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INTRODUCTION

1. GENERAL

A. Purpose

This Illustrated Parts Catalog (IPC) lists and illustrates the assemblies, subassemblies and detail parts which comprise and are necessary for the support of the PT6A-21, PT6A-27 and PT6A-28 Turboprop Gas Turbine Engines manufactured by Pratt & Whitney Canada (P&WC). This catalog is also used for identifying, requisitioning, and issuing of components. It is intended as a supplement to, not a substitute for, the associated maintenance and overhaul manuals, which shall be the final authority. The baseline standards of this publication are Engine Serial No. 24301 (PT6A-21) and Engine Serial No. 40001 (PT6A-27 and PT6A-28).

B. RSVP Customer Feedback Sheet

Please use the RSVP Customer Feedback Sheet to tell us about any errors or problems you find in this illustrated Parts Catalog.

The technical Publications Department will welcome any suggestions for modification or improvement to this catalog which will increase its usefulness.

Send completed RSVP Customer Feedback Sheets to:

Pratt & Whitney Canada Corp. 1000 Marie-victorin Blvd. Longueuil, Quebec Canada J4G 1A1

Attention: Manager, Publications Dept.(01PB4)

FAX: (450) 647-2702

Website: www.pwc.ca

E-mail: Publications@pwc.ca

- <u>NOTE</u>: 1. A new on-line RSVP form is available via the P&WC website at (http://www.pwc.ca).
- <u>NOTE</u>: 2. RSVP Customer Feedback Sheets are sent with new manuals and each subsequent revision. To get more forms, contact the Supervisor, Publications Customer Services Dept., at the above address.
- C. Specification

This Illustrated Parts Catalog agrees with the instructions given in the Air Transport Association (ATA) Specification No. 100.

D. Engine and Accessory Identification

The complete engine is equipped with an identification nameplate which displays the manufacturer's name, engine model number, engine serial number, build specification number and other pertinent data. Engine serial numbers fall within an allocated

range, beginning with (Ref. Subpara. A).

The major accessories not originally manufactured by Pratt & Whitney Canada are furnished with their own nameplates which display the original equipment and/or identification number, P&WC equivalent identification number, equipment serial number and other applicable information.

2. ENGINE MODEL DESIGNATION

The model designation of the engine is interpreted as follows:

PT6A	Basic prefix for turboprop gas turbine engine.
-	Dash basic to all models.

- 21, 27 and 28 Number is a convenience designation.
- 3. EFFECTIVITY AND BUILD SPECIFICATION

Effectivity Code

The Effect Code column indicates the applicability of parts to an engine model. A one-letter code identifies those parts to be used only on the engine model(s) specified in the Effect Code column.

Cross-reference of the codes to specific engine models is as follows:

Parts coded A apply to the PT6A-27 engines.

Parts coded B apply to the PT6A-28 engines.

Parts coded C apply to the PT6A-21 engines.

Build Specification

The Build Specification number (BS No.) is the number assigned to an engine model for a particular customer application (aircraft installation).

A cross-reference of the BS No. to the customer application (aircraft installation) is in the Nomenclature column as follows (Ref. Table 1 (PT6A-21), Tables 2, 3 and 4 (PT6A-27) and Tables 5 and 6 (PT6A-28)):

NOTE: Where the BS is not mentioned in the nomenclature of the part, the part is common to all BSs of the engine model(s) applicable to the part.

For the PT6A-21, Build Specification No. 459, 486, 571 and 671 are for the Beech applications.

For the PT6A-21, Build Specification No. 788 is for the Raytheon (Beech King Air C-90A) application.

For the PT6A-21, Build Specification No. 1141 is for the Rocket Engineering (Turbine Bonanza) application.

For the PT6A-27, Build Specification No. 307 is for the Fairchild application.

For the PT6A-27, Build Specification No. 321 is for the Omnipol application.

For the PT6A-27, Build Specification No. 324 and 392 are for the DeHavilland applications.

For the PT6A-27, Build Specification No. 325 is for the I.A.I. application.

For the PT6A-27, Build Specification No. 330 and 367 are for the Beech applications.

For the PT6A-27, Build Specification No. 362 and 410 are for the Embraer applications.

For the PT6A-27, Build Specification No. 374 and 423 are for the LET/Omnipol applications.

For the PT6A-27, Build Specification No. 393 is for the Helio application.

For the PT6A-27, Build Specification No. 414, 624 and 877 are for the Pilatus applications.

For the PT6A-27, Build Specification No. 622 is for the Catic (Y-12) application.

For the PT6A-27, Build Specification No. 801 is for the AASI (JetCruzer) application.

For the PT6A-27, Build Specification No. 954 is for the P&WC Leasing Inc. (Twin Otter) application.

For the PT6A-28, Build Specification No. 346, 365, 485 and 570 are for the Beech applications.

For the PT6A-28, Build Specification No. 418 and 419 are for the Piper (Cheyenne-II) applications.

For the PT6A-28, Build Specification No. 473 is for the Memphis Turbine application. For the PT6A-28, Build Specification No. 475 and 610 are for the Embraer (EMB-Xingu) applications.

	CH-SE-SU	BS						
Description	(Fig.)	459	486	571	671	788	1141	
Accessory Drive, 12028 + 7654 RPM	72-60-00 (1) 72-60-00 (4)						х	
Air Pressure Tube Assembly with No P3 Air Filter	73-10-07 (2)		Х	Х	Х	Х		
Chip Detector	72-11-00 (7)						Х	
No Chip Detector	72-11-00 (7)					Х		
Compressor Spray Ring, 50-Hole	72-30-02 (1)						Х	
Dry Spline Starter Generator Drive with Electrical Grounding	72-60-00 (2) 72-60-00 (8)			Х				
Wet Spline Starter Generator Drive with Electrical Grounding	72-60-00 (2) 72-60-00 (8)				Х	Х	Х	
Flow Divider and Dump Valve	73-10-04 (2)						Х	
Fuel Control Unit with Manual Override (3244775)	73-20-00 (2)						Х	

TABLE 1, PT6A-21 Build Specifications

TABLE 1,	PT6A-21	Build Specifications	(Cont'd)
----------	---------	-----------------------------	----------

