

SERVICE LETTER NO. 74-4

DATE: MAY 8, 1974

SUBJECTS: ITEM 1. WINDSHIELD/CANOPY ATTACH SCREW TORQUE
ITEM 2. CANOPY LATCH IMPROVEMENT
ITEM 3. CARBURETOR HEAT/MIXTURE CONTROL FITTING IMPROVEMENT
(SUPERSEDES SL71-10)
ITEM 4. FUEL TANK VENT INSPECTION AND MODIFICATION
ITEM 5. INSPECTION COVER INSTALLATION
ITEM 6. AVCO LYCOMING SERVICE INSTRUCTION NO. 1266

SERIALS AFFECTED: AS INDICATED ON EACH SUBJECT

TIME OF COMPLIANCE: AS INDICATED ON EACH SUBJECT

GENERAL

This Service Letter itemizes engineering improvements that have been incorporated on current production two-place aircraft. These items, plus the service related subjects, are recommended for the indicated aircraft in the compliance time suggested.

ITEM 1. WINDSHIELD/CANOPY ATTACH SCREW TORQUE

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

TIME OF COMPLIANCE: Each time attach screw is checked for security and during the installation of a replacement windshield or canopy.

A torque value of 8 to 12 inch lbs. has been assigned to all fasteners used to attach the windshield and canopy Plexiglas. While checking these fasteners for security of attachment, the specified torque value must not be exceeded. A torque greater than 12 inch lbs. will eventually cause cracks in the Plexiglas around the attach area. Also, this same torque value must be used when installing a replacement windshield or canopy.

ITEM 2. CANOPY LATCH IMPROVEMENT

SERIALS AFFECTED: AA1B-0238 through AA1B-0392

TIME OF COMPLIANCE: At owner,s discretion.

Field reports indicate that on the affected aircraft, the inside/outside canopy latch may not lock properly, due to deformation of the bearing retainer spring. This deformation of the spring occurs when the locking hook strikes the bearing on dead center. To prevent this condition, a new bearing block assembly, part number 102441-502, has been introduced.

The new bearing block assembly has a modified bearing seat and may be installed on the serials affected, however, on aircraft serial numbers AA1B-0238 through AA1B-0336 the two attach holes in the new bearing block must be enlarged to .191/.196 inch diameter (existing holes are .167/.172 inch diameter), to accept the existing attach hardware. The 102441-502 Bearing Block Assembly includes the bearing block, spring, bearing, and retainer.

NOTE

To assure proper operation of the canopy latch, the latch hook must pass directly through the center of the bearing block, so as to not contact the spring. Bend hook to achieve this condition.

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ITEM 3. CARBURETOR HEAT/MIXTURE CONTROL FITTING IMPROVEMENT
(SUPERSEDES SL71-10)

SERIALS AFFECTED: AA1-0001 through AA1-0458 and AA1A-0001 through AA1A-0276.

TIME OF COMPLIANCE: When replacing existing fitting, or sooner at owner's discretion.

Since the issuance of Service Letter No. 71-10, (Carburetor Heat/Mixture Control Fitting Replacement), dated September 1, 1971, an improved fitting, part number 3A-665-3/16 Swivel Assembly (Shakespeare), has been incorporated.

The introduction of this swivel assembly supersedes Service Letter No. 71-10 and provides for an improved method of control wire attachment for the affected aircraft. One (1) swivel assembly should be ordered for each control that is being modified. Swivel Assembly description, installation and control rigging instructions may be found in the Power Plant Section of the applicable Service Manual.

ITEM 4. FUEL TANK VENT INSPECTION AND MODIFICATION

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

TIME OF COMPLIANCE: At next scheduled inspection or anytime erratic fuel quantity indications are observed on the right-hand fuel manometer.

To preclude the possibility of an accumulation of moisture and subsequent freezing in a low spot in the right-hand wing outboard vent line, the following inspection should be performed within the compliance time suggested.

Remove the right-hand wing tip and note the PVC vent line that connects to the fuel tank filler neck and the tube leading to the vent drain. If a low spot exists in this line, or if due to sagging, a low spot could develop, the line should be secured to the tank filler neck with part number, SST-1M Ty-rap or equivalent. The Ty-rap should support the vent line to prevent low spots, however, the Ty-rap should not be tightened to such an extent that the vent line will collapse.

See Figure 1 for Ty-rap location.

