREST BRACKET	
16.	106-159	4	FLG SCREW (1/4-NC X 3/4")	
17.	105-876	2	SCREW (M10-1.50 X 35mm)	
18.	105-089	4	LOCKNUT (5/16-NC)	
19.	309-295	1	Z-GATE	USED W/ GROUND DRIVE ON ALL MACHINES
	319-158	1	Z-GATE	USED W/ GROUND DRIVE ON ALL MACHINES
20.	313-411	1	Y-GATE	USED WITH COMBO ATTACHMENT
	316-479	1	PLOW GATE	USED WITH PLOW ATTACHMENT
21.	106-391	2	WASHER (M12)	
22.	107-001	8	FLG LK SCREW (M10-1.50 X 25mm)	
23.	106-387	2	FLG LOCKNUT (M10-1.50)	
24.	215-1107	1	SEAT SWITCH	
25.	310-801	1	BLANK	USED ON MECHANICAL UNITS ONLY
26.	313-707	2	UPPER ARMREST BRACKET	
27.	107-702	2	CARRIAGE BOLT (3/8-NC x 3/4")	
28.	107-698	2	DOWEL PIN (.375 X .500)	
29.	110-383	2	KNOB (3/8-NC, BLACK)	
30.	106-168	2	FLG LK BOLT (1/4-NC X 3/4")	SEE FOOTNOTE 1

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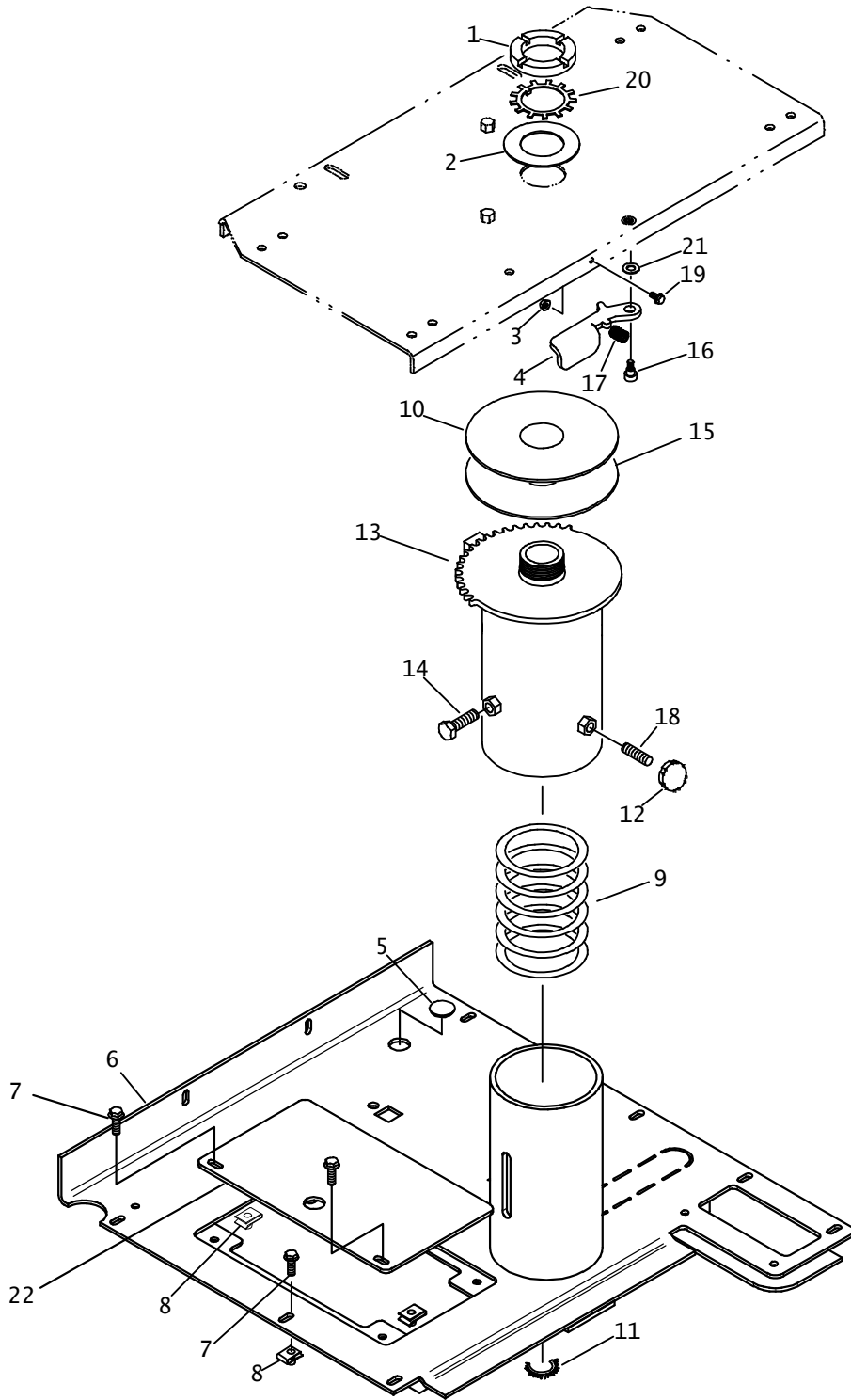
FOOTNOTES:

- I. USE LOCTITE 242 OR EQUIVALENT

NOTE:



# SEAT SWIVEL AND BASE



## SEAT SWIVEL AND BASE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	107-528	1	PN10 SLOTTED NUT	SEE FOOTNOTE 2
2	106-522	1	WASHER (2-1/16")	
3	106-385	1	FLG LOCKNUT (M6-1.00)	
4	308-895	1	LEVER	
5	110-178	2	PLUG (7/8")	
6	306-844	1	SEAT BASE	
	322-986	1	SEAT BASE	FOR TIER 2 RT90 & RT115
	324-729	1	SEAT BASE	FOR HT115
	300-8537	1	SEAT BASE	SEE FOOTNOTE 4 FOR INSTR. & BEG. S/N; FOOTNOTE 5
7	106-992	9	FLG LK SCREW (M8-1.25 X 25mm)	SEE FOOTNOTE 1
8	107-135	13	CLIP NUT (M8-1.25)	
9	117-816	1	COMPRESSION SPRING	
10	179-382	1	SHIM (.020)	
11	115-662	1	GROMMET EDGE (3/16" X 12.7")	
12	110-383	1	KNOB (3/8-NC, BLACK)	
13	308-879	1	SWIVEL	
14	106-559	1	SCREW (M12-1.75 X 25mm)	
15	117-301	1	SWIVEL DISK (7" UHMW)	SEE FOOTNOTE 3
16	107-582	1	SHLD BOLT (3/8" X 1/4", 5/16-NC)	SEE FOOTNOTE 1
17	115-645	1	COMPRESSION SPRING	
18	106-121	1	STUD BOLT (3/8-NC X 1-1/2")	
19	106-986	1	FLG LK SCREW (M6-1.00 X 12mm)	
20	107-606	1	TANG LOCK WASHER (2")	
21	105-095	1	WASHER (1/4")	
22	300-8446	1	ACCESS PANEL	SEE FOOTNOTE 4 FOR INSTR. & BEG. S/N; FOOTNOTE 5

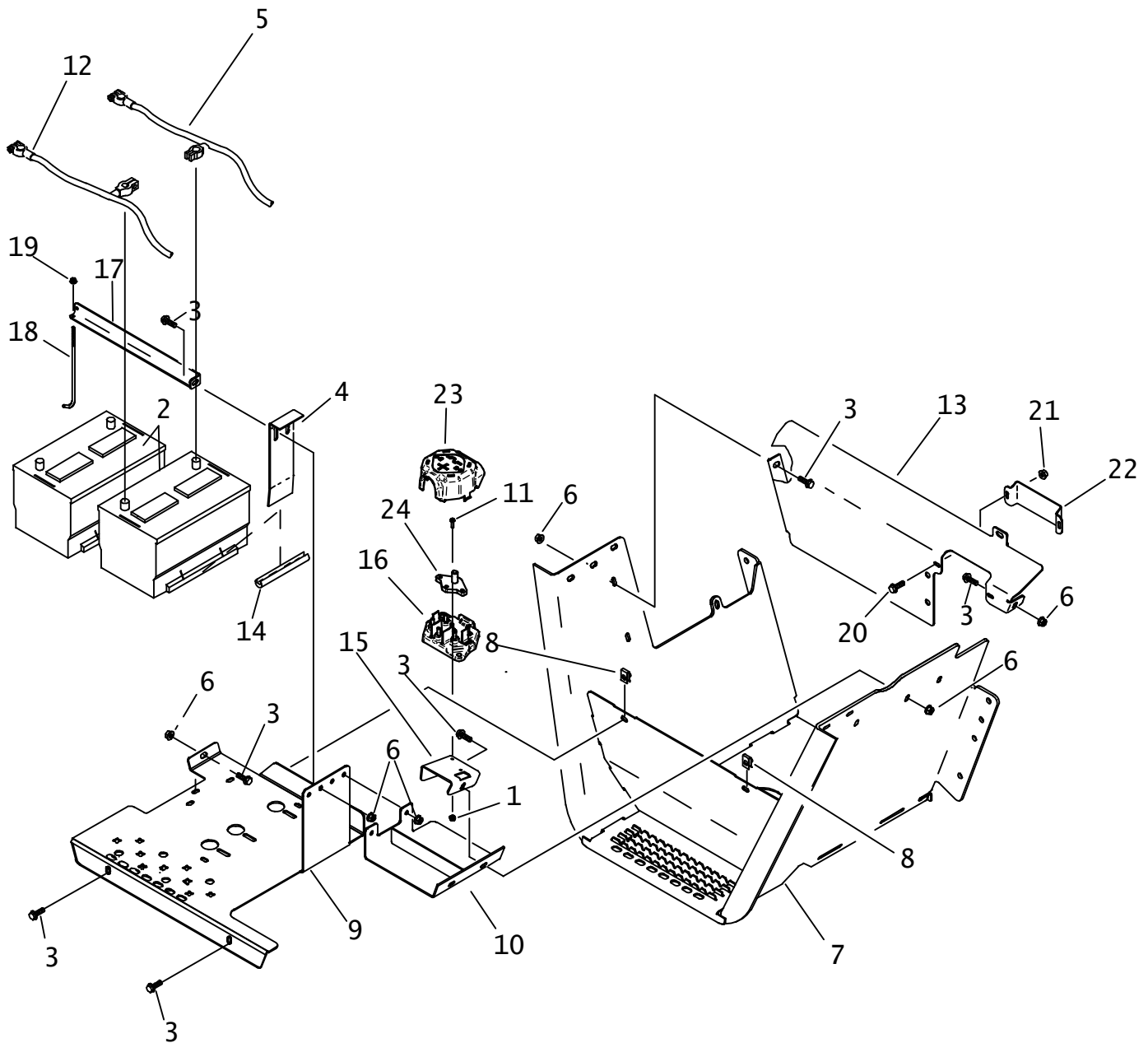
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### FOOTNOTES:

- USE LOCTITE 242 OR EQUIVALENT
- TORQUE SPANNER NUT TO PREVENT ROTATION, THEN REVERSE DIRECTION AND LOOSEN 1/8 OF A TURN.
- NO LUBRICANT ON ITEM #15
- SEAT BASE 300-8537, ACCESS PANEL 300-8446 MUST BE USED TOGETHER.  
BEGINS WITH SERIAL NUMBERS; RT95ME90000274 RT95HJ90000351 RT115T3T90000125.
- USE 2X 106-264 FOR RETAINING 300-8446 TO 300-8537 IF WELDNUTS ARE PRESENT.  
BEGINS WITH SERIAL NUMBERS; RT95HP90000380 RT95ME90000291 RI5T3L90000135.

NOTE:

# BATTERY INSTALLATION



# BATTERY INSTALLATION

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	107-859	2	LOCKNUT (#6-32 NYLON INSERT)	
2.	213-104	2	BATTERY (12V, 875CCA)	
3.	107-001	13	FLG LK SCREW (M10-1.50 X 25mm)	
4.	320-112	1	HOLD DOWN	
5.	213-015	1	POS BATTERY CABLE RT115 TR2	
6.	106-387	11	FLG LOCKNUT (M10-1.50)	
7.	300-9750	1	CRADLE WELDMENT	
8.	106-558	2	CLIP NUT (M10-1.50)	
9.	320-116	-	BATTERY TRAY STEP	
10.	320-115	1	TRAY SUPPORT	
11.	106-367	2	SCREW (#6-32 X 1/2 PLPS SS)	
12.	213-017	1	NEG BATTERY CABLE RT115 TR2	
13.	320-118	-	BATTERY COVER	
14.	116-789	AR	RUBBER EDGE TRIM 1/8" (12 GA)	USE 3"
15.	300-4466	1	FUSE HOLDER MOUNT ASSEMBLY	
16.	215-1009	1	MAIN FUSE HOLDER BASE	
17.	322-951	1	BATTERY HOLD DOWN	
18.	179-799	1	J HOOK (7.3")	
19.	105-832	1	FLG LOCKNUT (1/4-NC)	
20.	106-379	2	FLG LK SCREW (M6-1.00 20mm)	
21.	106-353	2	FLG NUT (M6-1.00)	
22.	323-279	1	COVER	
23.	215-1010	1	MAIN FUSE HOLDER COVER	
24.	215-1011	1	BUSSBAR (MAIN FUSE HOLDER)	

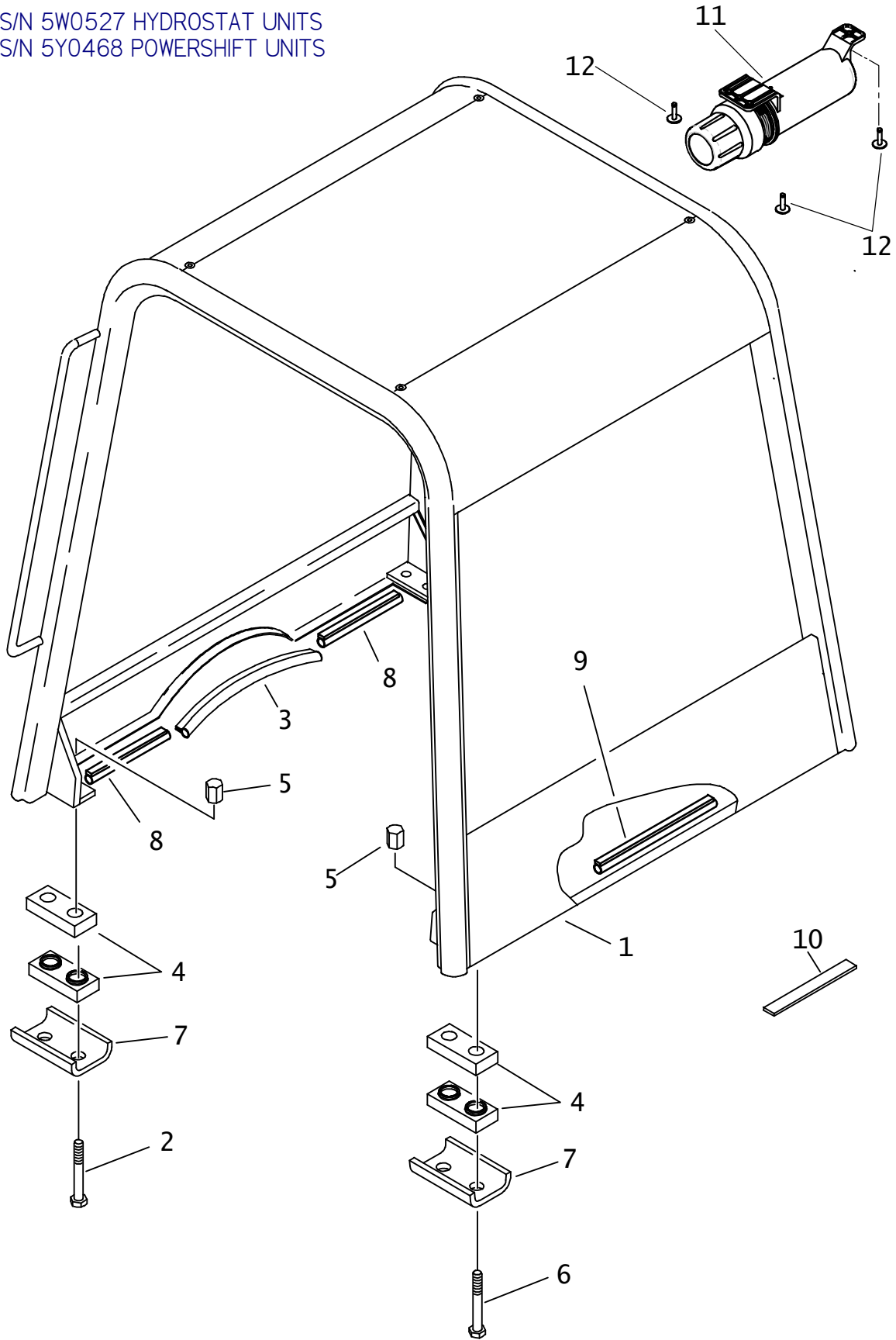
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FOOTNOTES:

NOTE:

# 4 - POST ROPS

BEGINS WITH S/N 5W0527 HYDROSTAT UNITS  
BEGINS WITH S/N 5Y0468 POWERSHIFT UNITS



## 4 - POST ROPS

BEGINS WITH S/N 5W0527 HYDROSTAT UNITS  
 BEGINS WITH S/N 5Y0468 POWERSHIFT UNITS

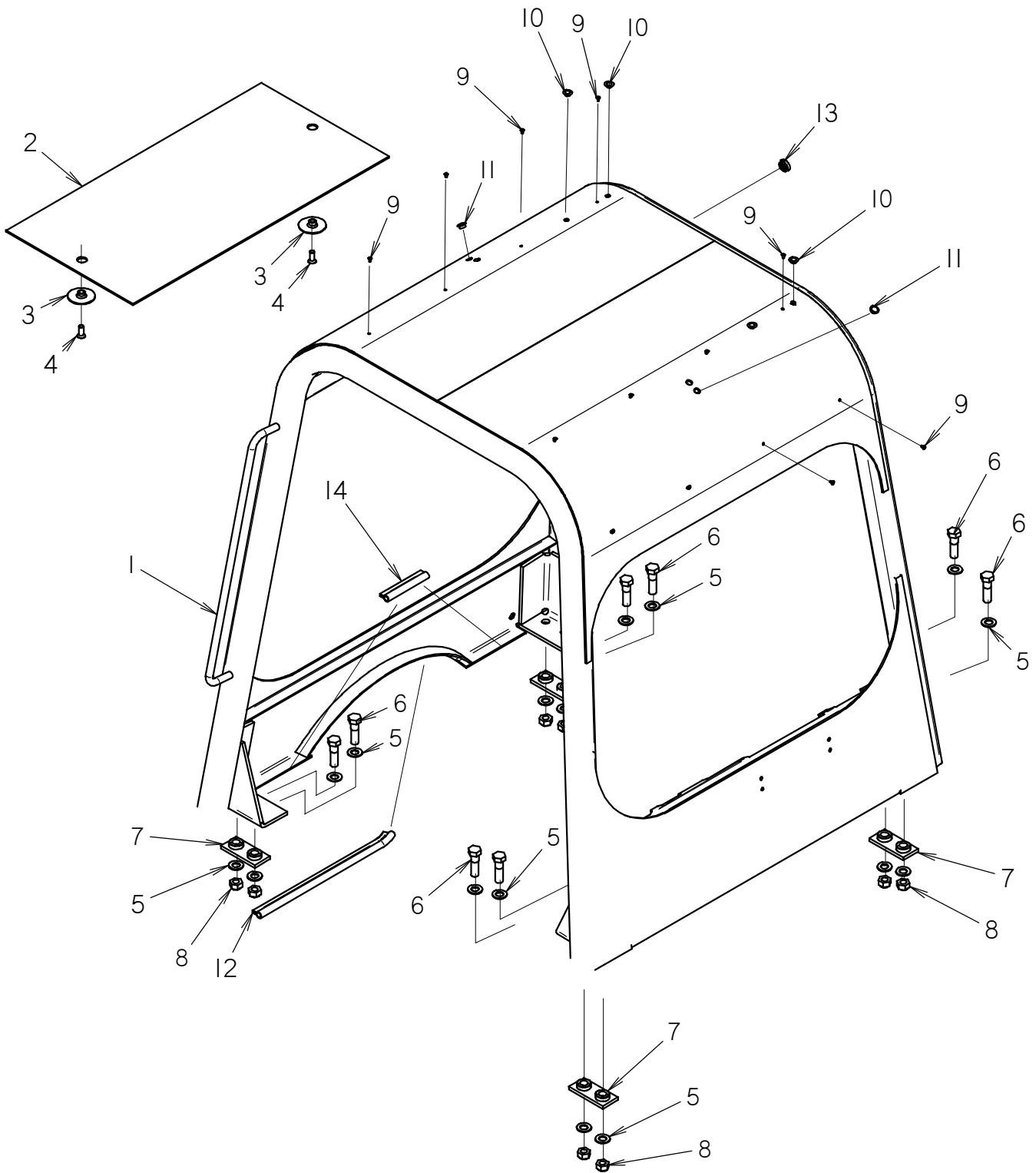
REF PART NO.	NUMBER	QTY	DESCRIPTION	REMARKS
1.	320-250	1	4-POST ROPS FRAME	
2.	107-923	4	SCREW (3/4-NC X 5", GD5) SPEC.	REFER TO FOOTNOTE 1
3.	116-421 AR		BULK EDGE (1/8", SOLD PER 1')	USE 1@ 2.5 FT
4.	117-973	8	SHOCK MOUNT	
5.	107-924	8	NUT (3/4-NC) SPECIAL	
6.	107-922	4	SCREW (3/4-NC X 4-1/2", GD5) SPEC.	REFER TO FOOTNOTE 2
7.	320-240	4	ISOLATOR IRON	
8.	117-344 AR		BULK EDGE (3/16", SOLD PER 1")	USE 2 @ 1 FT.
9.	117-344 AR		BULK EDGE (3/16", SOLD PER 1")	USE 1 @ 3.5 FT.
10.	320-745	1	CHECK GAUGE	
11.	250-063	1	MANUAL COMPARTMENT	
12.	110-348	3	POP RIVET (3/16" X .664")	

### FOOTNOTES

1. SCREW (107-923) HAS GOLD PLATING TO DISTINGUISH IT FROM SCREW (107-922). PROPER LOCATION IS IMPORTANT FOR PROPER ASSEMBLY OF THE ROPS. TORQUE TO 200 Ft.Lbs, USE LOCTITE 271 OR EQUIVALENT.
2. SCREW (107-922) HAS SILVER PLATING TO DISTINGUISH IT FROM SCREW (107-923). PROPER LOCATION IS IMPORTANT FOR PROPER ASSEMBLY OF THE ROPS. TORQUE TO 200 Ft.Lbs, USE LOCTITE 271 OR EQUIVALENT.

NOTE:

# ROPS



# ROPS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	327-817	1	ROPS	SEE FOOTNOTE 2
2	118-300	1	HEADLINER	
3	115-038	2	RETAINER	
4	195-611	2	BOLT (1/2-NC X 1-1/4",CSK SOC)	
5	106-393	16	WASHER (M20)	
6	106-459	8	SCREW (M20-2.50 X 70MM, 10.9)	USE LOCKTITE 271
7	350-2550	4	BACKUP PLATE ASSEMBLY	
8	106-665	8	LOCKNUT (M20-2.50, 10.9)	TORQUE NUT TO 250 FT-LBS
9	159-976	12	PLUG (1/4")	
10	159-936	4	PLUG (5/8")	
11	159-958	2	PLUG (3/4")	
12	117-344	30	BULK EDGE (3/16", SOLD PER FT)	USE 1 @ 30"
13	159-919	1	PLUG (1 3/8" SPLIT BUSHING)	
14	116-421	12	BULK EDGE (1/8", SOLD PER FT)	SEE FOOTNOTE 1

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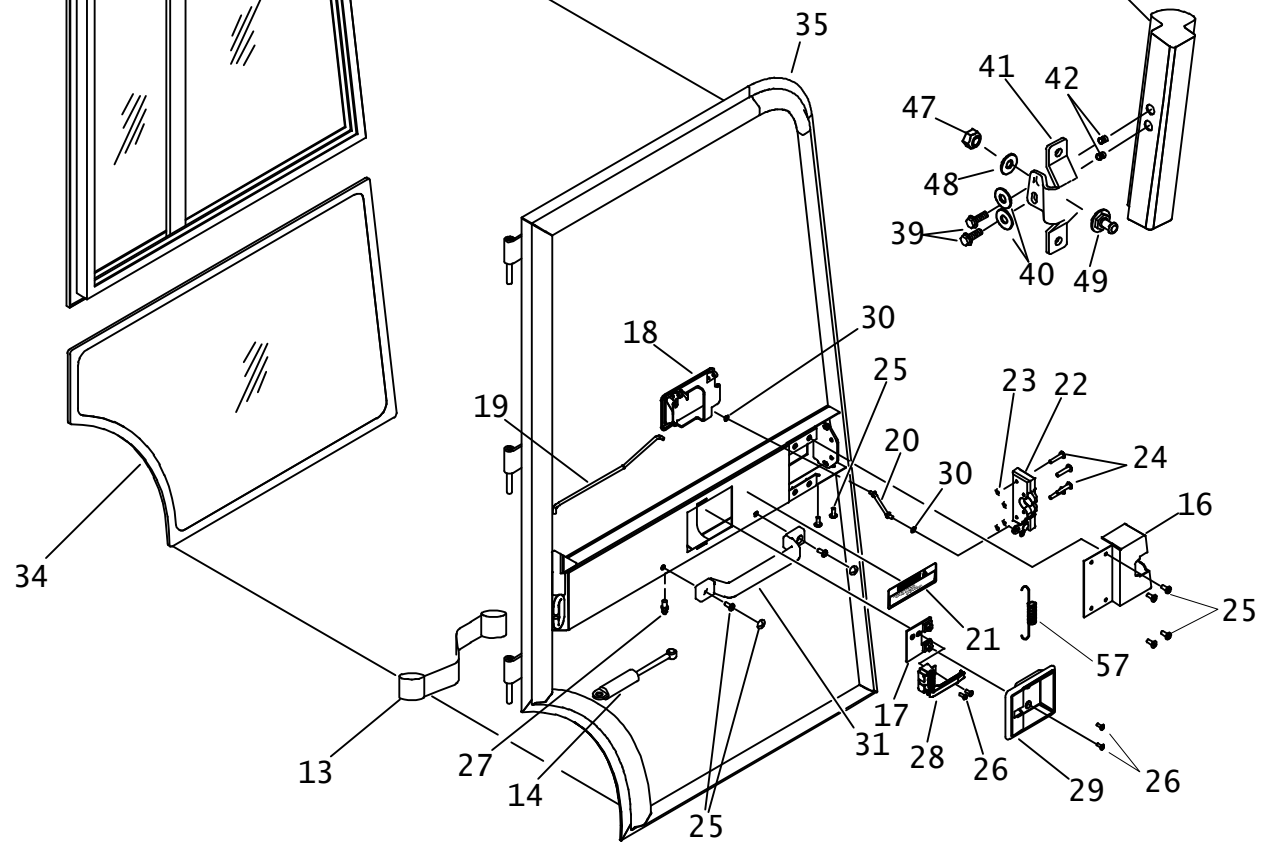
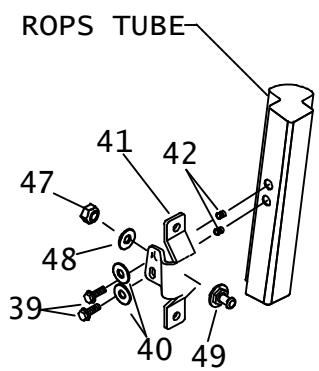
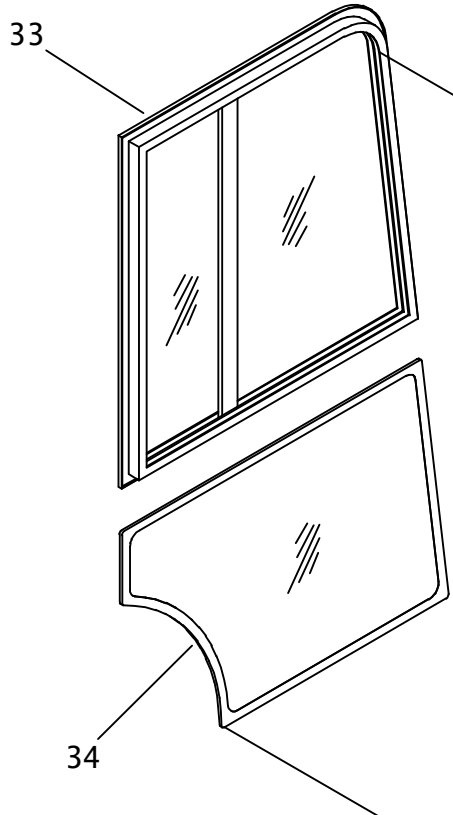
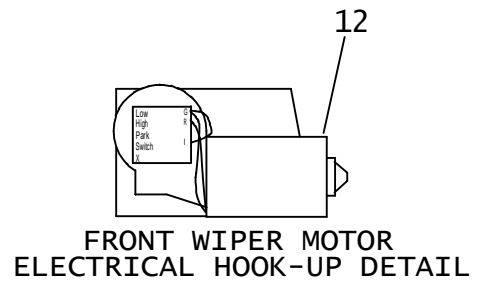
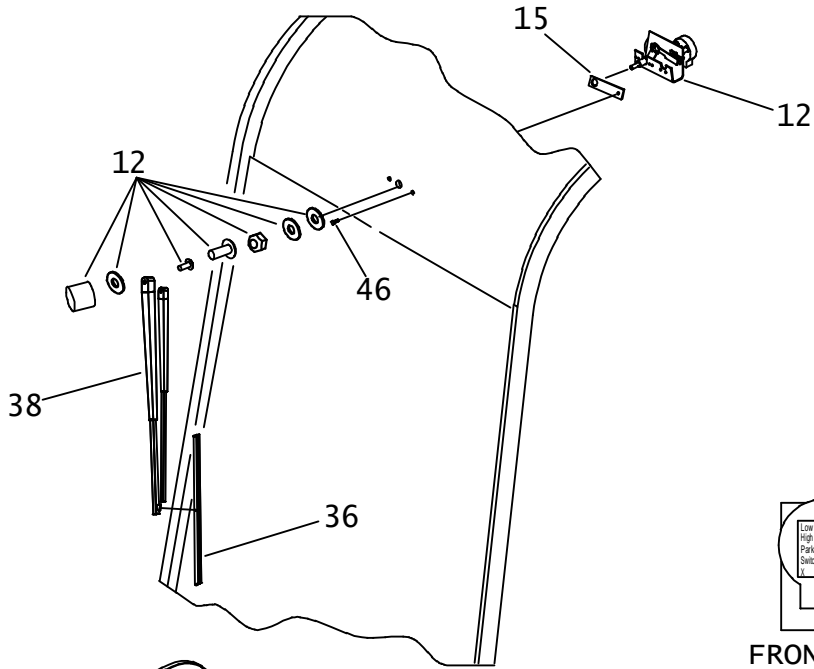
FOOTNOTES:

1. 12" REQUIRED, CUT INTO TWO 6" PIECES & PLACE WHERE INDICATED BY GRAPHICS.
2. THIS ROPS IS USED WHEN A 46" HYDRA-WHEEL IS MOUNTED.

