

ENGINE and FUEL SYSTEM

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Engine Manuals

Continental Engine

Operators Handbooks (glove box size)

A and C Series, 4-cylinder	AC4WM	\$8.94
A and C Series, 6-cylinder	AC6WM	\$8.94
C Series, 6-cylinder	C6WM	\$8.94
O Series, 6-cylinder	CO6WM	\$8.94
IO-470-C	X30024	\$42.00

Service and Overhaul Manuals

A-65, A-75 Parts and Overhaul Manual.....	X30008	\$67.57
"C" Series Maintenance and Overhaul Manual (C-75, C-85, C-90, O-200)	X30010A	\$70.27
"C" Series Parts Manual (C-75, C-85, C-90, O-200)	X30011A	\$40.50
C-125, C-145, O-300 Maintenance and Overhaul Manual.....	X30013	\$80.00
C-125, C-145, O-300 Parts Manual.....	X30014	\$60.00
IO-520 Overhaul Manual.....	X30039A	\$80.00
IO-520 Parts Manual (A, D, E, F, J, K, L).....	X30628A	\$55.00
IO-520 Parts Manual (B, BA, BB, C, CB, M, MB)	X30624A	\$55.00
O-470 Overhaul Manual.....	X30586A	\$80.00
IO-470 Overhaul Manual.....	X30588A	\$96.00
IO-360 Overhaul Manual.....	X30594A	\$80.00
IO-360 Parts Manual.....	X30595A	\$60.00

Order online at
www.univair.com

Eisemann

The Eisemann LA Series Magnetos Handbook and Instructions contains service and overhaul information, exploded views and parts listings.

Eisemann LA Series Magnetos Handbook
and Instructions..... E-LAHB**\$14.90**



Franklin Engine Manuals

Service Parts List, 6A4-150-B3 and 6A4-145-A3 (not illustrated)	F150PM	\$15.56
Service Parts List, 6A4-165-B3/B31 (not illustrated).....	F165PM	\$15.56
Service Manual, 6A4-150-B3/B31 and 6A4-165-B3.....	FESM	\$19.86
Service Bulletins and Letters.....	FESB	\$42.37

Lycoming Engine Manuals

Lycoming Operators Manuals

O-235-C, O-290-D/D2 Series	60297-9	\$42.00
O-540, IO-540 and HIO-540 Series	60297-10	\$42.00
O-, HO-, IO-, AIO-, HIO-, LIO- and TIO-360 Series	60297-12	\$42.00
O-320, IO-320, AIO-320 and LIO-320 Series.....	60297-16	\$23.11
AEIO-320, 360, and 540 Series.....	60297-21	\$42.00
O-320 "76" Series	60297-22	\$42.00
O-360 "76" Series	60297-25	\$42.00
TO-360 "76" Series.....	60297-26	\$42.00

Lycoming Overhaul Manuals

Integral Accessory Drive Models.....	60294-6	\$136.50
Direct Drive Models.....	60294-7	\$136.50
"76" Series Models	60294-9	\$136.50

ENGINE AND FUEL SYSTEM

Lycoming Parts Manuals

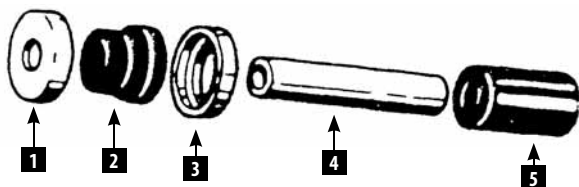
0-145 and G0-145 Instructions and Parts Manual and Magneto Section.....	L145PM	\$16.88
0-290-D Series.....	PC102-1	\$63.00
0-320-A, -B, -D, -E, IO-320-B, -E, and LIO-320.....	PC103	\$63.00
0- and HO-360, IO-, HIO-, AIO- and TIO-360	PC106	\$94.50
0-320-A and 0-320-E	PC203-1	\$63.00
0-320-B and 0-320-D	PC203-2	\$63.00
0-235	PC302	\$63.00
0-360-A	PC306-1	\$63.00
0-360-B, -C, -F, LO and TO-360 Series	PC306-2	\$63.00
IO-, AIO-360-A and -B Series.....	PC406-1	\$73.50
IO-360-C, -J1A6D, LIO-360-C, HIO-360-A, -B, -C, -D, -E, -F, TIO-360-A, AEIO-360-A1E, -B1G6 and -H1A Series	PC406-2	\$73.50

Continental Engines

Commonly Requested Continental Parts for C-Series and O-200 Engines

Cylinder base seals: A-65-75, C-75-85-90, O-200	21477	\$0.83
Intake Gaskets:		
A-65-75	649976	\$1.30
C-75-85-90, O-200 (22250)	649975	\$2.47
Crankshaft Seal:		
Flanged Shaft A-65-75, C-75-85-900, O-200.....	530019	\$55.50
Tapered Shaft A-65-75, C-75-85.....	24321	\$59.62
Tach Seal: A-65-75, C-75-85-90, O-200	642714	\$8.20
Oil Sump Gasket: A-65-75, C-75-85-90, O-200	652248	\$5.16
Rocker Cover Gasket: A-65-75, C-75-85-90, O-200 (653728)	655706	\$5.64
Carb to Intake Gasket: A-65 to C-90 and O-200 (21051)	652105	\$2.43
Carb to Airbox Gasket: A-65 to C-90 and O-200	649974	\$2.26
Intake Hose Small: A-65 to C-90 and O-200	21185	\$4.48
Intake Hose Large: A-65 to C-90 and O-200	22800	\$4.65
Pushrod Housing Gasket: A-65 to C-90 and O-200 (not used on -8 and -8f)	649952	\$4.81
Connector Pushrod Housing:		
A-65-75, C-75-85-90, and O-200	539840	\$5.99
Gasket Oil Screen: A-65-75, C-75-85-90, O-200	MS35769-48	\$0.92
Gasket Oil Screen Housing Plug:		
A-65-75, C-75-85-90, O-200	MS35769-11	\$0.72

Mounting Components for C-90-14F and O-200



• Priced and sold individually

1) Washer • 8 required.....	530741	\$6.07
2) Bushing • 8 required	530740	\$35.74
3) Seat • 8 required	530626	\$18.67
4) Spacer • 4 required.....	653695	\$27.04
5) Hose • 4 required	628555-16	\$8.60

Carburetor Induction Manifolds

For A-65, C-75, C-85, C-90	U35145	\$331.97
For O-200	U35145-A1	\$440.80



Continental Engine Mount Bushings

- Used on all A and C series Continental engines
- 8 required per installation
- Priced and sold individually

Engine Mount Bushings	U22387A.....	\$12.42
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Surplus Continental Rocker Cover Gaskets

- For Continental Engines A-65, A-75, C-85, C-90, O-200, C-145, O-300

Rocker Cover Gasket (3500).....	530162S.....	\$1.42
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Exhaust Gaskets



- New stainless steel exhaust gaskets
- For Continental engines
- 2 required per port (sold individually)

Exhaust Gaskets	632837	\$2.87
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Blo-Proof Spiral Wound Gaskets

- V-shaped spirals wound with layers of stainless steel



For Continental Engines A-65; C-85; C-90; O-200; O-300; GO-300; E-185; E-225; O-470-A, -E, -J; and IO-470-J, -K.....	652459	\$11.56
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For all Continental O-470 and IO-470 Series Engines: TSIO-470-B; TSIO-520-B, -C; GTSIO-520-C, -D (excluding O-470-A, -E, -J and IO-470-J, -K)	652458	\$9.61
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ENGINE AND FUEL SYSTEM

TELEDYNE CONTINENTAL[®] AIRCRAFT ENGINE

service bulletin

M91-8
Supersedes M89-13

Technical Portions Are
FAA Approved

10 July 1991

SUBJECT: **RECOMMENDED OVERHAUL PERIODS FOR ALL TELEDYNE
CONTINENTAL MOTORS AIRCRAFT ENGINES.**

MODELS
AFFECTED: All

COMPLIANCE: Overhaul

Thousands of hours of operating experience indicate that Teledyne Continental Motors (TCM) aircraft engines, when operated within prescribed limitations, instructions and recommendations, can be operated between overhauls for the number of hours listed in the following table. The overhaul periods listed are recommendations only. They are predicated on the **use of genuine TCM parts**, compliance with all applicable Service Bulletins and ADs, as well as all required preventive maintenance, periodic inspections, manufacturer's specifications, and the determination by a qualified mechanic that the engine is operating normally and is airworthy. The accomplishment of cylinder leakage checks and spectrographic oil analysis may be helpful in making this determination. Any operation beyond these periods is at the operator's discretion and should be based on the inspecting mechanic's evaluation of engine condition and operating environment. Calendar time also affects this condition and should be taken into consideration.

Particular attention should be paid to throttle response, power, smoothness of operation, oil consumption, to the proper use and maintenance of oil and air filters, and adherence to the recommended oil change periods. Emphasis should also be placed on recommended fuel management. These recommended overhaul periods in no way alter TCM's warranty policies.

Strict adherence to the latest Major Overhaul 100% Replacement Parts Service Bulletin is required.

Overhaul periods may vary depending upon the quality of parts and workmanship incorporated into the overhaul of an engine. TCM is unable to provide specific guidelines concerning the effect **non-TCM supplied parts** have on the overhaul periods listed in the following table and makes no recommendation with respect to overhaul periods for engines which have been overhauled, repaired or modified in a manner inconsistent with the specifications, limits and instructions set forth in the latest applicable TCM overhaul manual, parts catalog and service bulletins.

ENGINE AND FUEL SYSTEM

Engine Model	Overhaul Period ¹	Engine Model	Overhaul Period ¹	Engine Model	Overhaul Period ¹
A65, A75 Series	1800 hours	IO-346 Series	1500 hours	TSIO-520M, P, R ⁵	1600 hours
C75, C85, C90, O-200 Series	1800 hours	IO-360 Series	1500 hours	TSIO/LTSIO-520AE	2000 hours
C125, C145, O-300 Series	1800 hours	IO-360KB	2000 hours	TSIO-520-BE	2000 hours
GO-300 Series	1200 hours	TSIO/LTSIO-360EB, KB	1800 hours	GTSIO-520 Series	1200 hours
E165, E185, E225 Series	1500 hours	TSIO-360FB, GB, LB, MB	1800 hours	GTSIO-520L	1200 hours
W670 Series	1000 hours	TSIO-360 Series	1400 hours	GTSIO-520L ²	1600 hours
O-470 Series	1500 hours	IO-520 Series	1700 hours	GTSIO-520M, N	1600 hours
O-470-U ⁴	1500 hours	TSIO-520 Series	1400 hours	6-285 Series	1200 hours
O-470-U	2000 hours	TSIO-520UB, VB, WB, AF, CE	1600 hours	IO-520 Series	1700 hours
IO-470 Series	1500 hours	TSIO-520NB	1400 hours	TSIO-550	1600 hours
TSIO-470 Series	1400 hours	TSIO-520NB ³	1600 hours	TSIOL-550	2000 hours
GIO-470A	1000 hours	TSIO-520M, P, R	1400 hours		

¹ Excepted are engines employed in aerial dressing, dusting or spraying. For these engines, we recommend a maximum of 1200 hours TBO, or less at operators discretion.

² Applies to new GTSIO-520L engines having SN 604701 and subsequent and rebuilt engines having SN 227809R and subsequent only. Engine may be made eligible for the extended TBO (1600 hours) by installing parts per latest Parts Catalog X30046A and applicable Service Bulletins.

³ Applies to new TSIO-520NB engines having serial numbers 521391 to 521399, 521400, 521405, 521406, 521411, 521412, 521419 and subsequent and rebuilt TSIO-520 NB engines having serial Numbers 234070, 234074 and subsequent only. Engines may be eligible for the extended TBO (1600) hours by installing parts per latest parts catalog X30580A and applicable Service Bulletins.

⁴ Applies to new and rebuilt O-470-U Spec. 11, 12, 13, 14, 17 and 18.

NOTE: Extended TBO's are predicated on the use of steel cylinders only, not chrome.

O-470-U engines other than those listed above may be made eligible for the TBO increase (2000 hours) by installing part number 646267A2 or subsequent cylinder and valve assembly, 648029 piston, 649226 ring set, 646277 lifter in the exhaust position, 643779 oil pump, 643749 oil pump gasket, 649923 oil filter and 2 each 402129P003 studs (or Cessna supplied oil filter adapter and associated parts) and any subsequential part number of these parts. Piston pin part number 539467 must be replaced (not reused). Crankshaft counterweight pin and plate configuration must conform to current parts catalog X30587A. A log book entry will be required and new Spec. No. stamped on engine data plate (refer to Engine Spec. list below).

ORIGINAL SPEC. #	NEW SPEC. #
O-470U1	13
O-470U2	14
O-470U3	17
O-470U4	18
O-470U5	17
O-470U6	18

⁵ Applies to now and rebuilt TSIO-520-M Spec 4, 6, 7 and 8; TSIO-520-P Spec. 5 and 6; and TSIO-520-R Spec. 7, 9, 10 and 11.

TSIO-520-M, P and R engines other than those listed above may be eligible for the TBO increase (1600 hours) by installing cylinder and valve assemblies part number 646657A1 or subsequent, piston 648044, ring set 649227, valve lifters 646277 in the exhaust position, throttle body 649185A4, TCM (formerly Bendix) 646957 right hand magneto, 646958 left hand magneto, 636951 harness, or EQ6583 pressurized magneto and harness kit, oil pump assembly 643717-1, oil pump gasket 643749, and oil filter 649923 (or Cessna supplied oil filter adapter and associated parts) or subsequential part number of these parts.

To install new oil pump remove one (1) each part number 402159 and 402157 stud. Replace stud part number 401852 with stud 402129P003 and install spacer 646582-1.35 and 646582-2.00 on existing studs after oil pump is installed. A log book entry will be required and new Spec. No. stamped on engine data plate (refer to Engine Spec. list below).

ORIGINAL SPEC. #	NEW SPEC. #
TSIO-520P1	5
TSIO-520P2	6
TSIO-520P3	6
TSIO-520M1	6
TSIO-520M2	7
TSIO-520M3	7
TSIO-520R1	9
TSIO-520R3	10
TSIO-520R4	9
TSIO-520R5	10
TSIO-520R6	11

ENGINE AND FUEL SYSTEM

Franklin Engines – 150 and 160hp

Commonly Requested Items

Description	# Required		Part #	Price
	150hp	165hp		
Propeller Bolt	8	8	U17662	\$19.29
Carburetor Gasket	1	N/A	10942	\$4.83
Crankcase Cover Gasket (Real Gasket)	1	1	RG-18532	\$41.50
Oil Pan Gasket (Real Gasket)	1	1	RG-10366	\$36.00
Magneto Shock Absorber Gear (no. 1 to 32083 engines)	24	16	10601	\$1.98
Magneto Shock Absorber Gear (no. 32084 and up engines)	2	2	19313	\$113.85
Valve Lifter Rod Tube Packing (cylinder end – small)	24	12	17864	\$2.34
Valve Lifter Rod Tube Packing (crankcase end – large)	N/A	12	17794	\$1.44
Crankshaft Oil Seal	1	1	17036	\$61.97
Tach Seal			19389	\$19.75

Gaskets Required for Top Overhaul

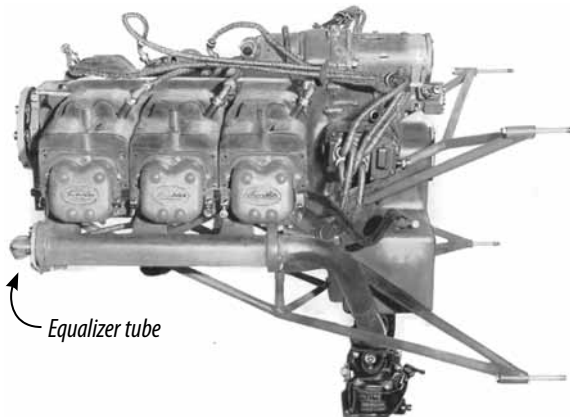
• Priced and sold individually

Description	# Required		Part #	Price
	150hp	165hp		
Inlet Manifold Gasket	6	6	17671	\$3.60
Valve Cover Gasket	6	6	RG-17727	\$8.50
Cylinder Seal Ring	6	6	17729	\$4.17
Magneto Case	2	2	5512	\$7.50
Valve Lifter Rod Tube Packing	24	12	17864	\$2.34
Valve Lifter Rod Tube Packing (crankcase end)	N/A	12	17794	\$1.44

Bushing Kits

Description	# Required		Part #	Price
	150hp	165hp		
Crankshaft Bushing, Standard	1	1	19644	\$436.43
Crankshaft Bushing, .010 Undersize	1	1	19645	\$419.50
Connecting Rod Bushing, .010 Undersize	12	12	18020	\$15.26
Connecting Rod Bushing, .020 Undersize	12	12	18021	\$12.41

Major Overhaul Gasket Set



Description	Part #	Price
150hp Gasket Set	18045	\$488.75
165hp Gasket Set	18570	\$444.21

Note: Exhaust gasket not included in kit

Description	Part #	Price
Gasket	10120	\$17.47
Oil Pan Gasket	RG-10366	\$36.00
Gasket	18532	\$22.82
Crank Gasket	RG-18532	\$41.50

Lycoming Engines

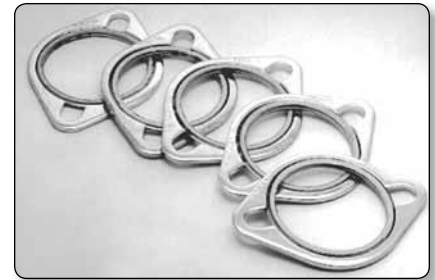
Engine Mount Bushings

- 8 each required
- Priced and sold individually



On left, without "collar" 60883 \$19.41
 On right, with "collar",
 150 and 160hp 71032 \$10.00
 Bushing Washer STD-619 \$9.28

Blo-Proof Spiral Wound Gaskets



These special gaskets are V-shaped spirals wound with layers of stainless steel

For Lycoming engines IO-540; IO-540-B, -E, -M, -WD; IGO-540-B; IGSO-540-B; TIO-540, -541 and TGIO-541 LW15486 \$29.14

For all remaining
 Lycoming engines 77611 \$8.88
Alternate part numbers 65321 and 75118

Rush Orders

**Shipped same day
 No additional rush fees***

**Orders must be received by Univair before noon Mountain Time to ship same day. Applies only to in-stock items. See page 392 for details.*



ENGINE AND FUEL SYSTEM

TEXTRON Lycoming

Reciprocating Engine Division/
Subsidiary of Textron Inc.
652 Oliver Street
Williamsport, PA 17701 U.S.A.

SERVICE INSTRUCTION

DATE:

July 1, 1992

Service Instruction No. 1009AJ
(Supersedes Service Letter No. L201C)
Engineering Aspects are
FAA Approved

SUBJECT:

Recommended Time Between Overhaul Periods.

MODELS AFFECTED:

All Textron Lycoming Piston Aircraft Engines.

The following chart shows the established time between overhaul (TBO) for Textron Lycoming piston aircraft engines. TBO's can be established on engines that incorporate GENUINE TEXTRON LYCOMING PARTS only, and are not applicable if the engine contains parts other than those supplied by Textron Lycoming. Service experience, variations in operating conditions, and frequency of operation are some of the factors taken into consideration when a TBO is established. Because of variations in the manner in which engines are operated and maintained, Textron Lycoming can give no assurance that any individual operator will achieve the recommended TBO.

