

Aircraft
Specialties Co.**SERVICE BULLETIN NO. 1**

EFFECTIVE DATE 8-21-78

MANDATORY

PART NAME: Air Filter Assembly
PART NUMBER: BA-8110 (With Welded in Retainer)
STC NUMBER: STC - SA71GL

AIRCRAFT MODELS INVOLVED: Cessna 180C thru L
Cessna 182B thru Q
Cessna 185 all

PROBLEM CAUSING BULLETIN: The expanded metal retainer which holds the foam element from going into the engine failed. On take-off the Cessna 180 seaplane lost power and landed back on the water with no further incident. Inspection revealed the retainer had broken the welds and had slipped up to the carburetor throat along with the element. This airplane had been heavily used and backfired frequently when starting. We believe this could also happen to others, so we are issuing this mandatory bulletin.

INSPECTION: Before further flight remove element and check retainer. If the retainer is a steel screen, no further inspection is required. If the retainer is aluminum expanded metal and welded to the frame, check retainer for cracks. If none are found, note time in log book and reinspect within each 100 hours use or until P.N. BA-8109A screen gasket is installed, at which time inspection is no longer required. If one crack is found, inspect again at 50 hour intervals until BA-8109A is installed.

COMPLIANCE REQUIRED:

1. Order P.N. BA-8109 (Fire Screen Gasket)
2. After receiving BA-8109, remove filter assembly and remove existing gasket and discard.
3. Carefully install fire screen gasket over airlock pins. Re-install filter assembly airplane.
4. Make log book entry.
5. No further inspection required.

ORDERING PROCEDURE:

Order Part No. BA-8109 (Screen Gasket)

Aircraft: Make _____ Year _____ Model _____

Place Order With:

Brackett Aircraft Specialties Company
5015 Roadrunner Drive
Mesa, Arizona 85205

Parts will be shipped at no charge including freight.

No labor allowance allowed.

Parts will be available approximately: October 15, 1978.

AIRCRAFT
CO., INC.**SERVICE BULLETIN NO. 2**

EFFECTIVE DATE 9-15-78

MANDATORY

PART NAME: Air Filter Assembly
PART NUMBER: BA-4106, BA-4210, BA-5110, BA-6110
STC NUMBER: STC-SA71GL

AIRCRAFT MODELS INVOLVED: Cessna 120, 140, 150, 170, 172
 Grunman AA1-5, Mooney M20 (180 hp)
 Piper PA, 20
 Varga and any others using above part no.

PROBLEM CAUSING BULLETIN: Cracks have been found in the weld areas where the retainer, (the part that holds the element from going into the engine) is welded onto the frame. To prevent the possibility of the retainer pieces breaking off and going into the carburetor, we are installing a steel screen gasket on all future filter assemblies. This bulletin is to request all users of existing filters with the aluminum retainers to upgrade their filter assemblies by installing the steel screen gasket.

INSPECTION: Before further flight, remove element and check retainer. If the retainer is a steel screen, no further inspection is required. If the retainer is aluminum expanded metal and welded to the frame, check retainer for cracks. If none are found, note time in log book and reinspect within each 100 hours use or until steel screen gasket is installed, at which time inspection is no longer required. If one crack is found, inspect again at 50 hour intervals until screen gasket is installed.

COMPLIANCE REQUIRED:

1. Order screen gasket.
2. After receiving screen gasket, remove filter assembly and replace existing gasket with screen gasket.
3. If retainer is cracked, remove it from frame. This can easily be done with side cutters. File off burrs.
4. Reinstall assembly to airplane.
5. No further inspection required.

ORDERING PROCEDURE:Order XXXXXXXXXX (Screen Gasket)

Aircraft: Make _____ Year _____ Model _____ Reg. No. _____

Place Order With Your Local Distributor or Brackett Aircraft, Inc.

BRACKETT AIRCRAFT, INC.
 5015 Roadrunner Drive
 Mesa, Arizona 85205

Shipping Address: _____

Parts will be shipped at no charge including freight.
 No labor allowance allowed.
 Parts will be available approximately: October 15, 1978.

BRACKETT

AIRCRAFT CO., INC.