	CH-SE-SU			В	S		
Description	(Fig.)	459	486	571	671	788	1141
Fuel Control Unit without Manual Override (3244745)	73-20-00 (2)		Х	Х	Х	Х	
Fuel Flowmeter Provision	73-10-03 (2)					Х	Х
No Fuel Flowmeter Provision	73-10-03 (2)			Х	Х		
Ignition Exciter	74-00-00 (2) 74-20-00 (2, 3)					Х	
Ignition, Glow Plug	74-00-00 (1) 74-10-00 (2, 3)		Х				
Ignition, Spark	74-00-00 (2) 74-20-00 (2, 3)			Х	Х		х
Oil Tank Filler Tube with Ball Check Valve	72-60-00 (10)						Х
Standard Oil Tank Filler Cap and Gage Assy	72-60-00 (10)					Х	
Oil Temperature Bulb Adapter	72-60-00 (1)						Х
Oil Temperature Bulb and Pressure Sensing Tee	72-60-00 (1)					Х	
Propeller Governor, Reversing, with Quiet Taxi Cam and Solid Link	61-20-00 (1) 76-10-00 (1)	x	x	х	x	х	
Propeller Governor, Reversing, Quiet Taxi Cam without Lock Pitch Solenoid Valve	61-20-00 (1) 76-10-00 (1)						x
Propeller RGB Housing with Electrical Grounding	72-11-00 (2) 72-11-00 (5)			Х	х	х	x
Reduction Gearbox Oil Drain	72-11-00 (2)					Х	
Reduction Gearbox Oil Drain Cap	72-11-00 (2)						х

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TABLE 2, PT6A-27 Build Specifications

	CH-SE-SU				BS			
Description	(Fig.)	307	321	324	325	330	362	367
Accessory Drive, 12028 RPM	72-60-00 (1) 72-60-00 (4)					Х		
Accessory Drive, 12028 + 7654 RPM	72-60-00 (1) 72-60-00 (4)		Х				Х	
Accessory Gearbox with Vacuum Pump Drive	72-60-00 (1, 6) 79-20-01 (3)	x	Х	х	Х			Х
Accessory Gearbox with No Vacuum Pump Drive	72-60-00 (6) 79-20-01 (3)					Х	Х	
Ignition, Glow Plug	74-00-00 (1) 74-10-00 (1, 3)	Х	Х	Х	Х	Х		Х
Propeller Governor, Reversing, Abbreviated	61-20-00 (1) 76-10-00 (1, 2)			Х				
Propeller Governor, Reversing, with Linear Beta Cam	61-20-00 (1) 76-10-00 (1, 3)		х					
Propeller Governor, Reversing, with Linear Beta Cam and Solid Link	61-20-00 (1) 76-10-00 (1)				х			
Propeller Governor, Reversing, with Quiet Taxi Cam and Solid Link	61-20-00 (1) 76-10-00 (1)					х	х	х
Propeller Governor, Reversing, with STOL Beta Cam	61-20-00 (1) 76-10-00 (1)	x						

TABLE 3, PT6A-27 (Cont'd) Build Specifications

	CH-SE-SU	CH-SE-SU BS					
Description	(Fig.)	374	392	393	410	414	423
Accessory Drive, 12028 + 7654 RPM	72-60-00 (1) 72-60-00 (4)	X			Х		Х
Accessory Gearbox with Vacuum Pump Drive	72-60-00 (1, 6) 79-20-01 (3)		Х	Х		Х	
Accessory Gearbox with No Vacuum Pump Drive	72-60-00 (6) 79-20-01 (3)	Х			Х		Х

TABLE 3, PT6A-27 (Cont'd) Build Specifications (Cont'd)

		PC						
	CH-SE-SU	BS						
Description	(Fig.)	374	392	393	410	414	423	
Air Pressure Tube Assembly with P3 Air Filter	73-10-07 (6)					Х		
Air Pressure Tube Assembly with No P3 Air Filter	73-10-07 (2)		Х		Х		Х	
Compressor Spray Ring, 6-Hole	72-30-02 (1)			Х				
Dry Spline Starter Generator Drive	72-60-00 (1) 72-60-00 (8)		Х			Х		
Fuel Control Unit without Manual Override (2524440)	73-20-00 (1)		x		х	х	х	
Gas Generator Case (3122802-01)	72-30-04 (1)				Х			
Ignition, Glow Plug	74-00-00 (1) 74-10-00 (1, 3)	Х	Х	Х	Х	Х	Х	
Propeller Governor, Reversing, Abbreviated	61-20-00 (1) 76-10-00 (1)		Х					
Propeller Governor, Reversing, with Linear Beta Cam	61-20-00 (1) 76-10-00 (1)	х						
Propeller Governor, Reversing, with Linear Beta Cam and Solid Link	61-20-00 (1) 76-10-00 (1)						х	
Propeller Governor, Reversing, with Quiet Taxi Cam and Solid Link	61-20-00 (1) 76-10-00 (1)				х			
Propeller Governor, Reversing, with STOL Beta Cam	61-20-00 (1) 76-10-00 (1)			Х		Х		

TABLE 4, PT6A-27 (Cont'd) Build Specifications

	CH-SE-SU		BS					
Description	(Fig.)	622	624	801	877	954		
Accessory Drive, 12028 + 7654 RPM	72-60-00 (1) 72-60-00 (4)	Х		х		Х		
Accessory Gearbox with Vacuum Pump Drive	72-60-00 (1, 6) 79-20-01 (3)	Х	Х	Х	X	Х		
Air Inlet Screen (3112496-01)	72-20-00 (1)	Х						
Air Inlet Screen (3009499)	72-20-00 (1)		Х		X			
Air Pressure Tube Assembly with P3 Air Filter	73-10-07 (4)	X						
Air Pressure Tube Assembly with P3 Air Filter	73-10-07 (6)		х	x	x			
Air Pressure Tube Assembly with No P3 Air Filter	73-10-07 (2)					Х		
Compressor Inlet Fairing Assembly	72-20-00 (1)	Х						
Compressor Spray Ring, 50-Hole	72-30-02 (1)	Х		х				
Dry Spline Starter Generator Drive	72-60-00 (1) 72-60-00 (8)	Х	Х		X	Х		
Wet Spline Starter Generator Drive	72-60-00 (1, 3) 72-60-00 (8)			х				
Flow Divider and Purge Valve	73-10-04 (2) 73-10-05 (2)			х				
No Flow Divider	73-10-05 (1)	Х	Х		Х	Х		
Fuel Control Unit with Manual Override (3244786)	73-20-00 (1)		х		x			
Fuel Control Unit with Manual Override and Condition Lever (3244872)	73-20-00 (1)			x				
Fuel Control Unit without Manual Override (2524440)	73-20-00 (1)	x				x		

