

# **(L)O-360-A1H6 Series Illustrated Parts Catalog**

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**June 2011**

**PC-306-5**

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***LYCOMING*** © 2011

652 Oliver Street  
Williamsport, PA 17701

## **(L)O-360-A1H6 Series Illustrated Parts Catalog**

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## SERVICE DOCUMENT LIST

**NOTE:** The “Incorporation Date” column indicates the latest revision date of this report, due to a Service Document or Service Document revision. The words “No Effect” indicate that the Service Document caused no changes within this report.

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## INTRODUCTION



** CAUTION:** DO NOT USE THIS CATALOG AS AN ASSEMBLY OR INSTALLATION DOCUMENT. THIS CATALOG MUST ONLY BE USED TO IDENTIFY PARTS IN CONJUNCTION WITH THE APPLICABLE OVERHAUL MANUAL.

## Purpose of this Catalog

This Illustrated Parts Catalog (IPC) contains a complete parts listing for the Lycoming (L)O-360-A1H6 wide cylinder flange model engine.

## How to Use this Catalog

This catalog is based on the Air Transport Association (ATA) Spec 100 format. In order to clarify illustrations, Lycoming has taken discretion to classify non-system related assemblies and components in the same chapters, because they are physically connected.

This catalog is frequently updated by Service Bulletins (SB) and Service Instructions (SI). The updated information will be incorporated into subsequent full revisions of this catalog.

The ATA two element numbering system provides consistency throughout various manuals. The bottom of each page (beyond the frontal section) contains a two element number (##-##). In the two element numbering, the first two digits represent a chapter, and the next two digits subdivide the material into a more specific section.

The ATA format specifies the subject matter for each chapter-section. According to the ATA Standards, the following chapters apply to the (L)O-360-A1H6 Illustrated Parts Catalog:

72 (Reciprocating Engine), 73 (Engine and Fuel Control), 74 (Ignition), and 76 (Engine Controls).

**EXAMPLE:**      **74**      —      **20**  
Chapter                      Section  
**Ignition**                      **Distribution**

**NOTE:** See the IPC Table of Contents for the sub-systems listed in each section.

## Numerical Index

The Numerical Index is a single list of part numbers, names and their locations within the IPC. It is useful for locating parts when you only know the number or name of the part.

### Description column

Indentation of a part name represents a lower level of assembly. Attaching parts have the same indentation level and are listed below the parts grouping or assembly they attach to. This column is often referred to as the “Nomenclature” on other ATA Spec manuals.

**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.

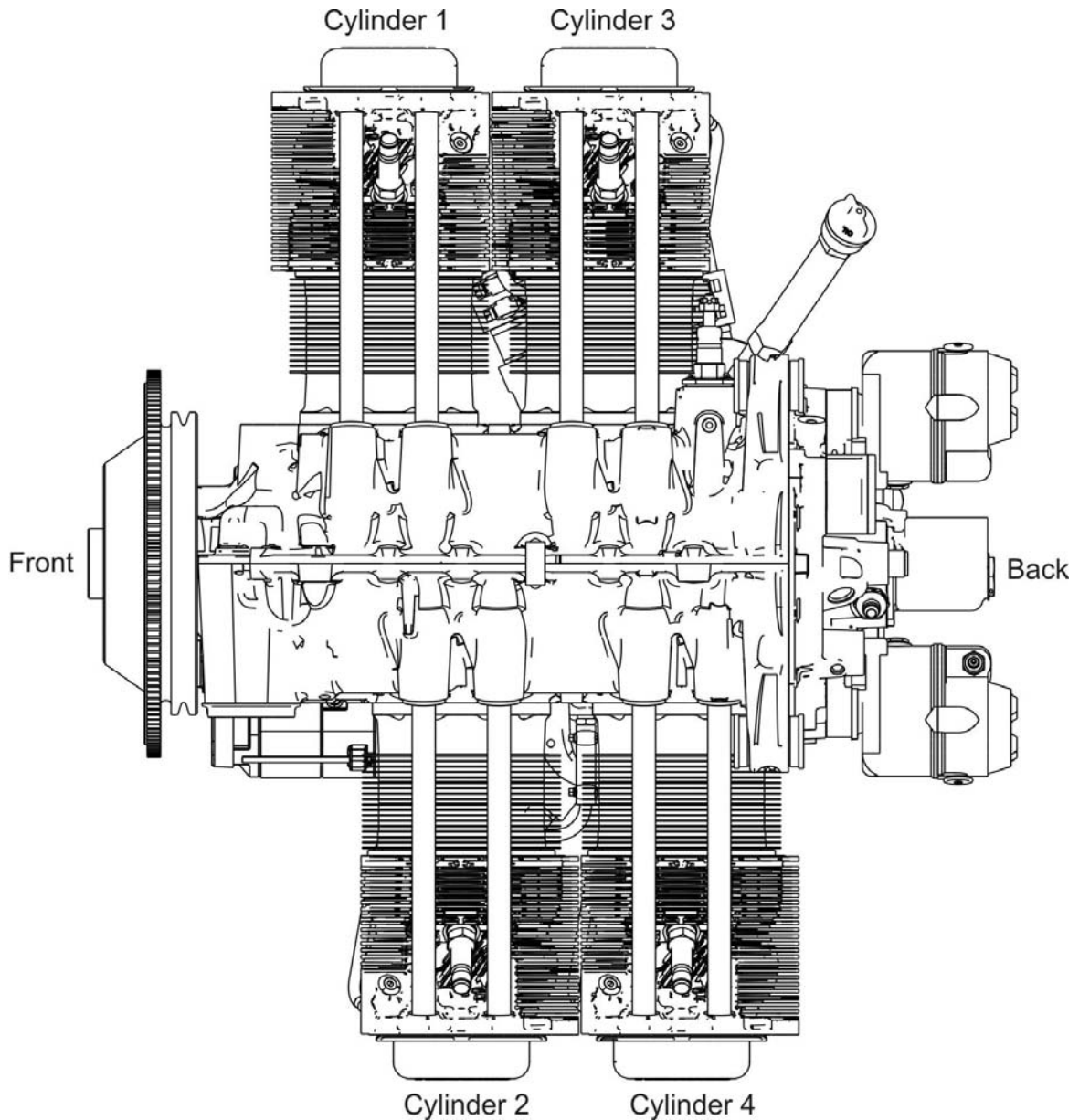
Any reference in this document to the suppliers/part manufacturer's product, by name, trademark, part number or other description is solely for the purpose of identification and does not indicate or infer that Lycoming accepts responsibility for quality control and/or airworthiness of parts, which do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

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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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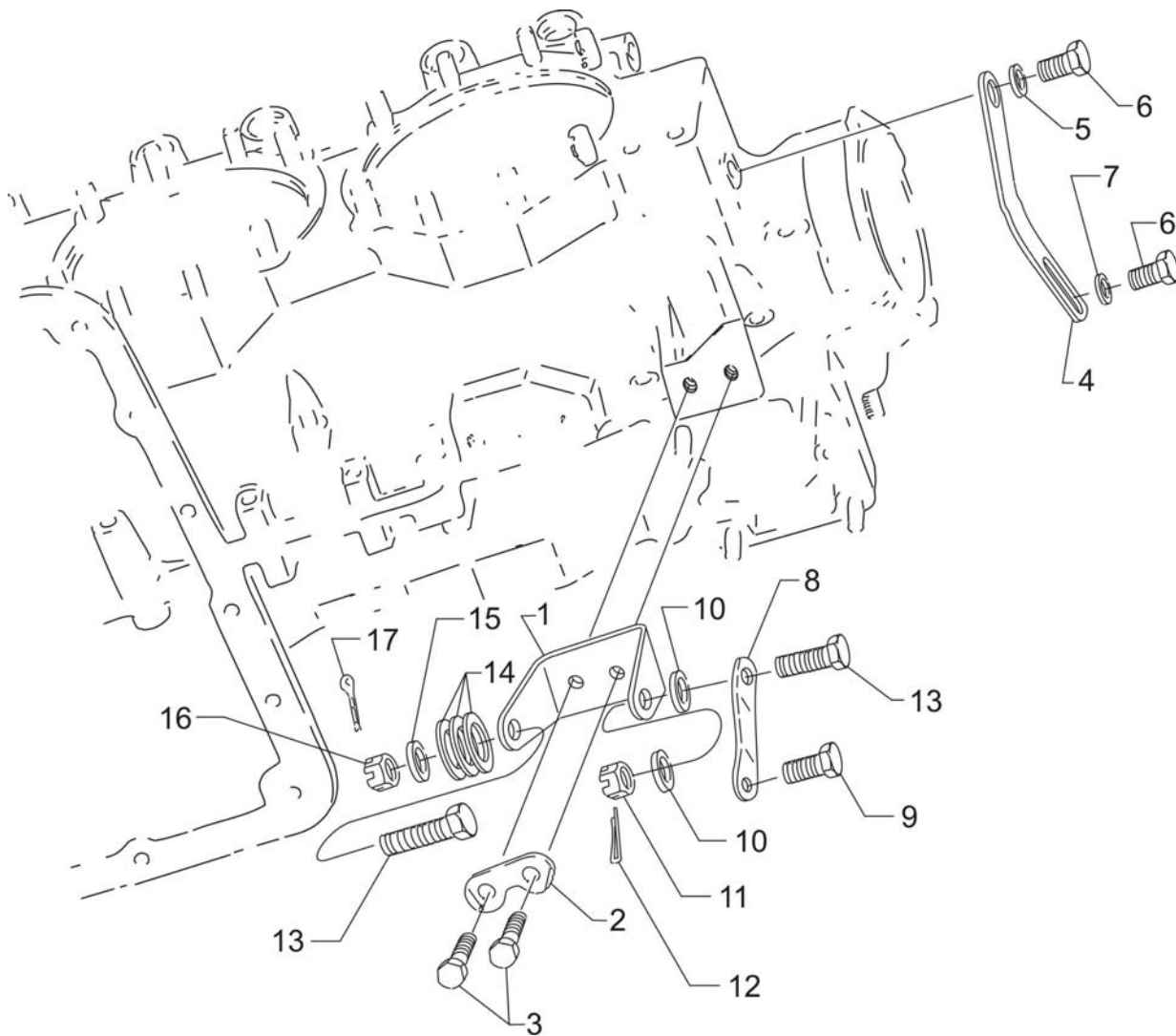


**OVERSIZE AND UNDERSIZE PARTS LISTING**

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									
71903-A	BUSHING	See latest revision of Service Instruction No. 1143 for application.										
72057	SEAT			X		X	X					
72058	SEAT			X		X	X					
75657-S	BUSHING		X	X	X	X						
75656-S	BUSHING		X	X	X	X						
72155-S	DOWEL		X	X	X	X						
73810	BUSHING	See latest revision of Service Instruction No. 1142 for application.										
74241	RING			X								
14H21950	RING			X		X						
76943-S	GUIDE	See latest revision of Service Instruction No. 1256 for application.										
16R22126	GUIDE	See latest revision of Service Instruction No. 1256 for application.										
18M26105	BEARING									X	X	X
LW-13792	SEAL	See latest revision of Service Instruction No. 1324 for application.										
18A26093	BEARING									X	X	X
18D26098	BEARING									X	X	X
STD-1065	DOWEL	X	X	X	X							

## NOTE

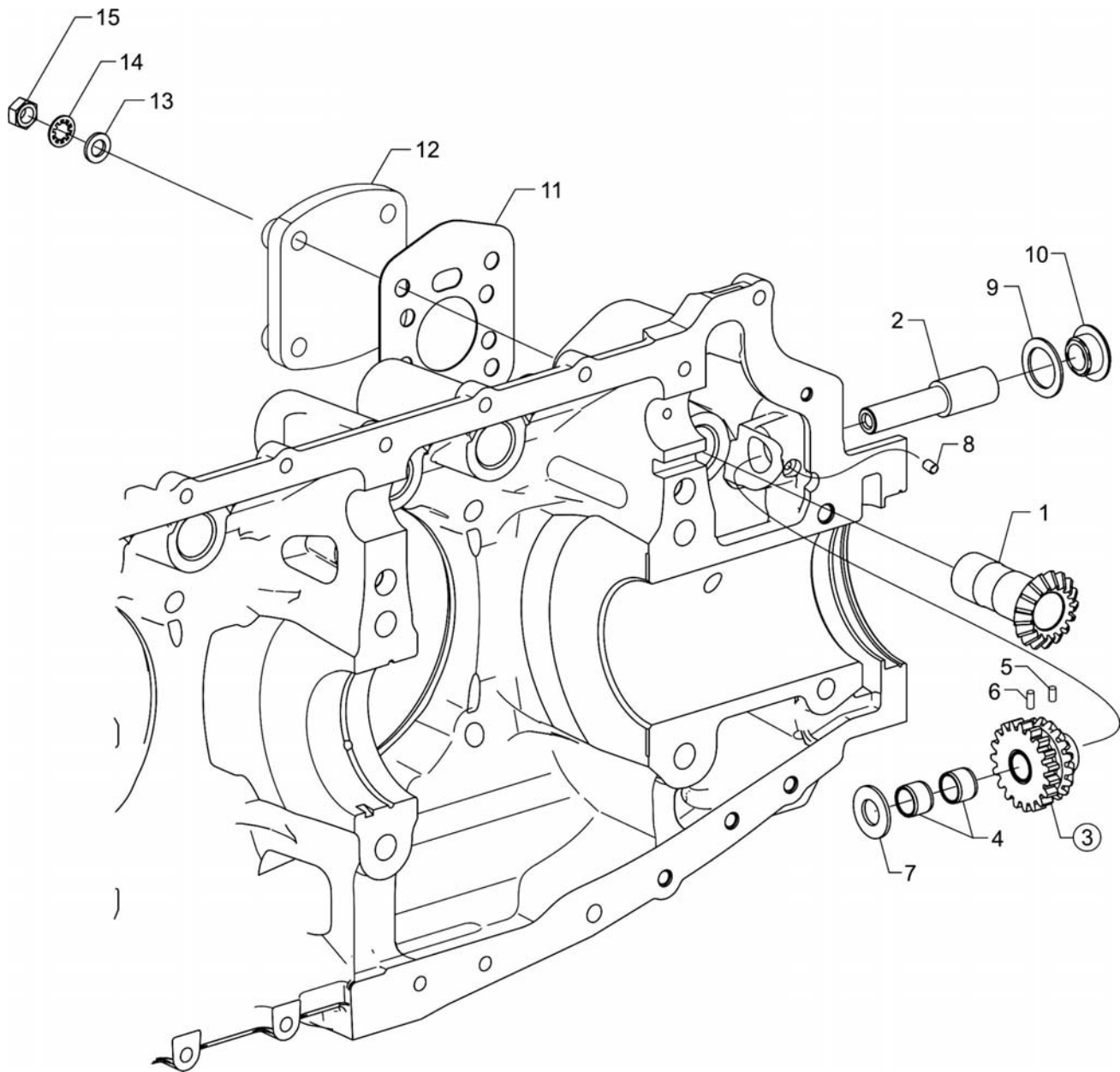
When ordering oversize and undersize parts, be sure to specify the required oversize and undersize dimension along with the proper part number. For example, to order bearing P/N 18D26098 bearing in .003 in. undersize, order P/N 18D26098-M03. Undersize code letter is "M" while oversize code letter is "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**

