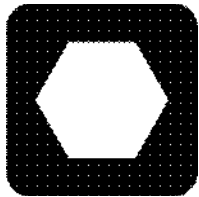


255SX

Parts Manual



Ditch Witch®

255SX

ISSUE NO. 17PL-07/12

For Replacement Copy Order **P/N 050-674**

This manual contains information concerning the following models:
255SX Plow

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ID0135057

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.

WARRANTY

DW WARRANTY Policy
July, 2005

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

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

EXCLUSIONS FROM PRODUCT WARRANTY

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

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

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

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

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

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

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

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Boring Components

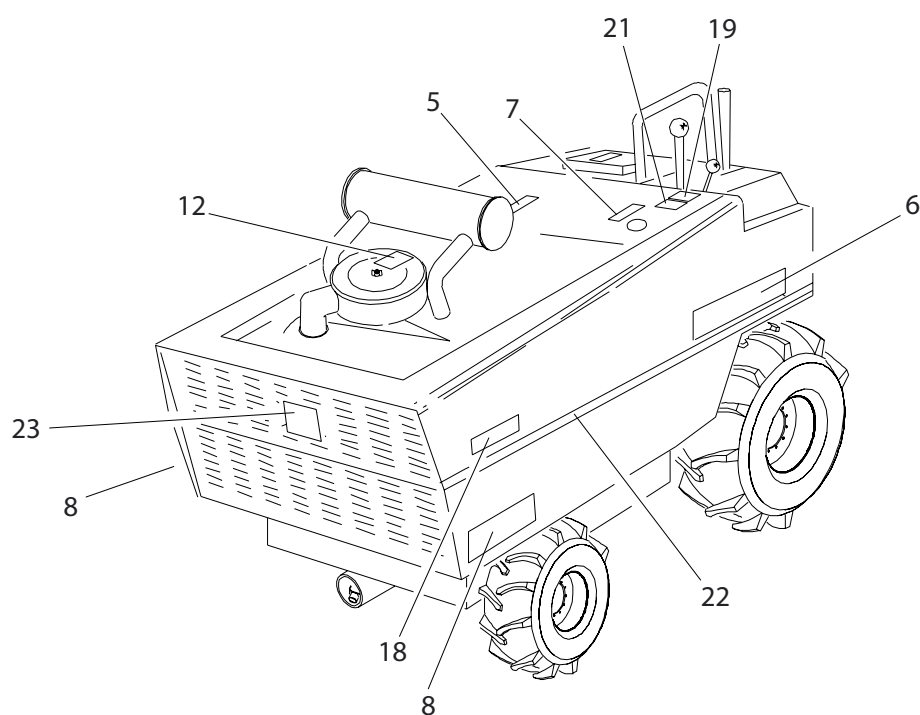
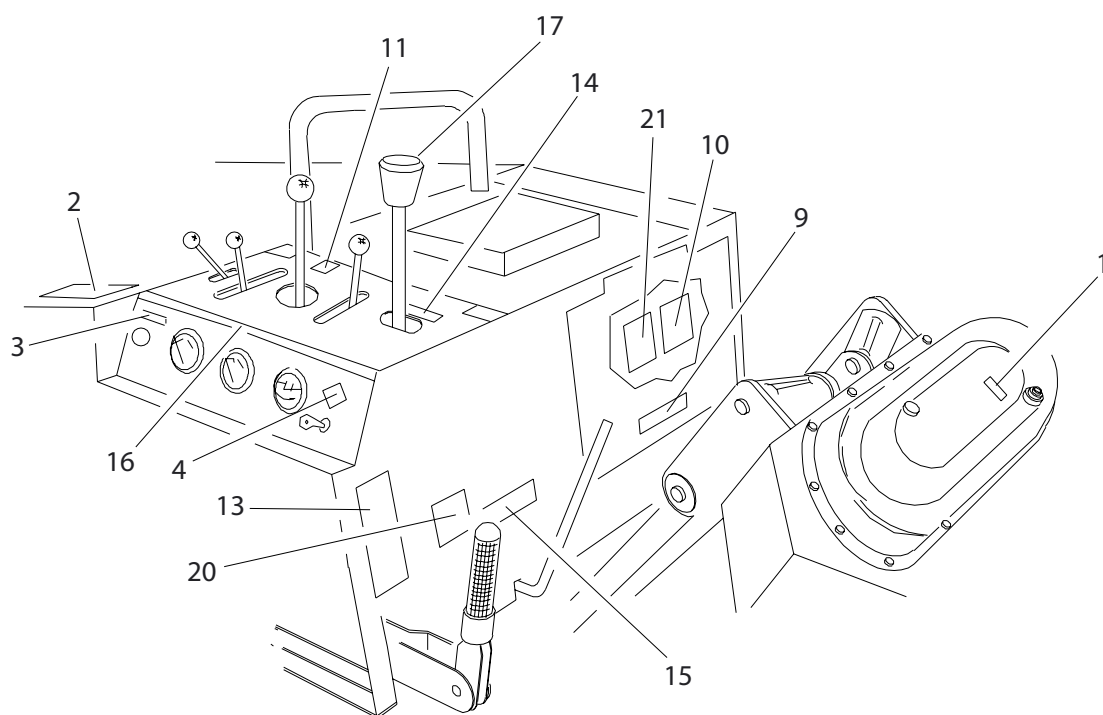
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DECALS

DECAL LOCATION 255SX



DECAL LOCATION

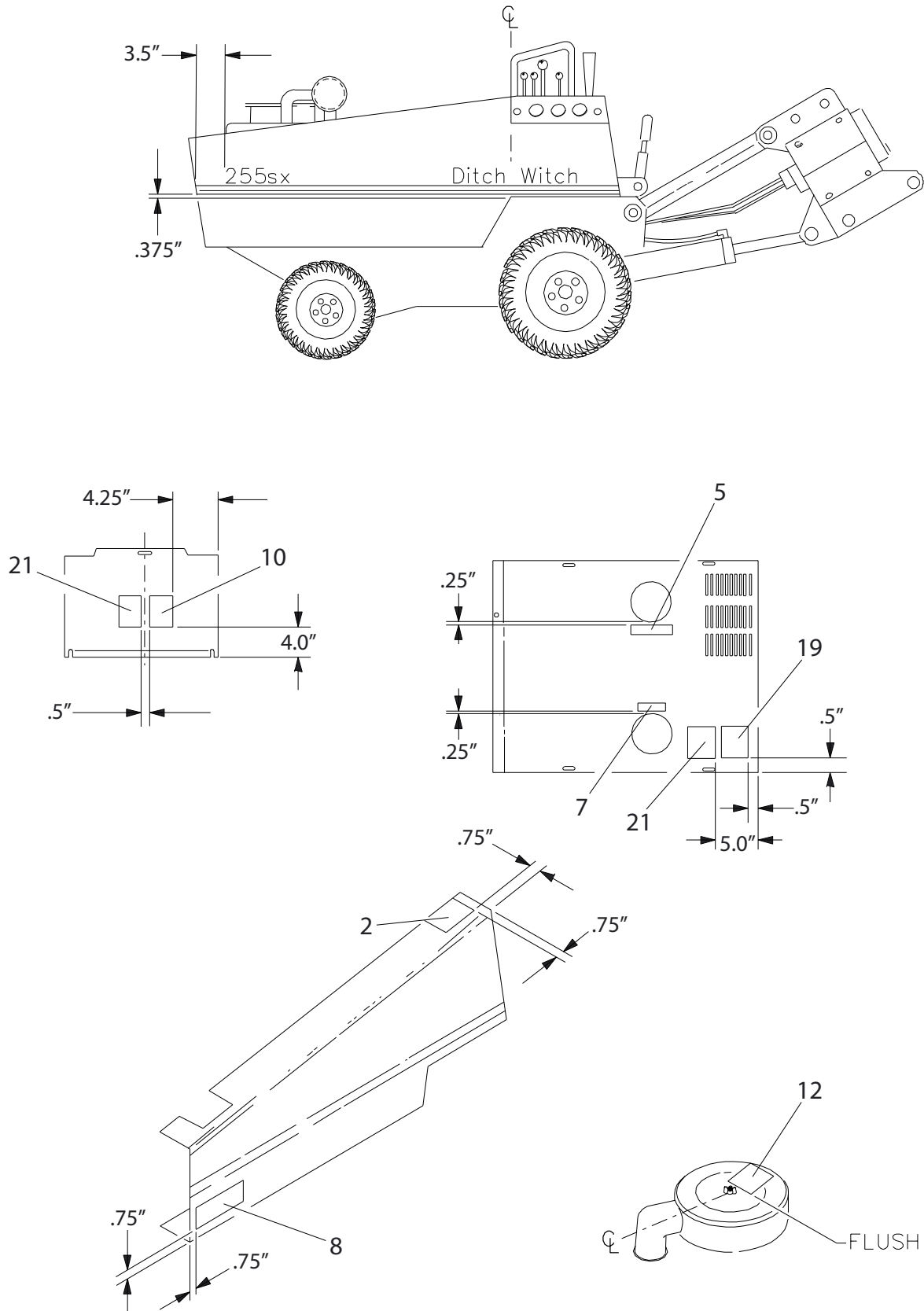
255SX

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	275-568		DECAL KIT - 255SX	
1	275-023		OIL LEVEL	
2	275-048	1	IMPORTANT SAFETY RULES	
3	275-086	1	CHOKE	
4	275-087	1	IGNITION SWITCH	
5	275-120	1	RESERVOIR	
6	275-172	2	DITCH WITCH ID	
7	275-173	1	FUEL TANK	
8	275-197	2	DANGER ROTATING SHAFT	ROTO WITCH OPTION
9	275-203	1	BATTERY	
10	275-245	1	CAUTION BATTERY ACID	
11	275-343	1	BORING	ROTO WITCH OPTION
12	275-355	1	CAUTION HOT PARTS	
13	275-361	1	PARKING BRAKE	
14	275-386	1	NEUTRAL RELEASE	SEE FOOTNOTE 1
15	275-392	1	AXLE LOCK	
16	275-393	1	CONSOLE PANEL	
17	275-394	1	LOCK RELEASE	SEE FOOTNOTE 2
18	275-395	2	255SX MODEL ID	
19	275-407	1	WARNING ROLLOVER	
20	275-413	1	PLOW SWING LOCK	
21	275-419	2	WARNING FLAMMABLE	
22	275-430	2	ACCENT STRIPE (1" X 60")	
23	275-450	1	DITCH WITCH EMBLEM PLAQUE	

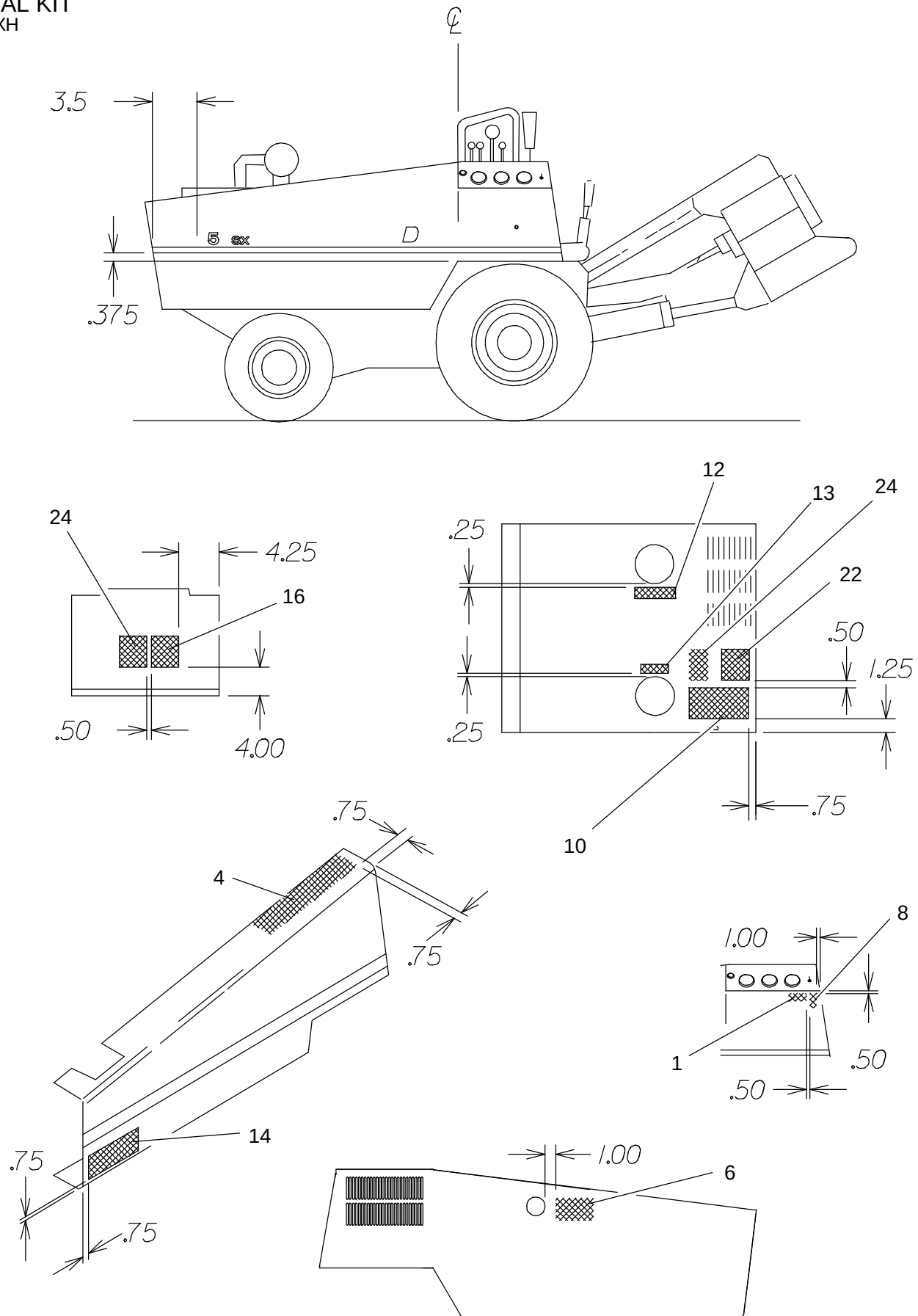
FOOTNOTES

1. NOT PART OF KIT. THIS DECAL IS REQUIRED ON MODEL WITH S/N 4E0071 AND BELOW.
2. BEGINS WITH S/N 4E0072 AND ABOVE.

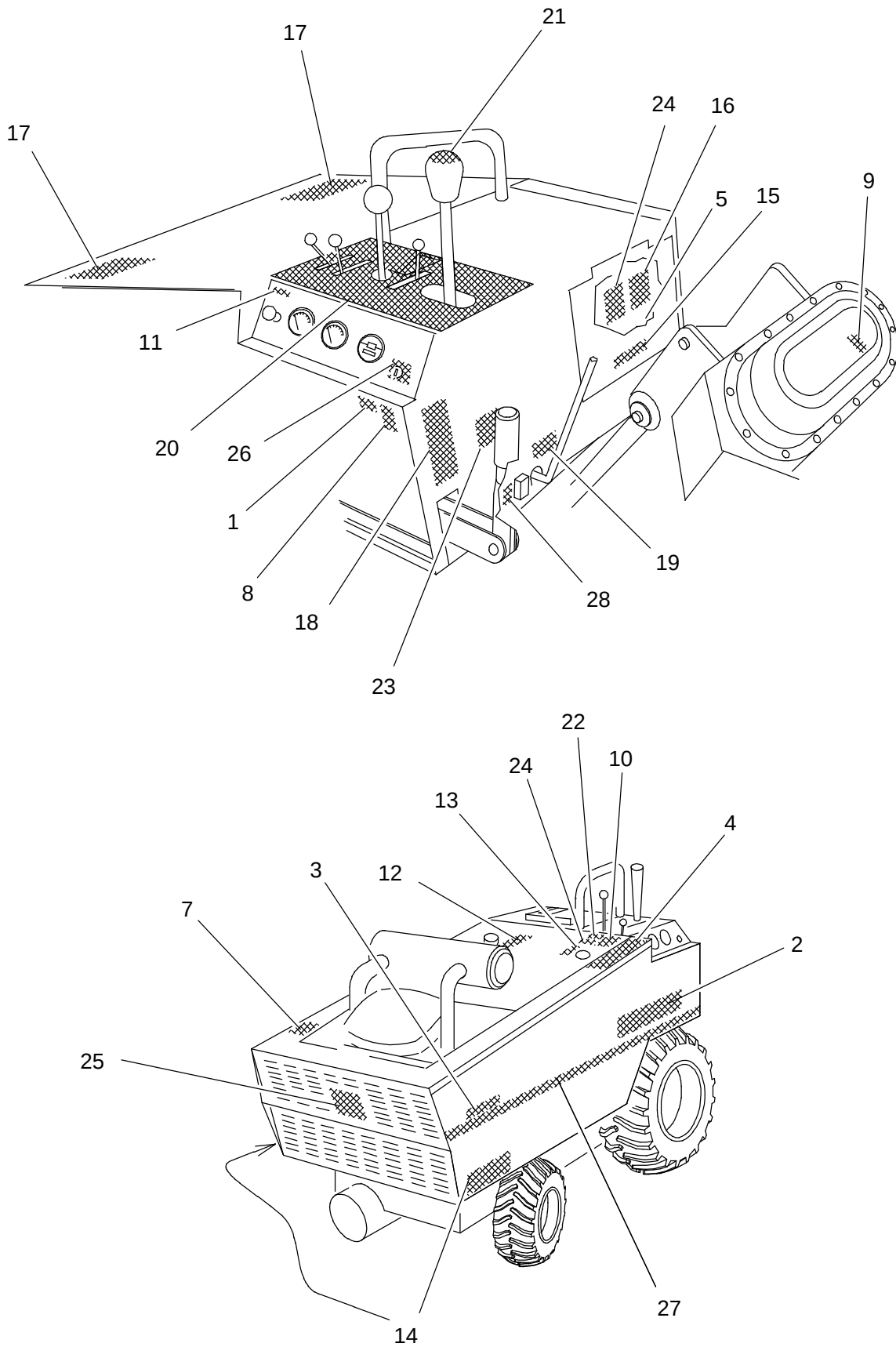
DECAL LOCATION 255SX



DECAL KIT 255SXH



DECAL KIT
255SXH



DECAL KIT

255SXH

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	275-811		DECAL KIT - 255SXH	
1.	273-077	1	IMPORTANT USE GUIDE	SEE FOOTNOTE 1
2.	275-172	2	DITCH WITCH -ID	
3.	275-395	2	255SX MODEL-ID	
4.	273-245	1	255SX OPERATOR INSTRUCTIONS	
5.	273-267	1	DITCH WITCH BATTERY	SEE FOOTNOTE 2
6.	274-198	1	NOTICE OIL LEVEL	
7.	274-208	1	FUEL SHUTOFF ALERT	
8.	274-724	1	ONE CALL NOTIFICATION	
9.	275-023	1	OIL LEVEL	
10.	275-048	1	IMPORTANT SAFETY RULES	
11.	275-086	1	CHOKE	
12.	275-120	1	RESERVOIR (THF)	
13.	275-173	1	FUEL TANK (GASOLINE)	
14.	275-197	2	DANGER ROTATING SHAFT	SEE FOOTNOTE 1
15.	275-203	1	BATTERY	
16.	275-245	1	CAUTION BATTERY ACID	
17.	275-355	2	CAUTION HOT PARTS	
18.	275-361	1	PARKING BRAKE	
19.	275-392	1	AXLE LOCK	
20.	275-393	1	CONSOLE	
21.	275-394	1	LOCK RELEASE	
22.	275-407	1	WARNING ROLLOVER	
23.	275-413	1	PLOW SWING LOCK	
24.	275-419	2	WARNING NO FLAME	
25.	275-450	1	LOGO PLACARD	
26.	700-072	1	IGNITION SWITCH	
27.	275-430	1	STRIPE (1.437", SOLD PER 1")	USE 120"
28.	273-418	1	MAIN FUSE 25 AMP	

NOT SHOWN:

FOOTNOTES:

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

NOTE:

NOTES:

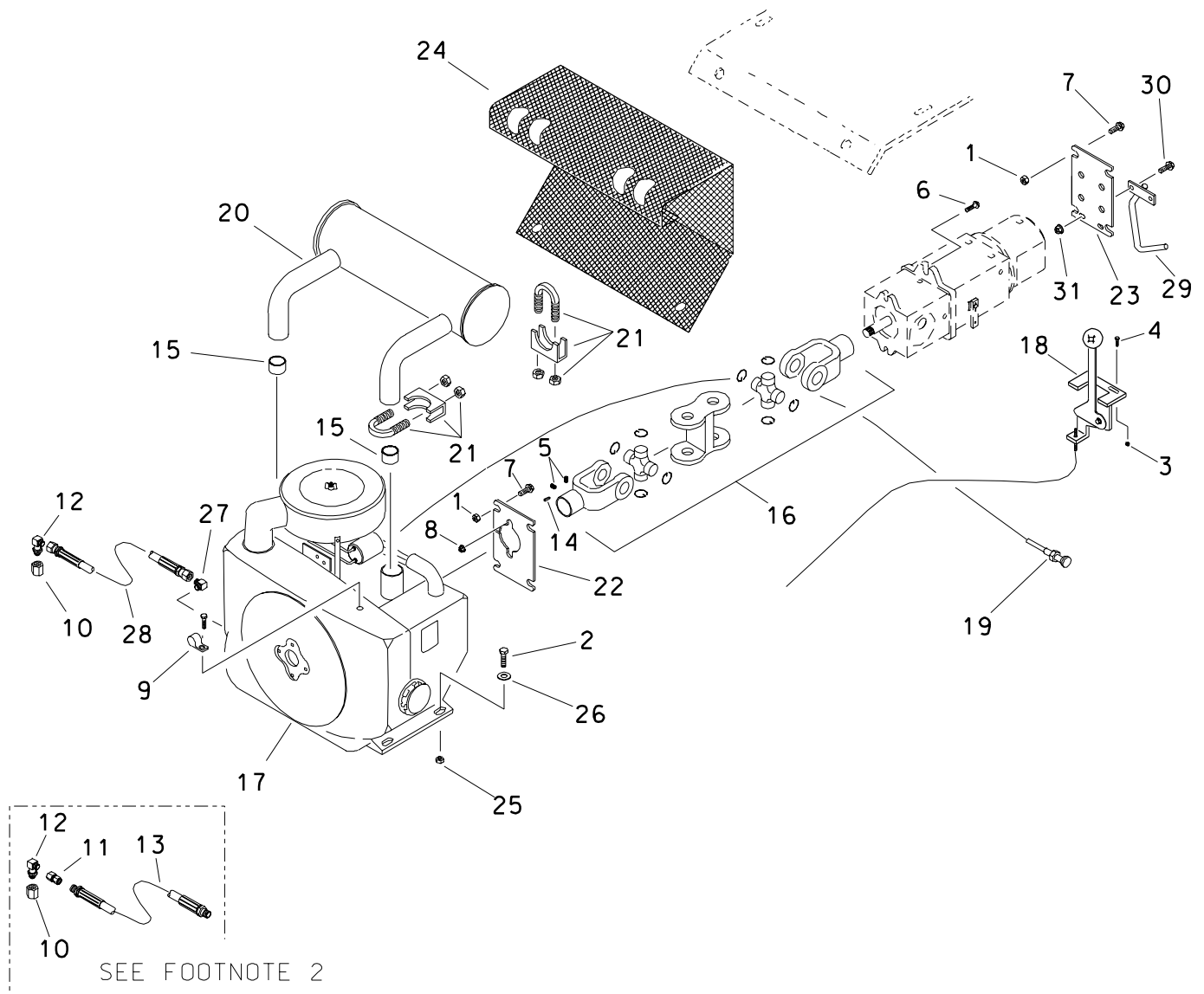
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ENGINE COMPONENTS

ONAN ENGINE

255SX

ENDS WITH S/N 4X0174



ONAN ENGINE

255SX

ENDS WITH S/N 4X0174

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-065	8	LOCKNUT (1/2-NC)	
2.	105-066	4	BOLT (1/2-NC X 1-3/4")	
-	105-229	4	CAP SCREW (1/2-NC X 2")	SEE FOOTNOTE 2
-	105-183	4	BOLT (3/8-NC X 2-1/2", GD 8)	SEE FOOTNOTE 3
3.	105-832	2	FLG LOCKNUT (1/4-NC)	
4.	105-820	2	FLG LK BOLT (1/4-NC X 3/4")	
5.	105-716	2	SETSCREW (3/8-NC X 1/2")	
6.	105-827	2	FLG LK BOLT (3/8-NC X 1-1/4")	
7.	105-830	8	FLG LK BOLT (1/2-NC X 1-1/4")	
8.	105-834	2	FLANGE LOCKNUT (3/8-NC)	
9.	110-126	1	BOLT-ON CLAMP (1/2")	
10.	154-089	1	CAP (08JF)	
11.	154-104	1	ADAPTER UNION (08NF-08JF)	SEE FOOTNOTE 2
12.	154-148	1	BK CONNECTOR (08J90BK)	
13.	155-375	1	HOSE (08N-9"-2000)	SEE FOOTNOTE 2
14.	165-927	1	KEY (1/4" X 1-1/4")	
15.	181-548	2	SLEEVE	
16.	182-109	1	DOUBLE UNIVERSAL JOINT	
17.	195-377	1	ONAN ENGINE (NHC)	
	195-398	1	ONAN ENGINE (P224)	SEE FOOTNOTE 4
18.	195-950	1	CONTROL CABLE (ENGINE THROTTLE)	
19.	195-951	1	CONTROL CABLE (CHOKE)	
20.	196-068	1	EXHAUST MUFFLER	
	194-270	1	EXHAUST MUFFLER	
21.	196-071	4	U-BOLT CLAMP (1-5/8")	
22.	325-075	1	PUMP MOUNT	
23.	325-076	1	PUMP SUPPORT	
24.	196-073	1	HEAT SHIELD	
25.	105-065	4	LOCKNUT (1/2-NC)	SEE FOOTNOTE 1
	105-834	4	LOCKNUT (3/8-NC)	SEE FOOTNOTE 3
26.	105-244	4	WASHER (1/2")	SEE FOOTNOTE 2
	105-264	4	WASHER (3/8")	SEE FOOTNOTE 3
27.	154-201	1	ADAPTER UNION (06N-08J90)	SEE FOOTNOTE 3
28.	154-576	1	HOSE (08JFX-22.5"-2000)	SEE FOOTNOTE 3
29.	325-128	1	HOSE HANGER BRACKET	
30.	105-873	2	FLG LK BOLT (5/16-NC X 1")	
31.	105-003	2	FLG LOCKNUT (5/16-NC)	

NOT SHOWN:

191-240	255SX SERVICE KIT (INCLUDES ONE EACH AIR, OIL, FUEL, HYD. FILTERS)
195-367	FOAM (AIR CLEANER)
195-368	ELEMENT (AIR CLEANER)
155-938	ELEMENT (ENGINE OIL FILTER)

FOOTNOTES

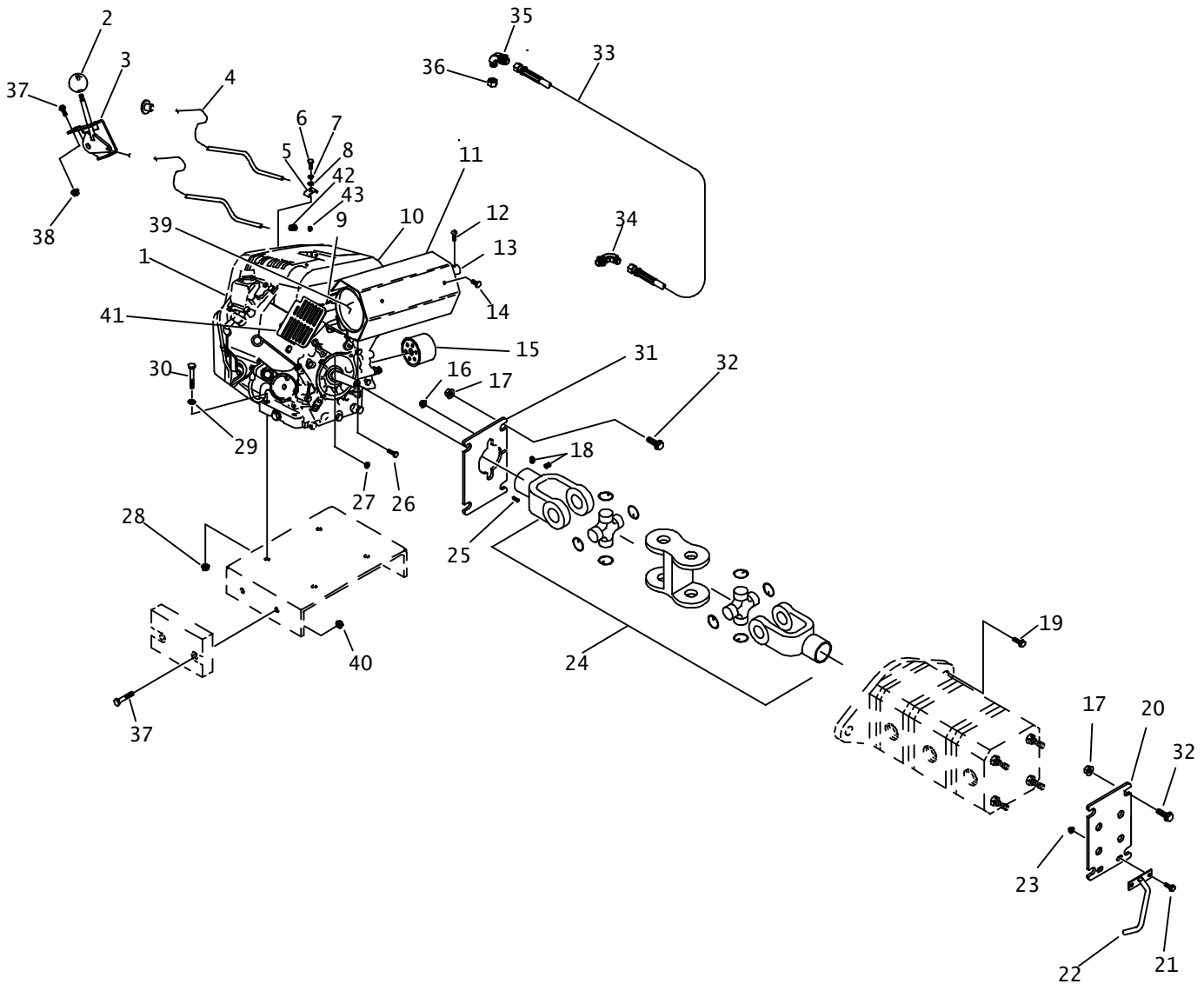
1-THESE LOCKNUTS WERE USED TO MOUNT ON EARLY STYLE FRAME. SEE F/N 2.
2-ENDS WITH S/N 4F0492.
3-BEGINS WITH S/N 4F0493.
4-ONAN ENGINE NO LONGER AVAILABLE, REPLACE WITH HONDA CONVERSION KIT P/N 191-328.

NOTE:

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

HONDA ENGINE

255SX
BEGINS WITH S/N 4X0175



HONDA ENGINE**255SX****BEGINS WITH S/N 4X0175**

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	194-037	1	ENGINE - HONDA	SEE FOOTNOTE 1
	159-244		FUEL FILTER	
2.	111-064	1	KNOB (1/4-NC, ORG)	
3.	196-080	1	THROTTLE CABLE (50")	
4.	195-951	1	CHOKE CABLE (59-1/16")	
	105-093	1	NUT (3/8-NF)	
	105-072	1	LOCK WASHER (3/8")	
5.	110-741	1	CABLE CLAMP	
6.	106-542	1	SCREW (M5-0.80 X 16mm, PAN PLPS)	
7.	195-418	1	LOCK WASHER (#10)	
8.	106-205	1	WASHER (.191")	
9.	310-128	1	MUFFLER BRACKET	
10.	194-223	1	OUTER FILTER	
11.	362-829	1	HD MUFFLER GUARD	
12.	105-804	1	FLG SCREW (#10-16 X 1/2")	SEE FOOTNOTE 2
13.	196-224	1	SPARK ARRESTER	
14.	106-224	6	FLG SCREW (M6-1.00 X 10MM)	
15.	159-209	1	ENGINE OIL FILTER	
16.	105-834	2	FLG LOCKNUT (3/8-NC)	
17.	105-065	8	LOCKNUT (1/2-NC)	
18.	105-716	2	SET SCREW (3/8-NC X 1/2")	
19.	105-827	2	FLG LK BOLT (3/8-NC X 1-1/4")	
20.	325-076	1	PUMP SUPPORT	
21.	105-873	2	FLG LK BOLT (5/16-NC X 1")	
22.	325-128	1	HOSE HANGER BRACKET	
23.	105-003	2	FLG LOCKNUT (5/16-NC)	
24.	182-109	1	DOUBLE UNIVERSAL JOINT	
25.	165-927	1	KEY (1/4" X 1-1/4")	
26.	106-162	4	FLG SCREW (M8-1.25 X 20mm, GD8)	
27.	106-386	4	FLG LOCKNUT (M8-1.25)	
28.	105-845	4	FLG LOCKNUT (3/8-NC)	SEE FOOTNOTE 3
29.	106-396	4	WASHER (M10, HARDENED)	
30.	105-183	4	BOLT (3/8-NC X 2-1/2", GD8)	
31.	325-075	1	PUMP MOUNT	
32.	105-830	8	FLG LK BOLT (1/2-NC X 1-1/4")	
33.	154-563	1	HOSE (08JFX-18"-2000)	
34.	154-238	1	CONNECTOR (M14-1.50-08J90)	
35.	154-148	1	BK CONNECTOR (08J-08J90BK)	
36.	154-089	1	CAP (08JF)	
37.	105-820	4	FLG LK BOLT (1/4-NC X 3/4")	
38.	105-832	2	FLG LOCKNUT (1/4-NC)	
39.	194-182	1	MUFFLER	SEE FOOTNOTE 2
	165-807	2	EXHAUST GASKET	

FOOTNOTES:

1. SUPERSEDED WITH KIT# 190-1714
2. FLG SCREW (REF #12) IS USED TO HOLD REF #13 (196-224 SPARK ARRESTER) TO REF #39 (196-220) MUFFLER (HONDA). - OPTIONAL
3. USE LOCTITE #680 AND TORQUE TO 80-90 FT/LBS.

NOTE:

HONDA ENGINE**255SX****BEGINS WITH S/N 4X0175**

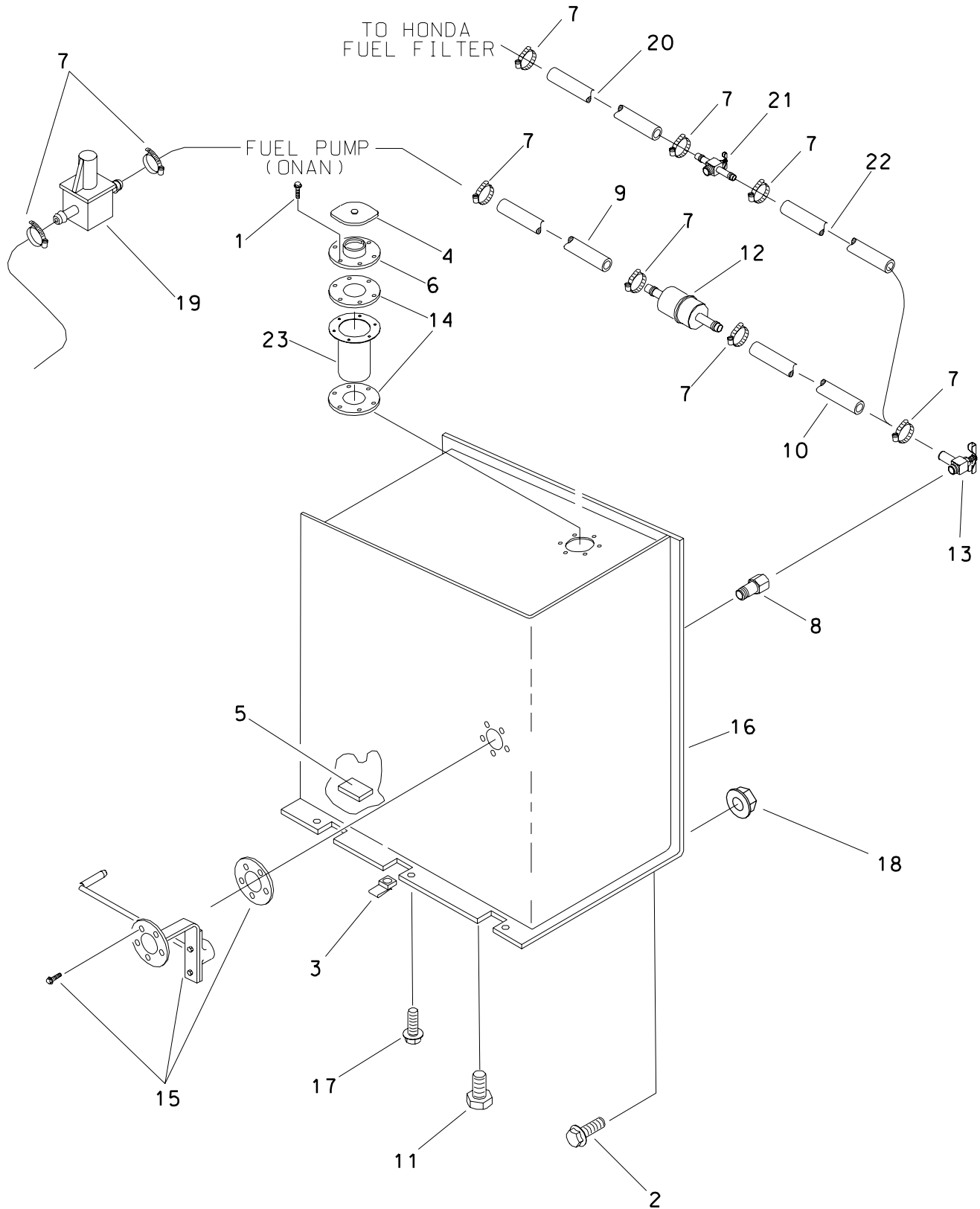
REF	PART				
NO.	NUMBER	QTY	DESCRIPTION		REMARKS
40.	106-015	2	NUTSERT (1/4-NC)		
41.	362-820	1	GUARD, INLET		
42.	115-618	1	COMPRESSION SPRING (.625")		
43.	107-912	1	CABLE STOP		

FOOTNOTES:

1. SUPERSEDED WITH KIT# 190-1714
2. FLG SCREW (REF #12) IS USED TO HOLD REF #13 (196-224 SPARK ARRESTER) TO REF #39 (196-220) MUFFLER (HONDA). - OPTIONAL
3. USE LOCTITE #680 AND TORQUE TO 80-90 FT/LBS.

