

(L)IO-360-M1A Illustrated Parts Catalog

October 2025

|PC-(L)IO-360-M1A Rev. 1



652 Oliver Street
Williamsport, PA 17701

(L)IO-360-M1A Illustrated Parts Catalog

Lycoming Part Number: PC-(L)IO-360-M1A Rev. 1

For additional information:

Mailing address:

Lycoming Engines
652 Oliver Street
Williamsport, PA 17701 U.S.A.

Phone:

Factory: U.S. and Canada toll free: +1(800) 258-3279
International Customers: +1(570) 323-6181

Lycoming's regular business hours are Monday through Friday from 8:00 A.M. through 5:00 P.M. Eastern Time (-5 GMT)

Visit us online at:

www.lycoming.com



©2025 Lycoming. All Rights Reserved.

Lycoming and "Powered by Lycoming" are trademarks or registered trademarks of Lycoming.

Lycoming Engines, a division of AVCO Corporation.

All brand and product names referenced in this publication are trademarks or registered trademarks of their respective companies.

Record of Revisions

NOTICE: Service Documents with a later release date than this parts catalog override parts information in this document.

Rev No.	Revision Changes	Issue Date
New	Initial Release of PC-(L)IO-360-M1A (Supersedes PC-406-L2A)	February 2016
Rev. 1	Introduction - Added Roller Tappets section - Revised How to Order Parts and Publications section Chapter 24-20 - Changed the quantity of part number 76534 from 5 to As Required in the parts list for Figure 1 - Moved Figure 2 Alternator Assembly and the parts list for Figure 2 from Chapter 74-20 to Chapter 24-20 Chapter 72-20 - Removed the Crankcase Assembly Kits from the parts list for Figure 4 - Changed the part number for Item 13 from AN960-616L to NAS1149F0632P in the parts list for Figure 8 - Deleted Items 23 and 24 from Figure 8 and the parts list for Figure 8 Chapter 72-30 - Changed the part number for Item 2 from LW-13923 to 01K28983 in the parts list for Figure 9 - Changed the part number for Item 10 from 14H21950 to 14H29884 in the parts list for Figure 9 - Deleted Items 17, 18, 19, 1nd 20 from the parts list for Figure 10 - Revised the part numbers for the push rods, Item 1, in the parts list for Figure 11 - Revised Figure 12 because the parts list that lists push rods has changed from Figure 10 to Figure 11 - Revised the part number for the rocker box cover gasket in the parts list for Figure 13 Chapter 73-10 - Revised Figure 21 and the parts list for Figure 21 to indicate an inverted manifold Service Kit Section - Updated the Seal and Gasket Set and the Cylinder, Piston and Ring Assembly parts lists to conform with current contents listings	October 2025

This page intentionally left blank

TABLE OF CONTENTS

<u>Subject</u>	<u>Chapter</u>	<u>Page</u>
Frontal		
Record of Revisions		i
Table of Contents		iii
Introduction		v
Abbreviations and Acronyms		ix
Oversize and Undersize Parts Listing		xi
Electrical Power	24-20	
DC Generation	24-20	
1. Alternator Mounting and Attaching Parts		0-1
2. Alternator Mounting and Attaching Parts		2-3
3. Alternator Mounting and Attaching Parts		4-5
4. Alternator Assembly and Belt		6-7
Reciprocating Engine	72-00	
Front Section	72-10	
1. Propeller Governor Drive Assembly		8-9
Power Section	72-20	
1. Crankcase Assembly		10-11
2. Crankcase Related Parts		12-13
3. Crankshaft Assembly and Related Parts		14-15
4. Crankshaft Idler Gears, Tachometer Drive and Camshaft		16-17
5. Crankcase Attaching Parts		18-19
Cylinder Section	72-30	
1. Connecting Rods, Pistons and Ring Assemblies		20-21
2. Cylinder Assembly		22-23
3. Cylinder Related Parts		24-25
4. Valve Assembly and Related Parts		26-27
5. Cylinder Head Drain Tubes, Intercylinder Cooling Baffles, and Rocker Box Covers		28-29
6. Intake Pipes Assembly		30-31
Lubrication System	72-50	
1. Oil Sump Assembly and Oil Suction Screen		32-33
Accessory Drives	72-60	

1. Accessory Housing Assembly	34-35	
2. Oil Pump Assembly and Accessory Housing Attaching Parts	36-37	
<u>Subject</u>	<u>Chapter</u>	<u>Page</u>
Accessory Drives (Cont.)	72-60	
3. Fuel Pump Assembly and Attaching Parts	38-39	
4. Oil Filter Assembly, Oil Cooler Bypass Valve and Fittings	40-41	
5. Vacuum Pump Drive and Cover	42-43	
Engine and Fuel Control	73-00	
Fuel Distribution	73-10	
1. Fuel Injector, Fuel Manifold and Injection Nozzles.....	44-45	
2. Fuel Lines and Attaching Parts.....	46-49	
Ignition Distribution System	74-00	
Distribution	74-20	
1. Magnetos, Magneto Drives, Harnesses and Spark Plugs.....	50-51	
Starting	80-00	
Cranking	80-10	
1. Starter Attaching Parts	52-53	
Back Section		
Service Kit Section	55-58	
Numerical Index	59-64	

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 contains a complete list of spare parts for the Lycoming (L)IO-360-M1A Certified Series wide cylinder flange model engines.

How to Use this Catalog

This catalog is based on the Air Transport Association (ATA) Spec100 format.

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 100 format designates chapters by the numeric code. In the example below, Chapter 74 is for Ignition with a subsection 20 for Distribution.

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.

Roller Tappets

As a product improvement, Lycoming is installing roller tappets on its aircraft engines. Wide deck engines with roller tappets are identified with an “E” suffix after the serial number dash number (Example – L-*****-48E.) On rebuilt and Lycoming overhauled wide deck engines with roller tappets, the letter “A” suffix is replaced with the letter “E” suffix on the engine serial number.

The new parts include roller tappet body assembly, crankcase, camshaft, shorter push rods, shroud tubes and shroud tube seal. The engines use the same hydraulic units and the dry tappet clearance does not change. Refer to Reference 618 in the Table of Limits (SSP-1776) for dry tappet clearance values.

At this time, roller tappets are not installed in narrow deck engines.

ROLLER TAPPET PARTS ARE NOT INTERCHANGEABLE WITH CURRENT FLAT FACED TAPPETS.

If it is necessary to remove the roller tappet bodies prior to overhaul, they **must be reinstalled in the same location in the crankcase**. The roller tappets are indexed with flats in the new crankcase. It is possible to assemble the roller tappet bodies in two different orientations 180 degrees apart. Either orientation is acceptable while reinstalling. Lubricate all tappet bores, cam lobes and roller tappets with engine oil mixture only. (Refer to the latest revision of Service Instruction No. 1059.) Install the shroud tube seal in the crankcase, then install the shroud tube.

THE ROLLER TAPPETS ARE NOT FIELD REPAIRABLE AND NO DISASSEMBLY IS ALLOWED. THEREFORE, MAGNAFLUX OR ZYGLO INSPECTIONS ARE NOT ALLOWED. A VISUAL INSPECTION FOR INTEGRITY AND FREE ROTATION OF THE ROLLER ACTION IS ACCEPTABLE TO RETURN AN IN-USE ROLLER TAPPET TO SERVICE; HOWEVER, IT IS MANDATORY TO REPLACE ROLLER TAPPETS AT OVERHAUL.

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.

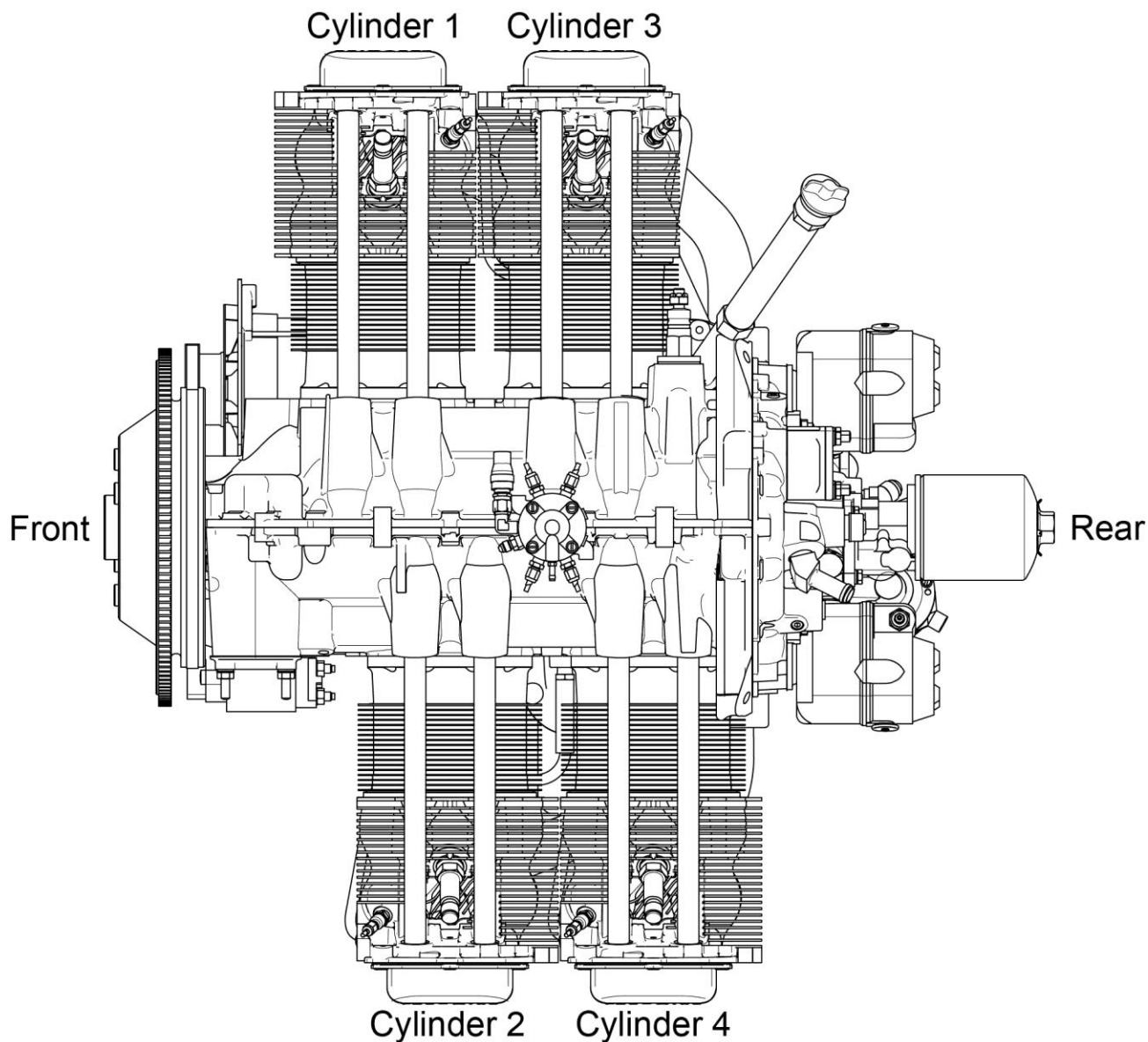
Any reference in this document to the supplier's/part manufacturer's product, by name, trademark, part number or other description is solely for the purpose of identification and does not indicate or infer that Lycoming accepts responsibility for quality control and/or airworthiness of parts, which do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

To order parts:

1. Contact the applicable Customer Service Hot Lines:
U.S. and Canada toll free - +1-800-258-3279
International Customers - +1-570-323-6181
8:00 A.M. – 5:00 P.M. EST (-5GMT) Monday through Friday
2. Give the model and serial number of your engine.
3. Give the part number, nomenclature, and quantity.

This publication eventually will be available for viewing and download on the Lycoming.com website.

To supply any comments, suggestions, or corrections to this parts catalog, go online to the Lycoming.com website on the internet.

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

©2025 by Lycoming. "All Rights Reserved." All Lycoming publications are to be considered copyrighted and may not be reproduced without permission of the company.

Abbreviations and Acronyms

A	
Adj.	Adjustable
amp.	Ampere
Assy	Assembly
F	
F	Flat Tappet
Fill.	Fillister
H	
Hex.	Hexagon
I	
I.D.	Inside Diameter
M	
mm	Millimeter
N	
No.	Number
NPT	National Pipe Taper (thread)
O	
O.D.	Outside Diameter
P	
P/N	Part Number
psi	Pounds per square inch
R	
RT	Roller Tappet

This page intentionally left blank

OVERSIZE AND UNDERSIZE PARTS LISTING

PART NO.	DESCRIPTION	OVERSIZE (IN.)							UNDERSIZE (IN.)		
		P05 .005	P10 .010	P15 .015	P20 .020	P30 .030	P40 .040	P50 .050	M03 .003	M06 .006	M10 .010
61681	GUIDE	X	X		X	X	X				
66610	BUSHING	X	X								
66796	INSERT		X								
69796	DOWEL		X								
72057	SEAT		X								
72058	SEAT		X								
72155-S	BUSHING	X	X								
74241	RING		X								
75656-S	BUSHING		X	X							
75657-S	BUSHING		X	X							
14H29884	RING		X								
16R22291	GUIDE	X	X		X	X					
18A26093	BEARING								X	X	
18M26105	BEARING								X	X	
18D26098	BEARING								X	X	
LW-13792	SEAL							X			
STD-1065	DOWEL		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 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.

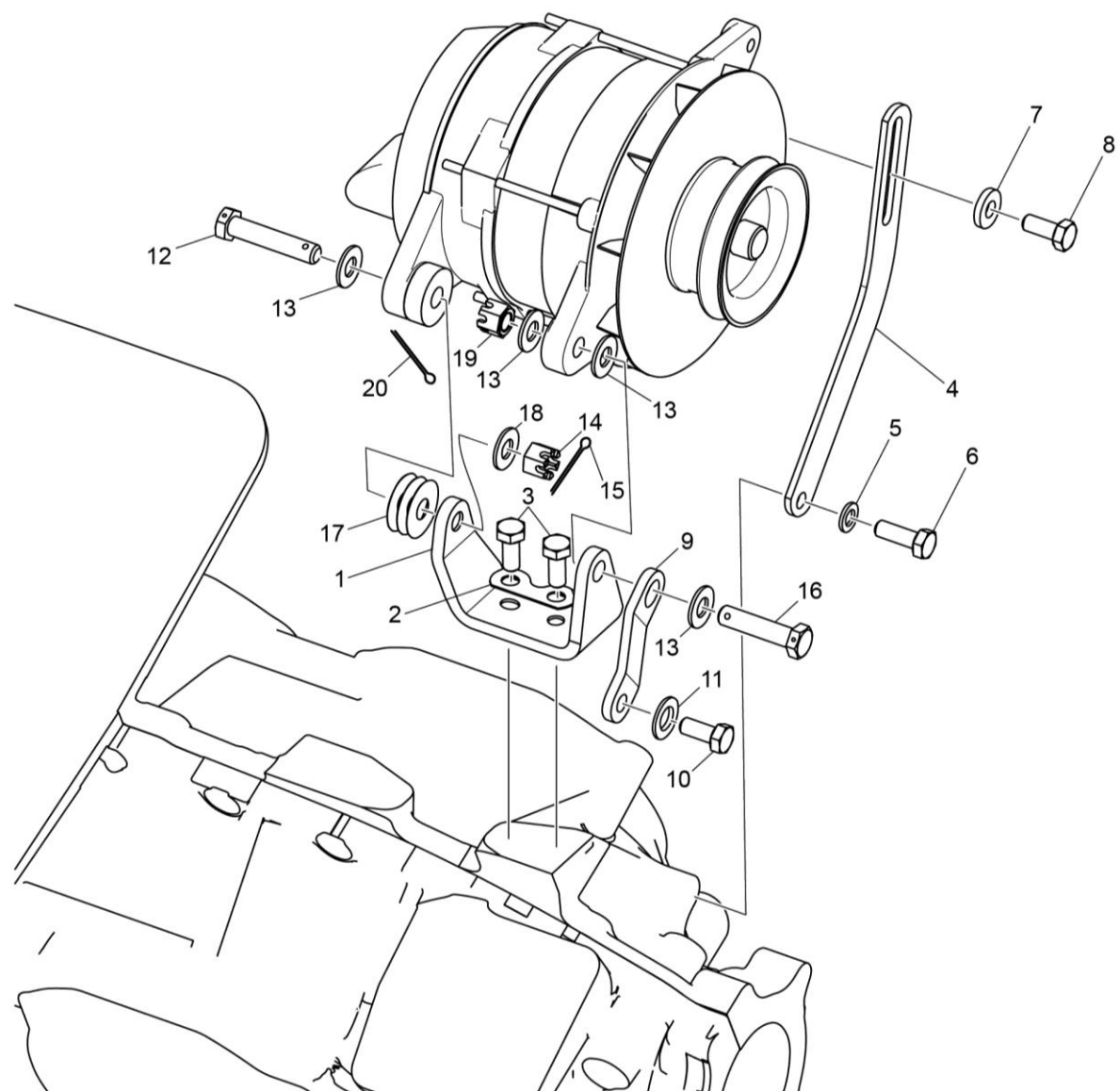


Figure 1
Alternator Mounting and Attaching Parts

DC Generation

Figure 1 - Alternator Mounting and Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		07A19474	BRACKET, Alternator	1	1
2		73383	LOCKPLATE, 5/16 bolt x 1.00 spacing	1	1
3		LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. head	2	2
4		75380	LINK, Alternator adjusting	1	1
5		STD-35	WASHER, 5/16 plain	1	1
6		LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. head	1	1
7		STD-1727	WASHER, Plain, 3/4 O.D. x 1 1/32 I.D. x 1/8 thick	1	1
8		LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. head	1	1
9		07F23268	STRUT, Alternator support	1	1
10		LW-31H0.75	BOLT, 5/16-18 x 3/4 long, hex. head	1	1
11		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	1	1
12		AN6-17	BOLT, 3/8-24 x 1-61/64 long, hex. head, drilled end	1	1
13		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	3	3
14		STD-872	NUT, 3/8-24 slotted	1	1
15		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	1	1
16		AN6-16	BOLT, 3/8-24 x 1-53/64 long, hex. head, drilled end	1	1
17	AR	76534	SHIM, 1/8 O.D. x 13/32 I.D. x .005 thick	AR	AR
18		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	3	3
19		STD-872	NUT, 3/8-24 slotted	1	1
20		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	1	1
AR – As Required					

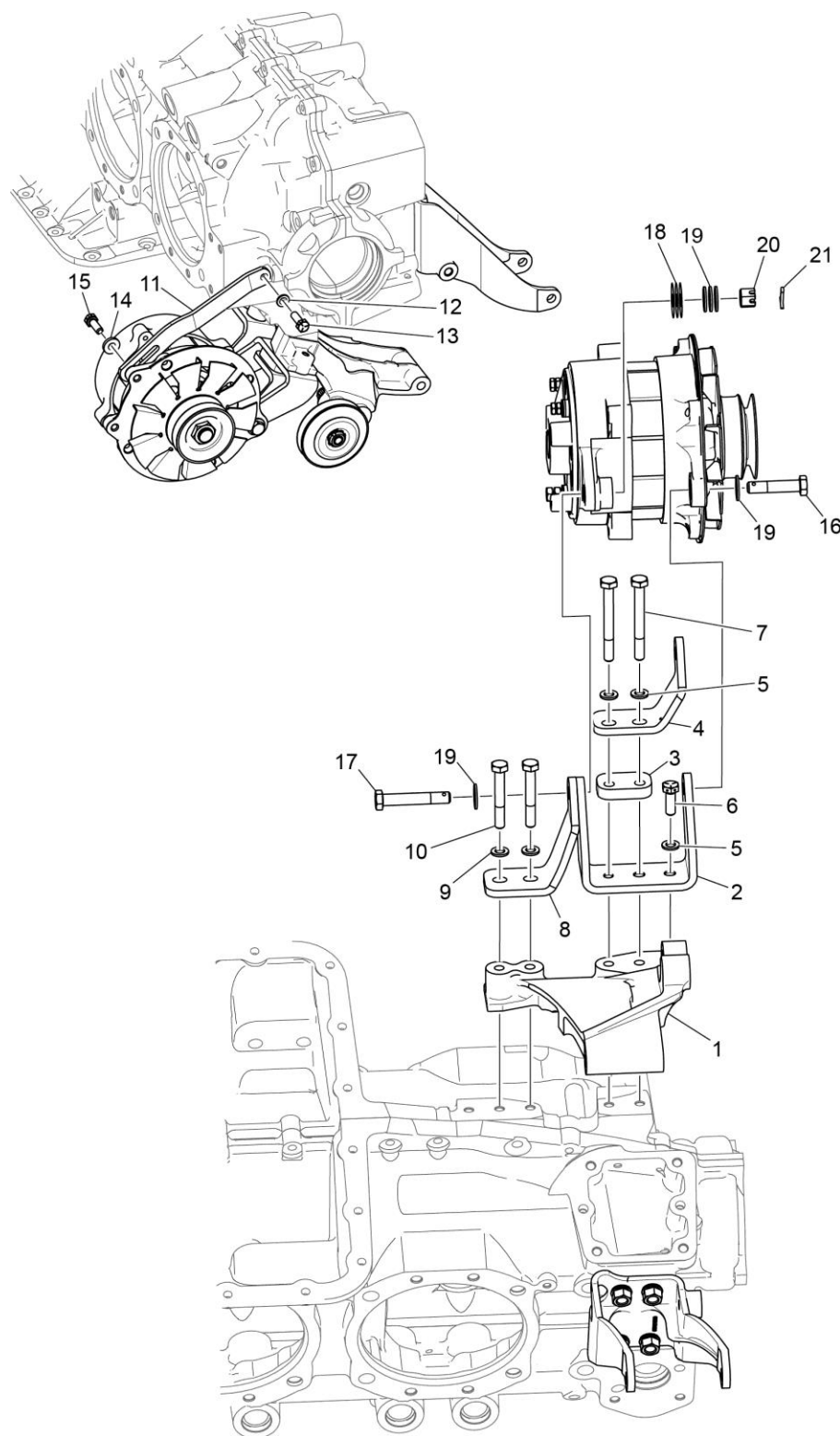


Figure 1A
Alternator Mounting and Attaching Parts

DC Generation

Figure 1A – Alternator Mounting and Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		07A22097	BRACKET, Alternator	1	0
2		07A19880	BRACKET, Alternator, right	1	0
3		01L21909	SPACER, Alt. bkt, inner (Malibu)	1	0
4		07A21908	BRACKET, Alternator, inner (Malibu)	1	0
5		STD-35	WASHER, 5/16 plain	3	0
6		LW-31H0.88	BOLT, 5/16-18 x 7/8 long, hex. dr.	1	0
7		LW-31H2.75	BOLT, 5/16-18 x 2-3/4 long, hex. dr.	2	0
8		07A21910	BRACKET, Alternator, aft (Malibu)	1	0
9		STD-35	WASHER, 5/16 plain	2	0
10		LW-31H2.13	BOLT, 5/16-18 x 2-1/8 long, hex. dr.	2	0
11		07F21298	LINK, Alternator, adjusting	1	0
12		STD-35	WASHER, 5/16 plain	1	0
13		LW-31H0.88	BOLT, 5/16-18 x 7/8 long, hex. dr.	1	0
14		STD-1727	WASHER, Plain, 3/4 O.D. x 11/32 I.D. x 1/8 thick	1	0
15		LW-31H0.88	BOLT, 5/16-18 x 7/8 long, hex. dr.	1	0
16		AN6-15	BOLT-.375-24 UNF X 1.70 lg., dr. shank end	1	0
17		AN6-21	BOLT-.375-24 UNF X 2.20 lg., dr. shank end	1	0
18		76534	SHIM, 1-1/8 OD X 13/32 I.D. X 0.005 thick	5	0
19		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	4	0
20		STD-872	NUT, 3/8-24 slotted	1	0
21		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	1	0