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TABLE 4, PT6A-27 (Cont'd) Build Specifications (Cont'd)

	CH-SE-SU			BS		
Description	(Fig.)	622	624	801	877	954
Fuel Flowmeter Provision	73-10-03 (2)			х		
Fuel System, Dual Line	73-10-03 (1) 73-10-04 (1) 73-20-00 (1)	x	x		x	x
Fuel System, Single Line	73-10-03 (2) 73-20-00 (1)			х		
Gas Generator Case (3122802-01)	72-30-04 (1)	Х				
Gas Generator Case (3122802-04)	72-30-04 (1)		х		x	
Ignition, Spark	74-00-00 (2) 74-20-00 (1, 3)	Х	х	х	х	х
Oil Tank Filler Tube with Ball Check Valve (3115095-01)	72-60-00 (10)	x	x		x	
Standard Oil Tank Filler Cap and Gage Assy (3102382-01)	72-60-00 (10)					x
Propeller Governor, Reversing, Abbreviated	61-20-00 (1) 76-10-00 (1)					х
Propeller Governor, Reversing, with Quiet Taxi Cam and Solid Link	61-20-00 (1) 76-10-00 (1)	x				
Propeller Governor, Reversing, with STOL Beta Cam	61-20-00 (1) 76-10-00 (1)		x	x	x	
Standard Combustion Chamber, Small Exit Duct	72-50-00 (1)	x	x	x	x	x
Starting Control Bracket	79-20-01 (3)	Х	Х		Х	Х
Thrust Bearing Cover	72-10-00 (2)	Х	Х		X	
Thrust Bearing Cover, No Drain	72-10-00 (2)					Х

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TABLE 5, PT6A-28 Build Specifications

	CH-SE-SU			BS		
Description	(Fig.)	346	365	418	419	473
Accessory Drive, 12028 RPM	72-60-00 (1) 72-60-00 (4)	Х				Х
Accessory Drive, 12028 + 7654 RPM	72-60-00 (1) 72-60-00 (4)			Х		
Accessory Gearbox with Vacuum Pump Drive	72-60-00 (1, 6) 79-20-01 (3)		Х	Х	Х	Х
Accessory Gearbox with No Vacuum Pump Drive	72-60-00 (6) 79-20-01 (3)	Х				
Air Pressure Tube Assembly with P3 Air Filter	73-10-07 (3)			х		
Dry Spline Starter Generator Drive	72-60-00 (1) 72-60-00 (8)			Х		
Fuel Control Unit without Manual Override (2524440)	73-20-00 (1)			х		
Ignition, Glow Plug	74-00-00 (1) 74-10-00 (1, 3)	X	Х			Х
Ignition, Spark	74-00-00 (2) 74-20-00 (1, 3)			Х	Х	
Propeller Governor, Reversing, with Quiet Taxi Cam and Solid Link	61-20-00 (1) 76-10-00 (1)	X	Х	х	Х	х

TABLE 6, PT6A-28 (Cont'd) Build Specifications

	CH-SE-SU	CH-SE-SU BS			
Description	(Fig)	475	485	570	610
Accessory Drive, 12028 + 7654 RPM	72-60-00 (1) 72-60-00 (4)	X			Х
Accessory Gearbox with Vacuum Pump Drive	72-60-00 (1, 6) 79-20-01 (3)		Х	Х	
Accessory Gearbox with No Vacuum Pump Drive	72-60-00 (6) 79-20-01 (3)	X			Х
Air Pressure Tube Assembly with No P3 Air Filter	73-10-07 (2)	х	х	х	Х

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	CH-SE-SU		BS			
Description	(Fig)	475	485	570	610	
Dry Spline Starter Generator Drive	72-60-00 (1) 72-60-00 (8)	Х			Х	
Fuel Control Unit without Manual Override (2524440)	73-20-00 (1)	x	х	Х	x	
Ignition, Glow Plug	74-00-00 (1) 74-10-00 (1, 3)		Х			
Ignition, Spark	74-00-00 (2) 74-20-00 (1, 3)	Х		Х	Х	
Propeller Governor, Reversing, with Quiet Taxi Cam and Solid Link	61-20-00 (1) 76-10-00 (1)	x	Х	Х	х	

TABLE 6, PT6A-28 (Cont'd) Build Specifications (Cont'd)

4. <u>REVISIONS</u>

This Illustrated Parts Catalog will be revised periodically to incorporate latest approved data. Revised material on text and illustration pages is indicated by a black line, and revised pages carry the date of the revision.

5. SERVICE BULLETINS, SPARE PARTS BULLETINS AND PARTS DIGESTS

Part number changes introduced by Service Bulletins (SB) or Spare Parts Bulletins (SPB) are incorporated into the Illustrated Parts Catalog at subsequent revisions. References to SB and SPB (Pre and Post) are added in the nomenclature column following the description of the effected part.

NOTE: Parts digests have been superseded by SPB's.

Spare Parts Bulletins are identified PT6A SPB (e.g. PT6A SPB No.10) to indicate their applicability to the PT6A Turboprop family.

Service Bulletins are issued in sequence of ATA 72 identifiers and are prefixed 3026521-72-(e.g. 3026521-72-1) to indicate their applicability to the PT6A Turboprop family. References to Service Bulletins in the text of this manual are to P&WC in-house SB numbers (e.g. SB1001). Refer to the Service Bulletin List for cross-reference to the ATA 72 identifiers.