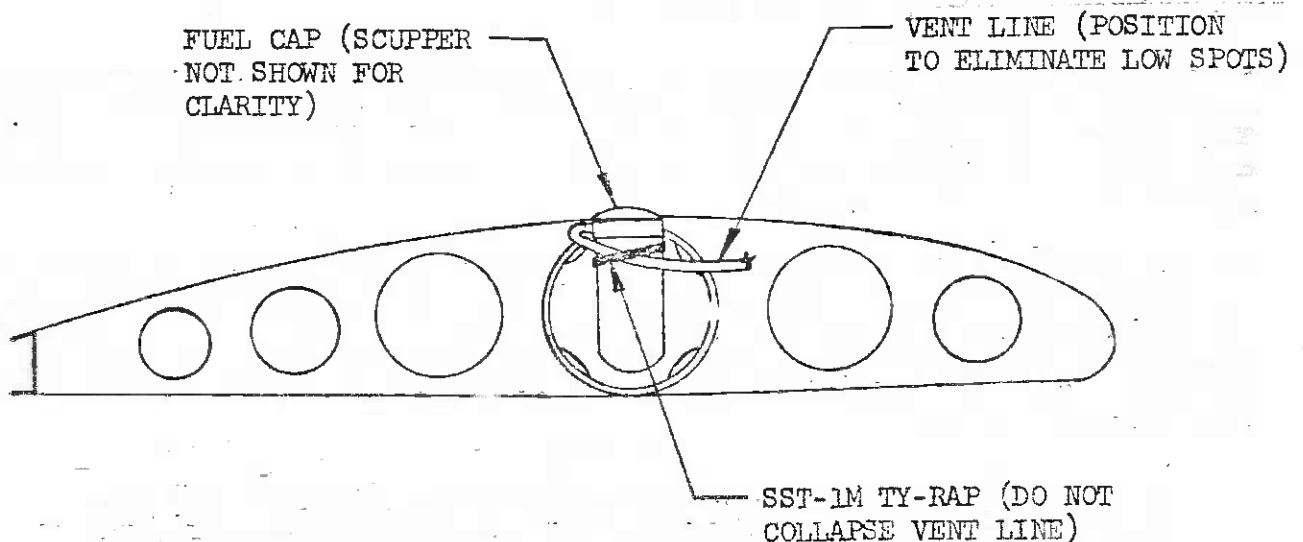


FIGURE 1. FUEL TANK VENT INSPECTION AND MODIFICATION

ITEM 5. INSPECTION COVER INSTALLATION

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

TIME OF COMPLIANCE: At owner's discretion.

Access to the four wing lock bolts and fuel outlet fittings may be improved by the installation of an access cover and associated doubler below each wing lock bolt on the lower surface of each wing. This installation will provide a 4" diameter hole, which simplifies inspection of the wing lock bolt torque and facilitates the wing removal and installation procedure. The following items are required for the installation of four (4) access covers (two (2) per wing): four (4) 5202034-4 Cover; four (4) 5202034-502 Doubler Assembly; sixteen (16) MS24693-S49 Screw; (32) 1604-0412 Rivet.

Installation details are shown in Figure 2.

