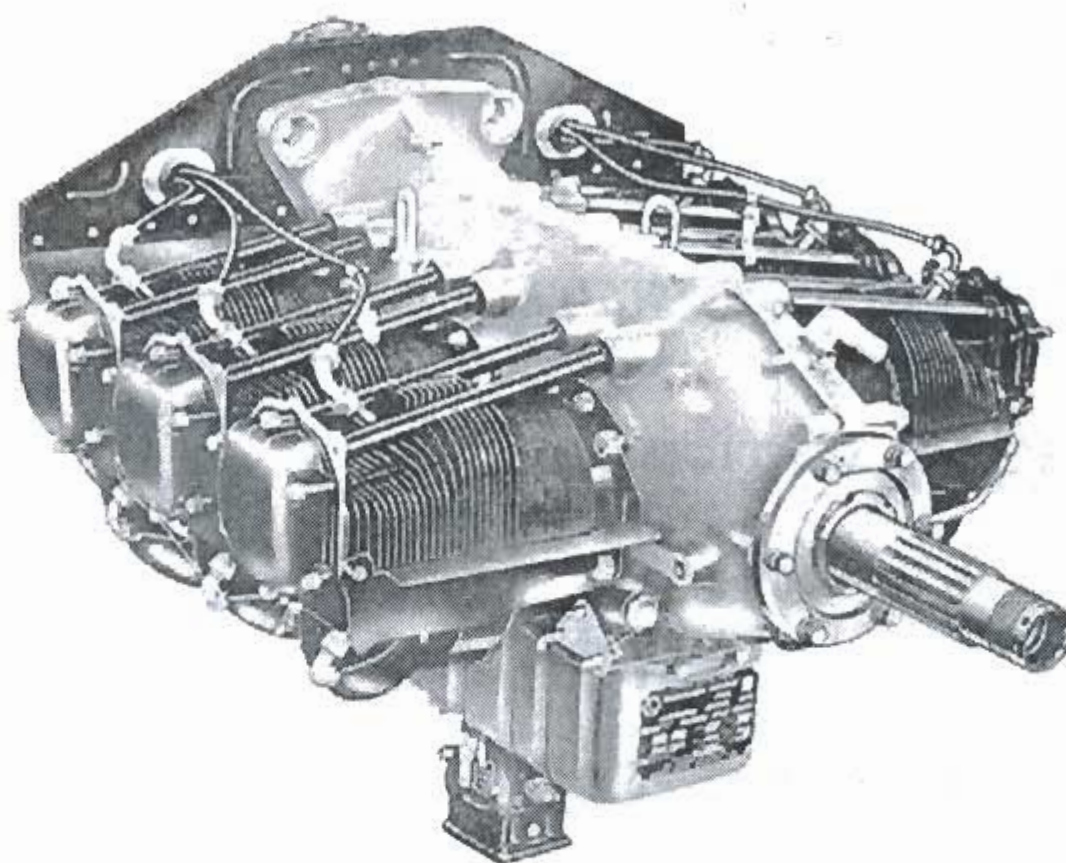


PARTS CATALOG
LYCOMING
MODELS O-435-A and-A2 AIRCRAFT ENGINES



LYCOMING-SPENCER
DIVISION — *Avco* MANUFACTURING CORPORATION
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LYCOMING-SPENCER
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LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

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LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

INTRODUCTION

This catalog is divided into eight separate and distinct sections, making it a simple matter to identify any part used on the Lycoming model O-435-A and O-435-A2 aircraft engine. The following paragraphs describe each Section of the catalog and explain the method of using it.

THE ILLUSTRATED PARTS SECTION consists of eight exploded views of the basic Lycoming O-435-A and O-435-A2 aircraft engine. The first view consists of crankshaft and parts that are closely related to it; the second illustrates the crankcase and its associated parts, while the third shows the reciprocating parts, fourth is the cylinder, fifth is oil sump, sixth and seventh illustrate the accessory housing, number eight lists the ignition harness and priming system. Although these views do not show every part of the engine, they nevertheless will be helpful in locating and identifying the various subassemblies that make up the engine. However, the user must not use this section to identify the component parts of any subassembly; for that purpose the numerical section should be consulted.

THE NUMERICAL PARTS LIST SECTION contains the part numbers of every part used on the Lycoming model O-435-A and O-435-A2 engine. The part numbers are arranged in numerical order, and following each part number its correct name and quantity used is given. If the part is a major sub-assembly; the quantities, part numbers, and names of its component parts are listed. If a part is not a major sub-assembly, but rather an independently functioning part, or a component of a subassembly, its proper name along with a description of its function is given. Certain parts, marked with an asterisk (*), are not listed separately but only with the subassembly in which they are used. These parts are not obtainable separately, but are fabricated with the unit of which they are a part.

NUMERICAL STANDARD PARTS SECTION is similar to the Numerical Parts Section, excepting only that the part numbers are prefixed by the symbol "STD." This symbol indicates that the part is a Lycoming standard part and is carried in stock at all times, and is not necessarily peculiar to this particular engine model. These standard parts include such items as nuts, washers, screws, and seals. They are not listed separately in the Numerical Parts Section, but are included with the sub-assemblies of which they are a part.

SERVICE TOOLS--This section consists of a list of such tools as may be required to service the engine. These tools may be purchased as a set or as individual items.

NUMERICAL OVERSIZE AND UNDERSIZE PARTS SECTION--This section consists of a numerical list of such parts as are available in sizes other than nominal or standard sizes. The list states the part number, name, nominal size, function of the part, and its deviation from standard size.

ALPHABETICAL PARTS LIST SECTION--This section lists all the parts contained in the Numerical, Illustrated and Numerical Standards Sections of the catalog. The parts are listed by name, in alphabetical order, with the first letter of the noun as the

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

index letter. A part is not listed in this section if it is furnished along with an assembly and is not available as an individual part.

HOW TO USE THIS CATALOG

If neither the name nor the number of the part is known, find the part or the sub-assembly of which it is a component in the Illustrated Section. The number of the part, or of its assembly, can then be determined. Find this number in the Numerical Parts Section and determine if it is obtainable as listed or if it must be purchased as part of an assembly, in which case the number of the assembly must be used when ordering.

If only the name of the part is known, consult the Alphabetical Section of the catalog and find the correct part number. Then, using this part number, consult the Numerical Section or the Numerical Standards Section to ascertain the quantity used per engine.

If the part number is known, it may be found in either the Numerical Section or the Numerical Standards Section unless it is a component of an assembly. If such is the case, the Illustrated Section should be consulted to determine the part number of the assembly of which it is a component. The part number in question will be found under the assembly part number in the Numerical Section.

INSTRUCTIONS FOR ORDERING PARTS.

Always, when ordering parts, state the part number, its correct name, and quantity desired. In addition, state the complete model number of the engine and the serial number of the engine. This information will be found on the Name Plate which is attached to the crankcase. Unless credit has been established with Lycoming Division, The Aviation Corporation, all parts will be shipped C.O.D. or with sight draft attached to bill of lading on freight shipment.

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

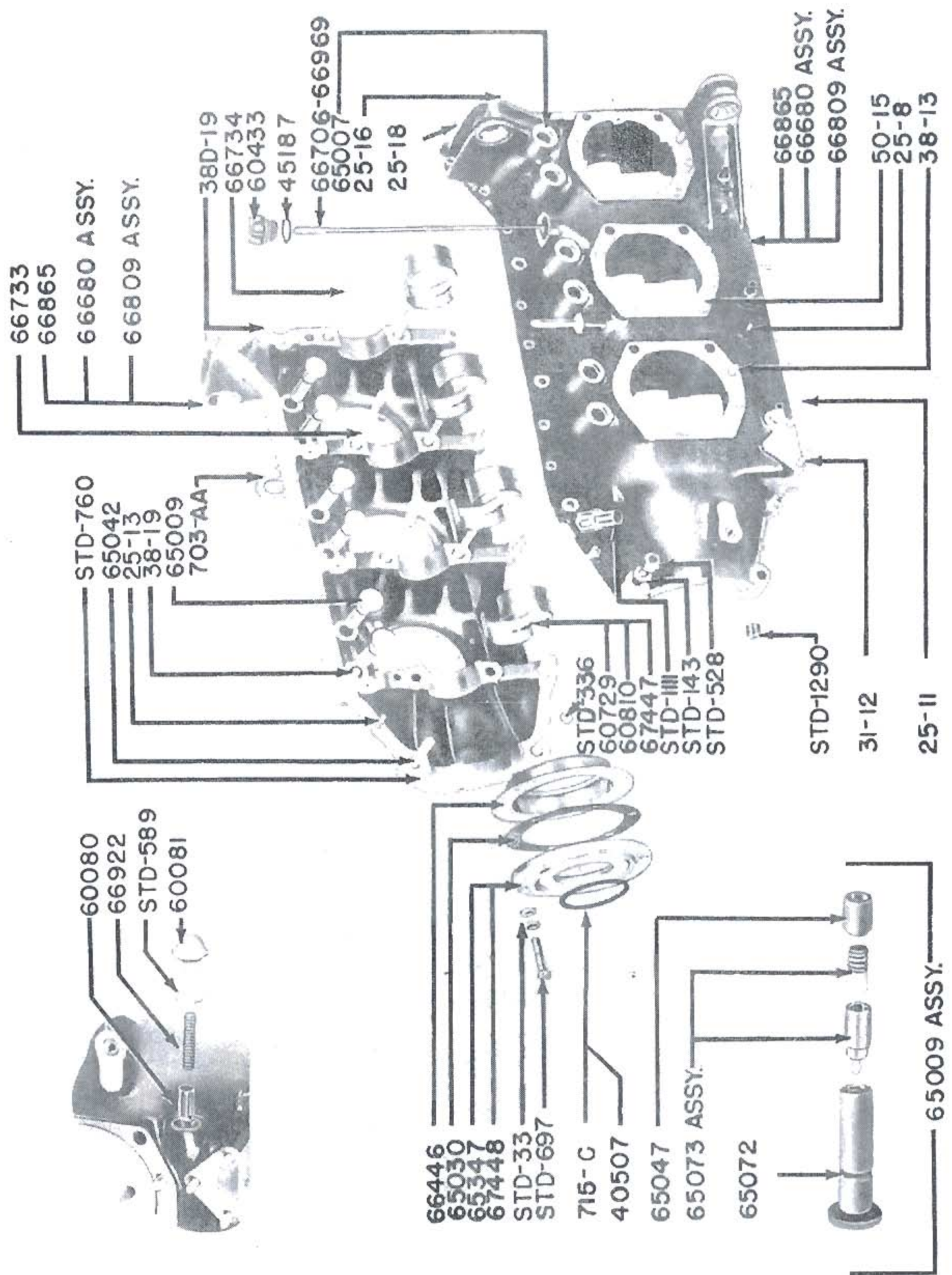


Figure 2 - Crankcase and Related Parts

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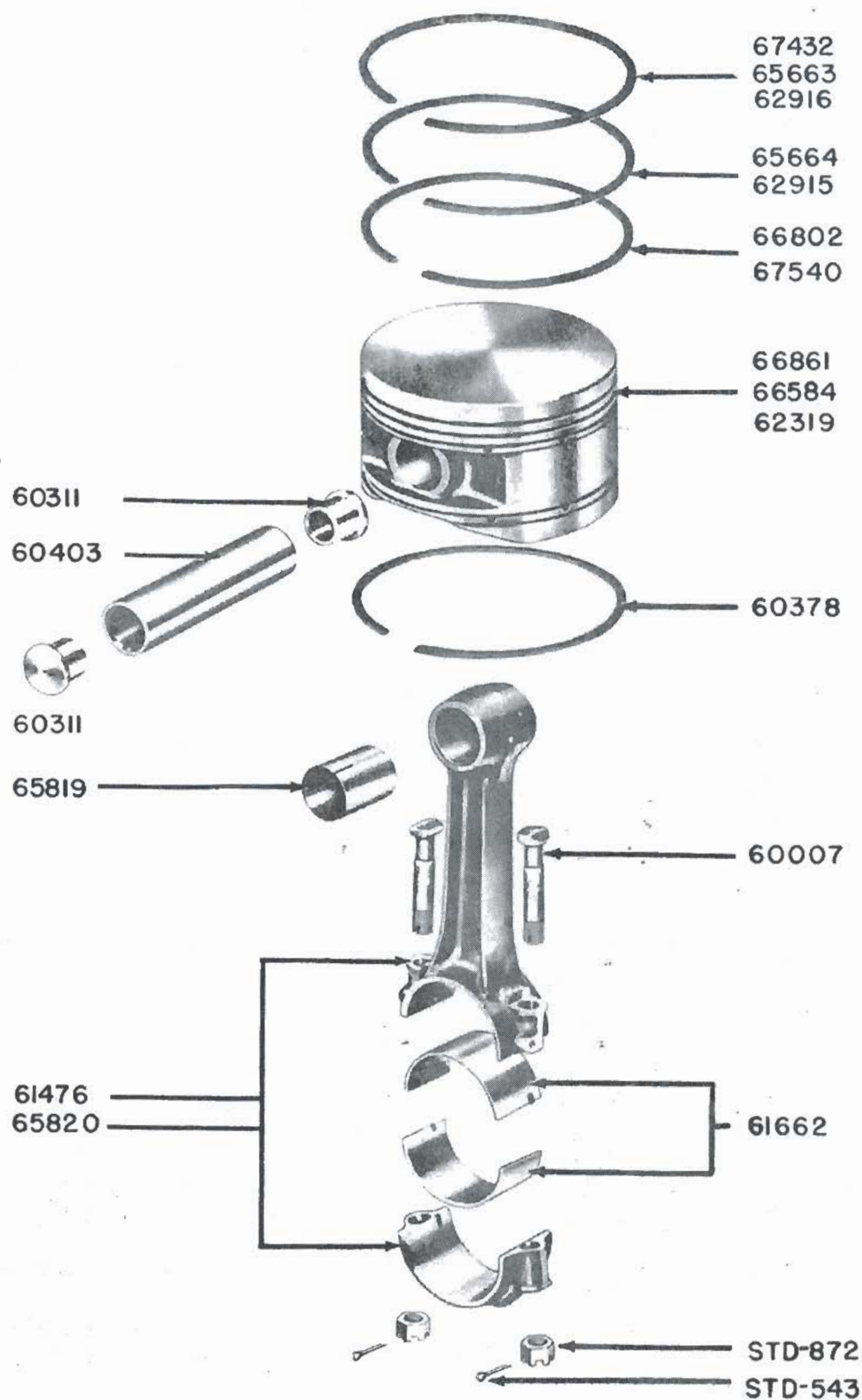


