

***de Havilland***

**PPS 16.15**

**PRODUCTION PROCESS STANDARD**

**HANDLING AND PROTECTION OF AIRCRAFT  
INTERIOR DECORATIVE PARTS**

- Issue 2   - This standard supersedes PPS 16.15, Issue 1.  
              - Vertical lines in the left hand margin indicate changes over the previous issue.

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## **1 SCOPE**

- 1.1 This Production Process Standard (PPS) specifies the procedure and requirements for the handling and protection of aircraft interior decorative parts during fabrication, transport and storage.
  - 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.

## **2 HAZARDOUS MATERIALS**

- 2.1 Before receipt at de Havilland, all materials must be approved and assigned Material Safety Data Sheet (MSDS) numbers by the de Havilland Health and Safety Department.
  - 2.1.1 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 de Havilland Health and Safety Department.

## **3 REFERENCES**

- 3.1 [PPS 10.06](#) - Repairs to Wet Lay-Up Glass Fabric/Polyester and Epoxy Resin Laminates.
- 3.2 [PPS 10.40](#) - Repairs to Laminates & Sandwich Panels.
- 3.3 [PPS 13.26](#) - General Subcontractor Provisions.
- 3.4 [PPS 27.01](#) - Repair of Surface Defects in Aluminum Alloy Sheet.

## **4 MATERIALS AND EQUIPMENT**

### **4.1 Materials**

- 4.1.1 Polyethylene bags.
- 4.1.2 Polyethylene foam sheet, approximately 1/4" thick, Cellaire CA-250.
- 4.1.3 Polyethylene sleeving or tubing, 4 mil thickness, 1", 2", 3" and 4" widths.

- 4.1.4 Bubble pack, Sealed Air of Canada AIRCAP.
- 4.1.5 Wrapping/tying material, stranded nylon string, nylon tape or plastic strapping.
- 4.1.6 Open weave rubber matting, harrow rib rubber floor matting.
- 4.1.7 Masking tape, 1" width.

## **4.2 Equipment**

- 4.2.1 Protective cardboard transport boxes.
- 4.2.2 Protective wooden transport boxes.
- 4.2.3 Cushioned or carpeted transport dollies - 82500001-001-212
  - 212B
  - 212C
  - 212D

## **5 PROCEDURE**

### **5.1 General**

- 5.1.1 Handle and protect all aircraft parts which become part of decorative interior assemblies and furnishings according to this standard.
  - 5.1.1.1 A typical engineering drawing note indicating such parts and assemblies is as follows:

THIS PART, WHEN INSTALLED, FORMS PART OF THE AIRCRAFT INTERIOR. THE  
HIGHEST STANDARDS OF FIT, FINISH AND FUNCTION MUST BE MAINTAINED.
- 5.1.2 Individually wrap or protect all parts requiring protection according to this standard.
- 5.1.3 All personnel handling or working with aircraft interior decorative parts must take extra care to prevent damage to such parts.

### **5.2 Handling Of Decorative Parts**

- 5.2.1 Take extreme care when carrying long or awkward parts to avoid hitting tools, racks, machines, other personnel, etc.

- 5.2.2 Place decorative parts carefully onto benches, machines, protected storage racks, protective boxes and transport dollies during handling in fabrication shops. Under no circumstances shall parts be slid over one another, dropped into boxes or onto benches or otherwise be subjected to impact damage.
- 5.2.3 Keep work benches on which interior decorative parts are to be placed clean and cover with open weave rubber matting. Vacuum or sweep benches, as necessary, to remove metal shavings, chips, shop swarf, etc.
- 5.2.4 Under no circumstances shall aircraft interior decorative parts be placed directly onto floors or uncovered workbenches.
- 5.2.5 If decorative parts are damaged during fabrication, they must be repaired, if possible, according to [Table I](#).
- 5.2.6 If parts are delivered protective wrapped, bagged or boxed, either from another fabrication shop or from a subcontractor, retain and re-use such protective material upon completion of the particular fabrication operation.
- 5.2.6.1 If parts are delivered with inferior wrapping or protection, visually inspect the parts and, if undamaged, properly protect according to this standard.
- 5.2.6.1.1 If damaged parts are received, they must be repaired, if possible, according to [Table I](#).

