

SECTION 8. PARTS INFORMATION

8.1 PARTS ORDERING PROCEDURE

- A. Contact your local dealer, distributor, or authorized service center.
- B. Contact Capitol Gears, Inc. If the above cannot supply the part(s) you need, write:

Customer Service Capitol Gears, Inc. 349 North Hamline Ave St. Paul MN 55104 USA	Cable Address: "Capmarine" telephone: 645-9491 Area code: 612 Telex: 28-7081
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- C. Always give complete part description as shown in the sample column below.

<u>Necessary information</u>	<u>Sample</u>
1. Model	HY-400 E.R
2. Option Code	2-20400-03042-30110
3. Serial #	11023-0879
4. Ratio	1 to 1
5. Eng. Mfg. No (If any)	218198
6. Part number	1-00230-4400
7. Description	Disc, clutch driving
8. Figure # and item #	Fig. 43, item 6
9. Quantity being ordered	3

NOTE:

Please do not use the term "set" or "Complete" when ordering parts but specify exactly each part required.

A list of distributors for capitol gear equipment may be obtained by writing to the customer service department at the address mentioned above.

Do not send any equipment to the factory without authorization from the customer service department.

Capitol Gears will route parts with customer's best interest in mind, if routing is not specified when ordering.

Capitol Gears, Inc. will provide its distributors, dealers and service centers with current changes and additions to service literature.

Contact your local capitol representative to up to date service material.

Capitol Gasket and Seal kit No. 1-10195-0000 includes all necessary gaskets, seals and o-rings for repairs on the HY 400 and HP 500 transmissions. Gasket and Seal Kit No. 1-10196-0000 is designed for all torque converter ("TC") models.

8.2 UNIT RECORD

"CAPITOL" Marine Gear Model _____

Serial No. _____

Installed in (Name of Vessel) _____

Installed by _____ date _____

Address _____

For use with (Engine & Model) _____

Type of Service _____

Purchased from (Dealer's name & Add.) _____

Date Purchased _____

8.3 ADAPTER GROUP
HY-400 REVERSE GEAR

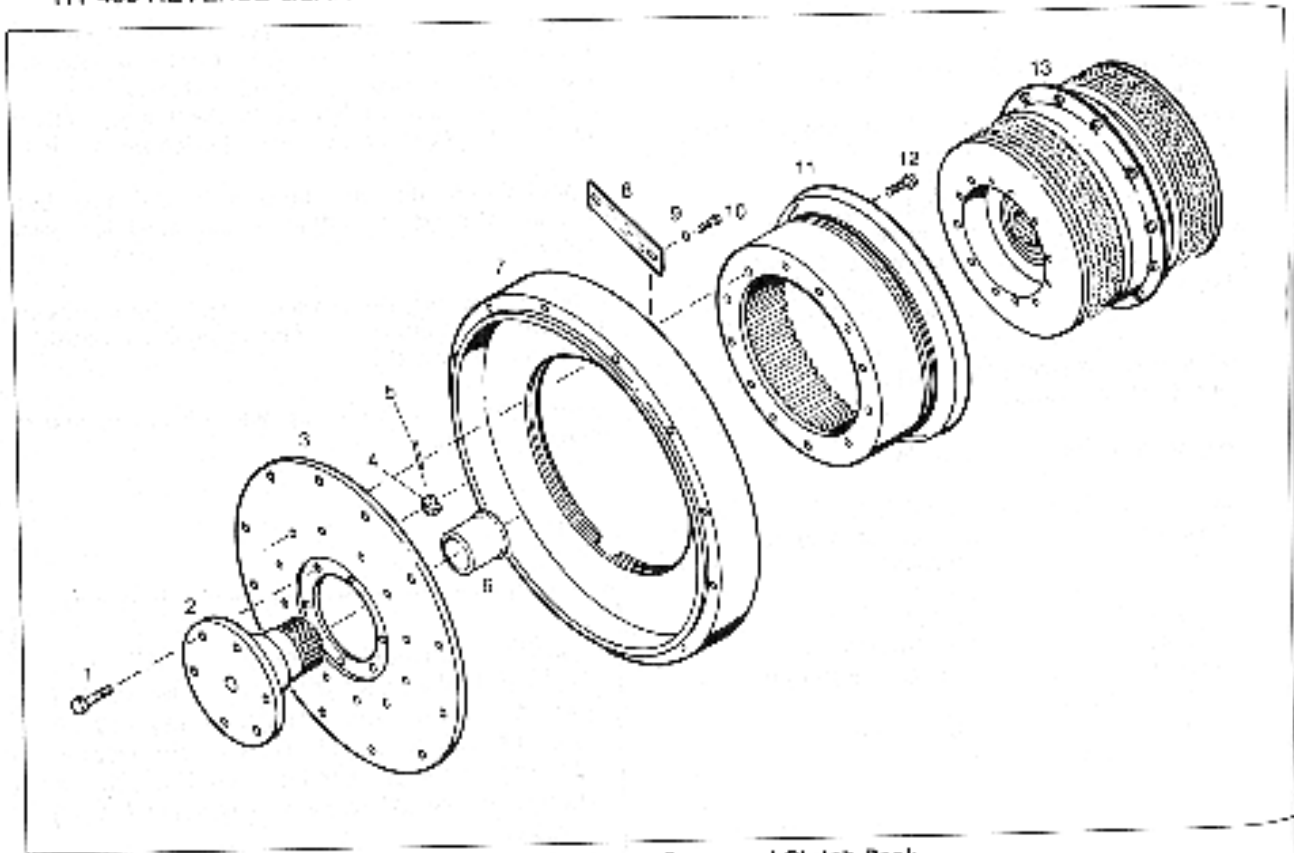


Fig. 54. 'HY' Adapter Group and Clutch Pack

ITEM	DESCRIPTION	PART NUMBER	QTY
1	CAPSCREW, HEX.H.D-DRILLED END	1-06972-0800	6
2	DRIVE FLANGE ASSEMBLY (SEE "HY" INSTALLATION DRAWING)		1
3	FLYWHEEL ADAPTER (SEE "HY" INSTALLATION DRAWING)		1
4	HEX.NUT HEAVY SLOTTED	1-06973-0800	6
5	COTTER PIN	1-12769-5400	6
6	BUSHING, DRIVE FLANGE	1-00326-2600	1
7	OIL DAM ADAPTER (SEE "HY" INSTALLATION DRAWING)		1
8	COVER, AIR VENT	1-01118-2700	1
9	LOCKWASHER, 5/16 DIA	1-09458-0800	4
10	CAPSCREW, HEX HD 5/16-18X1/2	1-12145-0000	4
11	DRUM CLUTCH, DRIVING	1-01116-3600	1
12	CAPSCREW, HEX HD (POLYLOK)	1-01116-3600	1
13	CLUTCH ASSEMBLY, "HY" (SEE PAGE 43-48)		1

8.3 ADAPTER GROUP
'HP' 500 REVERSE GEAR

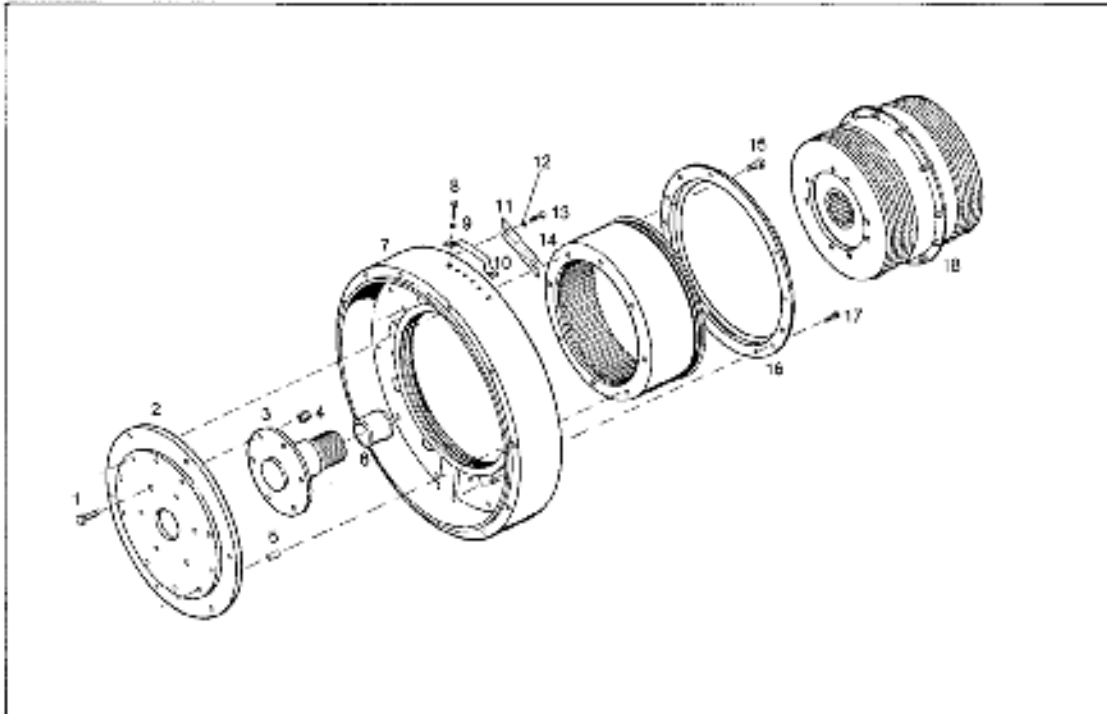


Fig. 35. 'HP' Adapter Group and Clutch Pack

ITEM	DESCRIPTION	PART NUMBER	QTY
1	CAPSCREW, HEX HD. 3/4-10X2"	1-12793-0000	6
2	FLYWHEEL ADAPTER (SEE "HP" INSTALLATION DRAWING)		1
3	DRIVE FLANGE ASS'Y (SEE "HP" INSTALLATION DRAWING_		1
4	NUT SELF-LOCKING 3/4 -10 NC	1-13095-0000	6
5	DOWEL PIN, 1/2 DIA X 11/2	1-11142-0000	2
6	BUSHING, DRIVE FLANGE	1-00326-2600	1
7	OIL DAM ADAPTER (SEE "HP" INSTALLATION DRAWING)		1
8	CAPSCREW, HEX. HD 1/4-20 X 3/4"	1-11101-0000	2
9	LOCKWASHER, 1/4" DIA	1-05309-0800	2
10	COVER, AIR VENT	1-10528-0000	1
11	COVER, AIR VENT	1-01118-2700	1
12	LOCKWASHER, 5/16" DIA	1-09458-0800	1
13	CAPSCREW, HEX HEAD 5/16"-18X5/8"	1-06987-0800	2
14	DRUM CLUTCH DRIVING	1-01116-6800	1
15	CAPSCREW, HEX HEAD (POLYLOK)	1-13134-0000	8
16	SLINGER SHIELD	1-01119-2700	1
17	CAPSCREW, DRILLED SOCKET HD., 5/16-18X3/4"	1-08035-0800	10
18	CLUTCH ASSEMBLY, 'HP' (SEE PAGES 49-54)		1

