

Service Bulletin No: 21-012

Ref No: 165

Modification No: EC-14-0359

ATA Chapter: 21

AIR CONDITIONING - COOLING**INSTALL A COVER ASSEMBLY TO THE COMPRESSOR TO PROTECT TO THE ENGINE OIL HOSE****1. Planning Information****A. Effectivity**

MSN 101 thru 607, Pre Service Bulletin 21-006.

B. Concurrent Requirements

None.

C. Reason**(1) Problem**

On PC-7 aircraft that are pre Service Bulletin 21-006, the oil cooler inlet-hose is routed close to the air conditioning compressor clutch plate. If a spring on the compressor clutch plate shears, the oil hose can become damaged and the engine oil can spill into the engine bay.

(2) Solution

Install a cover assy which will be mounted on the attachment points of the compressor. This will provide a barrier between the compressor clutch plate and the oil hose. The shield can be mounted on the compressor support bracket with the current bolts.

D. Description

This Service Bulletin gives the data and instructions necessary to install a cover assy (between the compressor clutch plate and the oil hose) to protect the oil hose.

E. Compliance

Mandatory.

Accomplishment required not later than 120 days after the effective date of this Service Bulletin.

F. Approval

The technical content of this Service Bulletin is approved under the authority of Letter of DOA Acceptance ref. FOCA.21J.002.

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

G. Copyright Information

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H. Manpower

| | Total | Total |
|---|--------------|--------------|
| Preparation | 1.0 | 1.0 |
| Installation of the Cover Assy | 0.5 | 0.5 |
| Close up | 1.5 | |
| Close up (including, if necessary, to evacuate and charge the cooling system) | | 4.5 |
| TOTAL MAN-HOURS | 3.0 | 6.0 |

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

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

Negligible.

(2) Moment Change

Negligible.

J. Electrical Load Data

Not changed.

K. Software

Not changed.

L. References

Aircraft Maintenance Manual (AMM): 12-00-00, 20-31-00, 21-50-00.

M. Publications Affected

Aircraft Parts Catalog (IPC): 21-10-01.

N. Interchangeability of Parts

Not applicable.

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

Operators who require further information on Price and Availability should contact their Customer Liaison Manager at:

Pilatus Aircraft Ltd,
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 which are allocated for this Service Bulletin using the Service Bulletin Evaluation Form.

| Modification Kit Number | Price | Availability |
|--------------------------------|-----------------------|-----------------------|
| 500.50.07.045 | Contact address above | Contact address above |

B. Material Necessary for Each Aircraft**(1) Material to be Procured**

Modification Kit No. 500.50.07.045 has these parts:

| NEW PART NO. | DESCRIPTION | OLD PART NO. | QTY | DISP. CODE | FIG | ITEM |
|---------------------|--------------------|---------------------|------------|-------------------|------------|-------------|
| 938.75.11.311 | WASHER | | 1 | - | 1 | 1 |
| 938.77.11.110 | WASHER | | 1 | - | 1 | 5 |
| 521.50.07.022 | COVER ASSY | | 1 | - | 1 | 11 |
| 971.32.51.105 | CABLE TIE | | 2 | - | 1 | 12 |

NOTE: Part Numbers given in this Service Bulletin are correct at the time of approval. Pilatus Aircraft Ltd. reserves the right to change the part numbers as necessary. Part numbers of items delivered with the Modification Kit are correct when the kit is dispatched. This could lead to differences between those part numbers quoted in this Service Bulletin and the Modification Kit 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.

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

| MATERIAL NO. | DESCRIPTION | QTY | REMARKS |
|---------------------|--------------------|------------|----------------|
| P01-010 | SOLVENT | A/R | Or equivalent |
| P02-013 | ABRASIVE CLOTH | A/R | Or equivalent |
| P02-014 | ABRASIVE CLOTH | A/R | Or equivalent |
| P02-031 | ABSORBENT PAPER | A/R | Or equivalent |
| P07-021 | ALODINE 1132 | A/R | Or equivalent |
| P10-013 | DINITROL AV40 | A/R | Or equivalent |

C. Material Necessary for Each Spare

Not applicable.

D. Re-identified Parts

None.

