



The New Piper Aircraft, Inc.

2926 Piper Drive

Vero Beach, Florida, U.S.A. 32960

SERVICE *No. 1041* BULLETIN

PIPER CONSIDERS COMPLIANCE MANDATORY

Date: September 25, 2000

(S/M)

SUBJECT:

**Distribution of Airborne Service Letter Number 56,
"Inspection and Cleaning of Airborne Air Filter Elements"**

MODELS AFFECTED:

SERIAL NUMBERS AFFECTED:

A guide to Models and Serial Numbers Affected is listed on pages 2 and 3. Because of the possibility of service spares installations, all models and serial numbers must be checked for applicability.

Note:

Many of the Piper models listed use the Airborne Air Filter Element, Part Number D9-18-1 (Piper Code 757-899). See the current Piper Parts Catalog for parts applications and locations of Airborne Air Filter Elements used on your particular Piper model.

COMPLIANCE TIME:

In accordance with the attached Airborne Service Letter Number 56.

Caution:

Failure to comply with Airborne Service Letter Number 56 may result in loose particles contaminating the gyro vacuum/pressure system. Left uncorrected, reliability of the gyro vacuum/pressure system may be compromised.

PURPOSE:

We have been notified by Parker Hannifin Corporation, Airborne Division, that the possibility exists where the airplane's gyro vacuum/pressure system may become contaminated by loose particles originating from the air filter element. To remedy this condition, Airborne has issued Service Letter Number 56, "Inspection and Cleaning of Airborne Air Filter Elements," which requires inspection and cleaning of the air filter elements and associated gyro vacuum/pressure system plumbing.

Left uncorrected, reliability of the gyro vacuum/pressure system may be compromised

APPROVAL:

The technical contents of this Service Bulletin have been approved by the FAA.

INSTRUCTIONS:

1. Refer to the attached Airborne Service Letter Number 56, "Inspection and Cleaning of Airborne Air Filter Elements," and follow the instructions listed under Recommendation.

Note:

If there is evidence of loose particles in the air filter element, the possibility exists that particles may have entered the gyro vacuum/pressure system, and therefore the entire gyro vacuum/pressure system and components may require inspection.

2. Upon successful completion of Airborne Service Letter Number 56, make an appropriate logbook entry of compliance with this Service Bulletin.

(OVER)
ATA: 3714

Effectivity Reference Guide

MODELS AFFECTED:

PA-18/18A/18S (Super Cub)

PA-20/20S (Pacer)
 PA-22/22S (Tripacer/Caribbean/Colt)
 PA-23/23-160 (Apache)
 PA-23 235 (Apache)
 PA-23-250/E23-250 (Aztec)

PA-24-180/250 (Comanche)
 PA-24-260 (Comanche)
 PA-24-400 (Comanche)
 PA-28-140 (Cherokee)
 PA-28-150/160/180/28S-160/180 (Cherokee)
 PA-28-151 (Warrior)
 PA-28-161 (Warrior II)

PA-28-161 (Warrior III)

PA-28-161 (Cadet)
 PA-28-181 (Archer II)

PA-28-181 (Archer III)

PA-28-235 (Cherokee)
 PA-28-201T (Turbo Dakota)
 PA-28-236 (Dakota)

PA-28R-180 (Arrow)
 PA-28R-200 (Arrow/Arrow II)
 PA-28R-201 (Arrow III)
 PA-28R-201 (Arrow)

PA-28R-201T (Turbo Arrow III)

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

PA-30 (Twin Comanche)
 PA-31/300/325 (Navajo/Navajo CR)

PA-31-350 (Chieftain)

PA-31-350 (T1020)
 PA-31P (Pressurized Navajo)

PA-31P-350 (Mojave)
 PA-31T (Cheyenne/Cheyenne II)

SERIAL NUMBERS AFFECTED:

