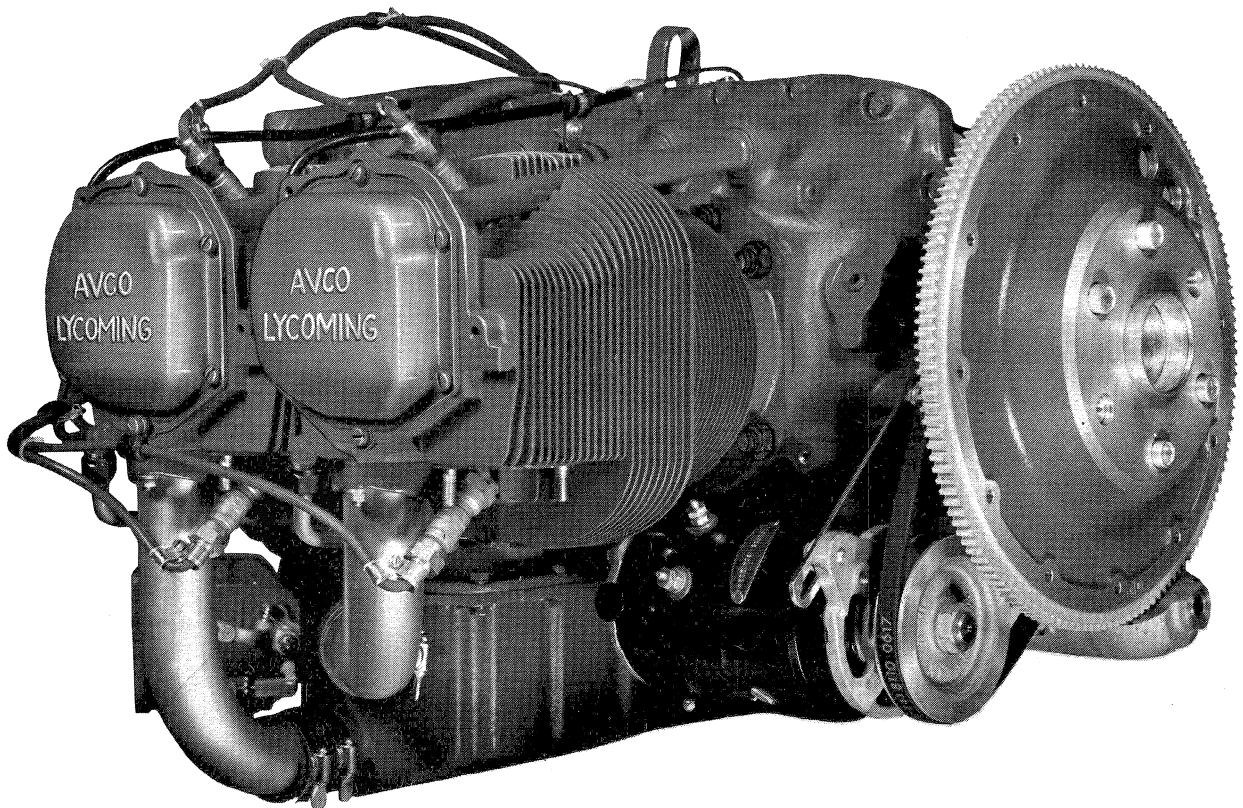


# PARTS CATALOG

AVCO LYCOMING

IO-320, AIO-320, LIO-320 AND AEIO-320  
WIDE CYLINDER FLANGE SERIES

# AIRCRAFT ENGINES



PC-303

**AVCO** LYCOMING WILLIAMSPORT DIVISION  
AVCO CORPORATION  
WILLIAMSPORT, PENNSYLVANIA 17701

# TECHNICAL PUBLICATION SUPPLEMENT

SUPPLEMENT No.	ENGINE MODEL	PUBLICATION No.	PUBLICATION DATE
SSP- 1184-1	IO, AIO, LIO and AEIO-320 Series	PC- 303	June, 1976

This supplement is arranged in the same basic format as the original parts catalog.  
Insert in front of catalog for useage of subject matter.

Revised January, 1985

Page 1

Figure 37A Oil Sump Assembly and Aerobatic  
Components list page added for AEIO models.

Revised January, 1985

Page 2

Figure 37A Oil Sump Assembly and Aerobatic  
Components illustration page added for AEIO models.



# LYCOMING 10, A10, L10, AE10-320 SERIES PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINE

## OIL SUMP AND INDUCTION SYSTEM OIL SUMP ASSEMBLY AND AEROBATIC COMPONENTS

FIG. REF. 37A	PART NUMBER	DESCRIPTION	Q N  A L L	QUANTITY PER ASSEMBLY AE10-320																			
				D 1 B	D 2 B	E 1 A	E 2 A	E 1 B	E 2 B														
1	LW-13353	GASKET, Oil sump	1																				
2	LW-14997	SUMP ASSY., Oil		1	1																		
	LW-14257	SUMP ASSY., Oil				1	1	1	1														
3	78914	CONNECTION, Intake pipe		4	4																		
4	61376	CONNECTION, Intake pipe, front				2	2	2	2														
5	61377	CONNECTION, Intake pipe, rear				2	2	2	2														
6	61400	STUD, 1/4-20 x 1-3/16 long		4	4																		
7	31C-15	STUD, 5/16-18 x 1-7/8 long	4																				
8	STD-91	PLUG, 1/2-14 NPT, Allen head		1	1																		
9	STD-551	PLUG, 1/2-14 NPT, Sq. hd., drilled	4																				
10	STD-8	WASHER, 1/4 plain		28	28	32	32	32	32														
11	STD-160	WASHER, 1/4 lock, internal teeth	20																				
12	STD-1204	BOLT, 1/4-20 x 15/16 long, hex. hd.		14	14	16	16	16	16														
13	STD-1419	BOLT, 1/4-20 x 1-1/8 long, hex. hd.	2																				
14	STD-1411	NUT, 1/4-20 plain		12	12	14	14	14	14														
15	LW-13871	FITTING, Sump, oil suction				1	1	1	1														
16	LW-13752	PLUG, Sump		1	1																		
17	70484	SCREEN, Oil suction		1	1																		
18	LW-14035	FITTING, Sump, oil suction		1	1																		
19	AN932-5*	PLUG, 1/2-14 NPT, Allen head				1	1	1	1														
20	LW-13753	FITTING, Sump, oil strainer	1																				
21	LW-13754	FITTING, Sump, oil return	1																				
22	LW-13749	SEPARATOR, Oil	1																				
23	LW-13755**	TEE, Breather																					
24	LW-13750	VALVE, Oil	1																				
25	50004-027	RING, 'O'	1																				
26	LW-16878★●	ADAPTER, Breather																					

**NOTE**

“Breather Option”

A visual check should be made to determine which optional installation is applicable on any given engine model.

- \* Shorter plug used if additional space is required.
- \*\* See Figure 1 on illustration page for useage.
- ★ See Figure 2 on illustration page for useage.
- Not used if vacuum pump is installed.

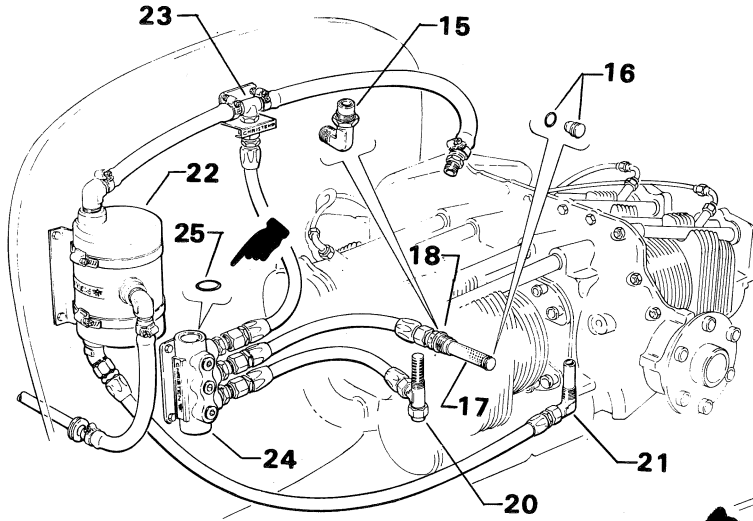
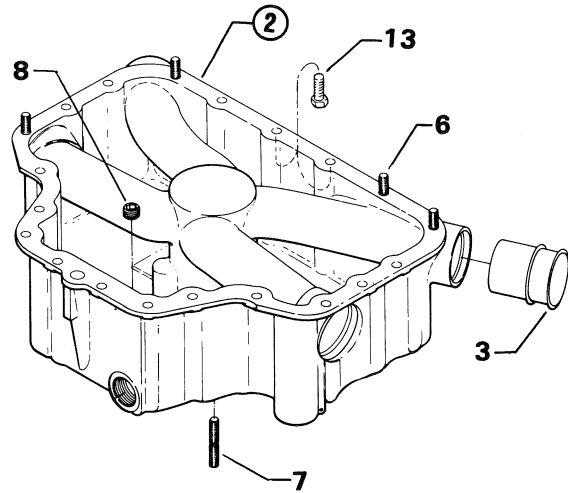
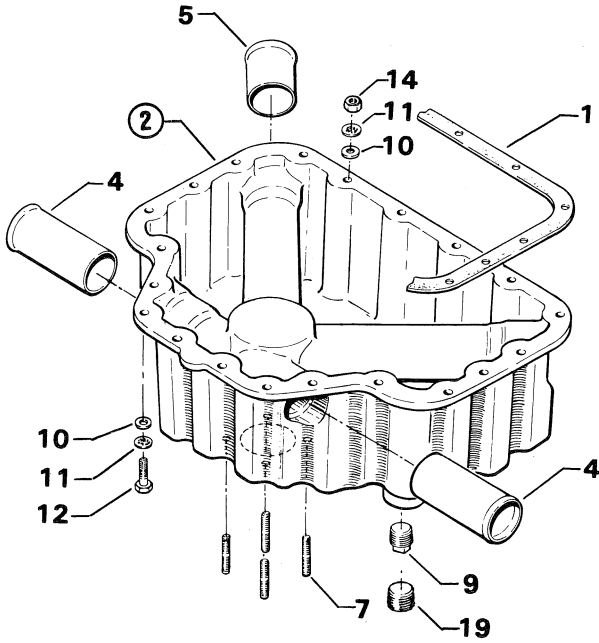


Figure 1

Inverted Oil System With Breather Tee

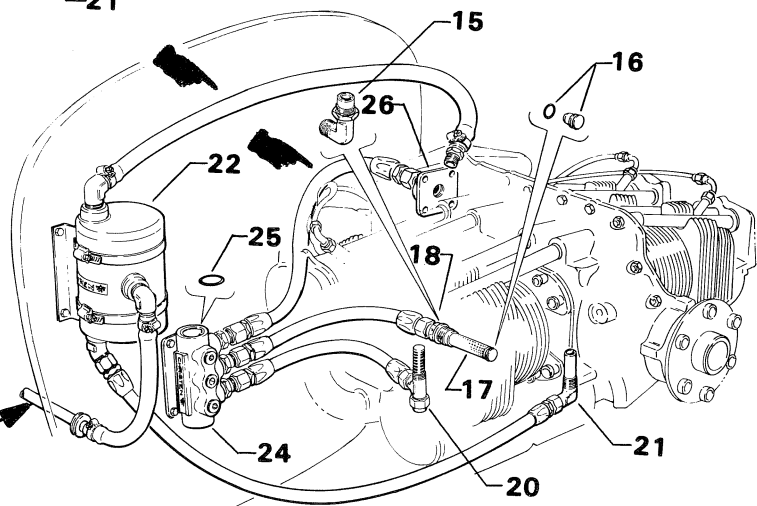
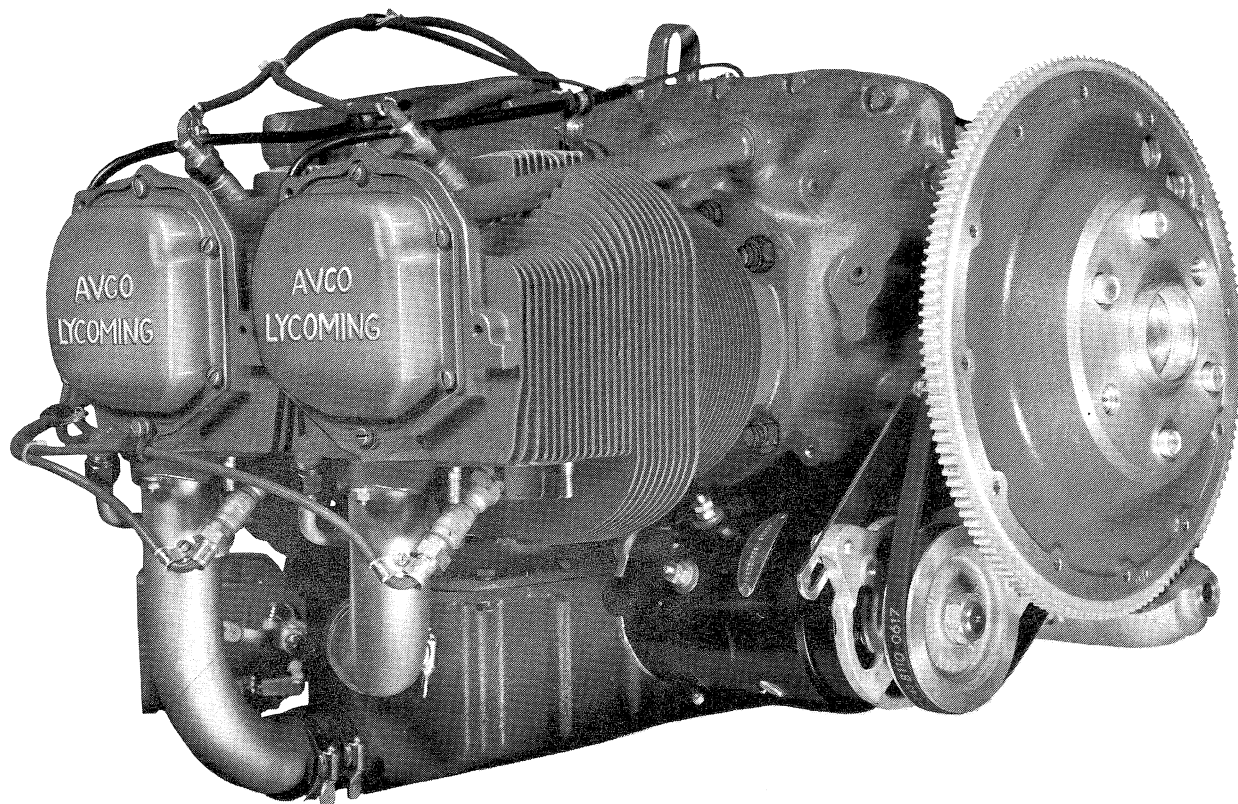


Figure 2

Inverted Oil System With Breather Adapter

FIGURE 37A - OIL SUMP ASSEMBLY & AEROBATIC COMPONENTS

# AVCO LYCOMING PARTS CATALOG



10-320, A10-320, L10-320 AND AE10-320  
WIDE CYLINDER FLANGE SERIES  
**AIRCRAFT ENGINES**

**AVCO** LYCOMING WILLIAMSPORT DIVISION  
AVCO CORPORATION  
WILLIAMSPORT, PENNSYLVANIA 17701

PC-303

JUNE 1976

## INTRODUCTION

This illustrated Parts Catalog provides parts coverage for all current models of the IO, AIO, LIO and AEIO-320 wide cylinder flange (WCF) series engines. These wide cylinder flange engines are identified by the suffix letter "A" on the engine serial number (e. g. L-3000-55A). The serial number as well as the model designation may be found on the engine nameplate located on the oil sump. It is this model designation by which parts application is governed throughout the parts catalog.

**Group Assembly Section:** This section lists major assemblies and sub-assemblies in the general order of engine build-up.

**Service Kit Section:** Seal and gasket sets and cylinder, piston and ring kit are provided in this section.

**Supersedure Section:** This section lists a history of part numbers that have been superseded and gives a brief description of the change involved.

**Numerical Index:** Quick determination of part location in the catalog is possible thru this section when only the part number is known.

**Vendor Accessories:** Complete part breakdown of vendor parts using vendor numbers follows each vendor part in the catalog.

**Oversize and Undersize Parts List:** Procurable oversize and undersize parts are listed preceding the main group assembly parts list.

### SERVICE BULLETINS, INSTRUCTIONS AND LETTERS

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

#### NOTE

*The illustrations, pictures and drawings shown in this publication are typical of the subject matter they portray; in no instance are they to be interpreted as examples of any specific engine, equipment or part thereof.*

#### IMPORTANT NOTE

*Coverage for the AEIO-320-E1B and -E2B models is provided within this catalog. These models use the same parts as their comparable IO-320-E1B and -E2B models except for differences in the accessory housing, oil sump and inverted oil systems which are listed herein. Parts required other than those special areas mentioned are found under the appropriate IO-320-E1B or -E2B column.*

# IO · AIO · LIO-320 SERIES

## TABLE OF CONTENTS

SECTION	PAGE
Introduction . . . . .	i
Table of Contents . . . . .	ii
Oversize and Undersize Parts Listing . . . . .	iv
<b>1 - Crankcase, Crankshaft and Camshaft Group</b>	
Crankcase Assembly . . . . .	1-1
Oil Level Gages and Engine Mounting Parts . . . . .	1-3
Crankcase Related Parts . . . . .	1-4
Propeller Governor Drive (Crankcase) . . . . .	1-5
Crankshaft, Camshaft and Related Parts . . . . .	1-6
Starter Ring Gear Support Assembly . . . . .	1-7
Crankshaft Idler Gears and Tachometer Drive . . . . .	1-8
Crankcase Attaching Parts . . . . .	1-9
<b>2 - Accessory Housing Assembly and Related Parts</b>	
Accessory Housing Assembly . . . . .	2-1
Oil Pump and Accessory Housing Attaching Parts . . . . .	2-3
Propeller Governor Drive and Covers . . . . .	2-4
Propeller Governor Oil Line . . . . .	2-5
Fuel Pump Assembly and Attaching Parts . . . . .	2-6
Fuel Pump (Vendor Accessory) Lear-Siegler . . . . .	2-7
Vacuum Pump, Fuel Pump Drives and Covers . . . . .	2-9
Oil Scavenge Pump and Suction Tubes (AIO-320) . . . . .	2-11
Oil Pressure Screen Filter and Oil Cooler Bypass Valve . . . . .	2-13
<b>3 - Cylinder, Piston and Valve Train</b>	
Connecting Rod, Piston and Ring Assemblies . . . . .	3-1
Cylinder Assembly . . . . .	3-2
Valve Assembly . . . . .	3-3
Cylinder Related Parts . . . . .	3-4
Cylinder Head Drain Tubes and Intercylinder Cooling Baffles . . . . .	3-5
<b>4 - Ignition System</b>	
Magneto and Magneto Drives . . . . .	4-1
Vendor Accessory - Bendix S-20 Series Magnetos . . . . .	4-3
Vendor Accessory - Bendix S-20 Series Magnetos . . . . .	4-5
Vendor Accessory - Bendix S-200 Series Magnetos . . . . .	4-7
Vendor Accessory - Bendix S-1200 Series Magnetos . . . . .	4-9
Ignition Harness and Lead Assemblies . . . . .	4-11
Ignition Harness, Lead Assemblies and Spark Plug . . . . .	4-13
<b>5 - Electrical Section</b>	
Voltage Regulator, Relays and Generator Drive Belts . . . . .	5-1
Generators and Alternators . . . . .	5-2
Vendor Accessory - Delco Generators . . . . .	5-3
Vendor Accessory - Prestolite Alternators . . . . .	5-5
Generator Mounting and Attaching Parts . . . . .	5-7
Starter Motors and Attaching Parts . . . . .	5-9
Vendor Accessory - Prestolite Starters . . . . .	5-11



## TABLE OF CONTENTS (CONT.)

SECTION	PAGE
6 - Oil Sump and Induction System	
Oil Sump Assembly and Attaching Parts . . . . .	6-1
Crankcase Covers and Induction Housing (AIO-320) . . . . .	6-3
Oil Suction Tube and Oil Suction Screen . . . . .	6-5
Intake Pipes and Attaching Parts . . . . .	6-6
Inverted Oil System (AEIO-320-E1B, -E2B) . . . . .	6-7
Fuel Injector and Related Parts . . . . .	6-8
Vendor Accessory - Bendix RSA-5AD1 Fuel Injector . . . . .	6-9
Vendor Accessory - Bendix RSA-5AD1 Fuel Injector . . . . .	6-11
Vendor Accessory - Bendix RSA-5AD1 Fuel Injector . . . . .	6-13
Fuel Injection Lines and Related Parts . . . . .	6-15
7 - Service Kits Section	
Seal and Gasket Set . . . . .	7-1
Seal and Gasket Set (AIO-320, AEIO-320) . . . . .	7-2
Cylinder, Piston and Ring Kit (IO-320-E Low Comp.) . . . . .	7-3
Cylinder, Piston and Ring Kit (IO-320-B, -D, AIO-320) . . . . .	7-4
Cylinder, Piston and Ring Kit (IO-320-C1A) . . . . .	7-5
8 - Parts Supersedures . . . . .	
	8-1
9 - Numerical Index . . . . .	
	9-1

**IO · AIO · LIO-320 WCF SERIES**  
**PARTS OVERSIZE AND UNDERSIZE**

PART NO.	OVERSIZE															UNDERSIZE		
	P1	P2	P5	P6	P7	P10	P11	P12	P15	P20	P22	P30	P33	P75	P125	M3	M6	M10
LW-11021																X	X	X
77044																X	X	X
69373																X	X	X
76943			X			X				X		X						
77160			X			X				X		X						
72057						X				X		X						
72058						X				X		X						
LW-10647			X			X												
66610			X			X												
72063			X			X				X								
72064			X			X				X								
72065			X			X				X								
72066			X			X				X								
72067			X			X				X								
66796						X												
76220	X	X	X			X												

Studs available in P03, P07, P12.

Pistons and Piston Rings available in P10 and P20

**NOTE**

*When ordering oversize or undersize parts, be sure to specify the required oversize or undersize dimension, along with the proper part number. For example to order bushing 72063 in .010 in. oversize order P/N 72063,P10. To order P/N LW-11021 bearing in .006 in. undersize, order P/N LW-11021,M6. Oversize code letter is "P" while undersize code letter is "M".*



**AVCO LYCOMING IO·A10·L10-320 PARTS CATALOG**  
WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

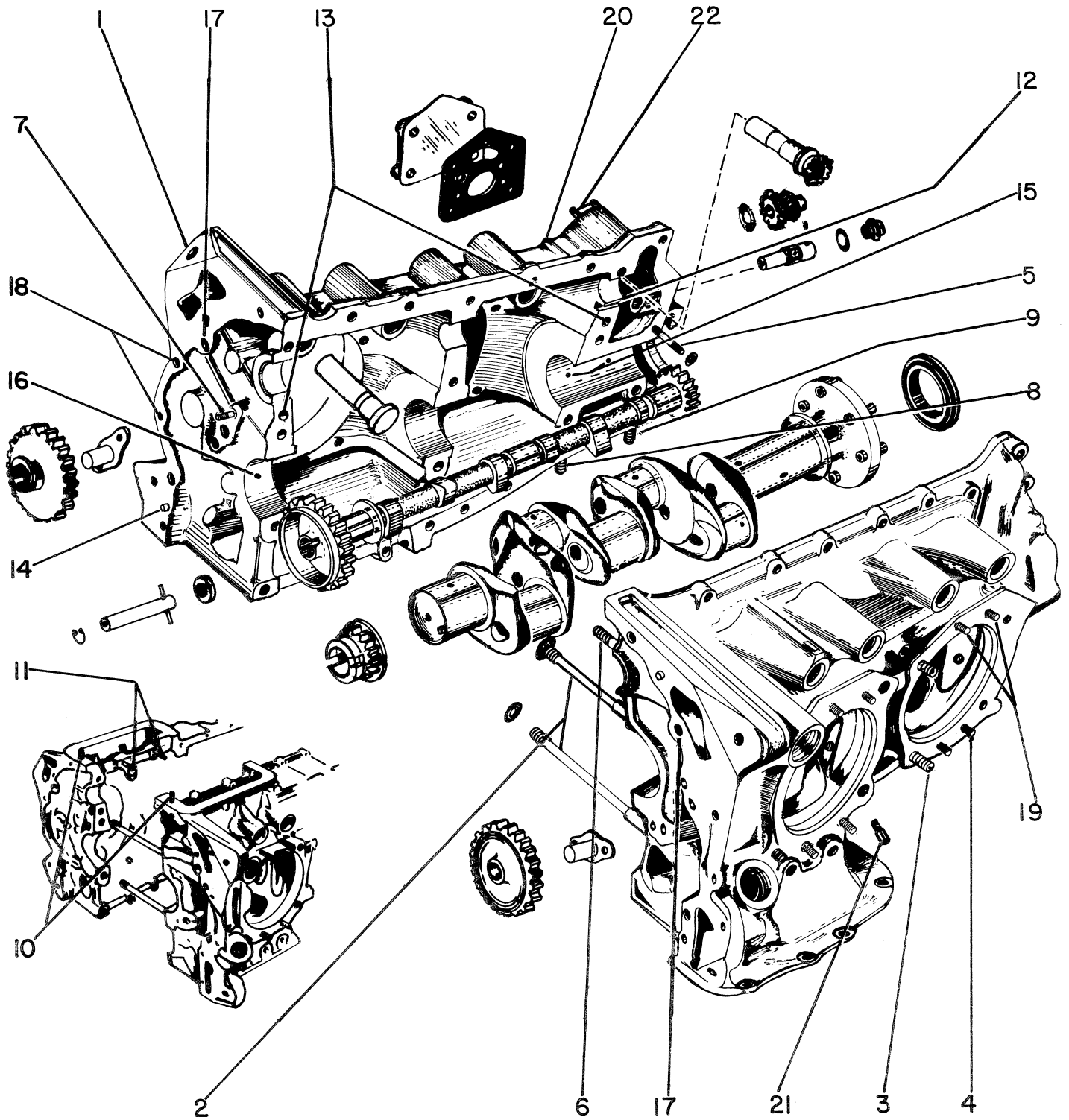


Figure 1 - Crankcase Assembly

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

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

QUANTITY PER ASSEMBLY

FIG. REF. 2	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320						
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A				
1	75735	TUBE, Oil level gage,short								1	1									
	75767	TUBE, Oil level gage,intermediate								1	1	1	1							
	75736	TUBE, Oil level gage,long					1	1	1											
	77526	TUBE, Oil level gage,8 inch		1	1	1											1	1		
2	72059	GASKET, Oil level gage		1	1	1	1	1	1	1	1	1					1	1		
3	74068	RING, Oil level gage seal					1	1	1		1									
	74065*	RING, Oil level gage seal								1	1	1	1							
	72312	RING, Oil seal 1.00 ID x 1/8 section		1	1	1											1	1		
4	62281	GAGE ASSY., Oil level (75735 tube)								1	1									
	72847	GAGE ASSY., Oil level (75767 tube)								1	1	1	1							
	69116	GAGE ASSY., Oil level (75736 tube)					1	1	1		1									
5	STD-366	PIN, 1/16 dia.x 7/16 long					1	1	1	1	1	1								
6	74523**	GAGE ASSY., Oil level (77526 tube)		1	1	1											1	1		
7	STD-366	PIN, 1/16 dia.x 7/16 long		1	1	1											1	1		
8	STD-406	DOWEL, 3/16 x 1/2 long		2	2	2											2	2		
	74217	RING, Plug oil level gage		1	1	1											1	1		
	74524	RING, Oil level gage bushing seal		1	1	1											1	1		
	71032	BUSHING, Engine support								8	8	8	8							
	STD-619	WASHER, 17/32 ID x 1-3/4 OD x 5/32 thick								8	8	8	8							
	74465	SPACER, Engine mounting support		4	4	4											4	4		

\* - For 72847 gage assy. only.  
\*\* - Cam action oil level gage.

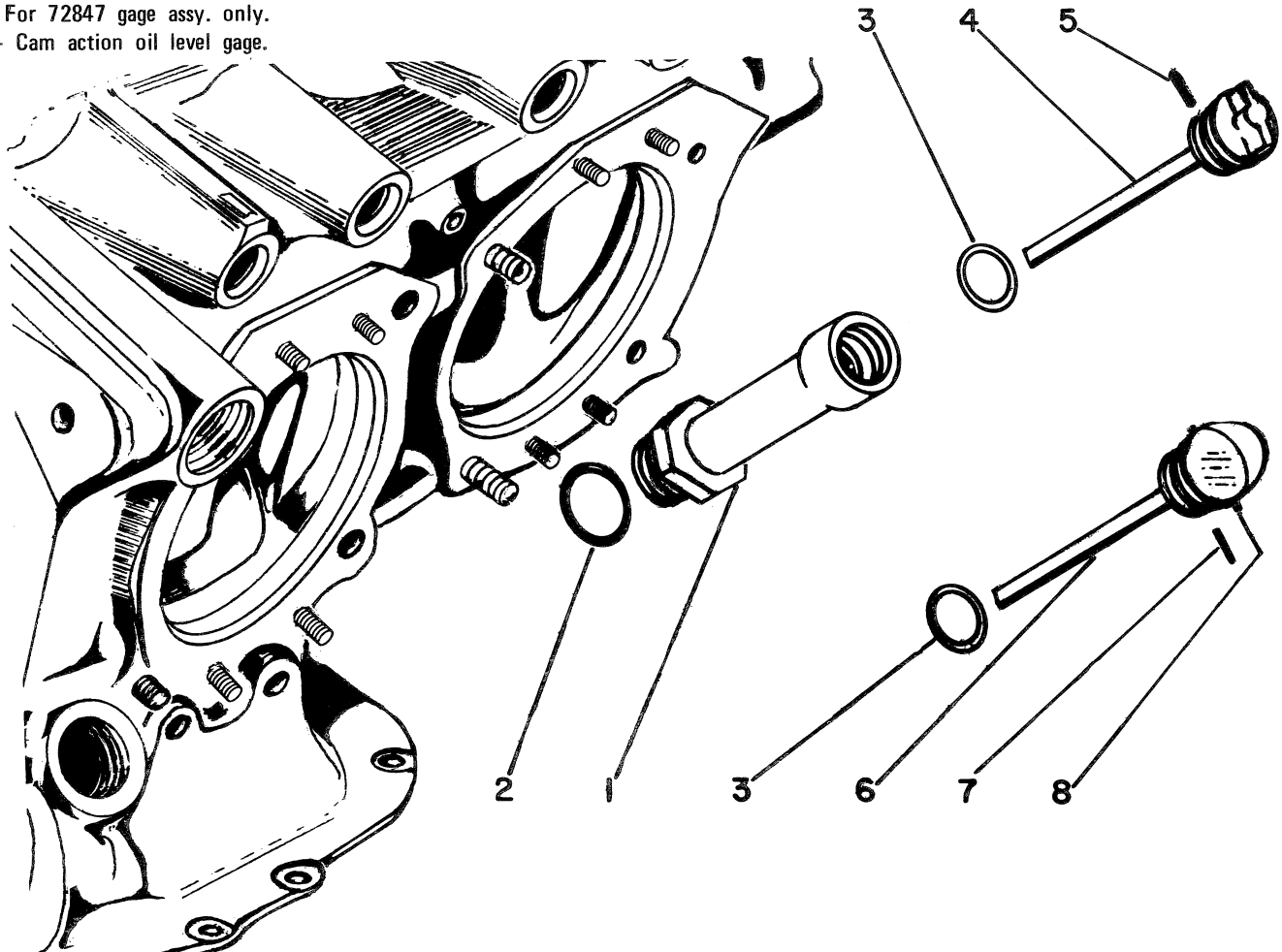


Figure 2  
1-3

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP CRANKCASE RELATED PARTS

QUANTITY PER ASSEMBLY

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320						
				B7A	B7C	C7A	D7A	D7B	E7A	E7B	E7A	E7B	B7B	C7B	B7A	C7A				
1	1028-B	BALL, 11/16 dia.	1																	
2	61084	SPRING, Oil pressure relief valve	1																	
3	STD-1045	GASKET, 1-1/4 ID x 1-1/2 OD x 3/32 annular	1																	
4	STD-425	WASHER, No.10 plain (max.9)	un																	
5	76529	PLUG, Oil relief valve		1	1	1	1	1	1	1	1									
6	77808	VALVE ASSY., Oil pressure relief valve (adjustable)		1	1					1		1	1							
7	LW-11021	BEARING, Crankshaft		4	4	4	4	4	4	4	4	4	4	4	4					
	68763	BEARING, Crankshaft										8								
8	LW-13884	BEARING, Crankshaft (front)		2	2	2	2	2	2	2	2		2	2						
9	LW-13792	SEAL, Crankshaft oil	1																	
10	72075	SEAL, Oil, 3/32 section x 15/32 ID	2																	
11	72091	SEAL, Oil, 23/64 ID x 7/64 dia.sect.	2																	
12	72877	BODY, Hydraulic tappet	8																	

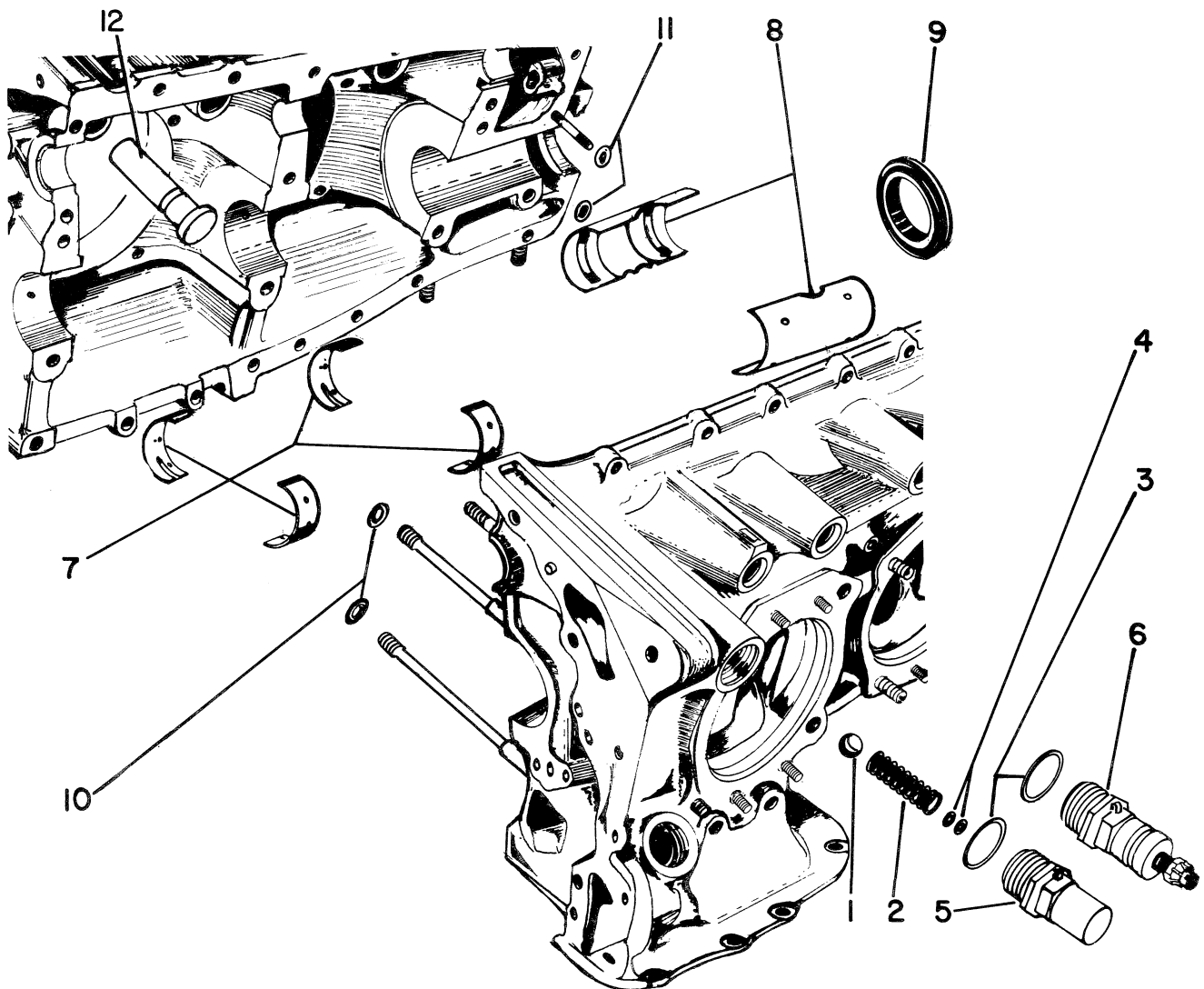


Figure 3

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP PROPELLER GOVERNOR DRIVE (CRANKCASE)

QUANTITY PER ASSEMBLY

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320				
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A		
1	77875	GEAR, Prop.governor driven								1			1	1				
2	LW-14021	SHAFT, Prop.governor idler gear								1			1	1				
3	77874	GEAR ASSY., Prop.governor idler								1			1	1				
4	77872	BUSHING, Prop.governor idler gear								2			2	2				
5	STD-19	DOWEL, 3/32 dia.x 7/32 long								1			1	1				
6	STD-798	DOWEL, 3/32 dia.x 9/32 long								1			1	1				
7	73249	WASHER, Thrust								un			un	un				
	73250	WASHER, Thrust								un			un	un				
	73251	WASHER, Thrust								un			un	un				
	73252	WASHER, Thrust								un			un	un				
8	AN565B1032H5	SET SCREW, 10-32 x 5/16								1			1	1				
9	70455	GASKET, 25/32 ID x 1-1/8 OD x 1/16 thick								1			1	1				
10	LW-13896	PLUG, 3/4-16 hex.hd.								1			1	1				
11	72053	GASKET, Governor								1			1	1				
12	72378	COVER, Governor drive								1			1	1				
13	STD-35	WASHER, 5/16 plain								4			32	4				
14	STD-475	WASHER, 5/16 internal lock								4			4	4				
15	STD-1410	NUT, 5/16-18 plain								4			4	4				

