

DATE: March 8, 1972

SUBJECT: Flap Motor/Right Rudder Cable Clearance Inspection

SERIALS AFFECTED: All Model AA-1 and AA-1A Aircraft

TIME OF COMPLIANCE: At each scheduled inspection or at any time the flap actuator is removed

General

Field reports indicate that on some aircraft the right rudder cable may be rubbing the bottom of the flap motor housing.

Inspection and Modification (Late Model AA-1 & AA-1A's)

At each scheduled inspection and any time the flap actuator is removed, check that all attaching bolts on the flap motor drive unit mounting bracket are tight. Minimum clearance between the right rudder cable and the flap motor housing should be .100" with the rudder in neutral position and positive clearance with full right rudder (see Figure 2). If the clearance is less than .100", check for looseness or wear in the actuator forward attach hole by moving the flap motor housing up and down and measuring the movement at the motor shaft extension centerline (see Figure 2). If this movement exceeds 1/8" and the movement is caused by an elongated hole in the actuator end cap, then this end cap must be replaced. This cap is available from the Customer Service Department at American Aviation Corporation, under part number G5011-1B at \$3.00 (E) each.

If the movement is less than 1/8" and the cable clearance is less than .100", then the actuator attach bracket holes may be slotted per Figure 2, as required, to raise the actuator up and obtain the required rudder cable clearance.

Inspection and Modification (Early Model AA-1)

On AA-1 aircraft, serial numbers AAL-0001 through AAL-0110, the actuator end cap is a three (3) piece assembly, utilizing a threaded steel trunion which is screwed into the end cap (see Figure 1). These units should be checked to verify that the steel trunion fitting is secure in the end cap and that it has not been overtightened, causing the motor housing to be rotated down closer to the cables, thereby reducing cable clearance. In the event that it had been overtightened, it can be adjusted by shimming, to position the flap motor parallel to the floor (see Figure 1).

When the correct shimming has been determined, reinstall the trunion using stud lock grade Loctite on the threads to prevent loosening in service. This three (3) piece end cap assembly may be replaced with the newer design one piece end cap, part number G5011-1B mentioned above, any time replacement is necessary.

If, with a correctly installed trunion, the cable clearance is still less than specified above, the actuator attach bracket holes may be slotted per Figure 2, as required, allowing the unit to be raised up, to obtain the correct cable clearance.

C A U T I O N

Do not raise actuator more than required to obtain desired cable clearance as interference between the motor housing and console/right seat track can occur.

Prices subject to change without notice.

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Distribution (A)