6. DETAILED PARTS LIST

The detailed parts list presents the engine divided into main functional groups as shown in the List of Chapter/Section/Subjects and there is a Table of Contents in front of each Detailed Parts List. These groups, as related to the overall engine, are found in Chapter 72-00-00, Figure 1, from which each is referenced to the applicable chapter/section/subject.

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Each Detailed Parts List is divided into six columns, as follows:

- Figure/Item
- Part Number
- Airline Part Number
- Nomenclature
- Effectivity Code
- Units per Assembly
- A. General System of Assembly Order

The indention system used in this catalog shows the relationship of one part to another. For a given item, the indention code shows an assembly or group descriptive title starting in the extreme left position, continuing down into succeeding columns until the end detail is reached, as follows:

1 2 3 4 5 6 7 Assembly or Group Descriptive Title

	De	etail Parts
	As	sembly
	At	taching Parts for Assembly
		Detail Parts for Assembly
		Subassembly
		Attaching Parts for Subassembly
		. Detail Parts for Subassembly
		. Sub-subassembly
		. Attaching Parts for Sub-subassembly
		Detail Parts for Sub-subassembly
-	-	
-	-	

As far as is practical, the illustrations and sequential order of the individual parts lists follow a general pattern of disassembly breakdown for the engine.

B. Attaching Parts

Attaching parts are those parts used for the fitting together of an assembly, subassembly or a sub-subassembly to its next higher assembly. These are listed in the nomenclature column with ATTACHING PARTS as a heading followed by - - - *- - - indicating the end of the attaching parts. The attaching parts listed immediately following the part that they attach and precede any detail parts breakdown of the assembly. The attaching parts are indented the same as the assembly which they attach.

C. Units per Assembly

The quantity listed in the Units per Assembly column of the detailed parts list is, in the case of each assembly, the total quantity used per engine at the location indicated; the quantity in the case of each detail part and/or subassembly indented under an assembly is the quantity used per assembly. The quantities specified, therefore, are not necessarily the total used per engine.

7. PART NUMBERING SYSTEM

The P&WC basic part numbering system consists of a straight numerical system of seven

digits within the range 3000000 through 3099999. These basic part numbers may be suffixed with letters and numbers to indicate parts available in a range of classes and/or oversize undersize dimensions which provide for necessary selectivity during engine servicing and overhaul. In addition, a series of part numbers starting with 3100000-01 through -99 has been introduced. The complete number must be quoted on procurement documentation to ensure that the correct part is supplied. No special numbering system is employed. Numbers are assigned to assemblies, subassemblies and details, as needed.

The rework part numbers given by the Service Bulletin are included in sequence below the part number of a part that can be reworked. The rework part numbers are not procurable (NP), they are only obtainable by rework of the old parts. There are no item numbers for parts that are obtainable only by rework of other parts. This system shows the actual SB evolution of the engine configuration (i.e., the most recent configuration will have the latest alpha suffix to the item number).

P&WC assigns its own part numbers in order to include P&WC "standard" items. These numbers are prefixed "ST", followed by a four-digit number in the 3000 range and a two- or three-digit dash number. In a standard range, these parts are fundamentally of the same design or shape, but differ dimensionally according to the dash number.

P&WC also assigns its own part numbers to identify items obtained from suppliers and used without alteration. The P&WC part number may be suffixed with letters corresponding to the revision level of the supplier's basic part number. The supplier part number appears in the Part Number column, and the P&WC part number appears in the Nomenclature column immediately following the supplier code.

When ***** is printed in the PART NUMBER column: refer to the NOMENCLATURE column for instructions.

An Interchangeability Control (IC) part number is used to identify and control interchangeable parts which are approved for use on the engine. In this publication, an IC number can be recognized by the word 'option' following the prime noun or key word in the Nomenclature column. Parts must be procured using the option number; supply is dependent upon the stock level, which is controlled by the supplier and not by the purchaser. Information relating to alternate parts supplied under an IC number is shown within the Nomenclature column. The actual quantity required is listed opposite the IC number.

8. ITEM NUMBERS

The Figure/Item column shows each figure number and gives the item numbers shown on that illustration. The item numbers on illustrations are used to cross-reference a specific item to a part number in the adjoining detailed parts list. Item numbers are arranged in numerical sequence in the Figure Item column of the detailed parts list. The Detailed Parts Lists follows the sequence of the engine disassembly procedures. If there is a dash (-) in front of an item number, this item is not shown on the illustration.

When a Service Bulletin (SB) or a Spare Parts Bulletin (SPB) revises a part, a new line is added for that part which will have the same item number plus a letter (A thru Z) to show that it is a revised part.

9. HOW TO USE THIS CATALOG

NUMERICAL INDEX

The function of the Numerical Index is to help the user to find the locations of each P&WC engine part and each accessory component in this IPC.

The Numerical Index is divided into the Alpha section and the Numerical section. The Alpha section gives part numbers that begin with a letter, and the Numeric section gives part numbers that begin with a number.

The Numerical Index gives all P&WC part numbers and all supplier part numbers (and equivalent P&WC part numbers) found in the Detailed Part Lists. The Numerical Index refers to the Chapter/Section/Subject and the figure where the part is illustrated. It also refers to the item number of that part on the illustration, together with the necessary quantity at each location.

The quantities listed in the Total Required column do not represent the actual total quantities required for each engine. Items listed as AR and REF are not taken into account when totals are computed.

The quantity given in the Total Required column is the total quantity necessary for a component or for an assembly.

To find the quantity of one part for the full engine at a given SB configuration: add the quantities given for all of the item numbers under that part number which are related to that configuration.

CHAPTER/SECTION NUMBERING SYSTEM

A three-element Chapter/Section/Subject number is given to each engine section. This number is in the bottom right corner of each page above the page number. These numbers are given per the Air Transport Association (ATA) Specification No. 100.

The first element of the number identifies the chapter. This illustrated Parts Catalog contains data applicable to Chapters 61 and 72 thru 79. The second element identifies the engine section. Refer to the list of Chapter/Section/Subjects for the different sections contained in this IPC.

