



PILATUS AIRCRAFT LTD. CH-6371 STANS, SWITZERLAND

SERVICE BULLETIN

SERVICE BULLETIN NO: 57-015

REF NO: 114

MODIFICATION NO: INSPECTION

ATA CHAPTER: 57

WINGS - INNER WING INSPECTION FOR DAMAGE TO THE WING BOTTOM SKIN BETWEEN RIBS 5 AND 11

1. Planning Information

A. Effectivity

PC-9 aircraft up to and including MSN 188 and MSN 501 thru 567.

B. Concurrent Requirements

None

C. Reason

(1) Problem

The countersunk rivets which attach the bottom skin of the inner wing to the rear-spar between ribs 5 and 11 can become loose and damage the skin panel.

(2) Cause

Flexing of the wing skin can cause the countersunk rivets to work loose and pull through the skin panel.

(3) Solution

Do an inspection and repair of the bottom wing skin between ribs 5 and 11.

D. Description

This Service Bulletin gives the data and instructions necessary to:

- Examine the wing bottom skin between ribs 5 and 11
- If no damage is found, do a repair at, or before, the next 300 hrs/annual inspection
- If pulled rivets are found, do a repair and replace the rivets before the next flight
- If loose or 'working' rivets are found, do a repair and replace the rivets at, or before, the next 150 hrs inspection
- If cracks are found, contact Pilatus for repair information

E. Compliance

Mandatory.

Within 28 days of the issue date of this Service Bulletin.

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F. Approval

The technical content of this document is approved under FOCA accepted procedures.

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

G. Manpower

	Total	Total
Inspection	0.25	0.25
Repair No. 1	3.75	
Repair No. 2		5.75
TOTAL MAN-HOURS	4.0	6.0

NOTE: Man-hours figures do not include the time required to cure sealants and adhesives.

H. Weight and Balance

(1) Weight Change

Not changed.

(2) Moment Change

Not changed.

I. Electrical Load Data

Not changed.

J. Software

Not changed.

K. References

Aircraft Maintenance Manual (AMM) 20-31-00, 20-40-10, 27-50-01.

Structural Repair Manual (SRM) 51-40-00.

L. Publications Affected

None.

M. Interchangeability of Parts

Not applicable.

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2. Material Information

A. Material - Price and Availability

A Modification Kit is not necessary for this Service Bulletin.

B. Material Necessary for Each Aircraft

(1) Operator Supplied Parts

Part No.	Description	Qty	Remarks
MS20470-AD4-*	Rivet	25	Length as required.
CR3223-4-02	Rivet	A/R	
CR3222-4-02	Rivet	A/R	
NAS1097-AD5-4	Rivet	A/R	

(2) Operator Supplied Materials (Ref. AMM 20-31-00)

Material/Part No.	Description	Qty	Remarks
P01-008	Solvent	A/R	
P02-002	Aluminum Wool	A/R	
P02-031	Absorbent Paper	A/R	
P07-007	Epoxy primer	A/R	
P07-021	Alodine 1132	1	Touch-N-Prep Pen
P08-020	Sealant	A/R	
908.18.12.090	Ardrox AV15	A/R	Corrosion Preventative Compound

C. Re-identified Parts

Not applicable.

D. Tooling - Cost and Availability

Not applicable.

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3. Accomplishment Instructions

A. Inspection (Ref. Fig. 1)

- (1) Examine the rivets which attach the wing bottom skin to the rear-spar, and end ribs, in the areas shown on Fig. 1.
- (2) If dome head rivets are installed, no further action is necessary.
- (3) If countersunk rivets are installed:
 - (a) If necessary, clean the examination areas with absorbent paper (Material No. P02-031) made moist with solvent (Material No. P01-008).
 - (b) Use a bright light source and examine the areas for:
 - Rivet heads pulled through the skin panel
 - Cracks
 - Loose or 'working' rivets
 - (c) If you find no damage:
 - Write 'No Damage Found' on the Report Form (Fig. 3) and send to Pilatus Customer Support
 - Do the Repair No. 1 (Ref. Para. B.) at, or before, the next scheduled 300 hrs/ annual inspection.
 - (d) If you find rivet heads pulled through the skin panel:
 - Do the Repair No. 2 (Ref. Para. C) before the next flight
 - Use the Report Form (Fig. 3) to send the data of the damage found to Pilatus Customer Support
 - (e) If you find loose or 'working' rivets:
 - Do the Repair No. 2 (Ref. Para. C) at, or before, the next scheduled 150 hrs inspection
 - Use the Report Form (Fig. 3) to send the data of the damage found to Pilatus Customer Support
 - (f) If you find cracks that start from pulled, loose or 'working' rivets:
 - Do not permit the aircraft to fly
 - Contact Pilatus Customer Support for repair instructions. Use a copy of the Report Form (Fig. 3) to give the data of the damage found