NOTE:



# CAB KIT



# CAB KIT

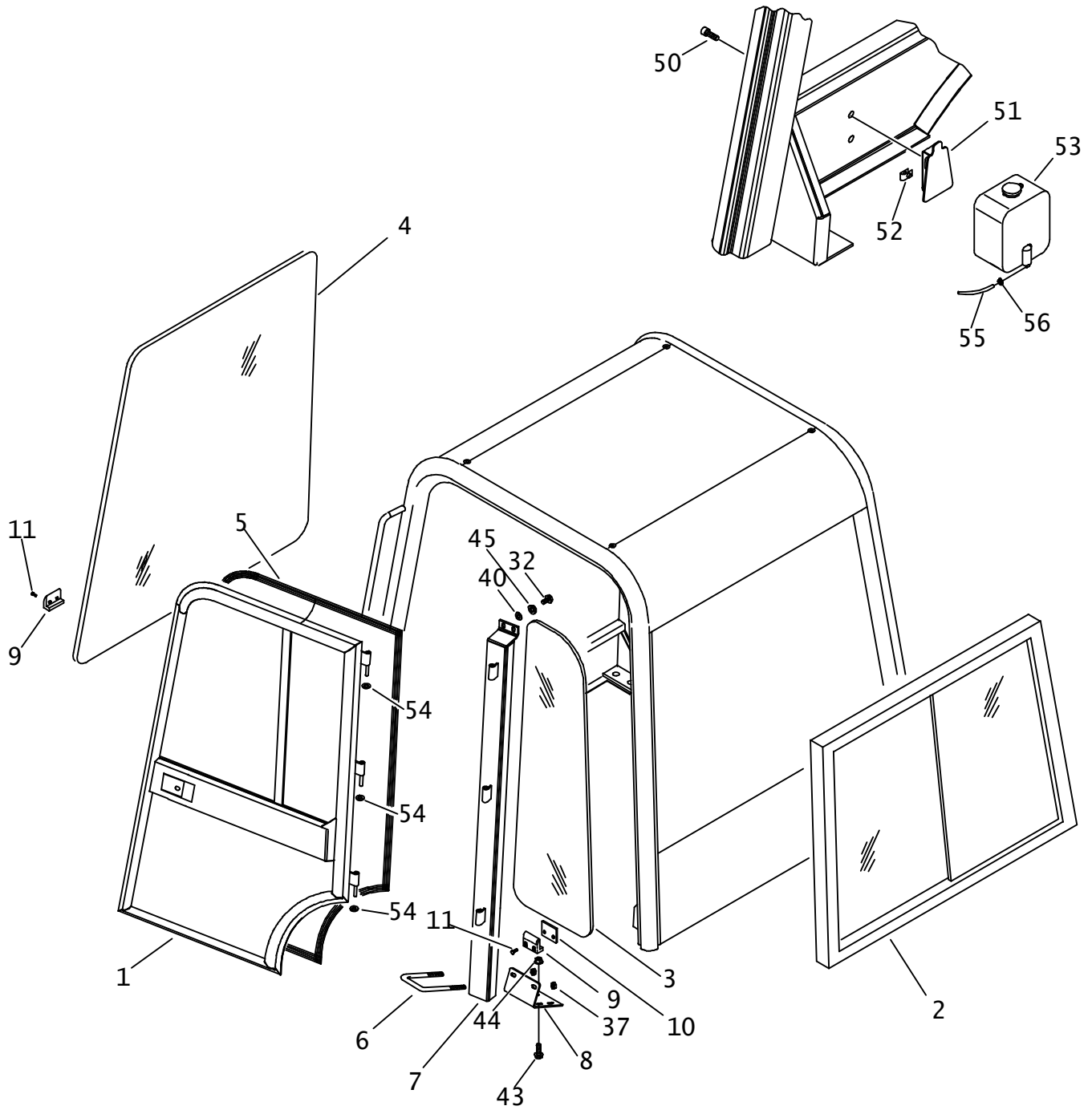
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-179		CAB KIT	INCL. REF. #S 1-57
1.	499-436	1	DOOR ASSY (RIGHT)	
	499-437	1	DOOR ASSY (LEFT)	
2.	121-044	1	SLIDER ASS'Y (REAR)	SEE NOT SHOWN FOR REPLACEMENT LATCH.
	499-747	-	WINDOW FRAME	OBSOLETE
	499-748	-	REAR WINDOW	
3.	121-045	1	SIDE WINDOW (LEFT)	
	121-046	1	SIDE WINDOW (RIGHT)	
4.	121-047	1	FRONT WINDOW	
5.	117-829	21	SEAL, PSA DOUBLE D	
6.	318-374	1	U-CLAMP	
7.	318-358	1	DOORPOST (LEFT)	
	318-359	1	DOORPOST (RIGHT)	
8.	318-375	2	BRACKET, LOWER DOOR POST	
9.	318-376	2	WINDOW RETAINING CLIP	
10.	318-377	2	PLATE	
11.	107-786	32	SCREW, (#10-32 X 1-1/2") HEX	
12.	214-897	1	WIPER MOTOR	
13.	499-441	2	DOOR STRAP	
14.	499-438	2	GAS SPRING STRUT	
15.	119-003	1	SPACER, WIPER MOTOR	
16.	318-360	1	CAM LATCH COVER (RIGHT)	
	318-361	1	CAM LATCH COVER (LEFT)	
17.	318-362	1	INNER BRACKET (RIGHT)	
	318-363	1	INNER BRACKET (LEFT)	
18.	117-825	1	L. LATCH, PADDLE W/KEY	
	117-854	1	R. LATCH, PADDLE W/KEY	
19.	117-821	1	LEFT ROD, DOOR LINKAGE	
	117-855	1	RIGHT ROD, DOOR LINKAGE	
20.	117-856	2	ROD, DOOR LINKAGE	
21.	273-279	1	WARNING TAG	
22.	117-824	1	LEFT LATCH, ROTARY	
	117-857	1	RIGHT LATCH, ROTARY	
23.	105-085	4	LOCKNUT (1/4-NC)	
24.	107-787	4	SCREW (1/4-20 X 1-1/4) TRUS,TORX	
25.	107-788	8	SCREW (1/4 X 5/8)TRUS, TORX T27	COMES WITH SNAP-ON COVER
26.	107-789	4	SCREW (#10-24 X 1/2 ") TRUS, TORX	
27.	166-450	1	STUD, CYLINDER	
28.	117-823	1	LEFT HANDLE, INSIDE	
	117-858	1	RIGHT HANDLE, INSIDE	
29.	499-440	1	INSIDE DOOR BEZEL	
30.	117-828	4	RETAINER, INTERNAL TOOTH	
31.	499-439	1	DOOR PULL	
32.	107-245	4	FLG LK BOLT (3/8-NC X 3/4", NLK)	

## NOTE:

MOUNTING A CAB ON THE RT70/RT90/RT115

1. A CAB CAN BE MOUNTED DIRECTLY ON RT70M OR RT90M WHEN OLD ROPS HAS NOT BEEN MODIFIED WITH THE NEW ISOLATORS.
2. A CAB CAN NOT BE MOUNTED ON A RT70H, RT90H OR RT115H WHEN AN OLD ROPS HAS BEEN MOFIFIED WITH THE NEW ISOLATORS.
3. A CAB CAN BE MOUNTED ON A RT79H, RT90H OR RT115H WITH A NEW ROPS WITH THE NEW ISOLATORS.

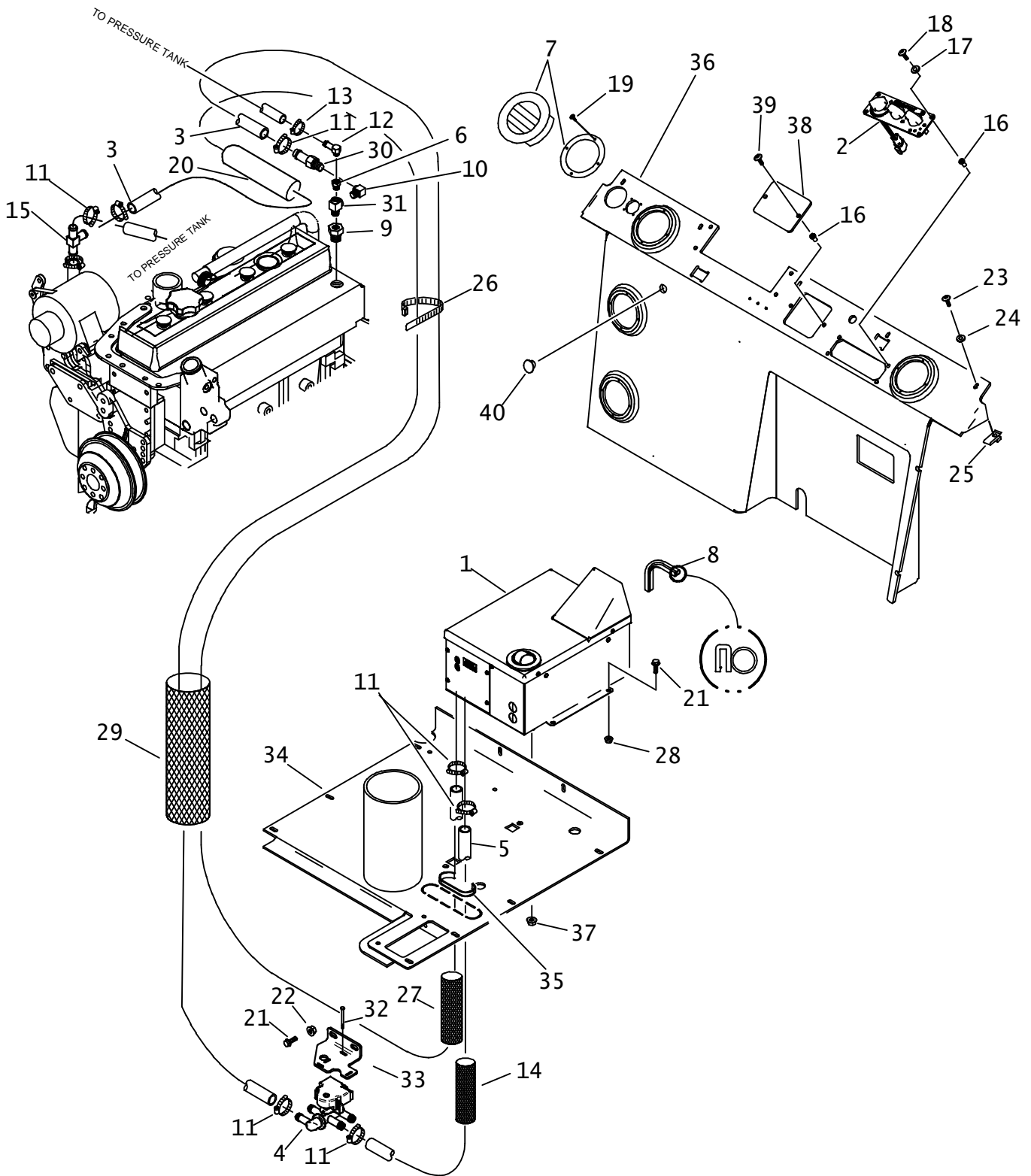
# CAB KIT



# CAB KIT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
33.	121-048	1	SLIDER, (LEFT DOOR)	SEE NOT SHOWN FOR REPLACEMENT LATCH.
	121-049	1	SLIDER, (RIGHT DOOR)	SEE NOT SHOWN FOR REPLACEMENT LATCH.
34.	121-050	1	GLASS (LOWER DOOR), LEFT	
	121-051	1	GLASS (LOWER DOOR), RIGHT	
35.	318-364	1	RIGHT DOOR	
	318-365	1	LEFT DOOR	
36.	121-052	1	WIPER BLADE	
37.	105-047	4	LOCKNUT (3/8-NC)	
38.	121-053	1	WIPER ARM	
39.	106-991	8	FLG LK SCREW (M8-1.25 X 20mm)	
40.	106-415	8	WASHER (.406")	
41.	117-826	1	STRIKE BRACKET (RIGHT)	
	117-827	1	STRIKE BRACKET (LEFT)	
42.	106-565	8	NUTSERT, (M8-1.25)	
43.	106-469	8	FLG SCREW (M12-1.75 X 30mm)	
44.	106-709	8	FLG LK NUT (M12-1.75)	
45.	105-895	4	LOCK WASHER (3/8")	
46.	105-865	1	BOLT (1/4-NC X 3/4", GD8)	
47.	105-151	2	LOCKNUT (7/16-NC)	
48.	105-059	2	WASHER (7/16)	
49.	117-861	2	STRIKER BOLT	
50.	107-778	2	SCREW (M8-1.25 X 30mm, BUT SOC)	
51.	318-879	1	BOTTLE BRACKET	
52.	107-135	2	CLIP NUT (M8-1.25)	
53.	344-115	1	WINDSHIELD WASHER TANK	
54.	107-875	6	WASHER (.400" ID. BRASS)	
55.	116-866	AR	BULK HOSE (3/16", SOLD PER 1")	USE 1 @ 150"
56.	110-249	1	WORM CLAMP (1/4" TO 5/8")	
57.	118-357	1	EXTENSION SPRING	
NOT SHOWN:				
	256-669	2	URETHANE ADHESIVE	10.5 FL. OZ. TUBES
	105-1305	1	KEYS (RT TRACTOR CAB)	REPLACEMENT KEYS
	115-1014	2	CLIP	RETAINS STRUT 499-438 ONTO STUD 166-450
	500-2067		LEFT SLIDER LATCH REAR	USED ON 121-044 SLIDER (REAR)
	500-2068		RIGHT SLIDER LATCH REAR	USED ON 121-044 SLIDER (REAR)
	500-2069		LEFT SLIDER LATCH	USED ON 121-048 SLIDER (LT DOOR)
	500-2070		RIGHT SLIDER LATCH	USED ON 121-049 SLIDER (RT DOOR)
NOTE:				

# CAB HEATER ASS'Y RT115 / HT115 TIER 2

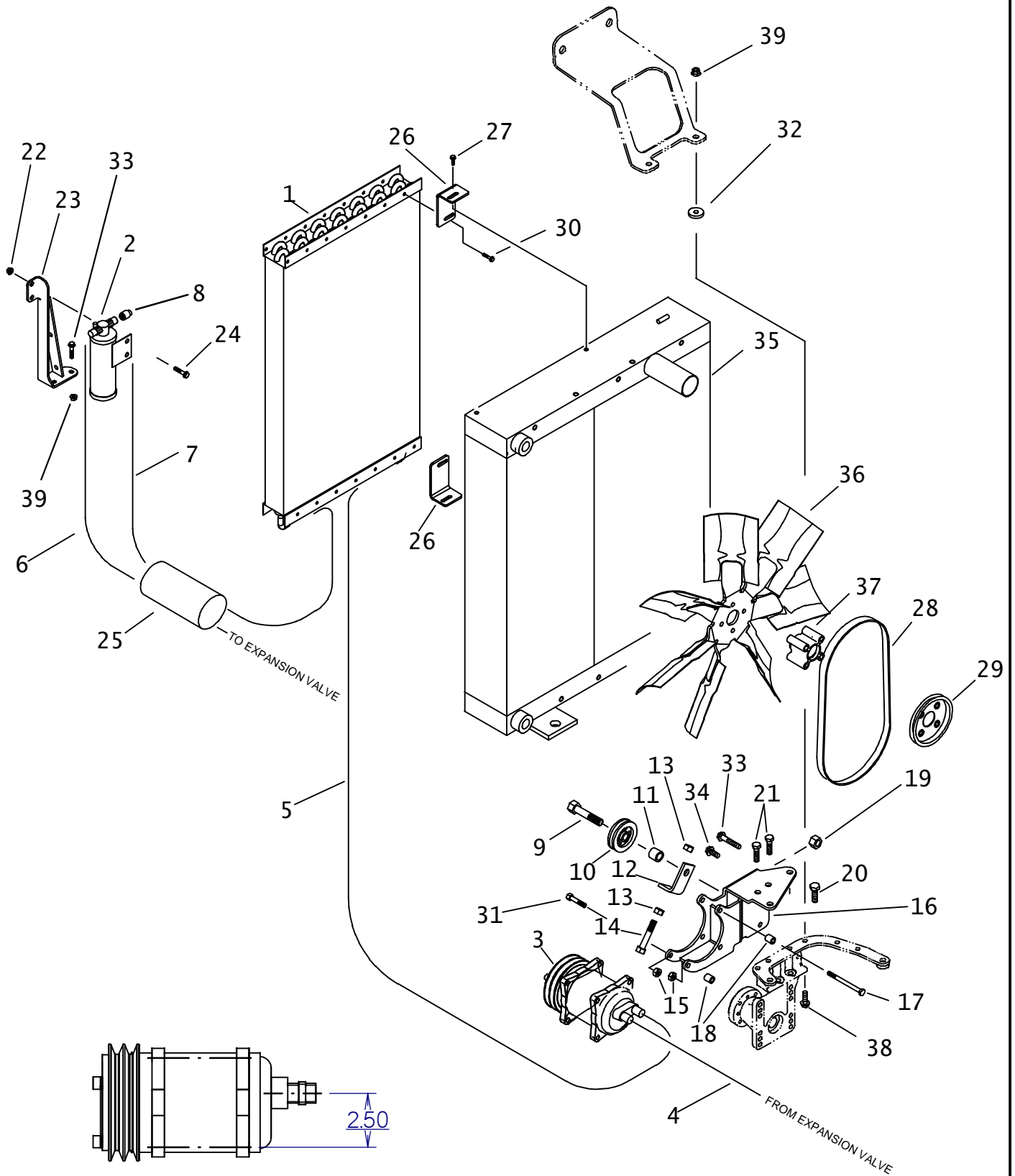


# CAB HEATER ASS'Y

## RT115 / HT115 TIER 2

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-358		A/C HEATER KIT	
	191-318		HEATER KIT	
1.	499-802	1	MODEL EE320, HVAC, 12V	SEE FOOTNOTE 1
	194-439	1	HEATER	SEE FOOTNOTE 1
2.	499-837	1	CONTROL PANEL, FAN-AC-HT	SEE FOOTNOTE 2
3.	116-044	AR	BULK HOSE (5/8" , SOLD PER 1")	USE 2 @ 90"
4.	499-705	1	HEATER VALVE	
5.	116-044	AR	BULK HOSE (5/8" , SOLD PER 1")	USE 1 @ 22"
6.	115-106	1	REDUCER (06N-04NF)	
7.	499-833	4	LOUVER MOUNT, 3.1" HOLE	
8.	117-344	AR	BULK EDGE (3/16", SOLD PER FT)	USE 1 @ 16"
9.	514-085	1	REDUCER (08N-06NF)	
10.	156-260	1	STREET ELBOW (06N-06NF90)	
11.	110-217	8	WORM CLAMP (7/16"TO 1")	
12.	155-164	1	S/O COUPLER (04N-05H90)	
13.	110-249	1	WORM CLAMP (1/4"TO 5/8")	
14.	117-622	1	ABRASION SLEEVE (1.25" X 20")	
15.	514-159	1	S/O TEE (10H)	
16.	107-358	6	WELLNUT (M4-0.7 X 12.67mm LG)	
17.	107-597	4	WASHER (M4)	
18.	107-580	4	SCREW (M4-0.70 X 16mm, BUT SOC)	
19.	107-852	16	SCREW (#8 X 5/8" CSK PLPS)	
20.	117-397	1	ABRASION SLEEVE (1.25" X 35")	
21.	106-992	4	FLG LK SCREW (M8-1.25 X 25mm)	
22.	106-386	-	FLG LOCKNUT (M8-1.25)	
23.	106-640	-	SCREW (M6-1.00 X 20mm, BUT SOC)	
24.	106-388	-	WASHER (M6)	
25.	106-574	-	CLIP NUT (M6-1.00)	
26.	110-030	1	CABLE TIE (1/16" TO 4")	
27.	117-396	1	ABRASION SLEEVE (1.25" X 28")	
28.	106-386	4	FLG LOCKNUT (M8-1.25)	
29.	117-265	1	ABRASION SLEEVE (1.75" X 50")	
30.	155-112	1	S/O COUPLER (06N-10H)	
31.	155-017	1	SERVICE TEE (06N-06NF-06NF)	
32.	108-113	2	SCREW (#6-19 X 1-1/4" PLASTIC)	
33.	318-811	1	VALVE BRACKET	
34.	322-986	-	SEAT BASE	
	324-729	-	SEAT BASE	HT115 ONLY
35.	115-662	1	GROMMET EDGE (3/16" X 12.7")	
36.	319-745	1	REAR PANEL W/ AC DUCT	
37.	105-814	4	FLG LOCKNUT (3/8-NC)	SCREWS ONTO STUD BOLTS ON BOTTOM OF REF #1 (499-802)
38.	322-871	1	TDM COVER	
39.	107-393	2	SCREW (M4-0.70 X 16mm, BX)	
40.	157-333	1	HOLE PLUG (.750")	
1. NOT SHOWN PARTS:				
	213-174		SWITCH, THERMOSTAT	
	499-704		BLOWER MOTOR	
	499-829		COIL, EVAP	
	499-830		COIL, HEAT	
	499-831		VALVE, EXP BLOCK	
	499-834		WIRE HARNESS	
	499-835		RECIRCULATION AIR FILTER	
	499-842		HOSE, DRAIN	
	499-843		FTG, DRAIN	
	499-844		CONDENSATE VALVE	
2. NOT SHOWN PARTS:				
	499-707		BLOWER SWITCH	
	499-708		A/C SWITCH	
	499-709		WATER VALVE CONTROL	
	499-838		BRACKET, CONTROL PANEL	
	499-839		DECAL CONTROLS	
	499-840		KNOB, POINTER PUSH ON	
	194-289		A/C HEATER KIT	
	213-041		A/C HARNESS	
	217-826		MINI RELAY (SPDT)	
	255-008		REFRIGERANT (30 LB. BOTTLE)	

# AIR CONDITIONING KIT



## AIR CONDITIONING KIT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-358		A/C-HEATER KIT	INCL. REF. #'S 1-34.
1.	499-836	1	CONDENSER COIL	
2.	499-205	1	RECEIVER DRIER	
3.	499-706	1	COMPRESSOR	
	499-841	1	COMPRESSOR FITTING	
4.	499-845	1	HOSE (#10 X 90" EVP-CP)	
5.	499-846	1	HOSE (#08 X 55" CP-CND)	
6.	499-847	1	HOSE (#06 X 36" CND-RD)	
7.	499-848	1	HOSE (#06 X 118" RD-EVP)	
8.	214-946	1	BINARY SWITCH	
9.	107-197	1	SCREW (M16-2.00 X 80mm,10.9)	SEE FOOTNOTE 1
10.	170-359	1	BALL BEARING V-PULLEY IDLER	
11.	179-723	1	SPACER	
12.	307-980	1	SLIDE BAR	
13.	106-089	2	NUT (M12-1.75, 10.9)	
14.	106-720	1	SCREW (M12-1.75 X 70mm)	
15.	105-089	5	LOCKNUT (5/16-NC)	
16.	319-917	1	COMPRESSOR MOUNT	
17.	105-190	2	BOLT (5/16-NC X 2-3/4")	
18.	179-726	2	SPACER	
19.	106-077	1	HEX NUT (M16-2.00, 10.9)	
20.	106-333	1	SCREW (M12-1.75 X 40mm, 8.8)	SEE FOOTNOTE 1
21.	105-876	3	SCREW (M10-1.50 X 35mm)	SEE FOOTNOTE 1
22.	106-386	2	FLG LOCKNUT (M8-1.25)	
23.	323-217	1	AC DRIER MOUNT	
24.	106-380	2	FLG LK SCREW (M8-1.25 X 16mm)	
25.	115-687	1	ABRASION SLEEVE (SOLD PER FOOT)	USE 1 @ 2'
26.	320-478	4	CONDENSER MOUNT BRACKET	
27.	106-987	6	FLG LK SCREW (M6-1.00 X 16mm)	
28.	170-393	1	BELT	
29.	170-365	1	DRIVE PULLEY	
30.	105-836	4	FLG LOCK BOLT (1/4-NC X ")	
31.	105-160	3	BOLT (5/16-NC X 1-1/4")	
32.	105-886	1	WASHER (.410")	
33.	107-001	3	FLG LK SCREW (M10-1.50 X 25MM)	
34.	106-654	1	FLG LK SCREW (M10-1.50 X 16MM)	
35.	194-374	-	RADIATOR/OIL COOLER TIER 2 RTH	
36.	194-394	-	22.5 DIA PULLER FAN	
37.	194-442	-	FAN SPACER	
38.	106-383	-	FLG LK SCREW (M10-1.50 X 30MM)	
39.	106-387	2	FLG LOCKNUT (M10-1.50)	

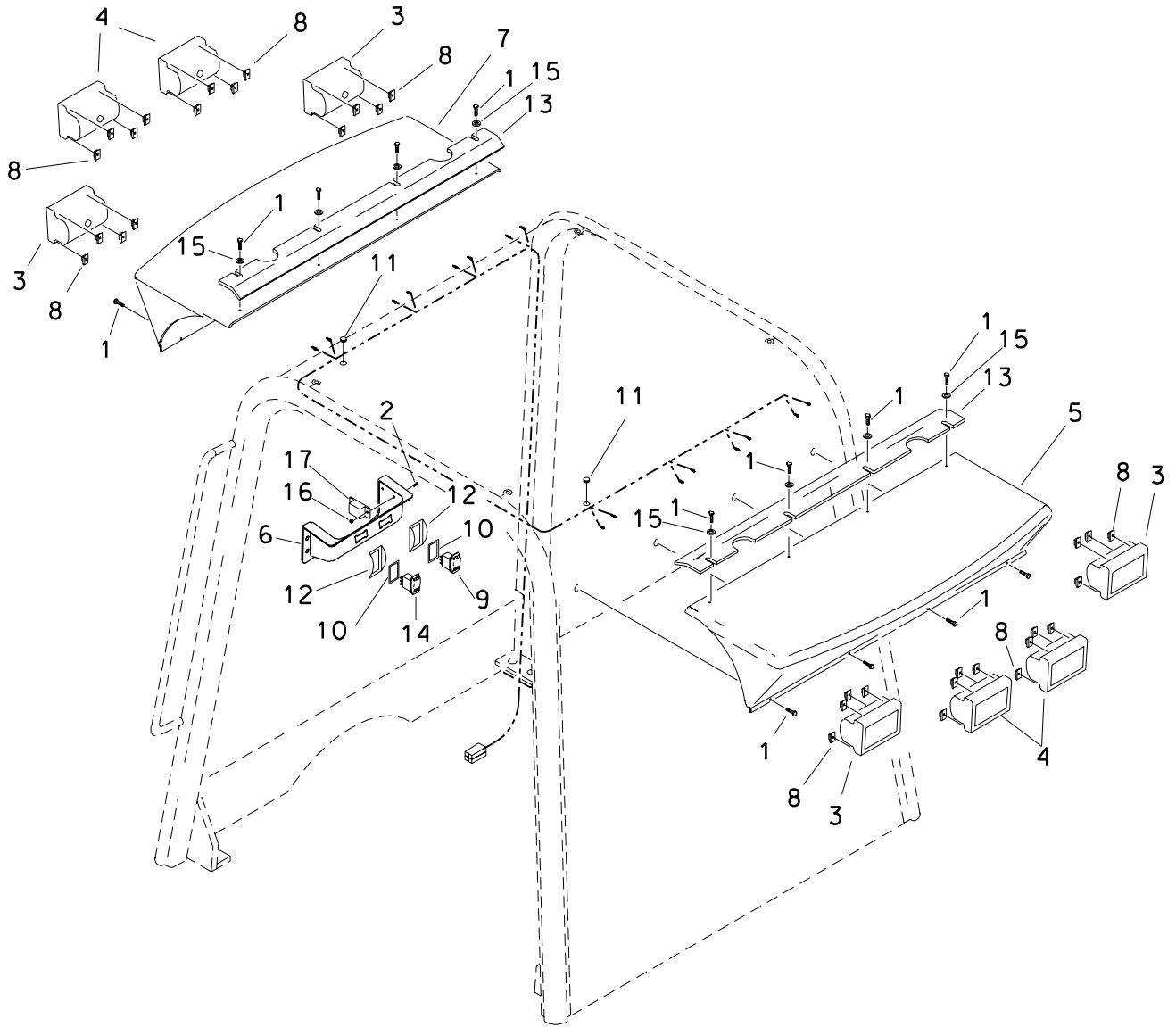
### FOOTNOTES

1- USE LOCTITE 242 OR EQUIVALENT.