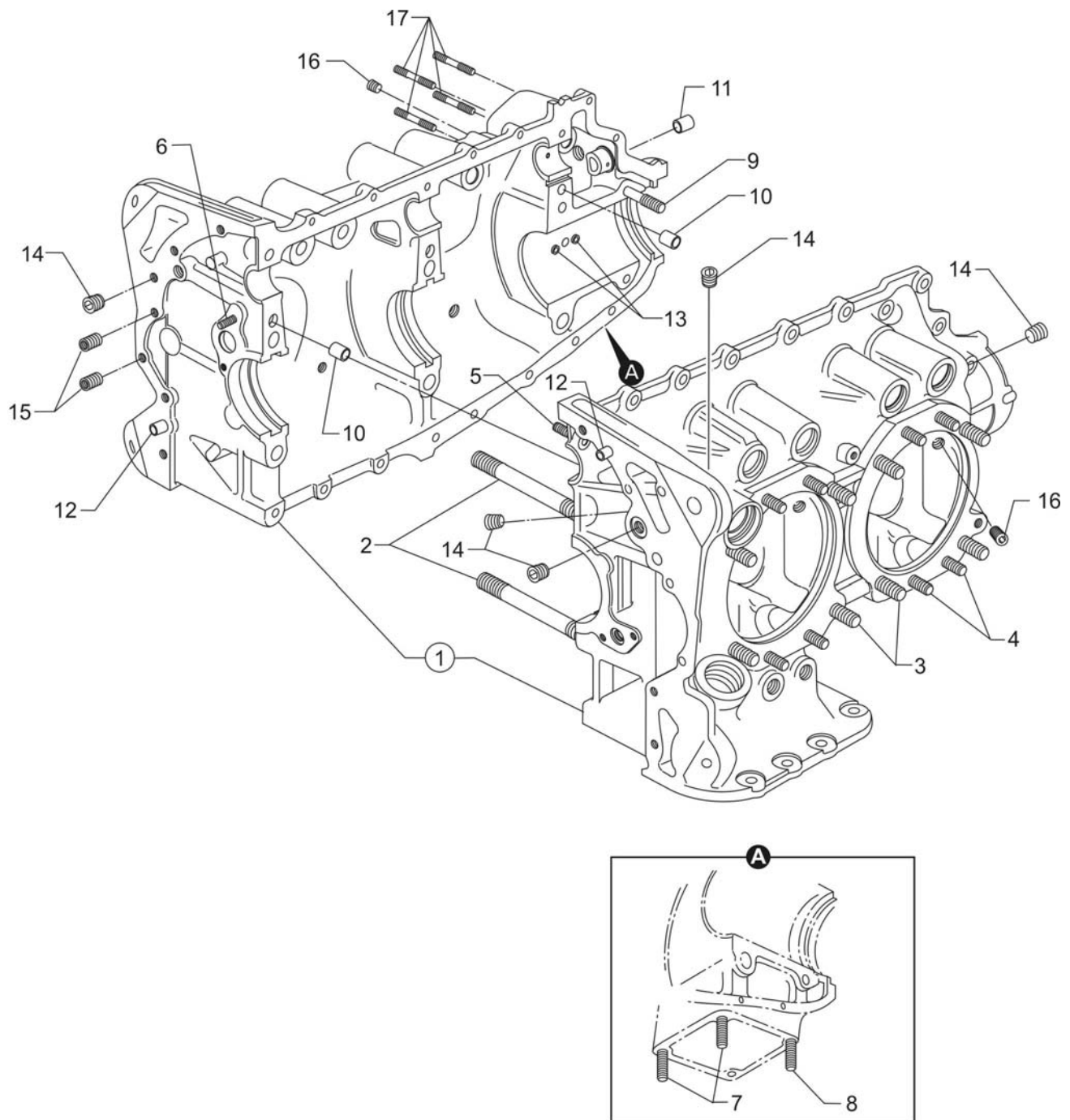
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		07A21097	BRACKET, Alternator	1
2		73383	LOCKPLATE, 5/16 bolt x 1.00 spacing	1
3		LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. head	2
4		07F21098	LINK, Alternator adjusting	1
5		STD-35	WASHER, 5/16 plain	1
6		LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. head, drilled	2
7		STD-1727	WASHER, Plain, 3/4 O.D. x 11/32 I.D. x 1/8 thick	1
8		07F21099	STRUT, Alternator support	1
9		LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex head, drilled	1
10		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	2
11		STD-872	NUT, 3/8-24 slotted	1
12		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	1
13		AN6-16	BOLT, 3/8-24 x 1-53/64 long, hex. head, drilled end	2
14		76534	SHIM, 1-1/8 O.D. x 13/32 I.D. x .005 thick	3
15		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	1
16		STD-872	NUT, 3/8-24 slotted	1
17		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	1



**Propeller Governor Drive  
Figure 2**

**FRONT SECTION****FIGURE 2 – PROPELLER GOVERNOR DRIVE**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		77875	GEAR, Propeller governor driven	1
2		LW-14021	SHAFT, Propeller governor idler gear	1
3		77874	GEAR ASSEMBLY, Propeller governor idler	1
4		77872	BUSHING, Propeller governor idler gear	2
5		STD-19	DOWEL, 3/32 diameter x 7/32 long	1
6		STD-798	DOWEL, 3/32 diameter x 9/32 long	1
7	<b>AR</b>	73249	WASHER, Thrust (.0585-.0595 thick)	AR
	<b>AR</b>	73250	WASHER, Thrust (.062-.063 thick)	AR
	<b>AR</b>	73251	WASHER, Thrust (.0655-.0665 thick)	AR
	<b>AR</b>	73252	WASHER, Thrust (.069-.070 thick)	AR
	<b>AR</b>	01L21418	WASHER, Thrust (.055-.056 thick)	AR
8		AN565B1032H5	SET SCREW, No. 10-32 x 5/16 long	1
9		70455	GASKET, 25/32 I.D. x 1-1/8 O.D. x 1/16 thick	1
10		LW-13896	PLUG, 3/4-16 hex. head	1
11		72053	GASKET, Governor	1
12		72378	COVER, Governor drive	1
13		STD-35	WASHER, 5/16 plain	32
14		STD-475	WASHER, 5/16 lock, internal teeth	4
15		STD-1410	NUT, 5/16-18 plain	4
<b>AR as required</b>				

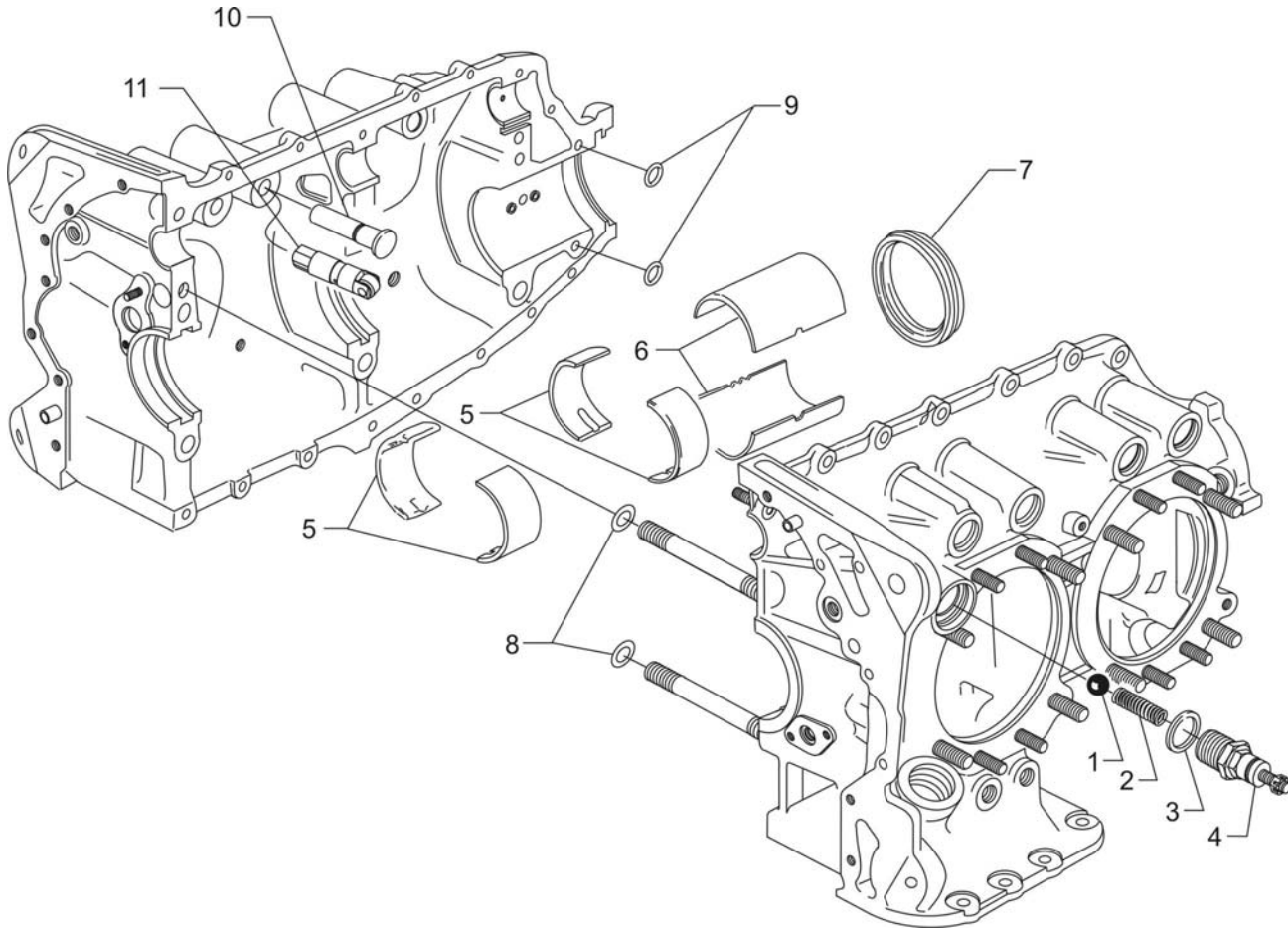


**Crankcase Assembly**  
**Figure 3**

**POWER SECTION****FIGURE 3 - CRANKCASE ASSEMBLY**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
<b>1</b>	<b>*</b>	LW-18399-1-S	CRANKCASE ASSEMBLY KIT	1
	<b>P</b>	LW-18399-1	CRANKCASE ASSEMBLY	1
	<b>*</b>	LW-18399-5-S	CRANKCASE ASSEMBLY KIT <b>(Roller tappet engines)</b>	1
	<b>P</b>	LW-18399-5	CRANKCASE ASSMELBY <b>(Roller tappet engines)</b>	1
2		75154	STUD, 1/2-13 x 10-1/32 long	2
3		50-15	STUD, 1/2-20 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		LW-13793	STUD, 5/16-18 x 15/16 long, drilled	1
7		31C-12	STUD, 5/16-18 x 1-1/2 long	2
8		31C-13	STUD, 5/16-18 x 1-5/8 long	1
9		38-22	STUD, 3/8-16 x 2-3/4 long	1
10		STD-557	DOWEL, 1/2 diameter x 19/32 long, hollow	2
11		72158	BUSHING, Governor drive idler shaft	1
12		STD-514	DOWEL, 5/16 diameter x 1/2 long	2
13		69796	DOWEL, Crankshaft bearing	2
14		1102	PLUG, 1/8-27 NPT, allen head	5
15		STD-1623	INSERT, 1/4-20 Heli-coil x 3/8	2
16		STD-1339	PLUG, 1/16-27 NPT, allen head	5
17		31C-17	STUD, 5/16-18 x 1-1/8 long	4
<p><b>P</b> Lycoming proprietary part. Listed for reference purposes only, cannot be purchased.</p> <p><b>*</b> Refer to Service Kits Section for applicable Crankcase Assembly and Governor Thru-Stud Kit Part Numbers.</p>				



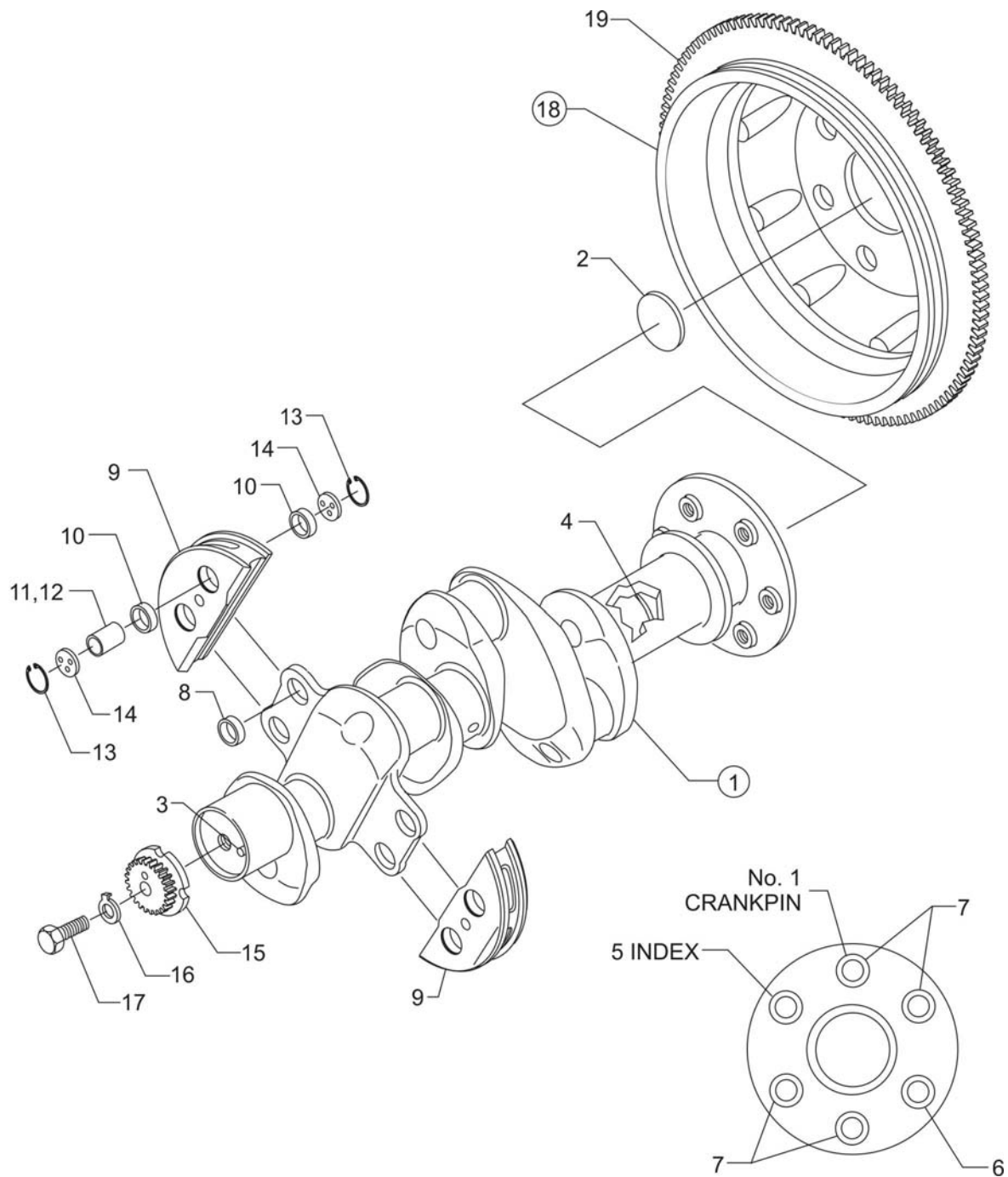


**Crankcase Related Parts**  
**Figure 4**



**POWER SECTION****FIGURE 4 - CRANKCASE RELATED PARTS**

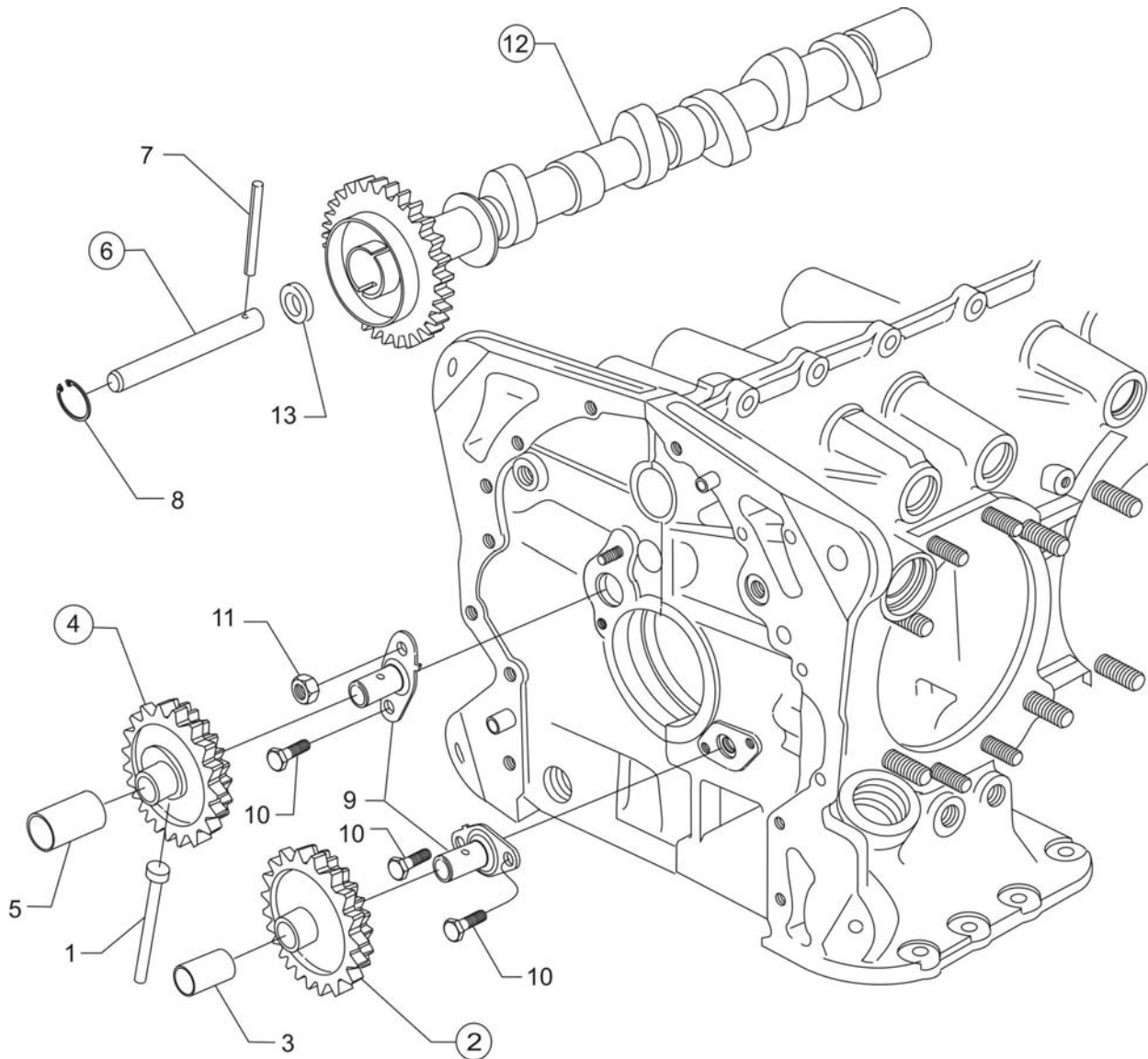
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		1028-B	BALL, 11/16 diameter	1
2	*	61084	SPRING, Oil pressure relief valve	1
	*	68668	SPRING, Oil pressure relief valve	1
	*	77467	SPRING, Oil pressure relief valve	1
	*	LW-11713	SPRING, Oil pressure relief 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 3/32 diameter section	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 5**

