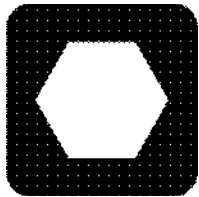


# 1820

## Parts Manual



# ***Ditch Witch®***

## **1820**



ISSUE NO. 20PL-01/18

For Replacement Copy Order **P/N 053-425**

This product and its use may be covered by one or more patents at <http://patents.charlesmachine.works>

This manual contains information concerning the following models:  
**1820 Trencher**

Copyright 2004, 2005, 2006, 2007, 2014, 2018 by The Charles Machine Works, Inc.

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



# FOREWORD

---

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

- Descriptions 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.
- Part numbers enclosed in a box or marked as “obsolete” in the remarks column 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 referenced in footnotes are available through your local Ditch Witch dealer.
- 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 Ditch Witch 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 replacement parts.**



**A CHARLES MACHINE WORKS COMPANY**

# WARRANTY

---

DW WARRANTY Policy  
August, 2016

## **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 Ditch Witch factory that fail due to a defect in material or workmanship within one (1) year of first commercial use. 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 Ditch Witch Product Support (DWPS) or its authorized dealer. DWPS will provide the location of its inspection facilities or it's nearest authorized dealer upon inquiry. DWPS 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 the Ditch Witch factory.

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 the DWPS, P.O. Box 66, Perry, OK 73077-0066, or contact your local dealer.

# CONTENTS

---

## Decals

Decal Location ..... 8

## Engine Components

Drive Sheave/Clutch Mount – Honda ..... 16

Drive Sheave/Clutch Mount – Kohler ..... 20

Engine – Honda ..... 14

Engine – Kohler ..... 18

## Power Train

Axle, Left ..... 26

Axle, Right ..... 28

Gearbox ..... 34

Steering Linkage ..... 32

Wheel Drive ..... 30

Worm Drive ..... 24

## Frame Components

Console & Frame Parts ..... 38

Cover & Guards ..... 40

Fuel Tank ..... 42

Tire - Tube - Wheel ..... 44

Trail Wheels ..... 46

## Control Components

Axle Lock Control Linkage ..... 54

Belt Clutch ..... 50

Boom Control Linkage ..... 60

Head Shaft Clutch ..... 58

Speed & Direction Control Linkage ..... 52

Steering Control Linkage ..... 56

## Hydraulics

Boring Attachment ..... 78

Cylinder – 2.5" x 1.25" x 4" ..... 92

Cylinder – 3" x 1.5" x 12" ..... 94

Control Valve ..... 80

Control Valve – Single Spool ..... 82

Motor ..... 84, 86

Motor Hydraulics ..... 68

Pump ..... 88, 90

Reservoir ..... 72

Hydraulic Schematic ..... 64

Pivot ..... 76

Pump & Valve ..... 66

Steering ..... 74

Test Port ..... 70

## Electrical

Diagram – Console ..... 114, 116

Diagram – Honda ..... 104, 106, 108

Diagram – Kohler ..... 110, 112

Elect Schematic – w/Fuel Solenoid ..... 98, 100

Elect Schematic – Kohler ..... 102

## Digging Components

Auger/Outboard Bearing ..... 122

Boom – 1.654" P, Sprocket ..... 124

Boom, Low Profile Sprocket ..... 130

Boom, Roller ..... 126, 128

Dig Chain – 1.654" P33K2PS ..... 138

Dig Chain – 1.654" P33K4PS ..... 140

Dig Chain – ALGTR 1.654" P33K2PS BO ..... 142

Dig Chain Adapters – 33K 6"-16" ..... 136

Pivot ..... 120

Shark Chain – 1.686" P35K old style ..... 144

Shark Chain II – 1.686" P35K 6.0" ..... 148

Shark Chain II – 1.686" P35K ..... 146

Special Tool – Bit Puller ..... 150

Special Tool – Bit Punch ..... 152

Special Tool – Chain Jaws ..... 154

Trench Cleaner – 3', 4', & 5' ..... 132

Trench Cleaner – Optional ..... 134

## Accessories

Bearing Swivel ..... 164

Boring Attachment ..... 158

Drilling Tools – Dry Bore ..... 160

Pulling Tools ..... 162

## Miscellaneous

Bolt/Nut Torque Chart ..... 168

Dash O-Ring/Thread Chart ..... 171

Filters ..... 172

Optional Kits ..... 172

Parts Manual Change Request ..... 173

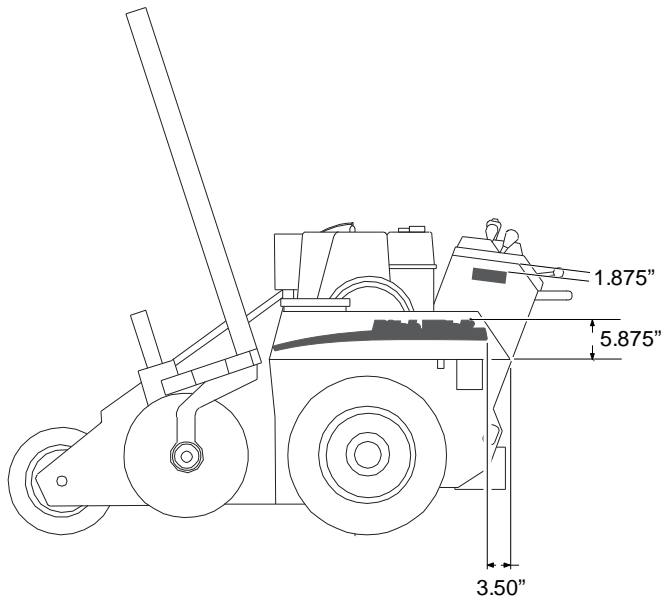
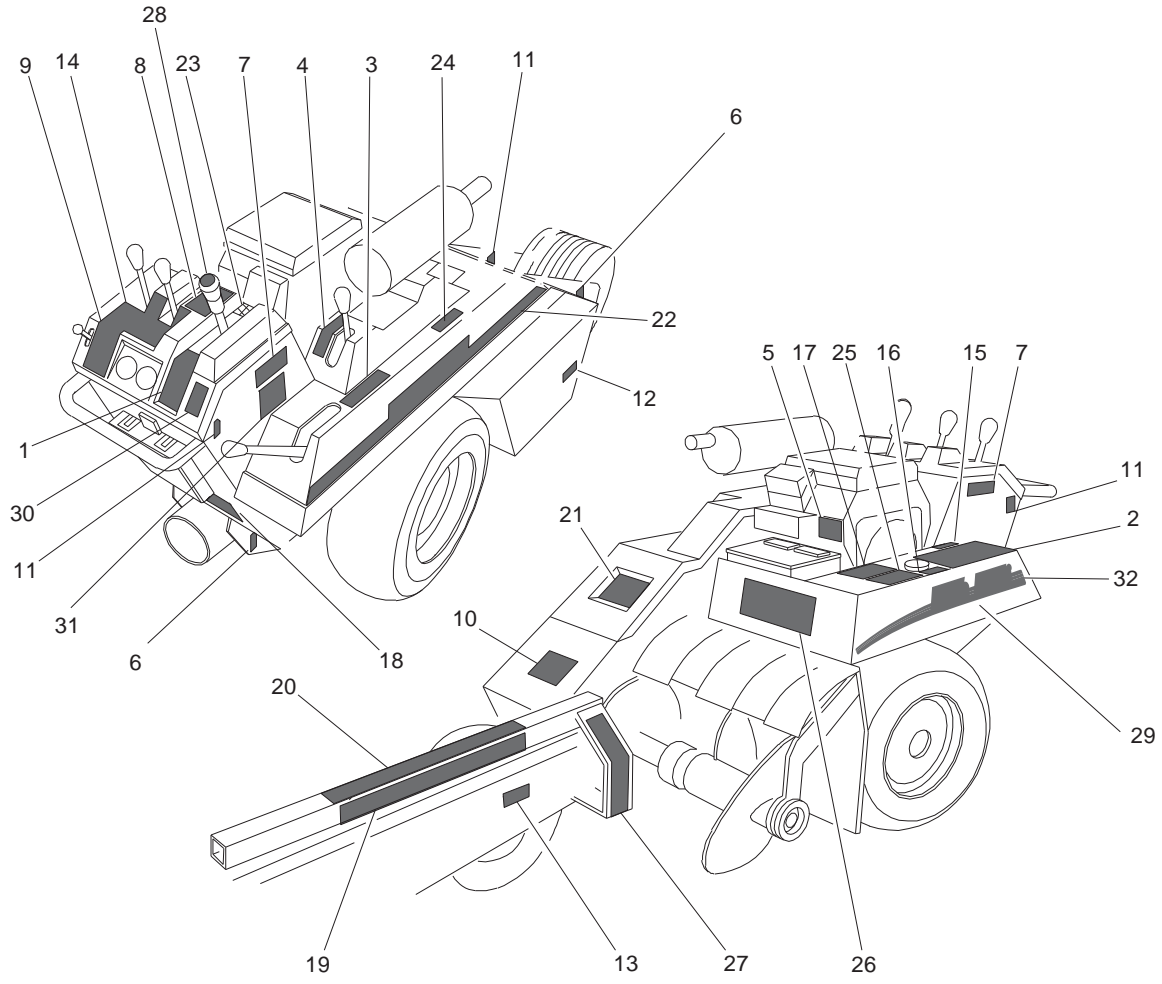
Related Publications ..... 172

Warranty Registration ..... 176

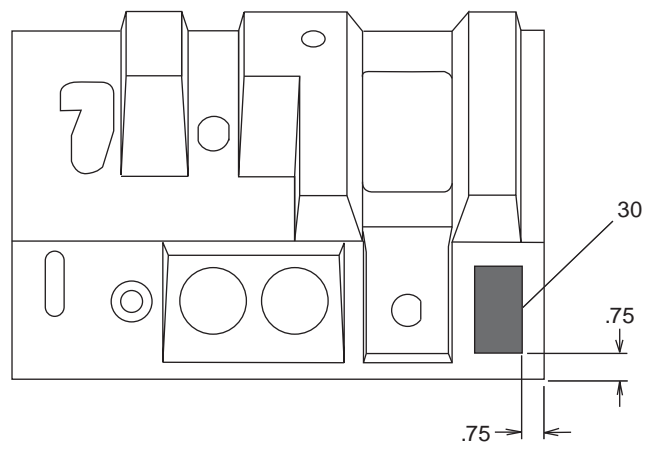
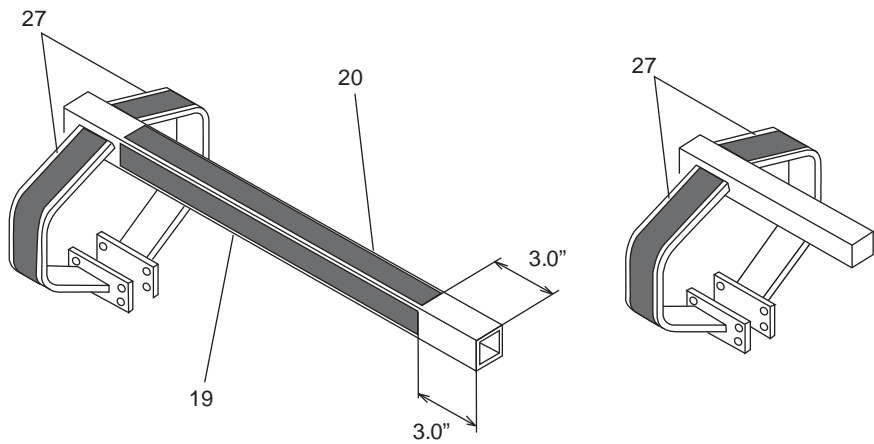
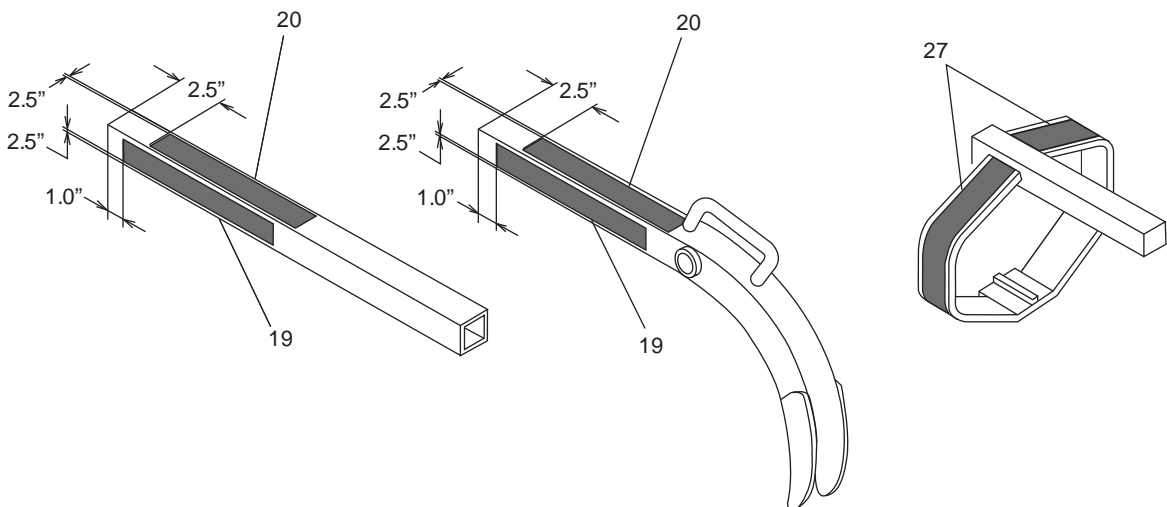


# DECALS

# DECAL LOCATION 1820HE/1820KE



# DECAL LOCATION 1820HE/1820KE



## DECAL LOCATION 1820HE/1820KE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	275-641		DECAL KIT - 1820	
1	274-007	1	CROWD SPEED/DIRECTION	
2	274-009	1	OPERATION INSTRUCTIONS	
3	274-010	1	DIGGING CHAIN	
4	274-011	1	COLD START CLUTCH	
5	274-208	1	FUEL SHUTOFF ALERT	
6	274-318	4	TIE DOWN LOCATION DECAL	
7	270-1316	2	1820 MODEL-ID	
8	274-333	1	WARNING, OIL PRESSURE	
9	274-354	1	CONTROL VALVE DECAL	
10	274-362	1	1820 LUBRICATION CHART	
11	274-442	3	LIFT LOCATION	
12	275-023	1	OIL LEVEL DECAL	
13	275-043	2	CHAIN TENSION DECAL	
14	273-475	1	WARNING READ MANUAL	
15	275-120	1	RESERVOIR (THF)	
16	275-173	1	FUEL TANK (GASOLINE)	
17	275-184	1	WARNING MOVING PARTS	
18	275-197	1	DANGER ROTATING SHAFT	SEE FOOTNOTE 1
19	273-059	2	DANGER STRIPE (1.50" X 18" )	
20	273-058	1	DANGER (1.50" X 18")	
21	275-449	1	DITCH WITCH LOGO PLACARD	
22	270-1313	1	LOGOTYPE W/ ACCENT STRIPE	
23	275-325	1	SPEED/DIRECTION	
24	275-343	1	BORING	SEE FOOTNOTE 1
25	275-419	1	WARNING NO FLAME	
26	275-429	1	DANGER CHAIN AND AUGER	
27	700-091	2	DANGER STRIPE (1.50" X 8")	
28	275-394	1	LOCK RELEASE	
29	275-497	1	OIL DRAIN-ID	
30	274-724	1	WARNING ONE CALL NOTIFICATION	
31	274-291	1	SOUND POWER RATING	SEE FOOTNOTE 2
32	270-1314	1	1820 ACCENT STRIPE LEFT	
33	273-267	1	DITCH WITCH BATTERY DECAL	SEE FOOTNOTE 3

### FOOTNOTES

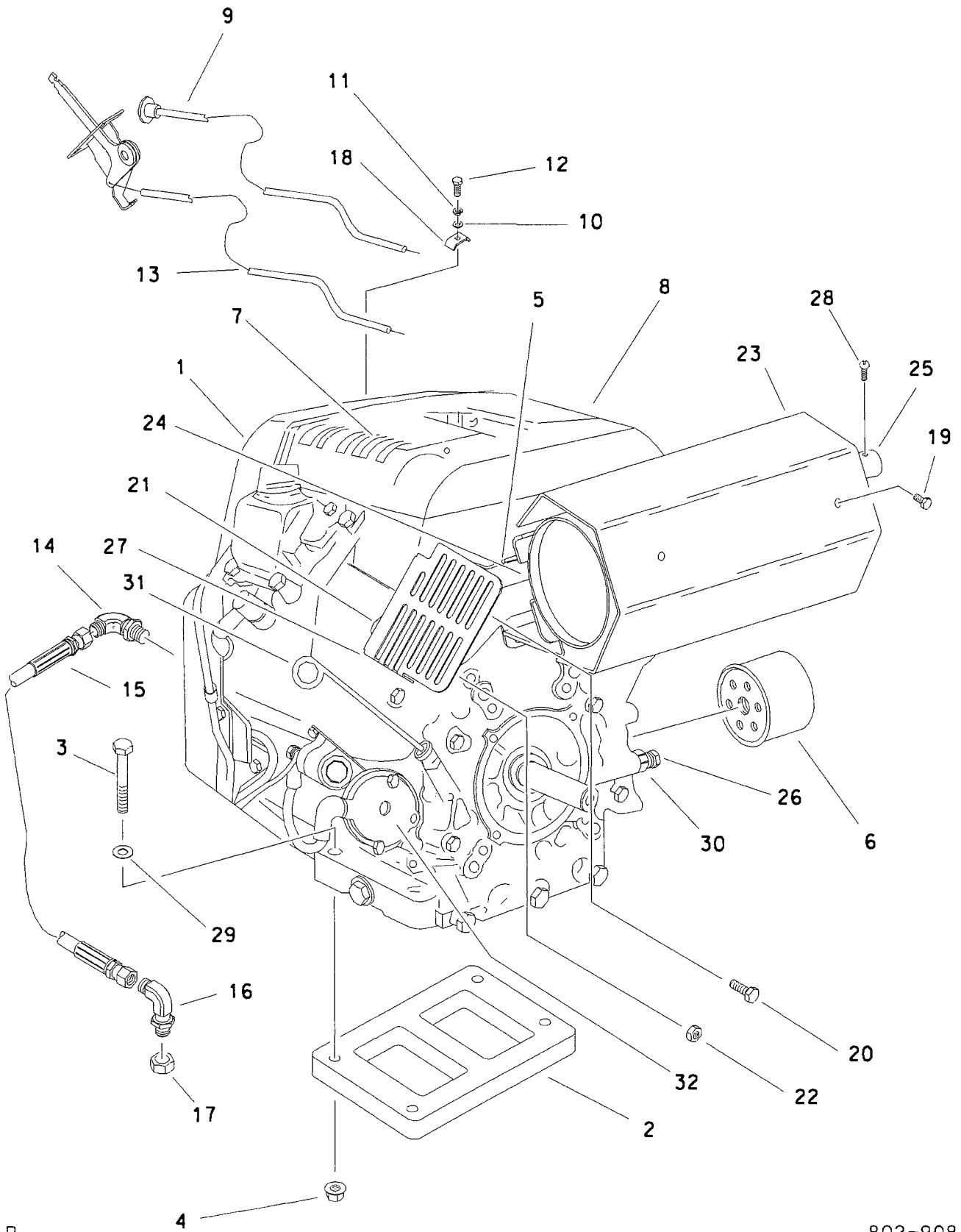
1. NOT PART OF KIT. FOR USE WITH ROTO WITCH OPTION. SEE 604-558
2. NOT PART OF KIT.
3. LOCATE DECAL ON BATTERY SO THAT IT IS VISIBLE WHEN VIEWING BATTERY.





# **ENGINE COMPONENTS**

# HONDA ENGINE



R

# HONDA ENGINE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	<u>194-311</u>	1	ENGINE-HONDA	
	194-195	1	HONDA ENGINE 18HP	BEGINS WITH 1T3249
	159-244		FUEL FILTER	
2.	309-211	1	ENGINE PLATE, HONDA	
3.	106-400	4	BOLT (3/8-NC X 2-3/4", GD8)	
4.	105-845	4	FLG LOCKNUT (3/8-NC)	SEE FOOTNOTE 4
5.	<u>363-441</u>	1	MUFFLER BRACKET	
	310-128	1	MUFFLER BRACKET ASS'Y	
6.	159-209		OIL FILTER - HONDA	
7.	159-208		HONDA AIR FILTER ELEMENT	
	194-222		HONDA AIR FILTER ELEMENT	BEGINS WITH 1T3249
8.	159-221		HONDA OUTER FILTER	
	194-223		HONDA OUTER FILTER	BEGINS WITH 1T3249
9.	195-951	1	CHOKE CABLE (59-1/16")	
	105-093	1	NUT (3/8-NF)	
	105-072	1	LOCK WASHER (3/8")	
10.	106-205		WASHER (.191")	
11.	195-418		LOCK WASHER (# 10)	
12.	106-542		SCREW (M5-0.80X16MM, PAN PLPS)	
13.	196-080	1	THROTTLE CABLE (50")	
	111-064	1	KNOB (1/4-NC, ORANGE)	
	110-124	1	KNOB (.368" SLT, BLACK)	EARLY STYLE
	106-161	2	FLG SCREW (M6-1.00 X 20MM)	
	106-574	2	CLIP NUT (M6-1.00)	
14.	154-238	1	CONNECTOR (M14 - 1.50 -08J90)	
15.	154-563	1	HOSE (08JFX -18"-2000)	
16.	154-148	1	BK CONNECTOR (08J-08J90BK)	
17.	154-089	1	CAP (08JF)	
18.	110-741		CABLE CLAMP	
19.	106-378	6	FLG LK SCREW (M6-1.0 x 12mm)	
20.	106-162	4	FLG SCREW (M8-1.25 X 20MM, GD8)	
21.	165-807	2	EXHAUST GASKET	
22.	106-386	4	FLG LOCKNUT (M8-1.25)	
23.	362-829	1	HD MUFFLER GUARD	
24.	<u>196-220</u>	1	MUFFLER - HONDA	
	194-182	1	MUFFLER (HONDA)	BEGINS WITH 1T3249
25.	196-224		SPARK ARRESTER	
26.	217-736		OIL PRESSURE SWITCH	SEE FOOTNOTE 3
27.	362-820	1	GUARD - INLET	
28.	105-804	1	FLG SCREW (#10-16 X 1/2")	SEE FOOTNOTE 1
29.	106-396	4	WASHER (M10, HARDENED)	SEE FOOTNOTE 2
30.	514-032	1	REDUCER (02B-02NF)	SEE FOOTNOTE 3
31.	194-334	1	DIPSTICK, ENGINE OIL	
32.	194-326		STARTER	
	194-221		STARTER	BEGINS WITH 1T3249

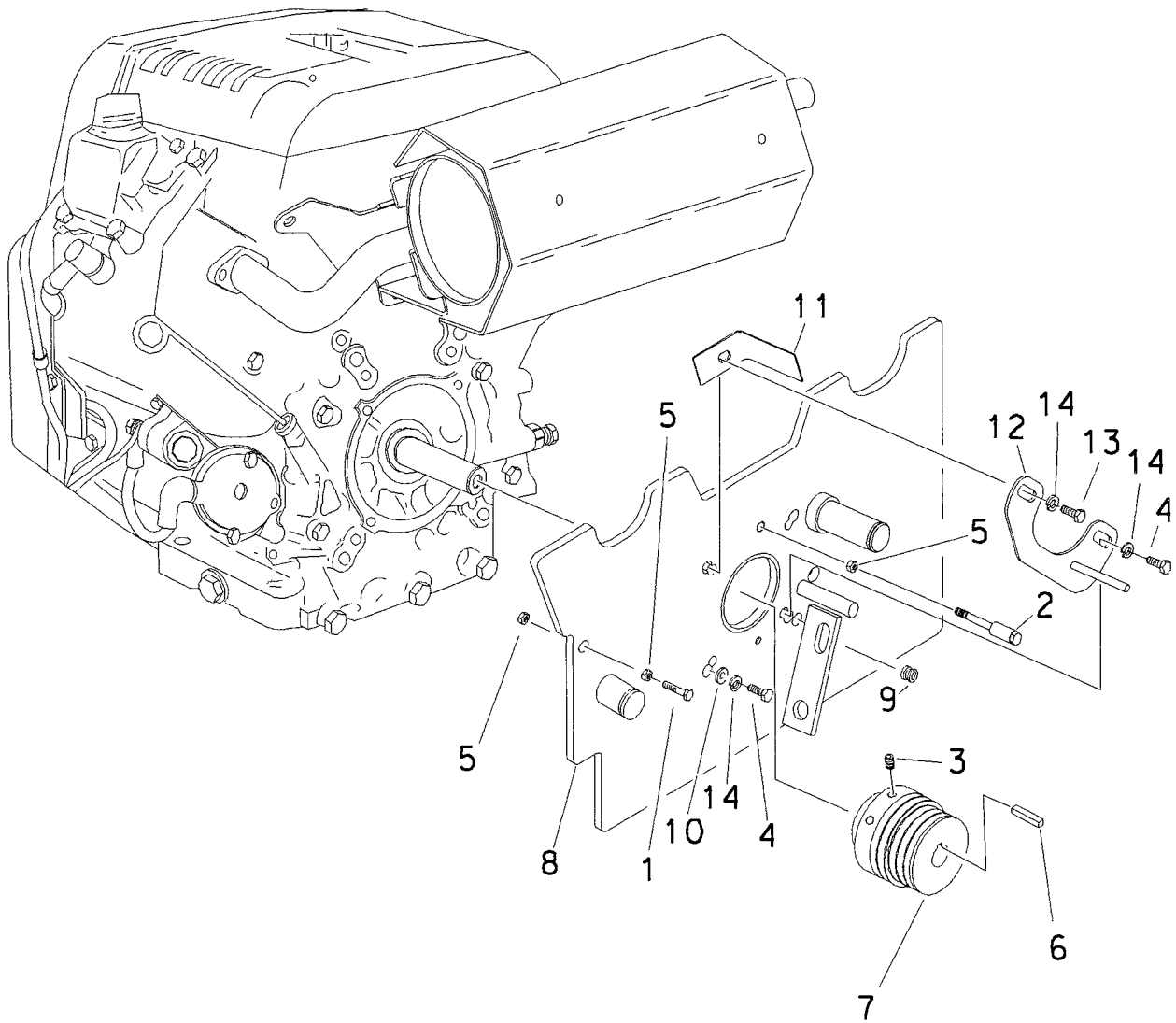
## NOT SHOWN

	191-066	1820H SERVICE KIT (194-311 ONLY)	
	191-331	1820H SERVICE KIT (194-195 ONLY)	BEGINS WITH S/N 1T3249

## FOOTNOTES

1. FLG SCREW (REF #28) IS USED TO HOLD REF #25 (196-224 SPARK ARRESTER) TO REF #24 (196-220 MUFFLER (HONDA)).
2. BEGINS WITH S/N 1L3048.
3. REQUIRED FOR ALL MACHINES FROM S/N1L435 AND EARLIER, ALSO REQUIRED ON ALL MACHINES STARTING WITH S/N 1L4346 AND LATER WHEN REPLACING REF #26 (OIL PRESSURE SWITCH) BECAUSE OF THREAD DESIGN.
4. USE LOCTITE #680 AND TORQUE TO 80-90 FT/LBS. BEGINS WITH S/N 1S0248.
5. TO INSTALL ENGINE 194-195 ON MACHINES PRIOR TO SERIAL #1T3249, MUFFLER 194-182, MUFFLER BRACKET 310-128, AND WIRING HARNESS 214-769 MUST BE INSTALLED.

# DRIVE SHEAVE AND CLUTCH MOUNT HONDA

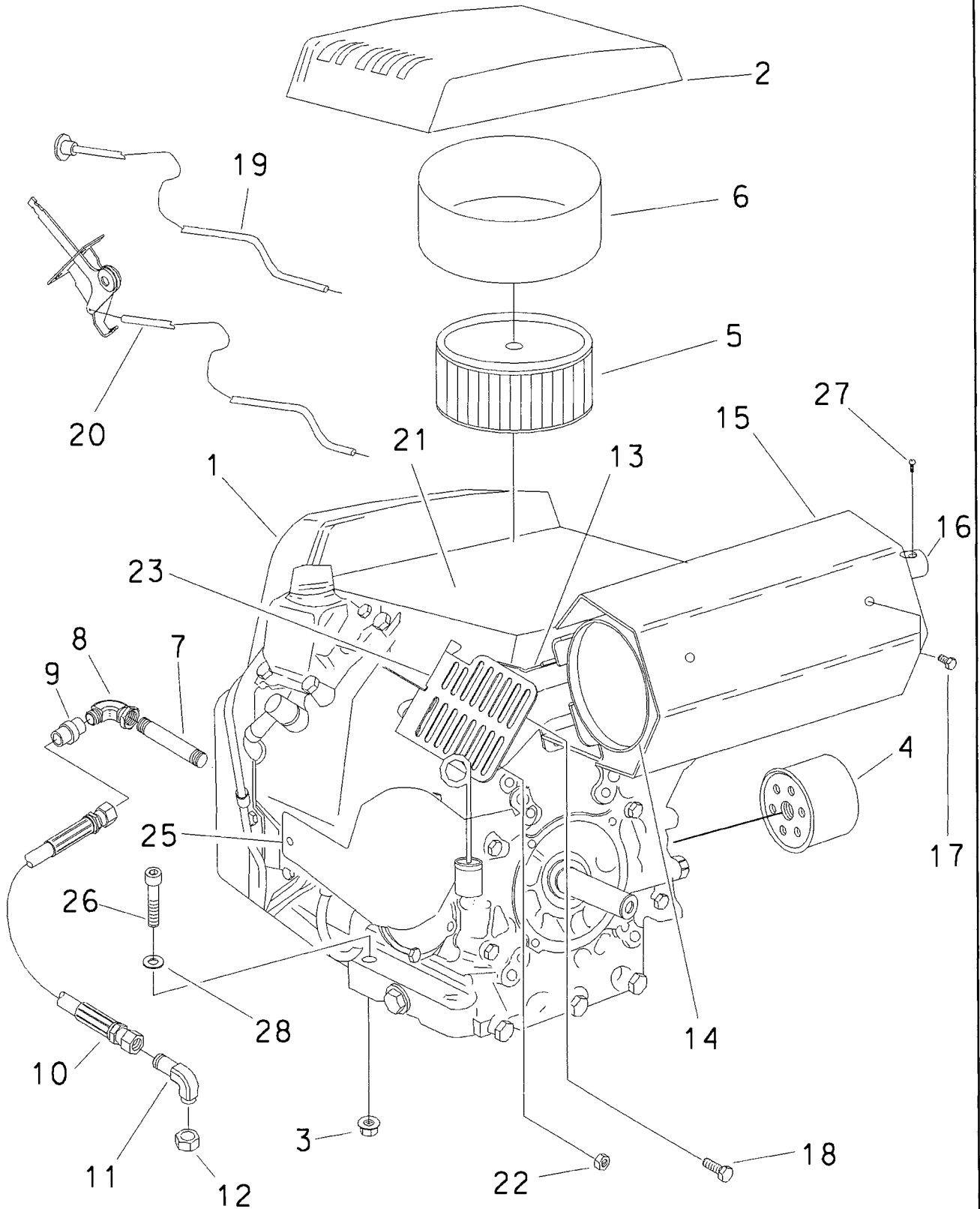


# DRIVE SHEAVE AND CLUTCH MOUNT HONDA

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-874	1	FLG LK BOLT (3/8-NC X 1-1/2")	
2.	309-017	1	BELT RETAINER	
3.	106-638	2	SET SCREW (M10-1.50 X 12mm)	
4.	106-043	3	BOLT (5/16-NF X 1")	
5.	105-834	3	FLG LOCKNUT (3/8-NC)	
6.	165-923	1	KEY (1/4" X 2")	
7.	170-289	1	SHEAVE (5/3V-1.000")	
8.	309-201	1	BELT CLUTCH PLATE	
9.	502-001	1	GROMMET (3/8")	
10.	105-091	4	LOCK WASHER (5/16")	
11.	361-119	1	BELT RETAINER	BEGINS WITH S/N IN2827
12.	309-066	1	BELT RETAINER	BEGINS WITH S/N
13.	105-060	1	BOLT (5/16-NF X 1-1/4")	
14.	105-091	4	LOCK WASHER (5/16")	

FOOTNOTES

# KOHLER ENGINE



# KOHLER ENGINE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	194-310	1	ENGINE - KOHLER	
	196-221	1	MUFFLER (KOHLER)	
	165-813	2	GASKET, VALVE COVER	
	194-317	1	STARTER	
	194-321	1	AIR CLEANER BASE	
	216-027	1	RECTIFIER REGULATOR	
	217-820	1	SOLENOID	
	165-809	1	CARBURETOR GASKET	
	194-316	1	CARBURETOR REPAIR KIT	
	194-319	1	DIPSTICK	
	194-322	1	FUEL PUMP	
	195-256	1	FUEL FILTER (04H-04H, IN-LINE)	
	194-324	1	ENGINE OIL FILL CAP	
	216-028	1	IGNITION MODULE	
2.	194-323		AIR CLEANER COVER KIT	
3.	106-387	4	FLG LOCKNUT (M10-1.50)	SEE FOOTNOTE 5
4.	157-630	1	OIL FILTER (KOHLER)	
5.	194-313	1	AIR FILTER (ELEMENT)	
6.	194-314	1	FOAM PRE CLEANER (KOHLER)	
7.	115-116	1	NIPPLE (06N - 2")	
8.	115-205	1	ELBOW (06NF-06NF90)	
9.	155-294	1	CONNECTOR (06N-08J)	
10.	154-566	1	HOSE (08JFX-16"-3500)	
11.	154-148	1	BK CONNECTOR (08J90)	
12.	154-089	1	CAP (08JF)	
13.	363-442	1	MUFFLER BRACKET	
14.	196-221	1	MUFFLER (KOHLER)	
15.	362-829	1	HD MUFFLER GUARD	
16.	196-224		SPARK ARRESTER	
17.	106-378	6	FLG LK SCREW (M6-1.0 x 12MM)	
18.	106-162	4	FLG SCREW (M8-1.25 X 20MM)	
19.	195-951	1	KILL CABLE (59-1/16")	
	105-093	1	NUT (3/8-NF)	
	105-072	1	LOCK WASHER (3/8")	
20.	196-123	1	THROTTLE CABLE (40")	
	110-124	1	KNOB (.368" SLT, BLACK)	EARLY STYLE
	111-064	1	KNOB (1/4-NC, ORANGE)	
	106-161	2	FLG LK SCREW (M6-1.00 X 20MM)	
	106-574	2	CLIP NUT (M6-1.00)	
21.	217-823	1	SWITCH, OIL PRESSURE	
22.	106-386		FLG LOCKNUT (M8-1.25)	
23.	362-821	1	GUARD, INLET	
24.	309-016	1	ENGINE AIR DEFLECTOR (RIGHT)	NOT SHOWN
25.	309-015	1	ENGINE AIR DEFLECTOR (LEFT)	
26.	105-271	4	SCREW (M10-1.50 X 40MM, 8.8)	SEE FOOTNOTE 3
	106-544	4	SCREW (M10-1.50 X 40mm ALN)	SEE FOOTNOTE 4
27.	105-804	1	FLG SCREW (#10-16 X 1/2")	SEE FOOTNOTE 1
28.	106-396	4	WASHER (M10, HARDENED)	SEE FOOTNOTE 2

## FOOTNOTES

1 - FLG SCREW (REF #27) IS USED TO HOLD REF #16 (196-224 SPARK ARRESTER) TO REF #14 (196-221 MUFFLER).

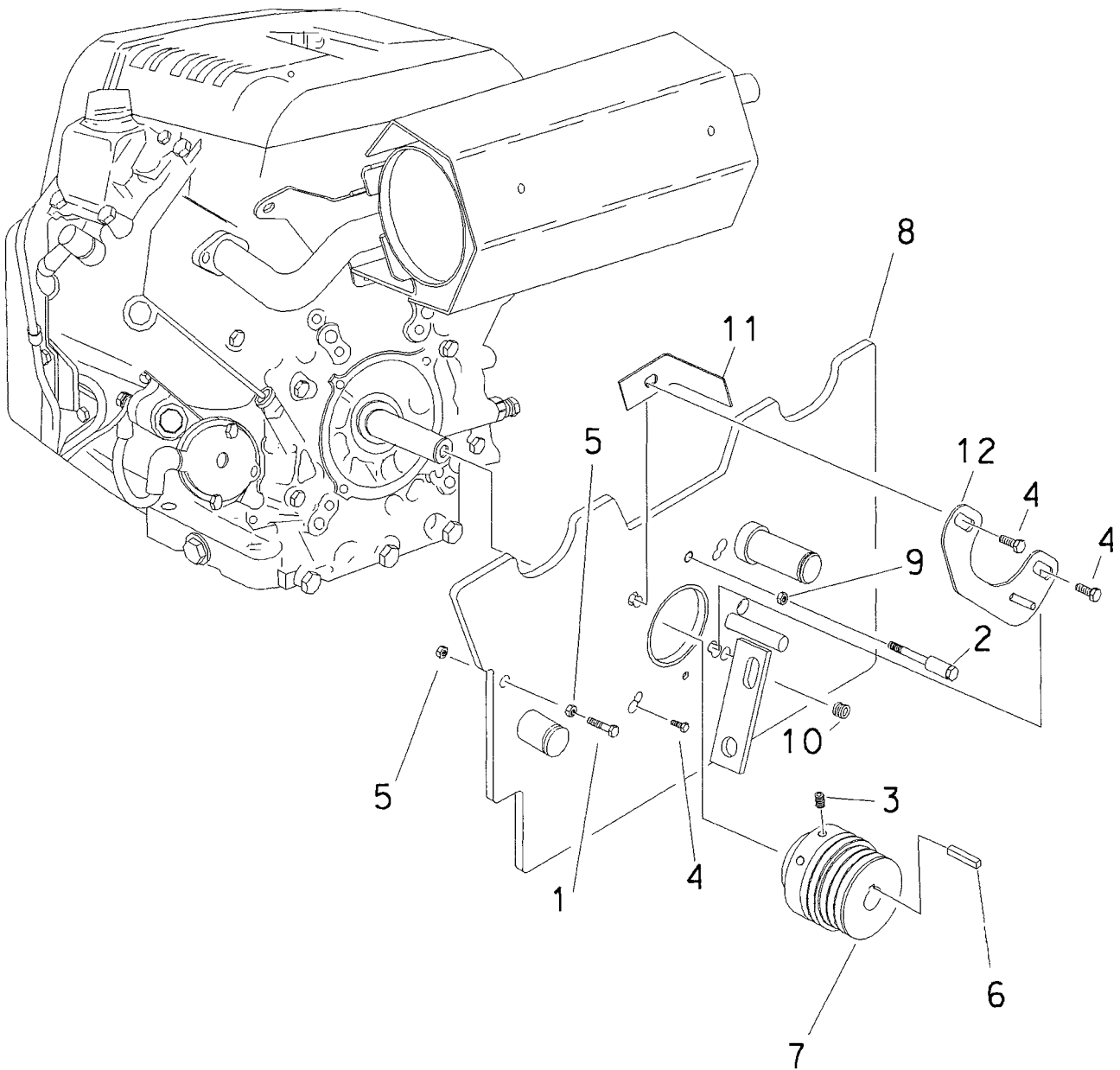
2 - BEGINS WITH S/N 1L3048

3 - ENDS WITH S/N 1M0248

4 - BEGINS WITH S/N 1M0249, ENGINE HAS FINS NEAR BOLTS

5 - USE LOCTITE #680 AND TORQUE TO 80-90 FT/LBS. BEGINS WITH S/N 65531

# DRIVE SHEAVE & CLUTCH MOUNT KOHLER



# DRIVE SHEAVE & CLUTCH MOUNT KOHLER

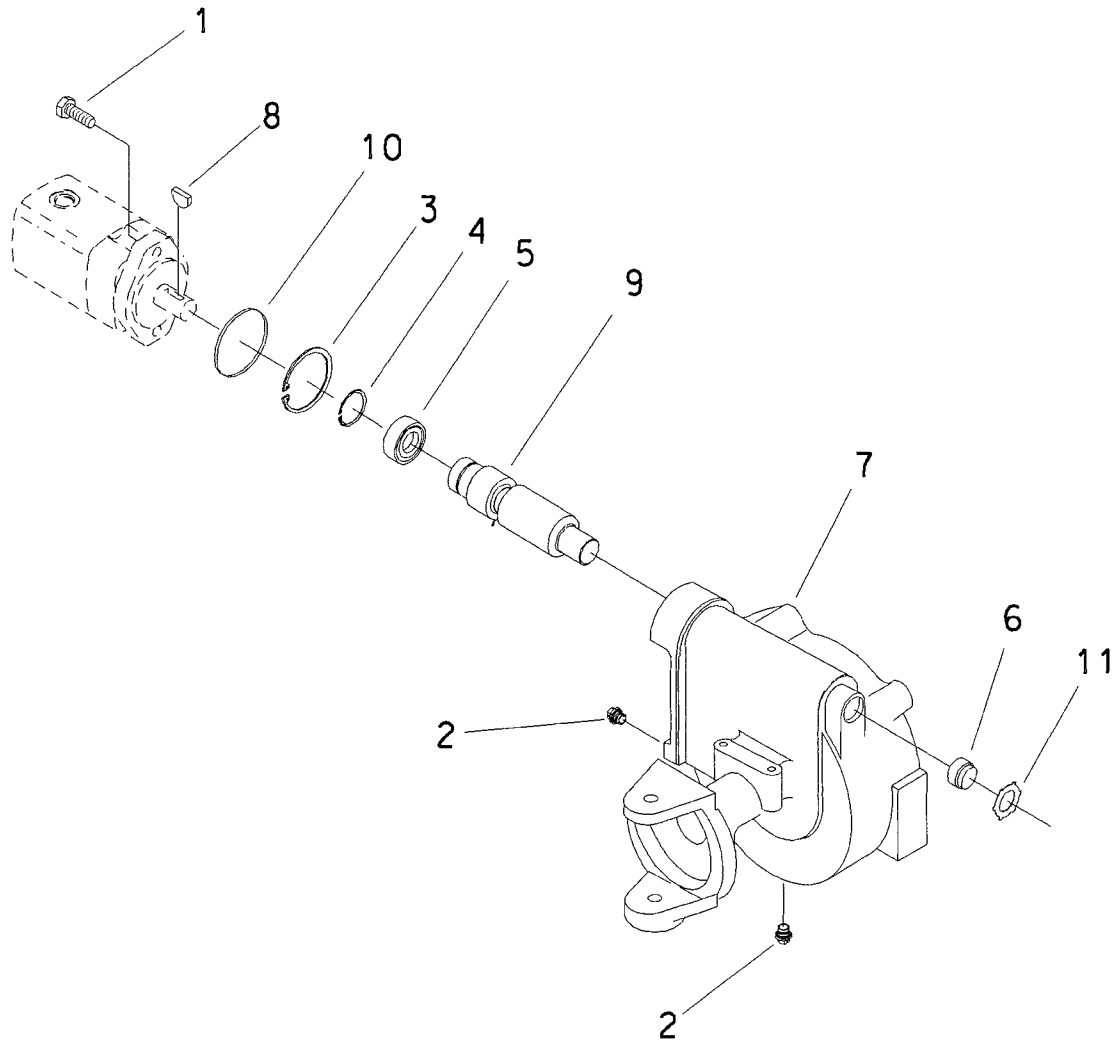
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	106-331	1	SCREW (M10-1.50 X 50MM)	
2.	309-101	1	BELT RETAINER	
3.	106-638	2	SET SCREW (M10-1.50 X 12MM)	
4.	105-826	4	FLG LOCK BOLT (3/8-NC X 1")	
5.	106-387	2	FLG LOCKNUT (M10-1.50)	
6.	165-937	1	KEY (1/4" X 3-1/8")	
7.	170-295	1	SHEAVE (5/3V-1.125")	
8.	309-201	1	BELT CLUTCH PLATE	
9.	105-834	1	FLG LOCKNUT (3/8-NC)	
10.	502-001	1	GROMMET (3/8")	
11.	361-119	1	BELT RETAINER	ENDS WITH S/N
12.	309-066	1	BELT RETAINER	BEGINS WITH S/N

FOOTNOTES



# **POWER TRAIN**

## WORM DRIVE



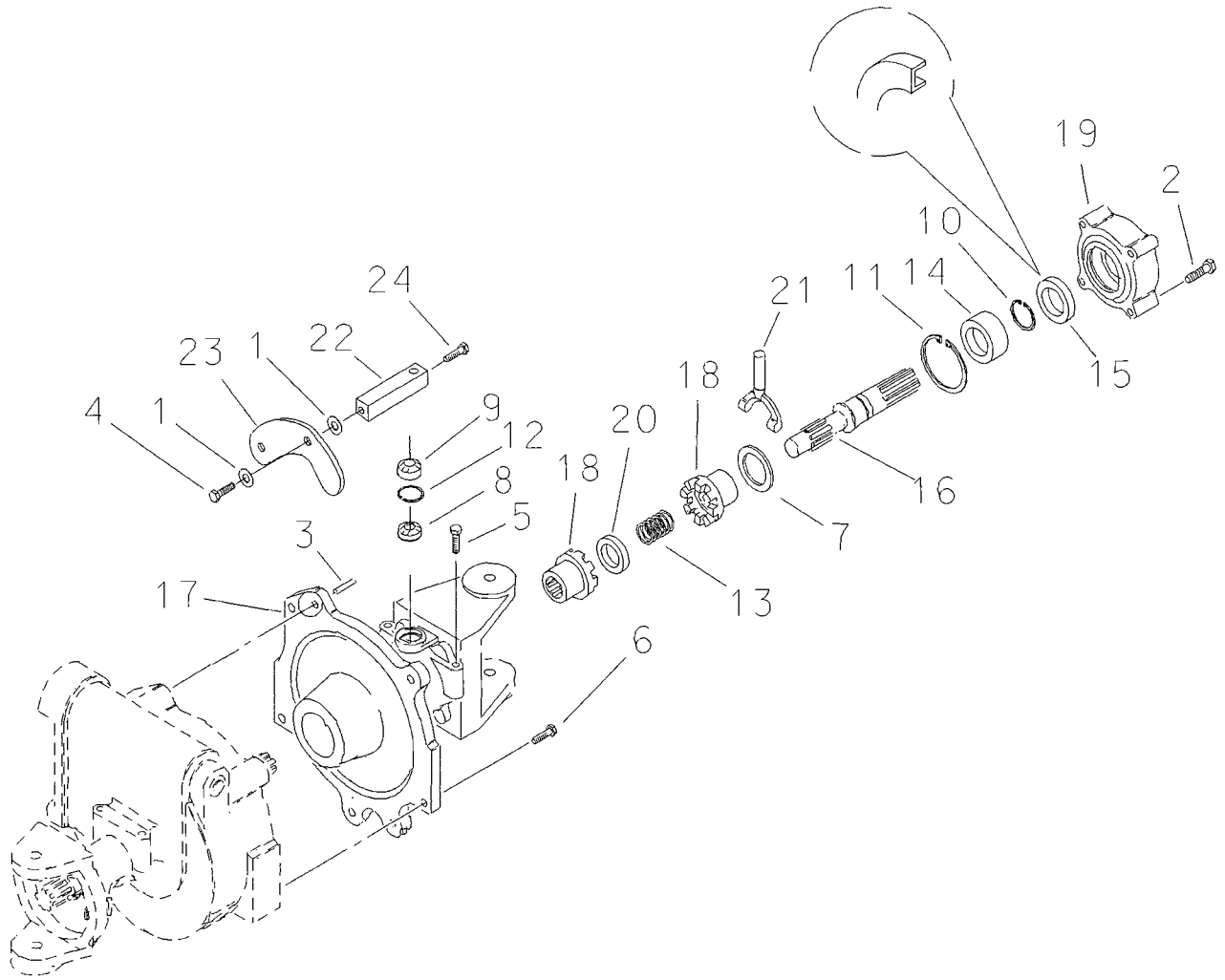
# WORM DRIVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	166-061		GROUND DRIVE GEARBOX	INCL. REF. NO.'S 2 THRU 7, 9, & 11. SEE FOOTNOTE 1
1.	105-062	2	FLG BOLT (1/2-NC X 1-1/2", FER)	
2.	115-211	2	PLUG (O8N, SQ, MAG)	
3.	115-464	1	INTERNAL SNAP RING (3.149")	
4.	115-549	1	EXTERNAL SNAP RING (1.575")	
5.	125-107	1	BALL BEARING (1.574")	
6.	125-335	1	BEARING (NEEDLE ROLLER)	
7.	161-115	1	WORM GEAR HOUSING	
8.	165-931	1	WOODRUFF KEY (1/4" X 1")	
9.	167-142	1	WORM SHAFT	
10.	500-074	1	O-RING (236 D70)	
11.	115-55C	1	INTERNAL SNAP RING (1.748")	