New Address
BRACKETT AIRCRAFT CO., INC.
 7045 Flightline Dr. Kingman, AZ 86401.
 (602) 757-4005

SERVICE BULLETIN NO. 3

EFFECTIVE DATE 9-15-78
 REVISED DATE 3-1-79

THIS BULLETIN NO. 3 SUPERCEDES BULLETINS NO. 1 & NO. 2 FOR COMPLIANCE WITH FAA AD-78-25-05

PART NAME: Air Filter Assembly
 PART NUMBERS: BA-4106, BA-4210, BA-5110, BA-6110, BA-8110
 STC NUMBER: STC-SA71GL

AIRCRAFT MODELS INVOLVED: Cessna 120, 140, 150, 170, 172, 180, 182, 185
 Grunman AA1-5, Mooney M20 (180 hp)
 Piper PA, 20
 Varga and any others using above part no.

PROBLEM CAUSING BULLETIN: Cracks have been found in the weld areas where the retainer, (the part that holds the element from going into the engine) is welded onto the frame. To prevent the possibility of the retainer pieces breaking off and going into the carburetor, we are installing a steel screen gasket on all future filter assemblies. This bulletin is to request all users of existing filters with the aluminum retainers to upgrade their filter assemblies by installing the steel screen gasket.

INSPECTION: Within the next 25 hours of service, remove element and check retainer with a magnet to determine if the retainer is steel or aluminum. If the retainer is a steel screen, no further inspection is required. If the retainer is aluminum expanded metal and welded to the frame, check retainer for cracks. If none are found, note time in log book and reinspect within each 100 hours use or until steel screen gasket is installed, at which time inspection log is no longer required. FAA AD-78-25-05 requires that the aluminum retainer be replaced before 528 hours of service.

COMPLIANCE INSTRUCTIONS:

1. Order screen gasket.
2. After receiving screen gasket, remove filter assembly. Remove aluminum retainer from frame. This can easily be done with side cutters. File off burrs.
3. Replace existing gasket with screen gasket.
4. Reinstall assembly to airplane.
5. Make Log Book entry.

New Address
BRACKETT AIRCRAFT CO., INC.
 7045 Flightline Dr. Kingman, AZ 86401
 (602) 757-4005

ORDERING PROCEDURE:

1. Place your order with your Dealer, Distributor or direct with Brackett Aircraft Co.

2.

FOR ASSEMBLY NO.	ORDER SCREEN GASKET	LIST
BA-4106	BA-4106	\$ 6.06
BA-4210	BA-4106	6.06
BA-5110	BA-5101	6.50
BA-6110	BA-5101	6.50
BA-8110	BA-8110 81C	7.50

Brackett Aircraft Co. Inc. policy is to provide these screen gasket assemblies on a no charge basis for 6 months from October 1st, 1978 through May 1st, 1979 when ordered directly from us. After May 1, 1979 the above prices will be charged. Our distributor will be charging for the convenience.

! When ordering state your aircraft model, registration number and your shipping address.

BRACKETT

Aircraft
Co., Inc.

SERVICE BULLETIN #4

Effective Date: 7-15-80

PART NAME: Air Filter Assembly manufactured prior to September, 1978

PART NUMBERS: BA-5710, BA-7110, BA-7210, BA-7310, BA-7410, BA-7510

STC NUMBER: STC-SA71GL

AIRCRAFT MODELS: Cessna 177 all models, Bonanza all models and A-36 all models, Beech C-23, A-24R, B-24R and any other aircraft with above filters installed.

PROBLEM CAUSING BULLETIN: Cracks have been found in the weld areas where the retainer (the part that holds the element from going into the engine) is welded onto the filter frame.

INSPECTION: Remove element and look at retainer. If retainer has large aluminum diamond shaped opening 1-3/4" x 3/4" (ones that you can stick your finger through), then the filter assembly is affected by this bulletin.

COMPLIANCE: Order Kit that corresponds to affected filter assembly.

ESTIMATE MAN HOURS: One (1) hour

APPROVAL: FAA-WE

MATERIAL:	<u>FOR FILTER ASSY.</u>	<u>ORDER KIT NO.</u>
	BA-5710 assembly	Kit 57
	BA-7110 assembly	Kit 71
	BA-7210 and BA-7410 assembly	Kit 72
	BA-7310 assembly	Kit 73
	BA-7510 assembly	Kit 75

WARRANTY LIMITED: Brackett Aircraft Co. Inc. will provide these at no charge for the period from August 1980 to January 1981, labor not included. All orders to be accompanied with aircraft model and registration number. All orders to be ordered direct from Brackett Aircraft Co. Inc. at the above address.

