

Service Bulletin No: 57-007

Ref No: 340

Modification No: EC-15-0630

ATA Chapter: 57

**WINGS - WING-TO-FUSELAGE ATTACHMENTS
CORRECT INSTALLATION OF TORLON PLATES****1. Planning Information****A. Effectivity**

All PC-12, PC-12/45, PC-12/47 and PC-12/47E aircraft which have had a wing removed between June 2007 and May 2014.

B. Concurrent Requirements

None.

C. Reason**(1) Problem**

Several aircraft have been found to have the torlon plates incorrectly installed in the forward lower wing-to-fuselage attachment.

(2) Cause

Incorrect sequence of torlon plates in the forward lower wing-to-fuselage attachment.

(3) Solution

Inspect and if necessary remove and install the torlon plates in the correct sequence.

D. Description

This Service Bulletin gives the data and instructions necessary to inspect the installation of the torlon plates in the wing-to-fuselage attachment fittings, and if necessary, install them in the correct sequence.

E. Compliance

Mandatory. To be carried out at the next Annual Inspection.

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 (for one wing)
Preparation	0.75
Modification	1.75
Close up	0.5
TOTAL MAN-HOURS	3.0

I. Weight and Balance**(1) Weight Change**

None.

(2) Moment Change

None.

J. Electrical Load Data

None.

K. Software

None.

L. References

NOTE: Throughout this Service Bulletin AMM references are given without the model prefix.
For PC-12, PC-12/45 and PC-12/47 aircraft, prefix references with 12-A.
For PC-12/47E aircraft, prefix references with 12-B.

Aircraft Maintenance Manual (AMM)

06-20-00-00A-040A-A

07-10-00-00A-901A-A

20-31-00-00A-070A-A

57-00-00-00A-520A-A

57-00-00-00A-520B-A

57-00-00-00A-720A-A

57-00-00-00A-720B-A

M. Publications Affected

None.

N. Interchangeability of Parts

Not applicable.

2. Material Information**A. Material - Price and Availability**

If you want more information about this modification, contact your approved Service Center or:

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CH-6371 STANS
SWITZERLAND

General Aviation:
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eMail: SupportPC12@pilatus.com.au

Operators are requested to advise Pilatus Aircraft Ltd, of the Manufacturer's Serial Number (MSN) and the flying hours of aircraft which are affected by this Service Bulletin.

Modification Kit Number	Price	Availability
500.50.12.357	Contact address above	3 months lead time

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 IPC for delivered parts which differ from those listed in the Service Bulletin Materials Kit List.

B. Warranty

The inspection of the affected aircraft is considered to be part of the Annual Inspection and therefore cannot be claimed.

Credit will be issued for parts and labor for all affected aircraft found with an incorrect sequence of torlon plates, on approval of a warranty claim, provided the work is accomplished by an authorised Service Center within 13 months of the issue date of this Service Bulletin.

C. Material Necessary**(1) Material to be ordered**

Modification Kit Number 500.50.12.357 (for one wing). If two wings are affected, order two kits.

New Part No.	Description	Old Part No.	Qty*	Disp. Code	Fig	Item
557.10.12.055	BOLT, TENSION	-	1	D	1	1
938.09.14.306	NUT	-	1	D	1	6
			*Quantity is for one wing			

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

D. Operator Supplied Materials (Refer to AMM 20-31-00-00A-070A-A):

Material No.	Description	Qty	Remarks
P01-010	MEK	A/R	Or equivalent
P02-001	LOCKWIRE 0,8 mm	A/R	-
P02-031	ABSORBENT PAPER	A/R	Or equivalent
P04-029	GREASE	A/R	Or equivalent
P04-039	CORROSION PREVENTIVE	A/R	Or equivalent

E. Tooling - Cost and Availability

None.

3. Accomplishment Instructions**A. Preparation**

- (1) Remove access panels 12AL, 12DL, 12EL, 12AR, 12DR and 12ER (if not already removed for Annual Inspection), refer to AMM 06-20-00-00A-040A-A.

B. Inspection

Refer to Figure 1.

- (1) Inspect the sequence of torlon plates in the left and the right wing lower main spar to fuselage attachment. The sequence of torlon plates in the lower joint from forward to aft must be thin, thick, thin, thick.

NOTE: The thin torlon plates are 2,0 mm thickness, the thick torlon plates are 4,0 mm thickness.

- (2) If the torlon plates are installed in the correct sequence, do Para D. Close Up.
- (3) If you find that the torlon plates are installed in the incorrect sequence, do Para C. Rectification.

C. Rectification

Refer to Figure 1.

