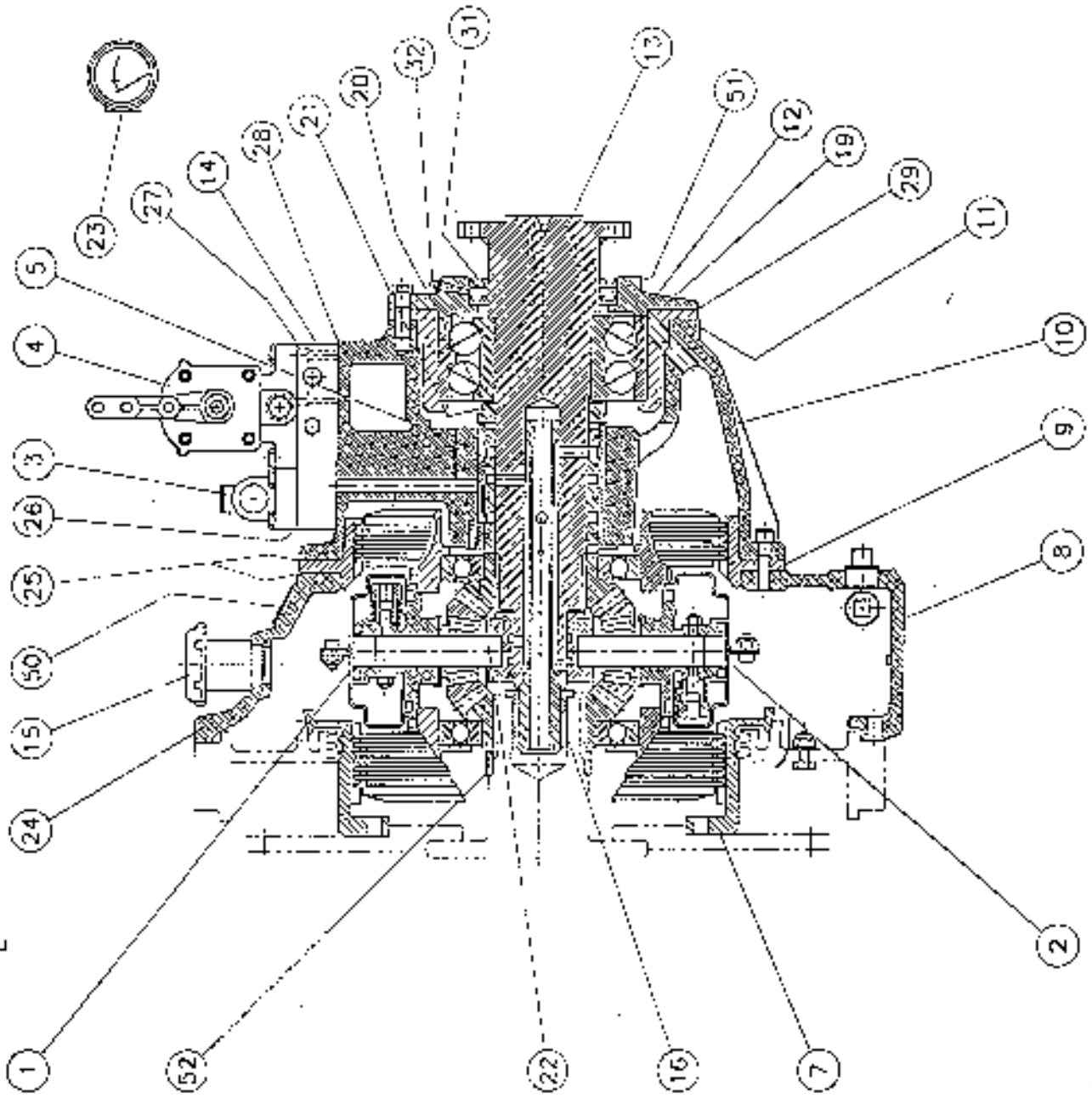
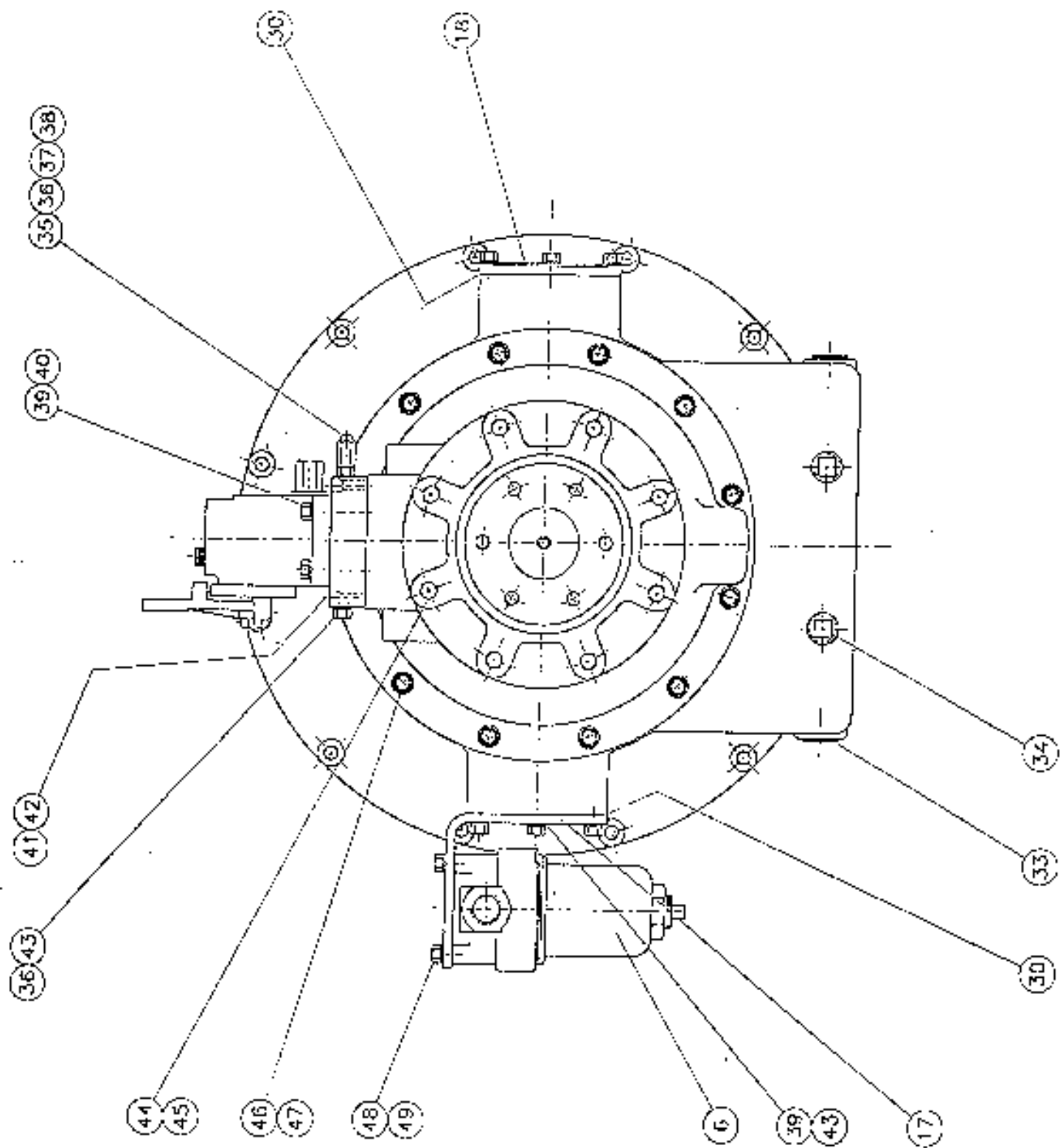