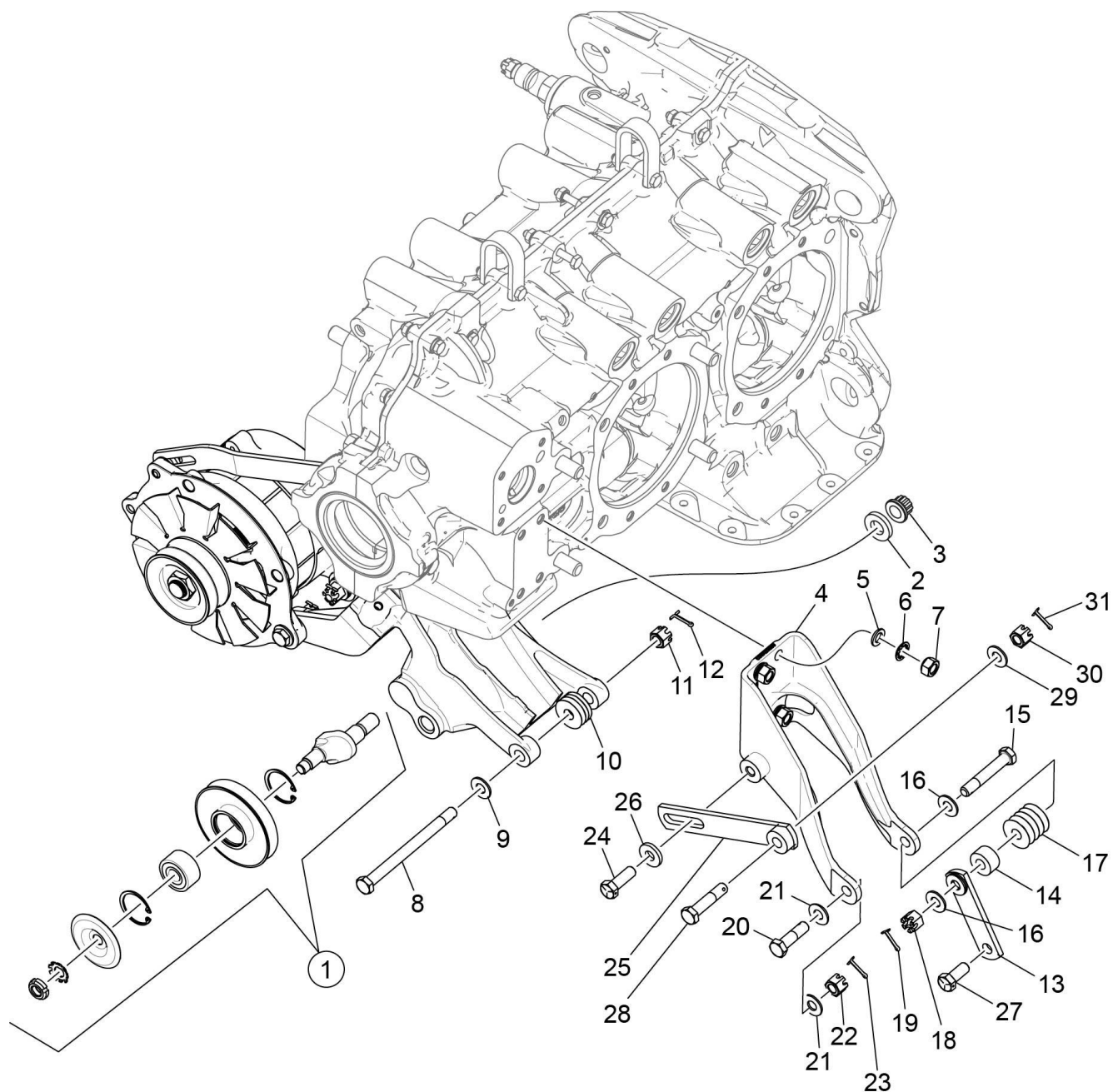


Figure 1B
Alternator Mounting and Attaching Parts

Figure 1B – Alternator Mounting and Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		36A19951	PULLEY AND SHAFT ASSY. Idler	1	0
2		STD-669	WASHER, 0.52 I.D. X 1.00 O.D. X 1/8	1	0
3		STD-2221	NUT, 1/2-20 self locking	1	0
4		07A21030	BRACKET, Compressor	1	0
5		STD-33	WASHER, 3/8 plain	4	0
6		STD-678	WASHER, 3/8 lock, internal teeth	4	0
7		383-B	NUT, 3/8-24 plain	4	0
8		AN7-46	BOLT, 7/16-20 X 4.84 long, hex.	1	0
9		STD-632	WASHER, 7/16 plain	1	0
10		LW-14650	SHIM, 7/8 O.D. X 15/32 I.D. X 0.005 thick	4	0
11		AN310-7	NUT, 7/16-20 plain, slotted	1	0
12		STD-713	PIN, Cotter, 0.09 DIA X 3/4 long	1	0
13		07F28735	BRACE, Alternator	1	0
14		01L21916	SPACER, Alternator (Prestolite)	1	0
15		AN6-21	BOLT, 3/8-24 UNF X 2.20 long, dr. shank end	1	0
16		STD-690	WASHER, 0.81 O.D. X 0.39 I.D. X 0.06 thick	5	0
17		76534	SHIM, 1-1/8 O.D. X 0.41 I.D. X 0.005 thick	7	0
18		STD-872	NUT, 3/8-24 Slotted	1	0
19		STD-713	PIN, Cotter, 0.09 dia. X 3/4 long	1	0
20		AN6-12	BOLT, 3/8-24 X 1.33 lg. hex. head	1	0
21		STD-690	WASHER, 13/16 O.D. X 0.39 I.D. X 1/16 thick	2	0
22		STD-872	NUT, 3/8-24 slotted	1	0
23		STD-713	PIN, Cotter, 0.09 dia. X 3/4 long	1	0
24		LW-31H1.06	BOLT, 5/16-18 X 1-1/16 long hex. dr.	1	0
25		07F28736	LINK, Freon compressor	1	0
26		STD-1342	WASHER, 7/8 O.D. X 0.39 I.D. X 1/8 thick	1	0
27		LW-38H1.09	BOLT, 3/8-16 X 1.09 long hex. dr.	1	0
28		AN6-15	BOLT, 3/8-24 UNF X 1.70 long, dr. shank	1	0
29		STD-690	WASHER, 13/16 O.D. X 0.39 I.D. X 1/16 thick	3	0
30		STD-872	NUT, 3/8-24, slotted	1	0
31		STD-713	PIN, Cotter, 0.09 dia. X 3/4 long	1	0

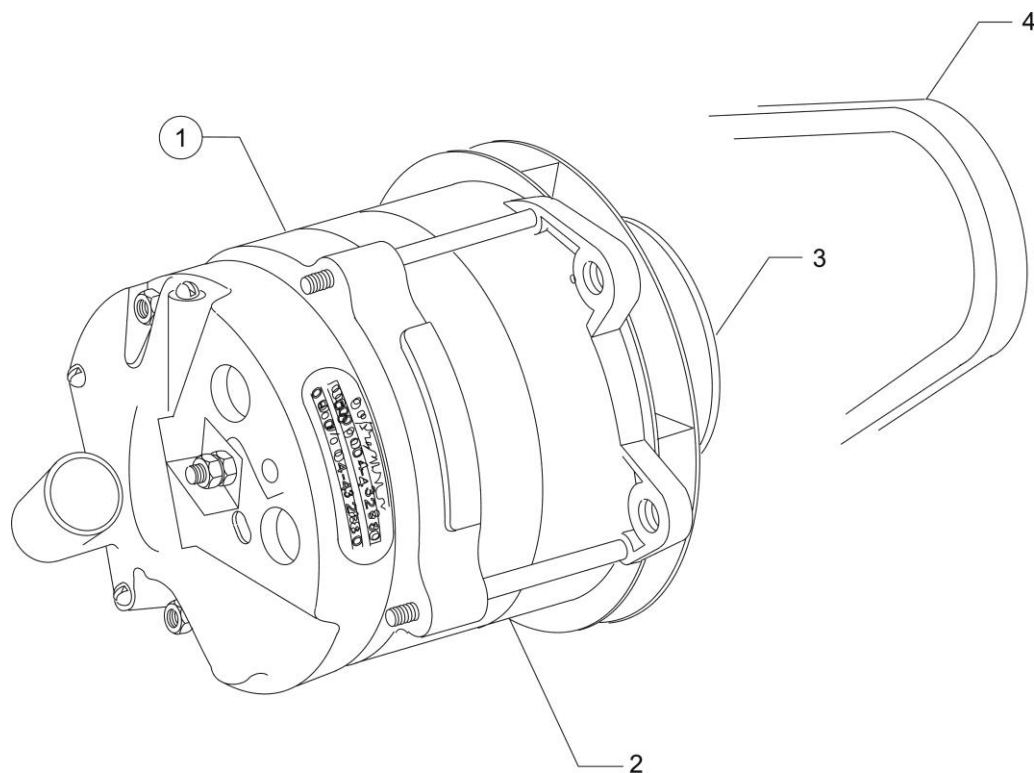


Figure 2
Alternator Assembly and Belt

DC Generation

Figure 2 - Alternator Assembly and Belt

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		32C19553	ALTERNATOR ASSEMBLY, 24 volt, 70 amp	1	1
		32C19568	ALTERNATOR ASSEMBLY, 24 volt, 70 amp	1	
2	P	LW-14326	ALTERNATOR, (ALU-8521-LS)	1	1
	P	LW-14328	ALTERNATOR, (ALU-8521-LS)	1	
3		36B19484	PULLEY, Alternator	1	1
4		37A19773-376	BELT, Alternator, 3/8 wide	1	1
		37A19773-390	BELT, Alternator, 3/8 wide	1	
		37A19773-470	BELT, Alternator, 3/8 wide	1	
		37B19774-482	BELT, Compressor drive, 1/2 wide	1	
NOTE: See latest revision of Lycoming Service Instruction No. 1154 for complete listing of FAA approved starters and alternators. P Lycoming proprietary part. Listed for reference purposes only, cannot be purchased.					

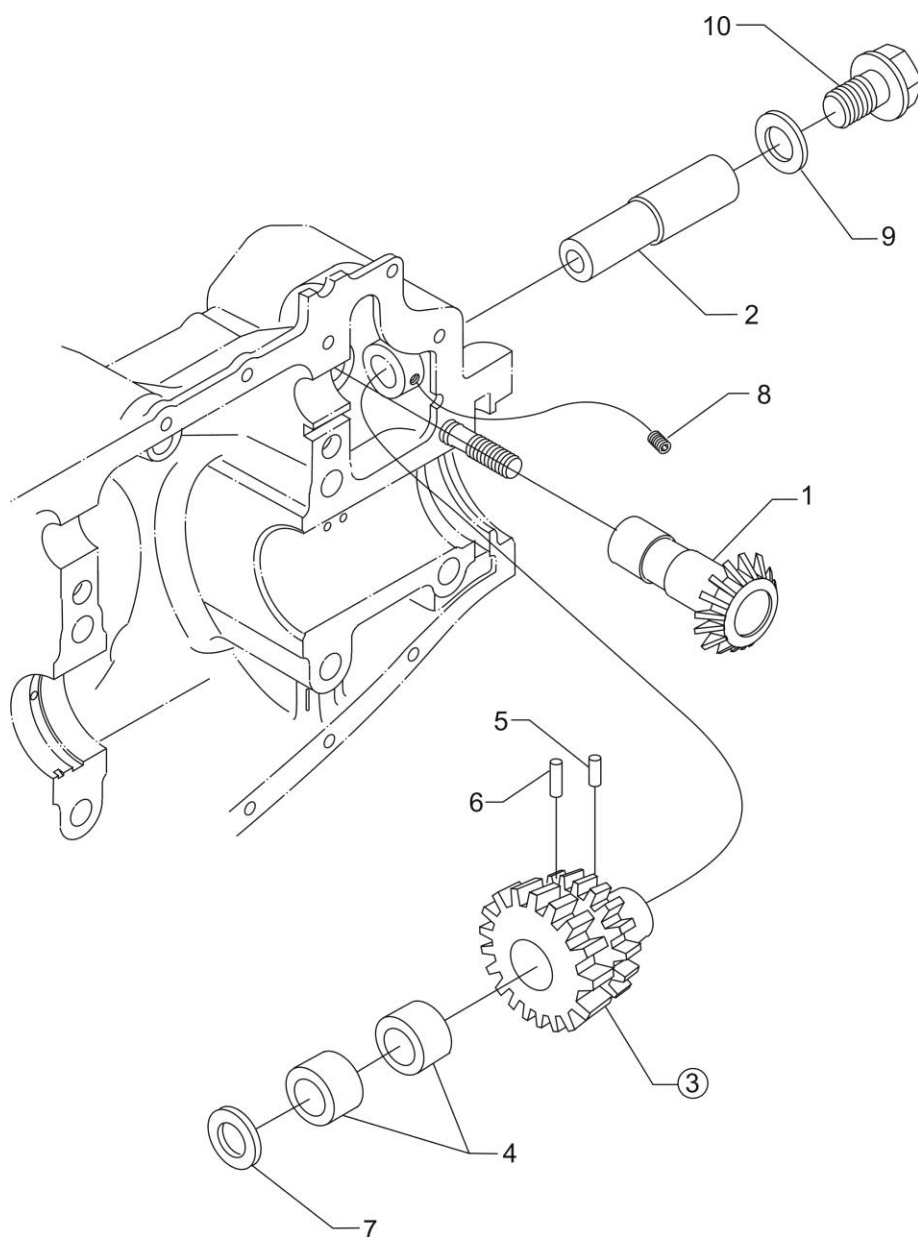


Figure 3
Propeller Governor Drive Assembly

Front Section
Figure 3 – Propeller Governor Drive Assembly

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
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		73249	WASHER, Thrust (.0585 -.0595 thick)	AR	
		73250	WASHER, Thrust (.062 - .063 thick)	AR	
		73251	WASHER, Thrust (.0655 – .0665 thick)	AR	
		73252	WASHER, Thrust (.069 - .070 thick)	AR	
		01L21418	WASHER, Thrust (.055 – .065 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	
AR as required					

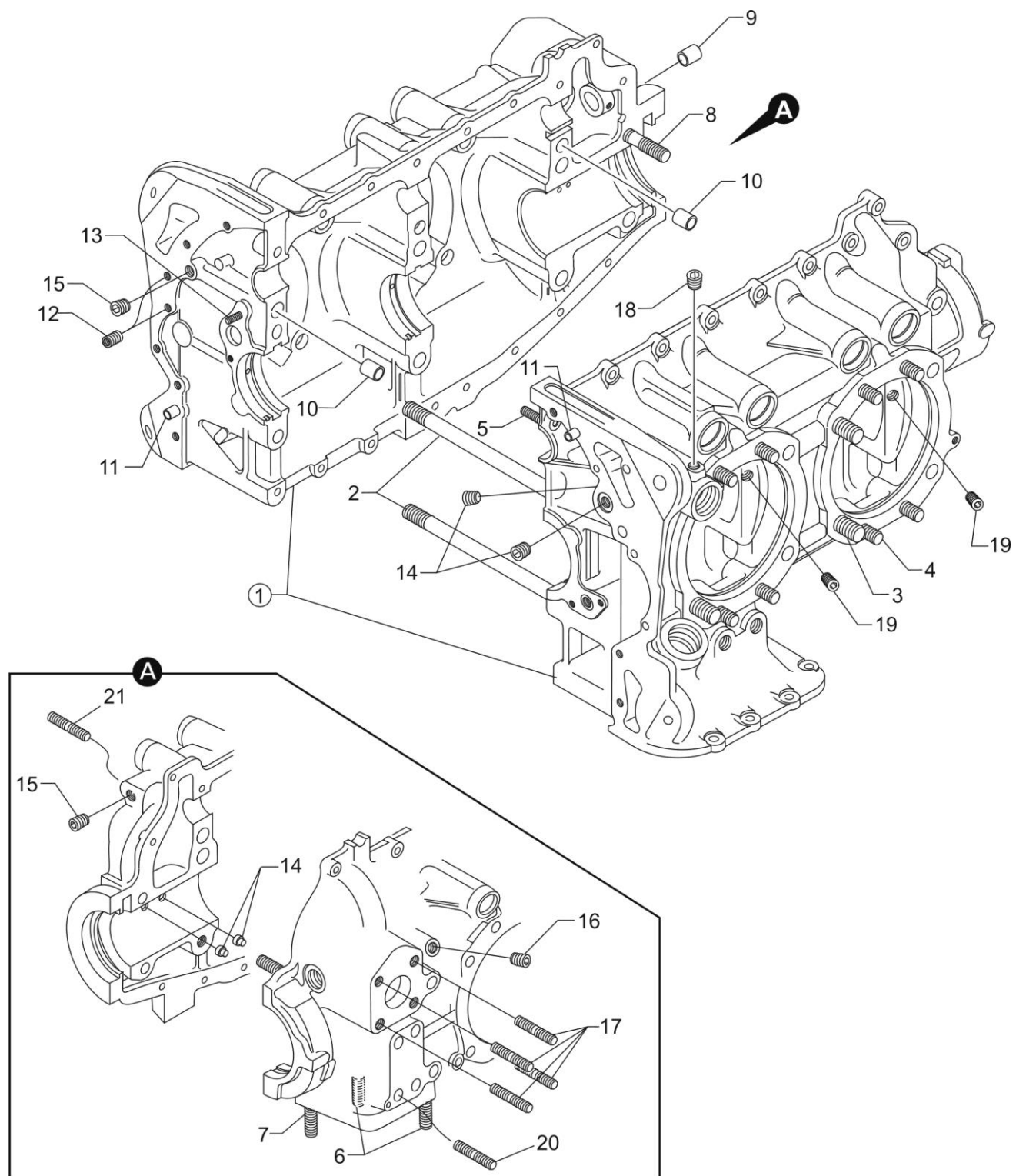


Figure 4
Crankcase Assembly

Power Section
Figure 4 – Crankcase Assembly

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		11D22549	CRANKCASE ASSEMBLY (Flat tappet engines)	1	
		11D28751-1S1	CRANKCASE ASSEMBLY (Roller tappet engines)	1	1
		11D28751-1S3	CRANKCASE ASSEMBLY (Roller tappet engines)	1	
2		75154	STUD, 1/2-13 x 10-1/32 long	2	2
3		50-15	STUD, 1/2-13 x 1-7/8 long	8	8
4		38-13	STUD, 3/8-16 x 1-5/8 long	16	16
5		38D-17	STUD, 3/8-16 x 2-1/8 long, drilled	1	1
6		31C-12	STUD, 5/16-18 x 1-1/2 long	2	2
7		31C-13	STUD, 5/16-18 x 1-5/8 long	1	1
8		38-22	STUD, 3/8-16 x 2-3/4 long	1	1
9		72158	BUSHING, Governor drive idler shaft	1	1
10		STD-557	DOWEL, 1/2 diameter x 11/16 long, hollow	2	2
11		STD-514	DOWEL, 5/16 diameter x 1/2 long	2	2
12		STD-1623	INSERT, 1/4-20 Heli-coil x 3/8 long	2	2
13		LW-13793	STUD, 5/16-18 x 15/16 long, drilled	1	1
14		69796	DOWEL, Crankshaft bearing	2	2
15		1102	PLUG, 1/8-27 NPT, Allen head	4	4
16		STD-1339	PLUG, 1/16-27 NPT, Allen head	1	1
17		31C-17	STUD, 5/16-18 x 2-1/8 long	4	4
18		1102	PLUG, 1/8-27 NPT, Allen head	5 or 1	5
19		STD-1339	PLUG, 1/16-27 NPT, Allen head	5 or 4	5
20		38-13	STUD, 3/8-16 x 1-5/8 long	4	4
21		31C-19	STUD, 5/16-18 x 2-3/8 long	4	4

