

TIO-540-AH1A Illustrated Parts Catalog

October 2025

PC-TIO-540-AH1A (Supersedes PC-315-10)



652 Oliver Street
Williamsport, PA 17701

TIO-540-AH1A Illustrated Parts Catalog

Lycoming Part Number: PC TIO-540-AH1A

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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-TIO-540-AH1A (Supersedes PC-315-10)	October 2025

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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 MAINTENANCE OR OVERHAUL MANUAL.

PART NUMBERS AND DESCRIPTIONS IN THIS PARTS CATALOG ARE NOT
AUTHORITATIVE AND CAN BE SUPERSEDED BY FAA APPROVED SERVICE
BULLETINS AND SERVICE INSTRUCTIONS.

Purpose of this Catalog

This Illustrated Parts Catalog (IPC) contains a complete list of spare parts for the Lycoming TIO-540-AH1A engine model.

How to Use this Catalog

This catalog is based on the Air Transport Association (ATA) Spec 100 format. 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 TIO-540-AH1A Illustrated Parts Catalog:

24 (Electrical Power), 72 (Reciprocating Engine), 73 (Engine and Fuel Control), 74 (Ignition), and 80 (Starting).

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

NOTICE: Refer to the IPC Table of Contents for the subsystems identified 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 below their associated parts grouping or assembly. 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” are for “as required” applicable to bulk items or non-illustrated select-from-range-parts. The letters “RF” identify items for reference.

Lockwire, Safety Cable

To maintain as assembled torque integrity Lockwire used is to be a one continuous strand twisted to keep tension on various internal fasteners ensuring a minimum torque is retained. Lockwire installed correctly will pull in the direction of fastener assembled tension. Lycoming Engines does not recommend the use of safety cable for retention of internal engine parts or assemblies. Refer to the latest revision of **Service Instruction No. 1566**.

Vendor Accessories

Parts coverage of Vendor Accessories used on Lycoming engines are found in the applicable Vendor's Parts Catalog. A list of vendors' addresses is included in the latest revision of Lycoming Service Letter No. L114.

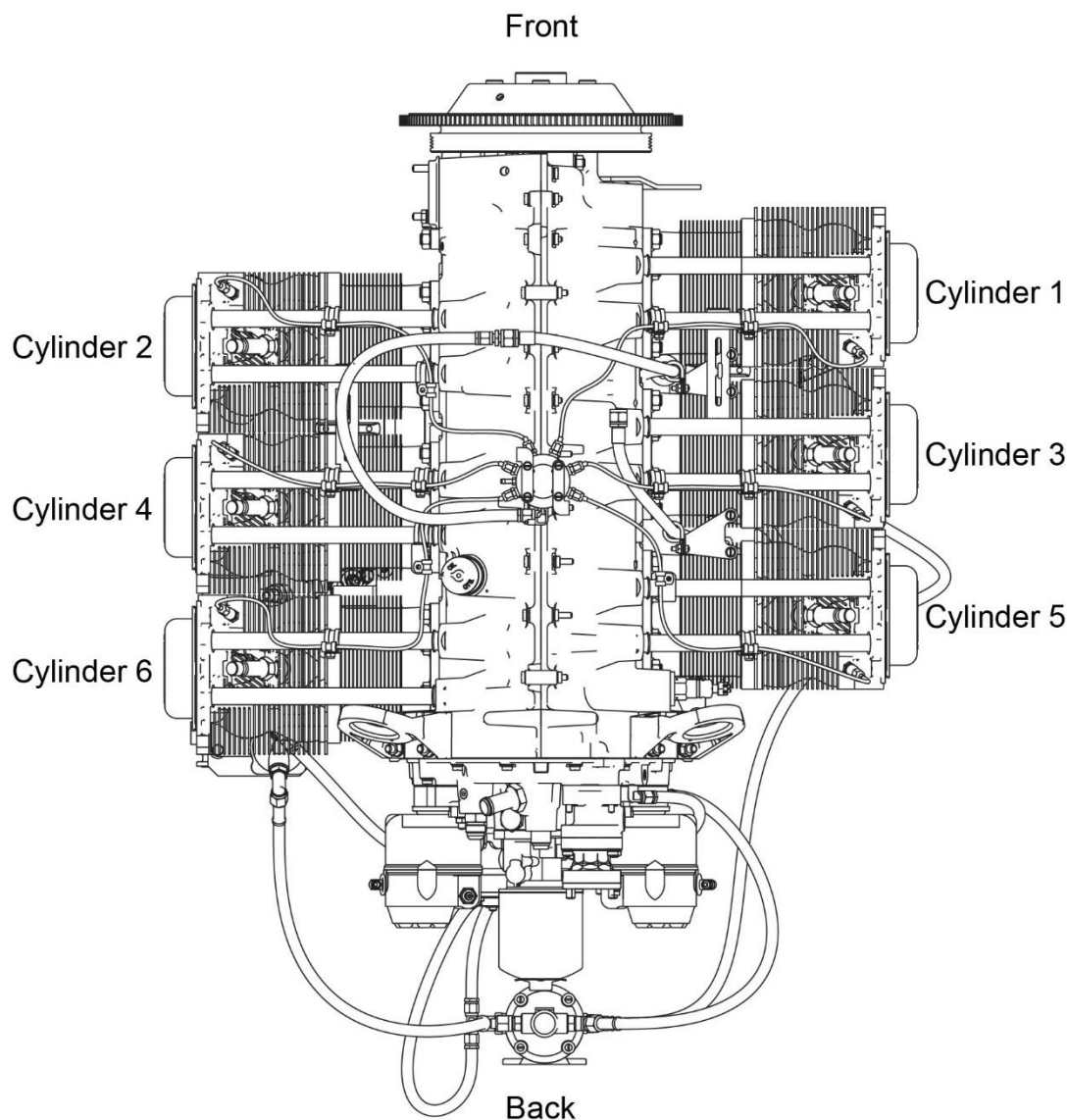
Any reference in this document to the suppliers/part manufacturer's product, by name, trademark, part number or other description is solely for the purpose of identification and does not indicate or infer that Lycoming accepts responsibility for quality control and/or airworthiness of parts, which do 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 the propeller end and the oil sump is 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 1-4-5-2-3-6.

**Top View of Engine**

How to Order Parts

To order parts from this parts catalog, contact an Authorized Lycoming Distributor with the part number(s), nomenclature, and quantity along with the model and serial number of your engine. Authorized Lycoming Distributors will have up-to-date part number supersedure, pricing, and availability information on parts listed in this parts catalog.

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

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

NOTE:

Lycoming recommends that owners of this manual sign up for email notification on the Technical Publications page of our website <https://www.lycoming.com/contact/knowledge-base/publications>. By submitting your email address, you will receive notification whenever Lycoming publishes a new or revised technical publication, including any revisions to this parts catalog.

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Abbreviations and Acronyms

A	
AR	As Required
Assy.	Assembly
ATA	Air Transport Association
C	
Cyl.	Cylinder
D	
dia.	Diameter
F	
Fill.	Fillister
H	
Hex.	Hexagon
I	
I.D.	Inside Diameter
in.	Inch
IPC	Illustrated Parts Catalog
N	
No.	Number
NPT	National Pipe Thread
O	
O.D.	Outside Diameter
P	
P	Lycoming Proprietary Part
P/N	Part Number
R	
RF	Reference
S	
SB	Service Bulletin
SI	Service Instruction
SSP	Special Service Publication
U	
UNF	Unified National Fine

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Oversize and Undersize Parts Listing

PART NO.	DESCRIPTION	OVERSIZE (IN.)			UNDERSIZE (IN.)	
		P05 .005	P10 .010	P50 .050	M03 .003	M06 .006
66670	BUSHING	X	X			
61681	GUIDE	X	X			
66796	INSERT	X	X			
69796	DOWEL	X				
72155-S	BUSHING	X	X			
73810	BUSHING	X				
75656-S	BUSHING	X	X			
75657-S	BUSHING	X	X			
16R22291	GUIDE	X	X			
LW-11997	SEAL			X		
LW-12688	SEAT		X			
18M26105	BEARING				X	X
LW-13792	SEAL			X		
STD-1065	DOWEL	X				
16T19468	SEAT		X			
18A26093	BEARING				X	X
18D26098	BEARING				X	X

NOTICE:

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 0.003 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.

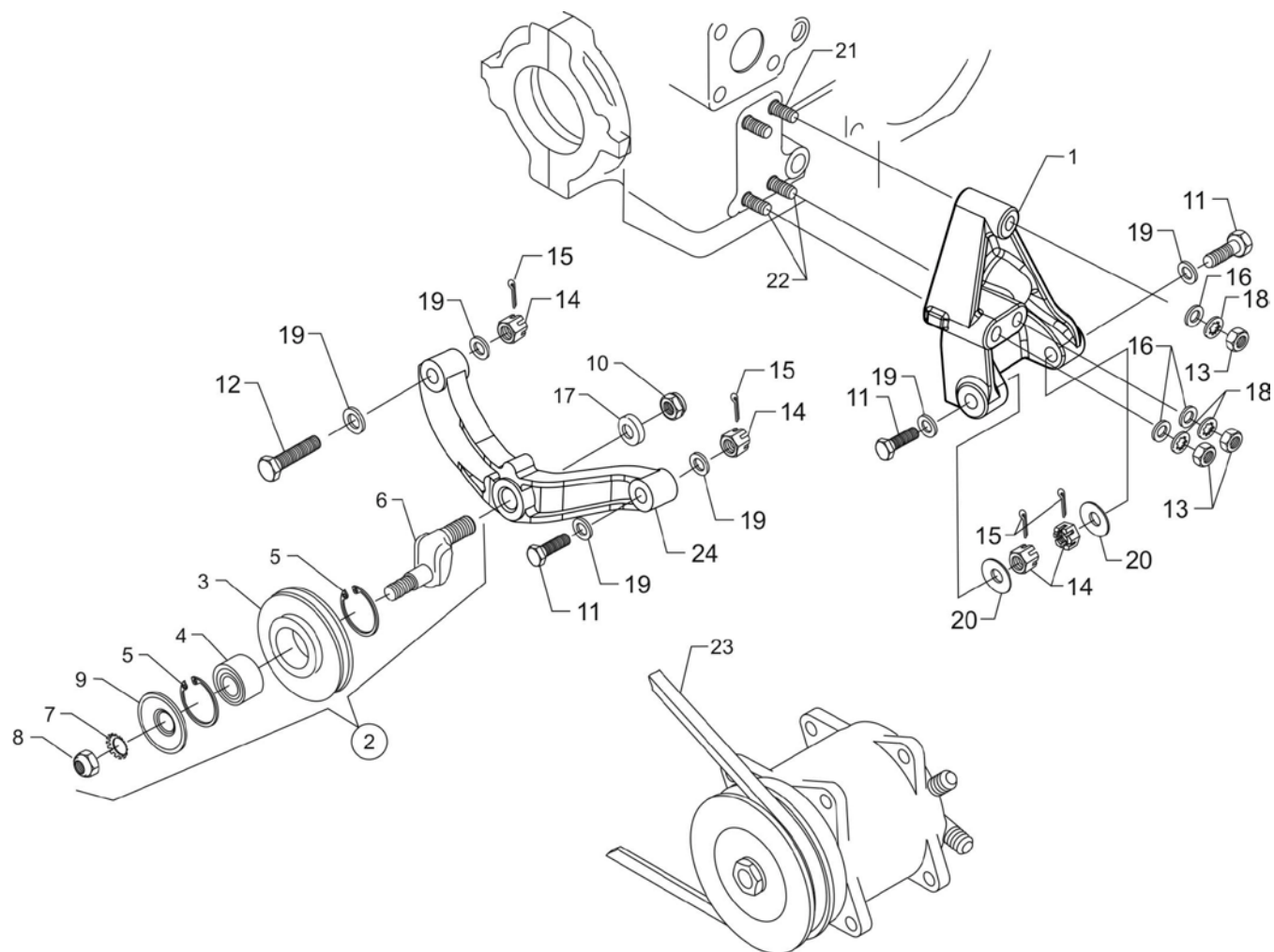


Figure 1
Compressor Mounting and Attaching Parts

Figure 1 - Compressor Mounting and Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1		07A22351	BRACKET, Compressor	1
2		36A22449	PULLEY & SHAFT ASSEMBLY, HC-50, Belt	1
3		LW-18804	PULLEY, Idler	1
4		78629	BALL BEARING, Double row, alternator	1
5		MS16625-1125	RING, Internal retaining, 1-1/4 diameter	2
6		LW-19238	SHAFT, Alternator, dual belt idler	1
7		76768	LOCKWASHER, Alternator idler pulley bearing	1
8		76769	LOCKNUT, Alternator idler pulley bearing	1
9		LW-11635	SHIELD, Alternator idler bearing	1
10		STD-2221	NUT, 1/2-20 self-locking	1
11		AN6-17	BOLT, 3/8-24 x 1-15/16 long, hex. head	3
12		AN6-21	BOLT, 3/8-24 UNF x 2-3/16 long, drilled	1
13		STD-596	NUT, 3/8-24 plain	3
14		STD-872	NUT, 3/8-24 slotted	4
15		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	4
16		STD-33	WASHER, 3/8 plain	3
17		STD-669	WASHER, 33/64 I.D. x 1.00 O.D. x 1/8 thick	1
18		STD-678	WASHER, 3/8 lock, internal teeth	3
19		STD-690	WASHER, 13/16 O.D. x 25/64 I.D. x 1/16 thick	12
20		76534	SHIM, 1-1/8 O.D. x 13/32 I.D. x .005 thick	10
21		38-21	STUD, 3/8-16 x 2-5/8 long	1
22		38-25	STUD, 3/8-16 x 3-1/8 long	2
23		37B19774-472	BELT, Freon compressor drive	1
24		07A22349	BRACKET, Compressor belt adjusting	1
NOTE: 05K22448 Compressor Kit is available.				

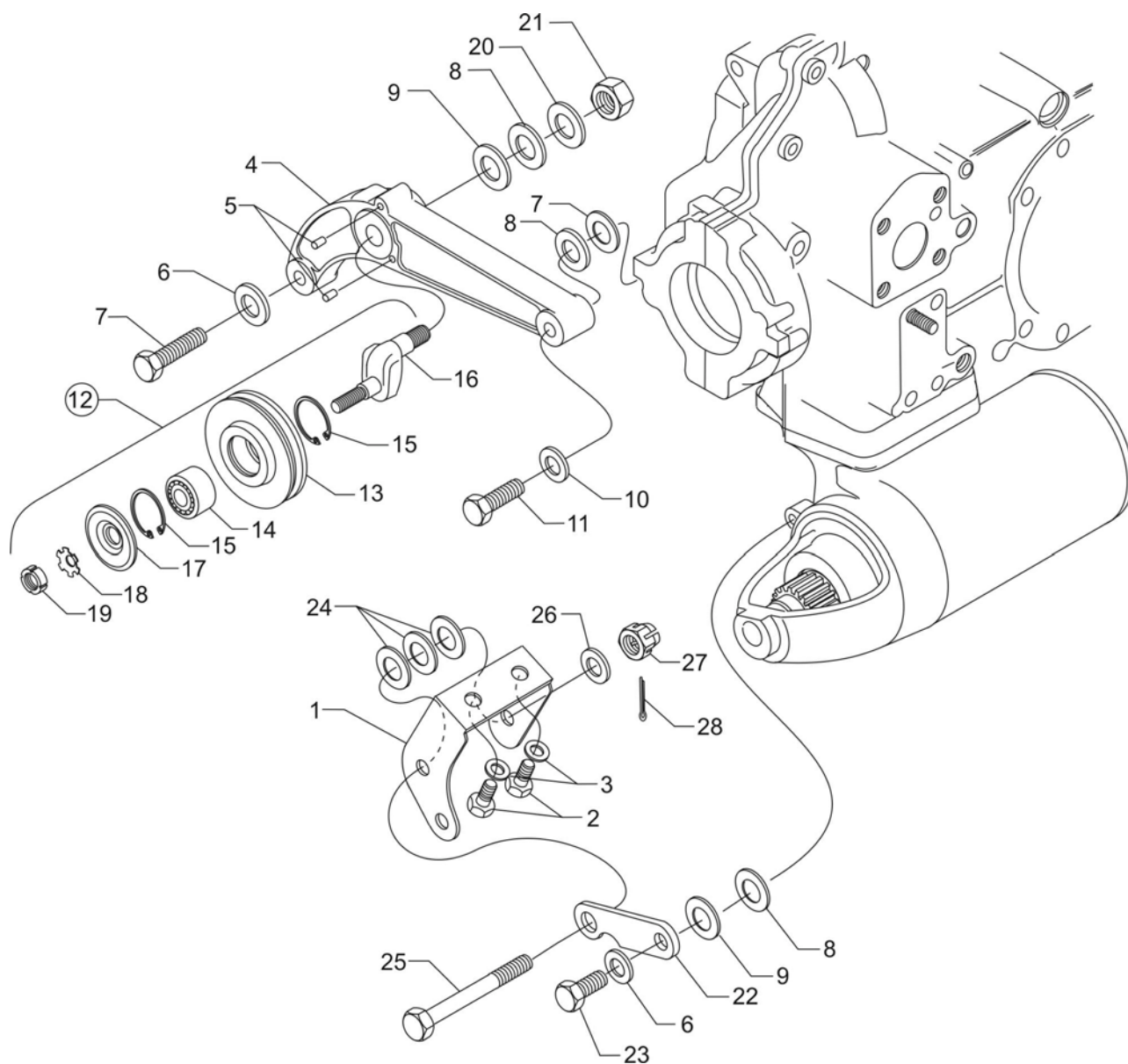


Figure 2
Alternator Mounting and Attaching Parts

Figure 2 - Alternator Mounting and Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1		07A22348	BRACKET, Alternator	1
2		LW-31H0.88	BOLT, 5/16-18 x 7/8 long, hex. head, drilled	2
3		STD-35	WASHER, 5/16 plain	2
4		07A22356	BRACKET ASSEMBLY, Alternator belt adjusting	1
5		STD-1021	DOWEL, 3/16 diameter x 5/8 long	2
6		STD-1727	WASHER, Plain, 3/4 O.D. x 11/32 I.D. x 1/8 thick	1
7		LW-31H1.22	BOLT, 5/16-18 x 1-7/32 long, hex. head, drilled	1
8		LW-14637	SHIM, 13/16 O.D. x 11/32 I.D. x .005 thick	3
9		LW-14649	SHIM, 13/16 O.D. x 11/32 I.D. x .010 thick	3
10		STD-33	WASHER, 3/8 plain	1
11		LW-38H1.19	BOLT, 3/8-16 x 1-3/16 long, hex. head	1
12		36A22374	PULLEY & SHAFT ASSEMBLY	1
13		LW-12233	PULLEY, Alternator belt adjusting	1
14		78629	BALL BEARING, Double row, alternator	1
15		MS16625-1125	RING, Internal retaining, 1-1/4 diameter	2
16		LW-19238	SHAFT, Alternator dual belt idler	1
17		LW-11635	SHIELD, Alternator idler bearing	1
18		76768	LOCKWASHER, Alternator idler pulley bearing	1
19		76769	LOCKNUT, Alternator idler pulley bearing	1
20		STD-669	WASHER, 33/64 I.D. x 1.00 O.D. x 1/8 thick	1
21		STD-2221	NUT, 1/2-20 self-locking	1
22		07F21160	STRUT, Alternator support	1
23		LW-31H0.88	BOLT, 5/16-18 x 7/8 long, hex. head, drilled	1
24		LW-14650	SHIM, 7/8 O.D. x 15/32 I.D. x .005 thick	3
25		AN7-43	BOLT, 7/16-20 x 4-15/32 long, hex. head	1
26		STD-632	WASHER, 7/16 plain	2
27		AN310-7	NUT, 7/16-20 plain, slotted	1
28		STD-713	COTTER PIN, 3/32 diameter x 3/4 long	1

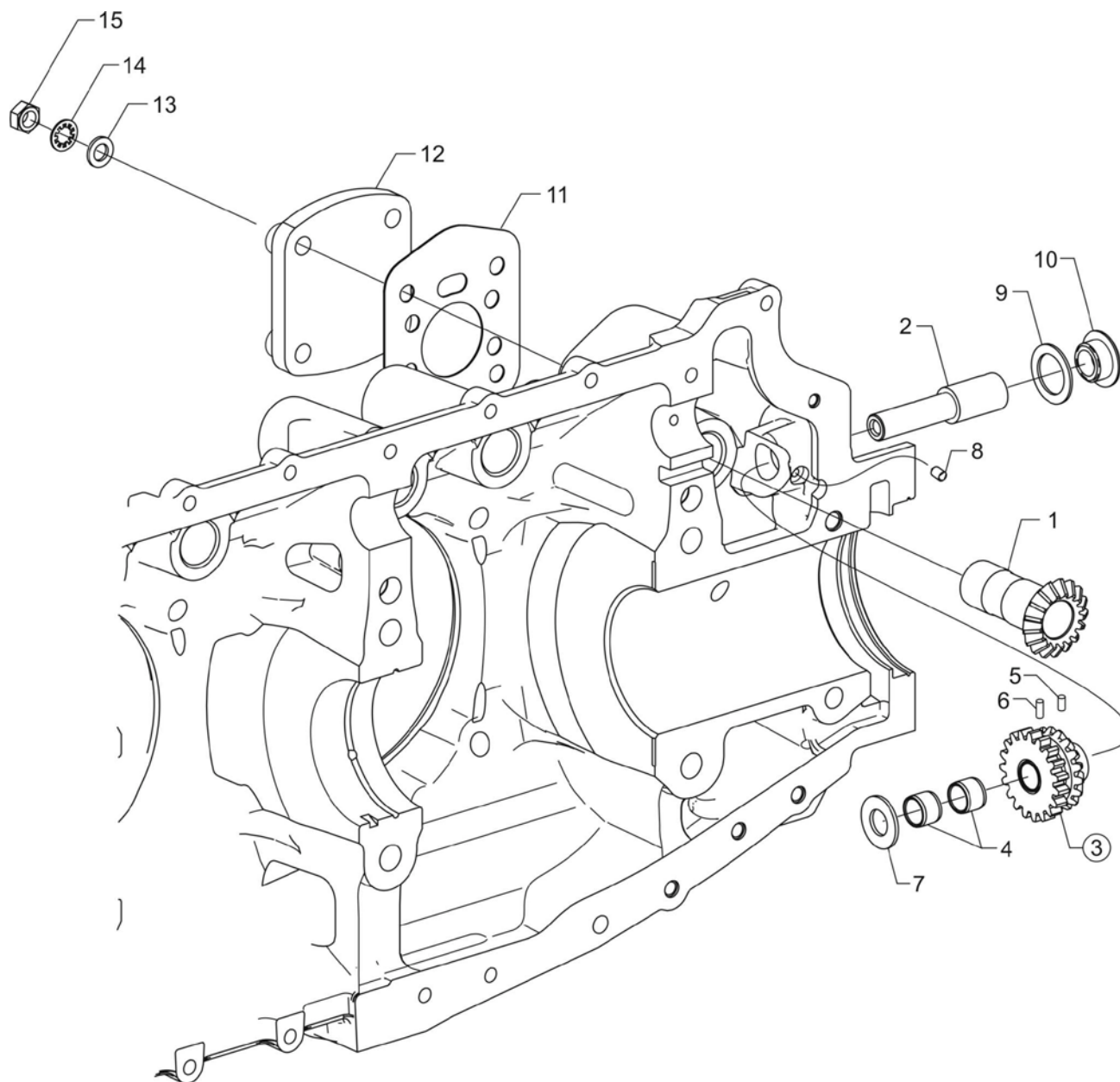


Figure 3
Propeller Governor Drive Assembly

Figure 3 – Propeller Governor Drive Assembly

Figure Item	Code	Part Number	Description	Units per Assembly
1		LW-10442	GEAR, Propeller governor driven	1
2		LW-14021	SHAFT, Propeller governor idler gear	1
3		LW-10541	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	AR	73249	WASHER, Thrust (.0585 - .0595 thick)	AR
	AR	73250	WASHER, Thrust (.062 - .063 thick)	AR
	AR	73251	WASHER, Thrust (.0655 - .0665 thick)	AR
	AR	73252	WASHER, Thrust (.069 - .070 thick)	AR
	AR	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 1/32 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	20
14		STD-475	WASHER, 5/16 lock, internal teeth	4
15		STD-1410	NUT, 5/16-18 plain	4
AR as required				

