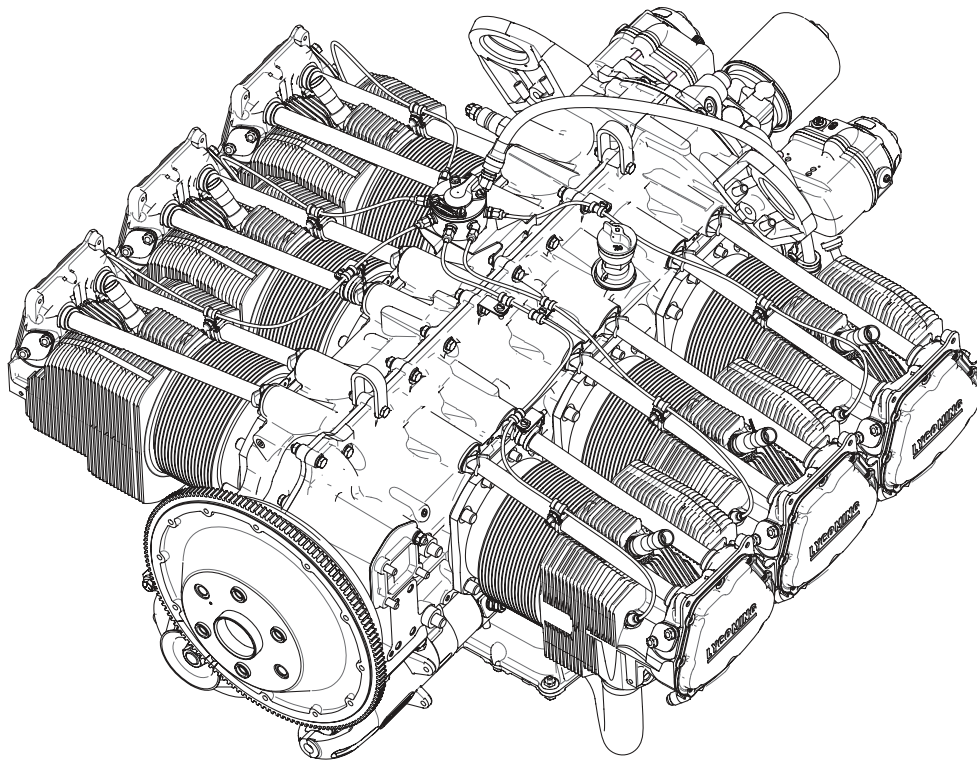


Lycoming Aircraft Engines Parts Catalog



IO-540-A, B, C, D, E and G Series Standard Cylinder Flange Crankcase Model Engines

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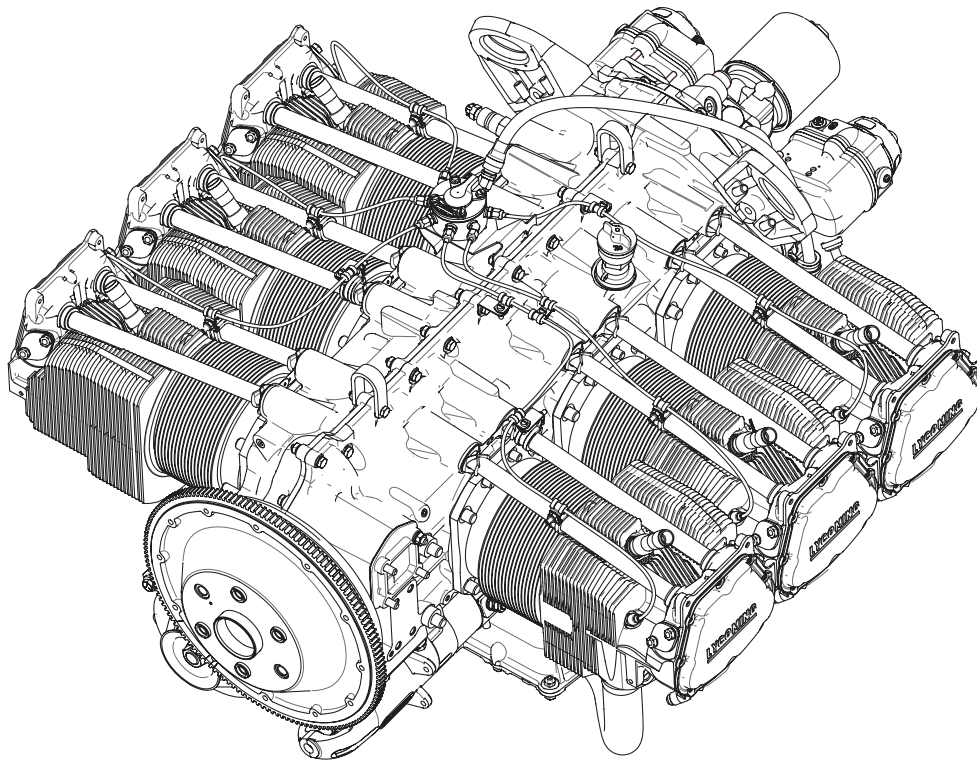
TECHNICAL PUBLICATION REVISION

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PC-215-1A	IO-540-A, -B, -C, -D, -E, -G Series Standard Cylinder Flange Crankcase Model Engines Parts Catalog	PC-215-1	JUNE 1993

This page(s) furnished herewith are intended to replace the corresponding pages(s) of the publication indicated above.

PREVIOUS REVISIONS	CURRENT REVISION
None	August 2010 Pages 5-5 and 5-6 in PC-215-1 do not apply to the engine models listed in this Parts Catalog and therefore must not be used.

Lycoming Aircraft Engines Parts Catalog



IO-540-A, B, C, D, E and G Series Standard Cylinder Flange Crankcase Model Engines

LYCOMING

INTRODUCTION

This illustrated parts catalog contains a complete parts listing for the Lycoming IO-540-A, B, C, D, E and G Series standard cylinder flange crankcase 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 addresses of where to obtain these publications appears 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.

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SERVICE BULLETINS, INSTRUCTIONS AND LETTERS

Although the information contained in this parts catalog is up-to-date at time of publication, users are advised to procure current 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.

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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
61681	GUIDE		X	X		X	X	X				
66610	BUSHING		X	X								
66670	BUSHING		X	X								
66713	GUIDE		X	X		X	X	X				
66796	INSERT			X								
69796	DOWEL		X									
71903-A, -B	BUSHING	SEE LATEST EDITION OF SERVICE INSTRUCTION NO. 1143 FOR APPLICATION.										
72057	SEAT		X	X		X	X					
72058	SEAT			X		X	X					
72060	BUSHING		X	X	X	X						
72061	BUSHING		X	X	X	X						
72062	BUSHING		X	X	X	X						
72074	BUSHING		X	X		X						
73810	BUSHING	SEE LATEST EDITION OF SERVICE INSTRUCTION NO. 1142 FOR APPLICATION.										
74230	GUIDE		X	X		X	X	X				
75302	DOWEL		X	X								
75838	GUIDE		X	X		X	X	X				
LW-10647	DOWEL		X	X								
LW-11021	BEARING				X					X*	X*	X*
LW-11997	SEAL	SEE LATEST EDITION OF SERVICE INSTRUCTION NO. 1324 FOR APPLICATION.										
LW-12688	SEAT			X		X	X					
LW-13792	SEAL	SEE LATEST EDITION OF SERVICE INSTRUCTION NO. 1324 FOR APPLICATION.										
LW-13884	BEARING				X					X*	X*	X*
LW-16047	BEARING				X					X	X	X
STD-1065	DOWEL	X	X	X	X							
16T19468	SEAT			X		X	X					
18A19399	BEARING				X					X	X	X
18D19394	BEARING				X					X	X	X

* Also available in P15 oversize.

In addition to the above, studs are available in P03, P07 & P12.

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-13884 in .003 undersize, order part number LW-13884-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.

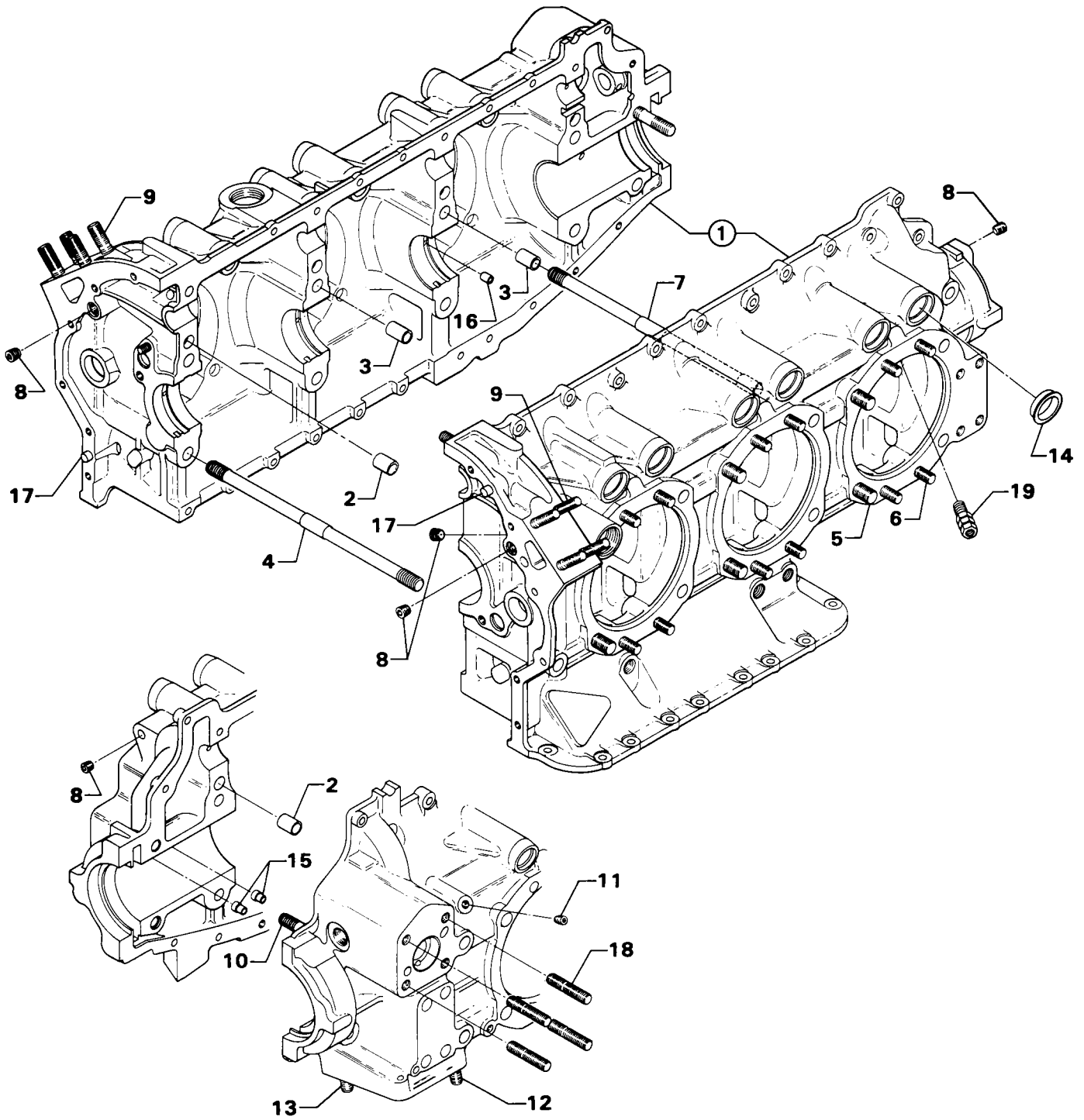


Figure 1. CRANKCASE ASSEMBLY

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP OIL LEVEL GAGES AND ENGINE MOUNTING BRACKETS

FIG. REF. 2	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY															
				A 1	B 1	B 1	C 1	C 4	C 4	D 4	E 1	E 1	G 1	G 1	G 1	G 1	G 1	G 1	
1	70457	GASKET, Oil filler extension	1																
2	75761	EXTENSION, Oil filler, long (4-1/2")		1	1	1				1	1	1	1	1	1				
	77770 *	EXTENSION, Oil filler, long (6-5/16")														1			
3	75675	EXTENSION, Oil filler, short (2-3/16")		1								1	1	1	1		1	1	
	75737	EXTENSION, Oil filler, short (2-11/16")		1			1	1	1	1			1	1			1		
	77527 *	EXTENSION, Oil filler, short (2-3/16")					1	1	1				1	1					
	74313 *	EXTENSION, Oil filler, short (2-3/16") (alternate to P/N 77527 extension)																	
4	74065	"O" RING, Oil level gage		1	1	1				1	1	1	1	1	1		1	1	
	74068	"O" RING, Oil level gage		1			1	1	1	1			1	1				1	
5	72312 *	RING, Oil seal, 1.00 I.D. x 1/8 section					1	1	1					1	1				
6	LW-14729	GAGE ASSY., Oil level (cam action)												1	1				
	LW-14732	GAGE ASSY., Oil level (cam action)					1	1	1										
	LW-14737	GAGE ASSY., Oil level (cam action)															1		
	LW-14754	GAGE ASSY., Oil level		1									1	1				1	
	LW-14756	GAGE ASSY., Oil level					1	1	1	1									
	LW-14767	GAGE ASSY., Oil level												1				1	1
	LW-14770	GAGE ASSY., Oil level		1												1			
	LW-14773	GAGE ASSY., Oil level		1								1	1		1			1	
	LW-14774	GAGE ASSY., Oil level								1									
	LW-14775	GAGE ASSY., Oil level		1	1	1					1	1	1	1	1				
7	70456	BRACKET, Engine mounting		4			4	4		4			4	4	4	4	4	4	
	70456	BRACKET, Engine mounting		3	3	3					3	3							
	72244	BRACKET, Engine mounting		1	1	1					1	1							
	12A19770	BRACKET, Engine mounting						4	4				4	4					
8	STD-33	WASHER, 3/8 plain	16																
9	STD-678	WASHER, 3/8 lock, internal teeth	16																
10	STD-596	NUT, 3/8-24 plain, 21/64 thick	16																

* Used with cam action oil level gage assembly.

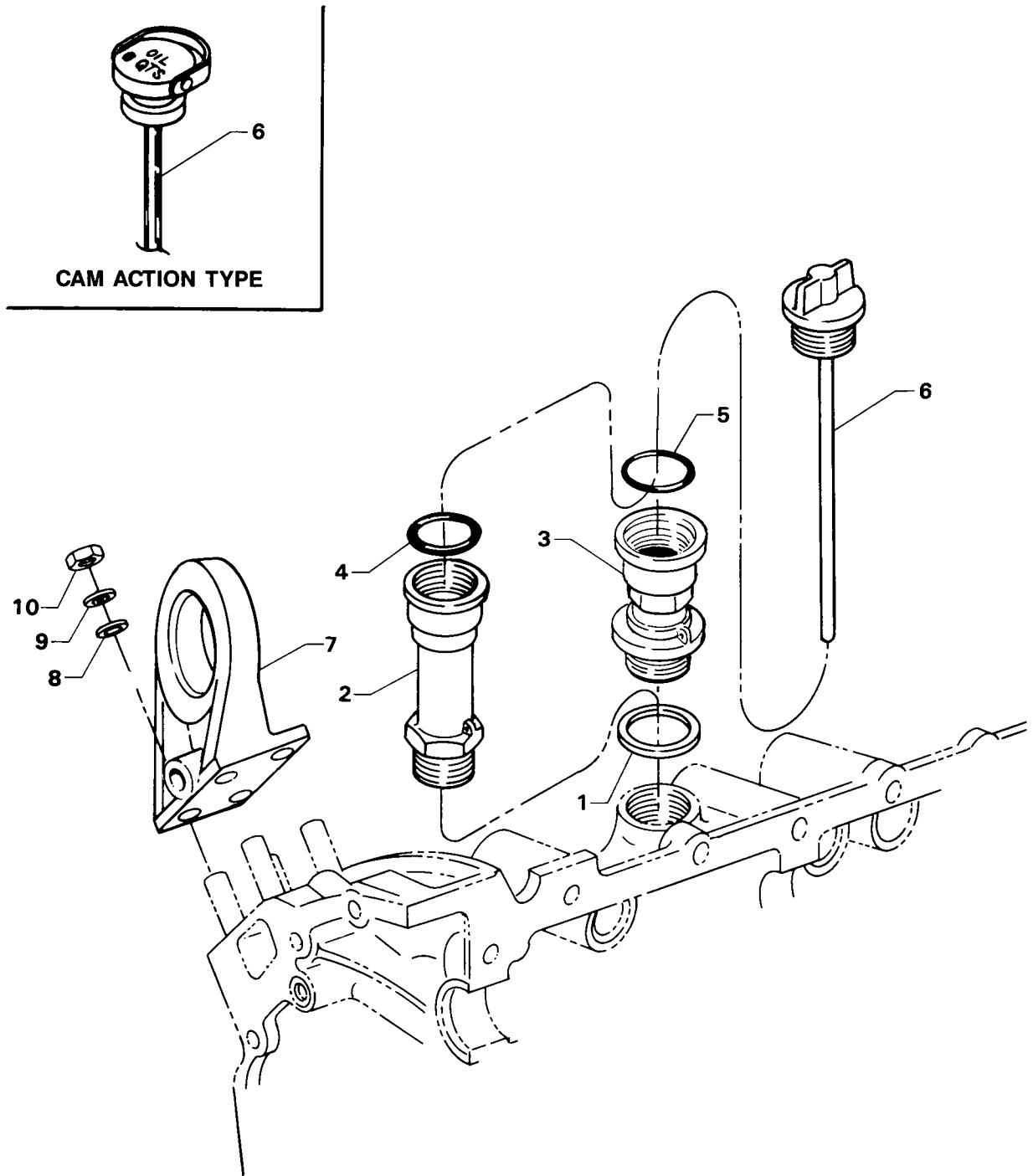


Figure 2. OIL LEVEL GAGES AND ENGINE MOUNTING BRACKETS

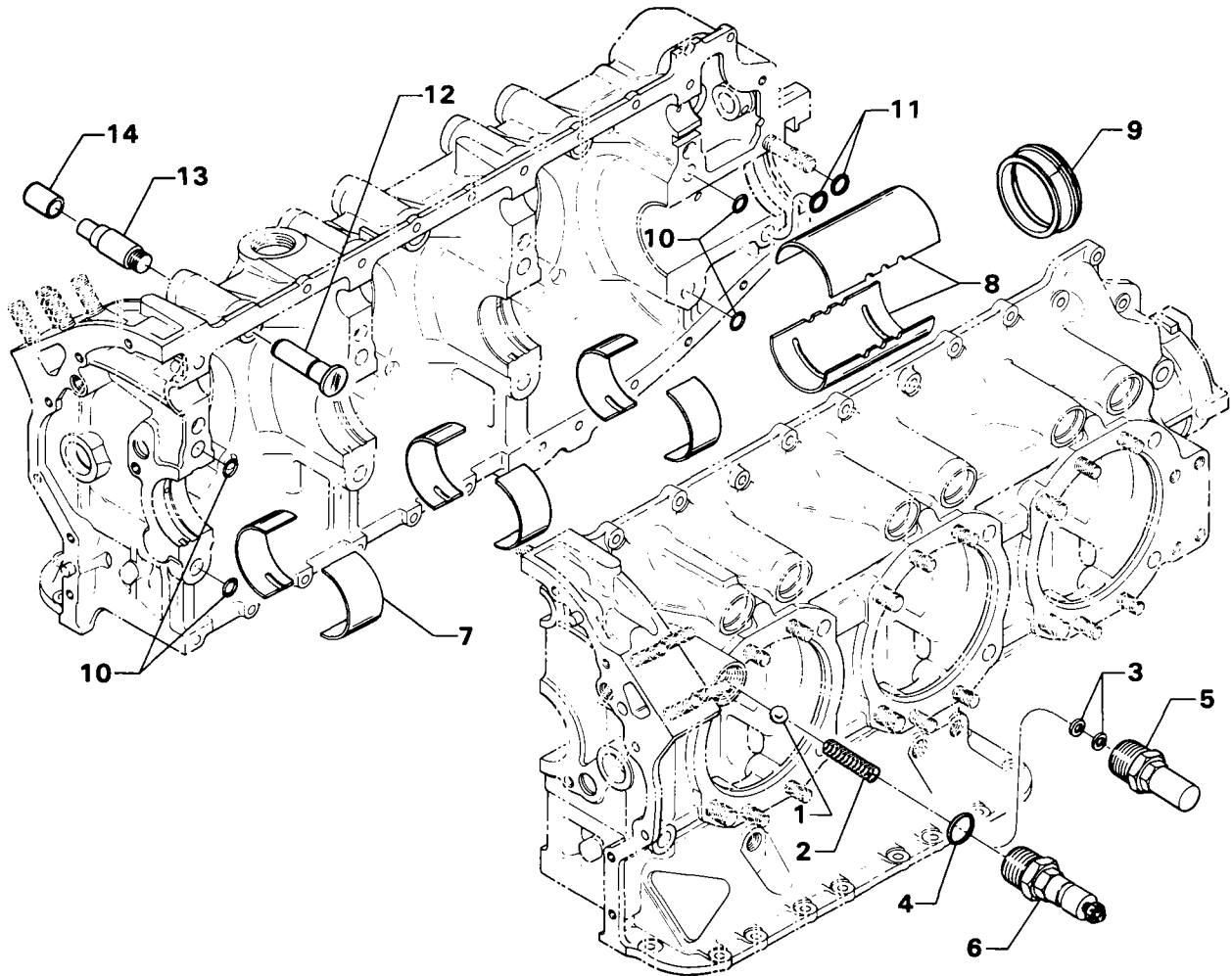


Figure 3. CRANKCASE RELATED PARTS

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

CRANKSHAFT AND RELATED PARTS

FIG. REF. 4	PART NUMBER	DESCRIPTION	O N A L	QUANTITY PER ASSEMBLY															
				A	B	B	C	C	C	D	E	E	G	G	G	G	G	G	
				1	1	1	1	4	4	4	1	1	1	1	1	1	1	1	
1	13E17674	CRANKSHAFT AND COUNTERWEIGHT ASSEMBLY					1												
	13E17676	CRANKSHAFT AND COUNTERWEIGHT ASSEMBLY						1	1	1									
	13E17678	CRANKSHAFT AND COUNTERWEIGHT ASSEMBLY													1				
	13E17679	CRANKSHAFT AND COUNTERWEIGHT ASSEMBLY		1	1	1					1	1	1	1	1	1			
2	13E17648	CRANKSHAFT AND PLUG ASSEMBLY					1	1	1	1									
	13E17649	CRANKSHAFT AND PLUG ASSEMBLY													1				
	13E17650	CRANKSHAFT AND PLUG ASSEMBLY		1	1	1					1	1	1	1	1	1			
3	STD-1211	PLUG, 2.00 dia. expansion	1																
4	73810*	BUSHING, Crankshaft dynamic counterweight	4																
5	71640	PLUG, 1-3/8 diameter	1																
6	72062	BUSHING, Propeller flange, long	4																
7	72061	BUSHING, Propeller flange, short	1																
8	72060	BUSHING, Propeller flange, indexing					1	1	1	1									
9	72074	BUSHING, Propeller flange, indexing		1	1	1				1	1	1	1	1	1	1			
10	STD-1065	DOWEL, Stepped, 5/16 x 1/4 dia. x 35/64 long	1																
11	LW-19225★	COUNTERWEIGHT ASSEMBLY					2												
	LW-19227★	COUNTERWEIGHT ASSEMBLY		2	2	2		2	2	2	2	2	2	2	2	2			
12	71903**	BUSHING, Dynamic counterweight	8																
13	70416★	ROLLER, Dynamic counterweight, 6th order					2												
	72797★	ROLLER, Dynamic counterweight, 6.3 order		2	2	2		2	2	2	2	2	2	2	2	2			
14	72022★	ROLLER, Dynamic counterweight, 5.1 order					2												
	72965★	ROLLER, Dynamic counterweight, 5.1 order		2	2	2		2	2	2	2	2	2	2	2	2			
15	LW-14820	RING, Internal retaining	8																
16	71907	WASHER, Dynamic counterweight	8																
17	13S19647●	GEAR, Crankshaft	1																
	13S19648●	GEAR, Crankshaft								1	1								
18	LW-18638	LOCKPLATE, Crankshaft gear	1																
19	STD-2209	BOLT, 5/16-24 x 1-3/4 long, hex. hd.	1																
20	72245‡	SUPPORT ASSY., Starter ring gear, 12/14 pitch		1	1	1				1		1							
	74329■	SUPPORT ASSY., Starter ring gear, 12/14 pitch		1								1							
	75030§	SUPPORT ASSY., Starter ring gear, 12/14 pitch					1	1		1	1	1	1	1	1	1			
	75221▶	SUPPORT ASSY., Starter ring gear, 12/14 pitch									1								
	77378◀	SUPPORT ASSY., Starter ring gear, 12/14 pitch					1												
	77579#	SUPPORT ASSY., Starter ring gear, 12/14 pitch		1		1	1	1		1	1		1	1	1				
	78446■	SUPPORT ASSY., Starter ring gear, 12/14 pitch		1															
	78771◀	SUPPORT ASSY., Starter ring gear, 12/14 pitch					1												
	LW-11151☆	SUPPORT ASSY., Starter ring gear, 12/14 pitch									1								
	LW-16064●●	SUPPORT ASSY., Starter ring gear, 12/14 pitch		1		1	1		1										
21	72566	GEAR, Starter ring, 12/14 pitch	1																

* See latest edition of Lycoming Service Instruction No. 1142 for application.
 ** See latest edition of Lycoming Service Instruction No. 1143 for application.
 ★ See latest edition of Lycoming Service Instruction No. 1012 for application.
 ● See latest edition of Lycoming Service Bulletin No. 475 for application.
 ‡ Provision for 2.50:1 drive.
 ■ Provision for 3.25:1 drive for alternator w/ de-icer holes for 3 bladed propeller.
 § Provision for 3.25:1 drive for alternator w/ de-icing.

- ▶ Provision for 2.50:1 drive for alternator w/ de-icing.
- ▲ Provision for 3.25:1 drive for alternator w/ electric de-icing.
- # Provision for 3.25:1 drive for alternator, no de-icing.
- ☆ Provision for 3.25:1 drive with 3 point liquid de-icing.
- Provision for 1.91:1 drive.

