

# O-360-B2C Series Illustrated Parts Catalog

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August 2011

PC-306-7

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**LYCOMING** © 2011

652 Oliver Street  
Williamsport, PA 17701

## **O-360-B2C Series Illustrated Parts Catalog**

Lycoming Part Number: PC-306-7

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**Units per Assembly Column**

Where more than one assembly exists, this column contains the quantity of a specific part required in the build sequence of only one next higher assembly. The Letters "AR" represent "as required" for bulk items or non-illustrated select-from-range-parts. "RF" represents items listed for reference purposes only.

**Cross-Reference List of Manufacturer Parts to Standard Part Number****Vendor Accessories**

Parts coverage of Vendor Accessories used on Lycoming engines may be found in the appropriate Vendor's Parts Catalog. A list of vendor's addresses appears in the latest revision of Lycoming Service Letter No. L114.

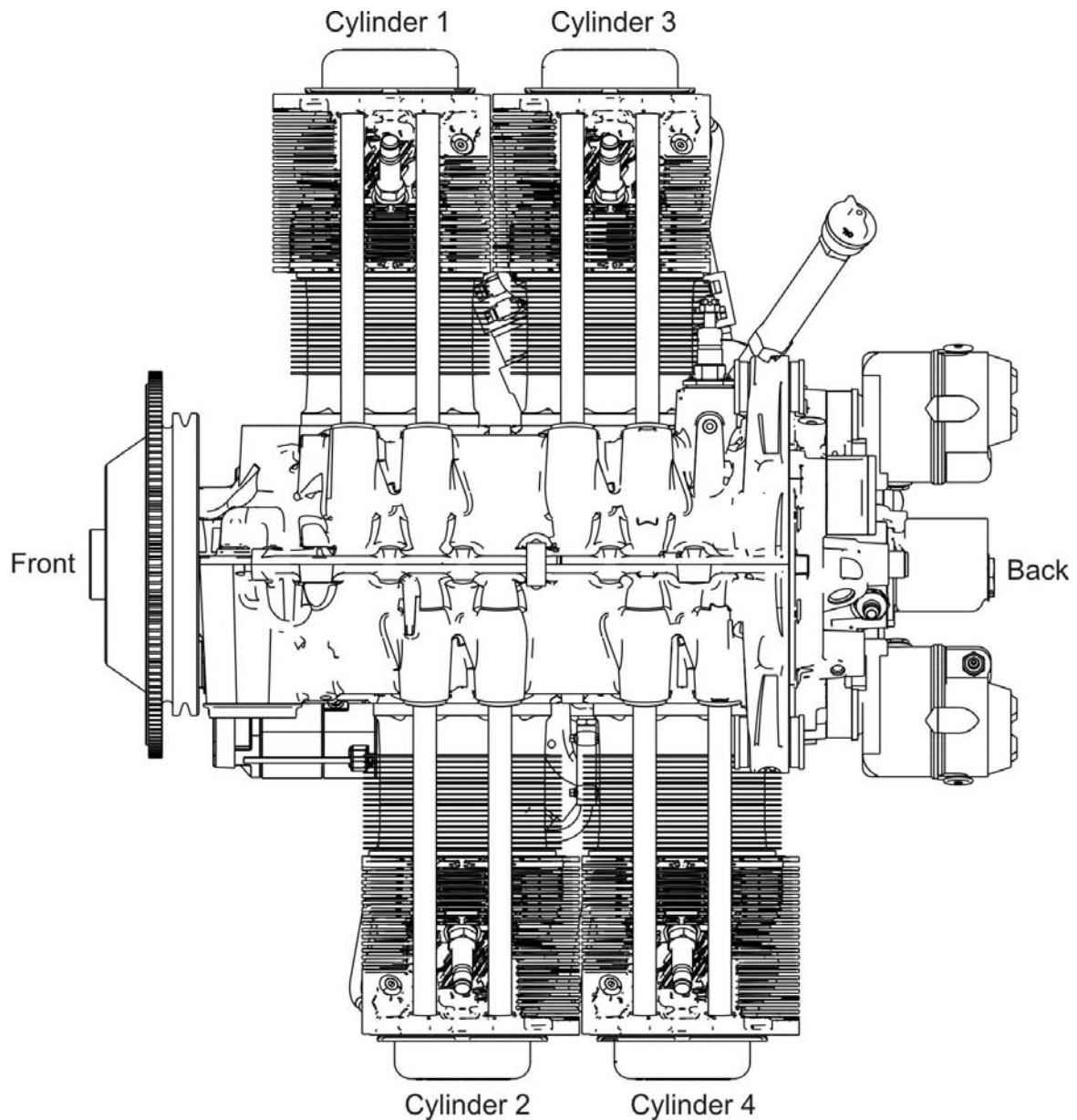
Any reference in this document to the suppliers/part manufacturer's product, by name, trademark, part number or other description is solely for the purpose of identification and does not indicate or infer that Lycoming accepts responsibility for quality control and/or airworthiness of parts, which do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

**Environmental Compliance**

Lycoming is concerned with preserving the environment. Lycoming strongly urges engine owners and repair/overhaul personnel to observe and comply with all federal, state, and local environmental regulations when solvents, paint, fuel, oil, chemicals, or other consumables are used in operating, maintaining, or overhauling an engine component. Please share our concern for, and commitment to a clean earth, clean water, and especially clean air for succeeding generations of flyers.

**Perspective of References**

In this manual, all references to locations of various components will be designated as if viewing the engine from the rear (or anti-propeller) end. The front of the engine is considered to be the propeller end and the oil sump is considered to be the bottom of the engine. Cylinders are numbered from front to rear with the odd-numbered cylinders on the right-hand side. The firing order for this four-cylinder engine is 1-3-2-4.

**Top View of Engine**

**How to Order Parts and Publications**

An Oversize and Undersize Parts List is included in the front section of this catalog to aid in ordering parts as necessary during overhaul.

Although the information contained in this parts catalog is up-to-date at time of publication, users are advised to procure current information through all Lycoming distributors or from the factory by subscription. Refer to the latest revision of Service Letter No. L114 for subscription information.

1. In order to expedite correct part shipments without delay:
  - a. Always specify the model and serial number of your engine.
  - b. Always specify part number, nomenclature, and quantity required.

The SB and SI documents are available from Lycoming distributors, the factory, or by subscription.

Full Revisions of the Illustrated Parts Catalog are available from Lycoming distributors or the factory.

Every effort has been made in preparing this manual to ensure its accuracy. However, any comments, suggestions, or corrections to this manual are welcome and must be directed in writing to:

**Technical Publications Coordinator**  
**Lycoming Engines**  
**652 Oliver Street**  
**Williamsport, PA 17701**

**NOTE:** The owner of the manual must give notification to the factory of a change of address.

Additionally, Lycoming has a Customer Service Hot Line to provide information and assistance to owners, operators, and maintenance personnel servicing Lycoming engines.

Call **(570) 323-6181**

8:00 A.M. – 5:00 P.M. EST (-5GMT)

Monday – Friday

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**ABBREVIATIONS AND ACRONYMS**

<b>A</b>	
Adj.	Adjustable
<b>C</b>	
Cyl.	Cylinder
<b>D</b>	
Dia.	Diameter
<b>F</b>	
Fill.	Fillister
<b>H</b>	
Hex.	Hexagon
<b>I</b>	
I.D.	Inside Diameter
<b>N</b>	
No.	Number
<b>O</b>	
O.D.	Outside Diameter
<b>S</b>	
Scav.	Scavenge
<b>T</b>	
Temp.	Temperature
<b>V</b>	
Vac.	Vacuum

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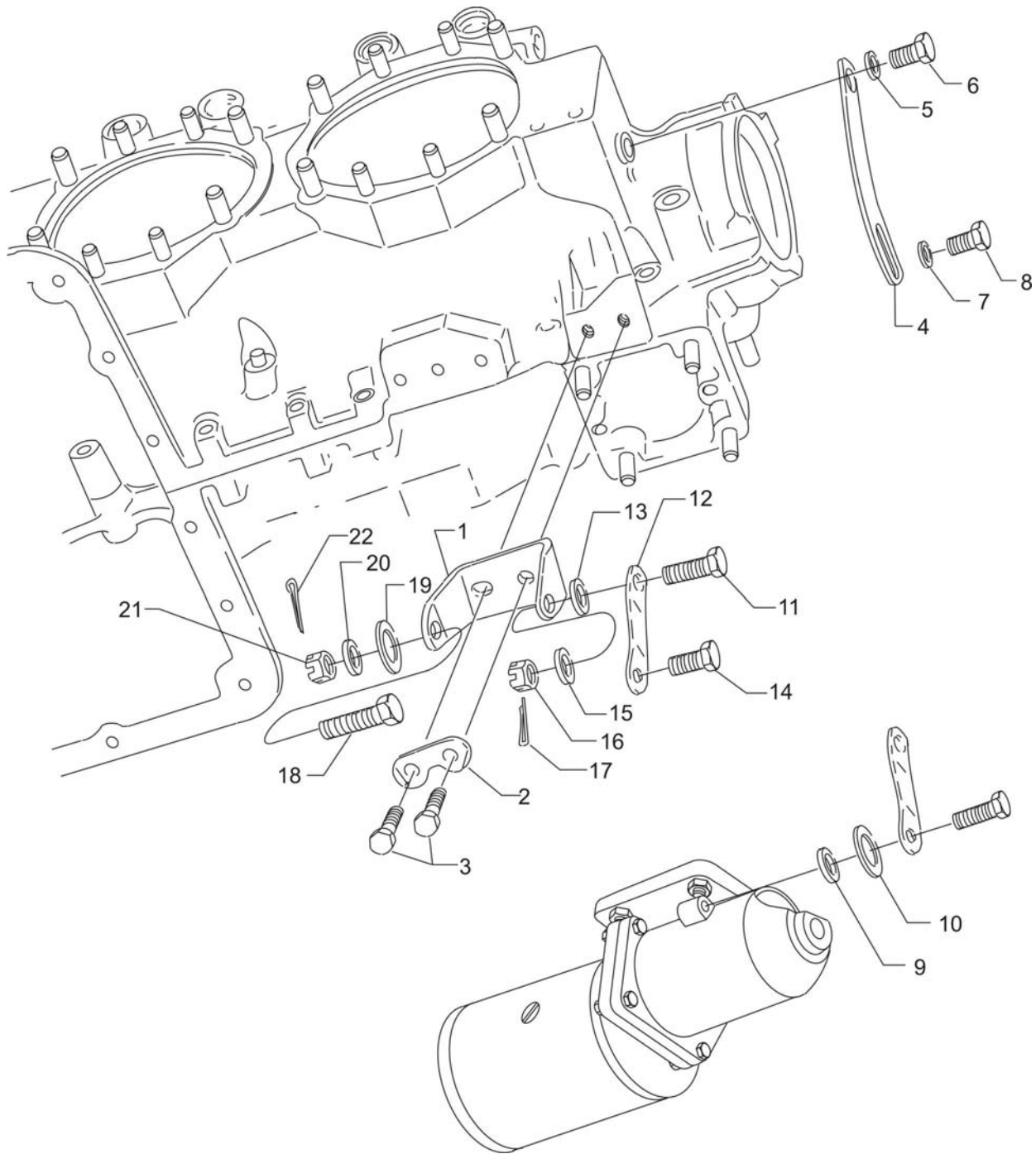


**OVERSIZE AND UNDERSIZE PARTS LISTING**

Part No.	Description	Oversize (in.)								Undersize (in.)		
		P02 .002	P05 .005	P10 .010	P15 .015	P20 .020	P30 .030	P40 .040	P50 .050	M03 .003	M06 .006	M10 .010
66610	BUSHING		X	X								
66796	INSERT			X								
69796	DOWEL		X									
76943	GUIDE	See latest revision of Service Instruction No. 1256.										
72057	SEAT		X	X		X	X					
72058	SEAT		X	X		X	X					
72155-S	BUSHING		X	X	X	X						
16R22126	GUIDE	See latest revision of Service Instruction No. 1256.										
74241	RING			X								
18N26106	BEARING									X	X	X
75656-S	BUSHING		X	X	X	X						
75657-S	BUSHING		X	X	X	X						
LW-13792	SEAL	See latest revision of Service Instruction No. 1324.										
18A26093	BEARING									X	X	X
18D26098	BEARING									X	X	X
STD-1065	DOWEL	X	X	X	X							
14H21950	RING			X		X						

## NOTE

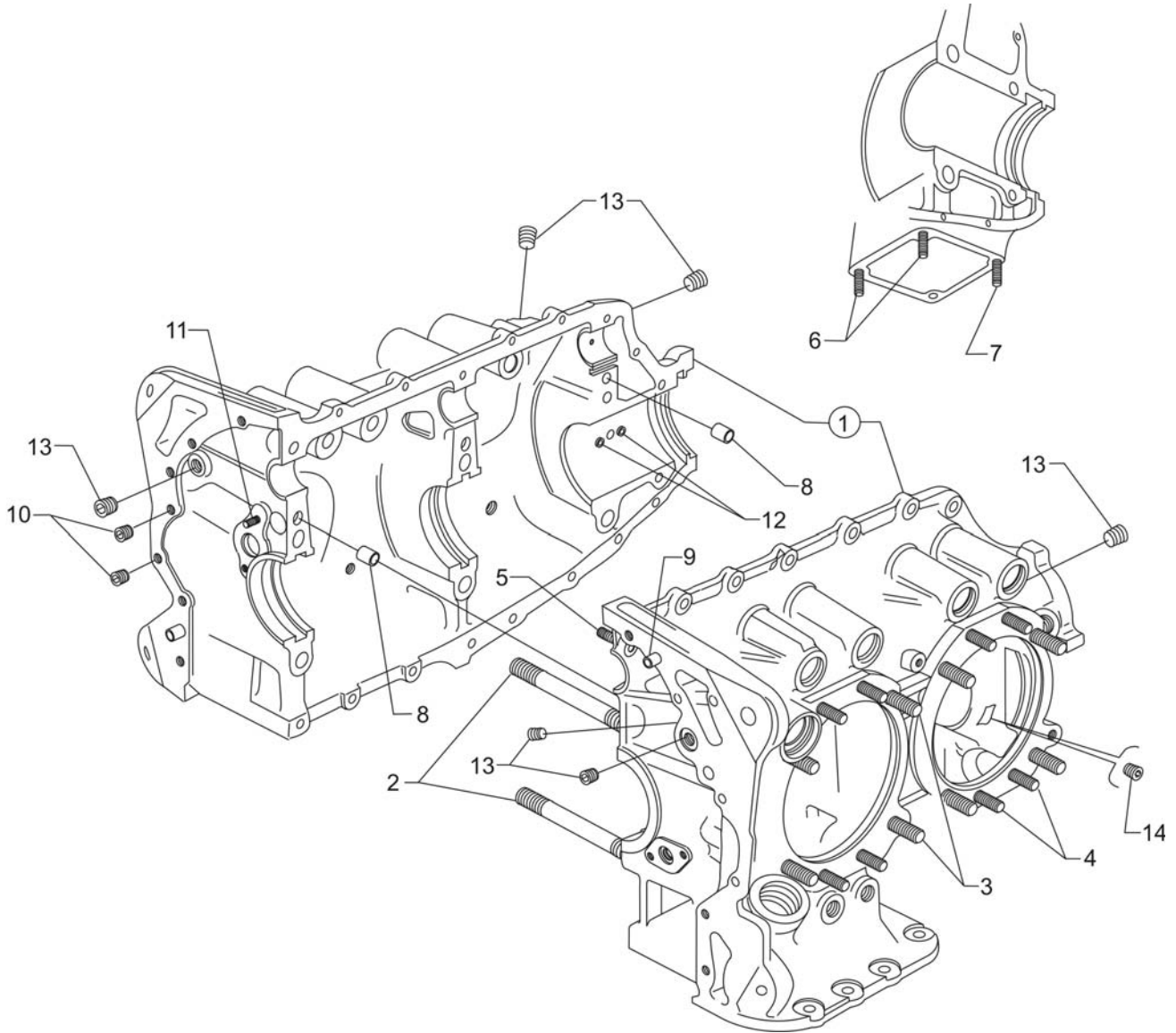
When ordering oversize and undersize parts, be sure to specify the required oversize and undersize dimension along with the proper part number. For example, to order bearing P/N 18D26098 bearing in .003 in. undersize, order P/N 18D26098-M03. Undersize code letter is "M" while oversize code letter is "P". These letters are then followed by the number designating the size in thousandths of an inch.