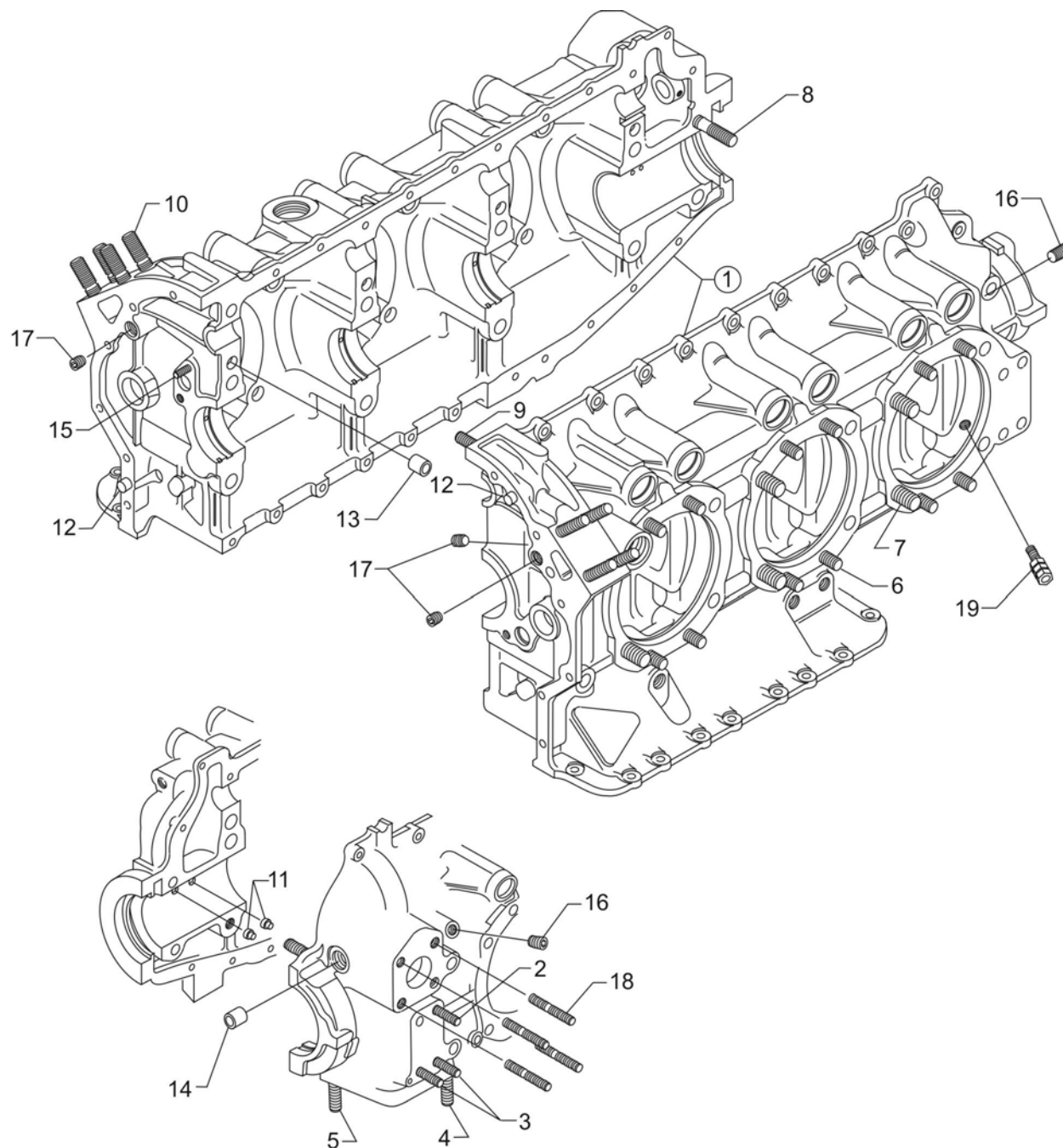


Figure 4
Crankcase Assembly

Figure 4 - Crankcase Assembly

Figure Item	Code	Part Number	Description	Units per Assembly
1	*	11F24023-S1-S	CRANKCASE ASSEMBLY KIT	1
	P	11F24023-S1	CRANKCASE ASSEMBLY	1
	*	11F24023-S6-S	CRANKCASE ASSEMBLY KIT	1
	P	11F24023-S6	CRANKCASE ASSEMBLY	
	*	11F24123-S6-S	CRANKCASE ASSEMBLY KIT	1
	P	11F24123-S6	CRANKCASE ASSEMBLY	
2	**	38-21	STUD, 3/8-16 x 2-5/8 long	1
3	**	38-25	STUD, 3/8-16 x 3-1/8 long	2
4		31C-12	STUD, 5/16-18 x 1-1/2 long	2
5		31C-13	STUD, 5/16-18 x 1-5/8 long	1
6		38-13	STUD, 3/8-16 x 1-5/8 long	24
5		50-15	STUD, 1/2-13 x 1-7/8 long	12
8		38-22	STUD, 3/8-16 x 2-3/4 long	1
9		38D-17	STUD, 3/8-16 x 2-1/8 long, drilled	1
10		38-16	STUD, 3/8-16 x 2.00 long	8
11		69796	DOWEL, Crankshaft bearing	2
12		STD-514	DOWEL, 5/16 diameter x 1/2 long	2
13		STD-557	DOWEL, 1/2 diameter x 11/16 long, hollow	2
14		72158	BUSHING, Governor drive idler shaft	1
15		01A23354	STUD, 5/16-18 x 1.00 long, drilled	1
16		STD-1339	PLUG, 1/16-27 NPT, allen head	1
17		1102	PLUG, 1/8-27 NPT, allen head	4
18		31C-17	STUD, 5/16-18 x 2-1/8 long	4
19		73772	NOZZLE ASSEMBLY, Piston cooling	6
P Lycoming proprietary part. Listed for reference purposes only, cannot be purchased. * Refer to Service Kits Section for applicable Crankcase Assembly and Governor Thru-Stud Kit Part Numbers. ** Use on P/N 11F24023-S6 Crankcase Assembly only.				

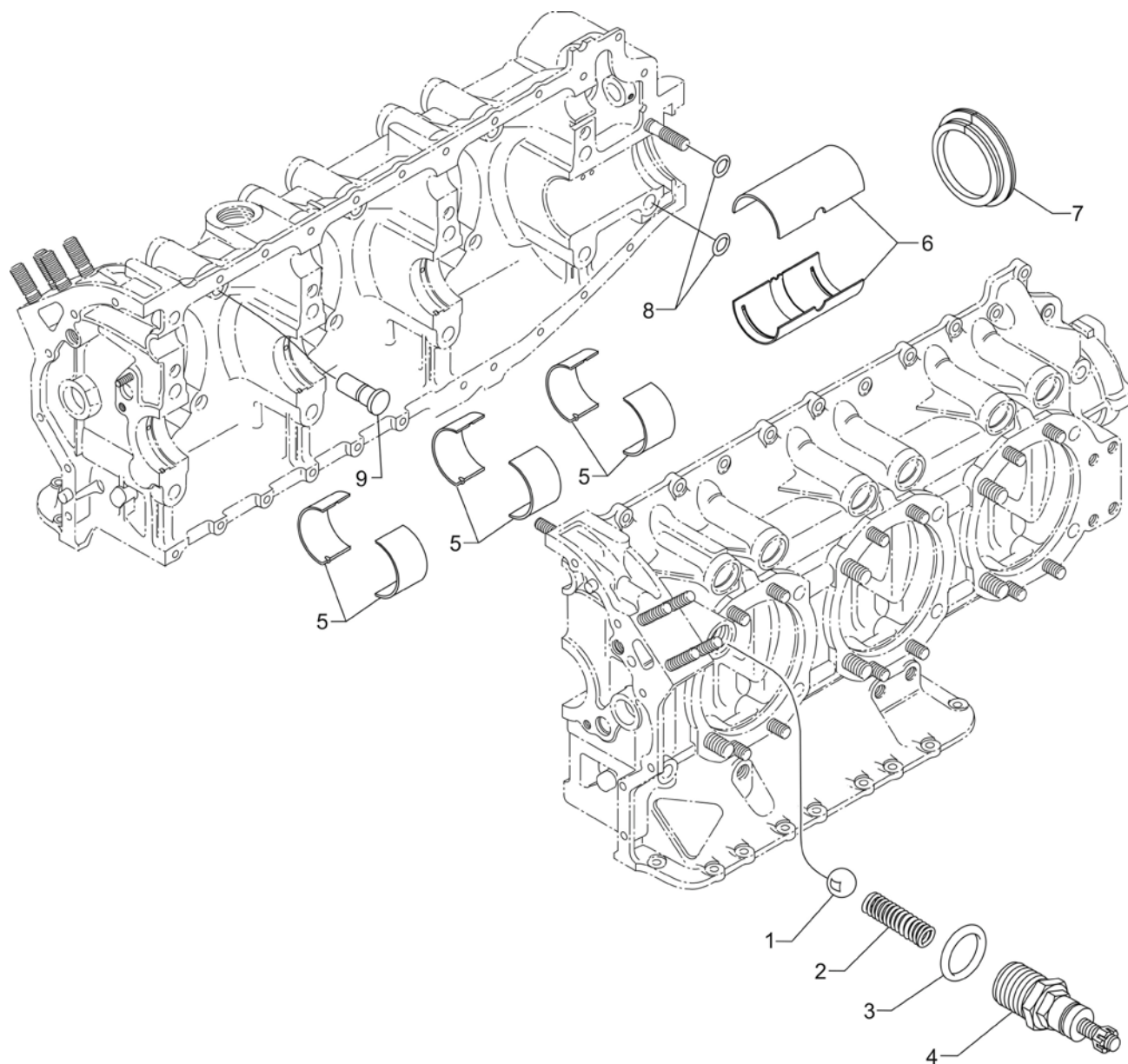


Figure 5
Crankcase Related Parts

Figure 5 - Crankcase Related Parts

Figure Item	Code	Part Number	Description	Units per Assembly
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. annular	1
4		77808	VALVE ASSEMBLY, Oil pressure relief valve, adj.	1
5		18E23886	BEARING, Crankshaft	6
6		18B23885	BEARING, Crankshaft	2
7		LW-15628	SEAL, Crankshaft oil, solid	1
8		72091	RING, Oil seal, 23/64 I.D. x 7/64 diameter	2
9		15B26262	BODY, Hydraulic tappet	12
* Select the spring to give a minimum of three threads exposed, on adjusting screw, to allow field adjustment. Refer to the latest revision of SSP-1776, Part I for spring identification.				

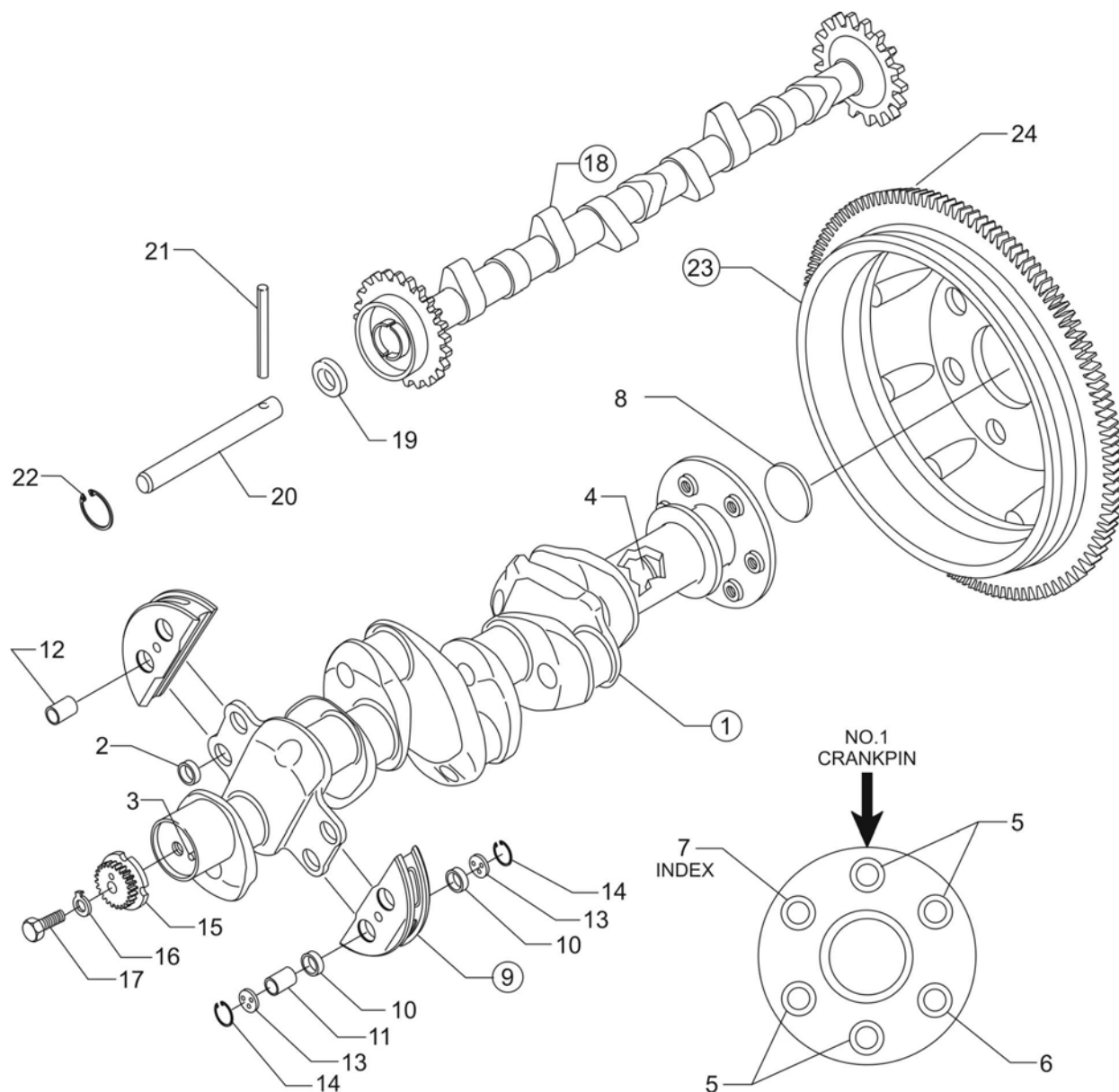


Figure 6
Crankshaft, Counterweight, Camshaft, and Related Parts

Figure 6 - Crankshaft, Counterweight, Camshaft, and Related Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1		13F47727	CRANKSHAFT ASSEMBLY	1
2		73810	BUSHING, Crankshaft dynamic	4
3		STD-1065	DOWEL, Stepped, 5/16 & 1/4 dia. x 35/64 long	1
4		60945	PLUG, 1-1/4 O.D.	1
5		75656-S	BUSHING, Propeller flange, long	4
6		72155-S	BUSHING, Propeller flange, short	1
7		75657-S	BUSHING, Propeller flange, indexing	1
8		STD-1211	PLUG, 2.00 diameter expansion	1
9		LW-19210	COUNTERWEIGHT ASSEMBLY	2
10		71903-A	BUSHING, Dynamic counterweight	8
11		73648	ROLLER, Dynamic counterweight, 5.1 order	2
12		76788	ROLLER, Dynamic counterweight, 6.3 order	2
13		71907	WASHER, Dynamic counterweight	8
14		LW-14820	RING, Internal retaining	8
15		13S19648	GEAR, Crankshaft	1
16		LW-18638	LOCKPLATE, Crankshaft gear	1
17		STD-2247	BOLT, 5/16-24 x 1-3/4 long	1
18		LW-19340	CAMSHAFT ASSEMBLY	1
19		76118	SPACER, Tachometer shaft, centering	1
20		76155	SHAFT ASSEMBLY, Tachometer	1
21		LW-18667	PIN, 3/16 diameter x 2-21/64 long	1
22		STD-2231	RING, Internal retaining	1
23		31M22350	SUPPORT ASSEMBLY, Starter ring gear	1
		31M22993	SUPPORT ASSEMBLY, Starter ring gear	1
24		72566	GEAR, Starter ring, 12/14 pitch	1

NOTE: Crankshaft and Counterweight Assembly Kit P/N 05K47777 is available.

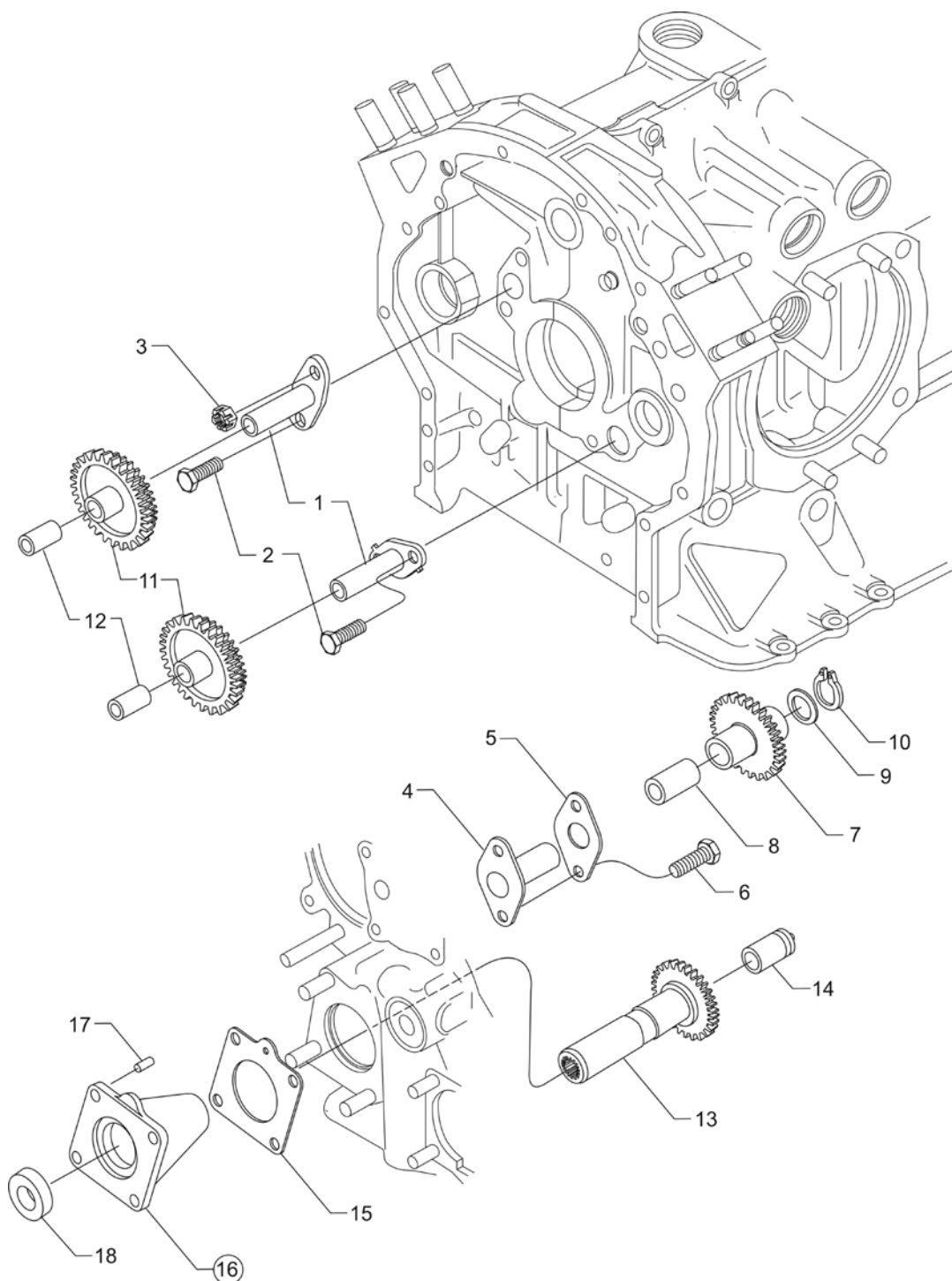


Figure 7
Crankshaft and Fuel Pump Idler Gears

Figure 7 - Crankshaft and Fuel Pump Idler Gears

Figure Item	Code	Part Number	Description	Units per Assembly
1		LW-13795	SHAFT, Crankshaft idler gear	2
2		LW-31H0.88	BOLT, 5/16-18 x 7/8 long, hex head, drilled	3
3		STD-2168	NUT, 5/16-18 NC, slotted, shear	1
4		72246	SHAFT, Fuel pump idler gear	1
5		71667	LOCKPLATE, 1/4 bolt x 1-3/4 spacing	1
6		LW-25-0.63	BOLT, 1/4-20 x 5/8 long, hex. head	2
7		71664	GEAR ASSEMBLY, Fuel pump idler	1
8		77309	BUSHING, Crankshaft idler gear	1
9		70474	WASHER, Fuel pump idler, thrust	1
10		STD-1737	RING, External retaining, 9/16 diameter	1
11		71668	GEAR ASSEMBLY, Crankshaft idler, plain	2
12		67530	BUSHING, Crankshaft idler gear	1
13		72972	SHAFTGEAR ASSEMBLY, Fuel pump drive	1
14		72962	THRUST BUTTON, Vacuum pump gear	1
15		69164	GASKET, Fuel pump adapter	1
16		69159	ADAPTER ASSEMBLY, Fuel pump drive	1
17		STD-1774	PIN, 1/8 diameter x 1/4 long	1
18		STD-213	OIL SEAL, 3/4 I.D. x 1-3/8 O.D.	1