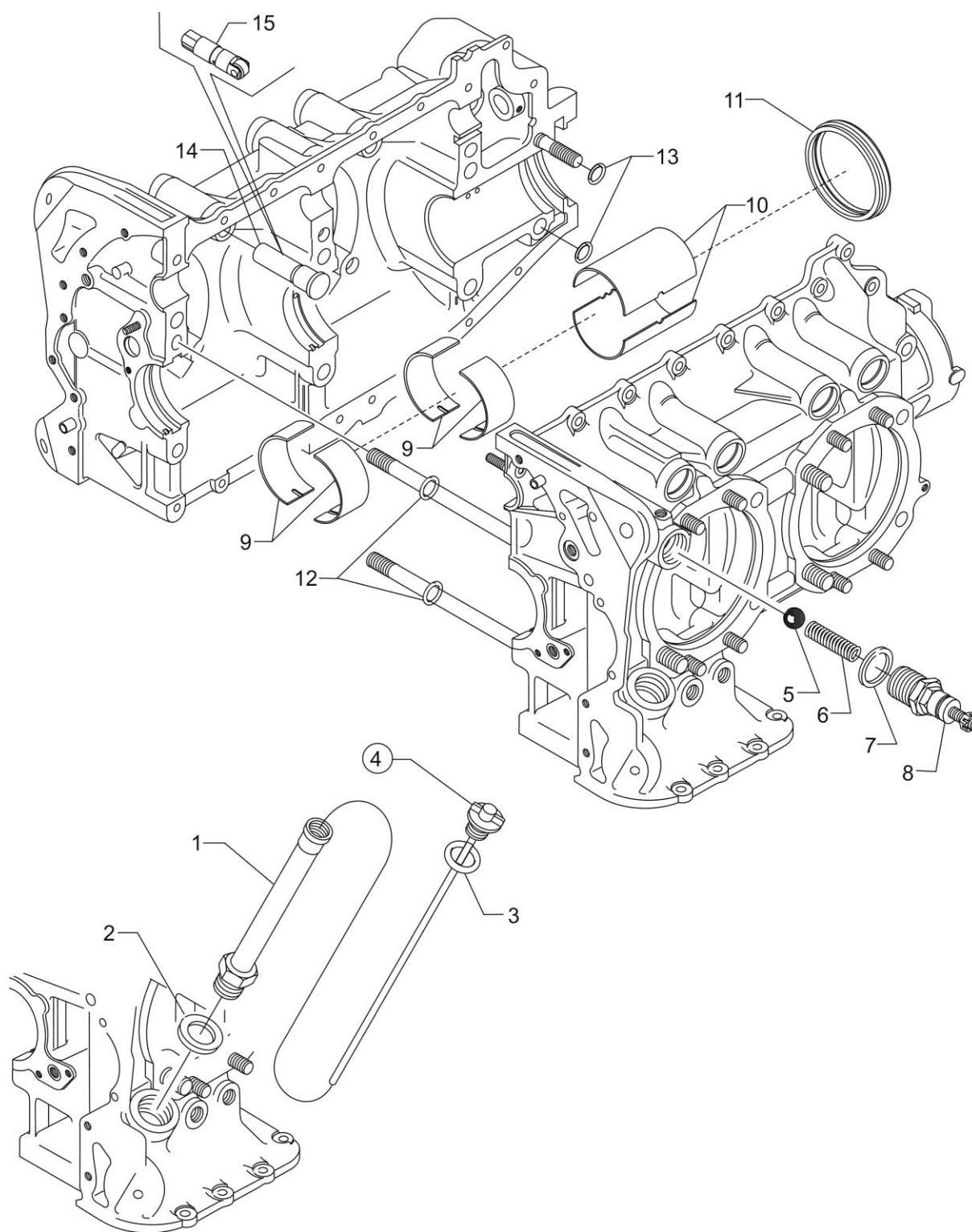


Figure 5
Crankcase Related Parts

Power Section**Figure 5 - Crankcase Related Parts**

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		75736	TUBE, Oil level gage	1	
		75767	TUBE, Oil level gage	1	1
		56C23075	TUBE, Oil level gage (long)	1	
2		72059	GASKET, Oil level gage	1	1
3		74068	RING, Oil level gage seal	1	
		74065	RING, Oil level gage seal	1	1
4		LW-14760	GAGE ASSEMBLY, Oil level	1	
		LW-14769	GAGE ASSEMBLY, Oil level	1	1
		LW-14763	GAGE ASSEMBLY, Oil level	1	
5		1028-B	BALL, 11/16 diameter	1	1
6	*	61084	SPRING, Oil pressure relief valve	1	1
	*	68668	SPRING, Oil pressure relief valve	1	1
	*	77467	SPRING, Oil pressure relief valve	1	1
	*	LW-11713	SPRING, Oil pressure relief valve	1	1
	*	LW-18085	SPRING, Oil pressure relief valve	1	1
7		06E19769-1.25	GASKET, 1-1/4 I.D. x 1-1/2 O.D. x 3/32 annular	1	1
8		77808	VALVE ASSEMBLY, Oil pressure relief valve, adjustable	1	1
9		18D26098	BEARING, Crankshaft	4	4
10		18A26093	BEARING, Crankshaft, front	2	2
11	**	LW-13792	SEAL, Crankshaft oil, solid	1	1
12		72075	SEAL, Oil, 3/32 section x 7/16 I.D.	2	2
13		72091	RING, Oil seal, 23/64 I.D. x 7/64 diameter	2	2
14	***	15B26262	BODY, Hydraulic tappet	8	
15	***	LRT23381	BODY, Hydraulic tappet (Roller tappet engines)	8	8

* Select spring to give a minimum of three threads exposed on adjusting screw to allow field adjustment. Reference latest revision of Lycoming Engines Table of Limits SSP-1776, Part I for spring identification.

** Refer to the latest revision of Lycoming Engines Service Instruction No. 1324 for installation.

*** Refer to the latest revision of Lycoming Engines Service Instruction Nos. 1011 and 1514 for installation.

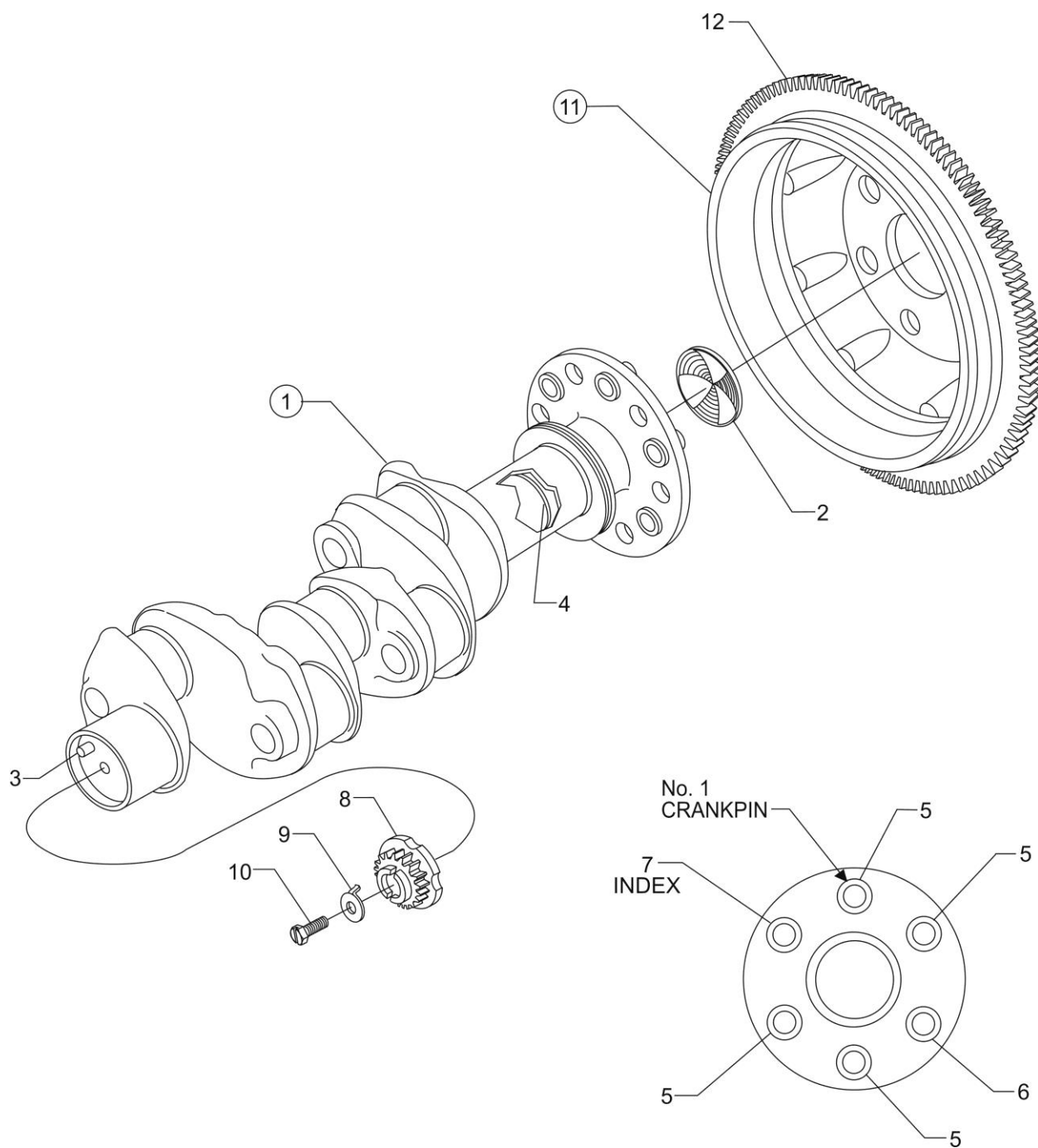


Figure 6 Crankshaft Assembly and Related Parts

Power Section**Figure 6 - Crankshaft Assembly and Related Parts**

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		13B47120	CRANKSHAFT ASSEMBLY	1	
		13B47144	CRANKSHAFT ASSEMBLY		1
2		STD-1211	PLUG, 2.00 diameter expansion	1	1
3		STD-1065	DOWEL, Stepped, 5/16 & 1/4 diameter. x 35/64 long	1	1
4		61510	PLUG, 1-3/4 O.D.	1	1
5	*	75656-S	BUSHING, Propeller flange, long	4	4
6	*	72155-S	BUSHING, Propeller flange, short	1	1
7	*	75657-S	BUSHING, Propeller flange, indexing	1	1
8		13S19646	GEAR, Crankshaft	1	1
9		LW-18639	LOCKPLATE, Crankshaft gear	1	1
10		STD-2246	BOLT, 5/16-24 x 1.00 long	1	1
11		LW-16471	SUPPORT ASSEMBLY, Starter ring gear, 12/14 pitch	1	
		LW-11519	SUPPORT ASSEMBLY, Starter ring gear, 12/14 pitch		1
		31M19861	SUPPORT ASSEMBLY, Starter ring gear, 12/14 pitch	1	
12		72566	GEAR, Starter ring	1	
		LW-10551	GEAR, Starter ring		1
* Refer to the latest revision of Lycoming Engines Service Instruction No. 1098 for additional details.					

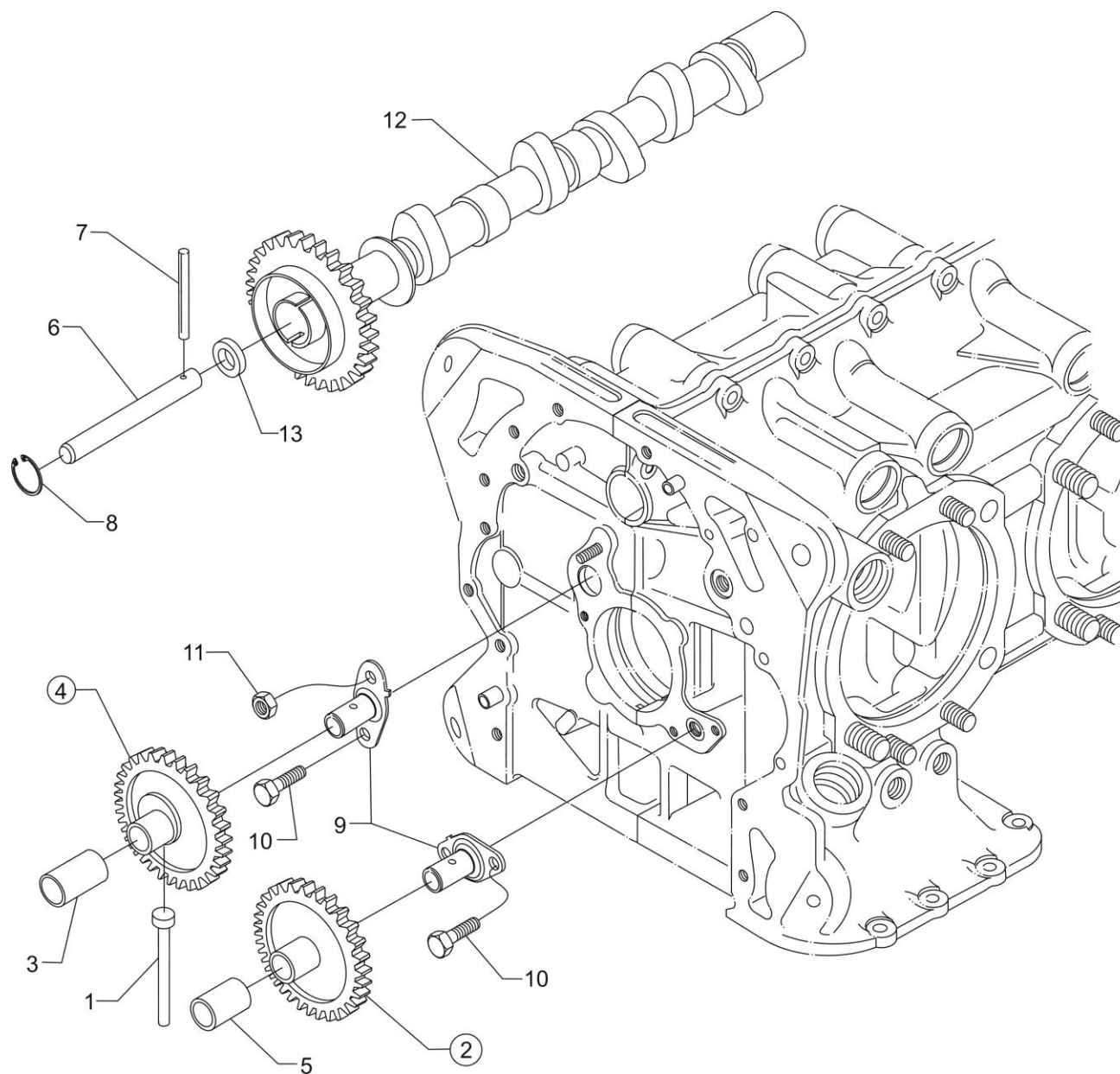


Figure 7
Crankshaft Idler Gears, Tachometer Drive and Camshaft

Power Section**Figure 7 - Crankshaft Idler Gears, Tachometer Drive and Camshaft**

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		23D26777	PLUNGER, Fuel pump, long	1	1
2		74996	GEAR ASSEMBLY, Crankshaft idler, plain	1	1
3		77309	BUSHING, Crankshaft idler gear	1	1
4		75072	GEAR ASSEMBLY, Crankshaft idler	1	1
5		77309	BUSHING, Crankshaft idler gear	1	1
6		76121	SHAFT ASSEMBLY, Tachometer	1	1
7		LW-18667	PIN, 3/16 diameter x 2-21/64 long	1	1
8		STD-2231	RING, Internal retaining	1	1
9		LW-13796	SHAFT, Crankshaft idler gear	2	2
10		LW-31H0.88	BOLT, 5/16-18 x 7/8 long, hex. head, drilled	3	3
11		STD-2168	NUT, 5/16-18 NC-3 slotted shear	1	1
12		LW-18845	CAMSHAFT ASSEMBLY		1
		LW-18843	CAMSHAFT ASSEMBLY	1	
		15M23456	CAMSHAFT ASSEMBLY (Roller tappet engines)	1	
		15M23454	CAMSHAFT ASSEMBLY (Roller tappet engines)		1
13		76118	SPACER, Tachometer shaft centering	1	1

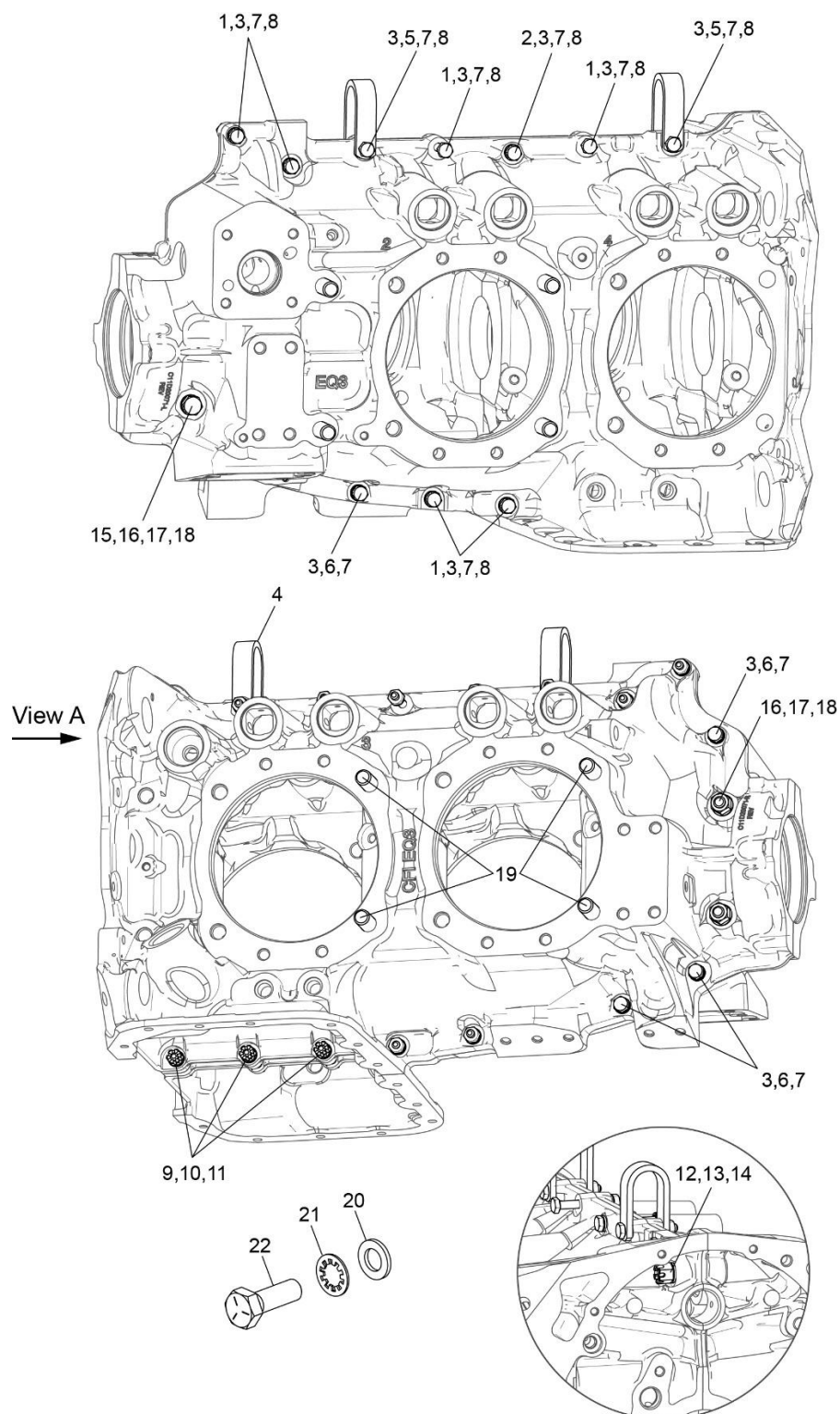


Figure 8
Crankcase Attaching Parts

Power Section

Figure 8 - Crankcase Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		LW-25-1.50	BOLT, 1/4-20 x 1-1/2 long, hex. head	5 or 6	
2		LW-25-1.63	BOLT, 1/4-20 x 1-5/8 long, hex. head	1	
3		STD-8	WASHER, 1/4 plain	17 or 22	
4		60803	STRAP, Lifting	2	
5		LW-25-1.88	BOLT, 1/4-20 x 1-7/8 long, hex. head	2	
6		LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. head	4	
7		STD-160	WASHER, 1/4 lock, internal teeth	12 or 13	
8		STD-1411	NUT, 1/4-20 plain	9	
9		LW-25S1.50	BOLT, 1/4-20 x 1-1/2 long, hex. head, drilled end	3	
10		STD-8	WASHER, 1/4 plain (max. 9)	AR	
11		STD-2249	NUT, 1/4-20 slotted shear	3	
12		STD-33	WASHER, 3/8 plain, 1/16 thick	2 or 3	
13		NAS1149F0632P	WASHER, 3/8 plain, 1/32 thick	3	
14		STD-872	NUT, 3/8-24 slotted	1	
15		AN6-34A	BOLT, 3/8-24 x 3-37/64 long, hex. head	1	
16		STD-33	WASHER, 3/8 plain	2 or 3	
17		STD-678	WASHER, 3/8 lock internal teeth	2	
18		STD-596	NUT, 3/8-24 plain	2	
19		76220	STUD, 1/2-20 x 10-45/64 long	4	
20	*	STD-35	WASHER, 5/16 plain	5	
21	*	STD-475	WASHER, 5/16 lock, internal teeth	1	
22	*	LW-31-0.94	BOLT, 5/16-18 x 15/16 long	1	
AR as required					
* These parts are shipped loose.					