**Alternator Mounting and Attaching Parts  
Figure 1**

**ELECTRICAL POWER****FIGURE 1 – ALTERNATOR MOUNTING AND ATTACHING PARTS**

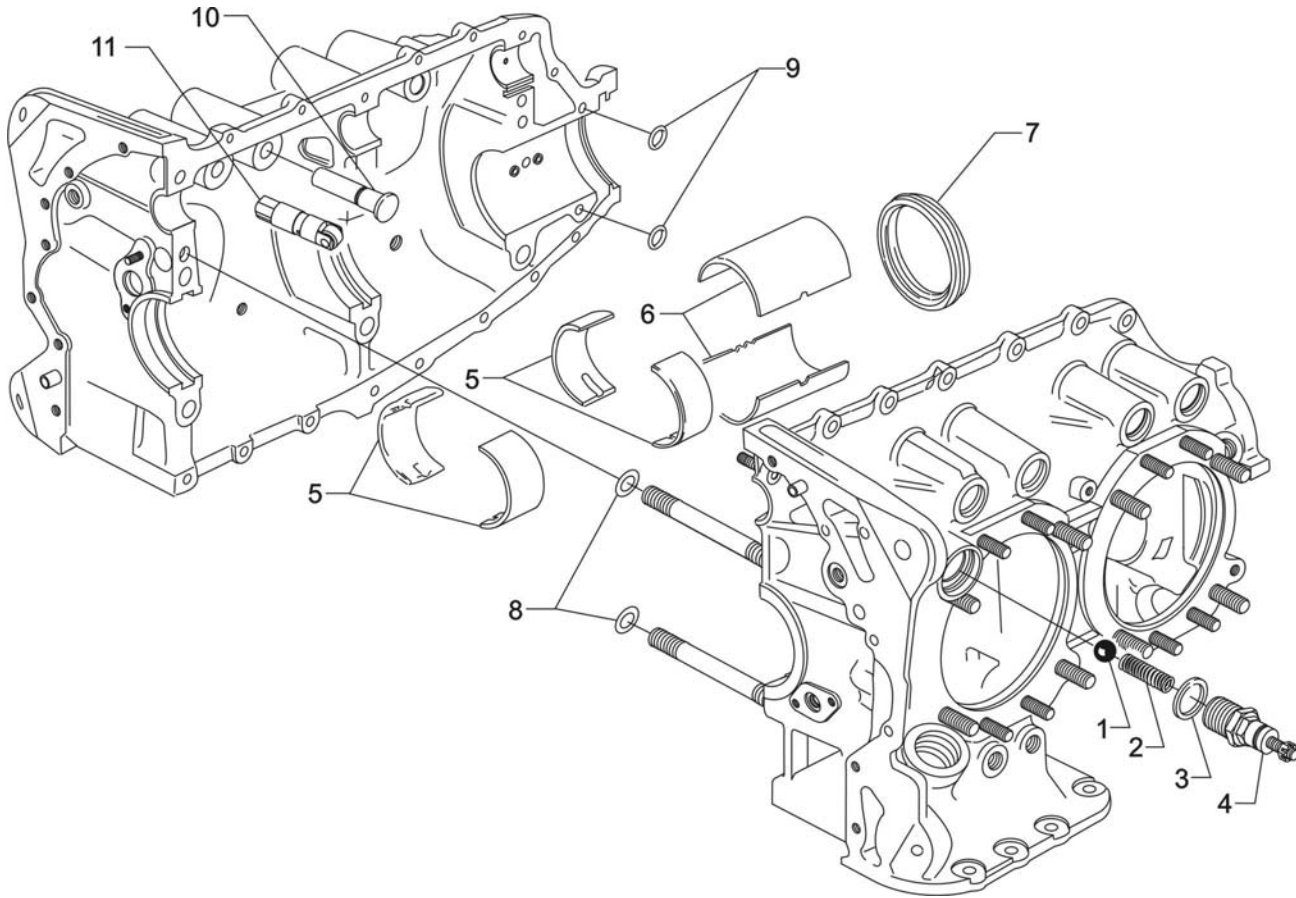
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		07A19474	BRACKET, Alternator	1
2		73383	LOCKPLATE, 5/16 bolt x 1.00 spacing	1
3		LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. head	2
4		75380	LINK, Alternator adjusting	1
5		STD-35	WASHER, 5/16 plain	1
6		LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. head, drilled	1
7		STD-1727	WASHER, Plain, 3/4 O.D. x 11/32 I.D. x 1/8 thick	1
8		LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. head, drilled	1
9	*	STD-2197	WASHER, 21/64 I.D. x 13/16 O.D. x 1/16 thick	2
10	*	LW-14649	SHIM, 13/16 O.D. x 11/32 I.D. x .010 thick	2
11		LW-31H0.88	BOLT, 5/16-18 x 7/8 long, hex. head	1
12		07F23268	STRUT, Alternator support	1
13		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	1
14		AN6-17	BOLT, 3/8-24 x 1-61/64 long, hex. head, drilled end	1
15		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	3
16		STD-872	NUT, 3/8-24 slotted	1
17		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	1
18		AN6-16	BOLT, 3/8-24 x 1-53/64 long, hex. head, drilled end	1
19		76534	SHIM, 1-1/8 O.D. x 13/32 I.D. x .005 thick	5
20		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	3
21		STD-872	NUT, 3/8-24 slotted	1
22		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	1
* Between P/N 07F23268 strut and starter.				



**Crankcase Assembly  
Figure 2**

**POWER SECTION****FIGURE 2 – CRANKCASE ASSEMBLY**

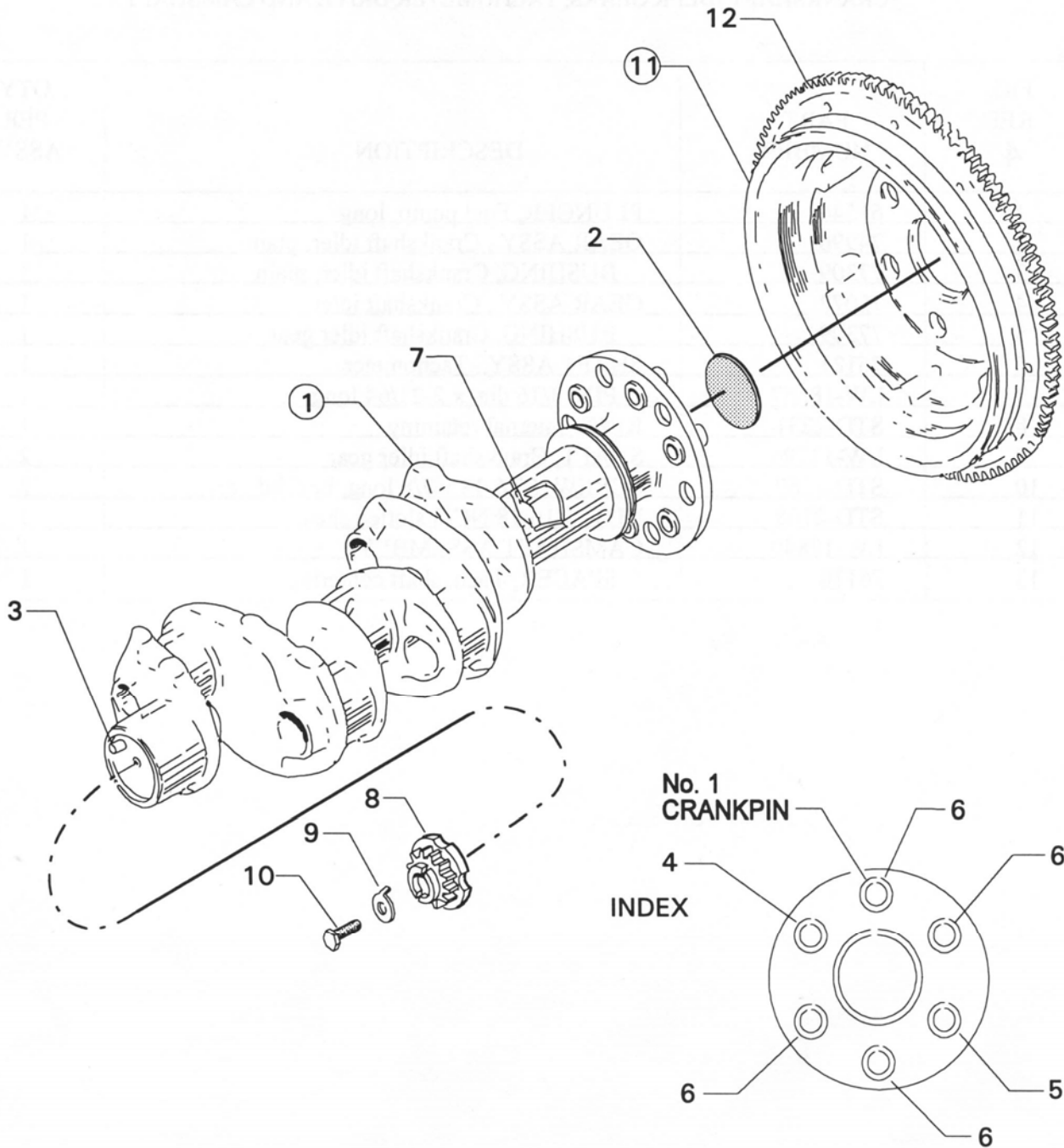
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1	*	11B20061-1SL-S	CRANKCASE ASSEMBLY KIT	1
	<b>P</b>	11B20061-1SL	CRANKCASE ASSEMBLY	1
	*	11B20161-1SL-S	CRANKCASE ASSEMBLY KIT <b>(Roller tappet engines)</b>	1
	<b>P</b>	11B20161-1SL	CRANKCASE ASSEMBLY <b>(Roller tappet engines)</b>	1
2		75154	STUD, 1/2-13 x 10-1/32 long	2
3		50-15	STUD, 1/2-13 x 1-7/8 long	8
4		38-13	STUD, 3/8-16 x 1-5/8 long	16
5		38D-17	STUD, 3/8-16 x 2-1/8 long, drilled	1
6		31C-12	STUD, 5/16-18 x 1-1/2 long	2
7		31C-13	STUD, 5/16-18 x 1-5/8 long	1
8		STD-557	DOWEL, 1/2 diameter x 11/16 long, hollow	2
9		STD-514	DOWEL, 5/16 diameter x 1/2 long	2
10		STD-1623	INSERT, 1/4-20 Heli-coil x 3/8 long	2
11		LW-13793	STUD, 5/16-18 x 15/16 long, drilled	1
12		69796	DOWEL, Crankshaft bearing	2
13		1102	PLUG, 1/8-27 NPT, allen head	6
14		STD-1339	PLUG, 1/16-27 NPT, allen head	4
<p><b>P</b> Lycoming proprietary part. Listed for reference purposes only, cannot be purchased.  <b>*</b> Refer to Service Kits Section for applicable Crankcase Assembly and Governor Thru-Stud Kit Part Numbers.</p>				



**Crankcase Related Parts  
Figure 3**

**POWER SECTION****FIGURE 3 – CRANKCASE RELATED PARTS**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		1028-B	BALL, 11/16 diameter	1
2	*	61084	SPRING, Oil pressure relief valve	1
	*	68668	SPRING, Oil pressure relief valve	1
	*	77467	SPRING, Oil pressure relief valve	1
	*	LW-11713	SPRING, Oil pressure relief valve	1
	*	LW-18085	SPRING, Oil pressure relief valve	1
3		06E19769-1.25	GASKET, 1-1/4 I.D. x 1-1/2 O.D. x 3/32 annular	1
4		77808	VALVE ASSEMBLY, Oil pressure relief valve, adj.	1
5		18D26098	BEARING, Crankshaft	4
6		18A26093	BEARING, Crankshaft	2
7	**	LW-13792	SEAL, Crankshaft oil	1
8		72075	SEAL, Oil, 3/32 section x 7/16 I.D.	2
9		72091	RING, Oil seal, 23/64 I.D. x 7/64 diameter	2
10		15B26064	BODY, Hydraulic tappet	8
11	◆	LRT23381	BODY ASSEMBLY, Hydraulic tappet ( <b>Roller tappet engines</b> )	8
<p>* Select spring to give a minimum of three threads exposed on adjusting screw to allow field adjustment. Reference latest revision of SSP-1776, Part I for spring identification.</p> <p>** See latest revision of Lycoming Service Instruction No. 1324 for installation.</p> <p>◆ Only sold as an exchange part.</p>				