**FOOTNOTES**

1. NOT SHOWN IS 256-627 (AGMA NO. 7 COMP. QT.). SEE FLUID CAPACITIES SECTION.

# LEFT AXLE

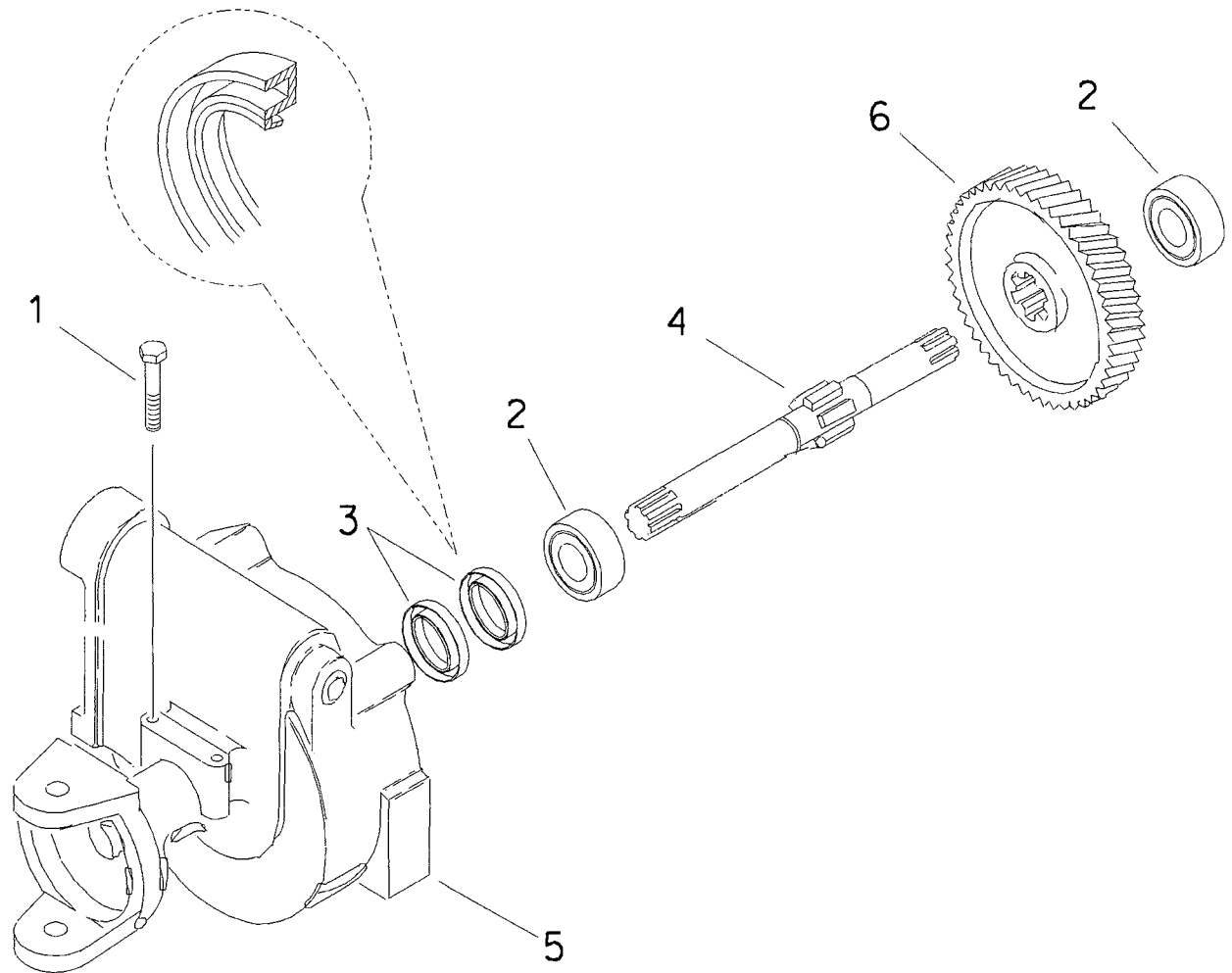


# LEFT AXLE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	166-061		GROUND DRIVE GEARBOX	
1.	105-117	2	WASHER (5/16")	
2.	105-205	4	LOCK BOLT (3/8-NC X 1-3/4", NLK)	
3.	105-517	2	DOWEL PIN (.375" X 1")	
4.	106-136	1	BOLT (3/8-NC X 1")	
5.	105-829	2	FLG LK BOLT (1/2-NC X 1")	
6.	105-830	5	FLG LK BOLT (1/2-NC X 1-1/4")	
7.	110-211	1	MACHINERY BUSHING (2.25")	
8.	110-493	1	BALL JOINT (7/16")	
9.	110-496	1	AXLE LOCK BOOT	
10.	115-465	1	EXTERNAL SNAP RING (1.375")	
11.	115-509	1	INTERNAL SNAP RING (2.440")	
12.	115-543	1	INTERNAL SNAP RING (.901)	
13.	115-637	1	COMPRESSION SPRING	
14.	125-067	1	BALL BEARING (1.378")	
15.	155-825	1	INTERNAL SEAL (1.250")	
16.	161-113	1	LEFT AXLE	
17.	161-116	1	AXLE LOCK HOUSING	
18.	161-117	2	LOCK HUB	
19.	169-016	1	AXLE BEARING SEAT	
20.	181-823	1	SPACER	
21.	365-096	1	LOCK SHIFT FORK	
22.	365-097	1	LOCK SHIFT LEVER	
23.	365-104	1	AXLE LOCK LINKAGE ARM	
24.	105-716	1	SET SCREW (3/8-NC X 1/2")	

FOOTNOTES

## RIGHT AXLE

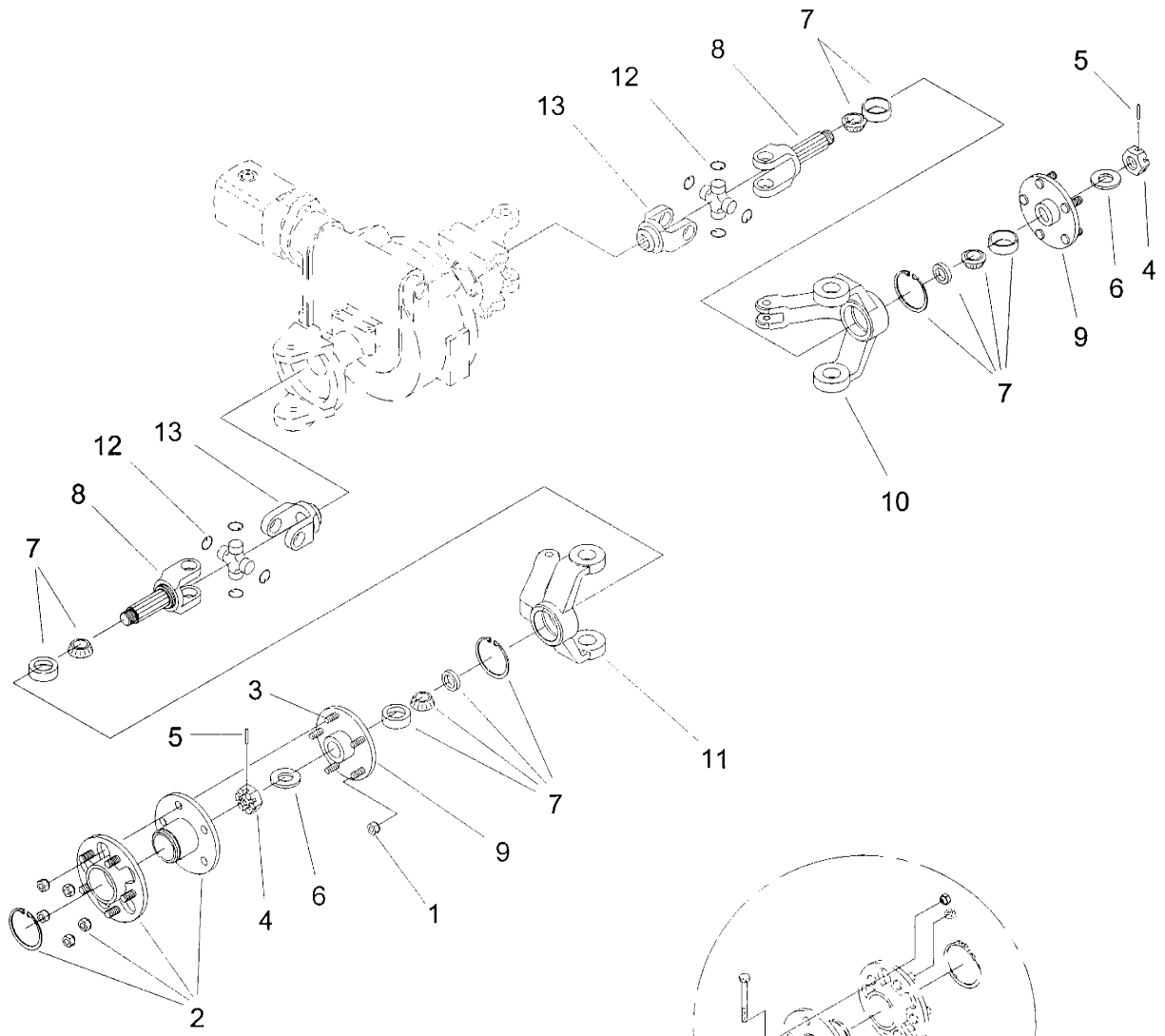


# RIGHT AXLE

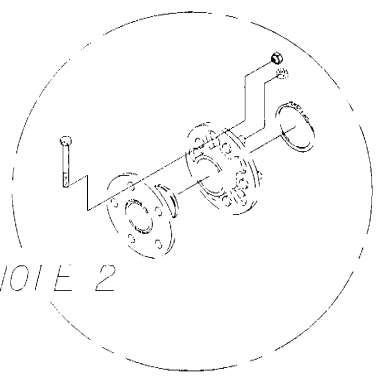
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	166-061		GROUND DRIVE GEARBOX	
1.	105-829	2	FLG LK BOLT (1/2-NC X 1")	
2.	125-056	2	BALL BEARING (1.378")	
3.	155-825	2	INTERNAL SEAL (1.250")	
4.	161-114	1	RIGHT AXLE	
5.	161-115	1	WORM GEAR HOUSING	
6.	165-103	1	GEAR (1.750"-40T, 6-SPL)	

FOOTNOTES

# WHEEL DRIVE



SFF FOOTNOTE 2



# WHEEL DRIVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-054	10	LUG NUT (7/16-NF)	
2.	205-890		SPARE HUB ASS'Y	OPTIONAL
	180-946	1	OUTSIDE FLANGE ASS'Y	SEE FOOTNOTE 1
	180-944	1	INSIDE HUB ASS'Y	
	115-457	1	EXTERNAL SNAP RING (2.500")	
	106-617	2	SCREW (M10-1.50 X 80MM)	USE FOR STORAGE. SEE FOOTNOTE 2
	106-550	2	NUTSERT (M10-1.50)	USE FOR STORAGE. SEE FOOTNOTE 2
3.	105-171	10	LUG BOLT (7/16-NF X 1-3/8")	
4.	105-317	2	CASTLE NUT (1-NF)	
5.	105-525	2	ROLL PIN (3/16" X 1-1/4")	
6.	110-078	2	MACH BUSHING (1" X 14GA.)	
7.	125-209	2	TAPERED BEARING/RACE (1.250")	
8.	160-148	2	REAR SPINDLE & YOKE	
9.	160-149	2	WHEEL FLANGE	
10.	160-410	1	LEFT SPINDLE HOUSING	
11.	160-411	1	RIGHT SPINDLE HOUSING	
12.	180-723	2	CROSS/BEARING KIT (1.125")	
13.	182-090	2	YOKE	

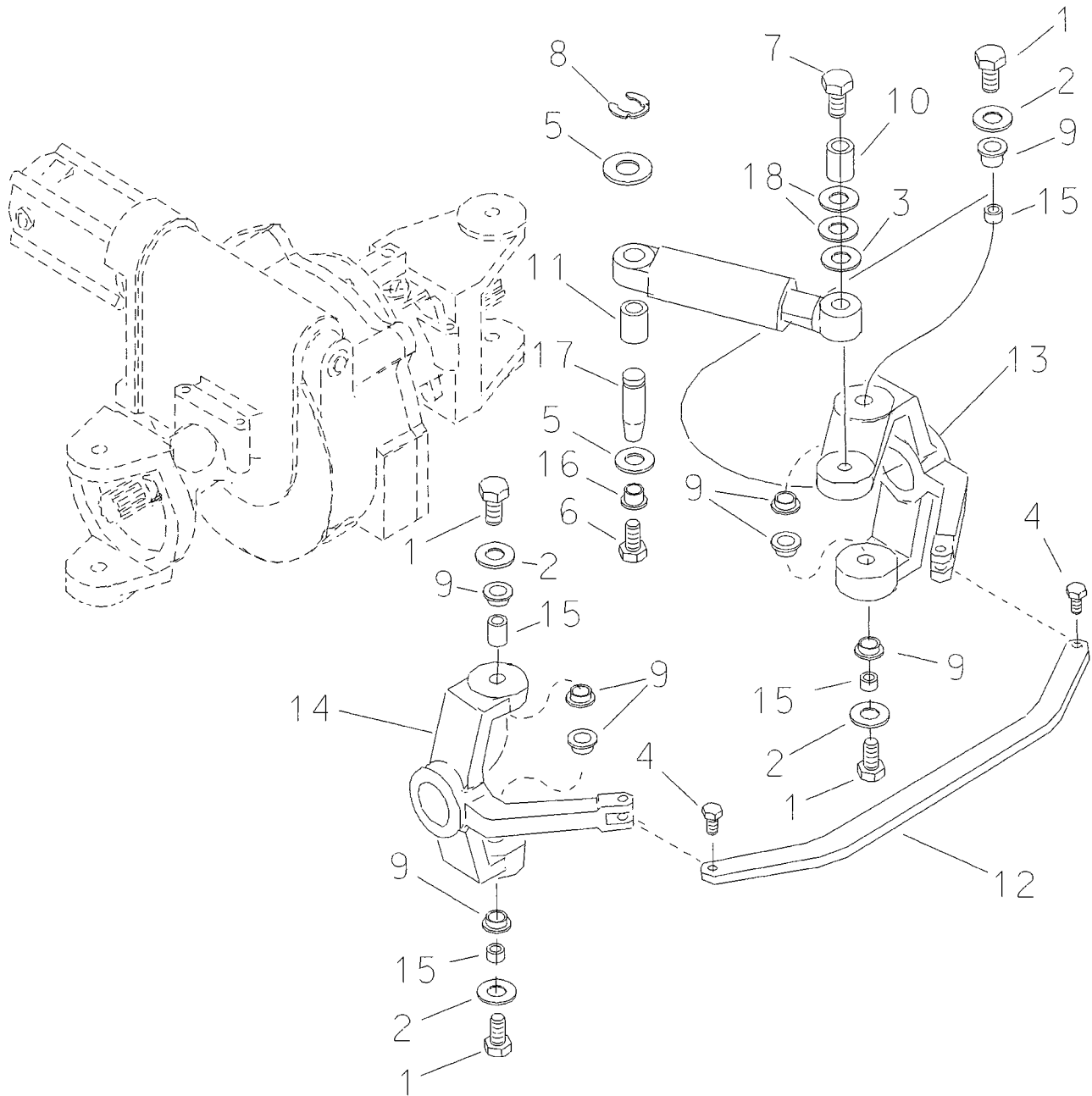
NOT SHOWN:

FOOTNOTES:

1. INCLUDES 5 LUG BOLTS (REF NO.3) AND 5 LUG NUTS (REF NO.1)
2. IN POSITION WHEN CARRIED ON MACHINE.

NOTE:

## STEERING LINKAGE

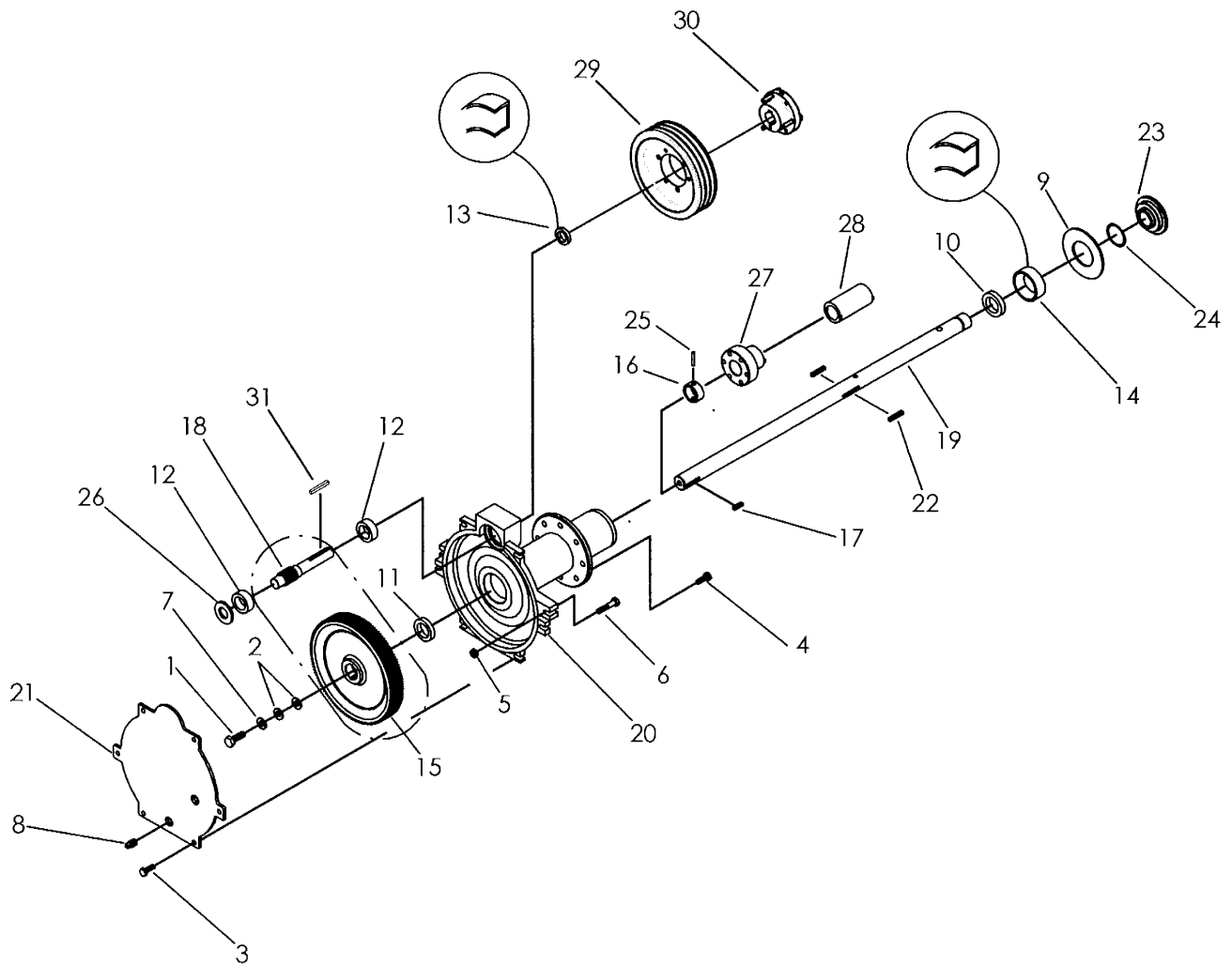


# STEERING LINKAGE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-364	4	LK BOLT (3/4-NF X 2", NLK)	
	190-445		SPINDLE BOLT KIT 16- 1820 2310	
2.	105-422	4	WASHER (3/4")	
3.	105-444	2	WASHER (1-1/4")	
4.	106-196	2	BOLT (1/2-NC X 2")	
5.	105-929	2	WASHER (1.531")	
	110-028	AR	BRASS BUSHING (1-1/2)	
6.	105-969	1	FLG BOLT (5/8-NC X 1-1/2", GD8)	
7.	106-092	1	SHLD_BOLT (1-1/4"X1.692", 7/8-NC)	
8.	115-511	1	KLIP_RING (1.50")	
9.	125-735	8	URETHANE FLG BUSHING (1")	
10.	125-771	1	COMPOSITION_BUSHING (1.25")	
11.	125-772	1	COMPOSITION_BUSHING (1.5")	
12.	160-409	1	TIE ROD	
13.	160-410	1	LEFT_SPINDLE_HOUSING	
14.	160-411	1	RIGHT_SPINDLE_HOUSING	
15.	181-552	4	COMPOSITION_BUSHING (.750")	
16.	181-974	1	TAPERED_INSERT (1.5")	
17.	183-593	1	TAPERED_PIN (1.500" X 3.550")	
18.	110-055	AR	MACHINERY_BUSHING (1-1/4"X14GA)	
	110-056	AR	MACHINERY_BUSHING (1.25")	

FOOTNOTES

# GEARBOX



# GEARBOX

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	166-101	1	HEAD SHAFT GEARBOX (8"-12")	INCL REF NO'S 1 THRU 21,23,24 & 26 (SEE F/N 1)
	166-102	1	HEAD SHAFT GEARBOX (16")	INCL REF NO'S 1 THRU 21,23,24 & 26 (SEE F/N 1)
	166-156	1	HEAD SHAFT GEARBOX (8"-12")	INCL REF NO'S 1 THRU 21,23,24 & 26 (SEE F/N 2)
	166-157	1	HEAD SHAFT GEARBOX (16")	INCL REF NO'S 1 THRU 21,23,24 & 26 (SEE F/N 2)
1.	106-632	1	FLG LK SCR (M12-1.75X35MM,SER)	SEE FOOTNOTE 3
2.	105-058	AR	BELLEVILLE WASHER (1/2")	
3.	106-383	6	FLG LK SCREW (M10-1.50 X 30MM)	
4.	106-559	8	SCREW (M12-1.75 X 25MM)	
5.	106-387	6	FLG LOCKNUT (M10-1.50)	
6.	105-996	2	SCREW (M10-1.50 X 45MM)	
7.	106-006	1	WASHER (.531", HARDENED)	
8.	115-158	2	PLUG (06N, SQ)	
9.	115-779	1	FRICTION WASHER (2.840")	
10.	125-050	1	BALL BEARING (1.378")	
11.	125-056	1	BALL BEARING (1.378")	
12.	125-066	2	BALL BEARING (.984")	USE 2 PER GEAR BOX, SEE FOOTNOTE 1
	125-118	1	BALL BEARING (.984")	USE 1 PER GEAR BOX, SEE FOOTNOTE 2
13.	155-827	1	INTERNAL SEAL (.984")	
14.	155-858	1	INTERNAL SEAL (1.875")	
15.	165-102	1	GEAR (KEYED)	SEE FOOTNOTE 1
	168-037	1	GEAR (SPLINED)	SEE FOOTNOTE 2
16.	184-018	1	PRELOAD HUB	
17.	166-825	2	KEY (1/4" X 1-1/4")	
18.	167-141	1	INPUT SHAFT	
19.	167-221	1	HEAD SHAFT (8"-12")	KEYED, SEE F/N 1
	167-222	1	HEAD SHAFT (16")	KEYED, SEE F/N 1
	167-297	1	HEAD SHAFT (8"-12")	SPLINED, SEE F/N 2
	167-298	1	HEAD SHAFT (16")	SPLINED, SEE F/N 2
20.	169-048	1	HOUSING (8"-12")	
	169-070	1	HOUSING (16")	
21.	169-047	1	COVER	
22.	165-944	2	KEY (1/4 X 1-3/4)	
23.	184-006	1	DIRT SHIELD	
24.	501-348	1	O-RING (126, D70)	
25.	105-552	1	DOWEL PIN (3/8" X 1-3/4", TAPER)	
26.	110-735	AR	MACHINERY BUSHING (1.690")	
27.	184-393	1	SPROCKET HUB	
28.	183-875	1	PIVOT SPACER	USE ONLY ON 166-157
29.	170-297	1	SHEAVE (3 3V 650 SDS)	
30.	170-274	1	SHEAVE BUSHING (.937"-SDS)	HARDWARE INCLUDED
31.	165-923	1	KEY (1/4 X 2")	

NOT SHOWN:

#### FOOTNOTES:

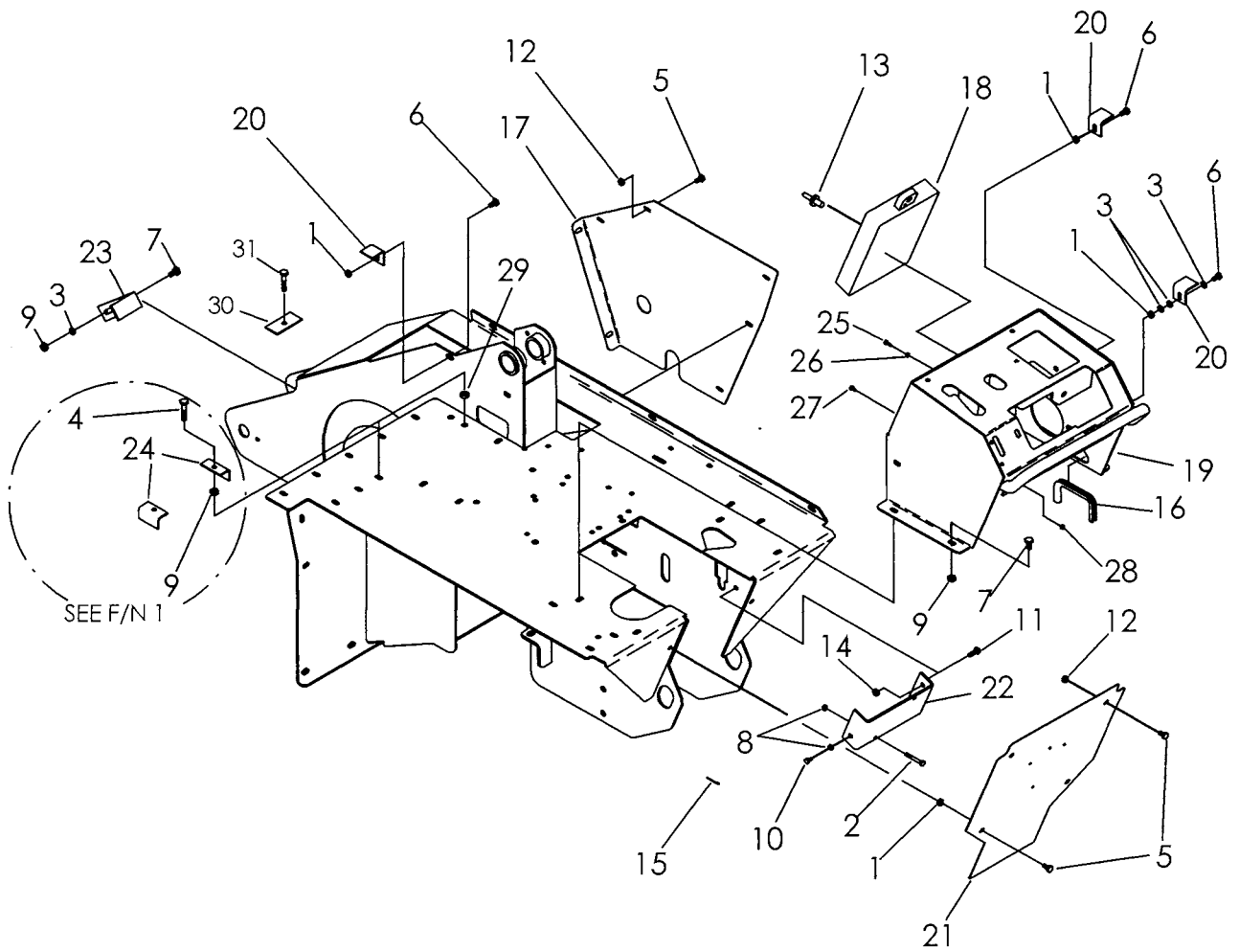
1. TWO SMALL BEARINGS PER BOX, KEYED HEADSHAFT ENDS WITH S/N 1N3938
2. ONE SMALL AND ONE LARGE BEARING AND SPLINED HEADSHAFT BEGINS WITH S/N 1N3939
3. APPLY SERVICABLE LOCTITE (242) AND TORQUE TO 55-60 FT-LB.

NOTE:



# **FRAME COMPONENTS**

# CONSOLE & FRAME PARTS



# CONSOLE & FRAME PARTS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-003	5	FLG LOCKNUT (5/16-NC)	
2.	106-595	2	SCREW (M6-1.00 X 60MM)	
3.	106-395	4	WASHER (M8, HARDENED)	
4.	105-996	2	SCREW (M10-1.5 X 45MM)	SEE FOOTNOTE 1
5.	105-823	11	FLG LK BOLT (5/16-NC X 3/4")	
6.	106-083	3	SCREW (M8-1.25 X 20MM)	
7.	106-382	3	FLG LK SCREW (M10-1.50 X 20MM)	
8.	106-353	3	FLG NUT (M6-1.00)	
9.	106-266	6	FLG NUT (M10-1.50)	SEE FOOTNOTE 1
10.	106-378	1	FLG LK SCREW (M6-1.00 X 12MM)	
11.	105-825	2	FLG LK BOLT (3/8-NC X 3/4")	HOLE.
12.	106-038	9	NUTSERT (5/16-NC)	
13.	110-253	3	POP RIVET (3/16" X 1/2")	
14.	105-834	2	FLG LK NUT(3/4-NC)	
15.	110-384	4	METAL TACK (1/4" X .142")	
16.	115-663	AR	GROMMET EDGING (1/4" X 12.7")	USE FOR BORING HOSES
17.	362-593	1	GEARBOX COVER	
18.	318-588	1	MANUAL COMPARTMENT	
19.	309-103	1	CONSOLE	
20.	308-519	3	BELT GUIDE	
21.	308-535	1	ACCESS DOOR	FOR HONDA AND KOHLER
22.	308-538	1	STEERING VALVE MOUNT	
23.	308-539	1	BELT GUIDE	
24.	308-548	2	BATTERY TAB	SEE FOOTNOTE 1
25.	106-542	1	SCREW (M5-0.8 X 16MM, PHLPS)	
26.	106-429	1	LOCK WASHER (M5)	
27.	106-228	1	SCREW (M5-0.8 X 10MM)	
28.	106-138	2	NUT (M5 -.8)	
29.	106-550	1	NUTSERT (M10 -1.50)	SEE FOOTNOTE 1
30.	324-226	1	BACKUP SPACER	BEGINS WITH S/N 1L3767.
31.	105-876	1	BOLT (M10-1.50 X 35mm)	

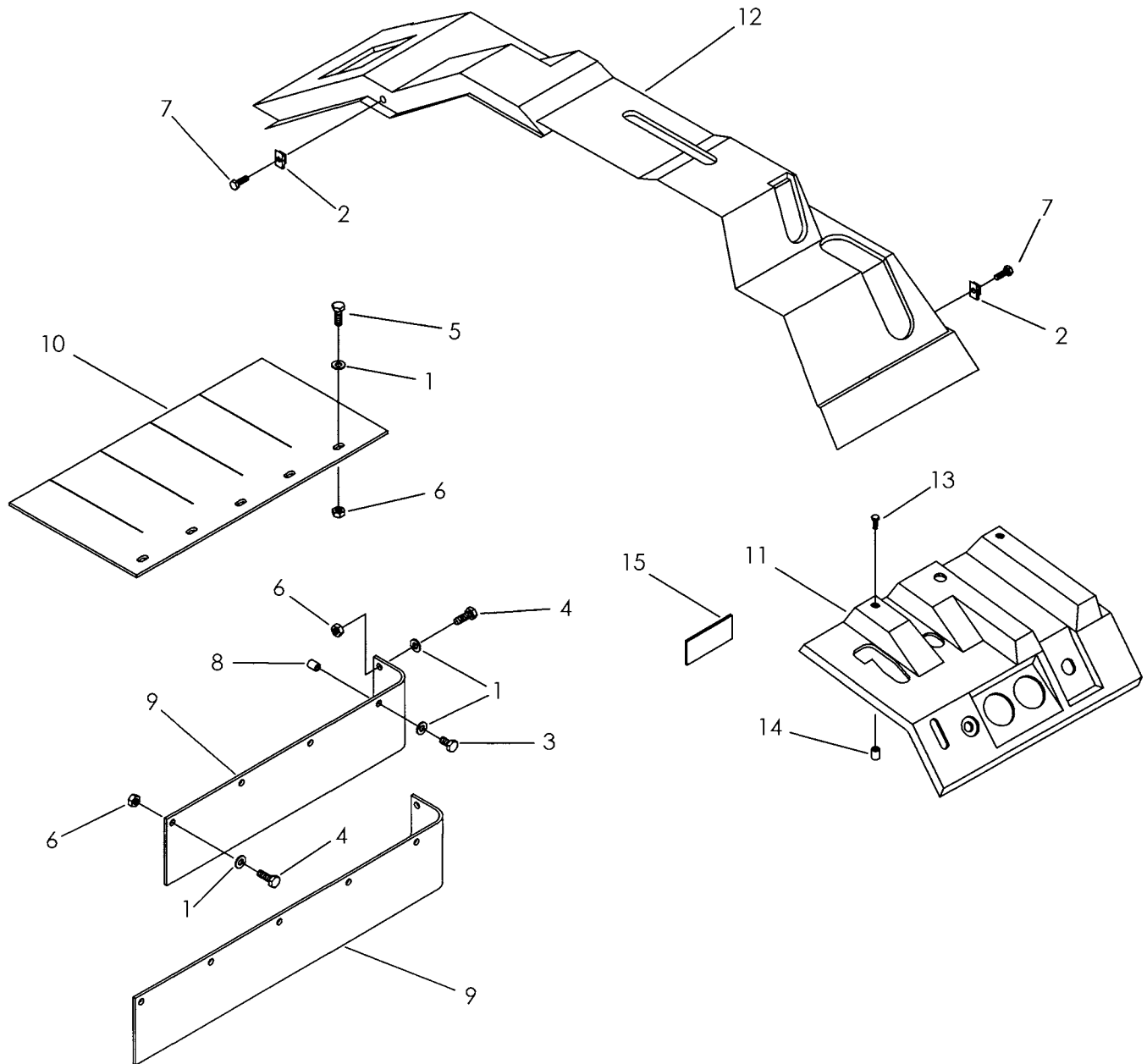
NOT SHOWN:

FOOTNOTES:

1-(2) 106-266 (REF #9) AND REF #4, REF #24 & REF #29 ARE USED ON S/N 1L3766 AND EARLIER MODELS.

NOTE:

## COVER &amp; GUARDS



## COVER &amp; GUARDS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	106-390	10	WASHER (M10)	
2.	106-551	7	CLIP NUT (M8-1.25)	
3.	105-274	3	SCREW (M10-1.50 X 20MM)	
4.	105-245	2	SCREW (M10-1.5 X 25MM)	
5.	106-079	5	SCREW (M10-1.5 X 30MM)	
6.	106-266	7	FLG NUT (M10-1.5)	
7.	106-163	4	FLG SCREW (M8-1.25 X 30MM)	
8.	106-550	3	NUTSERT (M10-1.50)	
9.	116-336	1	LOWER SPOILS FLAP	
	116-518	1	LOWER SPOIL FLAP	USE ON 16" PIVOT. SEE FOOTNOTE 1
10.	116-337	1	UPPER SPOILS FLAP	
11.	362-801	1	CONSOLE PANEL	
12.	362-804	1	RIGHT DECK COVER	
13.	106-270	2	SCREW (M6-1.0 X 20MM)	
14.	106-670	2	NUTSERT (M6-1.0)	
15.	110-366	8	VELCRO STRIP (1", SOLD PER 1")	USE I @ 8"

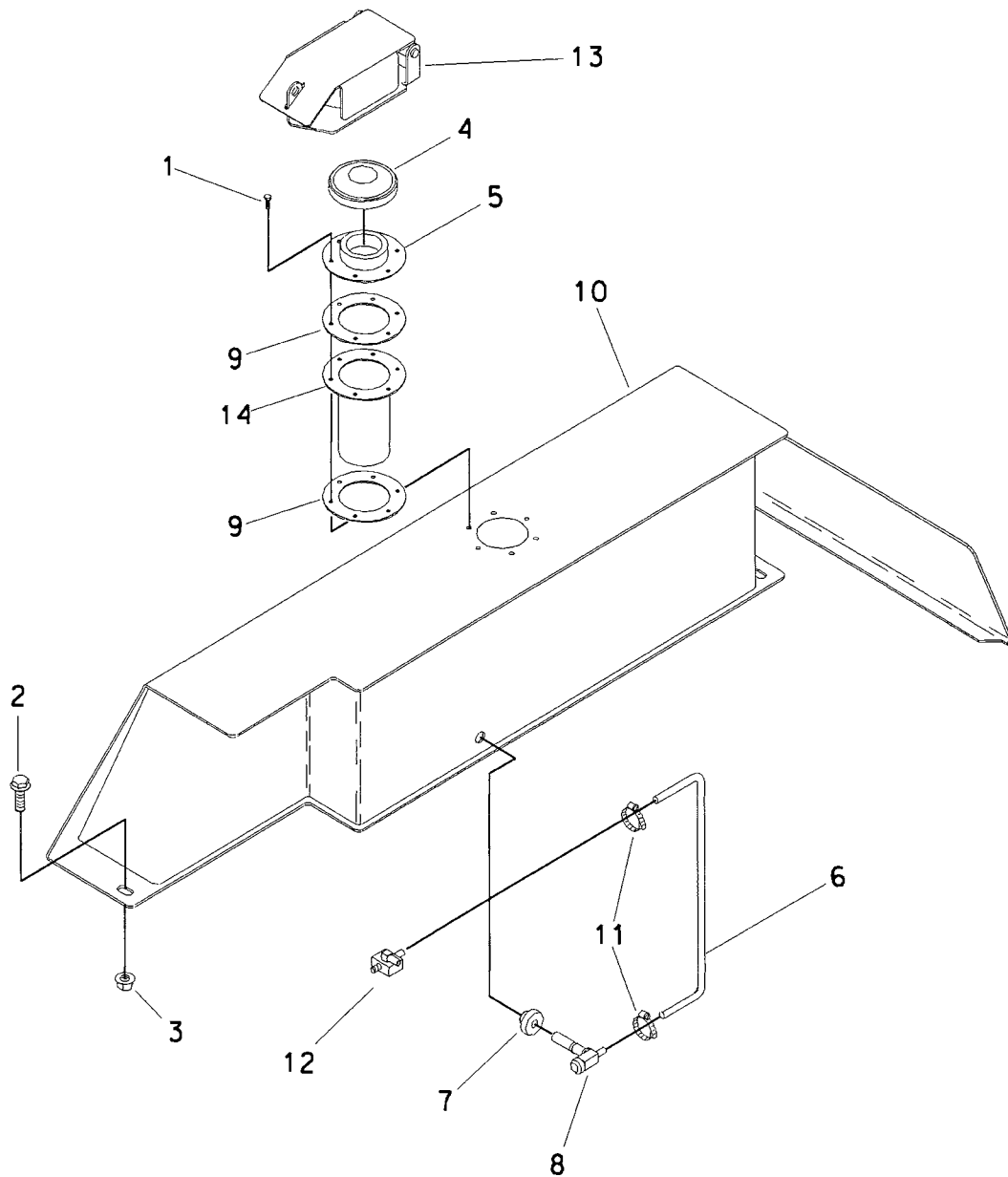
NOT SHOWN:

FOOTNOTES:

i. ADD ONE EACH OF REF. NO.'S 3 AND 8.

NOTE:

## FUEL TANK (KOHLER &amp; HONDA)



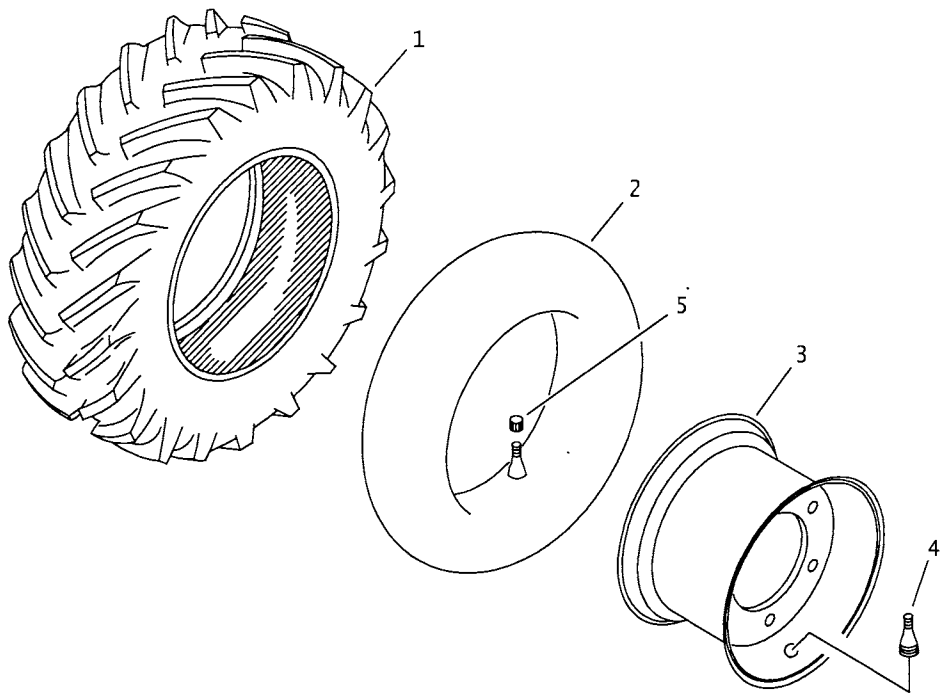
# FUEL TANK (KOHLER & HONDA)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	107-186	6	SCREW (#12-24 X 1/2", FLG SLT)	
2.	105-245	3	SCREW (M10-1.50 X 25MM)	
3.	106-387	3	FLG LOCKNUT (M10-1.50)	
4.	110-673	1	FUEL CAP (1-7/16")	
5.	110-132	1	FILLER NECK	
6.	115-381	1	BULK HOSE (1/4", SOLD PER 1")	
7.	116-325	1	GROMMET (.362")	
8.	156-265	1	S/O COUPLER (04H-04H90)	
9.	165-626	2	FILLER NECK GASKET	
10.	364-162	1	FUEL TANK	
11.	110-628	4	SNAP-ON CLAMP (.468" TO .531")	
12.	156-286	1	S/O SHUT-OFF (04H-04H)	SEE FOOTNOTE 1
13.	309-018	1	CAP COVER	SEE FOOTNOTE 2
14.	153-606	1	STRAINER BASKET	

**FOOTNOTES**

- STARTS WITH S/N 1L0966.  
 INSTALLS BETWEEN FUEL PUMP AND CARB. ON HONDA.  
 INSTALLS BETWEEN FUEL PUMP AND TANK ON KOHLER.
- EXPORT MACHINES ONLY.  
 FITS ON TOP OF P/N 110-132.