NOTE:



# CANOPY AND LIGHT KIT



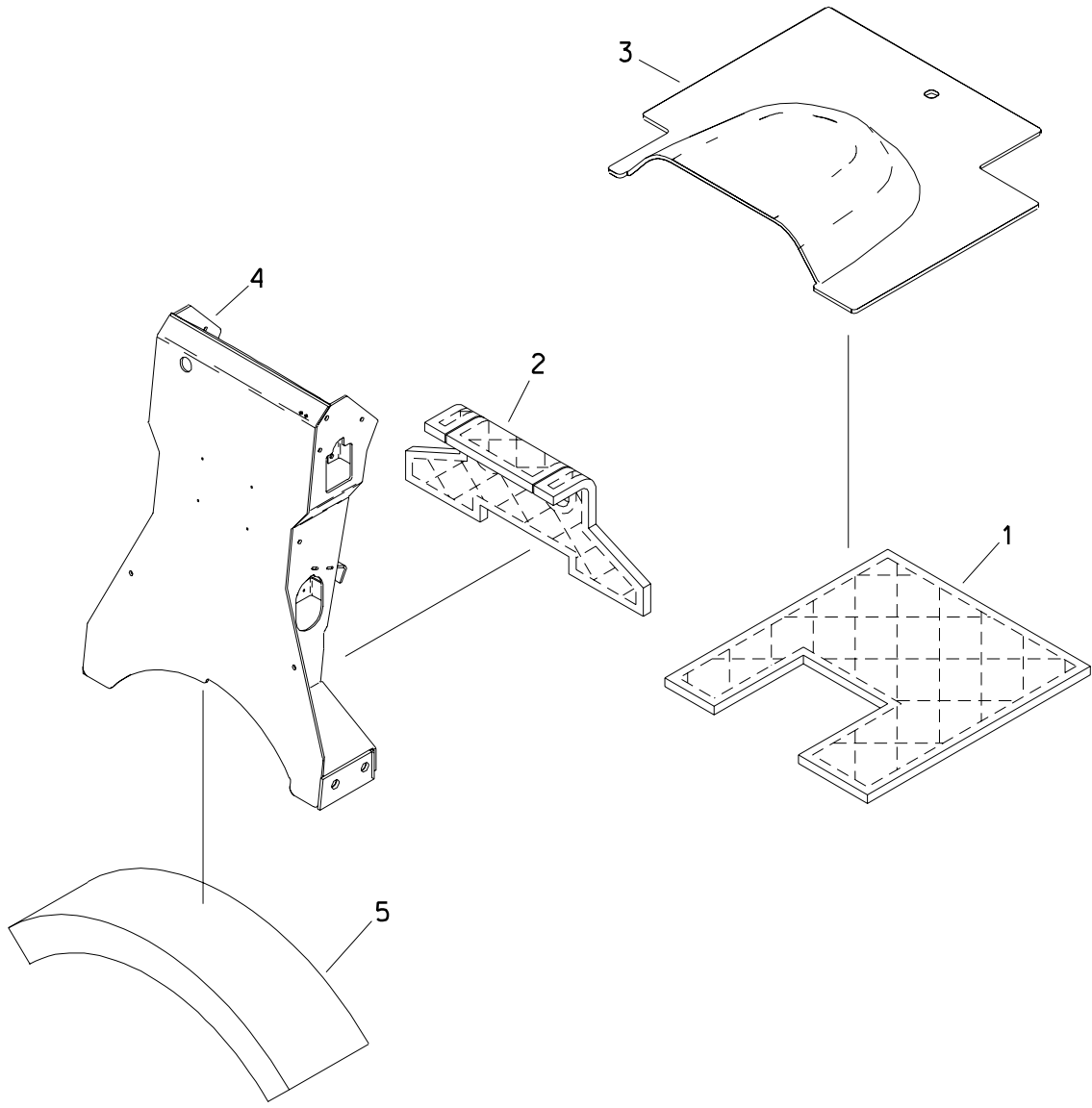
# CANOPY AND LIGHT KIT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-180		LIGHT KIT	INCLUDES REF #'S 1-17
1.	107-716	16	SCREW (1/4" - 14 x 7/8" SLF DRL)	
2.	105-185	2	BOLT (#10-24 X 1/2", RD SLT)	
3.	217-288	4	WORK LIGHT (100FO)	
4.	217-287	4	WARNING LIGHT	
5.	305-658	1	EYE-BROW CANOPY	
6.	308-894	1	OVERHEAD CONSOLE	
7.	310-113	1	FRONT EYE-BROW CANOPY	
8.	107-405	32	CLIP NUT (6-32)	
9.	217-762	1	ROCKER SWITCH (SPDT)	
10.	165-817	2	SWITCH GASKET	
11.	115-349	2	GROMMET (1/2")	DRILL 2-23/32" HOLES ON DIMPLES
12.	110-854	2	SWITCH ACTUATOR GUARD	
13.	318-661	2	STRAP	
14.	214-912	1	DPST ON-OFF ROCKER SWITCH	
15.	105-284	8	WASHER (3/16")	
16.	106-048	2	LOCKNUT (#10-24)	
17.	215-041	1	FLASHER	

NOT SHOWN:  
362-823 COVER

FOOTNOTES

# SOUND BLANKETS

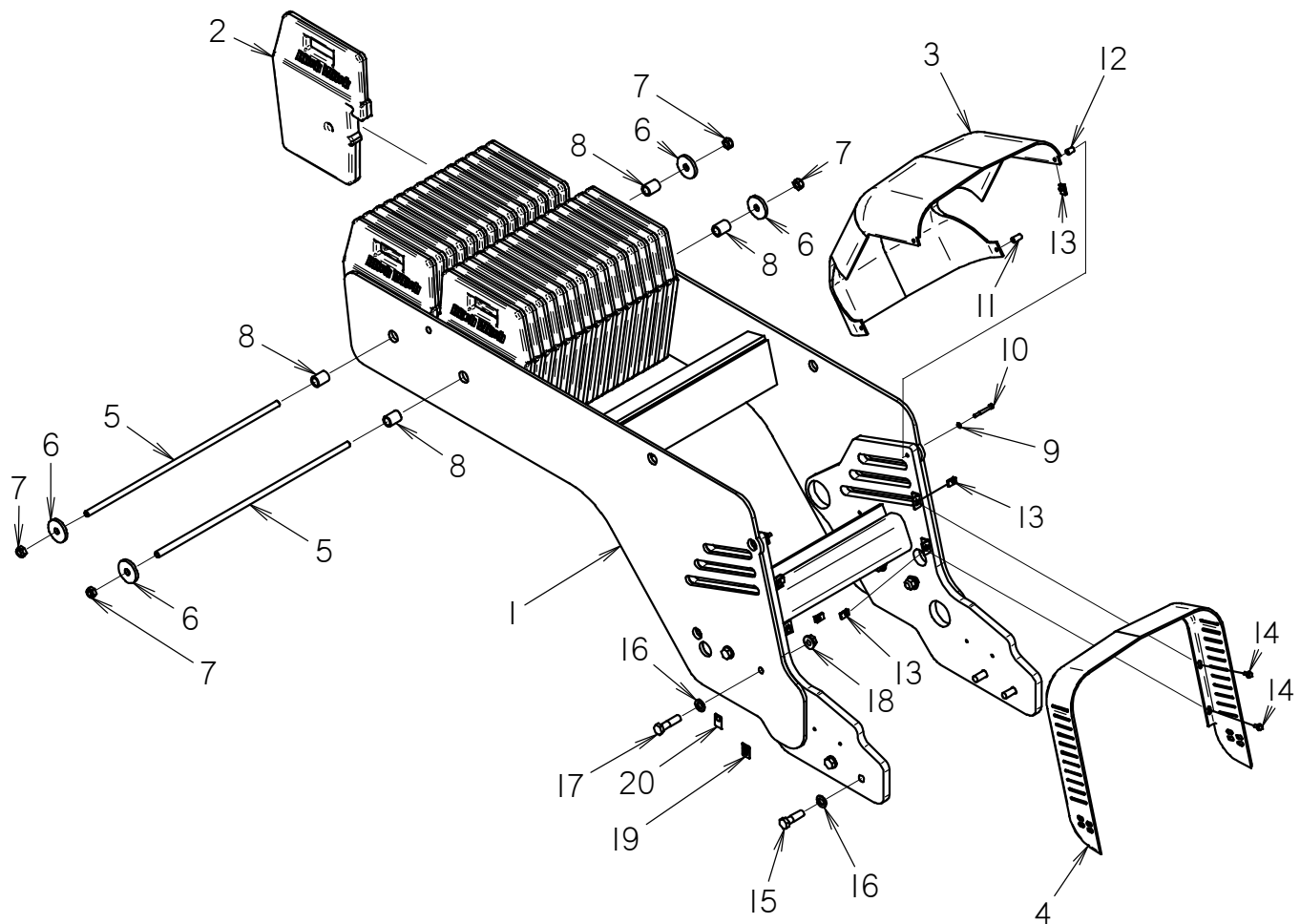


# SOUND BLANKETS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	117-833	1	SOUND BLANKET	POWERSHIFT ONLY
	117-832	1	SOUND BLANKET	HT115 AND HYDROSTAT ONLY
2.	117-834	1	SOUND BLANKET	USED ON RT/HT115 & POWERSHIFT ONLY
	117-835	1	SOUND BLANKET	USED ON RT75/95 HYDROSTAT ONLY
3.	313-238	-	FLOOR PLATE	
	318-793	-	FLOOR PLATE	
	324-566	-	FLOOR PLATE	HT115 ONLY
4.	315-142	-	PEDESTAL	
5.	117-847	1	HEAT BLANKET	

FOOTNOTES

## WEIGHT RACK



# WEIGHT RACK

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-511		WEIGHT RACK, EXTENDED	INCLUDES ITEMS 1 & 3-20, ALSO SEE FOOTNOTE 1
1	329-401	1	FRAME, WEIGHT RACK	
2	375-080	30	COUNTERWEIGHT	
3	316-755	1	COVER	
4	308-883	1	TOP VENT PANEL	
5	107-058	2	MOUNT BOLT (3/4-NC X 33")	
6	105-423	4	WASHER (3/4")	
7	105-372	4	LOCKNUT (3/4-NC)	
8	181-398	4	SPACER	
9	106-389	4	WASHER (M8)	
10	106-330	4	SCREW (M8-1.25 X 70MM)	
11	179-444	2	SPACER	
12	179-443	2	SPACER	
13	107-135	8	CLIP NUT (M8-1.25)	
14	106-991	4	FLG LK SCREW (M8-1.25 X 20MM)	
15	106-459	4	SCREW (M20-2.50 X 70MM, 10.9)	
16	106-399	8	WASHER (M20, HARDENED)	
17	107-127	4	SCREW (M20-2.50 X 80MM, 10.9)	
18	106-356	4	FLG NUT (M20-2.50, 10.9)	
19	274-318	2	TIE DOWN LOCATION	
20	274-442	2	LIFT LOCATION	

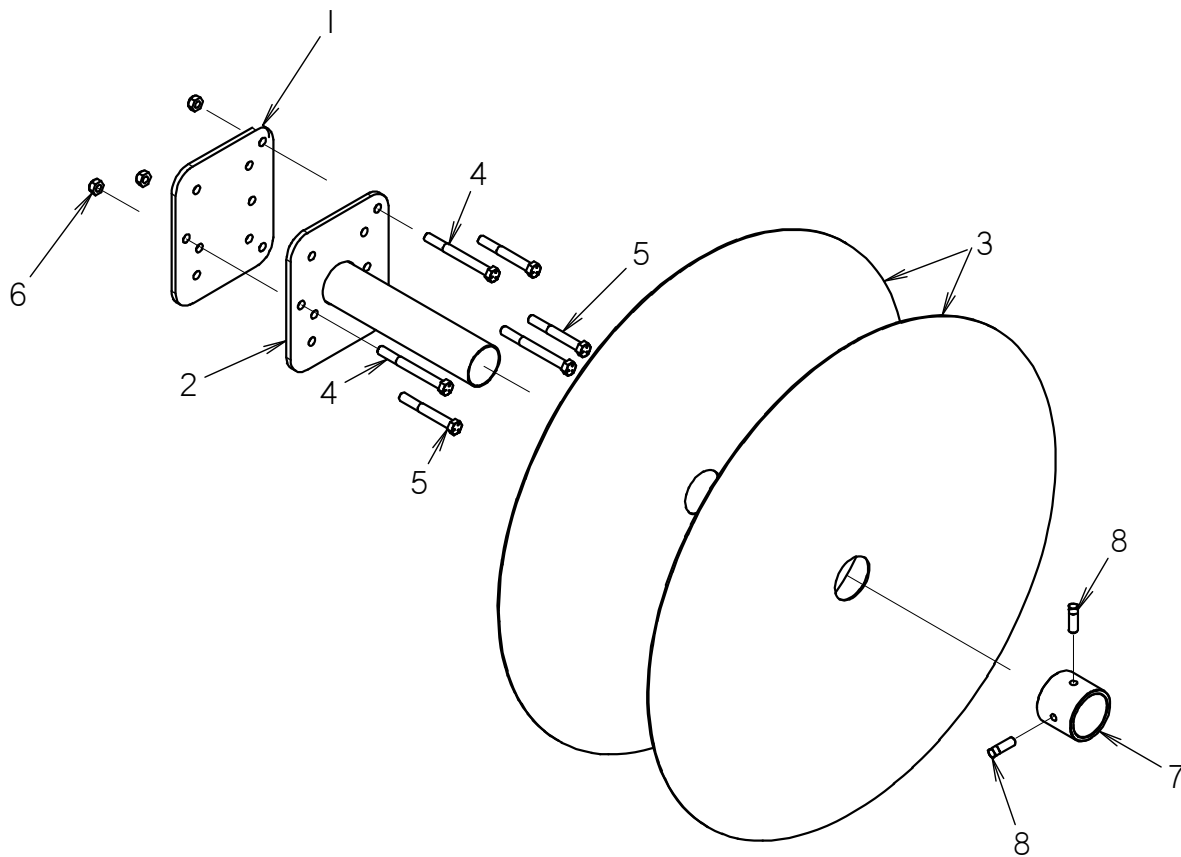
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FOOTNOTES:

- I. WEIGHT RACK REQUIRED FOR SEVERAL HYDRAWHEEL SAWS.

NOTE:

## TAPE DISPENSER



# TAPE DISPENSER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	190-1637	-	TAPE DISPENSER	INCL'S REF #'S 1 THRU 8
1	301-1490	1	PLATE	
2	301-1399	1	MOUNT	
3	301-1491	2	RING	
4	105-258	3	BOLT (3/8-NC X 3-3/4")	RT80 & RT55
5	105-098	3	BOLT (3/8-NC X 3")	HT/RT115 & QUAD RT45
6	105-047	3	LOCKNUT (3/8-NC)	
7	301-1492	1	COLLAR	
8	105-714	2	SET SCREW (3/8-NC X 1", SQ)	

NOT SHOWN:

FOOTNOTES:

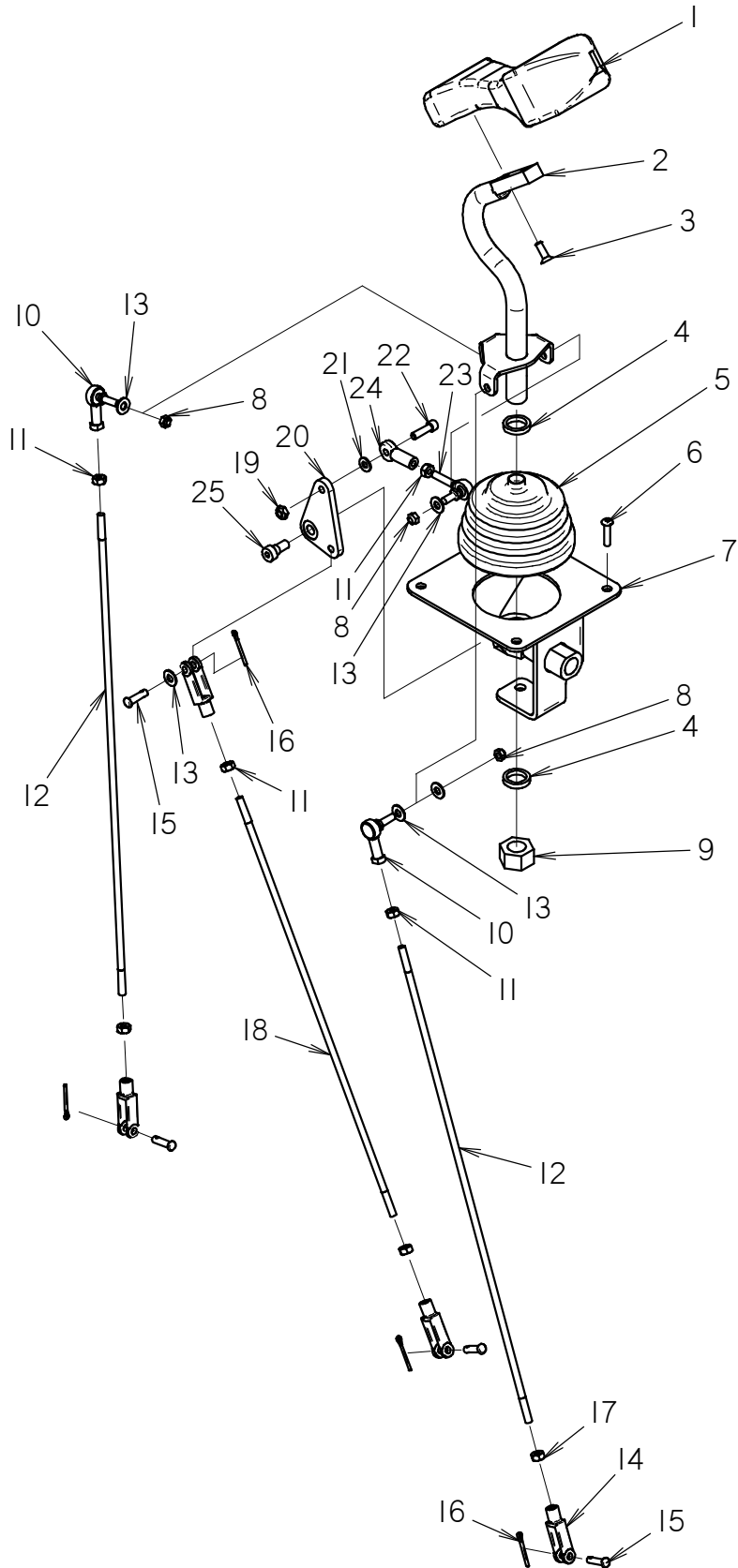
NOTE:





# **CONTROL COMPONENTS**

# BFB BLADE CONTROLS



# BFB BLADE CONTROLS

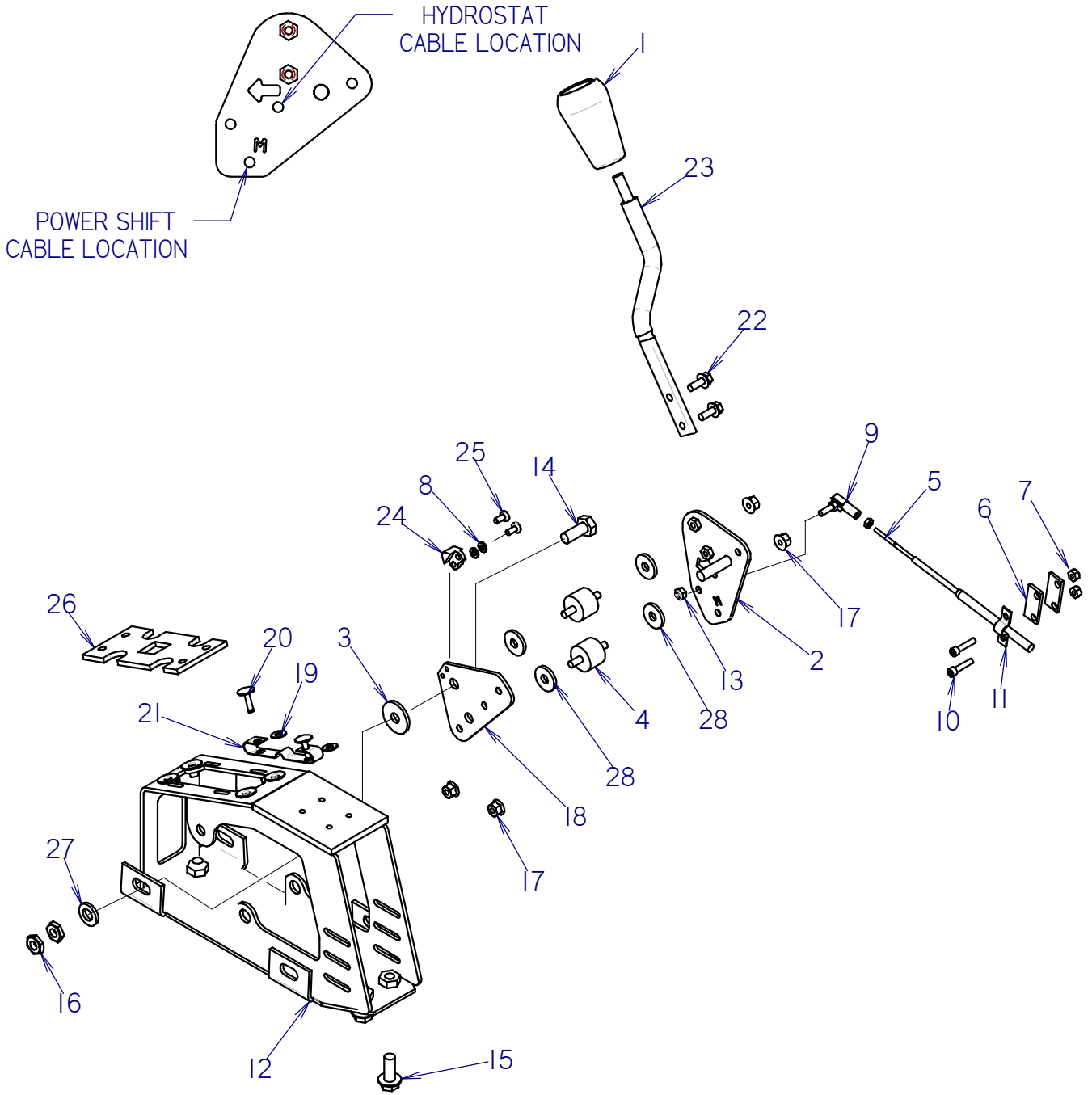
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	117-345	1	CONTROL HANDLE	
2	305-728	1	HANDLE ASSEMBLY	
3	105-263	2	BOLT (1/4-NC X 3/4", CSK, SOC)	
4	178-421	2	BUSHING	
5	110-330	1	DUST BOOT	
6	107-312	4	SCREW (M6-1.00 X 25MM, BUT SOC)	
7	305-727	1	MOUNT ASSEMBLY	
8	107-770	3	LOCKNUT (1/4-NF, NYL INSERT)	
9	105-387	1	LOCKNUT (3/4-NF)	
10	160-540	2	ROD END	
11	105-152	4	NUT (1/4-NF)	
12	179-884	2	ROD (19.44")	
13	106-076	5	WASHER (1/4")	
14	107-790	4	CLEVIS (1/4-NF-LH)	
15	110-082	4	CLEVIS PIN (1/4 X 11/16)	
16	105-508	4	COTTER PIN (3/32" X 1")	
17	105-878	3	NUT (1/4-NF, LH)	
18	179-885	1	ROD (17")	
19	105-085	1	LOCKNUT (1/4"-NC)	
20	305-724	1	LINKAGE PLATE	
21	105-284	1	WASHER (3/16")	
22	105-087	1	BOLT (1/4-NC X 7/8", SOC)	
23	110-565	1	BALL JOINT (1/4-NF)	
24	110-281	1	ROD END (1/4-NF, FM)	
25	107-582	1	SHLD BOLT(3/8" X 1/4",5/16-NC)	

NOT SHOWN:

FOOTNOTES:

NOTE:

# GRND SPEED DIRECTION HAND CNTL



## GRND SPEED DIRECTION HAND CNTL

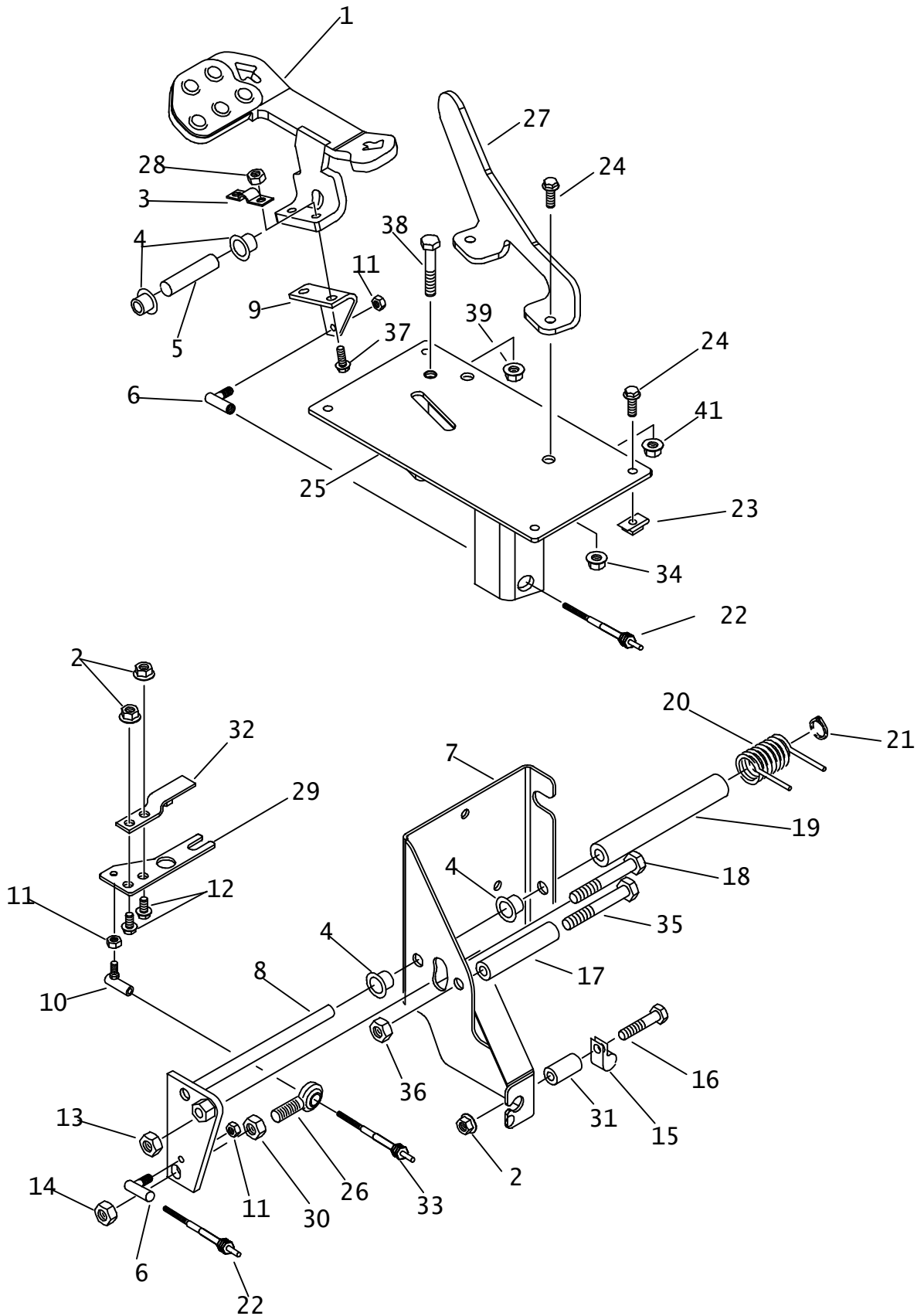
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	110-445	1	KNOB (3/8-NC, ORANGE)	
2	319-914	1	RIGHT CONTROL	SEE FOOTNOTE 3 AND INCLUDES HARDWARE
3	107-529	1	WASHER UHMW (3/8)	
4	116-980	2	SHOCK MOUNT	
5	196-287	1	CONTROL CABLE	SEE FOOTNOTE 4
6	331-166	2	BOLT-ON BACK-UP (.306")	
7	106-048	2	LOCKNUT (#10-24)	
8	106-205	2	WASHER (.191")	
9	110-318	1	BALL JOINT (#10-32, FM)	
10	105-810	2	BOLT (#10-24 X 7/8", SOC)	
11	110-697	1	BOLT-ON CLAMP (.360")	
12	309-227	1	CONTROL LEVER FRAME	
13	107-770	1	LOCKNUT (1/4-NF, NYL INSERT)	
14	105-245	1	SCREW (M10-1.50 X 25MM)	
15	107-001	4	FLG LK SCREW (M10-1.50 X 25MM)	
16	107-769	2	JAM NUT (M10-1.50)	SEE FOOTNOTE 2
17	105-832	4	FLG LOCKNUT (1/4-NC)	
18	310-127	1	PIVOT PLATE	
19	105-284	2	WASHER (3/16")	
20	110-348	2	POP RIVET (3/16" X .664")	
21	115-598	1	SPRING DETENT	
22	106-987	2	FLG LK SCREW (M6-1.00 X 16MM)	
23	117-519	1	CONTROL HANDLE	
24	315-149	1	DETENT TIP	
25	106-271	2	SCREW (M5-0.80 X 8MM, PLPS)	SEE FOOTNOTE 1
26	316-476	1	TEMPLATE	
27	106-396	1	WASHER (M10, HARDENED)	
28	106-261	4	WASHER (.334")	

### FOOTNOTES

1. USE LOCTITE 242 OR EQUIVALENT
2. TORQUE TO 70 IN.-LBS.
3. IF ORDERING THIS PART FOR MACHINE WITH S/N \_\_\_\_\_ OR OLDER, YOU MUST ALSO ORDER LEVER (#319-916) AND REFER TO PARTS PAGE "GRD SPEED DIRECTION FOOT CONTROL", IF THIS UNIT IS EQUIPPED WITH CRUISE CONTROL, PART 319-916 IS NOT NEEDED.
4. 196-287 IS FOR HYDROSTAT TRACTORS. USE 194-196 FOR POWER SHIFT TRACTORS.

NOTE:

# GROUND SPEED DIRECTION FOOT CONTROL



## GROUND SPEED DIRECTION FOOT CONTROL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	309-943	1	PEDAL	
2.	106-387	3	FLG LOCKNUT (M10-1.5)	
3.	310-411	1	CLAMP	
4.	179-293	4	BRONZE BUSHING	
5.	183-221	1	PIN	
6.	110-774	2	BALL JOINT (1/4-NF)	
7.	309-707	1	CABLE BRACKET	
8.	308-441	1	CONTROL ARM	
9.	309-939	1	CABLE BRACKET	
10.	110-318	1	BALL JOINT (#10-32,FM)	
11.	107-770	3	LOCKNUT (1/4-NF, NYL INSERT)	
12.	106-654	2	FLG LK SCREW (M10-1.50 X 16mm)	
13.	106-685	2	LOCKNUT (M12-1.75, PRV TRQ,10.9)	
14.	105-188	1	LOCKNUT (7/16-NF)	
15.	110-333	1	BOLT-ON CLAMP (1")	
16.	106-628	1	SCREW (M10-1.50 X 60mm)	
17.	370-036	1	SPACER	
18.	106-620	1	SCREW (M12-1.75 X 150mm)	
19.	178-582	1	SPACER	
20.	115-650	1	TORSION SPRING	
21.	115-482	1	GRIP RING (.500")	
22.	196-359	1	CONTROL CABLE	
23.	107-135	4	CLIP NUT (M8-1.25)	
24.	106-992	6	FLG LK SCREW (M8-1.25 X 25mm)	
25.	331-595	1	PEDAL MOUNT	
26.	107-604	1	ROD END (7/16-NF)	
27.	319-365	1	PROTECTIVE BAR	
28.	106-175	2	NUT (M10-1.50)	
29.	<u>309-705</u>	1	LEVER	
	319-914	1	LEVER	SEE FOOTNOTE 1
30.	105-920	1	JAM NUT (7/16-NF)	
31.	181-566	1	SLEEVE (1.5")	
32.	365-240	-	CONTROL LEVER	
33.	196-287	-	CONTROL CABLE	
	506-021	-	NUT (#10-32)	
34.	106-386	2	FLG LOCKNUT (M8-1.25)	
35.	105-472	1	BOLT (1/2-NC X 5")	
36.	105-065	1	LOCKNUT (1/2-NC)	
37.	107-002	2	FLG LK SCREW (M10-1.50 X 30mm)	
38.	106-142	1	SCREW (M10-1.50 X 65mm)	
39.	106-387	1	FLG LOCKNUT (M10-1.5)	

### FOOTNOTES:

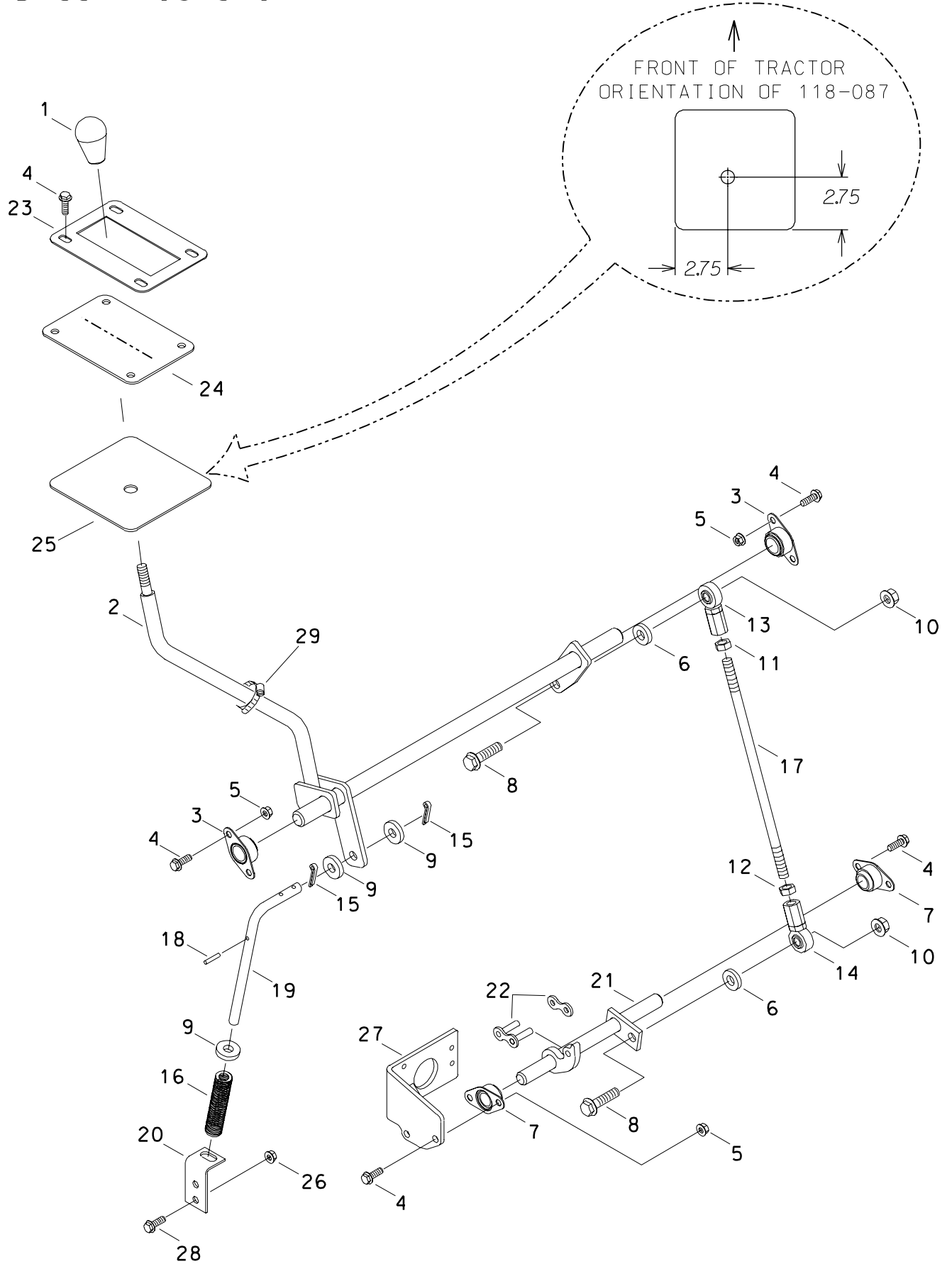
- I. IF ORDERING THIS PART FOR A MACHINE WITH SERIAL NUMBER\_\_\_\_\_ OR OLDER, YOU MUST ALSO ORDER NUMBER 319-914 RIGHT CONTROL LEVER, AND REFER TO PARTS PAGE "GRD SPEED DIRECTION HAND CONTROL".