**TABLE I - REPAIR OF DAMAGED DECORATIVE PARTS**

DAMAGED PARTS	REPAIR PROCEDURE (NOTE 1)
Parts fabricated according to <a href="#">PPS 10.04</a> or <a href="#">PPS 10.15</a>	<a href="#">PPS 10.06</a>
Parts fabricated according to <a href="#">PPS 10.35</a> , <a href="#">PPS 10.43</a> or <a href="#">PPS 10.48</a>	<a href="#">PPS 10.40</a>
Aluminum Alloy Sheet	<a href="#">PPS 27.01</a>
All other parts	Refer to de Havilland MRB or de Havilland delegated MRB for disposition
Note 1. Refer to the applicable fabrication PPS for the extent of damage that does not require referring the part to de Havilland MRB or de Havilland delegated MRB for disposition.	

### **5.3 Protection of Decorative Parts**

5.3.1 Protection of interior decorative parts consists of the individual protective wrapping or special handling of such parts to prevent surface damage during fabrication, transportation and storage.

#### **5.3.2 Individual Wrapping**

5.3.2.1 Individually place small decorative detail parts or assemblies into polyethylene bags. Fold and secure the open ends of the bags with masking tape.

5.3.2.2 Individually place long narrow parts (e.g. extruded trim) into lengths of polyethylene sleeving. Cut the sleeving to a sufficient length to allow an excess of at least 2 inches at both ends of the part.

5.3.2.2.1 Fold the excess sleeving over at each end of the part and secure with masking tape.

5.3.2.2.2 If bundling of a number of individually wrapped, long, narrow parts becomes necessary, to facilitate transport, use plastic wrapping/tying material.

5.3.2.3 Individually wrap large, flat interior decorative parts (e.g. composite panels) or odd-shaped awkward assemblies (e.g. lavatories or buffets) in polyethylene foam sheet or polyethylene bubble pack with the wrapping overlapping at least 3 inches at the edges and secured with masking tape.

5.3.2.3.1 If wrapping of flat parts is not possible, such parts may be individually protected according to [paragraph 5.3.3.1](#) or [paragraph 5.3.3.1.1](#).

5.3.2.3.2 Following wrapping, further protect large awkward assemblies, such as buffets and lavatories, according to [paragraph 5.3.3.2](#).

#### **5.3.3 Cushioned Protection**

5.3.3.1 Stack large, flat interior decorative parts with a layer of polyethylene foam sheet between each part and placed in a protective wooden transport box.

5.3.3.1.1 Large, flat parts may be individually placed into the shelves of cushioned or carpeted wheeled dollies (see [paragraph 4.2.3](#)).

5.3.3.2 Externally protect large awkward interior assemblies according to [paragraph 5.3.2.3](#) and place on carpeted wheeled dollies.

## **5.4 Transporting of Decorative Parts**

- 5.4.1 If possible, when interior decorative parts and assemblies require further processing or installation, issue and transport them between fabrication shops in protective wooden or cardboard boxes or on carpeted wheeled transport dollies.
  - 5.4.1.1 Protect parts or assemblies to be shipped to subcontractors for further processing according to this standard and, if applicable, ship in specially designed wooden transport boxes.
- 5.4.2 Protective wrapping must remain on parts until immediately before a fabrication operation or when parts are in storage.

## **6 REQUIREMENTS**

- 6.1 Handle and protect aircraft interior decorative parts according to the procedures specified herein at all times during fabrication, transport and storage.

## **7 SAFETY PRECAUTIONS**

- 7.1 *The materials and equipment specified herein present no specific safety hazards when used according to standard plant safety regulations.*

## **8 PERSONNEL REQUIREMENTS**

- 8.1 Personnel responsible for the handling and protection of aircraft interior decorative parts during fabrication, transport and storage must have a basic understanding of the procedure and requirements as specified herein and must have exhibited their familiarity to their supervisor.