

Falcon 8X

AIRCRAFT MAINTENANCE MANUAL

TASK 20-31-00-350-801 BRIGHTENING/POLISHING OF THE WING AND AIR INTAKE LEADING EDGES

WARNING: THE BRIGHTENING / POLISHING OF CLADDED ALUMINUM SURFACES OR STAINLESS STEEL SURFACES MUST BE PERFORMED IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE COUNTRY WHERE THE WORK IS DONE.

WHEN BRIGHTENING / POLISHING SURFACES, TAKE ALL REQUIRED PRECAUTIONS TO PREVENT A POSSIBLE HEALTH HAZARD, I.E.:

- WEAR A PROTECTIVE MASK, GLOVES, GOGGLES AND APPROPRIATE COVERALLS.
- INSTALL AND OPERATE AN APPROPRIATE EXHAUST SYSTEM IN THE WORK AREA.
- DISPOSE OF ALL THE TWISTED-WOOL PADS OR COTTON CLOTHS USED AND OTHER ITEMS THAT MAY HAVE COME INTO CONTACT WITH THE COMPOUNDS IN ACCORDANCE WITH THE CURRENT REGULATIONS OF THE COUNTRY WHERE THE WORK IS DONE.

WARNING: PERSONAL INJURIES CAN RESULT FROM ANY OPERATION PERFORMED ON FLIGHT CONTROL SYSTEM EQUIPMENT. HYDRAULIC AND ELECTRICAL POWER SUPPLIES ARE PROHIBITED DURING MAINTENANCE OPERATIONS.

NOTE: This procedure is also applicable to the protector at the precooler exhaust.

1. OVERVIEW OF THE JOB

Operation codes:

- 20-31-00-350-801-01 Brightening
- 20-31-00-350-801-02 Polishing

This procedure provides instructions and the appropriate logistics to brighten/polish cladded aluminum surfaces or stainless steel surfaces.

The original surface finish of cladded aluminum surfaces or stainless steel surfaces is the minimum acceptable surface condition for a correct protection against corrosion. This surface condition is to be restored at the first signs of degradation.

It is recommended to wax the surface after brightening. A uniform and waterproof coat of wax improves the protection of the surface against corrosion or any other aggression.

If any deep scratches with burrs are found, they must be removed before brightening (Refer to [TASK 20-50-00-300-801](#)).

2. LOGISTICS

A. References

Reference	Designation
• 51-00-06 (RPI)	DAMAGE REPORT AND MAPPING
• 20-31-00-100-804	CLEANING OF THE WING AND AIR INTAKE LEADING EDGES
• 20-50-00-300-801	TREATMENT OF SCRATCHES ON BRIGHTENED SURFACES
• 20-60-00-370-830	REACTIVE POLYMER TREATMENT FOR EXTERNAL SURFACES
• 27-50-00-860-802	EXTENSION / RETRACTION OF THE SLATS / FLAPS FOR MAINTENANCE

B. Ingredients and Consumable Products

Designation	Additional designation
• ADHESIVE TAPE 5F	
• BRIGHTENING COMPOUND	
• POLISHING COMPOUND	

C. Miscellaneous

- STEPLADDER
- POLISHER
- PAD-HOLDER

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- TWISTED-WOOL PADS
- OR
- CLEAN, WHITE, LINT-FREE COTTON CLOTHS

3. PRELIMINARY STEPS

Refer to **fig. 1**

- A. For brightening or polishing of the wing leading edges, fully extend the slats (Refer to **TASK 27-50-00-860-802**).
- B. Clean the surfaces (Refer to **TASK 20-31-00-100-804**).
- C. Inspect the surfaces for condition: (**fig. 1**)
 - appearance,
 - defects.

If any deep scratches with burrs are found, remove them (Refer to **TASK 20-50-00-300-801**).

4. RECOMMENDATIONS FOR BRIGHTENING AND POLISHING

- A. Thoroughly mix the compound before use.

CAUTION: REPLACE THE TWISTED-WOOL PAD OR THE COTTON CLOTH WHEN IT BECOMES OVER-IMPREGNATED WITH COMPOUND OR WHEN IT IS DIRTY.

CAUTION: MOVE THE POLISHER GENTLY AND CONTINUOUSLY ON THE SURFACE TO PREVENT OVERHEATING. DO NOT ALLOW IT TO STAY STATIONARY ON A SURFACE.

- B. Apply the compound either using a polisher fitted with a pad-holder and a twisted-wool pad, or manually with a clean, white, lint-free cotton cloth.

NOTE: The principle of this operation is to minimize the amount of material removed from the surface.