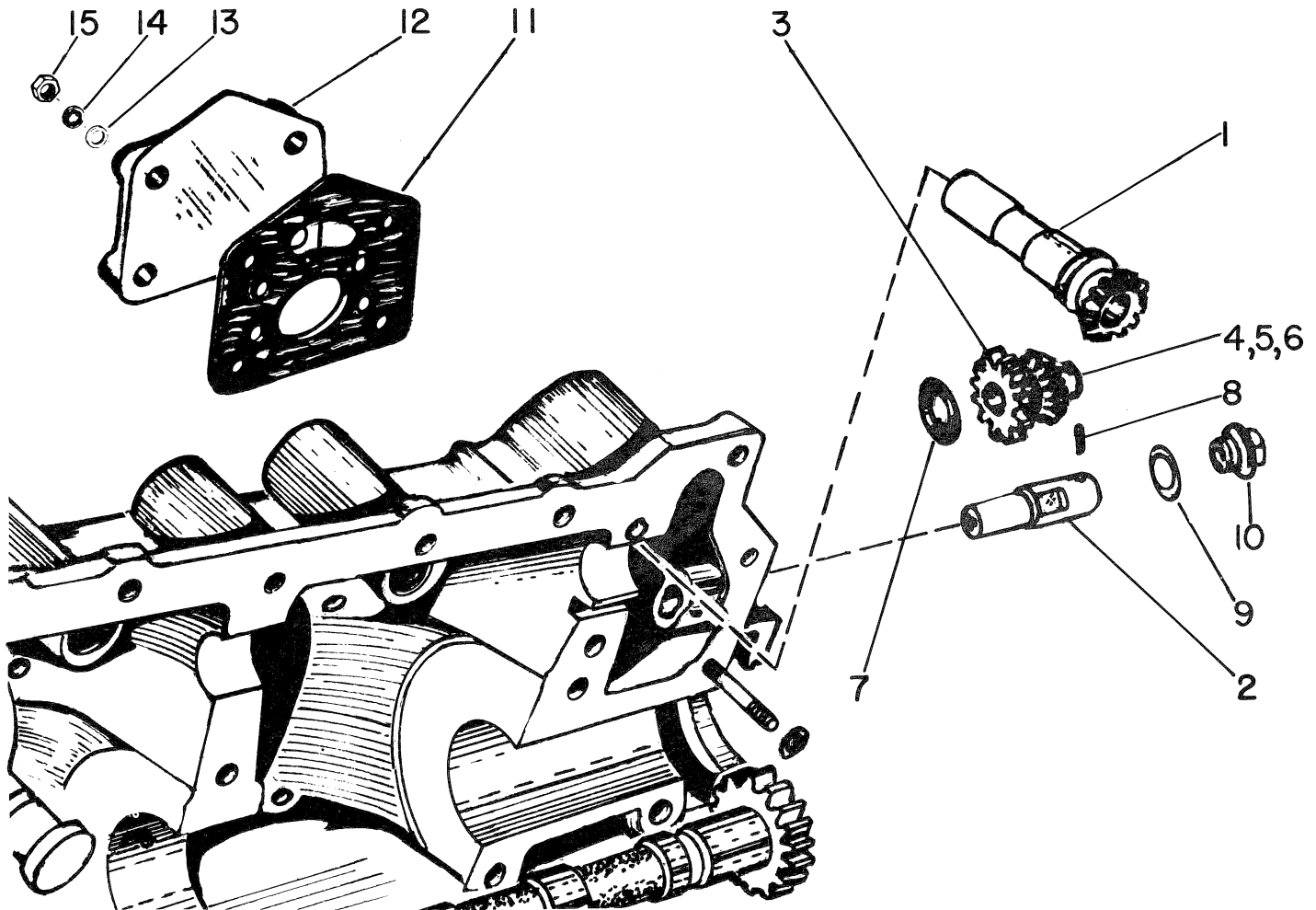


Figure 4  
1-5





# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP STARTER RING GEAR SUPPORT ASSEMBLY

QUANTITY PER ASSEMBLY

FIG. REF. 6	PART NUMBER	DESCRIPTION	ON ALL	IO-320						AIO-320		LIO-320						
				B7A	B7C	C7A	D7A	D7B	E7A	E7B	E7C	B7B	C7B	B7A	C7A			
1	68867	SUPPORT ASSY., Starter ring gear, 10/12 pitch 1.91:1 drive								1								
	74414	SUPPORT ASSY., Starter ring gear, 12/14 pitch 1.91:1 drive			1	1	1											
	76628	SUPPORT ASSY., Starter ring gear, 12/14 pitch 3.25:1 drive			1	1	1	1	1	1	1							
	76899*	SUPPORT ASSY., Starter ring gear, 10/12 pitch 3.25:1 drive								1								
	76944	SUPPORT ASSY., Starter ring gear, 10/12 pitch 3.25:1 drive							1	1	1	1						
	LW-10552	SUPPORT ASSY., Starter ring gear, 12/14 pitch 3.25:1 drive															1	1
	LW-11837	SUPPORT ASSY., Starter ring gear, 12/14 pitch 1.91:1 gen.drive															1	1
2	60882	GEAR, Starter ring 10/12 pitch							1	1	1	1						
	72566	GEAR, Starter ring 12/14 pitch			1	1	1	1	1	1	1		1	1				
	LW-10551	GEAR, Starter ring 12/14 pitch															1	1

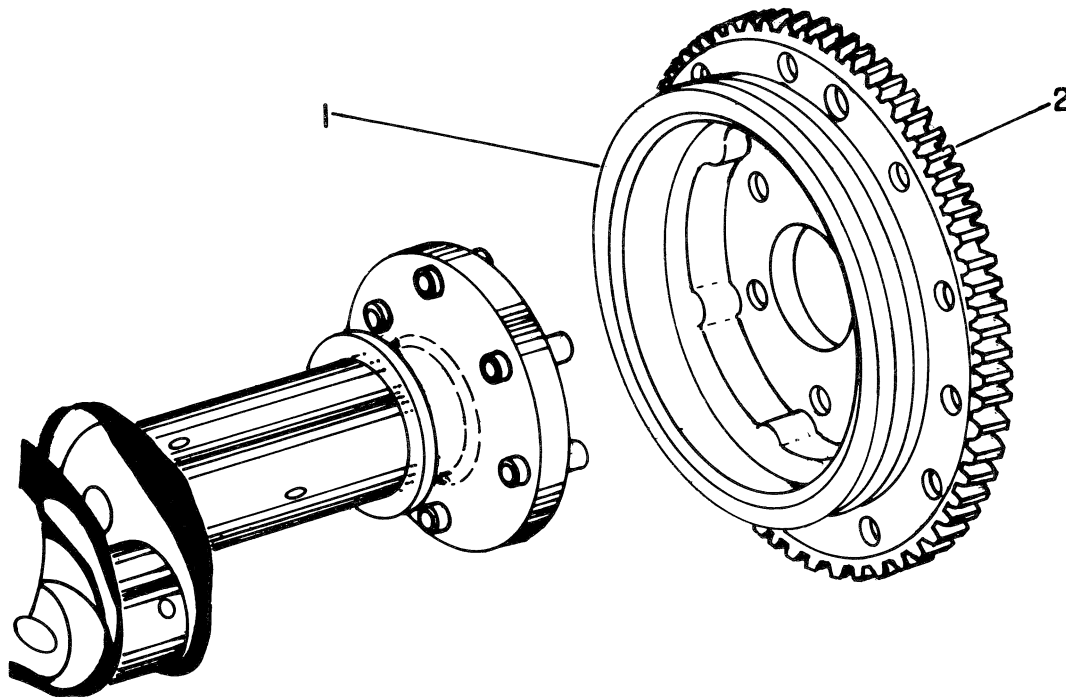


Figure 6  
1-7

# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP CRANKSHAFT IDLER GEARS AND TACHOMETER DRIVE

QUANTITY PER ASSEMBLY

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320					
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A			
1	61544	PLUNGER, Fuel pump long		1	1		1	1	1	1	1	1	1	1	1				
2	74996	GEAR ASSY., Crankshaft idler, plain		1	1	2	1	1	1	1	1	1	1	1	1	2			
3	75072	GEAR ASSY., Crankshaft idler		1	1		1	1	1	1	1	1	1	1	1				
4	77309	BUSHING, Crankshaft idler gears	2																
5	76121	SHAFT ASSY., Tachometer	1																
6	78368	PIN, 3/16 dia.x 2-21/64 long	1																
7	76118	SPACER, Tachometer shaft centering	1																
8	MS16625-1081	RING, Internal retaining	1																
9	LW-13796	SHAFT, Crankshaft idler gear	2																
10	STD-2167	BOLT, 5/16-18 x 43/64 long, hex. hd. dr.	3																
11	STD-2168	NUT, 5/16-18 slotted shear	1																

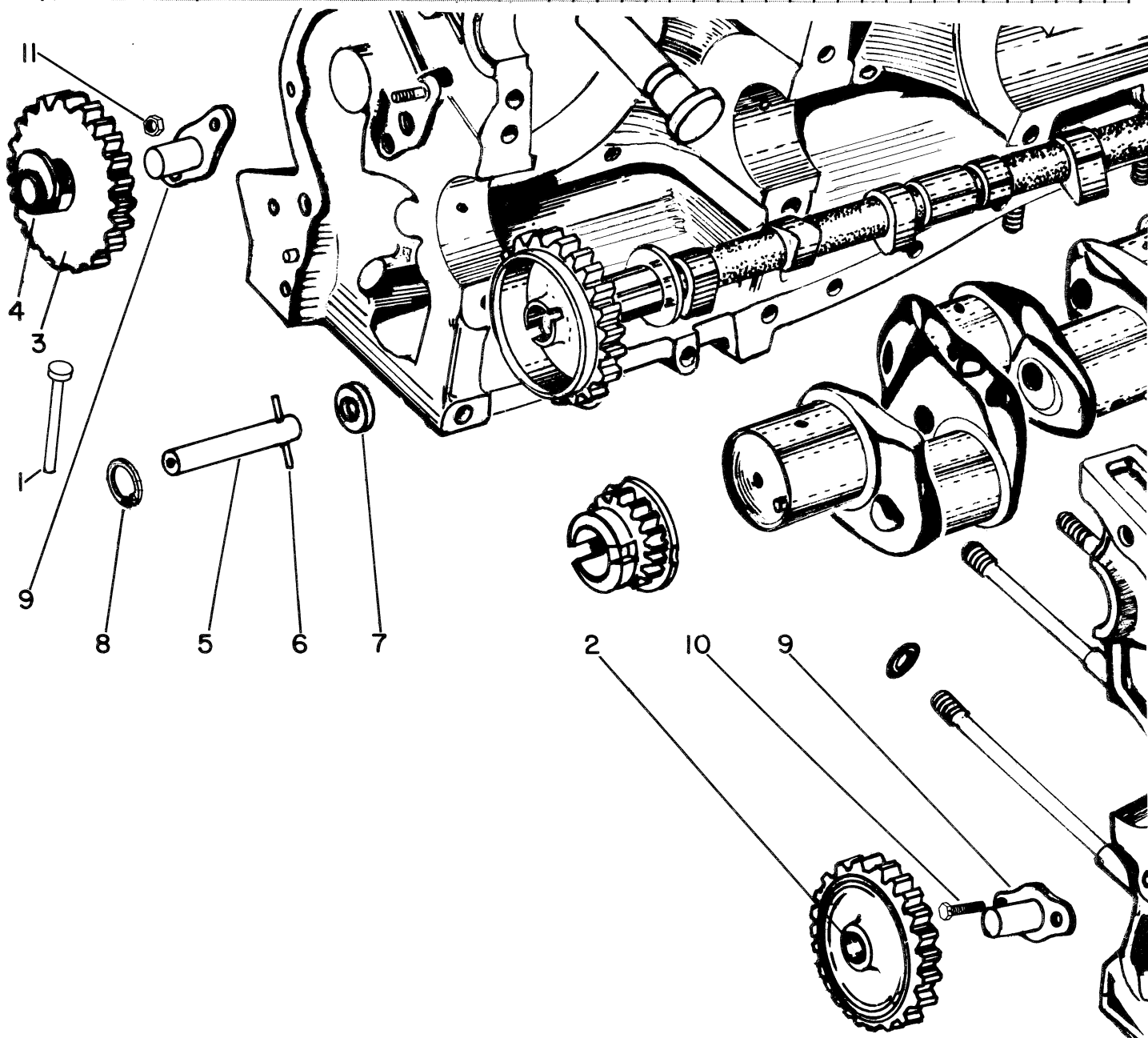


Figure 7  
1-8

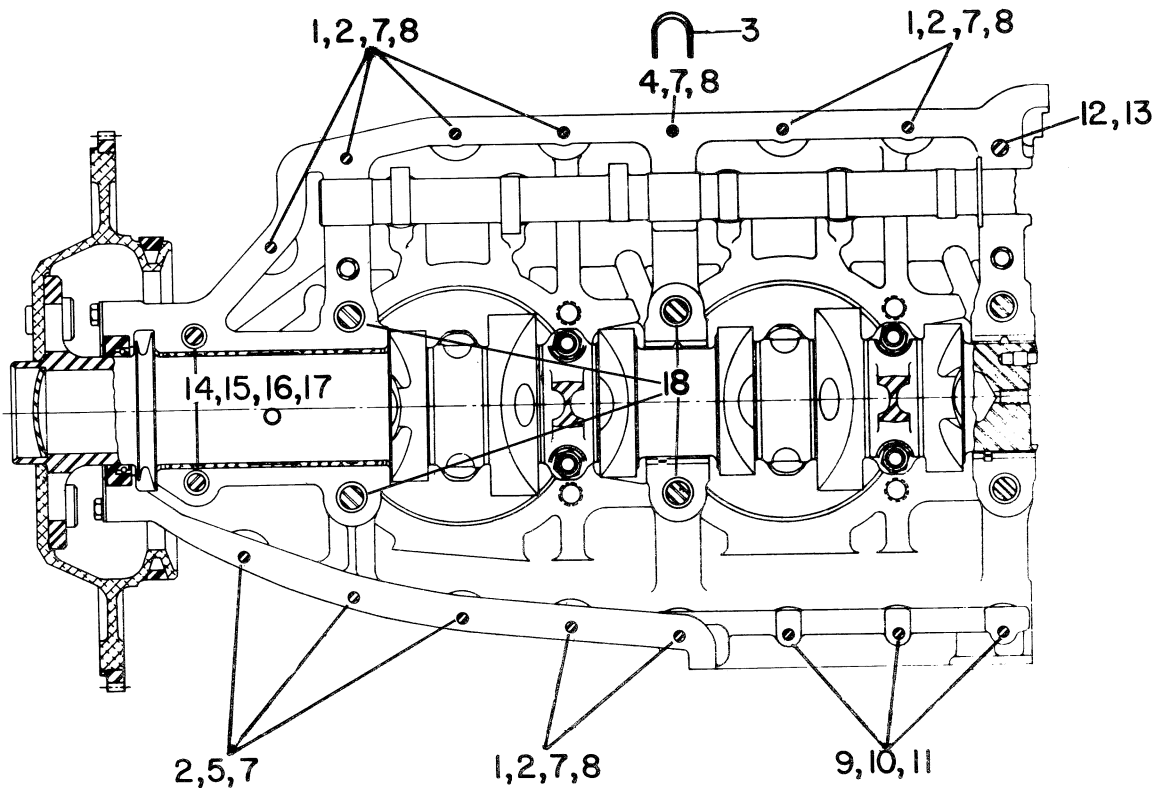
# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## CRANKCASE, CRANKSHAFT AND CAMSHAFT GROUP CRANKCASE ATTACHING PARTS

QUANTITY PER ASSEMBLY

FIG. REF. 8	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320						
				B7A	B7C	C7A	D7A	D7B	E7A	E7B	E2A	E2B	B7B	C7B	B7A	C7A				
1	STD-1414	BOLT, 1/4-20 x 1-1/2 long,hex.hd.		8	8	8	8	8	8	8	8	8	6	6	8	8				
2	STD-8	WASHER, 1/4 plain		19	19	19	19	20	19	19	19	19	15	15	19	19				
3	60803	STRAP, Lifting	1																	
4	STD-2084	BOLT, 1/4-20 x 1-3/4 long,hex.hd.	1																	
5	STD-1419	BOLT, 1/4-20 x 1-1/8 long,hex.hd.		3	3	3	3	4	3	3	3	3	4	4	3	3				
6	STD-1944	BOLT, 1/4-20 x 2-31/32 long,hex.hd., dr.end											1	1						
7	STD-160	WASHER, 1/4 internal lock		12	12	12	12	13	12	12	12	12	11	11	12	12				
8	STD-1411	NUT, 1/4-20 plain		9	9	9	9	9	9	9	9	9	6	6	9	9				
9	STD-1416	BOLT, 1/4-20 x 1-1/2 long,hex.hd., drilled end		3	3	3	3	3	3	3	3	3			3	3				
	STD-1868	BOLT, 1/4-20 x 1-51/64 long,hex.hd., drilled end											3	3						
10	STD-8	WASHER, 1/4 plain (9 max.)		un	un	un	un	un	un	un	un	un	8	8	un	un				
11	STD-1409	NUT, 1/4-20 slotted shear		3	3	3	3	3	3	3	3	3	5	5	3	3				
12	STD-33	WASHER, 3/8 plain	3																	
	AN960-616L	WASHER, 3/8 plain thin (3 max.)	un																	
13	STD-872	NUT, 3/8-24 slotted	1																	
14	AN6-34A	BOLT, 3/8-24 x 3-37/64 long,hex.hd.		2	2	2	2	1	2	2	2	2	1	1	2	2				
15	STD-33	WASHER, 3/8 plain		2	2	2	2	2	2	2	2	2	3	3	2	2				
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	4																	
19	77120	FITTING ASSY., C'case.breather, lower											1	1						
	MS29512-12	SEAL, Oil,7/64 dia.sect.x 59/64 ID											1	1						



**AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG**  
WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

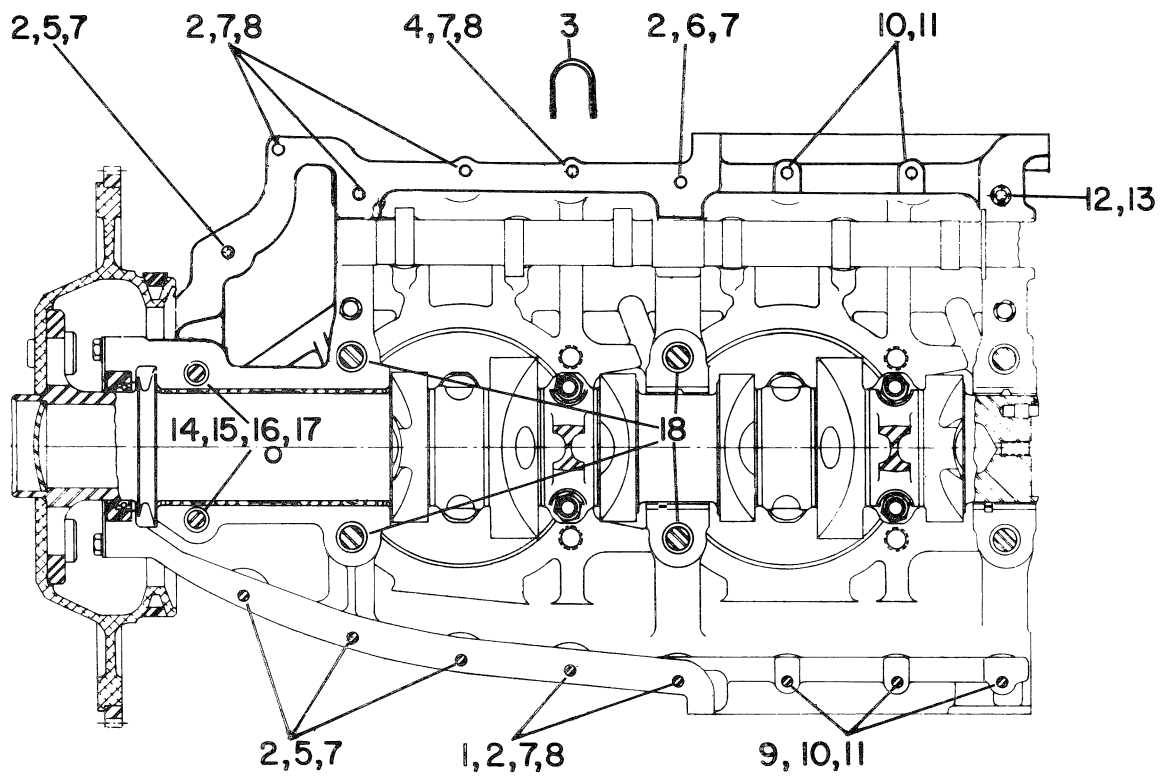
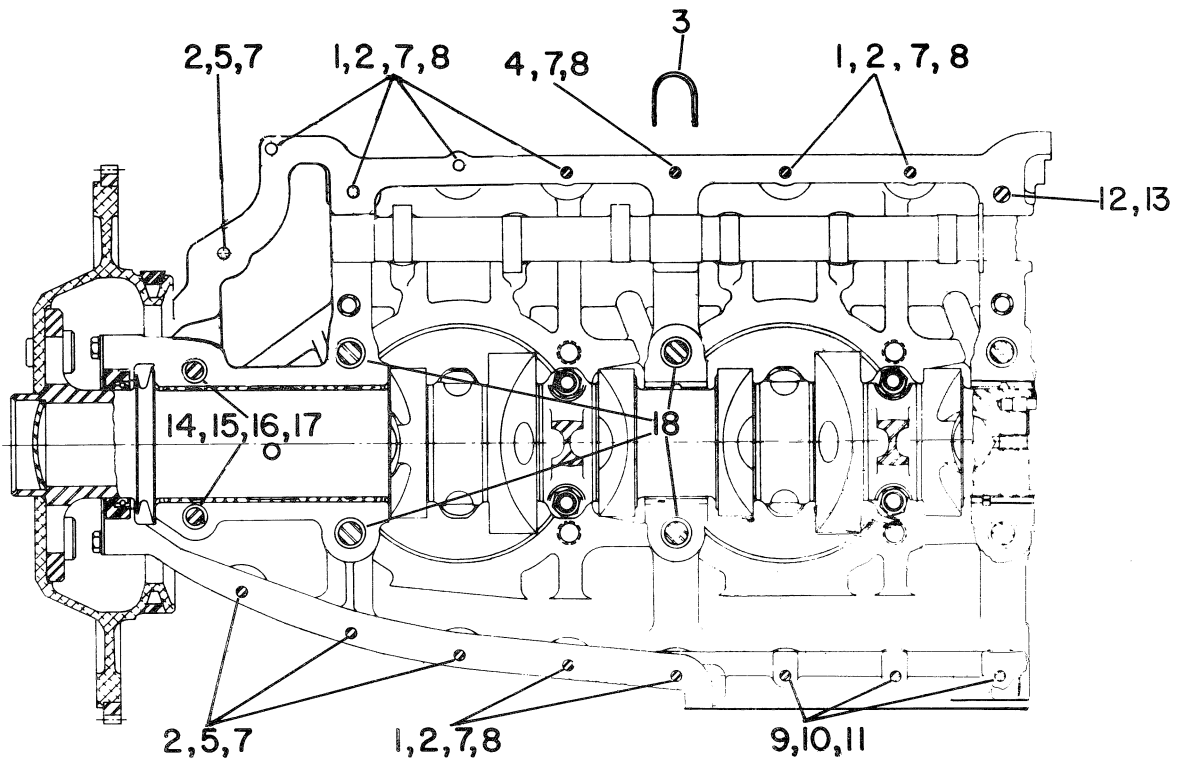


Figure 8 - Crankcase Attaching Parts



**AVCO LYCOMING IO-A10-L10-320 PARTS CATALOG**  
WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

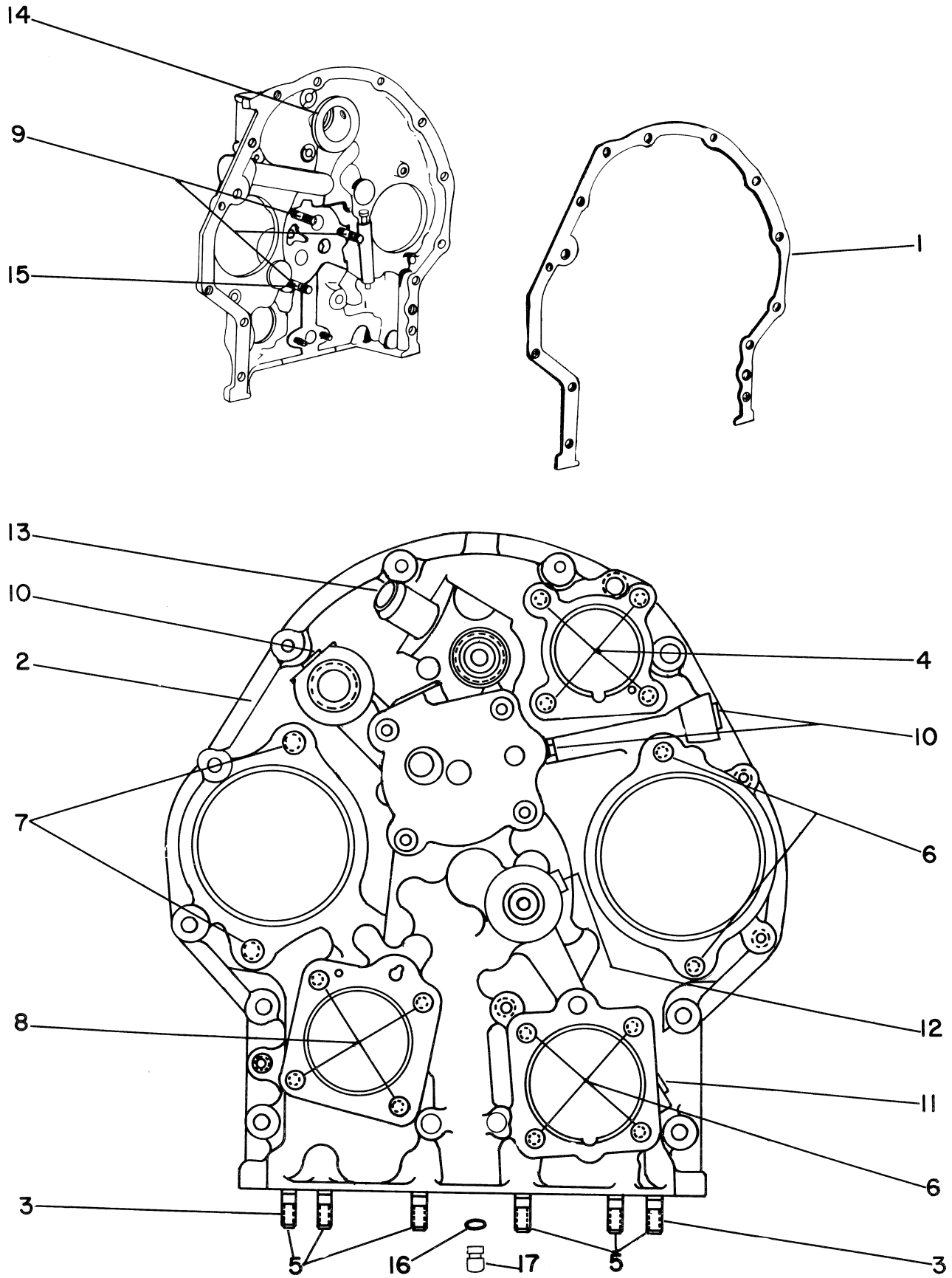


Figure 9 - Accessory Housing Assembly

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

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

QUANTITY PER ASSEMBLY

FIG. REF. 10	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320			
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A	
1	78528	BODY ASSY., Oil pump				1	1	1	1	1	1	1	1	1	1		
2	STD-1339	PLUG, 1/16-27 NPT allen hd.				1	1	1	1	1	1	1	1	1	1		
3	LW-11839	BODY, Oil pump														1	1
4	78532	IMPELLER ASSY., Oil pump driven	1														
5	61174	SHAFT, Oil pump drive	1														
6	60746	IMPELLER, Oil pump driving	1														
7	STD-35	WASHER, 5/16 plain	3														
8	STD-1420	NUT, 5/16-18 slotted	3														
9	STD-1227	WASHER, 1/4 copper														2	2
10	STD-1904	BOLT, 1/4-20 x 2-3/4 long,hex.hd., drilled end														2	2
11	STD-8	WASHER, 1/4 plain														2	2
12	STD-1409	NUT, 1/4-20 slotted shear														2	2
13	LW-14260	SEAL, Tachometer drive	1														
14	STD-8	WASHER, 1/4 plain	12														
15	STD-160	WASHER, 1/4 internal lock	12														
16	STD-1204	BOLT, 1/4-20 x 15/16 long,hex.hd.	10														
17	STD-1414	BOLT, 1/4-20 x 1-1/2 long,hex.hd.	2														

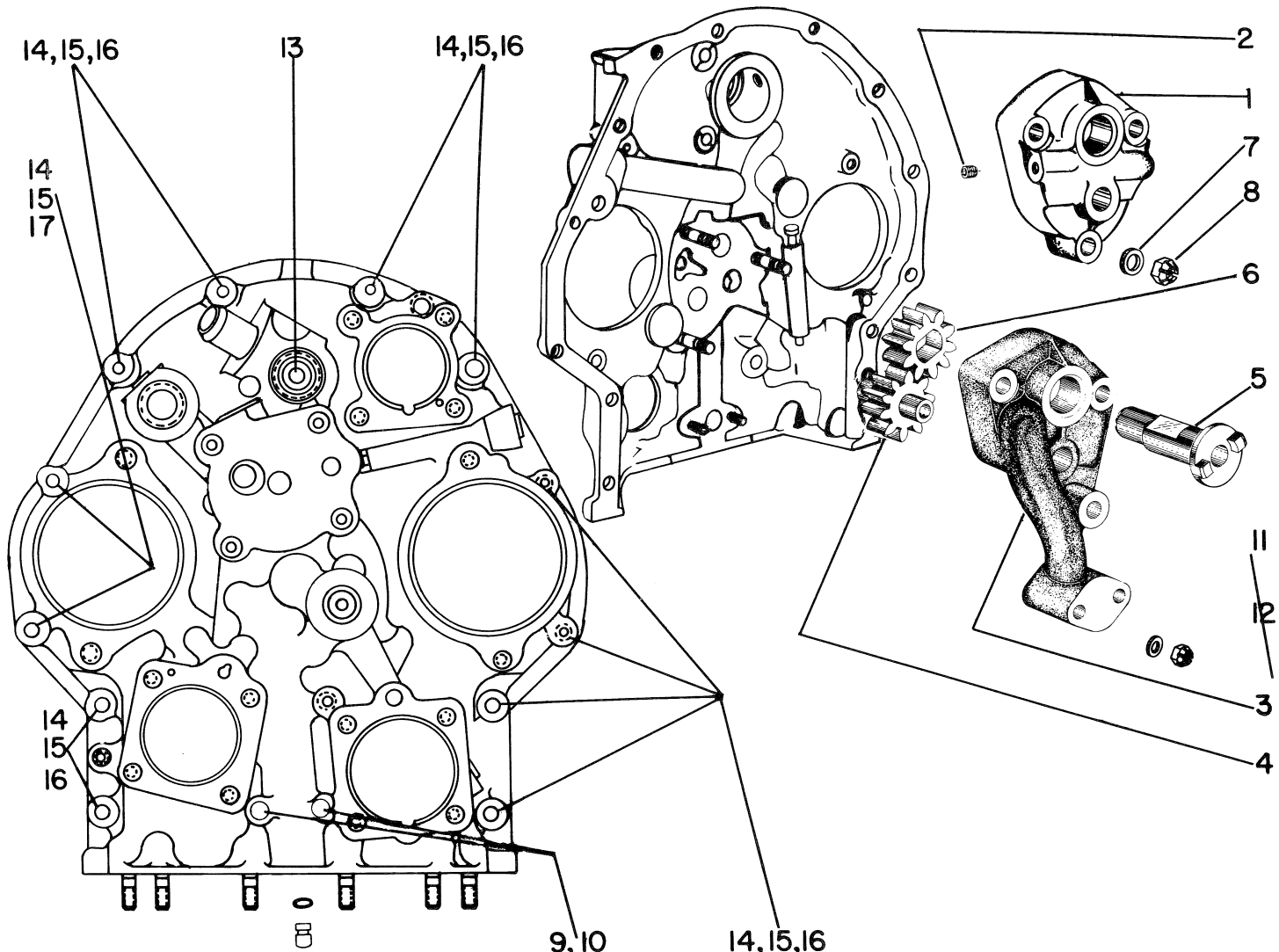


Figure 10

# AVCO LYCOMING IO-320 AIO-320 LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## ACCESSORY HOUSING AND RELATED PARTS PROPELLER GOVERNOR DRIVE AND COVERS

QUANTITY PER ASSEMBLY

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320						
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A				
1	68317	SHAFTGEAR, Prop.governor drive			1	1	1	1		1	1								1	1
2	71596	WASHER, Accessory driven gear			1	1	1	1		1	1								1	1
3	STD-1221	RING, 13/16 dia.x 3/64 thick,internal retaining			1	1	1	1		1	1								1	1
4	68315	GASKET, Accessory drive adapter			1	1	1	1		1	1								1	1
5	75153	ADAPTER ASSY., Prop.governor drive			1	1		1												
	75545	ADAPTER ASSY., Prop.governor drive			1	1	1			1	1								1	1
6	1102	PLUG, 1/8-27 NPT allen			1	1	1	1		1	1								1	1
7	67556	STUD, 5/16-18 x 2.00 long			4	4	4	4												
	68316	STUD, 5/16-18 x 1-11/16 long			4	4	4			4	4								4	4
8	STD-1774	PIN, 1/8 x 1/4 long			1	1	1	1		1	1								1	1
9	STD-35	WASHER, 5/16 plain			4	4	4	4		4	4								4	4
10	STD-475	WASHER, 5/16 internal lock			4	4	4	4		4	4								4	4
11	STD-1410	NUT, 5/16-18 plain			4	4	4	4		4	4								4	4
12	69551	GASKET, Accessory drive adapter							1		1									
13	69106	COVER, Governor drive adapter pad							1		1									
14	STD-35	WASHER, 5/16 plain							4		4									
15	STD-475	WASHER, 5/16 internal lock							4		4									
16	STD-1410	NUT, 5/16-18 plain							4		4									
17	STD-783	PLUG, 1/4-18 NPT allen							1		1									
18	72053	GASKET, Governor			1	1	1	1		1	1								1	1
19	72378	COVER, Governor drive			1	1	1	1		1	1								1	1
20	STD-35	WASHER, 5/16 plain			un	un	un	un		un	un								un	un
21	STD-475	WASHER, 5/16 internal lock			4	4	4	4		4	4								4	4
22	STD-1410	NUT, 5/16 plain			4	4	4	4		4	4								4	4

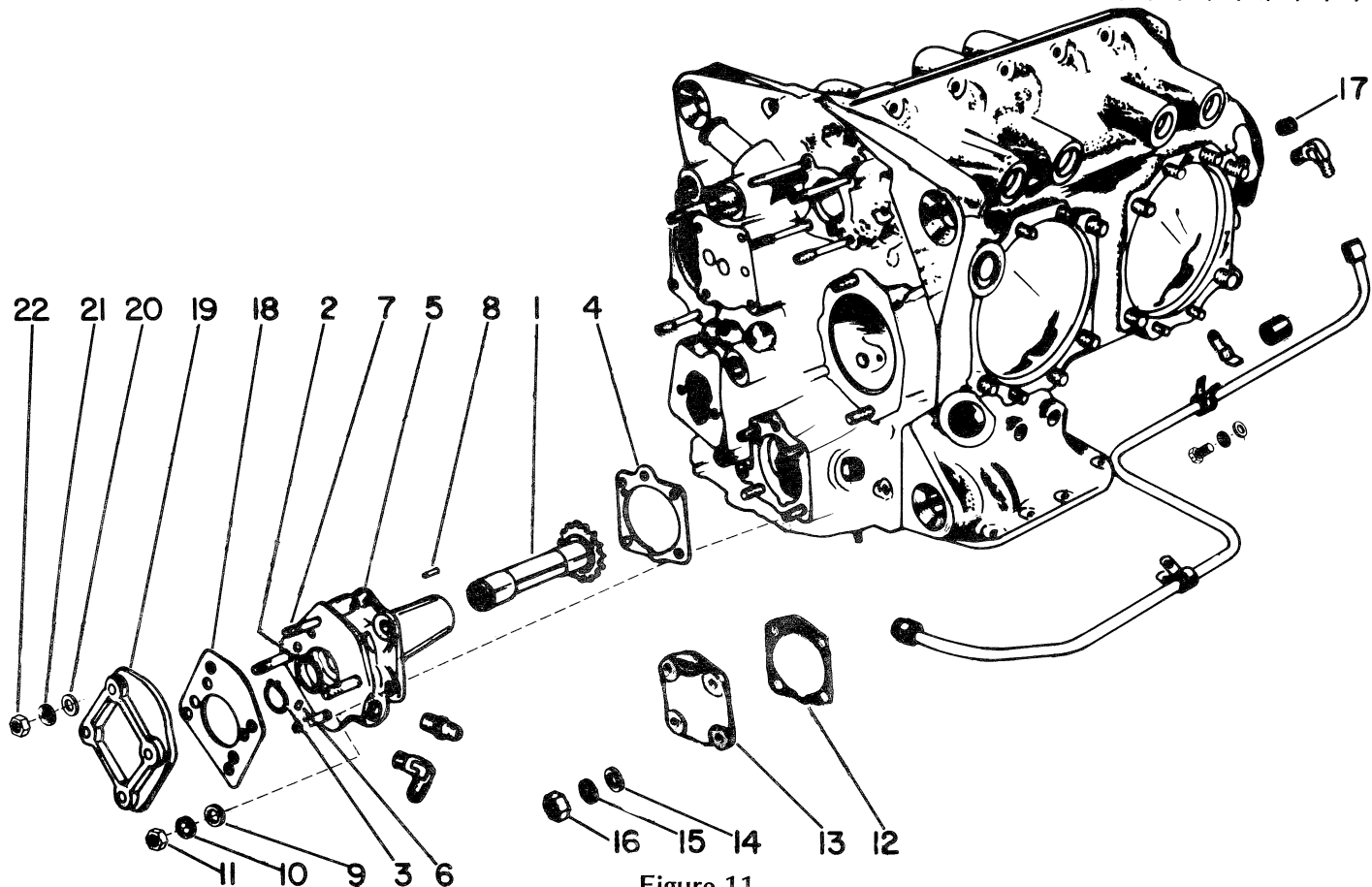


Figure 11  
2-4



# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## ACCESSORY HOUSING AND RELATED PARTS PROPELLER GOVERNOR OIL LINE

QUANTITY PER ASSEMBLY

FIG. REF. 12	PART NUMBER	DESCRIPTION	ON ALL	IO-320						AIO-320		LIO-320						
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A		
1	75167	TUBE ASSY., Prop.gov.oil line		1	1	1	1		1	1			1	1				
2	STD-1930	HOSE, 3/8 ID x 1.00 long		1	1	1	1		1	1			1	1				
3	75165	CLIP, Prop.gov.oil line support		1	1	1	1		1	1			1	1				
4	71621	CLIP, 3/8 ID for 1/4 screw,cushion type		1	1	1	1		1	1			1	1				
5	STD-700	ELBOW, 3/8 flared tube x 1/4 NPT,90°		1	1	1	1		1	1			1	1				
6	74070	ELBOW, 3/8 flared tube x 9/16-18 str. thread adjustable 45°		1	1	1	1		1	1			1	1				
7	STD-35	WASHER, 5/16 plain		3	3	3	3		3	3			3	3				
8	STD-475	WASHER, 5/16 internal lock		1	1	1	1		1	1			1	1				
9	STD-1838	BOLT, 5/16-18 x 15/16 long,hex.hd.		1	1	1	1		1	1			1	1				