HYH (HEAVY DUTY) CLUTCH
HALF VIEW ABOVE



HYH (MEDIUM DUTY) CLUTCH
HALF VIEW BELOW



INDEX NO.	CAPITOL PART NUMBER	DESCRIPTION	QTY
1	1-00100-5700	SUB-ASSY, REVERSING GEAR & CLUTCH	1
2	1-00100-4902	SUB-ASSY, REVERSING GEAR & CLUTCH	1
3	1-09640-0800	SUB-ASSY, RELIEF VALVE	1
4	1-09427-0800	SUB-ASSY, CONTROL VALVE	1
5	1-00248-4600	ASSY, REAR COMMUTATOR BUSHING	1
6	1-03151-1100	ASSY, OIL FILTER	1
7	1-01116-3600	DRUM, CLUTCH DRIVING	1
8	1-01101-4000	HSG, REVERSE GEAR (FWD.)	1
9	1-00250-4000	DRUM, REVERSE GEAR	1
10	1-01105-4000	HSG, REVERSE GEAR	1
11	1-00332-4000	CONTAINER, BEARING	1
12	1-00333-4000	RETAINER, BEARING CAP & OIL SEAL	1
13	1-00327-4200	SHAFT, REV. CLUTCH	1
14	1-01150-2800	PLATE, BASE	1
15	1-05243-0800	BREATHER	1
16	1-00326-2600	BUSHING, DRIVE FLANGE	1
17	1-12456-0000	BRACKET & COVER, OIL FILTER	1
18	1-01228-4000	COVER, INSPECTION	1
19	1-00331-4000	BEAR, BALL	1
20	1-10818-0000	LOCK NUT, BALL BEARING	1
21	1-10819-0000	LOCKWASHER, BALL BEARING	1
22	1-12056-1400	SPRING PIN	3
23	1-09669-0900	GAUGE, PRESSURE	1
24	1-01102-3600	GASKET, HSG. TO OIL DAM	1
25	1-01102-4000	GASKET, REV. HSG. TO CLUTCH DRUM	2
26	1-09642-0800	GASKET, MOUNTING	1
27	1-01169-2700	GASKET, VALVE TO BASE PLATE	1
28	1-01154-2700	GASKET, BASE PLATE TO HSG.	1
29	1-01218-4000	GASKET, BEARING CAP	1
30	1-01225-4000	GASKET, INSPECTION COVER	2
31	1-00339-2800	OIL SEAL, SHAFT	2
32	1-09576-0800	GEASE FITTING "ZERK"	1
33	1-11225-0500	PIPE PLUG, SQ. SOCKET	2
34	1-11251-0500	PLUG, SQ. HEAD	2
35	1-09578-0800	SCREW, CYLINDER TIMING	1
36	1-09471-0800	GASKET, COPPER WASHER	3
37	1-09464-0800	LOCK NUT (LIGHT)	1

INDEX NO.	CAPITOL PART NUMBER	DESCRIPTION	QTY
38	1-09461-0800	DOME NUT	1
39	1-09458-0800	LOCKWASHER (MEDIUM)	18
40	1-10946-0000	CAPSCREW, HEX HEAD	8
41	1-01104-1600	LOCKWASHER (HIGH COLLAR)	4
42	1-09437-0800	CAPSCREW, SOCKET HEAD	4
43	1-10334-0000	CAPSCREW, HEX HEAD	13
44	1-09460-0800	LOCKWASHER (MEDIUM)	8
45	1-07926-0800	CAPSCREW, HEX HEAD	8
46	1-08755-0800	LOCKWASHER (HIGH COLLAR)	12
47	1-11513-0000	CAPSCREW, SOCKET HEAD	12
48	1-09450-0800	CAPSCREW, HEX HEAD	2
49	1-11063-0000	LOCKWASHER (LIGHT)	2
50	1-11211-0000	NAME PLATE	1
51	1-09574-0800	SPACER, OIL SEAL	1
52	1-01113-2800	SPACER	1

6.6 OIL PUMP
A. Single Pump, Belt Driven

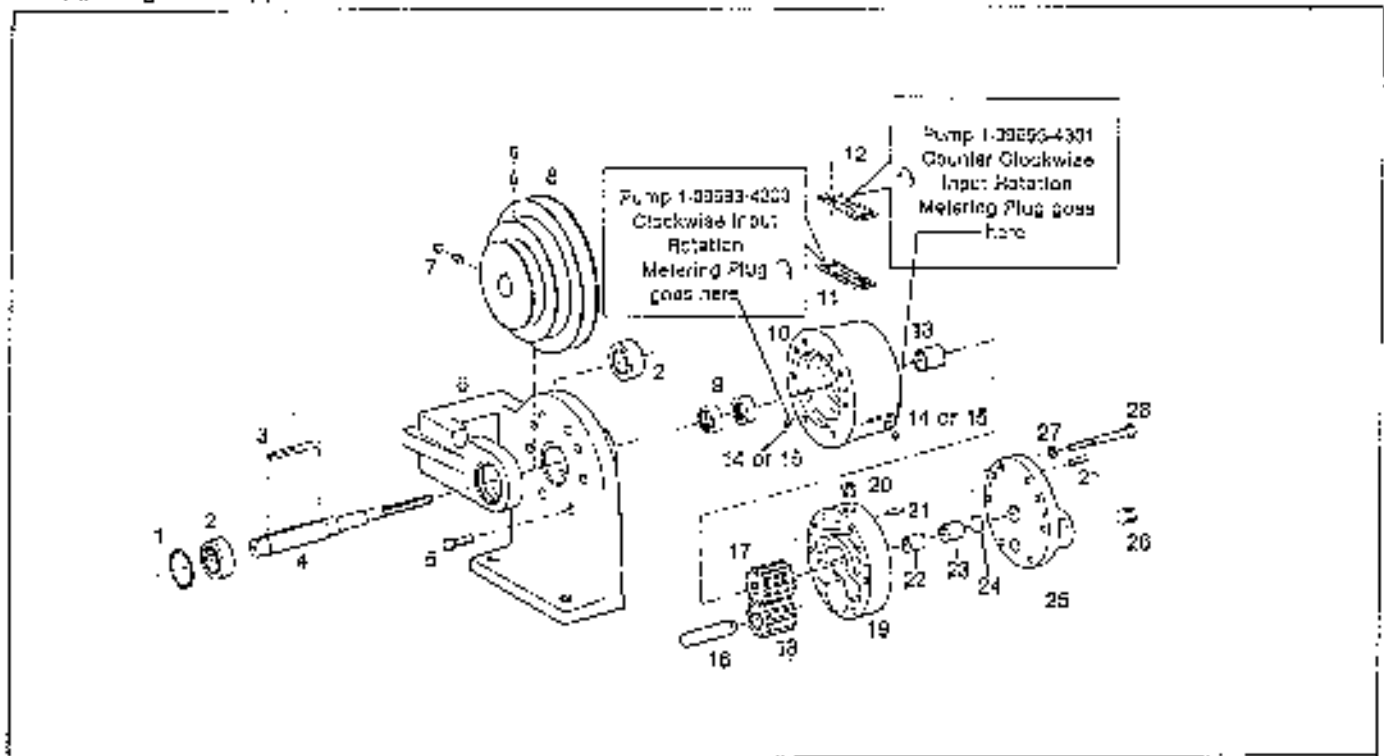


Fig. 38. Single Pump, Belt Driven

ITEM	DESCRIPTION	PART NUMBER	QTY.
Ref.	SINGLE PUMP ASSEMBLY, BELT DRIVEN CLOCKWISE INPUT ROTATION	1-09893-4300	1
Ref.	SINGLE PUMP ASSEMBLY, BELT DRIVEN COUNTER CLOCKWISE INPUT ROTATION	1-09693-4301	1
1	SNAP RING, SPIROLOX	1-12086-0000	1
2	BALL BEARING	1-14076-0000	2
3	SQUARE KEY, 3/16 x 2 1/4" LG.	1-09886-1000	1
4	SHAFT, DRIVE	1-09881-1400	1
5	CAPSCREW, SOCKET HD., 5/16-18 x 1" LG.	1-10245-0000	7
6	BRACKET, SHEAVE AND PUMP	1-09694-1100	1
7	SOCKET SET SCREW, 5/16-18 x 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. #2 x 3/16" LG.	1-19275-0000	2
13	BUSHING	1-09691-0800	1
14	PIPE PLUG, 1/16 NPT	1-11279-0100	1
15	METERING PLUG, 1/8 DIA. HOLE	1-12636-0000	1
16	SHAFT, DRIVEN, 5/8" DIA. x 2 1/2" LG.	1-11864-0000	1
17	DRIVE GEAR, 1 3/8" WIDE	1-09683-0800	1
18	DRIVEN GEAR, 1 3/8" WIDE	1-09689-3400	1
19	BODY, 1 3/8" 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.	1-12037-1200	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 1/4 - 14	1-11279-0600	2
27	LOCKWASHER, 5/16 LIGHT	1-09458-0800	6
28	CAPSCREW, 5/16 - 18 x 2 3/4" LG.	1-12259-0000	6