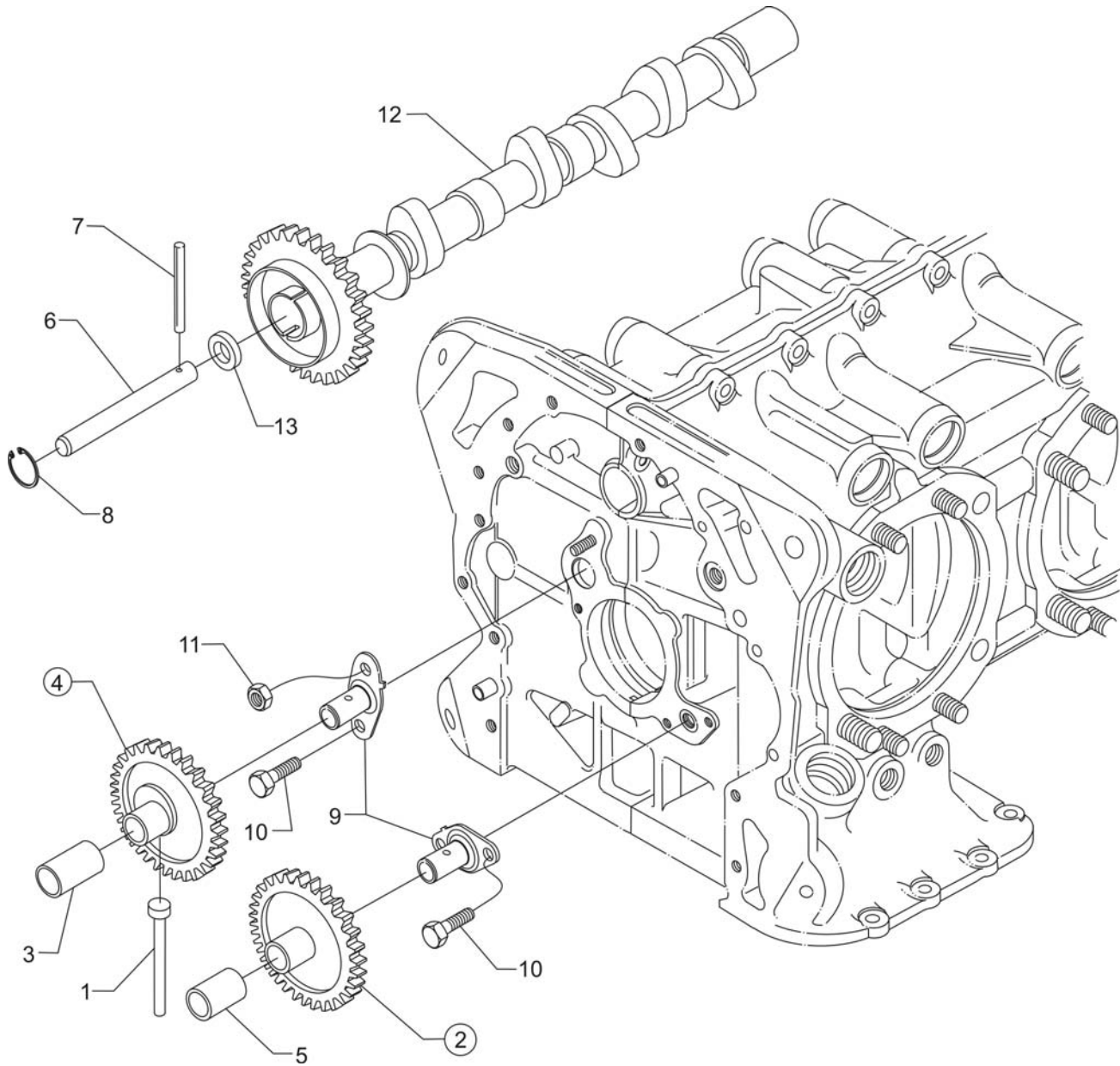


**Crankshaft Assembly and Related Parts  
Figure 4**



**POWER SECTION****FIGURE 4 - CRANKSHAFT ASSEMBLY AND RELATED PARTS**

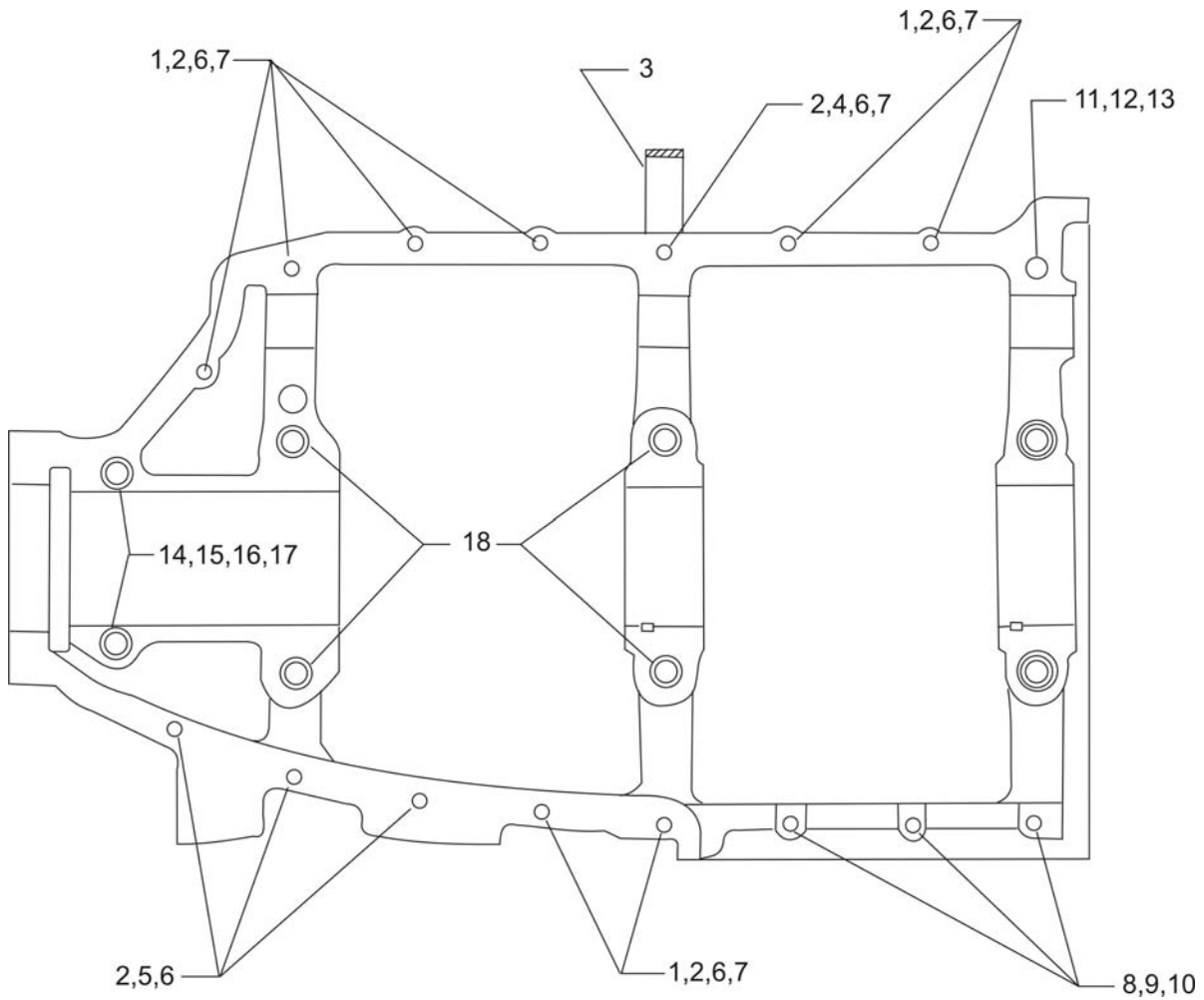
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		13B47129	CRANKSHAFT ASSEMBLY	1
2		STD-1211	PLUG, 2.00 diameter expansion	1
3		STD-1065	DOWEL, Stepped, 5/16 and 1/4 dia. x 35/64 long	1
4		75657-S	BUSHING, Propeller flange, indexing	1
5		72155-S	BUSHING, Propeller flange, short	1
6		75656-S	BUSHING, Propeller flange, long	4
7		74711	PLUG, 1-1/4 O.D.	1
8	<b>SB*</b>	13S19646	GEAR, Crankshaft	1
9		LW-18639	LOCKPLATE, Crankshaft gear	1
10		STD-2246	BOLT, 5/16-24 x 1.00 long	1
11		LW-16471	SUPPORT ASSEMBLY, Starter ring gear, 12/14 pitch	1
12		72566	GEAR, Starter ring	1
<p><b>SB</b> Referencing Service Bulletin</p> <p>* Refer to latest revision of Service Bulletin No. 475 for proper installation.</p>				



**Crankshaft Idler Gears, Tachometer Drive and Camshaft  
Figure 5**

**POWER SECTION****FIGURE 5 - CRANKSHAFT IDLER GEARS, TACHOMETER DRIVE AND CAMSHAFT**

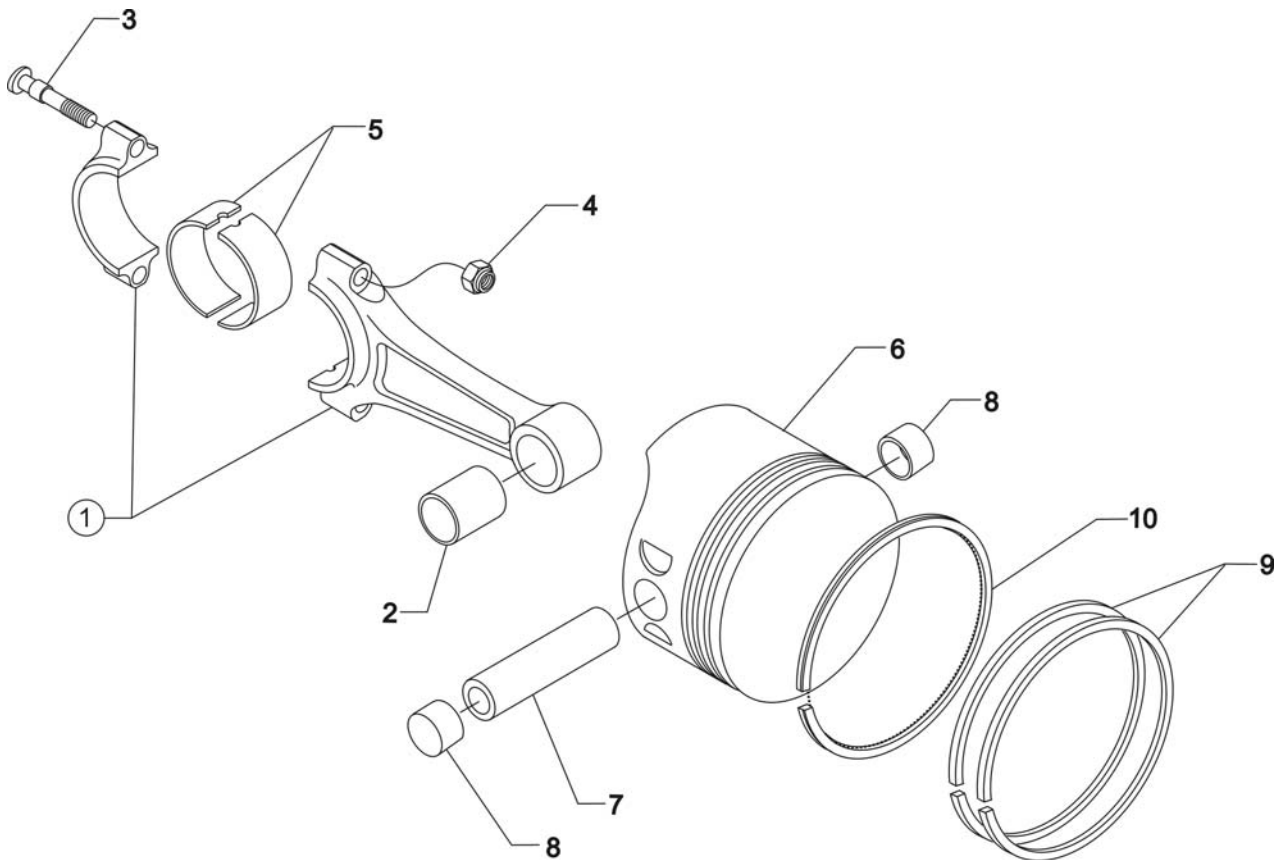
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		61544	PLUNGER, Fuel pump, long	1
2		74996	GEAR ASSEMBLY, Crankshaft idler, plain	1
3		77309	BUSHING, Crankshaft idler, plain	1
4		75072	GEAR ASSEMBLY, Crankshaft idler	1
5		77309	BUSHING, Crankshaft idler gear	1
6		76121	SHAFT ASSEMBLY, Tachometer	1
7		LW-18667	PIN, 3/16 diameter x 2-21/64 long	1
8		STD-2231	RING, Internal retaining	1
9		LW-13796	SHAFT, Crankshaft idler gear	2
10		LW-31H0.88	BOLT, 5/16-18 x 13/16 long, hex. head, drilled	3
11		STD-2168	NUT, 5/16-18 NC-3 slotted shear	1
12		LW-18840	CAMSHAFT ASSEMBLY	1
	*	15M23454	CAMSHAFT ASSEMBLY ( <b>Roller tappet engines</b> )	1
13		76118	SPACER, Tachometer shaft centering	1
* Only sold as an exchange part.				



**Crankcase Attaching Parts  
Figure 6**

**POWER SECTION****FIGURE 6 - CRANKCASE ATTACHING PARTS**

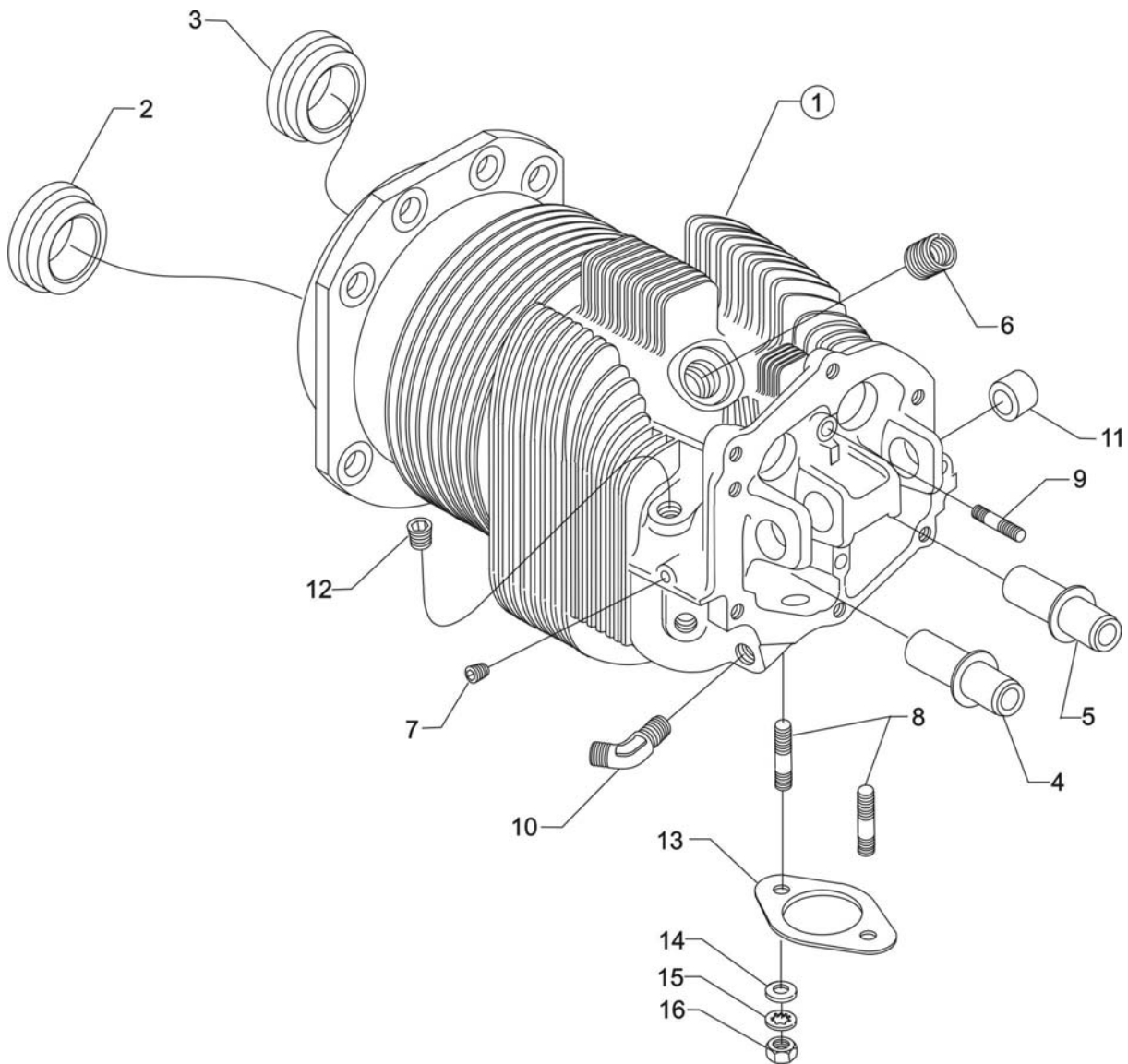
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		LW-25-1.50	BOLT, 1/4-20 x 1-1/2 long, hex. head	8
2		STD-8	WASHER, 1/4 plain	19
3		60803	STRAP, Lifting	1
4		LW-25-1.75	BOLT, 1/4-20 x 1-3/4 long, hex. head	1
5		LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. head	3
6		STD-160	WASHER, 1/4 lock, internal teeth	12
7		STD-1411	NUT, 1/4-20 plain	9
8		LW-25S1.50	BOLT, 1/4-20 x 1-1/2 long, hex. head, drilled	3
9		STD-8	WASHER, 1/4 plain	9
10		STD-2249	NUT, 1/4-20 slotted shear	3
11		STD-33	WASHER, 3/8 plain, 1/16 thick	3
12		AN960-616L	WASHER, 3/8 plain, 1/32 thick	1
13		STD-872	NUT, 3/8-24 slotted	1
14		AN6-34A	BOLT, 3/8-24 x 3-37/64 long, hex. head	2
15		STD-33	WASHER, 3/8 plain	2
16		STD-678	WASHER, 3/8 lock, internal teeth	2
17		STD-596	NUT, 3/8-24 plain	2
18		76220	STUD, 1/2-20 x 10-11/16 long	4



**Connecting Rods, Pistons and Ring Assemblies  
Figure 7**

**CYLINDER SECTION****FIGURE 7 - CONNECTING RODS, PISTONS AND RING ASSEMBLIES**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		LW-19332-S	CONNECTING ROD ASSEMBLY	4
2		LW-13923	BUSHING, Connecting rod, upper	4
3	<b>*</b> <b>P</b>	LW-12595 14S23889	BOLT, Connecting rod	8
4		LW-12186	NUT, Connecting rod bolt	8
5		18N26106	BEARING, Connecting rod	8
6		75413	PISTON, 7.20:1 compression ratio	4
7	<b>**</b>	LW-14078	PIN, Piston	4
8	<b>**</b>	72198	PLUG, Piston pin	8
9		74241	RING, Piston, compression	8
10		14H21950	RING, Piston, oil regulating, expander type	4
<p><b>P</b> Lycoming proprietary part. Listed for reference purpose only, cannot be purchased.  <b>*</b> Service use only.  <b>**</b> See latest revision of Lycoming Service Instruction No. 1267.</p>				