Figure 3 - Reciprocating Parts

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

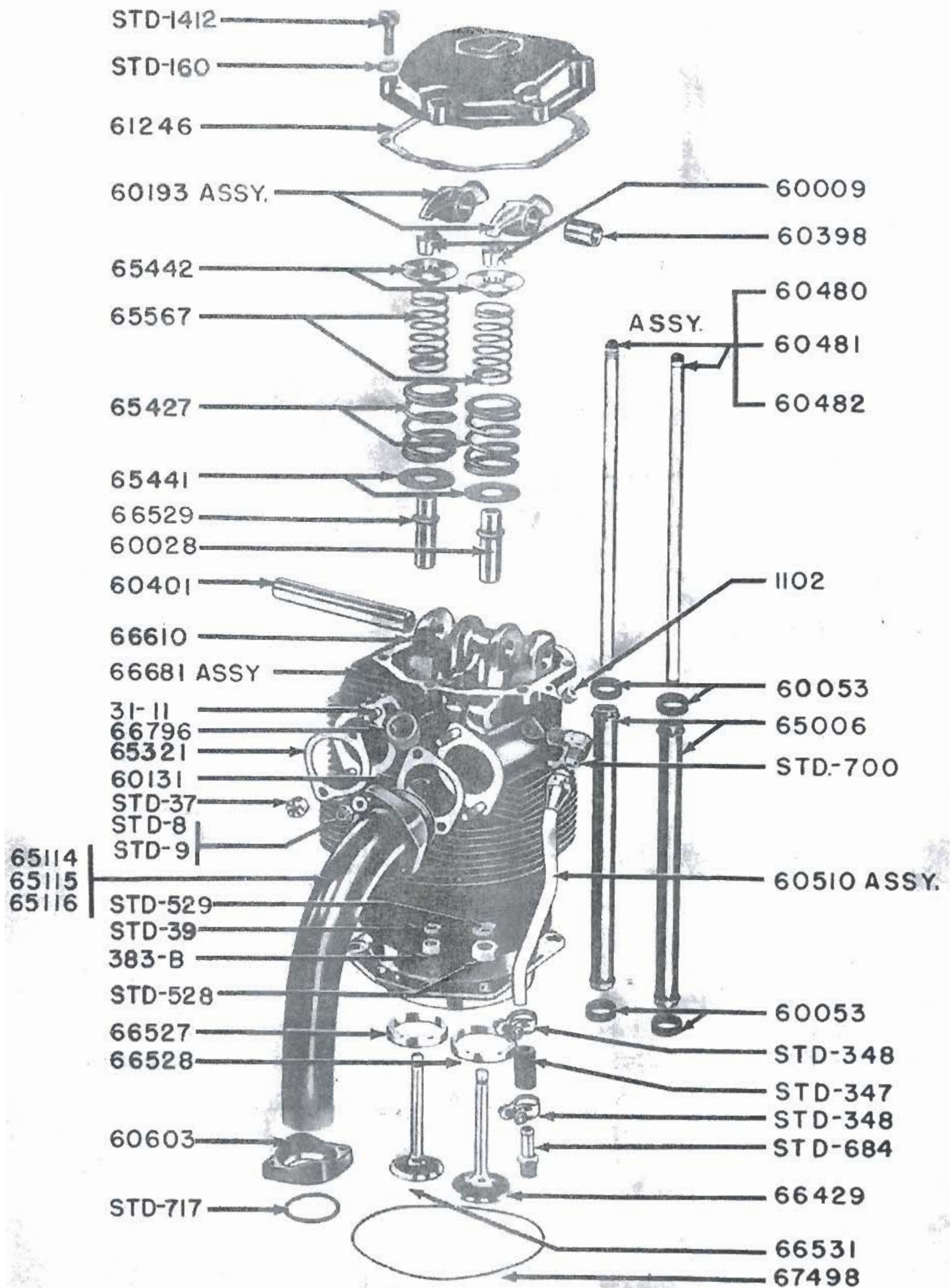


Figure 4 - Cylinder Assembly

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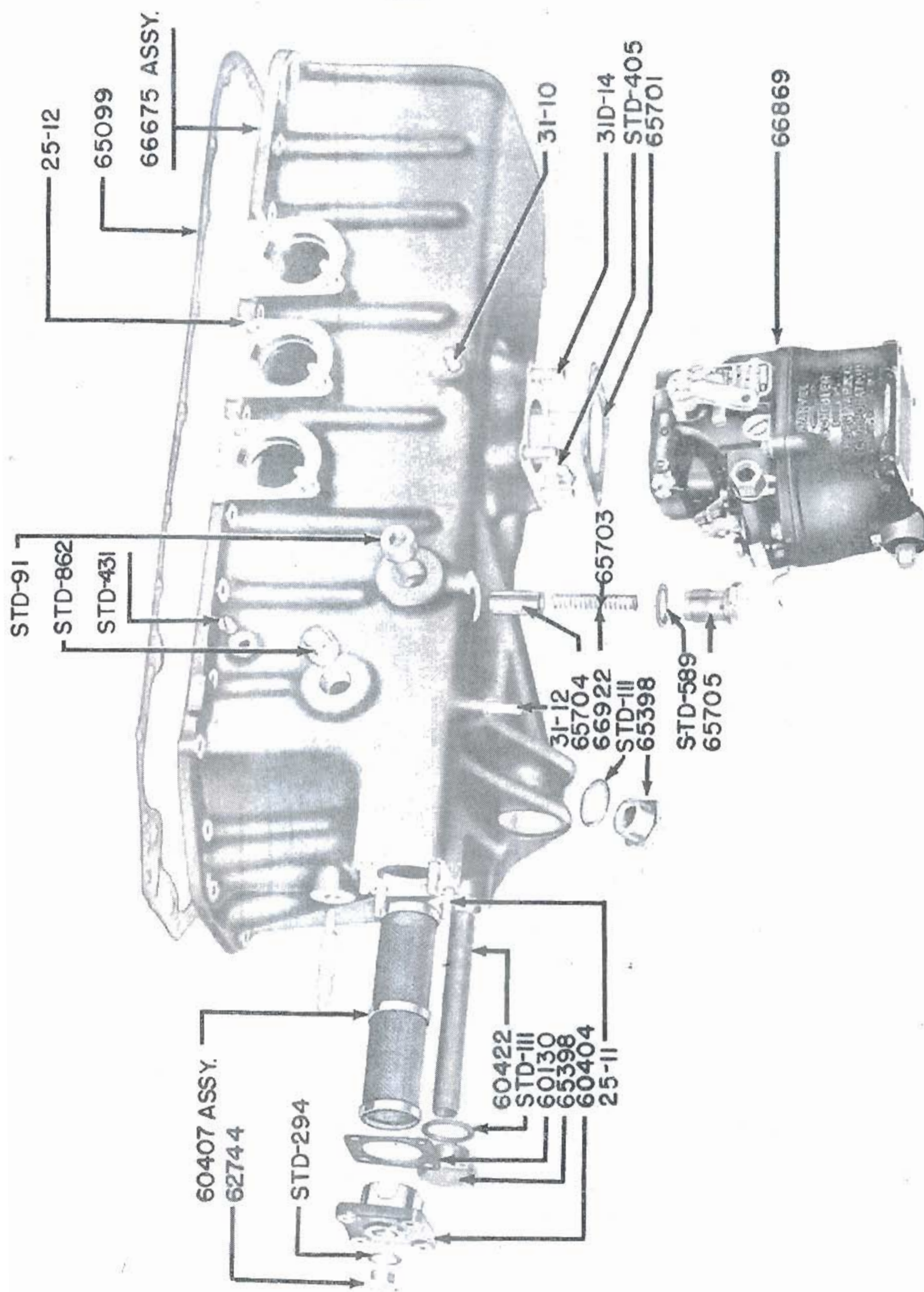