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B. Repair No. 1 (Ref. Fig. 2)

- (1) Remove the applicable flap (Ref. AMM 27-50-01, Page Block 401).
- (2) Refer to Fig. 2 and make marks at the center positions between the existing 25 rivets for 25 additional MS20470-AD4 rivets.
- (3) Drill 3,3 mm holes at the marked positions.
- (4) Deburr the holes.
- (5) Remove all swarf and debris.
- (6) Apply Alodine 1132 (Material No. P07-021) to the bare metal areas (Ref. AMM 20-40-10, Page Block 401).
- (7) Wet install the 25 new rivets MS20470-AD4-* with sealant (Material No. P08-020) at the positions shown on Fig. 2.

NOTE: Refer to SRM 51-40-00, Page Block 1 to calculate the correct grip length of the MS20470-AD4 rivets.

- (8) Apply primer and paint to the rivet heads and wing skin as necessary.
- (9) At the rear spar (between ribs 5 and 11) apply corrosion preventative compound (P/N 908.18.12.090) to fill the joint between the spar and the wing skin.
- (10) Install the applicable flap (Ref. AMM 27-50-01, Page Block 401).
- (11) Make sure the work area is clean and clear of tools and materials.

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C. Repair No. 2 (Ref. Fig. 2)

- (1) Remove the applicable flap (Ref. AMM 27-50-01, Page Block 401).
 - (2) Refer to Fig. 2 and make marks at the center positions between the existing 25 rivets for 25 additional MS20470-AD4 rivets.
 - (3) If you found loose or 'working' rivets at the four end rib positions:
 - (a) Refer to Fig. 2 and make marks for additional CR3223-4-02 rivets at the center positions between the existing rivets for the end ribs:
 - If the first and/or second rivets (counted from the rear) are loose or 'working' make marks for four additional rivets.
 - If the third rivets are loose or 'working' make marks for eight additional rivets.
 - (4) Drill 3,3 mm holes at the marked positions.
 - (5) Deburr the holes.
 - (6) Remove all swarf and debris.
 - (7) Apply Alodine 1132 (Material No. P07-021) to the bare metal areas (Ref. AMM 20-40-10, Page Block 401).
 - (8) Wet install the 25 new rivets MS20470-AD4-* with sealant (Material No. P08-020) at the positions shown on Fig. 2.
- NOTE:** Refer to SRM 51-40-00, Page Block 1 to calculate the correct grip length of the MS20470-AD4 rivets.
- (9) If necessary, wet install four or eight CR3223-4-02 rivets, as required, with sealant (Material No. P08-020) at the end rib positions shown on Fig. 2.
 - (10) Remove the pulled, loose or 'working' rivets:
 - (a) Drill out and remove the pulled, loose or 'working' rivets.
 - (b) Enlarge the holes to 4 mm.

CAUTION: MAKE SURE YOU DO NOT COUNTERSINK RIGHT THROUGH THE SKIN. THIS CAN LEAVE A SHARP EDGE AND CRACKS CAN START.

- (c) 100 deg countersink the holes for new rivets NAS1097-AD5-4.
- (d) Remove all swarf and debris.
- (e) Use absorbent paper (Material No. P02-031) and solvent (Material No. P01-008) to clean the holes and the countersinks.
- (f) Apply Alodine 1132 (Material No. P07-021) to the bare metal areas (Ref. AMM 20-40-10, Page Block 401).
- (g) Apply epoxy primer (Material No. P07-007) on top of the Alodine 1132.