**POWER SECTION****FIGURE 5 - CRANKSHAFT ASSEMBLY AND RELATED PARTS**

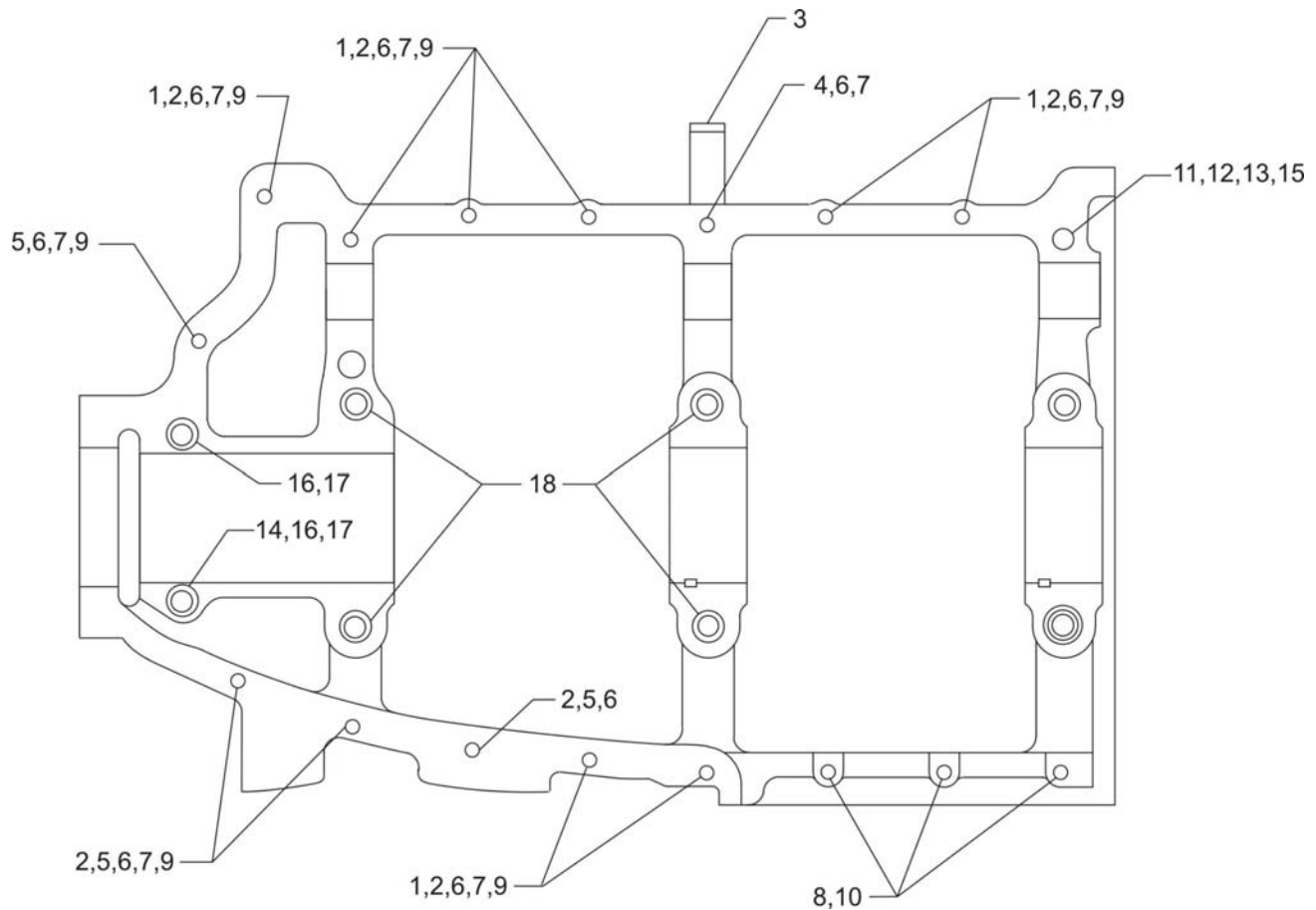
Figure Item	Code	Part Number	Description	Units per Assembly
1	*	13B47228	CRANKSHAFT AND BUSHING ASSEMBLY	1
	**	13B47231	CRANKSHAFT AND BUSHING ASSEMBLY	1
2		STD-1211	PLUG, 2.00 diameter expansion	1
3		STD-1065	DOWEL, Stepped, 5/16 & 1/4 dia. x 35/64 long	1
4		61510	PLUG, 1-3/4 O.D.	1
5		75657-S	BUSHING, Propeller flange, indexing	1
6		72155-S	BUSHING, Propeller flange, short	1
7		75656-S	BUSHING, Propeller flange, long	4
8	◆	73810	BUSHING, Crankshaft, dynamic counterweight	4
9	†	LW-19227	COUNTERWEIGHT ASSEMBLY	2
10	‡	71903-A	BUSHING, Dynamic counterweight	8
11		14W21696	ROLLER, Dynamic counterweight, 8 <sup>th</sup> order	2
12	†	72797	ROLLER, Dynamic counterweight, 6.3 order	2
13		LW-14820	RING, Internal retaining	8
14		71907	WASHER, Dynamic counterweight	8
15	<b>SB</b> ♠	13S19646	GEAR, Crankshaft	1
16		LW-18639	LOCKPLATE, Crankshaft gear	1
17		STD-2246	BOLT, 5/16-24 x 1.00 long	1
18	*	74977	SUPPORT ASSEMBLY, Starter ring gear	1
	**	LW-18506	SUPPORT ASSEMBLY, Starter ring gear	1
19	*	72566	GEAR, Starter ring	1
	**	LW-10551	GEAR, Starter ring	1
<b>SB</b> Referencing Service Bulletin * Used on O-360-A1H6 engines. ** Used on LO-360-A1H6 engines. ◆ See latest revision of Service Instruction No. 1142 for application. † See latest revision of Service Instruction No. 1012 for application. ‡ See latest revision of Service Instruction No. 1143 for application. ♠ See latest revision of Service Bulletin No. 475 for application.				



**Crankshaft Idler Gears, Tachometer Drive and Camshaft  
Figure 6**

**POWER SECTION****FIGURE 6 - CRANKSHAFT IDLER GEARS, TACHOMETER DRIVE AND CAMSHAFT**

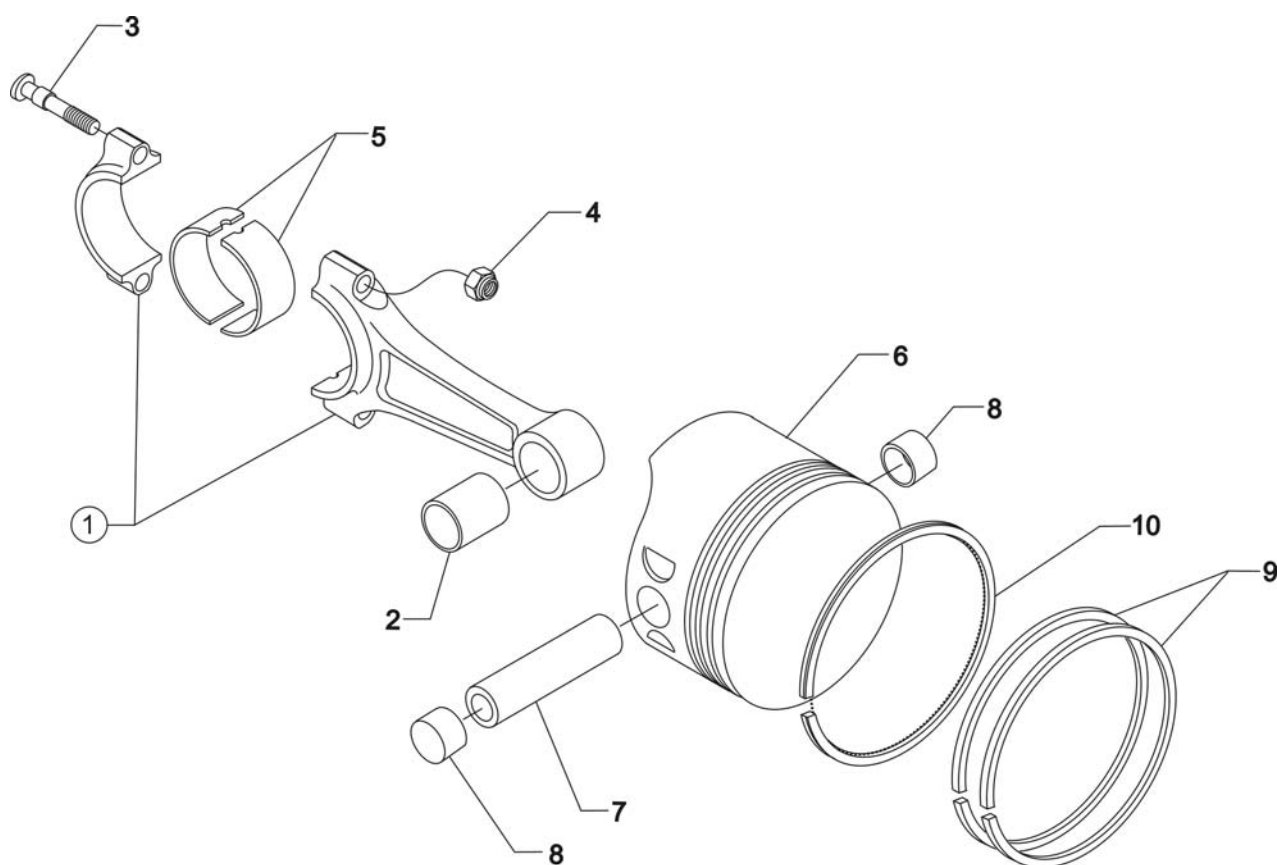
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		61544	PLUNGER, Fuel pump, long	1
2		74996	GEAR ASSEMBLY, Crankshaft idler, plain	1
3		77309	BUSHING, Crankshaft idler gear	1
4		75072	GEAR ASSEMBLY, Crankshaft idler	1
5		77309	BUSHING, Crankshaft idler 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 7/8 long, hex. head, drilled	3
11		STD-2168	NUT, 5/16-18 NC-3 slotted shear	1
12	*	LW-18843	CAMSHAFT ASSEMBLY	1
	**	LW-18845	CAMSHAFT ASSEMBLY	1
	*♦	15M23456	CAMSHAFT ASSEMBLY, Roller lifter ( <b>Roller tappet engines</b> )	1
	**♦	15M23454	CAMSHAFT ASSEMBLY, Roller lifter ( <b>Roller tappet engines</b> )	1
13		76118	SPACER, Tachometer shaft centering	1
* Used on O-360-A1H6 engines. ** Used on LO-360-A1H6 engines. ♦ Only sold as exchange part.				



**Crankcase Attaching Parts**  
**Figure 7**

**POWER SECTION****FIGURE 7 - 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	20
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	4
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	1
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	1
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

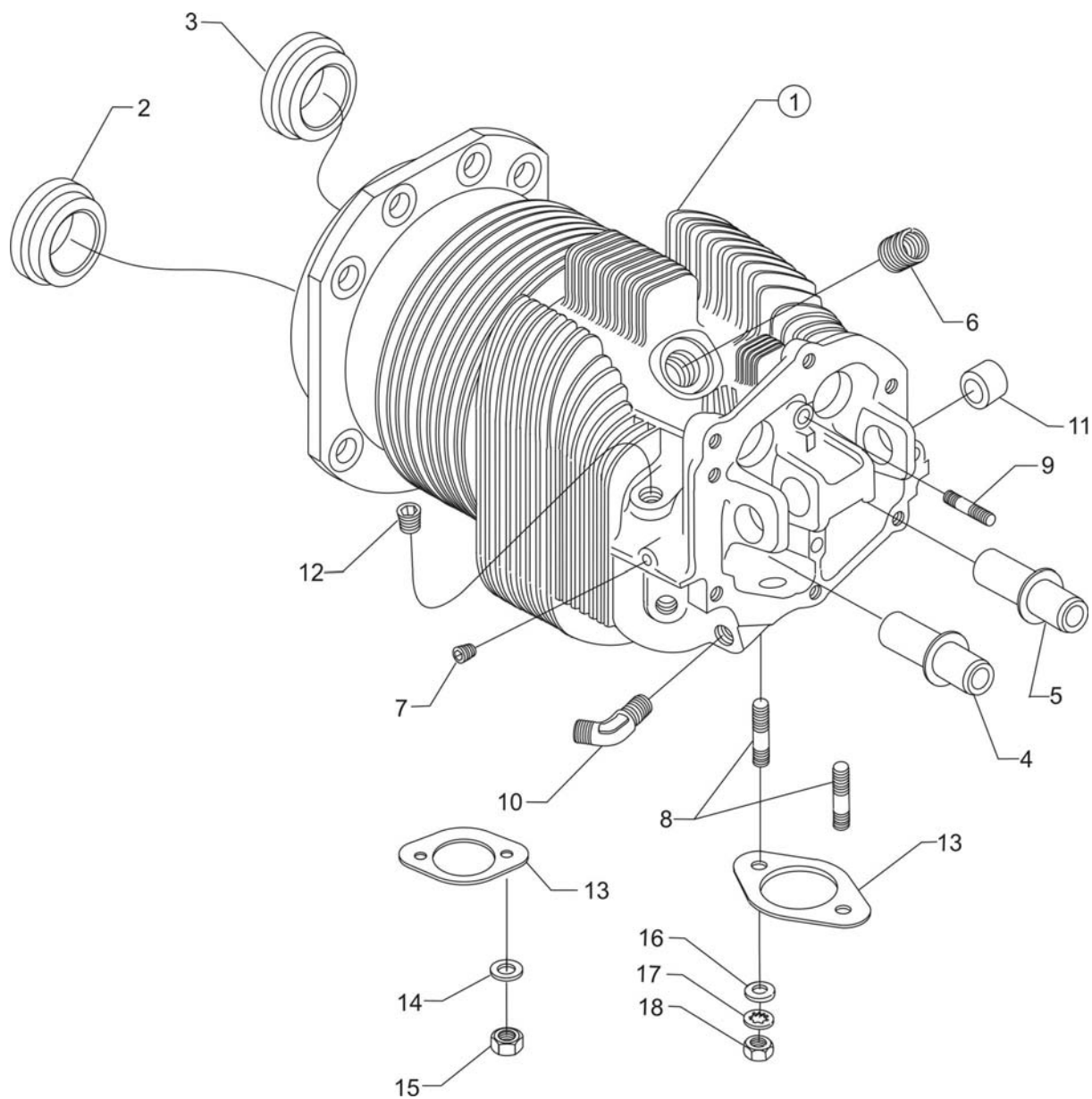


**Connecting Rods, Pistons and Ring Assemblies**  
**Figure 8**



**CYLINDER SECTION****FIGURE 8 - CONNECTING RODS, PISTONS AND RING ASSEMBLIES**

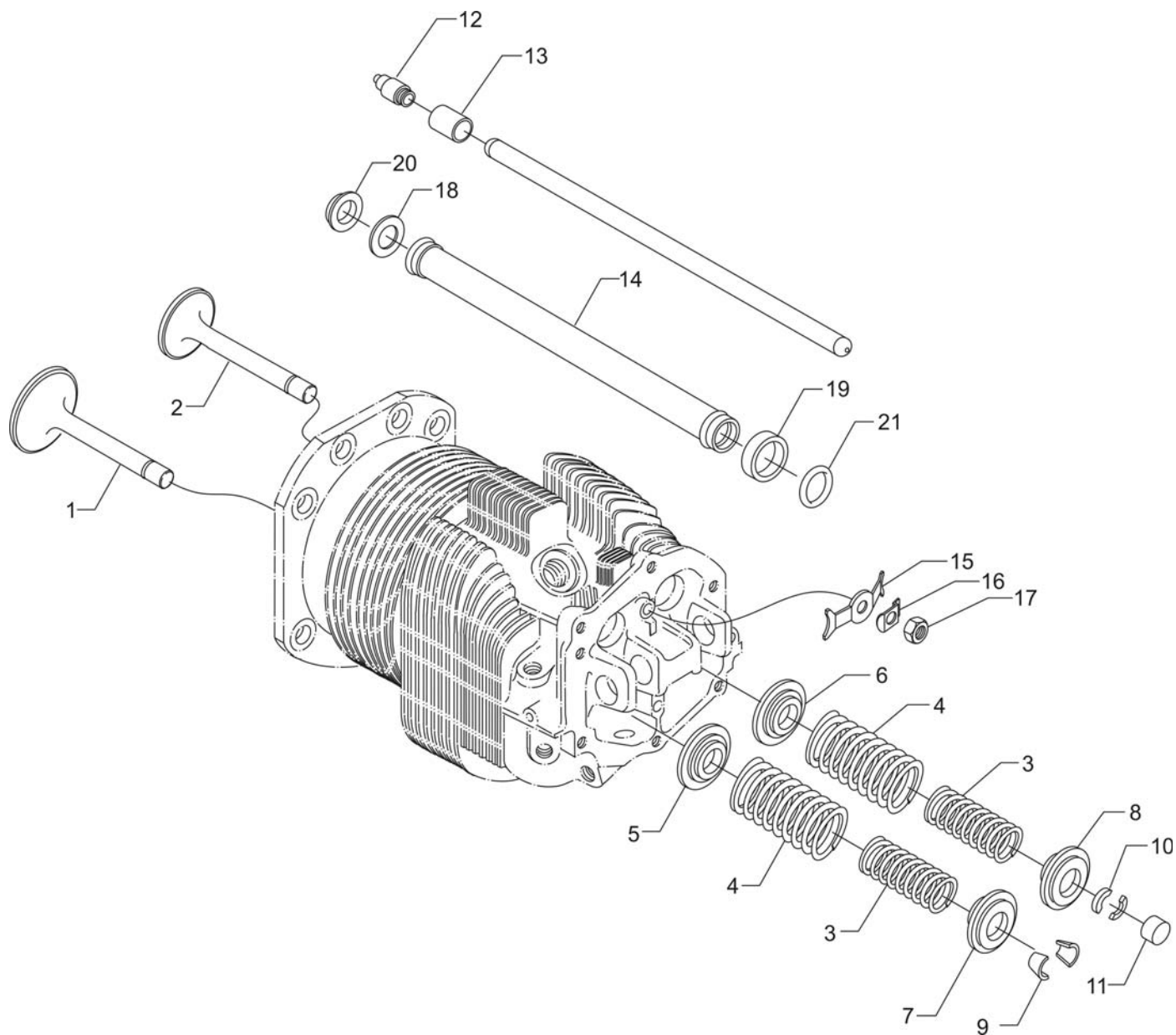
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		LW-11750-S	CONNECTING ROD ASSEMBLY	4
2		LW-13923	BUSHING, Connecting rod, upper	4
3	<b>* P</b>	75061 14S23890	BOLT, Connecting rod	8
4		LW-12186	NUT, Connecting rod bolt	8
5		18M26105	BEARING, Connecting rod	8
6		75089	PISTON, 8.5:1 compression ratio	4
7	<b>**</b>	LW-14078	PIN, Piston	4
8		72198	PLUG, Piston pin	8
9		74241	RING, Piston, compression	8
10		14H21950	RING, Piston, oil regulating, expander type	4
<b>P</b> Lycoming proprietary part. Listed for reference purposes only, cannot be purchased. <b>*</b> Service use only. <b>**</b> See latest revision of Lycoming Service Instruction No. 1267.				