Figure 9 - Carburetor and Sump Assembly

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

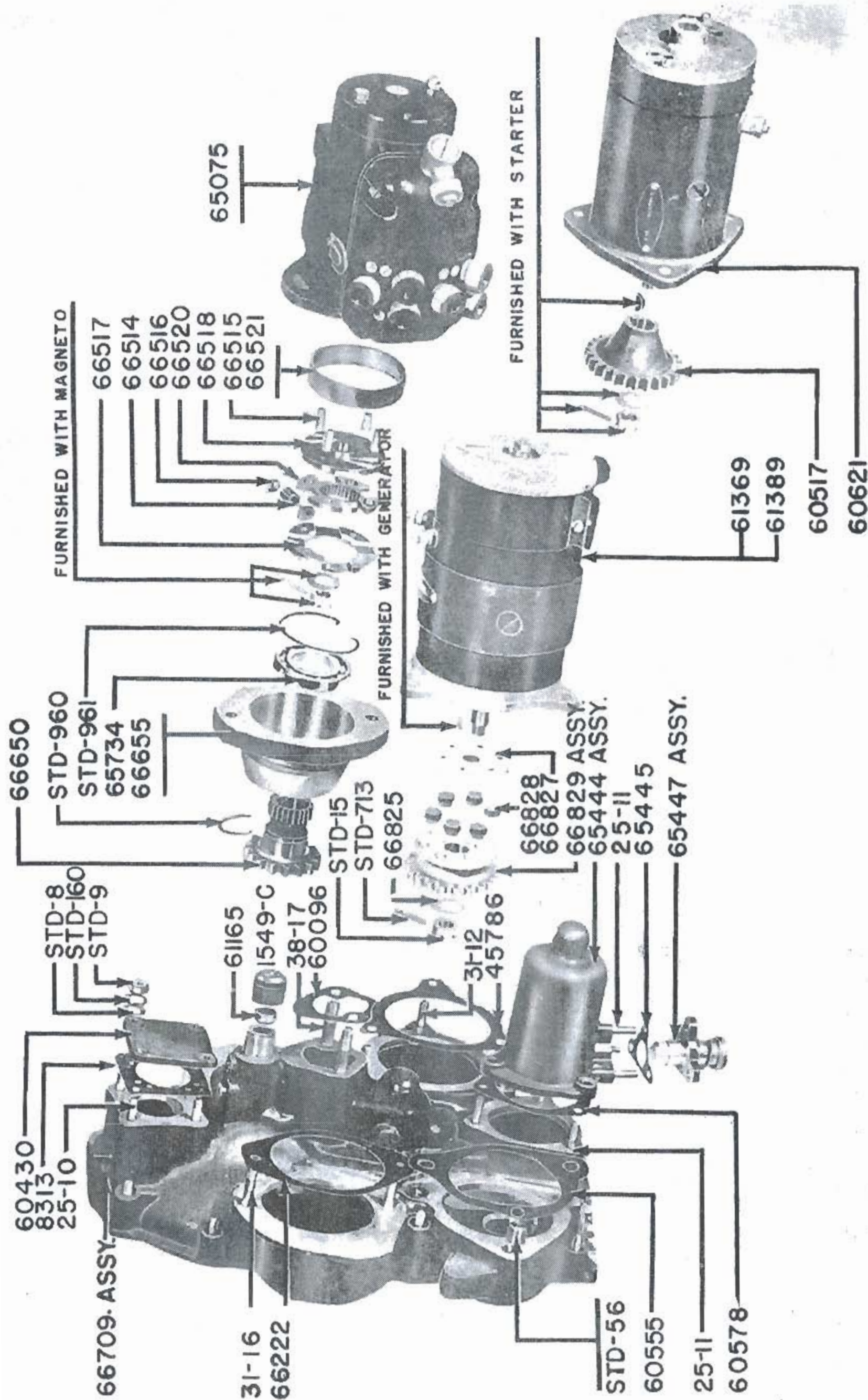


Figure 6 - Accessory Housing and Accessories

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

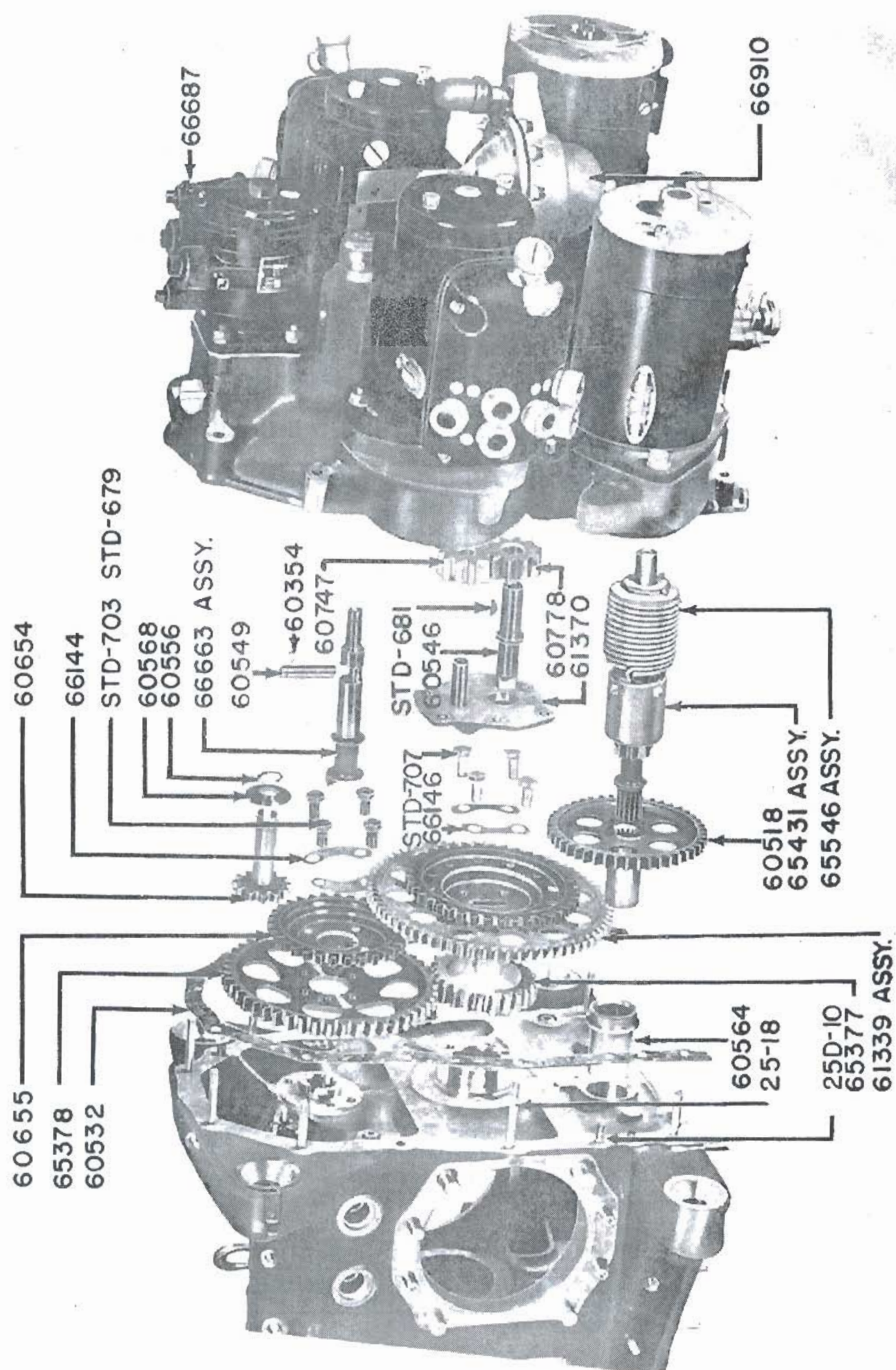


Figure 7 - Accessory Drives

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

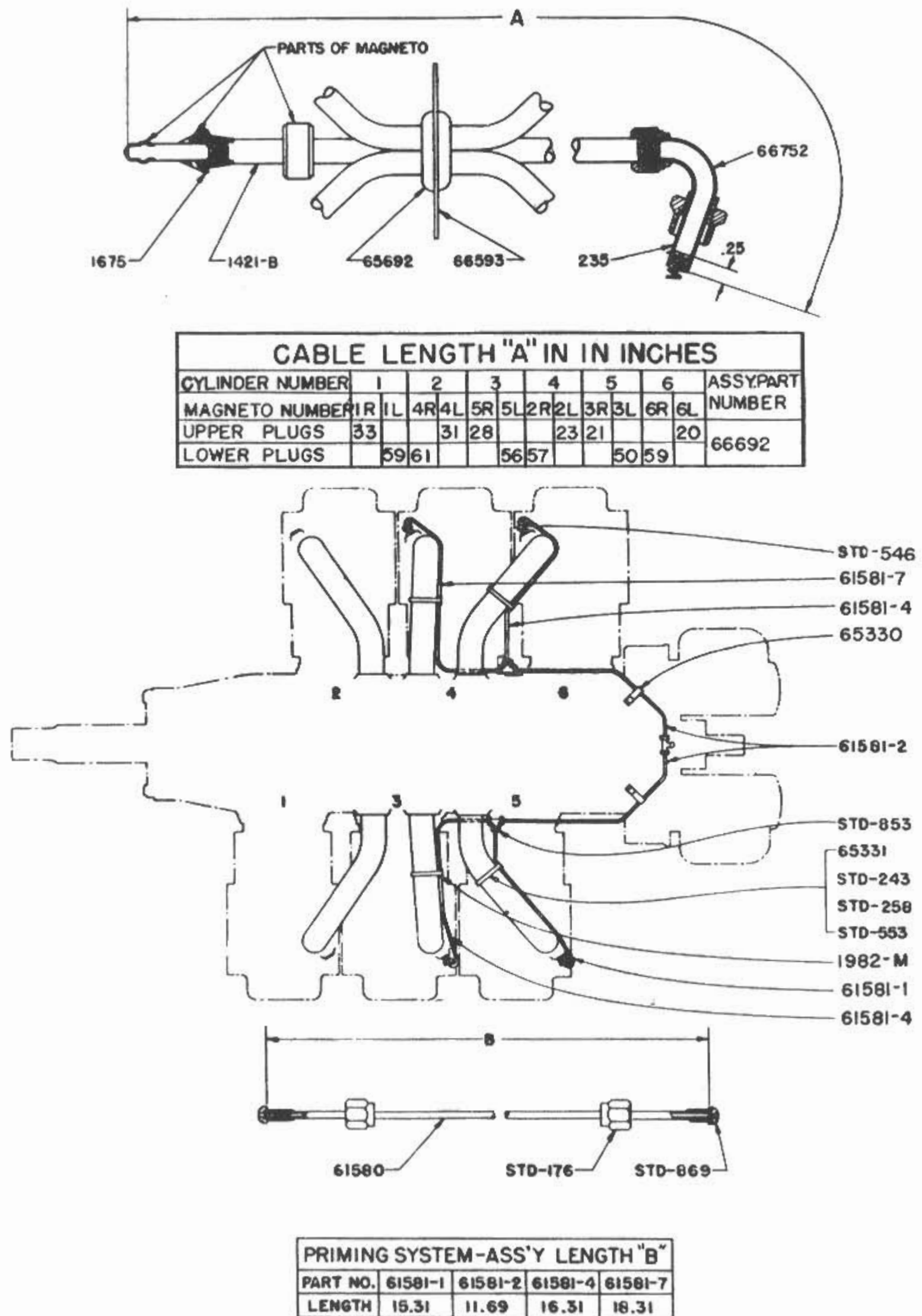


Figure 8 - Ignition Harness and Priming System

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required Model	
		-A	-A2
+25-8	Stud - 1/4-20 x 1 in long		
	Right crankcase	2	2
	Left crankcase.	2	2
	Accessory housing	1	1
+25-10	Stud - 1/4-20 x 1-1/4 in. long		
	Accessory housing	4	4
+25D-10	Stud - 1/4-20 x 1-1/4 in long (drilled)		
	Crankcase	1	1
+25-11	Stud - 1/4-20 x 1-3/8 in. long		
	Oil sump	4	4
	Bendix drive housing	3	3
	Accessory housing	5	5
	Crankcase	21	21
+25-12	Stud - 1/4-20 x 1-1/2 in. long		
	Oil sump.	12	12
	Cylinders	12	12
+25-13	Stud - 1/4-20 x 1-5/8 in. long		
	Right crankcase	9	9
+25-16	Stud - 1/4-20 x 2 in long		
	Crankcases	4	4
+25-18	Stud - 1/4-20 x 2-1/4 in. long		
	Crankcases	2	2
+25-21	Stud - 1/4-20 x 2-5/8 in. long		
	Left crankcase.	2	2
+31-10	Stud - 5/16-18 x 1-1/4 in. long		
	Oil sump.	2	2
+31-11	Stud - 5/16-18 x 1-3/8 in. long		
	Cylinders	12	12
+31-12	Stud - 5/16-18 x 1-1/2 in long		
	Right crankcase	3	3
	Left crankcase	3	3
	Accessory housing	3	3
	Oil sump.	2	2
+31D-14	Stud - 5/16-18 x 1-3/4 in. long (drilled)		
	Oil sump	4	4
+31-16	Stud - 5/16-18 x 2 in. long		
	Accessory housing	4	4
+31D-16	Stud - 5/16-18 x 2 in long (drilled)		
	Accessory housing	4	4
+38-13	Stud - 3/8-16 x 1-5/8 in. long		
	Right crankcase (Continued on next page)	12	12

+ Indicates oversize or undersize parts are available

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		-A	-A2
+38-13	Stud - 3/8-16 x 1-5/8 in. long (Continued)		
	Left crankcase	12	12
+38-17	Stud - 3/8-16 x 2-1/8 in. long		
	Accessory housing	2	2
+38-19	Stud - 3/8-16 x 2-3/8 in. long		
	Right crankcase	4	4
+38D-19	Stud - 3/8-16 x 2-3/8 in. long (drilled)		
	Right crankcase	3	3
	Left crankcase	1	1
+50-15	Stud - 1/2-13 x 1-7/8 in. long		
	Right crankcase	6	6
	Left crankcase	6	6
107-B	Bolt - Hex head, 10-32 x 2-7/8 in. long		
	Baffle clamp	4	4
182-B	Plug - Crankshaft oil seal	1	1
235	Sleeve - Spark plug	12	12
238	Gasket - Magneto	2	2
383-B	Nut - Plain, 3/8-24		
	Cylinders	24	24
513-E	Nut - Lock, thrust bearing	1	1
517-B	Ring - Thrust bearing oil retainer	1	1
	(Discontinued beginning with engine #620-17 on -A)		
518	Seal - Thrust bearing	1	1
	(Beginning with engine #620-17 on -A)		
703-AA	Eye - Lifting		
	Right crankcase	1	1
	Left crankcase	1	1
715-C	Packing - Thrust bearing (Discontinued beginning with engine #620-17 on -A)	1	1
857-BA	Cone - Propeller hub, front	1	1
858-EC	Cone - Propeller hub, rear	1	1
861-GA	Nut - Propeller hub retaining	1	1
862-BA	Ring - Propeller hub snap	1	1
1102	Plug - Pipe, 1/8 x 3/8 in. long (socket)		
	Right crankcase	2	2
	Left crankcase	2	2
	Accessory housing	1	1
	Cylinders	2	2
	(Four more required for Cylinders when Priming System is not used)		
1182-K1	Spark plug - Auto-Lite SH-2K	12	12

+ Indicates oversize or undersize parts are available

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required Model	
		-A	-A2
1421-B	Cable - High tension	AR	AR
1540	Plug - Thermometer well (Replaced by 62744)	1	1
1549-C	Cap - Tachometer drive	1	1
1573-C	Nut - Spark plug union	12	12
1675	Fitting - Flanged cable	12	12
1675-B	Cone - Spark plug union (Replaced by 62713).	12	12
1892	Spring - Cylinder baffle	4	4
1892-M	Loom - Priming line	4	4
8313	Gasket - Vacuum pump	1	1
40507	Seal - Oil, 2-7/8 ID x 4 OD x 15/32 in. wide (Thrust bearing cap)(Replaces 715-C beginning with engine #620-17 on -A)	1	1
45187	Gasket - Oil filler plug	1	1
45786	Gasket - 3 bolt flange, 3-9/32 ID Generator	1	1
60007	Bolt - Connecting rod	12	12
60009	Key - Valve	24	24
60023	Bushing - Engine support	10	10
+ 60028	Guide - Valve	6	6
60053	Seal - Shroud tube	24	24
60069	Flange - Intake pipe, upper	6	6
60080	Plunger - Oil relief	1	1
60081	Plug - Oil relief valve	1	1
60096	Gasket - Fuel pump	1	1
+ 60118	Stud - 1/4-20 x 1 in long (drilled) oil pump cover Used on accessory housing #66689 on -A	6	6
60130	Gasket - Oil strainer cover	1	1
60131	Gasket - Two bolt flange, 1-3/4 ID Intake pipes	6	6
60193	Rocker assy - Valve Consists of * 1 60762 Rocker 1 60398 Bushing	12	12
60311	Plug - Piston pin	12	12
60329	Shaft - Oil pump idler	1	1
60354	Circlip - 5/16 ID x 1/32 dia. section Required when using Fuel Pump and Drive	1	
+ 60378	Ring - Piston, scraper (Discontinued on -A beginning with engine #554-17)	6	6
60398	Bushing - Valve rocker	12	12

+ Oversize or undersize parts are available

* Parts not serviced as details

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required Model	
		-A	-A2
60401	Shaft - Valve rocker	6	6
60403	Pin - Piston	6	6
60404	Cover - Oil screen		
	Oil sump	1	1
60407	Screen assy - Oil pressure		
	* 1 60406 Screen, inner * 1 60086 Ring		
	* 1 60405 Screen, outer		
60422	Screen - Oil suction		
	Oil sump.	1	1
60430	Cover - Vacuum pump	1	1
	Required when not using Vacuum Pump		
60433	Plug - Oil filler	1	1
60447	Tube - Crankshaft oil center	2	2
60448	Tube - Crankshaft oil end	2	2
60449	Tube - Crank pin oil	6	6
60480	Rod assy - Push (short - 3 groove).	AR	AR
	Consists of		
	* 1 60477 Rod * 2 65005 Ball end		
60481	Rod assy - Push (medium - 2 groove)	AR	AR
	Consists of		
	* 1 60478 Rod * 2 65005 Ball end		
60482	Rod assy - Push (long - 1 groove)	AR	AR
	Consists of		
	* 1 60479 Rod * 2 65005 Ball end		
A TOTAL OF 12 PUSH ROD ASSEMBLIES REQUIRED. SELECT FOR PROPER FIT.			
60491	Nameplate (Replaced by 61548 beginning with engine . # 554-17 on -A)	1	1
60510	Tube assy - Cylinder head oil drain	6	6
	Consists of		
	* 1 60509 Tube * 1 STD-1127 Sleeve		
	* 1 STD-1126 Nut		
60512	Plug - Accessory drive hole (Required when not using Vacuum Pump)	1	
60517	Gear - Starter	1	1
60518	Gear - Bendix drive	1	1
60532	Gasket - Accessory housing	1	1
60546	Shaft - Oil pump	1	1