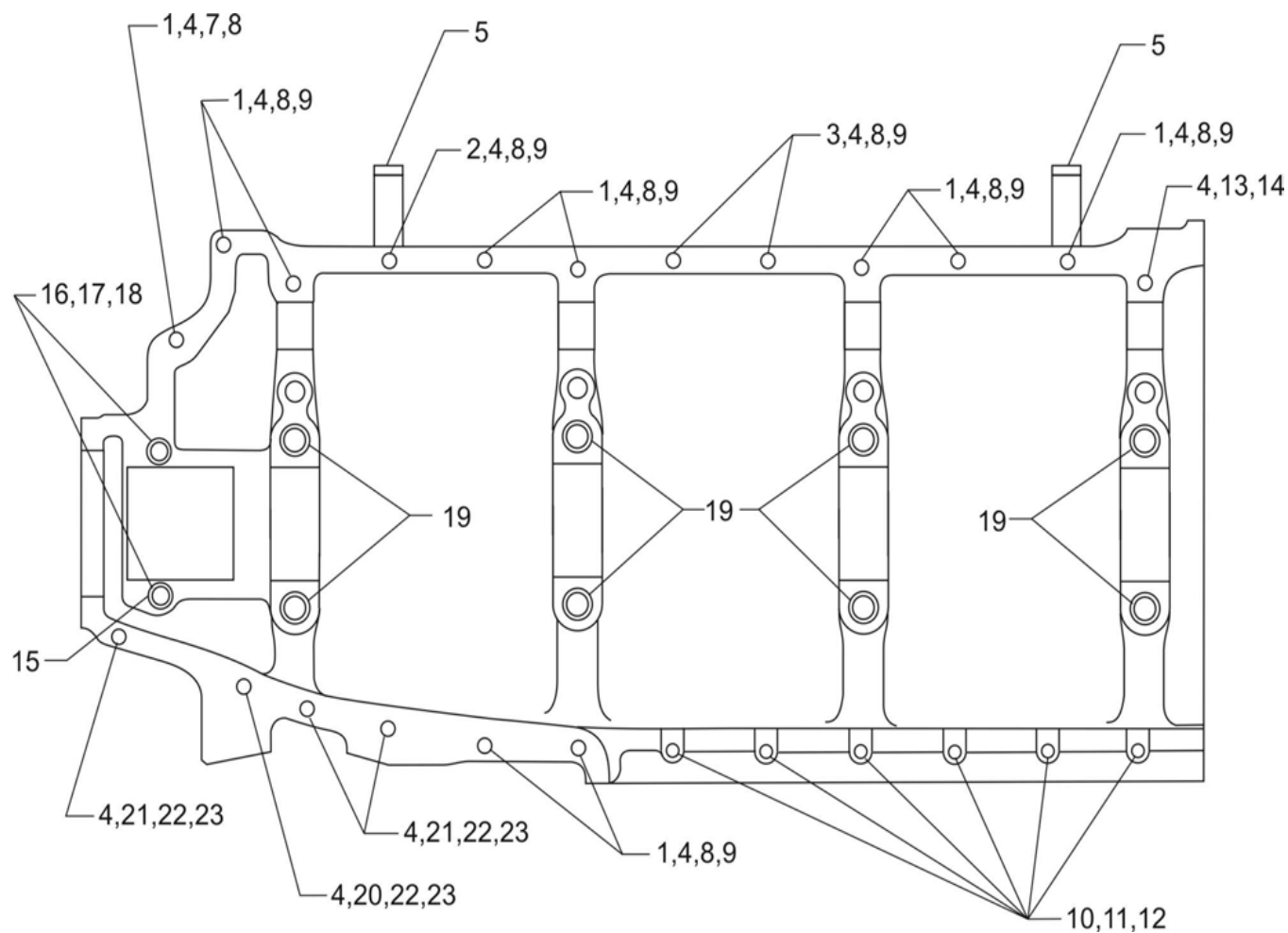


Figure 8
Crankcase Attaching Parts

Figure 8 - Crankcase Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1		LW-25-1.50	BOLT, 1/4-20 x 1-1/2 long, hex. head	10
2		LW-25-1.88	BOLT, 1/4-20 x 1-7/8 long, hex. head	1
3		LW-25-2.00	BOLT, 1/4-20 x 2.00 long, hex. head	1
4		STD-8	WASHER, 1/4 plain	26
5		60803	STRAP, Lifting	2
6		NASM90725-15	SCREW, Cap, Hex Hd, 1/4-20 UNC-2A x 2-1/4 long	2
7		LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. head	1
8		STD-160	WASHER, 1/4 lock, internal teeth	13
		STD-160	WASHER, 1/4 lock, internal teeth	15
9		STD-1411	NUT, 1/4-20 plain	12
		STD-1411	NUT, 1/4-20 plain	14
10		LW-25S1.50	BOLT, 1/4-20 x 1-1/2 long, hex. head, drilled	6
11		STD-8	WASHER, 1/4 plain	6
12		STD-2249	NUT, 1/4-20 slotted shear	6
13		STD-33	WASHER, 3/8 plain	1
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	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	8
20		LW-31-2.75	BOLT, 5/16-18 x 2-3/4 long	1
21		LW-31-1.16	BOLT, 5-16-18 x 1-5/32 long	3
22		STD-35	WASHER, 5/16 plain	4
23		STD-475	WASHER, 5/16 lock, internal teeth	4

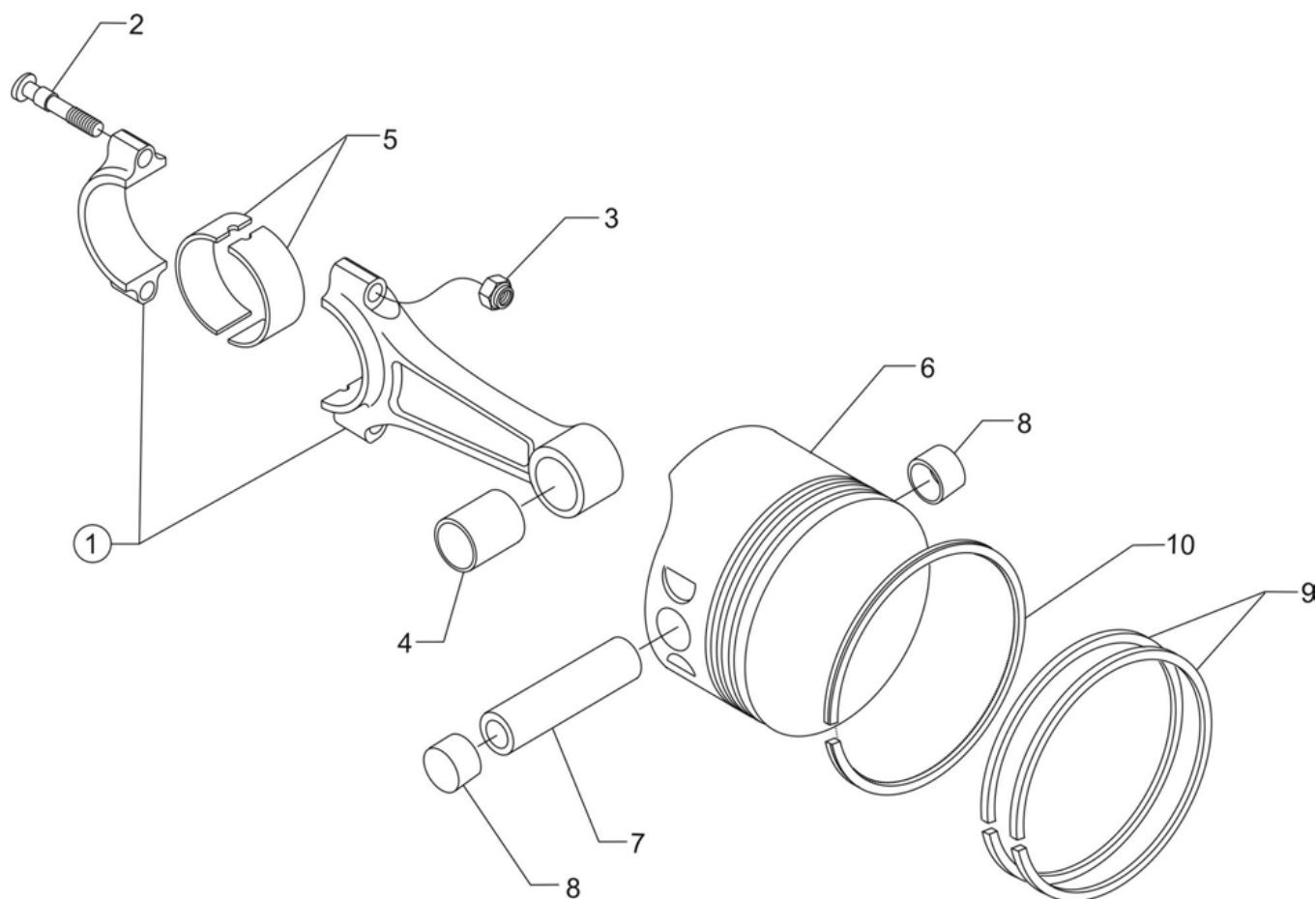


Figure 9
Connecting Rods, Pistons, and Ring Assemblies

Figure 9 - Connecting Rods, Pistons, and Ring Assemblies

Figure Item	Code	Part Number	Description	Units per Assembly
1		LW-19332-S	CONNECTING ROD ASSEMBLY	6
2		01K28983	BUSHING, Connecting rod, upper	6
3	* P	LW-12596 14S23889	BOLT, Connecting rod	12
4		LW-12186	NUT, Connecting rod bolt	12
5		18N26106	BEARING, Connecting rod	12
6		14D23907	PISTON, Compression ratio, 7.30:1	6
7		LW-14078	PIN, Piston	6
8		72198	PLUG, Piston pin	12
9		74241	RING, Piston, compression	12
10		14H21990	RING, Piston, oil regulating, expander type	6
P Lycoming proprietary part. Listed for reference purpose only, cannot be purchased. * Service use only.				

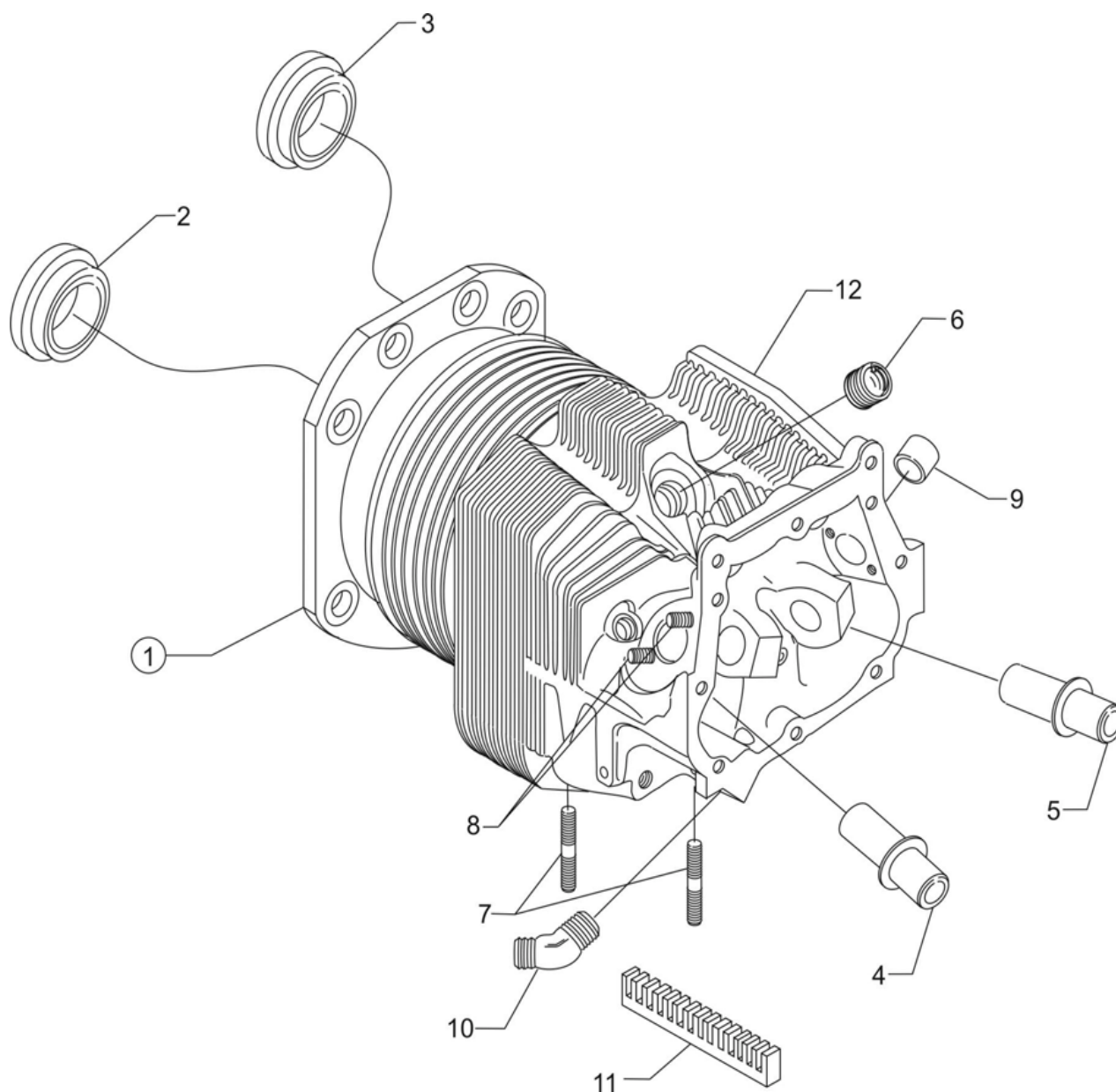


Figure 10
Cylinder Assembly

Figure 10 - Cylinder Assembly

Figure Item	Code	Part Number	Description	Units per Assembly
1		16A30161-01	CYLINDER & HEAD ASSEMBLY	6
2		LW-12688	SEAT, Intake valve	6
3		16T19468	SEAT, Exhaust valve	6
4	*	LW-11956	GUIDE, Intake valve, flangeless	6
5	*	LW-11958	GUIDE, Exhaust valve, flangeless	6
6		69260	INSERT, Spark plug, 18-1.5 MM	12
7		31C-13	STUD, 5/16-18 x 1-5/8 long	12
8		25C-8	STUD, 1/4-20 x 1.00 long	24
9		66670	BUSHING, Rocker shaft, inner	24
10		MS20823-6D	ELBOW, 45°, 3/8 flared tube	6
11		72343	STABILIZER, Cylinder head fins, 15 teeth	6
12		72344	STABILIZER, Cylinder head fins, 26 teeth	6
* Refer to the latest revision of Lycoming Service Instruction No. 1256 for valve guides for service use.				

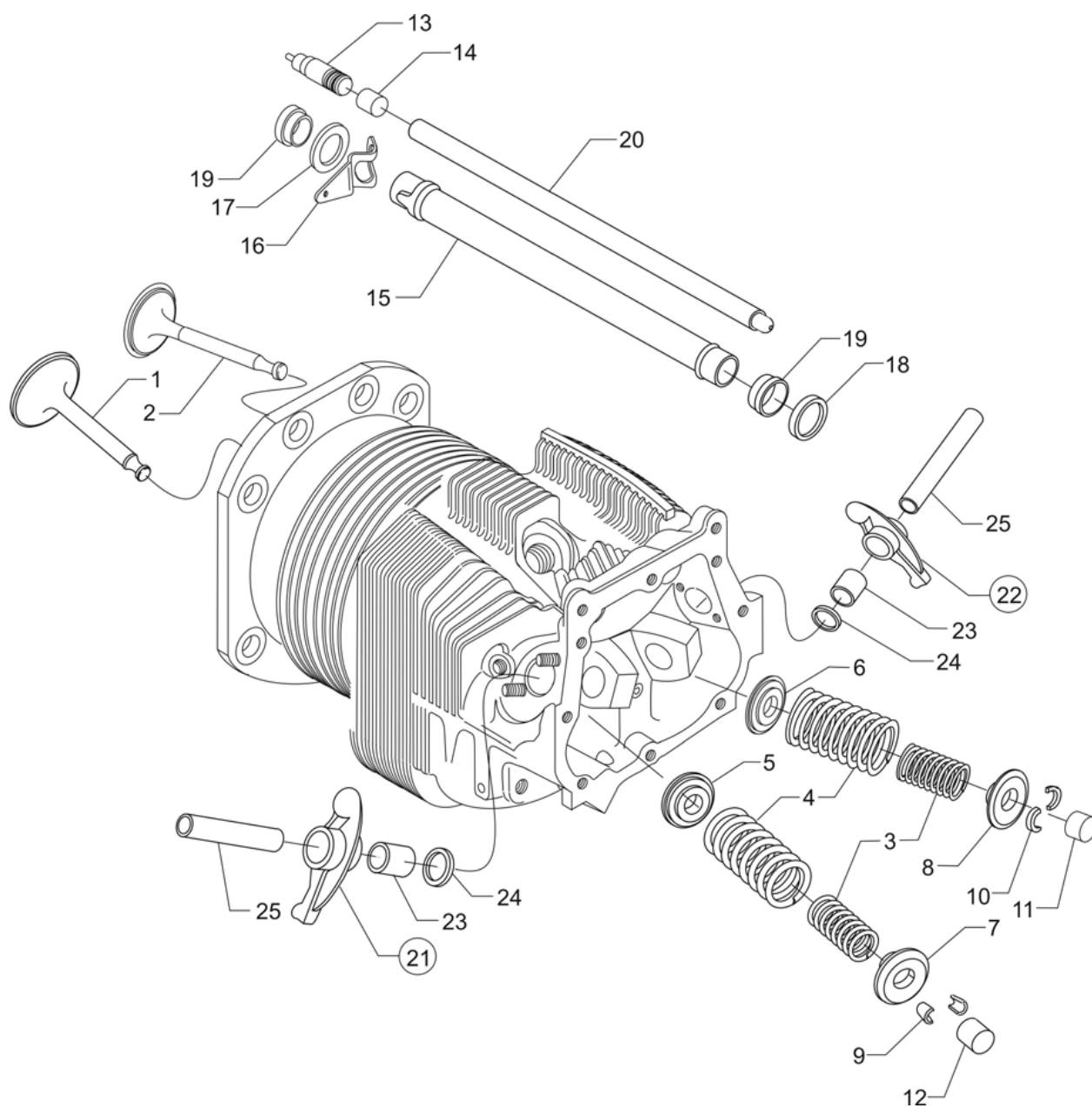


Figure 11
Valve Assembly and Related Parts

Figure 11 – Valve Assembly and Related Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1		17A23937	VALVE, Intake	6
2		17B23935	VALVE, Exhaust	6
3		17D29057	SPRING, Valve, inner	12
4		17D29056	SPRING, Valve, outer	12
5		LW-13321	SEAT, Valve spring, lower intake	6
6		LW-13322	SEAT, Valve spring, lower exhaust	6
7		69532	SEAT, Valve spring, upper intake	6
8		LW-16475	SEAT, Valve spring, upper exhaust	6
9		72050	KEY, Valve intake	12
10		17C21191	KEY, Valve exhaust	12
11		17C19386	CAP, Valve stem, exhaust (rotator type)	6
12		62388	CAP, Valve stem	6
13		15B26066	PLUNGER ASSEMBLY, Hydraulic tappet	12
14		15B21319	SOCKET, Hydraulic tappet	12
15		72255	SHROUD TUBE ASSEMBLY, Push rod	12
16		15H21201	SPRING, Shroud tube	24
17		66728	WASHER, 25/32 I.D. x 1-1/4 O.D. x 1/32	12
18		61503	SLEEVE, Shroud tube seal	12
19		LW-18661	SEAL, Shroud tube	24
20	AR	15F19957-55	ROD ASSEMBLY, Push (A total of 12 required)	AR
	AR	15F19957-56	ROD ASSEMBLY, Push (A total of 12 required)	AR
	AR	15F19957-57	ROD ASSEMBLY, Push (A total of 12 required)	AR
	AR	15F19957-58	ROD ASSEMBLY, Push (A total of 12 required)	AR
	AR	15F21362-21	ROD ASSEMBLY, Push (A total of 12 required)	AR
	AR	15F21362-22	ROD ASSEMBLY, Push (A total of 12 required)	AR
	AR	15F21362-23	ROD ASSEMBLY, Push (A total of 12 required)	AR
	AR	15F21362-24	ROD ASSEMBLY, Push (A total of 12 required)	AR
21	*	17F21186	ROCKER ASSEMBLY, Valve, intake	6
22	*	17F21185	ROCKER ASSEMBLY, Valve, exhaust	6
23		74389	BUSHING, Valve rocker	12
24		71549	WASHER, Valve rocker	12
25		72626	SHAFT, Valve rocker	12
AR as required * Due to the size of the area where the part number is stamped, the last five digits may be all that is shown (21185 or 21186).				