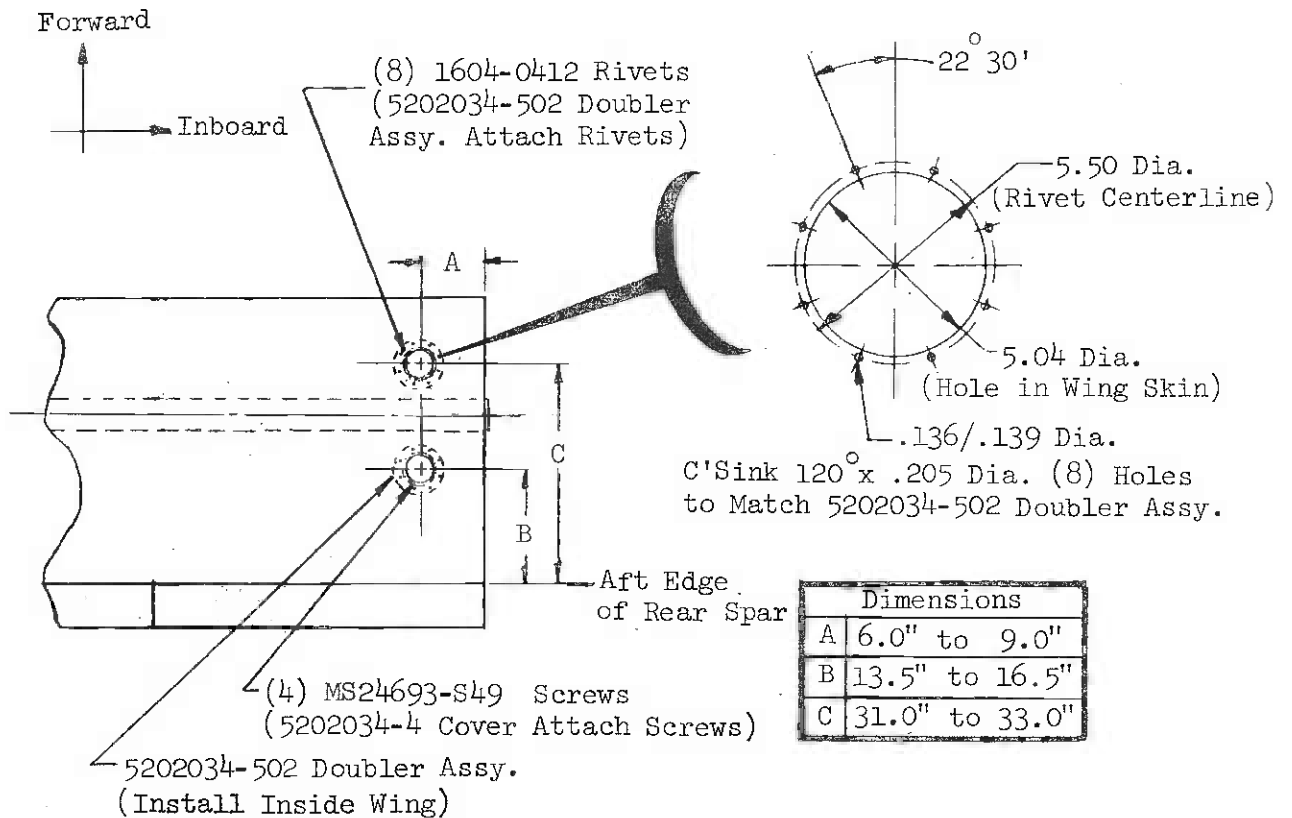


FIGURE 2. INSPECTION COVER INSTALLATION
(BOTTOM VIEW OF RH WING SHOWN)

ITEM 6. AVCO LYCOMING SERVICE INSTRUCTION NO. 1266

SERIALS AFFECTED: All Model AA-1B aircraft.

TIME OF COMPLIANCE: As indicated in the Service Instruction

Included for your information is a copy of Avco Lycoming Service Instruction No. 1266, Alternator Ground Strap.

When replacing an alternator on AA-1B aircraft, the field "2" terminal must be grounded to assure proper operation of the electrical system. On aircraft serial numbers AA1B-0001 through AA1B-0195, this grounding is accomplished by an external ground wire, labeled 1PB8, and alternators may not be stamped with "G" suffix. On aircraft serial numbers AA1B-0196 and on, grounding of the field "2" terminal is accomplished by a ground strap, as noted in Avco Lycoming Service Instruction No. 1266, and alternators are stamped with "G" suffix.

As indicated in the Service Instruction, Prestolite VSF type regulators are not compatible with alternators that have the ground strap or wire and "G" suffix. This should not be construed to mean that such alternators may not be used with the Prestolite FVR-4004 regulator. Avco Lycoming Regulators, part number LW12747 (Prestolite FVR-4004) and LW11357 (WICO X17990) are interchangeable and require grounding of the alternator field "2" terminal, when used on the serials affected.

PARTS INFORMATION SUMMARY

	<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>PRICE EACH</u>
ITEM 1.	N/A	N/A	N/A	N/A
ITEM 2.	1	102441-502	Bearing Block Assy.	\$19.67 (H)
ITEM 3.	A/R	3A-665-3/16	Swivel Assy. (Shakespeare)	.99 (E)
ITEM 4.	1	SST-1M	Ty-rap	.03 (E)
ITEM 5.	4	5202034-4	Cover	1.30 (H)
	4	5202034-502	Doubler Assy.	6.25 (H)
	16	MS24693-849	Screw	.03 (E)
	32	1604-0412	Rivet	.03 (E)
ITEM 6.	N/A	N/A	N/A	N/A

Parts required for the above modifications are available from your authorized Grumman American Aviation Corporation Dealer.

Since the subjects covered in this Service Letter are design improvements and normal service items, no parts or labor allowance will be available for compliance.

Prices subject to change without notice.

Very truly yours,

GRUMMAN AMERICAN AVIATION CORPORATION

Paul H. Seibert

Paul H. Seibert
Customer Service Manager

PHS:pjo

Distribution (B)

Attachment: Avco Lycoming Service Instruction No. 1266