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| **Service Bulletin No:** | **57-016** | **Ref No:** | **239** |
| **Modification No:** | **INSPECTION** | **ATA Chapter:** | **57** |

**WINGS - CENTER WING**
**INSPECTION OF THE LOWER WING SKIN UNDER THE LOWER WING FAIRING**

## 1. Planning Information

### A. Effectivity

PC-21 Aircraft MSN 101 thru MSN 337.

### B. Concurrent Requirements

None.

### C. Reason

#### (1) Problem

There have been reports of corrosion found on the lower wing skin under the carbon fibre fairing between the main spar and the front spar at the center of the wing.

#### (2) Solution

A one-time visual inspection will be done of the wing skin at the center of the wing without removal of the fairing. If any corrosion is found, the fairing must be removed and a blend repair procedure is detailed to repair the corrosion.

### D. Description

This Service Bulletin gives the data and instructions necessary to:

- Do a one-time visual inspection of the wing skin at the center of the wing
- Do a check to ascertain what surface finish the carbon fibre fairing has and report the findings to Pilatus
- If corrosion is found, remove the fairing and do the blend repair within the limits defined. If necessary do the centreline strap replacement procedure.

Revision No. 1 is issued to clarify the method of NDI, clarify dimensions in Figure 1 and incorporate additional technical information to the repair instructions.

No further work is required on aircraft that had this Service Bulletin accomplished in accordance with the initial revision.

### E. Compliance

Mandatory.

Accomplishment of this Service Bulletin is required no later than 30th June 2022.

## F. Approval

The technical content of this document is approved under the authority of the Letter of DOA acceptance ref. FOCA.21J.002.

PILATUS advises Operators/Owners to check with their delegated Airworthiness Authorities for any changes, local regulations or sanctions that may affect the embodiment of this Service Bulletin.

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## H. Manpower

| | Man-Hours Inspection | Man-Hours Blend Repair | Man-Hours Blend/Strap Repair |
|---|---|---|---|
| Preparation | 0.25 | - | - |
| Inspection | 1.00 | - | - |
| Repair (If necessary) | - | 4.00 | 5.00 |
| Close up | 0.25 | - | - |
| **TOTAL MAN-HOURS** | **1.50** | **4.00** | **5.00** |

**NOTE:** Man-hour values do not include the drying time necessary for primers and top coats. Refer to the manufacturer's instructions for the drying times.

## I. Weight and Balance

### (1) Weight Change

Not changed.

### (2) Moment Change

Not changed.

## J. Electrical Load Data

Not changed.

## K. Software

Not changed.

**L. References**

Aircraft Maintenance Manual (AMM): 00-50-00-00A-013A-A, 06-40-00-00A-055A-A, 07-10-01-00A-541A-A, 07-10-01-00A-542A-A, 12-10-00-00A-211A-A, 12-10-00-00A-221A-A, 20-40-00-00A-901A-A, 95-00-00-00A-012A-A.

Structural Repair Manual (SRM): 51-70-03-00A-663A-A, 51-70-15-00A-663A-A.

**M. Publications Affected**

Not applicable.

**N. Interchangeability of Parts**

Not interchangeable.

## 2. Material Information

### A. Material - Price and Availability

No modification Kit is necessary to do this Service Bulletin.

Operators who require further information on this subject should contact their Customer Liaison Manager at:

Pilatus Aircraft Limited,
6371 Stans,
Switzerland.

Operators are requested to advise Pilatus Aircraft Ltd. of the Manufacturer's Serial Number (MSN), the flying hours and landings of aircraft that are allocated for this Service Bulletin using the Service Bulletin Evaluation Form.

### B. Material Necessary for Each Aircraft

#### (1) Material to be Procured

**NOTE:** If corrosion is found during the inspection and replacement of the centreline strap is required, some or all of the following parts may be required:

| New part No. | Description | Old part No. | Qty | Disp. code | Fig | Item |
|---|---|---|---|---|---|---|
| 557.10.21.035 | STRAP, CENTRELINE (FOR MSN 101-313) | 557.10.21.035 | 1 | D<br>N | 1<br>1 | 2<br>2 |
| 557.11.21.075 | STRAP, CENTRELINE (FOR MSN 314-UP) | 557.11.21.075 | 1 | D<br>N | 1<br>1 | 2<br>2 |
| RM-21-000237/1 | INFILL (OR SUPPORT ANGLE P/N 557.11.21.066) | - | 1 | N | 1 | 5 |
| RM-21-000237/2 | DOUBLER (OR SUPPORT ANGLE P/N 557.11.21.066) | - | 1 | N | 1 | 6 |
| 939.17.81.026 | RIVET, SOLID (MS20470AD5) | - | A/R | N | - | - |
| 939.17.82.253 | RIVET, SOLID (NAS1242AD5-6) | - | A/R | N | - | - |
| 939.17.82.254 | RIVET, SOLID (NAS1242AD5-7) | - | A/R | N | - | - |
| 939.17.81.034 | RIVET, SOLID (MS20470AD6) | - | A/R | N | - | - |
| 939.27.81.026 | RIVET, SOLID (NAS1097AD5) | - | A/R | N | - | - |
| 939.27.81.034 | RIVET, SOLID (NAS1097AD6) | - | A/R | N | - | - |

Disposition Codes: D - Discard / N - New / R - Return to Pilatus / E - Exchange part

| New part No. | Description | Old part No. | Qty | Disp. code | Fig | Item |
|---|---|---|---|---|---|---|
| 939.19.86.102 | RIVET, BLIND (CR3223-4-02) | - | A/R | N | - | - |
| 939.31.86.301 | RIVET, BLIND (CR3224-4-02) | - | A/R | N | - | - |
| 939.31.89.102 | RIVET, BLIND (NAS1921M04S02U) | - | A/R | N | - | - |
| 939.31.89.103 | RIVET, BLIND (NAS1921M04S03U) | - | A/R | N | - | - |
| 939.31.89.104 | RIVET, BLIND (NAS1921M04S04U) | - | A/R | N | - | - |
| - | RIVET, BLIND (CR3524-5-02) | - | A/R | N | - | - |
| - | RIVET, BLIND (CR3524-5-03) | - | A/R | N | - | - |
| - | RIVET, BLIND (CR3524-5-04) | - | A/R | N | - | - |

Disposition Codes: D - Discard / N - New / R - Return to Pilatus / E - Exchange part

**NOTE:** The centreline strap, P/N 557.11.21.075, is a direct replacement for, and supersedes, the centreline strap, P/N 557.10.21.035.

**(2) Operator Supplied Materials (Ref. AMM, 00-50-00-00A-013A-A):**

**NOTE:** If corrosion is found during the inspection and replacement of the centreline strap is required, some or all of the following materials may be required.

| MATERIAL NO. | DESCRIPTION | QTY | REMARKS |
|---|---|---|---|
| P01-010 | SOLVENT | A/R | Or equivalent |
| P01-011 | ISOPROPYL ALCOHOL | A/R | Or equivalent |
| P02-009 | ABRASIVE CLOTH, GRADE 120 | A/R | Or equivalent |
| P02-014 | ABRASIVE CLOTH, GRADE 400 | A/R | Or equivalent |
| P02-024 | ABRASIVE CLOTH, GRADE 600 | A/R | Or equivalent |
| P02-031 | ABSORBENT PAPER | A/R | Or equivalent |
| P07-001 | CCC SOLUTION | A/R | Or equivalent |
| P07-007 | PRIMER, EPOXY | A/R | Or equivalent |

| MATERIAL NO. | DESCRIPTION | QTY | REMARKS |
|---|---|---|---|
| P07-016 | PRIMER, BARRIER | A/R | Or equivalent |
| P07-031 | TOPCOAT, ALUMIGRIP 4200 SNOW WHITE | A/R | P/N 910.04.04.558 |
| P07-037 | EPOXY PRIMER (CHROMATE FREE) | A/R | Or equivalent |
| P07-038 | TOPCOAT, CLEAR-GLOSS | A/R | Or equivalent |
| P08-056 | SEALANT, FILLET | A/R | Or equivalent |
| P08-106 | SEALANT, INTERFAY | A/R | Or equivalent |
| P10-015 | CPC, ARDROX DINITROL AV 30 | A/R | Or equivalent |
| P10-018 | CPC, ARDROX DINITROL AV 15 | A/R | Or equivalent |

**C. Material Necessary for Each Spare**

None.