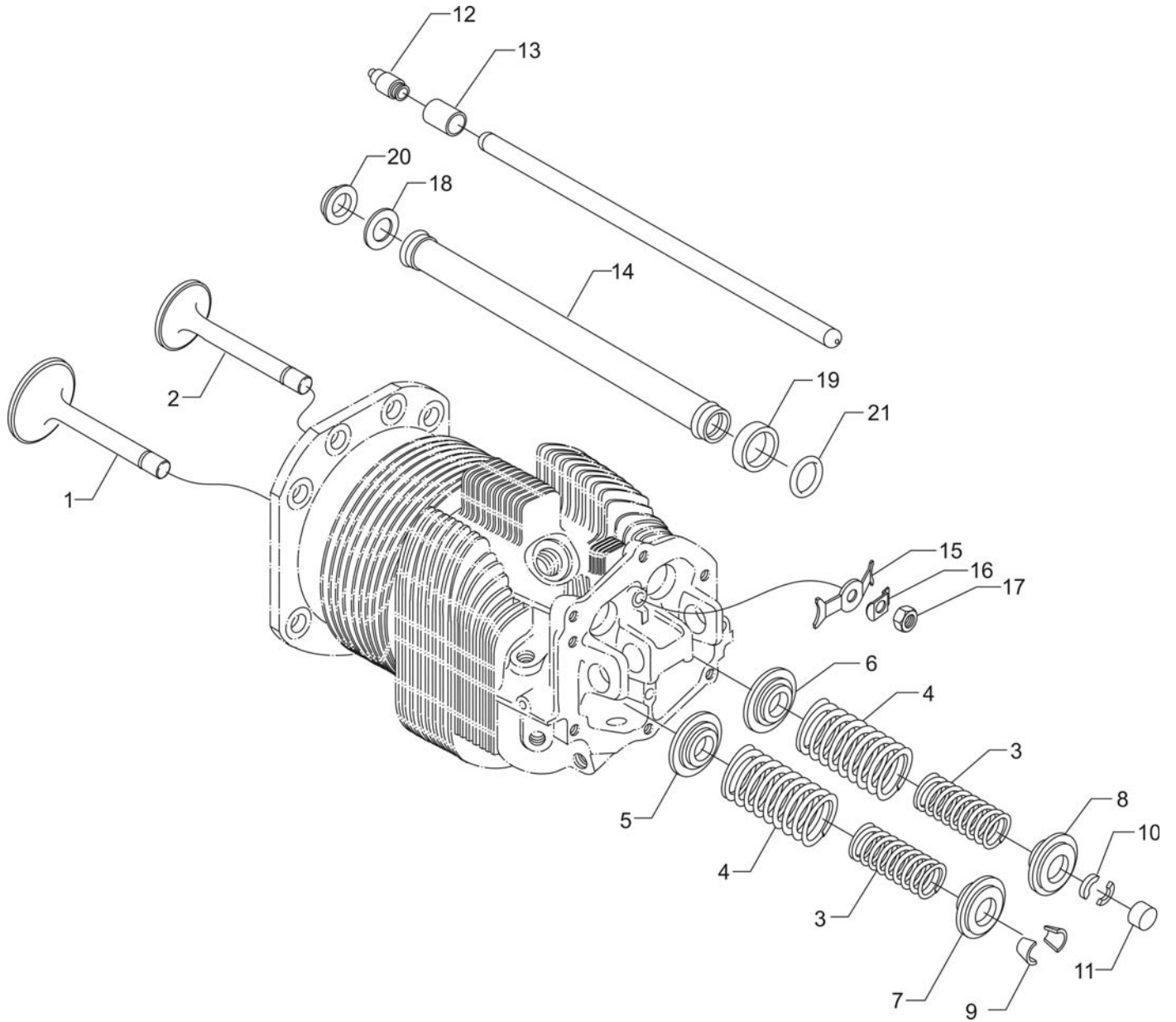


**Cylinder Assembly  
Figure 8**



**CYLINDER SECTION**  
**FIGURE 8 - CYLINDER ASSEMBLY**

Figure Item	Code	Part Number	Description	Units per Assembly
1		LW-12427	CYLINDER ASSEMBLY, Nitrided	4
2		72057	SEAT, Valve, intake	4
3		72058	SEAT, Valve, exhaust	4
4	<b>P*</b>	76943	GUIDE, Valve, intake	4
5	<b>P*</b>	16R22126	GUIDE, Valve, exhaust	4
6	<b>P</b>	66796	INSERT, Spark plug, 18-1.5MM	8
7		STD-1353	INSERT, No. 10-24 UNC x 3/8 long	4
8		31C-12	STUD, 5/16-18 x 1-1/2 long	8
9		25C-8	STUD, 1/4-20 x 1.00 long	4
10		MS20823-6D	ELBOW, 45°, 3/8 flared tube	4
11		66610	BUSHING, Rocker shaft	16
12		1102	PLUG, 1/8-27 NPT, allen head	4
13		77611	GASKET, Exhaust flange	4
14		STD-35	WASHER, 5/16 plain	8
15		STD-475	WASHER, 5/16 lock, internal teeth	8
16		STD-1410	NUT, 5/16-18 plain	8
<p><b>P</b> Lycoming proprietary part. Listed for reference purposes only, cannot be purchased.  <b>*</b> See latest revision of Service Instruction No. 1256 for service valve guides.</p>				

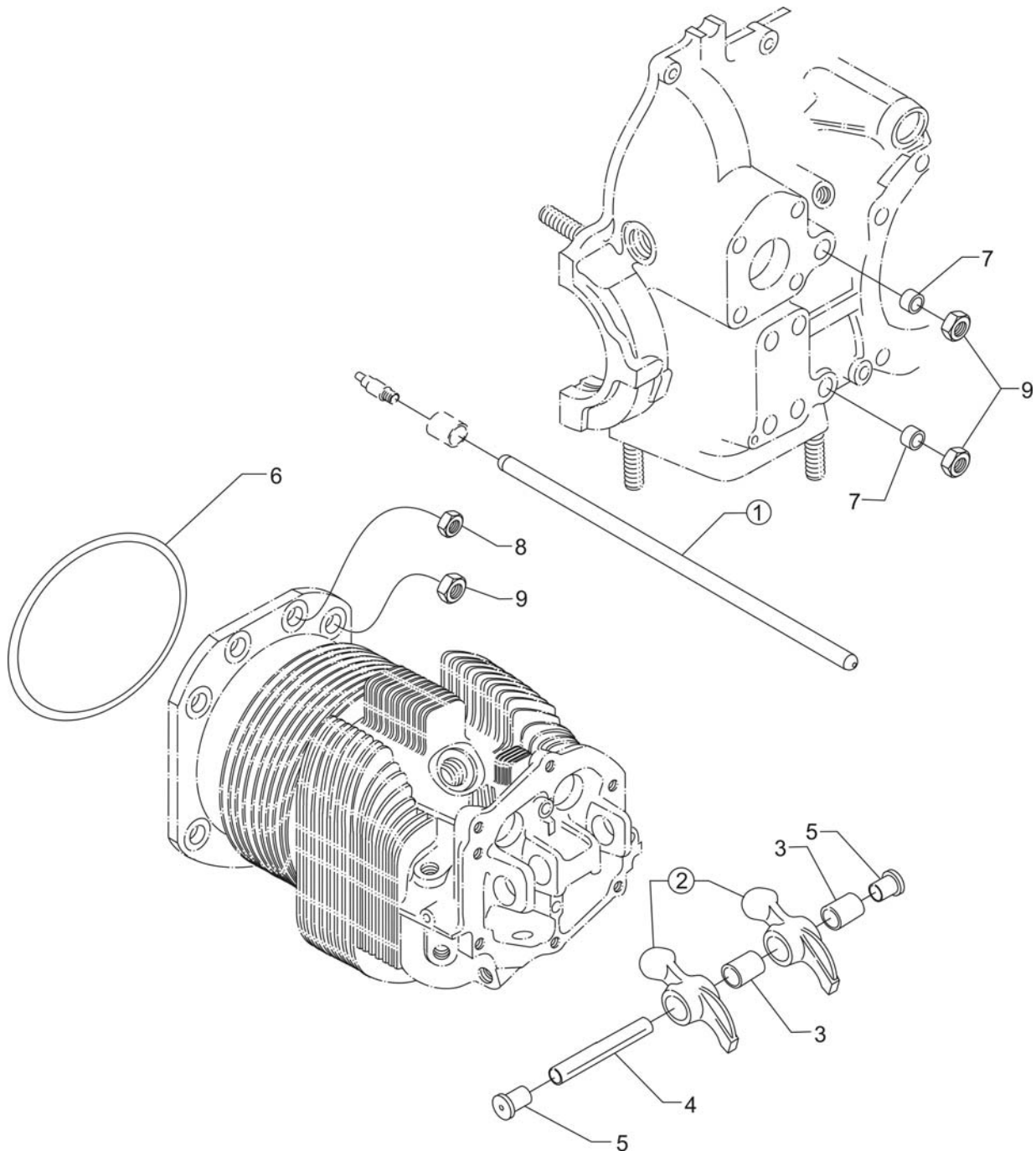


**Valve Assembly and Related Parts  
Figure 9**

**CYLINDER SECTION****FIGURE 9 – VALVE ASSEMBLY AND RELATED PARTS**

Figure Item	Code	Part Number	Description	Units per Assembly
1		17A23938	VALVE, Intake	4
2		17B23936	VALVE, Exhaust (rotator type)	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-16475	SEAT, Valve spring, upper exhaust (rotator type)	4
9		60009	KEY, Valve, intake	8
10		17C21191	KEY, Valve, exhaust (rotator type)	8
11		17C19386	CAP, Valve stem, exhaust (rotator type)	4
12		15B26066	PLUNGER ASSEMBLY, Hydraulic lifter	8
13		15B21319	SOCKET, Hydraulic tappet	8
14		LW-11485	SHROUD TUBE ASSEMBLY, Push rod	8
		15G23461	SHROUD TUBE ASSEMBLY, Push rod <b>(Roller tappet engines)</b>	8
15		LW-14995	SPRING, Shroud tube	4
16		LW-12272	LOCKPLATE, Shroud tube	4
17		STD-1411	NUT, 1/4-20 plain	4
18		01L23459	WASHER, 25/32 I.D. x 3/8 O.D. x 1/32 thick <b>(Roller tappet engines)</b>	8
19		LW-18661	SEAL, Shroud tube	8
20		06A23493	SEAL, Shroud tube <b>(Roller tappet engines)</b>	8
21	*	70310	SEAL, Shroud tube	8

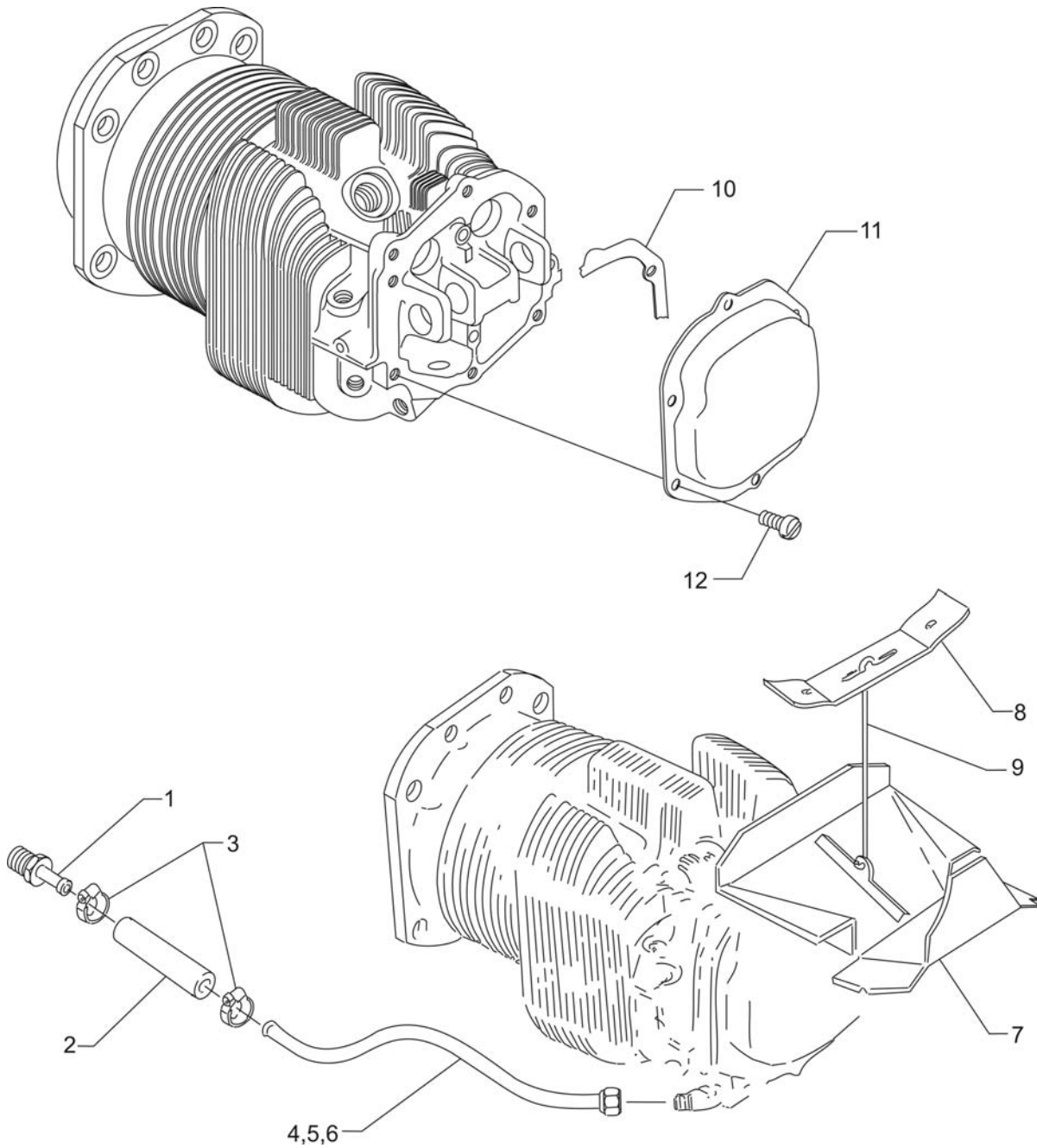
\* This seal needs to be installed on both roller tappet engines and flat tappet engines



**Cylinder Related Parts  
Figure 10**

**CYLINDER SECTION****FIGURE 10 – CYLINDER RELATED PARTS**

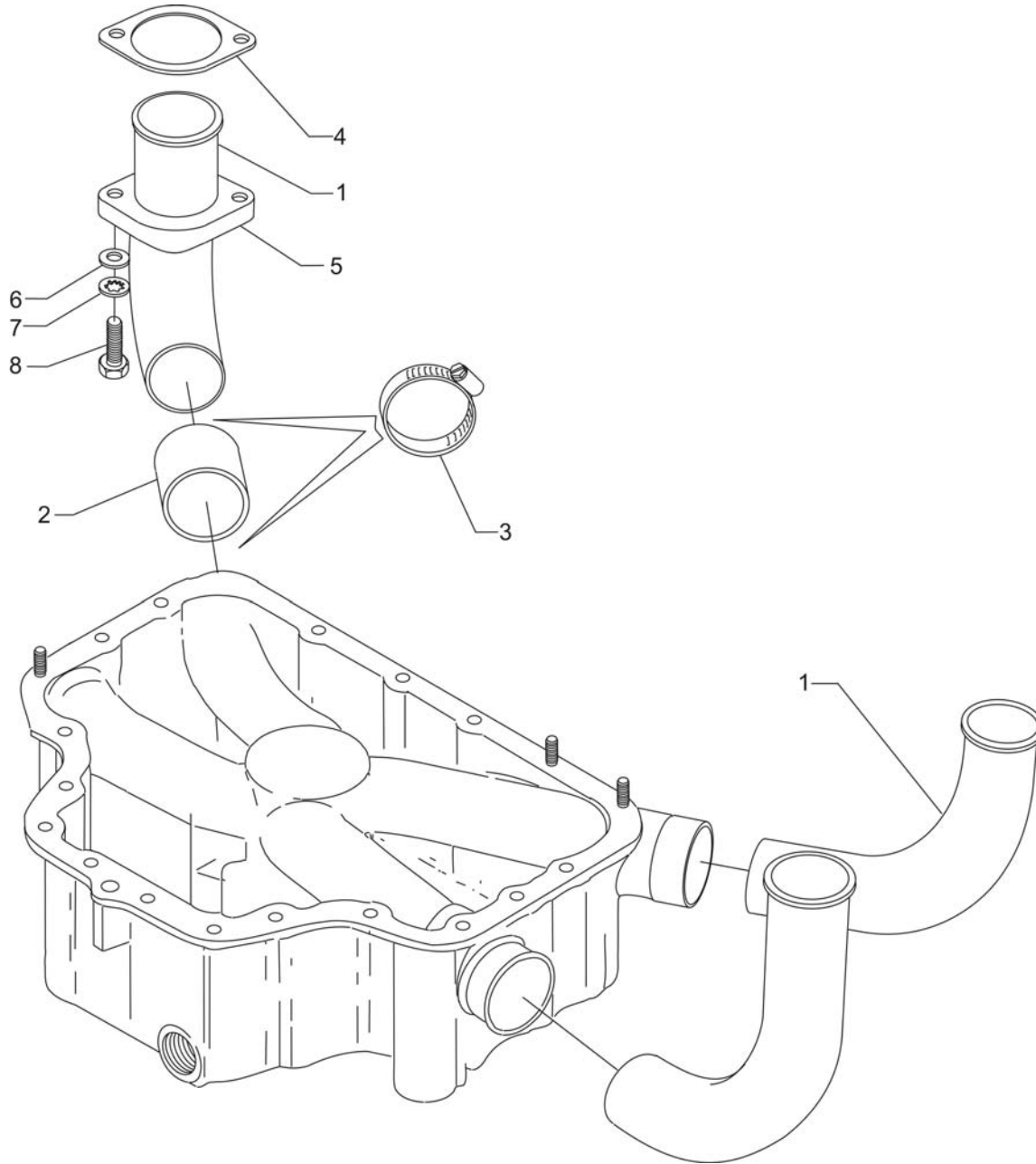
Figure Item	Code	Part Number	Description	Units per Assembly
1	*♦AR	15F19957-28	ROD ASSEMBLY, Push (A total of 8 required)	AR
	*♦AR	15F19957-29	ROD ASSEMBLY, Push (A total of 8 required)	AR
	*♦AR	15F19957-30	ROD ASSEMBLY, Push (A total of 8 required)	AR
	*♦AR	15F19957-31	ROD ASSEMBLY, Push (A total of 8 required)	AR
	*♦AR	15F19957-32	ROD ASSEMBLY, Push (A total of 8 required)	AR
	*♦AR	15F19957-33	ROD ASSEMBLY, Push (A total of 8 required)	AR
	†♦AR	15F19957-34	ROD ASSEMBLY, Push (A total of 8 required)	AR
	♦AR	15F19957-35	ROD ASSEMBLY, Push (A total of 8 required)	AR
	♦AR	15F19957-36	ROD ASSEMBLY, Push (A total of 8 required)	AR
	♦AR	15F19937-37	ROD ASSEMBLY, Push (A total of 8 required)	AR
2	**	17F19357	ROCKER ASSEMBLY, Valve	8
3		74637	BUSHING, Valve rocker	8
4		LW-13790	SHAFT, Valve rocker	4
5		LW-12892	THRUST BUTTON, Rocker shaft	8
6		71481	RING, Oil seal, 3/32 diameter x 4-27/32 long	4
7		74887	SPACER, 33/64 I.D. x 7/8 O.D. x 3/8 thick	2
8		383-B	NUT, 3/8-24 plain	16
9		STD-2090	NUT, 1/2-20 plain	18
<p><b>AR</b> as required</p> <p>* These push rods are not to be used on flat tappet engines.</p> <p>† This push rod can be used on both flat tappet and roller tappet engines.</p> <p>♦ See latest revision of Service Instruction No. 1060 for complete push rod application.</p> <p>** Due to the size of the area where the part number is stamped, the last five digits may be all that is shown (19357).</p> <p><b>NOTE:</b> Various push rod lengths are used to set valve clearances.</p>				



