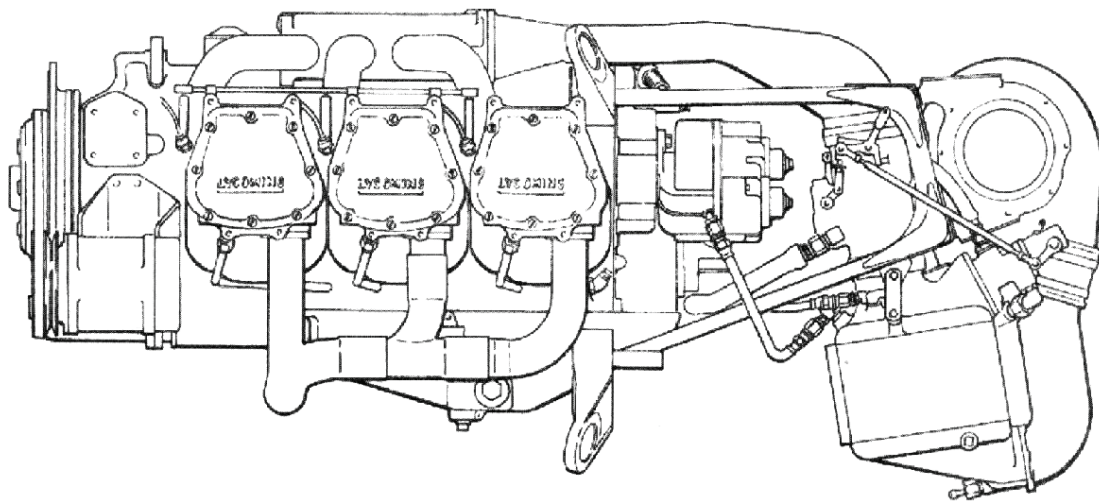


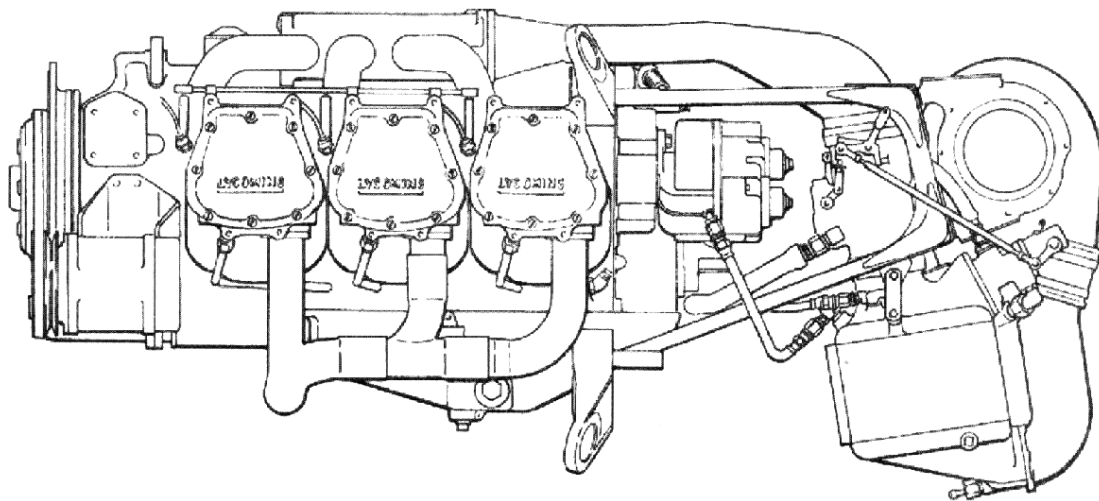
Lycoming Aircraft Engines Parts Catalog



TIO/LTIO-540-V2AD **Wide Cylinder Flange Model**

LYCOMING

Lycoming Aircraft Engines Parts Catalog



TIO/LTIO-540-V2AD **Wide Cylinder Flange Model**

LYCOMING

TECHNICAL PUBLICATION REVISION

REVISION No. PC315-2A	ENGINE MODEL TIO/LTIO-540-V2AD	PUBLICATION No. PC315-2	PUBLICATION DATE December, 1983
The page(s) furnished herewith are intended to replace the corresponding page(s) of the publication indicated above.			
Remove		Insert	
December, 1983 1-13, 1-14, 5-2, 5-10, 6-3, 6-4, 9-1, 9-2, 9-3		July, 1986 1-13, 1-14, 5-2, 5-10, 6-3, 6-4, 9-1, 9-2, 9-3	
		<div style="border: 1px solid black; padding: 5px; display: inline-block;">Reprinted Jan. 1993 Including This Revision</div>	

INTRODUCTION

This illustrated parts catalog contains a complete parts listing for the Lycoming TIO/LTIO-540-V2AD wide cylinder flange model aircraft engines.

Major assembly and sub-assembly parts of the engines are listed in the Group Assembly sections in the general sequence of engine build up.

A Service Kits section and Oversize and Undersize Parts List are included to aid in ordering parts as necessary during overhaul.

The Numerical Index is provided for convenience in finding parts when only the part number is known.

Parts coverage of Vendor Accessories used on Lycoming engines may be found in the appropriate Vendor's Parts Catalog. A list of these publications appear in the latest edition of Service Letter No. L114.

NOTE

The illustrations, pictures and drawings shown in this publication are typical of the subject matter they portray.

This catalog, when used in conjunction with the appropriate overhaul manual, shall be used for parts identification only. Under no circumstances shall this catalog be used as an assembly or installation document.

Any reference in this document to a suppliers/parts manufacturers' product, by name, trademark, part number or other description is solely for the purposes of identification and does not indicate or infer that Lycoming accepts responsibility for quality control and/or airworthiness of parts which do not pass through the Lycoming quality control system.

SERVICE BULLETINS, INSTRUCTIONS AND LETTERS

Although the information contained in this parts catalog is up-to-date at time of publication, users are urged to keep abreast of later information through all Lycoming distributors or from the factory by subscription. Consult the latest edition of Service Letter No. L114 for subscription information.

HOW TO ORDER PARTS

In ordering parts for your engine, observe the following instructions which will expedite shipment of correct parts required without delay.

- a. Always specify the model and serial number of your engine.
- b. Always specify Part Number, Nomenclature and quantity required.

TABLE OF CONTENTS

SECTION	PAGE
Introduction	i
Table of Contents	ii,iii
Oversize and Undersize Parts	iv
1. CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP	
Crankcase Assembly	1-1
Oil Level Gage and Engine Mounting Brackets	1-3
Crankcase Related Parts	1-5
Crankshaft and Related Parts	1-7
Camshaft and Related Parts	1-9
Propeller Governor Drive Assembly	1-11
Crankshaft and Fuel Pump Idler Gears	1-13
Crankcase Attaching Parts	1-15
2. ACCESSORY HOUSING AND RELATED PARTS	
Accessory Housing Assembly	2-1
Oil Pump Assy. and Accessory Housing Attaching Parts	2-3
Fuel Pump Assemblies	2-5
Vacuum Pump Drive, Oil Cooler and Breather Fittings	2-7
Oil Filter Assembly and Oil Cooler Bypass Valve	2-9
Turbo Scavenge, Vacuum Pump Drive and Covers	2-10
3. CYLINDER, PISTON AND VALVE TRAIN	
Connecting Rods, Pistons and Ring Assemblies	3-1
Cylinder Assembly	3-3
Valve Assembly	3-5
Cylinder Related Parts	3-7
4. IGNITION SYSTEM	
Magnetos, Magneto Drives and Spark Plugs	4-1
5. ELECTRICAL COMPONENTS	
Alternator and Belt	5-1
Starter Motor and Attaching Parts	5-2
100 AMP Alternator Mounting and Attaching Parts	5-3
70 AMP Alternator Mounting and Attaching Parts	5-5
70 AMP Alternator Mounting and Attaching Parts	5-7
Compressor Mounting, Attachments and Linkage	5-9
6. OIL SUMP AND INDUCTION SYSTEM	
Oil Sump and Induction Housing Assembly	6-1
Intake Pipes and Air Inlet Housing	6-3
Fuel Injector, Fuel Manifold and Air Bleed Nozzles	6-5
Cylinder Head and Manifold Fuel Drains	6-7
7. TURBOCHARGER AND EXHAUST SYSTEMS	
Exhaust Manifold and Transition Assembly	7-1
Turbocharger, Support and Attaching Parts	7-3

TABLE OF CONTENTS (Cont.)

SECTION	PAGE
7. TURBOCHARGER AND EXHAUST SYSTEMS (Cont.)	
Turbocharger Tank Assembly, Hoses and Related Parts	7-5
Intercooler Assembly and Related Parts	7-7
8. SERVICE KIT SECTION	8-1
9. NUMERICAL INDEX	9-1

Oversize and Undersize Parts Listing

PART NO.	DESCRIPTION	OVERSIZE								UNDERSIZE		
		P02 .002	P05 .005	P10 .010	P15 .015	P20 .020	P30 .030	P40 .040	P50 .050	M03 .003	M06 .006	M10 .010
66670	BUSHING		X	X								
69260	INSERT			X								
69796	DOWEL		X									
71894	SEAT			X		X	X					
71903	BUSHING, COUNTERWEIGHT	SEE LATEST EDITION OF SERVICE INSTRUCTION NO. 1143 FOR APPLICATION.										
72155S	BUSHING		X	X	X	X						
73810	BUSHING	SEE LATEST EDITION OF SERVICE INSTRUCTION NO. 1142 FOR APPLICATION.										
73857	RING			X		X						
74241	RING			X								
75656S	BUSHING		X	X	X	X						
76077	GUIDE			X		X	X					
79024S	BUSHING		X	X	X	X						
LW-12688	SEAT			X		X	X					
LW-13212	BEARING									X*	X*	X*
LW-13885	BEARING									X	X	X
LW-14830	BEARING									X	X	X
LW-15628	SEAL								X			
LW-18856	GUIDE		X	X		X	X	X				
STD-2078	DOWEL	X	X	X	X							

Studs available in P03, P07 and P12.

* Also available in P10 oversize.

NOTE

When ordering oversize and undersize parts, be sure to specify the required oversize and undersize dimension along with the proper part number. For example, to order bearing LW-13885 in .003 undersize, order part number LW-13885-M3. Oversize code letter is "P" while undersize code letter is "M". These letters are then followed by the number designating the size in thousandths of an inch.

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP
CRANKCASE ASSEMBLY

FIG. REF. 1	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-18543	CRANKCASE ASSEMBLY	1
2	31C-12	STUD, 5/16-18 x 1-1/2 long	2
3	31C-13	STUD, 5/16-18 x 1-5/8 long	1
4	38-13	STUD, 3/8-16 x 1-5/8 long	24
5	38-16	STUD, 3/8-16 x 2.00 long	8
6	38-22	STUD, 3/8-16 x 2-3/4 long	1
7	38D-17	STUD, 3/8-16 x 2-1/8 long, drilled	1
8	50-15	STUD, 1/2-13 x 1-7/8 long	12
9	10-8	STUD, 10-32 x 1.00 long	3
10	STD-557	DOWEL, 1/2 dia. x 11/16 long, hollow	2
11	1102	PLUG, 1/8 pipe x 3/8 long	4
12	65007	RETAINER, Shroud tube seal	12
13	STD-1339	PLUG, 1/16-27 pipe, Allen head	1
14	69796	DOWEL, Crankshaft bearing	2
15	STD-514	DOWEL, 5/16 dia. x 1/2 long	2
16	72158	BUSHING, Governor drive idler shaft	1
17	38-13*	STUD, 3/8-16 x 1-5/8 long	4
	38-15**	STUD, 3/8-16 x 1-7/8 long	8
18	31C-18	STUD, 5/16-18 x 2-1/4 long	4
19	73772	NOZZLE ASSY., Piston cooling	6
20	75739	NIPPLE, 3/8 tube	1

- * Install in left case at top and lower front position of front pad.
- ** Install at front pads.

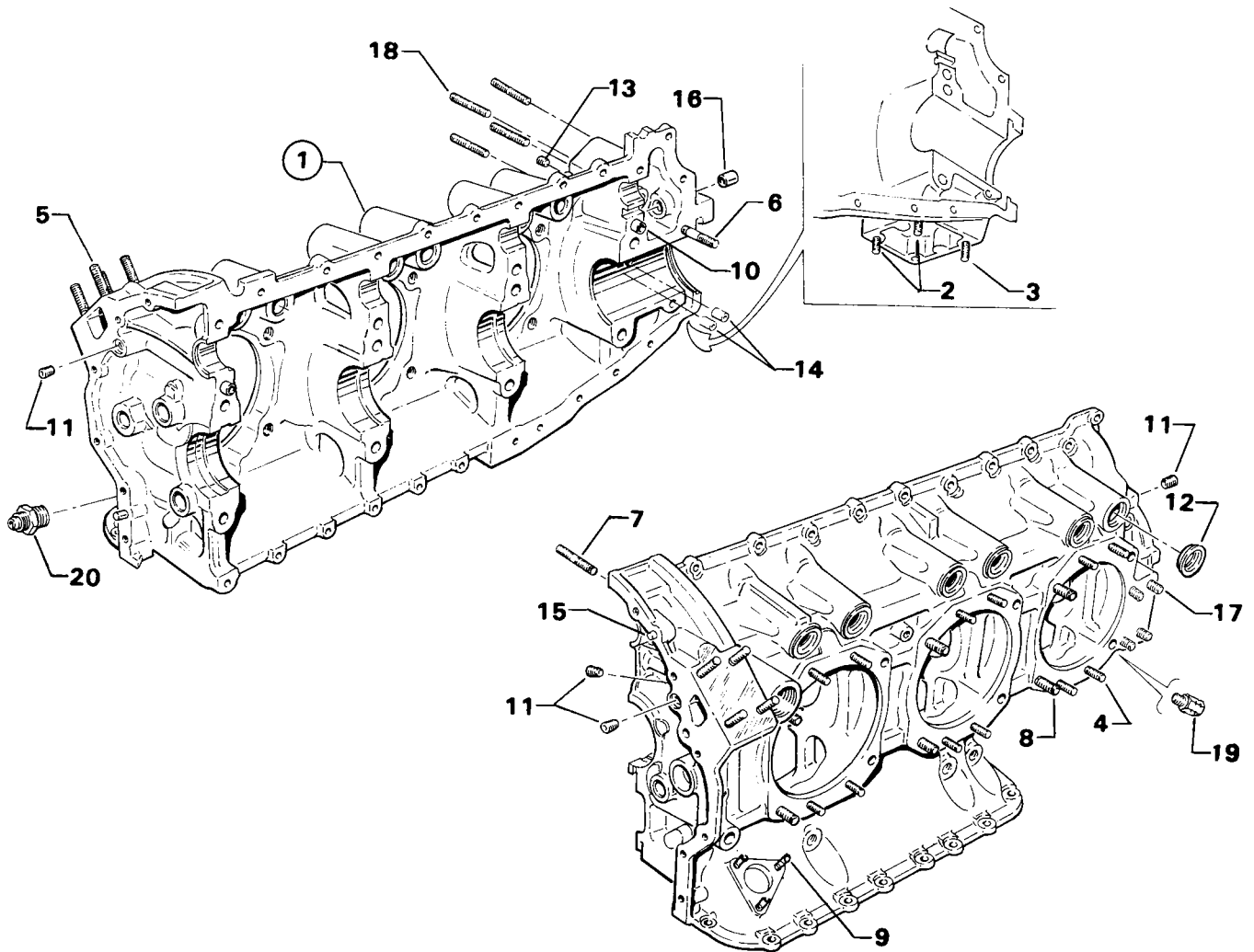


Figure 1. CRANKCASE ASSEMBLY

**CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP
 OIL LEVEL GAGE AND ENGINE MOUNTING BRACKETS**

FIG. REF. 2		DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-18481	GASKET, Oil filler adapter	1
2	LW-18482	ADAPTER, Oil filler tube	1
3	STD-28	WASHER, #10 plain	3
4	STD-251	WASHER, #10 internal lock	3
5	STD-63	NUT, 10-32 plain	3
6	72059	GASKET, Oil filler extension	1
7	75767	EXTENSION, Oil filler	1
8	72220	GASKET, Oil filler extension	1
9	74068	"O" RING, Oil level gauge	1
10	75737	EXTENSION, Oil filler	1
11	16783-2	GAUGE ASSY., Oil level	1
12	LW-14688	BRACKET, Engine mounting (Dynafoal), bottom	2
13	LW-18626	BRACKET ASSY., Engine mounting, upper left	1
14	STD-1171	INSERT, 3/8-16 Heli-Coil x 3/4 long	1
15	LW-18624	BRACKET ASSY., Engine mounting, upper right	1
16	STD-1171	INSERT, 3/8-16 Heli-Coil x 3/4 long	1
17	STD-33	WASHER, 3/8 plain	16
18	STD-678	WASHER, 3/8 internal lock	16
19	STD-596	NUT, 3/8-24 plain	16
20	STD-33	WASHER, 3/8 plain (assemble between lifting eye and engine mount)	8
21	LW-18760	EYE, Lifting (rear)	2
22	STD-678	WASHER, 3/8 internal lock	2
23	STD-2175	BOLT, 3/8-16 x 1-1/8 long, hex. head	2

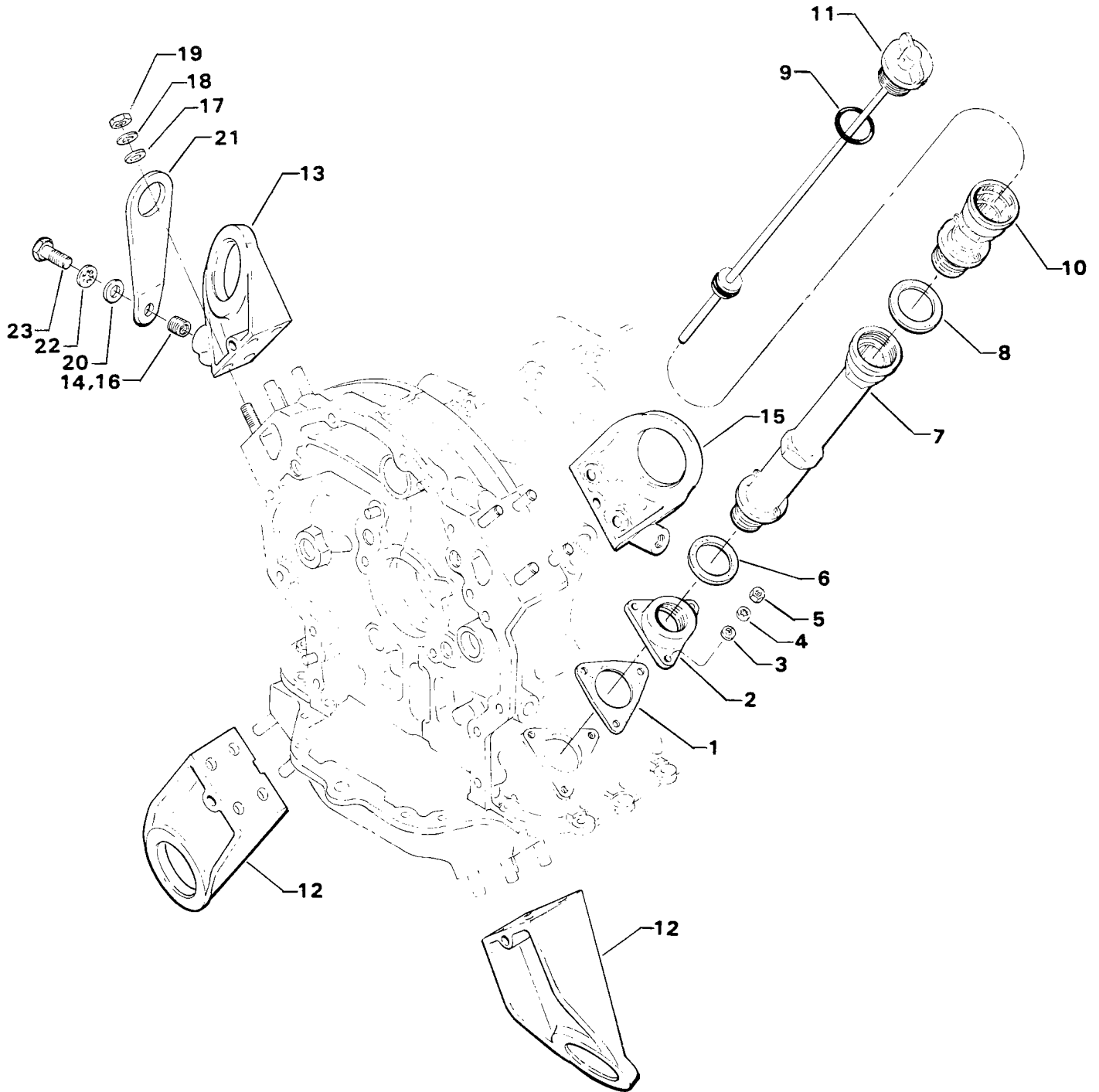


Figure 2. OIL LEVEL GAGE AND ENGINE MOUNTING BRACKETS

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP
CRANKCASE RELATED PARTS

FIG. REF. 3		DESCRIPTION	QUANTITY PER ASSEMBLY
1	1028-B	BALL, 11/16 dia.	1
2	LW-11713	SPRING, Oil pressure relief valve	1
3	STD-1045	GASKET, 1-1/4 I.D. x 1-1/2 O.D. x 3/32 annular	1
4	77808	VALVE ASSY., Oil pressure relief, adjustable	1
5	LW-14830	BEARING, Crankshaft	6
6	LW-13885	BEARING, Crankshaft (front)	2
7	LW-15628	SEAL, Crankshaft, oil	1
8	72091	RING, Oil seal, 23/64 I.D. x 7/64 dia.	2
9	72877	BODY, Hydraulic tappet	12

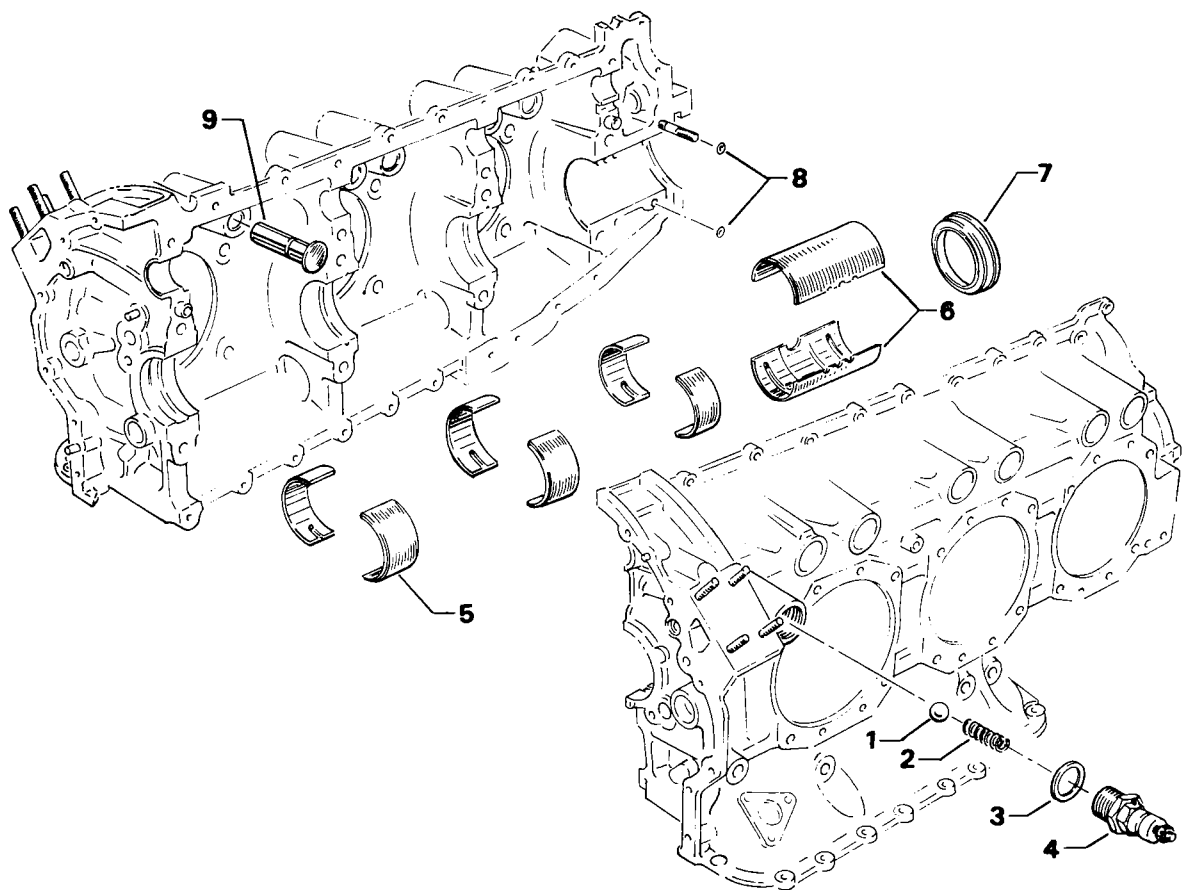


Figure 3. CRANKCASE RELATED PARTS

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP
CRANKSHAFT AND RELATED PARTS

FIG. REF. 4	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-17790*	CRANKSHAFT AND COUNTERWEIGHT ASSEMBLY	1
	LW-17791**	CRANKSHAFT AND COUNTERWEIGHT ASSEMBLY	1
2	LW-17765*	CRANKSHAFT AND PLUG ASSEMBLY	1
	LW-17766**	CRANKSHAFT AND PLUG ASSEMBLY	1
3	STD-1211	PLUG, 2.00 dia. expansion	1
4	73810	BUSHING, Crankshaft dynamic counterweight	4
5	60945	PLUG, 1-1/4 diameter	1
6	75656	BUSHING, Propeller flange, long	4
7	72155	BUSHING, Propeller flange, short	1
8	79024	BUSHING, Propeller flange, indexing	1
9	STD-2078	DOWEL, 3/8 O.D. x 1/2 long	1
10	73644	COUNTERWEIGHT ASSEMBLY	2
11	71903	BUSHING, Dynamic counterweight	8
12	76788	ROLLER, Dynamic counterweight, 6.3 order	2
13	76787	ROLLER, Dynamic counterweight, 5.1 order	2
14	LW-14820	RING, Internal retaining	8
15	71907	WASHER, Dynamic counterweight	8
16	LW-10284	GEAR, Crankshaft	1
17	LW-10332	LOCKPLATE, Crankshaft gear	1
18	AN8-14A	BOLT, 1/2-20 x 1-19/32 long	1
19	75030*	SUPPORT ASSY., Starter ring gear, 12/14 pitch, with de-icing provision (standard rotation)	1
20	72566*	GEAR, Starter ring, 12/14 pitch	1
21	77579*	SUPPORT ASSY., Starter ring gear, 12/14 pitch, without de-icing provision (standard rotation)	1
22	72566*	GEAR, Starter ring, 12/14 pitch	1
23	LW-18633*	SUPPORT ASSY., Starter ring gear, 12/14 pitch, 24V.-100 Amp. alternator (standard rotation)	1
24	72566*	GEAR, Starter ring, 12/14 pitch	1
25	LW-15712**	SUPPORT ASSY., Starter ring gear, 12/14 pitch, 24V.-100 Amp. alternator (reverse rotation)	1
26	LW-10551**	GEAR, Starter ring, 12/14 pitch	1
27	LW-18679**	SUPPORT ASSY., Starter ring gear, 12/14 pitch, 24V.-70 Amp. alternator (reverse rotation)	1
28	LW-10551**	GEAR, Starter ring, 12/14 pitch	1

* Used on TIO-540-V2AD engines.