**D. Re-identified Parts**

Not applicable.

**E. Tools and Equipment**

| PART NO. | DESCRIPTION | QTY | REMARKS |
|---|---|---|---|
| - | BORESCOPE (MINIMUM X 10) | 1 | Local supply |
| - | LIGHT SOURCE | 1 | Local supply |
| - | MAGNIFICATION TOOL | 1 | Local supply |

## 3. Accomplishment Instructions

**WARNING:** READ AND OBEY THE SAFETY PRECAUTIONS AT THE START OF CHAPTER 95, CREW ESCAPE AND SAFETY, BEFORE YOU GO IN OR NEAR TO THE COCKPIT. IF THE EJECTION SEAT AND THE CANOPY FRACTURING SYSTEM (CFS) OPERATE ACCIDENTALLY OR INCORRECTLY THEY CAN CAUSE DEATH OR INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

**WARNING:** BE CAREFUL WHEN YOU USE THE CONSUMABLE MATERIALS. OBEY THE MANUFACTURER'S HEALTH AND SAFETY INSTRUCTIONS AND ALL THE APPLICABLE LOCAL INSTRUCTIONS. CONSUMABLE MATERIALS CAN BE DANGEROUS AND CAN CAUSE DEATH OR INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

**NOTE:** For the safety precautions for the ejection seat and the CFS, refer to AMM, 95-00-00-00A-012A-A.

### A. Preparation

(1) Use absorbent paper (Material No. P02-031) made moist with solvent (Material No. P01-010) to clean the inspection area around the lower wing fairing.

### B. Inspection (Ref. Fig. 1)

(1) Do the initial visual inspection (Ref. Sheet 1, Detail B).

(a) Inspect along the outer edges of the lower wing fairing (1) for signs of corrosion.

**NOTE:** Signs of corrosion are indicated by bubbling of the paint under and around the edge of the fairing.

(b) Remove the access panel RB01.

**NOTE:** For more information on the location of the access panels, refer to AMM, 06-40-00-00A-055A-A.

(c) Through the RB01 access hole in the fairing, visually inspect the inner surface of the lower wing fairing, make a note which one of the following applies and report your findings to Pilatus Aircraft Ltd:

- The inner surface finish is black, which indicates the panel is bare carbon fibre
- The inner surface finish is white, which indicates that the panel has white barrier primer applied
- The inner surface finish is green, which indicates that the panel has primer applied
- The inner surface finish has topcoat applied.

(2) Do the borescope inspection (Ref. Sheets 2 and 3, Detail B).

**WARNING:** WEAR EYE PROTECTION WHEN YOU DRILL COMPONENTS. HOT AND SHARP SWARF AND PARTICLES OF MATERIAL CAN CAUSE INJURY TO PERSONNEL.

(a) Use the borescope to do a visual inspection of the space in between the lower wing fairing and the lower forward skin.

(b) Do a check for any signs of corrosion to the structure and surface corrosion to the lower forward skin and centreline strap (2) or rivets.

(c) If you find signs of corrosion, remove all the rivets (4) that attach the lower wing fairing (1) to the structure, remove and keep the lower wing fairing (1), continue to Para. 3.B.(3).

(d) If you do not find signs of corrosion, apply a corrosion preventative compound to the inspection area (Ref. AMM 20-40-00-00A-901A-A), then continue to Para. 3.C.

(3) Do the blend repair (Ref. Sheet 4, Detail B).

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(a) De-fuel the aircraft, refer to AMM 12-10-00-00A-221A-A.

(b) Lift the aircraft on jacks, refer to AMM 07-10-01-00A-541A-A.

(c) Do a blend repair to the corrosion on the wing skin and the centreline strap (2), refer to SRM 51-70-01-00A-663A-A.

(d) Remove the rivets as required to do the blend repair.

(e) Use eddy current or ultrasonic inspection equipment to measure the remaining material depth in the areas you did the blend repair. The minimum material depths are as follows:

- Wing skin to front spar blend limit - 1,8 mm (0.071 in)
- Wing skin area blend limit - 1,5 mm (0.059 in) depth
- Centreline strap (2) blend limit - 1,5 mm (0.059 in) depth

For A/C MSN 101 thru MSN 313:

- Centreline strap (2) blend limit, centre aft - 1,8 mm (0.071 in)

For A/C MSN 314 and Up:

- Centreline strap (2) blend limit, centre aft - 1,9 mm (0.075 in).

(f) Do an eddy current inspection (Ref. SRM 51-20-07-00A-353A-A) or a penetrant inspection (Ref. SRM 51-20-07-00A-351A-A) to check for defects in the areas you did the blend repair.

(g) If you find corrosion inside a hole bore after the blend repair, increase the diameter of the rivet hole to remove all of the corrosion, refer to Rivet Data Table 1:

- In hole positions ‘A’ - oversized rivet to ‘AD8’ is not allowed
- In hole positions ‘B’ - oversized rivet to ‘CR3524-5’ is allowed (P/N Local Supply)
- In hole positions ‘C’ - oversized rivet to ‘AD6’ is allowed (P/N 939.27.81.034)
- In rivet positions ‘C’ in the centre aft area of the centreline strap (2):

  For A/C MSN 101 thru MSN 313:

  - The rivet (NAS1097AD6), P/N 939.27.81.034.

  For A/C MSN 314 and Up:

  - Oversized rivets are not allowed.
- In hole positions ‘D’ - oversized rivet:
  - To ‘AD6’ (P/N 939.17.81.034) is allowed
  - To NAS1242AD5-6 (P/N 939.17.82.253) or NAS1242AD5-7 (P/N 939.17.82.254) is allowed.
- In hole positions ‘D’ - if the dome head of the rivet touches the lower wing fairing (1):
  - The rivet (NAS1097AD5), P/N 939.27.81.026 is allowed
  - The rivet (NAS1097AD6), P/N 939.27.81.034 is allowed.

| Rivet | Description | Part Number | Type | Qty |
|---|---|---|---|---|
| A | Solid Rivet (NAS1097AD6) | 939.27.81.034 | Shallow Countersunk | A/R |
| B | Blind Rivet (NAS1921M04S02U) | 939.31.89.102 | Countersunk | A/R |
| | Blind Rivet (NAS1921M04S03U) | 939.31.89.103 | Countersunk | A/R |
| | Blind Rivet (NAS1921M04S04U) | 939.31.89.104 | Countersunk | A/R |
| C | Solid Rivet (NAS1097AD5) | 939.27.81.026 | Shallow Countersunk | A/R |
| D | Solid Rivet (MS20470AD5) | 939.17.81.026 | Universal Head | A/R |
| E | Blind Rivet (CR3223-4-02) | 939.19.86.102 | Universal Head | A/R |

| Rivet | Description | Part Number | Type | Qty |
|---|---|---|---|---|
| F | Blind Rivet (CR3224-4-02) | 939.31.86.301 | Shallow Countersunk | A/R |
| **NOTE 1:** Rivet length to be determined on installation. | | | | |

**Table 1: - Rivet Data**

(h) If there is still corrosion in the centreline strap (2) beyond the allowable oversized rivets, the strap is out of limits and must be replaced, continue to Para. 3.B.(4).

(i) Do an eddy current inspection (Ref. SRM 51-20-07-00A-353A-A) or a penetrant inspection (Ref. SRM 51-20-07-00A-351A-A) to check for defects in any of the oversized holes.

(j) Do the actions that follow as a result of the NDI of the blend repair areas:

1 If the wing skin areas and the centreline strap (2) areas are within the blend limits:

- Do a repair to the surface finish, refer to SRM 51-70-15-00A-663A-A
- Install any removed centreline strap (2) fasteners, continue to Para. 3.B.(4)(k) thru (v)
- Repair the lower wing fairing, continue to Para. 3.B.(8)
- Do the close-up procedures, Para. 3.C.