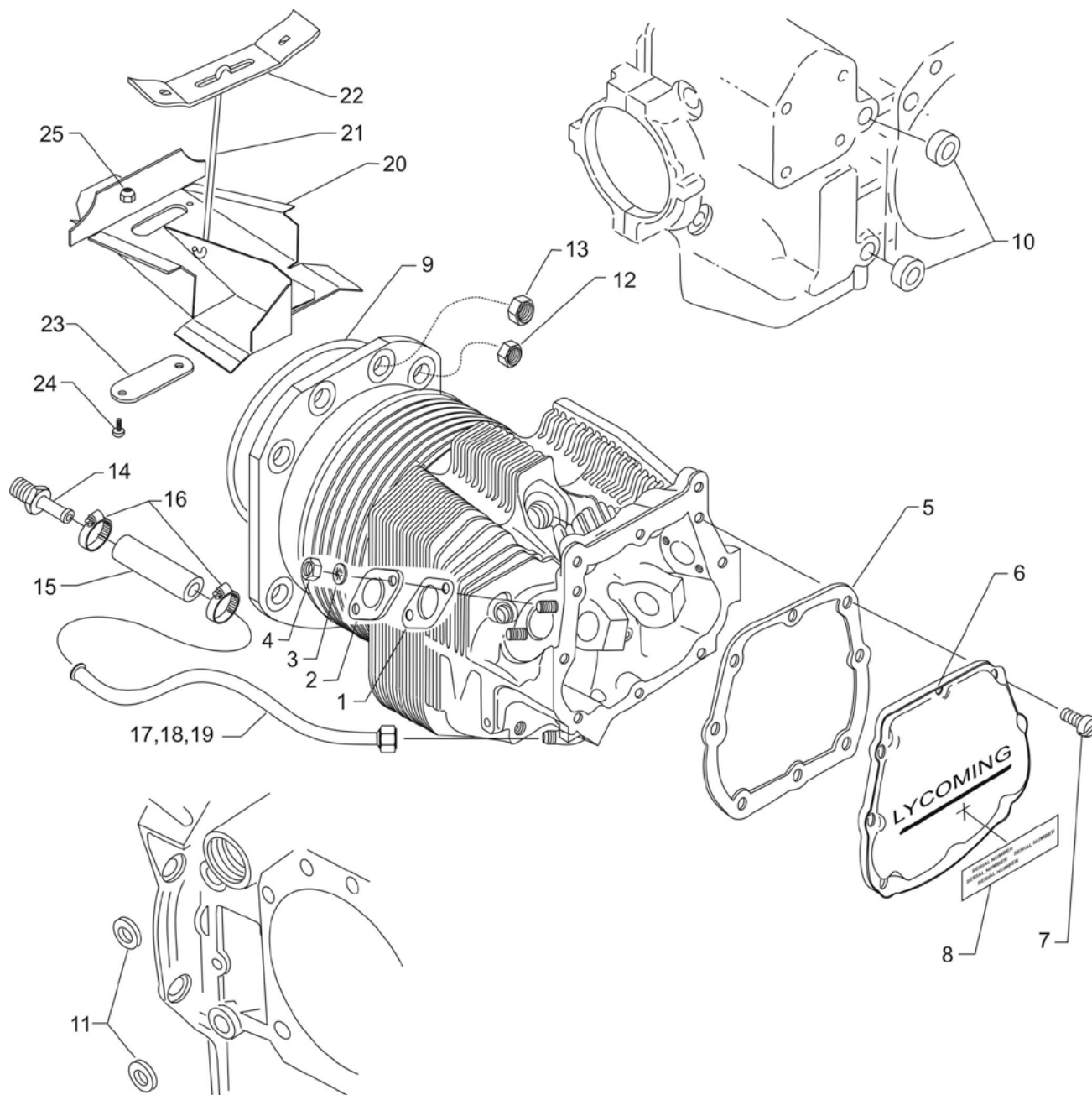


Figure 12
Cylinder Related Parts

FIGURE 12 – CYLINDER RELATED PARTS

Figure Item	Code	Part Number	Description	Units per Assembly
1		66732	GASKET, Valve rocker shaft cover	12
2		72710	COVER, Valve rocker shaft	12
3		STD-160	WASHER, 1/4 lock, internal teeth	24
4		STD-1411	NUT, 1/4-20 plain	24
5		06B26811	GASKET, Rocker box cover (silicone)	6
6		68795	COVER ASSEMBLY, Rocker box	6
7		STD-1925	SCREW, 1/4-20 x 5/8 long, pan. head	48
8		74494	PLATE, Spark plug reach caution	6
9		71481	RING, Oil seal, 3/32 diameter x 4-27/32 I.D.	6
10		77906	SPACER, 33/64 I.D. x 7/8 O.D. x 1/8 thick	2
11		74887	SPACER, 33/64 I.D. x 7/8 O.D. x 3/8 thick	2
12		383-B	NUT, 3/8-24 plain	24
13		STD-2090	NUT, 1/4-20 plain	28
14		STD-684	NIPPLE, Straight, 3/8 I.D. hose	6
15		STD-2180	HOSE, 3/8 I.D. x 1-13/16 long	6
16		LW-15592-5-04	CLAMP, Hose	12
17		72702	TUBE ASSEMBLY, Cyl. head oil drain, cyl. no. 1	1
18		17T22209	TUBE ASSEMBLY, Cyl. head oil drain, cyl. no. 2	1
19		73027	TUBE ASSEMBLY, Cyl. head oil drain, cyl. no.	4
20		75338	BAFFLE ASSEMBLY, Intercylinder	4
21		71610	HOOK, Intercylinder baffle	4
22		71611	RETAINER, Intercylinder baffle	4
23		72834	COVER, Baffle ignition cable hole	4
24		STD-692	SCREW, No. 10-32 x 1/2 long, round head	8
25		STD-670	LOCKNUT, No. 10-32	8

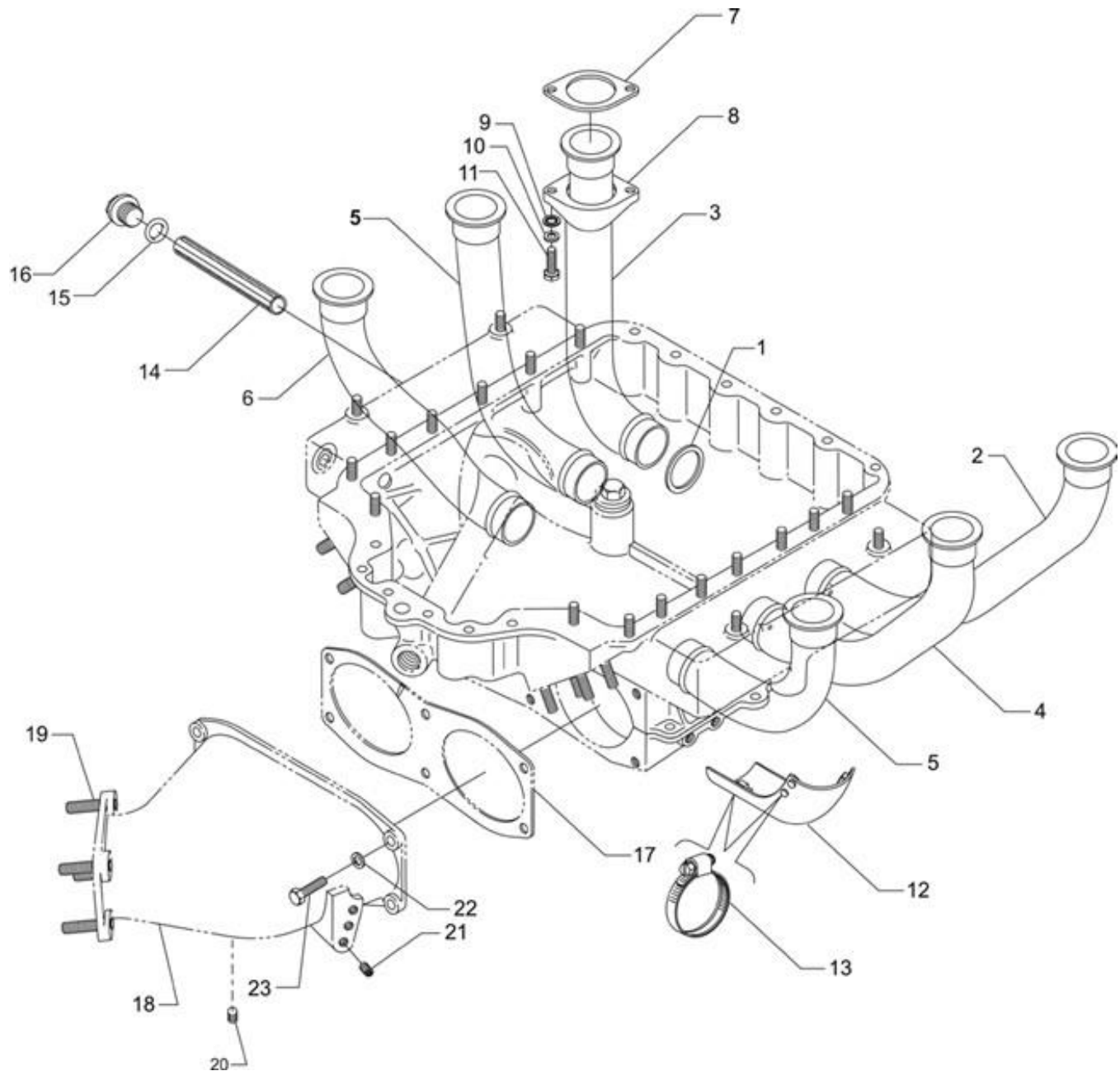


Figure 13
Intake Pipes, Oil Suction Screen and Air Inlet Housing

FIGURE 13 – INTAKE PIPES, OIL SUCTION SCREEN AND AIR INLET HOUSING

Figure Item	Code	Part Number	Description	Units per Assembly
1		72711	RING, Seal, intake pipes	6
2		LW-12191	PIPE, Intake, cylinder no. 1	1
3		42E21917	PIPE, Intake, cylinder no. 2	1
4		LW-12193	PIPE, Intake, cylinder no. 3	1
5		LW-12194	PIPE, Intake, cylinders no. 4 and 5	2
6		LW-12195	PIPE, Intake, cylinder no. 6	1
7		71973	GASKET, 2 bolt flange, 1-3/4 I.D.	6
8		74360	FLANGE, Intake pipe	6
9		STD-8	WASHER, 1/4 plain	12
10		STD-160	WASHER, 1/4 lock, internal teeth	12
11		LW-25-1.25	BOLT, 1/4-20 x 1-1/4 long, hex. head	12
12		40J19947	HEAT SHIELD	1
13		LW-15592-8-24	CLAMP, 1-13/16 diameter x 9/16 wide	2
14		60422	SCREEN, Oil suction	1
15		06E19769-1.00	GASKET, 1.00 I.D. x 1-1/4 O.D. x 3/32 thick	1
16		LW-12545	PLUG, 5/8 hex. head x 1.00-20 thread	1
17		72210	GASKET, Air throttle housing	1
18		LW-16956	HOUSING ASSEMBLY, Air inlet	1
19		31C-14	STUD, 5/16-18 x 1-3/4 long	4
20		1102	PLUG, 1/8-27 NPT, allen head	1
21		STD-1353	INSERT, No. 10-24 x 3/8 long	3
22		STD-8	WASHER, 1/4 plain	6
23		LW-25-0.81	BOLT, 1/4-20 x 13/16 long, hex. head	6

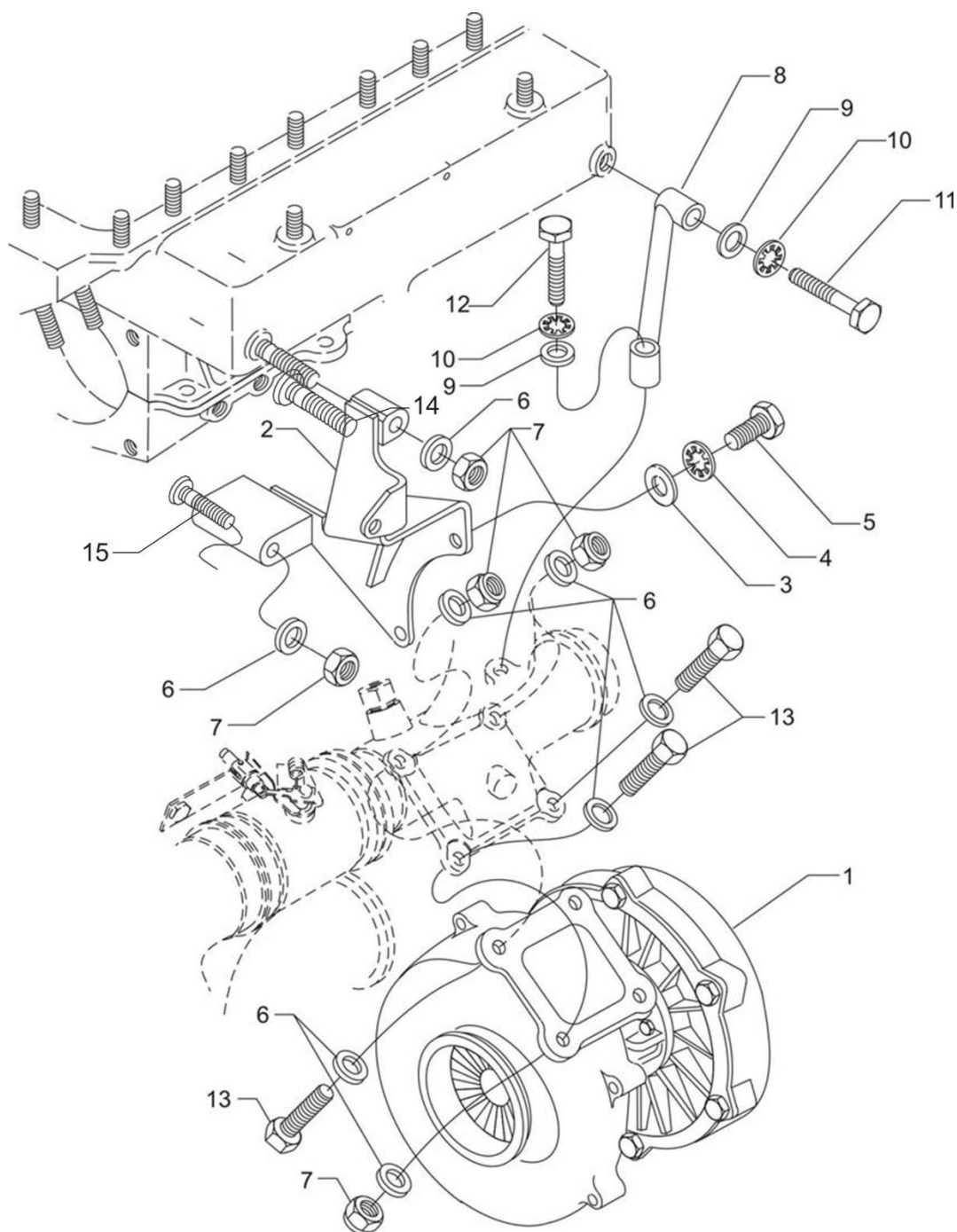


Figure 14
Turbocharger, Brackets, and Attaching Parts

Figure 14 - Turbocharger, Brackets, and Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1	V	46C19836	TURBOCHARGER, TA0413-466011-2	1
2		07A22530	BRACKET, Turbo mounting, right	1
3		AN9060C516	WASHER, 5/16 plain	2
4		STD-475	WASHER, 5/16 lock, internal teeth	2
5		LW-31SS-0.88	BOLT, 5/16-18 x 7/8 long, internal teeth	2
6		AN960C616	WASHER, 3/8 plain	8
7		MS20500-624	NUT, 3/8-24 self-locking	6
8		07F19871	STRUT, Turbo, right	1
9		STD-35	WASHER, 5/16 plain	2
10		STD-475	WASHER, 5/16 lock, internal teeth	2
11		LW-31-1.69	BOLT, 5/16-18 x 1-11/16 long, hex. head	1
12		LW-31-1.31	BOLT, 5/16-18 x 1-5/16 long, hex. head	1
13		AN6C12A	BOLT, 3/8-24 x 1-5/16 long	4
14		38-23	STUD, .375-16 x 2.88 long	1
15		38-31	STUD, .375-16 x 3.88 long	1
V Vendor Prime Manufacturer part				

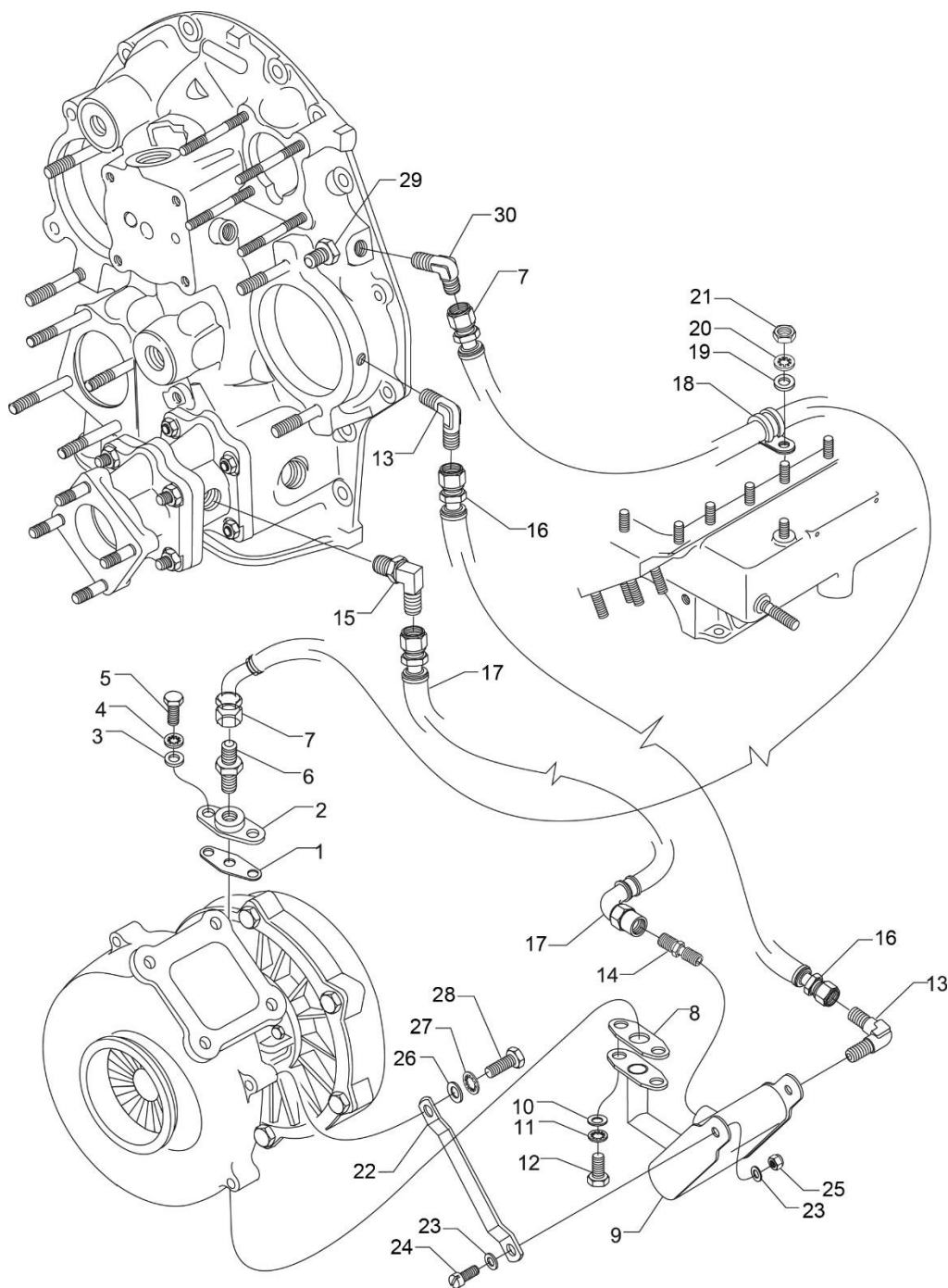


Figure 15
Turbocharger Hoses, Drain Tank and Related Parts

Figure 15 - Turbocharger Hoses, Drain Tank and Related Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1		77813	GASKET, Turbo oil inlet adapter	1
2		LW-12287	ADAPTER, Turbo oil inlet	1
3		STD-35	WASHER, 5/16 plain	2
4		STD-475	WASHER, 5/16 lock, internal teeth	2
5		LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. head	2
6		78212	VALVE ASSEMBLY, Check	1
7		LW-12878-4S230	HOSE ASSEMBLY	1
8		LW-18038	GASKET, Turbo oil drain	1
9		58B22631	TANK, Turbo oil drain	1
10		MS9321-12	WASHER, 3/8 I.D. x 3/4 O.D.	2
11		STD-678	WASHER, 3/8 lock, internal teeth	2
12		LW-38-0.75	BOLT, 3/8-16 x 3/4 long, hex. head	2
13		MS20822-4	ELBOW, 1/8 NPT to 1/4 tube, 90°	2
14		AN816-8	NIPPLE, 1/2 flared tube	1
15		LW-14685-CT	ELBOW, 1/2 tube x 3/4-16	1
16		LW-12798-4S313	HOSE ASSEMBLY, 1/4 hose, straight	1
17		02M19935-8S284	HOSE ASSEMBLY, 1/2 hose, 45° elbow	1
18		LW-16266-25-63	CLAMP, 7/8 I.D. x 1/4 diameter	1
19		STD-8	WASHER, 1/4 plain	1
20		STD-160	WASHER, 1/4 lock, internal teeth	1
21		STD-1411	NUT, 1/4-20 plain	1
22		07A21931	BRACKET, Oil drain tank	1
23		STD-425	WASHER, No. 10 plain	3
24		STD-1650	BOLT, No. 10-32 x 21/32 long	1
25		MS21042-3	NUT, Self-locking	1
26		AN960C516	WASHER, 5/16 plain	1
27		STD-475	WASHER, 5/16 lock, internal teeth	1
28		LW-31SS-0.75	BOLT, 5/16-18 x 3/4 long, hex. head	1
29		LW-14914	NIPPLE, 1/8 NPT to 1/4 tube	1
30		MS20823-4	ELBOW, 1/8 NPT to 1/4 flared tube	1