8.6 OIL PUMP
B. Duplax Pump, Belt Driven

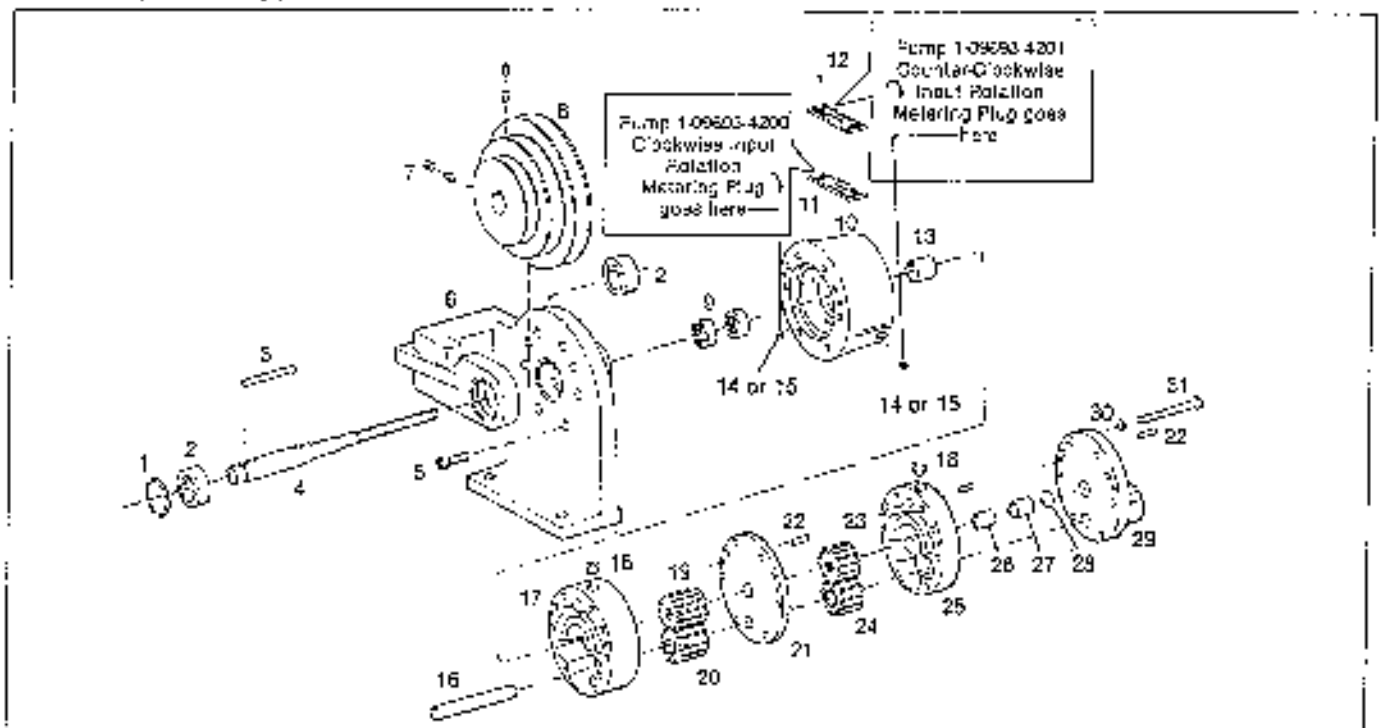


Fig. 39. Duplax Pump Assembly, Belt Driven

ITEM	DESCRIPTION	PART NUMBER	QTY.
Ref.	DUPLEX PUMP ASSEMBLY, BELT DRIVEN CLOCKWISE INPUT ROTATION	1-09603-4200	1
Ref.	DUPLEX PUMP ASSEMBLY, BELT DRIVEN COUNTER CLOCKWISE INPUT ROTATION	1-09693-4201	1
1	SNAP RING, SPIROLOX	1-12088-0000	1
2	BALL BEARING	1-14078-0000	2
3	SQUARE KEY, 3/16 x 2 1/4" LG.	1-09698-1000	1
4	SHAFT DRIVE	1-08691-1200	1
5	CAPSCREW, SOCKET HEAD, 5/16 - 18 x 1" LG.	1-10245-0000	7
6	BRACKET, SHEAVE AND PUMP	1-09694-1100	1
7	SOCKET SET SCREW, 5/16 - 18 x 3/8" LG.	1-11524-0000	4
8	SHEAVE, THREE STEP	1-13491-0000	1
9	OIL SEAL	1-12643-0000	2
10	ADAPTER	1-09650-0800	1
11	PLATE, ROTATION INDICATOR	1-11212-0000	1
12	DRIVE SCREW, RD. HD., #2 x 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	1-07856-0600	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, 1/4 x 1/4" LG.	1-12097-1200	6
23	DRIVE GEAR, PRESSURE, 1" WIDE	1-07760-0600	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 - 18 x 4" LG.	1-12261-0000	8