New Address
BRACKETT AIRCRAFT CO., INC.
7045 Flightline Dr. Kingman, AZ 86401
(602) 757-4005

BRACKETT

7045 FLIGHTLINE DR.
KINGMAN, AZ 86401
520-757-4005, FAX 520-757-1948

Aircraft
Co., Inc.

BRACKETT AIR FILTERS

SERVICE BULLETIN #5 7-28-80

SUBJECT: Loose gaskets

FILTER MODELS: BA-100, BA-2310, BA-5710, BA-6210, BA-7110, BA-7210,
BA-7310, BA-7410, BA-7510 that were manufactured prior to July 1980.

REASON: Product Improvement. Gaskets have become loose due to oils,
grease, fuel, loose and poorly fit fasteners that hold the filter
in place. This has been a problem area for years with all brands
of filters that use this type gasket.

CHANGE: Brackett Aircraft Co. Inc. is installing gasket retainer strips
that will prevent a gasket from entering the induction system in
event the gasket should become loose. This is effective on all
above models manufactured after June 1980 and on.

RETROFIT: Brackett Aircraft Co. Inc. is making available kits to upgrade
existing filter.

COMPLIANCE: Owner's discretion.

ESTIMATED MAN HOURS: Approximately 1 hour.

APPROVAL: FAA-WE

MATERIAL:	<u>FOR FILTER ASSY.</u>	<u>ORDER KIT NO.</u>
	BA-100	BA-10A
	BA-2310	BA-23A
	BA-5710	BA-57A
	BA-6210	BA-62A
	BA-7110	BA-71A
	BA-7210	BA-71A-72
	BA-7310	BA-73A
	BA-7410	BA-71A-74
	BA-7510	BA-62A-75

KIT PRICE - \$5.00 all kits

SERVICE BULLETIN NO. 6

BRACKETT

SUPERSEDES BULLETIN #4

REV. #1 DATE 6-29-81

~~5045 Rosborough Drive, Boston Field, Mass., Phone 85205~~
~~Phone (602) 832-2770~~

Aircraft
Co., Inc.

PART NAME: Air filters mfg. prior to September 1978

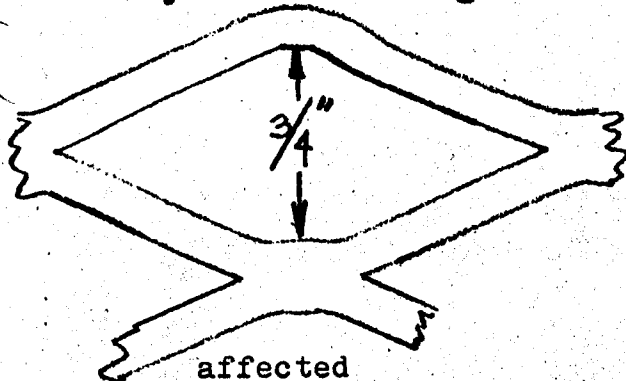
PART NUMBERS: BA-100, BA-2110, BA-2310, BA-3110, BA-3110A
BA-5710, BA-7110, BA-7210, BA-7310, BA-7410, BA-7510

STC NUMBER: SA71GL and SA693CE

AIRCRAFT MODELS: Beech A65, 70, 65-B80, 65-88, C-23, A-24R, B24R
Bonanza 33, 35, 36 all models. Cessna 177, 177A,B, 177RG, F177RG,
210A, B, C, D,E, 310, A,B,C,D,J,K,L. Lake LA4-200, Piper PA-23-150,
160, PA24-180 to S/N 1477, PA31, 31-30, 31-350.

PROBLEM CAUSING BULLETING: Cracks have been found in the weld areas where
the retainer (the part that holds the element from going into the
engine) is welded onto the filter frame.

INSPECTION: Remove element and inspect retainer. If retainer has large
aluminum diamond shaped opening 1-3/4" x 3/4" (ones that you can
stick your finger through), then the filter assembly is affected
by this bulleting.



STEEL this type screen
is not affected by bulletin

COMPLIANCE: Order Kit that corresponds to affected filter assembly.

FOR FILTER ASSY. ORDER KIT NO.

BA-100	BA-10
BA-2110	BA-23
BA-2310	BA-23
BA-3110	BA-31
BA-3110A	BA-31A
BA-5710	BA-57

FOR FILTER ASSY.