**Cylinder Assembly  
Figure 9**

**CYLINDER SECTION**  
**FIGURE 9 - CYLINDER ASSEMBLY**

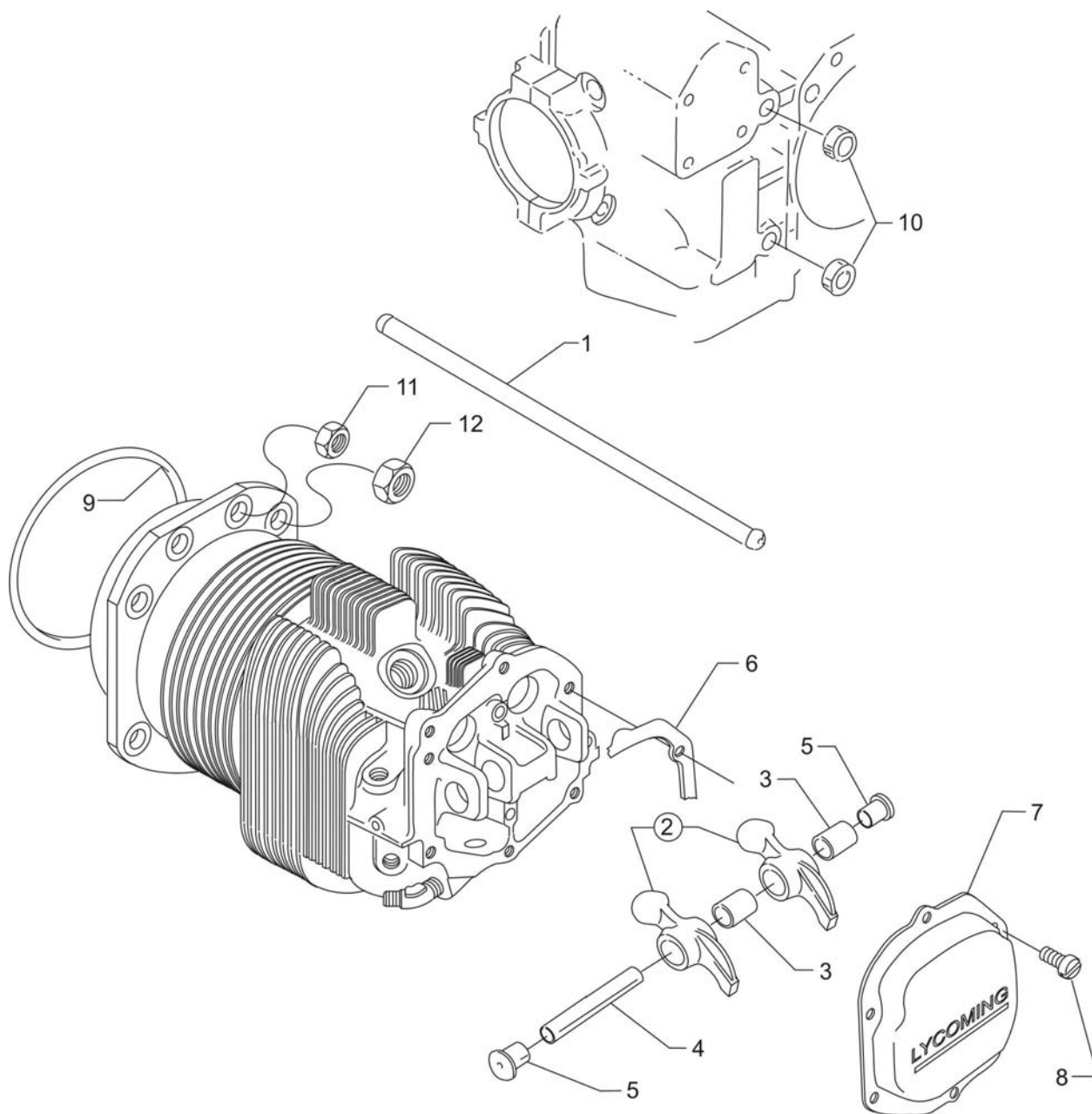
Figure Item	Code	Part Number	Description	Units per Assembly
1		LW-12427	CYLINDER ASSEMBLY, Nitrided	4
2		72057	SEAT, Valve, intake	4
3		72058	SEAT, Valve, exhaust	4
4	<b>P*</b>	76943	GUIDE, Valve, intake	4
5	<b>P*</b>	16R22126	GUIDE, Valve, exhaust	4
6	<b>P</b>	66796	INSERT, Spark plug, 18-1.5MM	8
7		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-2233	LOCKNUT, 5/16-18 hex. head	8
16		STD-35	WASHER, 5/16 plain	8
17		STD-475	WASHER, 5/16 lock, internal teeth	8
18		STD-1410	NUT, 5/16-18 plain	8
<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.				



**Valve Assembly and Related Parts**  
**Figure 10**

**CYLINDER SECTION****FIGURE 10 – VALVE ASSEMBLY AND RELATED PARTS**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
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 11**

**CYLINDER SECTION****FIGURE 11 – 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		75906	GASKET, Rocker box cover	4
7		61247	COVER, Rocker box	4
8		STD-1925	SCREW, 1/4-20 x 5/8 long, pan head, self-locking	24
9		71481	RING, Oil seal, 3/32 diameter x 4-27/32 I.D.	4
10		74887	SPACER, 33/64 I.D. x 7/8 O.D. x 3/8 thick	2
11		383-B	NUT, 3/8-24 plain	16
12		STD-2090	NUT, 1/2-20 plain	18

**AR** as required

\* These push rods are not to be used on flat tappet engines.

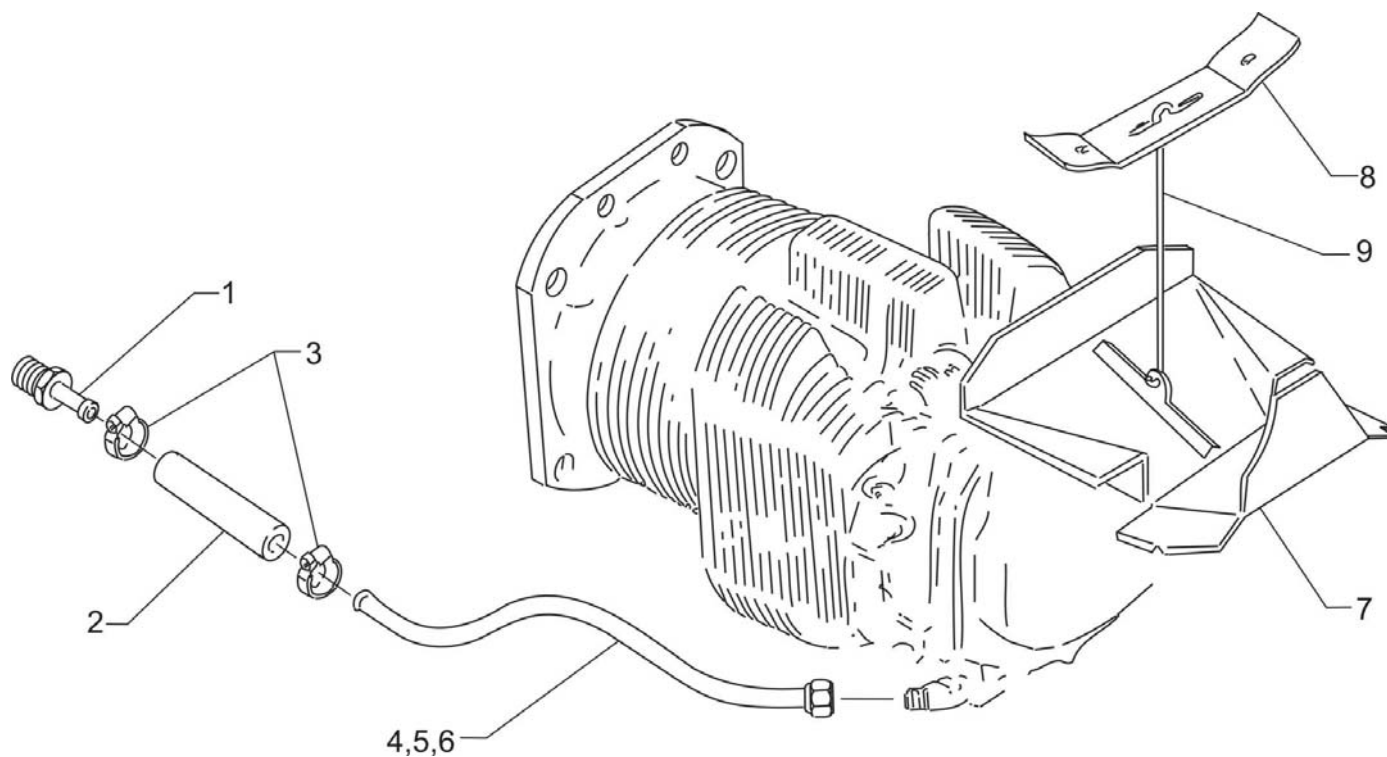
† This push rod can be used on both flat tappet and roller tappet engines.

♦ See latest revision of Service Instruction No. 1060 for complete push rod application.

\*\* Due to the size of the area where the part number is stamped, the last five digits may be all that is shown (19357).

**NOTE:** Various push rod lengths are used to set valve clearances.



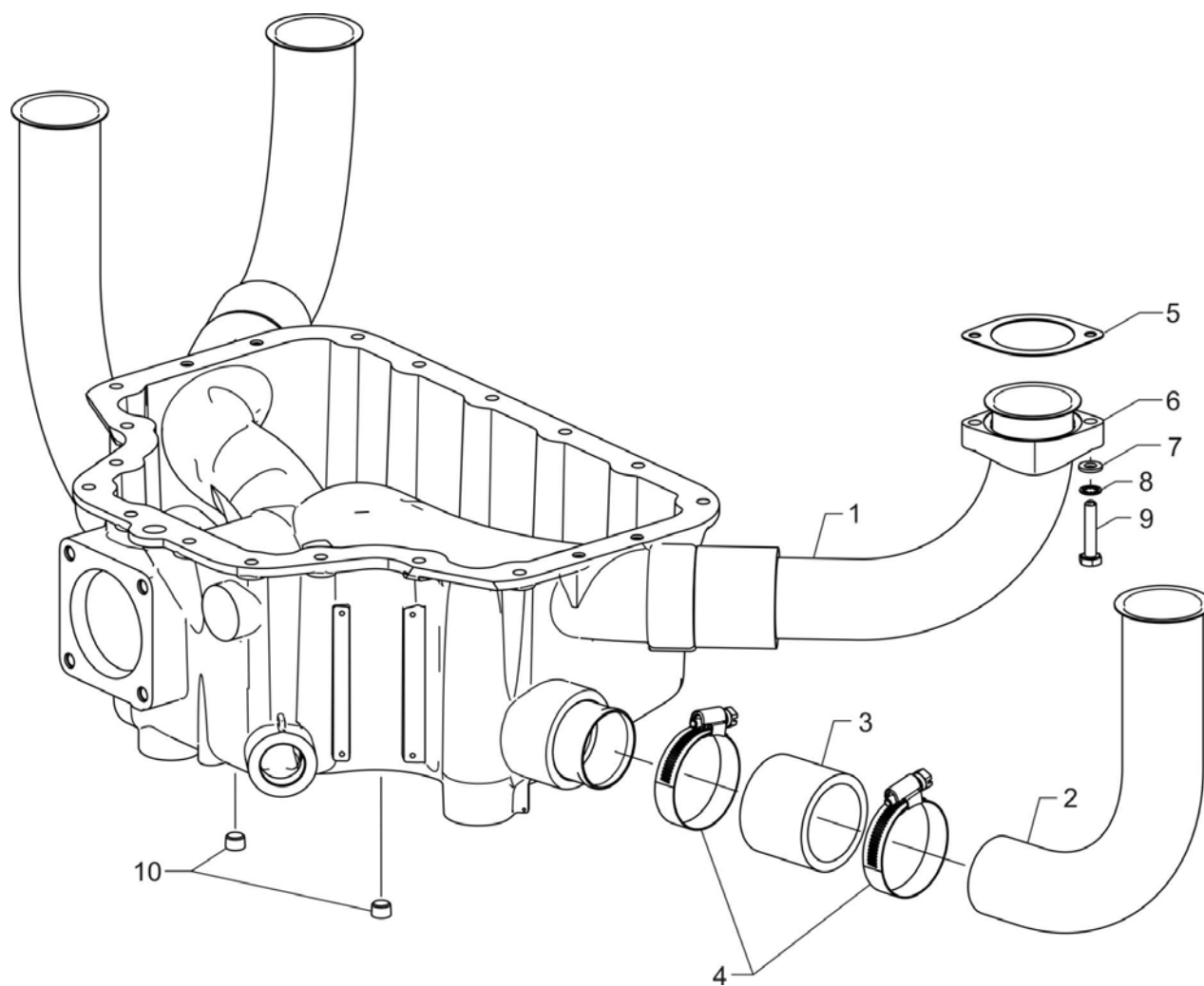


**Cylinder Head Drain Tubes and Intercylinder Cooling Baffles**  
**Figure 12**



**CYLINDER SECTION****FIGURE 12—CYLINDER HEAD DRAIN TUBES, AND INTERCYLINDER COOLING BAFFLES**

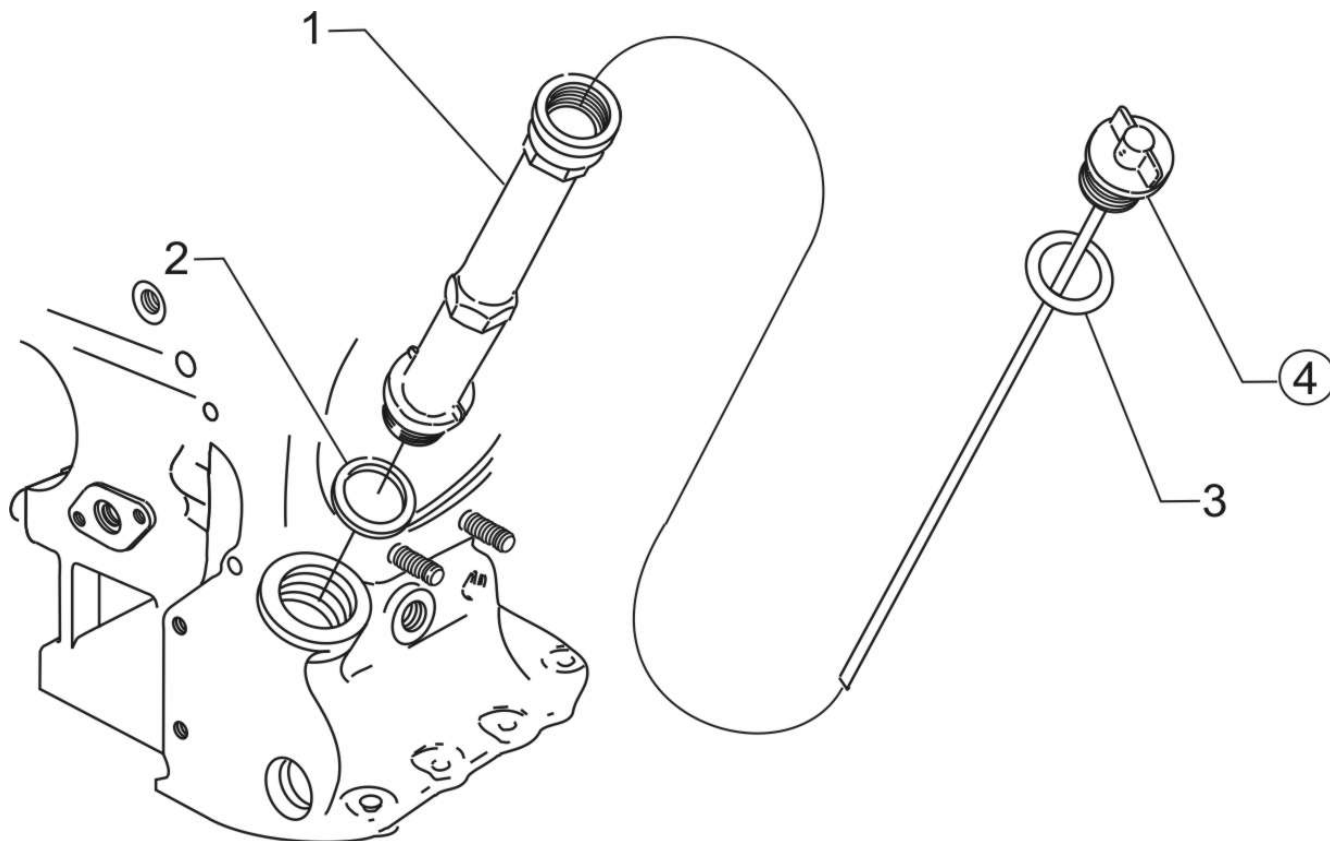
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		STD-684	NIPPLE, Straight, 3/8 I.D. hose	4
2		STD-1821	HOSE, 3/8 x 2-1/2 long	4
3		LW-15592-5-05	CLAMP, Hose	8
4		68759	TUBE ASSY., Cylinder head oil drain, cyl. no. 1	1
5		68760	TUBE ASSY., Cylinder head 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