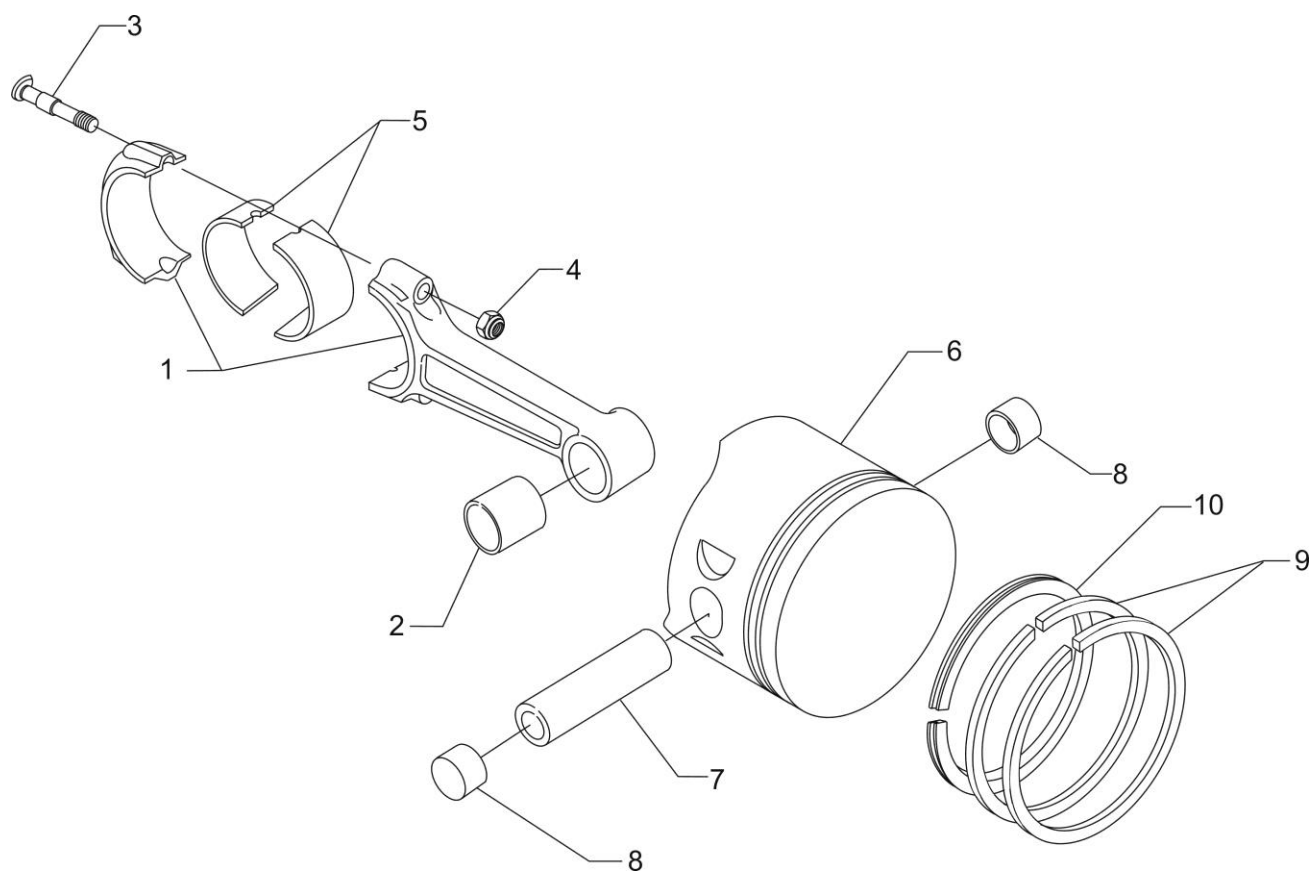


Figure 9
Connecting Rods, Pistons and Ring Assemblies

Cylinder Section

Figure 9 - Connecting Rods, Pistons and Ring Assemblies

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		LW-11750-S	CONNECTING ROD ASSEMBLY	4	
2		01K28983	BUSHING, Connecting rod, upper	4	
3	P	14S23890	BOLT, Connecting rod	8	
	*	75061	BOLT, Connecting rod	8	
4		LW-12186	NUT, Connecting rod bolt	8	
5		18M26105	BEARING, Connecting rod	8	
6		14D23912	PISTON, Compression ratio, 8.50:1	4	
7	**	LW-14078	PIN, Piston	4	
8	**	72198	PLUG, Piston pin	8	
9		74241	RING, Piston compression	8	
10		14H29884	RING, Piston, oil regulating, expander type	4	
P Lycoming proprietary part. Listed for reference purpose only, cannot be purchased. * Service use only. ** Refer to the latest revision of Lycoming Service Instruction No. 1267.					

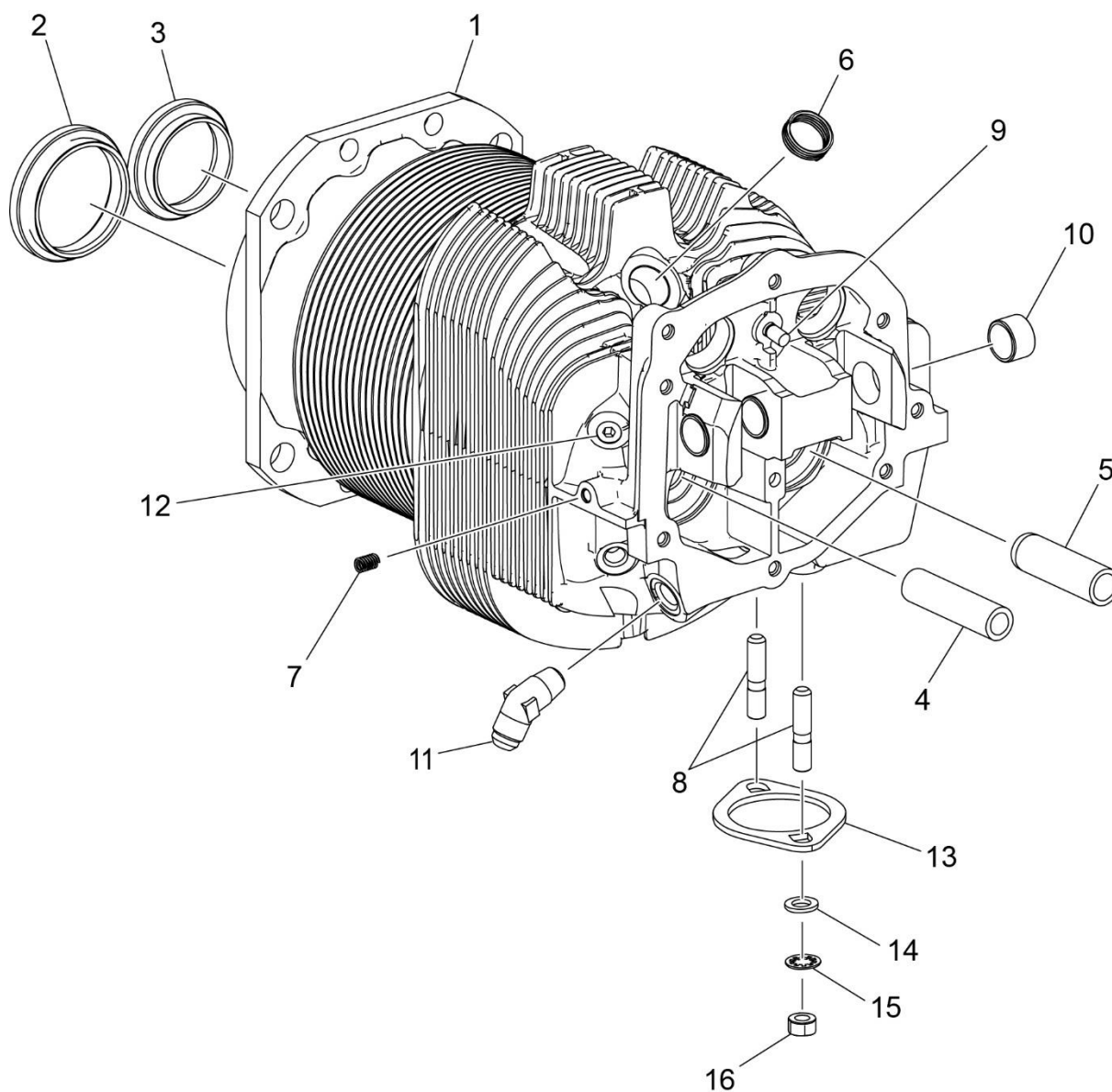


Figure 10
Cylinder Assembly

Cylinder Section

Figure 10 - Cylinder Assembly

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		16A30080-01	CYLINDER AND HEAD ASSEMBLY, Nitrided	4	4
2		72057	SEAT, Intake valve	4	4
3		72058	SEAT, Exhaust valve	4	4
4	P *	76943	GUIDE, Valve, intake, flanged	4	4
5	P *	16R22126	GUIDE, Valve, exhaust, flanged	4	4
6		66796	INSERT, Spark plug, 18-1.5 MM	8	8
7		STD-1353	INSERT, No. 10-24 Heli-coil x 3/8 long	4	4
8		31C-12	STUD, 5/16-18 x 1-1/2 long	8	8
9		25C-8	STUD, 1/4-20 x 1.00 long	4	4
10		66610	BUSHING, Rocker shaft	16	16
11		MS20823-6D	ELBOW, 45°, 3/8 flared tube	4	4
12		1102	PLUG, 1/8-27 NPT, Allen head	4	4
13		77611	GASKET, Exhaust flange	4	4
14		STD-35	WASHER, 5/16 plain	8	8
15		STD-475	WASHER, 5/16 lock, internal teeth	8	8
16		STD-1410	NUT, 5/16-18 plain	8	8
P Lycoming proprietary part. Listed for reference purpose only, cannot be purchased. * Refer to the latest revision of Lycoming Service Instruction No. 1256 for service valve guides.					

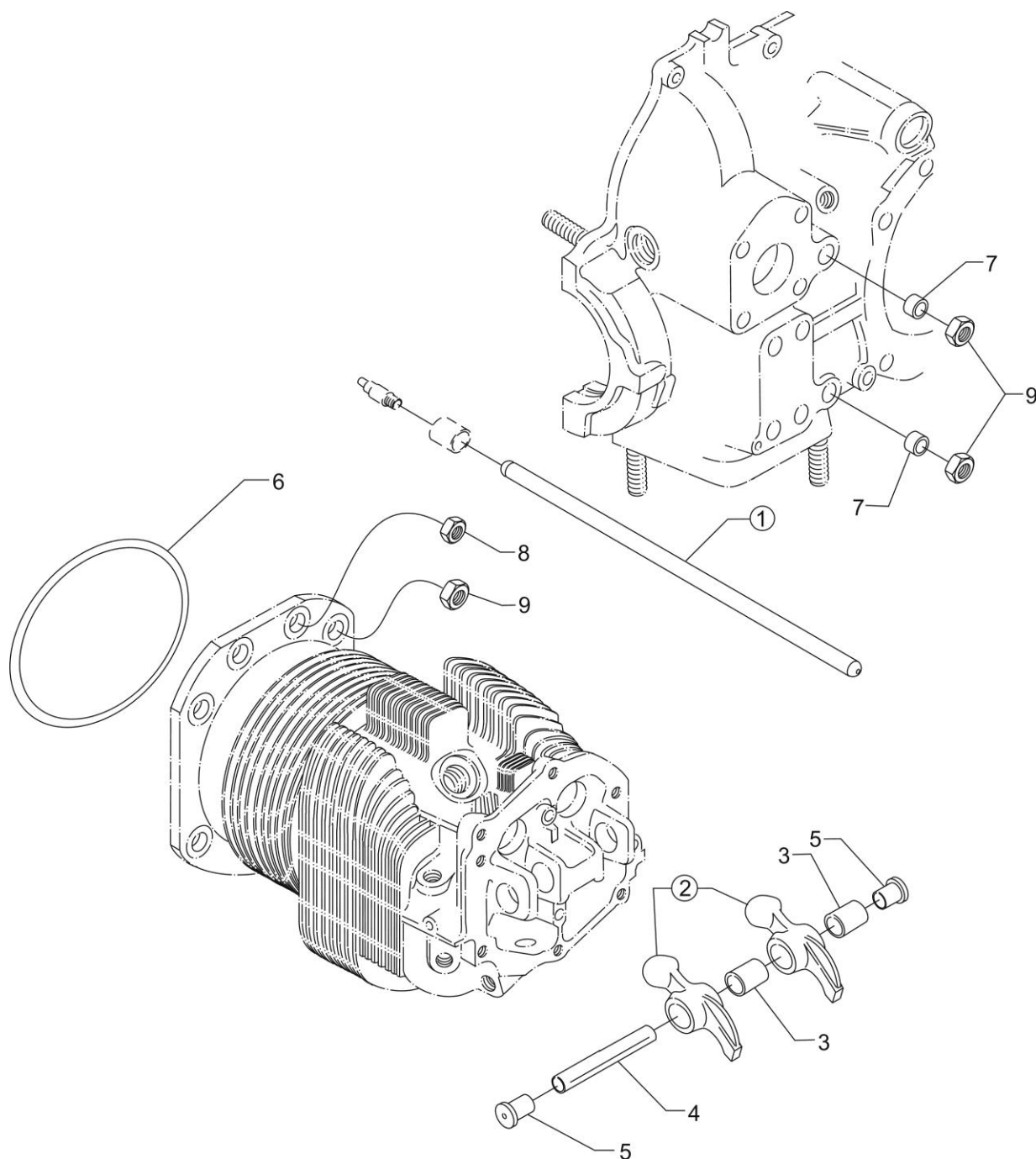


Figure 11
Cylinder Related Parts

Figure 11 - Cylinder Related Parts

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1	*	15F28835-28	ROD ASSEMBLY, Push - RT	AR	
	*	15F28835-29	ROD ASSEMBLY, Push - RT	AR	
	*	15F28835-30	ROD ASSEMBLY, Push - RT	AR	
	*	15F28835-31	ROD ASSEMBLY, Push - RT	AR	
	*	15F28835-32	ROD ASSEMBLY, Push - RT	AR	
	*	15F28835-33	ROD ASSEMBLY, Push - RT	AR	
	*	15F28835-34	ROD ASSEMBLY, Push - RT	AR	
	*	15F28835-35	ROD ASSEMBLY, Push	AR	
	*	15F28835-36	ROD ASSEMBLY, Push	AR	
	*	15F28835-37	ROD ASSEMBLY, Push	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	
AR as required					
* Refer to the latest revision of Service Instruction No. 1060 for 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.					

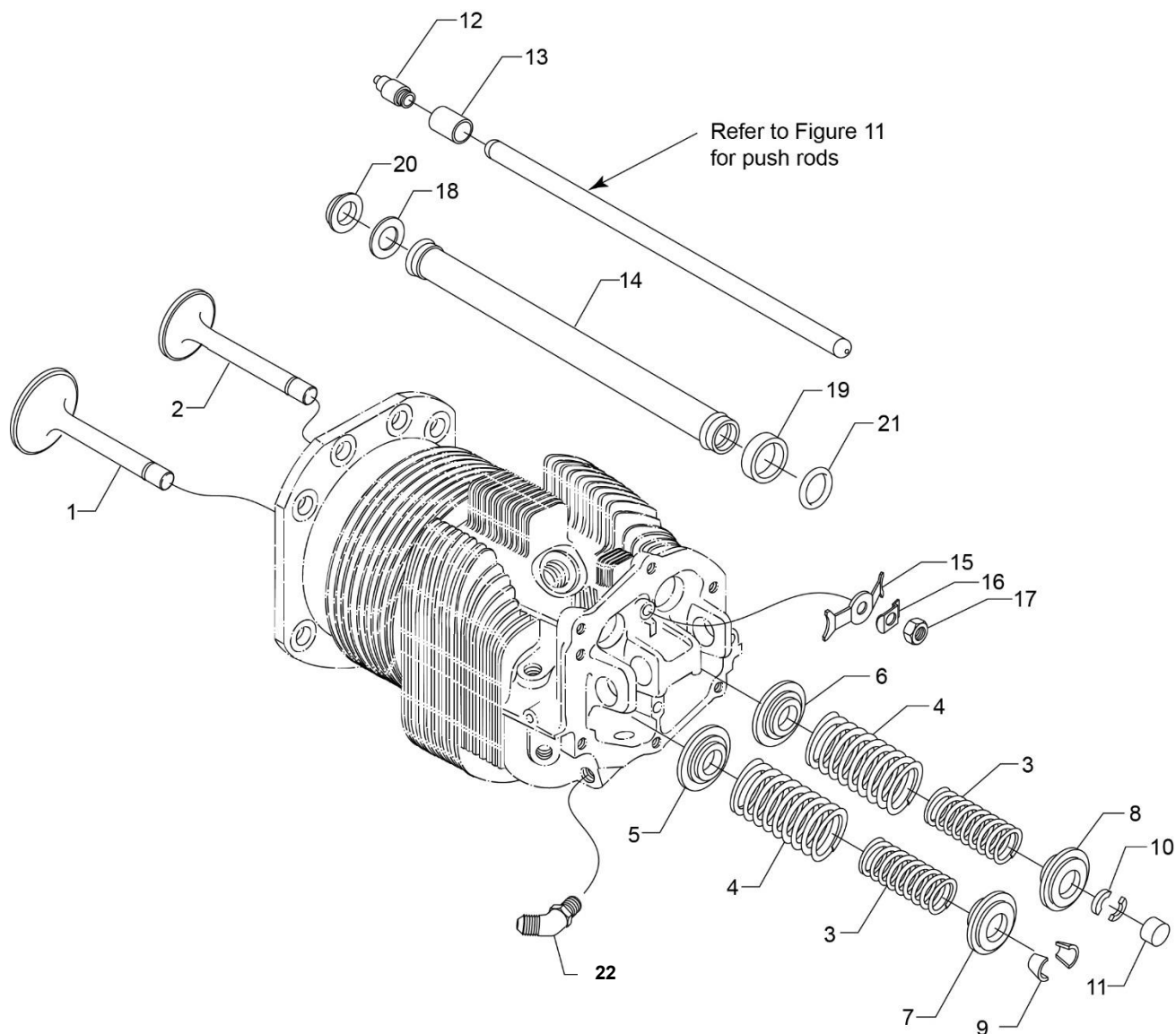


Figure 12
Valve Assembly and Related Parts

Figure 12 – Valve Assembly and Related Parts

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		17A23938	VALVE, Intake	4	4
2		17B23936	VALVE, Exhaust	4	4
3		17D29055	SPRING, Valve, inner	8	8
4		17D29060	SPRING, Valve, outer	8	8
5		65441	SEAT, Valve spring, lower intake	4	4
6		LW-13323	SEAT, Valve spring, lower exhaust	4	4
7		LW-10077	SEAT, Valve spring, upper intake	4	4
8		LW-16475	SEAT, Valve spring, upper exhaust (rotator type)	4	4
9		60009	KEY, Valve intake	8	8
10		17C21191	KEY, Valve exhaust (rotator type)	8	8
11		17C19386	CAP, Valve stem, exhaust (rotator type)	4	4
12		15B26066	PLUNGER ASSEMBLY, Hydraulic tappet	8	8
13		15B21319	SOCKET, Hydraulic tappet	8	8
14		LW-11485	SHROUD TUBE ASSEMBLY, Push rod	8	
		15G23461	SHROUD TUBE ASSEMBLY, Push rod (Roller tappet engines)	8	8
15		LW-14995	SPRING, Shroud tube	4	4
16		LW-12272	LOCKPLATE, Shroud tube	4	4
17		STD-1411	NUT, 1/4-20 plain	4	4
18		01L23459	WASHER, 25/32 I.D. x 1-3/8 O.D. x 1/32 thick (Roller tappet engines)	8	8
19		LW-18661	SEAL, Shroud tube	8	
20		06A23493	SEAL, Shroud tube (Roller tappet engines)	8	8
21		70310	SEAL, Shroud tube	8	8
22		MS20823-6D	ELBOW, 45 degree, 3/8 flared tube	4	4