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- (11) Install new countersunk rivets NAS1097-AD5-4 at the removed rivet positions along the rear spar:
 - (a) Wet install the new rivets NAS1097-AD5-4 with sealant (Material No. P08-020).
 - (b) Overseal the upset heads of the rivets with sealant (Material No. P08-020).
 - (c) Remove unwanted sealant with absorbent paper (Material No. P02-031) made moist with solvent (Material No. P01-008).
- (12) Install new countersunk rivets CR3222-4-02 at the removed rivet positions on the end ribs:
 - (a) Wet install the new rivets CR3222-4-02 with sealant (Material No. P08-020).
 - (b) Remove unwanted sealant with absorbent paper (Material No. P02-031) made moist with solvent (Material No. P01-008).
- (13) Apply primer and paint to the rivet heads and wing skin as necessary.
- (14) At the rear spar (between ribs 5 and 11) apply corrosion preventative compound (P/N 908.18.12.090) to fill the joint between the spar and the wing skin.
- (15) Install the applicable flap (Ref. AMM 27-50-01, Page Block 401).
- (16) Make sure the work area is clean and clear of tools and materials.

D. Reporting Action

Send the Report Form (Figure 3) to Pilatus Customer Support.

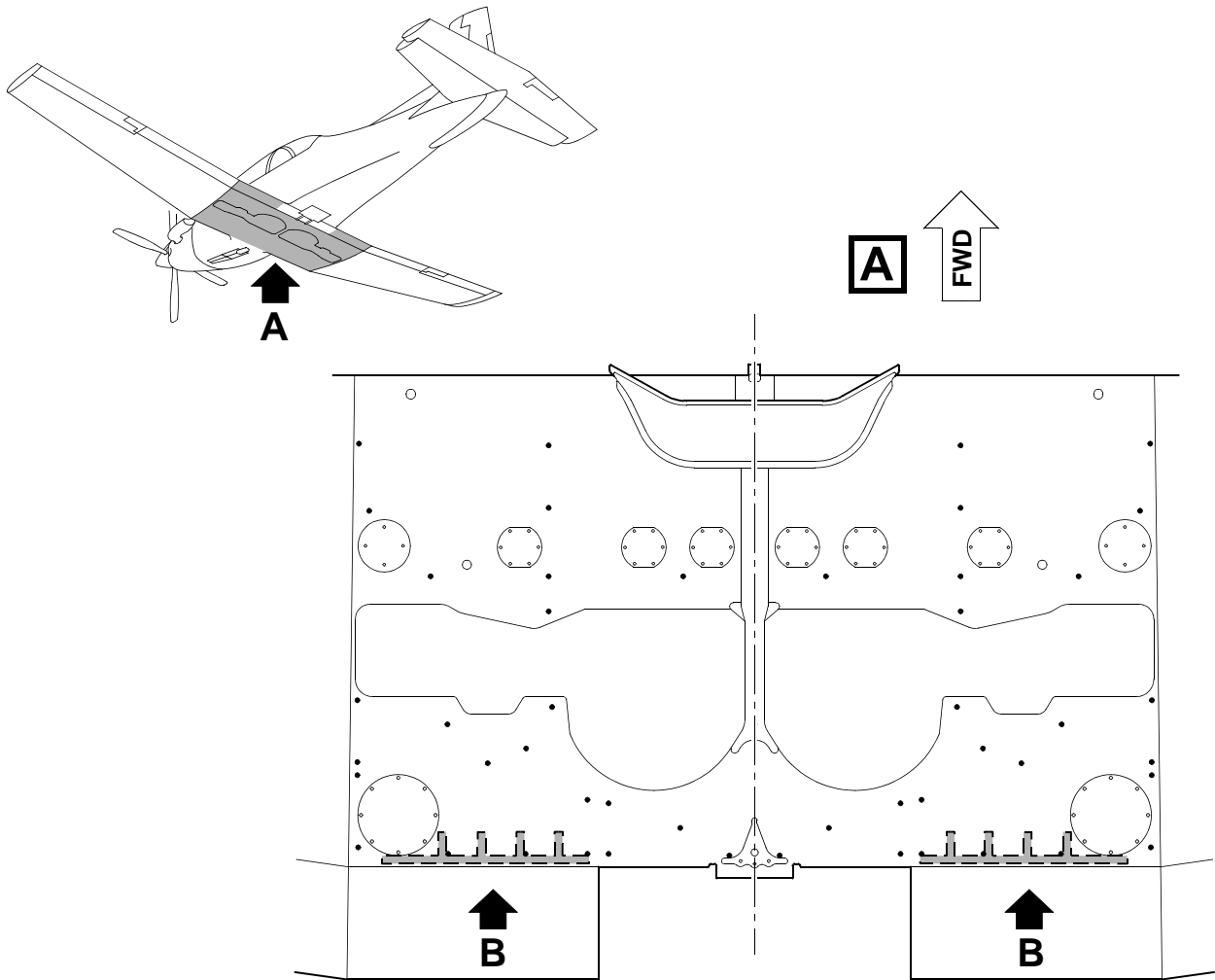
E. Documentation

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

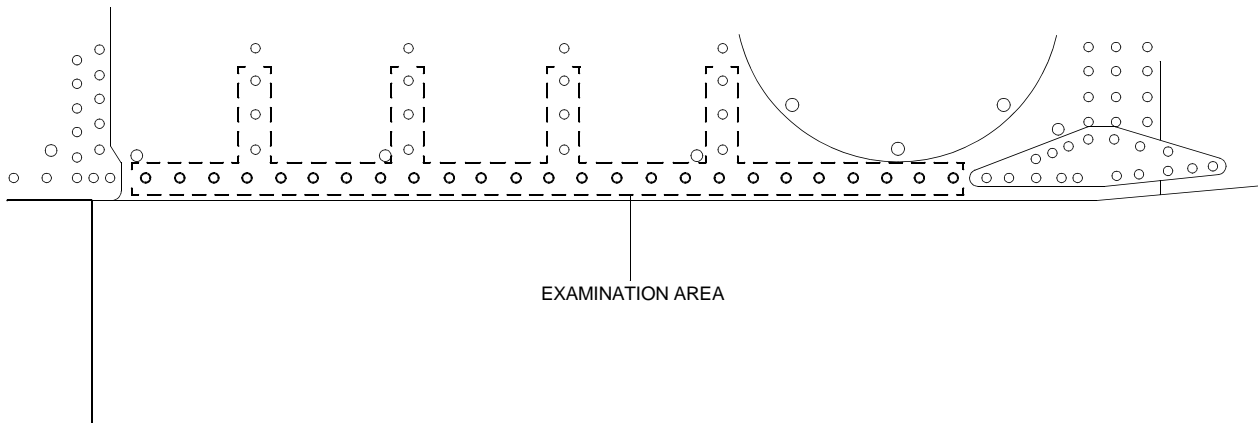
4. Accomplishment Instructions - Spares

Not Applicable.

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B LEFT SHOWN
 RIGHT OPPOSITE

