

Service Bulletin No: 27-026

Ref No: 397

Modification No: EC-18-0242

ATA Chapter: 27

**FLIGHT CONTROLS - FLAP DRIVE SYSTEM - INSPECTION OF THE INBOARD FLAP FAIRINGS AFT AND THE FRONT INBOARD TENSION RODS****1. Planning Information****A. Effectivity**

PC-12/47E aircraft MSN 1819 thru 1843 and 1845 thru 1854 only.

**B. Concurrent Requirements**

None.

**C. Reason****(1) Issue**

Chafing can occur between the left or right Inboard Flap Fairing Aft (IFFA) (P/N 557.52.12.223 and 557.52.12.224) and the left or right front inboard tension rod (P/N 527.52.12.135).

**(2) Cause**

For the affected aircraft, IFFAs with an incorrect contour were possibly installed on new production aircraft. This could cause interference between the IFFAs and the tension rods due to incorrect clearance. No affected IFFAs were supplied to operators as spares.

**(3) Solution**

Do an inspection of the shape of the left and right IFFA contours and modify them if necessary. Examine the tension rods and replace them if there is chafing damage.

**D. Description**

This Service Bulletin gives the data and instructions to do an inspection of the IFFAs and to modify them if necessary. Templates for the modification of the IFFAs are supplied in Appendix A and B. It also gives the data and instructions to examine the tension rods and replace them if there is chafing damage.

**E. Compliance**

Mandatory.

To be incorporated not later than 100 flying hours or 6 months, whichever comes first after the issue date of this Service Bulletin.

**F. Approval**

The technical content of this document is approved under the authority of DOA No. EASA. 21J. 357.

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

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#### H. Manpower

Task	Man-hours Inspection Only	Man-hours Inspection and Rework IFFA	Man-hours Inspection, Rework IFFA and Replace Tension Rod
Preparation	0.2	0.2	0.2
Inspection	0.2	0.2	0.2
Modification	-	1.5	2.0
Close Up	0.1	0.1	0.1
<b>TOTAL MAN-HOURS</b>	<b>0.5</b>	<b>2.0</b>	<b>2.5</b>

**NOTE:** The man-hours above do not include drying/curing time for adhesives, paints or sealants.

#### I. Weight and Balance

No change.

#### J. Electrical Load Data

No change.

#### K. Software

No change.

**L. References**

Aircraft Maintenance Manual (AMM):

12-B-20-31-00-00A-070A-A    12-B-24-00-00-00A-901A-A    12-B-27-50-00-00A-903A-A  
12-B-27-51-01-00A-920A-A

**M. Publications Affected**

Not applicable.

**N. Interchangeability of Parts**

Not applicable.

**2. Material Information**

**A. Material - Price and Availability**

Operators that require additional information and/or Service Bulletin Material should contact their authorized Pilatus Service Center, or Pilatus Customer Support on [www.pilatus-aircraft.com](http://www.pilatus-aircraft.com) → contact us

**NOTE:** Part Numbers given in this Service Bulletin are correct at the time of approval. Pilatus Aircraft Ltd. reserves the right to change part numbers as necessary. Part numbers of items delivered are correct when dispatched. This could lead to differences between those part numbers quoted in this Service Bulletin and if parts are superseded. Operators are requested to check the IPD for delivered parts which differ from those listed in the Service Bulletin Materials List.

Operators are requested to advise Pilatus Aircraft Ltd of the Manufacturer’s Serial Number of aircraft which are affected by this Service Bulletin.

**B. Warranty**

Credit will be issued for parts and labor for all affected aircraft on approval of a warranty claim, provided:

- The work is accomplished by an authorized Service Center within 6 months from the issue date of this Service Bulletin.

**C. Material Necessary**

No modification kit is required.

**(1) Material to be Procured**

New Part No.	Description	Old Part No.	Qty	Disp. Code	Fig
527.52.12.135	TENSION ROD	527.52.12.135	AR	R	3

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

**D. Operator Supplied Materials (refer to AMM 12-B-20-31-00-00A-070A-A):**

Material No.	Description	Qty	Remarks
Local supply	Paint	AR	To suit exterior finish

**NOTE:** Refer to manufacturer’s instructions for drying times.

**E. Tooling - Cost and Availability**

None.