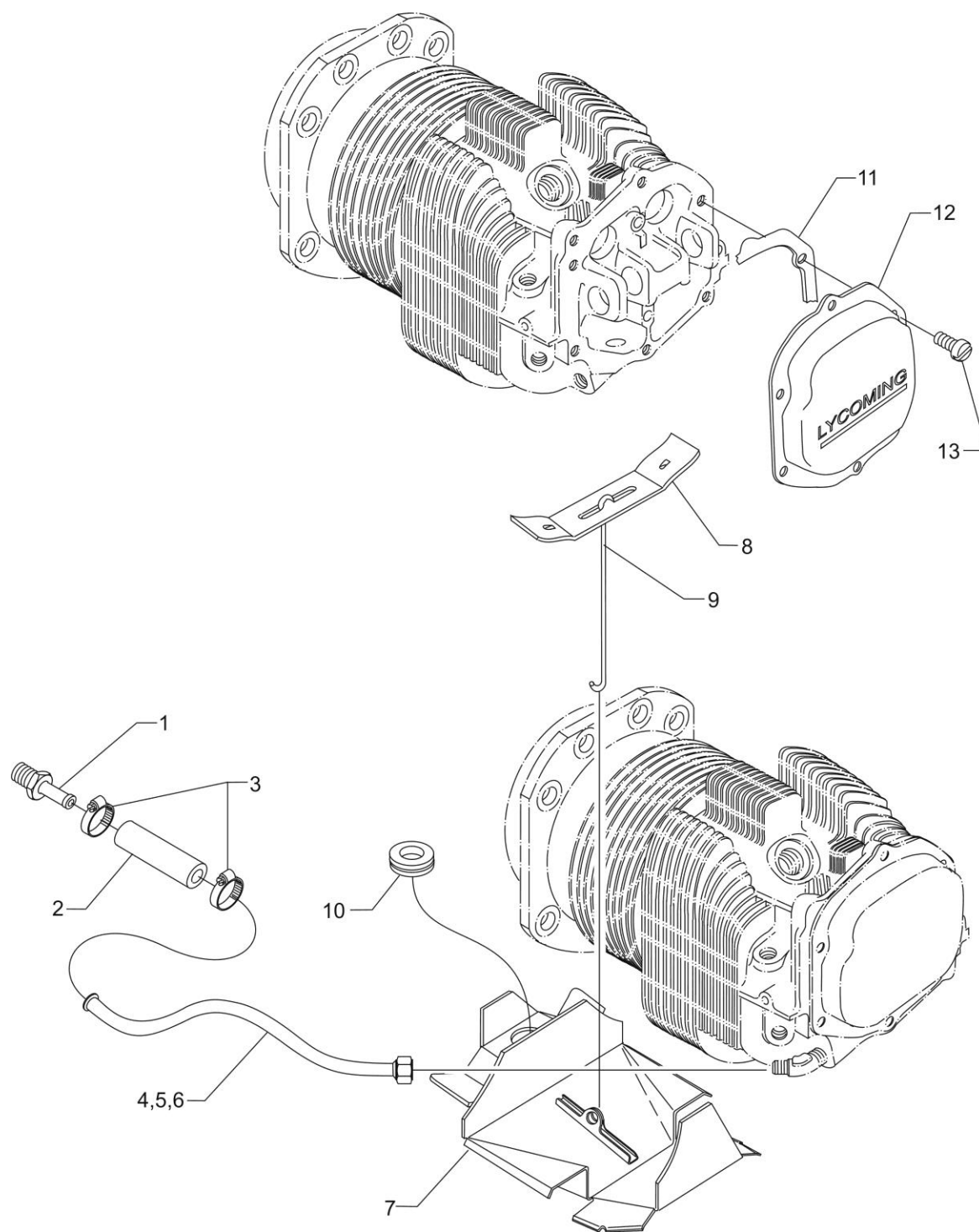


Figure 13
Cylinder Head Drain Tubes, Intercylinder Cooling Baffles
and Rocker Box Covers

**Figure 13 - Cylinder Head Drain Tubes, Intercylinder Cooling Baffles
and Rocker Box Covers**

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
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-15592-5-04	CLAMP, Hose	8	
4		68759	TUBE ASSEMBLY, Cylinder head oil drain, cyl. no. 1	1	
5		68760	TUBE ASSEMBLY, Cylinder head oil drain, cyl. no. 2	1	
6		68761	TUBE ASSEMBLY, Cylinder head oil drain, cyl. no. 3 & 4	2	
7	*	75339	BAFFLE ASSEMBLY, Intercylinder	1	
	**	LW-13389	BAFFLE ASSEMBLY, Intercylinder	1	
8		71611	RETAINER, Intercylinder baffle	2	
9		71610	HOOK, Intercylinder baffle retainer	2	
10	**	MS35489-20X	GROMMET (on baffle)	1	
11		06B26669	GASKET, Rocker box cover (Silicane)	4	
12		61247	COVER, Rocker box	4	
13		STD-1925	SCREW, 1/4-20 x 5/8 long, pan. head, self-locking	24	
* Install on left side between no. 2 and no. 4 cylinders. ** Install on right side between no. 1 and no. 3 cylinders.					

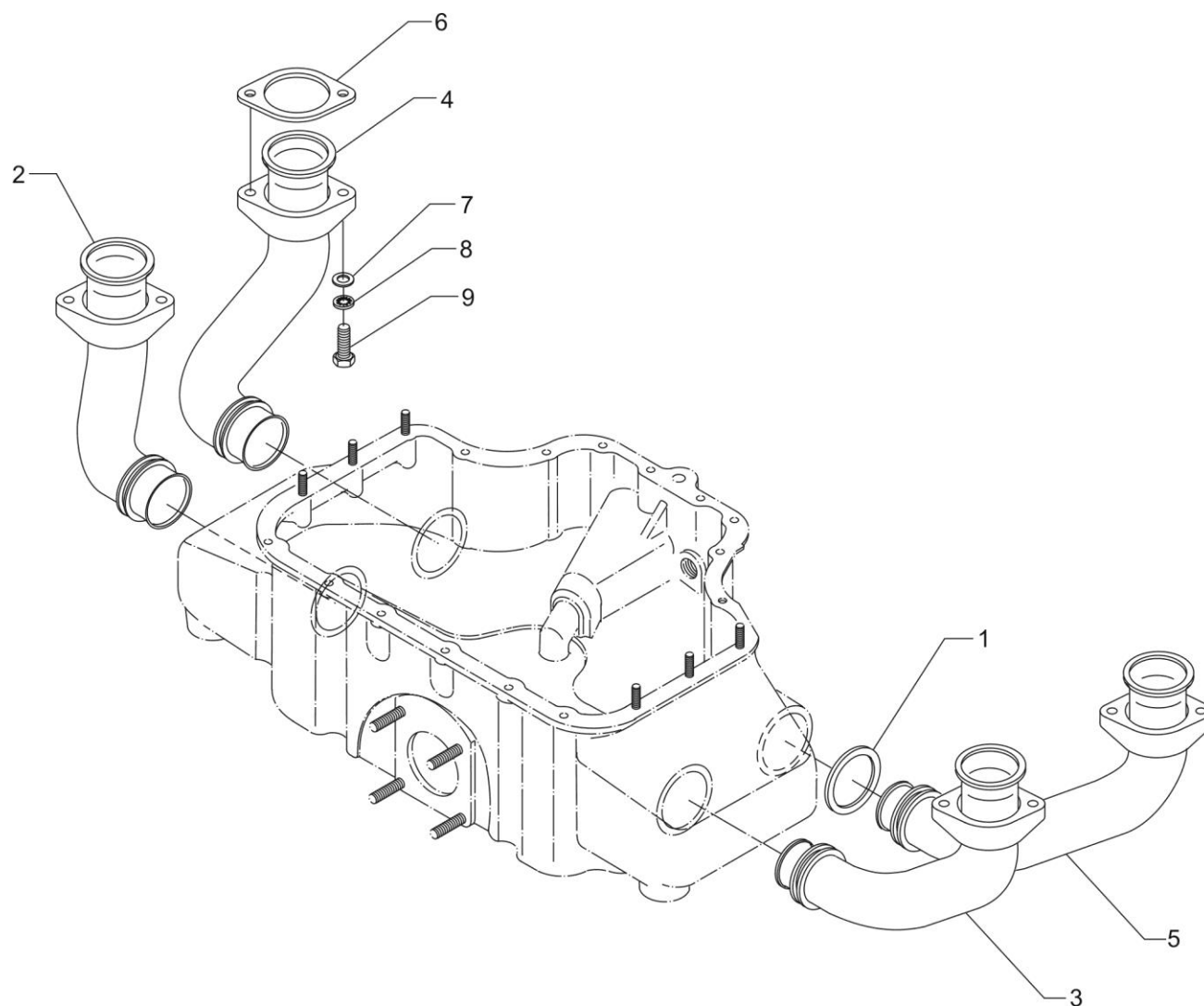


Figure 14
Intake Pipes Assembly

Figure 14 – Intake Pipes Assembly

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		77569	RING, Seal, intake pipes	4	
2		42E22611	PIPE, Intake, cylinder no. 1	1	
3		42E22612	PIPE, Intake, cylinder no. 2	1	
4		42E22613	PIPE, Intake, cylinder no. 3	1	
5		42E22614	PIPE, Intake, cylinder no. 4	1	
6		71973	GASKET, 2 bolt flange, 1-3/4 I.D.	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	8	

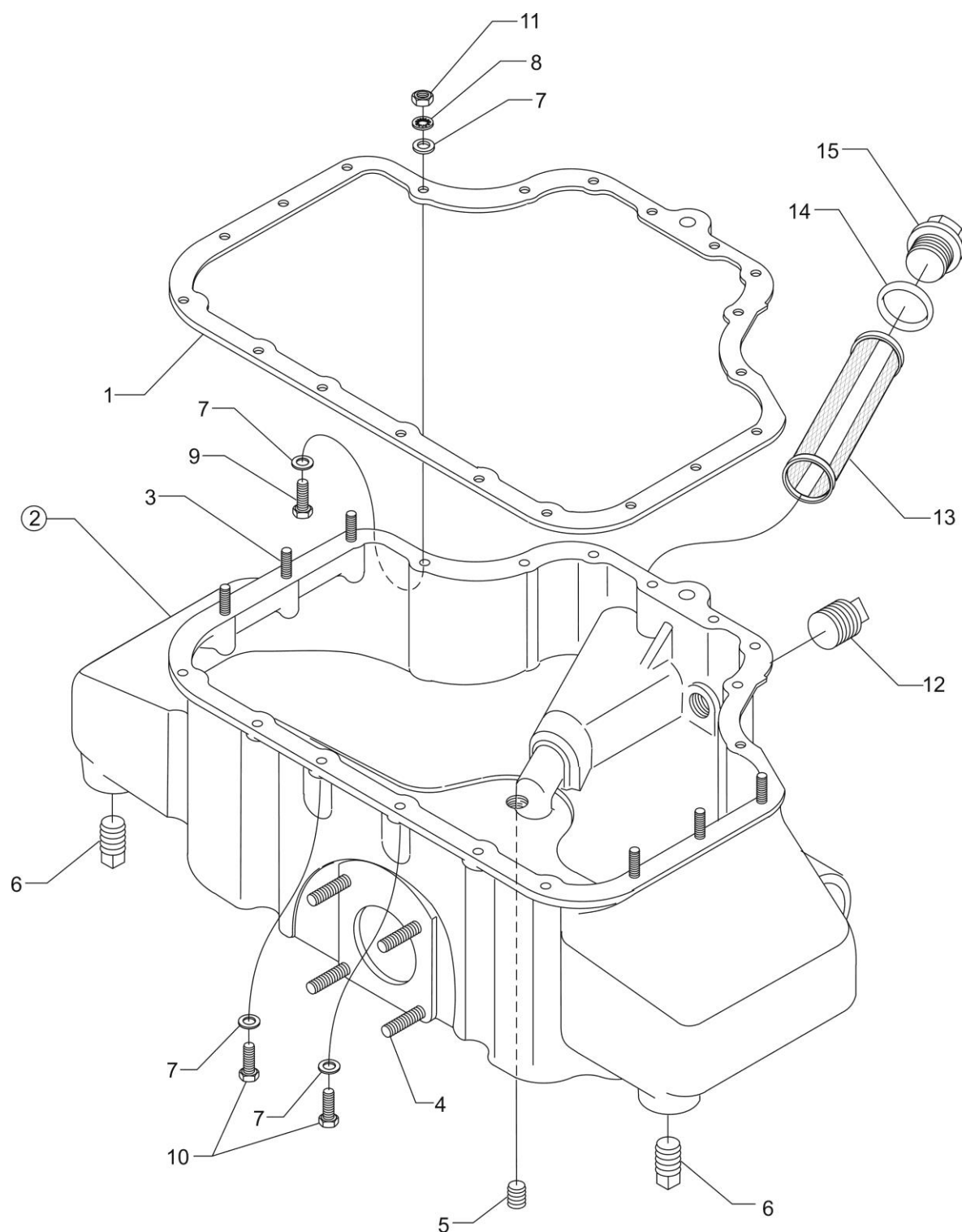


Figure 15
Oil Sump and Induction Housing Assembly

Figure 15 – Oil Sump and Induction Housing Assembly

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		LW-13353	GASKET, Oil sump	1	
2		LW-13864	SUMP ASSEMBLY, Oil	1	
3		61400	STUD, 1/4-20 x 1-3/16 long	6	
4		31C-14	STUD, 5/16-18 x 1-3/4 long	4	
5		1102	PLUG, 1/8-27 NPT, Allen head	1	
6		STD-551	PLUG, 1/2-14 NPT, square head, drilled	2	
7		STD-8	WASHER, 1/4 plain	26	
8		STD-160	WASHER, 1/4 lock, internal teeth	20	
9		LW-25-0.94	BOLT, 1/4-20 x 15/16 long, hex. head	6	
10		LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. head	2	
11		STD-1411	NUT, 1/4-20 plain	12	
12		STD-2229	PLUG, 1/2 NPT, Allen head	1	
13		70484	SCREEN, Oil suction	1	
14		06E19769-1.00	GASKET, 1.00 I.D. x 1-1/4 O.D. x 3/32 annular	1	
15		LW-12545	PLUG, 5/8 hex. head x 1.00-20 thread	1	

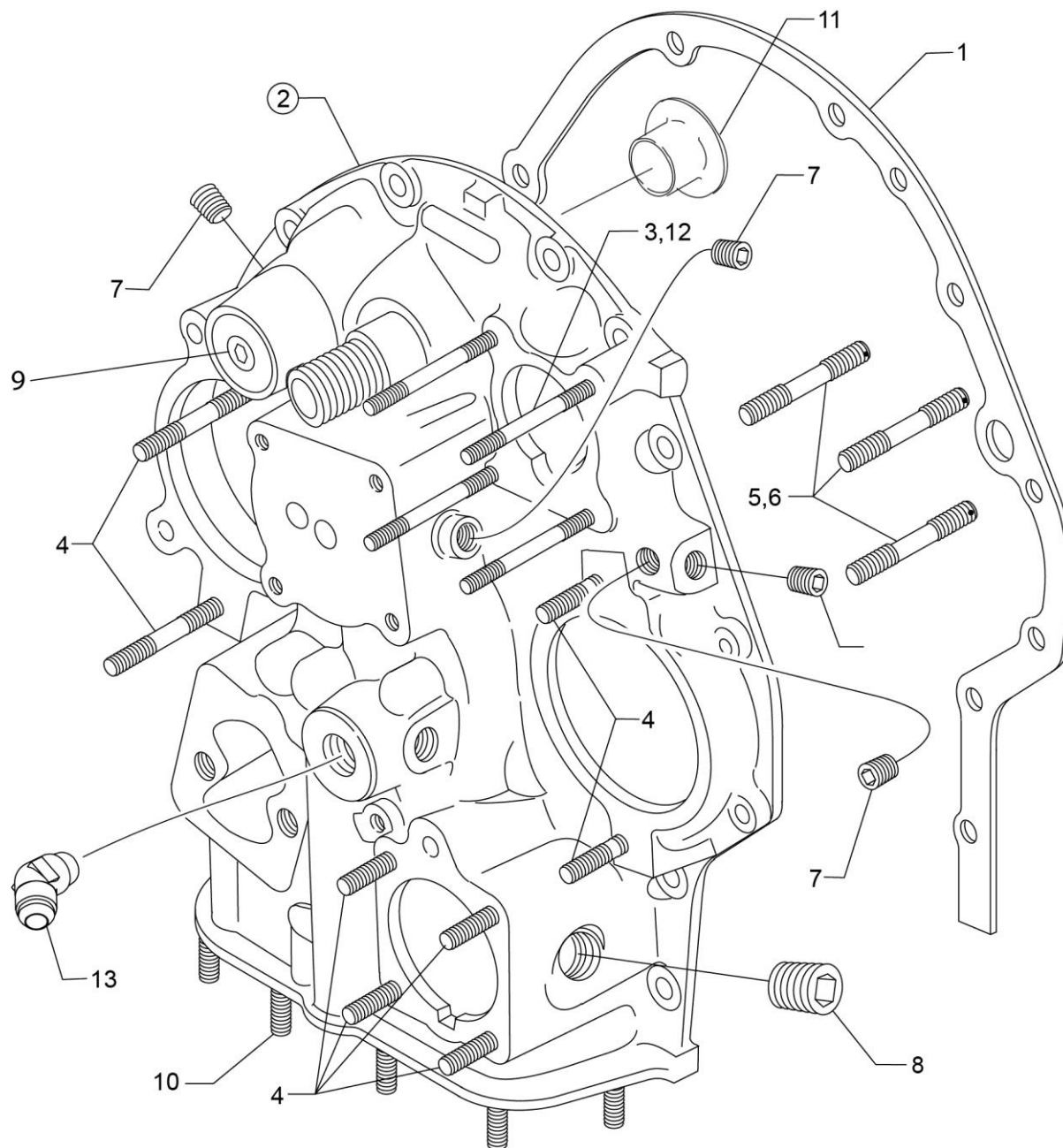


Figure 16
Accessory Housing Assembly

Accessory Drives**Figure 16 – Accessory Housing Assembly**

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		73818	GASKET, Accessory housing	1	1
2		21A21533-21	HOUSING ASSEMBLY, Accessory	1	
		21A21533-33	HOUSING ASSEMBLY, Accessory	1	
		21A21651-05	HOUSING ASSEMBLY, Accessory		1
3		25C-22	STUD, 1/4-20 x 2-3/4 long	4	4
4		31C-12	STUD, 5/16-18 x 1-1/2 long	8	8
5		31CD-17	STUD, 5/16-18 x 2-1/8 long, drilled	3	2
6		31CD-22	STUD, 5/16-18 x 2-3/4 long, drilled		1
7		1102	PLUG, 1/8-27 NPT, Allen head	4	4
8		STD-784	PLUG, 3/8-18 NPT, Allen head	1	1
9		STD-783	PLUG, 1/4-18 NPT, Allen head		1
10		75888	STUD, 1/4-20 x 1-1/4 long	6	6
11		76119	SHIELD, Accessory breather oil	1	1
12		61400	STUD, 1/4-20 x 1-3/16 long	4	
13		MS20823-8	ELBOW, 3/8 NPT to 1/2 flare tube, 45 deg.	1	
		MS20823-4	ELBOW, 1/8 NPT to 1/4 flare tube, 45 deg.	1	