2 If the wing skin areas and the centreline strap (2) areas are within the blend limits but corrosion is found along the outer edges of the centreline strap (2), indicated by the bubbling of the wing skin paint under the edge:

- Replace the centreline strap (2), continue to Para. 3.B.(4).

3 If any of the wing skin areas are not within the blend limit, contact Pilatus Aircraft Ltd.

4 If the centreline strap (2) areas are not within the blend limit, but the wing skin areas are within the blend limit:

- Replace the centreline strap (2), continue to Para. 3.B.(4)
- Repair the lower wing fairing, continue to Para. 3.B.(8)
- Do the close-up procedures, Para. 3.C.

(4) Replace the centreline strap (2) (Ref. Sheet 5 and 6, Details C, D and E).

**WARNING:** WEAR EYE PROTECTION WHEN YOU DRILL COMPONENTS. HOT AND SHARP SWARF AND PARTICLES OF MATERIAL CAN CAUSE INJURY TO PERSONNEL.

(a) Remove a section of the support angle (3) for access (Ref. Detail E).

1 Use appropriate tools and remove a section of the support angle (3) in accordance with the dimensions given in Detail E.

2 Remove the unwanted material and deburr all sharp edges from the support angle (3).

3 Use absorbent paper (Material No. P02-031) made moist with isopropyl alcohol (Material No. P01-011) and clean the area in and around the rivet holes and access holes.

4 Let the isopropyl alcohol dry.

5 Apply CCC solution (Material No. P07-001) as necessary to the bare metal surfaces of the support angle (3).

6 Let the CCC solution dry.

(b) Remove all the rivets that attach the centreline strap (2) to the wing skin and the front spar.

(c) Remove and discard the old centreline strap (2).

(d) Use absorbent paper (Material No. P02-031) made moist with isopropyl alcohol (Material No. P01-011) and clean the wing skin in the centreline strap (2) installation area.

(e) Do a visual inspection to check for signs of corrosion of the wing skin at the centreline strap (2).

(f) Do an eddy current inspection (Ref. SRM 51-20-07-00A-353A-A) or a penetrant inspection (Ref. SRM 51-20-07-00A-351A-A) to check for defects to the fastener holes.

(g) If you find any corrosion, do a blend repair to the corrosion on the wing skin, refer to SRM 51-70-01-00A-663A-A.

- Report any defects and the wing skin area blend depth in the centreline strap (2) installation area to Pilatus Aircraft Ltd before you continue.

(h) Put the new centreline strap (2) (P/N 557.10.21.035 or for MSN 314 and Up, P/N 557.11.21.075) on the wing skin and clamp in position.

**NOTE:** The centreline strap, P/N 557.11.21.075, is a direct replacement for, and supersedes, the centreline strap, P/N 557.10.21.035.

(i) Use a 4,1 mm drill and transfer drill through the existing holes in the wing skin and the new centreline strap (2).

(j) If a hole is oversized, refer to Para. 3.B.(3)(f) for the limits of an oversized fastener holes. If the holes become oversized beyond limits, contact Pilatus Aircraft Ltd.

(k) Remove the centreline strap (2) from the wing skin.

(l) Countersink the rivet holes on the centreline strap (2).

(m) Ascertain the correct grip length of the fasteners as per manufacturer's instructions, cut the solid rivets to size as necessary.

(n) Remove the unwanted material and deburr all sharp edges from the holes.

(o) Use absorbent paper (Material No. P02-031) made moist with isopropyl alcohol (Material No. P01-011) and clean the area in and around the rivet holes.

(p) Let the isopropyl alcohol dry.

(q) Apply CCC solution (Material No. P07-001) as necessary to the bare metal surfaces of all the rivet holes.

(r) Let the CCC solution dry.

(s) Apply primer (Material No. P07-007) as necessary to the bare metal surfaces.

**NOTE:** Do not apply primer (Material No. P07-007) to the bores or the countersinks of the fastener holes.

(t) Apply a layer of interfay sealant (Material No. P08-106 or alternative) to the mating surface of the centreline strap (2) and the wing skin.

(u) Put the centreline strap (2) in position on the wing skin.

(v) Install gripper pins (or equivalent) in the rivet holes as necessary.

(w) Use interfay sealant (Material No. P08-106 or alternative) and install the rivets shown in Table 1. If any holes are oversized, use the alternative rivets that follow (Ref. Detail D):

- In rivet positions ‘C’
  - The rivet (NAS1097AD6), P/N 939.27.81.034.
- In rivet positions ‘C’ in the centre aft area of the centreline strap (2):

  For A/C MSN 101 thru MSN 313:

  - The rivet (NAS1097AD6), P/N 939.27.81.034.

  For A/C MSN 314 and Up:

  - Oversized rivets are not allowed.
- In rivet positions ‘D’
  - The rivet (NAS1242AD5-6), P/N 939.17.82.253
  - The rivet (NAS1242AD5-7), P/N 939.17.82.254
  - The rivet (MS20470AD6), P/N 939.17.81.034.

**NOTE:** Remove the gripper pins (or equivalent) as necessary as you install the rivets.

(x) Apply primer (Material No. P07-007) to all the heads of the installed rivets.

(y) Let the primer dry.

(z) Use sealant (Material No. P08-056) and apply a fillet seal around the edges of the centreline strap (2).

(aa) Apply topcoat, snow white (Material No. P07-031) to all aluminium surfaces covered by the lower wing fairing (1), refer to SRM 51-70-15-00A-663A-A:

- The lower-forward wing skin
- The centreline strap (2)
- The support angle (3).

(ab) Let the topcoat dry.

(5) Make the infill (5) for the support angle (3) (Ref. Sheet 6, Detail 'INFILL DIMENSIONS').

**WARNING:** WEAR EYE PROTECTION WHEN YOU DRILL COMPONENTS. HOT AND SHARP SWARF AND PARTICLES OF MATERIAL CAN CAUSE INJURY TO PERSONNEL.

(a) Use one of the items that follow to make the infill (5) to the dimensions given in Detail 'INFILL DIMENSIONS':

- The metal from the cut-out you removed from the support angle in Para. 3.B.(4)(a)
- The aluminium alloy AA2024-T3 1.0 mm (P/N RM-21-000237/1)
- A new support angle (P/N 557.11.21.066).

(b) Make sure of the criteria that follow:

- Make sure you make the infill (5) with consideration to the material grain direction (L DIRECTION) of the aluminium alloy
- Make sure the infill (5) has the gaps given in detail 'INFILL DIMENSIONS' to the edge of the cut-out in the support angle.

(c) Use a 10x magnification tool and a bright light source to do a visual inspection and make sure that there are no cracks on the outer bend radius.

(d) Use absorbent paper (Material No. P02-031) made moist with isopropyl alcohol (Material No. P01-011) to clean the infill (5).

(e) Let the isopropyl alcohol dry.

(f) Apply CCC solution (Material No. P07-001) as necessary to the bare metal surfaces of the infill (5).

(g) Let the CCC solution dry.

(h) Do a check to make sure of the minimum fastener edge margins and fastener pitch margins shown in Detail 'INFILL DIMENSIONS'.

(6) Make the doubler (6) for the infill (5) and the support angle (3) (Ref. Detail ‘DOUBLER DIMENSIONS’).

**WARNING:** WEAR EYE PROTECTION WHEN YOU DRILL COMPONENTS. HOT AND SHARP SWARF AND PARTICLES OF MATERIAL CAN CAUSE INJURY TO PERSONNEL.

(a) Use the aluminium alloy AA2024-T3 1.0 mm (P/N RM-21-000237/2) to make the doubler (6) to the dimensions given in Detail ‘DOUBLER DIMENSIONS’:

- Make sure you make the doubler (6) with consideration to the material grain direction (L DIRECTION) of the aluminium alloy.

(b) Use a 10x magnification tool and a bright light source to do a visual inspection and make sure that there are no cracks on the outer bend radius.

(c) Put the doubler (6) on the support angle (1), make sure it is equally positioned over the cut-out and clamp it in position.