** Used on LTIO-540-V2AD engines.

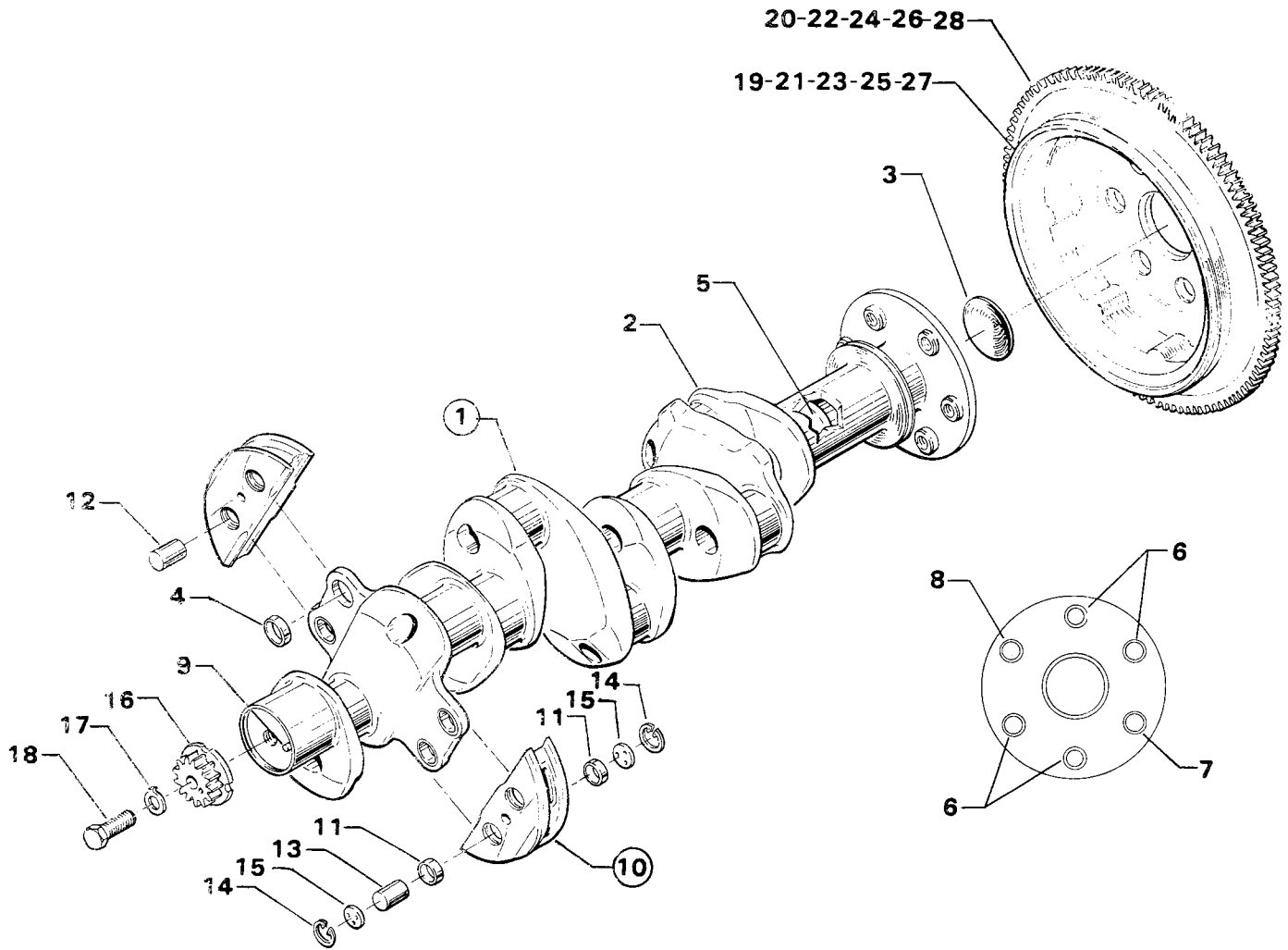


Figure 4. CRANKSHAFT AND RELATED PARTS

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP
CAMSHAFT AND RELATED PARTS

FIG. REF. 5		DESCRIPTION	QUANTITY PER ASSEMBLY
1	76148*	CAMSHAFT	1
	LW-12201**	CAMSHAFT (Reverse rotation)	1
2	76155	SHAFT ASSY.. Tachometer	1
3	78368	PIN, 3/16 x 2-21/64 long	1
4	76118	SPACER. Tachometer shaft centering	1
5	MS16625-1081	RING. Internal retaining	1

- * Used on T10-540-V2AD engines.
- ** Used on LT10-540-V2AD engines.

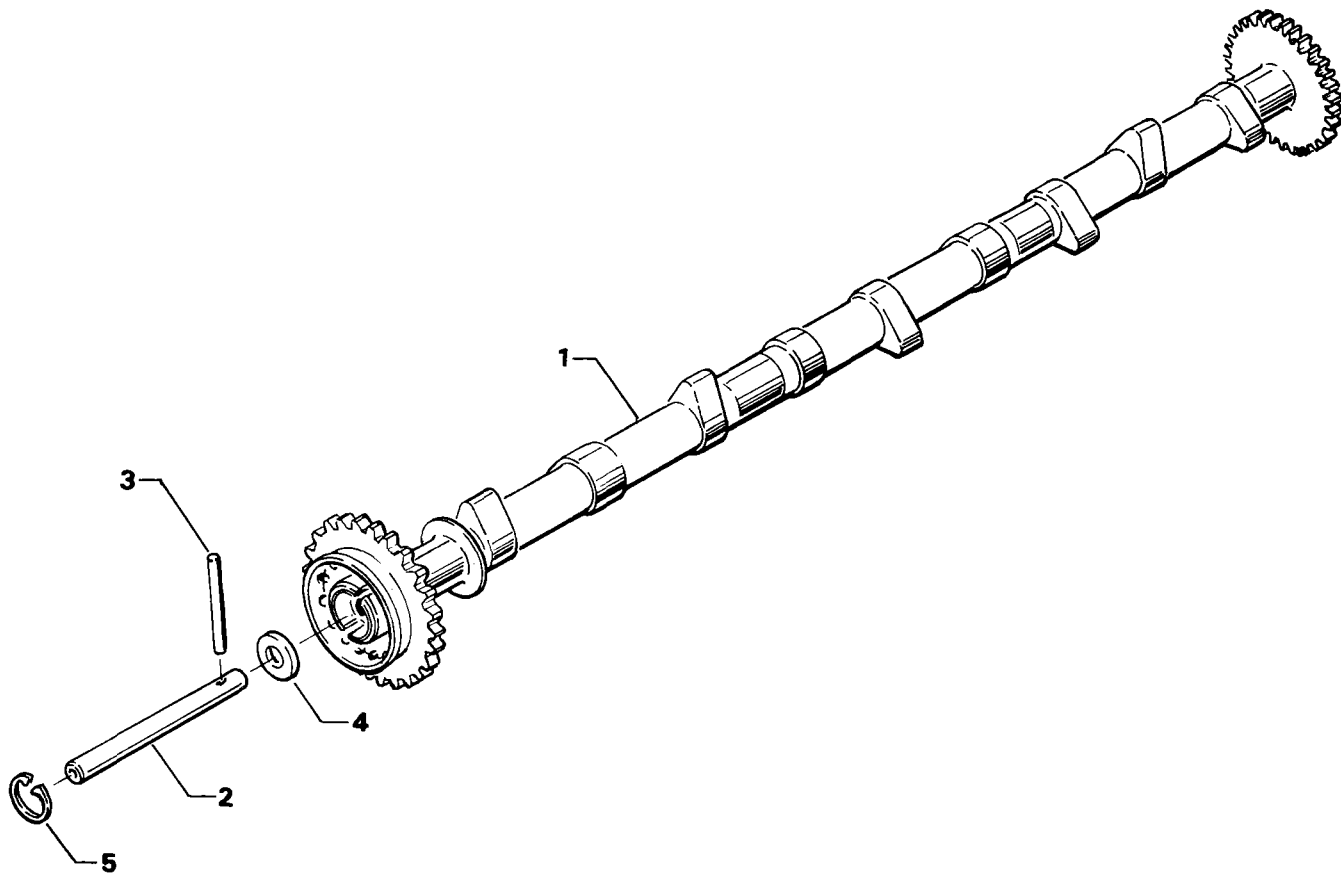


Figure 5. CAMSHAFT AND RELATED PARTS

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP
PROPELLER GOVERNOR DRIVE ASSEMBLY

FIG. REF. 6		DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-10442	GEAR, Governor drive	1
2	LW-14021	SHAFT, Propeller governor idler gear	1
3	LW-10541	GEAR ASSY., Propeller governor idler	1
4	77872	BUSHING, Propeller governor idler gear	2
5	STD-19	DOWEL, 3/32 dia. x 7/32 long	1
6	STD-798	DOWEL, 3/32 dia. x 9/32 long	1
7	73249	WASHER, Thrust	AR
	73250	WASHER, Thrust	AR
	73251	WASHER, Thrust	AR
	73252	WASHER, Thrust	AR
8	AN565B1032H5	SET SCREW, No. 10/32 x 5/16 long	1
9	70455	GASKET, 25/32 I.D. x 1-1/8 O.D. x 1/16 thick	1
10	LW-13896	PLUG, 3/4-16 hex. hd.	1

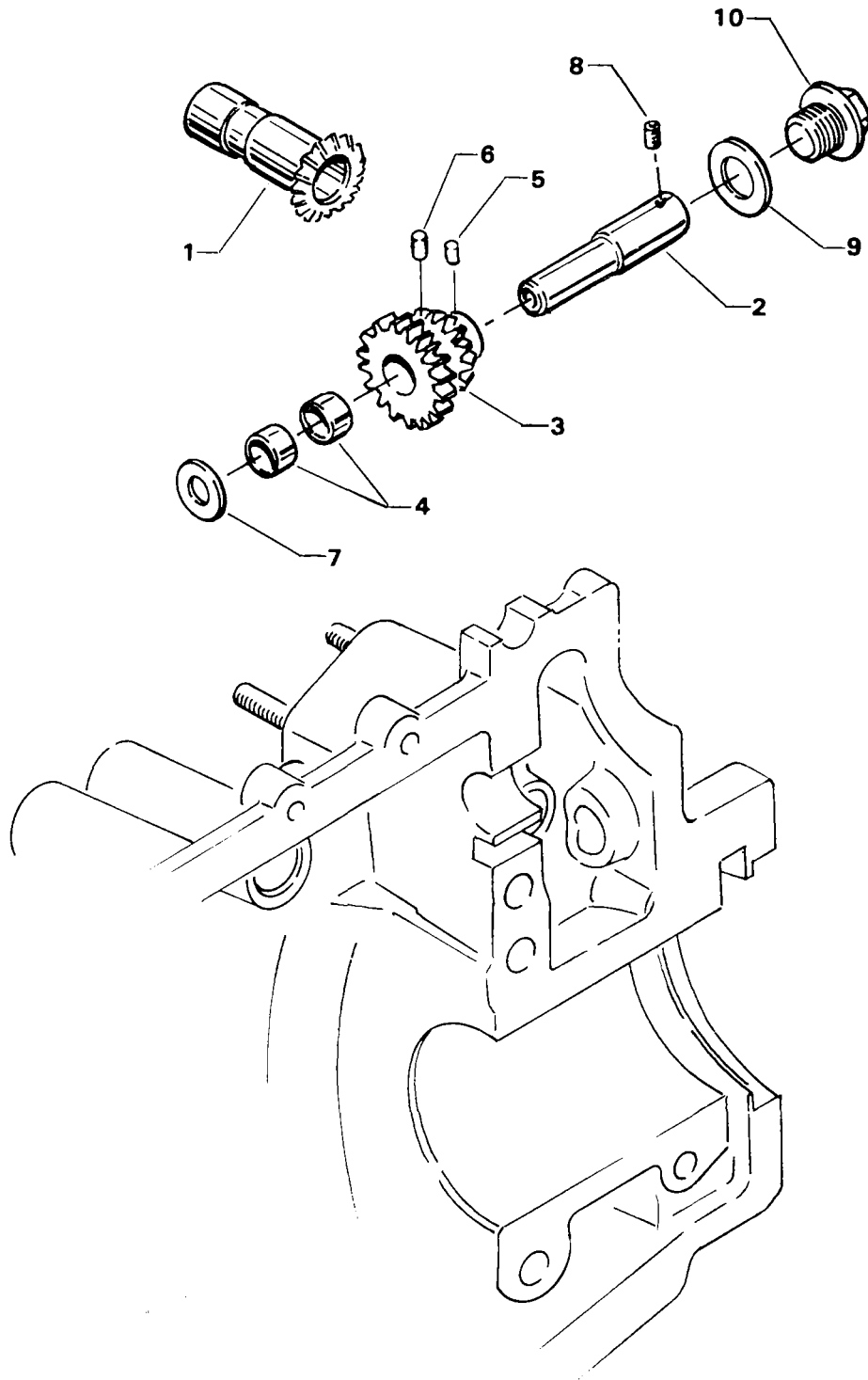


Figure 6. PROPELLER GOVERNOR DRIVE ASSEMBLY

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP CRANKSHAFT AND FUEL PUMP IDLER GEARS

FIG. REF. 7	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-10292	GEAR ASSY., Crankshaft idler, plain	1
2	LW-10299	SHAFT, Crankshaft idler gear	1
3	LW-10297	GEAR ASSY., Crankshaft idler (heavy)	1
4	LW-10325	SPACER, Idler gear	1
5	69164	GASKET, Fuel pump adapter	1
6	69159	ADAPTER ASSY., Fuel pump drive	1
7	STD-1774	PIN, 1/8 dia. x 1/4 long	1
8	STD-213	SEAL, Oil, 3/4 I.D. x 1-3/8 O.D.	1
9	LW-10324	GEAR ASSY., Fuel pump idler	1
10	LW-10299	SHAFT, Crankshaft idler gear	1
11	LW-10325	SPACER, Idler gear	1
12	LW-10329	SHAFTGEAR ASSY., Fuel pump drive	1
13	61166	THRUST BUTTON	1

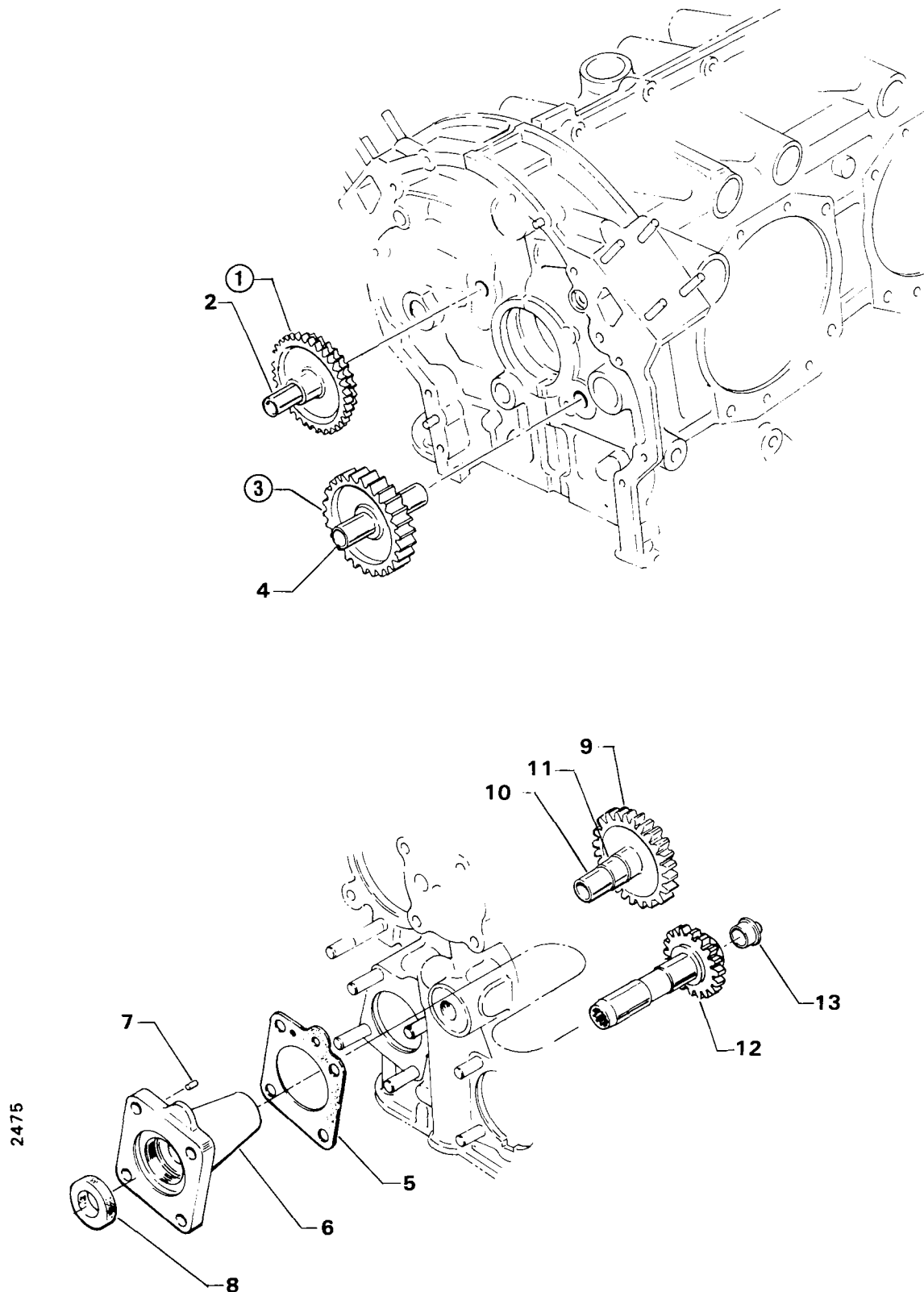


Figure 7. CRANKSHAFT AND FUEL PUMP IDLER GEARS

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP
 CRANKCASE ATTACHING PARTS

FIG. REF. 8	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	60803	STRAP, Lifting	1
2	LW-25-2.25	BOLT, 1/4-20 x 2-1/4 long, hex. head	1
3	STD-2084	BOLT, 1/4-20 x 1-3/4 long, hex. head	1
4	STD-1414	BOLT, 1/4-20 x 1-1/2 long, hex. head	10
5	STD-1419	BOLT, 1/4-20 x 1-1/8 long, hex. head	4
6	STD-8	WASHER, 1/4 plain	33
7	STD-160	WASHER, 1/4 internal lock	16
8	STD-1411	NUT, 1/4-20 plain	14
9	STD-1416	BOLT, 1/4-20 x 1-1/2 long, hex. head, drive end	6
10	STD-8	WASHER, 1/4 plain (maximum 6)	AR
11	STD-1409	NUT, 1/4-20, slotted shear	6
12	STD-33	WASHER, 3/8 plain	1
13	STD-872	NUT, 3/8-24 slotted	1
14	AN6-34A	BOLT, 3/8-24 x 3-37/64 long, hex. head	1
15	STD-33	WASHER, 3/8 plain (2 req. under head of AN6-34A)	4
16	STD-678	WASHER, 3/8 internal lock	2
17	STD-596	NUT, 3/8-24 plain	2
18	76220	STUD, 1/2-20 x 10-45/64 long	8
19	STD-1646	BOLT, 1/4-20 x 2.00 long, hex. hd.	1

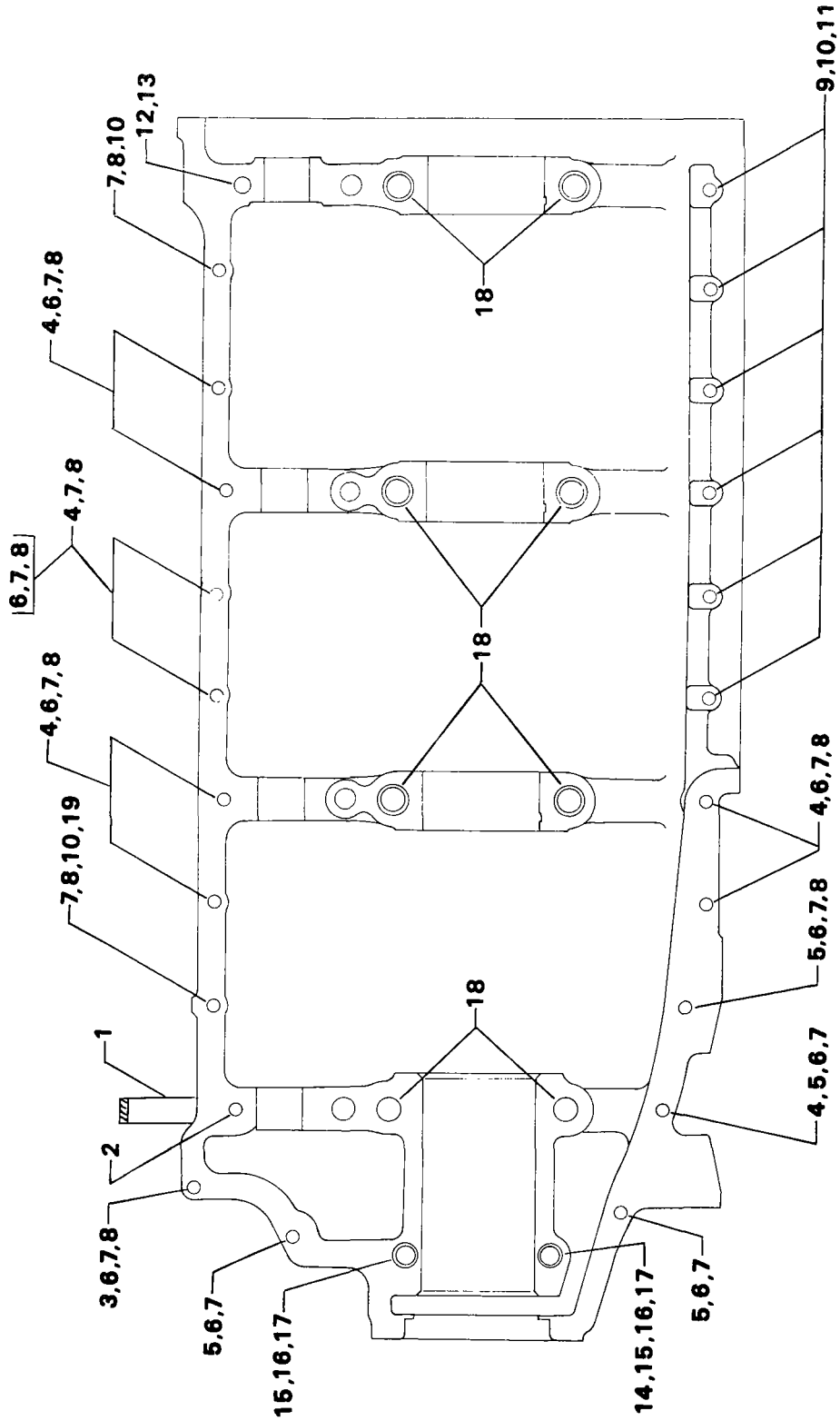


Figure 8. CRANKCASE ATTACHING PARTS

ACCESSORY HOUSING AND RELATED PARTS
 ACCESSORY HOUSING ASSEMBLY

FIG. REF. 9	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	73818	GASKET. Accessory housing	1
2	LW-10909*	HOUSING ASSEMBLY, Accessory	1
	LW-10918**	HOUSING ASSEMBLY, Accessory	1
3	25C-39	STUD. 1/4-20 x 4-7/8 long	1
4	25C-12	STUD. 1/4-20 x 1-1/2 long	4
5	25C-19	STUD. 1/4-20 x 2-3/8 long	3
6	31C-19	STUD. 5/16-18 x 2-3/8 long	4
7	31CD-20*	STUD. 5/16-18 x 2-1/2 long, drilled	3
8	31C-13	STUD. 5/16-18 x 1-5/8 long. (Mag. pad)	2
9	76156	SHIELD. Oil accessory breather	1
10	STD-1339	PLUG. 1/16 NPT Allen head	1
11	LW-10341	INSERT. 1.00-14 Heli-Coil x 3/8 long	1
12	MS-124703	INSERT. 3/4-16 Heli-Coil x 1-1/8 long	1
13	LW-12589	INSERT. 5/8-18 Heli-Coil x 3/8 long	1

* Used on T10-540-V2AD engines.
 ** Used on LT10-540-V2AD engines.

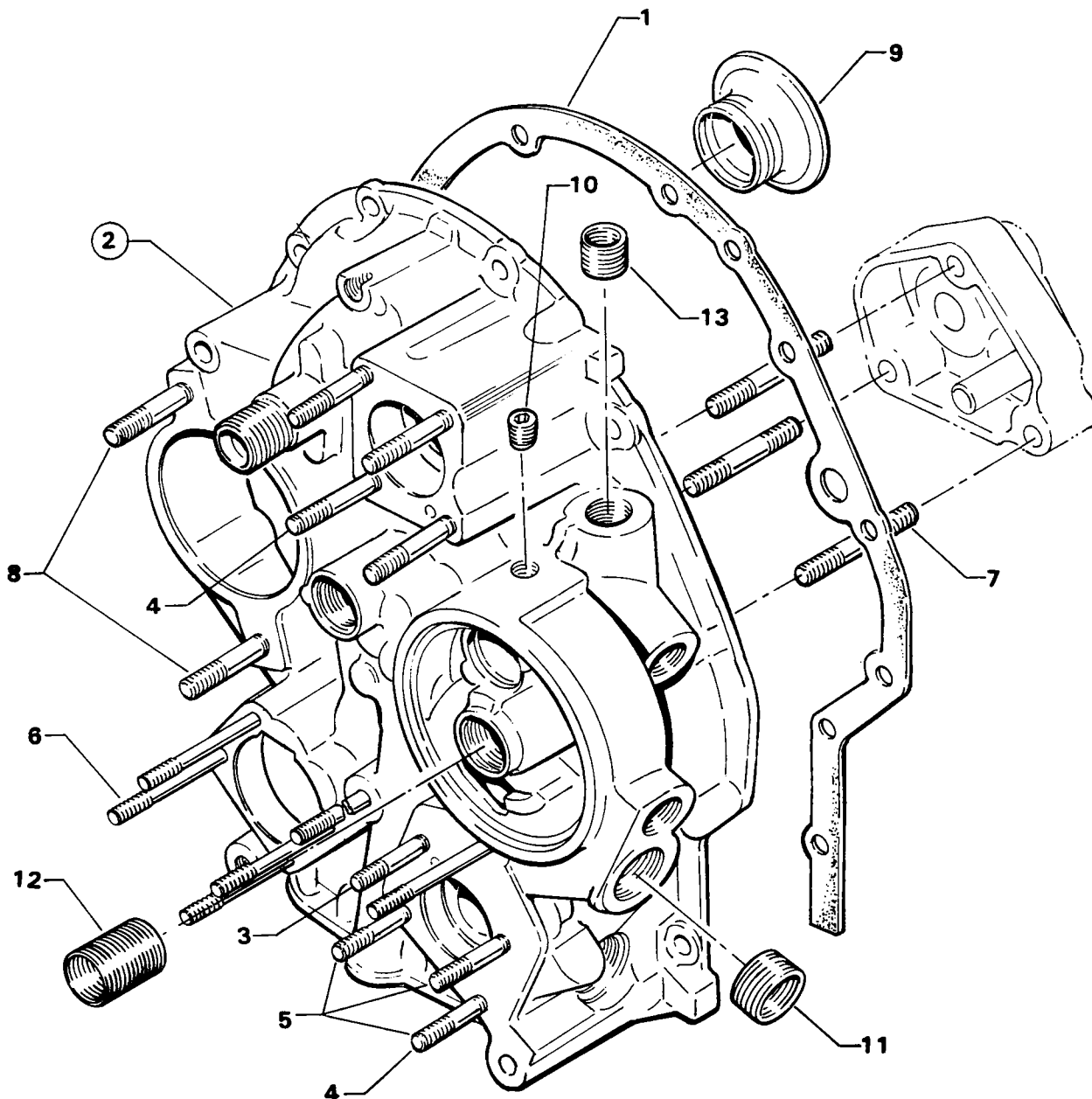


Figure 9. ACCESSORY HOUSING ASSEMBLY

ACCESSORY HOUSING AND RELATED PARTS
OIL PUMP ASSEMBLY AND ACCESSORY HOUSING ATTACHING PARTS

FIG. REF. 10		DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-10344*	BODY ASSY., Oil pump	1
	LW-11253**	BODY ASSY., Oil pump	1
2	60329	SHAFT, Oil pump idler	1
3	STD-714	PIN, 1/8 dia. x 1.00 long, cotter	1
4	STD-1768**	PLUG, 43/64 dia. x 9/32 long	1
5	LW-10318	GEAR ASSY., Oil pump drive	1
6	61166	THRUST BUTTON, Oil pump drive gear	1
7	61297	IMPELLER, Oil pump, driving	1
8	61298	IMPELLER, Oil pump, driving	1
9	STD-35	WASHER, 5/16	3
10	STD-1420*	NUT, 5/16-18 slotted	3
11	STD-1169**	BOLT, 5/16-18 x 2.00 long, hex. hd., drilled	1
12	STD-2129**	BOLT, 5/16-18 x 2-1/2 long, hex. hd., drilled	2
13	LW-14260	SEAL, Tachometer drive, oil	1
14	STD-8	WASHER, 1/4 plain	12
15	STD-160	WASHER, 1/4-20 lock, internal teeth	12
16	STD-1204	BOLT, 1/4-20 x 15/16 long, hex. hd.	9
17	STD-1215	BOLT, 1/4-20 x 1-1/4 long, hex. hd.	1
18	STD-1875*	BOLT, 1/4-20 x 13/16 long, hex. hd.	2

* Used on TIO-540-V2AD engines.
 ** Used on LTIO-540-V2AD engines.

