

SERVICE

NO. 1141

LETTER

Piper Aircraft, Inc. 2926 Piper Drive Vero Beach, Florida, U.S.A. 32960

Date: April 27, 2011 (S) (M)

GASCOLATOR MAINTENANCE PROCEDURES

MAINTENANCE ALERT

SUBJECT:

MODELS AFFECTED:

J-2 Series J-3 Series J-4 Series NE-1, L-4 PA-11 Series PA-15/17 Series PA-16 Series PA-18 Series PA-20 Series PA-22 Series PA-23 Apache PA-23-160 Apache

PA-23-235 Aztec

PA-23-250 Aztec PA-E23-250 Aztec

PA-24 Comanche PA-24-250 Comanche PA-24-260 Comanche PA-24-400 Comanche PA-28-140 Cherokee Cruiser

PA-28-150 Cherokee PA-28-160 Cherokee PA-28-180 Cherokee

PA-28S-160 Cherokee PA-28S-180 Cherokee

PA-28-235 Cherokee

PA-28-236 Dakota

PA-28-151 Warrior PA-28-161 Cadet

SERIAL NUMBERS AFFECTED:

23-1 through 23-1182 (except 23-1177) 23-1177, 23-1183 through 23-2046

27-505 through 27-622

27-1 through 27-4916, 27-7304917 through 27-8154030

27-2505 through 27-4916; 27-7304917 through 27-7554168

24-1 through 24-3687 24-1, 24-103 through 24-3687

24-3642, 24-4000 through 24-5034

26-2 through 26-148

28-20001 through 28-26946; 28-7125001 through 28-7725290

28-03; 28-1 through 28-4377 and 28-1760A 28-03; 28-1 through 28-4377 and 28-1760A

28-03; 28-671 through 28-5859; 28-7105001 through 28-7205318 28-1 through 28-1760 and 28-1760A

28-671 through 28-5859;

28-7105001 through 28-7105234 28E-11; 28-10001 through 28-11378; 28-7110001 through 28-7710089 28-7911001 through 28-8611008; 2811001 through 2811050

28-7415001 through 28-7715314

2841001 through 2841365

ATA: 2800

MODELS AFFECTED: (continued)

PA-28-161 Warrior II

PA-28-161 Warrior III PA-28-180 Archer PA-28-181 Archer II

PA-28-181 Archer III PA-28-201T Turbo Dakota PA-28R-180 Arrow

PA-28R-200 Arrow

PA-28R-200 Arrow II PA-28R-201 Arrow III

PA-28R-201T Turbo Arrow III

PA-28RT-201 Arrow IV PA-28RT-201T Turbo Arrow IV

PA-34-200 Seneca PA-34-200T Seneca II PA-38-112 Tomahawk

SERIAL NUMBERS AFFECTED:

28-7716001 through 28-8616057; 2816001 through

2816109

2816110 through 2816119; 2842001 through 2842305

28-E13; 28-7305001 through 28-7505260

28-7690001 through 28-8690062;

2890001 through 2890205

2890206 through 2890231; 2843001 through 2843672

28-7921001 through 28-7921095 28R-30002 through 28R-31270; 28R-7130001 through 28R-7130013 28R-35001 through 28R-35820; 28R-7135001 through 28R-7135229 28R-7235001 through 28R-7635545 28R-7737002 through 28R-7837317;

2837001 through 2837061; 2844001 through 2844138

28R-7703001 through 28R-7803374;

2803001 through 2803012

28R-7918001 through 28R-8218026 28R-7931001 through 28R-8631005;

2831001 through 2831038

34-E4; 34-7250001 through 34-7450220 34-7570001 through 34-8170092 38-78A0001 through 38-82A0122

COMPLIANCE TIME:

Initial compliance to coincide with the next regularly scheduled maintenance event, but not to exceed the next fifty (50) hours time in service.

Thereafter, perform the following recurring maintenance procedure at intervals of every ninety (90) calendar days or every fifty (50) hours of operation, whichever comes first, unless this maintenance interval is specified otherwise in the applicable Maintenance Manual.

PURPOSE:

The affected Piper Aircraft models use a Gascolator (also called a fuel strainer or fuel filter) to separate contaminants from the fuel system. It has been determined that the reliability of the Gascolator can be improved by following the maintenance procedures described in this Service Letter.