5. BRIGHTENING

- A. Apply **BRIGHTENING COMPOUND** on the surface until:
 - the surface finish is visually satisfactory, and
 - there is no **BRIGHTENING COMPOUND** left on the surface and around the rivets.If necessary, remove any remaining **BRIGHTENING COMPOUND** with clean, white, lint-free cotton cloths.
- B. As brightening improves the protection of the surface against corrosion, it is recommended to wax the surface after brightening (Refer to **TASK 20-60-00-370-830**).

6. POLISHING

NOTE: A local polishing is to be performed to remove defects that cannot be removed by brightening. These defects may be, for example, deep scratches, oxidation, tarnishing, pitting, etc.

- A. Delimit the area to be polished with **ADHESIVE TAPE 5F**.
- B. Locally apply **POLISHING COMPOUND** to smooth out the defect, beginning with the less abrasive grade (NU-SHINE2 grade C, then using -NUSHINE2 grade G6).

NOTE: Polishing is performed by increasing the **POLISHING COMPOUND** grade, from the less abrasive to the most abrasive grade. However, a skilled operator can choose to begin with a higher grade according to the severity of the defect.

- C. If the defect remains visible, continue polishing using a higher **POLISHING COMPOUND** grade (NU-SHINE2 grade F7 or TURCO 1495 LH).
- D. If NU-SHINE2 grade F7 is not sufficient to remove the defect, NU-SHINE2 grade F9 can be used, but with care, since it is the highest abrasive grade.
- E. If the defect cannot be removed whatever the abrasive grade used, the next step is to report the defect to the manufacturer as structural damage (Refer to **RPI 51-00-06**).
- F. Once the defects have been removed by polishing, brighten the surface (Refer to paragraph 5).

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7. FINAL STEPS

- A. In case of brightening or polishing of the wing leading edges, fully retract the slats (Refer to [TASK 27-50-00-860-802](#)).
- B. Apply wax to the treated area (Refer to [TASK 20-60-00-370-830](#)).

NOTE: Application of wax is recommended for better protection.

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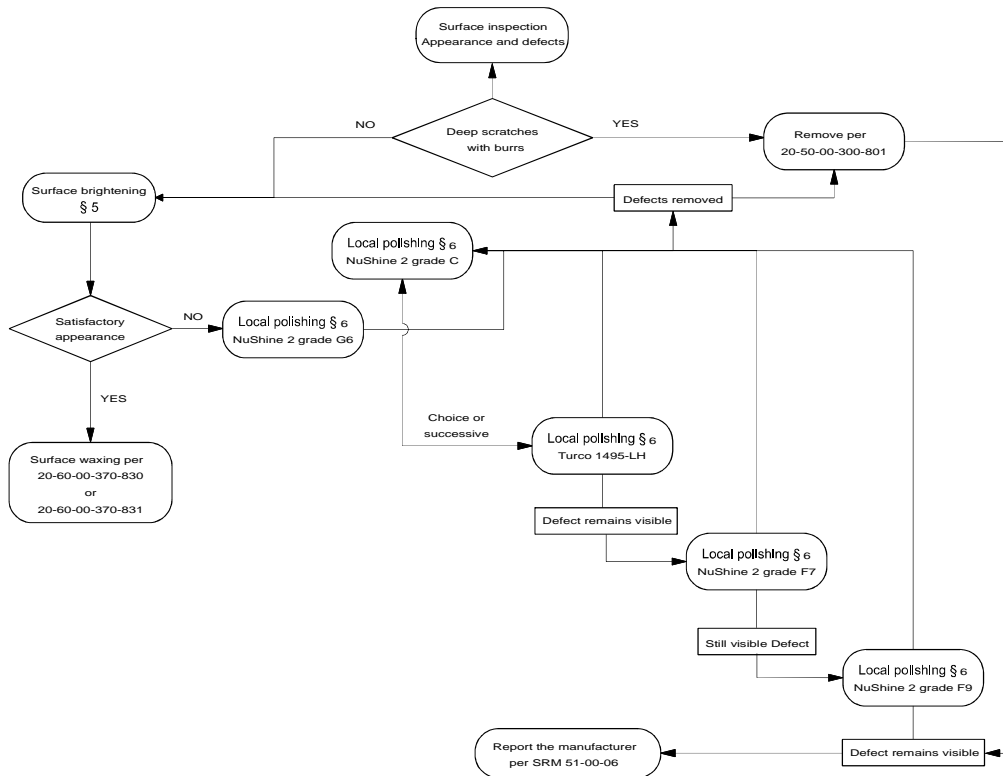


Figure 1: SURFACE INSPECTION AND TREATMENT PROCESS