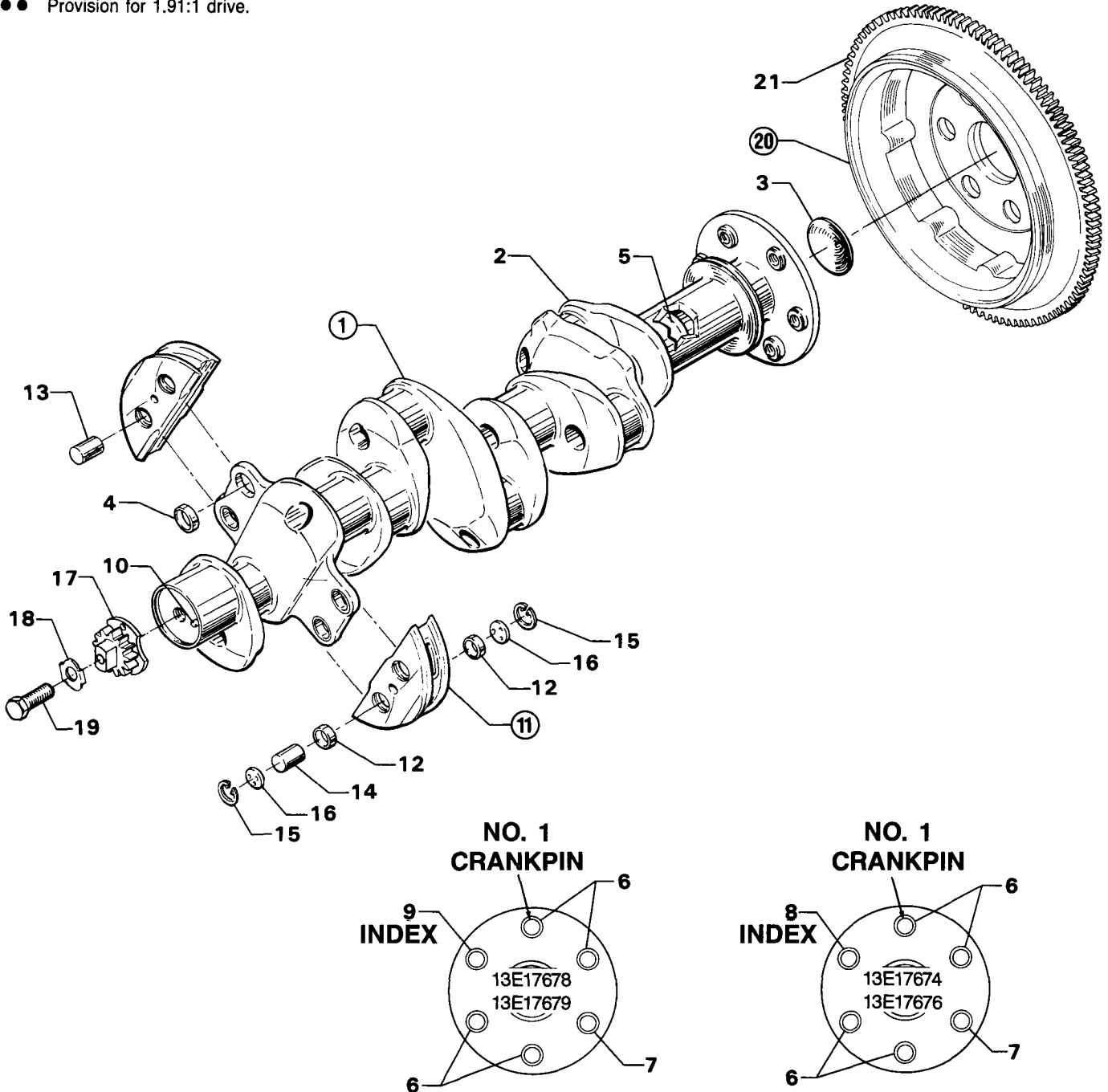
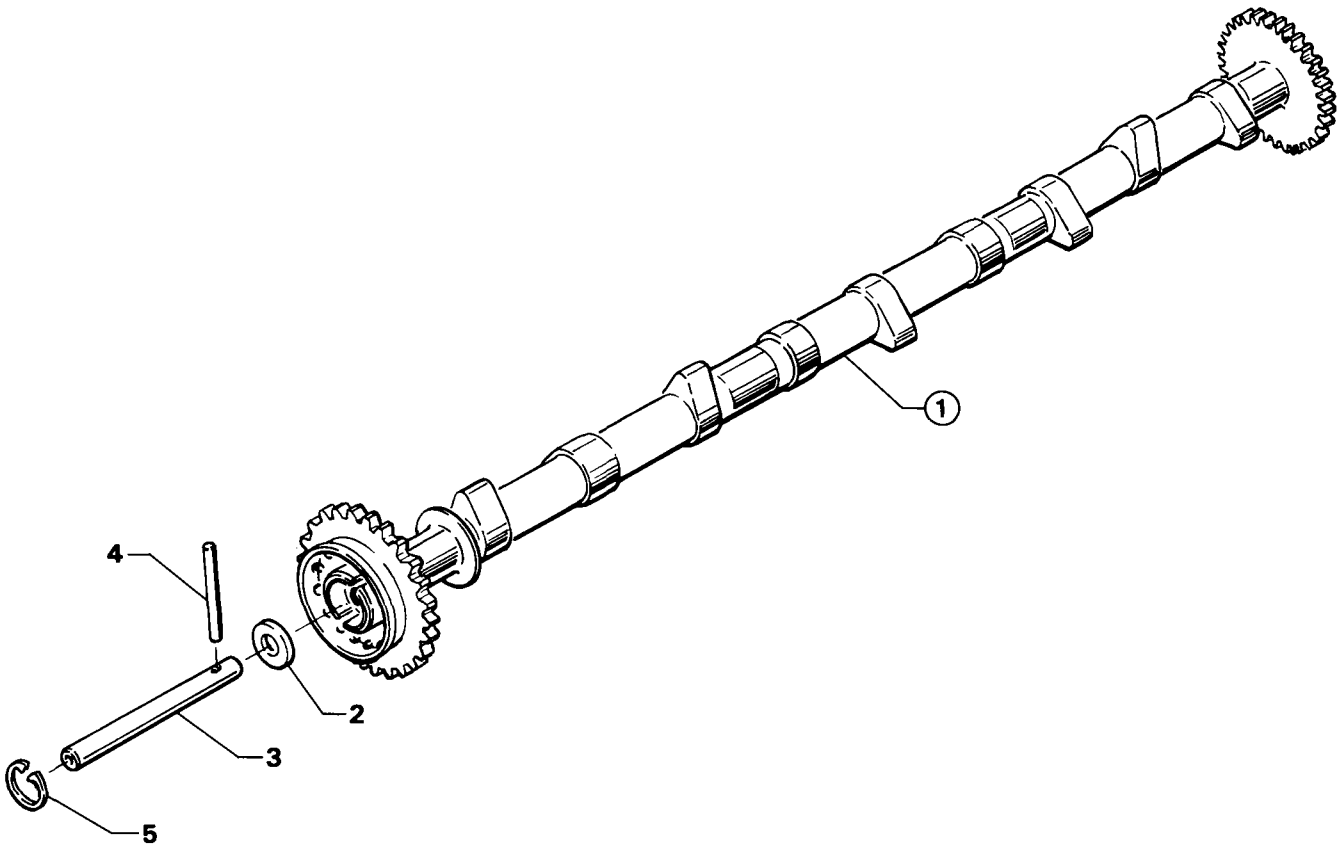


Figure 4. CRANKSHAFT AND RELATED PARTS

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

CAMSHAFT AND RELATED PARTS

FIG. REF. 5	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY														
				A	B	B	C	C	C	D	E	E	G	G	G	G	G	G
				1	1	1	1	4	4	4	1	1	1	1	1	1	1	1
1	LW-19340	CAMSHAFT ASSEMBLY	1															
2	76118	SPACER, Tachometer shaft centering	1															
3	76155	SHAFT ASSEMBLY, Tachometer	1															
4	LW-18667	PIN, 3/16 dia. x 2-21/64 long	1															
5	STD-2231	RING, Internal retaining	1															



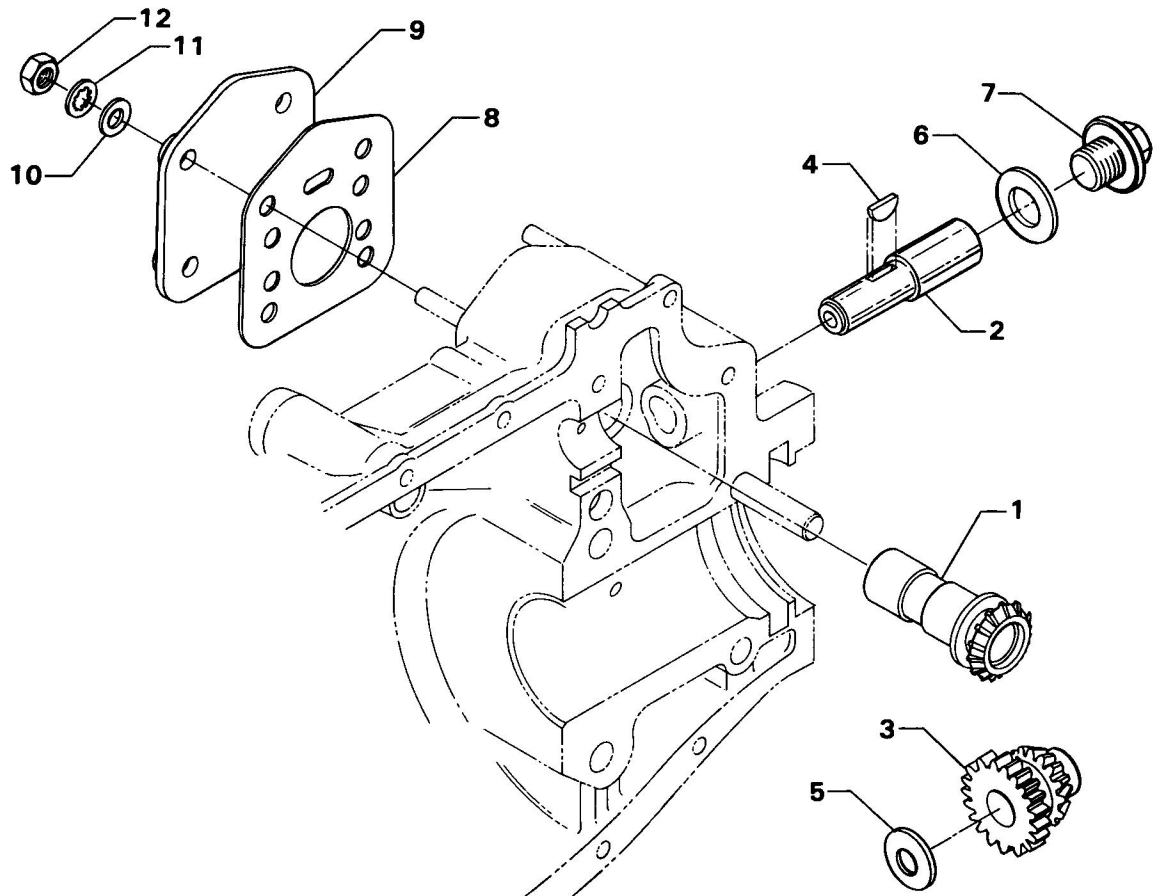
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Figure 5. CAMSHAFT AND RELATED PARTS

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

PROPELLER GOVERNOR DRIVE ASSEMBLY

FIG. REF. 6	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY												
				A 1	B 1	B 1	C 1	C 4	C 4	D 4	E 1	E 1	G 1	G 1	G 1	G 1
1	70389	GEAR, Propeller governor driven	1													
2	70384	SHAFT, Propeller governor idler gear	1													
3	70388	GEAR, Propeller governor idler	1													
4	STD-737	KEY, 3/32 x 1/2, Woodruff	1													
5	73249	WASHER, Thrust	AR													
	73250	WASHER, Thrust	AR													
	73251	WASHER, Thrust	AR													
	73252	WASHER, Thrust	AR													
	01L21418	WASHER, Thrust	AR													
6	70455	GASKET, 25/32 I.D. x 1-1/8 O.D. x 1/32 to 3/64 thick	1													
7	LW-13896	PLUG, 3/4-16 hex. head	1													
8	72053	GASKET, Governor	1													
9	72378	COVER, Governor drive	1													
10	STD-35	WASHER, 5/16 plain (Woodward governor)		20	20	20	20	20	20	20	20	20	20	20	20	20
	STD-35	WASHER, 5/16 plain (AN governor)		4	4	4	4	4	4	4	4	4	4	4	4	4
11	STD-475	WASHER, 5/16 lock, internal teeth	4													
12	STD-1410	NUT, 5/16-18 plain	4													



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Figure 6. PROPELLER GOVERNOR DRIVE ASSEMBLY

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP

CRANKSHAFT AND FUEL PUMP IDLER GEARS

FIG. REF. 7	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY														
				A 1 A 5	B 1 A 5	B 1 C 5	C 1 B 5	C 4 B 5	C 4 C 5	D 4 A 5	E 1 A 5	E 1 B 5	G 1 A 5	G 1 B 5	G 1 C 5	G 1 D 5	G 1 E 5	G 1 F 5
1	71652	GEAR ASSY., Crankshaft idler					1	1	1									
2	67530	BUSHING, Crankshaft idler gear				1	1	1										
3	71668	GEAR ASSY., Crankshaft idler, plain				1	1	1										
4	67530	BUSHING, Crankshaft idler gear				1	1	1										
5	61544	PLUNGER, Fuel pump, long				1	1	1										
6	71668	GEAR ASSY., Crankshaft idler, plain											1					
	71668	GEAR ASSY., Crankshaft idler, plain		2	2	2			2	2	2	2	2	2	2	2		
7	67530	BUSHING, Crankshaft idler gear											1					
	67530	BUSHING, Crankshaft idler gear		2	2	2			2	2	2	2	2	2	2	2		
8	76737 *	GEAR ASSY., Crankshaft idler, plain											1					
9	67530	BUSHING, Crankshaft idler gear											1					
10	LW-13795	SHAFT, Crankshaft idler gear	2															
11	STD-2167	SCREW, 5/16-18 x 7/8 long, hex. hd.	4															
12	71664	GEAR ASSY., Fuel pump, idler		1	1	1			1	1	1	1	1	1	1	1		
13	77309	BUSHING, Fuel pump idler gear		1	1	1			1	1	1	1	1	1	1	1		
14	72246	SHAFT, Fuel pump idler gear		1	1	1			1	1	1	1	1	1	1	1		
15	70474	WASHER, Fuel pump gear thrust		1	1	1			1	1	1	1	1	1	1	1		
16	STD-1737	RING, 37/64 dia. x 1/32 thick, external retaining		1	1	1			1	1	1	1	1	1	1	1		
17	71667	LOCKPLATE, 1/4 bolt x 1-3/4 spacing		1	1	1			1	1	1	1	1	1	1	1		
18	LW-25-0.63	SCREW, 1/4-20 x 5/8 long, hex. hd.		2	2	2			2	2	2	2	2	2	2	2		
19	72972	SHAFTGEAR ASSY., Fuel pump drive		1	1	1			1	1	1	1	1	1	1	1		
20	72962	THRUST BUTTON, Accessory drive gear		1	1	1			1	1	1	1	1	1	1	1		
21	69164	GASKET, Fuel pump adapter		1	1	1			1	1	1	1	1	1	1	1		
22	69159	ADAPTER ASSY., Fuel pump drive		1	1	1			1	1	1	1	1	1	1	1		
23	STD-1774	PIN, 1/8 dia. x 1/4 long		1	1	1			1	1	1	1	1	1	1	1		
24	STD-213	SEAL, Oil, 3/4 I.D. x 1-3/8 O.D.		1	1	1			1	1	1	1	1	1	1	1		

* Idler gear for .48:1 ratio hydraulic pump drive.

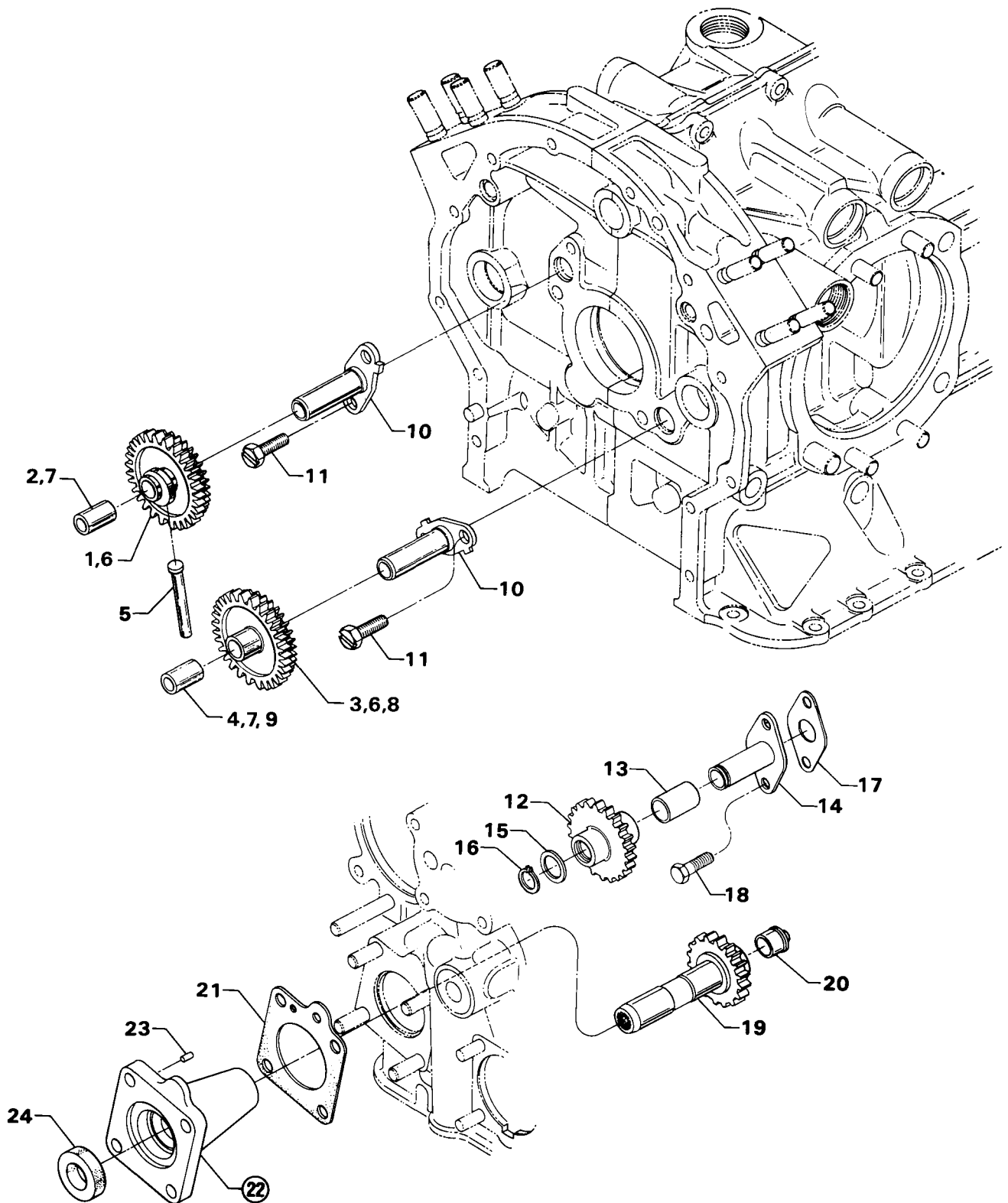
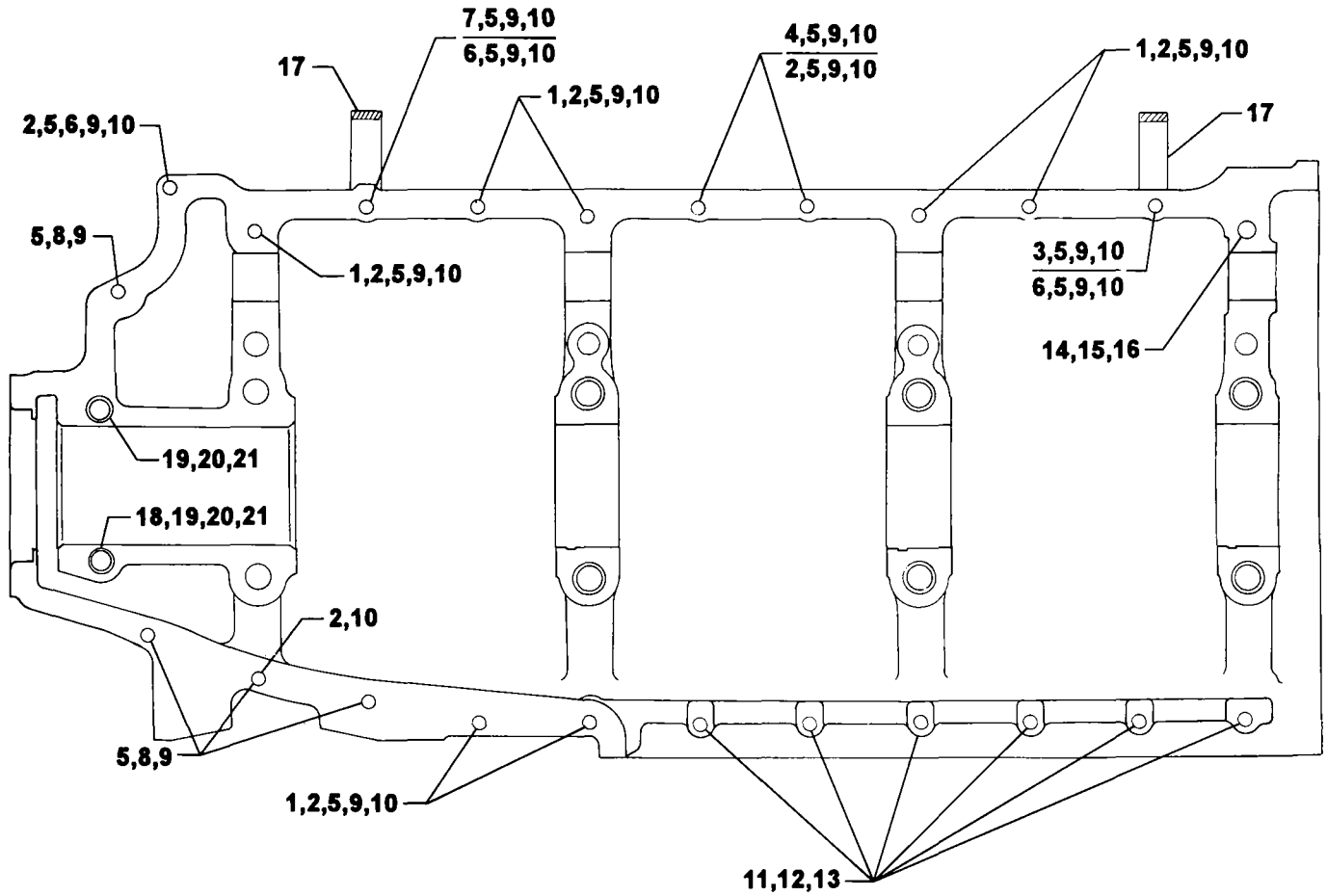


Figure 7. CRANKSHAFT AND FUEL PUMP IDLER GEARS

CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP CRANKCASE ATTACHING PARTS

FIG. REF. 8	PART NUMBER	DESCRIPTION	O N A L	QUANTITY PER ASSEMBLY															
				A 1 5	B 1 5	B 1 5	C 1 5	C 4 5	C 4 5	D 4 5	E 1 5	E 1 5	G 1 5	G 1 5	G 1 5	G 1 5	G 1 5	G 1 5	
1	LW-25-1.50	BOLT, 1/4-20 x 1-1/2 long, hex. hd.	7				7	7	7	7				7	7	7	7	7	7
2	LW-25-1.50	BOLT, 1/4-20 x 1-1/2 long, hex. hd.	11	11	11								11	11					
3	LW-25-1.88 *	BOLT, 1/4-20 x 1-7/8 long, hex. hd.	1				1	1	1	1				1	1	1	1	1	1
4	LW-25-2.00 **	BOLT, 1/4-20 x 2.00 long, hex. hd.	2				2	2	2	2				2	2	2	2	2	2
5	STD-8	WASHER, 1/4 plain	25				25	25	25	25				25	25	25	25	25	25
	STD-8*	WASHER, 1/4 plain	27	27	27								27	27					
6	LW-25-1.75	BOLT, 1/4-20 x 1-3/4 long, hex. hd.	2				2	2	2	2				2	2	2	2	2	2
7	LW-25-1.75	BOLT, 1/4-20 x 1-3/4 long, hex. hd.	1	1	1								1	1					
8	LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. hd.	4																
9	STD-160	WASHER, 1/4 lock, internal teeth	16																
10	STD-1411	NUT, 1/4-20 plain	12																
11	LW-25S1.50	BOLT, 1/4-20 x 1-1/2 long, hex. hd., dr. end	6																
12	STD-8	WASHER, 1/4 plain (max. 18)	AR																
13	STD-1409	NUT, 1/4-20 slotted shear	6																
14	AN6-21	BOLT, 3/8-24 x 2-13/64 long, hex. hd., drilled	1																
15	STD-33	WASHER, 3/8 plain	2																
16	STD-872	NUT, 3/8-24 slotted	1																
17	60803	STRAP, Lifting			1	1	1						1	1					
	60803	STRAP, Lifting	2				2	2	2	2				2	2	2	2	2	2
18	AN6-34A	BOLT, 3/8-24 x 3-37/64 long, hex. hd.	1																
19	STD-33	WASHER, 3/8 plain	3																
20	STD-678	WASHER, 3/8 lock, internal teeth	2																
21	STD-596	NUT, 3/8-24 plain	2																

* Two STD-8 washers and one LW-25-1.88 bolt assembled in rear top hole of crankcase to prevent bending of lifting strap.
** To attach fuel manifold bracket.



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Figure 8. CRANKCASE ATTACHING PARTS

ACCESSORY HOUSING AND RELATED PARTS

ACCESSORY HOUSING ASSEMBLY

FIG. REF. 9	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY													
				A 5	B 5	B 5	C 5	C 5	C 5	D 5	E 5	E 5	G 5	G 5	G 5	G 5	G 5
1	73818	GASKET, Accessory housing	1														
2	21C21540-01	HOUSING ASSY., Accessory					1	1	1								
	21C21541-01	HOUSING ASSY., Accessory		1	1	1			1	1	1	1			1	1	1
	21C21541-02	HOUSING ASSY., Accessory								1		1	1	1			
	21C21538-02*	HOUSING ASSY., Accessory							1	1							
3	31C-12	STUD, 5/16-18 x 1-1/2 long	4														
4	31CD-17	STUD, 5/16-18 x 2-1/8 long, drilled	3														
5	31CD-20 *	STUD, 5/16-18 x 2-1/2 long, drilled							3	3							
6	31C-21	STUD, 5/16-18 x 2-5/8 long	4														
7	31C-19	STUD, 5/16-18 x 2-3/8 long		4	4	4		4	4	4	4	4	4	4	4	4	4
8	25C-21	STUD, 1/4-20 x 2-5/8 long	4														
9	STD-784	PLUG, 3/8 pipe, Allen head	1														
10	1102	PLUG, 1/8-27 NPT, Allen head	2														
	1102	PLUG, 1/8-27 NPT, Allen head							3	3							

* This accessory housing employs longer studs, P/N 31CD-20, for large oil pump.

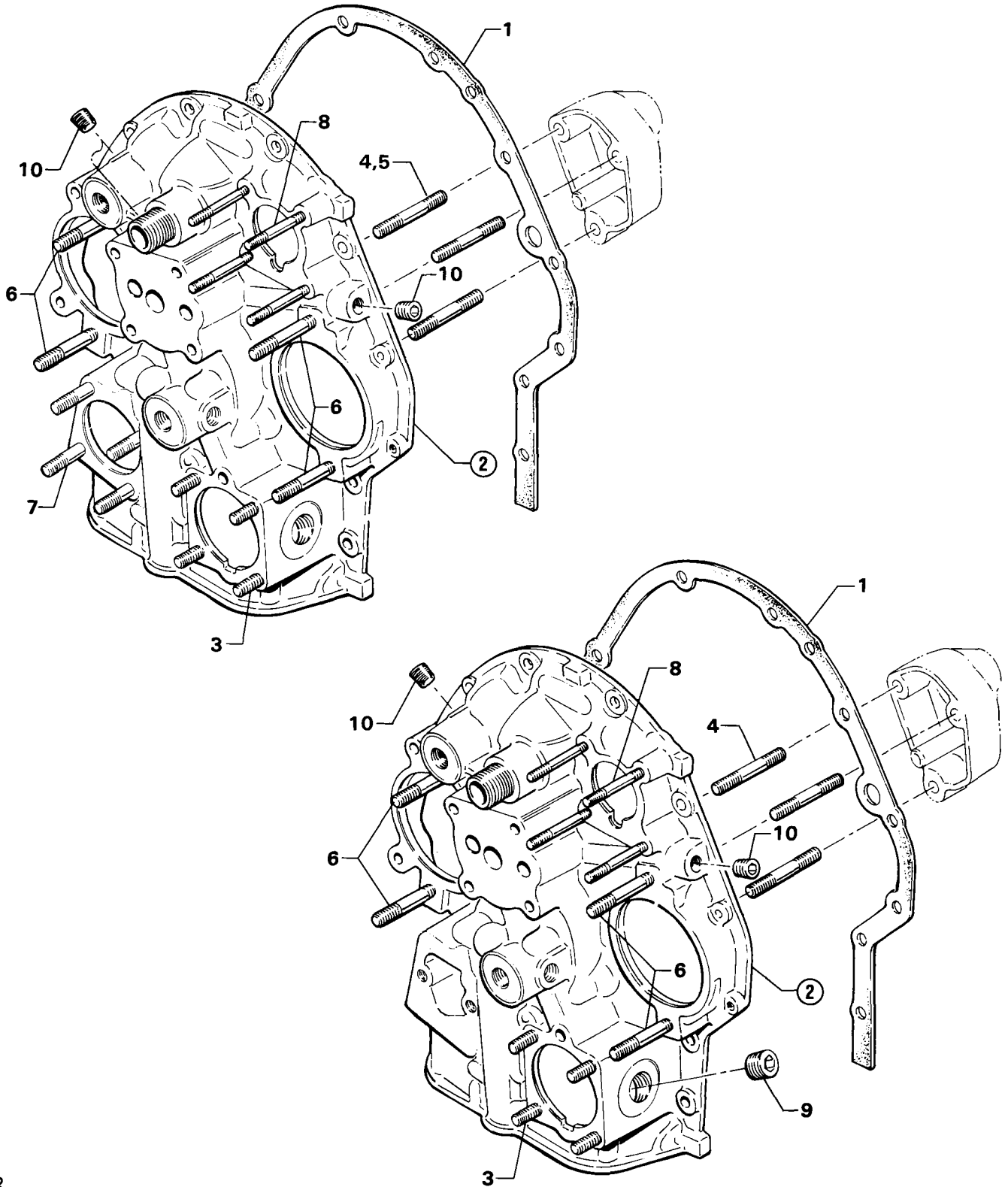


Figure 9. ACCESSORY HOUSING ASSEMBLY

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

FIG. REF. 10	PART NUMBER	DESCRIPTION	O N A L	QUANTITY PER ASSEMBLY													
				A 5	B 5	B 5	C 5	C 5	C 5	D 5	E 5	E 5	G 5	G 5	G 5	G 5	G 5
1	78531	BODY, Oil pump					1	1		1							
2	78528	BODY ASSY., Oil pump		1	1	1			1		1	1	1	1	1	1	1
3	STD-1339	PLUG, 1/16-27 NPT, Allen head		1	1	1			1		1	1	1	1	1	1	1
4	75287	BODY ASSY., Oil pump									1	1					
5	60329	SHAFT, Oil pump idler									1	1					
6	STD-714	PIN, 1/8 dia. x 1.00 long, cotter									1	1					
7	STD-1339	PLUG, 1/16-27 NPT, Allen head									1	1					
8	05K19423-S*,**	OIL PUMP IMPELLER KIT	1														
9	74641**	SHAFT, Oil pump drive	1														
10	76784*	SHAFT, Oil pump drive									1	1					
11	61297*	IMPELLER, Oil pump driving									1	1					
12	61298*	IMPELLER, Oil pump driven									1	1					
13	STD-35	WASHER, 5/16 plain	3														
14	STD-1420	NUT, 5/16-18 slotted	3														
15	LW-14260	SEAL, Tachometer drive, oil	1														
16	STD-8	WASHER, 1/4 plain	10														
17	STD-160	WASHER, 1/4 lock, internal teeth	12														
18	LW-25-0.94	BOLT, 1/4-20 x 15/16 long, hex. hd.	9														
19	LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. hd.	1														
20	LW-25-1.88	BOLT, 1/4-20 x 1-7/8 long, hex. hd.	2														

* Refer to the latest edition of Lycoming Service Bulletin No. 456.