Continuous service assumes that the aircraft will not be out of service for any extended period of time. Refer to latest revision of Service Letter No. L180 if the aircraft is to be out of service for a period of time greater than 30 days.

Because of engine deterioration in the form of corrosion (rust), drying out and hardening of composition materials such as gaskets, seals, flexible hoses, fuel pump diaphragms and abnormal wear during starting on soft metal bearing surfaces due to the loss of a protective oil film during extended periods of inactivity, all engines that do not accumulate the recommended operating hours between overhaul in a twelve (12) year period must be overhauled during the twelfth year.

Although the TBO's shown in the Table on page 2

represent Textron Lycoming's recommendations, owners of some Textron Lycoming piston engines may decide to continue to operate the engine beyond the hours stated, unless otherwise limited by government regulations. It is the responsibility of the party maintaining the engine to decide if it is feasible to operate the engine beyond the recommended number of hours. This decision should be based on knowledge of the engine and the conditions under which it has been operated.

Engine accessories and propellers may require overhaul prior to engine overhaul. This decision, too, is to be made by the party responsible for maintaining the engine or by the accessory manufacturer.

The TBO's in the chart do not apply to engines engaged in crop dusting or other chemical-application flying. These engines should be overhauled at 1500-hour intervals or at recommended TBO, whichever is lower.

Reliability and average service life cannot be predicted when an engine has undergone any modification not approved by Textron Lycoming. The TBO's shown in the table are recommendations for engines as manufactured, without considering any modifications that may alter the life of the engine. The TBO's in no way affect, change, or alter Textron Lycoming's current published warranty policy.

ENGINE AND FUEL SYSTEM

Service Instruction No. 1009AJ

RECOMMENDED TIME BETWEEN OVERHAUL PERIODS

FIXED WING AIRCRAFT					
Engine Models	See Note	Hours	Engine Models	See Note	Hours
O-235 Series (except -F, -G, -J)	12	2400	IO-540-E, -G, -P	1,10,11	1600
O-235-F, -G, -J	13	2000	IO-540-S, -AA, -AB	2,10	1800
O-290-D	-----	2000	IO-540-J, -R	2,10	1800
O-290-D2	-----	1500	IO-540-K, -L, -M	10	2000
O-320 Series (except O-320-H);			IO-540-K1B5, -K1G5	10,11	2000
IO-320-A, -E	1,10	2000	AEIO-540 Series	6,10	1400
O-320-H	10	2000	IGO & IGSO-540 Series	-----	1200
IO-320-B, -D, -F	4,6,10	2000	TIO-540-V, -W, -AE	3,4,11	2000
IO-320-C	2,4,10	1800	TIO-540-C, -AA, -AB, -AF	3,4,7,11	2000
AIO-320 (160 hp)	6,10	1600	TIO-540-A, -F, -J, -N, -R, -S, -U	3,4,11,14	1800
AEIO-320 Series	6,10	1600	TIO-541-A (310 hp)	3	1300
O-340 Series	1	2000	TIO-541-E (380 hp)	3,9	1600
O-360 Series (except O-360-E);			TIGO-541 (425 hp)	3	1200
IO-360-B, -E, -F (180 hp)	1,4,10	2000	IO-720 Series	10,11	1800
O-360-E	4,10	2000			
IO-360-A, -C, -D, -J (200 hp)	4,5,6,10	2000			
TO-360-C, -F; TIO-360-C	3	1800			
TO-360-E (180 hp)	3,4	1800			
AIO-360 (200 hp)	6,10	1400			
TIO-360-A Series	3	1200			
AEIO-360 Series (180 hp)	6,10	1600			
AEIO-360 Series (200 hp)	6,10	1400			
O-435; GO-435	-----	1200			
GO, GSO-480; IGSO-480	1	1400			
O-540-A, -B, -E4A5, -F;					
IO-540-C, -D	1,10	2000			
O-540-E4B5, -E4C5	1,10,11	2000			
O-540-G, -H, -J; IO-540-N,					
-T, -V, -W	10	2000			
O-540-L3C5D	2,10	2000			
IO-540-A, -B (290 hp)	1,10,11	1400			

ROTARY WING AIRCRAFT

O-320-A2C, -B2C	-----	2000
O-360-C2B, -C2D; HO-360;		
HIO-360-B	-----	1500
HIO-360-A, -C, -D, -E, -F Series	-----	1500
VO-360-A Series	-----	600
VO-360-B; IVO-360	-----	1000
VO-435-A Series	-----	1200
VO-435-B Series	-----	1200
TVO-435 Series	3	1000
VO-540 Series	8	1200
IVO-540 Series	-----	600
TVO, TIVO-540 Series	3,8	1200

NOTES

1. Only engines built with 1/2 inch dia. exhaust valve stems. Engines of this series with 7/16 inch dia. exhaust valves should not exceed 1200 hours between overhauls regardless of the type of operation. New and remanufactured engines built with 1/2 inch dia. exhaust valve stems are identified, respectively, by serial number and date in the latest edition of Service Instruction No. 1136.

2. These engines are designed to incorporate exhaust

turbocharging.

3. Turbochargers may require removal, prior to engine overhaul, for carbon removal and repair.

4. Engines with reverse rotation have same overhaul times as corresponding normal rotation models.

5. 1200 HOURS: Engines that do not have large main bearing dowels should not be operated more than 1200 hours between overhauls.

ENGINE AND FUEL SYSTEM

Service Instruction No. 1009AJ

1400 HOURS: Engines that have large main bearing dowels may be operated to 1400 hours between overhauls. These include engines with serial numbers L-7100-51A and up, and L-101-67A and up; engines which are in compliance with the latest edition of Service Bulletin No. 326; and remanufactured engines shipped after January 26, 1970.

2000 HOURS: Engines that have large main bearing dowels and redesigned camshafts may be operated to 2000 hours between overhauls. These include engines with serial numbers L-9762-51A and up; IO-360-C1E6 engines with serial numbers L-9723-51A and up; LIO-360-C1E6 engines with serial numbers L-524-67A and up; engines that are in compliance with the latest edition of Service Bulletin No. 326 and Service Instruction No. 1263. Remanufactured engines shipped after October 1, 1972 may be operated to 2000 hours between overhauls except those with serial numbers L-2349-51A and L-7852-51A which do not have the redesigned camshaft and must not exceed 1400 hours operating time between overhauls.

6. The reliability and service life of engines can be detrimentally affected if they are repeatedly operated at alternating high and low power applications which cause extreme changes in cylinder temperatures. Flight maneuvers which cause engine overspeed also contribute to abnormal wear characteristics that tend to shorten engine life. These factors must be considered to establish TBO of aerobatic engines; therefore it is the responsibility of the operator to determine the percentage of time the engine is used for aerobatics and establish his own TBO. The maximum recommended is the time specified in this instruction.

7. TIO-540-C series engines with serial numbers L-1754-61 and up, TIO-540-C series engines that were remanufactured or overhauled at Textron Lycoming, Williamsport, PA after March 1, 1971 and TIO-540-C series engines that have been modified to incorporate large main bearing dowels as described in the latest revision of Service Instruction No. 1225 may be operated to 2000 hours. Engines that do not incorporate this modification must not exceed 1500 hours between overhauls.

8. VO, TVO and TIVO-540 engines built with P/N

77450 connecting rods as described in the latest edition of Service Bulletin No. 371 may be continued in service to 1200 hours. Engines that do not incorporate this new connecting rod are restricted to 1000 hours for VO-540 models and 900 hours for TVO and TIVO-540. See latest edition of Service Bulletin No. 371 for improved connecting rod assembly.

9. TIO-541-E series engines with serial numbers L-804-59 and up, remanufactured engines shipped after March 1, 1976 and all engines that incorporate the improved crankcases and cylinder assemblies described in the latest revision to Service Bulletin Nos. 334 and 353 may be operated for 1600 hours before overhaul. Engines not in compliance with these requirements are limited to 1200 hours recommended time between overhaul.

10. Some engines in the field have been altered to incorporate an inverted oil system in order to perform aerobatic maneuvers. Whenever this modification is done to an engine, the TBO of the engine must be determined in the same manner listed for AEIO engines of the same model series.

11. If an engine is being used in "scheduled frequent" type service but not for flight training, and accumulates 60 hours or more per month, and has been so operated consistently, add 200 hours to TBO time.

12. To qualify for the 2400 hour TBO, high-compression O-235's must have the increased strength pistons (P/N LW-18729). See latest issue of Service Letter L213.

13. The high-compression O-235-F, -G, and -J series do not have the increased-strength pistons (P/N LW-18729); therefore, they do not qualify for the 2400-hour TBO.

14. TIO-540-A series engines with serial numbers L-1880-61 and up, TIO-540-A series engines that were remanufactured or overhauled at Textron Lycoming, Williamsport, PA after March 1, 1971 and TIO-540-A series engines that have been modified to incorporate large main bearing dowels as described in the latest revision of Service Instruction No. 1225 may be operated to 1800 hours. Engines that do not incorporate this modification must not exceed 1500 hours between overhauls.

ENGINE AND FUEL SYSTEM

Brackett Air Filters



• Brackett filters are FAA/PMA approved and STC-SA71GL, STC-SA693CE, and STC-SA12CE approved

Polyurethane as the filtering media combined with Brackett's patented "wetting agent" will give your engine protection from dust and dirt to prolong engine life and cut maintenance. The Brackett polyurethane aircraft element can be changed without replacing the complete air filter assembly. Now induction systems, cylinders, and combustion chambers can be kept almost totally free of harmful contaminants with correct fitting of Brackett aviation air filters.



Brackett Air Filter Application Chart

Aircraft Make and Models	Brackett Filter Assembly		Filter Gasket		Brackett Element	
	Part #	Price	Part #	Price	Part #	Price
■ AERO COMMANDER						
A-9, A9A, A9B	BA-104	\$27.69	—	—	BA-3	\$14.34
100, 100A	BA-8910	\$69.08	—	—	BA-8905	\$9.78
100, 180	BA-3910	\$64.05	—	—	BA-3905	\$14.25
112, 112A, 112B	BA-3910	\$64.05	—	—	BA-3905	\$14.25
112TC, 112TC-A, 114, 114A	BA-4010	\$71.01	—	—	BA-4005	\$15.18
500	BA-152	\$78.78	—	—	BA-152E	\$18.86
580, 580A, 560E, 680	BA-2610-L/R	\$72.51	—	—	BA-2605-L/R	\$17.34
■ AIRCOUPE						
415C, CD, D, E, G	BA-8810	\$45.26	—	—	BA-8805	\$8.67
F-1, A-1, A2-2	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
■ BEECH						
23, A23, A23A, A23-19, A23-19A, A23-24, B23	BA-104	\$27.69	—	—	BA-3	\$14.34
C-23, C24R, A24R, B24R, B19	BA-7510	\$66.89	BA-7504	\$7.92	BA-7305	\$11.76
33, A33, B33, C33, E33, F33	BA-7110	\$69.39	BA-7104	\$10.58	BA-7112	\$13.92
C33A, E33A, E33C, F33A, F33C, G33	BA-7210	\$69.39	BA-7206	\$7.92	BA-7112	\$13.92
35, A35, B35 through SN D2605	BA-7310	\$66.71	BA-7303	\$6.48	BA-7305	\$11.76
B35, C35, D35, E35, F35, G35, H35, J35, K35, M35, N35, P35, 35R	BA-7110	\$69.39	BA-7104	\$10.58	BA-7112	\$13.92
S35 through SN D7671	BA-7410	\$69.39	BA-7406	\$7.92	BA-7112	\$13.92
S35, V35, V35A, V35B, 36, A36, A36TC, B36TC, A45 (T-34), B45 (T-34A), D45 (T-34B), W/STC SA1450SW CONT IO-520	BA-7210	\$69.39	BA-7206	\$7.92	BA-7112	\$13.92
50, B50, C50, D50, D50A, D50B, D50C, D50E	—	—	—	—	BA-4805	\$18.03
E50 (L-23D, RL-23D), F50, G50, H50, J50	BA-100	\$97.01	BA-1003	\$10.59	BA-7	\$18.32
55, A55, B55	BA-7610	\$70.82	BA-7603	\$4.20	BA-7605	\$14.69
C55, D55, E55, E55A (SN TE768-1078), 58 (through SN TH740)	BA-6210-1	\$65.85	—	—	BA-6205	\$13.52
E55, E55A (SN TE1079 and up), 58, 58A (SN TH741 and up)	BA-7710	\$70.23	BA-7703	\$8.90	BA-7705	\$16.20
A65, 70, 65-B80, B88	BA-100	\$97.01	BA-1003	\$10.59	BA-7	\$18.32
76	BA-7010	\$65.85	—	—	—	—
77	BA-2010	\$59.18	—	—	BA-6108	\$9.29
95, B95, B95A, D95A	BA-7810	\$68.94	—	—	BA-7805	\$15.66

Chart continued on next page

ENGINE AND FUEL SYSTEM

Bracket Air Filter Application Chart (continued)

Aircraft Make and Models	Brackett Filter Assembly		Filter Gasket		Brackett Element	
	Part #	Price	Part #	Price	Part #	Price
■ BELL						
47G-2, 2A, 2A1, 3, 3B, 3B-1, 3B-2, 3B-2A; 47J, 47J-2, 47J-2A	BA-102	\$34.61	—	—	BA-2	\$18.57
47G-3B, 3B-1, 3B-2, 4, 4A, 5; 47J-2, 2A	BA-103	\$54.32	—	—	BA-9	\$23.42
■ BELLANCA						
14-19-3A	BA-8110	\$79.44	BA-8101	\$7.43	BA-8103-1	\$17.37
17-30	BA-8110	\$79.44	—	—	BA-8103-1	\$17.37
17-30A	BA-104	\$27.69	—	—	BA-3	\$14.34
■ BRANTLEY						
B-2, B-2B	BA-104	\$27.69	—	—	BA-3	\$14.34
■ BRITTEN NORMAN						
BN-2A-6 with Lycoming O-540-E4C5 engines, BN-2, 2A, 2A-2, 2A-3, 2A-8, 2A-9, 2A-20, 2A-21, 2A-27, 2B-20, 2B-21, 2B-26, 2B-27	BA-104	\$27.69	—	—	BA-3	\$14.34
■ CESSNA						
120, 140, 140A, 150, 150A, B, C, D, E, F, G, H, J, K, L, M, A150M, 152, A152, F150G, H, J, K, L, M, FA150K, L, F152, FA152	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
170, 170A, B, 172, 172A, B, C, D, E, F, G, H, I, K, L, M, F172D, E, F, G, H, K, L, M	BA-5110	\$61.73	BA-5103	\$4.77	BA-6108	\$9.29
172-N, P, F172N, P	BA-5110A	\$63.47	BA-5103	\$4.77	BA-6108	\$9.29
R172K, FR172E, F, G, H, J, K	BA-111	\$75.15	—	—	BA-24	\$17.45
172RG	BA-5810	\$77.08	BA-5803	\$5.60	—	—
175, 175A, B, C	BA-101	\$82.83	BA-1102	\$13.26	BA-8	\$11.37
177, 177A, B, RG, F177RG	BA-5710	\$84.09	BA-5703	\$10.58	BA-5705	\$10.05
180 (1953-1955)	BA-8010	\$70.35	BA-8002	\$10.58	BA-8005	\$10.37
180A, B, C, D, E, F, G, H, J, K	BA-8110	\$79.44	BA-8101	\$7.43	BA-8103-1	\$17.37
182, 182A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, F182P, Q	BA-8110	\$79.44	BA-8101	\$7.43	BA-8103-1	\$17.37
R-182, TR-182, T-182, FR182	BA-2510	\$76.44	BA-2503	\$10.43	BA-2505	\$19.26
185, 185A, B, C, D, E, A185E, A185F	BA-8110	\$79.44	BA-8101	\$7.43	BA-8103-1	\$17.37
188, 188A	BA-114	\$74.63	—	—	BA-14A	\$16.89
190, 195, 195A, B	BA-8410	\$90.08	—	—	BA-8405	\$26.81
205, 205A	BA-2110	\$85.61	BA-2103	\$13.07	BA-2305	\$17.04
P206, A, B, C, D, E, U206, A, B, C, D, E, F, G	BA-2210L	\$85.61	BA-2206	\$10.01	BA-2205L	\$19.25
TP206A, B, C, D, E, TU206A, B, C, D, E, F, G	BA-2410	\$87.00	—	—	BA-2405	\$31.83
207, 207A	BA-2210L	\$85.61	BA-2206	\$10.01	BA-2205L	\$19.25
T207, T207A	BA-2410	\$87.00	—	—	BA-2405	\$31.83
210, 210A, B, C	BA-2110	\$85.61	BA-2103	\$13.07	BA-2305	\$17.04
210D, E, F, G, H, J, K, L, M, N (to SN 64535 without AIR)	BA-2210L BA-2210R	\$85.61\$85.61	BA-2206 BA-2206	\$10.01\$10.01	BA-2205L BA-2205R	\$19.25\$19.25
210N (SN 64536 and up with AIR), 210R	BA-2410	\$87.00	—	—	BA-2405	\$31.83
P210, all	BA-8710	\$93.21	—	—	BA-8705	\$16.83
T-210F, G, H, J, K, L, M, N	BA-2410	\$87.00	—	—	BA-2405	\$31.83
T-303	BA-5210	\$76.44	BA-2503	\$10.43	BA-5205	\$19.22

Chart continued on next page

ENGINE AND FUEL SYSTEM

Brackett Air Filter Application Chart (continued)

Aircraft Make and Models	Brackett Filter Assembly		Filter Gasket		Brackett Element	
	Part #	Price	Part #	Price	Part #	Price
310, A, B	BA-2110	\$85.61	BA-2103	\$13.07	BA-2305	\$17.04
310F, G, H, I, J, K, L	BA-2310	\$85.61	BA-2303	\$12.44	BA-2305	\$17.04
310N, P, Q, T310P, T310Q	BA-107	\$68.07	—	—	BA-12	\$22.49
310R	BA-117	\$74.10	—	—	BA-17	\$22.74
T310R	BA-108	\$71.40	—	—	BA-13	\$24.71
336	BA-111	\$75.15	—	—	BA-24	\$17.45
337, A, B, C, D, E, F, G, H, F337E, F, G, H	BA-111	\$75.15	—	—	BA-24	\$17.45
P337, T337 rear engine	BA-5810	\$77.08	—	—	—	—
340, 340A	BA-109	\$60.11	—	—	BA-22	\$22.44
401 (SN 145 to 402B SN 221)	BA-107	\$68.07	—	—	BA-12	\$22.49
402, (SN 145 to 402B SN 800)	BA-107	\$68.07	—	—	BA-12	\$22.49
402B (SN 801 and up)	BA-108	\$71.40	—	—	BA-13	\$24.71
402C	BA-109	\$60.11	—	—	BA-22	\$22.44
404	BA-130	\$66.59	—	—	BA-30	\$24.92
411, 411A	BA-3810	\$72.65	—	—	BA-3805	\$20.18
414, 414A	BA-109	\$60.11	—	—	BA-22	\$22.44
421, 421A, B, C	BA-108	\$71.40	—	—	BA-13	\$24.71
L-19	BA-101	\$82.83	BA-1102	\$13.26	BA-8	\$11.37
T41B, C, D	BA-111	\$75.15	—	—	BA-24	\$17.45
T-50, AT-17, UC-78, JRC-1	BA-2710	\$92.18	—	—	BA-2705	\$21.04
■ CHAMPION						
8KCAB, 8GCBC, 7KCAB, 7GCBC, 7GCAA	BA-8110	\$79.44	BA-8101	\$7.43	BA-8103-1	\$17.37
7GCAA, 7GCBC, 7KCAB, 8KCAB, 7ECA	BA-106	\$29.60	—	—	BA-11	\$11.87
7GC, 7GCA, 7GCBC, 7GCB	BA-104	\$27.69	—	—	BA-3	\$14.34
7HC, 7KC	BA-104	\$27.69	—	—	BA-3	\$14.34
7ECA with Continental O-200-A engine, 7ACA, 7ECA, 7FC, 6SCA	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
■ DE HAVILLAND						
DHC-2 (L-20)	BA-8210-1	\$105.12	BA-8208	\$5.39	BA-8205	\$28.94
■ GREAT LAKES						
2TIA-2	BA-101	\$82.83	BA-1102	\$13.26	BA-8	\$11.37
■ GRUMMAN AMERICAN						
AA-1, AA-1A, AA-1B, AA-1C, AA-5	BA-4210	\$57.35	BA-4101	\$4.55	BA-4108	\$7.95
AA5A	—	—	—	—	BA-19	\$11.93
AA5B Tiger, GA-7	BA-120	\$29.07	—	—	BA-20	\$16.44
Agcat G164, G164A	BA-8210	\$96.08	BA-8101	\$7.43	BA-8205	\$28.94
G164B	BA-105	\$33.78	—	—	BA-10	\$18.45
■ HILLER						
UH-12, UH-12A, B, C, D, E	BA-102	\$34.61	—	—	BA-2	\$18.57
■ HELIO						
H295	—	—	—	—	BA-21	\$28.22
■ HUGHES						
269A, A-1, B, C	BA-102	\$34.61	—	—	BA-2	\$18.57