8.4 HOUSING AND RELATED PARTS

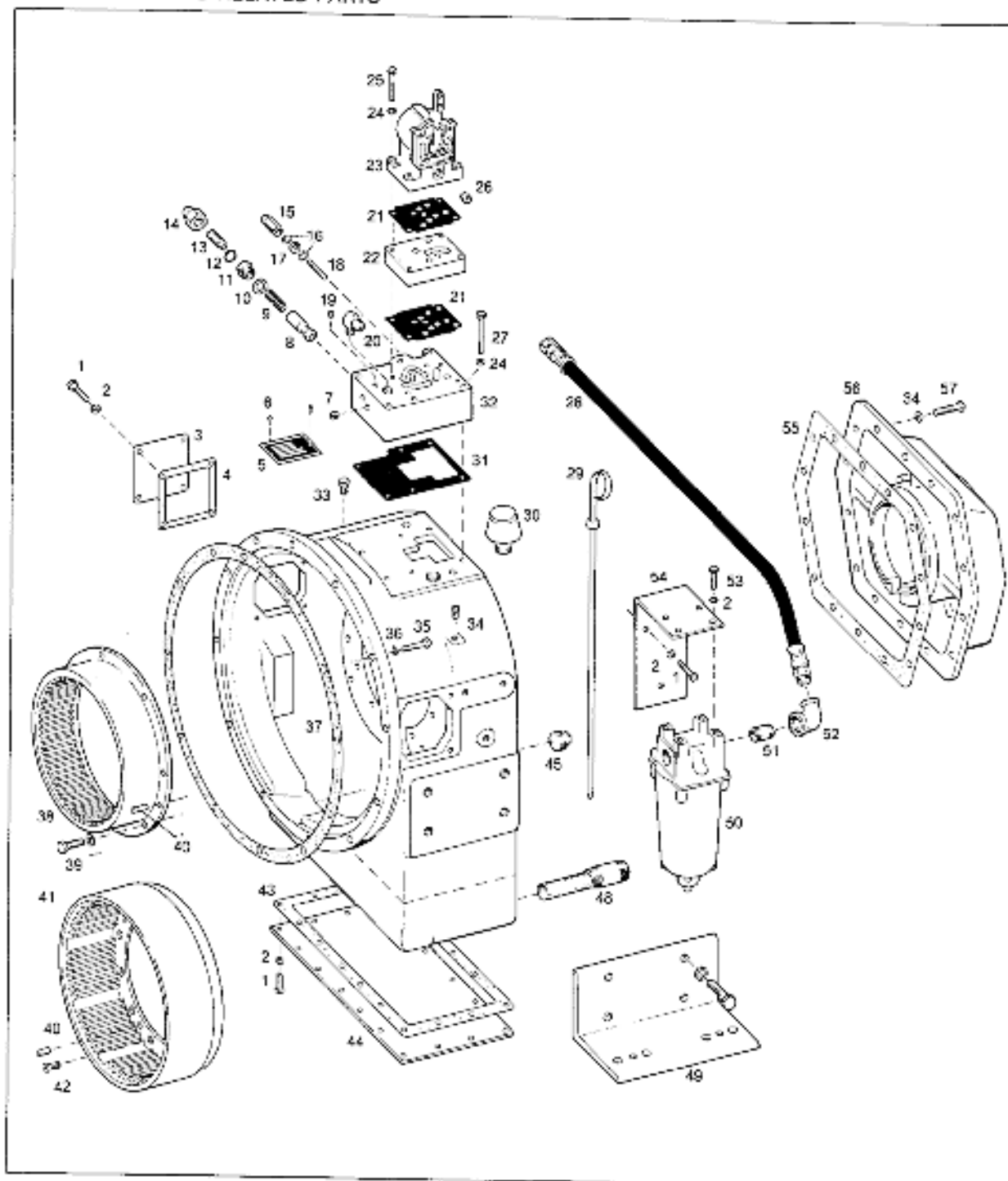


Fig. 38. Housing and Related Parts

HOUSING AND RELATED PARTS
HY 400 AND HP 500 DIRECT DRIVE TRANSMISSION

ITEM	DESCRIPTION	PART NUMBER	QTY
1	CAPSCREW, HEX.HD. 3/8-16X 1" LG	1-07432-0800	28
2	LOCKWASHER, 3/8 LIGHT	1-09460-0800	40
3	COVER, INSPECTION	1-12405-0000	2
4	GASKET, INSPECTION COVER	1-12438-0000	2
5	NAMEPLATE	1-11210-0000	1
6	DRIVE SCREW	1-13275-0000	2
7	PIPE PLUG (1/4 NPTF)	1-11279-0300	2
8	PLUNGER	1-07725-0800	1
9	SPRING RELIEF	1-07743-0800	1
10	COPPER WASHER	1-12901-0000	1
11	INSERT, RELIEF	1-07724-0800	1
12	COPPER WASHER	1-12902-0000	1
13	SCREW, PRESSURE RELIEF	1-06660-0800	1
14	DOME NUT	1-06667-0800	1
15	DOME NUT	1-09461-0800	1
16	COPPER WASHER	1-09471-0800	2
17	NUT	1-09464-0800	1
18	SCREW, CYLINDER TIMING	1-09466-0800	1
19	PIPE PLUG	1-11279-0200	1
20	MALE ELBOW, 45° FLARE	1-11237-1600	1
21	GASKET, VALVE	1-13015-0000	2
22	VALVE PLATE	1-13017-0000	1
23	SELECTOR VALVE	1-09427-0800	1
24	LOCKWASHER, 5/16 LIGHT	1-09458-0800	10
25	CAPSCREW, 5/16-18X 2" LG	1-11995-0000	4
26	PIPEPLUG, 3/8 NPTF	1-11279-0400	1
27	CAPSCREW, 5/16-18X 2 3/4" LG	1-12259-0000	6
28	HOSE WITH FITTINGS	1-14095-0100	1
29	DIPSTICK	1-13902-0000	1
30	BREATHER	1-13511-0000	1
31	GASKET, BASE PLATE	1-13903-0000	1
32	BASE PLATE	1-13899-0000	1
33	CAPSCREW, 1/2-20X 3/4" LG	1-11649-0000	1
34	STANDARD NUT, INV. FLARE	1-11227-0400	1
35	CAPSCREW, HEX HEAD. H.D 7/16-14X 13/4" LG (HY-400)	1-09738-0800	12
	CAPSCREW, HEX.HD. 3/8-16X 13/4 LG (HP500)	1-13221-0000	10
36	LOCKWASHER, 7/16 LIGHT	1-09462-0800	26
37	GASKET, OIL DAM	1-01102-3600	1
38	DRUM, REVERSE (HY 400)	1-13472-0000	1
39	CAPSCREW, HEX.HD. 1/2-13X 1" LG (HY 400)	1-09450-0800	8
40	DOWEL PIN	1-13077-0000	2
41	DRUM, REVERSE (HP 500)	1-13610-0000	1
42	CAPSCREW, 1/2-13X1" LG (HP 500)	1-09741-0800	12
43	GASKET, COVER (SHALLOW CASE ONLY)	1-13893-0000	1
44	COVER HOUSING (SHALLOW CASE ONLY)	1-13892-0000	1
45	PIPE PLUG, 11/4 NPTF	1-11251-0700	1
46	HOUSING, DEEP CASE	1-13890-0000	1
47	HOUSING, SHALLOW CASE	1-13891-0000	1
48	SUCTION SCREEN	1-13802-0000	1
49	MOUTING FOOT KIT (OPTIONAL)	1-13635-0000	1
50	OIL FILTER	1-13811-1000	1
51	NIPPLE, PIPE 3/4 X 11/2"	1-11259-0400	1
52	ELBOW, REDUCING	1-11261-0100	1
53	CAPSCREW, HEX.HD. 3/8-16 X 3/4 " LG	1-10965-0000	4
54	BRACKET, OIL FILTER	1-13894-0000	1
55	GASKET, BEARING CONTAINER	1-07349-0800	1
56	CONTAINER, BEARING	1-13901-0000	1
57	CAPSCREW, 7/16-14X 1 3/8" LG	1-07346-0800	14

8.5 OUTPUT SHAFT AND RELATED PARTS

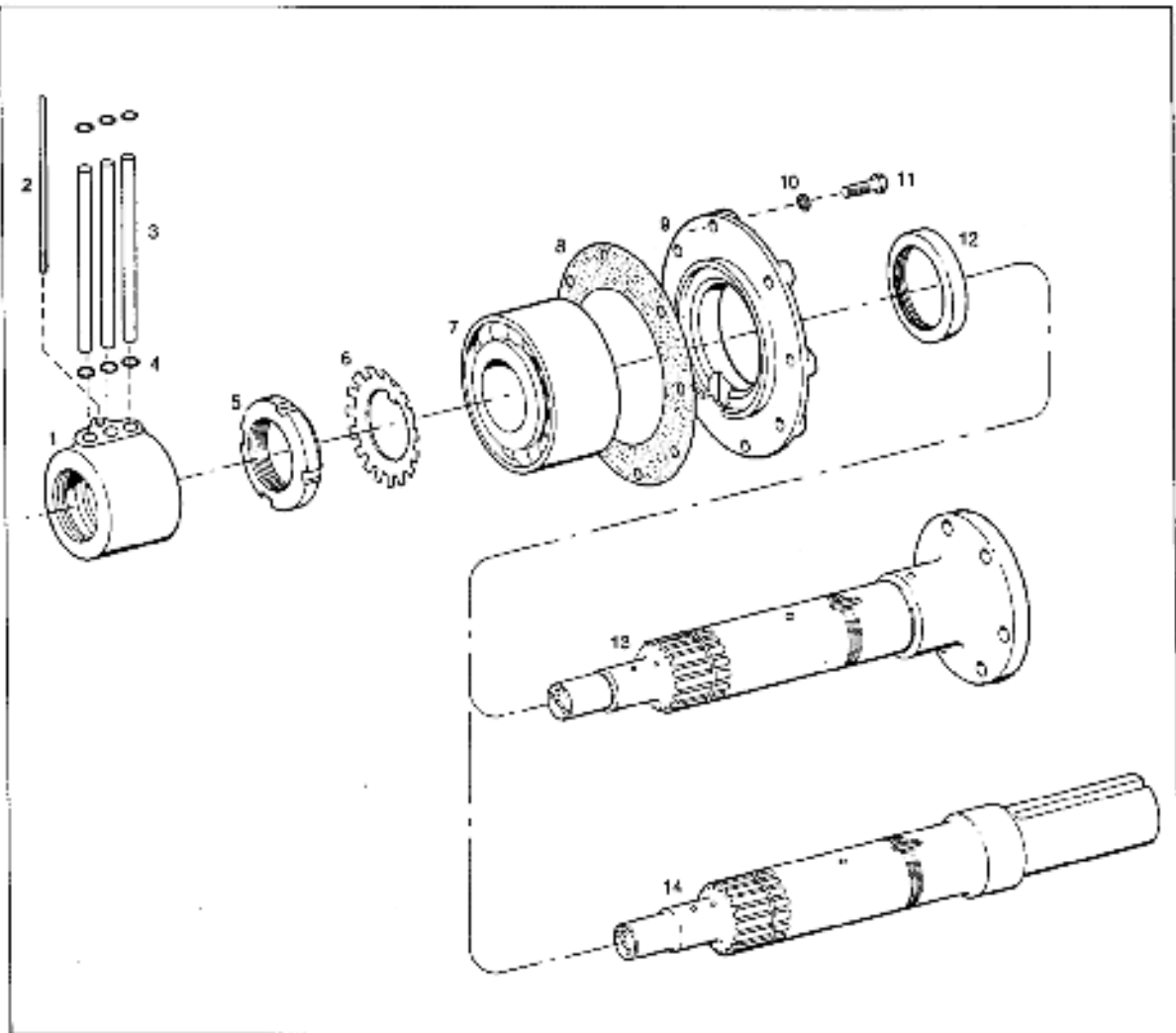
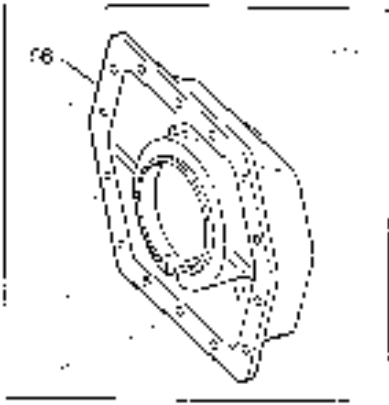


Fig. 37. Output Shaft and Related Parts

ITEM	DESCRIPTION	PART NUMBER	QTY
1	COMMUTATOR, REAR	1-13900-0000	1
2	STUD, ANTI-ROTATION	1-13481-0000	1
3	TUBE, COMMUTATOR	1-13474-0000	3
4	O-RING	1-13076-0000	6
5	LOCKNUT, BALL BEARING	1-10818-0000	1
6	LOCKWASHER, BALL BEARING	1-10819-0000	1
7	BALL BEARING	1-00331-4000	1
8	GASKET, BEARING, RETAINER	1-01218-4000	1
9	RETAINER, BEARING	1-13901-0000	1
10	LOCKWASHER, 3/8 LIGHT	1-09460-0800	8
11	CAPSCREW, HEX.HEAD, 3/8-16/14	1-06751-0800	8
12	OILSEAL	1-12976-0000	1
13	OUTPUTSHAFT, FLANGED (HY 400)	1-13897-1000	1
	(HP 500)	1-13896-1000	1
14	OUTPUT SHAFT, KEYED (HY 400)	1-13898-1000	1
	(HP 500)	1-13896-1000	5



CHANGE PARTS INFORMATION – PAGES 35 AND 36

ITEM	DESCRIPTION	(NEW) PART NO.	QTY
56	CONTAINER, BEARING	1-13937-0000	1

- A) BALL BEARINGS ARE 'THRUST' BEARINGS AND MUST BE ASSEMBLED IN THE CONFIGURATION SHOWN BELOW (FIG. 37)
- B) BEARINGS SHOULD BE HEATED IN HOT OILT BEFORE ASSEMBLY ON OUTPUT SHAFT
- C) THE BEARING SPACER SET SHOWN BELOW (ITEM 8, FIGURE 37) IS A MATCHED SET AND MUST NOT BE MIXED WITH OTHER SPACERS
- D) WHEN RE-INSTALLING BEARING RETAINER (ITEM 10, FIGURE 37), BE SURE DRAIN HOLES ARE TOWARD THE BOTTOM OF TRANSMISSION HOUSING.