** E1A5, E1B5 - Use with P/N 78528 Body Assy.

* E1A5, E1B5 - Use with P/N 75287 Body Assy.

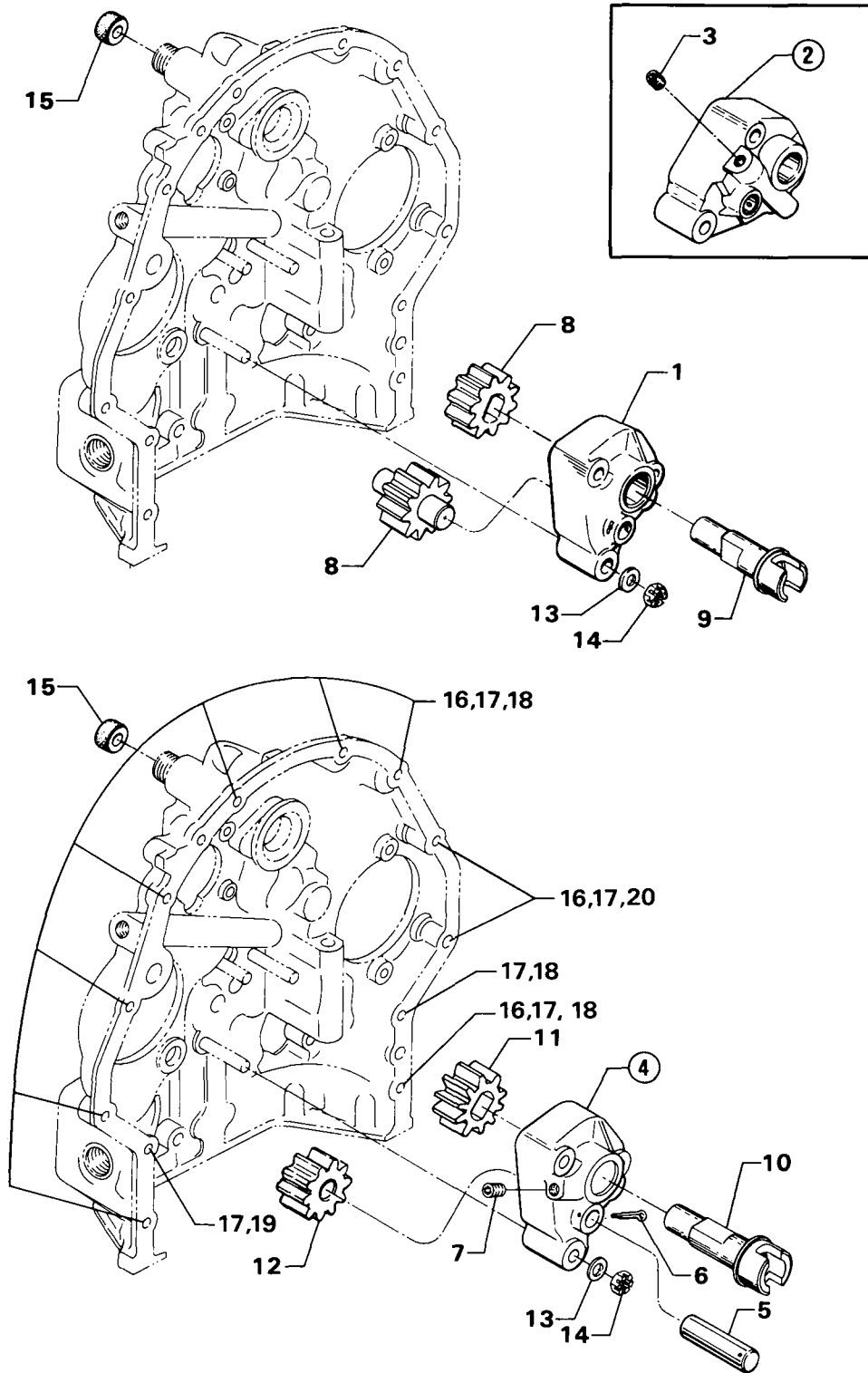
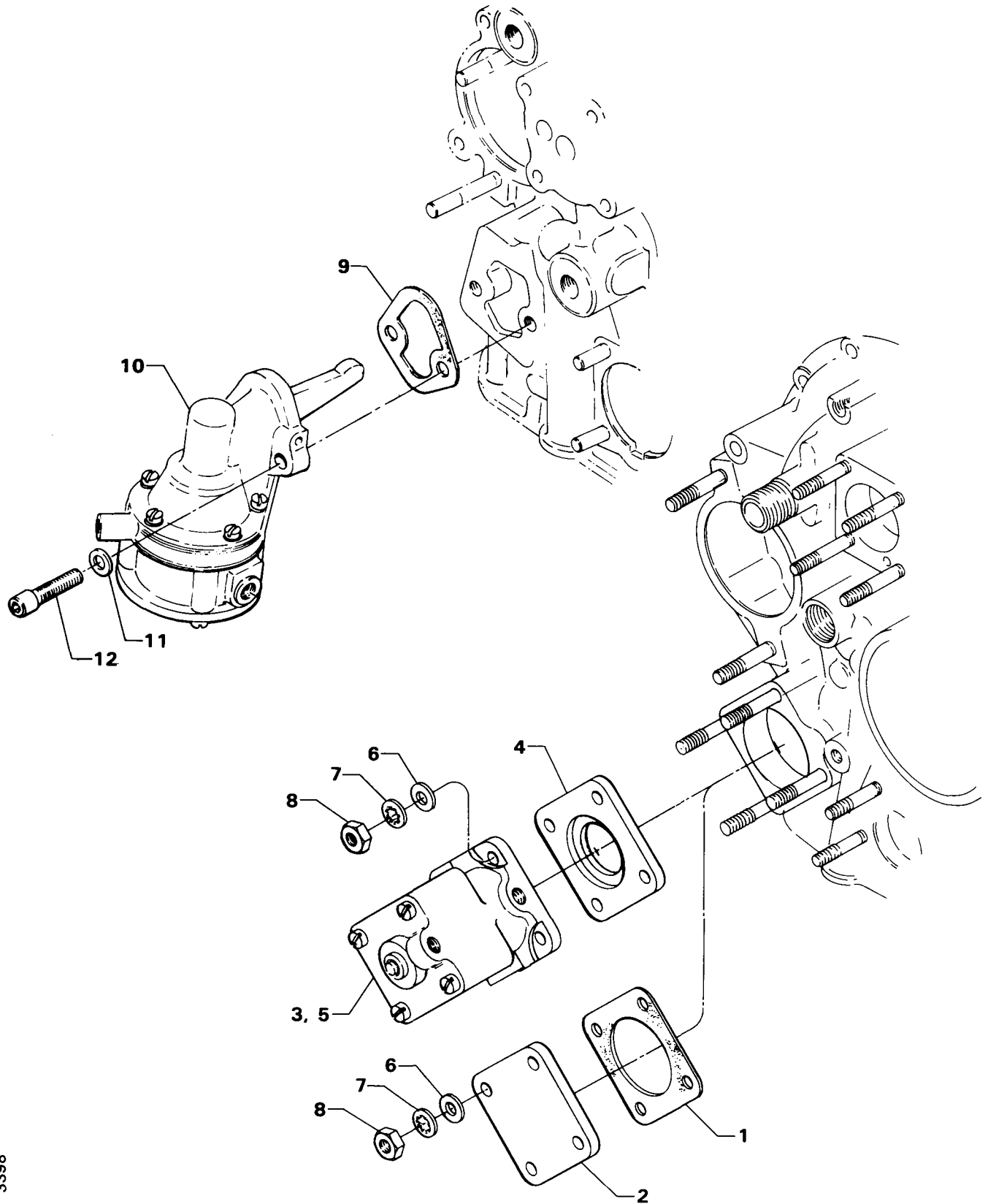


Figure 10. OIL PUMP ASSEMBLY AND ACCESSORY HOUSING ATTACHING PARTS

ACCESSORY HOUSING AND RELATED PARTS FUEL PUMP ASSEMBLY

FIG. REF. 11	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY														
				A	B	B	C	C	C	D	E	E	G	G	G	G	G	G
				1	1	1	1	4	4	4	1	1	1	1	1	1	1	1
1	1691-C	GASKET, Fuel pump		1	1	1			1		1	1	1	1		1	1	1
2	60431	COVER, Fuel pump		1	1	1			1		1	1	1	1			1	1
3	74547	FUEL PUMP (RG-17980)											1	1		1		
4	LW-10799	SPACER, Fuel pump, insulating										1		1	1	1		
5	78993	FUEL PUMP (RG-17980-J)												1		1		
	76486	FUEL PUMP (RG-17980-D)											1			1		
6	STD-35	WASHER, 5/16 plain		4	4	4			4		4	4	4	4	4	4	4	4
7	STD-475	WASHER, 5/16 lock, internal teeth		4	4	4			4		4	4	4	4	4	4	4	4
8	STD-1410	NUT, 5/16-18 plain		4	4	4			4		4	4	4	4	4	4	4	4
9	60096	GASKET, Fuel pump					1	1	1									
10	LW-15472	FUEL PUMP (6441271)							1									
	LW-15473	FUEL PUMP (6441234)					1	1	1									
11	STD-33	WASHER, 3/8 plain					2	2	2									
12	STD-1882	SCREW, 3/8-16 x 1-9/32 long, socket hd., dr. hd.					2	2	2									



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Figure 11. FUEL PUMP ASSEMBLY

ACCESSORY HOUSING AND RELATED PARTS OIL PRESSURE SCREEN, OIL FILTER AND OIL COOLER BYPASS VALVE

FIG. REF. 12	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY														
				A 1 5	B 1 5	B 1 5	C 1 5	C 4 5	C 4 5	D 4 5	E 1 5	E 1 5	G 1 5	G 1 5	G 1 5	G 1 5	G 1 5	G 1 5
1	62817	SCREEN ASSY., Oil pressure		1	1	1	1	1	1	1	1	1	1	1	1	1		
2	61173	GASKET, Oil pressure housing		1	1	1	1	1	1	1	1	1	1	1	1	1		
3	69510	HOUSING, Thermostatic valve & oil pressure screen		1	1	1	1	1	1	1	1	1	1	1	1	1		
4	STD-8	WASHER, 1/4 plain		4	4	4	4	4	4	4	4	4	4	4	4	4		
5	STD-1856	SCREW, 1/4-20 x 1.00 long, hex. hd., slotted		4	4	4	4	4	4	4	4	4	4	4	4	4		
6	06E19769-0.63	GASKET, 7/8 O.D. x 5/8 I.D. x 3/32 annular		1	1	1	1	1	1	1	1	1	1	1	1	1		
7	53E19600	VALVE ASSY., Temp. control, oil cooler bypass		1	1	1	1	1	1	1	1	1	1	1	1	1		
8	76510	GASKET, Valve assembly		1	1	1	1	1	1	1	1	1	1	1	1	1		
9	LW-12795	GASKET, Oil filter adapter		2			2	2		2		2	2	2	2		2	2
10	77853 *	HOUSING ASSY., Oil filter		1			1	1		1		1	1	1	1		1	1
11	77852	BASE ASSY., Oil filter		1			1	1		1		1	1	1	1		1	1
12	STD-8	WASHER, 1/4 plain		4			4	4		4		4	4	4	4		4	4
13	STD-160	WASHER, 1/4 lock, internal teeth		1			1	1		1		1	1	1	1		1	1
14	STD-1411	NUT, 1/4-20 plain		1			1	1		1		1	1	1	1		1	1
15	STD-1856	SCREW, 1/4-20 x 1.00 long, hex. hd.		3			3	3		3		3	3	3	3		3	3
16	53E19600	VALVE ASSY., Temp. control, oil cooler bypass		1			1	1		1		1	1	1	1		1	1
17	76510	GASKET, Valve assembly		1			1	1		1		1	1	1	1		1	1
18	25C-10	STUD, 1/4-20 x 1-1/4 long		1			1	1		1		1	1	1	1		1	1
19	54D19625 **	OIL FILTER, (short w/ stud)		1			1	1		1		1	1	1	1		1	1

* This complete Oil Filter Housing Assembly is no longer available. Lycoming will continue to supply a Filter Element Kit P/N LW-14089 which includes (1) element, (1) square gasket, (1) copper gasket and (1) flat gasket.

** Refer to the latest edition of Lycoming SSP-885 for oil filter kits and replacement filters.

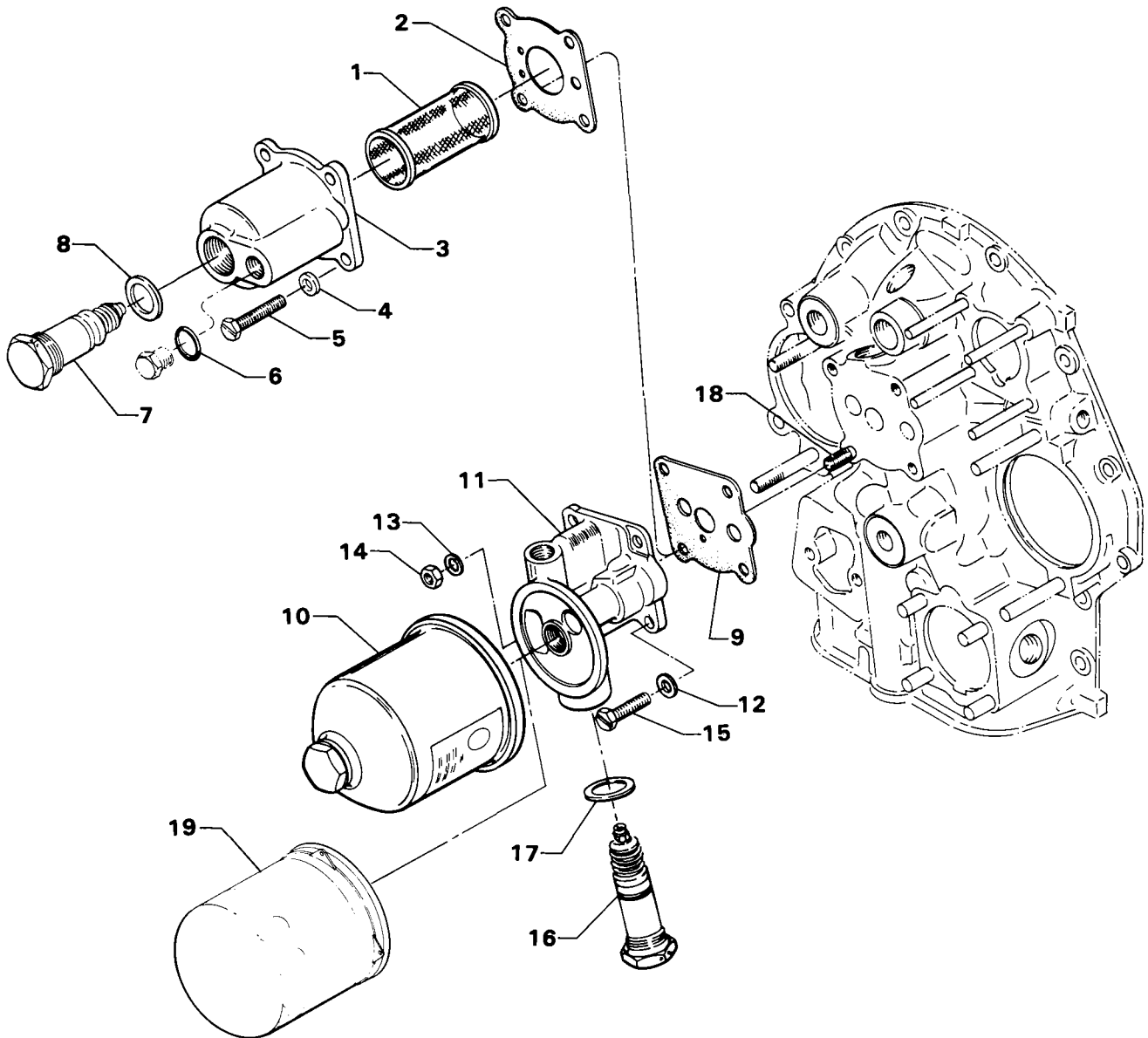
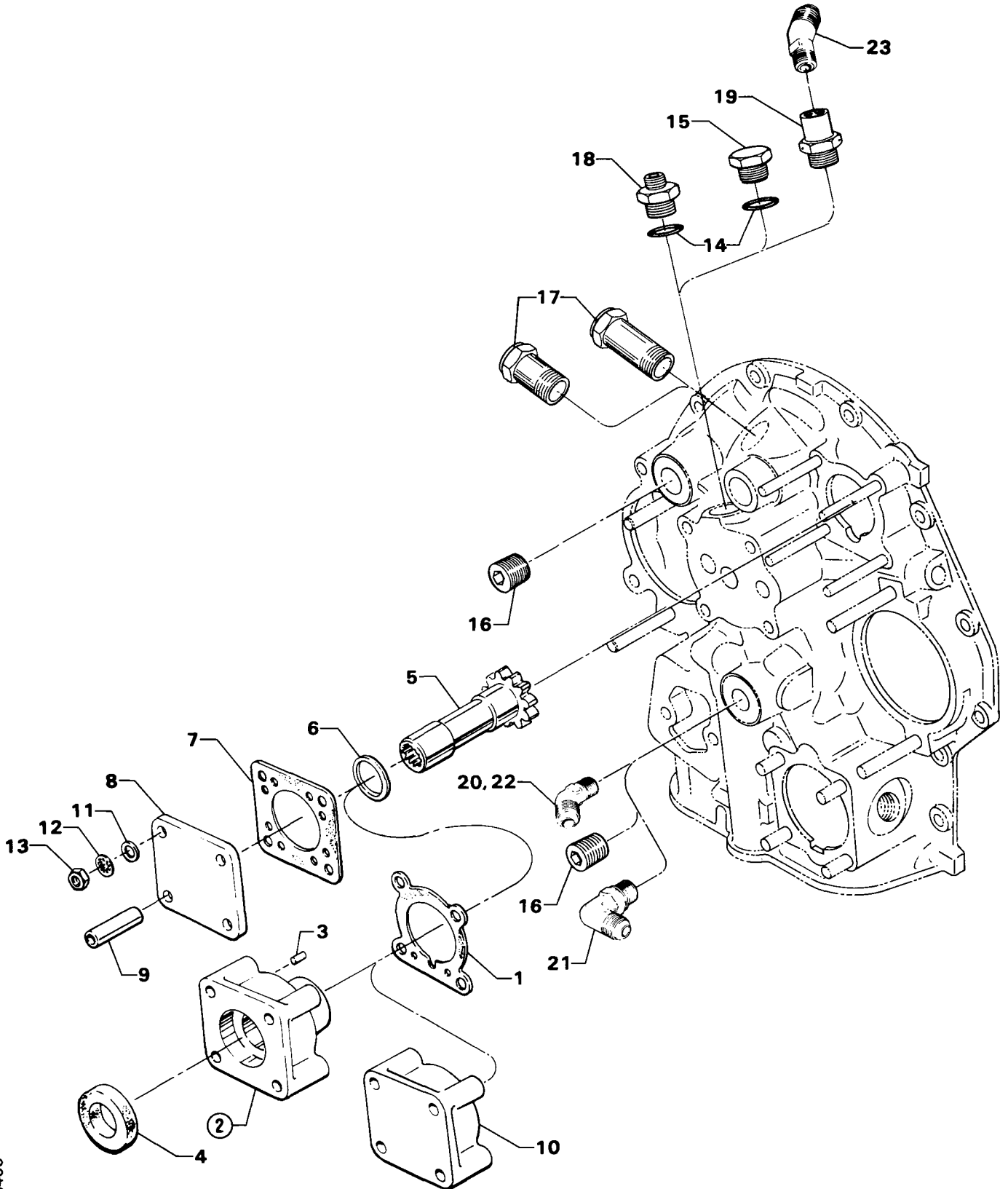


Figure 12. OIL PRESSURE SCREEN, OIL FILTER AND OIL COOLER BYPASS VALVE

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

FIG. REF. 13	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY														
				A	B	B	C	C	C	D	E	E	G	G	G	G	G	G
				1	1	1	1	4	4	4	1	1	1	1	1	1	1	1
1	61183	GASKET, Accessory adapter	1															
2	67536	ADAPTER ASSY., Vacuum pump	1															
3	STD-1774	DOWEL, 1/8 dia. x 1/4 long	1															
4	06A19956	OIL SEAL, 7/8 I.D. x 1-1/2 O.D. x 5/16 wide	1															
5	72974	GEAR ASSY., Vacuum pump driven	1															
6	71596	WASHER, Accessory driven gear	1															
7	8313	GASKET, Vacuum pump	1															
8	60430	COVER, Vacuum pump	1															
9	68593	SPACER, Vacuum pump stud											4	4	4			
10	79017	SPACER, Vacuum pump pad											1					
11	STD-8	WASHER, 1/4 plain	4															
12	STD-160	WASHER, 1/4 lock, internal teeth	4															
13	STD-1411	NUT, 1/4-20 plain	4															
14	06E19769-0.63	GASKET, 7/8 O.D. x 5/8 I.D. x 3/32 annular	1															
15	62417	PLUG, Oil cooler bypass		1	1	1	1	1		1	1	1	1	1		1		
16	STD-784	PLUG, 3/8-18 NPT, Allen head		2	2	2	2	2	2	2	2	2	2	2	2	2		
17	71651	FITTING, Breather		1			1	1	1	1		1	1	1	1	1		
	72996	FITTING, Breather (short)		1	1	1					1	1	1			1		
18	69675	CONNECTOR, Acc. hsg. to oil cooler inlet hose					1	1	1	1		1	1	1	1	1		
19	71600	ADAPTER, Oil cooler connection					1	1	1									
20	78948	ELBOW, 45°					1	1	1									
21	MS20822-8	ELBOW, 1/2 flared tube, 3/8 NPT, 90°												1				
22	MS20823-8	ELBOW, 1/2 flared tube, 3/8 NPT, 45°												1				
23	AN844-16D	ELBOW, 3/4 pipe thd. - 1.00 hose, 45°												1				



3400

Figure 13. VACUUM PUMP DRIVE, OIL COOLER AND BREATHER FITTINGS

ACCESSORY HOUSING AND RELATED PARTS HYDRAULIC PUMP DRIVE, ADAPTER AND COVERS

FIG. REF. 14	PART NUMBER	DESCRIPTION	O N A L	QUANTITY PER ASSEMBLY													
				A 5	B A 5	B C 5	C B 5	C B 5	C C 5	D A 5	E A 5	E A 5	G A 5	G B 5	G C 5	G D 5	G E 5
1	72964	GEAR ASSY., Hydraulic pump driven		1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	71596	WASHER, Accessory driven gear		1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	76743*	GEAR ASSY., Hydraulic pump drive													1		
4	68315	GASKET, Accessory drive adapter		1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	71675	ADAPTER ASSY., Hydraulic pump		1	1	1	1	1	1	1	1	1	1	1	1	1	1
	76713*	ADAPTER ASSY., Hydraulic pump													1		
6	06A19956	SEAL, Oil, 7/8 I.D. x 1-1/2 O.D. x 5/16 wide		1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	25C-12	STUD, 1/4-20 x 1-1/2 long		4	4	4	4	4	4	4	4	4	4	4	4	4	4
8	STD-1774	PIN, 1/8 dia. x 1/4 long		1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	STD-35	WASHER, 5/16 plain		4	4	4	4	4	4	4	4	4	4	4	4	4	4
10	STD-475	WASHER, 5/16 lock, internal teeth		4	4	4	4	4	4	4	4	4	4	4	4	4	4
11	STD-1410	NUT, 5/16-18 plain		4	4	4	4	4	4	4	4	4	4	4	4	4	4
12	8313	GASKET, Hydraulic pump		1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	60430	COVER, Hydraulic pump		1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	STD-8	WASHER, 1/4 plain		4	4	4	4	4	4	4	4	4	4	4	4	4	4
15	STD-160	WASHER, 1/4 lock, internal teeth		4	4	4	4	4	4	4	4	4	4	4	4	4	4
16	STD-1411	NUT, 1/4-20 plain		4	4	4	4	4	4	4	4	4	4	4	4	4	4
17	69551	GASKET, Hydraulic pump adapter pad		1		1	1	1	1	1	1	1	1	1	1		
18	69106	COVER, Hydraulic pump adapter pad		1		1	1	1	1	1	1	1	1	1	1		
19	STD-35	WASHER, 5/16 plain		4		4	4	4	4	4	4	4	4	4	4		
20	STD-475	WASHER, 5/16 lock, internal teeth		4		4	4	4	4	4	4	4	4	4	4		
21	STD-1410	NUT, 5/16-18 plain		4		4	4	4	4	4	4	4	4	4	4		

* .48:1 ratio hydraulic pump drive.

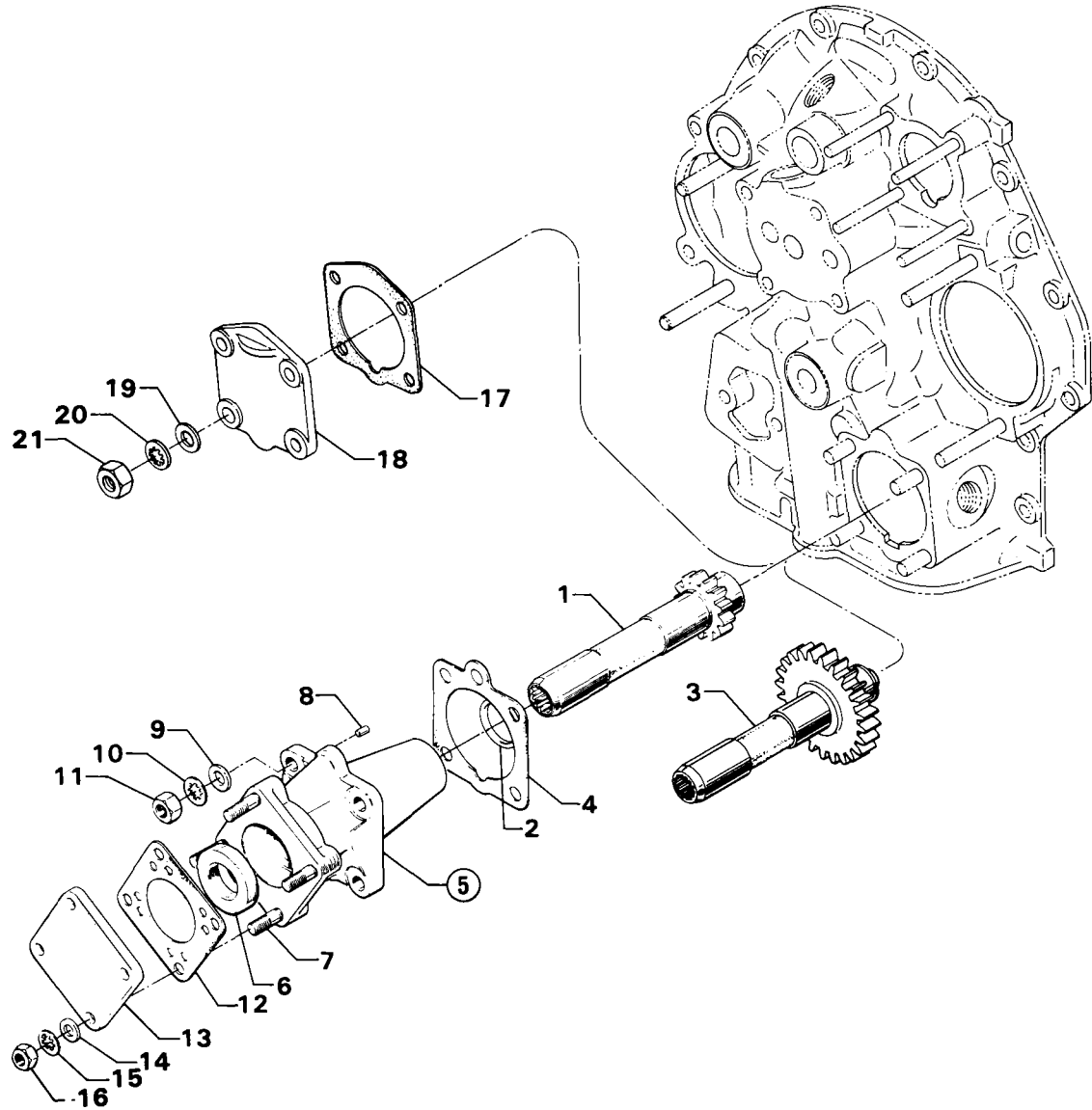
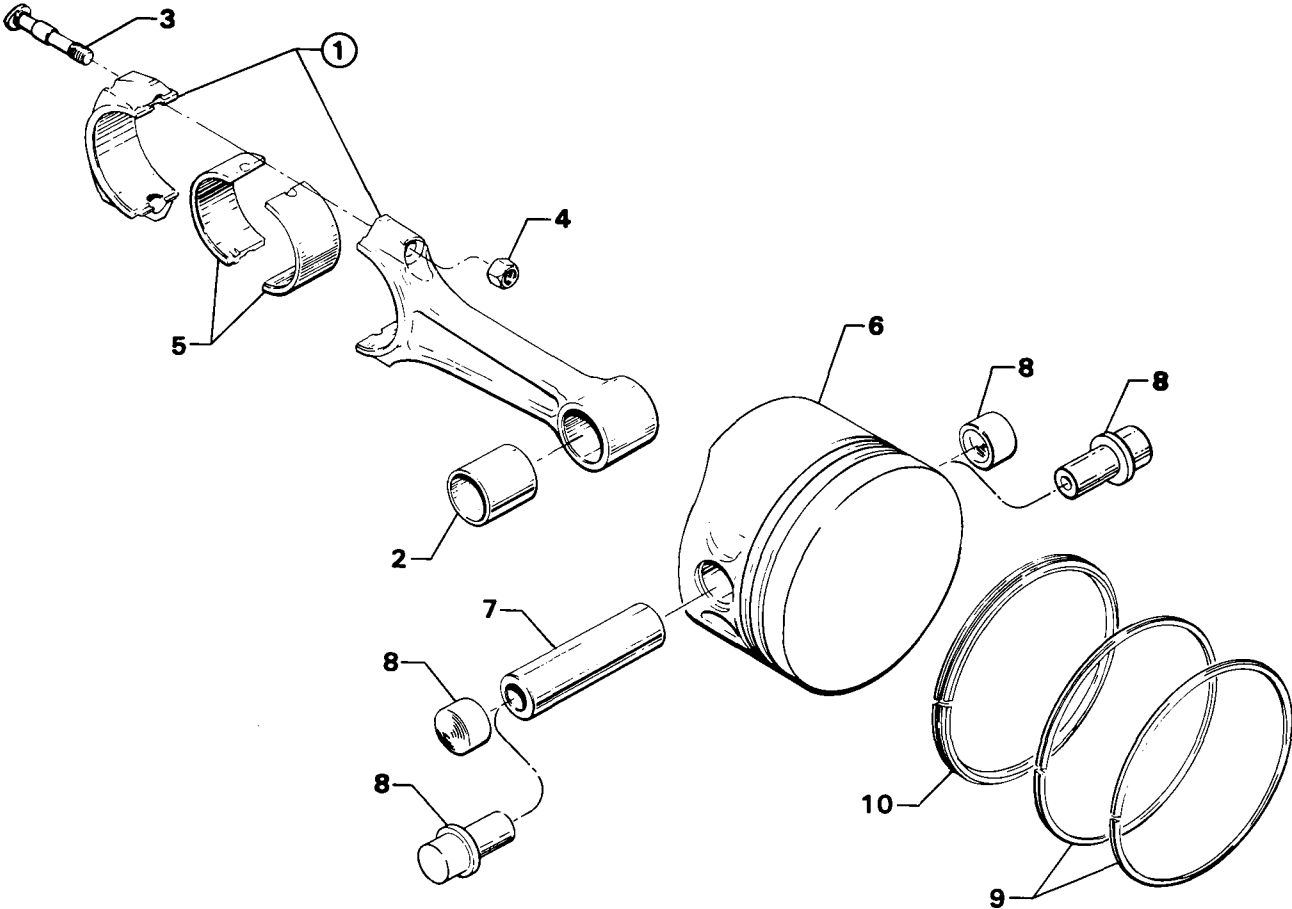


Figure 14. HYDRAULIC PUMP DRIVE, ADAPTER AND COVERS

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

FIG. REF. 15	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY													
				A 1 5	B 1 5	B 1 5	C 1 5	C 4 5	C 4 5	D 4 5	E 1 5	E 1 5	G 1 5	G 1 5	G 1 5	G 1 5	G 1 5
1	LW-11750	CONNECTING ROD ASSEMBLY	6														
2	LW-13923	BUSHING, Connecting rod, upper	6														
3	75061	BOLT, Connecting rod	12														
4	LW-12186	NUT, Connecting rod bolt	12														
5	LW-13521	BEARING, Connecting rod	12														
	LW-16048	BEARING, Connecting rod (alternate)	12														
	LW-13522	BEARING, Connecting rod (alternate)	12														
6	75089	PISTON, Compression ratio 8.50:1					6	6	6	6							
	LW-10207	PISTON, Compression ratio 8.70:1		6	6	6					6	6	6	6	6	6	6
7	LW-14078	PIN, Piston	6														
	LW-14077 *	PIN, Piston	6														
8	60828	PLUG, Piston pin	12														
	LW-11775 *	PLUG, Piston pin	12														
9	74241	RING, Piston, top compression	12														
10	73857	RING, Piston, oil regulator (expander type)	6														

* Piloted piston pin plug. Refer to latest edition of Service Instruction No. 1267.