NOTE:

FUEL LINE



FUEL LINE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-214	6	FLG SCREW (#10-24 X 1/2")	
2.	105-826	3	FLG LK BOLT (3/8-NC X 1")	
3.	106-719	3	CLIP NUT (3/8-NC)	
4.	110-010	1	FUEL CAP (1-1/2")	
5.	110-130	1	MAGNET	
6.	110-132	1	FILLER NECK	
7.	110-249	9	WORM CLAMP (1/4" TO 5/8")	
8.	115-181	1	REDUCER (04N-02NF)	
9.	116-108	AR	BULK HOSE (5/16", SOLD PER 1')	USE 1 @ 4"
10.	116-108	AR	BULK HOSE (5/16", SOLD PER 1')	USE 1 @ 24"
11.	155-130	1	PLUG (06S)	
12.	155-941	1	FUEL FILTER (05H-05H, IN-LINE)	
13.	156-239	1	S/O SHUT-OFF (02N-05H90)	
	156-064	1	S/O SHUT-OFF (02N-03H90)	SEE FOOTNOTE 2
14.	165-626	2	FILLER NECK GASKET	
15.	217-510	1	FUEL SENDER	
	105-214		FLG SCREW (# 10-24 X 1/2")	
	165-704		GASKET	
	506-021		NUT (#10-32)	
16.	360-856	1	FUEL TANK	SEE FOOTNOTE 3
	364-654	1	FUEL TANK	SEE FOOTNOTE 2
17.	105-827	3	FLG LK BOLT (3/8-NC X 1-1/4")	
18.	105-834	3	FLG LOCKNUT (3/8-NC)	
19.	153-762	1	S/O SHUT-OFF (05H-05H)	BEGINS WITH S/N 4F0493, SEE FOOTNOTE 1
20.	115-381	AR	BULK HOSE (1/4", SOLD PER 1')	USE 1 @ 4", SEE FOOTNOTE 2
21.	156-286	1	S/O SHUT-OFF (04H-04H)	SEE FOOTNOTE 2
22.	115-381	AR	BULK HOSE (1/4", SOLD PER 1')	USE 1 @ 30", SEE FOOTNOTE 2
23.	153-606	1	STRAINER BASKET	

FOOTNOTES

1. INSTALL AFTER FUEL PUMP TO PREVENT FUEL SYSTEM FROM LOSING PRIME, ALSO INCLUDES TWO OF REF #7.
2. BEGINS WITH HONDA ENGINE S/N 4X0175.
3. ENDS WITH S/N 4X0174.

NOTE:

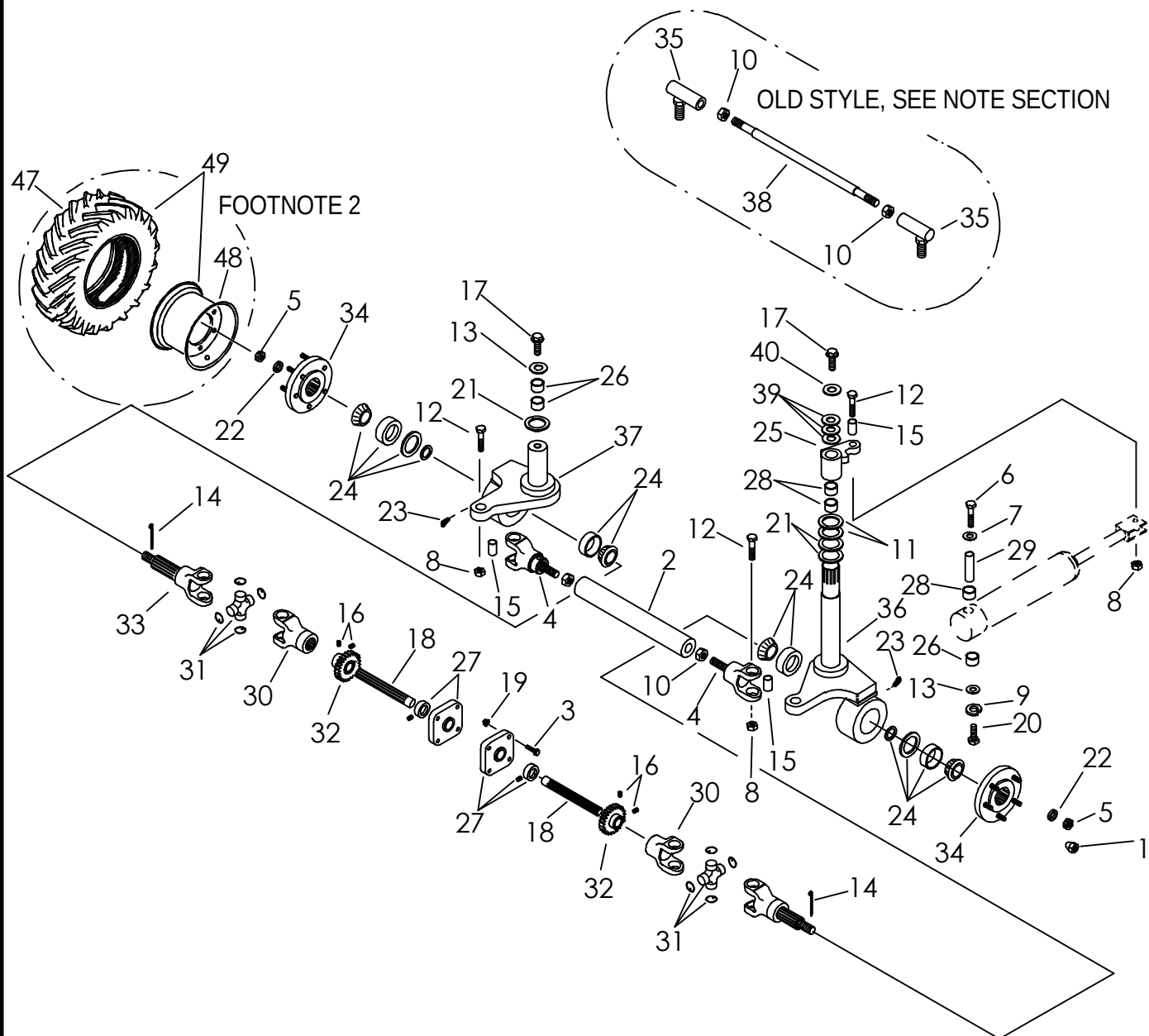
REFER TO O-RING CHART (800-301) IN BACK OF THE BOOK FOR REPLACEMENT OF O-RINGS.

NOTES:

[illegible]

POWER TRAIN

FRONT STEERING AND DRIVE



FRONT STEERING AND DRIVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-054	10	LUG NUT (7/16-NF)	
2.	160-435	2	TIE ROD	AFTER S/N
3.	105-150	4	BOLT (3/8-NC X 1-3/4")	
4.	160-377	2	TIE ROD END	AFTER S/N
5.	105-317	2	SLOTTED JAM NUT (1-NS)	
6.	105-379	1	BOLT (3/4-NC X 1-1/4", NYLOK)	
7.	105-384	2	WASHER (3/4")	
8.	105-403	1	JAM NUT (5/8-NC)	USE QTY. 3 OF 105-357 LOCKNUT (5/8-NC) AFTER S/N
9.	105-389	1	LOCK WASHER (3/4)	BEFORE S/N
10.	105-404	2	JAM NUT (3/4-NF)	
11.	105-409	2	MACHINERY BUSHING	
12.	105-462	1	BOLT (5/8-NC X 2-1/4")	USE QTY. 3 OF 105-462 AFTER S/N
13.	105-422	2	WASHER (3/4")	
14.	105-502	2	COTTER PIN (3/16" X 2")	
15.	125-403	1	BRONZE BUSHING	USED WITH 361-901 (REF #25); USE QTY. 3 AFTER S/N
16.	105-705	4	SETSCREW (1/4-NC X 3/8")	
17.	105-829	2	FLG LK BOLT (1/2-NC X 1")	
18.	161-066	2	FRONT AXLE	
19.	105-834	4	FLANGE LOCKNUT (3/8-NC)	
20.	105-379	1	BOLT (3/4-NC X 1-1/4", NYLOK)	SEE FOOTNOTE 1; USE QTY. 1 OF 105-339 SEE FOOTNOTE 3
21.	110-003	3	MACHINERY BUSHING (1-3/8")	
22.	110-055	2	BUSHING (1-1/4", 14GA)	
23.	115-006	2	ZERK (1/4-NF 45A)	
24.	125-209	2	BEARING	
25.	361-857	1	STEERING CRANK	USE 361-901 AFTER S/N 4C0016 SEE REF #15
26.	125-435	3	COMPOSITION BUSHING	
27.	125-606	2	FLANGE BEARING	
	105-705		SET SCREW (1/4-NC X 3/8" 133", CUP)	
	125-704		LOCK COLLAR	
28.	125-737	3	COMPOSITION BUSHING	
29.	183-409	1	PIN	
30.	182-062	2	AXLE YOKE	
31.	180-723	2	CROSS AND BEARING	
	115-010		ZERK (1/8-NPT, 22.5A)	
	180-760		BEARING CAP	
32.	175-473	2	SPROCKET (60B21)	
	175-453	2	FRONT SPROCKET	
33.	160-148	2	SPINDLE AND YOKE	
34.	160-149	2	WHEEL FLANGE	
35.	160-314	2	TIE ROD END	USE BEFORE S/N
36.	160-387	1	LEFT STEERING PIVOT	USE 160-437 AFTER S/N
37.	160-388	1	RIGHT STEERING PIVOT	USE 160-438 AFTER S/N
38.	160-389	1	TIE ROD	USE 160-389 BEFORE S/N
39.	110-096	AR	MACHINERY BUSHING	
40.	105-088	1	WASHER (9/16)	

NOT SHOWN:

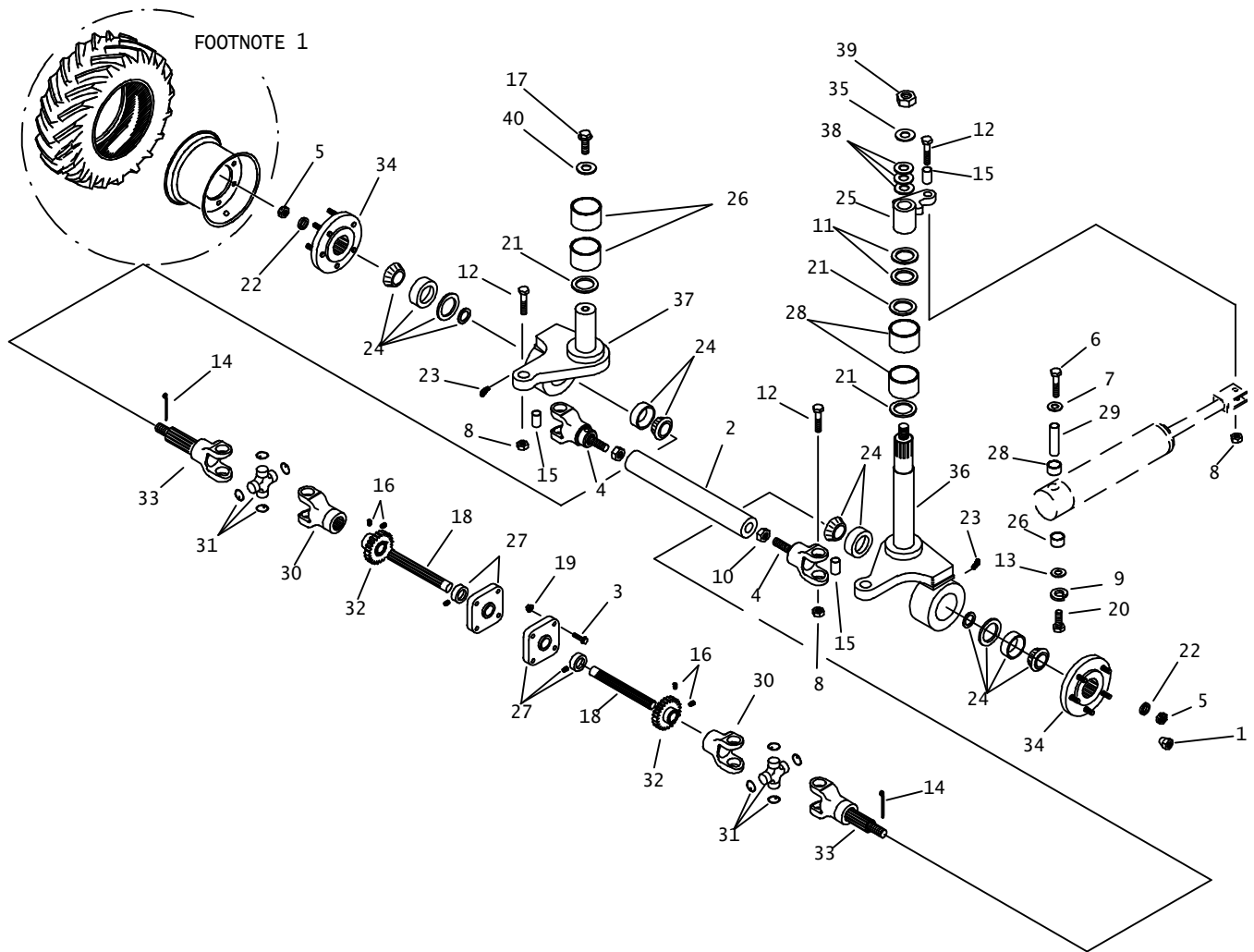
FOOTNOTES:

- 1-ENDS WITH S/N 4C0016, STEERING CRANK HAS BOSS OVERLAPPING LEVER END.
- 2-SEE ALSO PAGES #802-913 & #802-914 FOR FURTHER DETAILS.
- 3-BEGINS WITH S/N 4C0017, HAS STEERING CRANK THAT HAS OFFSET ON LEVER END.

NOTE:

190-1193		TIE ROD REPLACEMENT KIT	OLD STYLE
300-4475	1	ROD	
500-1341	2	BALL JOINT	
105-975	8	WASHER (3/4")	
105-404	2	JAM NUTS (3/4"-NF)	
501-295	2	DEF. THREAD LOCKNUT	

FRONT STEERING AND DRIVE BEGINS WITH S/N 4V0649



FRONT STEERING AND DRIVE BEGINS WITH S/N 4V0649

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-054	10	LUG NUT (7/16-NF)	
2.	160-435	2	TIE ROD	
3.	105-150	4	BOLT (3/8-NC X 1-3/4")	
4.	160-377	2	TIE ROD CLEVIS (3/4-NF)	
5.	105-317	2	CASTLE NUT (1-14 NF)	
6.	105-379	1	LK BOLT (3/4-NC X 1-1/4", NLK)	
7.	105-384	2	WASHER (3/4")	
8.	105-357	3	LOCKNUT (5/8-NC)	
9.	105-389	1	LOCK WASHER (3/4")	
10.	105-404	2	JAM NUT (3/4-NF)	
11.	105-409	2	WASHER (1-3/8")	
12.	105-462	3	BOLT (5/8-NC X 2-1/4")	
13.	105-422	1	WASHER (3/4")	
14.	105-502	2	COTTER PIN (3/16" X 2")	
15.	125-403	3	BRONZE BUSHING (.625")	
16.	105-705	4	SET SCREW (1/4-NC X 3/8", CUP)	
17.	105-829	1	FLG LK BOLT (1/2-NC X 1")	
18.	161-066	2	FRONT AXLE	
19.	105-834	4	FLG LOCKNUT (3/8-NC)	
20.	105-339	1	BOLT (3/4-NC X 2-3/4", GD8)	
21.	110-003	3	MACHINERY BUSHING (1-3/8")	
22.	110-055	2	MACH BUSHING (1-1/4", 14GA)	
23.	115-006	2	ZERK (1/4-NF, 45)	
24.	125-209	2	TAPERED BEARING/RACE (1.250")	
25.	361-901	1	STEERING CRANK	
26.	125-435	3	COMPOSITION BUSHING (1.375")	
27.	125-606	2	FLANGE BEARING (1.250")	
	105-705		SET SCREW (1/4-NC X 3/8", CUP)	
	125-704		LOCK COLLAR (1.250")	
28.	125-737	3	COMPOSITION BUSHING (1.383")	
29.	183-409	1	PIN	
30.	182-062	2	YOKE (1.088"-10s)	
31.	180-723	2	CROSS/BEARING KIT (1-1/8")	
	115-010		ZERK (02N22.5)	
32.	175-453	2	FRONT SPROCKET	
33.	160-148	2	REAR SPINDLE & YOKE	
34.	160-149	2	WHEEL FLANGE	
35.	105-088	1	WASHER (9/16")	
36.	141-594	1	LEFT STEERING PIVOT	
37.	160-438	1	RIGHT STEERING PIVOT	
38.	110-096	AR	MACHINERY BUSHING (1/2")	
39.	105-065	1	LOCKNUT (1/2-NC)	
40.	105-475	1	WASHER (1/2")	

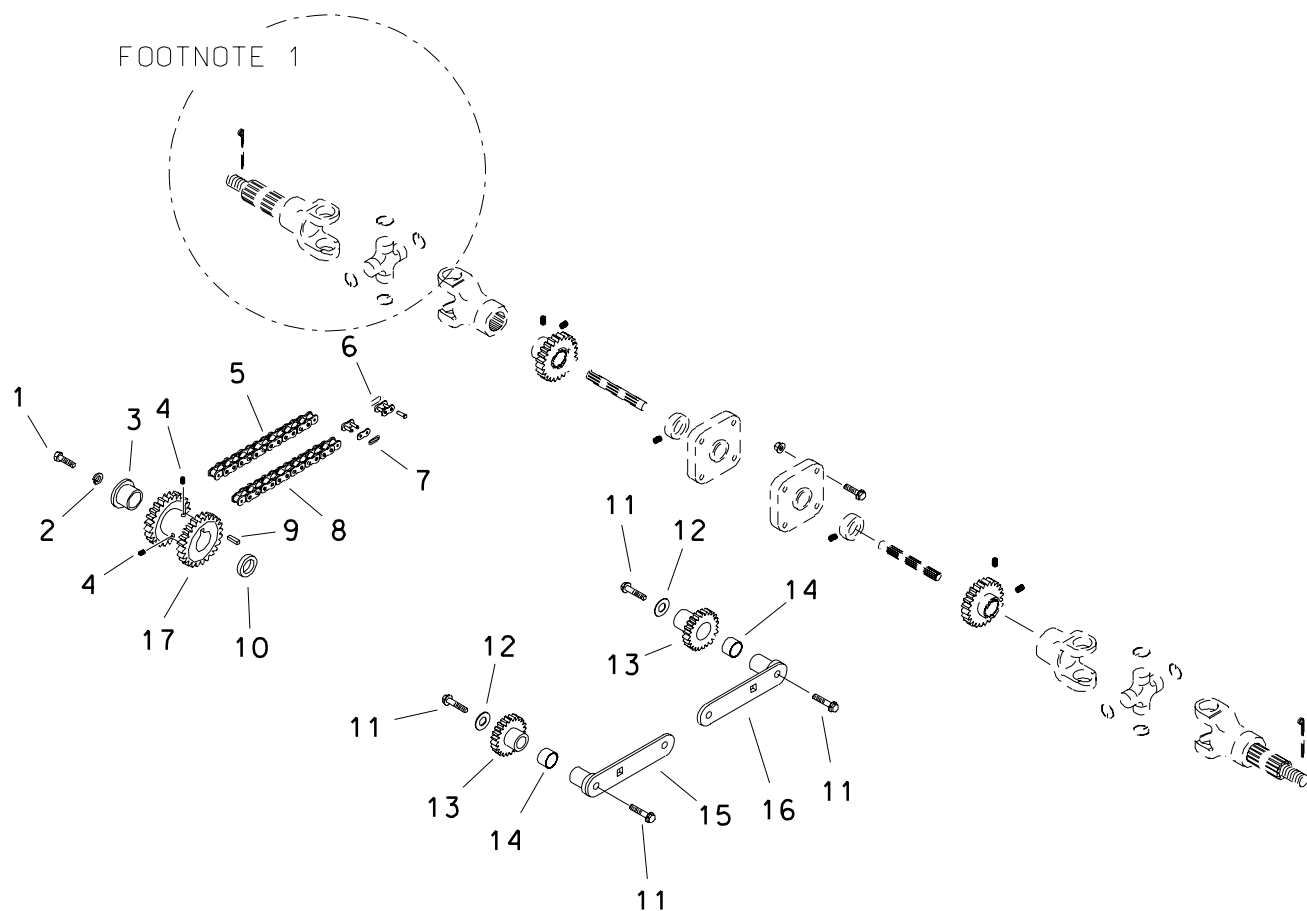
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FOOTNOTES:

1. SEE ALSO PAGE NUMBERS ID0104093 AND ID0104088 FOR FURTHER DETAILS.

NOTE:

CHAIN DRIVE



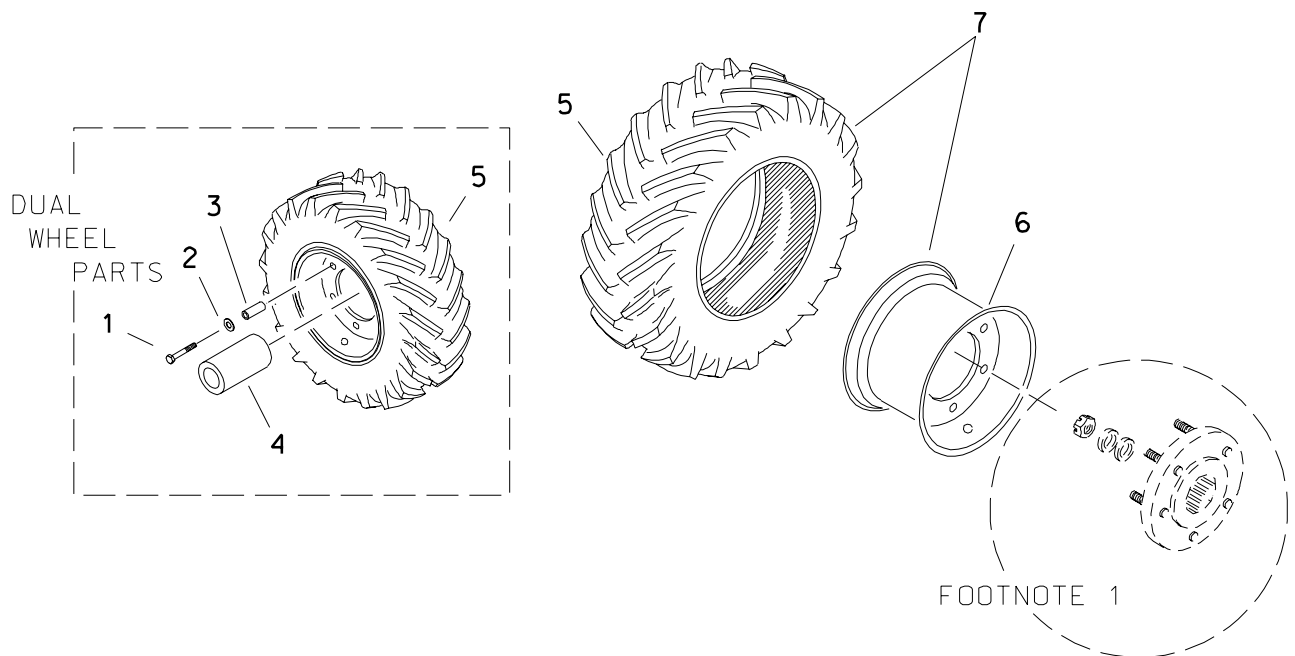
CHAIN DRIVE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-150	2	BOLT (3/8-NC X 1-3/4")	
2.	105-072	2	LOCK WASHER (3/8")	
3.	181-764	2	RETAINER BUSHING	
4.	105-716	4	SETSCREW (3/8-NC X 1/2")	
5.	130-225	2	ROLLER CHAIN (#60, 65P)	INC REF #'S 6 & 7
6.	130-202	AR	OFFSET LINK (#60)	
7.	130-203	4	CONNECTOR LINK (#60)	
8.	130-226	2	ROLLER CHAIN (#60, 67P)	INC REF #'S 6 & 7
9.	166-832	2	KEY (3/16" X 1", HT)	
10.	184-244	2	SPACER	
11.	105-829	12	FLG LK BOLT (1/2-NC X 1")	
12.	105-398	4	WASHER (1/2")	
13.	175-451	4	IDLER SPROCKET	
14.	125-432	4	BRONZE BUSHING (1")	
15.	361-859	2	REAR IDLER	
16.	361-860	2	FRONT IDLER	
17.	175-472	1	DRIVE SPROCKET	

FOOTNOTES

1-SEE ALSO PAGES #801-648 & #802-914 FOR FURTHER DETAILS.

TIRE & WHEEL



TIRE & WHEEL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-802	10	BOLT (1/2-NC X 5-1/2")	REFER TO INSTALLATION INSTRUCTIONS 050-172
2.	105-244	10	WASHER (1/2")	REFER TO INSTALLATION INSTRUCTIONS 050-172
3.	105-259	10	DUAL LUGNUT (7/16-NF X 1/2-NC)	REFER TO INSTALLATION INSTRUCTIONS 050-172
4.	205-326	2	WHEEL SPACER	REFER TO INSTALLATION INSTRUCTIONS 050-172
5.	205-103		TIRE (16 X 6.50-8, B4TL)	
6.	205-227		WHEEL	
7.	205-776	1	T/W (16 X 6.50-8, B4TL, L)	INC REF #'S 5 & 5 AND SEE FOOTNOTE 2
	207-763	1	T/W (16 X 6.50, TYR, L)	INC TYRFIL AND REF #'S 5 & 6, AND SEE FOOTNOTE 2
	205-777	1	T/W (16 X 6.50-8, B4TL, R)	INC REF #'S 5 & 5 AND SEE FOOTNOTE 2
	205-764	1	T/W (16 X 6.50, TYR, R)	INC TYRFIL AND REF #'S 5 & 6, AND SEE FOOTNOTE 2

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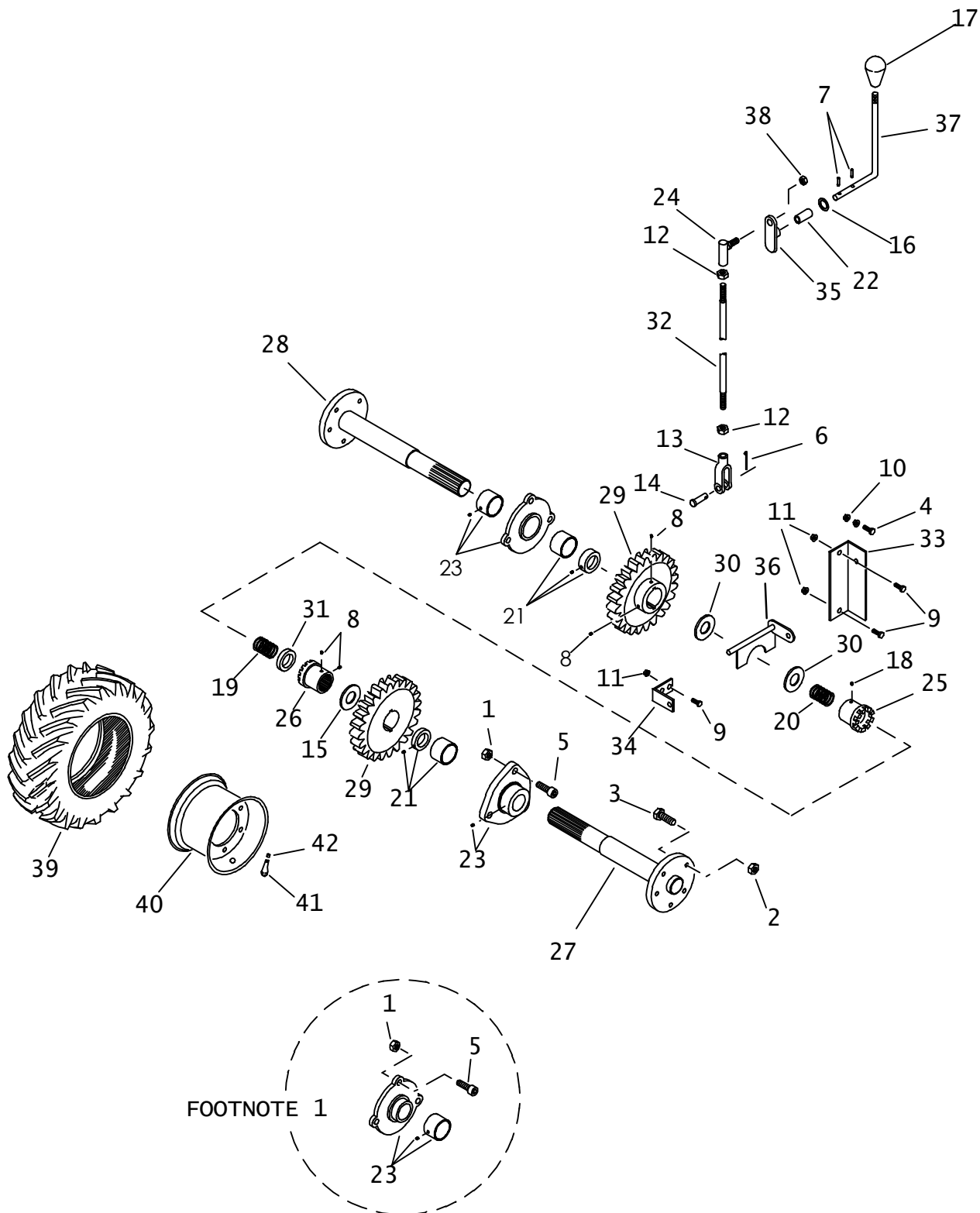
205-173 TYRFIL 24 LBS/TIRE

FOOTNOTES

1-SEE ALSO PAGES #801-648 & #802-913 FOR FURTHER DETAILS.

2-LEFT & RIGHT NOTATION REFERS TO SIDE OF MACHINE WHICH WHEEL ASSEMBLY IS MOUNTED AS VIEWED FROM BEHIND MACHINE. V-SHAPE OF THREAD POINTS UPWARD WHEN VIEWED FROM BEHIND.

REAR AXLE BEGINS WITH S/N 4F0062



REAR AXLE

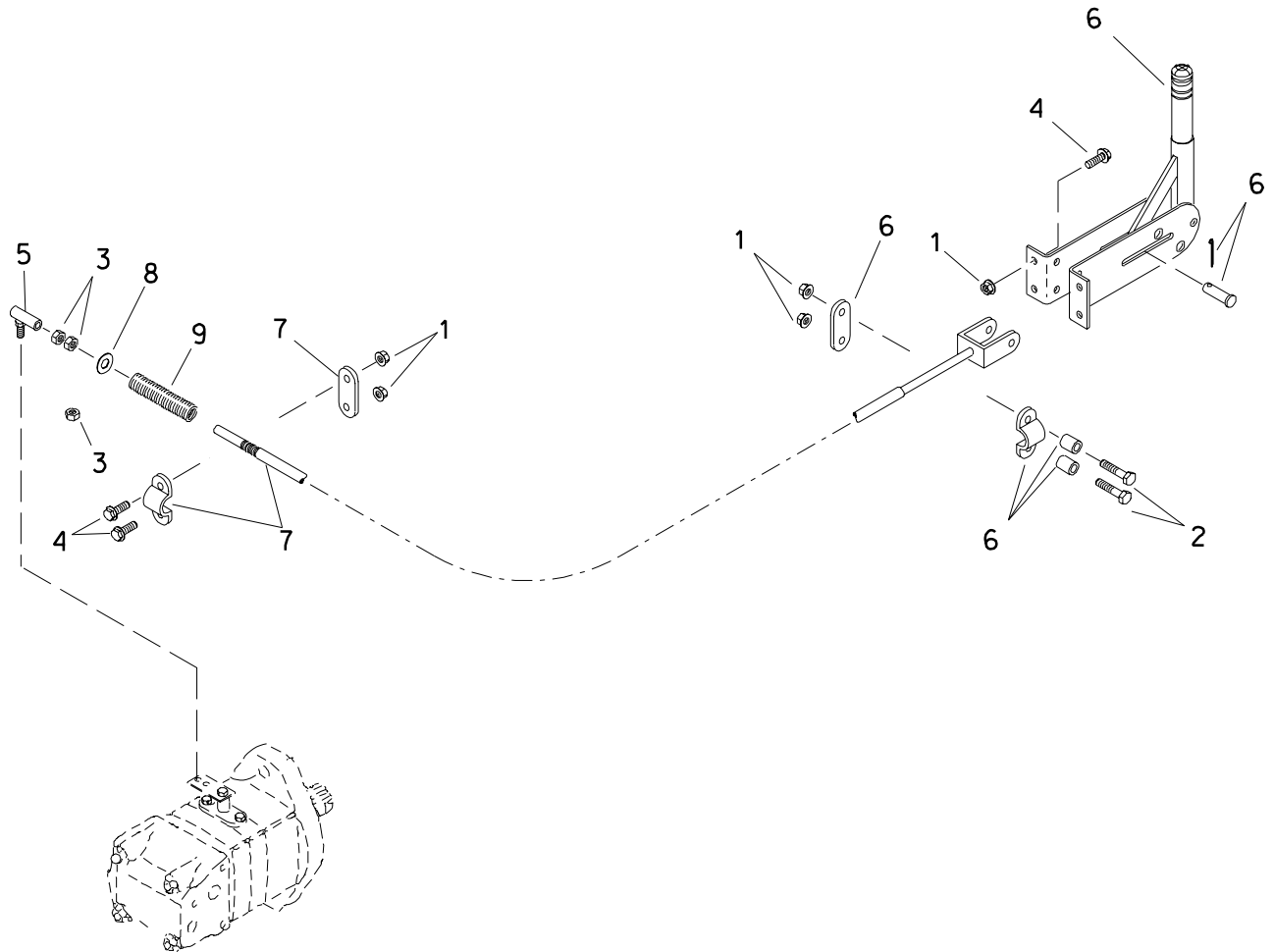
BEGINS WITH S/N 4F0062

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-047	6	LOCKNUT (3/8-NC)	
2.	105-054	10	LUGNUT (7/16-NF)	
3.	105-171	10	LUGBOLT (7/16-NF X 1-3/8")	
4.	105-229	1	BOLT (1/2-NC X 2")	
5.	105-249	6	CARRIAGE BOLT (3/8-NC X 1-1/4")	
6.	105-509	1	COTTER PIN (1/8" X 1")	
7.	105-510	2	ROLL PIN (1/4" X 1-1/2")	
8.	105-701	6	SETSCREW (5/16-NC X...")	
9.	105-826	4	BOLT (3/8-NC X 1")	
10.	105-833	2	FLANGE LOCKNUT ((1/2-NC)	
11.	105-834	4	FLANGE LOCKNUT (3/8-NC)	
12.	106-018	1	JAM NUT (3/8-NF)	
13.	110-027	1	CLEVIS (3/8-NF)	
14.	110-053	1	CLEVIS PIN (3/8")	
15.	110-055	AR	MACHINERY BUSHING (14GA X 1-7/8")	
16.	110-095	AR	MACHINERY BUSHING (18GA X 1-1/4")	
17.	110-377	1	KNOB (1/2-NC, BLUE)	
18.	115-003	1	ZERK (04NF, 90)	
19.	115-637	1	COMPRESSION SPRING	
20.	115-638	1	COMPRESSION SPRING	
21.	125-011	2	BALL BEARING	
	125-704	2	LOCK COLLAR (1-1/4")	
	105-701	2	SET SCREW (5/16-NC X...")	
22.	125-402	1	BRONZE BUSHING	
23.	125-623	2	FLANGE BEARING	
	105-701	1	SETSCREW (5/16-NC X...")	
	<u>125-607</u>	2	FLANGE BEARING	
24.	160-350	1	BALL JOINT (3/8-NF)	
25.	161-088	1	LOCKHUB	INCL. (1) #115-003 ZERK
26.	161-104	1	LOCKHUB	INCL. (1) #105-701 SETSCREW
27.	161-107	1	LEFT AXLE	
28.	161-108	1	RIGHT AXLE	
29.	175-480	2	SPROCKET (.750" P, 30T)	
30.	180-118	2	MACHINERY BUSHING (2.375" OD)	
31.	181-823	1	AXLE PIVOT BUSHING	
32.	361-540	1	ROD	
33.	363-059	1	MOUNT BRACKET	
34.	363-060	1	MOUNT BRACKET	
35.	365-047	1	ROD LEVER	
36.	365-049	1	SHIFT PLATE	
37.	365-053	1	SHIFT HANDLE	
38.	505-113	1	LOCKNUT (3/8-NF, GD2)	
39.	205-120	2	TIRE (23 X 10.5-12,B4TL,B/L)	
	205-817	2	TIRE AND WHEEL ASSEMBLY	INCL REF. NO.'S 39 THRU 42
	205-820	2	TIRE AND WHEEL ASSEMBLY	INCL TYRFIL AND REF NO.'S 39 42
40.	205-290	2	WHEEL	
41.	205-164		VALVE STEM	
42.	205-165		VALVE CAP	

NOT SHOWN
205-173 TYRFIL (85 LBS/TIRE)

FOOTNOTES:
1 -EARLY STYLE

PARKING BRAKE ENDS WITH S/N (EARLIEST MODEL)

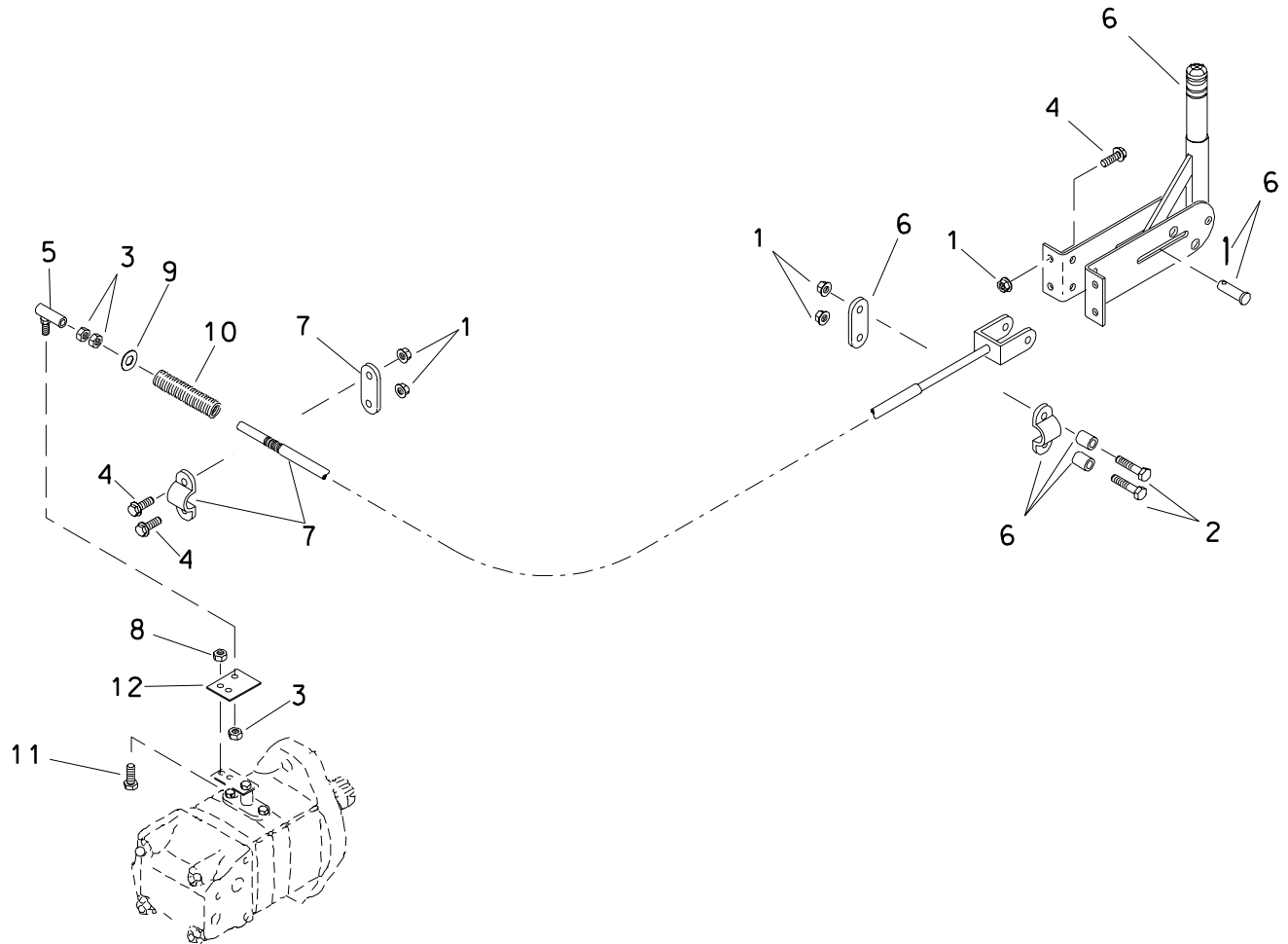


PARKING BRAKE ENDS WITH S/N (EARLIEST MODEL)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-003	8	FLG LOCKNUT (5/16-NC)	
2.	105-109	2	BOLT (5/16-NC X 1-1/2")	
3.	105-294	3	JAM NUT (5/16-NF)	
4.	105-873	6	FLG BOLT (5/16-NC X 1")	
5.	160-335	1	BALL JOINT	
6.	163-037	1	PARKING BRAKE LEVER	
7.	163-038	1	MOTOR LOCK CABLE	
8.	105-117	1	WASHER (5/16")	BEGINS WITH S/N 4C0017
9.	115-636	1	RETURN SPRING	BEGINS WITH S/N 4C0017