**Intake Pipes and Attaching Parts**  
**Figure 13**

**CYLINDER SECTION****FIGURE 13 – INTAKE PIPES AND ATTACHING PARTS**

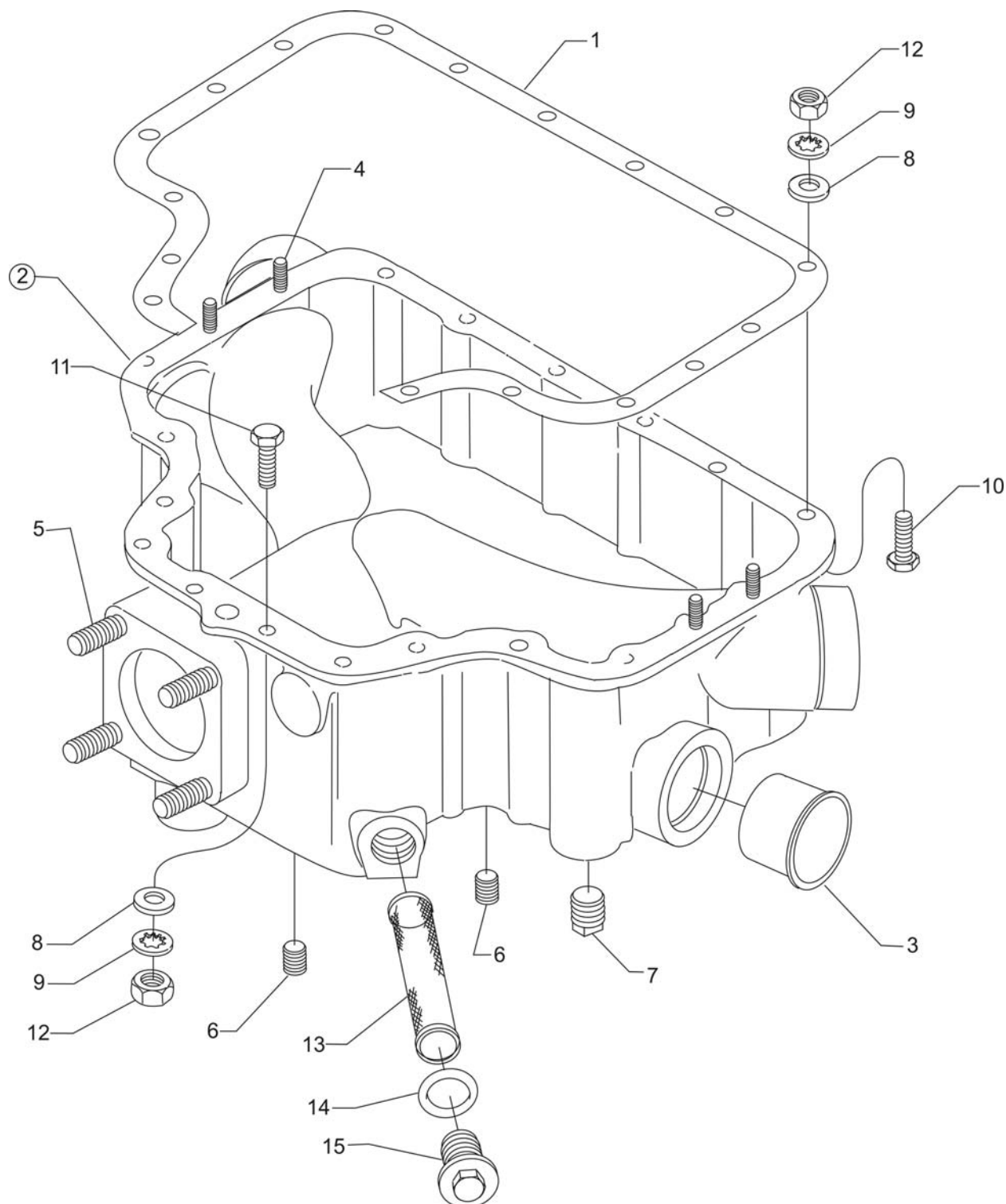
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		71712	PIPE, Intake, cylinders no. 1 and 2	2
2		71713	PIPE, Intake, cylinders no. 3 and 4	2
3		69603	HOSE, 1-3/4 I.D. x 2-3/16 O.D. x 1-3/4 long	4
4		LW-15592-8-28	CLAMP, Hose	8
5		71973	GASKET, 2 bolt flange, 1-7/8 I.D.	4
6		73346	FLANGE, Intake pipe, upper	4
7		STD-8	WASHER, 1/4 plain	8
8		STD-160	WASHER, 1/4 lock, internal teeth	8
9		LW-25-1.25	BOLT, 1/4-20 x 1-1/4 long, hex. head	8
10		1102	PLUG, 1/8-27 NPT, allen head	2



**Oil Level Gage Assembly  
Figure 14**

**LUBRICATION SYSTEM****FIGURE 14 – OIL LEVEL GAGE ASSEMBLY**

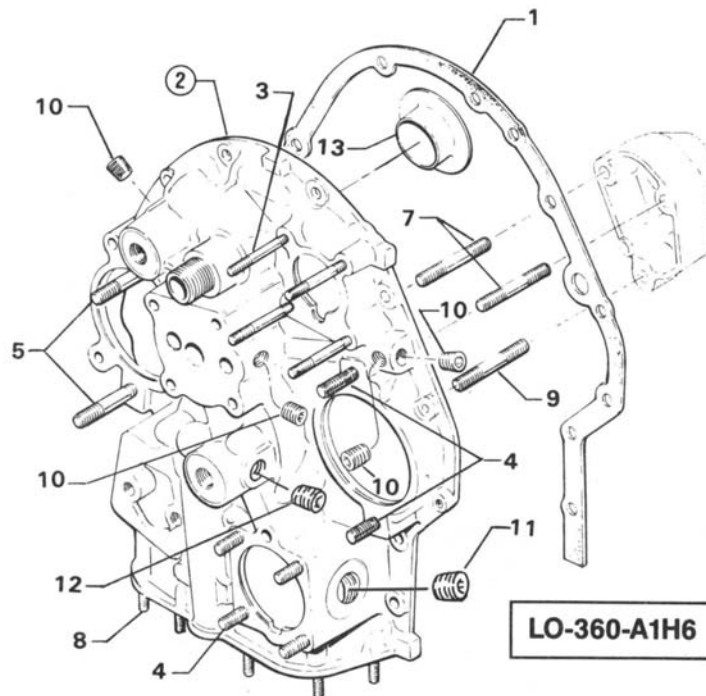
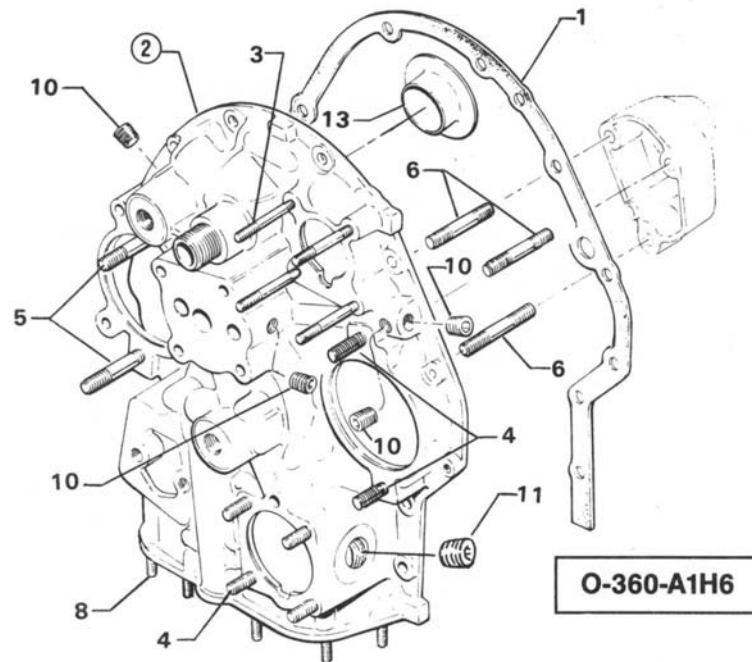
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		75736	TUBE, Oil level gage, long	1
2		72059	GASKET, Oil level gage	1
3		74068	RING, Oil level gage seal	1
4	*	LW-16783-15	GAGE ASSEMBLY, Oil level	1
	**	LW-16783-16	GAGE ASSEMBLY, Oil level	1
* Used on O-360-A1H6 engines.				
** Used on LO-360-A1H6 engines.				



**Oil Sump Assembly and Oil Suction Screen**  
**Figure 15**

**LUBRICATION SYSTEM****FIGURE 15 – 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		77159	SUMP ASSEMBLY, Oil	1
3		69602	CONNECTION, Intake pipe	4
4		61400	STUD, 1/4-20 x 1-3/16 long	4
5		31C-14	STUD, 5/16-18 x 1-3/4 long	4
6		1102	PLUG, 1/8-27 NPT, allen head	2
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	8
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	18
13		70484	SCREEN, Oil suction	1
14		06E19769-1.00	GASKET, Annular, 1.00 I.D.	1
15		LW-12545	PLUG, 5/8 hex. head x 1.00-20 thread	1

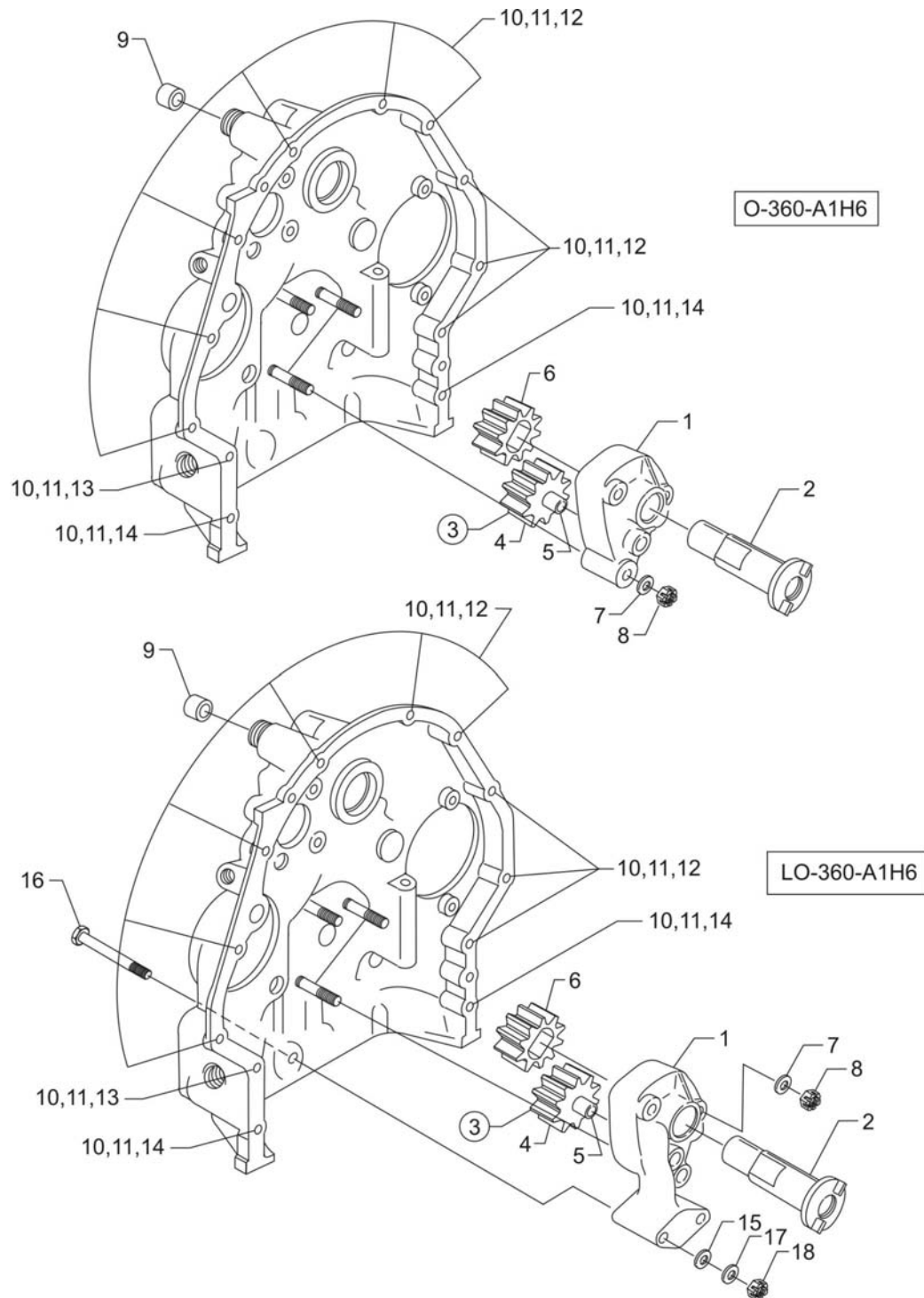


**Accessory Housing Assembly  
Figure 16**



**ACCESSORY DRIVES****FIGURE 16 – ACCESSORY HOUSING ASSEMBLY**

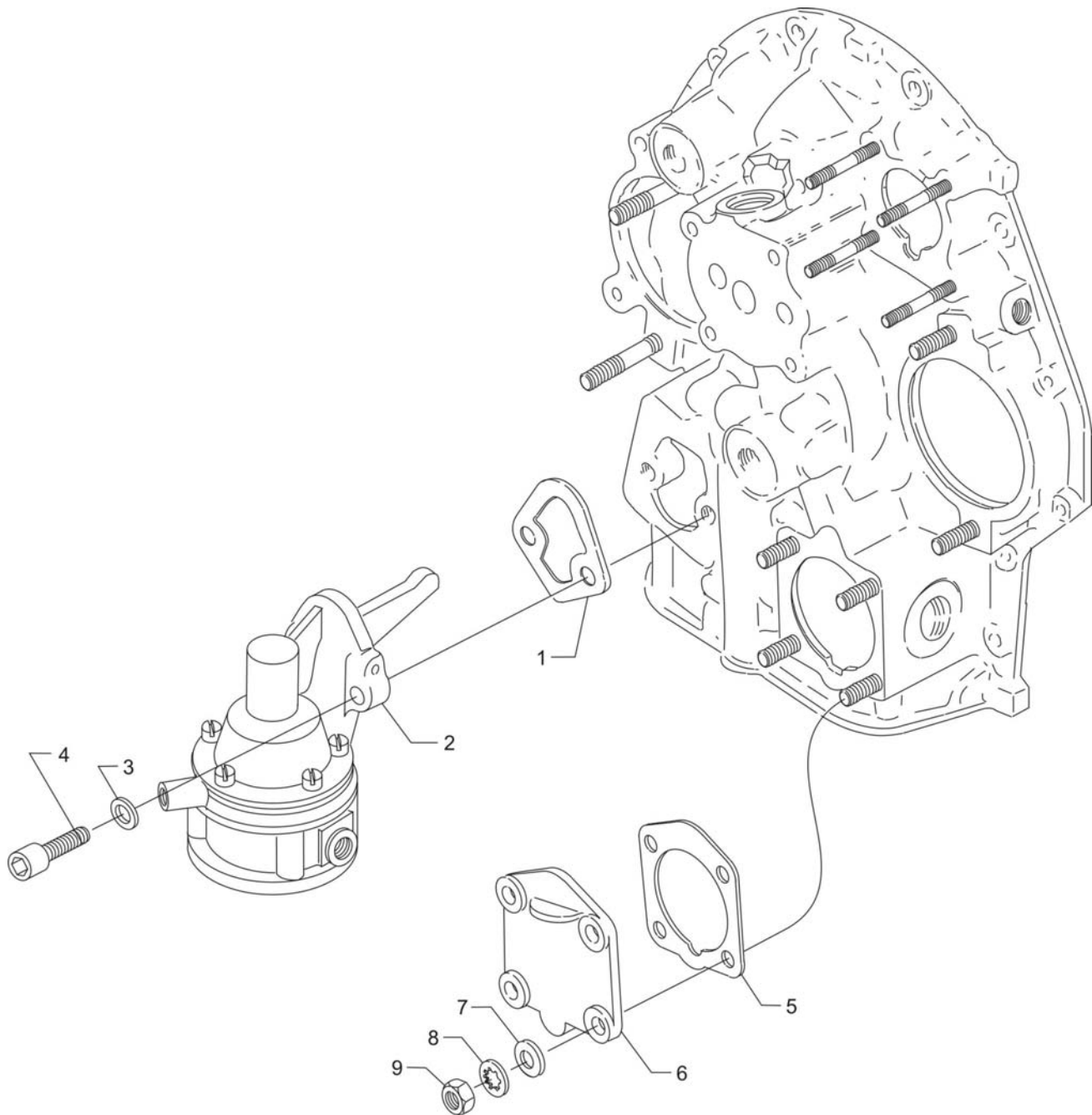
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		73818	GASKET, Accessory housing	1
2	*	21A21533-02	HOUSING ASSEMBLY, Accessory	1
	**	21A21651-04	HOUSING ASSEMBLY, Accessory	1
3		25C-22	STUD, 1/4-20 x 2-3/4 long	4
4		31C-12	STUD, 5/16-18 x 1-1/2 long	6
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	**	31CD-17	STUD, 5/16-18 x 2-1/8 long, drilled	2
8		75888	STUD, 1/4-20 x 1-1/4 long	6
9	**	31CD-22	STUD, 5/16-18 x 2-3/4 long, drilled	1
10		1102	PLUG, 1/8-27 NPT, allen head	4
11		STD-784	PLUG, 3/8-18 NPT, allen head	1
12	**	STD-783	PLUG, 1/4-18 NPT, allen head	1
13		76119	SHIELD, Accessory breather oil	1
* Used on O-360-A1H6 engines. ** Used on LO-360-A1H6 engines.				