3402

Figure 15. CONNECTING RODS, PISTONS AND RING ASSEMBLIES

CYLINDER, PISTON AND VALVE TRAIN CYLINDER ASSEMBLY

FIG. REF. 16	PART NUMBER	DESCRIPTION	O N A L L QUANTITY PER ASSEMBLY													
			A 1 A 5	B 1 A 5	B 1 C 5	C 1 B 5	C 4 B 5	C 4 C 5	D 4 A 5	E 1 A 5	E 1 B 5	G 1 A 5	G 1 B 5	G 1 C 5	G 1 D 5	G 1 E 5
1	LW-12425	CYLINDER AND HEAD ASSEMBLY, Nitrided				6	6	6	6							
	LW-13530	CYLINDER AND HEAD ASSEMBLY, Nitrided	6									6	6	6	6	
	LW-13532	CYLINDER AND HEAD ASSEMBLY, Nitrided		6	6					6	6					
	LW-13533	CYLINDER AND HEAD ASSEMBLY, Nitrided								6	6					
	LW-13534	CYLINDER AND HEAD ASSEMBLY, Nitrided										6	6	6	6	6
2	72057	SEAT, Intake valve				6	6	6	6							
	LW-12688	SEAT, Intake valve	6	6	6					6	6	6	6	6	6	6
3	72058	SEAT, Exhaust valve				6	6	6	6							
	16T19468	SEAT, Exhaust valve	6	6	6					6	6	6	6	6	6	6
4	61681 *	GUIDE, Intake valve, flanged				6	6	6	6							
	66713 *	GUIDE, Intake valve, flanged	6	6	6					6	6	6	6	6	6	6
5	74230 **	GUIDE, Exhaust valve, flanged				6	6	6	6							
	75838 **	GUIDE, Exhaust valve, flanged	6	6	6					6	6	6	6	6	6	6
6	66796	INSERT, Spark plug, 18-1.5 MM	12	12	12	12	12	12	12	12	12		12	12	12	12
	69260	INSERT, Spark plug (long reach)								12	12	12	12	12	12	12
7	STD-1872	INSERT, 1/8-27 Helicoil, taper pipe thd.		6	6					6	6	6	6	6	6	6
	STD-1872	INSERT, 1/8-27 Helicoil, taper pipe thd.	12			12	12	12	12				12	12	12	12
8	31C-10	STUD, 5/16-18 x 1-1/4 long		18	18					18	18					
9	31C-12	STUD, 5/16-18 x 1-1/2 long	12			12	12	12	12			12	12	12	12	12
10	25C-8	STUD, 1/4-20 x 1.00 long	24									24	24	24	24	24
11	25C-9	STUD, 1/4-20 x 1-1/8 long				6	6	6	6							
12	66670	BUSHING, Rocker shaft	24	18	18					18	18	24	24	24	24	24
13	66610	BUSHING, Rocker shaft		6	6	24	24	24	24	6	6					
14	MS20823-6D	ELBOW, 3/8 flared tube, 1/4 pipe thd.	6													
15	72706	INSERT, Helicoil, 1/4-20 NC x 3/8 long		24	24					24	24					
16	STD-1353	INSERT, No. 10-24 Helicoil, taper pipe thd.				6	6	6	6							
17	72343	STABILIZER, Cyl. head fins, 15 teeth	6									6	6	6	6	6
	72344	STABILIZER, Cyl. head fins, 26 teeth	6									6	6	6	6	6
	75151	STABILIZER, Cyl. head fins, 11 teeth		6	6					6	6					
	75152	STABILIZER, Cyl. head fins, 7 teeth		6	6					6	6					
	75164	STABILIZER, Cyl. head fins, 13 teeth		6	6					6	6					
18	1102	PLUG, 1/8-27 NPT, Allen head	6													

* See latest edition of

Lycoming Service Instruction No. 1256.

** See latest edition of

Lycoming Service Instructions Nos. 1256 and 1430.

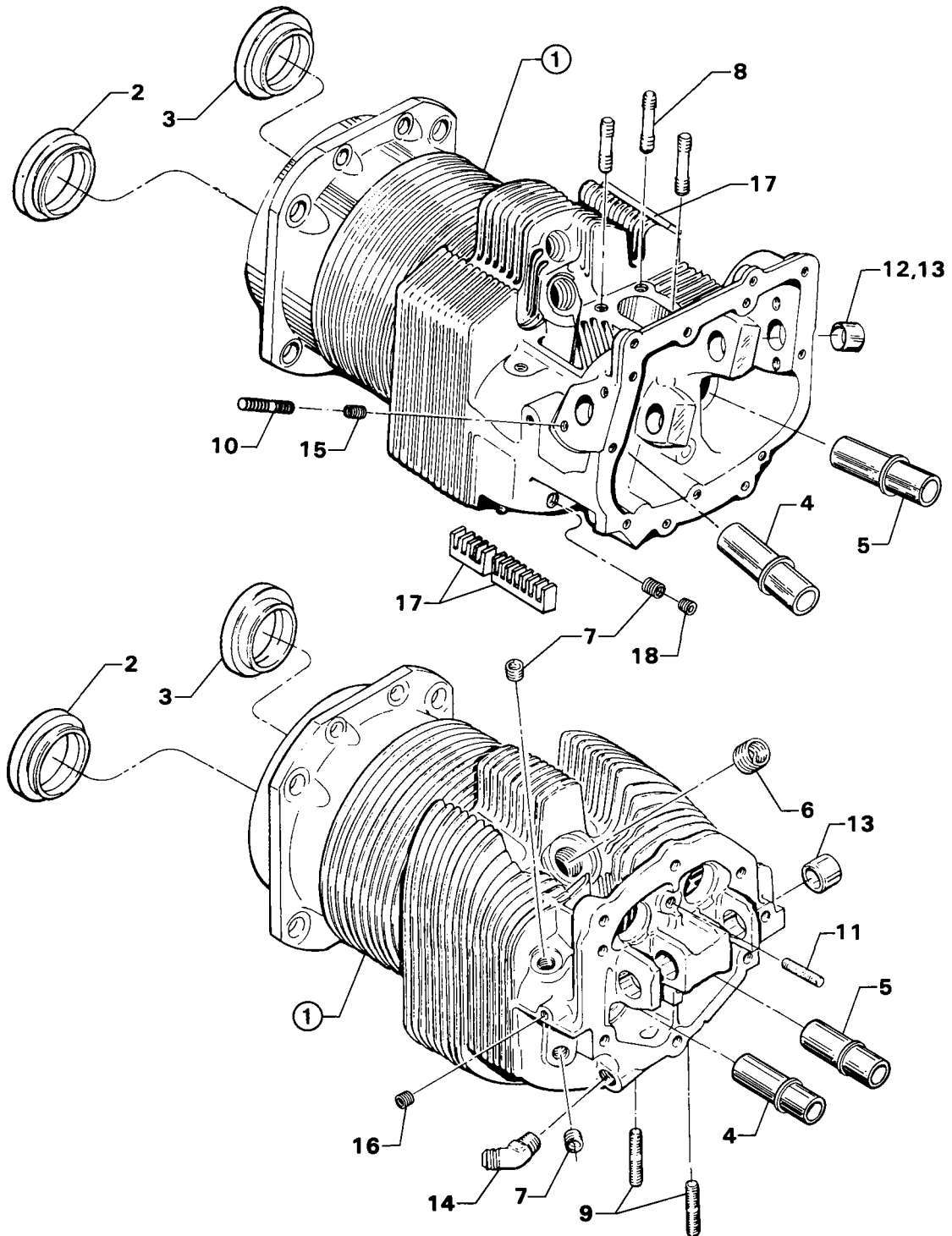
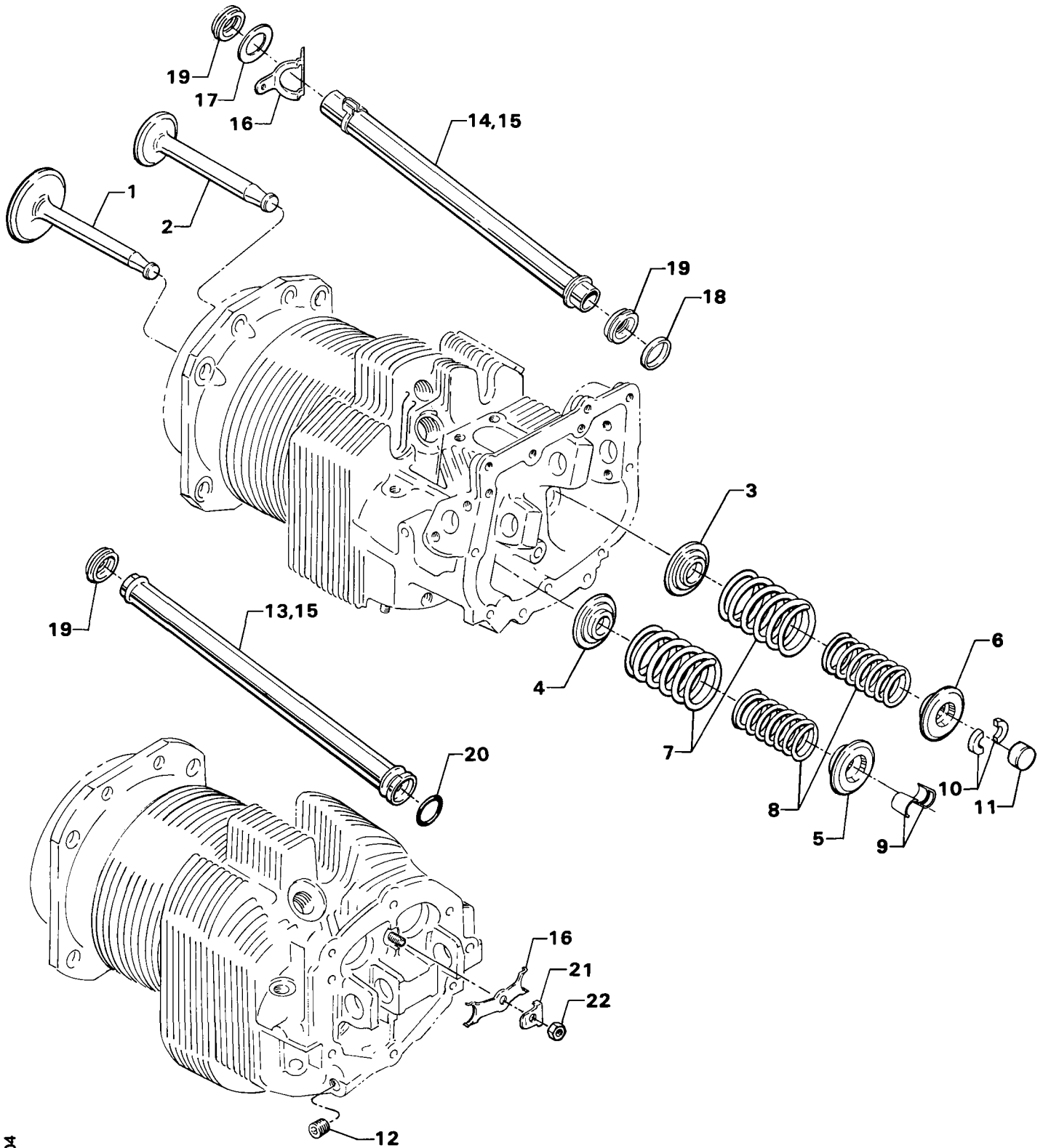


Figure 16. CYLINDER ASSEMBLY

CYLINDER, PISTON AND VALVE TRAIN VALVE ASSEMBLY

FIG. REF. 17	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY														
				A 1 A 5	B 1 A 5	B 1 C 5	C 1 B 5	C 4 B 5	C 4 C 5	D 4 A 5	E 1 A 5	E 1 B 5	G 1 A 5	G 1 B 5	G 1 C 5	G 1 D 5	G 1 E 5	G 1 F 5
1	LW-13622	VALVE, Intake		6	6	6					6	6	6	6	6	6	6	6
	73938	VALVE, Intake					6	6	6	6								
2	LW-16740	VALVE, Exhaust (rotator type)		6	6	6					6	6	6	6	6	6	6	6
	LW-19001	VALVE, Exhaust (rotator type)					6	6	6	6								
3	LW-13322	SEAT, Valve spring, lower exhaust		6	6	6					6	6	6	6	6	6	6	6
	LW-13323	SEAT, Valve spring, lower exhaust					6	6	6	6								
4	LW-13321	SEAT, Valve spring, lower intake		6	6	6					6	6	6	6	6	6	6	6
	65441	SEAT, Valve spring, lower intake					6	6	6	6								
5	69532	SEAT, Valve spring, upper intake		6	6	6					6	6	6	6	6	6	6	6
	LW-10077	SEAT, Valve spring, upper intake					6	6	6	6								
6	LW-16475	SEAT, Valve spring, upper exhaust (rotator type)	6															
7	LW-11796	SPRING, Valve, outer		12	12	12					12	12	12	12	12	12	12	12
	LW-11800	SPRING, Valve, outer					12	12	12	12								
8	LW-11797	SPRING, Valve, inner		12	12	12					12	12	12	12	12	12	12	12
	LW-11795	SPRING, Valve, inner					12	12	12	12								
9	72050	KEY, Valve, intake		12	12	12					12	12	12	12	12	12	12	12
	60009	KEY, Valve, intake					12	12	12	12								
10	17C21191	KEY, Valve, exhaust (rotator type)	12															
11	17C19386	CAP, Valve stem, exhaust (rotator type)	6															
	62388	CAP, Valve stem		6	6	6					6	6	6	6	6	6	6	6
12	1102	PLUG, 1/8 pipe x 3/8 long					6	6	6	6								
13	72255	SHROUD TUBE ASSY., Push rod (intake)		12	6	6					6	6	12	12	12	12	12	12
14	72257	SHROUD TUBE ASSY., Push rod (exhaust)			6	6					6	6						
15	LW-11485	TUBE, Push rod shroud					12	12	12	12								
16	LW-13077	SPRING, Shroud tube		24	24	24					24	24	24	24	24	24	24	24
	LW-14995	SPRING, Shroud tube					6	6	6	6								
17	66728	WASHER, 25/32 I.D. x 1-1/4 O.D. x 1/32 thick		24	24	24					24	24	24	24	24	24	24	24
18	61503	SLEEVE, Shroud tube seal		12	12	12					12	12	12	12	12	12	12	12
19	LW-18661	SEAL, Shroud tube, 5/16 wide		24	24	24	12	12	12	12	24	24	24	24	24	24	24	24
20	70310	SEAL, Shroud tube, 23/32 I.D. x 1/8 dia. sect.					12	12	12	12								
21	LW-12272	LOCKPLATE, Shroud tube					6	6	6	6								
22	STD-1411	NUT, 1/4-20 plain					6	6	6	6								



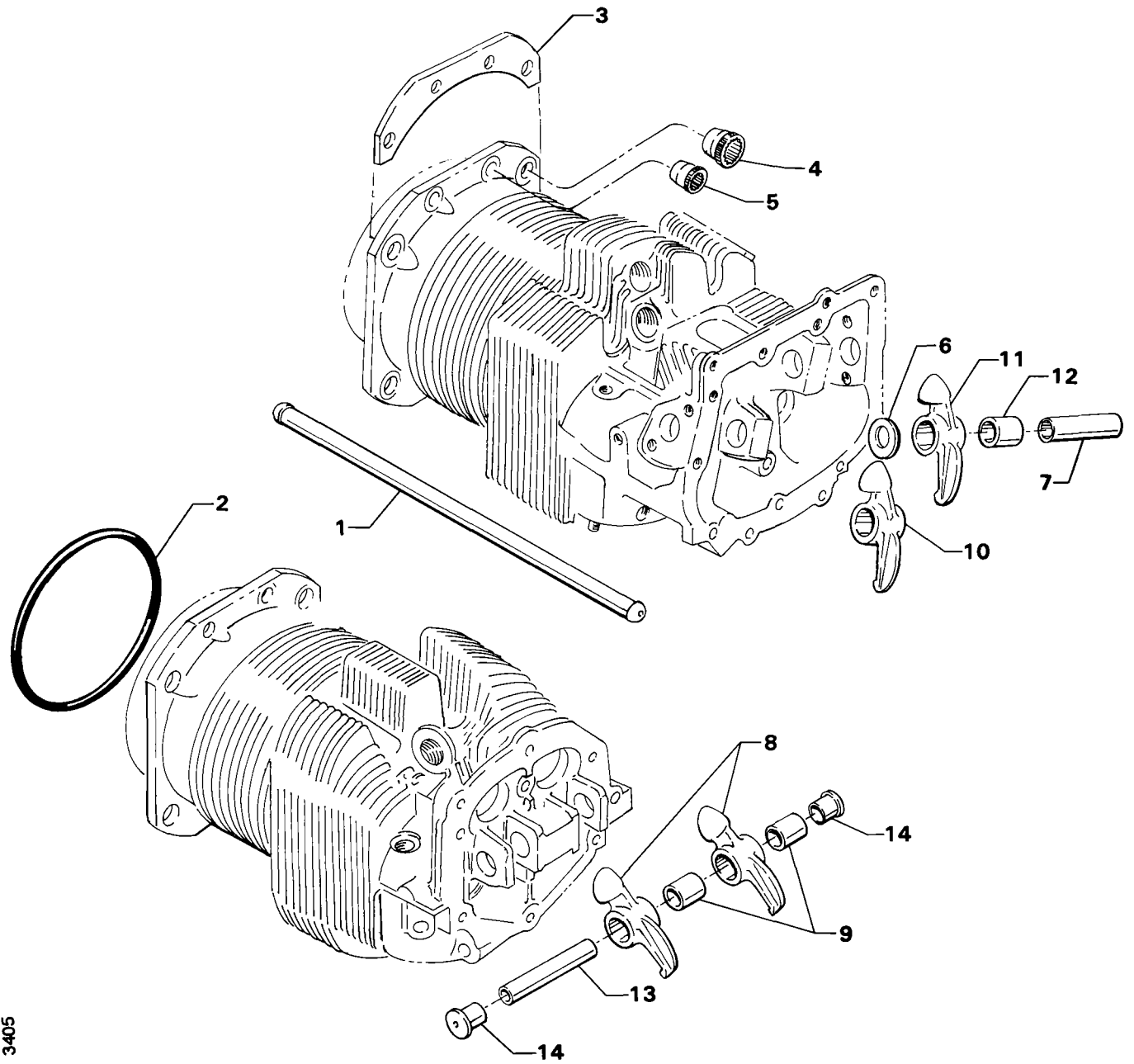
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Figure 17. VALVE ASSEMBLY

CYLINDER, PISTON AND VALVE TRAIN CYLINDER RELATED PARTS (Continued)

FIG. REF. 18	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY												
			O N												
			A	B	B	C	C	C	D	E	E	G	G	G	G
			1	1	1	1	4	4	4	1	1	1	1	1	
			5	5	5	5	5	5	5	5	5	5	5	5	
14	LW-12892	THRUST BUTTON, Rocker shaft				12	12	12	12						

- * See latest edition of Lycoming Service Instruction No. 1060 for complete push rod application.
- ** Assemble on topside of no. 5 cylinder.
- * Due to the size of the area where the part number is stamped, the last five digits may be all that is shown (19353, 21185, 21186, 21190).



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Figure 18. CYLINDER RELATED PARTS

CYLINDER, PISTON AND VALVE TRAIN

CYLINDER HEAD DRAIN TUBES, INTERCYLINDER COOLING BAFFLES AND RELATED PARTS

FIG. REF. 19	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY													
				A 1 A 5	B 1 A 5	B 1 C 5	C 1 B 5	C 4 B 5	C 4 C 5	D 4 A 5	E 1 A 5	E 1 B 5	G 1 A 5	G 1 B 5	G 1 C 5	G 1 D 5	G 1 E 5
1	66732	GASKET, Valve rocker shaft cover		12	12	12					12	12	12	12	12	12	12
2	72710	COVER, Valve rocker shaft		12	12	12					12	12	12	12	12	12	12
3	74233	"O" RING		24	24	24					24	24	24	24	24	24	24
4	72709	SCREW, 1/4-20 x 5/8 long, self-sealing			24	24					24	24					
5	STD-160	WASHER, 1/4 lock, internal teeth		24								24	24	24	24	24	24
6	STD-1411	NUT, 1/4-20 plain		24								24	24	24	24	24	24
7	71450	GASKET, Rocker box cover			6	6				6	6						
	75906	GASKET, Rocker box cover					6	6	6	6							
	67193	GASKET, Rocker box cover		6								6	6	6	6	6	6
8	72242	COVER ASSY., Rocker box			6	6				6	6						
	61247	COVER, Rocker box					6	6	6	6							
	68795	COVER ASSY., Rocker box		6								6	6	6	6	6	6
9	STD-1925	SCREW, 1/4-20 x 5/8 long, pan. hd.		48	54	54	36	36	36	36	54	54	48	48	48	48	48
10	74494	PLATE, Spark plug reach caution		6	6	6				6	6	6	6	6	6	6	6
11	STD-35	WASHER, 5/16 plain		12	18	18	12	12	12	12	18	18	12	12	12	12	12
12	STD-475	WASHER, 5/16 lock, internal teeth		12	18	18	12	12	12	12	18	18	12	12	12	12	12
13	STD-1410	NUT, 5/16 plain		12	18	18	12	12	12	12	18	18	12	12	12	12	12
14	STD-684	NIPPLE, Straight, 3/8 I.D. hose	6														
15	STD-1821	HOSE, 3/8 I.D. x 2-1/2 long					6	6	6	6		6					
	STD-2180	HOSE, 3/8 I.D. x 1-13/16 long		6	6	6					6	6	6	6	6	6	6
16	LW-15592-5-05	CLAMP, Hose	12														
17	72702	TUBE ASSY., Cyl. head oil drain, cyl. no. 1		1	1	1					1	1	1	1	1	1	1
	72703	TUBE ASSY., Cyl. head oil drain, cyl. no. 2		1	1	1					1	1	1	1	1	1	1
	73027	TUBE ASSY., Cyl. head oil drain, cyls. no. 3, 4, 5, 6		4	4	4					4	4	4	4	4	4	4
	68759	TUBE ASSY., Cyl. head oil drain, cyl. no. 1					1	1	1	1		1					
	71737	TUBE ASSY., Cyl. head oil drain, cyl. no. 2					1	1	1	1		1					
	68761	TUBE ASSY., Cyl. head oil drain, cyls. no. 3, 4, 5, 6					4	4	4	4		4					
18	74718	BAFFLE ASSY., Intercylinder		4								4	4	4	4	4	4
	LW-18106	BAFFLE ASSY., Intercylinder			4	4					4	4					
	72152	BAFFLE ASSY., Intercylinder					3	3	3	3							
	73975	BAFFLE ASSY., Intercylinder					1	1	1	1							
	LW-16362	BAFFLE & CLIP ASSY., Intercylinder, cyls. 1 & 6											2				
	LW-16363	BAFFLE & CLIP ASSY., Intercylinder, cyls. 2 & 5											2				
19	71610	HOOK, Intercylinder baffle retainer	4														
20	71611	RETAINER, Intercylinder baffle	4														
21	72834	COVER, Baffle ignition cable hole		4	4	4					4	4	4	4	4	4	4
22	STD-692	SCREW, No. 10-32 x 1/2 long, rd. hd.		8	8	8					8	8	8	8	8	8	8
23	STD-670	NUT, No. 10-32 self-locking		8								8	8	8	8	8	8
24	AN931-12S17	GROMMET, 3/4 I.D. x 1-3/8 O.D. x 3/8 thick					1	1	1	1							
25	65614	PLUG, Baffle attaching		4								4	4	4	4	4	4
26	STD-251	WASHER, No. 10 lock, internal teeth		4								4	4	4	4	4	4
27	STD-1686	SCREW, No. 10-32 x 7/16 long		4								4	4	4	4	4	4

