

VSP-20  
February 29, 1980

VENDOR SERVICE PUBLICATION

To: All Piper CORPAC's and Affected Owners

Subject: 1. Pratt and Whitney Service Bulletin No. 1316 (PA-31T)  
2. Pratt and Whitney Service Bulletin No. 12025 (PA-31T1)

Models Affected:

Serial Numbers Affected: \*

PA-31T Cheyenne/Cheyenne II  
PA-31T1 Cheyenne I

31T-7400002 through 31T-8020044  
31T-7804001 through 31T-8004025

- \* For specific applicability, identify engine in accordance with the appropriate Pratt and Whitney Service Bulletin attached, Section 1., A., Effectivity. Aircraft which have previously complied with Pratt and Whitney Service Bulletin 1316 or 12025 are not affected by Piper VSP-20.

Purpose:

To distribute the Service Publications identified in Subject, above, to Piper Field Service Facilities and affected aircraft owners.

Detailed instructions relative to compliance action are specified on the attached Service Publications; additional/supplemental information is contained in the following Special Instructions.

Special Instructions:

After applicable action, make logbook entry of compliance with appropriate Pratt and Whitney Service Bulletin and Piper VSP-20.



# ENGINE Service Bulletin

NO: 1316

CODE: 12. A. 2. (b)

## Improved Engine/Fuel Pump Coupling - Introduction of

### 1. Planning Information

#### A. Effectivity

##### Model

PT6A-6, -6A, -6B, -6/C20, -20,  
-20A, -20B, -21, -25, -25A, -27,  
-28, -34, -34B, -34AG, -36, -135

##### Application

All engine models incorporating Pesco or  
Sundstrand Fuel Pump P/N 025323-101-01,  
024800-104-01 or 024800-101B-01

Spares in Stock Affected: Yes

#### B. Reason

To reduce the possibility of fuel pump decoupling, in the event that the coupling retaining ring has been inadvertently displaced during prior installation.

#### C. Description

The existing fuel pump drive coupling is removed and replaced with a new coupling incorporating a flange to restrict axial movement.

#### D. Compliance

Recommended - Urgent. P&WC recommends accomplishment during next engine visit to a facility where specified maintenance action can be accomplished.

#### E. Approval

D. O. T. /D. A. R. approved.

#### F. Manpower

Approximately 0.5 man-hours required in addition to time required to remove and install fuel pump assembly.

#### G. References

PT6A-6/20 Combined Maintenance Manual P/N 3015442  
PT6A-21 Maintenance Manual P/N 3027342  
PT6A-27/28 Maintenance Manual P/N 3013242  
PT6A-34/34AG/34B/36/135 Maintenance P/N 3021242  
PT6A-6 Overhaul Manual P/N 3008103  
PT6A-20, -20A, -20B Overhaul Manual P/N 3011403  
PT6A-21 Overhaul Manual P/N 3027343  
PT6A-25 Overhaul Manual P/N 3027543  
PT6A-27/28/34 Overhaul Manual P/N 3013243  
PT6A-6/20 Combined Parts Catalog P/N 3015444  
PT6A-25/25A Parts Catalog P/N 3027544  
PT6A-21/27/28 Parts Catalog P/N 3013244  
PT6A-34/34AG/34B/36/135 Parts Catalog P/N 3021244  
Service Bulletin No. 1155  
Accessory Service Bulletin No. 025323-73-2

97-242  
ISSUED: 26 September 1979

PRATT & WHITNEY AIRCRAFT OF CANADA LTD.  
BOX 10, LONGUEUIL, QUEBEC, CANADA J4K 4X9

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Improved Engine/Fuel Pump Coupling - Introduction of

2. Accomplishment Instructions

- A. Remove fuel pump from engine according to Maintenance or Overhaul Manual Instructions.
- B. Remove existing coupling, from pump shaft by pulling sharply by hand.
- C. Inspect fuel pump splined shaft for wear or damage.

NOTE

Pumps with damaged shaft should be replaced and shipped to an overhaul facility.

- D. Install new coupling assembly on to pump shaft until retaining ring is engaged in pump shaft groove.
- E. Reidentify Parts List by vibropeening as follows:
  - (1) 024800-101B-01 becomes 024800-101B-02
  - (2) 024800-104-01 becomes 024800-104-02
  - (3) 025323-101-01 becomes 025323-101-02
  - (4) Obliterate CPW part number



ENSURE PUMP COUPLING IS NOT DISPLACED  
ON ASSEMBLY TO ENGINE BY APPLYING FORCE  
TO ENGAGE WITH ENGINE SHAFTGEAR.

