BOMBARDIER CHALLENGER 300

BD-100 AIRCRAFT MAINTENANCE MANUAL - PART II

LEADING EDGE AND LEADING EDGE DEVICES - CLEANING/PAINTING

TASK 57-40-00-140-801 **Polishing of the Wing Leading Edges**

A. Reference Information

REFERENCE	DESIGNATION
TASK 12-21-00-910-801	Cleaning Safety Precautions
SPM-MM 51-27-08-620-801	Application of Aircraft Exterior Corrosion Inhibitor

B. Tools and Equipment

REFERENCE	DESIGNATION
Commercially Available	Mechanical Polisher

NOTE: Refer to the Illustrated Tool and Equipment Manual to make sure that you use the correct equipment configuration.

C. Consumable Materials

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
05–385	Polish, Aluminum	Nu-Shine II-S Nu-Shine II G-6 Rolite AP-300 Rolite Supra 90
05–394	Powder, Limestone	Vicron 45–3 Pfizer Inc.
05–406	Rymplecloth	Commercially Available
05–526	Cloth, Cotton Flannel	Commercially Available
05–706	Protector and Corrosion Inhibitor	Granitize Aviation X–20 Xzilon 3 AECI

EFFECTIVITY: ALL

 $57\text{--}40\text{--}00 \quad \text{Page 701} \\ \text{Jun 30/2015}$

REFERENCE	DESIGNATION	MANUFACTURERS' REFERENCE AND/OR SPECIFICATION
05–720	Flour	Commercially Available
07–099	Cleaning Compound, General Purpose, Non-aromatic	MIL-RPF-85570E (Type II)
		B & B 8525
		MA 102-PRF
		NAV-II
		PENAIR C-5572
		TURCO 6871

D. Setup

NOTE: Park the aircraft in an area that is not in full sunlight and has a satisfactory flow of air.

- (1) Obey all the cleaning safety precautions (TASK 12–21–00–910–801).
- (2) Clean the wing leading edge with the exterior aircraft cleaner and water.

E. Procedure

NOTE: The sign of corrosion and/or pitting on the leading edge must be reported to Bombardier Aerospace by e-mail at:

SRPSA@aero.bombardier.com (preferred) or

Contact Bombardier Aerospace by phone at:

Customer Response Center (CRC)

Local and International: 514-855-2999

North America only: 1-866-JET-1247 (1-866-538-1247) Toll Free.

The customer support department will provide the rectification action.

The procedure that follows removes material from the leading edge. Thus, the personnel that polish the leading edge must have experience with procedures to polish aluminum alloy skins.

You can polish the wing leading edge manually or mechanically. Both the procedures are included in this procedure.

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Page 702 Oct 31/2014 (1) Manually polish the wing leading edge as follows:

NOTE: There will be no impact to the leading edge material thickness over the life of the aircraft if you obey the conditions that follow:

- Make sure that you do not remove more quantity of material to repair damage or corrosion on the leading edge
- Make sure that you do not polish the leading edge not more than one time in each month.

CAUTION: MAKE SURE THAT YOU POLISH PARALLEL TO THE GRAIN DIRECTION OF THE SKIN. IF YOU POLISH AGAINST THE GRAIN, YOU CAN CAUSE DAMAGE TO THE MATERIAL.

(a) Polish the leading edge with a dry Rymplecloth or flannel cloth until you get the desired shine.

NOTE: Do not polish the leading edge in direct sunlight. Apply the polish to small areas at a time which will not let the polish dry.

Use polishing compound Rolite Supra 90 (medium grain) first, and then use compound Rolite AP-300 or Nu-Shine II-S (fine grain) for the final finish.

(b) Remove the remaining polish from the leading edge with a clean dry Rymplecloth.

NOTE: Do not use solvents to remove the remaining polishing compound. This could make stains on the polished surface.

- (c) Put some flour on the leading edge for two to three minutes. Remove the black residue with the flannel cloth.
- (d) Remove the remaining flour and polish from the leading edge with the clean dry Rymplecloth or flannel cloth.
- (e) Clean the leading edge with the clean dry Rymplecloth or flannel cloth.

EFFECTIVITY: ALL

57-40-00

Page 703 Jan 31/2013 (2) Mechanically polish the wing leading edge as follows:

NOTE: There will be no impact to the leading edge material thickness over the life of the aircraft if you obey the conditions that follow:

- Make sure that you do not remove more quantity of material to repair damage or corrosion on the leading edge
- Make sure that you do not polish the leading edge not more than one time in each month.

WARNING: USE EYE PROTECTION WHEN YOU USE A MECHANICAL POLISHER. THE BUFFING WHEEL CAN CAUSE SMALL PARTICLES TO GO INTO YOUR EYES. THIS CAN CAUSE INJURY.

CAUTION: MAKE SURE THAT YOU POLISH PARALLEL TO THE GRAIN DIRECTION OF THE SKIN. IF YOU POLISH AGAINST THE GRAIN, YOU CAN CAUSE DAMAGE TO THE MATERIAL.

(a) Polish the leading edge with the polishing compound as recommended by the maker of the mechanical polisher.

NOTE: Do not polish the leading edge in direct sunlight. Apply the polish to small areas at a time which will not let the polish dry.

To remove light oxidation, use polishing compound Rolite Supra 90 (medium grain). To remove heavy oxidation, use compound Nu–Shine II G–6 (heavy grain).

(b) Remove the remaining polish from the leading edge with a clean dry Rymplecloth.

NOTE: Do not use solvents to remove the remaining polishing compound. This could make stains on the polished surface.

- (c) Sprinkle the limestone powder or flour on the leading edge.
- (d) Allow the limestone powder on the leading edge for two to three minutes.
- (e) Remove the limestone powder or flour and remaining polish from the leading edge with a clean dry Rymplecloth or flannel cloth.
- (f) Clean the leading edge with a clean dry Rymplecloth or flannel cloth.
- (3) If necessary, apply Xzilon 3 (05–706) to the wing leading edge (SPM–MM 51–27–08–620–801).

NOTE: The application of Xzilon 3 (05–706) gives protection to the wing leading edge against corrosion.

EFFECTIVITY: ALL

57-40-00

Page 704 Jun 30/2015

B O M B A R D I E R CHALLENGER 300

BD-100 AIRCRAFT MAINTENANCE MANUAL - PART II

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(1) Remove all tools, equipment, and unwanted materials from the work area.

EFFECTIVITY: ALL

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