


W. T. Barnes

"Catal 32" 

Menemsha Mass

17-645-9021



203-583-7070

Wally Barnes

**DIESEL MARINE ENGINES**

# PARTS CATALOG

Fiskar Inc. / 759 West 16th Street / Costa Mesa, California 92627 / (714) 642-7649

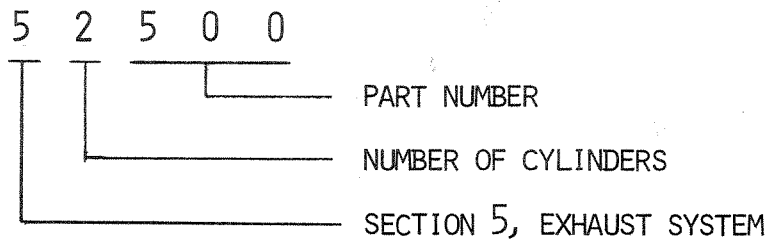
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Note : Many Pisces engines were based on Isuzu Diesel engines. All part numbers and references in this document refer specifically to a Pisces assigned numbers and may not be valid or correspond with any specific Isuzu , ZF Transmissions, Borg-Warner Transmissions or other manufacturer's item.

#### PARTS IDENTIFICATION CODE

ILLUSTRATED BELOW IS THE IDENTIFICATION CODE FOR PARTS ON ALL PISCES DIESEL ENGINES. PART NUMBERS HAVE FIVE DIGITS, THE FIRST IS SECTION NUMBER IN THE PARTS BOOK, AND THE SECOND DIGIT REFERS TO THE NUMBER OF CYLINDERS, THE LAST THREE DIGITS ARE THE PART NUMBER.

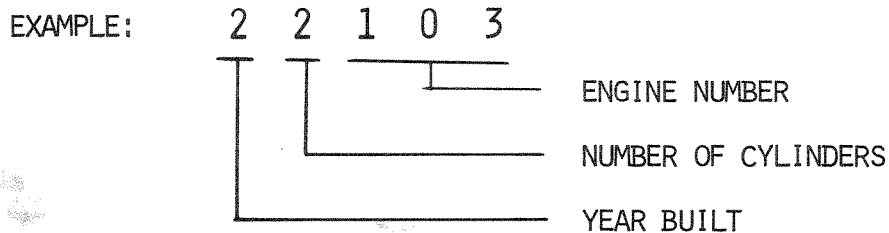
EXAMPLE: EXHAUST MANIFOLD, PART NUMBER 52500



#### ENGINE SERIAL NUMBER

ENGINE SERIAL NUMBERS ARE LOCATED ON THE BOLT BOSS, LEFT SIDE OF BELL HOUSING, AFT OF THE STARTER MOTOR.

THE NUMBER HAS FIVE (OR SIX) DIGITS; THE FIRST DESIGNATING THE YEAR, (I.E.; 2 IS FOR 1972), WHILE THE SECOND DIGIT DETERMINES THE NUMBER OF CYLINDERS; 2, 3 OR 4. THE LAST THREE (OR FOUR) DIGITS ARE THE ENGINE NUMBER.



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GROUP INDEX

<u>SECTION</u>	<u>NUMBER SERIES</u>	<u>DESCRIPTION</u>
0	00000	BOLTS - NUTS - WASHERS
1	10000	BELLHOUSING COMPONENTS
2	20000	LUBRICATION SYSTEM
3	30000	COOLING SYSTEM
4	40000	FUEL SYSTEM
5	50000	EXHAUST SYSTEM
6	60000	ELECTRICAL SYSTEM
7	70000	MOUNTING SYSTEM
8	80000	BASIC ENGINE PARTS
9	90000	ACCESSORIES

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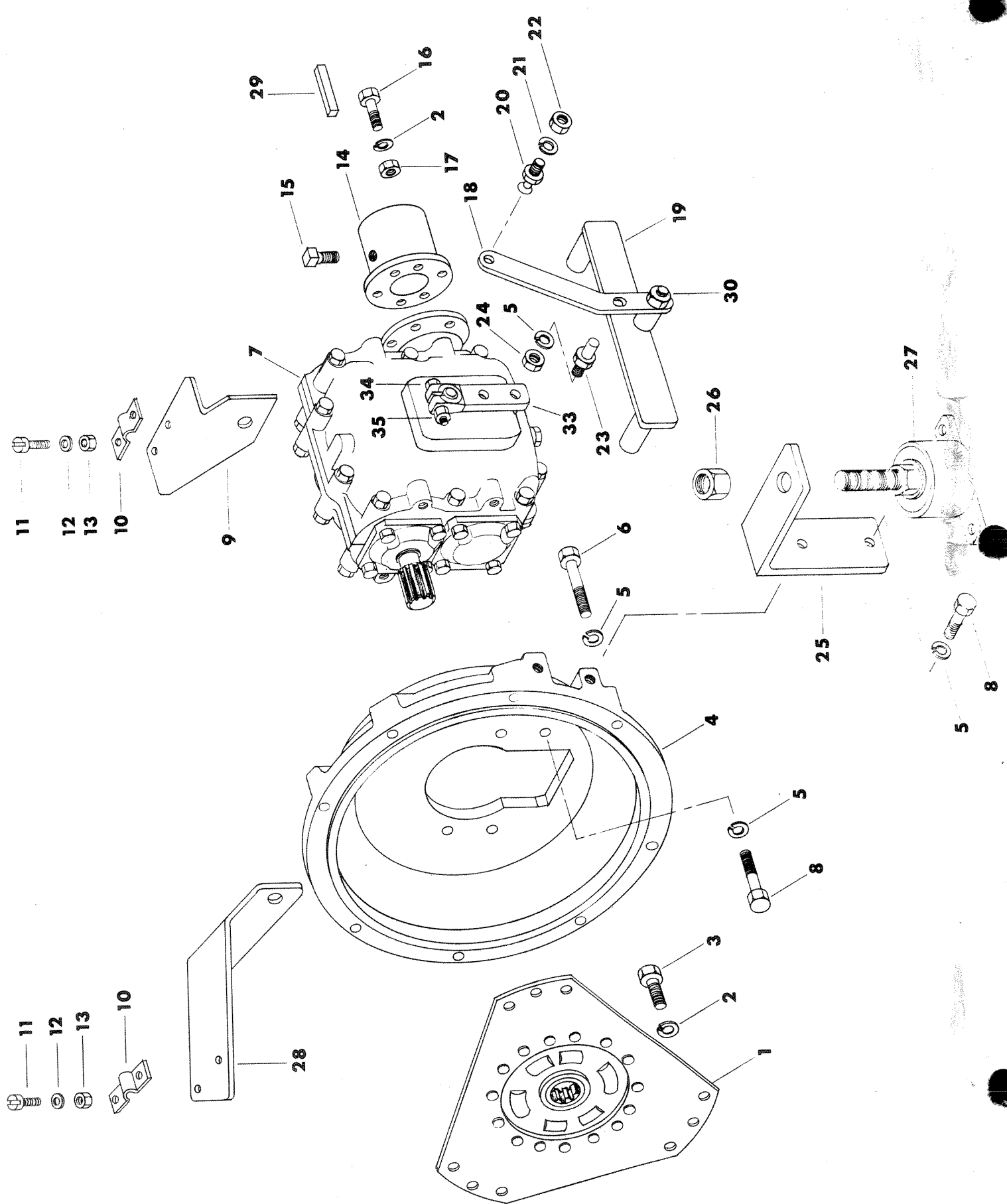
## Section 0

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# SECTION 1



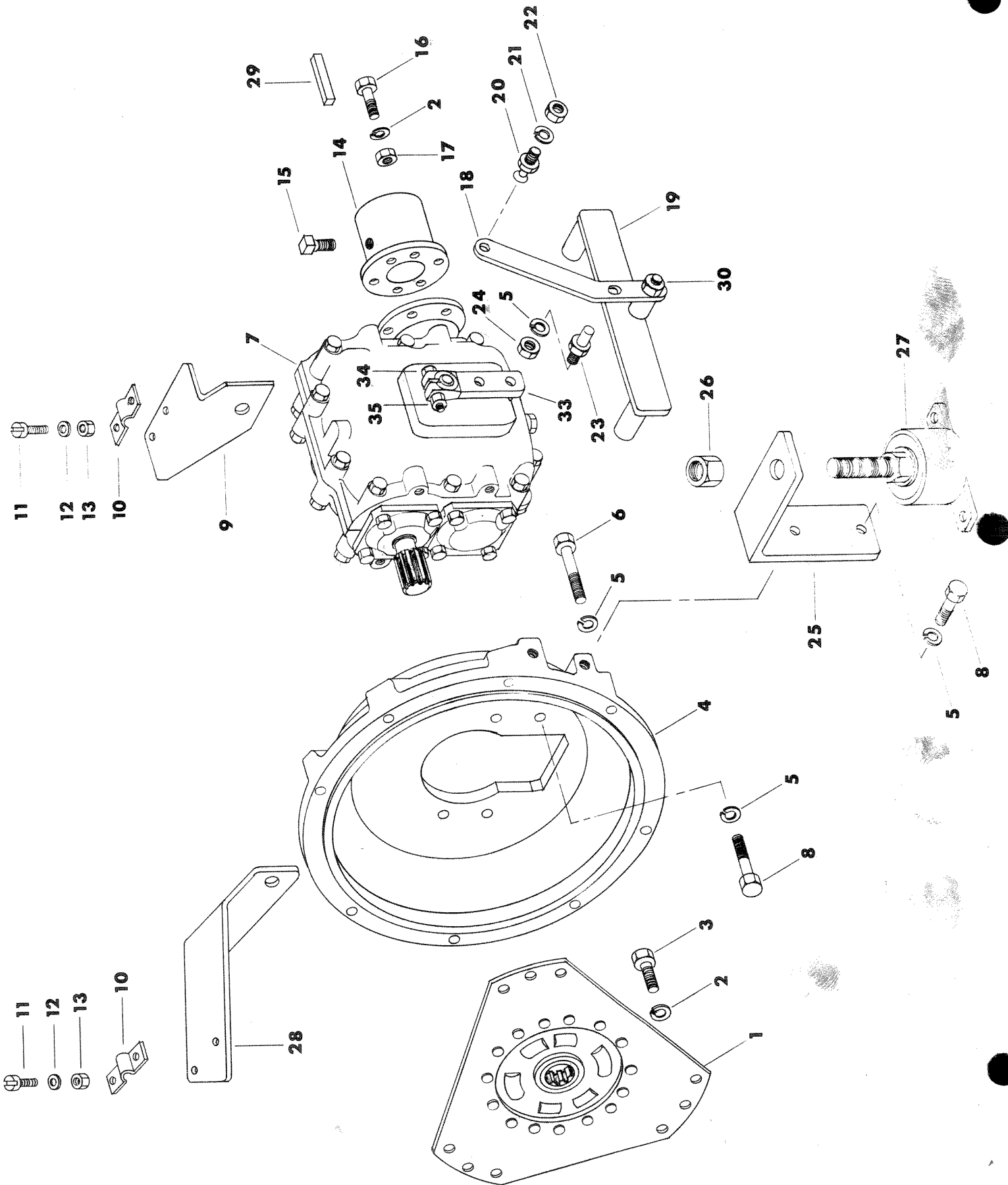


- 11 — Bolt
- 12 — Washer
- 13 — Nut
- 10 — Bracket

- 11 — Bolt
- 12 — Washer
- 13 — Nut
- 10 — Bracket



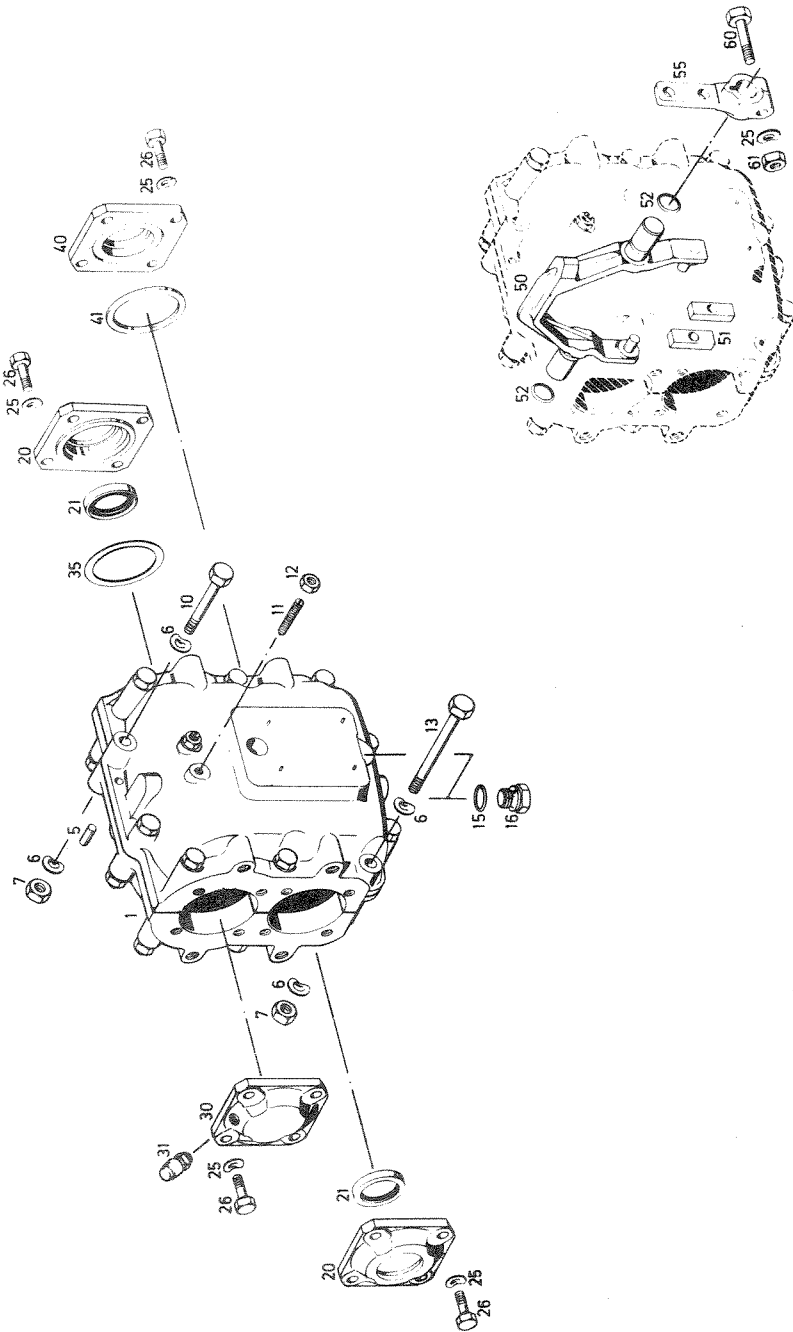
MODEL 27-40				Z F REVERSE GEAR				GROUP 1	PAGE 2
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES		
	27	40	60						
1	1	1		12405		DRIVE PLATE -10 TOOTH	CLASS 8		
2	9	9		02242		LOCK WASHER 8MM			
3	3	3		02252		BOLT M8-1.25X20			
4	1	1		12404		BELLHOUSING ZF			
5	17	17		02342		LOCK WASHER M 10			
6	8	8		02357		BOLT M10-1.5X45			
7	1	1		12401		REVERSE GEAR 2:1 REDUCTION			
8	8	8		02354		BOLT M10-1.5X30			
9	1	1		12406		BRACKET, SHIFT CABLE			
10	2	2		12151		CABLE CLAMP			
11	4	4		02661		SCREW, FILLISTER HEAD 10-32X5/8			
12	4	4		02662		LOCKWASHER #10			
13	4	4		02663		NUT 10-32			
14	1	1		12407		COMPANION FLANGE PILOT BORE			
14	1	1		12408		COMPANION FLANGE BORE 7/8"			
14	1	1		12409		COMPANION FLANGE BORE 1"			
14	1	1		12410		COMPANION FLANGE BORE 1 1/8"			
14	1	1		12411		COMPANION FLANGE BORE 1 1/4"			
14	1	1		12412		COMPANION FLANGE BORE 1 3/8"			
15	1	1		02628		SET SCREW M10-1.5X25			
16	6	6		02254		BOLT M8-1.25X30			
17	6	6		02240		NUT M8-1.25			
18	1	1		12414		SHIFT LEVER			
19	1	1		12415		BRACKET, SHIFT LEVER			
20	1	1		12416		BALL JOINT 1/4"			
21	1	1		12417		LOCK WASHER 1/4"			
22	1	1		12418		NUT 1/4"			
23	1	1		12419		SHIFT STUD			
24	1	1		02340		NUT M10-1.5			
25	1	1		12420		FOOT, ENGINE REAR			
26	2	2		02752		NUT, 5/8-18 MARSDEN			
27	2	2		72782		MOUNT, FLEX			
28	1			12421		BRACKET, THROTTLE			



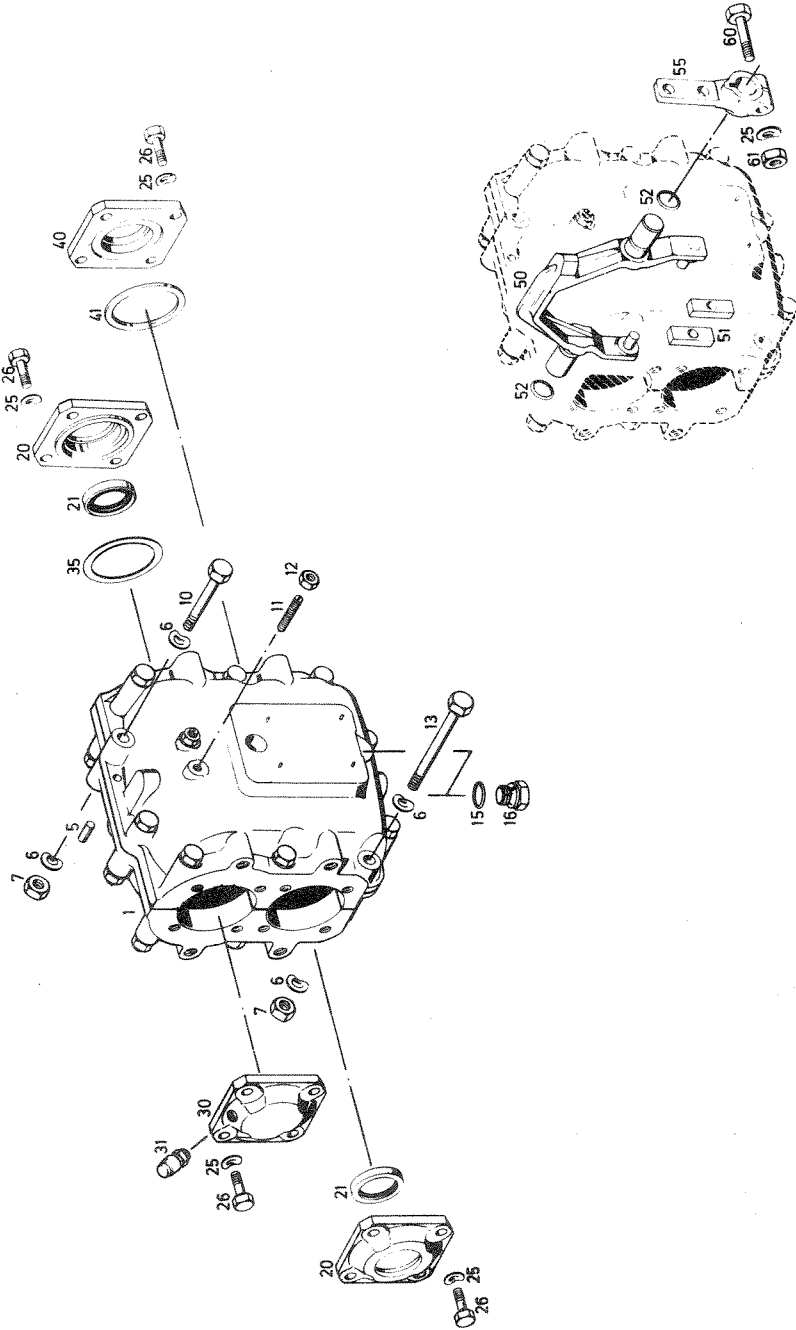


		Z F TRANS			GROUP	PAGE	
					1	4	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
28		1		13421		BRACKET, THROTTLE	
29	1	1		12135		KEY 3/16" - 3/4" SHAFT	
29	1	1		12136		KEY 1/4" - 7/8" - 1" - 1 1/8" SHAFT	
29	1	1		12137		KEY 5/16" - 1 1/4" - 1 3/8" SHAFT	
30	1	1		12422		NUT, NYLOC M 10 - 1.5	
31							
32							
33	1	1		12423		SELECTOR LINK	
24	1	1		02255		BOLT M 8 - 1.25 X 35	
35	1	1		02240		NUT M 8 - 1.25	

**PISCES**



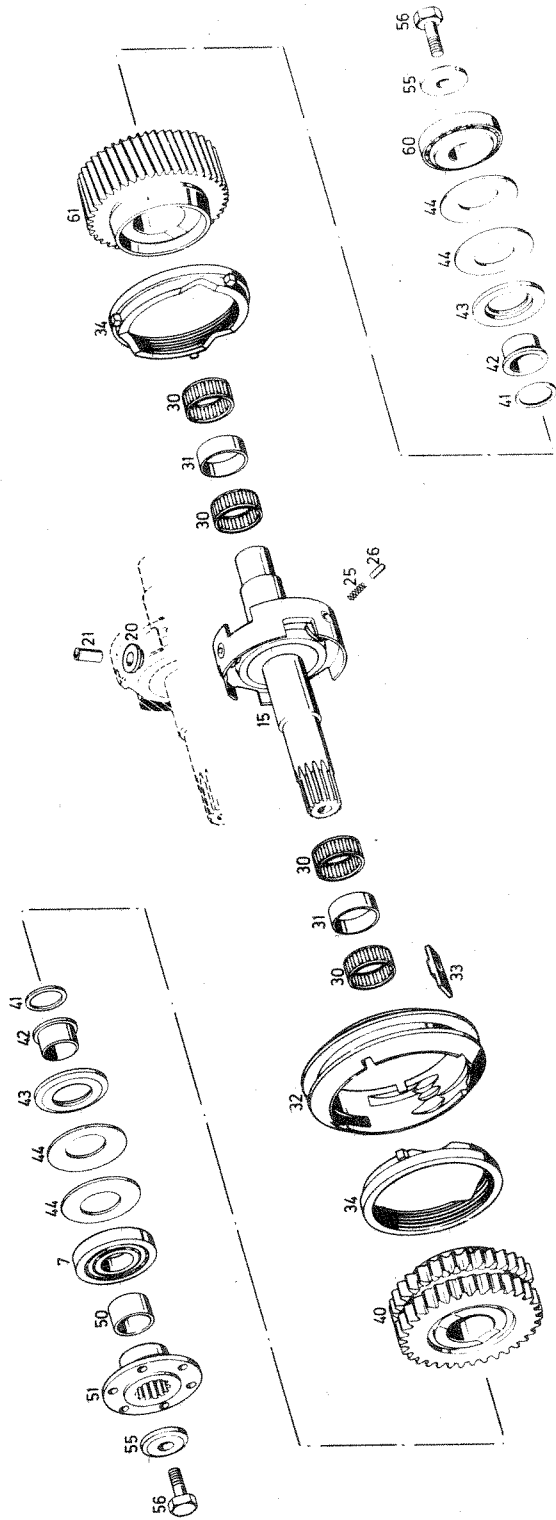
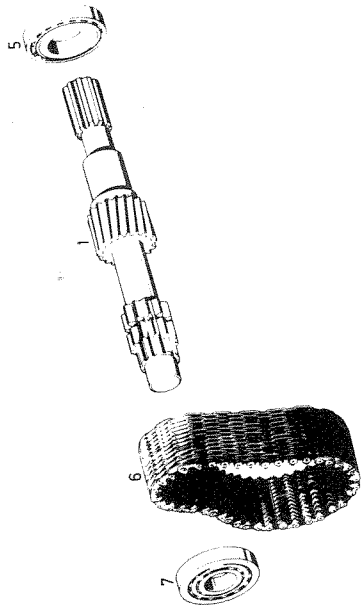
MODEL ALL				ZF- REVERSE — REDUCTION GEAR.		GROUP 1	PAGE 6
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
				12401		ZF-REVERSE REDUCTION GEAR COMPLETE	2:1
1	1	1		12450		GEAR HOUSING COMP.	
5	2	2		12451		DOWEL PIN	
6	20	20		02242		LOCK WASHER M 8	
7	10	10		02240		NUT M8-1.25	
10	4	4		02262		BOLT U8-1.25X70	
11	2	2		12455		SET SCREW M 6 X 35	
12	2	2		12456		NUT M 6	
13	6	6		02270		BOLT M8-1.25X110	
15	4	4		12457		CRUSH WASHER	
16	4	4		12458		PLUG, DRAIN M-14X1	
20	2	2		12459		COVER	
21	2	2		12460		SEAL	
25	17	17		02242		LOCK WASHER M 8	
26	16	16		02252		BOLT M-8-1.25X20	
30	1	1		12461		COVER, PLATE	
31	1	1		12462		VENT (BREATHER)	
35	AR	AR		12463		SHIM 9MM	
"	AR	AR		12464		SHIM 8MM	
"	AR	AR		12465		SHIM 7MM	
"	AR	AR		12466		SHIM 6MM	
"	AR	AR		12467		SHIM 5MM	
"	AR	AR		12468		SHIM 4MM	
"	AR	AR		12469		SHIM 3 MM	
"	AR	AR		12470		SHIM 2MM	
"	AR	AR		12471		SHIM 1MM	
0	1	1		12472		COVER PLATE	
41	AR	AR		12476		SHIM 1.0 MM	
	AR	AR		12474		SHIM 1.1 MM	
	AR	AR		12475		SHIM 1.2 MM	
	AR	Z'R		12 76		SHIM 1.3 MM	
	AR	AR		12477		SHIM 1.4 MM	
	AR	AR		12478		SHIM 1.5 MM	





MODEL		Z F REVERSE REDUCTION GEAR				GROUP	PAGE
27-60						1	8
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	AR	AR		12479		SHIM 1.6 MM	
	AR	AR		12480		SHIM 1.7 MM	
	AR	AR		12481		SHIM 1.8 MM	
	AR	AR		12482		SHIM 1.9 MM	
50	1	1		12483		SELECTOR FORK	
51	2	2		12484		FULCRUM PAD	
52	2	2		12485		RING	
55	1	1		12423		SELECTOR LINK	
60	1	1		02255		BOLT M8-1.25X35	
61	1	1		02240		NUT M8-1.25	

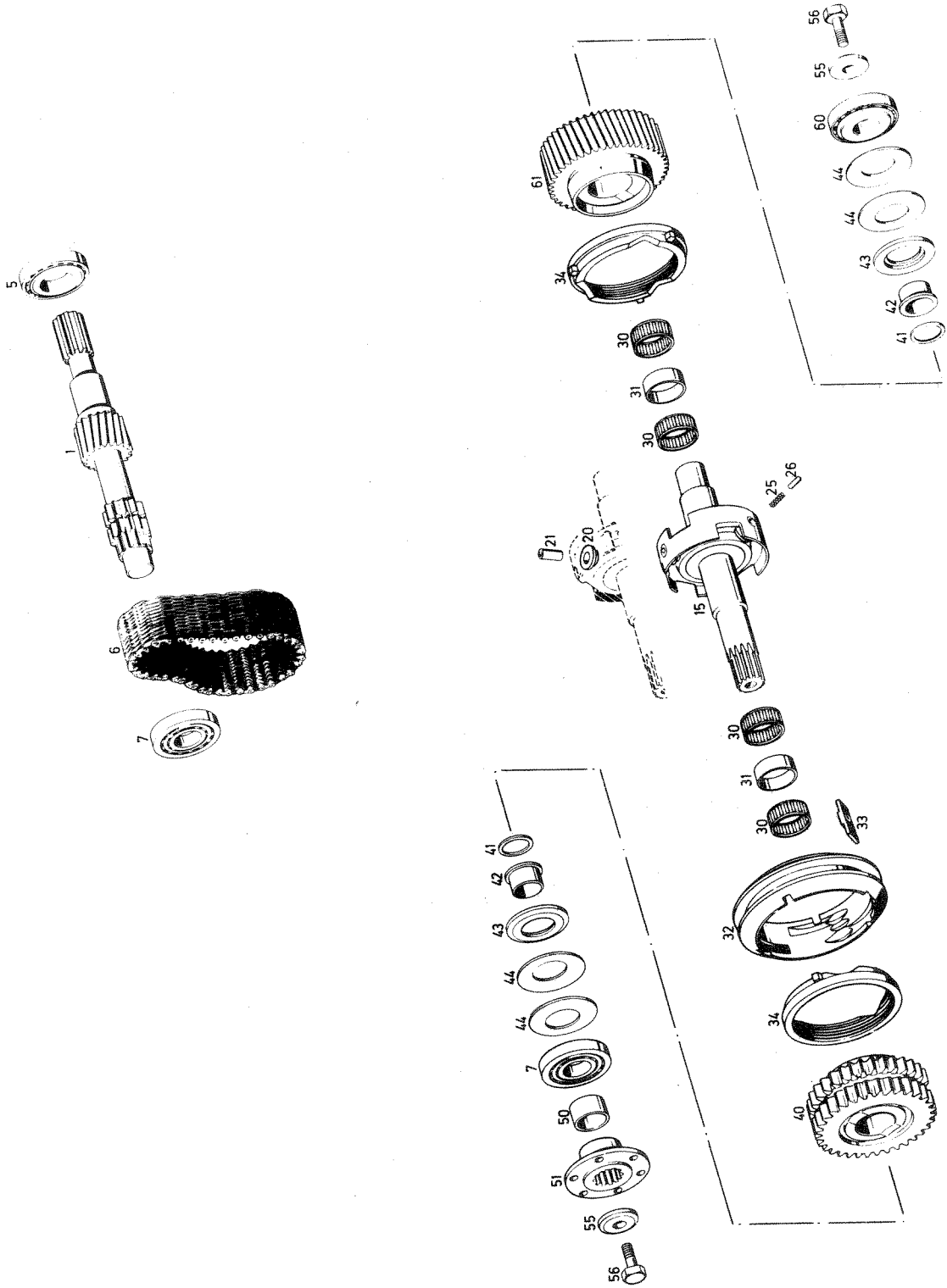
**PISCES**





MODEL		Z F REVERSE REDUCTION GEAR				GROUP	PAGE
27-40						1	10
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		12486		INPUT SHAFT RATIO 2:1	
5	1	1		12487		BEARING	
6	1	1		12488		DRIVE CHAIN 2:1	
7	2	2		12489		BEARING	
15	1	1		12490		OUTPUT SHAFT	
20	3	3		12491		TENSION ROLLER	
21	3	3		12492		ROLLER PIN	
25	3	3		12493		SPRING	
26	3	3		12494		PIN	
30	4	4		12495		NEEDLE BEARING	
31	2	2		12496		SLEEVE	
32	1	1		12497		SLIDING SLEEVE	
33	1	1		12498		PAWL	
34	2	2		12499		SYNCHRO. RING	
40	1	1		12500		SPROCKET 2:1	
41	AR	AR		12501		SHIM 1.8 MM	
	AR	AR		12502		SHIM 1.7 MM	
	AR	AR		12503		SHIM 1.6 MM	
	AR	AR		12504		SHIM 1.5 MM	
	AR	AR		12506		SHIM 1.4 MM	
	AR	AR		12507		SHIM 1.3 MM	
	AR	AR		12508		SHIM 1.2 MM	
42	2	2		12509		BUSHING	
43	2	2		12510		THRUST WASHER	
44	4	4		12511		PLATE SPRING	
50	1	1		12512		BUSHING	
51	1	1		12513		FLANGE 100 MM	
55	2	2		12514		PLATE WASHER	

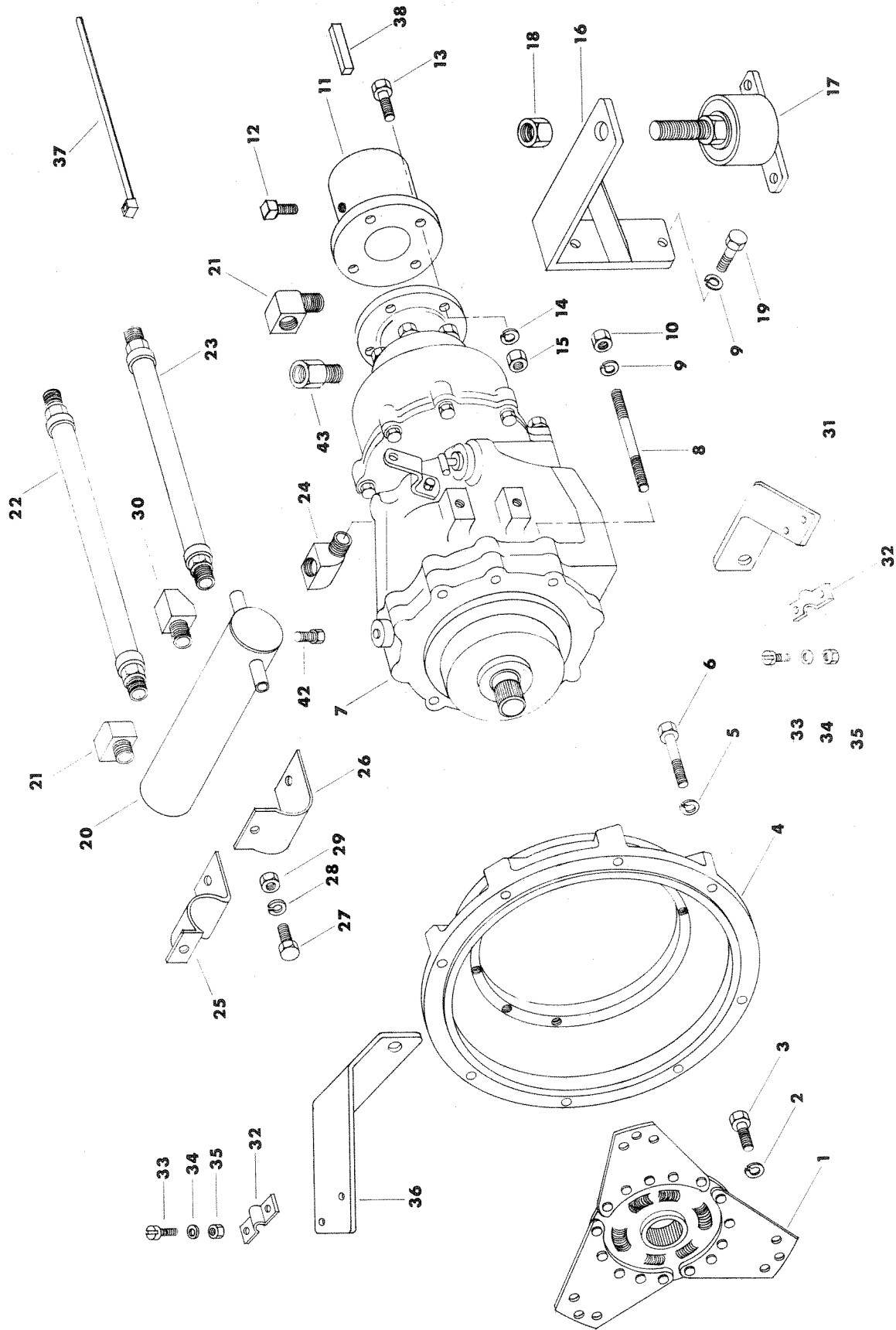
**PISCES**





					Z F TRANS		GROUP 1	PAGE 12
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES	
	27	40	60					
56	2	2		12515		BOLT M10X1.25X25		
60	1	1		12516		BEARING		
61	1	1		12517		GEAR 2:1		