## TIRE - TUBE - WHEEL



## TIRE - TUBE - WHEEL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	205-771		LEFT TIRE & WHEEL 23 X 8.50-12	INCL REF NO.'S 1,3,4
	205-448		RIGHT TIRE/ WHEEL 23 X 8.50-12	INCL REF NO.'S 1,3,4
	205-888		LT TIRE & WHEEL (23 X 10.5-12)	INCL REF NO.'S 1,3,4
	205-942		RT TIRE & WHEEL (23 X 10.5-12)	INCL REF NO.'S 1,3,4
	205-497		LT URETHANE FILL (23 X 10.5-12)	INCL REF NO.'S 1,3,4
	205-943		RT URETHANE FILL (23 X 10.5-12)	INCL REF NO.'S 1,3,4
	205-494		URETHANE FILL 23 X 8.50-12 (L)	INCL 205-771
	205-448		URETHANE FILL 23 X 8.50-12 (R)	INCL 205-448
1.	205-084	AR	TIRE (23 X 8.50 - 12, A2TL)	SUPERSEDED BY 205-188
	205-188	AR	TIRE (23 X 8.50-12/4)	REFER TO 052-195 FOR RECOMMENDED TIRE PRESSURE
	205-120	AR	TIRE (23 X 10.50 -12, B4TL)	REFER TO 052-195 FOR RECOMMENDED TIRE PRESSURE
2.	205-159	AR	INNER TUBE (23 X 8.5-12)	OPTIONAL
3.	205-287	AR	WHEEL (12 X 7WD W15)	FOR 8.50" ONLY
	210-003	AR	WHEEL (12 X 8.5WD W/5)	FOR 10.50" ONLY
4.	205-164	AR	VALVE STEM (.453", SNAP-IN)	INCL REF NO. 5
5.	205-165		VALVE CAP (.305" - 32)	

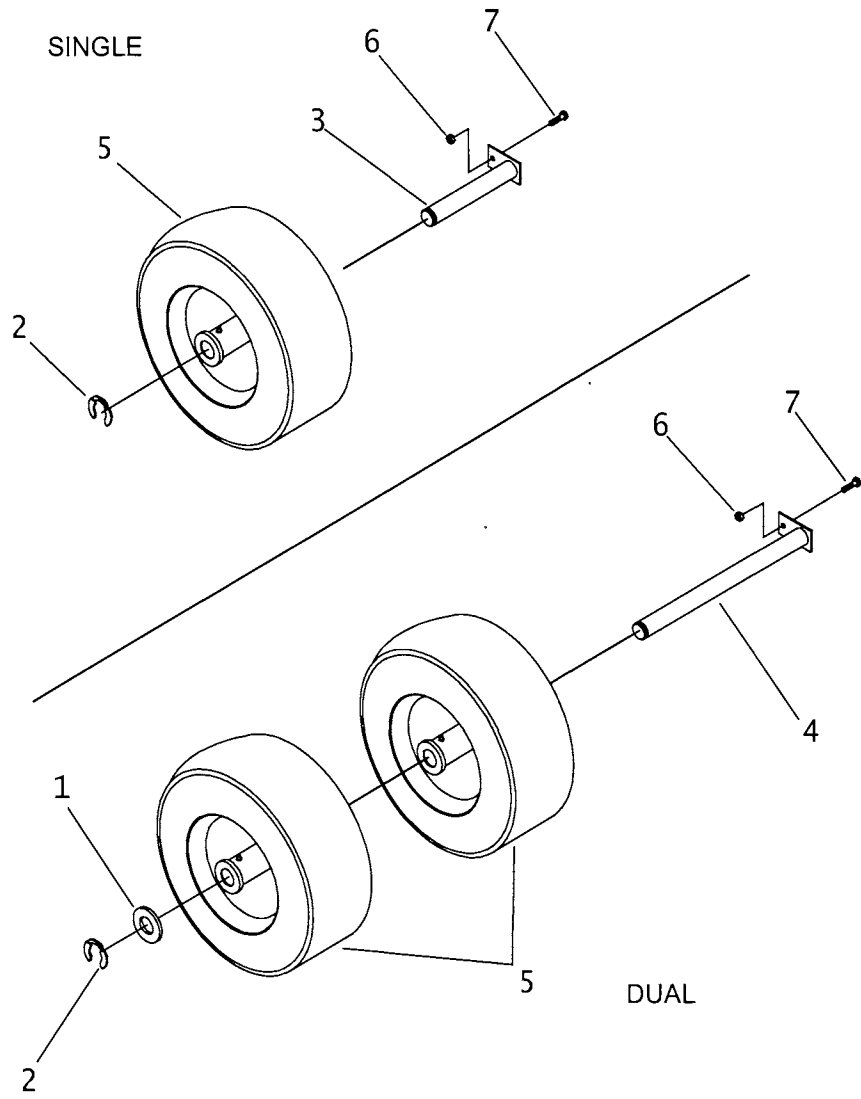
FOOTNOTES

NOTE:

E

802-841

# TRAIL WHEELS



## TRAIL WHEELS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	190-501		DUAL TRAIL WHEEL CONV KIT	INCL REF NO'S 1, 4 & 5
	191-422		URETHANE DUAL TRAIL WHEEL KIT	INCL. REF. NO'S 1, 4, AND 5
1.	105-444	1	WASHER (1-1/4")	
2.	115-483	1	KLIP RING (1-1/4")	
3.	183-682	1	TRAIL WHEEL PIN	
4.	183-683	1	DUAL TRAIL WHEEL PIN	
5.	205-759	2	T/W (16 X 6.50-8, A2TL)	
	205-078		TIRE (16 X 6.50-8, A2TL)	
	205-217		WHEEL	INCLUDES VALVE CAP
	205-164		VALVE STEM (.453", SNAP-IN)	
	205-496	2	URETHANE FILL 16 X 6.5-8 A2TL	USED IN KIT 191-422
6.	106-163	1	FLG SCREW (M8-1.25 X 30MM)	
7.	106-386	1	FLG LOCKNUT (M8-1.25)	

FOOTNOTES

NOTE:

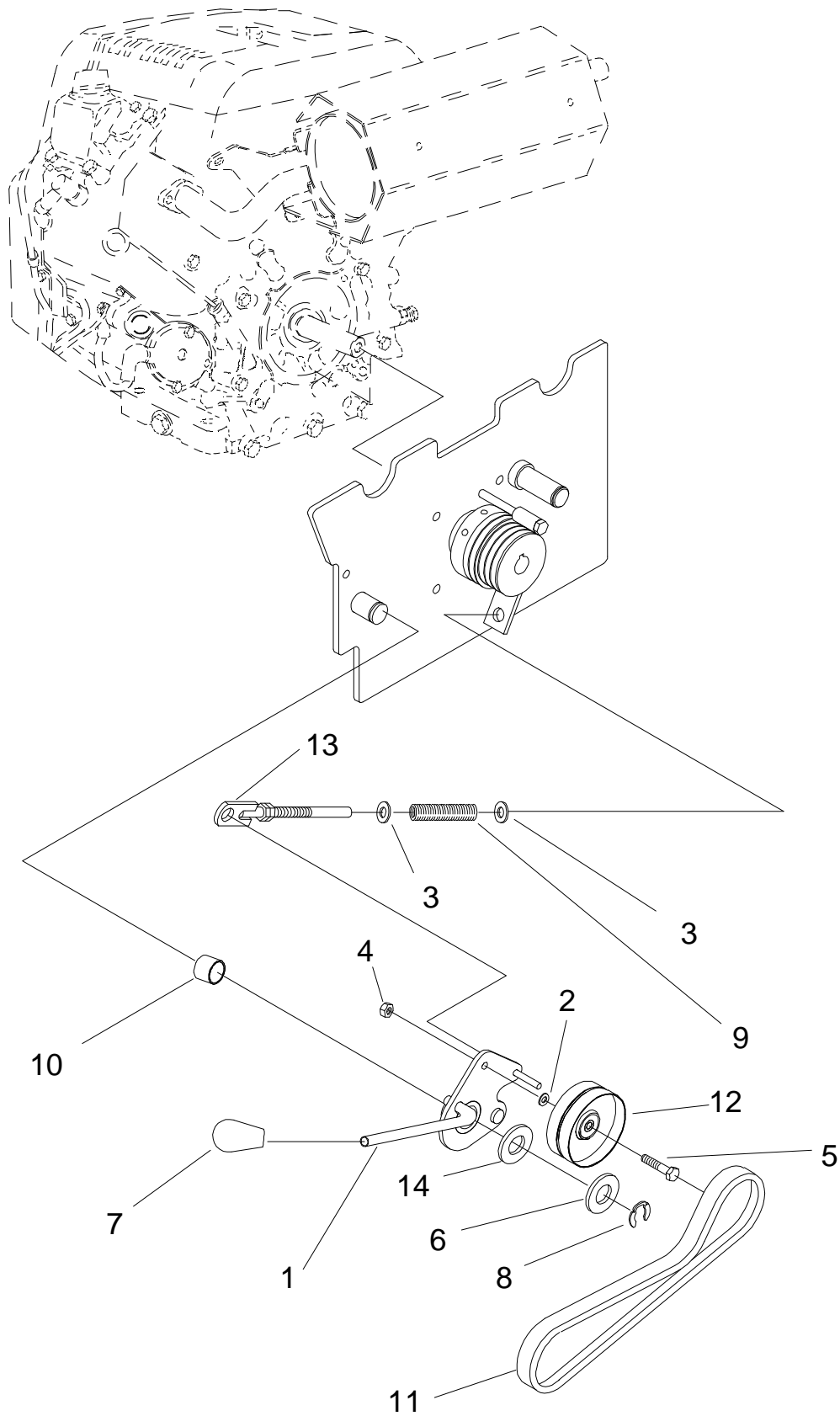
C

802-840



# **CONTROL COMPONENTS**

## BELT CLUTCH



# BELT CLUTCH

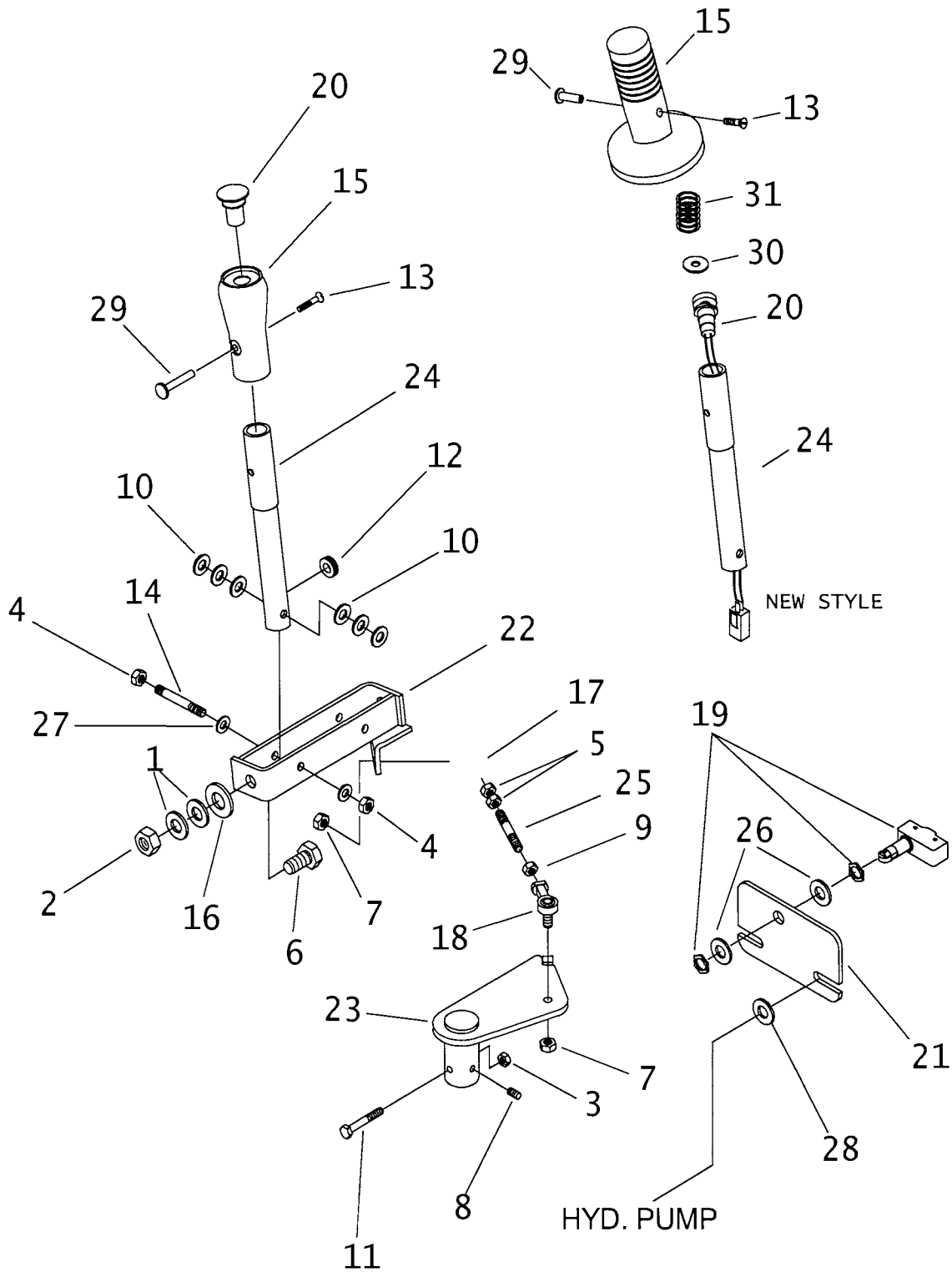
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	365-087	1	BELT CLUTCH LEVER	
2.	106-390	1	WASHER (M10)	
3.	106-391	2	WASHER (M12)	
4.	105-845	1	FLG LOCKNUT (3/8-NC)	
5.	105-883	1	FLG LK BOLT(3/8-NC X 2")	
6.	110-058	3	MACH BUSHING (1", 18GA)	
7.	110-465	1	KNOB (1/2-NC, ORANGE)	
8.	115-499	1	EXTERNAL KLIP RING (1")	
9.	115-576	1	COMPRESSION SPRING (4")	
10.	125-412	1	BRONZE BUSHING (1")	
11.	170-291	1	BELT (2/3V-38.5")	HYDRASTAT
12.	170-314	1	BELT ROLLER	
13.	308-256	1	SPRING ROD	
14.	110-078	AR	MACH BUSHING (1", 14GA)	

NOT SHOWN:

FOOTNOTES:

NOTE:

# SPEED & DIRECTION CONTROL LINKAGE



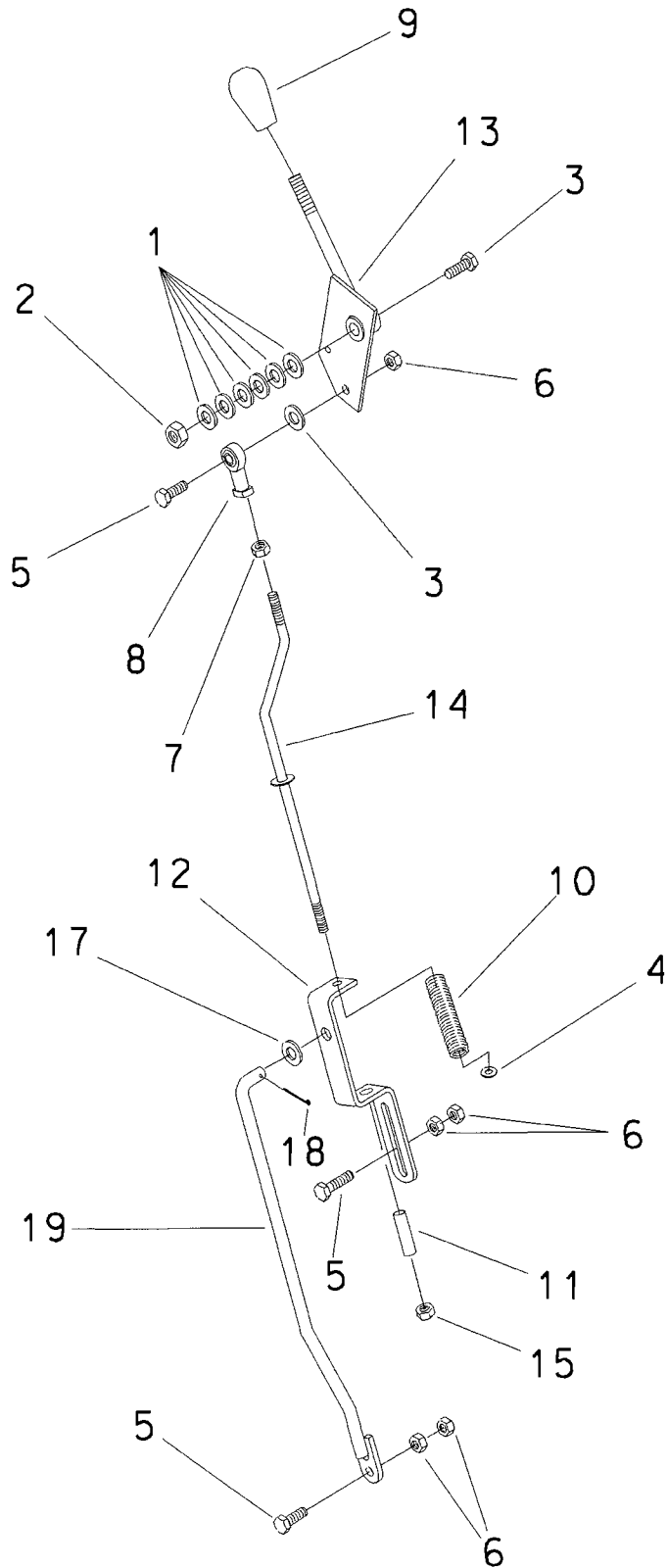
## SPEED & DIRECTION CONTROL LINKAGE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-058	2	BELLEVILLE WASHER (1/2")	
2.	105-065	1	LOCKNUT (1/2-NC)	
3.	105-085	1	LOCKNUT (1/4-NC)	
4.	105-089	2	LOCKNUT (5/16"-NC)	
5.	105-115	2	JAM NUT (5/16-NF)	
6.	105-208	1	BOLT (1/2-NC X 1-1/4")	
7.	105-213	2	NUT (5/16-NF)	
8.	105-712	2	SET SCREW (1/4-NC X 1/4", CUP)	
9.	105-803	1	NUT (5/16-NF, LH)	
10.	105-805	6	BELLEVILLE WASHER (3/8")	
11.	105-821	1	FLG LK BOLT (1/4-NC X 1-3/4")	
12.	116-296	1	GROMMET (11/32")	
13.	105-628	1	SCREW (#8-32 X 1/2 ", CSK SLT)	
14.	106-135	1	STUD BOLT (5/16-NC X 2.50")	
15.	110-665	1	GROUND DRIVE HANDLE	
	117-578	1	GROUND DRIVE HANDLE	NEW STYLE
16.	115-656	1	FRICTION WASHER (1/2", NYLON)	
17.	110-507	1	BALL JOINT (5/16-NF)	
18.	110-508	1	BALL JOINT (5/16-NF, LH)	
19.	215-082	1	ACTUATOR BRACKET	
20.	217-724	1	BUTTON SWITCH (SPST)	
	214-943	1	BUTTON SWITCH (SPST)	OLD STYLE RED TOP. ENDS WITH S/N
	213-115	1	BUTTON SWITCH (SPST)	NEW STYLE W/O RED TOP. BEGINS WITH S/N
21.	308-541	1	MOUNT BRACKET	
22.	308-543	1	LEVER PIVOT	
23.	365-098	1	PUMP ARM	
24.	213-294	1	GROUND DRIVE LEVER	
25.	365-103	1	CROWD LINK	
26.	105-118	2	WASHER (3/8")	
27.	105-117	2	WASHER (5/16")	
28.	106-409	2	EXT STAR WASHER (1/2")	
29.	105-627	1	BRAD (#8-32 X 1-1/16", FEMALE)	
30.	107-952	1	WASHER (.326 X 1.0 X .120THK)	
31.	115-585	1	COMPRESSION SPRING	

FOOTNOTES

NOTE:

# AXLE LOCK CONTROL LINKAGE

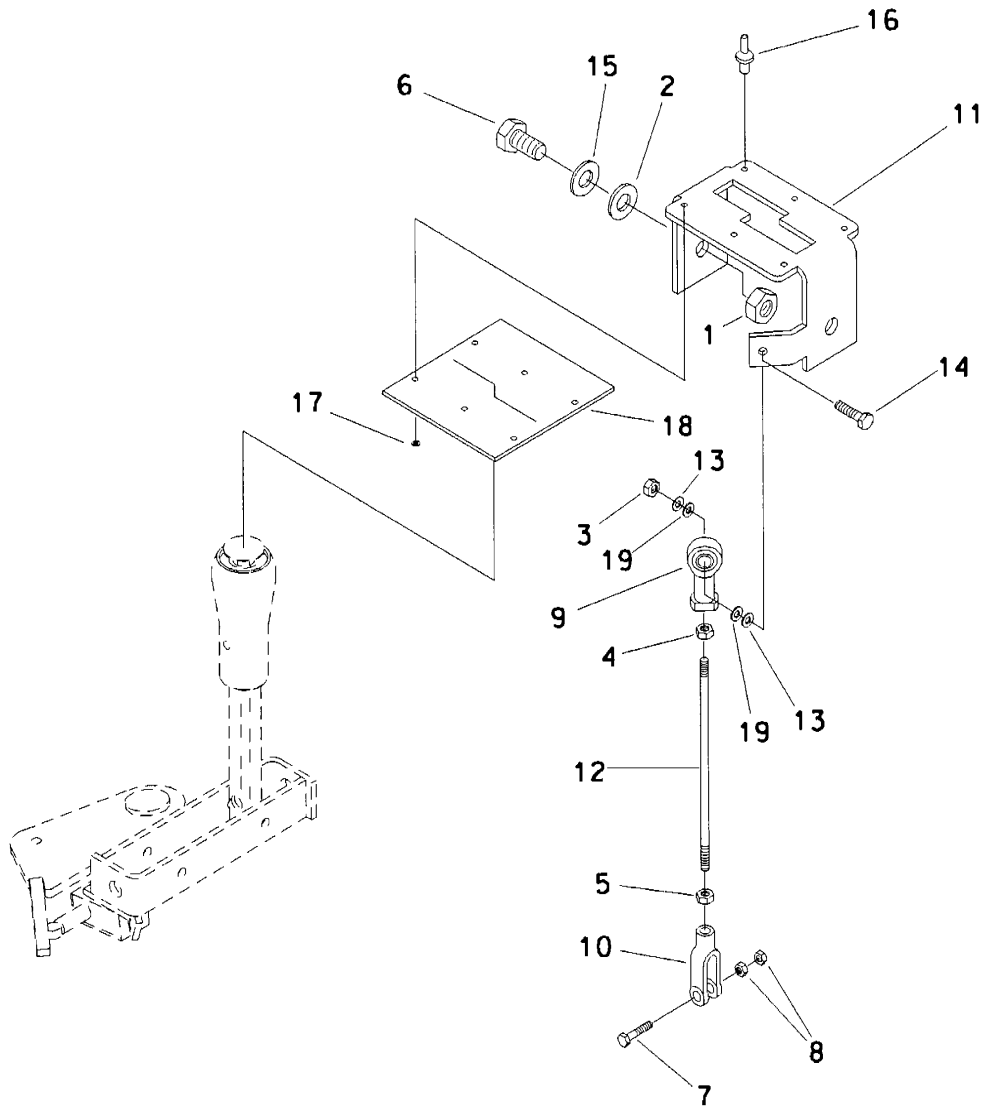


# AXLE LOCK CONTROL LINKAGE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-058	6	BELLEVILLE WASHER (1/2")	
2.	105-065	1	LOCKNUT (1/2-NC)	
3.	105-118	1	105-082 1 WASHER (3/8")	
4.	105-117	1	WASHER (5/16")	
5.	105-827	3	FLG LK BOLT(3/8-NC X 1-1/4")	
6.	105-834	5	FLG LOCKNUT (3/8-NC)	
7.	106-018	1	JAM NUT (3/8-NF)	
8.	110-102	1	ROD END (3/8-NF, FM)	
9.	110-377	1	KNOB (1/2-NC, BLUE)	
10.	115-576	1	COMPRESSION SPRING	
11.	184-022	1	BUSHING	
12.	309-107	1	SPRING BRACKET	
13.	365-092	1	LEVER ASSEMBLY	
14.	309-106	1	AXLE LOCK LINKAGE	
15.	505-113	1	LOCKNUT (3/8-NF)	
16.	105-156	1	BOLT(3/8-NC X 1-1/2")	
17.	105-071	1	WASHER (1/2")	
18.	105-509	1	COTTER PIN (1/8" X 1")	
19.	309-108	1	AXLE ROD	

FOOTNOTES

## STEERING CONTROL LINKAGE

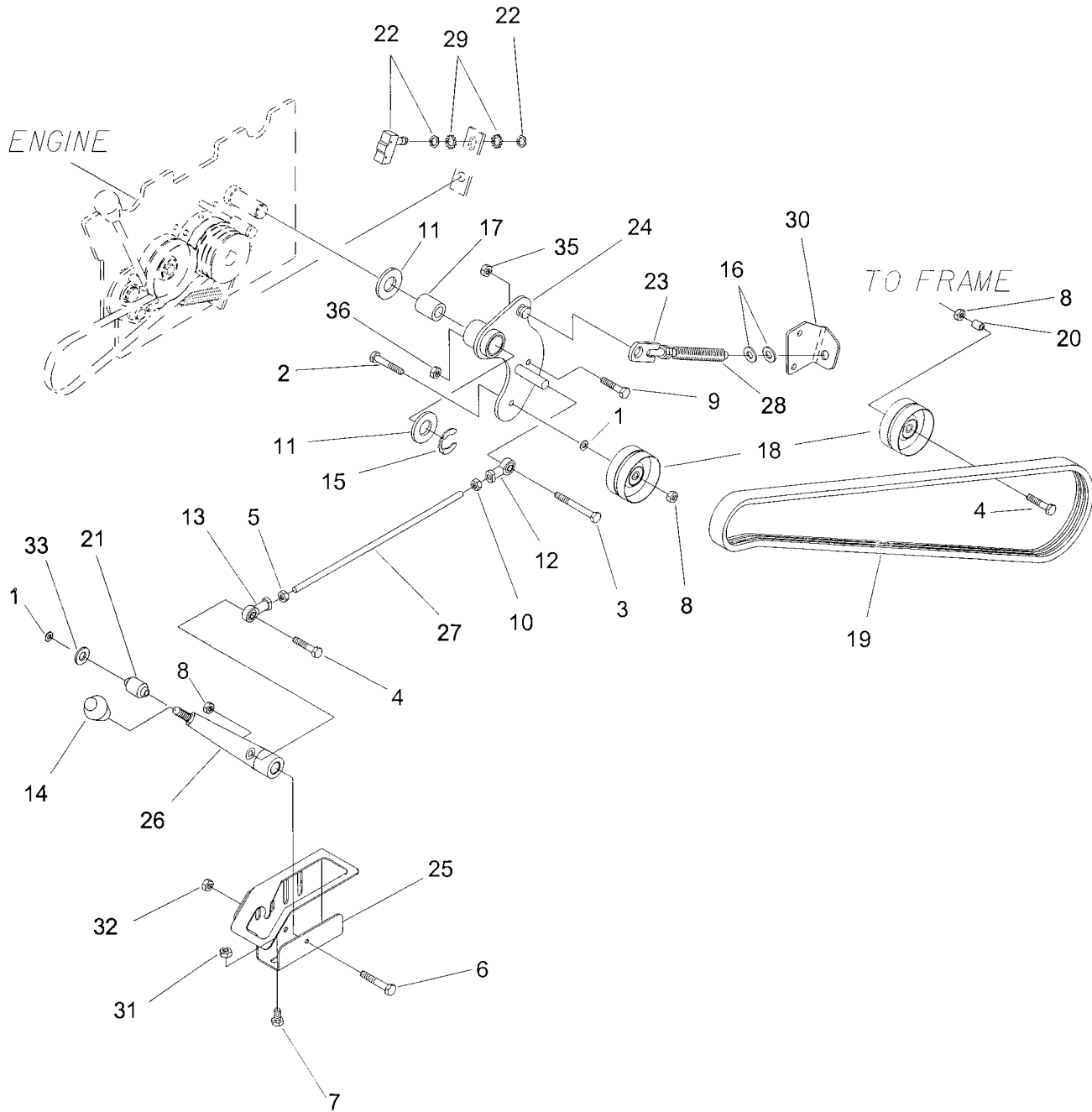


# STEERING CONTROL LINKAGE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-065	2	LOCKNUT (1/2-NC)	
2.	105-071	2	WASHER (1/2")	
3.	105-085	1	LOCKNUT (1/4-NC)	
4.	105-803	2	NUT (5/16-NF, LH)	
5.	105-152	1	NUT (1/4-NF)	
6.	105-208	2	BOLT (1/2-NC X 1-1/4")	
7.	105-810	1	BOLT (#10-24 X 7/8", SOC)	
8.	105-811	2	LOCKNUT (#10-24)	
9.	110-282	1	ROD END (1/4-NF, FM, LH)	
10.	110-265	1	CLEVIS	
11.	309-110	1	STEERING PLATE	
12.	365-107	1	LINKAGE	
13.	105-284	2	WASHER (3/16")	
14.	105-819	1	FLG LK BOLT (1/4-NC X 1")	
15.	105-058	2	BELLVILLE WASHER (1/2")	
16.	110-253	6	POP RIVET (3/16" X 1/2")	
17.	106-205	6	WASHER (.191")	
18.	116-532	1	RUBBER FLAP	
19.	500-055	2	LOCK WASHER (1/4")	

FOOTNOTES

# HEAD SHAFT CLUTCH



# HEAD SHAFT CLUTCH

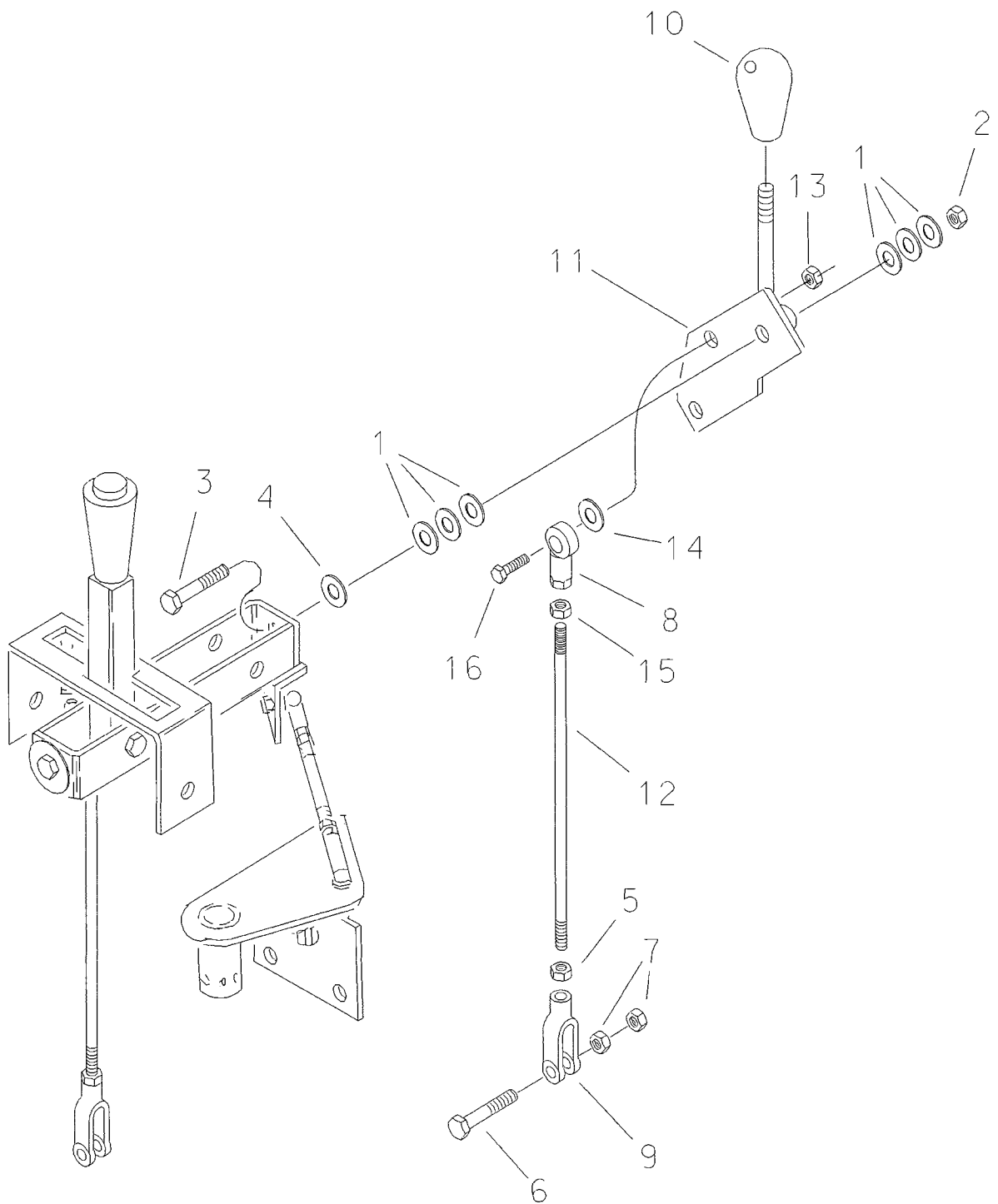
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-118	2	WASHER (3/8")	
2.	105-162	1	BOLT (3/8-NC X 2-1/4")	
3.	105-258	1	BOLT (3/8-NC X 3-3/4")	
4.	105-075	2	BOLT (3/8-NC X 2")	
5.	105-262	1	NUT (3/8-NF, LH)	
6.	106-570	1	SCREW (M8-1.25 X 60MM)	
7.	106-382	2	FLG LK SCREW (M10-1.50 X 20MM)	
8.	105-814	1	FLG LOCKNUT (3/8-NC)	
9.	105-825	1	FLG LK BOLT (3/8-NC X 3/4")	
10.	106-018	1	JAM NUT (3/8-NF)	
11.	110-058	2	MACHINERY BUSHING (1", 18GA)	
12.	110-102	1	ROD END (3/8-NF, FM)	
13.	110-287	1	ROD END (3/8-NF, FM, LH)	
14.	110-375	1	KNOB (1/2-NC, YELLOW)	
15.	115-499	1	KLIP RING (1.000")	
16.	105-058	2	BELLEVILLE WASHER (1/2")	
17.	125-411	1	BRONZE BUSHING	
18.	170-309	2	BELT ROLLER	
19.	170-292	1	BELT (3/3V-78.5")	
20.	181-636	1	BUSHING	
21.	116-523	1	BUSHING	
22.	215-082	1	ACTUATOR BRACKET	
23.	308-256	1	SPRING ROD ASSEMBLY	
24.	308-524	1	CLUTCH PLATE ASSEMBLY	
25.	309-013	1	CLUTCH LEVER MOUNT	
26.	365-310	1	CLUTCH LEVER	
27.	365-305	1	CHAIN CLUTCH LINKAGE ROD	
28.	117-004	1	COMPRESSION SPRING (6.250")	
29.	106-409	2	EXTERNAL STAR WASHER (1/2")	
30.	309-197	1	TOP SPRING TAB	
31.	106-387	2	FLG LOCKNUT (M10-1.50)	
32.	106-386	1	FLG LOCKNUT (M8)	
33.	106-389	1	WASHER (M8-1.25)	
34.	363-455	1	SWITCH BRACKET	
35.	105-834	1	FLG LOCKNUT (3/8-NC)	
36.	105-047	1	LOCKNUT (3/8-NC)	

NOT SHOWN:

FOOTNOTES:

NOTE:

## BOOM CONTROL LINKAGE



# BOOM CONTROL LINKAGE

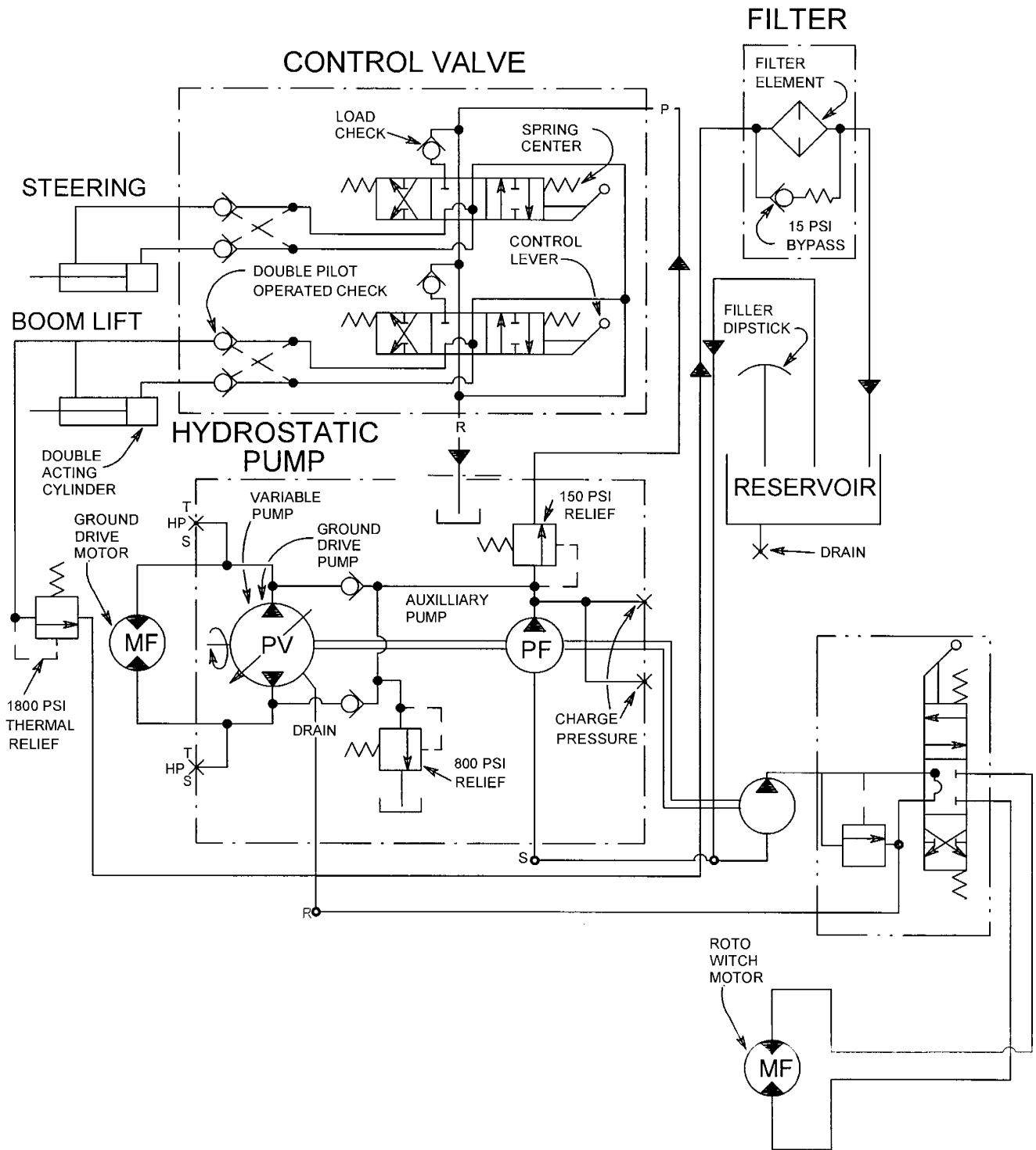
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-058	6	BELLEVILLE WASHER (1/2")	
2.	105-065	1	LOCKNUT (1/2-NC)	
3.	105-067	1	BOLT (1/2-NC X 2-3/4")	
4.	105-071	1	WASHER (1/2")	
5.	105-152	1	NUT (1/4-NF)	
6.	105-810	1	BOLT (#10-24 X 7/8", SOC)	
7.	105-811	2	LOCKNUT (#10-24)	
8.	110-282	1	ROD END (1/4-NF, FM, LH)	
9.	110-265	1	CLEVIS	
10.	110-374	1	KNOB (1/2-NC, GREEN)	
11.	365-092	1	LEVER	
12.	365-107	1	LINKAGE ROD	
13.	105-085	1	LOCKNUT (1/4-NC)	
14.	105-284	1	WASHER (3/16")	
15.	105-803	1	NUT (5/16-NF, LH)	
16.	105-819	1	FLG LK BOLT (1/4-NC X 1")	

FOOTNOTES



# HYDRAULICS

# HYDRAULIC SCHEMATIC FOR MODEL 1820



# HYDRAULIC SCHEMATIC FOR MODEL 1820

## SPECIFICATIONS

ENGINE		PUMP			MOTOR	
MFG (NO LOAD)	RPM	TYPE	GPM	DISPLACEMENT	TYPE	DISPLACEMENT
HONDA (GAS)	3200	GROUND DRIVE	12.6	.91 IN <sup>3</sup>	GROUND DRIVE	4.9 IN <sup>3</sup>
		CHARGE	4.1	.33 IN <sup>3</sup>		
KOHLER (GAS)	3200	GROUND DRIVE	12.6	.91 IN <sup>3</sup>	GROUND DRIVE	4.9 IN <sup>3</sup>
		CHARGE	4.1	.33 IN <sup>3</sup>		
		BORING ATTACH	4.9	.36 IN <sup>3</sup>	BORING ATTACH	11.9 IN <sup>3</sup>



# PUMP & VALVE HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	106-354	2	FLANGE NUT (M12-1.75)	
2.	105-820	3	FLG LK BOLT (1/4-NC X 3/4")	
3.	105-831	2	FLG LK BOLT (1/2-NC X 1-1/2")	
4.	105-836	2	FLG LK BOLT (1/4-NC X 1/2")	
5.	110-026	2	WORM CLAMP (1/2" TO 1-1/4")	
6.	110-353	4	WORM CLAMP (3/4" TO 1-1/2")	
7.	115-374	AR	BULK HOSE (3/4", SOLD PER 1")	USE 35"
8.	116-460	AR	BULK HOSE (1", SOLD PER 1")	USE 24" SEE FOOTNOTE 3
9.	116-316	1	SUCTION HOSE	CUT 1/2" OFF SHORT END
10.	116-339	1	MOUNT PAD	
11.	154-221	1	CONNECTOR (06S-060)	
12.	154-222	2	CONNECTOR (060-08S)	
13.	154-224	1	CONNECTOR (06S-06045)	
14.	514-396	1	BRANCH TEE (08S-060-080)	
15.	154-234	1	CONNECTOR (080-12S)	
16.	155-910	1	FILTER ELEMENT (1-UNF)	
17.	155-046	1	SLIP-ON COUPLER (12S-12H)	TORQUE TO 30 FT. LBS.
18.	514-034	1	SLIP-ON COUPLER (10S-16H)	
19.	155-174	1	SLIP-ON COUPLER (12JF-12H90)	
20.	154-402	1	SLIP-ON COUPLER (16H-16H)	
21.	159-386	1	FILTER HEAD (12SF-12SF)	
22.	156-447	1	HYDRAULIC LINE (.375")	
23.	156-448	1	HYDRAULIC LINE (.375")	
24.	156-449	1	HYDRAULIC LINE (.500")	
25.	165-958	1	WOODRUFF KEY (3/16" X 5/8")	
26.	170-273	1	PUMP SHEAVE (2/3V-3.800")	
27.	309-014	1	FAN	
28.	155-637	1	HYDRAULIC CONTROL VALVE	
29.	158-312	1	HYDRAULIC PUMP	SEE FOOTNOTE 1
	153-578	1	HYDRAULIC PUMP	SEE FOOTNOTE 4
	158-315	1	HYDRAULIC PUMP	SEE FOOTNOTE 2
30.	308-554	1	BELT RETAINER	

NOT SHOWN:

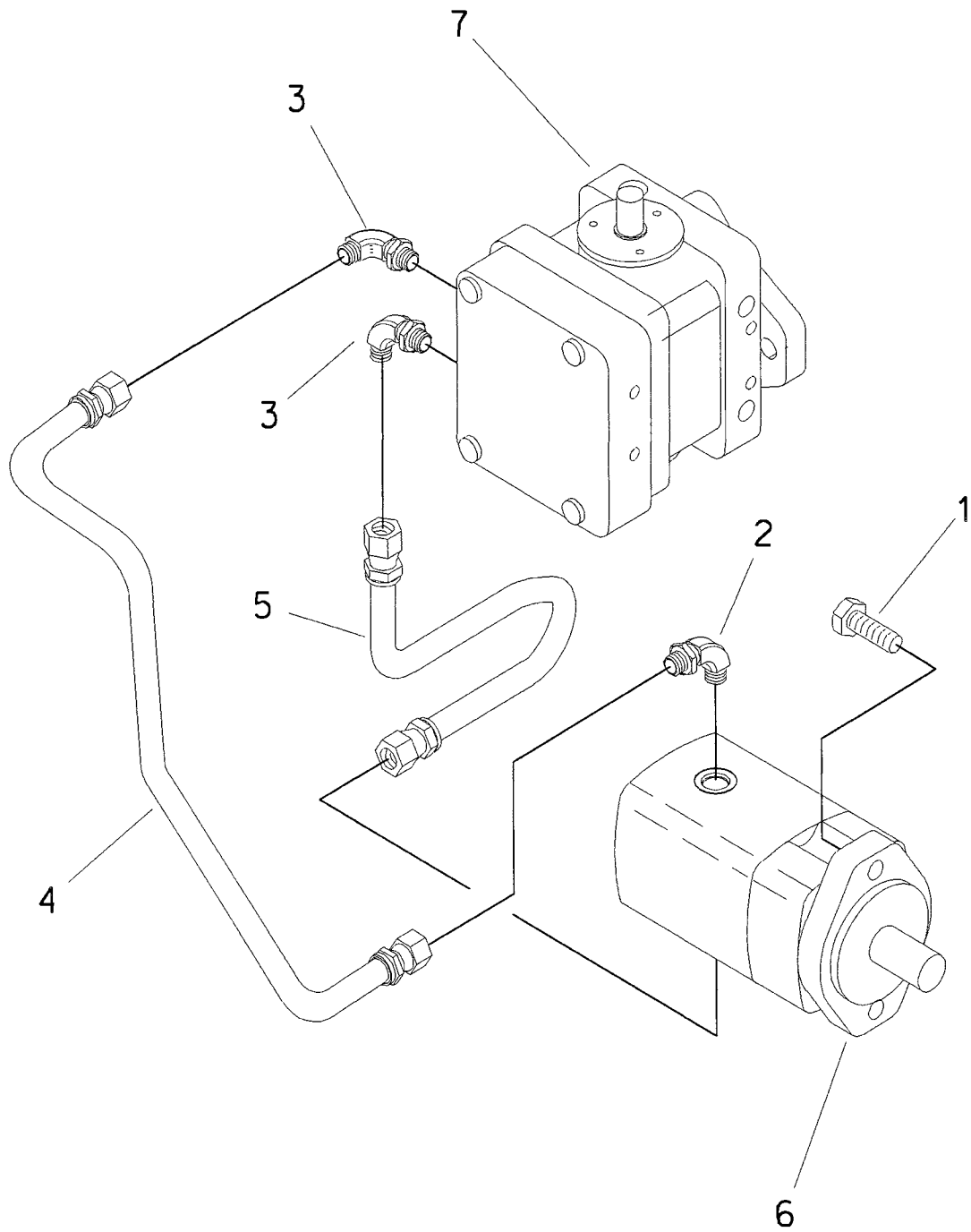
#### FOOTNOTES:

1. THIS HYDRAULIC PUMP IS USED WHEN NO BORING ATTACHMENT IS USED. PUMP MODEL # 15-2176
2. THIS HYDRAULIC PUMP IS USED WHEN A BORING ATTACHMENT IS USED.
3. ENDS WITH S/N 1L0546. EARLIER MACHINES USE 5/8" HOSE (116-044)  
AND CORRESPONDING PARTS ON EACH END: #18 155-135 AND #20 155-200
4. THIS HYDRAULIC PUMP IS USED WHEN NO BORING ATTACHMENT IS USED. PUMP MODEL # 15-2298

#### NOTE:

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

## HYDRAULIC MOTOR HYDRAULICS



# HYDRAULIC MOTOR HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-062	2	FLG BOLT (1/2-NC X 1-1/2", FER)	
2.	154-300	2	CONNECTOR (100-12S90)	
3.	154-323	2	CONNECTOR (08S-10090)	
4.	156-508	1	HYDRAULIC LINE (.625")	
5.	156-507	1	HYDRAULIC LINE (.625")	
6.	158-706	1	HYDRAULIC MOTOR	
7.	158-312	1	HYDRAULIC PUMP	SEE FOOTNOTE 1
	158-315	1	HYDRAULIC PUMP	SEE FOOTNOTE 2
	153-578	1	HYDRAULIC PUMP	SEE FOOTNOTE 3

