

**REPÚBLICA FEDERATIVA DO BRASIL  
AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - ANAC**

**TYPE CERTIFICATE DATA SHEET Nº EM-9707**

Type Certificate Holder:

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**CANADA**

EM-9707-05

Sheet 01

PRATT & WHITNEY

PW206C, PW206B  
PW207D, PW206B2  
PW206A, PW206E  
PW207E, PW207C

July 2006

Engines of models described herein conforming with this data sheet, which is part of Type Certificate No. 9707, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Brazilian Aeronautical Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other instructions.

**MODELS** PW206C, PW206B, PW207D, PW206B2, PW206A, PW206E, PW207E, PW207C

**TYPE** Twin-spool free turbine turboshaft engine incorporating a single stage centrifugal compressor, reverse flow annular combustor, and a single stage shrouded power turbine.

<b>RATINGS</b>		PW206C	PW206B	PW207D	PW206B2
(See Note 4)	Shaft horsepower, shp (kw)				
	30 sec. OEI	#	#	676 (504)	734 (547)
	2 min. OEI	#	#	676 (504)	716 (534)
	2 1/2 min. OEI	653 (487)	573 (427)	#	#
	30 min. OEI	#	#	572 (426)	#

Legend: "--" Same as preceding # Does not apply

**RATINGS (Cont.)**

(See Note 4)

	PW206C	PW206B	PW207D	PW206B2
Continuous OEI	633 (472)	493 (368)	572 (426)	492 (368)
Takeoff (5 min)	561 (418)	431 (321)	572 (426)	431 (321)
Max. Continuous	561 (418)	431 (321)	572 (426)	431 (321)
Output shaft speed, rpm				
30 sec. OEI	#	#	6 240	6 134
2 min. OEI	#	#	6 240	6 134
2 1/2 min. OEI	6 151	6 165	#	#
30 min. OEI	#	#	6 240	#
Continuous OEI	6 151	6 165	6 240	6 134
Takeoff (5 min)	6 151	6 165	6 240	6 134
Max. Continuous	6 151	6 165	6 240	6 134

**LIMITATIONS**

Engine rotor speed limits

See Note 1

**RATINGS**

(See Note 4)

	PW206A	PW206E	PW207E	PW207C
Shaft horsepower, shp (kw)				
30 sec. OEI	#	#	#	#
2 min. OEI	#	#	#	#
2 1/2 min. OEI	676 (504)	682 (509)	728 (543)	745 (555)
30 min. OEI	#	#	#	#
Continuous OEI	621 (463)	646 (482)	646 (482)	646 (482)
Takeoff (5 min)	621 (463)	646 (482)	646 (482)	572 (426)
Max. Continuous	550 (410)	572 (426)	572 (426)	572 (426)

<b>RATINGS (Cont.)</b> (See Note 4)		PW206A	PW206E	PW207E	PW207C
Output shaft speed, rpm					
30 sec. OEI		#	#	#	#
2 min. OEI		#	#	#	#
2 1/2 min. OEI		6 271	6 271	6 271	6 151
30 min. OEI		#	#	#	#
Continuous OEI		6 271	6 271	6 271	6 151
Takeoff (5 min)		6 271	6 271	6 271	6 151
Max. Continuous		6 271	6 271	6 271	6 151
<b>LIMITATIONS</b>	Engine rotor speed limits			See Note 1	
<b>FUEL TYPE</b>	Fuel conforming to the current PWC Specification No. CPW 204 and later revisions. For further details refer to the applicable Maintenance Manual for each model (See Note 13 for Maintenance Manual part number).				
<b>OIL, TYPE</b>	Synthetic type conforming to the current PWA Specification Number PWA521 Type II. For approved brands refer to the applicable Maintenance Manual for each model (See Note 13 for Maintenance Manual part number).				
<b>TEMPERATURE LIMITS</b>	See Note 2.				
<b>PRESSURE LIMITS</b>	See Note 3.				
<b>EQUIPMENT</b>	Fuel metering unit including fuel pump, engine electronic control unit, fuel control alternator and ignition system without power source, are included as standard equipment as per the approved parts list. Required equipment also includes a chip detector, or there metallic debris-detecting device. For additional information, refer to Installation Manual. For output and accessory drive specifications, principal dimensions, weight and center of gravity location, refer to Installation Manual.				
<b>AIR BLEED</b>	See Note 6.				

