P&WC S.B. No. 13531

BULLETIN INDEX LOCATOR 74-20-00

TURBOPROP ENGINE
IGNITION CABLE ASSEMBLY - INSPECTION/REPLACEMENT OF

MODEL APPLICATION

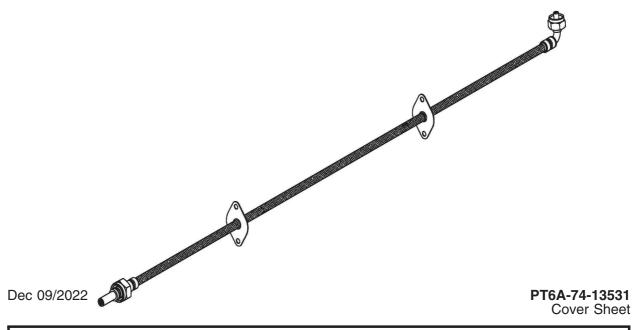
PT6A-52, PT6A-60A, PT6A-60AG, PT6A-61, PT6A-62, PT6A-65B, PT6A-65R, PT6A-65AG, PT6A-65AR

Compliance: CATEGORY 5

Summary: Some ignition cables may have a wrong coupling nut installed. The coupling nut may

be subject to corrosion. Do an inspection of the suspected batch of ignition cables

and replace if severe corrosion is found.



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TURBOPROP ENGINE IGNITION CABLE ASSEMBLY - INSPECTION/REPLACEMENT OF

1. Planning Information

A. Effectivity

PT6A-52 Engines.

PT6A-60A Engines post SB13234.

PT6A-60AG.

PT6A-61 Engines post SB13234.

PT6A-62 Engines post SB13234 or post SB13336.

PT6A-65B Engines post SB13234 and all engines converted to Engine Model PT6A-65B (Ref. P&WC engine conversion SB13064).

PT6A-65R Engines post SB13234 and all engines converted to Engine Model PT6A-65R (Ref. P&WC engine conversion SB13078 and 13083).

PT6A-65AG Engines post SB13234 all engines converted to Engine Model PT6A-65AG (Ref. P&WC engine conversion SB13237, 13238, and 13239).

PT6A-65AR Engines post SB13234 and all engines converted to Engine Model PT6A-65AR (Ref. P&WC engine conversion SB13098).

NOTE: 1. The suspected batch codes are 2C18, 3C18, 4C18, 1D18, 2D18, 3D18, 4D18 and 5D18, refer to Champion SBCH53399-74-001 for the codes location.

NOTE: 2. If the code is not visible or not in the suspected batch, than this service bulletin is not applicable to your engine.

B. Concurrent Requirements

This service bulletin can be done in conjunction with Champion service bulletin CH53399-74-001.

C. Reason

(1) Problem

Some ignition cables may have corrosion on the coupling nut.

(2) Cause

The coupling nuts were made from improper material.

(3) Solution

Do an inspection of ignition cable suspected batch and replace as required.

D. Description

Do an inspection of the ignition cables.

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TURBOPROP ENGINE IGNITION CABLE ASSEMBLY - INSPECTION/REPLACEMENT OF

1. Planning Information (Cont'd)

E. Compliance

CATEGORY 5 - P&WC recommends to do this service bulletin when the engine is disassembled and access is available to the necessary subassembly (i.e. module, accessories, components, or build groups). Do all spare subassemblies.

F. Approval

The technical content of this document is approved under the authority of the Transport Canada Civil Aviation (TCCA) Design Approval Organization No: DAO #93-Q-01.

G. Manpower

Once you have access to the part, an estimate of 1.0 man-hours is required to include this service bulletin at repair.

No more man-hours are necessary to include this service bulletin at overhaul.

H. Weight and Balance

None.

I. Electrical Load Data

Not applicable.

J. Software Accomplishment Summary

Not applicable.