ORDER KIT NO.

BA-7110	BA-71
BA-7210	BA-72
BA-7310	BA-73
BA-7410	BA-74
BA-7510	BA-75
BA-7610	BA-76

APPROVAL: FAA-WE

ESTIMATE MAN HOURS: One (1) hour

WARRANTY LIMITED: Brackett Aircraft Co. Inc. will provide these at no
charge for the period from May 1981 to November 1981, labor not
included. All orders to be accompanied with aircraft model and
registration number. All orders to be ordered direct from Brackett
Aircraft Co. Inc. at the above address.

Aircraft
Co., Inc.

SERVICE BULLETIN # 7
EFFECTIVE DATE: MARCH 1, 1985

PART NAME: AIR FILTER Manufactured prior to Aug. 1981
PART NO: BA-8110 Manufactured prior to Aug. 1981
STC NO: SA71GL

Aircraft models involved: All Cessna 180A, 182, 185 and certain
Bellanca using PN BA-8110.

Reason for Bulletin:

We have had 3 reports where an airlock fastener has come loose, allowing solvents and oils to loosen the gasket from the screen, allowing possibility of gasket ingestion.

Prior to August of 1981 we manufactured the BA-8110 filter assembly with a gasket on both sides of the backfire screen. August 1981 and after the filter assemblies have been manufactured with the backfire screen riveted inside the assembly and the addition of gasket retainer strips to prevent any chance of the gasket migrating into the induction system. We would like to get all of these older BA-8110's up graded for added safety.

INSPECTION: We suggest you inspect at annual or sooner.

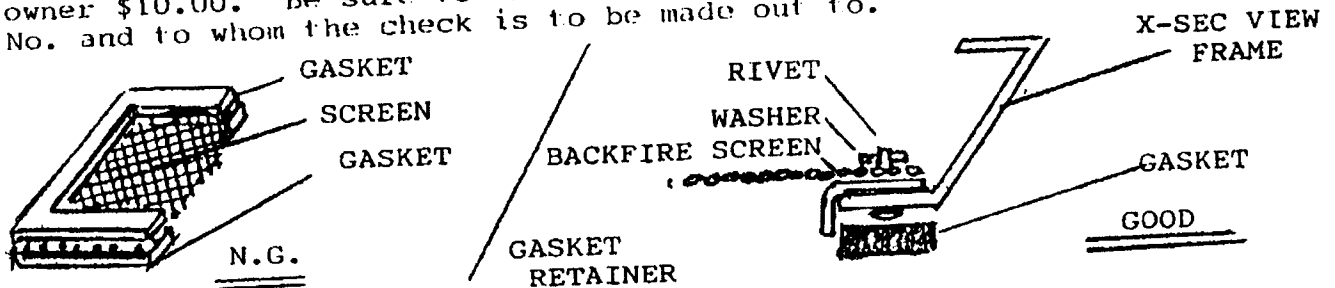
To check: Push the foam element away from either side of the frame and look to see if the screen is riveted into the box. If it is, then it is OK.

Action to take:

If the inspection reveals an affected filter screen (a screen that is sandwiched with two gaskets) then order Kit Part No. BA-81C.

Ordering and Reimbursement procedure:

Order Kit Part No. BA-81C from your parts distributor. The list price is \$7.88. Install the kit as per instructions. Save the parts (screen and gasket) and send them directly to BRACKETT AIRCRAFT CO., INC., 7045 FLIGHTLINE DR., KINGMAN, AZ 86401. Brackett will reimburse the owner \$10.00. Be sure to include the Aircraft Model and Registration No. and to whom the check is to be made out to.



Aircraft
Co., Inc.

SERVICE BULLETIN NO. 8

Effective Date Sept. 1, 1981

PART NAME: Air Filter Assembly P/N BA-8110
KIT PART NUMBER: BA-81C
AIRCRAFT AFFECTED: Cessna 180A and up
Cessna 182 all models
Cessna 185 all models
Bellanca 14-19-13A; 17-30, 17-30A,
7GCAA, 7GCBG, 7KCAB, 7ECA, 8KCAB, 8GCBC

COMPLIANCE REQUIRED: At owner's discretion

REASON FOR BULLETIN: To advise owners of the availability of Kit No. BA-81C. This Kit is for upgrading filter assembly BA-8110, so that it is possible to incorporate Brackett air filters exclusive gasket retainer strips. Brackett filters manufactured August 1981 and after incorporates this feature.

