

SERVICE BULLETIN

Beechcraft

TITLE: FLIGHT CONTROLS - INSTALL FLAP INSPECTION ACCESS PANELS ON CERTAIN AERO CENTER PRODUCTS

1. Planning Information

A. Effectivity

- (1) Airplanes
 - Model 19 Series, Serials MB-1 through MB-905;
 - Model 23 Series, Serials M-1 through M-2392;
 - Model 24 Series, Serials MA-1 through MA-368;
 - Model 24R Series Sierra, Serials MC-2 through MC-795;
 - Model 76 Duchess, Serials ME-1 through ME-437.
- (2) Spares
 - None.

B. Reason

Hawker Beechcraft Corporation (HBC) has received reports of difficulty in accessing the flap structure during inspection for corrosion. Currently, access is limited unless the flap skin is removed. This Service Bulletin provides instructions for adding inspection holes in the flap, which allows access to flap structure, and stresses the importance of complying with regularly scheduled inspections on flap structure for corrosion.

C. Description

This Service Bulletin provides instructions to add inspection access to flap skins on Aero Center products.

D. Compliance

Hawker Beechcraft Corporation recommends that this Service Bulletin be accomplished at the next scheduled inspection.

The export of these commodities, technology or software are subject to the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited. For guidance on export control requirements, contact the Commerce Department's Bureau of Export Administration at <http://www.bis.doc.gov>.

Hawker Beechcraft Corporation (HBC) issues Service Information for the benefit of owners and fixed base operators in the form of two classes of Service Bulletins. The first class, Mandatory Service Bulletins (red border) includes changes, inspection and modifications that could affect safety or crashworthiness. HBC also issues Service Bulletins with no red border which are designated as either recommended or optional in the compliance section within the bulletin. In the case of recommended Service Bulletins, HBC feels the changes, modifications, improvements or inspections will benefit the owner/operator and although highly recommended, Recommended Service Bulletins are not considered mandatory at the time of issuance. In the case of Optional Service Bulletins, compliance with the changes, modifications, improvements or inspections is at the owner/operator's discretion.

Both classes are available on the web at <http://pubs.hawkerbeechcraft.com> and mailed to:

- (a) Owners of record on the FAA Aircraft Registration Branch List and the HBC Safety of Flight Information (SOFI) List.
- (b) Those having a publications subscription.

Information on Safety of Flight Information (SOFI) or subscription can be obtained through the Hawker Beechcraft Corporation Technical Manual Distribution Center (TMDC). As Mandatory Service Bulletins and Service Bulletins are issued, the Service Bulletin Master Index will be updated and available online at <http://pubs.hawkerbeechcraft.com>. Warranty will be allowed only when specifically defined in the Service Bulletin and in accordance with HBC Warranty Policy.

Unless otherwise designated, HBC Mandatory Service Bulletins, Service Bulletins and HBC Kits are approved for installation on HBC airplanes in original or HBC modified configurations only. HBC Mandatory Service Bulletins, Service Bulletins and Kits may not be compatible with airplanes modified by STC installations or modifications other than HBC approved kits.

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E. Approval

The engineering data contained in this Service Bulletin is FAA approved.

This modification is classified Minor per FAA Order 8110.52.

Prior to accomplishment, owners / operators of airplanes registered in countries other than the United States shall consult with their local Aviation Regulatory Authority.

F. Manpower

The following information is for planning purposes only:

Estimated man-hours: 4 hours.

Suggested number of men: 1 man.

The above is an estimate based on experienced, properly equipped personnel complying with this Service Bulletin. Occasionally, after work has started, conditions may be found that could result in additional man-hours.

G. Weight and Balance

Negligible.

H. Electrical Load Data

Not changed.

I. Software Accomplishment Summary

Not applicable.

J. References

Duchess 76 Maintenance Manual, P/N 105-590000-7A9 or subsequent revision;

Beechcraft Shop Manual, P/N 169-590015G5 or subsequent revision.

K. Publications Affected

None.

L. Interchangeability of Parts

Not applicable.

M. Warranty Credit

None.

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2. Material Information

A. Materials - Price and Availability

Contact a Hawker Beechcraft Authorized Service Center for information.

B. Industry Support

Not applicable.