### NOTE:

SEE INSTALLATION INSTRUCTIONS



# HYDROSTATIC SHIFT



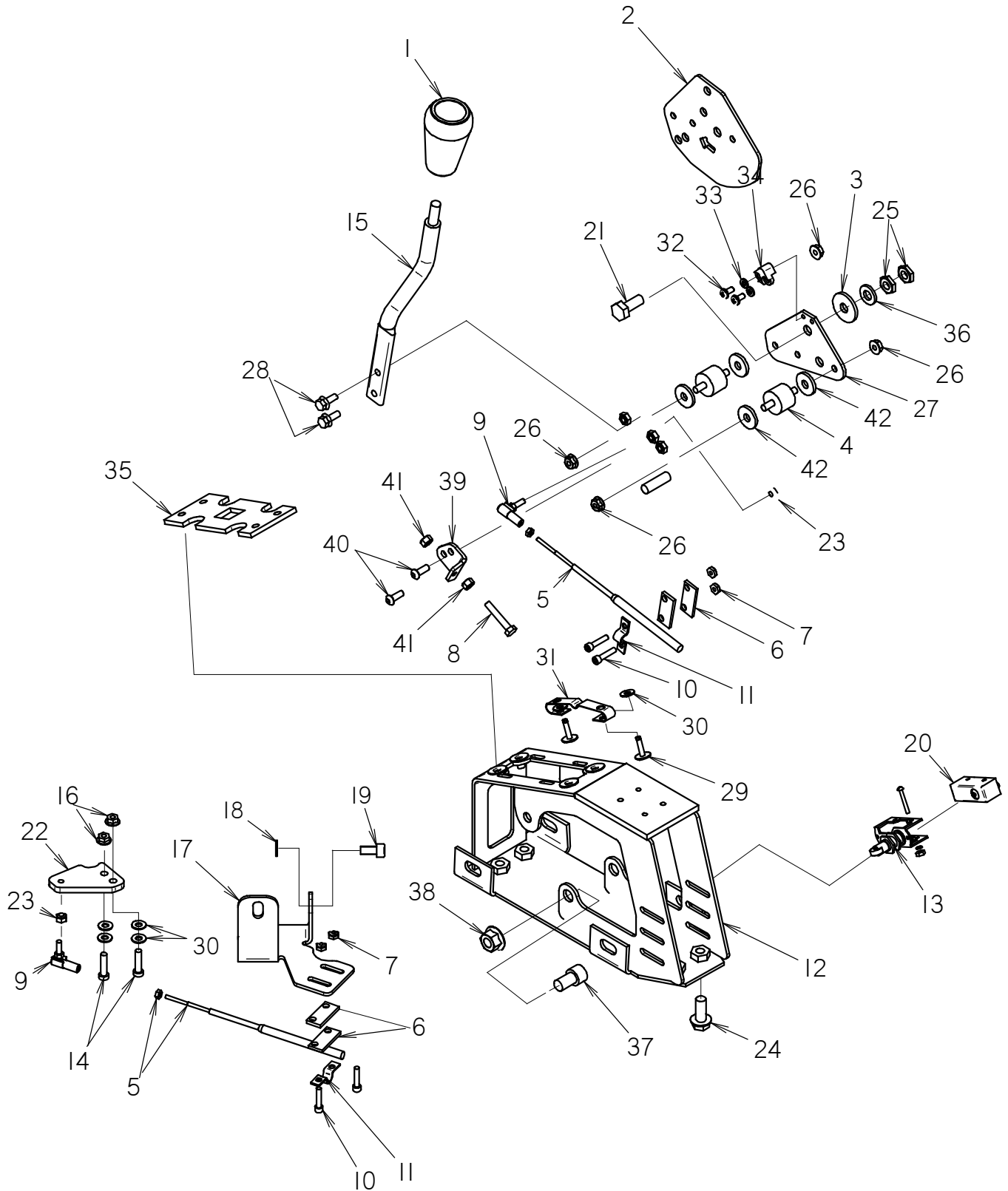
## HYDROSTATIC SHIFT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	110-375	1	KNOB (1/2-NC, YELLOW)	
2.	307-718	1	SHIFT ARM	
3.	125-488	2	FLANGE BUSHING (.875")	
4.	106-992	12	FLG LK SCREW (M8-1.25 X 25mm)	
5.	106-386	8	FLG LOCKNUT (M8-1.25)	
6.	106-397	2	WASHER (M12, HARDENED)	
7.	125-609	2	BRONZE BUSHING (.750", FLG)	
8.	107-004	2	FLG LK SCREW (M12-1.75 X 45mm)	
9.	105-244	AR	WASHER (1/2")	
10.	106-354	2	FLANGE NUT (M12-1.75)	
11.	106-447	1	JAM NUT (1/2-NF)	
12.	107-573	1	JAM NUT (1/2-NF, LH)	
13.	110-290	1	ROD END (1/2-NF, FM)	
14.	107-574	1	ROD END (1/2-NF, FM, LH)	
15.	105-506	2	COTTER PIN (3/16" X 1-1/2")	
16.	117-019	1	COMPRESSION SPRING	
17.	306-762	1	SHIFT ROD	
18.	106-131	1	DOWEL PIN (.187 X 1.000)	
19.	306-666	1	SPRING ROD	
20.	307-568	1	SPRING MOUNT	
21.	307-567	1	SHIFT ARM	
22.	130-304	1	CONNECTOR LINK (#80)	
23.	307-580	1	BELLOW MOUNT	
24.	307-585	1	BELLOW	
	118-074	1	DUST SHIELD	
25.	118-087	1	DUST SHIELD	
26.	106-266	2	FLG NUT (M10-1.50)	
27.	307-563	-	SHIFT MOUNT	
28.	107-002	2	FLG LK SCREW (M10-1.50 X 30mm)	
29.	110-217	1	WORM CLAMP (7/16" TO 1")	SEE FOOTNOTE 1

## FOOTNOTES

1. PLACE WORM CLAMP (110-217) ON SHIFTER TO PREVENT DUST SHIELD (118-087) FROM SLIPPING DOWN.

# ATTACHMENT CONTROL HANDLE



# ATTACHMENT CONTROL HANDLE

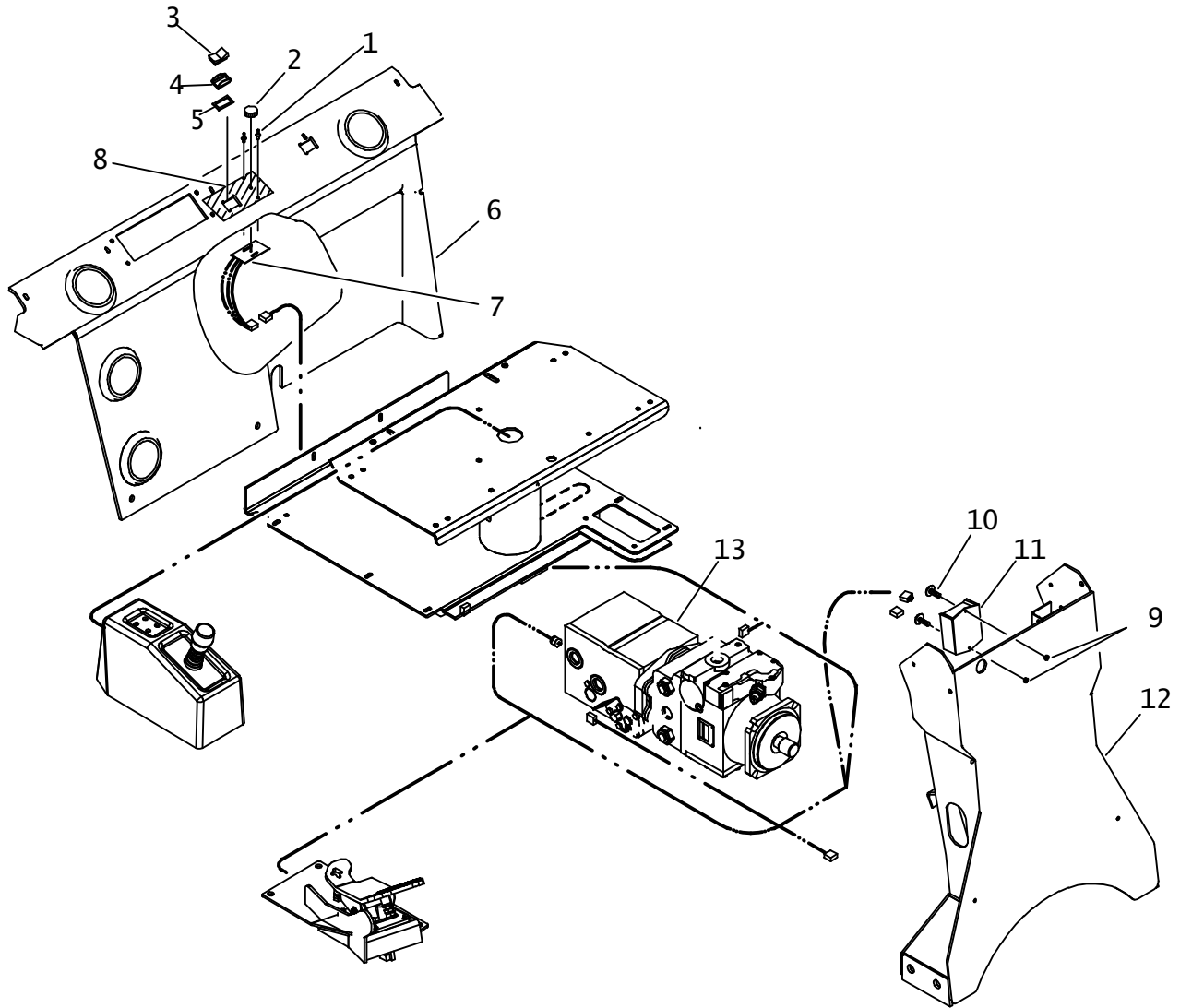
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	117-470	1	KNOB (3/8-NC, YELLOW)	
2	309-671	1	LEFT CONTROL LEVER	
3	107-529	1	WASHER UHMW (3/8)	
4	116-980	2	SHOCK MOUNT	
5	196-294	2	CONTROL CABLE	INCLUDES JAM NUT
6	331-166	4	BOLT-ON BACK-UP (306")	
7	106-048	4	LOCKNUT (#10-24)	
8	105-688	1	SCREW (M6-1.00 X 35MM)	SEE FOOTNOTE 4
9	110-318	2	BALL JOINT (#10-32, FM)	
10	105-810	4	BOLT (#10-24 X 7/8", SOC)	
11	110-697	2	BOLT-ON CLAMP (360")	
12	309-227	1	CONTROL LEVER FRAME	
13	215-082	1	ACTUATOR BRACKET	SEE FOOTNOTE 1 AND INCLUDES HARDWARE
14	107-322	2	SCREW (M6-1.00X25MM,SOC,12.9)	
15	117-519	1	CONTROL HANDLE	
16	106-385	2	FLG LOCKNUT (M6-1.00)	
17	308-682	1	ATTACHMENT BRACKET	
18	106-389	1	WASHER (M8)	
19	106-005	1	SCREW (M8-1.25 X 16MM, SOC)	
20	215-1455	1	PLUNGER SWITCH	SEE FOOTNOTE 1 AND INCLUDES HARDWARE
21	105-245	1	SCREW (M10-1.50 X 25MM)	
22	308-901	1	LEVER EXTENSION	
23	107-770	2	LOCKNUT (1/4-NF, NYL INSERT)	
24	107-001	4	FLG LK SCREW (M10-1.50 X 25MM)	
25	107-769	2	JAM NUT (M10-1.50)	SEE FOOTNOTE 3
26	105-832	4	FLG LOCKNUT (1/4-NC)	
27	310-127	1	PIVOT PLATE	
28	106-987	2	FLG LK SCREW (M6-1.00 X 16MM)	
29	110-348	2	POP RIVET (3/16" X .664")	
30	105-284	6	WASHER (3/16")	
31	115-598	1	SPRING DETENT	
32	106-271	2	SCREW (M5-0.80 X 8MM, PLPS)	SEE FOOTNOTE 2
33	106-205	2	WASHER (191")	
34	315-149	1	DETENT TIP	
35	316-476	1	TEMPLATE	
36	106-396	1	WASHER (M10, HARDENED)	
37	107-277	1	SCREW (M12-1.75 X 20MM, SOC)	SEE FOOTNOTE 4
38	106-709	1	FLG LK NUT (M12-1.75)	SEE FOOTNOTE 4
39	316-851	1	STOP	SEE FOOTNOTE 4
40	107-193	2	SCREW (M6-1.00 X 16MM,BUT SOC)	SEE FOOTNOTE 2
41	106-538	2	LOCKNUT (M6-1.00,PRV TRQ,10.9)	SEE FOOTNOTE 4
42	106-261	4	WASHER (334")	

**FOOTNOTES:**

1. USED W/COMBO ATTACHMENTS
2. USE LOCTITE 242 OR EQUIVALENT
3. TORQUE TO 70 IN-LBS
4. USE WITH H732, H752, H932, H952

**NOTE:**

# CRUISE CONTROL



# CRUISE CONTROL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	110-560	2	POP RIVET (3/16" X 1/2 ", ALUM)	
2.	110-641	1	KNOB (1/8", BLK)	
3.	217-762	1	ROCKER SWITCH (SPDT)	
4.	110-854	1	SWITCH ACTUATOR GUARD	
5.	165-817	1	SWITCH GASKET	
6.	306-492	-	REAR PANEL	REFER TO (TILT STEERING) FOR DETAILS
7.	217-892	1	POTENTIOMETER-AUTOCROWD	
8.	273-449	1	CRUISE CONTROL OVERLAY	
9.	106-048	2	LOCKNUT (#10-24)	
10.	105-815	2	BOLT (#10-24 X 1", PAN SLT)	
11.	220-645	1	GENERALCRUISE CONTROL	SEE FOOTNOTE 3
12.	315-142	-	PEDESTAL	
13.	152-107	1	TANDEM PUMP (CRUISE CONTROL)	RT115/RT95 & SEE FOOTNOTE 1
	158-194	-	ATTACHMENT PUMP	RT115/RT95 & SEE FOOTNOTE 2
	157-354	-	GROUND DRIVE PUMP	EDC
	153-866	1	TANDEM PUMP (CRUISE CONTROL)	RT75
	158-039	-	ATTACHMENT PUMP	RT75
	157-354	-	GROUND DRIVE PUMP	EDC

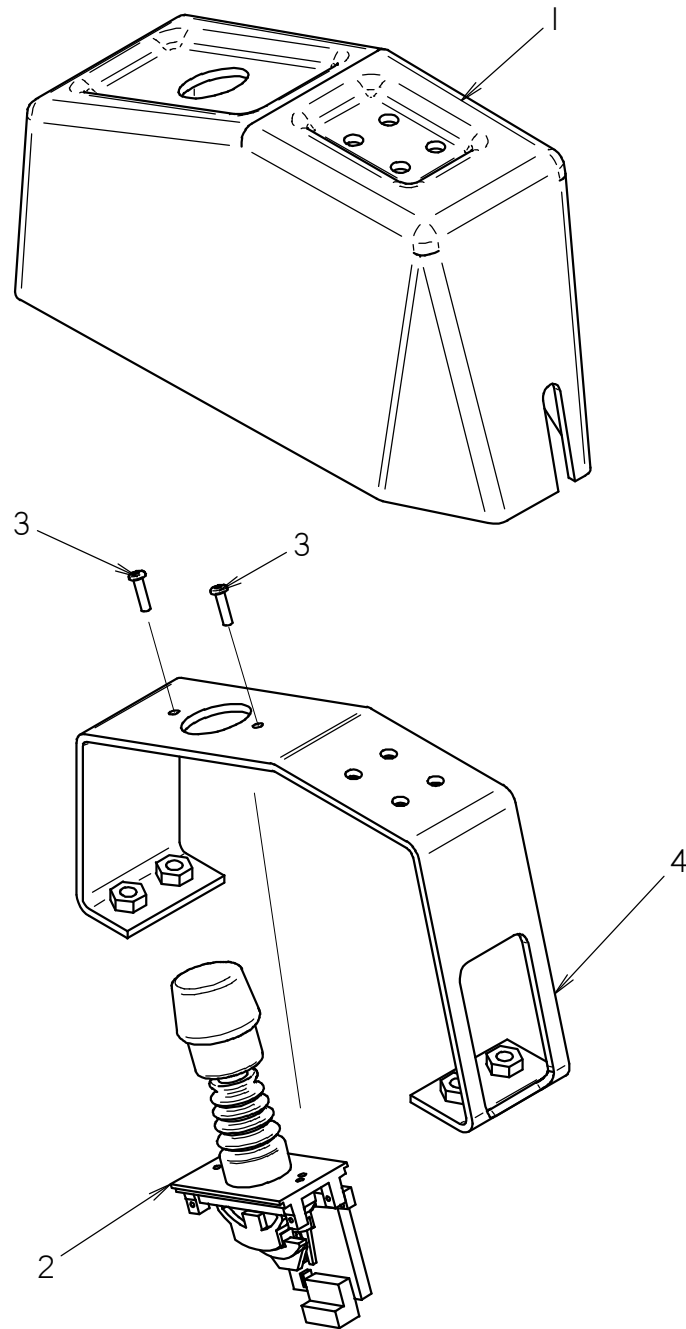
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## FOOTNOTES

1. TANDEM PUMP 152-107 SUPERCEDES PUMP 153-867.
2. ATTACHMENT PUMP 158-194 SUPERCEDES PUMP 158-038.
3. CRUISE CONTROL 220-645 SUPERCEDES CRUISE CONTROL 220-569.

NOTE

# CRUISE HAND CONTROL



# CRUISE HAND CONTROL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	324-563	1	RIGHT SEAT CRUISE CONSOLE	
2	215-1663	1	SINGLE AXIS 12V HAND CONTROL, ORG KNOB	SEE FOOTNOTES 1 & 2
3	105-649	2	BOLT (#10-32 X .75", BUT)	
4	323-963	1	CRUISE HAND CONTROL BASE	

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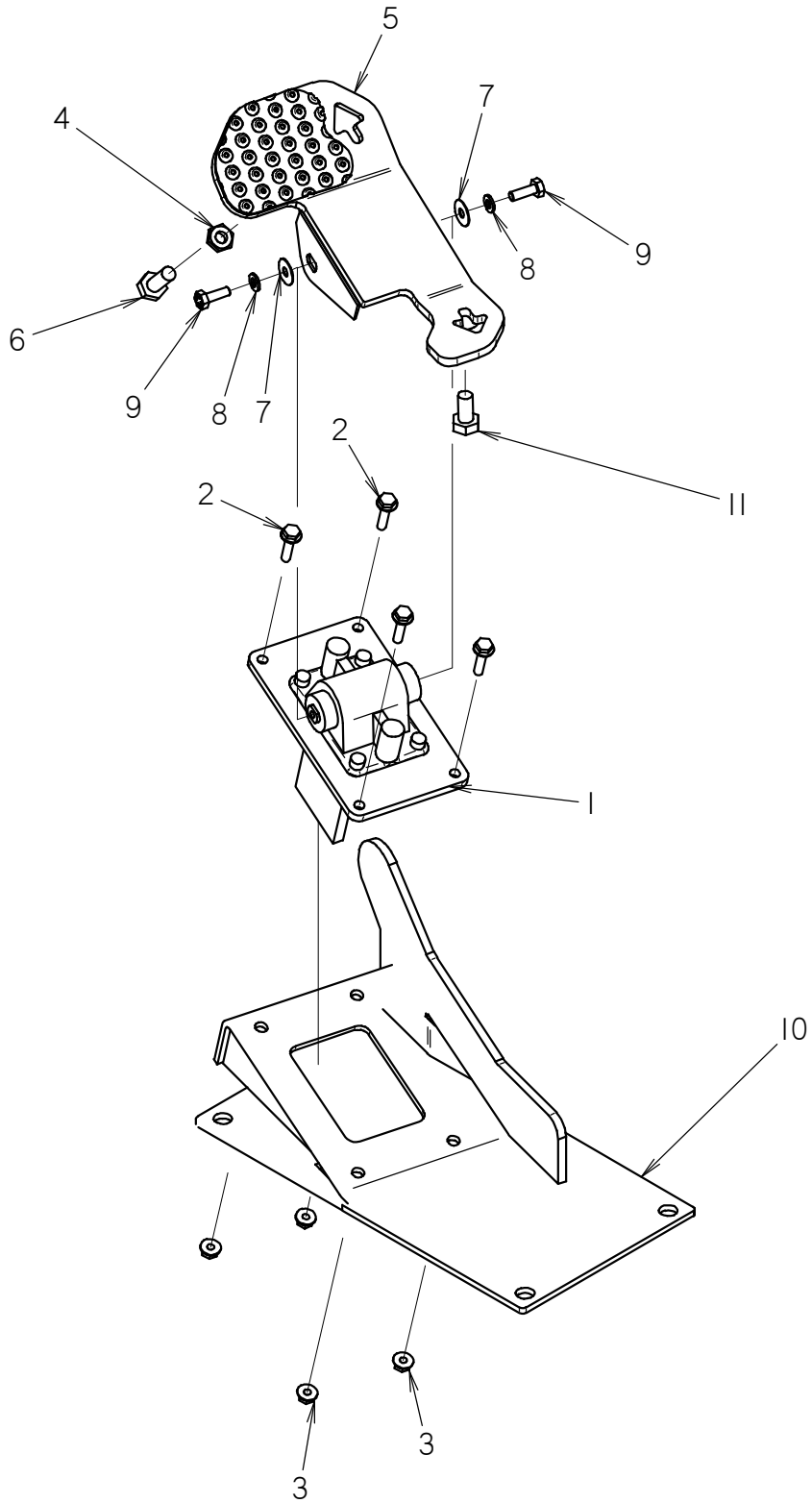
FOOTNOTES:

1. HAND CONTROL 215-1536 SUPERSEDEDS 215-1242. BEGINS WITH S/N CMWRT80XP90000002, CMWRT95HC90000366, CMWRT5T3J90000131.
2. HAND CONTROL 215-1536 HAS BEEN REPLACED BY 215-1663.

NOTE:



# CRUISE FOOT CONTROL



# CRUISE FOOT CONTROL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	215-1537	1	SINGLE AXIS 12V FOOT CONTROL	SEE FOOTNOTE 1 SUPERCEDES 215-1243
2	106-848	4	FLG SCREW (M6-1.00 X 25MM)	
3	106-385	4	FLG LOCKNUT (M6-1.00)	
4	107-769	1	JAM NUT (M10-1.50)	
5	324-554	1	PEDAL	
6	106-079	1	SCREW (M10-1.50 X 30MM)	
7	107-092	2	WASHER (.254")	
8	105-079	2	LOCK WASHER (1/4)	
9	105-865	2	BOLT (1/4-NC X 3/4", GD8)	
10	323-921	1	CRUISE FOOT CONTROL BASE	
11	105-274	1	SCREW (M10-1.50 X 20MM, 10.9)	

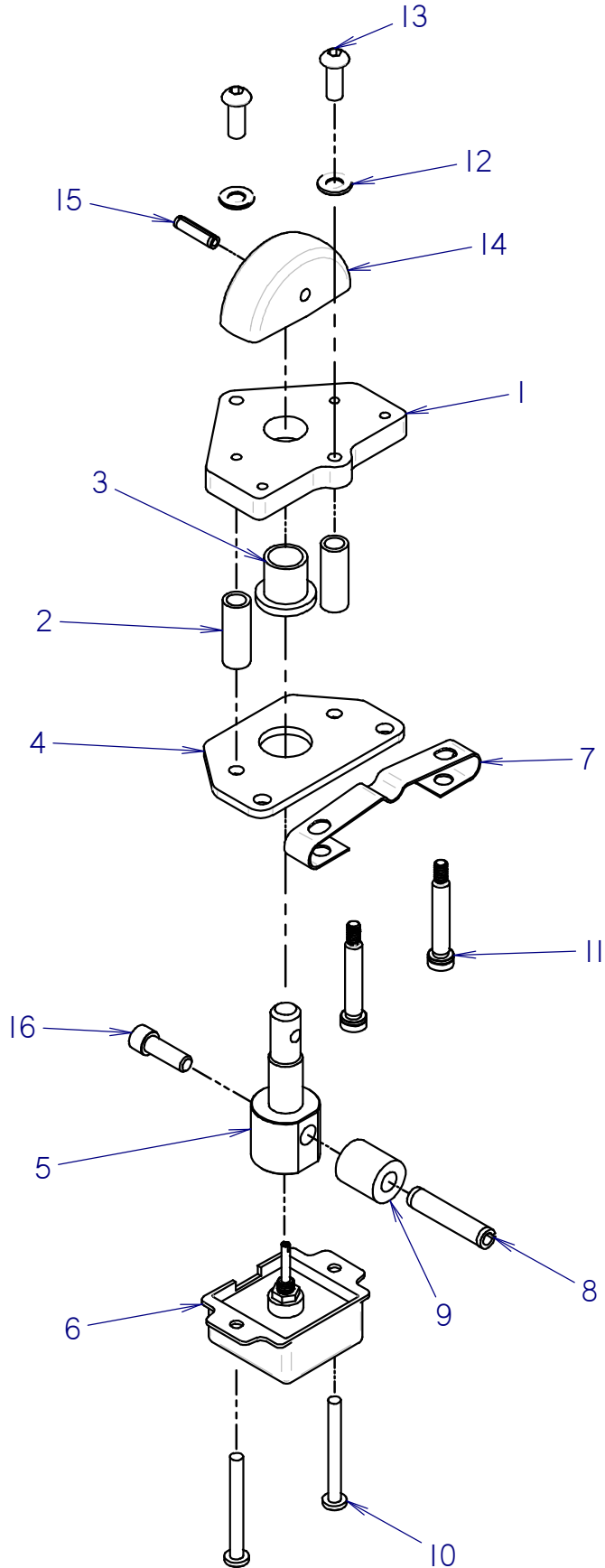
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FOOTNOTES:

RT80, 95 115T3 BEGINS WITH S/N CMWRT80XP90000002, CMWRT95HC90000366, CMWRT5T3J90000131.

NOTE:

# REAR STEER CONTROL KIT



# REAR STEER CONTROL KIT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	318-366	1	MOUNT PLATE	SEE FOOTNOTE 1
2	179-416	2	BOSS	
3	125-447	1	BUSHING	
4	318-367	1	BOTTOM PLATE	
5	166-449	1	SHAFT	
6	217-273	1	POSITION POTENTIOMETER	
7	115-598	1	SPRING DETENT	
8	105-529	1	ROLL PIN (5/16" X 1-1/2")	
9	179-418	1	BUSHING	
10	106-120	2	SCREW (#10-24 X1-3/4",PAN SLT)	SEE FOOTNOTE 2
11	107-785	2	SHLD BLT(1/4" X 1-1/4",#10-24)	SEE FOOTNOTE 2
12	107-744	2	WASHER (M6)	
13	107-193	2	SCREW (M6-1.00 X 16MM,BUT SOC)	
14	117-887	1	KNOB	
15	105-522	1	ROLL PIN (3/16" X 3/4")	
16	105-161	1	BOLT (1/4-NC X 3/4", SOC)	SEE FOOTNOTE 2

NOT SHOWN:

**FOOTNOTES:**

1. P/N 191-221 REAR STEER CONTROL KIT INCLUDES REFERENCE # 1-16
2. USE LOCTITE 242 OR EQUIVALENT

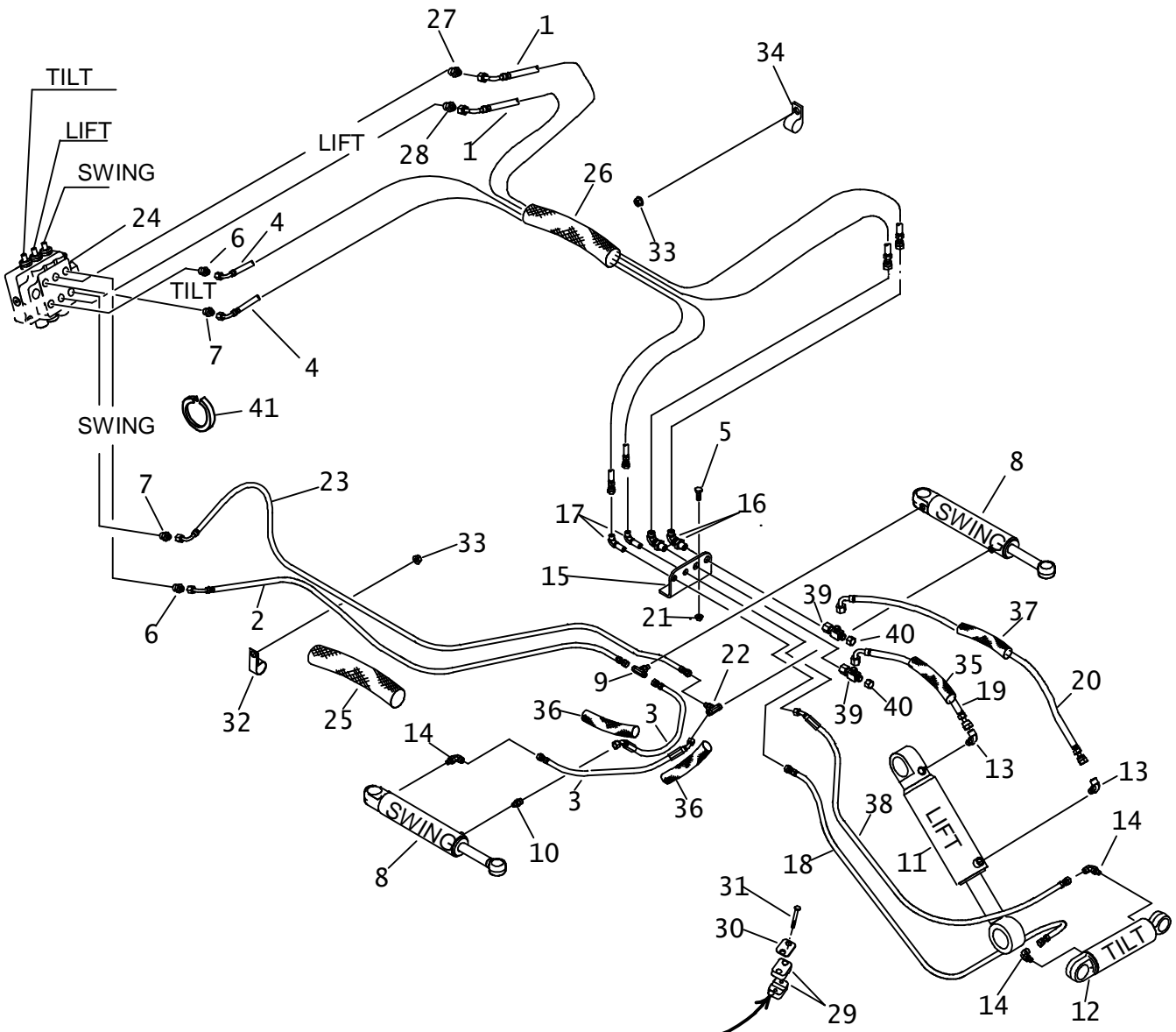
**NOTE:**

REFER TO INSTALLATION INSTRUCTION 051-319 FOR REAR STEER UPGRADE KIT INFORMATION.  
 191-251 IS THE REAR STEER UPGRADE KIT AND 259-516 IS THE REAR STEER ALIGNMENT (SPECAL TOOL) .  
 REFER TO O-RING CHART (800-301) FOR REPLACEMENT O-RINGS.