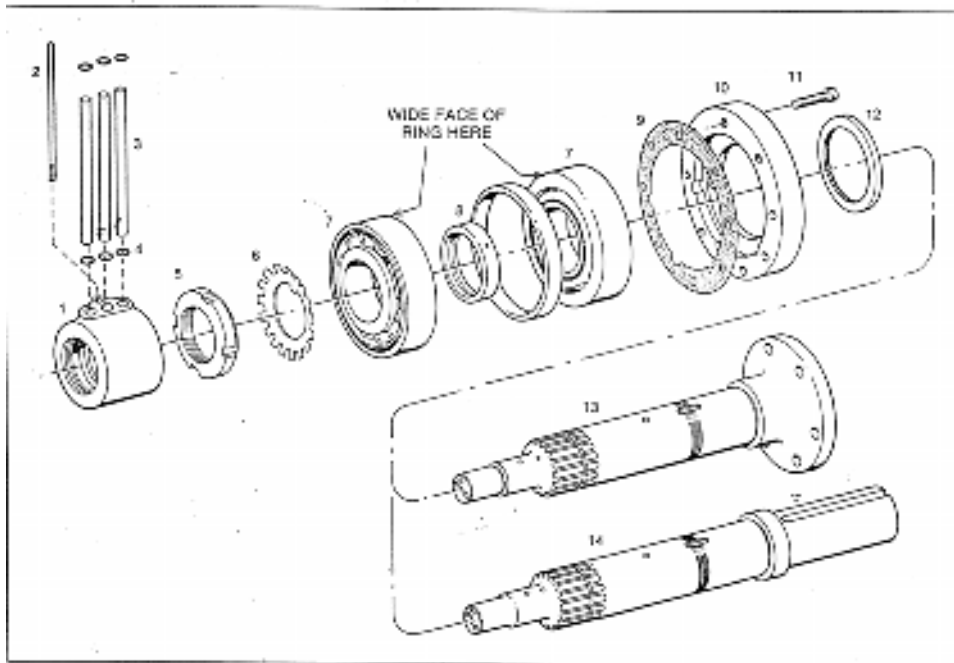


Fig. 37. Output Shaft and Related Parts

ITEM	DESCRIPTION	PART NO.	QTY
1	COMMUTATOR, REAR	1-13900-0000	1
2	STUD, ANTI-ROTATION	1-13481-0000	1
3	TUBE, COMMUTATOR	1-13474-0000	3
4	O-RING	1-13076-0000	6
5	LOCKNUT, BALL BEARING	1-10818-0000	1
6	LOCKWASHER, BALL BEARING	1-10819-0000	1
7	BALL BEARING	1-13939-0000	2
8	SET, BEARING SPACER	1-13942-0000	1
9	GASKET, BEARING RETAINER	1-13940-0000	1
10	RETAINER, BEARING	1-13938-0000	1
11	CAPSCREW, SOCKET HEAD, 3/8-16X 13/4"	1-10956-0000	8
12	OIL SEAL	1-12976-0000	1
13	OUTPUT SHAFT ASSEMBLY , FLANGED (HY 400)	1-13954-1000	1
	(HP 500)	1-13934-1000	1
14	OUTPUT SHAFT, ASSEMBLY , KEYED (HY 400)	1-13955-1000	1
	(HP 500)	1-13941-1000	1

CHANGE- PARTS INFORMATION

FOR HY-400 TRANSMISSIONS BEGINNING WITH SERIAL NUMBER 10300-0000
(REFER TO HY-400 FOLDOUT INSTALLATION DRAWING)

RBW		PCW		ADAPTATIONS & DIMENSIONS									
TRANSITION INSTALLATION NO.	ADAPTER (PLATE PART) NO.	PLYWHEEL USE	C. CLUTCH	DRIVE PLAMOL ASSEMBLY	DR. SHW ADAPTER	FLYWHEEL ADAPTER	A	B	C	D	E	F	G
401-1	1-13810-2000	S.A.E. 1	14	1-01114-400	1-0890-1000	1-1040-0000	17 1/8 BC 12 3/8 HILS	18 3/8	20 1/8	20 7/8 B.C. 15/32" 12 HILS	21 3/4	7 5/16	L
401-2	1-13810-2000	S.A.E. 1	14	1-01114-400	1-1202-1000	1-1040-0000	17 1/8 BC 12 3/8 HILS	18 3/8	20 1/8	20 7/8 B.C. 15/32" 12 HILS	21 3/4	7 5/16	L
401-3	1-13810-2000	S.A.E. 1		1-01114-1100	1-0890-1000	1-0890-0000	17 1/8 BC 12 3/8 HILS	18 3/8	20 1/8	20 7/8 B.C. 15/32" 12 HILS	21 3/4	7 5/16	L
401-4	1-13810-2000	S.A.E. 1		1-01114-1100	1-0890-1000	1-0890-1000	17 1/8 BC 12 3/8 HILS	18 3/8	20 1/8	20 7/8 B.C. 15/32" 12 HILS	21 3/4	7 5/16	L
401-5	1-13810-2000	S.A.E. 1		1-01114-1100	1-0890-1000	1-0890-0000	18 1/8 BC 12 3/8 HILS	20	20 1/8	20 7/8 B.C. 15/32" 12 HILS	21 3/4	7 5/16	L
401-6	1-13810-2000	NON STD.		1-01114-400	1-0890-1000	1-1202-1000	15 3/8 BC 12 3/8 HILS	16 3/8	18 1/8	20 7/8 B.C. 15/32" 12 HILS	21 3/4	7 5/16	L
401-7	1-13810-2000	S.A.E. 1		1-01114-1100	1-0890-1000	1-1202-1000	15 3/8 BC 12 3/8 HILS	16 3/8	18 1/8	20 7/8 B.C. 15/32" 12 HILS	21 3/4	7 5/16	L

8.6 OIL PUMP

A. Single Pump, Belt Driven

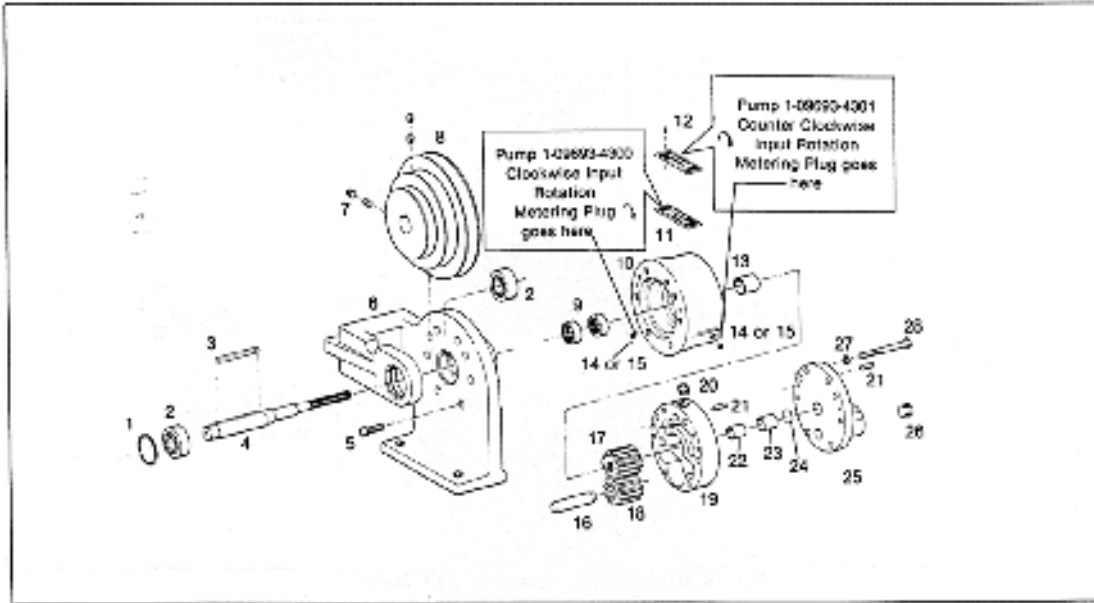


Fig. 38. Single Pump, Belt Driven

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	SINGLE PUMP ASSEMBLY, BELT DRIVEN CLOCKWISE INPUT ROTATION	1-09693-4300	1
Ref.	SINGLE PUMP ASSEMBLY, BELT DRIVEN COUNTER CLOCKWISE INPUT ROTATION	1-09693-4301	1
1.	SNAP RING, SPIROLOX	1-12066-0000	1
2.	BALL BEARING	1-14076-0000	2
3.	SQUARE KEY, 3/16X 1/4" LG	1-09686-1000	1
4.	SHAFT, DRIVE	1-09681-1400	1
5.	CAPSCREW, SOCKET HD., 5/16-18X 1" LG	1-10248-0000	7
6.	BRACKET, SHEAVE AND PUMP	1-09694-1100	1
7.	SOCKET SET SCREW, 5/16-18X 3/8" LG	1-11524-0000	4
8.	SHEAVE, THREE STEP	1-13491-0000	1
9.	OIL SEAL	1-12643-0000	2
10.	ADAPTER	1-09680-0800	1
11.	PLATE, ROTATION INDICATOR	1-11212-0000	1
12.	DRIVE SCREW, RD.HD. #2X 3/16" LG	1-13275-0000	2
13.	BUSHING	1-09691-0800	1
14.	PIPE PLUG, 1/16 NPT	1-11279-0100	1
15.	METERING PLUG, 1/8 DIA. HOLE	1-12686-0000	1
16.	SHAFT, DRIVEN, 5/8" DIA. 21/2" LG	1-11664-0000	1
17.	DRIVE GEAR, 13/8" WIDE	1-09688-0800	1
18.	DRIVEN GEAR, 13/8" WIDE	1-09689-3400	1
19.	BODY, 13/8" WIDE	1-07856-0800	1
20.	PIPE PLUG, HEX. SOCKET (3/8 NPT)	1-11279-0400	1
21.	SPRING PIN, 1/4 X 3/4" LG	1-12097-1200	4
22.	SLEEVE	1-07736-0800	1
23.	BUSHING	1-00218-0700	1
24.	DISC, FLAT	1-10253-0000	1
25.	COVER	1-07723-1000	1
26.	PIPE PLUG, LEVEL SEAL 3/4-14	1-11279-0600	2
27.	LOCKWASHER, 5/16 LIGHT	1-09458-0800	8
28.	CAPSCREW, 5/16-18X 23/4" LG	1-12259-0000	8