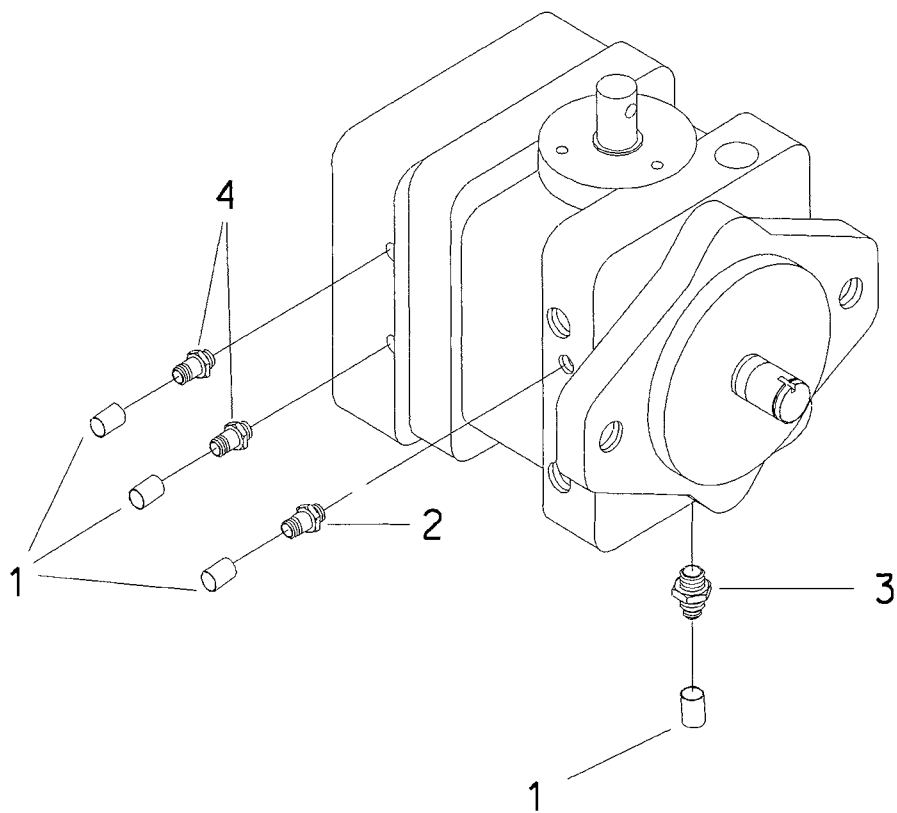
**FOOTNOTES**

- 1. THIS HYDRAULIC PUMP IS USED WHEN NO BORING ATTACHMENT IS USED. PUMP MODEL # 15-2176
- 2. THIS HYDRAULIC PUMP IS USED WHEN BORING ATTACHMENT IS USED.
- 3. THIS HYDRAULIC PUMP IS USED WHEN NO BORING ATTACHMENT IS USED. PUMP MODEL # 15-2298

**NOTE:**

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

## TEST PORT HYDRAULICS



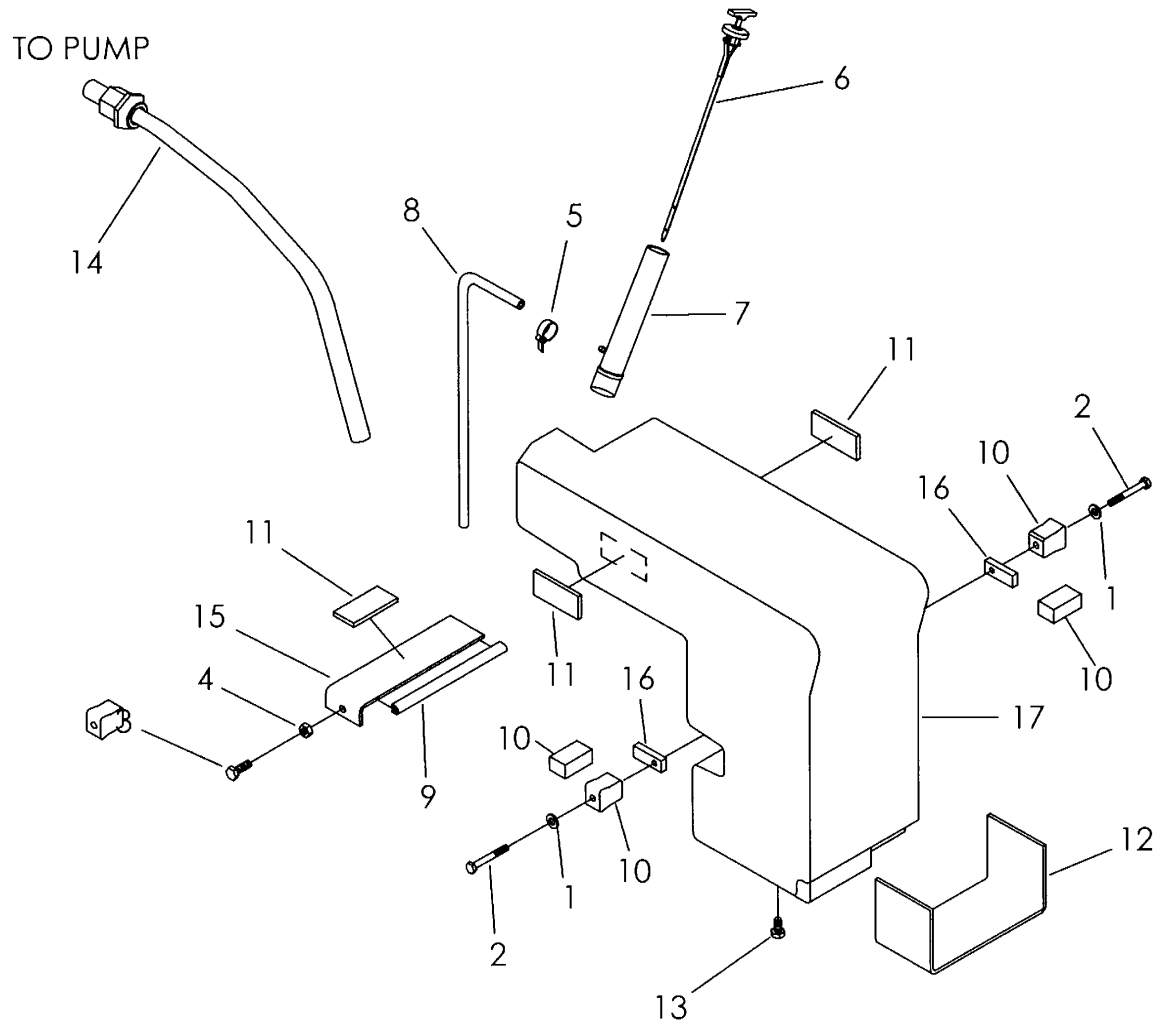
# TEST PORT HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	158-312		HYD PUMP	
	158-315		HYD PUMP	
1.	154-085	4	CAP (04JF)	
2.	154-122	1	CONNECTOR (02N-04J)	
3.	154-155	1	CONNECTOR (04J-10S)	
4.	155-133	2	CONNECTOR (04J-04S)	

FOOTNOTES

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

# HYDRAULIC RESERVOIR



# HYDRAULIC RESERVOIR

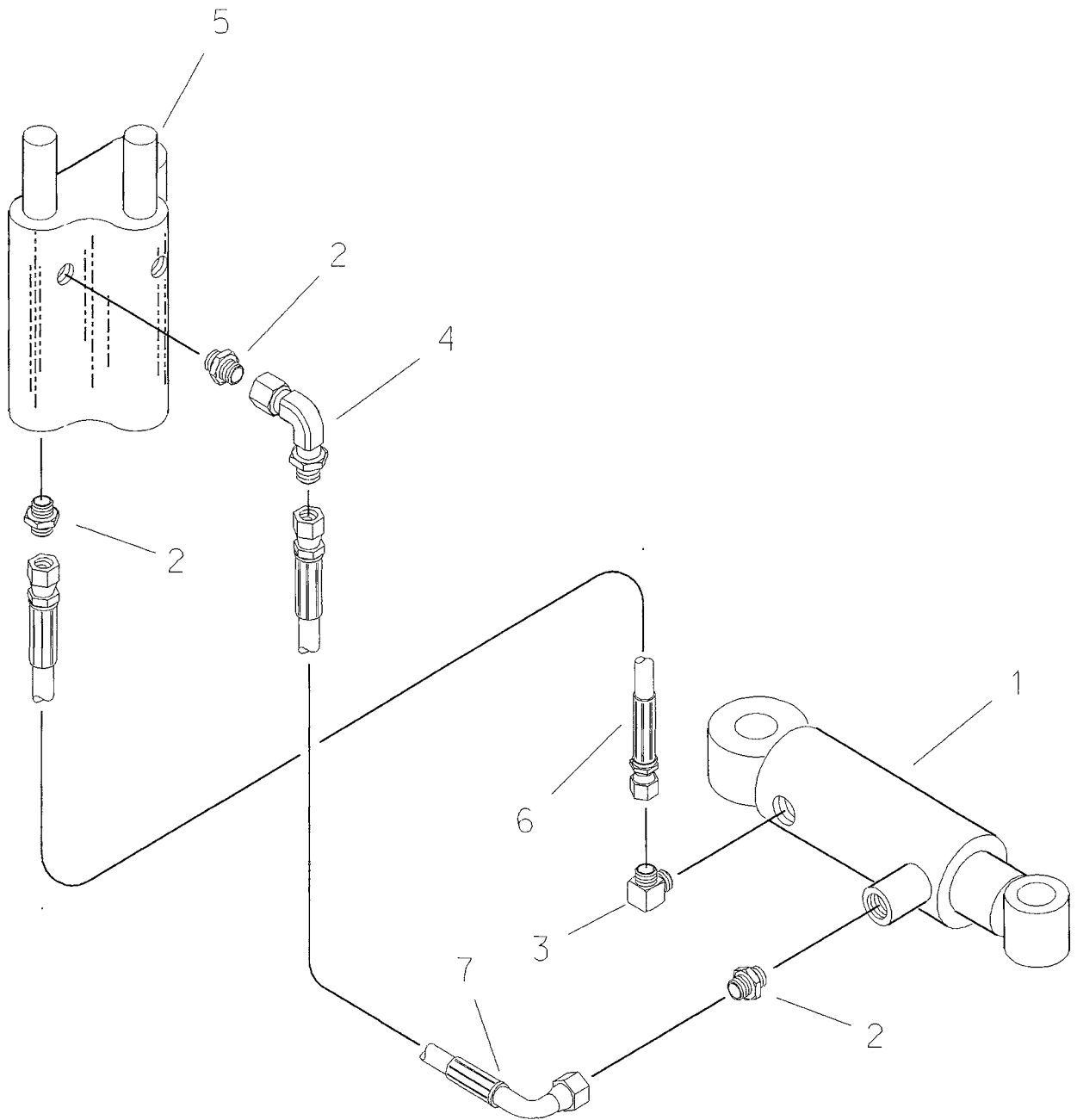
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-118	2	WASHER (3/8")	
2.	105-178	2	BOLT (5/16-NC X 2-1/2", GD8)	ENDS WITH S/N
	105-033	2	BOLT (5/16-NC X 2")	BEGINS WITH S/N
3.	105-826	1	FLG LOCK BOLT (3/8-NC X 1")	
4.	106-039	1	NUTSERT (3/8-NC)	
5.	110-628	1	SNAP-ON CLAMP (.468" TO .531")	
6.	110-497	1	DIPSTICK	
7.	110-504	1	FILLER TUBE	
8.	115-381	AR	BULK HOSE (1/4", SOLD PER 1")	USE 1 @ 20"
9.	115-704	AR	BULK EDGE (1/4", SOLD PER 1")	USE 1 @ 8"
10.	116-164	2	MOUNT BLOCK (5/16", RUBBER)	ENDS WITH S/N
	323-758	2	MOUNT BLOCK (5/16", RUBBER)	BEGINS WITH S/N
11.	116-342	3	MOUNT PAD	
12.	116-347	1	RESERVOIR MOUNT PAD	
13.	155-125	1	PLUG (04S)	TORQUE TO 10 FT. LBS.
14.	159-201	1	PICKUP TUBE (24U-16H-22.8")	TORQUES TO 60 FT. LBS
	165-879	1	GASKET	
15.	308-536	1	MOUNT PLATE	
16.	308-551	2	MOUNT STRAP	
17.	364-150	1	HYDRAULIC RESERVOIR	

NOT SHOWN:

FOOTNOTES:

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

## STEERING HYDRAULICS



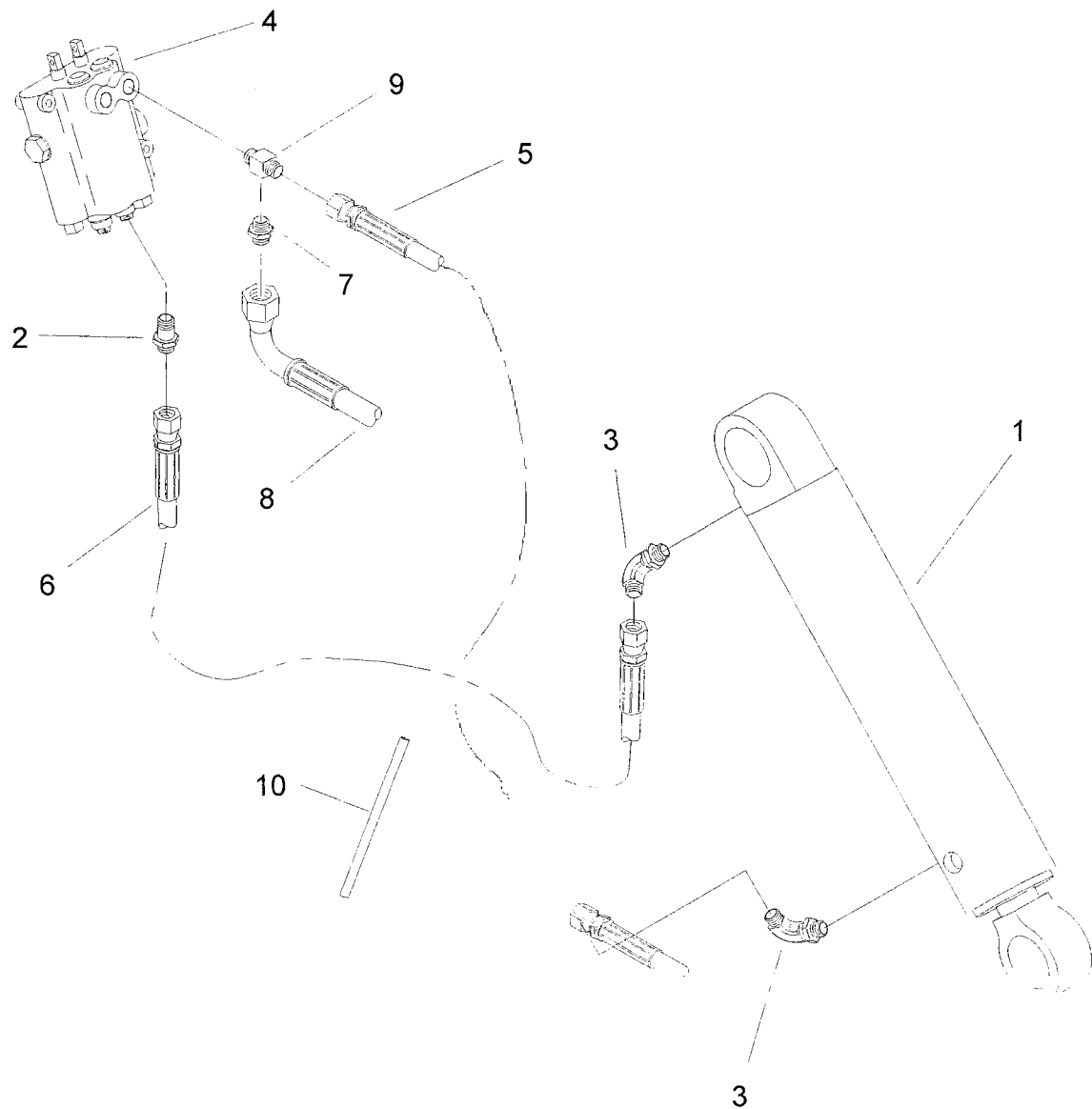
# STEERING HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	151-028	1	CYL (2.5" X 1.25" X 4.")	
2.	154-220	3	CONNECTOR (040-06S)	
	155-705		O-RING (906 D90)	
	157-037		O-RING (011 D90)	
3.	154-226	1	CONNECTOR (040-06S90)	
	155-705		O-RING (906 D90)	
	157-037		O-RING (011 D90)	
4.	154-255	1	UNION (040-040FX90)	
	157-037		O-RING (011 D90)	
5.	155-637	1	HYDRAULIC CONTROL VALVE	
6.	154-682	1	HOSE (040FX-17"-3000)	
7.	154-715	1	HOSE (040FX90S-18"-3000)	

FOOTNOTES

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

## PIVOT HYDRAULICS



# PIVOT HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	151-043	1	CYL (3" X 1.5" X 12")	
2.	154-220	1	CONNECTOR (040-06S)	
3.	154-226	2	CONNECTOR (040-06S90)	
4.	155-637	1	HYDRAULIC CONTROL VALVE	
5.	154-693	1	HOSE (040FX-44"-3000)	
6.	154-692	1	HOSE (040FX-54"-3000)	
7.	514-362	1	FLOW CHECK (160-160)	
8.	515-376	1	HOSE (060FX90-13"-3000)	
9.	514-397	1	RUN TEE (06S-06SF-040)	
10.	115-704	AR	BULK EDGE (1/4", SOLD PER 1")	USE 4"

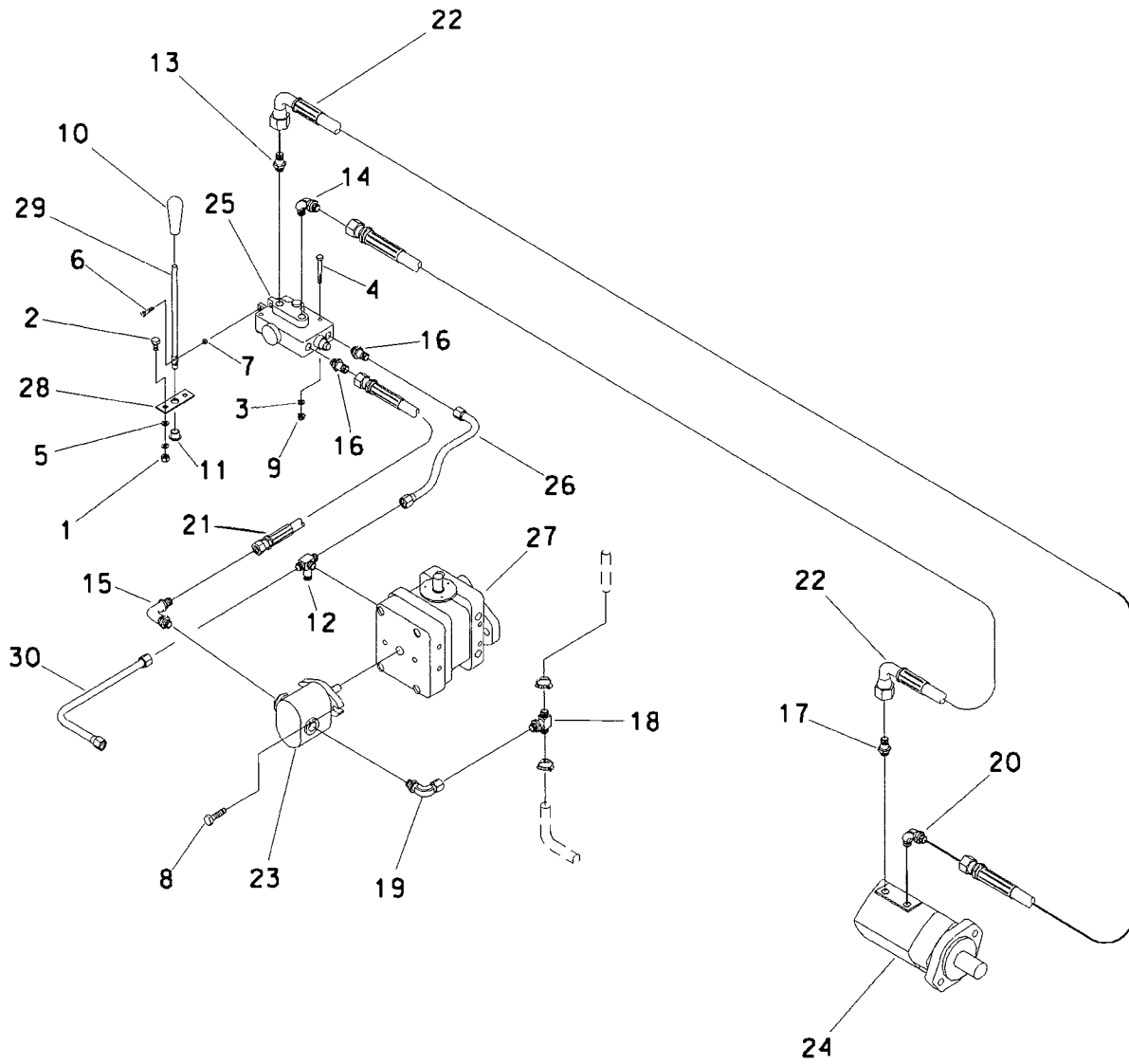
NOT SHOWN:

FOOTNOTES:

NOTE:

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

## BORING ATTACHMENT HYDRAULICS



# BORING ATTACHMENT HYDRAULICS

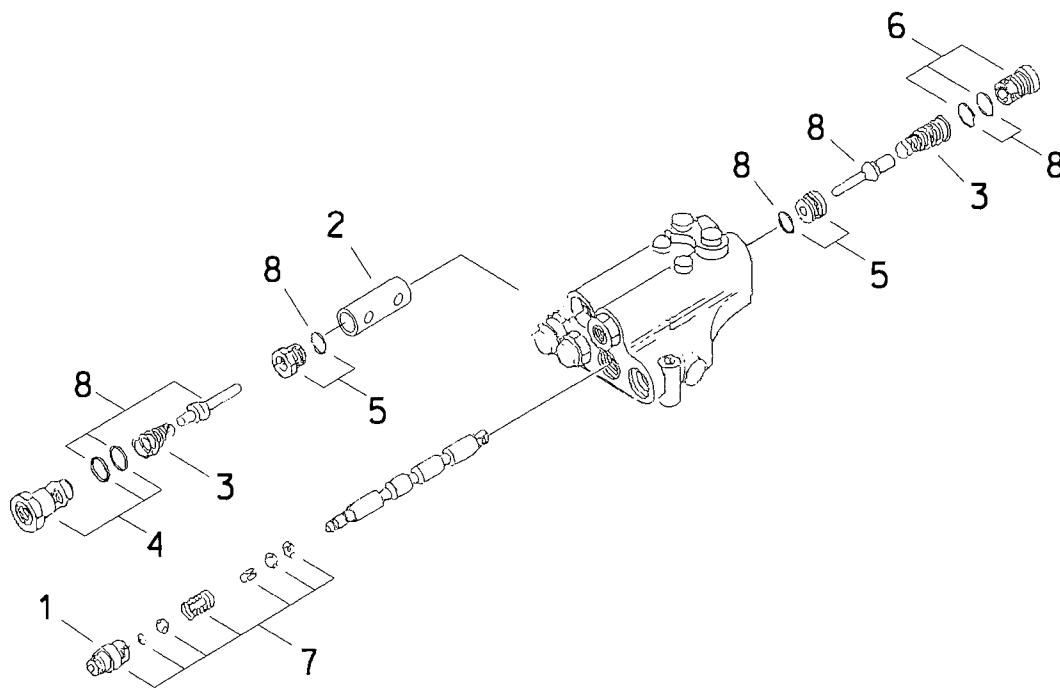
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-089	2	LOCKNUT (5/16-NC)	
2.	105-090	2	BOLT (5/16-NC X 3/4")	
3.	105-095	2	WASHER (1/4")	
4.	105-106	2	BOLT (1/4-NC X 2")	
5.	105-117	4	WASHER (5/16")	
6.	105-810	1	BOLT (10-24 X 7/8", SOC)	
7.	105-811	2	LOCKNUT (10-24)	
8.	105-827	2	FLG LK BOLT (3/8-NC X 1-1/4")	
9.	105-832	2	FLG LOCKNUT (1/4-NC)	
10.	110-439	1	HANDLE (3/8-NC, BLACK)	
11.	116-325	1	GROMMET (.362")	
12.	514-401	1	BRANCH TEE (08S-060-080-080)	
13.	154-246	1	CONNECTOR (06S-080)	
14.	154-253	1	CONNECTOR (06S-08090)	
15.	154-254	1	CONNECTOR (08S-08090-XL)	
16.	154-233	2	CONNECTOR (08S-080)	
17.	154-279	1	CONNECTOR (080-10S)	
18.	154-302	1	S/O BR TEE (100-16H-16H)	
19.	154-372	1	UNION (10S-100FX90)	
20.	154-322	1	CONNECTOR (080-10S90)	
21.	154-674	1	HOSE (080FX-24"-3000)	
22.	154-716	2	HOSE (080FX90-48"-3000)	
23.	155-540	1	HYDRAULIC PUMP	
24.	155-581	1	HYDRAULIC MOTOR	
25.	158-582	1	HYDRAULIC CONTROL VALVE	ENDS WITH S/N _____
	153-588	1	HYDRAULIC CONTROL VALVE	BEGINS WITH S/N _____
26.	156-445	1	HYDRAULIC LINE (.500")	
27.	158-315	1	HYDRAULIC PUMP	
28.	308-534	1	LEVER MOUNT	
29.	365-090	1	CONTROL VALVE LEVER	
30.	156-449	1	HYDRAULIC LINE (.500")	

## FOOTNOTES

## NOTE

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

## HYDRAULIC CONTROL VALVE

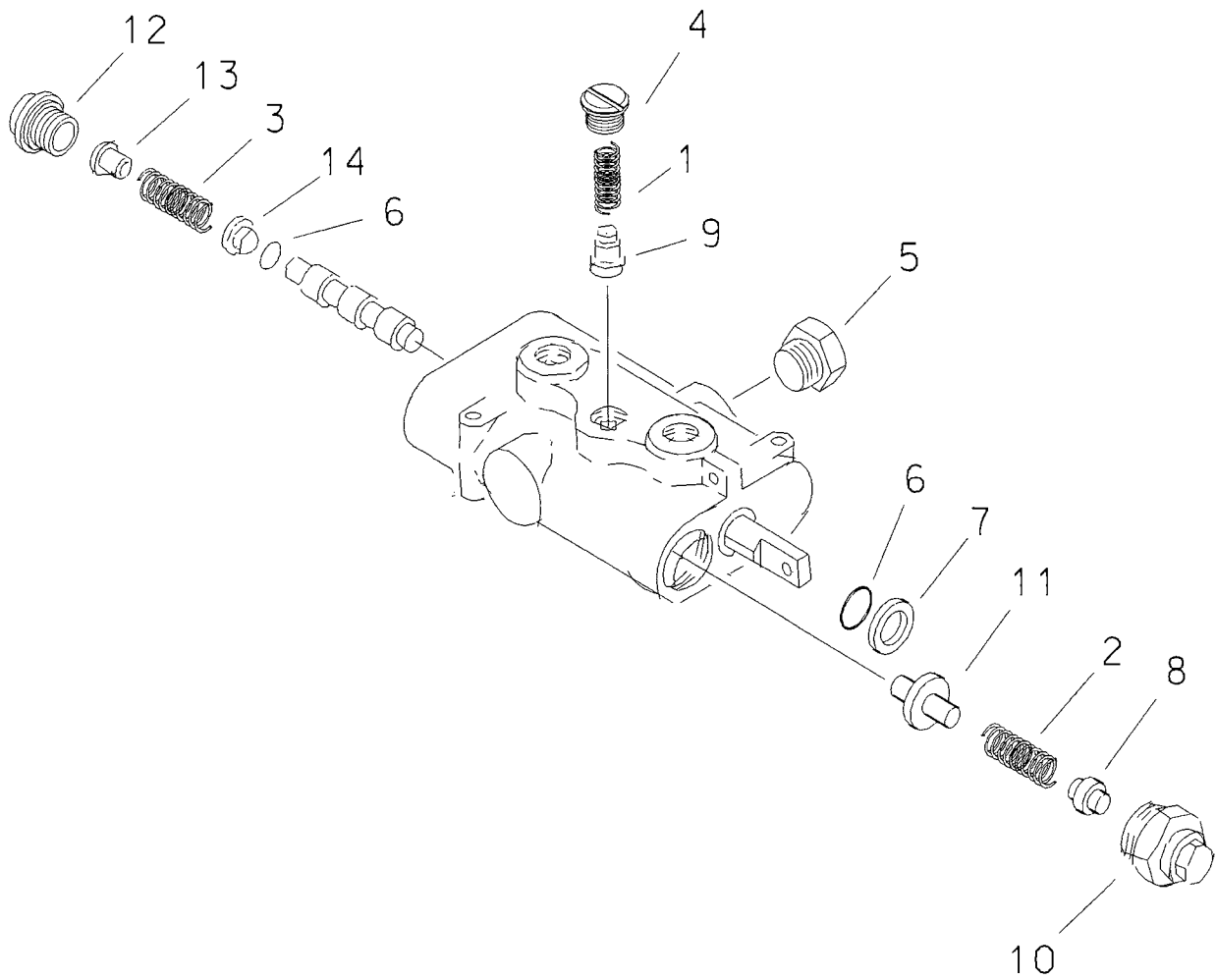


# HYDRAULIC CONTROL VALVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	155-637		HYDRAULIC CONTROL VALVE	INCL REF NO'S 1-8
1.	500-350	2	SPOOL END CAP	
2.	500-351	2	LOCKOUT PLUNGER	
3.	500-352	4	COMPRESSION SPRING	
4.	500-353	2	PORT ADAPTER PLUG KIT	
	500-163		O-RING (114 D70)	
5.	500-354	4	LOCKOUT SEAT KIT	
6.	500-355	2	SEAT RETAINER PLUG KIT	
	500-163		O-RING (114 D70)	
7.	500-460	2	SPRING CENTERING KIT	
8.	500-357	1	SEAL REPAIR KIT	
	155-772		O-RING (112 D70)	
	500-163		O-RING (114 D70)	

FOOTNOTES

# HYDRAULIC CONTROL VALVE SINGLE SPOOL

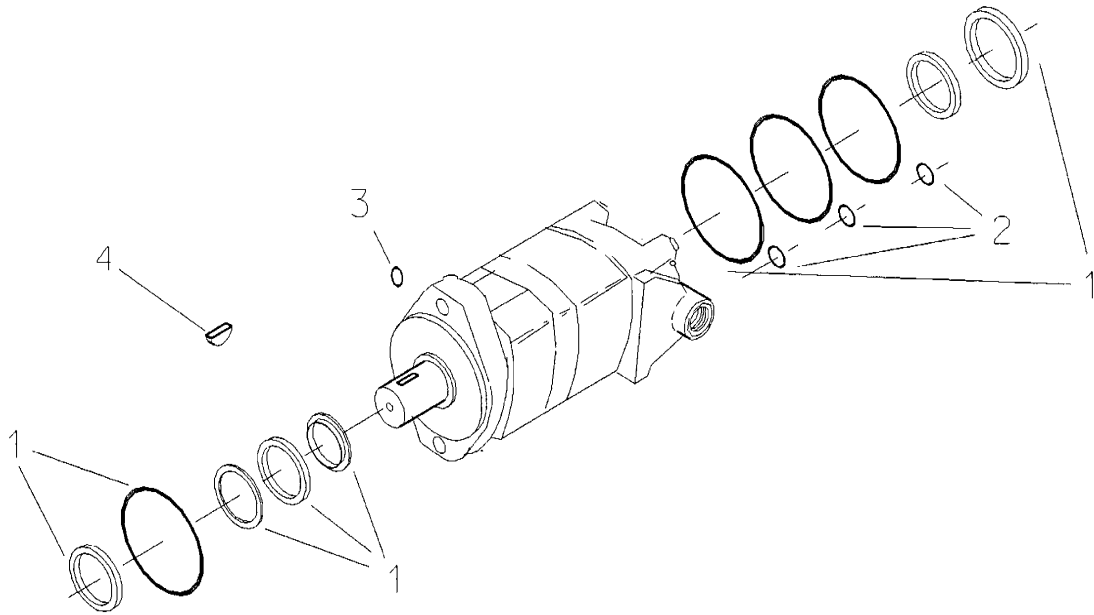


# HYDRAULIC CONTROL VALVE SINGLE SPOOL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	158-582		HYDRAULIC CONTROL VALVE	INCL REF NO'S 1-14
	153-588		HYDRAULIC CONTROL VALVE	INCL REF NO'S 1-14
1.	117-005	1	COMPRESSION SPRING	
2.	117-006	1	COMPRESSION SPRING	
3.	117-007	1	COMPRESSION SPRING	
4.	154-380	1	PLUG (1/2-UNF)	
5.	154-381	1	PLUG (Ø8S)	
	155-706		O-RING (908 D90)	
6.	155-778	2	O-RING (Ø14 D70, VITON)	
7.	157-572	1	INTERNAL SEAL (.500")	
8.	500-616	AR	RELIEF VALVE SHIM	
9.	500-622	1	RELIEF VALVE PLUNGER	
10.	500-623	1	MAIN RELIEF	
11.	500-624	1	POPPET	
12.	500-350	1	SPOOL END CAP	
13.	500-625	1	SPACER	
14.	500-626	1	BUSHING	

FOOTNOTES

## HYDRAULIC MOTOR

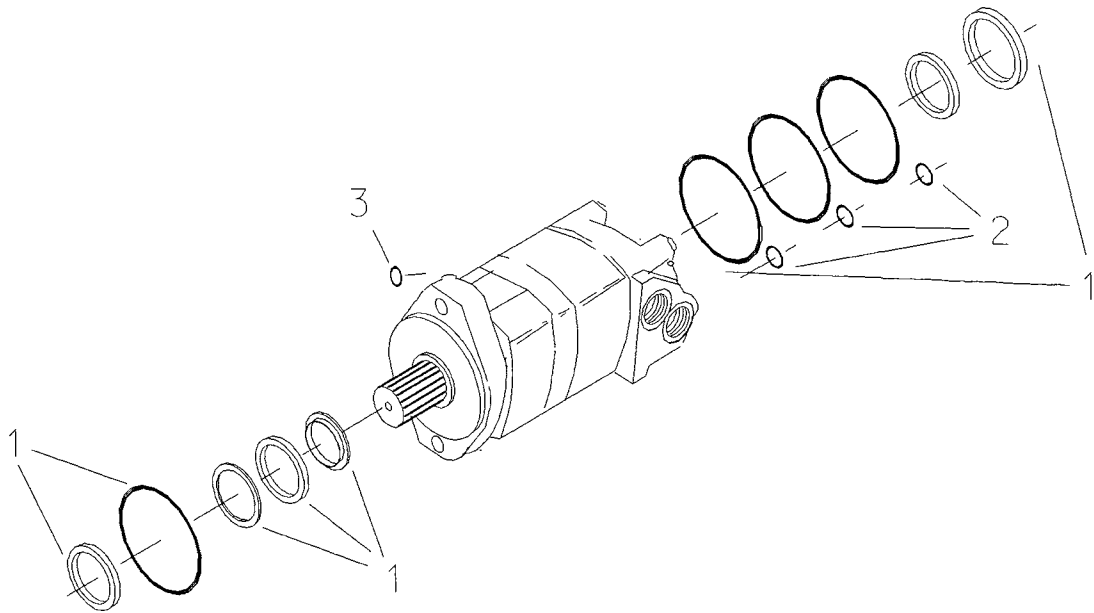


# HYDRAULIC MOTOR

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	158-706		HYDRAULIC MOTOR	INCL REF NO'S 1-4
1.	500-347	1	SEAL REPAIR KIT	
2.	155-771		O-RING (O11 D70)	
3.	155-760		O-RING (904 D90)	
4.	165-931	1	WOODRUFF KEY (1/4" X 1")	

FOOTNOTES

# HYDRAULIC MOTOR

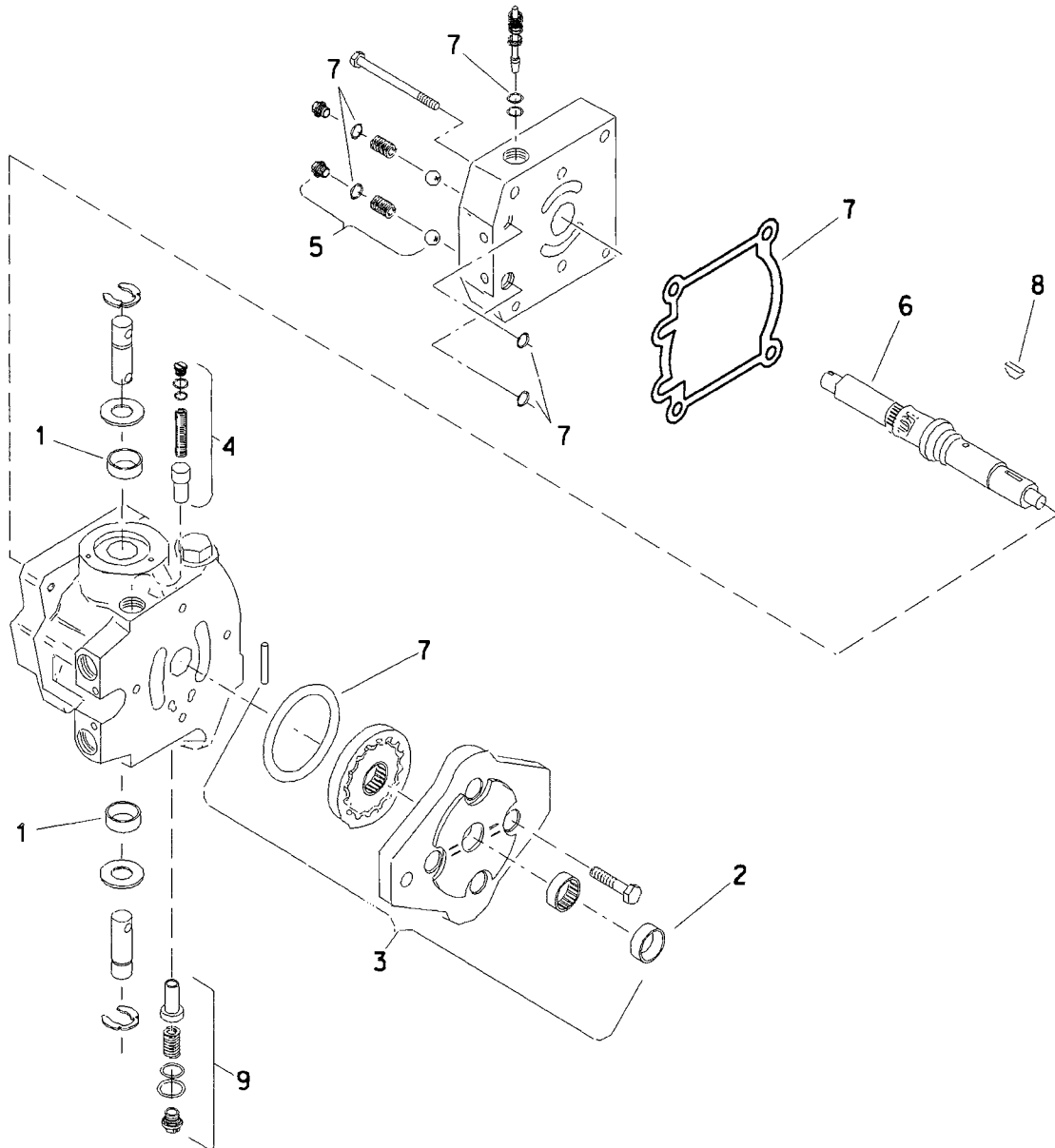


## HYDRAULIC MOTOR

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	155-581		HYDRAULIC MOTOR	INCL REF NO'S 1-3
1.	500-347	1	SEAL REPAIR KIT	
2.	155-771		O-RING (O11 D70)	
3.	155-760		O-RING (904 D90)	

FOOTNOTES

## HYDRAULIC PUMP



## HYDRAULIC PUMP

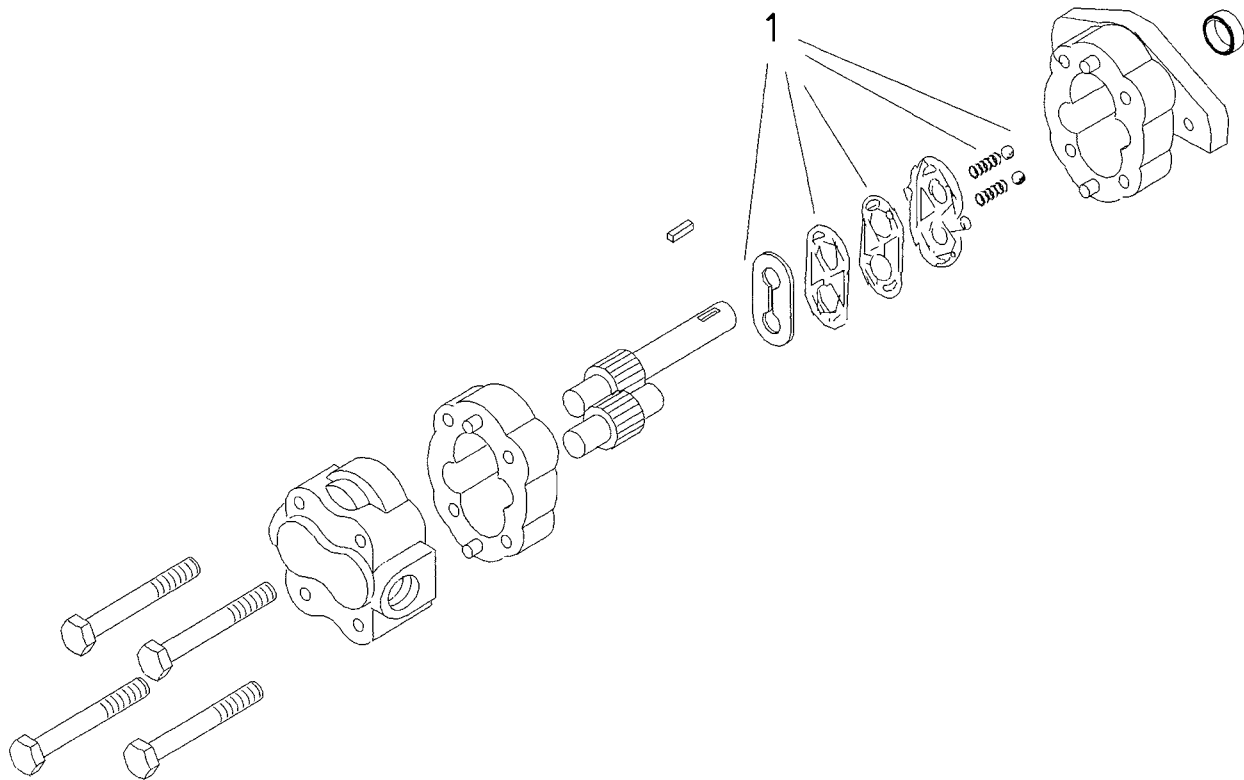
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	158-312		HYDRAULIC PUMP	INC REF #'S 1 THRU 9 & SEE F/N 1
	197-160		REBUILT HYDRAULIC PUMP	SEE FOOTNOTE 2
	158-315		HYDRAULIC PUMP	INC REF #'S 1 THRU 9 & SEE F/N 2
	197-156		REBUILT HYDRAULIC PUMP	SEE FOOTNOTE 1
	197-085		REBUILT HYDRAULIC PUMP	SEE FOOTNOTE 3
	153-578		HYDRAULIC PUMP	INC REF #'S 1 THRU 9, SEE FOOTNOTE 3
1.	155-877	2	INTERNAL SEAL (.688")	
2.	155-878	1	INTERNAL SEAL (.750")	
3.	500-531	1	CHARGE PUMP KIT	INC REF #4
	191-133	1	CHARGE PUMP KIT	INC REF # 4, USED w/ 153-578
4.	500-532	1	CHARGE RELIEF KIT	
5.	500-362	2	CHECK VALVE KIT	
6.	500-534	1	PUMP SHAFT (1" X 6.8")	SEE FOOTNOTE 1
	500-535	1	PUMP SHAFT (1" X 7.8")	SEE FOOTNOTE 2
	166-385	1	PUMP SHAFT (1" X 6.8")	SEE FOOTNOTE 3
7.	500-483		SEAL REPAIR KIT	INC REF #1 & #2 AND OTHERS AS INDICATED
8.	165-958	1	WOODRUFF KEY (3/16" X 5/8")	
9.	500-533	1	IMPLEMENT RELIEF KIT	

## FOOTNOTES

- 1-TTHIS HYDRAULIC PUMP IS USED WHEN NO BORING ATTACHMENT IS USED. PUMP MODEL # 15-2176  
2-TTHIS HYDRAULIC PUMP IS USED WHEN A BORING ATTACHMENT IS USED.  
3-TTHIS HYDRAULIC PUMP IS USED WHEN NO BORING ATTACHMENT IS USED. PUMP MODEL # 15-2298

