

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TYPE CERTIFICATE DATA SHEET E00073EN	TCDS NUMBER E00080EN REVISION: 1 DATE: July 15, 2009 PRATT & WHITNEY CANADA, CORP. MODEL: PW617F-E
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Engines of models described herein conforming with this data sheet (which is part of Type Certificate Number E00080EN) and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

TYPE CERTIFICATE (TC) HOLDER: Pratt & Whitney Canada, Corp.
 (Formerly Pratt & Whitney Canada, Inc.)
 1000 Marie-Victorin
 Longueuil, Québec
 Canada J4G 1A1

MODEL	PW617F-E
TYPE	Twin spool controlled by Full Authority Digital Electronic Control (FADEC). Turbomachinery is comprised of a single stage fan driven by a single stage low pressure turbine, a high pressure compressor consisting of one mixed flow compressor stage and one centrifugal compressor stage, one stage high pressure turbine, annular reverse-flow fully effusion cooled combustor with internally mounted fuel manifold, and an integrated mono case.

Rating (see Note 1, 2)	Thrust		Ambient Limit		Indicated Turbine temperature	
	DaN	lb.	C	F	C	F
Maximum	809.6	1820	15	59	845	1553
Takeoff	749.5	1695	25	77	830	1526
Maximum Continuous	710.8	1598	20	68	830	1526

Engine Operation Limits						
Operating Condition		Operating Limits				
Thrust	Time Limits (min.)	Max. ITT (C)	N2 RPM (%)	N1 RPM (%)	Oil Press. psig	Oil temp (C) Min to Max
Maximum	10	845	40,200(100.4%)	19,845(100%)	-	-
Takeoff	5	830	40,200(100.4%)	19,845(100%)	See Note 5	14 to 130
Max. continuous	-	830	40,200(100.4%)	19,845(100%)	See Note 5	14 to 130
Starting	-	950	-	-	0 to 275	-40 min.
Transient	20 sec 90 sec	862	40,840(102%)	20,043(101%)	See Note 5	- 130 to 141

Accessory power Extraction Limitations	Maximum limitations are defined in the Installation Manual.
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AIR BLEED,	
A. Maximum bleed air available	Up to 9.1% of core flow at all altitudes
B. During starting:	Bleed air not permitted
C. Bleed air contamination meets:	Para 3.1.2.11.3 of MIL-E-5007E

PAGE	1	2	3	4	LEGEND: "-.-" INDICATES "SAME AS PRECEDING MODEL" "-.-" NOT APPLICABLE NOTE: SIGNIFICANT CHANGES ARE BLACK-LINED IN THE LEFT MARGIN.
REV.	1		1	1	

FUEL	
Fuel Bleed	A motive flow output is provided from the Fuel Metering Unit (FMU) motive flow port. Refer to Installation Manual.
Fuel Pressure	Refer to applicable Installation Manual.
Fuel temperature	(a) The minimum allowable fuel tank temperature is -40F(-40C) when operating without fuel anti-icing additive. (b) Maximum fuel pump inlet temperature for starting and operating is 150°F(65.5°C) for typical wide cut fuels and 221°F(105°C) for kerosene type fuels. at sea level; minimum inlet temperature is -31°F(-35°C), Refer to Installation Manual for additional information.
Fuel type	Fuels and additives conforming to the specifications listed in applicable P&WC Maintenance Manual are approved for use.

OIL													
	Refer to Installation Manual for oil pressure and temperature												
	Refer to Maintenance manual for approved oil type and brand												
	Oil Capacity												
	<table border="1"> <thead> <tr> <th></th> <th>Litres</th> <th>Lmp. Gallons</th> <th>U.S. gallon</th> </tr> </thead> <tbody> <tr> <td>Total:</td> <td>3.79</td> <td>0.83</td> <td>1.00</td> </tr> <tr> <td>Usable</td> <td>0.89</td> <td>0.20</td> <td>0.24</td> </tr> </tbody> </table>		Litres	Lmp. Gallons	U.S. gallon	Total:	3.79	0.83	1.00	Usable	0.89	0.20	0.24
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Total:	3.79	0.83	1.00										
Usable	0.89	0.20	0.24										

ACCESSORY DRIVES	The following apply to the accessory drive, which is provided by the engine:					
			SPEED RATIO TO N2	MAXIMUM TORQUE (in. - lb.)		MAXIMUM OVERHANG
	DRIVE	ROTATION	SHAFT	CONTINUOUS	STATIC	(in.-lb.)
	DRIVEN BY HIGH ROTOR Starter generator	CW	0.3	200	1600	210
	*CW - Clockwise facing accessory pad. The power extraction from the start generator pad under continuous operation is limited to a maximum of 20 hp. The power extraction from the starter generator pad under overload conditions occurring for periods of 5 minutes maximum at the frequency of once per 4 hrs is limited to 30 hp. The power extraction from the starter generator pad under overload conditions occurring for periods of 5 seconds maximum at the frequency of once per 4 hrs is limited to 40 hp.					