Chart continued on next page

ENGINE AND FUEL SYSTEM

Bracket Air Filter Application Chart (continued)

Aircraft Make and Models	Brackett Filter Assembly		Filter Gasket		Brackett Element	
	Part #	Price	Part #	Price	Part #	Price
LAKE						
LA4, LA4-200	BA-3110	\$67.32	BA-3103	\$4.83	BA-7305	\$11.76
LUSCOMBE						
8, 8A through 8F, T8F	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
MAULE						
M-4-210, 210C, 210S, 210T, M-5-210C	BA-111	\$75.15	—	—	BA-24	\$17.45
MA-4, M-4C, 4S, 4T, 4-220, 4-220C, 4-220S, 4-220T, 4-180C, 4-180S, 4-180T, M-5-220C, 235C, 180C, 210TC, M-6-180, 235, MX7-180, M-7-235	BA-6110	\$71.57	BA-5103	\$4.77	BA-6108	\$9.29
MOONEY						
M-10	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
M-18C	BA-5110	\$61.73	BA-5103	\$4.77	BA-6108	\$9.29
M20, M20A, B, C, D, G	BA-6110	\$71.57	BA-5103	\$4.77	BA-6108	\$9.29
M20E, F	BA-6310	\$65.85	—	—	BA-6305	\$17.40
M20J	BA-6210	\$65.85	BA-6203	\$13.26	BA-6205	\$13.52
NAVION						
B, G, H	BA-4310	\$60.11	BA-4303	\$6.68	BA-4305	\$11.18
A	BA-113	\$39.81	—	—	BA-25	\$16.34
B with Lycoming GO-435 engine	BA-116	\$42.51	—	—	BA-26	\$17.45
NORTH AMERICAN						
AT6 (SNJ)	BA-8310	\$335.67	—	—	BA-8305	\$56.03
PIPER						
600, 601	—	—	—	—	BA-4	\$30.59
J-3, J-4, J-5	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
PA-11, 11S, 12, 12S	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
PA-16, 17, 18, 19	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
PA-18-150, PA-18A-150, PA-18S-150, PA-18AS-150 SN 18-6964 and up, with TCDS item 110 installed	BA-112	\$61.07	—	—	BA-13	\$24.71
PA-20, 115 and 135hp	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
PA-22, all	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
PA-23, 160hp	BA-3110A	\$67.32	—	—	BA-7305	\$11.76
PA-23, 235 and 250hp	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-23-250, PA-E23-250 SN 27-2505 and up	BA-115	\$38.69	—	—	BA-15	\$16.62
PA-23-250, PA-E23-250 with turbo Lycoming engine	BA-3510	\$86.58	—	—	BA-3505	\$17.90
PA-24-180 up to SN 1476	BA-3110A	\$67.32	—	—	BA-7305	\$11.76
PA-24-250 up to SN 1476	BA-3210	\$72.21	—	—	BA-3205	\$14.69
PA-24, 180 and 250hp SN 1477 and up, PA-24-250 SN 103 to 1476 with Piper kit 754-285 installed, PA-24-260 SN 4000 to 4802 except 4783	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-24-260C	BA-4510	\$71.60	—	—	BA-4505	\$15.09
PA-25, 235 and 260hp	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-28-140, 150, 160, 180, 235	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-28-181, 201T	BA-104	\$27.69	—	—	BA-3	\$14.34

Chart continued on next page

ENGINE AND FUEL SYSTEM

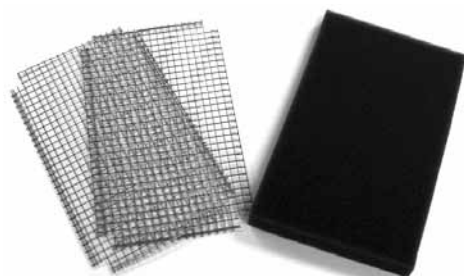
Bracket Air Filter Application Chart (continued)

Aircraft Make and Models	Brackett Filter Assembly		Filter Gasket		Brackett Element	
	Part #	Price	Part #	Price	Part #	Price
PA-28R-201T	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-28RT-201T	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-28R-201, PA-28RT-201, PA-28R-180, PA-28R-200	BA-105	\$33.78	—	—	BA-10	\$18.45
PA-28-151, 161	—	—	—	—	BA-16	\$9.08
PA-28-236 SN 7911283 and up	BA-2910	\$61.44	—	—	BA-2905	\$13.34
PA-30-160	BA-105	\$33.78	—	—	BA-10	\$18.45
PA-31, PA-31-300, -310, -325, -350	BA-100	\$97.01	BA-1003	\$10.59	BA-7	\$18.32
PA-31P, PA-31P-350	BA-3310	\$143.06	—	—	BA-3305	\$22.50
PA-32-260	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-32-300 SN 76-40001 and up, PA-32R-300, PA-32RT-300, PA-32R-301	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-32-300 with IO-540-K1A5	BA-115	\$38.69	—	—	BA-15	\$16.62
PA-32RT-300T	BA-100	\$97.01	BA-1003	\$10.59	BA-7	\$18.32
PA-32-301T, PA-32R-301T	BA-3010	\$77.99	—	—	BA-7	\$18.32
PA-34-200T, 220T	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-34-200 with Lycoming IO-360-C01E6 or LIO-360-C1E6	BA-105	\$33.78	—	—	BA-10	\$18.45
PA-36-300 with Continental 6-285-B, PA-36-375	BA-104	\$27.69	—	—	BA-3	\$14.34
PA-38	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
PA-39	BA-105	\$33.78	—	—	BA-10	\$18.45
PA-44-180	BA-105	\$33.78	—	—	BA-10	\$18.45
PA-44-180T	BA-3510	\$86.58	—	—	BA-3505	\$17.90
■ ROBINSON						
R-22	BA-110	\$29.18	—	—	BA-23	\$17.45
■ STEARMAN						
All series 75	BA-118	\$65.01	—	—	BA-18	\$29.96
■ STINSON						
108, 108-1, 2, 3	BA-9110	\$39.59	—	—	BA-9105	\$9.66
■ SWIFT						
GC-1A, GC-1B	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
■ TAYLORCRAFT						
All models	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95
■ VARGA						
2150A	BA-4106	\$57.95	BA-4101	\$4.55	BA-4108	\$7.95

Don't Neglect Your Air Filter!

Check the entire intake system for leaks. Here is a quote from a Lycoming engine flyer:

"Dust or some form of dirt is frequently the principle factor in premature piston ring and cylinder wear. If a worn or poorly fitting air filter allows as much as a tablespoon of abrasive material into the cylinders, it will cause wear to the extent that an overhaul will be required."



ENGINE AND FUEL SYSTEM

Air-Maze Air Filters – Original Paper Type

Univair supplies a wide variety of air filters for light planes. Protect yourself and your engine by replacing your air filter regularly.

Piper Aircraft Filters

- For J-3 through J-5, PA-11, PA-15, PA-17, PA-18 (90hp, 105hp, 125hp), PA-22 (125hp)

Air Filter (40599).....600314 **\$73.25**

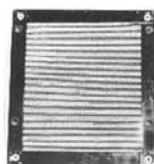


- For PA-18, PA-18A (150hp models) SN 18-6964 and up

Air Filter U454-118 **\$42.32**

- For PA-18 (135hp and 150hp models)

Air Filter (460-638) 120086 **\$44.66**



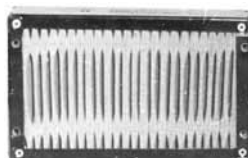
- For PA-22 (108hp, 135hp, 150hp and 160hp)

Air Filter (13681) 121494 **\$130.05**

Piper Apache Filter

- For O-320 Lycoming engine in Piper Apache

Air Filter 17775-000 **\$69.81**

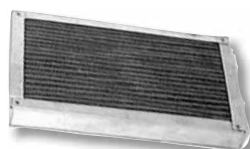


Franklin and Stinson Filter

- For Franklin 150-165hp and Stinson 108 series
- Close out strip sold separately

Air Filter 108-6221805 **\$66.38**

Close out strip 108-6221805-8 **\$18.58**



Air-Maze Air Filter

- For Continental A-65, A-75, C-85, C-90, and C-125; Luscombe 8A through 8F, Taylorcraft, Cessna 140, Swift GC-1A and GC-1B, etc.; Piper J-3 through J-5, PA-11, PA-15, PA-17, PA-18 (90hp, 105hp, 125hp models) and PA-22 (125hp models)

- Use with UA50256 housing

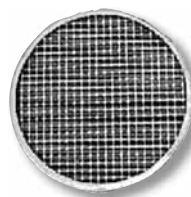
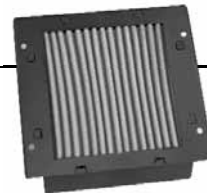
Air Filter (40599).....600314 **\$73.25**
 Stud 24306 **\$9.02**
 Cross Pin (24308) 652021 **\$22.36**
 Gasket.....652142 **\$6.91**
 Fastener on box (531050) 99871C098 **\$5.52**



Aeronca Filter

- For Aeronca 7AC and 11AC

Air Filter U2-849 **\$97.11**



Ercoupe Filter

- For Continental C-75 and C-85, Ercope

Air Filter 415-40585-1 **\$80.99**

Carburetor Air Intake Box

- For 145 Swift, 170 Cessna

Air Intake Box.....530852 **\$768.94**



Carburetor Air Boxes for 4 Cylinder Continental Engines

FAA/PMA
APPROVED

- For C75-8, C75-8F, C75-12, C75-12F, C85-8, C85-8F, C85-12, C85-12F, C90-8F, C90-12F Engines

UA50256 **\$515.52**

- For A65-1, A65-3, A65-6, A65-7, A65-8, A65-8F, A65-9, A65-9F, A65-12, A65-12F, A65-14, A65-14F Engines

UA50495 **\$483.73**



Carburetor Air Intake Box and Filter

FAA/PMA
APPROVED



- Complete assembly for the Aeronca

7AC-11AC Air Box (includes air filter)..... U4-601-1 **\$597.71**

Filter only U2-849 **\$97.11**

Continental Carburetor Air Intake Support Assembly

Continental Bracket.....UA35917 **\$88.56**

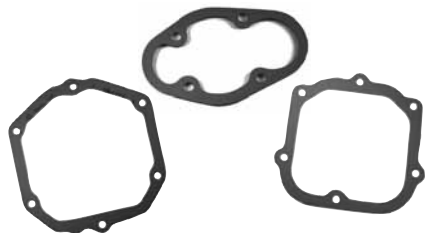


J-3 Cowl Bracket Nut Adapter for C-85 23130 **\$77.87**



ENGINE AND FUEL SYSTEM

Real™ Gaskets



Lycoming	Part #	Price
O-235; O-290; O-, IO-, -LIO-320; O-340; O-360-A, -B, -C, -D; IO-360-B; HO-360-A, -B; HIO-360-B; VO-, IVO-360; O-540-A, -B, -E, -F, -G; IO-540-C, -D, -J, -N, -R.....	RG-75906	\$8.50
IO-360-A, -C, -D; AIO-360-A, -B; HO-360-A, -C, -D; TIO-360-A; LIO-360-C1E6; VO-, GO-, TVO-435; GO-480; IO-, VO-, TVIO-540; IO-720	RG-67193	\$8.75
IO-540-B, -E, -M; TIO-540-A; IGO-540-B; IGSO-540-B; TIO-541-A.....	RG-71450	\$10.65

Continental	Part #	Price
A-65; C-75, -85, -90, -145, -175; O-200; O-300	RG-530162	\$8.45
E-185; E-225; IO-346; O-470-A, -E, -J; IO-470-J, -K.....	RG-532451	\$10.27
O-470 except -A, -E, -J; IO-, TSIO-470; IO-, TSIO-520.....	RG-534857	\$10.50
IO-, TIO-, TSIO-360	RG-632310	\$4.37
GTSIO-520; TSIO-520-BE	RG-632459	\$4.75

Franklin	Part #	Price
4A-235; 6A-335; 6A4-150; 6A4-165, -200; 6A-335.....	RG-17727	\$8.50

B&C Specialty Products

B&C Oil Filter Adapter

The original 90° oil filter adapter! Mounts directly on the accessory case to replace the OEM oil screen, the horizontal mount AC-brand oil filter adapter, or other "remote" oil filtration systems (with no complicated hoses and leak-proof fittings). Ships ready to install, with new mounting hardware, gasket, and a Champion 48108-1 filter.

- Exceptional strength — CNC machined from a solid billet of aluminum (not a casting)
- No hoses or fittings
- Weighs only 2.25 lbs with CH48108-1 filter
- Available with 3 sizes of billet aluminum spacers
- STC/PMA: Lycoming O-235 to IO-720

Oil Filter Adapter..... BC700-1 \$450.00



B&C Primary Alternator Systems for PA-18

- STC/PMA for Piper PA-18 and PA-19
- Includes BC201-1 Regulator

With a rated output of 40 amps, and weighing just 6.1 lbs, the BC400-2 features a precision-balanced rotor, sealed heavy duty ball bearings, three solid attachment points, two built-in cooling fans, and provision for modern, aircraft-appropriate external regulation.

Ships with mounting brackets (for either Wide or Narrow-Deck mount engines), attachment hardware, belt tension arm, and belt.



NOTE: This approved installation applies to aircraft with previously existing electrical systems, and oil coolers mounted on the aft engine baffle only. Aircraft otherwise equipped will require field alteration and FAA approval.

Alternator, with Regulator BC201-1..... BC400-2 \$698.00

B&C Lycoming Replacement Starters

The B&C Starter uses only sealed heavy-duty ball bearings, all-metal gears (no plastic gears of any kind), and an efficient series-wound motor.

- Electromechanical pinion actuation (no Bendix drive)
- Weight: 10.2 lbs.
- Number of Ring Gear Teeth: 122 or 149
- STC/PMA: Lycoming O-235 to IO-720



12-volt Starter, 122 ring gear teeth..... BC315-100-1 \$580.00
12-volt Starter, 149 ring gear teeth..... BC315-100-2 \$580.00
24-volt Starter, 149 ring gear teeth..... BC315-100-4 \$610.00

B&C Continental Replacement Starter

Featuring the durability of all-steel gears and heavy duty sealed ball bearings, and the efficiency of a high-torque series-wound motor, the B&C Starter for Continental engines provides for greater starting torque, while saving 4.3 to 5.2 lbs. over the old key-type and pull-cable type starters, respectively.

- Includes kit 501-1 for existing key type starters or 501-3 for existing pull-cable type starter
- Billet aluminum end bell
- Electromechanical pinion actuation
- Weight: 10.3 lbs.
- STC/PMA: Continental C-75, C-85, C-90, C-145, O-200, IO-240, O-300-A, -B, -C, and GO-300-A, -B, -C

12-volt Starter with Kit 501-1 (Key Type)..... BC320-1-1 \$608.00
12-volt Starter with Kit 501-3 (Pull-Cable Type)..... BC320-1-3 \$618.00
Continental Starter Install Kit (Key Type)..... FK501-1 \$25.00
Continental Starter Install Kit (Pull-Cable Type)..... FK501-3 \$60.00



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ENGINE AND FUEL SYSTEM

Precision Carburetors

Formerly Marvel-Schebler

Precision Carburetor Parts

Prices below chart

Carburetor Part #	Pump	Shaft	Nozzle	Idle Tube	Float	Float Shaft	Float Valve	Float Setting	Idle Needle	Gaskets	Repair Kit
A10-2065	—	—	—	—	—	A32-32	—	$\frac{7}{32}$	A43-564	A16-599	*
A10-2065-P	—	—	—	—	—	A32-32	—	$\frac{7}{32}$	A43-564	A16-599	*
A10-2301	A194-580	A13-853	A47-613	—	—	A32-35	A233-614	$\frac{13}{64}$	—	—	*
A10-2535-1	A194-580	—	—	—	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	A16-630	*
A10-2827	—	A13-853	—	A229-560	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-646	*
A10-2848	A194-593	—	A47-652	A229-566	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	A16-CF-653	A286-1629
A10-2948	—	—	—	A229-541	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	A16-CF-653	A286-815
A10-2971	A194-593	—	—	A229-569	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	A16-CF-653	*
A10-2971-P	A194-593	—	—	A229-569	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	A16-CF-653	*
A10-2983	—	—	A47-667	A229-567	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	—	*
A10-3148-1	A194-580	A13-853	A47-689	A229-572	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-625	*
A10-3237	A194-593	—	A47-702	A229-566	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	CF16-653	A286-974
A10-3323	A194-580	A13-853	—	A229-560	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-646	*
A10-3346-1	A194-593	—	A47-719	A229-569	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	CF16-653	—
A10-3565-1	A194-593	—	A47-728	A229-569	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	CF16-653	A286-1630
A10-3634	A194-580	—	A47-738	—	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-625	*
A10-3649-1	A194-580	A13-853	—	A229-572	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-625	*
A10-3678-12	CF194-581	—	—	A229-587	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	CF16-676	*
A10-3678-32	CF194-581	—	A47-773	A229-587	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	CF16-676	—
A10-3729	A194-593	—	A47-719	A229-569	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	CF16-653	A286-1070
A10-3759	A194-580	A13-853	—	A229-572	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-625	*
A10-3859	A194-580	A13-853	—	A229-572	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-625	A286-939
A10-3859-1	A194-580	—	—	A229-572	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-625	—
A10-3878	—	—	—	A229-590	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-625	—
A10-3965-12	A194-580	A13-853	A47-749	A229-584	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-625	—
A10-4115	A194-593	—	—	A229-587	—	A32-32	—	$\frac{7}{32}$	A43-564	—	—
A10-4164-1	—	—	A47-755	A229-589	—	A32-35	A233-614	$\frac{13}{64}$	A43-649	A16-625	*
A10-4171	A194-580	—	—	A229-584	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-646	*
A10-4191	A194-580	A13-853	A47-749	A229-584	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-625	*
A10-4218-1	—	—	—	—	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-710	—
A10-4233	A194-593	—	—	A229-594	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	—	—
A10-4240	A194-593	—	—	A229-587	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	—	—
A10-4252	A194-593	—	—	A229-587	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	—	A286-1632
A10-4404-1	—	—	A47-779	A229-592	—	A32-35	A233-614	$\frac{13}{64}$	—	A16-646	A286-1643
A10-4439	A194-593	—	A47-702	A229-566	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	A16-653	*
A10-4457	A194-593	—	—	A229-587	A30-766	A32-32	—	$\frac{7}{32}$	A43-564	—	*
A10-4495	A194-580	—	—	—	A30-762	A32-35	A233-614	$\frac{13}{64}$	—	—	A286-1398

Use your Marvel-Schebler Parts and Service Manual for correct parts selection. *Repair Kits for these carburetors are not available.