HOW TO FIND A PART WHEN THE PART NUMBER IS KNOWN (Ref. Fig. 1)

Find the part in the part number column of the Numerical Index.

Note the chapter/section/subject, figure and item number for the part and refer to that location in the detailed parts list.

Find the Item number in the detailed parts list. This shows the part number, description and other pertinent information.

Locate the same item number on the corresponding illustration, which shows the location of the part on the engine.

HOW TO FIND A PART WHEN THE PART NUMBER IS NOT KNOWN (Ref. Fig. 2)

Refer to 72-00-00, Figure 1 (Engine Assembly, Complete) and find the figure which is most

applicable for the location of the part.

Turn to that figure and find the part on the illustration. Note the item number and refer to the corresponding detailed parts list.

Find the same item number on the detailed parts list. This shows the part number description and other pertinent information.

10. CROSS-INDEX SYSTEMS

The notation, "See...", in the Nomenclature column indicates that greater detail or additional information will be found in the referenced publication, chapter/section/subject, figure or note. Notes appear at the end of a detailed parts list.

11. CATALOG TERMS

IN SETS

The term "in sets" is used in this catalog to identify groups of parts that may be interchanged only as a complete set. Individual parts within the groups or sets may not be interchanged; they must be used as a set.

INTERCHANGEABLE WITH

The term "interchangeable with" is used in this catalog to identify a part that may be interchanged with the part indicated, without restriction, except that when a model/installation application is indicated by an effectivity code, restriction in the Nomenclature column, or a reference to a Service Bulletin, that part can only be used in the indicated model/installation.

A series of "interchangeable with" notes that lead from one part to the next are all interchangeable within that series. The model/installation effectivity for parts in a series must be adhered to. The "interchangeable with" is allowed only within the model/installation effectivity restrictions.

NOTE: The terms "In Sets" and "Interchangeable With" have been replaced with the following since the introduction of Part Replacement Codes (PRC). They may still be found in existing cataloges.

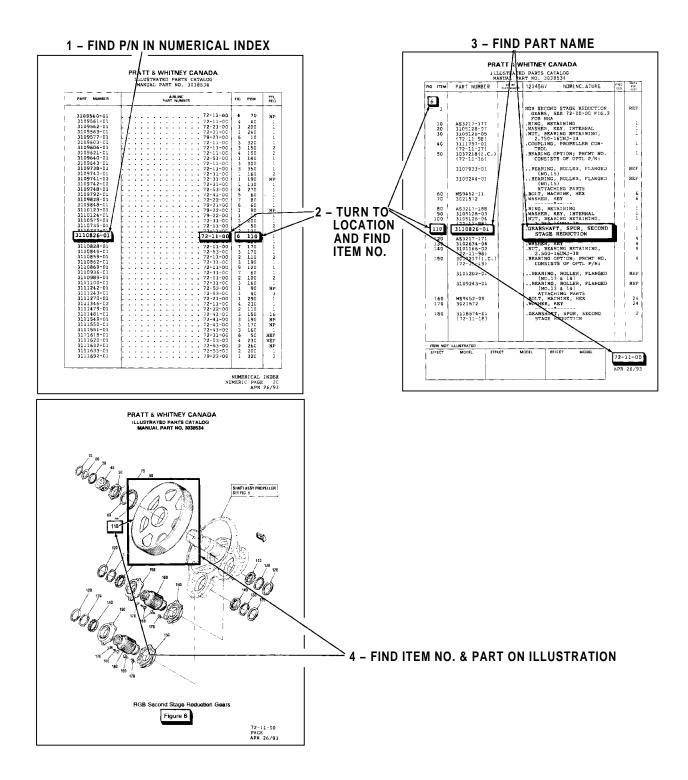
NON-INTERCHANGEABLE WITH

The term "non-interchangeable with" is used in this catalog to identify a part that may not be interchanged with the part indicated. There may be a restriction applied to this part and the referenced Parts Digest, Spare Parts Bulletin or Service Bulletin must be consulted to establish what the restriction is.

ONE-WAY INTERCHANGEABLE (PRC 01)

The old part may be used to replace the old part only; the new part may be used to replace the old and new part.

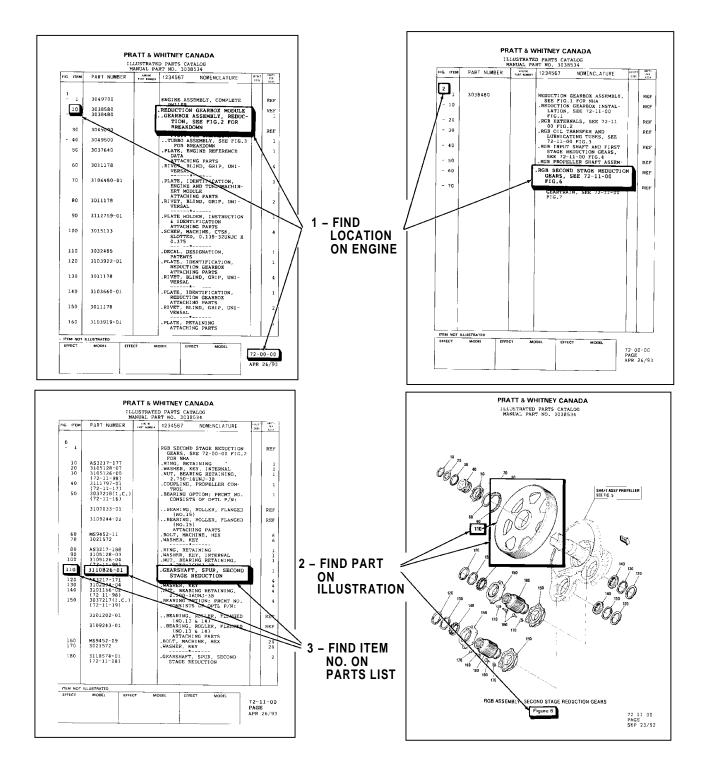
Example: new part is functionally different from the old part to the extent that installation with the airframe is affected.