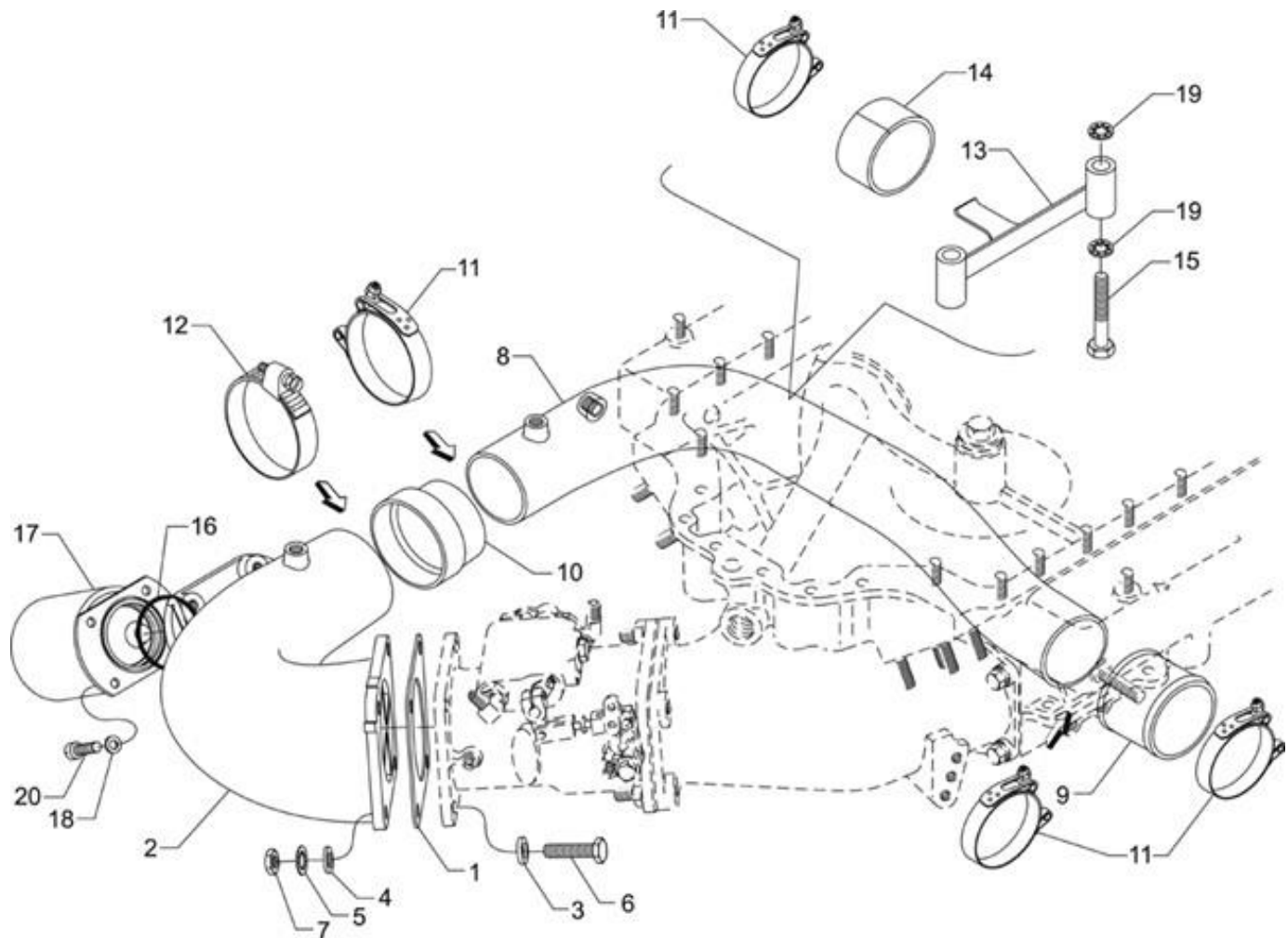


Figure 16
Air Inlet Housing Assembly

Figure 16 – Air Inlet Housing Assembly

Figure Item	Code	Part Number	Description	Units per Assembly
1		74944	GASKET, Air inlet housing	1
2		41A21923	HOUSING, Air inlet	1
3		STD-1727	WASHER, Plain, 21/64 I.D. x 3/4 O.D. x 1/8 thick	4
4		STD-35	WASHER, 5/16 plain	4
5		STD-475	WASHER, 5/16 lock, internal teeth	4
6		LW-31-1.16	BOLT, 5/16-18 x 1-5/32 long, hex. head	4
7		STD-1410	NUT, 5/16-18 plain	4
8		41A22742	PIPE, Air inlet	1
9		LW-19108	HOSE, Air box, 2-1/2 I.D.	1
10		LW-14467	HOSE, 2-1/2 diameter to 2-3/4 diameter	1
11		LW-15858-62-294	CLAMP, T-bolt	4
12		LW-15858-62-325	CLAMP, T-bolt	1
13		07A22741	BRACKET, Air inlet support	1
14		02M22744	HOSE, 1-1/2 I.D. x .19 thick, split	1
15		LW-25-2.56	BOLT, 1/4-20 x 2-1/4 long, hex. head	2
16		MS29513-138	"O" RING, 2-7/64 I.D. x 3/32 section	1
17	*	LW-14445-2	VALVE ASSEMBLY, Absolute pressure relief	1
18		STD-28	WASHER, No. 10 plain	4
19		STD-251	WASHER, No. 10 lock, internal teeth	4
20		STD-2248	SCREW, No. 10-24 x 5/8 long, fill. head	4
* See latest revision of Lycoming Service Instruction No. 1257 for aircraft model application.				

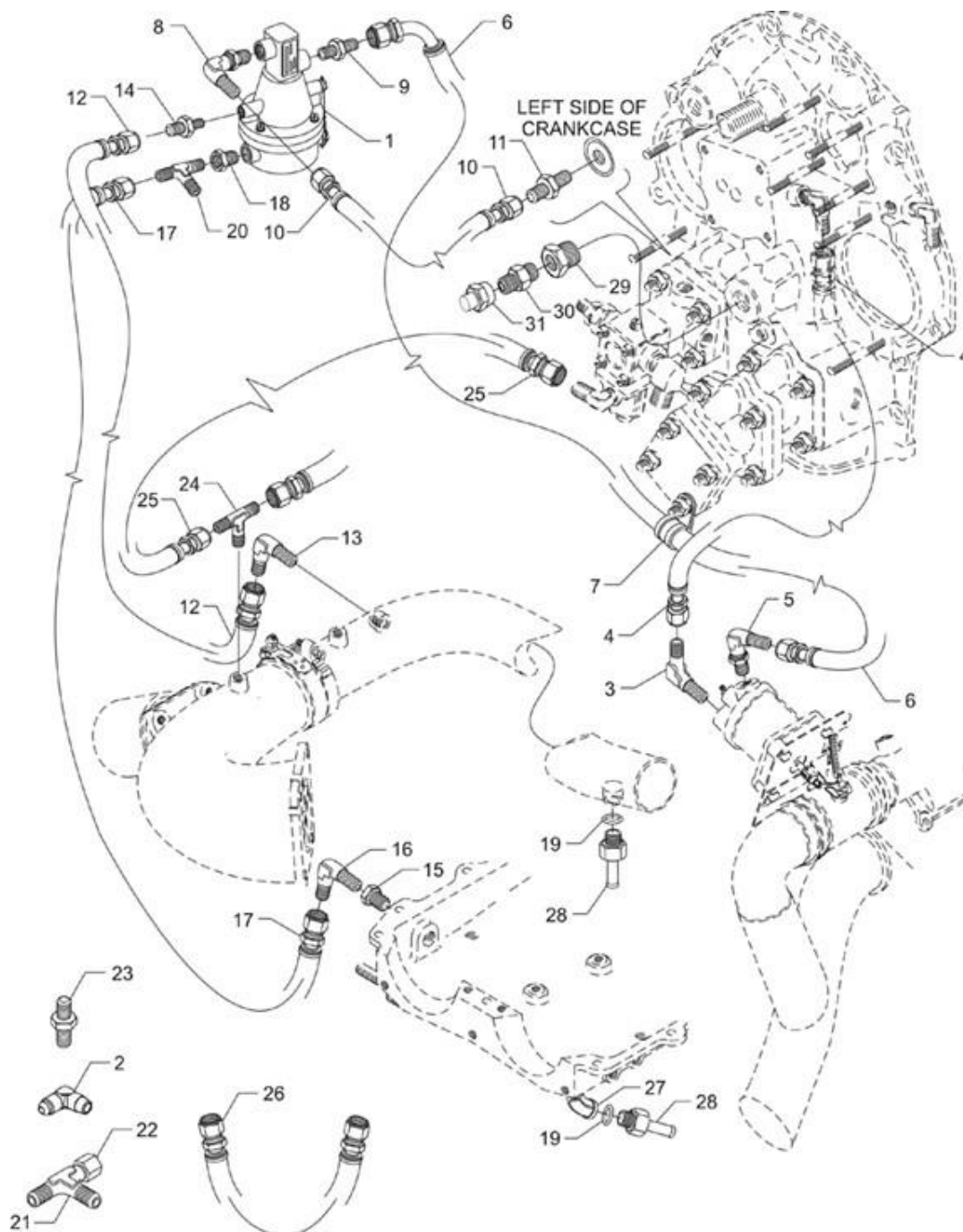


Figure 17
Controller and Related Parts

Figure 17 - Controller and Related Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1	V	48B22488	CONTROLLER, Sloped , V 481058-0007	1
2		MS20822-4	ELBOW, 1/8 NPT to 1/4 tube, 90°	1
3	*	72376	ELBOW, 90°, 1/4 tube to 7/16 thread	1
4		LW-12798-4S190	HOSE ASSEMBLY, 1/4 hose, straight	1
5	**	72377-CT	ELBOW, 3/8 flared tube, adjustable	1
6		LW-12877-6S320	HOSE ASSEMBLY, 3/8 hose, 90° elbow	1
7		LW-16266-25-75	CLAMP, 3/4 I.D. x 1/4 diameter screw	1
8	**	72377	ELBOW, 3/8 flared tube, adjustable	1
9	**	75739	NIPPLE, 3/8 flared tube	1
10		LW-12879-6S195	HOSE ASSEMBLY, 3/8 hose, 45° elbow	1
11	**	75739	NIPPLE, 3/8 flared tube	1
12		LW-12798-4S120	HOSE ASSEMBLY, 1/4 hose, straight	1
13	*	72376	ELBOW, 90°, 1/4 tube to 7/16 thread	1
14		02G22466	NIPPLE, 5/16-24 to 7/16-20	1
15		AN912-3D	BUSHING, Reducer, 3/8 NPT	1
16		02A22483	ELBOW, Fuel pump vent	1
17		LW-12798-4S095	HOSE ASSEMBLY, 1/4 hose, straight	1
18		74797	FITTING, 9/16-18 to 1/8-27 NPT	1
19		MS29512-06	"O" RING, 15/32 I.D. x 5/64 section	1
20		AN826-4	TEE, 1/4 flared tube x 1/8 NPT	1
21		76355	TEE, 3/8 tube with 9/16 thread	1
22		AN818-6J	NUT, Tube coupling, short	1
23		LW-12975	ADAPTER, Reducing, 3/8 to 1/4	1
24	*	75948	TEE, 1/4 tube x 7/16 thread	1
25		LW-12798-4S150	HOSE ASSEMBLY, 1/4 hose, straight	1
26		LW-12876-4S410	HOSE ASSEMBLY, 1/4 hose, 90° elbow	1
27		02A22460	ELBOW, Street, 1/8-27 NPT, 45°	1
28		LW-13807	ADAPTER ASSEMBLY, Fuel drain valve	2

Figure 17 - Controller and Related Parts Cont.

29		AN912-9	BUSHING, Reducer, 3/4 NPT to 1/4 NPT	1
30		AN816-6	NIPPLE, 1/4 NPT to 3/8 tube	1
31		AN929-6	CAP ASSEMBLY, 3/8 tube, pressure seal	1
V Vendor Prime Manufacturer part * Uses a P/N MS29512-04 O-Ring. ** Uses a P/N MS29512-06 O-Ring.				

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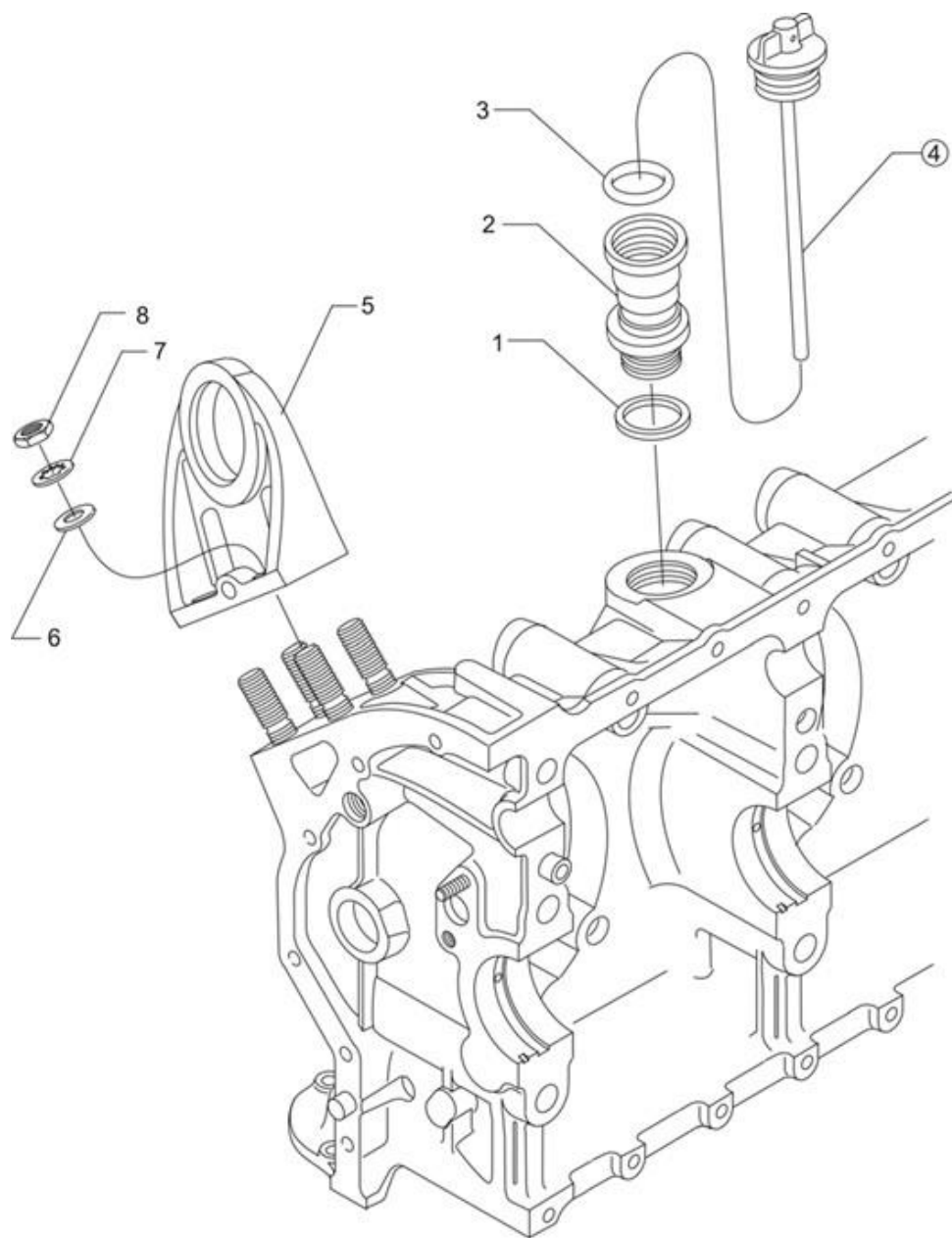


Figure 18
Oil Level Gage Assembly and Engine Mounting Brackets

Figure 18 - Oil Level Gage Assembly and Engine Mounting Brackets

Figure Item	Code	Part Number	Description	Units per Assembly
1		70457	GASKET, Oil filler extension	1
2		75675	EXTENSION, Oil filler (short)	1
3		74065	RING, Oil level gage seal	1
4		56C23673P	GAGE ASSEMBLY, Oil level	1
5		12A19770	BRACKET, Engine mounting, dynafocal	4
6		STD-33	WASHER, 3/8 plain	16
7		STD-678	WASHER, 3/8 lock, internal teeth	16
8		STD-596	NUT, 3/8-24 plain	16

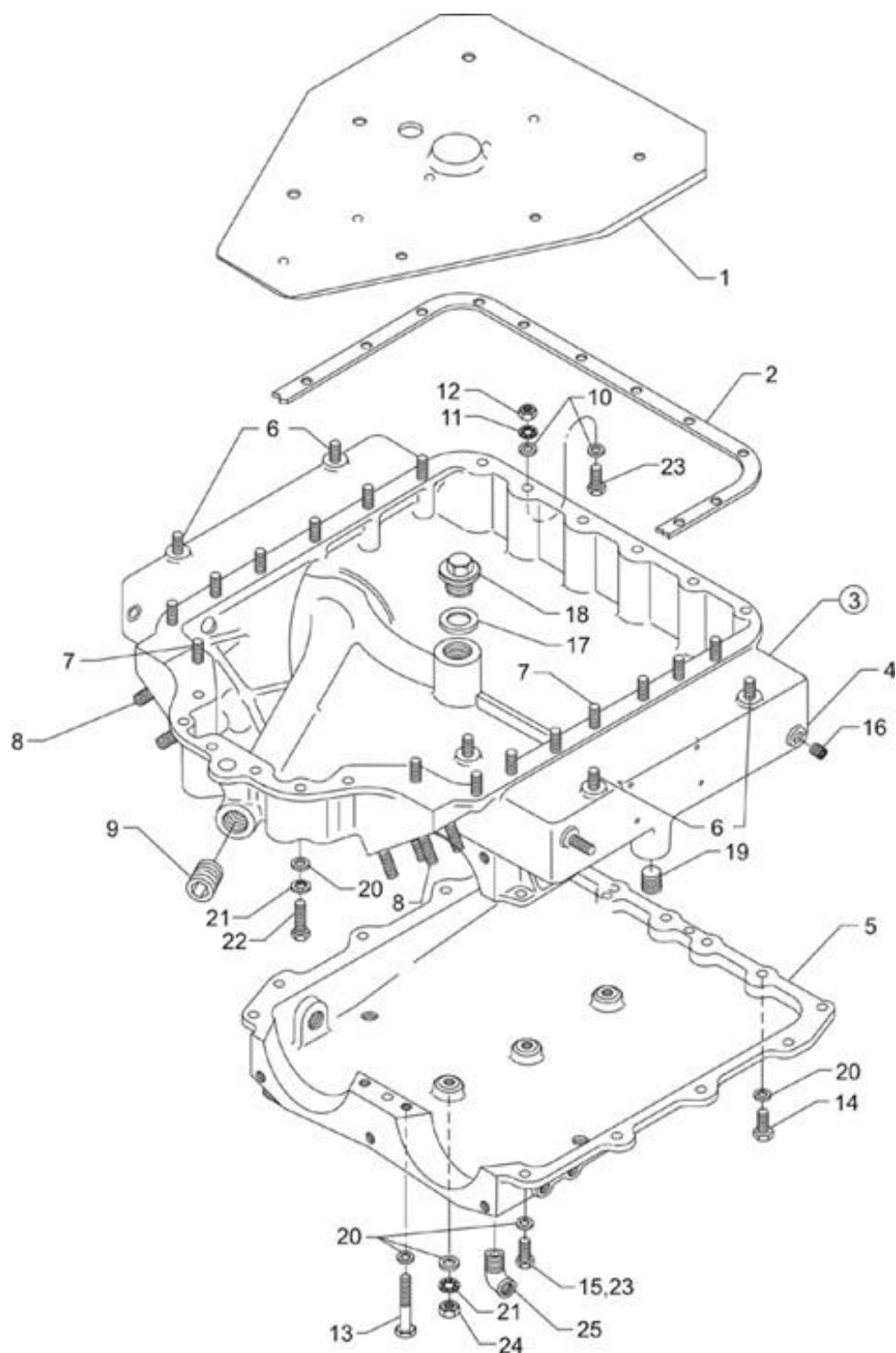


Figure 19
Oil Sump Assembly

Figure 19 – Oil Sump Assembly

Figure Item	Code	Part Number	Description	Units per Assembly
1		56G28031	BAFFLE, Oil sump	1
2		06B21326	GASKET, Oil sump	1
3		56A26070-02	HOUSING ASSEMBLY, Oil sump and induction	1
4		56B23949	HOUSING, Oil sump and induction	1
5		42B22658	COVER, Induction housing	1
6		25C-9	STUD, 1/4-20 x 1-1/8 long	4
7		25C-11	STUD, 1/4-20 x 1-3/8 long	15
8		38-17	STUD, 3/8-16 x 2-1/8 long	8
9		STD-91	PLUG, 1/2-14 NPT, allen head	1
10		STD-8	WASHER, 1/4 plain	29
11		STD-160	WASHER, 1/4 lock, internal teeth	27
12		STD-1411	NUT, 1/4-20 plain	13
13		LW-25-2.00	BOLT, 1/4-20 x 2.00 long, hex. head	2
14		LW-25-0.81	BOLT, 1/4-20 x 13/16 long, hex. head	4
15		LW-25-1.00	BOLT, 1/4-20 x 1.00 long, hex. head	10
16		STD-1164	INSERT, 5/16-18 x 5/8 long, Heli-coil	2
17		06E19769-0.91	GASKET, Annular, 1-1/8 O.D. x 29/32 I.D. x 3/32	1
18		72960	PLUG, 7/8-14 x 5/8 hex. head	1
19		STD-551	PLUG, 1/2-14 square head, drilled	2
20		STD-8	WASHER, 1/4 plain	37
21		STD-160	WASHER, 1/4 lock, internal teeth	23
22		LW-25-1.13	BOLT, 1/4-20 x 1-1/8 long, hex. head	6
23		LW-25-1.00	BOLT, 1/4-20 x 1.00 long, hex. head	6
24		STD-1411	NUT, 1/4-20 plain	25
25		02A21152	ELBOW, Street, 1/2-14 NPT	1