**3. Accomplishment Instructions - Aircraft****A. Preparation**

- (1) Energize the aircraft electrical system, refer to AMM 12-B-24-00-00-00A-901A-A.
- (2) Set the flaps to 40 degrees.
- (3) De-energize the aircraft electrical system, refer to AMM 12-B-24-00-00-00A-901A-A.
- (4) Open and install a safety clip (circuit breaker hold open) on these circuit breakers:
  - FLAP WARN 1 (ESSENTIAL BUS)
  - FLAP WARN 2 (GENERATOR 2 BUS).
- (5) Put a warning notice DO NOT OPERATE THE FLIGHT CONTROLS in the flight compartment.

**B. Inspection of the IFFAs**

Refer to Figure 2 and Figure 3.

- (1) Do an inspection of the left and right IFFA to determine if the contour is the correct shape:
  - Figure 2 shows the correct (non symmetrical) contours of the left and right IFFA
  - Figure 3 shows the incorrect (symmetrical) contours of the left and right IFFA.
- (2) If the left and right IFFAs each have the correct contours as shown in Figure 2, do step 3.D.Close Up.
- (3) If the left or the right IFFA has incorrect contours as shown in Figure 3, do step 3.C.Modification.

**C. Modification**

Refer to Figure 1.

- (1) Hold the IFFA [1] and remove the screws [2] and washers [3] that attach it. Remove the IFFA [1].

**CAUTION:** WHEN PRINTING THE TEMPLATE, DO NOT SCALE THE PRINT. AFTER THE TEMPLATE IS PRINTED, MEASURE THE RULER ON THE TEMPLATE TO MAKE SURE THAT THE SCALE IS CORRECT.

- (2) Print the template to **Actual Size**:
  - For A4 paper size, print the left and right IFFA templates in Appendix A
  - For US Letter paper size, print the left and right IFFA templates in Appendix B.

- (3) Carefully put the template in position on the IFFA [1].

**NOTE:** If necessary, use double-sided tape to hold the template.

- (4) Make marks on the IFFA [1] for the cut-out, as shown on the template.

- (5) Remove the template.
- (6) Carefully cut and remove the material from the IFFA [1].
- (7) Temporarily install the IFFA [1] with four screws [2] and washers [3] at the edges to hold it in position on the flap.
- (8) Measure the clearance between the tension rod and the IFFA [1]. Make sure that there is a minimum of 5 mm (0.2 in) clearance.
- (9) Hold the IFFA [1] and remove the four screws [2] and washers [3] that attach it. Remove the IFFA [1].
- (10) If the clearance between the tension rod and the IFFA [1] is less than 5 mm (0.2 in), rework the IFFA [1] as necessary.
- (11) Apply the necessary surface finish.
- (12) Examine the tension rods:

Refer to Figure 3.