8.6 OIL PUMP
C. Single Pump, Direct Engine Mounted

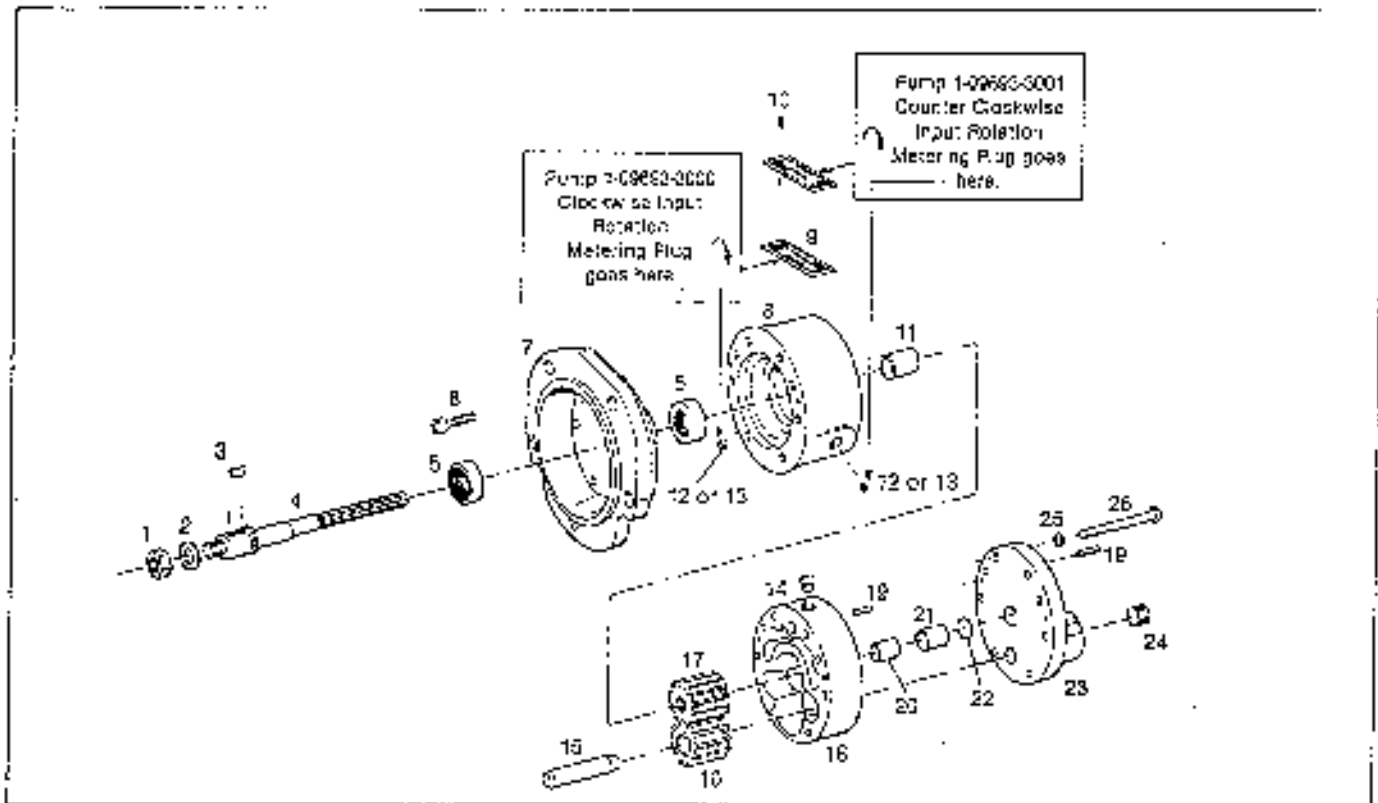


Fig. 40. Single Pump Assembly, Direct Engine Mounted

ITEM	DESCRIPTION	PART NUMBER	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, 1/4-20 NF	1-02212-4300	1
2	LOCKWASHER, 1/2"	1-11083-0000	1
3	KEY, WOODRUFF, #8	1-09802-0800	1
4	SHAFT, DRIVE	1-09881-2700	1
5	OIL SEAL	1-12649-0000	2
6	CAPSCREW, SOCKET HD., 5/16-18x1" 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., #2 x 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	1-11275-0400	1
15	SHAFT DRIVEN, 5/8 DIA. X 2 1/2" LG.	1-11664-0000	1
16	GEAR, DRIVEN, 1 3/8" WIDE	1-09660-3400	1
17	GEAR, DRIVE	1-09668-0800	1
18	BODY, 1 3/8" WIDE	1-07656-0800	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, 1/4-14	1-11279-0600	2
25	LOCKWASHER, 5/16	1-09458-0800	8
26	CAPSCREW, HEX HD., 5/16-18x2 3/4 LG.	1-12259-0000	8

8.6 OIL PUMP

D. Duplex Pump, Direct Engine Mounted

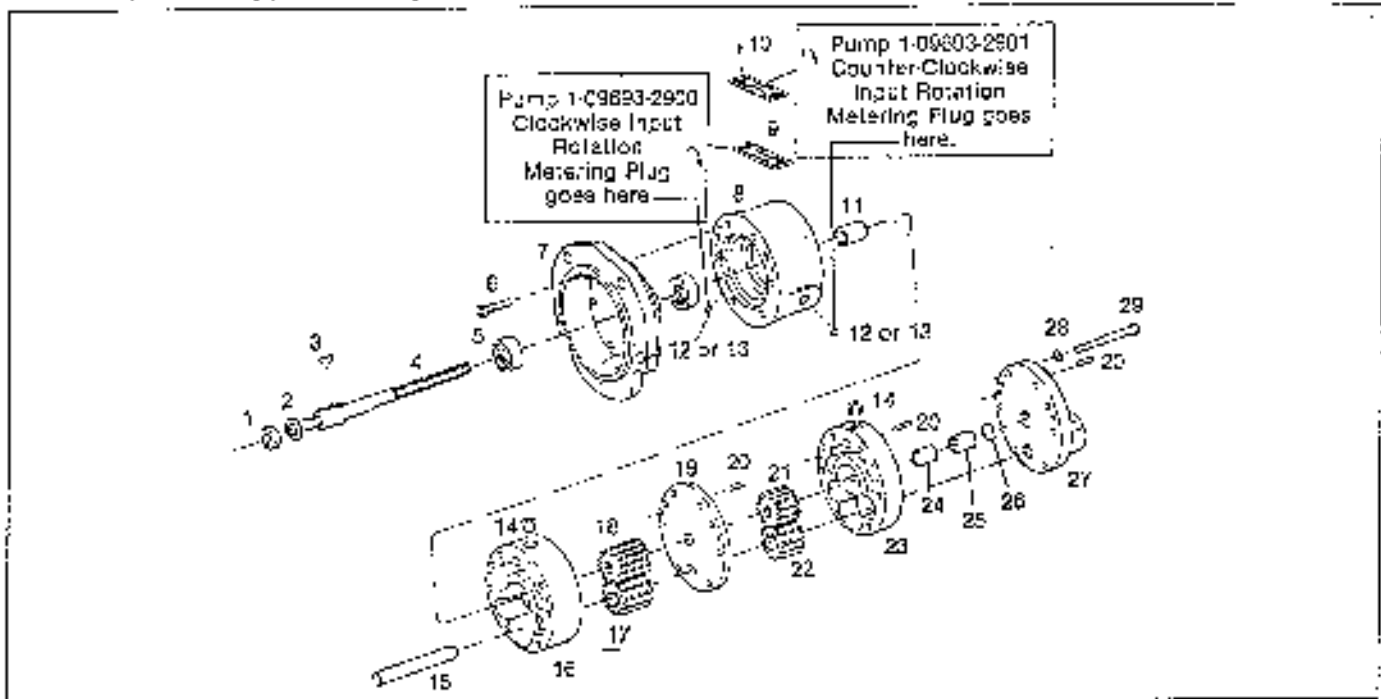


Fig. 41. Duplex Pump Assembly, Direct Engine Mounted

ITEM	DESCRIPTION	PART NUMBER	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"	1-11053-0000	1
3	KEY, WOODRUFF #5	1-09002-0800	1
4	SHAFT, DRIVE	1-09681-2700	1
5	OIL SEAL	1-12643-0000	2
6	CAPSCREW, SOCKET HD., 5/16 - 18 x 1" LG.	1-10246-0000	8
7	ADAPTER	1-09694-2900	1
8	BODY, ADAPTER	1-09680-0600	1
9	PLATE, ROTATION INDICATOR	1-11212-0000	1
10	DRIVE SCREW, ROUND, #2 x 3/16 LG.	1-13276-0000	2
11	BUSHING	1-09591-0800	1
12	PIPE PLUG, HEX SOCKET, 1/16-27 NPT	1-11279-0100	1
13	METERING PLUG, 1/8" dia. hole	1-12566-0000	1
14	PIPE PLUG, LEVL-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	1-07736-0600	1
25	BUSHING	1-00215-0700	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 - 18 x 4" LG.	1-12281-0000	8

