

Service Bulletin No: 71-005
Modification No: INSPECTION

Ref No: 50
ATA Chapter: 71

POWER PLANT - GENERAL

DO A CHECK OF THE BATCH NO. OF THE SHOCK MOUNTING BOLTS AND REPLACE, IF NECESSARY

1. Planning Information**A. Effectivity**

MSN 101 thru MSN 127.

All shock mount bolts (P/N 571.20.21.066) with a batch number of 415196.

B. Concurrent Requirements

None.

C. Reason**(1) Problem**

An Operator has reported that during an unscheduled engine removal on one of his aircraft, one of the shock mount bolts (P/N 571.20.21.066) had lost the cadmium plating at some locations. The bolt has been traced to a certain batch and are manufactured with a vacuum plating process.

(2) Solution

Replace the shock mount bolts (P/N 571.20.21.066) with bolts from a known good batch.

D. Description

This Service Bulletin gives the data and instructions necessary to:

- Do an inspection of the batch number of the shock mount bolts
- Replace the shock mount bolts on affected aircraft.

E. Compliance

Mandatory.

Pilatus recommends that this Service Bulletin is carried out at the next planned annual inspection but not later than 12 months 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 local Airworthiness Authorities for any changes, local regulations or sanctions that may affect the embodiment of this Service Bulletin.

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H. Manpower

	Total On Aircraft	Total In Stores
Preparation	1.25	-
Inspection of batch number of the bolts	0.25	0.25
Replacement of the bolts	2.00	0.25
Close up	0.75	-
Engine ground run	1.50	-
TOTAL MAN-HOURS	5.75	0.50

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, 71-00-00-00A-012A-A, 71-00-00-00A-369E-A, 71-00-00-00A-520A-A, 71-00-00-00A-525A-A, 71-00-00-00A-720A-A.

M. Publications Affected

None.

N. Interchangeability of Parts

All shock mount bolts (P/N 571.20.21.066) with a batch number of 415196 must not be installed on aircraft.

2. Material Information
A. Material - Price and Availability

Operators who require more information should contact:

PILATUS AIRCRAFT LTD,
 MANAGER, INTEGRATED LOGISTIC SUPPORT
 CH 6371 STANS, Tel: +41 41 619 66 30
 SWITZERLAND Fax: +41 41 610 33 51

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
500.50.21.047	Contact address above	Contact address above

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

Modification Kit No. 500.50.21.047 has these parts:

NEW PART NO.	DESCRIPTION	OLD PART NO.	QTY	DISP. CODE	FIG. NO.	ITEM NO.
571.20.21.066	BOLT	571.20.21.066	5	R	1	1
938.09.14.308	NUT	938.09.14.308	5	D	1	3
938.75.11.105	WASHER	938.75.11.105	5	D	1	2

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

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

MATERIAL NO.	DESCRIPTION	QTY	REMARKS
P01-010	SOLVENT	A/R	
P02-031	ABSORBENT PAPER	A/R	
P04-004	GREASE	A/R	
	SOFT BRISTLED BRUSH	A/R	LOCAL SUPPLY - 12.7 mm (0.5 in.) DIAMETER

C. Material Necessary for Each Spare

None.

D. Re-identified Parts

None.

E. Tools and Equipment:

None.

3. Accomplishment Instructions**A. Preparation**

Before you do work on the power plant, you must do the safety procedures shown in the AMM, 71-00-00-00A-012A-A.

B. Do An Inspection of the Shock Mount Bolts (Ref. Fig. 1)

Look on the head of each of the five bolts (1).

- (1) If the batch number on the one or more bolts is 415196, continue with the Service Bulletin from Para. 3.C. for the bolts with a batch number of 415196.
- (2) If none of the bolts (1) have the batch number 415196, continue with the Service Bulletin from Para. 3.D(7).

C. Replacement of the Shock Mount Bolts (Ref. Fig. 1)

WARNING: TO PREVENT INJURY TO PERSONS, YOU MUST ONLY REMOVE ONE BOLT AT A TIME.

CAUTION: TO PREVENT DAMAGE TO THE ENGINE MOUNTINGS, YOU MUST ONLY REMOVE ONE BOLT AT A TIME.

CAUTION: TO PREVENT DAMAGE TO THE ENGINE MOUNTINGS, DO NOT ALLOW PEOPLE TO CLIMB ON THE AIRCRAFT WHEN A BOLT IS REMOVED.

CAUTION: READ AND OBEY THE MANUFACTURERS HEALTH INSTRUCTIONS BEFORE YOU USE THE CONSUMABLE MATERIALS.

- (1) Put the hydraulic jack P/N 968.85.81.219 in position on the tail.

NOTE: For the location of the access items, refer to AMM, 06-40-00-00A-055A-A.