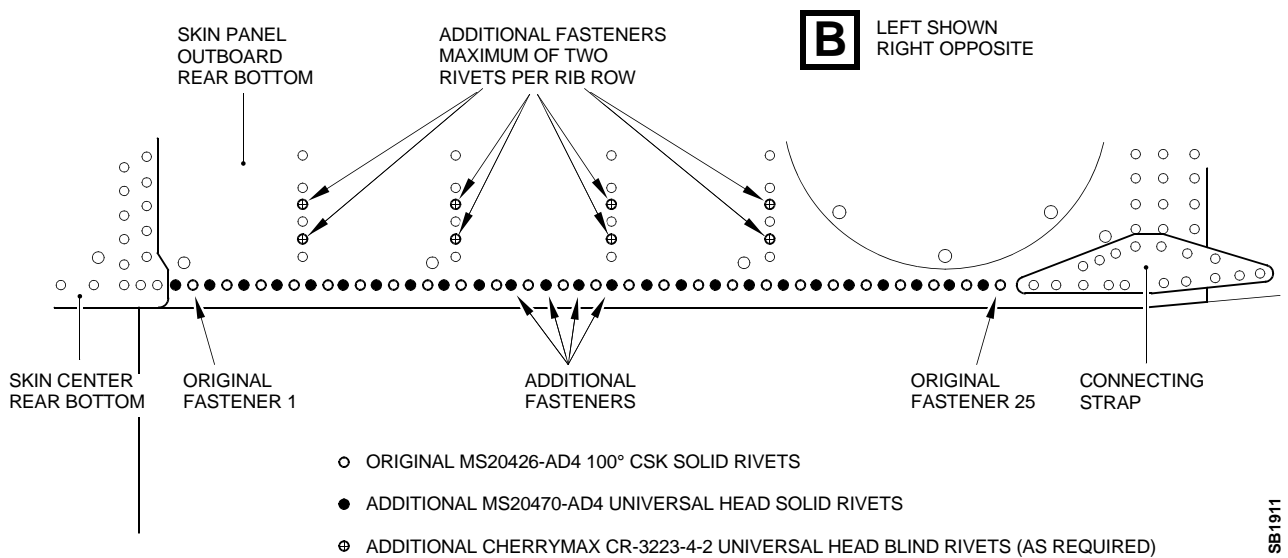
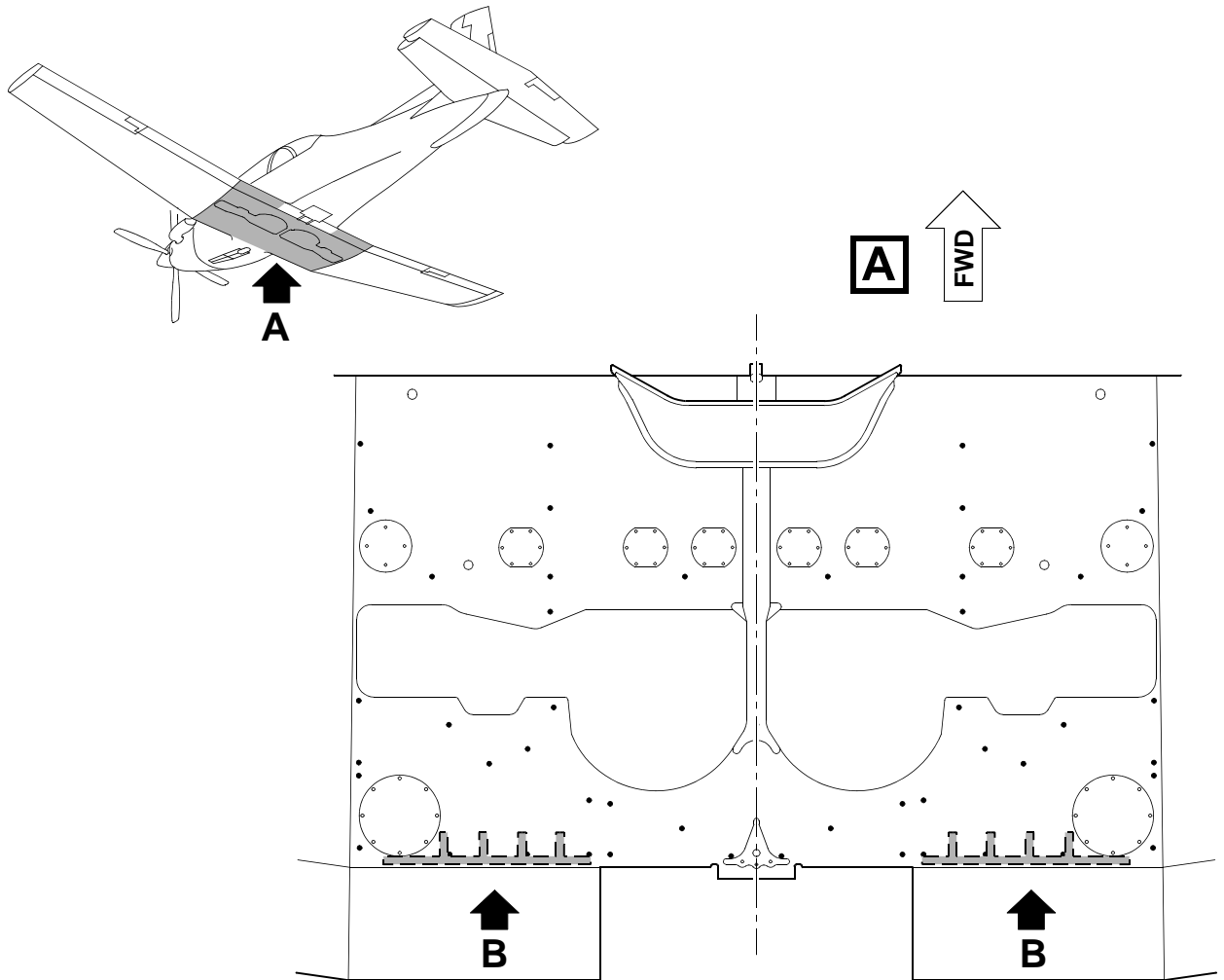