FOOTNOTES

PARKING BRAKE BEGINS WITH S/N

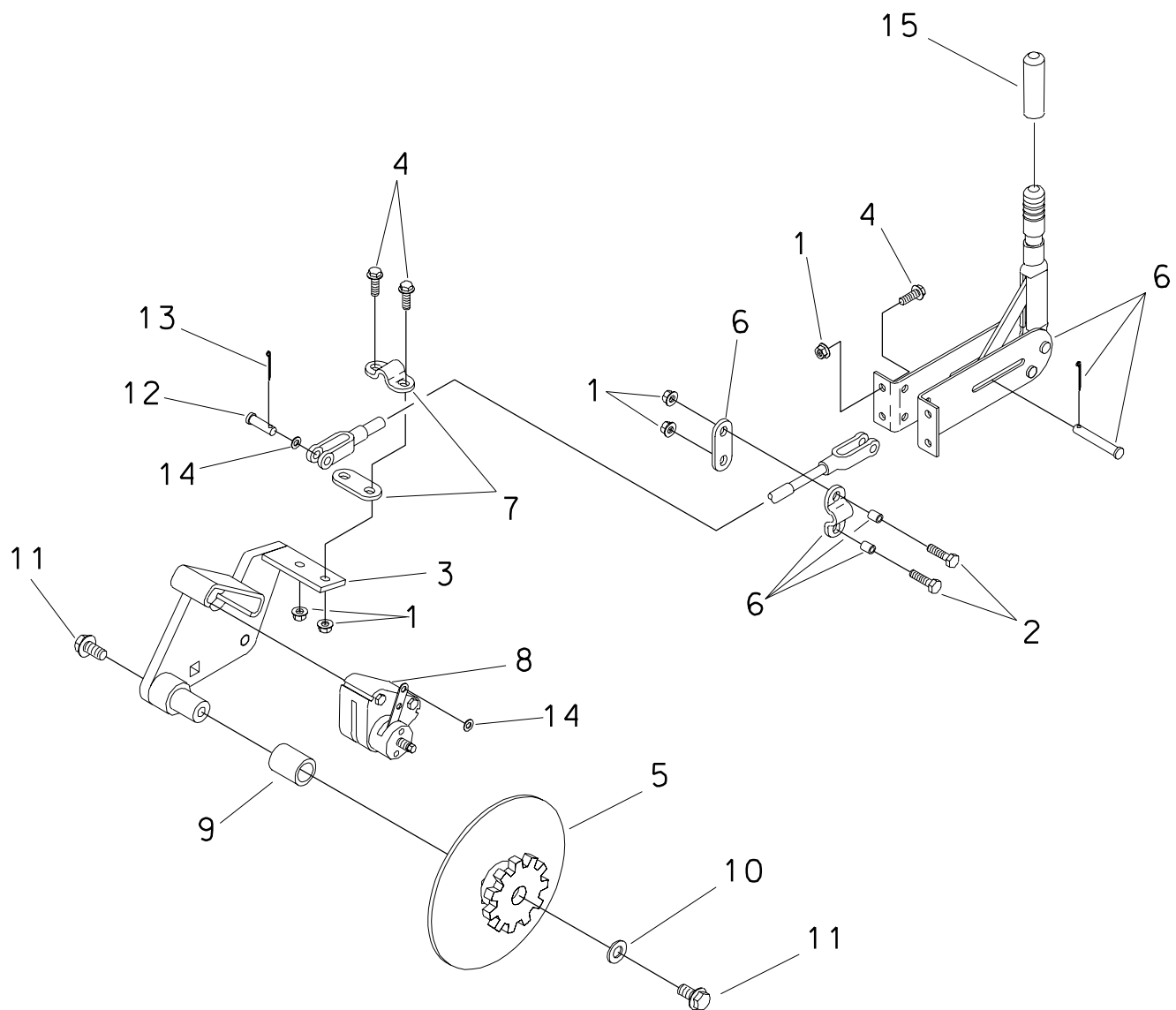


PARKING BRAKE BEGINS WITH S/N

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-003	8	FLG LOCKNUT (5/16-NC)	
2.	105-109	2	BOLT (5/16-NC X 1-1/2")	
3.	105-294	3	JAM NUT (5/16-NF)	
4.	105-873	6	FLG BOLT (5/16-NC X 1")	
5.	160-335	1	BALL JOINT	
6.	163-037	1	PARKING BRAKE LEVER	
7.	163-038	1	MOTOR LOCK CABLE	
8.	105-213	2	LOCKNUT (5/16-NC)	BEGINS WITH S/N 4G0441
9.	105-117	1	WASHER (5/16")	
10.	115-363	1	RETURN SPRING	
11.	105-094	2	BOLT (6/16-NC X 1")	
12.	363-113	1	CABLE MOUNT BAR	

FOOTNOTES

PARKING BRAKE PRESENT PRODUCTION



PARKING BRAKE PRESENT PRODUCTION

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-003	8	FLG LOCKNUT (5/16-NC)	
2.	106-517	2	BOLT (5/16-NC X 1-3/8, HH GD5)	
3.	163-146	1	IDLER BRACKET	
4.	105-873	6	FLG LK BOLT (5/16-NC X 1")	
5.	163-147	1	DISC SPROCKET	
6.	160-744	1	PARKING BRAKE LEVER	
7.	163-083	1	BRAKE CABLE	
8.	163-151	1	BRAKE CALIPER	
9.	125-432	1	BRONZE BUSHING (1")	
10.	105-398	1	WASHER (1/2")	
11.	105-829	3	FLG LK BOLT (1/2-NC X 1")	
12.	110-082	1	CLEVIS PIN (1/4" X 1 1/16")	
13.	105-530	1	COTTER PIN (1/16" X 3/4")	
14.	105-117	2	WASHER (5/16")	
15.	110-469	1	GRIP (7/8", ORANGE)	

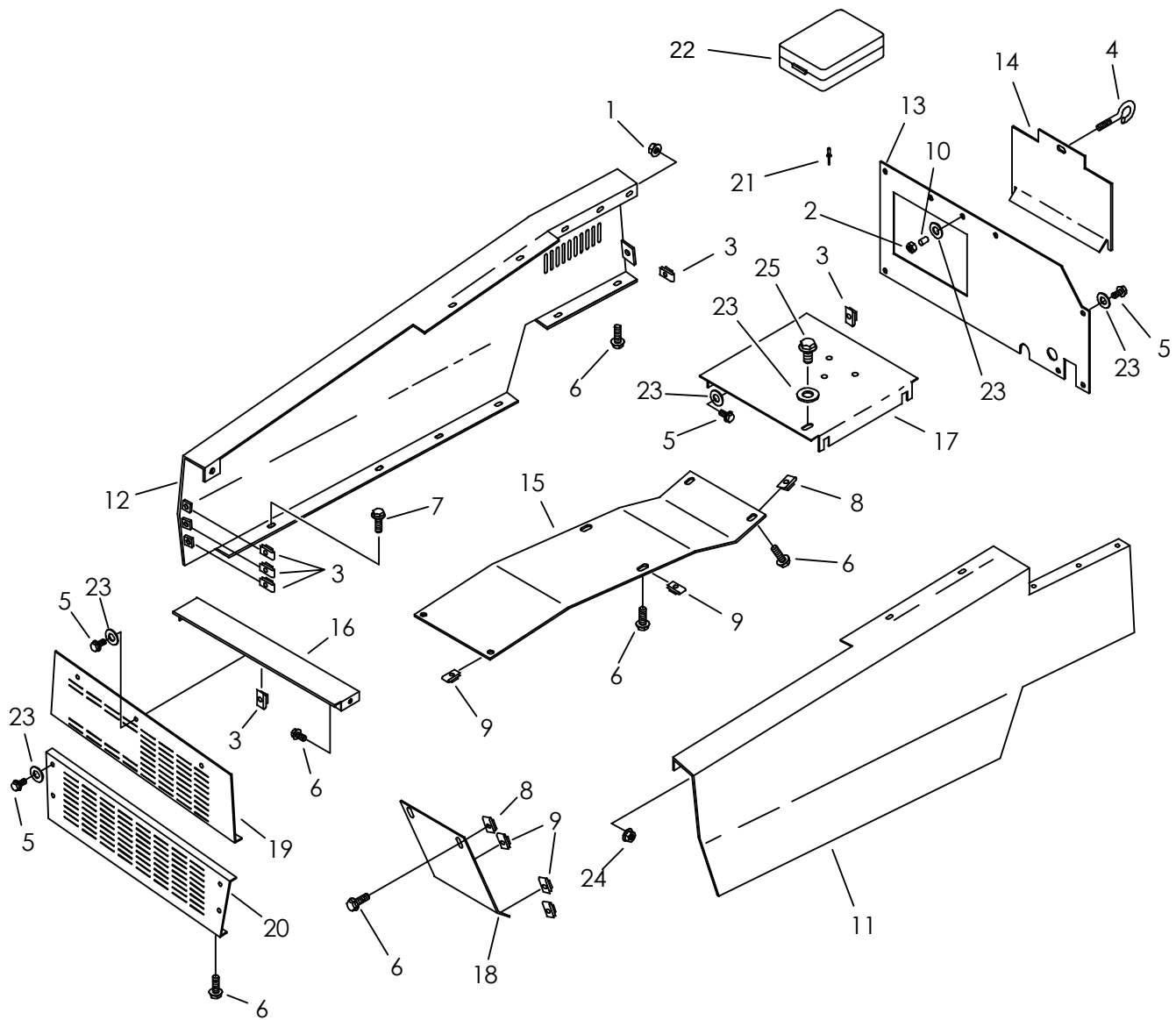
FOOTNOTES

NOTES:

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FRAME COMPONENTS

GRILLE AND PANELS



GRILLE AND PANELS

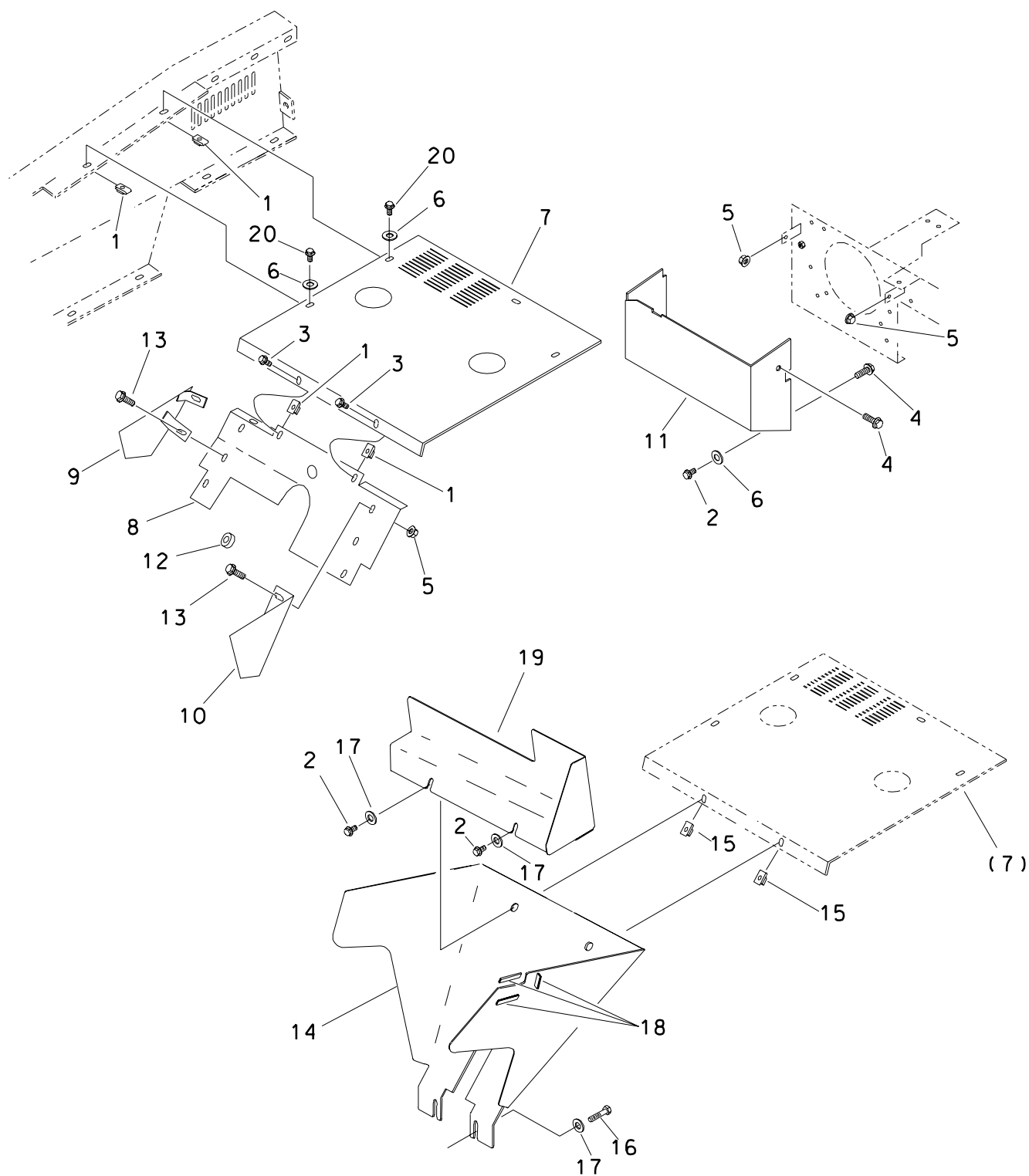
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-003	3	FLG LOCKNUT (5/16-NC)	
2.	105-089	1	LOCKNUT (5/16-NC)	
3.	105-137	10	CLIP NUT (5/16-NC)	
4.	105-257	1	EYE BOLT (5/16-NC X 3/4")	
5.	105-823	19	FLG LK BOLT (5/16-NC X 3/4")	
6.	105-826	10	FLG LK BOLT (3/8-NC X 1")	
7.	105-825	1	FLG LK BOLT (3/8-NC X 3/4")	
8.	106-719	4	CLIP NUT (3/8-NC)	
9.	107-011	6	CLIP NUT (3/8-NC)	
10.	115-577	1	COMPRESSION SPRING	
11.	325-026	1	LEFT PANEL	
	320-149	1	LEFT PANEL	SEE FOOTNOTE 5
12.	325-029	1	RIGHT PANEL	
	320-148	1	RIGHT PANEL	SEE FOOTNOTE 5
13.	325-031	1	BACK PANEL	SEE FOOTNOTE 1
	325-116	1	BACK PANEL	SEE FOOTNOTE 2
14.	325-034	1	BATTERY COVER	
15.	325-062	1	BOTTOM PANEL	
16.	325-063	1	TOP PANEL	
	320-140	1	TOP PANEL	SEE FOOTNOTE 5
17.	325-070	1	REAR TOP PANEL	USED WITH BORING UNIT
18.	325-073	1	FRONT PANEL	
	325-074	1	FRONT PANEL (ROTO WITCH)	
19.	362-401	1	UPPER GRILLE	
20.	362-402	1	LOWER GRILLE	SEE FOOTNOTE 3
	362-428	1	LOWER GRILLE	SEE FOOTNOTE 4
21.	110-348	3	POP RIVET (3/16" X .664")	
22.	318-588	1	MANUAL COMPARTMENT	
23.	105-117	19	WASHER (5/16")	
24.	105-834	2	FLG LOCKNUT (3/8-NC)	
25.	105-866	1	FLG LK BOLT (5/16-NC X 1.250)	

FOOTNOTES:

1. ENDS WITH S/N 48011. USED ON MACHINES NOT EQUIPPED WITH PLOW SWING.
2. BEGINS WITH S/N 4B0112. USED ON MACHINES EQUIPPED WITH PLOW SWING.
3. ENDS WITH S/N 4C0016. THIS LOWER GRILLE WAS USED ON MACHINES WITH BOLT ON COUNTERWEIGHT KITS.
4. BEGINS WITH S/N 4C0017. THIS LOWER GRILLE IS USED ON MACHINES WHICH DO NOT ACCEPT COUNTERWEIGHT KITS.
5. BEGINS WITH HONDA ENGINE - S/N 4X0175.

NOTE:

DEFLECTORS



DEFLECTORS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-137	6	CLIP NUT (5/16-NC)	
2.	105-827	3	FLG LK BOLT (3/8-NC X 1-1/4")	SEE FOOTNOTE 3
3.	105-866	2	FLG LK BOLT (5/16-NC X 1-1/4")	
4.	105-826	3	FLG LK BOLT (3/8-NC X 1")	
5.	105-834	8	FLG LOCKNUT (3/8-NC)	
6.	105-117	3	WASHER (5/16")	
7.	325-044	1	TOP DEFLECTOR	SEE FOOTNOTE 1
8.	325-045	1	DEFLECTOR	
9.	325-058	1	DEFLECTOR	
10.	325-061	1	DEFLECTOR	
11.	325-066	1	DEFLECTOR	
12.	115-320	1	GROMMET (1-1/2")	
13.	105-825	4	FLG LK BOLT (3/8-NC X 3/4")	
14.	320-077	1	HEAT DEFLECTOR	SEE FOOTNOTE 2
15.	107-011	2	CLIP NUT (3/8-NC)	SEE FOOTNOTE 2
16.	105-896	2	BOLT (7/16-NC X 3/4")	SEE FOOTNOTE 2
17.	105-118	4	WASHER (3/8")	SEE FOOTNOTE 2
18.	115-671	3	BULK EDGE (1/16", SOLD PER 1")	USE 2 @ 2.5" & USE 1 @ .75" ALSO SEE FOOTNOTE 2
19.	320-252	1	UPPER HEAT DEFLECTOR	SEE FOOTNOTE 2
20.	105-823	4	FLG LK BOLT (5/16-NC X 3/4")	

FOOTNOTES

- BEGINS WITH SN 4N0346 CHANGED TO 3 ROWS OF 13 SLOTS FROM ORIGINAL 16 SLOTS
- BEGINS WITH HONDA ENGINE S/N 4X0175.
- MACHINES WITH ONAN ENGINE REQUIRE ONE (1) #105-827 BOLT.
MACHINE WITH HONDA ENGINE REQUIRE TWO (2) #105-827 BOLT.

02



BATTERY TRAY AND CONSOLE

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-825	1	FLG LK BOLT (3/8-NC X 3/4")	
2.	105-117	8	WASHER (5/16")	
3.	105-214	7	FLG SCREW (#10-24 X .5")	
4.	105-137	1	CLIP NUT (5/16-NC)	
5.	105-834	7	FLG LOCKNUT (3/8-NC)	
6.	325-126	1	HANDLE MOUNT ANGLE	
7.	115-362	4	SHOCK MOUNT	
8.	105-078	4	NUT (1/4-NC)	
9.	325-032	1	CONSOLE	
10.	325-053	1	CENTER PLATE	SEE FOOTNOTE 4
11.	325-078	1	HAND REST	SEE FOOTNOTE 2
12.	325-082	1	BATTERY HOLDER	
13.	325-083	1	BATTERY TRAY	SEE FOOTNOTE 1
14.	215-065	2	CIRCUIT BREAKER (30 AMP)	SEE FOOTNOTE 7
15.	105-832	12	FLG LOCKNUT (1/4-NC)	
16.	363-309	1	THROTTLE BRACKET	
17.	325-123	1	HAND REST	SEE FOOTNOTE 5
	325-127	1	HAND REST ADJUSTMENT	SEE FOOTNOTE 6
18.	215-205	1	FAN-OIL COOLER	SEE FOOTNOTE 4
19.	105-826	6	FLG LK BOLT (3/8-NC X 1")	
20.	325-086	2	TIE DOWN ROD (1/4-NC X 7.2")	SEE FOOTNOTE 1
21.	318-588	1	MANUAL COMPARTMENT	
22.	105-820	8	FLG BOLT (1/4-NC X 3/4")	SEE FOOTNOTE 4
23.	215-063	1	RELAY - SPST	
24.	106-015	4	NUTSERT (1/4-NC)	

FOOTNOTES:

1-BATTERY TRAY WITH WELDED BOLT STUDS IS REPLACED BY BATTERY TRAY AND BATTERY BOLTS (REF NO.'S 13 AND 20).

2-ENDS WITH S/N4E0071.

3-BEGINS WITH S/N4E0072.

4-BEGINS WITH S/N4E0540, USE THIS FAN FOR REPLACEMENT OF EARLIER MODEL THAT IS NO LONGER AVAILABLE. SOME DRILLING MAY BE REQUIRED. MOUNT WITH FLG LOCKNUT 105-832 (1/4-NC)

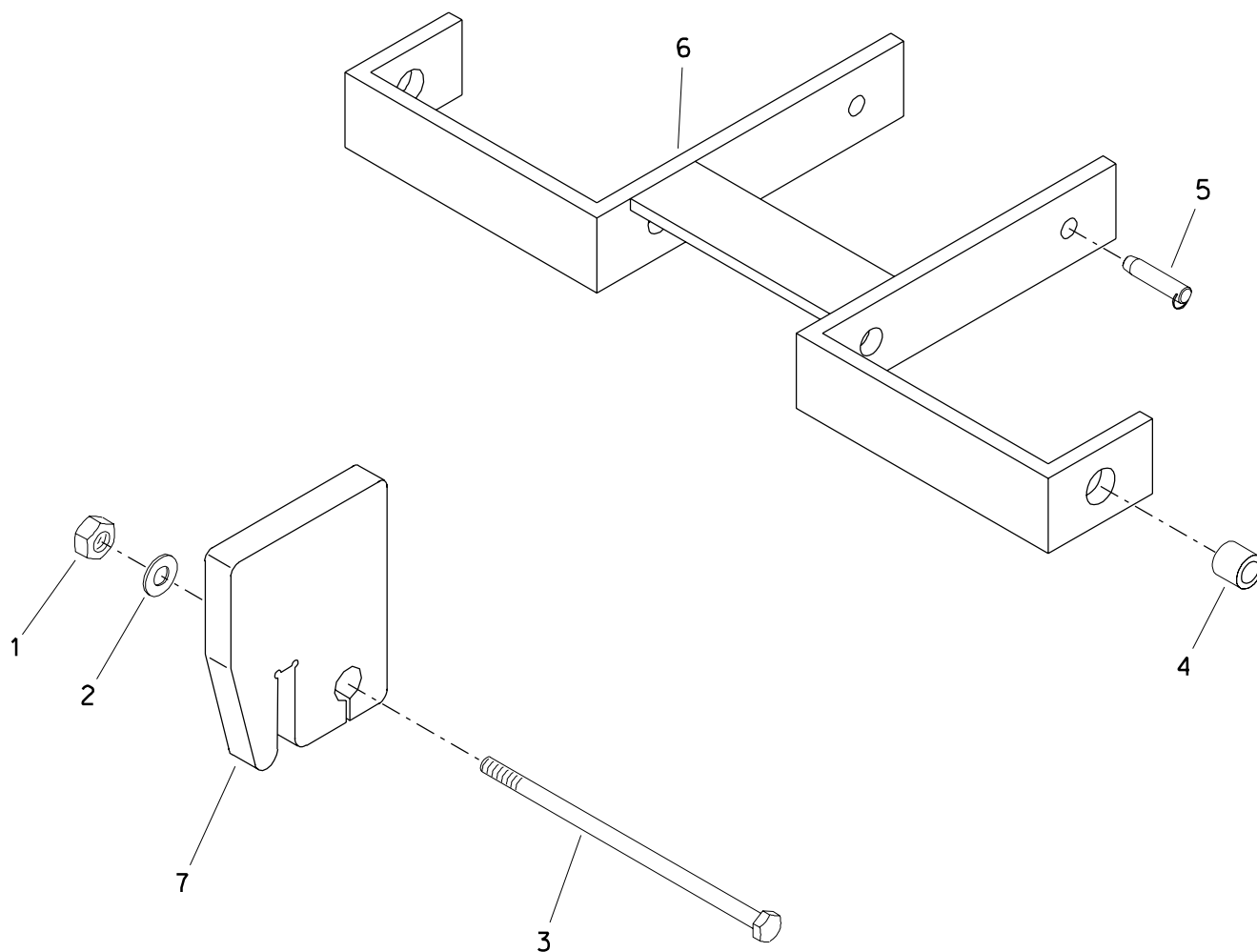
5-ENDS WITH S/N 4P0466

6-BEGINS WITH S/N 4P0466

7-ENDS WITH S/N 4X0175.

NOTE:

COUNTERWEIGHT (ENDS WITH S/N 4C0016)



COUNTERWEIGHT

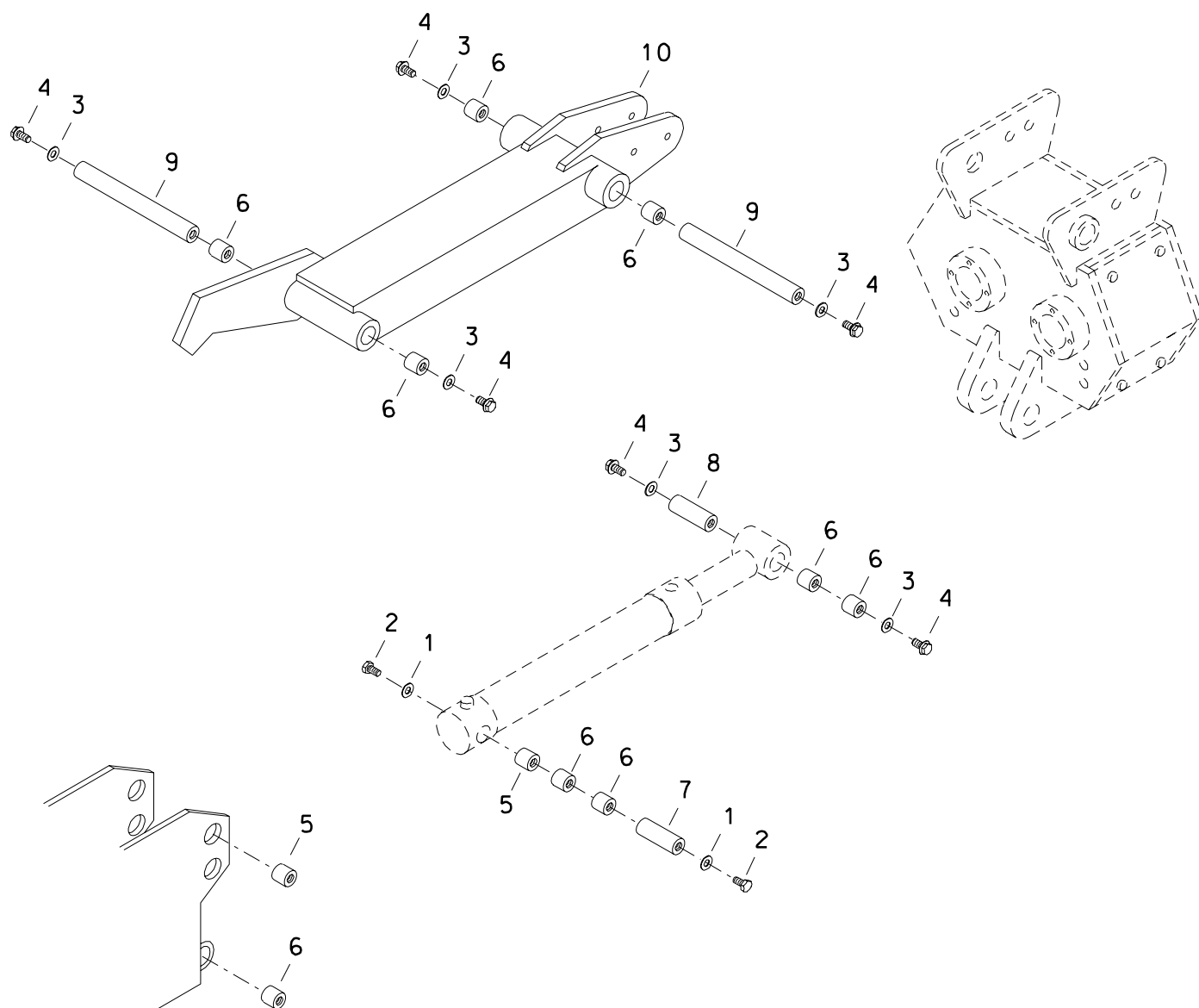
(ENDS WITH S/N 4C0016)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	100-265		COUNTERWEIGHT KIT NO'S 1 THRU 7	SEE FOOTNOTE 1
1.	105-372	2	LOCKNUT (3/4-NC)	
2.	105-422	2	WASHER (3/4")	
3.	105-974	2	BOLT (3/4-NC X 11")	
4.	180-016	2	SLEEVE	
5.	183-411	2	HANDLE PIN	
6.	325-095	1	WEIGHT RACK	SEE FOOTNOTE 1
7.	325-098	16	WEIGHT	SEE FOOTNOTE 1

FOOTNOTES

1. BEGINNING WITH S/N 4C0017 PRODUCTION HAS HEAVY FRONT END FRAME AND DOES NOT
USE BOLT ON RACK AND WEIGHTS

PLOW LIFT (ENDS WITH S/N 4B0111)

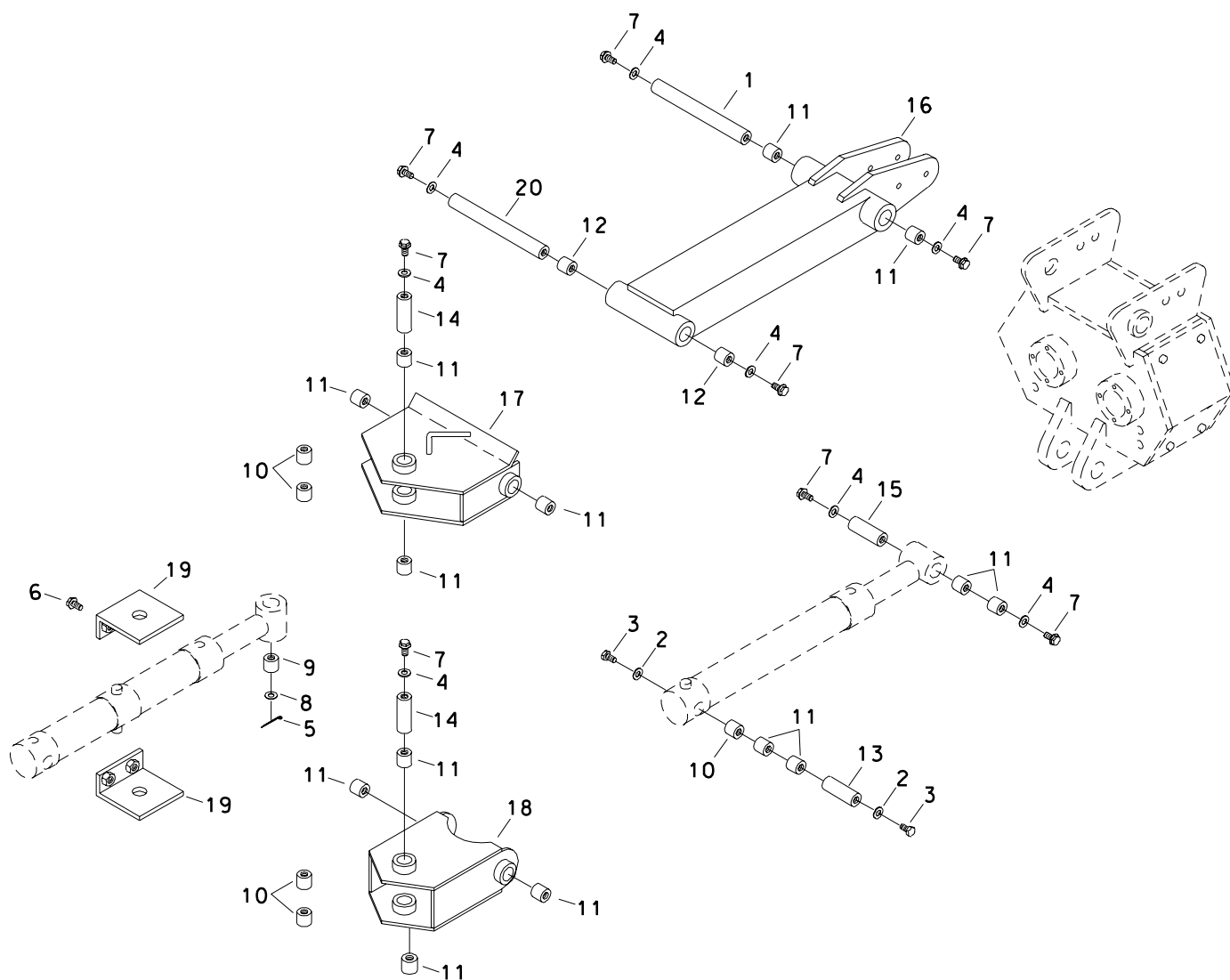


PLOW LIFT (ENDS WITH S/N 4B0111)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-422	2	WASHER (3/4")	
2.	105-427	2	CAP SCREW (3/4-NF X 1")	
3.	105-475	6	WASHER (1/2")	
4.	105-829	6	FLANGE BOLT (1/2-NC X 1")	
5.	125-435	3	COMPOSITION BUSHING	
6.	125-728	10	FIBER BUSHING (1" LG)	
7.	180-506	1	PIN (1-3/8" OD X 5-13/16" LG)	
8.	183-277	1	PIN (1-3/8" OD X 4-1/8" LG)	
9.	183-289	2	PIN (1-3/8" OD X 5-5/16" LG)	
10.	325-047	1	UPPER ARM ASSEMBLY	

FOOTNOTES

PLOW LIFT AND SWING
(BEGINS WITH S/N 4B0112)



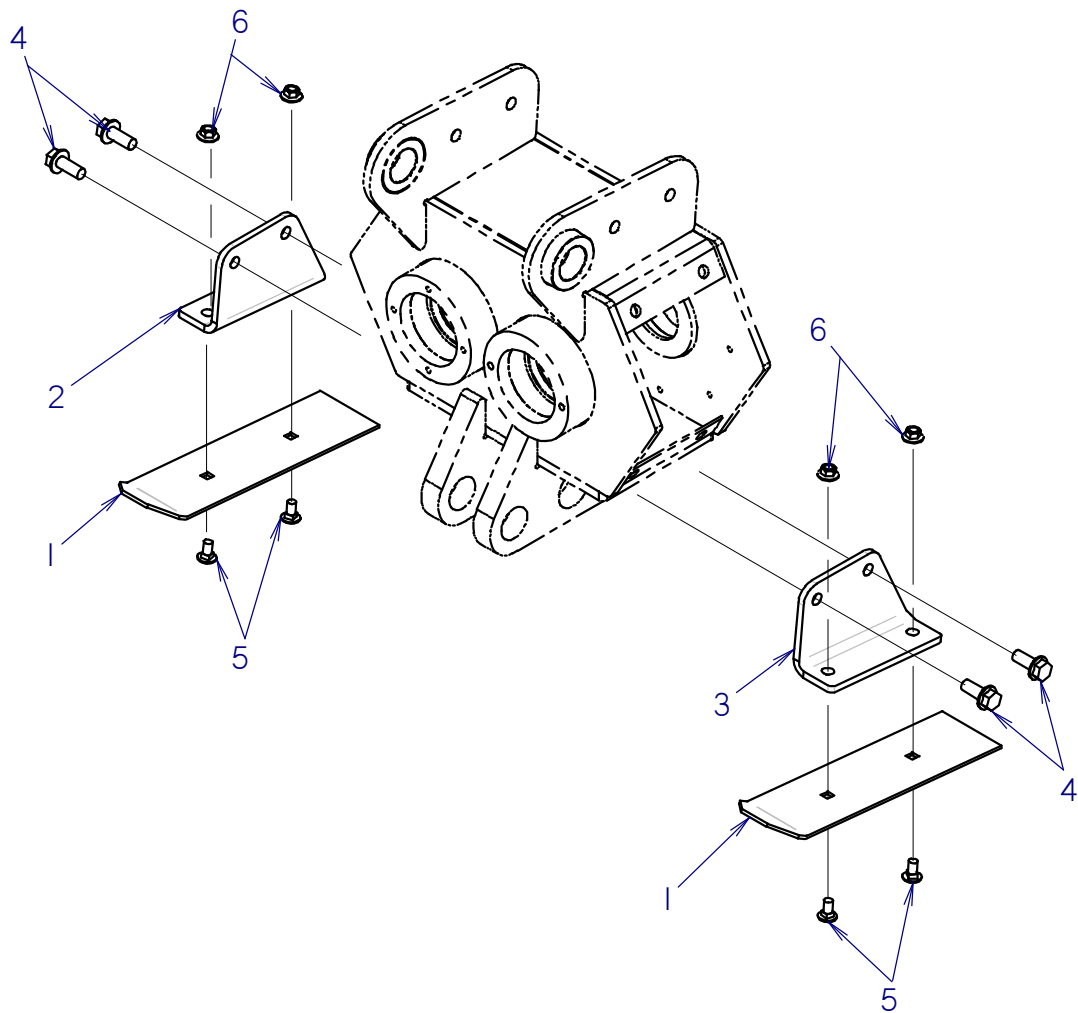
PLOW LIFT AND SWING (BEGINS WITH S/N 4B0112)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	183-289	1	PIN	
2.	105-422	2	WASHER (3/4")	
3.	105-379	2	LK BOLT (3/4-NC X 1-1/4", NLK)	
4.	105-475	12	WASHER (1/2")	
5.	105-502	1	COTTER PIN (3/16" X 2")	
6.	105-826	4	FLANGE LOCK BOLT (3/8-NC X 1")	SEE FOOTNOTE 1
7.	105-829	10	FLANGE BOLT (1/2-NC X 1")	
8.	105-930	1	WASHER (1-1/32")	
9.	125-407	1	BRZ BUSHING (1.25" OD X 1.5" LG)	
10.	125-435	5	COMPOSITION BUSHING	
11.	125-728	14	FIBER BUSHING	
12.	125-737	2	COMPOSITION BUSHING	
13.	180-506	1	PIN (1-3/8" X 5-13/16")	
14.	183-155	2	PIN (1-3/8" X 5.3")	
15.	183-277	1	PIN (1-3/8" X 4-1/8")	
16.	325-099	1	UPPER ARM ASSEMBLY	
17.	325-105	1	UPPER CLEVIS ASSEMBLY	
18.	325-110	1	LOWER CLEVIS ASSEMBLY	
19.	325-113	2	CYLINDER MOUNT ASSEMBLY	
20.	183-454	1	PIN (1-3/8" X 8.3")	

FOOTNOTES

1. APPLY RED LOCTITE

SKID SHOES



SKID SHOES

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	190-220		SKID SHOE CONVERSION KIT	SEE FOOTNOTE I
1	325-118	2	SKID SHOE	
2	325-088	1	RIGHT SUPPORT	
3	325-087	1	LEFT SUPPORT	
4	105-830	4	FLG LK BOLT (1/2-NC X 1-1/4")	
5	105-835	4	CARRIAGE BOLT (3/8-NC X 3/4")	
6	105-814	4	FLG LOCKNUT (3/8-NC)	

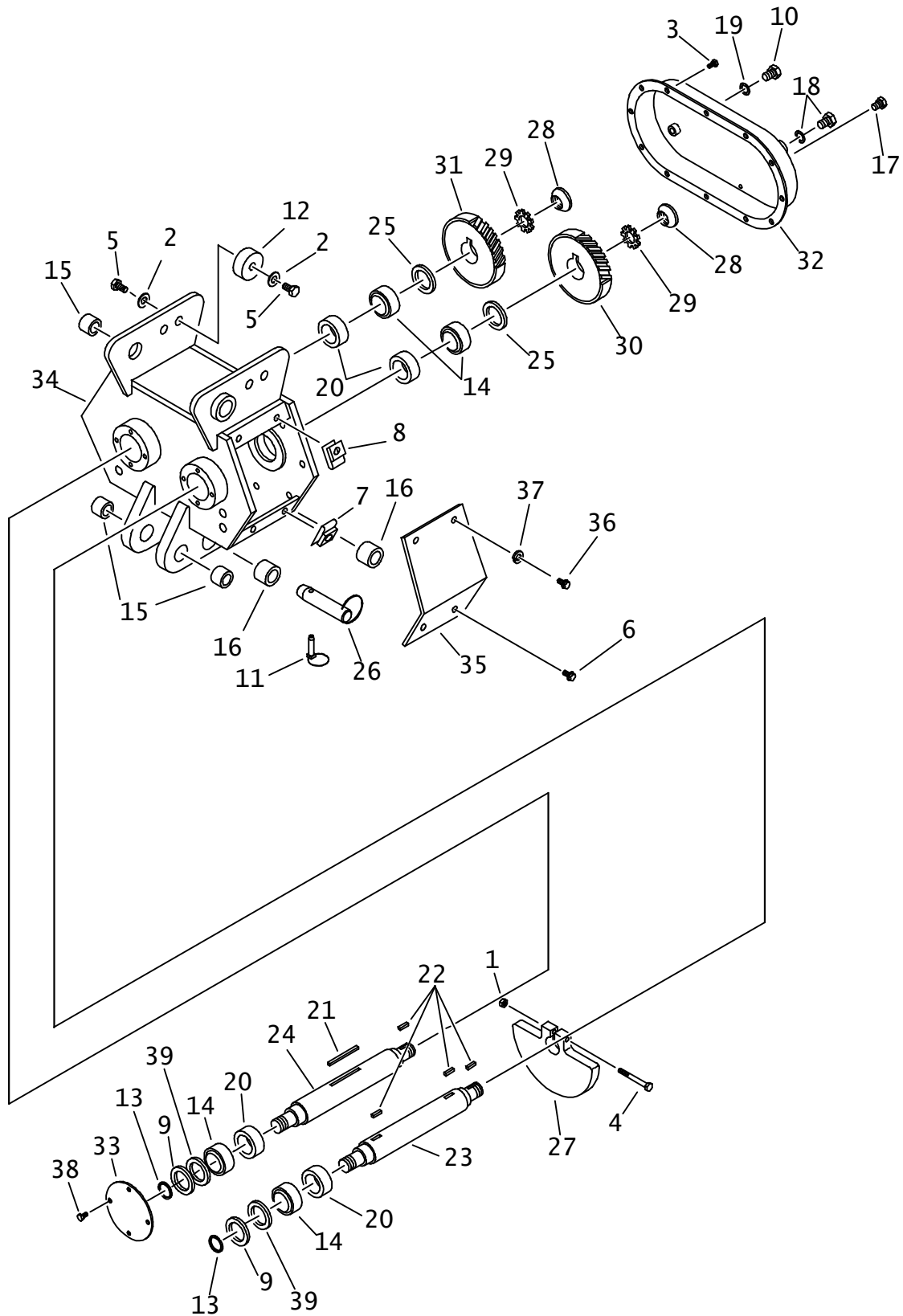
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FOOTNOTES:

- I. REFER TO INSTALLATION DIAGRAM 050-175.

