

Service Letter: 453

Date: March 20, 2020

Title: Shroud to Nosebowl Clearance

Models: 8KCAB (AEIO-390-A1B6 engine, serial numbers 1185-2020 and prior)
8GCBC (IO-390-A1B6 engine, serial numbers 602-2020 and prior)

Description: Abrasion of the nosebowl by the exhaust heat shroud has been reported on several aircraft. This service letter provides for inspection of the nosebowl and modification of the exhaust shroud (if abrasion is found).

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 nosebowl for abrasion at every 100-hour or annual inspection

1. Open left and right cowl doors (8 camlocks).
2. Remove cable ties securing landing light harness to lower cowl (2 ties, left side).
3. Remove lower cowl (15 screws).
4. Inspect nosebowl for abrasion at locations shown in figure 1 (nominal clearance is $\frac{3}{8}$ inch). Cowl fit may reduce clearance to a point that engine movement results in abrasion.

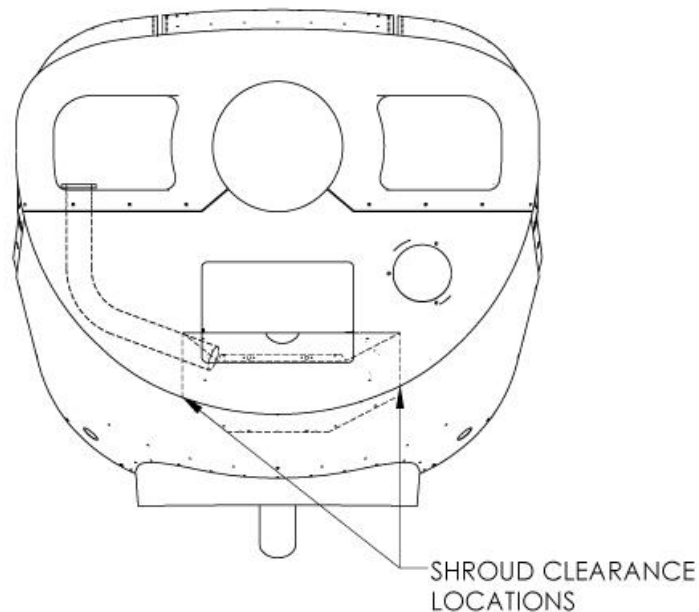


Figure 1, Shroud Clearance

5. If abrasion of nosebowl is noted modify shroud per following section (after modification visually inspect for $\frac{3}{8}$ inch clearance). Repair or replace lower nosebowl if abrasion exceeds $\frac{1}{2}$ the nosebowl thickness (contact American Champion for repair procedure).
6. If wear is not present clearance is adequate. Inspect at next 100-hour or annual inspection.
7. Reinstall lower cowl in accordance with AMM. Secure landing light harness with VUVT-06M or equivalent cable ties (2 each required). Close cowl doors (8 camlocks).

Modification of Exhaust Shroud:

1. Remove and disassemble exhaust and shroud per the AMM.
2. Replace left shroud panel with 3-1789 revision B or later approved revision and 3-1854-2 seal (install seal with 4 screws and washers). Right shroud panel may be replaced with 3-1790 revision A or later approved revision and 3-1854-3 seal (install seal with 3 screws and washers). Replace 4-2131 shroud panel (outer wrap) with revision B or later approved revision. Discard replaced shroud panels. Alternately a replacement shroud may be fitted per service letter 454.
3. Assemble and install exhaust with replacement panels per the AMM.

Table I: Parts Required for Exhaust Shroud Modification

Part Number	Description	Quantity
3-1789	Shroud Panel – Left (revision B or later)	1
3-1790	Shroud Panel – Right (revision A or later)	1 (optional)
3-1854-5	Seal - Left	1
3-1854-6	Seal - Right	1 (optional)
4-2131	Shroud Panel – Wrap (revision B or later)	1
AN526C832R6	Screw	4 (7 optional)
AN960-8	Washer	4 (7 optional)

Inspection of Modified Shroud: Inspect at every 100-hour or annual inspection

1. Inspect condition and security of shroud seals. It is acceptable for the Nomex seals to discolor; a gap of up to .063 inches between the seal and exhaust tube is also acceptable.
2. Inspect other exhaust and shroud components per the AMM and Service Letter 451.