**NOTE:** It is only necessary to examine the tension rod if the related IFFA [1] has been modified.

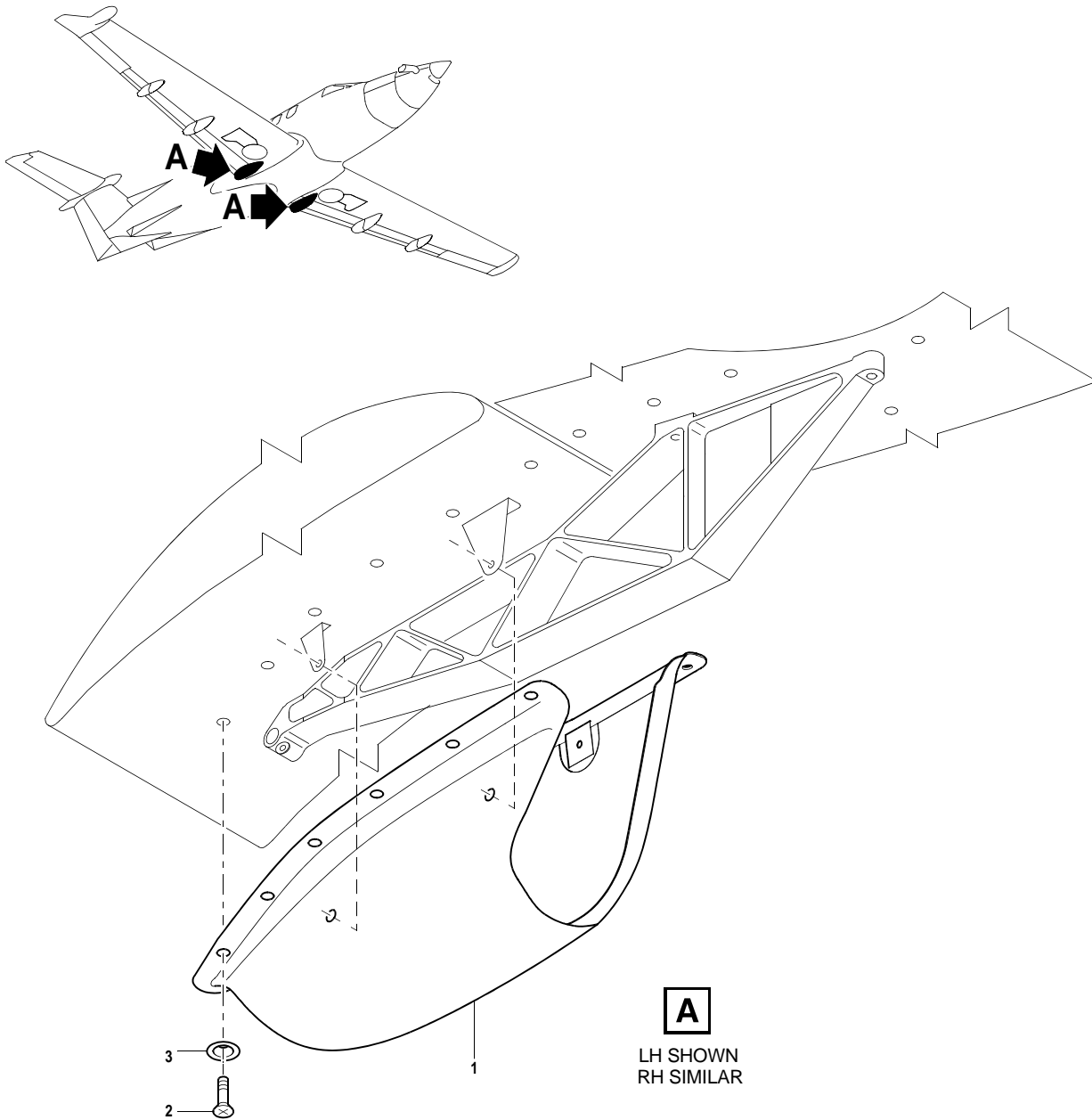
- (a) Examine the tension rod of the related left and/or right IFFA [1] for chafe damage.
  - (b) If chafe damage is found, replace the tension rod, refer to AMM 12-B-27-51-01-00A-920A-A.
- (13) Install the IFFA [1] with the screws [2] and washers [3].

#### **D. Close Up**

- (1) Make sure that the work area is clean and clear of tools and other items.
- (2) Remove the warning sign (DO NOT OPERATE THE FLIGHT CONTROLS) from the flight compartment.
- (3) Remove the safety clips and close these circuit breakers:
  - FLAP WARN 1 (ESSENTIAL BUS)
  - FLAP WARN 2 (GENERATOR 2 BUS).
- (4) Energize the aircraft electrical system, refer to AMM 12-B-24-00-00-00A-901A-A.
- (5) Set the flaps to 0 degrees.
- (6) De-energize the aircraft electrical system, refer to AMM 12-B-24-00-00-00A-901A-A.
- (7) If a tension rod was replaced, do the adjustment/test of the flaps, refer to AMM 12-B-27-50-00-00A-903A-A.