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How to Find a Part When The Part Number is Known Figure 1

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How to Find a Part When The Part Number is Not Known Figure 2

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TWO-WAY INTERCHANGEABLE (PRC 02)

The old or new part can replace the old or the new part.

Example: parts can be freely interchanged.

NOT INTERCHANGEABLE (PRC 03)

The old part must be replaced with the old part; the new part must be replaced with the new part.

Example: the new part will not fit where the old part was or vice-versa, i.e. incompatible interfaces.

INTERCHANGEABLE AS A SET (PRC 06)

When replacement comprises a set consisting of a quantity of a single part number (if replacement must be the full quantity used in one model/installation).

Example: blades, gears, or other parts which must be incorporated as a set.

QUALIFIED INTERCHANGEABILITY (PRC 07)

When the above codes do not apply or when the replacement set (in explanation code 06) comprise of more than one part number

Example: When the replacement set is more than one part number, the old and the new parts are interchangeable in complete sets only.

<u>NOTE</u>: The above term is being replaced by the following new term throughout this catalog. The new term will appear in affected locations when the associated Figure is revised.

INTERCHANGEABLE AS IDENTIFIED WITH (PRC 07)

All the old parts must be replaced by all the new parts as an assembly.

The term "INTERCHANGEABLE AS IDENTIFIED WITH" is used in this catalog to identify a part that is interchangeable only as specified in the applicable Service Bulletin. The Service Bulletin must be consulted to establish the interchangeability condition.

<u>NOTE</u>: The above three terms are being replaced by the following new term throughout this catalog. The new term will appear in affected locations when the associated Figure is revised.

RESTRICTED INTERCHANGEABILITY WITH (PRC 07)

All the old parts must be replaced by all the new parts as an assembly.

The term "RESTRICTED INTERCHANGEABILITY WITH" is used in this catalog to identify a part that is interchangeable only as specified in the applicable Service Bulletin. The Service Bulletin must be consulted to establish the interchangeability condition.

DELETED

This term is used when a part is removed and no longer used as a result of SB or SPB activity.

The word "DELETED" will appear in the part number column and a "POST" reference to the SB or SPB will appear in the nomenclature column.

TRANSFERRED

For the relocation of a part to a different chapter/section/subject or figure. The nomenclature column will indicate what or where to find the part number.

N/A (Not Applicable)

This term is used when a part is removed from the IPC due to non-applicability to that particular catalog. "N/A" will appear in the part number column and the nomenclature column will be left blank.

For both "DELETED" and "N/A" a highlights page will be added to the cover sheet for IPC revisions to indicate which part numbers have been removed.

LATEST PARTS LIST NO.

This term is used to advise of the latest approved revision level of a supplier part number that does not require a P&WC part number change. Changes done by the supplier of the component, which do not affect the form, fit and function of the component, are recorded through a revision level that can be of a dash number (e.g., -1), revision letter (e.g., A) or a combination of a letter and number (e.g., L1). The latest revision level is TWO-WAY INTERCHANGEABLE with all prior revisions of the same Fig. Item Part Number.

RWK (Rework)

This term is used in the Units per Assembly column to advise that the part can only be obtained through rework. The rework number will not be assigned an item number; they will be incorporated after the "family" number (the saleable number from which they are a rework of). The nomenclature will always be followed with the term "Reworked from".

12. ABBREVIATION

Below is a list of abbreviations used in P&WC Illustrated Parts Catalogs.

ACCESS ACCY AGB APU	Accessory Accessory Accessory Gearbox Auxiliary Power Unit
AR	As Required
ATA	Air Transport Association of America
BRG	Bearing
BS	Build Specification

С	Celsius
СН	Change
CL	Class; P&WC part number suffix followed by alpha or
02	numeric symbols to indicate various sizes of the basic part.
	Quantity required appears against basic part number.
	Classification data appears against part number in
	Nomenclature column.
CMM CSK	Component Maintenance Manual Countersink
CTSK	Countersunk
CTWT	
DBL	Counterweight Double
DEG	
DG	Degree
DIA	Degree Diameter
DR	Drilled
DRD	Drilled
ECU	Electronic Control Unit
EEC	Engine Electronic Control
EFC	
EFF	Effect Model
F	Fahrenheit
FCU	Fuel Control Unit
FIG	Figure
FMU	Fuel Metering Unit
FXD	Fixed
GG	Gas Generator
GP	Group
GRBX	Gearbox
HD	Head
HEX	Hexagon
HLCPS	Helical Compression
HMU	Hydromechanical Unit
HP	High Pressure
IC	Interchangeability Control
ID	Inside Diameter
IDENT	Identification
IN.	Inch
INSTL	Installation
	Interchangeable with
WITH L/H	Left Hand
LP	Leit Hand Low Pressure

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M MACH MAX MIN N/A NH SENSOR	Minus (i.e. undersize) Machine Maximum Minimum Not Applicable High Rotor Speed Sensor
NHA NL SENSOR	Next Higher Assembly Low Rotor Speed Sensor
NO.	Number
NONINTR	Non-interchangeable with
WITH NP NP SENSOR	Not Procurable Propeller Speed Sensor
OD	Outside Diameter
OPTL	Optional
OVS	Oversize
OZ	Ounce
P	Plus (i.e. oversize)
PD	Parts Digest
PL	Plate
P/N	Part Number
PRC	Part Replacement Code
PRCMT PRV	Procurement Pressure Regulating Valve Power Section
PS PT P&WC	Part Pratt & Whitney Canada
QTY	Quantity
RDCN	Reduction
REF	Reference
REQD	Required
RGB	Reduction Gearbox
R/H	Right Hand
SB	Service Bulletin
SPB	Spare Parts Bulletin
STR	Straight
TBA	To Be Advised
TEMP	Temperature
THD	Thread
WT	Weight

13. CUSTOMER SUPPORT

Customer Support representatives maintain contact with operators and service activities and are available for investigation of any specific difficulty or problem. Requests for assistance and/or AOG support should be directed to:

Pratt & Whitney Canada Corp. 1000 Marie-victorin Blvd. Longueuil, Quebec Canada J4G 1A1

Attention: Customer Support

TEL: US and Canada: 1-800-268-8000 International: (IAC)-8000-268-8000 Other: 1-450-647-8000 Telex: 05-267509 FAX: 1-450-647-2888 REF: Customer Help Desk (24-hour service)

E-mail: customerhelpdesk@pwc.ca

Telephone or write to the manager of the Spare Parts Sales Department to get details about how to order parts. You can also get information from the customer Help Desk.