INSTRUCTIONS:

Part I. Identification of Gascolator Configuration

- 1. Locate and examine the Gascolator, which is positioned in the engine compartment, typically mounted on the forward side of the firewall. Temporary removal of engine cowlings or access panels may be required.
- 2. Although the affected aircraft were delivered with the type of Gascolator shown in Figure 1, there are many FAA-approved types of Gascolators that have a configuration that differs from that shown in Figure 1. Compare the Gascolator that is installed in the aircraft with the Gascolator shown in Figure 1:
 - If the currently installed Gascolator matches the configuration shown in Figure 1, follow the maintenance procedures described in this Service Letter. Proceed to PART II Gascolator Maintenance.
 - If the currently installed Gascolator does not match the configuration shown in Figure 1, follow the Maintenance Manual procedures provided by the Gascolator manufacturer, at intervals specified by the applicable Piper Maintenance/Service Manual in Chapter 12 or Section II, respectively. Proceed to PART III Documentation of Compliance.

Part II. Gascolator Maintenance

NOTE: Refer to the applicable Piper Maintenance/Service Manual for any additional model-specific maintenance procedures that may apply.

- 1. Remove power from the aircraft by pulling the main power circuit breaker.
- 2. Confirm that the fuel selector valve is in the off position.

CAUTION: WHEN DRAINING ANY AMOUNT OF FUEL, CARE SHOULD BE TAKEN TO ENSURE THAT NO FIRE HAZARD EXISTS BEFORE STARTING ENGINE.

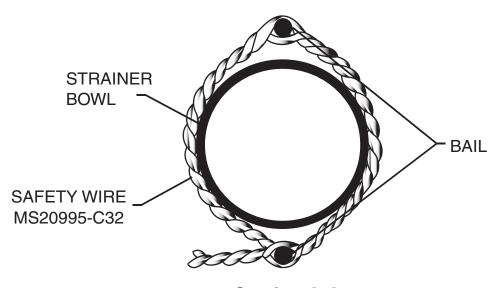
- 3. Place a container under the Gascolator drain. Operate drain to empty fuel in bowl.
- Cut away and discard any existing safety wire from the Gascolator. Loosen the bail nut, move the bail wire to the side and remove the bowl.
- 5. Remove the gasket and screen from the strainer housing.
- Clean and inspect the screen, gasket, bowl, strainer housing, bail wire and bail nut. Replace any worn or damaged components.
- 7. Reinstall gasket and screen.
- 8. Position the bowl and bail wire. Tighten the bail nut by hand, then continue tightening an additional one nut flat (i.e., 60 degrees) with a wrench. Do not over tighten.
- 9. Safety the Gascolator with MS20995-C32 Safety Wire as shown in Figure 1, using the "double twist" method, as described in FAA Advisory Circular AC 43.13-1B CHG 1, Chapter 7, Section 7, "SAFETYING". This free document is available for download from the Federal Aviation Administration web site:

http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/99C827DB9BAAC81B86256B4500596C4E?OpenDocument&Highlight=43.13

- 10. Reset the main power circuit breaker.
- 11. Operate the fuel system and check for leaks.
- 12. Reinstall any cowling or access panels that were removed in order to accomplish this maintenance procedure.
- 13. Proceed to PART III Documentation of Compliance.

Part III. Documentation of Compliance:

Make a log book entry indicating compliance with this Service Letter.



Section A-A

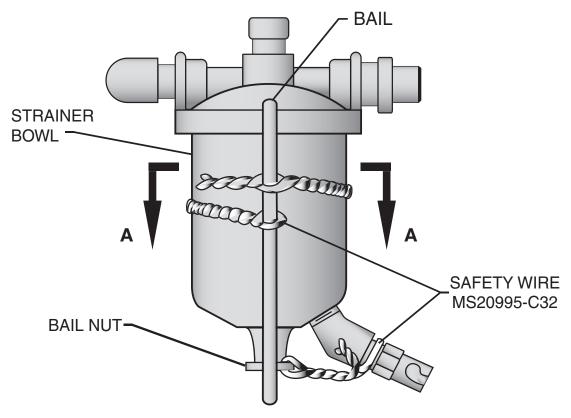


Figure 1
Typical Gascolator Installation

MATERIAL REQUIRED: Safety Wire - (MS20995-C32).

AVAILABILITY OF PARTS: Procure locally.

EFFECTIVITY DATE: This Service Letter is effective upon receipt.

SUMMARY: Please contact your Factory Authorized Piper Service Facility to make

arrangements for compliance with this Service Letter in accordance with the

compliance time indicated.

NOTE: Please notify the factory of any address/ownership corrections. Changes should include aircraft model,

serial number, current owner's name and address.

Corrections and/or changes should be directed to:

PIPER AIRCRAFT, INC. Attn: Customer Service

2926 Piper Drive

Vero Beach, FL 32960