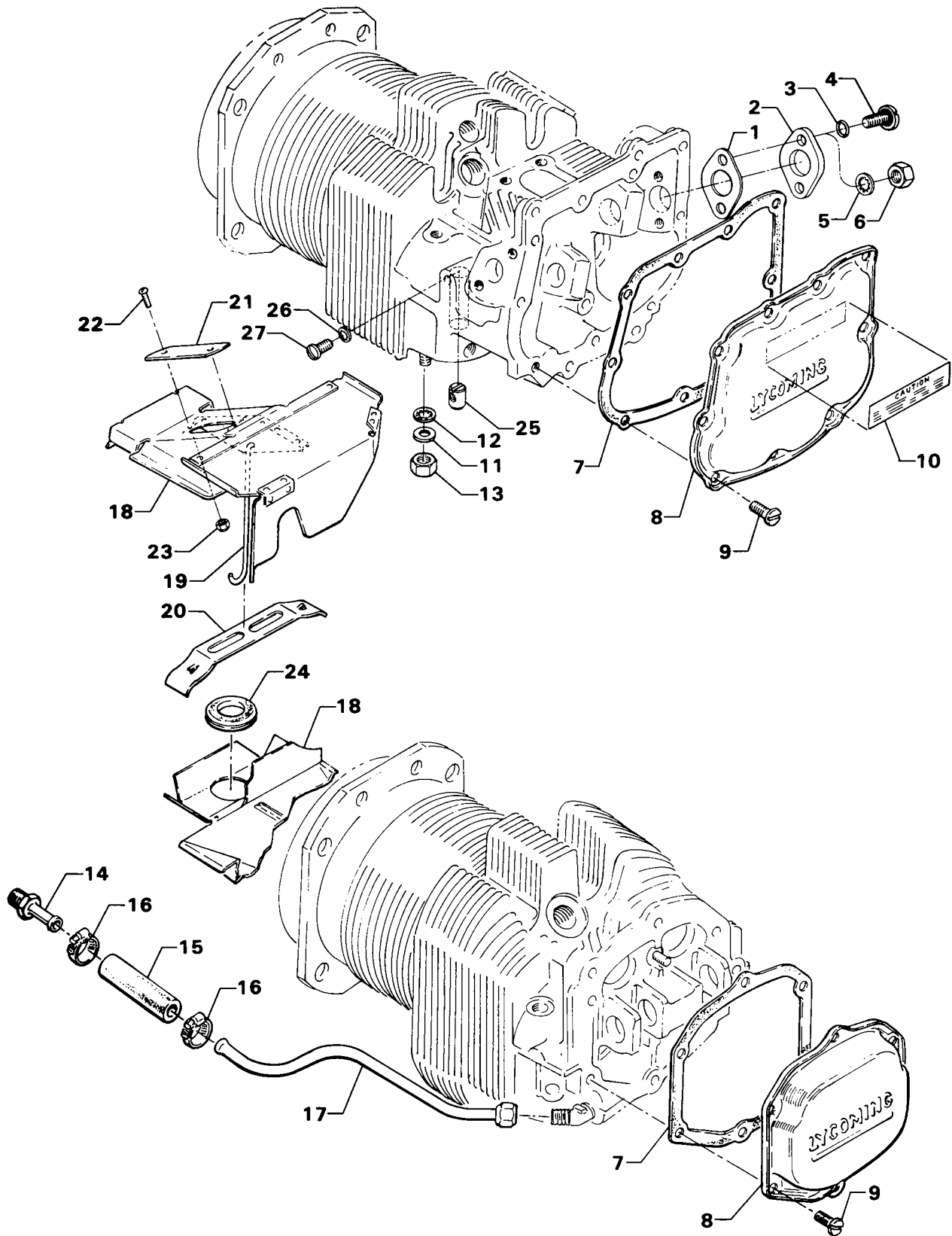
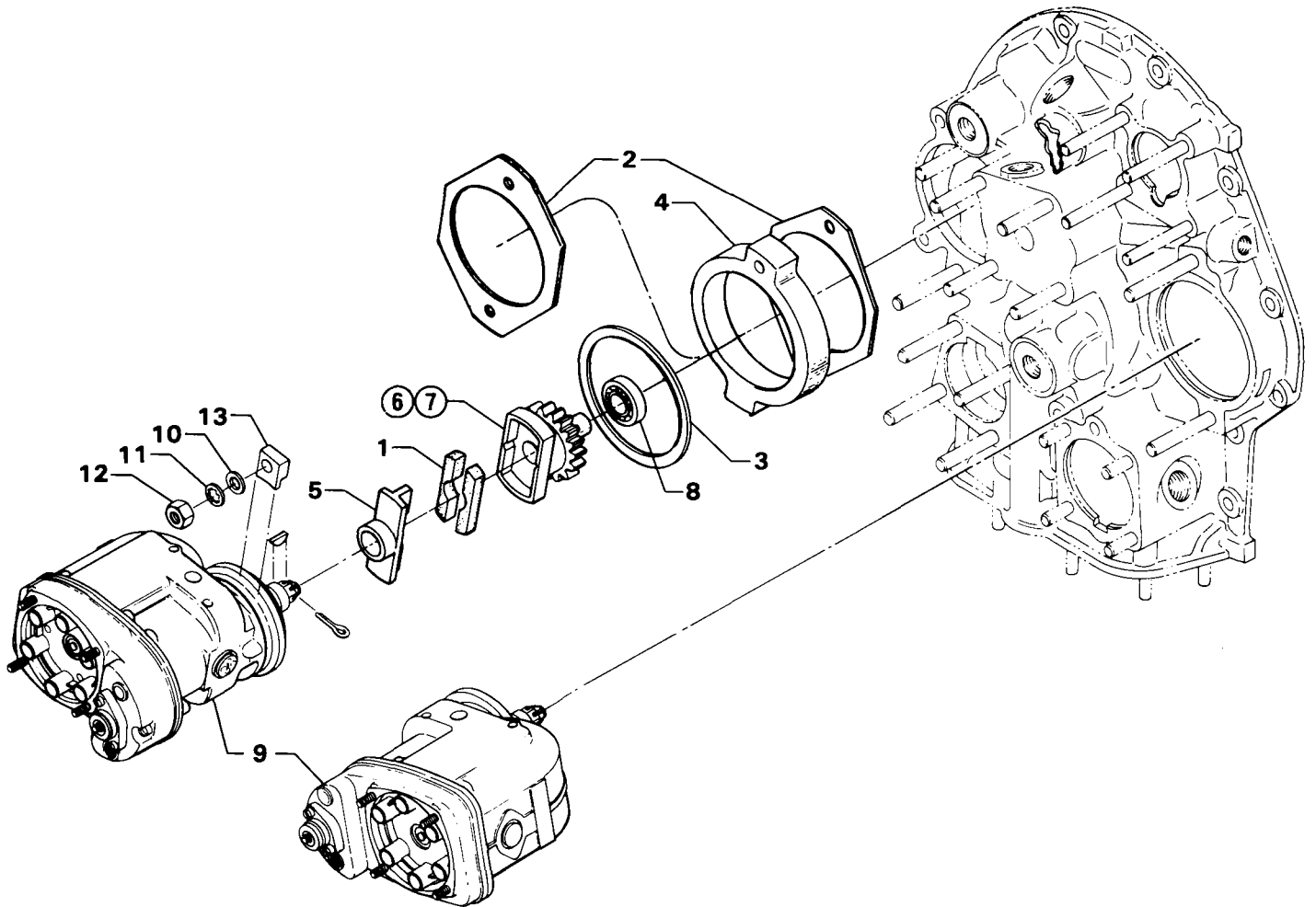


Figure 19. CYLINDER HEAD DRAIN TUBES, INTERCYLINDER COOLING BAFFLES AND RELATED PARTS



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Figure 20. BENDIX MAGNETOS AND MAGNETO DRIVES

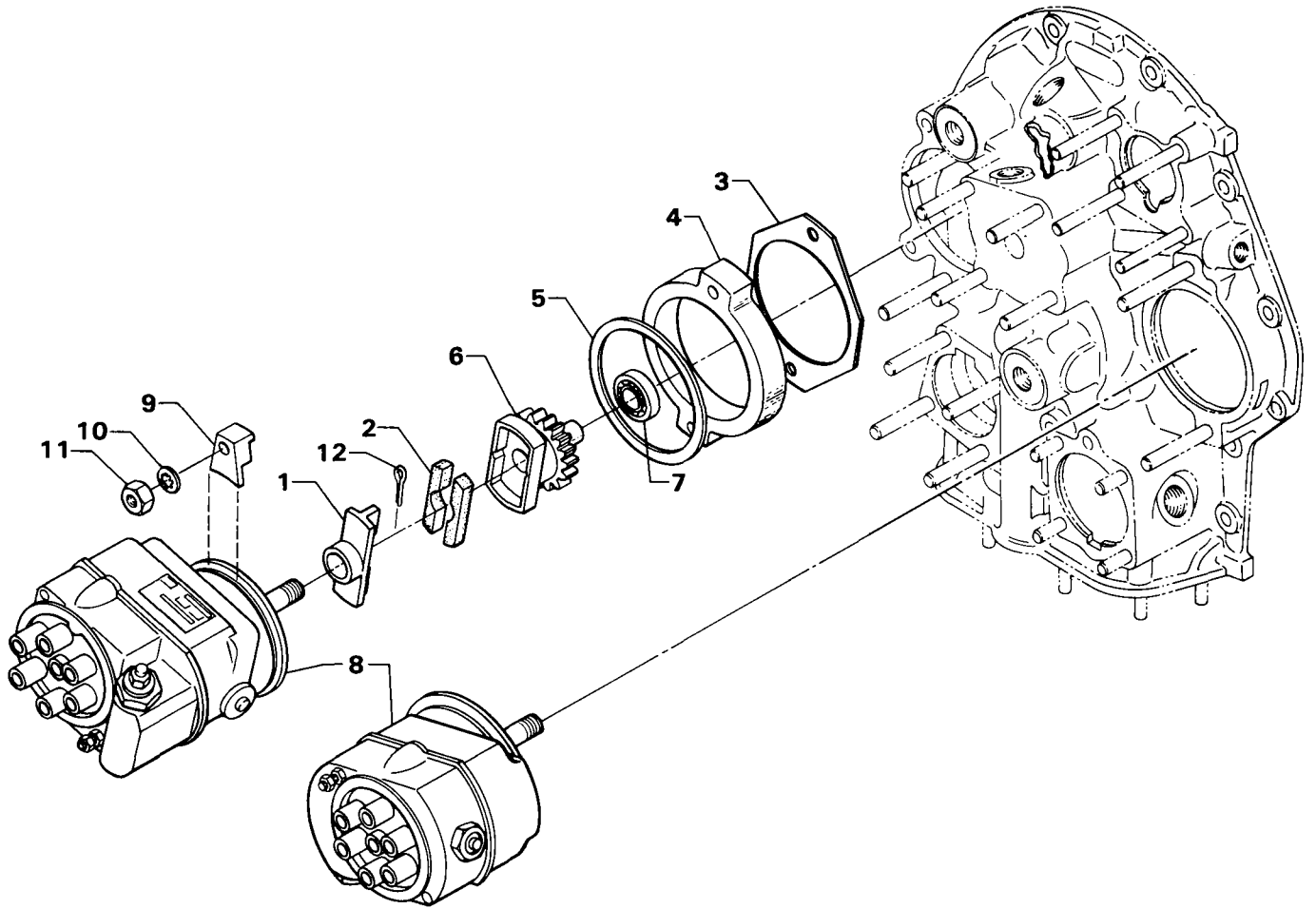


Figure 21. SLICK MAGNETOS AND MAGNETO DRIVES

IGNITION SYSTEM IGNITION HARNESSES, SPARK PLUGS AND ATTACHING HARDWARE

FIG. REF. 22	PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY														
			O A L	A 1 5	B 1 5	B 1 5	C 1 5	C 4 5	C 4 5	D 4 5	E 1 5	E 1 5	G 1 5	G 1 5	G 1 5	G 1 5	G 1 5
1	67U20600	HARNESS, Right, Slick No. M-6007									1	1				1	
	67U20601	HARNESS, Left, Slick No. M-6006									1	1				1	
	67U20608	HARNESS, Right, Slick No. M-2878	1	1	1	1	1	1	1	1	1						
	67U20609	HARNESS, Left, Slick No. M-2877	1	1	1	1	1	1	1	1	1						
	67U20610	HARNESS, Right, Slick No. M-6028	1	1	1	1	1	1	1	1	1						
	67U20611	HARNESS, Left, Slick No. M-6029	1	1	1	1	1	1	1	1	1						
	67U20612	HARNESS, Right, Slick No. M-2956	1	1	1	1	1	1	1	1	1						
	67U20613	HARNESS, Left, Slick No. M-6027	1	1	1	1	1	1	1	1	1						
	67U20630	HARNESS, Right, Slick No. M-6026									1	1					1
	67U20631	HARNESS, Left, Slick No. M-6025									1	1					1
	67U20632	HARNESS, Right, Slick No. M-6024														1	
	67U20633	HARNESS, Left, Slick No. M-6023														1	
	67U20634	HARNESS, Right, Slick No. M-6009									1	1					1
	67U20635	HARNESS, Left, Slick No. M-6008									1	1					1
	67U20638	HARNESS, Right, Slick No. M-2962												1	1		
	67U20639	HARNESS, Left, Slick No. M-2961												1	1		
	67J20640	HARNESS, Right, Slick No. M-2964									1	1			1	1	1
	67J20641	HARNESS, Left, Slick No. M-2963									1	1			1	1	1
	67J20643	HARNESS, Left, Slick No. M-6010									1	1				1	
	67J20644	HARNESS, Right, Slick No. M-6011									1	1				1	
	67J20645	HARNESS, Left, Slick No. M-6012									1	1				1	
	67J20646	HARNESS, Right, Slick No. M-6013									1	1				1	
2	1182-E7 *	SPARK PLUG, Champion (REM38E) or Auburn (SR87)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	1182-F7 *	SPARK PLUG, Champion (RHM38E) or Auburn (HSR86)	12	12									12				
	1182-G7 *	SPARK PLUG, Champion (REB37E) or Auburn (171)								12	12						
	1182-L7 *	SPARK PLUG, Champion (RHB36S) or Auburn (281)										12	12	12	12	12	
**	01P19762-3-13	BAG, Magneto harness attaching	1	1	1	1	1	1	1	1	1						
**	01P19762-4-16	BAG, Magneto harness attaching														1	
**	01P19762-4-17	BAG, Magneto harness attaching									1	1	1	1	1		
**	01P19762-4-18	BAG, Magneto harness attaching															1
**	01P19762-4-44	BAG, Magneto harness attaching									1	1					1

- * Item No. 2 spark plugs are used in current production. See latest edition of Service Instruction No. 1042 for complete listing of all approved spark plugs.
- ** See page 4-6 for a breakdown of individual parts contained in the magneto and harness attaching parts bag. These parts to be attached by customer per engine line drawing included in each bag.

BAG - MAGNETO HARNESS ATTACHING

P/N 01P19762-3-13			P/N 01P19762-4-17		
Part No.	Part Name	Qty.	Part No.	Part Name	Qty.
LW-16266-25-25	CLAMP, 1 wire	2	LW-16266-25-25	CLAMP, 1 wire	4
LW-14060	CLIP, 2 wire	3	LW-14060	CLIP, 2 wire	4
STD-8	WASHER, 1/4 plain	10	STD-8	WASHER, 1/4 plain	12
STD-160	WASHER, 1/4 lock	8	STD-160	WASHER, 1/4 lock	10
STD-1874	SCREW, 1/4 lock (rocker box)	8	STD-1874	SCREW, 1/4 lock (rocker box)	6
76734	ZIP STRAP	8	76734	ZIP STRAP	12
LW-16266-25-44	CLAMP, 4 wire	3	LW-16266-10-75	CLAMP, 6 wire	2
STD-1411	NUT, 1/4 plain	4	LW-16266-25-44	CLAMP, 4 wire	5
STD-696	WASHER 1/4 thin	6	STD-696	WASHER, 1/4 thin	6
LW-M-2376	PLATE, 3 wire	2	AN500-416-18	SCREW, 1/4 x 1-1/8 long	2
P/N 01P19762-4-16			STD-1925	SCREW, 1/4 x 5/8 long	4
Part No.	Part Name	Qty.	72815	BRACKET, Twist	4
LW-16266-25-25	CLAMP, 1 wire	4	STD-692	SCREW, No. 10	4
LW-14060	CLIP, 2 wire	4	STD-425	WASHER, No. 10	4
STD-8	WASHER, 1/4 plain	12	STD-670	NUT, No. 10	4
STD-160	WASHER, 1/4 lock	10	LW-M-2376	PLATE, 3 wire	2
STD-1874	SCREW, Rocker box	6	P/N 01P19762-4-18		
76734	ZIP STRAP	12	Part No.	Part Name	Qty.
LW-16266-10-75	CLAMP, 6 wire	2	LW-16266-25-25	CLAMP, 1 wire	4
LW-16266-25-44	CLAMP, 4 wire	5	LW-14060	CLIP, 2 wire	4
STD-696	WASHER, 1/4 thin	6	STD-8	WASHER, 1/4 plain	12
AN500-416-18	SCREW, 1/4 x 1-1/8 long	2	STD-160	WASHER, 1/4 lock	10
STD-1925	SCREW, 1/4 x 5/8 long	4	STD-1874	SCREW, 1/4 lock (rocker box)	6
72815	BRACKET, Twist	4	76734	ZIP STRAP	12
STD-692	SCREW, No. 10	4	LW-16266-25-50	CLAMP, 4 wire	5
STD-425	WASHER, No. 10	4	STD-696	WASHER, 1/4 thin	6
STD-670	NUT, No. 10	4	AN500-416-18	SCREW, 1/4 x 1-1/8 long	2
LW-M-2376	PLATE, 3 wire	2	STD-1925	SCREW, 1/4 x 5/8 long	4
			72815	BRACKET, Twist	4
			STD-692	SCREW, No. 10	4
			STD-425	WASHER, No. 10	4
			STD-670	NUT, No. 10	4
			LW-M-2376	PLATE, 3 wire	2
			P/N 01P19762-4-44		
			Part No.	Part Name	Qty.
			LW-16266-25-25	CLAMP, 1 wire	4
			LW-14060	CLIP, 2 wire	4
			STD-8	WASHER, 1/4 plain	12
			STD-160	WASHER, 1/4 lock	10
			STD-1874	SCREW, 1/4 lock (rocker box)	6
			76734	ZIP STRAP	12
			LW-16266-10-75	CLAMP, 6 wire	2
			LW-16266-25-44	CLAMP, 4 wire	5
			STD-696	WASHER, 1/4 thin	6
			AN500-416-18	SCREW, 1/4 x 1-1/8 long	2
			STD-1925	SCREW, 1/4 x 5/8 long	4
			72815	BRACKET, Twist	4
			STD-692	SCREW, No. 10	4
			STD-425	WASHER, No. 10	4
			STD-670	NUT, No. 10	4
			LW-M-2376	PLATE, 3 wire	2

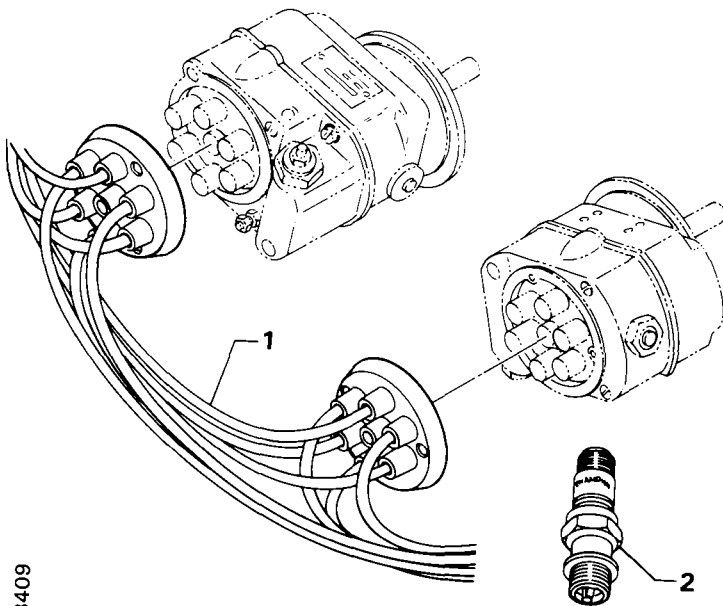


Figure 22. IGNITION HARNESSES, SPARK PLUGS AND ATTACHING PARTS

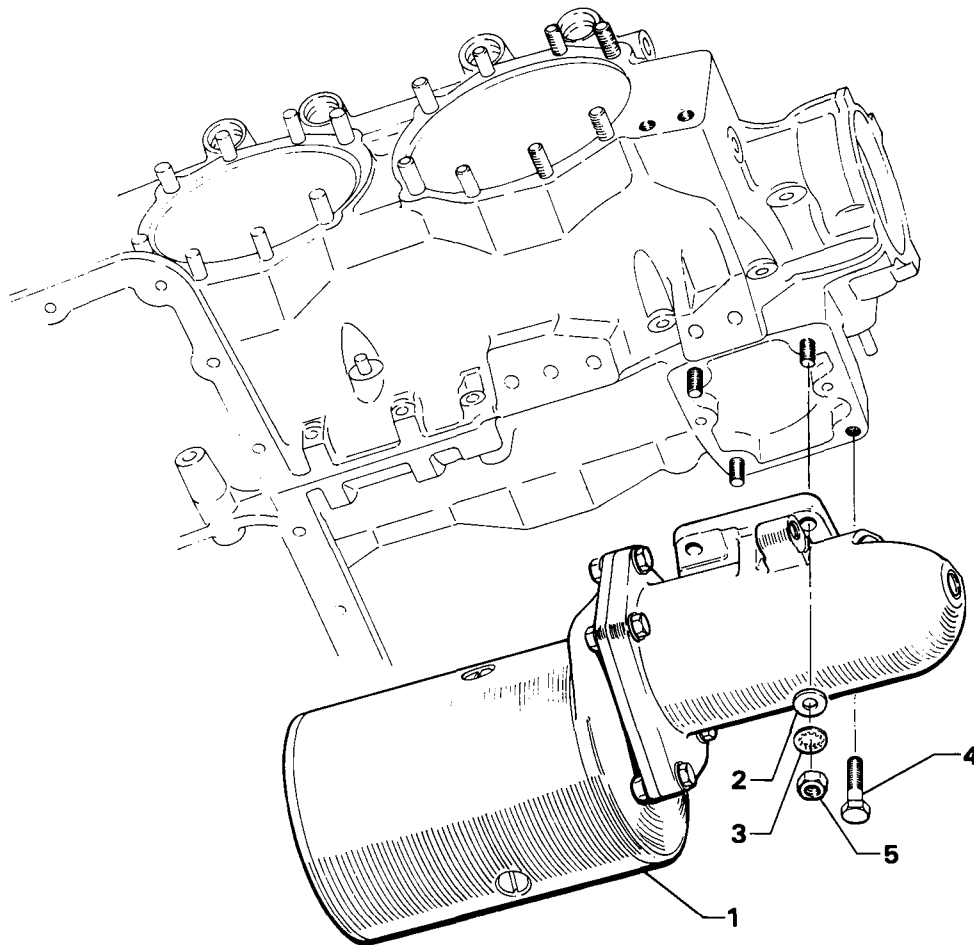
ELECTRICAL COMPONENTS

PRESTOLITE STARTERS AND ATTACHING PARTS

FIG. REF. 23	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY																
				A 1 A 5	B 1 A 5	B 1 C 5	C 1 B 5	C 4 B 5	C 4 C 5	D 4 A 5	E 1 A 5	E 1 B 5	G 1 A 5	G 1 B 5	G 1 C 5	G 1 D 5	G 1 E 5	G 1 F 5		
1	LW-15571	STARTER, 12 volt, 12/14 pitch pinion (MZ-4222)		1			1	1	1	1				1	1				1	1
	LW-15572	STARTER, 24 volt, 12/14 pitch pinion (MHB-4016)		1	1	1		1		1	1	1	1	1	1	1	1			
2	STD-35	WASHER, 5/16 plain	4																	
3	STD-475	WASHER, 5/16 lock, internal teeth	4																	
4	LW-31-1.16	BOLT, 5/16-18 x 1-5/32 long, hex. hd.	1																	
5	STD-1410	NUT, 5/16-18 plain	3																	

NOTE

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



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Figure 23. PRESTOLITE STARTERS AND ATTACHING PARTS

ELECTRICAL COMPONENTS LYCOMING LIGHTWEIGHT STARTERS AND ATTACHING PARTS

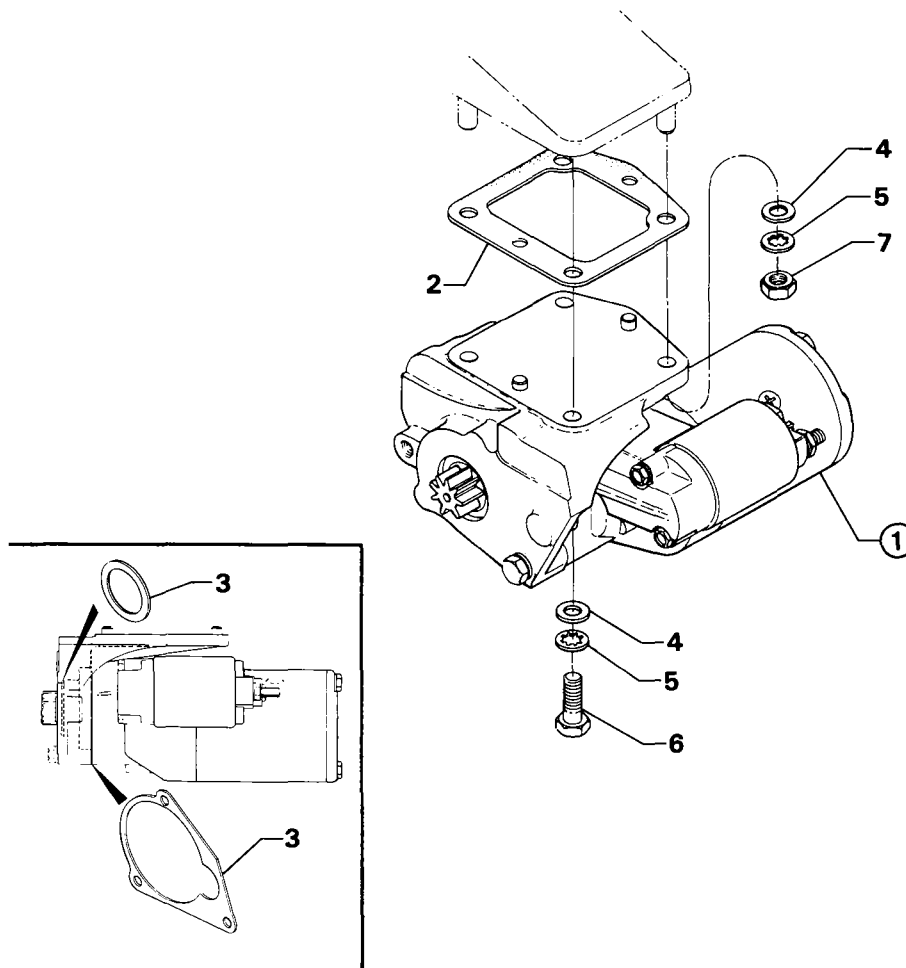
FIG. REF. 24	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY																	
				A 1	B 1	B 1	C 1	C 4	C 4	D 4	E 1	E 1	G 1	G 1	G 1	G 1	G 1	G 1			
1	05K21302-1 *	KIT, Lightweight starter, 12 volt, 12/14 pitch	1				1	1	1	1				1	1					1	1
	05K21302-2 *	KIT, Lightweight starter, 24 volt, 12/14 pitch	1	1	1		1		1	1	1	1	1	1	1	1	1				
2	LW-16152	SPACER, Starter/crankcase	1																		
3	05K21194 * *	KIT, Shim, lightweight starter	1																		
4	STD-35	WASHER, 5/16 plain	4																		
5	STD-475	WASHER, 5/16 lock, internal teeth	4																		
6	LW-31-1.16	BOLT, 5/16-18 x 1-5/32 long, hex. hd.	1																		
7	STD-1410	NUT, 5/16-18 plain	3																		

* Refer to latest edition of
** Refer to latest edition of

Lycoming Starter Maintenance Manual SSP-490 for complete parts breakdown.
Lycoming Service Instruction No. 1447 for shim application.

NOTE

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



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Figure 24.

LYCOMING LIGHTWEIGHT STARTERS AND ATTACHING PARTS

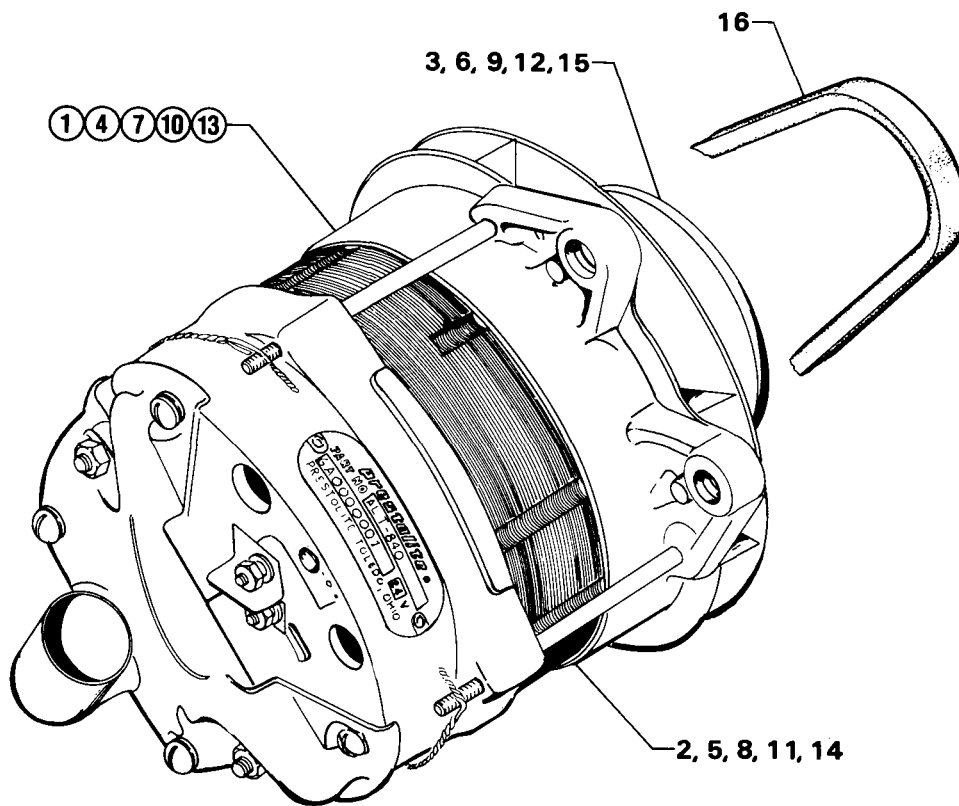
ELECTRICAL COMPONENTS ALTERNATOR ASSEMBLIES AND BELTS

FIG. REF. 25	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY												
				A 1 5	B 1 5	B 1 5	C 1 5	C 4 5	C 4 5	D 4 5	E 1 5	E 1 5	G 1 5	G 1 5	G 1 5	G 1 5
1	32C19553	ALTERNATOR ASSY., 24 volt-70 Amp.		1	1		1		1		1	1	1	1	1	
2	LW-14326	ALTERNATOR, 24 volt, 70 Amp. (ALU-8421-LS)		1	1		1		1		1	1	1	1	1	
3	36B19484	PULLEY, Alternator		1	1		1		1		1	1	1	1	1	
4	32B19549	ALTERNATOR ASSY., 12 volt-70 Amp.					1	1	1	1						
5	LW-14318	ALTERNATOR, 12 volt-70 Amp. (ALX-8421-LS)					1	1	1	1						
6	36B19484	PULLEY, Alternator					1	1	1	1						
7	LW-14371	ALTERNATOR ASSY., 12 volt-60 Amp.												1		1
8	LW-14313	ALTERNATOR, 12 volt-60 Amp. (ALY-8420-LS)												1		1
9	36B19484	PULLEY, Alternator												1		1
10	LW-18904 *	ALTERNATOR ASSY., 24 volt-100 Amp.												1		
11	LW-18888 *	ALTERNATOR, 24 volt-100 Amp. (ALV-8512)												1		
12	76421	PULLEY, Alternator												1		
13	LW-14354 * *	ALTERNATOR ASSY., 24 volt-100 Amp.												1		
14	LW-14326 * *	ALTERNATOR, 24 volt-100 Amp. (ALU-8421-LS)												1		
15	LW-11148	PULLEY, Alternator												1		
16	37A19773-367	BELT, Alternator drive, 3/8 wide					1	1	1							
	37A19773-376	BELT, Alternator drive, 3/8 wide		1	1		1	1	1		1	1	1	1	1	1
	37A19773-382	BELT, Alternator drive, 3/8 wide											1			
	37A19773M396	BELT, Alternator, dual, idler pulley											1			
	72000★	BELT, Generator drive		1	1	1				1	1	1				
	72270●	BELT, Generator drive		1										1		

- * Less blast tube.
- * * With blast tube.
- ★ 2.50:1 drive belt for generators - 24 volt, 40 amp. and up.
- 2.40:1 drive belt for generators - less than 24 volt 40 amp.

