



PILATUS AIRCRAFT LTD. CH-6371 STANS, SWITZERLAND

SERVICE LETTER

SUBJECT: P&WC TEMPORARY REVISION NO'S. 72-17 AND 72-18, AND SERVICE INFORMATION LETTER PT6A-034R2

All Operators:

Date: December 19/97

This Service Letter supersedes Pilatus Service Letter PC-12-029 (dated October 21/97) and draws the attention of Operators - to the attached Vendor information which provides full details on the above topics as follows:

APPENDIX A Pratt and Whitney of Canada Maintenance Manual Temporary Revision No's. 72-17 and 72-18 regarding inspection of the second-stage carrier ring gears in PT6A-67B engines

APPENDIX B Pratt and Whitney of Canada Service Information Letter PT6A-034R2 regarding discolored engine oil.

Firstly, contact the vendor (at the address provided in the appended information) for any specific inquiries concerning the subject matter.

If you have difficulty, make inquiries at the following address:

PILATUS AIRCRAFT LTD.
CUSTOMER LIASON MANAGER,
CH-6371 STANS,
SWITZERLAND.

Tel: + 41 41 619 6509
Fax: + 41 41 610 3351

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Appendix A to Pilatus Service Letter No. 030

(Pratt and Whitney of Canada Maintenance Manual Temporary Revision No's. 72-17 and 72-18
Regarding Inspection of the Second-Stage Carrier Ring Gears in PT6A-67B Engines)

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PRATT & WHITNEY CANADA
MAINTENANCE MANUAL
MANUAL PART NO. 3038336

TR72-17

(PT6A-67B/-67D)

TEMPORARY REVISION NO. 72-17

APPLICABILITY.....Revision No.10, dated Oct 17/97

LOCATION.....INSERT Temporary Revision 72-17 to face page 614, Chapter 72-00-00.

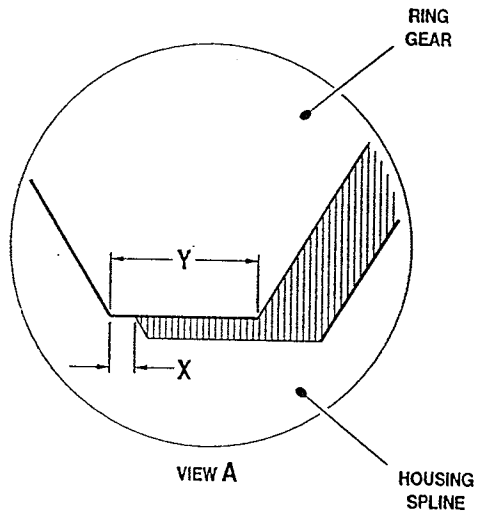
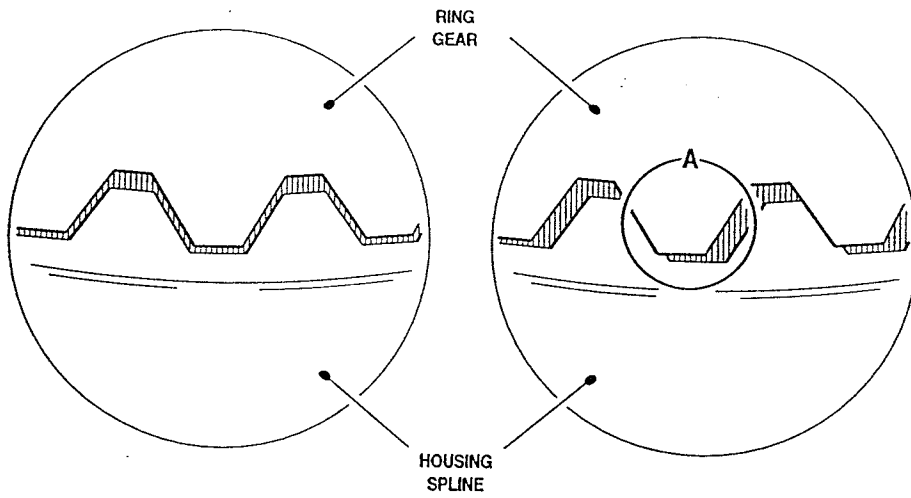
ENGINE, TURBOPROP - INSPECTION

The purpose of this Temporary Revision is to add a new figure 603A for the PT6A-67B second-stage carrier ring gear inspection, Temporary revisions TR72-17 and 72-18 deal with the same subject and are issued together.