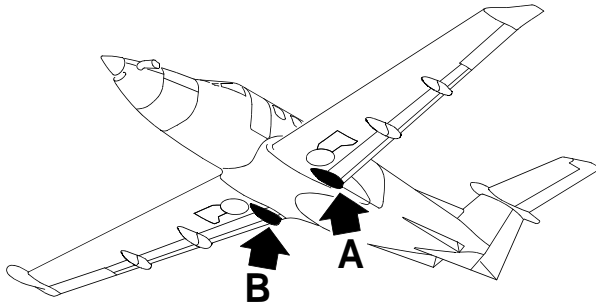
**E. Documentation**

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



Inboard Flap Fairing Aft - Removal/Installation  
Figure 1





**B**

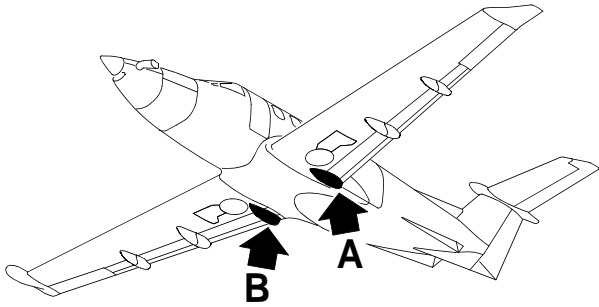
CORRECT CONTOUR  
RIGHT IFFA



**A**

CORRECT CONTOUR  
LEFT IFFA

Correct Contours - Inboard Flap Fairing Aft  
Figure 2



**B**

INCORRECT CONTOUR  
RIGHT IFFA



