



Gulfstream American

SERVICE BULLETIN NO. 168

DATE: 29 JANUARY 1980

SUBJECT: AILERON TORQUE TUBE JOINT INSPECTION

SERIALS AFFECTED: All AA5A and AA5B aircraft equipped with Service Kit SK 150 modified ailerons. All AA5 aircraft equipped with Service Kit SK 150 modified ailerons and the 5202035-505 aileron torque tube assembly.

TIME COMPLIANCE: Within the next twenty-five (25) hours and every one hundred (100) hours thereafter for five consecutive inspections.

GENERAL

There have been reports of some aileron torque tube joints working loose. Service Bulletin No. 163 covers all ailerons on aircraft AA5A-0176 through AA5A-0805, AA5B-0302 through AA5B-1078 and all spare stock Part No. 5202035-505 shipped from the factory between May, 1976 and January, 1979. Service Bulletin No. 165A covers all AA5 series except those aircraft with ailerons modified by Service Kit SK 150.

This Service Bulletin is directed at those aircraft (AA5A and AA5B) with ailerons modified by Service Kit SK 150, and all AA5 aircraft with ailerons modified by Service Kit SK 150 and the 5202035-505 aileron torque tube assembly. Referring to Figure One (1), the aileron torque tube assembly requiring inspection consists of a tube, Part No. 5202035-11 (11) an inboard sleeve, Part No. 5202035-6 (16), and an outboard sleeve, Part No. 5202035-11 (17).

PROCEDURE

- A.) Aileron/torque tube removal (REFER TO FIGURE 1)
- (1) Remove wing tip as described in Chapter 57 of AA-5 series Maintenance Manual.
 - (2) Remove plugs (1) from inboard end of aileron (2). Remove nut, (3), washer (4), and bolt (5).
 - (3) Remove nuts, (12), washers (13), and bolts (14) from wing. Note installation, if installed, of spacers (18) and shims (19). Mark position of control stop (9) and aileron hinge (10), then remove from wing. Disconnect ground terminal.

PROCEDURE (Continued)

- (4) Pull aileron outboard in order to remove from inner torque tube assembly.
- (5) Remove interior trim per Chapter 25 of AA-5 series Maintenance Manual to gain access to the aileron control horn.
- (6) Remove nut (6) and washer (7) from bolt (8) which secures control horn (15) to torque tube assembly. Remove bolt.
- (7) Pull aileron torque tube assembly outboard to remove it from the aircraft.

B.) Torque Tube Inspection

- (1) Inspect both inboard and outboard torque tube joints for looseness.
- (2) If joints are loose, joints will have to be reworked as per instructions in Service Kit SK 144.
- (3) Upon completion of inspection and, if necessary, modification torque tube can be returned to service.

NOTE

Above procedure must be accomplished on each aileron/torque tube assembly affected.

C.) Aileron/torque tube installation

NOTE

When installing aileron torque tube, it is possible that it may catch on the ribs in the flap as the tube is pushed through. A guide such as the one indicated in the AA-5 series Maintenance Manual, Section 27-1-1, Page 403, Figure 402, may be helpful in preventing this.

- (1) Slide aileron torque tube through flap until it extends into the fuselage.
- (2) Position torque tube assembly in control horn (15) until the holes align.
- (3) Secure with bolt (8), washers (7), and nut (6).
- (4) Insure that spacer (18) on inboard end is reinstalled as noted during removal. Slide aileron on to torque tube sleeve (17) until attach hole aligns.

PROCEDURE (Continued)

- (5) Secure with bolt (5), washer (4), and nut (3).
Install plugs (1).
- (6) Insure that spacer (18) on outboard end of aileron and shim (19) are reinstalled as noted during removal. Position aileron hinge (10) and control stop (9) as marked during removal.
- (7) Secure with bolts (14), washers (13), and nuts (12).
Connect ground terminal.
- (8) Check aileron rigging and adjust as required as described in Chapter 27 of AA-5 Maintenance Manual.
- (9) Install wing tip as described in Chapter 57 of AA-5 series Maintenance Manual.
- (10) Install interior trim as described in Chapter 25 of AA-5 series Maintenance Manual.