NOTE:

VIBRATOR



VIBRATOR

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-047	4	LOCKNUT (3/8-NC)	
2.	106-030	6	LOCK WASHER (M12)	
3.	105-823	12	FLG LK BOLT (5/16-NC X 3/4 ")	
4.	105-081	4	BOLT (3/8-NC X 3-1/4")	
5.	105-172	6	BOLT (1/2-NF X 1")	
6.	105-825	4	FLANGE BOLT (3/8-NC X 3/4 ")	SEE FOOTNOTE 1
7.	106-719	4	CLIP NUT (3/8-NC)	
8.	107-011	4	CLIP NUT (3/8-NC)	
9.	110-305	2	MACHINERY BUSHING (1.750")	
10.	110-111	1	SIGHT GAUGE (16S)	
11.	110-228	2	CLIP PIN (7/16" X 2")	
12.	115-341	3	ISOLATOR, 80X57C 1/2-20	
13.	115-456	2	EXTERNAL SNAP RING	
14.	125-369	4	BEARING	
15.	125-728	6	FIBER BUSHING (1" LG)	
16.	125-734	4	TENSION BUSHING	
17.	155-125	1	PLUG (04S)	
	155-760		O-RING (904 D90)	
18.	155-138	1	PLUG (16S)	
	155-748		O-RING (916 D90)	
19.	155-748	1	O-RING (916 D90)	
20.	157-501	4	INTERNAL SEAL	
21.	165-929	1	KEY (3/8" X 2-29/64")	
22.	165-980	4	KEY (3/8" X 63/64")	
23.	167-094	1	LEFT VIBRATOR SHAFT	
24.	167-095	1	RIGHT VIBRATOR SHAFT	
25.	181-662	2	SHAFT SPACER	
26.	183-292	2	HANDLE PIN (1-3/8" X 5-5/16")	
27.	185-056	4	VIBRATOR WEIGHT	
28.	185-067	2	THRUST LOCKNUT (1.767-NF)	
29.	185-074	2	TANG LOCK WASHER (1.792")	
30.	185-099	1	LEFT GEAR	
31.	185-100	1	RIGHT GEAR	
32.	185-101	1	VIBRATOR GEAR COVER	
33.	185-102	1	COVER PLATE	
34.	322-468	1	VIBRATOR ASSEMBLY	
	325-119		VIBRATOR PARTS ASSEMBLY	INCL REF NO.'S 1, 3, 6-10, 13-25 AND 27- 35
35.	325-052	2	COVER PLATE	
36.	105-826	4	FLG LK BOLT (3/8-NC X 1")	SEE FOOTNOTE 1
37.	105-072	4	LOCKWASHER (3/8)	SEE FOOTNOTE 1
38.	105-090	4	BOLT (5/16-NC X 3/4 ")	
39.	110-054	2	MACHINE BUSHING (1-3/4", 14GA)	

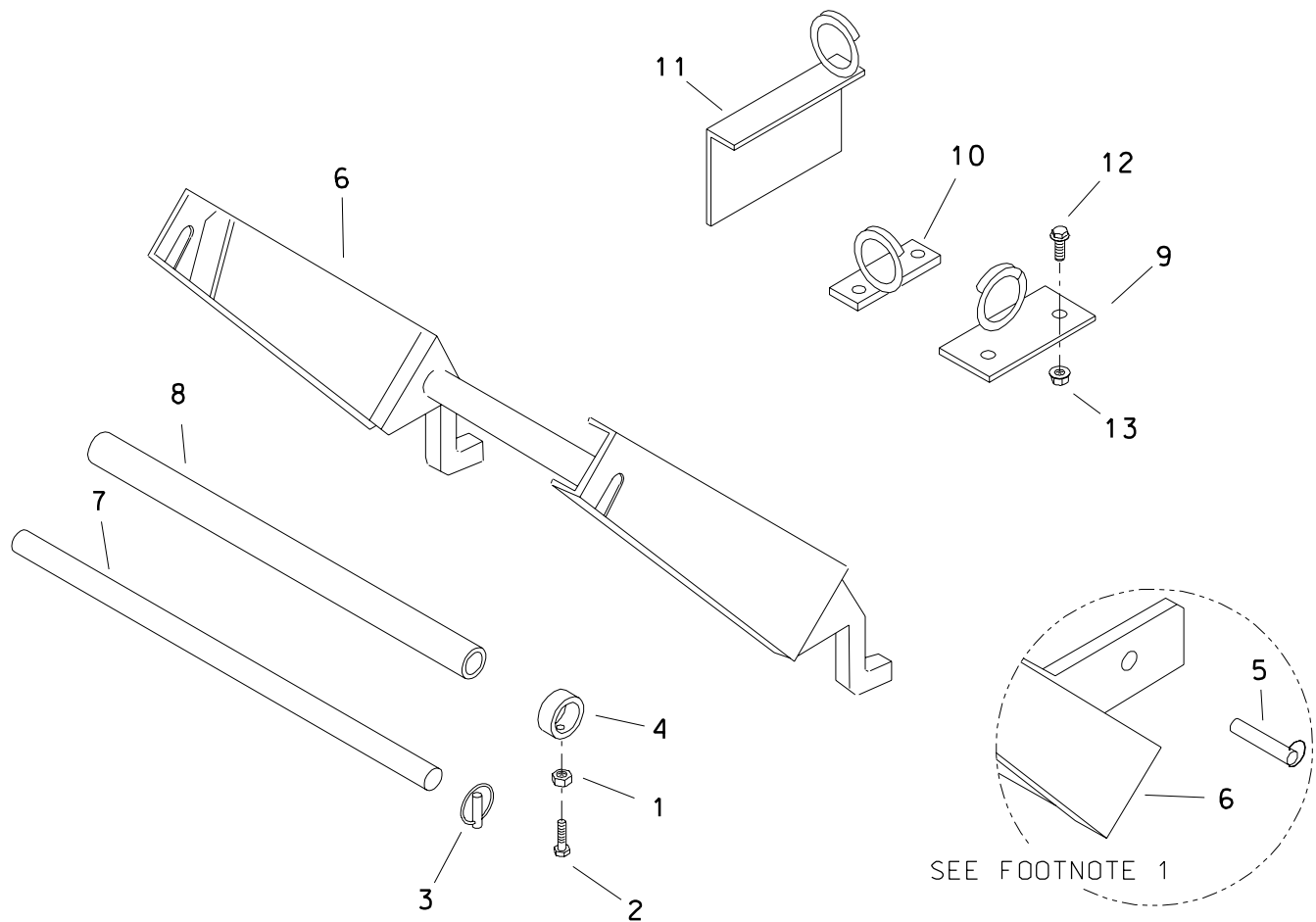
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FOOTNOTES:

1. BEGINS WITH S/N 4N0763

NOTE:

REEL CARRIER



REEL CARRIER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	100-512		REEL CARRIER ATTACHMENT KIT	INCL REF NO.'S 1 THRU 4 AND 6 THRU 13. SEE F/N 2
1.	105-053	2	NUT (3/8-NC)	
2.	105-156	2	BOLT (3/8-NC X 1-1/2")	
3.	110-228	2	CLIP PIN (7/16" X 2")	
4.	181-659	2	LOCK COLLAR	
5.	183-411	2	HANDLE PIN (1/2" X 2")	SEE FOOTNOTE 1
6.	318-241	1	LIFT ARM ASSEMBLY	SEE FOOTNOTE 1
	318-253	1	LIFT ARM ASSEMBLY	SEE FOOTNOTE 2
7.	318-247	1	ARBOR SHAFT	
8.	318-248	1	REEL TUBE	
9.	318-249	1	CABLE GUIDE	
10.	318-250	3	CABLE GUIDE	
11.	318-251	1	CABLE GUIDE	
12.	105-825	8	FLANGE LOCK BOLT (3/8-NC X 3/4")	
13.	105-834	8	FLANGE LOCKNUT (3/8-NC)	

FOOTNOTES

1. ENDS WITH S/N 4C0016. THIS STYLE REEL CARRIER USED HANDLE PIN (REF. NO. 5) TO ATTACH REEL CARRIER.
2. BEGINS WITH S/N 4C0017. PRESENT PRODUCTION REEL CARRIER USES MOUNTING HOOKS TO ATTACH REEL CARRIER. REFER TO INSTALLATION DIAGRAM 050-177.

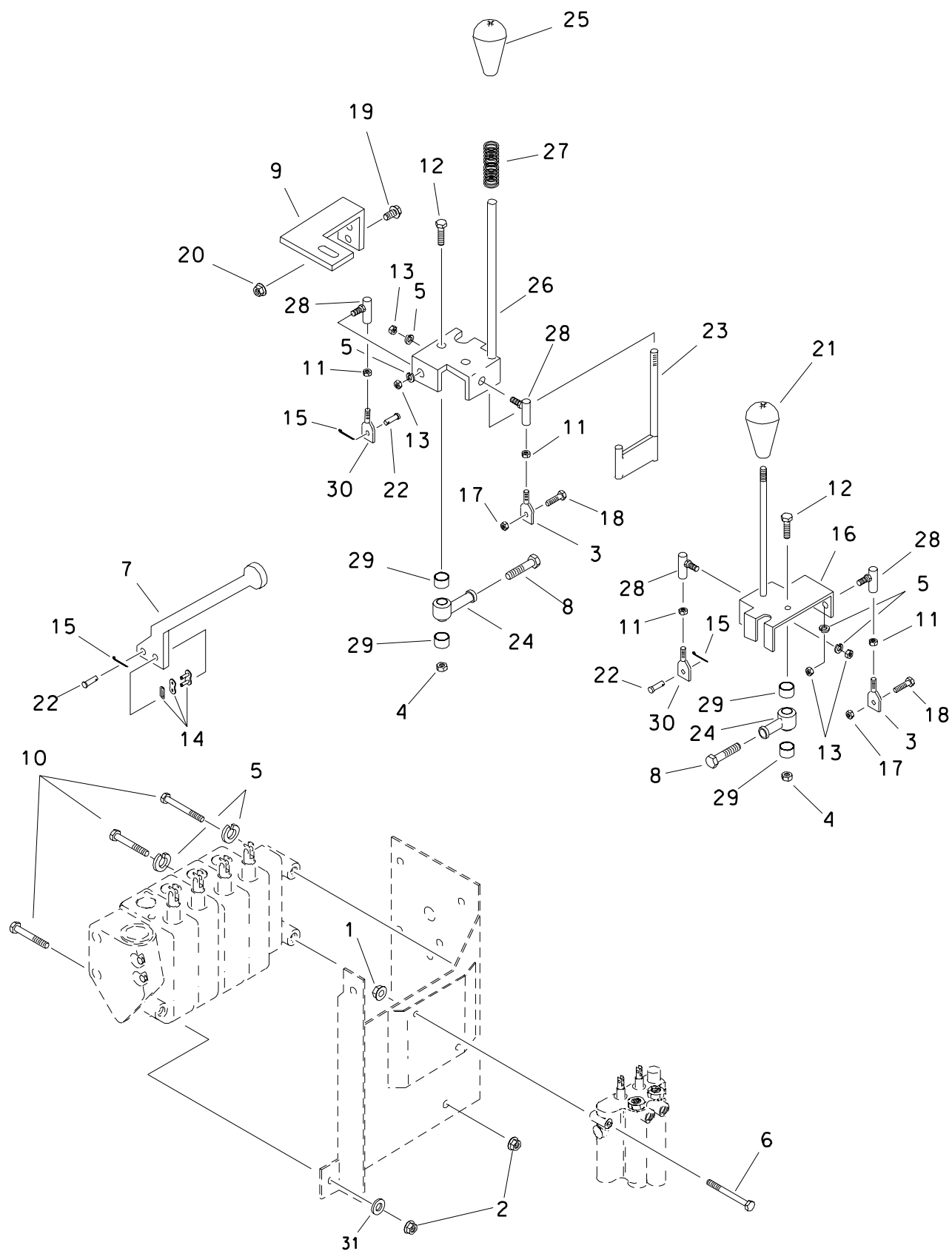
NOTES:

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CONTROL COMPONENTS

CONTROLS

BEGINS WITH S/N 4E0072



CONTROLS

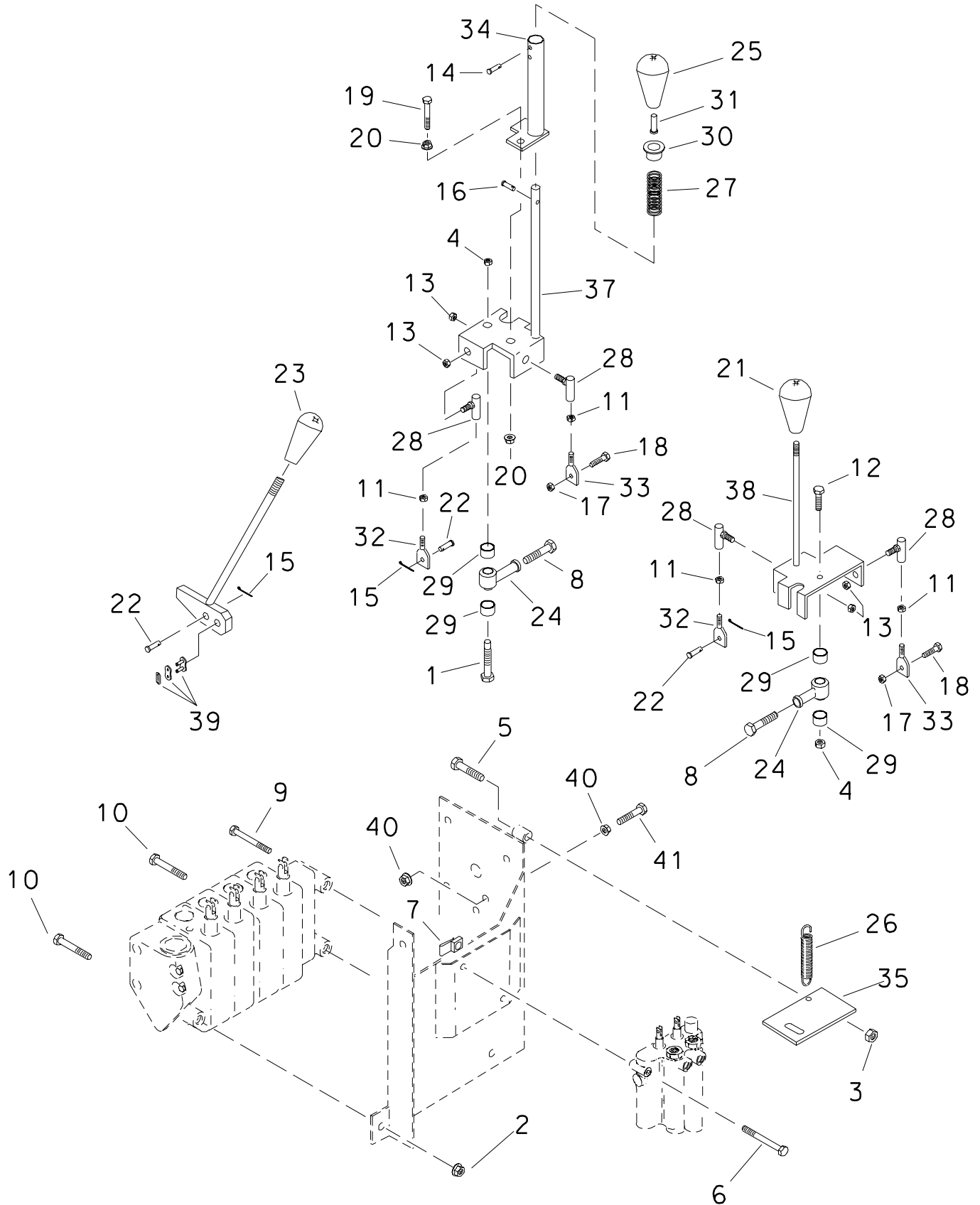
BEGINS WITH S/N 4E0072

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-832	2	FLG LOCKNUT (1/4-NC)	
2.	105-003	2	FLG LOCKNUT (5/16-NC)	
3.	361-833	2	PUSH ROD	
4.	105-065	2	LOCKNUT (1/2-NC)	
5.	105-091	6	LOCKWASHER (5/16")	
6.	105-198	2	BOLT (1/4-NC X 1-3/4")	
7.	361-840	1	LEVER	
8.	105-141	2	BOLT (1/2-NF X 1-1/4")	
9.	365-017	1	LOCK PLATE	
10.	105-190	3	BOLT (5/16-NC X 2-3/4")	
11.	105-115	4	JAM NUT (5/16-NF)	
12.	105-229	2	BOLT (1/2-NC X 2")	
13.	105-213	4	NUT (5/16-NF)	
14.	500-419	1	CONNECTOR LINK	
15.	105-530	3	COTTER PIN (1/16" X 3/4")	
16.	361-844	1	CONTROL	
17.	105-186	2	NUT (#10-24)	
18.	105-815	2	BOLT (#10-24 X 1", PAN SLT)	USE 680 LOCKTITE
19.	105-829	1	FLG LK BOLT (1/2-NC X 1")	
20.	105-833	1	FLG LOCKNUT (1/2-NC)	
21.	110-022	1	KNOB (1/2-NC, BLACK)	EARLY MODELS
	110-375	1	KNOB (1/2-NC, YELLOW)	
22.	110-082	3	CLEVIS PIN (1/4" X 11/16")	
23.	365-013	1	PLUNGER	
24.	110-290	2	ROD END (1/2-NF, FM)	
25.	110-445	1	KNOB (3/8-NC, ORANGE)	
26.	365-015	1	CONTROL LEVER	
27.	115-645	1	COMPRESSION SPRING	
28.	160-335	4	BALL JOINT (5/16-NF)	
29.	181-635	4	SPACER	
30.	361-832	2	PUSH ROD	
31.	105-117	1	WASHER (5/16")	

FOOTNOTES

CONTROLS

(ENDS WITH S/N 4E0071)



CONTROLS

(ENDS WITH S/N 4E0071)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	106-026	1	DOG POINT BOLT (1/2-NC X 2-1/4")	
2.	105-003	1	FLANGE LOCKNUT (5/16-NC)	
3.	105-047	1	LOCKNUT (3/8-NC)	
4.	105-065	2	LOCKNUT (1/2-NC)	
5.	105-075	1	BOLT (3/8-NC X 2")	
6.	105-106	2	BOLT (1/4-NC X 2")	
7.	105-139	2	SPEED U-NUT (1/4-NC)	
8.	105-141	2	BOLT (1/2-NF X 1-1/4")	
9.	105-178	1	BOLT (5/16-NC X 2-1/2", GD 8)	
10.	105-190	2	BOLT (5/16-NC X 2-3/4")	
11.	105-115	4	JAM NUT (5/16-NF)	
12.	105-229	1	BOLT (1/2-NC X 2")	
13.	105-294	4	JAM LOCKNUT (5/16-NF)	
14.	105-521	1	ROLL PIN (1/4" X 1")	
15.	105-530	3	COTTER PIN (1/16" X 3/4")	
16.	105-535	1	ROLL PIN (1/8" X 5/8")	
17.	105-811	2	LOCKNUT (#10-24)	
18.	105-815	2	BOLT (#10-24 X 1", PAN SLT HD)	
19.	105-818	1	BOLT (1/4-NC X 1-1/2")	
20.	105-832	2	FLANGE LOCKNUT (1/4-NC)	
21.	110-022	1	KNOB (1/2-NC, BLACK)	
22.	110-082	3	CLEVIS PIN (1/4" X 1 1/16")	
23.	110-283	1	KNOB (3/8-NC, BLACK)	
24.	110-290	2	BALL JOINT (1/2-NF, FM)	
25.	110-321	1	HANDLE (1/2-NC, BLK)	
26.	115-592	1	EXTENSION SPRING (2-1/2" LG)	
	115-600	1	EXTENSION SPRING (4" LG)	
27.	115-604	1	COMPRESSION SPRING (5-15/16" LG)	
28.	160-335	4	BALL JOINT (5/16-NF)	
29.	181-635	4	BALL JOINT SPACER	
30.	181-761	1	SPRING STOP	
31.	183-414	2	ADAPTER	
32.	361-832	2	PUSH ROD (1.700" LG)	
33.	361-833	2	PUSH ROD (1.500" LG)	
34.	361-836	1	TUBE	
35.	361-838	2	LOCK	
36.	361-840	1	LEVER	
37.	361-843	1	CONTROL ASSEMBLY	
38.	361-844	1	CONTROL ASSEMBLY	
39.	500-419	1	CONNECTOR LINK	
40.	105-832	2	FLANGE LOCKNUT (1/4-NC)	
41.	105-197	1	BOLT (1/4-NC X 1")	

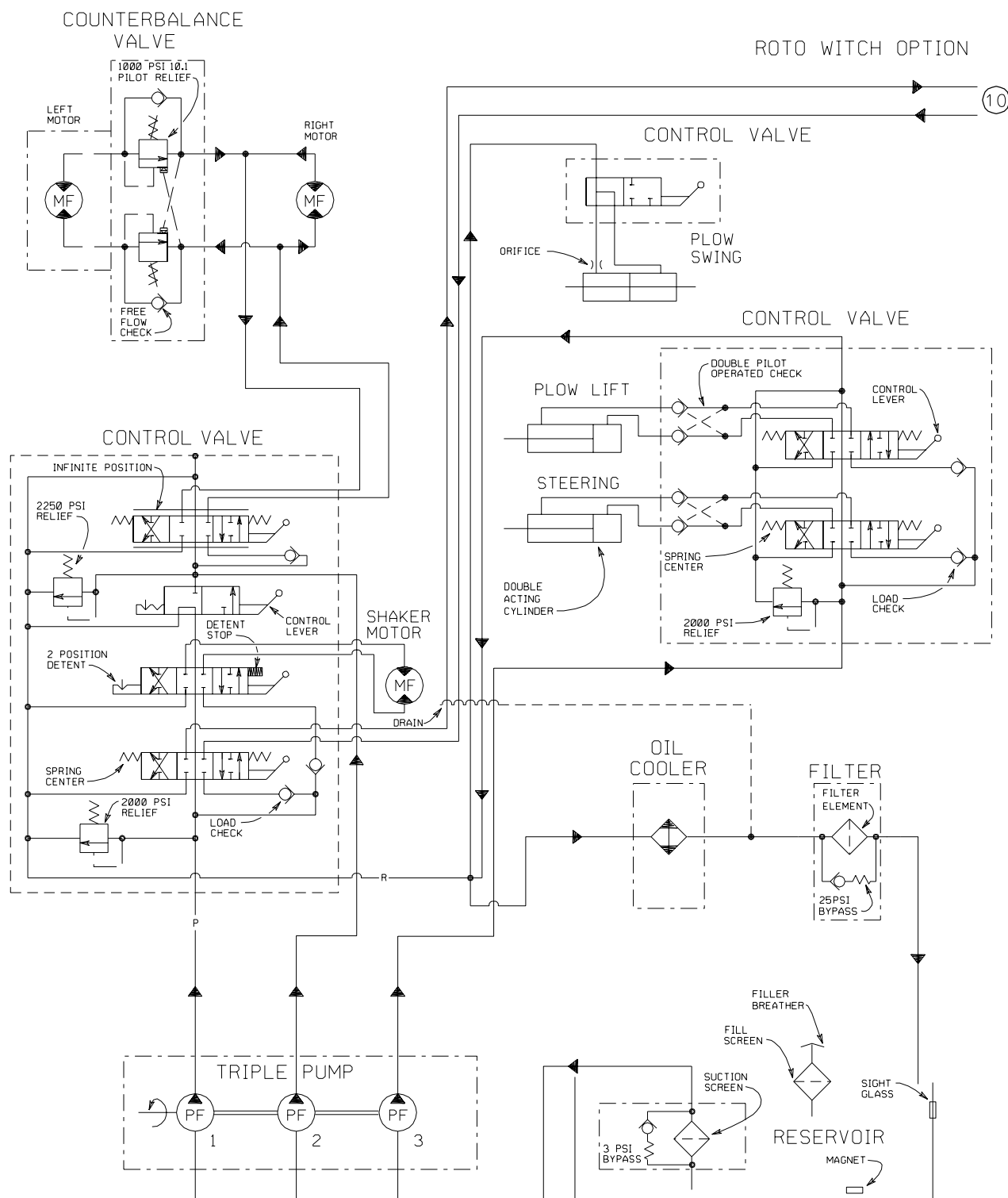
FOOTNOTES

NOTES:

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HYDRAULICS

HYDRAULIC SCHEMATIC 255SX



NOTE: REFERENCE NUMBERS REFER TO CONNECTIONS ON ATTACHMENT HYDRAULIC SCHEMATICS.

HYDRAULIC SCHEMATIC

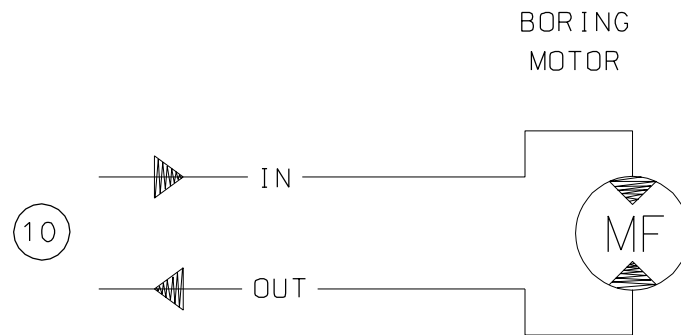
255SX

SPECIFICATIONS

ENGINE		PUMP			MOTOR	
MFG (NO LOAD)	RPM	TYPE	GPM	DISPLACEMENT	TYPE	DISPLACEMENT
ONAN (GAS)	3400	TRIPLE NO. 1	3400	12.7 .915 in. ³	LEFT DRIVE	24.0 in. ³
		TRIPLE NO. 2	3400	6.9 .500 in. ³	RIGHT DRIVE	24.0 in. ³
		TRIPLE NO. 3	3400	3.9 .278 in. ³	SHAKER	1.48 in. ³

HYDRAULIC SCHEMATIC

255SX

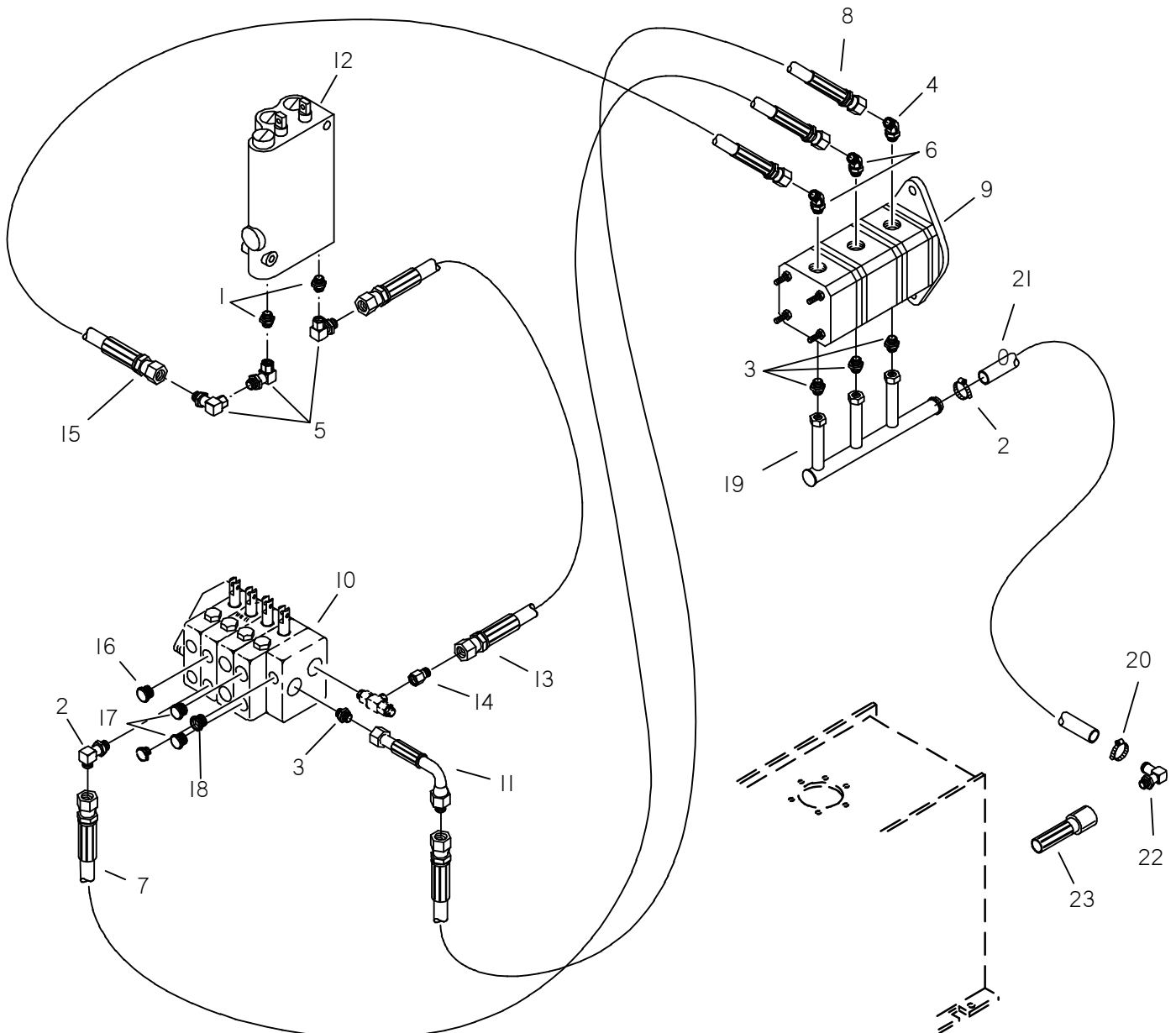


NOTE: REFERENCE NUMBERS REFER TO CONNECTIONS ON MACHINE
HYDRAULIC SCHEMATIC

SPECIFICATIONS

ENGINE		PUMP			MOTOR	
MFG (NO LOAD)	RPM	TYPE	GPM	DISPLACEMENT	TYPE	DISPLACEMENT
DNA	DNA	DNA	DNA	DNA	BORING	18.7 in ³

POWER HYDRAULICS



POWER HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	154-005	2	CONNECTOR (08J-08S)	
2.	154-013	1	CONNECTOR (08J-10S90)	
3.	154-027	4	CONNECTOR (12J-12S)	
4.	154-051	1	CONNECTOR (12S-10S45)	
5.	154-111	3	UNION (08J-08JFX90)	
6.	154-127	2	CONNECTOR (08J-10S45)	
7.	154-562	1	HOSE (08JFX-37.5"-2000)	
8.	154-601	1	HOSE (12JF-33.5"-2250)	
9.	158-338	1	TRIPLE HYDRAULIC PUMP	OBSOLETE. SUPERCEDE WITH 190-1490. SEE FOOTNOTE 2.
	500-490		SEAL REPAIR KIT	
10.	158-536	1	HYDRAULIC CONTROL VALVE (4 SPOOL)	
11.	154-069	1	UNION (12J-12JFX90LG)	
12.	158-535	-	HYDRAULIC CONTROL VALVE (2 SPOOL)	ENDS WITH S/N
	153-590	1	HYDRAULIC CONTROL VALVE	BEGINS WITH S/N
13.	154-566	2	HOSE (08JFX-16"-3500)	
14.	154-184	1	UNION (08J-12JFX)	
15.	154-577	1	HOSE (08JFX-26.5"-2000)	
16.	500-294	1	PLUG (10S)	
17.	155-074	2	PLUG (08S, SOC, FMI)	
18.	155-175	1	BUSHING (1-1/16-SAE X 1/2-NPT)	
19.	156-398	1	SUCTION LINE (1-1/2" T X 10.20")	
20.	110-250	2	HOSE CLAMP (1-1/4" TO 2-1/8")	
21.	116-047	1	SUCTION HOSE (1-1/2" - USE 13")	
22.	155-176	1	SLIP-ON COUPLER (20S-24H90)	
23.	110-336	1	STRAINER	

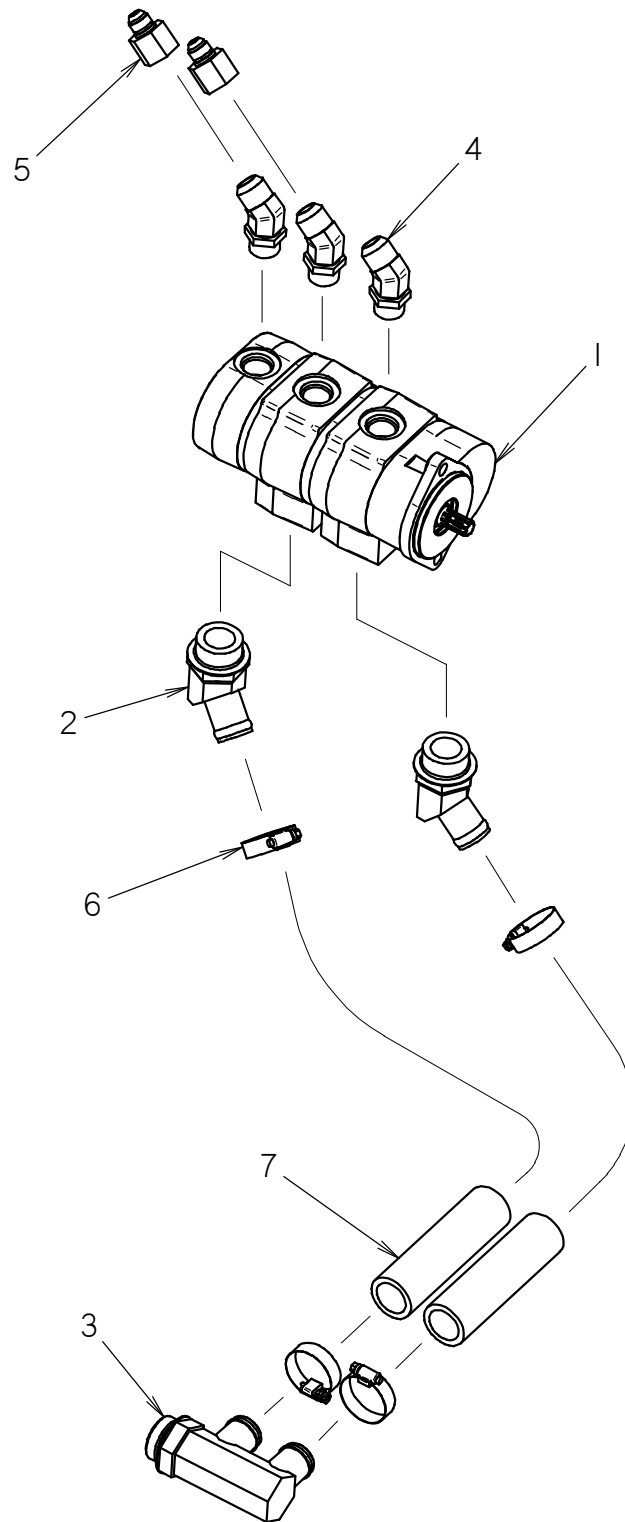
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FOOTNOTES:

1. REFER TO O-RING CHART (800-301) IN BACK OF BOOK FOR REPLACEMENT OF SAE AND ORS O-RING.
2. SEE PAGE ID0235671 TRIPLE PUMP AND PLUMBING.