* Parts not serviced as details

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required Model	
		-A	-A2
60547	Cover assy - Oil pump	1	
	Consists of		
	1 60548 Cover	1	
	1 60329 Shaft		
	1 STD-714 Pin		
	(Discontinued on engine #529-17, 531-17, 533-17, 534-17 and all from 538-17 on.)		
60548	Cover - Oil pump	1	
	(Discontinued beginning with engine #529-17, 531-17, 533-17, 534-17 and all from 538-17 on.)		
60549	Plunger - Fuel pump	1	
	Required for fuel pump		
60555	Gasket - Starter	1	1
60558	Ring - Retaining, vacuum pump gear	1	1
	Required when using Vacuum Pump or Drive		
60564	Bushing - Bendix drive gear		
	Left crankcase	1	1
60568	Slinger - Vacuum pump oil	1	1
	Required when using Vacuum Pump or Drive		
60577	Pump - Fuel (A.C. Type A H Model G.P. 9837	1	
	Replaced by 66910 beginning on engine #526-17.		
60578	Gasket - Bendix drive housing	1	1
60603	Flange - Intake pipe, lower.	6	6
60616	Shaft - Bendix drive	1	1
60621	Starter - 12 volt	1	1
	Delco-Remy part No. 1109652		
60622	Bushing - Generator gear	1	1
60654	Gear - Vacuum pump	1	1
	Required when using Vacuum Pump or Drive		
60655	Gear - Vacuum pump drive	1	1
	Required for Vacuum Pump Drive or Vacuum Pump		
	Used only on Camshaft assy 66044		
60710	Bracket - Upper baffle	1	1
+ 60729	Bearing - Crankshaft (Discontinued - Ending with engine #492-17A. Replaced by 60810)	8	
60747	Impeller - Oil pump driven	1	1
60778	Impeller - Oil pump driving	1	1
+ 60810	Bearing - Crankshaft (Replaces 60729 beginning with engine #492-17A)	8	
61165	Seal - Oil, tachometer drive	1	1
61246	Gasket - Rocker box cover.	6	6

+ Oversize or undersize parts available

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required Model	
		-A	-A2
61247	Cover - Rocker box	6	6
61259	Flange - Exhaust	6	
	Carbon steel. May be used in place of 61260.		
61260	Flange - Exhaust	6	6
	Stainless steel		
61294	Regulator - Voltage	1	
	Delco-Remy part No 1118383		
	To be used with 12 amp 12 volt Generator and negative grounded Battery only		
61339	Gear assy - Crankshaft & starting	1	1
	Consists of		
	* 1 61334 Gear		
	* 12 STD-144 Rivet		
	* 1 60515 Gear		
61369	Generator - 12 volts - 12 ampere	1	
	Delco-Remy part No 1101881		
61370	Cover assy - Oil pump (Replaces 66689 on engine	1	1
	#529-17, 531-17, 533-17, 534-17 and all from 538-17 on -A)		
	Consists of		
	1 61372 Cover		
	1 STD-714 Pin		
	1 60329 Shaft		
61371	Body - Oil pump (Used on -A from engine #529-17, 531-17, 533-17, 534-17, and all from 538-17 on.)	1	1
61372	Cover - Oil pump	1	1
61388	Regulator - Voltage 12 V 25 amp.	1	1
	Delco-Remy part No 1118263		
	Used with 12 volt, 25 amp Generator and negative grounded Battery only		
61389	Generator - 12 volt, 25 ampere	1	1
	Delco-Remy Part No. 1101882		
61440	Switch assy - Magnetic (Delco-Remy part No. 1909324)	1	1
	Consists of		
	* 1 60620 Switch		
	* 2 STD-758 Washer		
	* 1 60619 Connector		
	* 2 STD-757 Bolt		
61476	Rod assy - Connecting (Replaces 65820 beginning with engine #540-17)	6	
	Consists of		
	* 1 60313 Rod		
	2 60007 Bolt		
	1 65819 Bushing		
	2 STD-872 Nut		
61548	Name plate (Replaces 60491 beginning on engine # 554-17)	1	1

* Parts not serviced as details.

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		MODEL -A	-A2
61581-1	Tube assy - Primer (15 31 long - cylinder No. 5) (Replaces 65339)	1	1
61581-2	Tube assy - Primer (11.69 long - inter cylinder) (Replaces 65341)	2	2
61581-4	Tube assy - Primer (16.31 long - cylinder 3 & 6) (Replaces 65340)	2	2
61581-7	Tube assy - Primer (18 31 long - cylinder No 4) (Replaces 65338)	1	1
61597	Cap - Sealing		
	Priming line	1	1
+ 61662	Bearing - Connecting rod	12	12
+ 61631	Guide - Valve (alternate to 60028)	6	6
+ 61682	Guide - Exhaust valve (Alternate to 66529)	6	6
+ 62319	Piston (3 ring) Beginning with engine #554-17 (See note). 6		

NOTE

Engines with piston No. 62319 or 62719 must be serviced with Piston No 62719S individually or in complete sets.

Piston No. 66584 (Page 19), being a 4 ring piston, must be serviced with Piston No. 66584 individually or may be serviced with Piston No. 62719S in complete sets.

62713	Cone - Spark plug union (Replaces 1675-B)	12	12
62719	Piston - (3 ring) alternate and interchangeable with 62319 in sets (See part No 62319).	6	
+ 62719S	Piston - (3 ring) Service piston for 62319 or 62719 (See part No 62319)		
62744	Plug - Thermometer well (Replaces 1540)	1	1
+ 62915	Ring - Piston 2nd comp (Beginning with engine #554-17)	6	
+ 62916	Ring - Piston top comp (Beginning with engine #554-17)	6	
65006	Tube - Push rod shroud	12	12
65007	Retainer - Shroud tube seal		
	Right crankcase	6	6
	Left crankcase	6	6
65009	Tappet assy - Valve	12	12

(Continued on the next page)

+ Oversize or undersize parts available

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		-A	-A2
65009	Tappet assy - Valve (Continued)	12	12
	Consists of		
	1 65072 Body	1	1
	1 65073 Plunger		
65030	Shim - Thrust bearing cap.	1	1
+ 65042	Stud - 1/2-13 x 3-27/32 in. long		
	Right crankcase	2	2
65072	Body - Hydraulic tappet.	12	12
65073	Plunger assy - Hydraulic tappet	12	12
65074	Socket - Push rod, Hydraulic tappet.	12	12
65075	Magneto - Shielded	2	2
	Scintilla Part No. 10-22580-3 type SF6LN-8		
65098	Cover - Fuel pump	1	1
	Required on O-435-A when not using Fuel Pump		
65099	Gasket - Oil sump	1	1
65107	Spacer - Stud, fuel pump (Required when not using		
	Fuel Pump)	2	2
65114	Pipe - Intake, No. 1 and 6 cylinders	2	2
65115	Pipe - Intake, No. 2 and 5 cylinders	2	2
65116	Pipe - Intake, No. 3 and 4 cylinders	2	2
65321	Gasket - Exhaust flange	6	6
65330	Clip - Primer line	2	2
65331	Clamp - 1-1/2 ID with 1/4 in. dia. offset		
	Priming line	4	4
65347	Cap - Thrust bearing (Replaced by 67448 beginning	1	1
	with engine #620-17 on -A.)		
65356	Crankshaft assy	1	1
	Consists of		
	* 1 65354 Crankshaft	2	2
	6 60449 Tube	1	1
	2 60448 Tube	1	1
	60447 Tube		
	182-B Plug		
	STD-554 Dowel		
65366	Bearing thrust	1	1
65376	Baffle - Upper	1	1
65377	Gear - Crankshaft timing	1	1
65378	Gear - Camshaft	1	1
65398	Plug - Hex head, 1-1/4 x 1-20 thread		
	Oil sump	1	1
	Oil suction screen	1	1

+ Oversize or undersize parts available

* Parts not serviced as details

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required Model	
		-A	-A2
65399	Screen assy - Oil suction	1	1
	Consists of		
	1 60422 Screen		
	1 64398 Plug		
65409	Baffle assy - Cylinder, right front	1	1
	Consists of		
	* 1 65369 Baffle	* 4 STD-266 Rivet	
	* 1517 Support	* 1 65400 Bracket	
65410	Baffle assy - Cylinder, left front	1	1
	Consists of		
	* 1 65370 Baffle	* 4 STD-266 Rivet	
	* 1 1517 Support	* 1 65401 Bracket	
65411	Baffle assy - Cylinder right, rear	1	1
	Consists of		
	* 1 65371 Baffle	* 2 STD-266 Rivet	
	* 1 65403 Bracket		
65413	Baffle assy - Intercylinder.	4	4
	Consists of		
	* 1 65373 Baffle	* 1 65474 Baffle, auxiliary.	
	* 1 65405 Bracket	* 6 STD-266 Rivet	
	* 2 65407 Support		
65427	Spring - Valve, outer	12	12
65428	Spring - Valve, inner		12
65431	Shaft & drive assy - Bendix	1	1
	Consists of		
	1 65546 Drive assembly	1 STD-708 Pin	
	1 60616 Shaft		
65441	Seat - Valve spring, lower	12	12
65442	Seat - Valve spring	12	12
65444	Housing assy - Bendix drive	1	1
	Consists of		
	* 1 65444 Housing		
	3 25-11 Stud		
65445	Gasket - Detent support	1	1
65447	Support assy - Detent	1	1
	Consists of		
	* 1 65446 Support	* 1 65449 Spring	
	1 STD-346 Ring	* 1 65450 Retainer	
	* 1 65448 Detent	1 STD-184 Pin	

* Parts not serviced as details

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required Model	
		-A	-A2
65546	Drive assy - Bendix	1	1
65567	Spring - Valve auxiliary	12	12
65614	Plug - Baffle attaching	4	4
65628	Clamp - Ignition cable (cylinders, 1 and 2)	4	4
65663	Ring - Piston, top compression (Replaced by 62916 beginning with engine #554-17)	6	
65664	Ring - Piston, 2nd compression (Replaced by 62915 -A beginning with engine #554-17)	6	6
65692	Grommet - Ignition cable plate	2	2
65701	Gasket - Carburetor	1	1
65703	Spring - Oil relief valve		
	Crankcase	1	
	Oil sump.	1	
65704	Plunger - Oil by-pass		
	Oil sump.	1	1
65705	Plug - Oil by-pass		
	Oil sump.	1	1
65734	Bearing - Magneto drive	2	2
65763	Insert - Spark plug 18-1.5 MM (Replaced by 66796)	12	12
65769	Baffle assy - Cylinder, left rear	1	1
	Consists of		
	* 1 65372 Baffle		
	* 1 65768 Support		
	* 2 STD-266 Rivet		
65819	Bushing - Connecting rod, upper	6	6
65820	Rod assy - Connecting (Replaced by 61476 on -A beginning with engine #540-17)	6	6
	Consists of		
	* 1 65811 Rod		
	1 65819 Bushing		
	2 STD-872 Nut		
	2 60007 Bolt		
65883	Clamp - Cylinder baffle	4	4
66044	Camshaft assy.	1	1
	Consists of		
	* 1 65091 Camshaft		
	1 STD-1065 Dowel		
	Required with vacuum pump and drive		
66045	Camshaft assy.	1	
	Consists of		
	* 1 65091 Camshaft		
	1 STD-1066 Dowel		
	Required when no vacuum pump or drive is used		

* Parts not serviced as details

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		Model -A	Model -A2
66144	Lock plate - 5/16 hole x 1-21/64 in spacing		
	Camshaft	2	2
66145	Dowel - 1/2 dia x 1/2 in long		
	Crankcase	2	2
	Crankshaft	2	2
66146	Lockplate - 5/16 holes x 1-13/64 in spacing		
	Crankshaft and timing gear	2	2
66220	Clamp - 1-1/2 ID x 11/32 dia offset		
	Ignition cable	6	6
66222	Gasket - Magneto adapter	2	2
66429	Valve - Intake	6	6
66446	Cage - Thrust bearing	1	1
66458	Carburetor	1	
	Marvel Schebler Part No. 10-2827 Model MA4-5		
66514	Spring - Magneto coupling	8	8
66515	Spacer - Magneto drive coupling	8	8
66516	Spacer - Magneto coupling spring	16	16
66517	Retainer - Magneto coupling	2	2
66518	Flange - Magneto shaft coupling	2	2
66519	Coupling assy - Magneto	2	2
	Consists of		
	1 66520 Flange	8 66516	Spacer
	4 66514 Spring	4 66515	Spacer
	1 66518 Flange	1 66521	Sleeve
	1 66517 Retainer		
66520	Flange - Magneto coupling drive	2	2
66521	Flange - Magneto drive coupling	2	2
+66527	Seat - Exhaust valve	6	6
+66528	Seat - Intake valve	6	6
+66529	Guide - Exhaust valve	6	6
66531	Valve - Exhaust	6	6
66584	Piston (4 ring)(Ending with engine #553-17) (See Part Number 62319)	6	
66593	Plate - Ignition cable	2	2
66610	Bushing - Rocker shaft		
	Cylinder	24	24
66650	Gear - Magneto	2	2
66655	Adapter - Magneto	2	2