K. References

Illustrated Parts Catalog P/N 3072864 (PT6A-52)

Illustrated Parts Catalog P/N 3034344 (PT6A-60A/60AG/61)

Illustrated Parts Catalog P/N 3034544 (PT6A-62)

Illustrated Parts Catalog P/N 3032844 (PT6A-65B/65R/65AG/65AR)

Maintenance Manual P/N 3072862 (PT6A-52)

Maintenance Manual P/N <u>3034342</u> (PT6A-60A/60AG/61)

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TURBOPROP ENGINE IGNITION CABLE ASSEMBLY - INSPECTION/REPLACEMENT OF

1. Planning Information (Cont'd)

Maintenance Manual P/N 3034542 (PT6A-62)

Maintenance Manual P/N 3032842 (PT6A-65B/65R/65AG/65AR)

Overhaul Manual P/N 3072863 (PT6A-52)

Overhaul Manual P/N 3034343 (PT6A-60A/60AG/61)

Overhaul Manual P/N 3034543 (PT6A-62)

Overhaul Manual P/N 3032843 (PT6A-65B/65R/65AG/65AR)

Refer to Champion SBCH53399-74-00

L. Publications Affected

Not applicable.

M. Interchangeability and Intermixability of Parts

Interchangeability - Refer to Para. 2.C.

Intermixability - Not changed.

2. Material Information

A. Industry Support Information

This service bulletin will be covered by a Commercial Support Program Notification at a later date.

Refer to Champion SB CH53399-74-001.

B. Material - Price and Availability

Not Applicable

C. Material Necessary for Each Engine

Not Applicable

D. Reidentified Parts

None.

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TURBOPROP ENGINE IGNITION CABLE ASSEMBLY - INSPECTION/REPLACEMENT OF

- 2. Material Information (Cont'd)
 - E. Tooling Price and Availability

Not Applicable

- 3. Accomplishment Instructions
 - A. Do an inspection of the ignition cables suspected batch.
 - (1) If the code is associated with the suspected batch, do as follows:
 - (a) Do an inspection of the ignition cable coupling nut for corrosion (Ref Champion SBCH53399-74-001).
 - (b) Only if severe corrosion is found, remove the ignition cable, in accordance with the maintenance or overhaul manual instructions as follows:

Ref. MM 74-20-00.

Ref. OHM 72-00-00 ENGINE - DISASSEMBLY-1.

(c) Install the new ignition cable in accordance with the maintenance or overhaul manual instructions as follows:

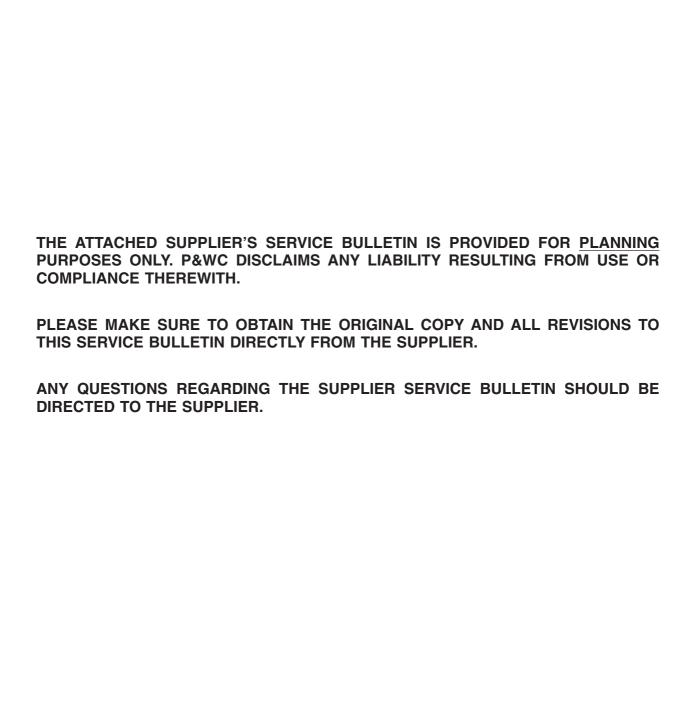
Ref. MM 74-20-00.