NOTE:

TRIPLE PUMP AND PLUMBING



TRIPLE PUMP AND PLUMBING

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	190-1490	-	TRIPLE PUMP & PLUMBING KIT	INCLUDES REFERENCE NUMBERS 1-7
1	150-2268	1	TRIPLE PUMP (255SX)	
2	514-426	2	ELBOW (20S-20H45)	
3	150-2239	1	SPECIAL 90(20S-20H-20H)	
4	154-047	3	CONNECTOR (12J-12S45)	
5	154-184	2	UNION (08J-12JFX)	
6	110-133	4	WORM CLAMP(1-1/16"TO 1-15/16")	
7	116-587	2	BULK HOSE (1 1/4", SOLD PER FT)	USE 2 @ 19"

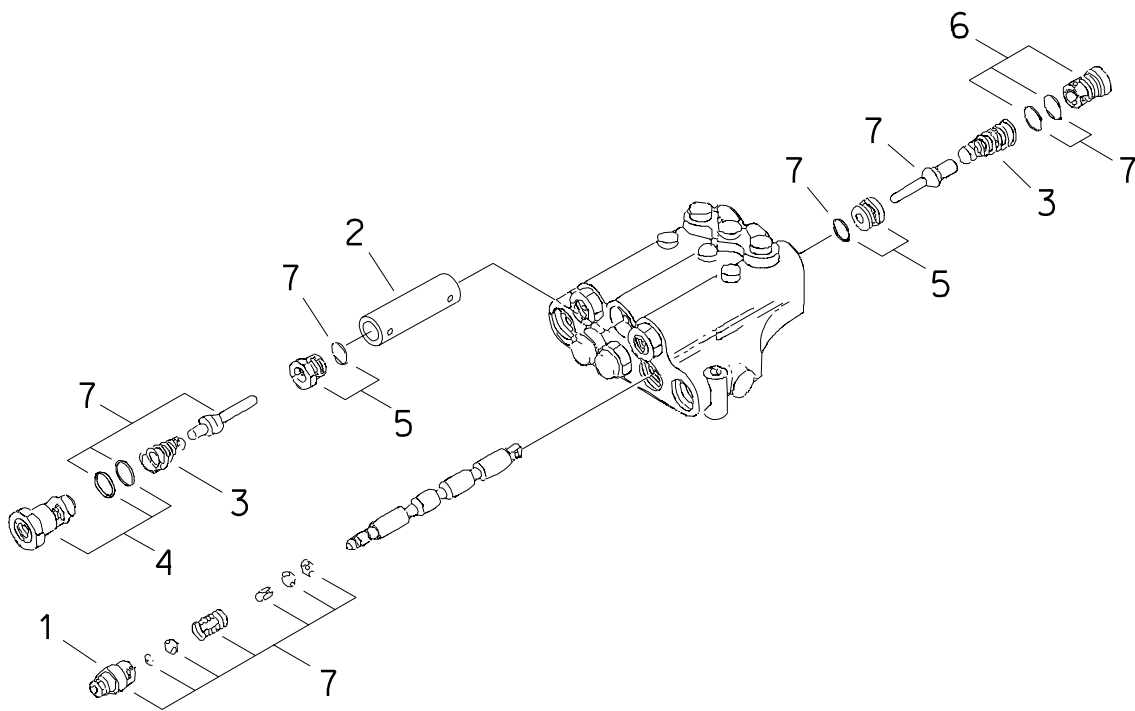
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FOOTNOTES:

NOTE:

REAR PUMP SUPPORT NOT USED WITH THIS PUMP.

HYDRAULIC CONTROL VALVE TWO SPOOL

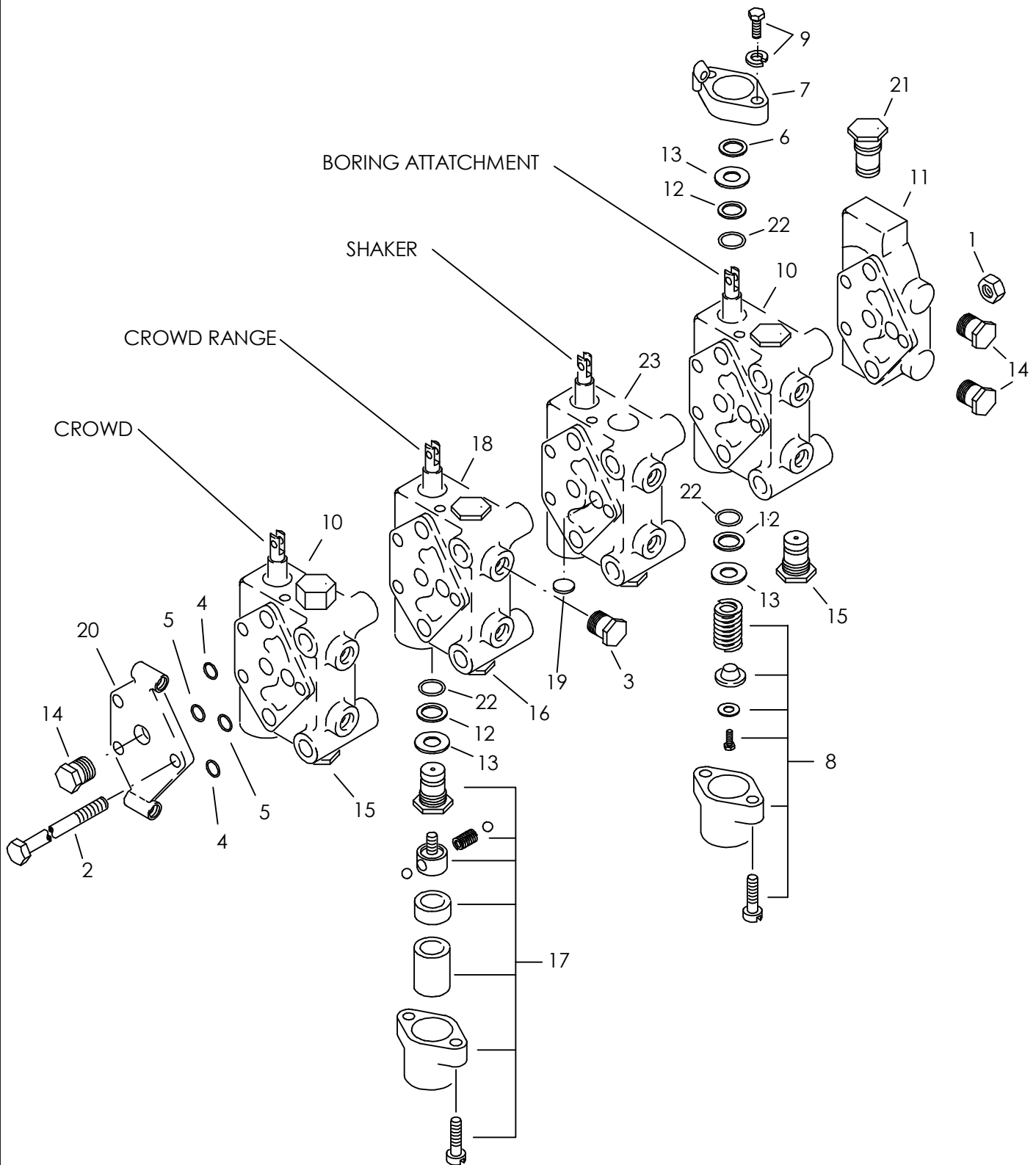


HYDRAULIC CONTROL VALVE TWO SPOOL

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	158-535		HYDRAULIC CONTROL VALVE	INCL. REF. NO.'S 1 THRU 8
	153-590		HYDRAULIC CONTROL VALVE	INCL. REF. NO.'S 1 THRU 8
1.	500-350	2	SPOOL END CAP	
2.	500-351	2	LOCKOUT PLUNGER	
3.	500-352	4	LOCKOUT COMPRESSION SPRING	
4.	500-353	2	PORT ADAPTER PLUG KIT	
	500-163		O-RING (114 D70)	
5.	500-354	4	LOCKOUT SEAL KIT	
6.	500-355	2	SEAT RETAINER PLUG KIT	
	500-163		O-RING (114 D70)	
7.	500-357	1	SEAL REPAIR KIT	
	155-772		O-RING (112 D70)	
	500-163		O-RING (114 D70)	
8.	500-460	2	SPRING CENTERING KIT	
			(INCL. REF. NO. 1)	

FOOTNOTES

HYD CNTRL VLV 4-SPOOL 255SX



HYD CNTRL VLV 4-SPOOL 255SX

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	158-536		HYDRAULIC CONTROL VALVE	INCL REF NO.'S 1 THRU 23
1.	105-093	3	NUT (3/8-NF)	
2.	500-067	3	BOLT (3/8-NF X 9-1/2")	
3.	155-074	1	PLUG (08S, ALN)	
	155-706		O-RING (908 D90)	
4.	155-757	10	EXHAUST O-RING (021 D70, VITON)	
5.	155-758	10	PRESSURE O-RING (019 D70, VITON)	
6.	500-026	2	SEAL	
7.	500-027	2	LEVER BRACKET	
8.	500-190	1	STANDARD SPOOL POSITIONER KIT	
9.	500-192	4	BOLT 1/4-NC X 7/8", GD 8 ALN	
	105-079		LOCK WASHER (1/4")	
10.	500-215	2	VALVE SECTION	INCL REF NO.'S 4,5,6,7,8,12,13 AND 22
11.	500-296	1	INLET COVER	
12.	500-299	8	BACKUP WASHER (210 D90)	
13.	500-300	8	SEAL RETAINER	
14.	500-302	3	PLUG (12S)	
	155-709		O-RING (912 D90)	
15.	500-321	7	LOAD CHECK PLUG KIT	SEE FOOTNOTE 1
16.	500-381	7	PORT RELIEF CARTRIDGE KIT	SEE FOOTNOTE 1
17.	500-382	2	TWO POSITION DETENT KIT	
18.	500-384	1	VALVE SECTION	INCL REF NO.'S 4,5,6,7,12,13,17 AND 22
19.	500-388	1	SEAL DISC	
20.	500-298	1	OUTLET COVER	INCL REF NO.'S 4 AND 5
21.	157-365	1	RP51N RELIEF CART (4500 PSI)	
22.		10	SPOOL O-RING	
23.		1	VALVE SECTION	INCL REF NO.'S 4,5,6,7,9,12,13,15 AND 22

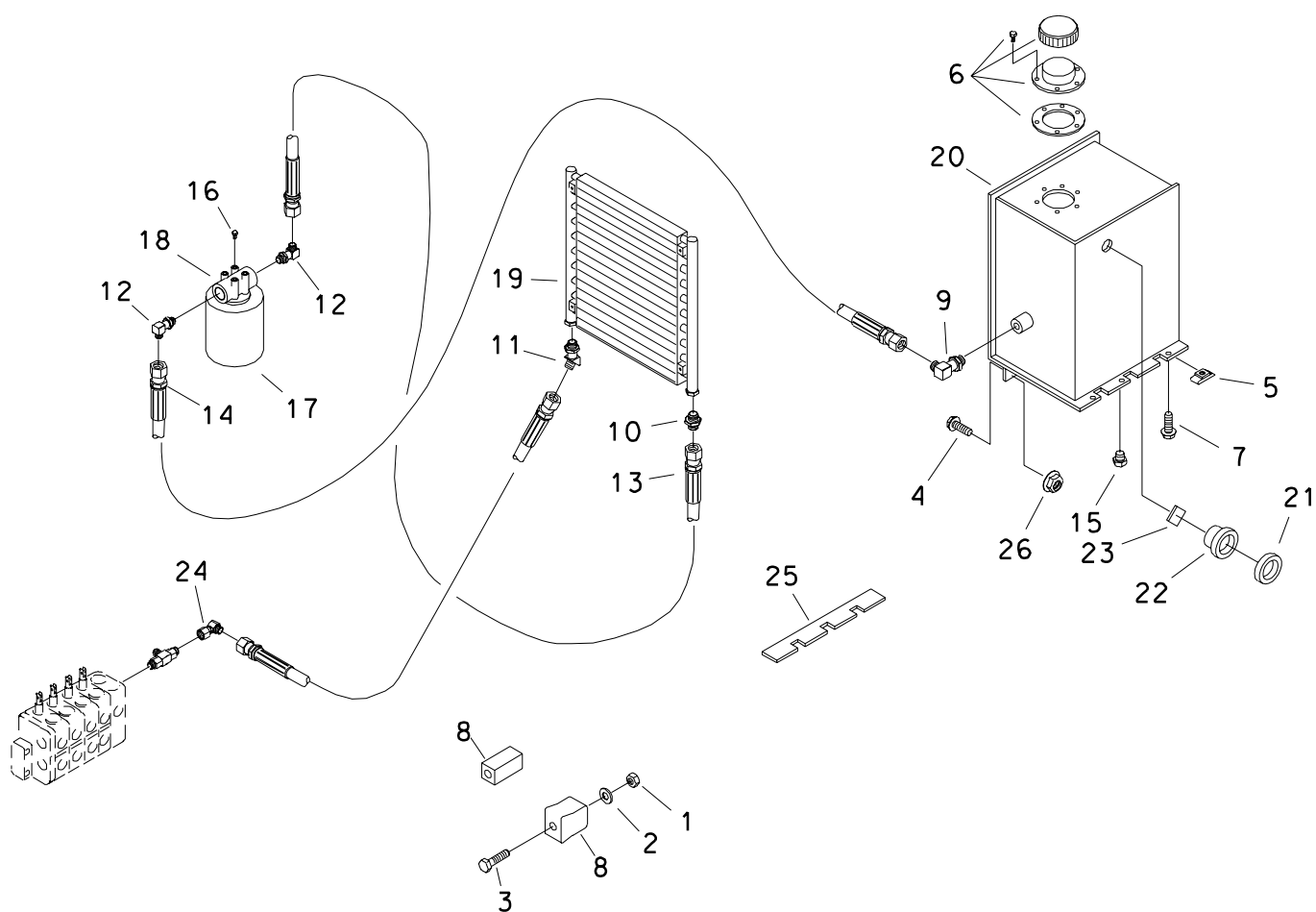
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FOOTNOTES:

IF THE HYDRAULIC FROUND DRIVE MOTOR (W/LOCK) HAS A DATE CODE PRIOR TO 504, THE LOAD CHECK PLUG KIT (REF NO. 15) IN CROWD SECTION AND PORT RELIEF CARTRIDGE KIT (REF NO. 16) IN CROWD RANGE SECTION SHOULD BE SET AT 1800 PSI. UNITS EQUIPPED WITH DATE CODES SINCE 504 SHOULD HAVE CARTRIDGES SET AT 2250 PSI

NOTE:

COOLER, FILTER AND RESERVOIR HYDRAULICS



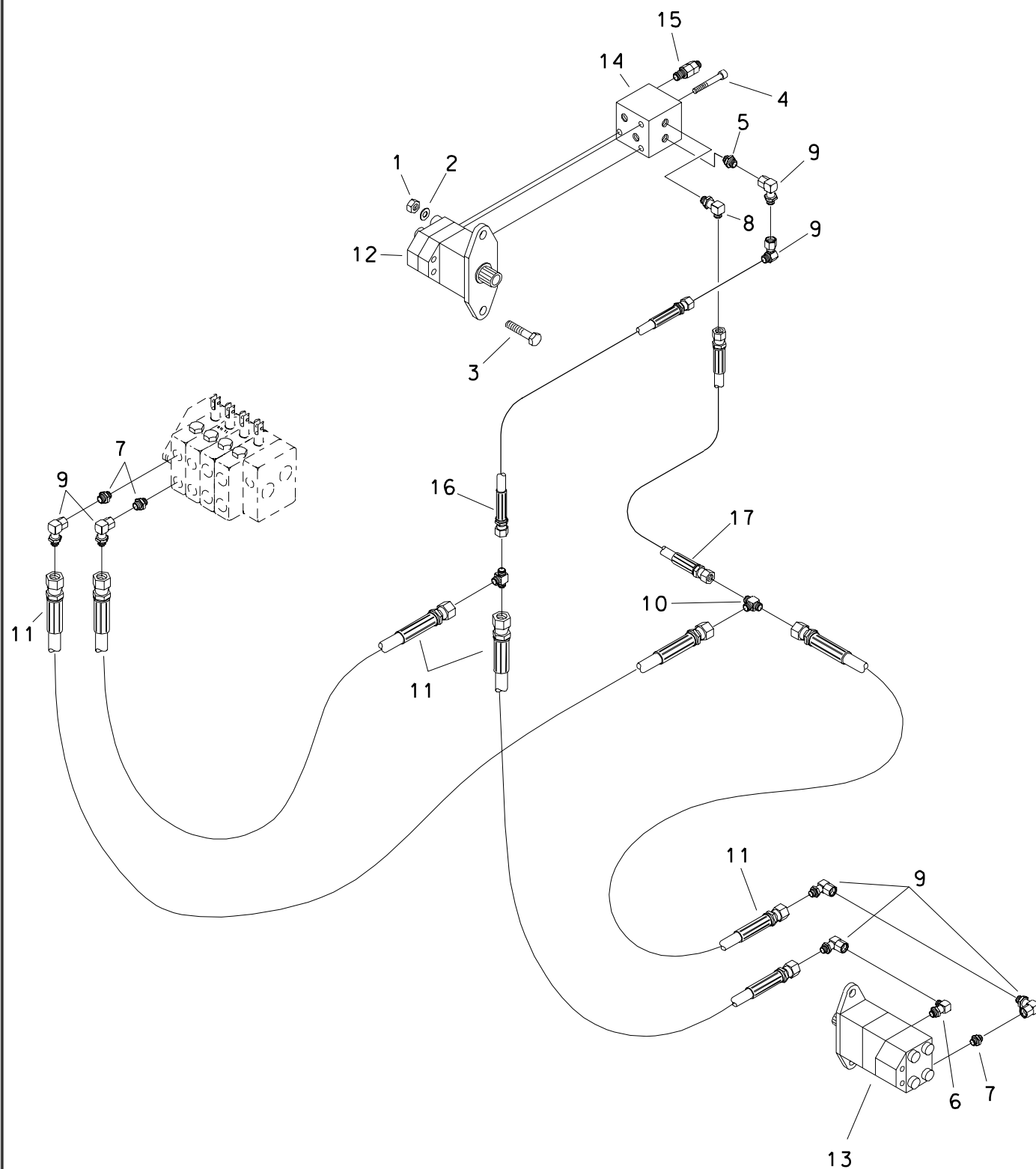
COOLER, FILTER AND RESERVOIR HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-089	4	LOCKNUT (5/16-NC)	
2.	105-117	4	WASHER (5/16")	
3.	105-178	4	BOLT (5/16-NC X 2-1/2", GR8)	ENDS WITH S/N
	105-130	4	BOLT (5/16-NC X 2-1/4", GR8)	BEGINS WITH S/N
4.	105-826	3	FLG LK BOLT (3/8-NC X 1")	
5.	106-719	3	CLIP NUT (3/8-NC)	
6.	110-008	1	FILLER BREATHER (2-1/8")	
	105-214		FLG SCREW (#10-24 X 1/2")	
	165-626		FILLER NECK GASKET	
7.	105-827	3	FLG LK BOLT (3/8-NC X 1-1/4")	
8.	116-164	4	MOUNT BLOCK (5/16, RUBBER)	ENDS WITH S/N
	323-758	4	MOUNT BLOCK (5/16, RUBBER)	BEGINS WITH S/N
9.	154-014	1	CONNECTOR (12S-12J90)	
10.	154-027	1	CONNECTOR (12S-12J)	
11.	154-047	1	CONNECTOR (12S-12J45)	
12.	154-145	2	CONNECTOR (12J-16S90)	
	155-748		O-RING (916 D90)	
	154-190	2	CONNECTOR (16S-12J90-02NF)	SEE FOOTNOTE 1
13.	154-570	2	HOSE (12JF-28"-2250)	
14.	154-601	1	HOSE (12JF-33.5"-2250)	SEE FOOTNOTE 2
15.	155-130	1	PLUG (O6S)	
16.	501-325	2	FLG LOCK BOLT (5/16-NC X 5/8")	
17.	155-954	1	FILTER ELEMENT (1-1/2"-UNF)	
18.	155-999	1	FILTER HEAD (16SF-16SF)	
19.	360-336	1	OIL COOLER	
20.	360-850	1	HYDRAULIC RESERVOIR	SEE FOOTNOTE 4
	364-655	1	HYDRAULIC RESERVOIR	SEE FOOTNOTE 5
21.	115-320	1	GROMMET (1-1/2")	
22.	116-218	1	SIGHT GLASS (2")	
23.	360-849	1	REFLECTOR (ALUMINUM)	
24.	154-026	1	UNION (12J-12JFX90)	
25.	325-092	AR	SHIM	
26.	105-834	3	FLG LOCKNUT (3/8-NC)	

FOOTNOTES

1. THIS FITTING IS USED ON MACHINES WITH NO CASE DRAIN FROM SHAKER.
2. THIS FITTING IS USED ON MACHINES WITH A CASE DRAIN FROM SHAKER.
3. REFER TO O-RING CHART (800-301) IN BACK OF BOOK FOR REPLACEMENT OF SAE AND ORS O-RING.
4. END WITH S/N 4X0174
5. BEGINS WITH S/N 4X0175

GROUND DRIVE HYDRAULICS



GROUND DRIVE HYDRAULICS

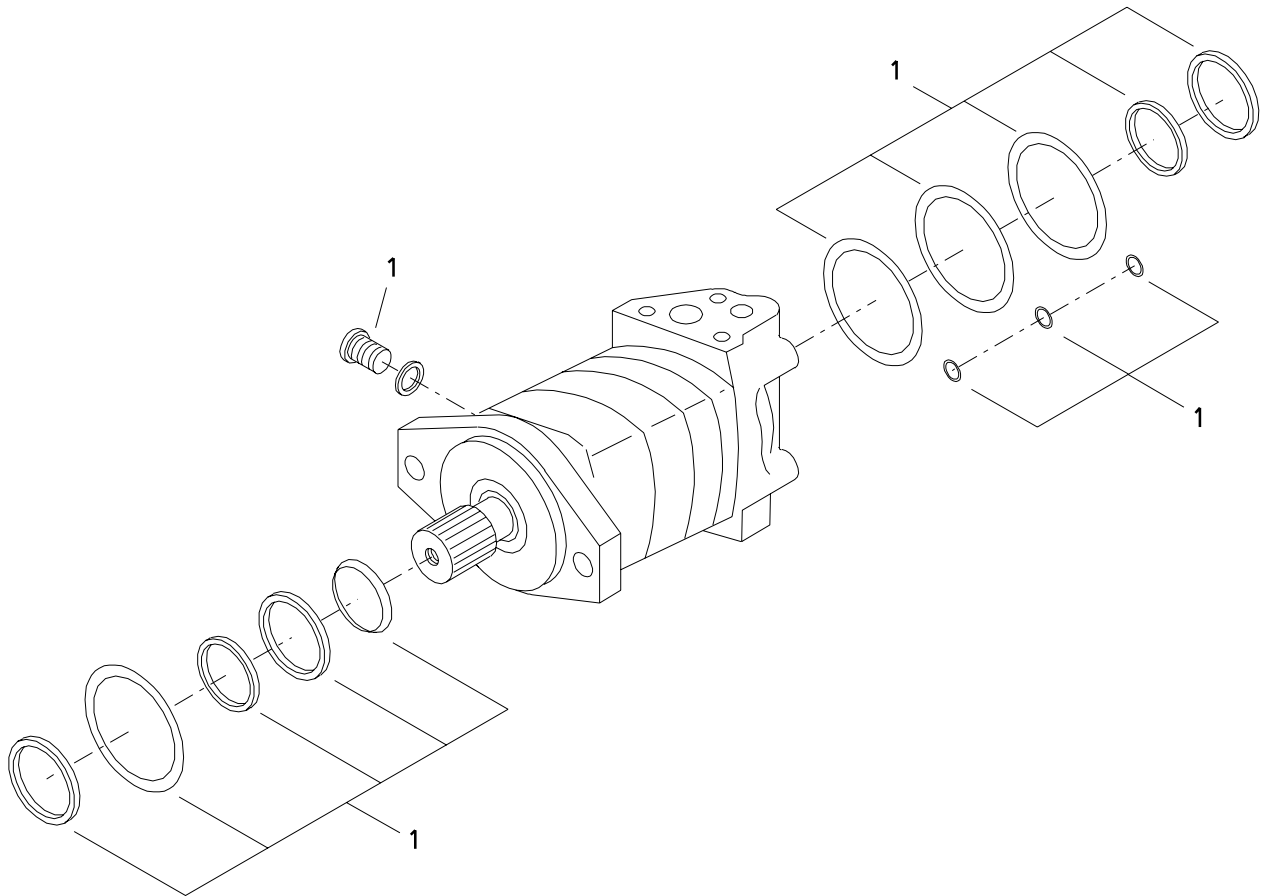
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-021	4	NUT (1/2-NC)	
2.	105-070	4	LOCK WASHER (1/2")	
3.	105-280	4	BOLT (1/2-NC X 2-1/4", CSK SOC)	EARLY STYLE
	105-229	4	BOLT (1/2-NC X 2")	
4.	105-281	3	BOLT (3/8-NC X 2-1/2", GD 8 SOC)	
5.	154-005	1	CONNECTOR (08J-08S)	
	155-706		O-RING (908 D90)	
6.	154-127	1	CONNECTOR (08J-10S45)	
	155-707		O-RING (910 D90)	
7.	154-031	3	CONNECTOR (08J-10S)	
	155-707		O-RING (910 D90)	
8.	154-074	1	CONNECTOR (08J-08S90)	
	155-706		O-RING (908 D90)	
9.	154-111	7	UNION (08J-08JFX90)	
10.	154-133	2	TEE (08J-08J-08J)	
11.	154-576	4	HOSE (08JFX-22.5"-2000)	
12.	155-590	1	HYDRAULIC MOTOR	
13.	158-700	1	HYD MOTOR	
14.	155-981	1	COUNTERBALANCE MANIFOLD	
15.	500-471	2	COUNTERBALANCE CARTRIDGE	
16.	154-566	1	HOSE (08JF-16"-3500)	
17.	154-620	1	HOSE (3/4-JIC X 20")	

FOOTNOTES

HYDRAULIC MOTOR

GROUND DRIVE

MANIFOLD MOUNT PORTS



REMARKS

[illegible]

FOOTNOTES

This diagram illustrates the assembly of a cable system. It features a main cable (1) with a mounting bracket at one end. A dashed line indicates the cable's path, showing it connecting to a terminal block (2) and then to a control unit (3). The control unit has two ports, each with a connector (4) and a cable (5). The cable (5) is terminated with a plug (6). The diagram uses solid lines for components and dashed lines for the assembly path.

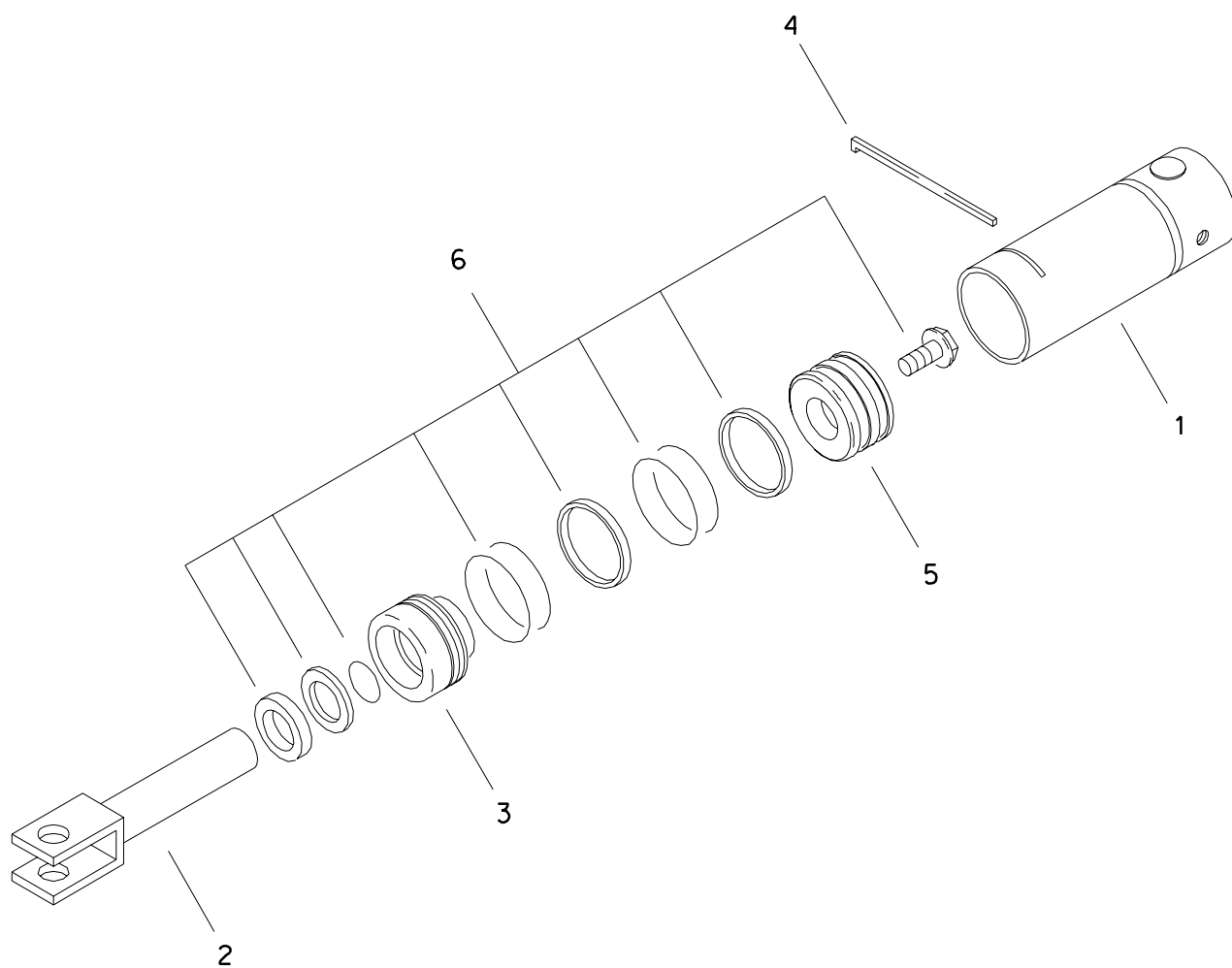
STEERING HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	151-007	1	HYD CYL (3.0" X 1.187" X 3.500")	
2.	154-032	1	CONN. (04J-06S)	
3.	154-055	3	CONN. (04J-06S90)	
4.	154-066	1	UNION (04J-04JFX90)	
5.	154-534	1	HOSE (04JFX-67"-2750)	
6.	154-584	1	HOSE (04JFX-56"-2750)	

FOOTNOTES

1. REFER TO O-RING CHART (800-301) IN BACK OF BOOK FOR REPLACEMENT OF SAE AND ORS O-RING.

HYDRAULIC CYLINDER



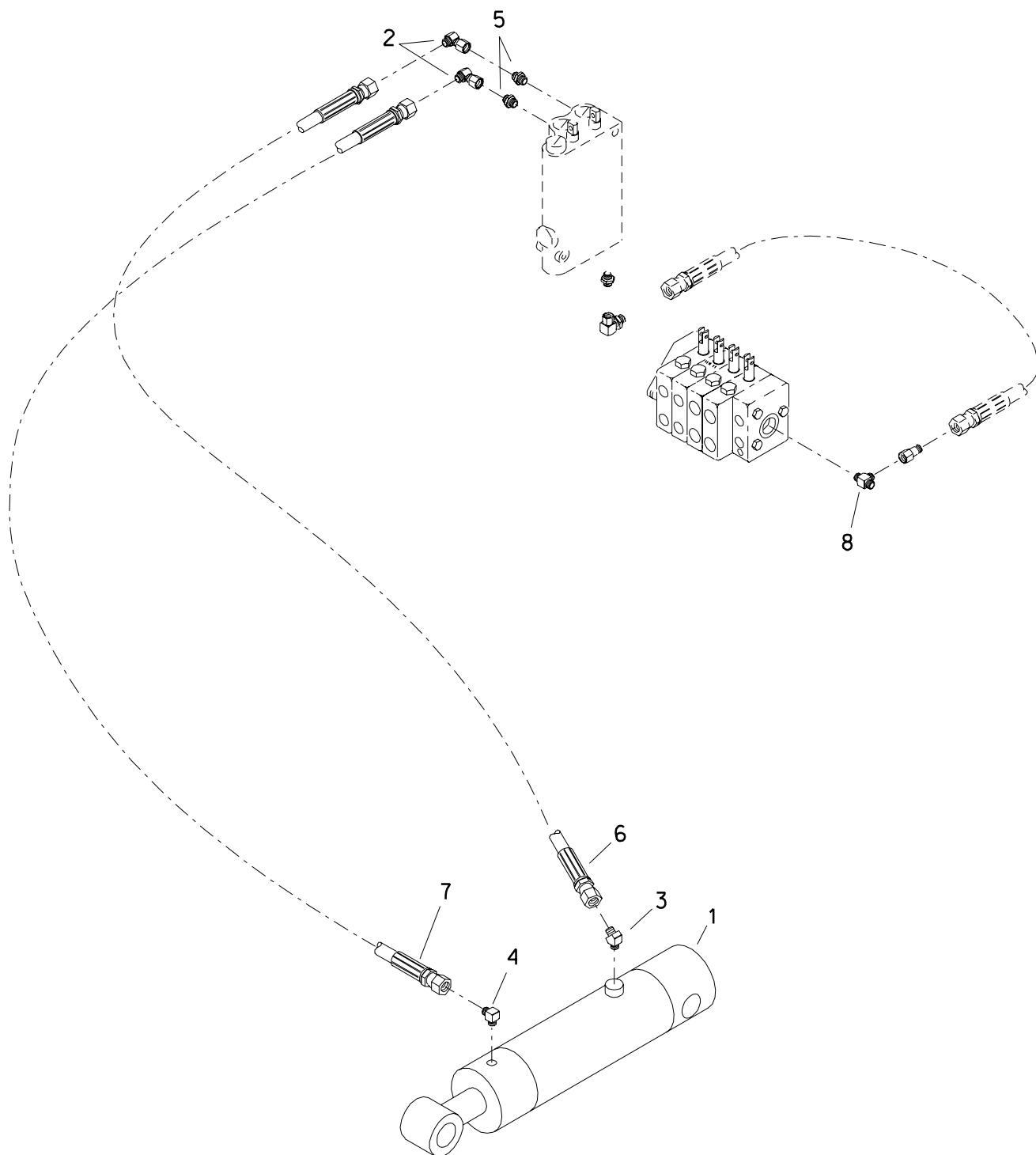
HYDRAULIC CYLINDER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-007		HYD. CYL (3" X 1.187" X 3.5") (INCL. REF. NO.'S 1-6)	
1.	150-267	1	CYLINDER BARREL	
2.	150-367	1	CYLINDER ROD	
3.	150-813	1	CYLINDER HEAD	SEE FOOTNOTE 3
	150-795	1	CYLINDER HEAD	SEE FOOTNOTE 4
4.	150-991	1	LOCK RING (3" ID)	
5.	150-952	1	PISTON	SEE FOOTNOTE 6
6.	190-151	1	SEAL REPAIR KIT (3" ID)	SEE FOOTNOTE 1
	190-159	1	SEAL REPAIR KIT (3" ID)	SEE FOOTNOTE 2
NOT SHOWN:				
	259-100		ROD U-SEAL INSTALLER	
	259-065		PISTON RING COMPRESSOR	SEE FOOTNOTE 5
	259-066		PISTON RING GUIDE	SEE FOOTNOTE 5

FOOTNOTES

1. SEAL KIT USED WITH CYLINDER HEADS WITH 1.437" DIA INTERNAL GROOVE FOR ROD U-SEAL ARE NO LONGER AVAILABLE, REPLACE WITH NEW CYLINDER HEAD WITH 1.562" DIA INTERNAL GROOVE AND NEW SEAL REPAIR KIT (SEE FOOTNOTE 2).
2. REFER TO SEAL REPAIR KIT INSTALLATION DIAGRAM 050-024 AND PISTON SEAL REPLACEMENT DIAGRAM 052-144 (SEE FOOTNOTE 4).
3. CYLINDER HEADS WITH 1.437" DIA INTERNAL GROOVE FOR ROD U-SEAL ARE NO LONGER AVAILABLE, REPLACE WITH NEW CYLINDER HEAD WITH 1.562" DIA INTERNAL GROOVE AND NEW SEAL REPAIR KIT (SEE FOOTNOTE 2).
4. CYLINDER HEAD WITH 1.562" DIA INTERNAL GROOVE FOR ROD U-SEAL AND CORRESPONDING SEAL REPAIR KIT, REPLACE CYLINDER HEAD WITH 1.437" DIA INTERNAL GROOVE
5. FOR PROCEDURES REGARDING USE OF PISTON RING TOOLS REFER TO TECHNICAL BITS DATED 2-27-86.
6. GROOVE IN FACE OF PISTON FOR O-RING. SEAL REPAIR KIT WILL INCLUDE O-RING 157-050.