+ Oversize or undersize parts are available

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		-A	-A2
66663	Shaft assy - Tachometer	1	1
	Consists of		
	* 1 66664 Shaft		
	* 1 60463 Tube		
66675	Sump assy - Oil	1	1
	Consists of		
	* 1 66674 Sump	12 25-12 Stud	
	1 STD-355 Plug	4 25-11 Stud	
	4 31D-14 Stud	2 31-12 Stud	
	1 STD-405 Plug	1 STD-431 Plug	
	2 STD-91 Plug	2 31-10 Stud	
	1 STD-862 Plug		
66676	Clip - Ignition cable (3 way)	2	2
66677	Clip - Ignition cable (6 way)	1	1
66680	Crankcase assy - Complete	1	
	(Replaces Part No. 66809 beginning with engine		
	No 492-17A)		
	Consists of		
	* 1 66678 Crankcase assy - Right		
	Consisting of		
	2 STD-557 Dowel	2 66734 Stud	
	4 STD-1290 Insert	2 65042 Stud	
	4 66733 Stud	6 50-15 Stud	
	12 38-13 Stud	3 38D-19 Stud	
	4 38-19 Stud	1 STD-242 Bushing	
	9 25-13 Stud	2 25-8 Stud	
	2 1102 Plug	6 65007 Retainer	
	1 703-AA Eye	3 31-12 Stud	
	* 1 66661 Crankcase		
	* 1 66679 Crankcase assy - Left		
	consisting of		
	4 STD-1290 Insert	6 65007 Retainer	
	2 66734 Stud	12 38-13 Stud	
	6 50-15 Stud	3 31-12 Stud	
	1 38D-19 Stud	1 703-AA Eye	
	2 25-8 Stud	1 1102 Plug	
	1 STD-1111 Elbow		
	2 66145 Dowel		
	1 STD-760 Dowel		
	1 STD-47 Plug (Continued on the next page)		

* Parts not serviced as details

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		-A	-A2
66680	Crankcase assy - Complete (Continued)	1	
	1 1102 Plug		
	1 STD-682 Plug		
	21 25-11 Stud		
	4 25-16 Stud		
	2 25-21 Stud		
	1 25D-10 Stud		
	2 25-18 Stud		
	1 60564 Bushing		
66681	Cylinder & Head assy	6	6
	Consists of		
	* 1 60498 Barrel	2 66796 Insert	
	* 1 66656 Head	4 66610 Bushing	
	1 66528 Seat	4 31-11 Stud	
	1 66527 Seat	4 25-12 Stud	
	1 66529 Guide	1 STD-700 Elbow	
66687	Pump - Vacuum (Pesco type B-2A, Model 3P-194-E	1	
	Optional on O-435-A		
66689	Housing assy - Accessory (Replaced by 66709 on engine		
	#529-17, 531-17, 533-17, 534-17 and all from 538-17		
	on.	1	
	Consists of		
	* 1 66690 Housing	6 60118 Stud	
	3 STD-56 Bushing	1 60121 Stud	
	1 STD-119 Plug	4 60473 Stud	
	4 STD-242 Bushing	2 60585 Stud	
	1 1102 Plug	3 65044 Stud	
	5 60106 Stud	4 65045 Stud	
66692	Cable assy - Shielded	1	1
	Consists of		
	12 235 Sleeve	2 65692 Grommet	
	AR 1421 Cable	2 66593 Plate	
	12 1675 Fitting	12 66752 Elbow	
		assy.	
	12 Ferrule		
	12 Tip		
	12 Cap		
		MAGNETO PARTS REQUIRED	
		FOR CABLE ASSEMBLY	
66706	Gage assy - Oil level	1	
	Consists of		
	(Continued on the next page)		

* Parts not serviced as details

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		Model -A	-A2
66706	Gage assy - Oil level (Continued)	1	
	* 1 66707 Gage		
	* 1 60335 Knob		
	To be used when not tricycle mounted		
66709	Housing assy - Accessory (Replaced 66689 on -A beginning with engine #529-17, 531-17, 532-17, 534-17, and all from 538-17 on)	1	1
	Consists of		
	* 1 66669 Housing	4	STD-242 Bushing
	3 STD-56 Bushing	2	38-17 Stud
	4 38-16 Stud	3	31-12 Stud
	4 25-10 Stud	5	25-11 Stud
	4 31D-16 Stud	1	STD-119 Plug
	1 1102 Plug	1	25-8 Stud
	* 1 66583 Tube	1	STD-71 Plug
+ 66733	Stud - 9/16-18 x 10-21/32 in. long		
	Right crankcase	4	4
+ 66734	Stud - 1/2-13 x 9-7/8 in. long		
	Right crankcase	2	2
	Left crankcase	2	2
66752	Elbow assy - Spark plug	12	12
	Consists of		
	* 1 65302 Elbow		
	1 1573 Nut		
	1 62713 Cone		
+ 66796	Insert - Spark plug 18-1.5 MM (Replaces 65763)	12	12
+ 66802	Ring - Piston, oil regulating, No. 3 (Discontinued on -A beginning with engine #554-17)(Replaced by 67540)	6	6
66809	Crankcase assy - Complete	1	
	Discontinued - Engine with engine No. 492-17A Replaced by part No. 66680		
	Consists of		
	* 1 66532 Crankcase assy - Right		
	Consisting of		
	1 STD-242 Bushing	12	60373 Stud
	1 STD-257 Dowel	6	60376 Stud
	4 STD-1290 Insert	6	65007 Retainer
	1 703-AA Eye	2	65042 Stud
	(Continued on the next page)		
	+ Oversize or undersize parts available		
	* Parts not serviced as details		

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		-A	-A2
66809	Crankcase assy - Complete (Continued)	1	
	2 1102 Plug	3 65064 Stud	
	4 60105 Stud	4 66444 Stud	
	6 60108 Stud	2 66445 Stud	
	2 60121 Stud	* 1 66522 Crankcase	
	3 60123 Stud		
	* 1 66533 Crankcase assy - Left		
	Consisting of		
	4 STD-1290 Insert	6 60376 Stud	
	1 703-AA Eye	6 65007 Retainer	
	1 1102 Plug	3 65064 Stud	
	2 60121 Stud	2 66445 Stud	
	1 60123 Stud	* 66523 Crankcase	
	12 60373 Stud		
	1 STD-47 Plug		
	1 STD-682 Plug		
	1 STD-760 Dowel		
	1 STD-1111 Elbow		
	1 1102 Plug		
	1 60106 Stud		
	4 60107 Stud		
	20 60109 Stud		
	2 60570 Stud		
	1 60571 Stud		
	1 65170 Stud		
	1 66145 Dowel		
66825	Washer - 1 OD x 13/32 x 3/32 in. thick		
	Generator drive coupling	1	1
66827	Adapter - Generator drive coupling	1	1
66828	Button - Generator coupling drive	6	6
66829	Gear assy - Generator coupling	1	1
	Consists of		
	1 60622 Bushing		
	* 1 66826 Gear		
+66861	Piston		6
66865	Crankcase assy - Complete		1
	Consists of		
	* 1 66864 Crankcase assy - Right		
	(Continued on the next page)		

* Parts not serviced as details

+ Oversize or undersize parts available

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		-A	-A2
66865	Crankcase assy - Complete (Continued)		1
	Consisting of		
	2 STD-557 Dowel	3 38D-19 Stud	
	4 STD-1290 Insert	4 38-19 Stud	
	4 66733 Stud	1 STD-242 Bushing	
	2 66734 Stud	9 25-13 Stud	
	2 65042 Stud	2 25-8 Stud	
	6 50-15 Stud	2 1102 Plug	
	6 65007 Retainer	1 703-AA Eye	
	12 38-13 Stud	* 1 66867 Crankcase	
	3 31-12 Stud		
	* 1 66863 Crankcase assy - Left		
	Consisting of		
	4 STD-1290 Insert	2 25-8 Stud	
	2 66734 Stud	1 703-AA Eye	
	6 50-15 Stud	6 65007 Retainer	
	12 38-13 Stud	1 1102 Plug	
	1 38D-19 Stud	* 1 66866 Crankcase	
	3 31-12 Stud		
	8 67453 Dowel		
	2 66145 Dowel		
	1 STD-760 Dowel		
	1 STD-47 Dowel		
	1 1102 Plug		
	1 STD-1111 Elbow		
	1 STD-682 Plug		
	1 25-11 Stud		
	4 25-16 Stud		
	20 25-11 Stud		
	2 25-21 Stud		
	1 25D-10 Stud		
	2 25-18 Stud		
	1 60564 Bushing		
66869	Carburetor		1
	Marvel Schebler part No. 10-3323 Model MA4-5		
66910	Pump - Fuel (Replaces 60577 beginning engine #526-17	1	
	A-C Spark Plug Co. part No. GP-17773, type A-H		
66922	Spring - Oil pressure relief valve		
	Crankcase		1
	Oil sump.		1

* Parts not serviced as details

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL PARTS LIST

Part No.	Part Name	No. Required	
		-A	-A2
66969	Gage assy - Oil level Consists of * 1 66968 Gage * 1 60335 Knob Used for tricycle installation	1	1
+67432	Ring - Piston, top compression		6
+67447	Bearing - Crankshaft		8
67448	Cap and ring assy - Thrust bearing (Replaces 65347 beginning with engine #620-17 on -A) Consists of * 1 67451 Cap * 1 40504 Ring	1	1
67450	Spacer - Thrust bearing (Beginning with engine 620-17)	1	1
67452	Cap assy - Thrust bearing (Replaces 65347 beginning engine #620-17 on -A) Consists of 1 67448 Cap and ring assy 1 40507 Seal	1	1
67453	Dowel - Crankshaft bearing Crankcase		8
67498	Ring - Oil seal, 3/16 section x 4-27/32 ID Cylinder base		6
67546	Installation - Thermocouple (copper - Constantan AN type) (May be used in place of 61646)	6	6
67540	Ring - Piston, Oil regulating No. 3 (Replaced 66802 beginning with engine #554-17)	6	

* Parts not serviced as details .

+ Indicates oversize and undersize parts are available

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINE

NUMERICAL STANDARD PARTS LIST

Part No.	Part Name	No. Required	
		MODEL -A	-A2
STD-8	Washer - Plain, 1/4 in		
	Bendix drive housing	3	3
	Detent support assy	3	3
	Propeller hub retaining nut	1	1
	Intake pipe	24	24
	Oil screen cover	4	4
	Oil sump	24	24
	Vacuum pump or cover	4	4
	Accessory housing	12	12
	Crankcase	9	9
STD-9	Nut - Plain, 1/4-28		
	Ignition cable clip.	3	3
	Detent support assy	3	3
	Accessory housing	11	11
	Crankcase	9	9
	Oil screen cover	4	4
	Oil sump.	20	20
	Vacuum pump or cover	4	4
	Bendix drive housing	3	3
	Intake pipes	24	24
STD-15	Nut - Slotted shear, 3/8-24		
	Generator drive coupling	1	1
STD-28	Washer - Plain, No. 10		
	Upper baffle	28	28
	Baffle attaching plug	4	4
	Ignition cable	8	8
	Baffle clamp	4	4
STD-29	Screw - Round head, 10-32 x 3/8 in. long		
	Ignition cable	4	4
	Upper baffle	14	14
STD-33	Washer - Plain, 3/8 in.		
	Fuel pump or cover	4	4
	Thrust bearing cap	6	6
	Crankcase	8	8
STD-35	Washer - Plain, 5/16 in.		
	Carburetor	4	4
	Starter	3	3
	Oil pump	4	4
	Exhaust flanges	12	12
	Generator	3	3
STD-36	Locknut - Palnut, 5/16 in.		
	Carburetor	4	4

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINE

NUMERICAL STANDARD PARTS LIST

Part No.	Part Name	No. Required MODEL	
		-A	-A2
STD-37	Nut - Plain, 5 16-24		
	Exhaust flanges	12	12
	Magneto	4	4
	Generator	3	3
	Carburetor	4	4
STD-39	Locknut - Palnut, 3/8 in.		
	Cylinder	24	24
STD-47	Plug - Pipe, 1/4 in. (Allen)		
	Accessory housing	1	1
	Crankcase	1	1
STD-50	Nut - Slotted shear, 5/16-24		
	Oil pump	4	4
	Carburetor	4	4
STD-56	Bushing - Screw, 9/16-18 OD x 5/16-24 ID		
	Accessory housing	3	3
STD-63	Nut - Plain, 10-32		
	Upper baffle	14	14
	Baffle clamp	8	8
	Ignition cable	8	8
STD-65	Pin - Flat head, 1/4 dia. x 17/32 in. long		
	Propeller hub retaining nut	1	1
STD-68	Pin - Cotter, 1/16 dia. x 1/2 in. long		
	Propeller hub retaining nut	1	1
STD-71	Plug - Pipe, 3/8 in. (Allen)		
	Accessory housing	1	1
STD-91	Plug - Pipe, 1/2 in. (Allen)		
	Oil sump	2	2
STD-97	Nut - Slotted 1/4-28		
	Accessory housing	1	1
STD-111	Gasket - Annular 1 in ID x 1-1/4 OD x 3/32 section		
	Oil screen plug	1	1
STD-119	Plug - Pipe, 1/4 in dia. x 1/4 in. long		
	Accessory housing	1	1
STD-143	Washer - Plain, 1/2 in.		
	Crankcase	2	2
STD-160	Washer - Shakeproof lock, 1/4 in		
	Ignition cable clip	3	3
	Bendix drive housing	3	3
	Detent support assy	3	3
	Vacuum pump cover	4	4
	Rocker box cover	36	36
	Right rear baffle (Continued on next page)	1	1