18-1 through 18-9004,
 18-7309016 through 18-8309025
 1809001 through 1809113

20-1 through 20-1121

22-1 through 22-9848

23-1 through 23-2046

27-505 through 27-622

27-1 through 27-4866,
 27-7304917 through 27-8154030

24-1 through 24-3687
 24-3642, 24-4000 through 24-5028

26-2 through 26-148

28-20000 through 28-7725290

28-1 through 28-7505259 & 28-E13
 28-7415001 through 28-7715314
 28-7716002 through 28-8616057,
 2816001 through 2816109
 2816110 through 2816119,
 2842001 through 2842083
 2841001 through 2841365
 28-7690001 through 28-8690056,
 2890001 through 2890205
 2890206 through 2890231,
 2843001 through 2843346
 28-10001 through 28-7710089 & 28-E11
 28-7921001 through 28-7921091
 28-7911001 through 28-8611008,
 2811001 through 2811050
 28R-30001 through 28R-7130013
 28R-35001 through 28R-7635545
 28R-7737002 through 28R-7837317
 2837001 through 2837061,
 2844001 through 2844031
 28R-7703002 through 28R-7803372,
 2803001 through 2803015
 28R-7918001 through 28R-8218026
 28R-7931002 through 28R-8631005,
 2831001 through 2131038

30-1 through 30-2000

31-2 through 31-861,
 31-7300901 through 31-8312019
 31-5001 through 31-5004,
 31-7305005 through 31-8452021
 31-8253001 through 31-8553002
 31P-3 through 31P-80,
 31P-7300110 through 31P-7400230,
 31P-7530001 through 31P-7730012
 31P-8414001 through 31P-8414050
 31T-7400002 through 31T-7400009,
 31T-7520001 through 31T-8120104

Effectivity Reference Guide (Cont'd)

MODELS AFFECTED:

PA-31T1 (Cheyenne I/IA)

PA-31T2 (Cheyenne IIXL)

PA-31T3 (T1040)

PA-32-260 (Cherokee Six)
 PA-32-300/32S-300 (Cherokee Six)
 PA-32-301 (Saratoga)

PA-32-301T (Turbo Saratoga)
 PA-32RT-300T (Turbo Lance II)
 PA-32R-300 (Lance)
 PA-32RT-300 (Lance II)
 PA-32R-301 (Saratoga SP)

PA-32R-301 (Saratoga II HP)

PA-32R-301T (Turbo Saratoga SP)

PA-32R-301T (Saratoga II TC)
 PA-34-200 (Seneca)
 PA-34-200T (Seneca II)
 PA-34-220T (Seneca III)

PA-34-220T (Seneca IV)

PA-34-220T (Seneca V)
 PA-36-285 (Pawnee Brave)
 PA-36-300 (Pawnee Brave)
 PA-36-375 (Pawnee Brave)
 PA-38-112 (Tomahawk)
 PA-39 (Twin Comanche)
 PA-40 (Arapaho)
 PA-42/42-720 (Cheyenne III/IIIA)

PA-42-1000 (Cheyenne 400LS)
 PA-44-180 (Seminole)

PA-44-180T (Seminole)
 PA-46-310P (Malibu)
 PA-46-350P (Malibu Mirage)

SERIAL NUMBERS AFFECTED:

31T-7804001 through 31T-8104101
 31T-8304001 through 31T-8304003,
 31T-1104004 through 31T-1104017
 31T-8166001 through 31T-8166076,
 31T-1166001 through 31T-1166008
 31T-8275001 through 31T-8475001,
 31T-5575001

32-1 through 32-7800008
 32-40000 through 32-7940290
 32-8006001 through 32-8606023,
 3206001 through 3206019
 32-8024001 through 32-8424002
 32R-7787001 through 32R-7987126
 32R-7680001 through 32R-7880068
 32R-7885001 through 32R-7985105
 32R-8013001 through 32R-8613006,
 3213001 through 3213041
 3213029, 3213042 through 3213103,
 3246001 through 3246160
 32R-8029001 through 32R-8629006,
 3229001 through 3229003
 3257001 through 3257145
 34-7250001 through 34-7450220
 34-7570001 through 34-8170092
 34-8133001 through 34-8633031,
 3433001 through 3433216,
 3448001 through 3448035
 3448038 through 3448079,
 3447001 through 3447029
 3449001 through 3449168
 36-7360001 through 36-7660135,
 36-7760001 through 36-8160023
 36-7802001 through 36-8302025
 38-78A0002 through 38-82A0124
 39-1 through 39-155
 40-7400002
 42-7800001 through 42-7800002,
 42-7801003 through 42-8301002,
 42-5501003 through 42-5501060
 42-5527001 through 42-5527044
 44-7995001 through 44-8195026,
 4495001 through 4495013,
 4496001 through 4496036
 44-8107001 through 44-8207020
 46-8408002 through 46-8608088,
 4608001 through 4608140
 4622001 through 4622200,
 4636001 through 4636284

MATERIAL REQUIRED: N/A

AVAILABILITY OF PARTS: N/A

EFFECTIVE DATE: This Service Bulletin is effective upon receipt.