EXAMINATION AREA

Examination Areas
 Figure 1

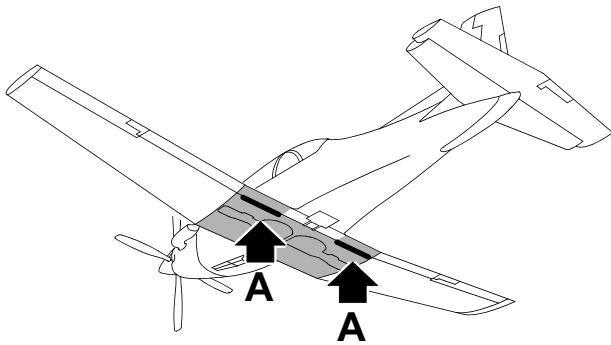
SB1910

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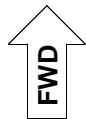
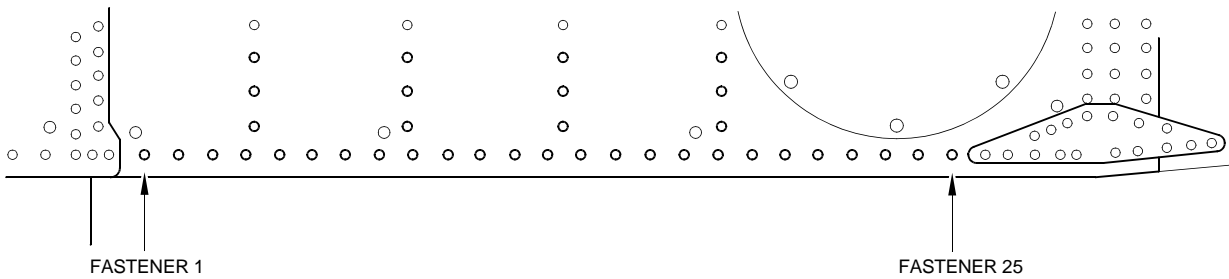
Repair
Figure 2

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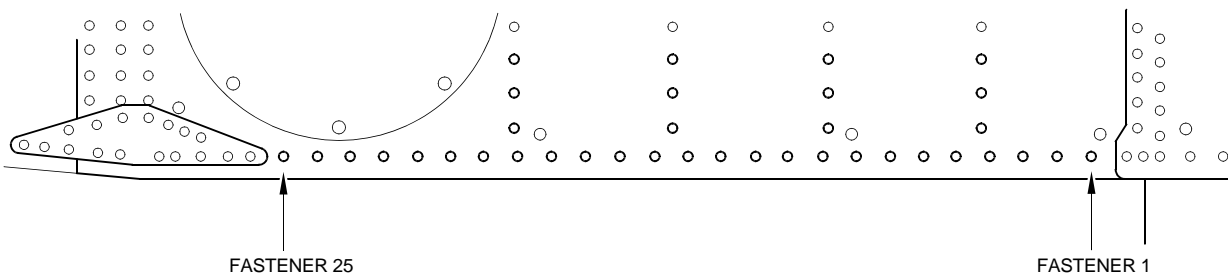
A

LH INNER-WING LOWER SKIN PANEL
 SHOW DAMAGED SKIN POSITIONS



A

RH INNER-WING LOWER SKIN PANEL
 SHOW DAMAGED SKIN POSITIONS



TECHNICIAN NAME:

SIGNATURE:

DATE:

Report Form
 Figure 3