## NOTE:

## HYDRAULIC PUMP

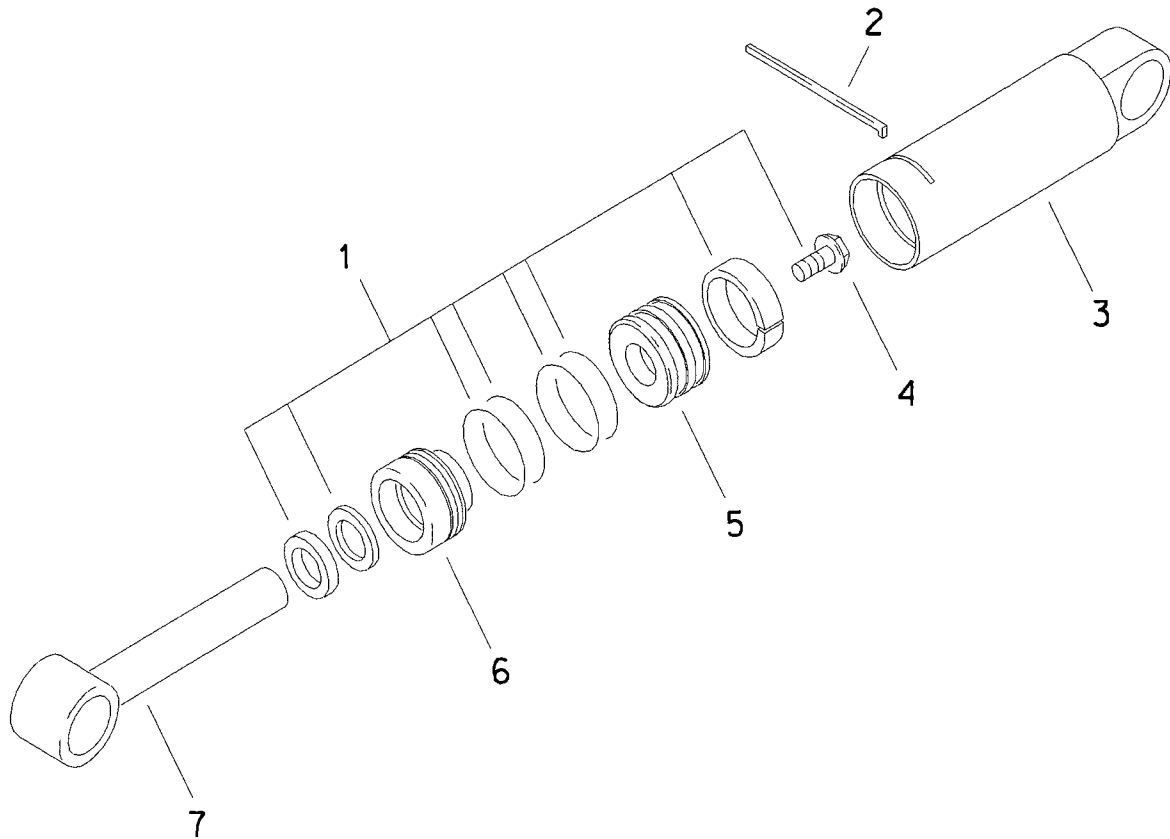


# HYDRAULIC PUMP

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	155-540		HYDRAULIC PUMP	INCL REF NO.1
1.	500-411	1	SEAL REPAIR KIT	

FOOTNOTES

HYDRAULIC CYLINDER  
2.5" ID BARREL X 1.25" OD ROD X 4.0" STROKE



# HYDRAULIC CYLINDER

2.5" ID BARREL X 1.25" OD ROD X 4.0" STROKE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-028		CYL (2.5" X 1.25" X 4")	INCL REF NO.'S 1 THRU 7
1.	190-166	1	SEAL REPAIR KIT (2.5" X 1.25")	
2.	150-779	1	LOCK RING (2.5")	
3.	150-283	1	CYLINDER BARREL (2.5")	
4.	106-097	1	FLG BOLT (5/8-NC X 1-3/4",GD8)	SEE FOOTNOTE 1
5.	150-776	1	CYL PISTON (2.5" X 1.25")	
6.	150-773	1	CYLINDER HEAD (2.5" X 1.25")	
7.	150-415	1	CYLINDER ROD (1.25")	

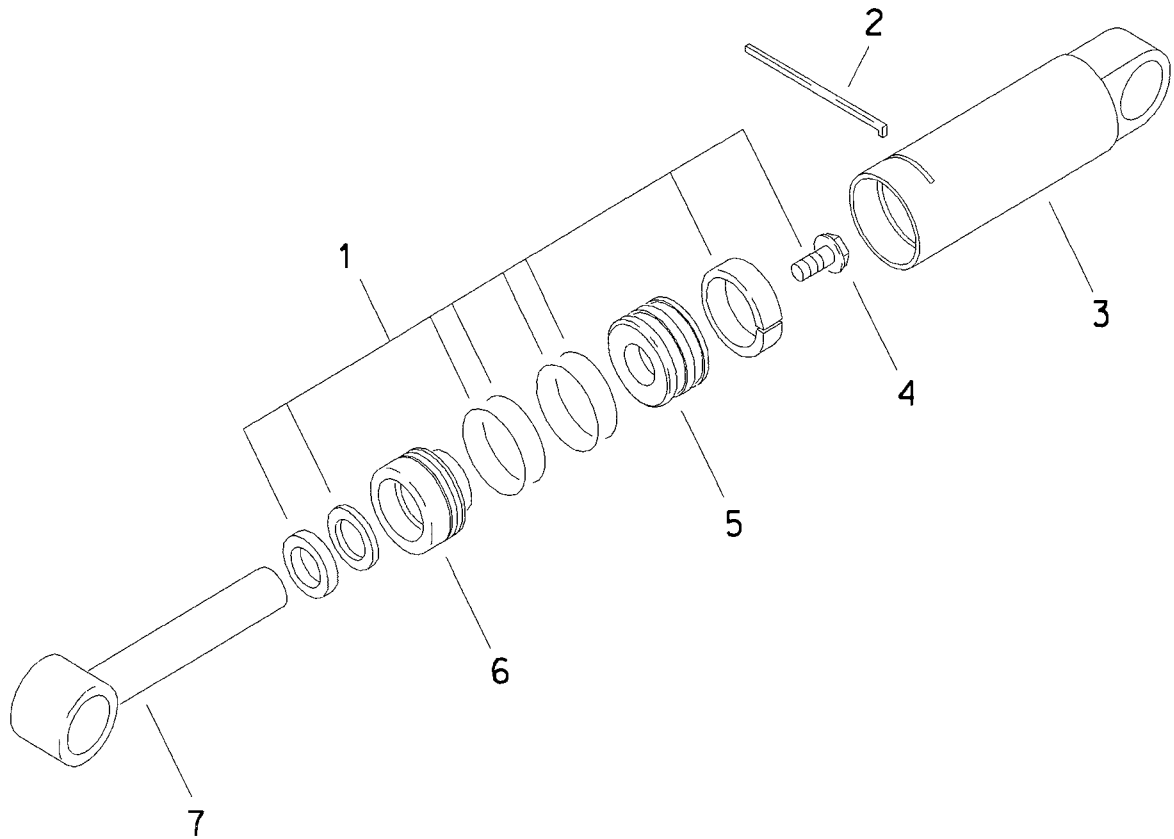
NOT SHOWN:

	259-100		U-SEAL INSTALLER (1" - 1.499")	
	259-236		WIPER INSTALLER (1.25")	
	259-242		PISTON SEAL INSTALLER (2.5")	
	259-243		PISTON INSTALLER (2.5")	
	259-188		CYLINDER HEAD SPANNER -TWO PIN	

FOOTNOTES

1. USE LOCTITE 277; TORQUE TO 180-200 FT-LBS (245-270 N.M)

HYDRAULIC CYLINDER  
3.0" ID BARREL X 1.50" OD ROD X 12.0" STROKE



# HYDRAULIC CYLINDER

## 3.0" ID BARREL X 1.50" OD ROD X 12.0" STROKE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-043		CYL (3" X 1.5" X 12")	INCLUDES REF NO.'S 1 THRU 7
1.	190-167	1	SEAL REPAIR KIT (3.0" X 1.5")	
2.	150-911	1	LOCK RING (3")	
3.	150-293	1	CYLINDER BARREL	
4.	106-098	1	FLG BOLT (3/4-NC X 2", GD8)	SEE FOOTNOTE 1
5.	150-777	1	CYLINDER PISTON	
6.	150-774	1	CYLINDER HEAD	
7.	150-426	1	CYLINDER ROD	

NOT SHOWN:

	259-040		U-SEAL INSTALLER (1.5" UP)	
	259-237		WIPER/SEAL INSTALLER (1.5")	
	259-065		PISTON SEAL INSTALLER (3")	
	259-066		PISTON INSTALLER (3")	
	259-188		CYL HEAD SPANNER - TWO PIN	

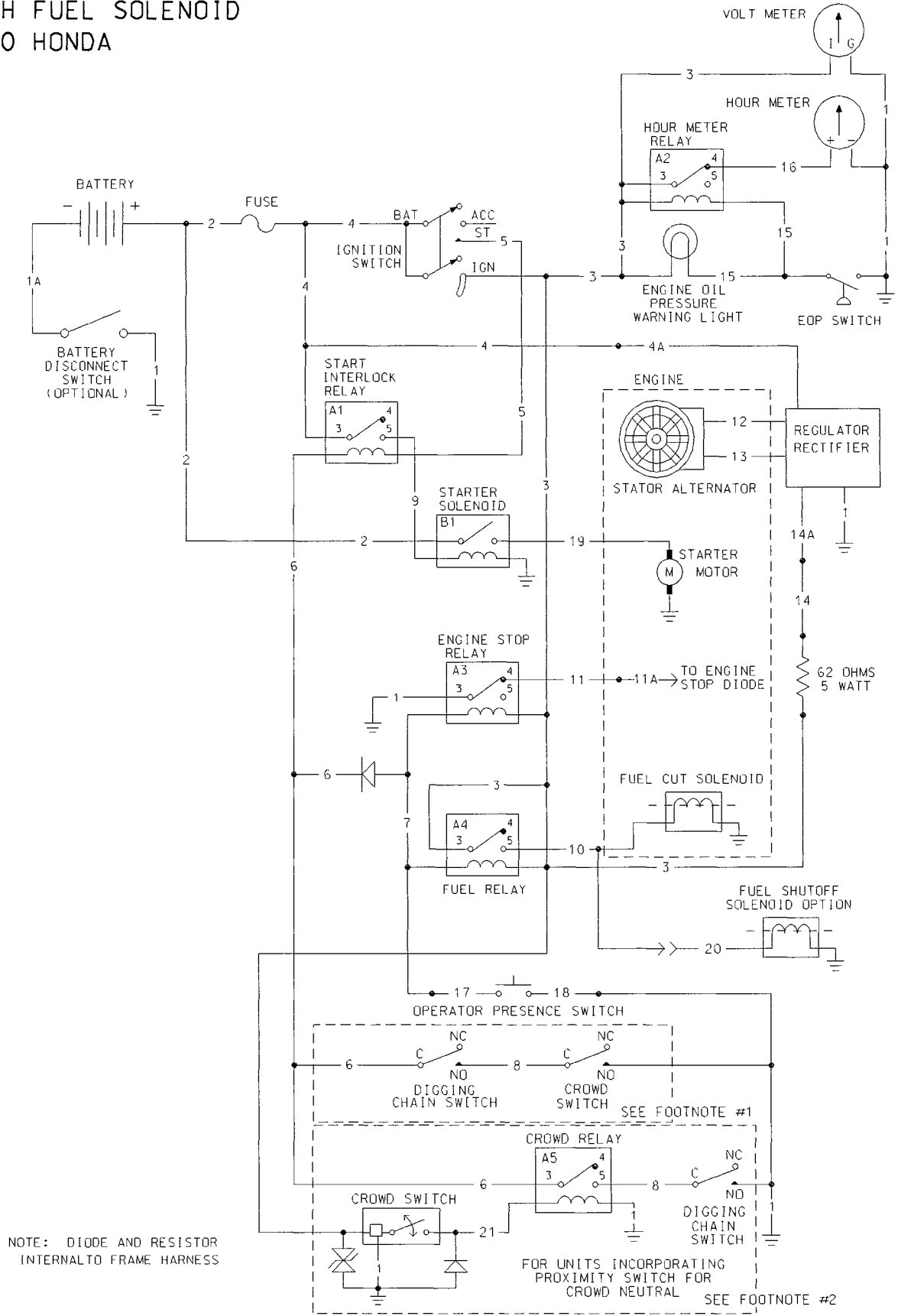
FOOTNOTES

1-LUBRICATE WITH WD-40 OR EQUAL TORQUE TO 290-325 FT-LBS (395-440 N.M)



# **ELECTRICAL**

# ELECTRICAL SCHEMATIC WITH FUEL SOLENOID 1820 HONDA



NOTE: DIODE AND RESISTOR  
INTERNAL TO FRAME HARNESS

FOR UNITS INCORPORATING  
PROXIMITY SWITCH FOR  
CROWD NEUTRAL SEE FOOTNOTE #2

SEE FOOTNOTE #1

SEE FOOTNOTE #2

# ELECTRICAL SCHEMATIC

## 1820 HONDA

CKT NO.	WIRE COLOR	FUNCTION	REMARKS
1	BLK	SYSTEM GROUND	
1A	BLK	BATTERY TO BATTERY DISCONNECT SWITCH OPTIONAL	
2	RED	BATTERY CIRCUIT	
3	ORG	IGNITION CIRCUIT	
4	RED	FUSED BATTERY CIRCUIT	
4A	WHT	IGNITION TO REGULATOR/RECTIFIER	
5	WHT	IGNITION SWITCH TO START RELAY	
6	WHT/BRN	START INTERLOCK RELAY TO DIG CHAIN SWITCH & DIODE	
7	ORG/RED	FUEL AND ENGINE STOP RELAY TO OPERATOR PRESENCE SWITCH	
8	ORG/BLK	DIG CHAIN TO CROWD SWITCH	
9	WHT/BLK	START RELAY TO STARTER SOLENOID	
10	BLK/YEL	FUEL RELAY TO FUEL SOLENOID	
11	GRA/RED	INTERLOCK RELAY TO ENGINE STOP DIODE	
11A	BLK/RED	ENGINE STOP DIODE	
12	GRA	REGULATOR/RECTIFIER TO ALTERNATOR	
13	GRA	REGULATOR/RECTIFIER TO ALTERNATOR	
14	ORG/BLU	RESISTOR TO REG/RECT CONNECTION	
14A	WHT/BLU	REG/RECT CONNECTION TO REGULATOR/RECTIFIER	
15	WHT/BLU	HOURMETER RELAY TO ENGINE OIL PRESSURE SWITCH	
16	BLU/RED	HOURMETER RELAY TO HOURMETER	
17	BLK	RELAYS TO OPERATOR PRESENCE SWITCH	
18	BLK	OPERATOR PRESENCE SWITCH TO GROUND	
19	RED	STARTER SOLENOID TO STARTER MOTOR	
20	RED	FUEL RELAY TO FUEL SHUTOFF SOLENOID	
21	GRA/WHT	CROWD SWITCH TO CROWD RELAY	

### FOOTNOTES :

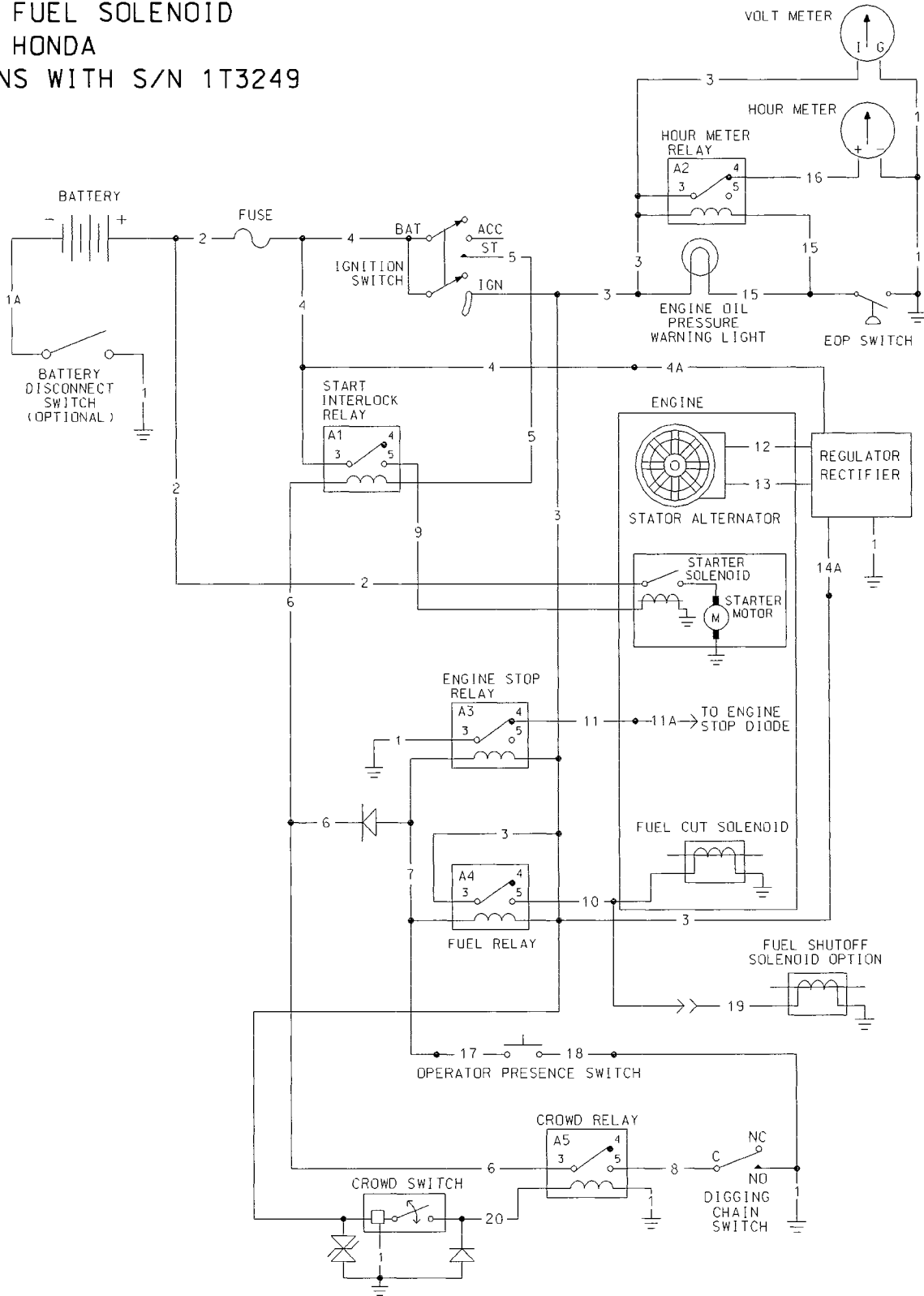
- FOR UNITS BEFORE S/N 1N2819 WITH MECHANICAL CROWD NEUTRAL SWITCH
- FOR UNITS AFTER S/N 1N2820 WITH PROXIMITY SWITCH FOR CROWD NEUTRAL.

# ELECTRICAL SCHEMATIC

## WITH FUEL SOLENOID

### 1820 HONDA

### BEGINS WITH S/N 1T3249



NOTE: DIODE IS INTERNAL TO FRAME HARNESS

A

807-563

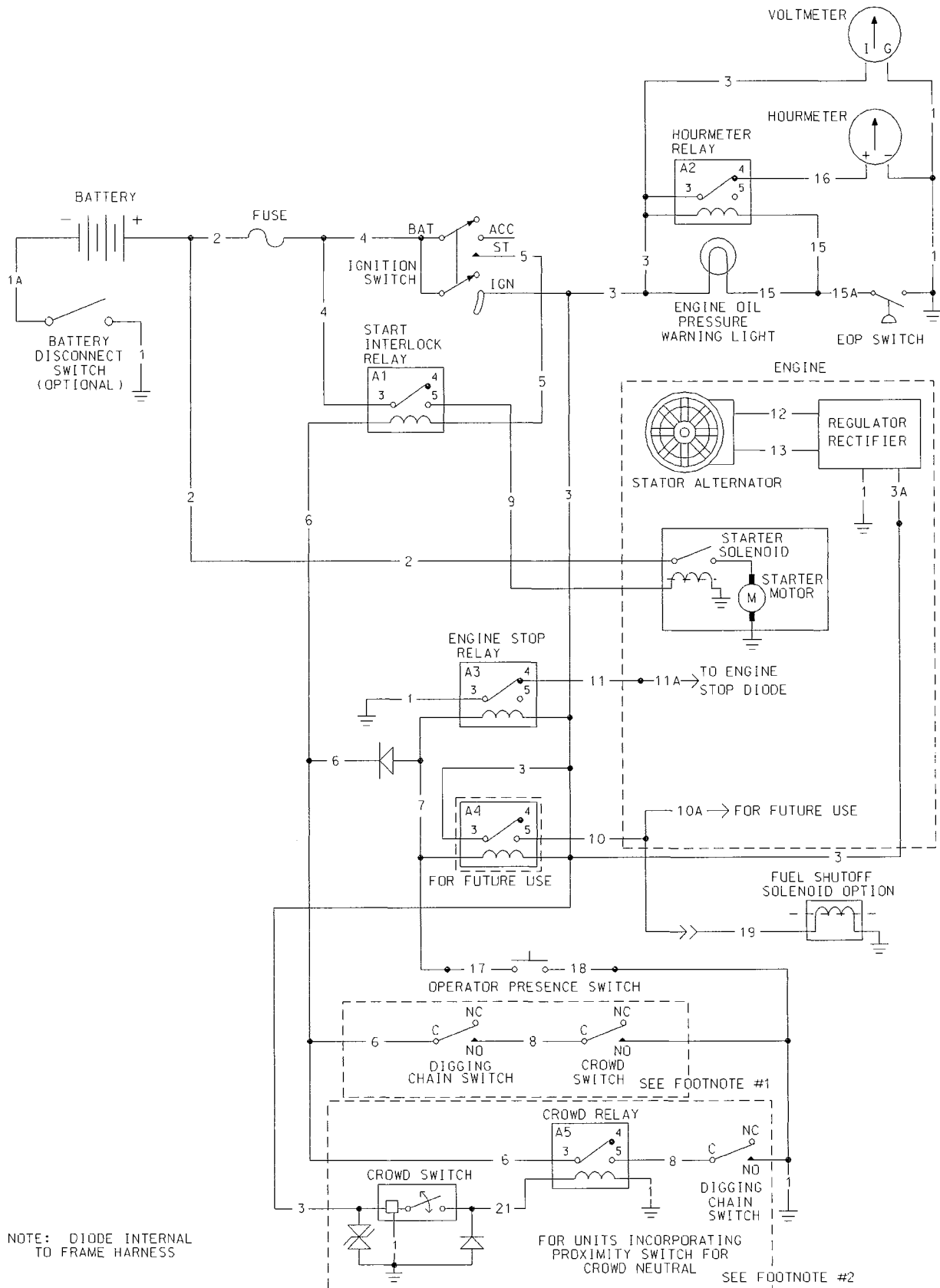
# ELECTRICAL SCHEMATIC

## 1820 HONDA

CKT NO.	WIRE COLOR	FUNCTION	REMARKS
1	BLK	SYSTEM GROUND	
1A	BLK	BATTERY TO BATTERY DISCONNECT SWITCH OPTIONAL	
2	RED	BATTERY CIRCUIT	
3	ORG	IGNITION CIRCUIT	
4	RED	FUSED BATTERY CIRCUIT	
4A	WHT	IGNITION TO REGULATOR/RECTIFIER	
5	WHT	IGNITION SWITCH TO START RELAY	
6	WHT/BRN	START INTERLOCK RELAY TO DIG CHAIN SWITCH & DIODE	
7	ORG/RED	FUEL AND ENGINE STOP RELAY TO OPERATOR PRESENCE SWITCH	
8	ORG/BLK	DIG CHAIN TO CROWD SWITCH	
9	WHT/BLK	START RELAY TO STARTER SOLENOID	
10	BLK/YEL	FUEL RELAY TO FUEL SOLENOID	
11	GRA/RED	INTERLOCK RELAY TO ENGINE STOP DIODE	
11A	BLK/RED	ENGINE STOP DIODE	
12	GRA	REGULATOR/RECTIFIER TO ALTERNATOR	
13	GRA	REGULATOR/RECTIFIER TO ALTERNATOR	
14	WHT/BLU	REG/RECT CONNECTION TO REGULATOR/RECTIFIER	
15	WHT/BLU	HOURMETER RELAY TO ENGINE OIL PRESSURE SWITCH	
16	BLU/RED	HOURMETER RELAY TO HOURMETER	
17	BLK	RELAYS TO OPERATOR PRESENCE SWITCH	
18	BLK	OPERATOR PRESENCE SWITCH TO GROUND	
19	RED	FUEL RELAY TO FUEL SHUTOFF SOLENOID	
20	GRA/WHT	CROWD SWITCH TO CROWD RELAY	

FOOTNOTES:

# ELECTRICAL SCHEMATIC 1820 KOHLER



NOTE: DIODE INTERNAL TO FRAME HARNESS

FOR UNITS INCORPORATING PROXIMITY SWITCH FOR CROWD NEUTRAL SEE FOOTNOTE #2

# ELECTRICAL SCHEMATIC

## 1820 KOHLER

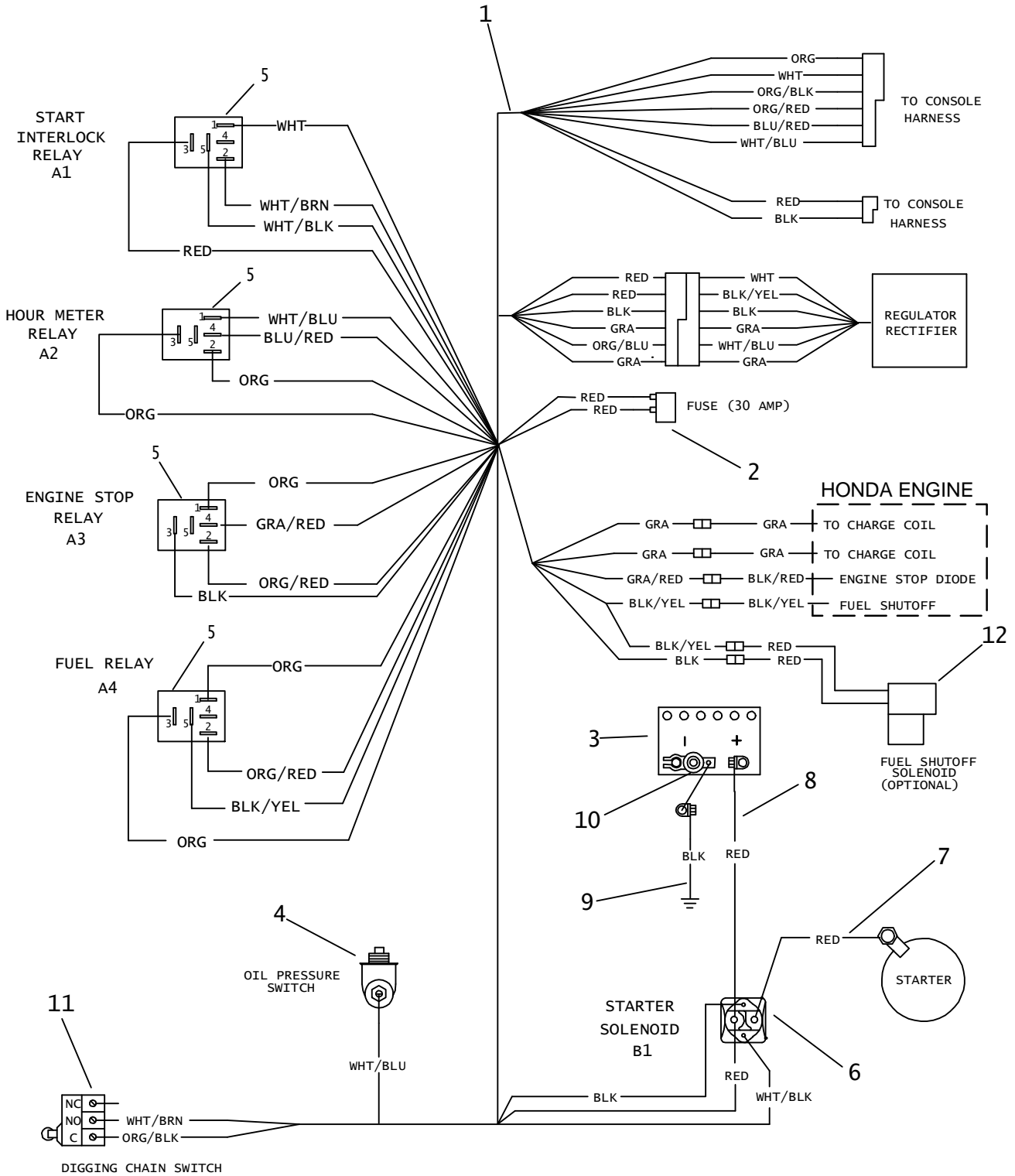
CKT NO.	WIRE COLOR	FUNCTION	REMARKS
1	BLK	SYSTEM GROUND	
1A	BLK	BATTERY TO BATTERY DISCONNECT SWITCH OPTIONAL	
2	RED	BATTERY CIRCUIT	
3	ORG	IGNITION CIRCUIT	
3A	VIO	IGNITION TO REGULATOR/RECTIFIER	
4	RED	FUSED BATTERY CIRCUIT	
5	WHT	IGNITION SWITCH TO START RELAY	
6	WHT/BRN	DIG CHAIN SWITCH TO DIODE AND START RELAY	
7	ORG/RED	DIODE TO FUEL RELAY AND INTERLOCK DELAY	
8	ORG/BLK	DIG CHAIN TO CROWD SWITCH	
9	WHT/BLK	START RELAY TO STARTER SOLENOID	
10	BLK/YEL	FOR FUTURE USE	
10A	RED	FOR FUTURE USE	
11	GRA/RED	INTERLOCK RELAY TO ENGINE STOP DIODE	
11A	WHT	TO ENGINE STOP DIODE (GROUND TO KILL)	
12	WHT	REGULATOR/RECTIFIER TO ALTERNATOR	
13	WHT	REGULATOR/RECTIFIER TO ALTERNATOR	
14			
15	WHT/BLU	HOURLY RELAY TO ENGINE OIL PRESSURE SWITCH	
15A	GRN	TO ENGINE OIL PRESSURE SWITCH	
16	BLU/RED	HOURLY RELAY TO HOURLY METER	
17	BLK	RELAYS TO OPERATOR PRESENCE SWITCH	
18	BLK	OPERATOR PRESENCE SWITCH TO GROUND	
19	RED	RELAY TO FUEL SHUTOFF SOLENOID	
20			
21	GRA/WHT	CROWD SWITCH TO CROWD RELAY	

FOOTNOTES:

1. FOR UNITS BEFORE S/N 1N 2814 WITH MECHANICAL CROWD NEUTRAL SWITCH
2. FOR UNITS BEFORE S/N 1N 2815 WITH PROXIMITY SWITCH FOR CROWD NEUTRAL.

# ELECTRICAL DIAGRAM

1820 HONDA  
ENDS WITH S/N IN2819



# ELECTRICAL DIAGRAM

## 1820 HONDA

### ENDS WITH S/N IN2819

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	214-061	1	FRAME HARNESS	
2.	217-813	1	FUSE (ATC, 30 AMP)	
3.	215-254	1	BATTERY	SEE FOOTNOTE #1
	215-258	1	BATTERY	SEE FOOTNOTE #2
4.	217-736	1	OIL PRESSURE SWITCH	SEE FOOTNOTE #5
5.	217-710	4	MICRO RELAY (SPDT)	
6.	217-885	1	SOLENOID SWITCH	SEE FOOTNOTE #4
	216-010	1	STARTER SOLENOID COVER	
7.	215-354	1	BATTERY CABLE (4 GA X 24", RED)	
	116-126	1	TERMINAL COVER (BLACK)	
8.	215-353	1	BATTERY CABLE (4 GA X 20", RED)	
	116-208	1	TERMINAL COVER (BLACK)	
9.	215-307	1	BATTERY CABLE (4 GA X 20", BLK)	
	116-193	1	TERMINAL COVER (RED)	
	106-380	1	FLG LK SCREW (M8-1.25 X 16MM)	
10.	217-833	1	BATTERY DISCONNECT SWITCH	OPTIONAL
11.	215-046	1	PLUNGER SWITCH	
	215-082	1	ACTUATOR BRACKET	
12.	217-872	1	FUEL SHUTOFF SOLENOID	SEE FOOTNOTE #3
	363-613	1	SOLENOID MOUNT BRACKET	

## NOT SHOWN:

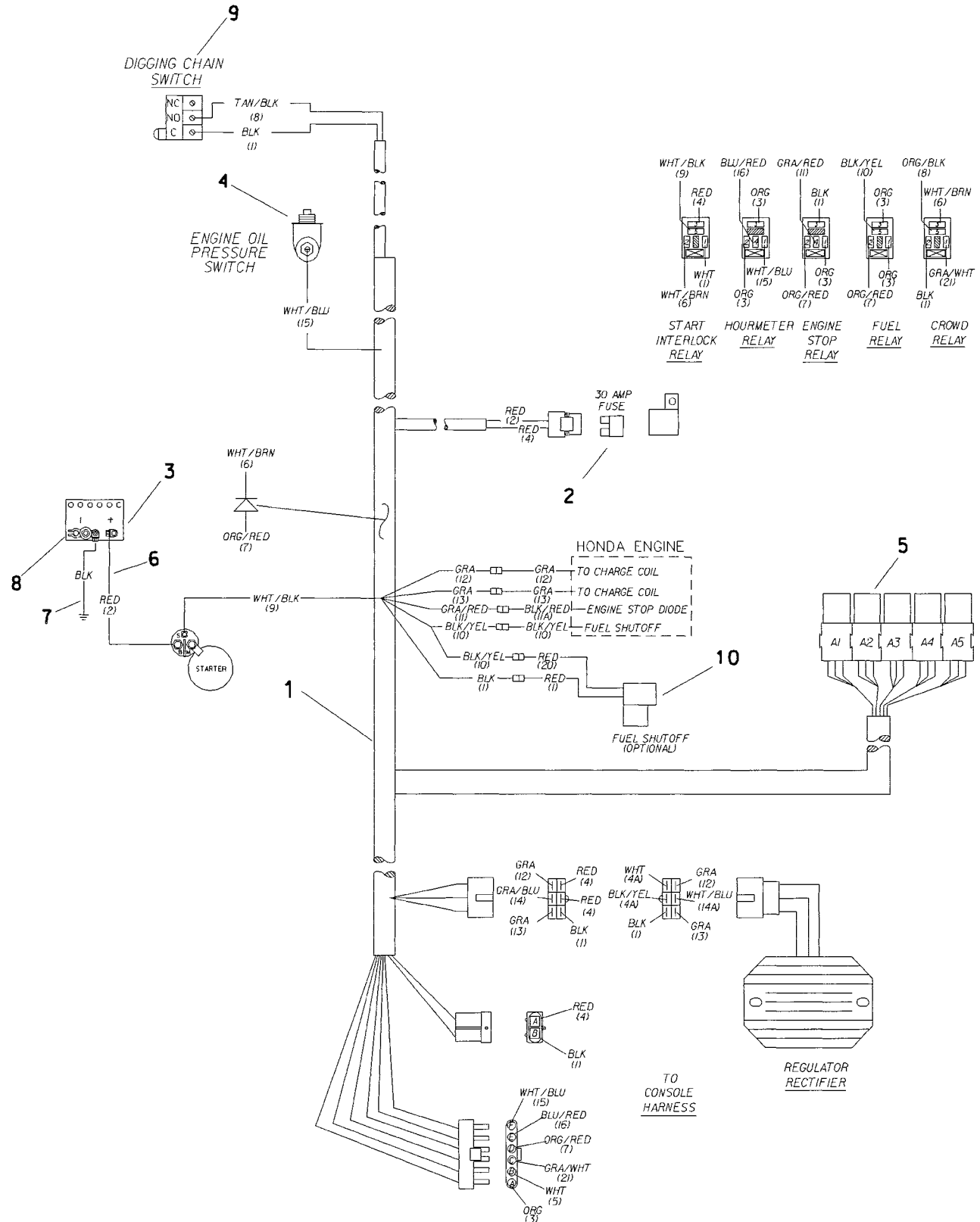
214-281 1 GROUND JUMPER WIRE

## FOOTNOTES:

1. ENDS WITH S/N 1L3766
2. 215-280 BATTERY BEGINS WITH S/N 1L3767, ENDS WITH S/N \_\_\_\_\_ (215-280 SUPERSEDED BY 215-258)
3. THE FUEL SHUT OFF SOLENOID IS A DEALER-INSTALLED OPTION. REFER TO INSTRUCTIONS 051-054.
4. INSTALLATION OF NEW SOLENOID WILL REQUIRE A GROUND WIRE JUMPER. REFER TO (NOT SHOWN)
5. AFTER S/N 1L4346, REDUCER 514-032 IS REQUIRED WITH 217-736 OIL PRESSURE SWITCH

## NOTE:

# ELECTRIAL DIAGRAM 1820 HONDA FRAME HARNESS BEGINS WITH S/N 1T3249



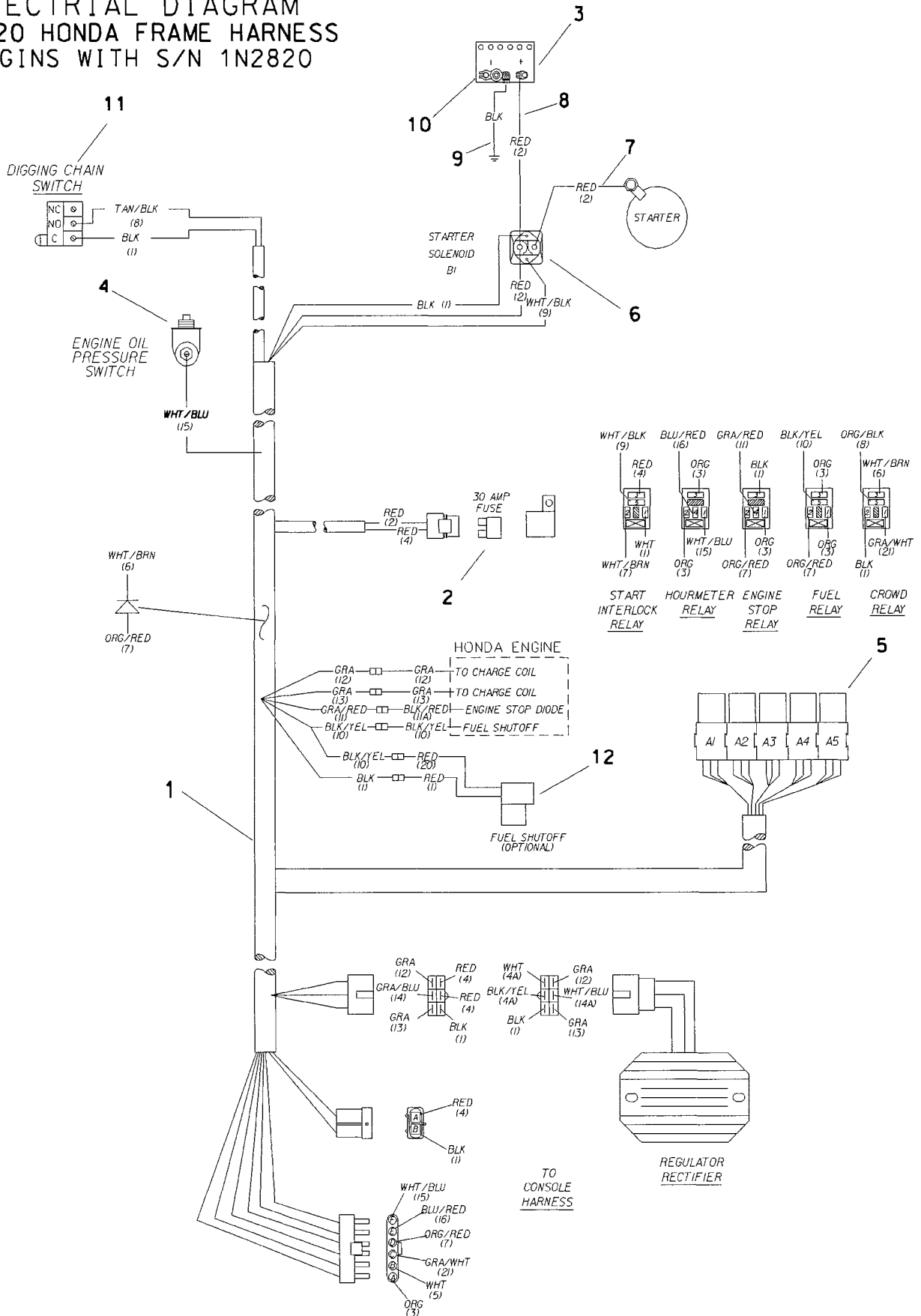
**ELECTRIAL DIAGRAM**  
**1820 HONDA FRAME HARNESS**  
**BEGINS WITH S/N 1T3249**

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	214-769	1	FRAME HARNESS W/PR SW	
2.	217-813	1	FUSE (ATC, 30 AMP)	
3.	215-258	1	BATTERY (12V, 675 AMP)	
4.	217-736	0	OIL PRESSURE SWITCH	
	514-032	0	REDUCER (02B-02NF)	SEE FOOTNOTE #1
5.	217-710	5	MICRO RELAY (SPDT)	
6.	215-308	1	BATTERY CABLE (4GA X 38", RED)	
	116-193	1	TERMINAL COVER (RED)	
	215-488	20	FLEX GUARD (3/8", SOLD PER 1")	
7.	215-307	1	BATTERY CABLE (4GA X 20", BLACK)	
	116-208	1	TERMINAL COVER (BLACK)	
	106-380	1	FLG LK SCREW (M8-1.25 X 16MM)	
8.	217-833	0	BATTERY DISCONNECT SWITCH	OPTIONAL
9.	215-046	1	PLUNGER SWITCH	
	215-082	1	ACTUATOR BRACKET	
	105-215	2	NUT (#6-32)	OPTIONAL SEE FOOTNOTE #2
	105-216	2	BOLT (#6-32 X 1-1/4", SOC)	
10.	217-872	0	FUEL SHUTOFF SOLENOID	

**FOOTNOTES**

1. IS REQUIRED ON S/N 1L4346 AND AFTER
2. KIT 599-080 IS REQUIRED

# ELECTRIAL DIAGRAM 1820 HONDA FRAME HARNESS BEGINS WITH S/N 1N2820



**ELECTRIAL DIAGRAM**  
**1820 HONDA FRAME HARNESS**  
**BEGINS WITH S/N 1N2820**

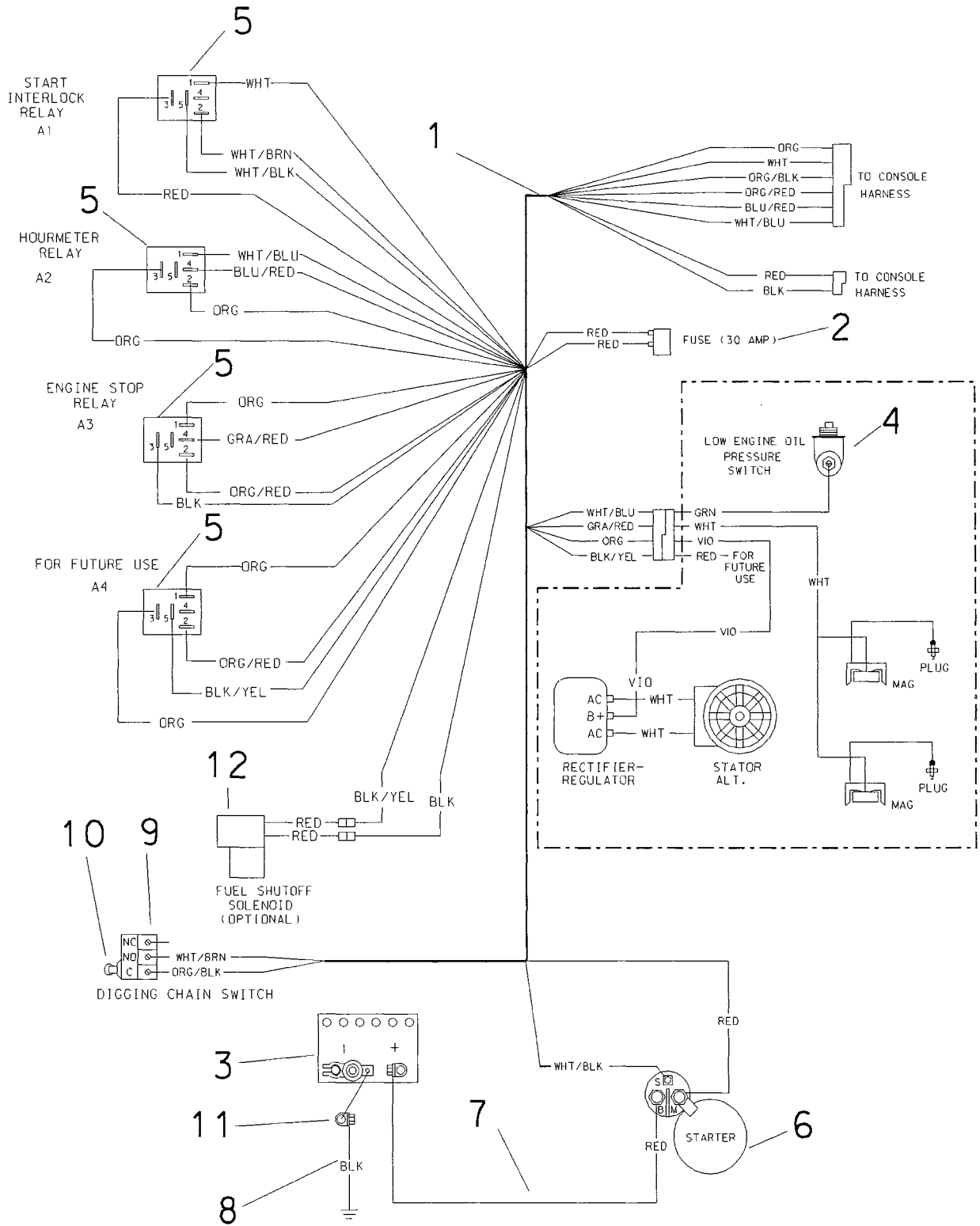
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	214-163	1	FRAME HARNESS W/PR SW	
2.	217-813	1	FUSE (ATC, 30 AMP)	
3.	215-258	1	BATTERY (12V, 675 AMP)	
4.	217-736	0	OIL PRESSURE SWITCH	
	514-032	0	REDUCER (02B-02NF)	SEE FOOTNOTE #1
5.	217-710	5	MICRO RELAY (SPDT)	
6.	217-885	1	SOLENOID SWITCH	SEE FOOTNOTE #2
	216-010	1	STARTER SOLENOID COVER	
7.	215-354	1	BATTERY CABLE (4GA X 24", RED)	
	215-488	20	FLEX GUARD (3/8", SOLD PER 1")	
8.	215-353	1	BATTERY CABLE (4GA X 20", RED)	
	116-193	1	TERMINAL COVER (RED)	
	215-488	16	FLEX GUARD (3/8", SOLD PER 1")	
9.	215-307	1	BATTERY CABLE (4GA X 20", BLACK)	
	116-208	1	TERMINAL COVER (BLACK)	
	106-380	1	FLG LK SCREW (M8-1.25 X 16MM)	
10.	217-833	0	BATTERY DISCONNECT SWITCH	OPTIONAL
11.	215-046	1	PLUNGER SWITCH	
	215-082	1	ACTUATOR BRACKET	
	105-215	2	NUT (#6-32)	OPTIONAL SEE FOOTNOTE #3
	105-216	2	BOLT (#6-32 X 1-1/4", SOC)	
12.	217-872	0	FUEL SHUTOFF SOLENOID	

**FOOTNOTES**

1. IS REQUIRED ON S/N 1L4346 AND AFTER
2. WHEN 215-026 IS BEING REPLACED BY 217-885, JUMPER WIRE 214-281 IS REQUIRED.
3. KIT 599-080 IS REQUIRED

# ELECTRICAL DIAGRAM

1820 KOHLER  
ENDS WITH S/N 1N2814



## ELECTRICAL DIAGRAM

1820 KOHLER

ENDS WITH S/N 1N2814

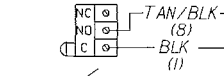
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	214-060	1	FRAME HARNESS	
2.	217-813	1	FUSE (ATC, 30 AMP)	
3.	<u>215-254</u>	1	BATTERY (12V, 350 AMP)	USED ON S/N 1L3766 AND EARLIER MODELS.
	215-258	1	BATTERY (12V, 675 AMP)	
4.	217-760	1	LOW OIL PRESSURE SWITCH	
5.	217-710	3	MICRO RELAY (SPDT)	
6.	194-317	1	STARTER	
7.	215-308	1	BATTERY CABLE (4 GA X 38", RED)	
	116-193	1	TERMINAL COVER (RED)	
	116-126	1	TERMINAL COVER (BLACK)	
8.	215-307	1	BATTERY CABLE (4 GA X 20", BLK)	
	106-380	1	FLG LK SCREW (M8 -1.25 X 16MM)	
9.	215-046	1	PLUNGER SWITCH	
	105-215	2	NUT (#6-32)	
	105-216	2	BOLT (#6-32 X 1-1/4", BUT SOC)	
10.	215-082	1	ACTUATOR BRACKET	
11.	217-833	1	BATTERY DISCONNECT SWITCH	OPTIONAL
12.	217-872	1	FUEL SHUTOFF SOLENOID	SEE FOOTNOTE 1
	363-613	1	SOLENOID MOUNT BRACKET	

## FOOTNOTES

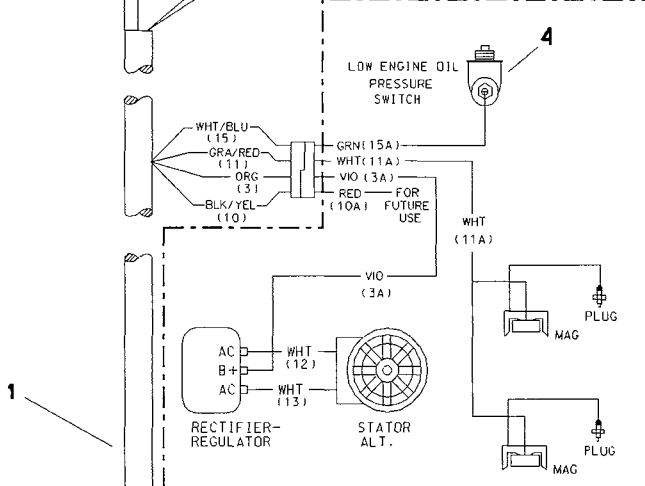
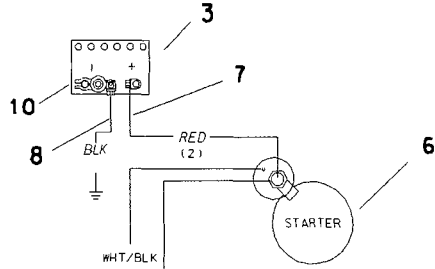
1. THE FUEL SHUT OFF SOLENOID IS A DEALER-INSTALLED OPTION. REFER TO INSTRUCTIONS 051-054.