ENGINE AND FUEL SYSTEM

Prices

Pump

A194-580	\$58.15
A194-593	\$113.10
CF194-581	\$110.00

Shaft

A13-853	\$222.57
---------------	----------

Nozzle

A47-613	\$143.94
A47-652	\$106.52
A47-667	\$121.48
A47-689	\$143.94
A47-702	\$112.81
A47-719	\$58.15
A47-728	\$103.73
A47-738	\$215.30
A47-749	\$145.13
A47-755	\$215.30
A47-773	\$324.40
A47-779	\$236.31

Idle Tube

A229-541	\$74.80
A229-560	\$97.24
A229-566	\$96.26
A229-567	\$95.21
A229-569	\$81.89
A229-572	\$138.70
A229-584	\$132.74
A229-587	\$101.04
A229-589	\$83.86
A229-590	\$83.86
A229-592	\$83.86
A229-594	\$92.82

Float Shaft

A32-32	\$22.44
A32-35	\$19.23

Float Valve

A233-614	\$130.66
----------------	----------

Idle Needle

A43-564	\$41.43
A43-649	\$103.90

Gaskets

A16-625	\$108.20
A16-630	\$42.45
A16-646	\$111.84
A16-710	\$81.27

Repair Kit

A286-815	\$325.83
----------------	----------

A286-939	\$515.04
A286-1070	\$359.00
A286-1398	\$666.29
A286-1629	\$660.00
A286-1630	\$728.48
A286-1632	\$660.00
A286-1643	\$784.03

Precision Replacement Parts

While supplies last

Description	Part #	Price
Screw	A15-A15	\$14.22
Screw	A15-A23	\$3.99
Screw	A15-483	\$3.54
Gasket	A16-A32	\$5.80
Gasket	A16-221	\$12.79
Rod	A17-383	\$27.80
Spring	A24-A10	\$7.43
Spring	A24-A39	\$5.48
Clip	A29-113	\$7.60
Plug	A37-4	\$0.83
Plug	A37-7	\$2.61
Packing	A44-86	\$11.31
Nozzle	A47-719	\$58.15
Nozzle	A47-728	\$103.73
Washer	A78-5	\$1.19
Washer	A78-121	\$4.16
Washer	A78-356	\$1.58
Washer	A78-357	\$1.71
Washer	A78-371	\$2.81
Plug	A80-151	\$34.96
Cotter Key	A82-14	\$2.32
Pipe Plug	A99-8	\$17.98
Tube Assembly	A229-560	\$97.24
Tube Assembly	A229-569	\$81.89
Tube Assembly	A229-579	\$56.58
Tube Assembly	A229-587	\$101.04
Tube Assembly	A229-588	\$81.89
Valve	A242-505	\$143.94
Valve	A242-508	\$154.86
Valve	A242-520	\$133.60
Valve	A242-528	\$127.41
Valve	A242-537	\$46.29
Long Lock Kit	A666-652	\$156.10

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supplies on our website.

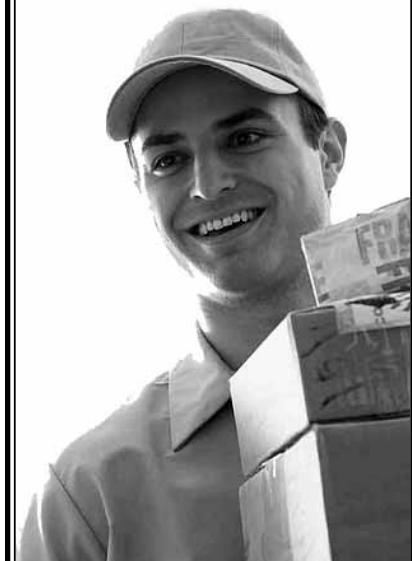
Marvel Repair Kits



A286-815
(not all included parts are shown)

Carburetor Part #	Part #	Price
A10-3168	A286-815	\$325.83
A10-3859	A286-939	\$515.04
A10-3565-1	A286-1630	\$728.48
A10-3729	A286-1070	\$359.00
A10-3634	A286-1190	\$491.47
A10-4495	A286-1428	\$622.61
A10-4240	A286-1428	\$622.61

Rush Orders



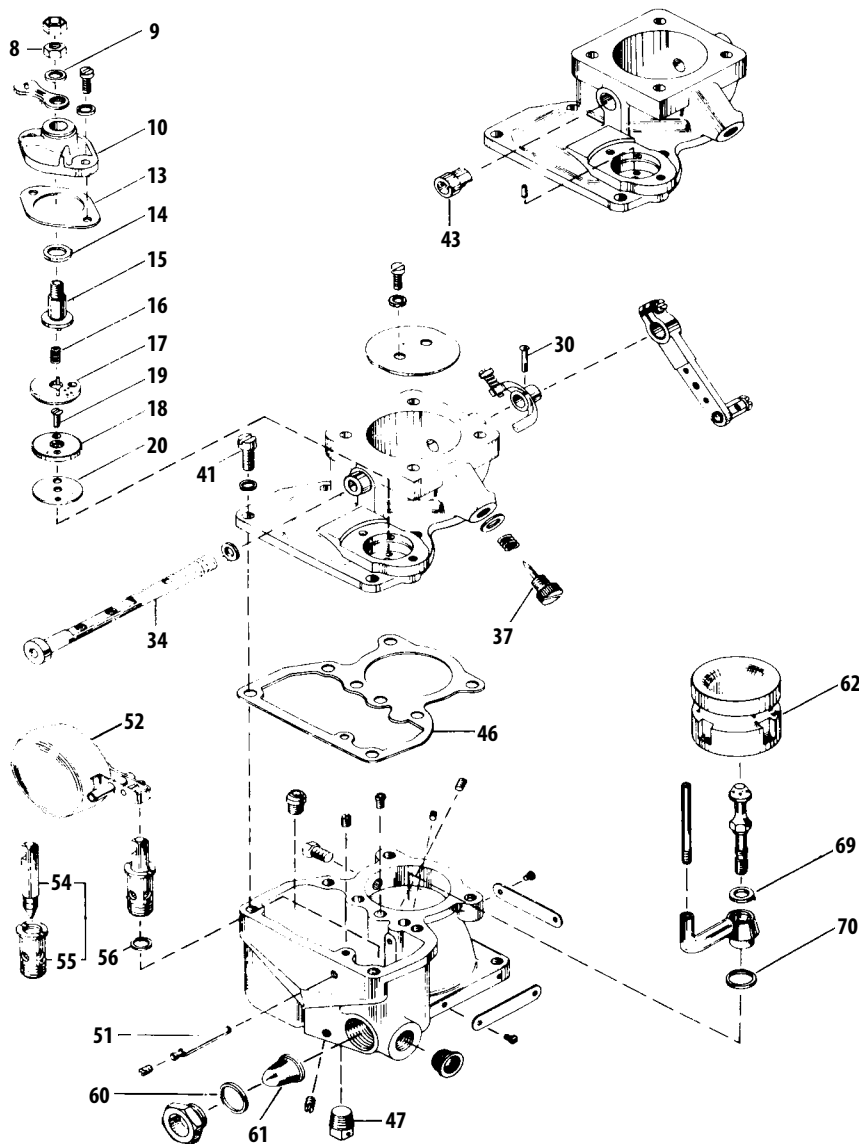
Shipped same day*
No additional rush fees

**Orders must be received by Univair before noon
Mountain Time to ship same day. Applies to
in-stock items only. Other conditions may apply.
Call for details.*

ENGINE AND FUEL SYSTEM

Bendix Stromberg Carburetor NA-S3A1 Assembly

Exploded View



#	Description	Part #	Quantity	Price
8	Nut, #10-32	AN315-3	1	\$0.14
9	Flat Washer	NAS1149F0363P	1	\$0.04
10	Cover Assembly, mixture control	P61037	1	\$58.00
13	Gasket, mixture control cover	P61033	1	\$4.58
14	Gasket.....	384667	1	\$5.52
15	Stem, mixture control.....	P61034	1	\$72.90
16	Spring, helical*	P8770	1	—
17	Plate, mixture control valve, upper.....	P61030	1	\$68.41
18	Plate, mixture control valve, lower.....	P61031	1	\$83.11
19	Screw, #8-32 by 3/8 inch.....	AN505-8-6	1	\$0.12
20	Gasket.....	P61035	1	\$4.05
30	Pin, split taper #4/0.....	P21267-1	AR	\$0.86
34	Shaft Assembly, throttle.....	P16151	1	—
37	Valve Assembly, idle.....	P16177	1	—
41	Screw, fillister head 1/4-20 by 3/8 inch.....	P6550	6	\$3.75
43	Bushing, throttle shaft*.....	P16169	2	—

#	Description	Part #	Quantity	Price
46	Gasket.....	P16155	1	\$5.39
47	Plug (Bendix P8505).....	MS20913-2D	1	\$8.58
51	Pin, fulcrum.....	P16160	1	\$1.76
52	Lever and Float Assembly*	P16156	1	—
54	Needle, float (390077).....	2523047	1	\$160.22
55	Seat, needle valve*	P17247	1	—
56	Gasket, 1/64 inch thick**.....	P16165	1	\$5.52
56	Gasket, 1/32 inch thick**.....	P12999	1	\$5.52
56	Gasket, 3/64 inch thick**.....	P16166	1	\$5.74
56	Gasket, 1/16 inch thick**.....	P16167	1	\$2.96
60	Gasket, copper.....	1745-22	1	\$14.56
61	Strainer Assembly*	P12958	1	—
62	1 3/8 inch Venturi*.....	P16176-13/8	1	—
69	Gasket.....	P5329	1	\$2.67
70	Gasket.....	P2885	1	\$0.83
	Gasket Kit (not illustrated).....	380189		\$54.25

*No longer available

**When necessary to change the float level, one of these gaskets may be used under the float needle seat in place of P12999

ENGINE AND FUEL SYSTEM

Service Bulletin Fuel Systems

Published By Product Support Department

No. ACS-84

Rev. No. 1

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Revised 7-15-72

Page 1 of 4

SUBJECT: CARBURETOR, BENDIX-STROMBERG MODELS NA-S3A1, NA-S3B AND NA-S03A1 - FLOAT
NEEDLE VALVE P/N 390077 - REPLACEMENT OF

REFERENCE: Letter, Continental (R. J. Powell) to Bendix (J. E. Hartzler) dated 26 June 1963.

PUBLICATIONS AFFECTED:

- | | |
|-----------------------|---|
| (a) Form No. 15-91B | Handbook Overhaul Instructions, Float Carburetor Model
NA-S3A1 dated 15 December 1958. |
| (b) Form No. 15-S91B | Supplement to Handbook Overhaul Instructions, Float
Carburetor Model NA-S3A1 dated 15 December 1963. |
| (c) Form No. 15-103B | Illustrated Parts Breakdown, Float Carburetor Model
NA-S3A1 dated 1 November 1958. |
| (d) Form No. 15-S103B | Supplement to Illustrated Parts Breakdown, Float Carburetor
Model NA-S3A1 dated 1 November 1958. |

REASON FOR BULLETIN: To provide a float needle valve made of Delrin, an ivory colored acetal plastic, in lieu of the rubber tipped stainless steel needle. Material change made to remove rubber age control requirement, reduce cost and provide an improved service life material. Reason for Revision:

1. To add instructions for float lever weight.
2. To add seat part number under application.

APPLICATION:

<u>Engine</u>	<u>Carburetor Model</u>	<u>Parts List</u>	<u>Seat P/N</u>
A-65, 0-170-3,-5,-7	NA-S3A1	A-18033(B)-5	383911
A-75		A-30177(B)-5	383912
C-75		380162-2	383911
C-85-12		380167-4	383911
C-75-12		380171-2	384585
C-85-12		380172-2	384585
C-75-12		380174-2	383911
C-90-12F		380231-3	383911
C-90-8F		391090-2	383911
C-90-12F		391156-2	384585
C-90-14F		391229-2	383911
C-90-14F		391257-2	384585
A-65-8		391716-2	384585
A-65-8	NA-S3B	380155-2	383911
A-65-8		380156-1	383911
A-65-8		380206-1	384585
A-100-1	NA-S03A1	380168-2	383911
A-100-1		380175-1	384585



**Energy Controls
Division**

717 N. Bendix Dr., South Bend, Indiana 46620

ENGINE AND FUEL SYSTEM

ACSB No.-34, Rev.1

SUBJECT: CARBURETOR, BENDIX-STROMBERG MODELS NA-S3A1, NA-S3B AND NA-S03A1 - FLOAT NEEDLE VALVE P/N 390077 - REPLACEMENT OF.

COMPLIANCE:

Operating Activities: For information only.

Overhaul Activities: Comply at time of carburetor overhaul when stock of float needle P/N 390077 has been exhausted.

DETAILED INSTRUCTIONS:

1. At time of carburetor overhaul, replace the rubber tipped stainless steel float needle valve P/N 390077 with the new Delrin plastic needle valve P/N 2523047.
2. The needle seat, P/N 383911, 383912 or 384585 as applicable (see application), need not be replaced unless the valve contact area on the seat has been damaged or deformed to the extent that the seat is no longer considered to be serviceable.
3. The Delrin needle requires a weight added to the float lever. The weight must weigh approximately four grams. Refer to Figure 1 for instructions for fabrication of the weight. Soft solder the weight to the float lever in the location indicated in Figure 2. Use a 300 or 500 watt electric iron for this soldering operation to get the solder to flow. Keep the float and lever wrapped in a wet cloth to prevent melting other solder joints.

CAUTION

Be certain the added weight does not strike the aluminum carburetor bowl at any position of the float. Some corners of the added weight will have to be tailored for clearance.

4. Continue assembling the carburetor in the usual manner.
5. The Delrin material is not readily affected by the usual cleaning agents used during normal carburetor overhaul; however, it is recommended that the needle not be subjected to cleaning in a trichlorethylene degreaser or by use of acetone. It is suggested that the material used for needle cleaning be confined to the usual naphtha type cleaning solvents.

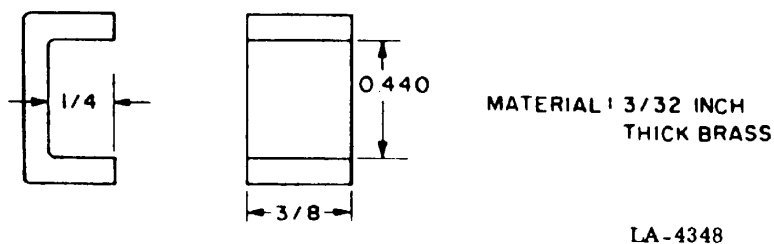


Figure 1

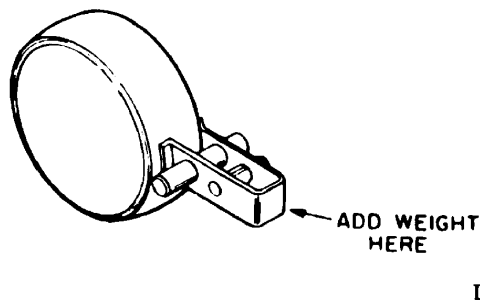


Figure 2

ENGINE AND FUEL SYSTEM

ACSB No. 84, Rev. 1

SUBJECT: CARBURETOR, BENDIX STROMBERG MODELS NA-S3A1, NA-S3B AND NA-S03A1 - FLOAT
NEEDLE VALVE P/N 390077 - REPLACEMENT OF.

6. Carburetor reidentification is not required.

7. The existing calibration test and limits are not affected by this bulletin.

PARTS REQUIRED:

<u>Name of Part</u>	<u>Bendix P/N</u>	<u>Quantity/Unit</u>	<u>Source</u>
Valve, Float Needle	2523047	1	(1)

NOTE

Effective with the introduction of the Delrin needle valve, it will no longer be necessary to procure the float needle valve and seat assembly as a matched assembly. However, once in service use, the valves and seats should not be indiscriminately interchanged with other used parts. Valve P/N 2623047 and seat P/N 383911, 383912 or 384585, as applicable, may be procured as separate items.

SOURCE OF PARTS:

(1) Procure through the normal supply channels.

PARTS REMOVED:

<u>Name of Part</u>	<u>Bendix P/N</u>	<u>Quantity/Unit</u>	<u>Disposition</u>
Valve, Float Needle	390077	1	(1) (2)

(1) Scrap.

DISPOSITION OF LIKE PARTS IN STOCK:

(2) Use until exhausted.

SPECIAL MATERIALS REQUIRED: None.

SPECIAL TOOLS REQUIRED: None.

MAN HOURS REQUIRED: No effect.

WEIGHT AND BALANCE DATA: No effect.

Continental AC Pump Adapter Kit

Complies with AD 81-07-06 Teledyne Continental Motors, which applies to A-65, A-75, C-75, C-85, C-90, A-100, C-125, and O-200 engines equipped with AC fuel pumps, part numbers 40585, 40695 or 631391.

Pump Adapter Kit..... AF-6561**\$124.42**

Kit consists of the following parts:

Screen.....643913

Gasket.....643914

Screw.....643915

Complete Piper Gascolator

• For Piper J-3, PA-11, PA-12,
14, 15, 16, 17, 18, 20, 22

**FAA/PMA
APPROVED**

Gascolator..... U14330-002**\$220.70**

½" Gascolator with Metal Bowl and Quick Drain

Gascolator for use with
½" fuel lines similar to
U14330-002 except with
large head for ½" fuel
system.



Complete ½" Gascolator..... 1702***\$303.09**

½" Gascolator Head only..... 1700***\$139.66**

½" Gascolator Screen only..... 1701***\$6.63**

**For homebuilt use only*

Gascolator Parts



2½ inch Gasket..... U85012-032**\$3.08**

2 inch Gasket..... LAT-08**\$3.74**

Gascolator Screen..... U750-272**\$2.12**

2½ inch Top..... U87477-002**\$90.19**

2½ inch Bowl..... U12764-000**\$100.40**

Bail..... U494-644**\$50.98**

ENGINE AND FUEL SYSTEM

Univair Shielded Ignition Leads



Select the correct ignition lead model

To order the correct lead, select the ignition lead model from the table on the right based on your magneto type.

Example: An engine with $\frac{5}{8}$ x 24 spark plugs and a Scintilla S6 Series magneto with threaded cap uses a 101 model lead.

NOTE: Threaded high tension terminal plates must be used when upgrading from unshielded to shielded ignition leads. See page 206 for Bendix Magneto details.