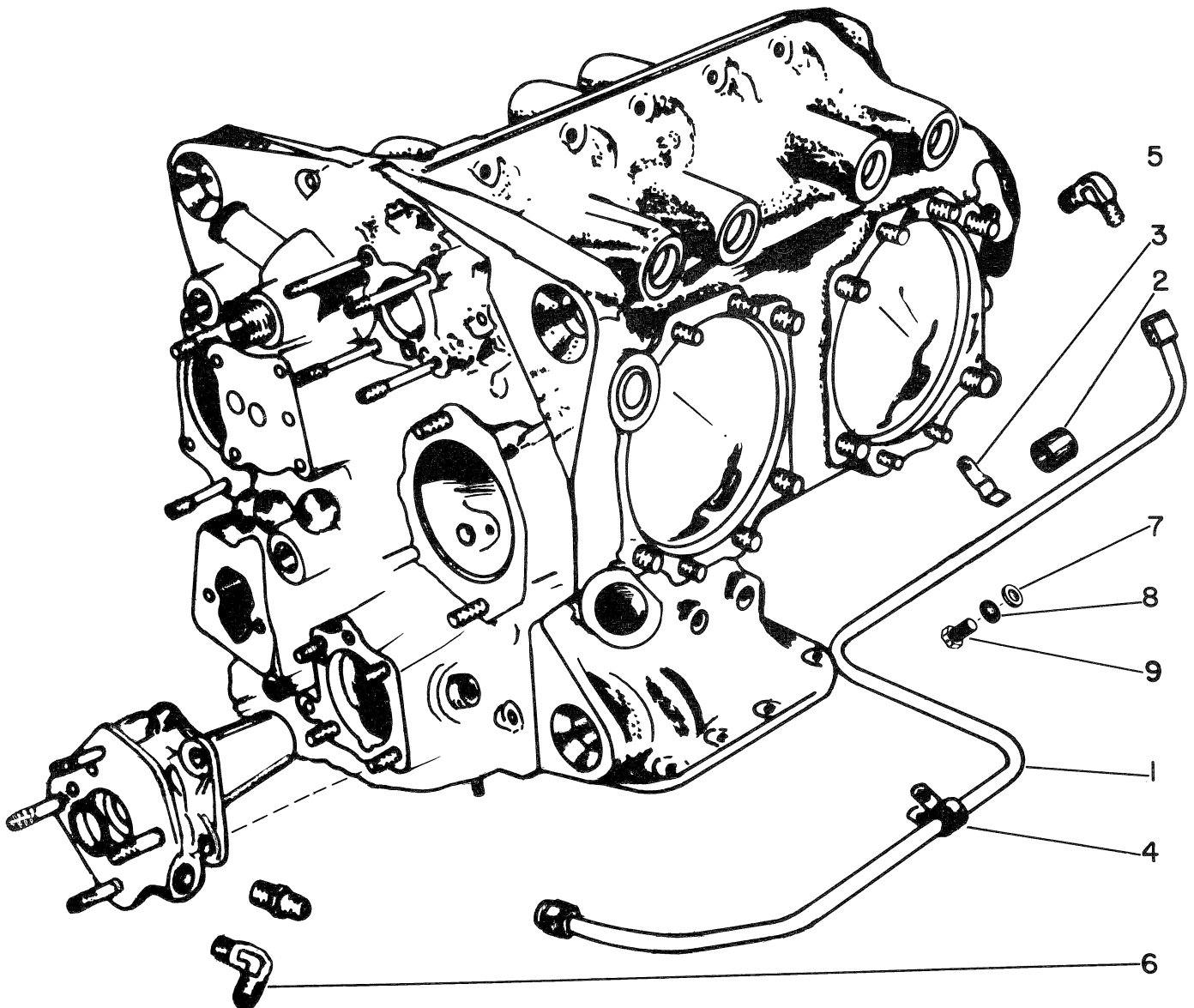


Figure 12  
2-5

# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## ACCESSORY HOUSING AND RELATED PARTS FUEL PUMP ASSEMBLY AND ATTACHING PARTS

QUANTITY PER ASSEMBLY

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320		
				BTA	BTC	CJA	DJA	DJB	E1A	E1B	E2A	E2B	BTB	CTB	B1A	C1A
1	60096	GASKET, Fuel pump (AC)		1	1	1	1	1	1	1	1	1	1	1		
2	75247	FUEL PUMP, Dual diaphragm		1	1	1	1	1	1	1	1	1	1			
3	STD-2032*	WASHER, 3/4 OD x 25/64 ID x 3/32 thick									2			2		
	STD-33	WASHER, 3/8 plain		2	2	2	2	2	2	2	2	2	2			
4	STD-1882	SCREW, 3/8-16 - 1-9/32 long, socket hd. drilled head		2	2	2	2	2	2	2	2	2	2			
5	75135	BAFFLE ASSY., Fuel pump		1						1				1		
6	75686	ELBOW, 5/16 tubing, 9/16-18 adj. 90°		1	1	1	1	1	1	1	1			1		
7	1691-C	GASKET, Fuel pump				2									2	
8	60431	COVER, Fuel pump				1									1	
9	75920	SPACER, Fuel pump stud				4									4	
10	STD-35**	WASHER, 5/16 plain				16									16	
11	STD-475	WASHER, 5/16 internal lock				4									4	
12	STD-1410	NUT, 5/16-18 plain				4									4	
13	LW-10799+	SPACER, Fuel pump insulating				1									1	
14	76188	FUEL PUMP (17980-A) Lear-Siegler				1										
	76486	FUEL PUMP (17980-D) Lear-Siegler				1										
	LW-11166	FUEL PUMP (RG-17980-K) Lear-Siegler														1

- \* - Used instead of STD-33 on installations with fuel pump baffle.
- \*\* - Only 4 used on 76188 fuel pump installations.
- + - Not used with 76188 fuel pump.

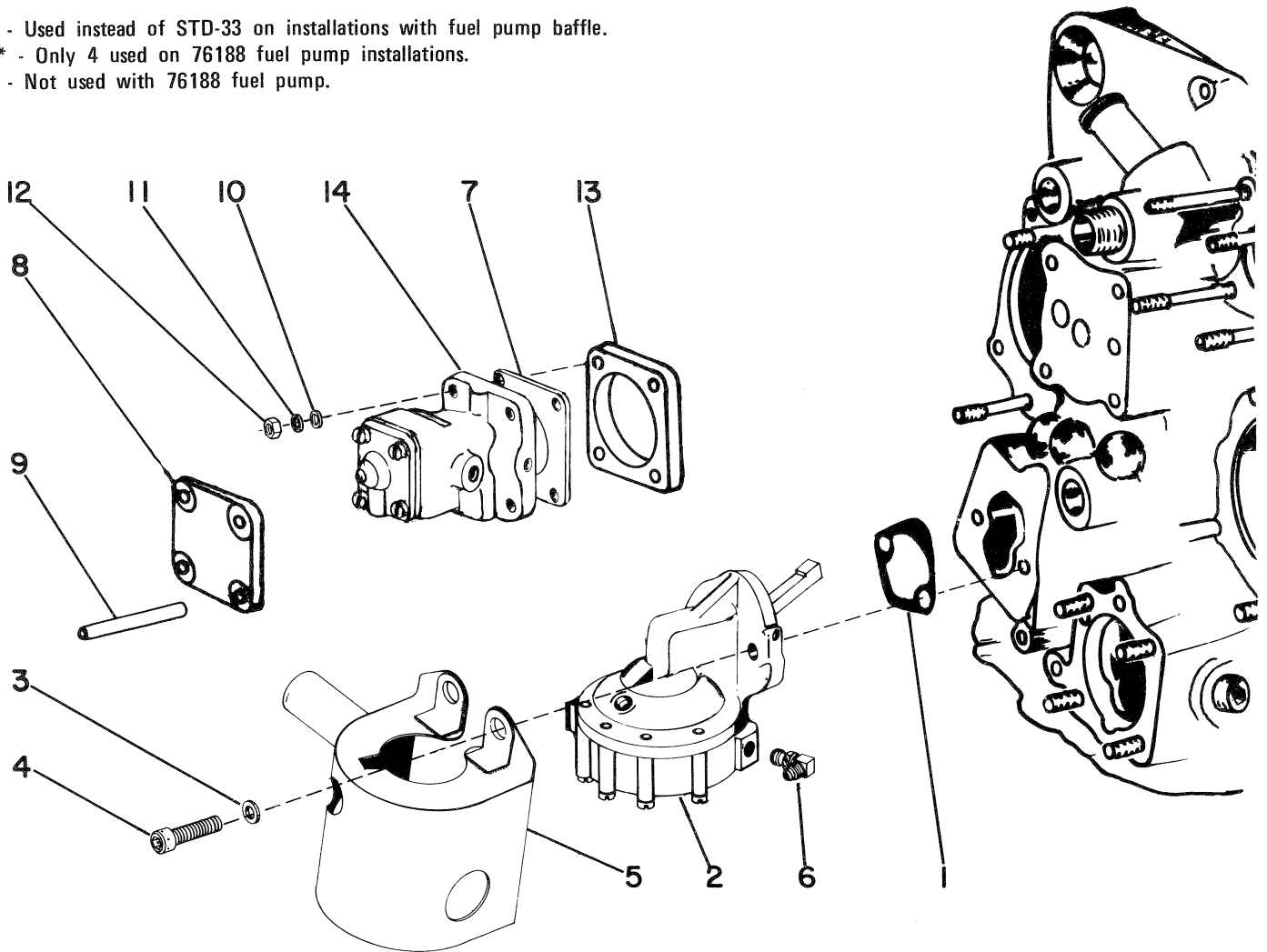


Figure 13  
2-6

### VENDOR ACCESSORY LEAR-SIEGLER FUEL PUMPS

REF. NO. 14	PART NUMBER	12345	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	RG-17980K		PUMP, Rotary power driven,fuel,Avco Lycoming LW-11166		A
	RG-17980A		PUMP, Rotary power driven,fuel,Avco Lycoming 76188		B
	RG-17980D		PUMP, Rotary power driven,fuel,Avco Lycoming 76486		C
1	MS20995NC32		LOCKWIRE	un	
2	RA7452		SEAL, Metallic	1	
	RB15997		COVER ASSEMBLY	1	
3	AN500A10-22		SCREW (Attaching part)	4	
4	RA4105		WASHER, Flat (Attaching part)	4	
5	RB15996		CAP, Valve	1	
6	AN510A10-10		SCREW	1	
7	RA7763		BALL	1	
8	RA7362		SPRING, Relief valve	1	
9	RB15985		VALVE ASSY., Safety relief	1	
10	RA5575		PLATE, Identification	1	
11	MS21318-1		SCREW, Attaching	2	
12	RA9099		PLATE, Instruction	1	
13	MS21318-1		SCREW, Attaching	2	
14	RG15982		HOUSING, Valve	1	
15	RA7427		VALVE, Bypass	1	
16	RA7424		SPRING, Bypass valve	1	
17	RA7425		GUIDE, Bypass valve	1	
18	RA15981		GASKET	1	
19	RA7438		PLATE, Thrust	1	
20	RA7491		BLADE, Pump	2	
21	MS16624-1062		RING, Retaining	1	
22	RB7779-2		SPLINE, Drive	1	B
	RD7779-4		SPLINE, Drive	1	A, C
23	RA7791		ROTOR PUMP	1	
24	MS16625-1112		RING, Retaining	1	
25	RA6861		SEAL	1	
	RB16043		HOUSING ASSY.	1	
26	RA7493		LINER	1	
27	RS16903-55		PIN, Straight headless	1	
28	RA7754		BEARING	1	
29	RS16903-55		PIN, Straight headless	1	
30	RD7492		HOUSING PUMP	1	
31	RA3485-1		PLUG, Pipe	1	A, C
	AN932C2		PLUG, Pipe	3	B

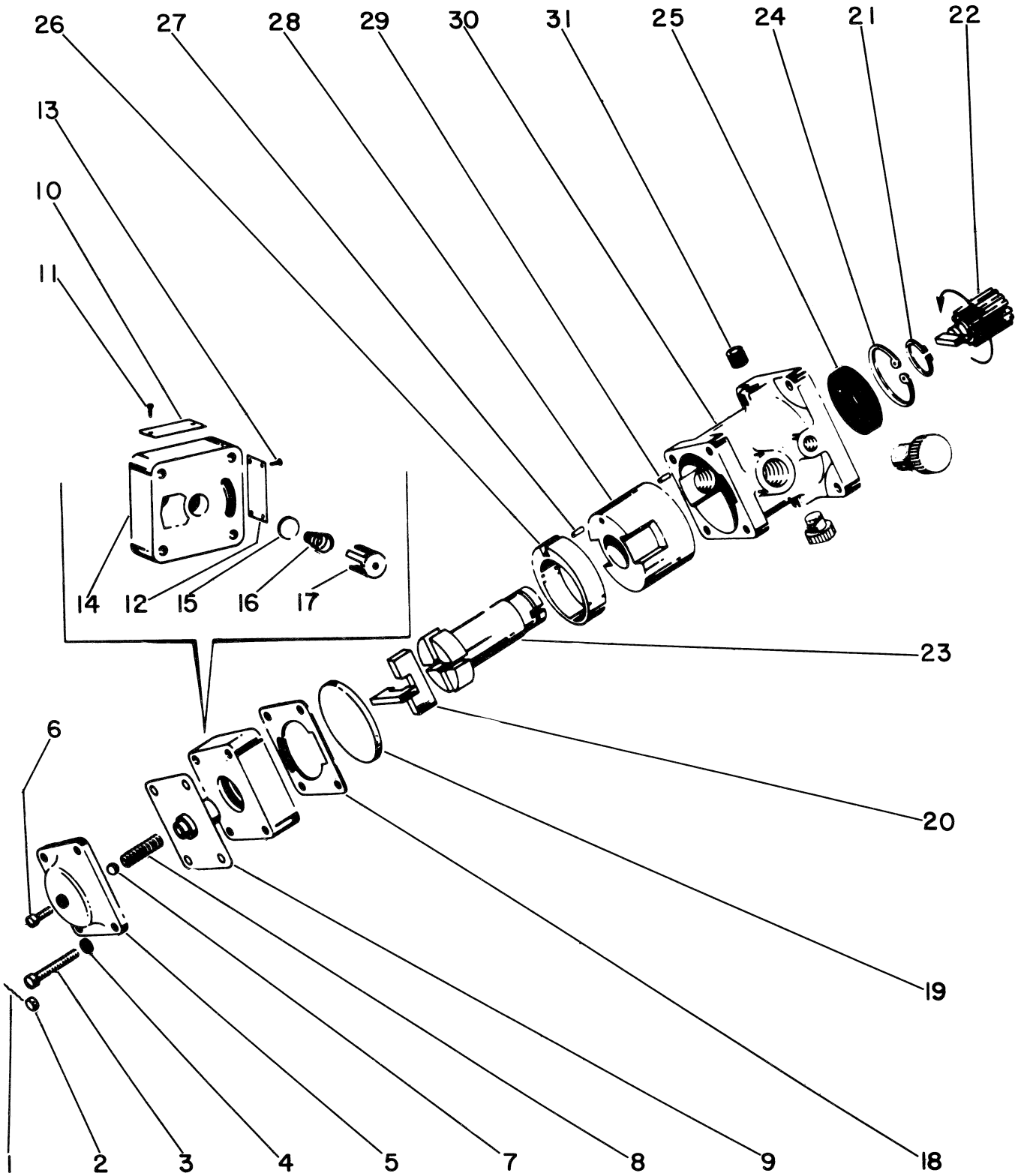


Figure 14 - Lear-Siegler Fuel Pump  
2-8

# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## ACCESSORY HOUSING AND RELATED PARTS

VACUUM PUMP, FUEL PUMP DRIVES AND COVERS

QUANTITY PER ASSEMBLY

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320							
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E1A	E1B	B1B	C1B	B1A	C1A					
1	61183	GASKET, Accessory adapter			1	1	1	1	1				1	1		1	1				
2	61098	ADAPTER ASSY., Vacuum pump			1	1	1	1	1				1	1		1	1				
3	STD-1774	PIN, 1/8 x 1/4 long			1	1	1	1	1				1	1		1	1				
4	STD-208	OIL SEAL, 7/8 ID x 1-1/2 OD x 5/16 wide			1	1	1	1	1				1	1		1	1				
5	72970	GEAR ASSY., Vacuum pump driven			1	1	1	1	1				1	1		1	1				
6	71596	WASHER, Accessory driven gear			1	1	1	1	1				1	1		1	1				
7	8313	GASKET, Vacuum pump			1	1	1	1	1				1	1		1	1				
8	60430	COVER, Vacuum pump			1	1	1	1	1				1	1		1	1				
9	STD-8	WASHER, 1/4 plain			4	4	4	4	4				4	4		4	4				
10	STD-160	WASHER, 1/4 internal lock			4	4	4	4	4				4	4		4	4				
11	STD-1411	NUT, 1/4-20 plain			4	4	4	4	4				4	4		4	4				
12	72230	SHAFT, Fuel pump idler gear						1													1
13	72829	LOCKPLATE, 1/4 bolt x 1-3/4 spacing					2														2
14	STD-705	BOLT, 1/4-20 x 11/16 long,hex.hd.					2														2
15	72231	GEAR ASSY., Fuel pump idler						1													1
16	77309	BUSHING, Fuel pump idler gear						1													1
17	75924	SHAFTGEAR ASSY., Fuel pump drive						1													1
18	69164	GASKET, Fuel pump adapter						1													1
19	69159	ADAPTER ASSY., Fuel pump drive						1													1
20	STD-1774	PIN, 1/8 x 1/4 long						1													1
21	STD-213	SEAL, Oil,3/4 ID x 1-3/8 OD x 5/16 wide					1														1
22	61183	GASKET, Accessory adapter								1	1	1	1								
23	60430	COVER, Vacuum pump								1	1	1	1								
24	68593	SPACER, Vacuum pump stud								4	4	4	4								
25	STD-8	WASHER, 1/4 plain								4	4	4	4								
26	STD-160	WASHER, 1/4 internal lock								4	4	4	4								
27	STD-1411	NUT, 1/4-20 plain								4	4	4	4								

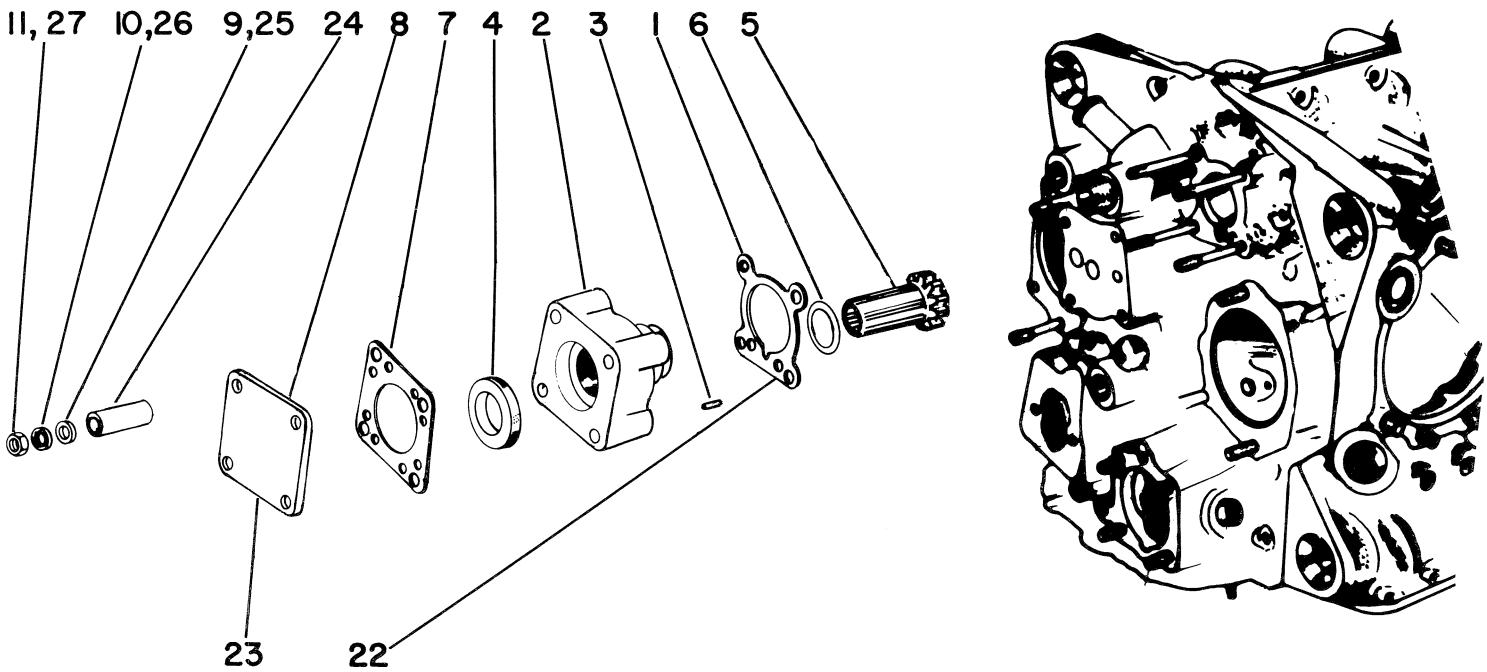


Figure 15. Vacuum Pump Drive and Covers

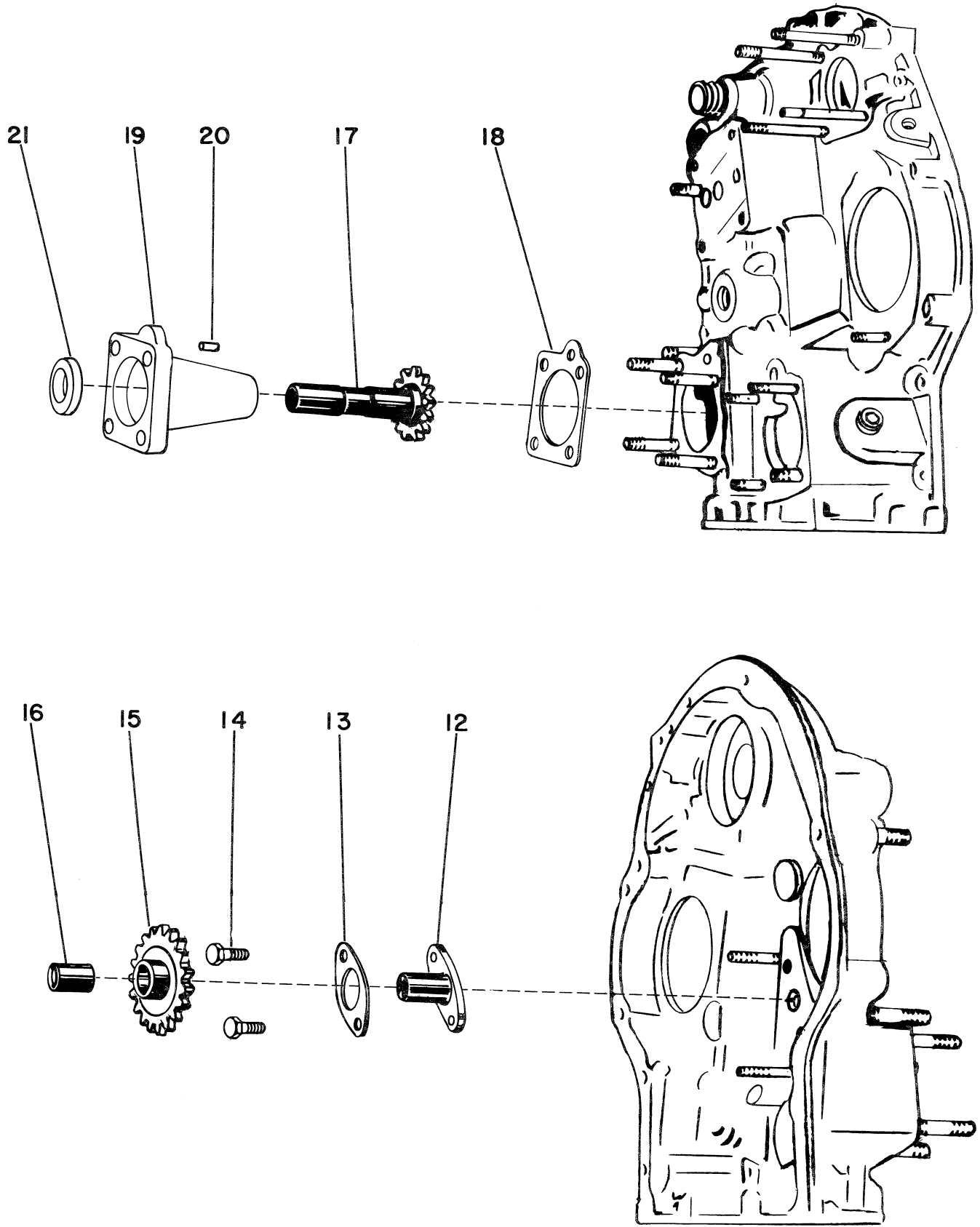


Figure 15. Fuel Pump Drive  
2-10

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## ACCESSORY HOUSING AND RELATED PARTS OIL SCAVENGE PUMP AND SUCTION TUBES (AIO-320 SERIES)

QUANTITY PER ASSEMBLY

FIG. REF. 16	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320					
				B1A	B1C	C1A	D1B	E1A	F1B	E2A	E2B	B7B	C7B	B7A	C7A				
1	68315	GASKET, Accessory drive adapter										1	1						
2	77172	PUMP ASSY., Oil scavenge										1	1						
3	77125	ADAPTER ASSY., Oil scavenge pump										1	1						
4	77118	SHAFT, Oil pump idler										2	2						
5	STD-2013	RING, Oil seal,39/64 ID x 1/16 sect.										2	2						
6	AN381-4-22	PIN, Cotter 1/8 dia.x 1-3/8 long										2	2						
7	STD-1173	INSERT, 1/4-20 heli-coil x 1/2 long										2	2						
8	66145	DOWEL, 1/4 dia.x 1/2 long										2	2						
9	77116	SHAFT ASSY., Scavenge pump drive										1	1						
10	66426	IMPELLER, Oil scavenge pump driving										1	1						
11	68403	IMPELLER, Oil scavenge pump driven										2	2						
12	77124	HOUSING ASSY., Oil scavenge pump										1	1						
13	STD-1173	INSERT, 1/4-20 heli-coil x 1/2 long										6	6						
14	STD-1353	INSERT, No.10-24 heli-coil x 3/8 long										4	4						
15	STD-8	WASHER, 1/4 plain										8	8						
16	STD-160	WASHER, 1/4 internal lock										8	8						
17	STD-1204	BOLT, 1/4-20 x 15/16 long,hex.hd.										6	6						
18	STD-1575	BOLT, 1/4-20 x 2-15/16 long, hex.hd.										2	2						
19	STD-35	WASHER, 5/16 plain										4	4						
20	STD-475	WASHER, 5/16 internal lock										4	4						
21	STD-1410	NUT, 5/16-18 plain										4	4						
22	77155	FITTING, 5/8 adjustable,90°										2	2						
23	77131	TUBE ASSY., Oil scavenge upper cover										1	1						
24	77128	TUBE ASSY., Oil scavenge upper pump										1	1						
25	77115	TUBE ASSY., Oil scavenge lower cover										1	1						
26	77130	TUBE ASSY., Oil scavenge lower pump										1	1						
27	73751	CLIP, 5/8 ID,cushion type,9/32 hole										1	1						
28	STD-1576	HOSE, 5/8 ID x 31/32 OD x 2-1/2 long										2	2						
29	STD-1640	CLAMP, Hose,15/16 ID x 1/2 wide										4	4						

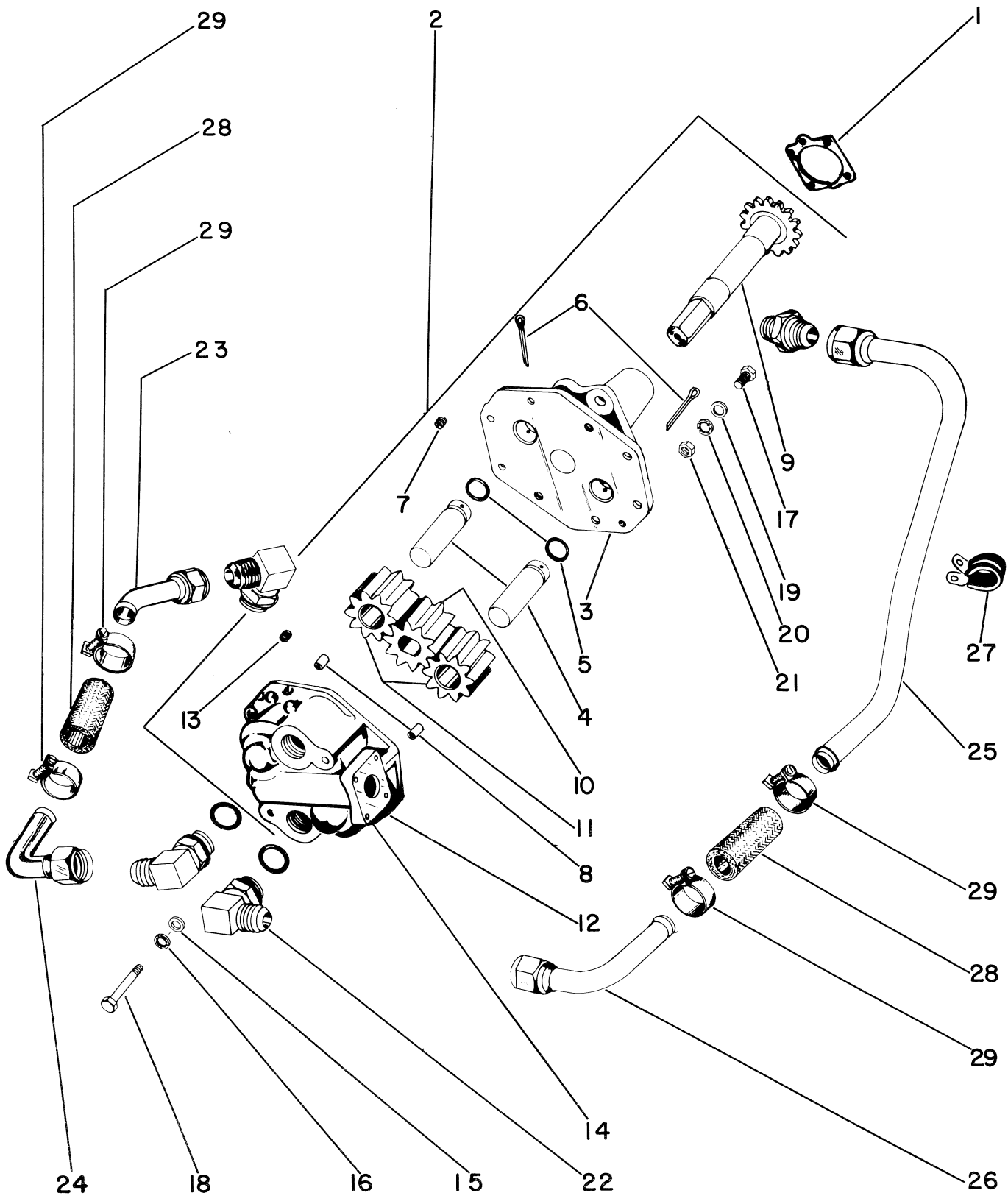


Figure 16 - Oil Scavenge Pump and Suction Tubes (AIO-320)





**AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG**  
 WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

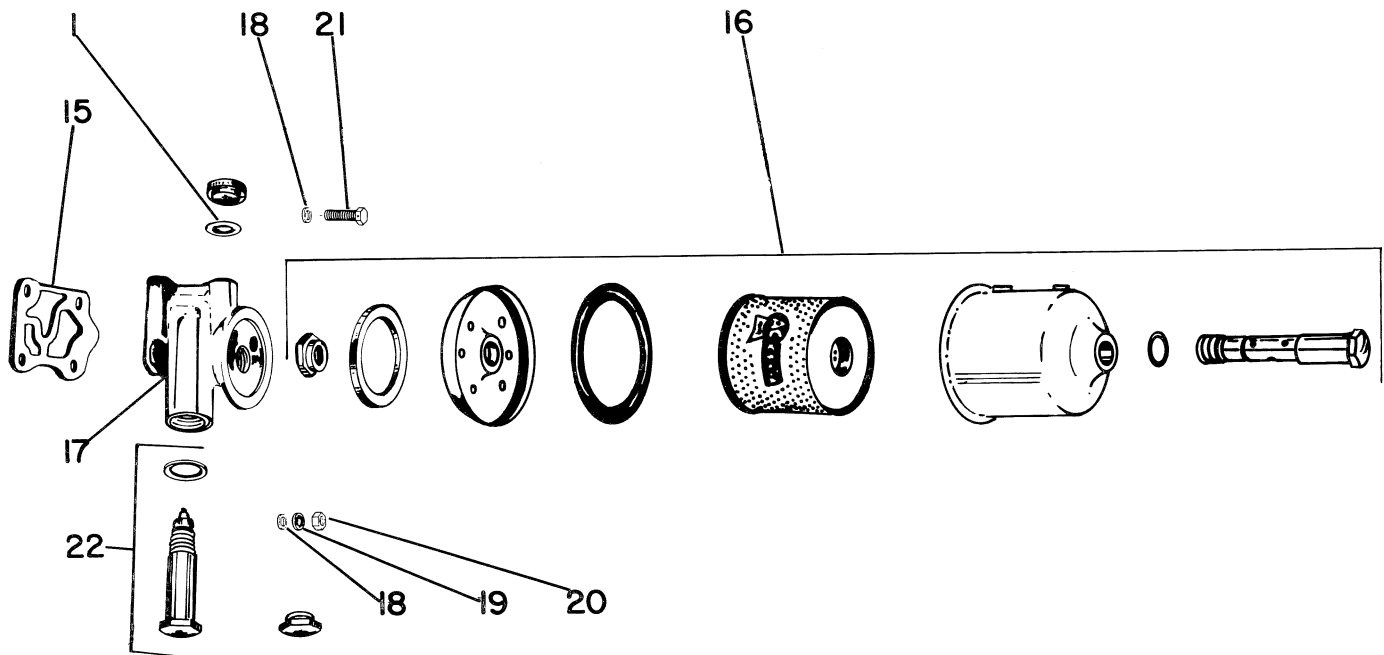
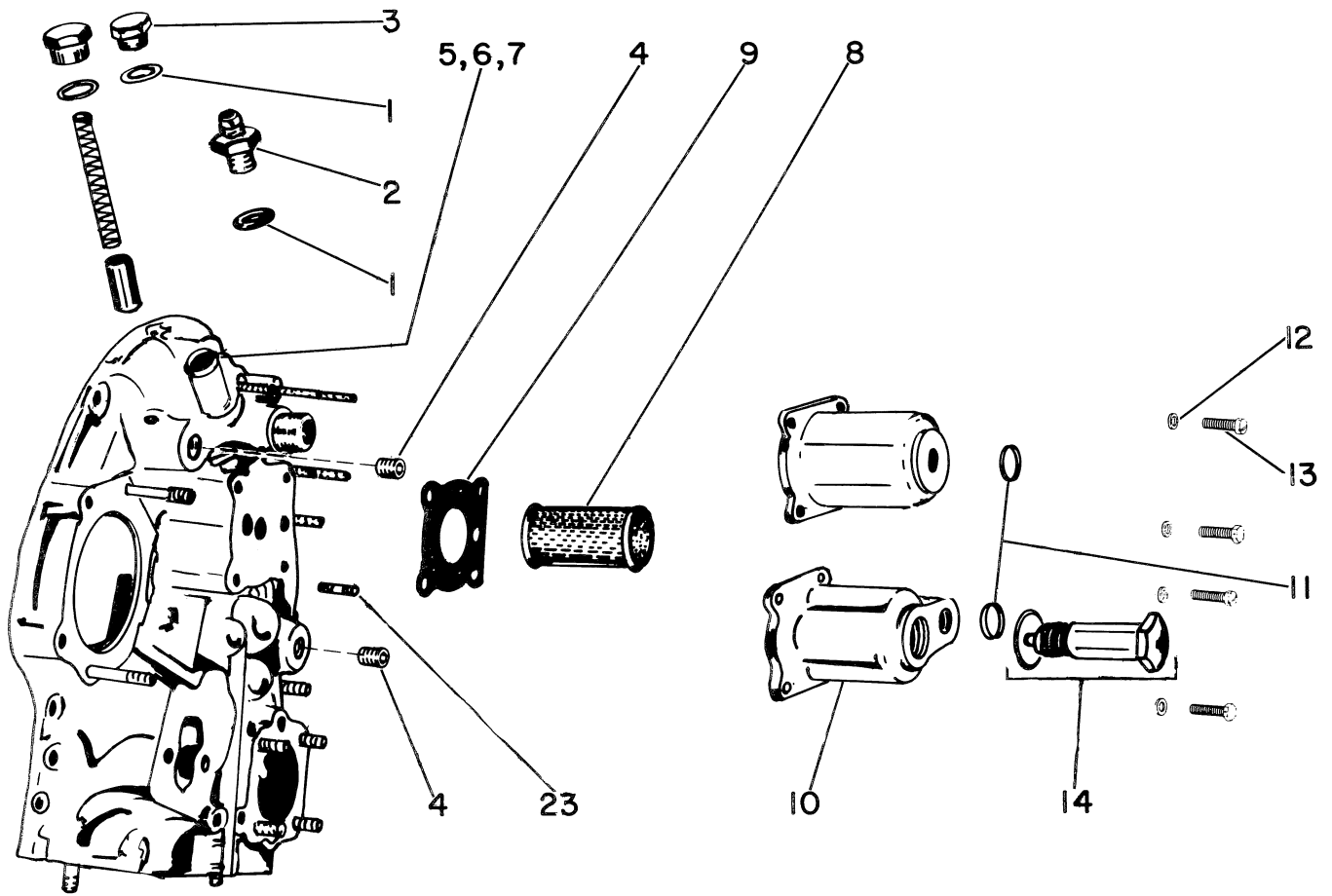


