

GULFSTREAM G550

MAINTENANCE MANUAL

INLET COWLS — MAINTENANCE PRACTICES

1. Intake Cowl Lip Skin — Abrasive Polish

A. Preparation

SPECIAL TOOLS AND TEST EQUIPMENT

Engine maintenance stand GSE0500253
 Circuit breaker safety clips GSE2400984 or equivalent
 Orbital sander Commercial
 Mechanical polisher 12,000 RPM Dotco straight grinder or equivalent
 Burnishing machine Dynabrade G400z
 Wool bonnet 8 inch

CONSUMABLES

Lint free cloth Commercial
 Cleaning solvent Isopropyl alcohol
 Silicone carbide abrasive paper 800 grit
 Silicone carbide abrasive paper 220 grit
 Buffing compound Red Tripolea 2468 polish
 Buffing pad Divine 6 inch pad

(1) References

- [Safe Ground Maintenance Procedure, 20-00-00, Maintenance Practices](#)
- [Inlet Cowl Aerodynamic Surfaces - Detailed Inspection, 71-11-00, Inspection / Check or Code 711003](#)
- Cowl Lipskin - Polishing, Shorts Air Inlet Cowl Component Maintenance Manual, 71-11-01

(2) Aircraft Preparation

(a) Prepare aircraft safe for ground maintenance. See [Safe Ground Maintenance Procedure, 20-00-00, Maintenance Practices](#).

(b) Pull, tag and install safety clips on the following Circuit Breakers (CB):

CB NAME	CB PANEL	CB LOCATION
L HPSOV	LEER	ENGINE SYS / CTLS
R FADEC CH A	LEER	ENGINE SYS / CTLS
L FADEC CH A	LEER	ENGINE SYS / CTLS
L FADEC CH B	REER	ENGINE SYS / CTLS
R HPSOV	REER	ENGINE SYS / CTLS
R FADEC CH B	REER	ENGINE SYS / CTLS
L/R START B	Copilot	ENG SYS / CNTRLS
L/R START A	Pilot	ENG SYS / CNTRLS

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WARNING: AFTER ENGINE SHUTDOWN PARTS CAN STAY HOT FOR UP TO 1 HOUR. DO NOT TOUCH HOT PARTS WITHOUT APPROVED GLOVES.

- (c) Ensure engine has been shut down for at least 5 minutes.
- (d) Position engine maintenance stand as required.

B. Procedure

WARNING: MANY OF THE MATERIALS SPECIFIED HAVE SIGNIFICANT OCCUPATIONAL SAFETY, HEALTH OR ENVIRONMENTAL REQUIREMENTS RELATED TO THEIR USE. MATERIAL SAFETY DATA SHEETS MUST BE CONSULTED FOR ALL MATERIALS TO DETERMINE THE MANUFACTURERS RECOMMENDATIONS CONCERNING OCCUPATIONAL EXPOSURE PRECAUTIONS. IT IS THE SOLE RESPONSIBILITY OF THE USER TO ENSURE PROTECTION FROM INJURY OR EXPOSURE; SAFE APPLICATION OF MATERIALS; AND COMPLIANCE WITH ANY FEDERAL, STATE OR LOCAL REGULATIONS REGARDING THE USE OF ANY OF THE MATERIALS SPECIFIED.

NOTE: If manual polishing of lipskin to remove minor pitting / corrosion is not necessary, proceed to Step [1.B.\(9\)](#).

- (1) Clean aluminium alloy surface with a lint free cloth moistened with cleaning solvent.
- (2) Ensure solvent is removed before it becomes dry.
- (3) Using an orbital sander to get a smooth equal surface, abrade aluminium surface with 800 grit silicone carbide abrasive paper or 220 grit silicone carbide abrasive paper.
- (4) Clean surface as follows:
 - (a) Clean aluminium alloy surface with a lint free cloth moistened with cleaning solvent.
 - (b) Ensure solvent is removed before it becomes dry.
- (5) Inspect surface of lipskin for smoothness.
- (6) Using a mechanical polisher, polish aluminium surface with buffing compound and a buffing pad.
- (7) Using a burnishing machine and 8 inch wool bonnet, polish aluminium surface until reflectivity requirements are met.

NOTE: It is highly recommended that the polished surface of the lipskin be protected by the application of Xzilon 3AECI (aircraft exterior corrosion inhibitor). Refer to Inlet Cowl Lipskin - Polishing, Shorts Air Inlet Cowl Component Maintenance Manual, 71-11-01.

- (8) Inspect surface as follows:
 - (a) Inspect lipskin to ensure finish is satisfactory.
 - (b) Inspect material thickness of repaired area.
 - (c) Inspect lipskin thickness. See [Inlet Cowl Aerodynamic Surfaces - Detailed Inspection, 71-11-00, Inspection / Check or Code 711003](#).

NOTE: Minimum permitted material thickness is 0.053 in. (1.35 mm).

- (9) Perform reflectivity test as follows (see Figure [201](#)):

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NOTE: Test must be done under sufficient lighting or daylight. If test result is incorrect, daylight must be given preference.

- (a) Perform reflectivity test on all polished surfaces by holding label in Figure 201 at a distance of 48.0 in. (1219 mm) parallel to and facing polished surface.

C. Follow On

- (1) Inspect for presence of foreign objects.
- (2) Remove maintenance stand from work area.
- (3) Remove safety clips, tags and depress circuit breakers that were pulled in Step 1.A.(2)(b).
- (4) Record all maintenance actions in accordance with current governing authority.

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FIGURE 1
LABEL FOR REFLECTIVITY TEST

- NOTE:** 1. TEXT SHALL BE HELVETICA, BOLD, 24 POINTS
2. LETTERS SHALL BE BLACK, ON A WHITE BACKGROUND

bmp0003672

90498B00

Reflectivity Test
Figure 201

71-11-00

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