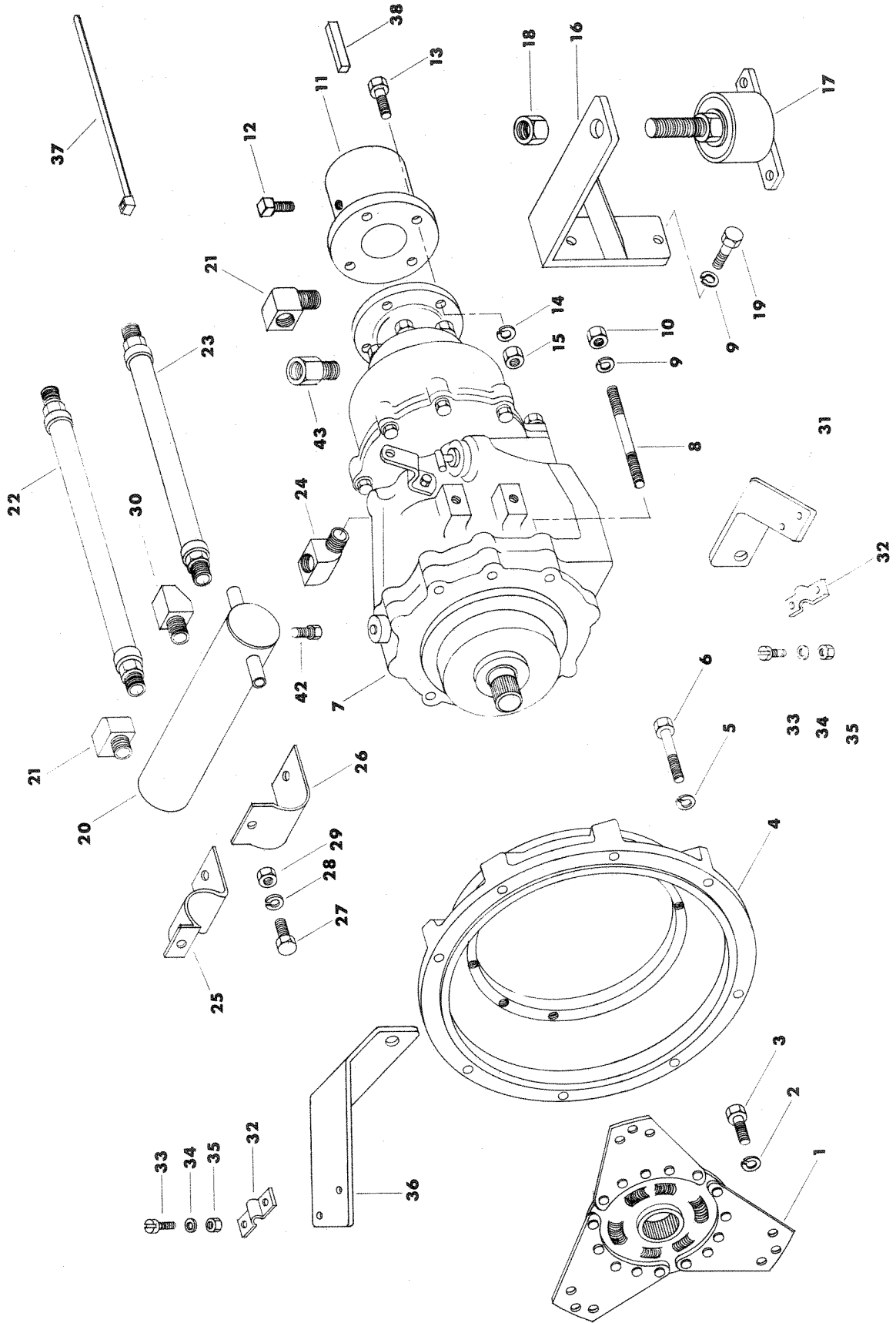
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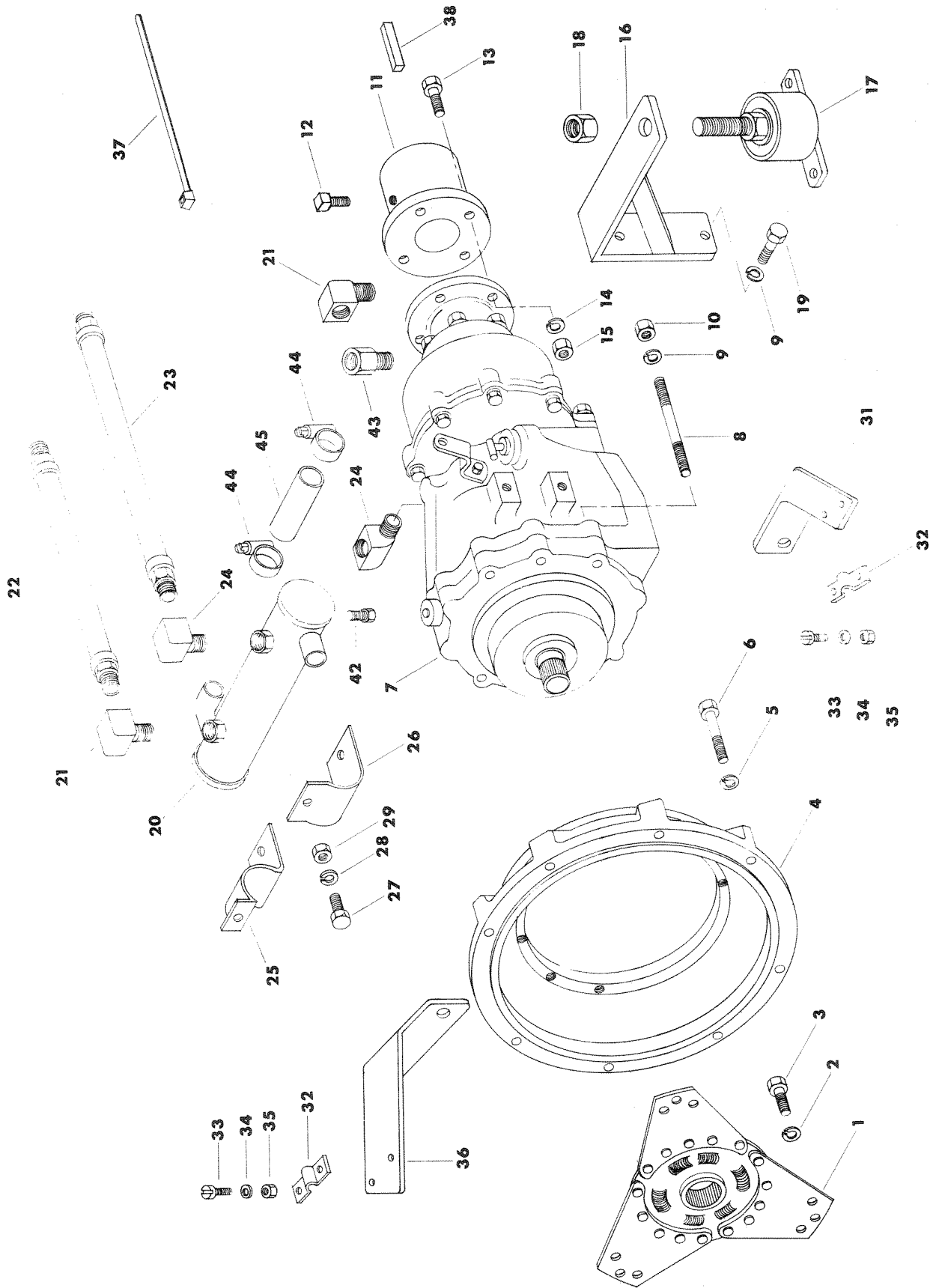
MODEL 27-40		BORG WARNER VELVET DRIVE MODEL 71 REVERSE GEAR			GROUP 1	PAGE 14	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		12120		26 TOOTH DRIVE PLATE	B-W
2	3	3		02242		LOCK WASHER M8	
3	3	3		02252		BOLT M8-1.25X20	CLASS 8
4	1	1		12125		BELLHOUSING	B-W
5	8	8		02342		LOCK WASHER M 10	
6	8	8		02357		BOLT M 10-1.5X45	
7	1	1		12100		1:1 REVERSE GEAR ASSY.	
7	1	1		12101		1.52:1 REVERSE GEAR ASSY.	
7	1	1		12102		1.91:1 REVERSE GEAR ASSY.	
7	1	1		12103		2.10:1 REVERSE GEAR ASSY.	
7	1	1		12104		2.57:1 REVERSE GEAR ASSY.	
7	1	1		12105		2.91:1 REVERSE GEAR ASSY.	
8	6	6		02664		STUD 7/16X3 1/2	
9	10	10		02668		LOCK WASHER 7/16	
10	6	6		02669		NUT 7/16 X 20	
11	1	1		12128		FLANGE, COMPANION 1" BORE	4" DIA.
11	1	1		12129		FLANGE, COMPANION 1 1/8" BORE	4" DIA.
11	1	1		12130		FLANGE, COMPANION 1 1/4" BORE	4" DIA.
11	1	1		12131		FLANGE, COMPANION 1 3/8" BORE	4" DIA.
11	1	1		12132		FLANGE, COMPANION 1 1/2" BORE	4" DIA.
11	1	1		13128		FLANGE, COMPANION 1" BORE	5" DIA.
11	1	1		13129		FLANGE, COMPANION 1 1/8" BORE	5" DIA.
11	1	1		13130		FLANGE, COMPANION 1 1/4" BORE	5" DIA.
11	1	1		13131		FLANGE, COMPANION 1 3/8" BORE	5" DIA.
11	1	1		13132		FLANGE, COMPANION 1 1/2" BORE	5" DIA.
12	1	1		02630		SET SCREW 3/8-16X1	
13	4	4		02636		BOLT 3/8-16X1 1/4"	4" FLANGE
13	4	4		02673		BOLT 7/16-14X1 1/4"	5" FLANGE
14	4	4		02646		LOCKWASHER 3/8	
14	4	4		02668		LOCKWASHER 7/16	
15	4	4		02647		NUT 3/8-16	
15	4	4		02672		NUT 7/16-14	
16	1	1		72792		MOUNT, ENGINE REAR	PORT

**PISCES**



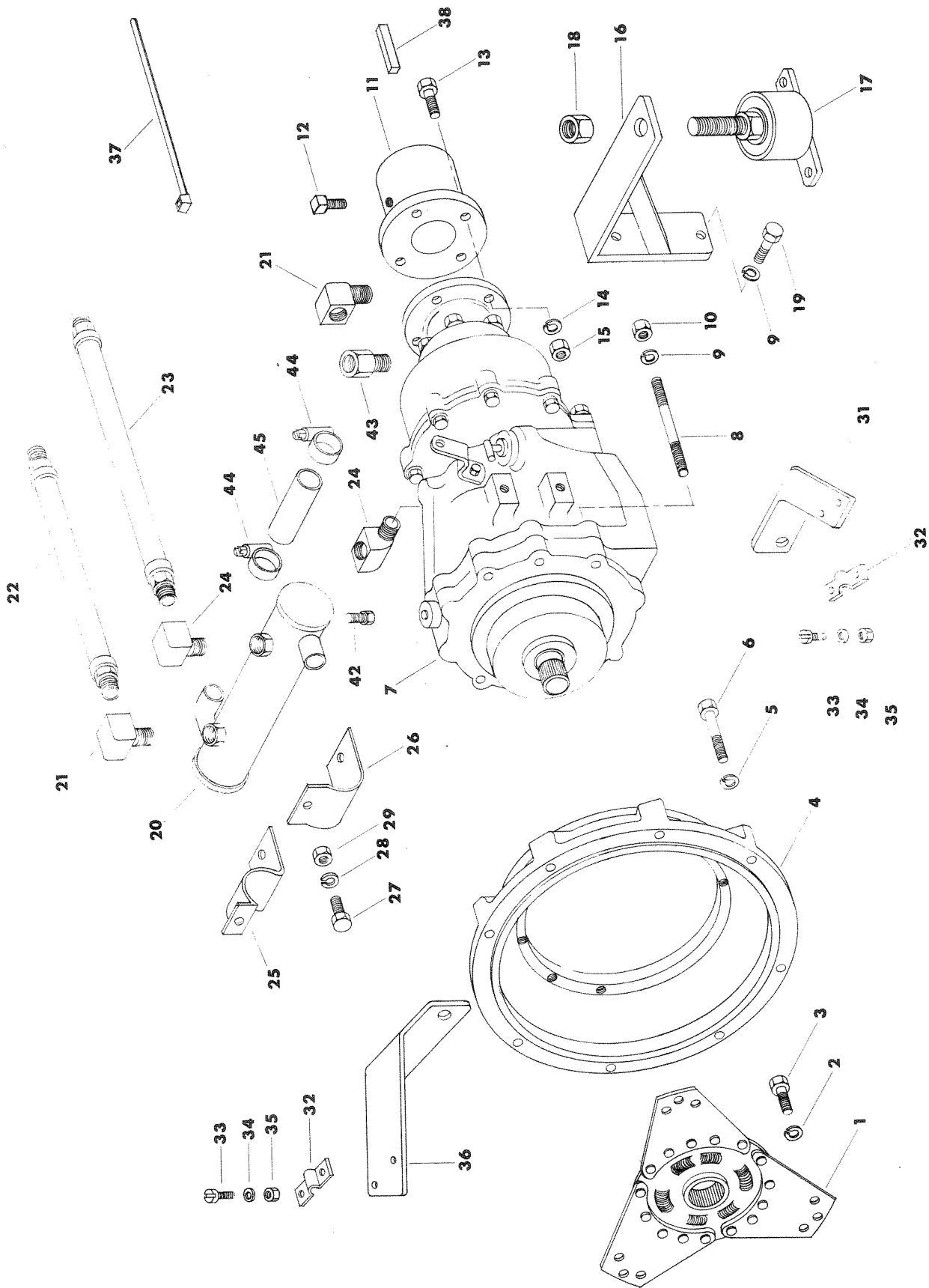


				WARNER VELVET DRIVE		GROUP 1	PAGE 16
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
16	1	1		72790		MOUNT, ENGINE REAR	STBD
17	4	4		72782		MOUNT, FLEXIBLE	
18	4	4		02752		NUT, MARSDEN 5/8-18	
19	4	4		02673		BOLT 7/16-14X1 1/4	
20	1	1		12139		OIL COOLER, TRANSMISSION	
21	2	2		02721		INVERTED FLARE ELL 1/2X90°	
22	1	1		12141		FLEX OIL LINE 20"	191:1-257:1-291:1
22	1	1		12143		FLEX OIL LINE 24"	2.10 ONLY
23	1	1		12142		FLEX OIL LINE 16"	ALL MODELS
24	1	1		02694		STREET ELL 3/8X90°NPT	
25	1	1		12146		CLAMP, OIL COOLER UPPER	
26	1	1		12147		CLAMP, OIL COOLER LOWER	
27	1	1		02184		BOLT M6-1.0X16	
28	1	1		02182		LOCK WASHER M6	
29	1	1		02180		NUT M6-1.0	
30	1	1		02693		STREET ELL 3/8X45°NPT	
31	1	1		12150		BRACKET, SHIFT	
32	1	1		12151		CLAMP, CABLE	
33	4	4		02661		SCREW 10-32X5/8	
34	4	4		02662		LOCK WASHER 10	
35	4	4		02663		NUT 10-32	
36	1			12149		BRACKET, THROTTLE	
36		1		13149		BRACKET, THROTTLE	
37	1	1		02760		TIE WRAP	
38	1	1		12136		KEY 1/4 SHAFT SIZE 1"-1 1/8"	
38	1	1		12137		KEY 5/16 SHAFT SIZE 1 1/4"-1 3/8"	
38	1	1		12138		KEY 3/8 SHAFT SIZE 1 1/2"	
39							
40							
41							
42	1	1		02681		PLUG, DRAIN 1/8" NPT	
43	1	1		02710		ADAPTOR 3/8X3/8 NPT	





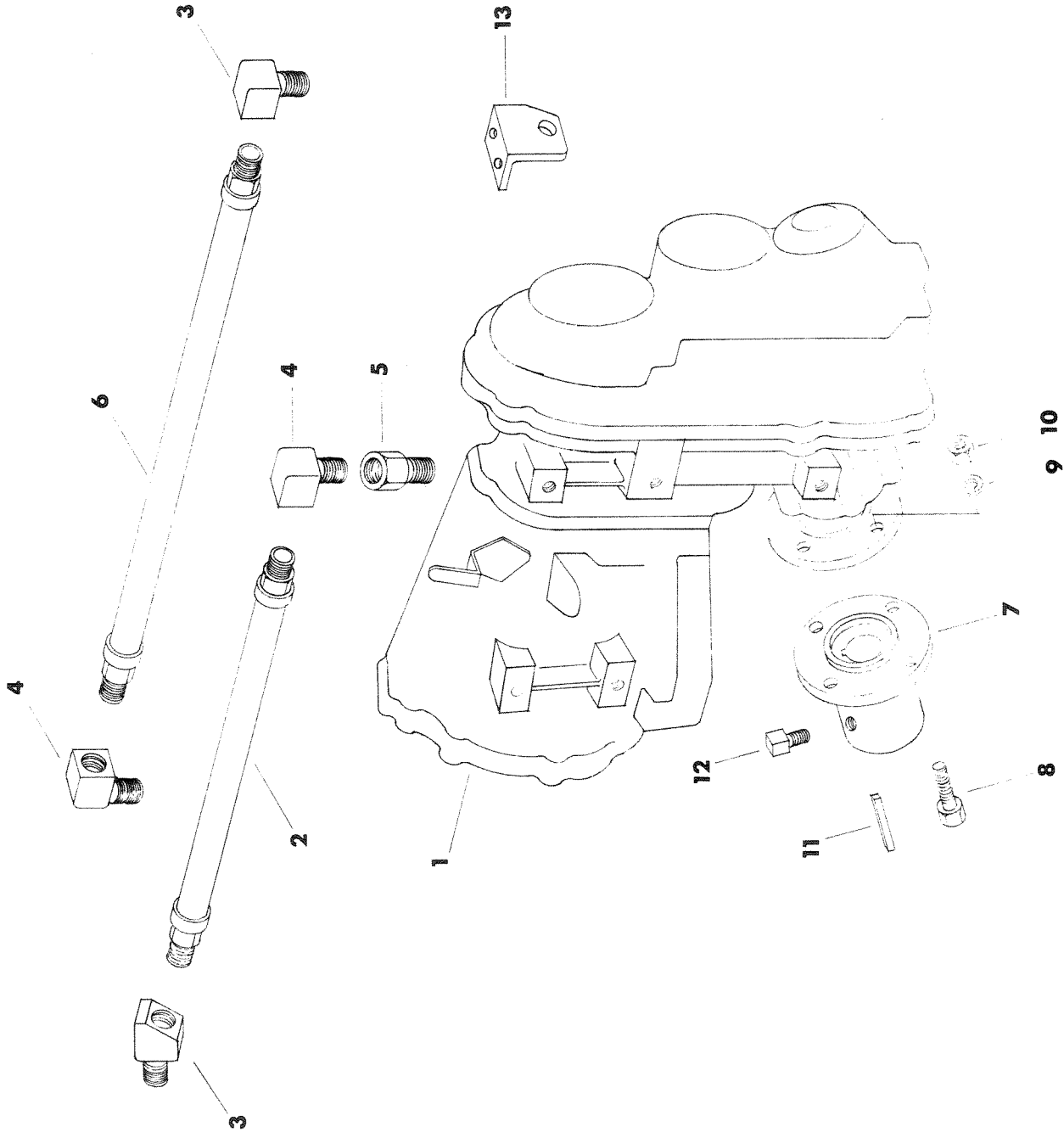
MODEL 60		BORG WARNER VELVET DRIVE MODEL 71 REVERSE GEAR				GROUP 1	PAGE 18
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1			1	12120		26 TOOTH DRIVE PLATE	
2			3	02242		LOCK WASHER M8	
3			3	02252		BOLT M8 1.25 X 20	
4			1	12125		BELL HOUSING	
5			8	02342		LOCK WASHER M 10	
6			8	02357		BOLT M 10 - 1.5 X 45	
7			1	12100		1:1 REVERSE GEAR ASSY.	
7			1	12101		1.52:1 REVERSE GEAR ASSY.	
7			1	12102		1.91:1 REVERSE GEAR ASSY.	
7			1	12103		2.10:1 REVERSE GEAR ASSY.	
7			1	12104		2.57:1 REVERSE GEAR ASSY.	
7			1	12105		2.91:1 REVERSE GEAR ASSY.	
8			6	02664		STUD 7/16 X 3.5"	
9			10	02668		LOCK WASHER 7/16	
10			6	02669		NUT 7/16 - 20	
11			1	12128		FLANGE, COMPANION 1" BORE	4" DIA.
11			1	12129		FLANGE, COMPANION 1 1/8" BORE	4" DIA.
11			1	12130		FLANGE, COMPANION 1 1/4" BORE	4" DIA.
11			1	12131		FLANGE, COMPANION 1 3/8" BORE	4" DIA.
11			1	12132		FLANGE, COMPANION 1 1/2" BORE	4" DIA.
11			1	13128		FLANGE, COMPANION 1" BORE	5" DIA.
11			1	13129		FLANGE, COMPANION 1 1/8" BORE	5" DIA.
11			1	13130		FLANGE, COMPANION 1 1/4" BORE	5" DIA.
11			1	13131		FLANGE, COMPANION 1 3/8" BORE	5" DIA.
11			1	13132		FLANGE, COMPANION 1 1/2" BORE	5" DIA.
12			1	02630		SET SCREW 3/8 - 16X1	
13			4	02636		BOLT 3/8 - 16X1 1/4"	4" FLANGE
13			4	02673		BOLT 7/16 - 14 X 1 1/4	5" FLANGE
14			4	02646		LOCKWASHER 3/8	4" FLANGE
14			4	02668		LOCKWASHER 7/16	5" FLANGE
15			4	02647		NUT 3/8 - 16	
15			4	02672		NUT 7/16 - 14	
16			1	72792		MOUNT ENGINE REAR	PORT





				GROUP	PAGE		
				1	20		
L.O.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
16			1	72790		MOUNT ENGINE REAR	STARBOARD
17			4	72782		MOUNT, FLEXIBLE	
18			4	02752		NUT MARSDEN 5/8-18	
19			4	02673		BOLT 7/16-14 X 1 1/4	
20			1	14139		OIL COOLER, TRANSMISSION	
21			2	02721		INVERTED FLARE ELL 1/2 X 90°	
22			1	12144		FLEX OIL LINE 29"	
22			1	12140		FLEX OIL LINE 34"	
23			1	12143		FLEX OIL LINE 24"	
24			2	02694		STREET ELL 3/8X90° NPT	
25			1	12146		CLAMP, OIL COOLER UPPER	
26			1	12147		CLAMP, OIL COOLER LOWER	
27			1	02184		BOLT M6-1.0X16	
28			1	02182		LOCKWASHER M6	
29			1	02180		NUT M6-1.0	
30							
31			1	12150		BRACKET, SHIFT	
32			4	12151		CLAMP, CABLE	
33			4	02661		SCREW 10-32X5/8	
34			4	02662		LOCK WASHER #10	
35			1	02663		NUT 10-32	
36			1	14149		BRACKET THROTTLE	
37			1	02760		TIE WRAP	
38			1	12136		KEY 1/4" SHAFT SIZE 1"-1 1/8"	
38			1	12137		KEY 5/16" SHAFT SIZE 1 1/4-1 3/8"	
38			1	12138		KEY 3/8" SHAFT SIZE 1 1/2"	
39							
40							
41							
42			1	02681		PLUG, DRAIN 1/8" NPT	
43			1	02710		ADAPTOR 3/8X3/8 NPT	
44			2	32394		CLAMP 16	
45			1	34384		HOSE 1"X6.75"	

**PISCES**

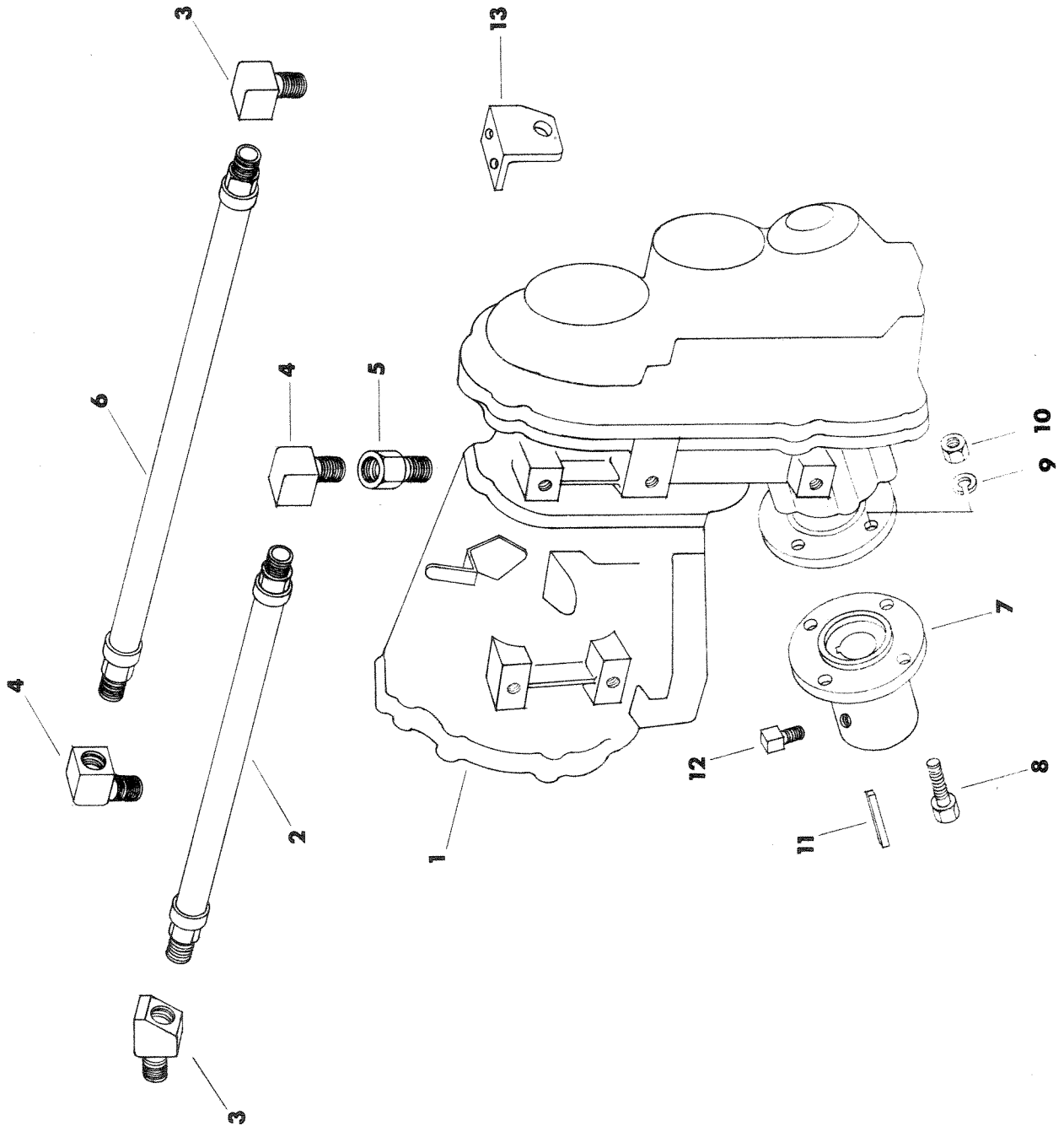




MODEL 27-40		BORG WARNER VEE DRIVE MODEL 71 REVERSE GEAR				GROUP 1	PAGE 22
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1	1	12107		BORG WARNER VEE DRIVE 1.99:1	10-04-000-002
1	1	1	1	12108		BORG WARNER VEE DRIVE 3.14:1	10-04-000-007
2	1	1		12142		FLEXIBLE OIL LINE 16"	
2			1	12144		FLEXIBLE OIL LINE 29"	
3	1	1		02693		STREET ELL 3/8 X 45° NPT	
3			2	02694		STREET ELL 3/8 X 90° NPT	
4	2	2	2	02721		INVERTED FLARE ELL 1/2 X 90°	
5	1	1	1	02710		ADAPTOR 3/8 X 3/8 NPT	
6	1	1	1	12145		FLEXIBLE OIL LINE 42"	
7	1	1	1	13128		FLANGE, COMPANION 1 1/2" BORE	5" DIA.
7	1	1	1	13129		FLANGE, COMPANION 1 1/8" BORE	5" DIA.
7	1	1	1	13130		FLANGE, COMPANION 1 1/4" BORE	5" DIA.
7	1	1	1	13131		FLANGE, COMPANION 1 3/8" BORE	5" DIA.
7	1	1	1	13132		FLANGE, COMPANION Q 1/2" BORE	5" DIA.
8	4	4	4	02673		BOLT 7/16 - 14 X 1 1/4	
9	4	4	4	02668		LOCK WASHER 7/16	
10	4	4	4	02669		NUT 7/16-14	
11	1	1	1	12136		KEY 1/4" SHAFT SIZE 1 - 1 1/8	
11	1	1	1	12137		KEY 5/16 SHAFT SIZE 1 1/4 - 1 3/8	
11	1	1	1	12138		KEY 3/8 SHAFT SIZE 1 1/2	
12	1	1	1	02630		SET CREW 3/8 - 16 X 1	
13	1	1	1	12152		BRACKET, SHIFT CABLE	

This page is a duplicate of  
Grp 1 Pg 21 in original manual  
and was located on the back of  
Pg 22

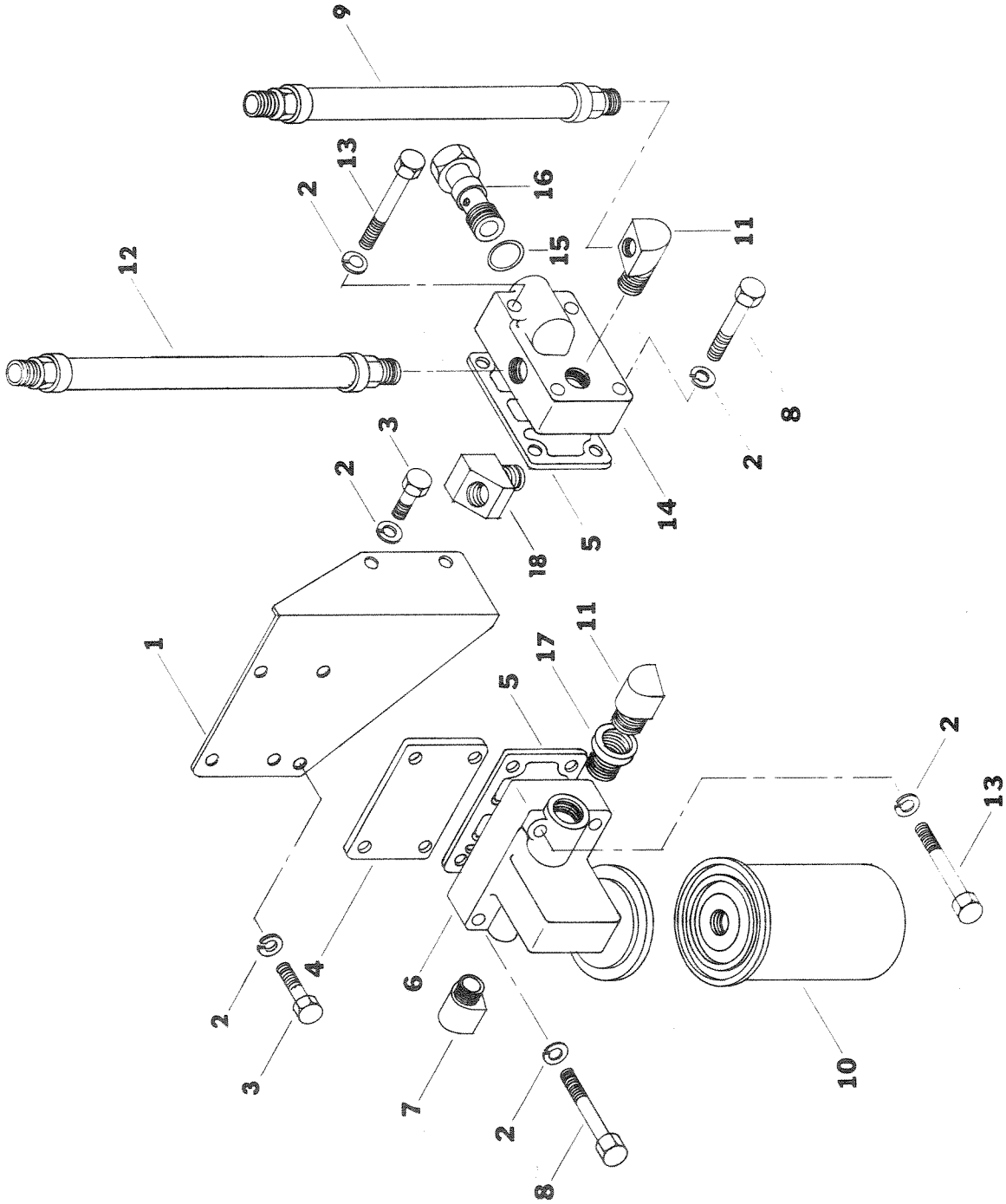
**PISCES**



# SECTION 2

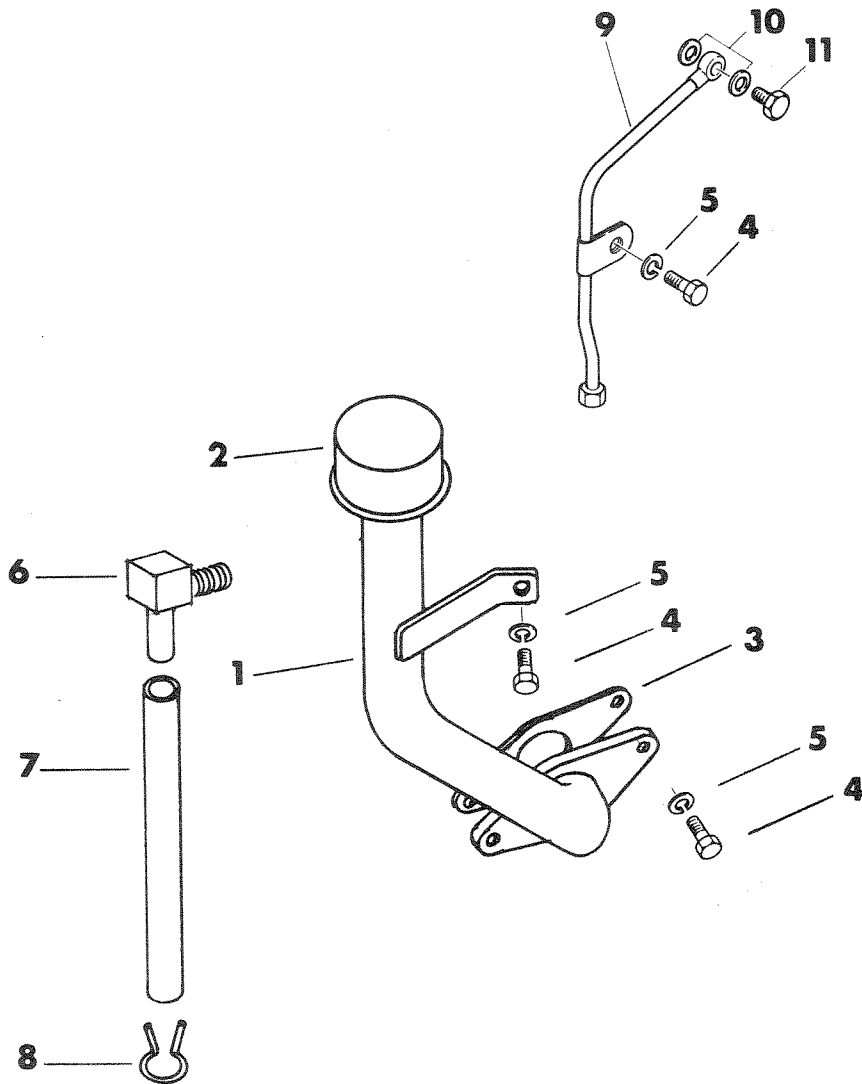


**PISCES**



				OIL SYSTEM		GROUP 2	PAGE 2
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		22200		OIL FILTER BRACKET	
2	11	11		02242		LOCK WASHER M8	
3	2	2		02252		BOLT M8-1.25X20	
4	1	1		22201		OIL FILTER BACKING PLATE	
5	2	2		22202		GASKET	
6	1	1		22203		OIL FILTER HOUSING ASSY.	INCLUDES 7,11 & 17
7	1	1		02694		STREET ELL 3/8 NPT	
8	6	6		02256		BOLT M8-1.25X40	
9	1	1		22211		HOSE ASSY. (17'')	
10	1	1		22210		OIL FILTER	
11	2	2		02721		INVERTED FLARE 3/8 NPT-1/2'' HOSE	
12	1	1		22212		HOSE ASSY. (11 3/4'')	
13	2	2		02258		BOLT M8-1.25X50	
14	1			22204		OIL BYPASS BLOCK ASSY	INCLUDES #11,18
		1		23204		OIL BYPASS BLOCK ASSY.	INCLUDES #11
15	1	1		22205		O-RING	
16	1	1		22206		RELIEF VALVE	
17	1	1		02719		REDUCER, BUSHING 3/4 TO 3/8	
18	1			02693		STREET ELL 3/8X45°	(27 ONLY)

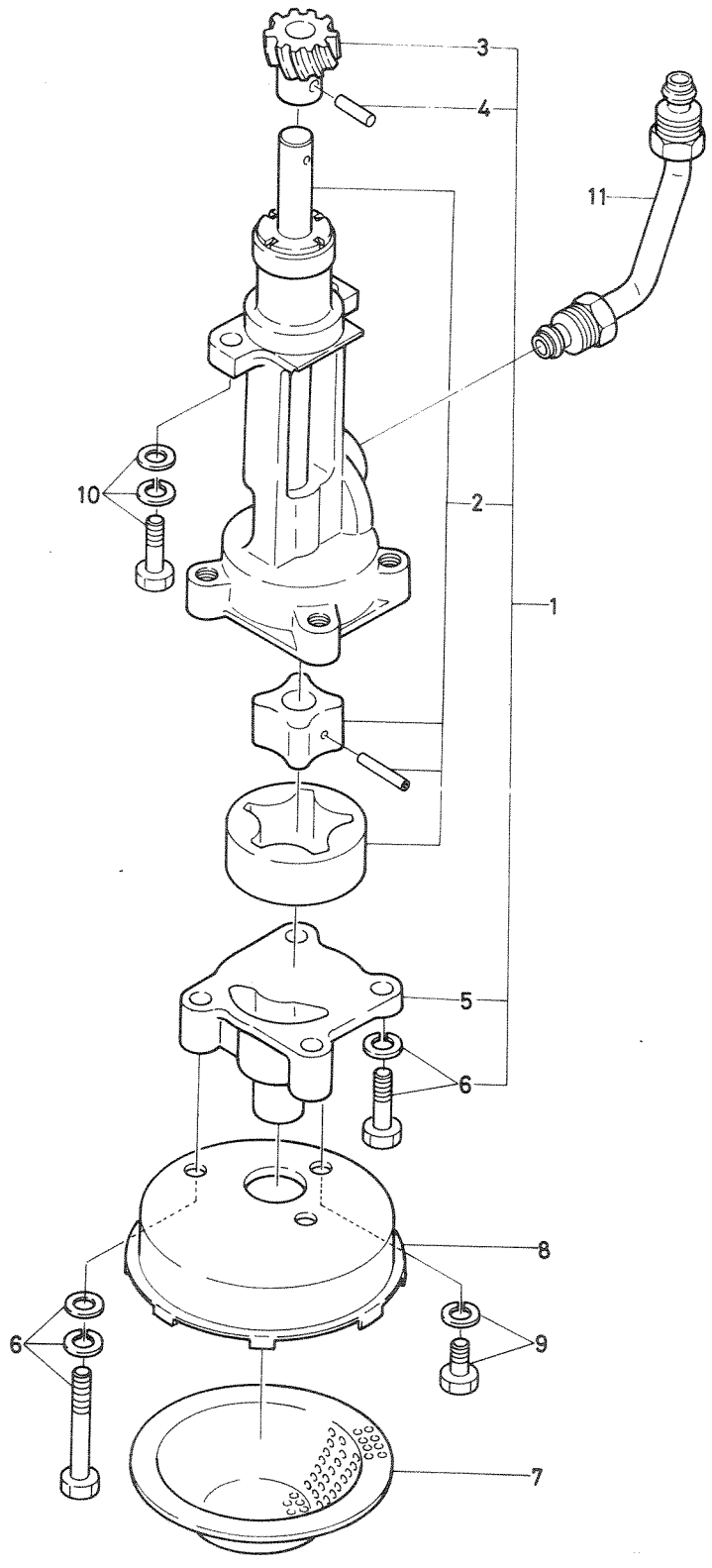
**PISCES**







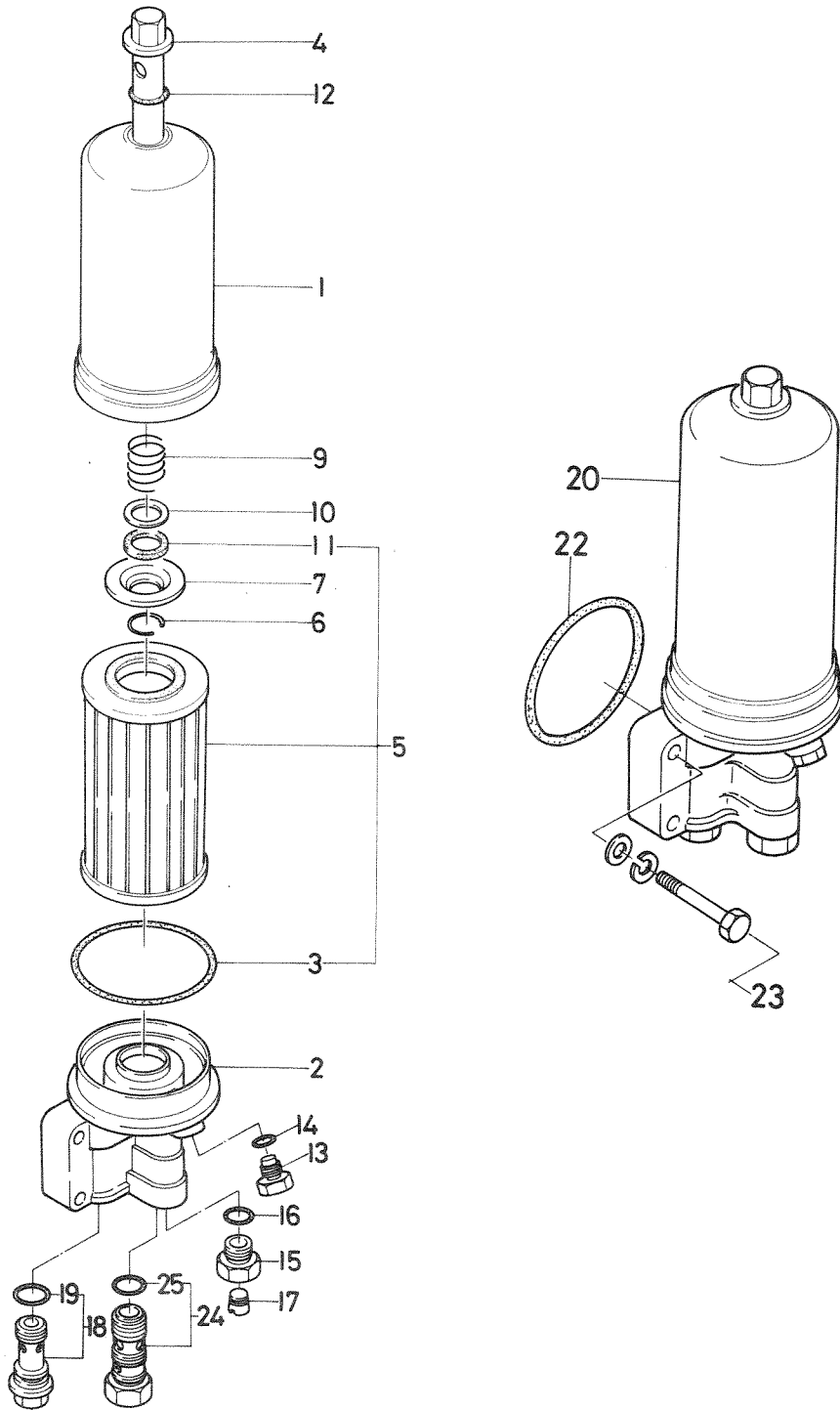
MODEL		OIL PIPE ASSY. & OIL BREATHER ASSY.				GROUP	PAGE
27-40-60						2	4
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1			22220		PIPE, OIL BREATHER	
1		1		23220		PIPE, OIL BREATHER	
2	1	1		22221		CAP, OIL BREATHER	
3	1	1		22222		GASKET	
4	4	4	2	02251		BOLT M8-1.25X15	
5	4	4	2	02242		LOCKWASHER M8	
6	1			02684		ELBOW 1/8 X HOSE	
7	1			52515		HOSE	
7		1		53515		HOSE	
8	2	2	2	02685		CLAMP	
9	1	1		22261		OIL TUBE ASSY. ROCKER FEED	
9			1	24261		OIL TUBE ASSY. ROCKER FEED	
10	1	1	1	22263		CRUSH WASHERS	
11	1	1	1	22262		HOLLOW BOLT	