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ENGINE TURBOPROP - INSPECTION Nov 14/97

PRATT & WHITNEY CANADA
 MAINTENANCE MANUAL
 MANUAL PART NO. 3038336

TR72-17



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Borescope View of Spline Wear, RGB Second-stage Carrier Gear Train
 Figure 603A

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PRATT & WHITNEY CANADA
MAINTENANCE MANUAL
MANUAL PART NO. 3038336

TR72-18

(PT6A-67B/-67D)

TEMPORARY REVISION NO. 72-18

APPLICABILITY.....Revision No.10, dated Oct 17/97

LOCATION.....INSERT Temporary Revision 72-18 to face page 615, Chapter 72-00-00.

ENGINE, TURBOPROP - INSPECTION

The purpose of this Temporary Revision is to add a Para. 8. JA. for the PT6A-67B second-stage carrier ring gear inspection, Temporary revisions TR72-17 and 72-18 deal with the same subject and are issued together.

- R JA. Inspection of the second-stage carrier ring gears (PT6A-67B)
R
R (1) Remove scavenge oil strainer (Ref. 72-10-00 or 72-11-00).
R
R (2) Fasten holding fixture (PWC34913) to flange A, Attach eyepiece to
R fixture, and connect light source (Ref. Fig. 601).
R
R CAUTION: MAKE SURE END OF FIBERSCOPE DOES NOT TOUCH GEARS.
R
R CAUTION: DO NOT ROTATE THE PROPELLER WHILE INSPECTING THE
R SECOND-STAGE CARRIER RING GEAR.
R
R (3) Insert the fiberscope into the oil strainer cavity in an upward and
R rearward direction. Position the scope to view the mating area of
R ring gear and the RGB housing splines (outermost teeth of the ring
R gear)

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ENGINE TURBOPROP - INSPECTION Nov 12/97

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PRATT & WHITNEY CANADA
MAINTENANCE MANUAL
MANUAL PART NO. 3038336

TR72-18

- R
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- (4) From the borescope image, obtain dimensions X and Y (Ref. Fig. 603A). The ratio of X to Y must not exceed 0.35. If X/Y is at or exceeds 0.35, remove engine within the next 50 flight hours. Contact your local P&WC Field Representative to coordinate removal of engine.
 - (5) Remove wrench, light source, fiberscope, eyepiece and holding fixture.
 - (6) Install scavenge oil strainer (Ref. 72-10-00 or 72-11-00).

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Appendix B to Pilatus Service Letter No. 030

(Pratt and Whitney of Canada Service Information Letter PT6A-034R2
Regarding Discolored Engine Oil.)

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SERVICE INFORMATION LETTER

Subject Engines - Discolored Oil

Applicability PT6A-67B Engines

This Service Information Letter is being revised to advise PT6A-67B operators that a borescope inspection is being introduced in the PT6A-67B Maintenance Manual permitting inspection of the mating surfaces of the stationary second stage ring gear and spline of the front housing on the reduction gearbox for wear should any abnormalities be detected during the oil sample analysis.

Since the original SIL was issued, there have been a total of eight reported events of discolored oil. The total time of the PT6A-67B engines reported having discolored oil ranged from 400 to 1450 hours since new. Four of these engines have been returned to P&WC for investigation. Findings to date indicate the following:

- 1) Coking of the oil (i.e. carbon build-up) in the No.2 bearing cavity was noticed on all four engines, and contributes to the oil discoloration. Consequently, loosening of the carbon deposits of the No. 2 bearing housing will collect in the oil filter and may result in oil pressure fluctuation during engine operation.
- 2) Limited wear of the stationary second stage carrier ring gear and spline in the front housing of the reduction gearbox was also observed on these engines. This condition does not affect engine operation.