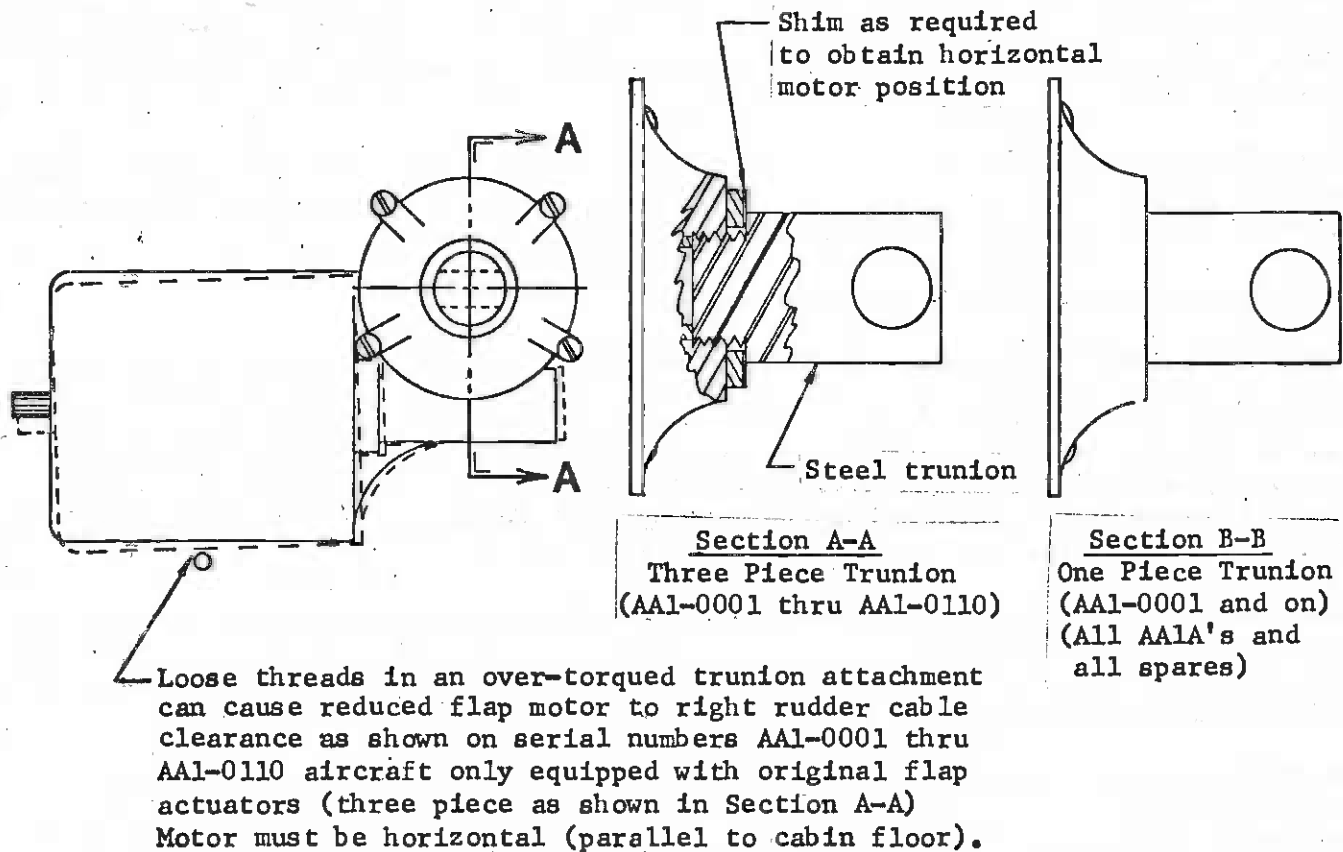
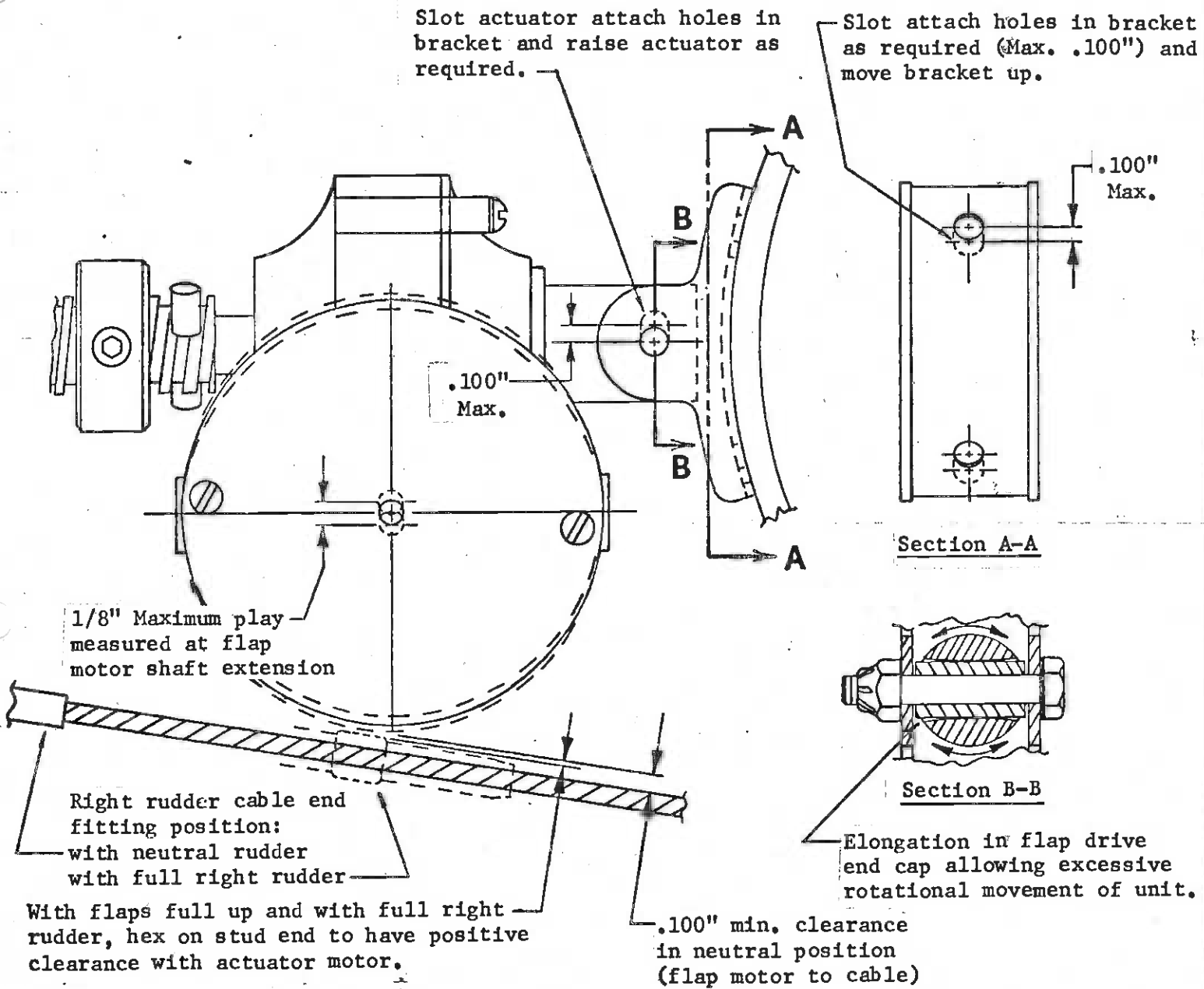


FIGURE 1
FLAP TRUNION MOUNT DETAILS



- Step 1 - Slot bracket holes as necessary per Sect. A-A.
- Step 2 - Slot bracket holes (.100" Max.) at trunion mount if more clearance is required than obtained with maximum Section A-A slotting.

FIGURE 2
FLAP MOTOR/RUDDER CABLE CLEARANCE
INSPECTION AND BRACKET MODIFICATION
INSTRUCTIONS