**Oil Pump Assembly and Accessory Housing Attaching Parts  
Figure 17**

**ACCESSORY DRIVES****FIGURE 17 – OIL PUMP ASSEMBLY AND ACCESSORY HOUSING ATTACHING PARTS**

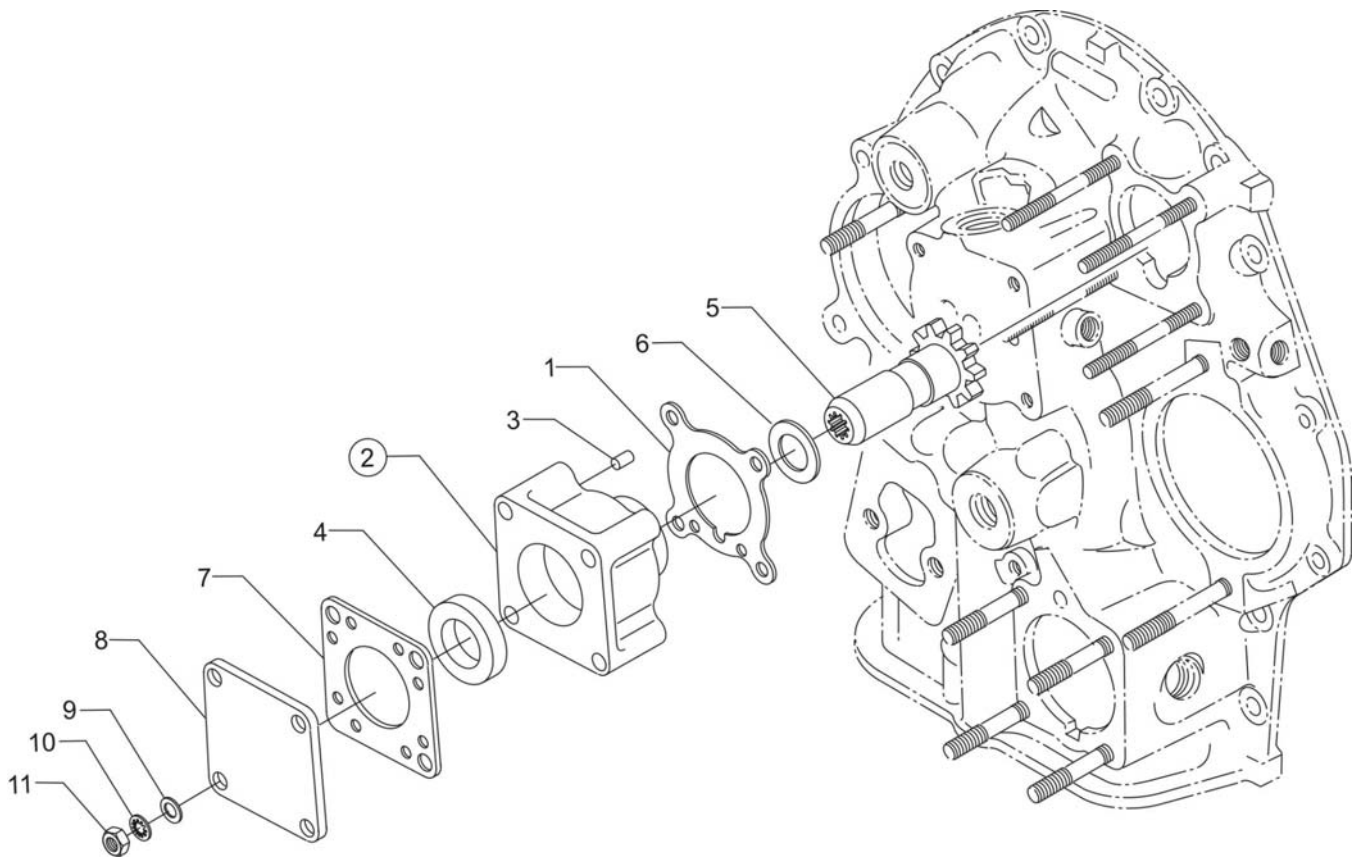
Figure Item	Code	Part Number	Description	Units per Assembly
1	*	78531	BODY, Oil pump	1
	**	LW-11839	BODY, Oil pump	1
2		61174	SHAFT, Oil pump drive	1
3	◆	LW-18110	IMPELLER ASSEMBLY, Oil pump driven	1
4		LW-18108	IMPELLER, Oil pump driven	1
5		78530	SHAFT, Oil pump idler	1
6	◆	LW-18109	IMPELLER, Oil pump driven	1
7		STD-35	WASHER, 5/16 plain	3
8		STD-1420	NUT, 5/16-18 slotted	3
9		LW-14260	SEAL, Oil tachometer drive	1
10		STD-8	WASHER, 1/4 plain	12
11		STD-160	WASHER, 1/4 lock, internal teeth	12
12		LW-25-0.94	BOLT, 1/4-20 x 15/16 long, hex. head	9
13		LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. head	1
14		LW-25-1.44	BOLT, 1/4-20 x 1-7/16 long, hex. head	2
15	**	STD-1227	WASHER, 1/4, copper	2
16	**	LW-25S2.75	BOLT, 1/4-20 x 2-3/4 long, hex. head, drilled end	2
17	**	STD-8	WASHER, 1/4 plain	2
18	**	STD-2249	NUT, 1/4-20 slotted shear	2
* Used on O-360-A1H6 engines. ** Used on LO-360-A1H6 engines. ◆ Sold in complete sets only (Kit P/N 05K19423-S).				



**Fuel Pump and Governor Drive Adapter Pad Cover**  
**Figure 18**

**ACCESSORY DRIVES****FIGURE 18 – FUEL PUMP AND GOVERNOR DRIVE ADAPTER PAD 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		LW-16335	FUEL PUMP, Dual diaphragm, low pressure	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 pad	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

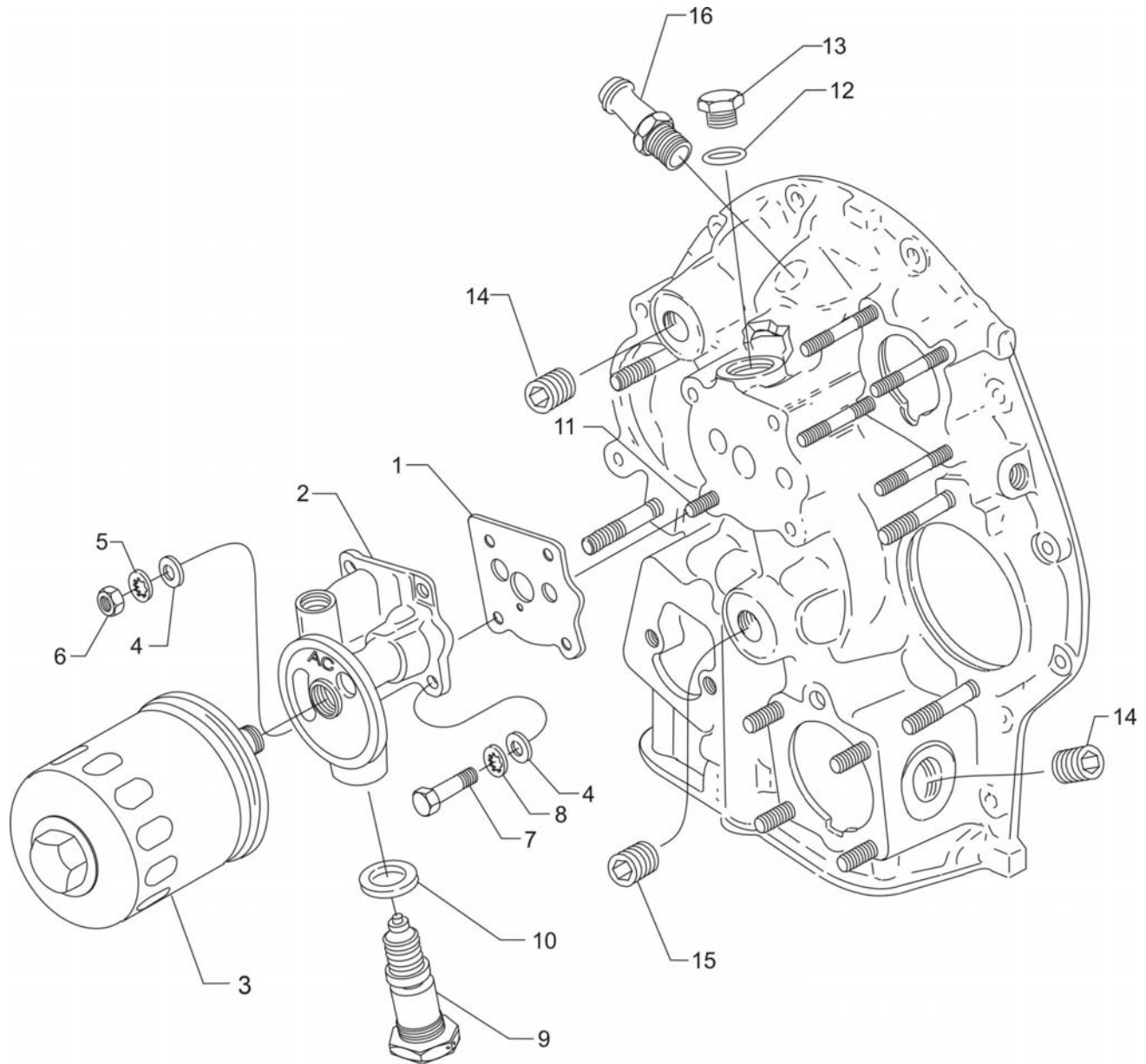


**Vacuum Pump Drive and Cover**  
**Figure 19**

**ACCESSORY DRIVES****FIGURE 19 –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 drive 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





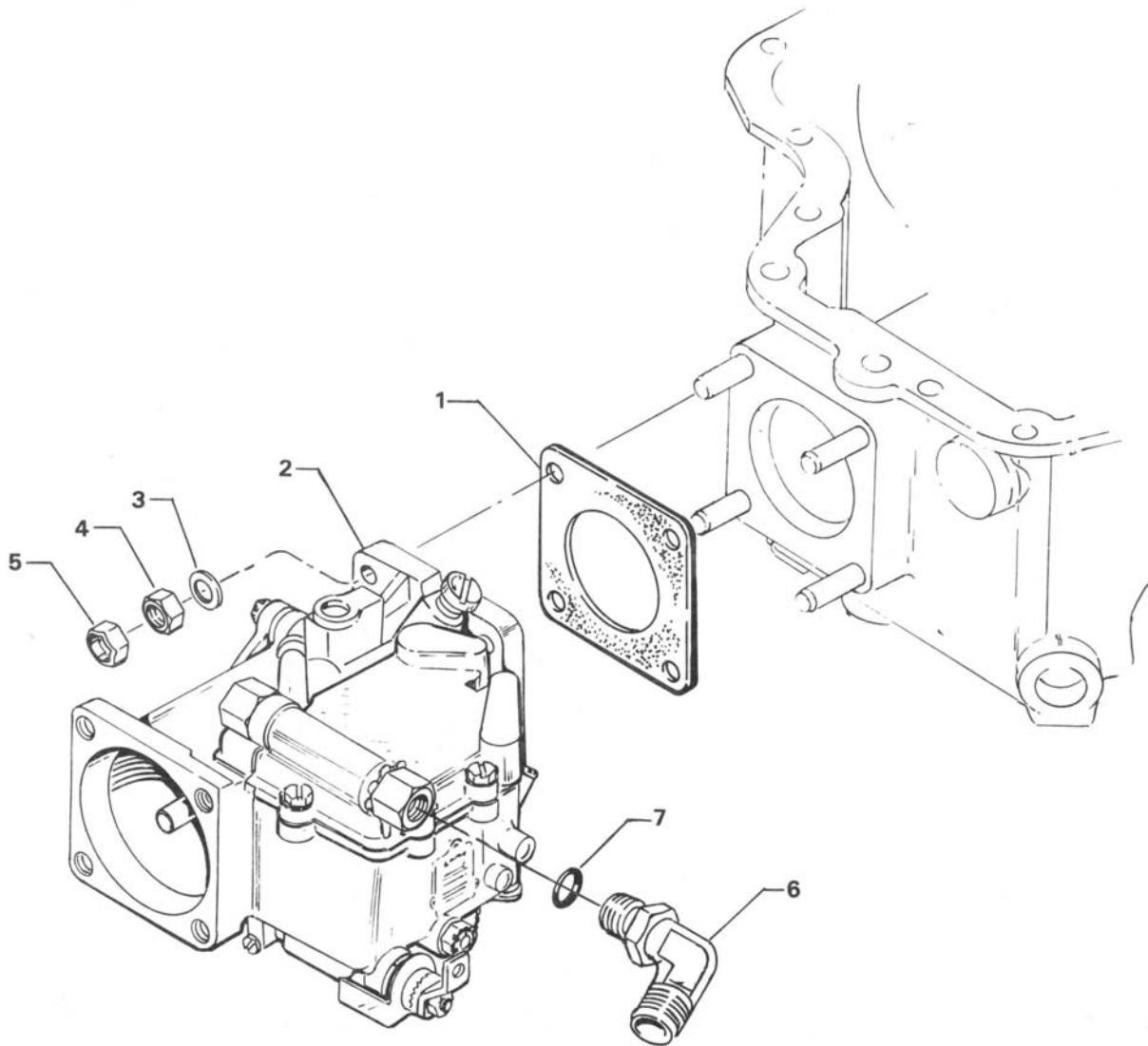
### Oil Filter Assembly, Oil Cooler Bypass Valve and Breather Fitting