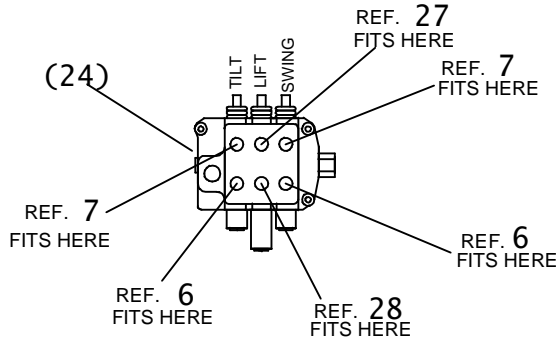


# HYDRAULICS

# BACKFILL BLADE HYDRAULICS



FOOTNOTE 2



# BACKFILL BLADE HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-074	2	HOSE (060FX90-88"-3000)	LIFT
2.	153-968	1	HOSE (040FX90S-82"-5000)	SWING
3.	515-310	2	HOSE (040FX45-22"-5000)	SWING
4.	515-137	2	HOSE (040FX90-90"-3000)	TILT
5.	106-327	2	SCREW (M8-1.25 X 30mm)	
6.	154-261	2	CONNECTOR (040-08S)	
7.	154-374	2	CONNECTOR (040-08S, ORF)	
8.	151-057	2	CYL (2.0" X 1.25" X 8.0")	SEE FOOTNOTE 1
9.	154-293	1	BRANCH TEE (04S-040-040)	
10.	154-278	1	CONNECTOR (04S-040)	
11.	151-070	1	CYL (3" X 1.75" X 8")	SEE FOOTNOTE 1
12.	151-202	1	CYL (2" X 1" X 3.38")	SEE FOOTNOTE 1
13.	154-342	2	CONNECTOR (06S-06090)	
14.	154-252	3	CONNECTOR (04S-04090)	
15.	307-416	1	BK BRACKET	
16.	154-229	2	BK CONNECTOR (060-06090BK)	
17.	154-355	2	BK CONNECTOR (040-04090BK)	
18.	154-921	1	HOSE (040FX-54"-3000-AR)	TILT
19.	154-929	1	HOSE (060FX90-19"-3000)	LIFT
20.	515-221	1	HOSE (060FX90S-28"-3000)	LIFT
21.	106-386	2	FLG LOCKNUT (M8-1.25)	
22.	154-316	1	RUN TEE (04S-040-040)	
23.	153-967	1	HOSE (040FX90S-90"-5000)	SWING
24.	158-033	-	HYD. CONTROL VALVE (3-SPOOL)	ENDS WITH S/N 5Y0446. OBSOLETE
	159-809	-	HYD. CONTROL VALVE (3-SPOOL)	BEGINS WITH S/N 5Y0447, USE FLOAT KIT 500-2020
25.	117-691	1	ABRASION SLEEVE (1.25" X 68")	
26.	115-920	1	ABRASION SLEEVE (2.38" X 70")	
27.	514-294	1	CONNECTOR (08S-060, ORF)	
28.	154-222	1	CONNECTOR (060-08S)	
29.	110-866	2	CLAMP SET (1/2")	SEE FOOTNOTE 2
30.	110-958	2	BACKUP PLATE	
31.	105-818	4	BOLT (1/4-NC X 1-1/2")	
32.	110-332	1	BOLT-ON CLAMP (1-5/8")	SEE FOOTNOTE 3
33.	105-003	2	FLG LOCKNUT (5/16-NC)	SEE FOOTNOTE 3
34.	110-333	1	BOLT-ON CLAMP (1")	SEE FOOTNOTE 3
35.	117-328	1	ABRASION SLEEVE (1.00" X 18")	
36.	117-672	2	ABRASION SLEEVE (1.00" X 20")	
37.	117-409	1	ABRASION SLEEVE (1.00" X 28")	
38.	153-973	1	HOSE (040FX45-54"-3000-AR)	TILT
39.	154-344	2	UN RUN TEE (060FX-060-060)	
40.	154-326	2	CAP (060F)	
41.	116-259	AR	BULK EDGE (1/2", SOLD PER FT)	USE 1 @ 20" & SEE FOOTNOTE 4

#### FOOTNOTES:

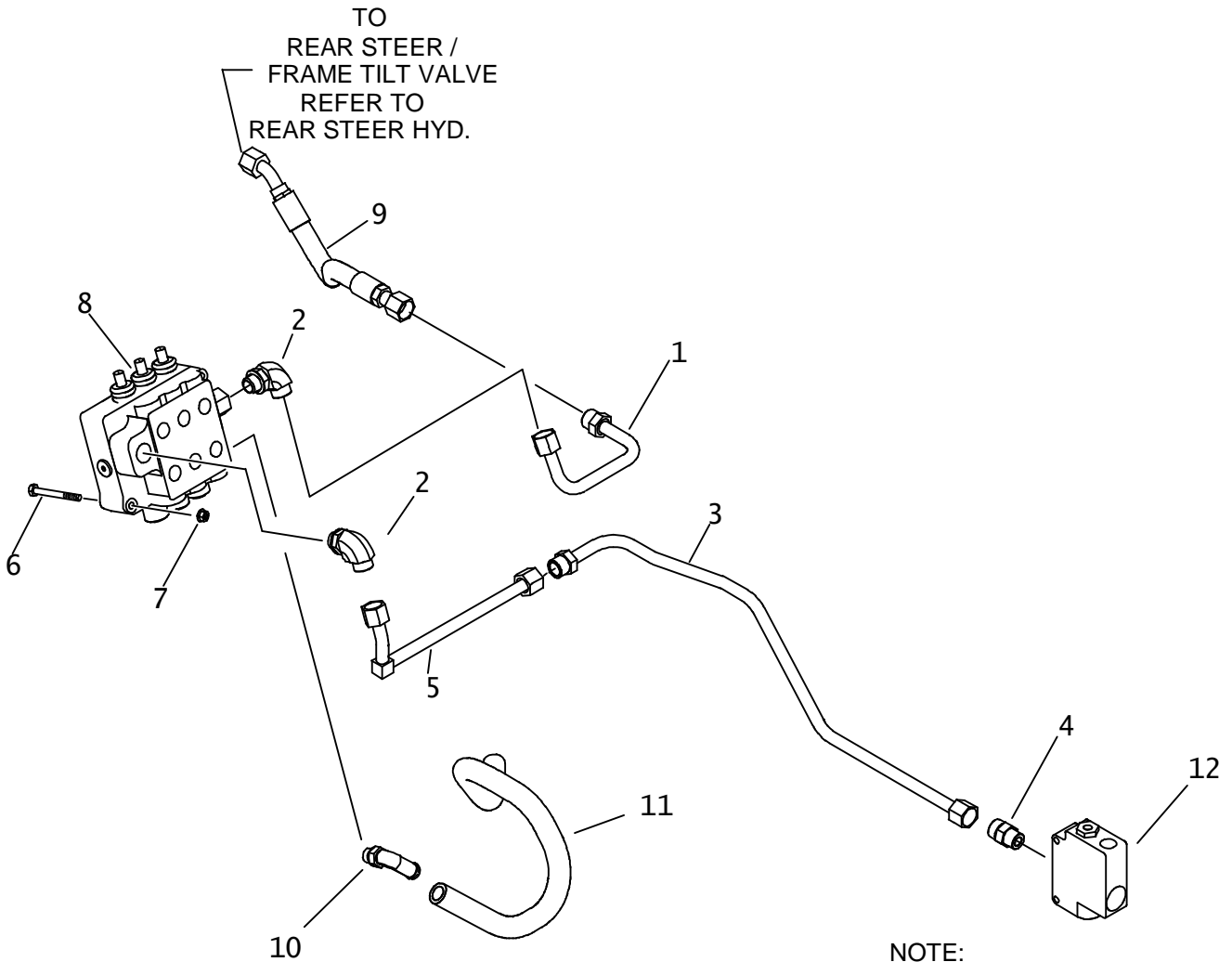
1. REFER TO PARTS PAGE "BACKFILL BLADE ASSEMBLY" FOR CYLINDER INSTALLATION HARDWARE.
2. CLAMP SET (110-866) BOLTS ONTO WELD PLATE ON BFB LIFT ARM.
3. #110-333, 105-003 & 110-332 ATTACH TO STUD BOLTS ON FRAME PLATES.
4. USE EDGING ON FRAME WHERE HOSE'S PASS THRU.

#### NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.



# BACKFILL BLADE VALVE RT95



TO  
REAR STEER /  
FRAME TILT VALVE  
REFER TO  
REAR STEER HYD.

SEE FOOTNOTE 1

NOTE:  
FOR HYDROSTAT UNITS  
REFER TO  
AUX. HYD.- HYDROSTAT  
&  
FOR POWER SHIFT UNITS  
REFER TO  
AUX. HYD.- POWER SHIFT

## BACKFILL BLADE VALVE RT95

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	149-851	1	HYD LINE (-10)	
2.	154-298	2	CONNECTOR (10S-10090)	
3.	149-849	1	HYD LINE (-10)	
4.	154-301	1	CONNECTOR (10S-100)	
5.	157-322	1	HYD LINE (-10)	
6.	105-292	3	SCREW (M8-1.25 X 75mm)	
7.	106-386	3	FLG LOCKNUT (M8-1.25)	
8.	<u>158-033</u>	1	HYD. CONTROL VALVE (3-SPOOL)	ENDS WITH S/N_____, SEE FOOTNOTE 1
	159-809	1	HYD. CONTROL VALVE (3-SPOOL)	BEGINS WITH S/N_____.
9.	153-907	1	HOSE (100FX45-16"-3000)	
10.	154-362	-	S/O COUPLER (10S-12H90)	
11.	116-636	-	BULK HOSE (3/4", SOLD PER 1')	USE 1 @ 25"
12.	157-917	-	PRIORITY VALVE	

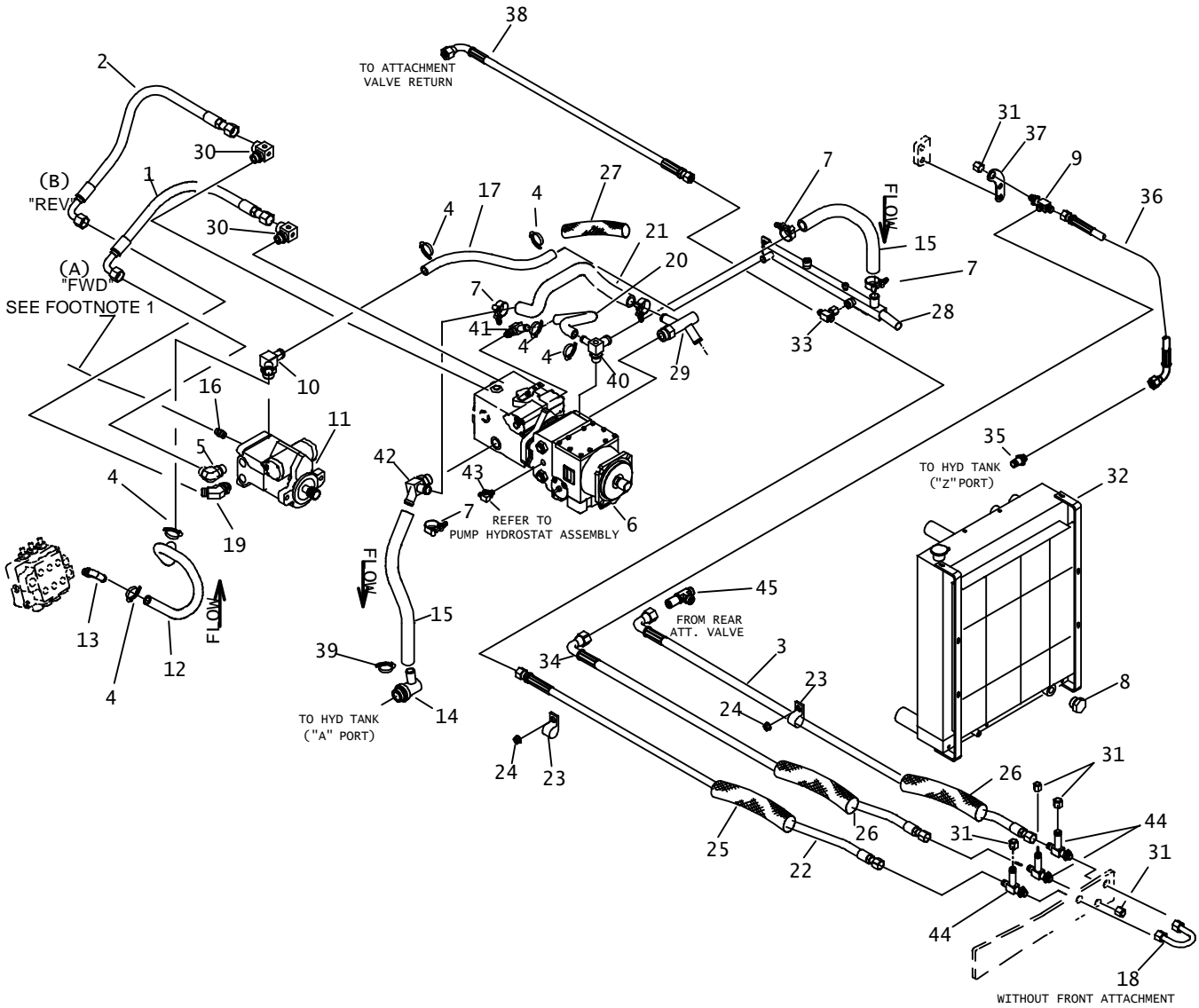
### FOOTNOTES

- FOR BFB VALVE RETURN HOSE'S REFER TO PAGE "PUMP DRIVE HYDRAULICS" FOR HYDROSTATICS OR PAGE "GROUND DRIVE MOTOR HYDRAULICS" FOR POWERSHIFTS.

### NOTE

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

# PUMP DRIVE HYDRAULICS HYDROSTATIC



# PUMP DRIVE HYDRAULICS HYDROSTATIC

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-076	1	HOSE (120FX90S-28"-5000)	REVERSE
2.	153-077	1	HOSE (120FX90S-32"-5000)	FORWARD
3.	157-343	1	HOSE (100FX90S-120"-3000)	
4.	110-353	6	WORM CLAMP (3/4" TO 1-1/2")	
5.	154-270	1	CONNECTOR (12S-12090)	
6.	158-049	-	TANDEM PUMP	ENDS WITH S/N_____
	158-193	-	TANDEM PUMP	BEGINS WITH S/N_____
7.	111-027	5	T-BOLT CLAMP (1.25"-1.50")	
8.	155-184	1	PLUG (16S)	
9.	154-319	1	BK RUN TEE (100)	
10.	514-307	1	S/O TEE (12S-12H-12H90)	
11.	153-081	-	HYDRAULIC MOTOR	
	157-359	-	HYDRAULIC MOTOR	REFER TO "GROUND DRIVE TRANS MOUNT" PAGE
12.	116-636	AR	BULK HOSE (3/4", SOLD PER 1')	USE 1 @ 25"
13.	154-362	1	S/O COUPLER (10S-12H90)	
14.	153-142	1	S/O COUPLER (20S-16H90)	
15.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 2 @ 24"
16.	154-278	1	CONNECTOR (04S-040)	SEE FOOTNOTE 1
17.	116-636	AR	BULK HOSE (3/4", SOLD PER 1')	USE 1 @ 24"
18.	149-821	1	HYD. LINE (-10)	
19.	154-251	1	CONNECTOR (12S-12045)	
20.	116-636	AR	BULK HOSE (3/4", SOLD PER 1')	USE 1 @ 12"
21.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 20"
22.	154-915	1	HOSE (100FX-70"-3000)	
23.	110-333	2	BOLT-ON CLAMP (1")	SEE FOOTNOTE 2
24.	105-003	2	FLG LOCKNUT (5/16-NC)	SEE FOOTNOTE 2
25.	117-764	1	ABRASION SLEEVE (1.59" X 90")	
26.	117-392	2	ABRASION SLEEVE (1.25" X 60")	
27.	115-687	AR	ABRASION SLEEVE (SOLD PER FOOT)	USE 1 @ 12" & SEE FOOTNOTE 3
28.	307-535	1	RETURN MANIFOLD	
29.	149-820	-	S/O COUPLER (16S-16H90-16H45, XL)	
30.	149-058	-	RUN TEE (16S-120-06SF-06SF-06SF)	
31.	154-324	5	CAP (100F)	
32.	306-459	-	RADIATOR/OIL COOLER	
33.	154-325	1	UN BR TEE (100FX-100-100)	
34.	155-466	1	HOSE (100FX90-74"-2750)	
35.	154-391	1	CONNECTOR (08S-100)	REFER TO HYD. RESERVOIR PARTS PAGE
36.	153-957	1	HOSE (100FX45-44"-3000)	ENDS WITH S/N 5X0709.
	153-956	1	HOSE (100FX90-50"-3000)	BEGINS WITH S/N 5X0710.
37.	316-822	1	RETURN BRACKET	
38.	153-956	1	HOSE (100FX90-50"-3000)	
39.	111-011	1	WORM CLAMP (1" TO 1 3/4 ")	
40.	155-224	-	S/O BR TEE (12S-12H-16H90)	
41.	155-198	-	S/O COUPLER (12S-12H90-06SF)	
42.	149-819	-	S/O COUPLER (16S-16H-16H45)	
43.	154-230	-	BRANCH TEE (06S-040-040)	
44.	153-984	3	BK RUN TEE (100-100-100L)	
45.	154-319	1	BULK RUN TEE (100)	

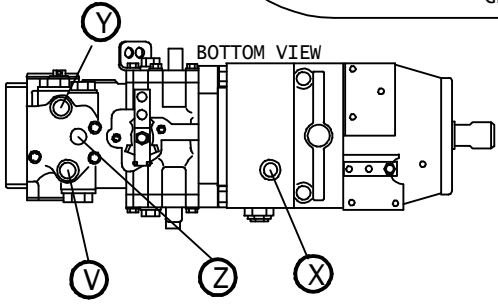
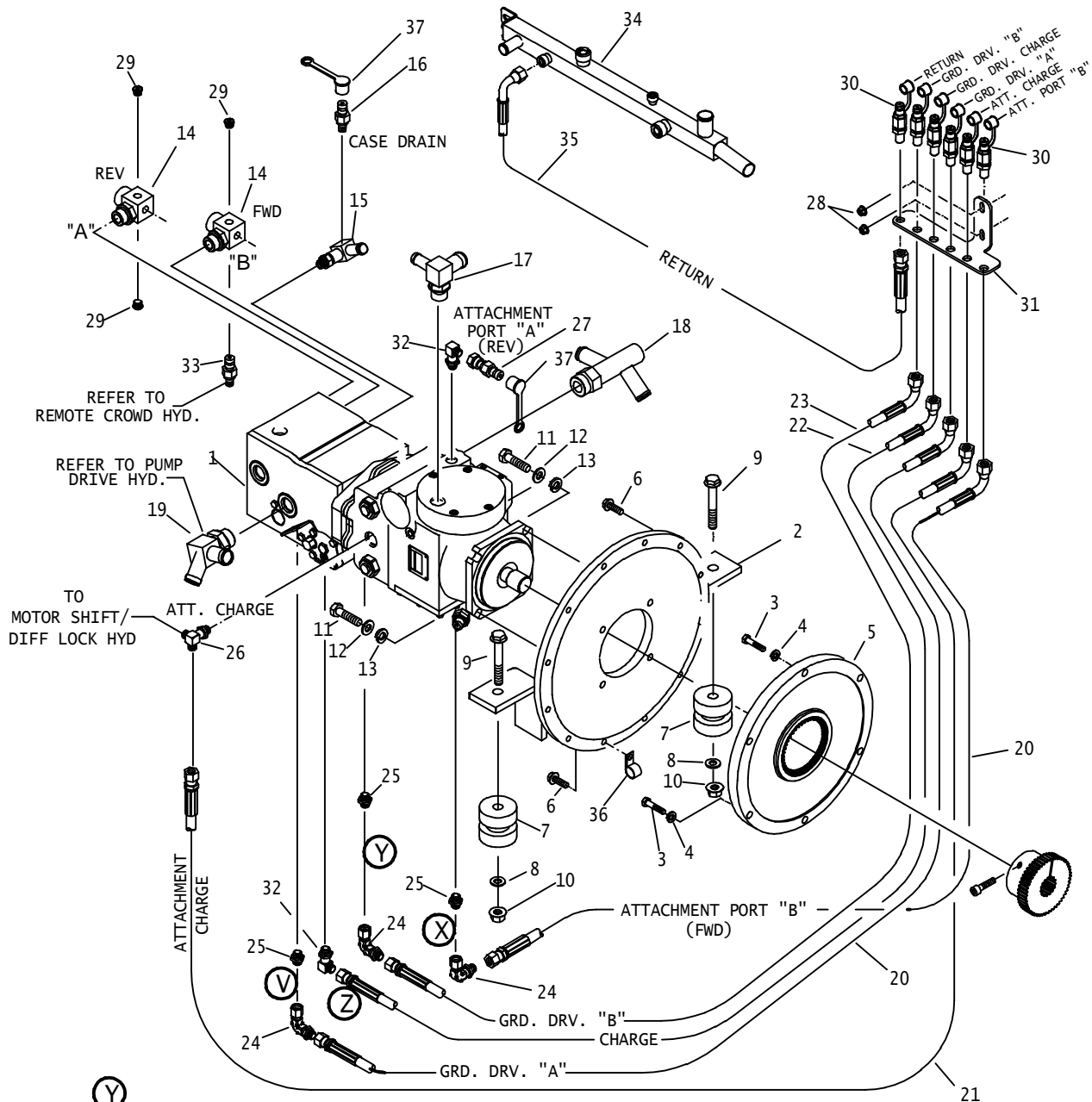
#### FOOTNOTES:

- FOR DESTINATION OF 154-278 (REF #16) REFER TO "MOTOR SHIFT/DIFF LOCK HYD." PARTS PAGE, REF #6.
- #110-333 & #105-003 ATTACH TO STUD BOLTS ON LEFT FRAME PLATE.
- ABRASION SLEEVE (REF #27) IS USED TO WRAP HOSE (REF #21) AS IT WRAPS AROUND PUMP.

#### NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

# PUMP HYDROSTATIC ASSEMBLY



- NOTES:
- 1: REFER TO PARTS PAGE "PUMP DRIVE HYDRAULICS" FOR HYDRAULIC HOSE ROUTING INFORMATION.
  - 2: HUB ON PUMP MEASURES 2-3/4" FROM PUMP MOUNTING SURFACE TO CENTER OF SPLINES.

# PUMP HYDROSTATIC ASSEMBLY

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	<u>158-049</u>	1	TANDEM PUMP	ENDS WITH S/N_____.
	150-3061	1	TANDEM PISTON PUMP	BEGINS WITH S/N_____; SEE FOOTNOTE 6
	<u>158-038</u>		ATTACHMENT PUMP	ENDS WITH S/N_____.
	158-194		ATTACHMENT PUMP	BEGINS WITH S/N_____.
	214-892		PRESSURE SWITCH	SEE FOOTNOTE 4
	190-679		SEAL REPAIR KIT	
	500-763		MULTIFUNCTION VALVE - RELIEF	
	500-764		MULTIFUNCTION VALVE (#1)	
	158-040		GROUND DRIVE PUMP	
	500-806		SEAL REPAIR KIT	
	499-448		SERVO COVER	
	499-447		SERVO COVER (FULL DISPL.)	
	165-728		SERVO GASKET	
	500-639		NEUTRAL START SWITCH	SEE FOOTNOTE 5
2.	307-330	1	PUMP MOUNT	
3.	107-416	6	BOLT (5/16-NC X 1-1/2")	SEE FOOTNOTE 1
4.	105-072	6	LOCK WASHER (3/8")	
5.	165-889	1	FLYWHEEL COUPLING	SEE FOOTNOTE 3
6.	106-383	12	FLG LK SCREW (M10-1.50 X 30mm)	SEE FOOTNOTE 1
7.	116-151	2	SHOCK MOUNT	
8.	105-475	4	WASHER (1/2")	
9.	105-993	2	FLG BOLT (5/8-NC X 4")	
10.	105-994	2	FLG LOCKNUT (5/8-NC)	
11.	105-066	4	BOLT (1/2-NC X 1-3/4")	SEE FOOTNOTE 1
12.	105-244	4	WASHER (1/2")	
13.	105-070	4	LOCK WASHER (1/2")	
14.	149-058	2	RUN TEE (16S-120-06SF-06SF-06SF)	REFER TO PUMP DRIVE HYD. PARTS PAGE
15.	155-198	1	S/O COUPLER (12S-12H90-06SF)	
16.	159-147	1	QDC ADAPTER (02-06S)	
17.	155-224	1	S/O BRANCH TEE (12S-12H-16H90)	
18.	149-820	1	S/O COUPLER (16S-16H90-16H45, XL)	
19.	149-819	1	S/O COUPLER (16S-16H-16H45)	
20.	153-911	2	HOSE (040FX90-10"-5000-AR)	
21.	515-462	1	HOSE (040FX90-22"-3000-AR)	
22.	515-396	1	HOSE (040FX90-8.0"-5000)	
23.	515-358	1	HOSE (040FX90-11"-5000)	
24.	154-255	3	UNION (040-040FX90)	
25.	154-220	3	CONNECTOR (040-06S)	
26.	154-230	-	BRANCH TEE (06S-040-040)	REFER TO MOTOR SHIFT/DIFF LOCK HYD. PARTS PAGE
27.	159-156	1	QDC ADAPTER (02-040F)	
28.	105-003	2	FLG LOCKNUT (5/16-NC)	
29.	154-384	3	PLUG (06S)	
30.	155-260	6	BK QDC ADAPTER (02-040BK)	
31.	310-246	1	TEST PORT BRACKET	SEE FOOTNOTE 2
32.	154-226	2	CONNECTOR (040-06S90)	
33.	159-381	-	CHECK VALVE (06S-060)	REFER TO PUMP DRIVE HYDRAULICS PARTS PAGE
34.	307-535	-	RETURN MANIFOLD	
35.	515-085	1	HOSE (040FX90-8.5"-3000)	
36.	110-332	1	BOLT-ON CLAMP (1-5/8")	
37.	159-148	2	DUST CAP (1/8")	

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#### FOOTNOTES:

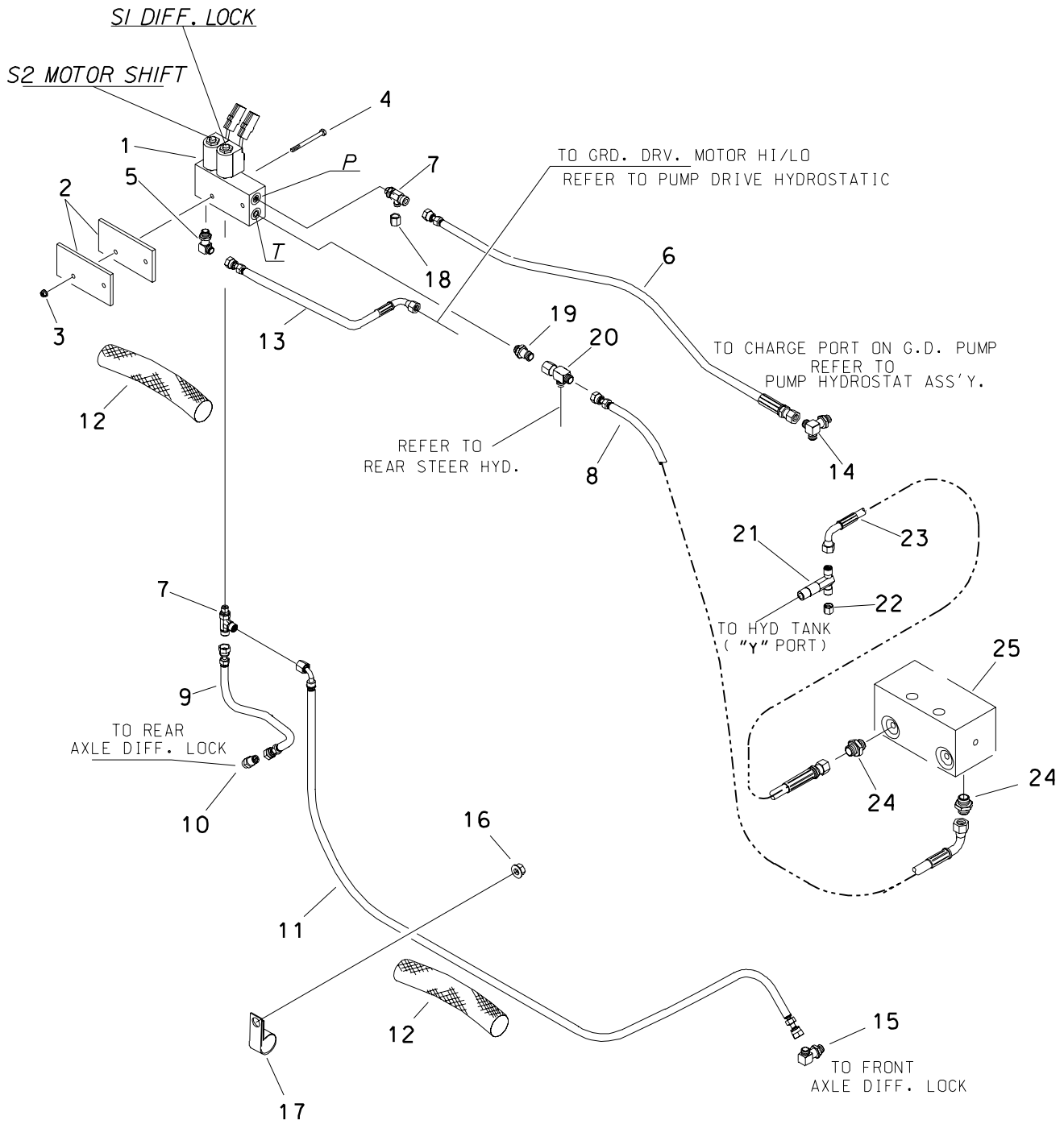
- USE LOCTITE NO. 242 OR ITS EQUIVALENT
- TEST PORT BRACKET (REF 31) BOLTS TO 5/16 " STUD BOLTS ON FRAME.
- TORQUE TO 90 FT-LBS AND USE 242 LOCTITE.
- ATTACHMENT PUMP (90 SERIES) NEUTRAL SWITCH.
- G.D. PUMP (M46) NEUTRAL SWITCH; W/O CRUISE CONTROL.
- PUMP 150-3061 SUPERSEDES 158-193 AND IS A DIRECT REPLACEMENT.

#### NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

# MOTOR SHIFT/DIFF LOCK HYDRAULICS

HYDROSTATIC  
BEGINS WITH S/N 5X0710.



## MOTOR SHIFT/DIFF LOCK HYDRAULICS

HYDROSTATIC

BEGINS WITH S/N 5X0710.

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	157-246	1	MANIFOLD (2-SP)	SEE FOOTNOTE 2
	214-491		COIL, 12V	
	499-446		SOLENOID (3 WAY-2 POS VALVE)	
2.	306-885	2	MOUNT PLATE	SEE FOOTNOTE 3
3.	106-385	2	FLG LOCKNUT (M6-1.00)	
4.	106-566	2	SCREW (M6-1.00 X 70mm)	
5.	154-252	1	CONNECTOR (04S-04090)	
6.	515-249	1	HOSE (040FX-26"-3000)	
7.	154-316	2	RUN TEE (04S-040-040)	DIFF. LOCK
8.	515-716	1	HOSE (060FX90-42"-3000)	
9.	154-743	1	HOSE (040FX90S-23"-3000)	
10.	154-220	1	CONNECTOR (040-06S)	
11.	515-174	1	HOSE (040FX90-74"-3000)	
12.	117-611	2	ABRASION SLEEVE (1.00" X 22")	
13.	154-726	1	HOSE (040FX90-15"-3000)	
14.	154-230	1	BRANCH TEE (06S-040-040)	
15.	154-226	1	CONNECTOR (040-06S90)	
16.	105-003	1	FLG LOCKNUT (5/16-NC)	SEE FOOTNOTE 1
17.	110-333	1	BOLT-ON CLAMP (1")	SEE FOOTNOTE 1
18.	154-296	1	CAP (040F)	
19.	154-411	1	CONNECTOR (04S-060)	
20.	154-344	1	UN RU TEE (060FX-060-060)	
21.	159-643	1	TEE (08N-060-060 X 2.375")	
22.	154-326	1	CAP (060F)	
23.	157-899		HOSE (060FX90S-11"-3000)	REFER TO PAGE "REMOTE CROWD HYDRAULICS"
24.	154-221		CONNECTOR (06S-060)	
25.	159-218		HYD. MANIFOLD (4-PORT)	

## FOOTNOTES

- #105-003 & #110-333 ATTACH TO STUD BOLTS ON FRAME PLATE.
- EARLY PRODUCTION MANIFOLDS HAVE A CAVITY PLUG WHERE THE RELIEF VALVE WAS LOCATED.
- WHEN "FRAME TILT" OPTION IS USED TWO MOUNT PLATES (306-885) IS REQUIRED, ONE ON EITHER SIDE OF FRAME. WITH NO FRAME TILT ONLY ONE MOUNT PLATE (306-885) IS USED ON OUTSIDE OF FRAME.