(d) Use a 3,3 mm drill and transfer drill through the existing holes in the support angle (3) into the doubler (6).

(e) Remove the doubler (6) from the support angle (3).

(f) Remove the unwanted material and deburr all sharp edges from the holes.

(g) Mark the position of the new repair holes you must drill in the doubler (6) and make sure you obey the 2D minimum edge margin and a 4D minimum pitch for the holes (Ref Detail ‘DOUBLER DIMENSIONS’).

(h) Put the doubler (6) with the infill (5) on the support angle (3), use gripper pins (or equivalent) and clamps, as necessary, to hold the doubler (6) and the infill (5) in position.

(i) Use a 3,3 mm drill and drill the repair holes through the doubler (6), the infill (5) and the support angle (1).

(j) Remove the doubler (6) and the infill (5) from the support angle (3).

(k) Remove the unwanted material and remove all sharp edges from the holes in the doubler (6), the infill (5) and the support angle (3).

(l) Use absorbent paper (Material No. P02-031) made moist with isopropyl alcohol (Material No. P01-011) to clean the infill (5) and the doubler (6).

(m) Let the isopropyl alcohol dry.

(n) Apply CCC solution (Material No. P07-001) as necessary to holes and the bare metal surfaces of the doubler (6), the infill (5) and the support angle (3).

(o) Let the CCC solution dry.

(p) Apply primer (Material No. P07-007) as necessary to the bare metal surfaces.

(7) Install the repair items for the support angle (3) (Ref. Sheet 7, Detail E).

(a) Apply a layer of interfay sealant (Material No. P08-106 or alternative) to the mating surfaces of these repair items:

- The support angle (3)
- The infill (5)
- The doubler (6).

(b) Put the doubler (6) and the infill (5) in position on the support angle and hold in position with gripper pins (or equivalent) and clamps, as necessary.

(c) Use interfay sealant (Material No. P08-106 or alternative) and install the rivets shown in Table 1:

- In rivet positions ‘E’
  - The rivet (CR3223-4-02), P/N 939.19.86.102.
- In rivet positions ‘F’
  - The rivet (CR3224-4-02), P/N 939.31.86.301.

**NOTE:** Remove the gripper pins (or equivalent) as necessary as you install the rivets.

(d) Use sealant (Material No. P08-056) and apply a fillet seal around the edges of the infill (5) and the doubler (6).

(e) Apply topcoat, snow white (Material No. P07-031) to these repair items:

- The support angle (3)
- The infill (5)
- The doubler (6).

(f) Let the topcoat dry.

(8) Repair the lower wing fairing (1) (Ref. Sheet 8).

**NOTE:** Do the procedures that follow if you have removed the lower wing fairing (1) for the inspections/repairs.

(a) Increase the diameter of the holes in the lower-forward wing skin and/or the lower wing fairing (1), if necessary, to fit these blind rivets:

- The rivet (CR3524-5-02), P/N Local supply
- The rivet (CR3524-5-03), P/N Local supply
- The rivet (CR3524-5-04), P/N Local supply.

(b) If not necessary, use these original rivets:

- The Rivet (NAS1921M04S02U), P/N 939.31.89.102
- The Rivet (NAS1921M04S03U), P/N 939.31.89.103
- The Rivet (NAS1921M04S04U), P/N 939.31.89.104

(c) Apply CCC solution (Material No. P07-001) as necessary to holes in the lower-forward wing skin.

(d) Do a visual inspection of the lower wing fairing (1) in the wing skin/support angle (3) interface areas for:

- Ply damage
- Raised folds in the material
- Debris that has adhered to the surface.

**NOTE:** If you find damage, the lower wing fairing (1) (P/N 557.20.21.215) can be replaced, alternatively, do a repair. If you replace the lower wing fairing (1), make sure you restore the surface finish of the inner surfaces of the fairing (Ref. Para. (8)(f)).

(e) Do a repair to the lower wing fairing (1) if you find any damage, refer to SRM 51-70-03-00A-663A-A. Make sure that any raised folds in the surface have been removed.

(f) Use these materials to restore the surface finish of the inner surfaces of the lower wing fairing (1), refer to SRM 51-70-15-00A-663A-A:

- Barrier primer (Material No. P07-016)
- Epoxy primer (Material No. P07-037)
- Topcoat, snow white (Material No. P07-031)
- Topcoat, clear (Material No. P07-038).

**NOTE:** It may be required to remove existing layers of surface finish to make sure the correct surface protection build-up has been applied.

**NOTE:** When you restore the surface finish make sure you protect the anchor nuts of the access panel RB01 to prevent clogging of the threads.

(9) Install the lower wing fairing (1) (Ref. Sheet 8).

**WARNING:** WEAR EYE PROTECTION WHEN YOU DRILL COMPONENTS. HOT AND SHARP SWARF AND PARTICLES OF MATERIAL CAN CAUSE INJURY TO PERSONNEL.

(a) If not already accomplished, apply topcoat, snow white (Material No. P07-031) to all aluminium surfaces covered by the lower wing fairing (1), refer to SRM 51-70-15-00A-663A-A:

- The lower-forward wing skin
- The centreline strap (2)
- The support angle (3).

(b) Let the topcoat dry.

(c) Ascertain the grip length of the fairing installation fasteners in accordance with the manufacturers instructions.

(d) Repair any damage to the surface protection of the support angle (3), refer to SRM 51-70-15-00A-663A-A.

(e) Use masking materials to protect the contact surfaces between the lower wing fairing (1) and the lower wing skin.

(f) Apply a layer of one of these corrosion preventative compounds to the wing skin under the surface area of the lower wing fairing (1), the centreline strap (2) and the support angle (3):

- CPC (Ardrox/Dinitrol AV 30) (Material No. P10-015)
- CPC (Ardrox/Dinitrol AV 15) (Material No. P10-018).

(g) Remove the masking materials you used to protect the contact surfaces between the lower wing fairing (1) and the lower wing skin.

(h) Use absorbent paper (Material No. P02-031) made moist with isopropyl alcohol (Material No. P01-011) to clean the contact surfaces between the lower wing fairing (1) and the lower wing skin and the support angle (3).

(i) Let the isopropyl alcohol dry.

(j) Apply interfay sealant (Material No. P08-106 or alternative) to the contact surfaces between the lower wing fairing (1) and the lower wing skin and the support angle (3).

(k) Put the lower wing fairing (1) in position on the support angle (3) and the wing skin and hold in position with gripper pins (or equivalent), as necessary.

(l) Use interfay sealant (Material No. P08-106 or alternative) and install as appropriate the rivets that follow:

- The Rivet (NAS1921M04S02U), P/N 939.31.89.102
- The Rivet (NAS1921M04S03U), P/N 939.31.89.103
- The Rivet (NAS1921M04S04U), P/N 939.31.89.104
- The rivet (CR3524-5-03), P/N Local supply
- The rivet (CR3524-5-04), P/N Local supply.

**NOTE:** Remove the gripper pins (or equivalent) as necessary as you install the rivets.

(m) Use sealant (Material No. P08-056) and apply a fillet seal around the external edges of the lower wing fairing (1).

(n) Apply surface protection to the exposed rivet heads and the remaining unprotected external surfaces of the lower wing fairing (1), refer to SRM 51-70-15-00A-663A-A.

**NOTE:** Use the appropriate topcoat (Material No. P07-031) to match the aircraft colour scheme when you apply the surface protection.

**C. Close up**

(1) Remove all equipment, materials and tools from the work area. Make sure that the work area is clean.

(2) Install the access panel RB01.