#### Figure 20



**ACCESSORY DRIVES****FIGURE 20 – OIL FILTER ASSEMBLY, OIL COOLER BYPASS VALVE AND  
BREATHING FITTING**

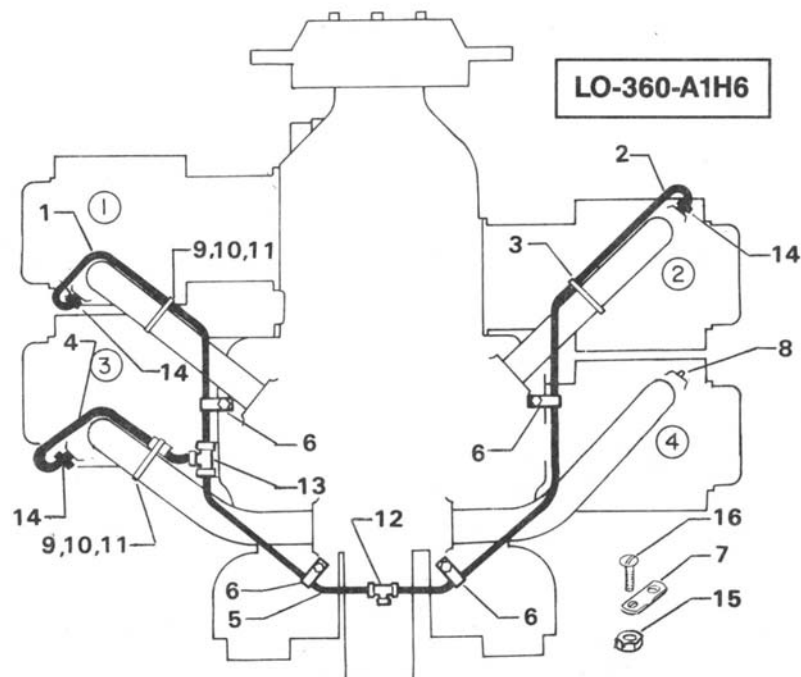
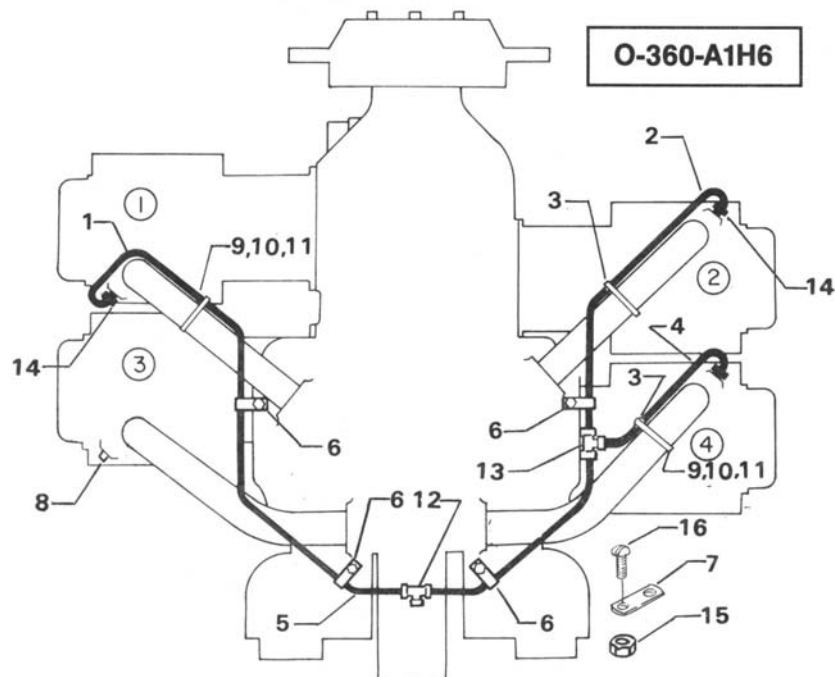
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		06B23862	GASKET, Oil filter adapter	1
2		77852	OIL FILTER BASE ASSEMBLY	1
3	*	LW-13216	OIL FILTER, Long	1
4		STD-8	WASHER, 1/4 plain	4
5		STD-160	WASHER, 1/4 lock, internal teeth	4
6		STD-1411	NUT, 1/4-20 plain	1
7		LW-25-1.00	BOLT, 1/4-20 x 1.00 long, hex. head	3
8		STD-160	WASHER, 1/4 lock, internal teeth	3
9		53E22144	VALVE ASSEMBLY, Temperature control oil cooler bypass	1
10		76510	GASKET, Valve assembly	1
11		25C-10	STUD, 1/4-20 x 1-1/4 long	1
12		06E19769-0.63	GASKET, 7/8 O.D. x 5/8 I.D. x 3/32 annular	1
13		62417	PLUG, Oil cooler bypass	1
14		STD-784	PLUG, 3/8-18 NPT, allen head	2
15		62732	CAP, Tachometer drive	1
16		71140	FITTING, Breather	1
<p>* Reference latest revision of SSP-885 for oil filter kits and replacement filters.</p> <p><b>NOTE:</b> Reference latest revision of Lycoming SSP-885 for oil filter and replacement filters.</p>				



**Carburetor Assembly  
Figure 21**

**FUEL DISTRIBUTION****FIGURE 21 – CABURETOR ASSEMBLY**

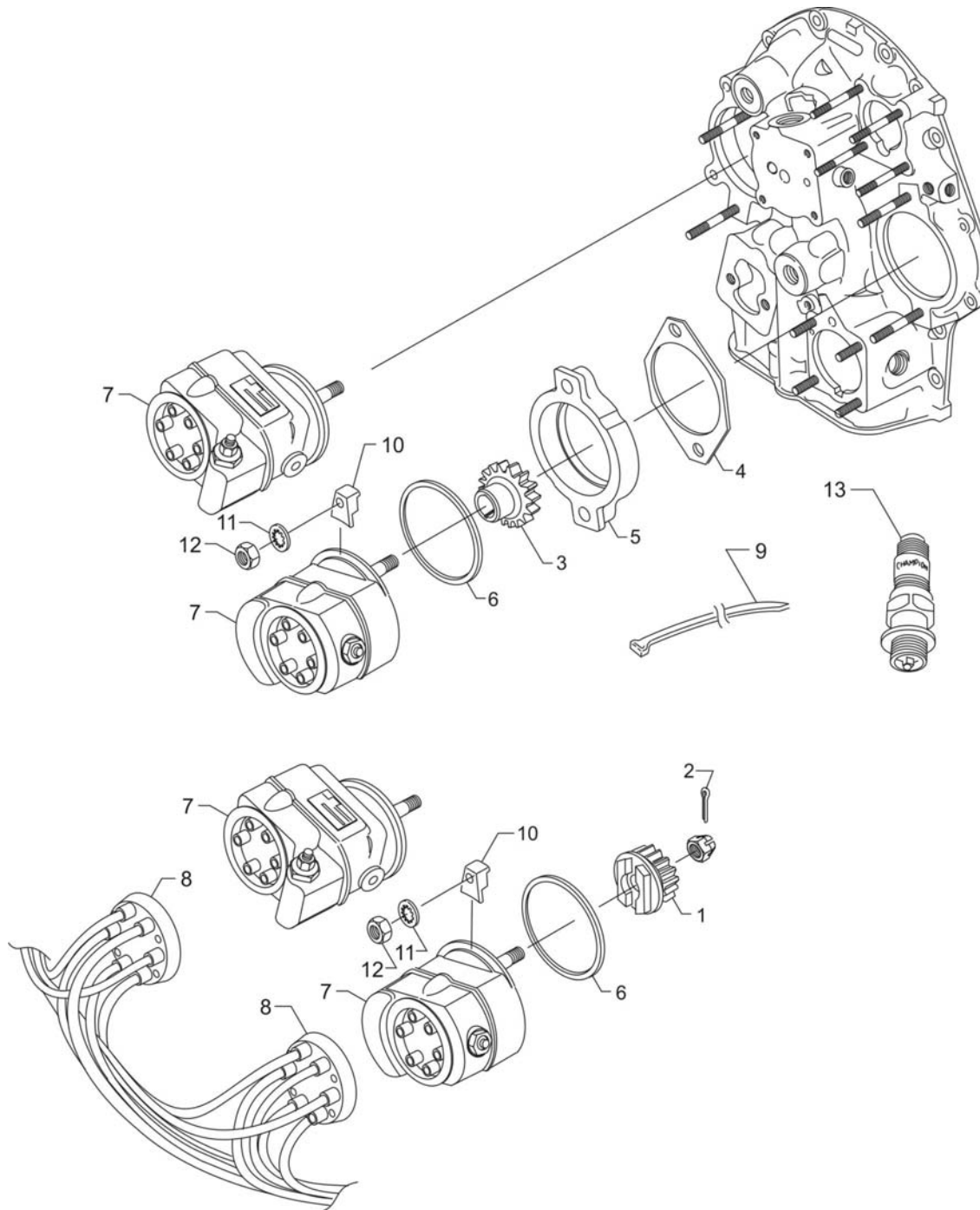
<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		77154	GASKET, Carburetor	1
2	<b>V</b>	61E23680	CARBURETOR, HA-6 <b>V</b> AV 10-6019-1	1
	<b>V</b>	63E23681	CARBURETOR, HA-6 <b>V</b> AV 10-6019	1
3		STD-35	WASHER, 5/16 plain	4
4		STD-1410	NUT, 5/16-18 plain	4
5		STD-475	WASHER, 5/16 lock, internal teeth	4
6		72377	ELBOW, 3/8 tubing, adjustable 90° (inlet)	1
7		MS29512-06	“O” RING	1
<b>V</b> Vendor Prime Manufacturer part				



**Priming System  
Figure 22**

**FUEL DISTRIBUTION**  
**FIGURE 22 - PRIMING SYSTEM**

Figure Item	Code	Part Number	Description	Units per Assembly
1	*	LW-12098-0-280	TUBE ASSEMBLY, Primer, cylinder no. 1	1
	**	LW-12098-0-170	TUBE ASSEMBLY, Primer cylinder no. 1	1
2	*	LW-12098-0-170	TUBE ASSEMBLY, Primer, cylinder no. 2	1
	**	LW-12098-0-320	TUBE ASSEMBLY, Primer, cylinder no. 2	1
3		LW-12598	SLEEVE, Priming line	3
4	*	LW-12098-0-130	TUBE ASSEMBLY, Primer, cylinder no. 4	1
	**	LW-12098-0-130	TUBE ASSEMBLY, Primer, cylinder no. 3	1
5	*	LW-12098-0-140	TUBE ASSEMBLY, Primer, intermediate	1
	**	LW-12098-01-00	TUBE ASSEMBLY, Primer, intermediate	1
6		LW-16266-25-13	CLAMP	4
7		LW-14432	BRACKET, Support clamp	1
8	◆	1102	PLUG, 1/8-27 NPT, allen head	1
9		LW-18959-175-25	CLAMP, 1-3/4 I.D. with 1/4 diameter offset	3
10		STD-553	SCREW, No.6-32 x 1/2 long, round head	3
11		MS21044N06	NUT, No. 6-32 self-locking	3
12		LW-18071	TEE, Union, 1/8 tube	1
13		STD-853	TEE, Union, 1/8 tube	1
14		63D21408	NIPPLE ASSEMBLY, Primer	3
15		STD-670	LOCKNUT, No. 10-32	1
16		STD-692	SCREW, No. 10-32	1
* Used on O-360-A1H6 engines. ** Used on LO-360-A1H6 engines. ◆ Assemble in cylinder head.				



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

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

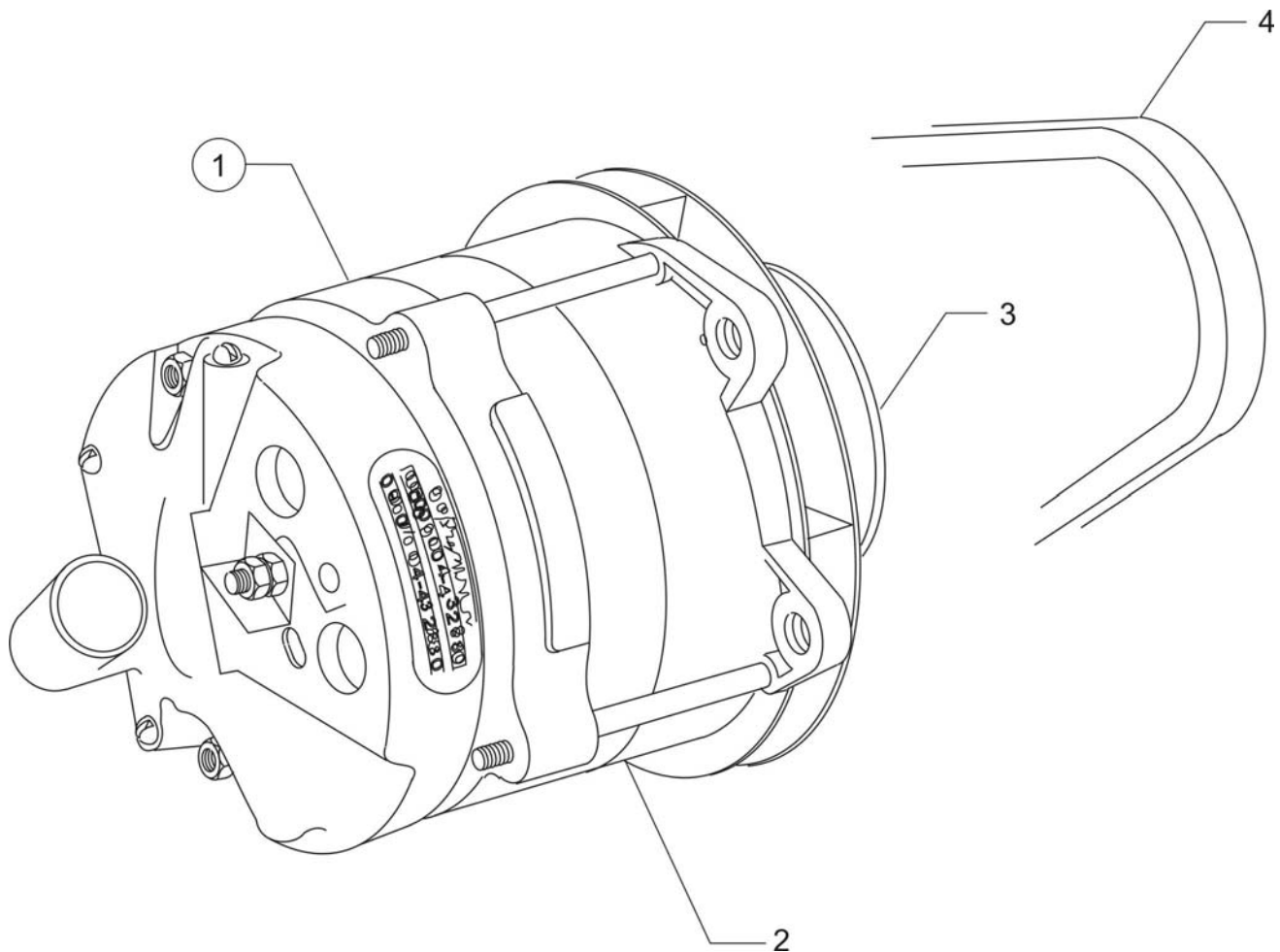
Figure Item	Code	Part Number	Description	Units per Assembly
1		61665	GEAR, Magneto, impulse coupling	1
2		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	2
3		68C19622	GEAR, Magneto	1
4		62224	GASKET, Magneto adapter	1
5		LW-12706	ADAPTER, Magneto, impulse coupling	1
6		LW-12681	GASKET, Magneto	2
7	<b>*V</b>	66GP-0SANN	MAGNETO, Right, plain, Slick <b>V</b> 4370	1
	<b>*V</b>	66GC25SFNN	MAGNETO, Left, impulse coupling, Slick <b>V</b> 4373	1
	<b>**V</b>	66GP-0RANN	MAGNETO, Right, plain, Slick <b>V</b> 4302 (reverse rotation)	1
	<b>**V</b>	66GC25RFNN	MAGNETO, Left, impulse coupling, Slick <b>V</b> 4330, (reverse rotation)	1
8	<b>V</b>	67P20414	HARNESS ASSEMBLY, Right, Slick <b>V</b> M2982	1
	<b>V</b>	67P20415	HARNESS ASSEMBLY, Left, Slick <b>V</b> M2981	1
9		76734	ZIP STRAP	4
10		66M21195	CLAMP, Magneto	4
11		STD-475	WASHER, 5/16 lock, internal teeth	4
12		STD-1410	NUT, 5/16-18 plain	4
13	<b>♦V</b>	1182-E7	SPARK PLUG, Champion <b>V</b> REM38E	8
	<b>†</b>	01P19762-1-2	BAG, Magneto harness attaching	
<p>* Used on O-360-A1H6 engines.</p> <p>** Used on LO-360-A1H6 engines.</p> <p><b>V</b> Vendor Prime Manufacturer part</p> <p><b>♦</b> Item No. 11 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.</p> <p><b>†</b> See page 46 for breakdown of individual parts contained in the magneto and harness attaching bag. These parts to be added by customer per engine line drawing included in each bag.</p>				

**01P19762-1-2– 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-696	WASHER, 1/4 thin	4
STD-1916	SCREW, 1/4-20 x 1-1/8 long, fill. head	3
LW-M-2375	PLATE, Spark plug cable, two wire	2