- F. Reinstall fuel pump on engine and carry out checks according to Maintenance or Overhaul Manual Instructions.

Improved Engine/Fuel Pump Coupling - Introduction of3. Material Information

<u>NEW</u> <u>PART NO.</u>	<u>QTY</u>	<u>NOMENCLATURE</u>	<u>QTY</u>	<u>OLD</u> <u>PART NO.</u>
\$5006050	1	Coupling Assy		
		Coupling	1	02-14910-01
**025323-101-02	1	Pump Fuel	1	025323-101-01
**024800-104-02	1	Pump Fuel	1	024800-104-01
**024800-101B-02	1	Pump Fuel	1	024800-101B-01

\$- Obtainable from: Sundstrand Aviation,  
Division of Sundstrand Corp.,  
4747 Harrison Ave.,  
Rockford, Illinois 61101  
U. S. A.

\*\* - Obtained by installing new coupling assy on pump  
024800-104-01, 024800-101B-01 or 025323-101-01

# SERVICE BULLETIN

CODE: 12.A.2.(b)

P&WC SB. No. 12025

ENGINE-TURBINE/TURBOPROP  
IMPROVED ENGINE/FUEL PUMP COUPLING - INTRODUCTION OF

1. Planning Information

A. Effectivity

All model PT6A-11, -15AG, -112 Engines.

B. Reason

To reduce possibility of fuel pump decoupling in the event that the coupling retaining ring has been inadvertently displaced during prior installation.

C. Description

The existing fuel pump drive coupling is replaced with a new coupling incorporating a flange to restrict axial movement.

D. Compliance

Recommended - Urgent. P&WC recommends accomplishment during next engine visit to a facility where specified maintenance action can be accomplished.

E. Approval

D.O.T./D.A.R. approved.

F. Manpower

Approximately 0.5 man-hours required in addition to man-hours required to remove and install fuel pump assembly.

G. Material - Cost and Availability

Refer to Section 3, Material Information

H. Tooling - Price and Availability

None.

I. Weight and Balance

Not affected

J. References

Maintenance Manual P/N 3030442 (with Illustrated Parts List) for Turbo-prop Gas Turbine Engine (Models PT6A-10/110 Series).  
Accessory Service Bulletin No. 025323-73-2.

K. Other Publications Affected

Illustrated Parts Catalog P/N 3030444 for Turboprop Gas Turbine Engine (Models PT6A-10/-110 Series).

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P&WC SB.No.12025

## ENGINE-TURBINE/TURBOPROP IMPROVED ENGINE/FUEL PUMP COUPLING - INTRODUCTION OF

### 2. Accomplishment Instructions

- A. Remove fuel pump from engine according to maintenance or overhaul manual instructions.
- B. Remove existing coupling from pump shaft by pulling sharply by hand.
- C. Inspect fuel pump splined shaft for wear or damage.

NOTE: Pumps with damaged shaft should be replaced and shipped to an overhaul facility.

- D. Install new coupling assembly onto pump shaft until retaining ring is engaged in pump shaft groove.

- E. Reidentify fuel pump by vibropeening data plate as follows:

(a) Parts List 025323-101-01 becomes 025323-101-02.

(b) Obliterate CPW part number.

CAUTION: ENSURE PUMP COUPLING IS NOT DISPLACED ON ASSEMBLY TO ENGINE  
BY APPLYING FORCE TO ENGAGE WITH ENGINE SHAFTGEAR

- F. Reinstall fuel pump on engine and carry out checks according to maintenance or overhaul manual instructions.

**3020779-72-25**

# PRATT & WHITNEY AIRCRAFT OF CANADA LTD.

P&WC SB.No.12025

## ENGINE-TURBINE/TURBOPROP IMPROVED ENGINE/FUEL PUMP COUPLING - INTRODUCTION OF

### 3. Material Information

A. The quantity of material listed in this section is on a per engine basis.

<u>NEW</u> <u>P/N</u>	<u>QTY</u>	<u>EST.UNIT</u> <u>LIST PRICE</u>	<u>KEYWORD</u>	<u>OLD</u> <u>P/N</u>	<u>INSTRUCTIONS-</u> <u>DISPOSITION</u>
\$5006050	1		Coupling Assy		
			Coupling	02-14910-01	Scrap
**025323- 101-02	1		Pump - Fuel	025323-101-01	Reidentify

\$ Obtainable from: Sundstrand Aviation,  
Division of Sundstrand Corp.,  
4747 Harrison Ave.,  
Rockford, Illinois 61101,  
U.S.A.

\*\* Obtained by installing new coupling on pump  
P/N 025323-101-01

**3020779-72-25**