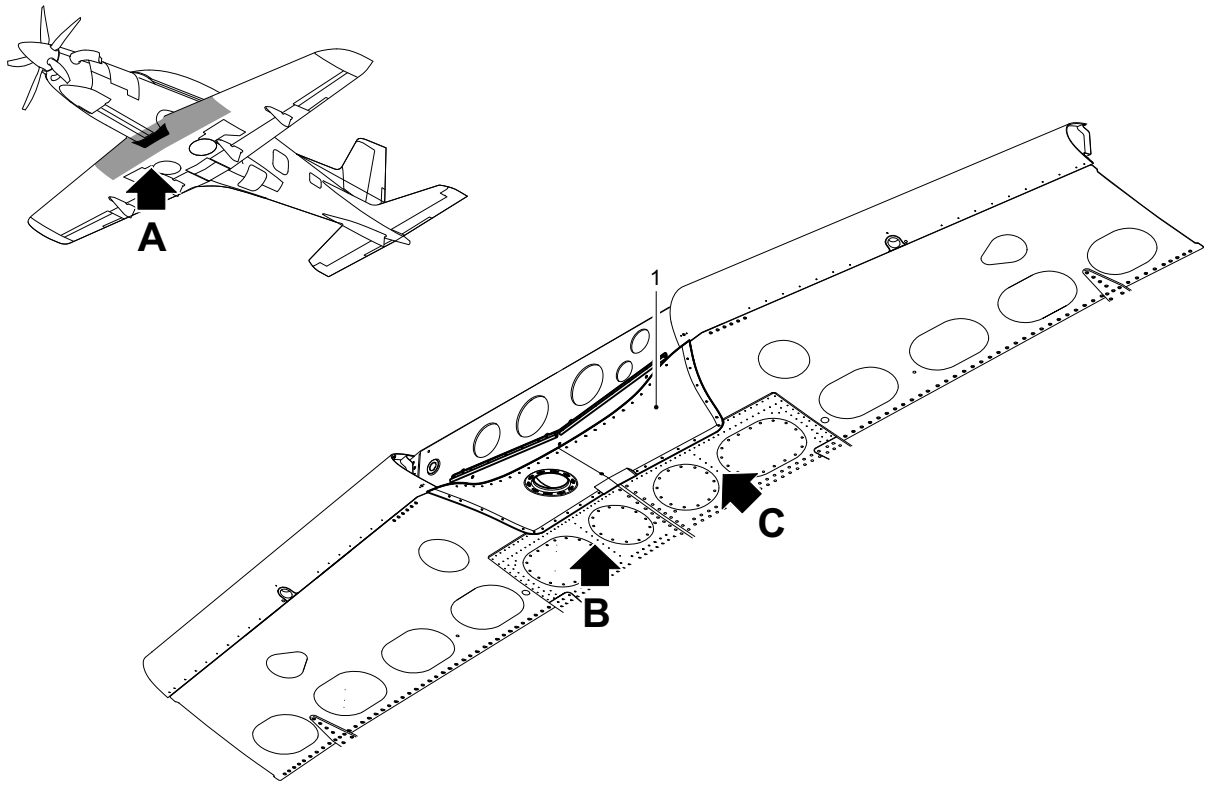
(3) Lower the aircraft off jacks, refer to AMM 07-10-01-00A-542A-A.

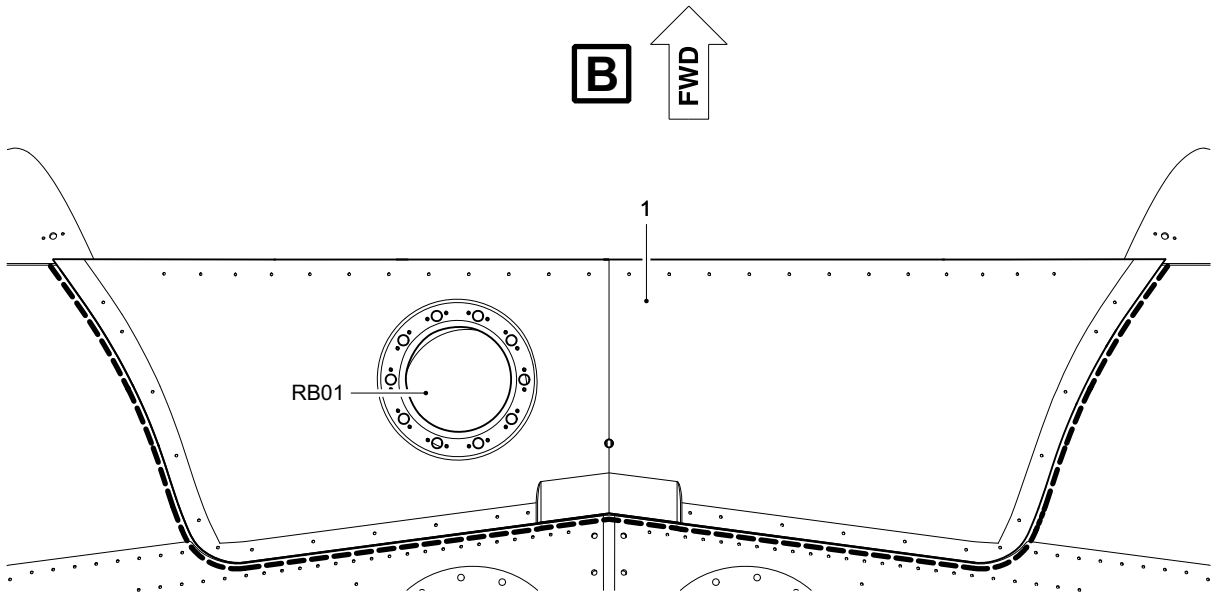
(4) Refuel the aircraft, refer to AMM 12-10-00-00A-211A-A.

**D. Documentation**

(1) Make an entry in the Aircraft Logbook that this Service Bulletin has been incorporated.

(2) Use the Service Bulletin Evaluation Sheet and report your results and the serial number of the aircraft to Pilatus.