<b>DIMENSIONS</b>	Nominal Dimensions at Room Temp., cm (in)	PW206C	PW206B	PW207D	PW206B2
	Largest radial projection	34.72 (13.67)	39.60 (15.591)	35.23 (13.87)	39.60 (15.591)
	Length	92.18 (36.29)	103.32 (40.68)	102.44 (40.33)	103.32 (40.68)
<b>WEIGHT</b>	Dry, kg (lb)	107.5 (237)	118.9 (262.2)	110.4 (242.8)	117.2 (260.6)
<b>DIMENSIONS</b>	Nominal Dimensions at Room Temp., cm (in)	PW206A	PW206E	PW207E	PW207C
	Largest radial projection	34.72 (13.67)	34.72 (13.67)	34.72 (13.67)	35.93 (14.15)
	Length	92.38 (36.37)	96.35 (37.94)	96.45 (37.97)	93.46 (245.6)
<b>WEIGHT</b>	Dry, kg (lb)	107.5 (237)	108.6 (239.4)	108.8 (239.8)	108.7 (239.7)
<b>IMPORT REQUIREMENTS</b>	Each engine imported separately and/or spare parts must be accompanied by an export airworthiness approval issued by Transport Canada (or a third country authority, in case of used engine imported from such country) attesting that the particular engine and/or parts were submitted to the governmental quality control before delivery and are in conformity with the ANAC approved type design.				
<b>CERTIFICATION BASIS</b>	<u>PW206A</u>	<u>Model</u>	<u>Application</u>	<u>Issued TC</u>	
	RBHA 33, which corresponds to FAR 33 effective 01 February 1965, and amendments 33-1 to 33-12.	PW206C	05 Sep. 1996	09 Mar. 1997	
	<u>For PW206B, PW206C, and PW206E</u>	PW206B	23 April 1998	16 Nov. 1999	
	RBHA/FAR 33 effective 01 February 1965, Amendments 33-1 through 33-12 inclusive, RBHA/FAR A33.4 in appendix A, Amendment 33-13, and RBHA/FAR 33.1, Amendment 33-14.	PW207D	15 Dec. 1998	01 Feb. 2000	
<u>For PW207D, PW206B2, PW207E and PW207C</u>	PW206B2	05 June 2002	06 Oct 2002		
RBHA/FAR 33 effective 01 February 1965, Amendments 33-1 through 33-14 inclusive, RBHA/FAR 33.83 at Amendment 17, and RBHA/FAR 33.7, 33.29, 33.67, 33.85, 33.87, 33.88 and 33.93 at Amendment 33-18.	PW206A	23 Dec 1991	10 Nov. 2005		
	PW206E	29 Aug 1997	10 Nov. 2005		
	PW207E	11 Feb 2000	10 Nov. 2005		
	PW207C	16 Mar. 2005	10 Nov. 2005		

**NOTES:**

<b>NOTE 1</b>	<b>Engine rotor speed limits (rpm)</b>	<b>PW206C</b>	<b>PW206B</b>	<b>PW207D</b>	<b>PW206B2</b>	<b>PW206A</b>
	<b>Maximum Gas Generator Speed (100% = 57 000)</b>					
	30 sec. OEI	#	#	60 500	60 500	#
	2 min OEI	#	#	59 300	59 500	#
	2 1/2 min OEI	59 400	--	#	#	58 600
	30 min. OEI	#	#	58 700	#	#
	Continuous OEI	58 250	--	57 900	58 250	57 250
	Takeoff (5 min)	57 250	--	57 900	57 250	57 250
	Maximum Continuous	56 500	--	56 400	56 500	57 250
	Transient (20 sec)	59 994	--	Ref. Inst. Man.	Ref. Inst. Man.	59 772
	<b>Maximum Power Turbine Speed (100% =39 807)</b>					
	30 sec. OEI	#	#	41 606	40 891	#
	2 min OEI	#	#	41 606	40 891	#
	2 1/2 min OEI	40 806	40 891	#	#	41 606
	30 min. OEI	#	#	41 606	40 891	#
	Continuous OEI	40 806	40 891	41 606	40 891	41 606
	Takeoff (5 min)	40 806	40 891	41 606	40 891	41 606
	Maximum Continuous	40 806	40 891	41 606	40 891	41 606
	Transient (20 sec)	44 726	--	Ref. Inst. Man.	Ref. Inst. Man.	44 726
	<b>Maximum Output Shaft Speed</b>					
	30 sec. OEI	#	#	6 271	6 165	#
	2 min OEI	#	#	6 271	6 165	#
	2 1/2 min OEI	6 151	6 165	#	#	6 271
	30 min. OEI	#	#	6 271	#	#
	Continuous OEI	6 151	6 165	6 271	6 165	6 271
	Takeoff (5 min)	6 151	6 165	6 271	6 165	6 271
	Maximum Continuous	6 151	6 165	6 271	6 165	6 271
	Transient (20 sec)	6 741	--	Ref. Inst. Man.	Ref. Inst. Man	6 741