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Ref. OHM 72-00-00 FINAL ASSEMBLY - 2.

- B. Write the accomplishment of P&WC S.B. No. SB13531 in the applicable engine module log book.
- 4. Appendix

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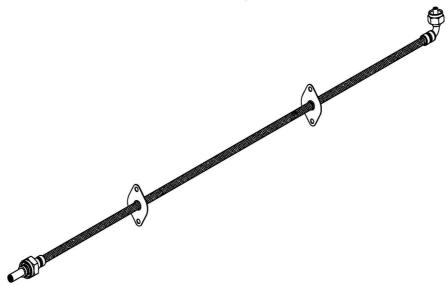
MODEL APPLICATIONS PT6

IGNITION CABLE ASSEMBLY - REPLACEMENT OF

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1. PLANNING INFORMATION

A. EFFECTIVITY

(1) Units affected: This service bulletin applies to the following Champion Aerospace ignition cable assemblies (Table 1) used on various Pratt and Whitney Canada PT6 engines.

CHAMPION PN	PWC PN
CH53399-01	3119829-01
CH53399-02	3119830-01
CH53399-04	3119832-01
CH53399-05	3119835-01
CH53399-06	3119836-01
CH53399-07	3119833-01

The associated suspect date codes are as follows:

- 2C18, 3C18, 4C18, 1D18, 2D18, 3D18, 4D18, 5D18

B. CONCURRENT REQUIREMENTS

- (1) None
- C. REASON
 - (1) Evidence:
 - (a) Visual signs of corrosion on a small lot of ignition cable coupling nuts. Refer to Fig. 1.

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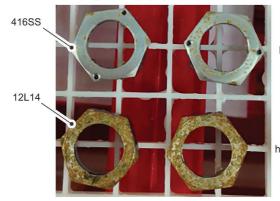
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Coupling nuts salt spray exposure after 1 hour



Acceptable light surface corrosion

Unacceptable heavy surface corrosion

Salt spray exposure (Sheet 1) FIGURE 1

- (2) Problem/Condition:
 - (a) The coupling nuts were made from improper material using 12L14 bar stock instead of 416 stainless steel (ss).
- (3) Solution:
 - (a) Replace only the ignition cable with the correct date code, identified in Para. 1.A.(1), with a new ignition cable during normal routine replacement and/or visual inspection of the igniter plugs.

D. DESCRIPTION

 Replace the existing ignition cable model with a new cable model manufactured with the 416 ss coupling nuts, as listed in Para. 1.C.(3), Solution.

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- E. COMPLIANCE
 - (1) CATEGORY 6 Recommend doing this service bulletin when the subassembly (i. e. module, accessories, components, or build groups) is disassembled and access is available to the necessary part.
- F. APPROVAL
 - (1) D.O.T/D.A.A approved
- G. MANPOWER
 - (1) An estimate of 1.0 man-hour is required to complete this service bulletin.
- H. WEIGHT AND BALANCE
 - (1) Not affected.
- ELECTRICAL LOAD DATA
 - (1) Not affected.
- J. SOFTWARE ACCOMPLISHMENT SUMMARY
 - (1) Not affected.
- K. REFERENCES
 - Applicable P&WC PT6 technical manuals
 - Champion Aerospace Component Maintenance Manual (CMM) 74-20-02
 - Pratt & Whitney Canada Service Bulletin No. SB1835, SB3522, SB4258, SB5573, SB10460, SB12248, SB13531, SB14564, SB18290, SB33009, SB68048, SB75027, SB77013
- L. OTHER PUBLICATIONS AFFECTED
 - (1) Not affected.
- M. INTERCHANGEABILITY AND INTERMIXABILITY
 - Interchangeability Refer to Para. 2. (C)
 - Intermixability Not affected

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2. MATERIAL INFORMATION

A. MATERIALS - PRICE AND AVAILABILITY

2.