E. Tooling - Cost and Availability

Not applicable.

3. Accomplishment Instructions

WARNING: BEFORE YOU DO WORK ON THE COOLING SYSTEM, MAKE SURE YOU OBEY THE SAFETY PRECAUTIONS LISTED IN THE AMM, 21-50-00, PAGE BLOCK 201).

WARNING: BE CAREFUL WHEN YOU USE THE CONSUMABLE MATERIALS. OBEY THE MANUFACTURERS HEALTH AND SAFETY INSTRUCTIONS.

NOTE: Obey the manufacturer's instructions when you mix and use the consumable materials.

A. Preparation

- (1) Open and install a safety clip to the circuit breaker:

COOLING SYSTEM.

- (2) Open the access panel ENG 3L (Ref. AMM, 12-00-00, Page Block 1).

B. Installation of the Cover Assy (Ref. Fig. 1)

- (1) Remove, and keep, the bolt (3), the spring washer (2) and, if installed, the washer (1).
- (2) Remove, and keep, the nut (9), the washer (10), the ground lead (7) and the screw (6).

NOTE: On Pre Service Bulletin installations, the ground lead (7) is installed on the aft face of the plate (4) (opposite to that shown in Figure 1). The washer (5) is not installed.

- (3) Prepare the plate (4) for the new position of the ground lead (7):
 - (a) Make a circular mark on the forward face of the plate around the lower attachment hole, approximately 10 mm from the edge of the hole.
 - (b) Use the abrasive cloth (Material No. P02-013 and P02-014) to remove the paint and primer to get bare metal in the area you marked.
 - (c) Clean the bare metal area with the solvent (Material No. P01-010) and absorbent paper (Material No. P02-031).
 - (d) Apply layers of the Alodine 1132 (Material No. P07-021) on the bare metal area and allow to dry.
- (4) Put the cable ties (12) through the holes in the cover assy (11) (P/N 521.50.07.022).
- (5) Put the cover assy (11) (P/N 521.50.07.022) in position on the aft face of the plate (4) and around the pulleys (8).
- (6) Put the spring washer (2) and, if necessary, the new washer (1) (P/N 938.75.11.311) on the bolt (3).
- (7) Loosely install the bolt (3), complete with the spring washer (2) and the washer (1).
- (8) Put the ground lead (7) and the washer (5) (P/N 938.77.11.110) on the screw (6).

NOTE: On Post Service Bulletin installations, the ground lead (7) is installed on the forward face of the plate (4) (as shown in Figure 1).

- (9) Install the screw (6), complete with the ground lead (7) and the washer (5) (P/N 938.77.11.110), the washer (10) and the nut (9).
- (10) Tighten the bolt (3).
- (11) Make sure there is no interference between the pulleys (8) and the new cover assy (11) (P/N 521.50.07.022).
- (12) Use the cable ties (12) to attach the cables (13) to the cover assy (11) (P/N 521.50.07.022).
- (13) Apply a layer of Dinitrol AV40 (Material No. P10-013) to completely cover:
 - The screw (6)
 - The washer (5) (P/N 938.77.11.110)
 - The ground lead (7)
 - The bare metal of the plate (4)
 - The washer (10)
 - The nut (9).

