BOMBARDIER
Toronto (de Havilland)
PROPRIETARY INFORMATION

PPS 22.01

PRODUCTION PROCESS STANDARD

MASSEELEY MARKING OF PARTS AND LABELS

Issue 4
- This standard supersedes PPS 22.01, Issue 3.
- Extensive changes and/or deletions have been made at this issue and, therefore, detail changes have not been noted.

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This PPS is effective as of the distribution date specified on the accompanying distribution notice.

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

TABLE OF CONTENTS

Sections **Page**

1 SCOPE

1.1 This Production Process Standard (PPS) specifies the procedure and requirements for marking parts and labels and making decals using the Masseeley marking equipment.

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.

4 MATERIALS AND EQUIPMENT

4.1 Materials

4.1.1 Masseeley marking foil.

4.2 Equipment

4.2.1 Masseeley marking machines, Models #31 and #770.

4.2.2 Masseeley marking machine accessories.

4.2.3 Bench shears.

5 PROCEDURE

5.1 General

5.1.1 The Masseeley marking machine is a flat bed marking press, incorporating a variable temperature heating element.

5.1.2 Marking employs a special coloured foil which is transferred to the part or label by the application of heat and pressure through type set or special dies.

5.1.3 Marking may be affected by this method on almost any material and in a wide range of colours.

5.2 Set Up and Operation of Masseeley Marking Machines

5.2.1 Model #31

5.2.1.1 Set up the type or die according to the engineering drawing and lock in the top platen.

5.2.1.2 Mount the top platen into the machine.

5.2.1.3 Set up the fence bars and attachments to the bottom platen as required for the work being done.

5.2.1.4 Switch on the machine and set the thermostat to the approximate setting required, allow approximately 20 minutes to heat up.

5.2.1.5 Before operating the machine, ensure that the temperature required for the material being imprinted (approximately 130°C) is indicated on the temperature gauge on the left side of the machine.

5.2.1.6 In operation, the material is fed into the machine on the bottom platen and the hand lever is pulled down rapidly and returned to the normal rest position.

5.2.1.6.1 If quicker operation of the hand lever is required, the quick release stop at the base of the hand lever may be used.

5.2.1.7 The pressure adjusting wheel may be adjusted to increase or decrease the pressure as required.

5.2.2 Model #770

5.2.2.1 Set up the type or die according to the engineering drawing and lock in the top platen.

5.2.2.2 Mount the top platen in the machine.

5.2.2.3 Set the temperature selector to the approximate temperature required for the material being imprinted.

5.2.2.4 Set the timer on the control panel to the number of seconds required.

5.2.2.5 Set the selector switch on the control panel to SETTING and using the crank attached to the bottom of the adjusting screw, adjust the bottom platen height.

5.2.2.6 Select heater switch ON and allow 20 minutes to warm up. Check that the temperature gauge on the left side of the machine indicates the required operating temperature (approximately 270°F).

5.2.2.7 Set the selector switch to the desired mode of operation and select power switch on.

5.2.2.8 To operate the machine, depress the two operating pedals at the same time.

5.2.2.9 If required, the speed of the machine may be adjusted by means of the speed control.

5.2.2.10 Set up fence on the lower platen, as required to position the work correctly under the top platen.

5.3 Marking

5.3.1 Direct Marking Process

5.3.1.1 Place the label or part to be imprinted, on the bottom platen.

5.3.1.1.1 When marking plastic parts or labels less than 1/16 inch thick, first place a sheet of rubber on the bottom platen.

5.3.1.2 When marking plastic parts, lower the top platen according to paragraph 5.2.1.6 or paragraph 5.2.2.8 and make an impression in the part before placing the marking foil into the machine.

5.3.1.3 Place the marking foil over the part or label with the glossy side of the foil up.

5.3.1.4 On the #31 machine, slide the bottom platen into position and pull the hand lever down.

5.3.1.5 On the #770 machine, ensure that the part or label is correctly positioned under the top platen and depress the operating pedals.

5.3.2 Excess Foil Process

5.3.2.1 The excess foil process consists of making a foil stencil of the type set or die and subsequently bonding the stencil to the part or label.

5.3.2.2 Place a sheet of rubber on the bottom platen and place an index paper on the rubber pad.

5.3.2.3 Place the foil, glossy side up, over the index paper and lower the top platen.

5.3.2.4 The type set or die imprint will be bonded to the index paper which must be discarded, the excess foil remaining forms the stencil.

5.3.2.5 Locate the part or label on the bottom platen of the machine and place the foil stencil (glossy side up) over the part.

5.3.2.5.1 When marking plastic parts or labels less than 1/16 inch thick, first place a sheet of rubber on the bottom platen.

5.3.2.6 Using the blank top platen, press the foil stencil into the part or label according to paragraph 5.3.1.4 or paragraph 5.3.1.5 as applicable.

5.3.3 Producing Decals

5.3.3.1 Place the rubber pad on the bottom platen and set the decal film (glossy side up) on the pad.

5.3.3.2 Place the marking foil (glossy side up) onto the decal film and press according to paragraph 5.3.1.4 or paragraph 5.3.1.5 as applicable.

5.4 Cutting Materials

5.4.1 Materials and labels may be cut to size using suitable bench shears.

6 REQUIREMENTS

6.1 All printing must be of the type size indicated on the engineering drawing.

6.2 All letters must be clear and legible.

6.3 Labels must be of the size indicated on the engineering drawing.

6.4 All materials used in the process must be clean and free of grease and oil.

7 SAFETY PRECAUTIONS

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

8 PERSONNEL REQUIREMENTS

8.1 Personnel responsible for marking parts and labels and making decals using the Masseeley marking equipment must have a basic understanding of the procedure and requirements as specified herein and must have exhibited their familiarity to their supervisor.

9 MAINTENANCE OF EQUIPMENT

9.1 All moving parts of the Masseeley machines shall be oiled once monthly.

9.2 In addition to the monthly oiling, the #31 machine shall have the oil level in the oil trough checked periodically and maintained at operating level.

9.3 The bottom platen of the #31 machine shall be cleaned and all moving parts oiled once weekly.