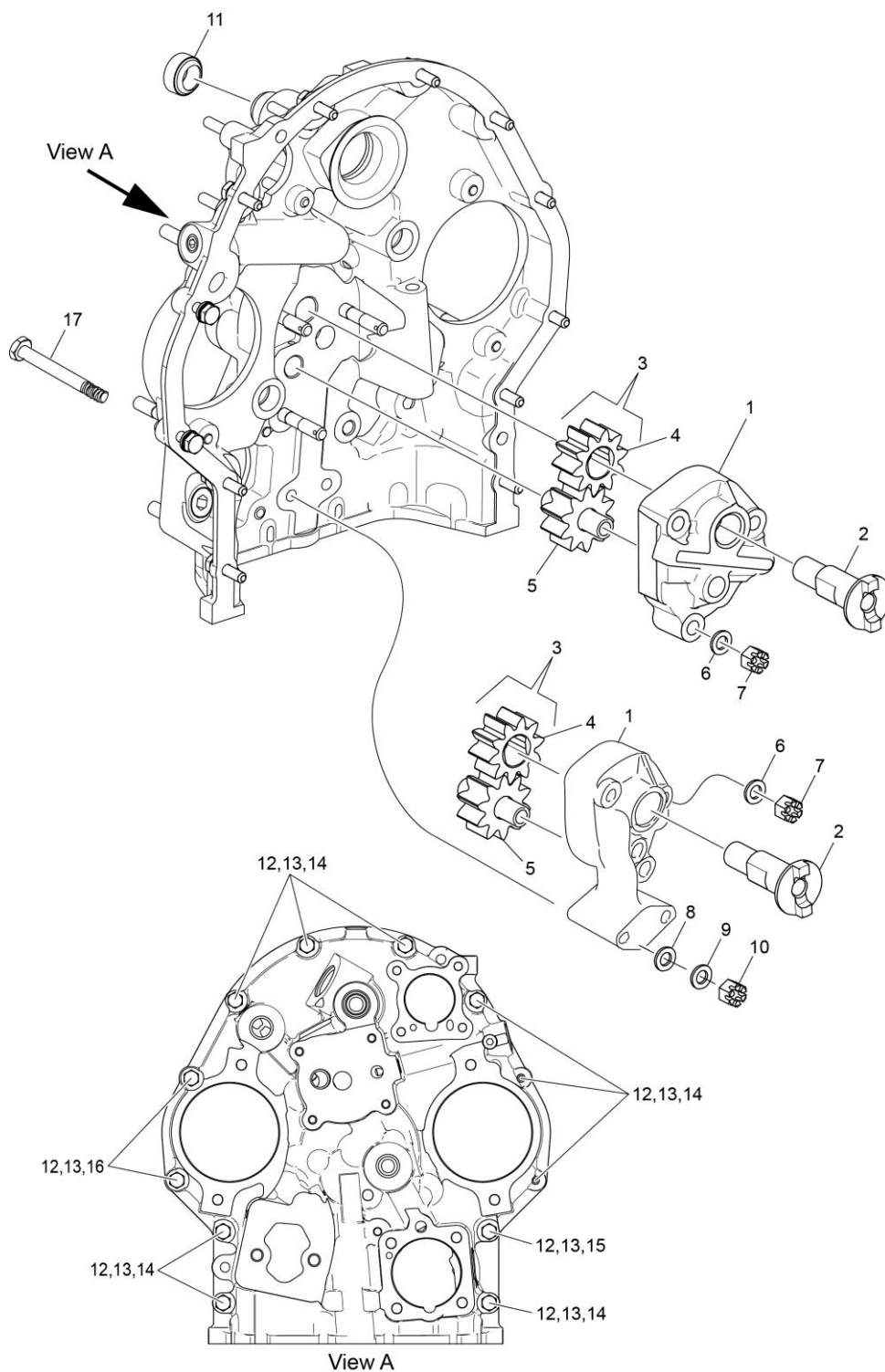


Figure 17
Oil Pump Assembly and Accessory Housing Attaching Parts

Accessory Drives

Figure 17 – Oil Pump Assembly and Accessory Housing Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		78531	BODY ASSEMBLY, Oil pump	1	
		LW-11839	BODY ASSEMBLY, Oil pump		1
2		61174	SHAFT, Oil pump drive	1	1
3		05K19423-S	IMPELLER KIT	1	1
4	P *	LW-18109	IMPELLER, Oil pump, driving	1	1
5	P *	LW-18110	IMPELLER ASSEMBLY, Oil pump, driven	1	1
6		STD-35	WASHER, 5/16 plain	3	3
7		STD-1420	NUT, 5/16-18 slotted	3	3
8		STD-1227	WASHER, 1/4 plain		2
9		STD-8	WASHER, 1/4 plain		2
10		STD-2249	NUT, 1/4-20 slotted shear		2
11		LW-14260	SEAL, Tachometer drive, oil	1	1
12		STD-8	WASHER, 1/4 plain	12	12
13		STD-160	WASHER, 1/4 lock, internal teeth	12	12
14		LW-25-0.94	BOLT, 1/4-20 x 15/16 long, hex. head	9	9
15		LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. head	1	1
16		LW-25-1.44	BOLT, 1/4-20 x 1-7/16 long, hex. head	2	2
17		LW-25S2.75	BOLT, 1/4-20 x 2-3/4 long, hex. head, drilled end		2
P Lycoming proprietary part - for reference only, cannot be purchased. * To ensure impellers are replaced together, oil pump impellers available in kit form only.					

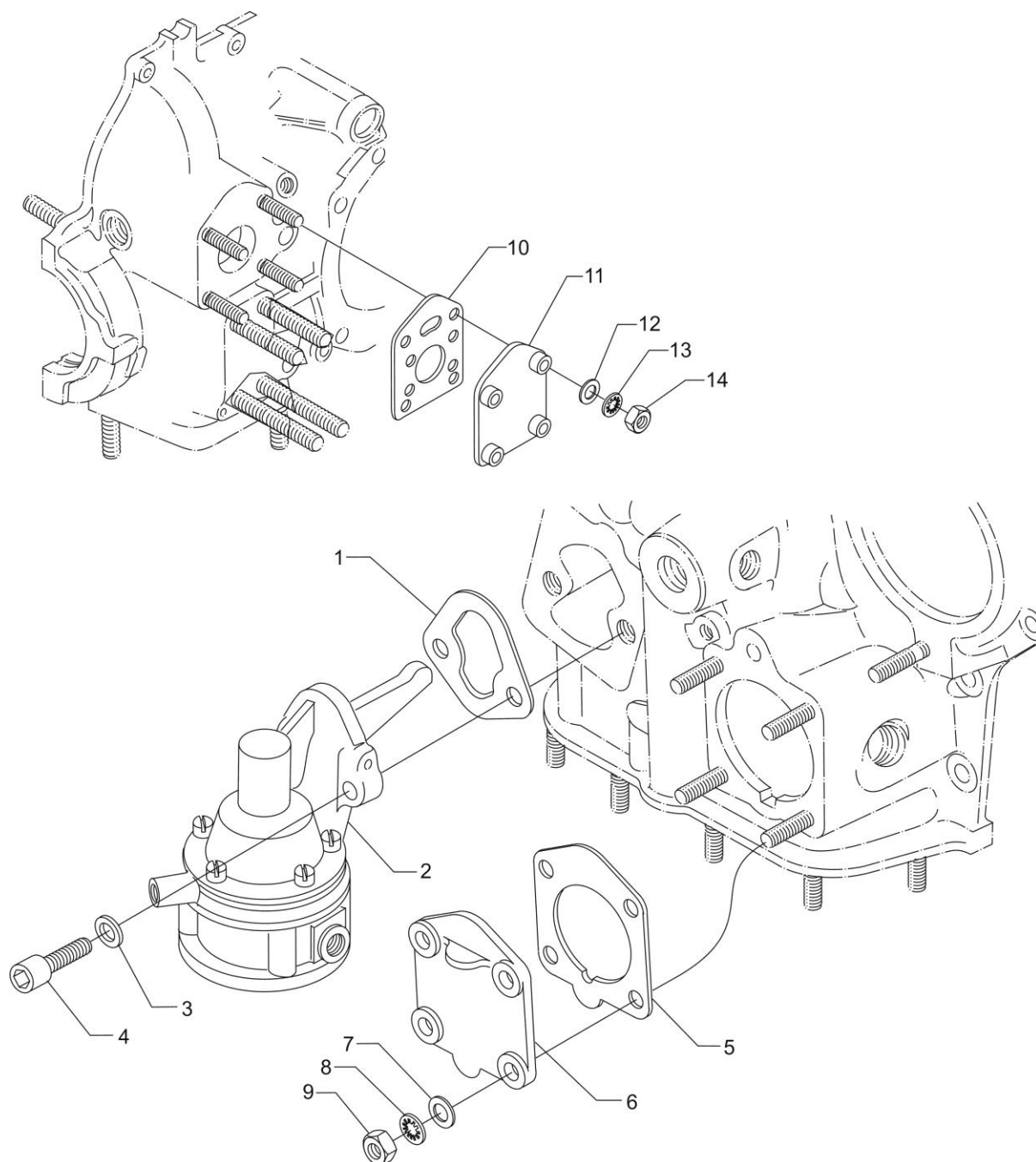


Figure 18
Fuel Pump Assembly and Attaching Parts

Accessory Drives**Figure 18 - Fuel Pump Assembly and Attaching Parts**

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		60096	GASKET, Fuel pump	1	
2		62B26931	FUEL PUMP, (High Pressure)	1	
3		STD-33	WASHER, 3/8 Plain	2	
4		STD-1882	SCREW, 3/8-16 x 1-9/32 long, socket dr.	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		72053	GASKET, Governor	1	
11		72378	COVER, Governor drive	1	
12		STD-35	WASHER, 5/16 plain	4	
13		STD-475	WASHER, 5/16 lock, internal teeth	4	
14		STD-1410	NUT, 5/16-18 plain	4	

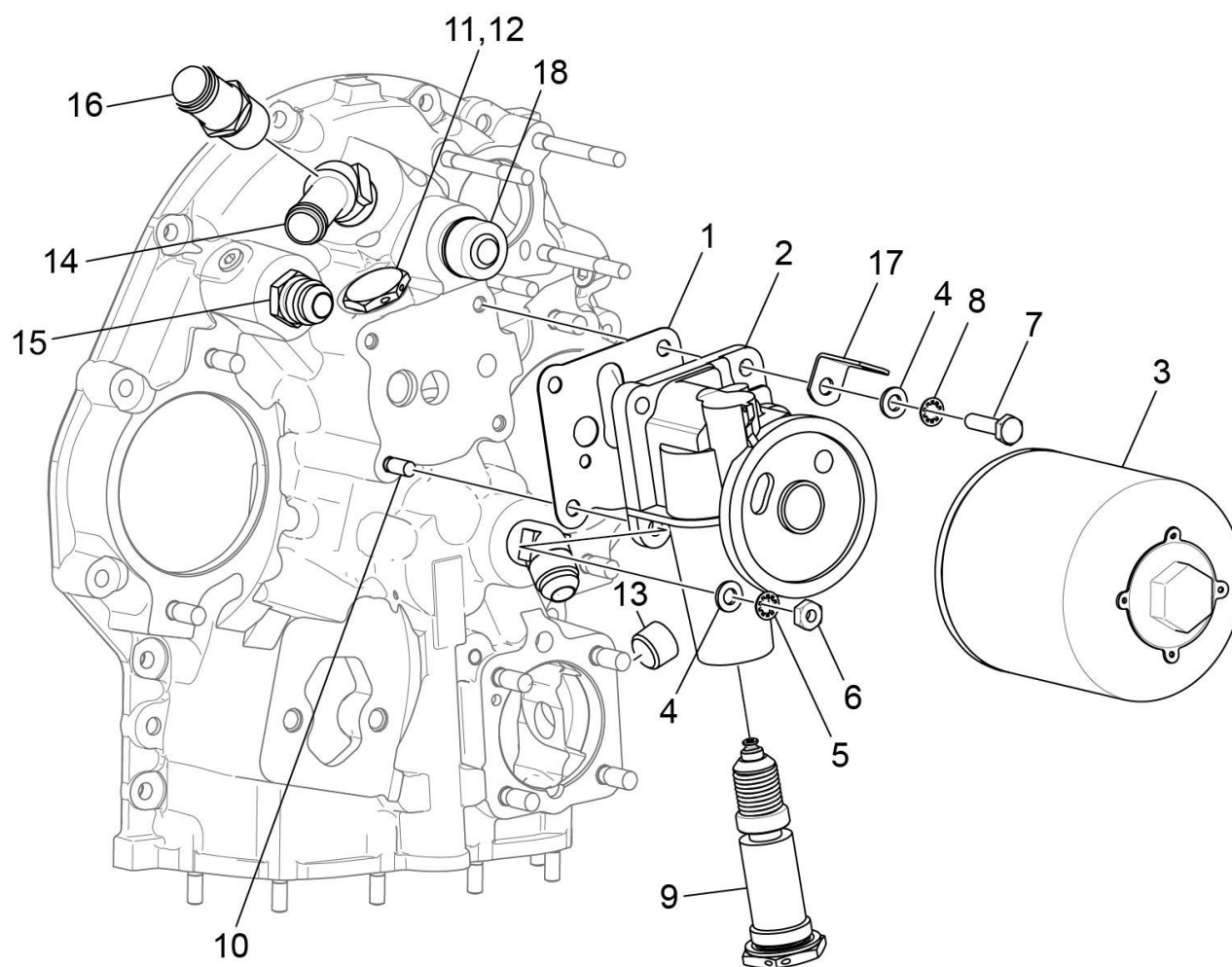


Figure 19
Oil Filter Assembly, Oil Cooler Bypass Valve and Fittings

Figure 19 – Oil Filter Assembly, Oil Cooler Bypass Valve and Fittings

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		06B23862	GASKET, Oil filter adapter	1	
2		77852	OIL FILTER BASE ASSEMBLY	1	
3		LW-13215	OIL FILTER, Short, Spin-on	1	
4		STD-8	WASHER, 1/4 plain	4	
5		STD-160	WASHER, 1/4 lock, internal teeth	1	
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, Temp. control oil cooler bypass w/ gasket	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	1	
14		AN844-10D	ELBOW, Pipe	1	
15		AN816-8	NIPPLE, 1/2 flared tube	1	
16		71140	FITTING, Breather	1	
17		73136	BRACKET, Extension, fuel injection line	1	
18		62732	CAP, Tachometer drive	1	

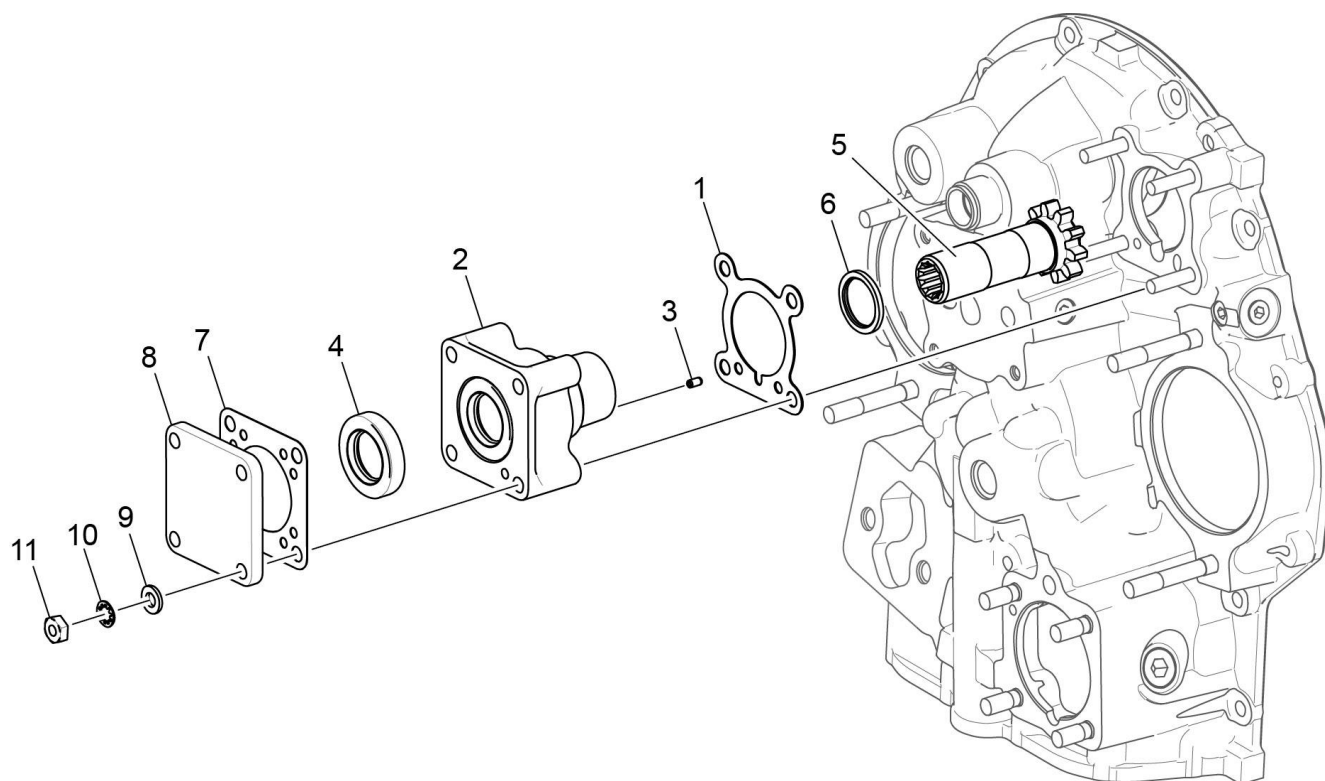


Figure 20
Vacuum Pump Drive and Cover

Accessory Drives**Figure 20 – Vacuum Pump Drive and Cover**

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		61183	GASKET, Vacuum pump	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 ASSY., 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	

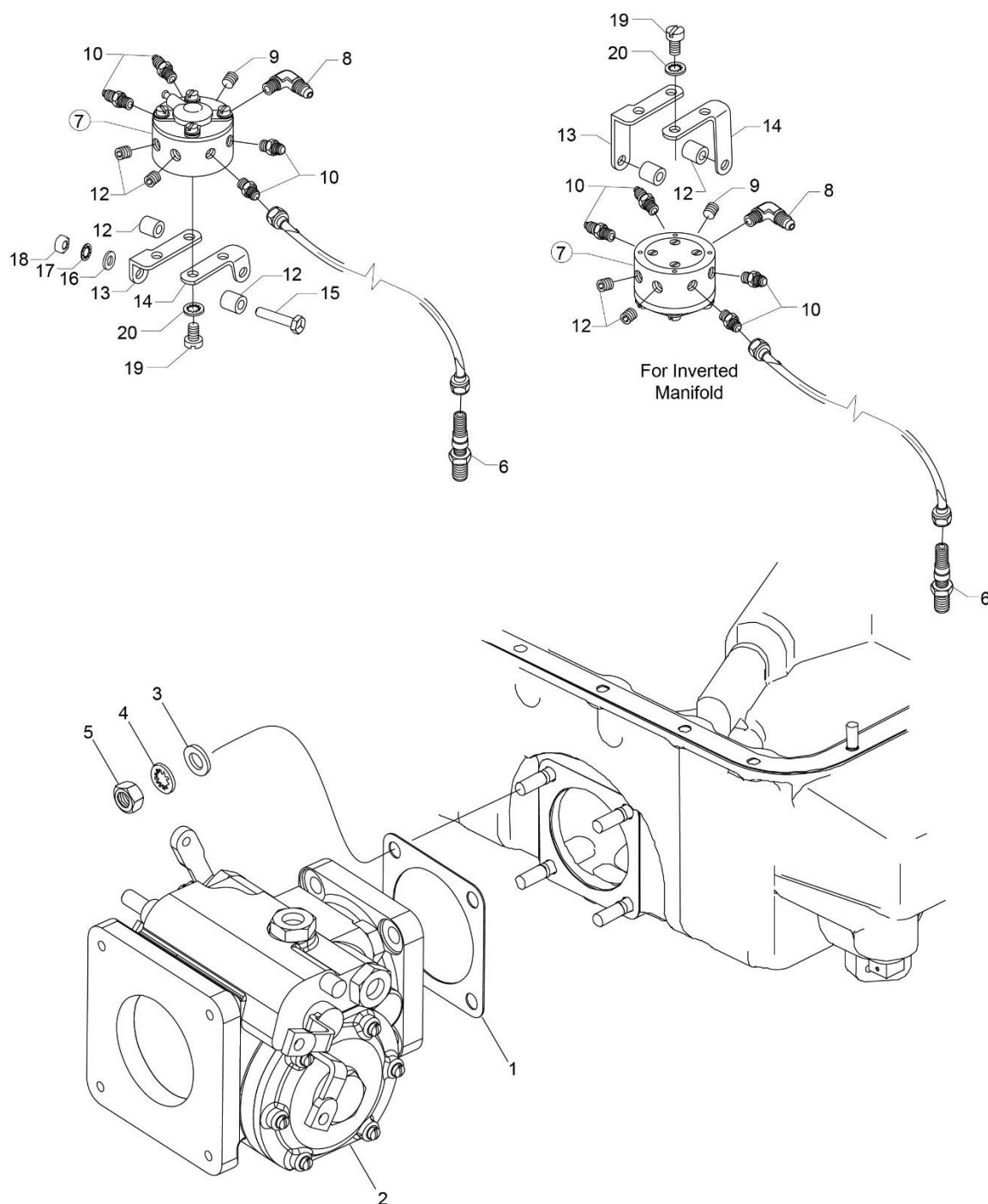


Figure 21
Fuel Injector, Fuel Manifold and Injection Nozzles

Figure 21 – Fuel Injector, Fuel Manifold and Injection Nozzles

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		66224	GASKET	1	1
2		61J26423	FUEL INJECTOR (P/N 2576568-1, Model RSA-5AD1)	1	1
		61J26823	FUEL INJECTOR (P/N 2581100, Model RSA-5AD1)	1	
3		STD-35	WASHER, 5/16 plain	4	4
4		STD-475	WASHER, 5/16 lock, internal teeth	4	4
5		STD-1410	NUT, 5/16-18 plain	4	4
6		63C26450	NOZZLE, Injection (2524864-2)	4	4
7		63B28106	MANIFOLD ASSEMBLY, Fuel	1	
		63B26757	MANIFOLD ASSEMBLY, Fuel		1
		63B28207	MANIFOLD ASSEMBLY, Fuel	1	
		63B26449	MANIFOLD ASSEMBLY, Fuel, (inverted manifold)	1	
8		MS20822-4	ELBOW, 1/4 tube, 1/8 NPT, 90°	1	1
9		02G21382	NIPPLE, Nozzle pressure	1	
		AN816-4	NIPPLE, 1/8 NPT to 1/4 tube	1	
10		STD-148	NIPPLE, Union, 1/8 NPT	4	4
11		1102	PLUG, 1/8-27 NPT, Allen head	2 or 3	3
12		73966	SPACER, Fuel manifold bracket	2	2
13		07A23031	BRACKET, Fuel manifold	1	1
		07A22995	BRACKET, Fuel manifold (inverted manifold)	1	
14		07A23032	BRACKET, Fuel manifold	1	1
		07A22996	BRACKET, Fuel manifold (inverted manifold)	1	
15		LW-25-2.00	BOLT, 1/4-20 x 2.00 long, hex. head	2	2
16		STD-8	WASHER, 1/4 plain	2	2
17		STD-160	WASHER, 1/4 lock, internal teeth	2	2
18		STD-1411	NUT, 1/4-20 plain	2	2
19		STD-82	SCREW, No. 10-24 x 1/2 long, fill. head	4	4
20		STD-251	WASHER, No. 10 lock, internal teeth	4	4
	*	77504	GASKET, Fuel injector	1	1
* Install between the fuel injector and the airframe air box					