# ELECTRIAL DIAGRAM 1820 KOHLER FRAME HARNESS BEGINS WITH S/N 1N2815

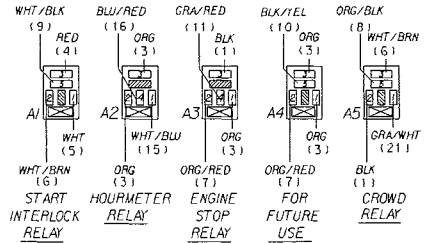
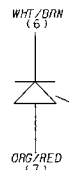
DIGGING CHAIN SWITCH



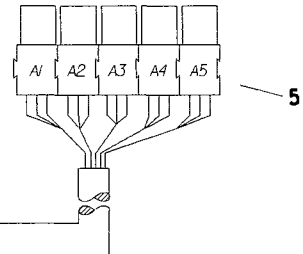
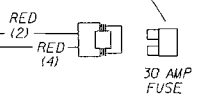
9



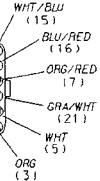
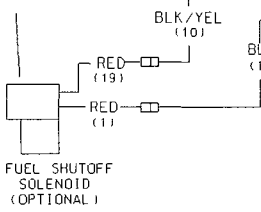
1



2



11



TO CONSOLE HARNESS

D

**ELECTRIAL DIAGRAM**  
**1820 KOHLER FRAME HARNESS**  
**BEGINS WITH S/N 1N2815**

REF PART				
NO.	NUMBER	QTY	DESCRIPTION	REMARKS
1.	214-162	1	FRAME HARNESS W/PR SW	
2.	217-813	1	FUSE (ATC, 30 AMP)	
3.	215-258	1	BATTERY (12V, 675 AMP)	
4.	217-760	0	LOW OIL PRESSURE SWITCH	
5.	217-710	4	MICRO RELAY (SPDT)	
6.	194-317	1	STARTER	
7.	215-308	1	BATTERY CABLE (4 GA X 38", RED)	
	215-488	36	FLEX GUARD (3/8", SOLD PER 1")	
	116-193	-	TERMINAL COVER (RED)	
8.	215-307	1	BATTERY CABLE (4 GA X 20", BLACK)	
	116-208	-	TERMINAL COVER (BLACK)	
	106-380	1	FLG LK SCREW (M8-1.25 X 16MM)	
9.	215-046	1	PLUNGER SWITCH	
	215-082	1	ACTUATOR BRACKET	
	105-216	2	BOLT (#6-32 X 1-1/4", BUT SOC)	
	105-215	2	NUT (#6-32)	
10.	217-833	0	BATTERY DISCONNECT SWITCH	
11.	217-872	0	FUEL SHUTOFF SOLENOID	OPTIONAL SEE FOOTNOTE #1

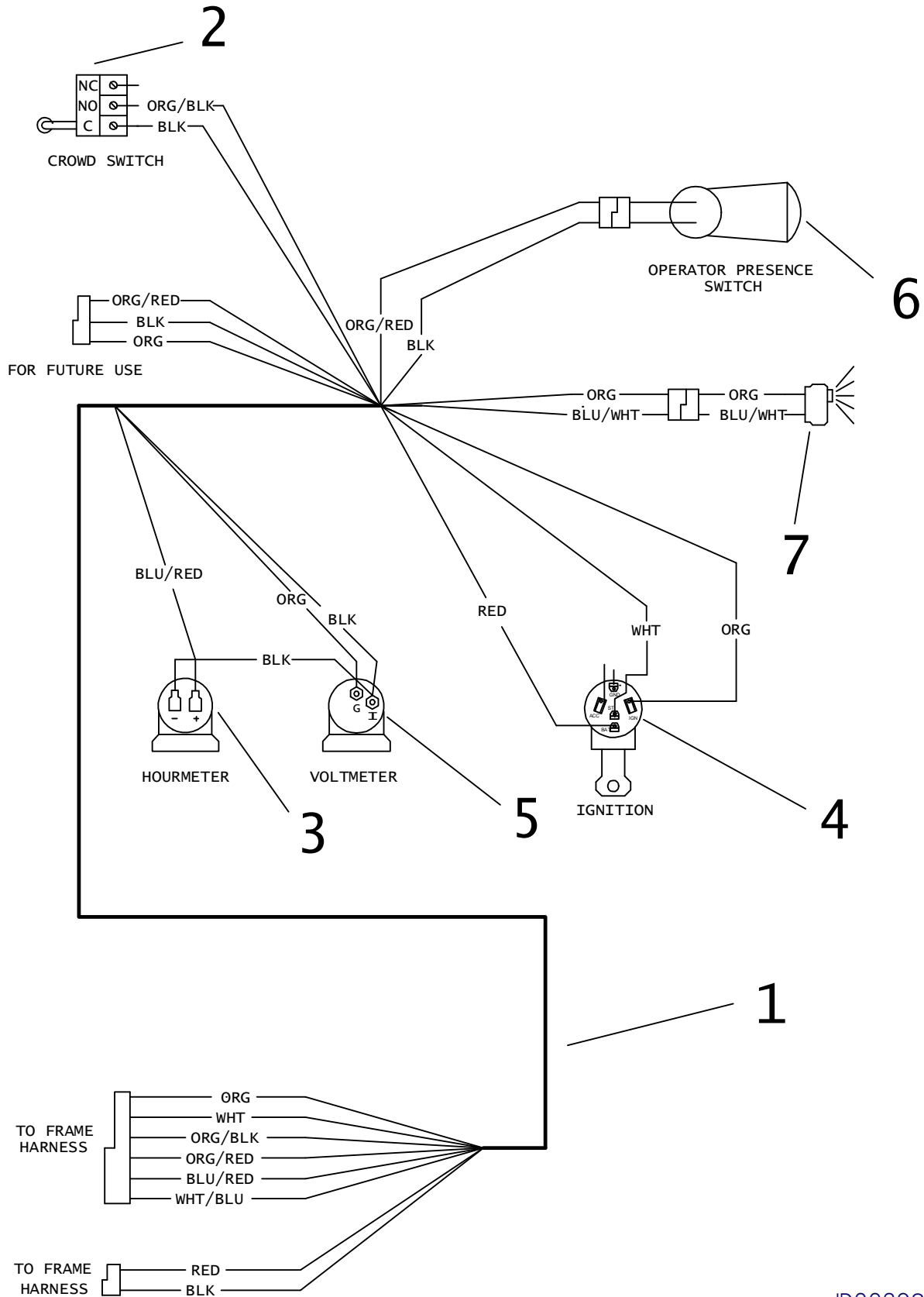
**FOOTNOTES**

1. KIT 599-080 IS REQUIRED

# ELECTRICAL DIAGRAM

1820 CONSOLE

ENDS WITH, KOHLER S/N 1N2814 - HONDA S/N 1N2819



# ELECTRICAL DIAGRAM

## 1820 CONSOLE

ENDS WITH, KOHLER S/N 1N2814 - HONDA S/N 1N2819

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	214-062	1	CONSOLE HARNESS	
2.	215-046	1	PLUNGER SWITCH	
	215-082	1	ACTUATOR BRACKET	
	105-216		BOLT (#6-32X1-1/4", SOC)	
	105-215		NUT (#6-32)	
3.	215-2594	1	HOUR METER	
4.	214-852	1	IGNITION SWITCH	
	214-961		KEY, PAIR	
	214-962		SWITCH MOUNTING NUT	
5.	215-129	1	VOLT METER	
	215-415		NITE-LIGHT KIT (12V DC)	
6.	217-724	1	BUTTON SWITCH (SPST)	
	215-754	1	MC INSULATOR (2-TERMINAL)	
7.	217-071	1	RED PILOT LIGHT	

NOT SHOWN:

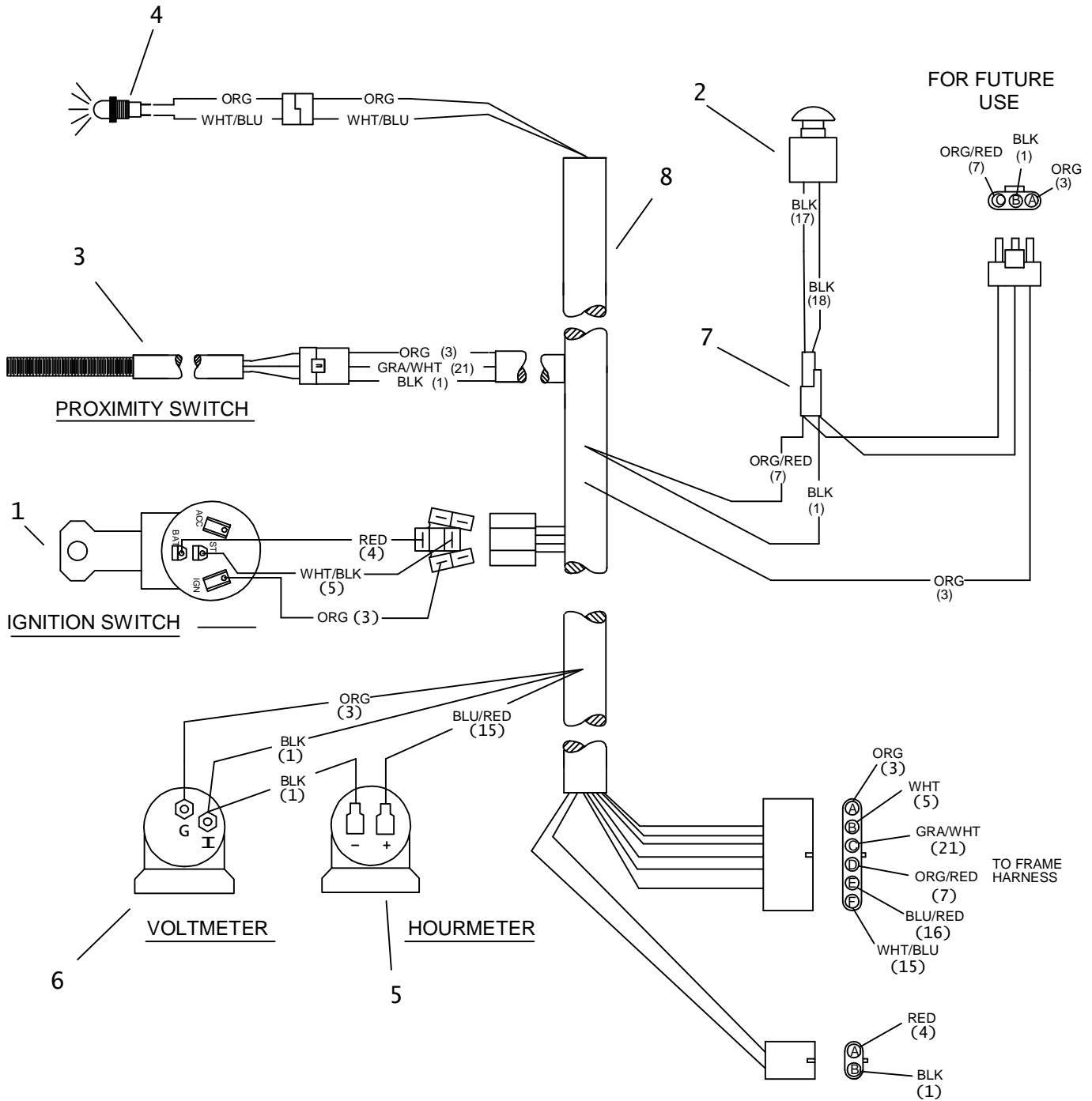
FOOTNOTES:

NOTE:

# ELECTRICAL DIAGRAM

1820 CONSOLE

BEGINS WITH: KOHLER S/N1N2815, HONDA S/N1N2820



# ELECTRICAL DIAGRAM

## 1820 CONSOLE

BEGINS WITH: KOHLER S/N1N2815, HONDA S/N1N2820

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	214-852	1	IGNITION SWITCH	
	214-961		KEY, PAIR	
	214-962		SWITCH MOUNTING NUT	
2.	217-724	1	BUTTON SWITCH (SPST)	
	214-943	1	BUTTON SWITCH (SPST)	OLD STYLE RED TOP. ENDS WITH S/N
	213-115	1	BUTTON SWITCH (SPST)	NEW STYLE W/O RED TOP. BEGINS WITH S/N
3.	217-270	1	PROXIMITY SWITCH HARNESS	SEE FOOTNOTE 2
4.	217-071	1	RED PILOT LIGHT	
	214-563	1	RED LED 12V	FOOTNOTE 1
5.	215-2594	1	HOUR METER	
6.	215-129	1	VOLT METER	
	215-415		NITE-LITE KIT (12V DC)	
7.	215-754	1	MC INSULATOR (2 TERMINAL)	
8.	214-161	1	CONSOLE HARNESS, W/PR SW	

NOT SHOWN:

#### FOOTNOTES:

1. WHEN REPLACING 217-071 ON OLDER UNITS ORDER KIT NO 599-276 214-563 RED LIGHT AND REVISED HARNESS 214-161. BEGINS WITH S/N 1820KE (1V1855), 1820HE (1V1927).

SERVICE BULLEIN: 052-695

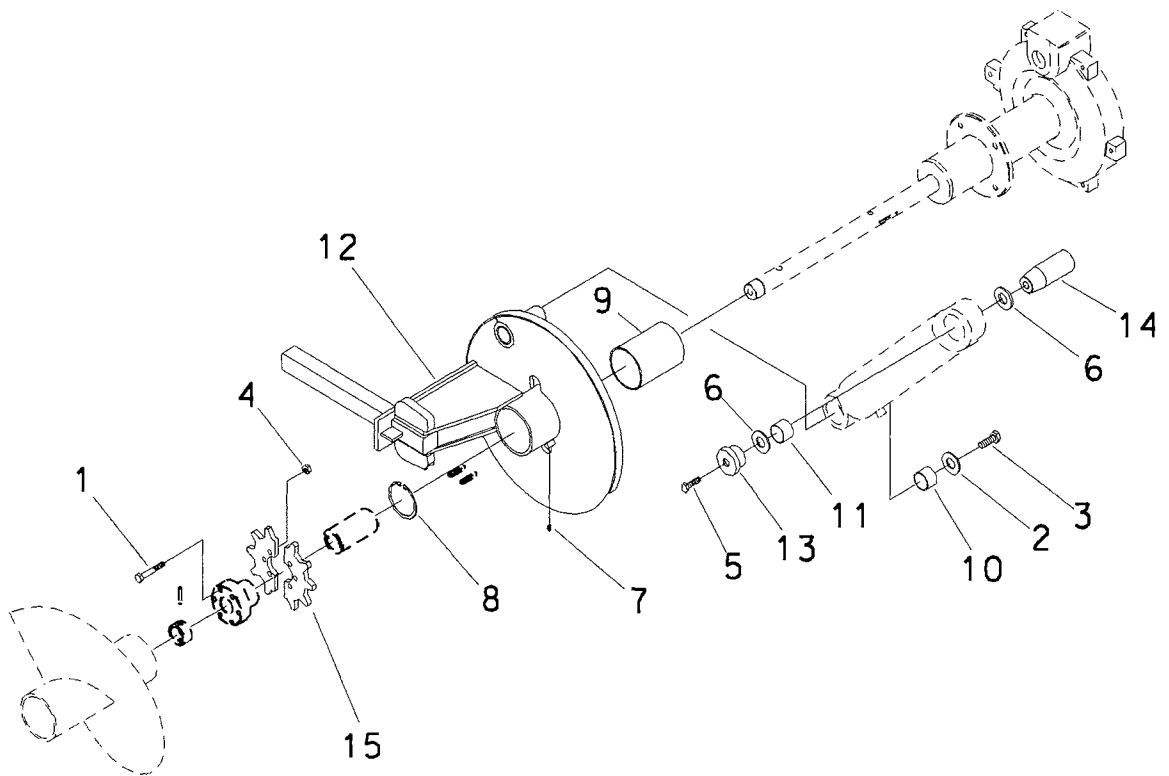
2. BEGINS WITH S/N \_\_\_\_\_.

NOTE:



# **DIGGING COMPONENTS**

## PIVOT

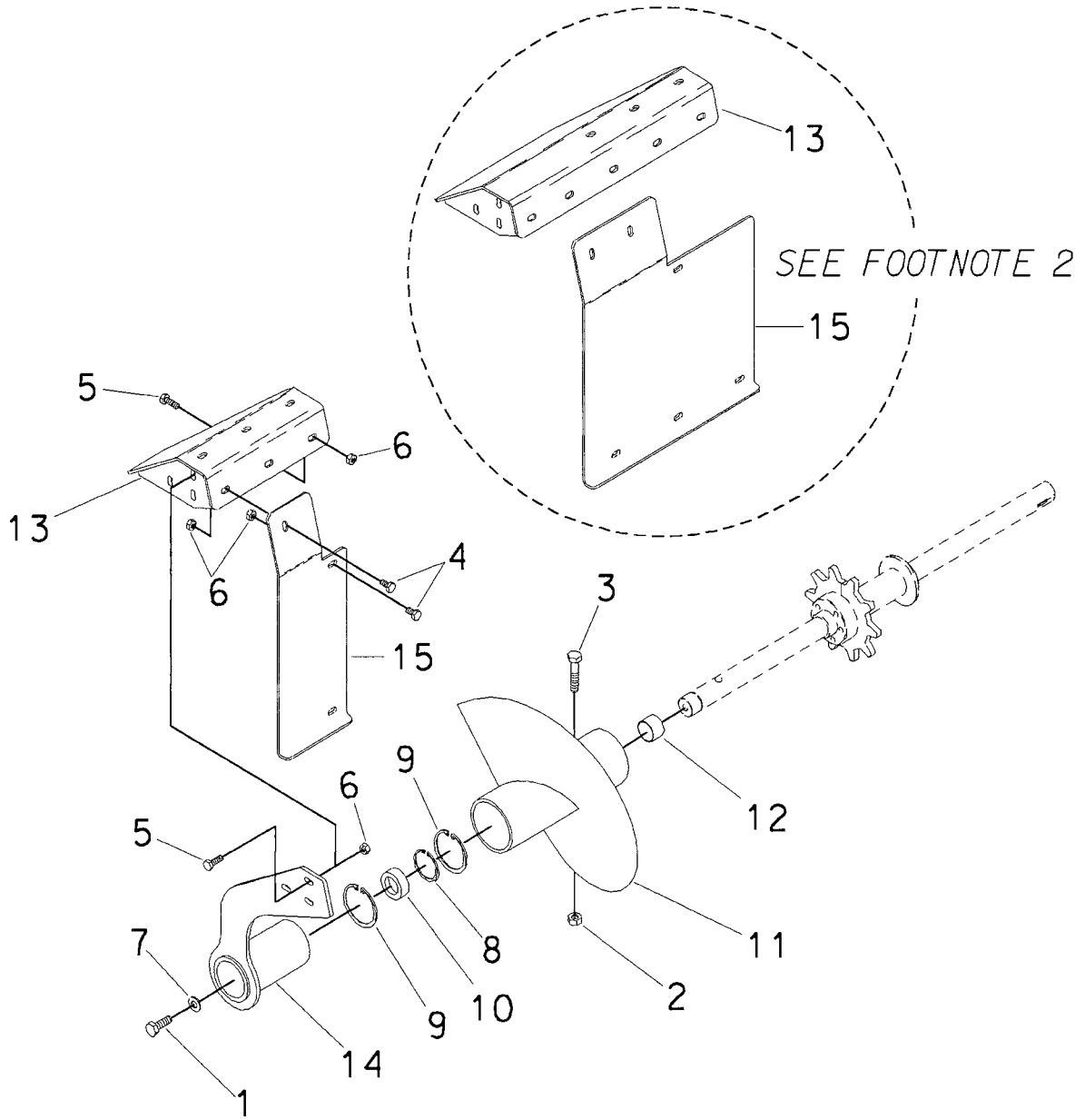


## PIVOT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-183	6	BOLT (3/8-NC X 2-1/2", GD8)	
2.	105-475	1	WASHER (1/2")	
3.	105-831	1	FLANGE BOLT (1/2-NC X 1-1/2)	
4.	105-287	6	LOCKNUT (3/8-NC)	
5.	105-969	1	FLG BOLT (5/8-NC X 1-1/2", GD8)	
6.	110-054	2	MACHINE BUSHING (1-3/4", 14GA)	
7.	115-006	2	ZERK (1/4-NF, 45)	
8.	115-529	1	EXTERNAL SNAP RING (3.543")	
9.	145-982	1	PIVOT SLEEVE	
10.	125-772	1	COMPOSITION BUSHING (1.75")	
11.	125-773	1	COMPOSITION BUSHING (1.75")	
12.	145-819	1	PIVOT (8")	
	145-841	1	PIVOT (8")	
	145-825	1	PIVOT (12")	
	145-829	1	PIVOT (12")	
	145-902	1	PIVOT (16")	
	145-411		STUB (1-9/16" X 16")	
13.	181-975	1	TAPERED INSERT (1.75")	
14.	183-594	1	TAPERED PIN (1.750" X 4.650")	
15.	142-039	1	SPROCKET (1.654"A10, SPLIT)	

## FOOTNOTES

# AUGER AND OUTBOARD BEARING



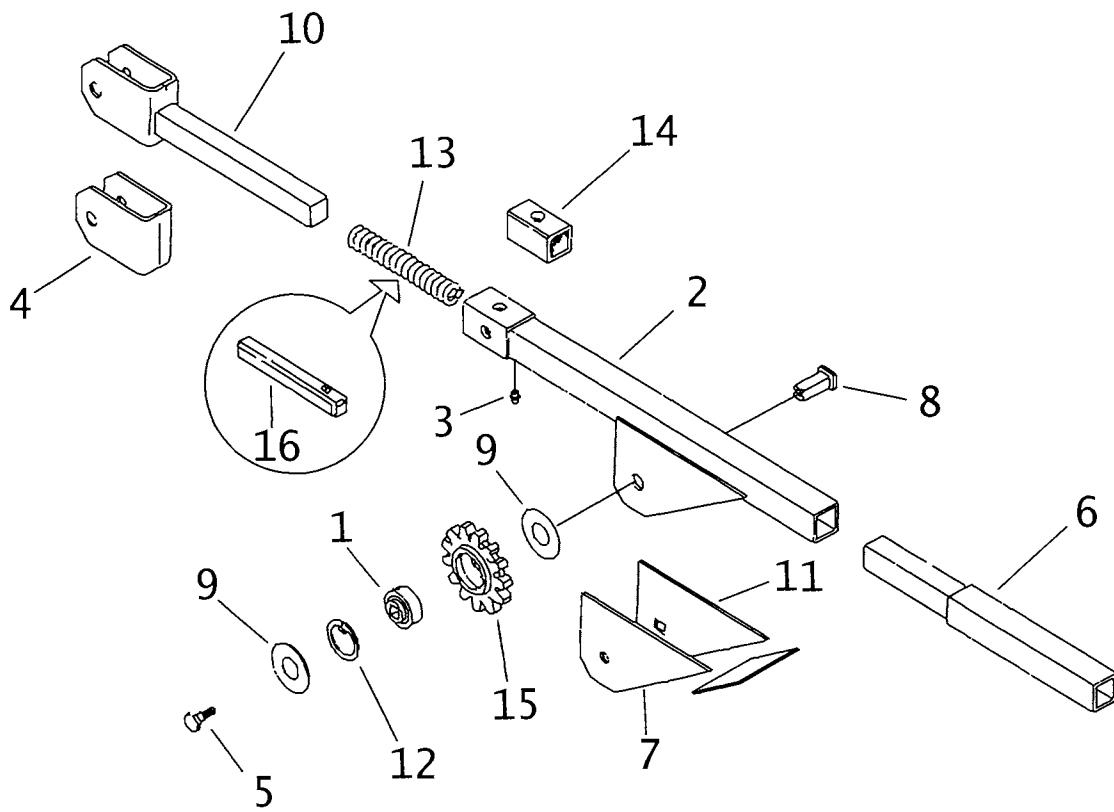
# AUGER AND OUTBOARD BEARING

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-045	1	BOLT (1/2-NC X 1-1/4", NYLOK)	
2.	105-065	1	LOCKNUT (1/2-NC)	
3.	106-197	1	BOLT (1/2-NC X 2-1/2", GD8)	
4.	105-825	2	FLG LOCK BOLT (3/8-NC X 3/4")	USE QTY. OF 4 FOR PIVOT (16")
5.	105-826	5	FLG LOCK BOLT (3/8-NC X 1")	USE QTY. OF 8 FOR PIVOT (16")
6.	105-845	7	FLANGE LOCKNUT (3/8-NC)	
7.	106-006	1	WASHER (.531", HARDENED)	
8.	115-513	1	EXTERNAL SNAP RING (1.375")	
9.	115-514	2	INTERNAL SNAP RING (2.812")	FOOTNOTE 1
10.	125-005	1	BALL BEARING (1.378")	
11.	145-285	1	AUGER	
12.	184-013	1	SPACER	FOR 8" PIVOT
	184-012	1	SPACER	FOR 12" PIVOT
13.	308-528	1	OUTBOARD BEARING SUPPORT	FOR 8" AND 12" PIVOT
	363-402	1	OUTBOARD BEARING SUPPCRT	FOR 16" PIVOT
14.	308-531	1	OUTBOARD ARM ASSEMBLY	
15.	308-552	1	SHIELD EXTENSION (12")	FOOTNOTE 1
	362-795	1	SHIELD EXTENSION (16")	FOOTNOTE 2

**FOOTNOTES**

- EXTRA INTERNAL SNAP RING (REF. NO. 9) AND OTHER INDICATED PARTS (REF. NO. 15) ARE REQUIRED WHEN USING 12" AND 16" PIVOT.
- USE ON 16" PIVOT

## BOOM



# BOOM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	140-060		SPROCKET BOOM (36")	
1.	125-009	1	BALL BEARING (1.000")	INCL. REF. NO.'S 1, 2, 5, 8, 9, 10 AND 12 THRU 15
2.	140-051	1	BOOM (3')	INCL. REF. NO.'S 7 AND 11
	140-027	2	BOOM SLEEVE SOCKET	WELD ON
	143-314		BOOM SLEEVE SOCKET	
3.	115-002	1	ZERK (02N90)	SEE FOOTNOTE 2
4.	140-762	1	SPROCKET SIDE PLATE	WELD ON
5.	105-379	2	LK BOLT (3/4-NC X 1-1/4", NLK)	
6.	140-551	1	BOOM EXTENSION (1')	
7.	140-054	1	IDLER SPROCKET SUPPORT	WELD ON
	326-710	1	REINFORCEMENT BAR	WELD ON & SEE FOOTNOTE 3
8.	180-445	2	IDLER SHAFT (1.125"SQ X1.937")	
9.	140-775	4	WASHER (1.624")	
10.	140-759	1	SLIDE AND STOP	
11.	140-053	1	IDLER SPROCKET SUPPORT	WELD ON
12.	115-464	2	INTERNAL SNAP RING (3.149")	
13.	115-554	1	COMPRESSION SPRING (8")	SEE FOOTNOTE 1
14.	140-028		URETHANE SLEEVE (1.56" X 4.8")	
15.	140-712	2	SPROCKET (1.654"C12)	
	140-653		SPROCKET PARTS ASS'Y (1.654"C12)	INCL. REF. NO.'S 1, 9 AND 12
16.	140-516		URETHANE SPRING (1-3/8" X 7")	SEE FOOTNOTE 1

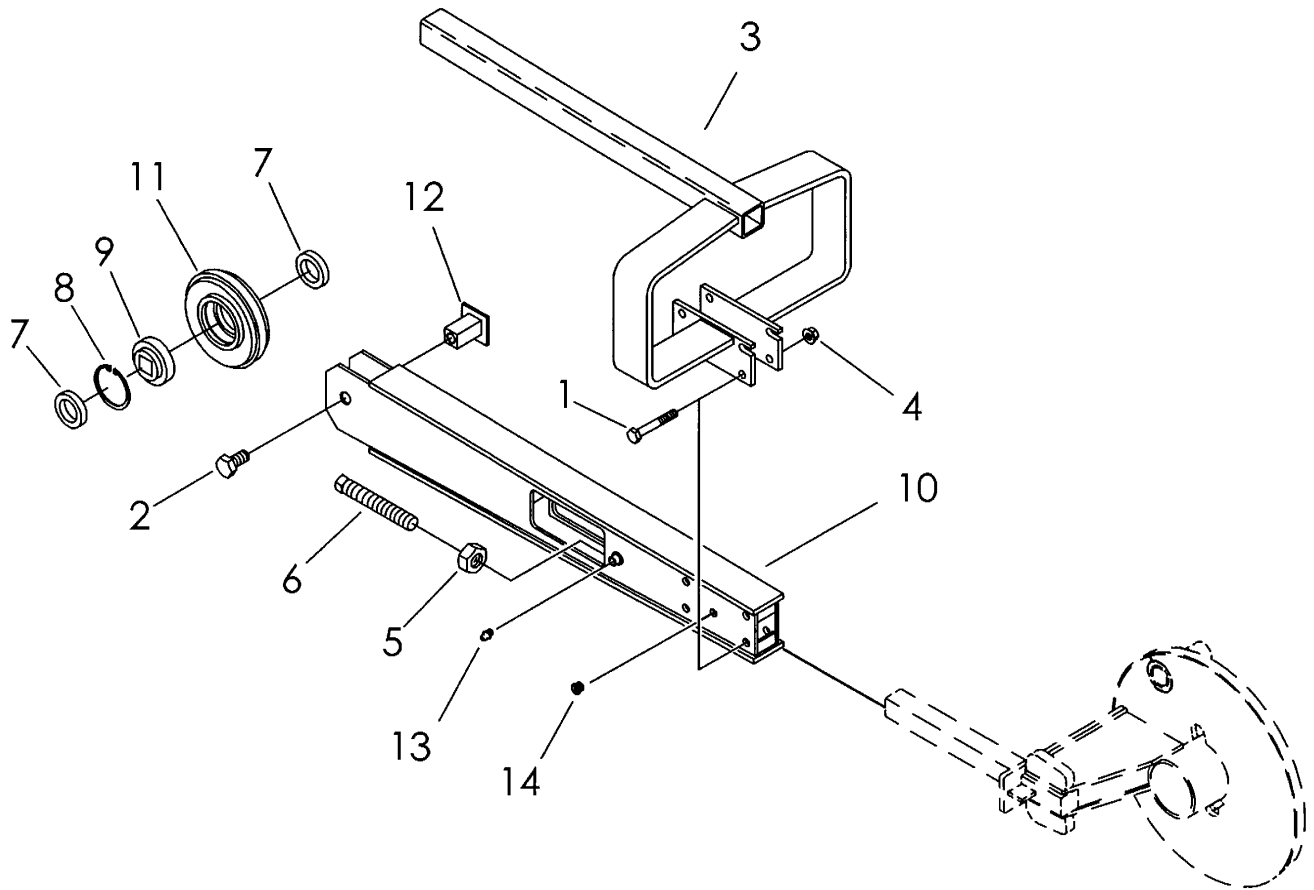
NOT SHOWN:

#### FOOTNOTES:

1. URETHANE SPRING (REF. NO. 16) MAY BE USED TO REPLACE COMPRESSION SPRING (REF. NO. 13).
2. ZERK (REF. NO. 3) IS NOT REQUIRED WHEN USING URETHANE BOOM SLEEVE.
3. USED TO SPACE SQ AND RD HOLE GUSSET (REF. NO.'S 7 AND 11).

NOTE:

# ROLLER BOOM ENDS WITH SN



# ROLLER BOOM ENDS WITH SN

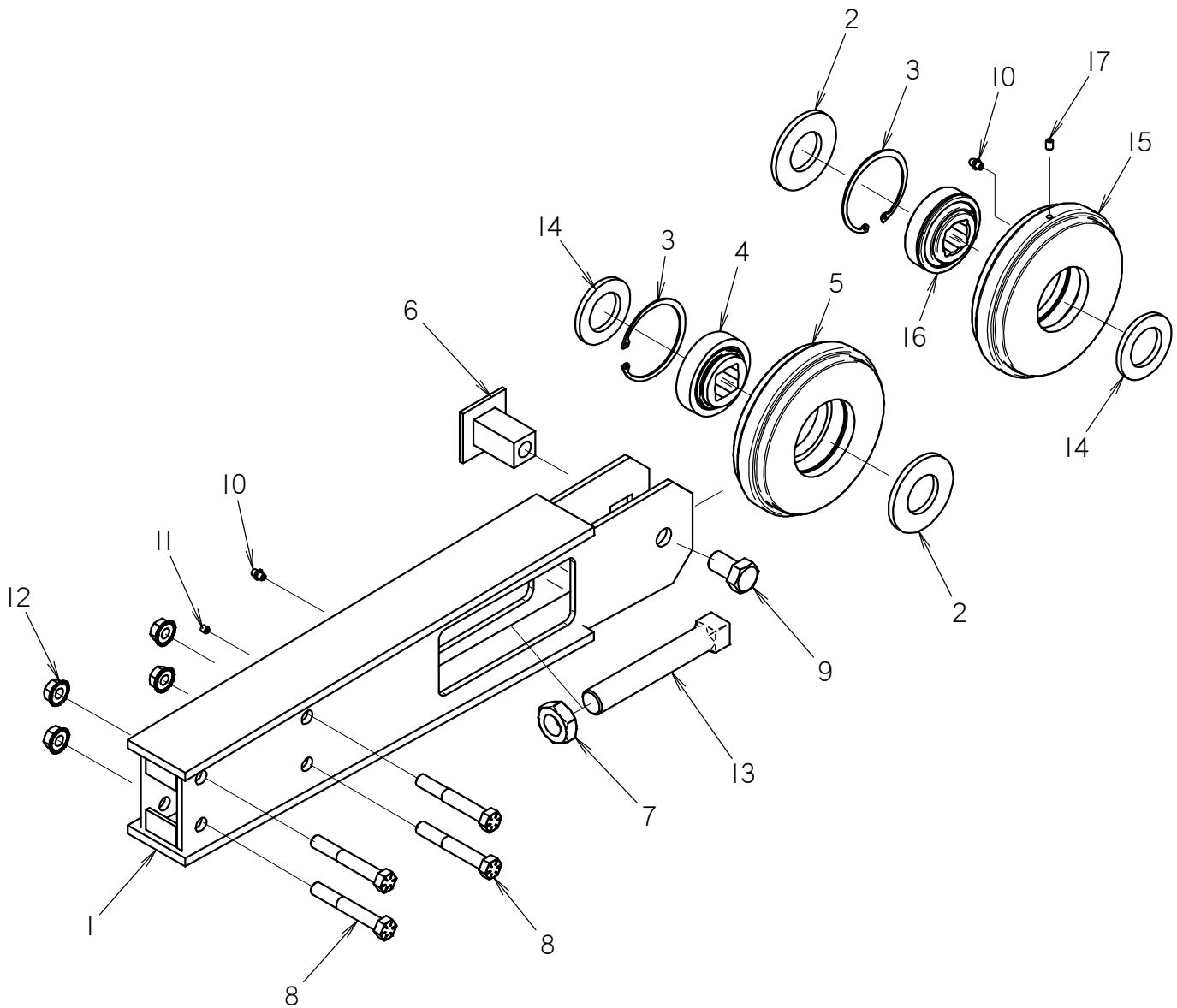
REF PART NO. NUMBER	QTY DESCRIPTION	REMARKS
143-119	ROLLER BOOM (24")	INCL. REF. NO.'S 1, 2, & 4 THRU 12
140-518	ROLLER BOOM (36")	INCL. REF. NO.'S 1, 2, & 4 THRU 12
140-531	ROLLER BOOM (48")	INCL. REF. NO.'S 1, 2, & 4 THRU 12
1. 105-136	4 BOLT (1/2-NC X 3-1/2",GD8)	
2. 105-379	1 LOCK BOLT (3/4-NC X 1-1/4",NLK)	
3. 141-328	1 2' PERSONNEL RESTRAINT BAR-8"	
141-330	1 2' PERSONNEL RESTRAINT BAR-12"	
141-362	1 2' PERSONNEL RESTRAINT BAR-16"	
141-216	1 3' PERSONNEL RESTRAINT BAR-8"	
141-222	1 3' PERSONNEL RESTRAINT BAR-12"	
141-220	1 4' PERSONNEL RESTRAINT BAR-8"	
4. 105-833	4 FLANGE LOCKNUT (1/2-NC)	
5. 106-033	1 JAM NUT (1-NC)	
6. 106-034	1 SET SCREW (1-NC X 6", SQ)	
7. 184-037	2 DIRT SHIELD	
8. 115-464	1 INTERNAL SNAP RING (3.149")	
9. 125-009	1 BALL BEARING (1.25",SQ)	
10. 140-550	1 ROLLER BOOM (24")	
140-519	1 ROLLER BOOM (36")	
140-527	1 LT ROLLER BOOM (48")	
11. 142-754	1 TAIL ROLLER (1.654"C6.8")	INCL. REF. NO.'S 7, 8, 9, & 11
142-755	1 TAIL ROLLER (1.654"C6.8")	
12. 183-567	1 IDLER SHAFT (1.125"SQ X2.150")	
180-445	1 IDLER SHAFT (1.125"SQ X1.937")	
13. 115-003	1 ZERK (1/4-NF, STR)	
115-001	1 ZERK (02N)	EARLY STYLE
14. 115-157	1 PLUG (02N, SOC)	

NOT SHOWN:

FOOTNOTES:

NOTE:

## ROLLER BOOM



# ROLLER BOOM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	301-8280	1	ROLLER BOOM (24")	301-8211 (30"), 301-8215 (36"), 301-8202 (42"), 301-8238 (42") - F/N 2
2	105-1126	2	DIRT SHIELD	EACH ROLLER ASSEMBLY REQUIRES ONE 105-1126 - SEE F/N 1 & 3
3	115-464	2	INTERNAL SNAP RING (3.149")	EACH ROLLER ASSEMBLY REQUIRES ONE 115-464 - SEE F/N 1 & 3
4	125-009	1	BALL BEARING (W/051-345 INSTR)	SEE FOOTNOTE 1
5	142-755	1	TAIL ROLLER (1.654"C6.8")	SEE FOOTNOTE 1
6	180-445	1	IDLER SHAFT (1.125"SQ X1.937")	
7	106-033	1	JAM NUT (1-NC)	
8	105-136	4	BOLT (1/2-NC X 3-1/2", GD8)	
9	105-379	1	LK BOLT (3/4-NC X 1-1/4", NLK)	
10	115-003	2	ZERK (1/4-NF, STR)	SEE FOOTNOTE 1 FOR QTY= 1
11	105-668	1	SET SCREW (1/4-NF X 1/4", CUP)	
12	105-833	4	FLG LOCKNUT (1/2-NC)	
13	106-034	1	SET SCREW (1-NC X 6", SQ)	
14	105-1125	2	DIRT SHIELD	EACH ROLLER ASSEMBLY REQUIRES ONE 105-1125 - SEE F/N 1 & 3
15	140-1102	1	TAIL ROLLER - RELUBRICABLE	SEE FOOTNOTE 3
16	125-1022	1	BALL BEARING RELUBRICABLE (1.125", SQ)	SEE FOOTNOTE 3
17	105-707	1	SET SCREW (1/4-NF X 3/8", CUP)	SEE FOOTNOTE 3

## NOT SHOWN:

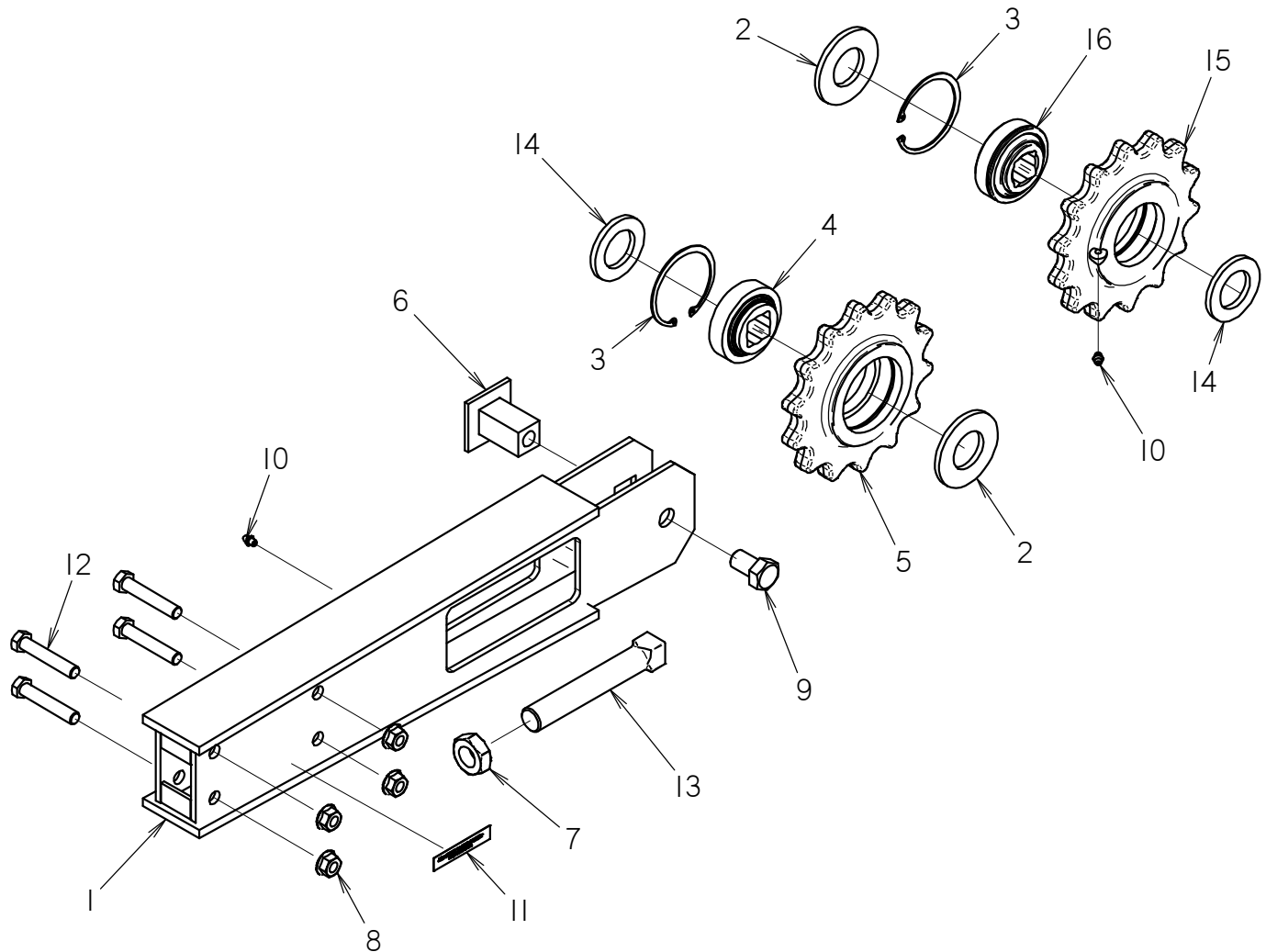
141-792	ROLLER BOOM ASSEMBLY (24") W/STD. ROLLER 142-754	SEE FOOTNOTE 1 & 2
141-793	ROLLER BOOM ASSEMBLY (30") W/STD. ROLLER 142-754	SEE FOOTNOTE 1 & 2
141-791	ROLLER BOOM ASSEMBLY (36") W/STD. ROLLER 142-754	SEE FOOTNOTE 1 & 2
140-1240	ROLLER BOOM ASSEMBLY (42") W/STD. ROLLER 142-754	SEE FOOTNOTE 1 & 2
140-531	ROLLER BOOM ASSEMBLY (48") W/STD. ROLLER 142-754	SEE FOOTNOTE 1 & 2
140-1112	ROLLER BOOM ASSEMBLY (24") W/RELUBRICABLE ROLLER 140-1104	SEE FOOTNOTE 2 & 3
140-1113	ROLLER BOOM ASSEMBLY (30") W/RELUBRICABLE ROLLER 140-1104	SEE FOOTNOTE 2 & 3
140-1111	ROLLER BOOM ASSEMBLY (36") W/RELUBRICABLE ROLLER 140-1104	SEE FOOTNOTE 2 & 3
140-1285	ROLLER BOOM ASSEMBLY (42") W/RELUBRICABLE ROLLER 140-1104	SEE FOOTNOTE 2 & 3
140-1106	ROLLER BOOM ASSEMBLY (48") W/RELUBRICABLE ROLLER 140-1104	SEE FOOTNOTE 2 & 3

## FOOTNOTES:

- 142-754 TAIL ROLLER ASSEMBLY, INCL. REF #'S 2-5, 14
- 141-792 ROLLER BOOM ASSEMBLY (24"), INCL. REF #'S 1-14  
141-793 ROLLER BOOM ASSEMBLY (30"), INCL. REF #'S 1-14  
141-791 ROLLER BOOM ASSEMBLY (36"), INCL. REF #'S 1-14  
140-1240 ROLLER BOOM ASSEMBLY (42"), INCL. REF #'S 1-14  
140-531 ROLLER BOOM ASSEMBLY (48"), INCL. REF #'S 1-14  
140-1112 ROLLER BOOM ASSEMBLY (24"), INCL. REF #'S 1-3 & 6-17  
140-1113 ROLLER BOOM ASSEMBLY (30"), INCL. REF #'S 1-3 & 6-17  
140-1111 ROLLER BOOM ASSEMBLY (36"), INCL. REF #'S 1-3 & 6-17  
140-1285 ROLLER BOOM ASSEMBLY (42"), INCL. REF #'S 1-3 & 6-17  
140-1106 ROLLER BOOM ASSEMBLY (48"), INCL. REF #'S 1-3 & 6-17
- 140-1104 TAIL ROLLER ASSEMBLY-RELUBRICABLE INCL.'S REF #'S: 2, 3, 10 & 14 THRU 17.