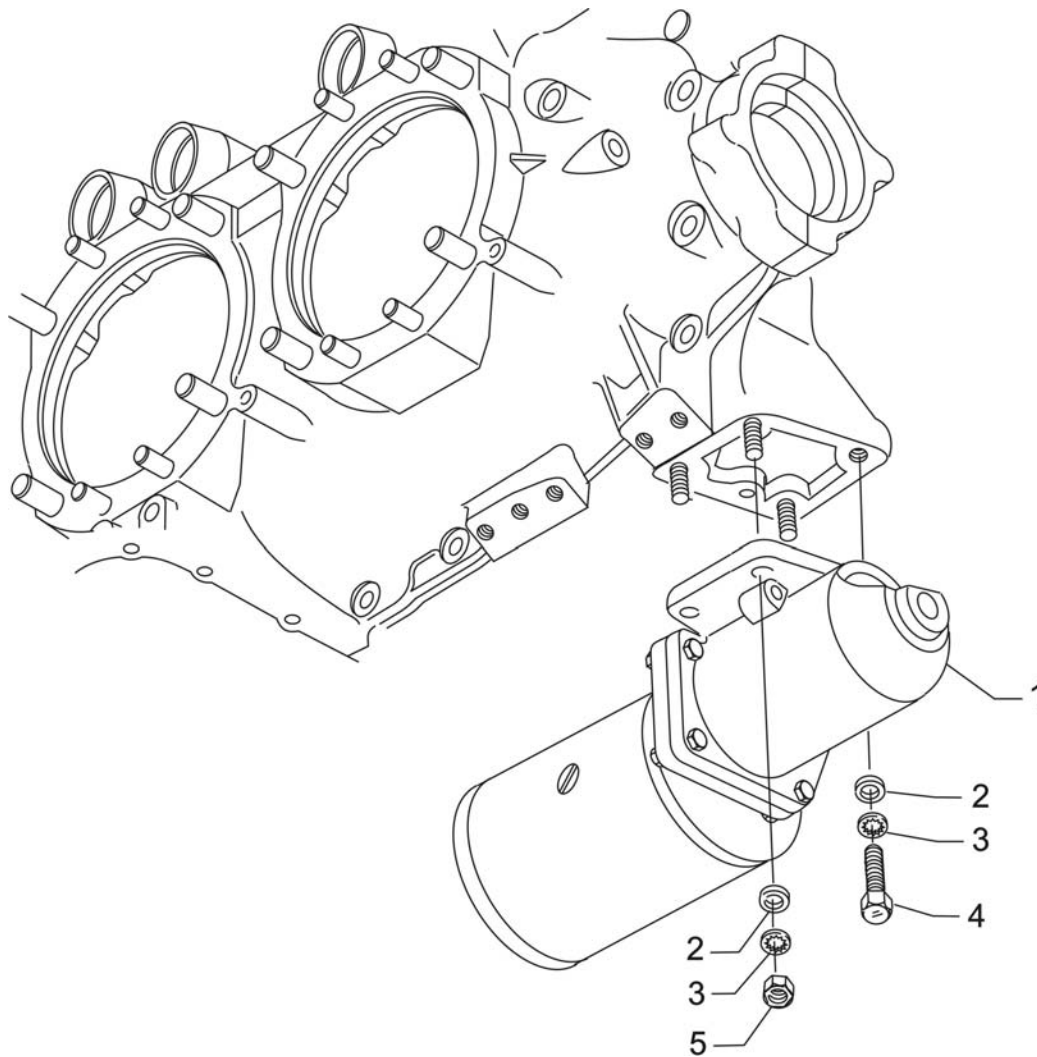
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**Alternator Assembly and Belt  
Figure 24**

**IGNITION DISTRIBUTION SYSTEM****FIGURE 24 – ALTERNATOR ASSEMBLY AND BELT**

<b>Figure Item</b>	<b>Code</b>	<b>Part Number</b>	<b>Description</b>	<b>Units per Assembly</b>
1		32B19561	ALTERNATOR ASSEMBLY, 12V.-70Amp.	1
2	<b>V</b>	LW-14318	ALTERNATOR, 12V. – 70Amp. <b>V</b> ALX-8421-LS	1
3		36B19475	PULLEY, Alternator	1
4		37A19773-380	BELT, Alternator, 3/8 wide	1
<b>V</b> Vendor Prime Manufacturer part <b>NOTE:</b> See latest revision of Service Instruction No. 1154 for complete listing of FAA approved starters, generators, alternators, regulators and relays.				



**Starter Motor and Attaching Parts**  
**Figure 25**

**CRANKING SECTION****FIGURE 25 - STARTER MOTOR AND ATTACHING PARTS**

Figure Item	Code	Part Number	Description	Units per Assembly
1	* <b>V</b>	31A26041	STARTER, 24V., 12/14 pitch, Kelly <b>V</b> ERZ-8011	1
	* <b>V</b>	31B23592	STARTER, 12/24V, 12/14 pitch, Sky-Tec <b>V</b> 149NL	1
	** <b>V</b>	31A22472	STARTER, 12V., 12/14 pitch, Kelly <b>V</b> MZ6220	1
	** <b>V</b>	31B23593	STARTER, 12/24V., 12/14 pitch, Sky-Tec <b>V</b> 149NLR	1
2		STD-35	WASHER, 5/16 plain	4
3		STD-475	WASHER, 5/16 lock, internal teeth	4
4		LW-31-1.16	BOLT, 5/16-18 x 1-5/32 long, hex. head	1
	♦	LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. head	1
5		STD-1410	NUT, 5/16-18 plain	3
<p>* Used on O-360-A1H6 engines.  ** Used on LO-360-A1H6 engines.  ♦ Used on Sky-Tec starters.  <b>V</b> Vendor Prime Manufacturer part  <b>NOTE:</b> See latest revision of Lycoming Service Instruction No. 1154 for complete listing of FAA approved starters, generators, regulators and relays.</p>				

**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

**SERVICE KIT SECTION (CONT.)****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>05K21104</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
65441	SEAT, Valve spring, lower intake	1
LW-13323	SEAT, Valve spring, lower	1
LW-11800	SPRING, Valve, outer	2
LW-11795	SPRING, Valve, inner	2
LW-10077	SEAT, Valve spring, upper	1
LW-16475	SEAT, Valve spring, upper exhaust	1
60009	KEY, Valve, intake	2
17C21191	KEY, Valve, exhaust	2
MS20823-6D	ELBOW, 45°, 3/8 flared tube	1

**SERVICE KIT SECTION (CONT.)****CYLINDER PISTON AND RING ASSEMBLY (CONT.)**

<b>PART NO.</b>	<b>PART NAME</b>	<b>Qty.</b>
<b>05K21104</b>	<b>KIT - CYLINDER, PISTON AND RING ASSEMBLY</b>	<b>1</b>
17C19386	CAP, Valve stem, exhaust (rotator)	1
1102	PLUG, 1/8-27 NPT, Allen head	2
75089	PISTON	1
74241	RING, Piston, compression	2
14H21950	RING, Piston, oil	1
LW-14078	PIN, Piston	1
71481	RING, Oil seal, 3/32 diameter x 4-27/43 I.D.	1
LW-18661	SEAL, Shroud tube	2
70310	SEAL, Shroud tube	2
75906	GASKET, Rocker box cover	1
SSP-299	TAG, Use of piston pin plugs	1
72198	PLUG, Piston pin	2
77611	GASKET, Exhaust flange	1
71973	GASKET, 2 bolt flange	1
LW-12272	LOCKPLATE, Shroud tube	1
06A23493	SEAL, Shroud tube	2

**CRANKCASE ASSEMBLY AND THRU-STUD KIT**

<b>PART NO.</b>	<b>PART NAME</b>	<b>Qty.</b>
<b>LW-18399-1-S</b>	<b>KIT - CRANKCASE ASSEMBLY AND THRU-STUD</b>	<b>1</b>
LW-18399-1	CRANKCASE ASSEMBLY	1
76220	THRU-STUD	4
31C-14	STUD, 5/16-18 x 1-3/4 long	4
74887	SPACER, 33/64 I.D. x 7/8 O.D. x 3/8 thick	2
AN565B1032H4	SET SCREW, No. 10-32 x 1/4 long	1
AN565B1032H5	SET SCREW, No. 10-32 x 15/16 long	1
STD-2090	NUT, 1/4-20 plain	2



**SERVICE KIT SECTION (CONT.)****CRANKCASE ASSEMBLY AND THRU-STUD KIT – ROLLER TAPPETS**

<b>PART NO.</b>	<b>PART NAME</b>	<b>Qty.</b>
<b>LW-18399-5-S</b>	<b>KIT - CRANKCASE ASSEMBLY AND THRU-STUD</b>	<b>1</b>
LW-18399-5	CRANKCASE ASSEMBLY (Roller tappet engines)	1
76220	THRU-STUD	4
31C-14	STUD, 5/16-18 x 1-3/4 long	4
74887	SPACER, 33/64 I.D. x 7/8 O.D. x 3/8 thick	2
AN565B1032H4	SET SCREW, No. 10-32 x 1/4 long	1
AN565B1032H5	SET SCREW, No. 10-32 x 15/16 long	1
STD-2090	NUT, 1/4-20 plain	2

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AN565B1032H5	Set Screw	3	LW-13792	Seal	7
AN6-16	Bolt	1	LW-13793	Stud	5
AN6-34A	Bolt	13	LW-13796	Shaft	11
AN960-616L	Washer	13	LW-13896	Plug	3
LRT23381	Body Assy.	7	LW-13923	Bushing	15
LW-25-0.94	Bolt	29	LW-14021	Shaft	3
LW-25-0.94	Bolt	33	LW-14078	Pin	15
LW-25-1.00	Bolt	39	LW-14260	Seal	33
LW-25-1.13	Bolt	13	LW-14318	Alternator	49
LW-25-1.13	Bolt	29	LW-14432	Bracket	43
LW-25-1.13	Bolt	33	LW-14820	Ring	9
LW-25-1.25	Bolt	25	LW-14995	Spring	19
LW-25-1.44	Bolt	33	LW-15592-5-05	Clamp	23
LW-25-1.50	Bolt	13	LW-15592-8-28	Clamp	25
LW-25-1.75	Bolt	13	LW-16266-25-13	Clamp	43
LW-25S1.50	Bolt	13	LW-16335	Fuel Pump	35
LW-25S2.75	Bolt	33	LW-16475	Seat	19
LW-31-0.94	Bolt	1	LW-16783-15	Gage Assy.	27
LW-31-0.94	Bolt	51	LW-16783-16	Gage Assy.	27
LW-31-1.16	Bolt	51	LW-18071	Tee	43
LW-31H0.75	Bolt	1	LW-18085	Spring	7
LW-31H0.88	Bolt	11	LW-18108	Impeller	33
LW-10077	Seat	19	LW-18109	Impeller	33
LW-10551	Gear	9	LW-18110	Impeller Assy.	33
LW-11485	Tube	19	LW-18399-1	Crankcase Assy.	5
LW-11713	Spring	7	LW-18399-1-S	Crankcase Assy. Kit	5
LW-11750-S	Connecting Rod	15	LW-18399-5	Crankcase Assy.	5
LW-11795	Spring	19	LW-18399-5-S	Crankcase Assy.	5
LW-11800	Spring	19	LW-18506	Support Assy.	9
LW-11839	Body	33	LW-18639	Lockplate	9
LW-12098-0-100	Tube Assy.	43	LW-18661	Seal	19
LW-12098-0-130	Tube Assy.	43	LW-18667	Pin	11
LW-12098-0-140	Tube Assy.	43	LW-18843	Camshaft Assy.	11
LW-12098-0-170	Tube Assy.	43	LW-18845	Camshaft Assy.	11
LW-12098-0-280	Tube Assy.	43	LW-18959-175-25	Clamp	43
LW-12098-0-320	Tube Assy.	43	LW-19227	Counterweight Assy.	9
LW-12186	Nut	15	MS20823-6D	Elbow	17
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LW-12545	Plug	29	STD-8	Washer	13
LW-12598	Sleeve	43	STD-8	Washer	25
LW-12681	Gasket	45	STD-8	Washer	29
LW-12706	Adapter	45	STD-8	Washer	33
LW-12892	Thrust Button	21	STD-8	Washer	37
LW-13216	Oil Filter	39	STD-8	Washer	39
LW-13323	Seat	19	STD-19	Dowel	3
LW-13353	Gasket	29	STD-33	Washer	13
LW-13790	Shaft	21	STD-33	Washer	35

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STD-35	Washer	41	STD-1411	Nut	39
STD-35	Washer	51	STD-1420	Nut	33
STD-160	Washer	13	STD-1623	Insert	5
STD-160	Washer	25	STD-1727	Washer	1
STD-160	Washer	29	STD-1774	Pin	37
STD-160	Washer	33	STD-1821	Hose	23
STD-160	Washer	37	STD-1882	Screw	35
STD-160	Washer	39	STD-1925	Screw	21
STD-475	Washer	3	STD-2090	Nut	21
STD-475	Washer	17	STD-2168	Nut	11
STD-475	Washer	35	STD-2231	Ring	11
STD-475	Washer	41	STD-2233	Locknut	17
STD-475	Washer	45	STD-2246	Screw	9
STD-475	Washer	51	STD-2249	Nut	13
STD-514	Dowel	5	STD-2249	Nut	33
STD-551	Plug	29	25C-8	Stud	17
STD-553	Screw	43	25C-10	Stud	39
STD-557	Dowel	5	25C-22	Stud	31
STD-596	Nut	13	31C-12	Stud	5
STD-670	Locknut	43	31C-12	Stud	17
STD-678	Washer	13	31C-12	Stud	31
STD-684	Nipple	23	31C-13	Stud	5
STD-690	Washer	1	31C-14	Stud	29
STD-692	Screw	43	31C-17	Stud	5
STD-713	Cotter Pin	1	31C-19	Stud	31
STD-713	Cotter Pin	45	31CD-17	Stud	31
STD-783	Plug	31	31CD-22	Stud	31
STD-784	Plug	31	38-13	Stud	5
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STD-798	Dowel	3	38D-17	Stud	5
STD-853	Tee	43	50-15	Stud	5
STD-872	Nut	1	383-B	Nut	21
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STD-1065	Dowel	9	1102	Plug	5
STD-1211	Plug	9	1102	Plug	17
STD-1227	Washer	33	1102	Plug	25
STD-1339	Plug	5	1102	Plug	29
STD-1353	Insert	17	1102	Plug	31
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61098	Adapter Assy.	37	72797	Roller	9
61174	Shaft	33	72970	Gear Assy.	37
61183	Gasket	37	73249	Washer	3
61247	Cover	21	73250	Washer	3
61400	Stud	29	73251	Washer	3
61510	Plug	9	73252	Washer	3
61544	Plunger	11	73346	Flange	25
61665	Gear	45	73383	Lockplate	1
62224	Gasket	45	73810	Bushing	9
62417	Plug	39	73818	Gasket	31
62732	Cap	39	74068	Ring	27
65441	Seat	19	74241	Ring	15
66610	Bushing	17	74637	Bushing	21
66796	Insert	17	74887	Spacer	21
68668	Spring	7	74977	Support Assy.	9
68759	Tube Assy.	23	74996	Gear Assy.	11
68760	Tube Assy.	23	75061	Bolt	15
68761	Tube Assy.	23	75072	Gear Assy.	11
69106	Cover	35	75089	Piston	15
69551	Gasket	35	75154	Stud	5
69602	Connection	29	75339	Baffle Assy.	23
69603	Hose	25	75656-S	Bushing	9
69796	Dowel	5	75657-S	Bushing	9
70310	Seal	19	75736	Tube	27
70455	Gasket	3	75888	Stud	31
70484	Screen	29	75906	Gasket	21
71140	Fitting	39	76118	Spacer	11
71481	Ring	21	76119	Shield	31
71596	Washer	37	76121	Shaft Assy.	11
71610	Hook	23	76220	Stud	13
71611	Retainer	23	76510	Gasket	39
71712	Pipe	25	76534	Shim	1
71713	Pipe	25	76734	Zip Strap	45
71903-A	Bushing	9	76943	Guide	17
71907	Washer	9	77154	Gasket	41
71973	Gasket	25	77159	Sump Assy.	29
72053	Gasket	3	77309	Bushing	11
72057	Seat	17	77467	Spring	7
72058	Seat	17	77611	Gasket	17
72059	Gasket	27	77808	Valve Assy.	7
72075	Seal	7	77852	Base Assy.	39
72091	Ring	7	77872	Bushing	3
72155-S	Bushing	9	77874	Gear Assy.	3
72158	Bushing	5	77875	Gear	3
72198	Plug	15	78530	Shaft	33

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06A19956	Seal	37	17B23936	Valve	19
06A23493	Seal	19	17C19386	Cap	19
06B23862	Gasket	39	17C21191	Key	19
06E19769-0.63	Gasket	39	17F19357	Rocker Assy.	21
06E19769-1.00	Gasket	29	18A26093	Bearing	7
06E19769-1.25	Gasket	7	18D26098	Bearing	7
07A21097	Bracket	1	18M26105	Bearing	15
07F21098	Link	1	21A21533-02	Housing Assy.	31
07F21099	Strut	1	21A21651-04	Housing Assy.	31
13B47228	Cr'shft. & Bush. Assy.	9	31A22472	Starter	51
13B47231	Cr'shft. & Bush. Assy.	9	31A26041	Starter	51
13S19646	Gear	9	31B23592	Starter	51
14H21950	Ring	15	31B23593	Starter	51
14S23890	Bolt	15	32B19561	Alternator Assy.	49
14W21696	Roller	9	36B19475	Pulley	49
15B21319	Socket	19	37A19773-380	Belt	49
15B26064	Body	7	53E22144	Valve Assy.	39
15B26066	Plunger Assy.	19	61E23680	Carburetor	41
15F19957-28	Rod Assy.	21	61E23681	Carburetor	41
15F19957-29	Rod Assy.	21	63D21408	Nipple Assy.	43
15F19957-30	Rod Assy.	21	66GC25RFNN	Magneto	45
15F19957-31	Rod Assy.	21	66GC25SFNN	Magneto	45
15F19957-32	Rod Assy.	21	66GP-0RANN	Magneto	45
15F19957-33	Rod Assy.	21	66GP-0SANN	Magneto	45
15F19957-34	Rod Assy.	21	66M21195	Clamp	45
15F19957-35	Rod Assy.	21	67P20414	Harness Assy.	45
15F19957-36	Rod Assy.	21	67P20415	Harness Assy.	45
15F19957-37	Rod Assy.	21	68C19622	Gear	45
15G23461	Shroud Tube Assy.	19			