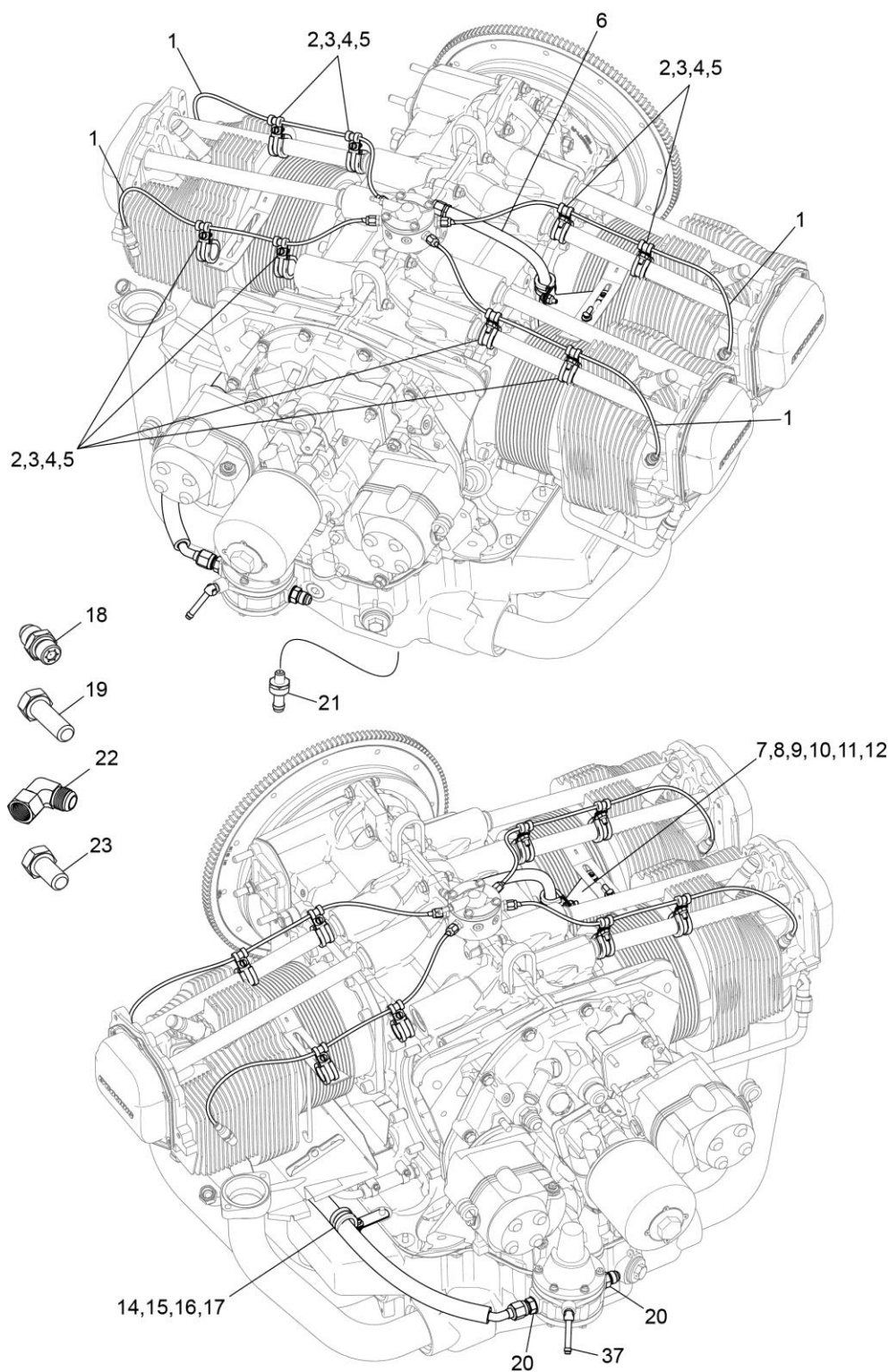


Figure 22
Fuel Lines and Attaching Parts

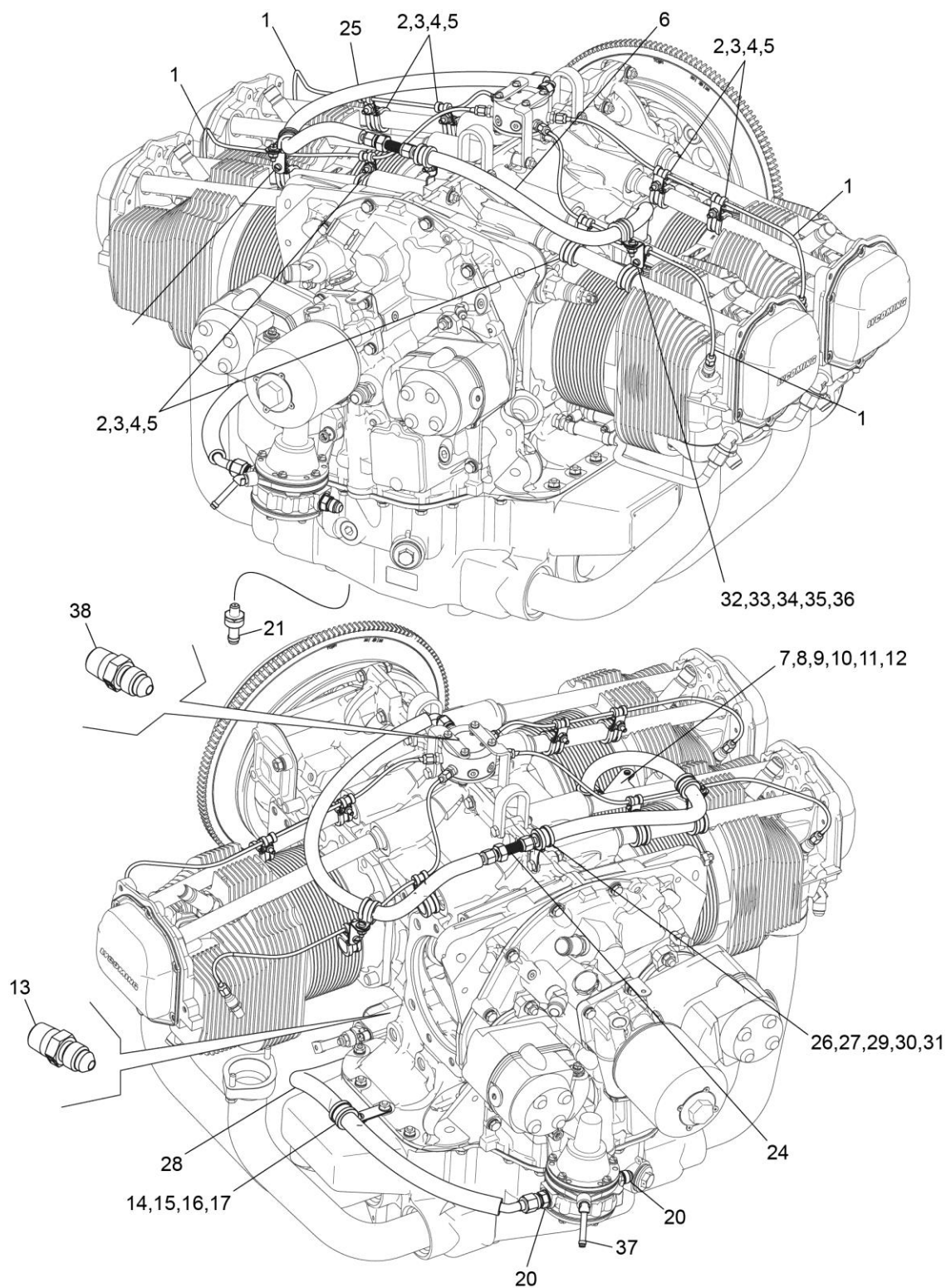


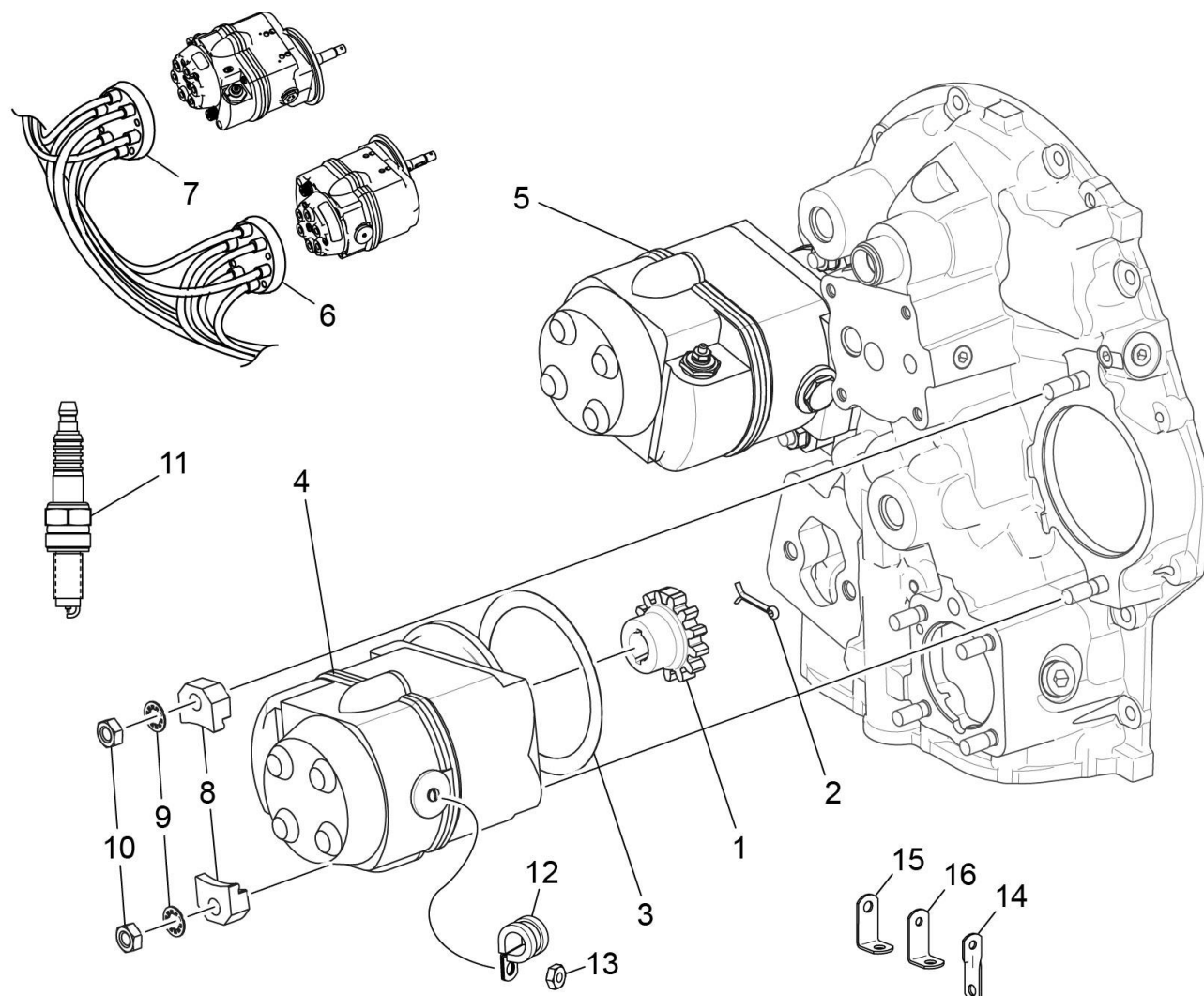
Figure 22
Fuel Lines and Attaching Parts

Figure 22 – Fuel Lines and Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		LW-12098-0-170	TUBE ASSEMBLY, Fuel	2	
		LW-12098-0-180	TUBE ASSEMBLY, Fuel manifold to nozzles	4	
		LW-12098-0-190	TUBE ASSEMBLY, Fuel injector line	2	
2		LW-16266-10-75	CLAMP	8	
3		LW-16266-10-13	CLAMP, 1/8 diameter for no. 10 screw	8	
4		STD-860	SCREW, No. 10-32 x 5/8 long, fill. head	8	
5		STD-670	LOCKNUT, No. 10-32	8	
6		02M8686-4S205	HOSE ASSEMBLY, 1/4 hose, 90° elbow	1	
		02M22637-4S300	HOSE ASSEMBLY, Teflon 1/4 hose, straight fittings	1	
7		07A28507	BRACKET ASSEMBLY, Fuel line support	1	
8		STD-692	SCREW, No. 10-32 x 1/2 long, round head	2	
9		STD-425	WASHER, No. 10 plain	3	
10		STD-670	LOCKNUT, No. 10-32	1	
11		STD-860	SCREW, No. 10-32 x 5/8 long, fill. head	1	
12		LW-16266-25-63	CLAMP, 5/8 I.D. x 1/4 diameter	1	
		LW-16266-25-50	CLAMP	1	
13	*	75739	NIPPLE, 3/8 flared tube	1	
14	**	73152	BRACKET, Support clamp	1	
15	**	LW-16266-10-75	CLAMP	1	
16	**	STD-860	SCREW, No. 10-32 x 5/8 long, fill. head	1	
17	**	STD-670	LOCKNUT, No. 10-32	1	
18	**	02G22973	NIPPLE, 1/4 Tube to 7/16-20 straight	1	
19		LW-38-0.75	BOLT, 3/8-16 X 3/4 long hex	10	
20		75739-CT	NIPPLE, 3/8 flared	2	
21		75444	ADAPTER ASSY, Fuel drain valve	1	
22		72377-CT	ELBOW, 3/8 tubing adjustable, 90 degree	1	
* Requires P/N MS29512-06 O-ring. ** Hose Assembly may not be supplied.					

Figure 22 – Fuel Lines and Attaching Parts (Cont.)

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
23		LW-25-0.56	BOLT, 1/4-20 X 9/16 long	2	2
24		AS5406-04	UNION, 1/4 fl. tube bulkhead	1	0
25		02M28210	HOSE ASSEMBLY, Teflon 1/4 hose, 90 deg. elbow	1	0
26		72815	BRACKET, Support clamp, 90 deg.	1	0
27		LW-16266-10-63	CLAMP	1	0
28		02M22792-6S221	HOSE ASSEMBLY, Teflon 3/8 hose, 45 deg. elbow	1	0
29		STD-692	SCREW, #10-32 X 1/2 long rd. head	1	0
30		STD-425	WASHER, #10 plain	1	0
31		STD-670	LOCKNUT, #10-32	1	0
32		73136	BRACKET, Extension, fuel inj. line	2	0
33		LW-16266-10-63	CLAMP, 5/8 I.D. X #10 screw	2	0
34		STD-860	SCREW, #10-32 X 5/8 long, fill. head	2	0
35		STD-425	WASHER, #10 plain	2	0
36		STD-670	LOCKNUT, #10-32	2	0
37		AN844-4D	ELBOW, Pipe to hose	1	0
38		02G21382	NIPPLE, Nozzle pressure gauge	1	0



BAG-HARNESS ATTACHING P/N 01P19762-1-1		
PART NO.	NAME	QTY
LW-16266-25-25	CLAMP-ONE WIRE	4
LW-14060	CLIP-TWO WIRE	3
STD-8	WASHER-.250 PLAIN	8
STD-1874	SCREW-.250-20 X .81 LG. FILL.	6
76734	ZIP STRAP	8
LW-16266-25-50	CLAMP	1
STD-1411	NUT-.250-20 PLAIN	2
STD-696	WASHER-.250 PLAIN (THIN)	4
STD-1916	SCREW-.250-20 X 1.13 LG. FIL HD	3
LW-M-2375	SET OF 2 PLATES-SPARK PLUG CABLE-2 WIRE	2

BAG-HARNESS ATTACHING P/N 01P19762-2-7		
PART NO.	NAME	QTY
LW-16266-25-25	CLAMP-ONE WIRE	4
LW-14060	CLIP-TWO WIRE	4
STD-8	WASHER-.250 PLAIN	8
77410	BRACKET-90 DEGREES	1
STD-1874	SCREW-.250-20 X .81 LG. FILL.	4
76734	ZIP STRAP	12
LW-16266-25-50	CLAMP	3
STD-1411	NUT-.250-20 PLAIN	1
STD-696	WASHER-.250 PLAIN (THIN)	4
STD-1916	SCREW-.250-20 X 1.13 LG. FIL HD	1
STD-1925	SCREW-.250-20 X .63 LG. PAN HD	2
72815	BRACKET-SUPPORT CLAMP-90 DEGRE	3
73152	BRACKET-SUPPORT CLAMP	2
STD-692	SCREW-#10-32 X .50 LG. RD. HD.	5
STD-425	WASHER-#10 PLAIN	5
STD-670	LOCKNUT-#10-32	5
LW-M-2375	SET OF 2 PLATES-SPARK PLUG CABLE-2 WIRE	2

Figure 23
Magnetos, Magneto Drives, Harnesses and Spark Plugs

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

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		68C19622	GEAR, Magneto	2	2
2		MS9245-44	COTTER PIN, 3/32 diameter x 5/8 long	2	2
3		LW-12681	GASKET, Magneto	2	2
4	•	66GP-0SANN	MAGNETO, Plain, Slick Model 4370	1	
	•	66GP-0RANN	MAGNETO, Plain, Slick Model 4302		1
5	•	66GR25SANN	MAGNETO, Retard, Slick Model 4347	1	
	•	66GR25RANN	MAGNETO, Retard, Slick Model 4348		1
6		67P20428	HARNESS ASSEMBLY, Right, Slick Model M-2990	1	1
		67P20412	HARNESS ASSEMBLY, Right, Slick Model M-4020	1	
7		67P20429	HARNESS ASSEMBLY, Left, Slick Model M-2989	1	1
		67P20413	HARNESS ASSEMBLY, Left, Slick Model M-4019	1	
8		66M21195	CLAMP, Magneto	4	4
9		STD-475	WASHER, 5/16 lock, internal teeth	4	4
10		STD-1410	NUT, 5/16-18 plain	4	4
11	*	1182-E7	SPARK PLUG, Champion (REM38E)	8	8
	*	1182-S4	SPARK PLUG, Unison (UREM38E)	8	
12		LW-16266-25-50	CLAMP	2	
13		STD-1411	NUT, 1/4-20 plain	2	
14		72815	BRACKET, Support clamp, 90 deg.	5	
15		73136	BRACKET, Extension, fuel injection line	4	
16		77410	BRACKET, 90 deg.	2	
	**	01P19762-1-1	BAG, Magneto harness attaching	1	1
	**	01P19762-2-7	BAG, Magneto harness attaching	1	
• See latest revision of Lycoming Service Instruction No. 1443 for complete listing of approved magnetos. * Refer to the latest revision of Lycoming Service Instruction No. 1042 for complete listing of all approved spark plugs. ** See page 48 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.					