**NOTE 1**

<u>Engine rotor speed limits (rpm)</u>	PW206E	PW207E	PW207C
Maximum Gas Generator Speed (100% = 57 000)			
30 sec. OEI	#	#	#
2 min OEI	#	#	#
2 1/2 min OEI	59 400	59 750	59 750
30 min. OEI	#	#	#
Continuous OEI	58 250	57 900	57 900
Takeoff (5 min)	57 250	57 900	57 900
Maximum Continuous	56 500	56 400	56 400
Transient (20 sec)	59 994	60 348	60 348
Maximum Power Turbine Speed (100% =39 807)			
30 sec. OEI	#	#	#
2 min OEI	#	#	#
2 1/2 min OEI	41 606	41 606	40 806
30 min. OEI	#	#	#
Continuous OEI	41 606	41 606	40 806
Takeoff (5 min)	41 606	41 606	40 806
Maximum Continuous	41 606	41 606	40 806
Transient (20 sec)	44 726	44 726	44 726
Maximum Output Shaft Speed			
30 sec. OEI	#	#	#
2 min OEI	#	#	#
2 1/2 min OEI	6 271	6 271	6151
30 min. OEI	#	#	#
Continuous OEI	6 271	6 271	6151
Takeoff (5 min)	6 271	6 271	6151
Maximum Continuous	6 271	6 271	6151
Transient (20 sec)	6 741	6 741	6 741

<b>NOTE 2</b>	<u>Maximum Permissible Temperatures, °C</u>	PW206C	PW206B	PW207D	PW206B2	PW206A
	<u>Interturbine temperature (ITT)</u>					
	30 sec. OEI	#	#	990	990	#
	2 min OEI	#	#	950	950	#
	2 1/2 min OEI	930	--	#	#	902
	30 min. OEI	#	#	925	#	#
	Continuous OEI	885	--	900	900	863
	Takeoff (5 min)	863	854	900	869	863
	Maximum Continuous	820	--	850	835	820
	Transient (20 sec)	972	--	Ref. Inst. Man.	Ref. Inst. Man.	960
	Starting (2 sec. Max.)	875	--	--	--	875
	<u>Engine Oil Temperature Limits, °C</u>					
	Normal range:	71-120	--	71-125	71-125	71-110
	Starting Minimum:	-45	--	--	--	--
	<u>Maximum Permissible Temperatures, °C</u>	PW206E	PW207E	PW207C		
	<u>Interturbine temperature (ITT)</u>					
	30 sec. OEI	#	#	#		
	2 min OEI	#	#	#		
	2 1/2 min OEI	930	970	970		
	30 min. OEI	#	#	#		
	Continuous OEI	885	900	900		
	Takeoff (5 min)	863	900	900		
	Maximum Continuous	820	850	840		
	Transient (20 sec)	972	1 000	1 000		
	Starting (2 sec. Max.)	875	875	875		
	<u>Engine Oil Temperature Limits, °C</u>					
	Normal range:	71-110	71-125	71-128.5		
	Starting Minimum:	-45	-45	-45		

**NOTE 3**      Engine Oil Pressure Limits: Normal range: Refer to Installation Manual.

**NOTE 4**      The engine ratings are based on dry sea level static ICAO standard atmospheric conditions, with no external accessory loads and no air bleed. The quoted ratings are obtainable on a test stand with the specified fuel and oil, and with the reference intake and exhaust ducts specified in the Installation Manual.