PARTS INFORMATION

The parts necessary for modification are contained in Service Kit SK 144; this Kit contains sufficient material to modify the two aileron torque tube assemblies per aircraft. This Kit may be obtained from your Gulfstream American Service Center at no cost.

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QUANTITY REQUIRED PER AIRCRAFT</u>
SK 144	Service Kit	1

CREDIT INFORMATION

A labor allowance of 1.5 hours at the Gulfstream American Service Center's Prevailing shop rate will be available for initial inspection of each aileron torque tube inspected as outlined in this Service Bulletin.

If modification is required, an additional labor allowance of up to .5 hour will be available for each aileron torque tube joint modified in accordance with Service Kit SK 144 (NOTE: There are two joints per aileron torque tube assembly).

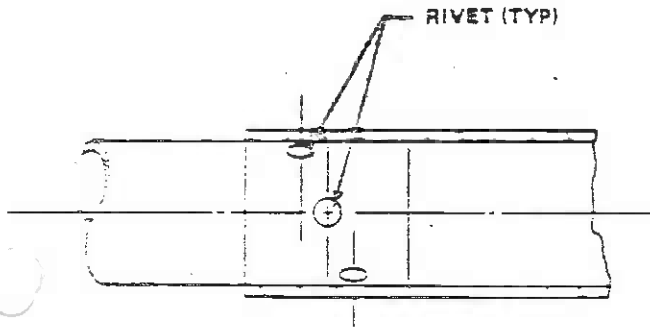
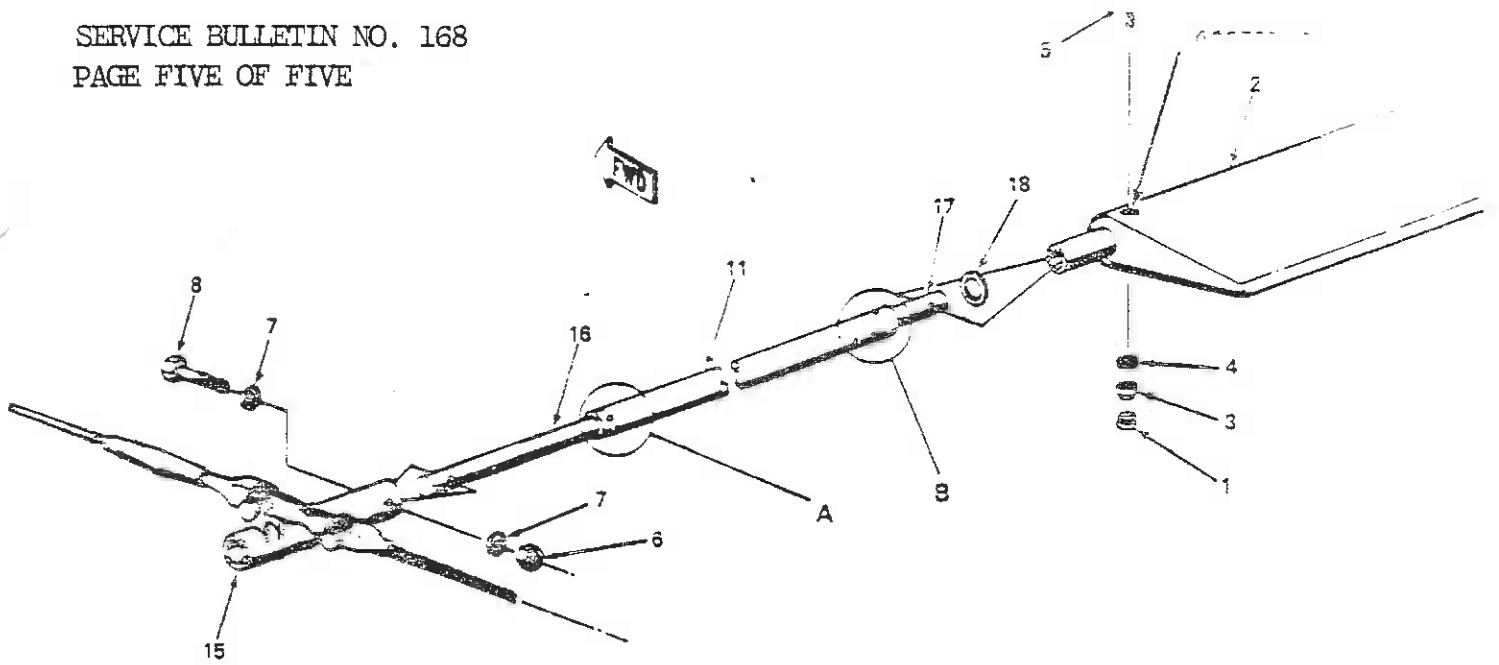
CREDIT INFORMATION (Continued)