NOTE

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



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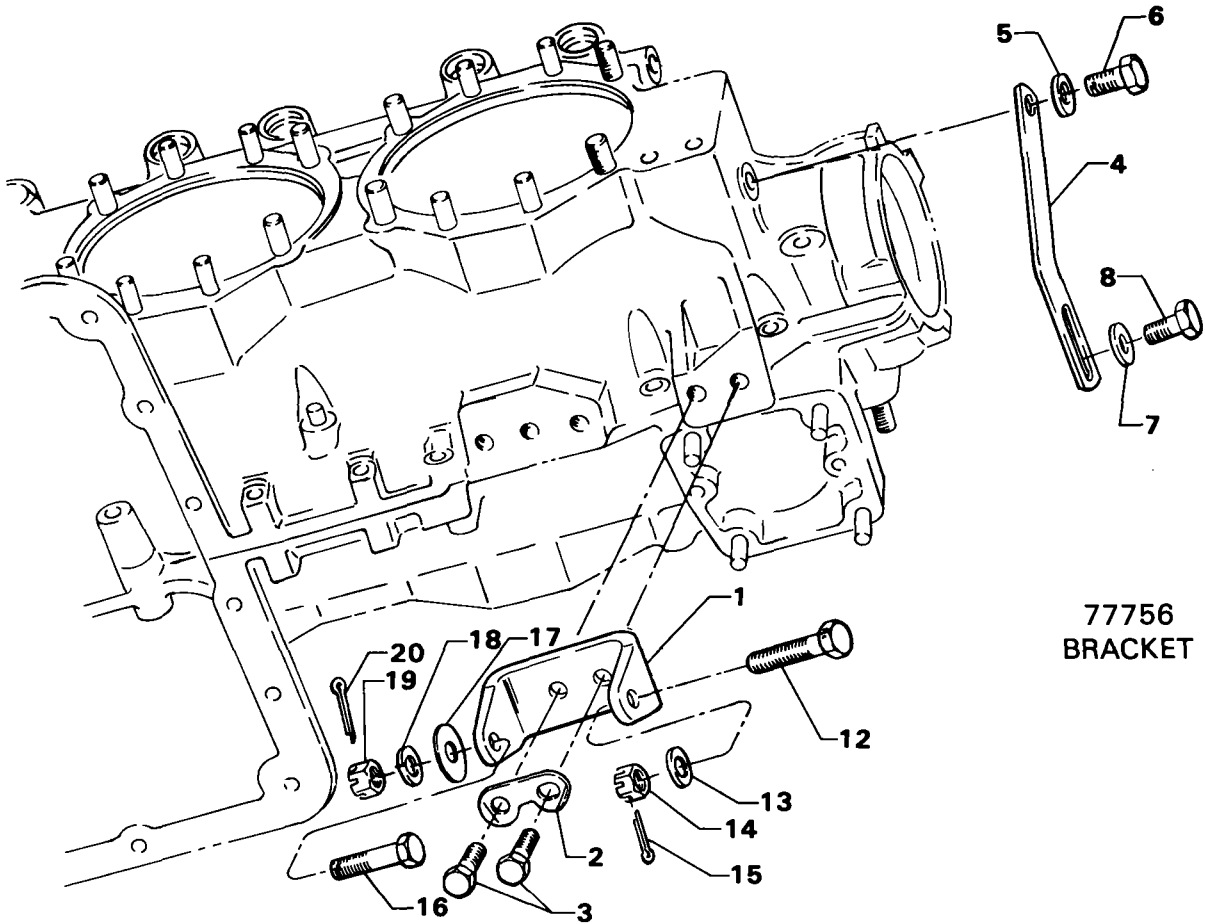
Figure 25. ALTERNATOR ASSEMBLIES AND BELTS

ELECTRICAL COMPONENTS

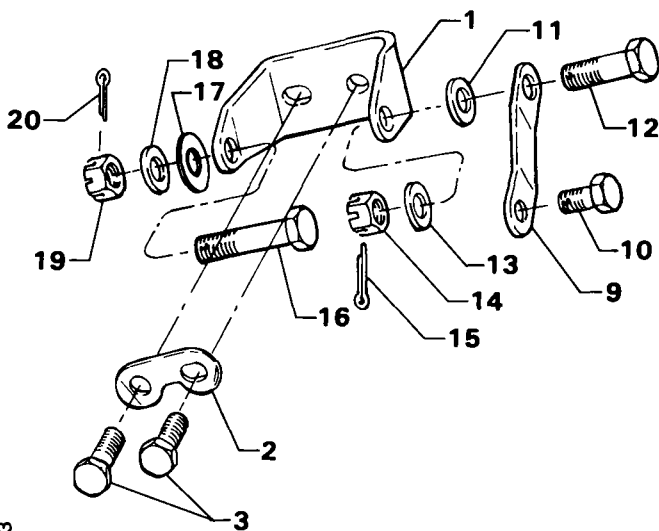
ALTERNATOR MOUNTING AND ATTACHING PARTS

FIG. REF. 26	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY												
				J 4 A 5	K 1 A 5	K 1 B 5	K 1 C 5	K 1 D 5	K 1 E 5	M 1 A 5	N 1 A 5	P 1 A 5	R 1 A 5			
1	07A19474	BRACKET, Alternator		1	1	1	1	1	1	1						
	77756 *	BRACKET, Alternator		1									1			1
	74324	BRACKET, Alternator		1												
2	73383	LOCKPLATE, 5/16 bolt x 1.00 spacing		1	1	1	1	1	1	1			1			1
3	LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. hd.		2	2	2	2	2	2	2			2			2
4	75380	LINK, Alternator adjusting		1	1	1	1	1	1	1						
	LW-10091 *	LINK, Alternator adjusting		1									1			1
	74325 ●	LINK, Alternator adjusting		1												
5	STD-35	WASHER, 5/16 plain		1	1	1	1	1	1	1			1			1
6	LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. hd.		1	1	1	1	1	1	1			1			1
7	STD-1727	WASHER, Plain, 3/4 O.D. x 11/32 I.D. x 1/8 thick		1	1	1	1	1	1	1			1			1
8	LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. hd.		1	1	1	1	1	1	1			1			1
9	74323	STRUT, Alternator support		1	1	1	1	1	1	1						
10	LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. hd.		1	1	1	1	1	1	1						
11	STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick		1	1	1	1	1	1	1						
12	AN6-12 *	BOLT, 3/8-24 x 1-21/64 long, hex. hd., dr. end		1									1			1
	AN6-14 ★	BOLT, 3/8-24 x 1-37/64 long, hex. hd., dr. end			1					1						
	AN6-17 * ★	BOLT, 3/8-24 x 1-61/64 long, hex. hd., dr. end		1	1	1	1	1	1							
	AN6-32 ●	BOLT, 3/8-24 x 3-21/64 long, hex. hd., dr. end		1												
13	STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick		AR	AR	AR	AR	AR	AR	AR			AR			AR
14	STD-872	NUT, 3/8-24 slotted		1	1	1	1	1	1	1			1			1
15	STD-713	PIN, Cotter, 3/32 dia. x 3/4 long		1	1	1	1	1	1	1			1			1
16	AN6-16	BOLT, 3/8-24 x 1-53/64 long, hex. hd., dr. end		1	1	1	1	1	1	1			1			1
17	76534	SHIM, 1-1/8 O.D. x 13/32 I.D. x 1/64 thick		AR	AR	AR	AR	AR	AR	AR			AR			AR
18	STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick		AR	AR	AR	AR	AR	AR	AR			AR			AR
19	STD-872	NUT, 3/8-24 slotted		1	1	1	1	1	1	1			1			1
20	STD-713	PIN, Cotter, 3/32 dia. x 3/4 long		1	1	1	1	1	1	1			1			1

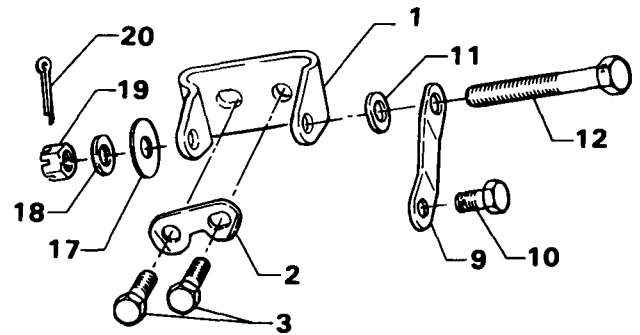
- * Special link and bracket for Piper Aircraft installations.
- * ★ Attaching 12V-70 Amp., 24V-50 Amp. & 24V-70 Amp. alternators.
- ★ Attaching 12V-40 Amp. alternators only.
- Used with P/N 74324 alternator bracket.



07A19474 BRACKET

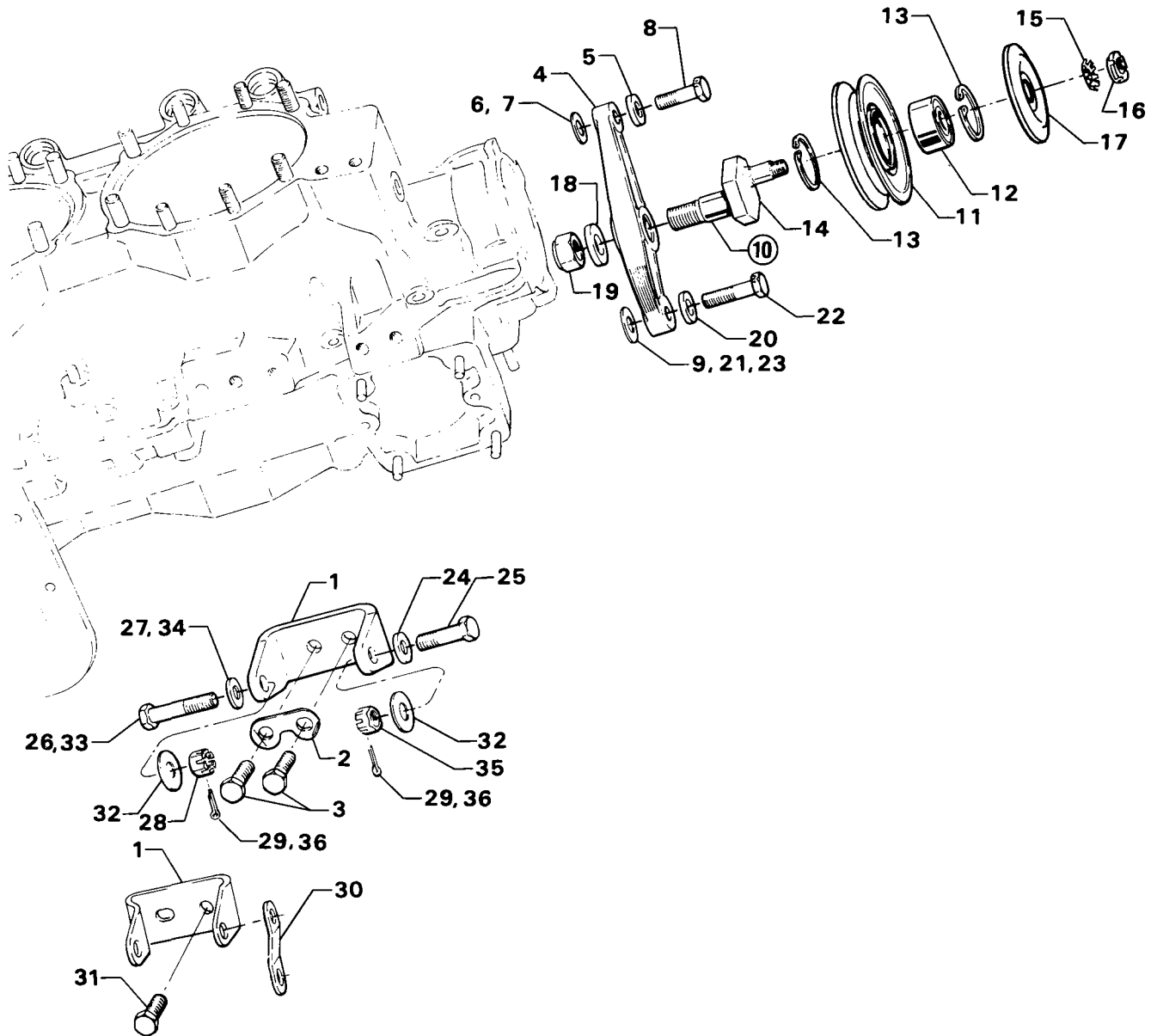


74324 BRACKET



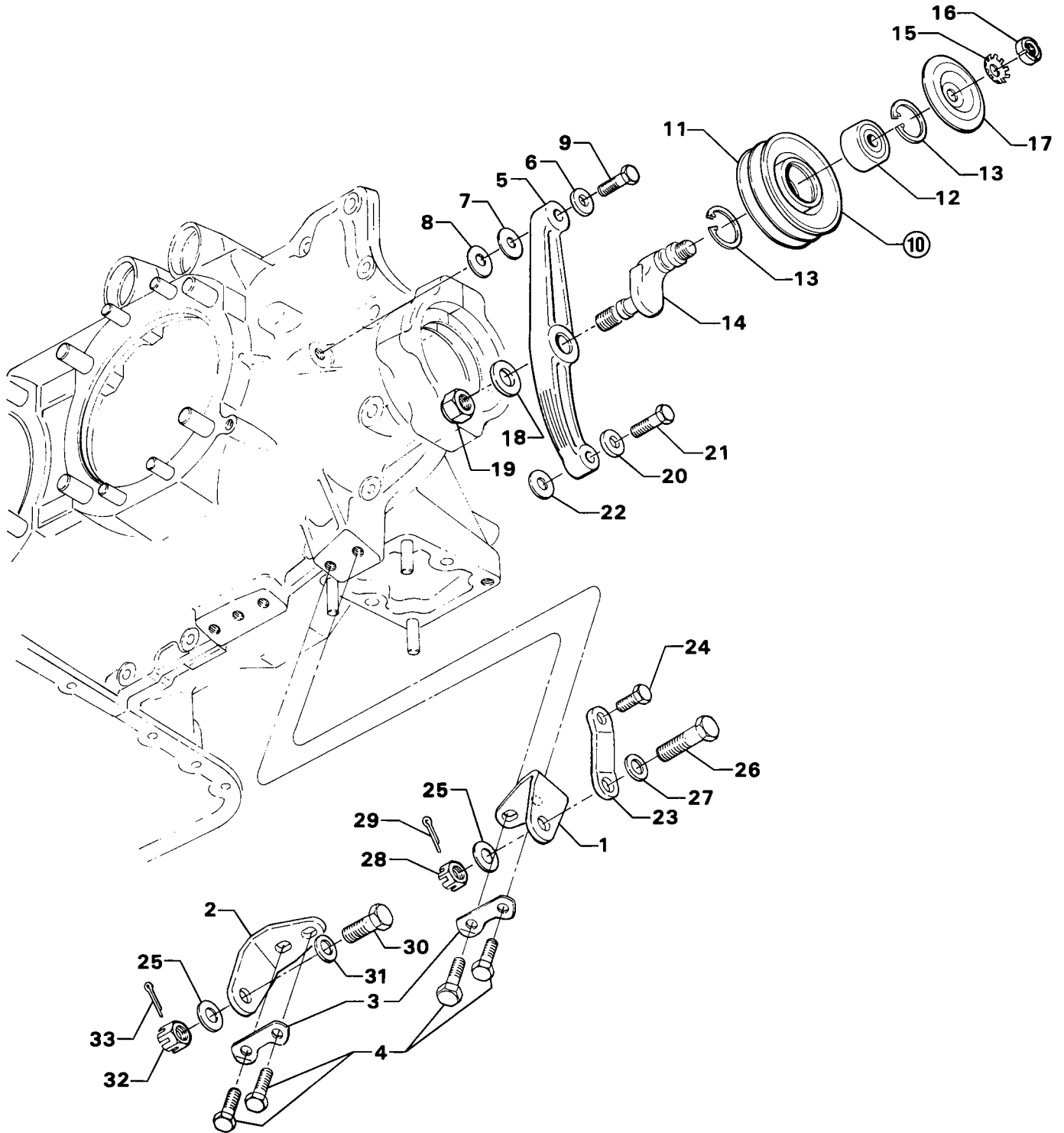
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Figure 26. ALTERNATOR MOUNTING AND ATTACHING PARTS



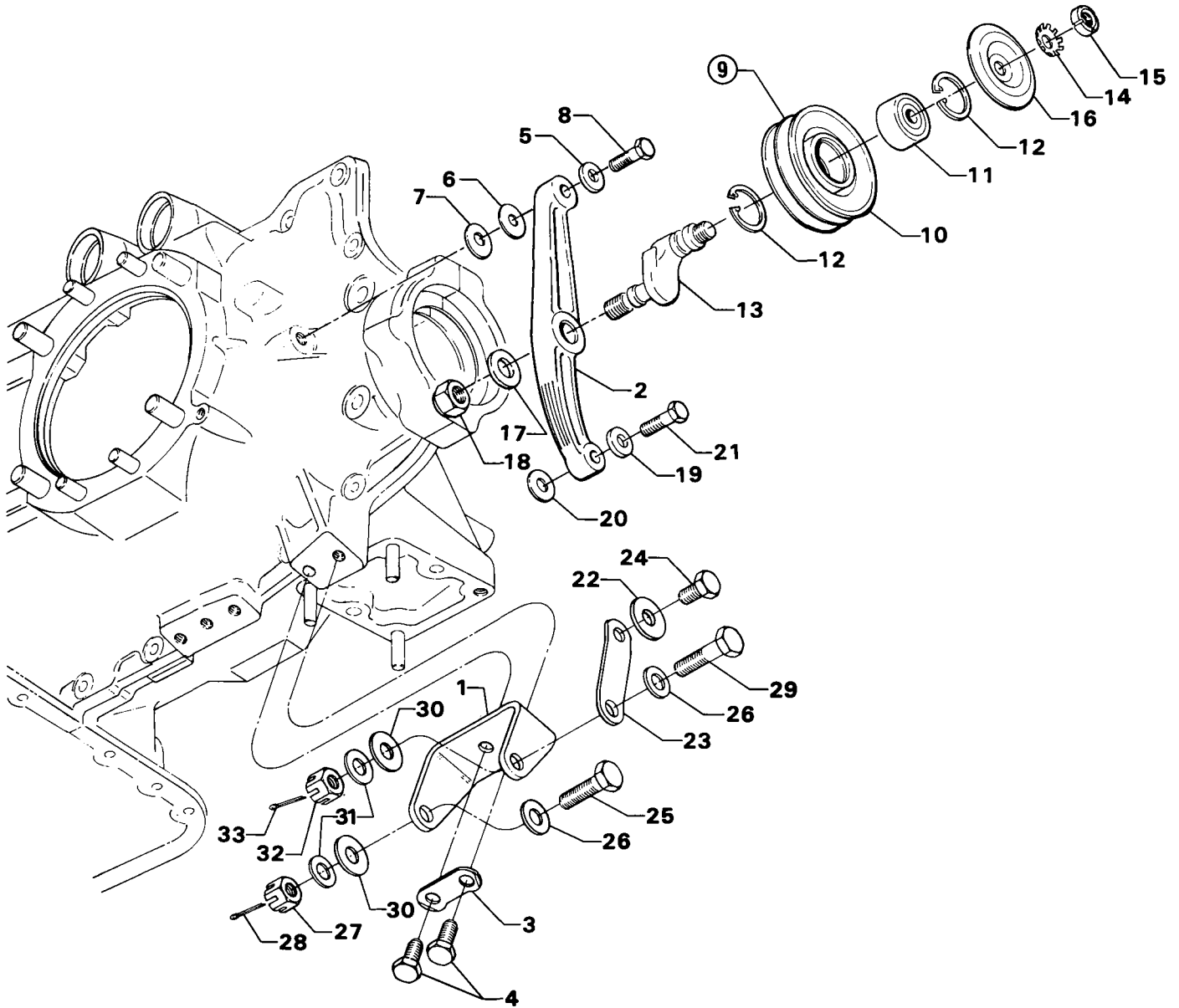
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Figure 27. ALTERNATOR MOUNTING AND ATTACHING PARTS



3415

Figure 28. ALTERNATOR MOUNTING AND ATTACHING PARTS

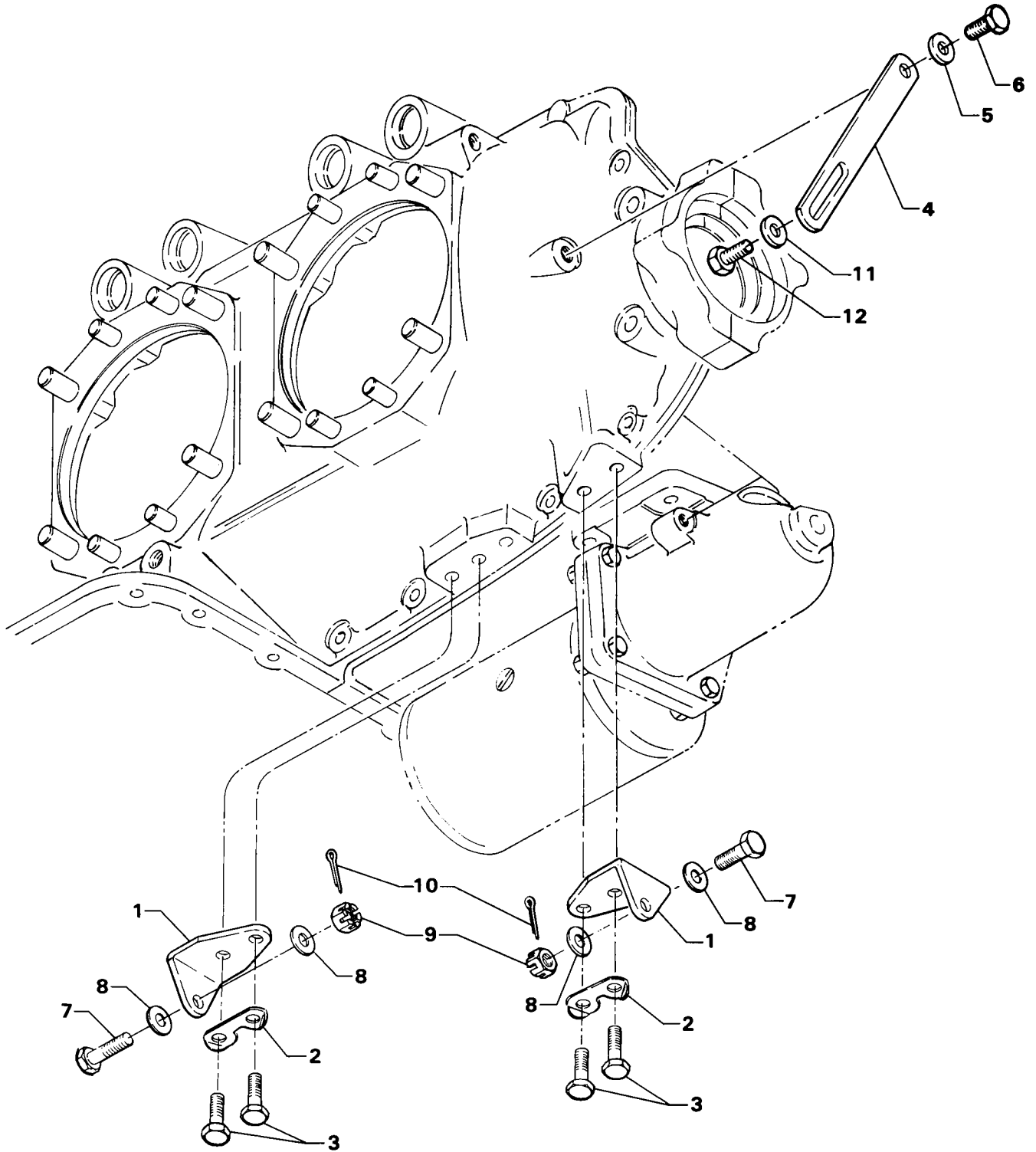


3425

Figure 29. ALTERNATOR MOUNTING AND ATTACHING PARTS

ELECTRICAL COMPONENTS GENERATOR MOUNTING AND ATTACHING PARTS

FIG. REF. 30	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY														
				A	B	B	C	C	C	D	E	E	G	G	G	G	G	
				1	1	1	1	4	4	4	1	1	1	1	1	1	1	
1	70419	BRACKET, Generator		2	2	2	2	2		2	2	2	2					
2	73383	LOCKPLATE, 5/16 bolt x 1.00 spacing		2	2	2	2	2		2	2	2	2					
3	LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. hd.		4	4	4	4	4		4	4	4	4					
4	76028	LINK, Generator adjusting		1	1	1	1	1		1	1	1	1					
5	STD-35	WASHER, 5/16 plain		1	1	1	1	1		1	1	1	1					
6	LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. hd.		1	1	1	1	1		1	1	1	1					
7	LW-31S1.16	BOLT, 5/16-18 x 1-5/32 long, dr. end		2	2	2	2	2		2	2	2	2					
8	STD-35	WASHER, 5/16 plain		AR	AR	AR	AR	AR		AR	AR	AR	AR					
9	STD-1420	NUT, 5/16-18 slotted		2	2	2	2	2		2	2	2	2					
10	STD-68	PIN, Cotter		2	2	2	2	2		2	2	2	2					
11	STD-1727	WASHER, Plain, 3/4 O.D. x 11/32 I.D. x 1/8 thick		1	1	1	1	1		1	1	1	1					
12	LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. hd.		1	1	1	1	1		1	1	1	1					



3423

Figure 30. GENERATOR MOUNTING AND ATTACHING PARTS

OIL SUMP AND INDUCTION SYSTEM

OIL SUMP ASSEMBLY AND OIL SUCTION SCREEN

FIG. REF. 31	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY													
				A 1 A 5	B 1 A 5	B 1 C 5	C 1 B 5	C 4 B 5	C 4 C 5	D 4 A 5	E 1 A 5	E 1 B 5	G 1 A 5	G 1 B 5	G 1 C 5	G 1 D 5	G 1 E 5
1	06B21326	GASKET, Oil sump					1	1	1	1							
2	LW-13901	SUMP ASSEMBLY, Oil					1	1	1	1							
3	71699	CONNECTION, Intake pipe					6	6	6	6							
4	25C-11	STUD, 1/4-20 x 1-3/8 long					14	14	14	14							
5	31C-15	STUD, 5/16-18 x 1-7/8 long					4	4	4	4							
6	38-15	STUD, 3/8-16 x 1-7/8 long					8	8	8	8							
7	STD-1173	INSERT, 1/4-20 Helicoil x 1/2 long					4	4	4	4							
8	STD-8	WASHER, 1/4 plain					34	34	34	34							
9	STD-160	WASHER, 1/4 lock, internal teeth					27	27	27	27							
10	LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. hd.					7	7	7	7							
11	LW-25-1.00	BOLT, 1/4-20 x 1.00 long, hex. hd.					6	6	6	6							
12	STD-1411	NUT, 1/4-20 plain					21	21	21	21							
13	STD-551	PLUG, 1/2-14 NPT, Sq. hd., drilled					2	2	2								
	STD-2229	PLUG, 1/2-14 NPT, Allen head					2		2								
14	70484	SCREEN, Oil suction					1	1	1	1							
15	06E19769-1.00	GASKET, 1.00 I.D. x 1-1/4 O.D. x 3/32 thick					1	1	1	1							
16	LW-12545	PLUG, 1.00-20 thd. x 5/8 hex. hd.					1	1	1	1							
17	STD-2229	PLUG, 1/2-14 NPT, Allen head					2	2	2								
	STD-2229	PLUG, 1/2-14 NPT, Allen head					4		4								