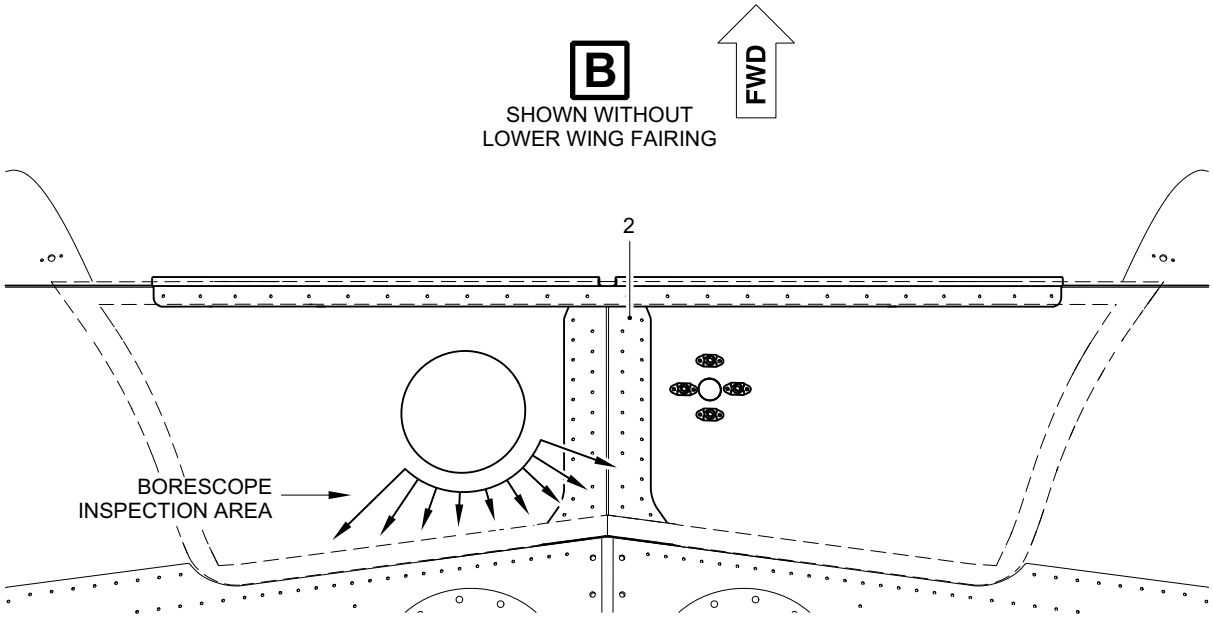



INSPECTION AREA

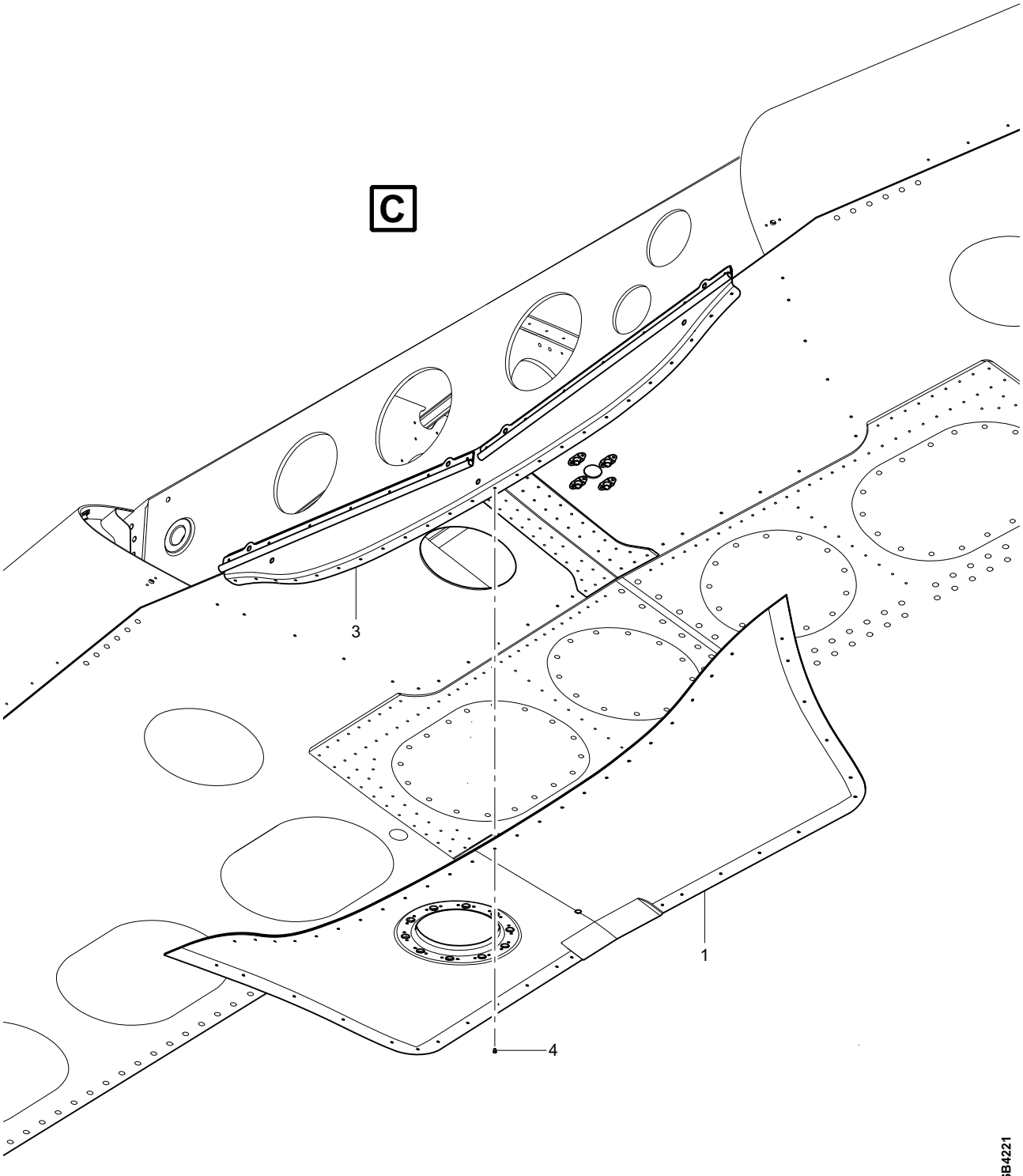
SB4219

Inspection of Lower Wing Skin
Figure 1 (Sheet 1 of 8)