Find the right lead length

If you are replacing an existing lead, measure the exact length, **ferrule-to-ferrule**, and use this as the last part of your order number. Leads are manufactured in 3" increments from 19" to 60".

Example: If you need a 101 Series lead and the ferrule-to-ferrule measurement is 33 inches long, the Univair part number would be 101-33.

Routing charts begin on page 202.

Price chart is on page 205.

Shielded ignition leads lengths shown are "ferrule to ferrule".

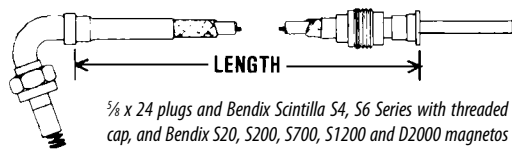
Spark Plug Selection

Magneto Selection

	$\frac{5}{8}$ x 24
Eisemann LA-4.....	Use model 102
Eisemann LA-6.....	Use model 102
Scintilla SF-4 Series.....	Use model 104
Scintilla SF-6 Series.....	Use model 104
Scintilla S4 Series with Threaded Cap.....	Use model 101
Scintilla S6 Series with Threaded Cap.....	Use model 101



Model 101



$\frac{5}{8}$ x 24 plugs and Bendix Scintilla S4, S6 Series with threaded cap, and Bendix S20, S200, S700, S1200 and D2000 magnetos with threaded $\frac{11}{16}$ x 24 male outlets.

Elbow Design..... $\frac{5}{8}$ x 24, 70°

Terminal Design –

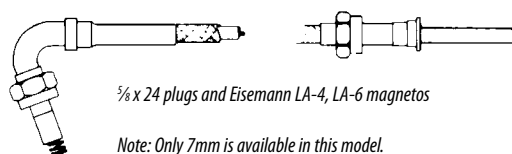
Spark Plug End Standard glazed ceramic $\frac{5}{16}$ insulator, silicone rubber grommet

Magneto End $\frac{11}{16}$ x 24 male thread square head nut

Wire Size and Type 7 mm shielded

Availability (in 3" increments)..... 101-15 through 101-72

Model 102



$\frac{5}{8}$ x 24 plugs and Eisemann LA-4, LA-6 magnetos

Note: Only 7mm is available in this model.

Elbow Design..... $\frac{5}{8}$ x 24, 70°

Terminal Design –

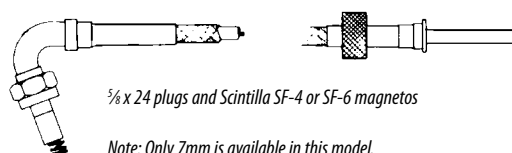
Spark Plug End Standard glazed ceramic $\frac{5}{16}$ insulator, silicone rubber grommet

Magneto End $\frac{11}{16}$ x 24 female thread hex head nut

Wire Size and Type 7 mm shielded

Availability (in 3" increments)..... 102-21 through 102-69

Model 104



$\frac{5}{8}$ x 24 plugs and Scintilla SF-4 or SF-6 magnetos

Note: Only 7mm is available in this model.

Elbow Design..... $\frac{5}{8}$ x 24, 70°

Terminal Design –

Spark Plug End Standard glazed ceramic $\frac{5}{16}$ insulator, silicone rubber grommet

Magneto End $\frac{3}{4}$ x 18 female thread knurled round nut

Wire Size and Type 7 mm shielded

Availability (in 3" increments)..... 104-21 through 104-54
104-60 through 104-69

ENGINE AND FUEL SYSTEM

Routing Charts

To determine your requirement:

- Check your spark plug
- Check your magneto
- Check the chart under your engine

All the information to assist you in determining your need is given in the charts below and the preceding page.

The length of the lead is shown in the chart under your specific engine. Length is measured ferrule-to-ferrule, with length designated after the dash in the part number. *Example: Part number 101-42 is a 42-inch lead.* Make selection of as many leads as your engine requires.

Chart Symbol Definitions:

Cylinder column: T = Top, B = Bottom
Magneto column: L = Left, R = Right

**Price chart
on page 205**

Continental Engines

Engine Model A50, A65, A75, A80

Bendix S4RN-20, S4RN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-24	102-24	104-24
T2	3L	101-36	102-36	104-36
T3	2R	101-30	102-30	104-30
T4	4L	101-33	102-33	104-33
B1	1L	101-36	102-36	104-36
B2	3R	101-24	102-24	104-24
B3	2L	101-27	102-27	104-27
B4	4R	101-33	102-33	104-33
Lead Set		101-105	102-105	104-105

Engine Model CF75-12, -12F, -12FJ, C85-12F, -12FJ, C90-12, 0200A

Bendix S4LN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-39	102-39	104-39
T2	3R	101-42	102-42	104-42
T3	2R	101-42	102-42	104-42
T4	4R	101-42	102-42	104-42
B1	1L	101-39	102-39	104-39
B2	3L	101-39	102-39	104-39
B3	2L	101-42	102-42	104-42
B4	4L	101-42	102-42	104-42
Lead Set		101-106	102-106	104-106

Engine Model C85-8, -8F, C90-8F, -8FJ

Bendix S4LN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-39	102-39	104-39
T2	3R	101-42	102-42	104-42
T3	2R	101-42	102-42	104-42
T4	4R	101-42	102-42	104-42
B1	1L	101-36	102-36	104-36
B2	3L	101-36	102-36	104-36
B3	2L	101-42	102-42	104-42
B4	4L	101-39	102-39	104-39
Lead Set		101-107	102-107	104-107

Engine Model C125, C145, 0300

Bendix S6LN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-33	102-33	104-33
T2	4R	101-36	102-36	104-36
T3	3R	101-42	102-42	104-42
T4	6R	101-48	102-48	104-48
T5	5R	101-42	102-42	104-42
T6	2R	101-48	102-48	104-48
B1	1L	101-39	102-39	104-39
B2	4L	101-36	102-36	104-36
B3	3L	101-45	102-45	104-45
B4	6L	101-42	102-42	104-42
B5	5L	101-51	102-51	104-51
B6	2L	101-48	102-48	104-48
Lead Set		101-108	102-108	104-108

Engine Model G0-300A

Bendix S6RN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-36	102-36	104-36
T2	4R	101-39	102-39	104-39
T3	5R	101-39	102-39	104-39
T4	2R	101-51	102-51	104-51
T5	3R	101-45	102-45	104-45
T6	6R	101-54	102-54	104-54
B1	1L	101-36	102-36	104-36
B2	4L	101-33	102-33	104-33
B3	5L	101-48	102-48	104-48
B4	2L	101-42	102-42	104-42
B5	3L	101-51	102-51	104-51
B6	6L	101-48	102-48	104-48
Lead Set		101-109	102-109	104-109

Engine Model E165, E185, E225

Bendix S6LN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-36	102-36	104-36
T2	4R	101-42	102-42	104-42
T3	3R	101-45	102-45	104-45
T4	6R	101-51	102-51	104-51
T5	5R	101-48	102-48	104-48
T6	2R	101-48	102-48	104-48
B1	1L	101-36	102-36	104-36
B2	4L	101-33	102-33	104-33
B3	3L	101-45	102-45	104-45
B4	6L	101-45	102-45	104-45
B5	5L	101-51	102-51	104-51
B6	2L	101-45	102-45	104-45
Lead Set		101-110	102-110	104-110

ENGINE AND FUEL SYSTEM

Chart Symbol Definitions:

Cylinder column: T = Top, B = Bottom
Magnetos column: L = Left, R = Right

Price chart on page 205

Engine Model E165, E185, E225 Crossfire

Bendix S6LN-21 • Plug Nut 5/8 x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-33	102-33	104-33
T2	4L	101-42	102-42	104-42
T3	3R	101-42	102-42	104-42
T4	6L	101-45	102-45	104-45
T5	5R	101-48	102-48	104-48
T6	2L	101-48	102-48	104-48
B1	1L	101-33	102-33	104-33
B2	4R	101-36	102-36	104-36
B3	3L	101-42	102-42	104-42
B4	6R	101-48	102-48	104-48
B5	5L	101-48	102-48	104-48
B6	2R	101-48	102-48	104-48
Lead Set		101-111	102-111	104-111

Engine Model 0470-4, -11, -13A

Bendix S6LN-21 • Plug Nut 5/8 x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-33	102-33	104-33
T2	4L	101-39	102-39	104-39
T3	3R	101-42	102-42	104-42
T4	6L	101-45	102-45	104-45
T5	5R	101-48	102-48	104-48
T6	2L	101-51	102-51	104-51
B1	1L	101-42	102-42	104-42
B2	4R	101-42	102-42	104-42
B3	3L	101-48	102-48	104-48
B4	6R	101-51	102-51	104-51
B5	5L	101-54	102-54	104-54
B6	2R	101-54	102-54	104-54
Lead Set		101-112	102-112	104-112

Engine Model 0470B, -J, -K, -L, -M, -R, etc., IO-470 Series, IO-520 Series

Bendix S6RN-25 • Plug Nut 5/8 x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-18	102-18	104-18
T2	4L	101-18	102-18	104-18
T3	3R	101-18	102-18	104-18
T4	6L	101-18	102-18	104-18
T5	5R	101-21	102-21	104-21
T6	2L	101-21	102-21	104-21
B1	1L	101-36	102-36	104-36
B2	4R	101-36	102-36	104-36
B3	3L	101-36	102-36	104-36
B4	6R	101-33	102-33	104-33
B5	5L	101-39	102-39	104-39
B6	2R	101-39	102-39	104-39
Lead Set		101-113	102-113	104-113

Lycoming Engines

Engine Model O-235, O-290

Bendix S4LN-20, S4LN-21 • Plug Nut 5/8 x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-33	102-33	104-33
T2	3L	101-33	102-33	104-33
T3	2R	101-27	102-27	104-27
T4	4L	101-27	102-27	104-27
B1	1L	101-51	102-51	104-51
B2	3R	101-48	102-48	104-48
B3	2L	101-45	102-45	104-45
B4	4R	101-42	102-42	104-42
Lead Set		101-114	102-114	104-114

Engine Model O-320, O-340-A1A

Bendix S4LN-21 • Plug Nut 5/8 x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-33	102-33	104-33
T2	3L	101-33	102-33	104-33
T3	2R	101-27	102-27	104-27
T4	4L	101-24	102-24	104-24
B1	1L	101-51	102-51	104-51
B2	3R	101-48	102-48	104-48
B3	2L	101-45	102-45	104-45
B4	4R	101-42	102-42	104-42
Lead Set		101-115	102-115	104-115

Engine Model O-320A, -B, O-360

Bendix S4LN-20, S4LN-21 • Plug Nut 5/8 x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-36	102-36	104-36
T2	3L	101-36	102-36	104-36
T3	2R	101-30	102-30	104-30
T4	4L	101-30	102-30	104-30
B1	1L	101-54	102-54	104-54
B2	3R	101-51	102-51	104-51
B3	2L	101-48	102-48	104-48
B4	4R	101-45	102-45	104-45
Lead Set		101-116	102-116	104-116

Engine Model O-435A

Bendix S6LN-50, S6LN-51 • Plug Nut 5/8 x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-33	102-33	104-33
T2	3L	101-33	102-33	104-33
T3	2R	101-27	102-27	104-27
T4	4L	101-27	102-27	104-27
T5	4L	101-21	102-21	104-21
T6	4L	101-21	102-21	104-21
B1	1L	101-51	102-51	104-51
B2	3R	101-54	102-54	104-54
B3	2L	101-48	102-48	104-48
B4	4R	101-51	102-51	104-51
B5	4R	101-45	102-45	104-45
B6	4R	101-48	102-48	104-48
Lead Set		101-117	102-117	104-117

ENGINE AND FUEL SYSTEM

Chart Symbol Definitions:

Cylinder column: T = Top, B = Bottom
Magnet column: L = Left, R = Right

**Price chart
on page 205**

Engine Model 0-435-23

Bendix S6LN-20, S6RN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-27	102-27	104-27
T2	4L	101-27	102-27	104-27
T3	5R	101-21	102-21	104-21
T4	2L	101-18	102-18	104-18
T5	3R	101-15	102-15	104-15
T6	6L	101-21	102-21	104-21
B1	1L	101-60	102-60	104-60
B2	4R	101-63	102-63	104-63
B3	5L	101-57	102-57	104-57
B4	2R	101-60	102-60	104-60
B5	3L	101-60	102-60	104-60
B6	6R	101-51	102-51	104-51
Lead Set		101-118	102-118	104-118

Engine Model 0-540

Bendix S6LN-20, S6RN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-45	102-45	104-45
T2	4L	101-45	102-45	104-45
T3	5R	101-39	102-39	104-39
T4	2L	101-39	102-39	104-39
T5	3R	101-36	102-36	104-36
T6	6L	101-30	102-30	104-30
B1	1L	101-54	102-54	104-54
B2	4R	101-54	102-54	104-54
B3	5L	101-48	102-48	104-48
B4	2R	101-45	102-45	104-45
B5	3L	101-42	102-42	104-42
B6	6R	101-42	102-42	104-42
Lead Set		101-119	102-119	104-119

Engine Model G0-480-C2D6, G0-480-C2

Bendix S6LN-20, S6LN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-45	102-45	104-45
T2	4L	101-42	102-42	104-42
T3	5R	101-36	102-36	104-36
T4	2L	101-36	102-36	104-36
T5	3R	101-27	102-27	104-27
T6	6L	101-30	102-30	104-30
B1	1L	101-69	102-69	104-69
B2	4R	101-72	102-72	104-72
B3	5L	101-63	102-63	104-63
B4	2R	101-66	102-66	104-66
B5	3L	101-54	102-54	104-54
B6	6R	101-63	102-63	104-63
Lead Set		101-120	102-120	104-120

Engine Model G50-480-A1A-6

Bendix S6LN-20, S6LN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-33	102-33	104-33
T2	4L	101-30	102-30	104-30
T3	5R	101-27	102-27	104-27
T4	2L	101-24	102-24	104-24
T5	3R	101-24	102-24	104-24
T6	6L	101-21	102-21	104-21
B1	1L	101-63	102-63	104-63
B2	4R	101-57	102-57	104-57
B3	5L	101-57	102-57	104-57
B4	2R	101-57	102-57	104-57
B5	3L	101-60	102-60	104-60
B6	6R	101-57	102-57	104-57
Lead Set		101-121	102-121	104-121

Engine Model V0-435-A1B, -A1C, -A1D, G0-480-C1B, -C1B6, G50-480-A1A, -A1A6

Bendix S6LN-20, S6RN-21 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-33	102-33	104-33
T2	4L	101-30	102-30	104-30
T3	5R	101-24	102-24	104-24
T4	2L	101-21	102-21	104-21
T5	3R	101-21	102-21	104-21
T6	6L	101-15	102-15	104-15
B1	1L	101-66	102-66	104-66
B2	4R	101-66	102-66	104-66
B3	5L	101-57	102-57	104-57
B4	2R	101-63	102-63	104-63
B5	3L	101-57	102-57	104-57
B6	6R	101-57	102-57	104-57
Lead Set		101-122	102-122	104-122

Engine Model G0-435-C2, -C2B, G0-480-F6

Bendix S6LN-50, S6LN-51 • Plug Nut $\frac{5}{8}$ x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-36	102-36	104-36
T2	4L	101-36	102-36	104-36
T3	5R	101-30	102-30	104-30
T4	2L	101-30	102-30	104-30
T5	3R	101-24	102-24	104-24
T6	6L	101-27	102-27	104-27
B1	1L	101-66	102-66	104-66
B2	4R	101-69	102-69	104-69
B3	5L	101-63	102-63	104-63
B4	2R	101-66	102-66	104-66
B5	3L	101-60	102-60	104-60
B6	6R	101-66	102-66	104-66
Lead Set		101-123	102-123	104-123

Toll Free Sales: 1-888-433-5433

Monday-Friday 7:30 a.m. – 5:00 p.m. MT

Order online at www.univair.com

ENGINE AND FUEL SYSTEM

Franklin Engines

Engine Model 6A4-150-B3, -B31

Bendix S6RN-21 • Plug Nut 5/8 x 24

Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-42	102-42	104-42
T2	4L	101-45	102-45	104-45
T3	5R	101-45	102-45	104-45
T4	2L	101-51	102-51	104-51
T5	3R	101-48	102-48	104-48
T6	6L	101-54	102-54	104-54
B1	1L	101-36	102-36	104-36
B2	4R	101-30	102-30	104-30
B3	5L	101-45	102-45	104-45
B4	2R	101-42	102-42	104-42
B5	3L	101-51	102-51	104-51
B6	6R	101-45	102-45	104-45
Lead Set		101-124	102-124	104-124

Engine Model 6A4-165-B3

Bendix S6RN-21 • Plug Nut 5/8 x 24

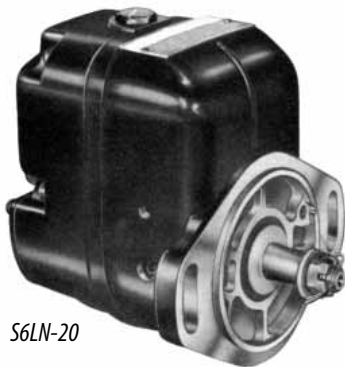
Cylinder	Magneto	101 Lead	102 Lead	104 Lead
T1	1R	101-36	102-36	104-36
T2	4L	101-39	102-39	104-39
T3	5R	101-39	102-39	104-39
T4	2L	101-48	102-48	104-48
T5	3R	101-42	102-42	104-42
T6	6L	101-48	102-48	104-48
B1	1L	101-30	102-30	104-30
B2	4R	101-24	102-24	104-24
B3	5L	101-42	102-42	104-42
B4	2R	101-36	102-36	104-36
B5	3L	101-45	102-45	104-45
B6	6R	101-39	102-39	104-39
Lead Set		101-125	102-125	104-125

Prices

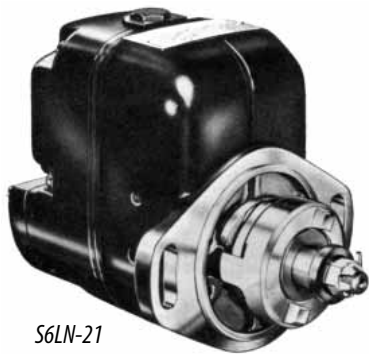
101-15	\$45.99	101-116	\$351.55	102-107	\$351.55	104-42	\$56.70
101-18	\$45.99	101-117	\$522.56	102-108	\$541.57	104-45	\$45.99
101-21	\$45.99	101-118	\$522.56	102-109	\$541.57	104-48	\$45.99
101-24	\$63.72	101-119	\$522.56	102-110	\$541.57	104-51	\$45.99
101-27	\$65.79	101-120	\$487.28	102-111	\$541.57	104-54	\$45.99
101-30	\$62.42	101-121	\$386.84	102-112	\$541.57	104-57	\$45.99
101-33	\$51.50	101-122	\$441.13	102-113	\$541.57	104-60	\$45.99
101-36	\$52.79	101-123	\$392.26	102-114	\$351.55	104-63	\$47.83
101-39	\$50.49	101-124	\$522.56	102-115	\$351.55	104-66	\$45.99
101-42	\$69.50	101-125	\$522.56	102-116	\$351.55	104-69	\$45.99
101-45	\$68.67	102-15	\$46.74	102-117	\$541.57	104-72	\$45.99
101-48	\$68.67	102-18	\$70.02	102-118	\$541.57	104-105	\$351.55
101-51	\$69.87	102-21	\$56.56	102-119	\$541.57	104-106	\$351.55
101-54	\$72.31	102-24	\$46.74	102-120	\$541.57	104-107	\$351.55
101-57	\$45.99	102-27	\$53.55	102-121	\$541.57	104-108	\$522.56
101-60	\$49.26	102-30	\$46.74	102-122	\$541.57	104-109	\$522.56
101-61	\$49.26	102-33	\$46.74	102-123	\$541.57	104-110	\$522.56
101-63	\$49.26	102-36	\$46.74	102-124	\$541.57	104-111	\$522.56
101-69	\$49.26	102-39	\$50.49	102-125	\$541.57	104-112	\$475.05
101-72	\$63.33	102-42	\$61.90	104-14	\$45.99	104-113	\$475.05
101-105	\$351.55	102-45	\$46.74	104-15	\$45.99	104-114	\$351.55
101-106	\$351.55	102-48	\$46.74	104-18	\$45.99	104-115	\$351.55
101-107	\$392.26	102-51	\$46.74	104-19	\$45.99	104-116	\$323.59
101-108	\$500.85	102-54	\$46.74	104-21	\$45.99	104-117	\$522.56
101-109	\$522.56	102-57	\$46.74	104-22	\$45.99	104-118	\$522.56
101-110	\$522.56	102-60	\$46.74	104-24	\$61.64	104-119	\$522.56
101-111	\$522.56	102-63	\$46.74	104-25	\$45.99	104-120	\$541.57
101-112	\$522.56	102-65	\$46.74	104-27	\$63.72	104-121	\$522.56
101-113	\$522.56	102-66	\$46.74	104-28	\$45.99	104-122	\$522.56
101-114	\$351.55	102-69	\$47.83	104-30	\$45.99	104-123	\$487.28
101-115	\$351.55	102-72	\$46.74	104-33	\$49.42	104-124	\$522.56
		102-105	\$351.55	104-36	\$77.51	104-125	\$522.56
		102-106	\$351.55	104-39	\$50.86		

ENGINE AND FUEL SYSTEM

Bendix Aircraft Magnetos



S6LN-20



S6LN-21

For converting Bendix S6 series magnetos to a shielded system, you will require a High Tension Terminal Kit (see above right). The part number you will require will be found in the chart at right. Ground Terminal Kit part numbers may also be found on this chart.