MODEL 27-40-60				OIL PUMP ASSY.		GROUP 2	PAGE 6
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		22230		OIL PUMP ASSY.	
1			1	24230		OIL PUMP ASSY.	
2	1	1		22231		ROTOR & SHAFT ASSY.	
2			1	24231		ROTOR & SHAFT ASSY.	
3	1	1	1	22232		PINION GEAR	
4	1	1	1	22233		PIN	
5	1	1		22234		COVER, OIL PUMP	
5			1	24234		COVER, OIL PUMP	
6	2	2	2	02258		BOLT M8-1.25X50	
6	6	6	6	02241		WASHER M-8	
6	2	2	2	02253		BOLT, COVER M8-1.25X25	
6	6	6	6	02242		LOCK WASHER M8	
7	1	1		22239		OIL STRAINER	
7			1	24239		OIL STRAINER ASSY.	
8	1	1	1	22241		CASE	
9	1	1	1	02251		BOLT M8-1.25X15	
10	2	2	2	02253		BOLT M8-1.25X25	
11	1	1	1	22245		OIL PIPE ASSY	

**PISCES**



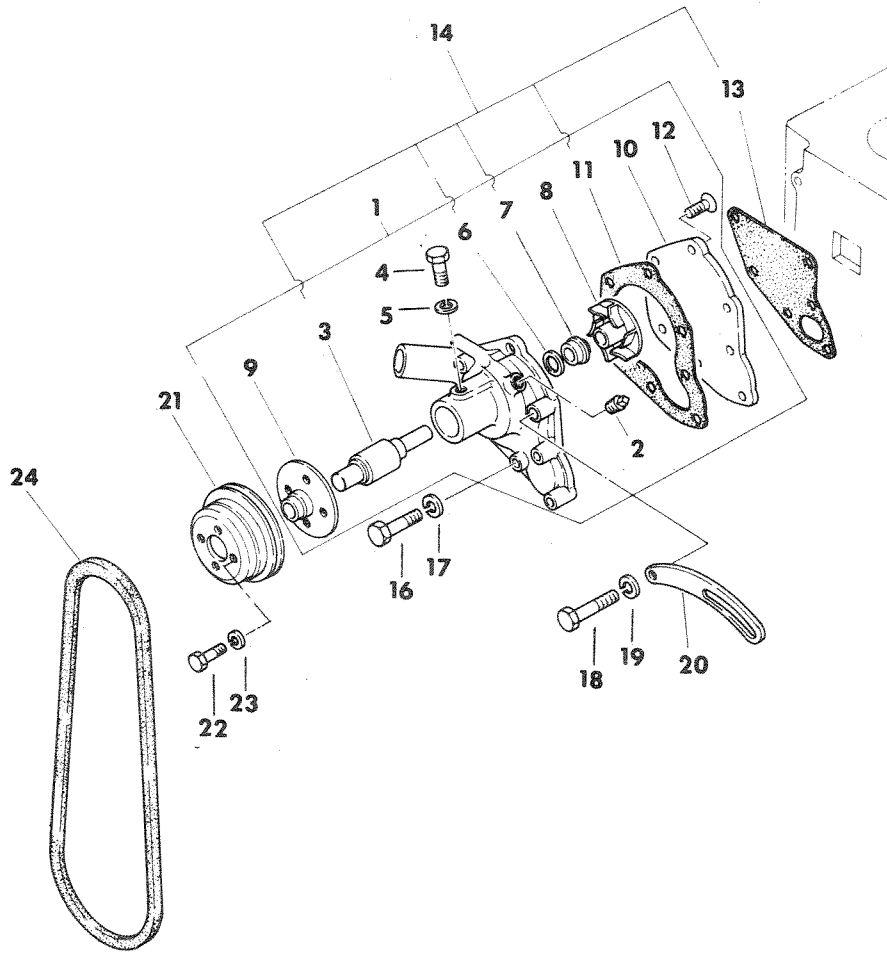
MODEL 60				OIL FILTER ASSY.		GROUP 2	PAGE 8
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
			1	24203		OIL FILTER ASSY	
1			1	24271		CAN	
2			1	24272		HOUSING	
3			1	24287	*	O-RING	
4			1	24273		BOLT	
5			1	24210	*	ELEMENT ASSY	
6			1	24286		SNAP RING	
7			1	24276		CENTERING WASHER	
8							
9			1	24274		SPRING	
10			1	24275		WASHER	
11			1	24283	*	GASKET	
12			1	24277		GASKET	
13			1	24278		PLUG	
14			1	24279		CRUSH WASHER	
15			1	24280		ADAPTOR	
16			1	24281		CRUSH WASHER	
17			1	02681		PLUG 1/8" NPT	
18			1	24284		BYPASS VALVE	
19			1	24285		CRUSH WASHER	
20			1	24271		CAN	
21							
22			1	24202		O-RING	
23			4	02255		BOLT M8-1.25X35	
			4	02242		LOCKWASHER M8	
24			1	24206		RELIEF VALVE	
25			1	22205		O-RING	

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# SECTION 3



**PISCES**

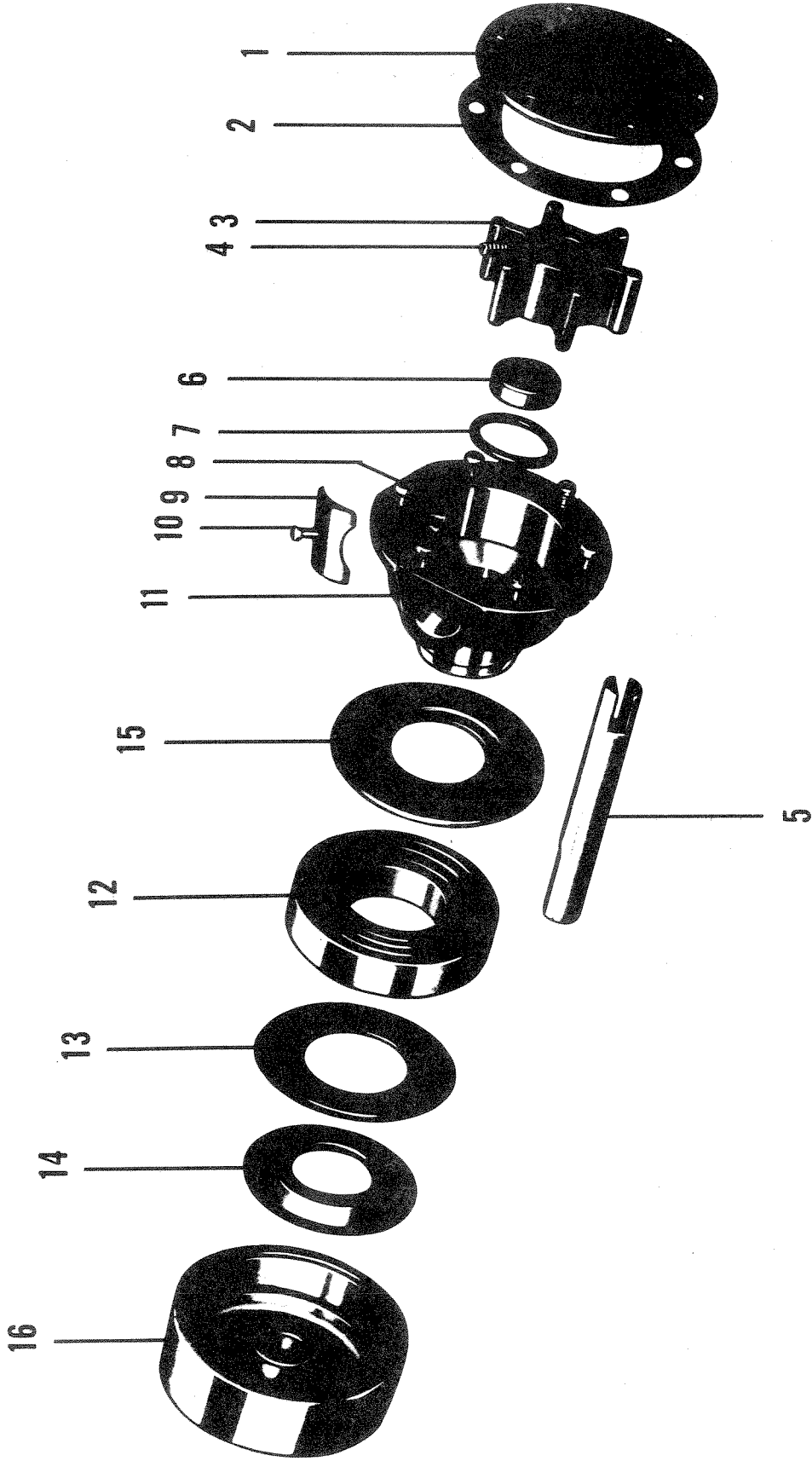






MODEL		COOLANT WATER PUMP			GROUP	PAGE	
27-40-60					3	2	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1	1	32050		WATER PUMP ASSY.	
2	1	1	1	32119		PLUG, HEATER 3/8 NPT	
3	1	1	1	32051	*	BEARING ASSY.	
4	1	1	1	02652		SET SCREW M8 SPECIAL	
5	1	1	1	02242		LOCKWASHER M8	
6	1	1	1	32052	*	RETAINER RING	
7	1	1	1	32053	*	SEAL ASSY.	
8	1	1	1	32054		IMPELLER	
9	1	1	1	32055		FLANGE	
10	1	1	1	32056		COVER, REAR	
11	1	1	1	32057	*	GASKET	
12	7	7	7	32060		SCREW, REAR COVER	
13	1	1	7	32058	*	GASKET	
14	1	1	1	92012	*	KIT WATER PUMP REPAIR *	3,6,7,11 & 13
15							
16	4	4	4	02784		BOLT M10-1.25 X 50	
17	5	5	5	02342		LOCKWASHER M-10	
18	1	1	1	02785		BOLT M10-1.25 X 50	
19	1	1	1	02342		LOCKWASHER M-10	
20	1	1	1	62715		TENSION ARM	
21	1	1		32059		PULLEY	
21			1	34059		PULLEY	
22	4	4	4	0 2184		BOLT M6-1.0X12	
23	4	4	4	02182		LOCKWASHER M6	
24	1	1	1	32360		VEE BELT	<i>Notes - N-7380 EXTRA STRENGTH</i>

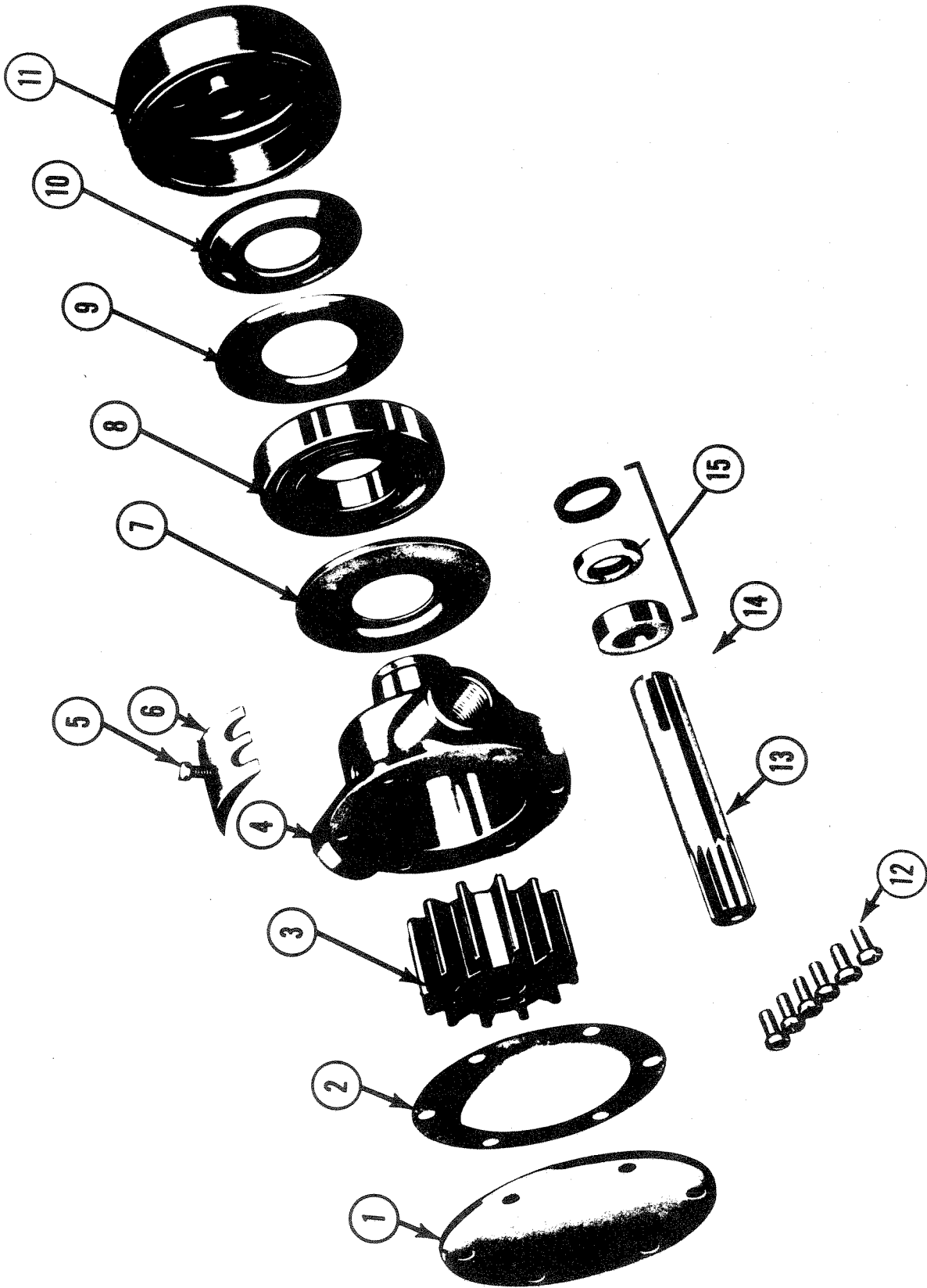
**PISCES**





MODEL 27-40		SEA WATER PUMP				GROUP 3	PAGE 4
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
				32351		PUMP COMPLETE ASSY.	
1	1	1		32070		END COVER	
2	1	1		32071	*	GASKET	
3	1	1		32072	*	IMPELLER	
4	1	1		32073	*	SCREW (IMPELLER)	
5	1	1		32074	*	SEAL (SHAFT)	
6	1	1		32075	*	O-RING	
7	6	6		02748		SCREW (8-32X5/8 FLAT HEAD BRASS)	
8	1	1		32076		CAM, STANDARD	
9	1	1		32078		SCREW (CAM)	
10	1	1		32079		BODY	
11	1	1		32080		BEARING SHIELD	
12	1	1		32081		BALL BEARING	
13	1	1		32082		ROTATING SHIELD	
14	1	1		32083		STATIONARY SLINGER	
15	1	1		32084		BEARING HOUSING	
16	1	1		32085		KEY (SHAFT DRIVE)	
17	1	1		32086		SHAFT	
				92011		SERVICE KIT	
					*	PARTS SUPPLIED IN SERVICE KIT	

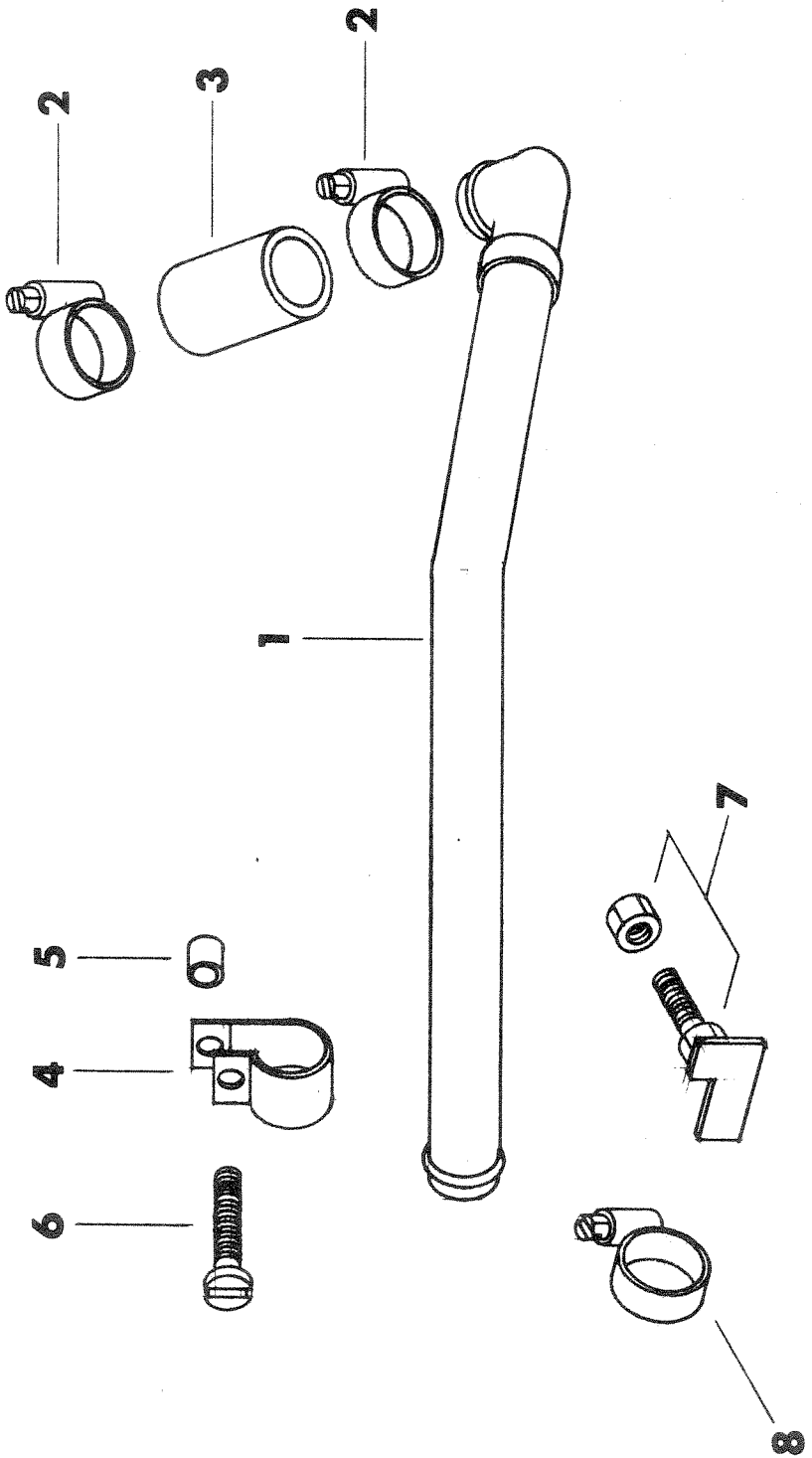
**PISCES**





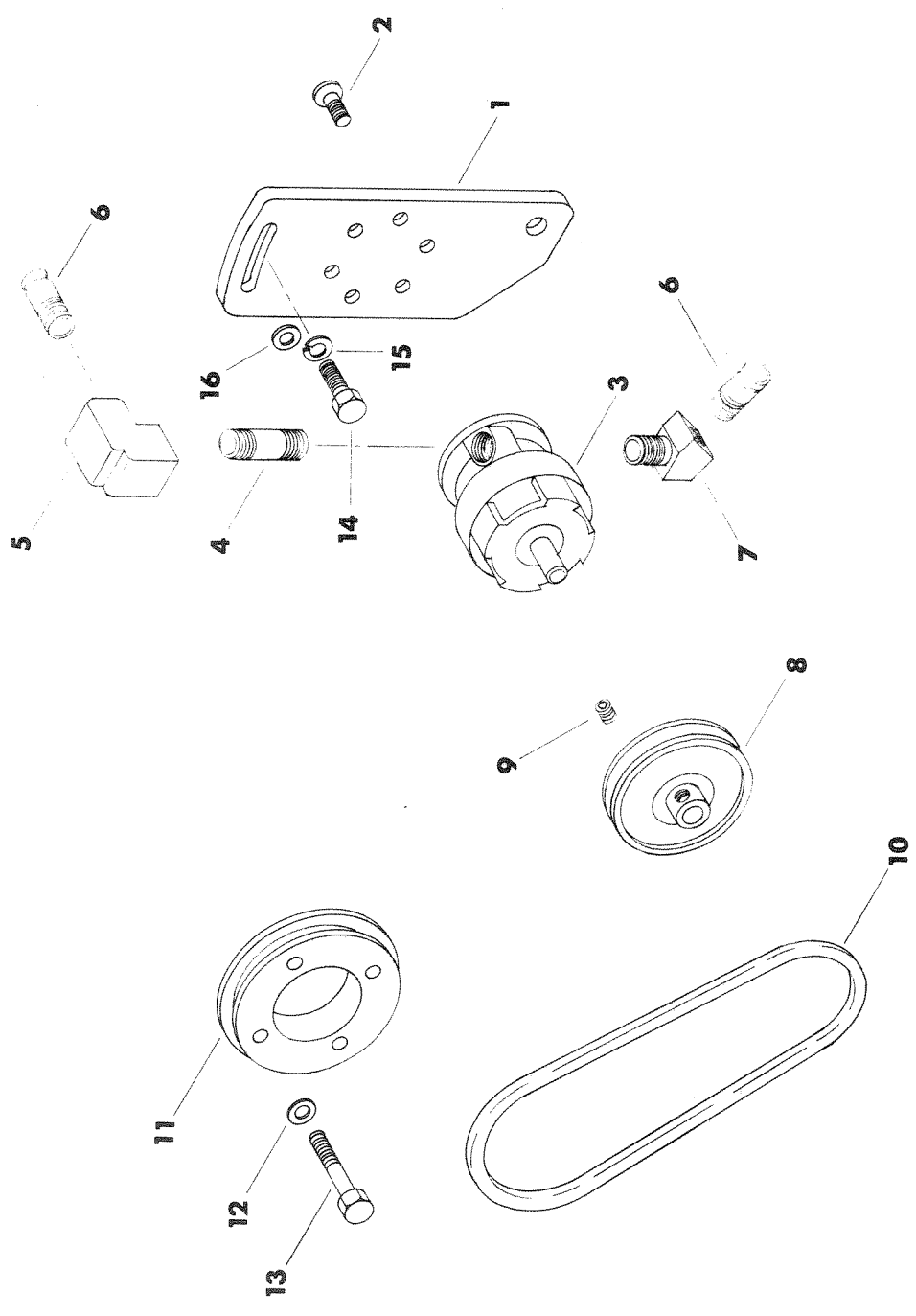
MODEL 60		SEA WATER PUMP				GROUP 3	PAGE 6
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1			1	34351		PUMP COMPLETE ASSY.	
1			1	34070		END COVER	
2			1	34071	*	GASKET	
3			1	34072	*	IMPELLER	
4			1	34079		BODY	
5			1	34078		SCREW (CAM)	
6			1	34076		CAM	
7			1	34080		BEARING SHIELD	
8			1	34081		BEARING	
9			1	34082		ROTATING SHIELD	
10			1	34083		STATIONARY SLINGER	
11			1	34084		BEARING HOUSING	
12			6	02655		SCREW 10/32X3/4	
13			1	34086		SHAFT	
14			1	34085		KEY	
15			1	34074	*	SEAL	
16				94011	*	SERVICE KIT	
					*	PARTS SUPPLIED IN SERVICE KIT	

**PISCES**



MODEL ALL		PIPE, WATER INLET				GROUP 3	PAGE 8
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1			32380		PIPE, WATER INLET	
		1		33380		PIPE, WATER INLET	
			1	34380		PIPE, WATER INLET	
2	2	2	2	32395		CLAMP, HOSE 20	
3	1	1	1	32386		HOSE 1 3/8X1 7/8	
4	1	1		02757		CLAMP, ADEL	
5	1	1		32387		SPACER	
6	1	1		02660		SCREW, 10-24X1 T.C.S.	
7			1	34387		BOLT, HOLD DOWN ASSY.	60 ONLY
8			1	32393		CLAMP, HOSE	"

# PISCES

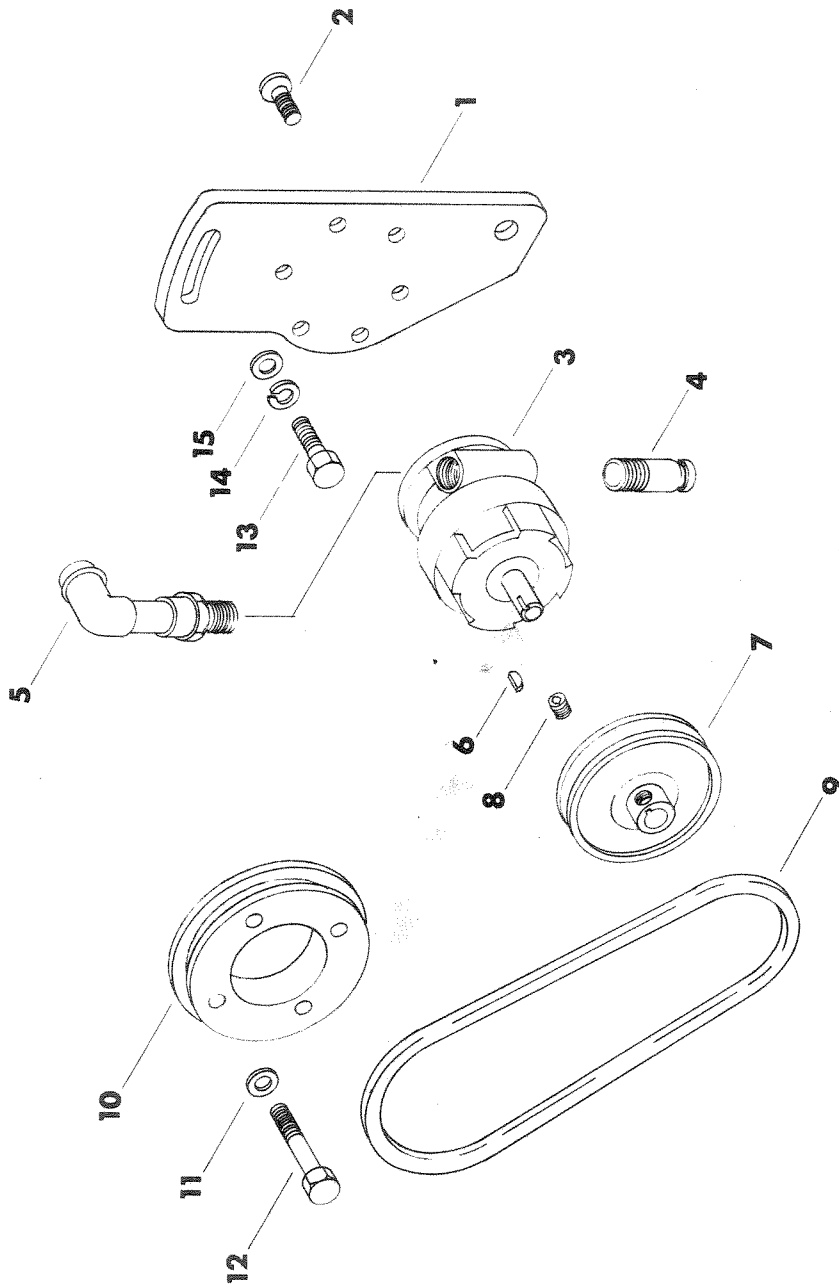






MODEL 27-40		SEA WATER PUMP ASSY.				GROUP 3	PAGE 10
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		32350		BRACKET, WATER PUMP	
2	6	6		02748		SCREW, 8-32X5/8 FLAT HEAD	
3	1	1		32351		PUMP, SEA WATER	
4	1	1		02702		NIPPLE 3/8 NPT X 2 1/2	
5	1	1		02706		ELBOW 3/8 NPT X 90°	
6	2	2		02703		NIPPLE 3/8 NPT X 1 1/2	
7	1	1		02693		ELBOW 3/8 NPT X 45°	
8	1	1		32355		PULLEY	
9	1	1		02625		SET SCREW 5/16-18X1/4	
10	1	1		32361		VEE BELT - 24"	
11	1	1		32362		PULLEY, SINGLE SHEAVE CRANKSHAFT	
11	1	1		32363		PULLEY, 3 SHEAVE CRANKSHAFT	
12	4	4		02242		LOCKWASHER M8	
13	4	4		02256		BOLT, M8- 1.25X40	SINGLE SHEAVE
13	4	4		02261		BOLT, M8-1.25X65	3 SHEAVE
14	1	1		02353		BOLT, M10-1.5X25	
15	1	1		02342		LOCKWASHER M10	
16	1	1		02341		FLAT WASHER M10	

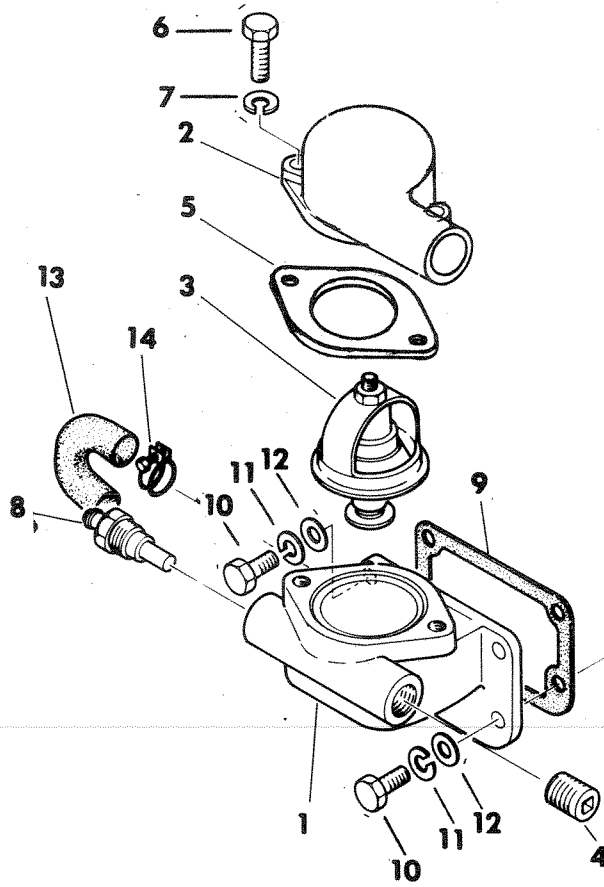
**PISCES**





MODEL 60		SEA WATER PUMP ASSY.			GROUP 3	PAGE 12	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1			1	34350		BRACKET, WATER PUMP	
2			6	02655		SCREW FLAT HEAD S.S. 10/32X3/4	
3			1	34351		PUMP, SEA WATER	
4			1	02725		NIPPLE, BRASS 1/2X2 1/2 NPT	
5			1	34086		PIPE, PUMP OUTLET	
6			1	34085		KEY	
7			1	34355		PULLEY	
8			1	02625		SET SCREW 5/16-18X1/4	
9			1	32359		VEE BELT 23" <i>Notes# TRUEFLEX 1240</i>	
10			1	32362		PULLEY CRANKSHAFT	1 SHEAVE
10			1	32363		PULLEY CRANKSHAFT	3 SHEAVE
11			4	02242		LOCKWASHER M8	
12			4	02256		BOLT M8-1.25X40	1 SHEAVE
12			4	02261		BOLT M8-1.25X65	3 SHEAVE
13			1	02353		BOLT M10-1.5X25	
14			1	02342		LOCKWASHER M10	
15			1	02341		FLAT WASHER M10	

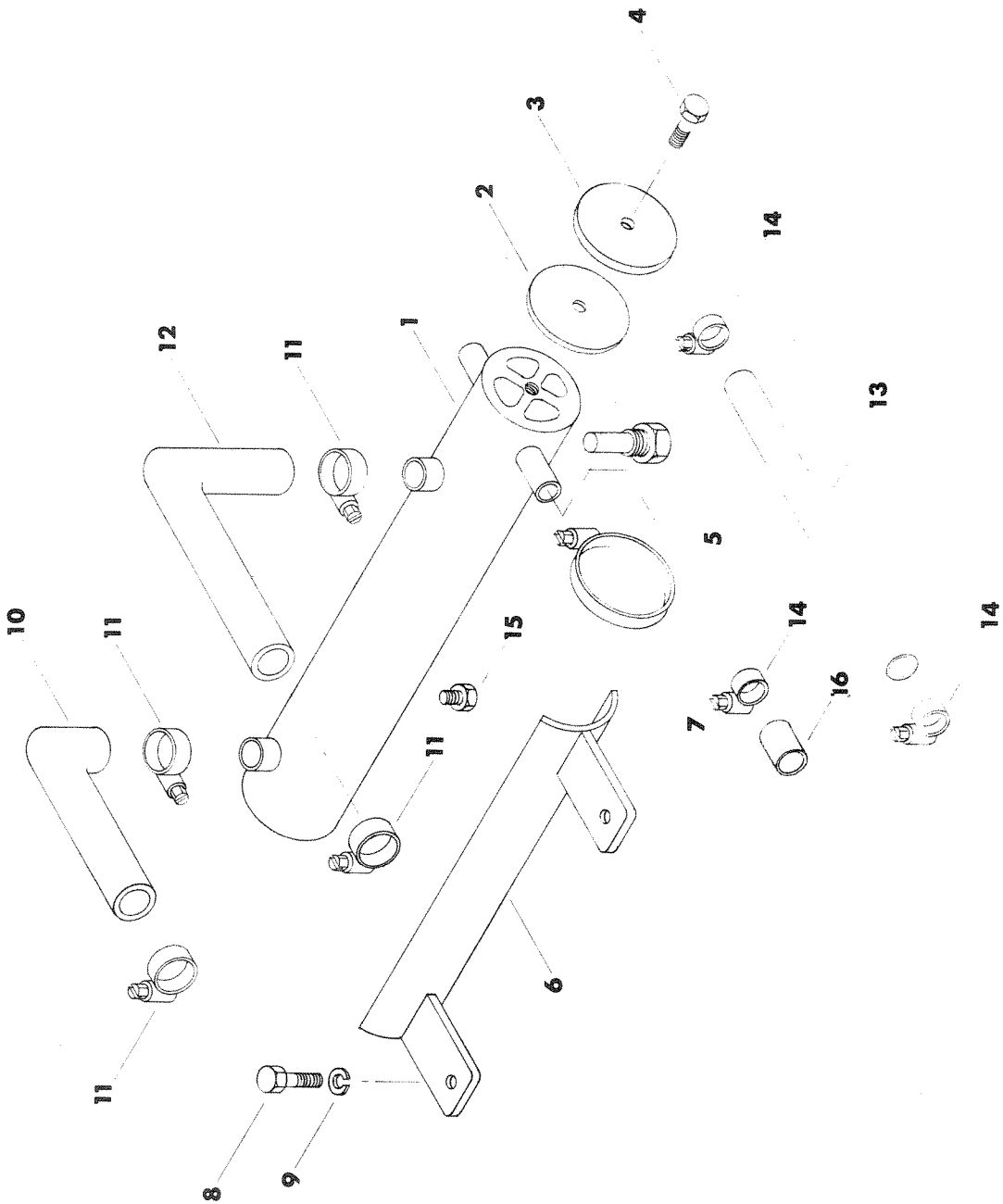
**PISCES**





MODEL		THERMOSTAT ASSY.				GROUP	PAGE
27-40-60						3	14
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		32114		HOUSING, LOWER	
1			1	34114		HOUSING, LOWER	
2	1	1		32115		HOUSING	
2			1	34115		HOUSING	
3	1	1	1	32118		THERMOSTAT	
4	1	1	1	32119		PLUG 3/8 NPT	
5	1	1	1	32120		GASKET	
6	2	2	2	02254		BOLT M8 1.25X30	
7	2	2	2	02242		LOCKWASHER M8	
8	1	1	1	62635		TEMPERATURE SENDER	
9	1	1		32122		GASKET	
9			1	34122		GASKET	
10	4	4	4	02253		BOLT M8 1.25X25	
11	4	4	4	02242		LOCKWASHER M8	
12	4	4	4	02241		FLAT WASHER M8	
13	1	1	1	32123		HOSE, BYPASS	
14	2	2	2	32391		CLAMP #8	