8.7 SELECTOR VALVE

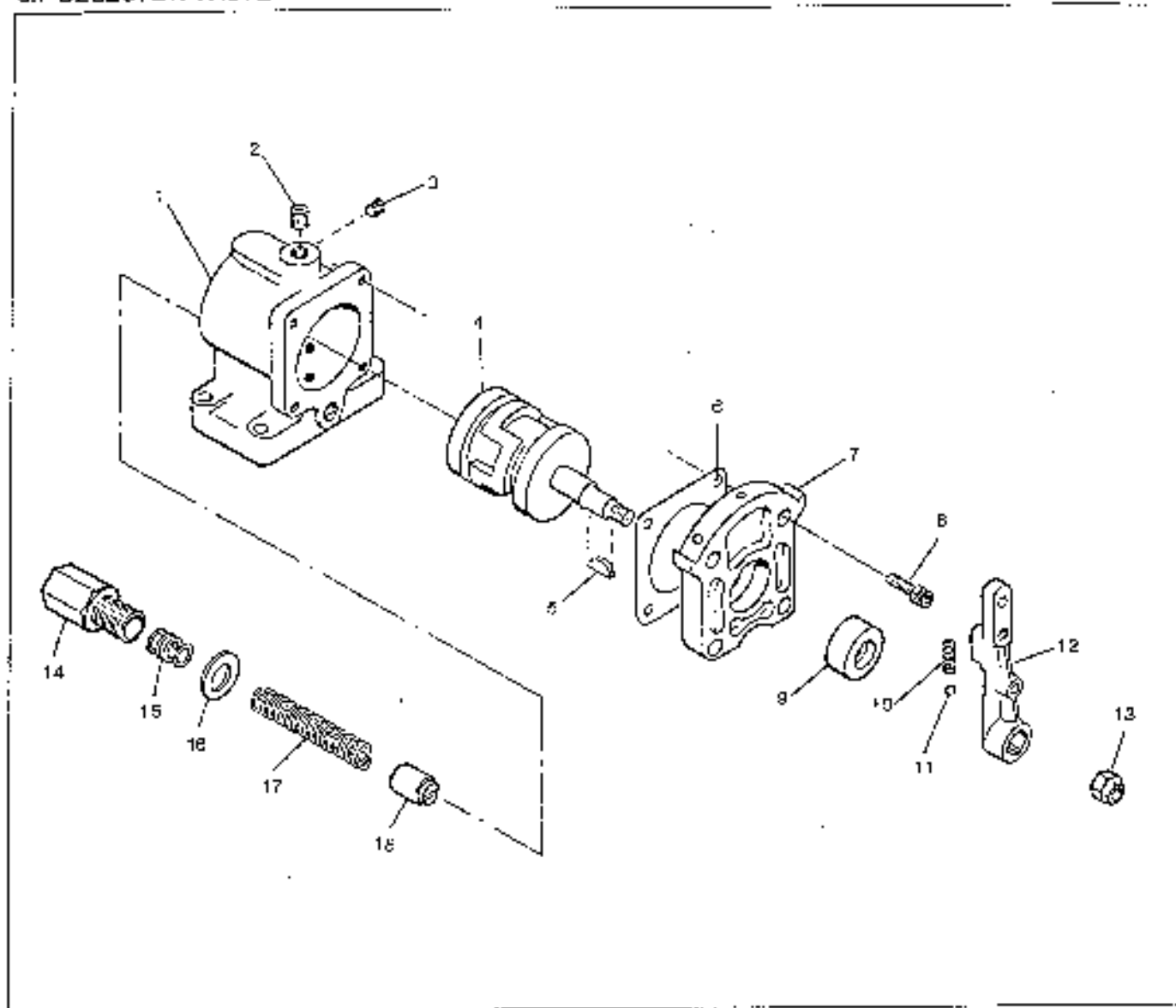


Fig. 42. Selector Valve Assembly

ITEM	DESCRIPTION	PART NUMBER	QTY.
Ref.	ASSEMBLY, SELECTOR VALVE.....	1-08427-0800	1
1	BODY	1-01141-9500	1
2	PIPE PLUG, HEX SOCKET	1-11279-0300	1
3	PIPE PLUG, HEX SOCKET	1-11279-0200	1
4	ROTARY VALVE	1-01144-3500	1
5	WOODRUFF KEY	1-01164-3200	1
6	GASKET, VALVE COVER	1-01156-3700	1
7	COVER	1-01142-3200	1
8	CAPSCREW, SOCKET HEAD	1-09432-0800	4
9	OIL SEAL	1-01152-3200	1
10	SPRING, INDEXING	1-01132-1700	1
11	BALL, INDEXING	1-01151-1600	1
12	LEVER	1-01143-3900	1
13	NUT, LEVER	1-08474-0800	1
14	ADJUSTMENT SCREW, RELIEF	1-12617-0000	1
15	WASHER	1-12619-0000	5
16	WASHER	1-10288-0700	1
17	SPRING RELIEF VALVE	1-12618-0000	1
18	PLUNGER, SAFETY RELIEF	1-12618-0000	1