Pratt & Whitney Canada Corp. 1000 Marie-victorin Blvd. Longueuil, Quebec Canada J4G 1A1

Attention: Spare Parts Sales Department

14. SUPPLIERS AND SUPPLIER SERVICES

The names of any companies provided in this publication as a possible source for required services or supplies are furnished for information purposes only.

Pratt & Whitney Canada does not endorse the work performed or supplies procured from these companies. Further, Pratt & Whitney Canada does not accept responsibility, to any degree, for the selection of such companies for such work performed or supplies procured.

15. SUPPLIER CODES

Supplier-approved codes (Ref. Table 7) appear in parentheses in the Nomenclature column, in the detailed parts list. Supplier codes are five numbers if the supplier is in North America, or four numbers prefixed by a letter to the country of the supplier. The supplier codes are listed below in alpha-numerical sequence with the corresponding supplier names and addresses.

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TABLE 7, Supplier Information

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CODE	SUPPLIER
0AFL4	Federal-Mogul Aviation Inc. Div. Champion Aviation Inc. 1230 Old Norris Road Liberty, SC 29657-3508 USA
00198	Pratt & Whitney Canada Corp. 1000 Marie-Victorin Blvd. Longueuil, Quebec Canada J4G 1A1
06848	Honeywell International Inc. Engines Systems & Services Div. 717 N. Bendix Dr. South Bend, IN 46620-1001 USA
07213	Deleted - Superseded by 06848
50148	Superseded by 0AFL4
59501	Unison Industries Inc. 7575 Baymeadows Way Jacksonville, FL 32256-7525 USA
59875	Argo-Tech Corp. Aircraft Accessories Div. 23555 Euclid Ave. Cleveland, OH 44117-1787 USA
66503	Woodward Governor Co. 5001 N. Second St. Rockford, IL 61125-7001 USA
77820	Superseded by 59501
78385	Stewart-Warner South Wind Corp. 2495 Directors Row Indianapolis, IN 46241-5534 USA
78943	Triumph Thermal Systems Inc. 200 Railroad St. Forest, OH 45843-9193 USA
83311	Unison Industries Inc. 5345 State Highway 12 Norwich, NY 13815-1246 USA

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SUPPLIER
Hamilton Sundstrand Corp. 4747 Harrison Ave. Rockford, IL 61125-7002 USA
Goodrich Controls Systems Ltd. 5595 Royalmount Ave. Montreal, Quebec Canada H4P 1J9

TABLE 7, Supplier Information (Cont'd)

16. APPLICABLE DOCUMENTATION

Table 8 shows the Component Maintenance Manual (CMM) or the Abbreviated Component Maintenance Manual (ACMM) for the engine accessories included in this IPC. The table gives the component name, the supplier code (Ref. Table 7), the supplier part number, the P&WC part number, the ATA number of the CMM or ACMM and the part number of the CMM or ACMM (if applicable).

COMPONENT	SUPPLIER CODE	SUPPLIER P/N	P&WC P/N	CMM/ACMM ATA NO.	CMM/ACMM P/N
Control, Starting	99595	25232	3019271	73-10-02	
Control, Starting	99595	25234	3019109	73-10-02	
Control, Starting	99595	25234-3	3019109b	73-10-02	
Control, Starting	99595	25098	3018672	73-10-02	
Control, Starting	99595	25094	3018671	73-10-02	
Control, Starting	99595	24672	3016907	73-10-02	
Control, Starting	99595	11011564	3015071	73-10-02	
Control, Starting	99595	11011563	3013455	73-10-02	
Exciter, Ignition	59501	10-381550-1B	3014365	49-41-02	
Exciter, Ignition	59501	10-381550-1C	3014365A	49-41-02	
Exciter, Ignition	59501	10-381550-1E	3014365C	49-41-02	
Exciter, Ignition	59501	10-381550-1F	3014365E	49-41-02	

TABLE 8,	Applicable	Documentation
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TABLE 8, Applicable	Documentation	(Cont'd)
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COMPONENT	SUPPLIER CODE	SUPPLIER P/N	P&WC P/N	CMM/ACMM ATA NO.	CMM/ACMM P/N
Exciter, Ignition	59501	10-381550-1G	3014365F	49-41-02	F/IN
Exciter, Ignition	59501	10-381550-1H	3014365G	49-41-02	
Exciter, Ignition	59501	10-381550-1J	3014365H	49-41-02	
Exciter, Ignition	83311	83311-49930H	3032167B	74-10-01	
Exciter, Ignition	59501	10-381550-4	3035889	74-10-42	
Fuel Control Unit	06848	2524281-1	3011502	73-20-31	
Fuel Control Unit	06848	2524440-4	3015526C	73-20-31	
Fuel Control Unit	06848	2524440-5	3015526E	73-20-31	
Fuel Control Unit	06848	3244786-2	3033367	73-20-43	
Fuel Control Unit	06848	3244786-3	3033367A	73-20-43	
Fuel Control Unit	06848	3244786-5	3040397	73-20-43	
Governor, Propeller	66503	8210-003	3015476	61-20-01	
Governor, Propeller	66503	8210-003H	3015381F	61-20-01	
Governor, Propeller	66503	8210-003K	3015381H	61-20-01	
Governor, Propeller	66503	8210-003L	3015381J	61-20-01	
Governor, Propeller	66503	8210-003M	3032016	61-20-01	
Governor, Propeller	66503	8210-003N	3032016A	61-20-14	
Governor, Propeller	66503	8210-003P	3032016B	61-20-01	
Governor, Propeller	66503	8210-003R	3035927	61-20-01	
Governor, Propeller	66503	8210-002V	3011540J	61-20-01	
Governor, Propeller	66503	8210-002W	3011540K	61-20-01	