**PISCES**



MODEL		HEAT EXCHANGER ASSY.				GROUP	PAGE
ALL						3	16
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		32370		HEAT EXCHANGER	
1			1	34370		HEAT EXCHANGER	
2	1	1	1	32371		GASKET	
3	1	1	1	32373		CAP	
4	1	1	1	02650		BOLT, BRONZE	
5	1	1	1	52511		ZINC PLUG ASSY.	
5	1	1	1	52512		ZINC REPLACEMENT ELEMENT	
6	1	1	1	32376		BRACKET	
7	2	2	2	32401		CLAMP #44	
8	2	2	2	02353		BOLT M10-1.5X25	
9	2	2	2	02342		LOCKWASHER M10	
10	1	1	1	32377		HOSE (STBD)	
11	4	4	4	32394		HOSE CLAMP #16	
12	1	1	1	32378		HOSE (PORT)	
13	1			32385		HOSE - 5/8X14"	
13		1		33385		HOSE-5/8X19"	
13			1	34385		HOSE - 1X20.5"	
14	4	4		32392		CLAMP #10	
14			4	32394		CLAMP #16	
15	1	1	1	02681		PLUG 1/8 NPT	
16	1	1		32384		HOSE 5/8X2.87"	
16			1	34384		HOSE 1X6.75"	

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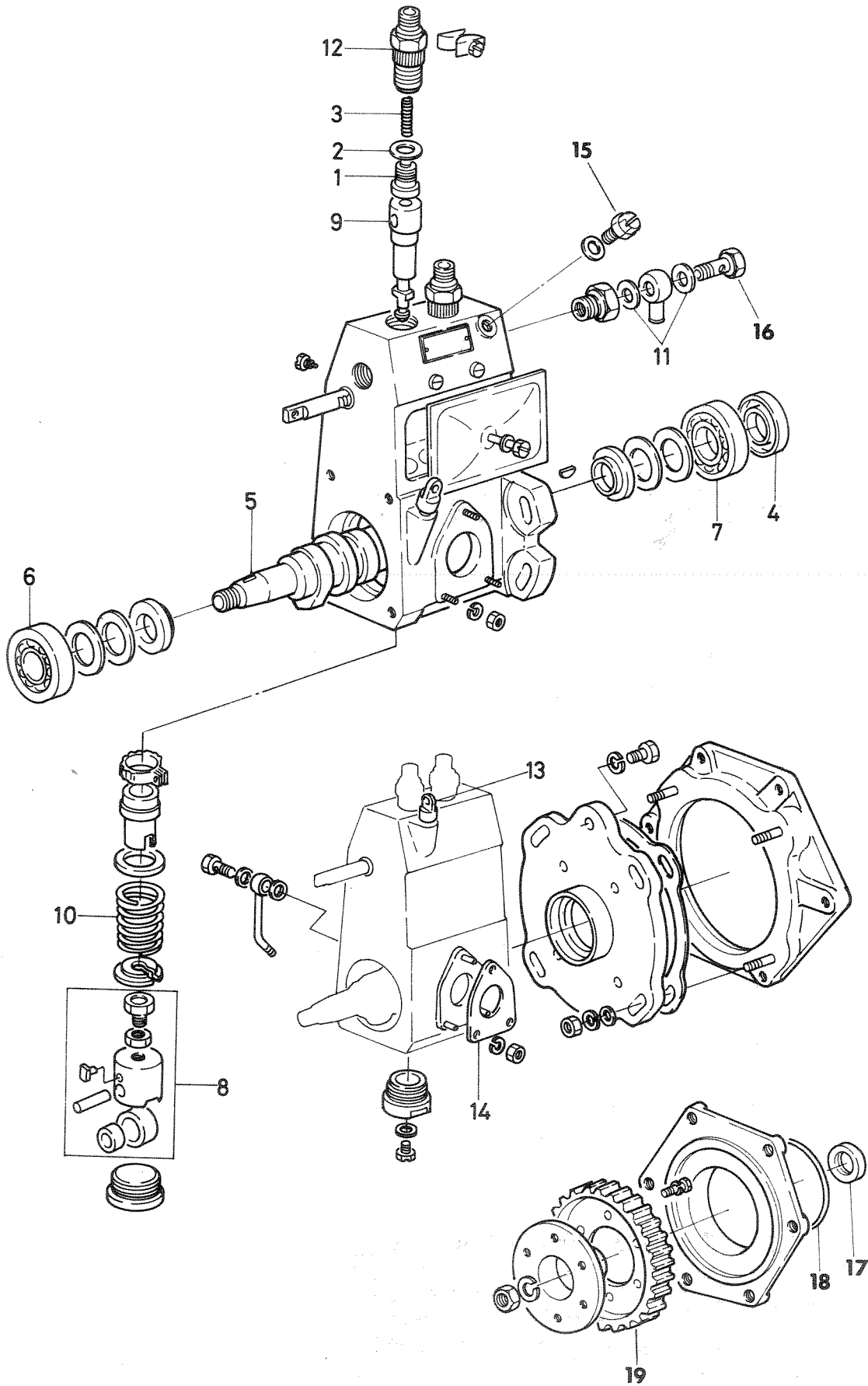


# SECTION 4



**DIESEL MARINE ENGINES**

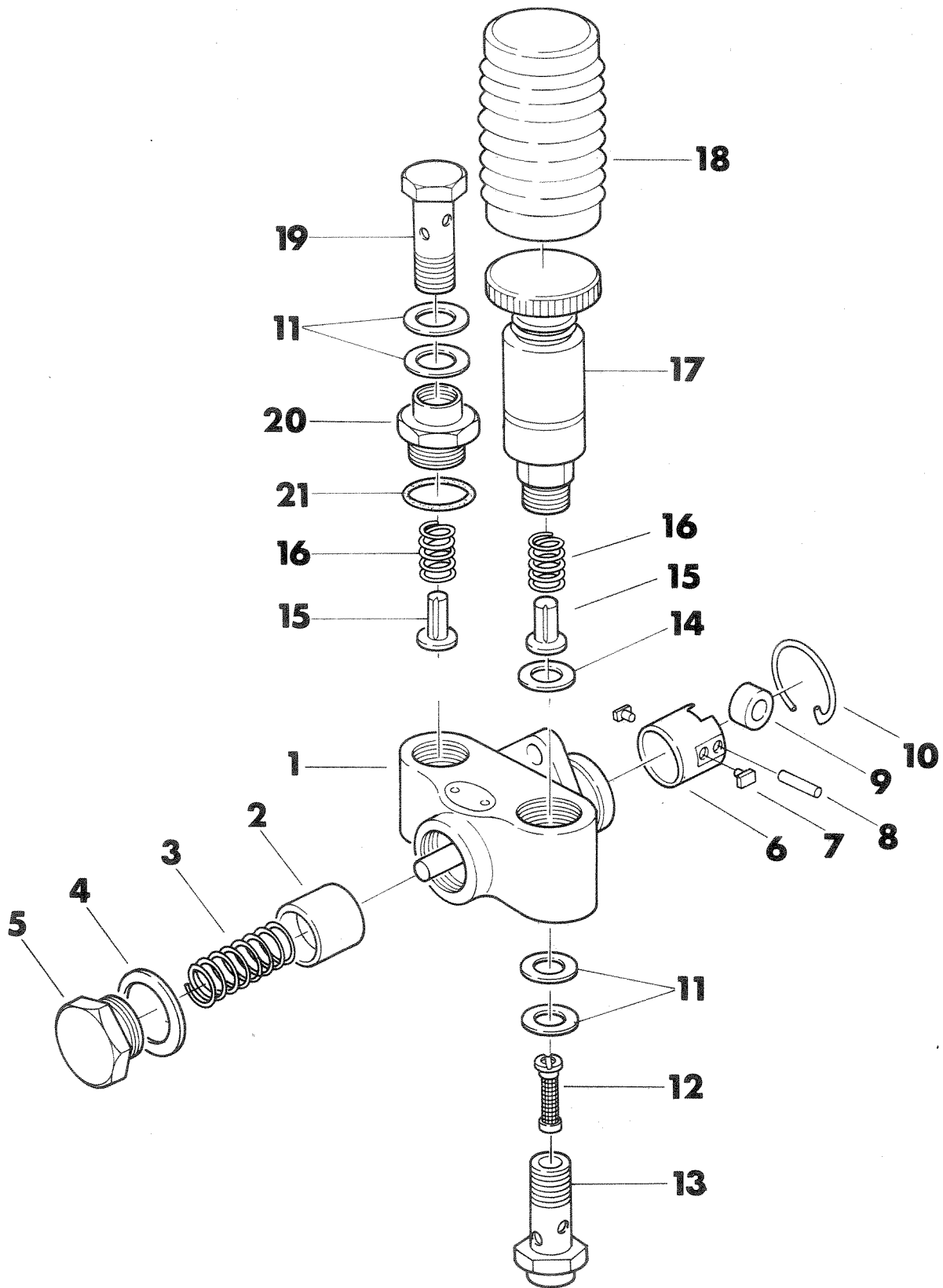
**PISCES**





MODEL 27-40-60				FUEL INJECTION PUMP		GROUP 4	PAGE 2
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1			42201		INJECTION PUMP ASSY.	
		1		43201		INJECTION PUMP ASSY.	
			1	44201		INJECTION PUMP ASSY.	
1	2	3	4	42214		DELIVERY VALVE	
2	2	3	4	42262		GASKET	
3	2	3	4	42215		SPRING	
4	1	1	1	42271		OIL SEAL	
5	1			42236		CAM SHAFT	
		1		43236		CAM SHAFT	
			1	44236		CAM SHAFT	
6	1	1	1	42237		BEARING	
7	1	1	1	42238		BEARING	
8	1			42220		TAPPET	
		1		43220		TAPPET	
			1	44220		TAPPET	
9	1	1		42261		PLUNGER	
			1	44261		PLUNGER	
10	2			42228		SPRING	
		3		43228		SPRING	
			4	44228		SPRING	
11	2	2	2	42039		GASKET	
12	2	3	4	42216		HOLDER	
13	1			42207		DIP STICK	
		1		43207		DIP STICK	
			1	44207		DIP STICK	
14	1	1	1	42213		O-RING	
15	1	2	2	42248		BLEED SCREW	
16	1	1	1	42246		HOLLOW BOLT	
17	1	1	1	42271		SEAL	
18	1	1	1	42256		O-RING	
19	1	1	1	82322		GEAR	

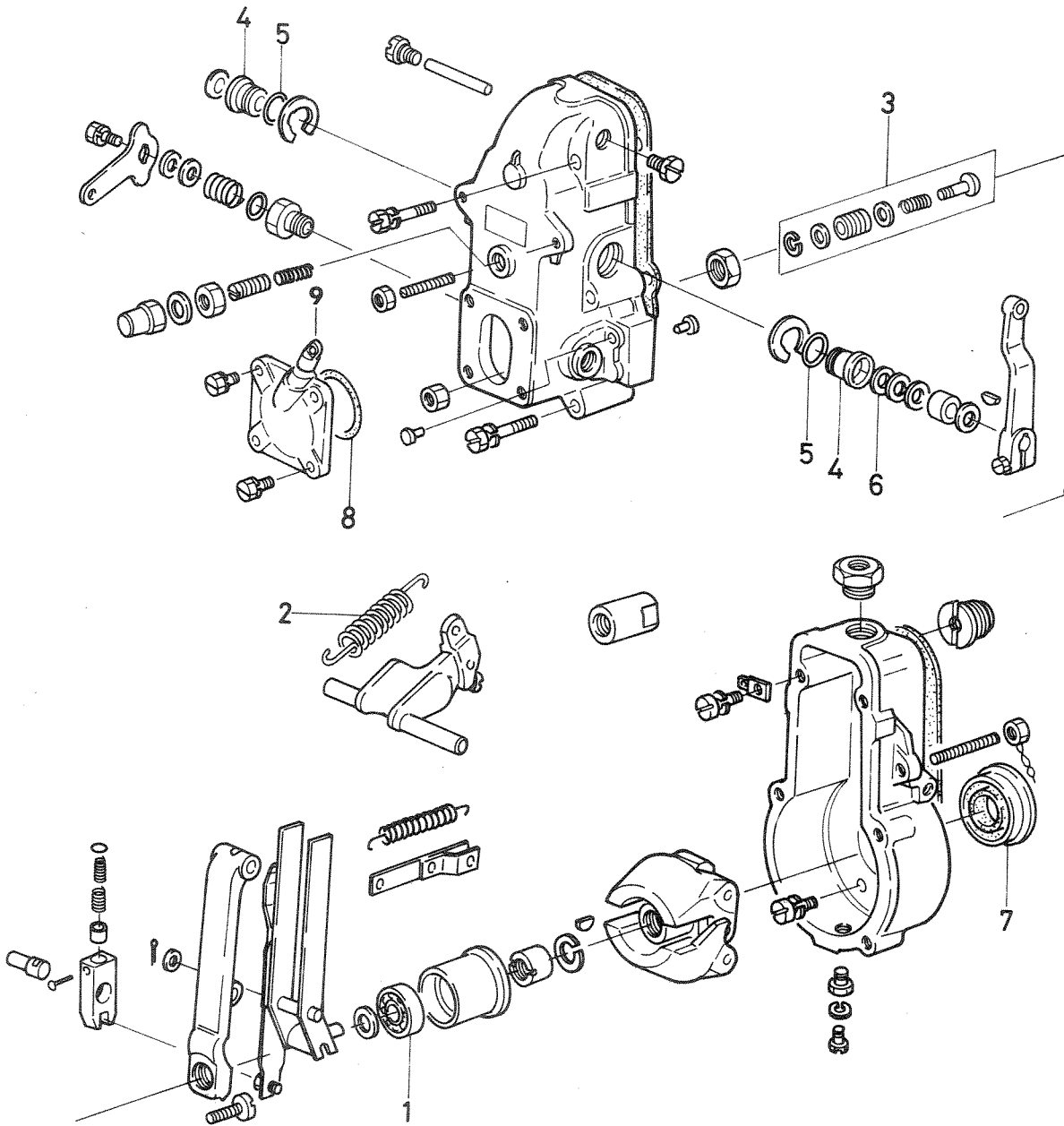
**PISCES**





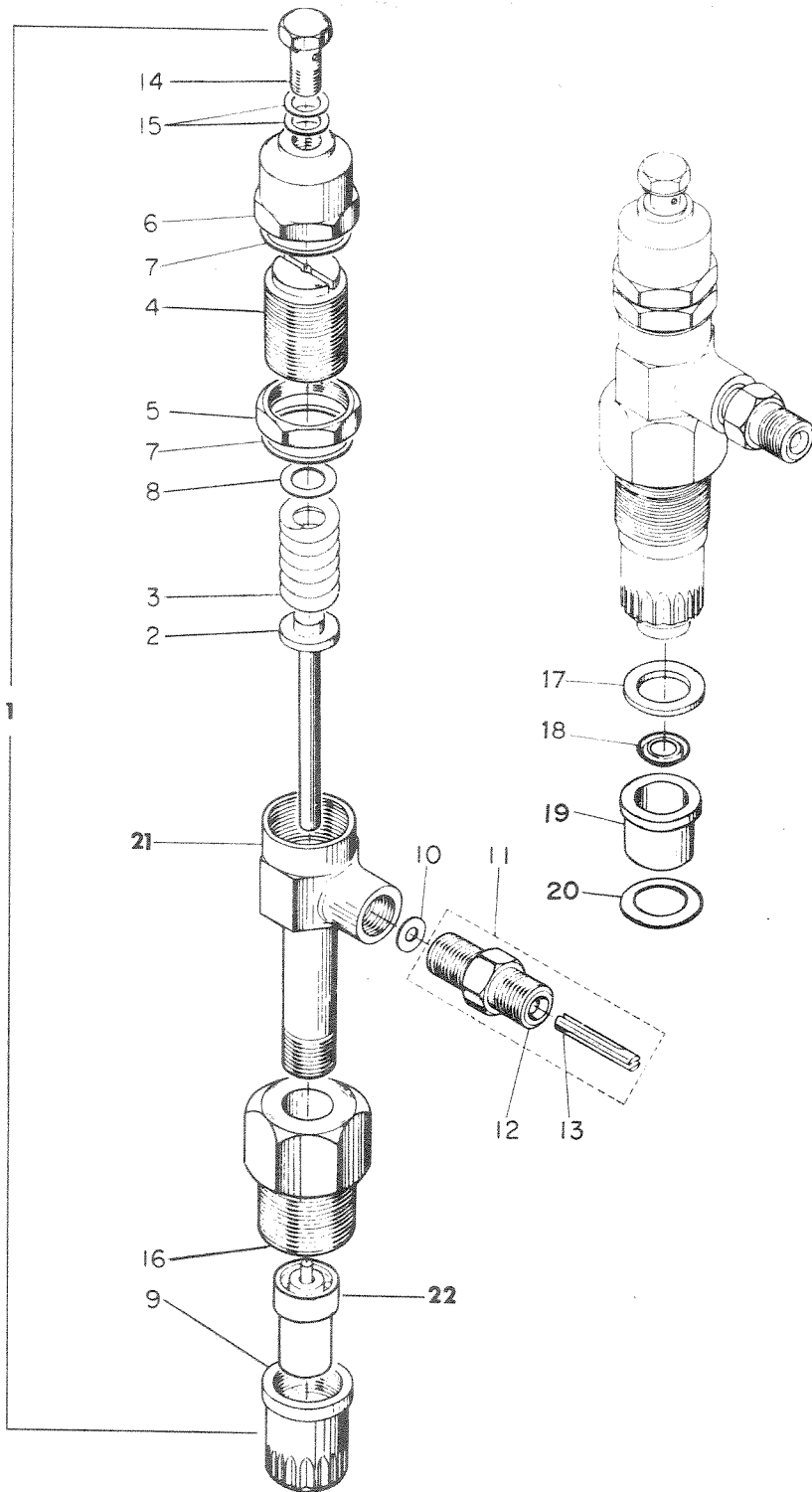
MODEL		FUEL FEED PUMP			GROUP	PAGE	
27-40-60					4	4	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1		1	42020		FEED PUMP ASSY.	
1		1		43020		FEED PUMP ASSY.	
2	1	1	1	42021		PISTON	
3	1	1	1	42022		SPRING	
4	1	1	1	42024		GASKET	
5	1	1	1	42023		CAP PLUG	
6	1	1	1	42025		TAPPET BODY	
7	2	2	2	42028		GUIDE	
8	1	1	1	42027		PIN	
9	1	1	1	42026		ROLLER TAPPET	
10	1	1	1	42040		SNAP RING	
11	4	4	4	42038		CRUSH WASHER	
12	1	1	1	42036		FILTER	
13	1	1	1	42035		HOLLOW BOLT	
14	2	2	2	42033		O-RING	
15	2	2	2	42029		VALVE, CHECK	
16	2	2	2	42030		SPRING	
17	1	1	1	42034		PUMP, PRIMING	
18	1	1	1	42039		COVER, DUST	
19	1	1	1	42037		HOLLOW BOLT	
20	1	1	1	42031		ADAPTOR	
21	1	1	1	42033		O-RING	

**PISCES**





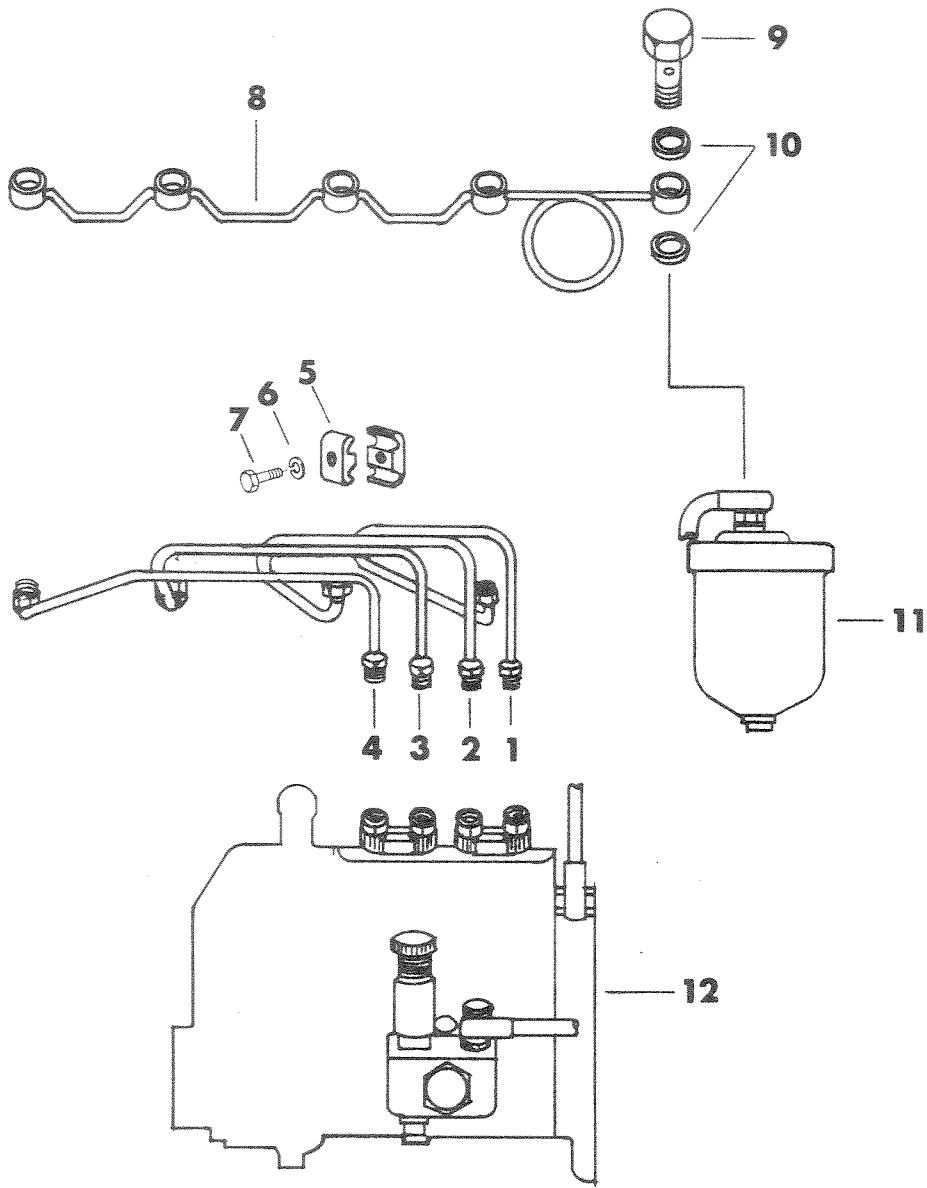
MODEL		INJECTION PUMP, GOVENER ASSY.			GROUP	PAGE	
27-40-60					4	6	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1	1	42334		BEARING	
2	1	1	1	42340		SPRING	
3	1	1	1	42347		IDLE SPRING ASSY.	
4	1	1	1	42356		BUSHING	
5	1	1	1	42357		O-RING	
6	1	1	1	42359		OIL SEAL	
7	1	1	1	42376		OIL SEAL	
8	1	1	1	42377		O-RING	
9	1	1	1	42327		DIP STICK, OIL LEVEL	







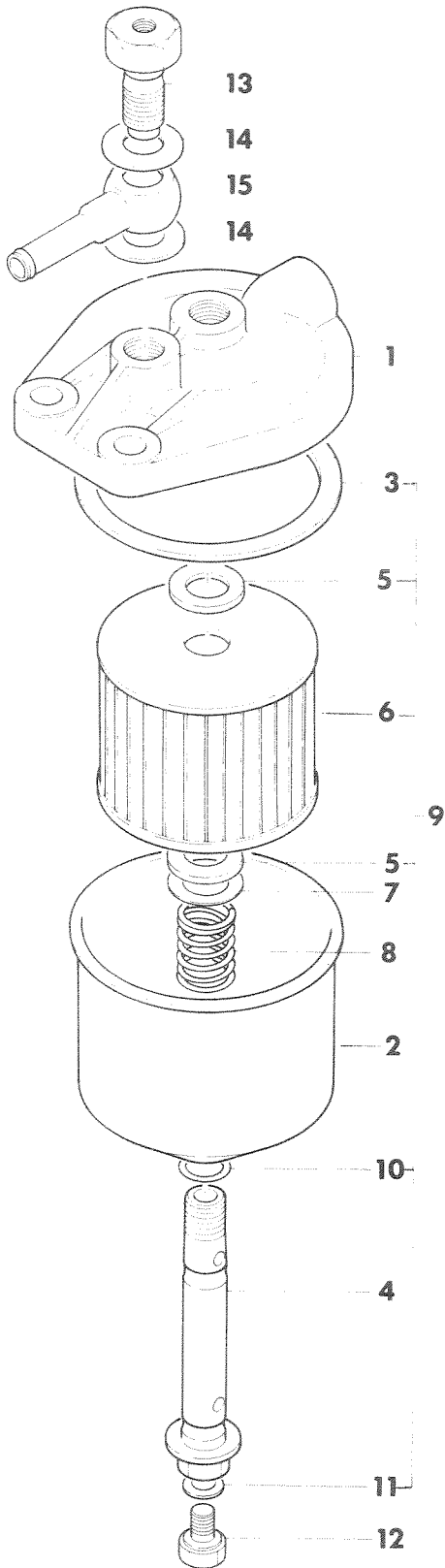
MODEL		INJECTOR				GROUP	PAGE
27-40-60						4	8
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	2	3	4	42050		NOZZLE HOLDER ASSY W/NOZZLE	
2	2	3	4	42053		PUSH ROD	
3	2	3	4	42054		SPRING NOZZLE	
4	2	3	4	42055		SCREW, SPRING ADJUST	
5	2	3	4	42056		NUT	
6	2	3	4	42057		NUT SCREW CAP	
7	4	6	8	42058		GASKET	
8	2	3	4	42059		WASHER	
9	2	3	4	42060		NUT NOZZLE	
10	2	3	4	42061		WASHER	
11	2	3	4	42062		INLET CONNECTOR ASSY.	
12	2	3	4	42063	*	CONNECTOR, FUEL INLET ASSY.	
13	2	3	4	42064	*	STRAINER, EDGE TYPE	
14	2	3	4	42065		HOLLOW BOLT	
15	4	6	8	42066		GASKET	
16	2	3	4	42067		SCREW, NOZZLE HOLDER	
17	2	3	4	42068		WASHER, NOZZLE HOLDER	
18	2	3	4	42069		CORRUGATED WASHER	
19	2	3	4	42070		NOZZLE HEAT SHIELD	
20	2	3	4	42071		WASHER, NOZZLE SHIELD	
21	2	3	4	42052		BODY, NOZZLE HOLDER	
22	2	3	4	42051		NOZZLE	





MODEL		FUEL LINES				GROUP	PAGE
27-40-60						4	10
FIG. NO.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		42072		INJECTION LINE #1 CYL.	
1			1	44072		INJECTION LINE #1 CYL.	
2	1	1		42073		INJECTION LINE #2 CYL.	
2			1	44073		INJECTION LINE #2 CYL.	
3		1		43080		INJECTION LINE #3 CYL.	
3			1	44080		INJECTION LINE #3 CYL.	
4			1	44081		INJECTION LINE #4 CYL.	
5	1	2	4	42075		CLIP ASSY.	
6	1	2	4	02172		LOCKWASHER M-5	
7	1	2	4	02174		SCREW M-5-.8X20	
8	1			42074		PIPE, FUEL BY-PASS	
8		1		43074		PIPE, FUEL BY-PASS	
8			1	44074		PIPE, FUEL BY-PASS	
9	1	1	1	42017		HOLLOW BOLT	
10	2	2	2	42018		CRUSHWASHER	
11	1	1	1	42001		FUEL FILTER ASSY.	
12	1			42201		INJECTOR PUMP ASSY.	
12		1		43201		INJECTOR PUMP ASSY.	
12			1	44201		INJECTOR PUMP ASSY.	

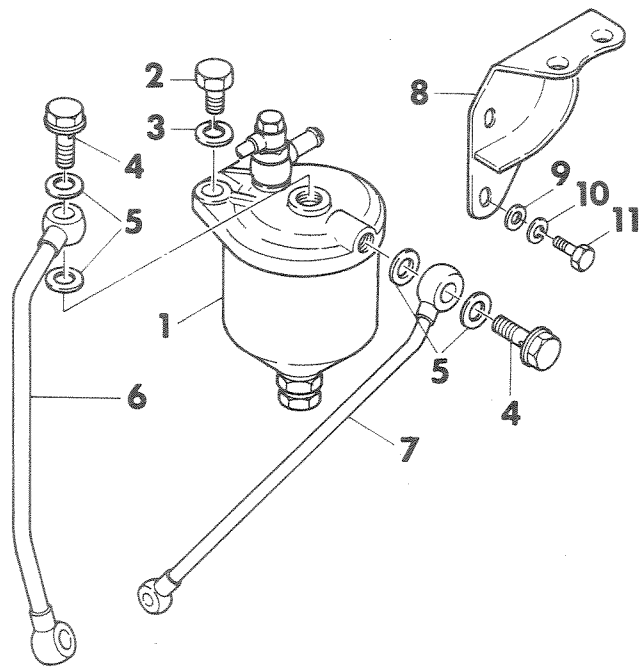
**PISCES**



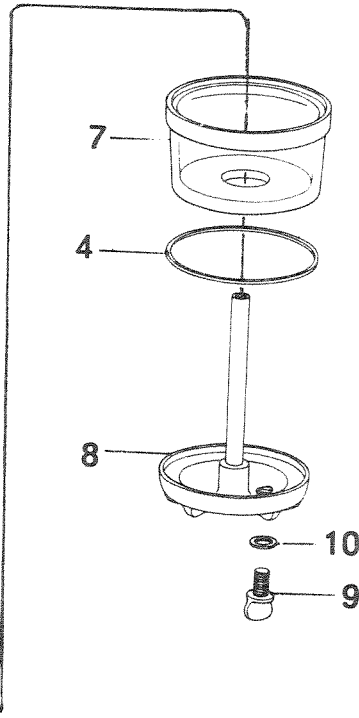
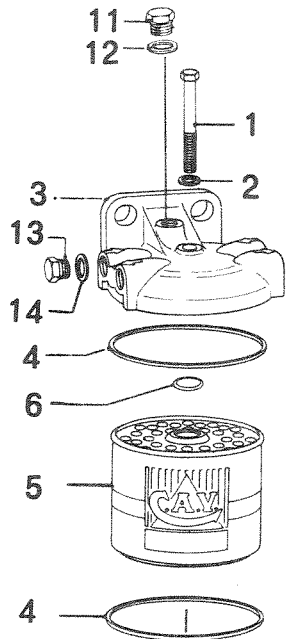
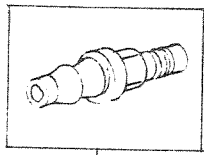


MODEL 27-40-60				FUEL FILTER			GROUP 4	PAGE 12
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES	
	27	40	60					
				42001		FUEL FILTER ASSY.		
1	1	1	1	42003		COVER, UPPER		
2	1	1	1	42002		BODY		
3	1	1	1	42004	*	GASKET, RUBBER		
4	1	1	1	42015		CENTER BOLT		
5	2	2	2	42006	*	PACKING, RUBBER		
6	1	1	1	NSS	*	ELEMENT		
7	1	1	1	42007		WASHER, FLAT		
8	1	1	1	42008		SPRING		
9	1	1	1	42005	*	ELEMENT ASSY.		
10	1	1	1	42009	*	PACKING, RUBBER		
11	1	1	1	42011	*	PACKING, FIBER DRAIN PLUG		
12	1	1	1	42010		PLUG, FUEL DRAIN		
13	1	1	1	42012		OVER FLOW VALVE ASSY.		
14	2	2	2	42013		CRUSH WASHER		
15	1	1	1	42016		BANJO FITTING, RETURN		

**PISCES**



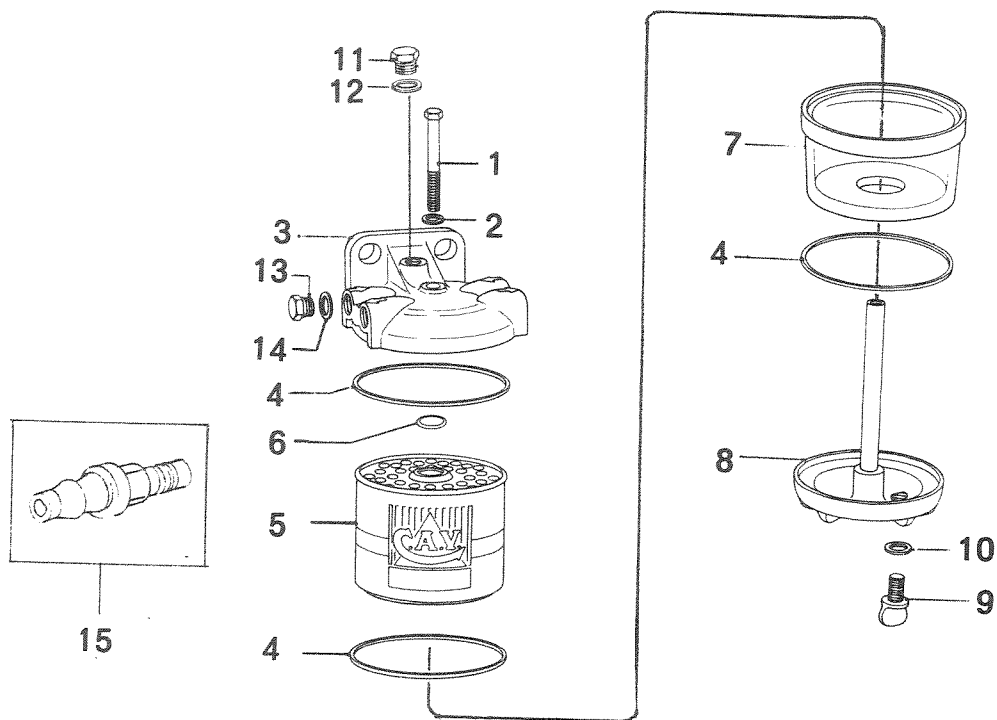
MODEL 27-40-60		FUEL FILTER AND LINES				GROUP 4	PAGE 14
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1	1	42001		FILTER ASSY.	
2	2	2	2	02781		BOLT M10-1.25X35	
3	2	2	2	02342		LOCK WASHER M 10	
4	2	2	2	42043		HOLLOW BOLT	
5	4	4	4	42044		CRUSH WASHER	
6	1	1	1	42042		PIPE, FILTER TO INJECTION PUMP	
7	1		1	42041		PIPE, FEED PUMP TO FILTER	
7		1		43041		PIPE, FEED PUMP TO FILTER	
8	1	1	1	42014		BRACKET	
9	2	2	2	02241		FLAT WASHER M8	
10	2	2	2	02242		LOCK WASHER M8	
11	2	2	2	02252		BOLT M8-1.25X20	





MODEL ALL		FUEL FILTER COMPLETE C.A.V.					GROUP 4	PAGE 16
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES	
	27	40	60					
	1	1	1	42100		FUEL FILTER COMPLETE		
1	1	1	1	42101		CENTER BOLT		
2	1	1	1	42102		WASHER		
3	1	1	1	42103		COVER		
4	1	1	1	42104		PLUG		
5	1	1	1	42105		CRUSH WASHER		
6	3	3	3	42106		SEAL		
7	1	1	1	42107		O-RING		
8	1	1	1	42108		FILTER ELEMENT		
9	1	1	1	42109		INSPECTION BOWL		
10	1	1	1	42110		BASE		
11	1	1	1	42111		DRAIN PLUG		
12	1	1	1	42112		SEAL		
13	1	1	1	42113		BLEED SCREW		
14	1	1	1	42114		CRUSH WASHER		
15	AR	AR	AR	42115		HOSE FITTING 5/16, S.A.E.-1/4 HOSE		
	AR	AR	AR	42116		HOSE FITTING 5/16, S.A.E.-5/16 HOSE		
	AR	AR	AR	42117		HOSE FITTING 5/16, S.A.E.-3/8 HOSE		
	AR	AR	AR	42118		S.A.E. TUBE UNION 5/16		
	AR	AR	AR	42119		ADAPTOR 5/16, S.A.E. 1/4 PIPE		

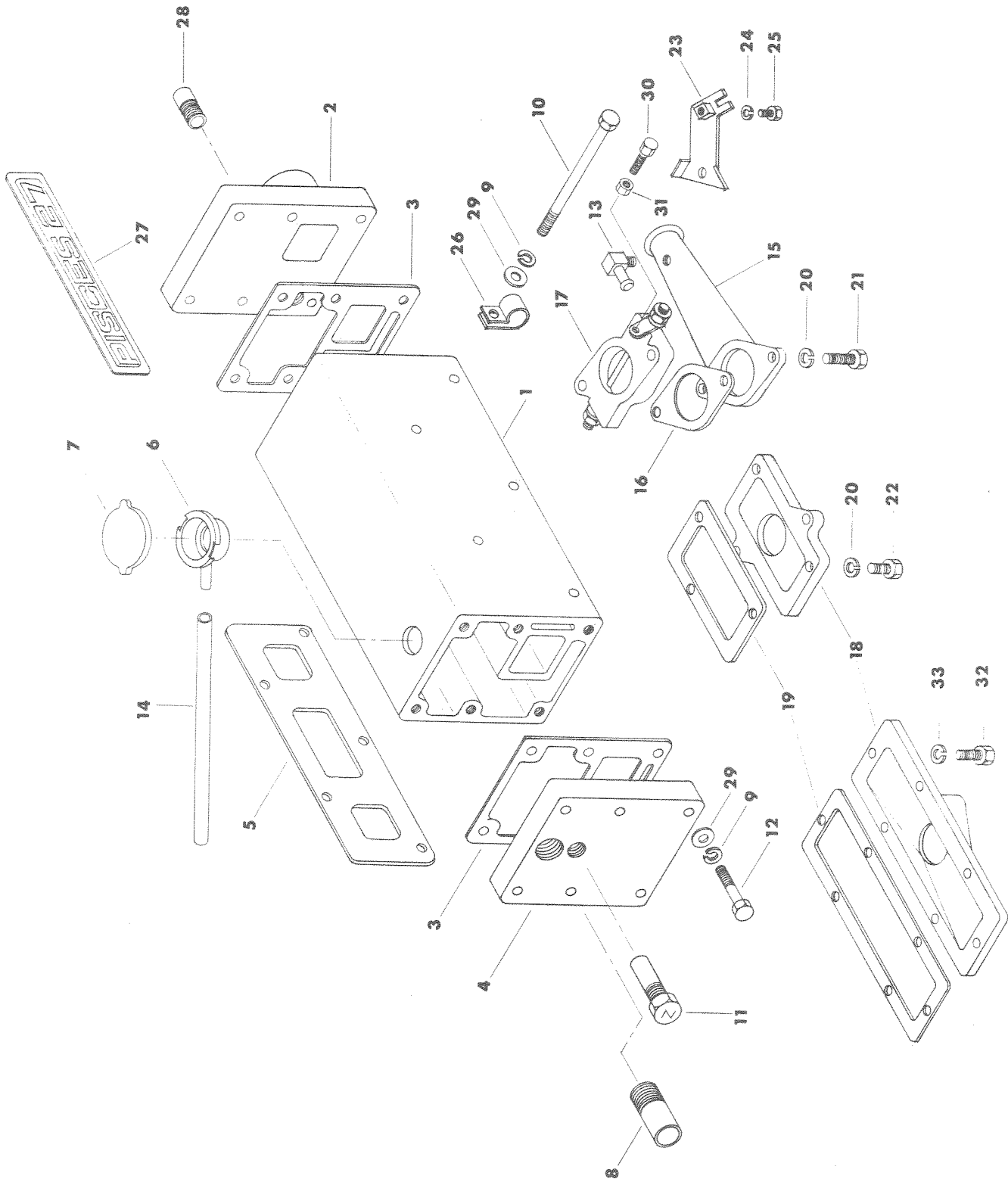
This page is a duplicate of  
Grp 4 Pg 15 in original manual  
and was located on the back of  
Pg 16