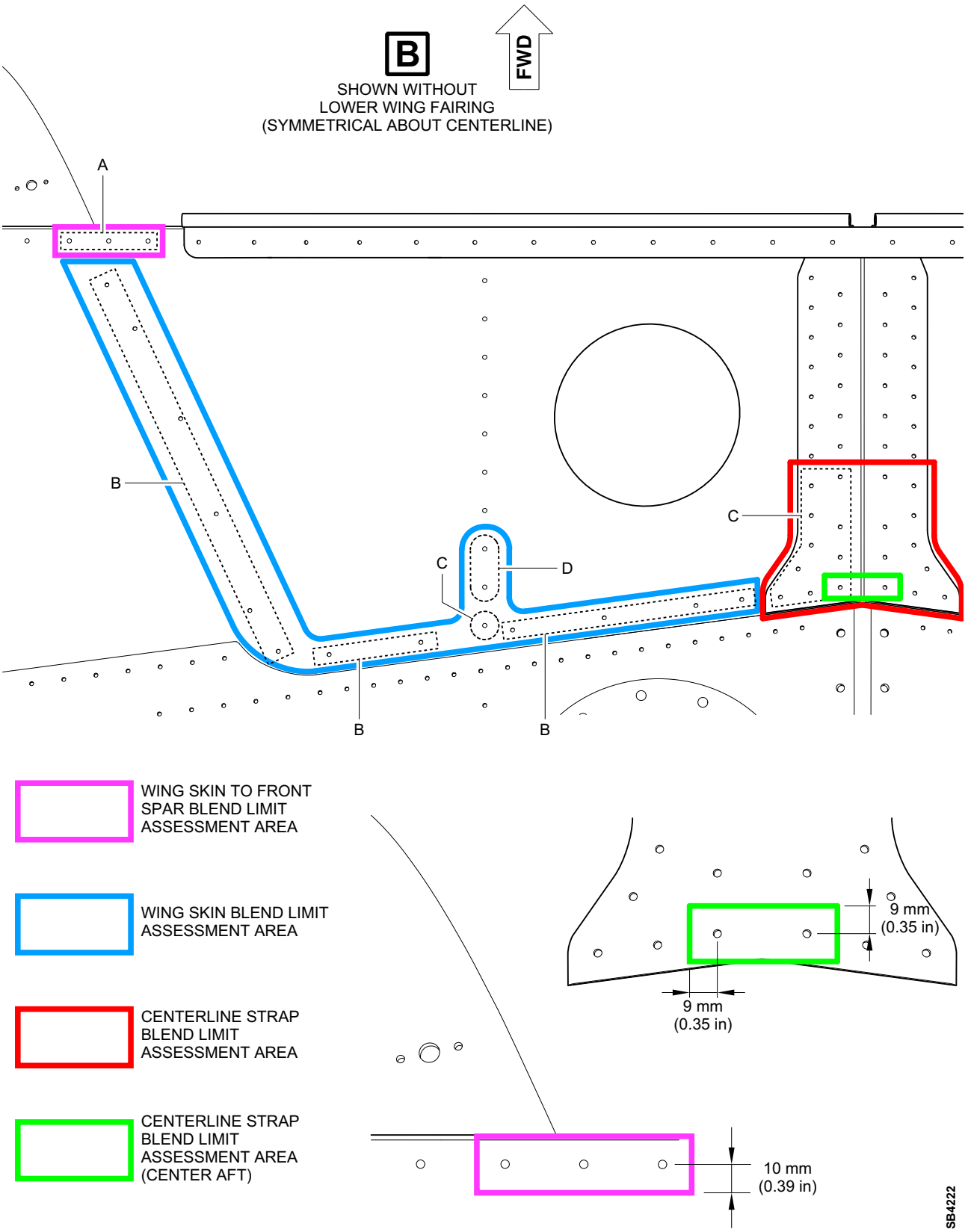



SB4220

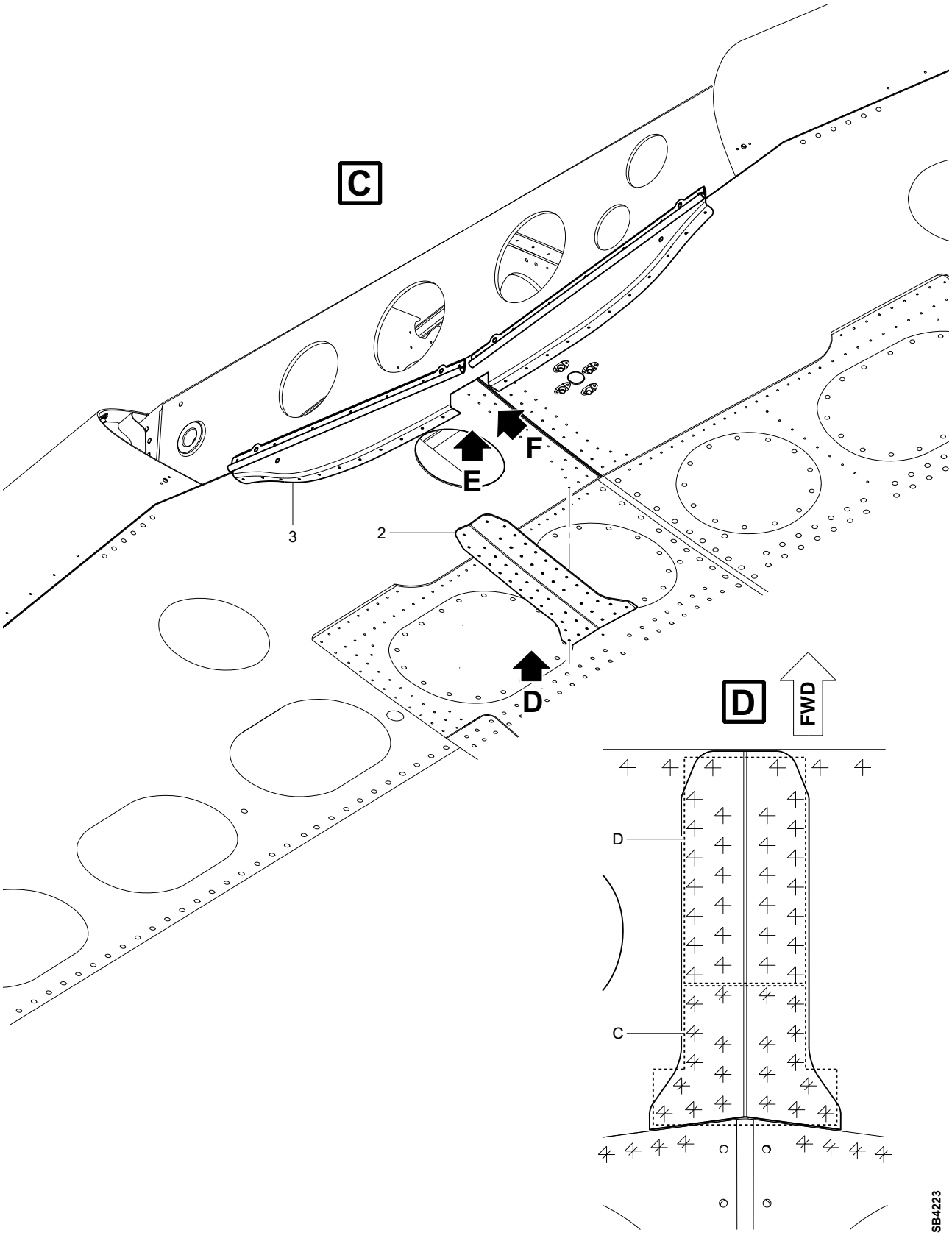
Inspection of Lower Wing Skin
Figure 1 (Sheet 2 of 8)



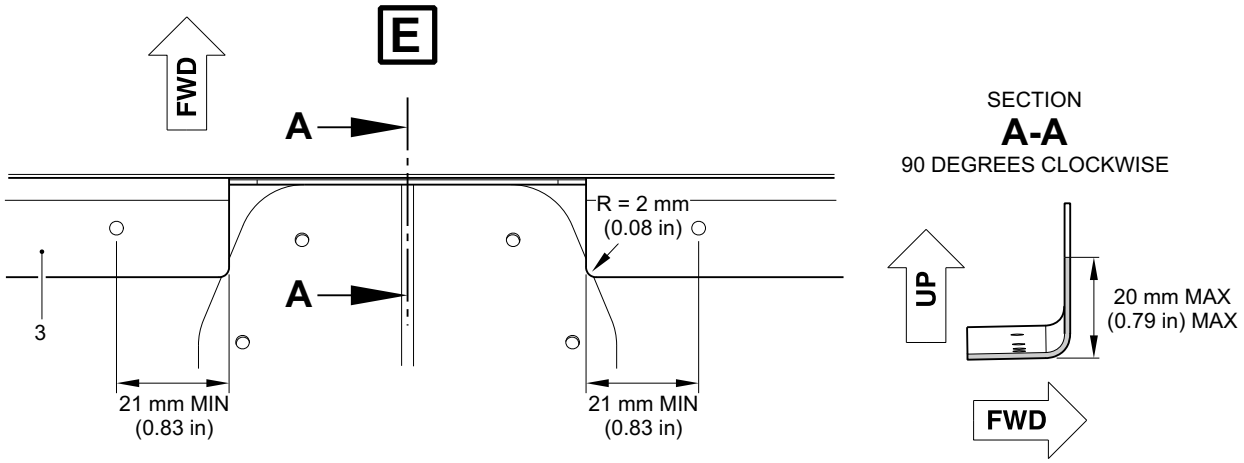

Inspection of Lower Wing Skin
Figure 1 (Sheet 3 of 8)



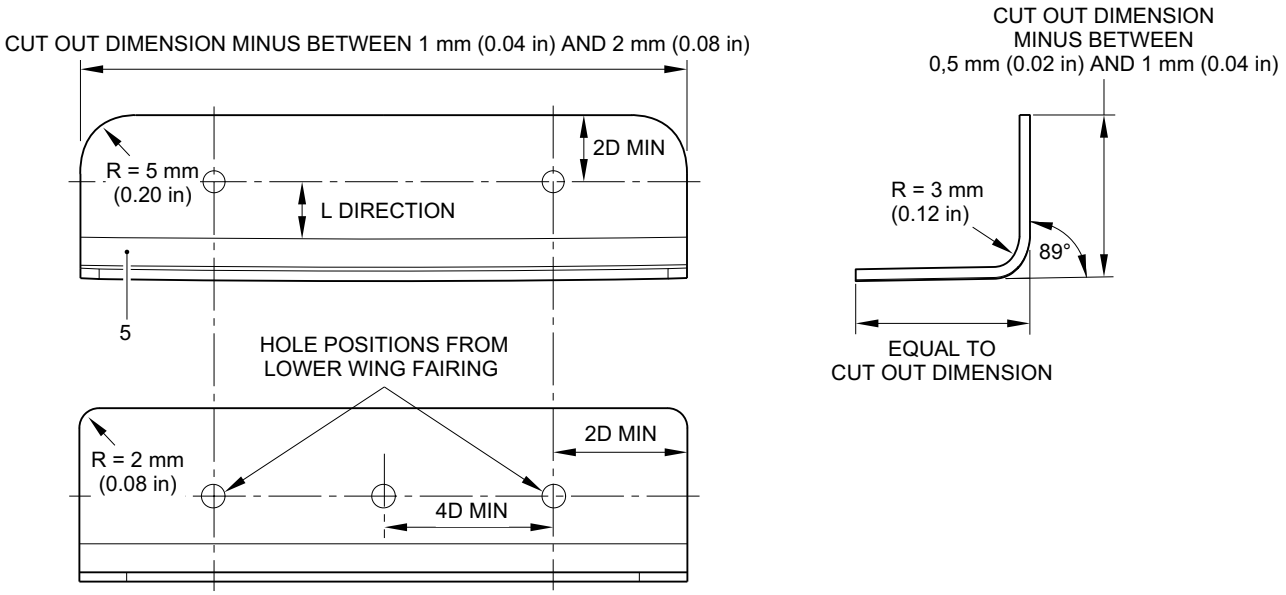

Inspection of Lower Wing Skin
Figure 1 (Sheet 4 of 8)




Inspection of Lower Wing Skin
Figure 1 (Sheet 5 of 8)