8.6 OIL PUMP

B. Duplex Pump, Belt Driven

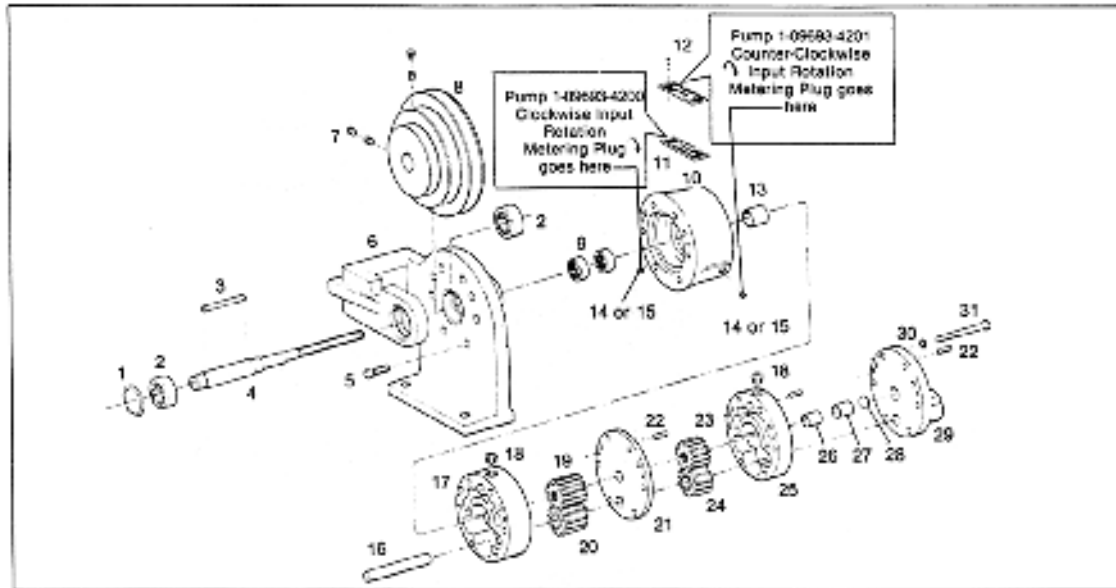


Fig. 39. Duplex Pump Assembly, Belt Driven

ITEM	DESCRIPTION	PART NO.	QTY.
Ref.	DUPLEX PUMP ASSEMBLY, BELT DRIVEN CLOCKWISE INPUT ROTATION	1-09693-4200	1
Ref.	DUPLEX, PUMP ASSEMBLY, BELT DRIVEN COUNTER CLOCKWISE INPUT ROTATION	1-09693-4201	1
1.	SNAP RING, SPIRLOX	1-12066-0000	1
2.	BALL BEARING	1-14076-0000	2
3.	SQUARE KEY, 3/16X 2 1/4" LG	1-09686-1000	1
4.	SHAFT DRIVE	1-09681-1200	1
5.	CAPSCREW, SOCKET HEAD 5/16-18X 1" LG	1-10248-0000	7
6.	BRACKET, SHEAVE AND PUMP	1-09694-1100	1
7.	SOCKET SET SCREW, 5/16-18X 3/8" LG	1-11524-0000	4
8.	SHEAVE, THREE STEP	1-13491-0000	1
9.	OIL SEAL	1-12643-0000	2
10.	ADAPTER	1-09680-0800	1
11.	PLATE, ROTATION INDICATOR	1-11212-0000	1
12.	DRIVE SCREW, RD. HD., #2X 3/16" LG	1-13275-0000	2
13.	BUSHING	1-09691-0800	1
14.	PIPE PLUG, 1/16 NPT	1-11279-0100	1
15.	METERING PLUG, 1/8 DIA. HOLE	1-12686-0000	1
16.	SHAFT, DRIVEN	1-09682-1000	1
17.	BODY, SCAVANGE, 1 3/8" WIDE	1-07856-0800	1
18.	PIPE PLUG, HEX. SOCKET, 3/8 NPT	1-11279-0400	2
19.	DRIVE GEAR, SCAVANGE 1 3/8" WIDE	1-09688-0800	1
20.	DRIVEN GEAR, SCAVANGE, 1 3/8" WIDE	1-09689-3400	1
21.	SPACER, 1/4" WIDE	1-07783-0900	1
22.	SPRING PIN, 1/4X 3/4" LG	1-12097-1200	6
23.	DRIVE GEAR, PRESSURE, 1" WIDE	1-07780-0800	1
24.	DRIVEN GEAR, PRESSURE, 1" WIDE	1-07781-5400	1
25.	BODY, PRESSURE, 1" WIDE	1-07722-1000	1
26.	SLEEVE	1-07736-0800	1
27.	BUSHING	1-00218-0700	1
28.	DISC, FLAT	1-10253-0000	1
29.	COVER	1-07723-1000	1
30.	LOCKWASHER, 5/16 LIGHT	1-09458-0800	8
31.	CAPSCREW, HEX. HD., 5/16-18X4" LG	1-12261-0000	8

8.6 OIL PUMP

C. Single pump, Direct Engine Mounted

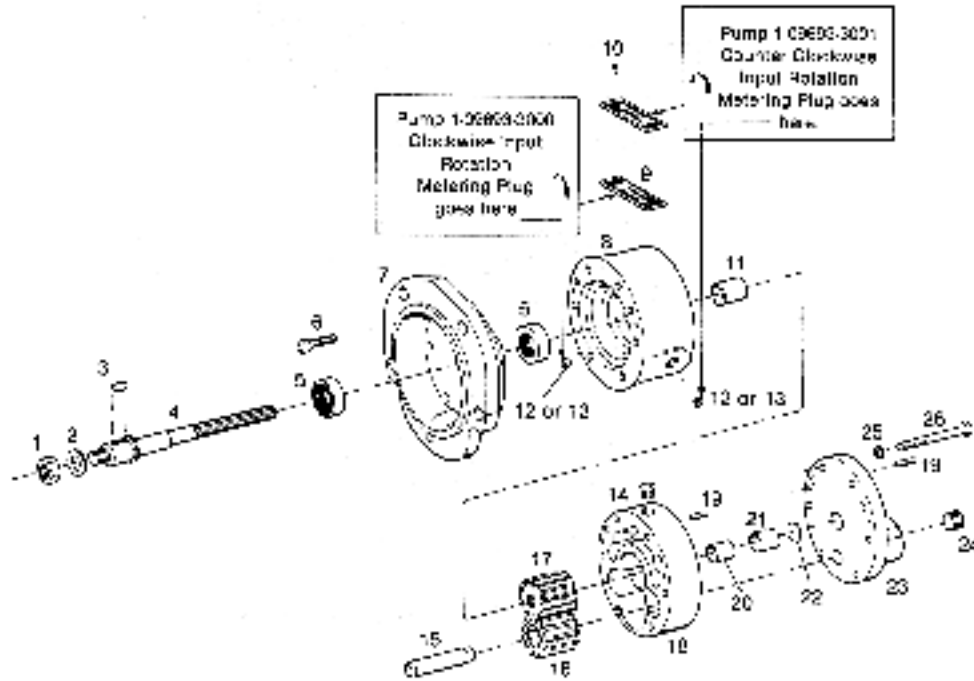


Fig. 4D. Single Pump Assembly, Direct Engine Mounted

ITEM	DESCRIPTION	PART NO.	QTY.
Ref.	SINGLE PUMP ASSEMBLY, DIRECT MOUNTED CLOCKWISE INPUT ROTATION	1-09693-3000	1
Ref.	SINGLE PUMP ASSEMBLY, DIRECT MOUNTED COUNTER CLOCKWISE INPUT ROTATION	1-09693-3001	1
1.	JAM NUT, FINISHED HEX, 1/2-20 NF	1-02212-4300	1
2.	LOCKWASHER	1-11083-0000	1
3.	KEY, WOODRUFF, #6	1-09802-0800	1
4.	SHAFT, DRIVE	1-09681-2700	1
5.	OIL SEAL	1-12643-0000	2
6.	CAPSCREW, SOCKET HD., 5/16-18X 1" LG	1-10248-0000	8
7.	ADAPTER	1-09694-2900	1
8.	BODY ADAPTER	1-09680-0800	1
9.	PLATE, ROTATION INDICATOR	1-11212-0000	1
10.	DRIVE SCREW, ROUND HD, #2X3/16" LG	1-13275-0000	2
11.	BUSHING	1-09691-0800	1
12.	PIPE PLUG, HEX SOCKET, 1/16-27 NPT	1-11279-0100	1
13.	METERING PLUG, 1/8" DIA. HOLE	1-12686-0000	1
14.	PIPE PLUG, LEVEL-SEAL, 3/8-18	1-11279-0400	1
15.	SHAFT DRIVEN, 5/8 DIA.X2 1/2" LG	1-11664-0000	1
16.	GEAR, DRIVEN, 1 3/8" WIDE	1-09689-3400	1
17.	GEAR, DRIVE	1-09688-0800	1
18.	BODY, 1 3/8" WIDE	1-07856-0800	1
19.	SPRING PIN, 1/4 DIA. X 3/4" LG	1-12097-1200	4
20.	SLEEVE	1-07736-0800	1
21.	BUSHING	1-00218-0700	1
22.	DISC FLAT	1-10253-0000	1
23.	COVER	1-07723-1000	1
24.	PIPE PLUG, 3/4-14	1-11279-0600	2
25.	LOCKWASHER, 5/16	1-09458-0800	8
26.	CAPSCREW, HEX HD, 5/16-18X 2 3/4 LG	1-12259-0000	8

8.6 OIL PUMP

D. Duplex Pump, Direct Engine Mounted

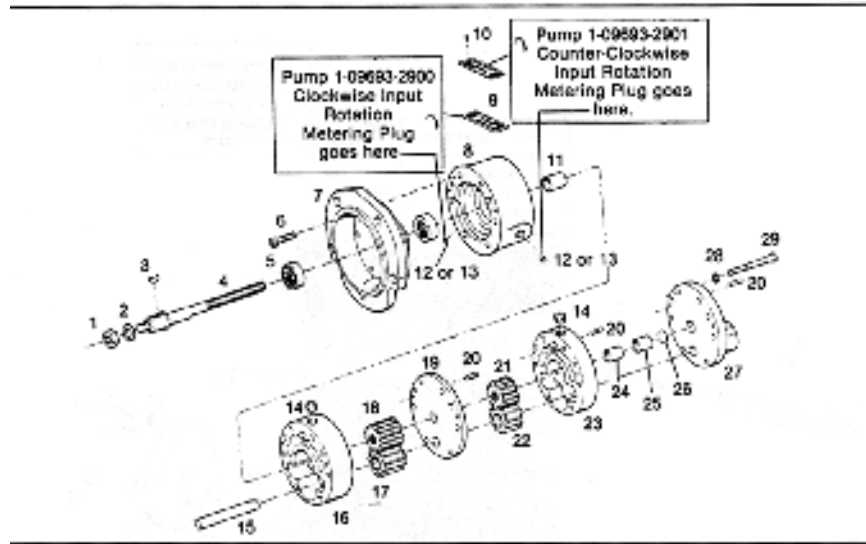
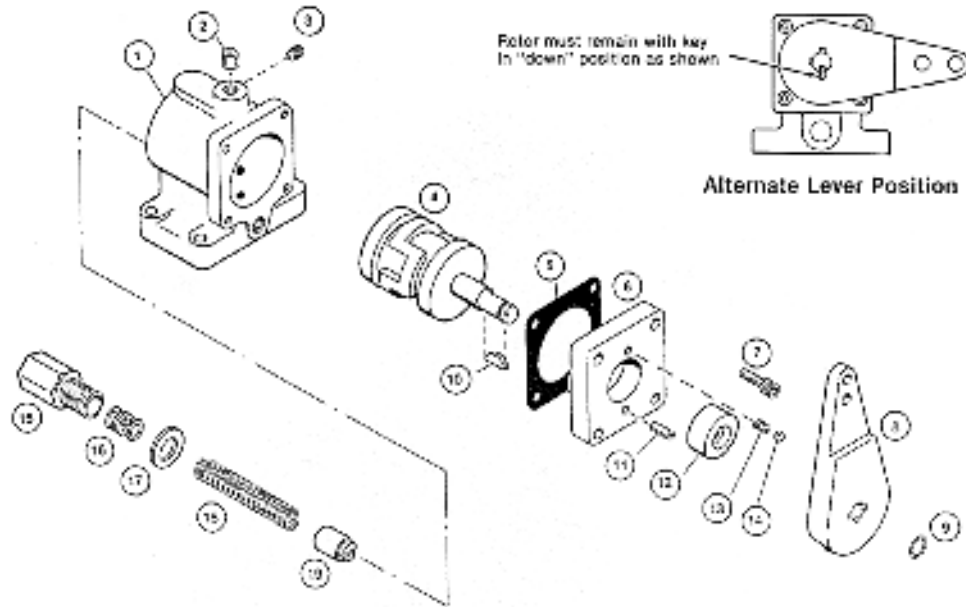