# SECTION 5

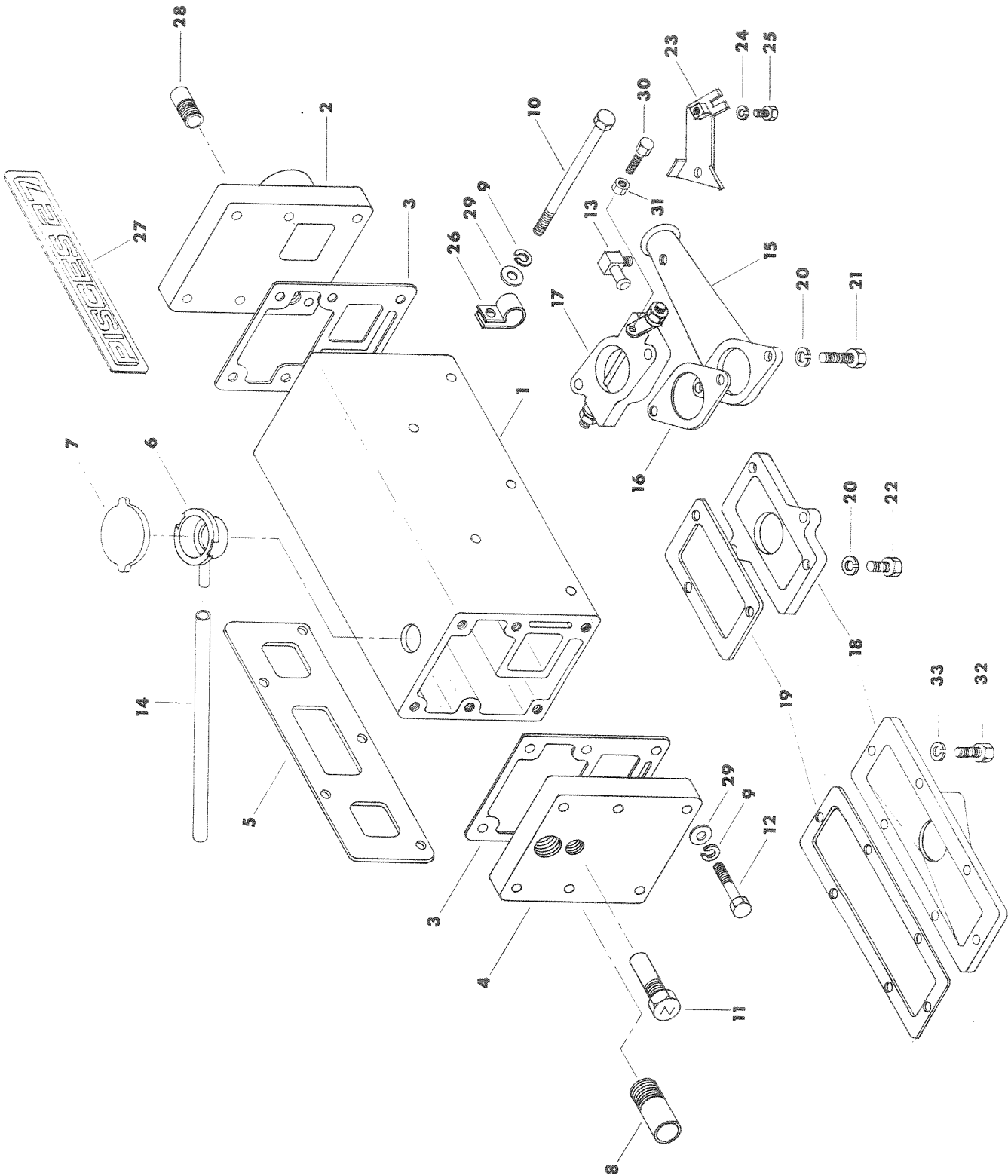


**PISCES**



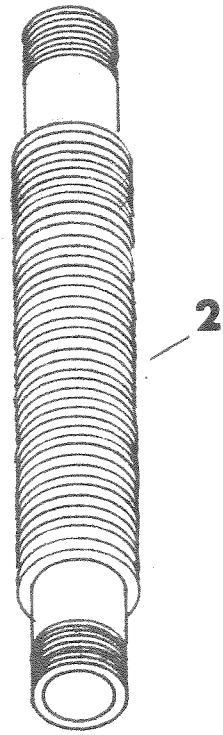
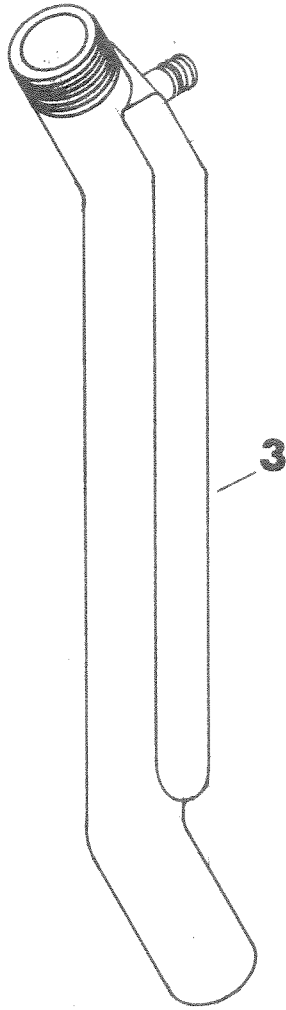
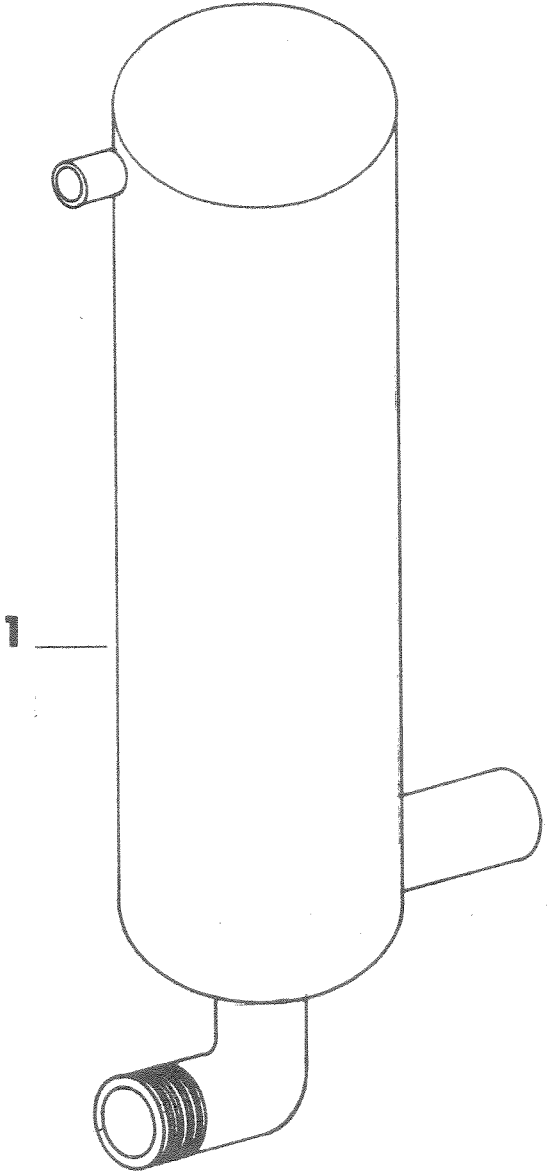
		MANIFOLD ASSY.			GROUP	PAGE	
					5	2	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1			52500		MANIFOLD, EXHAUST	
1		1		53500		MANIFOLD, EXHAUST	
1			1	54500		MANIFOLD, EXHAUST	
2	1	1	1	52501		CAP, EXHAUST OUTLET REAR	
2	1	1	1	52506		CAP, BLANK REAR	VEE DRIVE
3	2	2	2	52502		GASKET, MANIFOLD END	
4	1	1	1	52503		CAP, FRONT BLANK	
4	1	1	1	52504		CAP, EXHAUST OUTLET FRONT	VEE DRIVE
5	1			52507		GASKET, MANIFOLD TO BLOCK	
5		1		53507		GASKET, MANIFOLD TO BLOCK	
5			1	54507		GASKET, MANIFOLD TO BLOCK	
6	1	1	1	52508		FILLER NECK	
7	1	1	1	52509		CAP 14 LBS.	
8	1	1	1	52513		NIPPLE, 3/4 NPTX2 1/2	
9	17	19	19	02242		LOCKWASHER M8	
10	5	7	7	02273		BOLT M8-1.25X125	
11	1	1	1	52511		ZINC PLUG	
12	12	12	12	02254		BOLT M-8-1.25 X 30	
13	1	1	1	02684		ELBOW, 1/8 NPT TO 3/8 HOSE	
14	1	1	1	52515		TUBE, OVERFLOW	
15	1	1	1	52517		AIR SILENCER	
16	2	2	2	52519		GASKET	
17	1	1	1	52521		AIR INTAKE SHUTTER	EARLY PRODUCTION
18	1			52523		FLANGE, AIR INTAKE	
18		1	1	53523		FLANGE, AIR INTAKE	
19	1			52525		GASKET	
19		1	1	53525		GASKET	
20	4	2	2	02242		LOCKWASHER M8	
21	2			02261		BOLT M8-1.25X65	EARLY PRODUCTION
21	2			02256		BOLT M8-1.25X40	
22	2			02252		BOLT M8-1.25X20	
23	1	1	1	52522		STOP CONTROL BRACKET	EARLY PRODUCTION
24	1	1	1	02163		LOCKWASHER M4	

**PISCES**



				MANIFOLD ASSY.		GROUP	PAGE
						5	4
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
25	1	1	1	02164		BOLT, HEX M4-.70X12	
26	1	1	1	02756		CLAMP, ADEL 3/4"	
27	1			52505		PLATE, NAME (LOGO)	
27		1		53505		PLATE, NAME (LOGO)	
27			1	54505		PLATE, NAME (LOGO)	
28	1	1	1	52510		NIPPLE 3/4 NPT X 1 1/2	
29	17	19	19	0 2241		WASHER FLAT M 8	
30	1	1	1	52528		BOLT, STOP CABLE M6-1.0X15	
31	1	1	1	52529		NUT, NYLOC M6-1.0	
32		6	6	02173		BOLT M5-.8X16	
33		6	6	02172		LOCKWASHER M5	

**PISCES**







		EXHAUST SYSTEM OPTIONAL EQUIPMENT			GROUP	PAGE	
					5	6	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		52601		WATER COOLED RISER MUFFLER	1 1/2" NPT W/5/8" INLET
1			1	54601		WATER COOLED RISER MUFFLER	1 1/2" NPT W/1" INLET
2	1	1	1	52610		STAINLESS WRINKLE BELLY HOSE	1 1/2 X 18 NPT
3	1	1		52605		WATER COOLED EXHAUST ELBOW	5/8" WATER INLET
3			1	54605		WATER COOLED EXHAUST ELBOW	1" WATER INLET

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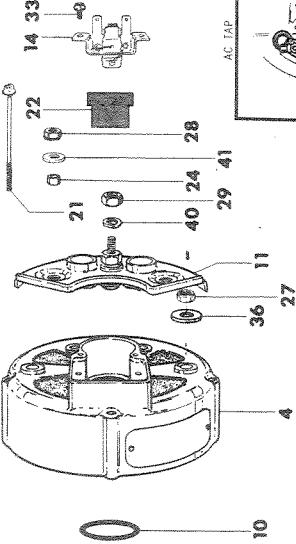
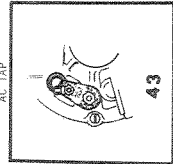
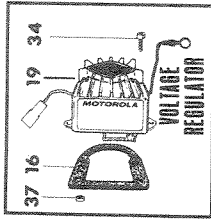
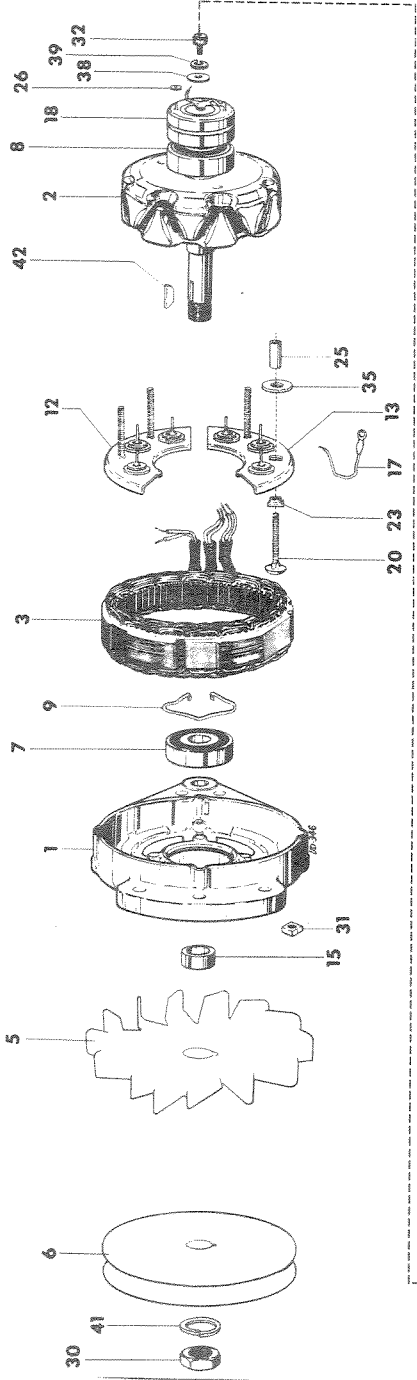
# SECTION 6



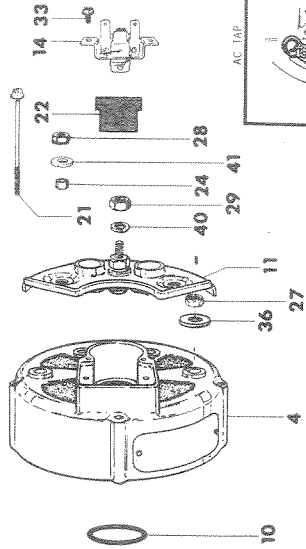
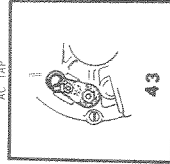
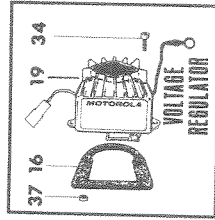
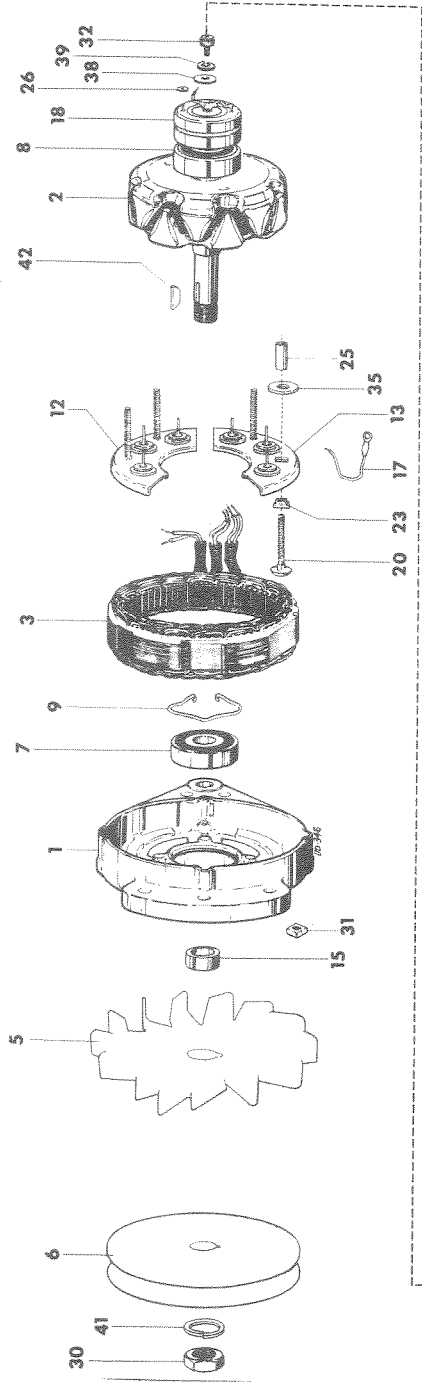




MODEL 27-40-60				ALTERNATOR ASSY. 35A			GROUP 6	PAGE 2
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES	
	27	40	60					
	1	1	1	62660		ALTERNATOR ASSY. 35 AMP.	8MR-2002	
1	1	1	1	62662		HOUSING - FRONT		
2	1	1	1	62663		ROTOR ASSY.		
3	1	1	1	62666		STATOR ASSY.		
4	1	1	1	62668		HOUSING REAR		
5	1	1	1	62669		FAN		
6	1	1	1	62665		PULLEY		
7	1	1	1	62670		BEARING, FRONT		
8	1	1	1	62670		BEARING, REAR		
9	1	1	1	62671		RETAINER - FRONT BRG.		
10	1	1	1	62672		RETAINER - REAR BRG.		
11	1	1	1	62700		DIODE ISOLATION		
12	1	1	1	62673		DIODE - RECT. NEG		
13	1	1	1	62674		DIODE - RECT. POS.		
14	1	1	1	62675		BRUSH ASSY.		
15	1	1	1	62676		SPACER - FAN - PULLEY		
16	1	1	1	62677		GASKET, REGULATOR		
17	1	1	1	62678		CABLE, TACHOMETER		
18	1	1	1	62680		SLIP RING ASSY.		
19	1	1	1	62681		VOLTAGE REGULATOR		
20	1	1	1	62683		BOLT, CARRIAGE 10-24 X 1 1/2		
21	1	1	1	62684		BOLT, 10-32 X 2 55/64		
22	1	1	1	62686		INSULATOR, SHUNT LEADS		
23	1	1	1	62687		INSULATOR, MOLDER		
24	1	1	1	62688		INSULATOR, SLEEVE 3/32 LONG		
25	1	1	1	62689		INSULATOR, SLEEVE 19/32 LONG		
26	1	1	1	62690		INSULATOR, CUT RING 1/4		
27	1	1	1	62691		NUT, HEX 10-24		
28	2	2	2	62692		NUT, LOCK 10-24		
29	1	1	1	62693		NUT, 1/4-20		
30	1	1	1	62694		NUT, 5/8-18		
31	1	1	1	62695		NUT, SQUARE (10/24)		
32	1	1	1	62696		SCREW, INT. HEX 10-32 X 58		

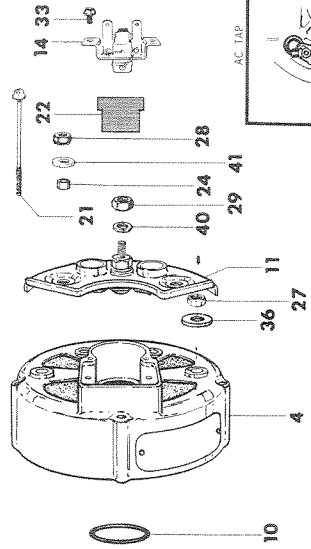
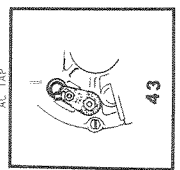
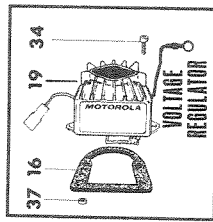
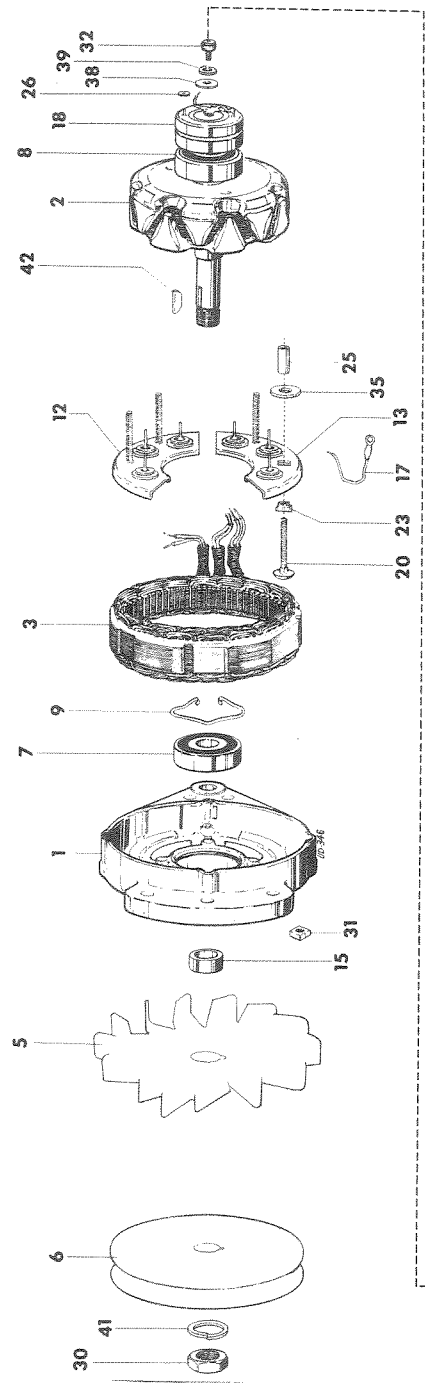


					GROUP	PAGE	
					6	4	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
33	1	1	1	62697		SCREW, TAPPING #8 X 1/2	
34	1	1	1	62698		SCREW, TAPPING #8 X 3/4	
35	1	1	1	62699		INSULATOR 1/2 O.D.	
36	2	2	2	62702		INSULATOR 3/4 O.D.	
37	2	2	2	62703		SPACER GASKET #10	
38	1	1	1	62705		WASHER #10 - 5/16 O.D.	
39	1	1	1	62706		LOCK WASHER #10	
40	1	1	1	62708		LOCK WASHER 1/4	
41	1	1	1	62709		LOCK WASHER 5/8	
42	1	1	1	62710		KEY, WOODRUFF #5	
43	1	1	1	62711		A.C. TAP KIT	

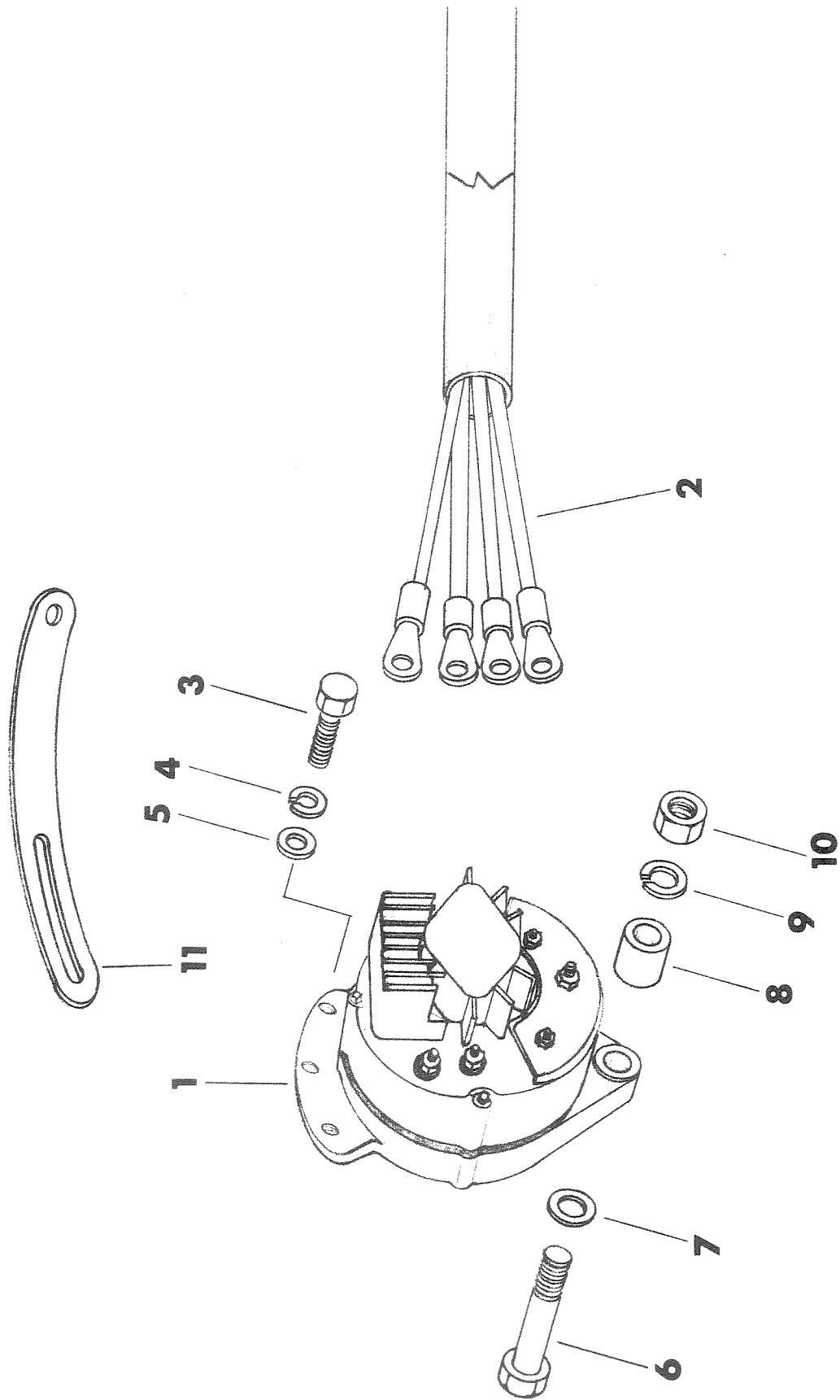




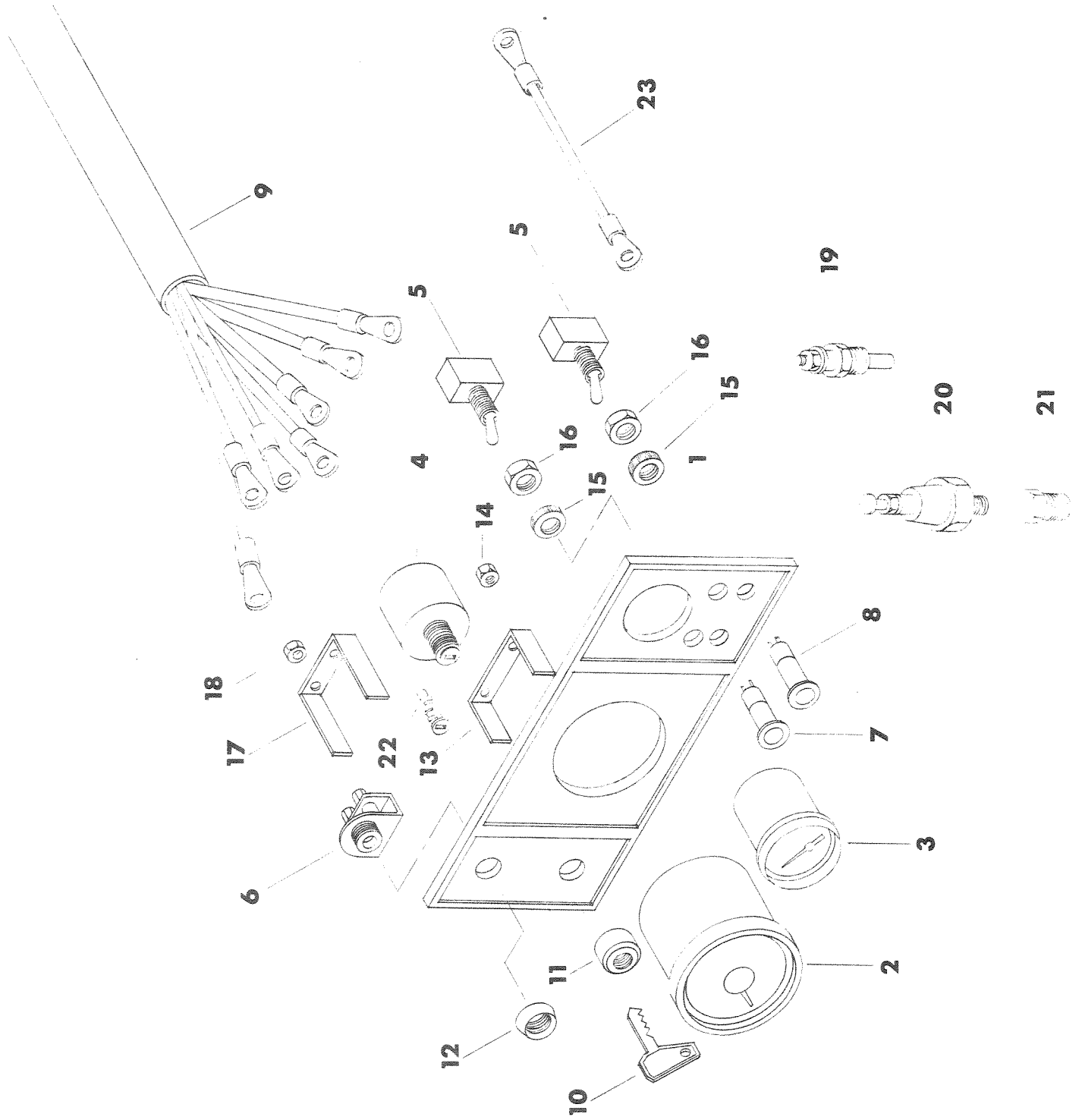
				GROUP	PAGE		
				6	6		
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1	1	1	62661		ALTERNATOR ASSY, 55 AMP.	8MR-2003
1	1	1	1	62662		HOUSING - FRONT	
2	1	1	1	62664		ROTOR ASSY.	
3	1	1	1	62667		STATOR ASSY.	
4	1	1	1	62668		HOUSING - REAR	
5	1	1	1	62669		FAN	
6	1	1	1	62665		PULLEY	
7	1	1	1	62670		BEARING - FRONT	
8	1	1	1	62670		BEARING - REAR	
9	1	1	1	62671		RETAINER - FRONT BRG.	
10	1	1	1	62672		RETAINER - REAR BRG.	
11	1	1	1	62701		ISOLATION DIODE	
12	1	1	1	62673		DIODE - RECT. NEG.	
13	1	1	1	62674		DIODE - RECT. POS.	
14	1	1	1	62675		BRUSH ASSY.	
15	1	1	1	62676		SPACER, FAN - PULLEY	
16	1	1	1	62677		GASKET - REGULATOR	
17	1	1	1	62679		CABLE - TACHOMETER	
18	1	1	1	62680		SLIP RING ASSY.	
19	1	1	1	62682		VOLTAGE REGULATOR	
20	1	1	1	62683		BOLT, CARRIAGE 10-24 X 1 1/2	
21	1	1	1	62685		BOLT, 10 - 32 X 3 1/8	
22	1	1	1	62686		INSULATOR, SHUNT LEAD	
23	1	1	1	62687		INSULATOR, MOLDED	
24	1	1	1	62688		INSULATOR, SLEEVE 3/32	
25	1	1	1	62689		INSULATOR, SLEEVE 19/32	
26	1	1	1	62690		INSULATOR, CUT RING 1/4	
27	1	1	1	62691		NUT, HEX 10-24	
28	2	2	2	62692		NUT, LOCK 10-24	
29	1	1	1	62693		NUT, HEX 1/4-20	
30	1	1	1	62694		NUT, HEX 5/8-18	
31	1	1	1	62695		NUT, SQUARE (10/24)	
32	1	1	1	62696		SCREW, INT. HEX 10-32X5/8	



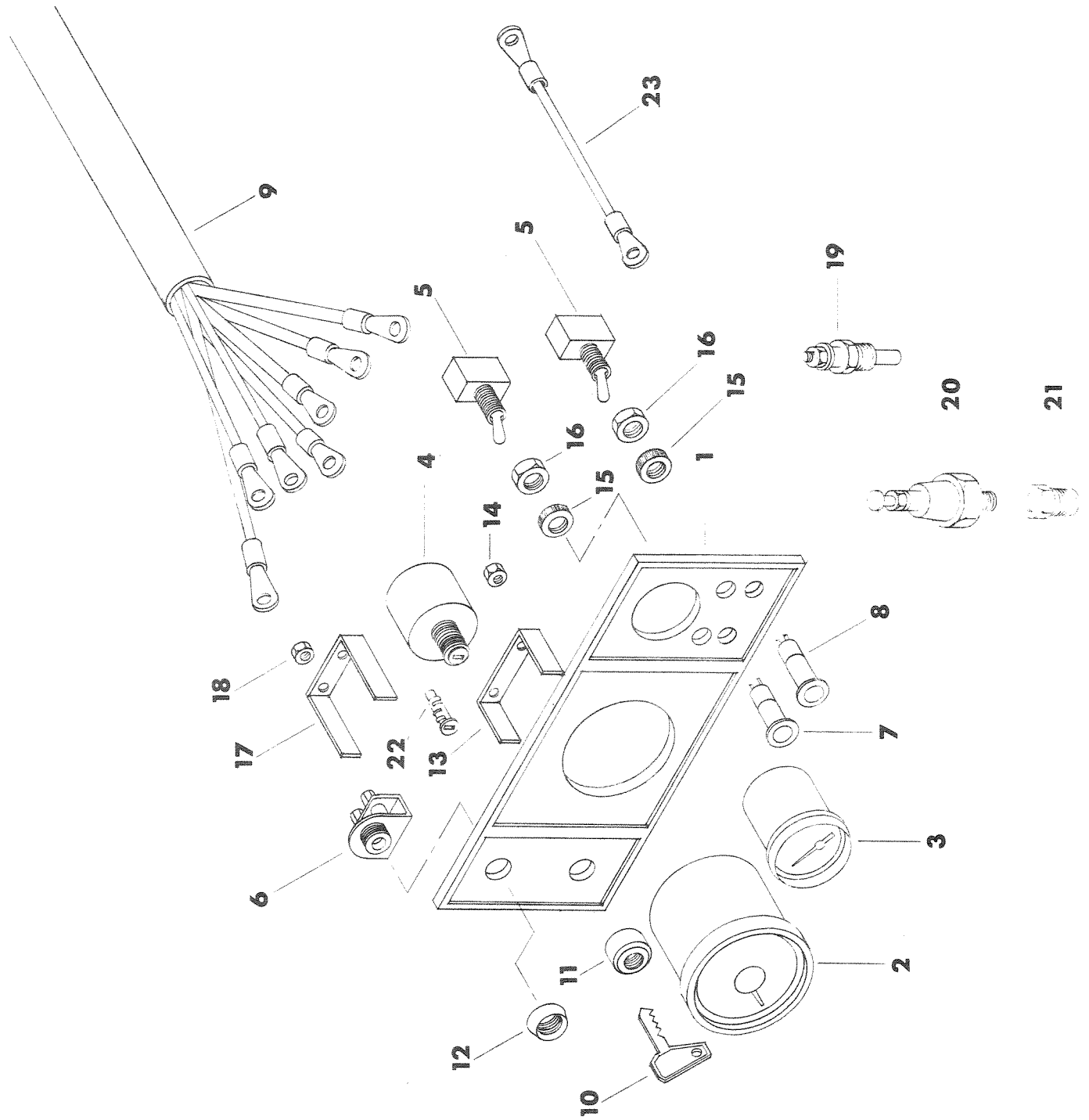
						GROUP	PAGE
						6	8
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
33	1	1	1	62697		SCREW, TAPPING #8 X 1/2	
34	1	1	1	62698		SCREW, TAPPING #8 X 3/4	
35	1	1	1	62699		INSULATOR #10, 1/2 O.D.	
36	2	2	2	62702		INSULATOR, #10, 3/4 O.D.	
37	2	2	2	62704		FLAT WASHER #10, 3/16 O.D.	
38	1	1	1	62705		FLAT WASHER #10, 5/16 O.D.	
39	1	1	1	62707		LOCK WASHER #10	
40	1	1	1	62708		LOCK WASHER 1/4	
41	1	1	1	62709		LOCK WASHER 5/8	
42	1	1	1	62710		KEY, WOODRUFF #5	
43	1	1	1	62711		A.C. TAP KIT	



MODEL ALL				ALTERNATOR ASSEMBLY		GROUP 6	PAGE 10
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1	1	62660		ALTERNATOR, 35 AMP.	8MR-2002
	1	1	1	62661		ALTERNATOR, 55 AMP.	8MR-2003
2	1	1	1	62645		WIRE LOOM, ENGINE	
3	1	1	1	62714		BOLT, 5/16-18X1	
4	1	1	1	02242		WASHER, LOCK M-8	
5	1	1	1	02241		WASHER, FLAT M-8	
6	1	1	1	02455		BOLT, M-12-1.75X75	
7	1	1	1	02441		WASHER, FLAT M-12	
8	1	1	1	62716		SPACER, ALUMINUM	
9	1	1	1	02442		WASHER, LOCK M-12	
10	1	1	1	02440		NUT, M-12-1.75	
11	1	1	1	62715		TENSION ARM	