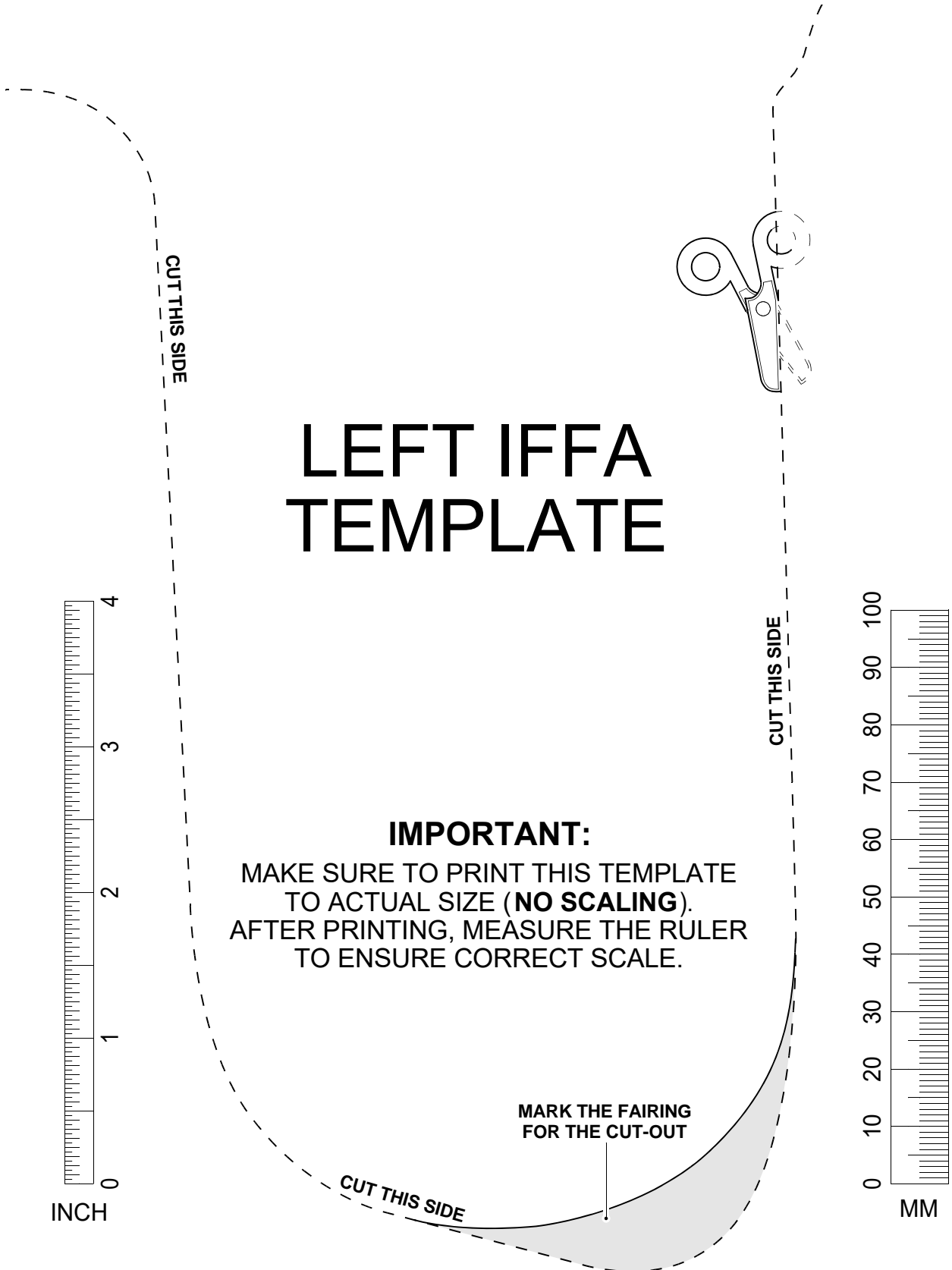
**A**

INCORRECT CONTOUR  
LEFT IFFA

Incorrect Contours - Inboard Flap Fairing Aft  
Figure 3

SB3353

APPENDIX A  
A4 TEMPLATE - LEFT IFFA



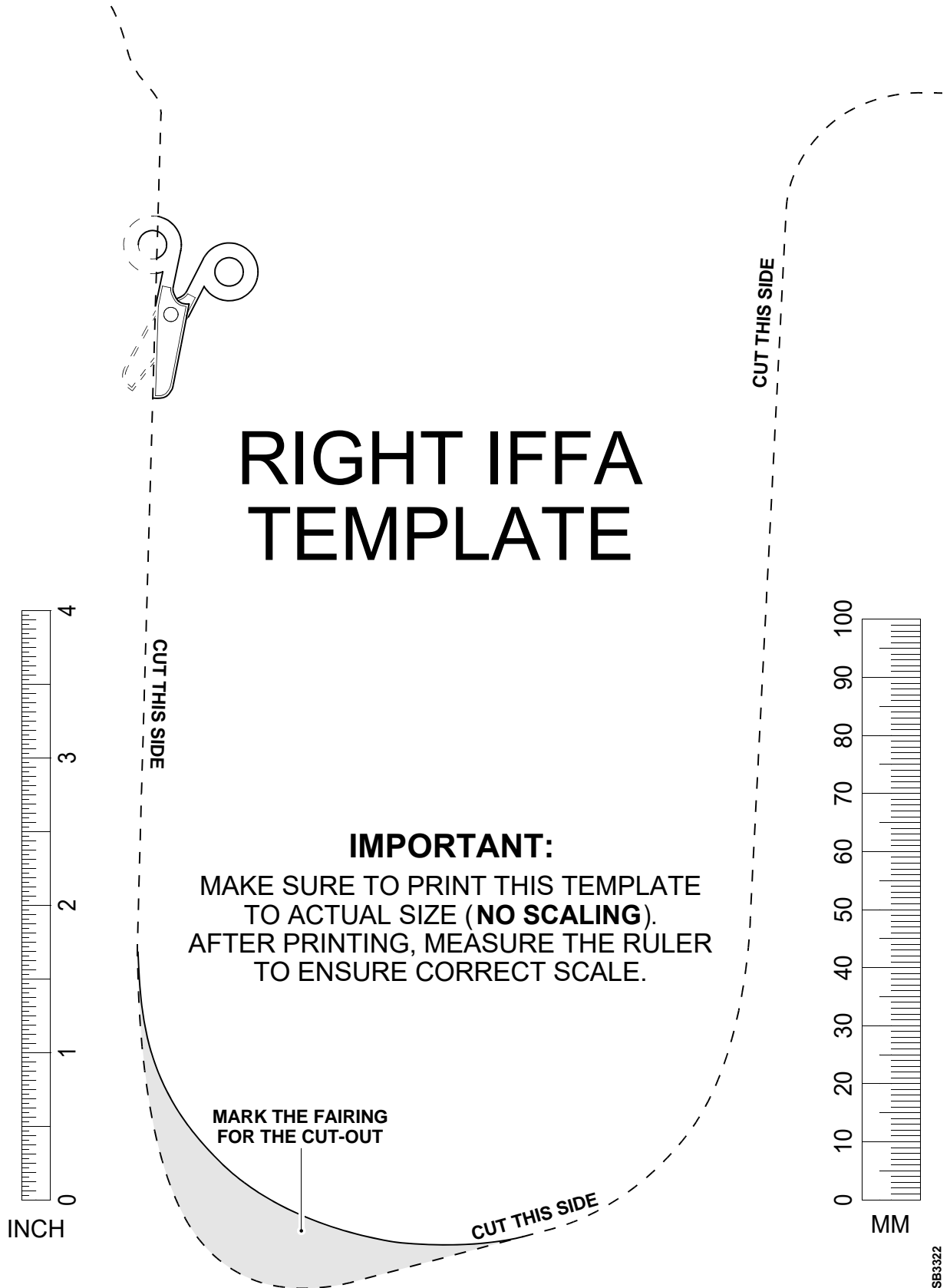
# LEFT IFFA TEMPLATE

**IMPORTANT:**  
MAKE SURE TO PRINT THIS TEMPLATE  
TO ACTUAL SIZE (**NO SCALING**).  
AFTER PRINTING, MEASURE THE RULER  
TO ENSURE CORRECT SCALE.