C. Airplanes

The following parts required for this modification may be ordered through a Hawker Beechcraft Authorized Service Center or RAPID:

Part Number	Description	Quantity Per Airplane
132641-5G	Patch Plates	As Required
A-A-1491, CCC-C-440 or equivalent	Cotton Cheesecloth	As Required
A-A-58054 (Scotchbrite or equivalent)	Abrasive Pad	As Required
MIL-DTL-81706 (Alodine 1201, 1200S or equivalent)	Chemical Conversion Coating	As Required
MIL-PRF-23377 or MIL-P-8585 or equivalent	Epoxy Polyamide Primer	As Required
Obtain from: Barton Solvents, Inc. 201 S. Cedar, P. O. Box 366, Valley Center, KS 67147 or Eastman Chemical Company, Inc. P. O. Box 431, 100 N. Eastman Road, Kingsport, TN 37662	Methyl Propyl Ketone	As Required
TT-N-95, Type II or equivalent	Aliphatic Naphtha	As Required
P-D-680, Type III or equivalent	Dry Cleaning Solvent	As Required

D. Tooling - Price and Availability

Not applicable.

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3. Accomplishment Instructions

This Service Bulletin shall be accomplished as follows:

NOTE

Should any difficulty be encountered in accomplishing this Service Bulletin, contact Hawker Beechcraft Corporation at 1-800-429-5372 or 316-676-3140.

A. Airplane

WARNING

Observe all Warnings and Cautions contained in the airplane manuals referenced in this Service Bulletin.

Whenever any part of the flight control system is dismantled, adjusted, repaired or replaced, a detailed investigation must be made upon completion. Make sure that distortion, tools, rags or any other loose articles or foreign matter that could impede the free movement and safe operation of the system are not present.

Check for security of locking devices, movement in proper direction and that the system and installations in the work area are clean before returning the airplane to service.

- (1) Ensure airplane is configured for the work scope required by this Service Bulletin.

CAUTION

Before performing any maintenance on the flight control system, display a caution tag in the cockpit area prohibiting movement of the control surfaces.

- (2) Remove flaps. For Duchess airplanes, refer to Maintenance Manual Chapter 27-50-00; for Musketeer, Sport, Sundowner and Sierra airplanes, refer to Beechcraft Shop Manual, Section 3-21.
- (3) Pull and collar flap circuit breaker (if applicable) and install warning placards against reconnecting power.
- (4) Locate the areas on top of flaps where inspection holes are to be added on both sides of flap hinges. Refer to Figure 1.
 - (a) Duchess 76 requires six (6) holes in each flap.
 - (b) Musketeer, Sport, Sundowner and Sierra require four (4) holes in each flap.
- (5) Carefully lay out hole locations and drill the 1.375-inch holes.

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- (6) Remove any debris that may have fallen into the opening on the flap from the drilling process.

WARNING

Regular inspections and preventive maintenance provide the only substantial control over corrosion. In certain instances, minor damage in a critical or inaccessible area can become a major structural repair. The flap area should be thoroughly inspected for corrosion at all regularly scheduled maintenance inspections to minimize possible damage from corrosion.

If corrosion-producing factors, such as heavy concentrations of industrial smoke, chemicals or salt air, are present, further inspection is necessary. Preventative maintenance, when used as a means of controlling corrosion, is normally accomplished by following certain procedures.

- First the airplane must be thoroughly cleaned to rid it of any impurities such as salt spray, dirt, or exhaust deposits.
 - Second, an inspection must be made for various forms of corrosion both externally, and, whenever possible, internally.
 - Third, if corrosion is found, the area should be cleaned of all corrosive substances and treated in the appropriate manner for the affected metals.
- (7) Perform detailed inspection of the internal flap area made visible through the new inspection opening. Pay particular attention to any evidence of corrosion and take appropriate action to correct corrosion if found.

WARNING

Chemical conversion coating may affect skin, eyes and respiratory tract. Chemical goggles and neoprene gloves will be worn. Use in a well-ventilated area.