8.8 CLUTCH
 A. Clutch No. 1-00100-6000

Note: This end toward engine

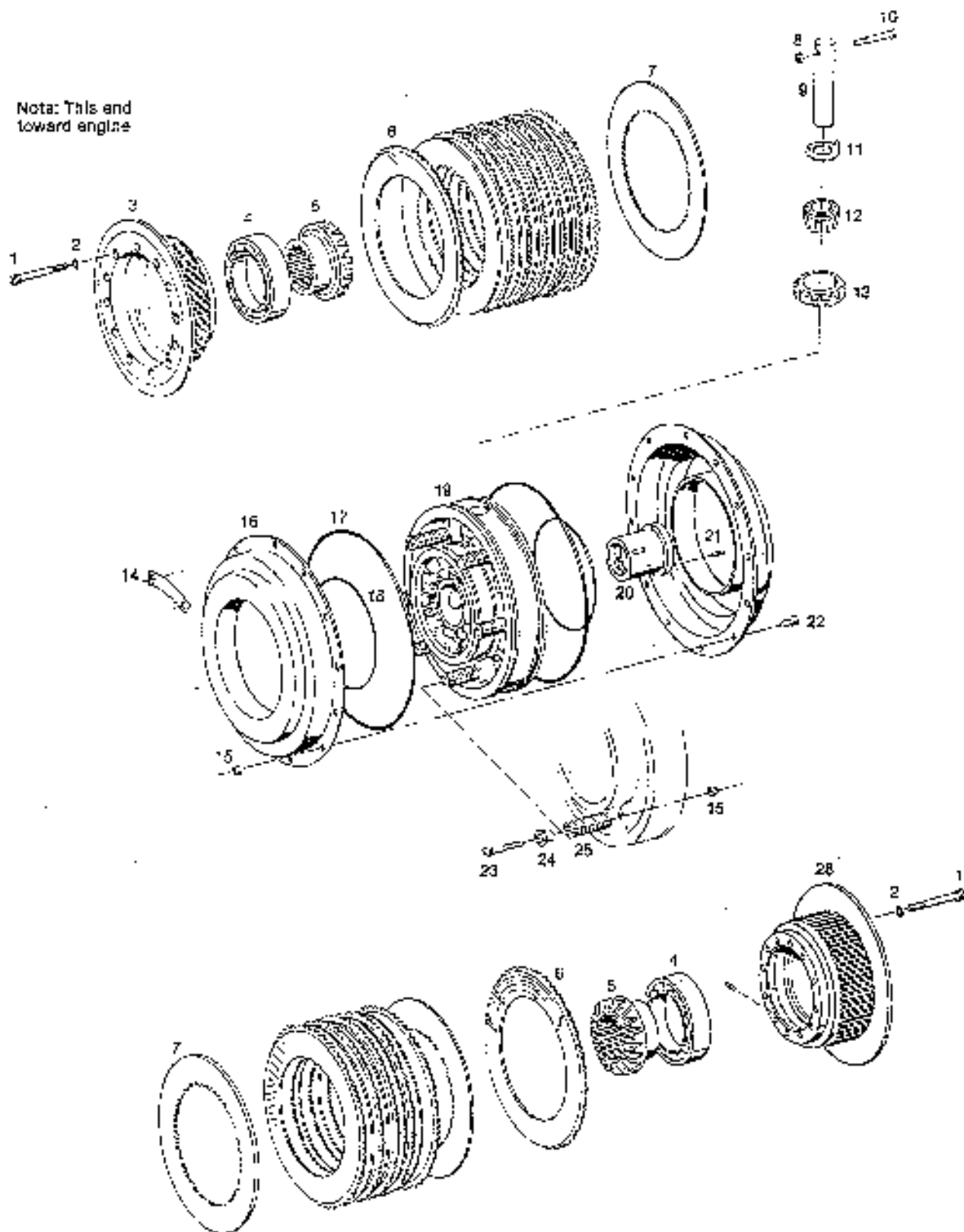


Fig. 43. HY-400 Clutch Assembly

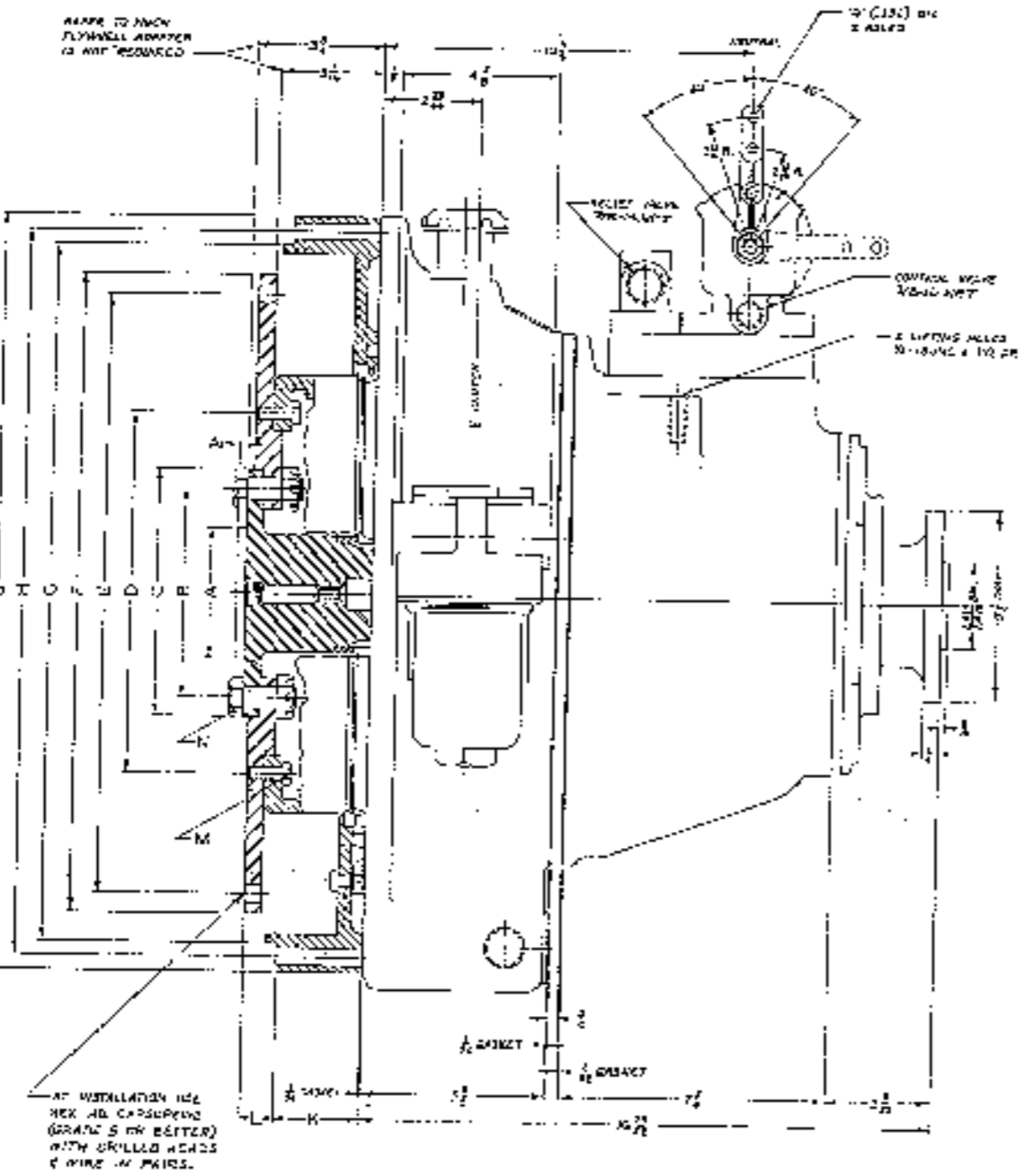
CLUTCH
PART NO. 1-00100-5000

ITEM	DESCRIPTION	PART NUMBER	QTY.
Ref.	CLUTCH ASSEMBLY	1-00100-5000	1
1	CAPSCREW, SOCKET HD, 3/8-16 x 3/4"	1-12247-0000	24
2	LOCKWASHER 5/8 STD.	1-06755-0500	24
3	FLANGE, CLUTCH (FORWARD)	1-00212-4100	1
4	BALL BEARING	1-00211-2600	2
5	GEAR BEVEL	1-00215-2600	2
6	CLUTCH DISC, DRIVING	1-00230-4400	13
7	CLUTCH DISC, DRIVEN	1-00233-1200	12
8	NUT, SELF-LOCKING 1/2-28NF	1-00225-3600	3
9	SHAFT, BEVEL PINION	1-00220-3600	3
10	CAPSCREW, SOCKET HD 1/2-28 x 2"	1-08433-0500	3
11	THRUST WASHER	1-00221-3600	3
12	BEARING, BEVEL PINION	1-00219-2500	3
13	PINION, BEVEL	1-00217-2500	5
14	NAMEPLATE	1-12390-1200	1
15	NUT, SELF-LOCKING, 5/16-18 NG	1-11399-0000	36
16	CYLINDER	1-00234-5500	2
17	QUAD RING	1-00237-2600	2
18	QUAD RING	1-00232-2600	2
19	CARRIER, BEVEL GEAR	1-00216-3700	1
20	BUSHING, FORWARD COMMUTATOR	1-00247-3600	1
21	SPRING PIN	1-12395-1000	3
22	CAPSCREW, SOCKET HD, 5/16-18 x 5/8"	1-05455-0500	24
23	CAPSCREW, SOCKET HD, 5/8-18 x 2"	1-05386-0500	12
24	RETAINER, RETURN SPRING	1-00243-3600	12
25	SPRING, RETURN	1-00239-3700	12
26	FLANGE, CLUTCH (REVERSE) - INCLUDES SPRING PINS	1-00210-5700	1

ADAPTIONS AND DIMENSIONS

ADAPTER NO.	ADAPTER TYPE	ADAPTER DIMENSIONS	ADAPTER WEIGHT	ADAPTER MATERIAL	ADAPTER COMMENTS
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NOTE: THE SUFFIXES "R" & "L" PERTAIN TO THE R.H. (RIGHT HAND) / L.H. (LEFT HAND) AS SHOWN IN THE OIL DAM ADAPTER COLUMN.

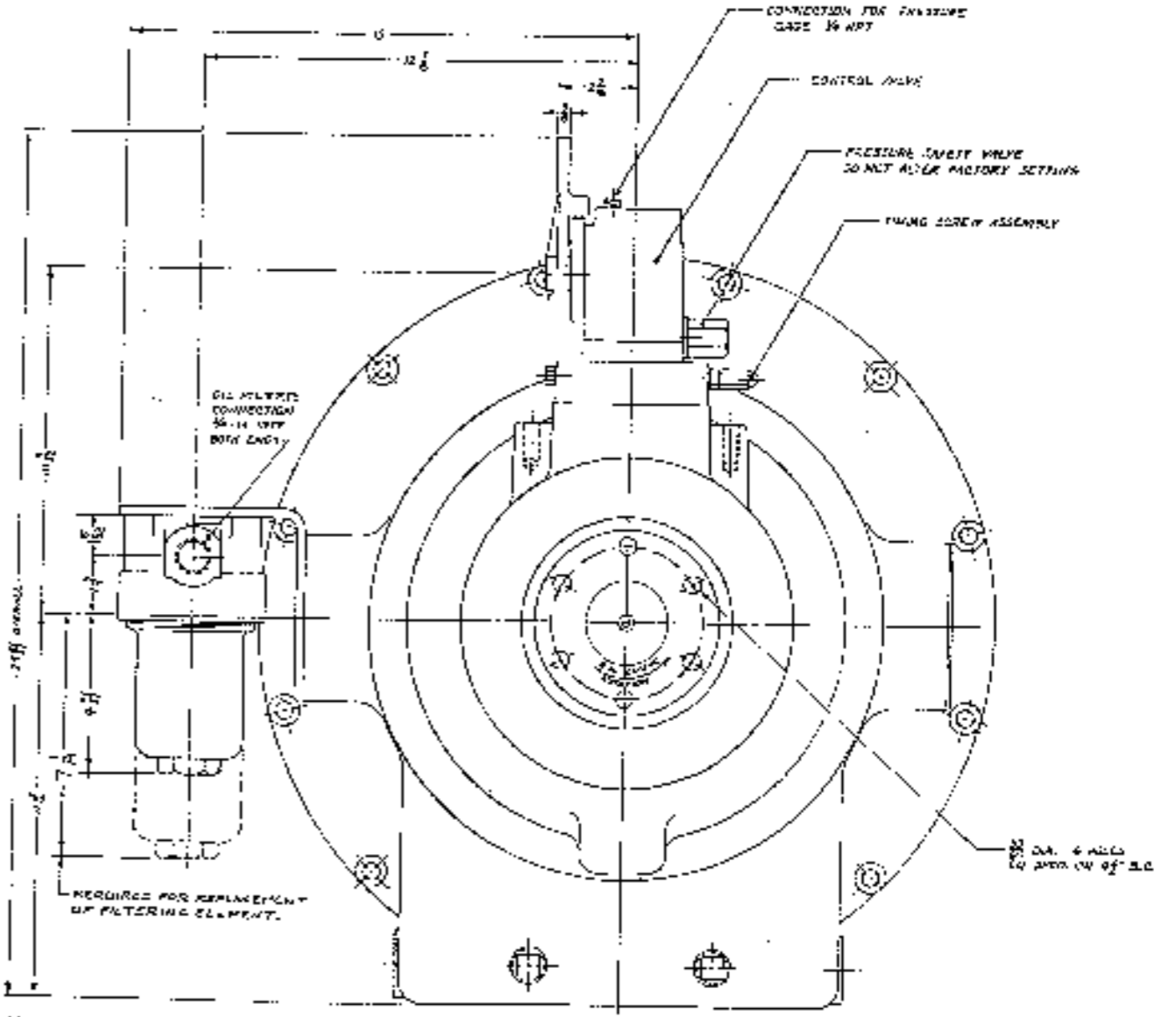


AT INSTALLATION USE HEX AD CAPSCREWS (GRADE 5 OR BETTER) WITH DRILLED HEADS & WIRE IN PAIRS.