Figure 17 - Oil Pressure Screen Filter and Oil Cooler Bypass Valve

# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

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

QUANTITY PER ASSEMBLY

FIG. REF. 18	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320					
				B7A	B7C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B7B	C1B	B7A	C1A			
1	78030	ROD ASSY., Connecting	4																
2	LW-13923	BUSHING, Connecting rod, upper	4																
3	78027	BOLT, Connecting rod	8																
4	LW-12186	NUT, Connecting rod	8																
5	69373	BEARING, Connecting rod	8																
6	75089	PISTON, Comp.ratio 8.50:1		4	4	4	4	4				4	4		4	4			
	75413	PISTON, Comp.ratio 7.00:1										4	4	4	4				
7	LW-14078	PIN, Piston		4	4	4	4	4				4	4		4	4			
	LW-14068	PIN, Piston										4	4	4	4				
8	60828	PLUG, Piston pin	8																
9	74241	RING, Piston compression	8																
10	73857	RING, Piston, oil regulating, expander type	4																

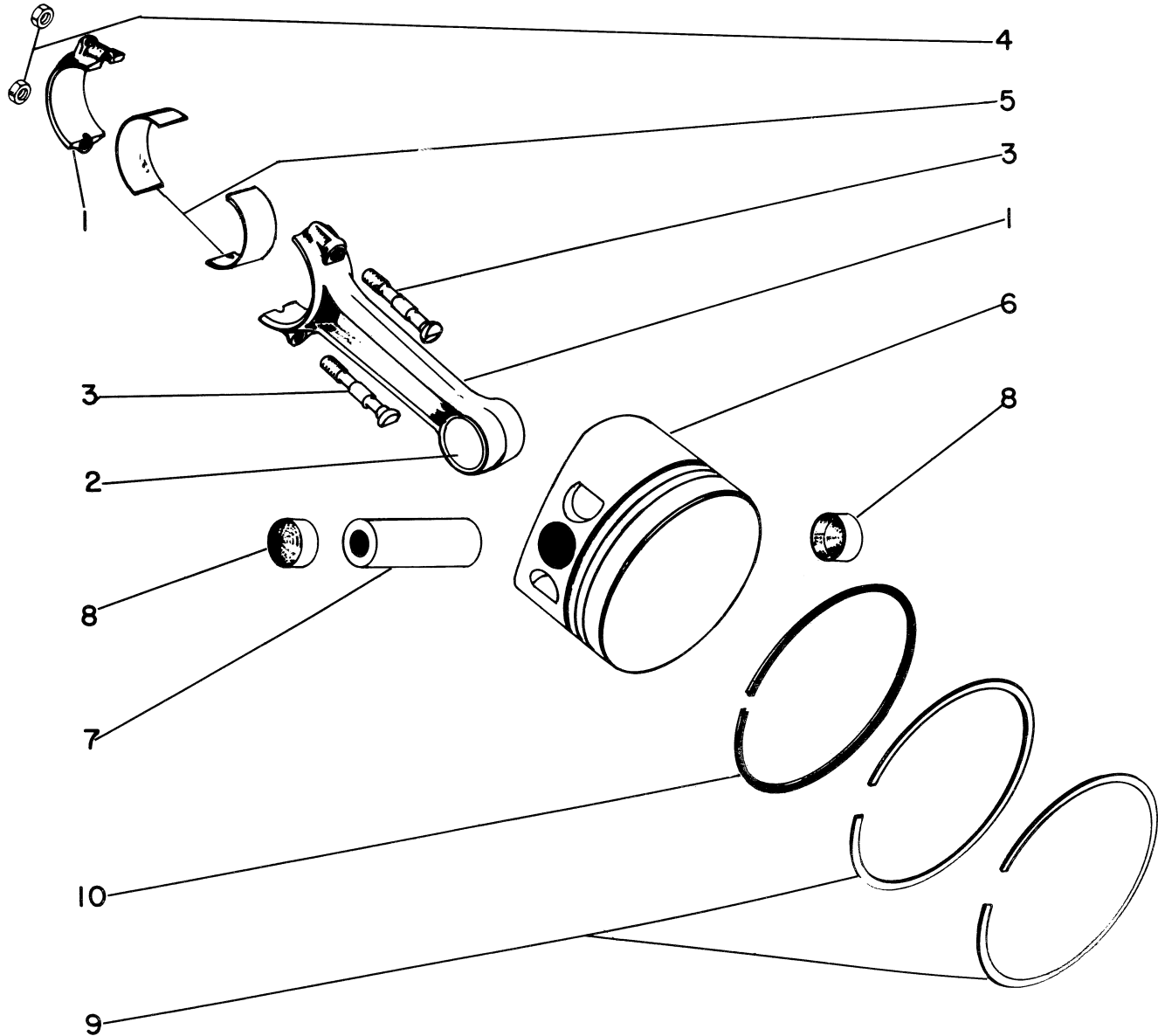


Figure 18  
3-1

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## CYLINDER, PISTON AND VALVE TRAIN CYLINDER ASSEMBLY

QUANTITY PER ASSEMBLY

FIG. REF. 19	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320							
				BTA	BTC	C1A	D1A	D1B	E1A	E1B	E2A	E2B	BTB	CTB	B1A	C1A					
1	LW-12416	CYLINDER AND HEAD ASSY., Nitrided			4	4		4	4	4	4	4	4	4	4	4					
	LW-12418	CYLINDER AND HEAD ASSY., Nitrided					4													4	
2	72057	SEAT, Intake valve	4																		
3	72058	SEAT, Exhaust valve	4																		
4	76943	GUIDE, Valve intake	4																		
5	77160	GUIDE, Exhaust valve	4																		
6	66796	INSERT, Spark plug 18-1.5mm			8	8		8	8	8	8	8	8	8	8	8				8	
	69260	INSERT, Spark plug 18-1.5mm long reach					8													8	
7	STD-1872	INSERT, 1/8-27 heli-coil taper pipe thd.			8	8	4	8	8	8	8	8	8	8	8	8				8	4
8	61261	STUD, 5/16-18 x 1-1/2 long	8																		
9	68510	STUD, 1/4-20 x 1-1/16 long	4																		
10	MS20823-6D	ELBOW, 45° 3/8 flared tube	4																		
11	66610	BUSHING, Rocker shaft	16																		

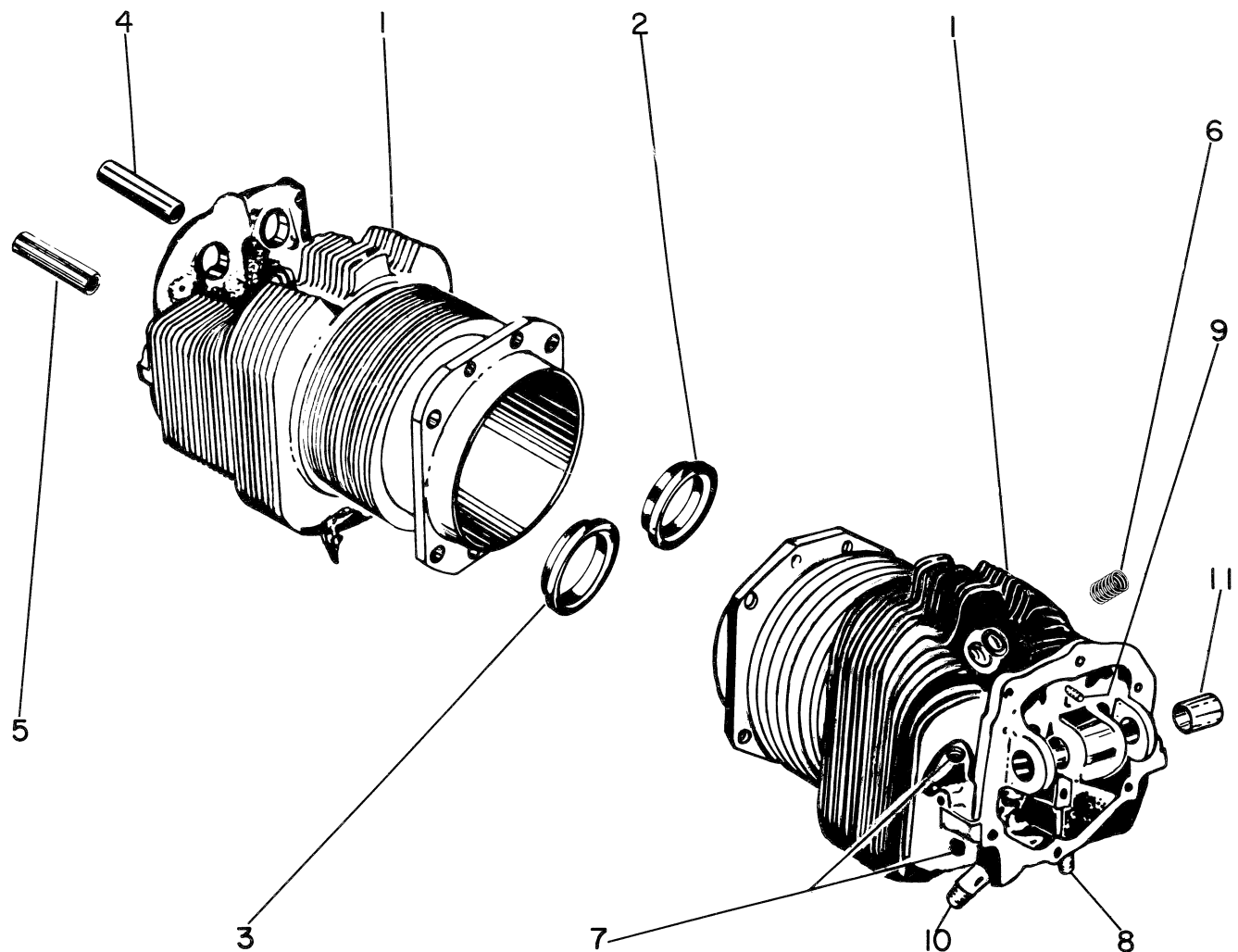


Figure 19  
3-2

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## CYLINDER, PISTON AND VALVE TRAIN VALVE ASSEMBLY

QUANTITY PER ASSEMBLY

FIG. REF.	PART NUMBER	DESCRIPTION	ON ALL	IO-320												AIO-320		LIO-320	
				B7A	B7C	C7A	D7A	D7B	E7A	E7B	E7C	E7D	E7E	E7F	E7G	B7B	C7B	B7A	C7A
1	73938	VALVE, Intake	4																
2	74541	VALVE, Exhaust (rotator type)								4	4	4	4						
	74541	VALVE, Exhaust (rotator type) 1/2 dia.			4	4		4	4					4	4		4		
	76081	VALVE, Exhaust (rotator type) 1/2 dia.					4										4		
3	LW-11795	SPRING, Valve inner	8																
4	LW-11800	SPRING, Valve outer	8																
5	65441	SEAT, Valve spring lower intake	4																
6	LW-13323	SEAT, Valve spring lower exhaust	4																
7	LW-10077	SEAT, Valve spring upper intake	4																
8	LW-10076	SEAT, Valve spring upper exhaust (rotator type)	4																
9	60009	KEY, Valve intake	8																
10	MS13997-3	KEY, Valve exhaust (rotator type)	8																
11	MS13998-3	CAP, Valve stem exhaust (rotator type)	4																
12	78290	PLUNGER ASSY., Hydraulic tappet	8																
13	78524	SOCKET, Push rod,hydraulic tappet	8																
14	68987	TUBE, Push rod shroud	8																
15	LW-13428	SPRING, Shroud tube	4																
16	LW-12272	LOCKPLATE, Shroud tube	4																
17	STD-1411	NUT, 1/4-20 plain	4																
18	62922	SEAL, Shroud tube	8																
19	70310	SEAL, Shroud tube	8																

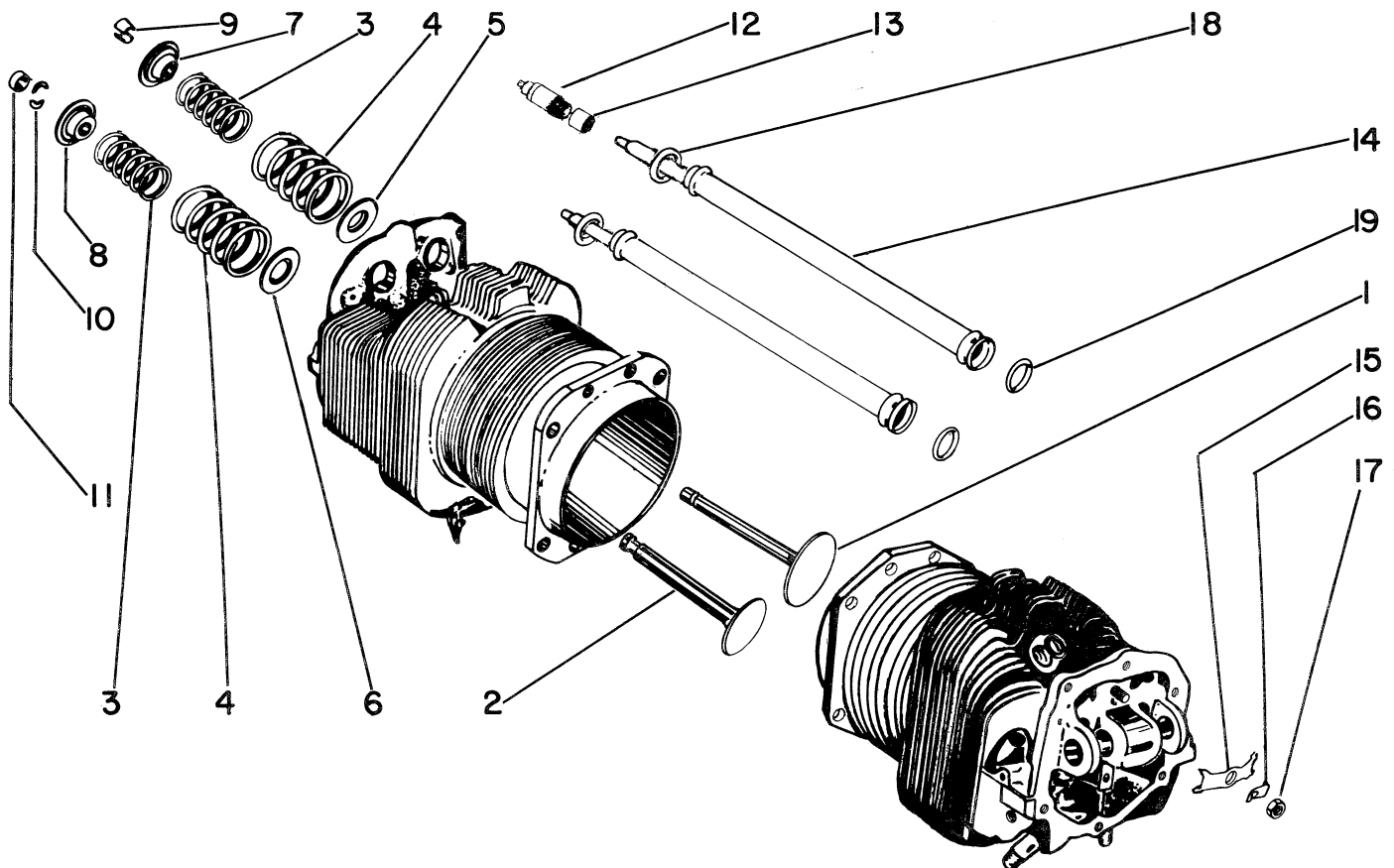


Figure 20  
3-3

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## CYLINDER, PISTON AND VALVE TRAIN CYLINDER RELATED PARTS

QUANTITY PER ASSEMBLY

FIG. REF. 21	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320						
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A				
1	73411	ROD ASSY., Push	un																	
	73412	ROD ASSY., Push	un																	
	73413	ROD ASSY., Push	un																	
	73414	ROD ASSY., Push	un																	
2	69444	ROCKER ASSY., Valve intake	4																	
3	60398	BUSHING, Valve rocker intake	4																	
4	74636	ROCKER ASSY., Valve exhaust	4																	
5	74637	BUSHING, Valve rocker exhaust	4																	
6	LW-13790	SHAFT, Valve rocker	4																	
	LW-12892	THRUST BUTTON, Rocker shaft	8																	
7	75906	GASKET, Rocker box cover	4																	
8	61247	COVER, Rocker box	4																	
9	STD-1925	SCREW, 1/4-20 x 5/8 long pan hd., self-locking	24																	
10	74494	PLATE, Spark plug long reach, caution					4										4			
11	71481	RING, Oil seal, 3/32 dia.sect.x 4-27/32 ID	4																	
12	74887	SPACER, 33/64 ID x 7/8 OD x 3/8 thick	2																	
13	383-B	NUT, 3/8-24 plain	16																	
14	STD-2090	NUT, 1/2-20 plain	18																	
15	65321	GASKET, Exhaust flange		4	4	4	4	4	4	4	4	4	4	4	4					
16	61260	FLANGE, Exhaust, stainless steel		4	4	4	4	4	4	4	4	4	4	4	4					
	77611*	GASKET, Exhaust flange	un																	

\* - Premium reusable exhaust flange gasket.

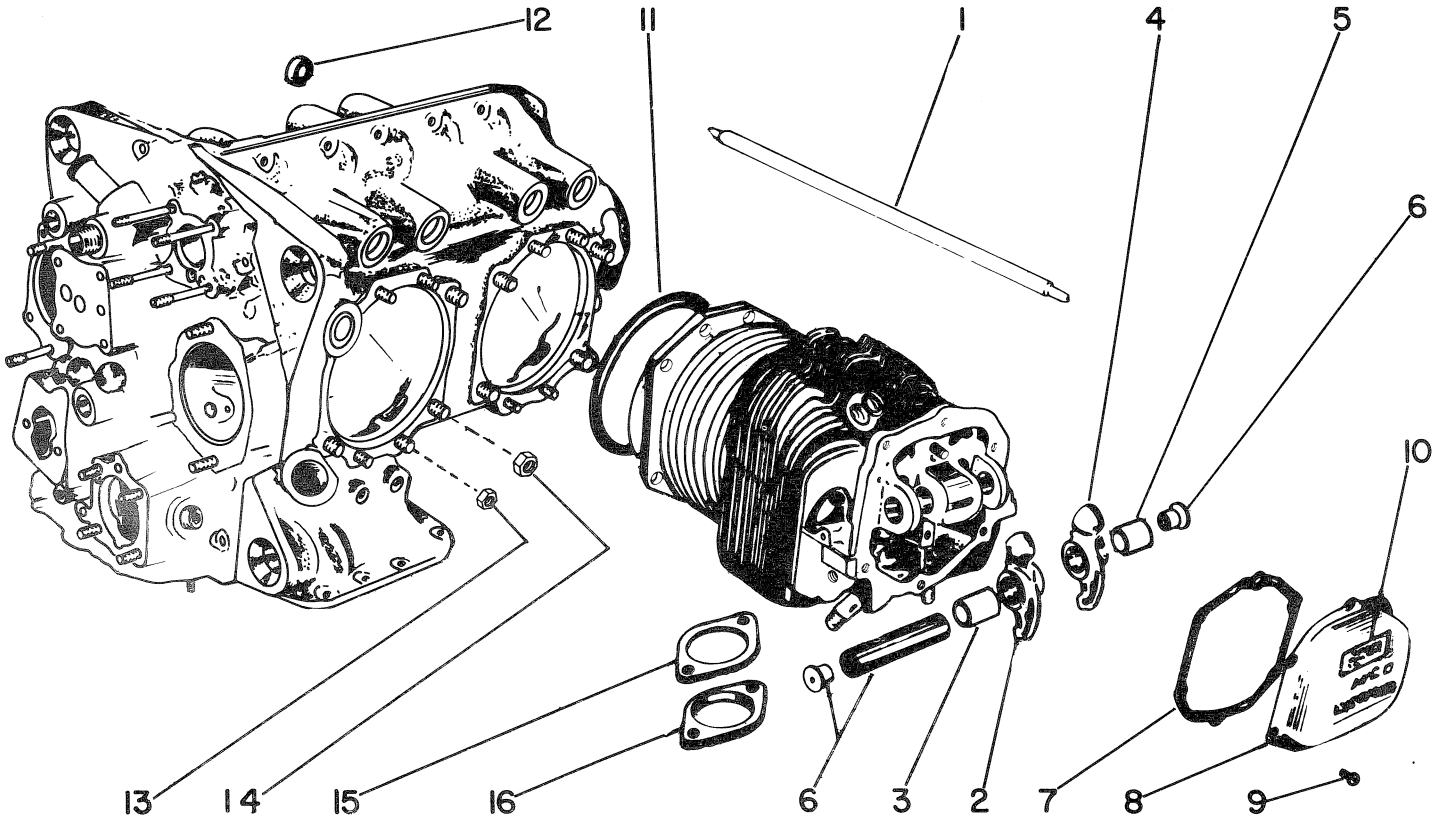


Figure 21  
3-4







# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## IGNITION SYSTEM

MAGNETO DRIVES AND MAGNETOS

QUANTITY PER ASSEMBLY

FIG. REF. 23	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320							
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A					
1	61665	GEAR, Magneto impulse coupling		2	1	2	1	1	1	1	1	1	1	1	1	2	2				
2	61163	GEAR, Magneto			1		1	1	1	1	1	1	1	1							
3	STD-761	COTTER PIN, 3/32 x 1.00 long									1	1									
4	62224	MAGNETO ADAPTER AND MAGNETO		4	3	4	1	1	3	1	3	1	1	1	4	4					
5	LW-12706	ADAPTER, Magneto impulse coupling		2	1	2	1	1	1	1	1	1	1	1	2	2					
6	LW-51360-29	MAGNETO, S4LN-20			1				1	1											
7	LW-51360-37	MAGNETO, S4LN-21 impulse coupling		2	1	2			1	1											
	LW-163045-6	MAGNETO, S4LN-204 (with electric tach. pick-up)			1																
	LW-51360-47	MAGNETO, S4LN-21 impulse coupling right magneto (with electric tach. pick-up)						1													
	LW-51360-46	MAGNETO, S4LN-21 impulse coupling													2	2					
8	LW-12681	GASKET, Magneto						2	2	2	2	2	2	2							
9	LW-349305-1	MAGNETO, S4LN-1209						1	1					1	1						
10	LW-349365-3	MAGNETO, Impulse coupling S4LN-1227						1	1					1	1						
	77742	MAGNETO AND HARNESS ASSY., Slick (right)								1	1										
	76949	MAGNETO, Right (Slick 4050)								1	1										
	77743	HARNESS ASSY., Ignition, right (Slick)								1	1										
	77744	MAGNETO AND HARNESS ASSY., Slick (left)								1	1										
	76950	MAGNETO, Left impulse (Slick 4051)								1	1										
	77745	HARNESS ASSY., Ignition left (Slick)								1	1										
11	76961	CLAMP, Magneto for slick mags.								4	4										
	75965	CLAMP, Magneto for -1200 series Bendix mags.													4	4					
12	STD-1727	WASHER, Plain, 3/4 OD x 21/64 ID x 1/8 thick			4	4	4			4	4	4	4		4	4					
13	STD-475	WASHER, 5/16 internal lock	4																		
14	STD-1410	NUT, 5/16-18 plain	4																		
	76734	ZIP STRAPS								8	8										
15	LW-52305-1	KIT ASSY., Magneto ground terminal			2	2	2			2	2										
	LW-157209	KIT, Magneto ground terminal			2																

**AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG**  
 WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

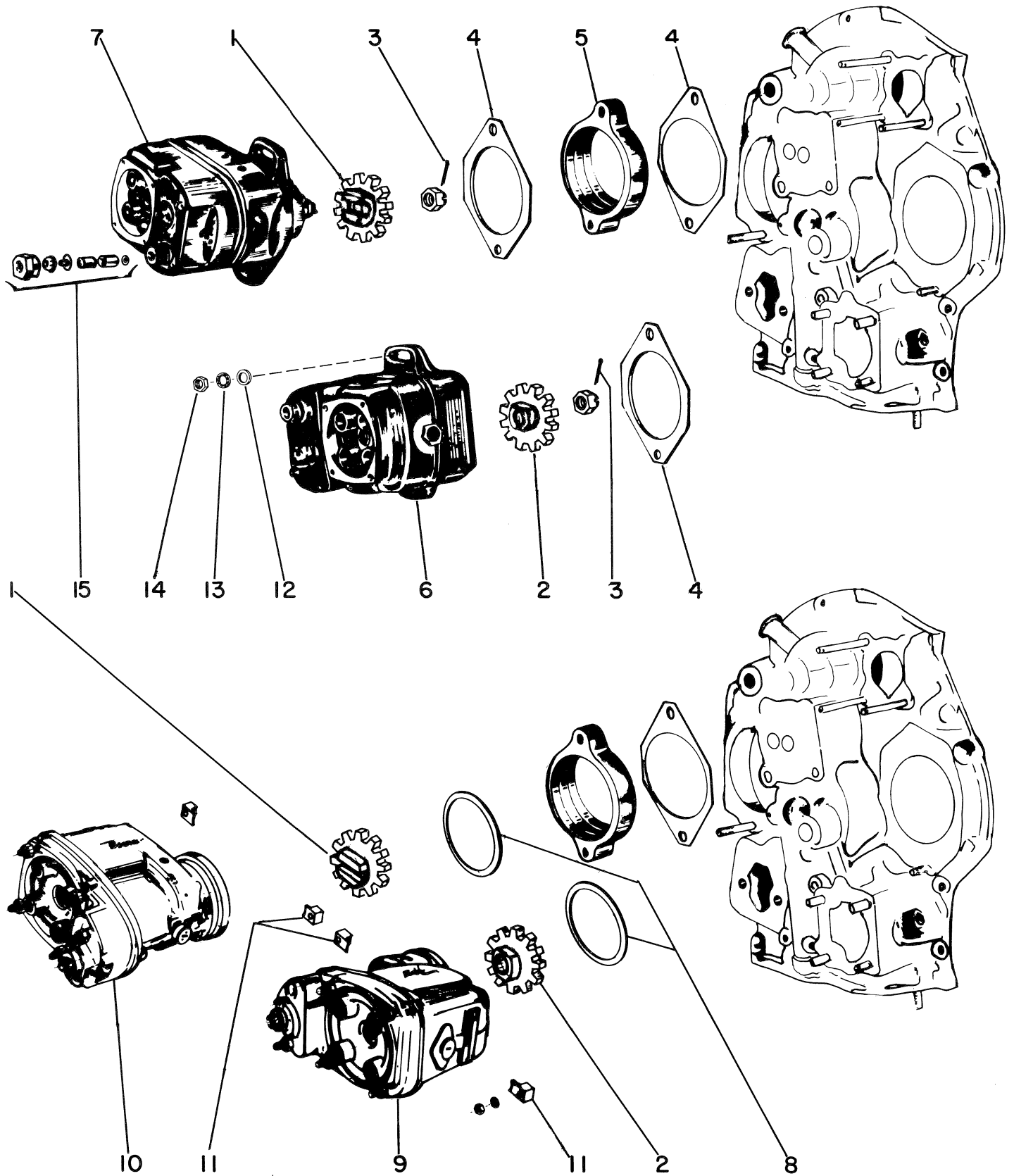


Figure 23 - Magneto and Magneto Drives

### VENDOR ACCESSORY S-20 SERIES BENDIX MAGNETOS

REF. NO.	PART NUMBER	12345	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	LW-51360-29		MAGNETO, S4LN-20		A
	LW-51360-37		MAGNETO, S4LN-21 impulse coupling		B
	LW-51360-46		MAGNETO, S4LN-21 impulse coupling		C
	LW-51360-47		MAGNETO, S4LN-21 impulse coupling,electric tach. pick-up		D
1	10-50727Y		HOUSING, Magneto	1	B, C, D
	10-160858		HOUSING, Magneto	1	A
2	10-157134		PLUG, Ventilator magneto housing	1	
3	10-357164		COIL	1	A, B, C
	10-357165		COIL	1	D
4	10-50765		CLAMP, Coil core	2	
5	10-35937-8		SCREW, W/lockwasher (coil core clamp)	2	
	10-35937-8		SCREW, W/lockwasher (breaker cover ventilator)	1	A, B, C
6	10-81806		BEARING, Ball (magnet drive end)	1	
7	2-161-1		WASHER, Flat .0025 thick	un	
	2-161-2		WASHER, Flat .004 thick	un	
	2-161-3		WASHER, Flat .005 thick	un	
	2-161-4		WASHER, Flat .008 thick	un	
	2-161-5		WASHER, Flat .010 thick	un	
	2-161-6		WASHER, Flat .012 thick	un	
	2-161-7		WASHER, Flat .0015 thick	un	
8	10-52945		MAGNET, Rotating	1	A
	10-52947		MAGNET, Rotating	1	B, C, D
9	10-90788-5		KEY, Woodruff (small gear)	1	
	10-90788-5		KEY, Woodruff (magnet rotating drive end)	1	
	10-90788-5		KEY, Woodruff (impulse coupling bushing)	1	B, C, D
10	10-157123Y		GEAR, Small	1	
11	10-3503		WASHER, Plain	1	
12	2-199-1		WASHER, Plain .0025 thick	un	
	2-199-2		WASHER, Plain .004 thick	un	
	2-199-3		WASHER, Plain .005 thick	un	
	2-199-4		WASHER, Plain .008 thick	un	
	2-199-5		WASHER, Plain .010 thick	un	
	2-199-6		WASHER, Plain .012 thick	un	
13	2-202		BEARING, Ball	1	
14	10-88543-1		CAM, Breaker	1	A, B, C
	10-88543-5		CAM, Breaker	1	D
15	10-51354		WASHER, Plain (cam screw)	1	
16	10-391213		SCREW, W/lockwasher	1	
17	10-52917		HOUSING, Distributor	1	A, B, C
	10-106498		HOUSING, Distributor	1	D

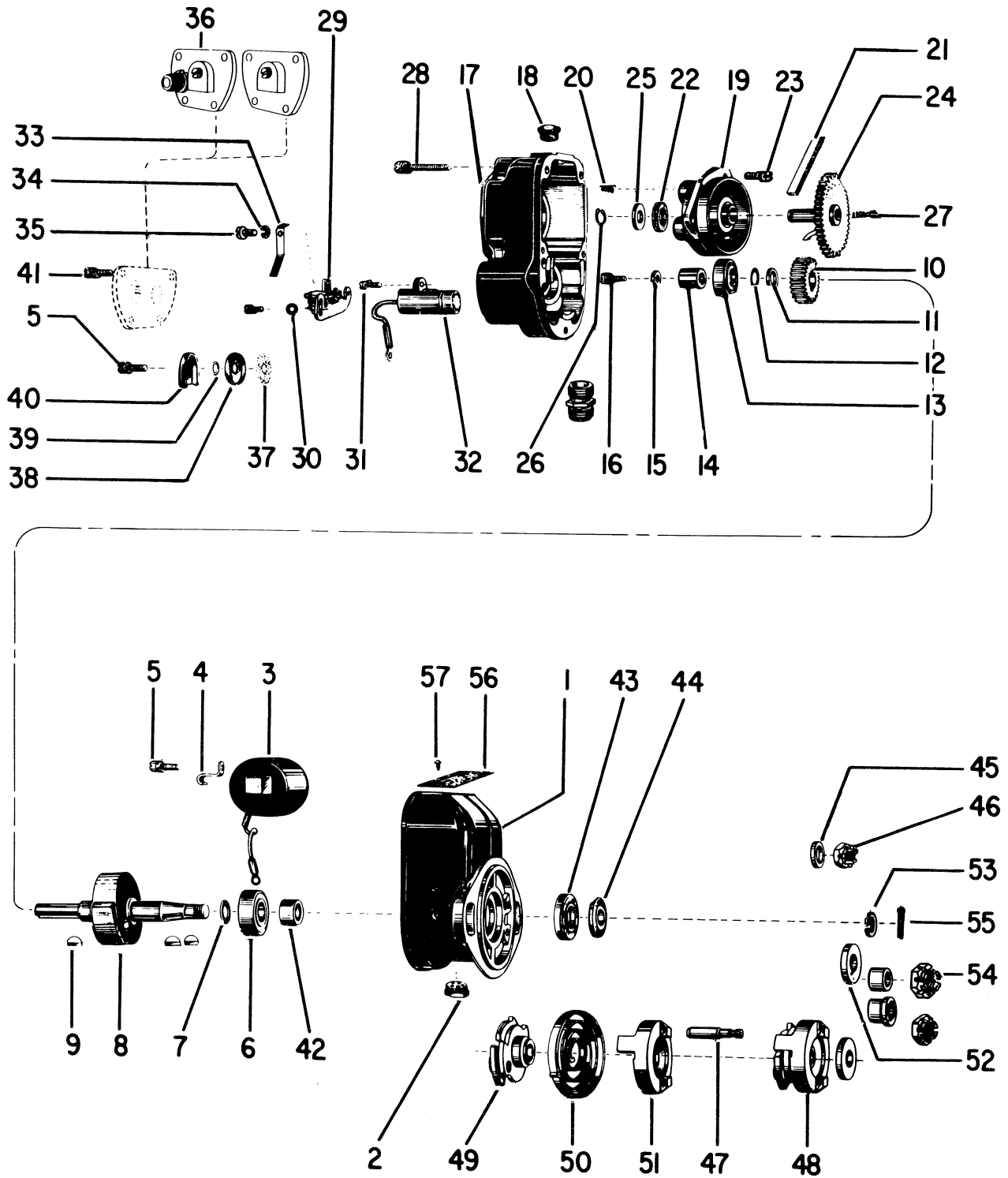


Figure 24 - Bendix S-20 Series Magnetos

### VENDOR ACCESSORY S-20 SERIES BENDIX MAGNETOS

REF. NO.	PART NUMBER	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	12345			
18	10-175135	PLUG, Distributor housing	1	A, B, C
19	10-52949	BLOCK, Distributor	1	
20	10-50737	SPRING, Helical	4	
21	10-163374	STRIP, Felt (electrode side)	1	
22	10-50752	WASHER, Felt (ring side)	1	
23	10-102083	SCREW, W/plain and lockwasher (dist.block)	3	
24	10-50746Y	GEAR, Distributor large	1	
25	10-50753	WASHER, Plain (dist.gear axle)	1	
26	10-92815-37	RING, Retaining (dist.gear axle)	1	
27	10-160844	BRUSH, Electrical contact	1	
28	10-157158	SCREW, W/lockwasher (dist.to mag.housing)	5	
29	10-357174	CONTACT ASSY., Tungsten	1	A, B, C
	10-382585	CONTACT ASSY., Tungsten	1	D
	10-361631	CONTACT ASSY., Tachometer	1	D
30	10-14268	WASHER, Plain	1	
31	10-35936-7	SCREW, W/lockwasher (contact assy.securing)	2	A, B, C
	10-35936-7	SCREW, W/lockwasher (contact assy.securing)	4	D
	10-35936-7	SCREW, W/lockwasher (capacitor)	1	A, B, C
	10-35935-5	SCREW, Capacitor securing	2	D
	10-361639	BUSHING (Tachometer contact)	1	D
	10-9858	WASHER, Plain (tachometer contact)	1	D
	10-361624	PLATE, Insulating (tachometer contact)	1	D
32	10-51676	CAPACITOR	1	A, B, C
	10-163131	CAPACITOR	1	D
33	10-102090	SPRING (ground terminal)	1	A, B, C
34	2-194	WASHER, Lock (ground terminal)	1	A, B, C
35	10-16476	SCREW, Fillister hd.ground terminal	1	A, B, C
36	10-52939Y	COVER, Breaker	1	A, B, C
	10-361637	COVER, Breaker	1	D
	10-60714-9	GROMMET (cover assy.,tachometer contact)	1	D
	10-180161-1	WIRE (cover assy.,tachometer contact)	un	D
	10-180128-1	SLEEVING (cover assy.,tachometer contact)	un	D
	10-163163	TERMINAL (cover assy.,tachometer contact)	1	D
	10-361638	COVER, Tachometer contact	1	D
37	10-9354	SCREEN, Ventilator breaker cover	1	A, B, C
38	10-116197	RETAINER, Ventilator screen	1	A, B, C
39	10-32438	WASHER, Ventilator shield	1	A, B, C
40	10-9967	SHIELD, Ventilator breaker cover	1	A, B, C
41	10-157161	SCREW, W/lockwasher	4	A, B, C
	10-157160	SCREW, W/lockwasher	4	D
42	10-357078	BEARING, Sleeve drive shaft	1	
43	10-27448	OIL SEAL DRIVE SHAFT	1	
44	10-51678	DEFLECTOR, Oil	1	
45	10-4093	WASHER, Plain (drive shaft nut)	1	A
46	10-173151	NUT, Drive shaft	1	A
47	10-56513	PIN, Stop (impulse coupling)	2	B, C, D
48	10-59473	IMPULSE COUPLING, Type IC-H 25° lag	1	C
	10-59474	IMPULSE COUPLING, Type IC-H 25° lag	1	B, D
49	10-59436	CAM, Impulse coupling	1	C
	10-59437	CAM, Impulse coupling	1	B, D
50	10-51324	SPRING, Main (impulse coupling)	1	B, C, D
51	10-51333	BODY, Impulse coupling	1	C
	10-52903	BODY, Impulse coupling	1	B, D