- (1) Make a sling (local manufacture) to go around the torlon plates in the wing-to-fuselage attachment. The sling may be made from strong cord or nylon webbing or 0,8 mm lockwire (Mat. No. P02-001). Make sure that the thickness of the sling is such that:
 - It can be moved easily between the lugs of the wing and fuselage fitting
 - It cannot move between the torlon plate and the face of a lug.
- (2) Use a flat-bladed screwdriver (recommended PB size 5) and cover the blade with shrink sleeve.
- (3) Raise the aircraft on jacks, refer to AMM 07-10-00-00A-901A-A.
- (4) Refer to AMM 57-00-00-00A-520A-A (aircraft with hydraulic landing gear) or 57-00-00-00A-520B-A (aircraft with electro mechanical landing gear) and make a wooden block (local manufacture) to support the left wing at the wing mooring point.
- (5) Refer to AMM 57-00-00-00A-520A-A (aircraft with hydraulic landing gear) or 57-00-00-00A-520B-A (aircraft with electro mechanical landing gear) and put a hydraulic jack with the support and wooden block at the mooring point on the left wing.
- (6) Adjust the hydraulic jack to hold the weight of the left wing.
- (7) Refer to AMM 57-00-00-00A-520A-A (aircraft with hydraulic landing gear) or 57-00-00-00A-520B-A (aircraft with electro mechanical landing gear) and Figure 1. At the forward lower wing-to-fuselage attachment remove the nut (6), the washers (2 and 3), the tension bolt (1) and the long bolt (5).

CAUTION: TAKE CARE NOT TO DAMAGE THE LUGS (4) WHEN YOU DO STEPS (9) AND (10). IF YOU HAVE DOUBTS OR UNCERTAINTY ABOUT THIS PROCEDURE, CONTACT PILATUS AIRCRAFT LTD.

NOTE: Two persons are required for steps (8), (9) and (10).

- (8) Put the sling (local manufacture) between the forward lug of the wing fitting and the forward lug of the fuselage fitting.
- (9) Carefully push the protected flat-bladed screwdriver between the forward lug of the wing fitting and the forward lug of the fuselage fitting. Use only slight to moderate force and try to force the lugs apart. Make sure that you do not damage the fitting lugs.
- (10) Use pliers and pull the sling downwards to slide the torlon plate (8) out of the attachment fittings (this may take significant hand force).
- (11) Do steps (8) thru (10) again to remove the other torlon plates from the attachment joint. It may not be necessary to use screwdriver to remove the other torlon plates.
- (12) If necessary, use absorbent paper (Mat. No. P02-039) made moist with MEK (Mat. No. P01-010) to clean the faces of the lugs.
- (13) Use a mirror and light source (if necessary) to inspect the faces of each lug. The lugs must not have damage. If you find damage, contact Pilatus Aircraft Ltd.
- (14) Examine the torlon plates (7 and 8). If the torlon plates are not damaged they can be re-used.
- (15) Refer to AMM 57-00-00-00A-720A-A (aircraft with hydraulic landing gear) or 57-00-00-00A-720B-A (aircraft with electro mechanical landing gear) and Figure 1. Install the forward lower long bolt and the torlon plates in the wing-to-fuselage attachment. Make sure the torlon plates are installed in the correct sequence.

NOTE: Use a new tension bolt (1) (P/N 557.10.12.055) and nut (6) (P/N 938.09.14.306) when you install the forward bottom long bolt (5).