C. Job Close-Up

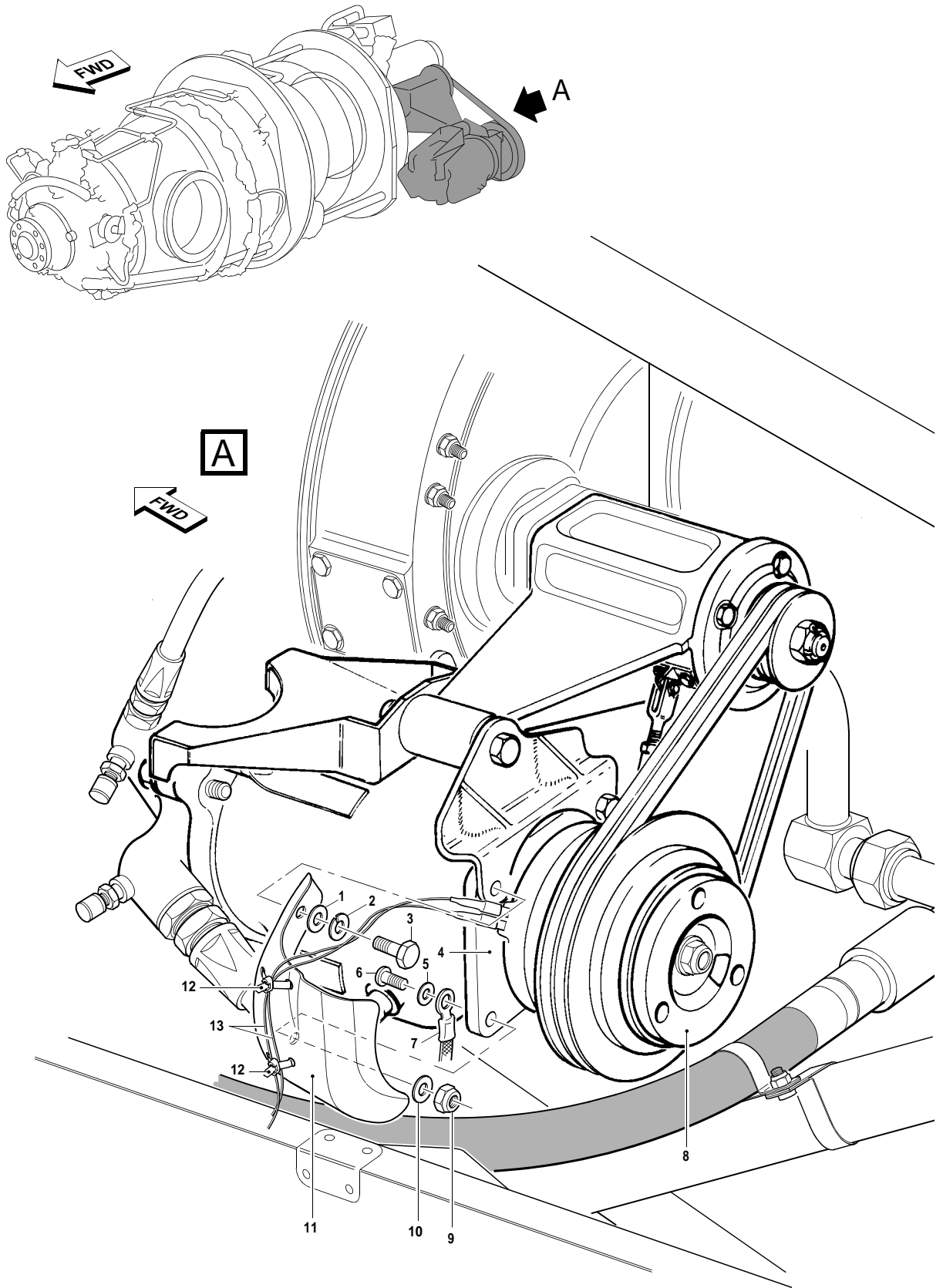
- (1) Remove all equipment, materials and tools from the work area. Make sure that the work area is clean.
- (2) Close the access panel ENG 3L (Ref. AMM, 12-00-00, Page Block 1).
- (3) Remove the safety clip and close the circuit breaker:

COOLING SYSTEM.

- (4) If necessary, evacuate and charge the cooling system (Ref. AMM, 21-50-00, Page Block 301).
- (5) Do a test of the cooling system (Ref. AMM, 21-50-00, Page Block 501). During the system test, set the COOL switch to ON and OFF approximately 15 times at three second intervals.

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.



Installation of the Cover Assy
Figure 1

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| SERVICE BULLETIN EVALUATION SHEET FOR SB No. 21-012 | | | |
|---|--|--------------------------|----------------------------|
| Title | Air Conditioning - Cooling Install a Cover Assembly to the Compressor to Protect to the Engine Oil Hose | | |
| Customer | | | |
| Service Center | | | |
| EMBODIMENT REPORTING | | | |
| This SB has been embodied: | | <input type="checkbox"/> | On the entire fleet |
| | | <input type="checkbox"/> | 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 (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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