**Rocker Box Cover, Cylinder Head Drain Tubes,  
and Intercylinder Cooling Baffles  
Figure 11**

**CYLINDER SECTION****FIGURE 11– ROCKER BOX COVER, CYLINDER HEAD DRAIN TUBES,  
AND INTERCYLINDER COOLING BAFFLES**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		STD-684	NIPPLE, Straight, 3/8 I.D. hose	4
2		STD-1821	HOSE, 3/8 I.D. x 2-1/2 long	4
3		LW-15592-5-05	CLAMP, Hose	8
4		68759	TUBE ASSY., Cylinder head oil drain, cyl. no. 1	1
5		68760	TUBE ASSY., Cylinder head oil drain, cyl. no. 2	1
6		68761	TUBE ASSY., Cylinder head oil drain, cyls. no. 3, 4	2
7		75339	BAFFLE ASSEMBLY, Intercylinder	2
8		71611	RETAINER, Intercylinder baffle	2
9		71610	HOOK, Intercylinder baffle retainer	2
10		75906	GASKET, Rocker box cover	4
11		61247	COVER, Rocker box	4
12		STD-1925	SCREW, 1/4-20 x 5/8 long, pan. head, self-locking	24

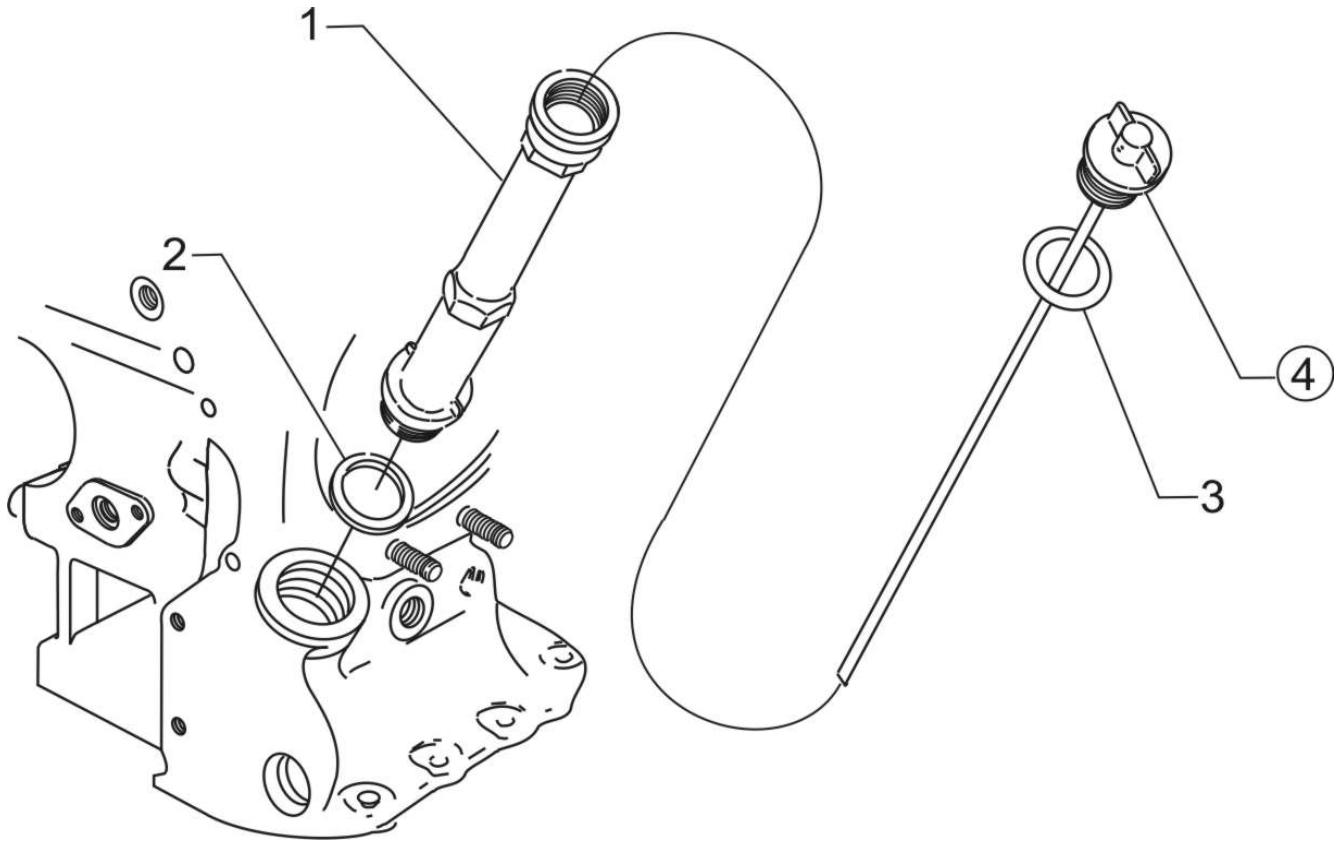


**Intake Pipes and Attaching Parts  
Figure 12**



**CYLINDER SECTION****FIGURE 12 – INTAKE PIPES AND ATTACHING PARTS**

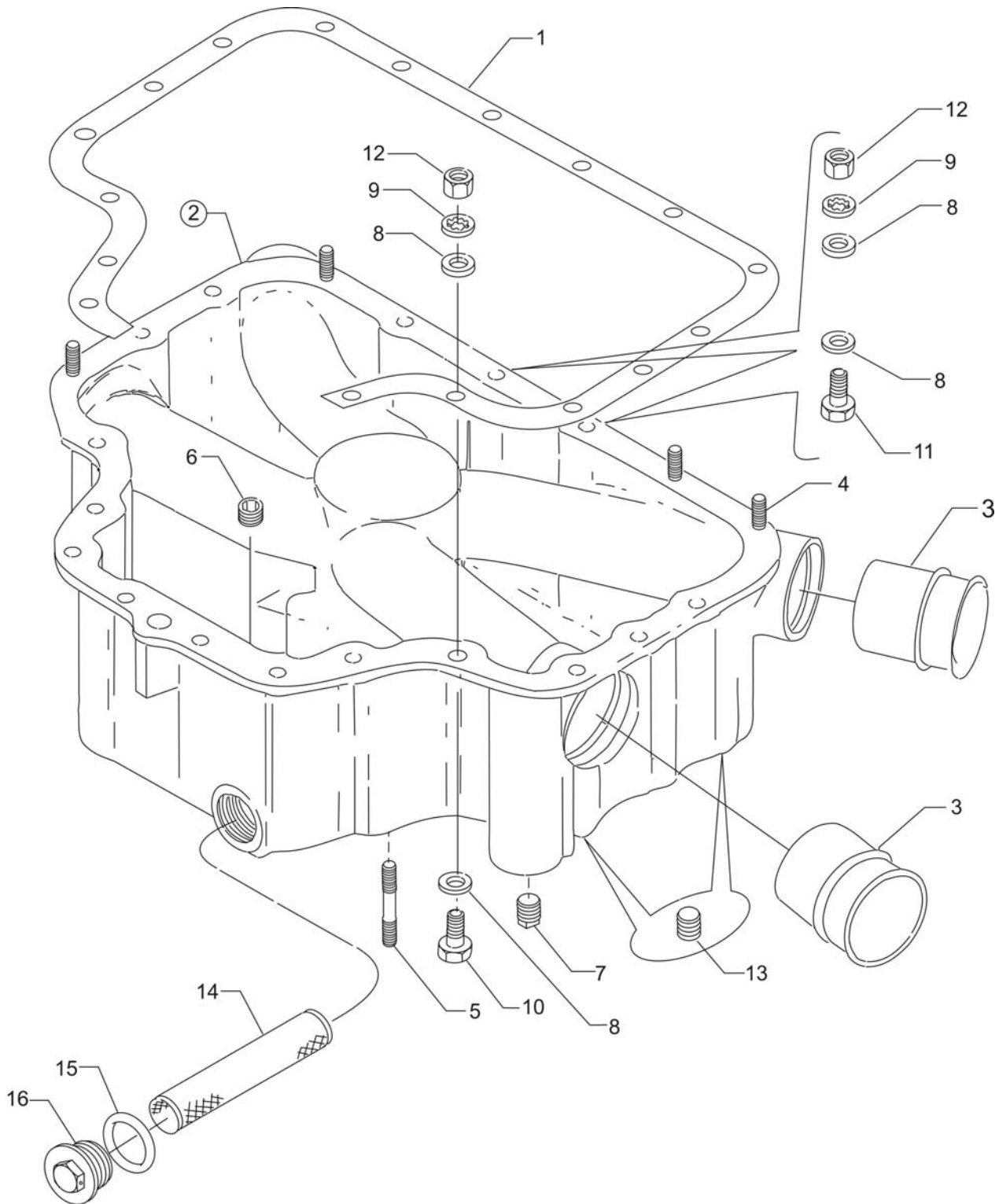
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		70485	PIPE, Intake	4
2		69603	HOSE, 1-3/4 I.D. x 2-3/16 O.D. x 1-3/4 long	4
3		LW-15592-8-28	CLAMP, Hose	8
4		71973	GASKET, 2 bolt flange, 1-13/16 I.D.	4
5		73346	FLANGE, Intake pipe, upper	4
6		STD-8	WASHER, 1/4 plain	8
7		STD-160	WASHER, 1/4 lock, internal teeth	8
8		LW-25-1.25	BOLT, 1/4-20 x 1-1/4 long, hex. head	8



**Oil Level Gage Assembly  
Figure 13**

**LUBRICATION SYSTEM****FIGURE 13 – OIL LEVEL GAGE ASSEMBLY**

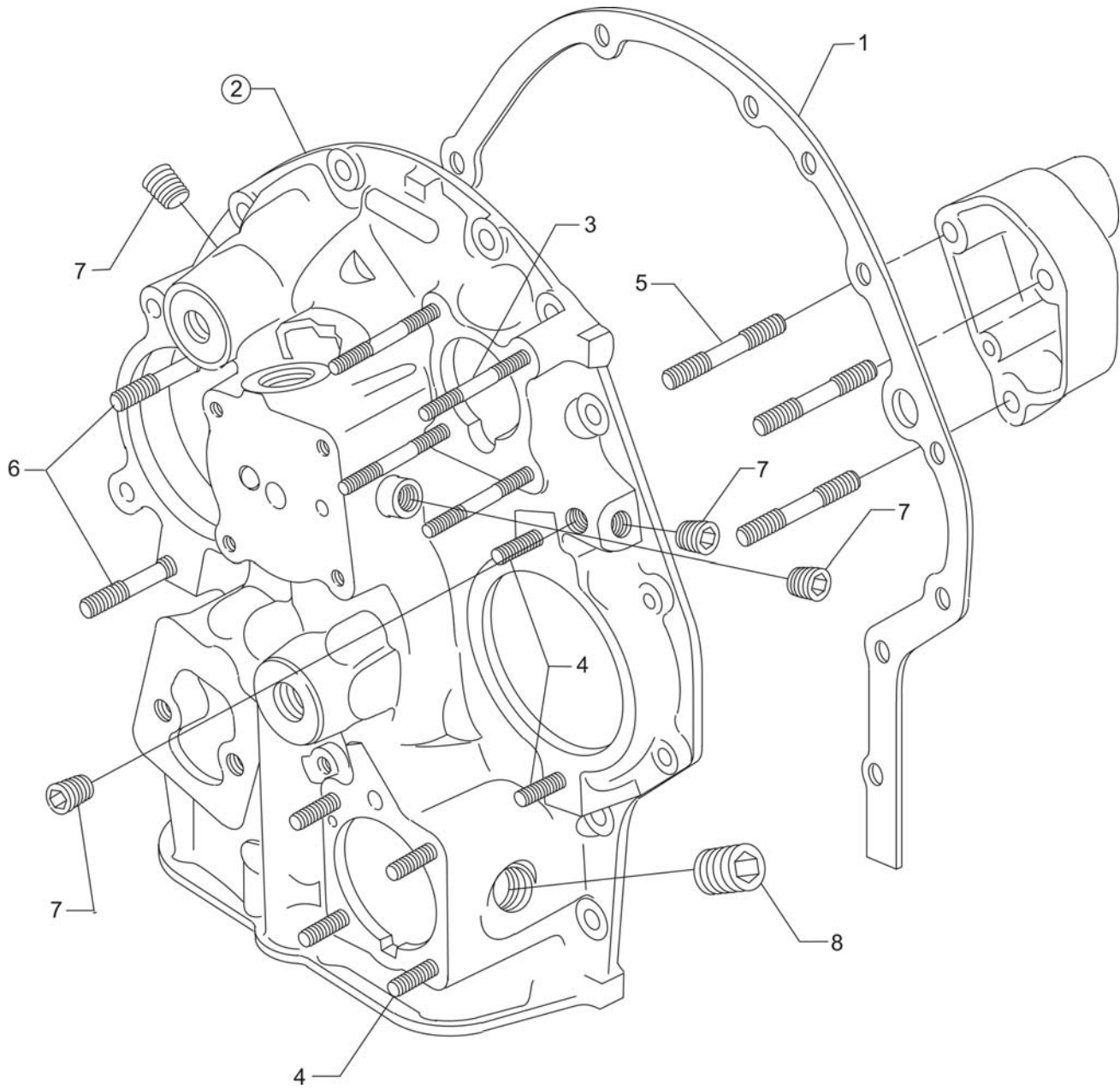
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		75736	TUBE, Oil level gage, long	1
2		72059	GASKET, Oil level gage	1
3		74068	RING, Oil level gage seal	1
4		LW-16783-18	GAGE ASSEMBLY, Oil level	1