IGNITION	
Exciter P/N	Refer to Assembly Parts List
Igniter plug P/N	Refer to Assembly Parts List

PRINCIPAL DIMENSIONS	Refer to Installation Drawing referenced in approved Installation Manual.
C.G. LOCATION	Refer to Installation Drawing referenced in approved Installation Manual.

MAXIMUM ENGINE DRY WEIGHT	Includes basic bill of material components and sensors required for engine operation and monitoring.
MODEL	
PW617F-E	380 lbm

CERTIFICATION BASIS:	
Models PW617F-E	FAR 21.29, FAR 33, Amendments 1 through 20 inclusive effective December 13, 2000 and FAR 34, Amendment 3, effective February 3, 1999.

MODEL	TYPE CERTIFICATE NUMBER E00073EN		
	APPLIED FOR	ISSUED/ REVISED	DELETED
PW617F-E	January 10, 2006	July 15, 2009	

IMPORT REQUIREMENTS: To be considered eligible for installation on United States (U.S.) registered aircraft, each engine to be exported to the U.S. shall be accompanied by a certificate of airworthiness for export or by a certifying statement, endorsed by the exporting cognizant civil airworthiness authority which contains the following language:

- (1) This engine conforms to its Type Certificate Number and is in a condition for safe operation.
- (2) This engine has been subjected by the manufacturer to a final operational check and is in a proper state of airworthiness.

Reference FAR Section 21.500, which provides for the airworthiness acceptance of aircraft engines manufactured outside of the U.S. and for which a U.S. type certificate has been issued. Additional guidance is contained in FAA Advisory Circular 21-23, "Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported into the United States."

NOTES

- NOTE 1. The engine ratings for PW617F-E engine model are based on dry sea level static ICAO standard atmospheric conditions. No accessory loads or air bleed.
- The quoted ratings are obtainable on a test stand with specified fuel and oil, and using the exhaust duct and intake bell mouth specified in the Installation Manual.
- NOTE 2. Take-off ratings that are limited to 5 minutes duration may be used for up to 10 minutes for OEI operations without adverse effects upon engine airworthiness. Such operations are anticipated on an infrequent basis (as engine failure at take-off events is uncommon) and no limits or special inspections have been imposed.
- NOTE 3. Minimum permissible flight idle N2 for PW617F-E is: 23,623 RPM (59%)
- NOTE 4. Instructions for Continued Airworthiness (ICA) are listed in:
Maintenance Manuals - P/N 3072696
Line Maintenance Manual – P/N 3072162
Overhaul Manual – P/N 3072163
- NOTE 5. Refer to Installation Manual ER6331
- NOTE 6. Rotor component parts are life limited. Life limits are listed in Airworthiness Limitation Manual: P/N 3072699
- NOTE 7. Approved Publications:
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| Installation Manual | ER6331 |
| FADEC Interface Control Document | ER6370-01 |
| Airworthiness Limitation Manual | P/N 3072699 |
| Overhaul Manual | P/N 3072163 |
| Assembly Parts List for production engines | 35C3100 Revision J and subsequent revision |

- NOTE 8. Refer to Installation Manual, ER6331 for accessory drives specifications; principle dimensions; weights, inertias and centre of gravity locations; and additional information on provisions and connections to airframe provided vibration, Oil pressure and temperature and fuel flow sensor
- NOTE 9. (deleted)
- NOTE 10. The engine is approved for multiple engine installations only.
- NOTE 11. The engine is not approved for use with a thrust reverser.
- NOTE 12. The software contained in the Electronic Engine Control has been designed, developed, tested and documented in accordance with the provision of the critical Category, Level A of RTCA/DO178B.
- NOTE 13. The Electronic Engine Control Unit has not been fire tested and therefore must not be installed in a designated fire zone.
- NOTE 14. The PW617F-E engine is approved with Time Limited Dispatch (TLD) limitations. Aircraft considerations are contained in the Installation Manual. The dispatch criteria are contained in the Airworthiness Limitation Manual P/N 3072699.
- NOTE 15. Service bulletins, structural repair manuals, vendor manual, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is Transport Canada-approved, are acceptable by the FAA and are considered FAA-approved unless otherwise noted. These approvals pertain to the type design only.

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