SERVICE

SERVICE BULLETIN NO. 144A
SUPERSEDES SB NO. 144
"FAA DOA EA-4 APPROVED"

BULLETIN

DATE: March 12, 1975

SUBJECT: MIXTURE CONTROL

SERIALS AFFECTED: All Model AA-1, AA-1A and AA-1B.

TIME OF COMPLIANCE: Within the next 50 hours of operation; thereafter, as indicated in text.

GENERAL

Field reports indicate that some mixture control wires on the aircraft affected, may be subject to failure due to wear, kinks, or improper rigging. An investigation of the failed wires indicates that a detailed inspection and strict adherence to the rigging information contained in the service manual, are required at each scheduled inspection.

In addition to the inspection and rigging requirements, all mixture control wires are to be removed from service after they have accumulated a total time in service of 500 hours. Mixture control wires with more than 500 hours time in service, must be replaced within 50 hours; thereafter, at 500 hour intervals.

INSPECTION

Refer to circled numbers in Figure 1 and accomplish the inspection items listed below:

(1.) Cycle the control knob between the full rich and idle cutoff position, and observe the control housing for a "snaking" movement. Movement of the housing indicates that the control wire is kinked and must be replaced.

(2.) Place the control knob in the idle cutoff position, grasp the mixture control arm and move arm to the full rich position. Measure the additional travel (sponge) remaining between the faceplate and control knob. Replace mixture control wire, if the additional travel remaining exceeds 1/8 inch.

N O T E

WHEN OBTAINING THE ABOVE MEASUREMENTS, THE CARBURETOR MIXTURE CONTROL ARM MUST BE IN THE FULL RICH POSITION. IF THE ARM IS NOT IN THE FULL RICH POSITION WITH CONTROL KNOB AGAINST THE FACEPLATE, LOOSEN CABLE CLAMPS AND RERIG FOR 1/8 INCH MAXIMUM SPONGE.

NOTE: Revision "A" identifies this Bulletin, as revised and rewritten.