Fig. 41. Duplex Pump Assembly, Direct Engine Mounted

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	DUPLEX PUMP ASSEMBLY, DIRECT MOUNTED		
	CLOCKWISE INPUT ROTATION	1-09693-2900	1
Ref.	DUPLEX PUMP ASSEMBLY, DIRECT MOUNTED		
	COUNTER CLOCKWISE INPUT ROTATION	1-09693-2901	1
1	JAM NUT, FINISHED HEX, 1/2-20 NF	1-02212-4300	1
2	LOCKWASHER, 1/2"	1-11083-0000	1
3	KEY, WOODRUFF #6	1-09802-0800	1
4	SHAFT, DRIVE	1-09681-2700	1
5	OIL SEAL	1-12643-0000	2
6	CAPSCREW, SOCKET HD. 5/16-18X 1" LG	1-10248-0000	8
7	ADAPTER	1-09694-2900	1
8	BODY, ADAPTER	1-09680-0800	1
9	PLATE, ROTATION INDICATOR	1-11212-0000	1
10	DRIVE SCREW, ROUND, #2X 3/16 LG	1-13275-0000	2
11	BUSHING	1-09691-0800	1
12	PIPE PLUG, HEX SOCKET, 1/16-27 NPT	1-11279-0100	1
13	METERING PLUG, 1/8" dia. Hole	1-12686-0000	1
14	PIPE PLUG, LEVEL-SEAL, 3/8-18	1-11279-0400	2
15	SHAFT, DRIVEN 5/8 DIA. X 4" LG	1-09682-1000	1
16	BODY, 1 3/8" WIDE	1-07856-0800	1
17	GEAR, DRIVEN, 1 3/8" WIDE (SCAVANGE)	1-09689-3400	1
18	GEAR, DRIVE, 1 3/8" WIDE (SCAVANGE)	1-09688-0800	1
19	SPACER, 1/4" WIDE	1-07783-0900	1
20	SPRING PIN, 1/4 X 3/4" LG	1-12097-1200	1
21	GEAR, DRIVE, 1" WIDE (PRESSURE)	1-07780-0800	1
22	GEAR, DRIVEN, 1" WIDE (PRESSURE)	1-07781-5400	1
23	BODY, 1" WIDE	1-07722-1000	1
24	SLEEVE	1-07736-0800	1
25	BUSHING	1-00218-0700	1
26	DISC, FLAT	1-10253-0000	1
27	COVER	1-07723-1000	1
28	LOCKWASHER, 5/16"	1-09458-0800	8
29	CAPSCREW, HEX. HD. 5/16-18X4" LG	1-12261-0000	8

CHANGE: PARTS INFORMATION SELECTOR VALVE



Selector Valve Assembly No. 1-09427-2000

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	ASSEMBLY, SELECTOR VALVE	1-09427-2000	1
1	BODY	1-01141-3500	1
2	PIPE PLUG, HEX SOCKET; 1/4 N.P	1-11279-0300	1
3	PIPE PLUG, HEX SOCKET; 1/8 N.P	1-11279-0200	1
4	VALVE (ROTOR)	1-01144-1000	1
5	GASKET, VALVE COVER	1-01156-3700	1
6	COVER	1-01142-3400	1
7	CAPSCREW, SOCKET HEAD; 1/4-20X 1/2 LG	1-09432-0800	4
8	LEVER	1-01143-4200	1
9	RETAINING RING, EXTERNAL	1-13125-0000	1
10	KEY, 3/32 X 1/2" DIA.	1-01164-3200	1
11	SPRING PIN, 1/4" DIA X 1/2" LG	1-12097-0800	1
12	OIL SEAL	1-01152-3200	1
13	SPRING, INDEXING	1-01132-1500	1
14	BALL, INDEXING; 1/4" DIA.	1-11200-0000	1
15	ADJUSTMENT SCREW, RELIEF	1-12617-0000	1
16	WASHER, .030" THICK	1-12619-0000	5
17	WASHER, 1/16" THICK	1-10288-0700	1
18	SPRING, RELIEF VALVE	1-12618-0000	1
19	PLUNGER, SAFETY RELIEF	1-12616-0000	1

8.8 CLUTCH

A. Clutch No. 1-00100-6000

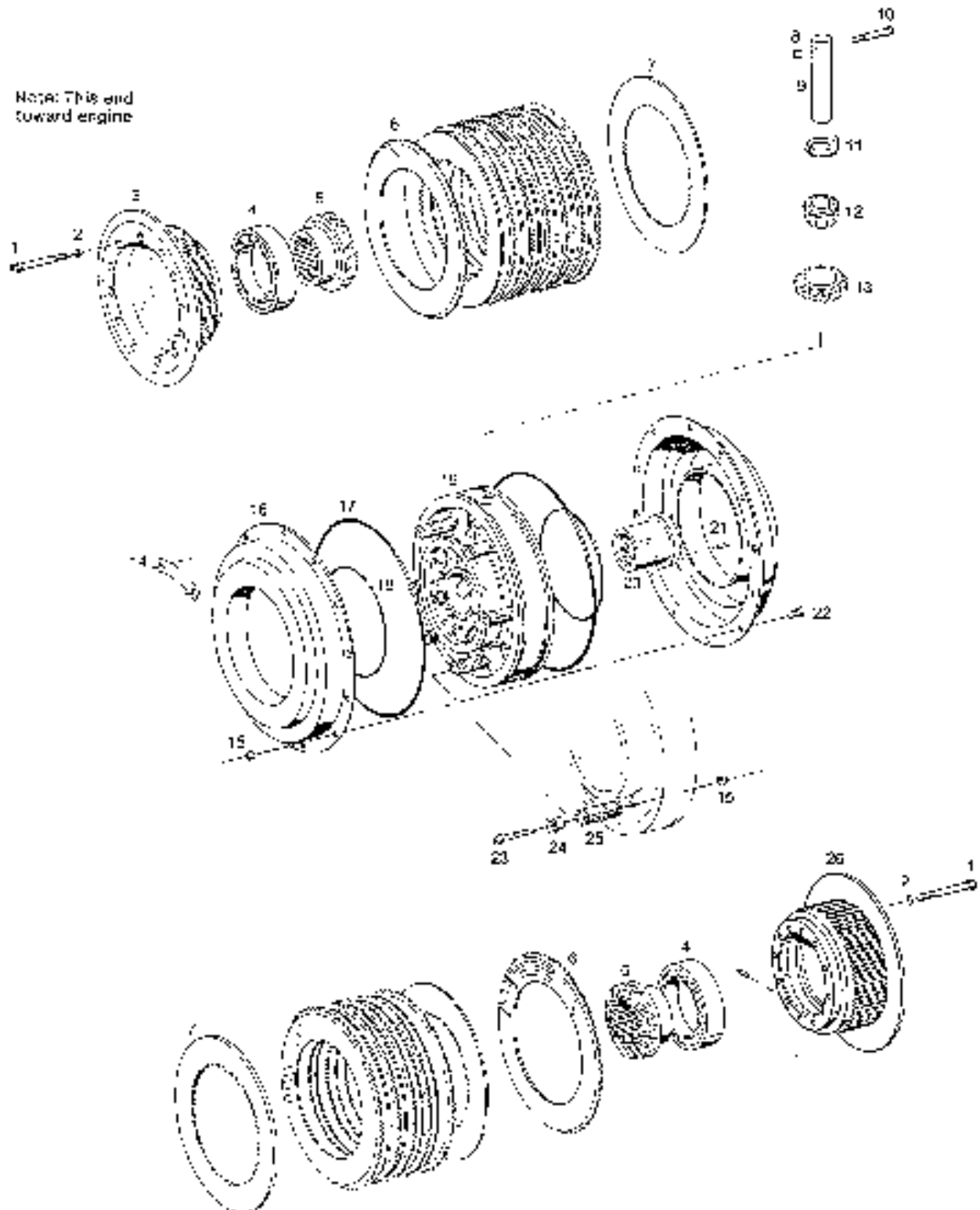


Fig. 48. HY-400 Clutch Assembly

HY 400 CLUTCH
PART NO. 1-00100-6000

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	CLUTCH ASSEMBLY	1-00100-6000	1
1	CAPSCREW, SOCKET HD. 3/8-16X 3 1/4"	1-12247-0000	24
2	LOCKWASHER 3/8 STD	1-08755-0800	24
3	FLANGE, CLUTCH (FORWARD)	1-00212-4100	1
4	BALL BEARING	1-00211-2500	2
5	GEAR BEVEL	1-00215-2600	2
6	CLUTCH DISC. DRIVING	1-00230-4400	13
7	CLUTCH DISC. DRIVEN	1-00233-1200	13
8	NUT, SELF-LOCKING 1/4- 28 NF	1-00226-3600	3
9	SHAFT, BEVEL PINION	1-00220-3600	3
10	CAPSCREW, SOCKET HD 1/4-28 X 2"	1-09433-0800	3
11	THRUST WASHER	1-00221-3600	3
12	BEARING, BEVEL PINION	1-00218-2500	3
13	PINION, BEVEL	1-00217-2600	3
14	NAMEPLATE	1-12398-1200	1
15	NUT, SELF LOCKING, 5/16-18 NC	1-11399-0000	36
16	CYLINDER	1-00234-5500	2
17	QUAD RING	1-00237-3600	2
18	QUAD RING	1-00238-5800	2
19	CARRIER, BEVEL GEAR	1-00219-3700	1
20	BUSHING, FORWARD COMMUTATOR	1-00247-3600	1
21	SPRING PIN	1-12096-1000	3
22	CAPSCREW, SOCKET HD 5/16-18X 5/8"	1-09468-0800	24
23	CAPSCREW, SOCKET HD 5/16-18X 2"	1-05386-0800	12
24	RETAINER, RETURN SPRING	1-00243-3600	12
25	SPRING RETURN	1-00239-3700	12
26	FLANGE, CLUTCH (REVERSE)- (INCLUDES SPRING PINS)	1-00210-6700	1