RECOMMENDATIONS: We recommend that Kit BA-81C be installed whenever replacing screen gasket assembly BA-8109 or when there are any signs of gasket deterioration or at owner's discretion for product improvement.

ESTIMATED MAN HOURS: Approximately 1 hour.

ORDERING PROCEDURE: Place your order for Kit No. BA-81C through your dealer or distributor.

COST: Suggested retail price through December, 1981 is \$7.50.

Price subject to change without notice.

BRACKETT AIRCRAFT CO., INC.

INSTALLATION INSTRUCTIONS

SCREEN AND GASKET RETAINER KIT BA-81C FOR FILTER ASSEMBLY BA-8110

OBJECTIVE: To replace the existing screen gasket P.N. BA-8109 with a riveted in screen and 2 each gasket retainer strips plus cementing on a new gasket to the frame.

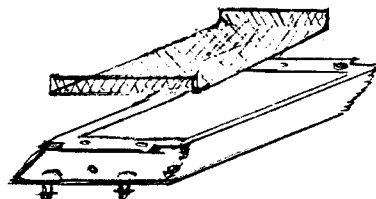
INSTRUCTIONS

Step 1. Remove filter assembly BA-8110 from aircraft and remove grill and element.

Step 2. Remove screen gasket P.N. BA-8109 from frame by pulling off over the airtight fasteners and discard.

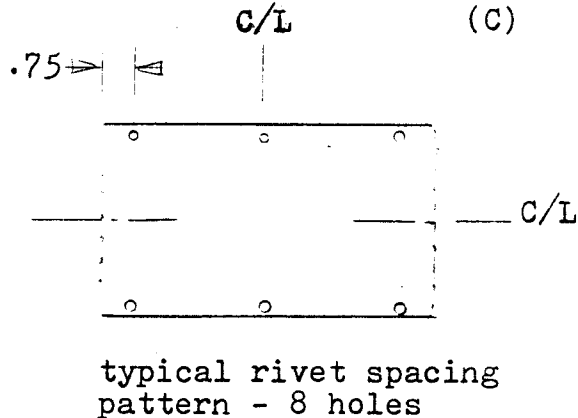
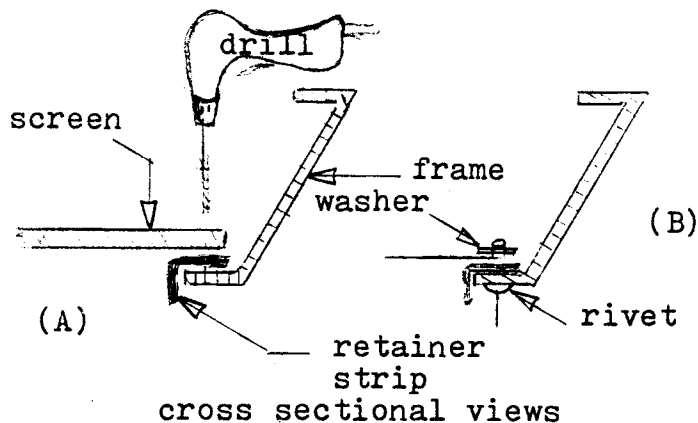
Step 3. Clean frame thoroughly.

Step 4. Install screen P/N 8106-1 into frame with bent edges up.



Step 5. Insert retainer strips P/N 7105 between the screen and frame.

Step 6. Start with the open angle end. Diagram (A) - Use a 1/8" drill and drill a hole through the screen, the retainer strip and the frame. Next insert a SSD-4-3 rivet through the frame, retainer and screen, and then place a AN 960-6L washer over the rivet and rivet in place. Diagram (B) - Next drill the 2 other holes and rivet. See rivet pattern shown in diagram (C) below.



Step 7. Drill the three holes in the closed angle end from the frame side and rivet retainer and screen in place.

Step 8. Drill 2 holes in center of the upturned screen sides and rivet in place. Use 2 each AN 960-6L washers over screen.

Step 9. Install gasket by cementing to frame. Use Dow Corning #732 RTV sealant or an equivalent. Be very careful not to damage gasket when pushing the gasket over the airtights.

Step 10. Re-install to aircraft as per original instructions.