PLOW LIFT HYDRAULICS (ENDS WITH S/N 4B0111)



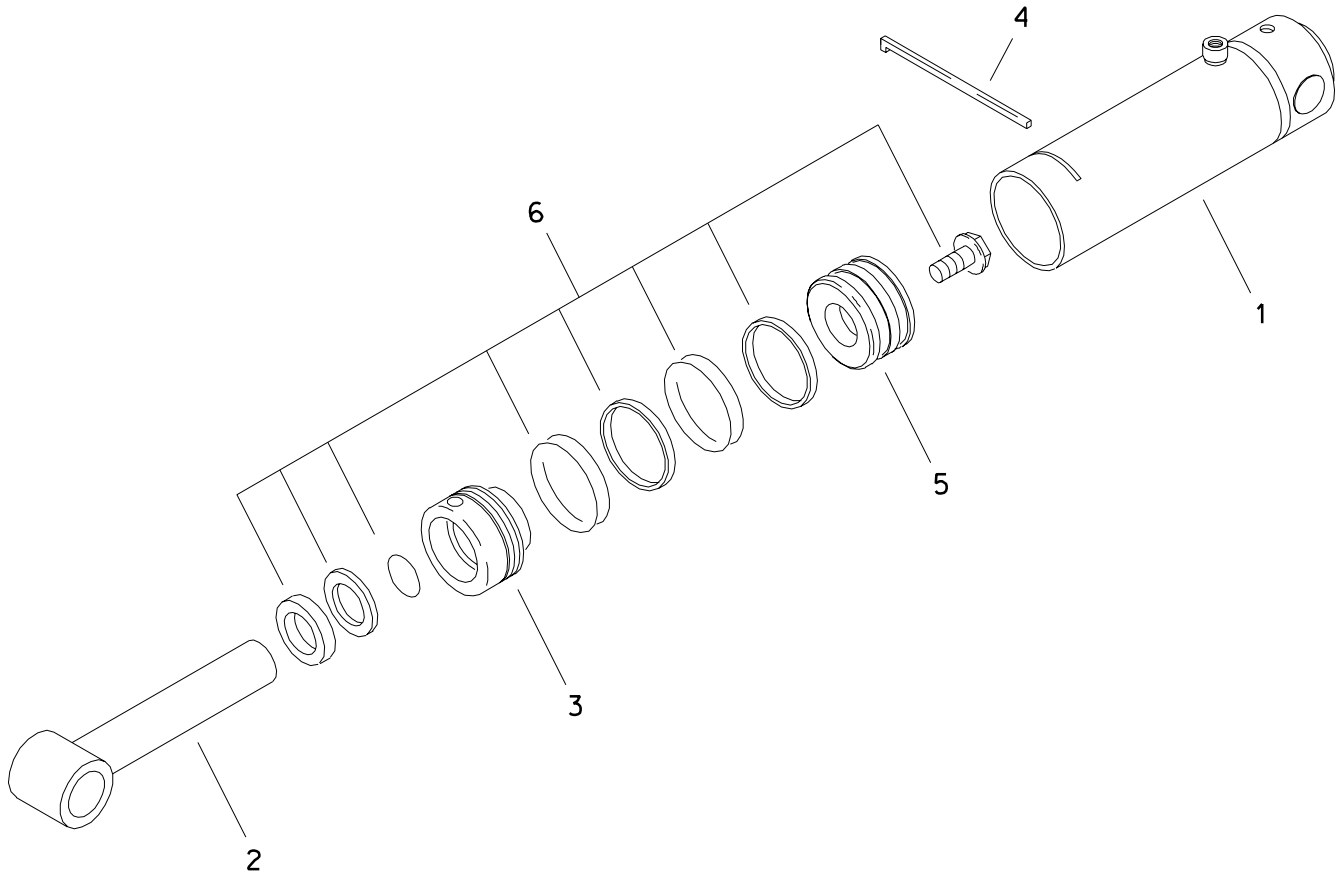
PLOW LIFT HYDRAULICS (ENDS WITH S/N 4B0111)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	151-006	1	HYD. CYL (3.0" X 1.187" X 10.5")	
2.	154-044	2	ADAPTER UNION (06J-06JFX90)	
3.	154-048	1	ADAPTER CONNECTOR (06J-06S45)	
4.	154-057	1	ADAPTER CONNECTOR (06J-06S90)	
5.	154-076	2	ADAPTER CONNECTOR (06J-06S)	
6.	154-589	1	HOSE (06JFX-40"-2250)	
7.	154-607	1	HOSE (9/16-JIC X 56")	
8.	154-169	1	RUN TEE (12S-12J-12J)	

FOOTNOTES

1. REFER TO O-RING CHART (800-301) IN BACK OF BOOK FOR REPLACEMENT OF SAE AND ORS O-RING

HYDRAULIC CYLINDER



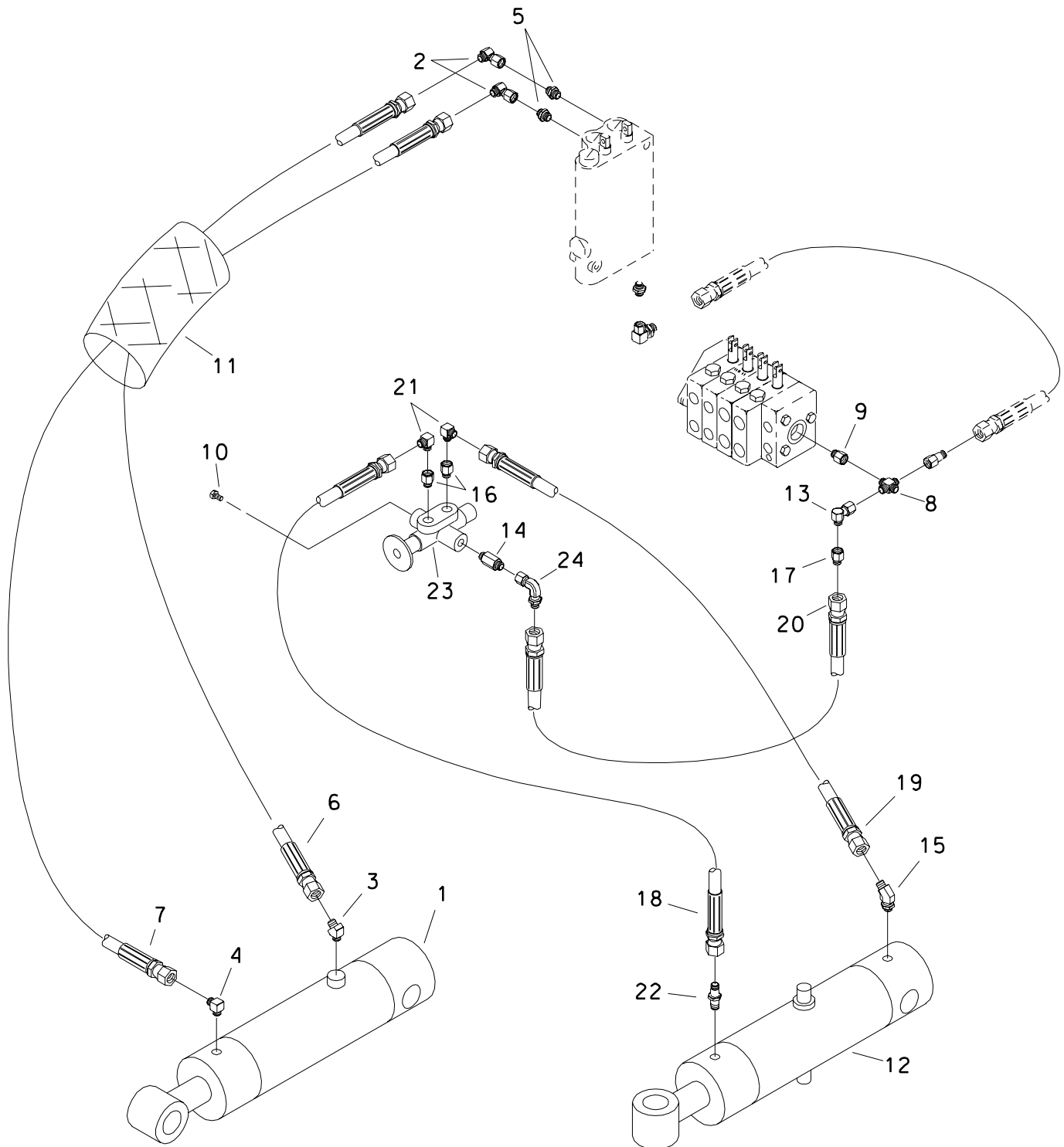
HYDRAULIC CYLINDER

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-006		HYD CYL (3.0" X 1.18" X 10.5") NO.'S 1 THRU 6	
1.	150-266	1	CYLINDER BARREL	
2.	150-402	1	CYLINDER ROD	
3.	150-813	1	CYLINDER HEAD	SEE FOOTNOTE 3
	150-795	1	CYLINDER HEAD	SEE FOOTNOTE 4
4.	150-911	1	LOCK RING (3" ID)	
5.	150-952	1	PISTON	SEE FOOTNOTE 6
6.	190-151	1	SEAL REPAIR KIT (3" ID)	SEE FOOTNOTE 1
	190-159	1	SEAL REPAIR KIT (3" ID)	SEE FOOTNOTE 2
NOT SHOWN:				
	259-100		ROD U-SEAL INSTALLER	
	259-065		PISTON RING COMPRESSOR	SEE FOOTNOTE 5
	259-066		PISTON RING GUIDE	SEE FOOTNOTE 5

FOOTNOTES

1. SEAL KIT USED WITH CYLINDER HEADS 1.437" DIA INTERNAL GROOVE FOR ROD U-SEAL ARE NO LONGER AVAILABLE, REPLACE WITH NEW CYLINDER HEAD WITH 1.562" DIA INTERNAL GROOVE AND NEW SEAL REPAIR KIT (SEE FOOTNOTE 2)
2. REFER TO SEAL REPAIR KIT INSTALLATION DIAGRAM 050-024 AND PISTON SEAL REPLACEMENT DIAGRAM 052-144 (SEE FOOTNOTE 4)
3. CYLINDER HEADS WITH 1.437" DIA INTERNAL GROOVE FOR ROD U-SEAL ARE NO LONGER AVAILABLE, REPLACE WITH NEW CYLINDER HEAD WITH 1.562" DIA INTERNAL GROOVE AND NEW SEAL REPAIR KIT (SEE FOOTNOTE 2)
4. CYLINDER HEADS WITH 1.562" DIA INTERNAL GROOVE FOR ROD U-SEAL, AND CORRESPONDING SEAL REPAIR KIT, REPLACE CYLINDER HEAD WITH 1.437" DIA INTERNAL GROOVE
5. FOR PROCEDURES REGARDING USE OF PISTON RING TOOLS REFER TO TECHNICAL BITS DATED 2-27-86
6. GROOVE IN FACE OF PISTON FOR O-RING, SEAL REPAIR KIT WILL INCLUDE O-RING 157-050.

PLOW LIFT AND SWING HYDRAULICS (BEGINS WITH S/N 4B0112)



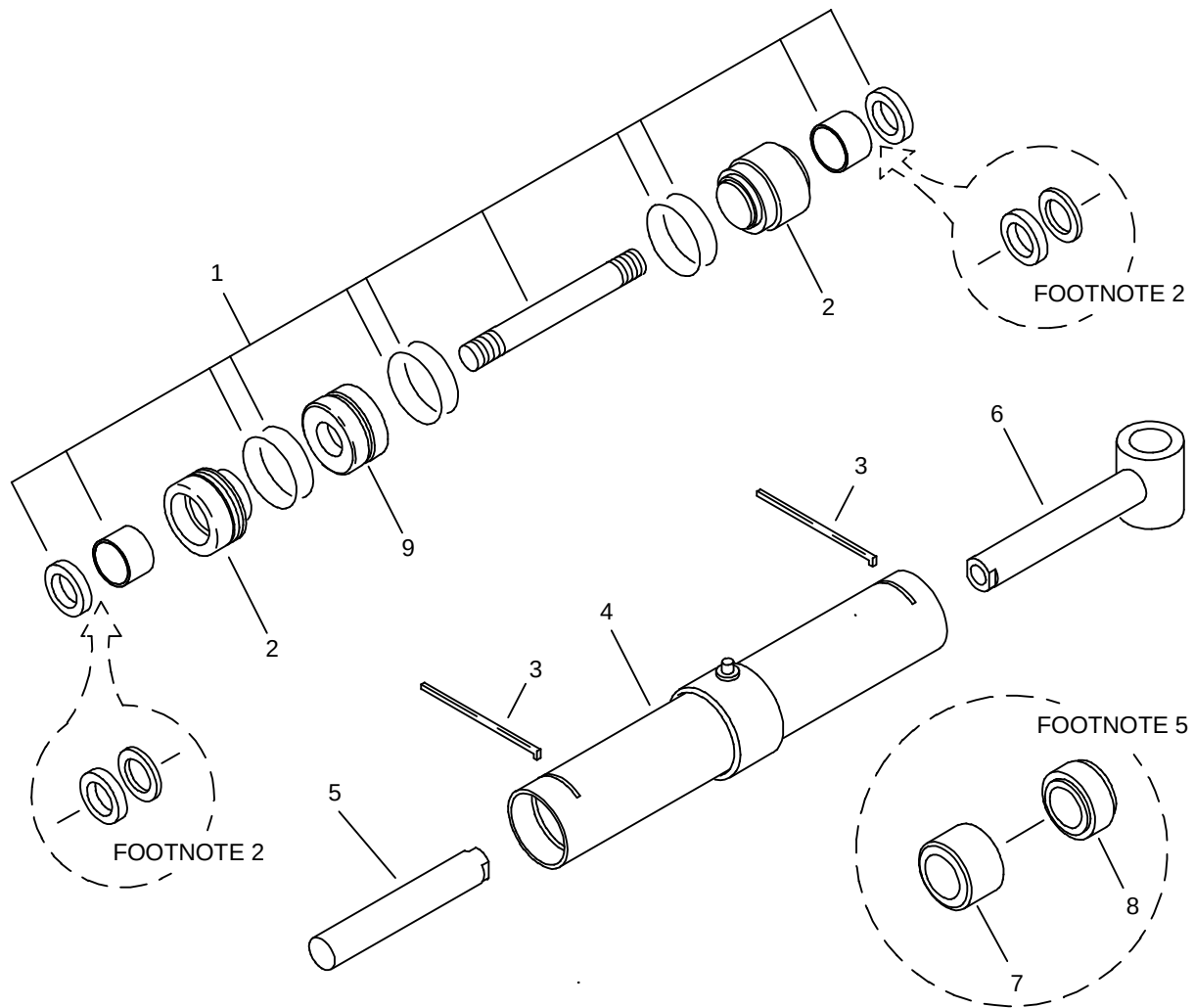
PLOW LIFT AND SWING HYDRAULICS (BEGINS WITH S/N 4B0112)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	151-006	1	HYD. CYL (3.0" X 1.18" X 10.5")	
2.	154-044	2	UNION (06J-06JFX90)	
3.	154-048	1	CONNECTOR (06S-06J45)	
4.	154-057	1	CONNECTOR (06S-06J90)	
5.	154-076	2	CONNECTOR (06S-06J)	
6.	154-589	1	HOSE (06JFX-40"-2250)	
7.	154-519	1	HOSE (06JFX-54"-2250)	
8.	154-197	1	CROSS (12J)	
9.	154-144	1	UNION (12S-12JFX)	
10.	105-822	2	FLG LK BOLT (5/16-NC X 1/2")	
11.	117-679	1	ABRASION SLEEVE (1.59" X 32")	
12.	149-421	1	HYD. CYL. (2.0" X 1.18" X 3.45")	
13.	154-159	1	UNION (12J-12JFX45)	
14.	158-541	1	CHECK VALVE (08S-08J)	
15.	154-113	1	CONNECTOR (04S-04J45, ORF)	
	155-760		O-RING (904 D90)	
16.	155-156	2	BUSHING (08S-04SF)	
17.	154-184	1	UNION (08J-12JFX)	
18.	154-513	1	HOSE (04JFX-20"-5000)	
19.	149-625	1	HOSE (04JFX-22"-2750)	
20.	154-566	1	HOSE (08JFX-16"-3500)	
21.	155-091	2	CONNECTOR (04S-04J90)	
22.	155-133	1	CONNECTOR (04S-04J)	
23.	155-695	1	FLOAT VALVE	
	155-753		O-RING (116 D70, URETHANE)	
	157-028		BACKUP RING (116 D90)	
	500-288		KNOB (3/8-NC, BLACK)	
	500-289		EXTERNAL SNAP RING	
	115-545		EXTERNAL SNAP RING (.75")	
24.	154-111	1	UNION (08J-08JFX90)	

FOOTNOTES

1. REFER TO O-RING CHART (800-301) IN BACK OF BOOK FOR REPLACEMENT OF SAE AND ORS O-RING

HYDRAULIC CYLINDER ENDS WITH SN450703



HYDRAULIC CYLINDER ENDS WITH SN450703

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	151-010		CYL (2.0" X 1.18" X 3.4")	BLADE STEERING - INCL REF #'S 1-6 & 9
1.	<u>190-156</u>	1	SEAL REPAIR KIT	SEE FOOTNOTE 1
	190-161	1	SEAL REPAIR KIT	SEE FOOTNOTE 2
2.	<u>150-842</u>	2	CYLINDER HEAD	SEE FOOTNOTE 3
	150-798	2	CYLINDER HEAD	SEE FOOTNOTE 4
3.	150-912	2	LOCK RING	
4.	150-269	1	CYLINDER BARREL	
5.	150-575	1	CYLINDER ROD	
6.	150-406	1	CYLINDER ROD	
7.	<u>150-904</u>	1	SMOOTH PISTON BODY	FOOTNOTE 5
8.	<u>150-906</u>	1	GROOVED PISTON	FOOTNOTE 5
9.	150-999	1	PISTON	FOOTNOTE 5

NOT SHOWN:

259-100	ROD U-SEAL INSTALLER
259-310	PISTON SEAL INSTALLATION TOOL

FOOTNOTES:

1-THIS SEAL KIT IS NO LONGER AVAILABLE, USE KIT LISTED BELOW.

2-USE ROD O-RING AND BACKUP COMBINATION FOR CYLINDER HEADS WITH .208" THK INTERNAL GROOVE. USE ROD U-SEAL FOR HEADS WITH .28" THK INTERNAL GROOVE. REFER TO INSTALLATION DIAGRAM 050-023 AND PISTON REPLACEMENT DIAGRAM 052-144.

3-THIS HEAD HAS .208" THK INTERNAL GROOVE DESIGNED FOR USE WITH O-RING AND BACKUP RING COMBINATIONS.

THIS HEAD IS REPLACED BY HEAD WITH .28" THK INTERNAL GROOVE AND ROD U-SEAL, SEE FOOTNOTE 4.

4-THIS HEAD HAS .28" THK INTERNAL GROOVE DESIGNED FOR USE WITH ROD U-SEAL.

CAUTION: STUD BOLTS MUST BE TIGHTENED TO 290/325 FT LBS TO PROPERLY SECURE AND SEAL PISTON TO ROD. APPLY LOCTITE 277/271.

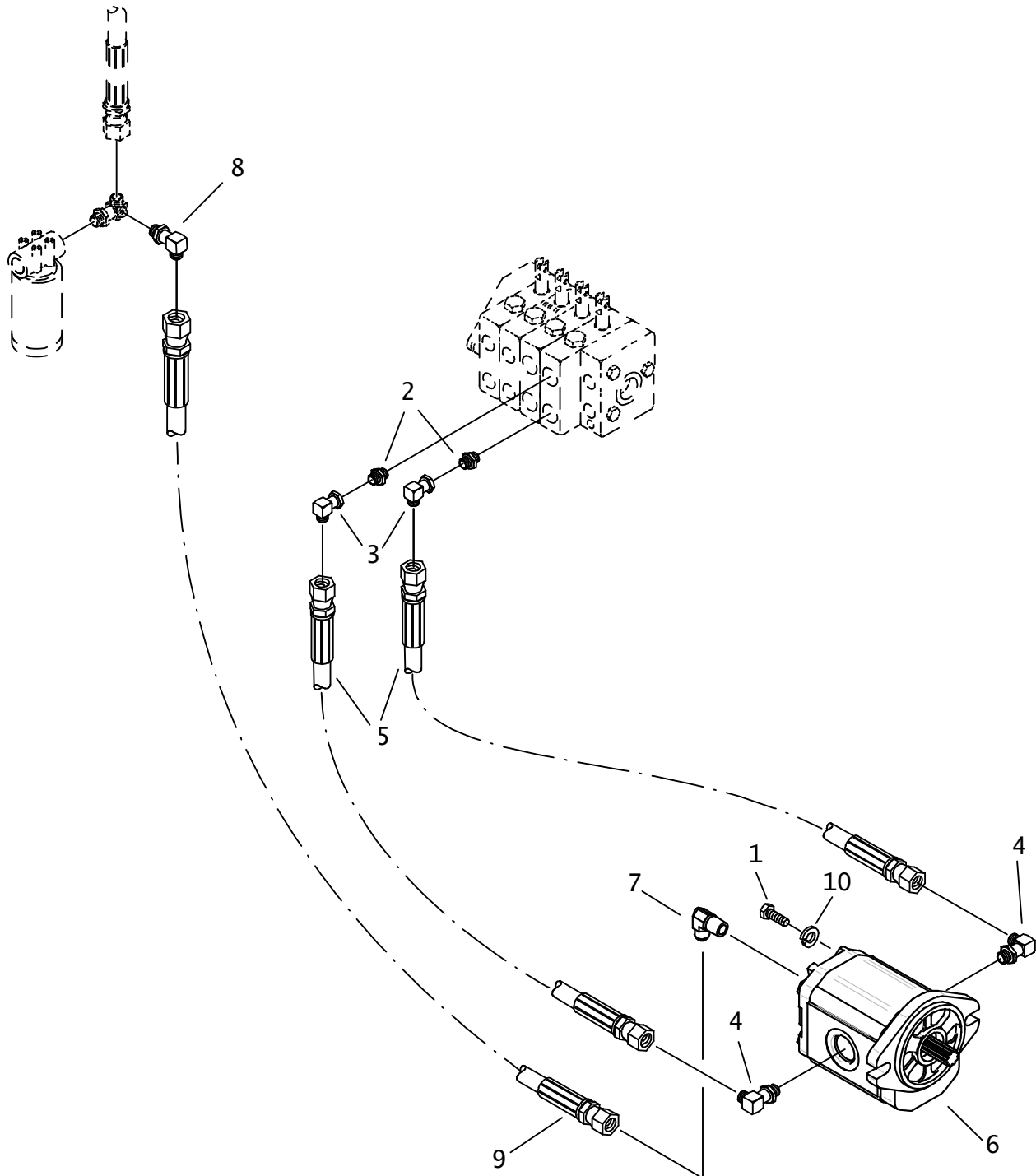
5-SINGLE PIECE 2" PISTON (REF #9) REPLACES TWO PIECE 2" PISTON (REF #'S 7 & 8).

FOOTNOTES

NOTE:

VIBRATOR HYDRAULICS

BEGINS W/ S/N T70000469



VIBRATOR HYDRAULICS

BEGINS W/ S/N T70000469

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-757	2	BOLT (3/8-NC X 1-1/4", SOC)	
2.	154-031	2	CONNECTOR (08J-10S)	
3.	154-111	2	UNION (08J-08JFX90)	
4.	154-114	2	CONNECTOR (12S-08J90)	
5.	154-567	2	HOSE (08JF-45"-2000)	
6.	150-1699	1	HYDRAULIC MOTOR	USES SEAL KIT 500-1381
7.	154-032	1	CONNECTOR (04J-06S)	SEE FOOTNOTE 1
8.	154-158	1	CONNECTOR (11/8NPT X 7/16 JIC X 90)	SEE FOOTNOTE 1
9.	154-536	1	HOSE (04JFX-50"-2750)	SEE FOOTNOTE 1
10.	106-396	2	WASHER (M10, HARDENED)	

NOT SHOWN:

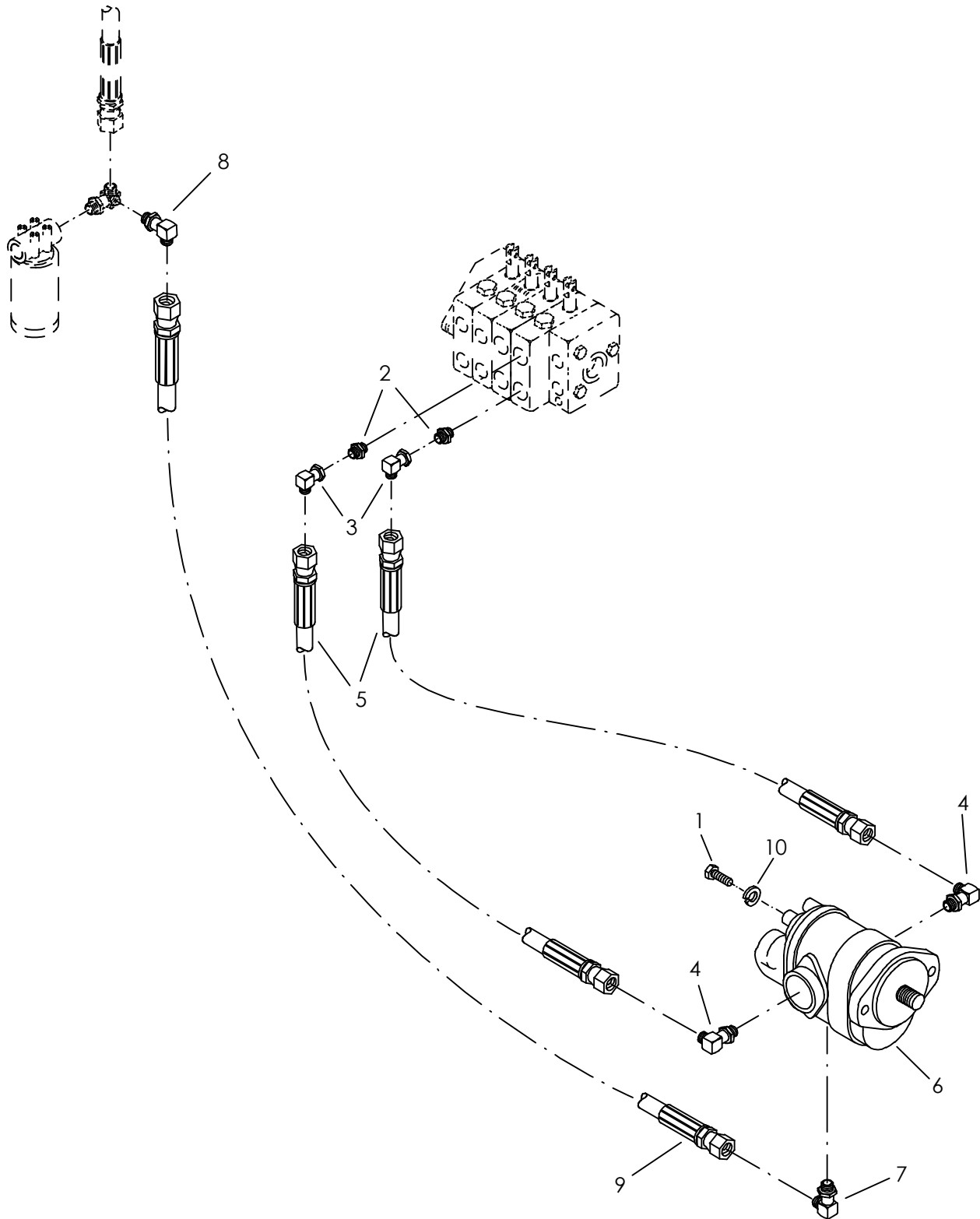
FOOTNOTES:

1. THESE PARTS ARE USED ON MACHINES EQUIPPED WITH CASE DRAINS.
2. REFER TO O-RING CHART (800-301) IN BACK OF BOOK FOR REPLACEMENT SAE AND ORS O-RING.

NOTE:

VIBRATOR HYDRAULICS

ENDS W/ S/N T70000468



VIBRATOR HYDRAULICS

ENDS W/ S/N T70000468

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-052	2	BOLT (3/8-NC X 1-1/4")	
2.	154-031	2	CONNECTOR (08J-10S)	
3.	154-111	2	UNION (08J-08JFX90)	
4.	154-114	2	CONNECTOR (12S-08J90)	
5.	154-567	2	HOSE (08JF-45"-2000)	
6.	155-589	1	HYDRAULIC MOTOR	
7.	154-021	1	CONNECTOR (04N-04J90)	SEE FOOTNOTE 1
8.	154-158	1	CONNECTOR (11/8NPT X 7/16 JIC X 90)	SEE FOOTNOTE 1
9.	154-536	1	HOSE (04JFX-50"-2750)	SEE FOOTNOTE 1
10.	105-070	2	LOCK WASHER (1/2")	

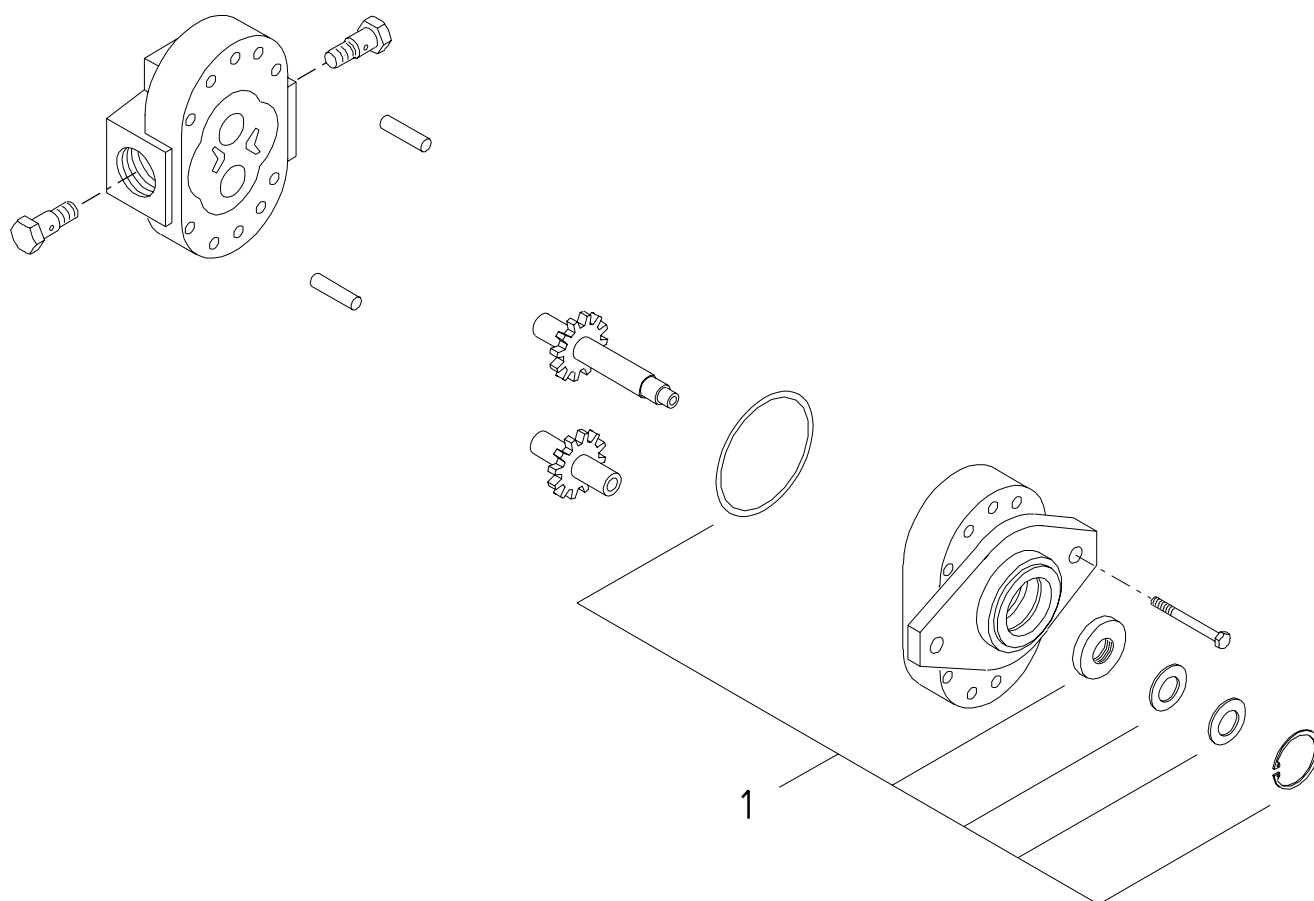
NOT SHOWN:

FOOTNOTES:

1. THESE PARTS ARE USED ON MACHINES EQUIPPED WITH CASE DRAINS.
2. REFER TO O-RING CHART (800-301) IN BACK OF BOOK FOR REPLACEMENT SAE AND ORS O-RING.

NOTE:

HYDRAULIC MOTOR VIBRATOR

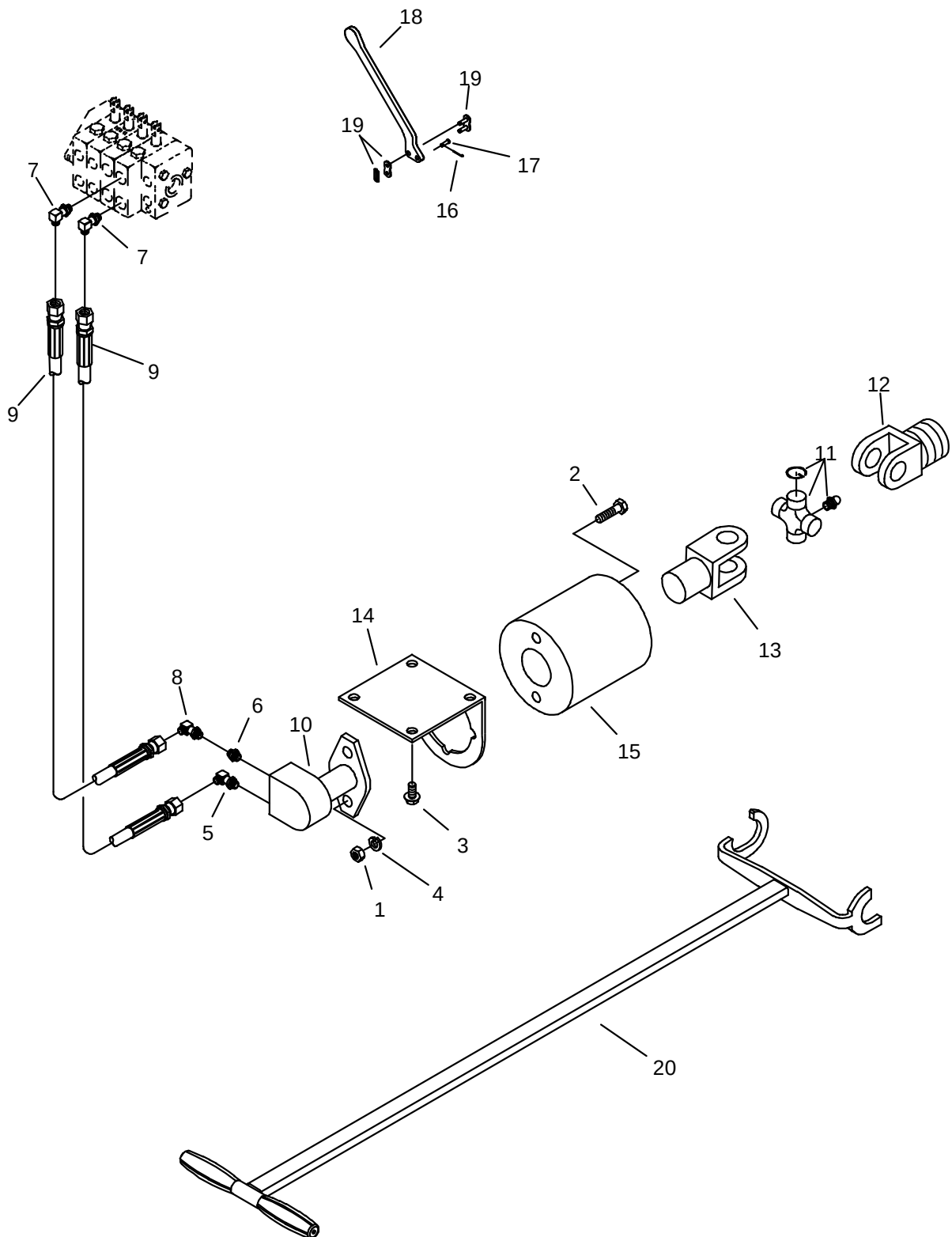


HYDRAULIC MOTOR VIBRATOR

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	155-589		HYDRAULIC MOTOR (INCL REF NO 1)	
1.	500-458	1	SEAL REPAIR KIT	

FOOTNOTES

BORING ATTACHMENT HYDRAULICS



BORING ATTACHMENT HYDRAULICS

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	022-182		DRY BORE ATTACHMENT CONVER. KIT	INCL REF NO.'S 1 THRU 22, SEE FOOTNOTE 1
1.	105-021	2	NUT (1/2-NC)	
2.	105-229	2	BOLT (1/2-NC X 2")	
3.	105-829	4	FLANGE LOCK BOLT (1/2-NC X 1")	
4.	105-070	2	LOCK WASHER (.500")	
5.	154-013	1	CONNECTOR (08J-10S90)	
6.	154-031	1	CONNECTOR (08J-10S)	
7.	154-074	2	CONNECTOR (08J-08S90)	
8.	154-111	1	ADAPTER UNION (08J-08JFX90)	
9.	154-562	2	HOSE (08JFX-37.5"-2000)	
10.	155-579	1	HYDRAULIC MOTOR	SEE FOOTNOTE 4 FOR SEAL KIT.
11.	180-723	1	CROSS AND BEARING KIT	
	115-010		ZERK (1/8-NPT X 22-1/2 DEG)	
	180-760		BEARING CAP (1-1/8")	OBSOLETE
12.	182-155	1	YOKE	
	182-227	1	QUICK DISCONNECT YOKE	
	178-926	1	ROTO WITCH YOKE	
	190-125		SLIDE LOCK REPAIR KIT	FOR STEEL COLLAR YOKE
	190-173		SLIDE LOCK REPAIR KIT	OBSOLETE, FOR PLASTIC COLLAR YOKE
13.	182-092	1	YOKE (1-1/4", 5/16 " KWY)	
14.	325-077	1	MOUNT BRACKET	
15.	351-219	1	YOKE GUARD ASSEMBLY	
16.	105-530	1	COTTER PIN (1/16" X 3/4")	
17.	110-082	1	CLEVIS PIN (1/4" X 11/16")	
18.	361-840	1	LEVER	
19.	500-419	1	CONNECTOR LINK	
20.	118-097	1	DRILL STRING GUIDE ASSEMBLY	SEE FOOTNOTE 3
	351-351	1	HAND HELD GUIDE ROD ASSEMBLY	OBSOLETE

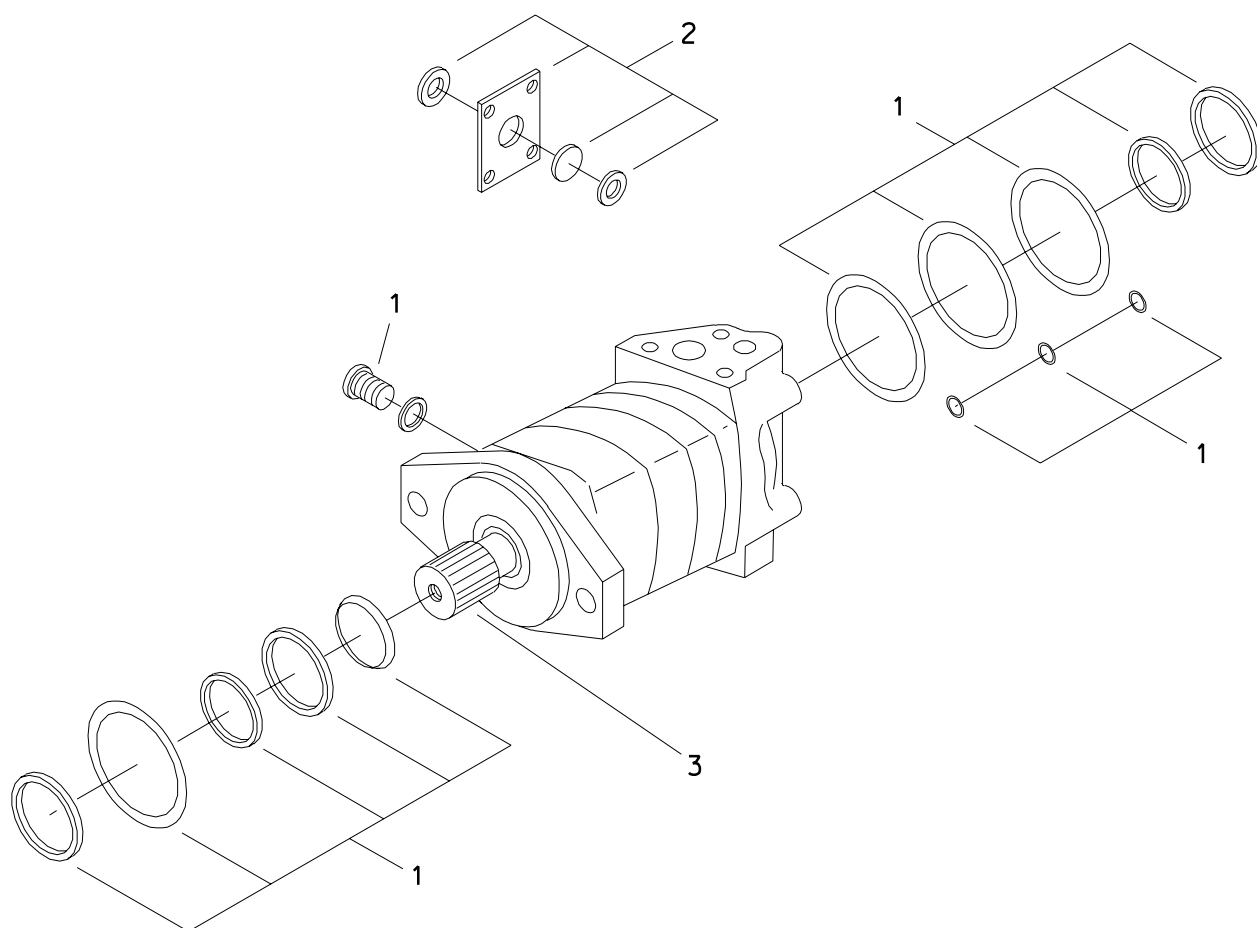
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FOOTNOTES:

1. REFER TO INSTALLATION DIAGRAM 050-180.
2. REFER TO O-RING CHART (800-301) IN BACK OF BOOK FOR REPLACEMENT SAE AND ORS O-RING.
3. INCLUDES (1) DANGER TURNING SHAFT DECAL AND (2) 110-015 BLACK GRIPS.
4. USE SEAL KIT 500-347 FOR MOTOR VERSION 002, 003, 004 & 005. SEAL KIT 500-658 IS TO BE USED WITH VERSION 006 MOTORS.