HP-500 Clutches on Pages 49-54

8.8 CLUTCH

B. Clutch No. 1-00100-4100

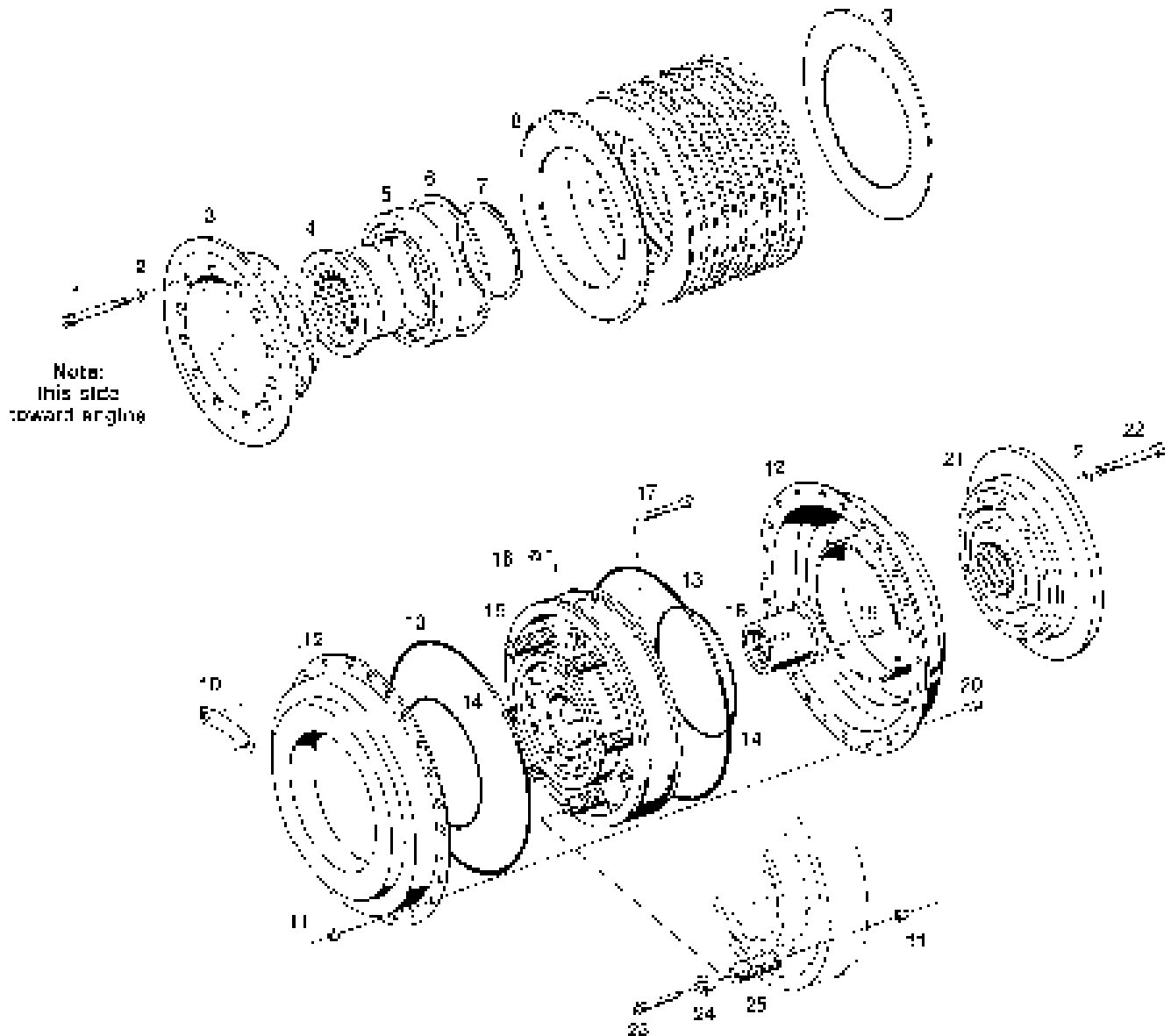


Fig. 44. HY-400 Clutch Assembly

HY 400 CLUTCH
 PART NO. 1-00100-4100, HY-PTO, NO BRAKE

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	CLUTCH ASSEMBLY HY-PTO, NO BREAK	1-00100-4100	1
1	CAPSCREW, SOCKET HD. 3/8-16X 3 1/4"	1-12247-0000	12
2	LOCKWASHER	1-08755-0800	24
3	FLANGE, FORWARD CLUTCH	1-00212-4300	1
4	SUPPORT, CLUTCH	1-13264-0000	1
5	BEARING, BALL	1-00211-2500	1
6	SNAP RING, SPIROLOX	1-13266-0000	1
7	SNAP RING, TRU-ARC	1-11834-0000	1
8	CLUTCH DISC. DRIVING	1-00230-4400	8
9	CLUTCH DISC. DRIVEN	1-00233-1200	7
10	NAME PLATE	1-12398-1700	1
11	NUT, SELF LOCKING 5/16-18 N.C	1-11399-0000	36
12	CYLINDER CLUTCH	1-00234-5500	2
13	QUAD RING	1-00237-3600	2
14	QUAD RING	1-00238-5800	2
15	CARRIER, BEVEL GEAR	1-00219-3700	1
16	NUT, SELF LOCKING, 1/4-28 N.F	1-00226-3600	3
17	CAPSCREW, SOCKET HD. 1/4-28X 2"	1-09433-0800	3
18	BUSHING, FORWARD COMMUTATOR	1-00247-3600	1
19	SPRING PIN, 3/16 DIA. X 5/8"	1-12096-1000	3
20	CAPSCREW, SOCKET HD., 5/16-18 X 5/8"	1-09468-0800	24
21	FLANGE, REVERSE CLUTCH	1-13092-0000	1
22	CAPSCREW, SOCKET HD., 3/8-16X 3"	1-08746-0800	12
23	CAPSCREW, SOCKET HD., 5/16-18 X 2"	1-05386-0800	12
24	RETAINER, RETURN SPRING	1-00243-3600	12
25	SPRING, RETURN	1-00239-3700	12

8.8 CLUTCH

C. Clutch No. 1-00100-4200, HY PTO WITH BRAKE

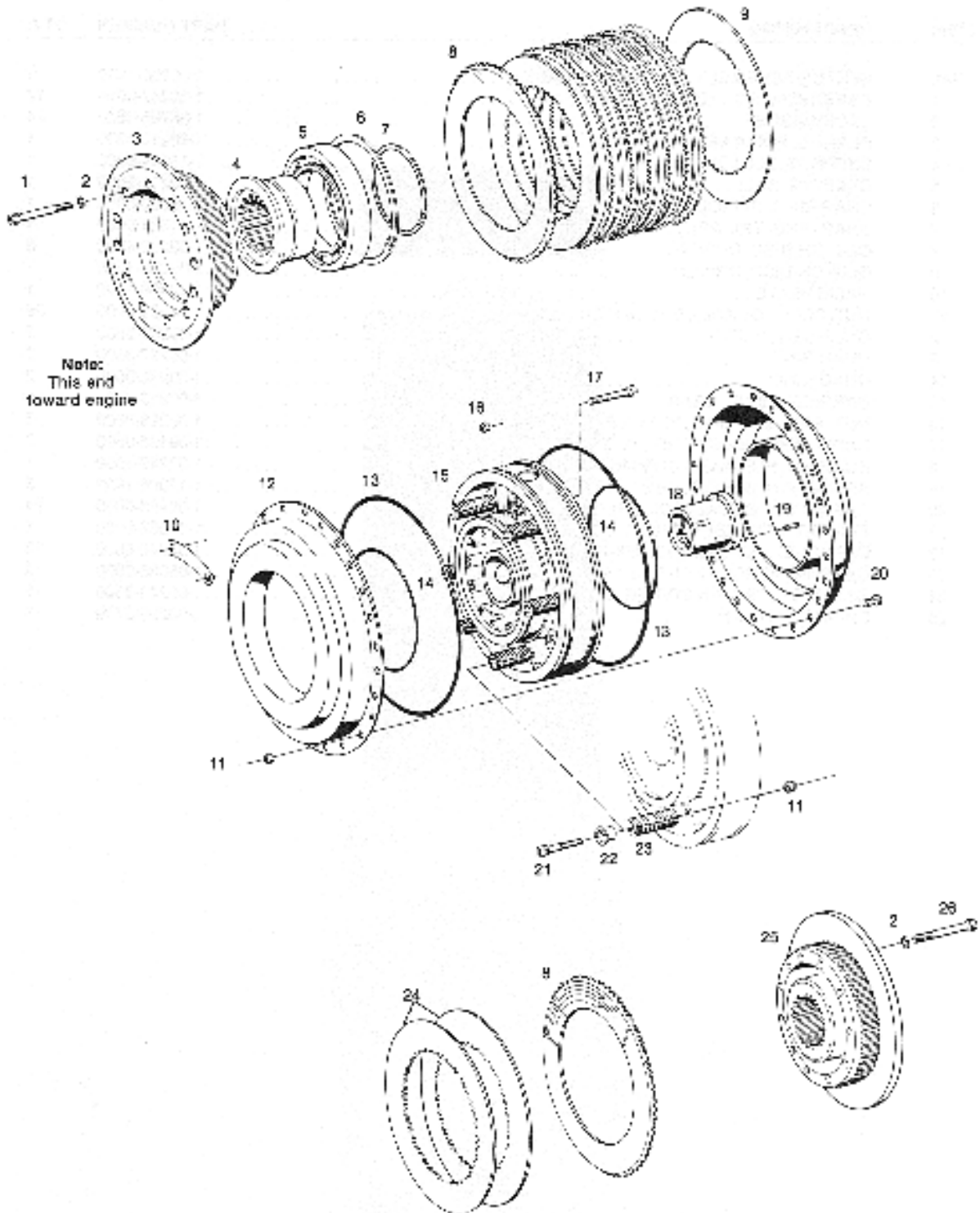


Fig. 45. HY-400 Clutch Assembly

CHANGE- PARTS INFORMATION

FOR HY- 400 TRANSMISSIONS BEGINNING WITH SERIAL NUMBER 10300-0000
(Refer to figure 44, page 45)

HY-400 CLUTCH
PART NO. 1-00100-6400, HY-PTO, NO BRAKE

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	CLUTCH ASSEMBLY HY-PTO, NO BREAK	1-00100-6400	1
1	CAPSCREW, SOCKET HD. 3/8-16X 3 1/4"	1-12247-0000	12
2	LOCKWASHER	1-08755-0800	24
3	FLANGE, FORWARD CLUTCH	1-00212-4300	1
4	SUPPORT, CLUTCH	1-13264-1000	1
5	BEARING, BALL	1-00211-2500	1
6	SNAP RING, SPIROLOX	1-13266-0000	1
7	SNAP RING, TRU-ARC	1-11834-0000	1
8	CLUTCH DISC DRIVING	1-00230-4400	7
9	CLUTCH DISC, DRIVEN	1-00233-1200	7
10	NAME PLATE	1-12398-0000	1
11	NUT, SLEF LOCKING, 5/16-18 N.C	1-11399-0000	36
12	CYLINDER, CLUTCH	1-00234-5500	2
13	QUAD RING	1-00237-3600	2
14	QUAD RING	1-00238-5800	2
15	CARRIER, BEVEL GEAR	1-00219-3700	1
16	NUT, SELF LOCKING, 1/4-28 N.F	1-00226-3600	3
17	CAPSCREW, SOCKET HD. 1/4-28X 2"	1-09433-0800	3
18	BUSHING, FORWARD COMMUTATOR	1-00247-3600	1
19	SPRING PIN, 3/16 DIA. X 5/8"	1-12096-1000	3
20	CAPSCREW, SOCKET HD., 5/16-18X 5/8"	1-09468-0800	24
21	FLANGE, REVERSE CLUTCH	1-13092-1000	1
22	CAPSCREW, SOCKET HD, 3/8-16X3"	1-08746-0800	12
23	CAPSCREW, SOCKET HD, 5/16-18X2"	1-05386-0800	12
24	RETAINER, RETURN SPRING	1-00243-3600	12
25	SPRING, RETURN	1-00239-3700	12

HY 400 CLUTCH
 PART NO. 1-00100-4200, HY PTO WITH BRAKE

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	CLUTCH ASSEMBLY HY-PTO, WITH BRAKE	1-00100-4200	1
1	CAPSCREW, SOCKET HD, 3/8-16X 3 1/4"	1-12247-0000	12
2	LOCKWASHER	1-08755-0800	24
3	FLANGE, FORWARD CLUTCH	1-00212-4300	1
4	SUPPORT CLUTCH	1-13264-0000	1
5	BEARING, BALL	1-00211-2500	1
6	SNAP RING, SPIROLOX	1-13266-0000	1
7	SNAP RING, TRU-ARC	1-11834-0000	1
8	CLUTCH DISC, DRIVING	1-00230-4400	8
9	CLUTCH DISC, DRIVEN	1-00233-1200	7
10	NAME PLATE	1-12398-1800	1
11	NUT, SELF LOCKING, 5/16-18 N.C	1-11399-0000	36
12	CYLINDER CLUTCH	1-00234-5500	2
13	QUAD RING	1-00237-3600	2
14	QUAD RING	1-00238-5800	2
15	CARRIER, BEVELGEAR	1-00219-3700	1
16	NUT, SELF LOCKING 1/4-28 NF	1-00226-3600	3
17	CAPSCREW, SOCKET HD., 1/4-28X 2"	1-09433-0800	3
18	BUSHING, FORWARD COMMUTATOR	1-00247-3600	1
19	SPRING PIN, 3/16 DIA. X 5/8"	1-12096-1000	3
20	CAPSCREW, SOCKET HD., 5/16-18X5/8"	1-09468-0800	24
21	CAPSCREW, SOCKET HD., 5/16-18X 2"	1-05386-0800	12
22	RETAINER, RETURN SPRING	1-00243-3600	12
23	SPRING RETURN	1-00239-3700	12
24	CLUTCH DISC, DRIVEN	1-0233-2900	2
25	FLANGE, REVERSE CLUTCH	1-13092-2000	1
26	CAPSCREW, SOCKET HD. 3/8-16X 3"	1-08746-0800	12