**Oil Sump Assembly and Oil Suction Screen  
Figure 14**

**LUBRICATION SYSTEM****FIGURE 14 – OIL SUMP ASSEMBLY AND OIL SUCTION SCREEN**

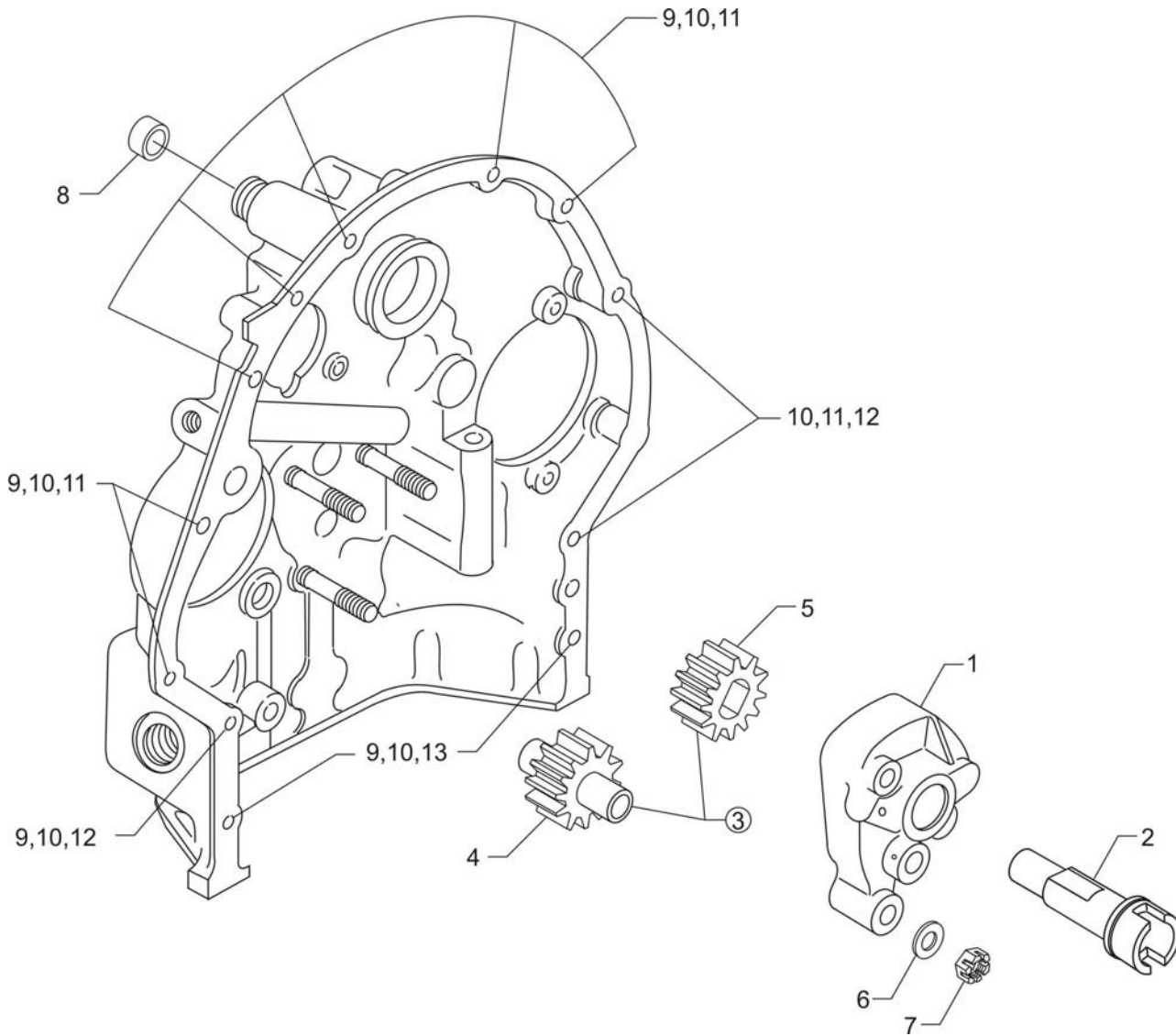
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		LW-13353	GASKET, Oil sump	1
2		78915	SUMP ASSEMBLY, Oil	1
3		78914	CONNECTION, Intake pipe	4
4		61400	STUD, 1/4-20 x 1-3/16 long	4
5		31C-15	STUD, 5/16-18 x 1-7/8 long	4
6		STD-91	PLUG, 1/2-14 NPT, allen head	1
7		STD-551	PLUG, 1/2-14 NPT, square head, drilled	2
8		STD-8	WASHER, 1/4 plain	28
9		STD-160	WASHER, 1/4 lock, internal teeth	20
10		LW-25-0.94	BOLT, 1/4-20 x 15/16 long, hex. head	14
11		LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. head	2
12		STD-1411	NUT, 1/4-20 plain	12
13		STD-2229	PLUG, 1/2-14 NPT, allen head	2
14		70484	SCREEN, Oil suction	1
15		06E19769-1.00	GASKET, Annular, 1.00 I.D.	1
16		LW-12545	PLUG, 5/8 hex. head x 1.00-20 thread	1



**Accessory Housing Assembly  
Figure 15**

**ACCESSORY DRIVES****FIGURE 15 – ACCESSORY HOUSING ASSEMBLY**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		73818	GASKET, Accessory housing	1
2		21A21533-04	HOUSING ASSEMBLY, Accessory	1
3		25C-22	STUD, 1/4-20 x 2-3/4 long	4
4		31C-12	STUD, 5/16-18 x 1-1/2 long	6
5		31C-19	STUD, 5/16-18 x 2-3/8 long	2
6		31CD-17	STUD, 5/16-18 x 2-1/8 long, drilled	3
7		1102	PLUG, 1/8-27 NPT, allen head	4
8		STD-784	PLUG, 3/8-18 NPT, allen head	1

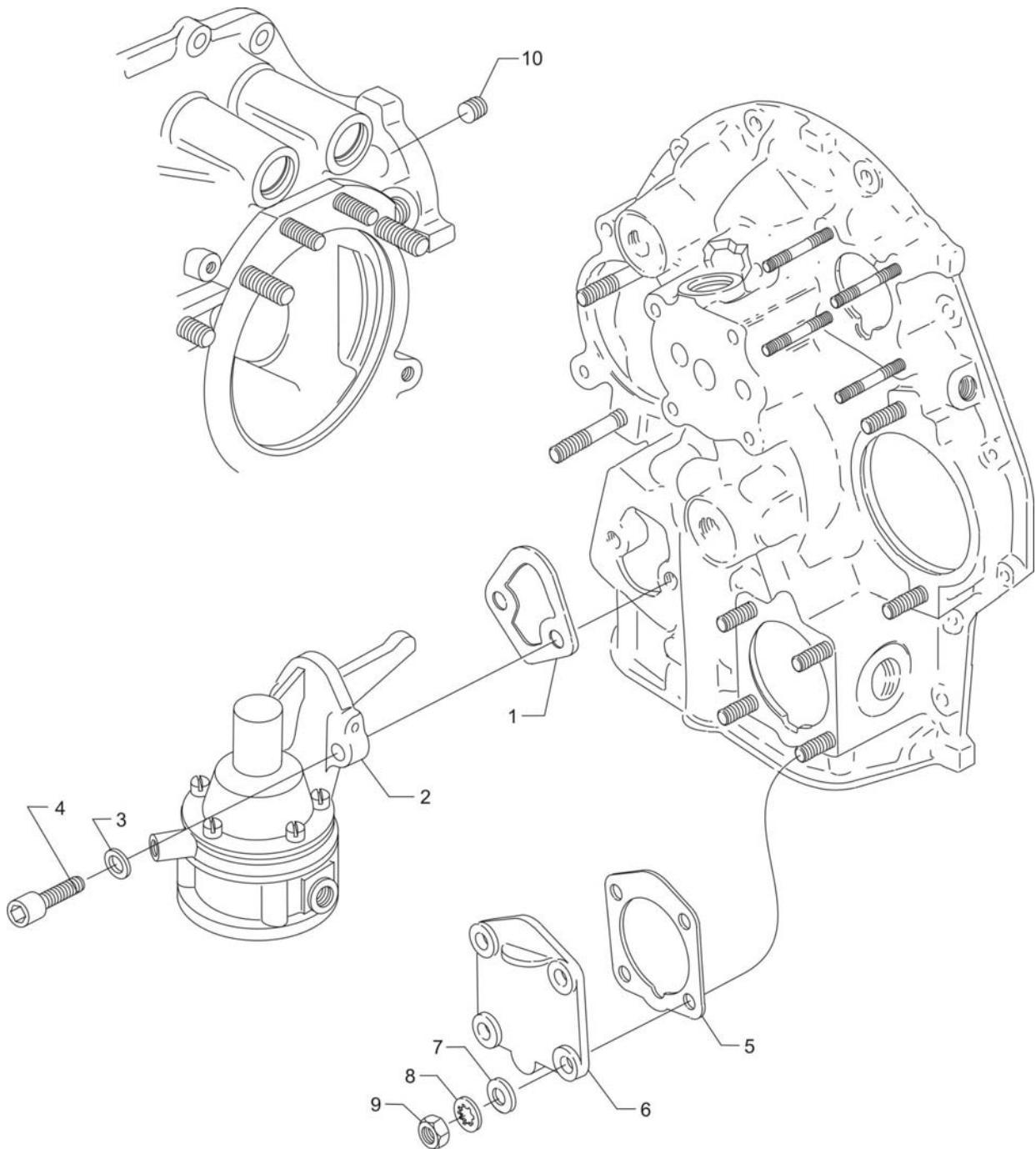


**Oil Pump Assembly and Accessory Housing Attaching Parts  
Figure 16**



**ACCESSORY DRIVES****FIGURE 16 – OIL PUMP ASSEMBLY AND ACCESSORY HOUSING ATTACHING PARTS**

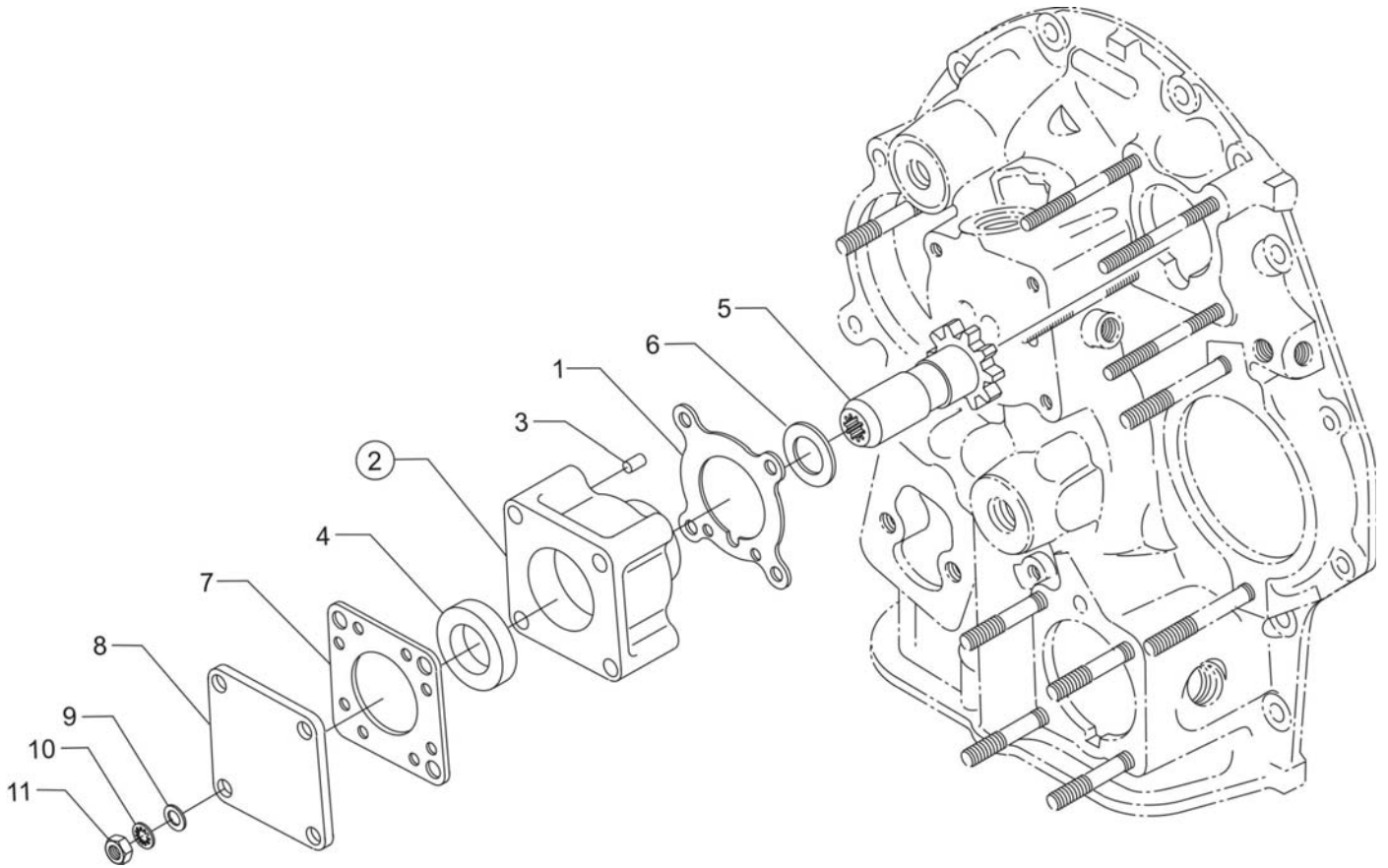
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		78531	BODY ASSEMBLY, Oil pump	1
2		61174	SHAFT, Oil pump drive	1
3		05K19423-S	IMPELLER KIT	1
4	*	LW-18110	IMPELLER ASSEMBLY, Oil pump driven	1
5	*	LW-18109	IMPELLER, Oil pump driven	1
6		STD-35	WASHER, 5/16 plain	3
7		STD-1420	NUT, 5/16-18 slotted	3
8		LW-14260	SEAL, Oil, tachometer drive	1
9		STD-8	WASHER, 1/4 plain	12
10		STD-160	WASHER, 1/4 lock, internal teeth	12
11		LW-25-0.94	BOLT, 1/4-20 x 15/16 long, hex. head	9
12		LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. head	1
13		LW-25-1.44	BOLT, 1/4-20 x 1-7/16 long, hex. head	2
* Sold in complete sets only (Kit P/N 05K19423-S).				



**Fuel Pump and Propeller Governor Drive Cover  
Figure 17**

**ACCESSORY DRIVES****FIGURE 17 – FUEL PUMP AND PROPELLER GOVERNOR DRIVE COVER**

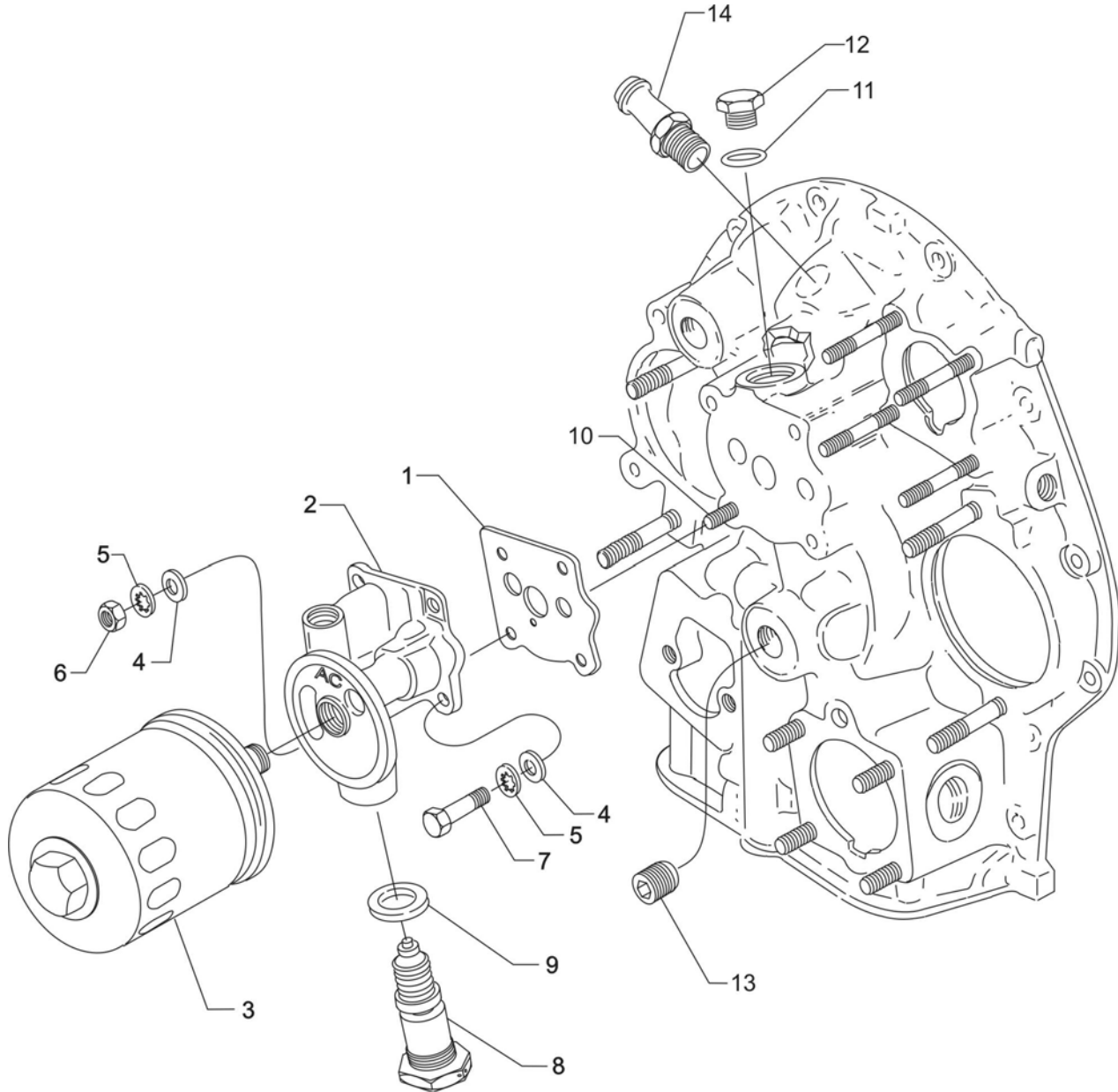
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		60096	GASKET, Fuel pump	1
2	<b>V</b>	LW-15472	FUEL PUMP, Dual diaphragm, <b>V</b> 6441271	1
3		STD-33	WASHER, 3/8 plain	2
4		STD-1882	SCREW, 3/8-16 x 1-9/32 long, socket drilled	2
5		69551	GASKET, Accessory drive adapter	1
6		69106	COVER, Governor drive adapter pad	1
7		STD-35	WASHER, 5/16 plain	4
8		STD-475	WASHER, 5/16 lock, internal teeth	4
9		STD-1410	NUT, 5/16-18 plain	4
10	<b>*</b>	STD-783	PLUG, 1/4-18 NPT, allen head	1
<b>V</b> Vendor Prime Manufacturer part <b>*</b> Used when propeller governor oil line is not installed.				