### VENDOR ACCESSORY S-20 SERIES BENDIX MAGNETOS

REF. NO.	PART NUMBER	DESCRIPTION	QTY.	MODEL USAGE
			PER ENG.	
52	10-51613	WASHER, Keyed (impulse coupling)	1	C
	10-51370	WASHER, Plain (impulse coupling)	1	B, C, D
53	10-163049	BUSHING, Impulse coupling	1	B, C, D
54	10-3793	WASHER, Lock (drive shaft nut)	1	B, C, D
55	10-51643	NUT, Drive shaft	1	B, C, D
56	10-90751-19	PIN, Cotter	1	
57	10-357012	PLATE, Identification	1	
58	10-90500-5	SCREW, Drive	2	

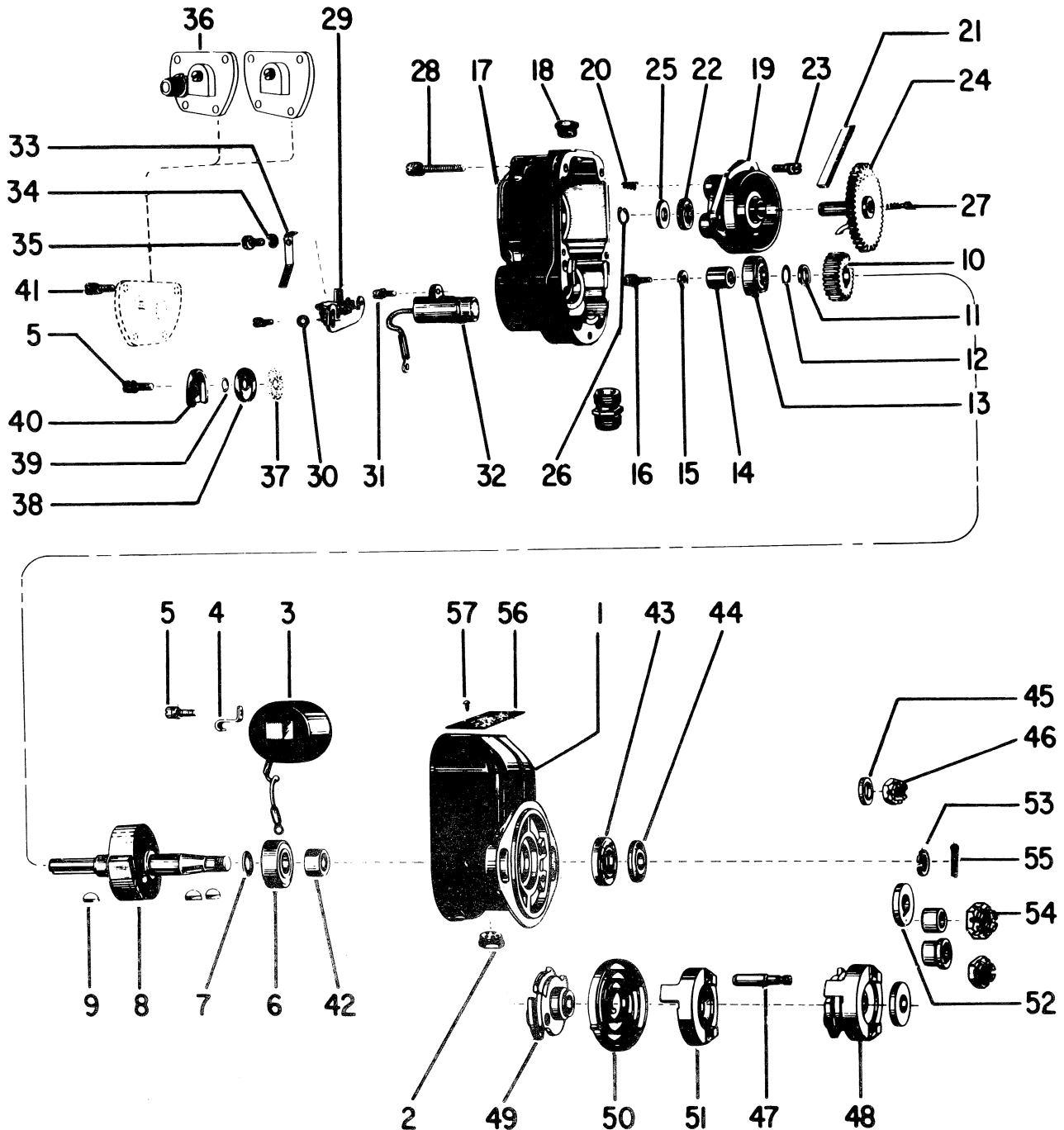


Figure 25 - Bendix S-20 Series Magnetos

### VENDOR ACCESSORY S-200 SERIES BENDIX MAGNETOS

REF. NO.	PART NUMBER	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
		12345		
	10-163045-6	MAGNETO, S4LN-204 Avco Lycoming LW-163045-6		
1	10-160858	HOUSING, Magneto	1	
2	10-157134	PLUG, Ventilator magneto housing	1	
3	10-157165	COIL	1	
4	10-50765	CLAMP, Coil core	2	
5	10-35937-8	SCREW, With lockwasher (coil core clamp)	2	
6	10-81806	BEARING BALL (magnet drive end)	1	
7	2-161-1	WASHER, Flat .0025 thick	un	
	2-161-2	WASHER, Flat .004 thick	un	
	2-161-3	WASHER, Flat .005 thick	un	
	2-161-4	WASHER, Flat .008 thick	un	
	2-161-5	WASHER, Flat .010 thick	un	
	2-161-6	WASHER, Flat .012 thick	un	
	2-161-7	WASHER, Flat .0015 thick	un	
8	10-52945	MAGNET, Rotating	1	
9	10-90788-5	KEY, Woodruff	2	
10	10-157123Y	GEAR, Distributor small	1	
11	10-3503	WASHER, Plain (brokeed end bearing)	1	
12	2-199-1	WASHER, Flat .0025 thick	un	
	2-199-2	WASHER, Flat .004 thick	un	
	2-199-3	WASHER, Flat .005 thick	un	
	2-199-4	WASHER, Flat .008 thick	un	
	2-199-5	WASHER, Flat :010 thick	un	
	2-199-6	WASHER, Flat .012 thick (breaking end bearing)	un	
13	2-202	BEARING, Ball (magnet,brokeed end)	1	
14	10-88543-5	CAM, Breaker	1	
15	10-51354	WASHER, Plain (cam screw)	1	
16	10-35936-10	SCREW, With lockwasher	1	
17	10-106498	HOUSING, Distributor	1	
18	10-157135	PLUG, Distributor housing	1	
19	10-52949	BLOCK, Distributor	1	
20	10-50737	SPRING, Helical	4	
21	10-163374	STRIP, Felt (electrode side)	1	
22	10-50752	WASHER, Felt (ring side)	1	
23	10-102083	SCREW, With lock and plain washer	3	
24	10-50746Y	GEAR, Distributor large	1	
25	10-50753	WASHER, Plain (distributor gear axle)	1	
26	10-31282	RING, Retaining	1	
27	10-160844	BRUSH, Carbon	1	
28	10-157158	SCREW, With lockwasher	5	
29	10-382585	CONTACT ASSEMBLY (Tungsten L. H.)	1	
30	10-14268	WASHER, Plain	1	
	10-9858	WASHER, Plain	2	
31	10-35936-7	SCREW, With lockwasher	4	
	10-361624	PLATE, Breaker insulating	2	
	10-361639	BUSHING, Insulating	2	
32	10-163131	CAPACITOR	1	
33	10-35935-5	SCREW, With lockwasher	2	
34	10-361637	COVER ASSY., Tach.breaker	1	
35	10-157160	SCREW, With lockwasher (breaker cover)	4	
36	10-163384	DISK	1	
37	10-25788	BEARING, Sleeve (drive shaft)	1	
38	10-27448	OIL SEAL, (drive shaft)	1	
39	10-51678	DEFLECTOR, Oil (drive shaft)	1	
40	10-4093	WASHER, (drive shaft nut)	1	
41	10-163151	NUT, Drive shaft	1	

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## VENDOR ACCESSORY S-200 SERIES BENDIX MAGNETOS

REF. NO.	PART NUMBER	12345	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
42	10-90751-19		PIN, Cotter (drive shaft nut)	1	
43	10-357011		PLATE, Identification	1	
44	10-90500-5		SCREW, Drive	2	

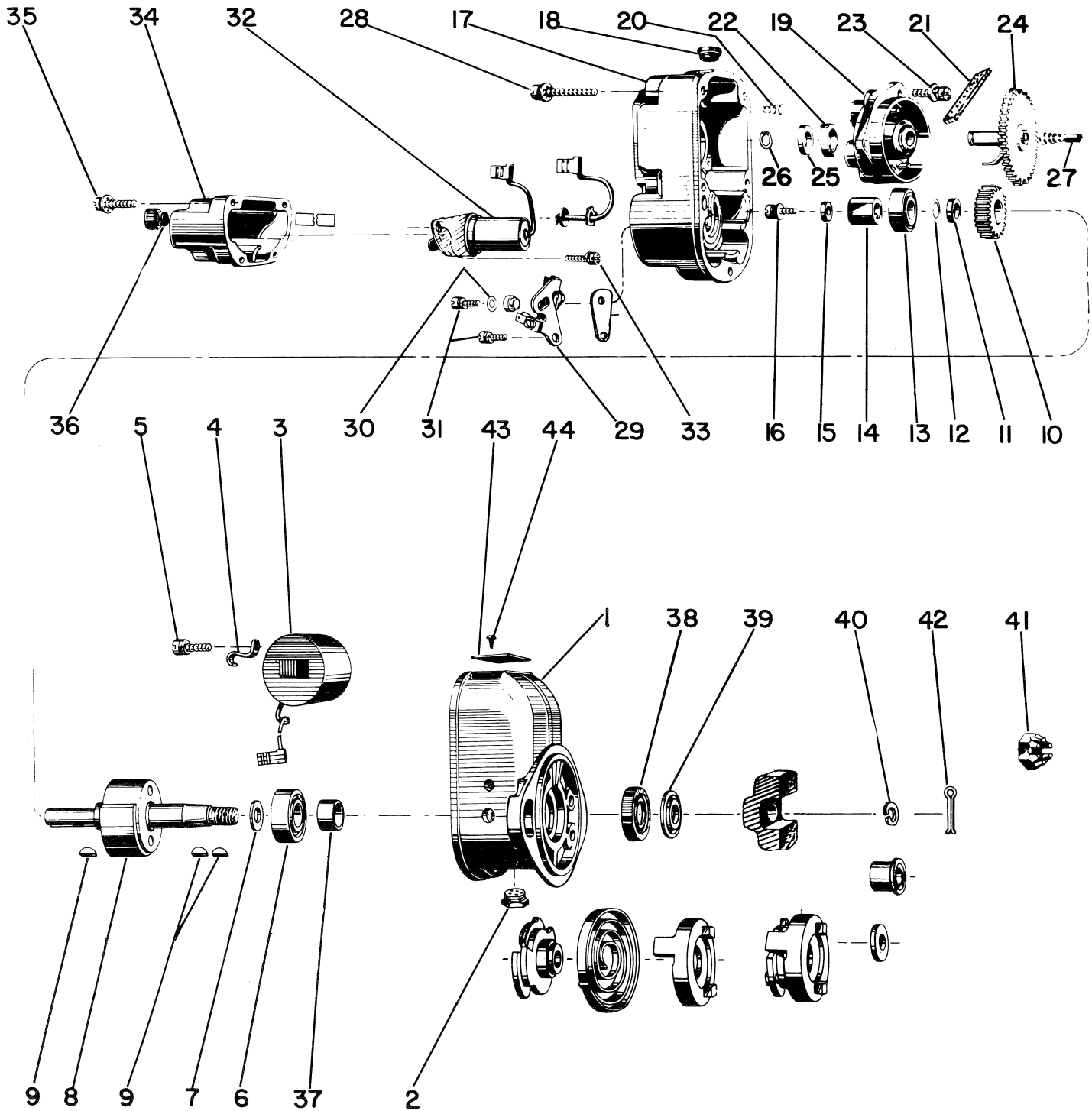


Figure 26 - Bendix S-200 Series Magnetos



# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## VENDOR ACCESSORY S-1200 SERIES BENDIX MAGNETOS

REF. NO. 27	PART NUMBER	12345	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	10-349305-1		MAGNETO, Bendix,S4LN-1209,Avco Lycoming P/N LW-349305-1		A
	10-349365-3		MAGNETO, Bendix,S4LN-1227,Avco Lycoming P/N LW-349365-3		B
1	10-35937-24		SCREW, With lockwasher	1	
2	10-92873-302		NUT, Stud and lead contact screw	5	
3	10-90701-5		WASHER, (Stud outside)	8	
4	10-349393-2		COVER, Magneto	1	
5	10-35935-6		SCREW, Capacitor securing	2	
6	10-349276		CAPACITOR	1	
7	10-349263		PACKING, Capacitor mounting	1	
8	10-349221		STUD, Double end (distributor block securing)	4	
9	10-78655		WASHER, (stud securing)	4	
10	10-92815-37		RING, Retaining (gear axle)	1	
11	10-349511		WASHER, (Gear axle)	1	
12	10-50752		FELT, (Gear axle)	1	
13	10-349211		BLOCK, Distributor	1	
14	10-50737		SPRING, Helical	4	
15	10-163374		STRIP, Felt	1	
16	10-349234		GEAR ASSY., Large	1	
17	10-160844		BRUSH, Carbon	1	
18	10-35936-7		SCREW, (Contact assy.,and coil lead clamp)	3	
19	10-5752		CLIP, Cable (not illustrated)	1	
20	10-14268		WASHER, (Contact assy., securing screw)	1	
21	10-382585		CONTACT ASSY., R.H. (Tungsten)	1	
22	10-35936-10		SCREW, (Cam securing)	1	
23	10-51354		WASHER, (Cam securing screw)	1	
24	10-349243-1		CAM	1	
25	10-349326		STRIP, Fish paper	1	
26	10-349219		WEDGE, Coil	2	
27	10-349271		COIL, Magneto (high tension)	1	
28	10-90751-19		PIN, Cotter	1	
29	10-163151		NUT, Castellated (drive shaft)	1	A
	10-51643		NUT, Castellated (drive shaft)	1	B
30	10-3793		WASHER, Lock,(drive shaft nut)	1	B
31	10-51659		BUSHING, Impulse coupling	1	B
32	10-90788-5		KEY, Woodruff	1	A
	10-90788-5		KEY, Woodruff	2	B
33	10-4093		WASHER, (drive shaft nut)	1	A
	10-51370		WASHER, (drive shaft nut)	1	B
34	10-349359		IMPULSE COUPLING	1	B
35	10-52903		BODY, Impulse coupling	1	B
36	10-51324		SPRING, Main impulse coupling	1	B
37	10-349357-2		CAM ASSY., Impulse coupling	1	B
38	10-92815-62		RING, Retaining (drive shaft end)	1	
39	10-349328		WASHER, Flat (flange)	1	
40	10-349249		WASHER, Bowed (flange)	1	
41	10-349248		SLINGER, Oil	1	
42	10-349652		SCREW, Flange securing	3	
43	10-53397		WASHER, Flange securing	3	
44	10-349932-2		FLANGE, Short round (without stop pins)	1	A
	10-349392-6		FLANGE, Short round (with 2 stop pins)	1	B
45	10-349438R		STOP PIN FLANGE	2	B
46	10-353056		BEARING, (magneto drive end)	1	
47	10-349247		PLATE, (bearing retainer)	1	

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## VENDOR ACCESSORY S-1200 SERIES BENDIX MAGNETOS

REF. NO.	PART NUMBER	1 2 3 4 5	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
48	10-349351-3		MAGNET, Rotating	1	A
	10-349351-1		MAGNET, Rotating	1	B
49	10-349241		GEAR, Distributor (small)	1	
50	10-157134		VENTILATOR	1	
51	10-157138		PLUG, Timing	1	
52	10-90500-8		SCREW, (Identification plate securing)	2	
53	10-70616		PLATE, Identification	1	
54	10-353060		BEARING, Roller	1	
55	10-349394-3		HOUSING, Magneto	1	

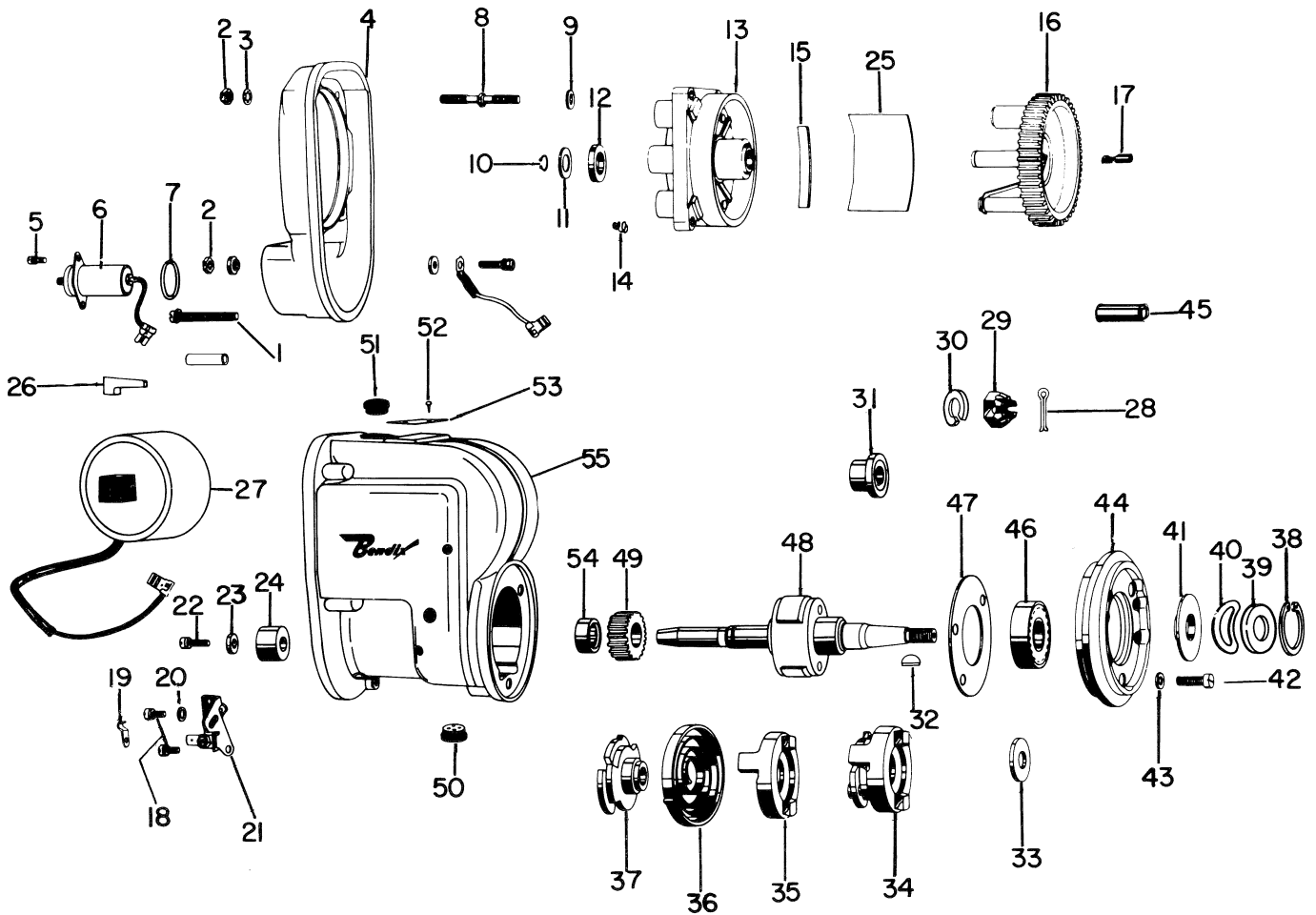


Figure 27 - Bendix S-1200 Series Magnetos

# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## IGNITION SYSTEM

IGNITION HARNESS AND LEAD ASSEMBLIES

QUANTITY PER ASSEMBLY

FIG. REF. 28	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320				
				B7A	B7C	C7A	D7A	D7B	E7A	E7B	E7C	B7B	C7B	B7A	C7A			
1	78539	CABLE ASSY., Ignition shielded, harness			1						1	1						
	78546	CABLE ASSY., Ignition shielded, harness						1	1				1	1				
	78547	CABLE ASSY., Ignition shielded, harness			1													
	78540	CABLE ASSY., Ignition shielded, harness			1													
2	LW-10811	TERMINAL, Spark plug wire			8	8		8	8	8	8		8	8				
3	LW-10814	SPRING, Spark plug terminal			8	8		8	8	8	8		8	8				
4	LW-10812	COLLAR, (Silicone) spark plug terminal			8	8		8	8	8	8		8	8				
5	76757	NUT, 5/8-24			8	8		8	8	8	8		8	8				
6	LW-10389*	ELBOW, 70°			8	6		4	4	8	8		4	4				
	LW-10388	ELBOW, 110° (3 and 4 bottom on 78547)				2												
	LW-10390*	ELBOW, 90°			4			4	4				4	4				
7	76753	SLEEVE, Ring plastic			4	4				4	4							
8	76754	PLATE, Spark plug cable			2	2		2	2	2	2		2	2				
9	LW-10400	FERRULE, Braid retaining			16	16		16	16	16	16		16	16				
10	76728	SLEEVE			8	8		8	8	8	8		8	8				
	LW-11123	SPACER, Magneto grommet						8	8				8	8				
11	76852	GROMMET, Magneto			2	2				2	2							
	76648	GROMMET, Magneto						2	2				2	2				
12	73245	EYELET			8	8		8	8	8	8		8	8				
13	75941	TAPE, Lead identification			1	1		1	1	1	1		1	1				
14	76853	PLATE, Magneto			2	2				2	2							
	76075	PLATE, Magneto						2	2				2	2				
	72351	SCREW, No.10-32 self-locking			8	8				8	8							
	72453	CLAMP, 1-3/4 ID x 11/32 offset			4	4												
	71913	CLAMP, 1-1/2 ID x 11/32 offset			4					4	4							
	STD-553	SCREW, 6-32 x 1/2 long,rd.hd.			4	4				4	4							
	AN365-632C	NUT, 6-32,self-locking			4	4				4	4							
	61385	CLIP, Ignition cable			2	2				2	2							
	STD-8	WASHER, 1/4 plain			2	2		8	8	2	2		8	8				
	STD-160	WASHER, 1/4 internal lock			2	2				2	2							
	AN500-416-18	SCREW, 1/4-20 x 1-1/8 long,fill.hd.			1	1				1	1							
	STD-1215	SCREW, 1/4-20 x 1-1/4 long			1	1				1	1							
	STD-1874	SCREW, 1/4-20 self-locking						4	4				4	4				
	STD-1411	NUT, 1/4-20 plain			2	2				2	2							
	STD-696	WASHER, 1/4-20 plain (thin)			un	un		un	un	un	un		un	un				

\* - Lycoming P/N 78540 harness uses 4 70° elbows and 4 90° elbows while the 78539 harness uses all 8 70° elbows.

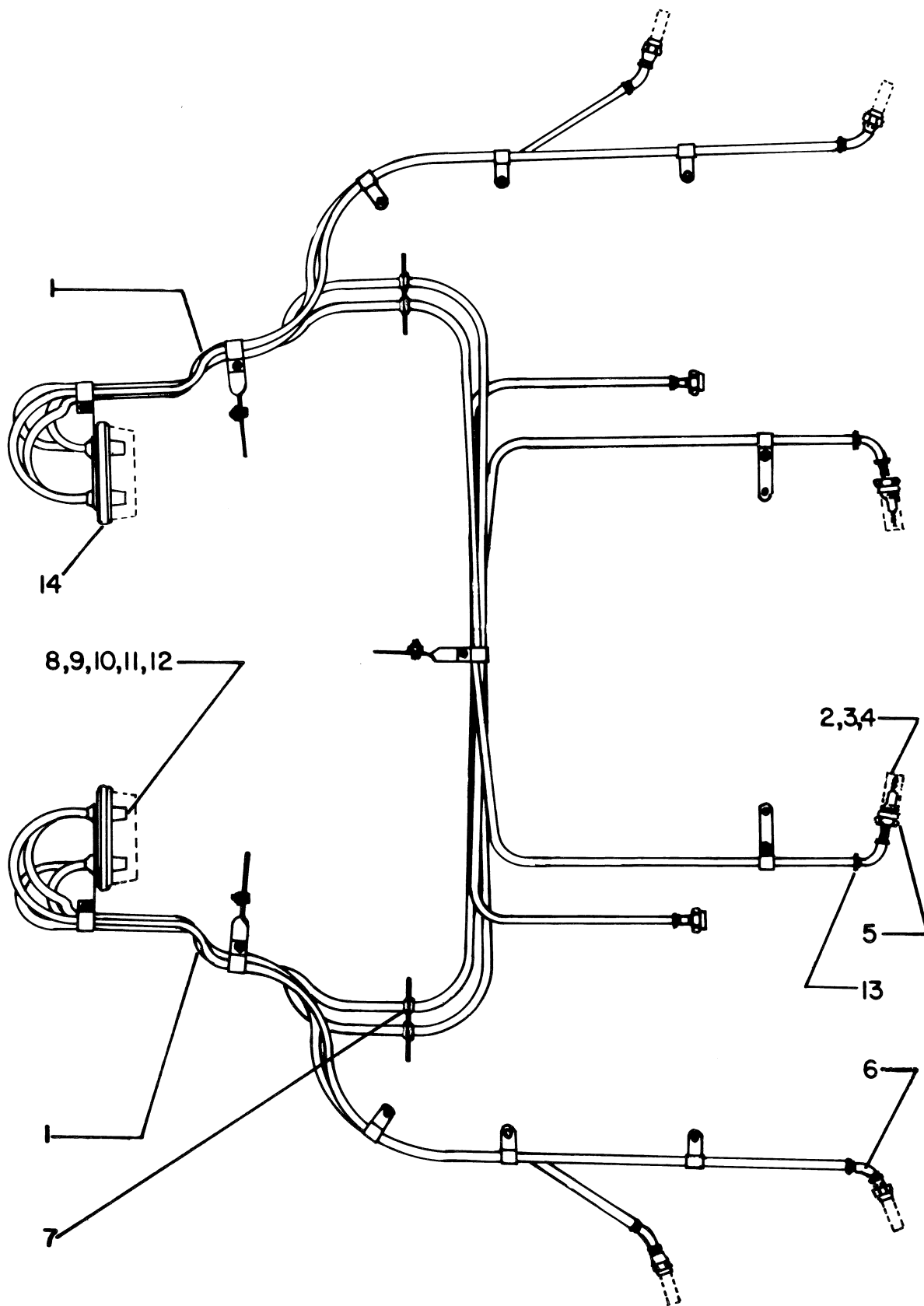


Figure 28 - Ignition Harness and Lead Assemblies

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## IGNITION SYSTEM

IGNITION HARNESS AND LEAD ASSEMBLY AND SPARK PLUGS

### QUANTITY PER ASSEMBLY

FIG. REF. 29	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320							
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A					
1	LW-620326-2	IGNITION HARNESS ASSY.			1	1										1	1				
2	10-320610-72	LEAD ASSY., Cyl.no.1B			1	1										1	1				
3	10-320610-60	LEAD ASSY., Cyl.no.3B			1	1										1	1				
4	10-320610-79	LEAD ASSY., Cyl.no.1T			1	1										1	1				
5	10-320610-69	LEAD ASSY., Cyl.no.3T			1	1										1	1				
6	10-320610-78	LEAD ASSY., Cyl.no.4T			1	1										1	1				
7	10-320610-87	LEAD ASSY., Cyl.no.2T			1	1										1	1				
8	10-320610-68	LEAD ASSY., Cyl.no.4B			1	1										1	1				
9	10-320610-82	LEAD ASSY., Cyl.no.2B			1	1										1	1				
10	10-35936-6	SCREW			8	8										8	8				
11	10-90404-4	NUT			8	8										8	8				
12	10-320283	CLAMP			8	8										8	8				
13	10-320297-2	CLAMP			1	1										1	1				
14	10-320298-1	CLAMP			3	3										3	3				
15	10-320471	TUBING, Spiral			un	un										un	un				
16	10-320298-2	CLAMP			2	2										2	2				
17	10-320050	GROMMET			2	2										2	2				
18	10-320394	PLATE			2	2										2	2				
19	10-320300-1	CLAMP			1	1										1	1				
20	10-91431-8	SCREW			1	1										1	1				
21	10-13799	NUT			1	1										1	1				
22	10-89027-4	BRACKET			1	1										1	1				
23	10-163011	FERRULE			8	8										8	8				
24	10-163012	EYELET			8	8										8	8				
25	10-320412-3	CLAMP			1	1										1	1				
26	10-320411	SCREW			1	1										1	1				
27	10-209328	TIE, Cable			5	5										5	5				
28	10-320297-2	CLAMP			1	1										1	1				
	72351	SCREW, No.10-32,self-locking			8	8										8	8				
	STD-1874	SCREW, 1/4-20 x 7/8 long fill.hd., self-locking			3	3										3	3				
	STD-696	WASHER, 1/4 plain (thin)			un	un										un	un				
	10-620632-48	LEAD, Replacement (48 in.long)			un	un										un	un				
29	1182-B3	SPARK PLUG, (Champion REM-40E)			8	8	8	8							8	8	8				
	1182-B6	SPARK PLUG, (Champion EM41E)							8	8	8	8									
	1182-N4	SPARK PLUG, (Champion REB-37E)					8														8

\* - Replacement lead furnished in 48 in. or 72 in. length with spark plug end assembled. Lead includes 10-163011 ferrule and 10-163012 eyelet for assembly to magneto plate.

#### NOTE

The above spark plugs are those used in current production only; this list does not include additional spark plugs that are approved for use in these engines. See latest edition of Service Instruction No.1042 for complete listing of all approved spark plugs.

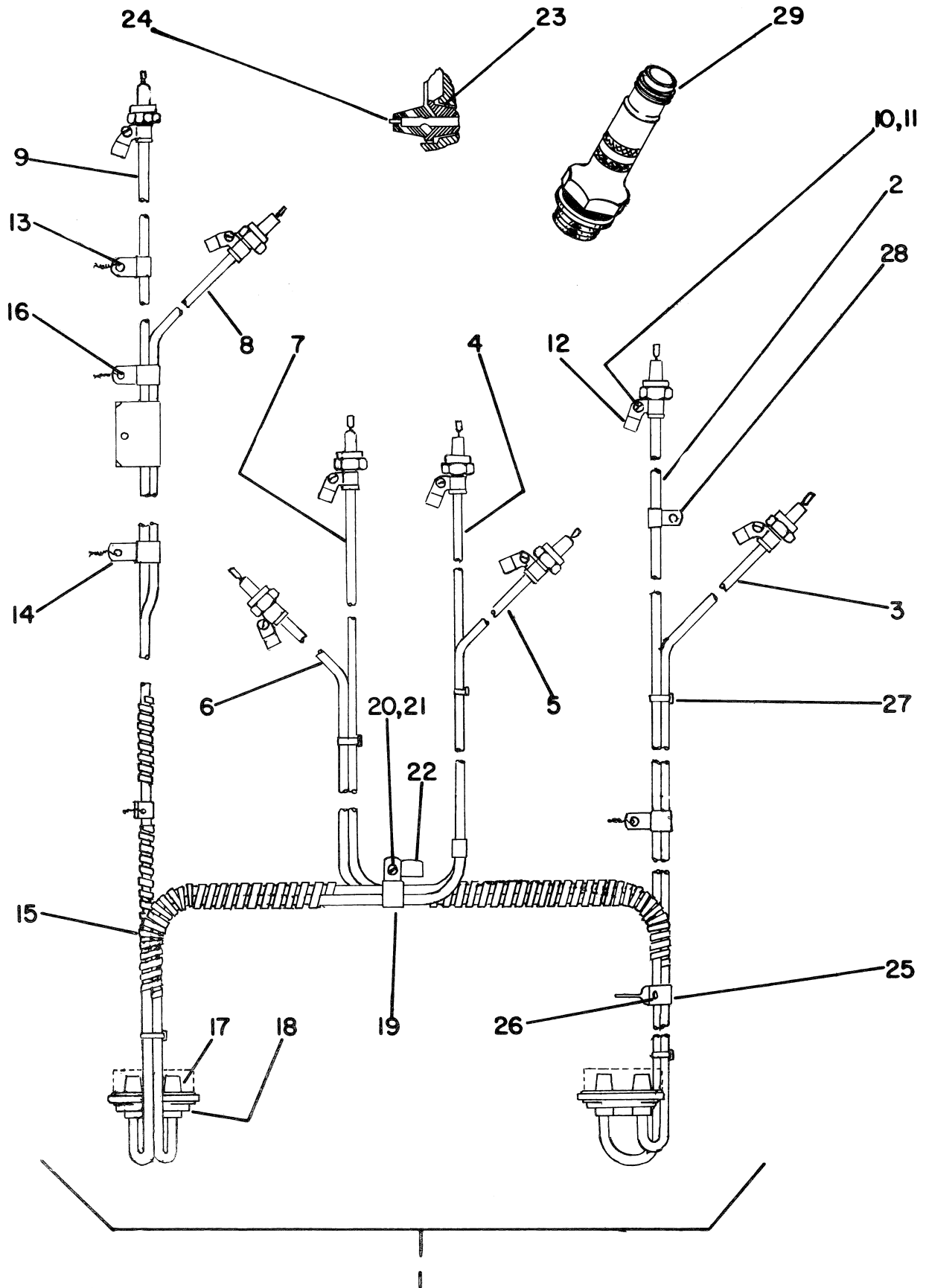


Figure 29 - Ignition Harness and Lead Assembly and Spark Plug

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## ELECTRICAL SECTION

VOLTAGE REGULATOR, RELAYS AND GENERATOR DRIVE BELTS

QUANTITY PER ASSEMBLY

FIG. REF. 30	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320			
				B7A	B7C	C7A	D7A	D7B	E7A	E7B	F7A	F7B	B7B	C7B	B7A	C7A	
1	62833	REGULATOR, Voltage (12V-35Amp.) (1118704)										1					
	71745	REGULATOR, Voltage (12V-50Amp.) (1119224)			1												
	72077	REGULATOR, Voltage (12V-50Amp.) (paralleling) (1119246)			1	1	1										
	68628	RELAY, 12V (paralleling) (1 req.each pair of engines) (1116887)															
	LW-10185	REGULATOR, 12V - full transistor (VSF-7203)			1	1	1	1	1	1	1	1	1	1			
	78059	OVERVOLTAGE RELAY - 12V (X-17621)			1			1	1					1	1		
	LW-10179	REGULATOR, 24V - full transistor (VSF-7403)						1							1		
	78060	OVERVOLTAGE RELAY - 24V (X-17620)						1							1		
	LW-12747	REGULATOR - 12V transistorized (FVR-4004)			1												
	60886	BELT, Gen.drive 1.91:1 ratio			1	1	1				1				1	1	
	76026	BELT, Alt.drive 3/8 wide 3.25:1 ratio			1	1		1	1	1	1	1		1	1		
	74519	BELT, Alt.drive 3/8 wide 3.25:1 ratio for alt.with idler pulley			1	1	1									1	1

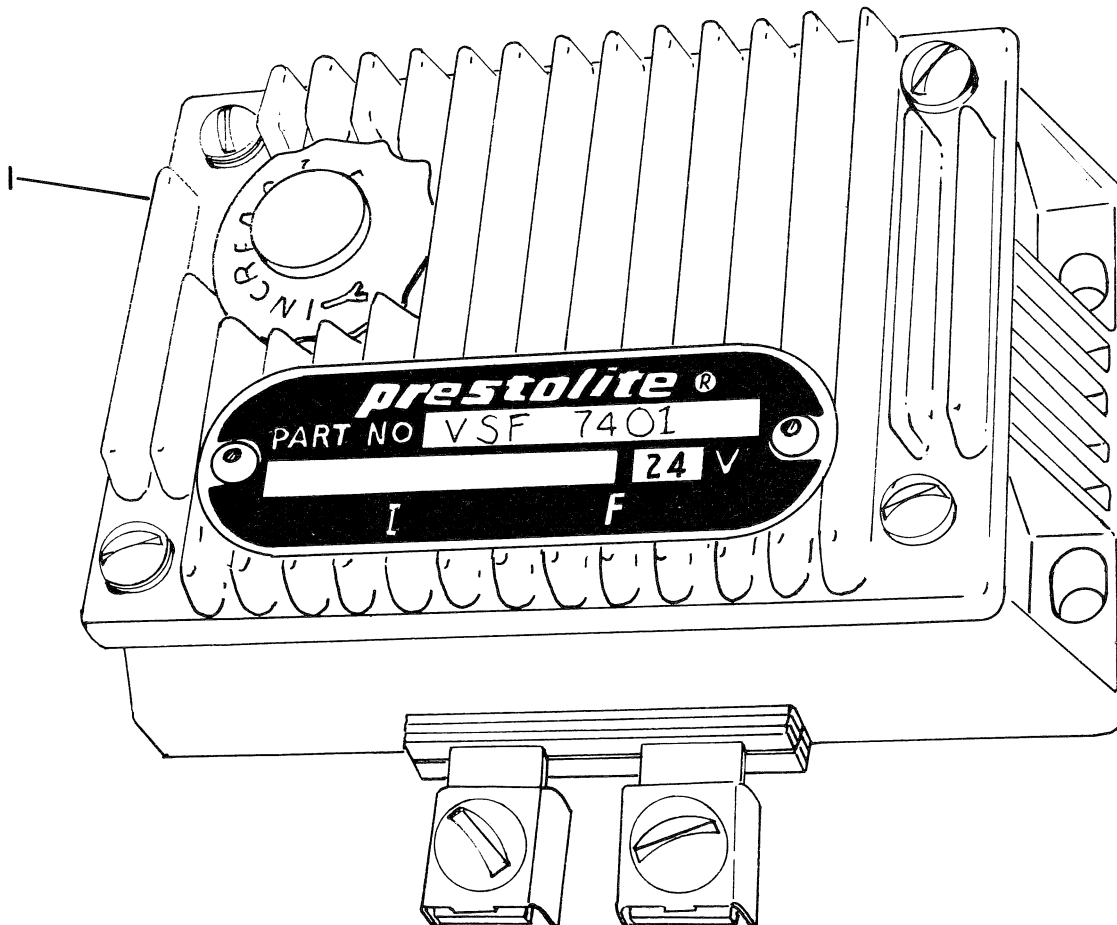


Figure 30  
5-1

# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## ELECTRICAL SECTION GENERATOR AND ALTERNATORS

QUANTITY PER ASSEMBLY

FIG. REF. 31	PART NUMBER	DESCRIPTION	ON ALD	IO-320										AIO-320		LIO-320		
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2B	B1B	C1B	B1A	C1A			
1	68767	GENERATOR, 12V-35Amp.(1101900)																
	71744	GENERATOR, 12V-50Amp.(1101915)			1	1	1											
2	78308	ALTERNATOR, 12V-40Amp.(externally grounded) (ALE-8406)								1	1		1	1				
	LW-11429	GENERATOR, 12V-50Amp.(reverse rotation) (1101923)															1	1
	78310	ALTERNATOR, 12V-70Amp.(externally grounded) (ALX-8403)															1	1
	78403	ALTERNATOR, 12V-50Amp.(externally grounded) (ALZ-8401)			1		1										1	1
	78407	ALTERNATOR, 12V-60Amp.(externally grounded) (ALY-8403)			1			1	1									
	LW-10372	ALTERNATOR, 12V-60Amp.(ALY-8405)					1	1		1	1	1						
	78312	ALTERNATOR, 24V-70Amp.(ALT-8404)												1				

### NOTE

See Service Instruction No.1154C for complete list of FAA approved starters, generators,alternators,regulators and relays.