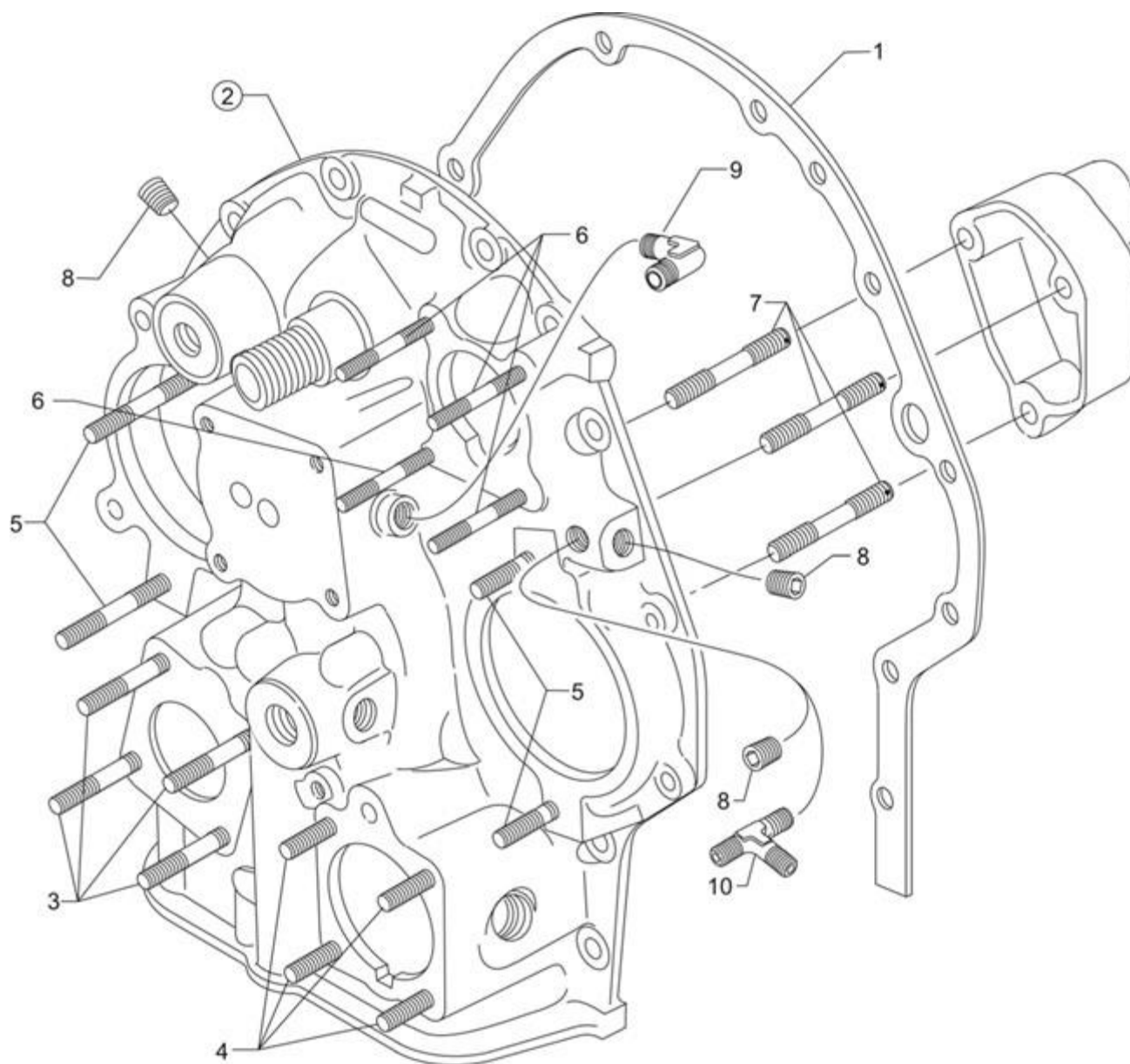


Figure 20
Accessory Housing Assembly

Figure 20 – Accessory Housing Assembly

Figure Item	Code	Part Number	Description	Units per Assembly
1		73818	GASKET, Accessory housing	1
2		21C21543-02	HOUSING ASSEMBLY, Accessory	1
		21C21542-04	HOUSING ASSEMBLY, Accessory	1
3		31C-19	STUD, 5/16-18 x 2-3/8 long	4
4		31C-12	STUD, 5/16-18 x 1-1/2 long	4
5		31C-21	STUD, 5/16-18 x 2-5/8 long	4
6		25C-19	STUD, 1/4-20 x 2-3/8 long, drilled	4
	*	25C-21	STUD, 1/4-20 x 2-5/8 long	4
7		31CD-20	STUD, 5/16-18 x 2-1/2 long, drilled	3
8		1102	PLUG, 1/8-27 NPT, allen head	3
9	**	MS-20822-4	ELBOW, 1/8 NPT to 1/4 tube, 90°	1
10	*	LW-18696	TEE, 1/4 tube	1
* Used with P/N 21C21542-04 Accessory Housing Assembly. ** Used with P/N 21C21543-02 Accessory Housing Assembly.				

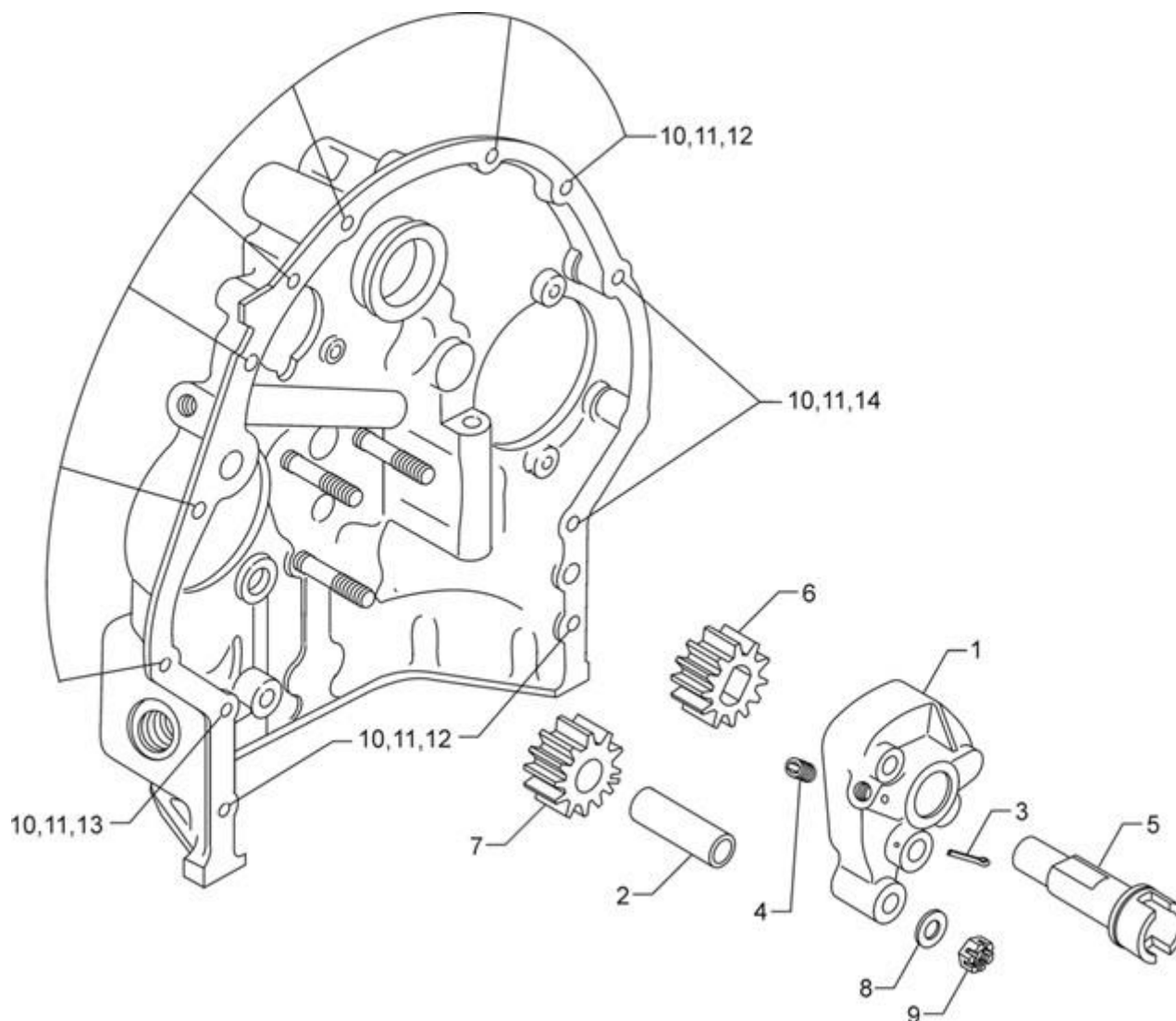


Figure 21
Oil Pump Assembly and Accessory Housing Attaching Parts

Figure 21 – Oil Pump Assembly and Accessory Housing Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1		51A22618	BODY ASSEMBLY, Oil pump	1
2		51D22617	SHAFT, Oil pump drive	1
3		STD-714	COTTER PIN, 1/8 diameter x 1.00 long	1
4		STD-1339	PLUG, 1/16-27 NPT, allen head	1
5		76784	SHAFT, Oil pump drive	1
6	*	51B23274	IMPELLER, Oil pump, driving	1
7	*	51C23290	IMPELLER ASSEMBLY, Oil pump, driven	1
8		STD-35	WASHER, 5/16 plain	3
9		STD-1420	NUT, 5/16-18 slotted	3
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
* Sold in complete sets only (Kit P/N 05K23463).				

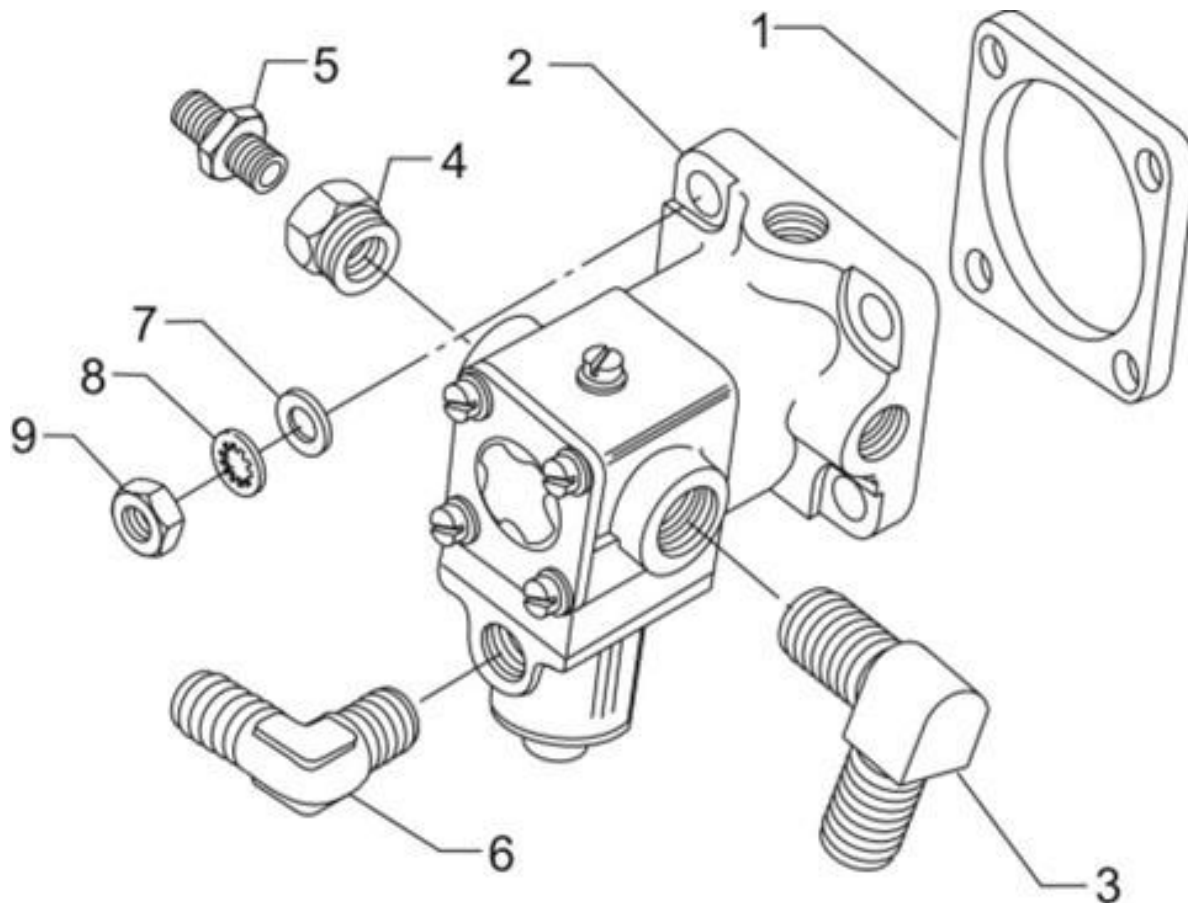


Figure 22
Fuel Pump Assembly and Attaching Parts

Figure 22 - Fuel Pump Assembly and Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1		LW-10799	SPACER, Fuel pump, insulating	1
2		62E26697	FUEL PUMPASSEMBLY	1
	V	62E23186	FUEL PUMP, V 200F5002	1
3		LW-18171	ELBOW, Tube to male pipe	1
4		AN912-5	BUSHING, Reducer – 1/2 NPT to 1/4 NPT	1
5		AN816-6	NIPPLE, 1/4 NPT to 3/8 tube	1
6		02A21376	ELBOW, Fuel pump, vent (rest.)	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
V Vendor Prime Manufacturer part				

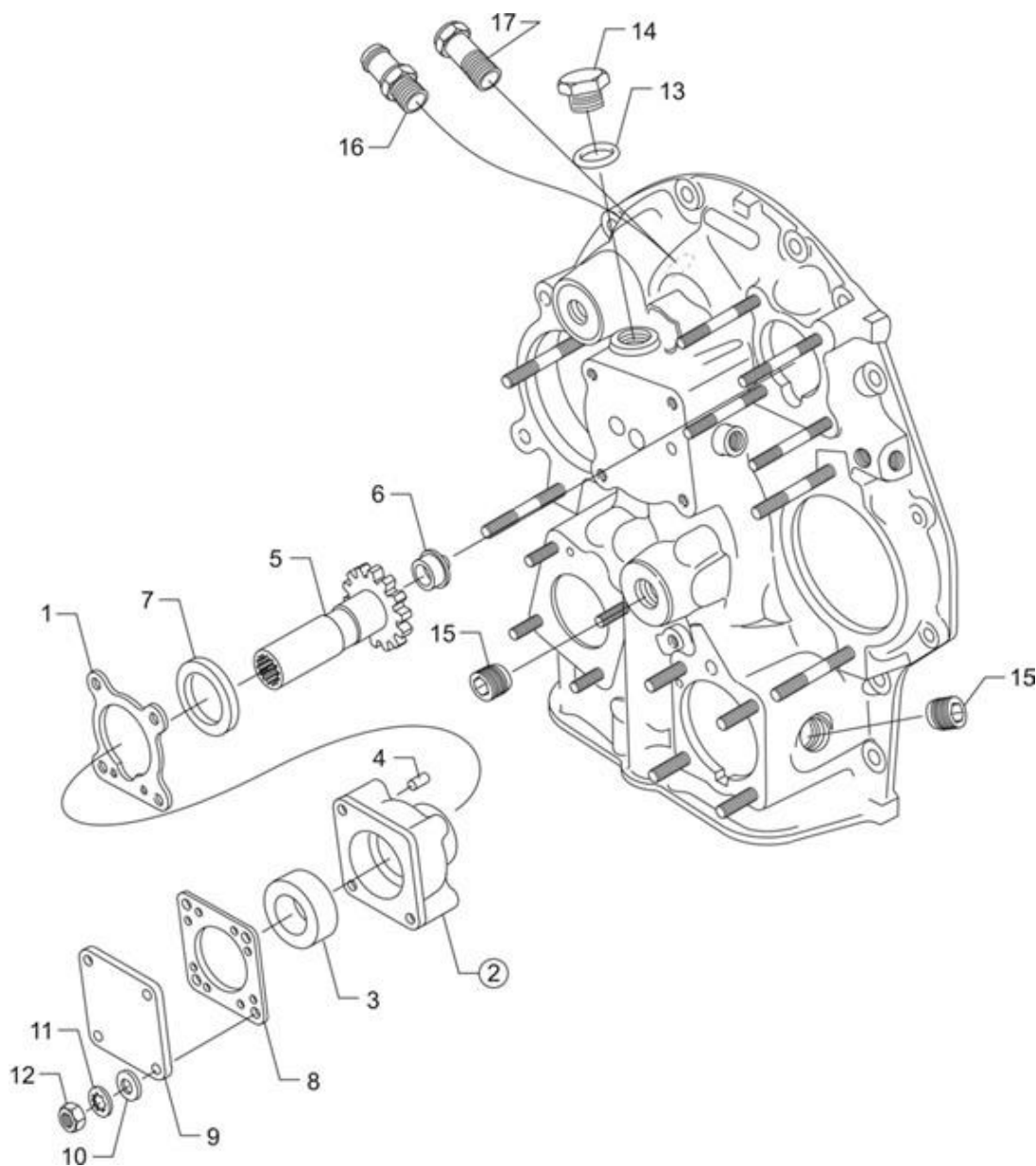


Figure 23
Vacuum Pump Drive, Oil Cooler, and Breather Fittings

Figure 23 – Vacuum Pump Drive, Oil Cooler, and Breather Fittings

Figure Item	Code	Part Number	Description	Units per Assembly
1		61183	GASKET, Accessory adapter	1
2		67536	ADAPTER ASSEMBLY, Vacuum pump	1
3		06A19956	OIL SEAL, 7/8 I.D. x 1-1/2 O.D. x 5/16 wide	1
4		STD-1774	PIN, 1/8 diameter x 1/4 long	1
5		72974	GEAR ASSEMBLY, Vacuum pump driven	1
6		72962	THRUST BUTTON	1
7		71596	WASHER, Accessory drive gear	1
8		8313	GASKET, Vacuum pump	1
9		60430	COVER, Vacuum pump	1
10		STD-8	WASHER, 1/4 plain	4
11		STD-160	WASHER, 1/4 lock, internal teeth	4
12		STD-1411	NUT, 1/4-20 plain	4
13		06E19769-0.63	GASKET, 7/8 O.D. x 5/8 I.D. x 3/32 annular	1
14		62417	PLUG, Oil cooler bypass	1
15		STD-784	PLUG, 3/8-18 NPT, allen head	2
16		LW-18575	NIPPLE, 3/4 diameter hose to 13/16-14 NPT breather	1
17		72996	FITTING, Breather, short	1

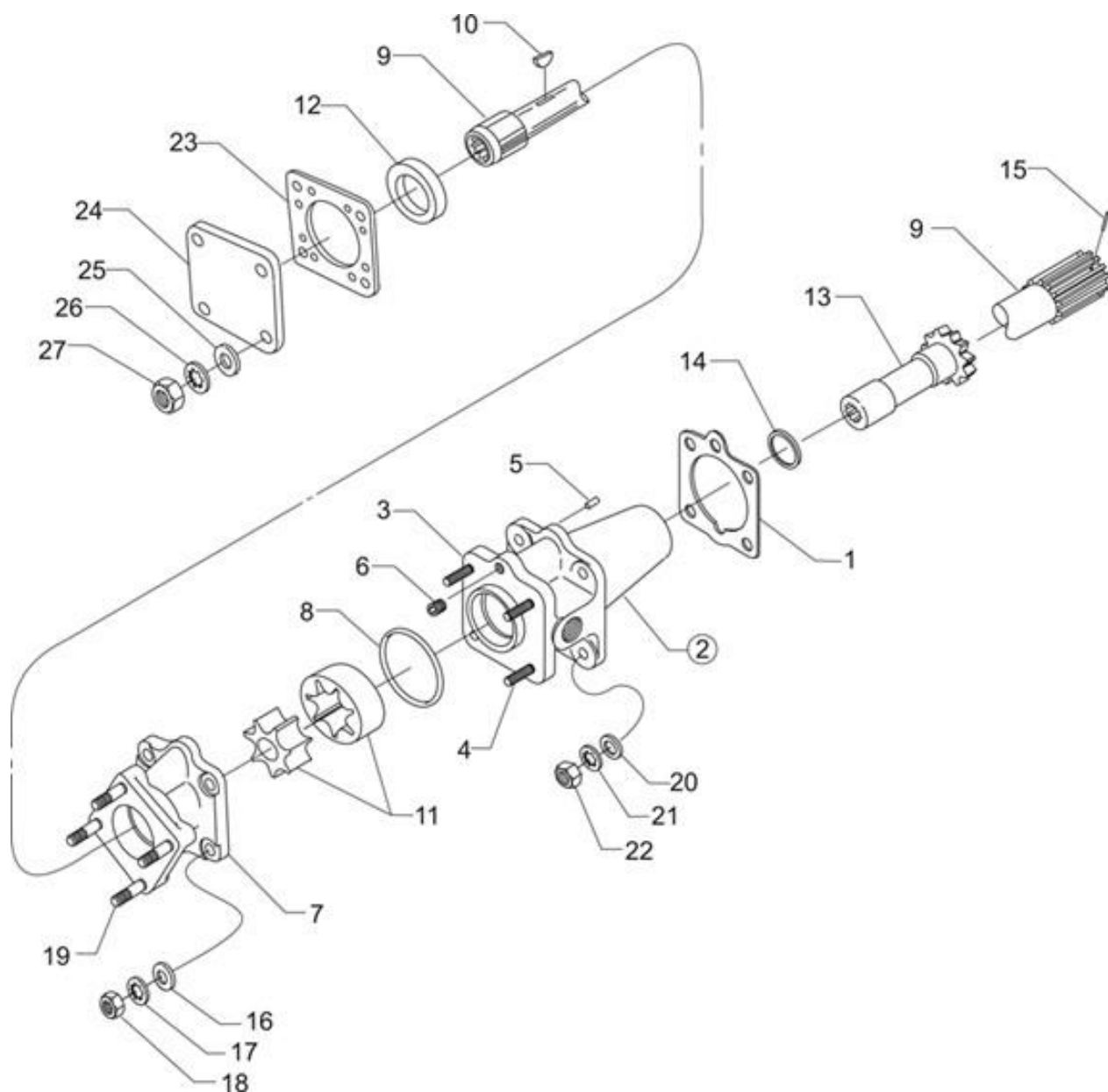


Figure 24
Turbo Scavenge Pump and Hydraulic Pump Drive and Cover

Figure 24 – Turbo Scavenge Pump and Hydraulic Pump Drive and Cover

Figure Item	Code	Part Number	Description	Units per Assembly
1		68315	GASKET, Accessory drive adapter	1
2		29A21372	DRIVE ASSEMBLY, Turbo scavenge and hydraulic pump	1
3		29A21358	ADAPTER ASSEMBLY, Turbo scavenge pump	1
4		25C-11	STUD, 1/4-20 x 1-3/8 long	4
5		STD-1774	PIN, 1/8 diameter x 1/4 long	2
6		01N19833-281	PLUG, Pin	1
7		29D21310	ADAPTER, Hydraulic pump	1
8		LW-RF2.239-.070	RING, Oil seal	1
9		LW-15853	SHAFT, Hydraulic pump drive	1
10		STD-95	KEY, 1/8 x 1/2 Woodruff	1
11		LW-15550	GEROTOR PUMP	1
12		06A19956	OIL SEAL, 7/8 I.D. x 1-1/2 O.D. x 5/16 wide	1
13		77825	SHAFTGEAR, Hydraulic pump drive	1
14		77708	WASHER, Retaining shaftgear	1
15		MS16562-28	PIN, 3/32 diameter x 3/4 long, slotted	1
16		STD-8	WASHER, 1/4 plain	4
17		STD-160	WASHER, 1/4 lock, internal teeth	4
18		STD-1411	NUT, 1/4-20 plain	4
19		25C-12	STUD, 1/4-20 x 1-1/2 long	4
20		STD-35	WASHER, 5/16 plain	4
21		STD-475	WASHER, 5/16 lock, internal teeth	4
22		STD-1410	NUT, 5/16-18 plain	4
23		8313	GASKET, Pump	1
24		60430	COVER, Pump	1
25		STD-8	WASHER, 1/4 plain	4
26		STD-160	WASHER, 1/4 lock, internal teeth	4
27		STD-1411	NUT, 1/4-20 plain	4

