

U. S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TYPE CERTIFICATE DATA SHEET E00065NE	TCDS NUMBER: E00065NE REVISION: 7 DATE: April 2, 2013 PRATT & WHITNEY CANADA CORPORATION MODELS: PW308A, PW308C
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Engines of models described herein conforming with this data sheet (which is part of Type Certificate Number E00065NE) 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 Corporation
 1000 Marie-Victorin
 Longueuil, Quebec
 Canada, J4G 1A1

MODELS:	PW308A	PW308C	
TYPE	Twin spool turbofan with a low compressor consisting of a single stage fan, a high pressure compressor consisting of four axial stages and one centrifugal stage, annular combustor, two stage high pressure turbine, and three stage low pressure turbine.		
THRUST RATING, POUNDS (See Note 1)			
Maximum continuous at sea level	6,904	6,998	
Normal Takeoff (5 min.) at sea level	6,904	6,998	
Maximum takeoff (5 min) at sea level (See Note 12)	---	7,002	
OEI Takeoff (10 min) (See Note 14)	6,904	7,002	
ENGINE SPEED LIMITATIONS, RPM (See Note 3 and also refer to Installation Manual for transients)			
Max steady state low rotor (N1)	10,660	--	
Max steady state high rotor (N2)	27,316	--	

INTERTURBINE TEMPERATURE	°F/°C	°F/°C	
MODELS:	PW308A	PW308C	
Normal Takeoff (5 min.)	1,607/ 875	--	
Maximum takeoff (5 min) (See Note 12)	---	1607/875	
OEI Takeoff (10 min)	1,607/875	--	
Maximum continuous	1,580/ 860	--	
Starting (5 sec.)	1,742/ 950	--	
Transient (5 sec.)	1,670/910	--	
Transient (20 sec.)	1,634/890	--	
(Also see Installation Manual)			
OIL INLET TEMPERATURE	°F/°C	°F/°C	
MODELS:	PW308A	PW308C	
Maximum	275/ 135	--	
Minimum (Normal above idle)	50/ 10	--	
Transient maximum (90 sec.)	289/ 143	--	
Starting (minimum)	-40/ -40	--	

PAGE	1	2	3	4	5	LEGEND: "--" INDICATES "SAME AS PRECEDING MODEL" "---" NOT APPLICABLE
REV.	7	4	7	7	7	

(Also see Installation Manual)			
MAXIMUM ACCESSORY TEMP.	The engine compartment shall be ventilated as necessary to keep the air temperature surrounding accessory components from exceeding the limits defined in the applicable Installation Manual.		

AIR BLEED, MODELS:	PW308A	PW308C	
A. Maximum external bleed air available is:	15% of high compressor air flow up to 51,000 ft. Refer to applicable Installation Manual for individual LP and HP bleed limits and air available for nacelle anti-icing.		
B. Fan bypass flow	2.0% of bypass flow	---	
C. During starting:	Bleed air not permitted.		
D. Bleed air contamination meets:	Paragraph 3.18 of MIL-E-005007E		

FUEL / ALL MODELS Fuel Bleed	PW308A: Fuel from pump delivery may be extracted to drive jet or turbine pumps in the airplane fuel system. PW308C: Fuel from pump delivery is not extracted for use by the airplane fuel system. Refer to the applicable Installation Manual.
Fuel Pressure	Refer to applicable Installation Manual.
Fuel Temperature	Refer to applicable Installation Manual.
Fuel Type	Fuels and additives conforming with the specifications listed in the applicable P&WC Maintenance Manual are approved for use (see Note 7).

FUEL COMPONENTS	INTEGRAL FUEL PUMP / CONTROL	ELECTRONIC ENGINE CONTROL
PW308A	Refer to Engine Assy P/L	Refer to Engine Assy P/L
PW308C	Refer to Engine Assy P/L	Refer to Engine Assy P/L

OIL MODELS:	PW308A	PW308C
OIL PRESSURE	psid	psid
Minimum at ground idle & flight idle	20	--
Normal minimum above idle	36	--
Maximum	106	--
Transient (20 seconds)	0-220	--
OIL TYPE	Oils conforming to the Specifications listed in the applicable P&WC Maintenance Manual are approved for use (see Note 7).	
OIL TANK CAPACITY		
Total capacity		
Imperial gallons	2.1	2.0
U.S. gallons	2.5	2.4
Usable capacity		
Imperial gallons	0.51	0.41
U.S. gallons	0.61	0.49