- (2) Remove the access panels ENG 02, ENG 03 and ENG 04.
- (3) Remove the access panels ENG 05, ENG 06 and the ECS pipes (Ref. AMM, 71-00-00-00A-520A-A for more information).
- (4) Remove the P3 pipe and its lagging to get access to the nuts for bolts 2 and 3.
- (5) Connect the sling (P/N 968.20.17.901) to a hoist with a minimum SWL of 500 KG (1100 lbs).
- (6) Connect the sling to the engine (Ref. Pratt and Whitney Canada PT6A-68B Maintenance Manual, Chapter 72-00-00.)
- (7) Adjust the lifting eye until the position of the lifting cable is approximately 15 cm (5.9 in.) in front of the main engine mounting frame.

NOTE: This position is approximately the center of gravity of the engine and propeller assembly.

- (8) Operate the hoist until it takes the weight of the engine.

- (9) Make a mark with a permanent marker to show the “twelve o'clock” position of the bolt head.
- (10) Loosen the nuts (3) on all the affected bolts (1).
- (11) Adjust the position of the lifting eye (with the sling adjustment mechanism) until it is possible to rotate all the affected bolts (1) with your fingers.

NOTE: If the bolt will not move with finger pressure, you can apply a small force with a spanner or a wrench to start the movement of the bolt.

- (12) Remove an affected bolt number:
 - (a) Remove the nut (3).
 - (b) Remove the bolt (1) and the washer (2).
 - (c) Discard the nut (3) and the washer (2).
 - (d) Attach a label to the bolt (1) and on the label, write:
 - The serial number of the aircraft
 - The total flying hours
 - The bolt position number.
- (13) Measure the run-down torque of the new nut and bolt:
 - (a) Get one new nut (3) (P/N 938.09.14.308) and one new bolt (1) (P/N 571.20.21.066).
 - (b) Put the new nut (3) (P/N 938.09.14.308) on the new bolt (1) (P/N 571.20.21.066).
 - (c) Turn the new nut (3) (P/N 938.09.14.308) with your fingers as far as possible.
 - (d) Continue to turn the new nut (3) (P/N 938.09.14.308) with a torque wrench and measure the torque necessary to turn the new nut (3) (P/N 938.09.14.308).
 - (e) This is known as the “run-down torque”.
 - (f) Make a note of this run-down torque for the bolt number.
- (14) Install a new bolt:
 - (a) Clean the hole for the new bolt (1) (P/N 571.20.21.066) with the soft bristled brush and the solvent (Material No. P01-010).

WARNING: DO NOT POINT A COMPRESSED GAS OUTLET AT YOUR BODY, OR AT OTHER PERSONS. THE COMPRESSED GAS CAN CAUSE AN INJURY TO PERSONS.

- (b) Dry the hole for the new bolt (1) (P/N 571.20.21.066) with compressed dry air.

CAUTION: MAKE SURE THE CHAMFERED FACE OF THE WASHER (2) (P/N 938.77.11.105) IS AGAINST THE BOTTOM OF THE NEW BOLT HEAD (1) (P/N 571.20.21.066).

- (c) Put the new washer (2) (P/N 938.77.11.105) on the new bolt (1) (P/N 571.20.21.066).
 - (d) Apply a layer of grease (Material No. P04-004) to the shank of the new bolt (1) (P/N 571.20.21.066).
 - (e) Use a mirror to make sure the holes in the shock mount and the engine mount frame align.
 - (f) When the hole for the bolt is dry, install the new bolt (1) (P/N 571.20.21.066).
- NOTE:** If necessary, apply a small force on the propeller hub and/or the exhaust stubs to make it easier to install the bolt with your fingers.
- (g) Make sure there is no grease (Material No. P04-004) on the threads of the new bolt (1) (P/N 571.20.21.066).
 - (h) If necessary, remove the grease (Material No. P04-004) with absorbent paper (Material No. P02-031) made moist with the solvent (Material No. P01-010).
 - (i) Install the new nut (3) (P/N 938.09.14.308) with your fingers as far as possible.
- (15) Do Para 3.C.(11) thru (14) for the remaining affected bolts but do not remove more than one bolt (1) at a time.
- (16) Torque the attachment nut:
- (a) Add the run-down torque you noted at Para 3.C.(12)(f) to 92.5 Nm (819 lb.in.).
 - (b) Torque the new nut (3) (P/N 938.09.14.308) to the torque calculated in Para. 3.C.(16)(a) \pm 2.5 Nm (22 lb.in.).

D. Close up

- (1) Send all the affected bolts to:
- Pilatus Aircraft LTD,
Structural Engineering, Trainer Aircraft (ETE),
P.O. BOX 992,
6371 Stans, Switzerland
- (2) Remove all tools and materials. Make sure the work areas are clean.
 - (3) Remove the engine sling.
 - (4) Install the P3 pipe and its lagging.
 - (5) Install the access panels ENG 05, ENG 06 and the ECS pipes (Ref. AMM, 71-00-00-00A-720A-A for more information).
 - (6) Install the access panels ENG 02, ENG 03 and ENG 04.