## NOTE:

## LOW PROFILE SPROCKET BOOM



# LOW PROFILE SPROCKET BOOM

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	301-8280	1	ROLLER BOOM (24")	301-8211 (30") 301-8215 (36") 301-8202 (42") 301-8238 (48") - F/N 2
2	105-1126	2	DIRT SHIELD	EACH ROLLER ASSY REQUIRES ONE 105-1126 - SEE F/N 1 & 3
3	115-464	2	INTERNAL SNAP RING (3.149")	EACH ROLLER ASSY REQUIRES ONE 115-464 - SEE F/N 1 & 3
4	125-009	1	BALL BEARING (W/051-345 INSTR)	SEE FOOTNOTE 1
5	140-1298	1	LOW PROFILE SPROCKET, SEALED	SEE FOOTNOTE 1
6	180-445	1	IDLER SHAFT (1.125"SQ X1.937")	
7	106-033	1	JAM NUT (1-NC)	
8	105-833	4	FLG LOCKNUT (1/2-NC)	
9	105-379	1	LK BOLT (3/4-NC X 1-1/4", NLK)	
10	115-003	2	ZERK (1/4-NF, STR)	SEE FOOTNOTE 1, QTY = 1 PER ROLLER AND 1 PER BOOM
11	275-043	1	CHAIN TENSION	
12	105-067	4	BOLT (1/2-NC X 2-3/4")	
13	106-034	1	SET SCREW (1-NC X 6", SQ)	
14	105-1125	2	DIRT SHIELD	EACH ROLLER ASSY REQUIRES ONE 105-1125 - SEE F/N 1 & 3
15	140-1299	1	LOW PROFILE SPROCKET, GREASABLE	SEE FOOTNOTE 3
16	125-1022	1	BALL BEARING RELUBRICABLE (1.125", SQ)	SEE FOOTNOTE 3

## NOT SHOWN:

140-1302	LOW PROFILE SPROCKET BOOM, SEALED (24")	SEE FOOTNOTE 1 & 2
140-1287	LOW PROFILE SPROCKET BOOM, SEALED (30")	SEE FOOTNOTE 1 & 2
140-1288	LOW PROFILE SPROCKET BOOM, SEALED (36")	SEE FOOTNOTE 1 & 2
140-1304	LOW PROFILE SPROCKET BOOM, SEALED (42")	SEE FOOTNOTE 1 & 2
140-1306	LOW PROFILE SPROCKET BOOM, SEALED (48")	SEE FOOTNOTE 1 & 2
140-1303	LOW PROFILE SPRKT BOOM,GREASABLE (24")	SEE FOOTNOTE 2 & 3
140-1292	LOW PROFILE SPRKT BOOM,GREASABLE (30")	SEE FOOTNOTE 2 & 3
140-1293	LOW PROFILE SPRKT BOOM,GREASABLE (36")	SEE FOOTNOTE 2 & 3
140-1305	LOW PROFILE SPRKT BOOM,GREASABLE (42")	SEE FOOTNOTE 2 & 3
140-1307	LOW PROFILE SPRKT BOOM,GREASABLE (48")	SEE FOOTNOTE 2 & 3

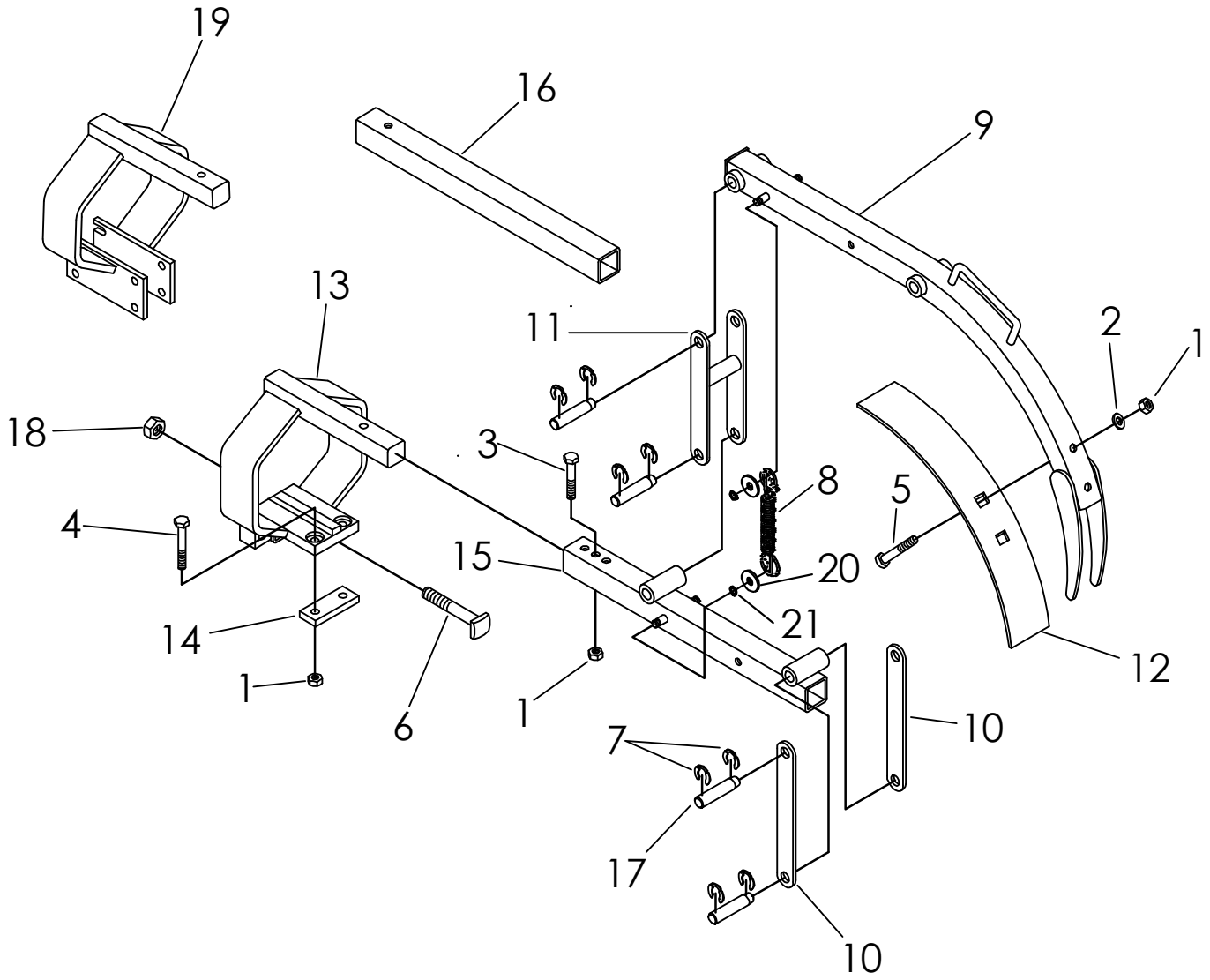
## FOOTNOTES:

- 1- 140-1289 LOW PROFILE SPROCKET ASSY, SEALED, INCL REF #'S 2-5 AND 14  
 2- 140-1302 LOW PROFILE SPROCKET BOOM, SEALED (24"), INCL REF #'S 1-14  
   140-1287 LOW PROFILE SPROCKET BOOM, SEALED (30"), INCL REF #'S 1-14  
   140-1288 LOW PROFILE SPROCKET BOOM, SEALED (36"), INCL REF #'S 1-14  
   140-1304 LOW PROFILE SPROCKET BOOM, SEALED (42"), INCL REF #'S 1-14  
   140-1306 LOW PROFILE SPROCKET BOOM, SEALED (48"), INCL REF #'S 1-14  
   140-1303 LOW PROFILE SPROCKET BOOM, GREASABLE (24"), INCL REF #'S 1-3,6-16  
   140-1292 LOW PROFILE SPROCKET BOOM, GREASABLE (30"), INCL REF #'S 1-3,6-16  
   140-1293 LOW PROFILE SPROCKET BOOM, GREASABLE (36"), INCL REF #'S 1-3,6-16  
   140-1305 LOW PROFILE SPROCKET BOOM, GREASABLE (42"), INCL REF #'S 1-3,6-16  
   140-1307 LOW PROFILE SPROCKET BOOM, GREASABLE (48"), INCL REF #'S 1-3,6-16  
 3- 140-1290 LOW PROFILE SPROCKET ASSY, GREASABLE, INCL REF #'S 2,3,10,14-16

## NOTE:

# TRENCH CLEANER

3', 4' & 5'



# TRENCH CLEANER

## 3', 4', & 5'

REF PART NO.	NUMBER	QTY	DESCRIPTION	REMARKS
	100-151		MECHANICAL CLEANER CONVERSION KIT	INCL. REF. NO.'S 1,2,5,7 THRU 11 AND 17. SEE F/T 1
1.	105-065	5	LOCKNUT (1/2-NC)	
2.	105-071	2	WASHER (1/2")	
3.	105-076	1	BOLT (1/2-NC X 3")	
4.	105-136	2	BOLT (1/2-NC X 3-1/2", GD8)	
5.	105-279	2	CARRIAGE BOLT (1/2-NC X 3")	
6.	105-352	2	SET SCREW (3/4-NC X 5", SQ)	
7.	115-503	8	KLIP RING (.750")	
8.	115-1018	2	EXTENSION SPRING	SEE FOOTNOTES 4 & 5
9.	141-101	1	SHOE BEAM (STD)	SEE FOOTNOTE 5
10.	141-109	2	REAR LINK	
11.	141-132	1	FRONT LINK	
12.	141-215	1	CLEANER SHOE (4")	
	141-134	1	CLEANER SHOE (6")	
	141-135	1	CLEANER SHOE (8")	
	141-136	1	CLEANER SHOE (10")	
	141-137	1	CLEANER SHOE (12")	
	141-138	1	CLEANER SHOE (14")	
	141-139	1	CLEANER SHOE (16")	
13.	141-141	1	CLEANER/RESTRNT SUPPORT (8")	SEE FOOTNOTE 2
	141-142	1	CLEANER/RESTRNT SUPPORT (12")	SEE FOOTNOTE 2
14.	141-148	1	CLAMP	
15.	141-149	1	LOWER CLEANER BAR (36")	SEE FOOTNOTE 5
	141-150	1	LOWER CLEANER BAR (48")	SEE FOOTNOTE 5
	141-151	1	LOWER CLEANER BAR (60")	SEE FOOTNOTE 5
16.	141-155	1	RESTRAINT BAR (36")	INCLUDES DECALS
	141-156	1	RESTRAINT BAR (48")	
	141-157	1	RESTRAINT BAR (60")	
17.	183-179	4	PIN	
18.	105-310	2	JAM NUT (3/4-NC)	
19.	141-250	1	CLEANER/RESTRNT SUPPORT (8")	SEE FOOTNOTE 3
	141-251	1	CLEANER/RESTRNT SUPPORT (12")	SEE FOOTNOTE 3
20.	105-884	2	WASHER (.531")	SEE FOOTNOTE 5
21.	115-0005	2	EXTERNAL SNAP RING (0.500")	SEE FOOTNOTE 5

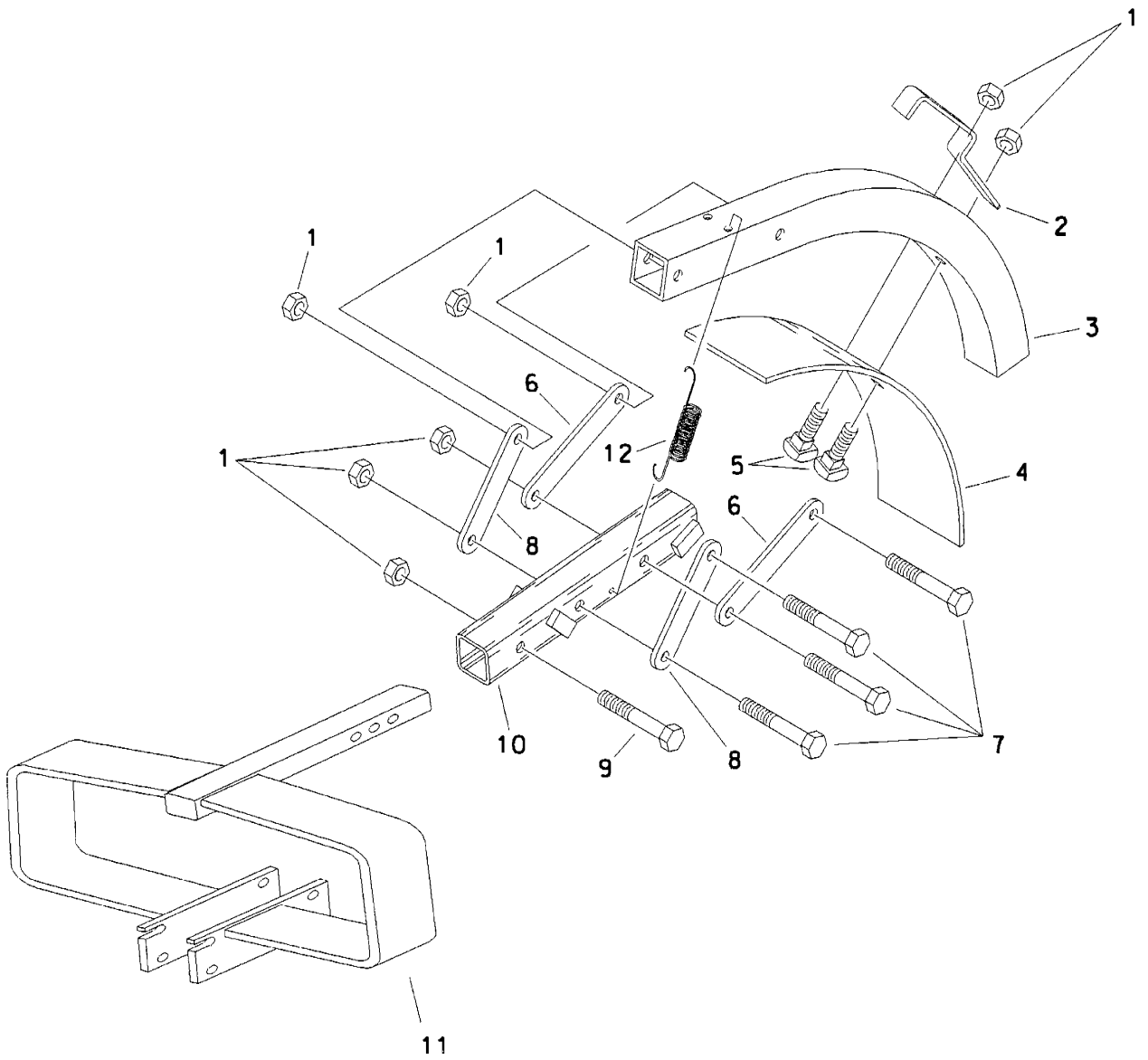
NOT SHOWN:

#### FOOTNOTES:

- REFER TO INSTALLATION DIAGRAM 050-926.
- THIS CLEANER SUPPORT (REF. NO. 13) IS USED WITH STANDARD BOOMS, NOT ROLLER BOOMS.
- THIS CLEANER SUPPORT (REF. NO. 19) IS USED WITH ROLLER BOOMS, NOT STANDARD BOOMS.
- INSTALL SPRING 115-1018 SO THAT OPEN ENDS OF THE COILS ARE FACING IN TOWARDS THE CLEANER BAR AND SHOE BEAM.
- IF REPLACING SPRING 117-008 WITH SPRING 115-1018 ALSO REPLACE CLEANER BAR AND SHOE BEAM, AND USE TRENCH CLEANER SPRING KIT 190-2669.

NOTE:

# TRENCH CLEANER-OPTIONAL



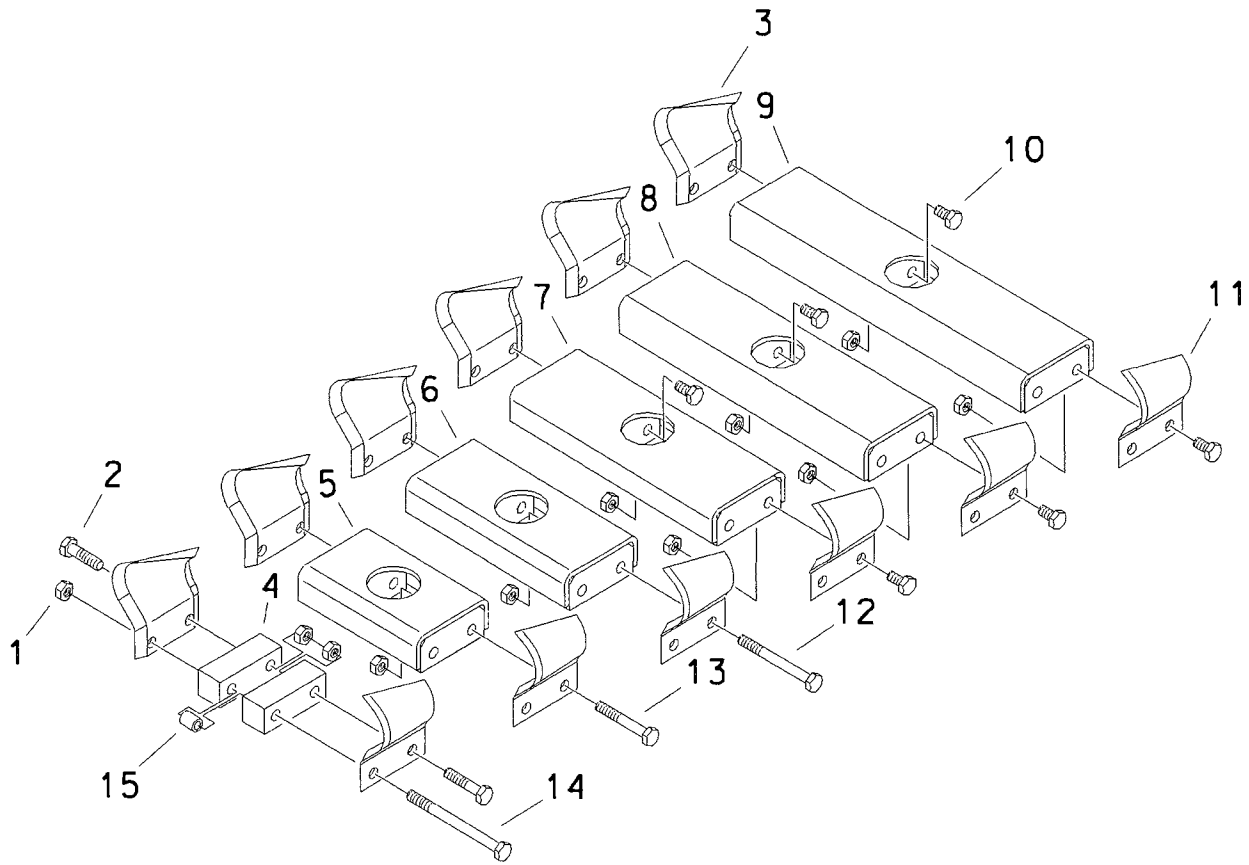
# TRENCH CLEANER-OPTIONAL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	100-180		MECHANICAL CLEANER CONVERSION KIT	INCL REF NO'S 1-3, 5-9, & 12
1.	105-065	7	LOCKNUT (1/2-NC)	
2.	320-425	1	GRAB HANDLE	
3.	141-287	1	SHOE BEAM	
4.	141-290	1	CLEANER SHOE (4")	
	141-134	1	CLEANER SHOE (6")	
	141-135	1	CLEANER SHOE (8")	
	141-136	1	CLEANER SHOE (10")	
	141-137	1	CLEANER SHOE (12")	
	141-138	1	CLEANER SHOE (14")	
	141-139	1	CLEANER SHOE (16")	
5.	105-279	2	CARRIAGE BOLT (1/2-NC X 3")	
6.	141-289	2	REAR LINK	
7.	105-136	4	BOLT (1/2-NC X 3-1/2", GD8)	
8.	141-288	2	FRONT LINK	
9.	105-076	1	BOLT (1/2-NC X 3")	
10.	141-284	1	CLEANER BAR (24")	SEE FOOTNOTE 1
11.	141-363	1	CLEANER/RESTRNT SUPPORT SUPPORT (16")	SEE FOOTNOTE 1
12.	115-809	2	EXTENSION SPRING (5.000")	

**FOOTNOTES**

- REF NO'S 10 & 11 ARE NOT PART OF 100-180 TRENCH CLEANER KIT.

# DIG CHAIN ADAPTERS (33K) 6-16

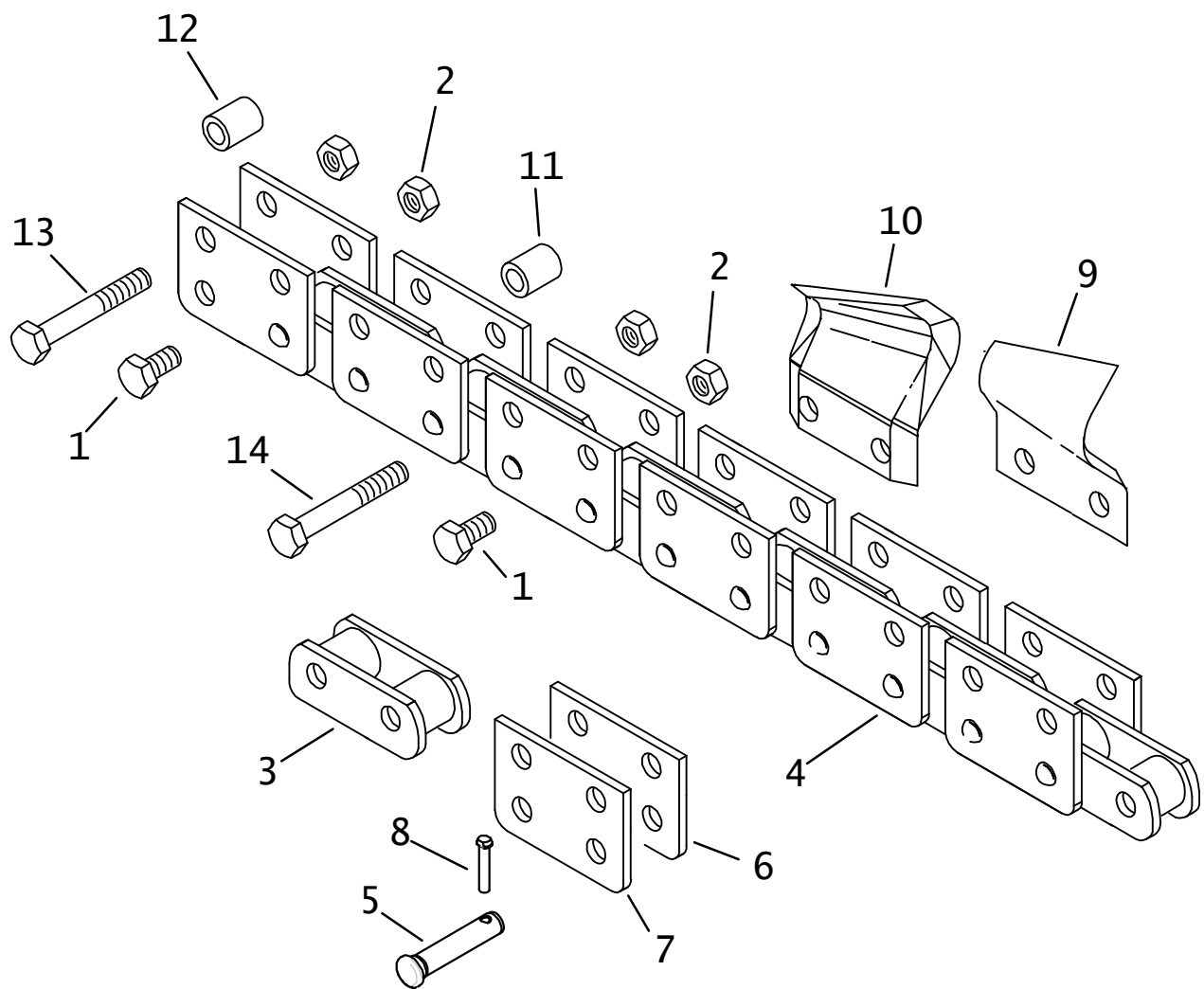


# DIG CHAIN ADAPTERS (33K) 6-16

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-047	AR	LOCKNUT (3/8-NC)	
2.	105-075	AR	BOLT (3/8-NC X 2")	
3.	136-024	AR	LEFT DIGGING TOOTH	
4.	136-029	AR	TOOTH SPACER (1")	FOR 6" WIDTHS
5.	136-047	AR	TOOTH ADAPTER (8" X 1.654"P)	FOR 8" WIDTHS
6.	136-048	AR	TOOTH ADAPTER (10" X 1.654"P)	FOR 10" WIDTHS
7.	136-049	AR	TOOTH ADAPTER (12" X 1.654"P)	FOR 12" WIDTHS
8.	136-050	AR	TOOTH ADAPTER (14" X 1.654"P)	FOR 14" WIDTHS
9.	136-051	AR	TOOTH ADAPTER (16" X 1.654"P)	FOR 16" WIDTHS
10.	105-099	AR	BOLT (3/8-NC X 7/8")	
11.	136-025	AR	RIGHT DIGGING TOOTH	
12.	105-258	AR	BOLT (3/8-NC X 3-3/4")	
13.	500-003	AR	BOLT (3/8-NC X 2-3/4")	
14.	106-108	AR	BOLT (3/8-NC X 4-3/4")	
15.	181-650	AR	SPACER (1.395")	

FOOTNOTES

## DIG CHAIN 1.654P33K2PS



## DIG CHAIN 1.654P33K2PS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-099	AR	BOLT (3/8-NC X 7/8")	SEE FOOTNOTE 1
2.	105-047	AR	LOCKNUT (3/8-NC)	
3.	137-003	AR	ROLLER LINK (33K)	
4.	137-014	AR	33K 2P DIG CHAIN 16P (2' 3")	
	137-015	AR	33K 2P DIG CHAIN 52P (7' 4")	
	137-016	AR	33K 2P DIG CHAIN 62P (8' 9")	
	137-018	AR	33K 2P DIG CHAIN 92P (12' 11")	
5.	135-002	AR	DIG CHAIN PIN (33K)	USED ON OLD STYLE CHAINS WITH "D" SHAPED HOLE ON ONE SIDE.
	135-1027	AR	33K MASTER PIN	USE WITH NEW STYLE CHAINS HAVING ROUND HOLES ON BOTH SIDES.
6.	137-005	AR	TOOTH SIDEBAR - KEY (33K)	
7.	137-006	AR	TOOTH SIDEBAR - HEAD (33K)	
8.	135-007	AR	LOCK KEY	
9.	136-024	AR	LEFT DIGGING TOOTH	
	135-1230	AR	DURATOOTH, LEFT 3/16" 33/35K	
10.	136-025	AR	RIGHT DIGGING TOOTH	
	135-1231	AR	DURATOOTH, RIGHT 3/16" 33/35K	
11.	181-650	AR	SPACER (1.395")	SEE FOOTNOTE 4
12.	181-651	AR	SPACER (1.235")	SEE FOOTNOTE 4
13.	105-162	AR	BOLT (3/8-NC X 2-1/4")	SEE FOOTNOTE 2
14.	105-183	AR	BOLT (3/8-NC X 2-1/2", GD8)	SEE FOOTNOTE 3

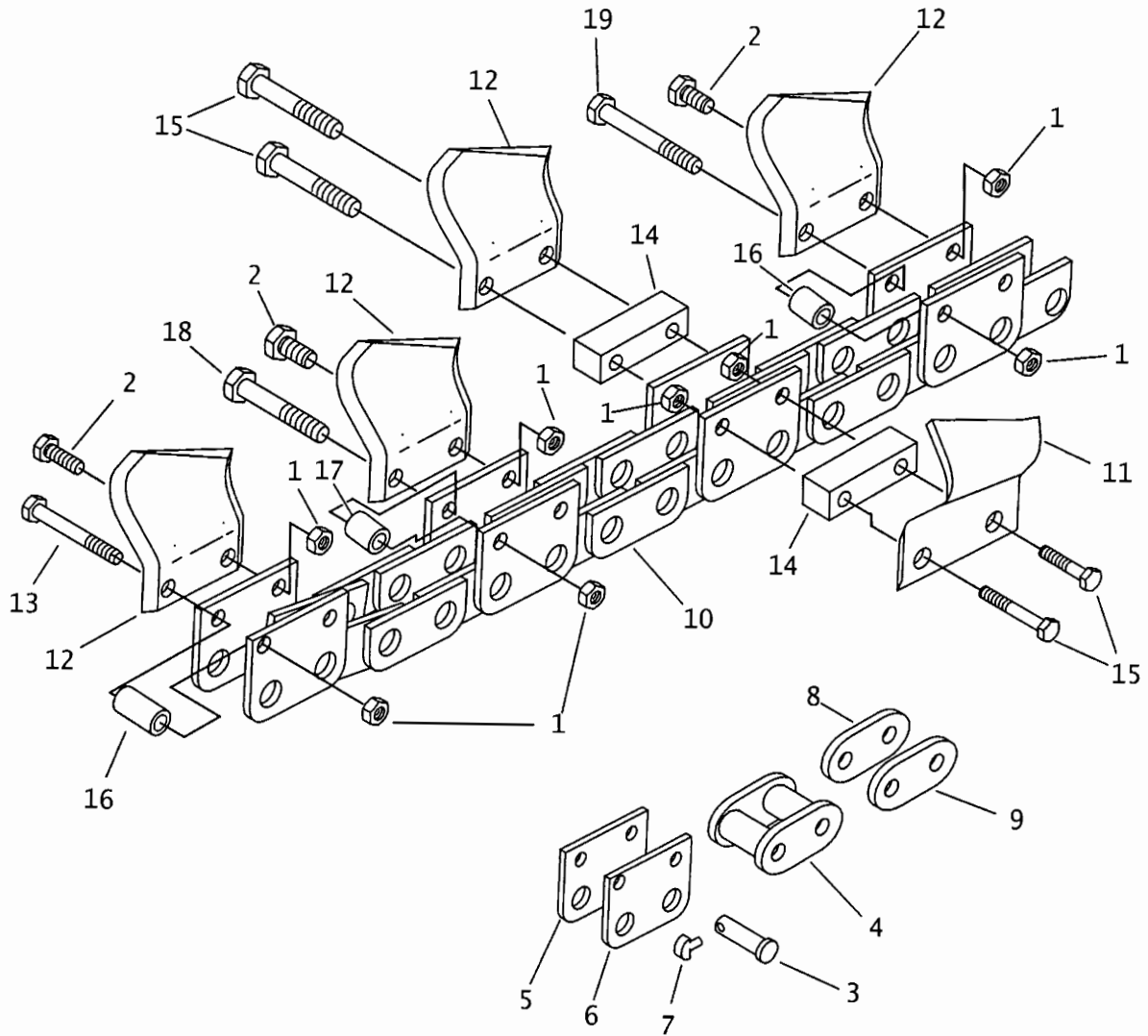
### NOT SHOWN:

133-029	33K 4P	DURA 52P	3.6
133-030	33K 4P	DURA 52P	4.4
133-031	33K 4P	DURA 52P	6.4
133-033	33K 4P	DURA 52P	10.0
131-295	33K 4P	DURA 60P	12.0
133-080	33K 4P	DURA 62P	3.6
133-081	33K 4P	DURA 62P	4.4
133-082	33K 4P	DURA 62P	6.4
133-043	33K 4P	DURA 68P	10.0
133-044	33K 4P	DURA 68P	12.0
133-045	33K 4P	DURA 68P	14.0
133-039	33K 4P	DURA 68P	3.6
133-040	33K 4P	DURA 68P	4.4
133-041	33K 4P	DURA 68P	6.4
133-042	33K 4P	DURA 68P	8.0
131-298	33K 4P	DURA 74P	8.0
133-054	33K 4P	DURA 84P	12.0
133-049	33K 4P	DURA 84P	3.6
133-050	33K 4P	DURA 84P	4.3
133-051	33K 4P	DURA 84P	6.4
133-052	33K 4P	DURA 84P	8.0
131-299	33K 4P	DURA 90P	6.0
133-060	33K 4P	DURA 100P	4.3

### FOOTNOTES:

1. USED WITH NO CHAIN SPACER (SEE FOOTNOTE 2)
2. USED WITH ONE INSIDE TOOTH.
3. USED WITH ONE OUTSIDE TOOTH.
4. CHAIN SPACERS (REF NO'S 11 & 12) ARE USED ON LEAD BOLTS.

# DIG CHAIN 1.654P33K4PS



## DIG CHAIN 1.654P33K4PS

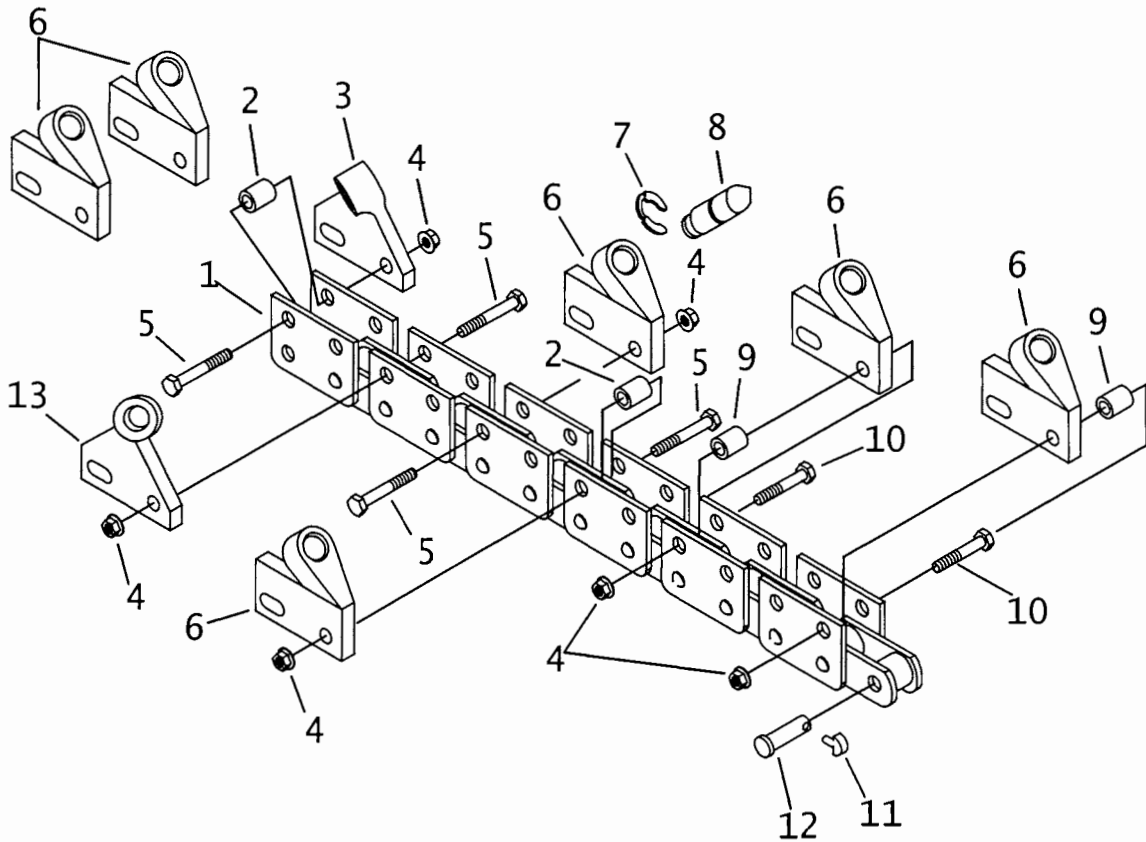
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-047	AR	LOCKNUT (3/8-NC)	
2.	105-099	AR	BOLT (3/8-NC X 7/8")	SEE FOOTNOTE 3
3.	135-001	AR	DIG CHAIN PIN (28K)	
4.	137-003	AR	ROLLER LINK (33K)	
5.	137-005	AR	TOOTH SIDEBAR - KEY (33K)	
6.	137-006	AR	TOOTH SIDEBAR - HEAD (33K)	
7.	135-007	AR	LOCK KEY	
8.	137-008	AR	PLAIN SIDEBAR - KEY (33K)	
9.	137-009	AR	PLAIN SIDEBAR - HEAD (33K)	
10.	137-010	AR	33K 4P DIG CHAIN 16P (2' 3")	
	137-011	AR	33K 4P DIG CHAIN 52P (7' 4")	
	137-017	AR	33K 4P DIG CHAIN 62P (8' 9")	
11.	136-025	AR	RIGHT DIGGING TOOTH	
12.	136-024	AR	LEFT DIGGING TOOTH	
13.	105-098	AR	BOLT (3/8-NC X 3")	SEE FOOTNOTE 1
14.	136-029	AR	TOOTH SPACER (1")	FOR 6" WIDTHS
15.	105-075	AR	BOLT (3/8-NC X 2")	
16.	181-650	AR	SPACER (1.395")	SEE FOOTNOTE 2
17.	181-651	AR	SPACER (1.235")	SEE FOOTNOTE 2
18.	105-162	AR	BOLT (3/8-NC X 2-1/4")	SEE FOOTNOTE 4
19.	105-183	AR	BOLT (3/8-NC X 2-1/2", GD8)	SEE FOOTNOTE 4

### FOOTNOTES

1. USED WITH ONE INSIDE TOOTH AND CHAIN SPACER.
2. CHAIN SPACERS (REF NOS 16 AND 17) ARE USED ON LEAD BOLTS.
3. USED WITH NO CHAIN SPACER (SEE FOOTNOTE 4).
4. USED WITH ONE INSIDE TOOTH.

NOTE:

DIG CHAIN ALGTR1.654P33K2PS BO



NOTE:  
 THIS PATTERN 4 TIMES. END WITH  
 TWO BIT HOLDERS ON OUTSIDE.

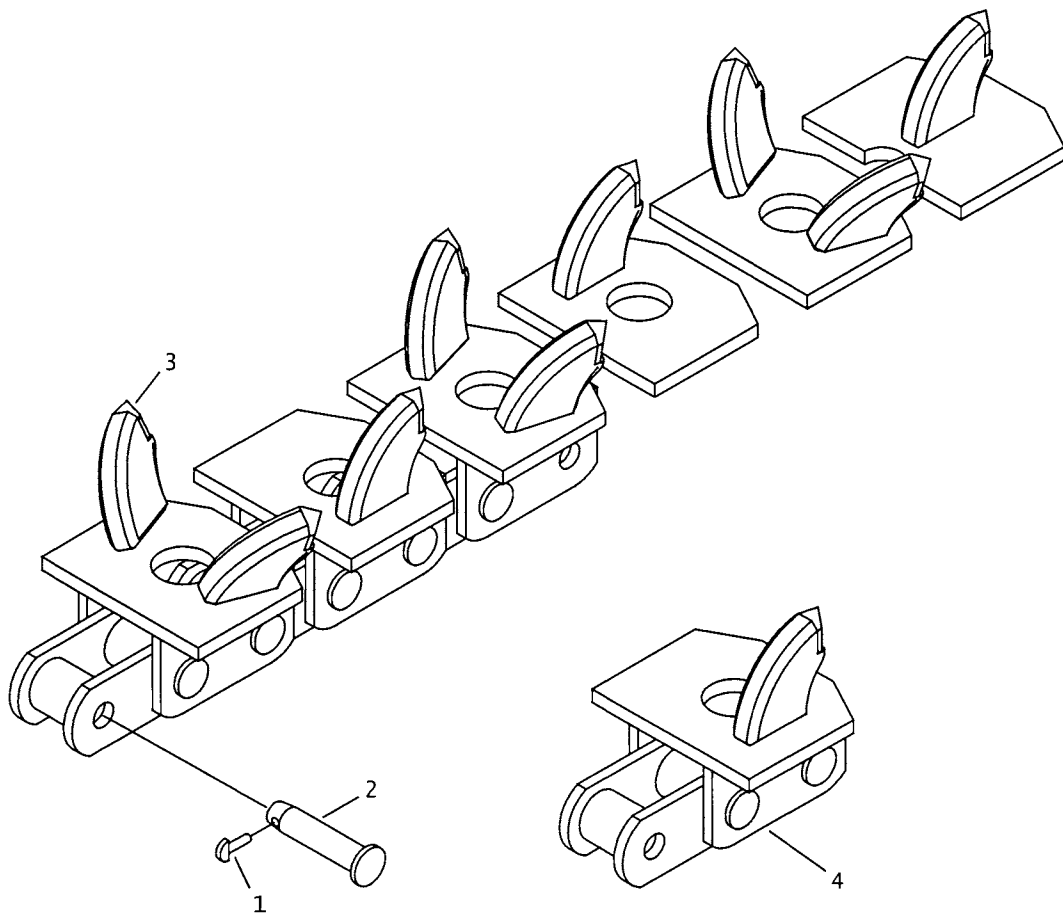
## DIG CHAIN ALGTR1.654P33K2PS BO

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	133-150		33K 2P ALG B/O 52P 4.0	INCL REF NOS 1-6 AND 9-13
	133-151		33K 2P ALG B/O 68P 4.0	INCL REF NOS 1-6 AND 9-13
1.	137-015	1	33K 2P DIG CHAIN 52P (7' 4")	
	137-014	1	33K 2P DIG CHAIN 16P (2'3")	
2.	181-650	36	SPACER (1.395")	
3.	136-163	4	RIGHT BIT HOLDER	5/133-151
4.	105-814	52	FLG LOCKNUT (3/8-NC)	
5.	500-003	36	BOLT (3/8-NC X 2-3/4")	
6.	136-164	18	CENTER BIT HOLDER	24/133-151
7.	136-112	26	CLIP RETAINER	
8.	136-113	26	INSERT BIT - CARBIDE TIPPED	
	131-259	26	INSERT BIT - CARBIDE TIPPED	
9.	184-191	16	SPACER	
10.	105-162	16	BOLT (3/8-NC X 2-1/4")	
11.	135-007	AR	LOCK KEY	
12.	135-001	AR	DIG CHAIN PIN (28K)	
13.	136-165	4	LEFT BIT HOLDER	5/133-151

FOOTNOTES

NOTE:

SHARK CHAIN (1.686" P 35K)  
OLD STYLE



## SHARK CHAIN (1.686" P 35K) OLD STYLE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	133-140	AR	33K 2P SHRK W/O 52P 86" 4.3WD	INCL REF NO'S 1 & 2, SEE SHARK CHAIN II PAGE 807-987
	131-146	AR	35K 2P SHK II W-0 52P 4.3	INCL REF NO'S 1 & 2, SEE SHARK CHAIN II PAGE 807-987
	133-141	AR	33K 2P SHRK W/O 62P 103" 4.3WD	INCL REF NO'S 1 & 2, SEE SHARK CHAIN II PAGE 807-987
	131-147	AR	35K 2P SHK II W-0 60P 4.3	INCL REF NO'S 1 & 2, SEE SHARK CHAIN II PAGE 807-987
	131-320	AR	35K 2P SHK II W-0 62P 4.3	INCL REF NO'S 1 & 2, SEE SHARK CHAIN II PAGE 807-987
	133-142	AR	33K 2P SHRK W/O 68P 112" 4.3WD	INCL REF NO'S 1 & 2, SEE SHARK CHAIN II PAGE 807-987
	131-148	AR	35K 2P SHK II W-0 66P 4.3	INCL REF NO'S 1 & 2, SEE SHARK CHAIN II PAGE 807-987
	133-143	AR	33K 2P SHRK W/O 84P 138" 4.3WD	INCL REF NO'S 1 & 2, SEE SHARK CHAIN II PAGE 807-987
	131-149	AR	35K 2P SHK II W-0 82P 4.3	INCL REF NO'S 1 & 2, SEE SHARK CHAIN II PAGE 807-987
1.	135-007	AR	LOCK KEY	
2.	135-001	AR	DIG CHAIN PIN (28K)	
3.	136-114	AR	CARBIDE TIPPED BIT	
4.	131-163	AR	35K SHK REPAIR STATION	