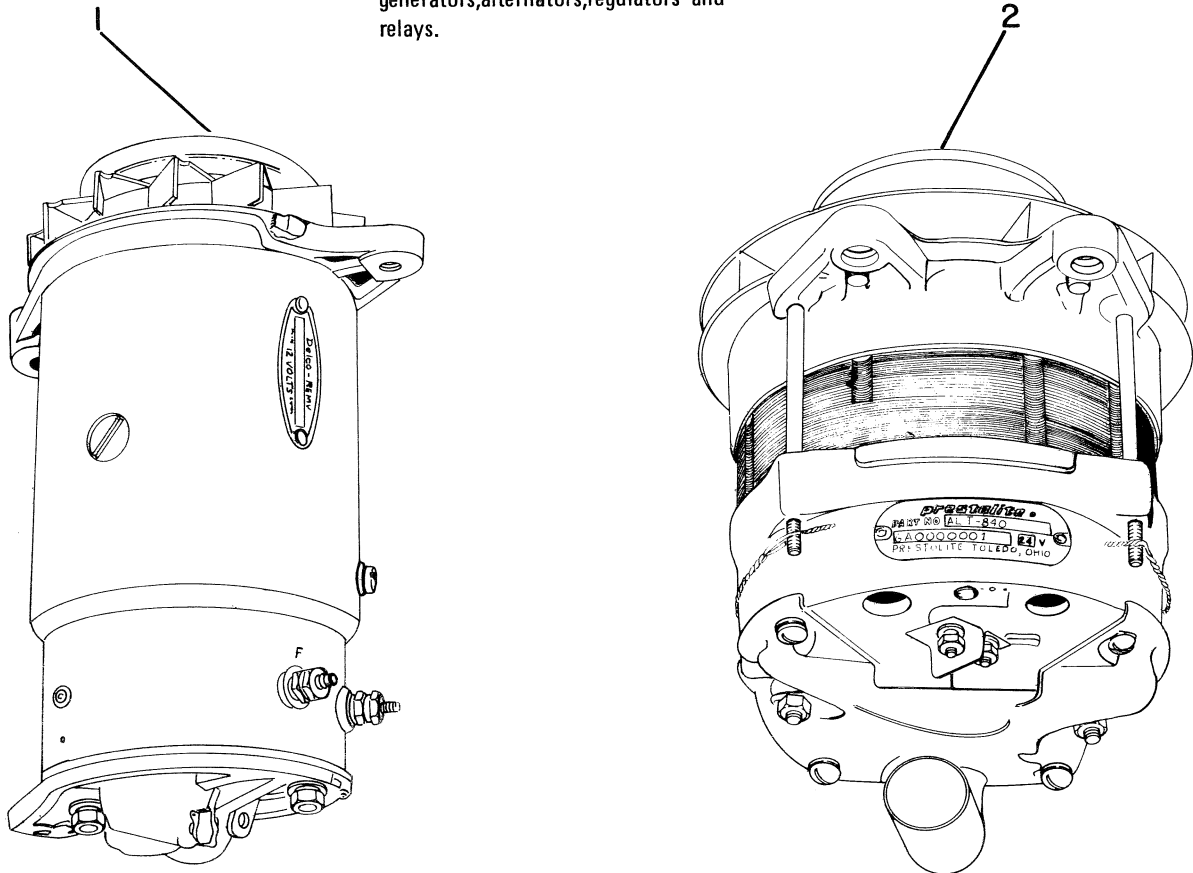


Figure 31



### VENDOR ACCESSORY DELCO-REMY GENERATORS

REF. NO. 32	PART NUMBER	1 2 3 4 5	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	1101900		GENERATOR, 12V-25 Amp. Avco Lycoming 68767		A
	1101915		GENERATOR, 12V-50 Amp. Avco Lycoming 71744		B
1	1928664		ARMATURE	1	A
	1945122		ARMATURE	1	B
2	1925031		FIELD COIL SET (2 coils)	1	
3	1943590		FRAME, C.E.	1	
4	1925832		FRAME, D.E.	1	
5	945162		BEARING, Ball C.E.	1	
6	954153		BEARING, Ball D.E.	1	A
	954162		BEARING, Ball D.E.	1	B
7	1908999		PLATE, Brush	1	
8	1906984		BRUSH	2	
9	1903720		SPRING, Brush	2	
10	1850759		ARM, Brush	2	
11	1908843		PULLEY	1	
12	1927844		PLATE, Bearing retainer	1	
13	1909159		TERMINAL STUD AND LEAD	1	A
	1914186		TERMINAL STUD AND LEAD	1	B
14	1858749		TERMINAL STUD	1	A
	1858751		TERMINAL STUD	1	B
15	1908680		THRU-BOLT	2	
16	1914618		SHOE, Pole	2	
17	1910131		BAND, Cover	1	
18	1861591		COLLAR, Space, outside D.E.	1	
19	1886684		DOWEL PIN, C.E. and D.E.	2	
	1927843		COLLECTOR, Static	1	
	1914491		INSULATOR, Field coil	2	A
20	200242		TERMINAL, Clip to brush (L.H.)	1	A
	200362		TERMINAL, Clip to brush	2	B
	455613		TERMINAL, Clip to brush (R.H.)	1	A
21	124545		WOODRUFF KEY, (D.E.)	1	
	1920734		RING, Static collector	1	A



# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## VENDOR ACCESSORY PRESTOLITE ALTERNATORS

REF. NO. 33	PART NUMBER	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
		1 2 3 4 5		
	ALE-8406	ALTERNATOR, 12V-40Amp.Avco Lycoming 78308		A
	ALX-8403	ALTERNATOR, 12V-70Amp.Avco Lycoming 78310		B
	ALT-8404	ALTERNATOR, 24V-50Amp.Avco Lycoming 78312		C
	ALZ-8401	ALTERNATOR, 12V-50Amp.Avco Lycoming 78403		D
	ALY-8403	ALTERNATOR, 12V-50Amp.Avco Lycoming 78407		E
	ALY-8405	ALTERNATOR, 12V-60Amp.Avco Lycoming LW-10372		F
1	P90-2014	BEARING AND SEAL PACKAGE S.R.E.	1	
2	ALU-1045BS	BRUSH HOLDER ASSEMBLY	1	
3	ALE-1012NS	BRUSH SET SERVICE	1	
4	ALA-19S	SPRING SET, Brush	1	
5	ALU-1062A	COVER, Slip ring end	1	A, B, C, D, E
	ALU-1062D	COVER, Slip ring end	1	F
	90-818	EYELET PACKAGE	1	
6	90-2241	FAN, Ventilating	1	A, B, D, E, F
	90-2259	FAN, Ventilating	1	C
7	ALE-1003K	HEAD ASSY., Drive end	1	
8	X-3416	BEARING, Ball SAE no.203	1	
9	ALK-1032BS	HEAD ASSY., Slip ring end	1	A, D, E, F
	ALK-1032AS-1	HEAD ASSY., Slip ring end	1	B, C
10	XA-944JS	RECTIFIER, Neg.pkg.	3	
11	90-33	NUT AND WASHER PACKAGE	1	
12	ALE-1054A	PLATE, Pos.rectifier mtg.	1	
13	PU-672A	PULLEY, Drive	1	
14	GR-32	RETAINER, Drive end	1	
15	ALE-2073S	ROTOR ASSY.	1	A, D, E, F
	ALH-2028S	ROTOR ASSY.	1	B
	ALU-2028S	ROTOR ASSY.	1	C
16	ALD-21	SPACER, Rotor shaft	1	
17	ALE-2008AB	STATOR ASSY.	1	A
	ALE-2008AB	STATOR ASSY.	1	B
	ALE-2008AA	STATOR ASSY.	1	C
	ALE-2008AG	STATOR ASSY.	1	D
	ALE-2008AE	STATOR ASSY.	1	E, F
18	90-2030	TERMINAL STUD AND PARTS PKG.	1	
19	ALA-20JS	THRU-BOLT PKG.	1	A, D, E, F
	ALA-20GS	THRU-BOLT PKG.	1	B, C

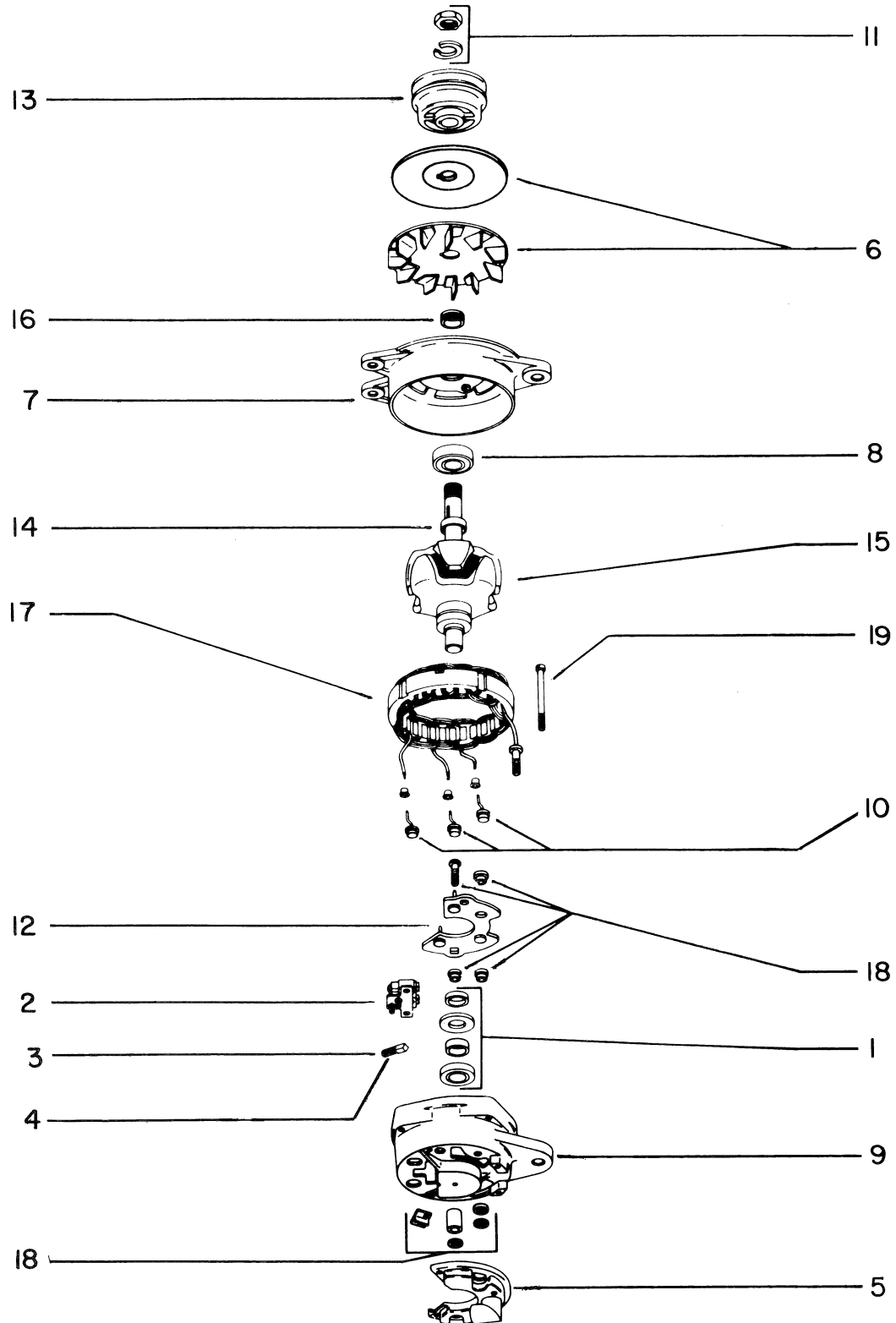


Figure 33 - Prestolite Alternators







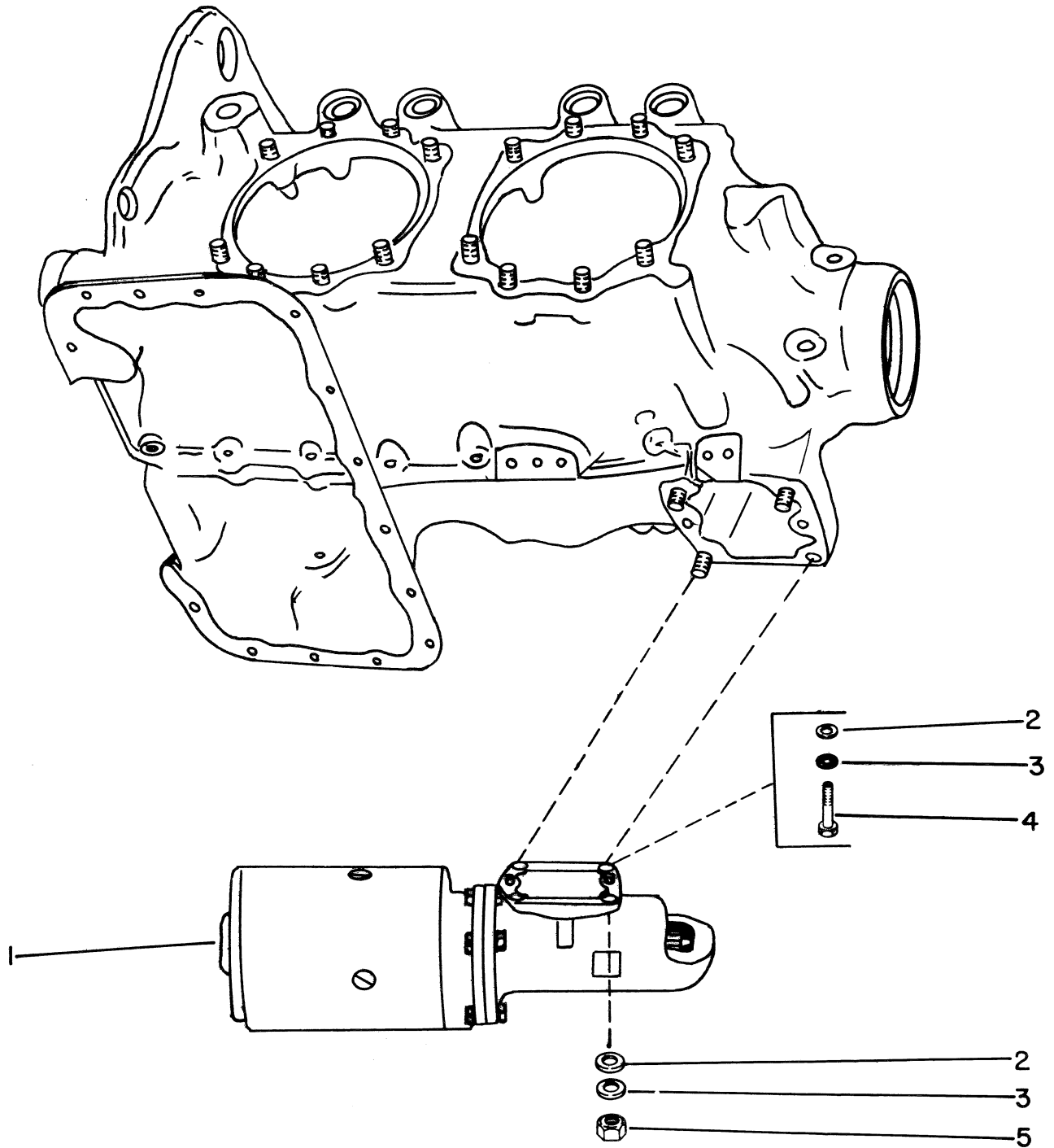


Figure 35 - Starting Motor and Attaching Parts



# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## VENDOR ACCESSORY

### PRESTOLITE STARTERS

REF. NO. 36	PART NUMBER	1 2 3 4 5	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	MZ-4204		STARTER, 12 volt,Avco Lycoming 76210		A
	MZ-4206		STARTER, 12 volt,Avco Lycoming 76211		B
	MHB-4001		STARTER, 24 volt,Avco Lycoming 76212		C
	MZ-4216		STARTER, 12 volt,Avco Lycoming LW-10556		D
1	EBB-124A		BENDIX DRIVE	1	A
	EBB-75A		BENDIX DRIVE	1	B, C
	EBB-142A		BENDIX DRIVE	1	D
2	MZ-24A		BAND, Cover	1	
3	MZ-393		PLATE, Retainer	1	B, C, D
4	MZ-394		SHAFT, Bendix drive	1	B, C, D
5	MZ-396		GEAR	1	B, C, D
6	MZ-1390		HOUSING ASSY., Gear	1	B, C, D
7	XA-997		BEARING, Needle,1/2 in.	1	B, C, D
8	XA-998		BEARING, Needle,13/16 in.	1	B, C, D
9	MZ-2385		FRAME AND FIELD ASSY.	1	A
	MZ-2397		FRAME AND FIELD ASSY.	1	B, D
	MHB-2397		FRAME AND FIELD ASSY.	1	C
10	MZ-2386		ARMATURE	1	A
	MZ-2399		ARMATURE	1	B, D
	MHB-2399		ARMATURE	1	C
11	MZ-2002U		HEAD ASSY., Commutator end	1	A
	MZ-2400		HEAD ASSY., Commutator end	1	B, D
	MHB-2400		HEAD ASSY., Commutator end	1	C
12	MZ-19S		SPRING SET, Brush	1	
13	PS-1435		HOUSING ASSY., Pinion	1	A
	PS-1432		HOUSING ASSY., Pinion	1	B, C, D
14	MG-77A		BEARING, Absorbent bronze	1	A
	MZ-389		BEARING, Bronze,graphite	1	B, C, D
15	MZ-1236		BEARING ASSY., Intermediate	1	A
	X-3212		BEARING, Ball,sealed C.E.	1	B, C, D
16	P90-542		THRUST WASHER PACKAGE	1	A
	P90-601		THRUST WASHER PACKAGE	1	B, C, D
17	MBG-2012S		BRUSH SET, Service	1	A, B, D
	MHB-2012S		BRUSH SET, Service	1	C
	P90-876		TERMINAL STUD PACKAGE	1	B, D
	P90-877		TERMINAL STUD PACKAGE	1	A
	90-878		TERMINAL STUD PACKAGE	1	C

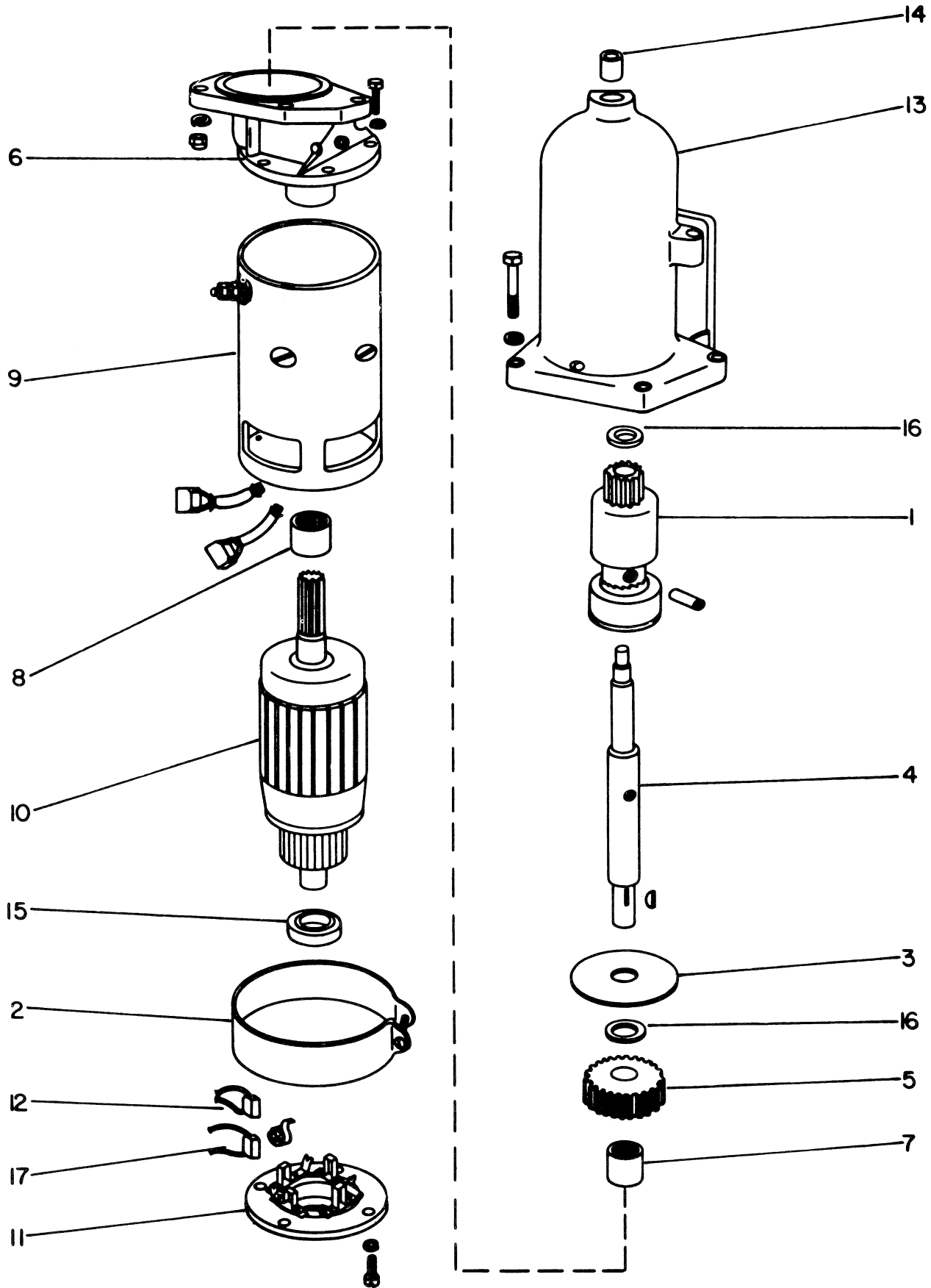


Figure 36 - Prestolite Starters  
 5-12



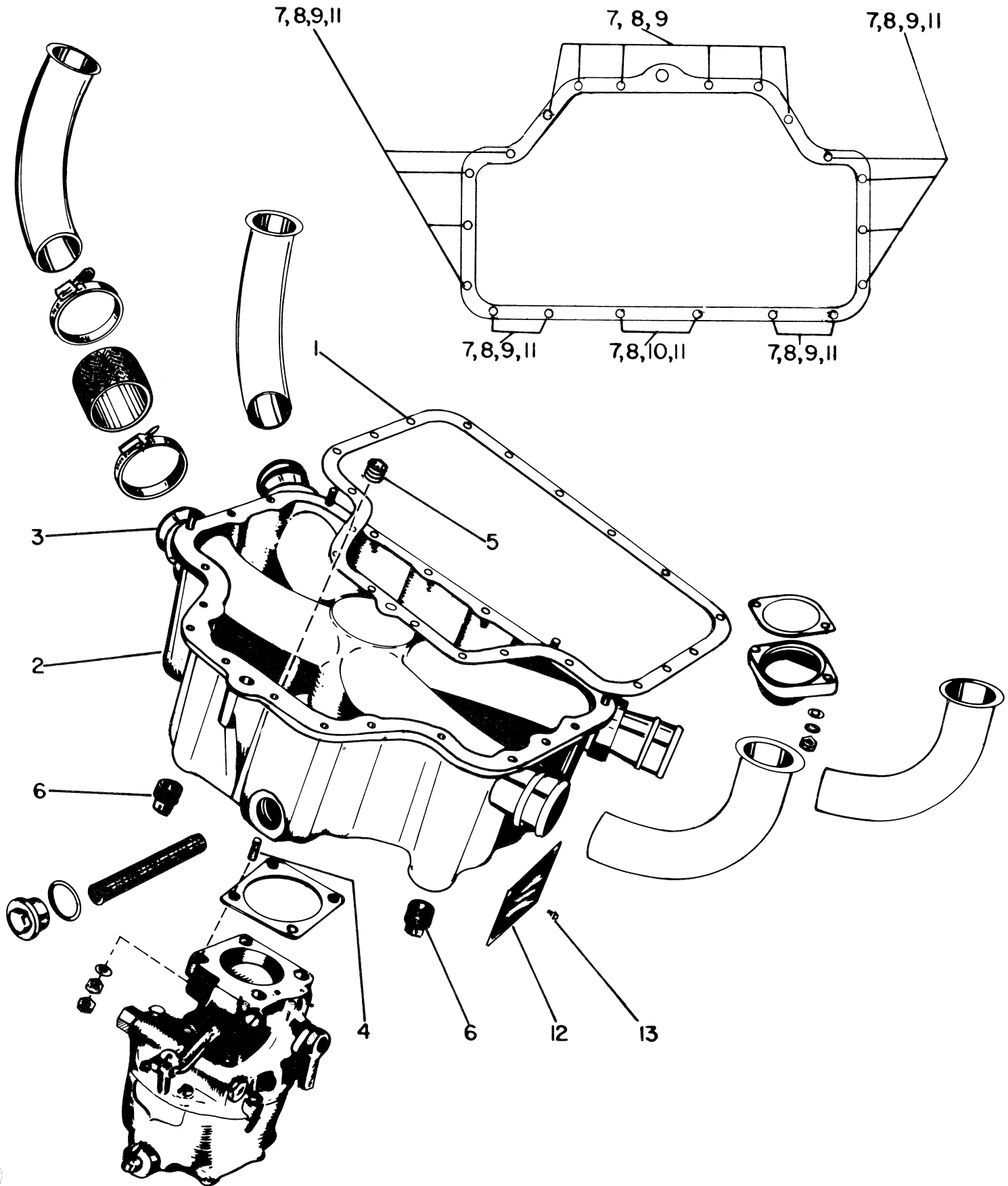


Figure 37 - Oil Sump Assembly and Attaching Parts

# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## OIL SUMP AND INDUCTION SYSTEM CRANKCASE COVERS AND INDUCTION HOUSING (AIO-320)

QUANTITY PER ASSEMBLY

FIG. REF. 38	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320					
				B7A	B7C	C7A	D7A	D7B	E7A	E7B	E7C	B7B	C7B	B7A	C7A				
1	77055	GASKET, Crankcase cover,upper										1	1						
2	77126	CRANKCASE COVER ASSY., Upper										1	1						
3	77123	TUBE, Crankcase breather,upper										1	1						
4	STD-8	WASHER, 1/4 plain										12	12						
5	STD-160	WASHER, 1/4 internal lock										12	12						
6	STD-1204	BOLT, 1/4-20 x 15/16 long,hex.hd.										10	10						
7	STD-1411	NUT, 1/4-20 plain										2	2						
8	MS29512-10	SEAL, Oil,3/32 section x 3/4 ID										1	1						
9	AN815-10	UNION, 5/8 dia.flared tube										1	1						
10	MS29512-12	SEAL, Oil.7/64 dia.sect.x 15/16 ID										1	1						
11	AN924-12D	NUT, Flared tube,bulkhead fitting										1	1						
12	AN838-12D	ELBOW, 3/4 hose (bulkhead 90°)										1	1						
13	77056	GASKET, Crankcase cover,lower										1	1						
14	77132	CRANKCASE COVER ASSY., Lower										1	1						
15	77155	FITTING, 5/8 adjustable,90°										1	1						
16	STD-1164	INSERT, 5/16-18 heli-coil x 5/8 long										4	4						
17	STD-1353	INSERT, No.10-24 heli-coil x 3/8 long										4	4						
18	STD-1419	BOLT, 1/4-20 x 1-1/8 long,hex.hd.										2	2						
19	STD-8	WASHER, 1/4 plain										20	20						
20	STD-160	WASHER, 1/4 internal lock										16	16						
21	STD-1204	BOLT, 1/4-20 x 15/16 long,hex.hd.										12	12						
22	STD-1419	BOLT, 1/4-20 x 1-1/8 long,hex.hd.										2	2						
23	STD-1411	NUT, 1/4-20 plain										4	4						
24	77117	SPACER, Induction housing										4	4						
25	77127	HOUSING ASSY., Induction										1							
	LW-11569	HOUSING ASSY., Induction											1						
26	68316	STUD, 5/16-18 x 1-11/16 long										4	4						
27	1102	PLUG, 1/8-27 NPT allen										4	3						
28	STD-35	WASHER, 5/16 plain										4	4						
29	STD-475	WASHER, 5/16 internal lock										4	4						
30	STD-2014	BOLT, 5/16-18 x 4-1/8 long,hex.hd.										4	4						

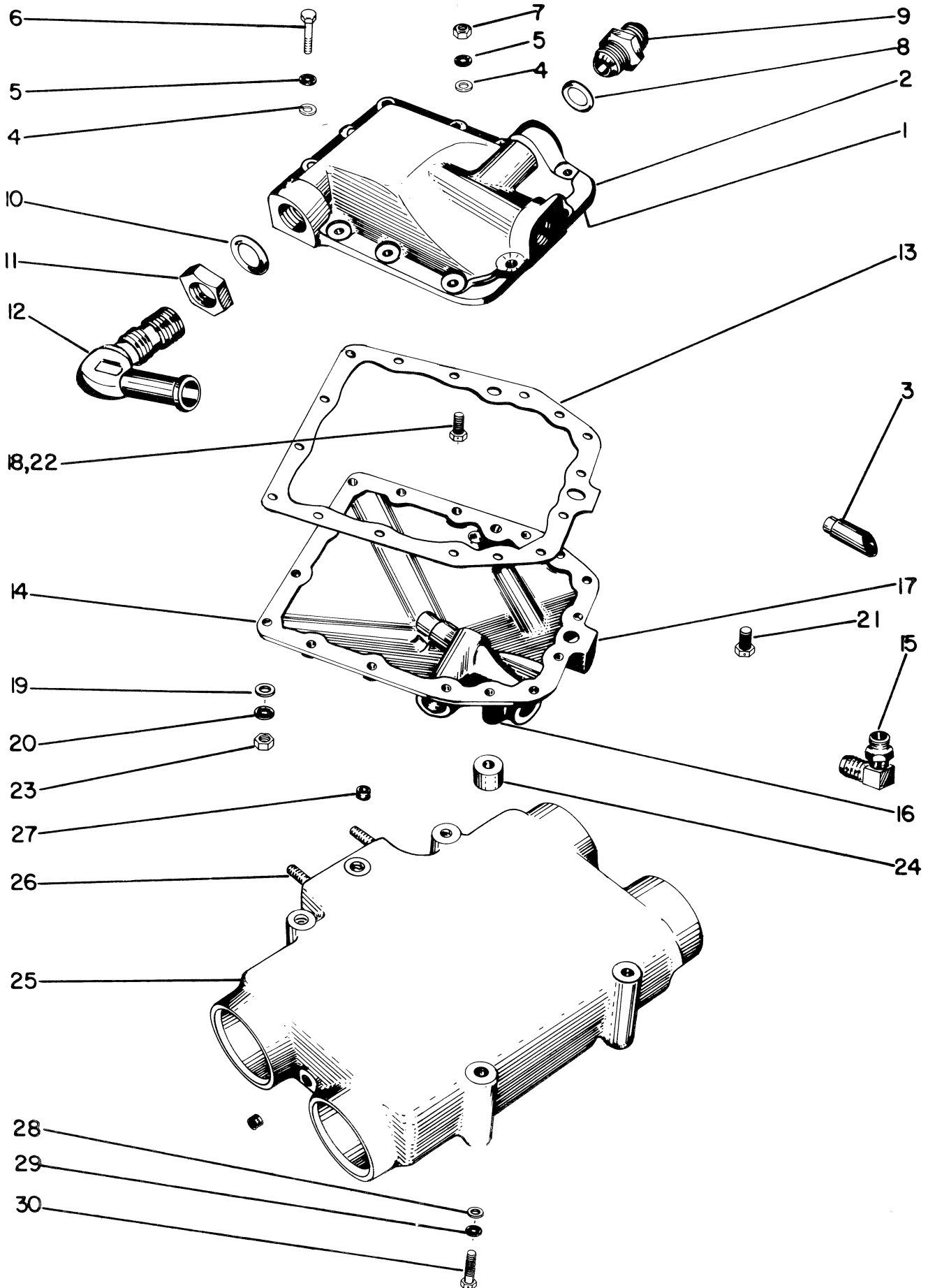


Figure 38 - Crankcase Covers and Induction Housing (AIO-320)



# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## OIL SUMP AND INDUCTION SYSTEM INTAKE PIPE AND ATTACHING PARTS

QUANTITY PER ASSEMBLY

FIG. REF. 40	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320					
				B1A	B1C	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A				
1	61363	PIPE, Intake cyls.no.1 and 2								2	2	2	2						
2	61365	PIPE, Intake cyl.no.3								1	1	1	1						
3	61364	PIPE, Intake cyl.no.4								1	1	1	1						
4	74084	PIPE, Intake				4	4												
5	74521	PIPE, Intake cyls.no.1 and 2			2	2	2									2	2		
	74522	PIPE, Intake cyls.no.3 and 4			2	2	2									2	2		
6	STD-1196	HOSE, 1-1/2 ID x 1-7/8 OD x 1-1/2 long								4	4	4	4						
	69603	HOSE, 1-3/4 ID x 2-3/16 OD x 1-3/4 long			4	4	4	4								4	4		
7	STD-1530	CLAMP, Hose,1-3/4 ID x 9/16 wide								8	8	8	8						
	STD-1269	CLAMP, Hose,1-7/8-2-1/4 ID x 9/16 wide			8	8	8	8								8	8		
8	73346	FLANGE, Intake pipe upper			4	4	4	4	4	4	4	4			4	4			
9	71973	GASKET, 2 bolt flange,1-7/8 ID	4																
10	77569	SEAL, Intake pipe											4	4					
11	LW-11011	PIPE, Intake no.1 cyl.											1	1					
	LW-11012	PIPE, Intake no.2 cyl.											1	1					
	LW-11013	PIPE, Intake no.3 cyl.											1	1					
	LW-11014	PIPE, Intake no.4 cyl.											1	1					
12	STD-8	WASHER, 1/4 plain	8																
13	STD-160	WASHER, 1/4 internal lock	8																
14	STD-1215	BOLT, 1/4-20 x 1-1/4 long,hex.hd.	8																

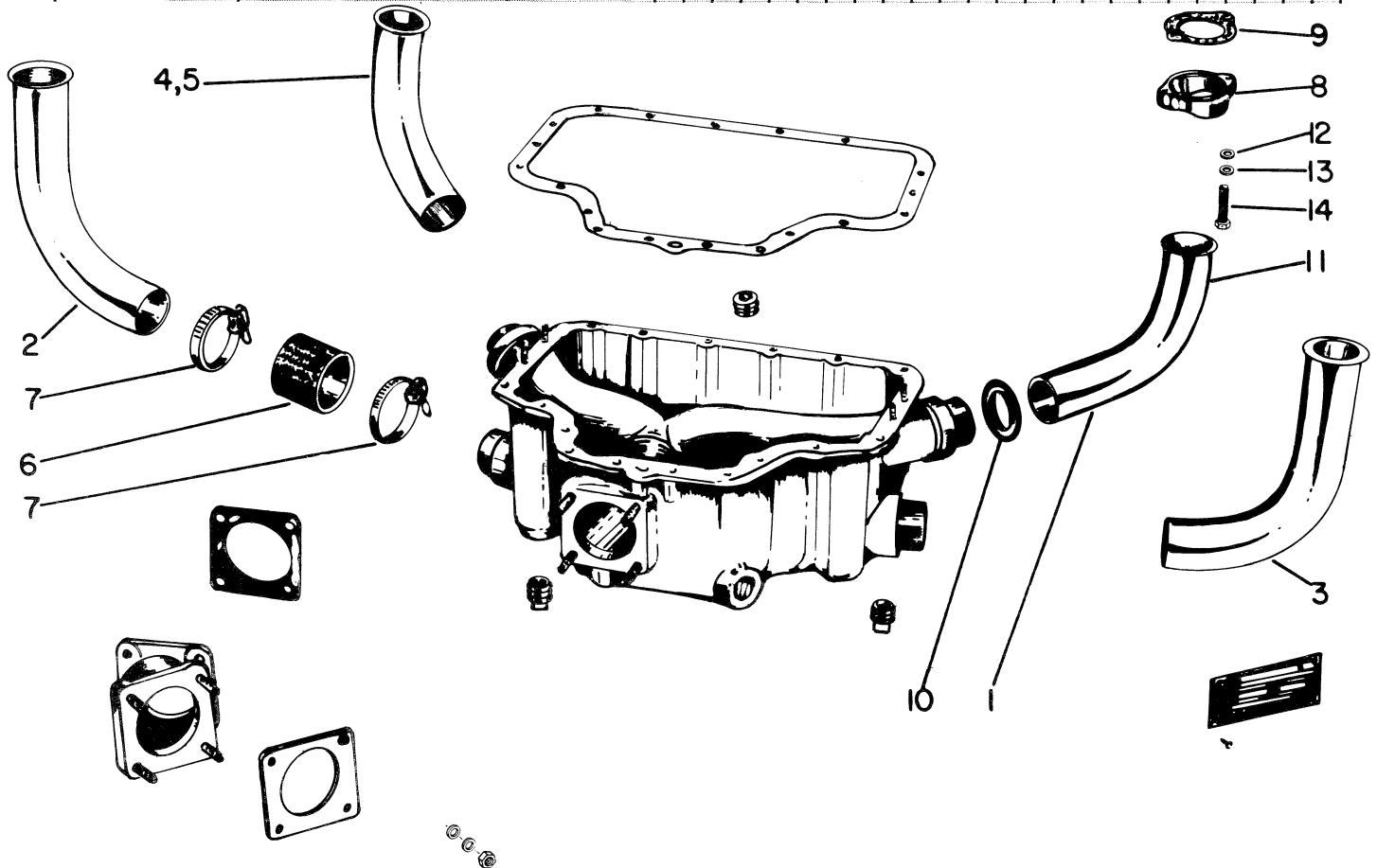


Figure 40



# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## OIL SUMP AND INDUCTION SYSTEM

INVERTED OIL SYSTEM (AEIO-320-E1B, -E2B MODELS ONLY)

QUANTITY PER ASSEMBLY

FIG. REF. 41	PART NUMBER	DESCRIPTION	ON ALL	IO-320												AIO-320		LIO-320	
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E2A	E2B	B1B	C1B	B1A	C1A	/	/	
1	LW-13871	FITTING, Sump,oil suction																	
2	LW-13753	FITTING, Sump,oil strainer																	
3	LW-13754	FITTING, Sump,oil return																	
4	LW-13749	OIL SEPARATOR																	
5	LW-13755	BREATHER TEE																	
6	LW-13750	OIL VALVE																	

### NOTE

MS20822-10D elbow furnished as part of LW-13871 fitting. The qty.per assy.of all above parts is 1 each.

