

**COMANDO DA AERONÁUTICA
DEPARTAMENTO DE PESQUISAS E DESENVOLVIMENTO
CENTRO TÉCNICO AEROESPACIAL**

TYPE CERTIFICATE DATA SHEET Nº EM-2005T11

Type Certificate Holder:

PRATT & WHITNEY CANADA Cie.
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CANADA

EM-2005T11

Sheet 01

PRATT & WHITNEY

PT6A-68C

May 2005

Engines of models described herein conforming with this data sheet, which is part of Type Certificate No. 2005T11, 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.

MODEL PT6A-68C

TYPE Free turbine turbo-propeller

RATINGS (SEE NOTE 1)	Max. Cont. & Takeoff	PT6A-68C
	Equiv. Shaft kW (hp)	1 262 (1 691)
	Shaft kW (hp)	1 194 (1 600)
	Jet Thrust kN (lb)	1.01 (228)
	Output rpm (Max.)	2 000
	Gas Gen. rpm (Max.)	39 000

LIMITATIONS	Max. Cont. & Takeoff	PT6A-68C	
	Maximum Inter Turbine Temp. (ITT) °C	860	
	Maximum Air Inlet Temp. for Rated Power (AIT) °C (°F)	31.2 (88.2)	
	Starting (5 sec)		
	Maximum Inter Turbine Temp. (ITT) °C	1 000	
AIR BLEED	Max. External : 5.25% of inlet flow	Max. during start: 1.5 lb / min.	
FUEL TYPE	Refer to P&WC Service Bulletin 18104		
OIL LUBRICATION	Refer to P&WC Service Bulletin 18101		
TEMPERATURE LIMITS	Refer to Installation Manual		
PRESSURE LIMITS	Refer to Installation Manual		
OIL TANK CAPACITY (USABLE)		Liters	U.S. Gallons
	Normal	3.0	0.79
	Aerobatic	1.0	0.26
EQUIPAMENT	Fuel Metering Unit (FMU), Fuel pump, Power Management Unit (PMU), Permanent Magnet Alternator (PMA), Propeller Interface Unit (PIU), Data Collection Unit (DCU) and ignition system without power source, are included as standard equipment as per the approved part list. For additional information, refer to Installation Manual. For output and accessory drive specifications, principal dimensions, weight and centre of gravity location, refer to Installation Manual.		
OUTPUT SHAFT	Type	Flanged	
	No. of bolt holes	12	
	No. of dowels	2	
	Diam. of bolt holes	14.96 / 15.21 mm (0.589 / 0.599 inches)	
	P.C.D.	130.18 mm (5.125 inches)	
	Reduction ratio	0.00667:1 (Np:Nf)	
	Rotation	clockwise facing forward	

PROPELLER OVER SPEED Maximum 2 180 rpm

OUTPUT TORQUE Maximum 581 kg-m (4 202 lb-ft)

IMPORT REQUIREMENTS Each engine imported separately and/or spare parts must be accompanied by an Airworthiness Certificate for Export and/or an Airworthiness Approval Tag, respectively, issued by FAA (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 CTA approved type design. The CTA type design corresponds to the FAA approved type design, as stated in CTA Report V33-0860-0 dated 11 May 2005 or further revisions

CERTIFICATION BASIS	RBHA 33 which endorse FAR 33 up to including Amendment 14, including reference to Environmental Standards FAR 34, specifically for turbo-propeller engines rated above 1 000 kW (1 340 Shp).	<u>Model</u>	<u>Application</u>	<u>Issued TC</u>
		PT6A-68C	21 October 2003	11 May 2005

NOTES:

NOTE 1 The engine ratings are based on dry sea level static ICAO Standard Atmospheric conditions. No external accessory loads and no air-bleed. The quoted ratings are obtainable on a test stand with the specified fuel and oil without intake ducting and using exhaust stubs as specified in the Installation Manual.

NOTE 2 The engine meets the requirements of CAM 533.68 for operation in icing conditions as defined in FAR 25 Appendix C when the intake system conforms with the PWC Installation Manual Instructions for inertial separation of snow and ice particles. The engine also meets the requirements of CAM 533.27 and does not require external armoring.

NOTE 3 The engine may be maintained as two modules, the separation points is the “C” flange:

	Gas Generator Module P/N	Power Section Module P/N
PT6A-68C	3055972	3055970

NOTE 4 The PT6A-68C PMU’s have not been fire tested and therefore, may only be mounted in a designated fire zone if there are instructions to select manual mode operation in the event of a fire indication in that zone.

- NOTE 5** Not applicable
- NOTE 6** Prior to issue of Transport Canada approved Overhaul Manuals, engine overhauls are not permitted. Engines may be returned to Pratt & Whitney Canada for re-manufacture to new production standard.
- NOTE 7** The software contained in the PT6A-68C Power Management Unit has designed and developed in accordance with the provisions of RTCA/DO-178B Level A.
- NOTE 8** Approved publications:
- 1 – Transport Canada Approved PT6A-68B & PT6A-68C Installation Manual.
 - 2 – Transport Canada Approved Part List for the first production engine
 - 3 – Engine Assembly Drawing No. 3055973 Change A & subsequent revisions.
 - 4 – Transport Canada approved Service Bulletins:
 - SB 18101 – Defining approved lubricating oil for the PT6A-68B & PT6A-68C.
 - SB 18202 – Defining rotor components Service Lives for the PT6A-68C
 - SB 18203 – Defining operating Times Between Overhaul (TBO), Hot Section Inspection (HSI) intervals, and sampling and escalation procedures for the PT6A-68C.
 - SB 18104 – Defining approved fuels and additives for the PT6A-68B & PT6A-68C.
 - 5 – Maintenance Manual PT6A-68C – P/N 3058462.
 - 6 – Overhaul Manual PT6A-68C – P/N 3058463

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