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINE

NUMERICAL STANDARD PARTS LIST

Part No.	Part Name	No. Required MODEL	
		-A	-A2
STD-160	Washer - Shakeproof lock, 1/4 in. (Continued)		
	Intake pipes.	24	24
	Crankcase	9	9
	Accessory housing	11	11
	Oil screen cover	4	4
	Oil sump	24	24
STD-164	Lockwire	AR	AR
STD-184	Pin - Taper, No. 0000 x 5/8 in. long		
	Detent spring retainer	1	1
STD-242	Bushing - Screw, 7/16-20 OD x 1/4-28 ID		
	Right crankcase	1	1
	Accessory housing	4	4
STD-243	Washer - Plain, No. 6		
	Ignition cable clamp	6	6
	Priming line clamp	4	4
STD-251	Washer - Lock, No. 10		
	Ignition cable	8	8
	Upper baffle.	14	14
STD-252	Washer - 47/64 OD x 11/32 ID x 1/16 section		
	Magneto	4	4
STD-258	Nut - Plain, 6-32		
	Ignition cable clamp	6	6
	Priming line clamp	4	4
STD-279	Screw - Hex head, 5/16-24 x 1 (drilled)		
	Starter	3	3
STD-294	Gasket - Annular, 7/8 OD x 5/8 ID x 3/32 section		
	Thermometer well plug.	1	1
STD-336	Seal - Oil, 3/32 section x 15/32 ID		
	Crankcases.	10	10
STD-346	Ring - Oil seal, 5/64 dia. section x 3/8 ID		
	Detent support assy	1	1
STD-347	Hose - 3/8 ID x 1-13/16 in. long		
	Cylinder drain tubes.	6	6
STD-348	Clamp - Hose, 11/16 x 1/2 in. wide		
	Cylinder drain tubes	12	12
STD-355	Plug - Pipe, 3/4 in. (Allen)		
	Oil sump.	1	1
STD-405	Plug - Pipe, 1/8 in. (Square head, drilled)		
	Oil sump	1	1
STD-431	Plug - Pipe, 1/8 in. (Slotted)		
	Oil sump.	1	1

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINE

NUMERICAL STANDARD PARTS LIST

Part No.	Part Name	No. Required MODEL	
		-A	-A2
STD-473	Screw - Hex head, 1/4-28 x 5/8 in. long		
	Right rear baffle	1	1
STD-475	Washer - Shakeproof lock, 5/16 in.		
	Generator	3	3
	Exhaust flange	12	12
	Magneto	4	4
STD-488	Washer - 13/64 ID x 17/32 OD x 1/16 in. thick		
	Baffle clamp	8	8
STD-528	Nut - Plain, 1/2-20		
	Cylinders	24	24
	Crankcase	2	2
STD-529	Locknut - Palnut, 1/2 in.		
	Cylinders	24	24
STD-543	Pin - Cotter, 3/32 dia x 5/8 in. long		
	Connecting rod bolts	12	12
STD-546	Nipple - Primer	4	4
STD-553	Screw - Round head, 6-32 x 1/2 in. long		
	Ignition cable clamp	6	6
	Priming line clamp	4	4
STD-554	Dowel - 1/4 dia x 9/32 in. long		
	Crankshaft	1	1
STD-557	Dowel - Hollow, 1/2 dia x 11/16 in. long		
	Right crankcase	2	2
STD-589	Gasket - Annular, 1-1/8 OD x 29/32 in. 1/16		
	Oil by-pass plug	1	1
	Oil relief valve	1	1
STD-596	Nut - Plain, 3/8-24		
	Crankcase	4	4
	Fuel pump or cover	2	2
STD-599	Screw - Self tapping round head, No. 2		
	Name plate	4	4
STD-619	Washer - 17/32 ID x 1-3/4 OD x 11/64 thick		
	Engine support bushing	10	10
STD-677	Washer - Shakeproof lock, 1/2 in.		
	Crankcase	2	2
STD-678	Washer - Shakeproof lock, 3/8 in.		
	Crankcase	4	4
	Fuel pump or cover		
STD-679	Screw - 5/16-24 x 27/64 in. long		
	Camshaft gear	4	
	Required when using camshaft assy 66045		

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINE

NUMERICAL STANDARD PARTS LIST

Part No.	Part Name	No. Required MODEL	
		-A	-A2
STD-681	Key - Woodruff, 3/32 x 5/8 in.		
	Oil pump impeller	1	1
STD-682	Plug - Pipe, 1/8 in. (Allen)		
	Crankcase	1	1
STD-684	Nipple - Hose, straight 3/8 in		
	Cylinder head oil drain tubes	6	6
STD-692	Screw - Round head, 10-32 x 1/2 in. long		
	Ignition cable	4	4
STD-697	Screw - 3/8-24 x 1-3/16 long, drilled		
	Thrust bearing cap	6	6
STD-700	Elbow - Coupling, 3/8 flared tube		
	Cylinder	6	6
STD-703	Screw - 5/16-24 x 37/64 in. long		
	Camshaft gear	4	4
	Required when using camshaft assy 66044		
STD-707	Screw - 5/16-24 x 11/16 in. long		
	Crankshaft and timing gear	4	4
STD-708	Pin - 1/4 dia x 1 109 in. long		
	Bendix drive shaft	1	1
STD-713	Pin - Cotter, 3/32 dia x 3/4 in. long		
	Generator gear	1	1
STD-714	Pin - Cotter, 1/8 dia x 1 on. long		
	Oil pump idler shaft	1	1
STD-717	Ring - 1/8 dia section x 1-1/2 ID		
	Intake pipe flange, lower	6	6
STD-760	Dowel - 3/32 dia x 5/8 in. long		
	Crankcase	1	1
STD-853	Tee - Union, 1/8 in. tube		
	Priming lines	3	3
STD-858	Key - Woodruff, 5/8 x 5/32		
	Crankshaft gear	1	1
STD-862	Plug - Pipe, 1/2 in. (Square head, drilled)		
	Oil sump	1	1
STD-872	Nut - Slotted, 3/8-24		
	Connecting rod.	12	12
	Crankcase	4	4
STD-921	Screw		
	Baffle attaching plug	4	4
STD-953	Grommet - 9/16 ID		
	Unshielded cable only	2	
STD-960	Circlip - 1-1/4 in. OD		
	Magneto drive gear	2	2

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINE

NUMERICAL STANDARD PARTS LIST

Part No.	Part Name	No. Required	
		MODEL -A	-A2
STD-961	Lock ring - 2-23/64 x 1 16 thick x 3/32		
	Magneto adapter	2	2
STD-1065	Dowel - Stepped, 5/16 and 1/4 dia x 35/64 in. long		
	Used only on camshaft No. 66044	1	1
STD-1066	Dowel - Stepped, 5/16 x 1/4 dia x 13/32 in. long		
	Camshaft	1	
	Used on camshaft assy 66045 only		
STD-1111	Elbow - Pipe, 3/4 x 3/4 hose x 90°		
	Left crankcase	1	1
STD-1290	Insert - Heli-coil, 3/8-24 x 3/4 in. long		
	Right crankcase	4	4
	Left crankcase.	4	4
STD-1412	Screw - Fillister head, 1/4-20 x 5/8 in. long		
	Rocker box cover	36	36
STD-1679	Bolt - Hex head, 1/4-28 x 1 in long		
	Oil sump	4	4

SERVICE TOOLS LIST

61468	Kit assy - Tool	1
	Consists of	
	1 61678 Bar - Wrench	
1	1 61459 Socket - Spark plug wrench 11/16 x 7/8 hex	
	1 1130 Compressor - Valve spring	
	1 1155 Wrench 1-1/4 hex	
	1 45902 Container - Tool	
	1 61551 Wrench - Cyl. hold down nut 3/4 hex	
	1 61550 Wrench - Cyl hold down nut 9/16 hex	
	1 65525 Socket - Universal joint, 7/16 hex	
	1 65526 Socket - Universal joint, 1/2 hex	
	1 65528 Gage - Valve clearance	
	1 61552 Extension - Cyl hold down nut wrench	

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL OVERSIZE AND UNDERSIZE PARTS LIST

Part No.	Part Name	Oversize and Undersize
25-8-P03	Stud - 1/4-20 x 1 in. long	+ .003
25-8-P07	Stud - 1/4-20 x 1 in. long	+ .007
25-8-P12	Stud - 1/4-20 x 1 in. long	+ .012
25-10-P03	Stud - 1/4-20 x 1-1/4 in. long	+ .003
25-10-P07	Stud - 1/4-20 x 1-1/4 in. long	+ .007
25-10-P12	Stud - 1/4-20 x 1-1/4 in. long	+ .012
25D-10-P03	Stud - 1/4-20 x 1-1/4 in. long (drilled)	+ .003
25D-10-P07	Stud - 1/4-20 x 1-1/4 in. long (drilled)	+ .007
25D-10-P12	Stud - 1/4-20 x 1-1/4 in. long (drilled)	+ .012
25-11-P03	Stud - 1/4-20 x 1-3/8 in. long	+ .003
25-11-P07	Stud - 1/4-20 x 1-3/8 in. long	+ .007
25-11-P12	Stud - 1/4-20 x 1-3/8 in. long	+ .012
25-12-P03	Stud - 1/4-20 x 1-1/2 in. long	+ .003
25-12-P07	Stud - 1/4-20 x 1-1/2 in. long	+ .007
25-12-P12	Stud - 1/4-20 x 1-1/2 in. long	+ .012
25-13-P03	Stud - 1/4-20 x 1-5/8 in. long	+ .003
25-13-P07	Stud - 1/4-20 x 1-5/8 in. long	+ .007
25-13-P12	Stud - 1/4-20 x 1-5/8 in. long	+ .012
25-16-P03	Stud - 1/4-20 x 2 in. long	+ .003
25-16-P07	Stud - 1/4-20 x 2 in. long	+ .007
25-16-P12	Stud - 1/4-20 x 2 in. long	+ .012
25-18-P03	Stud - 1/4-20 x 2-1/4 in. long	+ .003
25-18-P07	Stud - 1/4-20 x 2-1/4 in. long	+ .007
25-18-P12	Stud - 1/4-20 x 2-1/4 in. long	+ .012
25-21-P03	Stud - 1/4-20 x 2-5/8 in. long	+ .003
25-21-P07	Stud - 1/4-20 x 2-5/8 in. long	+ .007
25-21-P12	Stud - 1/4-20 x 2-5/8 in. long	+ .012
31-10-P03	Stud - 5/16-18 x 1-1/4 in. long	+ .003
31-10-P07	Stud - 5/16-18 x 1-1/4 in. long	+ .007
31-10-P12	Stud - 5/16-18 x 1-1/4 in. long	+ .012
31-11-P03	Stud - 5/16-18 x 1-3/8 in. long	+ .003
31-11-P07	Stud - 5/16-18 x 1-3/8 in. long	+ .007
31-11-P12	Stud - 5/16-18 x 1-3/8 in. long	+ .012
31-12-P03	Stud - 5/16-18 x 1-1/2 in. long	+ .003
31-12-P07	Stud - 5/16-18 x 1-1/2 in. long	+ .007
31-12-P12	Stud - 5/16-18 x 1-1/2 in. long	+ .012
31D-14-P03	Stud - 5/16-18 x 1-3/4 in. long	+ .003
31D-14-P07	Stud - 5/16-18 x 1-3/4 in. long	+ .007
31D-14-P12	Stud - 5/16-18 x 1-3/4 in. long	+ .012
31-16-P03	Stud - 5/16-18 x 2 in. long	+ .003
31-16-P07	Stud - 5/16-18 x 2 in. long	+ .007
31-16-P12	Stud - 5/16-18 x 2 in. long	+ .012
31D-16-P03	Stud - 5/16-18 x 2 in. long (drilled)	+ .003

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

NUMERICAL OVERSIZE AND UNDERSIZE PARTS LIST

Part No	Part Name	Oversize and Undersize
31D-16-P07	Stud - 5/16-18 x 2 in long (drilled)	+ .007
31D-16-P12	Stud - 5/16-18 x 2 in long (drilled)	+ .012
38-13-P03	Stud - 3/8-16 x 1-5/8 in long	+ .003
38-13-P07	Stud - 3/8-16 x 1-5/8 in long	+ .007
38-13-P12	Stud - 3/8-16 x 1-5/8 in long	+ .012
38-17-P03	Stud - 3/8-16 x 2-1/8 in long	+ .003
38-17-P07	Stud - 3/8-16 x 2-1/8 in long	+ .007
38-17-P12	Stud - 3/8-16 x 2-1/8 in long	+ .012
38-19-P03	Stud - 3/8-16 x 2-3/8 in long	+ .003
38-19-P07	Stud - 3/8-16 x 2-3/8 in long	+ .007
38-19-P12	Stud - 3/8-16 x 2-3/8 in long	+ .012
38D-19-P03	Stud - 3/8-16 x 2-3/8 in long (drilled)	+ .003
38D-19-P07	Stud - 3/8-16 x 2-3/8 in long (drilled)	+ .007
38D-19-P12	Stud - 3/8-16 x 2-3/8 in long (drilled)	+ .012
50-15-P03	Stud - 1/2-13 x 1-7/8 in long	+ .003
50-15-P07	Stud - 1/2-13 x 1-7/8 in long	+ .007
50-15-P12	Stud - 1/2-13 x 1-7/8 in long	+ .012
60028-P05	Guide - Valve	+ .005
60028-P10	Guide - Valve	+ .010
60028-P20	Guide - Valve	+ .020
60378-P10	Ring - Piston, oil scraper	+ .010
60378-P20	Ring - Piston, oil scraper	+ .020
60729-M03	Bearing - Crankshaft	-.003
60729-M10	Bearing - Crankshaft	-.010
60810-M03	Bearing - Crankshaft	-.003
60810-M10	Bearing - Crankshaft	-.010
61662-M03	Bearing - Connecting rod	-.003
61662-M10	Bearing - Connecting rod	-.010
61681-P05	Guide - Valve	+ .005
61681-P10	Guide - Valve	+ .010
61681-P20	Guide - Valve	+ .020
61682-P05	Guide - Valve, exhaust	+ .005
61682-P10	Guide - Valve, exhaust	+ .010
61682-P20	Guide - Valve, exhaust	+ .020
62719S-P10	Piston	+ .010
62719S-P20	Piston	+ .020
62326-P10	Ring - Piston, top compression	+ .010
62326-P20	Ring - Piston, top compression	+ .020
62915-P10	Ring - Piston, 2nd compression	+ .010
62915-P20	Ring - Piston, 2nd compression	+ .020
62916-P10	Ring - Piston, top compression	+ .010
62916-P20	Ring - Piston, top compression	+ .020
65042-P03	Stud - 1/2-13 x 3-27/32 in. long	+ .003