SUMMARY: Applicable Factory Participation is limited to new aircraft in warranty at the time of compliance. Factory Participation will remain in effect for a period of time **not to exceed 180 days** from the date of this Service Bulletin.

Please contact your Factory Authorized Piper Service Facility to make arrangements for compliance with this Service Bulletin in accordance with the compliance time indicated.

Please contact your Factory Authorized Piper Service Facility to make arrangements for compliance with this Service Bulletin in accordance with the compliance time indicated.

NOTE: If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and notify the factory of address/ownership corrections. Changes should include aircraft model, serial number, current owner's name and address.

Corrections/changes should be directed to:

THE NEW PIPER AIRCRAFT, INC.
Attn: Customer Services
2926 Piper Drive
Vero Beach, FL 32960

Service Letter Number: 56

Date: 4/19/00

Subject: Inspection and Cleaning of Airborne Air Filter Elements.

Applicability: Airborne Air Filter Elements with the following part numbers/date codes which have not been inspected per this service letter as identified in step number seven (7) of the procedure listed below. These components were shipped from Airborne between 1/1/99 and 3/31/00.

<u>Item</u>	<u>Part Number (P/N)</u>	<u>Date Code</u>
Air Filter Element	D9-14-3 (See Note1)	1AR thru 12AR and 1AT thru 3AT
Air Filter Element	D9-14-5 (See Note 2)	1AR thru 12AR and 1AT thru 3AT
Air Filter Element	D9-18-1 (See Note 3)	1AR thru 12AR and 1AT thru 3AT

Note 1: The D9-14-3 is used in the 1J2-2 Air Filter Assembly.

Note 2: The D9-14-5 is used in the 1J2-1, 1J2-5 and 1J2-6 Air Filter Assemblies.

Note 3: The D9-18-1 is used in the 1J7-1 and 1J7-2 Air Filter Assemblies.

Background: Field reports indicate the possibility that loose particles of a black elastomeric compound may not have been completely removed from these air filter elements during the manufacturing process.

Recommendation:

Within the next thirty days, inspect/clean the air filter elements listed above and also the associated pneumatic system plumbing per the following procedure:

- 1) Remove the affected air filter element from aircraft per the instructions outlined in the appropriate maintenance/service manual provided by the airframe manufacturer.
- 2) Inspect the inner diameter of the black end piece(s) of these elements for flashing (Figure 1). Remove all flashing using a sharp knife. Caution: Do not cut the paper filter portion of the element.

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- 3) Tap the element lightly on a clean work surface in order to remove any loose particles from between the pleat tips on the inside of the paper filter (Figure 2).
- 4) Inspect the inner diameter (pleat tips) of the paper filter for black residue (Figure 3). Remove all loose residue using the "sticky side" of a strip of masking tape attached to the end of a blunt instrument.
- 5) Seal one end of the element using a plug. Then, use a heavy-duty vacuum cleaner (e.g. shop vac) to remove all loose particles from inside the element.
- 6) Thoroughly inspect all internal surfaces of the element for any loose particles. Remove any remaining loose particles using any combination of the above steps. Note: The wicking of black potting material onto pleats of paper filter is acceptable (Figure 4).
- 7) Identify the element as having been inspected per this service letter by permanently marking (ink stamp, magic marker, etc.) the number of this service letter ("56") on an exterior surface of the element. Note: This marking should be clearly visible once the element is installed back into the aircraft.

- 8) Remove the applicable pneumatic system hoses/lines as outlined below:

Vacuum System: Hoses/lines between system inlet filter and gyro instruments.

Pressure System: Hoses/lines between system inlet filter and dry air pump.

- 9) Clean hoses/lines using a heavy-duty vacuum cleaner (e.g. shop vac) and then reinstall.
- 10) Reinstall the clean air filter element per the instructions outlined in the appropriate maintenance/service manual provided by the airframe manufacturer.
- 11) Perform an operational check of the complete pneumatic system per the instructions outlined in the appropriate maintenance/service manual provided by the airframe manufacturer.
- 12) Any questions regarding this service letter should be directed to Airborne's Customer Support Team as follows:

Toll Free Phone Number: 800-382-8422

Direct Phone Number: 440-937-1315

Fax Number: 440-937-5409

E-Mail: techhelp@parker.com

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