NOTE:

HYDRAULIC MOTOR
GROUND DRIVE
SAE MOUNT PORTS, (WITH PARK LOCK)



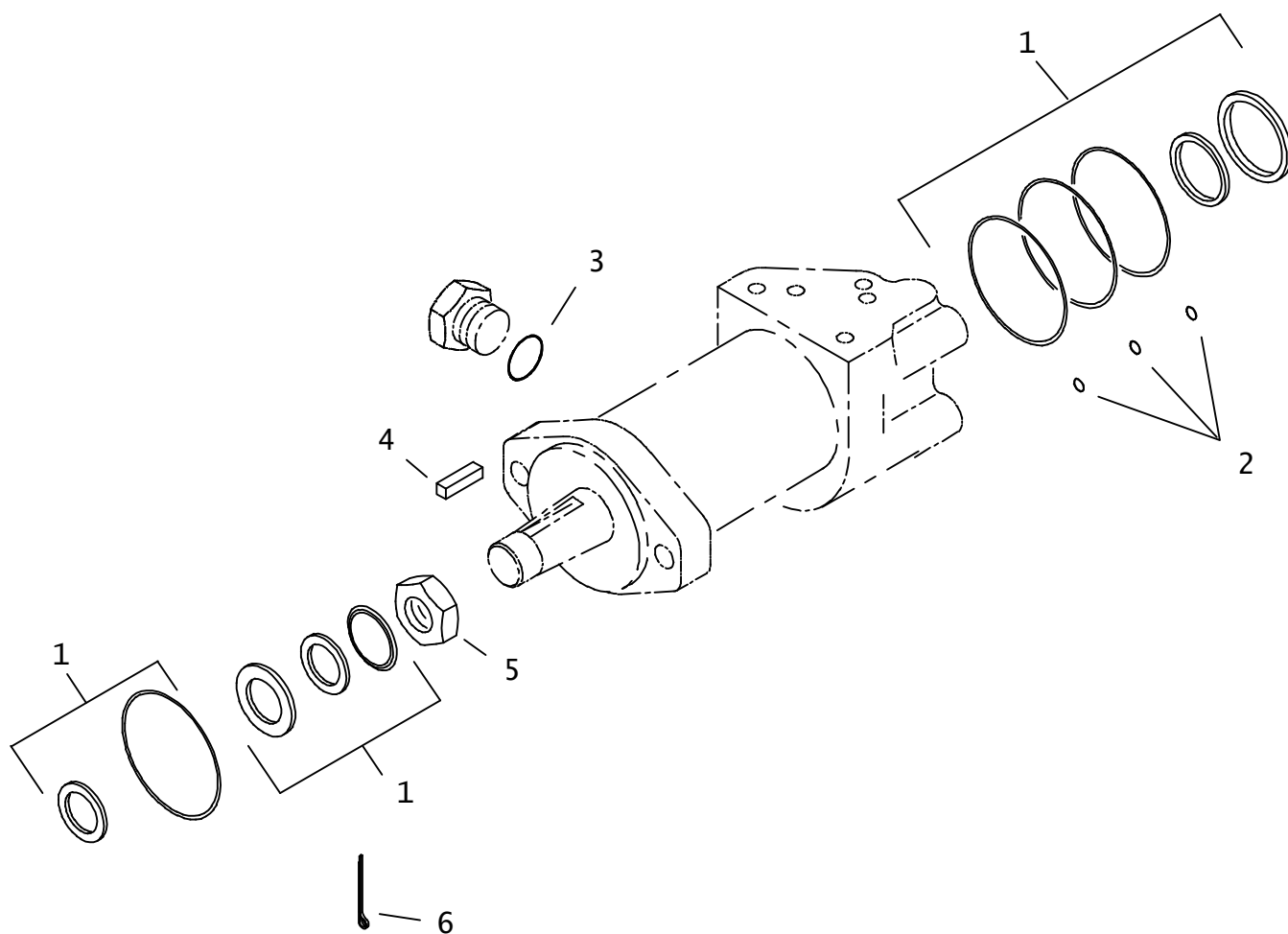
HYDRAULIC MOTOR GROUND DRIVE SAE MOUNT PORTS, (WITH PARK LOCK)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	158-700		HYDRAULIC MOTOR (INCL. REF. NO.'S 1 AND 2)	
1.	500-347	1	HYDRAULIC MOTOR SEAL REPAIR KIT	
2.	500-462	1	LOCK SEAL REPAIR KIT	
3.	166-278	1	SHAFT ASSEMBLY	
NOT SHOWN:				
	361-834		MOTOR LOCK LEVER	

FOOTNOTES

HYDRAULIC MOTOR

TAPERED KEYED SHAFT 1-1/4"



HYDRAULIC MOTOR TAPERED KEYED SHAFT 1-1/4"

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	155-579		HYDRAULIC MOTOR	INCL REF NO.'S 1 THRU 6, SEE FOOTNOTES 1 AND 4
	155-580		HYDRAULIC MOTOR	INCL REF NO.'S 1 THRU 5, SEE FOOTNOTES 2 AND 3
	153-280		HYDRAULIC MOTOR	INCL REF NO.'S 1 THRU 5, SEE FOOTNOTE 2
1.	500-347	1	SEAL REPAIR KIT	INCL REF NO.'S 2 AND 3, SEE FOOTNOTE 4
2.	155-771	3	O-RING (011 D70)	
3.	155-760	1	O-RING (904 D90)	
4.	165-915	1	KEY (5/16" X 1")	
5.	105-418	1	LOCKNUT (1-20 NEF)	
6.	105-501	1	COTTER PIN (1/8" X 2")	

NOT SHOWN:

FOOTNOTES:

1. USED ON ROTO WITCH II BORING UNITS.
2. USED ON ROTO WITCH III AND IV BORING UNITS.
3. SHAFT AND BEARING KIT- 500-1469
4. USE SEAL KIT 500-347 FOR MOTOR VERSION 002, 003, 004 & 005. SEAL KIT 500-658 IS TO BE USED WITH VERSION 006 MOTORS.

NOTE:

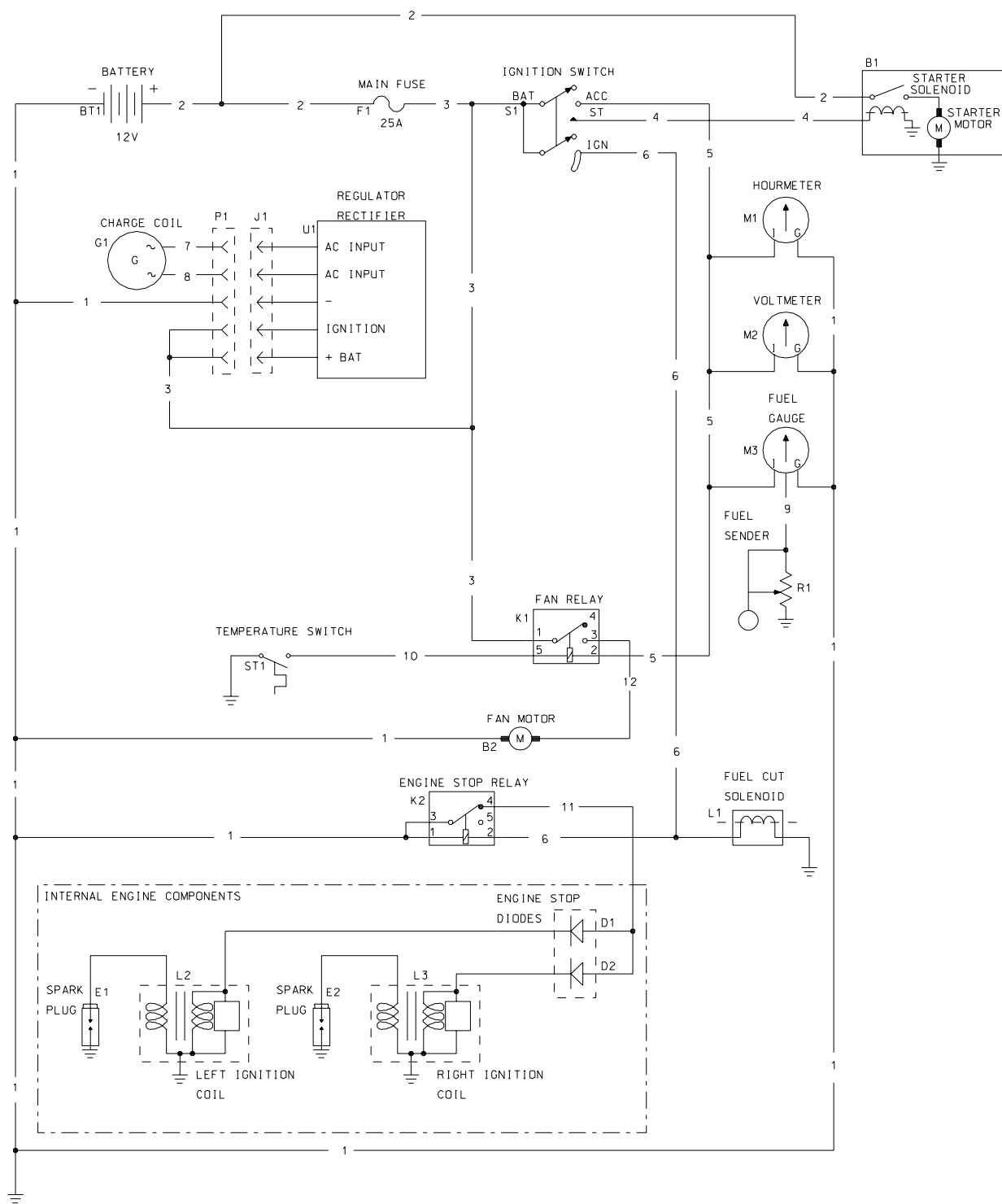
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ELECTRICAL

ELECTRICAL SCHEMATIC

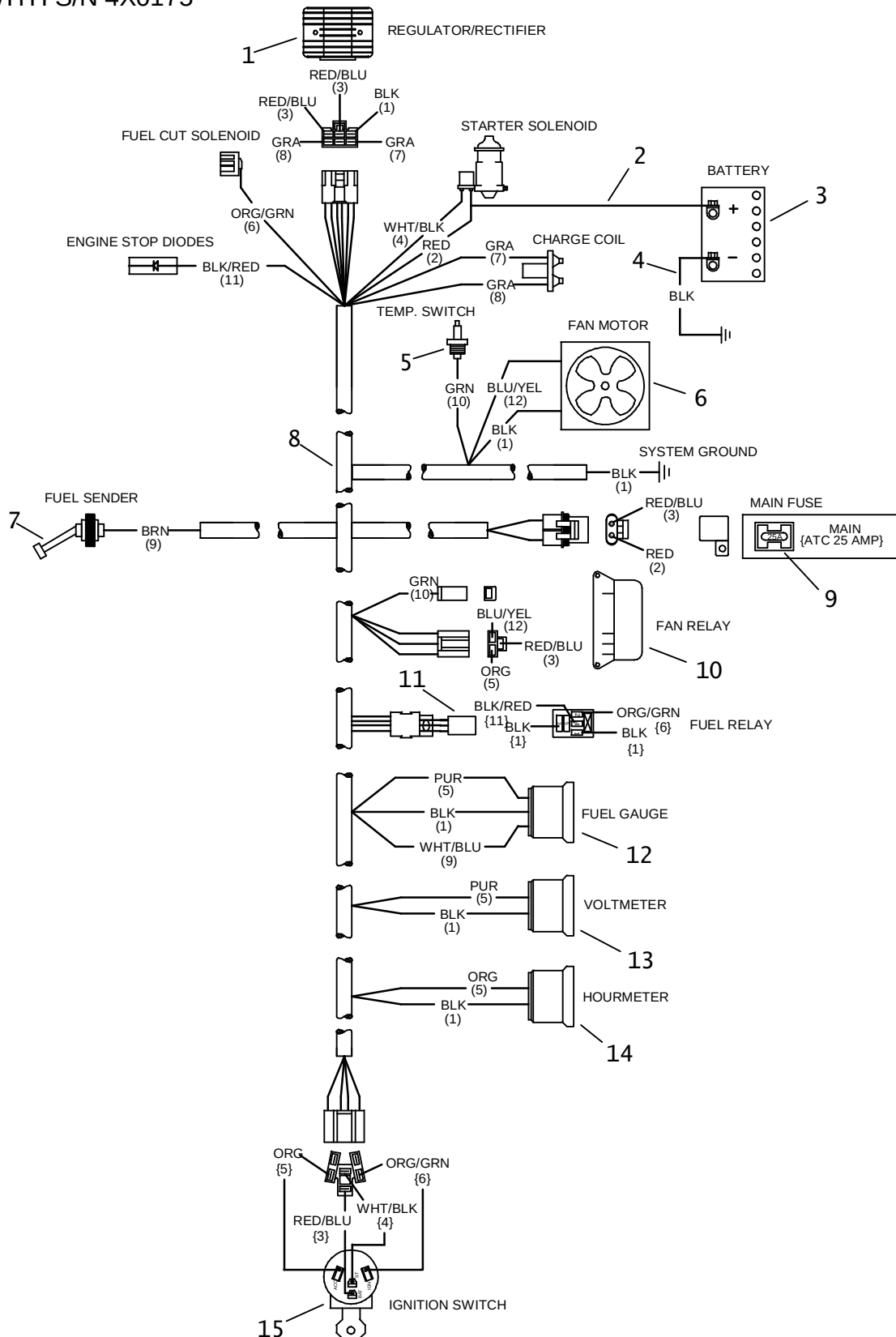
255 SX HONDA ENGINE
 BEGINS WITH S/N 4X0175



ELECTRICAL DIAGRAM

HONDA FRAME HARNESS

BEGINS WITH S/N 4X0175



ELECTRICAL DIAGRAM

HONDA FRAME HARNESS

BEGINS WITH S/N 4X0175

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	499-580	1	RECTIFIER REGULATOR (20 AMP)	
2.	215-313	1	BATTERY CABLE (4 GA X 65", RED)	
3.	215-252	1	BATTERY	
	105-832	2	FLG LOCKNUT (1/4-NC)	
	105-865	2	BOLT (1/4-NC X 3/4", GD8)	
4.	215-304	1	BATTERY CABLE (4 GA X 13", BLK)	
5.	215-0010	1	TEMPERATURE SWITCH	
6.	215-205	1	FAN - OIL COOLER	
7.	217-510	1	FUEL SENDER	
8.	213-023	1	255SX HARNESS	
9.	211-278	1	FUSE (ATC, 25 AMP)	
10.	215-063	1	RELAY - SPST	
11.	217-710	1	MICRO RELAY (SPDT)	
12.	215-133	1	FUEL GAUGE	
13.	215-129	1	VOLT METER	
14.	215-128	1	HOUR METER	
15.	214-852	1	IGNITION SWITCH	
	214-961		KEY, PAIR	
	214-962		SWITCH MOUNTING NUT	

NOT SHOWN:
215-415 NITE-LIGHT KIT (12V DC) OPTIONAL

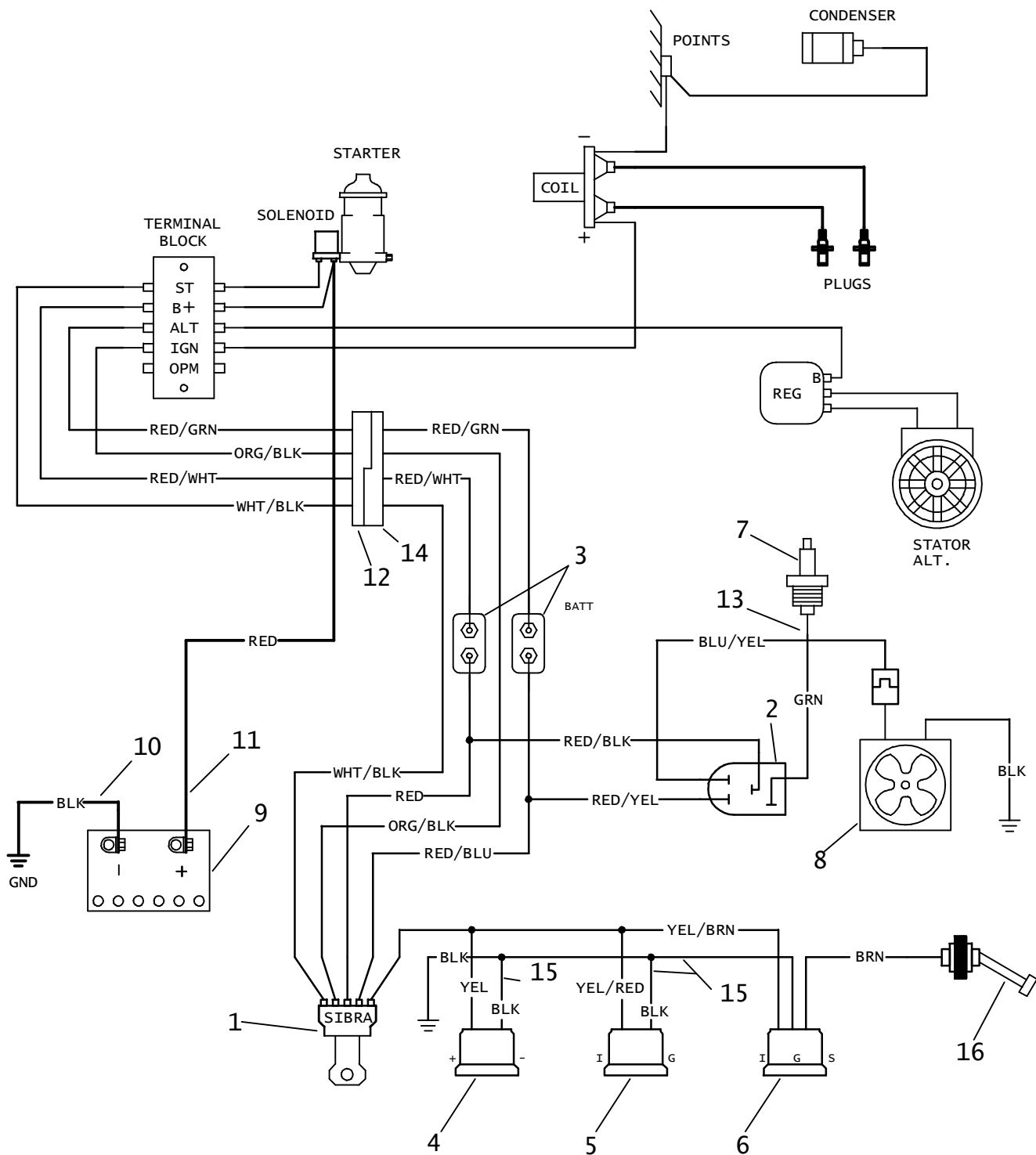
FOOTNOTES:

NOTE:

ELECTRICAL DIAGRAM

ONAN ENGINE

255SX



ELECTRICAL DIAGRAM

ONAN ENGINE

255SX

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	214-852	1	IGNITION SWITCH	BEGINS WITH S/N 4w0249
	214-961		KEY, PAIR	
	214-962		SWITCH MOUNTING NUT	
	215-045	1	IGNITION SWITCH	OBSOLETE, ENDS WITH S/N 4w0248
	215-020	1	KEYS (PAIR)	
2.	215-063	1	RELAY	
3.	215-065	2	CIRCUIT BREAKER	
4.	215-128	1	HOUR METER	
5.	215-129	1	VOLTMETER	
6.	215-133	1	FUEL GAUGE	
7.	215-0010	1	TEMPERATURE SWITCH	
8.	215-201	1	FAN	OBSOLETE, SEE FOOTNOTE 1
	215-205	1	FAN	SEE FOOTNOTE 2
9.	215-252	1	BATTERY	
	105-832	2	FLG LOCKNUT (1/4-NC)	
	105-865	2	BOLT (1/4-NC X 3/4", GD 8)	
10.	215-304	1	BATTERY CABLE (13" LG)	
11.	215-313	1	BATTERY CABLE (65" LG)	
12.	215-654	1	ENGINE HARNESS	SEE FOOTNOTE 3
	215-748	1	ENGINE HARNESS	SEE FOOTNOTE 4
13.	215-659	1	WIRE (16 GA X 16-1/2")	
14.	217-292	1	CONSOLE HARNESS	BEGINS WITH S/N 4w0249
	215-661	1	CONSOLE HARNESS	OBSOLETE, ENDS WITH S/N 4w0248
15.	215-662	1	3-WIRE HARNESS	
16.	217-510	1	FUEL SENDER	

NOT SHOWN:

215-415

LIGHT KIT

OPTIONAL

FOOTNOTES:

1. ENDS WITH S/N4E0539. THIS FAN IS NO LONGER AVAILABLE, IF REPLACEMENT IS REQUIRED ORDER NEW FAN AND DRILL HOLES IN CENTER PLATE TO MATCH FAN.
2. BEGINS WITH S/N4E0540.
3. ENDS WITH S/N4F0492. USED WITH ONAN NHC ENGINE.
4. BEGINS WITH S/N4F0493. USED WITH ONAN P224 ENGINE.

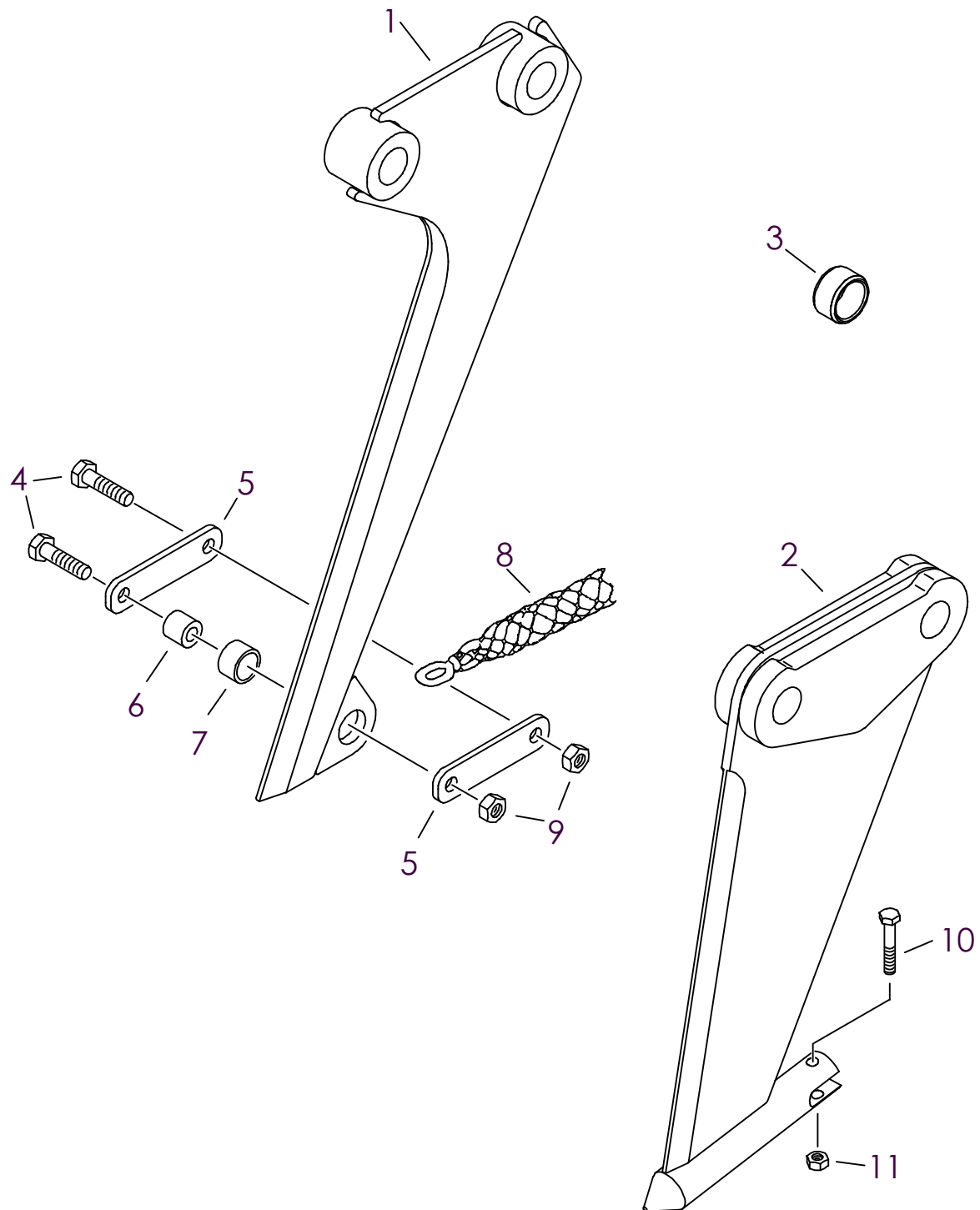
NOTE:

REFER TO ELECTRICAL SCHEMATIC 050-858.

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PLOW BLADES

PULL BLADES



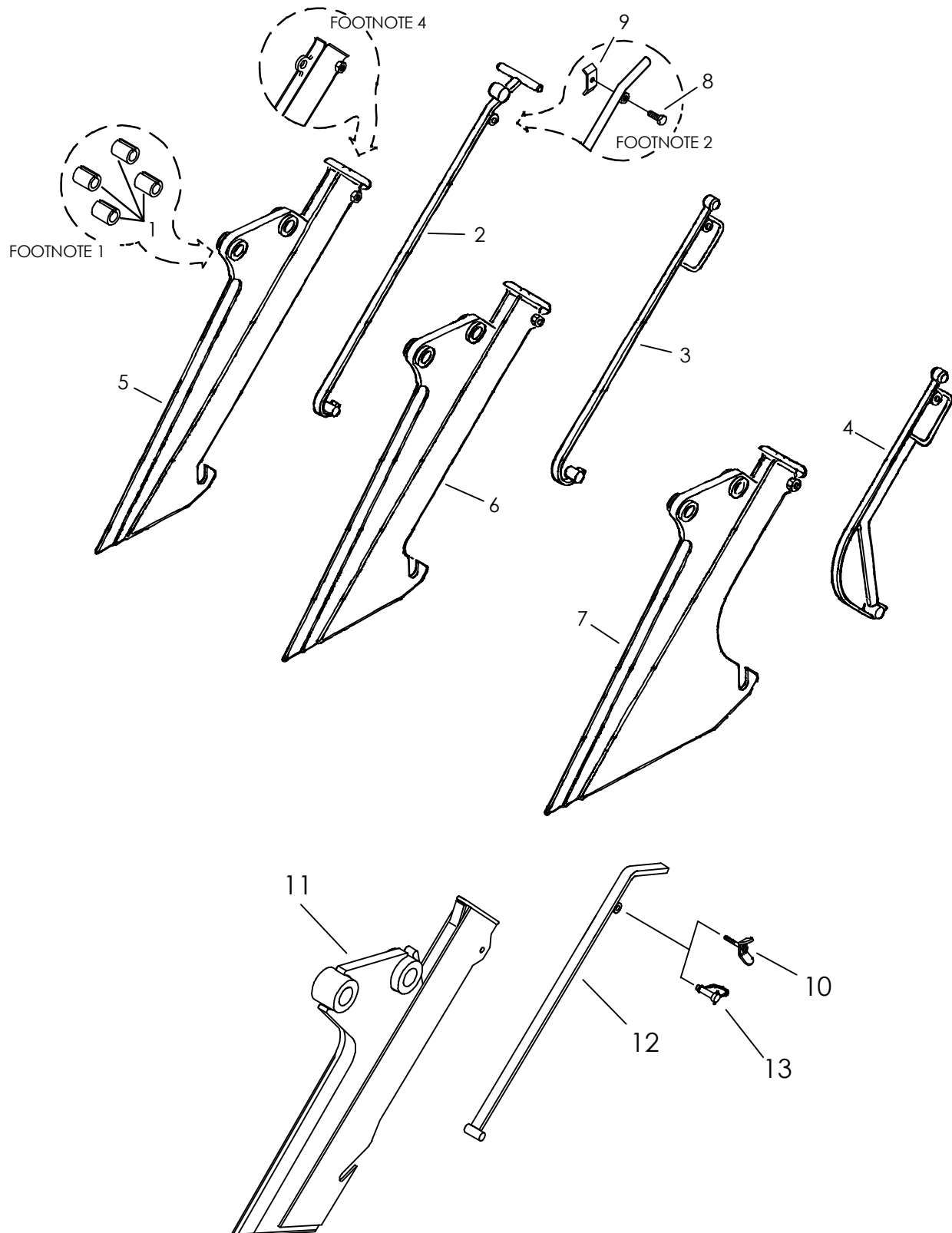
PULL BLADES

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	186-191	1	PULL/FLOAT BLADE (5/8" X 12")	INCL REF NO. 7, SEE FOOTNOTE 4
2.	186-424	1	BULLET BLADE (12" LG X 3/8" THK) 1-1/2" OD BULLET	SEE FOOTNOTES 2 & 4
	186-336	1	BULLET BLADE (12" LG X 3/8" THK) 3" OD BULLET	SEE FOOTNOTES 2 & 4
	186-810	1	SPEED BULLET BLADE (12" LG X 3/8" THK) 2" OD BULLET	SEE FOOTNOTES 2 & 4
	186-811	1	BULLET BLADE (18" LG X 3/8" THK) 2" OD BULLET	SEE FOOTNOTES 2 & 4
3.	125-734	4	TENSION BUSHING (1.375")	SEE FOOTNOTE 1
4.	105-871	2	BOLT (1/2-NC X 2" GD8)	
5.	186-248	2	LINK	
	186-247	AR	PULL BLADE LINK CONVERSION KIT	INCL REF NO.'S 4,5,6 & 9
6.	181-598	1	BUSHING	
7.	125-736	2	SPRING BUSHING (1.000")	
8.	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")	
9.	105-065	2	LOCKNUT (1/2-NC)	
10.	105-156	1	BOLT (3/8-NC X 1 1/2")	USE ON PULL BLADES WITH 1.5" OD BULLET W/WELDED TABS, (OLD STYLE)
	105-075	1	BOLT (3/8-NC X 2")	USE ON PULL BLADES WITH 1.5" OD BULLETS W/MACHINED TABS, (NEW STYLE)
	105-162	1	BOLT (3/8-NC X 2 1/4")	USE ON PULL BLADES WITH 3" OD BULLETS W/WELDED TABS, (OLD STYLE)
	105-179	1	BOLT (3/8-NC X 3-1/2")	USE ON PULL BLADES WITH 3" OD BULLETS W/MACHINED TABS, (NEW STYLE)
11.	105-047	1	LOCKNUT (3/8-NC)	

FOOTNOTES:

1. PULL BLADES WITH 1-3/4" ID MOUNTING BOSSES, USED BUSHING (REF NO. 3) AND ARE NO LONGER AVAILABLE. THIS BUSHING IS NOT USED ON REPLACEMENT BLADES HAVING BOSSES WITH 1-3/8" ID.
2. THESE PULL BLADES HAVE BOSSES WITH 1-3/8" ID AND DO NOT REQUIRE THE USE OF BUSHINGS.
3. SPEED BLADES ARE INTENDED FOR STRAIGHT OR GENTLY CURVING PLOW RUNS. THEY SHOULD NOT BE USED IN RUNS REQUIRING SHARP CURVES.
4. USE OF THESE BLADES ON THE H532, H552 OR M552 REQUIRES (2) 1-3/8" DIAMETER PINS (183-626) AND THE REPLACEMENT OF THE EXISTING STEEL SPRING BUSHINGS IN THE VIBRATOR BLADE MOUNT WITH (4) 1-3/8" ID STEEL SPRING BUSHINGS (125-789).
5. LENGTH REFERS TO COVER DEPTH.

FEED BLADES



FEED BLADES

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	125-734	4	TENSION BUSHING (1.375")	SEE FOOTNOTE 1
2.	186-237	1	CA GUIDE (12" X 3/8" X 1-1/2 R)	SEE FOOTNOTE 4
	186-450	1	CA GUIDE (12" X 3/8" X 1-1/2 R)	SEE FOOTNOTE 5
	186-773	1	CA GUIDE (12" X 1/2" X 1-1/2 R)	SEE FOOTNOTE 5
	186-780	1	CA GUIDE (18" X 1/2" X 1-1/2 R)	SEE FOOTNOTE 5
3.	186-238	1	CA GUIDE (12" X 3/4" X 3" R)	SEE FOOTNOTE 4
	186-457	1	CA GUIDE (12" X 3/4" X 3" R)	SEE FOOTNOTE 5
4.	186-239	1	CA GUIDE (12" X 3/4" X 7-1/2 R)	SEE FOOTNOTE 4
	186-465	1	CA GUIDE (12" X 3/4" X 7-1/2 R)	SEE FOOTNOTE 5
	186-400	1	CA GUIDE (12" X 1" X 10" R)	SEE FOOTNOTE 4
	186-473	1	CA GUIDE (12" X 1" X 10" R)	SEE FOOTNOTE 5
5.	186-804		SPEED FEED BLADE (12" X 1/2" IM X 1-1/2" R)-INCL REF NO.'S 2 AND 10	SEE FOOTNOTE 5
	186-805		SPEED FEED BLADE (18" X 1/2" IM X 1-1/2" R)-INCL REF NO.'S 2 AND 10	SEE FOOTNOTE 5
6.	186-455		FEED BLADE (12"LG, W/3/4" IM X 3" R)-INCL REF NO.'S 3 AND 10	SEE FOOTNOTE 5
7.	186-463		FEED BLADE (12"LG, W/3/4" IM X 7-1/2" R)-INCL REF NO.'S 4 AND 10	SEE FOOTNOTE 5
	186-471		FEED BLADE (12"LG, W/1" IM X 10" R)-INCL REF NO.'S 4 AND 10	SEE FOOTNOTE 5
8.	105-052	1	BOLT (3/8-NC X 1-1/4")	FOR 3/8" GUIDE. SEE FOOTNOTE 2
	105-286	1	BOLT (3/8-NC X 1-3/4")	FOR 3/4" GUIDE. SEE FOOTNOTE 2
	105-075	1	BOLT (3/8-NC X 2")	FOR 1" GUIDE. SEE FOOTNOTE 2
9.	186-187	1	HAND NUT (3/8-NC)	SEE FOOTNOTE 2
10.	106-021	1	HAND BOLT (3/8-NC X 1-1/4")	FOR 3/8" GUIDE. SEE FOOTNOTE 3
	106-022	1	HAND BOLT (3/8-NC X 1-3/4")	FOR 3/4" GUIDE. SEE FOOTNOTE 3
	106-023	1	HAND BOLT (3/8-NC X 2")	FOR 1" GUIDE. SEE FOOTNOTE 3
11.	185-202	1	FEED BLADE (.75" X .31" X 9.5")	INCL REF NOS 10 & 12. SEE FOOTNOTE 6
	185-234	1	FEED BLADE (.75" X .31" X 16")	INCL REF NOS 10 & 12. SEE FOOTNOTE 6
12.	185-206	1	CABLE GUIDE (.75" X .31" X 9.5")	
	185-233	1	CABLE GUIDE (.75" X .31" X 16")	
	185-237	1	CABLE GUIDE (.75" X .75" X 11.5")	SEE FOOTNOTE 7
	300-8115	1	CABLE GUIDE (.75" X .75" X 18")	SEE FOOTNOTE 7
13.	110-368	1	SNAPPER PIN (3/8" X 1-1/2")	

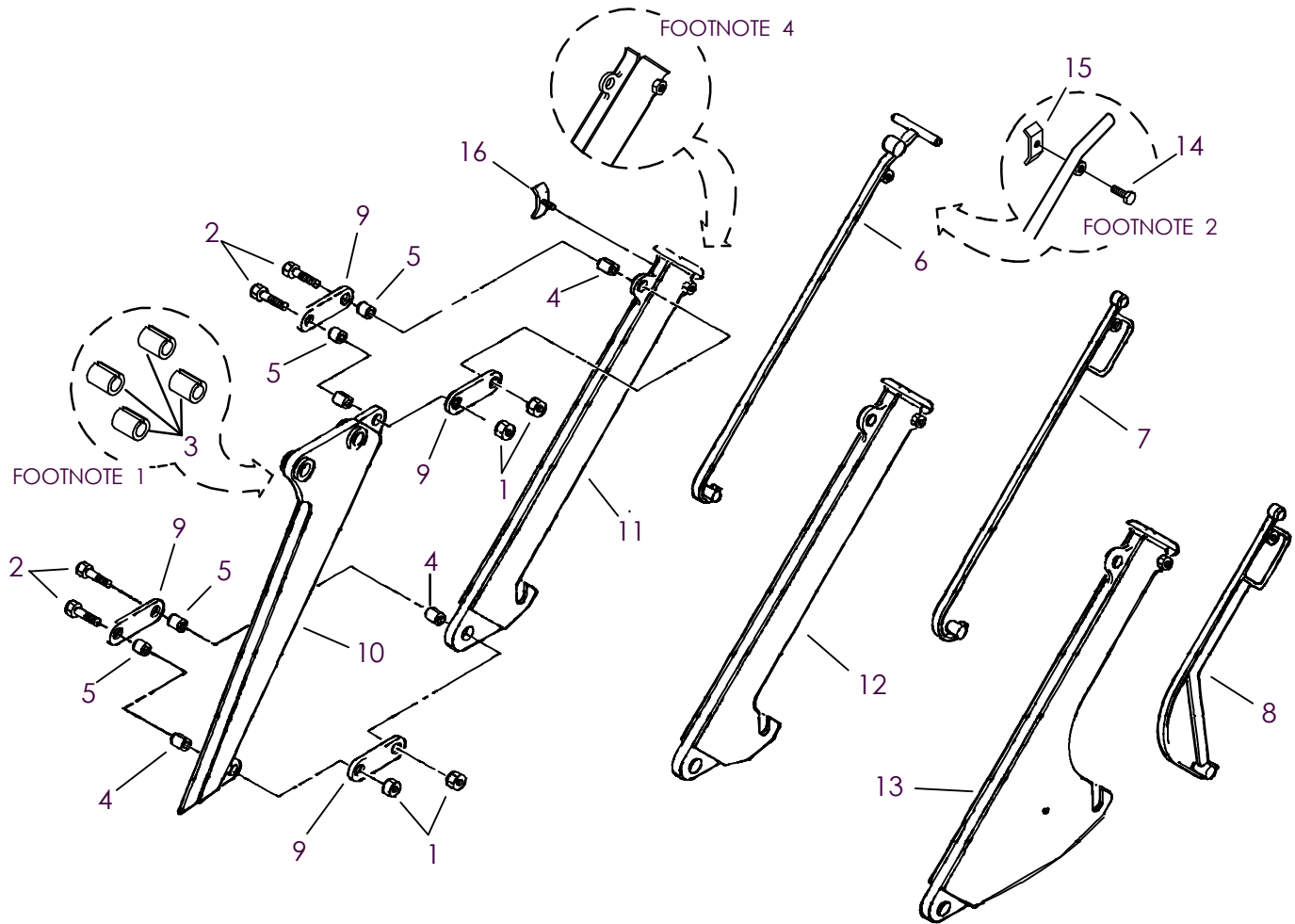
FOOTNOTES:

- BUSHING (REF. NO 1) IS USED ON EARLY STYLE PLOW BLADES WHICH HAD MOUNTING BOSSES WITH 1-3/4" ID. THIS BUSHING IS NOT USED ON REPLACEMENT BLADES HAVING BOSSES WITH 1-3/8" ID.
- BOLT AND HAND NUT (REF. NO'S. 8-9) WERE USED ON EARLY MODELS. SEE FOOTNOTE 3.
- HAND BOLT (REF. NO. 10) IS USED ON PRESENT PRODUCTION
- THESE PARTS ARE ASSOCIATED WITH BLADES WHICH HAVE FLANGED CHUTE ENTRIES. CABLE GUIDES FOR THESE CHUTES ARE AVAILABLE BUT MAY NOT BE USED WITH REPLACEMENT BLADES WHICH HAVE CAST CHUTE ENTRIES. BLADES, WITH FLANGED ENTRIES, ARE NO LONGER AVAILABE, REPLACE WITH BLADES WITH CAST CHUTE ENTRIES (WHICH INLCUDE CORRESPONDING CABLE GUIDE).
- THESE PARTS ARE ASSOCIATED WITH BLADES WHICH HAVE CAST CHUTE ENTRIES. THESE BLADES WILL NOT ACCEPT CABLE GUIDES DESIGNED FOR BLADES WITH FLANGED CHUTE ENTRIES.
- THESE BLADES HAVE A VERY SMALL RADIUS (.31") AND A DEEPER CHUTE OPENING FOR MULTIPLE CABLES.
- 185-237 ONLY WORKS WITH BLADE 185-202 AND 300-8115 ONLY WORKS WITH BLADE 185-234. THEY LOWER THE EXIT POINT TWO INCHES.