LYCOMING MODEL O-435-AND O-435-A2 AVIATION ENGINES

NUMERICAL OVERSIZE AND UNDERSIZE PARTS LIST

Part No.	Part Name	Oversize and Undersize
65042-P07	Stud - 1/2-13 x 3-27/32 in. long	+ .007
65042-P12	Stud - 1/2-13 x 3-27/32 in. long	+ .012
65663-P10	Ring - Piston, top compression	+ .010
65663-P20	Ring - Piston, top compression	+ .020
65664-P10	Ring - Piston, 2nd compression	+ .010
65664-P20	Ring - Piston, 2nd compression	+ .020
66527-P10	Seat - Valve, exhaust	+ .010
66527-P20	Seat - Valve, exhaust	+ .020
66527-P50	Seat - Valve, exhaust	+ .050
66528-P10	Seat - Valve, intake	+ .010
66528-P20	Seat - Valve, intake	+ .020
66528-P50	Seat - Valve, intake	+ .050
66529-P05	Guide - Valve, exhaust	+ .005
66529-P10	Guide - Valve, exhaust	+ .010
66529-P20	Guide - Valve, exhaust	+ .020
66733-P03	Stud - 9/16-18 x 10-21/32 in. long	+ .003
66733-P07	Stud - 9/16-18 x 10-21/32 in. long	+ .007
66733-P12	Stud - 9/16-18 x 10-21/32 in. long	+ .012
66734-P03	Stud - 1/2-13 x 9-7/8 in. long	+ .003
66734-P07	Stud - 1/2-13 x 9-7/8 in. long	+ .007
66734-P12	Stud - 1/2-13 x 9-7/8 in. long	+ .012
66802-P10	Ring - Piston, oil regulating, No. 3	+ .010
66802-P20	Ring - Piston, oil regulating, No. 3	+ .020
66861-P10	Piston	+ .010
66861-P20	Piston	+ .020
67432-P10	Ring - Piston, top compression	+ .010
67432-P20	Ring - Piston, top compression	+ .020
67447-M03	Bearing - Crankshaft	- .003
67447-M10	Bearing - Crankshaft	- .010
67540-P10	Ring - Piston, oil regulating # 3	+ .010
67540-P20	Ring - Piston, oil regulating # 3	+ .020

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

ALPHABETICAL PARTS LIST

Part Name	Part No
A	
Adapter - Generator drive coupling	66827
Adapter - Magneto	66655
B	
Baffle - Upper	65376
Baffle assy - Cylinder, left front	65410
Baffle assy - Cylinder, left rear	65769
Baffle assy - Cylinder, right front	65409
Baffle assy - Cylinder, right rear	65411
Baffle assy - Intercylinder	65413
Bearing - Connecting rod	61662
Bearing - Crankshaft	60729
Bearing - Crankshaft	60810
Bearing - Crankshaft	67447
Bearing - Magneto drive	65734
Bearing thrust	65366
Body - Oil pump	61371
Bolt - Connecting rod	60007
Bolt - Hex head, 10-32 x 2-7/8 in long	107-B
Bolt - Hex head, 1/4-28 x 1 in. long	STD-1679
Bracket - Upper baffle	60710
Bushing - Bendix drive gear	60564
Bushing - Connecting rod, upper	65819
Bushing - Engine support	60023
Bushing - Generator gear	60622
Bushing - Rocker shaft	66610
Bushing - Screw - 7/16-20 x 1/4-28 ID	STD-242
Bushing - Screw 9/16-18 OD x 5/16-24 ID	STD-56
Bushing - Valve rocker	60398
Button - Generator coupling drive	66828
C	
Cable - High tension	1421-B
Cable assy - Shielded	66692
Cage - Thrust bearing	66446
Camshaft assy	66044
Camshaft assy	66045
Cap - Sealing	61597
Cap assy - Thrust bearing	67452
Cap and ring assy - Thrust bearing	67448
Carburetor	66458
Carburetor	66869
Circlip - 5/16 ID x 1/32 dia section	60354
Circlip - 1-1/4 in. OD	STD-960

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

ALPHABETICAL PARTS LIST

Part Name	Part No.
Clamp - 1-1/2 ID with 1/4 in. dia offset	65331
Clamp - 1-1/2 ID with 11/32 dia. offset	66220
Clamp - Cylinder baffle	65883
Clamp - Hose, 11/16 x 1/2 in. wide	STD-348
Clamp - Ignition cable, cylinders 1 and 2	65628
Clip - Ignition cable, 3 way	66676
Clip - Ignition cable, 6 way	66677
Clip - Primer line	65530
Cone - Propeller hub, front	857-BA
Coupling assy - Magneto	66519
Cover - Fuel pump	65098
Cone - Propeller hub, rear	858-EC
Cover - Oil screen	60404
Cover - Rocker box	61247
Cover - Vacuum pump	60430
Cover assy - Oil pump	61370
Crankcase assy - Complete	66680
Crankcase assy - Complete	66809
Crankcase assy - Complete	66865
Crankshaft assy	65356
Cylinder & Head assy	66681

D

Dowel - 3/32 dia x 3/8 in. long	STD-760
Dowel - 1/4 dia x 9/32 in. long	STD-554
Dowel - 1/2 dia x 1/2 in. long	66145
Dowel - Crankshaft bearing	67453
Dowel - Hollow, 1/2 dia x 11/16 in. long	STD-557
Dowel - Stepped, 5/16-1/4 dia x 13/32 in. long	STD-1066
Dowel - Stepped, 5/16 and 1/4 dia x 35/64 in. long	STD-1065
Drive assy - Bendix	65546

E

Elbow - Coupling, 3/8 flared tube	STD-700
Elbow - Pipe, 3/4 x 3/4 hose x 90°	STD-1111
Elbow assy - Spark plug	66752
Eye - Lifting	703-AA

F

Fitting - Flanged cable (shielded)	1675
Flange - Exhaust	61259
Flange - Exhaust	61260
Flange - Intake pipe, lower	60603
Flange - Intake pipe, upper	60069

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

ALPHABETICAL PARTS LIST

Part Name	Part No
G	
Gage assy - Oil level	66706
Gage assy - Oil level	66969
Gasket - 2 bolt flange - 1-3/4 ID	60131
Gasket - 3 bolt flange, 3-9/32 ID	45786
Gasket - Accessory housing	60532
Gasket - Annular, 7/8 OD x 5/8 ID x 3/32 section	STD-294
Gasket - Annular, 1-1/8 OD x 29/32 ID x 1/16	STD-589
Gasket - Annular, 1 in. ID x 1-1/4 OD x 3/32 section	STD-111
Gasket - Bendix drive housing	60578
Gasket - Carburetor	65701
Gasket - Detent support	65445
Gasket - Exhaust flange	65321
Gasket - Fuel pump	60096
Gasket - Magneto	238
Gasket - Magnet adapter	66222
Gasket - Oil filler plug	45187
Gasket - Oil sump	65099
Gasket - Oil strainer cover	60130
Gasket - Rocker box cover	61246
Gasket - Starter	60555
Gasket - Vacuum pump	8313
Gear - Bendix drive	60518
Gear - Camshaft	65378
Gear - Crankshaft timing	65377
Gear - Magneto	66650
Gear - Starter	60517
Gear - Vacuum pump	60654
Gear - Vacuum pump drive	60655
Gear assy - Crankshaft and starting	61339
Gear assy - Generator coupling	66829
Generator - 12 V - 12 Ampere	61369
Generator - 12 V - 25 Ampere	61389
Grommet - 9/16 ID	STD-953
Grommet - Ignition cable plate	65692
Guide - Exhaust valve	66529
Guide - Valve	60028
Guide - Valve (alternate to 60028)	61681
Guide - Valve, exhaust (alternate to 66529)	61682
H	
Hose - 3/8 ID x 1-13/16 in. long	STD-347
Housing assy - Accessory	66709
Housing - Bendix drive	65444

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

ALPHABETICAL PARTS LIST

Part Name	Part No
I	
Impeller - Oil pump driven	60747
Impeller - Oil pump driving	60778
Insert - Heli-coil, 3/8-24 x 3/4 in. long	STD-1290
Insert - Spark plug 18-1.5 MM (Replaces 65763)	66796
K	
Key - Valve	60009
Key - Woodruff, 3/32 x 5/8 in.	STD-681
Key - Woodruff, 5/8 x 5/32 in.	STD-858
L	
Locknut - Palnut, 3/8 in.	STD-39
Locknut - Palnut, 1/2 in.	STD-529
Lockplate - 5/16 hole x 1-21/64 in. spacing	66144
Lockplate - 5/16 holes x 1-13/64 in. spacing	66146
Lock ring - 2-23/64 x 1/16 thick x 3/32 section	STD-961
Lockwire	STD-164
Loom - Priming line	1892-M
M	
Magneto - Shielded	65075
N	
Name plate	61548
Nipple - Hose, straight 3/8 in.	STD-684
Nipple - Primer	STD-546
Nut - Lock, thrust bearing	513-E
Nut - Plain, 6-32	STD-258
Nut - Plain, 10-32	STD-63
Nut - Plain, 1/4-28	STD-9
Nut - Plain, 5/16-24	STD-37
Nut - Plain, 3/8-24	383-B
Nut - Plain, 3/8-24	STD-596
Nut - Plain, 1/2-20	STD-528
Nut - Propeller hub retaining	861-GA
Nut - Slotted, 1/4-28	STD-97
Nut - Slotted, 3/8-24	STD-872
Nut - Slotted shear, 5/16-24	STD-50
Nut - Slotted shear, 3/8-24	STD-15
Nut - Spark plug union	1573-C
P	
Pin - 1/4 dia x 1.109 in. long	STD-708
Pin - Cotter, 1/16 dia x 1/2 in. long	STD-68
Pin - Cotter, 3/32 dia x 5/8 in. long	STD-543

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

ALPHABETICAL PARTS LIST

Part Name	Part No
Pin - Cotter, 3/32 dia x 3/4 in. long	STD-713
Pin - Cotter, 1/8 dia x 1 in. long	STD-714
Pin - Flat head, 1/4 dia x 17/32 in. long	STD-65
Pin - Piston	60403
Pin - Taper, No 0000 x 5/8 in. long	STD-184
Pipe - Intake, No. 1 and 6 cylinders	65114
Pipe - Intake, No 2 and 5 cylinders	65115
Pipe - Intake No 3 and 4 cylinders	65116
Piston	62719 & 62319
Piston	66861
Piston	66584
Plate - Ignition cable	66593
Plate - Spark plug cable	65708
Plug - Baffle attaching	65614
Plug - Crankshaft oil seal	182-B
Plug - Hex head, 1-1/4 x 1-20 thread	65398
Plug - Oil by-pass	65705
Plug - Oil filler	60433
Plug - Oil relief valve	60081
Plug - Pipe, 1/8 in. (Allen)	STD-682
Plug - Pipe, 1/8 x 3/8 in. long (Socket)	1102
Plug - Pipe, 1/8 in. (Slotted)	STD-431
Plug - Pipe, 1/8 in. (Square head, drilled)	STD-405
Plug - Pipe, 1/4 in. dia x 1/4 in. long	STD-119
Plug - Pipe, 1/4 in. (Allen)	STD-47
Plug - Pipe, 3/8 in. (Allen)	STD-1
Plug - Pipe, 1/2 in. (Allen)	STD-91
Plug - Pipe, 3/4 in. (Allen)	STD-355
Plug - Pipe, 1/2 in. (square head, drilled)	STD-862
Plug - Piston pin	60311
Plunger - Fuel pump	60549
Plunger - Oil by-pass	65704
Plunger - Oil relief	60080
Pump - Fuel	66910
Pump - Vacuum	66687

R

Regulator - Voltage	61294
Regulator - Voltage	61388
Retainer - Shroud tube seal	65007
Ring - 1/8 dia section x 1-1/2 ID	STD-717
Ring - Oil seal, 5/64 dia section x 3/8 ID	STD-346
Ring - Oil seal, 3/16 section x 4-27/32 ID	67498
Ring - Piston, 2nd compression	62915
Ring - Piston, top compression	65663

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

ALPHABETICAL PARTS LIST

Part Name	Part No
Ring - Piston, top compression	62916
Ring - Piston, 2nd compression	65664
Ring - Piston, oil regulating No. 3	67540
Ring - Piston, oil regulating, No. 3	66802
Ring - Piston, scraper	60378
Ring - Piston, top compression	67432
Ring - Propeller hub snap	862-BA
Ring - Retaining, vacuum pump gear	60556
Rocker assy - Valve	60193
Rod assy - Connecting	61476
Rod assy - Connecting	65820
Rod assy - Push	60480
Rod assy - Push	60481
Rod assy - Push	60482