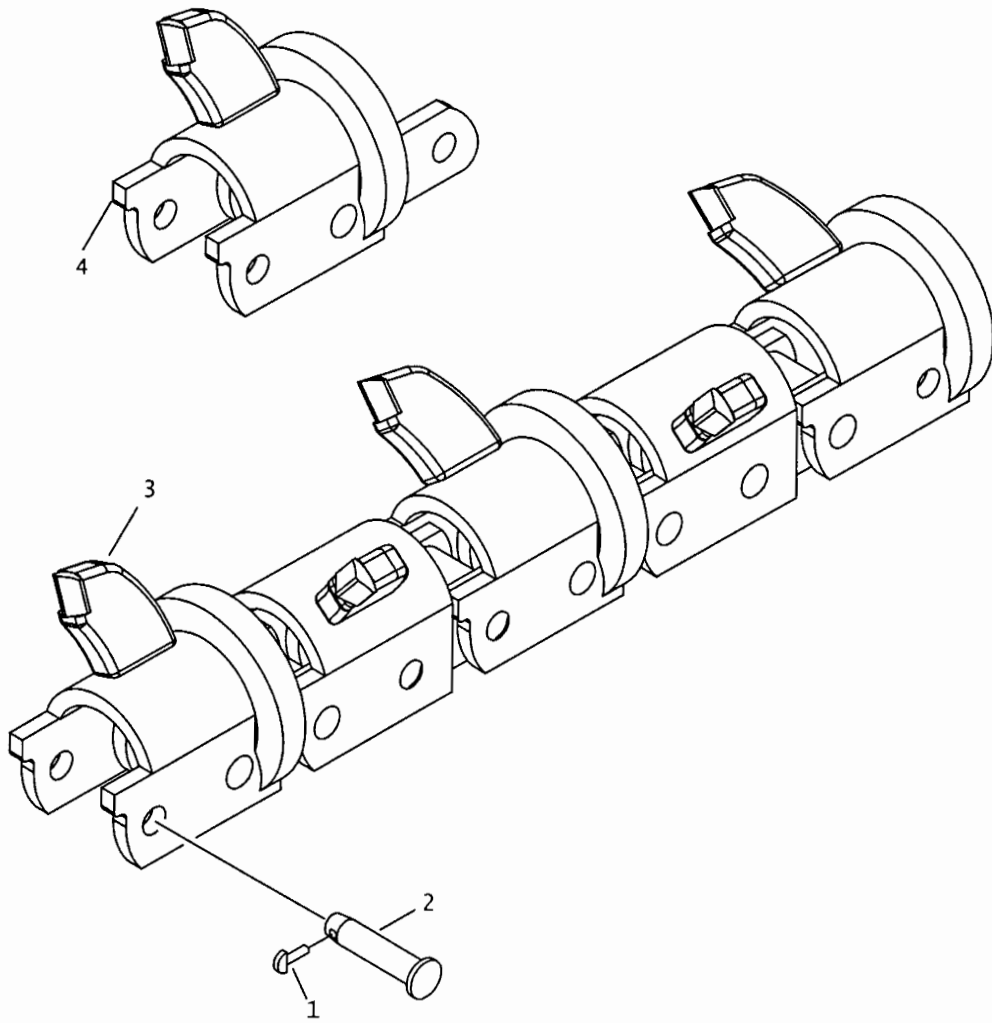
FOOTNOTES

NOTE:

L

801-692

# SHARK CHAIN II (1.686" P 35K)



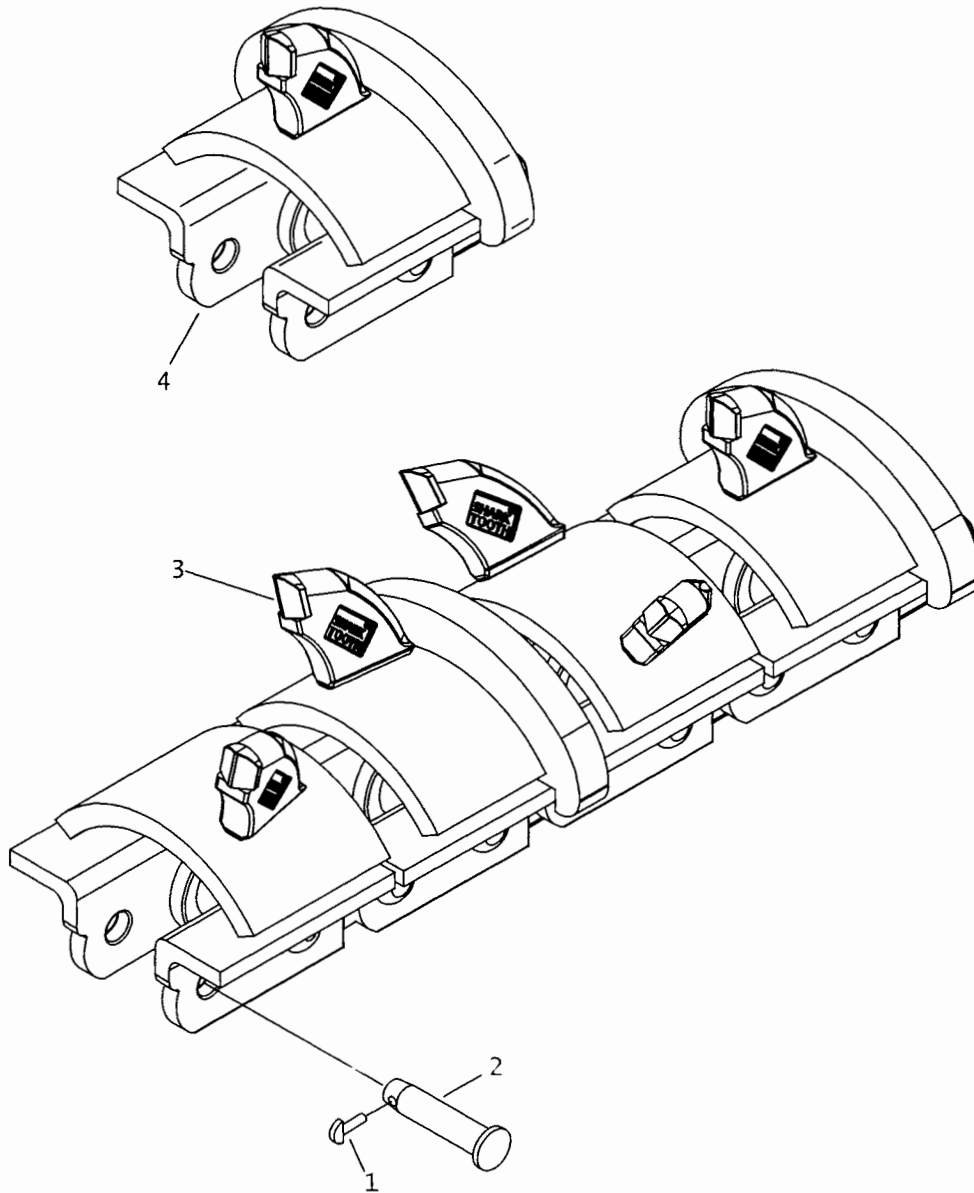
## SHARK CHAIN II (1.686" P 35K)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	131-146	AR	35K 2P SHK II W-0 52P 4.3"	INCL REF NO'S 1 & 2
	131-147	AR	35K 2P SHK II W-0 60P 4.3"	
	131-320	AR	35K 2P SHK II W-0 62P 4.3"	
	131-148	AR	35K 2P SHK II W-0 66P 4.3"	
	131-149	AR	35K 2P SHK II W-0 82P 4.3"	
1.	135-007	AR	LOCK KEY	
2.	135-001	AR	DIG CHAIN PIN (28K)	
3.	136-114	AR	CARBIDE TIPPED BIT	
4.	131-164	AR	35K SHARK II REPAIR STATION	

FOOTNOTES

NOTE:

# SHARK CHAIN II (1.686" P 35K 6.0")



# SHARK CHAIN II (1.686" P 35K 6.0")

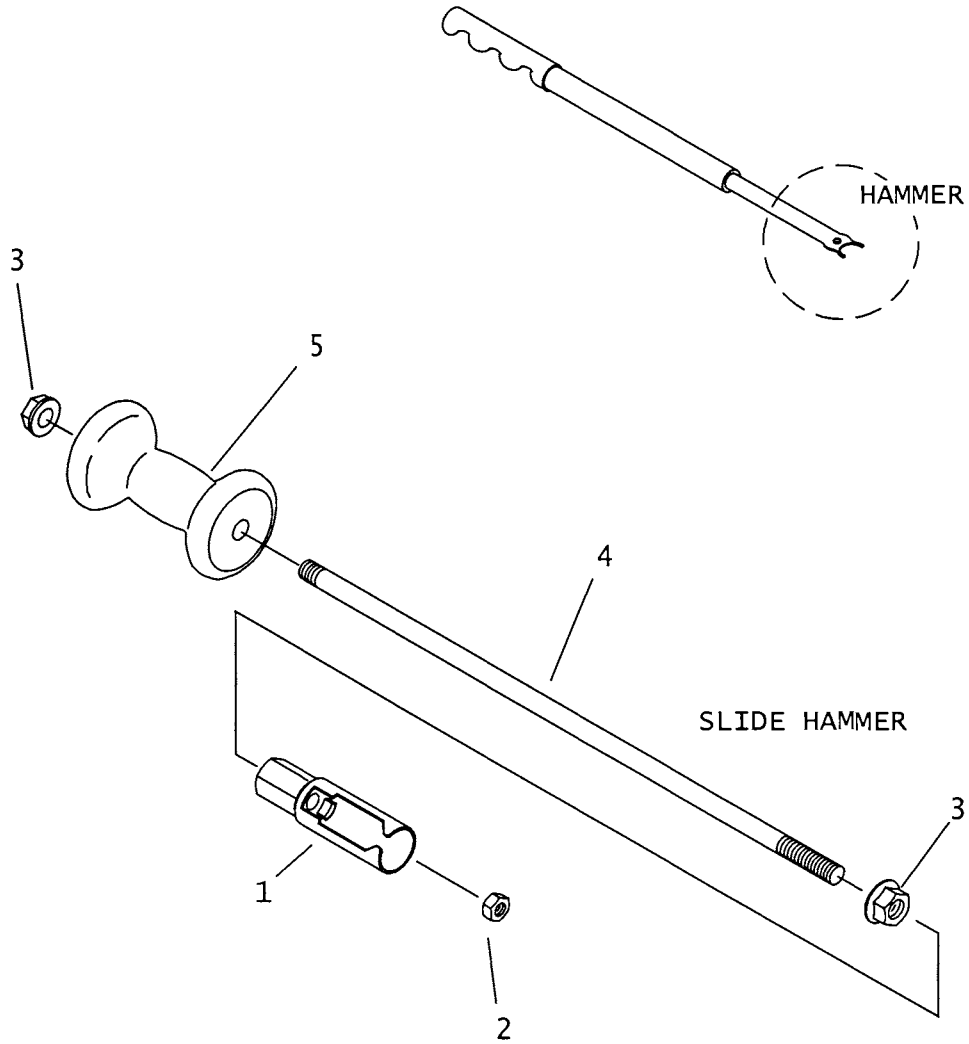
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	131-180	AR	35K 2P SHK II W-0 52P 6.0"	
	131-181	AR	35K 2P SHK II W-0 60P 6.0"	
	131-321	AR	35K 2P SHK II W-0 62P 6.0"	
	131-182	AR	35K 2P SHK II W-0 66P 6.0"	
	131-183	AR	35K 2P SHK II W-0 82P 6.0"	
1.	135-007	AR	LOCK KEY	
2.	135-001	AR	DIG CHAIN PIN (28K)	
3.	136-114	AR	CARBIDE TIPPED BIT	
4.	131-185	AR	35K 6.0 SHK II REPAIR STATION	

NOT SHOWN:

FOOTNOTES:

NOTE:

# SPECIAL TOOLS BIT PULLER FOR ALLIGATOR BITS



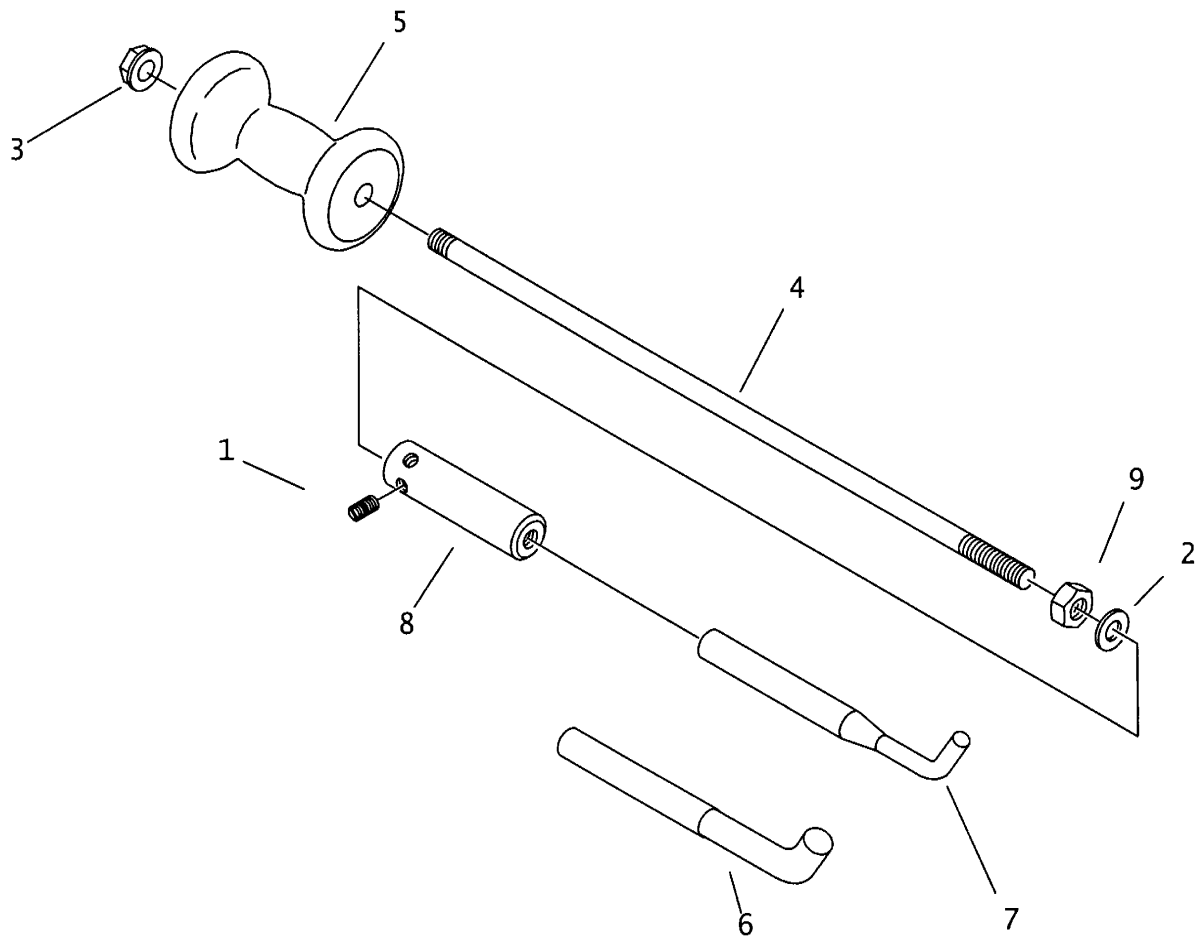
# SPECIAL TOOLS BIT PULLER FOR ALLIGATOR BITS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	259-002		BIT PULLER - SLIDE HAMMER	INCL REF NO.'S 1 - 5
	259-001		BIT PULLER - HAMMER	EARLY STYLE
1.	259-036	1	BIT PULLER	
2.	105-403	1	JAM NUT (5/8-NC)	
3.	105-357	2	LOCKNUT (5/8-NC)	
4.	183-072	1	SLIDE HAMMER ROD	
5.	259-003	1	SLIDE HAMMER	

FOOTNOTES

NOTE:

## SPECIAL TOOLS - ALIG BIT PUNCH



## SPECIAL TOOLS - ALIG BIT PUNCH

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	259-150		BIT PUNCH - SLIDE HAMMER	INCL REF NO.'S 1 THRU 8
1.	105-708	2	SET SCREW (3/8-NC X 3/8", NLK)	
2.	105-964	1	WASHER (.656")	
3.	105-994	1	FLG LOCKNUT (5/8-NC)	
4.	183-072	1	SLIDE HAMMER ROD	
5.	259-003	1	SLIDE HAMMER	
6.	259-151	1	HEAVY BIT PUNCH-SLIDE HAMMER	
7.	259-152	1	LIGHT BIT PUNCH-SLIDE HAMMER	
8.	259-153	1	PUNCH ADAPTER-SLIDE HAMMER	
9.	105-357	1	LOCKNUT (5/8-NC)	

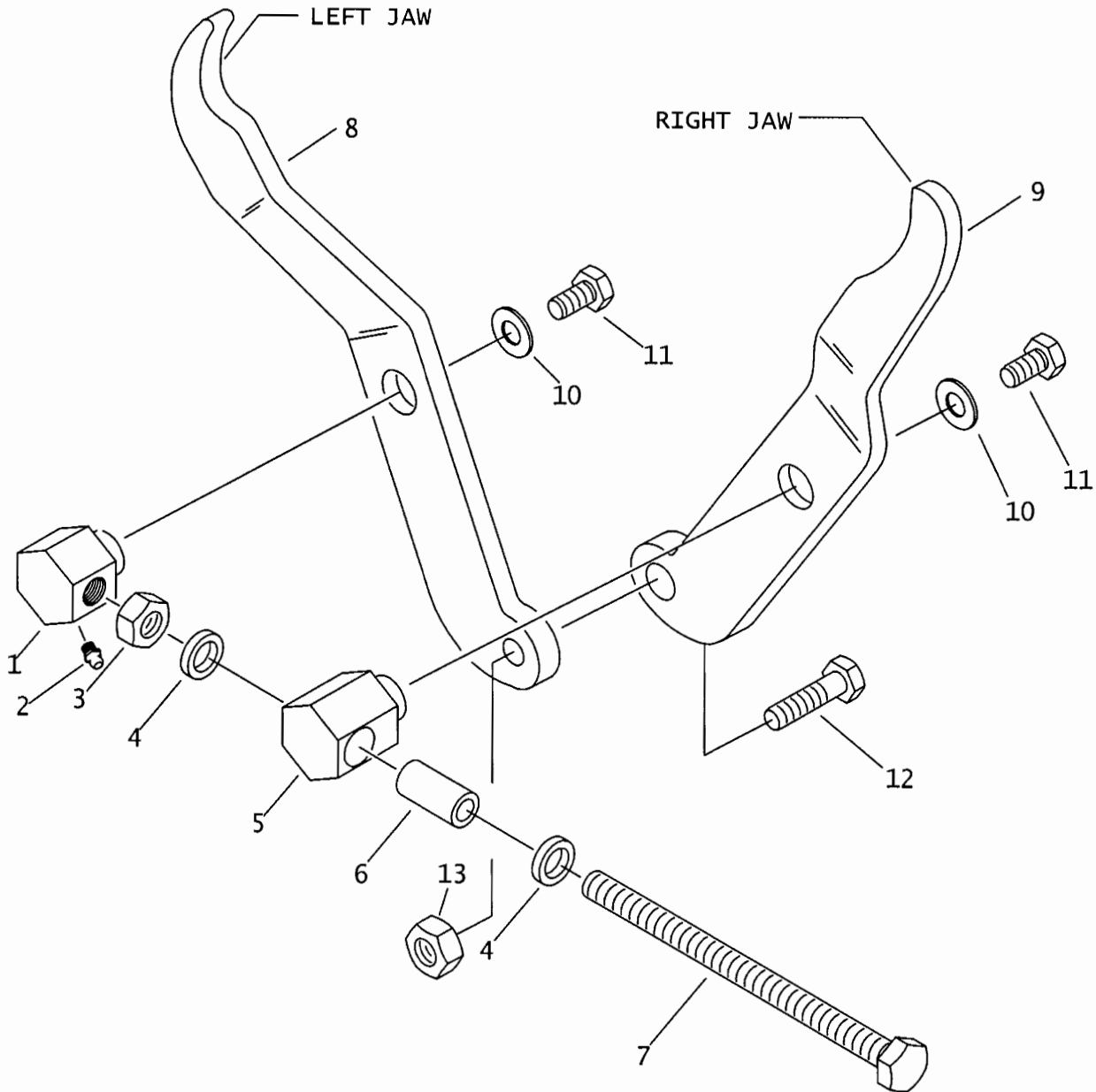
FOOTNOTES

NOTE:

H

801-057

# SPECIAL TOOL - CHAIN JAWS FOR USE ON MASTER LINKS



## SPECIAL TOOL - CHAIN JAWS FOR USE ON MASTER LINKS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	259-140	1	CHAIN JAWS (1-1/8" DRIVE)	INCL REF NO'S 1 - 13
1.	259-186	1	THREADED TRUNION	
2.	115-003	1	ZERK (1/4-NF, STR)	
3.	105-310	1	JAM NUT (3/4-NC)	
4.	105-975	2	WASHER (3/4")	
5.	259-185	1	SLIP TRUNION	
6.	125-402	1	BRONZE BUSHING (.750")	
7.	107-761	1	BOLT ALL THREAD (3/4-10 NC X 11")	
8.	259-181	1	LEFT JAW	
9.	259-180	1	RIGHT JAW	
10.	105-059	2	WASHER (7/16")	
11.	105-181	2	BOLT (3/8-NC X 1/2")	
12.	105-066	1	BOLT (1/2-NC X 1-3/4")	
13.	105-065	1	LOCKNUT (1/2-NC)	

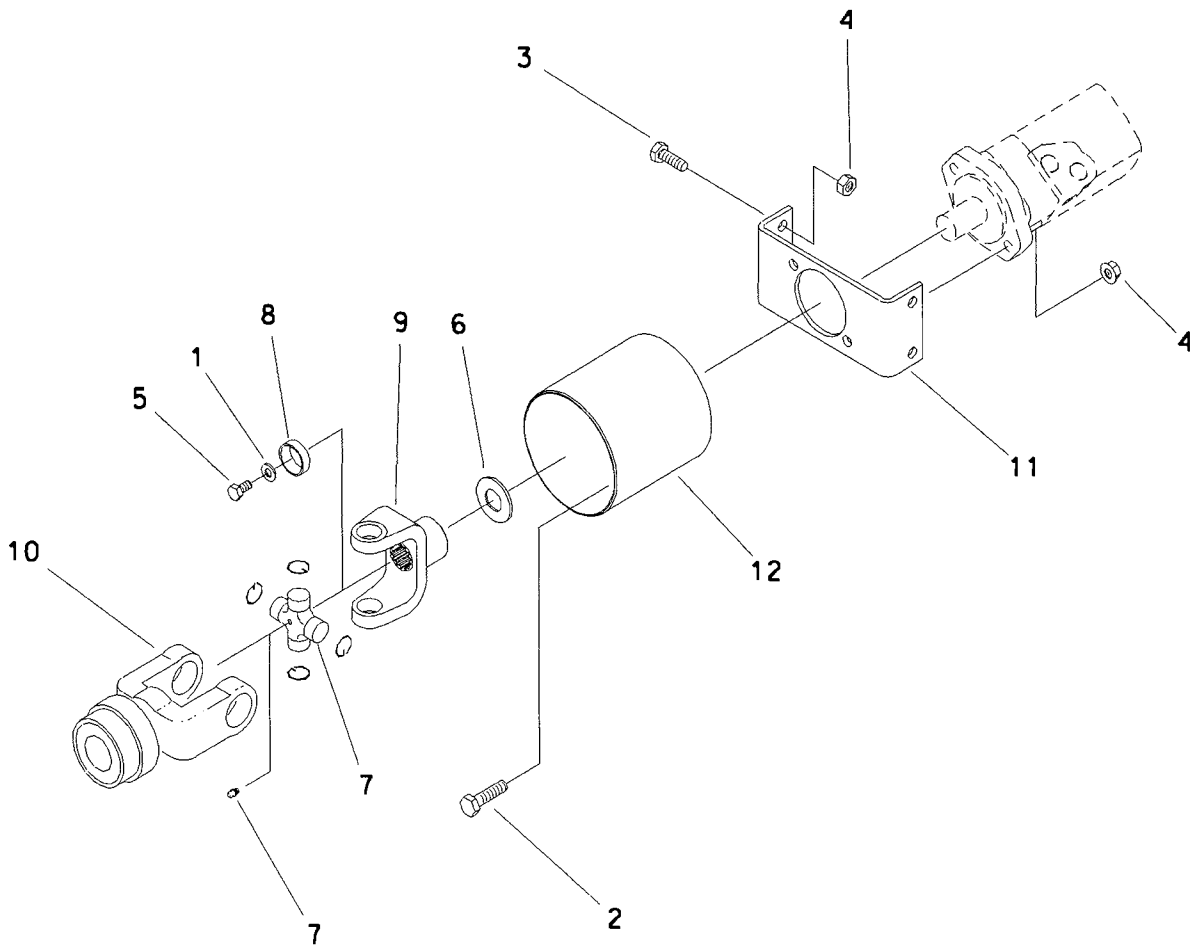
FOOTNOTES

NOTE:



# **ACCESSORIES**

# BORING ATTACHMENT



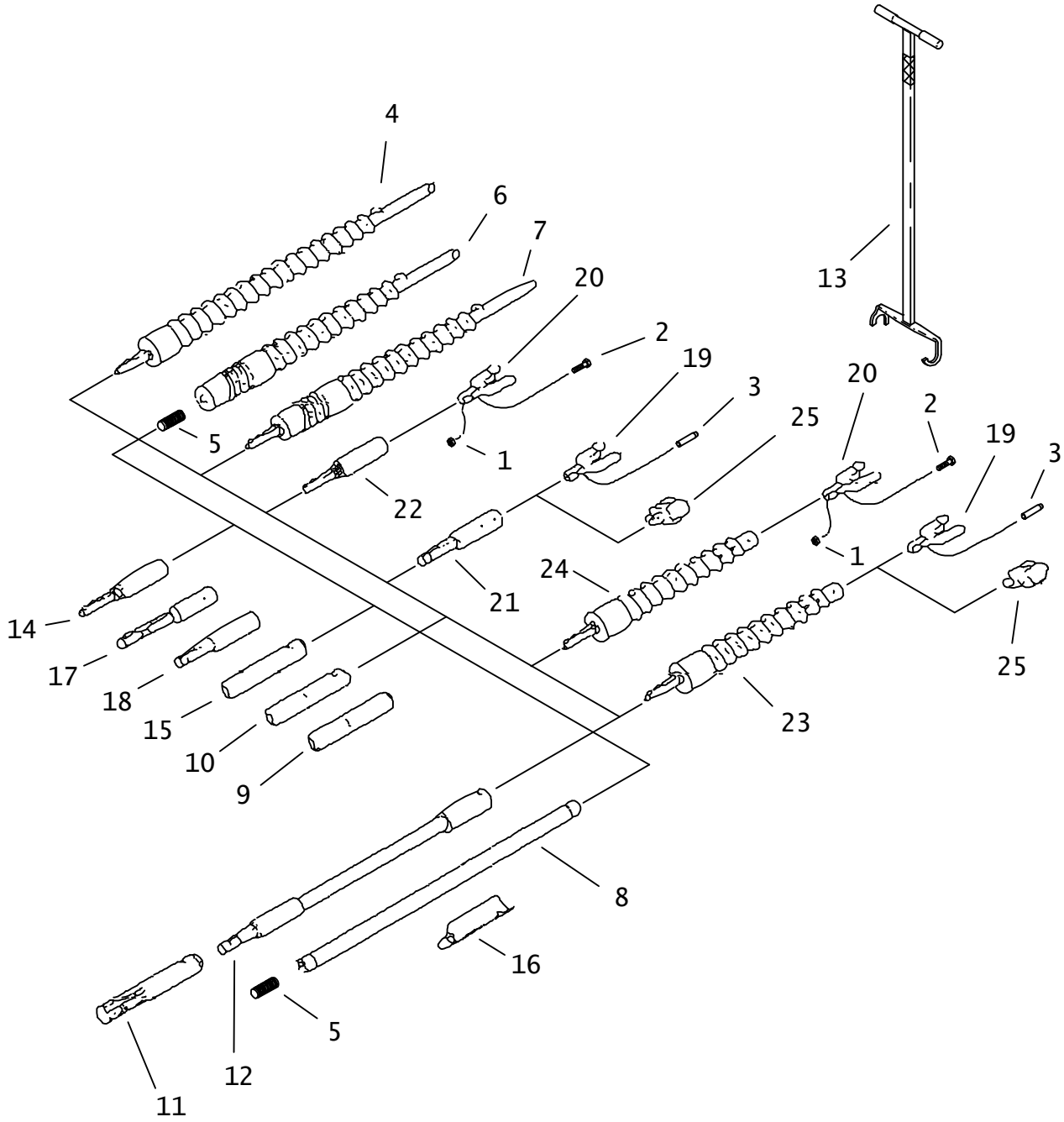
# BORING ATTACHMENT

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-069	1	WASHER (.406")	
2.	106-334	2	SCREW 2-1.75 X 50MM	
3.	105-273	4	SCREW (M12-1.75 X 30MM)	
4.	106-354	4	FLG NUT (M12-1.75)	
5.	105-848	1	BOLT (3/8-NC X 3/4", GD 8)	
6.	110-055	AR	MACHINERY BUSHING (1-1/4", GD8)	
7.	180-723	1	CROSS / BEARING KIT (1.125)	
	180-760		BRNG RD-CAP (1.125")	
	115-010		ZERK (Q2N, 22.5)	
8.	181-431	1	OUTER SPACER	
9.	182-060	1	YOKE	
10.	182-155	1	YOKE	
	182-227	1	QUICK DISCONNECT YOKE	
	178-926		ROTO WITCH YOKE	
	190-125		SLIDE LOCK REPAIR KIT - PAWL	YOKE WITH STEEL SLEEVE, SEE FOOTNOTE 1
	190-883		SIDE LOCK REPAIR KIT	
	190-173		REPAIR KIT	YOKE WITH PLASTIC SLEEVE
11.	308-533	1	MOTOR MOUNT	
12.	351-219	1	YOKE GUARD	

**FOOTNOTES**

1. USED ON 182-155

# DRILLING TOOLS - DRY BORE PRESENT PRODUCTION



## DRILLING TOOLS - DRY BORE PRESENT PRODUCTION

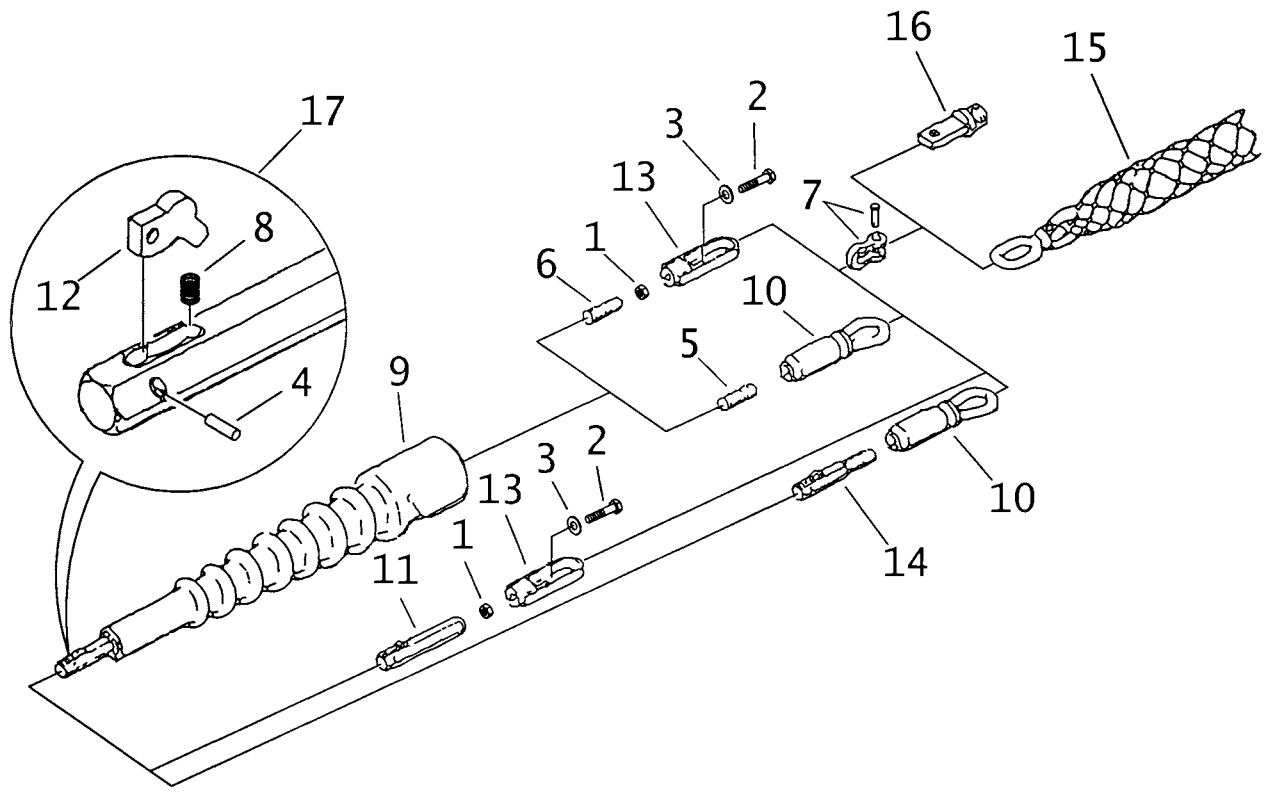
REF	PART				REMARKS
NO.	NUMBER	QTY	DESCRIPTION		
1.	105-085	1	LOCKNUT (1/4-NC)		
2.	105-106	1	BOLT (1/4-NC X 2")		
3.	105-525	1	ROLL PIN (3/16" X 1-1/4")		
4.	351-143	1	1.380" SAND BIT		
5.	351-030	1	ALL THREAD (1-NC X 2-3/4")		
6.	351-135	1	1.50" THREADED COMPACTION BIT		OBSOLETE
	351-137	1	1.75" THREADED COMPACTION BIT		
	351-139	1	2.00" THREADED COMPACTION BIT		
	351-141	1	2.25" THREADED COMPACTION BIT		
7.	351-136	1	1.50" SLIP-LATCH COMPACTION BIT		
	351-138	1	1.75" SLIP-LATCH COMPACTION BIT		
	351-140	1	2.00" SLIP-LATCH COMPACTION BIT		
	351-142	1	2.25" SLIP-LATCH COMPACTION BIT		
8.	351-095	AR	ROD SECTION (5')		THREADED, 1-NC, OBSOLETE
	351-096	AR	ROD SECTION (10')		THREADED, 1-NC
	351-009		TOOL JOINT		1-NC, WELD - ON REPLACEMENT END
9.	351-155	1	ADAPTER (7/8-NC X 1-NC)		
10.	301-8894	1	ADAPTER (7/8-NC X SLIP LATCH)		SUPERSEDES 351-156.
11.	351-236	1	CONNECTOR SHAFT		SLIP LATCH
	167-035	1	SPLINE STUB		THREADED, 1-NC
12.	351-255	AR	STEM SECTION (5')		SLIP - LATCH
	351-256	AR	STEM SECTION (10')		SLIP - LATCH
	351-265		STEM SUB-ASS'Y		WELD-ON REPLACEMENT
	351-238		HEX SLEEVE		WELD-ON REPLACEMENT
	190-137		SLIP LATCH COUPLER REPAIR KIT		SEE FOOTNOTE 3
	351-154		DETECTION ROD		OBSOLETE
	105-702		SET SCREW (3/8-NC X..." CUP)		
	351-345		STOP		OBSOLETE
	220-010		SLIM DETECTION SONDE		OBSOLETE
13.	118-097	1	DRILL STRING GUIDE ASSEMBLY		SEE FOOTNOTE 4
	351-351	1	HAND HELD GUIDE ROD		INCL DANGER TURNING SHAFT DECAL (273-078), OBSOLETE
	351-020		GUIDE ROD		OBSOLETE
	351-347		ROD GUIDE		OBSOLETE
14.	351-266	1	SLIP LATCH PIN W/ THREADS		FEMALE THREADED TO MALE SLIP-LATCH
15.	351-267	1	SLIP LATCH COUPLER		FEMALE THREADED TO FEMALE SLIP-LATCH
16.	351-272	1	SLIP-LATCH UNCOUPLER - ONE PIN		
17.	351-275	1	ADAPTER		SLIP-LATCH MALE TO MCLAUGHLIN FEMALE
18.	351-355	1	ADAPTER		SLIP-LATCH FEMALE TO MCLAUGHLIN MALE
19.	351-310	1	1.5" TWO PRONG ROCK BIT		SEE FOOTNOTE 1
	351-311	1	2" TWO PRONG ROCK BIT		SEE FOOTNOTE 1
20.	351-312	1	3" TWO PRONG ROCK BIT		SEE FOOTNOTE 2
21.	351-313	1	BIT BODY		FOR 1.5" AND 2" BITS
22.	351-314	1	BIT BODY		FOR 3" BITS
23.	351-331	1	FROST AUGER (1.5")		FOR 1.5" AND 2" BITS
24.	351-332	1	FROST AUGER (3.0")		FOR 3" BITS
25.	351-337	1	1.5" SPADE BIT		SEE FOOTNOTE 1

### FOOTNOTES:

- BIT BODY (REF 21) OR FROST AUGER (REF 23) AND ROLL PIN (REF 3) NEEDED TO COMPLETE BIT ASSEMBLY.
- BIT BODY (REF 22) OR FROST AUGER (REF 24) AND BOLT AND NUT (REF 1 AND 2) NEEDED TO COMPLETE BIT ASSEMBLY.
- KIT INCLUDES (I) 105-535 ROLL PIN, (II) 115-618 COMPRESSION SPRING & (III) 351-234 COUPLING SEAR.
- INCLUDES (I) 273-078 DANGER TURNING SHAFT DECAL AND (2) 110-015 BLACK GRIPS.

### NOTE:

# PULLING TOOLS



# PULLING TOOLS

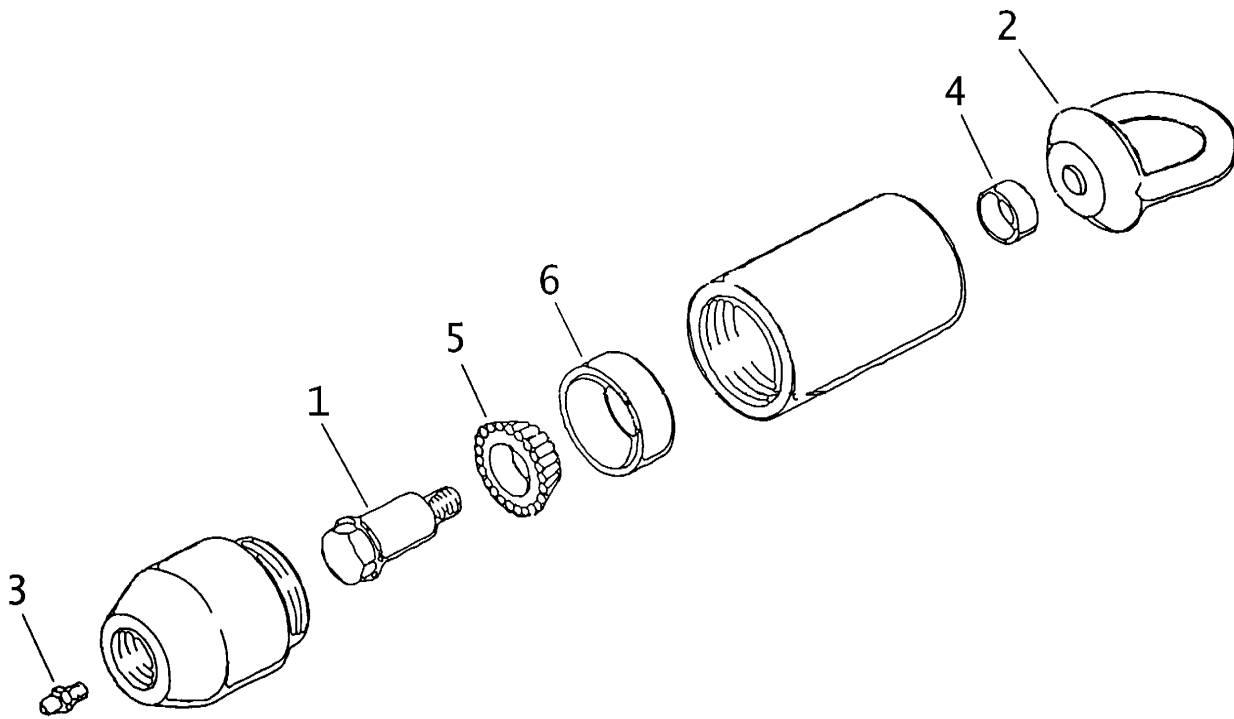
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-053	1	NUT (3/8-NC)	
2.	105-075	1	BOLT (3/8-NC X 2")	
3.	105-117	1	WASHER (5/16")	
4.	105-535		ROLL PIN (1/8" X 5/8")	
5.	106-133	1	STUD BOLT (7/8-NC X 2.400")	
6.	106-134	1	STUD BOLT (7/8-NCX2.4", 3/8-NC)	
7.	110-289	1	ANCHOR SHACKLE (5/16")	
8.	115-618		COMPRESSION SPRING (.625")	
9.	351-147	1	2.5" REAMER	
	351-148	1	3" REAMER	
	351-149	1	3.5" REAMER	
	351-150	1	4" REAMER	
10.	351-153	1	BEARING SWIVEL	
11.	351-230	1	SLIP LATCH PIN	INCL. REF. NO.'S 4, 8 AND 12
12.	351-234		COUPLING SEAR	
13.	351-246	1	SWIVEL	
14.	351-340	1	ADAPTER (7/8-NC X SLIP-LATCH)	
15.	185-901	1	PULLING GRIP (3/8" TO 1/2")	
	185-902	1	PULLING GRIP (1/2" TO 3/4")	
	185-903	1	PULLING GRIP (3/4" TO 1-1/4")	
	185-904	1	PULLING GRIP (1-1/4" TO 2")	
	185-906	1	PULLING GRIP (2" TO 2-3/4")	
	185-907	1	PULLING GRIP (2-3/4" TO 3-1/2")	
	185-913	1	PULLING GRIP (3-1/2" TO 4-1/4")	
16.	354-046	1	ADAPTER (16N)	
	354-047	1	ADAPTER (24N)	
	354-048	1	ADAPTER (32N)	
	354-049	1	ADAPTER (40N)	
	354-050	1	ADAPTER (48N)	
	354-051	1	ADAPTER (64N)	
17.	190-137		SLIP-LATCH COUPLER REPAIR KIT	INCL. REF. NO.'S 4, 8 AND 12

NOT SHOWN:

FOOTNOTES:

NOTE:

# BEARING SWIVEL



# BEARING SWIVEL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	351-153		BEARING SWIVEL	
				INCL REF NOS 1 THRU 6
1.	106-132	1	SHLD BLT (1/2" X1-1/2", 3/8-NC)	
2.	110-499	1	EYE NUT (3/8-NC)	
3.	115-003	1	ZERK (1/4-NF, STR)	
4.	125-446	1	BRONZE BUSHING (.500")	
5.	126-007	1	TAPERED BEARING (.500")	
6.	126-008	1	TAPERED RACE (1.380")	

NOT SHOWN:

FOOTNOTES:

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

# 1820

## Related Publications

Component	Ass'y	P/N
<b>Model:</b>		
1820 .....	Parts Manual .....	053-425
1820 .....	Operators Manual .....	054-485
1820 .....	Repair Guide (Service Manual) .....	055-459
1820 .....	Supplementary Maint Guide - Trencher .....	050-633
1820 .....	Digging Chain Guide (6 Volumes) .....	050-700
1820 .....	Special Tools Guide .....	052-901
1820 .....	Video, VHS (Service) .....	276-539
<b>Engine:</b>		
<b>Ends with S/N:1T3248</b>		
Honda 18hp .....	Parts Manual - GX610QDW .....	194-311 ..... 053-041
Honda .....	Operators Manual - GX610QDW .....	054-041
Honda .....	Service (Shop) Manual - GX610QDW .....	055-041
<b>Begins with S/N:1T3249</b>		
Honda 18hp .....	Parts Manual - GX610K1QDW .....	194-195 ..... 053-041
Honda .....	Operators Manual - GX610K1QDW .....	054-041
Honda .....	Service (Shop) Manual - GX610K1QDW .....	055-041
Kohler 18hp .....	Parts Manual - CH18 .....	194-310 ..... 053-040
Kohler .....	Operators Manual - CH18 .....	054-040
Kohler .....	Service (Shop) Manual - CH18 .....	055-040
Kohler .....	Sales & Service Directory - CH18 .....	050-527
<b>Hyd Motor:</b>		
Ross .....	Service (Shop) Manual - MK Series .....	158-756 ..... 055-048

## Filters

<b>Engine:</b>		
<b>Ends with S/N:1T3248</b>		
Air Filter Parts Ass'y - Honda 18hp (GX610QDW) .....		N/A
Element (primary, paper) - Honda (GX610QDW) .....		159-208
Element (secondary, foam) - Honda (GX610QDW) .....		159-221
<b>Begins with S/N:1T3249</b>		
Air Filter Parts Ass'y - Honda 18hp (GX610K1QDW) - .....		N/A
Element (primary, paper) - Honda (GX610K1QDW) .....		159-222
Element (secondary, foam) - Honda (GX610K1QDW) .....		159-223
Oil Filter Element (spin-on) - Honda 18hp (GX610QDW or GX610K1QDW) .....		159-209
Fuel Filter (04H-04H, in-line) - Honda 18hp (GX610QDW or GX610K1QDW) .....		159-244
Air Filter Parts Ass'y - Kohler 18hp - CH18 .....		N/A
Element (primary, paper) - Kohler .....		194-313
Element (secondary, foam) - Kohler .....		194-314
Oil Filter Element (spin-on) - Kohler .....		157-630
Fuel Filter (04H-04H, in-line) - Kohler .....		195-256
<b>Hydraulic:</b>		
Oil Filter Element (1-UNF, spin-on) .....		155-910

## Optional Kits

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



# Ditch Witch®

## Parts Manual Change Request

(Please print clearly)

Date: \_\_\_\_\_ Dealer No. (required): \_\_\_\_\_

Your Name: \_\_\_\_\_ Position: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

### Publication Information:

Parts Manual No.: \_\_\_\_\_ - \_\_\_\_\_ Model: \_\_\_\_\_

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

Nature of Change Request:

Text       Graphics       Missing Information

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

---



---



---



---



---



---

**Please fax completed form to  
Parts Manual Department (580) 336-9637**

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



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

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

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

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

Thanks for using Ditch Witch equipment.

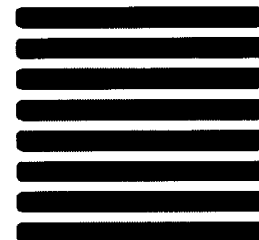
(Please Fold Along This Line And Seal At Bottom With Tape)



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

**BUSINESS REPLY MAIL**  
FIRST CLASS      PERMIT NO 23      PERRY OKLAHOMA

POSTAGE WILL BE PAID BY



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



# Ditch Witch® Registration Card

Please Type or Print All Information

---

Purchaser's Company Name

---

Attention

---

Street Address or P.O. Box

---

City

County

---

State

Zip

Nation

---

(      )

Phone Number With Area Code

---

Model

Serial Number

---

Attachments/Accessories

Serial Numbers

---

Attachments/Accessories

Serial Numbers

---

Attachments/Accessories

Serial Numbers

---

Name of Ditch Witch Dealership

---

Your Signature