Ground Terminal Kit



Kit 10-52305-1 **\$74.71**

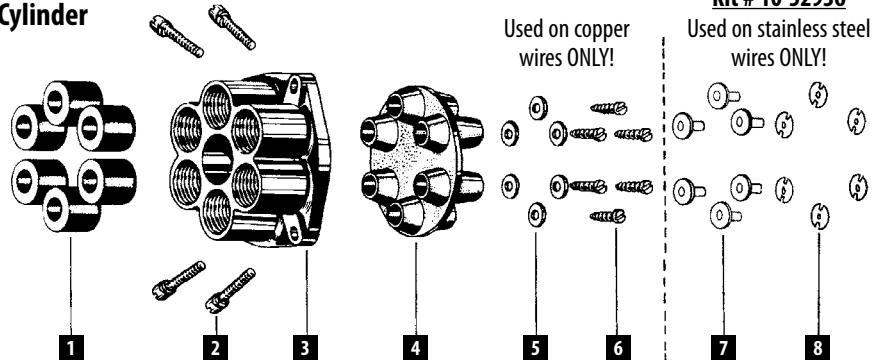
Magneto Noise filter



Magneto Noise filterA293 **\$39.96**

Bendix High Tension Terminal Kit

6 Cylinder



#	Description	# Req'd	Part #	Price
1	Grommet (cable protection, used with non-shielding installations)	6	10-52934	\$4.82
2	Screw and Lock Washer (cable outlet plate)	4	10-35937-10	\$1.37
3	Plate - cable outlet (threaded outlets)	1	10-50766	\$187.21
4	Grommet - cable outlet	1	10-50771	\$15.00
5	Washer - plain (H.T. cable screw, used only with copper conductor cable)	6	10-8785	\$0.96
6	Screw (H.T. cable)	6	10-14215	\$2.74
7	Eyelet - H.T. cable contact (used only with stainless steel conductor cable) ...	6	10-163012	\$2.82
8	Washer - alternate method of securing stainless steel wires	6	10-51677	\$6.51

We have many other Bendix parts in stock. Please call Univair toll free at 1-888-433-5433.

Components for Complete Magneto Installation

Each magneto requires a high tension terminal kit and a ground terminal kit.

Type	Mag Ref #	Replaces Part #	High Tension Terminal Kit		Ground Terminal Kit	
			Part #	Price	Part #	Price
S6LN-20	10-51365-31	10-51365-15	10-52936	\$155.34	10-52305-1	\$74.71
S6LN-21	10-51365-32	10-51365-20	10-52936	\$155.34	10-52305-1	\$74.71
S6LN-20	10-51360-33	10-51365-25	10-52936	\$155.34	10-52305-1	\$74.71
S6RN-21	10-51365-34	10-51365-26	10-52936	\$155.34	10-52305-1	\$74.71
S6RN-21	10-51365-35		10-52936	\$155.34	10-52305-1	\$74.71
S6LN-21	10-51365-39	10-51365-1	10-52936	\$155.34	10-52305-1	\$74.71
S6RN-21	10-51365-40	10-51365-2, -13	10-52936	\$155.34	10-52305-1	\$74.71
S6RN-21	10-51365-41	10-51365-5	10-52936	\$155.34	10-52306	\$71.76
S6LN-21	10-51365-42	10-51365-16	10-52936	\$155.34	10-52305-1	\$74.71
S6LN-20	10-51365-43	10-51365-17	10-52936	\$155.34	10-52305-1	\$74.71
S6LN-20	10-51365-44	10-51365-29	10-52936	\$155.34	10-52305-1	\$74.71
S6LN-21	10-51365-45	10-51365-30	10-52936	\$155.34	10-52305-1	\$74.71
S6LN-20	10-51365-46	10-51365-27	10-52936	\$155.34	10-52305-1	\$74.71
S6LN-21	10-51365-47	10-51365-28	10-52936	\$155.34	10-52305-1	\$74.71
S6RN-21	10-51365-48	10-51365-7, -14	10-52936	\$155.34	10-52305-1	\$74.71
S6RN-23	10-52350-19	10-52350-2	10-52936	\$155.34	10-52306	\$71.76
S6LN-23	10-52350-20	10-52350-6	10-52936	\$155.34	10-52306	\$71.76
S6RN-23	10-52350-21	10-52350-8	10-52936	\$155.34	10-52306	\$71.76
S6LN-22	10-52350-22	10-52350-14, -17	10-52936	\$155.34	10-52306	\$71.76
S6RN-23	10-52350-23	10-52350-15, -18	10-52936	\$155.34	10-52306	\$71.76
S6RN-25	10-79020-8	10-79020-2, -5	10-52936	\$155.34	10-52305-1	\$74.71
S6RN-26	10-85290-2	Not Changed	10-52936	\$155.34	10-52305-1	\$74.71

ENGINE AND FUEL SYSTEM

Bendix Magneto Repair Kits

Kits by Aero Accessories

FAA/PMA
APPROVED

Magneto replacement parts manufactured and sold by Aero Accessories, Inc. are made to specifications dictated by Federal Aviation Administration parts manufacturing approvals. They are highest quality direct replacement parts, approved for installation and use on certified aircraft. Most Aero Accessories, Inc. part numbers include the part number of the original manufacturer ensuring an easy determination of replacement applicability. Always refer to the parts and service manual of the original equipment manufacturer, or to Aircraft Type Certificate Data Sheets or other FAA approved data to determine eligibility of a part or component for use in any application.

NOTES:

1. Contents of the Repair Kit and the Deluxe Repair Kit are listed below.
2. The Component Part Kits contain installation hardware.
3. The Repair Kit and Deluxe Repair Kit for the Bendix -200, -201, and -202 Series Magnetos contain two sets of Contact Assembly Kits.

Bendix Magneto Repair Kit AB-485-R \$278.72

• For minor repairs such as a 500 hour inspection

Includes:

- 1 – Contact Assembly Kit (3)
- 1 – Capacitor
- 2 – Bearings
- 1 – Oil Seal
- 1 – Oil Slinger
- 3 – Woodruff Keys
- 1 – Cotter Pin
- 1 – Cam Screw
- 1 – Felt Washer
- 1 – Felt Strip
- 1 – Snap Ring
- 1 – Carbon Brush



Bendix Magneto Deluxe Repair Kit AB-485-D \$728.51

• For major repairs such as a magneto overhaul*

Includes:

- 1 – Contact Assembly Kit (3)
- 1 – Coil Kit
- 1 – Distributor Block Kit
- 1 – Gear Kit
- 1 – Capacitor
- 2 – Bearings
- 1 – Oil Seal
- 1 – Oil Slinger
- 3 – Woodruff Keys
- 1 – Cotter Pin
- 1 – Cam Screw
- 1 – Carbon Brush



*Some parts that need replacing during magneto overhaul are not included in this kit. Refer to the TCM (Bendix) Master Service Manual for parts not included in this kit.

Aero Accessories Inc. TCM (Bendix) Series Magnetos Kit Application Guide

TCM (Bendix) S-20 and S-21 Series Magnetos

Magneto Part #	Magneto Type	Repair Kit Part # / Price	Deluxe Repair Kit Part # / Price
10-51360-1 10-51360-3 10-51360-4 10-51360-6 10-51360-8	S4R(L)N-20, -21	AB-473-R \$200.44	AB-473-D \$642.56
10-51360-10 10-51360-11 10-51360-12 10-51360-25	S4R(L)N-20, -21	AB-474-R \$198.72	AB-474-D \$640.81
10-51360-26 10-51360-27 10-51360-28	S4R(L)N-20, -21	AB-473-R \$200.44	AB-473-D \$642.56
10-51360-29 10-51360-30	S4R(L)N-20, -21	AB-474-R \$198.72	AB-474-D \$640.81
10-51360-31	S4R(L)N-20, -21	AB-473-R \$200.44	AB-473-D \$642.56
10-51360-33 10-51360-37 10-51360-40 10-51360-41	S4R(L)N-20, -21	AB-474-R \$198.72	AB-474-D \$640.81
10-51360-45	S4LN-21	AB-485-R \$278.72	AB-485-D \$728.51
10-51360-46	S4R(L)N-20, -21	AB-474-R \$198.72	AB-474-D \$640.81
10-51360-47	S4RN-21	AB-485-R \$278.72	AB-485-D \$728.51
10-51360-48	S4RN-21	AB-484-R \$285.02	AB-484-D \$735.40
10-51360-54	S4R(L)N-20, -21	AB-474-R \$198.72	AB-474-D \$640.81
10-51360-55 10-51360-58	S4LN-21	AB-485-R \$278.72	AB-485-D \$728.51
10-51360-1 up to SN 238468	S6R(L)N	AB-673-R \$200.44	AB-673-D \$748.14
10-51365-1 SN 238469 and up	S6R(L)N	AB-674-R \$198.72	AB-674-D \$746.37
10-51365-2 10-51365-5 10-51365-7	S6R(L)N-20, -21	AB-673-R \$200.44	AB-673-D \$748.14
10-51365-9	S6R(L)N-20, -21	AB-674-R \$198.72	AB-674-D \$746.37
10-51365-13	S6R(L)N-20, -21	AB-673-R \$200.44	AB-673-D \$748.14

Chart continued on next page

Order online at www.univair.com

ENGINE AND FUEL SYSTEM

TCM (Bendix) S-20 and S-21 Series Magnetos (continued)

Magneto Part #	Magneto Type	Repair Kit Part # / Price	Deluxe Repair Kit Part # / Price
10-51365-14	S6R(L)N-20, -21	AB-674-R \$198.72	AB-674-D \$746.37
10-51365-15			
10-51365-16			
10-51365-17			
10-51365-20			
10-51365-25			
10-51365-26			
10-51365-27			
10-51365-28			
10-51365-29			
10-51365-30			
10-51365-31			
10-51365-32			
10-51365-33			
10-51365-34			
10-51365-35			
10-51365-39			
10-51365-40	S6R(L)N-20, -21	AB-673-R \$200.44	AB-673-D \$748.14
10-51365-41			
10-51365-42	S6R(L)N-20, -21	AB-674-R \$198.72	AB-674-D \$746.37
10-51365-43			
10-51365-44			
10-51365-45			
10-51365-46			
10-51365-47			
10-51365-48	S6R(L)N-20, -21	AB-673-R \$200.44	AB-673-D \$748.14
10-51365-53	S6R(L)N-20, -21	AB-674-R \$198.72	AB-674-D \$746.37
10-51365-54			
10-51365-57	S6LN-20, -21	AB-685-R \$278.42	AB-685-D \$834.12

TCM (Bendix) S-24 and S-25 Series Magnetos

Magneto Part #	Magneto Type	Repair Kit Part # / Price	Deluxe Repair Kit Part # / Price
10-79020-5	S6R(L)N-24, -25	AB-674-R \$198.72	AB-674-D \$746.37
10-79020-6			
10-79020-8			
10-79020-10			
10-79020-11	S6LN-25	AB-685-R \$278.42	AB-685-D \$834.12
10-79020-13	S6R(L)N-24, -25	AB-674-R \$198.72	AB-674-D \$746.37
10-79020-14			
10-79020-16			
10-79020-17	S6LN-25	AB-685-R \$278.42	AB-685-D \$834.12
10-79020-18			
10-79020-118			
10-79020-119			
10-79020-19	S6RN-25	AB-684-R \$285.02	AB-684-D \$835.79
10-79020-119			

If you don't find the part you need, be sure to give us a call. We are here to help you with all of your classic aircraft needs!

TCM (Bendix) S-200 Series Magnetos

Magneto Part #	Magneto Type	Repair Kit Part # / Price	Deluxe Repair Kit Part # / Price
10-163005-1	S4R(L)N-200*	AB-200445-R \$329.88	AB-200445-D \$781.81
10-163005-2			
10-163005-3			
10-163005-4			
10-163005-5			
10-163005-7			
10-163005-10			
10-163005-11			
10-163015-1	S4R(L)N-201*	AB-200445-R \$329.88	AB-200445-D \$781.81
10-163015-2			
10-163015-3			
10-163015-4			
10-163045-1	S4LN-204	AB-200485-R \$278.44	AB-200485-D \$727.88
10-163045-3			
10-163045-6			
10-163045-2	S4RN-204	AB-200484-R \$322.93	AB-200484-D \$735.40
10-163045-4			
10-163045-7			
10-163055-1	S4RN-205	AB-200484-R \$322.93	AB-200485-D \$727.88
10-163055-2	S4LN-205	AB-200485-R \$278.44	AB-200484-D \$735.40
10-163010-1	S6R(L)N-200*	AB-200645-R \$230.92	AB-200645-D \$726.79
10-163010-2			
10-163010-3			
10-163010-4			
10-163010-5			
10-163010-6			
10-163010-7			
10-163010-8			
10-163010-9			
10-163010-10			
10-163010-11			
10-163010-15			
10-163010-17			
10-163020-1	S6R(L)N-201*	AB-200645-R \$230.92	AB-200645-D \$726.79
10-163020-2			
10-163020-3			
10-163020-4			
10-163030-1	S6R(L)N-204	AB-200645-R \$230.92	AB-200645-D \$726.79
10-163030-4			
10-163050-1	S6LN-204	AB-200685-R \$278.44	AB-200685-D \$683.24
10-163050-2			
10-163050-3			
10-163050-5			
10-163050-9			
10-163050-6	S6RN-204	AB-200685-R \$278.44	AB-200685-D \$683.24
10-163050-7			
10-163050-8			
10-163060-1	S6RN-205	AB-200685-R \$278.44	AB-200685-D \$683.24
10-163060-2			
10-163070-1	S6RN-206	AB-200685-R \$278.44	AB-200685-D \$683.24
10-163070-3			

*The Repair Kit and Deluxe Repair Kit for the Bendix -200, -201, and -202 Series Magnetos contain two sets of Contact Assembly Kits

ENGINE AND FUEL SYSTEM

Replacement Parts for Bendix Type Magnetos

FAA/PMA
APPROVED

Description	Part #	Price
Screw	AB-102083	\$0.79
Washer	AB-14268	\$1.44
Screw	AB-157158	\$2.49
Brush	10-160844	\$7.34
Felt	AB-163374	\$0.93
Bearing	AB-2-202	\$52.95
O Ring	AB-349263	\$1.07
Capacitor Kit	AB-349276	\$94.60
Fish Paper	AB-349326	\$2.91
Washer (Steel)	AB-349511	\$5.40
Screw	AB-349652	\$6.44
Bearing	AB-353056	\$10.26
Bearing	AB-353060	\$15.44
Coil Kit	AB-357164-1	\$244.19
Coil Kit	AB-357165-1	\$252.23
Contact Kit	AB-357173	\$48.12
Contact Kit	AB-357174	\$48.79
Capacitor	AB-357281	\$108.81
Distributor Block Kit	AB-357424	\$102.88
Distributor Block Kit	AB-357426	\$151.02
Gear Kit	AB-357584	\$100.65
Gear Kit	AB-357586	\$154.37
Oil Seal	AB-357592	\$15.44
Screw	AB-35935-6	\$1.44
Screw	AB-35936-7	\$2.07
Screw	AB-35937-8	\$2.47
Fish Paper	AB-382568	\$2.07
Contact Kit	AB-382584	\$51.44
Contact Kit	10-382585	\$55.09
Contact Kit	AB-382622	\$89.65
Capacitor	AB-382681	\$136.07
Washer	AB-382788	\$4.07
Screw	AB-382789	\$4.81
Capacitor	AB-382807	\$170.93
Screw	AB-382871	\$0.71
Screw	AB-382881	\$3.21
Nut	AB-382936	\$1.65
Screw	AB-382959	\$4.81
Bearing	AB-382971	\$53.88
Coil	AB-391088-1	\$307.09
Distributor Block Lubricant (8 oz)	AB-391200	\$57.65
Screw	AB-391213	\$2.07
Washer, Nylon	AB-391309	\$3.09
Spring	AB-50737	\$0.95
Felt	AB-50752	\$1.00
Clamp, Coil	AB-50765	\$6.65
Capacitor	AB-51676	\$35.16
Slinger, Oil	AB-51678	\$8.37
Washer	AB-53397	\$0.60
Washer	AB-55501	\$1.79
Bearing Grease (2 oz)	AB-56172	\$5.99
Bearing Grease (16 oz)	AB-56172-1	\$10.45
Washer, Steel	AB-606505	\$0.40
Gear Kit	AB-682014	\$206.16
Bearing	AB-81806	\$36.51
Lubricant, Felt	AB-86527	\$37.16
Cotter Pin	AB-90751-18	\$1.44
Cotter Pin	AB-90751-19	\$1.51
Woodruff Key	AB-90788-5	\$1.44
Snap Ring	AB-92815-37	\$0.95
Snap Ring	AB-92815-62	\$1.49

Replacement Parts for Slick-Type Magnetos FAA/PMA APPROVED

Woodruff Key	AM2536	\$0.19
Cotter Pin	AM2540	\$0.12
Bearing	AM3006	\$16.26
Screw	AM3014	\$0.19
Screw	AM3014-1	\$0.20
Screw	AM3021	\$0.19
Seal	AM3062	\$6.55
Contact Assembly Kit* (AM3081)	A13081	\$49.49
Washer, Contact	A13081-1	\$0.17
Screw, Contact	A13081-2	\$0.20
Lube, Contact	A13081-8	\$1.90
Capacitor Assembly**	AM3183	\$105.44
Nut, Capacitor	AM3183-1	\$0.16
Washer, Capacitor	AM3183-2	\$0.15
Brush	AM3215	\$1.73
Spring	AM3217	\$0.34
Bearing and Cap Assembly	AM3485	\$38.70
Cam	AM3611	\$0.85

*Kit includes: A13081-1, A13081-2 and AM3611

**Includes: AM3183-1 and AM3182-1

Inductor Magneto Synchronizers



Space Age Electronics

This INDUCTOR Magneto Timing Device is a new concept utilizing the latest digital integrated circuitry, thus eliminating the need for the battery draining mechanical buzzer found in most of the older magneto timing lights. The timing indicators are light emitting diodes (LEDs) rather than the commonly used incandescent bulbs, further extending battery life. Since the device measures change of inductance in the magneto coil, it will not give a false reading should the clip leads pop off or become shorted. The INDUCTOR can also be used as a relay coil tester to determine whether the coil is functioning.