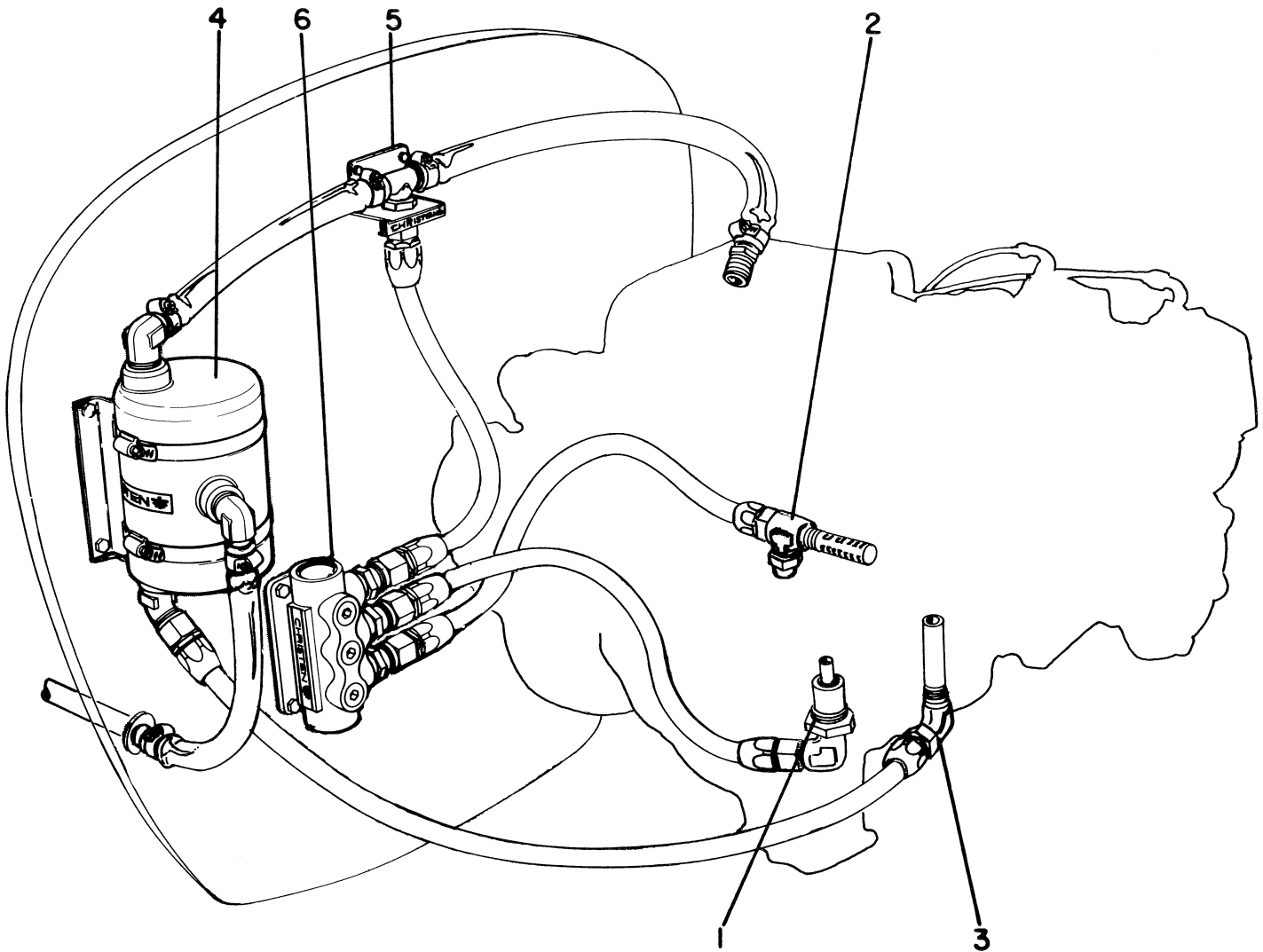


Figure 41



# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## VENDOR ACCESSORY BENDIX RSA-5AD1 FUEL INJECTOR

REF. NO. 43	PART NUMBER	1 2 3 4 5	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	76082		FUEL INJECTOR (2524242-3)		A
	77260		FUEL INJECTOR (2524307-3)		B
	77579		FUEL INJECTOR (2524335-3)		C
	LW-10986		FUEL INJECTOR (2524475-1)		D
	LW-13570		FUEL INJECTOR (2524640-1)		E
1	82887		CAP, Shipping	1	D
	132659		CAP, Shipping	1	A, B, C, E
2	951789		PACKING, Preformed	1	
3	2525202		ADAPTER	1	D
	2522710		ADAPTER	1	A, B, C, E
4	132659		CAP, Shipping	1	
5	951787		PACKING, Preformed	1	
6	367720		NUT, Universal fitting	1	
7	367719		ELBOW, Tube 90° AN833-4	1	C, D
8	951787		PACKING, Preformed	1	
9	132906		PLUG, Threaded 7/16-20	1	
10	951787		PACKING, Preformed	1	
11	132906		PLUG, Threaded 7/16-20	1	
12	951789		PACKING, Preformed	1	
13	2522709		PLUG, Machine thread	1	
14	2521287		LEVER, Mixture control	1	D
15	2522004		LEVER, Mixture control	1	A, B, C, E
16	187313		NUT, Self-locking	1	
17	2521196		LEVER	1	
18	901209K1		PIN, Cotter 1/16 x 1/2	1	
19	900848K1		NUT, Castellated hex. 5/16-20	1	
20	904269K1		SCREW, Machine 1/4-28 x 3/4	1	D
	2523432		SCREW ASSY., Idle adjusting	1	
21	P60219		SPRING, Helical compression	1	

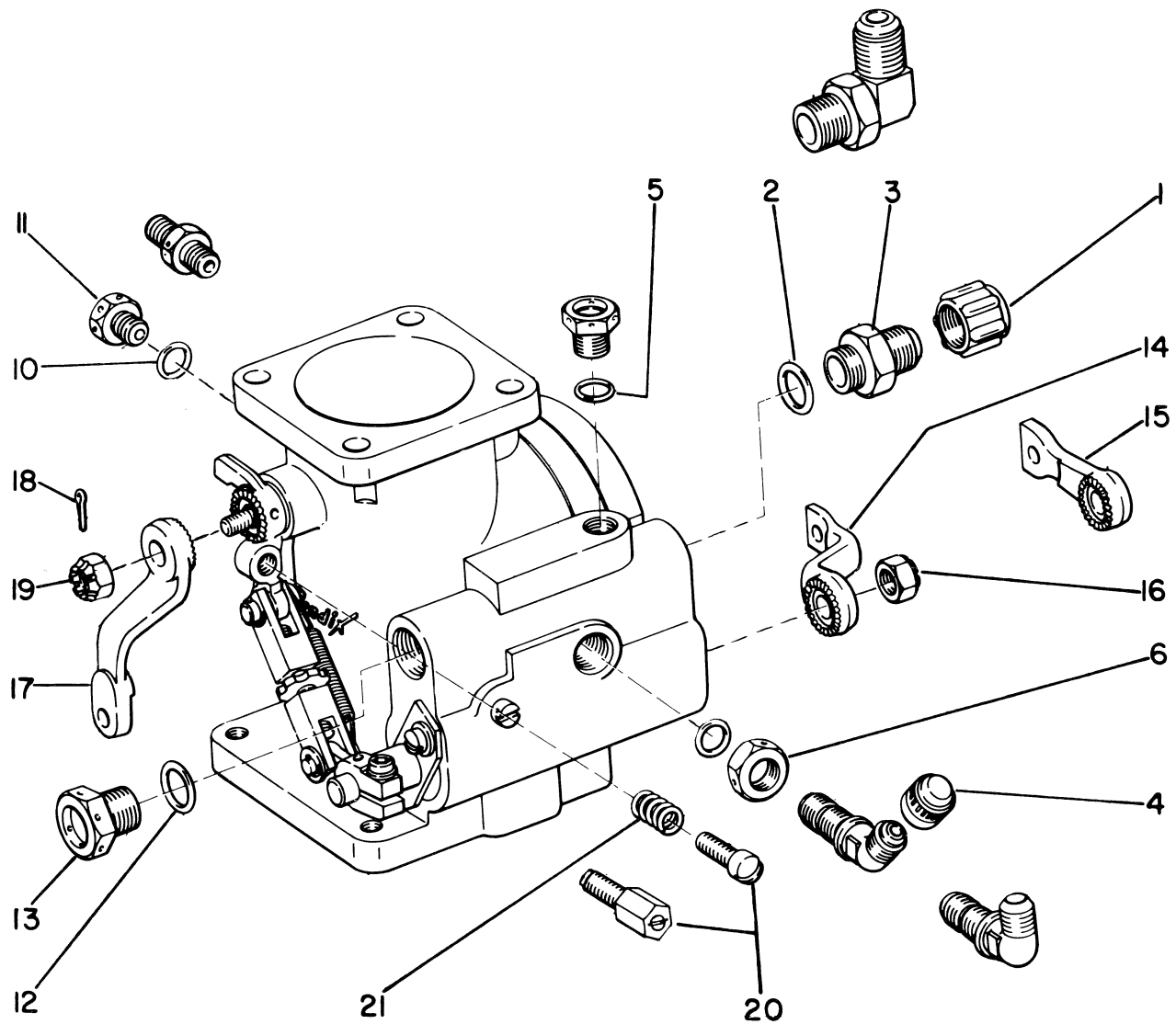


Figure 43 - Bendix RSA-5AD1 Fuel Injector  
6-10

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## VENDOR ACCESSORY

BENDIX RSA-5AD1 FUEL INJECTOR

REF. NO. 44	PART NUMBER	12345	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
1	367756		PLATE, Identification	1	
2	186739		SCREW, Self-tapping	2	
2A	2635163		PLUG, Shipping	3	
3	2537629		PLUG, Shipping	1	
4	2537629		PLUG, Shipping	1	
5	2522712		STRAINER ASSY.	1	
6	P61195		PLUG, Taper seat 1/4-28	1	
7	P61195		PLUG, Taper seat 1/4-28	1	
8	P61195		PLUG, Taper seat 1/4-28	1	
9	2525165		SPRING, Helical extension	1	
10	901200		PIN, Cotter	1	
11	911244		WASHER, Flat	1	
12	P19821		WASHER, Spring	1	
13	2522021		PIN, Straight headed	1	
14	901200		PIN, Cotter	1	
15	911242		WASHER, Flat	1	
16	177718		WASHER, Spring	1	
17	2522022		PIN, Straight headed	1	
18	2520876		LINK	1	D
	367544		LINK	1	A, B, C, E
19	367418		LINK	1	
20	367547		SCREW ASSY., Idle	1	
21	363083		SCREW, Machine	1	
22	199596		WASHER, Flat	1	
23	2524318		SPACER	1	
24	188595		WASHER, Flat	1	
25	79216		SCREW, Machine	1	
26	188595		WASHER, Flat	1	
27	909281K35		PIN, Spring	1	
28	2520879		PLATE, Mixture control	1	
29	2523840		BUSHING, Mixture control stem	1	
30	338491		WASHER, C	1	
31	367694		HOLDER, Spring	1	
32	2524757		SPRING, Helical compression	1	
33	951401		PACKING, Preformed	1	
34	2520878		BUSHING	1	
35	953516-10		PACKING, Preformed	1	
36	2522591		LEVER, Mixture control	1	

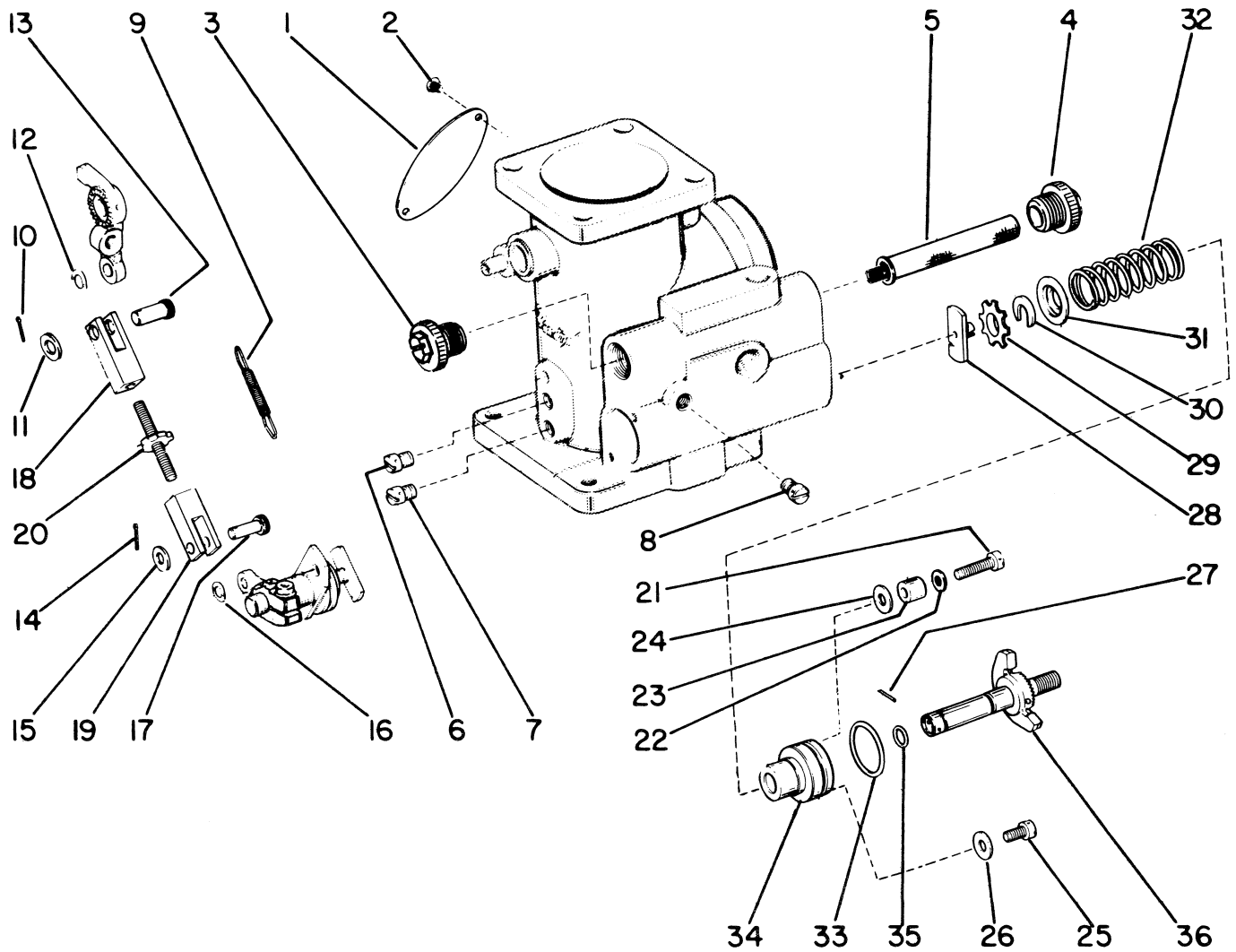


Figure 44 - Bendix RSA-5AD1 Fuel Injector

# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## VENDOR ACCESSORY

BENDIX RSA-5AD1 FUEL INJECTOR

REF. NO. 45	PART NUMBER	12345	DESCRIPTION	QTY.	MODEL USAGE
				PER ENG.	
37	328617		SEAL, Aluminum	1	
38	79216		SCREW, Machine	2	
39	911242		WASHER, Flat	2	
40	951400		PACKING, Preformed	1	
41	2523719		LEVER ASSY., Idle valve	1	D
	2523718		LEVER ASSY., Idle valve	1	A, B, E
	2524152		LEVER ASSY., Idle valve	1	C
42	P21818		SCREW, Machine	1	
43	P22198		WASHER, Flat	1	
44	909329K35		PIN, Spring	1	
45	2523299		LEVER, Idle valve	1	
46	2522326		PLATE, Idle valve	1	
47	2526408		BUSHING, Idle valve shaft	1	
48	367757		WASHER, Flat	1	
49	953516-10		PACKING, Preformed	1	
50	2520881		STEM, Idle valve	1	C, D
	2522221		STEM, Idle valve	1	A, B, E
51	951400		PACKING, Preformed	1	
52	2525195		VALVE, Mixture control	1	
53	2525495		PACKING, Preformed	1	
54	2521974		VALVE, Idle	1	A, B, C, D
	2538615		VALVE, Idle	1	E
55	2537499		NUT	1	
56	2537500		SCREW	1	
57	2537498		PLUG, Hex.3/4-20	1	
58	365533		WASHER, Non-metallic	1	
59	362842		SCREW, Cap socket head	6	
60	911242		WASHER, Flat	6	
61	2523501		COVER	1	
62	178491		NUT, Self-locking no.2-56	1	
63	2529180		WASHER, Flat	1	
64	2529181		HOLDER, Spring	1	
65	2520625		SPRING, Helical compression	1	
66	2529182		BUSHING	1	
67	2529183		BUSHING	1	
68	2529470		DIAPHRAGM ASSY.	1	
69	2520652		SPRING, Helical compression	1	
69A	2526135		BODY ASSY., Regulator	1	
70	2529188		BUSHING ASSY.	1	
71	367727		SHIM	un	
72	2523506		BODY, Regulator	1	
73	2529471		DIAPHRAGM ASSY.	1	
74	2529184		SEAT ASSY.	1	
75	2529294		SPACER, Ring .029-.035 in.	un	
	2529294-1		SPACER, Ring .013-.017	un	
76	P21819		SCREW, Machine no.10-24 x 1/2	1	
77	911242		WASHER, Flat	1	
78	951437		PACKING, Preformed	3	
79	367969		VENTURI ASSY.	1	
80	P70249		TUBE, Impact	4	
81	2523511		VENTURI	1	D
	2523509		VENTURI	1	A, B, C, E
82	367639		VALVE, Throttle	1	
83	P4235		SCREW, Machine no.8-32 x 3/8	2	
84	901045		WASHER	2	
85	2520920		STOP, Throttle	1	D
	2521976		STOP, Throttle	1	A, B, C, E

# AVCO LYCOMING IO-A10-L10-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

BENDIX RSA-5AD1 FUEL INJECTOR

VENDOR ACCESSORY

REF. NO.	PART NUMBER	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
86	909329K35	PIN, Spring	1	
87	367631	SHAFT ASSY., Throttle	1	
88	2520886	BODY ASSY., Main	1	D
	2521984	BODY ASSY., Main	1	A, B, C, E
89	909311K35	PIN, Spring	1	
90	2526413	STOP, Throttle	1	
91	367725	BUSHING, Sleeve	1	
92	367725	BUSHING, Sleeve	1	
93	384583	INSERT	4	

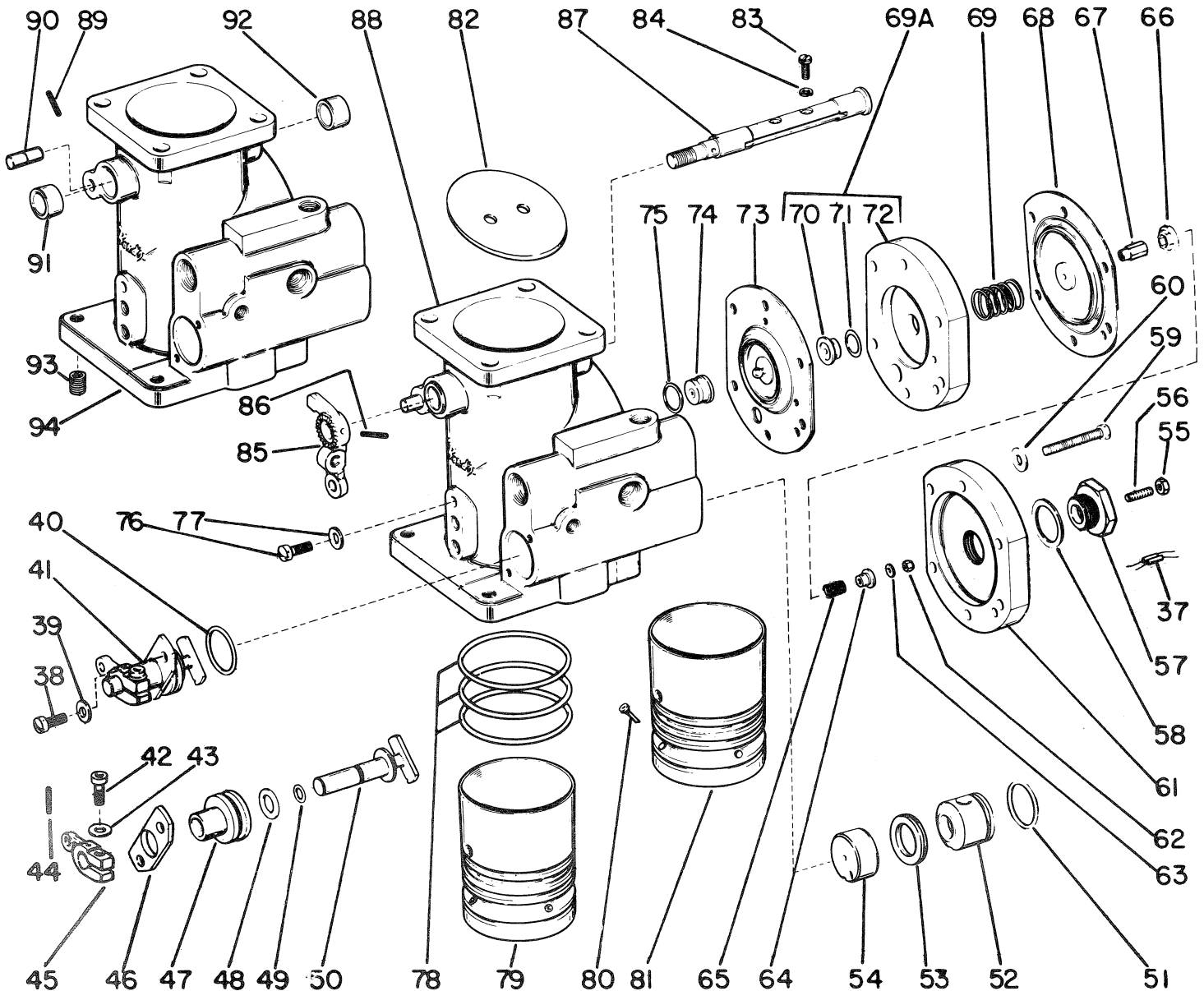


Figure 45 - Bendix RSA-5AD1 Fuel Injector



# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## OIL SUMP AND INDUCTION SYSTEM FUEL INJECTION LINES AND RELATED PARTS

QUANTITY PER ASSEMBLY

FIG. REF. 46	PART NUMBER	DESCRIPTION	ON ALL	IO-320								AIO-320		LIO-320					
				B1A	B1C	C1A	D1A	D1B	E1A	E1B	E1A	E2B	B1B	C1B	B1A	C1A			
1	LW-12098-0-200	TUBE ASSY., Fuel manifold to nozzle cyls. 1 and 3	2																
2	LW-12098-0-134	TUBE ASSY., Fuel manifold to nozzle cyls. 2 and 4	2																
3	MS21919-G12	CLIP, 3/4 ID for no.10 screw	4																
4	LW-12516*	CLIP, 1/16 ID for no.10 screw			6	4	4	6	6	6	6	6	6	6	6	6	6	6	6
5	STD-860	SCREW, No.10-32 x 5/8 long,fill.hd.	6																
6	STD-670	NUT, No.10-32 self-locking	6																
7	73136	BRACKET, 90°			2	2	2	2	2	2	2	2	2	1	1		2	2	
	76735	BRACKET, 90°												1	1				
8	LW-13177-4-084	HOSE ASSY., Fuel pump to inj.			1												1		
	LW-13180-4-106	HOSE ASSY., Fuel pump to inj.					1											1	
	LW-13175-4-102	HOSE ASSY., Fuel pump to inj.				1													
	LW-12798-4-204	HOSE ASSY., Fuel pump to inj.								1	1	1	1						
	LW-12876-4-224	HOSE ASSY., Fuel pump to inj.						1	1										
	LW-12877-6-142	HOSE ASSY., Fuel pump to inj.												1					
	LW-13183-6-161	HOSE ASSY., Fuel pump to inj.													1				
9	75252	ELBOW, 1/4 tubing 9/16-18 adj.90°			1			1	1	1	1	1	1				1		
	AN822-4-4	ELBOW, 1/4 fl.tube,1/4 NPT 90°					1											1	
	MS29512-6	SEAL, Oil,5/64 sect.x 15/32 ID				1													
	AN919-6	REDUCER, 1/4 tubing to 3/8 tubing				1													
	72377	ELBOW, 3/8 tubing adjustable 90°												2	2				
10	73971	CLAMP, 1/2 ID,1/4 dia.screw - cushion type			1	1	1	2	2	1	1	1	1				1	1	
11	73136	BRACKET, Extension			1	1	1										1	1	
	72815	BRACKET, Support clamp						1	1	1	1	1	1		1				
	73152	BRACKET, Support clamp						1	1										
12	LW-13175-4-340	HOSE ASSY., Fuel inj.to fuel manifold			1		1										1	1	
	LW-13175-4-303	HOSE ASSY., Fuel inj.to fuel manifold				1		1	1										
	LW-13175-4-274	HOSE ASSY., Fuel inj.to fuel manifold									1	1	1	1					
	LW-13175-4-172	HOSE ASSY., Fuel inj.to fuel manifold													1				
	LW-12798-4-204	HOSE ASSY., Fuel inj.to fuel manifold																1	
	STD-860	SCREW, No.10-32 x 5/8 long,fill.hd.			1	1		2	2	1	1	1	1			1		1	
	STD-670	NUT, No.10-32 self-locking			1	1		2	2	1	1	1	1			1		1	
	STD-425	WASHER, No.10 plain			1			2	2							1		1	
	STD-460	SCREW, 1/4-20 x 3/4 long,hex.hd.						1	1										
	STD-8	WASHER, 1/4 plain						1	1										
	STD-160	WASHER, 1/4 internal lock						1	1										
	STD-1411	NUT, 1/4-20 plain						1	1										
	73050	CLIP, 3/4 ID cushion type 9/32 dia. hole														1			
	73751	CLIP, 5/8 ID cushion type															1		

\* - Use 6 instead of 4 on the -B1A and -C1A models with the flow divider mounted upside down.

See Service Bulletin No. 342 for injector line clamping.

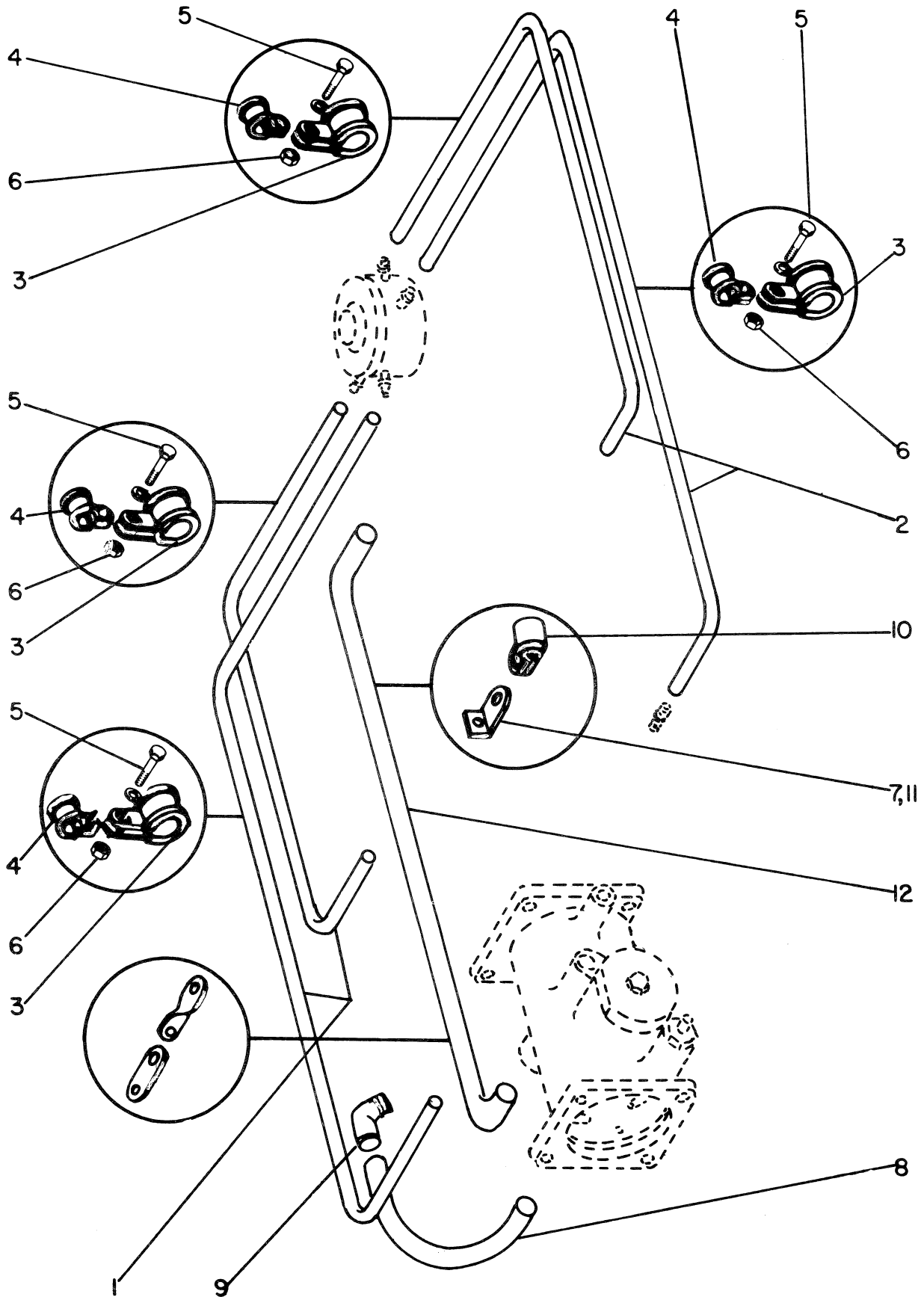


Figure 46 - Fuel Injection Lines and Related Parts

### SERVICE KIT SECTION SEAL AND GASKET SET

REF. NO.	PART NUMBER	12345	DESCRIPTION	QTY.	MODEL USAGE
				PER ENG.	
	69371-1		SEAL AND GASKET SET	1	
	MS29512-6		SEAL	1	
	STD-111		GASKET	1	
	STD-208		SEAL, Oil	1	
	STD-213		SEAL, Oil	1	
	STD-294		GASKET, Annular	2	
	STD-548		SEAL, Oil	1	
	STD-1006		RING, Oil seal	1	
	STD-1045		GASKET, Annular	2	
	STD-2072		"O" RING	1	
	1691C		GASKET	2	
	8313		GASKET VACUUM PUMP	1	
	60096		GASKET, Fuel pump	1	
	60592		GASKET, Carb.	1	
	60820		GASKET, Oil suction tube flange	1	
	61156		LOCKPLATE, Crankshaft gear	1	
	61165		SEAL, Tach.shaft	1	
	61173		GASKET, Oil press.hsg.	1	
	61183		GASKET, Accessory adapter	1	
	61523		CONTAINER	1	
	61531		GASKET, Hydraulic valve	1	
	62224		GASKET, Mag.adapter	4	
	62922		SEAL, Shroud tube	16	
	65321		GASKET, Exhaust flange	4	
	66224		GASKET, Carburetor	2	
	68315		GASKET, Accessory drive adapter	1	
	LW-13353		GASKET, Oil sump	1	
	69164		GASKET	1	
	69345		SPACER	4	
	69551		GASKET, Acc. pad cover	1	
	69720		GASKET, Gov. spacer	1	
	70310		SEAL, Shroud tube	8	
	70455		GASKET	1	
	71481		RING, Oil seal	4	
	71646		LOCKPLATE	2	
	71973		GASKET, Intake flange	4	
	72053		GASKET, Gov. drive	2	
	72059		GASKET	1	
	72075		SEAL, Oil	6	
	72078		LOCKPLATE, Cam gear	2	
	72091		RING, Oil seal	2	
	72312		RING, Oil seal	1	
	72829		LOCKPLATE	1	
	73383		LOCKPLATE	2	
	73817		LOCKPLATE, Crankshaft gear idler shaft	2	
	73818		GASKET, Acc. hsg.	1	
	74065		RING, Oil level gage seal	1	
	74068		RING, Oil level gage seal	1	
	74524		RING, Oil seal	1	
	75906		GASKET, Rocker box cover	4	
	76510		GASKET	1	
	76940		SEAL, Crankshaft oil	1	
	LW-13792		SEAL, Crankshaft oil	1	
	LW-12272		LOCKPLATE, Shroud tube	4	
	LW-12681		GASKET, Mag.	2	
	LW-12795		GASKET	1	
	LW-13428		SPRING	4	

# AVCO LYCOMING IO·AIO·LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## SERVICE KIT SECTION

SEAL AND GASKET SET

AIO-320, AEIO-320 SERIES

REF. NO.	PART NUMBER	DESCRIPTION	QTY.	MODEL USAGE
			PER ENG.	
	LW-12636	SEAL AND GASKET SET	1	
	8313	GASKET, Vacuum pump	1	
	MS29512-10	SEAL, Oil	1	
	MS29512-12	SEAL, Oil	2	
	STD-111	GASKET	2	
	STD-294	GASKET	2	
	STD-1045	GASKET	1	
	STD-2013	RING	2	
	60096	GASKET, Fuel pump	1	
	61156	LOCKPLATE, Crankshaft gear	1	
	61165	SEAL, Tach. drive	1	
	61173	GASKET, Oil press. hsg.	1	
	61183	GASKET, Acc. adapter	1	
	61503	SLEEVE, Shroud tube seal	8	
	62224	GASKET, Mag. adapter	1	
	62922	SEAL, Shroud tube	8	
	66224	GASKET, Fuel inj.	1	
	75906	GASKET, Rocker box cover	4	
	68315	GASKET, Acc. dr. adapter	1	
	70455	GASKET	1	
	71481	RING, Oil seal	4	
	71646	LOCKPLATE	2	
	71973	GASKET, 2 bolt flange	4	
	72053	GASKET, Gov.	1	
	72075	SEAL, Oil	4	
	72091	RING, Oil seal	2	
	73383	LOCKPLATE	1	
	65321	GASKET, Exhaust flange	4	
	73818	GASKET, Acc. hsg.	1	
	77055	GASKET, Crankcase cover, upper	1	
	77056	GASKET, Crankcase cover, lower	1	
	LW-12681	GASKET, Mag.	2	
	LW-13792	SEAL, Crankshaft oil	1	
	77569	SEAL	4	
	LW-12272	LOCKPLATE	4	
	70310	SEAL, Shroud tube	8	
	69345	SPACER	4	
	LW-13428	SPRING	4	
	MS16625-1081	RING	4	
	60820	GASKET	1	
	72059	GASKET, Oil level gage	1	
	74065	RING, Oil level gage	1	
	LW-13353	GASKET, Sump	1	
	STD-1221	RING, Internal retaining	1	

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## SERVICE KIT SECTION IO-320-E SERIES (LOW COMPRESSION) CYLINDER PISTON AND RING KIT (NITRIDED CYLINDER LOW COMPRESSION)

REF. NO.	PART NUMBER	12345	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	77462 or 77462A		CYLINDER, PISTON AND RING KIT		
	MS13997-3		KEY, Valve exhaust	2	
	MS13998-3		CAP, Valve stem	1	
	STD-1215		BOLT, 1/4-20 x 1-1/4 long	1	
	STD-1411		NUT, Plain,1/4-20	1	
	STD-1925		SCREW, 1/4-20 x 5/8 long,fill.hd.,self-locking	6	
	60009		KEY, Valve intake	2	
	62922		SEAL, Shroud tube	2	
	LW-13790		SHAFT, Valve rocker	1	
	60828		PLUG, Piston pin	2	
	61247		COVER, Rocker box	1	
	LW-11800		SPRING, Valve outer	2	
	65441		SEAT VALVE SPRING, Lower intake	1	
	LW-11795		SPRING, Valve,inner	2	
	LW-10077		SEAT, Valve spring,upper intake	1	
	LW-13428		SPRING, Shroud tube	1	
	LW-12272		LOCKPLATE, Shroud tube	1	
	LW-14068		PIN, Piston	1	
	69444		ROCKER ASSY., Valve intake	1	
	70310		SEAL, Shroud tube	2	
	71195		BOX, Set-up	1	
	71481		SEAL, Cylinder base	1	
	LW-10076		SEAT, Valve spring,upper exhaust	1	
	73857 or LW-12328		RING, Oil reg.	1	
	73938		VALVE, Intake	1	
	74241		RING, Piston compression	2	
	LW-13323		SEAT, Valve spring,lower exhaust	1	
	74636		ROCKER ASSY., Exhaust valve	1	
	LW-12416		CYLINDER ASSY., (Nitrided)	1	
	75068		VALVE, Exhaust	1	
	75413		PISTON	1	
	75906		GASKET, Rocker box cover	1	
	SSP-2472		TAG	1	
	LW-12892		THRUST BUTTON	2	

\* - Kit part number with suffix "A" uses LW-13445 piston pin (heavy).