- (1) Procurable parts listed in Para. 2. (C) can be obtained from any Champion Aerospace Distributor or Champion approved repair station.
- B. INDUSTRY SUPPORT INFORMATION
 - (1) Not affected.
- C. MATERIALS NECESSARY FOR EACH COMPONENT
 - (1) The quantity of materials listed in this section is on a per engine basis.

	New P/N	Keyword	Old P/N	Qty	Est. Unit List Price (\$US, 2022)	Disposi Instructi	
New		Cable, ignition (0AFL4) P&WC P/N 3119829-01	CH53399-01	1	-	(B)	
	CH53399-01	Cable, ignition (0AFL4) P&WC P/N 3119829-01		1	(W)	(A)	
		Cable, ignition (0AFL4) P&WC P/N 3119830-01	CH53399-02	1		(B)	
CH5	CH53399-02	Cable, ignition (0AFL4) P&WC P/N 3119830-01		1	(W)	(A)	
		Cable, ignition (0AFL4) P&WC P/N 3119832-01	CH53399-04	1		(B)	
CH5	CH53399-04	Cable, ignition (0AFL4) P&WC P/N 3119832-01		1	(W)	(A)	
		Cable, ignition (0AFL4) P&WC P/N 3119835-01	CH53399-05	1		(B)	
CH5	CH53399-05	Cable, ignition (0AFL4) P&WC P/N 3119835-01		1	(W)	(A)	
		Cable, ignition (0AFL4) P&WC P/N 3119836-01	CH53399-06	1		(B)	
CH5	CH53399-06	Cable, ignition (0AFL4) P&WC P/N 3119836-01		1	(W)	(A)	
		Cable, ignition (0AFL4) P&WC P/N 3119833-01	CH53399-07	1		(B)	
CH5	CH53399-07	Cable, ignition (0AFL4) P&WC P/N 3119833-01		1	(W)	(A)	
CH5 (A) T	ignition cable assemblies identified with the correct part number and date code, will be replaced under						
the r igniti warr	Aug 24/22 This document is subject to the controls and restrictions on the first page. U.S.Export Classification: EAR 9E991			SBCH53399-74- Page 4			
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- D. TOOLING PRICE AND AVAILABILITY
 - (1) Not affected.

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MODEL APPLICATIONS PT6 IGNITION CABLE ASSEMBLY - REPLACEMENT OF

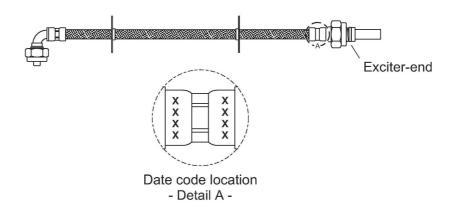
3. ACCOMPLISHMENT INSTRUCTIONS

A. PROCEDURE

(1) Remove ignition cable listed under Old P/N in Para.2.(C)., in accordance with the P&WC maintenance manual instructions (Ref. 74-20, IGNITER AND IGNITION CABLE - MAINTENANCE PRACTICES).

NOTE: The date code is laser marked on the bottom of the exciter-end collar.

- (2) Inspect the ignition cable and look for evidence of severe corrosion on the igniter-end coupling nuts as shown in Fig. 1. If severe corrosion is identified, check the exciter-end collar for the correct date code shown in Fig. 2. If the date code is one that is in the range of the codes listed in Para.1.A. (1), return the ignition cable to the manufacturer for replacement.
- (3) Install ignition cable listed under New P/N in Para.2.(C)., in accordance with the P&WC maintenance manual instructions (Ref. 74-20, IGNITER AND IGNITION CABLE MAINTENANCE PRACTICES).



Date code location (Sheet 1) FIGURE 2

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