Size

One of the INDUCTOR's most convenient features is its compact size. It measures ¾ by 3 by 5 inches and is packaged in an anodized aluminum case that will neither melt nor break. It fits into the mechanic's tool box or shirt pocket and weighs only nine ounces.

Power

The INDUCTOR is powered by a 9-volt Duracell® battery. With the inherent low power drain of the device and prudent use of the on-off switch, the battery should function for as long as its shelf life. If the LEDs fail to toggle when the magneto points open or close, it is an indication that the battery needs changing.

Single Magneto Synchronizer Model	AA001	\$28.61
Dual Magneto Synchronizer Model	AA002	\$47.50
Single Magneto Synchronizer with Tweeter*	AA003	\$48.95
Dual Magneto Synchronizer with Tweeter*	AA004	\$55.95

*These synchronizer models with a tweeter provide audio as well as visual indication of operation.

ENGINE AND FUEL SYSTEM

Miscellaneous

Eisemann LA Series Magneto Handbook and Instructions

This manual contains service and overhaul information, exploded views and parts listings.

E-LAHB.....\$14.90



Gascolator for Larger ½" Fuel Lines



- ½" Gascolator with Metal Bowl and Quick Drain
- Gascolator for use with ½" fuel lines similar to U14330-002 except with large head for ½" fuel system

Complete ½" Gascolator 1702* **\$303.09**
 ½" Gascolator Head only 1700* **\$139.66**
 ½" Gascolator Screen only 1701 **\$6.63**

*Requires field approval or STC call out

Avblend Lubricant



- The only FAA approved pure lubricant
- Control damaging rust and corrosion in your engine
- Provide positive lubrication and prevent dry engine starts
- Keep new and rebuilt engines dimensionally correct
- Control critical engine temperatures
- Prevent unnecessary maintenance expense caused by premature wear
- Restore performance to engines with accumulated hours



12 oz can – single AVBLEND-1 **\$19.95**
 12 oz cans – pack of 4 AVBLEND-4 **\$74.00**

No matter what you need for your classic aircraft, Univair is prepared to help keep you flying! Our knowledgeable salespeople are waiting to answer your questions and to fill your order accurately and quickly.

Call us at 1-888-433-5433

Oil Filter Application Chart

Aircraft Model	Engine Model	Spin-On Filter	Element
■ Aero Commander Aircraft – Single Engine			
100, Darter	O-320	CH48110-1	CF0100-1
112	IO-360	CH48103-1	CF0100-1
AG, A-9 Sparrow	O-540	CH48110-1	CF0100-1

■ Beech Single Engine Models

Bonanza			
E33A, F33A, F33C	IO-520	CH48109-1	CF0100-1
S35, V35, V35A, V35B	IO-520	CH48109-1	CF0100-1
V35TC, V35A-TC, V35B-TC	TSIO-520	CH48109-1	CF0100-1

Debonair

C33A, E33A, E33C	IO-520	CH48109-1	CF0100-1
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Musketeer

		with Stud	w/o Stud	
Sport III	O-320	CH48110-1	CH48103-1	CF0100-1
23	O-320	CH48110-1	CH48103-1	CF0100-1
A23-19, 19A, B19	O-320	CH48110-1	CH48103-1	CF0100-1
A23, 23, A23A	IO-346	CH48110-1	CH48103-1	CF0100-1
B23, C23	O-360	CH48110-1	CH48103-1	CF0100-1

■ Cessna Single Engine Models

150	O-200	CH48110-1	CH48103-1	CF0100-1
F150	O-200	CH48110-1	CH48103-1	CF0100-1
A150	O-200	CH48110-1	CH48103-1	CF0100-1
FA150	O-200	CH48110-1	CH48103-1	CF0100-1
172	O-300	CH48110-1	CH48103-1	CF0100-1
172	O-320	CH48110-1	CH48103-1	CF0100-1
F172	O-300	CH48110-1	CH48103-1	CF0100-1
177	O-320	CH48110-1	CH48103-1	CF0100-1
FR172	IO-360	CH48110-1	CH48103-1	CF0100-1
180	O-470	CH48110-1	CH48103-1	CF0100-1
182	O-470	CH48110-1	CH48103-1	CF0100-1
A182	O-470	CH48110-1	CH48103-1	CF0100-1
185	IO-470, IO-520	CH48110-1	CH48103-1	CF0100-1
A185	IO-470, IO-520	CH48110-1	CH48103-1	CF0100-1
188	O-470, O-520	CH48110-1	CH48103-1	CF0100-1
205	IO-470	CH48110-1	CH48103-1	CF0100-1
206	IO-520	CH48110-1	CH48103-1	CF0100-1
U206	IO-520	CH48110-1	CH48103-1	CF0100-1
TU206	TSIO-520	CH48110-1	CH48103-1	CF0100-1
P206	IO-520	CH48110-1	CH48103-1	CF0100-1
TP206	TSIO-520	CH48110-1	CH48103-1	CF0100-1
207	IO-520	CH48110-1	CH48103-1	CF0100-1

Continued on next page ►

ENGINE AND FUEL SYSTEM

Aircraft Model	Engine Model	Spin-On Filter		Element
T207	TSIO-520	CH48110-1	CH48103-1	CF0100-1
210	IO-470, IO-520	CH48110-1	CH48103-1	CF0100-1
T210	TSIO-520	CH48110-1	CH48103-1	CF0100-1

Mooney Aircraft

M20	O-320	CH48110-1	CH48103-1	CF0100-1
M20A, M20B, Mark 21, M20D Master	O-360	CH48110-1	CH48103-1	CF0100-1
201 Chaparral	IO-360	CH48110-1	CH48103-1	CF0100-1
222 Mark	TIO-541	CH48110-1	CH48103-1	CF0100-1

Piper Single Engine Models

Tri-Pacer

PA-22 "150"	O-320	CH48110-1	CH48103-1	CF0100-1
PA-22 "160"	O-320	CH48110-1	CH48103-1	CF0100-1

Comanche

PA-24 "180"	O-360	CH48110-1	CH48103-1	CF0100-1
PA-24 "250"	O-540 or IO-540	CH48110-1	CH48103-1	CF0100-1
PA-24B, PA-24C "260"	O-540	CH48110-1	CH48103-1	CF0100-1
PA-24B, PA-24C "260"	IO-540	CH48110-1	CH48103-1	CF0100-1
PA-24 Turbo "260"	IO-540	CH48110-1	CH48103-1	CF0100-1

Pawnee

PA-25 "150"	O-320	CH48110-1	CH48103-1	CF0100-1
PA-25 "260"	O-540	CH48110-1	CH48103-1	CF0100-1

Cherokee

PA-28 "140"	O-320	CH48110-1	CH48103-1	CF0100-1
PA-28 "150"	O-320	CH48110-1	CH48103-1	CF0100-1
PA-28 "160"	O-320	CH48110-1	CH48103-1	CF0100-1
PA-28 "180"	O-360	CH48110-1	CH48103-1	CF0100-1
PA-28 "235"	O-540	CH48110-1	CH48103-1	CF0100-1

Arrow

PA-28R "180"	IO-360	CH48110-1	CH48103-1	CF0100-1
PA-28R "200"	IO-360	CH48110-1	CH48103-1	CF0100-1

Cherokee Six

PA-32 "260"	O-540	CH48110-1	CH48103-1	CF0100-1
PA-32 "300"	IO-540	CH48110-1	CH48103-1	CF0100-1

Prices

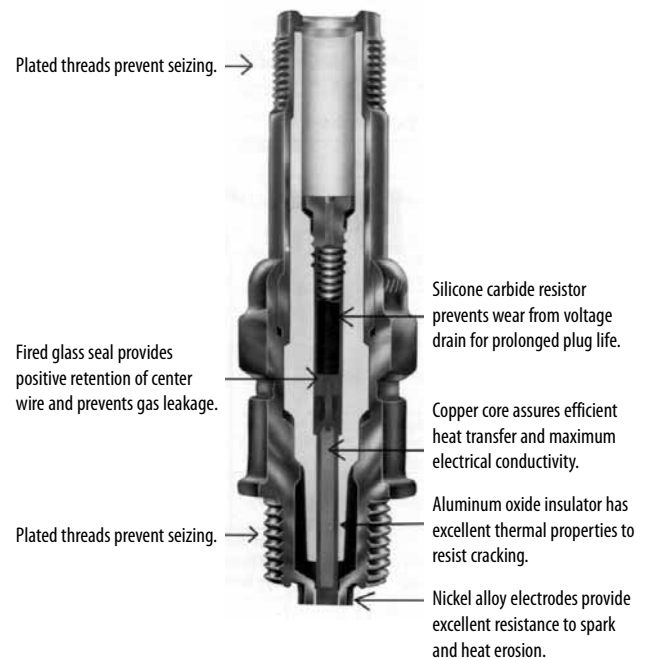
Champion Oil Filter Assembly	CH48103-1	\$26.85
Champion Oil Filter Assembly	CH48109-1	\$28.50
Champion Oil Filter Assembly	CH48110-1	\$27.75
Champion Oil Filter Element	CF0100-1	\$27.98

Contact Univair for availability of the Oil Filter Assembly and Engine Adapter

1-888-433-5433

Spark Plugs

Champion Spark Plugs – Inside a Spark Plug



Advanced-engineered Champion aviation spark plugs are designed for the critical difference in performance, far beyond the ordinary. Champion aviation spark plugs stand up to high temperatures, pressures and lead deposits, with a performance second to none. When you're up in the air, count on quality Champion spark plugs.

The #1 Choice Worldwide – OEM for all U.S. Piston Engines

Champion spark plugs are a product of Champion Spark Plug Company's commitment to quality and advanced technology, a commitment that has made Champion spark plugs the #1 choice of engine manufacturers, maintenance technicians and pilots around the world.

Champion REM37BY 18mm "Short" Spark Plug

To be used with shielded ignition leads. The shorter length provides for adequate cowl clearance. This eliminates the need to modify cowl in many applications.

Champion Spark Plug REM37BY	\$38.33
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ENGINE AND FUEL SYSTEM

Auburn and Champion Spark Plug Cross Reference

- Massive electrode
- Shielded unless otherwise noted
- U.S. aircraft and engines
- Spark plug listing is taken from FAA approved data
- If you require a spark plug that is not listed, please call Univair at 1-888-433-5433 for price and availability.



Champion Spark Plug Prices

$\frac{3}{4}$ " x 20		$\frac{5}{8}$ " x 24	
RHB32E	\$34.35	REJ38	\$63.00
RHB37E	\$34.35	REM37BY	\$38.33
RHM38E	\$34.35	REM38E	\$35.78
RHM40E	\$34.35	REM40E	\$37.73

Aircraft	Engine	# Per Engine	Champion Spark Plugs		AC and Auburn Spark Plugs (No Longer Available)	
			¾" x 20	⅝" x 24	¾" x 20	⅝" x 24
■ AERONCA / CHAMPION / DECATHLON / SCOUT						
7AC, S7AC	- Continental A-65 (65hp)	- 8	- RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
7DC, S7DC	- Continental C-85-8 (85hp)	- 8	- RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
S7CCM, 7EC, S7EC, 7FC, 7JC	- Continental C-90-12 (90hp)	- 8	- RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
7GC, 7HC	- Lycoming O-290-D (135hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
7GCA, 7GCB, 7GCBA, 7GCAA, 7GCBC, 7KC	- Lycoming O-320-A (150hp)	8 -	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
7ACA	Franklin 2A-120-B	4	RHB32E	-	-	-
7ECA	- Lycoming O-235-C (108hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
	- Continental O-200 (100hp)	- 8	RHM40E	- REM40E	- HSR88	A88 SR88
	Lycoming O-235-K (118hp)	8	RHM40E RHM38E	REM40E REM38E/REM37BY	HSR88 HSR86	SR88 SR86
7KCAB	Lycoming IO-320-E (150hp)	8	RHM40E	-	HSR88	SR88
	AEIO-320-E (150hp)	-	RHM40E	REM40E	HSR88	SR88
8GCBC Super Scout	- Lycoming O-360-C Series (180hp)	- 8	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
8KCAB	- Lycoming AEIO-360-HIA (180hp)	- 8	RHM40E RHM38E	REM40E REM38E	- HSR88	- SR88
	Lycoming IO-320-E (150hp)	-	RHM40E	-	HSR88	SR88
	Lycoming AEIO-320-E (150hp)	8	RHM40E	REM40E	HSR88	SR88
■ BELLANCA						
14-13 Series	Franklin 6A4-150 (150hp)	12	-	REJ38	-	-
	Franklin 6A4-165 (165hp)	-	-	REJ38	-	A44*
14-19	- Lycoming O-435-A (190hp)	- 12	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
14-19-3, 14-19-3A, 260B	Continental IO-470-F (260hp)	12	RHB32E	-	-	-
■ CESSNA						
120-140	- Continental C-85 (85hp), C-90 (95hp)	- 8	- RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
150-A to 150-M	- Continental O-200-A (100hp)	- 8	- RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
152, F152	- Lycoming O-235-L2C (110hp)	- 8	RHM40E RHM38E	REM40E REM38E	- -	- -
		-	-	REM37BY	HSR86	SR86
170	- Continental O-145 (145hp)	- 12	RHM40E RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
170-A, 170-B	- Continental O-300 (145hp)	- 12	RHM40E RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88

Most commonly used spark plugs are shown in **BOLD**. *A44 plug is unshielded and has no resistor.

ENGINE AND FUEL SYSTEM

Auburn and Champion Spark Plug Cross Reference Chart (continued)

Aircraft	Engine	# Per Engine	Champion Spark Plugs		AC and Auburn Spark Plugs (No Longer Available)	
			¾" x 20	⅝" x 24	¾" x 20	⅝" x 24
172-A to 172-H Skyhawk	- Continental O-300 (145hp)	- 12	RHM40E RHM40E	- REM40E /REM37BY	- HSR88	A88 SR88
172-I to 172-L Skyhawk	- Lycoming O-320-E (150hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
172-N, F172-N Skyhawk/100	- Lycoming O-320-H1AD (160hp)	- 8	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
172-P Skyhawk	- Lycoming O-320-D2J (160hp)	- 8	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
P172 Powermatic	- Continental G0-300-E (175hp)	- 12	RHM40E RHM38E	REM40E REM38E/REM37BY	HSR87 -	SR87 -
R172-K, FR172-K, Hawk XP	Continental IO-360-K (195hp)	12	RHM38E	REM38E	HSR86	SR86
172 RG "Cutlass RG"	- Lycoming O-360-F1AD (180hp)	- 8	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
175-A, 175-B, 175-C Skylark	- Continental G0-300-A, -C, -D, -E (175hp)	- 12	RHM40E RHM38E	REM40E REM38E/REM37BY	- HSR87	- SR87
175	Franklin 6A-335-B (180hp conversion)	12	RHB32E	-	-	-
177 Cardinal	- Lycoming O-320-E (150hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
177-A, 177-B Cardinal	- Lycoming O-360-A1F6D (180hp)	- 8	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
Cardinal RG	Lycoming IO-360-A1B60 (200hp)	8	RHM38E	REM38E	HSR86	SR86
180	- Continental O-470-A to O-470-J (225hp)	- 12	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
180-A to 180-D	- Continental O-470-K, O-470-L (230hp)	- 12	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
180-E, -F, -G, -H, -J	- Continental O-470-R, O-470-S (230hp)	- 12	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
180-K	Continental O-470-U (230hp)	12	RHB32E	-	-	-
180	Continental O-470-U, SN 53087 and up (230hp)	12	RHB32E	-	-	-
182-A, 182-B, 182-C, 182-D	- Continental O-470-L (230hp)	- 12	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
182-E to 182-P Skylane	- Continental O-470-R, O-470-S (230hp)	- 12	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
182-Q, -R, F182-Q, -R Skylane	Continental O-470-U (230hp)	12	RHB32E	-	-	-
R182, FR182 Skylane RG	- Lycoming O-540-J3C5D (235hp)	- 12	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
182	Continental O-470-U, SN 67042 and up (230hp)	12	RHB32E	-	-	-

ERCOUPE SERIES

Aircoupe – Forney F1, F1A	- Continental C-90-16-F (95hp)	- 8	- RHM40E	- REM40E /REM37BY	- HSR88	A88 SR88
Alon – A2, A2A	- Continental C-90-16-F (95hp)	- 8	- RHM40E	- REM40E /REM37BY	- HSR88	A88 SR88
Ercoupe 415-C, -D, -CD, -E, -G	- Continental C-75, -85, -90, O-200 (STC conversion)	- 8	- RHM40E	- REM40E /REM37BY	- HSR88	A88 SR88
Mooney M-10	- Continental C-90 (95hp)	- 8	- RHM40E	- REM40E /REM37BY	- -	A88 SR88

LUSCOMBE

8 Series	- Continental C-65, C-85	- 8	- RHM40E	- REM40E /REM37BY	HSR88 -	A88 SR88
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Most commonly used spark plugs are shown in **BOLD**.

