

Service Letter: 452

Date: March 19, 2020

Title: Relocation of Cowl Fastener

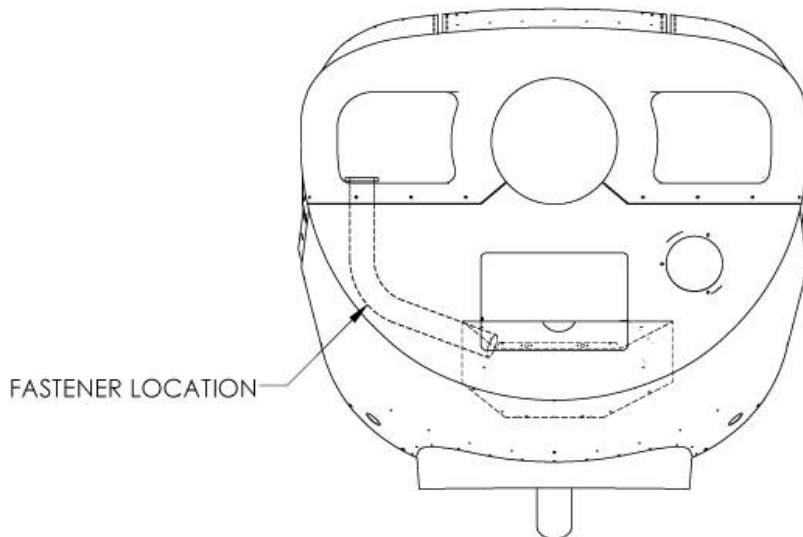
Models: 8KCAB (AEIO-390-A1B6 engine, serial numbers 1179-2018 and prior);  
8GCBC (IO-390-A1B6 engine, serial numbers 596-2019 and prior);  
When seven screws secure lower cowl to noseowl

Description: Wear of the #1 cylinder exhaust tube by a cowl fastener has been reported on several aircraft. This service letter provides for inspection of the exhaust tube, replacement of the tube (if damaged), and relocation of the cowl fastener (if exhaust tube is worn). If modification of the lower cowl is not desirable it may be replaced with a later revision part having nine evenly spaced holes.

The inspection procedures described herein are not intended to be a substitute for a properly performed 100-hour / annual inspection. Refer to Advisory Circular (AC) 43.13-1B Acceptable Methods, Techniques, and Practices: Aircraft Inspection and Repair.

Inspection: Inspect for wear or other damage at every 100-hour or annual inspection

1. Open left side cowl door (4 camlocks).
2. Observe clearance between cowl fastener and #1 exhaust tube at location shown in Figure 1 (typical clearance is .25 inch with AN526C1032R6 screw). Visually inspect #1 exhaust tube for indications of damage (wear/chafing from screw or nutplate). It may be necessary to use a mirror to view the front of the exhaust tube with the cowling installed.



**Figure 1, Fastener Location**

3. If damage to exhaust is noted replace 3-1791 exhaust tube with serviceable part per AMM. Modify to the cowl fastener location to prevent abrasion. If wear is not noted and clearance is adequate; inspect at next 100-hour or annual inspection.
4. Close left side cowl door (4 camlocks).

Relocation of Cowl Fasteners:

1. Mark fastener locations as shown in figure 2. Hole spacing is 5.84 inches measured from the top right fastener; position holes .40 inches from the front edge of the lower cowl.

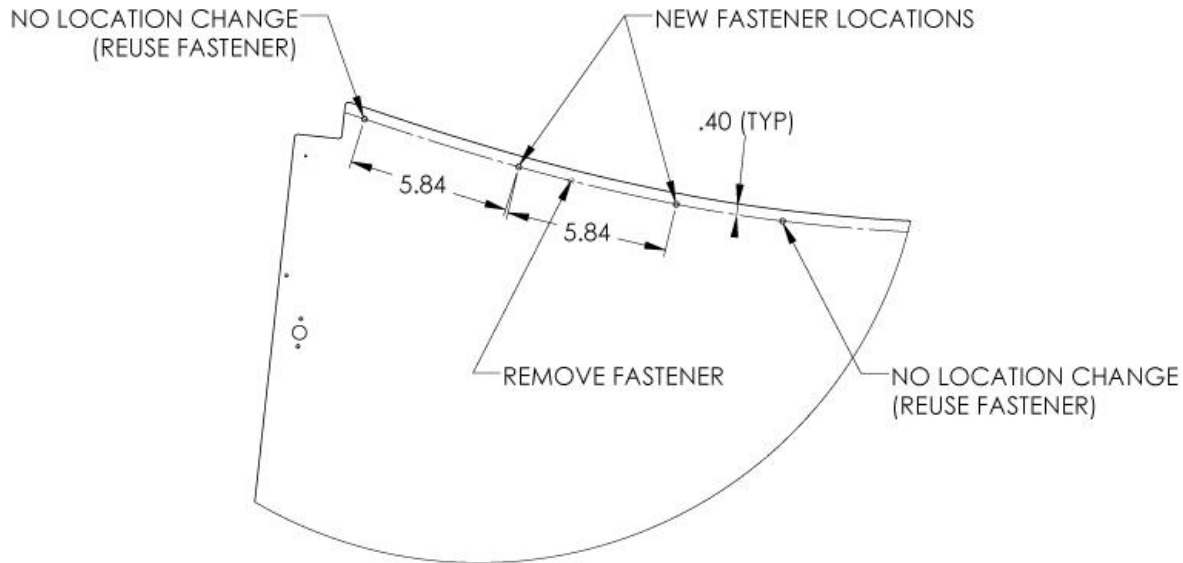


Figure 2, New Fastener Locations

2. Drill Ø.191 hole (2 places) through lower cowl and nosebowl (right side of cowl only).
3. Open left and right cowl doors (8 camlocks).
4. Remove cable ties securing landing light harness to lower cowl (2 ties, left side).
5. Remove lower cowl (15 screws) and lower nosebowl (8 screws).
6. Remove nutplate from the lower nosebowl. The hole can be left open or filled with epoxy and fiberglass mat, cloth, or chopped strand.
7. Enlarge fastener hole in nosebowl with Ø.25 drill. Position MS21059L3 nutplates (2 required); drill Ø.098 rivet holes and secure with AD32BS rivets (4 required).
8. Reinstall lower nosebowl and cowl in accordance with AMM. Front fasteners may use common length AN526C1032R8 screws with 1-8801 fiber washers (16 each required). Rear fasteners are AN507C1032R8 screws with EC1085-020-10SS washers (8 each required). Secure landing light harness with VUVT-06M or equivalent cable ties (2 each required).

Table I: Parts Required for Fastener Relocation

Part Number	Description	Quantity
AN507C1032R8	Screw	0 (reuse 8)
AN526C1032R8	Screw	1 (reuse 15)
1-8801	Washer - Fiber	1 (reuse 15)
EC1085-020-10SS	Washer	0 (reuse 8)
MS21059L3	Nutplate	2
AD32BS	Rivet	4
VUVT-06M	Cable Tie	2