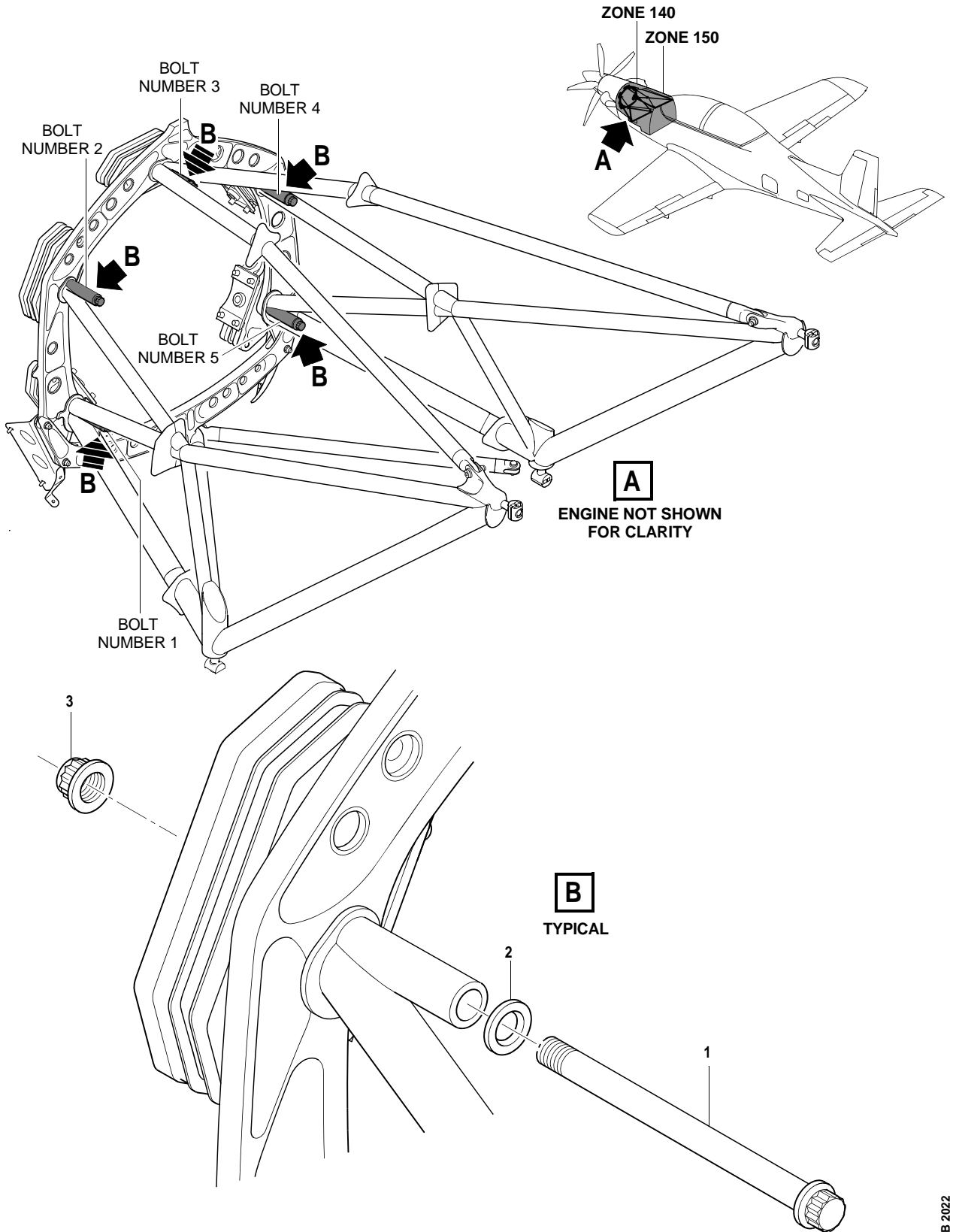
- (7) Do the engine ground run procedure after work carried out on the P3 system (Ref. AMM, 71-00-00-00A-369E-A).
- (8) Do the close-up procedures for the power plant shown in the AMM, 71-00-00-00A-525A-A.

E. 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.

4. Accomplishment Instructions – Bolts (P/N 571.20.21.066) Held as Spare or in Stores**A. Replacement of the Shock Mount Bolts**

- (1) Do a check of the bolts (P/N 571.20.21.066) in stores.
- (2) If you find a bolt (P/N 571.20.21.066) with a batch Number of 415196 on the head of the bolt, send it to Pilatus.
- (3) On receipt of the bolt (P/N 571.20.21.066) with a batch Number of 415196, Pilatus will send you a new bolt (P/N 571.20.21.066) from a known good batch.
- (4) Return the new bolt (P/N 571.20.21.066) to stores.



Replacement of the Shock Mount Bolts
Figure 1

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SERVICE BULLETIN EVALUATION SHEET FOR SB No. 71-005			
Title	Power Plant - General Do A Check of the Batch No. of the Shock Mounting Bolts and Replace, If Necessary		
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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