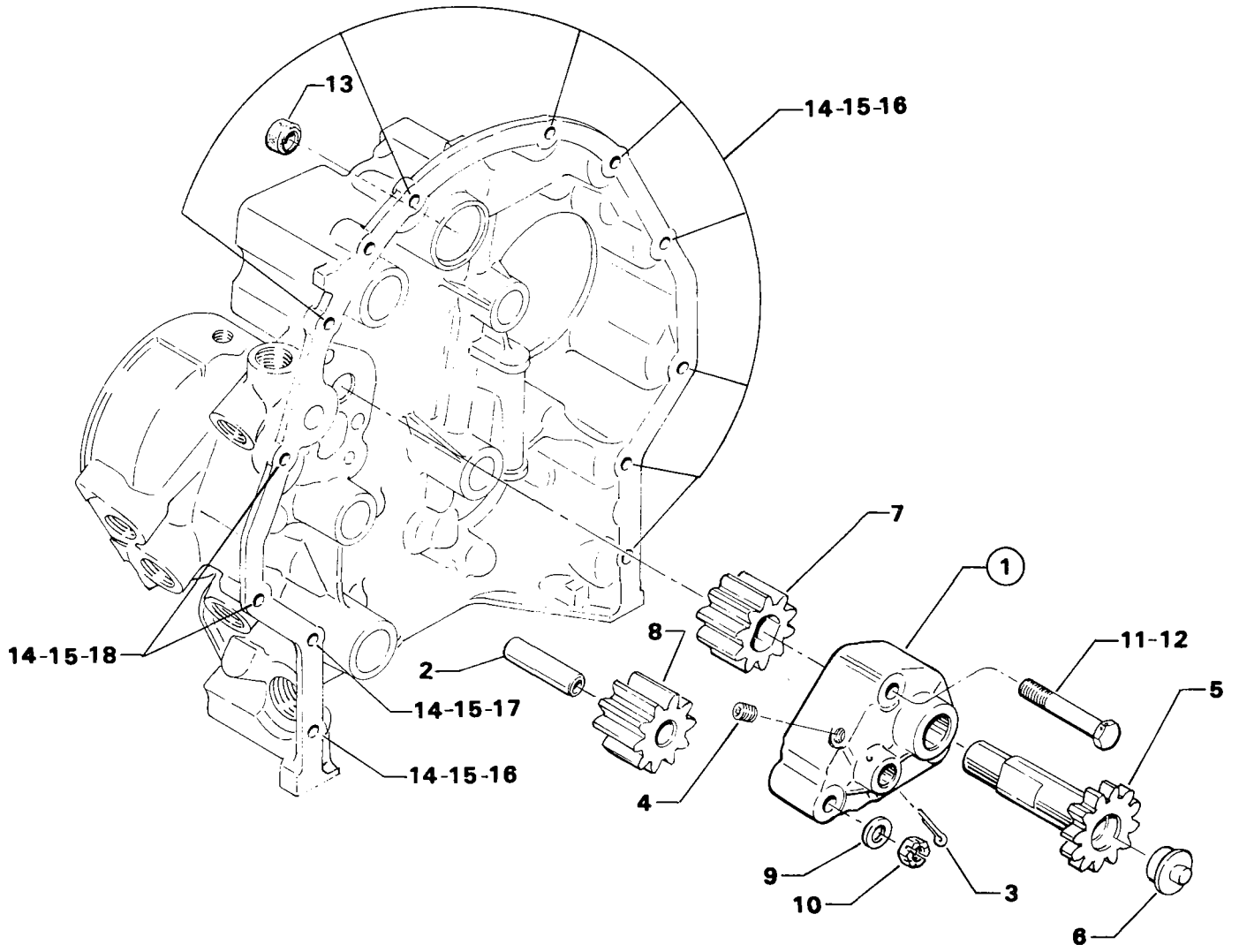


Figure 10. OIL PUMP ASSEMBLY AND ACCESSORY HOUSING ATTACHING PARTS

ACCESSORY HOUSING AND RELATED PARTS
FUEL PUMP ASSEMBLIES

FIG. REF. 11	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-10799	SPACER, Fuel pump insulating	1
2	LW-18536*	PUMP ASSY., Fuel	1
	LW-18589**	PUMP ASSY., Fuel	1
3	LW-13920*	PUMP, Fuel (RG9080-J7A)	1
	LW-15740**	PUMP, Fuel (RG9080-J8A)	1
4	LW-18171	ELBOW, Tube to male pipe (inlet)	1
5	MS20822-6-8	ELBOW, 3/8 tube x 1/2 NPT, 90° (outlet)	1
6	78067	ELBOW, 1/4 tube x 1/8 NPT, restricted	1
7	STD-35	WASHER, 5/16 plain	4
8	STD-475	WASHER, 5/16 internal lock	4
9	STD-1410	NUT, 5/16-18 plain	4
10	LW-12784-4-074	HOSE ASSY., Fuel pump to vent	1
11	LW-12799-6S-130	HOSE ASSY., Fuel pump to injector	1

- * Used on TIO-540-V2AD engines.
- ** Used on LTIO-540-V2AD engines.

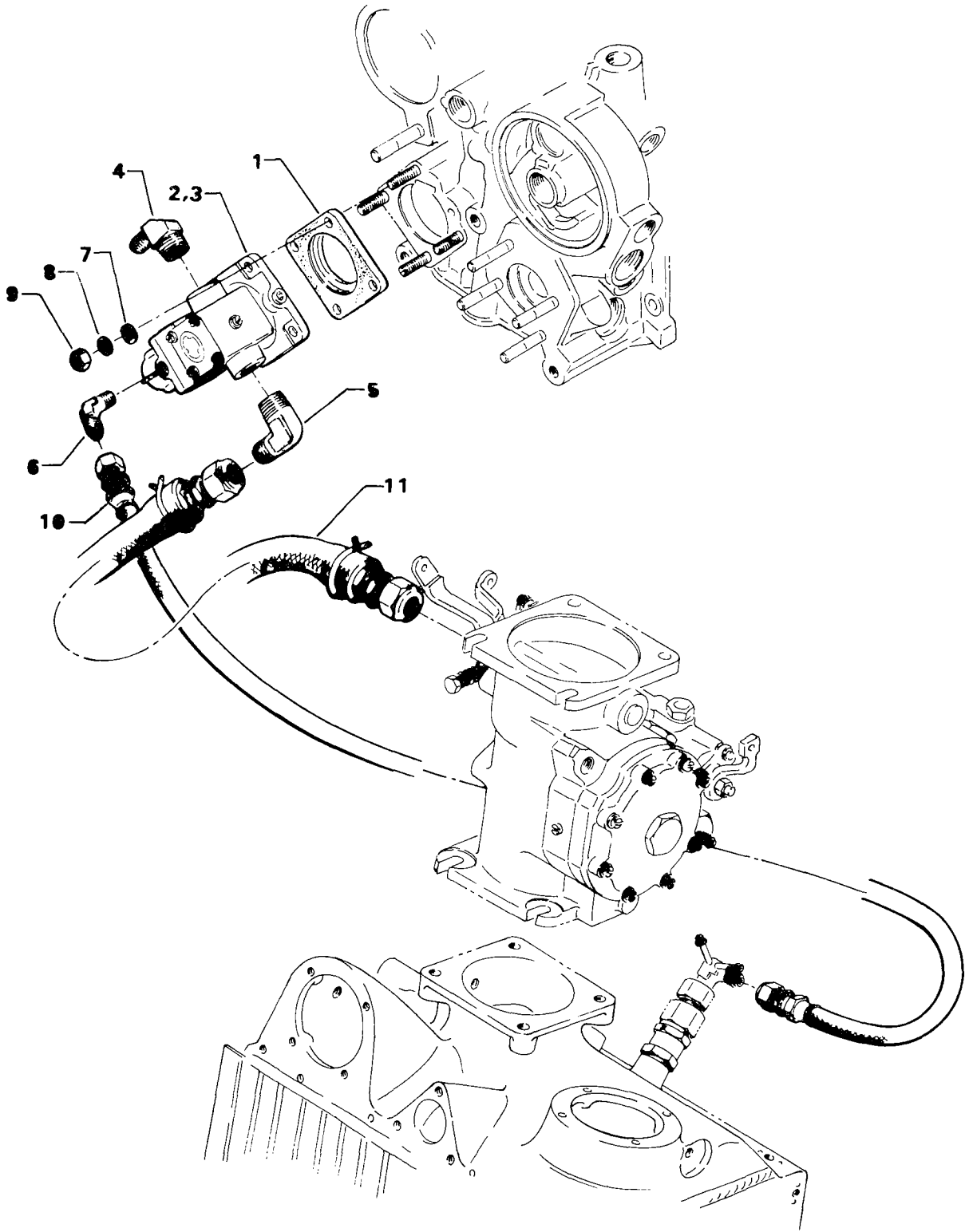


Figure 11. FUEL PUMP ASSEMBLIES

ACCESSORY HOUSING AND RELATED PARTS
VACUUM PUMP DRIVE, OIL COOLER AND BREATHER FITTINGS

FIG. REF. 12	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-10307	GEAR ASSY., Accessory housing	1
2	61166	THRUST BUTTON, Vacuum pump gear	1
3	71596	WASHER, Accessory drive gear	1
4	STD-208	SEAL, Oil 7/8 I.D. x 1-1/2 O.D. x 5/16	1
5	8313	GASKET, Vacuum pump	1
6	60430	COVER, Vacuum pump	1
7	STD-8	WASHER, 1/4 plain	4
8	STD-160	WASHER, 1/4 lock, internal teeth	4
9	STD-1411	NUT, 1/4-20 plain	4
10	LW-18575	NIPPLE, Hose, 3/4 tube (short)	1
11	AN919-15	NIPPLE, 7/8-14 x 1/2 tube (oil cooler)	2
12	MS29512-10	SEAL, Oil, 3/4 O.D. x 7/64 section	2

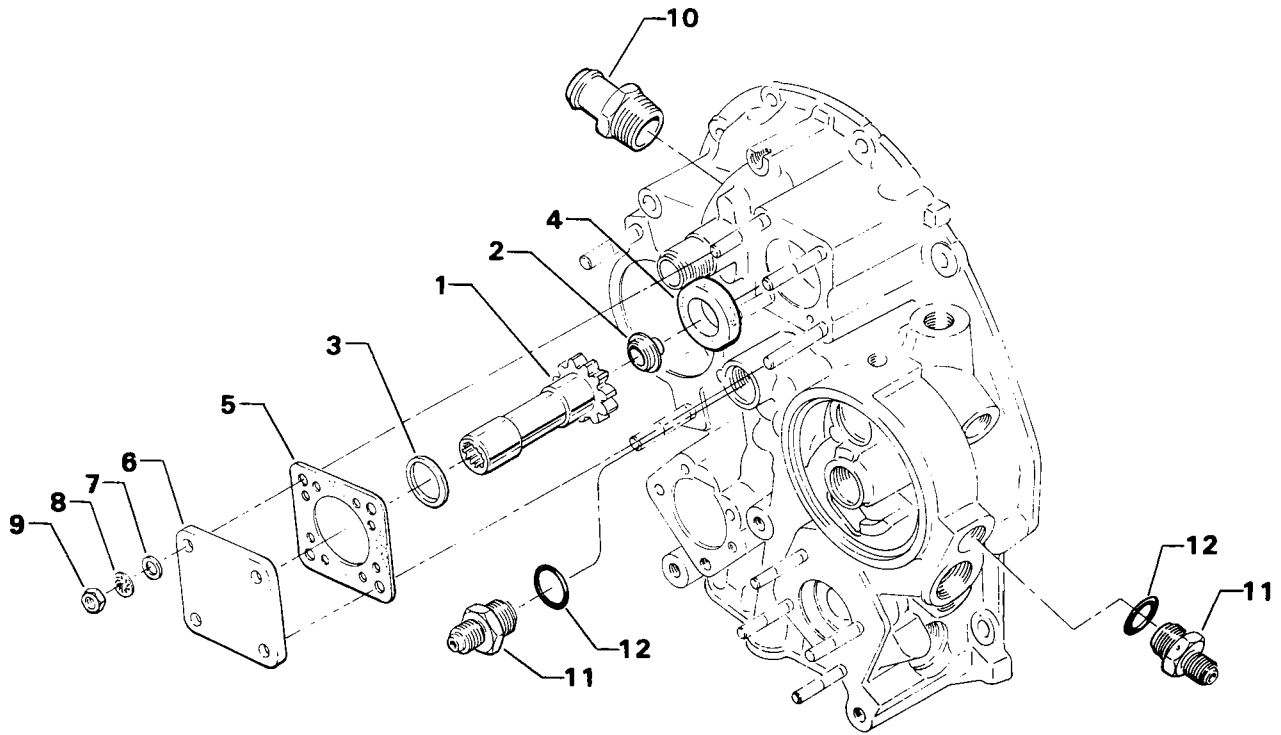


Figure 12. VACUUM PUMP DRIVE, OIL COOLER AND BREATHER FITTINGS

ACCESSORY HOUSING AND RELATED PARTS
OIL FILTER ASSEMBLY AND OIL COOLER BYPASS VALVE

FIG. REF. 13	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-10321	SPRING, Oil filter bypass valve	1
2	76539	SEAT, Oil relief valve	1
3	LW-10320	SLEEVE, Oil filter bypass valve	1
4	MS16625-1100	RING, Internal retaining	1
5	LW-13904	KIT, Converter plate, oil filter	1
6	LW-13905	OIL FILTER, Long, spin-on type (Champion)	1
7	75944	VALVE ASSY., Temperature control	1
8	76510	GASKET, Valve assembly	1

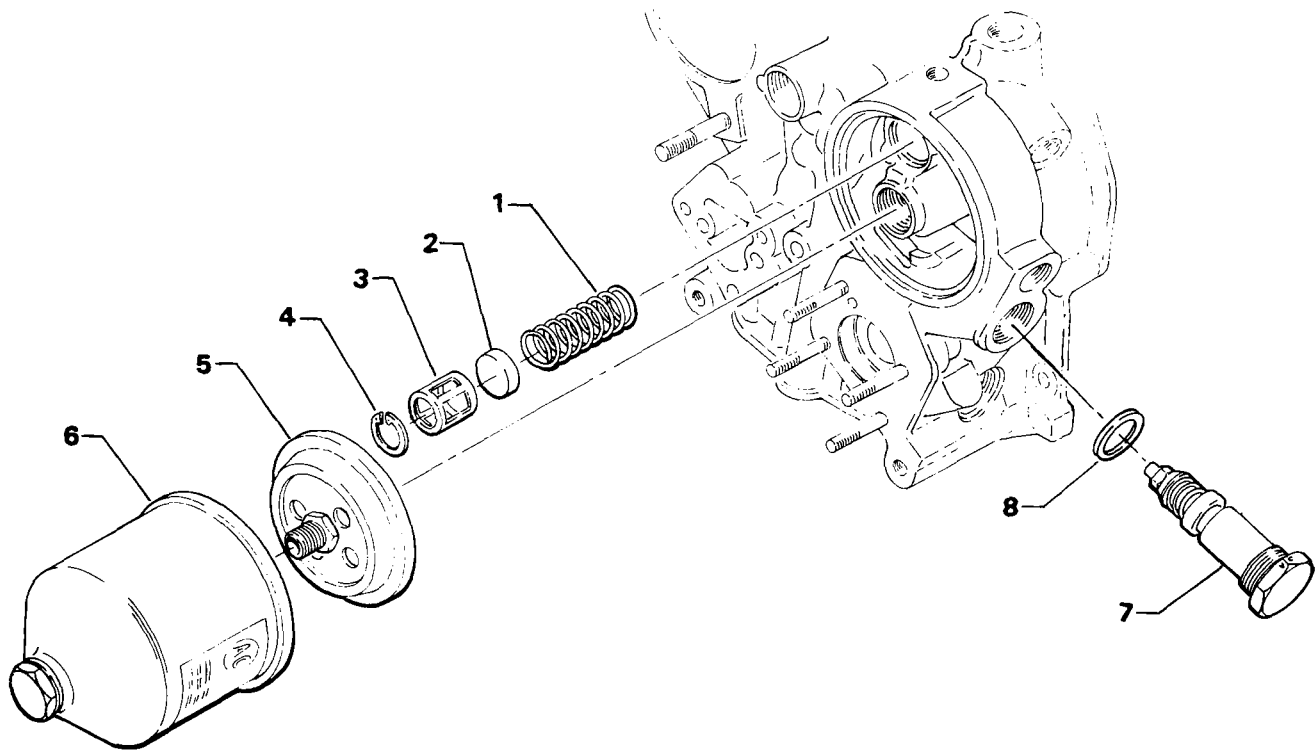


Figure 13. OIL FILTER ASSEMBLY AND OIL COOLER BYPASS VALVE

ACCESSORY HOUSING AND RELATED PARTS
TURBO SCAVENGE, VACUUM PUMP DRIVE AND COVERS

FIG. REF. 14	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-16448	GEAR ASSY., Accessory driven	1
2	71596	WASHER, Accessory driven gear	1
3	8313	GASKET, Turbo scavenge and vacuum pump drive	1
4	LW-15580*	DRIVE ASSY., Turbo scavenge and vacuum pump	1
	LW-18505**	DRIVE ASSY., Turbo scavenge and vacuum pump	1
5	LW-15579*	ADAPTER ASSY., Vacuum pump	1
	LW-18507**	ADAPTER ASSY., Vacuum pump	1
6	25C-12	STUD, 1/4-20 x 1-1/2 long	3
7	STD-1003	DOWEL, Oil, 3/16 I.D. x 1/2 long	1
8	78612	SHAFT, Pump	1
9	STD-95	KEY, 1/8 x 1/2, Woodruff	1
10	LW-15550	PUMP, Gerotor	1
11	MS9068-009	RING, Oil seal, 7/32 I.D. x 1/16 dia.	1
12	LW-15568*	ADAPTER, Turbo scavenger pump	1
	LW-18503**	ADAPTER, Turbo scavenger pump	1
13	70474	WASHER, Retaining, pump drive shaft	1
14	STD-1737	RING, External retaining, 9/16 dia.	1
15	AN500-10-16	SCREW, No. 10/24 x 1-1/8 long, fill. hd.	2
16	STD-122	WASHER, 13/64 I.D. x 5/16 O.D.	2
17	STD-178	WASHER, No. 10 spring lock	2
18	STD-208	OIL SEAL, 7/8 I.D. x 1-1/2 O.D.	1
19	STD-8	WASHER, 1/4 plain	3
20	STD-160	WASHER, 1/4 internal lock	3
21	STD-1411	NUT, 1/4-20 plain	3
22	8313	GASKET, Pump	1
23	60430	COVER, Pump	1
24	STD-8	WASHER, 1/4 plain	4
25	STD-160	WASHER, 1/4 internal lock	4
26	STD-1411	NUT, 1/4-20 plain	4

- * Used on TIO-540-V2AD engines.
- ** Used on LTIO-540-V2AD engines.

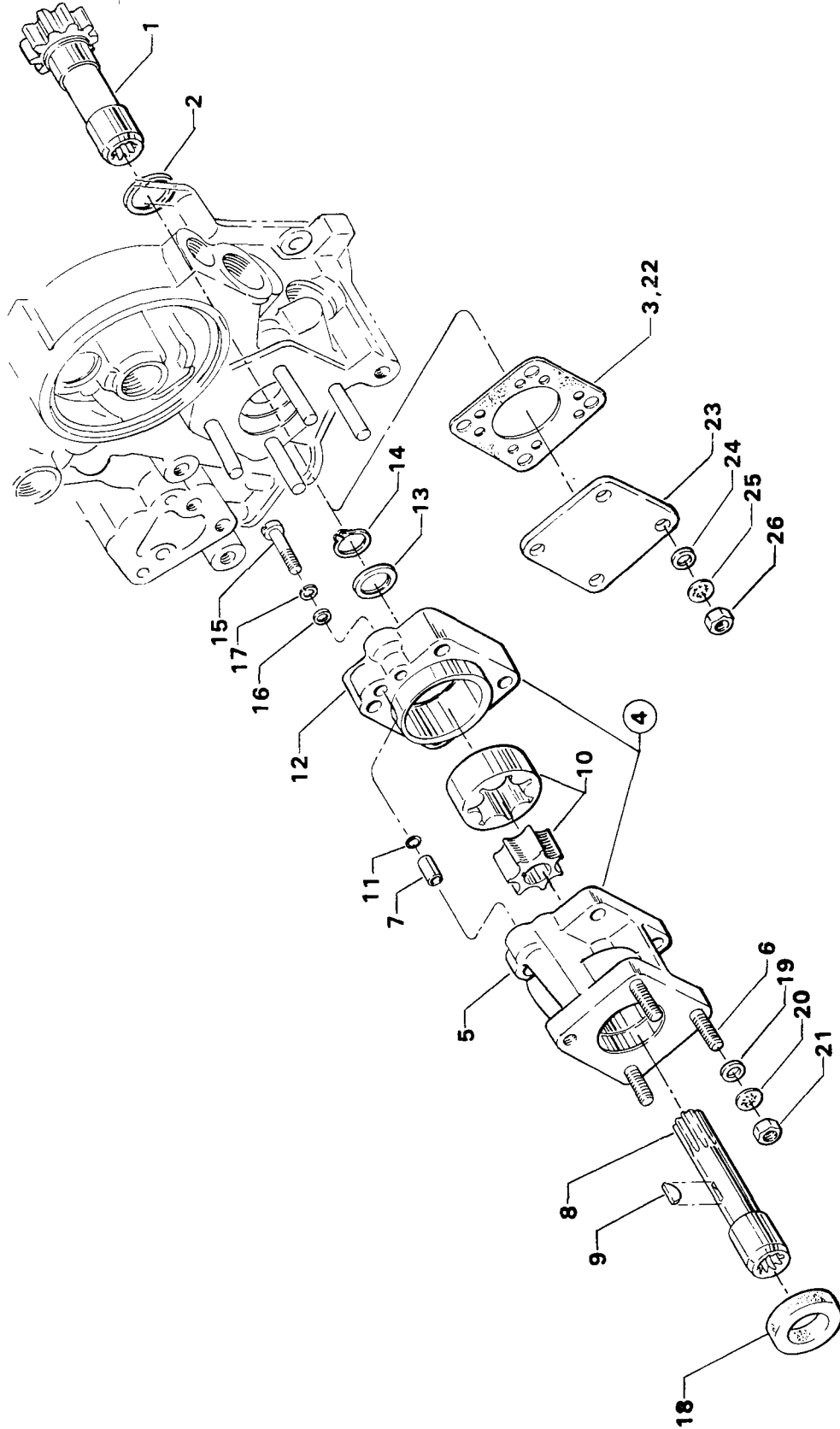


Figure 14. TURBO SCAVENGE, VACUUM PUMP DRIVE AND COVERS

CYLINDER, PISTON AND VALVE TRAIN
CONNECTING RODS, PISTONS AND RING ASSEMBLIES

FIG. REF. 15	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-13422	CONNECTING ROD ASSEMBLY	6
2	LW-13923	BUSHING, Connecting rod, upper	6
3	LW-12596	BOLT, Connecting rod	12
4	LW-12186	NUT, Connecting rod bolt	12
5	LW-13212	BEARING, Connecting rod	12
	LW-13209	BEARING, Connecting rod (alternate)	12
	LW-16143	BEARING, Connecting rod (alternate)	12
6	LW-10545	PISTON, Compression ratio, 7.30:1 (finned)	6
7	LW-14078	PIN, Piston	6
8	60828	PLUG, Piston pin	12
9	74241	RING, Piston, top compression	12
10	73857	RING, Piston, oil regulating (expander type)	6

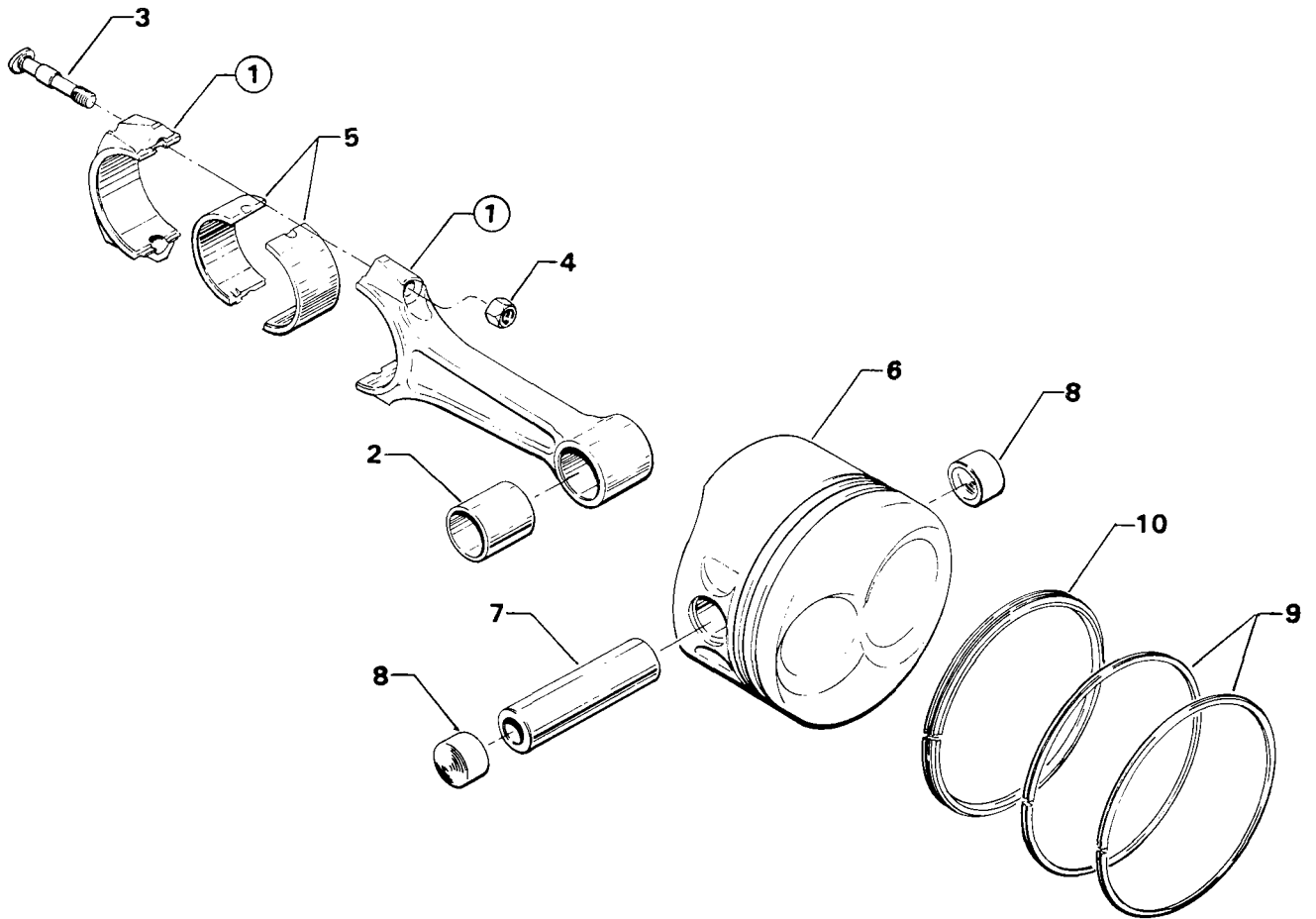


Figure 15. CONNECTING RODS, PISTONS AND RING ASSEMBLIES

**CYLINDER, PISTON AND VALVE TRAIN
CYLINDER ASSEMBLY**

FIG. REF. 16	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-18852*	CYLINDER AND HEAD ASSEMBLY	6
2	LW-12688	SEAT, Intake valve	6
3	71894	SEAT, Exhaust valve	6
4	76077	GUIDE, Valve intake	6
5	LW-18856	GUIDE, Valve exhaust (Ni-Resist)	6
6	69260	INSERT, Spark plug, 18-1.5 MM (long reach)	12
7	72706	INSERT, Heli-Coil, 1/4-20 x 3/8 long (self-locking)	12
8	25C-10	STUD, 1/4-20 x 1-1/4 long	24
9	66670	BUSHING, Rocker shaft	24
10	25C-8	STUD, 1/4-20 x 1-1/8 long	18
11	AN816-6	NIPPLE, 3/8 tube x 1/4 NPT	6
12	STD-148	NIPPLE, Union, 1/8 tube (fuel drain)	6

* Nitrided cylinder, long reach plug.