S

Screen assy - Oil pressure	60407
Screen assy - Oil section	65399
Screen - Oil suction	60422
Screw - Baffle attaching	STD-921
Screw - 5/16-24 x 37/64 in. long	STD-703
Screw - 5/16-24 x 11/16 in. long	STD-707
Screw - 5/16-24 x 27/64 in. long	STD-679
Screw - 5/8-24 x 1-3/16 in. long, drilled	STD-697
Screw - Fillister head, 1/4-20 x 3/8 in. long	STD-1412
Screw - Hex head, 1/4-28 x 5/8 in. long	STD-473
Screw - Hex head, 5/16-24 x 1 (drilled)	STD-279
Screw - Round head, 6-32 x 1/2 in. long	STD-553
Screw - Round head, 10-32 x 3/8 in. long	STD-29
Screw - Round head, 10-32 x 1/2 in. long	STD-692
Screw - Self tapping, round head, No. 2	STD-599
Seal - Oil, 3/32 section x 15/32 ID	STD-336
Seal - Oil, 2-7/8 ID x 4 OD x 15/32 wide	40507
Seal - Oil, tachometer drive	61165
Seal - Shroud tube	60053
Seal - Thrust bearing	518
Seat - Intake valve	66528
Seat - Exhaust valve	66527
Seat - Valve spring	65442
Seat - Valve spring, lower	65441
Shaft - Bendix drive	60616
Shaft - Oil pump	60546
Shaft - Oil pump idler	60329
Shaft - Valve rocker	60401

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

ALPHABETICAL PARTS LIST

Part Name	Part No.
Shaft assy - Tachometer	66663
Shaft & drive assy - Bendix	65431
Shim - Thrust bearing cup	65030
Sleeve - Ignition cable (alternate to 1597).	61546
Sleeve - Ignition cable	1597
Sleeve - Spark plug (Shielded plugs)	235
Slinger - Vacuum pump oil	60568
Spacer - Stud, fuel pump	65107
Spacer - Thrust bearing	67450
Spark plug - Auto-Lite SH-2K	1182-FI
Spring - Cylinder baffle	1892
Spring - Oil pressure relief valve	66922
Spring - Oil relief valve	65703
Spring - Valve auxiliary	65567
Spring - Valve inner	65428
Spring - Valve outer	65427
Starter	60621
Stud - 1/4-20 x 1 in. long	25-8
Stud - 1/4-20 x 1-1/4 in. long	25-10
Stud - 1/4-20 x 1-1/4 in. long (drilled)	25D-10
Stud - 1/2-20 x 1-3/8 in. long	25-11
Stud - 1/4-20 x 1-1/2 in. long	25-12
Stud - 1/4-20 x 1-5/8 in. long	25-13
Stud - 1/4-20 x 2 in. long	25-16
Stud - 1/4-20 x 2-1/4 in. long	25-18
Stud - 1/4-20 x 2-5/8 in. long	25-21
Stud - 5/16-18 x 1-1/4 in. long	31-10
Stud - 5/16-18 x 1-3/8 in. long	31-11
Stud - 5/16-18 x 1-1/2 in. long	31-12
Stud - 5/16-18 x 1-3/4 in. long (drilled)	31D-14
Stud - 5/16-18 x 2 in. long	31-16
Stud - 5/16-18 x 2 in. long (drilled)	31D-16
Stud - 3/8-16 x 1-5/8 in. long	38-13
Stud - 3/8-16 x 2-1/8 in. long	38-17
Stud - 3/8-16 x 2-3/8 in. long	38-19
Stud - 3/8-16 x 2-3/8 in. long (drilled)	38D-19
Stud - 1/2-13 x 1-7/8 in. long	50-15
Stud - 1/2-13 x 3-27/32 in. long	65042
Stud - 1/2-13 x 9-7/8 in. long	66734
Stud - 9/16-18 x 10-21/32 in. long	66733
Sump assy - Oil	66675
Support assy - Detent	65447
Switch assy - Magnetic	61440

LYCOMING MODEL O-435-A AND O-435-A2 AVIATION ENGINES

ALPHABETICAL PARTS LIST

Part Name	Part No.
T	
Tappet assy - Valve	65009
Tee - Union, 1/8 in. tube	STD-853
Tube - Crankpin oil	60449
Tube - Crankshaft oil center	60447
Tube - Crankshaft oil end	60448
Tube - Push rod shroud	65006
Tube assy - Cylinder head oil drain	60510
Tube assy - Primer (15.31 long - cylinder No. 5)	61581-1
Tube assy - Primer (11.69 long - intercylinder)	61581-2
Tube assy - Primer (16.31 long - cylinder No. 3 and 6)	61581-4
Tube assy - Primer (18.31 long - cylinder No. 4)	61581-7
V	
Valve - Exhaust	66531
Valve - Intake	66429
W	
Washer - 13/64 ID x 17/32 OD x 1/16 in. thick	STD-488
Washer - 17/32 x 1-3/4 OD x 11/64 thick	STD-619
Washer - 47/64 OD x 11/32 ID x 1/16 section	STD-252
Washer - 1 OD x 13/32 x 3/32 in. thick	66825
Washer - Lock, No. 10	STD-251
Washer - Plain, No. 6	STD-243
Washer - Plain, No. 10	STD-28
Washer - Plain, 1/4 in.	STD-8
Washer - Plain, 5/16 in.	STD-35
Washer - Plain, 3/8 in.	STD-33
Washer - Plain, 1/2 in.	STD-143
Washer - Shakeproof lock, 1/4 in.	STD-160
Washer - Shakeproof lock, 5/16 in.	STD-475
Washer - Shakeproof lock, 3/8 in.	STD-678
Washer - Shakeproof lock, 1/2 in.	STD-677

SUPPLEMENTAL PARTS LIST

for

O-435 SERIES AIRCRAFT ENGINES

(To be used with Avco Lycoming Parts Catalog, PC-108)

This supplement provides new and replacement part information for Avco Lycoming O-435 Series aircraft engines. It supersedes supplement dated 8-11-58. Where old parts have been replaced with a new part, both part numbers will be listed. Where new parts have been used, only the new part number will be listed. An explanation of parts replacement due to different machining methods, will also be included.

REPLACED PART	NOMENCLATURE	NEW PART	QTY. PER. ENG.
	(Crankcase - Right)		
STD-1290	Insert - Heli-Coil, 3/8-24 x 3/4 in. long	MS-124738	4
66733	Stud - 9/16-18 x 10-21/32 in. long	69679	4
	(Crankcase - Left)		
STD-47	Plug - Allen, 1/4-18 NPT	STD-783	1
STD-682	Plug - Allen, 1/8-27 NPT	STD-1852	1
	(Crankshaft)		
60499	Tube - Crankpin Oil	71577	6
69529	Body - Hydraulic Tappet	72877	12
71791	Plunger Ass'y. - Hydraulic Tappet	76290	12
61399	Gear Ass'y. - Crankshaft and Starting	70334	1
67811	Cap Ass'y. - Thrust Bearing	67811	1
STD-697	Screw - Hex. Hd., Dr. Hd. 3/8-24 x 1-9/32 in. long	STD-764	6
	(Camshaft)		
65378	Gear - Camshaft	67477	1
STD-679	Screw - 5/16-24 x 37/64 in. long	STD-703	1
	(Piston)		
62719S	Piston (See new parts section)	69958	6
	(Cylinder)		
66681	Cylinder and Head Ass'y. -	71854	6
	(Valve Train)		
65442	Seat - Valve Spring	68327	12
60193	Rocker Ass'y. - Valve	68519	12
60762	Rocker - Valve	68520	12
STD-1826	Screw - Self Locking (Long Pan Hd.) 1/4-20 x 5/8 in. long	STD-1925	36
	(Push Rods)		
69470	Rod Ass'y. - Push	73412	AR
69471	Rod Ass'y. - Push	73413	AR
69472	Rod Ass'y. - Push	73414	AR
67498	Ring - Oil Seal, 3/16 in. section x 4-27/32 in. ID	71481	6
STD-347	Hose - 3/8 ID x 2-1/2 in. long	STD-1821	6
STD-1252	Clamp - Hose, 1/2-3/4 ID x 5/8 wide	STD-1924	12

REPLACED PART	NOMENCLATURE	NEW PART	QTY. PER. ENG.
(Accessory Housing)			
31-16	Stud - 5/16-18 x 2-1/8 in. long	31-17	2
25-10	Stud - 1/4-20 x 1-3/8 in. long	25-11	9
(Tachometer)			
STD-47	Plug - 1/4-18 NPT - Allen	STD-783	1
(Oil Sump)			
31D-14	Stud - 5/16-18 x 1-7/8 in. long	31-15	4
STD-862	Plug - Sq. Hd. 1/2 in. Pipe	STD-1617	2
STD-599	Screw - Rd. Hd. Drive, #4 x 3/16 in. long	STD-1901	4
65701	Gasket - Carburetor	66224	1
(Oil Suction Screen)			
65398	Plug - Hex. Hd., 5/8 in. x 1.00-20 Thd.	69335	1
(Magnetos)			
238	Gasket - Magneto	45663	1
65075	Magneto - Shielded	65075	1
STD-252	Washer - 3/4 OD x 11/32 ID x 1/8	STD-1727	4
68490	Cable Ass'y. - Shielded	71788	1
67985	Elbow Ass'y. - Spark Plug	71883	12
235	Collar - Spark Plug Term.	71401	12
68486	Ferrule - Ign. Cable, Shielded	71974	24
1573-C	Nut - Spark Plug Union	68487	12
AN4164-2	Sleeve - Shielded Term. Insulated, Support	71259	24
(Detent Support and Generator)			
66829	Gear Ass'y. - Generator Coupling	70427	1
66826	Gear - Generator Coupling	70431	1
60622	Bushing - Generator Gear	70430	1
66827	Adapter - Gen. Drive Coupling	70426	1
66825	Sleeve - Gen. Coupling	70429	1
STD-15	Nut - Slotted, 3/8-24	70428	1
(Baffles)			
65409	Baffle Ass'y. - Cyl. Right Front	67895	1
65410	Baffle Ass'y. - Cyl. Left Front	67894	1
STD-63	Nut - Self Locking #10-32	STD-670	4

NOTE

New, improved baffles (right and left front) are being used. These baffles attach to the crankcase by means of heli-coil inserts (STD-1315) rather than by cylinder base studs. STD-1315 insert has also been provided for the right rear baffle. Crankcase halves have been changed to provide a boss at the front of No. 1 and No. 2 cylinder pads and the rear of No. 5 pad. Bushing, STD-242 at the rear of No. 5 pad has been removed. The new front baffles can be used only on crankcases using STD-1315 inserts.

(Primer Lines)

65331	Clamp - 1-1/2 ID with 1/4 Dia. Offset	71909	4
65330	Clip - 3/16 in. ID for 1/4 in. Dia. Screw	62254	2
STD-258	Nut - Self Locking, #6-32	AN365-632C	4

NEW PARTS SECTION

NEW PARTS	NOMENCLATURE	QTY. PER. ENG.
	(Crankcase)	
STD-1315	Insert - Heli-Coil, 1/4-28 x 1/2 in. long	4
MS-124738	Insert - Heli-Coil, 3/8-24 x 3/4 in. long	4
	(Crankshaft Bearings)	
69501	Bearing - Crankshaft, Alternate	8
60933	Bearing - Crankshaft, Alternate	8
	(Crankshaft)	
70335	Gear - Crankshaft	1
69902	Plate - Oil Pump Drive Shaft, Drive	1
69899	Plate - Drive Plate Retaining	1
511	Spacer - Thrust Brg. Cap, Nut	1
	(Camshaft)	
72078	Lockplate - Spacing, 5/16 in. Bolt x 1-21/64	2
72075	Seal - Oil, 3/32 in. Section x 15/32 in. ID	10
66045	Camshaft - Ass'y.	1
	(Connecting Rod)	
74667	Bolt - Connecting Rod	12
74646	Nut - Connecting Rod	12
	(Piston)	
69958	Piston	6
68115	Ring - Piston, 2nd Compression	6
	(Push Rods)	
73411	Rod Ass'y. - Push	AR
	(Accessory Housing)	
67589	Housing Ass'y. - Accessory	1
31-25	Stud - 5/16-18 x 3-1/8 in. long	2
66709	Housing Ass'y. - Accessory	1
31-17	Stud - 5/16-18 x 2-1/8 in. long	4
66583	Tube - Oil Line	1
	(Oil Pump)	
STD-482	Pin - Cotter, 3/32 in. Dia. x 7/8 in. long	1
71354	Vacuum Pump	1
	(Oil Sump)	
69980	Carburetor	1
	(Intake Pipes)	
73346	Flange - Intake Pipe, Upper	6
72220	Gasket - Oil Filler Plug	1
72421	Gage Ass'y. - Oil Level	1

NEW PART	NOMENCLATURE	QTY. PER. ENG.
	(Intake Pipes Con't.)	
72422	Gage - Oil Level	1
72368	Plug - Oil Level Gage	1
72425	Gage Ass'y. - Oil Level	1
72426	Gage - Oil Level	1
	(Magnetos)	
66974	Flange - Magneto Shaft Coupling	1
66972	Spacer - Magneto Drive Coupling	2
66970	Adapter - Magneto (Impulse Coupling)	1
	(Magnetos)	
66976	Magneto - Impulse Coupling	1
70488	Cable Ass'y. - Shielded, Breeze Lt. Wt.	1
71315	Cable Ass'y. - Shielded, Co-Op. Lt. Wt.	1
71882	Cable - High Tension, Shielded	AR
72203	Nut - Magneto, High Tension Terminal	12
71489	Sleeve - Spark Plug	12
	(Starter)	
67808	Starter - 24 Volt (Delco-Remy 1109665)	1
76268	Switch - Magnetic	1
66413	Cover - Starter Drive	1
	(Detent Support and Generator)	
68011	Generator - 12 V. - 20 Amp (O-435-A only)	1
67809	Generator - 24 V. - 15 Amp (O-435-A only)	1
68067	Cover - 3 Bolt Flange, (used when no generator is used)	1
72205	Regulator - Voltage (12 V. - 20 Amp. Gen.)	1
	(Primer Lines)	
74225	Nipple Ass'y. - Primer	4
74430	Jet - Primer System - Inner	4
74429	Jet - Primer System - Outer	4