NOTE:

LENGTH REFERS TO COVER DEPTHS. FEED BLADES (WITH FIXED FEED TUBES) HAVE MEASUREMENTS OF THE SPACE BETWEEN FEED TUBES SIDES REFERRED TO AS INSIDE MEASUREMENT (IM). CABLE GUIDE THICKNESS (THK) MEASUREMENTS REFER TO MEASUREMENT FROM EDGE TO EDGE AND CORRESPOND TO THE INSIDE MEASUREMENTS (IM) OF THE FEED BLADES THEY ARE USED WITH.

FLOAT BLADES



FLOAT BLADES

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-065	4	LOCKNUT (1/2-NC)	
2.	105-871	4	BOLT (1/2-NC X 2", GD 8)	
3.	125-734	4	BUSHING (1-3/8" ID X 1" LG)	SEE FOOTNOTE 1
4.	125-736	2	BUSHING (1" ID X 3/4" LG)	
5.	181-598	4	BUSHING (33/64" ID X 7/8" LG)	
6.	186-237	1	CA GUIDE (12" X 3/8" X 1-1/2" R)	SEE FOOTNOTE 4
	186-450	1	CA GUIDE (12" X 3/8" X 1-1/2" R)	SEE FOOTNOTE 5
7.	186-238	1	CA GUIDE (12" X 3/4" X 3" R)	SEE FOOTNOTE 4
	186-457	1	CA GUIDE (12" X 3/4" X 3" R)	SEE FOOTNOTE 5
8.	186-239	1	CA GUIDE (12" X 3/4" X 7-1/2" R)	SEE FOOTNOTE 4
	186-465	1	CA GUIDE (12" X 3/4" X 7-1/2" R)	SEE FOOTNOTE 5
	186-400	1	CA GUIDE (12" X 1" X 10" R)	SEE FOOTNOTE 4
	186-473	1	CA GUIDE (12" X 1" X 10" R)	SEE FOOTNOTE 5
9.	186-248	4	LINK	
10.	186-192		FLOAT BLADE (12" LG X 1" THK) INCL. REF. NO.'S 4	
	186-395		FLOAT BLADE (12" LG X 1-1/4" THK) INCL. REF. NO.'S 4	
11.	186-480		FEED TUBE (12 X 3/8 IM X 1-1/2 R) INCL. REF NO.'S 1-2, 4-6, 9, 16	SEE FOOTNOTE 5
12.	186-485		FEED TUBE (12" X 3/4" IM X 3" R) INCL REF NO. 1-2, 4-5, 7, 9, 16	SEE FOOTNOTE 5
13.	186-490		FEED TUBE (12 X 3/4 IM X 7-1/2 R) INCL REF NO. 1-2, 4-5, 8, 9, 16	SEE FOOTNOTE 5
	186-495		FEED TUBE (12" X 1" IM X 10" R) INCL REF NO. 1-2, 4-6, 8, 16	SEE FOOTNOTE 5
14.	105-052	1	BOLT (3/8-NC X 1-1/4")	FOR 3/8" CABLE GUIDE. SEE FOOTNOTE 2
	105-286	1	BOLT (3/8-NC X 1-3/4")	FOR 3/4" CABLE GUIDE. SEE FOOTNOTE 2
	105-075	1	BOLT (3/8-NC X 2")	FOR 1" CABLE GUIDE. SEE FOOTNOTE 2
15.	186-187	1	HAND NUT (3/8-NC)	SEE FOOTNOTE 2
16.	106-021	1	HAND BOLT (3/8-NC X 1-1/4")	FOR 3/8" CABLE GUIDE. SEE FOOTNOTE 3
	106-022	1	HAND BOLT (3/8-NC X 1-3/4")	FOR 3/4" CABLE GUIDE. SEE FOOTNOTE 3
	106-023	1	HAND BOLT (3/8-NC X 2")	FOR 1" CABLE GUIDE. SEE FOOTNOTE 3

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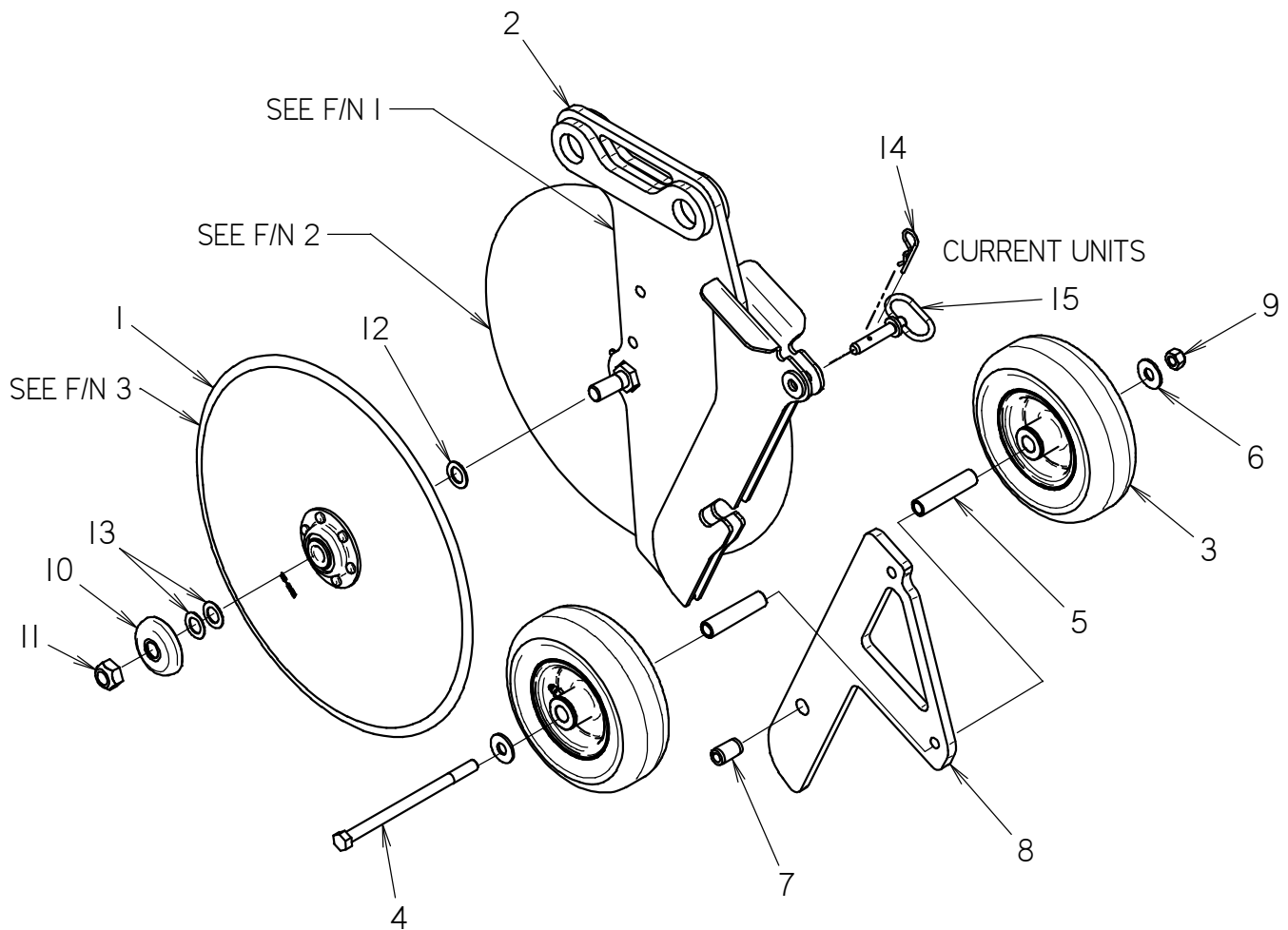
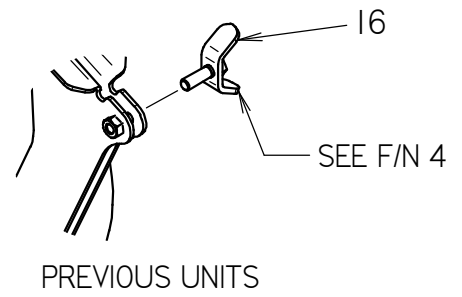
FOOTNOTES:

1. BUSHING (REF. NO. 3) IS USED ON EARLY STYLE BLADES WHICH HAD MOUNTING BOSSES WITH 1-3/4" ID. THIS BUSHING IS NOT USED ON REPLACEMENT BLADES HAVING BOSSES WITH 1-3/8" ID.
2. BOLT AND HAND NUT (REF. NO.'S 14 AND 15) WERE USED ON EARLY MODELS. SEE FOOTNOTE 3.
3. HAND BOLT (REF. NO. 16) IS USED ON PRESENT PRODUCTION.
4. THESE PARTS ARE ASSOCIATED WITH FEED TUBES WHICH HAVE FLANGED CHUTE ENTRIES. CABLE GUIDES FOR THESE TUBES ARE AVAILABLE BUT MAY NOT BE USED WITH REPLACEMENT FEED TUBES, WHICH HAVE CAST CHUTE ENTRIES. FEED TUBES WITH FLANGED ENTRIES ARE NO LONGER AVAILABLE. REPLACE WITH TUBE WITH CAST CHUTE ENTRIES (WHICH INCLUDE CORRESPONDING CABLE GUIDES).
5. THESE PARTS ARE ASSOCIATED WITH TUBES WHICH HAVE CAST CHUTE ENTRIES. THESE TUBES WILL NOT ACCEPT CABLE GUIDES DESIGNED FOR TUBES WITH FLANGED CHUTE ENTRIES.

NOTE:

LENGTH REFERS TO COVER DEPTHS. FEED TUBES HAVE MEASUREMENTS OF THE SPACE BETWEEN FEED TUBES SIDES REFERRED TO AS INSIDE MEASUREMENT (IM). CABLE GUIDE THICKNESS (THK) MEASUREMENTS REFER TO A MEASUREMENT FROM EDGE TO EDGE AND CORRESPOND TO THE INSIDE MEASUREMENT (IM) OF THE FEED TUBES THEY ARE USED WITH.

DBL. DISK BLADE (.50 X 2.0 X 6.0)



DBL. DISK BLADE (.50 X 2.0 X 6.0)

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
	185-1073		DBL. DISK BLADE (.50 X 2.0 X 6.0)	INCLUDES REF NO.'S 1-14
1	185-1065	2	DISK ASSY. W/ CAP & BEARING	
2	185-1066	1	BLADE ASSY. (DISK PLOW)	
3	205-1073	2	TIRE & WHEEL ASSY. (8.25 X 2.75)	
4	105-1177	1	BOLT (1/2-UNC X 8.0" GR. 8)	
5	125-1010	2	WHEEL BUSHING (.749 X .529 X 3.34" LG.)	
6	105-071	2	WASHER (1/2")	
7	105-585	1	ROLL PIN (.750" X 1.250")	
8	185-1069	1	GUIDE COVER (DISK PLOW)	USE LOCTITE 680 (GREEN).
9	105-065	1	LOCKNUT (1/2-NC)	
10	150-1886	2	DUST COVER	USE LOCTITE 262, 277 (RED).
11	105-372	2	LOCKNUT (3/4-NC)	
12	110-1003	2	MACH. BUSHING (3/4" X 14 GA. NARROW RIM)	USE LOCTITE 262, 277 (RED).
13	110-095	4	MACHINERY BUSHING (3/4", 18GA)	
14	110-033	1	HAIR CLIP PIN (1/8" X 1/2")	SEE FOOTNOTE 4
15	110-827	1	PIN	SEE FOOTNOTE 4

NOT SHOWN:

FOOTNOTES:

1. ADJUST / CHANGE MACHINERY BUSHINGS (REF NO.'S 13 & 14) SO THAT THE DISK ASSEMBLIES (REF NO. 1) SLIGHTLY CLEAR OR ONLY HAVE LIGHT CONTACT WITH THE BLADE ASSEMBLY (REF NO. 2) IN THIS AREA.
2. CUTTING EDGES OF DISK ASSEMBLIES (REF NO. 1) ARE DESIGNED TO LIGHTLY TOUCH IN THIS AREA.
3. DISK ASSEMBLIES (REF NO. 1) MUST ROTATE FREELY AFTER NUTS (REF NO. 12) ARE TIGHTENED.
4. PREVIOUS UNITS USE ITEM #16, 185-1070.

NOTE:

NOTES:

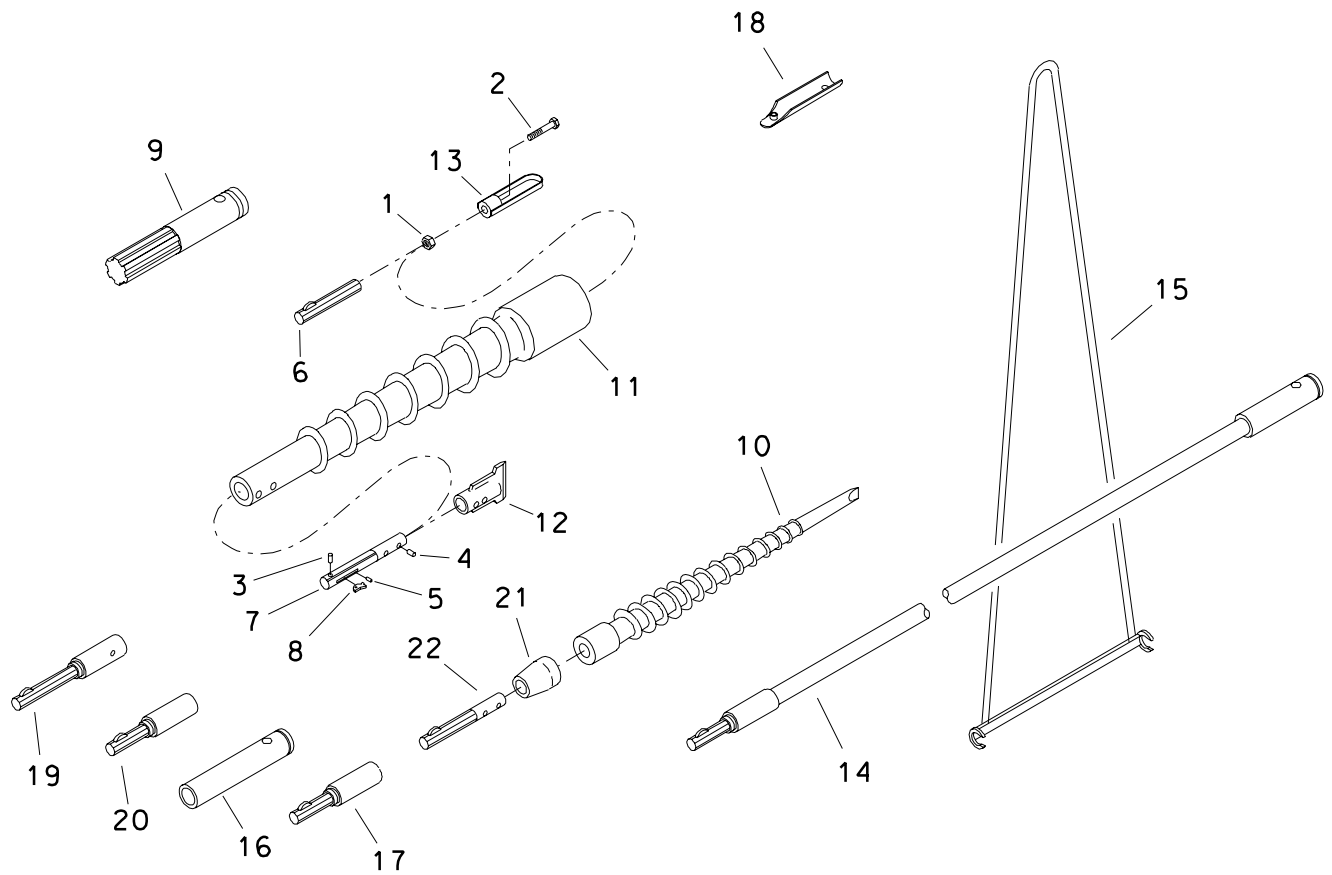
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BORING COMPONENTS

DRILLING TOOLS

DRY BORE

(EARLY STYLE)



DRILLING TOOLS

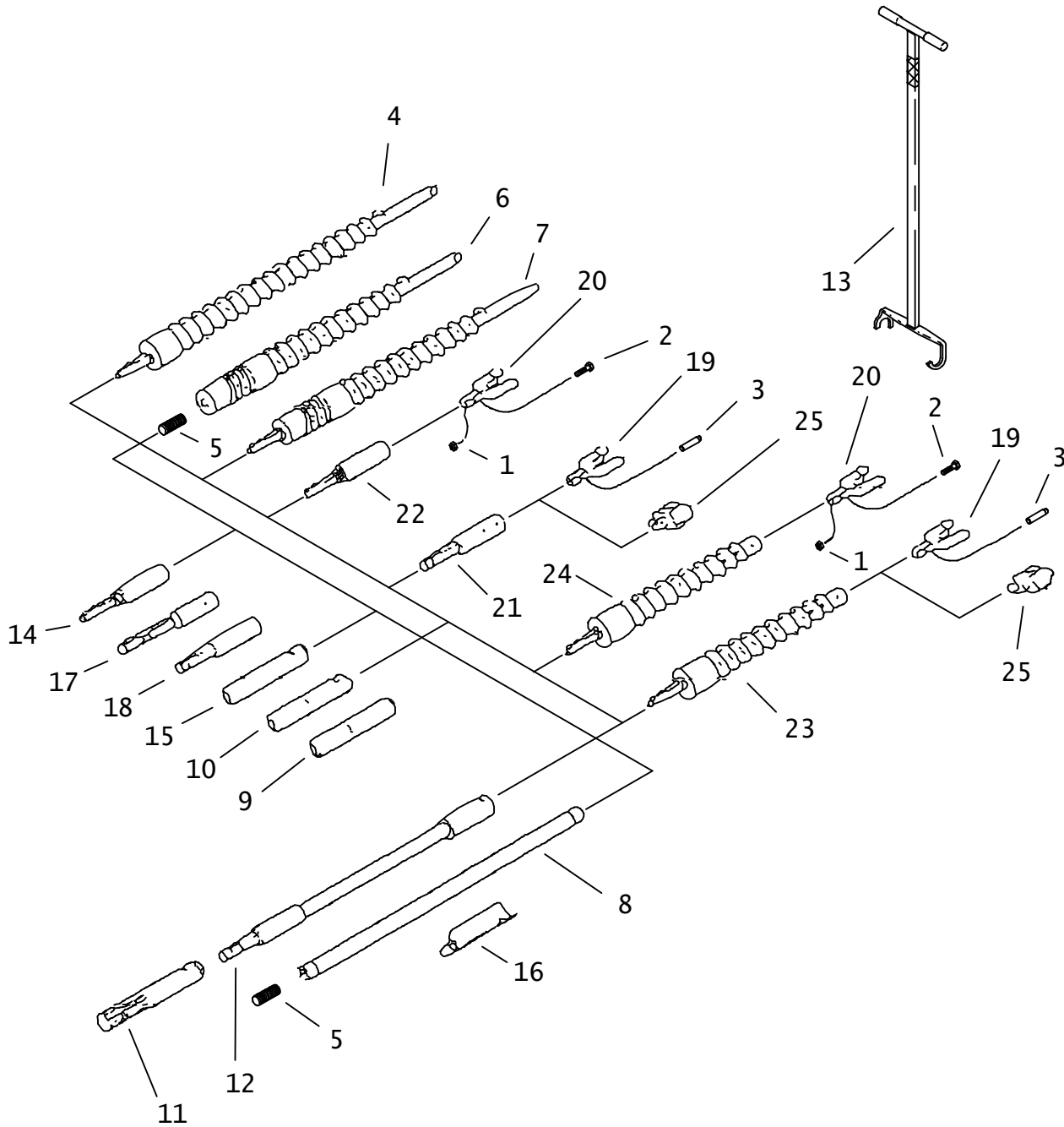
DRY BORE (EARLY STYLE)

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.	105-535	1	ROLL PIN (1/8" X 5/8")	
4.	105-519	2	ROLL PIN (3/8" X 1-1/2")-USED WITH BACK REAMER AND FISHTAIL BIT	
-	105-539	2	ROLL PIN (3/8" X 1-3/4")-USED WITH COMPACTION BIT (1-3/4 OD)	
-	105-540	2	ROLL PIN (3/8" X 2-1/4")-USED WITH COMPACTION BIT (2-1/4 OD)	
5.	115-612	1	COMP. SPRING (.19 OD)-EARLY STYLE	
-	115-618	1	COMP. SPRING (.27 OD)	
6.	351-230	1	SLIP LATCH PIN	INCL. REF. NO. 3,5,8
7.	351-231	1	SLIP LATCH PIN. USED WITH BACK REAMER AND FISHTAIL BIT	INCL. REF. NO. 3,5,8. SEE FOOTNOTE 4
8.	351-234	1	COUPLING SEAR	
9.	351-236	1	CONNECTOR SHAFT	
10.	351-239	1	COMPACTION BIT (1-3/4" OD)	
-	351-285	-	COMPACTION BIT ASSY (1-3/4" OD) INCL. REF. NO. 4,7,10,21	SEE FOOTNOTE 5
-	351-240	1	COMPACTION BIT (2-1/4" OD)	
-	351-286	-	COMPACTION BIT ASSY (2-1/4" OD) INCL. REF. NO. 4,7,10,21	SEE FOOTNOTE 5
11.	351-242	1	BACK REAMER (2-7/8" OD)	
-	351-287	-	BACK REAMER ASSY (2-7/8" OD)	INCL. REF. NO. 4,7,11. SEE FOOTNOTE 5
-	351-243	1	BACK REAMER (3-1/2" OD)	
-	351-288	1	BACK REAMER ASSY (3-1/2" OD)	INCL. REF. NO. 4,7,11. SEE FOOTNOTE 5
12.	351-245	1	FISHTAIL BIT (2" DIA)	SEE FOOTNOTE 5
-	351-289	-	FISHTAIL BIT ASSY	INCL. REF. NO. 4,7,12. SEE FOOTNOTE 5
13.	351-246	1	SWIVEL ASSY	
14.	351-255	1	5' STEM SECT. INCL. REF. NO. 3,5,8	
-	351-256	1	10' STEM SECT. INCL. REF. NO. 3,5,8	
-	351-265	-	SLIP LATCH STEM END	INCL. REF. NO. 3,5,8. SEE FOOTNOTE 3
-	351-238	-	HEX SLEEVE STEM END	SEE FOOTNOTE 3
15.	351-257	1	STEM GUIDE	
16.	351-267	1	SLIP LATCH COUPLER	CONVERTS THREADED JOINT TO SLIP LATCH
17.	351-266	1	SLIP LATCH PIN (INCL. REF. # 3,5,8)	CONVERTS SLIP LATCH TO THREADED JOINT
18.	351-272	1	SEAR UNCOUPLING TOOL	
19.	351-275	1	ADAPTER (INCL. REF. NO. 3,5,8)	SEE FOOTNOTE 1
20.	351-280	1	ADAPTER	SEE FOOTNOTE 2
21.	351-305	1	TAPER CONE	FOR 1-3/4 OD COMPACTION BIT. SEE FOOTNOTE 5
-	351-306	1	TAPER CONE	FOR 2-1/4 OD COMPACTION BIT. SEE FOOTNOTE 5
22.	351-309	1	SLIP LATCH PIN (INCL. REF. # 3,5,8)	USED WITH COMPACTION BIT. SEE FOOTNOTE 5
-	351-307	-	SLIP LATCH PIN (BLANK)	SEE FOOTNOTE 5
NOT SHOWN:				
-	190-137	-	SLIP LATCH REPAIR KIT	INCL. REF. NO. 3,5,8. HAS .27" OD SPRING

FOOTNOTES

1. ADAPTS SLIP LATCH MALE STEM SECTION TO McLAUGHLIN FEMALE STEM SECTION.
2. ADAPTS McLAUGHLIN MALE STEM SECTION TO SLIP LATCH FEMALE STEM SECTION.
3. ENDS ARE WELD ON REPLACEMENTS FOR STEM SECTION.
4. DESIGNED FOR USE WITHOUT TAPER CONE
5. DESIGNED FOR USE WITH TAPER CONE

DRILLING TOOLS - DRY BORE PRESENT PRODUCTION



DRILLING TOOLS - DRY BORE PRESENT PRODUCTION

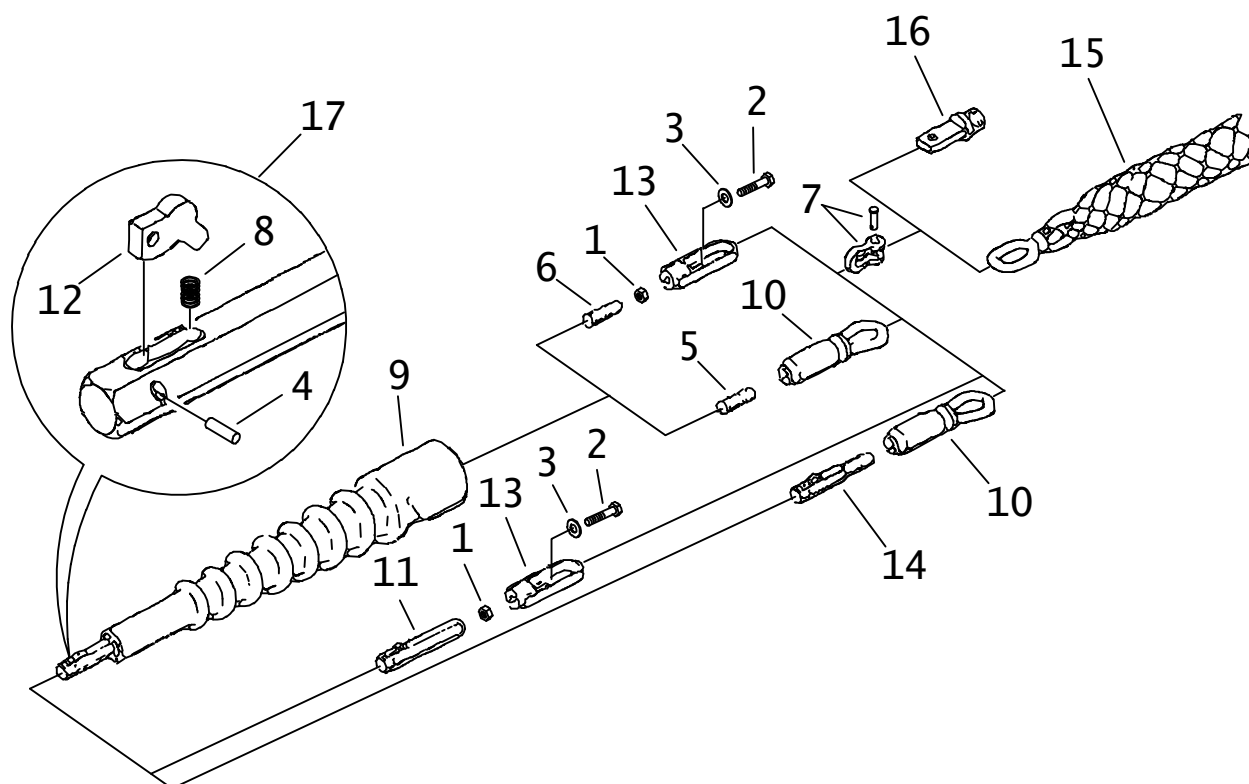
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-085	1	LOCKNUT (1/4-NC)	
2.	105-106	1	BOLT (1/4-NC X 2")	
3.	105-525	1	ROLL PIN (3/16" X 1-1/4")	
4.	351-143	1	1.380" SAND BIT	
5.	351-030	1	ALL THREAD (1-NC X 2-3/4")	
6.	351-135	1	1.50" THREADED COMPACTION BIT	OBSOLETE
	351-137	1	1.75" THREADED COMPACTION 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.	351-156	1	ADAPTER (7/8-NC X SLIP LATCH)	
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:

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

NOTE:

PULLING TOOLS



PULLING TOOLS

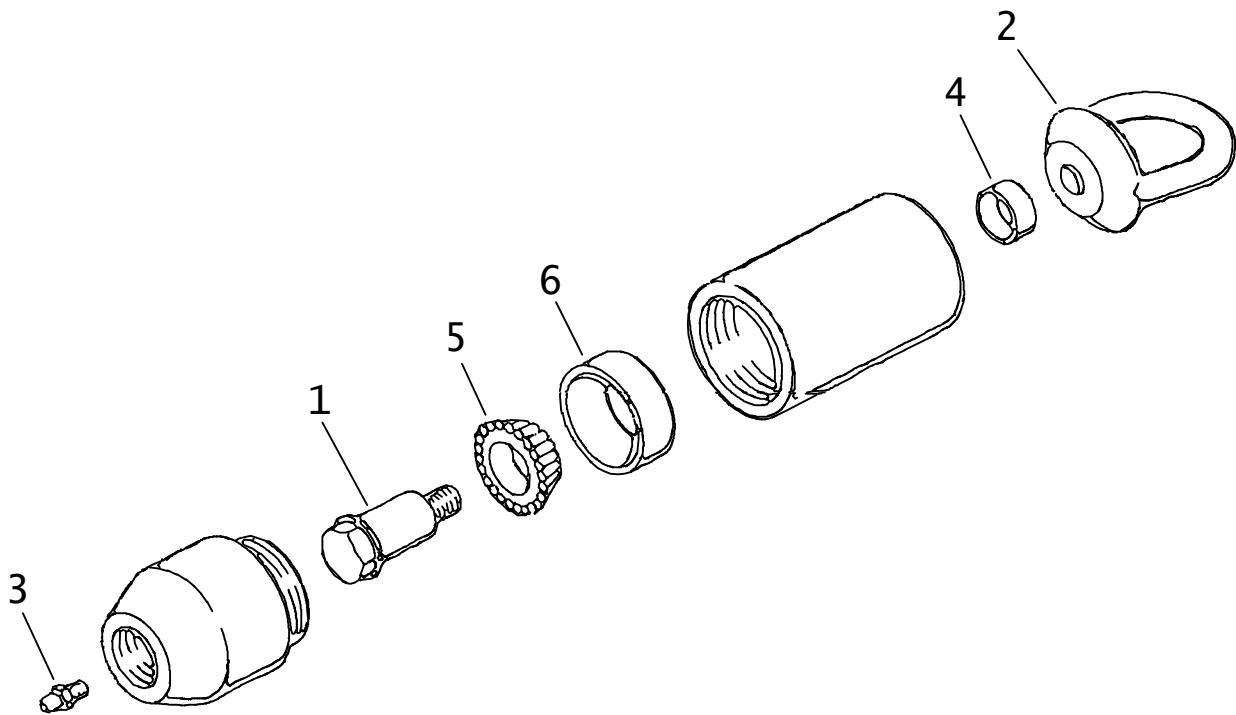
REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	105-053	1	NUT (3/8-NC)	
2.	105-075	1	BOLT (3/8-NC X 2")	
3.	105-117	1	WASHER (5/16")	
4.	105-535	1	ROLL PIN (1/8" X 5/8")	
5.	106-133	1	STUD BOLT (7/8-NC X 2.400")	
6.	106-134	1	STUD BOLT (7/8-NCX2.4", 3/8-NC)	
7.	110-289	1	ANCHOR SHACKLE (5/16")	
8.	115-618	1	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	1	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	1	SLIP-LATCH COUPLER REPAIR KIT	INCL. REF. NO.'S 4, 8 AND 12

NOT SHOWN:

FOOTNOTES:

NOTE:

BEARING SWIVEL



BEARING SWIVEL

REF	PART				REMARKS
NO.	NUMBER	QTY	DESCRIPTION		
	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")		

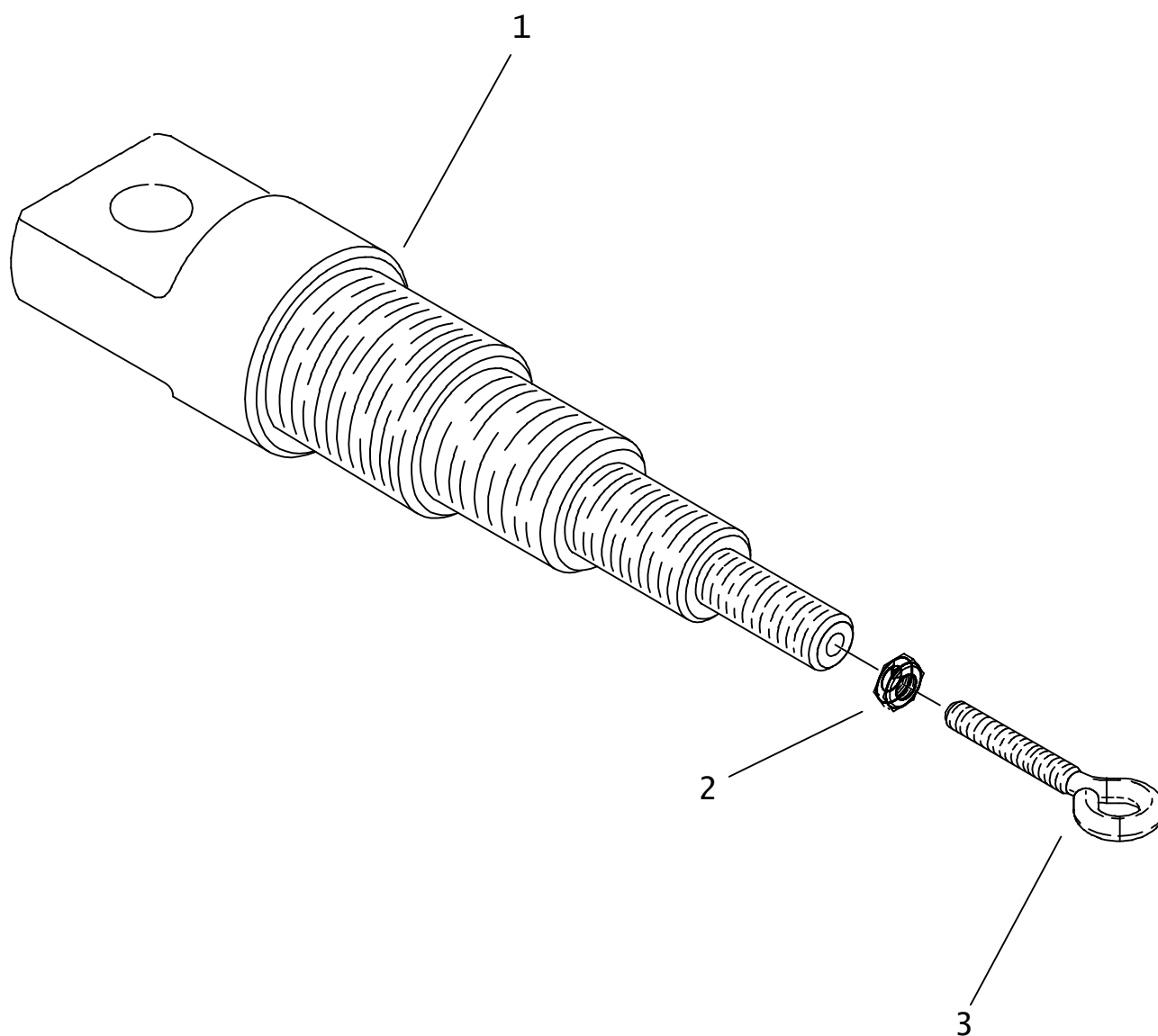
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FOOTNOTES:

NOTE:

PIPE PULLER

.625" - 1.250"



PIPE PULLER

.625" - 1.250"

REF NO.	PART NUMBER	QTY	DESCRIPTION	REMARKS
1.	368-290	1	PIPE PULLER (.625" TO 1.250")	INCL REF NO.'S 2 AND 3
2.	107-113	1	NUT (#12-24)	
3.	107-114	1	EYE BOLT (#12-24 X 1-1/2")	

NOT SHOWN:

FOOTNOTES:

NOTE:

[illegible]

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

255SX

Related Publications

Component	Ass'y	P/N
Model:		
255SX Operators Manual		054-402
255SX Repair Guide (Service Manual)		055-402
255SX Special Tools Guide		052-901
Engine:		
Honda GX670..... Parts Manual – 14ZN10E1P	194-037	054-089
Honda GX670 Operation Manual – 31ZJ1620		054-088
Honda GX670 Service Manual – 61ZJ110Z		054-090
Onan NHC..... Parts Manual		050-540
Onan NHC Operation Manual		050-596
Onan P224 Parts Manual.....		053-013
Onan P224 Operation Manual		054-013
Onan P224 Service Manual		055-013

Filters

Honda Engine:

Air Filter (foam)	194-223
Air Filter Element (paper)	194-222
Oil Filter Element (spin-on) - Honda	159-209
Fuel Filter Element (inline)	159-244

Onan Engine:

Air Filter (Primary)	195-367
Air Filter Element (Secondary)	195-368
Oil Filter	155-938
Fuel Filter	155-941

Hydraulic Oil Filter:

Filter	155-954
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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


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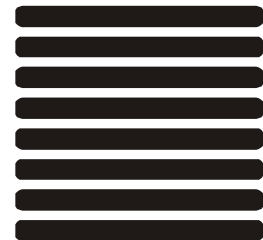
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