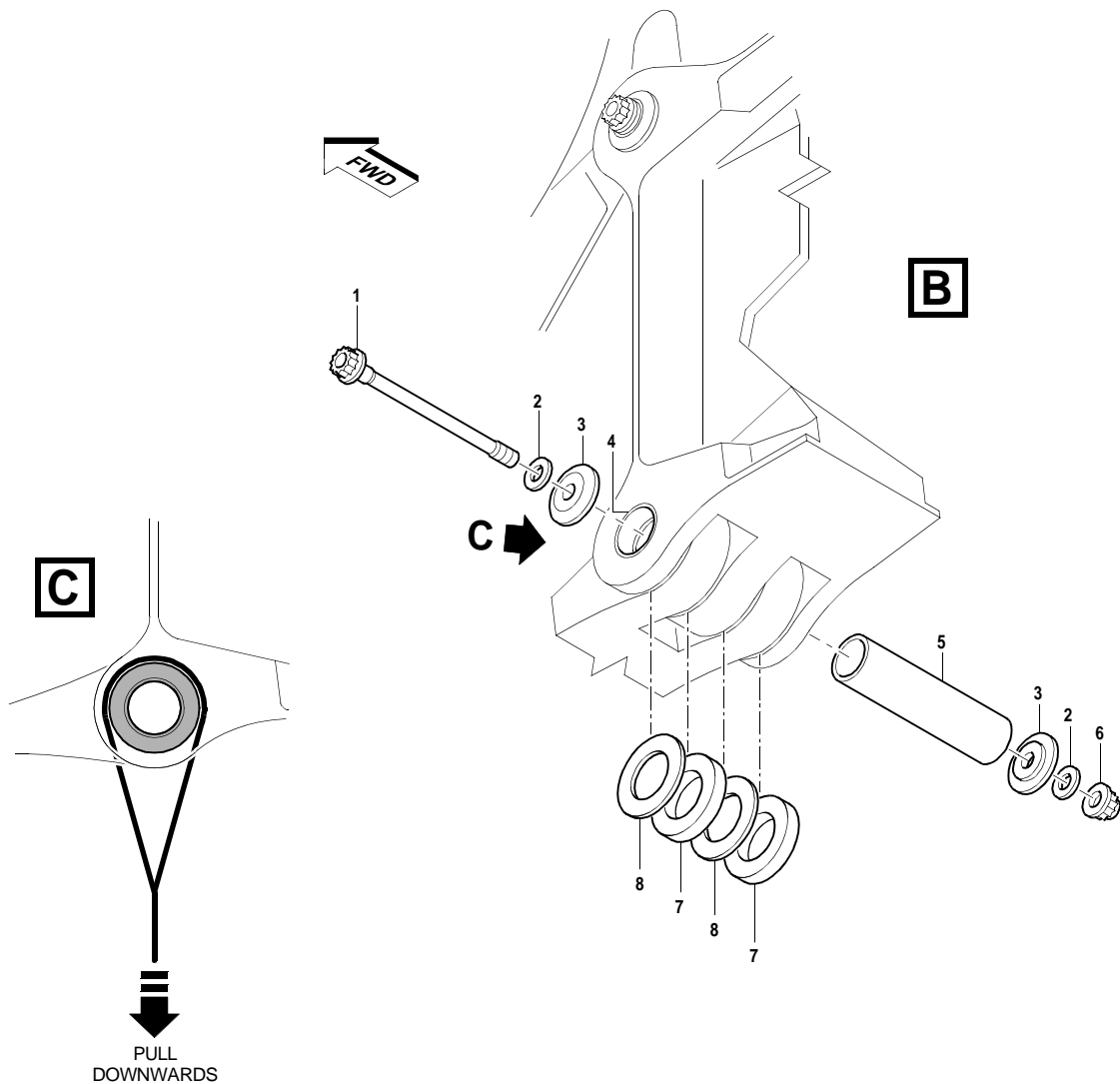
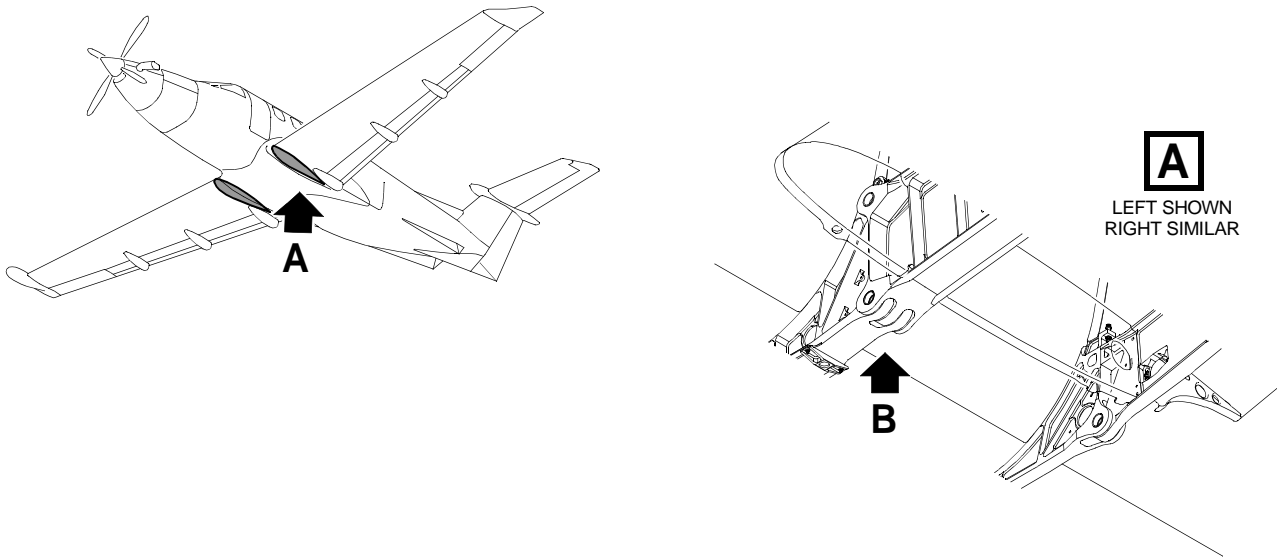
- (16) Remove unwanted corrosion preventive from the wing and fuselage fittings.
- (17) Do steps (4) thru (16) again for the right wing lower forward wing-to-fuselage attachment.
- (18) Lower the aircraft off jacks.
- (19) Do Para D. Close Up.

D. Close Up

- (1) Install access panels 12AL, 12DL, 12EL, 12AR, 12DR and 12ER (if not required to be removed for Annual Inspection), refer to AMM 06-20-00-00A-040A-A.

E. Documentation

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



Forward Lower Wing-to-Fuselage Attachment
Figure 1

SB2864