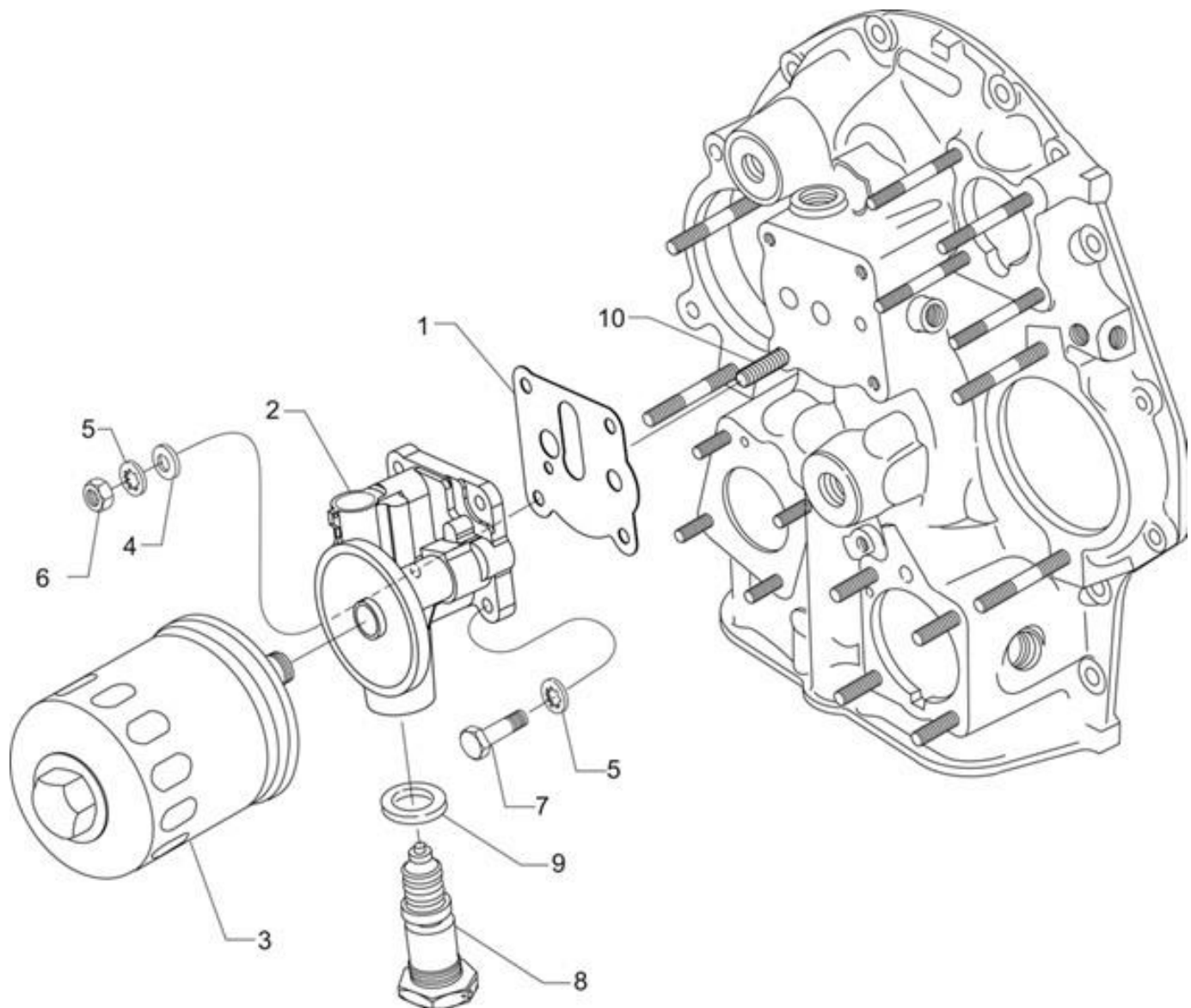


Figure 25
Oil Filter Assembly and Oil Cooler Bypass Valve

Figure 25 – Oil Filter Assembly and Oil Cooler Bypass Valve

Figure Item	Code	Part Number	Description	Units per Assembly
1	*	06B23862	GASKET, Oil filter adapter	2
2		77852	OIL FILTER BASE ASSEMBLY	1
3	**	LW-13215	OIL FILTER	1
4		STD-8	WASHER, 1/4 plain	4
5		STD-160	WASHER, 1/4 lock, internal teeth	4
6		STD-1411	NUT, 1/4-20 plain	1
7		LW-25-1.00	BOLT, 1/4-20 x 1.00 long, hex. head	3
8		53E22144	VALVE ASSEMBLY, Temperature control oil cooler	1
9		76510	GASKET, Valve assembly	1
10		25C-10	STUD, 1/4-20 x 1-1/4 long	1
* Extra gasket shipped as loose part with engine. ** Refer to latest revision of Lycoming SSP-885 for oil filter kits and replacement filters				

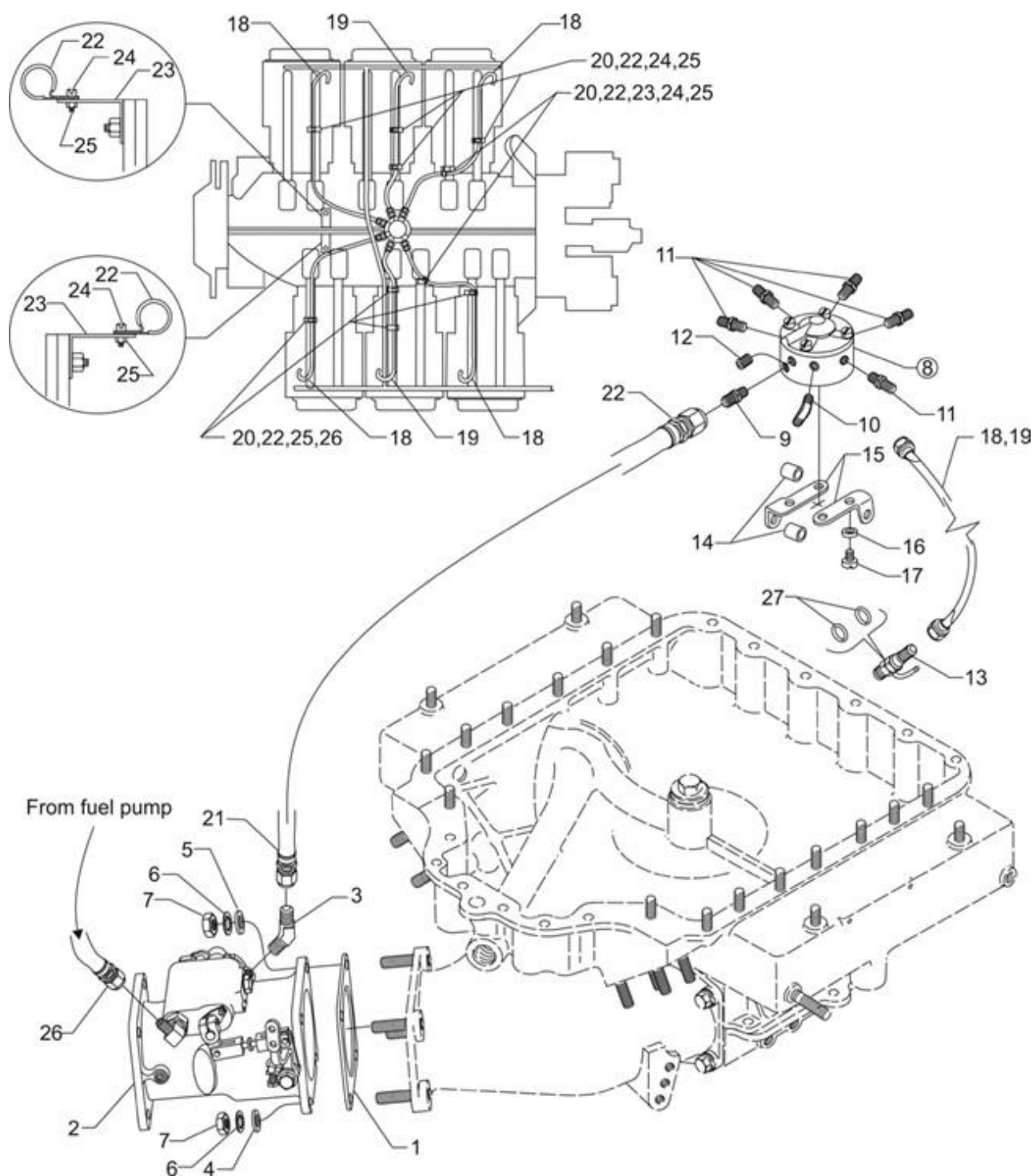


Figure 26
Fuel Injector, Fuel Manifold, and Injection Nozzles

Figure 26 – Fuel Injector, Fuel Manifold, and Injection Nozzles

Figure Item	Code	Part Number	Description	Units per Assembly
1		73032	GASKET, Fuel injector	1
2	V	61M26411	FUEL INJECTOR , LFR-NNLS10 (AV 2576554-3)	1
	V	61M26025	FUEL INJECTOR, No vent return (2576554-3)	1
3		76304	ELBOW, 1/4 tube, 45°	1
4		STD-1727	WASHER, Plain, 21/54 I.D. x 3/4 O.D. x 1/8 thick	2
5		STD-35	WASHER, 5/16 plain	2
6		STD-475	WASHER, 5/16 lock, internal teeth	4
7		STD-1410	NUT, 5/16-18 plain	4
8		63B26723	MANIFOLD ASSEMBLY, Fuel	1
9		AN816-4	NIPPLE, 1/8 NPT to 1/4 tube	1
10		AN791-2	ELBOW, Union, 45°, 1/8 tube	1
11		STD-148	NIPPLE, Union, 1/8 NPT	5
12		1102	PLUG, 1/8-27 NPT, allen head	1
13		63C26452	NOZZLE ASSEMBLY, High 90 (AV2524926-1)	6
14		73966	SPACER, Fuel manifold bracket	2
15		07A23031	BRACKET, Fuel manifold	2
16		STD-251	WASHER, No. 10 internal teeth	4
17		STD-82	SCREW, No. 10-24 x 1/2 long, fill. head	4
18		LW-12098-0-210	TUBE ASSY, Fuel manifold to nozzle, cylinders 1,2,5,6	4
19		LW-12098-0-170	TUBE ASSY, Fuel manifold to nozzle, cylinders 3, 4	2
20		LW-16266-10-75	CLAMP	10
21		LW-12798-4S274	HOSE ASSEMBLY, 1/4 hose, straight	1
22		LW-16266-10-13	CLAMP, 1/8 diameter for no. 10 screw	12
23		73136	BRACKET, Extension	2
24		STD-860	SCREW, No. 10-32 x 5/8 long, fill. head	12
25		STD-670	LOCKNUT, No. 10-32 self-locking	12
26		LW-12877-6S110	HOSE ASSEMBLY, 3/8 hose, 90° elbow	1
27		951391	“O” RING	12
V Vendor Prime Manufacturer part				

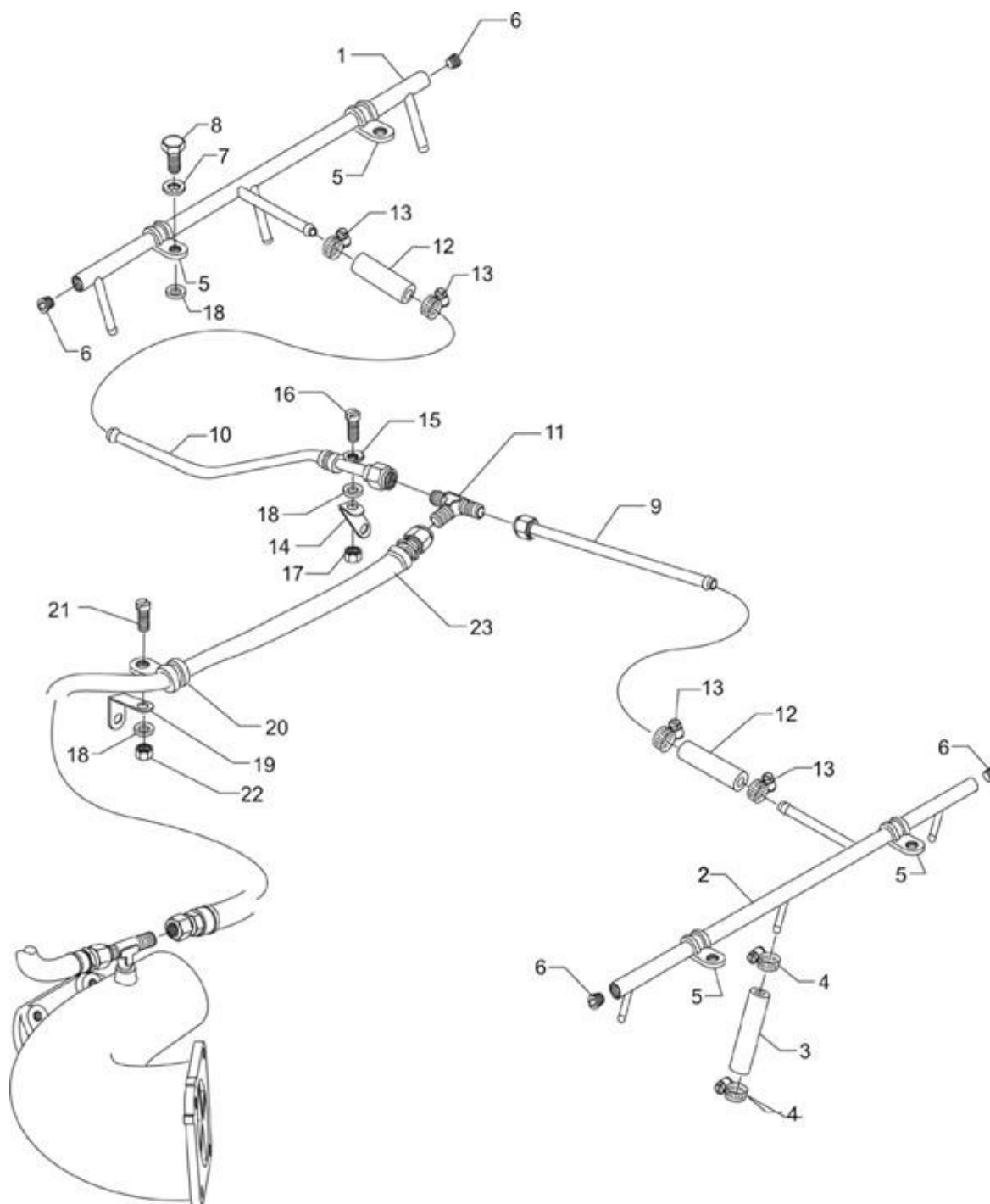


Figure 27
Injector Nozzle Vent Manifolds, Hoses and Attachments

FIGURE 27 – INJECTOR NOZZLE VENT MANIFOLDS, HOSES AND ATTACHMENTS

Figure Item	Code	Part Number	Description	Units per Assembly
1		63E19934	MANIFOLD, Injector nozzle vent, right	1
2		63E22480	MANIFOLD, Injector nozzle vent	1
3		LW-18724	HOSE, 3/16 I.D. x 7/16 O.D. x 3 1/4 long	6
4		LW-15592-5-03	CLAMP, Hose	12
5	*	LW-16266-25-38	CLAMP, 3/8 I.D. x 1/4 dia. screw	4
6		STD-1339	PLUG, 1/16-27 NPT, allen head	4
7		STD-160	WASHER, 1/4 lock, internal teeth	4
8		STD-2029	BOLT, 1/4-20 x 1-1/8 long, hex. head	4
9		63A22481	TUBE, Crossover nozzle vent, manifold (right)	1
10		63A22482	TUBE, Crossover nozzle vent, manifold (left)	1
11		AN824-4	TEE, 1/4 flared tube	1
12		STD-2048	HOSE, 1/4 I.D. x 19/32 O.D. x 2-7/16 long	2
13		LW-15592-5-03	CLAMP, Hose	4
14		78753	BRACKET, Injector nozzle vent crossover	1
15		LW-16266-10-25	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		STD-425	WASHER, No. 10 plain	3
19		73136	BRACKET, Extension, fuel	1
20		LW-16266-10-63	CLAMP, 5/8 I.D. x no. 10 screw	1
21		STD-860	SCREW, No. 10-32 x 5/8 long, fill. head	1
22		STD-670	LOCKNUT, No. 10-32	1
23		LW-12876-4S410	HOSE ASSEMBLY, 1/4 hose, 90° elbow	1
* Assemble 1 each at top forward boss on cylinders, 2, 3, 5 & 6.				

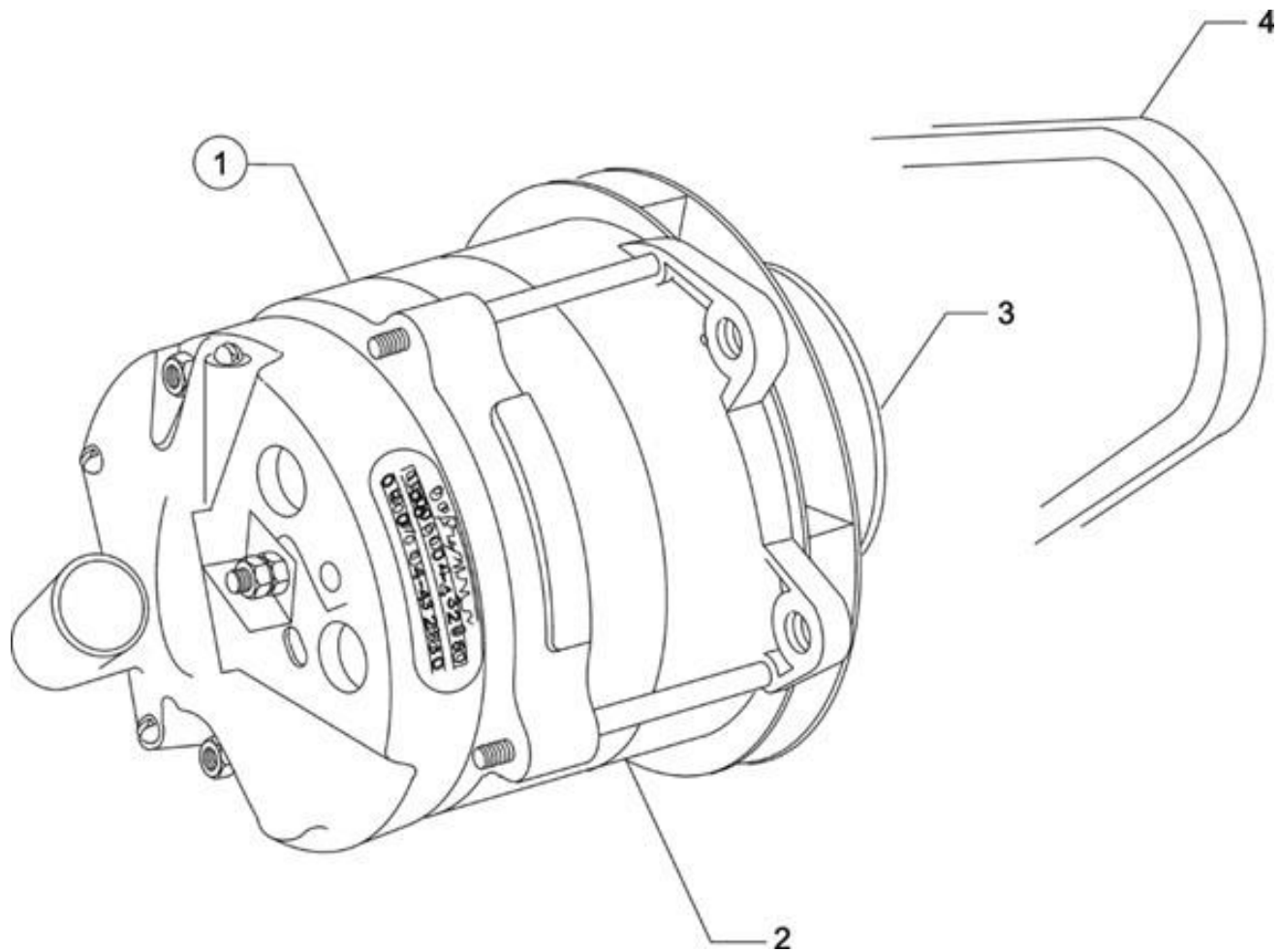


Figure 28
Alternator Assembly and Belt

Figure 28 – Alternator Assembly and Belt

Figure Item	Code	Part Number	Description	Units per Assembly
1		32C22492	ALTERNATOR ASSEMBLY, 28 volt, 90 amp	1
		32C19553	ALTERNATOR ASSEMBLY, 24 volt, 70 amp.	1
2	V	32C22491	ALTERNATOR, ES-4011-1LS, 28V, 90A	1
	V	LW-14326	ALTERNATOR, ALU-8521-LS, 24V, 70A	1
3		36B22352	PULLEY, Alternator	1
		36B19484	PULLEY, Alternator	1
4		37D22355	BELT, Alternator, 11MM	1
		37A19773-382	BELT, Alternator, 3/8	1
V Vendor Prime Manufacturer part.				