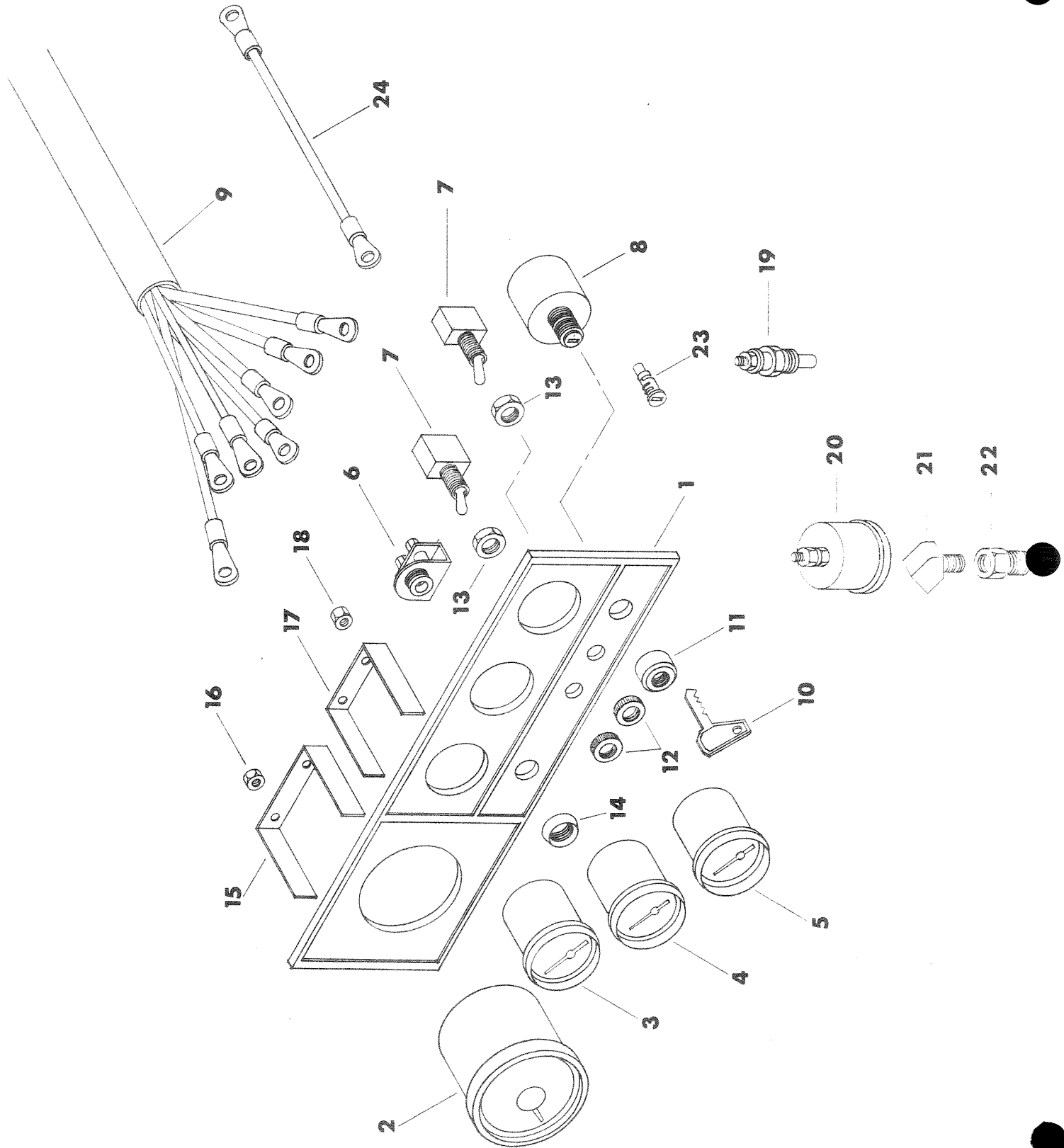


MODEL ALL				INSTRUMENT PANEL, STANDARD		GROUP 6	PAGE 12
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1			62619		INSTRUMENT PANEL COMPLETE	
		1		63619		INSTRUMENT PANEL COMPLETE	
			1	64619		INSTRUMENT PANEL COMPLETE	
1	1	1	1	62622		PLATE, MOUNTING	
2	1	1	1	62625		TACHOMETER	
3	1	1	1	62628		GAUGE, TEMPERATURE	
4	1	1	1	62633		SWITCH, IGNITION	
5	2	2	2	62634		SWITCH, TOGGLE	
6	1			62637		GLOW SPIRAL	
		1		63637		GLOW SPIRAL	
			1	64637		GLOW SPIRAL	
7	1	1	1	62631		LIGHT, ALTERNATOR GREEN 10MM $\phi$	EARLY
	1	1	1	62648		LIGHT, ALTERNATOR BLUE 13MM $\phi$	
8	1	1	1	62629		LIGHT, OIL PRESSURE RED 10MM	EARLY
	1	1	1	62647		LIGHT, OIL PRESSURE RED 13MM $\phi$	$\phi$
9	1	1	1	62643		LOOM, PANEL WIRING	
10	2	2	2	62603		KEY BLANK, IGNITION	
11	1	1	1	62602		NUT, IGNITION SWITCH	
12	1	1	1	62606		NUT, GLOW SPIRAL	
13	1	1	1	62607		BRACKET, TEMPERATURE GAUGE	
14	2	2	2	62615		NUT, #8-32	
15	2	2	2	62605		NUT, TOGGLE SWITCH	
16	2	2	2	62604		NUT, HEX, TOGGLE SWITCH	
17	1	1	1	62610		BRACKET, TACHOMETER	
18	2	2	2	62609		NUT #10-32	
19	1	1	1	62635		SENDER, TEMPERATURE	
20	1	1	1	62639		SENDER, OIL PRESSURE	
21	1	1	1	62640		ADAPTOR, OIL PRESSURE SWITCH	
22	1	1	1	62614		LOCK BARREL IGNITION SWITCH	
23	1	1	1	62730		WIRE, JUMPER, ORANGE, 2 LUGS	5.25"
	1	1	1	62731		WIRE, JUMPER, PURPLE, 4 LUGS	
	1	1	1	62732		WIRE, JUMPER, RED, 2 LUGS	3.50"
	1	1	1	62733		WIRE, JUMPER, GREEN 2 LUGS	4.00"



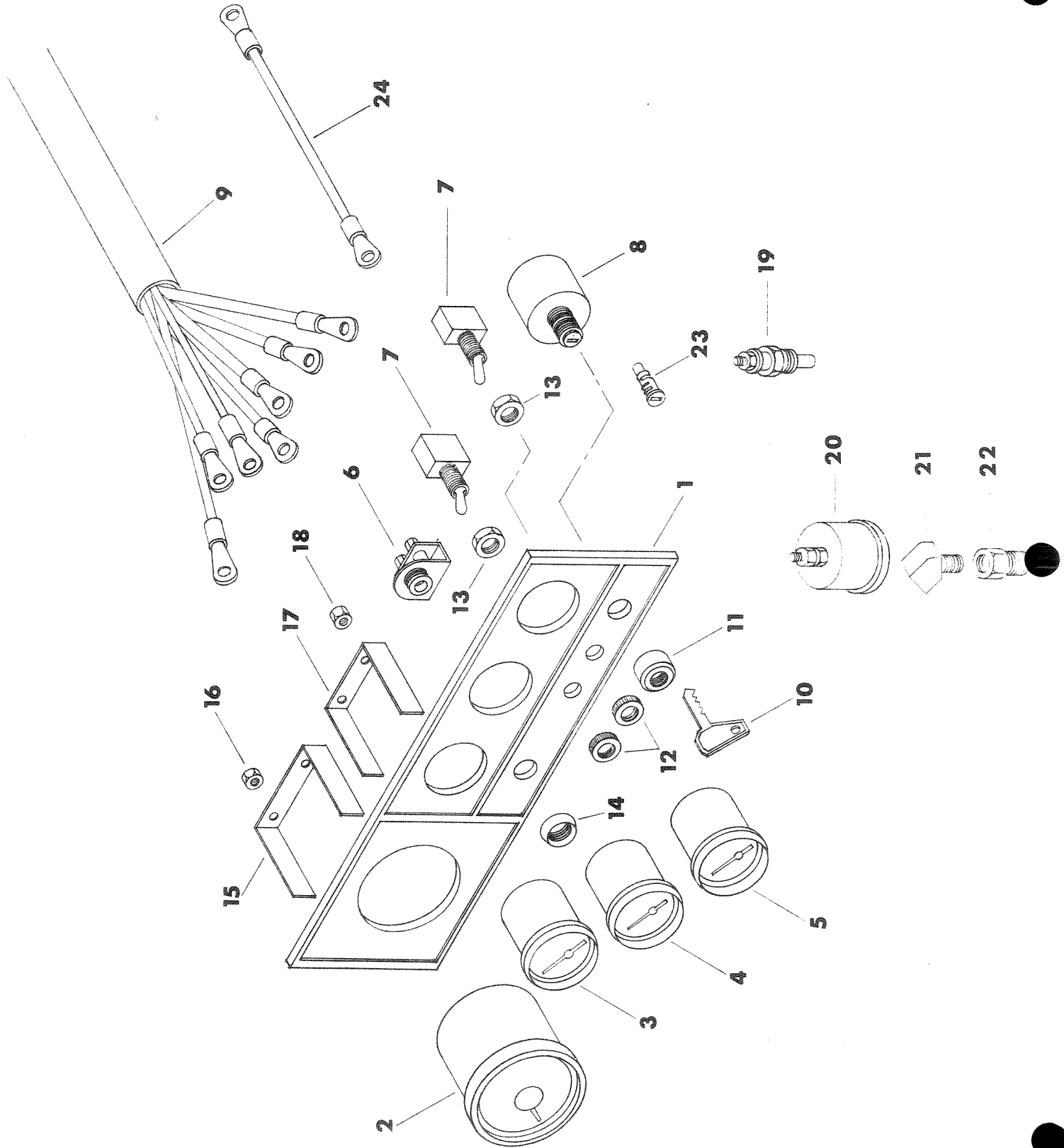


					GROUP	PAGE	
					6	14	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1	1	1	62734		WIRE, JUMPER, YELLOW, 2 LUGS	3.50''
	1	1	1	62735		WIRE, JUMPER, BLACK, 3 LUGS	
	1	1	1	62736		WIRE, JUMPER, GREEN , 3 LUGS	

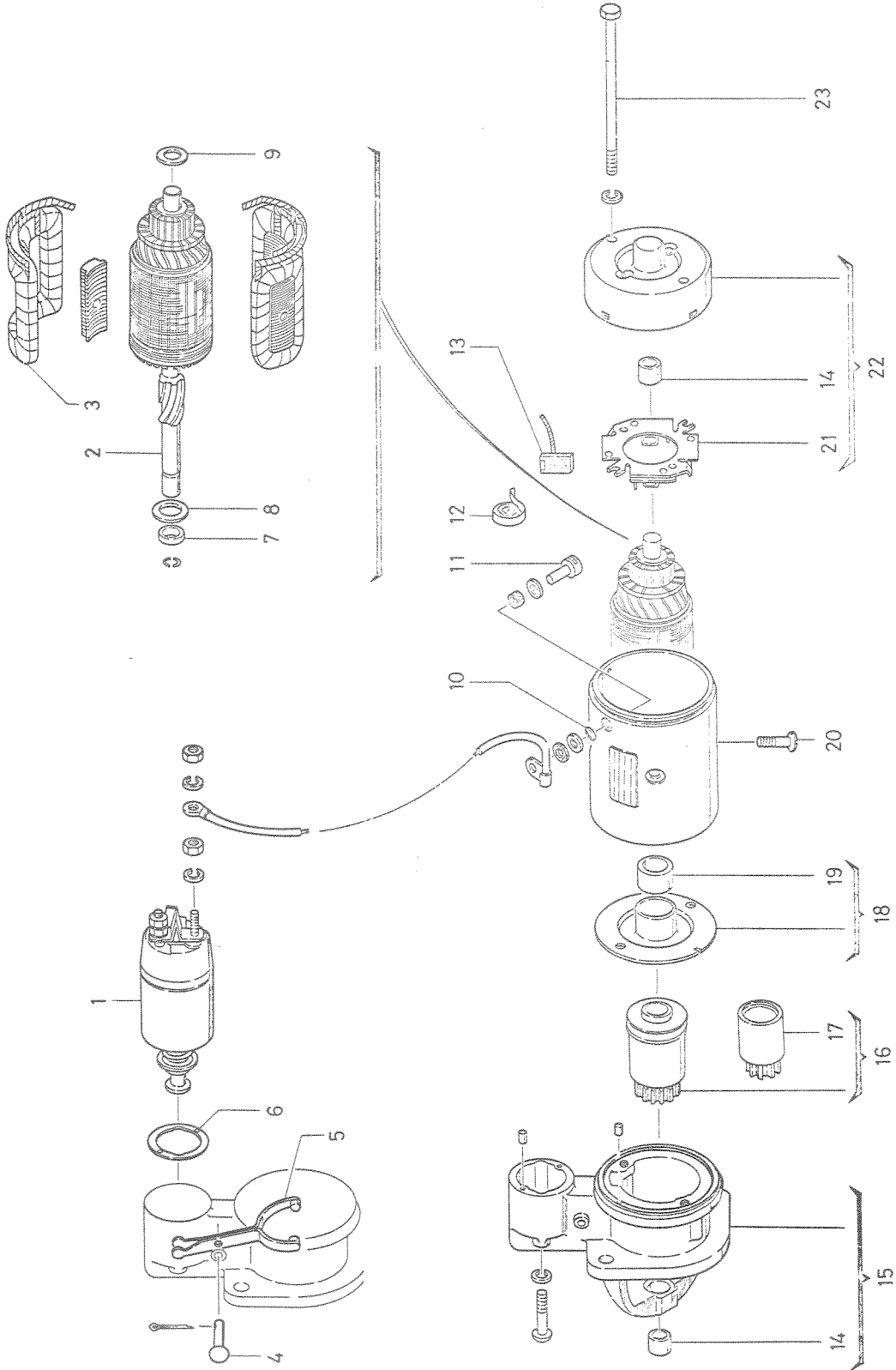




MODEL ALL				INSTRUMENT PANEL, DELUXE		GROUP 6	PAGE 16
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1			62621		INSTRUMENT PANEL COMPLETE	
		1		63621		INSTRUMENT PANEL COMPLETE	
			1	64621		INSTRUMENT PANEL COMPLETE	
1	1	1	1	62623		PLATE, MOUNTING	
2	1	1	1	62626		TACHOMETER WITH HOUR METER	
3	1	1	1	62628		GAUGE, WATER TEMPERATURE	
4	1	1	1	62632		GAUGE, OIL PRESSURE	
5	1	1	1	62630		AMMETER	
6	1			62637		GLOW SPIRAL	
		1		63637		GLOW SPIRAL	
			1	64637		GLOW SPIRAL	
7	2	2	2	62634		SWITCH, TOGGLE	
8	1	1	1	62633		SWITCH, IGNITION	
9	1	1	1	62644		LOOM, PANEL WIRING	
10	2	2	2	62603		KEY BLANK, IGNITION	
11	1	1	1	62602		NUT, IGNITION SWITCH	
12	2	2	2	62605		NUT, TOGGLE SWITCH	
13	2	2	2	62604		NUT, HEX, TOGGLE SWITCH	
14	1	1	1	62606		NUT, GLOW SPIRAL	
15	1	1	1	62610		BRACKET, TACHOMETER	
16	2	2	2	62609		NUT, #10-32	
17	3	3	3	62607		BRACKET, GAUGE	
18	6	6	6	62615		NUT, #8-32	
19	1	1	1	62635		SENDER, TEMPERATURE GAUGE	
20	1	1	1	62636		SENDER, OIL PRESSURE	
21	1			62642		STREET ELL 45°	
			1	63642		STREET ELL 90°	
22	1	1	1	62641		ADAPTOR	
23	1	1	1	62614		LOCK BARREL, IGNITION SWITCH	
24	1	1	1	62740		WIRE, JUMPER, YELLOW, 2 LUGS	
	1	1	1	62741		WIRE, JUMPER, GREEN, 6 LUGS	
	1	1	1	62742		WIRE, JUMPER, BLACK, 5 LUGS	
	1	1	1	62743		WIRE, JUMPER, PURPLE, 4 LUGS	

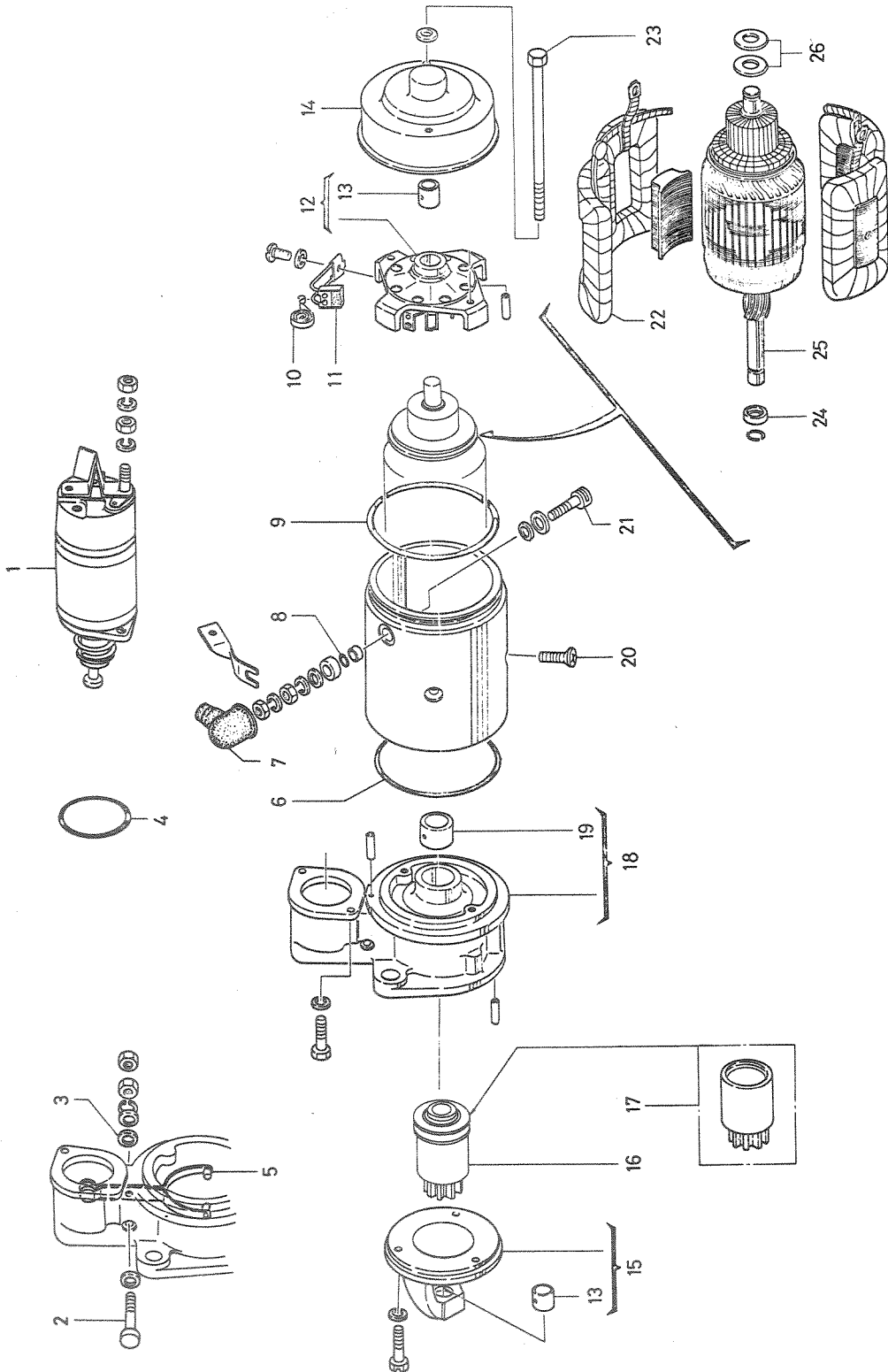


				INSTRUMENT PANEL		GROUP 6	PAGE 18
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1	1	1	72744		WIRE, JUMPER, RED, 2 LUGS	3.50''
	1	1	1	62745		WIRE, JUMPER, RED, 2 LUGS	6.50''



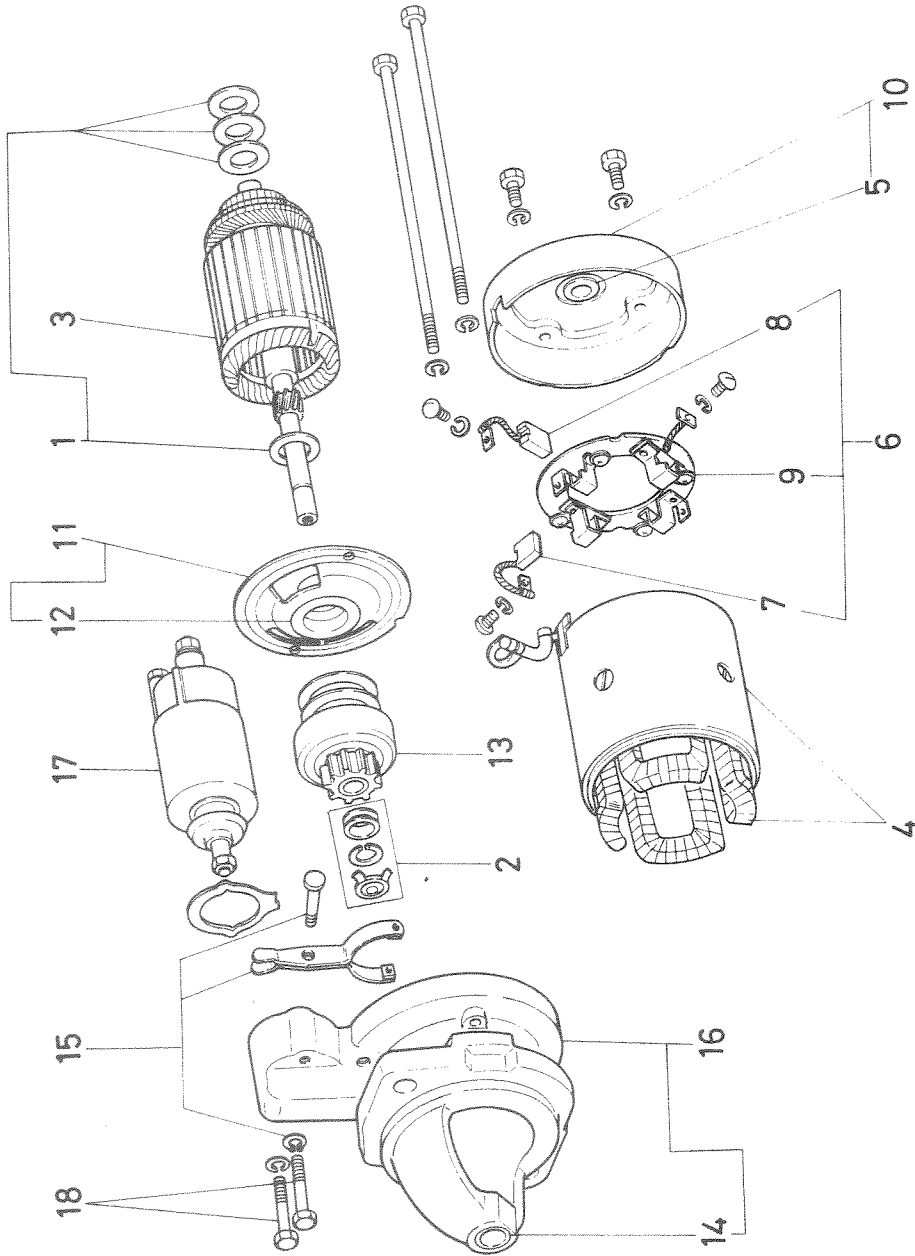


MODEL 27		STARTER ASSY. NIKKO 1.2KW-12 VOLT			GROUP 6	PAGE 20	
LIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
				65401		STARTER ASSY. COMP.	8210-0607
1				65427		SOLENOID	
2				65402		ARMATURE	
3				65407		FIELD COIL ASSY.	
4				65432		PIN	
5				65418		YOKE	
6				65430		GASKET	
7				65405		LOCK RING	
8				65406		O-RING	
9	2			65403		WASHER	
10				65411		O-RING	
11				65409		RIVET	
12	4			65424		BRUSH SPRING	
13	4			65423		BRUSH	
14	2			62417	*	BUSHING	
15				65416		FRONT HOUSING	
16				65415		STARTER DRIVE ASSY.	
17				NSS			
18				65419		CENTER HOUSING	
19				65420		BUSHING	
20	4			65434		SCREW	
21	1			65421	*	BRUSH HOLDER	
22				65428	*	REAR COVER ASSY.	
23	2			65426		BOLT	

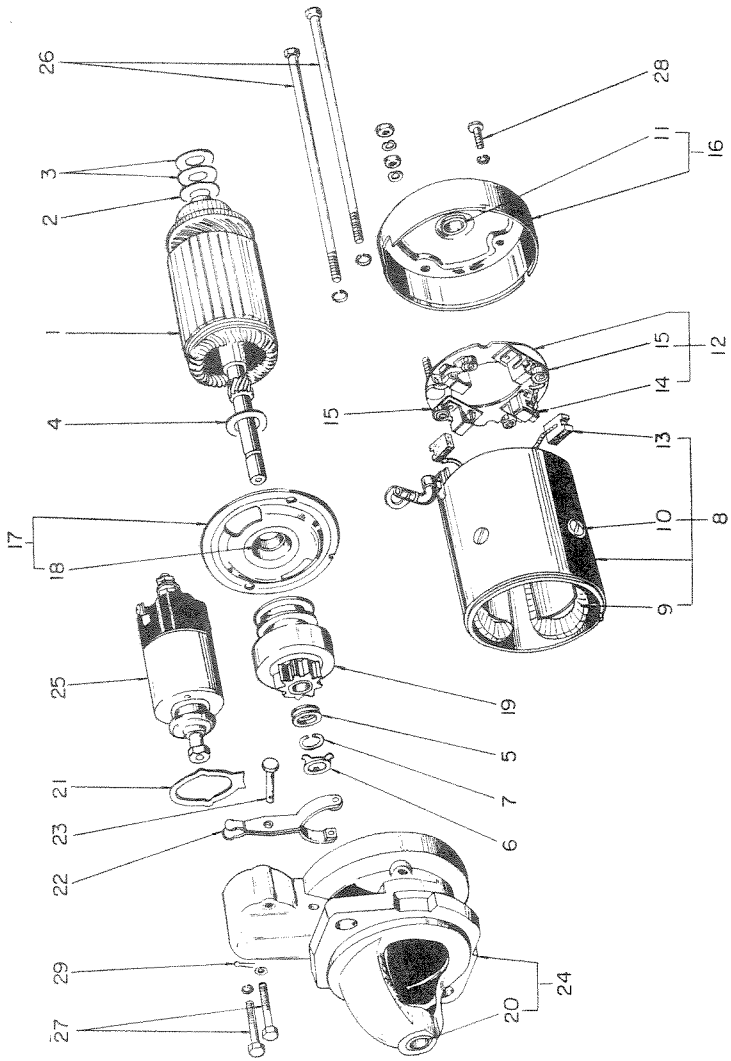




MODEL		STARTER ASSY. (NIKKO 1.8KW-12 VOLT)				GROUP	PAGE
27-40						6	22
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1	1		62401		STARTER ASSY. COMPLETE	8210-0608
1	1	1		62427		SOLENOID	
2	1	1		62432		PIN	
3	4	4		62439		SEAL WASHER	
4	1	1		62430		O-RING	
5	1	1		62418		SHIFT FORK	
6	1	1		62414		O-RING	
7	2	2		62425		RUBBER CAP	
8	1	1		62412		O-RING	
9	1	1		62413		O-RING	
10	4	4		62424		BRUSH SPRING	
11	4	4		62423		BRUSH	
12	1	1		62421		BRUSH HOLDER ASSY.	
13	2	2		62417		BUSHING	
14	1	1		62428		COVER	
15	1	1		62416		FRONT HOUSING	
16	1	1		62415		STARTER DRIVE ASSY.	
17	1	1		NSS		PINION ASSY.	
18	1	1		62419		CENTER HOUSING	
19	1	1		62420		BUSHING	
20	4	4		62434		FLAT HEAD SCREW	
21	1	1		62409		BOLT	
22	1	1		62407		FIELD COIL ASSY.	
23	2	2		62426		BOLT	
24	1	1		62405		LOCK RING	
25	1	1		62402		ARMATURE ASSY.	
26	2	2		62403		WASHER	



				STARTER ASSY. (HITACHI) 1.8KW-12 VOLT		GROUP 6	PAGE 24
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1	1		63401		STARTER ASSY. 12V-1.8 K.W.	8210-0152
1	1	1		63451		THRUST WASHER KIT	
2	1	1		63406		LOCK RING SET	
3	1	1		63402		ARMATURE ASSY.	
4	1	1		63407		FIELD COIL ASSY.	
5	1	1		63422		BUSHING	
6	1	1		63421		BRUSH HOLDER ASSY.	
7	2	2		63423		BRUSH ( + )	
8	2	2		63454		BRUSH ( - )	
9	4	4		63424		BRUSH SPRING	
10	1	1		63428		COVER ASSY.	
11	1	1		63419		CENTER BEARING ASSY.	
12	1	1		63420		BUSHING	
13	1	1		63415		STARTER DRIVE ASSY.	
14	1	1		63417		BUSHING	
15	1	1		63418		SHIFT YOKE	
16	1	1		63416		FRONT HOUSING	
17	1	1		63427		SOLENOID	
18	2	2		62431		BOLT	



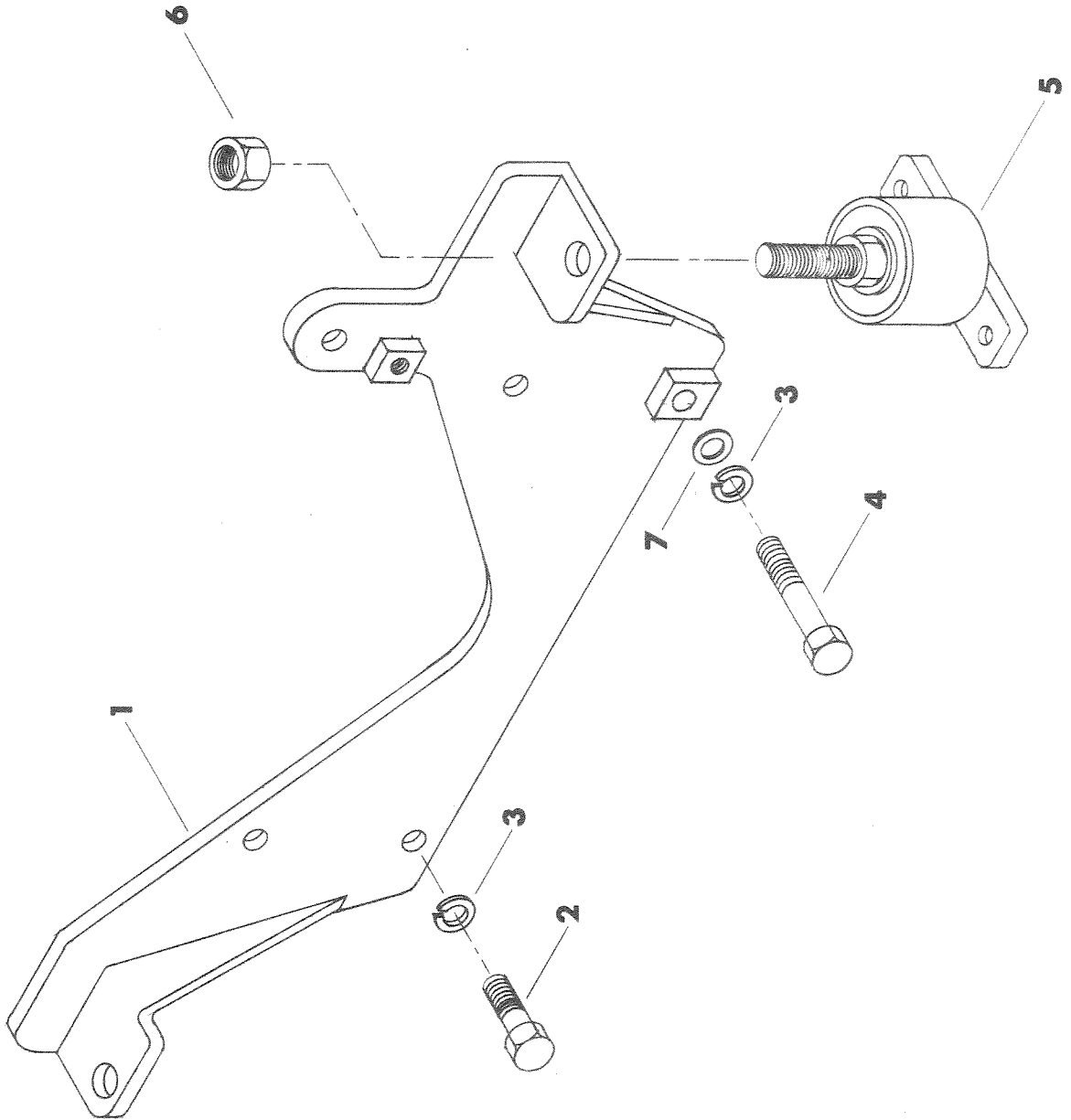
MODEL 60			STARTER ASSY. (HITACHI) 2.2KW-12 VOLT				GROUP 6	PAGE 26
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES	
	27	40	60					
			1	64401		STARTER ASSY.	9-8210-0183-0	
1			1	64402		ARMATURE ASSY.		
2			2	63403		THRUST WASHER		
3			4	63451		THRUST WASHER		
4			2	63456		THRUST WASHER		
5			1	63405		LOCK RING CUP		
6			1	63452		LOCK RING WASHER		
7			1	63406		LOCK RING		
8			1	NSS				
9			1	64407		FIELD COIL ASSY.		
10			4	63434		BOLT		
11			1	63422		REAR COVER BUSHING		
12			1	64421		BRUSH HOLDER ASSY.		
13			2	64423		BRUSH, (+)		
14			2	64454		BRUSH, (-)		
15			4	64424		BRUSH SPRING		
16			1	63428		REAR COVER ASSY.		
17			1	63419		CENTER HOUSING ASSY.		
18			1	63420		CENTER BUSHING		
19			1	63415		STARTER DRIVE		
20			1	64417		BUSHING		
21			1	63430		DUST COVER		
22			1	63418		YOKE		
23			1	62432		PIN		
24			1	63416		FRONT HOUSING		
25			1	63427		SOLENOID		
26			2	63426		BOLT		
27			2	62431		BOLT M5		
28			6	63433		SCREW M4		
29			1	63438		COTTER PIN		

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# SECTION 7



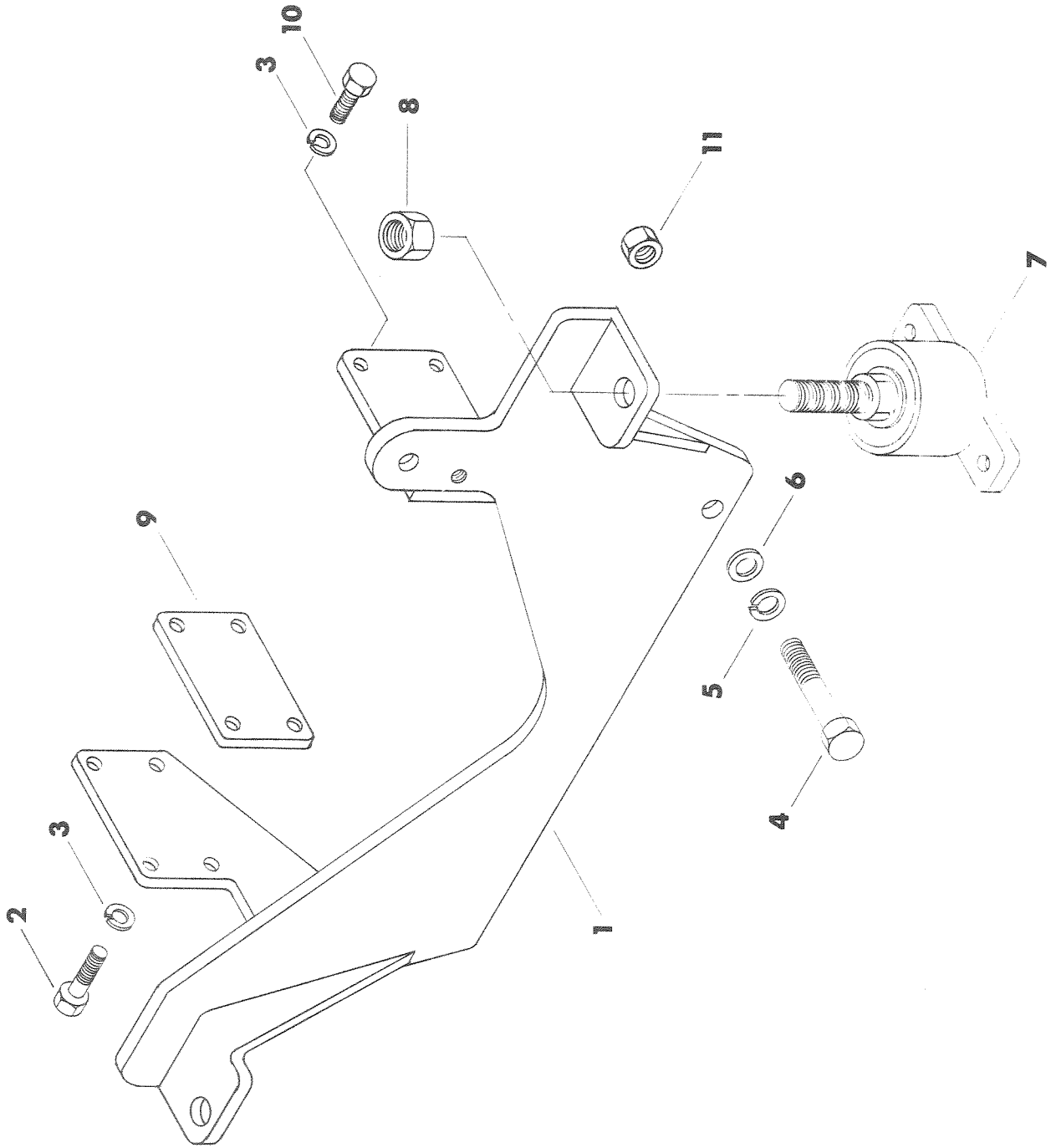
**PISCES**





MODEL		ENGINE MOUNT, FRONT				GROUP	PAGE
27-40						7	2
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1		72780		MOUNT, ENGINE, FRONT	
2	3	3		02554		BOLT M-14-2.0 X 30	
3	3	3		02542		LOCK WASHER M-14	
4	1	1		02557		BOLT, M14-2.0 X 40	
5	4	4		72782		FLEXIBLE MOUNT	
6	4	4		02752		NUT, MARSDEN	
7	1	1		02541		FLAT WASHER M-14	