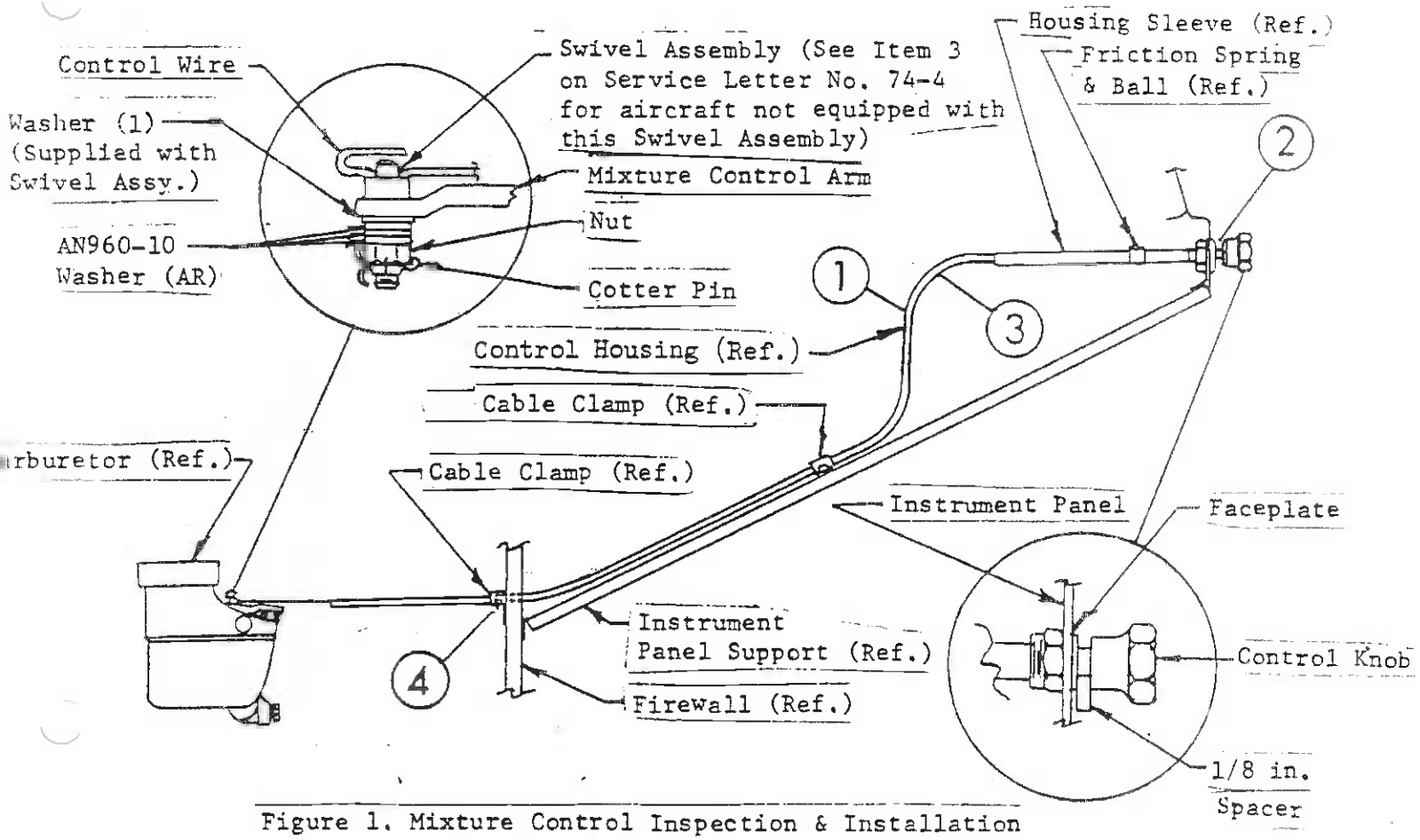

Figure 1. Mixture Control Inspection & Installation

(3.) The control housing minimum bend radius is 4½ inches throughout its entire routing. If necessary, adjust housing and replace mixture control wire, if the minimum bend radius is less than 4½ inches.

(4.) The firewall cable clamp must direct the control housing at right angles to the firewall. If necessary, adjust to achieve this condition.

5. Perform a final check of the mixture control for proper travel, security, operating condition and control cushion (sponge).

MIXTURE CONTROL WIRE INSTALLATION

If service life limit or inspection of the control wire dictates replacement, a Control Wire/Knob Assembly is available under part number 507001-3 at $4.50 (E) each. Refer to Figure 1 for proper installation.

N O T E

REFER TO THE APPLICABLE PARTS CATALOG AND SERVICE MANUAL FOR PART NUMBER AND INSTALLATION, IF THE CONTROL WIRE AND HOUSING ARE TO BE REPLACED AS A UNIT.

1. Remove friction spring and ball from housing sleeve, detach control wire from mixture control arm at swivel assembly and remove control wire from aircraft.

2. Route replacement control wire/knob assembly through existing control housing and loosely attach to the swivel assembly.

3. Position the mixture control arm completely against the full rich stop and place a 1/8 inch spacer between control knob and faceplate.

4. With the mixture control arm against the full rich stop and the control knob against the spacer, tighten swivel assembly. Remove spacer from control knob and check mixture control for proper travel, security, operating condition and control cushion (sponge).

5. Bend mixture control wire as shown and install cotter pin. Check swivel freedom in arm.

6. Attach friction spring and ball to housing sleeve.

CREDIT ALLOWANCE

A full parts and labor credit allowance of .5 hours for the inspection and 1.0 hours for control wire/knob assembly replacement, if required, at the Dealer's prevailing shop rate, will be available for each aircraft in warranty as of the date of this Service Bulletin.

All work must be performed or authorized by a Grumman American Aviation Corporation Dealer or representative and a completed Warranty Claim Form No. GAA-740, submitted to the factory prior to September 30, 1975, for credit allowance.

Prices subject to change without notice.

GRUMMAN AMERICAN AVIATION CORPORATION

REB:jmz

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