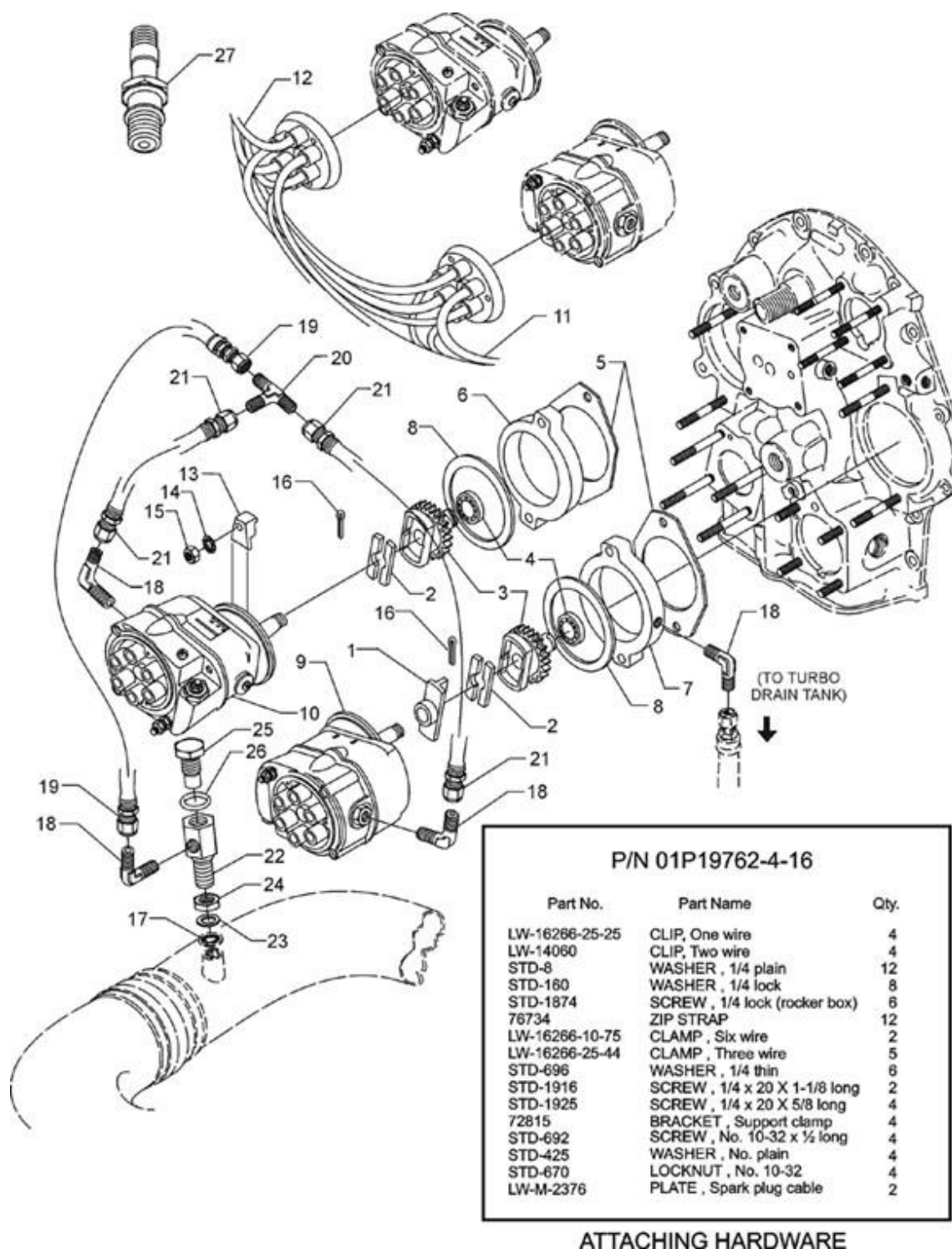


Figure 29
Magnetos, Magneto Drives, Harnesses, and Spark Plugs

Figure 29 – Magnetos, Magneto Drives, Harnesses, and Spark Plugs

Figure Item	Code	Part Number	Description	Units per Assembly
1		73000	COUPLING, Magneto drive	1
2		68H22624	CUSHION, Magneto drive	4
3		LW-19096	GEAR RETAINER ASSEMBLY	2
4		67542	BALL BEARING	2
5		62224	GASKET, Magneto adapter	2
6		LW-12707	ADAPTER, Magneto, left, impulse coupling	1
7		LW-13926	ADAPTER, Magneto, right	1
8		LW-12681	GASKET, Magneto	2
9	V	66LP-0SCNP	MAGNETO, Right, V Slick model no. 6360	1
10	V	66LC35SDNP	MAGNETO, Left, impulse, V Slick model no. 6361	1
11	V	67J20608-P	HARNESS ASSEMBLY, Right, V Slick P/N M-2966	1
12	V	67J20609-P	HARNESS ASSEMBLY, Left, V Slick P/N M-2965	1
13		66M21195	CLAMP, Magneto	4
14		STD-475	WASHER, 5/16 lock, internal teeth	4
15		STD-1410	NUT, 5/16-18 plain	4
16		MS9245-44	PIN, 3/32 diameter x 5/8 long	2
17		STD-2007	WASHER, 3/8 diameter seal	1
18		MS20822-4	ELBOW, 1/4 tube to 1/8 NPT, 90°	4
19		LW-12798-4S222	HOSE ASSEMBLY, 1/4 hose, straight	1
20		AN824-4	TEE, 1/4 flared tube	1
21		LW-12798-4S111	HOSE ASSEMBLY, Right and left magneto to tee	2
22		LW-13227	ADAPTER, Magneto pressurization	1
23		STD-33	WASHER, 3/8 plain	1
24		LW-13226	NUT, 3/8-16 plain	1
25		66N21020	VALVE ASSEMBLY, Relief	1
26		MS29512-04	“O” RING	1
27	V	1182-L7	SPARK PLUG, V Champion RHB36S	12

(continued on next page)

Figure 29 – Magnetos, Magneto Drives, Harnesses, and Spark Plugs (Cont.)

Figure Item	Code	Part Number	Description	Units per Assembly
	*	01P19762-4-16	BAG, Magneto harness attaching	1
V Vendor Prime Manufacturer part * See page 62 for a breakdown of individual parts contained in the magneto and harness attaching parts bag. These parts are to be attached by customer per engine line drawing included in bag. NOTE: See the latest revision of Service Instruction No. 1042 for a complete listing of all approved spark plugs.				

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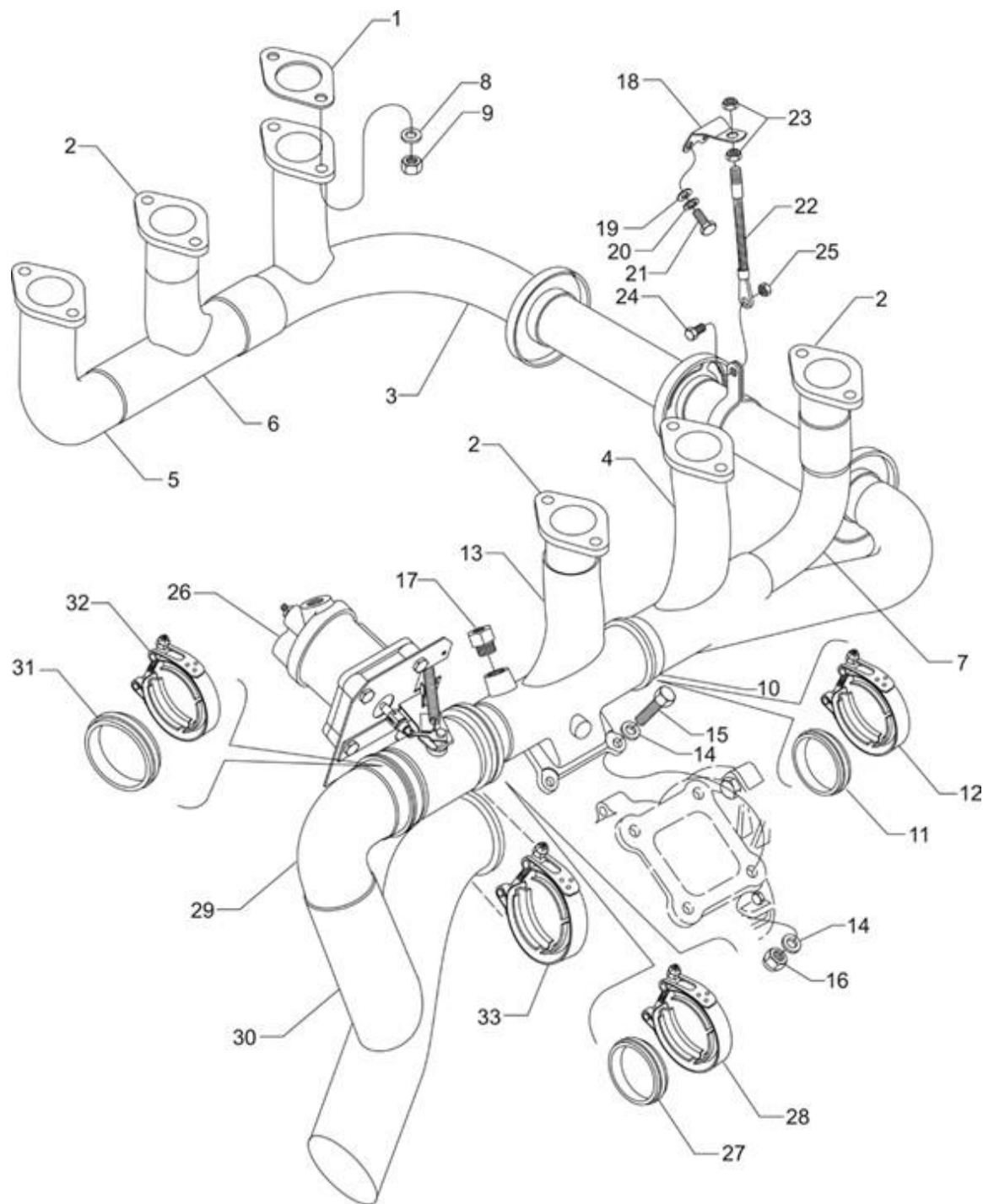


Figure 30
Exhaust Crossover Pipes and Transition Assembly

Figure 30 - Exhaust Crossover Pipes and Transition Assembly

Figure Item	Code	Part Number	Description	Units per Assembly
1		77611	GASKET, Exhaust flange	6
2		40B19840	ADAPTER, Exhaust pipe	3
3		40B23369	PIPE, Exhaust, cylinder no. 2	1
4		40B22303	PIPE, Exhaust, cylinder no. 3	1
5		40B21919	PIPE, Exhaust, cylinder no. 6	1
6		40B21921	PIPE, Exhaust, cylinder no. 4	1
7		40B22315	PIPE, Exhaust, cylinder no. 1, inter	1
8		AN960C516	WASHER, 5/16 plain	12
9		STD-2233	LOCKNUT, 5/16-18 hex.	12
10		40C19819	FLANGE, V-band coupling, 2.00 tube	1
11		78084	GASKET, V-band coupling, 2.00 tube	1
12		LW-12093-5	COUPLING, V-band, 2.00 O.D. tube	1
13		47C21912	TRANSITION, Exhaust	1
14		AN960C616	WASHER, 3/8 plain	8
15		AN6C12A	BOLT, 3/8-24 x 1-5/16 long	4
16		MS20500-624	NUT, 3/8-24 self-locking	4
17		STD-1932	BUSHING, 1/4 to 1/8 NPT	1
18		07A22452	BRACKET, Cable, exhaust manifold retainer	1
19		STD-35	WASHER, 5/16 plain	2
20		STD-475	WASHER, 5/16 lock, internal teeth	2
21		LW-31-0.88	BOLT, 5/16-18 x 7/8 long, hex. head	2
22		LW-19189	CABLE, Exhaust manifold retainer	1
23		STD-1411	NUT, 1/4-20 plain	2
24		LW-25SS-0.75	BOLT, 1/4-20 x 3/4 long, hex. head	1
25		STD-2079	NUT, 1/4-20 UNC	1
26		47J22459	VALVE ASSEMBLY, Exhaust bypass	1
27		75845	GASKET, V-band coupling, 2-1/4 tube	1

(continued on next page)

Figure 30 - Exhaust Crossover Pipes and Transition Assembly (Cont.)

Figure Item	Code	Part Number	Description	Units per Assembly
28		LW-12125-3	COUPLING, V-band, 2-1/4 O.D. tube	1
29		40B22317	PIPE, Exhaust wastegate	1
30		40B22316	PIPE, Exhaust tail	1
31		75845	GASKET, V-band coupling, 2-1/4 tube	1
32		LW-12093-6	COUPLING, V-band, 2-1/4 O.D. tube	1
33		40D23255-340M	COUPLING, V-band	1

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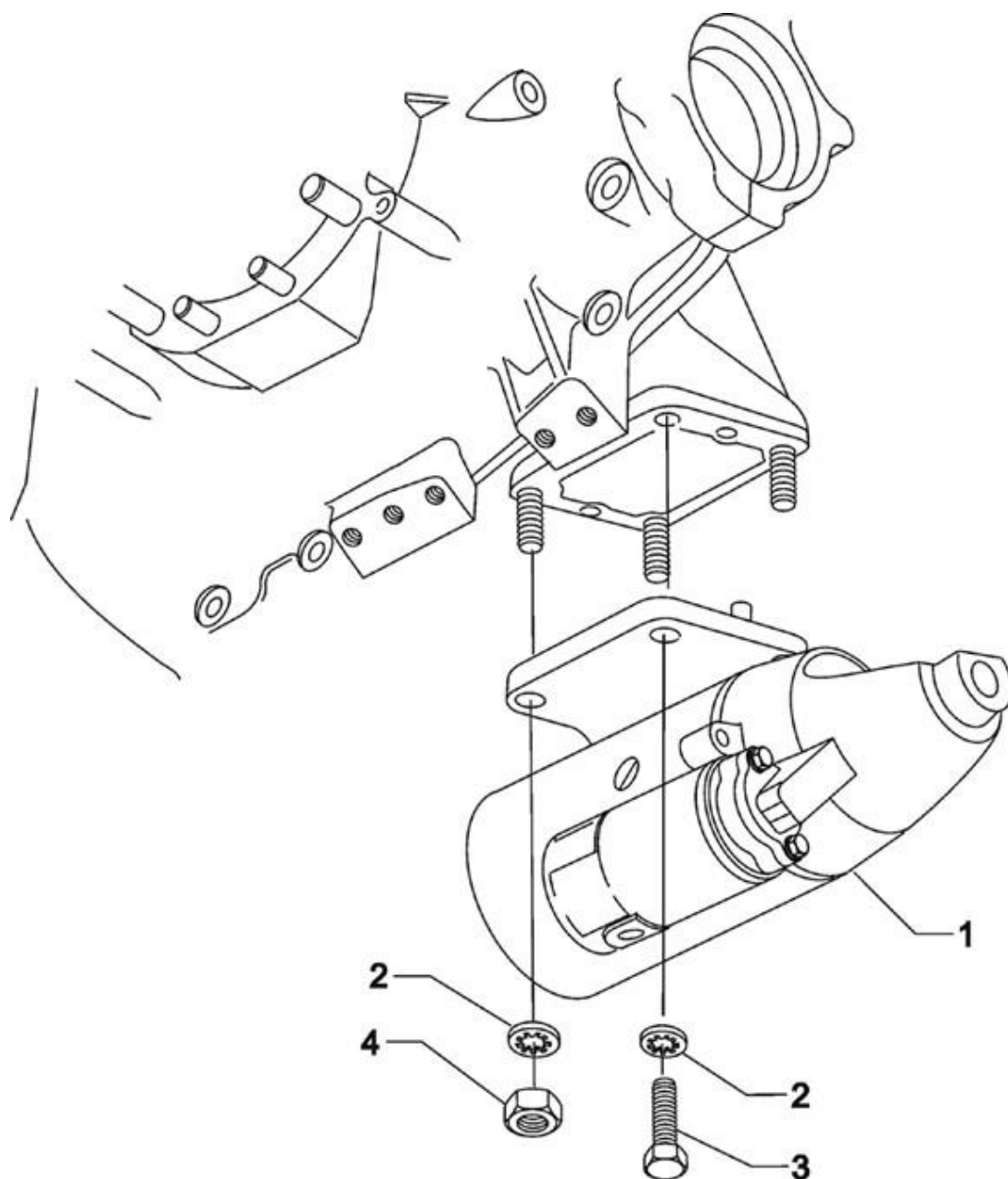


Figure 31
Starter Motor and Attaching Parts

Figure 31 - Starter Motor and Attaching Parts

Figure Item	Code	Part Number	Description	Units per Assembly
1	V	31B22101	STARTER, Sky-Tec, (149-24PM)	1
	V	31B22111	STARTER, Sky-Tec, (149-24HT)	1
2		STD-475	WASHER, 5/16 lock, internal teeth	4
3		LW-31-0.94	BOLT, 5/16-18 x 15/16 long, hex. head	1
4		STD-1410	NUT, 5/16-18 plain	3
V Vendor Prime Manufacturer part				

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Service Kit Section**Seal and Gasket Set**

PART NO.	PART NAME	Qty.
05K22599	KIT - SEAL AND GASKET SET	1
LW-RF2.239-.070	"O" RING, Scavenge pump	1
LW-12681	GASKET, Magneto	2
LW-14820	RING, Internal retaining	8
LW-15628	SEAL, Crankshaft oil	1
LW-18038	GASKET, Turbocharger oil drain	1
LW-18638	LOCKPLATE, Crankshaft gear	1
LW-18661	SEAL, Shroud tube	24
LW-18724	HOSE, Nozzle vent lines	6
MS16625-1068	RING, Internal retaining	1
MS16625-1125	RING, Internal retaining	2
MS28775-015	"O" RING	1
MS29512-04	"O" RING	1
MS29512-06	"O" RING	1
MS29512-08	"O" RING	1
MS29513-138	"O" RING	1
STD-1737	RING, External retaining	1
STD-213	OIL SEAL	1
STD-2180	HOSE, Cylinder drain tube	6
8313	GASKET, Vacuum pump	2
61183	GASKET, Accessory adapter	1
62224	GASKET, Magneto adapter	2
66732	GASKET, Valve rocker shaft cover	12
06B26811	GASKET, Rocker box (silicone)	6
68315	GASKET, Accessory drive	1
69164	GASKET, Fuel pump	1
70455	GASKET	1
70457	GASKET, Oil filler tube	1
71481	RING, Cylinder base	6
71973	GASKET, Intake pipe	6
72053	GASKET, Governor	1
72091	"O" RING	2
72210	GASKET, Air throttle housing	1
72711	"O" RING, Intake pipe	6
73032	GASKET, Air inlet housing	1
73818	GASKET, Accessory housing	1
74065	"O" RING, Oil level gauge	1

Seal and Gasket Set (Cont.)

PART NO.	PART NAME	Qty.
74944	GASKET, Fuel injector	1
75845	GASKET, V-band coupling	2
77611	GASKET, Exhaust	6
77813	GASKET, Turbocharger oil inlet	1
78084	GASKET, V-band coupling	1
06A19956	OIL SEAL	2
06B21326	GASKET, Sump	1
06B23862	GASKET, Oil filter adapter	1
06E19769-0.63	GASKET, Annular	1
06E19769-0.91	GASKET, Annular	1
06E19769-1.00	GASKET, Annular	1
06E19769-1.25	GASKET, Annular	1
15H21201	SPRING, Shroud tube	24

Cylinder, Piston and Ring Assembly

PART NO.	PART NAME	Qty.
05K21262	KIT – CYLINDER, PISTON AND RING ASSEMBLY	1
16A30161-01	CYLINDER ASSEMBLY	1
17B23935	VALVE, Exhaust, rotator type	1
17A23937	VALVE, Intake, rotator type	1
17D29057	SPRING, Valve, auxiliary	2
17D29056	SPRING, Valve, outer	2
69532	SEAT, Valve spring, upper intake	1
LW-16475	SEAT, Valve spring, upper exhaust	1
LW-13321	SEAT, Intake valve, spring, lower	1
LW-13322	SEAT, Exhaust valve, spring, lower	1
72050	KEY, Valve, intake	2
17C21191	KEY, Valve, exhaust	2
62388	CAP, Valve stem	1
17C19386	CAP, Valve stem, exhaust, rotator	1
14D23907	PISTON, 7.3:1 compression ratio	1
74241	RING, Piston, compression	2
14H29889	RING, Piston, oil regulating	1
LW-14078	PIN, Piston	1
72198	PLUG, Piston pin	2
66732	GASKET, Valve rocker shaft cover	2
06B26811	GASKET, Rocker box cover (silicone)	1
LW-18661	SEAL, Shroud tube	4
71481	RING, Oil seal, 3/32 diameter x 4-27/32 I.D.	1
SSP-299	TAG	1
77611	GASKET, Exhaust flange	1

NUMERICAL INDEX

PART NO.	PART NAME	PAGE NO.	PART NO.	PART NAME	PAGE NO.
01A23354	STUD	7	1182-L7	SPARK PLUG	59
01K28983	BUSHING	17	11F24023-S1	C'CASE ASSY	7
01L21418	WASHER	5	11F24023-S1-S	C'CASE ASSY KIT	7
01N19833-281	PLUG	49	11F24023-S6	C'CASE ASSY	7
01P19762-4-16	BAG	60	11F24023-S6-S	C'CASE ASSY KIT	7
02A21152	ELBOW	39	11F24123-S6	C'CASE ASSY	7
02A21376	ELBOW	45	11F24123-S6-S	C'CASE ASSY KIT	7
02A22460	ELBOW	33	12A19770	BRACKET	37
02A22483	ELBOW	33	13F47727	C'SHAFT ASSY	11
02G22466	NIPPLE	33	13S19648	GEAR	11
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02M22744	HOSE	31	14H21990	RING	17
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06E19769-1.25	GASKET	9	15F21362-22	ROD ASSEMBLY	21
07A21931	BRACKET	29	15F21362-23	ROD ASSEMBLY	21
07A22348	BRACKET	3	15F21362-24	ROD ASSEMBLY	21
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