ACCESSORY DRIVES	The following apply to the accessory drives, which are provided by the engine and included in the basic engine weight:					
	DRIVE	ROTATION*	SPEED RATIO TO TURBINE SHAFT	MAXIMUM TORQUE (in. - lb.)		MAXIMUM OVERHANG (in. - lb.)
				CONTINUOUS	STATIC	
PW308A	DRIVEN BY HIGH ROTOR					
	Hydraulic pump	CW	0.27	147/103	1800	90
	AC generator	CW	0.52	416/255	2800	450
	Starter	CW	0.45	1614	4500	400
PW308C	DRIVEN BY HIGH ROTOR					
	Hydraulic Pump	CCW	0.36	125	1000	90
	DC generator	CCW	0.47	200	2200	300
	Opt. DC generator	CCW	0.37	200	2200	300
	Opt. Hydr. pump	CCW	0.37	125	2200	300
	Starter	CW	0.45	1690	4500	400
*Direction of shaft rotation facing accessory pad; CW = Clockwise; CCW = Counter-Clockwise. Total accessory power limit is dependent on high rotor speed, operating altitude, and engine bleed flow. Maximum continuous hydraulic pump, AC generator, and DC generator torque are dependent on N2 rotor speed. Refer to the applicable Installation Manual and Installation Drawing.						

IGNITION	MODEL: PW308A	MODEL: PW308C
Exciter		
Federal Mogul Aviation	Refer to Engine Assy P/L	Refer to Engine Assy P/L
Igniter plug		
Federal Mogul Aviation	Refer to Engine Assy P/L	Refer to Engine Assy P/L

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

MAXIMUM ENGINE DRY WEIGHT	Includes basic bill of material components and sensors required for engine operation and monitoring.
MODEL	
PW308A	1364.0 lb.
PW308C	1371.0 lb.

EQUIPMENT	MODEL: PW308A	MODEL: PW308C
See Note 15	Fuel pump, ecology valve, fuel filter and electrical impending bypass indicator, control system (dual channel FADEC with dedicated power source), and fuel flowmeter for aircraft indication are standard equipment as shown in the Engine Assembly Parts List. Required equipment also includes a chip detector, or other metallic debris-detecting device to be approved by the FAA, oil pressure sensor, oil temperature sensor and electrical impending bypass indicator, and vibration sensor. For additional information refer to the Installation Manual. For output drive specification, accessory drives, principal dimensions, weights, and inertias and center of gravity locations, refer to the Installation Manual.	Build Spec 1047: As per PW308A, with the exception of the ecology valve, which is replaced by an ecology tank and dump valve. Build Spec. 1289: As per PW308A, with the exception of elimination of ecology system.

CERTIFICATION BASIS Models: PW308A, PW308C	14 CFR Part 33, effective February 1, 1965, including Amendments 1 through 20 inclusive, and 14 CFR Part 34, Amendment 5, effective December 31, 2012 (See Note 16).
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MODEL	TYPE CERTIFICATE NUMBER E00065NE		
	APPLIED FOR	ISSUED/REVISED	DELETED
PW308A	07/05/99	03/22/01	
PW308C	10/10/00	12/19/2001	
IMPORT REQUIREMENTS:	<p>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 cognizant exporting civil airworthiness authority which contains the following language:</p> <p>(1) This engine conforms to its Type Certificate Number and is in a condition for safe operation.</p> <p>(2) This engine has been subjected by the manufacturer to a final operational check and is in a proper state of airworthiness.</p> <p>Reference 14 CFR 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."</p>		