OIL SUMP AND INDUCTION SYSTEM

OIL SUMP AND INDUCTION HOUSING ASSEMBLY AND OIL SUCTION SCREEN

FIG. REF. 32	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY																		
				A 1 A 5	B 1 A 5	B 1 C 5	C 1 B 5	C 4 B 5	C 4 C 5	D 4 A 5	E 1 A 5	E 1 B 5	G 1 A 5	G 1 B 5	G 1 C 5	G 1 D 5	G 1 E 5	G 1 F 5				
1	06B21326	GASKET, Oil sump		1	1	1						1	1	1	1	1	1	1	1	1	1	1
2	74833	HOUSING ASSY., Oil sump & induction		1	1	1						1	1	1	1	1	1	1	1	1	1	1
3	LW-18291	COVER, Induction housing		1	1	1						1	1	1	1	1	1	1	1	1	1	1
4	STD-514	DOWEL, 5/16 dia. x 1/2 long		2	2	2						2	2	2	2	2	2	2	2	2	2	2
5	72179	STUD, Intake pipe extension		3	3	3						3	3	3	3	3	3	3	3	3	3	3
6	72167	PIPE, Extension, intake cyls. no. 1 & 2		2	2	2						2	2	2	2	2	2	2	2	2	2	2
7	72168	PIPE, Extension, intake cyls. no. 3 & 4		2	2	2						2	2	2	2	2	2	2	2	2	2	2
8	72169	PIPE, Extension, intake cyls. no. 5 & 6		2	2	2						2	2	2	2	2	2	2	2	2	2	2
9	LW-11273	CLAMP, Intake pipe extension		3	3	3						3	3	3	3	3	3	3	3	3	3	3
10	25C-9	STUD, 1/4-20 x 1-1/8 long		4	4	4						4	4	4	4	4	4	4	4	4	4	4
11	25C-11	STUD, 1/4-20 x 1-3/8 long		15	15	15						15	15	15	15	15	15	15	15	15	15	15
12	38-15	STUD, 3/8-16 x 1-7/8 long		8	8	8						8	8	8	8	8	8	8	8	8	8	8
13	72706	INSERT, Helicoil, 1/4-20 x 3/8 long, self-lock		14	14	14						14	14	14	14	14	14	14	14	14	14	14
14	STD-91	PLUG, 1/2-14 NPT, Allen head		1	1	1						1	1	1	1	1	1	1	1	1	1	1
15	1102	PLUG, 1/8 pipe, Allen head		5	5	5						5	5	5	5	5	5	5	5	5	5	5
16	STD-784	PLUG, 3/8-18 NPT, Allen head		1	1	1						1	1	1	1	1	1	1	1	1	1	1
17	STD-355	PLUG, 3/4-14 NPT, Allen head		2	2	2						2	2	2	2	2	2	2	2	2	2	2
18	STD-8	WASHER, 1/4 plain		29	29	29						29	29	29	29	29	29	29	29	29	29	29
19	STD-160	WASHER, 1/4 lock, internal teeth		23	23	23						23	23	23	23	23	23	23	23	23	23	23
20	LW-25-2.00	BOLT, 1/4-20 x 2.00 long, hex. hd.		2	2	2						2	2	2	2	2	2	2	2	2	2	2
21	LW-25-1.00	BOLT, 1/4-20 x 1.00 long, hex. hd.		10	10	10						10	10	10	10	10	10	10	10	10	10	10
22	STD-1411	NUT, 1/4 plain		13	13	13						13	13	13	13	13	13	13	13	13	13	13
23	06E19769-0.91	GASKET, 1-1/8 O.D. x 29/32 I.D. x 1/16 annular		1	1	1						1	1	1	1	1	1	1	1	1	1	1
24	72958	BAFFLE, Oil sump		1	1	1						1	1	1	1	1	1	1	1	1	1	1
25	72960	PLUG, 7/8-14 x 5/8 hex. hd.		1	1	1						1	1	1	1	1	1	1	1	1	1	1
26	LW-25-0.81	BOLT, 1/4-20 x 13/16 long		4	4	4						4	4	4	4	4	4	4	4	4	4	4
27	STD-8	WASHER, 1/4 plain		37	37	37						37	37	37	37	37	37	37	37	37	37	37
28	STD-160	WASHER, 1/4 lock, internal teeth		23	23	23						23	23	23	23	23	23	23	23	23	23	23
29	LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. hd.		6	6	6						6	6	6	6	6	6	6	6	6	6	6
30	LW-25-1.00	BOLT, 1/4-20 x 1.00 long, hex. hd.		8	8	8						8	8	8	8	8	8	8	8	8	8	8
31	STD-1411	NUT, 1/4-20 plain		25	25	25						25	25	25	25	25	25	25	25	25	25	25
32	STD-551	PLUG, 1/2-14 NPT, Sq. hd., drilled		2	2	2						2	2	2	2	2	2	2	2	2	2	2
33	60422	SCREEN, Oil suction		1	1	1						1	1	1	1	1	1	1	1	1	1	1
34	06E19769-1.00	GASKET, 1.00 I.D. x 1-1/4 O.D. x 3/32 thick		1	1	1						1	1	1	1	1	1	1	1	1	1	1
35	LW-12545	PLUG, 1.00-20 thd. x 5/8 hex. hd.		1	1	1						1	1	1	1	1	1	1	1	1	1	1
36	75444	ADAPTER ASSY., Fuel drain valve		2	2	2						2	2	2	2	2	2	2	2	2	2	2

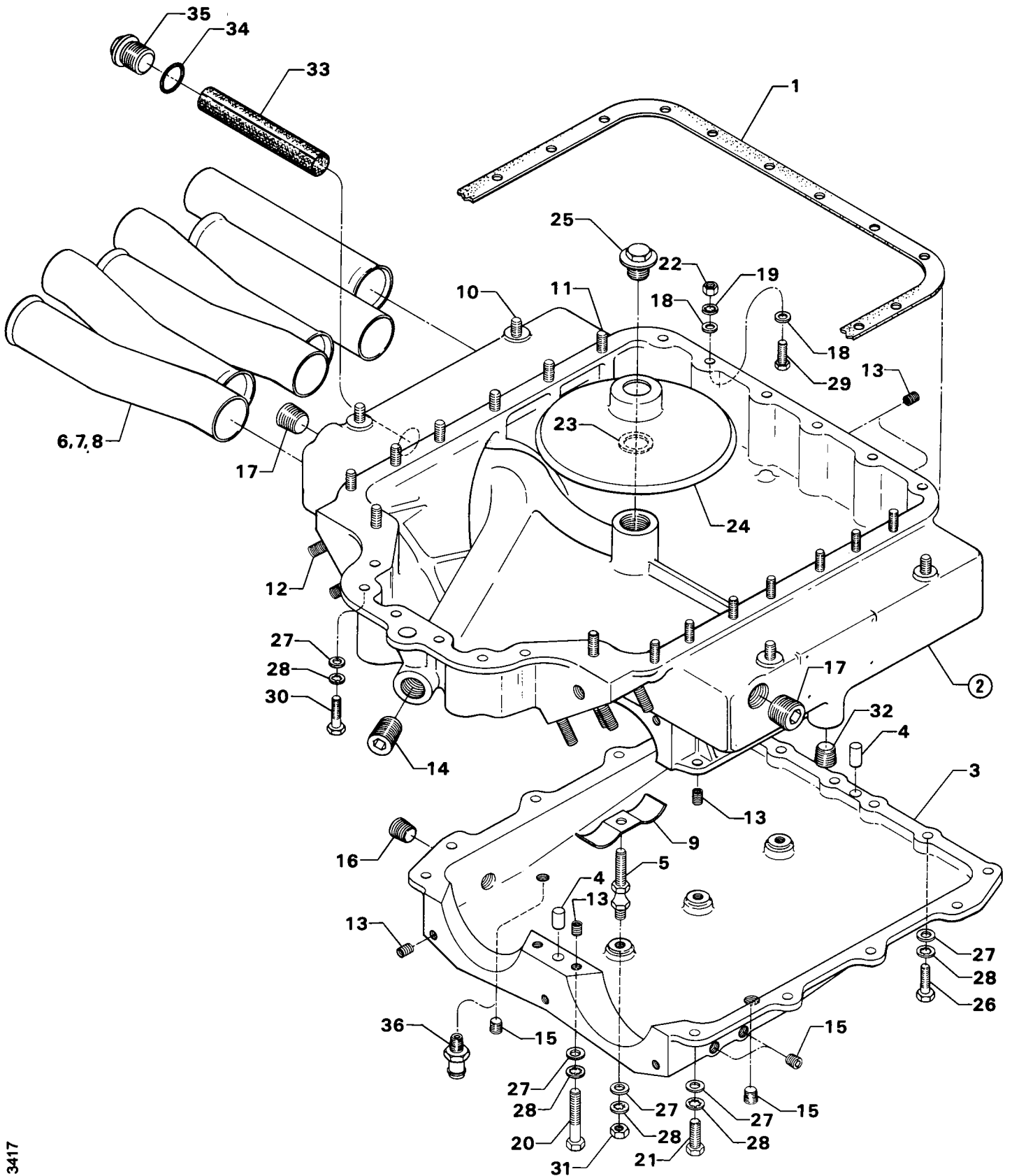
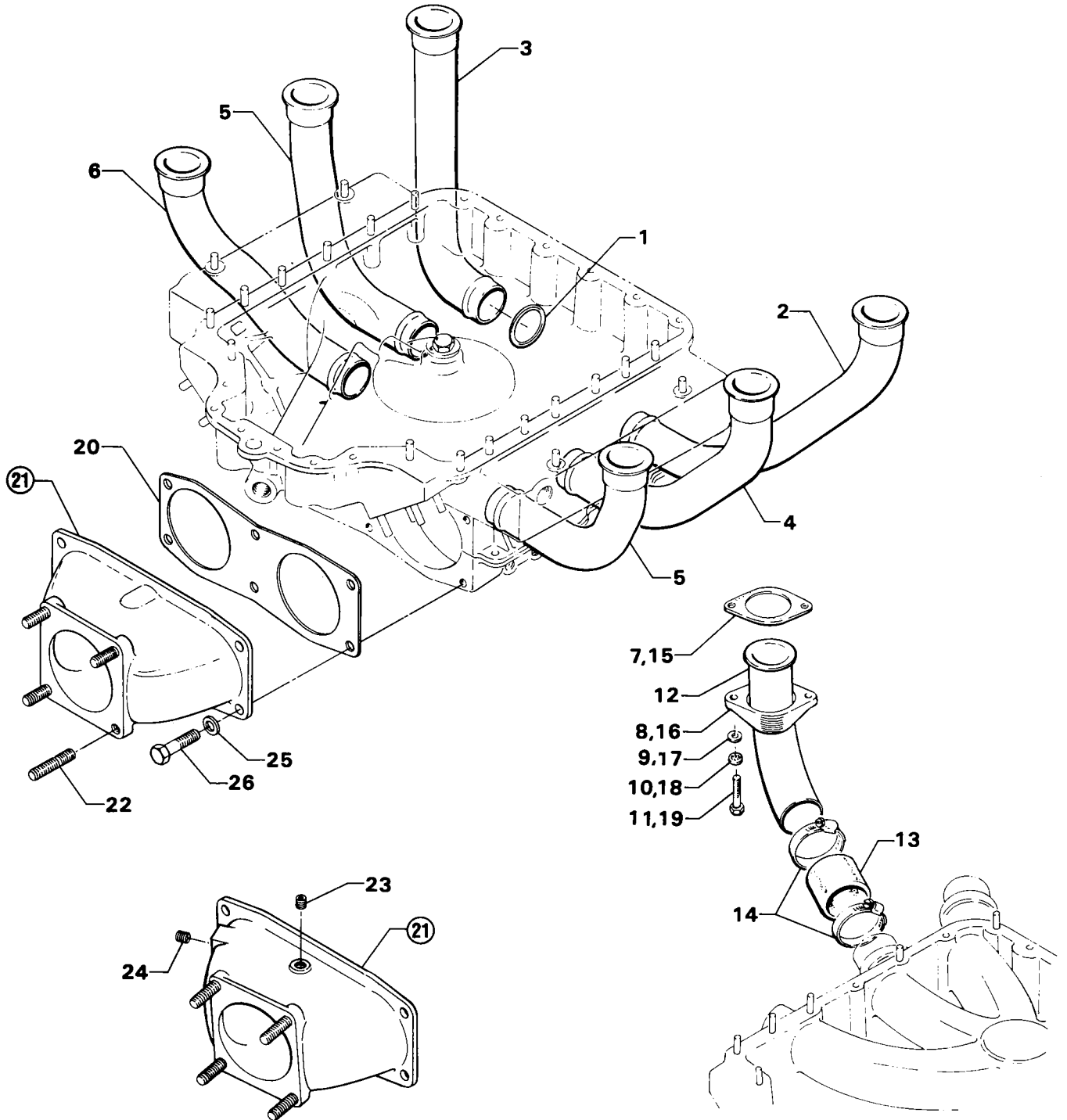


Figure 32. OIL SUMP AND INDUCTION HOUSING ASSEMBLY AND OIL SUCTION SCREEN

OIL SUMP AND INDUCTION SYSTEM INTAKE PIPES AND AIR INLET HOUSING

FIG. REF. 33	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY															
				A 1 5	B 1 5	B 1 5	C 1 5	C 4 5	C 4 5	D 4 5	E 1 5	E 1 5	G 1 5	G 1 5	G 1 5	G 1 5	G 1 5	G 1 5	
1	72711	RING, Seal, intake pipes		6	6	6					6	6	6	6	6	6	6	6	6
2	LW-12191	PIPE, Intake, cylinder no. 1		1	1	1					1	1	1	1	1	1	1	1	1
3	LW-12192	PIPE, Intake, cylinder no. 2		1	1	1					1	1	1	1	1	1	1	1	1
4	LW-12193	PIPE, Intake, cylinder no. 3		1	1	1					1	1	1	1	1	1	1	1	1
5	LW-12194	PIPE, Intake, cylinders no. 4 & 5		2	2	2					2	2	2	2	2	2	2	2	2
6	LW-12195	PIPE, Intake, cylinder no. 6		1	1	1					1	1	1	1	1	1	1	1	1
7	71973	GASKET, 2 bolt flange, 1-7/8 I.D.		6	6	6					6	6	6	6	6	6	6	6	6
8	74360	FLANGE, Intake pipe, upper		6	6	6					6	6	6	6	6	6	6	6	6
9	STD-8	WASHER, 1/4 plain		12	12	12					12	12	12	12	12	12	12	12	12
10	STD-160	WASHER, 1/4 lock, internal teeth		12	12	12					12	12	12	12	12	12	12	12	12
11	LW-25-1.25	BOLT, 1/4-20 x 1-1/4 long, hex. hd.		12	12	12					12	12	12	12	12	12	12	12	12
12	70485	PIPE, Intake					6	6	6	6									
13	69603	HOSE, 1-3/4 I.D. x 2-3/16 O.D. x 1-3/4 long					6	6	6	6									
14	LW-15592-8-28	CLAMP, Hose					12	12	12	12									
15	71973	GASKET, 2 bolt flange, 1-7/8 I.D.					6	6	6	6									
16	73346	FLANGE, Intake pipe, upper					6	6	6	6									
17	STD-8	WASHER, 1/4 plain					12	12	12	12									
18	STD-160	WASHER, 1/4 lock, internal teeth					12	12	12	12									
19	LW-25-1.25	BOLT, 1/4-20 x 1-1/4 long, hex. hd.					12	12	12	12									
20	72210	GASKET, Air throttle housing		1	1	1					1	1	1	1	1	1	1	1	1
21	73031	HOUSING ASSY., Air inlet		1	1	1					1	1	1					1	1
	77653	HOUSING ASSY., Air inlet												1		1			
	78100	HOUSING ASSY., Air inlet													1				
22	31C-14	STUD, 5/16-18 x 1-3/4 long		4	4	4					4	4	4			4		4	4
	31C-16	STUD, 5/16-18 x 2.00 long												4		4			
23	1102	PLUG, 1/8 pipe x 3/8 long, Allen hd.														1			
24	STD-1353	INSERT, No. 10-24 Helicoil x 3/8 long														2			
25	STD-8	WASHER, 1/4 plain		6	6	6					6	6	6	6	6	6	6	6	6
26	LW-25-0.81	BOLT, 1/4-20 x 13/16 long		6	6	6					6	6	6	6	6	6	6	6	6



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Figure 33. INTAKE PIPES AND AIR INLET HOUSING

OIL SUMP AND INDUCTION SYSTEM FUEL INJECTORS AND FUEL HOSES

FIG. REF. 34	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY														
				A	B	B	C	C	C	D	E	E	G	G	G	G	G	G
				1	1	1	1	4	4	4	1	1	1	1	1	1	1	1
1	66224	GASKET, Fuel injector					1	1	1	1								
2	73032	GASKET, Air inlet housing		1	1	1					1	1	1	1	1	1		
	73032	GASKET, Air inlet housing											2		2			
3	77654	SPACER, Fuel injector											1		1			
4	73024	FUEL INJECTOR (391787-4)			1	1				1	1							
	73967	FUEL INJECTOR (391821-6)		1								1				1		
	75567	FUEL INJECTOR (2524273-12)												1				
	77003	FUEL INJECTOR (2524298-12)											1		1			
	LW-10976	FUEL INJECTOR (2524470-5)														1		
	LW-11007	FUEL INJECTOR (2524477-12)												1				
	LW-11218	FUEL INJECTOR (2524491-9)												1				
	LW-11746	FUEL INJECTOR (2524534-9)													1			
5	73937	FUEL INJECTOR (2524054-11)							1	1	1							
	75176	FUEL INJECTOR (2524213-11)								1	1							
6	MS29512-06	SEAL, Oil, 5/64 dia. section x 15/32 I.D.												1		1		
7	AN919-6	REDUCER, Flared tube (1/4 tubing)												1		1		
8	MS20822-4	ELBOW, 1/4 flared tube & 1/8 NPT, 90°		1									1			1		
9	76304	ELBOW, Adjustable, 45°													1			
10	STD-35	WASHER, 5/16 plain		4														
	STD-35	WASHER, 5/16 plain													2			
11	STD-1727	WASHER, 3/4 O.D. x 21/64 I.D. x 1/8 plain												4	2			
12	STD-1410	NUT, 5/16-18 plain		4														
13	STD-1763	LOCKNUT, 5/16 plain		4														
14	LW-12784-4-274	HOSE ASSY., Fuel injector to fuel manifold		1					1	1	1	1						
	LW-12784-4-303	HOSE ASSY., Fuel injector to fuel manifold		1									1			1		
	LW-12784-4-340	HOSE ASSY., Fuel injector to fuel manifold													1			
	LW-12785-4-334	HOSE ASSY., Fuel injector to fuel manifold			1	1				1	1			1		1		
	LW-12876-4S334	HOSE ASSY., Fuel injector to fuel manifold												1				
	LW-13181-6-380	HOSE ASSY., Fuel injector to fuel manifold			1	1				1	1							
15	LW-12799-6S110	HOSE ASSY., Fuel pump to injector													1			
	LW-12877-6S051	HOSE ASSY., Fuel pump to injector												1				
16	LW-12783-6-254	HOSE, Fuel pump to injector		1					1	1								
17	LW-16266-25-50	CLAMP		1					1	1	1	1		1	1	1		
	LW-16266-25-63	CLAMP												1				
	LW-16266-25-75	CLAMP			1	1				1	1							
18	LW-16266-10-13	CLAMP			1	1					1	1						

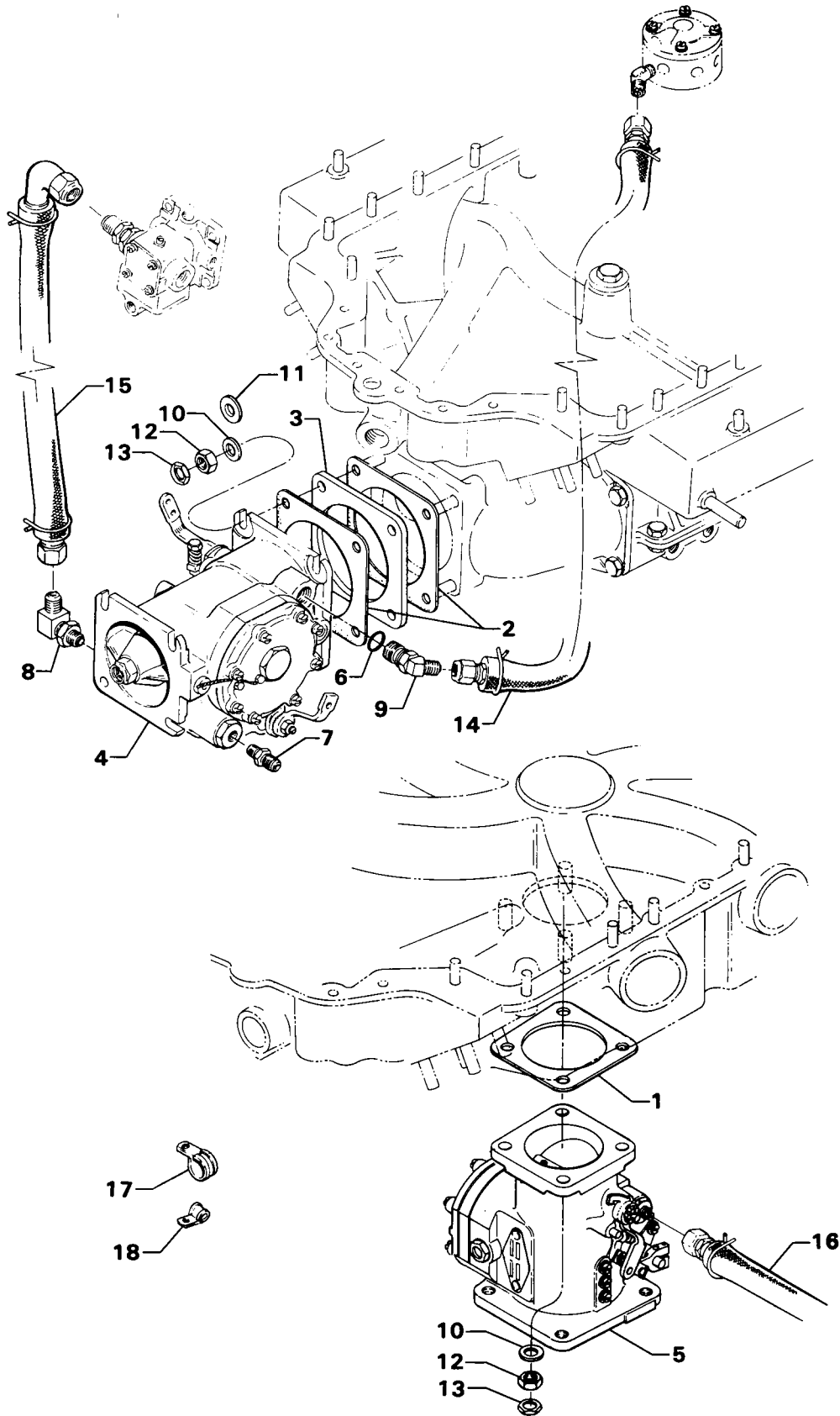
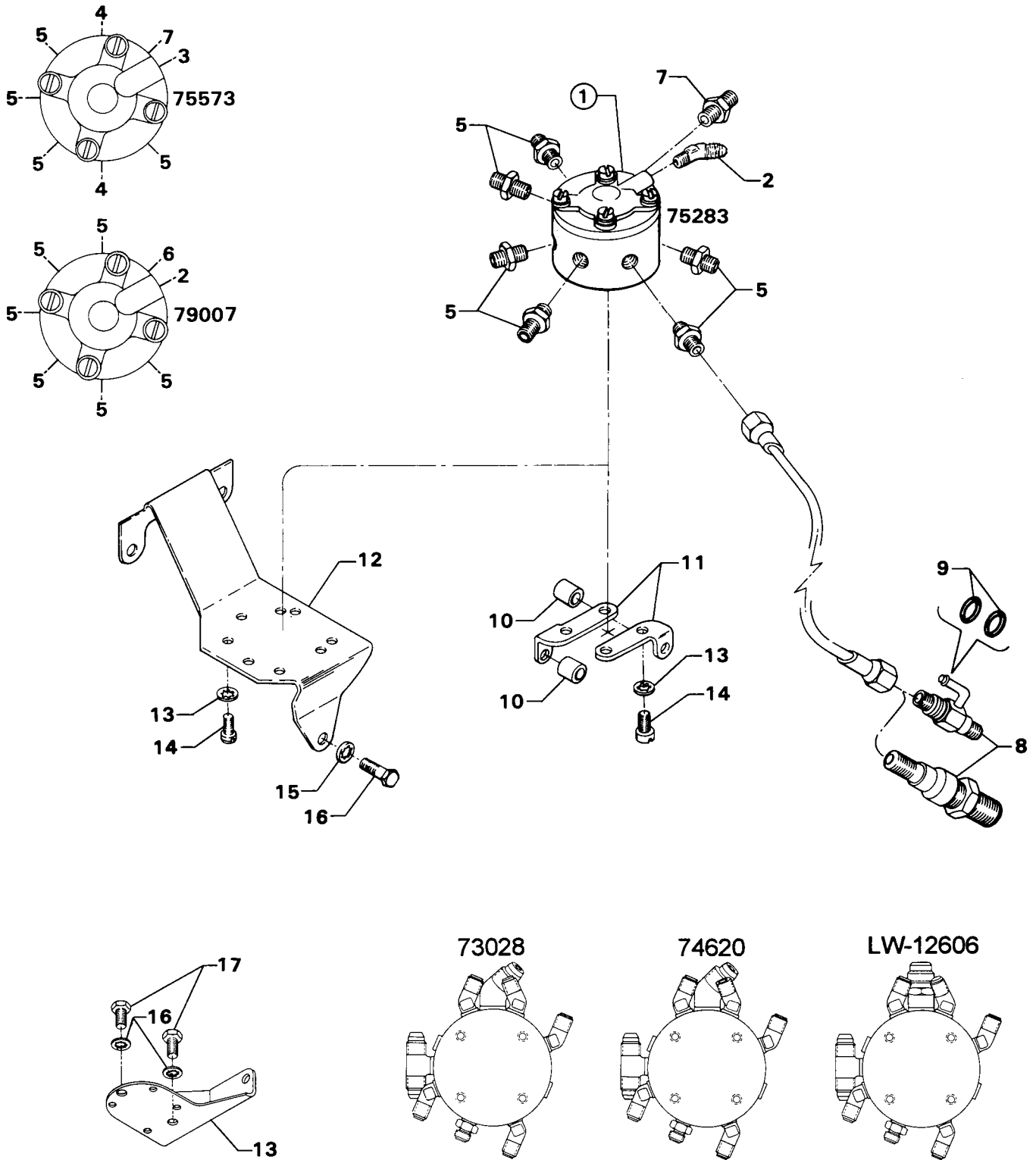


Figure 34. FUEL INJECTORS AND FUEL HOSES

OIL SUMP AND INDUCTION SYSTEM FUEL MANIFOLDS, BRACKETS AND INJECTION NOZZLES

FIG. REF. 35	PART NUMBER	DESCRIPTION	O N A L L	QUANTITY PER ASSEMBLY													
				A 1 A 5	B 1 A 5	B 1 C 5	C 1 B 5	C 4 B 5	C 4 C 5	D 4 A 5	E 1 A 5	E 1 B 5	G 1 A 5	G 1 B 5	G 1 C 5	G 1 D 5	G 1 E 5
1	73028*	MANIFOLD ASSY., Fuel			1					1							
	74620*	MANIFOLD ASSY., Fuel				1				1	1						
	75283	MANIFOLD ASSY., Fuel		1			1	1	1	1		1	1		1	1	1
	75573	MANIFOLD ASSY., Fuel												1			
	79007	MANIFOLD ASSY., Fuel										1					
	LW-12606*	MANIFOLD ASSY., Fuel								1	1						
2	MS20823-4	ELBOW, 1/4 tube, 1/8 NPT, 45°		1			1	1	1	1		1	1		1	1	1
3	AN816-4	NIPPLE, 1/4 tube & 1/8 NPT												1			
4	AN791-2	ELBOW, Union, 45°, 1/8 tube												2			
5	STD-148	NIPPLE, Union, 1/8 NPT												4			
	STD-148	NIPPLE, Union, 1/8 NPT		6			6	6	6	6		6	6		6	6	6
6	02G21382	NIPPLE, 3/16 tube to 1/8 NPT, restricted												1			
7	02G21446	NIPPLE, 1/8 tube to 1/8 NPT, restricted		1			1	1	1	1		1	1	1	1	1	1
8	LW-18265	NOZZLE, Injection	6														
	LW-18853	NOZZLE, Injection								6	6						
	LW-18854	NOZZLE ASSY., Manifold air bleed		6									6				
9	951391	"O" RING		12						12	12		12				
10	73966	SPACER, Fuel manifold bracket		2			2	2	2	2		2	2		2	2	2
11	73965	BRACKET, Fuel manifold		2			2	2	2	2		2	2		2	2	2
12	74326	BRACKET, Fuel manifold												1			
13	73021	BRACKET, Fuel manifold			1	1				1	1						
14	STD-251	WASHER, No. 10 lock, internal	4														
15	STD-82	SCREW, No. 10-24 x 1/2 long, rd. hd.	4														
16	STD-160	WASHER, 1/4 lock, internal teeth			2	2				2	2			1			
17	LW-25-0.50	BOLT, 1/4-20 x 1/2 long, hex. hd.			2	2				2	2						
18	STD-1897	BOLT, 1/4-28 x 17/64 long, hex. hd.												1			

* These fuel manifolds are bottom mounted (See Figure 37, Page 6-14) and are sold as complete assemblies only.