ENGINE AND FUEL SYSTEM

Auburn and Champion Spark Plug Cross Reference Chart (continued)

Aircraft	Engine	# Per Engine	Champion Spark Plugs		AC and Auburn Spark Plugs (No Longer Available)	
			¾" x 20	⅝" x 24	¾" x 20	⅝" x 24
■ PIPER						
Cub J-3, J-4, J-5, PA-11, PA-17	- Continental A-65 (65hp) and C-75 (75hp)	- 8	- RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
J-3, J-4, PA-15	- Lycoming O-145 (65hp)	- 8	- RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
PA-12, PA-14, PA-16	- Lycoming O-235 (115hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
Super Cub PA-18 "95"	- Continental C-90 (95hp)	- 8	- RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
PA-18 "105"	- Lycoming O-235 (105hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
PA-18 "125"	- Lycoming O-290-D (125hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
PA-18 "135"	- Lycoming O-290-D2 (135hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
PA-18 "150"	- Lycoming O-320-A (150hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
Pacer PA-20 "115"	- Lycoming O-235-C (115hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
PA-20 "125"	- Lycoming O-290-D (125hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
PA-20 "135"	- Lycoming O-290-D2 (135hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
Tri-Pacer PA-22 "135"	- Lycoming O-290-D2 (135hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
PA-22 "150"	- Lycoming O-320-A (150hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
PA-22 "160"	- Lycoming O-320-B (160hp)	- 8	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
Apache PA-23 "150"	- 2/Lycoming O-320-A (150hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87
PA-23 "160"	- 2/Lycoming O-320-B (160hp)	- 8	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
PA-23 "235"	- 2/Lycoming O-540-B (235hp)	- 12	RHM40E RHM40E	- REM40E	- HSR88	A88 SR88
Aztec PA-23 "250"	- 2/Lycoming O-540-A (250hp)	- 12	RHM40E RHM38E	REM40E REM38E	- HSR88 HSR87	A88 SR88 SR87
Aztec C, D, E, F PA-23 "250"	- 2/Lycoming IO-540-C (250hp)	- 12	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
Aztec – Turbo-Blown	- 2/Lycoming IO-540-1 (250hp)	- 12	RHB37E -	- -	- -	- -
Aztec C, D, E, F PA-23 "250"	- 2/Lycoming TIO-540-C (250hp)	- 12	RHB37E -	- -	- -	- -
Comanche PA-24 "180"	- Lycoming O-360-A (180hp)	- 8	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87
PA-24 "250"	- Lycoming O-540-A, IO-540-C (both 250hp)	- 12	RHM40E RHM38E	REM40E REM38E	HSR86 -	SR86 -
PA-24 "260", PA-24 B and C	- Lycoming IO-540-B, -D, -N (260hp)	- 12	- RHM38E	- REM38E	- HSR86	- SR86
PA-24 "260" Turbo	- Lycoming IO-540-R1A5 (260hp)	- 12	RHB37E -	- -	- -	- -
PA-24 "400"	Lycoming IO-720-A (400hp)	16	RHM38E	-	HSR86	SR86
Pawnee PA-25 "150"	- Lycoming O-320-A (150hp)	- 8	RHM40E RHM40E	- REM40E	HSR88 HSR87	SR88 SR87

Most commonly used spark plugs are shown in **BOLD**.

ENGINE AND FUEL SYSTEM

Auburn and Champion Spark Plug Cross Reference Chart (continued)

Aircraft	Engine	# Per Engine	Champion Spark Plugs		AC and Auburn Spark Plugs (No Longer Available)	
			3/4" x 20	5/8" x 24	3/4" x 20	5/8" x 24
PA-25 "235"	- Lycoming O-540-B (235hp)	- 12	RHM40E RHM40E	- REM40E	- HSR88	- SR88
PA-25 "260"	- Lycoming O-540-G (260hp)	- 12	RHM40E RHM38E	REM40E REM38E	HSR88 HSR87	SR88 SR87

STINSON

108 Series	- Franklin 6A4-150 (150hp), 6A4-165 (165hp)	- 12	- -	REJ38 -	- -	- A44*
108-5	Franklin 6A4-335-B1 (180hp)	12	RHB32E	-	-	-
108 Series Stinson	-	-	RHM40E	-	-	A88
	Lycoming O-435-C (190hp, STC conversion)	12	RHM40E	REM40E	HSR88/HSR87	SR88/SR87
	-	-	RHM40E	-	HSR88	SR88
	Continental O-470-A (225hp, STC conversion)	12	RHM40E	REM40E	HSR87	SR87
	-	-	RHM40E	-	HSR88	SR88
	Lycoming O-360-A1A (180hp, STC conversion)	8	RHM38E	REM38E	HSR87	SR87
	Lycoming IO-360-A1A (200hp, STC conversion)	8	RHM38E	REM38E	HSR86	SR86

TAYLORCRAFT

B Series	- Continental C-65 (65hp)	- 8	- RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88
F-19	- Continental O-200 (100hp)	- 8	RHM40E RHM40E	- REM40E/REM37BY	- HSR88	A88 SR88

Most commonly used spark plugs are shown in **BOLD**. *A44 plug is unshielded and has no resistor.

General Spark Plug Cross Reference

A/C / Auburn	Champion	Price
14mm		
SA43*	REJ38	\$63.00
A44**	J43*	N/A
SR47P*	REL37W*	N/A
18mm Fine Wire (Long Reach)		
181*	REB36W*, REB36P*	N/A
281*	RHB36S	\$120.00
291*	RHB36W	\$58.86
283*	RHB32*	N/A
293*	RHB32W*	N/A
286*	N/A	N/A
18mm Fine Wire (Short Reach)		
SR83P*	REM38S	\$120.08
HSR83P*	RHM38P*	N/A
SR93*	REM38S	\$120.08
HSR93*	RHM38S	\$120.00

A/C / Auburn	Champion	Price
18mm Massive Electrode (Short Reach)		
A88*	M41E, M42E	\$43.20
S88*	EM42E*	N/A
HS88*	RHM40E	\$34.35
SR88*	REM40E	\$37.73
HSR88*	RHM40E	\$34.35
SR87*	REM38E	\$35.78
HSR87*	RHM38E	\$34.35
SR86*	REM38E	\$35.78
HSR86*	RHM38E	\$34.35
18mm Massive Electrode (Long Reach)		
171*	REB37E*, REB37N*	N/A
271*	RHB37N*, RHB38E*, RHB37E	\$34.35
172*	REB87N*	N/A
273*	RHB32N*, RHB33E*, RHB32E	\$34.35
175*	REB29N*	N/A
275*	RHB29N*, RHB29E*	N/A

*Plug is no longer available from Univair

**A44 plug is unshielded and has no resistor

While
supplies
last!

Miscellaneous Spark Plugs

AC	LS87	\$12.91
AC	LS86	\$12.91
Champion (fine wire)	RHB36S	\$120.00

Champion	REA37N	\$7.76
BG	BG417	\$12.91



ENGINE AND FUEL SYSTEM

Drain Valves

SAF-AIR Quick Drain Valves



Models CAV-110 and CAV-110H-4

For Cessna 310 tip tanks, Mooney Mark 20 and 20A; all Ercoupe models, Bellanca, Taylorcraft Model B, Stinson 108, 108-1, 108-2, 108-3; Voyager Model 10 and 10A, Navion, Waco VK series and UPF, Sea Bee, and all aircraft with 1/8 NPT fuel outlets. Fits all standard gascolators. CAV-110H-4 comes with 1/4" hose end.

Models CAV-160 and CAV-160H-4

For Piper models J-3, J-4, PA-11, -12, -14, -15, -16, -17, -18, -20, -22, -23, -25; Apache, Champion, Aeronca, Cessna T-50 and earlier 120 and 140 models, Beechcraft AT-11 and C-18S, and all aircraft with 1/4 NPT fuel outlets. CAV-160H-4 comes with 1/4" hose end.

Models CAV-170 and CAV-170H-4

For all Cessna late 140A models, 150, 170, 170A, 170B, 172 and 175, and all aircraft with 7/16-inch 20 threaded fuel outlets. CAV-170H-4 comes with 1/4" hose end.

Models CAV-180 and CAV-180H-4

For Cessna 180, 182, 190, 195, 205, 210, 310, 310A, 310B, 310C, and 336, and all aircraft with 3/8-inch 24 threaded fuel outlets. CAV-180H-4 comes with 1/4" hose end.

Part #	Thread Size	Hose End	Price
CAV-110	1/8 NPT	none	\$16.81
22179-000 (CAV-110H-4)	1/8 NPT	1/4 inch	\$21.75
CAV-160	1/4 NPT	none	\$16.73
CAV-160H-4	1/4 NPT	1/4 inch	\$16.60
CAV-170	7/16-20 NF-3	none	\$18.40
CAV-170H-4	7/16-20 NF-3	1/4 inch	\$17.43
CAV-180	3/8-24 NF-3	none	\$15.00
CAV-180H-4	3/8-24 NF-3	1/4 inch	\$17.43

Replacement Seals (Fuel-Resistant O-Rings)

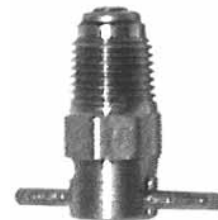
Tip (all models)	MS29513-006	\$0.17
Seat (180)	MS29513-011	\$0.68
Seat (170)	MS29513-012	\$0.18

Toll Free Sales: 1-888-433-5433

Monday-Friday 7:30 a.m. – 5:00 p.m. MT

Curtis Drain Valves

Quick opening brass drain valves for aircraft oil or fuel systems. A slight twist opens the valve. No safety wire is needed in the closed position. FAA approved for use without safety wire. Stainless steel spring holds valve in closed position. Valve has synthetic rubber seal suitable for temperatures up to 225°F.



Part #	Thread Size	Material	Slot	Price
CCA-1550	1/8 NPT	Brass	Straight	\$14.40
CCA-1600	1/4 NPT	Brass	Straight	\$14.91
CCA-1650	3/8 NPT	Brass	Straight	\$19.74
CCA-1700	1/2 NPT	Brass	Straight	\$24.10
CCA-4300	7/16-20 NF-3	Cadmium Plated	Spiral	\$22.59
CCA-4850	1/8 NPT	Cadmium Plated	Spiral	\$16.80

Fuel Drain Valves from MDI Aerovalve, Inc.

The F391 flush fuel drain valve is designed to be practical, functional, and inexpensive. The head of the valve does not extend beyond the wing to catch the door of your airplane or to hit your head as you walk beneath it. Fuel is only released when you want it to be with the use of our F391 fuel sampler cup, which has a large enough opening to drain fuel into the cup, not all over your arm or in your eyes on a windy day. With the F391 fuel sampler cup, checking your sumps is very simple and can usually be done in less than one minute on the average plane. You can also see water or other contaminants which are flushed from the sump.



Fuel Sampler Cup
Part # F391-CUP

Fuel Sampler Cup	F391-CUP	\$8.08
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F391 Series Fuel Drain Valves

The MDI F391 flush valve is used as original equipment by most aircraft manufacturers and has been FAA/PMA approved for replacement parts. Listed below are the part numbers of the F391 valves and the aircraft they are approved for.



F391-14	\$27.05
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• For Cessna T-50, Piper PA-11, -12, -18, -20, -22 or aircraft with 1/4-inch taper pipe fitting

F391-18	\$25.51
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• For Maule aircraft M-5 (210 engine), M-5 (235 engine), M-5 (180 engine), M-5 (210-23 turbo-charged engine) or aircraft with 1/8-inch taper pipe fittings

ENGINE AND FUEL SYSTEM

F391-32	\$22.17
• For Cessna 180, 182, 185, 188, 206, 207 or aircraft with 3/8-inch 24 threaded fitting (Cessna part #S2106-1)	
F391-53S.....	\$22.27
• For Mooney M20J (201) and M20K (231) or aircraft with 7/16-inch 20 threaded fitting	
F391-72	\$25.38
• For Cessna 152, 172, 180, 185, 210 or aircraft with 7/16-inch 20 threaded fitting (Cessna part #S2106-2)	
F391-82	\$21.56
• For Cessna 206, 207, 210 or aircraft with 1/2-inch 20 threaded fitting (Cessna part #S2020-2)	
F391-187 (not pictured).....	\$23.52
• For Piper Arrow or aircraft with 1/8-inch 27 threaded fitting	
F391-187B (491-806)	\$21.81
• For Piper Arrow or aircraft with 1/8-inch 27 threaded fitting	

Fuel Pumps

Aero Accessories

• FAA/PMA approved direct replacement

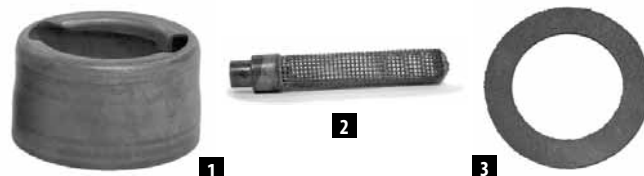
Continental Engine	Aero Accessories	TCM	A/C Type
A-65, 8, 8F	AF-40585.....	40585	9051/9867
C-75, 12, 12F.....	AF-40695.....	40695	9076/4036
C-85, 8, 12	AF-40585.....	40585	9051/9867
C-90, 8, 8F, 12, 12F.....	AF-40695.....	40695	9076/4036
C-90-14F**	**	**	**
C-90, 16F*	AF-631391.....	631391	6861
O-200*	AF-631391.....	631391	6861
A-75	AF-40585.....	40585	9051/9867
A-100	AF-40585.....	40585	9051/9867
C-125, 2	AF-40585.....	40585	9051/9867
C-145, 2, 2H	AF-40585.....	40585	9051/9867

*Uses camshaft part number 626608 or supersedure to which part number 630403 or supersedure Gear and Eccentric has been assembled. Reference CONTINENTAL SERVICE BULLETIN M-76-15.

**See aircraft and engine manual. This engine may use either AC part numbers 9867 or 9076. TCM part numbers 40585 or 40695. Aero Accessories part numbers AF-40585 or AF-40695.

Description	Part #	Price
Aero Accessories Fuel Pump – Overhaul	40585	CALL
Aero Accessories Fuel Pump – Overhaul	40695	CALL
Aero Accessories Fuel Pump – Overhaul	631391	CALL
Aero Accessories Fuel Pump – Overhaul (old 9867)	9051	CALL
Aero Accessories Fuel Pump – Overhaul (old 4036)	9076	CALL
Aero Accessories Fuel Pump – Overhaul	6861	CALL
Aero Accessories Fuel Pump – New.....	AF-40585	CALL
Aero Accessories Fuel Pump – New.....	AF-40695	\$1,119.09
Aero Accessories Fuel Pump – New.....	AF-631391	\$1,067.07
Fuel Pump Gasket	653879	\$3.73

Fuel Tank Accessories



- 1) Gas Filler Neck and Sleeve..... 415-48033-1 **\$14.82**

These brass filler necks and sleeves are designed to be soldered to a template tank, but can be adapted to almost any tank by soldering a ring to the sleeve and riveting it to your tank.

- 2) Finger Strainer..... 415-48081-1 **\$20.01**

To be used in the fuel tank outlet. This little strainer measures 3/8-inch in diameter and 1 7/8-inches long. It has brass end fittings that measure 5/16-inch in outside diameter up to the collar, which has a 7/16-inch outside diameter.

- 3) Gas Cap Gaskets 13423 **\$3.24**

Leather gas cap gasket measures 2 1/4-inches outside diameter by 1 1/2 inch inside diameter by 3/32-inch thick.

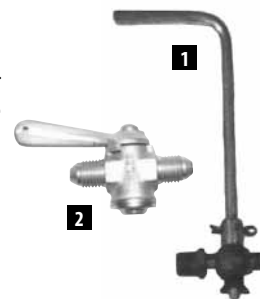
Fuel Valves

- 1) Globe Valve FV2002..... **\$4.74**

Miniature globe valve for use as stop cock or drain cock. Fits 1/8-inch on large end; complete with 3 3/4-inch handle.

- 2) Kohler Valve FV2004..... **\$22.59**

This valve has positive stop on or off position. Kohler Plug Valve K71 for 1/4-inch tube fittings.



ENGINE AND FUEL SYSTEM

Throttle Controls

A-700 Button Lock Dash Control with Solid Wire End

Provides a 10-lb locking force for light and medium service applications. Black anodized aluminum knob with aluminum release button. Manufactured with .062-inch diameter stainless steel wire core in flexible metal casing. May be shortened as required. Maximum travel: 3"



44-inch Control (black)	A700-10-0440	\$69.09
48-inch Control (black)	A700-10-0480	\$70.59
60-inch Control (black)	A700-10-0600	\$71.79
72-inch Control (black)	A700-10-0720	\$60.23
60-inch Control (red)	A700-20-0600	\$71.79
72-inch Control (red)	A700-20-0720	\$60.23

A-730 Push-Pull Control with Solid Wire End

Basic push-pull control and glide-free action, with solid wire end. Ideal for cabin and carburetor heat, or fresh air controls. May be cut to the specific length you require for your particular application.



60-inch Control (black)	A730-10-0600	\$39.21
60-inch Control (red)	A730-20-0600	\$39.21
72-inch Control (black)	A730-10-0720	\$36.58
90-inch Control (black)	A730-10-0900	\$38.81
144-inch Control (black)	A730-10-1440	\$45.79

A-740 Ratchet Control with Solid Wire End

Ratchet design provides detented positions under vibration conditions. Simple push-pull operation. The .050-inch diameter straight wire end may be shortened as required. A special coiled wire end for easy attachment is also available. Maximum travel: 3"



60-inch Control (black)	A740-10-0600	\$41.44
72-inch Control (black)	A740-10-0720	\$39.03
60-inch Control (red)	A740-20-0600	\$37.53
72-inch Control (red)	A740-20-0720	\$39.03

A-790 Vernier Control with Solid Wire End

The A-790 control has a .078-inch diameter stainless steel wire core. Both the wire core and the flexible steel casing may be shortened as required.



60-inch Control (black)	A790-10-0600	\$91.14
72-inch Control (black)	A790-10-0720	\$93.13
48-inch Control (red)	A790-20-0480	\$89.25
60-inch Control (red)	A790-20-0600	\$91.14
72-inch Control (red)	A790-20-0720	\$93.13

A-750 Vernier Control with 10-32 Threaded End

Has 10-32 threaded shaft for use with ball joint or AN665-21R threaded terminal. Ball-socket construction lets the threaded end swivel 8° in any direction. Measured from under panel nut to end of threaded shaft with knob pushed in.



28¾-inch Control (blue)	A750-30-0287	\$100.09
29-inch Control (black)	A750-10-0290	\$100.09
33-inch Control (black)	A750-10-0330	\$100.09
35¾-inch Control (black)	A750-10-0357	CALL
44-inch Control (black)	A750-10-0440	\$104.89
48-inch Control (black)	A750-10-0480	\$104.89
48-inch Control (red)	A750-20-0480	\$92.48
48-inch Control (blue)	A750-30-0480	\$104.89
52¾-inch Control (black)	A750-10-0526	\$103.98
60-inch Control (black)	A750-10-0600	\$103.98
60-inch Control (red)	A750-20-0600	\$103.98
60-inch Control (blue)	A750-30-0600	\$103.98
72-inch Control (black)	A750-10-0720	\$105.95
72-inch Control (red)	A750-20-0720	\$105.95

A-800 Friction Lock Control with 10-32 Threaded End

A fine quality control made to exacting aircraft standards. Provides positive lock throughout selected power setting by turning the chrome collect locking nut. Unique ball-socket construction permits the 10-32 threaded end to swivel 8° in any direction. Maximum travel: 3½ inches.



33-inch Control (black)	A800-10-0330	\$91.70
35¾-inch Control (black)	A800-10-0357	CALL
37¾-inch Control (black)	A800-10-0373	\$93.74
42-inch Control (black)	A800-10-0420	\$101.72
48-inch Control (black)	A800-10-0480	\$84.92
52¾-inch Control (black)	A800-10-0526	\$103.32
60-inch Control (black)	A800-10-0600	\$95.68
72-inch Control (black)	A800-10-0720	\$97.71
48-inch Control (red)	A800-20-0480	\$93.74

A-920 Push-Pull Controls for Quadrants

Push-pull controls with flexible metal casings designed for use with throttle quadrants. 10-32 threaded ends with 8° swivel, 3½-inch stroke.



72-inch Control (no knob)	A920-0720	\$63.78
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A-970 Vernier Control with ¼-28 Threaded End

The A-970 control is similar to the Model A-750 but with ¼-28 threaded end (non-swiveling). Black is the only color of knob stocked. Measurement taken from under panel nut end of threaded shaft with knob pushed in.



40-inch Control (black)	A970-10-0400	\$103.17
48-inch Control (black)	A970-10-0480	\$103.17
60-inch Control (black)	A970-10-0600	\$105.10
72-inch Control (black)	A970-10-0720	\$107.09