<b>NOTE 5</b>	<u>Maximum Torque Limits ft.lb ( N.m)</u>	PW206C	PW206B	PW207D	PW206B2	PW206A
	30 sec. OEI	#	#	569 (771)	628 (852)	#
	2 min OEI	#	#	569 (771)	613 (833)	#
	2 1/2 min OEI	560 (759)	491 (665)	#	#	569 (771)
	30 min. OEI	#	#	481 (652)	#	#
	Continuous OEI	544 (737)	421 (572)	481 (652)	421 (572)	544 (737)
	Takeoff (5 min)	481 (652)	369 (500)	481 (652)	369 (500)	544 (737)
	Maximum Continuous	481 (652)	369 (500)	481 (652)	369 (500)	481 (652)
	Transient (20 sec)	725 (983)	613 (831)	Ref. Inst. Man.	Ref. Inst. Man.	725 (983)
	<u>Maximum Torque Limits ft.lb ( N.m)</u>	PW206E	PW207E	PW207C		
	30 sec. OEI	#	#	#		
	2 min OEI	#	#	#		
	2 1/2 min OEI	574 (778)	613 (831)	639 (866)		
	30 min. OEI	#	#	#		
Continuous OEI	544 (737)	544 (737)	544 (737)			
Takeoff (5 min)	544 (737)	544 (737)	491 (666)			
Maximum Continuous	481 (652)	481 (652)	491 (666)			
Transient (20 sec)	725 (983)	635 (861)	725 (983)			

**NOTE 6**      Engine Airbleed Limits:  
                   Max. external: 5% of inlet airflow.  
                   Max. during start: Nil.

**NOTE 7**      Oil Tank Capacity:  
                   Totals: 5.12 Liters ( 1.35 U.S. Gal)  
                   Usable: 1.07 Liters (0.28 U.S. Gal)



- NOTE 8**      Engine Fuel Limits:  
                   Inlet Head :        See Installation Manual for required inlet pressures and lift capability.  
                   Temperature:        Refer to Installation Manual.  
                   Viscosity:            Maximum cold starting: 12 centistokes.
- NOTE 9**      The uninstalled engine meets ANAC requirements for operating in icing conditions. This engine also meets the requirements of Canadian Airworthiness Manual 533.68 for operation in icing conditions as defined in Canadian Airworthiness Manual 529, Appendix C. The Airframe Manufacturer must give appropriate consideration to installation effects as stated in the Installation Manual.
- NOTE 10**     The software for the Electronic Engine Control (EEC) has been developed and tested in accordance with the provisions of "Flight Critical" category (Level 1) of RTCA/DO178A for the PW206A, PW206B, PW206C and PW206E and the provisions of Flight Critical category (Level A) of RTCA DO178B for the PW206B2, PW207D, PW207E and PW207C.
- NOTE 11**     Lightning protection requirements and Electromagnetic Interference (EMI) emitted by the EEC system, including cables, are specified in the Installation Manual, Section 6.
- NOTE 12**     The PW206A, PW206B, PW206C, PW206E, PW207D, PW207E, PW206B2 and PW207C engine models are approved for multiple engine installations only.
- NOTE 13**     Approved Publications:  
                   1. Transport Canada approved PW206A, PW206B, PW206B2, PW206C, PW206E, PW207D, PW207E and PW207C Installation Manual.  
                   2. Transport Canada approved Parts List for the first production engine.
- | Model   | Parts List                    |
|---------|-------------------------------|
| PW206A  | A3044400                      |
| PW206B  | A3117200                      |
| PW206C  | A3120020                      |
| PW207D  | A3049028                      |
| PW206B2 | A3053245                      |
| PW206E  | A3044220                      |
| PW207E  | A3053654                      |
| PW207C  | A3053007 Rev K and subsequent |

**NOTE 13** 3. Transport Canada approved Limitations Section of the following Maintenance Manuals.

**(Cont.)**

Model	Maintenance Manual P/N	Overhaul Manual P/N
PW206A	3038324	3038325
PW206E	3038324	3038325
PW207E	3038324	3038325
PW206B	3039732	3039733
PW206C	3043322	3043323
PW207D	3043612	3043613
PW206B2	3039732	3039733
PW207C	3043322	3033323

**NOTE 14** Prior to issue of Transport Canada accepted overhaul manual, overhauls are not permitted.

**NOTE 15** 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 ANAC and are considered ANAC approved. These approvals pertain to the type design only.

**NOTE 16** The PW206A, PW206B, PW206C, PW206E, PW207E, PW207D and PW207C EEC have not been fire tested and therefore, must not be mounted in a designated fire zone.

**NOTE 17** The PW207D EEC P/N 3044140-01 is limited for experimental flight test use only. This note should be deleted as it is only applicable to the PW206D (not PW207D) and validation is not required for the PW206D.

**NOTE 18** In accordance with the provisions of ANAC requirements and TCCA Airworthiness Manual 533.4, the PW207D engines may not be operated in an aircraft with a Standard Certificate of Airworthiness until the Instructions for Continued Airworthiness are completed and accepted by the related authorities.

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