All work must be performed or authorized by a Gulfstream American Service Center. A completed Warranty Claim Form GAA 740 must be submitted to the factory for credit allowance prior to 1 May 1980.

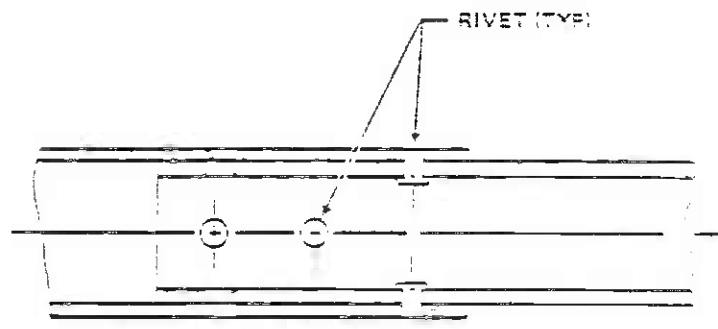
GULFSTREAM AMERICAN CORPORATION


R. E. Belles, Director
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REB/canb



DETAIL A



DETAIL B

- 1. Plug
- 2. Aileron
- 3. Nut
- 4. Washer
- 6. Bolt
- 6. Nut
- 7. Washer
- 8. Bolt
- 9. Control Stop
- 10. Hinge
- 11. Aileron Torque Tube
- 12. Nut
- 13. Washer
- 14. Bolt
- 15. Control Horn
- 16. Inbd. Sleeve, Torque Tube Assy
- 17. Outbd. Sleeve, Torque Tube Assy
- 18. Spacers (A, R)
- 19. Shims (A, R)

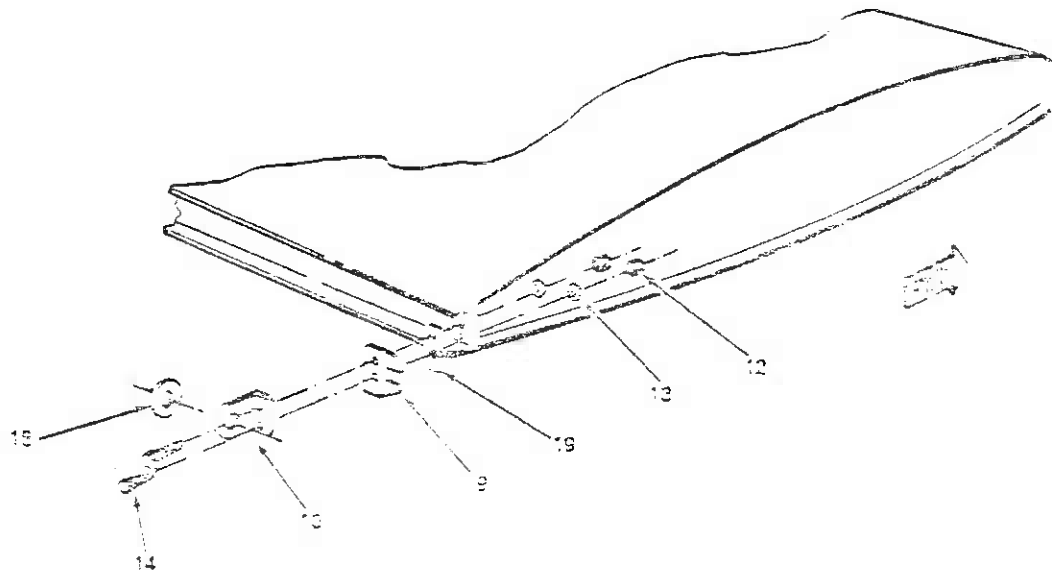


FIGURE 1