



TYPE CERTIFICATE DATA SHEET Nº EM-2012T11

Type Certificate Holder:

Honeywell International Inc.
111 South 34th Street
Phoenix, AZ 85034
U.S.A.

EM-2012T11-00 Sheet 01 Honeywell International Inc. T5317A-1 18 September 2012
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Engines models described herein conforming with this data sheet, which is part of Type Certificate Nº 2012T11, 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	T5317A-1
TYPE	Free turbine turboshaft; five stage axial and single stage centrifugal compressor. External annular atomizing combustion chamber. Two stage gas generator turbine. Two stage high pressure turbine.
POWER RATINGS	T5317A-1
(See Note 1 and 2)	Maximum continuous, at sea level, kW (shp). 1 007 (1 350)
	Optimum output shaft r.p.m. at max. continuous 6 230
	Take-off (5min), at sea level, kW (shp). 1 118 (1 500)
	Optimum output shaft r.p.m. at takeoff 6 462

Legend: "--" same as the previous; "#" not applicable.

		T5317A-1
DIMENSIONS	Length, cm (in)	120.9 (47.60)
	Max. Diameter, cm (in)	62.2 (24.50)
CENTER OF GRAVITY	Aft of front mount pad center line, cm (in)	36.52 (14.38)
	Below engine horizontal centerline, cm (in)	1.93 (0.76)
WEIGHT	Dry Powerplant, kg (lb)	245.4 (541)
	The weight includes standard equipment delivered with the engine but without starter, two tachometer generators, oil tank and oil cooler.	
FUEL AND ADDITIVES	MIL-DTL-5624, grades JP-4 and JP-5. MIL-DTL-83133, grade JP-8. ASTM D1655 Jet A, Jet A-1 and Jet B. Refer to Honeywell International Inc. Maintenance Manual 330.2 for approved fuels and additives.	
FUEL CONTROL	GPECS Model TA-7 with integral dual element pump.	
OIL LUBRICATION	MIL-PRF-7808 or MIL-PRF-23699.	
OIL CAPACITY	Refer to Installation Manual P/N 21-12573 for oil system capacity.	
AIR BLEED	Maximum permissible air bleed extraction limits are in the Installation Instructions P/N 21-12573, figure 1-7.	
ROTATIONAL SPEED LIMITATIONS	See Note 2	
ENGINE TEMPERATURE LIMITATIONS	See Note 3	
TORQUE LIMITATIONS	See Note 4	
FUEL AND OIL LIMITATIONS:	See Note 5 for Pressures and Temperatures.	
ACCESSORY DRIVE LIMITATIONS:	See Note 6 for Speed Ratio and Torque Requirements.	
AIRWORTHINESS LIMITATIONS:	See Note 10.	

CERTIFICATION BASIS The Certification Basis for the engines are the RBAC 33, which endorses the 14 CFR 33 effective 01 February 1965, including amendments 33-1 through 33-5.

Model	Application date	Type Certification Date
T5317A-1	02 May 2012	18 September 2012

IMPORT REQUIREMENTS Each engine imported separately and/or spare parts must be accompanied by an Export Airworthiness Approval 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 ANAC approved Type Design.

NOTES :

NOTE 1 Engine ratings are based on calibrated stand performance under the following conditions:

- a. Static sea level standard conditions of 15°C (59°F) and 760 mm (29.92 in).Hg.
- b. No inlet duct losses, no loading of the accessory drives and minimum permissible bleed air flow.
- c. Exhaust configuration as defined by Honeywell International Inc. drawing 1-000-031-01.

NOTE 2	Rotational Speed Limitations	T5317A-1
	Maximum continuous gas generator speed (rpm)	25 400
	Take-off (5 min) gas generator speed (rpm)	26 400
	Maximum continuous power turbine speed (rpm)	21 300
	Take-off (5 min) power turbine speed (rpm)	21 300

NOTE 3 For the T5317A-1 engine model, maximum permissible exhaust gas temperature varies with ambient temperature as shown in the FAA approved Installation Instructions P/N 21-12573.

NOTE 4	Torque Limitations, N.m (lb-ft)	T5317A-1
	Maximum continuous	1 572 (1 160)
	Take-off at sea level (5 min)	1 694 (1 250)

NOTE 5 Fuel and Oil Limitations (pressure & temperature)-

Fuel: The airframe should provide fuel pressure at all specified operation conditions.

The fuel pressure must be within the range 0 to 50 psig.

Maximum permissible fuel temperature at fuel control is 121°C (250°F).

Oil: The fuel pressure must be:

- Ground idle: 10 psi minimum
- Operating range: 20 to 100 psi
- Takeoff: 80 to 100 psi
- Max. continuous: 80 to 100 psi

Maximum permissible oil inlet temperature is 93°C (200°F).

NOTE 6 Accessory Drive Limitations

The following apply to the accessory gearbox drives, which are provided by the engine and included in the basic engine weight.

Drive	Type	Rotation	Speed Ratio	Maximum Torque, N.m (lb-in)		
				Continuous	Short Time *	Static
Gas producer tachometer	20005 XV-B modified	CW	0.1670	9.5 (7)	9.5 (7)	67.8 (50)
Starter-Generator	20002 XII-D modified	CW	0.2833	339 (250)	434 (320) ²	2169 (1600) ¹
Power takeoff	20002 XII-D modified	CW	0.5397	203.4 (150)	305 (225)	1084.6 (800) ³
Power turbine tachometer	20005 XV-B modified	CW	0.1993	9.5 (7)	9.5 (7)	67.8 (50)

Note: CW = clockwise

(*) Maximum permissible torque 5-minute periods, recurring at not less than 4-hour intervals.

(1) Maximum permissible torque during starts is 1 757 N.m (1 256 lb-in).

(2) Generator torque over 434 N.m (320 lb-in) is permissible up to a maximum of 847 N.m (625 lb-in) for not more than 15 seconds.

(3) 922 N.m (680 lb-in) on power takeoff pad when starter is installed.

NOTE 7 The T5317A-1 engine meets the requirements for adequate turbine disc integrity and rotor blade containment and do not require airframe mounted armoring. An airframe provided switch is required to test the overspeed governor prior to flight.

- NOTE 8** The T5317A-1 engine meets the requirements of RBAC / 14 CFR 33.68 for operation in icing conditions providing a minimum gas producer speed in accordance with Installation Instructions 21-12573 – figure 1-7.
- NOTE 9** The T5317A-1 engine has not been tested to evaluate the effects of bird ingestion. The bird and ice ball ingestion characteristics of the airframe air inlet and engine combination are to be evaluated prior to the approval of the engine installation.
- NOTE 10** Certain engine parts are life-limited as listed in FAA approved Honeywell International Inc. Service Bulletin No. T5313B/17-0020. .
- NOTE 11** The model T5317A-1 is similar to model T5317A except for incorporation of a unique power turbine governor and bleed band actuator

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