8.8 CLUTCH

D. Clutch No. 1-00100-2419

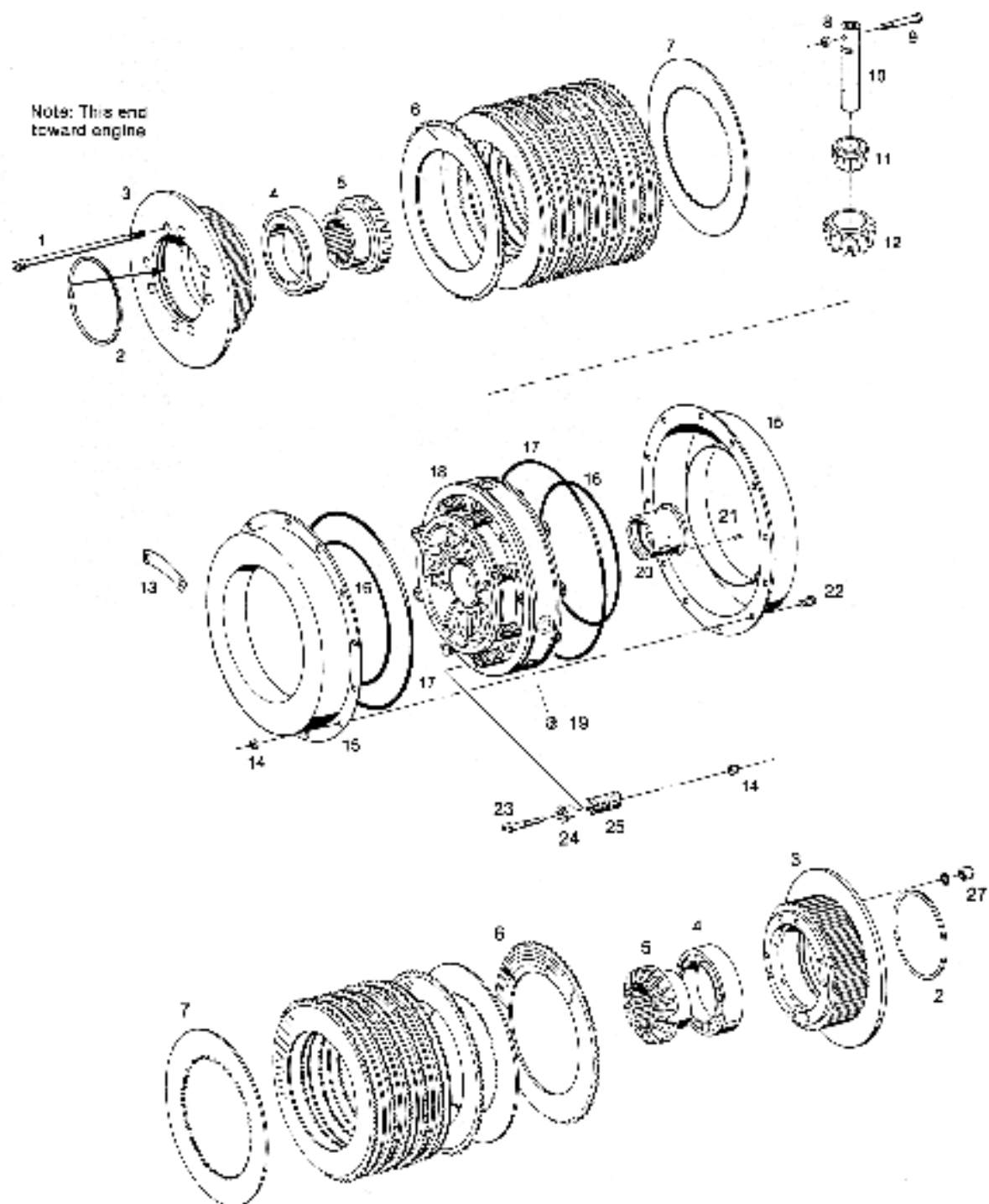


Fig. 46. HP 500 Clutch Assembly No. 1-00100-2419

HP-500 CLUTCH
PART. NO. 1-00100-2419

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	CLUTCH ASSEMBLY	1-00100-2419	1
1	CAPSCREW SOCKET HD. 3/8-24X 8 1/4"	1-12973-0000	8
2	SNAP RING	1-00222-3200	2
3	END FLANGE	1-00210-2600	2
4	BALL BEARING	1-00211-5400	2
5	BEVEL GEAR (DRIVING & DRIVEN)	1-00216-2400	2
6	CLUTCH DISC, DRIVING	1-00230-2800	15
7	CLUTCH DISC, DRIVEN	1-00233-2400	15
8	NUT, FLEX-LOC, 1/4-20	1-07846-0800	4
9	CAPSCREW, SOCKET HD, 1/4-20X 2	1-12028-0000	4
10	SHAFT, BEVEL PINION	1-002220-2400	4
11	BEARING, PINION	1-00218-2500	4
12	GEAR, BEVEL PINION	1-00217-1800	4
13	NAMEPLATE	1-12397-3300	1
14	NUT, FLEX-LOC	1-11399-0000	28
15	CYLINDER (FORWARD& REVERSE)	1-00234-2400	2
16	O-RING	1-12784-0000	2
17	O-RING	1-12785-0000	2
18	CARRIER, BEVEL GEAR	1-00219-2400	1
19	PIPEPLUG, HEX SOCKET	1-11279-0300	2
20	COMMUTATOR BUSHING	1-00247-3200	1
21	SPRING PIN, 3/16 DIA. X 5/8"	1-12096-1000	3
22	CAPSCREW, SOCKET HD. 5/16-18X 3/4"	1-07546-0800	12
23	CAPSCREW, SOCKET HD. 5/16-18X 2"	1-09439-0800	16
24	RETAINER, RETURN SPRING	1-00243-2400	16
25	SPRING, RETURN	1-00239-3700	16
26	LOCKWASHER, HIGH COLLAR, 3/8 DIA.	1-08755-0800	8
27	ALLENUT, 3/8-24	1-12999-0000	8

HP-500 CLUTCH
PART. NO. 1-00100-2419

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	CLUTCH ASSEMBLY	1-00100-2419	1
1	CAPSCREW SOCKET HD. 3/8-24X 8 1/4"	1-12973-0000	8
2	SNAP RING	1-00222-3200	2
3	END FLANGE	1-00210-2600	2
4	BALL BEARING	1-00211-5400	2
5	BEVEL GEAR (DRIVING & DRIVEN)	1-00216-2400	2
6	CLUTCH DISC, DRIVING	1-00230-2800	15
7	CLUTCH DISC, DRIVEN	1-00233-2400	15
8	NUT, FLEX-LOC, 1/4-20	1-07846-0800	4
9	CAPSCREW, SOCKET HD, 1/4-20X 2	1-12028-0000	4
10	SHAFT, BEVEL PINION	1-002220-2400	4
11	BEARING, PINION	1-00218-2500	4
12	GEAR, BEVEL PINION	1-00217-1800	4
13	NAMEPLATE	1-12397-3300	1
14	NUT, FLEX-LOC	1-11399-0000	28
15	CYLINDER (FORWARD& REVERSE)	1-00234-2400	2
16	O-RING	1-12784-0000	2
17	O-RING	1-12785-0000	2
18	CARRIER, BEVEL GEAR	1-00219-2400	1
19	PIPEPLUG, HEX SOCKET	1-11279-0300	2
20	COMMUTATOR BUSHING	1-00247-3200	1
21	SPRING PIN, 3/16 DIA. X 5/8"	1-12096-1000	3
22	CAPSCREW, SOCKET HD. 5/16-18X 3/4"	1-07546-0800	12
23	CAPSCREW, SOCKET HD. 5/16-18X 2"	1-09439-0800	16
24	RETAINER, RETURN SPRING	1-00243-2400	16
25	SPRING, RETURN	1-00239-3700	16
26	LOCKWASHER, HIGH COLLAR, 3/8 DIA.	1-08755-0800	8
27	ALLENUT, 3/8-24	1-12999-0000	8

8.8 CLUTCH

E. CLUTCH No. 1-00100-2420

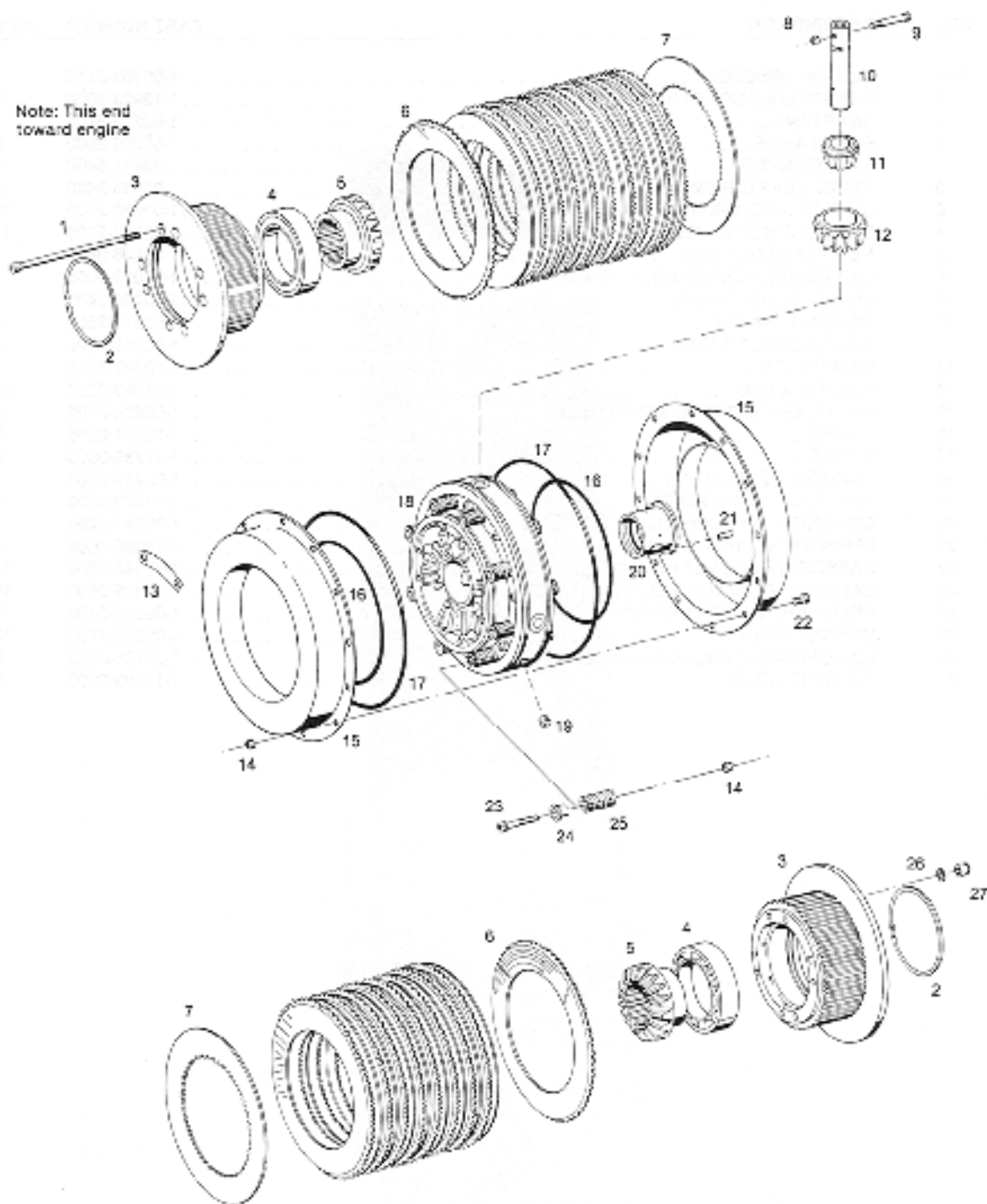


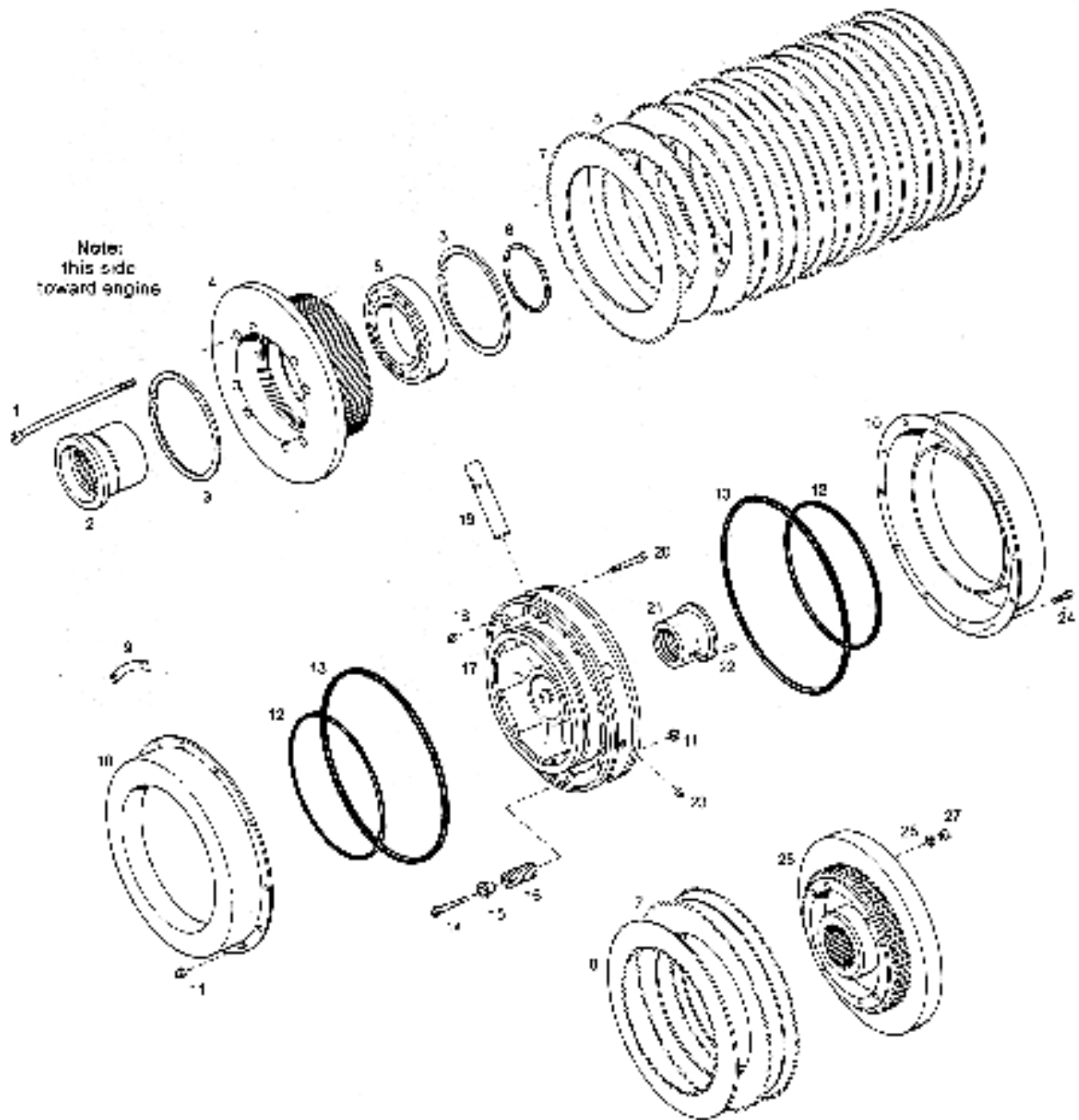
Fig. 47. HP 500 Clutch Assembly No. 1-00100-2420