**Vacuum Pump Drive and Cover  
Figure 18**

**ACCESSORY DRIVES****FIGURE 18 –VACUUM PUMP DRIVE AND COVER**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		61183	GASKET, Accessory adapter	1
2		61098	ADAPTER ASSEMBLY, Vacuum pump	1
3		STD-1774	PIN, 1/8 diameter x 1/4 long	1
4		06A19956	OIL SEAL, 7/8 I.D. x 1-1/2 O.D. x 5/16 wide	1
5		72970	GEAR ASSEMBLY, Vacuum pump driven	1
6		71596	WASHER, Accessory driven gear	1
7		8313	GASKET, Vacuum pump	1
8		60430	COVER, Vacuum pump	1
9		STD-8	WASHER, 1/4 plain	4
10		STD-160	WASHER, 1/4 lock, internal teeth	4
11		STD-1411	NUT, 1/4-20 plain	4

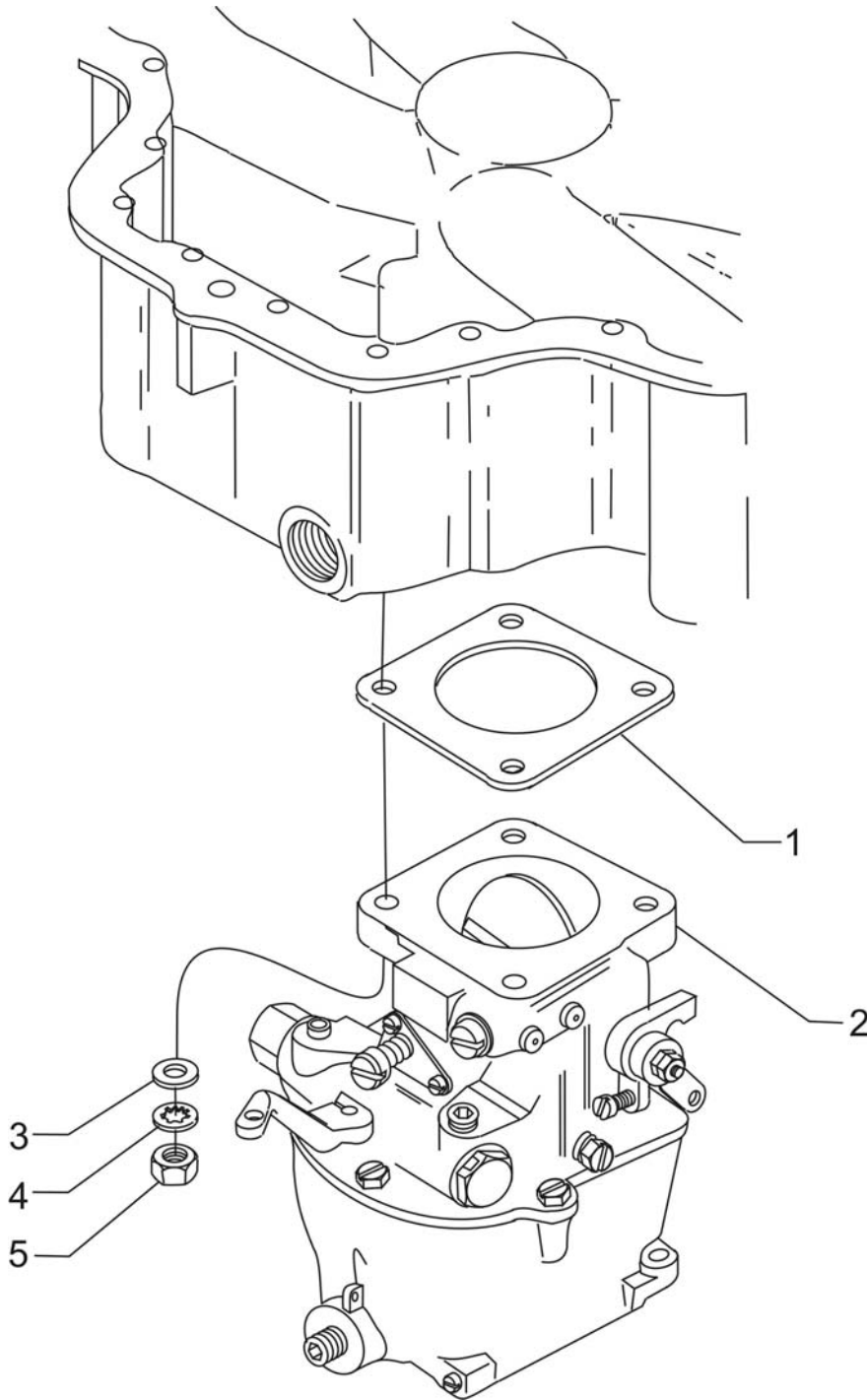


**Oil Filter Assembly, Oil Cooler Bypass Valve and Breather Fittings  
Figure 19**

**ACCESSORY DRIVES****FIGURE 19 – OIL FILTER ASSEMBLY, OIL COOLER BYPASS VALVE AND  
BREATHING FITTINGS**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		06B23862	GASKET, Oil filter adapter	1
2		77852	OIL FILTER BASE ASSEMBLY	1
3		LW-13215	OIL FILTER, Short	1
4		STD-8	WASHER, 1/4 plain	4
5		STD-160	WASHER, 1/4 lock, internal teeth	4
6		STD-1411	NUT, 1/4-20 plain	1
7		LW-25-1.00	BOLT, 1/4-20 x 1.00 long, hex. head	3
8		53E22144	VALVE ASSEMBLY, Temperature control oil cooler bypass	1
9		76510	GASKET, Valve assembly	1
10		25C-10	STUD, 1/4-20 x 1-1/4 long	1
11		06E19769-0.63	GASKET, 7/8 O.D. x 5/8 I.D. x 3/32 annular	1
12		62417	PLUG, Oil cooler bypass	1
13		STD-784	PLUG, 3/8-18 NPT, allen head	2
14		71140	FITTING, Breather	1

**NOTE:** Reference latest revision of Lycoming SSP-885 for oil filters and replacement filters.

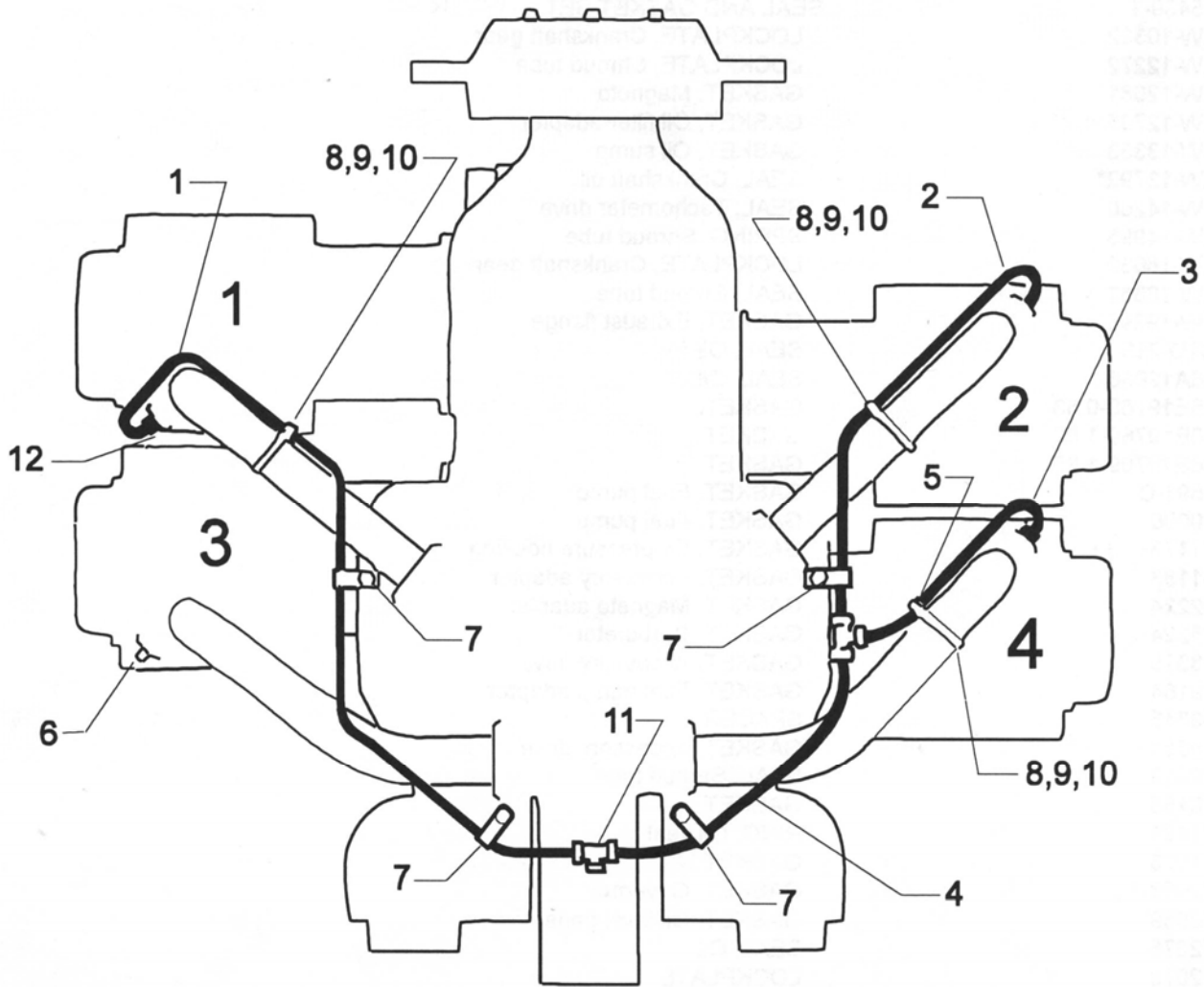


**Carburetor Assembly  
Figure 20**



**FUEL DISTRIBUTION**  
**FIGURE 20 – CABURETOR ASSEMBLY**

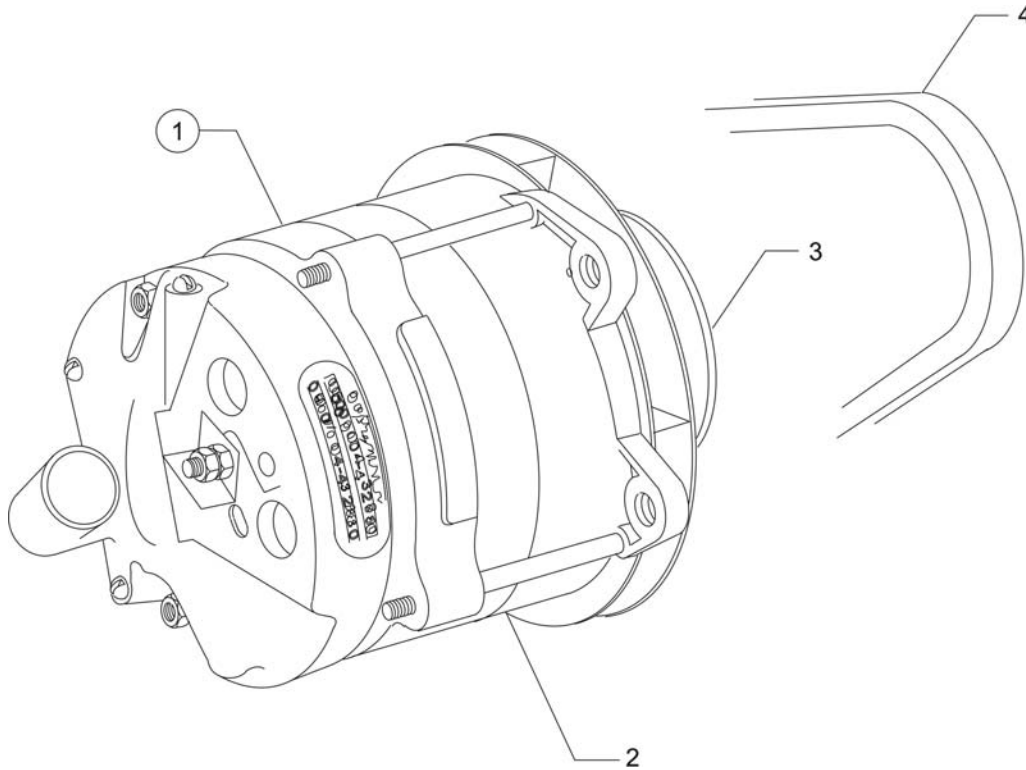
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		66224	GASKET, Carburetor	1
2	<b>V</b>	61C26047	CARBURETOR, MA-4-5, <b>V</b> AV 10-5193	1
3		STD-35	WASHER, 5/16 plain	4
4		STD-475	WASHER, 5/16 lock, internal teeth	4
5		STD-1410	NUT, 5/16-18 plain	4
<b>V</b> Vendor Prime Manufacturer part				



**Priming System  
Figure 21**

**FUEL DISTRIBUTION**  
**FIGURE 21 – PRIMING SYSTEM**

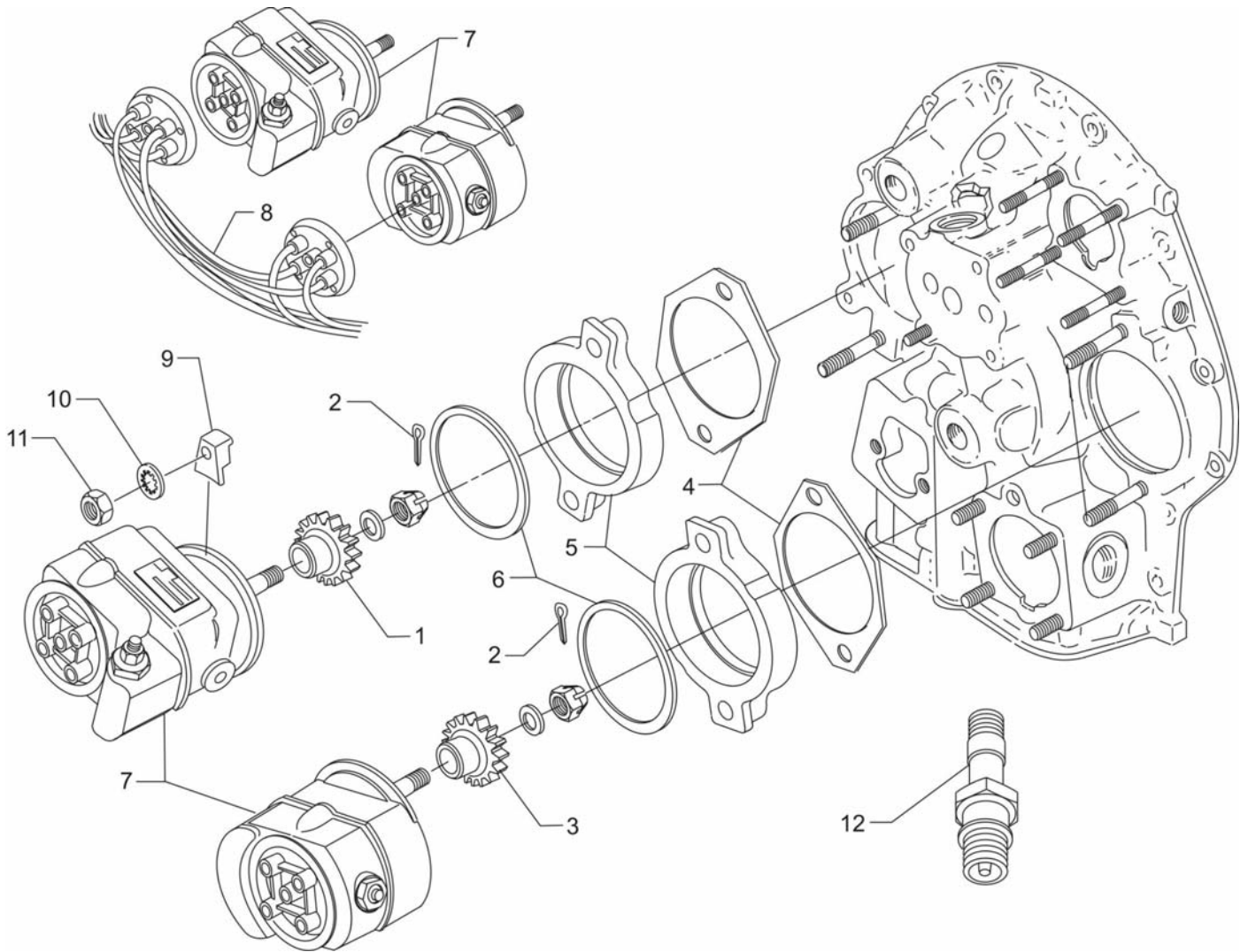
Figure Item	Code	Part Number	Description	Units per Assembly
1		LW-12098-0-290	TUBE ASSEMBLY, Primer, cylinder no. 1	1
2		LW-12098-0-180	TUBE ASSEMBLY, Primer, cylinder no. 2	1
3		LW-12098-0-130	TUBE ASSEMBLY, Primer, cylinder no. 4	1
4		LW-12098-0-100	TUBE ASSEMBLY, Primer, intermediate	1
5		LW-12598	SLEEVE, Priming line	3
6	*	1102	PLUG, 1/8-27 NPT, allen head	1
7		LW-16266-25-13	CLAMP	4
8		LW-18959-175-25	CLAMP, 1-3/4 I.D. with 1/4 diameter offset	3
9		STD-553	SCREW, No. 6-32 x 1/2 long, round head	3
10		MS21044N06	NUT, No. 6-32 self-locking	3
11		STD-853	TEE, Union, 1/8 tube	2
12		63D21408	NIPPLE ASSEMBLY, Primer	3
* Assemble in cylinder head.				