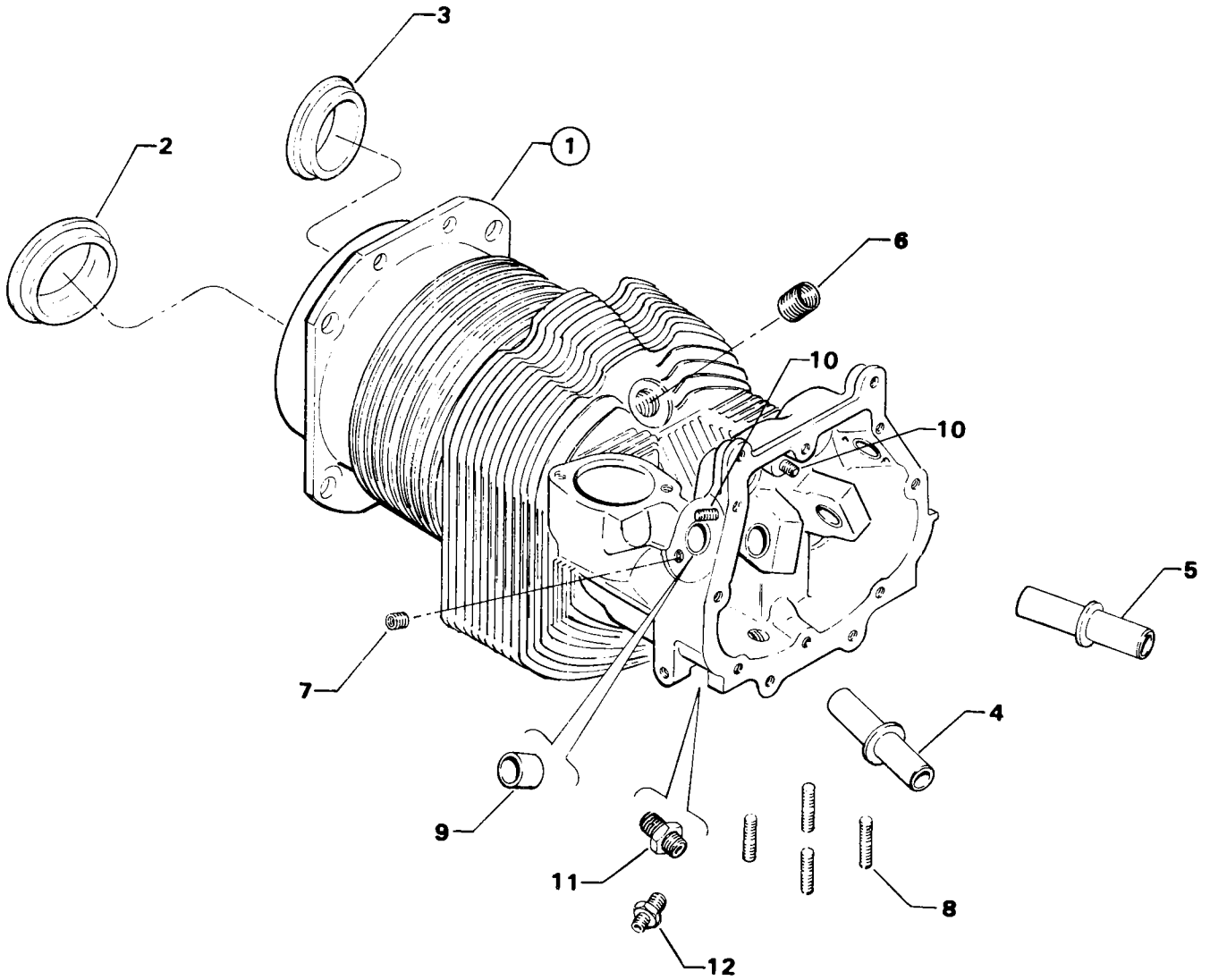


Figure 16. CYLINDER ASSEMBLY

**CYLINDER, PISTON AND VALVE TRAIN
VALVE ASSEMBLY**

FIG. REF. 17	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-13262	VALVE, Intake, hollow stem (rotator type)	6
2	LW-15732	VALVE, Exhaust (rotator type)	6
3	LW-11797	SPRING, Valve, inner	12
4	LW-11796	SPRING, Valve, outer	12
5	LW-13321	SEAT, Valve spring, lower intake	6
6	LW-13322	SEAT, Valve spring, lower exhaust	6
7	69532	SEAT, Valve spring, upper intake (rotator)	6
8	LW-16475	SEAT, Valve spring, upper exhaust (rotator)	6
9	72050	KEY, Valve intake (rotator)	12
10	62388	CAP, Valve stem intake (rotator)	6
11	MS13997-3	KEY, Valve exhaust (rotator)	12
12	MS13998-3	CAP, Valve stem, exhaust (rotator)	6
13	78290	PLUNGER ASSY., Hydraulic tappet	12
14	78524	SOCKET, Push rod, hydraulic tappet	12
15	LW-18944	TUBE, Shroud, push rod	12
16	LW-14995	SPRING, Shroud tube	6
17	LW-12272	LOCKPLATE, Shroud tube	6
18	STD-1411	NUT, 1/4-20 plain	6
19	LW-18661	SEAL, Shroud tube	12
20	70310	SEAL, Shroud tube	12
21	73463*	ROD ASSY., Push	AR
	73464*	ROD ASSY., Push	AR
	73465*	ROD ASSY., Push	AR
	73466*	ROD ASSY., Push	AR
22	LW-18946	ROCKER ASSY., Valve	12
23	74389	BUSHING, Valve rocker	12
24	71549	WASHER, Valve rocker thrust	12
25	72626	SHAFT, Valve rocker	12
26	LW-11665	THRUST BUTTON, Rocker shaft	24

* See latest edition of Lycoming Service Instruction No. 1060 for complete push rod application.

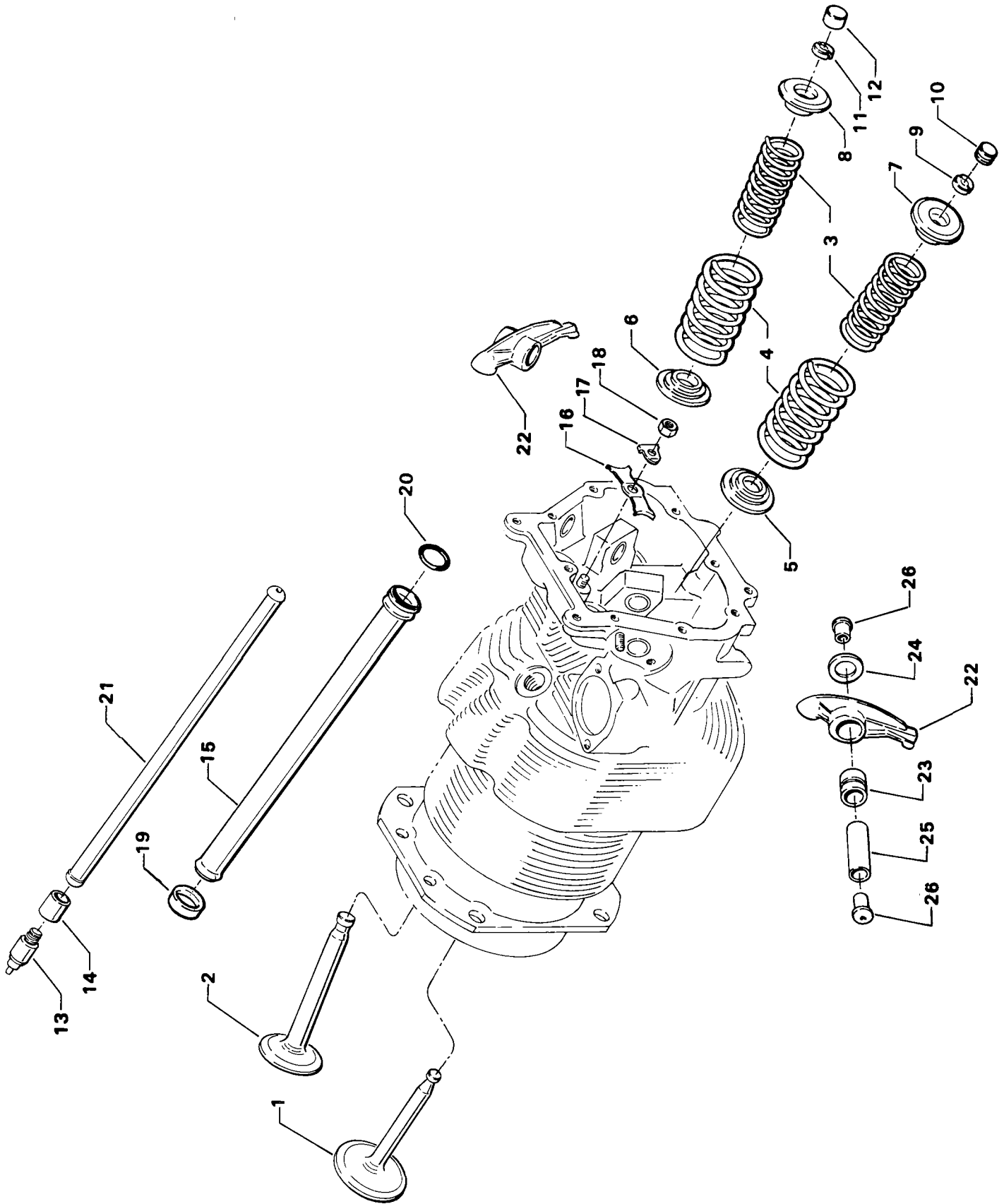


Figure 17. VALVE ASSEMBLY

**CYLINDER, PISTON AND VALVE TRAIN
 CYLINDER RELATED PARTS**

FIG. REF. 18	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	66732	GASKET, Cover, valve rocker shaft	12
2	72710	COVER, Valve rocker shaft	12
3	72709	SCREW, 1/4-20 x 5/8 long, self-sealing	12
4	76036	GASKET, Rocker box cover	6
5	LW-14433	COVER ASSY., Rocker box	6
6	STD-2059	SCREW, 1/4-20 x 11/16 long, pan hd. (self-locking)	48
7	71481	RING, Oil seal, 3/32 dia. sect. x 4-27/32 I.D.	6
8	74887	SPACER, 33/64 I.D. x 7/8 O.D. x 3/8 thick (front)	2
9	77906	SPACER, 33/64 I.D. x 7/8 O.D. x 1/8 thick (rear)	2
10	383-B	NUT, 3/8-24 plain	24
11	STD-2090	NUT, 1/2-20 plain	28
12	74494	PLATE, Caution, spark plug reach	6
13	STD-684	NIPPLE, Straight, 3/8 I.D. hose	6
14	STD-2180	HOSE, 3/8 I.D. x 1-13/16 long	6
15	LW-15592-5-05	CLAMP, Hose	12
16	LW-18555	TUBE ASSY., Cyl. head oil drain, cyl. no. 1	1
17	LW-18556	TUBE ASSY., Cyl. head oil drain, cyl. no. 2	1
18	LW-18557	TUBE ASSY., Cyl. head oil drain, cyls. no. 3, 4, 5, 6	4
19	LW-18832	BAFFLE ASSY., Intercylinder	4
20	71610	HOOK, Intercylinder baffle retainer	4
21	71611	RETAINER, Intercylinder baffle	4
22	STD-8	WASHER, 1/4 plain	12
23	STD-1925	SCREW, 1/4-20 x 5/8 long, pan hd. (self-locking)	12

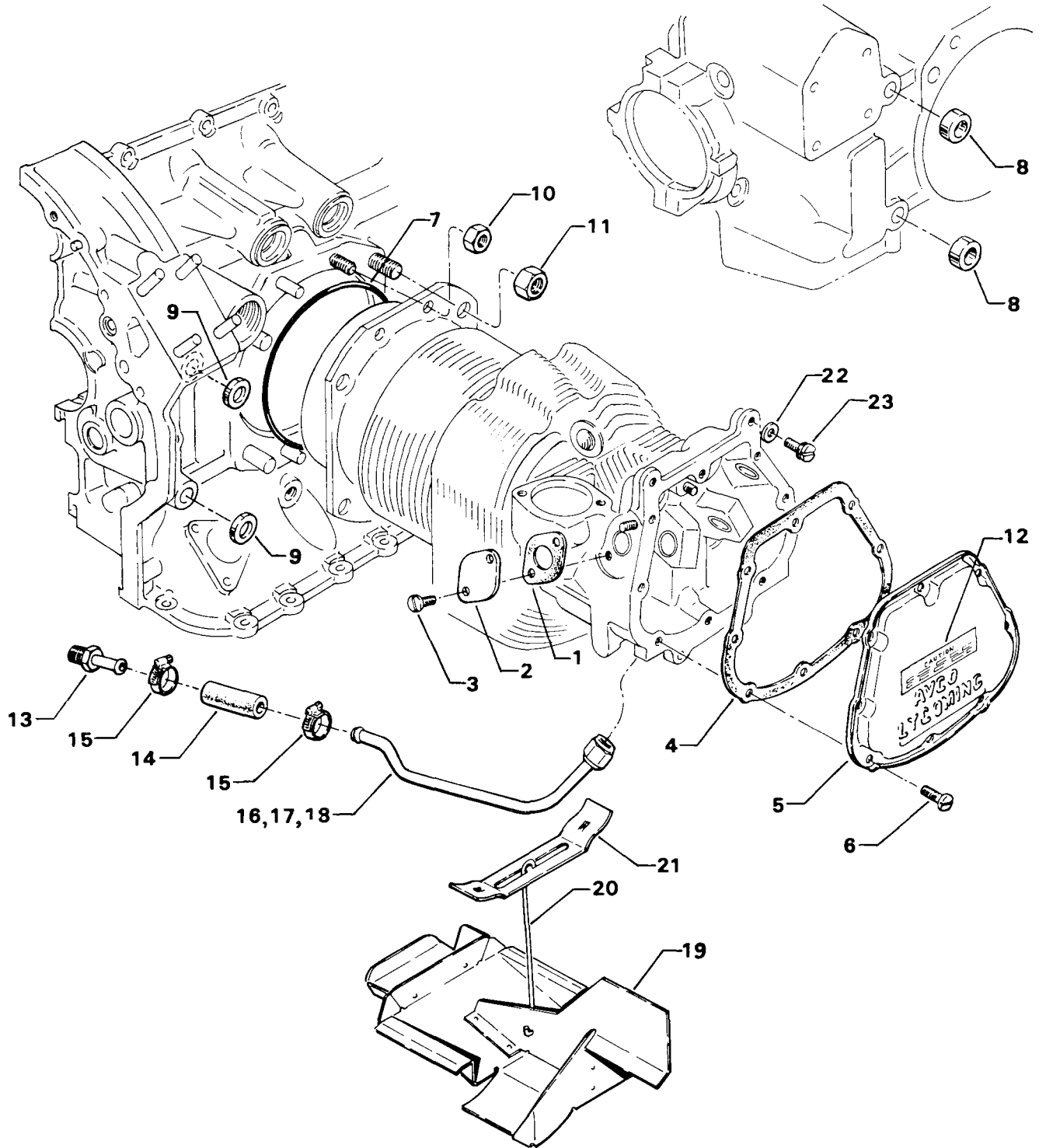


Figure 18. CYLINDER RELATED PARTS

IGNITION SYSTEM

MAGNETOS, MAGNETO DRIVES AND SPARK PLUGS

FIG. REF. 19	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-13642	GEAR, Retainer, magneto drive	1
2	LW-13641	CUSHION, Magneto drive	2
3	LW-12681	GASKET, Magneto	1
4	LW-685046-118*	MAGNETO, Ignition system (D6LN-3230)	1
5	LW-682910-13*	MAGNETO, Ignition (11° retard), rotation (CCW)	1
6	LW-684610-126*	HARNESS, Ignition	1
7	LW-685046-119**	MAGNETO, Ignition system (D6RN-3230)	1
8	LW-682910-18**	MAGNETO, Ignition (11° retard), rotation (CW)	1
9	LW-684610-126**	HARNESS, Ignition	1
10	LW-18378	CLAMP, Magneto	2
11	STD-475	WASHER, 5/16 internal lock	2
12	STD-1410	NUT, 5/16-18 plain	2
13	STD-1925	SCREW, 1/4-20 x 5/8 long, pan hd. (self-locking)	8
14	STD-2007	WASHER, 3/8 dia. seal	1
15	LW-13227	ADAPTER, Magneto pressurization	1
16	LW-13226	NUT, 3/8-16 plain	1
17	STD-33	WASHER, 3/8 plain	1
18	MS20822-4	ELBOW, 1/4 tube x 1/8 NPT, 90°	1
19	AN816-4	NIPPLE, 1/4 tube x 1/8 NPT	1
20	LW-12784-4-102	HOSE ASSY., Magneto to pressurization adapter	1
21	76734	ZIP STRAP	1
22	LW-13134	VALVE ASSY., Relief	1
23	MS29512-04	SEAL, Oil, 5/64 dia. sect. x 23/64 I.D.	1
24	STD-1930	HOSE, Split	1
25	1182-U5†	SPARK PLUG (Champion RHB-32E) long reach	12
26	LW-382698	KIT, Magneto ground terminal	2
	LW-382813	KIT, Magneto retard terminal	1

- * Used on TIO-540-V2AD engines.
- ** Used on LTIO-540-V2AD engines.

† Item No. 25 spark plug is used in current production only. Additional spark plugs are available for this engine. See latest edition of Lycoming Service Instruction No. 1042 for complete listing of all approved spark plugs.

NOTE

Individual spark plug leads may be replaced by ordering either 10-720633-48 (2B, 4B, 5B, 6B, 2T, 4T, 5T, 6T) or 10-720633-72 (1B, 3B, 1T, 3T). Replacement elbow is P/N 10-320573-2 or -3.

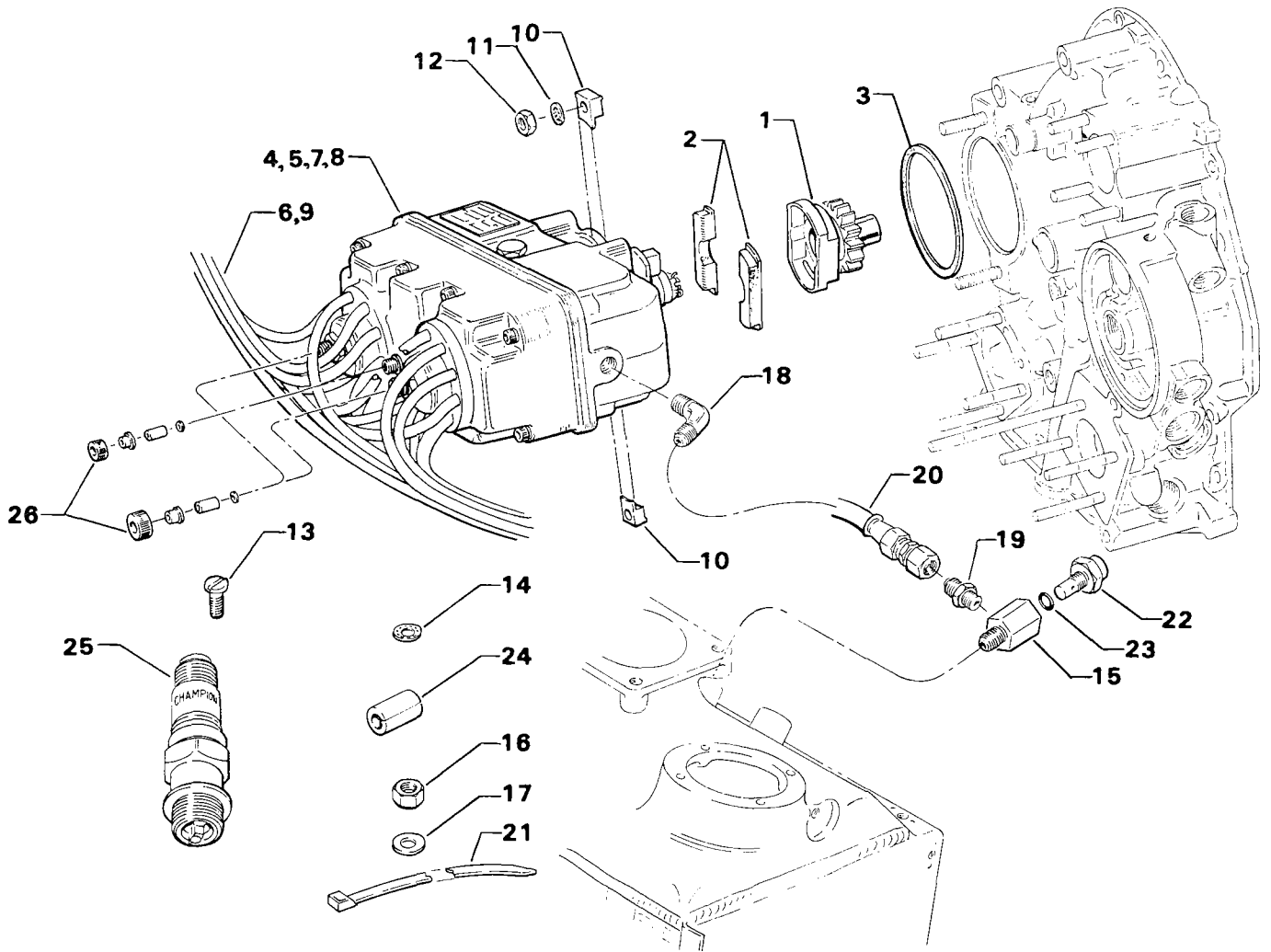


Figure 19. MAGNETOS, MAGNETO DRIVES AND SPARK PLUGS

ELECTRICAL COMPONENTS ALTERNATOR AND BELT

FIG. REF. 20		DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-14324	ALTERNATOR, 24 volt, 70 AMP, externally grounded (ALU-8421)	1
2	LW-14325*	ALTERNATOR, 24 volt, 70 AMP, externally grounded (ALU-8421), with thermocouples	1
3	LW-10967	ALTERNATOR ASSY., 24 volt, 100 AMP	1
4	LW-10966	ALTERNATOR, 24 volt, 100 AMP (ALV-8402-L)	1
5	76421	PULLEY, Alternator, dual belt	1
6	76026*	BELT, Alternator drive, 3/8 wide	1
7	74519	BELT, Alternator drive, 3/8 wide, w/idler pulley	1
8	LW-10971	BELT, Alternator, dual idler (2 matched belts)	1

* Used on TIO-540-V2AD engines only.

NOTE

See latest edition of Lycoming Service Instruction No. 1154 for complete listing of FAA approved starters, generators, alternators, regulators and relays.

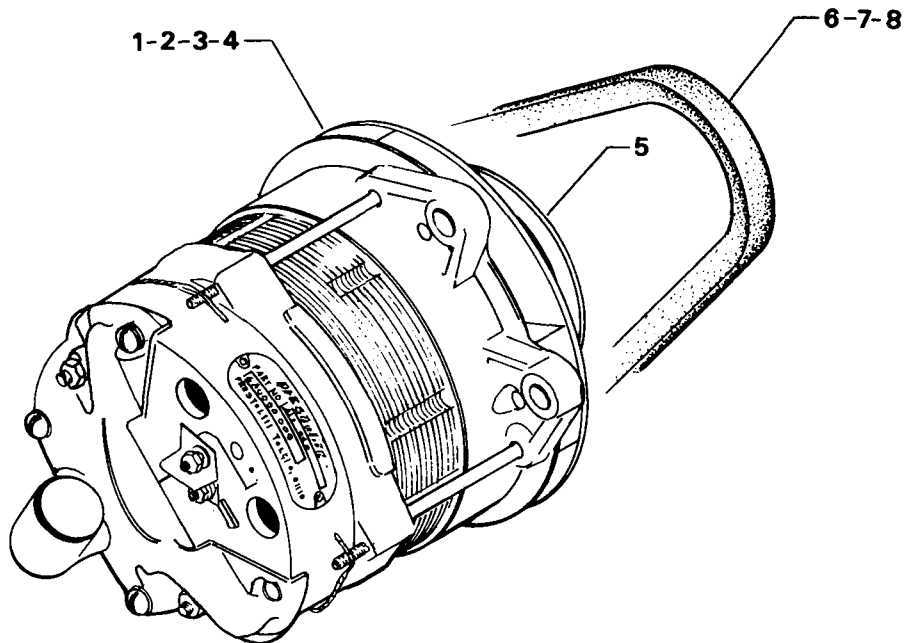


Figure 20. ALTERNATOR AND BELT

ELECTRICAL COMPONENTS STARTER MOTOR AND ATTACHING PARTS

FIG. REF. 21	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-15572*	STARTER, 24 volt (3.38:1 internal reduction) (12/14 p. pinion) (MHB-4016)	1
	LW-14214**	STARTER, 24 volt, 3.38:1 ratio - 12/14 pitch (MHB-4014)	1
2	STD-35	WASHER, 5/16 plain	4
3	STD-475	WASHER, 5/16 internal lock	4
4	STD-2156	BOLT, 5/16-18 x 1-5/32 long, hex. hd.	1
5	STD-1410	NUT, 5/16-18 plain	3

- * Used on T10-540-V2AD engines.
- ** Used on LT10-540-V2AD engines.