## NOTE

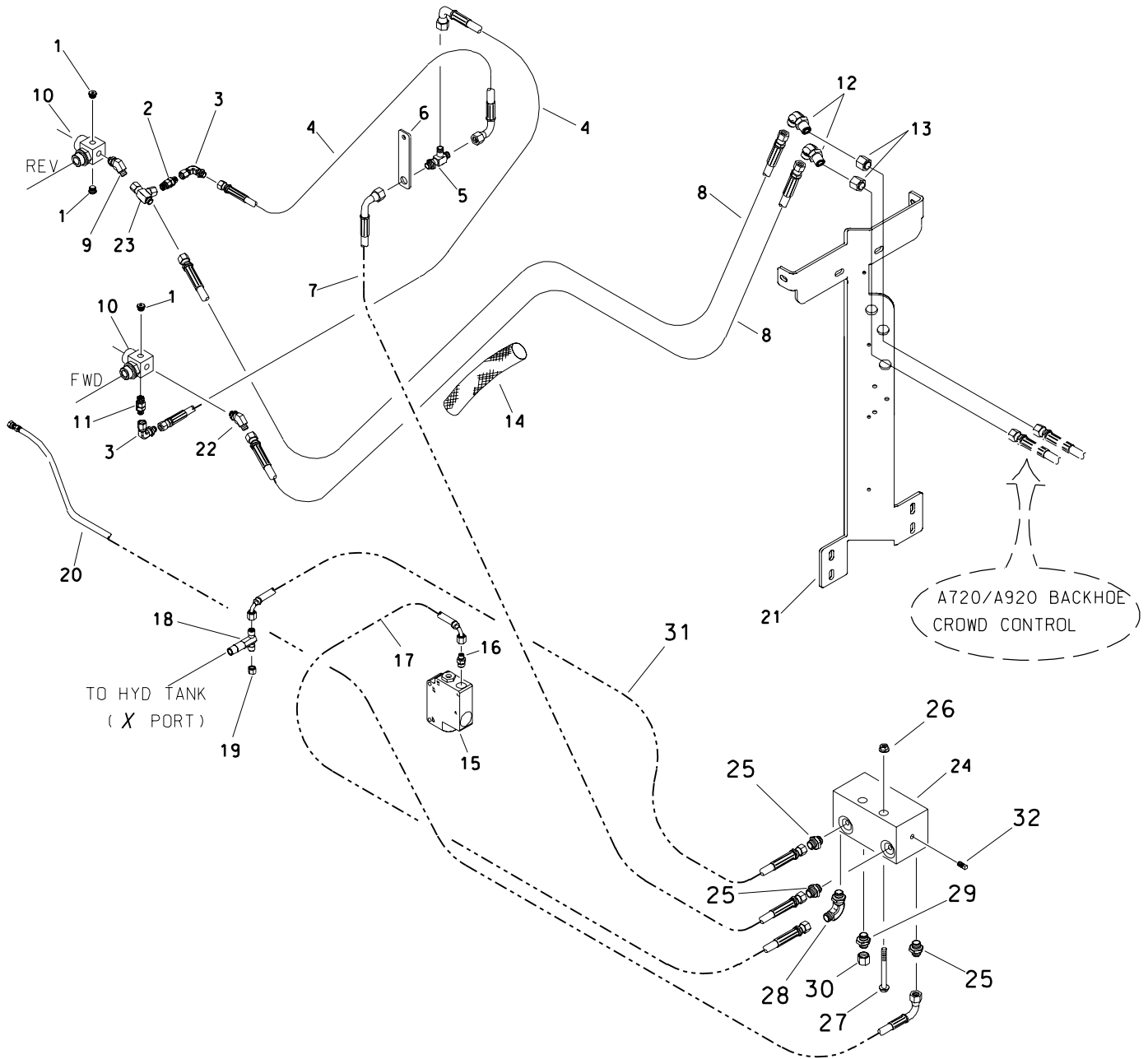
REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.



# REMOTE CROWD HYDRAULICS

BEGINS WITH S/N 5X0465 RT70/RT75

BEGINS WITH S/N 5X0710 RT90/RT95/RT115



# REMOTE CROWD HYDRAULICS

BEGINS WITH S/N 5X0465 RT70/RT75

BEGINS WITH S/N 5X0710 RT90/RT95/RT115

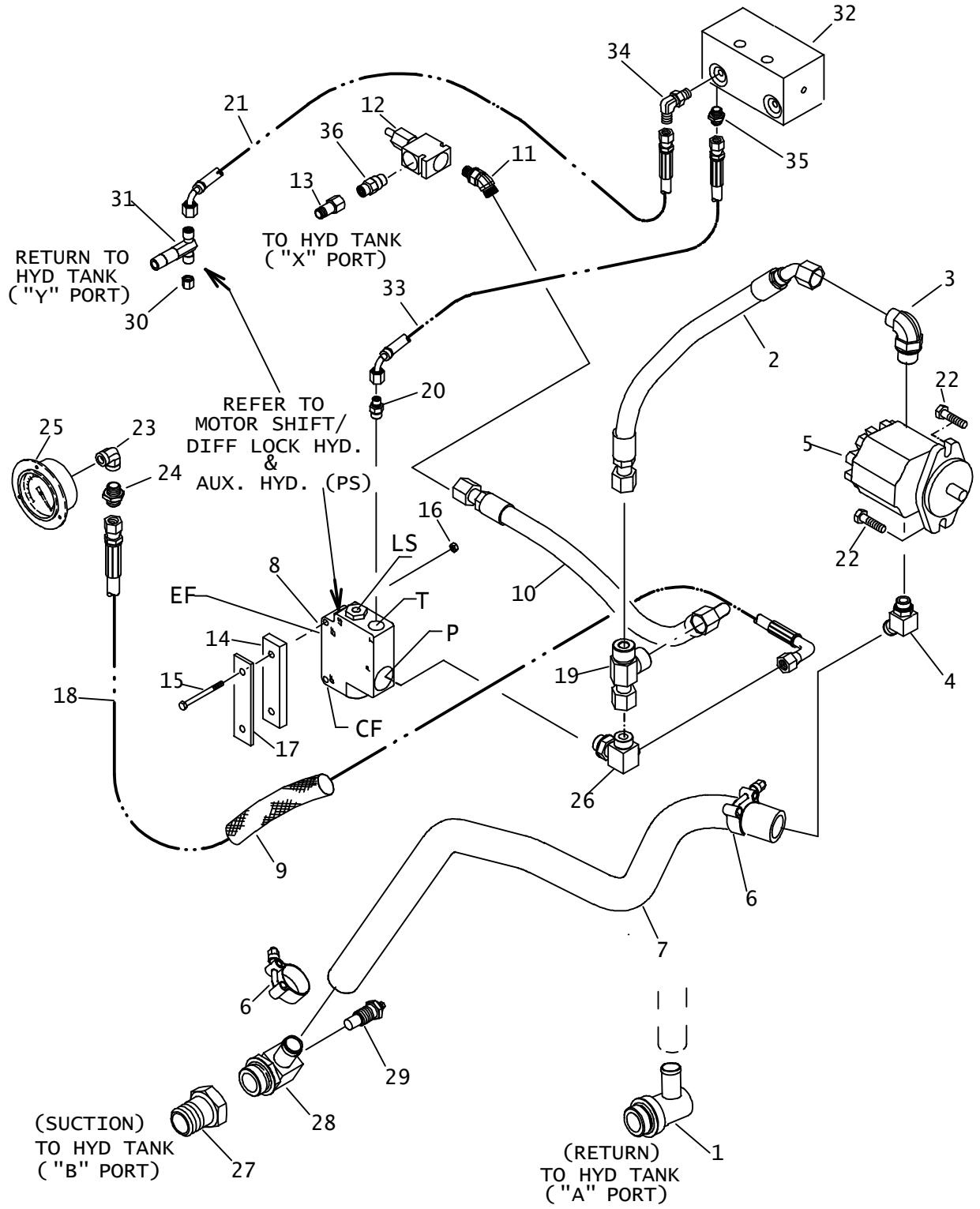
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-384	-	PLUG (06S)	
2.	149-871	1	FLOW CHECK VALVE (060-060)	
3.	154-228	2	UNION (060-060FX90)	
4.	149-826	2	HOSE (060FX90L-12"-3000)	
5.	154-400	1	BK RUN TEE (060-060-060BK)	
6.	318-606	1	BULKHEAD BRACKET	
7.	154-887	1	HOSE (060FX45-23"-3000)	
8.	157-263	2	HOSE (040FX-102"-5000)	
9.	154-224	1	CONNECTOR (06S-06045)	
10.	149-058	-	RUN TEE (16S-120-06SF-06SF-06SF)	
11.	159-381	1	CHECK VALVE (06S-060)	
12.	154-355	2	BK CONNECTOR (040-04090BK)	
13.	154-296	2	CAP (040F)	
14.	115-934	1	ABRASION SLEEVE (1.75" X 100")	
15.	157-917	-	PRIORITY VALVE	
16.	154-278	-	CONNECTOR (04S-040)	
17.	154-743	-	HOSE (040FX90S-23"-3000)	
18.	159-643	-	TEE (08N-060-060 X 2.375")	
19.	154-326	-	CAP (060F)	
20.	515-716	-	HOSE (060FX90-42"-3000)	
21.	307-909	-	FRONT HOOD SUPPORT	
22.	154-250	1	CONNECTOR (040-06S45)	
23.	157-264	1	TEE (040-060F-060F)	
24.	159-218	1	HYD. MANIFOLD (4-PORT)	
25.	154-221	3	CONNECTOR (06S-060)	
26.	106-386	2	FLG LOCKNUT (M8-1.25)	
27.	105-665	2	FLG SCREW (M8-1.25 X 55mm)	
28.	154-226	1	CONNECTOR (040-06S90)	
29.	154-220	1	CONNECTOR (040-06S)	
30.	154-296	1	CAP (040F)	REFER TO "GEARBOX & VIBRATOR DRV HYD" H752/H952
31.	157-899	1	HOSE (060FX90S-11"-3000)	
32.	110-264	1	EXPANDER PLUG (.275")	

## FOOTNOTES

## NOTE

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

# AUXILIARY HYDRAULICS BEGINS WITH S/N 5X0710



## AUXILIARY HYDRAULICS BEGINS WITH S/N 5X0710

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	153-142	1	S/O COUPLER (20S-16H90)	
2.	153-068	1	HOSE (100FX45-24"-3000)	
3.	154-298	1	CONNECTOR (10S-10090)	
4.	155-230	1	S/O COUPLER (16S-16H45)	
5.	153-807	1	HYDRAULIC PUMP (AUX)	
	500-966	1	SEAL REPAIR KIT	
6.	111-027	2	T-BOLT CLAMP (1.25" - 1.50")	
7.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 42"
8.	157-917	1	PRIORITY VALVE	
9.	117-218	1	ABRASION SLEEVE (1.00" X 52")	
10.	515-605	1	HOSE (100FX90S-20"-3000)	
11.	154-391	1	CONNECTOR (08S-100)	
12.	158-681	1	RELIEF VALVE (AUXILIARY)	PRE SET TO 2500 PSI
13.	153-995	1	CONNECTOR (08S-08SF)	
14.	306-886	1	SPACER	USED ON INSIDE OF FRAME PLATE
15.	107-054	2	SCREW (M6-1.00 X 90mm)	
16.	106-385	2	FLG LOCKNUT (M6-1.00)	
17.	309-817	1	SPACER PLATE	USED ON OUTSIDE OF FRAME PLATE
18.	515-075	1	HOSE (040FX90S-82"-3000)	
19.	154-488	1	UN RUN TEE (100FX-100-100)	
20.	154-278	1	CONNECTOR (04S-040)	
21.	157-899	1	HOSE (060FX90S-11"-3000)	
22.	105-876	2	SCREW (M10-1.50 X 35mm)	
23.	149-896	1	STREET ELBOW (04NF-04NF90)	
24.	154-339	1	CONNECTOR (04N-040)	
25.	217-551	1	PRESSURE GAUGE (3000 PSI)	SEE FOOTNOTE 1
26.	153-787	1	TEE (100-10S-040)	
27.	514-446	-	REDUCER (24S-20SF)	
28.	157-987	1	S/O COUPLER (20S-16H90, 04NF)	
29.	214-854	1	TEMPERATURE SWITCH	
30.	154-326	-	CAP (060F)	
31.	159-643	-	TEE (08N-060-060, X 2.375")	
32.	159-218	-	HYD. MANIFOLD (4-PORT)	
33.	154-743	-	HOSE (040FX90S-23"-3000)	
34.	154-342	-	CONNECTOR (06S-06090)	
35.	154-220	-	CONNECTOR (040-06S)	
36.	154-466	1	CONNECTOR (08S-08S)	

NOT SHOWN:

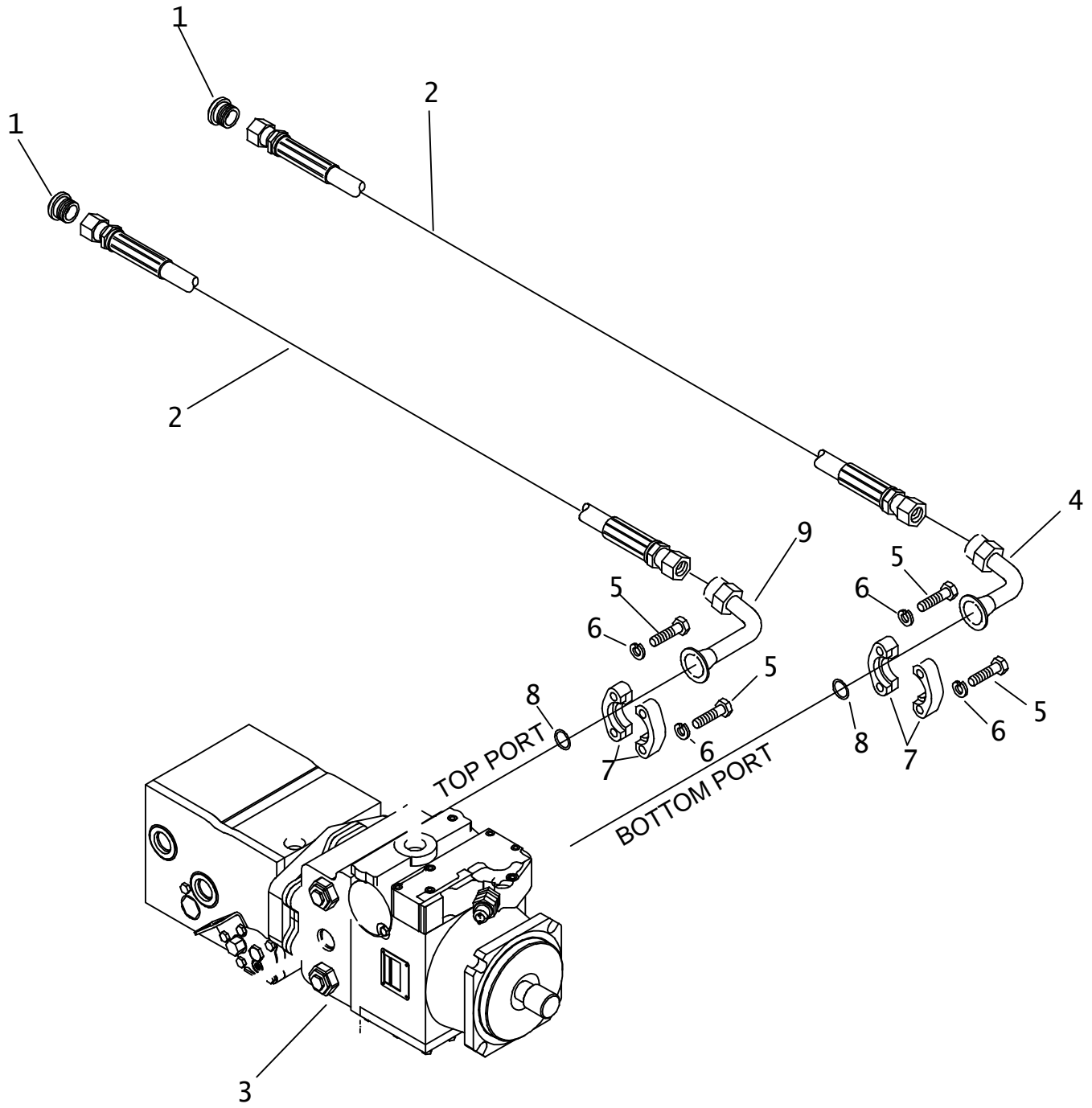
### FOOTNOTES:

- REF. #25 (217-551) IS DEPICTED WITH FACE OF GAUGE SHOWING, ACTUALLY IT FITS INSIDE THE FENDER AND FACES THE OPERATOR.

### NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

# HYDROSTAT PUMP ATTACH HYDRAULICS



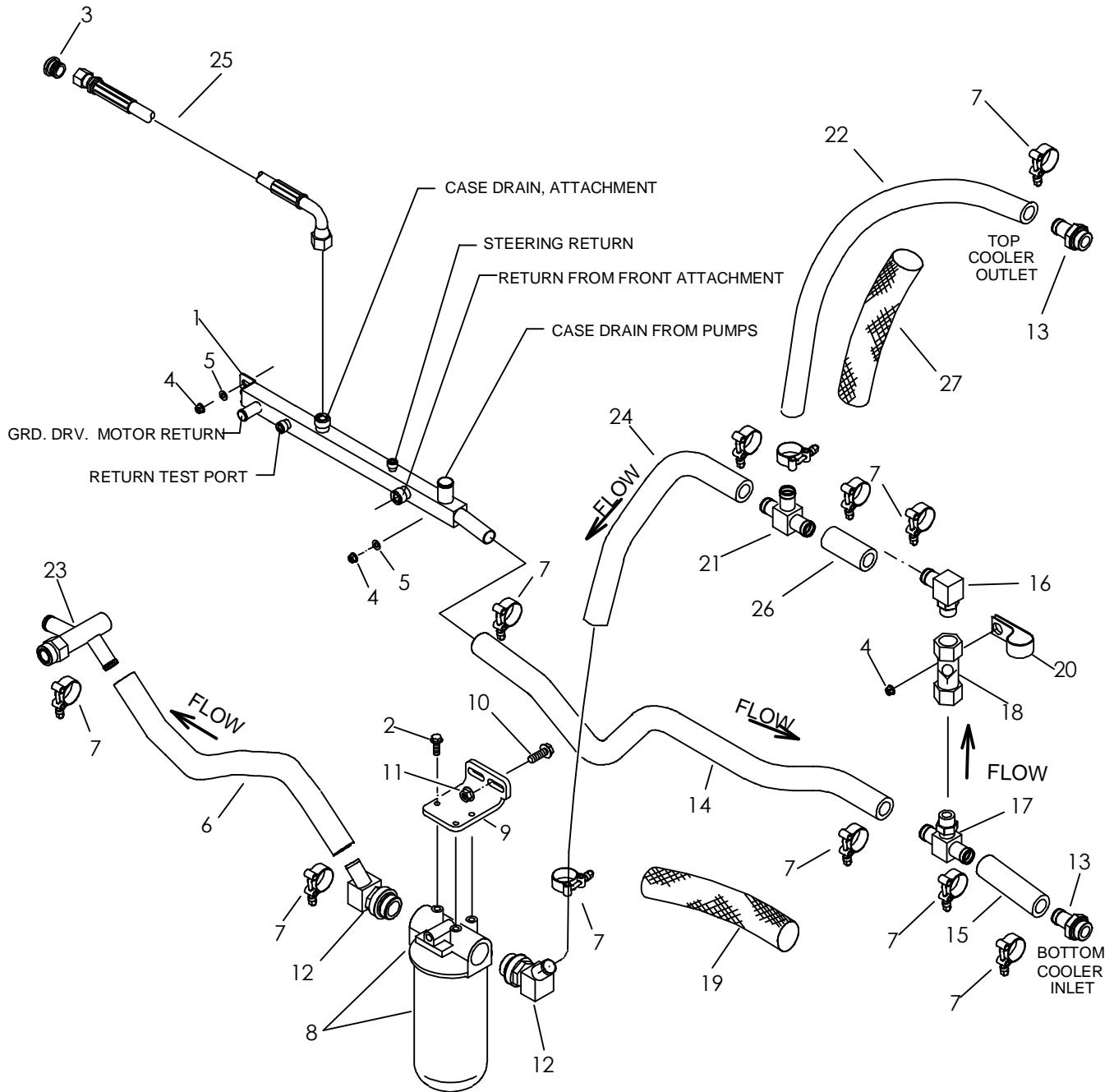
## HYDROSTAT PUMP ATTACH HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-334	2	PLUG (160)	
2.	515-621	2	HOSE (160FX-50"-6000)	
3.	<b>158-049</b>	-	TANDEM PUMP	ENDS WITH S/N_____
	158-193	-	TANDEM PUMP	BEGINS WITH S/N_____
4.	154-404	1	CONNECTOR (160-16FL90)	
5.	105-222	8	BOLT (7/16-NC X 1-3/4")	
6.	105-073	8	LOCK WASHER (7/16")	
7.	159-077	2	SPLIT FLANGE (16SFL)	
8.	157-029	2	O-RING (219 D90)	
9.	153-929	1	CONNECTOR (160-16FL90, XL)	

FOOTNOTES

NOTE:

# HYDRAULIC FILTER TIER 2 HYDROSTATIC



## HYDRAULIC FILTER TIER 2 HYDROSTATIC

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	307-535	1	RETURN MANIFOLD	
2.	105-826	3	FLG LK BOLT (3/8-NC X 1")	
3.	154-331	1	PLUG (080)	
4.	105-003	3	FLG LOCKNUT (5/16-NC)	
5.	105-881	2	WASHER (5/16")	
6.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 24"
7.	111-027	12	T-BOLT CLAMP (1.25"-1.50")	
8.	157-345	1	HYD OIL FILTER (20SF-20SF)	SEE FOOTNOTE 1
	153-792		FILTER ELEMENT (10 MICRON)	
	153-791		FILTER ELEMENT (5 MICRON)	SEE FOOTNOTE 2
	217-765		INDICATOR SWITCH	
9.	306-862	1	BRACKET	
10.	107-003	2	FLG LK SCREW (M12-1.75 X 35mm)	
11.	106-709	2	FLG LK NUT (M12-1.75)	
12.	153-110	2	S/O COUPLER (20S-16H45)	
13.	514-088	2	S/O COUPLER (16S-16H)	
14.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 44"
15.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 9"
16.	154-188	1	S/O COUPLER (16S-16H90)	
17.	155-231	1	S/O BR TEE (16S-16H-16H)	
18.	153-888	1	CHECK VALVE (16SF-16SF, 25 PSI)	
19.	115-733	AR	ABRASION SLEEVE (SOLD PER FOOT)	USE 1 @ 12"
20.	110-332	1	BOLT-ON CLAMP (1-5/8")	
21.	154-192	1	S/O RUN TEE (16H-16H-16H)	
22.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 30"
23.	149-820	-	S/O COUPLER (16S-16H90-16H45XL)	
24.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 20"
25.	515-025	1	HOSE (080FX90-40"-3000)	
26.	116-460	AR	BULK HOSE (1", SOLD PER 1')	USE 1 @ 4.5"
27.	117-224	1	ABRASION SLEEVE (1.59" X 26")	

### NOT SHOWN:

115-687	AR	ABRASION SLEEVE (SOLD PER FOOT)	USE 1 @ 15", SEE FOOTNOTE 3
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### FOOTNOTES:

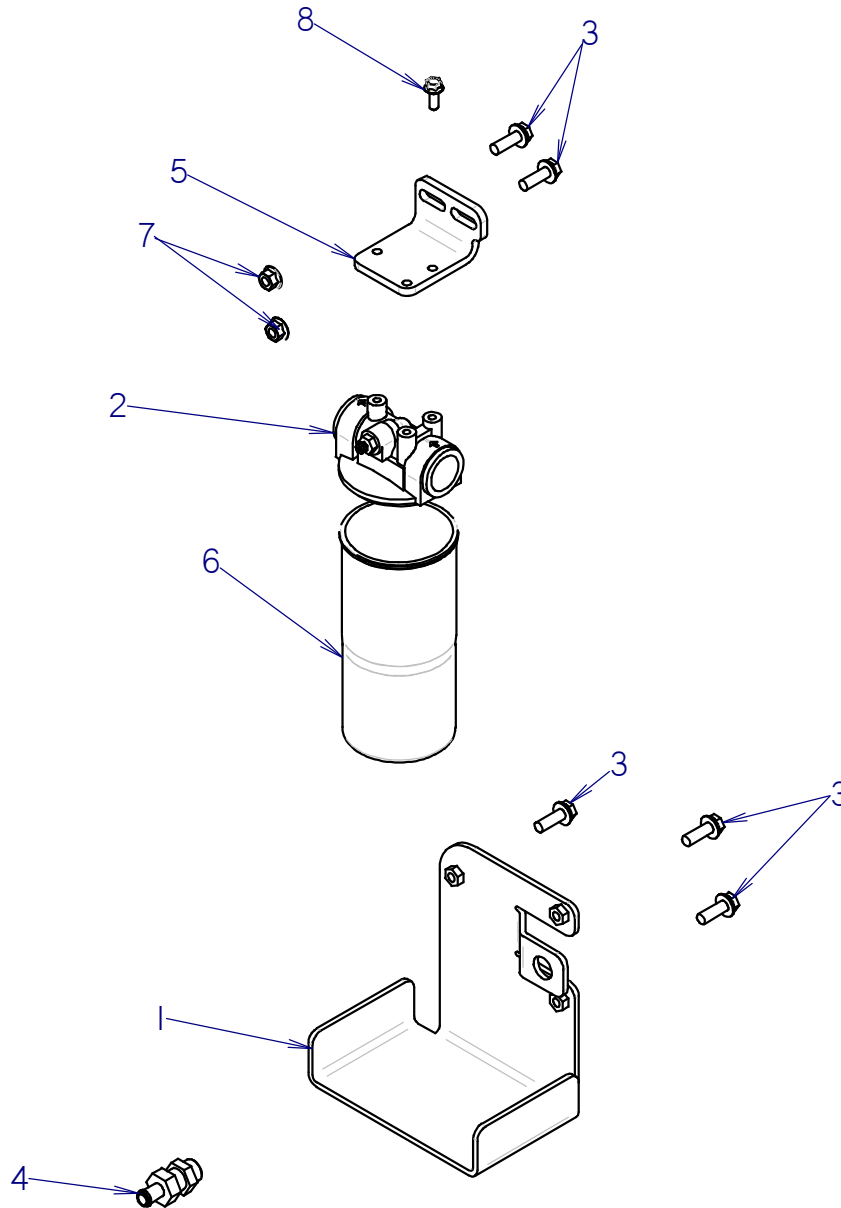
1. 157-345 IS THE FILTER HEAD AND REGULAR ELEMENT 153-792.
2. IF THE HYDRAULIC SYSTEM IS EXPOSED TO CONTAMINATES, A NEW BREAK-IN FILTER 153-791 IS INSTALLED FOR 50 HOURS.
3. PLACE 115-687 OVER REFERENCE #24 HOSE, 116-460

### NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.



# HYDRAULIC FILTER GUARD



# HYDRAULIC FILTER GUARD

REF PART  
NO. NUMBER QTY DESCRIPTION REMARKS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	322-662	1	HYD FILTER GUARD	
2	157-345	1	FILTER HEAD	REFER TO FOOTNOTE 1
3	107-003	5	FLG LK SCREW (M12-1.75 X 35MM)	REFER TO FOOTNOTE 1
4	149-624	1	BK S/O COUPLER (100-10H)	REFER TO FOOTNOTE 1
5	306-862	1	BRACKET	REFER TO FOOTNOTE 1
6	153-792	1	FILTER ELEMENT (10 MICRON)	REFER TO FOOTNOTE 1
7	106-709	2	FLG LK NUT (M12-1.75)	REFER TO FOOTNOTE 1
8	105-826	3	FLG LK BOLT (3/8-NC X 1")	REFER TO FOOTNOTE 1

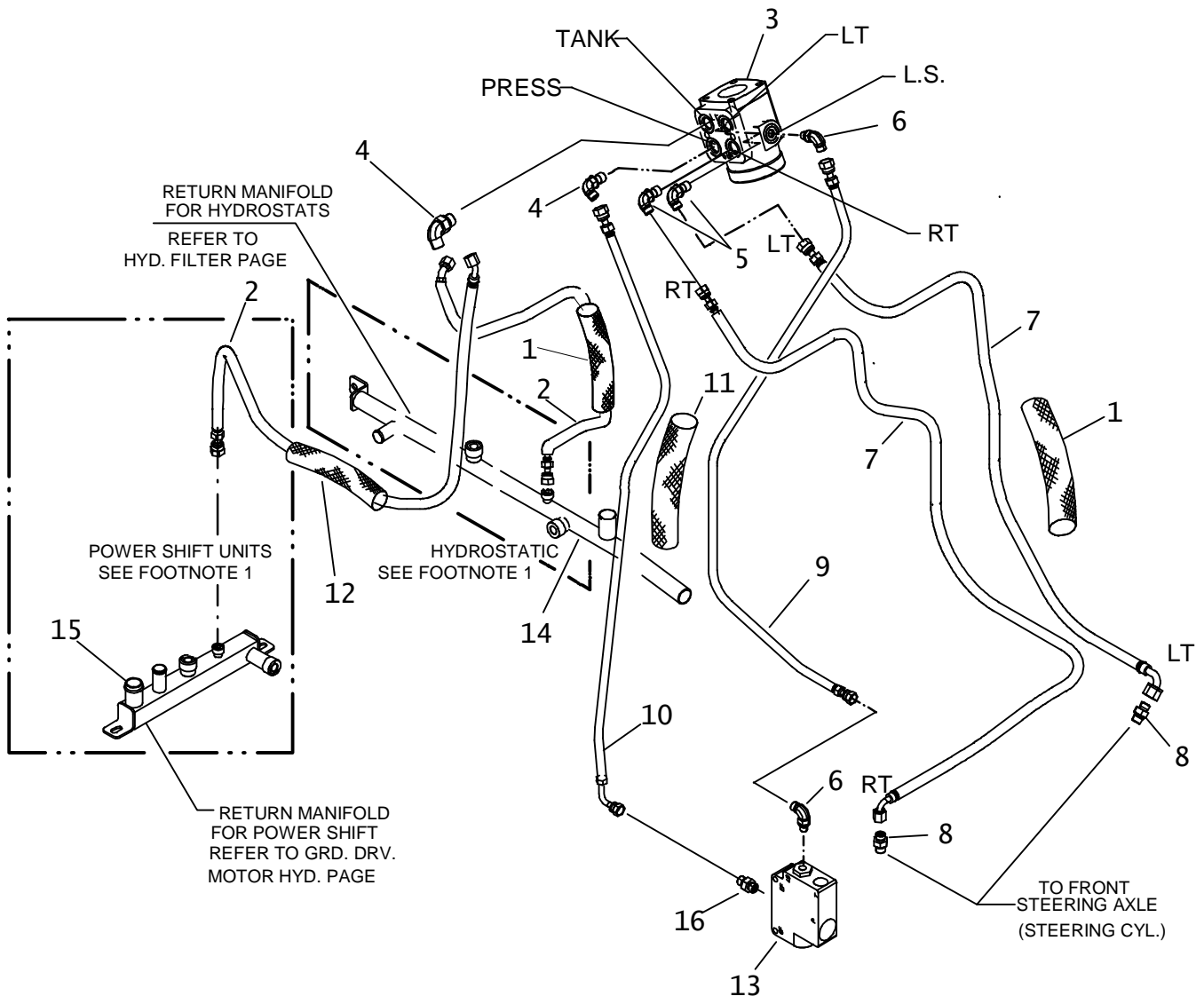
#### FOOTNOTES

1. FOR MORE DETAILS ON REF NO:S 2 THRU 8 REFER TO PARTS PAGE "HYDRAULIC FILTER".

#### NOTE:

HYDRAULIC FILTER GUARD KIT #191-342 CONSIST OF 1X REF #1 AND 3X REF #3.