**Alternator Assembly and Belt  
Figure 22**

**IGNITION DISTRIBUTION SYSTEM**  
**FIGURE 22 – ALTERNATOR ASSEMBLY AND BELT**

Figure Item	Code	Part Number	Description	Units per Assembly
1		32C19553	ALTERNATOR ASSEMBLY, 24V.-70Amp.	1
2	<b>V</b>	LW-14326	ALTERNATOR, <b>V</b> ALU-8421-LS	1
3		36B19484	PULLEY, Alternator	1
4		37A19773-376	BELT, Alternator drive, 3/8 wide	1
<p><b>V</b> Vendor Prime Manufacturer part</p> <p><b><u>NOTE:</u></b> See latest revision of Lycoming Service Instruction No. 1154 for complete listing of FAA approved starters, generators, alternators, regulators and relays.</p>				



**Magneto Drives, Harnesses and Spark Plugs  
Figure 23**

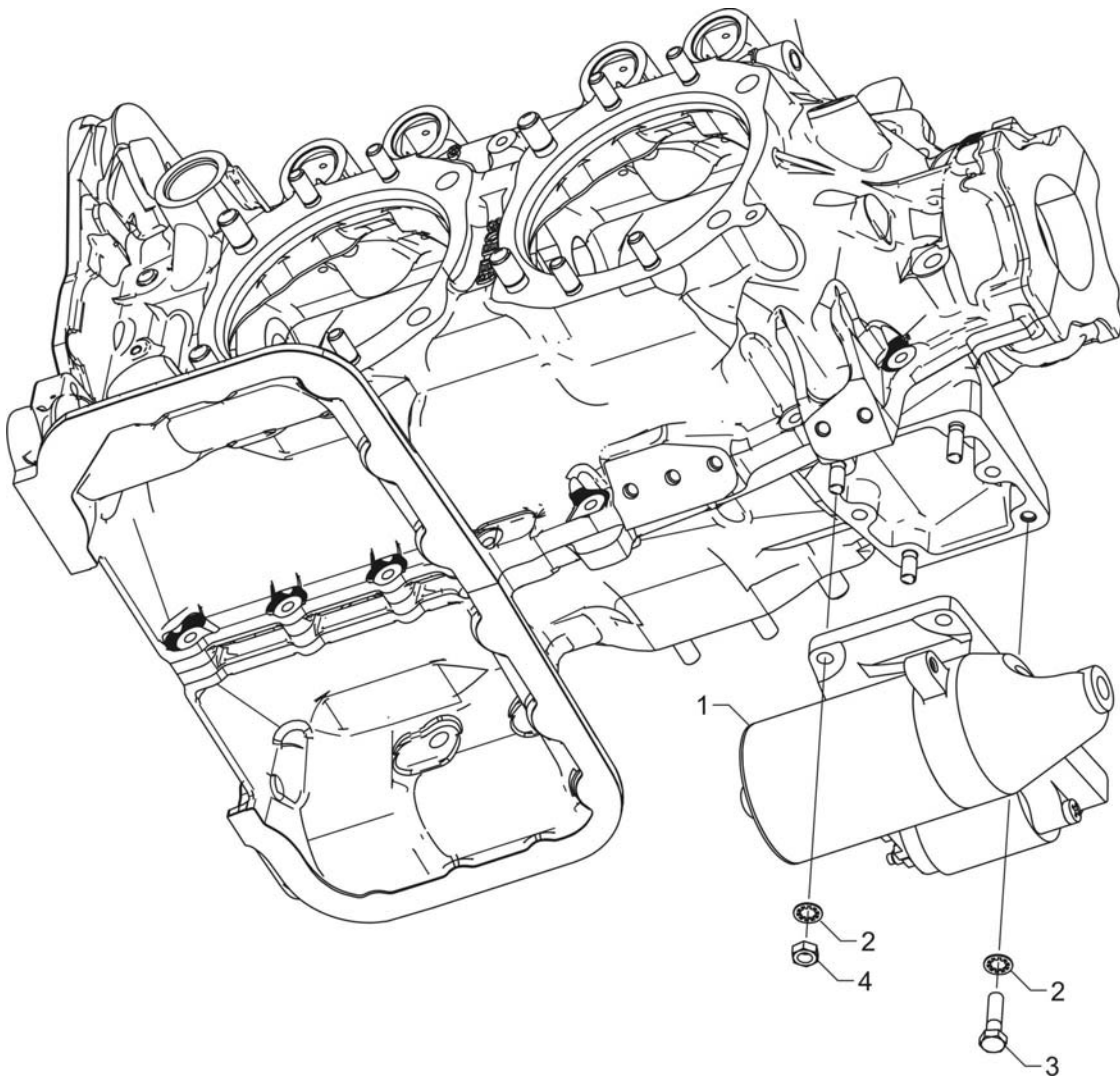
**IGNITION DISTRIBUTION SYSTEM****FIGURE 23 – MAGNETO DRIVES, HARNESSES AND SPARK PLUGS**

Figure Item	Code	Part Number	Description	Units per Assembly
1		61665	GEAR, Magneto, impulse coupling	1
2		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	2
3		68C19622	GEAR, Magneto	1
4		62224	GASKET, Magneto adapter	1
5		LW-12706	ADAPTER, Magneto, impulse coupling	1
6		LW-12681	GASKET, Magneto	2
7	<b>V</b>	66GP-0SANN	MAGNETO, Right, Slick <b>V</b> 4370	1
	<b>V</b>	66GC25SFNN	MAGNETO, Left, Slick <b>V</b> 4373	1
8	<b>V</b>	67P20428	HARNESS ASSEMBLY, Right, Slick <b>V</b> 2990	1
	<b>V</b>	67P20429	HARNESS ASSEMBLY, Left, Slick <b>V</b> 2989	1
9		66M21195	CLAMP, Magneto	4
10		STD-475	WASHER, 5/16 lock, internal teeth	4
11		STD-1410	NUT, 5/16-18 plain	4
12	<b>V*</b>	1182-B7	SPARK PLUG, Champion <b>V</b> REM37BY	8
	<b>**</b>	01P19762-1-1	BAG, Magneto harness attaching	1

**V** Vendor Prime Manufacturer part  
**\*** Item No. 12 spark plugs are used in current production only. Additional spark plugs are available for this engine. See latest revision of Lycoming Service Instruction No. 1042 for complete listing of all approved spark plugs.  
**\*\*** See below for a breakdown of individual parts contained in the magneto and harness attaching parts bag. These parts to be attached by customer per engine line drawing included in each bag.

**01P19762-1-1 – Bag, Magneto Harness Attaching**

Part No.	Part Name	Qty.
LW-16266-25-25	CLIP, One wire	2
LW-14060	CLIP, Two wire	3
STD-8	WASHER, 1/4 plain	8
STD-1874	SCREW, 1/4 lock (rocker box)	6
76734	ZIP STRAP	8
LW-16266-25-50	CLIP, Four wire	1
STD-1411	NUT, 1/4-20 plain	2
STD-696	WASHER, 1/4 thin	4
STD-1916	SCREW, 1/4-20 x 1-1/8 long	3
LW-M-2375	PLATE, Spark plug cable	2



**Starter Motor and Attaching Parts  
Figure 24**



**CRANKING SECTION****FIGURE 24 - STARTER MOTOR AND ATTACHING PARTS**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1	<b>V</b>	31B22101	STARTER, 24V., Sky-Tec <b>V</b> 149-24PM	1
2		STD-475	WASHER, 5/16 lock, internal teeth	4
3		LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. head	1
4		STD-1410	NUT, 5/16-18 plain	3

**V** Vendor Prime Manufacturer part

**NOTE:** See latest revision of Lycoming Service Instruction No. 1154 for complete listing of FAA approved starters, generators, regulators and relays.

**SERVICE KIT SECTION**  
**SEAL AND GASKET SET**

<b>PART NO.</b>	<b>PART NAME</b>	<b>Qty.</b>
<b>75439-1</b>	<b>KIT - SEAL AND GASKET SET</b>	<b>1</b>
AN901-8A	GASKET, Metal tube connect seal	1
LW-10332	LOCKPLATE, Crankshaft gear	1
LW-12272	LOCKPLATE, Shroud tube	4
LW-12681	GASKET, Magneto	2
06B23862	GASKET, Oil filter adapter	1
LW-13353	GASKET, Oil sump	1
LW-13792	SEAL, Crankshaft oil	1
LW-14260	SEAL, Tachometer drive, oil	1
LW-14995	SPRING, Shroud tube	4
LW-18639	LOCKPLATE, Crankshaft gear	1
LW-18661	SEAL, Shroud tube	8
STD-475	WASHER, 5/16 lock, internal teeth	4
STD-213	OIL SEAL, 3/4 I.D. x 1-3/8 O.D.	1
06A19956	OIL SEAL, 7/8 I.D. x 1-1/2 O.D. x 5/16	1
06E19769-0.63	GASKET, Annular, 5/8 I.D.	2
06E19769-1.00	GASKET, Annular, 1.00 I.D.	1
06E19769-1.25	GASKET, Annular, 1-1/4 I.D.	1
1691-C	GASKET, Fuel pump	1
60096	GASKET, Fuel pump	1
61173	GASKET, Oil pressure housing	1
61183	GASKET, Accessory adapter	1
62224	GASKET, Magneto adapter	3
66224	GASKET, Carburetor	2
68315	GASKET, Accessory drive adapter	1
69164	GASKET, Fuel pump adapter	1
69345	SPACER	4
69551	GASKET, Accessory drive adapter	1
70310	SEAL, Shroud tube	8
70455	GASKET, 25/32 I.D. x 1-1/8 O.D. x 1/32	1
71481	RING, Oil seal, 3/32 diameter x 4-27/32	4
71973	GASKET, 2 bolt flange, 1-13/16 I.D.	4
72053	GASKET, Governor	2
72059	GASKET, Oil level gage	1
72075	SEAL, Oil, 5/64 section x 29/64 I.D.	6

**SEAL AND GASKET SET (CONT.)**

<b>PART NO.</b>	<b>PART NAME</b>	<b>Qty.</b>
<b>75439-1</b>	<b>KIT - SEAL AND GASKET SET</b>	<b>1</b>
72078	LOCKPLATE, 5/16 bolt x 1-21/64	2
72091	RING, Oil seal, 23/64 I.D. x 7/64 diameter	2
72220	GASEKT, Oil level gage	1
72312	RING, Oil seal, 1.00 x 1-5/16	1
72829	LOCKPLATE, 1/4 bolt x 1-3/4	1
73383	LOCKPLATE, 5/16 bolt x 1.00	2
73817	LOCKPLATE, 1/4 bolt x 1-3/4	2
73818	GASKET, Accessory housing	1
74065	RING, Oil level gage seal	1
74068	RING, Oil level gage plug	1
75906	GASKET, Rocker box cover	4
76510	GASKET, Oil cooler bypass valve	1
76940	SEAL, Crankshaft oil	1
77154	GASKET, Carburetor	1
77611	GASKET, Exhaust flange	4
8313	GASKET, Vacuum pump	1
77569	RING, Seal, intake pipe	4
MS29512-04	"O" RING, 11/32 I.D. x 1/16 section	1
06A23493	SEAL, Shroud tube	8

**CYLINDER, PISTON AND RING ASSEMBLY**

<b>PART NO.</b>	<b>PART NAME</b>	<b>Qty.</b>
<b>05K21192</b>	<b>KIT - CYLINDER, PISTON AND RING ASSEMBLY</b>	<b>1</b>
LW-12427	CYLINDER ASSEMBLY	1
17A23938	VALVE, Intake	1
17B23936	VALVE, Exhaust	1
LW-11800	SPRING, Valve, outer	2
LW-11795	SPRING, Valve, inner	2
LW-10077	SEAT, Valve spring, upper, intake	1
LW-16475	SEAT, Valve spring, upper, exhaust	1
65441	SEAT, Valve spring, lower, intake	1
LW-13323	SEAT, Valve spring, lower, exhaust	1
60009	KEY, Valve, intake	2
17C21191	KEY, Valve, exhaust	2
17C19386	CAP, Valve stem, exhaust	1
MS20823-6D	ELBOW, 45°, 3/8 flared tube	1

**CYLINDER PISTON AND RING ASSEMBLY (CONT.)**

<b>PART NO.</b>	<b>PART NAME</b>	<b>Qty.</b>
<b>05K21192</b>	<b>KIT - CYLINDER, PISTON AND RING ASSEMBLY</b>	<b>1</b>
75413	PISTON	1
74241	RING, Piston, compression	2
14H21950	RING, Piston, oil regulating	1
LW-14078	PIN, Piston	1
72198	PLUG, Piston pin	2
75906	GASKET, Rocker box cover	1
77611	GASKET, Exhaust flange	1
71973	GASKET, 2 bolt flange	1
LW-12272	LOCKPLATE, Shroud tube	1
70310	SEAL, Shroud tube	2
LW-18661	SEAL, Shroud tube	2
06A23493	SEAL, Shroud tube	2
1102	PLUG, 1/8-27 NPT, allen head	2
SSP-299	TAG, Use of piston pin plugs	1

**CRANKCASE ASSEMBLY AND THRU-STUD KIT**

<b>PART NO.</b>	<b>PART NAME</b>	<b>Qty.</b>
<b>11B20061-1SL-S</b>	<b>KIT – CRANKCASE ASSEMBLY AND THRU-STUD KIT</b>	<b>1</b>
11B20061-1SL	CRANKCASE ASSEMBLY	1
STD-1339	PLUG, 1/16-27 NPT, allen head	4
STD-2090	NUT	2
1102	PLUG, 1/8-27 NPT, allen head	6
74887	SPACER	2
76220	THRU-STUD	4
69796	DOWEL, Crankshaft	1

**CRANKCASE ASSEMBLY AND THRU-STUD KIT – ROLLER TAPPET ENGINES**

<b>PART NO.</b>	<b>PART NAME</b>	<b>Qty.</b>
<b>11B20161-1SL-S</b>	<b>KIT – CRANKCASE ASSEMBLY AND THRU-STUD KIT</b>	<b>1</b>
11B20161-1SL	CRANKCASE ASSEMBLY (Roller tappet engines)	1
STD-1339	PLUG, 1/16-27 NPT, allen head	4
STD-2090	NUT	2
1102	PLUG, 1/8-27 NPT, allen head	6
74887	SPACER	2
76220	THRU-STUD	4
69796	DOWEL, Crankshaft	1

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LW-11795	Spring	17	STD-8	Washer	23
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