MARK THE FAIRING  
FOR THE CUT-OUT

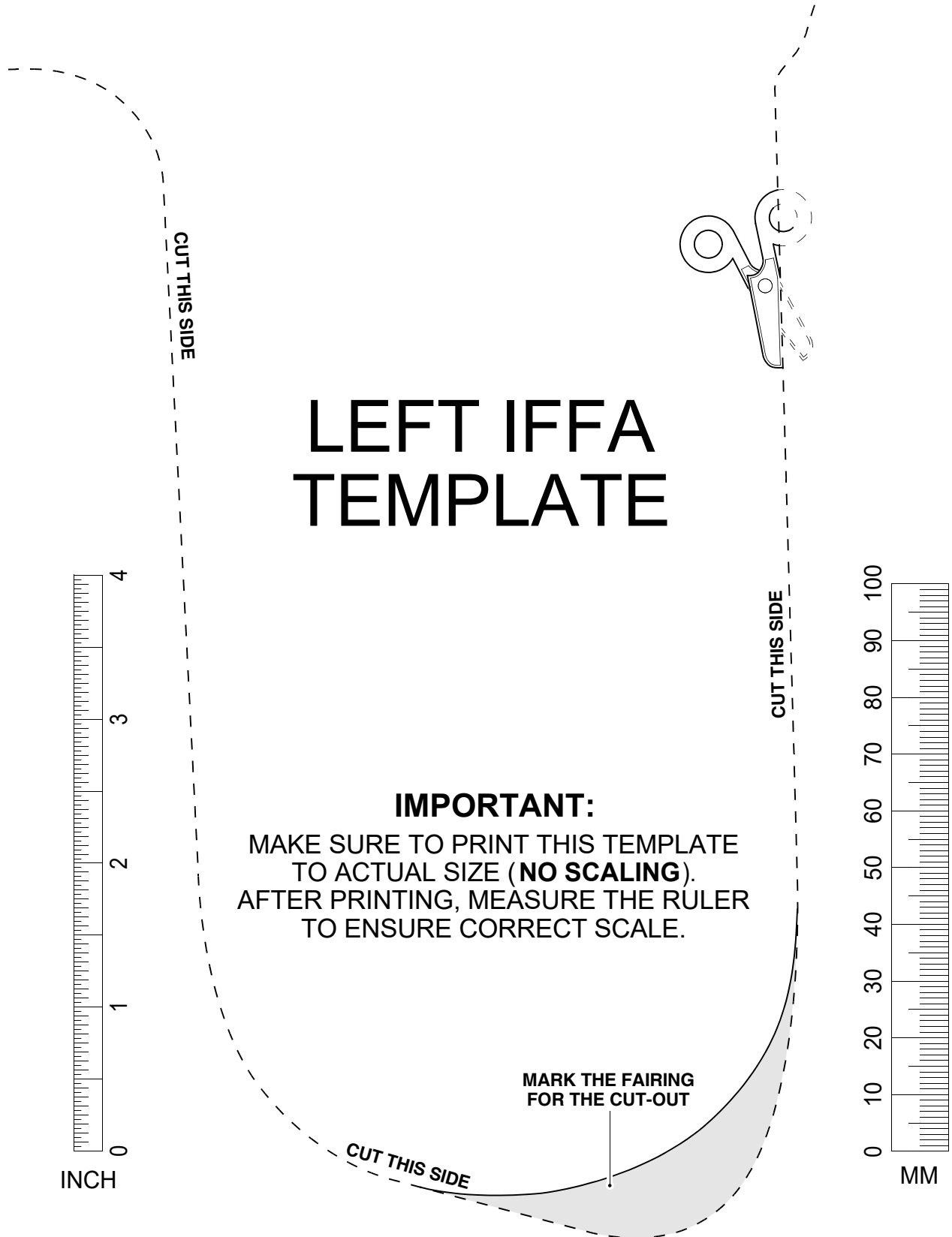


APPENDIX A  
A4 TEMPLATE - RIGHT IFFA





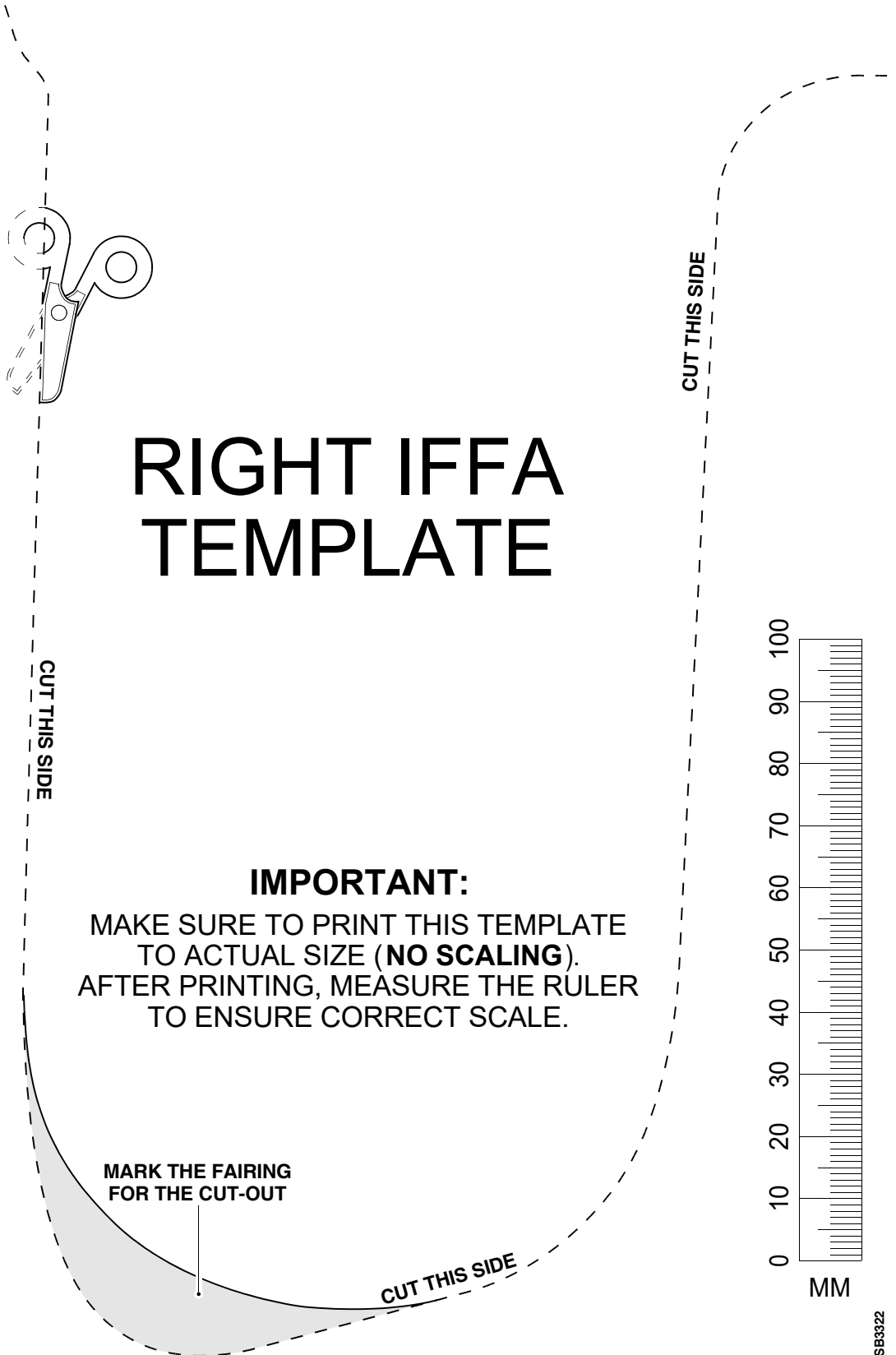
APPENDIX B  
US LETTER TEMPLATE - LEFT IFFA







APPENDIX B  
US LETTER TEMPLATE - RIGHT IFFA



# RIGHT IFFA TEMPLATE

**IMPORTANT:**

MAKE SURE TO PRINT THIS TEMPLATE  
TO ACTUAL SIZE (**NO SCALING**).  
AFTER PRINTING, MEASURE THE RULER  
TO ENSURE CORRECT SCALE.

MARK THE FAIRING  
FOR THE CUT-OUT