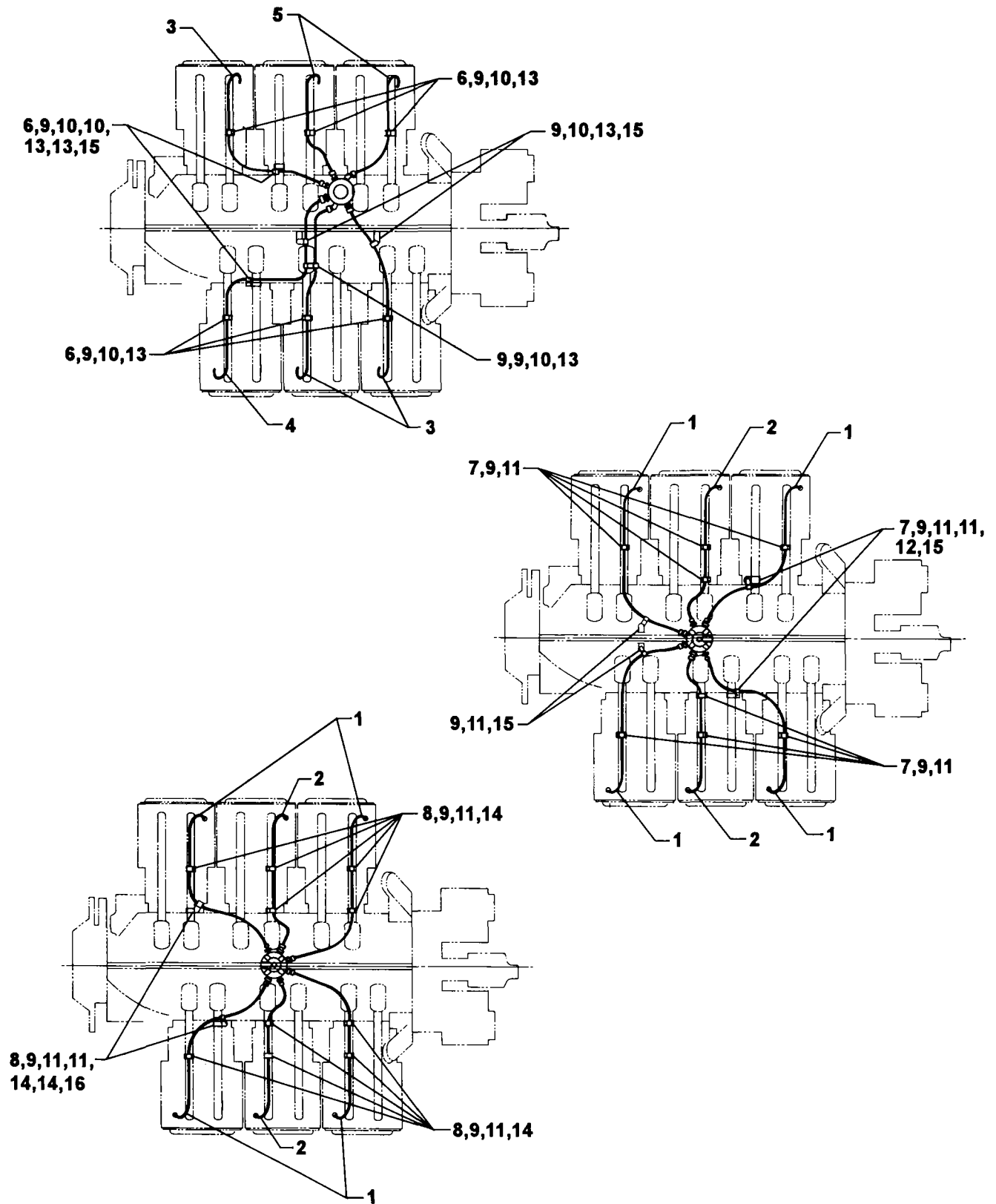
BOTTOM MOUNTED MANIFOLDS - SOLD AS COMPLETE ASSEMBLIES ONLY

Figure 35. FUEL MANIFOLDS, BRACKETS AND INJECTION NOZZLES

OIL SUMP AND INDUCTION SYSTEM

FUEL LINES AND ATTACHING PARTS (IO-540-A, C, D, G)

FIG. REF. 36	PART NUMBER	DESCRIPTION	O N A L	QUANTITY PER ASSEMBLY														
				A	B	B	C	C	C	D	E	E	G	G	G	G	G	G
				1	1	1	1	4	4	4	1	1	1	1	1	1	1	1
1	LW-12098-0-210	TUBE ASSY., Fuel man. to noz., cyls. 1-2-5-6	4			4	4	4	4			4	4		4	4	4	
2	LW-12098-0-170	TUBE ASSY., Fuel man. to noz., cyls. 3 & 4	2			2	2	2	2			2	2		2	2	2	
3	LW-12098-0-210	TUBE ASSY., Fuel man. to noz., cyls. 1-4-6												3				
4	LW-12098-0-280	TUBE ASSY., Fuel man. to noz., cyl. 2												1				
5	LW-12098-0-140	TUBE ASSY., Fuel man. to noz., cyls. 3 & 5												2				
6	LW-16266-10-75	CLAMP												8				
7	LW-16266-10-75	CLAMP	10									10	10		10	10	10	
8	LW-16266-10-75	CLAMP	12			12	12	12	12									
9	LW-16266-10-13	CLAMP	12			12	12	12	12			12	12	12	12	12	12	
10	STD-860	SCREW, No. 10-32 x 5/8 long, fill. hd.												13				
11	STD-860	SCREW, No. 10-32 x 5/8 long, fill. hd.	14			14	14	14	14			14	14		14	14	14	
12	STD-425	WASHER, No. 10 plain	2			2	2	2	2			2	2	2	2	2	2	
13	STD-670	NUT, No. 10-32 self-locking												13				
14	STD-670	NUT, No. 10-32 self-locking	14			14	14	14	14			14	14		14	14	14	
15	73136	BRACKET, 90°	2			2	2	2	2									
16	73136	BRACKET, 90°	4									4	4	4	4	4	4	



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Figure 36. FUEL LINES AND ATTACHING PARTS (IO-540-A, C, D, G)

OIL SUMP AND INDUCTION SYSTEM

FUEL LINES AND ATTACHING PARTS (IO-540-B & E)

FIG. REF. 37	PART NUMBER	DESCRIPTION	O N A L	QUANTITY PER ASSEMBLY													
				A 1 5	B 1 5	B 1 5	C 1 5	C 4 5	C 4 5	D 4 5	E 1 5	E 1 5	G 1 5	G 1 5	G 1 5	G 1 5	G 1 5
1	LW-13995-0-224	TUBE ASSY., Fuel man. to noz., cyls. 1 & 4			2	2					2	2					
2	LW-13995-0-202	TUBE ASSY., Fuel man. to noz., cyl. 2			1	1					1	1					
3	LW-13995-0-271	TUBE ASSY., Fuel man. to noz., cyls. 3 & 6			2	2					2	2					
4	LW-13995-0-284	TUBE ASSY., Fuel man. to noz., cyl. 5			1	1					1	1					
5	AN735-26	CLAMP, 1-5/8 dia. (loop type)			4	4					4	4					
6	LW-16266-10-13	CLAMP			16	16					16	16					
7	LW-16266-25-44	CLAMP			1	1					1	1					
8	73152	BRACKET, Support clamp			1	1					1	1					
9	LW-16266-10-44	CLAMP			1	1					1	1					
10	76735	BRACKET, 90°			2	2					2	2					
11	STD-860	SCREW, No. 10-32 x 5/8 long, fill. hd.			10	10					10	10					
12	STD-670	NUT, No. 10-32 self-locking			10	10					10	10					

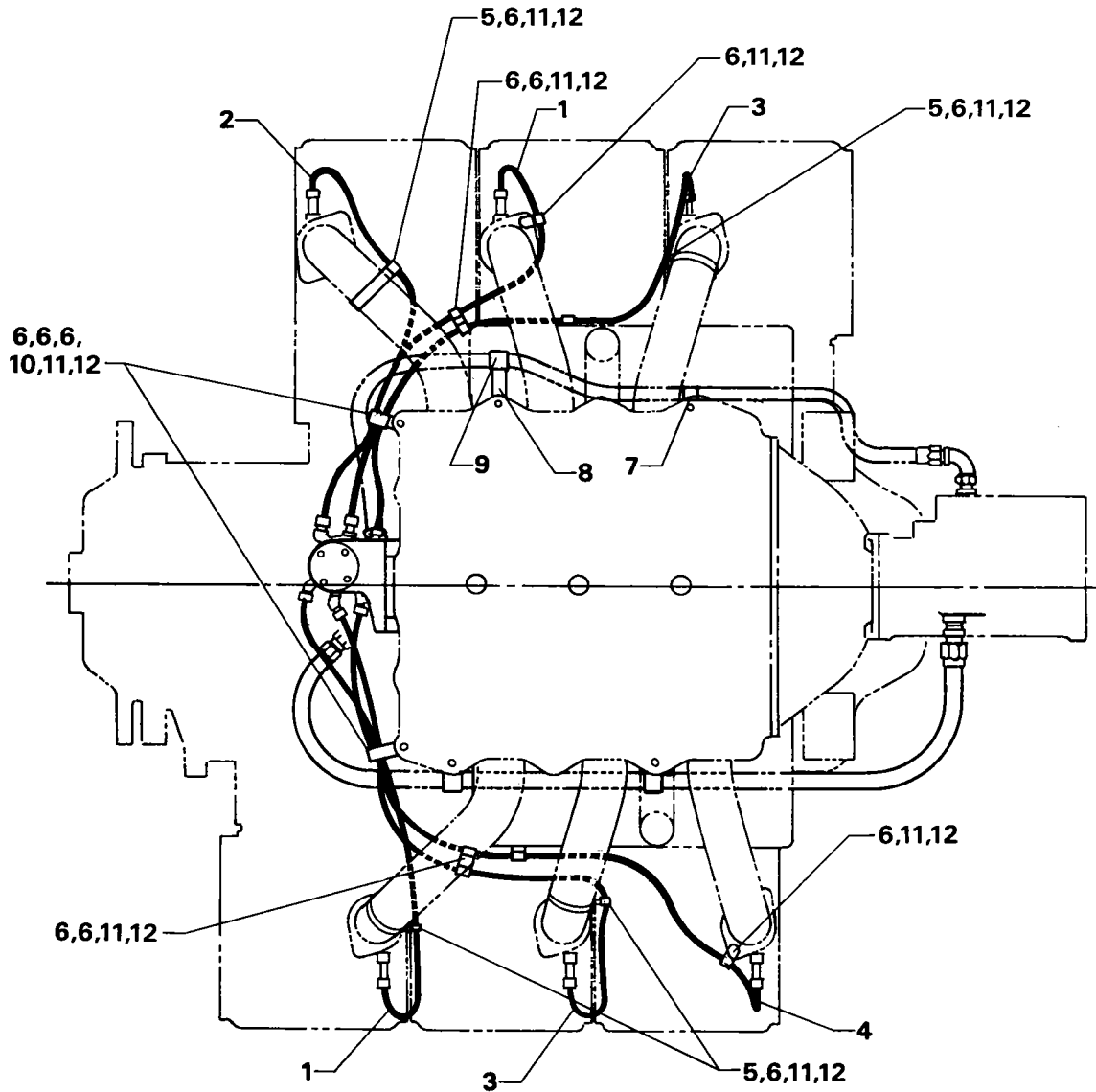


Figure 37. FUEL LINES AND ATTACHING PARTS (IO-540-B & E)

SERVICE KIT SECTION

SEAL AND GASKET SET

IO-540-C1B5, -C4B5, -C4C5, -D4A5

Part No.	Part Name	Qty.
71569-1	SEAL AND GASKET SET	1
LW-12272	LOCKPLATE, Shroud tube	6
LW-12681	GASKET, Magneto	2
LW-12795	GASKET, Oil filter adapter	1
06B21326	GASKET, Oil sump	1
LW-13792	SEAL, Crankshaft oil	1
LW-14260	SEAL, Tachometer drive oil	1
LW-14995	SPRING, Shroud tube	6
LW-15628	SEAL, Crankshaft	1
LW-18638	LOCKPLATE, Crankshaft gear	1
LW-18661	SEAL, Shroud tube	12
MS16625-1081	RING, Internal retaining	1
06E19769-1.00	GASKET, Oil suction screen	1
STD-213	SEAL, Oil	1
06E19769-0.63	GASKET, Annular	2
06E19769-1.25	GASKET, Annular	1
06A19956	SEAL, Oil	2
1691-C	GASKET, Fuel pump	1
8313	GASKET, Vacuum pump	2
60096	GASKET, Fuel pump	1
61173	GASKET, Oil pressure housing	1
61183	GASKET, Accessory adapter	1
62224	GASKET, Magneto adapter	4
LW-19296	GASKET, Exhaust flange	6
66224	GASKET, Carburetor	1
68315	GASKET, Accessory drive adapter	1
69164	GASKET, Fuel pump adapter	1
69345	SPACER	6
69551	GASKET, Accessory drive adapter	1
70310	SEAL, Shroud tube	12
70455	GASKET	1
70457	GASKET	1
71481	RING, Oil seal	6
71667	LOCKPLATE, Fuel pump idler gear	1
71973	GASKET, 2 Bolt flange	6
72053	GASKET, Governor	1
72059	GASKET, Oil filler extension	1
72075	RING, Oil seal	8
72078	LOCKPLATE, Cam gear	2
72091	RING, Oil seal	2
72210	GASKET	1
72312	RING, Oil seal	1
73383	LOCKPLATE, Generator bracket	2
73818	GASKET, Accessory housing	1
74065	“O” RING, Oil level gage	1
74068	“O” RING	1
74305	SEAL	1
75906	GASKET, Rocker box cover	6
76510	GASKET	1
76940	SEAL, Crankshaft oil	1

SERVICE KIT SECTION

SEAL AND GASKET SET

IO-540-A1A5, -B1A5, -B1C5, -E1A5, -E1B5, -G Series

Part No.	Part Name	Qty.
73185-1	SEAL AND GASKET SET	1
LW-12681	GASKET, Magneto	2
LW-12795	GASKET	1
06B21326	GASKET, Oil sump	1
LW-13792	SEAL, Crankshaft oil	1
LW-14260	SEAL, Tachometer	1
LW-15628	SEAL, Crankshaft	1
LW-18638	LOCKPLATE, Crankshaft gear	1
LW-18661	SEAL, Shroud tube	24
MS29512-6	SEAL	1
MS29512-8	SEAL, Oil	1
06E19769-1.00	GASKET, Annular	2
STD-213	SEAL, Oil	1
06E19769-0.63	GASKET, Annular	2
06E19769-0.91	GASKET	1
06E19769-1.25	GASKET, Annular	1
06E19769-0.50	GASKET, Annular	6
STD-1737	RING	1
06A19956	SEAL, Oil	1
1691-C	GASKET, Fuel pump pad	1
8313	GASKET, Vacuum pump	2
61173	GASKET, Oil pressure housing	1
61183	GASKET, Accessory adapter	1
62224	GASKET, Magneto	4
66732	GASKET, Valve rocker shaft cover	12
67193	GASKET, Rocker box cover	6
68315	GASKET, Accessory drive adapter	1
69164	GASKET, Fuel pump adapter	1
69551	GASKET, Accessory pad cover	1
70455	GASKET	1
70457	GASKET, Oil level gage	1
71450	GASKET, Rocker box	6
71481	RING, Oil seal	6
71667	LOCKPLATE, Crankshaft idler gear	2
71973	GASKET, Intake flange	6
72053	GASKET, Governor drive pad	1
72075	SEAL, Oil	8
72078	LOCKPLATE, Camshaft gear	2
72091	RING, Oil seal	2
72210	GASKET, Air throttle housing	1
72312	RING, Oil seal	1
72711	RING, Oil seal intake pipe	6
73032	GASKET, Air inlet housing	1
73383	LOCKPLATE	2
73818	GASKET, Accessory housing	1
74065	"O" RING, Oil filler plug	1
74305	SEAL, Crankshaft oil	1
75118	GASKET, Exhaust flange	12
75233	"O" RING	24
76510	GASKET	1
76940	SEAL, Crankshaft oil	1
60096	GASKET, Fuel pump	1

SERVICE KIT SECTION**CYLINDER, PISTON AND RING ASSEMBLY**

IO-540-C1B5, -C4B5, -C4C5, -D4A5

Part No.	Part Name	Qty.
05K21102	KIT - CYLINDER, PISTON AND RING ASSY.	1
LW-12425	CYLINDER AND HEAD ASSEMBLY	1
LW-19001	VALVE, Exhaust	1
73938	VALVE, Intake	1
LW-11800	SPRING, Valve, outer	2
LW-11795	SPRING, Valve, inner	2
LW-10077	SEAT, Valve spring, upper, intake	1
LW-16475	SEAT, Valve spring, upper, exhaust	1
65441	SEAT, Valve spring, lower, intake	1
LW-13323	SEAT, Valve spring, lower, exhaust	1
60009	KEY, Valve, intake	2
17C21191	KEY, Valve, exhaust	2
17C19386	CAP, Valve stem, exhaust	1
75089	PISTON	1
74241	RING, Piston, compression	2
73857	RING, Piston, oil regulating	1
LW-14077	PIN, Piston	1
LW-11775	PLUG, Piston pin	2
60828	PLUG, Piston pin	2
71481	RING, Cylinder base seal	1
LW-18661	SEAL, Shroud tube	2
70310	SEAL, Shroud tube	2
75906	GASKET, Rocker box cover	1
SSP-2272	TAG	1
SSP-2472	TAG	1

SERVICE KIT SECTION

CYLINDER, PISTON AND RING ASSEMBLY

IO-540-B1A5, -B1C5, -E1A5, -E1B5

Part No.	Part Name	Qty.
05K21110	KIT - CYLINDER, PISTON AND RING ASSY.	1
LW-13532	CYLINDER AND HEAD ASSEMBLY	1
LW-16740	VALVE, Exhaust	1
LW-13622	VALVE, Intake	1
LW-11796	SPRING, Valve, outer	2
LW-11797	SPRING, Valve, inner	2
69532	SEAT, Valve spring, upper, intake	1
LW-16475	SEAT, Valve spring, upper, exhaust	1
LW-13322	SEAT, Valve spring, lower, exhaust	1
LW-13321	SEAT, Valve spring, lower, intake	1
71481	RING, Cylinder base seal	1
72050	KEY, Valve, intake	2
17C21191	KEY, Valve, exhaust	2
62388	CAP, Valve stem, intake	1
17C19386	CAP, Valve stem, exhaust	1
LW-10207-S	PISTON	1
74241	RING, Piston, compression	2
73857	RING, Piston, oil regulating	1
LW-13446 or LW-14077	PIN, Piston	1
60828	PLUG, Piston pin	2
LW-11775	PLUG, Piston pin	2
66732	GASKET, Valve rocker shaft cover	2
71450	GASKET, Rocker box cover	1
LW-18661	SEAL, Shroud tube	4
SSP-2272	TAG	1

SERVICE KIT SECTION

CYLINDER, PISTON AND RING ASSEMBLY

IO-540-A1A5, -G1A5, -G1B5, -G1C5, -G1D5, -G1E5

Part No.	Part Name	Qty.
05K21112	KIT - CYLINDER, PISTON AND RING ASSY.	1
LW-13530	CYLINDER AND HEAD ASSEMBLY	1
LW-16740	VALVE, Exhaust	1
LW-13622	VALVE, Intake	1
LW-11796	SPRING, Valve, outer	2
LW-11797	SPRING, Valve, inner	2
69532	SEAT, Valve spring, upper, intake	1
LW-16475	SEAT, Valve spring, upper, exhaust	1
LW-13321	SEAT, Valve spring, lower, intake	1
LW-13322	SEAT, Valve spring, lower, exhaust	1
71481	RING, Cylinder base seal	1
72050	KEY, Valve, intake	2
17C21191	KEY, Valve, exhaust	2
62388	CAP, Valve stem, intake	1
17C19386	CAP, Valve stem, exhaust	1
LW-10207-S	PISTON	1
74241	RING, Piston, compression	2
73857	RING, Piston, oil regulating	1
LW-13446 or LW-14077	PIN, Piston	1
60828	PLUG, Piston pin	2
LW-11775	PLUG, Piston pin	2
66732	GASKET, Valve rocker shaft cover	2
67193	GASKET, Rocker box cover	1
LW-18661	SEAL, Shroud tube	4
SSP-2272	TAG	1

SERVICE KIT SECTION

CYLINDER, PISTON AND RING ASSEMBLY

IO-540-G Series

Part No.	Part Name	Qty.
05K21204	KIT - CYLINDER, PISTON AND RING ASSY.	1
LW-13534	CYLINDER AND HEAD ASSEMBLY	1
LW-16740	VALVE, Exhaust	1
LW-13622	VALVE, Intake	1
LW-11796	SPRING, Valve, outer	2
LW-11797	SPRING, Valve, inner	2
69532	SEAT, Valve spring, upper, intake	1
LW-16475	SEAT, Valve spring, upper, exhaust	1
LW-13321	SEAT, Valve spring, lower, intake	1
LW-13322	SEAT, Valve spring, lower, exhaust	1
72050	KEY, Valve, intake	2
17C21191	KEY, Valve, exhaust	2
62388	CAP, Valve stem, intake	1
17C19386	CAP, Valve stem, exhaust	1
LW-10207-S	PISTON	1
74241	RING, Piston, compression	2
73857	RING, Piston, oil regulating	1
LW-14077	PIN, Piston	1
60828	PLUG, Piston pin	2
LW-11775	PLUG, Piston pin	2
66732	GASKET, Valve rocker shaft cover	2
67193	GASKET, Rocker box cover	1
LW-18661	SEAL, Shroud tube	4
71481	RING, Cylinder base seal	1
SSP-2272	TAG	1

SERVICE KIT SECTION**CRANKCASE ASSEMBLY AND GOVERNOR STUD KITS**

Part No.	Part Name	Qty.
LW-11033-S	CRANKCASE ASSY. AND GOVERNOR STUD KIT	1
LW-11033*	CRANKCASE ASSEMBLY	1
31C-14	STUD (AN governor)	4
31C-16	STUD (Woodward governor)	4

* See Figure 1, Page 1-1 for component parts.

Part No.	Part Name	Qty.
LW-11035-S	CRANKCASE ASSY. AND GOVERNOR STUD KIT	1
LW-11035*	CRANKCASE ASSEMBLY	1
31C-14	STUD (AN Governor)	4
31C-16	STUD (Woodward Governor)	4

* See Figure 1, Page 1-1 for component parts.

Part No.	Part Name	Qty.
LW-11036-S	CRANKCASE ASSY. AND GOVERNOR STUD KIT	1
LW-11036*	CRANKCASE ASSEMBLY	1
31C-14	STUD (AN Governor)	4
31C-16	STUD (Woodward Governor)	4

* See Figure 1, Page 1-1 for component parts.

Part No.	Part Name	Qty.
LW-11037-S	CRANKCASE ASSY. AND GOVERNOR STUD KIT	1
LW-11037*	CRANKCASE ASSEMBLY	1
31C-14	STUD (AN Governor)	4
31C-16	STUD (Woodward Governor)	4

* See Figure 1, Page 1-1 for component parts.

Part No.	Part Name	Qty.
LW-11038-S	CRANKCASE ASSY. AND GOVERNOR STUD KIT	1
LW-11038*	CRANKCASE ASSEMBLY	1
31C-14	STUD (AN Governor)	4
31C-16	STUD (Woodward Governor)	4

* See Figure 1, Page 1-1 for component parts.

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PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
AN310-7	Nut	5-9	LW-31H0.75	Bolt	5-11
AN6-12	Bolt	5-5	LW-31H0.75	Bolt	5-13
AN6-12	Bolt	5-7	LW-31H1.22	Bolt	5-7
AN6-14	Bolt	5-5	LW-31H1.22	Bolt	5-9
AN6-14	Bolt	5-11	LW-31H1.22	Bolt	5-11
AN6-16	Bolt	5-5	LW-31H1.31	Bolt	5-7
AN6-16	Bolt	5-7	LW-31S1.16	Bolt	5-13
AN6-16	Bolt	5-11	LW-10077	Seat	3-5
AN6-17	Bolt	5-5	LW-10091	Link	5-5
AN6-21	Bolt	1-13	LW-10207	Piston	3-1
AN6-32	Bolt	5-5	LW-10641*	Housing Assy.	2-1
AN6-32	Bolt	5-7	LW-10647	Dowel	1-1
AN6-34A	Bolt	1-13	LW-10799	Spacer	2-5
AN7-12	Bolt	5-9	LW-10952	Shim	5-7
AN7-14	Bolt	5-9	LW-10952	Shim	5-11
AN735-26	Clamp	6-13	LW-10970	Strut	5-9
AN791-2	Elbow	6-9	LW-10976	Fuel Injector	6-7
AN816-4	Nipple	6-9	LW-11007	Fuel Injector	6-7
AN844-16D	Elbow	2-9	LW-11021	Bearing	1-5
AN919-6	Reducer	6-7	LW-11033	Crankcase Assy.	1-1
AN931-12S17	Grommet	3-9	LW-11035	Crankcase Assy.	1-1
LW-25-0.50	Bolt	6-9	LW-11036	Crankcase Assy.	1-1
LW-25-0.63	Screw	1-11	LW-11037	Crankcase Assy.	1-1
LW-25-0.81	Bolt	6-3	LW-11038	Crankcase Assy.	1-1
LW-25-0.81	Bolt	6-5	LW-11146	Bracket	5-11
LW-25-0.94	Bolt	2-3	LW-11147	Bracket	5-9
LW-25-1.00	Bolt	6-1	LW-11147	Bracket	5-11
LW-25-1.00	Bolt	6-3	LW-11148	Pulley	5-3
LW-25-1.13	Bolt	1-13	LW-11150	Strut	5-11
LW-25-1.13	Bolt	2-3	LW-11151	Support Assy.	1-7
LW-25-1.13	Bolt	6-1	LW-11218	Fuel Injector	6-7
LW-25-1.13	Bolt	6-3	LW-11273	Clamp	6-3
LW-25-1.25	Bolt	6-5	LW-11485	Tube	3-5
LW-25-1.50	Bolt	1-13	LW-11635	Shield	5-7
LW-25-1.75	Bolt	1-13	LW-11635	Shield	5-9
LW-25-1.88	Bolt	1-13	LW-11635	Shield	5-11
LW-25-1.88	Bolt	2-3	LW-11713	Spring	1-5
LW-25-2.00	Bolt	1-13	LW-11746	Fuel Injector	6-7
LW-25-2.00	Bolt	6-3	LW-11750	Conn. Rod Assy.	3-1
LW-25S1.50	Bolt	1-13	LW-11795	Spring	3-5
LW-31-0.94	Bolt	5-5	LW-11796	Spring	3-5
LW-31-0.94	Bolt	5-7	LW-11797	Spring	3-5
LW-31-0.94	Bolt	5-9	LW-11800	Spring	3-5
LW-31-0.94	Bolt	5-11	LW-11997	Seal	1-5
LW-31-0.94	Bolt	5-13	LW-12098-0-140	Tube Assy.	6-11
LW-31-1.16	Bolt	5-1	LW-12098-0-170	Tube Assy.	6-11
LW-31-1.16	Bolt	5-2	LW-12098-0-210	Tube Assy.	6-11
LW-31H0.75	Bolt	5-5	LW-12098-0-280	Tube Assy.	6-11
LW-31H0.75	Bolt	5-7	LW-12186	Nut	3-1
LW-31H0.75	Bolt	5-9	LW-12191	Pipe	6-3

* Figure 9 - Accessory Housing Assembly - Page 2-1 - Lists Updated Part #'s
(21C21540-01 21C21541-01 21C21541-02 21C21538-02)

NUMERICAL INDEX (Cont.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
LW-12192	Pipe	6-5	LW-14078	Pin	3-1
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06A19956	Oil Seal	2-9	53E19600	Valve Assy.	2-7
06A19956	Oil Seal	2-11	54D19625	Oil Filter	2-7
06B21326	Gasket	6-1	66JC35SDNN	Magneto	4-3
06B21326	Gasket	6-3	66LP-OSCGN	Magneto	4-3
06E19769-0.63	Gasket	2-7	66LP-OSCNN	Magneto	4-3
06E19769-0.63	Gasket	2-9	66LR37SCNN	Magneto	4-3
06E19769-0.91	Gasket	6-3	66M19385	Clamp	4-1
06E19769-1.00	Gasket	6-1	66M21195	Clamp	4-3
06E19769-1.00	Gasket	6-3	67U20600	Harness	4-5
06E19769-1.25	Gasket	1-5	67U20601	Harness	4-5
07A19474	Bracket	5-5	67U20608	Harness	4-5
12A19770	Bracket	1-3	67U20609	Harness	4-5
13E17648	Crk'shft & Plug Assy.	1-7	67U20610	Harness	4-5
13E17649	Crk'shft & Plug Assy.	1-7	67U20611	Harness	4-5
13E17650	Crk'shft & Plug Assy.	1-7	67U20612	Harness	4-5
13E17674	Crk'shft & C'wt Assy.	1-7	67U20613	Harness	4-5
13E17676	Crk'shft & C'wt Assy.	1-7	67U20630	Harness	4-5
13E17678	Crk'shft & C'wt Assy.	1-7	67U20631	Harness	4-5
13E17679	Crk'shft & C'wt Assy.	1-7	67U20632	Harness	4-5
13S19647	Gear	1-7	67U20633	Harness	4-5
13S19648	Gear	1-7	67U20634	Harness	4-5
15B21319	Socket	1-5	67U20635	Harness	4-5
15F19957-35	Rod Assy.	3-7	67U20638	Harness	4-5
15F19957-36	Rod Assy.	3-7	67U20639	Harness	4-5
15F19957-45	Rod Assy.	3-7	67J20640	Harness	4-5
15F19957-47	Rod Assy.	3-7	67J20641	Harness	4-5
15F19957-55	Rod Assy.	3-7	67J20643	Harness	4-5
15F19957-57	Rod Assy.	3-7	67J20644	Harness	4-5
15F19957-58	Rod Assy.	3-7	67J20645	Harness	4-5
15F21362-13	Rod Assy.	3-7	67J20646	Harness	4-5