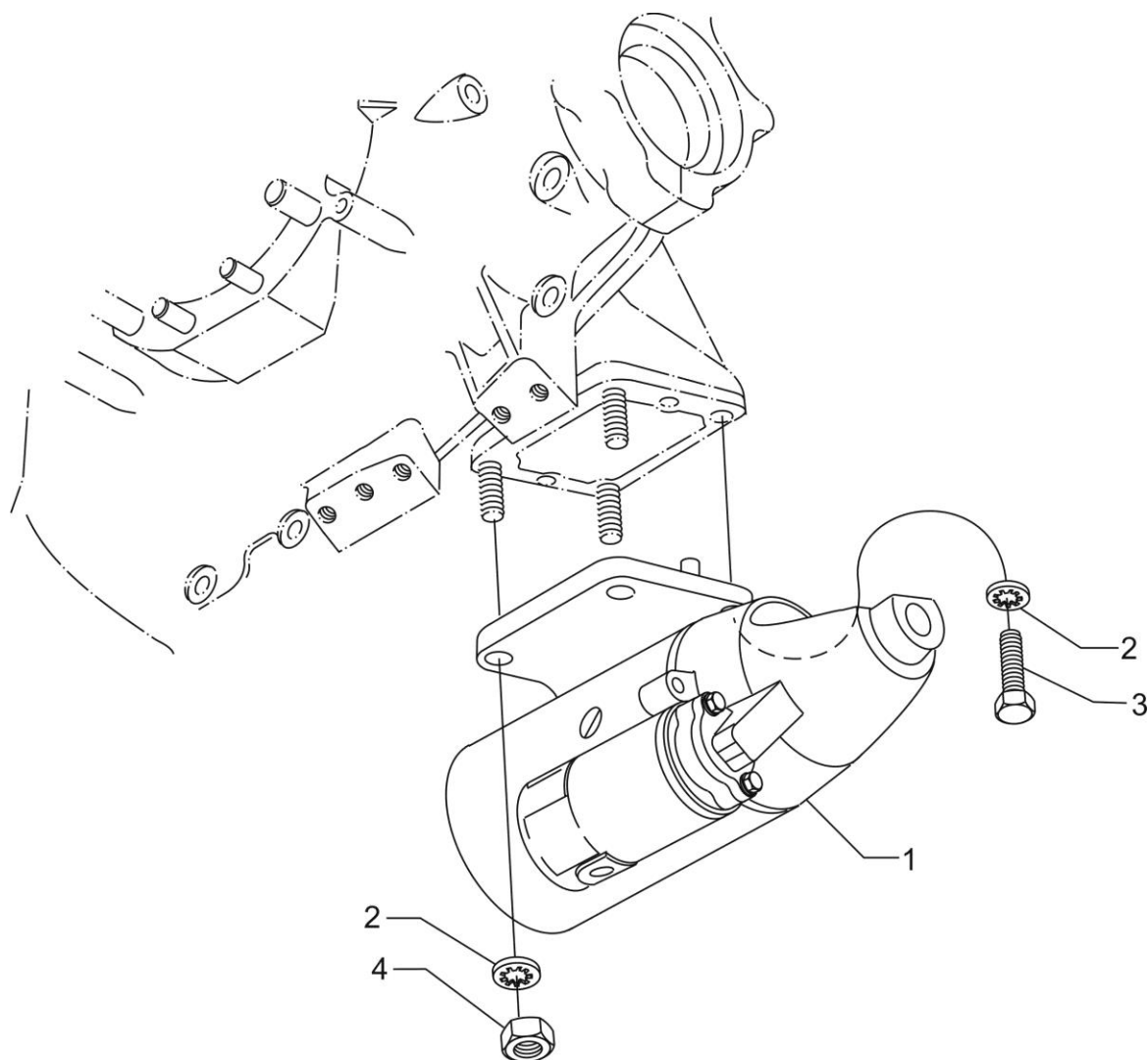


Figure 24
Starter Attaching Parts

Figure 24 - Starter Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly	
				IO-360	LIO-360
1		31B22105	STARTER, Sky-Tec (149-24LS)	1	
		31B22116	STARTER, Sky-Tec (149-24HT/EC)	1	
		31B26554	STARTER, Sky-Tec (149NL/EC)	1	
		31B22115	STARTER, Sky-Tec (149-24HTL)		1
2		STD-475	WASHER, 5/16 lock, internal teeth	4	4
3		LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. head	1	1
4		STD-1410	NUT, 5/16-18 plain	3	3
NOTE: See latest revision of Lycoming Service Instruction No. 1154 for complete listing of FAA approved starters and alternators.					

This page intentionally left blank.

Service Kit Section**Seal and Gasket Set**

PART NO.	PART NAME	Qty.
75439-1	SEAL AND GASKET SET	1
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	SEAL, Oil	1
06A19956	SEAL, Oil	1
06E19769-0.63	GASKET	2
06E19769-1.00	GASKET	1
06E19769-1.25	GASKET	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, Fuel injector	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	1
71481	RING, Oil seal	4
71973	GASKET, 2 bolt flange	4
72053	GASKET, Governor	2
72059	GASKET, Oil level gage	1
72075	SEAL, Oil	6
72078	LOCKPLATE	2
72091	RING, Oil seal	2

Seal and Gasket Set (Cont.)

PART NO.	PART NAME	Qty.
72220	GASKET, Oil level gage	1
72312	RING, Oil seal	1
72829	LOCKPLATE	1
73383	LOCKPLATE	2
73817	LOCKPLATE	2
73818	GASKET, Accessory housing	1
74065	RING, Oil level gage seal	1
74068	RING, Oil level gage plug	1
06B26669	GASKET, Rocker box cover (Silicane)	4
76510	GASKET, Oil cooler by-pass 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, 0.351 I.D. x 0.072 section	1
06A23493	SEAL, Shroud tube	8
SSP-115	STICKER	1
* Refer to latest revision of Lycoming Service Instruction No. 1324 for application.		

Cylinder, Piston and Ring Assembly

PART NO.	PART NAME	Qty.
05K21104	KIT – CYLINDER, PISTON AND RING ASSEMBLY	1
16G30080-101	CYLINDER HEAD AND VALVE ASSEMBLY	1
14D23912	PISTON	1
74241	RING, Piston, compression	2
14H29884	RING, Piston, oil regulating	1
LW-14078	PIN, Piston	1
71481	RING, Oil seal	1
LW-18661	SEAL, Shroud tube	2
70310	SEAL, Shroud tube	2
06A23493	SEAL, Shroud tube	2
06B26669	GASKET, Rocker box cover (Silicone)	1
72198	PLUG, Piston pin	2
77611	GASKET, Exhaust flange	1
71973	GASKET, 2 bolt	1
LW-12272	LOCKPLATE, Shroud tube	1
SSP-299	TAG	1
71195	COINTAINER	1
1102	PLUG	2
SSP-115	STICKER	1

This page intentionally left blank.

NUMERICAL INDEX

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
01K28983	BUSHING	21	1028-B	BALL	13
01L21418	WASHER	9	1102	PLUG	11
01L21909	SPACER	3	1102	PLUG	11
01L21916	SPACER	5	1102	PLUG	23
01L23459	WASHER	27	1102	PLUG	33
01P19762-1-1	BAG	51	1102	PLUG	35
01P19762-2-7	BAG	51	1102	PLUG	45
02G21382	NIPPLE	45	1182-E7	SPARK PLUG	51
02G21382	NIPPLE	49	1182-S4	SPARK PLUG	51
02G22973	NIPPLE	48	11D22549	CRANKCASE	11
02M22637-4S300	HOSE ASSEMBLY	48	11D28751-1S1	CRANKCASE	11
02M22792-6S221	HOSE ASSEMBLY	49	11D28751-1S3	CRANKCASE	11
02M28210	HOSE ASSEMBLY	49	13B47120	CRANKSHAFT	15
02M8686-4S205	HOSE ASSEMBLY	48	13B47144	CRANKSHAFT	15
05K19423-S	IMPELLER KIT	37	13S19646	GEAR	15
06A19956	OIL SEAL	43	14D23912	PISTON	21
06A23493	SEAL	27	14H29884	RING	21
06B23862	GASKET	41	14S23890	BOLT	21
06B26669	GASKET	29	15B21319	SOCKET	27
06E19769-0.63	GASKET	41	15B26066	PLUNGER ASSY	27
06E19769-1.00	GASKET	33	15B26262	BODY	13
06E19769-1.25	GASKET	13	15F28835-28	ROD ASSEMBLY	25
07A19474	BRACKET	1	15F28835-29	ROD ASSEMBLY	25
07A19880	BRACKET	3	15F28835-30	ROD ASSEMBLY	25
07A21030	BRACKET	5	15F28835-31	ROD ASSEMBLY	25
07A21908	BRACKET	3	15F28835-32	ROD ASSEMBLY	25
07A21910	BRACKET	3	15F28835-33	ROD ASSEMBLY	25
07A22097	BRACKET	3	15F28835-34	ROD ASSEMBLY	25
07A22995	BRACKET	45	15F28835-35	ROD ASSEMBLY	25
07A22996	BRACKET	45	15F28835-36	ROD ASSEMBLY	25
07A23031	BRACKET	45	15F28835-37	ROD ASSEMBLY	25
07A23032	BRACKET	45	15G23461	SHROUD TUBE	27
07A28507	BRACKET ASSY	48	15M23454	CAMSHAFT ASSY	17
07F21298	LINK	3	15M23456	CAMSHAFT ASSY	17
07F23268	STRUT	1	16A30080-01	CYLINDER HEAD	23
07F28735	BRACE	5	16R22126	GUIDE	23
07F28736	LINK	5	17A23938	VALVE	27

PART NO.	PART NAME	PAGE NO.
17B23936	VALVE	27
17C19386	CAP	27
17C21191	KEY	27
17D29055	SPRING	27
17D29060	SPRING	27
17F19357	ROCKER ASSY	25
18A26093	BEARING	13
18D26098	BEARING	13
18M26105	BEARING	21
21A21533-21	HOUSING ASSY	35
21A21533-33	HOUSING ASSY	35
21A21651-05	HOUSING ASSY	35
23D26777	PLUNGER	17
25C-10	STUD	41
25C-22	STUD	35
25C-8	STUD	23
31B22105	STARTER	53
31B22115	STARTER	53
31B22116	STARTER	53
31B26554	STARTER	53
31C-12	STUD	11
31C-12	STUD	23
31C-12	STUD	35
31C-13	STUD	11
31C-14	STUD	33
31C-17	STUD	11
31C-19	STUD	11
31CD-17	STUD	35
31CD-22	STUD	35
31M19861	SUPPORT ASSY	15
32C19553	ALTERNATOR	7
32C19568	ALTERNATOR	7
36A19951	PULLEY ASSY	5
36B19484	PULLEY	7
37A19773-376	BELT	7
37A19773-390	BELT	7
37A19773-470	BELT	7
37B19774-482	BELT	7

PART NO.	PART NAME	PAGE NO.
38-13	STUD	11
38-13	STUD	11
38-22	STUD	11
383-B	NUT	5
383-B	NUT	25
38D-17	STUD	11
42E22611	PIPE	31
42E22612	PIPE	31
42E22613	PIPE	31
42E22614	PIPE	31
50-15	STUD	11
53E22144	VALVE ASSY	41
56C23075	TUBE	13
60009	KEY	27
60096	GASKET	39
60430	COVER	43
60803	STRAP	19
61084	SPRING	13
61098	ADAPTER ASSY	43
61174	SHAFT	37
61183	GASKET	43
61247	COVER	29
61400	STUD	33
61400	STUD	35
61510	PLUG	15
61J26423	FUEL INJECTOR	45
61J26823	FUEL INJECTOR	45
62417	PLUG	41
62732	CAP	41
62B26931	FUEL PUMP	39
63B26449	MANIFOLD ASSY	45
63B26757	MANIFOLD ASSY	45
63B28106	MANIFOLD ASSY	45
63B28207	MANIFOLD ASSY	45
63C26450	NOZZLE	45
65441	SEAT	27
66224	GASKET	45
66610	BUSHING	23

PART NO.	PART NAME	PAGE NO.
66796	INSERT	23
66GP-0RANN	MAGNETO	51
66GP-0SANN	MAGNETO	51
66GR25RANN	MAGNETO	51
66GR25SANN	MAGNETO	51
66M21195	CLAMP	51
67P20412	HARNESS ASSY	51
67P20413	HARNESS ASSY	51
67P20428	HARNESS ASSY	51
67P20429	HARNESS ASSY	51
68668	SPRING	13
68759	TUBE ASSEMBLY	29
68760	TUBE ASSEMBLY	29
68761	TUBE ASSEMBLY	29
68C19622	GEAR	51
69106	COVER	39
69551	GASKET	39
69796	DOWEL	11
70310	SEAL	27
70455	GASKET	9
70484	SCREEN	33
71140	FITTING	41
71481	RING	25
71596	WASHER	43
71610	HOOK	29
71611	RETAINER	29
71973	GASKET	31
72053	GASKET	39
72057	SEAT	23
72058	SEAT	23
72059	GASKET	13
72075	SEAL	13
72091	RING	13
72155-S	BUSHING	15
72158	BUSHING	11
72198	PLUG	21
72377-CT	ELBOW	48
72378	COVER	39

PART NO.	PART NAME	PAGE NO.
72566	GEAR	15
72815	BRACKET	49
72815	BRACKET	51
72970	GEAR ASSY	43
73136	BRACKET	41
73136	BRACKET	49
73136	BRACKET	51
73152	BRACKET	48
73249	WASHER	9
73250	WASHER	9
73251	WASHER	9
73252	WASHER	9
73383	LOCKPLATE	1
73818	GASKET	35
73966	SPACER	45
74065	RING	13
74068	RING	13
74241	RING	21
74637	BUSHING	25
74887	SPACER	25
74996	GEAR ASSEMBLY	17
75061	BOLT	21
75072	GEAR ASSEMBLY	17
75154	STUD	11
75339	BAFFLE ASSY	29
75380	LINK	1
75444	ADAPTER ASSY	48
75656-S	BUSHING	15
75657-S	BUSHING	15
75736	TUBE	13
75739	NIPPLE	48
75739-CT	NIPPLE	48
75767	TUBE	13
75888	STUD	35
76118	SPACER	17
76119	SHIELD	35
76121	SHAFT ASSY	17
76220	STUD	19

PART NO.	PART NAME	PAGE NO.
76534	SHIM	1
76534	SHIM	3
76534	SHIM	5
76943	GUIDE	23
77309	BUSHING	17
77309	BUSHING	17
77410	BRACKET	51
77467	SPRING	13
77504	GASKET	45
77569	RING	31
77611	GASKET	23
77808	VALVE ASSY	13
77852	OIL FILTER BASE	41
77872	BUSHING	9
77874	GEAR ASSEMBLY	9
77875	GEAR	9
78531	BODY ASSEMBLY	37
8313	GASKET	43
AN310-7	NUT	5
AN565B1032H5	SET SCREW	9
AN6-12	BOLT	5
AN6-15	BOLT	3
AN6-15	BOLT	5
AN6-16	BOLT	1
AN6-17	BOLT	1
AN6-21	BOLT	3
AN6-21	BOLT	5
AN6-34A	BOLT	19
AN7-46	BOLT	5
AN816-4	NIPPLE	45
AN816-8	NIPPLE	41
AN844-10D	ELBOW	41
AN844-4D	ELBOW	49
AS5406-04	UNION	49
LRT23381	BODY	13
LW-10077	SEAT	27
LW-10551	GEAR	15
LW-11485	SHROUD TUBE	27

PART NO.	PART NAME	PAGE NO.
LW-11519	SUPPORT ASSY	15
LW-11713	SPRING	13
LW-11750-S	CONN ROD ASSY	21
LW-11839	BODY ASSEMBLY	37
LW-12098-0-170	TUBE ASSEMBLY	48
LW-12098-0-180	TUBE ASSEMBLY	48
LW-12098-0-190	TUBE ASSEMBLY	48
LW-12186	NUT	21
LW-12272	LOCKPLATE	27
LW-12545	PLUG	33
LW-12681	GASKET	51
LW-12892	THRUST BUTTON	25
LW-13215	OIL FILTER	41
LW-13323	SEAT	27
LW-13353	GASKET	33
LW-13389	BAFFLE ASSY	29
LW-13790	SHAFT	25
LW-13792	SEAL	13
LW-13793	STUD	11
LW-13796	SHAFT	17
LW-13864	SUMP ASSEMBLY	33
LW-13896	PLUG	9
LW-14021	SHAFT	9
LW-14078	PIN	21
LW-14260	SEAL	37
LW-14326	ALTERNATOR	7
LW-14328	ALTERNATOR	7
LW-14650	SHIM	5
LW-14760	GAGE ASSEMBLY	13
LW-14763	GAGE ASSEMBLY	13
LW-14769	GAGE ASSEMBLY	13
LW-14995	SPRING	27
LW-15592-5-04	CLAMP	29
LW-16266-10-13	CLAMP	48
LW-16266-10-63	CLAMP	49
LW-16266-10-75	CLAMP	48
LW-16266-25-50	CLAMP	48
LW-16266-25-50	CLAMP	51

PART NO.	PART NAME	PAGE NO.
LW-16266-25-63	CLAMP	48
LW-16471	SUPPORT ASSY	15
LW-16475	SEAT	27
LW-18085	SPRING	13
LW-18109	IMPELLER	37
LW-18110	IMPELLER ASSY	37
LW-18639	LOCKPLATE	15
LW-18661	SEAL	27
LW-18667	PIN	17
LW-18843	CAMSHAFT ASSY	17
LW-18845	CAMSHAFT ASSY	17
LW-25-0.56	BOLT	49
LW-25-0.94	BOLT	33
LW-25-0.94	BOLT	37
LW-25-1.00	BOLT	41
LW-25-1.13	BOLT	19
LW-25-1.13	BOLT	33
LW-25-1.13	BOLT	37
LW-25-1.25	BOLT	31
LW-25-1.44	BOLT	37
LW-25-1.50	BOLT	19
LW-25-1.63	BOLT	19
LW-25-1.88	BOLT	19
LW-25-2.00	BOLT	45
LW-25S1.50	BOLT	19
LW-25S2.75	BOLT	37
LW-31-0.94	BOLT	1
LW-31-0.94	BOLT	19
LW-31-0.94	BOLT	53
LW-31H0.75	BOLT	1
LW-31H0.88	BOLT	3
LW-31H0.88	BOLT	17
LW-31H1.06	BOLT	5
LW-31H2.13	BOLT	3
LW-31H2.75	BOLT	3
LW-38-0.75	BOLT	48
LW-38H1.09	BOLT	5
MS20822-4	ELBOW	45

PART NO.	PART NAME	PAGE NO.
MS20823-4	ELBOW	35
MS20823-6D	ELBOW	23
MS20823-6D	ELBOW	27
MS20823-8	ELBOW	35
MS35489-20X	GROMMET	29
MS9245-44	COTTER PIN	51
NAS1149F0632P	WASHER	19
STD-8	WASHER	19
STD-8	WASHER	31
STD-8	WASHER	33
STD-8	WASHER	37
STD-8	WASHER	41
STD-8	WASHER	43
STD-8	WASHER	45
STD-19	DOWEL	9
STD-33	WASHER	5
STD-33	WASHER	19
STD-33	WASHER	39
STD-35	WASHER	1
STD-35	WASHER	3
STD-35	WASHER	19
STD-35	WASHER	23
STD-35	WASHER	37
STD-35	WASHER	39
STD-35	WASHER	45
STD-82	SCREW	45
STD-148	NIPPLE	45
STD-160	WASHER	19
STD-160	WASHER	31
STD-160	WASHER	33
STD-160	WASHER	37
STD-160	WASHER	41
STD-160	WASHER	43
STD-160	WASHER	45
STD-251	WASHER	45
STD-425	WASHER	48
STD-425	WASHER	49
STD-475	WASHER	19

PART NO.	PART NAME	PAGE NO.
STD-475	WASHER	23
STD-475	WASHER	39
STD-475	WASHER	45
STD-475	WASHER	51
STD-475	WASHER	53
STD-514	DOWEL	11
STD-551	PLUG	33
STD-557	DOWEL	11
STD-596	NUT	19
STD-632	WASHER	5
STD-669	WASHER	5
STD-670	LOCKNUT	48
STD-670	LOCKNUT	49
STD-678	WASHER	5
STD-678	WASHER	19
STD-684	NIPPLE	29
STD-690	WASHER	1
STD-690	WASHER	3
STD-690	WASHER	5
STD-692	SCREW	48
STD-692	SCREW	49
STD-713	COTTER PIN	1
STD-713	COTTER PIN	3
STD-713	PIN	5
STD-783	PLUG	35
STD-784	PLUG	35
STD-784	PLUG	41
STD-798	DOWEL	9
STD-860	SCREW	48
STD-860	SCREW	49
STD-872	NUT	1
STD-872	NUT	3
STD-872	NUT	5
STD-872	NUT	19
STD-1065	DOWEL	15

PART NO.	PART NAME	PAGE NO.
STD-1211	PLUG	15
STD-1227	WASHER	37
STD-1339	PLUG	11
STD-1339	PLUG	11
STD-1342	WASHER	5
STD-1353	INSERT	23
STD-1410	NUT	23
STD-1410	NUT	39
STD-1410	NUT	45
STD-1410	NUT	51
STD-1410	NUT	53
STD-1411	NUT	19
STD-1411	NUT	27
STD-1411	NUT	33
STD-1411	NUT	41
STD-1411	NUT	43
STD-1411	NUT	45
STD-1411	NUT	51
STD-1420	NUT	37
STD-1623	INSERT	11
STD-1727	WASHER	1
STD-1727	WASHER	3
STD-1774	PIN	43
STD-1821	HOSE	29
STD-1882	SCREW	39
STD-1925	SCREW	29
STD-2090	NUT	25
STD-2168	NUT	17
STD-2221	NUT	5
STD-2229	PLUG	33
STD-2231	RING	17
STD-2246	BOLT	15
STD-2249	NUT	19
STD-2249	NUT	37