NOTE

See latest edition of Avco Lycoming Service Instruction No. 1154 for complete listing of FAA approved starters, generators, alternators, regulators and relays.

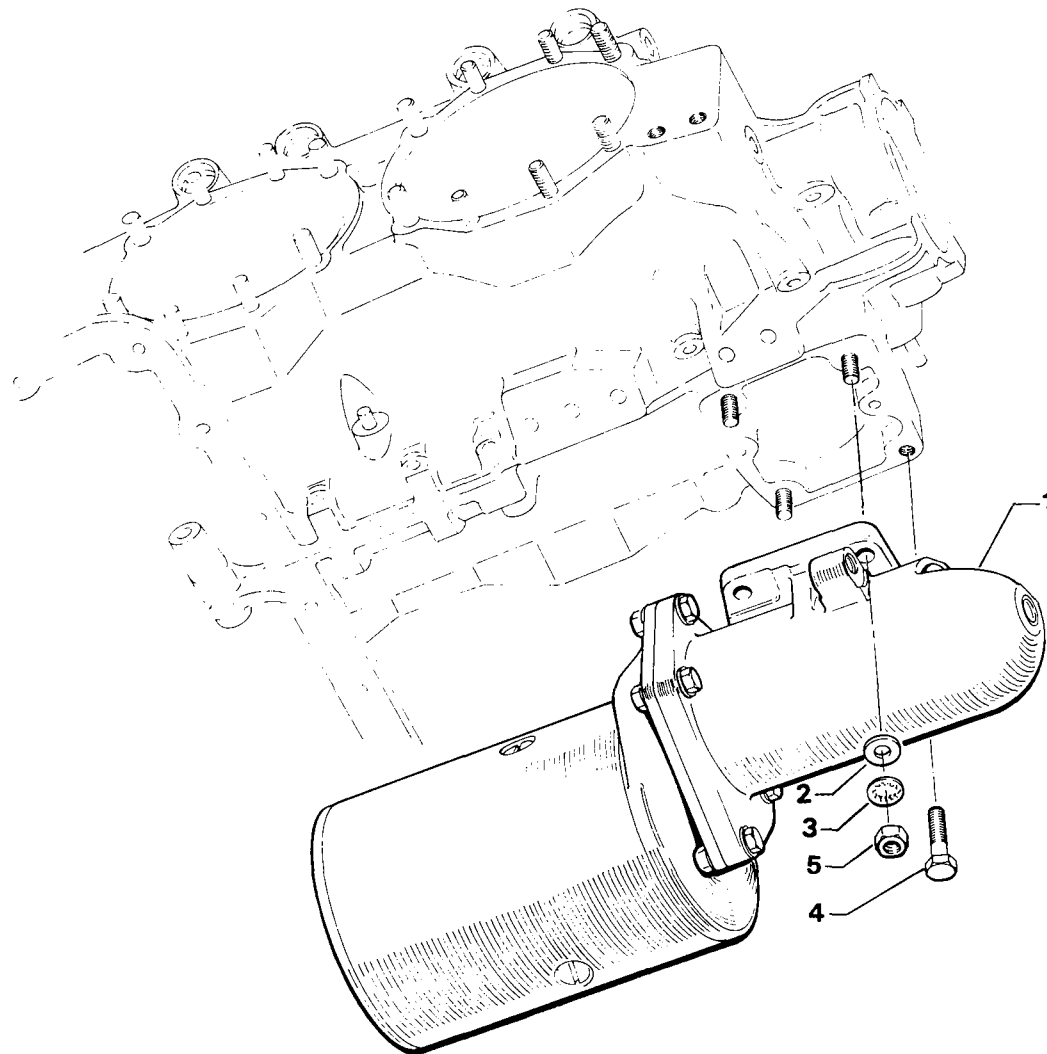


Figure 21. STARTER MOTOR AND ATTACHING PARTS

ELECTRICAL COMPONENTS
 100 AMP ALTERNATOR MOUNTING AND ATTACHING PARTS

FIG. REF. 22		DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-14141	BRACKET, Alternator, front	1
2	LW-14142	BRACKET, Alternator, rear	1
3	73383	LOCKPLATE, 5/16 bolt x 1.00 spacing	2
4	STD-1838	BOLT, 5/16-18 x 15/16 long, hex. hd.	4
5	LW-11147	BRACKET, Alternator belt adjusting	1
6	STD-1727	WASHER, Plain 3/4 O.D. x 11/32 I.D. x 1/8 thick	1
7	LW-14637*	SHIM, 13/16 O.D. x 11/32 I.D. x .005 thick	AR
8	LW-14649*	SHIM, 13/16 O.D. x 11/32 I.D. x .010 thick	AR
9	STD-1889	BOLT, 5/16-18 x 1-7/32 long, hex. hd., drilled	1
10	LW-10578	PULLEY & SHAFT ASSY., Alternator dual belt adjusting	1
11	76420	PULLEY, Alternator idler, dual	1
12	78629	BALL BEARING, Double row, alt. idler pulley	1
13	MS16625-1125	RING, Internal retaining, 1-1/4 diameter	2
14	LW-10576	SHAFT, Alternator dual belt idler	1
15	76768	LOCKWASHER, Alternator idler pulley bearing	1
16	76769	LOCKNUT, Alternator idler pulley bearing	1
17	STD-669	WASHER, 33/64 I.D. x 1.00 O.D. x 1/8 thick	1
18	STD-676	NUT, 1/2-20, self-locking, 39/64 thick	1
19	STD-1727	WASHER, Plain 3/4 O.D. x 11/32 I.D. x 1/8 thick	1
20	STD-1889	BOLT, 5/16-18 x 1-7/32 long, hex. hd., drilled	1
21	LW-14637*	SHIM, 13/16 O.D. x 11/32 I.D. x .005	AR
22	LW-10970	STRUT, Alternator support	1
23	LW-31H.75	BOLT, 5/16-18 x 3/4 long, hex. hd., drilled	1
24	LW-14650*	SHIM, 7/8 O.D. x 15/32 I.D. x .005 thick	AR
25	AN7-14	BOLT, 7/16-20 UNF-3A x 1-19/32 long, drilled end	1
26	STD-632	WASHER, 7/16 plain	AR
27	AN310-7	NUT, 7/16-20 plain, slotted	1
28	STD-761	PIN, Cotter, 3/32 dia. x 1.00 long	1
29	AN7-12	BOLT, 7/16-20 UNF-3A x 1-11/32 long, drilled end	1
30	STD-632	WASHER, 7/16 plain	AR
31	AN310-7	NUT, 7/16-20 plain, slotted	1
32	STD-761	PIN, Cotter 3/32 dia. x 1.00 long	1

* Shim as required for belt alignment between crankcase idler adjusting bracket, alternator and alternator bracket.

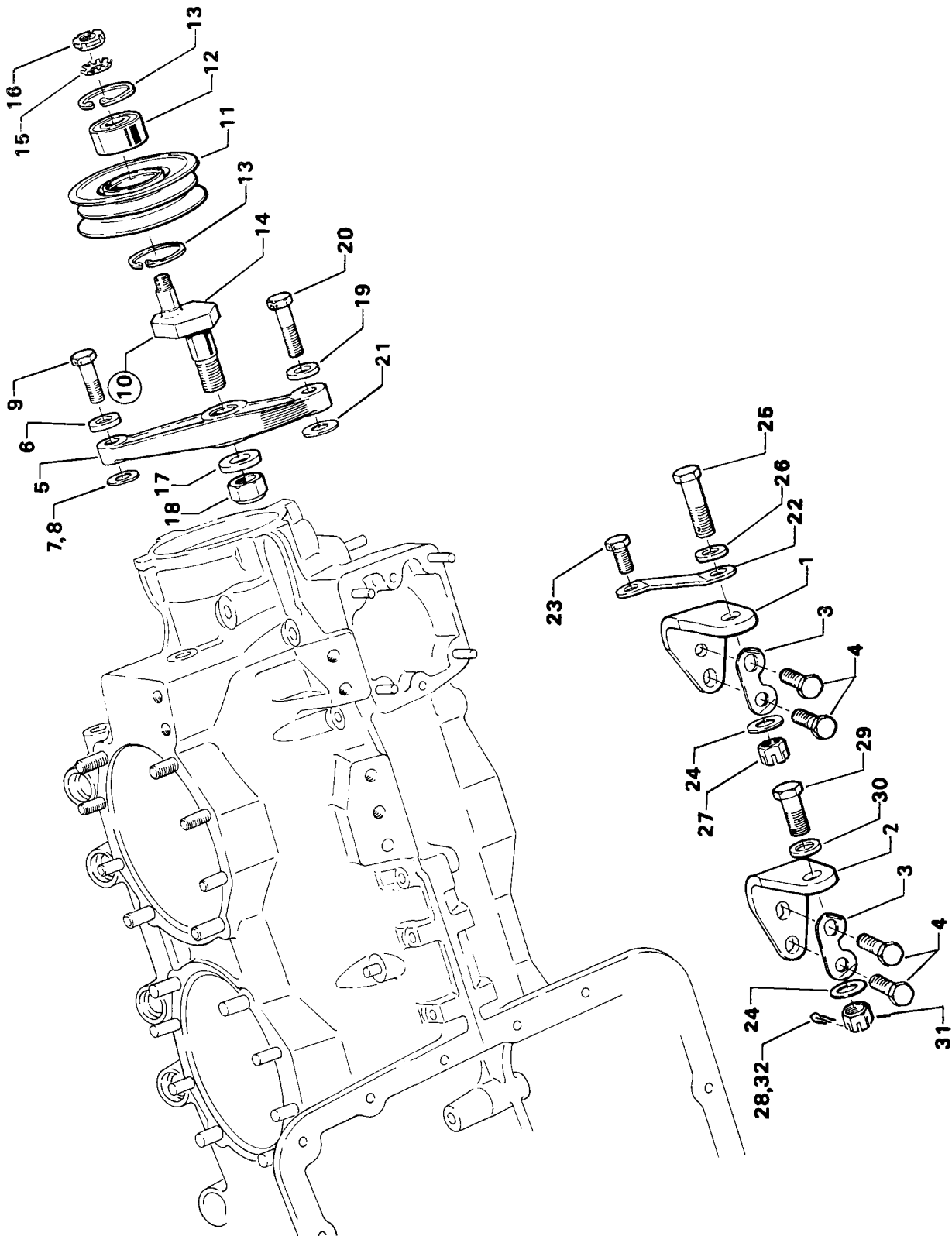
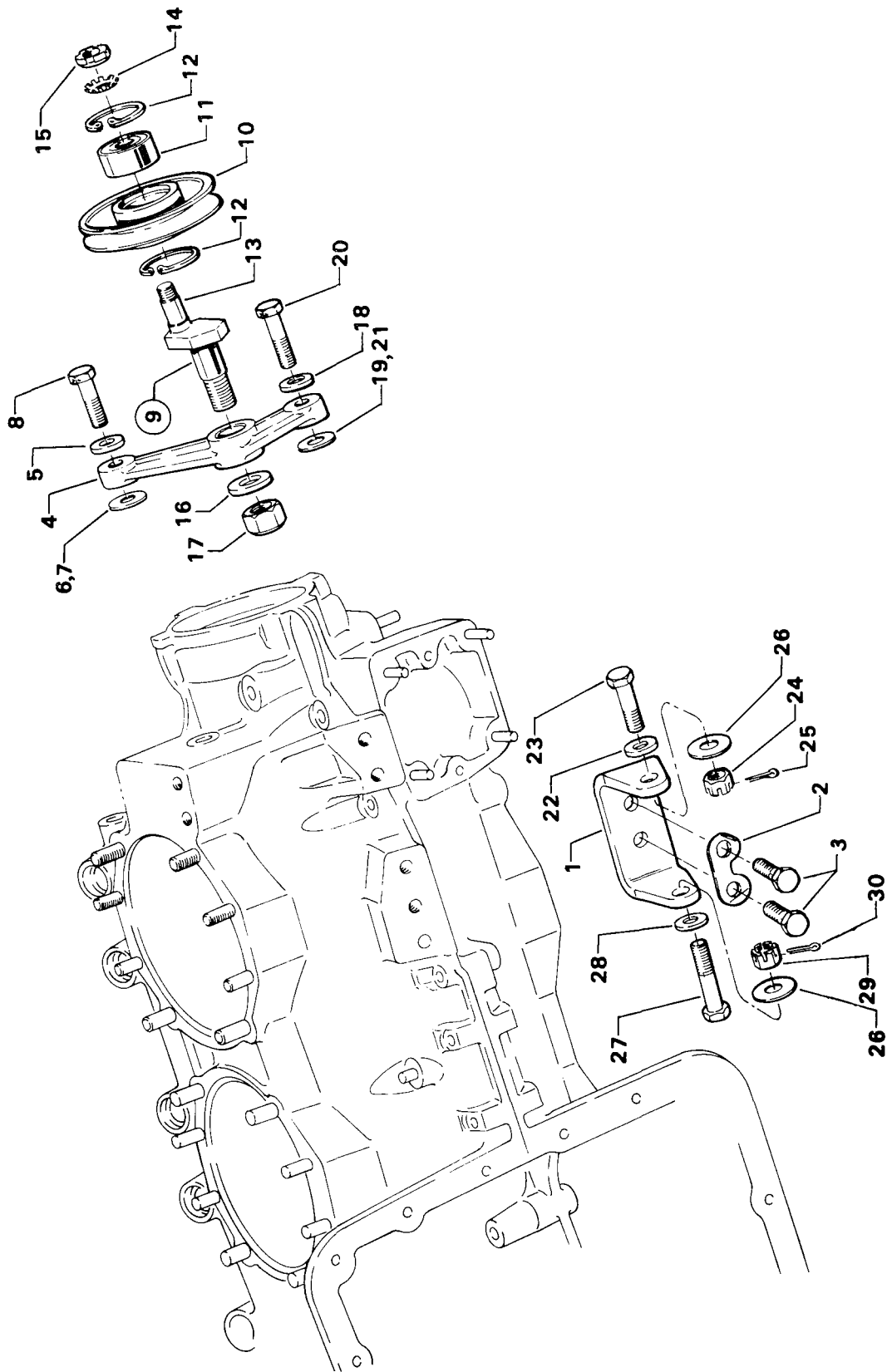


Figure 22. 100 AMP ALTERNATOR MOUNTING AND ATTACHING PARTS

ELECTRICAL COMPONENTS ALTERNATOR MOUNTING AND ATTACHING PARTS (70 AMP-WITH IDLER PULLEY BELT ADJUSTMENT)

FIG. REF. 23	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	77756	BRACKET, Alternator	1
2	73383	LOCKPLATE, 5/16 bolt x 1.00 spacing	1
3	STD-1838	BOLT, 5/16-18 x 15/16 long, hex. hd.	2
4	77757	BRACKET, Alternator belt adjusting	1
5	STD-1727	WASHER, Plain, 3/4 O.D. x 11/32 I.D. x 1/8 thick	1
6	LW-14637*	SHIM, 13/16 O.D. x 11/32 I.D. x .005	AR
7	LW-14649*	SHIM, 13/16 O.D. x 11/32 I.D. x .010	AR
8	STD-1889	BOLT, 5/16-18 x 1-7/32 long, hex. hd., drilled	1
9	78639	PULLEY & SHAFT ASSY., Alternator belt adjusting	1
10	78614	PULLEY, Alternator belt adjusting	1
11	78629	BALL BEARING, Alternator idler pulley	1
12	MS16625-1125	RING, Internal retaining, 1-1/8 dia.	2
13	78617	SHAFT, Idler, alternator belt adjusting	1
14	76768	LOCK WASHER, Alternator idler pulley bearing	1
15	76769	LOCKNUT, Alternator idler pulley bearing	1
16	STD-669	WASHER, 33/64 I.D. x 1.00 O.D. x 1/8 thick	1
17	STD-676	NUT, 1/2-20 self-locking, 39/64 thick	1
18	STD-1727	WASHER, Plain, 3/4 O.D. x 11/32 I.D. x 1/8 thick	1
19	LW-14637*	SHIM, 13/16 O.D. x 11/32 I.D. x .005 thick	AR
20	STD-1889	BOLT, 5/16-18 x 1-7/32 long, hex. hd., drilled	1
21	LW-10952*	SHIM, 13/16 O.D. x 13/32 I.D. x .005	AR
22	STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	AR
23	AN6-12	BOLT, 3/8-24 x 1-21/64 long, hex. hd., drilled end	1
24	STD-872	NUT, 3/8-24, slotted	1
25	STD-713	PIN, Cotter, 3/32 dia. x 3/4 long	1
26	76534	SHIM, 1-1/8 O.D. x 13/32 I.D. x .005 thick	AR
27	AN6-16	BOLT, 3/8-24 x 1-53/64 long, hex. hd., drilled end	1
28	STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	AR
29	STD-872	NUT, 3/8-24, slotted	1
30	STD-713	PIN, Cotter, 3/32 dia. x 3/4 long	1

* Shim as required for belt alignment between crankcase idler adjusting bracket, alternator and alternator bracket.



**Figure 23. ALTERNATOR MOUNTING AND ATTACHING PARTS
(70 AMP-WITH IDLER PULLEY BELT ADJUSTMENT)**

ELECTRICAL COMPONENTS
ALTERNATOR MOUNTING AND ATTACHING PARTS
(70 AMP-WITHOUT IDLER PULLEY BELT ADJUSTMENT)

FIG. REF. 24		DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-13039	BRACKET, Alternator	1
2	73383	LOCKPLATE, 5/16 bolt x 1.00 spacing	1
3	STD-1838	BOLT, 5/16-18 x 15/16 long, hex. hd.	2
4	75380	LINK, Alternator adjusting	1
5	STD-35	WASHER, 5/16 plain	1
6	LW-31H.75	BOLT, 5/16-18 x 3/4 long, hex. hd. drive	1
7	STD-1727	WASHER, Plain, 3/4 O.D. x 11/32 I.D. x 1/8 thick	1
8	LW-31H.75	BOLT, 5/16-18 x 3/4 long, hex. hd. drive	1
9	74323	STRUT, Alternator support	1
10	LW-31H.75	BOLT, 5/16-18 x 3/4 long, hex. hd. drive	1
11	STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	1
12	AN6-14	BOLT, 3/8-24 x 1-37/64 long, hex. hd., drilled end	1
13	STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	AR
14	STD-872	NUT, 3/8-24, slotted	1
15	STD-713	PIN, Cotter, 3/32 dia. x 3/4 long	1
16	AN6-16	BOLT, 3/8-24 x 1-53/64 long, hex. hd., drilled end	1
17	76534	SHIM, 1-1/8 O.D. x 13/32 I.D. x .005 thick	AR
18	STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	AR
19	STD-872	NUT, 3/8-24, slotted	1
20	STD-713	PIN, Cotter, 3/32 dia. x 3/4 long	1

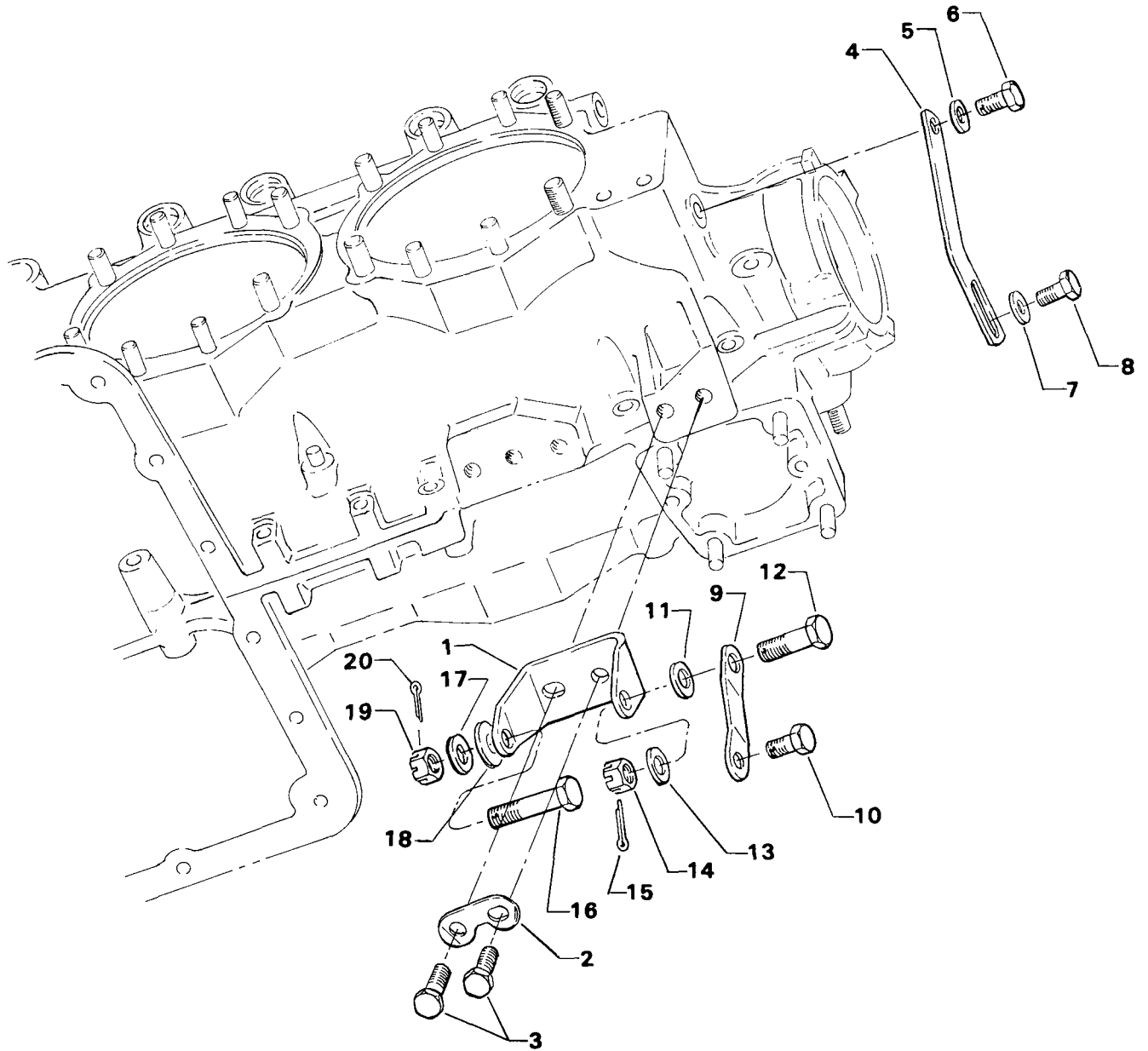


Figure 24. ALTERNATOR MOUNTING AND ATTACHING PARTS
(70 AMP-WITHOUT IDLER PULLEY BELT ADJUSTMENT)

ELECTRICAL COMPONENTS
 COMPRESSOR MOUNTING, ATTACHMENTS AND LINKAGE

FIG. REF. 25	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-16503	BRACKET, Freon compressor	1
2	STD-33	WASHER, 3/8 plain	3
3	STD-678	WASHER, 3/8 internal lock	3
4	383-B	NUT, 3/8-24 plain	3
5	77906	SPACER, 33/64 I.D. x 7/8 O.D. x 1/8 thick	1
6	LW-16347	BRACKET, Idler pulley	1
7	STD-8	WASHER, 1/4 plain	4
8	LW-12232	SHIM, 9/16 O.D. x 1/4 I.D. x .005 thick	AR
9	STD-2025	BOLT, 1/4-20 x 2-7/16 long, hex. hd.	1
10	LW-25-3.00	BOLT, 1/4-20 UNC-3A x 3.00 long, hex. hd.	1
11	STD-1685	NUT, 1/4-20 self-locking	2
12	STD-2190	WASHER, 1/4 plain	2
13	STD-669	WASHER, 33/64 I.D. x 1.00 O.D. x 1/8 thick	1
14	STD-676	NUT, 1/2-20 self-locking	1
15	LW-18809	PULLEY AND SHAFT ASSY., Idler	1
16	LW-18804	PULLEY, Idler	1
17	78629	BALL BEARING, Idler pulley	1
18	MS16625-1125	RING, Internal retaining	2
19	78617	IDLER SHAFT, Adjusting	1
20	LW-11635	SHIELD, Idler bearing	1
21	76768	LOCKWASHER, Idler pulley bearing	1
22	76769	LOCKNUT, Idler pulley bearing	1
23	LW-14278	BELT, Freon compressor drive	1
24	STD-35	WASHER, 5/16 plain	1
25	STD-1837	BOLT, 5/16-18 x 2-9/32 long, hex. hd., drive end	1
26	STD-1815	NUT, 5/16 self-locking	1
27	STD-33	WASHER, 3/8 plain	7
28	AN6-14	BOLT, 3/8-24 x 1-37/64 long, hex. hd.	2
29	AN6-22	BOLT, 3/8-24 x 2-21/64 long, hex. hd.	1
30	LW-10952	SHIM, 13/16 O.D. x 13/32 I.D. x .005 thick	AR
31	STD-872	NUT, 3/8-24 slotted	3
32	STD-761	PIN, Cotter, 3/32 dia. x 1.00 long	3
33	78370	SPACER, Controller connecting linkage	1
34	AN3-14	BOLT, 10-32 x 1-17/32 long, hex. hd.	1
35	LW-18627	HOSE, Linkage damper	1
36	STD-122	WASHER, 13/64 I.D. x 5/16 O.D. x 1/32 thick	AR
37	STD-303	NUT, 10-32 slotted shear	2
38	STD-68	PIN, Cotter, 1/16 x 1/2 long	2
39	LW-13429	ROD END, 10-32, female	2
40	STD-63	NUT, 10-32 plain	2
41	AN3-7	BOLT, 10-32 x 29/32 long, hex. hd.	1
42	LW-18480	ROD, Connecting, injector linkage	1