**PISCES**

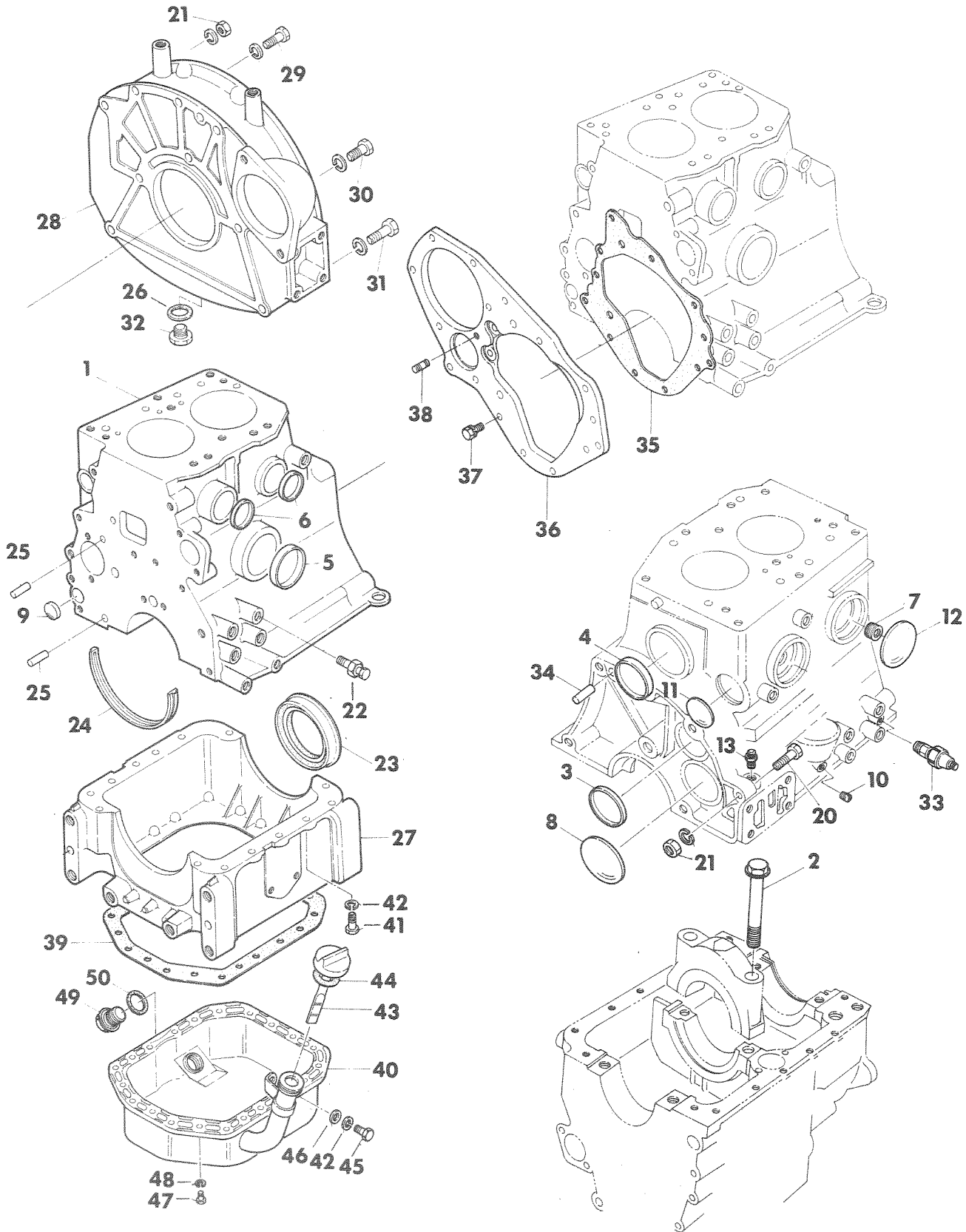


MODEL 60			ENGINE MOUNT			GROUP 7	PAGE 4
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1			1	74780		FRONT ENGINE MOUNT	
2			4	02781		BOLT M10 X 1.25 X 35	
3			8	02342		LOCK WASHER M10	
4			1	02557		BOLT M14 X 2.0 X 40	
5			1	02542		LOCK WASHER M14	
6			1	02541		FLAT WASHER M 14	
7			4	72782		RUBBER MOUNT	
8			4	02752		NUT 5/8 (MARSDEN)	
9			1	74781		PLATE	
10			4	02353		BOLT M10 X 1.25 X 25	
11			1	02540		NUT M14 X 2.0	

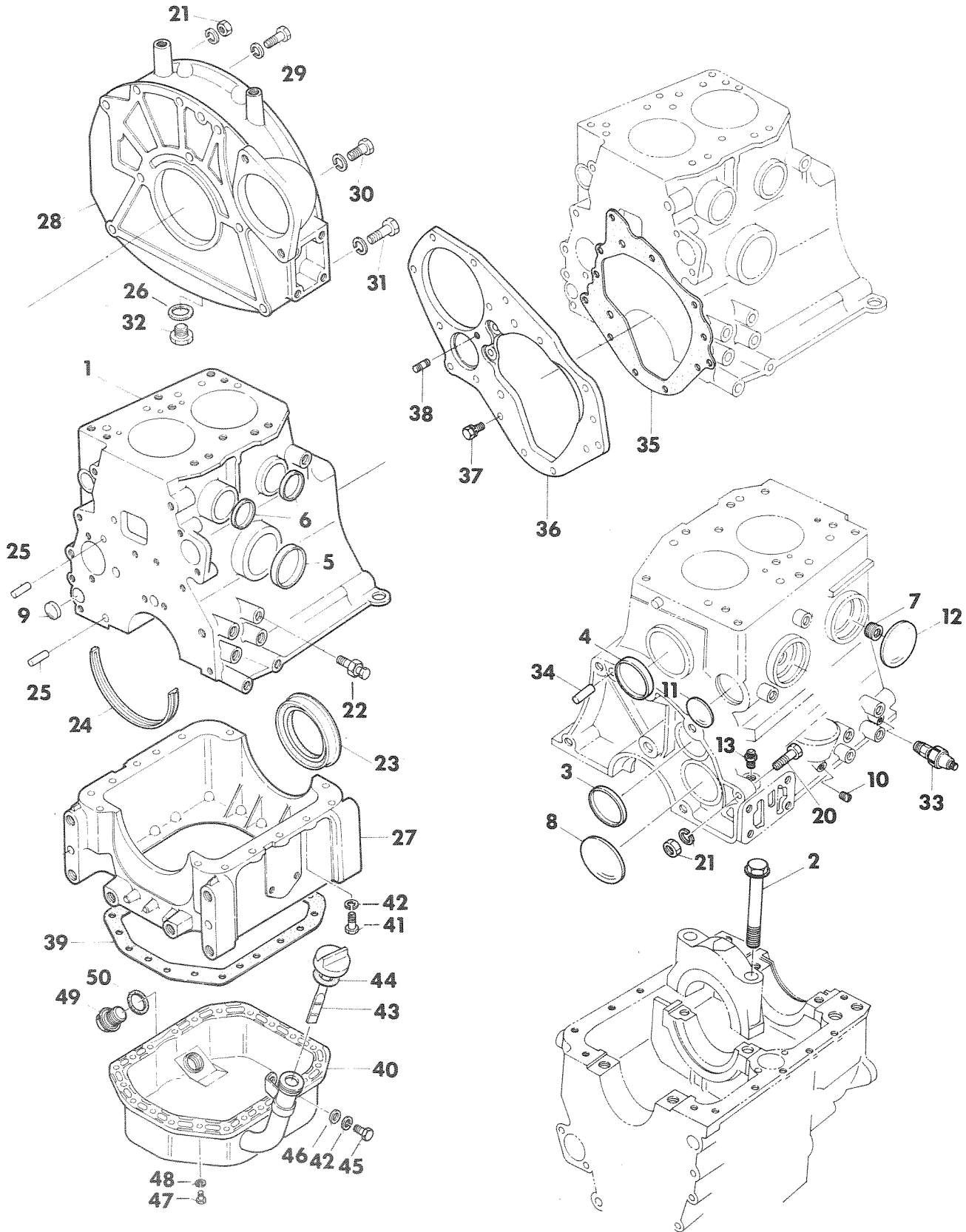
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# SECTION 8



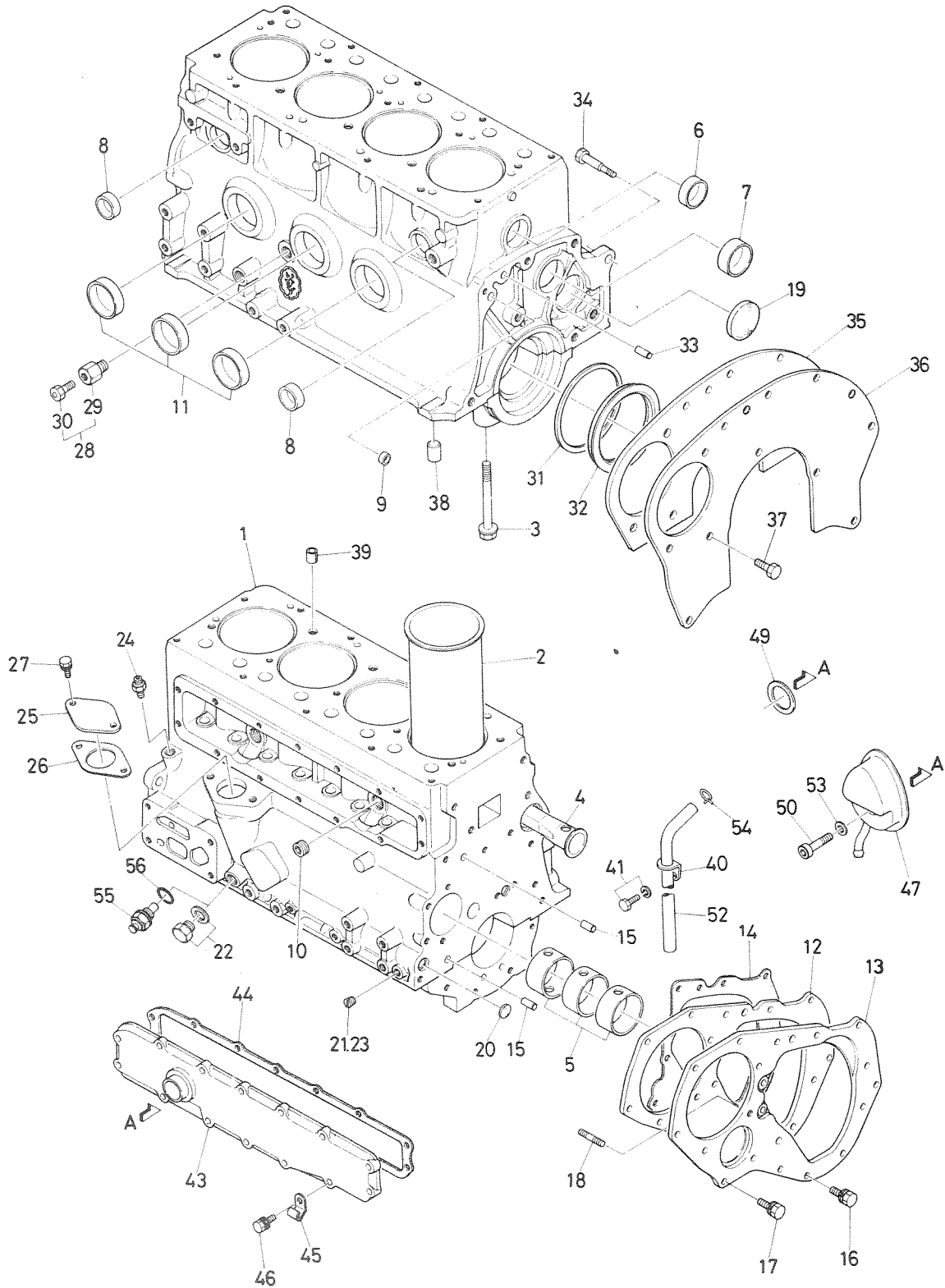


(27,40,60)				CYLINDER BLOCK & BELL HOUSING		GROUP	PAGE
						8	2
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1					CYLINDER BLOCK ASSY.	
		1				CYLINDER BLOCK ASSY.	
1	1			82001		BARE BLOCK	
		1		83001		BARE BLOCK	
2	6	10		82002		BOLT	
3	1	1		82003		SOFT PLUG M 38.1 Ø	
4	1	1		82004		SOFT PLUG M 36 Ø	
5	1	2		82005		SOFT PLUG M 45 Ø	
6	2	3		82006		SOFT PLUG M 31.75 Ø	
7	2	3		82007		PLUG 1/2" NPT	
8	1	1		82008		PLUG	
9	2	2		82009		PLUG	
10	2	3		82010		PLUG	
11	2	2		82011		SOFT PLUG	
12	2	2		82012		SOFT PLUG	
13	1	1		82013		NIPPLE	
14							
15							
16							
17							
18							
19							
20	1	1		82019		BOLT, TAPER PIN	
21	1	1		02776		NUT	
22	1	1		82020		DRAIN COCK	
23	1	1		82017		OIL SEAL	
24	2	2		82024		SEAL	
25	2	2		82015		DOWEL PIN	
26	1	1		82032		CRUSH WASHER	
27	1			82022		CRANK CASE	
		1		83022		CRANK CASE	
28	1	1	1	82021		BELL HOUSING	
29	3	3	3	82029		BOLT	

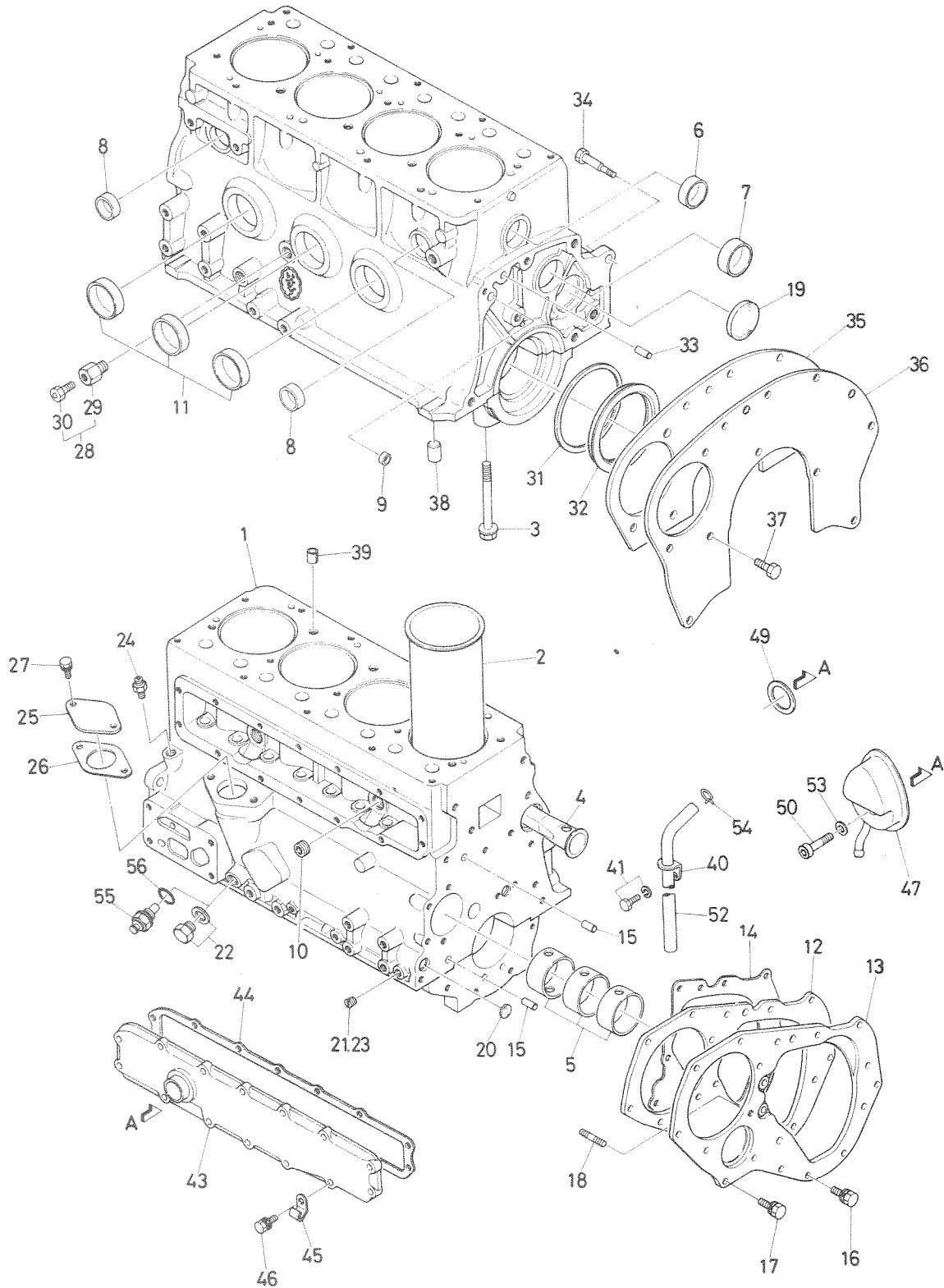




				CYLINDER BLOCK Cont'd.		GROUP 8	PAGE 4
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
30	3	3	3	82016		BOLT	
31	2	2	2	82031		BOLT	
32	1	1	1	82033		PLUG	
33	1	1	1	62636		OIL PRESSURE SENDER	
	1	1	1	62639		OIL PRESSURE, (WARNING LIGHT)	
34	1	1		82018		DOWEL PIN M 10 X 22	
35	1	1		82312		GASKET	
36	1	1		82311		FRONT PLATE	
37	3	3		82314		BOLT	
38	1	1		82315		STUD	
39	1			22183		GASKET	
		1		23183		GASKET	
40	1			22180		OIL PAN	
		1		23180		OIL PAN	
41	8	12		02253		BOLT M 8-1.25 X 22	
	2	2		02258		BOLT M 8-1.25 X 45	
	3	3		02275		BOLT M8-1.25 X 138	
	1	1		02274		BOLT M 8-1.25 X 129	
42	14	18		02242		LOCK WASHER M8	
43	1			22184		DIPSTICK	
		1		23184		DIPSTICK	
44	1	1		22186		GASKET	
45	1	1		02251		BOLT M 8-1.25 X 15	
46	1	1		02241		FLATWASHER M8	
47	21	27		02184		BOLT M 6-1 X 14	
48	21	27		02182		LOCKWASHER M 6	
49	1	1		22181		DRAIN PLUG	
50	1	1		22182		CRUSH WASHER	
51		1		83046		BAFFLE PLATE, OIL PAN	

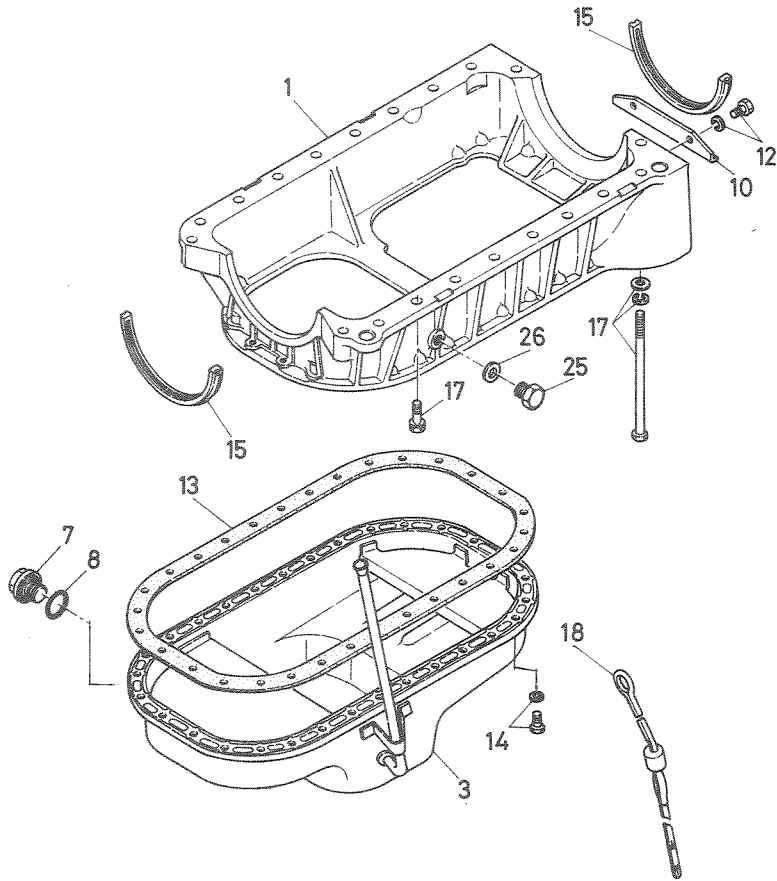


MODEL 60				CYLINDER BLOCK		GROUP 8	PAGE 6
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1			1	84001		CYLINDER BLOCK	
2			4	84002		CYLINDER LINER	
3			10	82002		BOLT	
4			1	84445		WATER DUCT	
5			1	84440		CAM BEARING KIT	
6			1	82004		SOFT PLUG 36.0	
7			1	82003		SOFT PLUG 38.42.0	
8			2	82006		SOFT PLUG 31.75.0	
9			1	82404		SOFT PLUG 12.0	
10			2	82007		PLUG 1/2" NPT	
11			3	82005		SOFT PLUG 44.5.0	
12			1	84311		FRONT PLATE	
13							
14			1	82312		GASKET	
15			2	83044		DOWEL PIN	
16			3	02253		BOLT M8-1.25 X 25	
17			3	02252		BOLT M8-1.25 X 20	
18			1	82315		STUD	
19			1	82008		SOFT PLUG	
20			2	82009		SOFT PLUG	
21			2	82010		PLUG	
22			1	84036		PLUG,SPECIAL	
			1	84037		GASKET	
23			2	82010		PLUG	
24			1	82013		NIPPLE	
25			1	84034		COVER PLATE	
26			1	84035		GASKET	
27			2	02251		BOLT M-8-1.25 X 15	
28			1	83041		WATER DRAIN COCK ASSY.	
31			1	84448		SPACER, OIL SEAL	
32			1	82017		SEAL, CRANK	

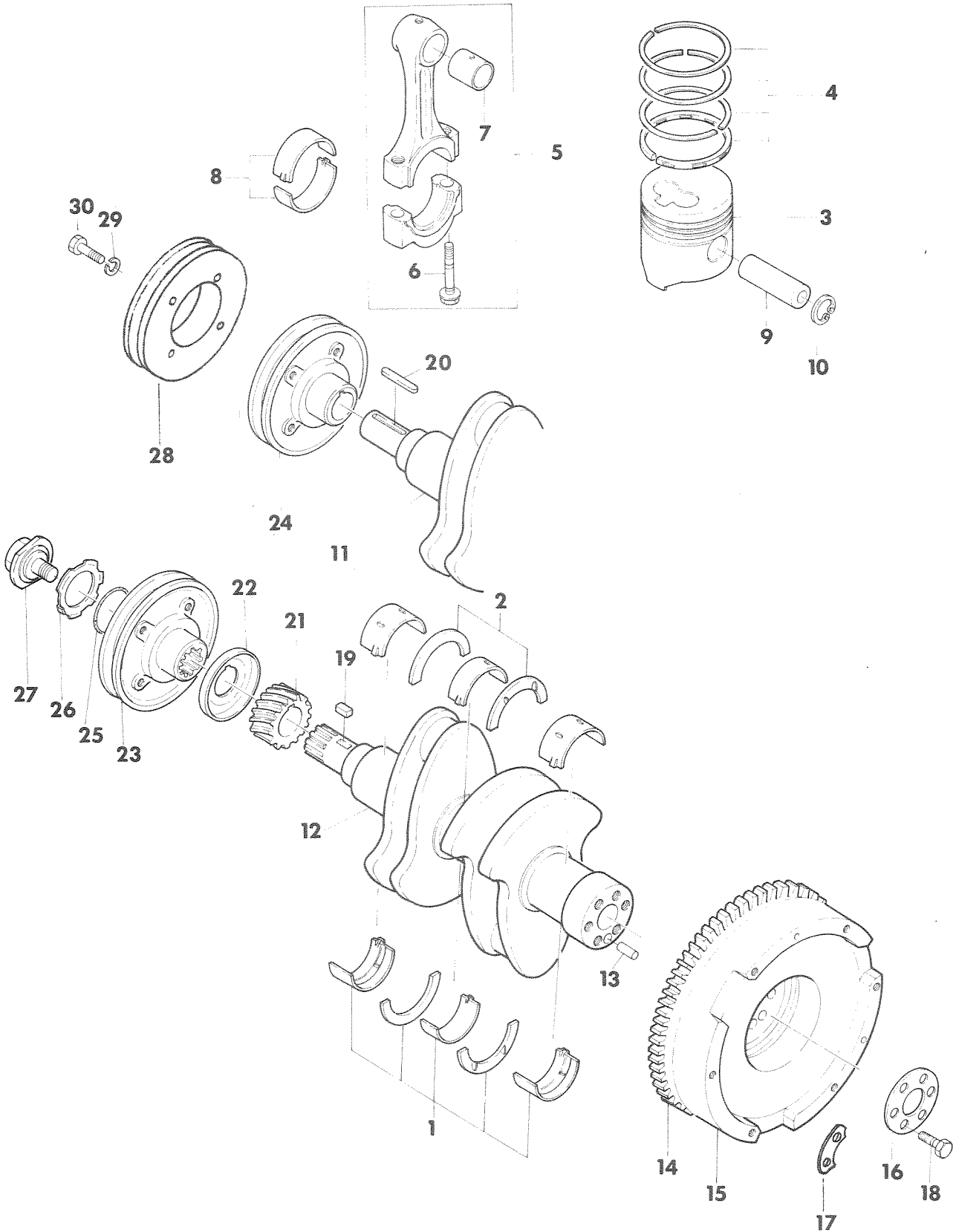


(60)				CYLINDER BLOCK			GROUP	PAGE
							8	8
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES	
	27	40	60					
33			1	82018		PIN		
34			1	84019		BOLT, REAMER		
35			1	84014		PLATE, REAR		
36								
37			2	82016		BOLT		
38			2	84446		PIN		
39			2	84447		DOWEL		
40			1	84038		CLIP		
41			1	02251		BOLT M8-1.25 X 15		
43			1	84045		COVER, TAPPET CHAMBER		
44			1	84048		GASKET		
45			1	84050		CLIP		
46			14	02252		BOLT		
47			1	24221		BREATHER		
49			1	24222		GASKET		
50			1	24223		BOLT		
52			1	52515		HOSE		
53			1	82406		WASHER		
54			1	02685		HOSE CLAMP		

**PISCES**

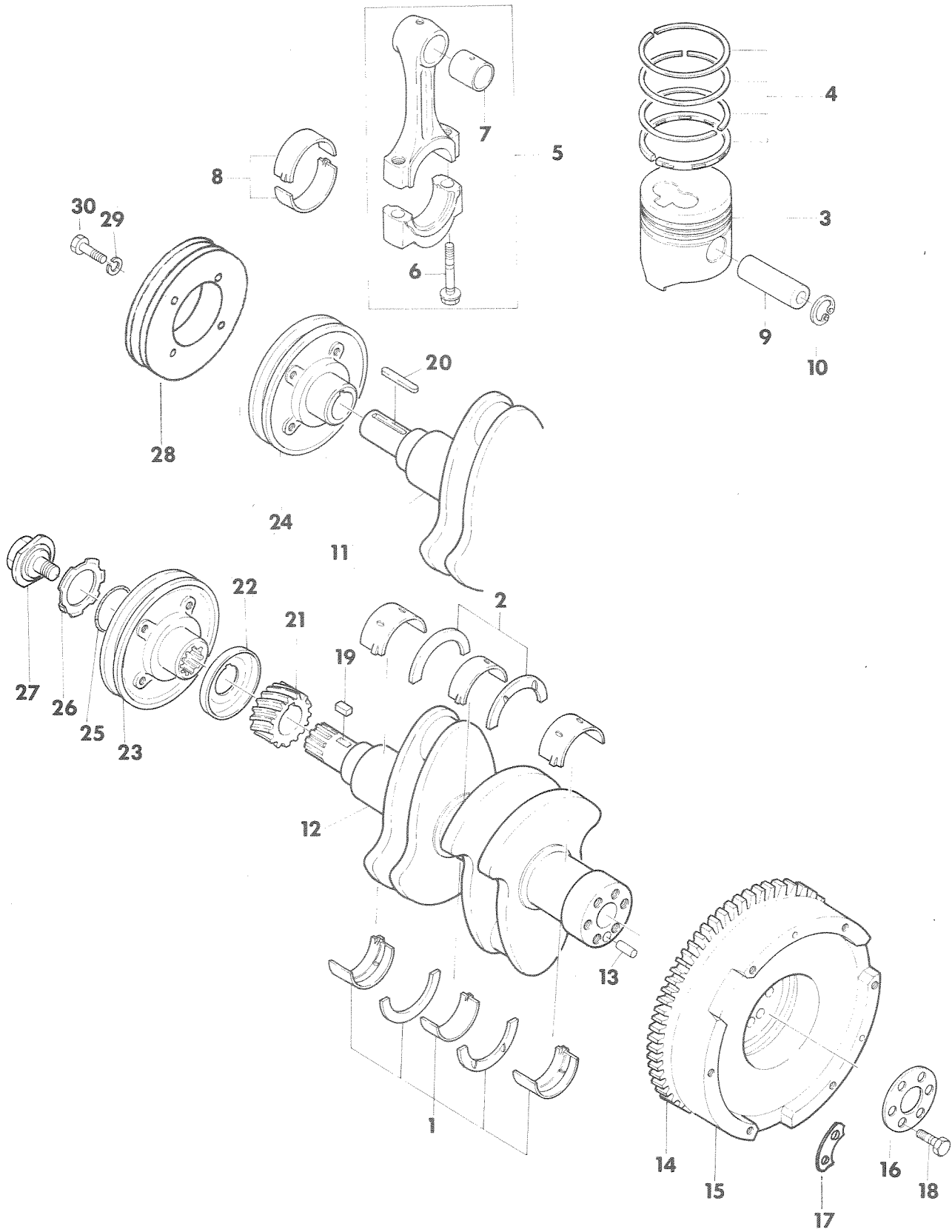


MODEL 60				OIL PAN & CRANKCASE		GROUP 8	PAGE 10
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1			1	84022		CRANKCASE	
3			1	24180		OIL PAN	
7			1	22181		DRAIN PLUG	
8			1	22182		CRUSH WASHER	
10			1	22188		DUST COVER	
12			2	02184		BOLT M6-1 X 12	
13			1	24183		GASKET	
14			30	02184	*	BOLT	
			30	02182		LOCKWASHER	
15			2	82024		SEAL, RUBBER	
17			14	02253		BOLT M8-1.25 X 25	
			2	02257		BOLT M8-1.25 X 45	
			2	02268		BOLT M8-1.25 X 100	
			2	02273		BOLT M8-1.25 X 125	
			20	02241		FLAT WASHER	
			20	02242		LOCKWASHER	
18			1	24184		DIPSTICK	

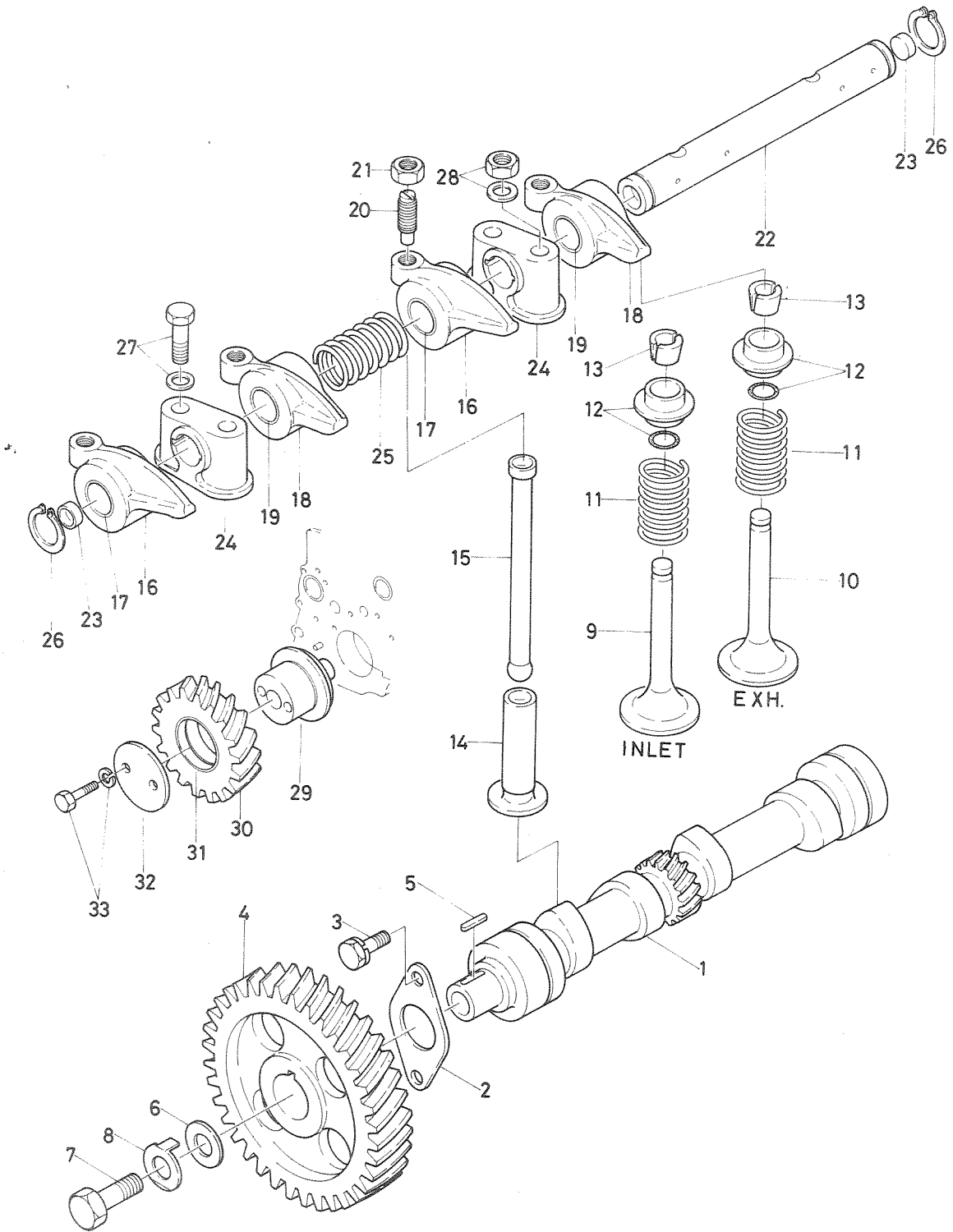




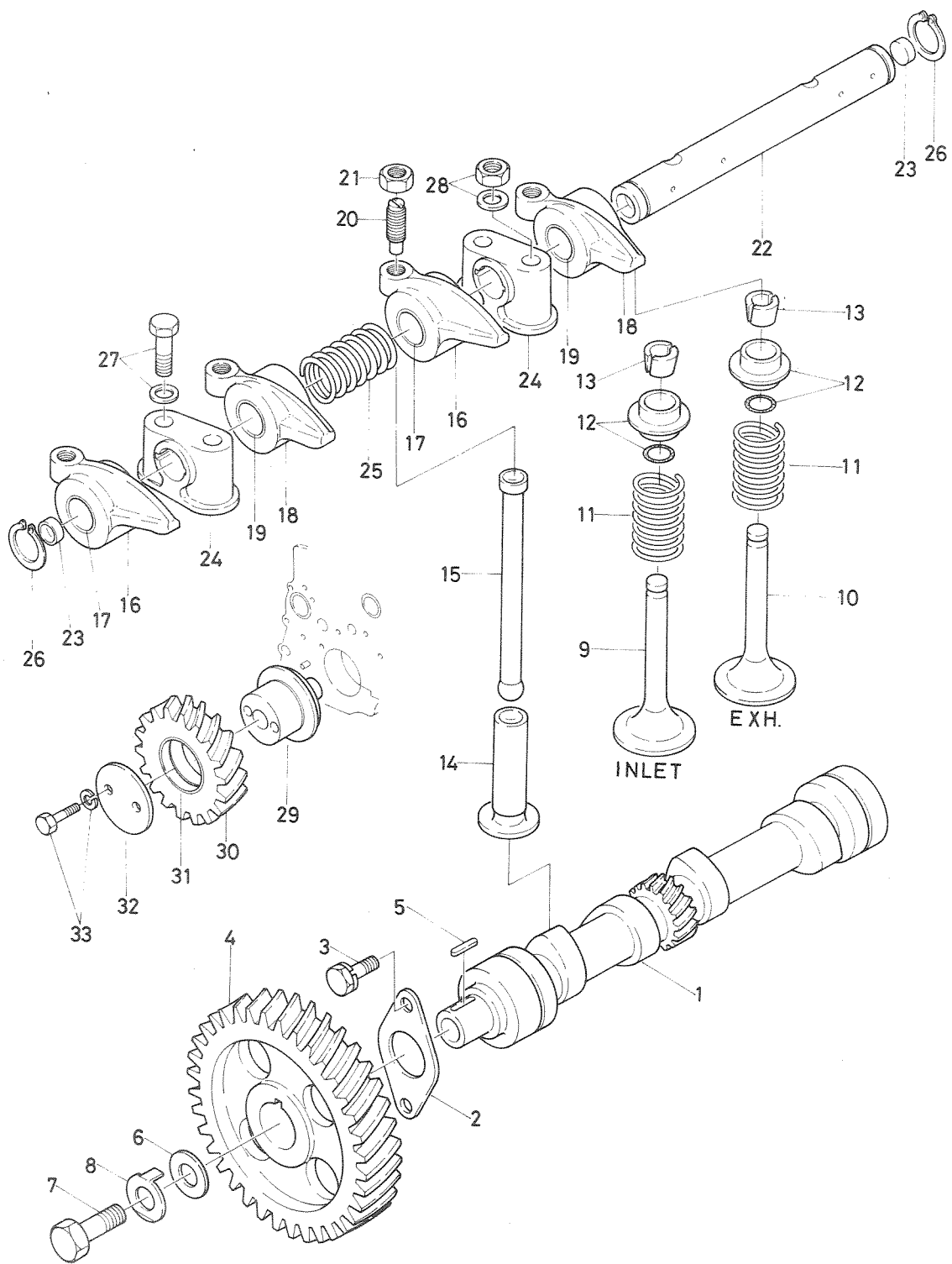
MODEL 27-40-60				CRANKSHAFT		GROUP 8	PAGE 12
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1			82101		BEARING SET	
		1		83101		BEARING SET	
			1	84101		BEARING SET	
2	1	1	1	82105		THRUST BEARING SET	
3	1	1	1	82106		PISTON	
4	1			82107		PISTON RING SET	
		1		83107		PISTON RING SET	
			1	84107		PISTON RING SET	
5	2	3	4	82108		CONNECTING ROD ASSY.	
6	4	6	8	82109		BOLT, CONN-ROD	
7	2	3	4	82110		BUSHING	
8	2	3	4	82111		BEARING, CONN-ROD	
9	2	3	4	82112		WRISTPIN	
10	4	6	8	82113		SNAP RING	
12	1			82100		CRANKSHAFT	
		1		83100		CRANKSHAFT	
			1	84100		CRANKSHAFT	
13	1	1	1	82114		DOWEL PIN	
14	1	1	1	82117		RING GEAR	
15	1	1	1	82116		FLYWHEEL	
16	1	1	1	82120		WASHER PLATE	
17	3	3	3	82121		LOCK PLATE	
18	6	6	6	83124		BOLT	
19	1	1	1	82131		KEY M7 X 16	
20	1	1	1	82122		KEY M7 X 43	
21	1	1	1	82123		GEAR	
22	1	1	1	82125		OIL SLINGER	
23	1	1	1	82127		CRANK PULLEY (SPLINE)	
24	1	1	1	82126		CRANK PULLEY (KEYED)	
25	1	1	1	82115		O-RING	
26	1	1	1	82129		TAB WASHER	
27	1	1	1	82128		BOLT, CRANK PULLEY	
28	1	1	1	32362		PULLEY, SINGLE SHEAVE	