# POWER STEERING VALVE HYDRAULIC



## POWER STEERING VALVE HYDRAULIC

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	117-214	2	ABRASION SLEEVE (1.25" X 40")	
2.	515-222	1	HOSE (060FX45-46"-3000)	HYDROSTAT UNITS ONLY & SEE FOOTNOTE 1
	149-358	1	HOSE (060FX45-55"-3000)	POWER SHIFT UNITS ONLY & SEE FOOTNOTE 1
3.	149-371	1	POWER STEERING VALVE	
	190-913	1	SEAL REPAIR KIT	
4.	154-227	2	CONNECTOR (060-08S90)	
5.	154-276	2	CONNECTOR (040-08S90)	
6.	154-252	2	CONNECTOR (04S-04090)	
7.	116-804	2	HOSE (040FX90-69"-3000)	
8.	152-146	2	CONNECTOR (040-08S) SHORT	
9.	154-695	1	HOSE (040FX-38"-3000)	
10.	153-315	1	HOSE (060FX90S-36"-3000)	
11.	117-396	1	ABRASION SLEEVE (1.25" X 28")	
12.	117-387	1	ABRASION SLEEVE (1.00" X 42")	
13.	158-901	-	PRIORITY VALVE	
14.	307-535	-	RETURN MANIFOLD	
15.	153-210	-	HYDRAULIC MANIFOLD (5 PORT)	
16.	154-222	1	CONNECTOR (060-08S)	

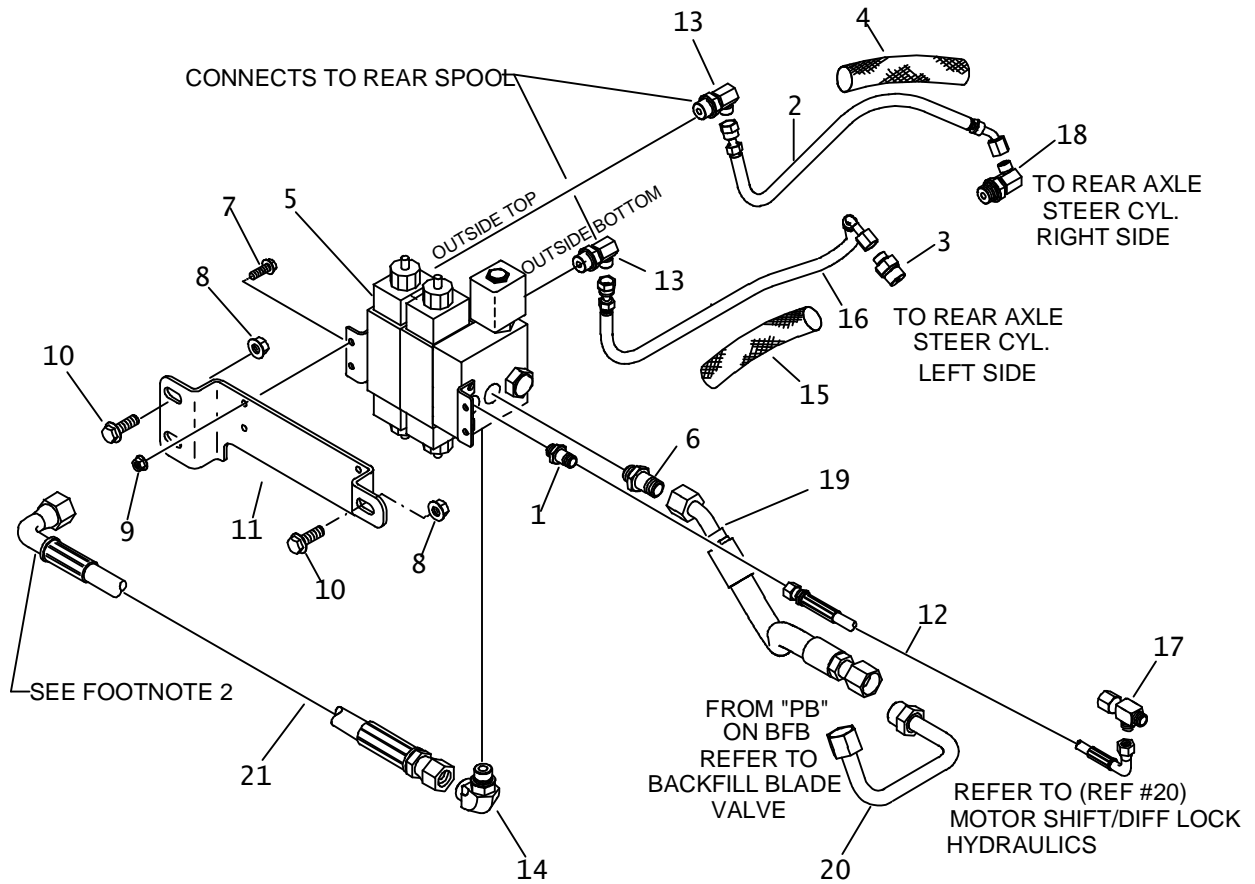
### FOOTNOTES

- AS INDICATED BY THE GRAPHICS, "RETURN TO TANK" ON HYDROSTATIC UNITS RETURNS TO RETURN MANIFOLD ON SIDE OF LEFT FRAME PLATE. "RETURN TO TANK" ON POWER SHIFT UNITS RETURNS TO RETURN MANIFOLD ON CROSSMEMBER OF FRAME.

### NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

# REAR STEER HYDRAULICS



## REAR STEER HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-222	1	CONNECTOR (060-08S)	
2.	154-934	1	HOSE (040FX45-18"-3000)	
3.	152-146	1	CONNECTOR (040-08S) SHORT	
4.	117-608	1	ABRASION SLEEVE (1.00" X 15")	
5.	153-785	1	HYDRAULIC VALVE (SGL SPOOL)	
	153-786	1	HYDRAULIC VALVE (2-SPOOL)	SEE FOOTNOTE 1
	159-505	-	SOLENOID TUBE	
	149-616	-	CAP NUT	
6.	154-391	1	CONNECTOR (08S-100)	
7.	106-379	4	FLG LK SCREW (M6-1.00 X 20mm)	
8.	106-354	3	FLANGE NUT (M12-1.75)	
9.	106-385	4	FLG LOCKNUT (M6-1.00)	
10.	106-632	3	FLG LK SCREW (M12-1.75 X 35mm, SER)	
11.	307-074	1	BRACKET	
12.	153-320	1	HOSE (060FX90L-17"-3000)	
13.	157-334	2	CONNECTOR (040-06S90, ORF)	
14.	154-298	1	CONNECTOR (10S-10090)	
15.	117-328	1	ABRASION SLEEVE (1.00" X 18")	
16.	515-462	1	HOSE (040FX90-22"-3000 AR)	
17.	154-344	-	UN RUN TEE (060FX-060-060)	REFER TO "MOTOR SHIFT/DIFF LOCK HYD" FOR DESTINATION
18.	154-276	1	CONNECTOR (040-08S90)	
19.	153-907	-	HOSE (100FX45-16"-3000)	
20.	149-851	-	HYD. LINE (-10)	
21.	515-129	-	HOSE (100FX90-30"-3000)	SEE FOOTNOTE 2

NOT SHOWN

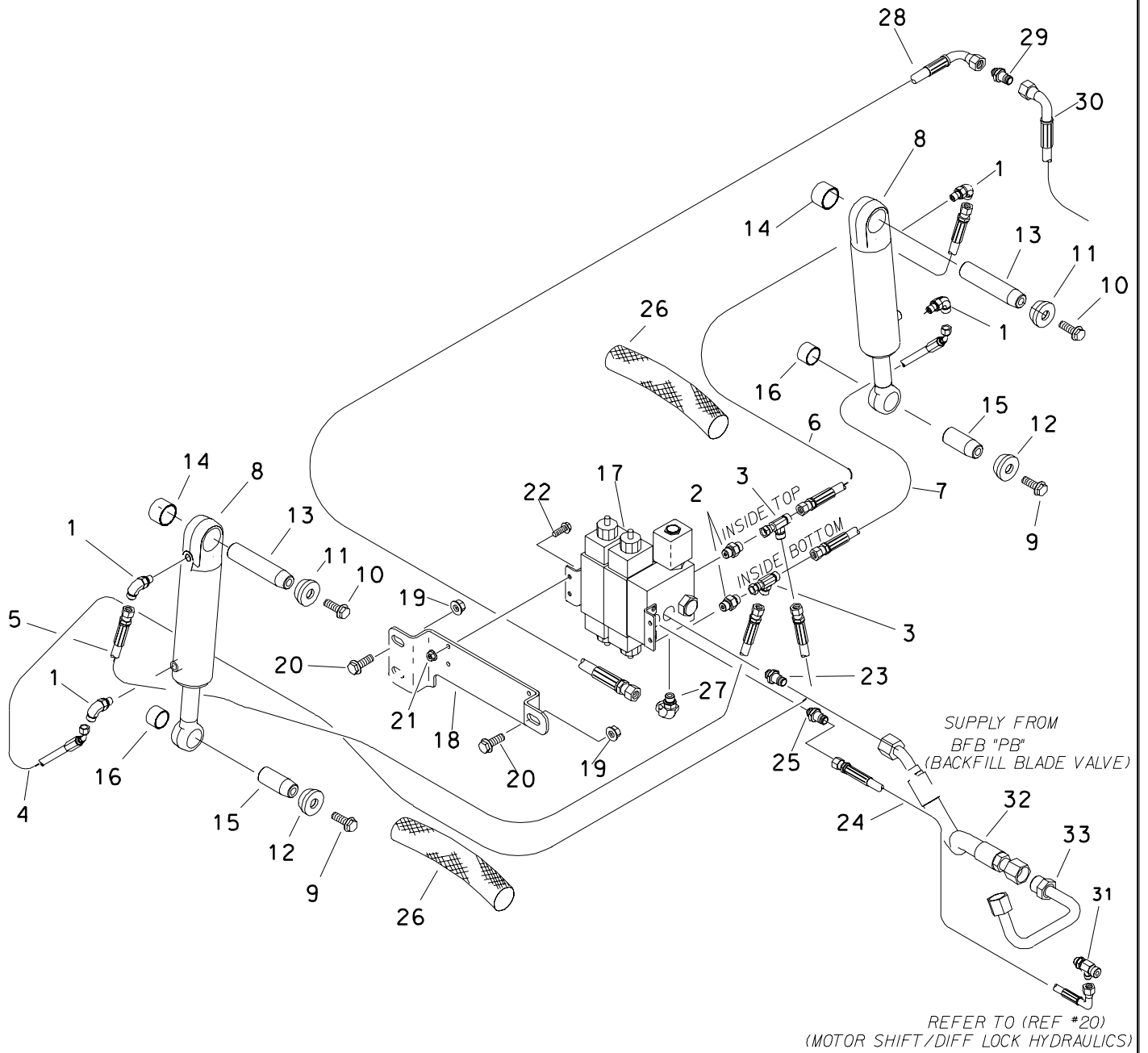
### FOOTNOTES

- 153-786 (2 SPOOL VALVE) IS USED WHEN FRAME TILT & REAR STEER OPTIONS ARE BOTH USED.
- REFERENCE #3 FROM "PUMP DRIVE HYD" WILL ATTACH HERE UNTIL A REAR ATTACHMENT IS ATTACHED ON TRACTOR.

### NOTE

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

# FRAME TILT HYDRAULICS



# FRAME TILT HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-252	4	CONNECTOR (04S-04090)	
2.	154-385	2	CONNECTOR (040-06S, ORF)	
3.	154-265	2	UN RUN TEE (040FX-040-040)	
4.	154-963	1	HOSE (040FX45-24"-3000)	
5.	154-702	1	HOSE (040FX-30"-3000)	
6.	515-229	1	HOSE (040FX-34"-3000)	
7.	515-019	1	HOSE (040FX45-34"-3000)	
8.	151-202	2	CYL (2" X 1" X 3.38")	
9.	106-164	2	FLG LK SCREW (M10-1.50 X 30mm)	
10.	106-469	2	FLG SCREW (M12-1.75 X 30mm)	
11.	181-982	2	TAPERED INSERT (1.25")	
12.	181-981	2	TAPERED INSERT (1")	
13.	183-765	2	TAPERED PIN (31.7mm X 110mm)	
14.	125-771	2	COMPOSITION BUSHING (1.25")	
15.	183-767	2	TAPERED PIN (25.4mm X 60mm)	
16.	125-770	2	COMPOSITION BUSHING (1")	
17.	153-786	1	HYDRAULIC VALVE (2-SPOOL)	SEE FOOTNOTE 1
	153-785	1	HYDRAULIC VALVE (SGL SPOOL)	SEE FOOTNOTE 1
	217-948		COIL, 12VDC	
	149-616		CAP NUT	
	499-445		COIL RETAINING NUT	
	159-505		SOLENOID TUBE	
	499-444		SOLENOID TUBE ASSM'Y	
	214-909		SOLENOID COIL	
	157-262		DUAL P.O. CHECK	
18.	307-074	1	BRACKET	
19.	106-354	3	FLG NUT (M12-1.75)	
20.	106-632	3	FLG LK SCREW (M12-1.75 X 35mm, SER)	
21.	106-385	4	FLG LK NUT (M6-1.00)	
22.	106-379	4	FLG LK SCREW (M6-1.00 X 20mm)	
23.	154-391	1	CONNECTOR (08S-100)	
24.	154-715	1	HOSE (040FX90-18"-3000)	
25.	154-222	1	CONNECTOR (060-08S)	
26.	115-811	2	ABRASION SLEEVE (1.59" X 20")	
27.	154-298	1	CONNECTOR (10S-10090)	
28.	515-129	1	HOSE (100FX90-30"-3000)	
29.	154-464	1	CONNECTOR (100-100)	
30.	157-343	-	HOSE (100FX90S-120"-3000)	REFER TO REF #3 ON PUMP DRIVE HYDRAULICS
31.	154-344	-	UN RUN TEE (060FX-060-060)	
32.	153-907	-	HOSE (100FX45-16"-3000)	
33.	149-851	-	HYD LINE (-10)	

## FOOTNOTES

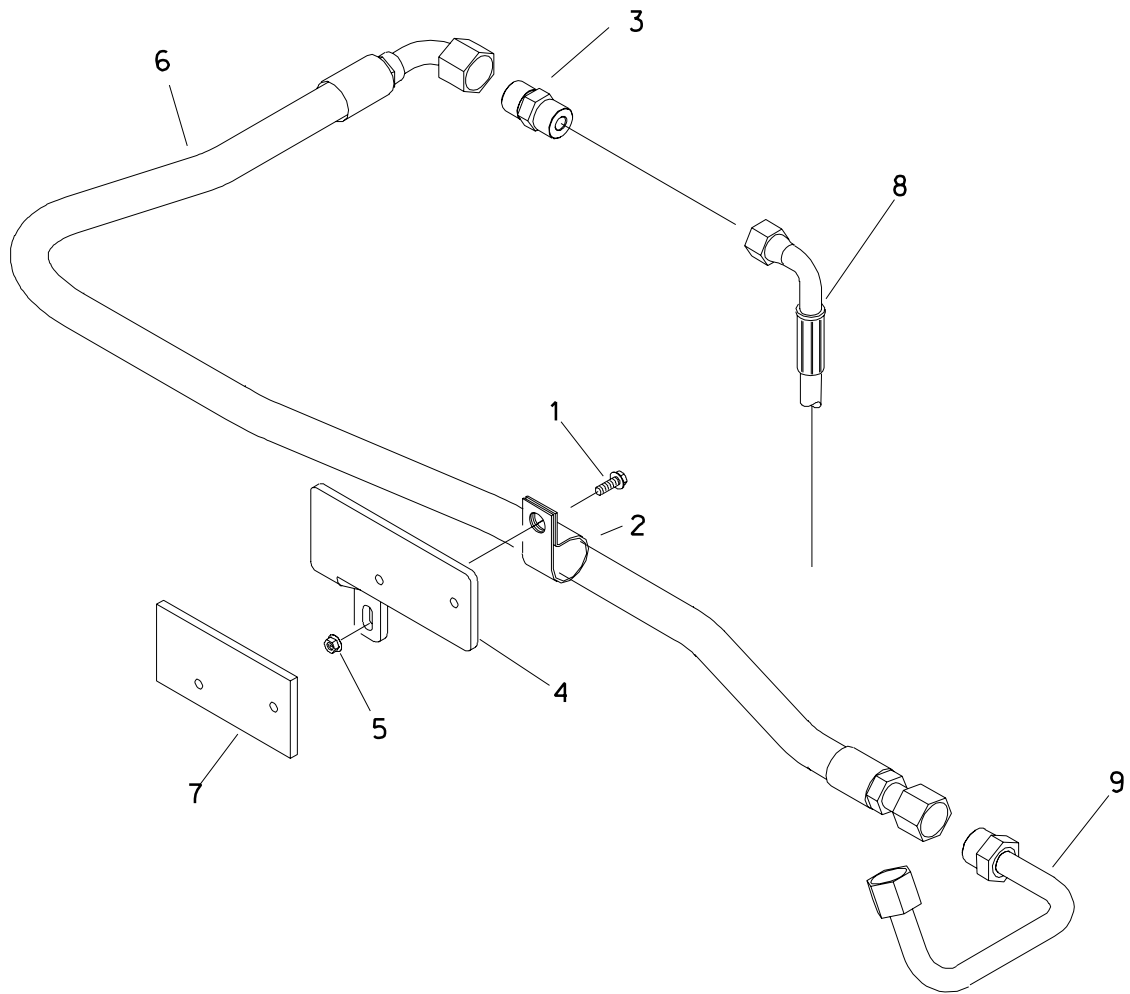
- 153-786 (2-SPOOL VALVE) IS USED WHEN FRAME TILT & REAR STEER OPTIONS ARE BOTH USED. SEE REAR STEER PARTS PAGE FOR REAR STEER OPTION.

## NOTE

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.



NO FRAME TILT / NO REAR STEER OPTION



# NO FRAME TILT / NO REAR STEER OPTION

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	106-988	1	FLG LK SCREW (M6-1.00 X 20mm)	
2.	110-333	1	BOLT-ON CLAMP (1")	
3.	154-464	1	CONNECTOR (100-100)	
4.	315-176	1	SPACER BRACKET	SEE FOOTNOTE 1
5.	106-385	1	FLG LOCKNUT (M6-1.00)	
6.	154-939	1	HOSE (100FX90S-50"-3000)	
7.	306-885	-	MOUNT PLATE	
8.	157-343	-	HOSE (100FX90S-120"-3000)	
9.	149-851	-	HYD LINE (-10)	

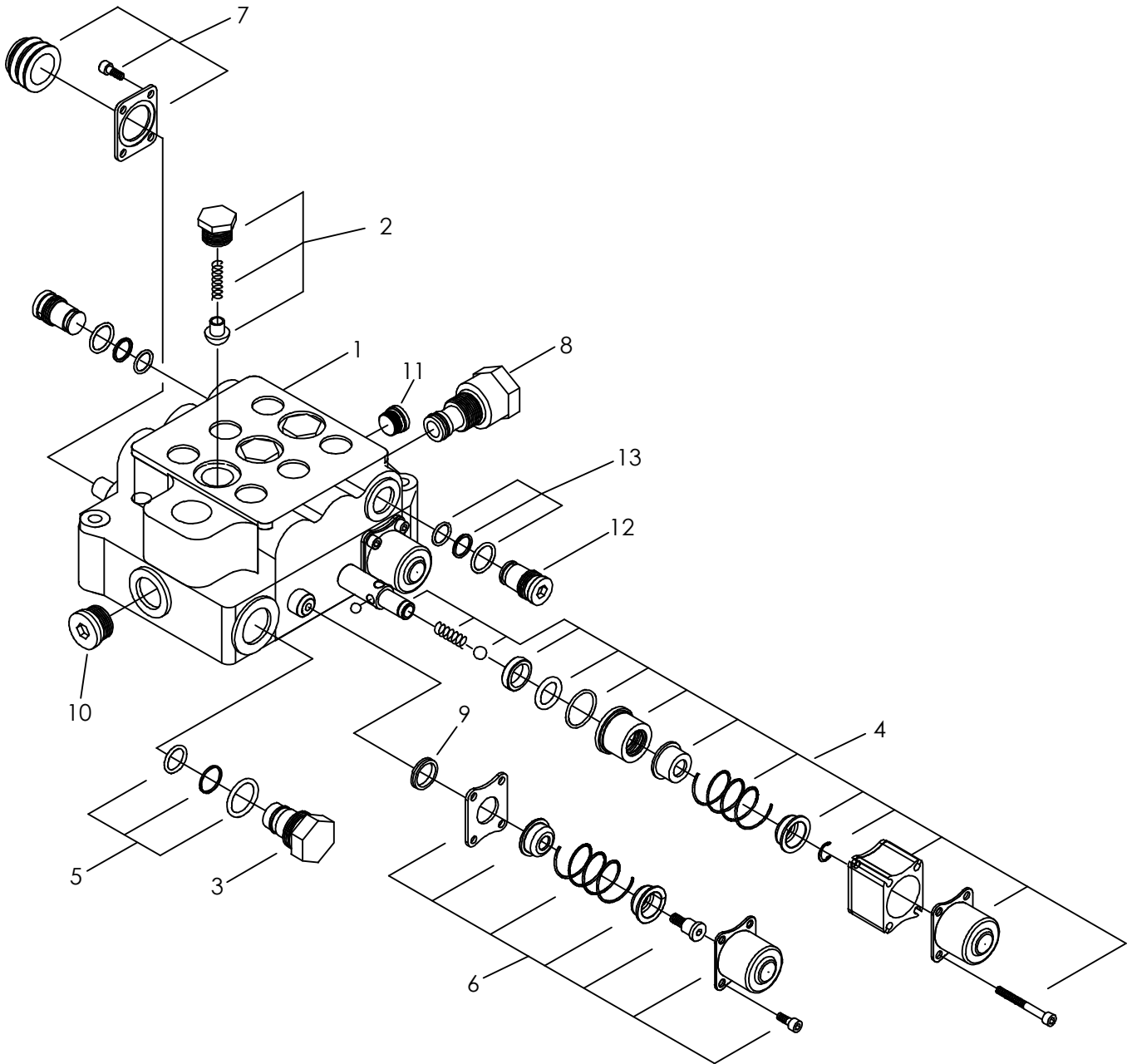
### FOOTNOTES

1. REFERENCE #4 (315-176) WILL REPLACE (1X) REFERENCE #2 ON PARTS PAGE "MOTOR SHIFT/DIFF LOCK HYD" WHEN "NO FRAME TILT/NO REAR STEER" IS USED.

### NOTE

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

# HYDRAULIC CONTROL VALVE 3 SPOOL UPPER VALVE



## HYDRAULIC CONTROL VALVE 3 SPOOL UPPER VALVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	158-033	1	HYD CONTROL VALVE (3-SPOOL)	ENDS WITH S/N_____. OBSOLETE
	159-809	1	HYD CONTROL VALVE (3-SPOOL)	BEGINS WITH S/N_____. USE FLOAT KIT 500-2020
2.	500-933	3	LOAD CHECK PLUG KIT	
3.	599-278	1	NR PLUG KIT	
4.	500-935	1	FLOAT POSITIONER KIT	
5.	191-149	1	PLUG SEAL KIT	
6.	500-934	2	SPOOL POSITIONER KIT	
7.	191-153	3	SPOOL BOOT KIT	
8.	191-157	1	POWER BEYOND SLEEVE	
9.	191-151	6	SPOOL LIP SEAL KIT	
10.	155-179	1	PLUG (10S, SOC)	
11.	154-384	1	PLUG (06S)	
12.	599-279	2	WORK PORT NR PLUG KIT	
13.	500-928	2	SEAL REPAIR KIT	

NOT SHOWN:

FOOTNOTES:

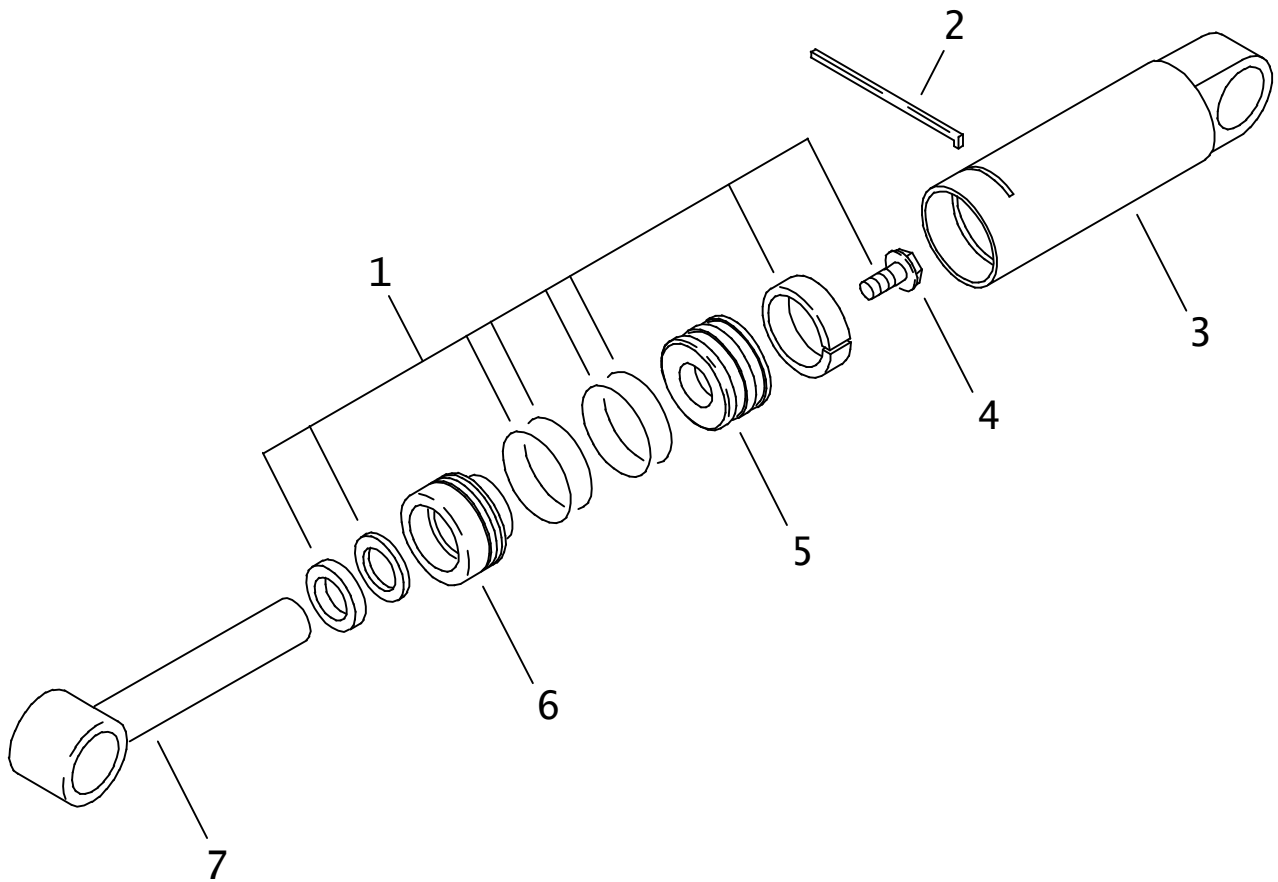
1. EARLY PRODUCTION VALVES HAVE A MACHINED WORK PORT WITH A PLUG INSTALLED, FUTURE PRODUCTION VALVES WILL NOT HAVE A MACHINED WORK PORT.

NOTE:

REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

# HYDRAULIC CYLINDER

2.0" X 1.00" X 3.38"



# HYDRAULIC CYLINDER

## 2.0" X 1.00" X 3.38"

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-202		HYD CYL (2" X 1" X 3.38")	INCLUDES REF NO'S 1 THRU 7
1.	190-165	1	SEAL REPAIR KIT (2" X 1")	
2.	150-778	1	LOCK RING (2")	
3.	150-700	1	CYLINDER BARREL	
4.	106-096	1	FLG BOLT (1/2-NC X 1-3/4",GD8)	SEE FOOTNOTE 1
5.	150-775	1	CYLINDER PISTON (2" X 1")	
6.	150-772	1	CYLINDER HEAD (2" X 1")	
7.	150-698	1	CYLINDER ROD	

### NOT SHOWN:

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

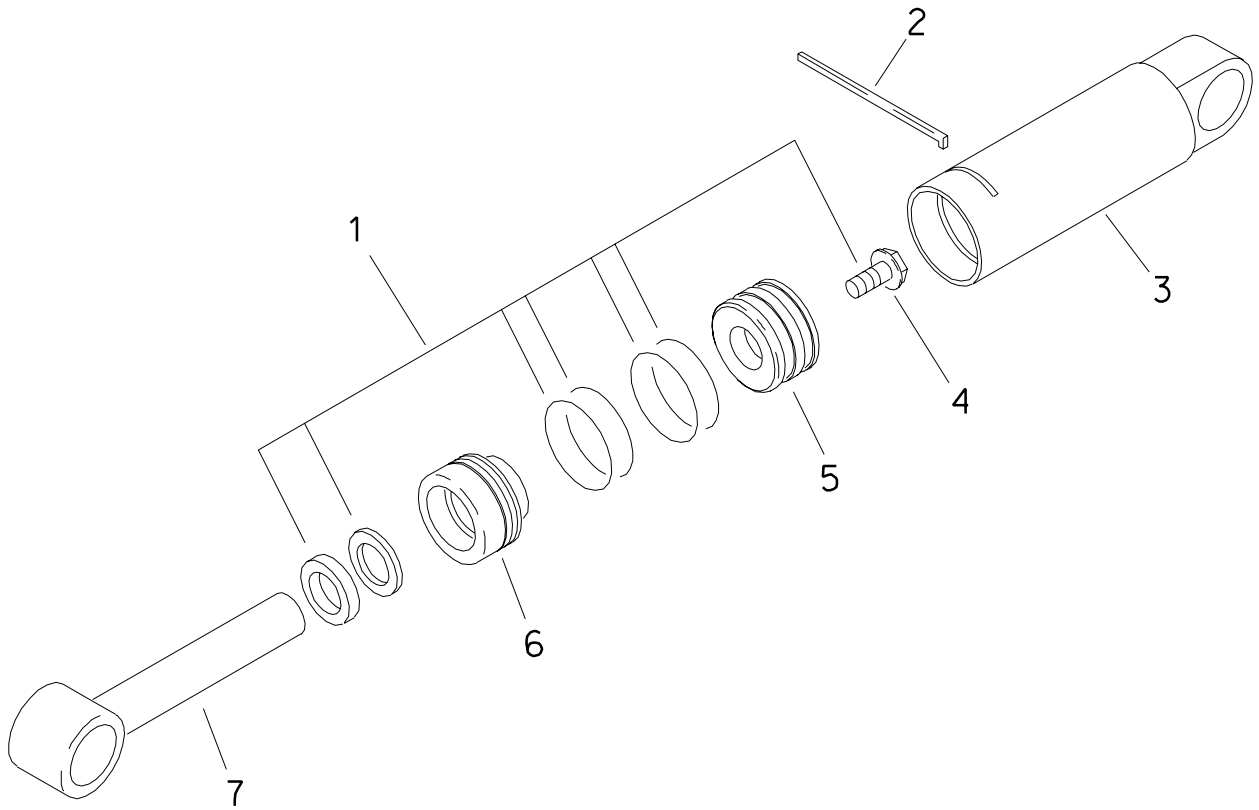
### FOOTNOTES

1. APPLY LOCTITE 271 OR 277. TORQUE TO 90-100 FT-LBS (120-135 N.M.)

### NOTE:

# HYDRAULIC CYLINDER

2" X 1.25" X 8"



# HYDRAULIC CYLINDER

2" X 1.25" X 8"

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-057		HYD CYLINDER (2" X 1.25" X 8")	INCL REF NO.'S 1 THRU 7
1.	190-169	1	SEAL REPAIR KIT (2.0" X 1.25")	
2.	150-778	1	LOCK RING (2.0")	
3.	150-285	1	CYLINDER BARREL (2")	
4.	106-097	1	FLG BOLT (5/8-NC X 1-3/4",GD8)	SEE FOOTNOTE 1
5.	150-771	1	CYLINDER PISTON (2" X 1.25")	SEE FOOTNOTE 2
6.	150-770	1	CYLINDER HEAD (2" X 1.25")	
7.	150-427	1	CYLINDER ROD	

NOT SHOWN:

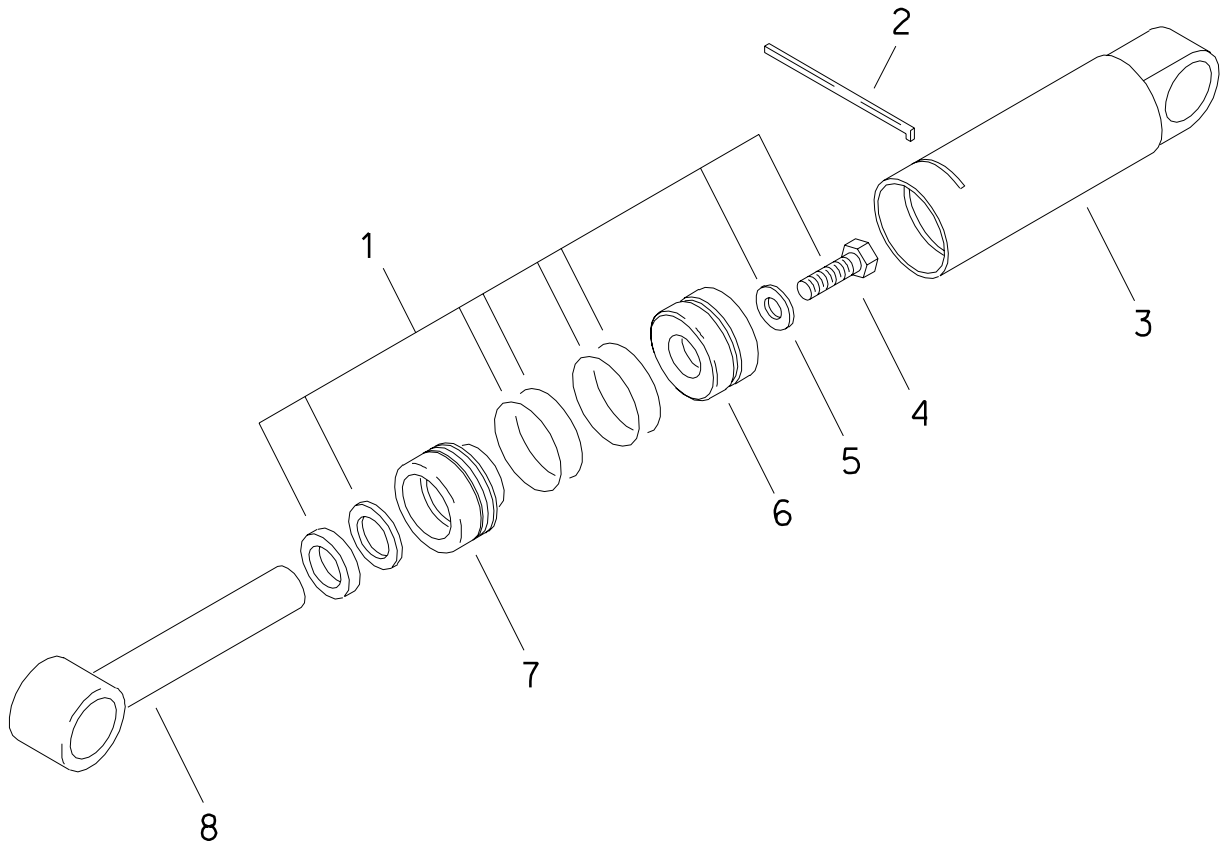
259-100	U-SEAL INSTALLER (1"-1.499")
259-236	WIPER INSTALLER (1.25")
259-239	WIPER/SEAL INSTALLER (2")
259-241	PISTON INSTALLER (2")
259-188	CYLINDER HEAD SPANNER - TWO PIN

- FOOTNOTES
1. USE LOCTITE 277, AND TORQUE TO 180-200 FT-LBS (245-270 N.M)
  2. INCLUDES MOLDED-ON WEAR RING, H.P. SEAL, AND O-RING.



