BOMBARDIER
Toronto (de Havilland)
PROPRIETARY INFORMATION

PPS 16.06

PRODUCTION PROCESS STANDARD

APPLICATION OF PROTECTIVE COATING TO TORSION BARS

Issue 7
- This standard supersedes PPS 16.06, Issue 6.
- Vertical lines in the left hand margin indicate changes over the previous issue.

Prepared By:	(Christie Chung)	May 23, 2008
	Production Process Standards Group	
Approved By:	(L.K. John)	May 26, 2008
	Materials Technology	
	(B. Jenkins)	May 27, 2008
	Quality	

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Direct any PPS related questions to the PPS Group (416) 375-7641.

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1 SCOPE

1.1 This Production Process Standard (PPS) specifies the procedure and requirements for the application of urethane protective coating to torsion bars, if specified on engineering drawings.

1.1.1 This PPS complements the engineering drawings that specify its use as an authorized instruction. The procedure specified in this PPS must be followed to ensure compliance with all applicable specifications. In general, if this PPS conflicts with the engineering drawing, follow the engineering drawing. The requirements specified in this PPS are necessary to fulfil the engineering design and reliability objectives.

1.1.2 Refer to PPS 13.26 for the subcontractor provisions applicable to this PPS.

1.1.3 Procedure or requirements specified in a Bombardier BAPS, MPS, LES or P. Spec. **do not** supersede the procedure or requirements specified in this PPS. Similarly, the procedure and requirements specified in this PPS are not applicable when use of a BAPS, MPS, LES or P. Spec. is specified.

2 HAZARDOUS MATERIALS

2.1 Before receipt at Bombardier Toronto (de Havilland), all materials must be approved and assigned Material Safety Data Sheet (MSDS) numbers by the Bombardier Toronto (de Havilland) Environment, Health and Safety Department. Refer to the manufacturer's MSDS for specific safety data on any of the materials specified in this PPS. If the MSDS is not available, contact the Bombardier Toronto (de Havilland) Environment, Health and Safety Department.

3 REFERENCES

3.1 PPS 13.26 - General Subcontractor Provisions.

3.2 PPS 25.65 - DSC 479-1 One Part Urethane Adhesive.

3.3 PPS 31.17 - Solvent Usage.

3.4 PPS 34.08 - Application of Epoxy-Polyamide Primer.

4 MATERIALS AND EQUIPMENT

4.1 Materials

4.1.1 DSC 479-1 one part urethane adhesive.

4.2 Equipment

4.2.1 Suitable bristle brush.

4.2.2 Masking tape.

4.2.3 Suitable storage boxes.

4.2.4 Lint-free cotton gloves (e.g., DSC 422-1).

5 PROCEDURE

5.1 Preparation of Torsion Bars

5.1.1 Before applying the urethane adhesive protective coating, F19 prime the entire waisted portion of the torsion bar, including the neck according to PPS 34.08. Mask off areas that are not to be F19 primed using a suitable masking tape.

5.1.2 Allow the F19 epoxy primer to air cure for a minimum of 24 hours, or oven cure according to PPS 34.08 before applying the urethane adhesive coating.

5.1.3 Immediately before applying the urethane adhesive coating, solvent wipe the applicable area according to PPS 31.17. Cleaned surfaces must not be touched with bare hands or be subjected to contamination. Wear clean cotton gloves at all times when handling cleaned surfaces.

5.2 Preparation of Urethane Adhesive

5.2.1 Prepare urethane adhesive according to PPS 25.65.

5.3 Application of Protective Adhesive

5.3.1 Using a suitable bristle brush, apply a uniform coating of the adhesive to the entire waisted portion and the neck of the torsion bar.

5.3.2 Apply 3 to 4 coats of adhesive, as required, to achieve a minimum cured film thickness of 0.010". Allow parts to air dry for a period of 4 hours before re-coating.

5.4 Curing

5.4.1 Refer to PPS 25.65 for the cure to handle and full cure times and temperatures before handling or working of the part.

5.5 Clean-Up

5.5.1 Remove uncured adhesive from tools and equipment according to PPS 31.17.

6 REQUIREMENTS

6.1 The entire waisted portion and neck of the torsion bar must be completely covered with the urethane adhesive coating.

6.2 The cured coating must be smooth and continuous.

6.3 The total thickness of the cured coating must be 0.010" minimum.

6.4 Coated parts must be allowed to full cure according to PPS 25.65 before further working the part or installing on the aircraft.

7 SAFETY PRECAUTIONS

7.1 Observe general shop safety precautions when performing the procedure specified herein.

7.2 Refer to PPS 31.17 for the safety precautions for handling and using solvents.

7.3 Keep adhesives away from fire and other sources of ignition.

7.4 Ensure sufficient ventilation is supplied when using adhesives in confined areas.

7.5 Avoid skin contact with adhesives. Do not use protective hand cream as it may cause contamination of cleaned or adhesive coated surfaces.

8 PERSONNEL REQUIREMENTS

8.1 Personnel responsible for the application of urethane protective coating to torsion bars must have a basic understanding of the procedure and requirements as specified herein and must have exhibited their familiarity to their supervisor.

9 HANDLING AND TRANSPORTATION

9.1 As torsion bars are highly notch sensitive and even the slightest scratch may cause failure in service, exercise extreme care during handling in order to prevent any damage to the surface. During transport from manufacture and between departments, keep the bars in the boxes specially designed for this purpose.

10 STORAGE

10.1 Refer to PPS 25.65 for adhesive storage requirements.

10.2 Store solvents according to the precautions necessary for flammable materials.

10.3 When not in use, keep containers of adhesive and solvents tightly closed.