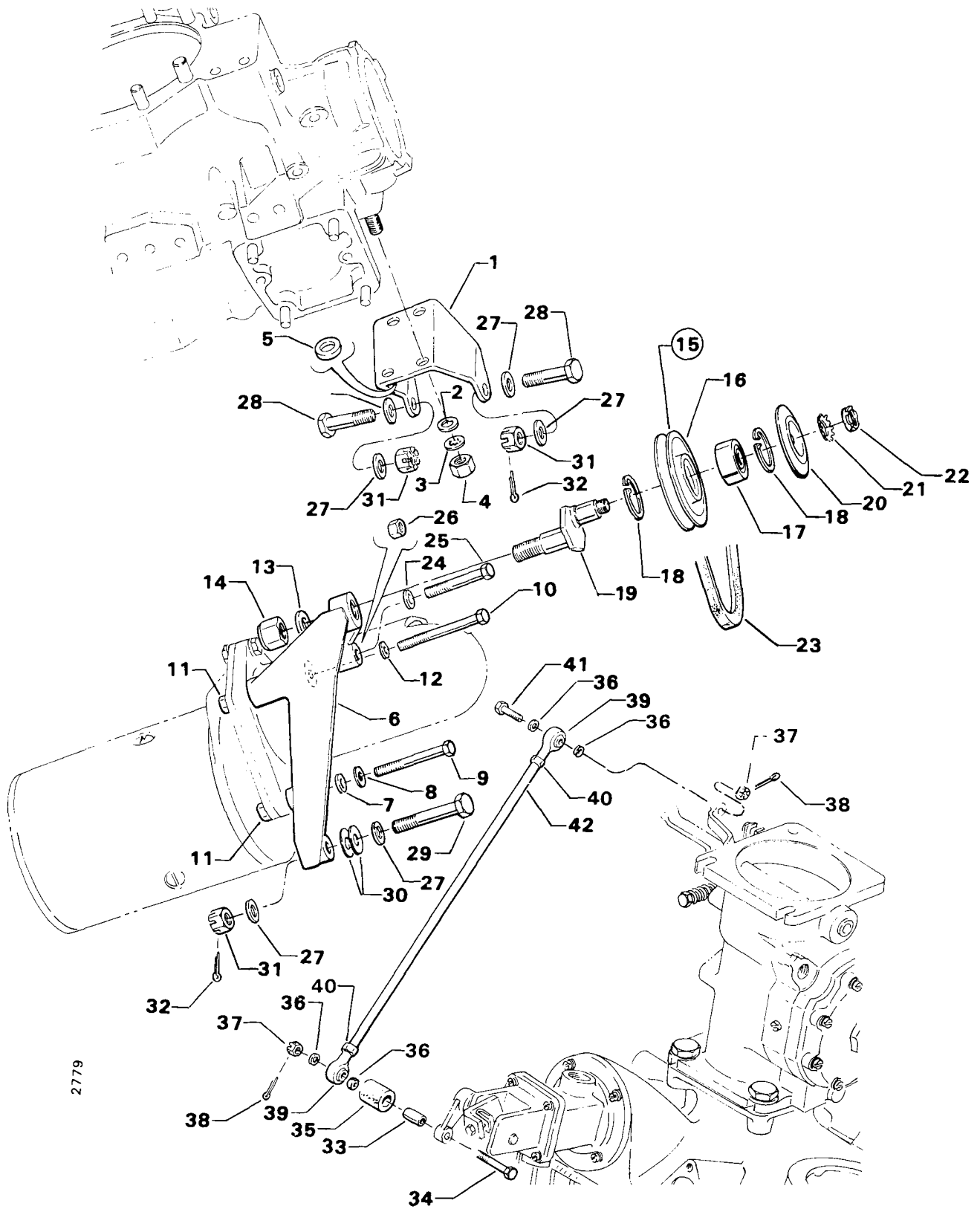


Figure 25. COMPRESSOR MOUNTING, ATTACHMENTS AND LINKAGE

OIL SUMP AND INDUCTION SYSTEM OIL SUMP AND INDUCTION HOUSING ASSEMBLY

FIG. REF. 26	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-13306	GASKET, Oil sump	1
2	LW-18484	SUMP ASSY., Oil	1
3	38-15	STUD, 3/8-16 x 1-7/8 long	8
4	25C-11	STUD, 1/4-20 x 1-3/8 long	15
5	STD-1173	INSERT, 1/4-20 Heli-Coil x 3/4 long	2
6	STD-551	PLUG, 1/2-14 NPT, sq. hd., drilled	2
7	STD-8	WASHER, 1/4 plain	33
8	STD-160	WASHER, 1/4 internal lock	27
9	STD-1419	BOLT, 1/4-20 x 1-1/8 long, hex. hd.	6
10	STD-1688	BOLT, 1/4-20 x 1.00 long, hex. hd.	6
11	STD-1411	NUT, 1/4-20 plain	21
12	LW-18466	HOUSING ASSY., Induction	1
13	1102	PLUG, 1/8 NPT x 3/8 long	1
14	STD-1173	INSERT, 1/4-20 Heli-Coil x 3/4 long	9
15	77645	PLUG, 1-1/2-18, hex hd.	1
16	STD-8	WASHER, 1/4 plain	1
17	STD-160	WASHER, 1/4 internal lock	1
18	LW-12232	SHIM, 1/4 I.D. x .005 thick	AR
19	STD-2027	BOLT, 1/4-20 x 4-13/32 long, hex. hd.	1
20	LW-18467	STRAP, Support, induction housing	1
21	STD-2178	WASHER, 9/32 I.D. x 5/8 O.D. x 1/16 thick	1
22	STD-8	WASHER, 1/4 plain	2
23	STD-160	WASHER, 1/4 internal lock	3
24	STD-1875	BOLT, 1/4-20 x 13/16 long, hex. hd.	2
25	77644	SCREEN, Oil suction	1
26	STD-1272	GASKET, Oil suction screen	1

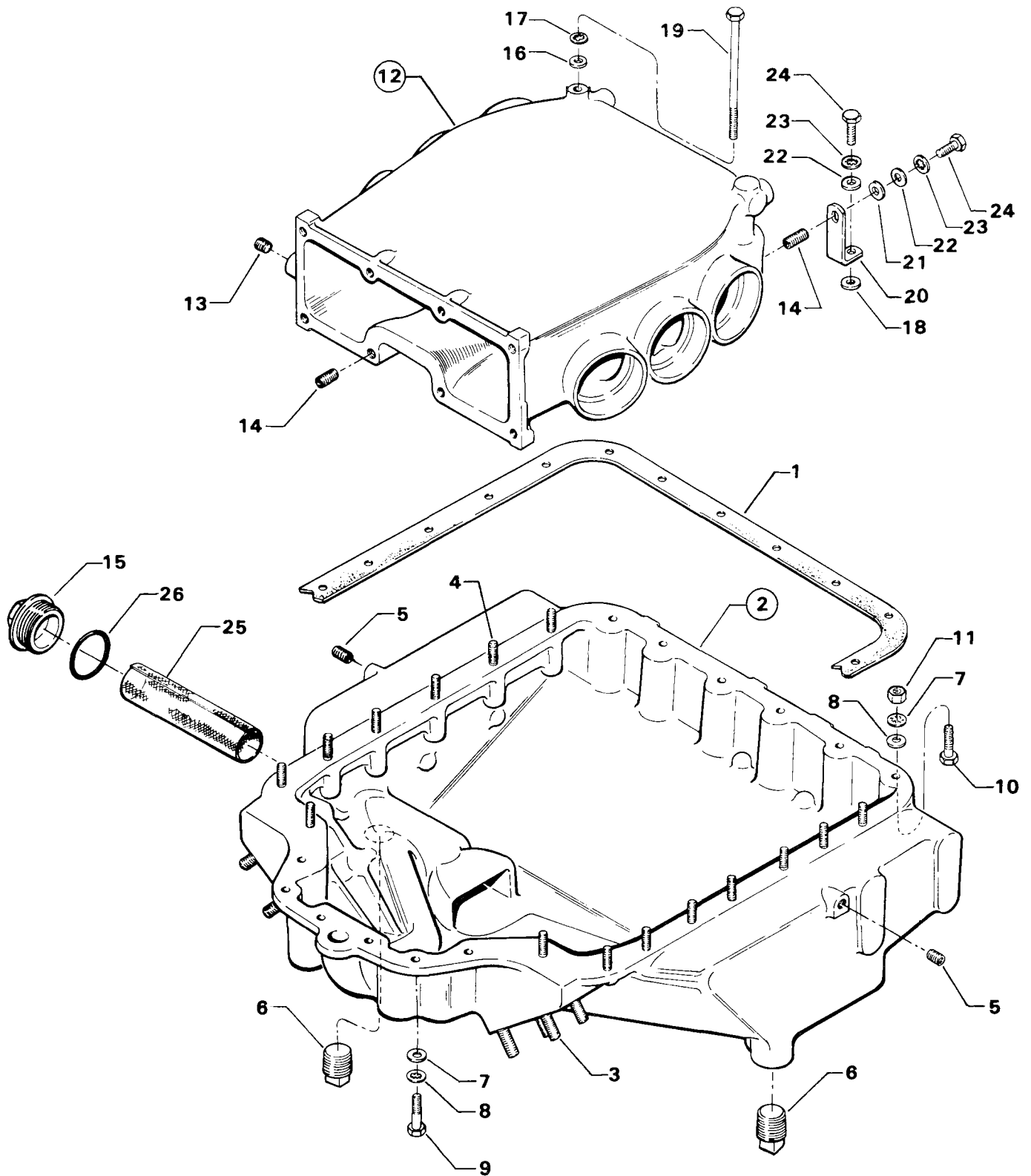


Figure 26. OIL SUMP AND INDUCTION HOUSING ASSEMBLY

OIL SUMP AND INDUCTION SYSTEM INTAKE PIPES AND AIR INLET HOUSING

FIG. REF. 27	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-18329	GASKET, Air inlet housing	1
2	LW-18330	HOUSING ASSY., Air inlet	1
3	LW-18671	BAFFLE, Air inlet housing	1
4	STD-1164	INSERT, 5/16-18 Heli-Coil, 5/8 long	4
5	STD-1173	INSERT, 1/4-20 Heli-Coil, 1/2 long	2
6	STD-8	WASHER, 1/4 plain	8
7	STD-160	WASHER, 1/4 internal lock	8
8	STD-1204	BOLT, 1/4-20 x 15/16 long, hex. hd.	8
9	LW-18763	SPACER, Air inlet housing, support	2
10	LW-19325	BRACKET, Support, left	1
11	LW-19326	BRACKET, Support, right	1
12	STD-8	WASHER, 1/4 plain	2
13	STD-160	WASHER, 1/4 internal lock	2
14	STD-2042	BOLT, 1/4-20 x 1-3/16 long, hex. hd.	2
15	STD-1727	WASHER, Plain, 3/4 O.D. x 21/64 I.D. x 1/8 thick	8
16	STD-475	WASHER, 5/16 internal lock	8
17	STD-1828	BOLT, 5/16-18 x 1-5/16 long, hex. hd. (air inlet end)	4
18	LW-31-1.09	BOLT, 5/16-18 x 1-3/32 long, hex. hd. (inner cooler end)	4
19	77569	RING, Seal, intake pipe	6
20	LW-18325	PIPE, Intake, cylinder no. 1 & 6	2
21	LW-18326	PIPE, Intake, cylinder no. 2 & 5	2
22	LW-18327	PIPE, Intake, cylinder no. 3 & 4	2
23	71973	GASKET, 2 bolt flange, 1-7/8 I.D.	6
24	STD-8	WASHER, 1/4 plain	12
25	STD-160	WASHER, 1/4 internal lock	12
26	STD-1215	BOLT, 1/4-20 x 1-1/4 long, hex. hd.	12

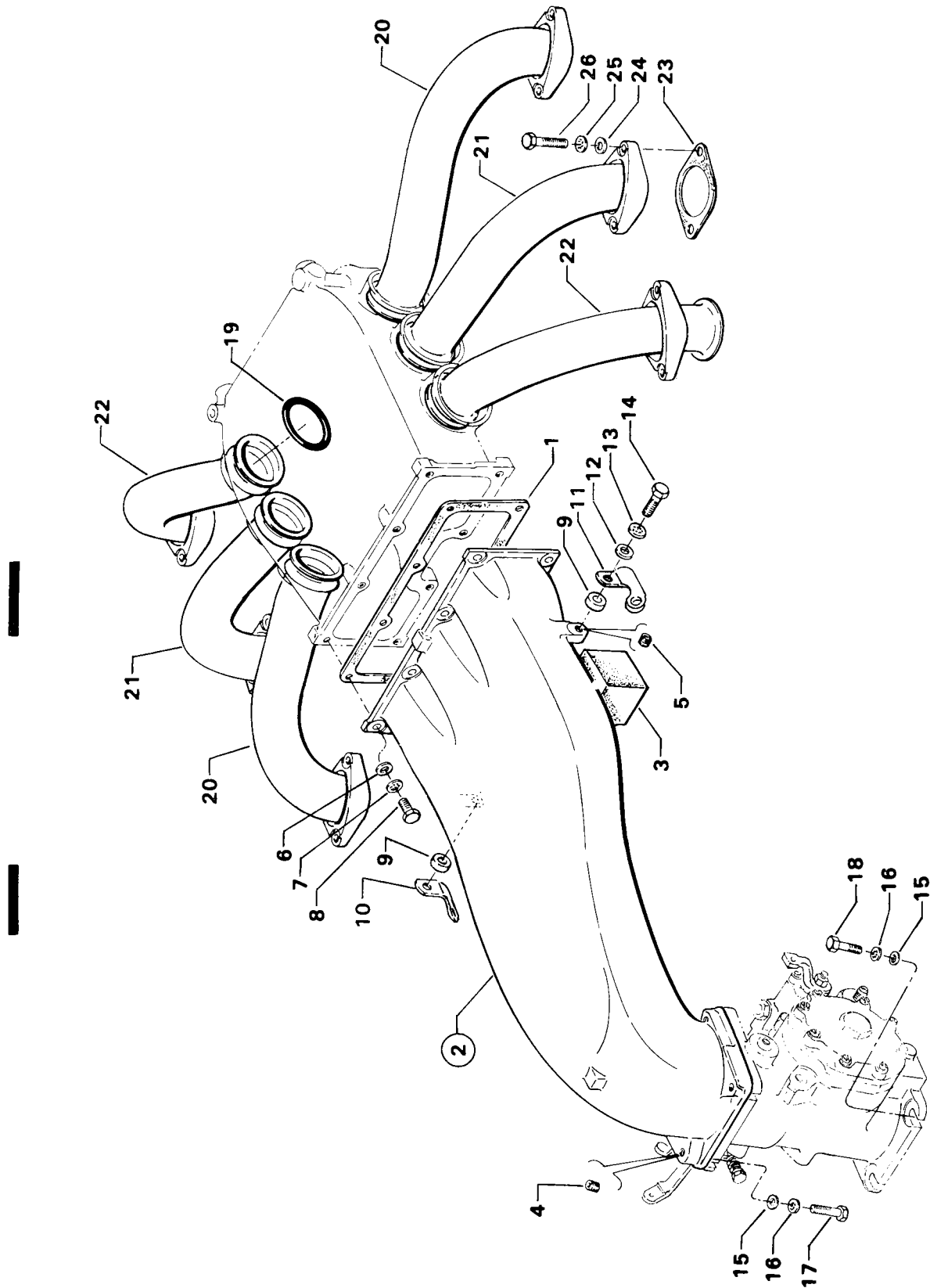


Figure 27. INTAKE PIPES AND AIR INLET HOUSING

OIL SUMP AND INDUCTION SYSTEM

FUEL INJECTOR, FUEL MANIFOLD AND AIR BLEED NOZZLES

FIG. REF. 28	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	73032	GASKET, Air inlet adapter	1
2	LW-18495	FUEL INJECTOR	1
3	AN919-6	REDUCER, Flared tube (3/8 O.D. to 1/4 O.D.)	1
4	LW-12878-4S-373	HOSE ASSY., Injector to fuel manifold	1
5	76735	BRACKET, Extension	1
6	STD-8	WASHER, 1/4 plain	3
7	STD-160	WASHER, 1/4 internal lock	1
8	STD-1419	BOLT, 1/4-20 x 1-1/8 long, hex. hd.	1
9	LW-16266-10-75	CLAMP, Cushion type	1
10	STD-425	WASHER, No. 10 plain	1
11	STD-692	SCREW, 10-32 x 1/2 long, fillister head	1
12	STD-670	NUT, 10-32, self-locking	1
13	LW-18182	NOZZLE ASSY., Injection	6
14	LW-18664	BRACKET, Fuel manifold	1
15	LW-18742	MANIFOLD ASSY., Fuel	1
16	STD-2166	ELBOW, Union (90°) 1/8 tube	3
17	AN791-2	ELBOW, Union (45°) 1/8 tube	2
18	STD-148	NIPPLE, Union, 1/8 tube	1
19	MS20823-4	ELBOW, 1/4 tube, 45°	1
20	1102	PLUG, 1/8 NPT	1
21	STD-425	WASHER, No. 10 plain	8
22	STD-82	SCREW, 10-24 x 1/2 long, fillister hd., dr. hd.	8
23	LW-12098-0-183	TUBE ASSY., Fuel injection line, cylinder no. 1	1
24	LW-12098-0-210	TUBE ASSY., Fuel injection line, cylinder no. 2	1
25	LW-12098-0-230	TUBE ASSY., Fuel injection line, cylinder no. 3	1
26	LW-12098-0-256	TUBE ASSY., Fuel injection line, cylinder no. 4	1
27	LW-12098-0-296	TUBE ASSY., Fuel injection line, cylinder no. 5	1
28	LW-12098-0-334	TUBE ASSY., Fuel injection line, cylinder no. 6	1
29	LW-16266-10-13	CLAMP, 1/8 dia. x no. 10 screw	12
30	LW-16266-10-75	CLAMP, 3/4 dia. x no. 10 screw	10
31	STD-860	SCREW, 10-32 x 5/8 long, fillister hd.	10
32	STD-670	NUT, 10-32, self-locking	10
33	LW-18860	MANIFOLD, Injector nozzle vent	2
34	STD-1339	PLUG, 1/16-27 NPT, Allen head	4
35	LW-18737	HOSE, 3/16 I.D. x 7/16 O.D. x 2.00 long	6
36	LW-15592-5-04	CLAMP, 7/16 I.D.	12
37	STD-2049	CLAMP, 1/4 dia. tube for 1/4 dia. screw	6
38	STD-2029	BOLT, 1/4-20 x 1-1/8 long, hex. hd.	2
39	LW-18675	HOSE, Nozzle vent (39.50 long)	2
	LW-18675-1	HOSE, Nozzle vent (45.50 long)	2
40	LW-15592-5-04	CLAMP, 7/16 I.D.	4
41	73152	BRACKET, Support clamp	1
42	LW-320300-1	CLAMP	1
43	STD-425	WASHER, No. 10 plain	3
44	STD-692	SCREW, 10-32 x 29/64 long	1
45	STD-670	NUT, No. 10, self-locking	1
46	76734	ZIP STRAP	9
47	STD-2042	BOLT, 1/4-20 x 1-3/16 long	4

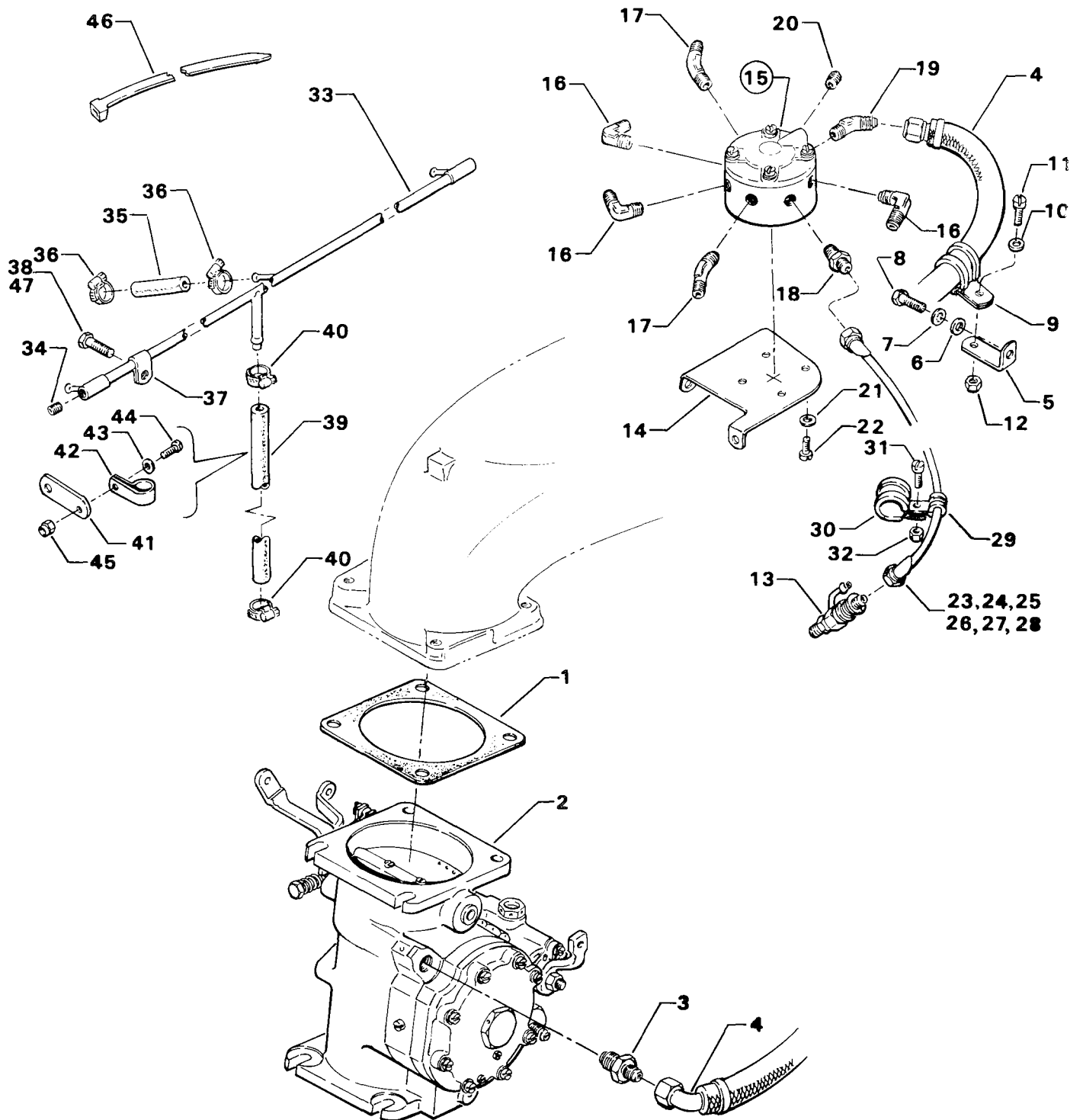


Figure 28. FUEL INJECTOR, FUEL MANIFOLD AND AIR BLEED NOZZLES

OIL SUMP AND INDUCTION SYSTEM
CYLINDER HEAD AND MANIFOLD FUEL DRAINS

FIG. REF. 29	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-18535	MANIFOLD ASSY., Fuel drain	2
2	LW-16866	MANIFOLD, Fuel	2
3	STD-148	NIPPLE, Union, 1/8 tube	4
4	1102	PLUG, 1/8 NPT, Allen head	2
5	LW-13807	ADAPTER ASSY., Fuel drain valve	2
6	STD-969	SCREW, 10-32 x 1/2 long, fillister head	3
7	STD-8	WASHER, 1/4 plain	2
8	STD-160	WASHER, 1/4 internal lock	2
9	STD-460	BOLT, 1/4-20 x 3/4 long, hex. hd.	2
10	STD-670	NUT, 10-32, self-locking	3
11	LW-12098-0-124	TUBE ASSY., Fuel drain, cylinder no. 1	1
12	LW-12098-0-153	TUBE ASSY., Fuel drain, cylinder no. 2	1
13	LW-12098-0-090	TUBE ASSY., Fuel drain, cylinder no. 3, 4 & 6	3
14	LW-12098-0-116	TUBE ASSY., Fuel drain, cylinder no. 5	1
15	LW-12098-0-012	TUBE ASSY., Fuel drain, intermediate	2
16	STD-853	TEE, Union, 1/8 tube	2
17	LW-16266-10-38	CLAMP, 3/8 dia., no. 10 screw	3
18	LW-16266-10-13	CLAMP, 1/8 dia., no. 10 screw	3

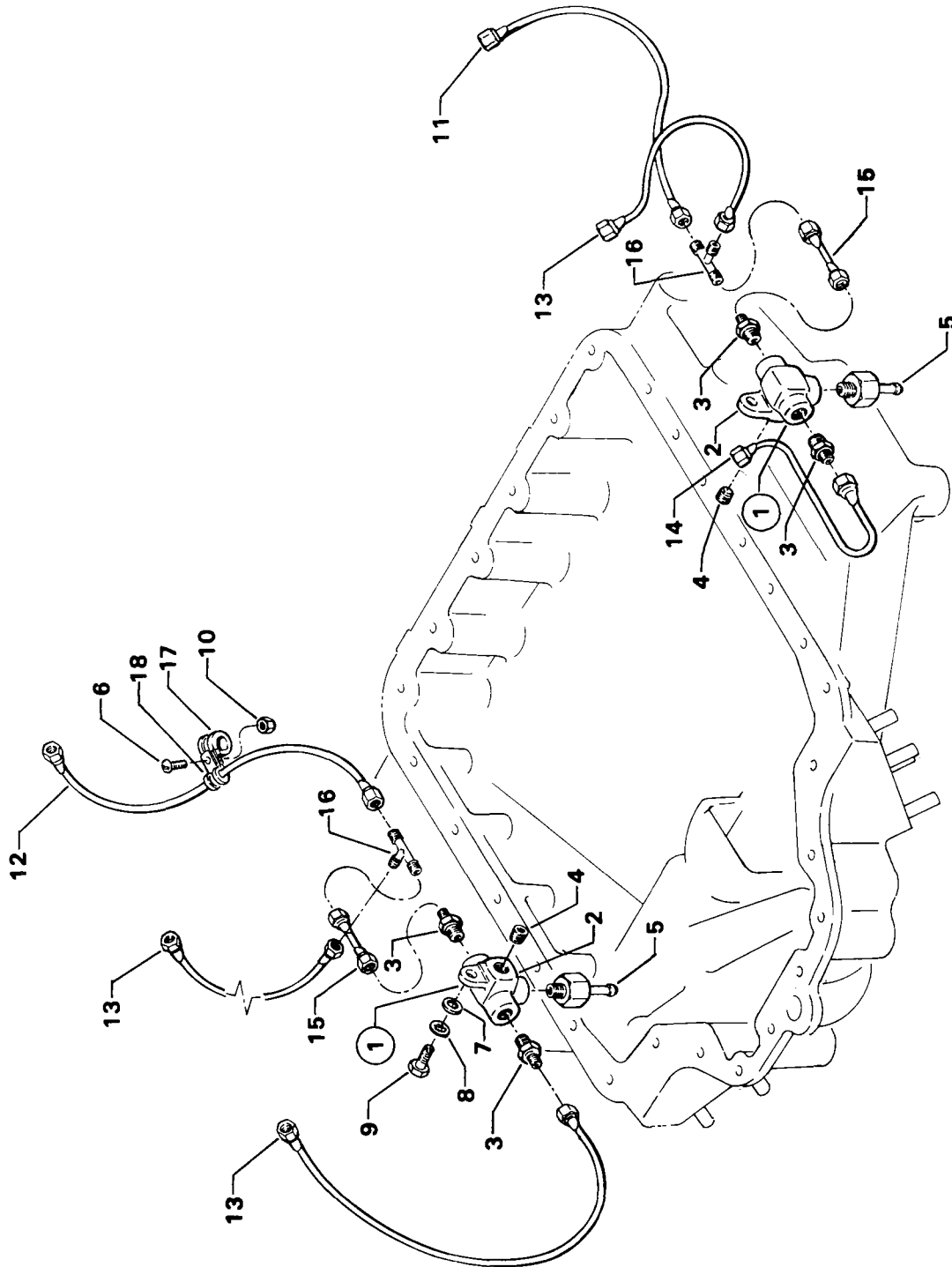


Figure 29. CYLINDER HEAD AND MANIFOLD FUEL DRAINS

TURBOCHARGER AND EXHAUST SYSTEMS EXHAUST MANIFOLD AND TRANSITION ASSEMBLY

FIG. REF. 30	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-18234	GASKET, Exhaust flange	12
2	LW-18957	MANIFOLD ASSY., Exhaust, right	1
3	LW-18441	PIPE, Exhaust, cylinder no. 1	1
4	LW-18951	PIPE, Exhaust, cylinder no. 3	1
5	LW-18445	PIPE, Exhaust, cylinder no. 5	1
6	LW-18440	ADAPTER, Exhaust pipe	1
7	STD-1932	BUSHING, Reducer, 1/4 to 1/8 NPT (No. 5 pipe)	1
8	LW-18514	PIPE, Exhaust, intermediate (right)	1
9	LW-18958	MANIFOLD ASSY., Exhaust, left	1
10	LW-18446	PIPE, Exhaust, cylinder no. 6	1
11	LW-18440	ADAPTER, Exhaust pipe, cylinder no. 4	1
12	LW-18444	PIPE, Exhaust, cylinder no. 4	1
13	LW-18952	PIPE, Exhaust, cylinder no. 2	1
14	LW-18513	PIPE, Transition exhaust	1
15	LW-18526	GASKET, V-Band coupling, 2-1/2 tube	1
16	LW-12093-7	COUPLING, V-Band, 2-1/2 tube	1
17	LW-18588	TRANSITION ASSY., Exhaust	1
18	STD-1932	BUSHING, Reducer, 1/4 to 1/8 NPT	1
19	STD-405	PLUG, 1/8 NPT, square head drive	1
20	STD-2044	NUT, 1/4-20, self-locking	24
21	LW-18861	VALVE, Exhaust bypass	1
22	75845	GASKET, V-Band coupling, 2-1/4 tube	1
23	LW-12093-6	COUPLING, V-Band, 2-1/4 tube	1
24	LW-18510	BRACKET, Wastegate	1
25	LW-18509	WASHER, 1/4 I.D. x 3/4 O.D. x 3/32 thick	4
26	STD-8	WASHER, 1/4 plain	2
27	STD-1114	BOLT, 1/4-20 x 1-1/2 long, hex. hd. (in wastegate)	2
28	LW-18511	SUPPORT, Wastegate	1
29	STD-475	WASHER, 5/16 internal lock	2
30	STD-2152	BOLT, 5/16-18 x 13/16 long, hex. hd.	2
31	STD-1727	WASHER, 21/64 I.D. x 3/4 O.D. x 1/8 thick	2
32	STD-1838	BOLT, 5/16-18 x 15/16 long, hex. hd.	1
33	STD-2043	NUT, 5/16-18, self-locking	1
34	LW-18439	SHIELD, Heat	1
35	LW-15592-8-28	CLAMP, Hose	3
36	LW-12798-4S-130	HOSE ASSY., Accessory housing to wastegate inlet	1
37	72377	ELBOW, 3/8 tube, 90° adj. (wastegate outlet)	1
38	LW-12799-6S-222	HOSE ASSY., Wastegate to variable controller inlet	1
39	72377	ELBOW, 3/8 tube to 9/16 thread, 90° (variable controller inlet)	1
40	72377	ELBOW, 3/8 tube to 9/16 thread, 90° (variable controller outlet)	1
41	LW-12879-6S-300	HOSE ASSY., Variable controller to accessory housing	1
42	72376	ELBOW, 1/4 tube, 90° (wastegate inlet)	1