- (8) Use abrasive pads to dress out drilled hole areas. Wash the area with clean cotton cheesecloth or wiping rag dampened with appropriate solvent. Repeat solvent wipe cleaning, as necessary. Wipe surfaces dry with clean cotton cheesecloth.
- (9) Apply chemical conversion coating to bare metal surfaces. Allow adequate drying time following application of chemical conversion coating.
- (10) Apply Epoxy Polyamide Primer to bare metal surfaces. Allow adequate drying time following application of primer.
- (11) Perform inspection of the internal flap area made visible through the new inspection opening. Ensure no foreign objects or debris from the corrosion prevention treatment remain in the compartment.

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- (12) Install patch plates P/N 132641-5G on all inspection holes created in Step (4) of this service bulletin.
- (13) Install flaps on airplane. For Duchess airplanes, refer to Maintenance Manual Chapter 27-50-00; for Musketeer, Sport, Sundowner and Sierra airplanes, refer to Beechcraft Shop Manual, Section 3-21.
- (14) Reset flap circuit breaker if previously opened and remove warning placards.

CAUTION

Make sure that all personnel and equipment are clear of the control surface areas before movement or testing.

- (15) Carefully cycle flaps up and down through full travel to ensure proper clearance of the wing structure is achieved.
- (16) Ensure all work areas are clean and clear of tools and miscellaneous items of equipment.
- (17) Return airplane to service.

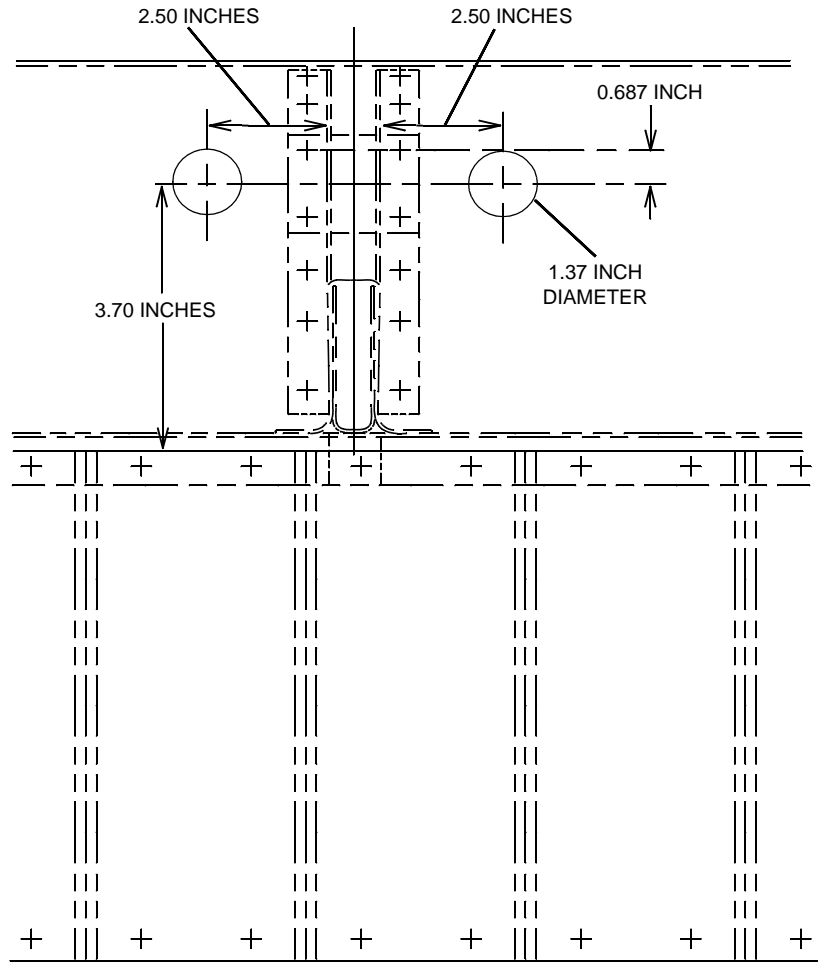
B. Spares

Not applicable.

C. Record of Compliance

Upon completion of this Service Bulletin, make an appropriate maintenance record entry.

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VIEW LOOKING DOWN ON TOP SURFACE OF FLAP
(INSTALLATION TYPICAL FOR ALL LOCATIONS ON AFFECTED MODELS)

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Inspection Holes on Top of Flaps Installed Inboard and Outboard of Flap Hinge Points

Figure 1