NOTE: THIS UNIT IS INTENDED TO OPERATE AS A DRY SUMP. CUSTOMER TO FURNISH & INSTALL AN AUXILIARY SUMP PER HYDRAULIC SCHEMATIC, BK 52716 OR 5265421.

CHART - ENGINES FLYWHEELS

REF. UNIT IDENTIFICATION NO.	ENGINE & MODEL NO.	FLYWHEEL NO.	ENGINE & MODEL NO.	FLYWHEEL NO.
201-4	ALUIS GILLESPIE 16000/16000	175721	GENERAL MOTORS 17V-71	212763
	ALUIS GILLESPIE 25000	175721	GENERAL MOTORS 17V-71	212764
			CATERPILLAR D-324 (D-324)	212765
201-5	ROBEY-HOZE OILER COMPANY		DEITE F12L714	
	WOLFF-ROBEY OILER COMPANY		M. H. M. TULZE (V-12)	
201-6	MERCEDES BENZ 4000LA		SCANIA-MERD 0-11, 0-11 F 0-11H	
	MERCEDES BENZ 4000MB		MURPHY 120 ENGINE/TRANSM	
			HYSTON HOKINBY 4-250M	
201-7	MERCEDES BENZ OM403			
201-2	CATERPILLAR D-342T & D-342TA	17-2215		
	CATERPILLAR D-342	17-2215		
	WALKER 407700H			
	DEITE F12L714			
201-3	CUMMINS 4-200CET	10367		

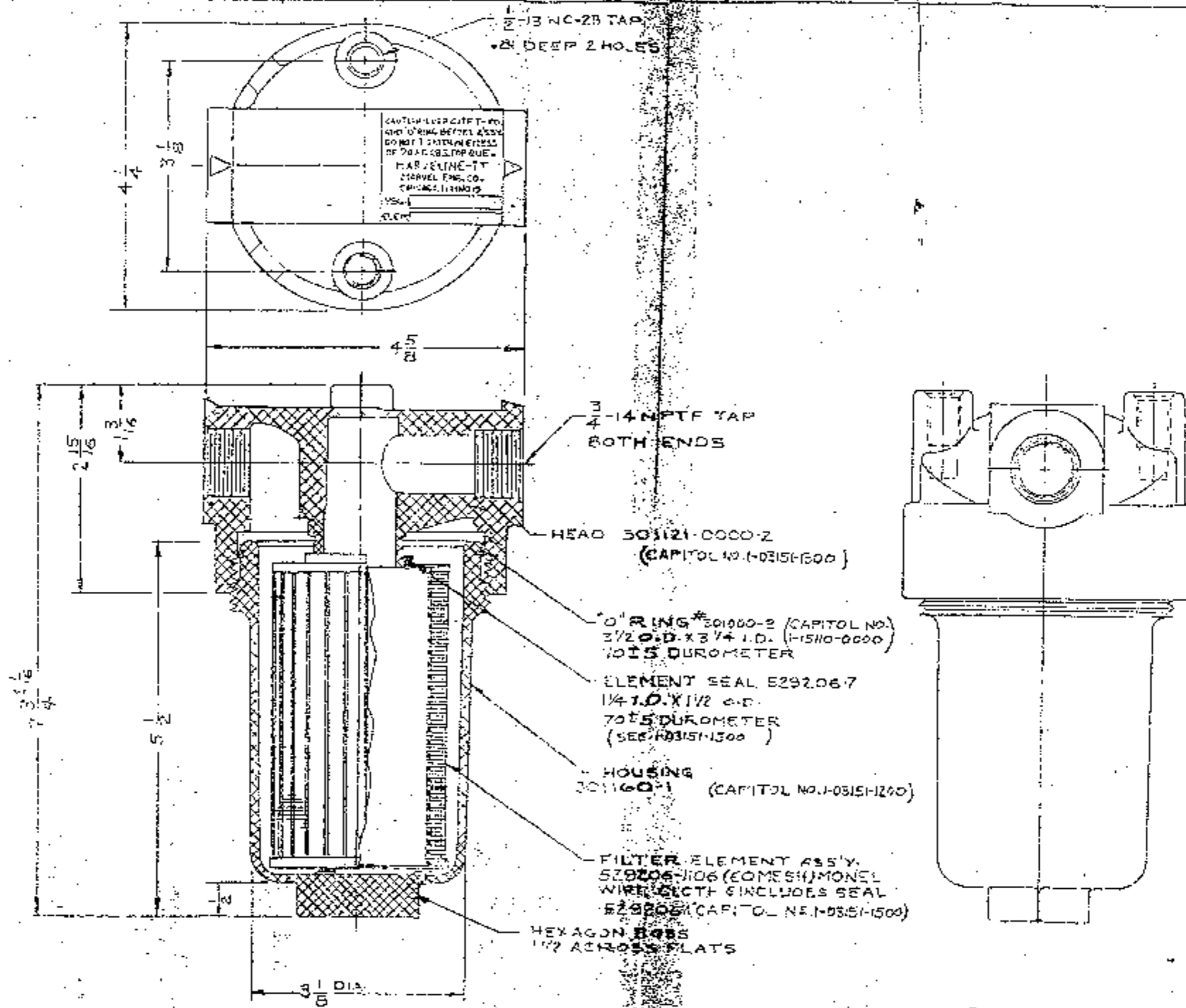


DRAWING NO. 2-20050-000 SHG. 2 OF 2

- Notes:
1. INSTALLATION WITH LEVER OF CONTROL VALVE ON RIGHT SIDE SHOWN. FOR INSTALLATION WITH LEVER ON LEFT SIDE, REVERSE VALVE ON CASE PLATE, REVERSE TIMING COVER ASSEMBLY & TRANSMISSION WITH CAMSHAFT ON OPPOSITE SIDE.
 2. FOR ALTERNATE POSITION OF CONTROL VALVE LEVER, SHOWN IN DOTTED OUTLINE, USE CAMSHAFT THAT MOUNTS UP ON RIGHT OF VALVE SHAFT REMAINING IN BOTTOM POSITION. ONLY COVER & LEVER TO BE REVERSED.
 3. FOR EASIER STARTING ACTION TURN TIMING COVER ASSEMBLY CLOCKWISE OR 180° IF FOR RELATED STARTING ACTION TURN CLOCKWISE 180°.

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INSTALLATION PLAN
HY-200
DIRECT DRIVE REVERSE GEAR
SCALE: HALF SIZE
OWN'DR. DATE: 1-12-76
CAP-TEC GEAR, INC. ST. PAUL, MINN.
PATENTED U.S. PAT'S. 2895309 & 271974