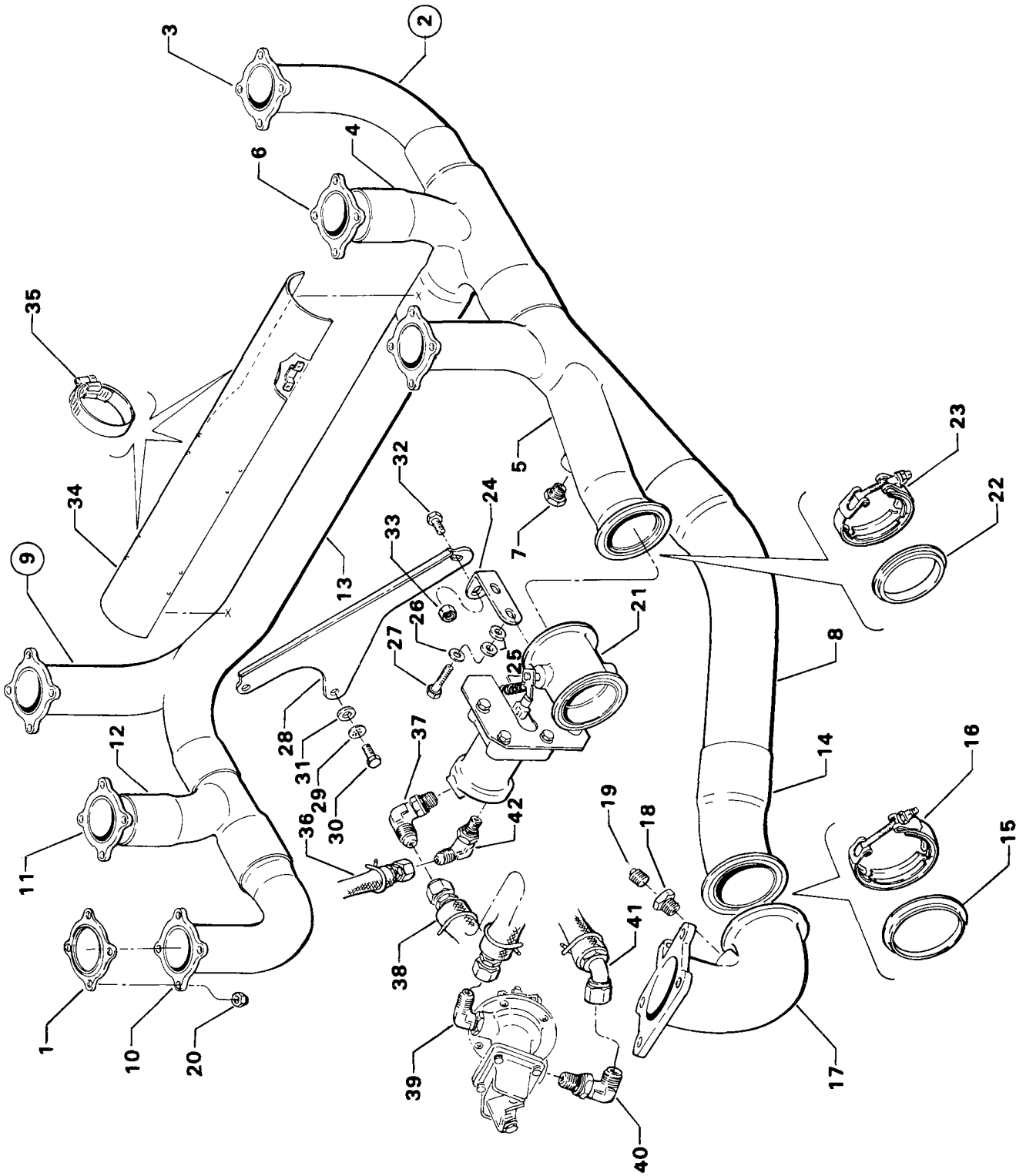


Figure 30. EXHAUST MANIFOLD AND TRANSITION ASSEMBLY

TURBOCHARGER AND EXHAUST SYSTEMS
TURBOCHARGER, SUPPORT AND ATTACHING PARTS

FIG. REF. 31	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-18451	SUPPORT ASSY., Turbocharger	1
2	STD-2205	WASHER, 21/64 I.D. x 9/16 O.D. x .032 thick	AR
3	STD-2197	WASHER, 21/64 I.D. x 13/16 O.D. x .064 thick	4
4	LW-31S-4.94	BOLT, 5/16-18 x 4-15/16 long, hex. hd. drive	2
5	LW-31S-4.72	BOLT, 5/16-18 x 4-23/32 long, hex. hd. drive	2
6	STD-1420	NUT, 5/16-18 slotted	4
7	STD-68	PIN, Cotter, 1/16 diameter x 1/2 long	4
8	LW-18452	SPACER, Turbocharger	1
9	LW-18453	BRACKET, Turbocharger and compressor	1
10	78703	DAMPER, 3/8 square x 16-1/32 to 16-3/32 long	1
11	STD-33	WASHER, 3/8 plain	3
12	STD-1342	WASHER, 25/64 I.D. x 7/8 O.D. x 1/8 thick	1
13	LW-18456	BRACKET, Sonic nozzle	1
14	STD-1421	BOLT, 3/8-24 x 7/8 long, hex. hd.	3
15	STD-2045	NUT, 21/64-24, self-locking	3
16	LW-18470	TURBOCHARGER	1
17	AN960C-616	WASHER, 3/8 plain	4
18	AN6C-13A	BOLT, 3/8-24 x 1-7/16 long, hex. hd.	4
19	MS20500-624	NUT, 3/8-24, self-locking	4
20	LW-18520	SPACER, Turbocharger	1
21	AN960C-616	WASHER, 3/8 plain	2
22	MS20500-624	NUT, 3/8-24, self-locking	1
23	AN6C-26A	BOLT, 3/8-24 x 2-13/16 long, hex. hd.	1

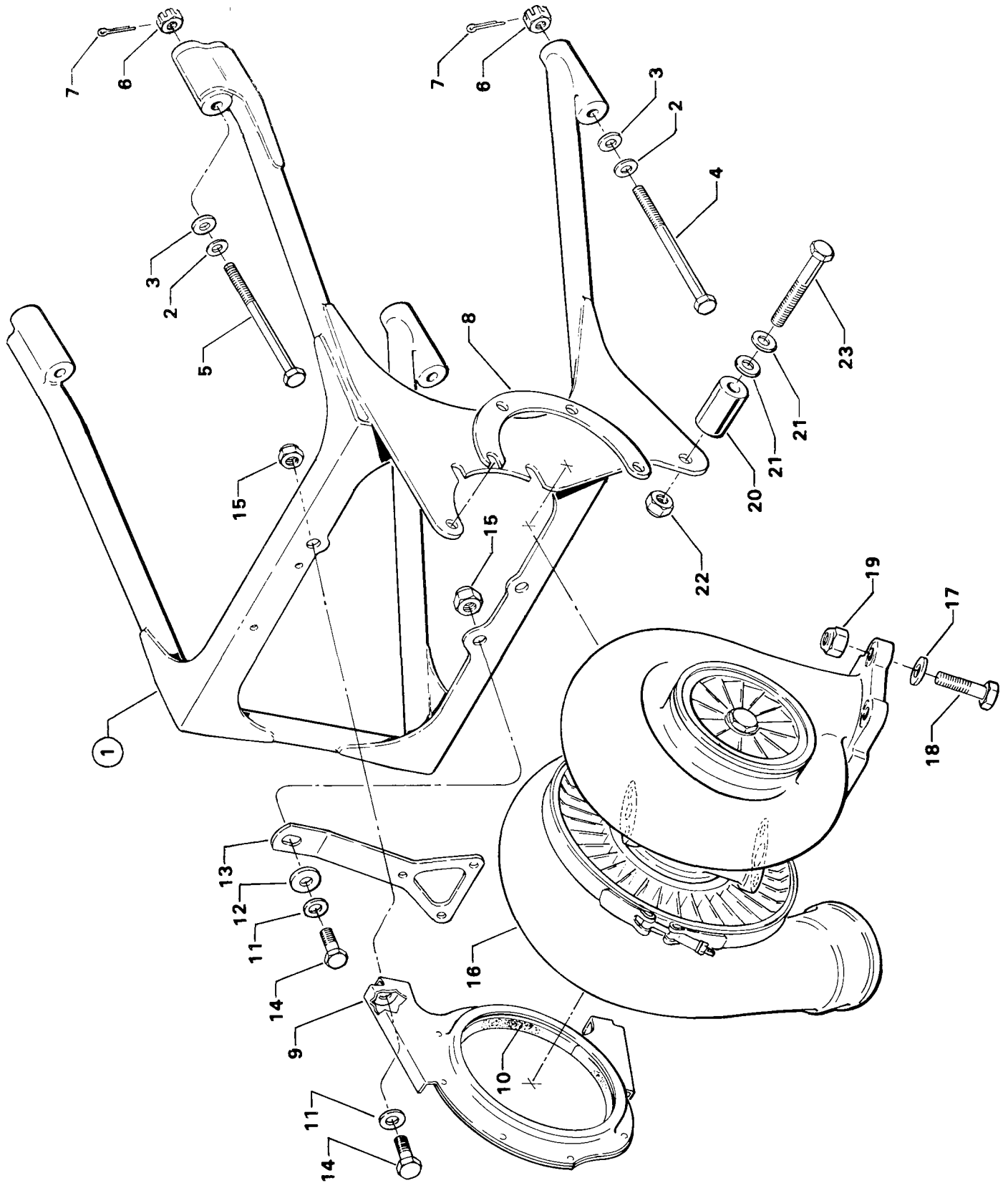


Figure 31. TURBOCHARGER, SUPPORT AND ATTACHING PARTS

TURBOCHARGER AND EXHAUST SYSTEMS TURBOCHARGER TANK ASSY., HOSES AND RELATED PARTS

FIG. REF. 32	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-11999	REDUCER, 7/8-14 to 9/16-18 (Acc. Housing to Controller Drain)	1
2	74070	ELBOW, 3/8 tube, 45° (Acc. Housing to Controller Drain)	1
3	LW-11999*	REDUCER, 7/8-14 to 9/16-18 (Tank to Accessory Housing)	1
4	75252*	ELBOW, 1/4 tube (90°) (Tank to Accessory Housing)	1
5	LW-12056	SPACER, Oil pressure fitting	1
6	LW-15996	BOLT, Oil pressure fitting	1
7	AN901-8A	GASKET, 3/4 I.D. x 1.00 O.D.	1
8	LW-18966	TEE, 1/4 and 3/16 tube x 1/8 NPT on run (restricted)	1
9	1102	PLUG, 1/8 NPT x 3/8 long (in spacer)	1
10	MS20822-4	ELBOW, 1/4 tube x 1/8 NPT (in accessory housing)	1
11	75371	GASKET, Turbo oil inlet adapter	1
12	76889	ADAPTER, Turbo oil inlet	1
13	STD-33	WASHER, 3/8 plain	2
14	STD-678	WASHER, 3/8 internal lock	2
15	STD-1946	BOLT, 3/8-16 x 7/8 long, hex. hd.	2
16	STD-949	BUSHING, 1/4 NPT to 1/8 NPT	1
17	LW-13128	ELBOW, 1/4 tube to 1/8 NPT - long (in adapter)	1
18	LW-12798-4S-150	HOSE ASSY., (Accessory housing to turbo inlet)	1
19	LW-10122	GASKET, Turbo oil drain adapter	1
20	LW-18950	TANK ASSY., Turbo oil drain	1
21	AN816-4	NIPPLE, 1/4 tube x 1/8 NPT	1
22	MS20823-8	ELBOW, 1/2 tube x 3/8 NPT (45°)	1
23	STD-33	WASHER, 3/8 plain	2
24	STD-678	WASHER, 3/8 internal lock	2
25	STD-1946	BOLT, 3/8-16 x 7/8 long, hex. hd.	2
26	MS29512-8	"O" RING, 41/64 I.D. x 7/8 wall	1
27	LW-10637	ELBOW, 1/2 tube x 3/4-16 thread (90°) (in scavenge pump)	1
28	LW-12798-4S-190	HOSE ASSY., (Tank to accessory housing) (vent)	1
29	LW-13176-8S-180	HOSE ASSY., (Tank to scavenge pump)	1
30	76734	ZIP STRAP	3
31	LW-18540	SHIELD, Heat	1
32	STD-692	SCREW, 10-32 x 29/64 long	3
33	STD-425	WASHER, No. 10 plain	3
34	STD-251	WASHER, No. 10 internal lock	3
35	STD-63	NUT, No. 16-32 plain	3

* Used in accessory housing for scavenge tank vent.

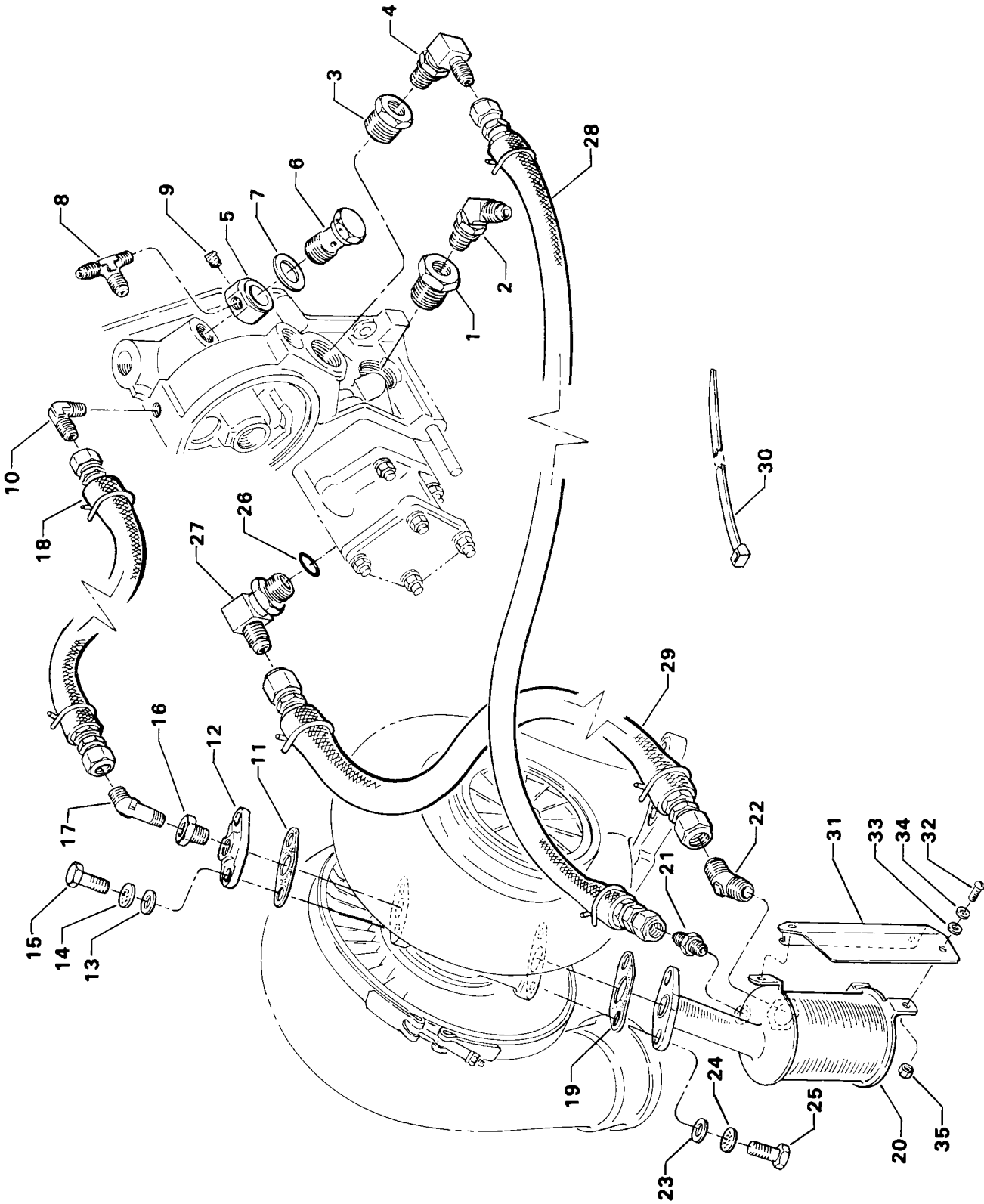


Figure 32. TURBOCHARGER TANK ASSY., HOSES AND RELATED PARTS

TURBOCHARGER AND EXHAUST SYSTEMS INTERCOOLER ASSEMBLY AND RELATED PARTS

FIG. REF. 33	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
1	LW-12434	HOSE, 3.00 I.D. x 2-15/16 long	1
2	LW-15858-62-350	CLAMP, Hose	2
3	LW-18869	GASKET, Intercooler air inlet duct	1
4	LW-18868	DUCT, Intercooler air inlet	1
5	STD-8	WASHER, 1/4 plain	7
6	STD-160	WASHER, 1/4 internal lock	5
7	STD-1875	BOLT, 1/4 O.D. x 13/16 long, hex. head	3
8	STD-1688	BOLT, 1/4-20 x 1.00 long, hex. head	2
9	STD-1411	NUT, 1/4-20 plain	2
10	LW-18822	INTERCOOLER ASSEMBLY, AirResearch (491670-2)	1
11	74944	GASKET	1
12	LW-18457	BRACKET, Intercooler support	2
13	LW-18458	SPACER, Intercooler	1
14	STD-1727	WASHER, Plain, 3/4 O.D. x 21/64 I.D. x 1/8 thick	2
15	STD-2152	BOLT, 5/16-18 x 13/16 long, hex. head	2
16	STD-2043	NUT, 5/16-18 self-locking	2
17	STD-35	WASHER, 5/16 plain	2
18	STD-475	WASHER, 5/16 internal lock	2
19	LW-18738	ELBOW, 1/4 tube and nozzle vent	1
20	STD-2152*	BOLT, 5/16-18 x 13/16 long, hex. head	1
21	STD-1825*	BOLT, 5/16-18 x 1-11/16 long, hex. head	1
22	LW-12745	VALVE, Check, vent line	1
23	MS29512-6	"O" RING, 15/32 I.D. x 5/64 section	1
24	LW-13807	ADAPTER ASSY., Fuel drain valve	1
25	LW-12975	ADAPTER, Reducer, 3/8 to 1/4	1
26	AN818-6	NUT, Coupling	1
27	73314	GASKET, Controller	1
28	LW-18519	CONTROLLER ASSY., Absolute pressure, adjusting	1
29	LW-12773	LEVER, Controller	1
30	STD-2099	PIN, Roll 1/8 diameter x 3/4 long	1
31	STD-28	WASHER, No. 10 plain	8
32	STD-1566	SCREW, 10-24 x 3/4 long, fillister drive head	8
33	73314	GASKET, Absolute pressure relief valve	1
34	LW-18955	ADAPTER, Absolute pressure relief valve	1
35	STD-28	WASHER, No. 10 plain	4
36	STD-251	WASHER, No. 10 internal lock	4
37	STD-375	SCREW, 10-24 x 5/8 long, fillister head	4
38	LW-18956	GASKET, Absolute pressure relief valve	1
39	LW-14445-4	VALVE ASSY., Absolute pressure relief	1
40	STD-28	WASHER, No. 10 plain	4
41	STD-251	WASHER, No. 10 internal lock	4
42	STD-375	SCREW, 10-24 x 5/8 long, fillister head	4
43	MS20823-3	ELBOW, 3/16 tube, 45°	1
44	STD-110**	SCREW, 10-24 x 1/2 long, fillister head	7
45	STD-251**	WASHER, No. 10 internal lock	7
46	STD-33	WASHER, 3/8 plain	1
47	STD-678	WASHER, 3/8 internal lock	1
48	AN6C5A	BOLT, 3/8-24 x 45/64 long, hex. head	1
49	MS29512-6	SEAL, Oil, 5/64 dia. sect. x 15/32 I.D.	1
50	AN814-6L	PLUG, 9/16-18, hex. head	1

* Intercooler to intercooler support bracket.

** Assemble in baffle attaching holes.

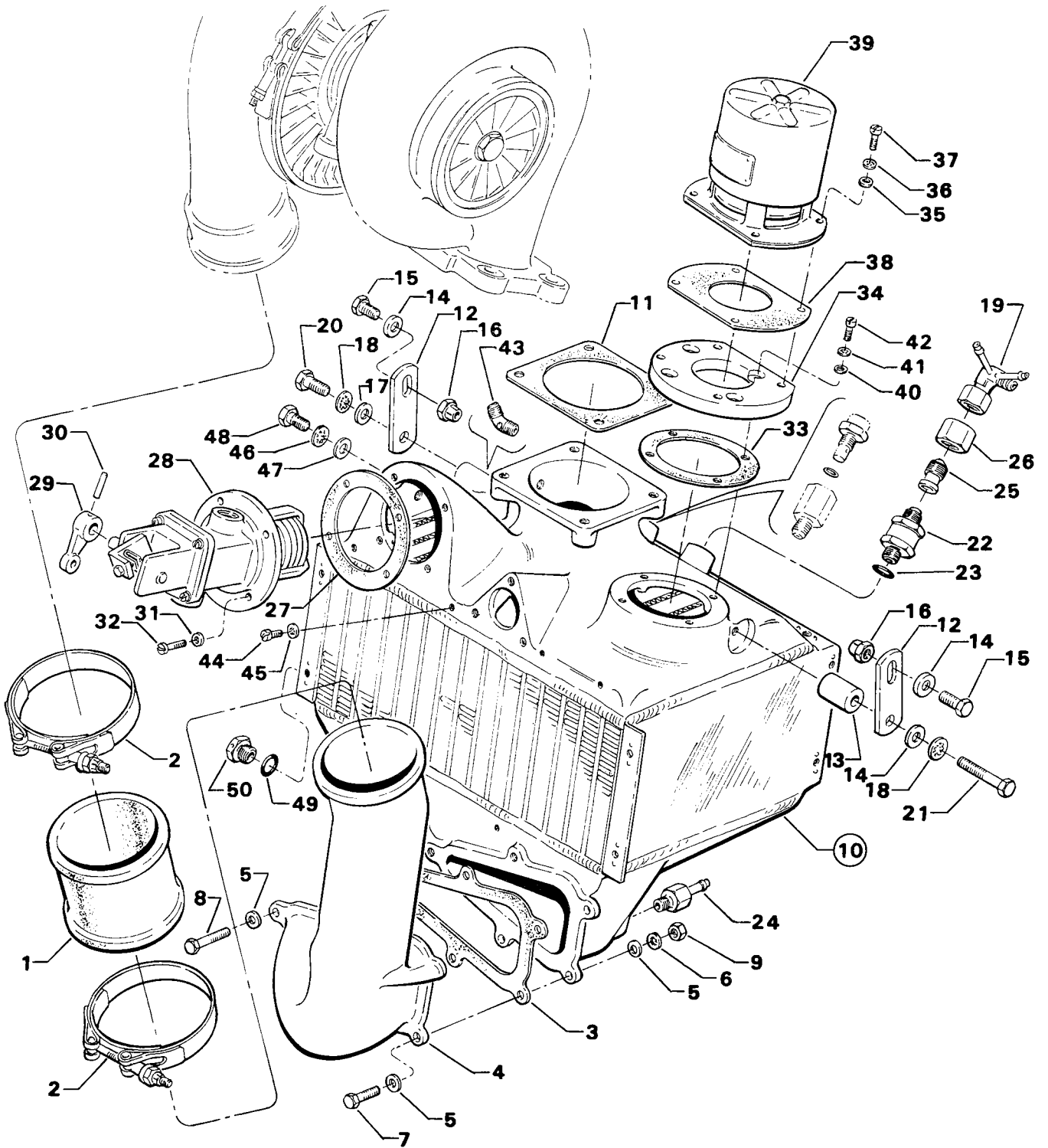


Figure 33. INTERCOOLER ASSEMBLY AND RELATED PARTS

SERVICE KIT SECTION

SEAL AND GASKET SET WIDE CYLINDER FLANGE MODELS

Part No.	Part Name	Qty.
LW-18786	SEAL AND GASKET SET	1
MS29512-8	"O" RING	1
AN901-8A	GASKET	1
MS9068-009	RING, Oil seal	1
MS16625-1081	RING, Internal retaining	1
MS16625-1125	RING, Internal retaining	4
MS29512-04	SEAL, Oil	1
MS29512-6	"O" RING	1
MS29512-10	SEAL	1
STD-2217	SEAL, Oil	2
STD-213	SEAL	1
STD-1045	GASKET	1
STD-1272	GASKET, Oil suction screen	1
STD-1737	RING, Exhaust retaining	1
8313	GASKET, Vacuum pump	3
66732	GASKET, Valve rocker shaft cover	12
69164	GASKET, Fuel pump adapter	1
70310	SEAL, Shroud tube	12
70455	GASKET	1
71481	RING, Oil seal	6
71973	GASKET, Intake flange	6
72053	GASKET, Governor	1
74068	"O" RING, Oil filler extension	1
72091	RING, Oil seal	2
72220	GASKET, Oil filler adapter	1
73032	GASKET, Air inlet adapter	1
73314	GASKET, Controller	1
73383	LOCKPLATE	1
73818	GASKET, Accessory housing	1
74382	RING, Oil seal	1
74944	GASKET	1
75371	GASKET, Turbo oil inlet adapter	1
75845	GASKET, V Band coupling	1
76036	GASKET, Rocker box cover	6
77569	RING, Seal, intake pipe	6
LW-10122	GASKET, Turbo oil drain adapter	1
LW-10332	LOCKPLATE, Crankshaft gear	1
LW-12272	LOCKPLATE, Shroud tube	6
LW-12681	GASKET, Magneto	1
LW-13306	GASKET, Oil sump	1
LW-14192	GASKET, Sonic nozzle	2
LW-14260	SEAL, Tachometer	1
LW-15628	SEAL, Crankshaft oil	1
LW-18234	GASKET, Exhaust flange	1
LW-18329	GASKET, Air inlet housing	1
LW-18481	GASKET, Oil filler adapter	1
LW-18526	GASKET, V Band coupling	1
LW-18661	SEAL, Shroud tube	12
72059	GASKET, Oil level gauge	1

SERVICE KIT SECTION

CYLINDER, PISTON AND RING KIT WIDE CYLINDER FLANGE MODELS

Part No.	Part Name	Qty.
LW-18771	CYLINDER, PISTON AND RING KIT	1
60828	PLUG, Piston pin	2
62388	CAP	2
66732	GASKET, Rocker shaft cover	2
69532	SEAT, Valve spring	1
70310	SEAL	2
71195	BOX, Set up	1
71481	RING, Oil seal	1
71549	WASHER	2
72050	KEY, Valve	2
72626	SHAFT, Valve rocker	2
72709	SCREW	2
72710	COVER, Valve rocker shaft	2
73857	RING, Oil regulator	1
74241	RING, Piston	2
74494	PLATE, Spark plug reach caution	1
76036	GASKET, Rocker box cover	1
LW-10545-S	PISTON	1
LW-11775	PLUG, Piston pin	2
LW-11796	SPRING, Valve, outer	2
LW-11797	SPRING, Valve, auxiliary	2
LW-13262	VALVE, Intake	1
LW-13321	SEAT, Valve spring, lower intake	1
LW-13322	SEAT, Valve spring, lower exhaust	1
LW-13446 or LW-14077	PIN, Piston	1
LW-14433	COVER ASSY., Rocker box	1
LW-15732	VALVE, Exhaust	1
LW-16475	SEAT, Valve spring	1
LW-18661	SEAL, Shroud tube	2
LW-18739	ROCKER ASSY., Intake and exhaust	2
LW-18852*	CYLINDER AND HEAD ASSEMBLY	1
MS13997-3	KEY, Valve (rotator type)	2
MS13998-3	CAP, Valve stem	1
SSP-2272	TAG	1
STD-160	WASHER, Internal lock	4
STD-1215	BOLT	2
STD-1411	NUT, Plain	4
STD-2059	SCREW	8

* Nitrided cylinder, long reach plug.