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## SERVICE KIT SECTION

IO-320-B, -D SERIES, LIO-320-B AND  
AIO-320 SERIES (HIGH COMPRESSION)  
CYLINDER, PISTON AND RING KIT  
(NITRIDED CYLINDER, HALF-WEDGE RINGS)

REF. NO.	PART NUMBER	1 2 3 4 5	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	75401		CYLINDER, PISTON AND RING KIT		
	MS13997-3		KEY, Valve exhaust	2	
	MS13998-3		CAP, Valve stem,exhaust	1	
	STD-1411		NUT, Plain 1/4-20	1	
	STD-1925		SCREW, 1/4-20 x 5/8 long,fill.hd.,self-locking	6	
	60009		KEY, Valve intake	2	
	62922		SEAL, Shroud tube	2	
	LW-13790		SHAFT, Valve rocker	1	
	60828		PLUG, Piston pin	2	
	75906		GASKET, Rocker box cover	1	
	61247		COVER, Rocker box	1	
	LW-11800		SPRING, Valve outer	2	
	65441		SEAT, Valve spring lower	1	
	LW-11795		SPRING, Valve inner	2	
	LW-10077		SEAT, Valve spring,upper,intake	1	
	LW-13428		SPRING, Shroud tube	1	
	LW-12272		LOCKPLATE, Shroud tube	1	
	69444		ROCKER ASSY., Valve intake	1	
	73857 or				
	LW-12328		RING, Piston,oil regulating (expander type)	1	
	LW-14077		PIN, Piston	1	
	70310		SEAL, Shroud tube	2	
	71195		BOX, Set-up	1	
	71481		RING, Oil seal .09 sect. x 4.84 ID	1	
	LW-10076		SEAT, Valve spring,upper exhaust	1	
	73938		VALVE, Intake	1	
	74241		RING PISTON, Compression	2	
	75089		PISTON	1	
	74541		VALVE, Exhaust (rotator)	1	
	LW-13323		SEAT, Valve spring,lower	1	
	74636		ROCKER ASSY., Valve,exhaust	1	
	LW-12416		CYLINDER AND HEAD ASSY.	1	
	STD-1215		BOLT	2	
	SSP-2472		TAG	1	
	LW-11775		PLUG, Piston pin	2	
	SSP-2272		TAG	1	
	LW-12892		THRUST BUTTON	2	

### SERVICE KIT SECTION IO-320-C1A (HIGH COMPRESSION) CYLINDER, PISTON AND RING KIT (NITRIDED CYLINDER, LONG REACH PLUGS)

REF. NO.	PART NUMBER	1 2 3 4 5	DESCRIPTION	QTY. PER ENG.	MODEL USAGE
	76449		CYLINDER, PISTON AND RING KIT		
	MS13997-3		KEY, Valve exhaust	2	
	MS13998-3		CAP, Valve stem exhaust	1	
	STD-1411		NUT, 1/4-20 plain	1	
	STD-1925		SCREW, 1/4-20 x 5/8 pan hd.	6	
	60009		KEY, Valve intake	2	
	62922		SEAL, Shroud tube	2	
	LW-13790		SHAFT, Valve rocker	1	
	60828		PLUG, Piston pin	2	
	61247		COVER, Rocker box	1	
	LW-11800		SPRING, Valve outer	2	
	65441		SEAT, Valve spring lower intake	1	
	LW-11795		SPRING, Valve inner	2	
	LW-10077		SEAT, Valve spring upper	1	
	LW-13428		SPRING, Shroud tube	1	
	LW-12272		LOCKPLATE, Shroud tube	1	
	69345		SPACER, Shroud tube spring	1	
	69444		ROCKER ASSY., Valve intake	1	
	LW-14077		PIN, Piston	1	
	70310		SEAL, Shroud tube	2	
	71195		BOX, Set-up	1	
	71481		RING, Oil seal cyl. base	1	
	LW-10072		SEAT, Valve spring upper exhaust	1	
	73857		RING, Piston, oil control	1	
	73938		VALVE, Intake	1	
	74241		RING, Piston compression	2	
	LW-13323		SEAT, Valve spring, lower exhaust	1	
	74636		ROCKER ASSY., Valve exhaust	1	
	75089		PISTON	1	
	75906		GASKET, Rocker box cover	1	
	76081		VALVE, Exhaust	1	
	LW-12418		CYLINDER ASSY., Nitrided	1	
	STD-1215		BOLT	2	
	SSP-2472		TAG	1	
	LW-11775		PLUG, Piston pin	2	
	SSP-2272		TAG	1	
	LW-12892		THRUST BUTTON	2	

**PARTS SUPERSEDURES**

**SECTION 1**

Part No.	Superseded by	Name	Remarks
Reference Page 1-1			
LW-11050	LW-13808	Crankcase Assembly	Change from lockplates to lockwire on crankshaft idler gear shafts.
LW-11022	LW-11050	Crankcase Assembly	Incorporates body fit thru-studs.
78222	LW-11022	Crankcase Assembly	Change to straight main bearing dowels.
LW-11053	LW-13809	Crankcase Assembly	Change from lockplates to lockwire on crankshaft idler gear shafts.
LW-11023	LW-11053	Crankcase Assembly	Incorporates body fit thru-studs.
78223	LW-11023	Crankcase Assembly	Change to straight main bearing dowel.
LW-11056	LW-13810	Crankcase Assembly	Change from lockplates to lockwire on crankshaft idler gear shafts.
LW-11024	LW-11056	Crankcase Assembly	Incorporates body fit thru-studs.
78224	LW-11024	Crankcase Assembly	Change to straight main bearing dowels and snap in crankshaft seal.
LW-11059	LW-13811	Crankcase Assembly	Change from lockplates to lockwire on crankshaft idler gear shafts.
LW-11025	LW-11059	Crankcase Assembly	Incorporates body fit thru-studs.
78225	LW-11025	Crankcase Assembly	Change to straight main bearing dowels and snap in crankshaft seal.
LW-11026	LW-14263	Crankcase Assembly	Change from lockplates to lockwire on crankshaft idler gear shafts.
78713	LW-11026	Crankcase Assembly	Change to straight main bearing dowels.
LW-11065	LW-13814	Crankcase Assembly	Change from lockplates to lockwire on crankshaft idler gear shafts.
LW-11027	LW-11065	Crankcase Assembly	Incorporates body fit thru-studs.
77186	LW-11027	Crankcase Assembly	Change to straight main bearing dowels.
LW-11321	LW-13815	Crankcase Assembly	Change from lockplates to lockwire on crankshaft idler gear shafts.
LW-11304	LW-11321	Crankcase Assembly	Incorporates body fit thru-studs.
LW-11078	LW-11304	Crankcase Assembly	Change to straight main bearing dowels.



**PARTS SUPERSEDURES (CONT.)**

**SECTION 1 (CONT.)**

Part No.	Superseded by	Name	Remarks
Reference Page 1-1 (Cont.)			
LW-11322	LW-13816	Crankcase Assembly	Change from lockplates to lockwire on crankshaft idler gear shafts.
LW-11305	LW-11322	Crankcase Assembly	Incorporates body fit thru-studs.
LW-11237	LW-11305	Crankcase Assembly	Change to straight main bearing dowels.
LW-12705	LW-13817	Crankcase Assembly	Change from lockplates to lockwire on crankshaft idler gear shafts.
75156	LW-13793	Stud, Idler Shaft Mtg.	New drilled stud for lockwired idler shaft.

Reference Page 1-3

There are no supersedures on Page 1-3.

Reference Page 1-4

76163	77808	Adjustable Oil Pressure Relief Valve	Incorporates hex. nut.
LW-10124	LW-11021	Bearing, Crankshaft	Larger dowel hole provided for straight main bearing dowel.
77044	LW-13884	Bearing, Crankshaft, Front	Product improvement.
LW-12077	LW-13792	Seal, Crankshaft Oil	Incorporates glue grooves for better sealing.
LW-11997	LW-12077	Seal, Crankshaft Oil	Change from split type to solid seal.

Reference Page 1-5

77876	LW-14021	Shaft, Prop. Gov. Idler Gear	Product improvement.
70454	LW-13896	Plug, 3/4-16 Hex.	Provides clearance with de-icer slip rings.

Reference Page 1-6 and 1-7

There are no supersedures on Page 1-6 and 1-7.

Reference Page 1-8

75158	LW-13796	Shaft, Crankshaft Idler Gear	To incorporate lockwire retention.
STD-1926	STD-2167	Screw	Drilled head for lockwire.
STD-1410	STD-2168	Nut	Slotted shear for lockwire.

Reference Page 1-9

There are no supersedures on Page 1-9.

### PARTS SUPERSEDURES (CONT.)

#### SECTION 2

Part No.	Superseded by	Name	Remarks
Reference Page 2-1			
There are no supersedures on Page 2-1.			
Reference Page 2-3			
75288	61174	Shaft, Oil Pump Drive	Eliminates Woodruff key.
LW-12897	60746	Impeller, Oil Pump Driving	Eliminates Woodruff key.
61165	LW-14260	Seal, Tachometer Shaft	Eliminates shaft grooving.

Reference Page 2-4 thru 2-12

There are no supersedures on Page 2-4 thru 2-12.

Reference Page 2-13

76691	LW-12795	Gasket	Product improvement.
-------	----------	--------	----------------------

#### SECTION 3

Reference Page 3-1

65819	LW-13923	Bushing, Connecting Rod	Product improvement.
74646	LW-12186	Nut, Connecting Rod	Eliminate crimp-type nut.
LW-13444	LW-14078	Pin, Piston	Product improvement.
69650	LW-13444	Pin, Piston	Employs carburized I. D.
LW-13445	LW-14068	Pin, Piston	Product improvement.
77857	LW-13445	Pin, Piston	Employs carburized I. D.

Reference Page 3-2

75042	LW-12416	Cylinder Assembly	Uses new shroud tube retention.
76086	LW-12418	Cylinder Assembly	Uses new shroud tube retention.

Reference Page 3-3

74554	LW-13323	Seat, Valve Spring Lower	Increased clearance for oversize guide.
LW-12273	LW-13428	Spring, Shroud Tube	Improved shroud tube retention.
68518	LW-12272	Lockplate, Shroud Tube Spring	Improved shroud tube retention.

**PARTS SUPERSEDURES (CONT.)**

**SECTION 3 (CONT.)**

Part No.	Superseded by	Name	Remarks
Reference Page 3-4			
60401	LW-13790	Shaft, Valve Rocker	To employ teflon thrust buttons.

Reference Page 3-5

There are no supersedures on Page 3-5.

**SECTION 4**

Reference Page 4-1

61666	LW-12706	Adapter, Magneto	Product improvement.
78292	LW-12681	Gasket, Magneto	Product improvement.

Reference Pages 4-3 thru 4-13

There are no supersedures on Pages 4-3 thru 4-13.

**SECTION 5**

There are no supersedures in Section 5.

**SECTION 6**

Reference Page 6-1

68972	LW-13353	Gasket, Oil Sump	Improves sealing.
LW-10751	LW-10830	Sump, Oil	Product improvement.

Reference Page 6-3

There are no supersedures on Page 6-3.

Reference Page 6-5

69335	LW-12545	Plug, Oil Sump	Provides increased support for oil suction screen.
-------	----------	----------------	--

Reference Pages 6-6 thru 6-14

There are no supersedures on Pages 6-6 thru 6-14.

Reference Page 6-15

74732	LW-13177-4-084	Hose Assy.	Product improvement.
75251	LW-13180-4-106	Hose Assy.	Product improvement.
74586	LW-13175-4-102	Hose Assy.	Product improvement.

PARTS SUPERSEDURES (CONT.)

SECTION 6 (CONT.)

Part No.	Superseded by	Name	Remarks
Reference Page 6-15 (Cont.)			
76517	LW-12798-4-204	Hose Assy.	Product improvement, teflon.
74543	LW-12876-4-224	Hose Assy.	Product improvement, teflon.
77844	LW-12877-6-142	Hose Assy.	Product improvement, teflon.
74590	LW-13183-6-161	Hose Assy.	Product improvement.
74532	LW-13175-4-340	Hose Assy.	Product improvement.
73970	LW-13175-4-303	Hose Assy.	Product improvement.
73974	LW-13175-4-274	Hose Assy.	Product improvement.
72474	LW-13175-4-172	Hose Assy.	Product improvement.
76517	LW-12798-4-204	Hose Assy.	Product improvement, teflon.

### NUMERICAL INDEX

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
AN6-12	Bolt	5-8	STD-35	Washer	2-11
AN6-13	Bolt	5-8	STD-35	Washer	5-7
AN6-14	Bolt	5-8	STD-35	Washer	5-9
AN6-16	Bolt	5-8	STD-35	Washer	6-3
AN6-34A	Bolt	1-9	STD-35	Washer	6-8
AN365-632C	Nut	4-11	STD-68	Pin	5-7
AN381-4-22	Pin	2-11	STD-68	Pin	6-5
AN500A416-10	Screw	6-8	STD-82	Screw	6-8
AN500-416-18	Screw	4-11	STD-91	Plug	6-1
AN815-10	Union	6-3	STD-111	Gasket	6-5
AN822-4-4	Elbow	6-15	STD-160	Washer	1-9
AN838-12D	Elbow	6-3	STD-160	Washer	2-3
AN844-10D	Fitting	2-13	STD-160	Washer	2-9
AN919-6	Reducer	6-15	STD-160	Washer	2-11
AN924-12D	Nut	6-3	STD-160	Washer	2-13
AN931-12S17	Grommet	3-5	STD-160	Washer	4-11
AN932-5	Plug	2-13	STD-160	Washer	6-1
AN932-5	Plug	6-7	STD-160	Washer	6-3
AN960-616L	Washer	1-9	STD-160	Washer	6-6
MS9048-111	Pin	1-5	STD-160	Washer	6-8
MS13997-3	Key	3-3	STD-160	Washer	6-15
MS13998-3	Cap	3-3	STD-208	Seal	2-9
MS16625-1081	Ring	1-8	STD-213	Seal	2-9
MS16625-1125	Ring	5-7	STD-251	Washer	6-8
MS20823-6D	Elbow	3-2	STD-294	Gasket	2-13
MS21919-G12	Clip	6-15	STD-366	Pin	1-3
MS29512-6	Seal	6-15	STD-406	Dowel	1-3
MS29512-10	Seal	6-3	STD-425	Washer	1-4
MS29512-12	Seal	1-9	STD-425	Washer	6-15
MS29512-12	Seal	6-3	STD-460	Screw	6-15
STD-8	Washer	1-9	STD-475	Washer	1-5
STD-8	Washer	2-9	STD-475	Washer	2-4
STD-8	Washer	2-3	STD-475	Washer	2-5
STD-8	Washer	2-11	STD-475	Washer	2-6
STD-8	Washer	2-13	STD-475	Washer	2-11
STD-8	Washer	4-11	STD-475	Washer	4-1
STD-8	Washer	6-1	STD-475	Washer	5-9
STD-8	Washer	6-3	STD-475	Washer	6-3
STD-8	Washer	6-5	STD-475	Washer	6-8
STD-8	Washer	6-6	STD-514	Dowel	1-1
STD-8	Washer	6-15	STD-551	Plug	6-1
STD-19	Dowel	1-5	STD-553	Screw	4-11
STD-33	Washer	1-9	STD-557	Dowel	1-1
STD-33	Washer	2-6	STD-596	Nut	1-9
STD-33	Washer	5-8	STD-619	Washer	1-3
STD-35	Washer	1-5	STD-669	Washer	5-8
STD-35	Washer	2-4	STD-670	Nut	6-15
STD-35	Washer	2-3	STD-670	Nut	6-15
STD-35	Washer	2-5	STD-676	Nut	5-8
STD-35	Washer	2-6	STD-678	Washer	1-9

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## NUMERICAL INDEX (CONT.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
STD-684	Nipple	3-5	STD-1411	Nut	3-3
STD-696	Washer	4-11	STD-1411	Nut	4-11
STD-696	Washer	4-13	STD-1411	Nut	6-1
STD-700	Elbow	2-5	STD-1411	Nut	6-3
STD-705	Bolt	2-9	STD-1411	Nut	6-15
STD-713	Pin	5-8	STD-1414	Bolt	1-9
STD-761	Pin	4-1	STD-1414	Bolt	2-3
STD-783	Plug	2-1	STD-1416	Bolt	1-9
STD-783	Plug	2-4	STD-1419	Bolt	1-9
STD-784	Plug	2-1	STD-1419	Bolt	6-1
STD-784	Plug	2-13	STD-1419	Bolt	6-3
STD-798	Dowel	1-5	STD-1419	Bolt	6-8
STD-847	Screw	1-6	STD-1420	Nut	2-3
STD-860	Screw	6-15	STD-1420	Nut	5-7
STD-872	Nut	1-9	STD-1433	Bolt	6-5
STD-872	Nut	5-8	STD-1530	Clamp	6-6
STD-1006	Ring	2-1	STD-1575	Bolt	2-11
STD-1045	Gasket	1-4	STD-1576	Hose	2-11
STD-1045	Gasket	6-5	STD-1623	Insert	1-1
STD-1065	Dowel	1-6	STD-1640	Clamp	2-11
STD-1164	Insert	6-3	STD-1727	Washer	4-1
STD-1173	Insert	2-11	STD-1727	Washer	5-7
STD-1196	Hose	6-6	STD-1727	Washer	5-8
STD-1204	Bolt	2-3	STD-1763	Locknut	6-8
STD-1204	Bolt	2-11	STD-1774	Pin	2-4
STD-1204	Bolt	6-1	STD-1774	Pin	2-9
STD-1204	Bolt	6-3	STD-1817	Bolt	5-7
STD-1211	Plug	1-6	STD-1838	Bolt	2-5
STD-1215	Screw	4-11	STD-1838	Bolt	5-7
STD-1215	Bolt	6-6	STD-1851	Bolt	5-7
STD-1221	Ring	2-4	STD-1856	Screw	2-13
STD-1227	Washer	2-3	STD-1858	Bolt	5-7
STD-1227	Washer	6-5	STD-1868	Bolt	1-9
STD-1269	Clamp	6-6	STD-1872	Insert	3-2
STD-1339	Plug	1-1	STD-1874	Screw	4-11
STD-1339	Plug	2-3	STD-1874	Screw	4-13
STD-1353	Insert	2-11	STD-1882	Screw	2-6
STD-1353	Insert	6-3	STD-1889	Bolt	5-7
STD-1409	Nut	1-9	STD-1889	Bolt	5-8
STD-1409	Nut	2-3	STD-1901	Stud	6-1
STD-1409	Nut	6-5	STD-1904	Bolt	2-3
STD-1410	Nut	1-5	STD-1925	Screw	3-4
STD-1410	Nut	2-4	STD-1930	Hose	2-5
STD-1410	Nut	2-6	STD-1944	Bolt	1-9
STD-1410	Nut	2-11	STD-2013	Ring	2-11
STD-1410	Nut	4-1	STD-2014	Bolt	6-3
STD-1410	Nut	5-9	STD-2032	Washer	2-6
STD-1410	Nut	6-8	STD-2084	Bolt	1-9
STD-1411	Nut	1-9	STD-2090	Nut	3-4
STD-1411	Nut	2-9	STD-2156	Bolt	5-9

# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## NUMERICAL INDEX (CONT.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
STD-2167	Bolt	1-8	1182-N4	Spark Plug	4-13
STD-2168	Nut	1-8	1691-C	Gasket	2-6
STD-2174	Clamp	3-5	8313	Gasket	2-9
STD-2180	Hose	3-5	60009	Key	3-3
10-13799	Nut	4-13	60096	Gasket	2-6
10-89027-4	Bracket	4-13	60398	Bushing	3-4
10-91431-8	Screw	4-13	60430	Cover	2-9
10-35936-6	Screw	4-13	60431	Cover	2-6
10-90404-4	Nut	4-13	60746	Impeller	2-3
10-163011	Ferrule	4-13	60803	Strap	1-9
10-163012	Eyelet	4-13	60820	Gasket	6-5
10-209328	Tie	4-13	60828	Plug	3-1
10-320050	Grommet	4-13	60882	Gear	1-7
10-320283	Clamp	4-13	60886	Belt	5-1
10-320297-2	Clamp	4-13	61084	Spring	1-4
10-320298-1	Clamp	4-13	61098	Adapter	2-9
10-320298-2	Clamp	4-13	61155	Gear	1-6
10-320300-1	Clamp	4-13	61156	Lockplate	1-6
10-320394	Plate	4-13	61163	Gear	4-1
10-320411	Screw	4-13	61173	Gasket	2-13
10-320412-3	Clamp	4-13	61174	Shaft	2-3
10-320471	Tubing	4-13	61183	Gasket	2-9
10-320610-60	Lead	4-13	61238	Stud	2-1
10-320610-68	Lead	4-13	61247	Cover	3-4
10-320610-69	Lead	4-13	61260	Gasket	3-4
10-320610-72	Lead	4-13	61261	Stud	1-1
10-320610-78	Lead	4-13	61261	Stud	2-1
10-320610-79	Lead	4-13	61261	Stud	3-2
10-320610-82	Lead	4-13	61261	Stud	6-1
10-320610-87	Lead	4-13	61265	Stud	2-1
10-620632-48	Lead	4-13	61358	Plug	6-5
25C-10	Stud	1-1	61363	Pipe	6-6
25C-10	Stud	2-13	61364	Pipe	6-6
25CD-14	Stud	1-1	61365	Pipe	6-6
31CD-22	Stud	2-1	61376	Connection	6-1
31C-38	Stud	2-1	61377	Connection	6-1
31C-40	Stud	2-1	61378	Screen	6-5
38-13	Stud	1-1	61381	Tube	6-5
38D-17	Stud	1-1	61385	Clip	4-11
38-22	Stud	1-1	61400	Stud	2-1
50-15	Stud	1-1	61400	Stud	6-1
383-B	Nut	3-4	61510	Plug	1-6
1028-B	Ball	1-4	61544	Plunger	1-8
1102	Plug	1-1	61548	Nameplate	6-1
1102	Plug	2-1	61665	Gear	4-1
1102	Plug	2-4	61668	Stud	2-1
1102	Plug	6-1	61850	Stud	6-1
1102	Plug	6-3	62224	Gasket	4-1
1182-B3	Spark Plug	4-13	62281	Gage	1-3
1182-B6	Spark Plug	4-13	62417	Plug	2-13

### NUMERICAL INDEX (CONT.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
62817	Screen Assy.	2-13	71032	Bushing	1-3
62833	Regulator	5-1	71140	Fitting	2-13
62922	Seal	3-3	71481	Ring	3-4
65007	Retainer	1-1	71596	Washer	2-4
65321	Gasket	3-4	71596	Washer	2-9
65441	Seat	3-3	71610	Hook	3-5
66145	Dowel	2-11	71611	Retainer	3-5
66224	Gasket	6-8	71621	Clip	2-5
66426	Impeller	2-11	71744	Generator	5-2
66610	Bushing	3-2	71745	Regulator	5-1
66796	Insert	3-2	71913	Clamp	4-11
67528	Stud	1-1	71973	Gasket	6-6
67556	Stud	1-1	72053	Gasket	1-5
67556	Stud	2-4	72053	Gasket	2-3
68315	Gasket	2-4	72057	Seat	3-2
68315	Gasket	2-11	72058	Seat	3-2
68316	Stud	1-1	72059	Gasket	1-3
68316	Stud	2-4	72063	Bushing	1-6
68316	Stud	6-3	72064	Bushing	1-6
68316	Stud	6-8	72065	Bushing	1-6
68317	Shaftgear	2-4	72066	Bushing	1-6
68403	Impeller	2-11	72067	Bushing	1-6
68437	Stud	6-1	72075	Seal	1-4
68510	Stud	3-2	72077	Regulator	5-1
68593	Spacer	2-9	72091	Seal	1-4
68628	Relay	5-1	72158	Bushing	1-1
68759	Tube	3-5	72230	Shaft	2-9
68760	Tube	3-5	72231	Gear	2-9
68761	Tube	3-5	72312	Ring	1-3
68763	Bearing	1-4	72351	Screw	4-11
68767	Generator	5-2	72351	Screw	4-13
68867	Support	1-7	72362	Sump	6-1
68987	Tube	3-3	72377	Elbow	6-15
69106	Cover	2-4	72378	Cover	1-5
69116	Gage	1-3	72378	Cover	2-3
69159	Adapter	2-9	72453	Clamp	4-11
69164	Gasket	2-9	72566	Gear	1-7
69260	Insert	3-2	72569	Baffle	3-5
69373	Bearing	3-1	72815	Bracket	6-15
69444	Rocker	3-4	72829	Lockplate	2-9
69510	Housing	2-13	72847	Gage	1-3
69551	Gasket	2-4	72877	Body	1-4
69602	Connection	6-1	72970	Gear	2-9
69603	Hose	6-6	73050	Clip	6-15
69675	Connector	2-13	73136	Bracket	6-15
69796	Dowel	1-1	73136	Bracket	6-15
70310	Seal	3-3	73152	Bracket	6-15
70419	Bracket	5-7	73245	Eyelet	4-11
70455	Gasket	1-5	73249	Washer	1-5
70484	Screen	6-5	73250	Washer	1-5



# AVCO LYCOMING IO-AIO-LIO-320 PARTS CATALOG

WIDE CYLINDER FLANGE CRANKCASE MODEL ENGINES

## NUMERICAL INDEX (CONT.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
73251	Washer	1-5	75153	Adapter	2-4
73252	Washer	1-5	75154	Stud	1-1
73317	Tube	2-1	75165	Clip	2-5
73346	Flange	6-6	75167	Tube	2-5
73383	Lockplate	5-7	75247	Fuel Pump	2-6
73411	Rod	3-4	75252	Elbow	6-15
73412	Rod	3-4	75278	Manifold	6-8
73413	Rod	3-4	75380	Link	5-7
73414	Rod	3-4	75413	Piston	3-1
73751	Clip	2-11	75511	Bracket	5-7
73751	Clip	6-15	75512	Bracket	5-7
73772	Nozzle Assy.	1-1	75545	Adapter	2-4
73818	Gasket	2-1	75626	Plug	2-1
73857	Ring	3-1	75686	Elbow	2-6
73938	Valve	3-3	75735	Tube	1-3
73971	Clamp	6-15	75736	Tube	1-3
74065	Ring	1-3	75767	Tube	1-3
74068	Ring	1-3	75888	Stud	2-1
74070	Elbow	2-5	75906	Gasket	3-4
74084	Pipe	6-6	75920	Spacer	2-6
74151	Nozzle	6-8	75924	Gear	2-9
74207	Elbow	6-8	75941	Tape	4-11
74217	Ring	1-3	75944	Valve	2-13
74241	Ring	3-1	75965	Clamp	4-1
74323	Strut	5-7	76026	Belt	5-1
74414	Support	1-7	76028	Link	5-7
74465	Spacer	1-3	76075	Plate	4-11
74494	Plate	3-4	76081	Valve	3-3
74513	Sump	6-1	76082	Injector	6-8
74519	Belt	5-1	76097	Camshaft	1-6
74521	Pipe	6-6	76098	Camshaft	1-6
74522	Pipe	6-6	76103	Housing	2-1
74523	Gage	1-3	76110	Housing	2-1
74524	Ring	1-3	76112	Housing	2-1
74541	Valve	3-3	76113	Housing	2-1
74636	Rocker	3-4	76116	Housing	2-1
74637	Bushing	3-4	76118	Spacer	1-8
74842	Spacer	6-8	76119	Shield	2-1
74887	Spacer	3-4	76121	Shaft	1-8
74996	Gear	1-8	76188	Fuel Pump	2-6
75006	Crankshaft	1-6	76210	Starter	5-9
75007	Crankshaft	1-6	76211	Starter	5-9
75008	Crankshaft	1-6	76212	Starter	5-9
75009	Bracket	6-8	76220	Stud	1-9
75010	Crankshaft	1-6	76299	Sump	6-1
75011	Crankshaft	1-6	76486	Fuel Pump	2-6
75012	Crankshaft	1-6	76529	Plug	1-4
75072	Gear	1-8	76534	Shim	5-8
75089	Piston	3-1	76628	Support	1-7
75135	Baffle	2-6	76648	Grommet	4-11

### NUMERICAL INDEX (CONT.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
76728	Sleeve	4-11	77745	Harness	4-1
76734	Zip Strap	4-1	77756	Bracket	5-7
76735	Bracket	6-15	77808	Valve	1-4
76753	Sleeving	4-11	77852	Oil Filter Base	2-13
76754	Plate	4-11	77853	Oil Filter Hsg.	2-13
76757	Nut	4-11	77872	Bushing	1-5
76768	Lockwasher	5-7	77874	Gear	1-5
76769	Nut	5-8	77875	Gear	1-5
76852	Grommet	4-11	77965	Sump	6-1
76853	Plate	4-11	78027	Bolt	3-1
76899	Support	1-7	78030	Rod Assy.	3-1
76943	Guide	3-2	78059	Relay	5-1
76944	Support	1-7	78060	Relay	5-1
76949	Magneto	4-1	78290	Plunger	3-3
76950	Magneto	4-1	78308	Alternator	5-2
76961	Clamp	4-1	78310	Alternator	5-2
77055	Gasket	6-3	78312	Alternator	5-2
77056	Gasket	6-3	78368	Pin	1-8
77059	Camshaft	1-6	78403	Alternator	5-2
77115	Tube	2-11	78407	Alternator	5-2
77116	Shaft	2-11	78524	Socket	3-3
77117	Spacer	6-3	78528	Body	2-3
77118	Shaft	2-11	78532	Impeller	2-3
77120	Fitting	1-9	78539	Harness	4-11
77123	Tube	6-3	78540	Harness	4-11
77124	Housing	2-11	78546	Harness	4-11
77125	Adapter	2-11	78547	Harness	4-11
77126	Cover	6-3	78614	Pulley	5-7
77127	Housing	6-3	78617	Shaft	5-7
77128	Tube	2-11	78629	Ball Bearing	5-7
77130	Tube	2-11	78639	Pulley	5-7
77131	Tube	2-11	78714	Bracket	6-8
77132	Cover	6-3	78717	Camshaft	1-6
77155	Fitting	2-11	78914	Connection	6-1
77155	Fitting	6-3	LW-31.1.09	Bolt	5-9
77160	Guide	3-2	LW-10076	Seat	3-3
77172	Pump	2-11	LW-10077	Seat	3-3
77208	Manifold	6-8	LW-10105	Housing	2-1
77260	Injector	6-8	LW-10179	Regulator	5-1
77309	Bushing	1-8	LW-10185	Regulator	5-1
77309	Bushing	2-9	LW-10372	Alternator	5-2
77526	Tube	1-3	LW-10388	Elbow	4-11
77547	Bracket	6-8	LW-10389	Elbow	4-11
77548	Manifold	6-8	LW-10390	Elbow	4-11
77569	Seal	6-6	LW-10400	Ferrule	4-11
77597	Injector	6-8	LW-10475	Nozzle	6-8
77611	Gasket	3-4	LW-10495	Crankshaft	1-6
77742	Magneto	4-1	LW-10496	Crankshaft	1-6
77743	Harness	4-1	LW-10501	Housing	2-1
77744	Magneto	4-1	LW-10551	Gear	1-7

### NUMERICAL INDEX (CONT.)

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
LW-10552	Support	1-7	LW-13175-4-274	Hose	6-15
LW-10556	Starter	5-9	LW-13175-4-303	Hose	6-15
LW-10566	Camshaft	1-6	LW-13175-4-340	Hose	6-15
LW-10647	Dowel	1-1	LW-13177-4-084	Hose	6-15
LW-10799	Spacer	2-6	LW-13180-4-106	Hose	6-15
LW-10811	Terminal	4-11	LW-13183-6-161	Hose	6-15
LW-10812	Collar	4-11	LW-13323	Seat	3-3
LW-10814	Spring	4-11	LW-13353	Gasket	6-1
LW-10830	Sump	6-1	LW-13428	Spring	3-3
LW-10973	Baffle	3-5	LW-13570	Injector	6-8
LW-10986	Injector	6-8	LW-13749	Oil Separator	6-7
LW-11011	Pipe	6-6	LW-13750	Valve	6-7
LW-11012	Pipe	6-6	LW-13753	Fitting	6-7
LW-11013	Pipe	6-6	LW-13754	Fitting	6-7
LW-11014	Pipe	6-6	LW-13755	Breather Tee	6-7
LW-11021	Bearing	1-4	LW-13790	Shaft	3-4
LW-11123	Spacer	4-11	LW-13792	Seal	1-4
LW-11165	Housing	2-1	LW-13793	Stud	1-1
LW-11166	Fuel Pump	2-6	LW-13796	Shaft	1-8
LW-11429	Generator	5-2	LW-13808	Crankcase	1-1
LW-11430	Link	5-7	LW-13809	Crankcase	1-1
LW-11569	Housing	6-3	LW-13810	Crankcase	1-1
LW-11795	Spring	3-3	LW-13811	Crankcase	1-1
LW-11800	Spring	3-3	LW-13814	Crankcase	1-1
LW-11837	Support	1-7	LW-13815	Crankcase	1-1
LW-11839	Body	2-3	LW-13816	Crankcase	1-1
LW-11853	Crankshaft	1-6	LW-13817	Crankcase	1-1
LW-11854	Crankshaft	1-6	LW-13871	Fitting	6-7
LW-12083	Switch	5-9	LW-13884	Bearing	1-4
LW-12085	Switch	5-9	LW-13896	Plug	1-5
LW-12098-0-134	Tube	6-15	LW-13923	Bushing	3-1
LW-12098-0-200	Tube	6-15	LW-14009	Housing	2-1
LW-12186	Nut	3-1	LW-14021	Shaft	1-5
LW-12272	Lockplate	3-3	LW-14047	Housing	2-1
LW-12416	Cylinder Assy.	3-2	LW-14068	Pin	3-1
LW-12418	Cylinder Assy.	3-2	LW-14078	Pin	3-1
LW-12516	Clip	6-15	LW-14257	Sump	6-1
LW-12545	Plug	6-5	LW-14260	Seal	2-3
LW-12681	Gasket	4-1	LW-14263	Crankcase	1-1
LW-12706	Adapter	4-1	LW-51360-29	Magneto	4-1
LW-12712	Housing	2-1	LW-51360-37	Magneto	4-1
LW-12747	Regulator	5-1	LW-51360-46	Magneto	4-1
LW-12795	Gasket	2-13	LW-51360-47	Magneto	4-1
LW-12798-4-204	Hose	6-15	LW-52305-1	Kit	4-1
LW-12876-4-224	Hose	6-15	LW-157209	Kit	4-1
LW-12877-6-142	Hose	6-15	LW-163045-6	Magneto	4-1
LW-12892	Button	3-4	LW-349305-1	Magneto	4-1
LW-13039	Bracket	5-7	LW-349365-3	Magneto	4-1
LW-13175-4-102	Hose	6-15	LW-620326-2	Harness	4-13
LW-13175-4-172	Hose	6-15			