NOTES

- NOTE 1:** The engine ratings are based on static sea level conditions:
- PW308A: Compressor inlet air (dry) up to 98.6°F (37°C) at takeoff and 82.4°F (28°C) at maximum continuous.
 PW308C: Compressor inlet air (dry) up to 100.4°F (38°C) at Maximum takeoff, 89.6°F (32°C) at Normal Takeoff, and 89.6°F (32°C) at maximum continuous.
- 29.92 in. Hg.
- No accessory loads or air bleed.
- Engine intake and exhaust as described in the applicable Transport Canada approved Installation Manual.
- NOTE 2:** PW308A: The AC generator pad may be overloaded in an emergency to a torque of 500 in.-lb. for periods up to 5 minutes, subject to total accessory power not exceeding Installation Manual limits. In the case of One-Engine-Inoperative (OEI) Takeoff, the limit is 10 minutes.
- PW308C: The DC generator pads may be overloaded in an emergency to a torque of 250 in.-lb. For periods up to 160 seconds, subject to total accessory power not exceeding Installation Manual limits.
- NOTE 3:** Minimum permissible flight idle N2 is 16,657 RPM (62.2 %) corrected.
- NOTE 4:** Certain engine parts are life limited. For PW308A engines, these life limits are listed in the Airworthiness Limitation Section of P&WC Maintenance Manual P/N 3043622. For PW308C engines, these life limits are listed in the Airworthiness Limitation Section of P&WC Maintenance Manual P/N 30C3882.
- NOTE 5:** Permissible overhaul and inspection intervals are listed in P&WC Maintenance Manual P/N 3043622. Permissible overhaul and inspection intervals for the PW308C engine are listed in P&WC Maintenance Manual P/N 30C3882.
- NOTE 6:** Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is Transport Canada-approved, are accepted by the FAA and are considered FAA-approved unless otherwise noted. These approvals pertain to the type design only.
- NOTE 7:**

Approved Publications:	PW308A	PW308C
Installation Manual	ER3973	ER5074
FADEC Interface Control Document	ER3971	ER5072
Assembly Parts List No. for first production engines	30C2000	30C3205
Airworthiness Limitations Section of Maintenance Manual		
Maintenance Manual	P/N 3043622	P/N 30C3882
Overhaul Manual	P/N 3043623	P/N 30C3883

- NOTE 8:** The software contained in the Electronic Engine Control has been designed, developed, tested and documented in accordance with the provisions of the Critical Category, Level A of RTCA/DO178B.
- NOTE 9:** The engine bill of material does not include a thrust reverser. Considerations for the installation of a thrust reverser are contained in the applicable Installation Manual.
- NOTE 10:** Reserved.
- NOTE 11:** The PW308 series engine models are approved for multiple engine installations only.
- NOTE 12:** The PW308C engine includes provisions for automatic power increase to Maximum Takeoff. For this engine model, the limitations stated for Normal Takeoff are to ensure that the Maximum Takeoff limitations are not exceeded in the event of an automatic power increase to Maximum Takeoff. Refer to Table 2-1 in the Installation Manual.
- NOTE 13:** The PW308A and PW308C engines can be operated with certain detected FADEC faults in accordance with TLD policy. Aircraft considerations are contained in the Installation Manual, and time limits are contained in the Airworthiness Limitations section of the Maintenance Manual.
- NOTE 14:** The take-off ratings that are nominally limited to 5 minutes duration may be used for up to 10 minutes for one engine inoperative operations without adverse effects upon engine airworthiness. Such operations are anticipated on an infrequent basis (as engine failure events during take-off are uncommon). Refer to the Engine Maintenance Manual Chapter 05-10-00 for any subsequent maintenance actions.
- NOTE 15:** The engine bill of material does not include a thrust reverser. Considerations for the installation of a thrust reverser are contained in the Installation Manual.
- NOTE 16:** The following emissions standards promulgated in 14 CFR Part 34, Amendment 5, effective December 31, 2012 and 40 CFR Part 87, effective July 18, 2012 have been complied with for the PW308A and PW308C:
- Fuel Venting Emissions Standards: 14 CFR §§ 34.10(b) and 34.11; in addition, 40 CFR §§ 87.10(b) and 87.11.
- Smoke Number Emissions Standards: 14 CFR § 34.21(a)(1); in addition, 40 CFR § 87.23(c)(1).
- In addition to the FAA's finding of compliance based on the certification requirements defined in this TCDS, the engine manufacturer has declared that the ICAO emissions standards identified in Annex 16, Volume II, Third Edition, Part III, Chapter 2, Section 2.2.2 for SN, Part II Chapter 2 for fuel venting have also been demonstrated.

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