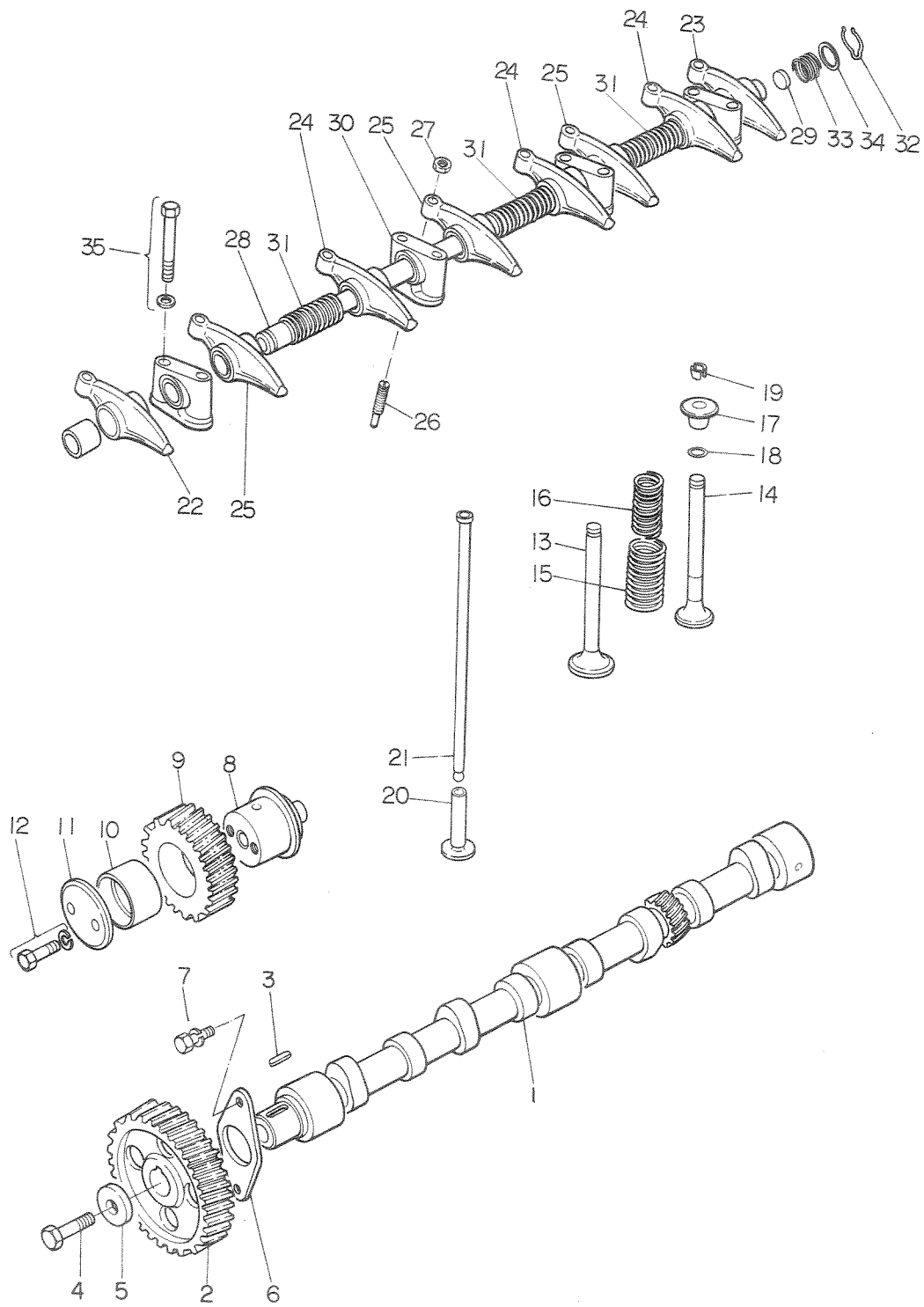
				GROUP	PAGE		
				8	14		
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
28	1	1	1	32363		PULLEY, 3 SHEAVE	
29	4	4	4	02242		LOCKWASHER M-8	
30	4	4	4	02256		BOLT M8-1.25 X 40	
30	4	4	4	02261		BOLT M8-1.25 X 65 WITH 3 SHEAVE PULLEY	



MODEL		CAMSHAFT ASSY.				GROUP	PAGE
27-40						8	16
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1			82200		CAMSHAFT	
		1		83200		CAMSHAFT	
2	1	1		82201		THRUST PLATE	
3	2	2		82207		BOLT SPECIAL	
	2	2		02242		TAB WASHER M8	
	1			82203		GEAR	
4		1		83203		GEAR	
5	1	1		82202		KEY	
6	1	1		82204		WASHER	
7	1	1		82206		BOLT	
8	1	1		82205		LOCK PLATE	
9	2	3		82212		VALVE, INTAKE	
10	2	3		82213		VALVE, EXHAUST	
11	4	6		82214		SPRING	
12	4	6		82215		SPRING RETAINERS	
13	8	12		82216		KEEPERS	
14	4	6		82217		TAPPET	
15	4	6		82218		PUSHROD	
16	2	3		82219		ROCKER ARM	
17	2	3		82220		BUSHING, ROCKER ARM	
18	2	3		82221		ROCKER ARM	
19	2	3		82220		BUSHING, ROCKER ARM	
20	4	6		82322		SCREW, ADJUSTING	
21	4	6		82223		LOCKNUT	
22	1			82224		SHAFT	
		1		83224		SHAFT	
23	2	2		82225		SOFT PLUG	
24		3		82226		STAND, ROCKER SHAFT	
25	1	2		82227		SPRING	
26	2	2		82228		SNAP-RING	
27	2	4		82258		BOLT	
	2	4		02241		FLAT WASHER	

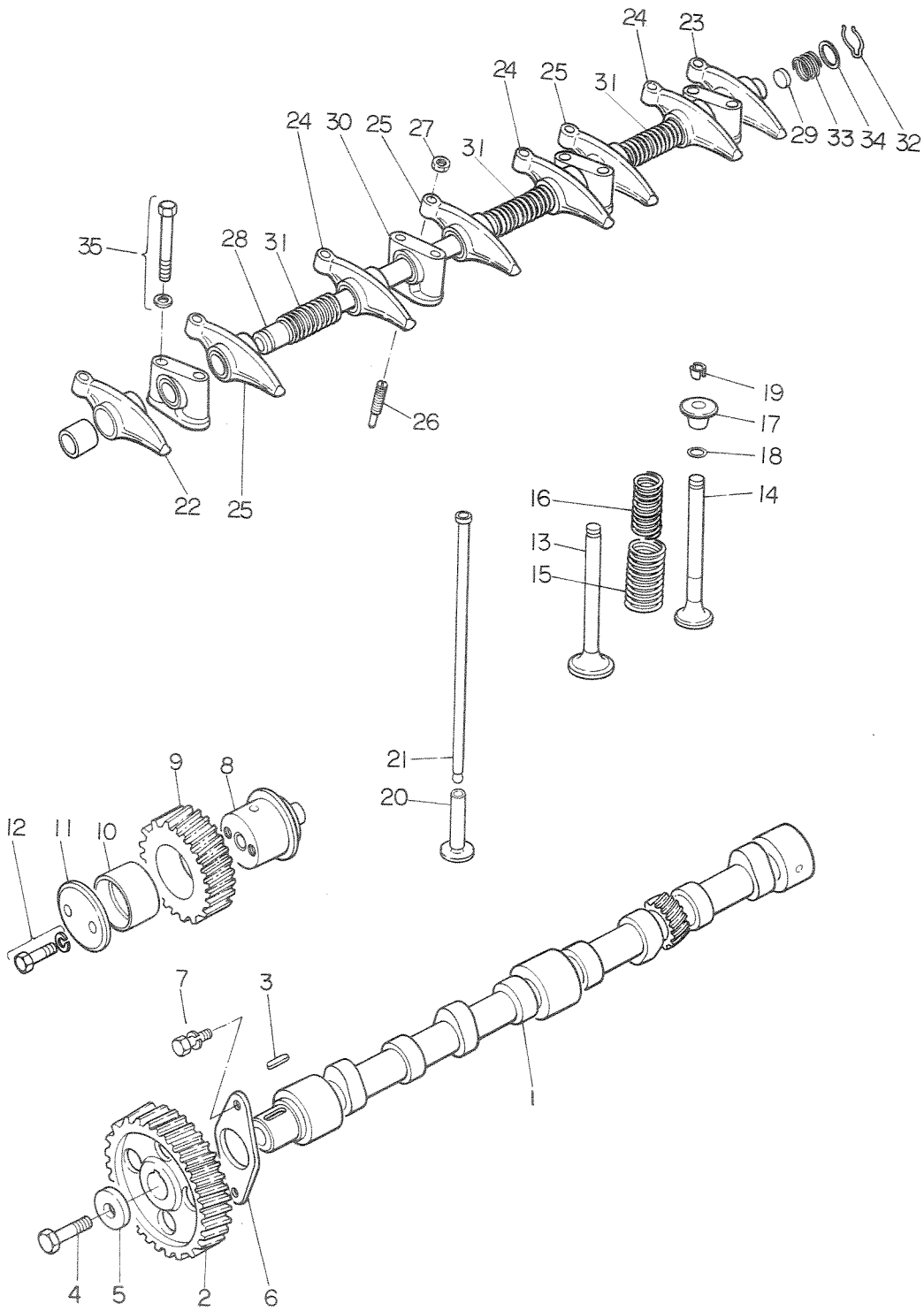


				CAMSHAFT ASSY.		GROUP	PAGE
						8	18
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
28	2	2		02240		NUT	
	2	2		02241		FLAT WASHER	
29	1			82208		SHAFT	
30	1	1		82209		GEAR	
31	1	1		82210		BUSHING	
32	1	1		82211		THRUST PLATE	
33	2	2		02259		BOLT	
	2	2		02242		LOCKWASHERS	



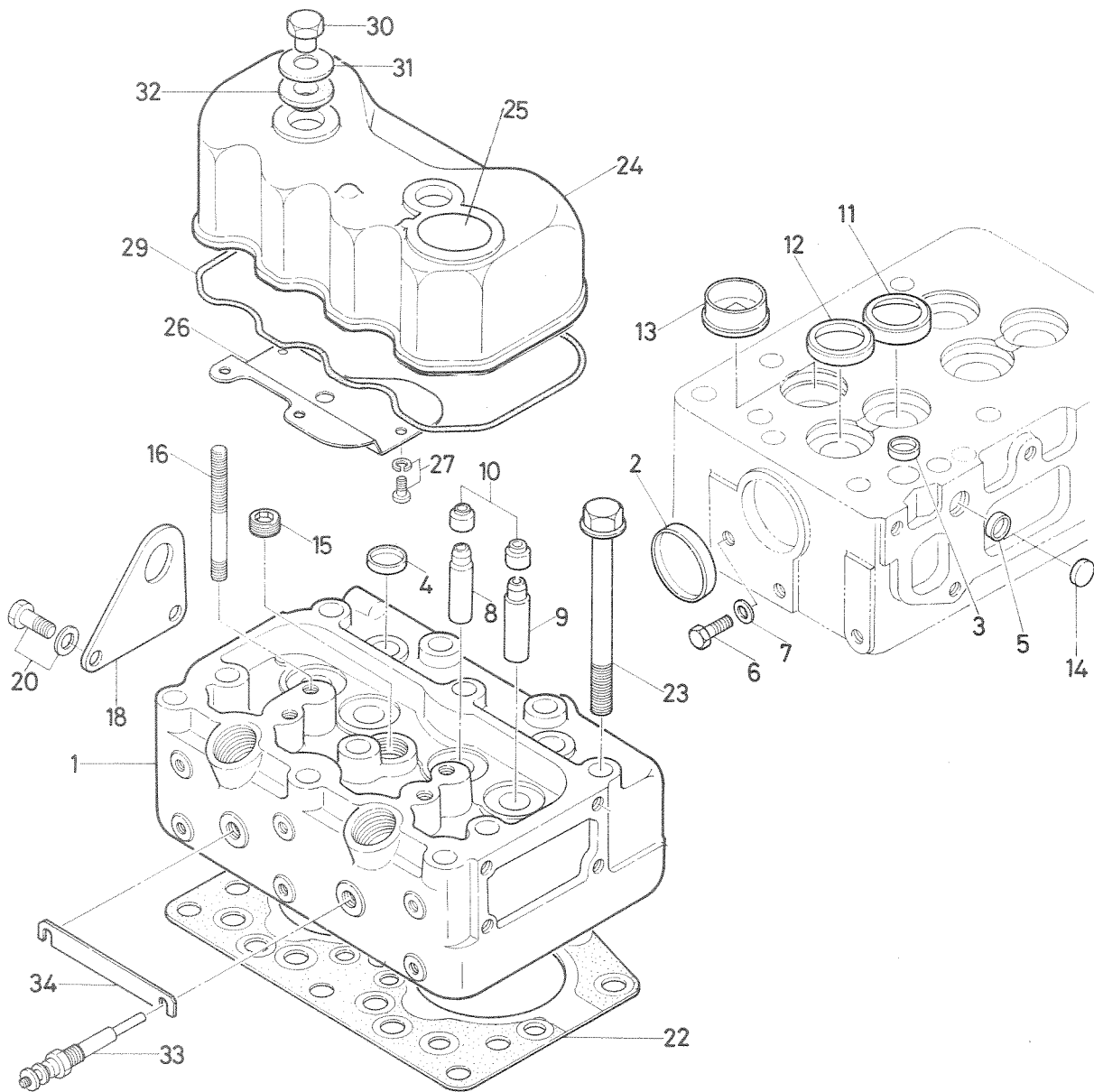


MODEL 60			CAMSHAFT ASSY.			GROUP 8	PAGE 20
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1			1	84200		CAMSHAFT	
2			1	83203		GEAR	
3			1	82202		KEY	
4			1	82206		BOLT	
			1	82205		TAB WASHER	
5			1	82204		FLATWASHER	
6			1	82201		THRUST PLATE	
7			2	82207		BOLT	
			2	02242		LOCKWASHER	
8			1	82208		IDLER SHAFT	
9			1	82209		GEAR	
10			1	82210		BUSHING	
11			1	82211		THRUST COLLAR	
12			2	02259		BOLT	
			2	02242		LOCKWASHER	
13			4	82212		INTAKE VALVE	
14			4	82213		EXHAUST VALVE	
15			8	82214		SPRING, OUTER	
16			8	84214		SPRING, INNER	
17			8	82215		SPRING RETAINER	
18			8	84236		SEAL RING	
19			16	82216		VALVE KEEPER	
20			8	82217		TAPPET	
21			8	82218		PUSH ROD	
22			1	84219		ROCKER ARM	
23			1	84221		ROCKER ARM	
24			3	82219		ROCKER ARM	
25			3	82221		ROCKER ARM	
26			8	82222		ADJUSTING SCREW	
27			8	82223		NUT	
28			1	84224		SHAFT	
29			2	82225		SOFT PLUG	
30			4	82226		STAND, ROCKER SHAFT	



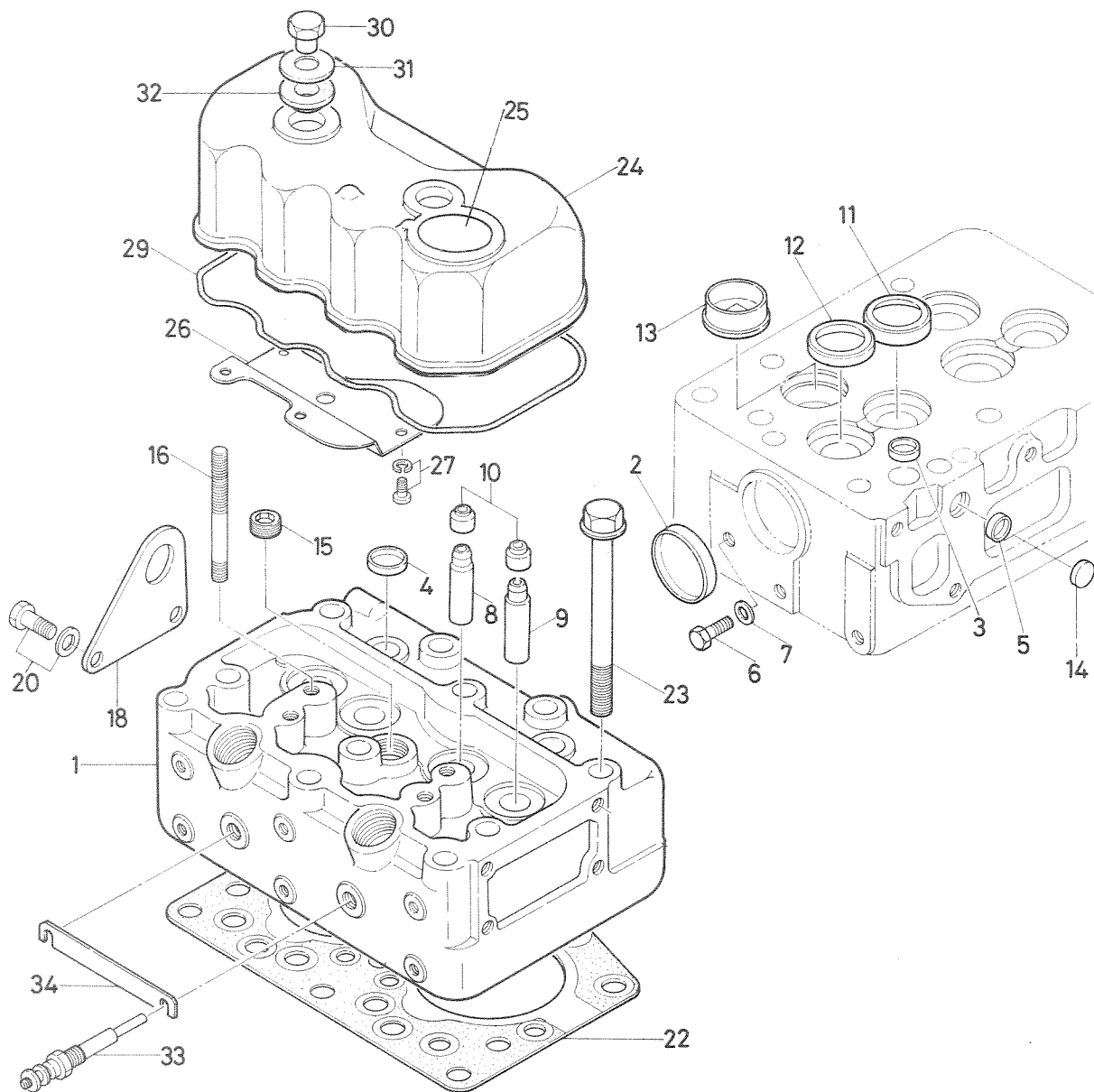


		CAMSHAFT ASSY. PISCES 60			GROUP	PAGE	
					8	22	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
31			3	82227		SPRING	
32			2	82228		SNAP RING	
33			2	84227		SPRING	
34			2	84237		WASHER	
35			8	82258		BOLT	
			8	02241		FLATWASHER	



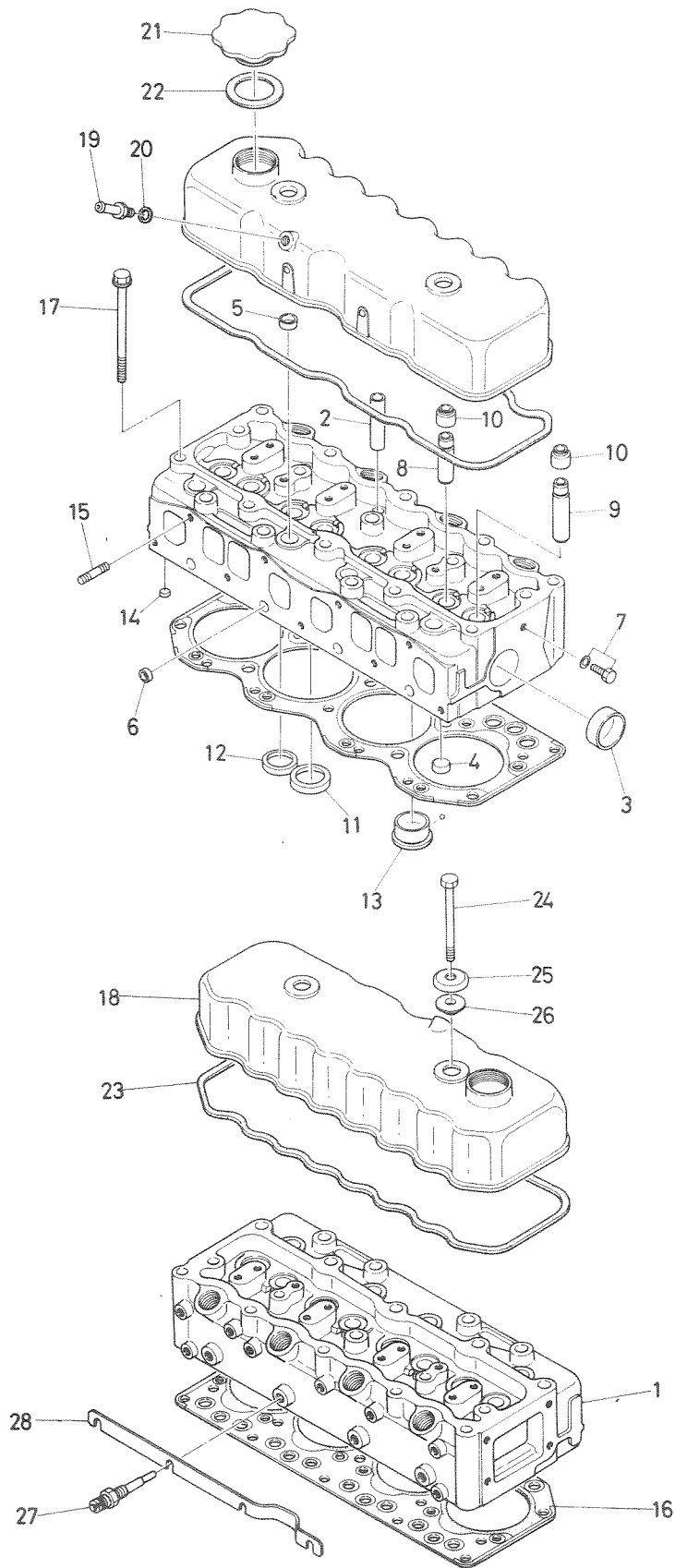


MODEL		CYLINDER HEAD ASSY.			GROUP	PAGE	
27-40					8	24	
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1			82400		CYLINDER HEAD ASS'Y.	
1		1		83400		CYLINDER HEAD ASS'Y.	
2	1	1		82401		SOFT PLUG 44.5 Ø	
3	2	3		82402		SOFT PLUG 16 Ø	
4	2	3		82403		SOFT PLUG 18 Ø	
5	2	3		82404		SOFT PLUG 12 Ø	
6	1	1		82405		PLUG	
7	1	1		82406		GASKET	
8	2	3		82407		VALVE GUIDE, INTAKE	
9	2	3		82408		VALVE GUIDE, EXHAUST	
10	4	6		82409		VALVE STEM SEAL	
11	2	3		82410		VALVE SEAT, INTAKE	
12	2	3		82411		VALVE SEAT, EXHAUST	
13	2	3		82412		PRECOMBUSTION CHAMBER	
14	2	3		82413		SOFT PLUG 11.9 Ø	
15	1	2		82414		PLUG 1/2 NPT	
16	2	2		82415		STUD M8-1.25 X 85	
17		1		02684		ELBOW, P.C.V.	
18	1	1		82416		LIFTING EYE, REAR	
19							
20	2	2		02252		BOLT M8-1.25 X 20	
	2	2		02242		LOCKWASHER M8	
22	1			82417		GASKET, CYLINDER HEAD	
		1		83417		GASKET, CYLINDER HEAD	
23	11	15		82418		BOLT, CYLINDER HEAD	
24	1			82419		ROCKER COVER	
		1		83419		ROCKER COVER	
25	1	1		82425		SOFT PLUG 1.625	
26		1		83429		BAFFLE PLATE	
27		5		83430		SCREW M5-.80 X 8	
28		5		02172		LOCKWASHER M5	
29	1			82420		O-RING	
29		1		83420		O-RING	



				CYLINDER HEAD ASSY.		GROUP 8	PAGE 26
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
30	2	2		82421		CAPNUT	
31	2	2		82422		CUP WASHER	
32	2	2		82423		GASKET RUBBER	
33	2	3		62435		GLOW PLUG 12 VOLT	
34	1			62437		BUS BAR	
34		1		63437		BUS BAR	

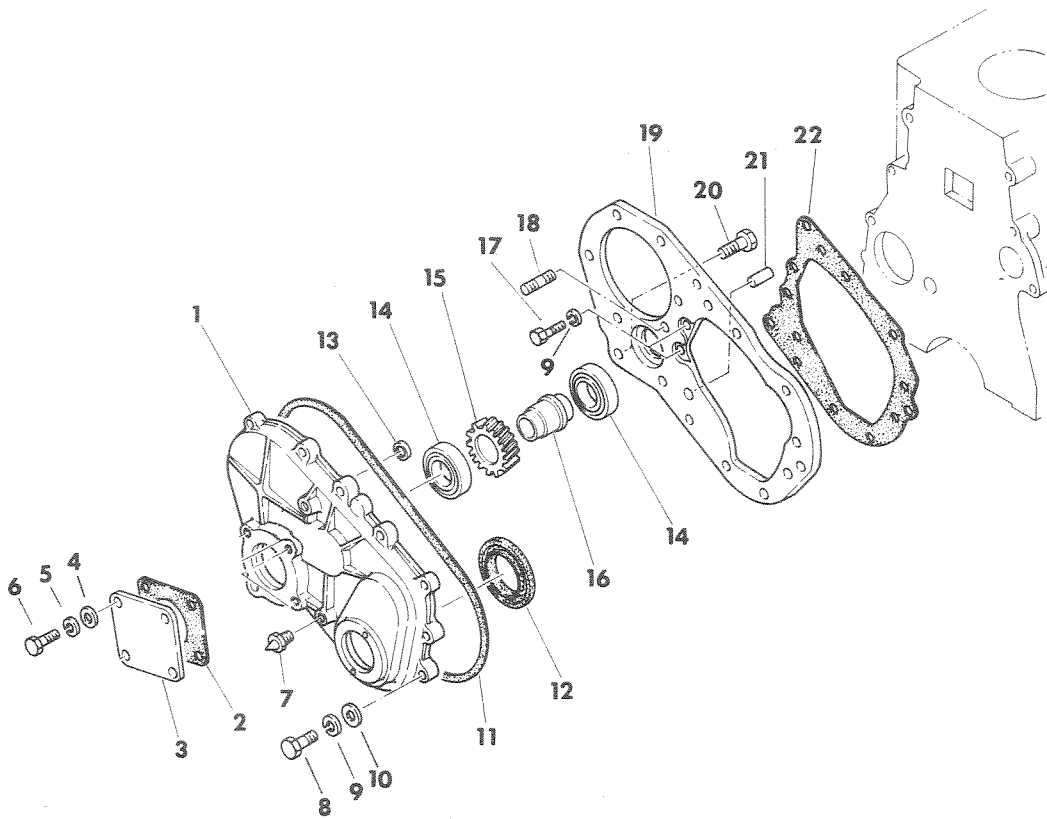
**PISCES**







MODEL 60		CYLINDER HEAD ASSY.				GROUP 8	PAGE 28
LIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1			1	84400		CYL. HEAD ASSY.	
2			8	84435		TUBE, PUSH ROD	
3			1	82401		SOFT PLUG 44.5 Ø	
4			4	82402		SOFT PLUG 16 Ø	
5			4	82403		SOFT PLUG 18 Ø	
6			4	82404		SOFT PLUG 12 Ø	
7			1	82405		PLUG, SCREW	
			1	82406		GASKET	
8			4	82407		VALVE GUIDE, INTAKE	
9			4	82408		VALVE GUIDE, EXHAUST	
10			8	82409		VALVE STEM, SEAL	
11			4	82410		VALVE SEAT INTAKE	
12			4	82411		VALVE SEAT EXHAUST	
13			4	82412		PRECOMBUSTION CHAMBER	
14			4	82413		SOFT PLUG 11.9 Ø	
15			7	02273		BOLT M8-1.25 X 125	
16			1	84417		GASKET	
17			19	84418		BOLT	
18			1	84419		ROCKER COVER	
19			1	02683		BREATHER ELBOW	
21			1	84430		CAP, OIL FILLER	
22			1	84431		GASKET	
23			1	84419		O-RING, VALVE COVER	
24			2	84421		BOLT	
25			2	84422		WASHER	
26			2	84423		GASKET	
27			4	62435		GLOW PLUG	
28			1	64437		BUS BAR	



MODEL		TIMING GEAR COVER				GROUP	PAGE
27-40-60						8	30
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1	1	1	1	82300		COVER, TIMING GEAR	
2	1	1	1	82306		O-RING	
3	1	1	1	82305		PLATE, COVER	
4	4	4	4	02181		FLAT WASHER M6	
5	4	4	4	02182		LOCK WASHER M6	
6	4	4	4	02184		BOLT M6-1 X 15	
7	1	1	1	82303		POINTER	
8	14	14	14	02255		BOLT M8-1.25 X 40	
	2	2	2	02259		BOLT M8-1.25 X 55	
9	16	16	16	02242		LOCK WASHER M8	
10	16	16	16	02241		FLAT WASHER M8	
11	1	1	1	82304		O-RING	
12	1	1	1	82302		SEAL, OIL	
13	1	1	2	82301		GASKET	
14	2	2	2	82310		BEARING	
15	1	1	1	82308		GEAR	
16	1	1	1	82309		SHAFT	
17	3	3	3	02253		BOLT M8-1.25 X 25	
18	1	1	1	82315		STUD M8-1.25 X 22	
19	1	1	1	82311		PLATE	
20	1	1	1	82307		BOLT, TAPER PIN	
21	2	2	2	82313		PIN, DOWEL	
22	1	1	1	82312		GASKET	

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# SECTION 9



**DIESEL MARINE ENGINES**



				GASKET KITS, WATER PUMP REPAIR KITS		GROUP	PAGE
						9	1
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1			92006		GASKET KIT, MAJOR OVERHAUL	
		1		93006		GASKET KIT, MAJOR OVERHAUL	
			1	94006		GASKET KIT, MAJOR OVERHAUL	
	1	1		92011		WATER PUMP REPAIR KIT INCLUDES: IMPELLER SCREW (IMPELLER) SEAL O-RING	
			1	94011		WATER PUMP REPAIR KIT INCLUDES: IMPELLER SEAL GASKET	
	1	1	1	92012		WATER PUMP REPAIR KIT INCLUDES: BEARING ASSY. RETAINER RING SEAL & SEAT ASSY. GASKET (2)	
	1			92001		GASKET KIT, VALVE GRIND INCLUDES: HEAD GASKET ROCKER COVER GASKET THERMOSTAT HOUSING TO HEAD MANIFOLD TO HEAD ROCKER NUT (2) CRUSH WASHERS OIL PIPE (2)	
		1		93001		GASKET KIT, VALVE GRIND INCLUDES: HEAD GASKET ROCKER GASKET THERMOSTAT HOUSING GASKET MANIFOLD GASKET ROCKER NUT GASKET CRUSH WASHER (2)	
			1	94001		GASKET KIT, VALVE GRIND INCLUDES: HEAD GASKET	



				SPARE PARTS KITS, MINOR		GROUP	PAGE
						9	2
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
						ROCKER GASKET	
						THERMOSTAT HOUSING GASKET	
						MANIFOLD	
						ROCKER NUT GASKET	
1				92015		SPARE PARTS KIT	
		1		93015		SPARE PARTS KIT	
			1	94015		SPARE PARTS KIT	
						KITS INCLUDE:	
1	1	1				ROCKER COVER GASKET	
4	4	4		42066		FUEL LINE CRUSH WASHER	
1	1	1		42038		FUEL LINE CRUSH WASHER	
4	4	4		42058		FUEL LINE CRUSH WASHER	
2	2	2		42068		FUEL LINE CRUSH WASHER	
2	2	2		42069		CRUSH WASHER	
1	1	1		42071		CRUSH WASHER	
1	1	1		42065		BLEED SCREW	
1	1			22210		OIL FILTER, SPIN ON	
			1	24210		OIL FILTER, ELEMENT	
1	1	1		42005		FUEL FILTER ELEMENT	
1	1			32360		VEE BELT, WATER PUMP	
			1	34360		VEE BELT, WATER PUMP	
1	1	1		32361		VEE BELT, ALTERNATOR	
1	1			32071		GASKET WATER PUMP	
			1	34071		GASKET WATER PUMP	
1	1			32072		IMPELLER	
			1	34072		IMPELLER	
1	1	1		32378		LONG HOSE	



				SPARE PARTS KIT, (MAJOR)		GROUP	PAGE
						9	3
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1				92006		SPARE PARTS KIT-MAJOR	
		1		93006		SPARE PARTS KIT-MAJOR	
			1	94006		SPARE PARTS KIT-MAJOR	
						KIT INCLUDES:	
1	1	1				OH GASKET SET	
1	1	1		32123		U HOSE	
4	4	4		42006		CRUSH WASHER	
2	2	2		42038		CRUSH WASHER	
2	2	2		42068		CRUSH WASHER	
2	2	2		42249		CRUSH WASHER	
2	2	2		42058		CRUSH WASHER	
2	2	2		42069		CRUSH WASHER	
2	2	2		42071		CRUSH WASHER	
1	1	1		62435		GLOW PLUG	
1	1	1		42050		INJECTOR, COMPLETE	
1	1	1		42065		BLEED SCREW	
1	1			22210		OIL FILTER	
			1	24210		OIL FILTER ELEMENT	
1	1	1		42005		FUEL FILTER ELEMENT	
1	1			32360		BELT WATER PUMP	
			1	34360		BELT WATER PUMP	
1	1	1		32361		BELT ALTERNATOR	
1	1			32071		GASKET (SEA WATER PUMP)	
			1	34071		GASKET (SEA WATER PUMP)	
1	1			32072		IMPELLER	
			1	34072		IMPELLER	
1	1			32074		SEAL	
			1	34074		SEAL	
1	1			32075		O-RING	
6	6			02748		SCREW	
			6	02655		SCREW	
2	2	2		52512		ZINC ELEMENT	
1	1	1		32378		HOSE (LONG CURVE)	



				GROUP	PAGE		
				9	4		
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
	1	1	1	52509		F.W. CAP	



				ACCESSORIES		GROUP	PAGE
						9	5
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
				92065		SUMP PUMP	
				92070		FUEL SHUT OFF CABLE 6 FT	
				92071		FUEL SHUT OFF CABLE 8 FT	
				92072		FUEL SHUT OFF CABLE 10 FT	
				92073		FUEL SHUT OFF CABLE 12 FT	
				92074		FUEL SHUT OFF CABLE 14 FT	
				92075		FUEL SHUT OFF CABLE 16 FT	
				92076		FUEL SHUT OFF CABLE 18 FT	
				92077		FUEL SHUT OFF CABLE 20 FT	
	1			92080		ELECTRIC STOP SOLENOID KIT	
		1		92081		ELECTRIC STOP SOLENOID KIT	
			1	92082		ELECTRIC STOP SOLENOID KIT	
				92050		PAINT SPRAY CAN YELLOW	
				92051		PAINT SPRAY CAN BROWN	
				92055		TOUCH UP PAINT YELLOW 1/2 PT.	
				92056		TOUCH UP PAINT YELLOW 1 PT.	
				92057		TOUCH UP PAINT YELLOW 1 QT.	
				92058		TOUCH UP PAINT BROWN 1/2 PT.	
				92059		TOUCH UP PAINT BROWN 1 PT.	
				92060		TOUCH UP PAINT BROWN 1 QT.	



				SPECIAL TOOLS		GROUP	PAGE
						9	6
FIG.	QUANTITY			PART NUMBER	KITS	DESCRIPTION	NOTES
	27	40	60				
1				92101		COMPRESSOR, VALVE SPRING	
2				92102		DRIFT, VALVE GUIDE	
3				92103		COMBINATION WRENCH SET	9 THRU 19 MM
4				92104		WRENCH, HEX HEAD METRIC	SET OF 9
5				92105		SOCKET, CRANK NUT 36MM	1/2" DRIVE
6				92106		PULLER, CRANK AND CAM GEAR	
7				92107		PULLER, CRANK FULLEY	
8				92108		SLEEVE-CRANK GEAR DRIVER	
9				92109		3/8" DRIVE RATCHET	
10				92110		DRIVER, OIL SEAL	
11				92113		3/8" DRIVE METRIC SOCKET SET	9 THRU 19 MM
12				92114		TOOL KIT COMPLETE	
						CONTAINS:	
						METAL TOOL BOX	
						BOX-END WRENCH SET	9 THRU 19 MM
						SOCKET SET 3/8 DRIVE	9 THRU 19 MM
						RATCHET 3/8 DRIVE	
						SPEED WRENCH 3/8"	
						2" EXTENSION	
						6" EXTENSION	
						3/8" UNIVERSAL JOINT	
						1-PAIR CHANNEL LOCK PLIERS	
						3-SCREW DRIVERS-FLAT BIT	
						1-PHILLIPS SCREW DRIVER	
						1-12" ADJUSTABLE WRENCH	
						1-6" ADJUSTABLE WRENCH	

SHAFT  $1\frac{1}{8}$  x 37 O.A.

$35\frac{1}{4}$  FROM KEYPED END TO END OF TAPER  
 $\frac{1}{4}$  x 2" KEY

WHEEL - MICHIGAN DYNA-JET 150 x 14 P R.H.

TRANS CABLE VOLVO - # 3851040-0  
6 FT