NUMERICAL INDEX

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
AN3-7	Bolt	5-9	LW-10637	Elbow	7-5
AN3-14	Bolt	5-9	LW-10799	Spacer	2-5
AN310-7	Nut	5-3	LW-10909	Housing Assy.	2-1
AN500-10-16	Screw	2-10	LW-10918	Housing Assy.	2-1
AN565B1032H5	Screw	1-11	LW-10952	Shim	5-5
AN6-12	Bolt	5-5	LW-10952	Shim	5-9
AN6-14	Bolt	5-7	LW-10966	Alternator	5-1
AN6-14	Bolt	5-9	LW-10967	Alternator Assy.	5-1
AN6-16	Bolt	5-5	LW-10970	Strut	5-3
AN6-16	Bolt	5-7	LW-10971	Bolt	5-1
AN6-22	Bolt	5-9	LW-11147	Bracket	5-3
AN6-34A	Bolt	1-15	LW-11253	Body Assy.	2-3
AN6C-5A	Bolt	7-7	LW-11635	Shield	5-9
AN6C-13A	Bolt	7-3	LW-11665	Thrust Button	3-5
AN6C-26A	Bolt	7-3	LW-11713	Spring	1-5
AN7-12	Bolt	5-3	LW-11796	Spring	3-5
AN7-14	Bolt	5-3	LW-11797	Spring	3-5
AN791-2	Elbow	6-5	LW-11999	Reducer	7-5
AN8-14A	Bolt	1-7	LW-12056	Spacer	7-5
AN814-6L	Plug	7-7	LW-12093-6	Coupling	7-1
AN816-4	Nipple	4-1	LW-12093-7	Coupling	7-1
AN816-4	Nipple	7-5	LW-12098-0-012	Tube Assy.	6-7
AN816-6	Nipple	3-3	LW-12098-0-090	Tube Assy.	6-7
AN818-6	Nut	7-7	LW-12098-0-116	Tube Assy.	6-7
AN901-8A	Gasket	7-5	LW-12098-0-124	Tube Assy.	6-7
AN919-6	Reducer	6-5	LW-12098-0-153	Tube Assy.	6-7
AN919-15	Nipple	2-7	LW-12098-0-183	Tube Assy.	6-5
AN960C-616	Washer	7-3	LW-12098-0-210	Tube Assy.	6-5
LW-10122	Gasket	7-5	LW-12098-0-230	Tube Assy.	6-5
LW-10284	Gear	1-7	LW-12098-0-256	Tube Assy.	6-5
LW-10292	Gear Assy.	1-13	LW-12098-0-296	Tube Assy.	6-5
LW-10297	Gear Assy.	1-13	LW-12098-0-334	Tube Assy.	6-5
LW-10299	Shaft	1-13	LW-12186	Nut	3-1
			LW-12201	Camshaft	1-9
LW-10307	Gear Assy.	2-7	LW-12232	Shim	5-9
LW-10318	Gear Assy.	2-3	LW-12232	Shim	6-1
LW-10320	Sleeve	2-9	LW-12272	Lockplate	3-5
LW-10321	Spring	2-9	LW-12434	Hose	7-7
LW-10324	Gear Assy.	1-13	LW-12589	Insert	2-1
LW-10325	Spacer	1-13	LW-12596	Bolt	3-1
LW-10329	Shaftgear Assy.	1-13	LW-12681	Gasket	4-1
LW-10332	Lockplate	1-7	LW-12688	Seat	3-3
LW-10341	Insert	2-1	LW-12745	Valve	7-7
LW-10344	Body Assy.	2-3	LW-12773	Lever	7-7
LW-10442	Gear	1-11	LW-12784-4-074	Hose Assy.	2-5
LW-10541	Gear Assy.	1-11	LW-12784-4-102	Hose Assy.	4-1
LW-10545	Piston	3-1	LW-12798-4S-130	Hose Assy.	7-1
LW-10551	Gear	1-7	LW-12798-4S-150	Hose Assy.	7-5
LW-10576	Shaft	5-3	LW-12798-4S-190	Hose Assy.	7-5
LW-10578	Pulley & Shaft Assy.	5-3	LW-12799-6S-130	Hose Assy.	2-5

NUMERICAL INDEX (Cont.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
LW-12799-6S-222	Hose Assy.	7-1	LW-15572	Starter	5-2
LW-12878-4S-373	Hose Assy.	6-5	LW-15579	Adapter Assy.	2-10
LW-12879-6S-300	Hose Assy.	7-1	LW-15580	Drive Assy.	2-10
LW-12975	Adapter	7-7	LW-15592-5-04	Clamp	6-5
LW-13039	Bracket	5-7	LW-15592-5-05	Clamp	3-7
LW-13128	Elbow	7-5	LW-15592-8-28	Clamp	7-1
LW-13134	Valve Assy.	4-1	LW-15628	Seal	1-5
LW-13176-8S-180	Hose Assy.	7-5	LW-15712	Support Assy.	1-7
LW-13209	Bearing	3-1	LW-15732	Valve	3-5
LW-13212	Bearing	3-1	LW-15740	Pump	2-5
LW-13226	Nut	4-1	LW-15858-62-350	Clamp	7-7
LW-13227	Adapter	4-1	LW-15996	Bolt	7-5
LW-13262	Valve	3-5	LW-16143	Bearing	3-1
LW-13306	Gasket	6-1	LW-16266-10-13	Clamp	6-5
LW-13321	Seat	3-5	LW-16266-10-13	Clamp	6-7
LW-13322	Seat	3-5	LW-16266-10-38	Clamp	6-7
LW-13422	Rod	3-1	LW-16266-10-75	Clamp	6-5
LW-13429	Rod End	5-9	LW-16347	Bracket	5-9
LW-13641	Cushion	4-1	LW-16448	Gear Assy.	2-10
LW-13642	Gear	4-1	LW-16475	Seat	3-5
LW-13807	Adapter Assy.	6-7	LW-16503	Bracket	5-9
LW-13807	Adapter Assy.	7-7	LW-16866	Manifold	6-7
LW-13885	Bearing	1-5	LW-17765	Crankshaft	1-7
LW-13896	Plug	1-11	LW-17766	Crankshaft	1-7
LW-13904	Kit	2-9	LW-17790	Crankshaft	1-7
LW-13905	Filter	2-9	LW-17791	Crankshaft	1-7
LW-13920	Pump	2-5	LW-18171	Elbow	2-5
LW-13923	Bushing	3-1	LW-18182	Nozzle Assy.	6-5
LW-14021	Shaft	1-11	LW-18234	Gasket	7-1
LW-14078	Pin	3-1	LW-18325	Pipe	6-3
LW-14141	Bracket	5-3	LW-18326	Pipe	6-3
LW-14142	Bracket	5-3	LW-18327	Pipe	6-3
LW-14214	Starter	5-2	LW-18329	Gasket	6-3
LW-14260	Seal	2-3	LW-18330	Housing Assy.	6-3
LW-14278	Belt	5-9	LW-18378	Clamp	4-1
LW-14324	Alternator	5-1	LW-18439	Shield	7-1
LW-14325	Alternator	5-1	LW-18440	Adapter	7-1
LW-14433	Cover Assy.	3-7	LW-18441	Pipe	7-1
LW-14445-4	Valve Assy.	7-7	LW-18444	Pipe	7-1
LW-14637	Shim	5-3	LW-18445	Pipe	7-1
LW-14637	Shim	5-5	LW-18446	Pipe	7-1
LW-14649	Shim	5-3	LW-18451	Support Assy.	7-3
LW-14649	Shim	5-5	LW-18452	Spacer	7-3
LW-14650	Shim	5-3	LW-18453	Bracket	7-3
LW-14688	Bracket	1-3	LW-18456	Bracket	7-3
LW-14820	Ring	1-7	LW-18457	Bracket	7-7
LW-14830	Bearing	1-5	LW-18458	Spacer	7-7
LW-14995	Spring	3-5	LW-18466	Housing Assy.	6-1
LW-15550	Pump	2-10	LW-18467	Strap	6-1
LW-15568	Adapter	2-10			

NUMERICAL INDEX (Cont.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
LW-18470	Turbocharger	7-3	LW-18869	Gasket	7-7
LW-18480	Rod	5-9	LW-18944	Tube	3-5
LW-18481	Gasket	1-3	LW-18946	Rocker Assy.	3-5
LW-18482	Adapter	1-3	LW-18950	Tank Assy.	7-5
LW-18484	Sump Assy.	6-1	LW-18951	Pipe	7-1
LW-18495	Fuel Injector	6-5	LW-18952	Pipe	7-1
LW-18503	Adapter	2-10	LW-18955	Adapter	7-7
LW-18505	Drive Assy.	2-10	LW-18956	Gasket	7-7
LW-18507	Adapter Assy.	2-10	LW-18957	Manifold Assy.	7-1
LW-18509	Washer	7-1	LW-18958	Manifold Assy.	7-1
LW-18510	Bracket	7-1	LW-18966	Tee	7-5
LW-18511	Support	7-1	LW-19325	Bracket	6-3
LW-18513	Pipe	7-1	LW-19326	Bracket	6-3
LW-18514	Pipe	7-1	LW-25-2.25	Bolt	1-15
LW-18519	Controller Assy.	7-7	LW-25-3.00	Bolt	5-9
LW-18520	Spacer	7-3	LW-31-1.09	Bolt	6-3
LW-18526	Gasket	7-1	LW-31H.75	Bolt	5-3
LW-18535	Manifold Assy.	6-7	LW-31H.75	Bolt	5-7
LW-18536	Pump Assy.	2-5	LW-31S-4.72	Bolt	7-3
LW-18543	Crankcase Assy.	1-1	LW-31S-4.94	Bolt	7-3
LW-18555	Tube Assy.	3-7	LW-320300-1	Clamp	6-5
LW-18556	Tube Assy.	3-7	LW-382698	Kit	4-1
LW-18557	Tube Assy.	3-7	LW-382813	Kit	4-1
LW-18575	Nipple	2-7	LW-682910-13	Magneto	4-1
LW-18588	Transition Assy.	7-1	LW-682910-18	Magneto	4-1
LW-18589	Pump Assy.	2-5	LW-684610-126	Harness	4-1
LW-18624	Bracket Assy.	1-3	LW-685046-118	Magneto	4-1
LW-18626	Bracket Assy.	1-3	LW-685046-119	Magneto	4-1
LW-18627	Hose	5-9	MS-124703	Insert	2-1
LW-18633	Support Assy.	1-7	MS13997-3	Key	3-5
LW-18661	Seal	3-5	MS13998-3	Cap	3-5
LW-18664	Bracket	6-5	MS16625-1081	Ring	1-9
LW-18671	Baffle	6-3	MS16625-1100	Ring	2-9
LW-18675	Hose	6-5	MS16625-1125	Ring	5-3
LW-18675-1	Hose	6-5	MS16625-1125	Ring	5-5
LW-18679	Support Assy.	1-7	MS16625-1125	Ring	5-9
LW-18737	Hose	6-5	MS20500-624	Nut	7-3
LW-18738	Elbow	7-7	MS20822-3	Elbow	7-7
LW-18742	Manifold Assy.	6-5	MS20822-4	Elbow	4-1
LW-18760	Eye	1-3	MS20822-4	Elbow	7-5
LW-18763	Spacer	6-3	MS20822-6-8	Elbow	2-5
LW-18804	Pulley	5-9	MS20823-4	Elbow	6-5
LW-18809	Pulley & Shaft Assy.	5-9	MS20823-8	Elbow	7-5
LW-18822	Intercooler Assy.	7-7	MS29512-04	Seal	4-1
LW-18832	Baffle Assy.	3-7	MS29512-6	Ring	7-7
LW-18852	Cylinder	3-3	MS29512-8	Ring	7-5
LW-18856	Guide	3-3	MS29512-10	Seal	2-7
LW-18860	Manifold	6-5	MS9068-009	Ring	2-10
LW-18861	Valve	7-1	STD-8	Washer	1-15
LW-18868	Duct	7-7	STD-8	Washer	2-3
			STD-8	Washer	2-7

NUMERICAL INDEX (Cont.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
STD-8	Washer	2-10	STD-213	Seal	1-13
STD-8	Washer	3-7	STD-251	Washer	1-3
STD-8	Washer	5-9	STD-251	Washer	7-5
STD-8	Washer	6-1	STD-251	Washer	7-7
STD-8	Washer	6-3	STD-303	Nut	5-9
STD-8	Washer	6-5	STD-375	Screw	7-7
STD-8	Washer	6-7	STD-405	Plug	7-1
STD-8	Washer	7-1	STD-425	Washer	6-5
STD-8	Washer	7-7	STD-425	Washer	7-5
STD-19	Dowel	1-11	STD-460	Bolt	6-7
STD-28	Washer	1-3	STD-475	Washer	2-5
STD-28	Washer	7-7	STD-475	Washer	4-1
STD-33	Washer	1-3	STD-475	Washer	5-2
STD-33	Washer	1-15	STD-475	Washer	6-3
STD-33	Washer	4-1	STD-475	Washer	7-1
STD-33	Washer	5-9	STD-475	Washer	7-7
STD-33	Washer	7-3	STD-551	Plug	6-1
STD-33	Washer	7-5	STD-514	Dowel	1-1
STD-33	Washer	7-7	STD-557	Dowel	1-1
STD-35	Washer	2-3	STD-596	Nut	1-3
STD-35	Washer	2-5	STD-596	Nut	1-15
STD-35	Washer	5-2	STD-632	Washer	5-3
STD-35	Washer	5-7	STD-669	Washer	5-5
STD-35	Washer	5-9	STD-669	Washer	5-3
STD-35	Washer	7-7	STD-669	Washer	5-9
STD-63	Nut	1-3	STD-670	Nut	6-5
STD-63	Nut	5-9	STD-670	Nut	6-7
STD-63	Nut	7-5	STD-676	Nut	5-3
STD-68	Pin	5-9	STD-676	Nut	5-5
STD-68	Pin	7-3	STD-676	Nut	5-9
STD-82	Screw	6-5	STD-678	Washer	1-3
STD-95	Key	2-10	STD-678	Washer	1-15
STD-110	Screw	7-7	STD-678	Washer	5-9
STD-122	Washer	2-10	STD-678	Washer	7-5
STD-122	Washer	5-9	STD-678	Washer	7-7
STD-148	Nipple	3-3	STD-684	Nipple	3-7
STD-148	Nipple	6-5	STD-690	Washer	5-5
STD-148	Nipple	6-7	STD-690	Washer	5-7
STD-160	Washer	1-15	STD-692	Screw	6-5
STD-160	Washer	2-3	STD-692	Screw	7-5
STD-160	Washer	2-7	STD-713	Pin	5-5
STD-160	Washer	2-10	STD-713	Pin	5-7
STD-160	Washer	6-1	STD-714	Pin	2-3
STD-160	Washer	6-3	STD-761	Pin	5-3
STD-160	Washer	6-5	STD-761	Pin	5-9
STD-160	Washer	6-7	STD-798	Dowel	1-11
STD-160	Washer	7-7	STD-853	Tee	6-7
STD-178	Washer	2-10	STD-860	Screw	6-5
STD-208	Seal	2-7	STD-872	Nut	1-15
STD-208	Seal	2-10	STD-872	Nut	5-5

NUMERICAL INDEX (Cont.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
STD-872	Nut	5-7	STD-1727	Washer	7-1
STD-872	Nut	5-9	STD-1727	Washer	7-7
STD-949	Bushing	7-5	STD-1737	Ring	2-10
STD-969	Screw	6-7	STD-1768	Plug	2-3
STD-1003	Dowel	2-10	STD-1774	Pin	1-13
STD-1045	Gasket	1-5	STD-1815	Nut	5-9
STD-1114	Bolt	7-1	STD-1825	Bolt	7-7
STD-1164	Insert	6-3	STD-1828	Bolt	6-3
STD-1169	Bolt	2-3	STD-1837	Bolt	5-9
STD-1171	Insert	1-3	STD-1838	Bolt	5-3
STD-1173	Insert	6-1	STD-1838	Bolt	5-5
STD-1173	Insert	6-3	STD-1838	Bolt	5-7
STD-1204	Bolt	2-3	STD-1838	Bolt	7-1
STD-1204	Bolt	6-3	STD-1875	Bolt	2-3
STD-1211	Plug	1-7	STD-1875	Bolt	6-1
STD-1215	Bolt	2-3	STD-1875	Bolt	7-7
STD-1215	Bolt	6-3	STD-1889	Bolt	5-3
STD-1272	Gasket	6-1	STD-1889	Bolt	5-5
STD-1339	Plug	1-1	STD-1925	Screw	3-7
STD-1339	Plug	2-1	STD-1925	Screw	4-1
STD-1339	Plug	6-5	STD-1930	Hose	4-1
STD-1342	Washer	7-3	STD-1932	Bushing	7-1
STD-1409	Nut	1-15	STD-1946	Bolt	7-5
STD-1410	Nut	2-5	STD-2007	Washer	4-1
STD-1410	Nut	4-1	STD-2025	Bolt	5-9
STD-1410	Nut	5-2	STD-2027	Bolt	6-1
STD-1411	Nut	1-15	STD-2029	Bolt	6-5
STD-1411	Nut	2-7	STD-2042	Bolt	6-3
STD-1411	Nut	2-10	STD-2042	Bolt	6-5
STD-1411	Nut	3-5	STD-2043	Nut	7-1
STD-1411	Nut	6-1	STD-2043	Nut	7-7
STD-1411	Nut	7-7	STD-2044	Nut	7-1
STD-1414	Bolt	1-15	STD-2045	Nut	7-3
STD-1416	Bolt	1-15	STD-2049	Clamp	6-5
STD-1419	Bolt	1-15	STD-2059	Screw	3-7
STD-1419	Bolt	6-1	STD-2078	Dowel	1-7
STD-1419	Bolt	6-5	STD-2084	Bolt	1-15
STD-1420	Nut	2-3	STD-2090	Nut	3-7
STD-1420	Nut	7-3	STD-2099	Pin	7-7
STD-1421	Bolt	7-3	STD-2129	Bolt	2-3
STD-1566	Screw	7-7	STD-2152	Bolt	7-1
STD-1646	Bolt	1-15	STD-2152	Bolt	7-7
STD-1685	Nut	5-9	STD-2156	Bolt	5-2
STD-1688	Bolt	6-1	STD-2166	Elbow	6-5
STD-1688	Bolt	7-7	STD-2175	Bolt	1-3
STD-1727	Washer	5-3	STD-2178	Washer	6-1
STD-1727	Washer	5-5	STD-2180	Hose	3-7
STD-1727	Washer	5-7	STD-2190	Washer	5-9
STD-1727	Washer	6-3	STD-2197	Washer	7-3

NUMERICAL INDEX (Cont.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
STD-2205	Washer	7-3	69164	Gasket	1-13
10-8	Stud	1-1	69260	Insert	3-3
25C-8	Stud	3-3	69532	Seat	3-5
25C-10	Stud	3-3	69796	Dowel	1-1
25C-11	Stud	6-1	70310	Seal	3-5
25C-12	Stud	2-1	70455	Gasket	1-11
25C-12	Stud	2-10	70474	Washer	2-10
25C-19	Stud	2-1	71481	Ring	3-7
25C-39	Stud	2-1	71549	Washer	3-5
31C-12	Stud	1-1	71596	Washer	2-7
31C-13	Stud	1-1	71596	Washer	2-10
31C-13	Stud	2-1	71610	Hook	3-7
31C-18	Stud	1-1	71611	Retainer	3-7
31C-19	Stud	2-1	71894	Seat	3-3
31CD-20	Stud	2-1	71903	Bushing	1-7
38-13	Stud	1-1	71907	Washer	1-7
38-15	Stud	1-1	71973	Gasket	6-3
38-15	Stud	6-1	72050	Key	3-5
38-16	Stud	1-1	72059	Gasket	1-3
38-22	Stud	1-1	72091	Ring	1-5
38D-17	Stud	1-1	72155	Bushing	1-7
50-15	Stud	1-1	72158	Bushing	1-1
383-B	Nut	3-7	72220	Gasket	1-3
383-B	Nut	5-9	72376	Elbow	7-1
1028-B	Ball	1-5	72377	Elbow	7-1
1102	Plug	1-1	72566	Gear	1-7
1102	Plug	6-1	72626	Shaft	3-5
1102	Plug	6-5	72706	Insert	3-3
1102	Plug	6-7	72709	Screw	3-7
1102	Plug	7-5	72710	Cover	3-7
1182-U5	Spark Plug	4-1	72877	Body	1-5
8313	Gasket	2-7	73032	Gasket	6-5
8313	Gasket	2-10	73152	Bracket	6-5
16783-2	Gauge Assy.	1-3	73249	Washer	1-11
60329	Shaft	2-3	73250	Washer	1-11
60430	Cover	2-7	73251	Washer	1-11
60430	Cover	2-10	73252	Washer	1-11
60803	Strap	1-15	73314	Gasket	7-7
60828	Plug	3-1	73383	Lockplate	5-3
60945	Plug	1-7	73383	Lockplate	5-5
61166	Thrust Button	1-13	73383	Lockplate	5-7
61166	Thrust Button	2-3	73463	Rod Assy.	3-5
61166	Thrust Button	2-7	73464	Rod Assy.	3-5
61297	Impeller	2-3	73465	Rod Assy.	3-5
61298	Impeller	2-3	73466	Rod Assy.	3-5
62388	Cap	3-5	73644	Counterweight Assy.	1-7
65007	Retainer	1-1	73772	Nozzle Assy.	1-1
66670	Bushing	3-3	73810	Bushing	1-7
66732	Gasket	3-7	73818	Gasket	2-1
69159	Adapter Assy.	1-13	73857	Ring	3-1

NUMERICAL INDEX (Cont.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
74068	Ring	1-3	76735	Bracket	6-6
74389	Bushing	3-5	76768	Lockwasher	5-6
74070	Elbow	7-5	76768	Washer	5-6
74241	Ring	3-1	76768	Lockwasher	5-6
74323	Strut	5-7	76769	Locknut	5-3
74494	Plate	3-7	76769	Locknut	5-5
74519	Belt	5-1	76769	Locknut	5-6
74887	Spacer	3-7	76787	Roller	1-7
74944	Gasket	7-7	76788	Roller	1-7
75030	Support Assy.	1-7	76889	Adapter	7-5
75252	Elbow	7-5	77569	Ring	6-3
75371	Gasket	7-5	77579	Support Assy.	1-7
75380	Link	5-7	77644	Screen	6-1
75656	Bushing	1-7	77645	Plug	6-1
75737	Extension	1-3	77756	Bracket	5-5
75739	Nipple	1-1	77757	Bracket	5-5
75767	Extension	1-3	77808	Valve Assy.	1-5
75845	Gasket	7-1	77872	Bushing	1-11
75944	Valve Assy.	2-9	77906	Spacer	3-7
76026	Belt	5-1	77906	Spacer	5-9
76036	Gasket	3-7	78067	Elbow	2-5
76077	Guide	3-3	78290	Plunger Assy.	3-5
76118	Spacer	1-9	78368	Pin	1-9
76148	Camshaft	1-9	78370	Spacer	5-9
76155	Shaft Assy.	1-9	78524	Socket	3-5
76156	Shield	2-1	78612	Shaft	2-10
76220	Stud	1-15	78614	Pulley	5-5
76420	Pulley	5-3	78617	Shaft	5-5
76421	Pulley	5-1	78617	Shaft	5-9
76510	Gasket	2-9			
76534	Shim	5-5	78629	Bearing	5-3
76534	Shim	5-7	78629	Bearing	5-5
76539	Seat	2-9	78629	Bearing	5-9
76734	Strap	4-1	78639	Pulley & Shaft Assy.	5-5
76734	Strap	6-5	78703	Damper	7-3
76734	Strap	7-5	79024	Bushing	1-7