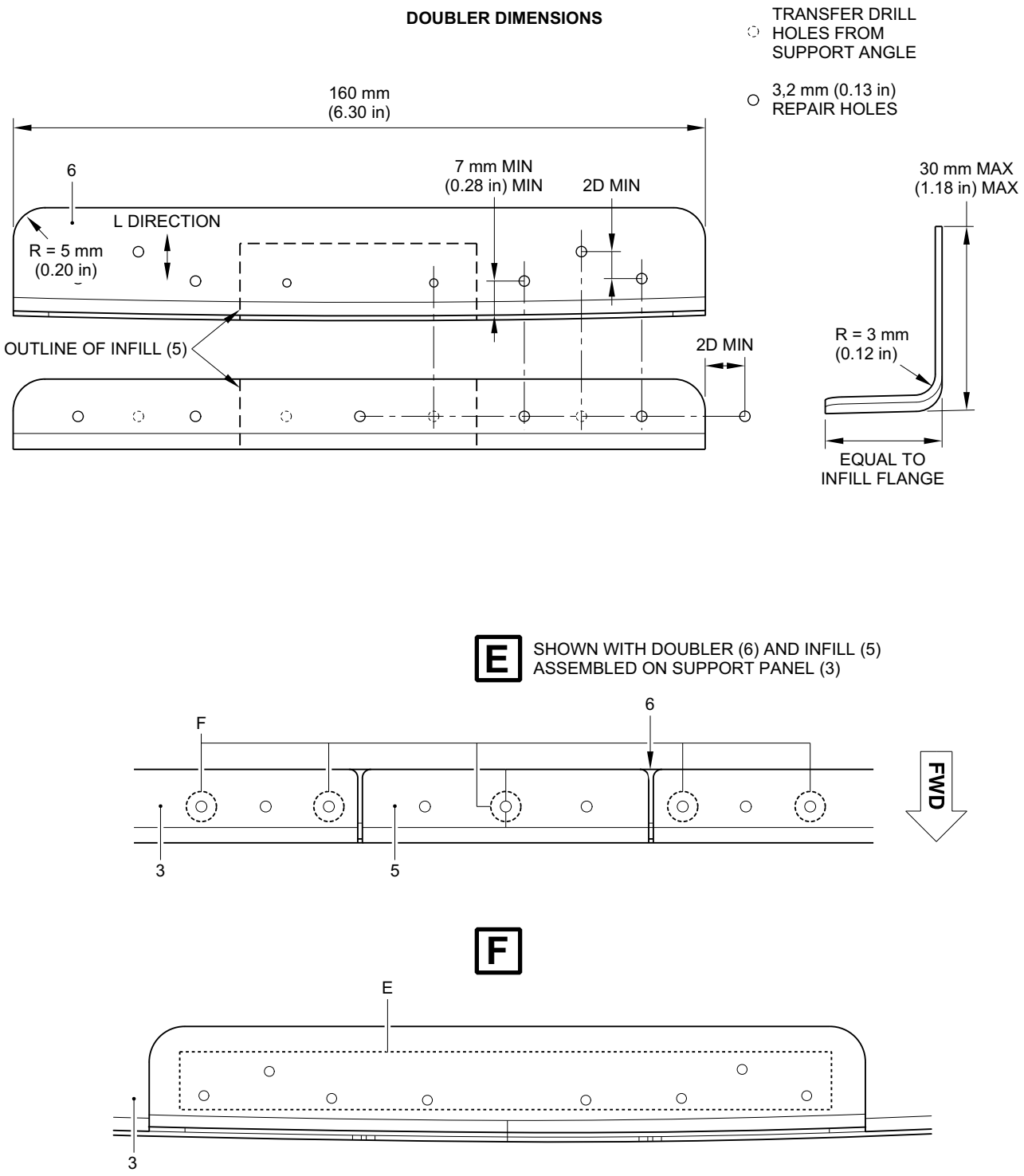



**INFILL DIMENSIONS**

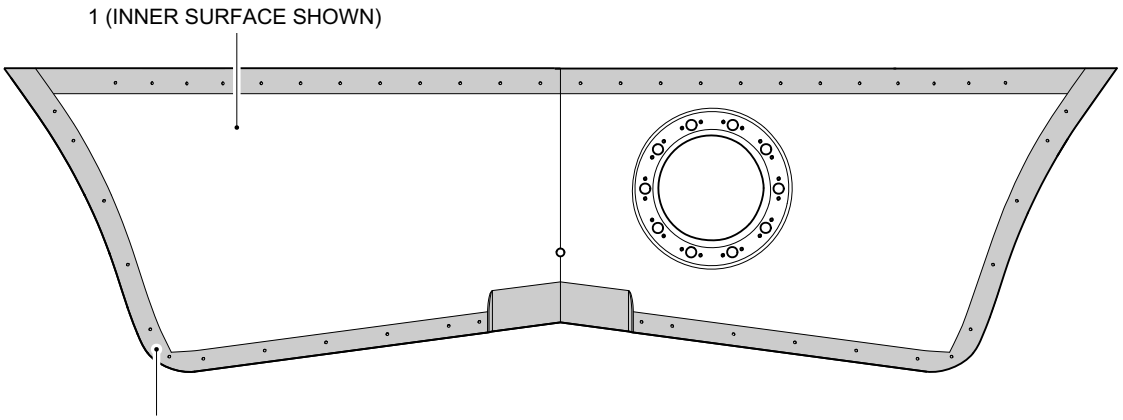



SB4224

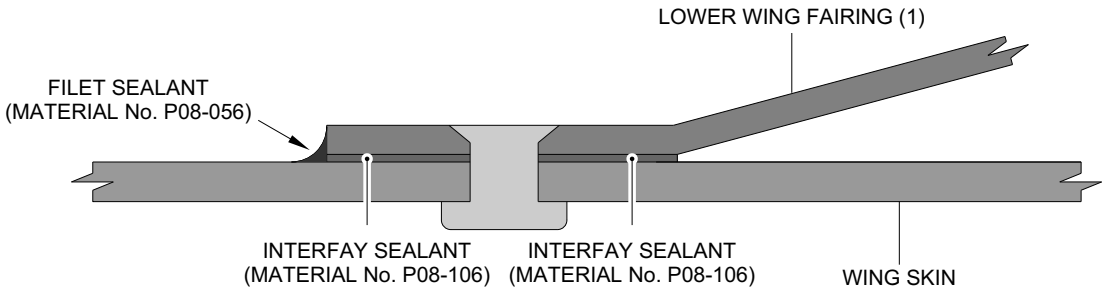
Inspection of Lower Wing Skin
Figure 1 (Sheet 6 of 8)




Inspection of Lower Wing Skin
Figure 1 (Sheet 7 of 8)




**LOWER WING FAIRING INTERFAY SEALANT APPLICATION**




**LOWER WING FAIRING INSTALLATION TYPICAL SECTION**

SB4226

Inspection of Lower Wing Skin
Figure 1 (Sheet 8 of 8)

| SERVICE BULLETIN EVALUATION SHEET FOR SB No. 57-016 | |
|---|---|
| **Title** | **Wings - Center Wing<br>Inspection of the Lower Wing Skin Under the Lower Wing Fairing** |
| **Customer** | |
| **Service Center** | |

| EMBODIMENT REPORTING | | |
|---|---|---|
| **This SB has been embodied:** | | **On the entire fleet** |
| | | **Only partially** |

**Provide embodiment details per aircraft (use additional copies of this table, if necessary)**

| MSN | Flying Hours | MSN | Flying Hours |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

**Additional embodiment comments/findings**

| EDITORIAL COMMENTS<br>(procedure, kit quality, suggested improvements, etc.) |
|---|
| |

| Name | Signature | Date |
|---|---|---|
| | | |

Please complete and forward this form to:

Pilatus Aircraft LTD,
Customer Technical Support (MCC),
P.O. BOX 992,
6371 Stans, Switzerland
Fax: +41 (0)41 619 6773
Email: Techsupport@pilatus-aircraft.com

**SERVICE BULLETIN EVALUATION SHEET**

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