# HYDRAULIC CYLINDER

3" X 1.75" X 8"



## HYDRAULIC CYLINDER

3" X 1.75" X 8"

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-070		CYL (3.0" X 1.75" X 8.0")	INCL REF NO.'S 1 THRU 7
1.	190-172	1	SEAL REPAIR KIT (3.0" X 1.75")	INCL REF NO.'S 4 THRU 5
2.	150-911	1	LOCK RING (3")	
3.	152-014	1	CYLINDER BARREL (3")	
4.	106-122	1	BOLT (7/8-NC X 2-1/4", GD8)	SEE FOOTNOTE 1
5.	105-363	1	WASHER (7/8")	
6.	150-765	1	CYLINDER PISTON (3" X 1.75")	INCL MOLDED-ON WEAR RING
7.	150-763	1	CYLINDER HEAD (3" X 1.75")	
8.	150-436	1	CYLINDER ROD (1.75")	

## NOT SHOWN:

259-040 U-SEAL INSTALLER (1.5" - UP)  
 259-238 WIPER INSTALLER (1.75")  
 259-065 PISTON SEAL INSTALLER (3")  
 259-066 PISTON INSTALLER (3")  
 259-188 CYL HEAD SPANNER - TWO PIN

## FOOTNOTES

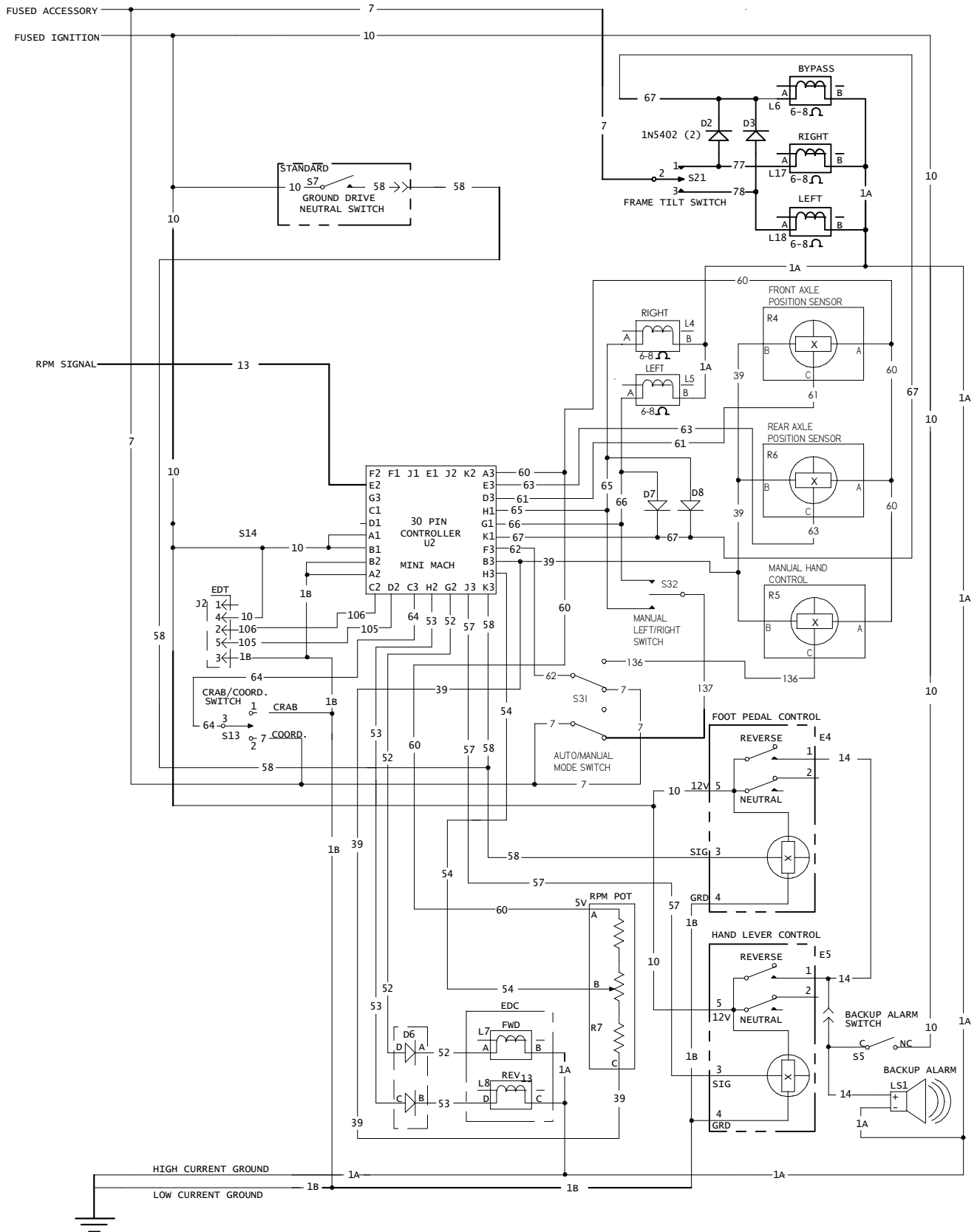
1. CLEAN & DRY THREADS. APPLY RED LOCTITE (RC 271 OR RC 272). TORQUE TO 410-460 FT-LBS (560-625 N.M.)



# **ELECTRICAL**

# REAR STEER ELECTRICAL SCHEMATIC ADDITION

RT70M/H, RT90M/H, RT75M/H, RT95T2M/H, RT115H, & RT115T2



## REAR STEER ELECTRICAL SCHEMATIC ADDITION

RT70M/H, RT90M/H, RT75M/H, RT95T2M/H, RT115H, & RT115T2

<b>COMPONENT DESCRIPTIONS</b>			
<b>Ref. No.</b>	<b>Part No.</b>	<b>Component</b>	<b>Notes</b>
D2	See notes	Frame tilt diode	1N5402
D3	See notes	Frame tilt diode	
D6	214-449	Diode pack	Cruise option only
D7	See notes	Rear steer bypass diode	1N5402
D8	See notes	Rear steer bypass diode	
E4	215-1537	Foot pedal control	Cruise option only
E5	215-1536	Hand lever control	
J2	See notes	EDT connection	Machine ecu connection
L4	217-948	Coordinated steer right solenoid	Coordinated steer option only
L5	217-948	Coordinated steer left solenoid	
L6	214-909	Bypass solenoid	
L7	See notes	EDC forward solenoid	No CMW service part available
L8	See notes	EDC reverse solenoid	
L17	217-948	Frame tilt right solenoid	Frame tilt option only
L18	217-948	Frame tilt left solenoid	
LS1	306-602	Backup alarm switch	Saw option only
M5	211-326	Engine temperature gauge	
R4	215-1503	Front axle position sensor	Coordinated steer option only
R5	215-1619	Manual hand control	
R6	215-1503	Rear axle position sensor	
R7	217-892	RPM potentiometer	Cruise option only
S7	See notes	Ground drive neutral switch	
S8	217-704	Bypass switch	
S12	217-762	Speed select switch	
S13	217-854	Crab/coordinated steer switch	Coordinated steer option only
S14	217-789	Cruise switch	Cruise option only
S21	217-764	Frame tilt switch	
S30	215-1015	User Interface button	
S31	217-072	Auto/Manual Mode Switch	Coordinated steer option only
S32	217-817	Manual Left/Right Switch	Coordinated steer option only
U2	220-1213	30 pin controller	

## REAR STEER ELECTRICAL SCHEMATIC ADDITION

RT70M/H, RT90M/H, RT75M/H, RT95T2M/H, RT115H, & RT115T2

### CIRCUIT DESCRIPTIONS

Circuit Number	Wire Color	Function
1A	blk/red	Medium current ground
1B	blk/blu	Low current ground
7	org	Fused accessory circuit
10	org/grn	Fused ignition circuit
13	yel	Tachometer circuit
14	brn/red	Backup alarm switch to backup alarm
39	yel/blk	Analog return
52	tan/red	Machine ECU to Diode to EDC forward solenoid
53	tan/grn	Machine ECU to Diode to EDC reverse solenoid
54	gra	RPM potentiometer to Machine ECU
57	gra/grn	Hand control signal to Machine ECU
58	gra/red	Foot control signal to Machine ECU
60	blu/grn	5VDC Output from Machine ECU
61	grn/red	Front axle sensor to Machine ECU
62	gra/blu	Rear steer auto/manual switch to Machine ECU
63	grn/blu	Rear axle sensor to Machine ECU
64	org/brn	Crab/coordinated steer switch to Machine ECU
65	grn/blk	Machine ECU to right steer module
66	blu/blk	Machine ECU to left steer module
67	tan/blu	Machine ECU to bypass solenoid
77	grn/org	Frame tilt switch to frame tilt right solenoid
78	blu/org	Frame tilt switch to frame tilt left solenoid
105	gra	Machine ECU to EDT connection (serial)
106	wht	Machine ECU to EDT connection (serial)
136	gra/yel	Rear steer manual hand control to auto/manual switch
137	pur/red	Rear steer auto/manual switch to manual left/right switch

# REAR STEER ELECTRICAL SCHEMATIC ADDITION

RT70M/H, RT90M/H, RT75M/H, RT95T2M/H, RT115H, & RT115T2

WIRING HARNESES			
Ref. No.	Part No.	Quantity	Description
1	215-1527	1	Coordinated Steer Harness (RT70/75/90/95T2/115T1)
2	215-1528	1	Coordinated Steer Harness (RT115T2)
3	215-1529	1	Rear Steer Controller Harness (RT115T2)



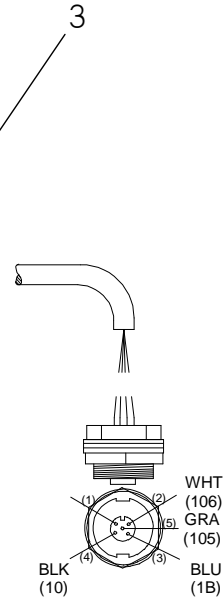
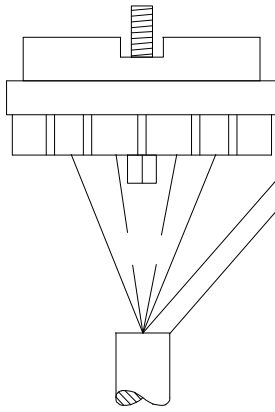
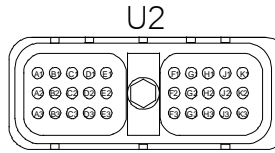
# ELECTRICAL DIAGRAM

## REAR STEER CONTROLLER HARNESS

### RT115T2

MINI MACH CONTROLLER

PIN#	PIN#	PIN#
A1	ORG/GRN (10)	BLK/BLU (1B)
B1	ORG/GRN (10)	BLK/BLU (1B)
C1	CAVITY PLUG	WHT (106)
D1	CAVITY PLUG	GRA (105)
E1	CAVITY PLUG	YEL (13)
F1	CAVITY PLUG	CAVITY PLUG
G1	BLU/BLK (66)	G2 YEL/RED (139)
H1	GRN/BLK (65)	H2 YEL/GRN (140)
J1	CAVITY PLUG	J2 CAVITY PLUG
K1	TAN/BLU (67)	K2 CAVITY PLUG
A3	BLU/GRN (60)	YEL/BLK (135)
B3	YEL/BLK (135)	ORG/BRN (64)
C3	ORG/BRN (64)	GRN/RED (61)
D3	GRN/RED (61)	GRN/BLU (63)
E3	GRN/BLU (63)	GRA/BLU (62)
F3	GRA/BLU (62)	CAVITY PLUG
G3	CAVITY PLUG	GRA (54)
H3	GRA (54)	GRA/GRN (57)
J3	GRA/GRN (57)	GRA/RED (58)
K3	GRA/RED (58)	

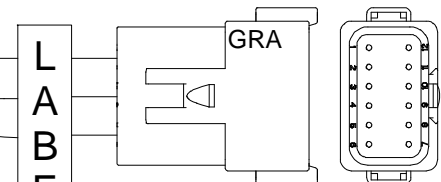
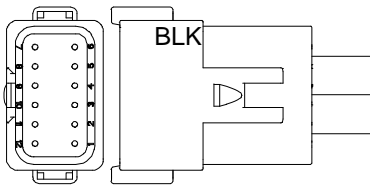


TO CRUISE CONTROL PLUG  
IN CONSOLE HARNESS

TO COORDINATED STEER PLUG  
IN CONSOLE HARNESS

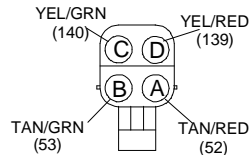
-BB-

-CC-



PIN #	PIN #
1	CAVITY PLUG
2	GRA/GRN (57)
3	TAN/GRN (53)
4	YEL 16 (13)
5	GRA (105)
6	WHT (106)
7	ORG/GRN (10)
8	BLU/GRN (60)
9	BLK/BLU (1B)
10	GRA (54)
11	GRA/RED (58)
12	TAN/RED (52)

PIN #	PIN #
1	GRN/BLK (65)
2	GRA/BLU (62)
3	GRN/RED (61)
4	GRN/BLU (63)
5	CAVITY PLUG
6	CAVITY PLUG
7	CAVITY PLUG
8	BLU/GRN (60)
9	BLK/BLU (1B)
10	ORG/BRN (64)
11	TAN/BLU (67)
12	BLU/BLK (66)



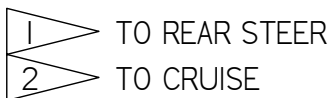
DIODE PACK

D6

TO COORDINATED  
STEER HARNESS

-AA-

LABEL NOTES:



# ELECTRICAL DIAGRAM

## REAR STEER CONTROLLER HARNESS

### RT115T2

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
3.	215-1529	1	Rear Steer Controller Harness	Used on Units (RT115T2)

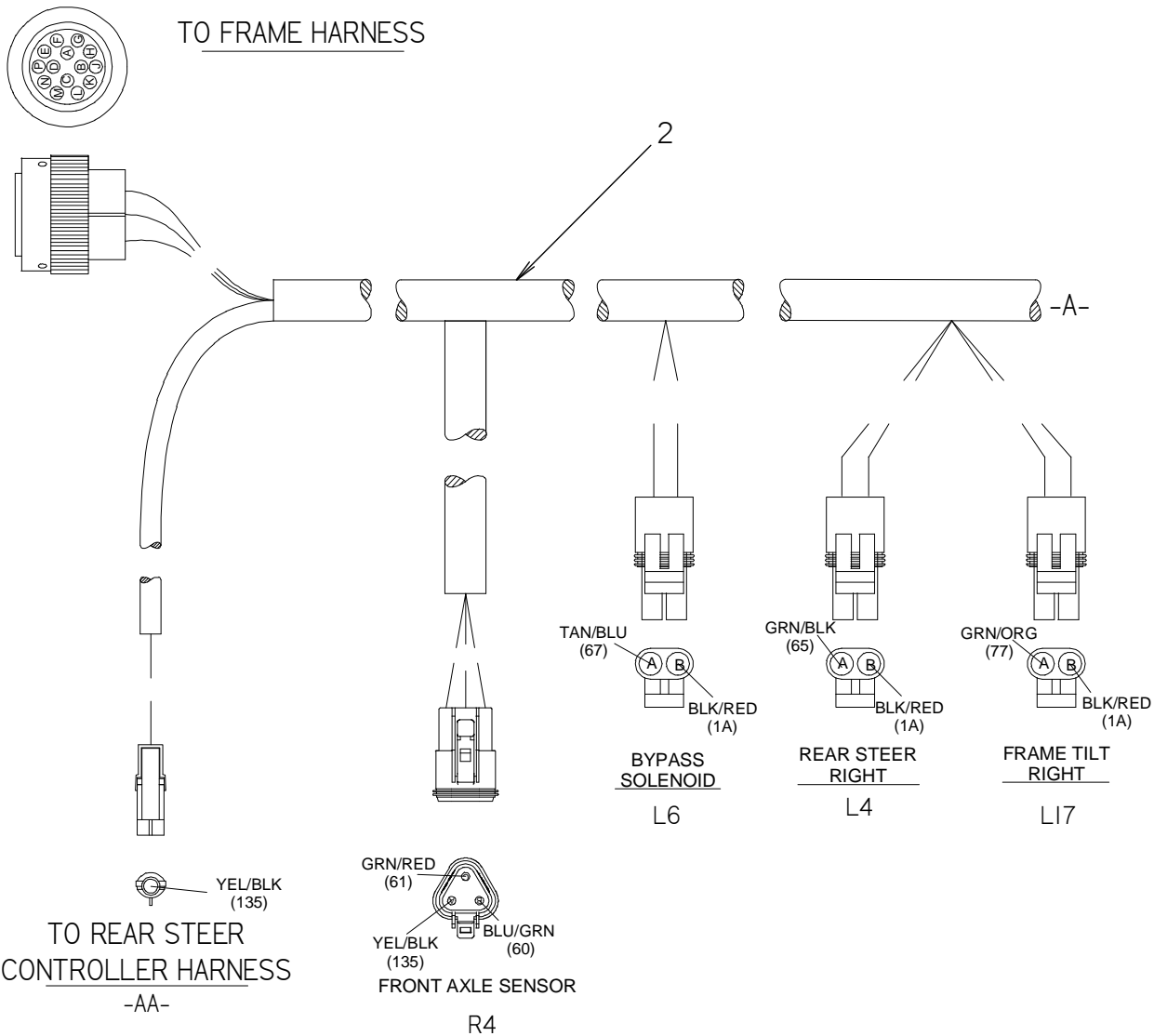
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FOOTNOTES:

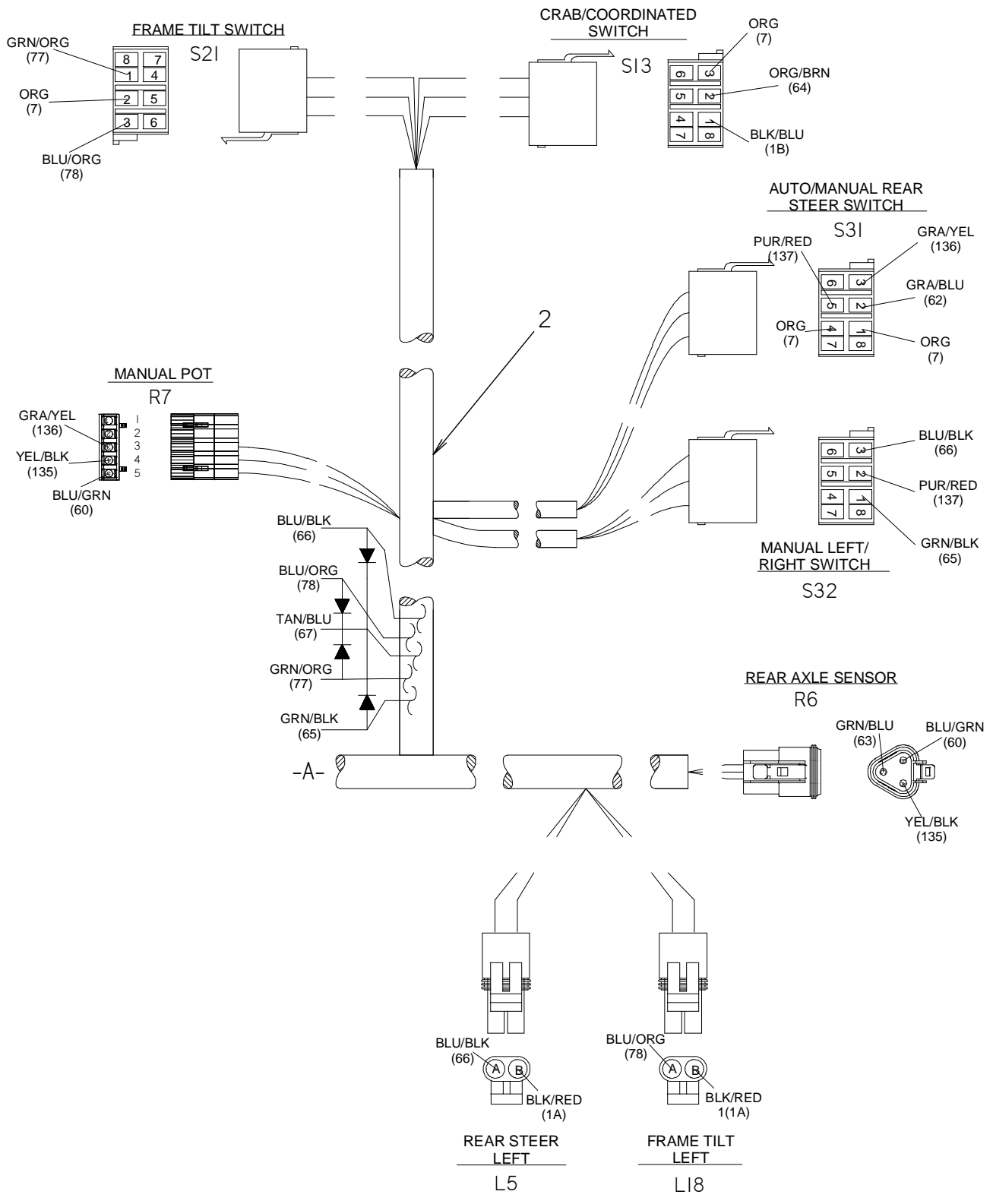
NOTE:

# ELECTRICAL DIAGRAM COORDINATED STEER HARNESS (RT115T2)

PIN#		PIN#	
A	BLK/RED (1A)	H	ORG/BRN (64)
B	BLK/BLU (1B)	J	GRN/BLK (65)
C	CAVITY PLUG	K	BLU/BLK (66)
D	CAVITY PLUG	L	TAN/BLU (67)
E	GRN/RED (61)	M	BLU/GRN (60)
F	GRA/BLU (62)	N	ORG (7)
G	GRN/BLU (63)	P	CAVITY PLUG



# ELECTRICAL DIAGRAM COORDINATED STEER HARNESS (RT115T2)



# ELECTRICAL DIAGRAM COORDINATED STEER HARNESS (RT115T2)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
2.	215-1528	1	Coordinated Steer Harness	Used on Unit (RT115T2)

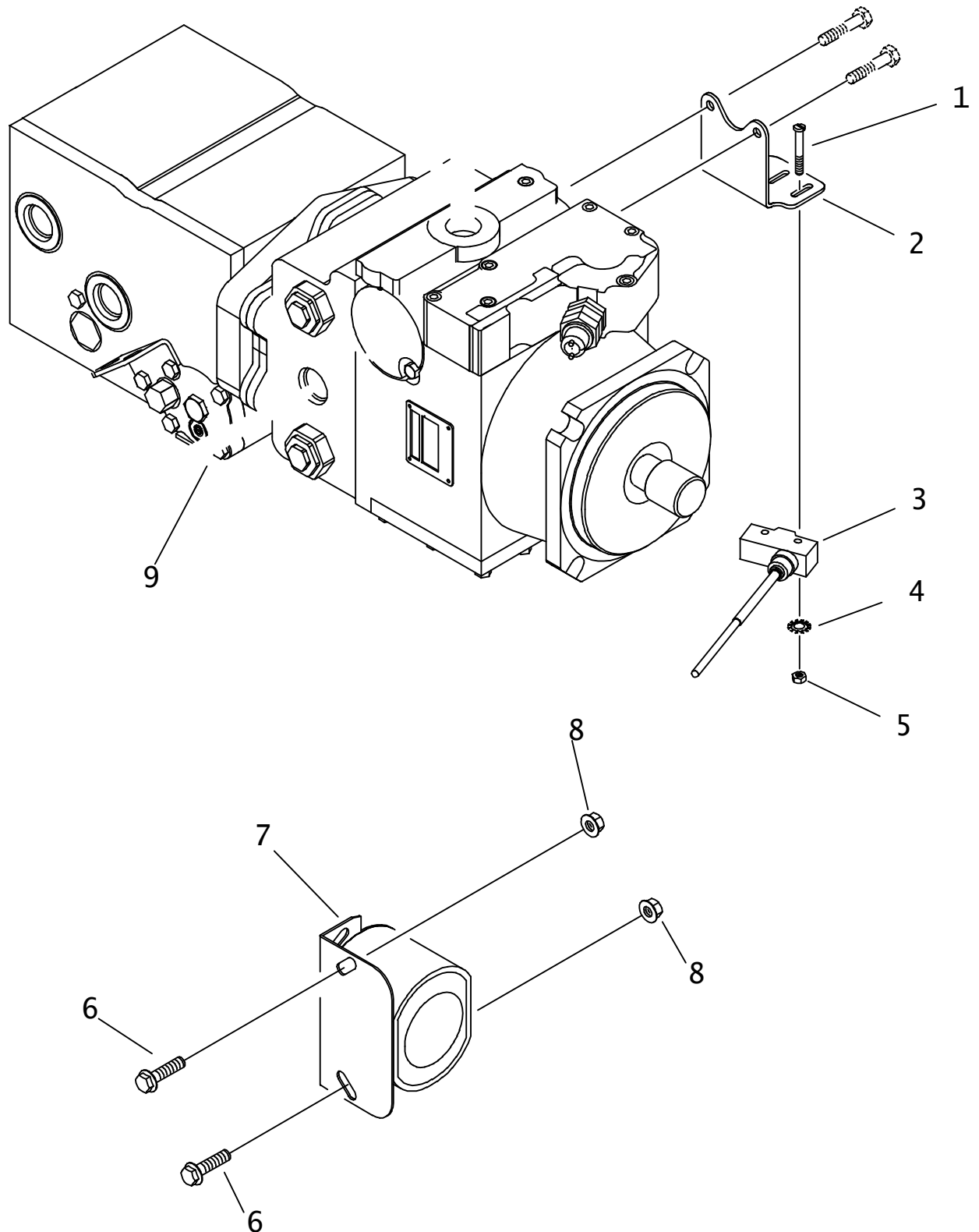
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FOOTNOTES:

NOTE:



## BACKUP ALARM KIT



# BACKUP ALARM KIT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	191-137		BACKUP ALARM KIT (W/O CRUISE)	INCLUDES REF NO'S 1-9
	191-265		BACKUP ALARM KIT (W/CRUISE)	INCLUDES REF NO'S 4,5 & 8
1.	106-058	2	BOLT (#6-32 X 1-1/8", RD SLT)	
2.	319-152	1	ALARM SWITCH BRACKET	REFER TO FOOTNOTE 1
3.	217-703	1	OMNI LEVER SWITCH	
4.	106-040	2	EXT STAR WASHER (#6)	
5.	105-215	2	NUT (#6-32)	
6.	106-163	2	FLG SCREW (M8-1.25 X 30mm)	
7.	306-602	1	BACKUP ALARM	
8.	106-386	2	FLG LOCKNUT (M8-1.25)	
9.	158-048	-	TANDEM PUMP	

NOT SHOWN:  
 217-293                      BACKUP ALARM HARNESS

FOOTNOTES:  
 1. TO MOUNT SWITCH BRACKET FIRST REMOVE SCREWS FROM PUMP AND THEN REINSERT THEM THRU BRACKET.

NOTE:





# 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

# RT115H Tier 2

## Related Publications

Component	Ass'y	P/N
<b>Model:</b>		
RT115 ..... Parts Manual .....		053-124
RT115 ..... Operators Manual .....		054-116
RT115 ..... Repair Guide (Service Manual) .....		055-075
RT115 ..... Special Tools Guide .....		052-901
RT115 ..... Technical Supplement .....		053-112
<b>Engine:</b>		
John Deere ..... Operators Manual – 4045TF275.....	194-370 ....	054-087

## Filters

<b>Engine:</b>		
Air Filter Parts Ass'y .....		194-121
Element (primary) .....		194-147
Element (secondary) .....		194-148
Oil Filter Element (spin-on) - John Deere .....		194-478
Fuel Filter Element (slip-on) - .....		155-941
Primary Filter Sediment Bowl .....		194-493
Primary Fuel Filter Element-John Deere.....		194-492
Secondary Fuel Filter Element-John Deere.....		194-498
<b>Hydraulic:</b>		
Oil Filter Element (1-1/2-UNF, spin-on, Replacement) .....		153-792
Element (1-1/2-UNF, spin-on, Break-In) .....		153-791

## 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<sup>®</sup>

## 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.):

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**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.

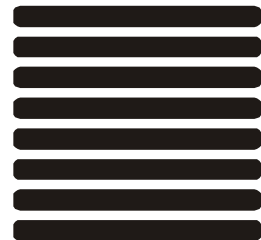
Thanks for using Ditch Witch equipment.

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



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Phone Number With Area Code

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Model

Serial Number

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Attachments/Accessories

Serial Numbers

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Attachments/Accessories

Serial Numbers

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Attachments/Accessories

Serial Numbers

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Name of Ditch Witch Dealership

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Your Signature