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COMPONENT	SUPPLIER CODE	SUPPLIER P/N	P&WC P/N	CMM/ACMM ATA NO.	CMM/ACMM P/N
Governor, Propeller	66503	8210-002Y	3032015	61-20-01	
Governor, Propeller	66503	8210-025B	3032122	61-20-06	
Governor, Propeller	66503	8210-025C	3032122A	61-20-06	
Governor, Propeller	66503	8210-002AA	3032015A	61-20-01	
Governor, Propeller	66503	8210-002AB	3032015B	61-20-01	
Governor, Propeller	66503	8210-002AC	3035926	61-20-01	
Governor, Propeller	66503	8210-025D	3035926	61-20-01	
Governor, Propeller	66503	8210-025E	3032122B	61-20-06	
Governor, Propeller	66503	8210-004K	3015362K	61-20-01	
Governor, Propeller	66503	8210-004L	3015362L	61-20-01	
Governor, Propeller	66503	8210-004M	3032017	61-20-01	
Governor, Propeller	66503	8210-004N	3032017A	61-20-14	
Governor, Propeller	66503	8210-004P	3032017B	61-20-01	
Governor, Propeller	66503	8210-004R	3035928	61-20-01	
Heater, Oil-to-Fuel	78943	UA525193-6	3011475	73-13-03	
Heater, Oil-to-Fuel	78943	UA525193-7	3018828	73-13-03	
Heater, Oil-to-Fuel	78385	10552B	3021847	73-10-03	
Heater, Oil-to-Fuel	78385	10552C	3030645	73-10-03	
Heater, Oil-to-Fuel	78385	10552D	3031974	73-10-03	

TABLE 8, Applicable Documentation (Cont'd)

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COMPONENT	SUPPLIER CODE	SUPPLIER P/N	P&WC P/N	CMM/ACMM ATA NO.	CMM/ACMM P/N
Heater, Oil-to-Fuel	78385	10552E	3032710	73-10-03	
Pump, Fuel	99167	024800-101B	3018370	28-20-12	
Pump, Fuel	99167	024800-104	3018630	28-20-12	
Pump, Fuel	99167	025323-101-01	3019044D	73-10-02	
Pump, Fuel	99167	025323-101-02	3019044E	73-10-02	
Pump, Fuel	99167	025323-101-03	3031709	73-10-02	
Pump, Fuel	59875	386101-5	3034794	73-10-02	
Valve, Flow Divider and Dump	99595	25536	3019906	73-10-01	
Valve, Flow Divider and Purge	06848	3244801-1	3033998	73-10-01	
Valve, Flow Divider and Purge	99595	25920	3035228	73-10-01	

TABLE 8, Applicable Documentation (Cont'd)

17. OPTIONS

Table 9 gives data about the procurable parts that are used for different nut options. The option (IC) part numbers are given in alpha-numerical sequence with the detail part numbers indented below the Name/Detail Part Number column.

You must use the option part numbers to order parts and the supplier will supply the detail part which is available in his stock.

Table 9 gives nut options only. All the other parts that have options are given in the Detailed Parts List. The option part number, followed by (IC), is shown after the item number and the name tells you that it is an option which consists of the detail part numbers that follow.

IC No.	DESCRIPTION	CONSISTS OF
ST3066-11	NUT OPTION, SLFLKG, DBL HEX, 0.3125-24UNJF-3B	ST3064-11 ST3065-11
ST3066-12	NUT OPTION, SLFLKG, DBL HEX, 0.375-24UNJF-3B	ST3064-12 ST3065-12
ST3081-10	NUT OPTION, SLFLKG, HEX, 0.190-32UNJF-3B	ST2160-10 ST2161-10 ST2162-09

TABLE 9, Options

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TABLE 9, Options (Cont'd)

IC No.	DESCRIPTION	CONSISTS OF
3012404	NUT OPTION, SLFLKG, PLATE, TWO LUG, FLOATING, 0.250-28UNJF-3B	3012402 3012403
3012408	NUT OPTION, SLFLKG, HEX, 0.112-48UNF-3B	3012334 3012407
3012414	NUT OPTION, SLFLKG, 12 POINT, 0.190-32UNS-3B	3012411 3012413
3012675	NUT OPTION, SLFLKG, HEX 0.190-32UNJF-3B	3012674 3028286
3012680	NUT OPTION, SLFLKG, HEX 0.250-28UNJF-3B	3012679 3028287
3013273	NUT OPTION, SLFLKG, PLATE, TWO LUG, CORNER, 0.190-32UNJF-3B	3013271 3013272
3015234	NUT OPTION, SLFLKG, SHANK, 0.190-32UNJF-3BG	3015232 3015233 3016299
3016606	NUT OPTION, SLFLKG, DBL HEX, 0.190-32UNJF-3BG	3016548 3016637 ST3044-09
3016611	NUT OPTION, SLFLKG, PLATE, 0.190-32UNJF-3B	3016558 3016559
3021772	NUT OPTION, SLFLKG, HEX, 0.3125-24UNJF-3B	3021770 3021771

18. PART SUBSTITUTION LIST

A. Purpose

The Part Substitution List (PSL) Table 10 is provided to facilitate the identification of optional parts that can be used in place of the P&WC required part.

B. Use Of List

The required part number is listed in the left hand column of the PSL. The acceptable substitute part number(s) are listed in the right hand column. The substitute part number(s) are listed from top to bottom in diminishing order of preferred use.

When Interchangeability Control (IC) numbers are listed for nuts as acceptable substitute part numbers, refer to Table 9 for the OPTION (IC) part numbers.

C. Size Selection

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An asterisk " * " indicates that the required part number and its acceptable substitute part number(s) must have the same dash number.

D. Part Substitution List

TABLE 10, Part Substitution List

REQUIRED PART NO.	DESCRIPTION	ACCEPTABLE SUBSTITUTE PART NUMBER
3001957	SPRING	ST3316-01
3012254	NUT, PLAIN	ST3361 -01
3024618	BOLT, TEE	ST3502-08
3025561	WASHER, FLAT	ST3322-01
3030367	CLAMP, LOOP	ST3517-01

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