A borescope procedure is now being introduced in the Maintenance Manual (section 72-00-00) enabling an inspection of the mating area of the stationary second stage ring gear and the spline in the front housing. A Temporary Revision to the PT6A-67B Maintenance Manual (to section 79-00-00) has been issued to introduce this interim borescope inspection.

NOTE: THIS BORESCOPE INSPECTION IS ONLY REQUIRED BASED ON THE OIL SAMPLE ANALYSIS.

This Service Information Letter is valid for one year from date of issue.

Issued:

17 Nov./97

1000, Marie-Victorin, Longueuil, Québec
Canada J4G 1A1

While the root cause of the indicated findings is being investigated, P&WC requests that during the prescribed 100 hours oil filter inspection (per PT6A-67B Maintenance Manual, ref. 72-00-00), **it is highly recommended that an oil sample (minimum 250 ml) be taken from the oil tank, regardless of its color** and sent to the address given in Appendix A. A Temporary Revision to the PT6A-67B Maintenance Manual (to section 79-00-00) has been issued to clarify this interim oil sampling requirement and will appear in revision 10 of the PT6A-67B Maintenance Manual. Please refer to Appendix A for shipping information.

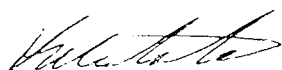
Kindly ensure that the form in Appendix B is duly completed and returned along with the oil sample. The oil will be analyzed and monitored by P&WC. Based on the results of the on-going investigation, permanent corrective action will be recommended in a subsequent SIL.

In the event that a restriction is found in the oil filter, please contact your local P&WC Field Representative for disposition.

YOUR LOCAL P&WC FIELD SERVICE REPRESENTATIVE WILL CONTACT YOU SHOULD THE OIL SAMPLE ANALYSIS INDICATE THAT A BORESCOPE INSPECTION OF THE RGB IS REQUIRED. IN THAT EVENT, YOUR LOCAL P&WC FIELD SERVICE REPRESENTATIVE WILL OFFER ASSISTANCE WITH THE BORESCOPE INSPECTION.

Yours truly,

PRATT & WHITNEY CANADA INC.



V. Mastrocola,
Manager, PT6A Technical Support,
Programs & Reliability

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APPENDIX A: SIL PT6A-034R2

Please fill out the attached form (in Appendix B) (which has been revised since its original issue) and send it along with PT6A-67B oil sample to the address below. Should the oil filter be at the end of its filter life, kindly return it at the same time with the oil sample to the following address:

Chemical Test & Technology
Pratt & Whitney Canada Inc.
1000 boul. Marie Victorin
Longueuil, Quebec
J4G 1A1
Mail Code: 01AF3
Program : SIL PT6A-034R2
Attention: Mr. Maurice Jean

Please return samples as follows:

1. Ship "COLLECT" to the address below utilising P&WC's preferred carrier as specified in Table 1.
2. A declared value of \$10.00 must be indicated for Customs purposes only on shipper's documentation (i.e. Commercial Invoice, Canada Customs Invoice etc.).
3. Shipper to indicate on all documentation to ship samples "FCA Shipper's Plant" and reference P&WC CSP I97239.

TABLE 1

COUNTRY	PREFERRED CARRIER
Argentina	Emery
Australia	Emery
Brazil	Danzas
Canada	Sameday Right O Way
Italy and United Kingdom	MSAS
Rest of Europe	Emery
Japan	Emery
U.S.A.	Emery
South Africa	MSAS

APPENDIX B: S.I.L. PT6A-034R2

SEND THIS FORM ALONG WITH THE PT6A-67B OIL SAMPLE:

Pratt & Whitney Canada Inc.
1000 boul. Marie Victorin
Longueuil, Quebec
J4G 1A1
Mail Code: 01AF3
Program : SIL PT6A-034R1
Attention: Chemical Test & Technology
Mr. Maurice Jean

Operators name: Address Phone/Fax no.	
Engine S/N that oil sample was taken from:	
TTSN/TCSN	
Date that oil sample was taken	
Total time since last oil change	
Status of oil filter (clearly indicate if oil filter is being returned)	
Is filter at the end of its filter life? If yes, please send in the filter	
Oil type	