OIL FILTER ASSY.
PART NO I-03151-1100

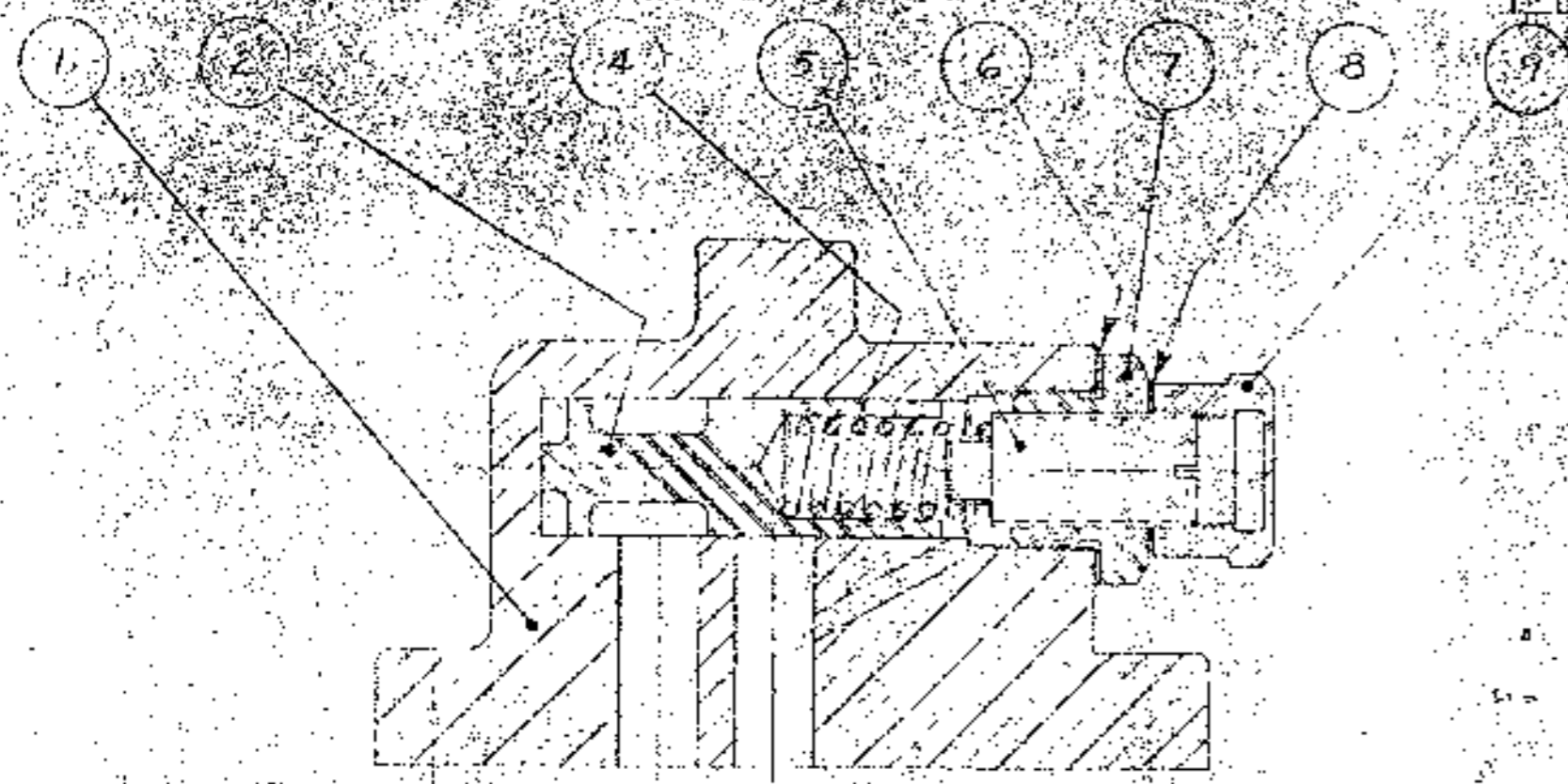
3-76

1-09640-1000

PARTS LIST

1-09640-1000

DET. NO.	S.	CAPITOL NO.	PART NAME	MAT'L	REMARKS	NO. REQ.
1	B	1-09641-1500	BODY	CAST IRON		1
2	A	1-07725-0800	PLUNGER	STEEL		1
3						
4	A	1-07743-0800	SPRING, PRESSURE REGULATOR	SPRING WIRE		1
5	A	1-06660-0800	SCREW, PRESSURE REGULATOR	STEEL		1
6	A	1-12901-0000	WASHER	COPPER		1
7	A	1-07724-0800	INSERT	STEEL		1
8	A	1-12902-0000	WASHER	COPPER		1
9	A	1-06661-0800	NUT	STEEL		1



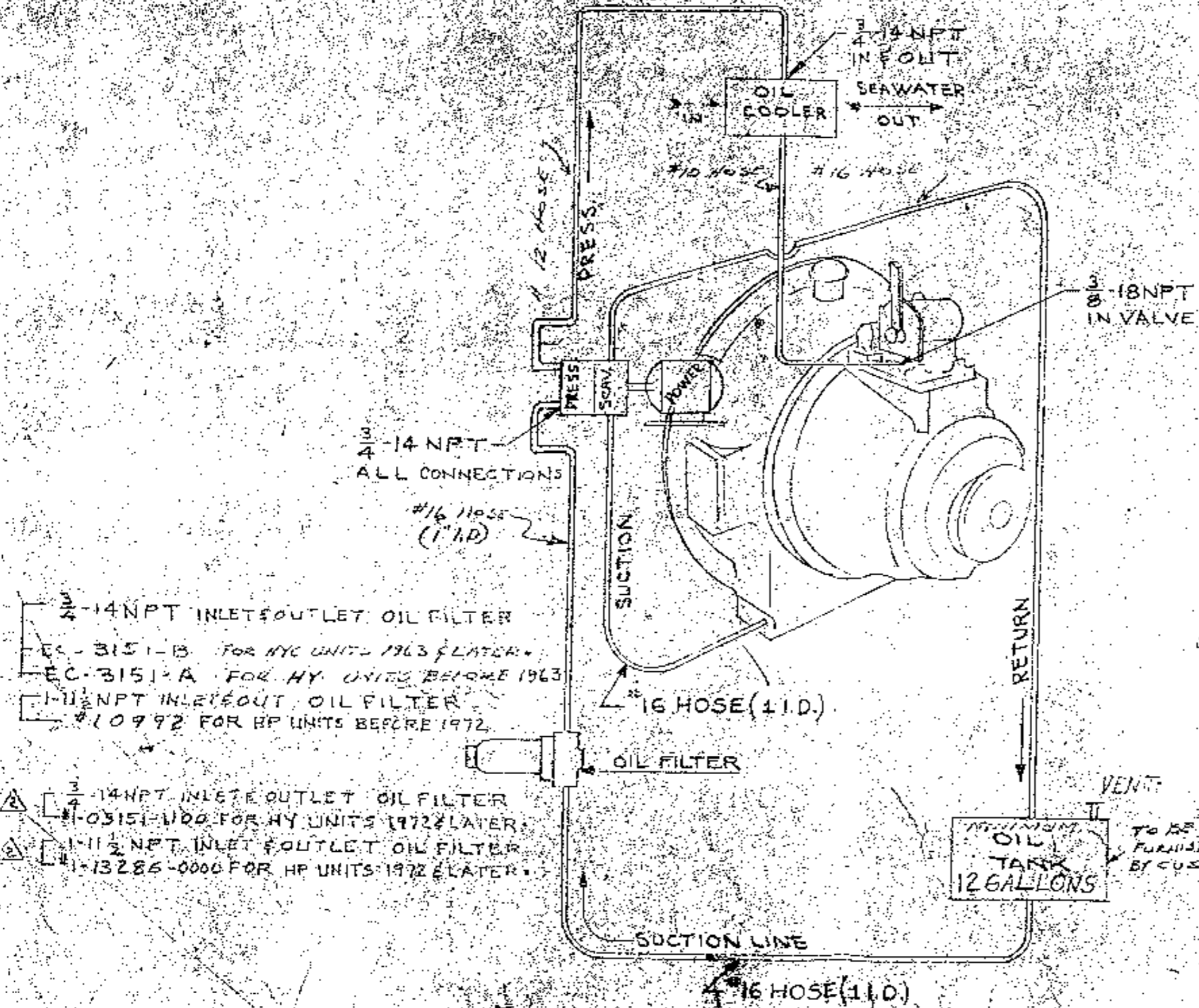
REF: 1-09640-0800

DATE	AUTH.	REVISION	NO.	REQ.	MOD.

CAPITOL GEARS, INC.
ST. PAUL, MINN.

TOLERANCES UNLESS OTHERWISE NOTED
FRACTIONAL DECIMALS DIM. \pm .010
ANGULAR \pm 1/2°
REMOVE BORRS AND SHARP CORNERS

PART NAME		RELIEF VALVE ASSY.
MAT'L		
SCALE	FULL	APP. <i>[Signature]</i>
DR. BY	D&R	DATE 8-11-75
		1-09640-1000



3/4-14 NPT
ALL CONNECTIONS

#16 HOSE
(1" I.D.)

3/4-14 NPT INLET & OUTLET OIL FILTER
EC-3151-B FOR HY UNITS 1963 & LATER
EC-3151-A FOR HY UNITS BEFORE 1963
1-11 1/2 NPT INLET & OUT OIL FILTER
#10992 FOR HP UNITS BEFORE 1972

3/4-14 NPT INLET & OUTLET OIL FILTER
#1-03151-100 FOR HY UNITS 1972 & LATER
1-11 1/2 NPT INLET & OUTLET OIL FILTER
#1-13285-0000 FOR HP UNITS 1972 & LATER

(2) ALL HOSES TO BE SAE-100-R-1
FOR BELT DRIVEN PUMPS
FOR DIRECT DRIVE ON GM

REF: SK-15426
REF: SK-631713 ISSUED

OIL FLOW CONNECTION				
REQ	MOD	CHANGE	DATE	BY
			1-2-71	
			2-8-73	DR
				CHK
				APP

AUTO ENGINE WORKS
ST. PAUL, MINN.
SK-56718

FILE