HP-500 CLUTCH
PART No. 1-00100-2420

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	CLUTCH ASSEMBLY	1-00100-2420	1
1	CAPSCREW SOCKET HD., 3/8-24X 8 1/4"	1-12973-0000	8
2	SNAP RING	1-00222-3200	2
3	END FLANGE	1-00210-2800	2
4	BALL BEARING	1-00211-5400	2
5	BEVEL GEAR (DRIVING & DRIVEN)	1-00216-2400	2
6	CLUTCH DISC, DRIVING	1-00230-2800	19
7	CLUTCH DISC, DRIVEN	1-00233-2400	19
8	NUT, FLEX-LOC 1/4-20	1-07846-0800	4
9	CAPSCREW, SOCKET HD. 1/4-20 X 2"	1-12028-0000	4
10	SHAFT, BEVEL PINION	1-00220-2400	4
11	BEARING, PINION	1-00218-2500	4
12	GEAR, BEVEL PINION	1-00217-1800	4
13	NAMEPLATE	1-12397-3400	1
14	NUT, FLEX-LOC	1-11399-0000	28
15	CYLINDER (FORWARD & REVERSE)	1-00234-2400	2
16	O-RING	1-12784-0000	2
17	O-RING	1-12785-0000	2
18	CARRIER, BEVEL GEAR	1-00219-2400	1
19	PIPE PLUG, HEX SOCKET	1-11279-0300	2
20	COMMUTATOR BUSHING	1-00247-3200	1
21	SPRING PIN, 3/16 DIA. X 5/8"	1-12096-1000	3
22	CAPSCREW, SOCKET HD. 5/16-18 X 3/4"	1-07546-0800	12
23	CAPSCREW, SOCKET HD., 5/16-18 X 2"	1-09439-0800	16
24	RETAINER, RETURN SPRING	1-00243-2400	16
25	SPRING, RETURN	1-00239-3700	16
26	LOCKWASHER, HIGH COLLAR, 3/8 DIA.	1-08755-0800	8
27	ALLENUT, 3/8-24	1-12999-0000	8

8.8 CLUTCH

F. CLUTCH No. 1-00100-4300



HP-500 CLUTCH-POWER TAKE-OFF WITH BRAKE
PART NO. 1-00100-4300

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	CLUTCH HP-PTO W/BRAKE	1-00100-4300	1
1	CAPSCREW, SOC. HD., 3/8-24 X 8 1/4"	1-12973-0000	8
2	BEARING SUPPORT	1-13905-0000	1
3	SNAP RING	1-00222-3200	2
4	END FLANGE, CLUTCH	1-13907-0000	1
5	BALL BEARING	1-00211-3200	1
6	SNAP RING	1-13906-0000	1
7	CLUTCH DISC. DRIVING	1-00230-2800	12
8	CLUTCH DISC. DRIVEN	1-00233-2400	12
9	NAMEPLATE	1-12397-3800	1
10	CYLINDER	1-00234-2400	2
11	NUT, FLEX LOC, 5/16-18	1-11399-0000	28
12	"O" RING	1-12784-0000	2
13	"O" RING	1-12785-000	2
14	CAPSCREW, SOC. HD., 5/16-18X 2"	1-09439-0800	16
15	RETAINER, RETURN SPRING	1-00243-2400	16
16	SPRING, RETURN	1-00239-3700	16
17	CARRIER, BEVEL GEAR	1-00219-2400	1
18	NUT, FLEX LOC, 1/4-20	1-07846-0800	12
19	SHAFT, BEVEL PINION	1-00220-2400	4
20	CAPSCREW, SOC. HD. 1/4-20X 2"	1-12028-0000	4
21	COMMUTATOR BUSHING	1-00247-3200	1
22	SPRING PIN, 3/16 DIA. X 5/8"	1-12096-1000	3
23	PIPE PLUG, HEX. SOCKET, 1/4-18 N.P.T	1-11279-0300	2
24	CAPSCREW, SOC. HD. 5/16-18 3/4"	1-07546-0800	12
25	END FLANGE, CLUTCH	1-13904-0000	1
26	LOCKWASHER, HIGH COLLAR, 3/8" DIA	1-08755-0800	8
27	ALLENUT, 3/8-24	1-12999-0000	8

8.9 COOLERS

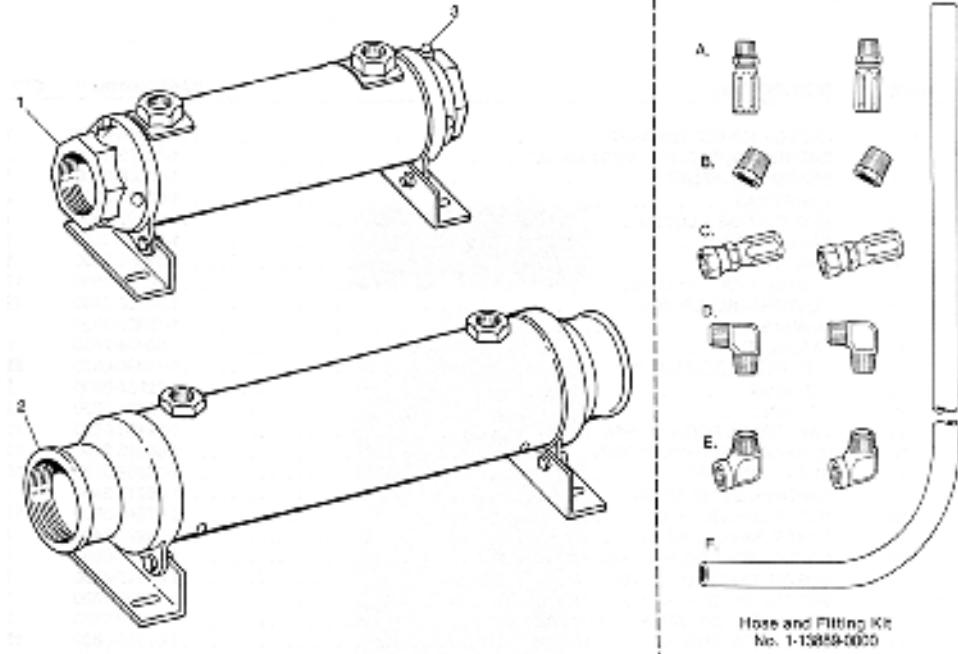


Fig. 49. Oil Coolers and Hose and Fitting Kit

ITEM	DESCRIPTION	PART NO.	QTY
HY 400 OIL COOLERS			
1	SEA WATER COOLER 1. (12 3/4" X 4 1/8" dia.)	1-07808-5000	1
2	SEA WATER COOLER 1. (17" X 5 1/8" dia.)	1-13769-0000	1
3	FRESH WATER COOLER (19 1/2" X 6 1/8" dia.)	1-13795-0000	1
	ZINC PENCILS	1-12445-400	2
HP 500 OIL COOLERS			
1	SEA WATER COOLER 1. (17 X 5 1/8" dia.)	1-13769-0000	1
2	FRESH WATER COOLER (30 3/4" X 6 1/8" dia.)	1-13814-0000	1
3	ZINC PENCILS	1-12455-0400	2

1. Cooler comes with zinc pencils

Hose and fitting kit No. 1-13889-0000 (above right) is available for use with the coolers listed. Parts included in the kit are:

A. MALE FITTING	1-11283-1100	2
B. BUSHING 1 X 3/4"	1-11253-1200	2
C. FEMALE FITTING	1-11282-0700	2
D. 90° ELBOW (JIC)	1-11221-1800	2
E. STREET EL, 3/4 X 3/4"	1-11248-0800	2
F. HOSE, 5/8" I.D 12 FT. LONG	1-11832-0000	1

8.10 PROP COUPLING KIT

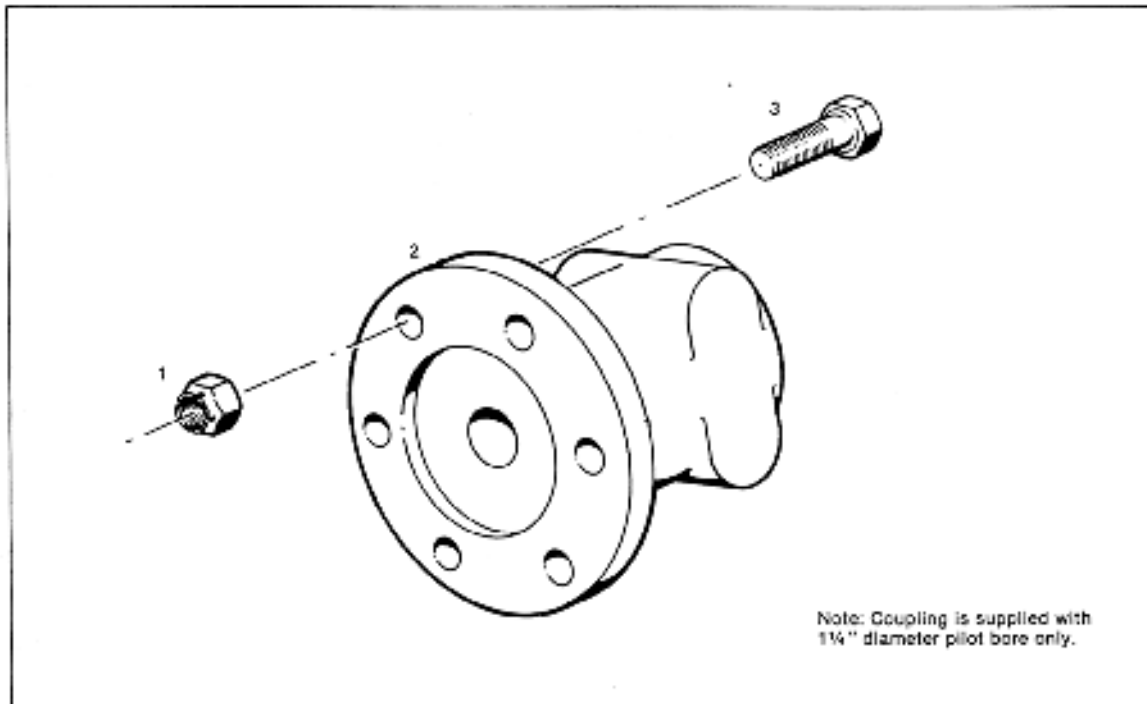


Fig. 50. Propeller Coupling Kit

ITEM	DESCRIPTION	PART NO.	QTY
Ref.	COUPLING, KIT (13 PCS.)	1-13578-0000	1
1	NUT, FLEXLOC	1-13304-0000	6
2	COUPLING, SHAFT	1-13494-0000	1
3	CAPSCREW, HEX HEAD	1-07554-0800	6

SERVICE AND MAINTENANCE NOTES