AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

TYPE CERTIFICATE DATA SHEET Nº EM-2006T06

Type Certificate Holder:

TELEDYNE CONTINENTAL MOTORS, INC.
2039 Broad Street
Mobile, Alabama 36615
USA

EM-2006T06-01

Sheet 01

TELEDYNE CONTINETAL

TSIO-550-C,
TSIO-550-G

February 2008

Engines of models described herein conforming with this data sheet, which is part of Type Certificate No. EM 2006T06, 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 TSIO-550-C, TSIO-550-G

TYPE 6HOA

RATINGS

	TSIO-550-C	**TSIO-550-G**
Max. continuous, hp (rpm) full throttle at:		
Sea level pressure altitude:	310 (2 600)	310 (2 700)
Max. continuous Man. Press., cm Hg (in hg)	90.17 (35.5)	86.36 (34.0)
Critical Altitude, m (ft)	5 486.40 (18 000)	6 705.60 (22 000)

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

		TSIO-550-C	TSIO-550-G
FUEL TYPE (SEE NOTE 11)	(Min. grade aviation gasoline)	100 or 100LL	100, 100LL or RH-95/130
FUEL INJECTION		TCM Injector	--
OIL, LUBRICATION	Oils meeting TCM Specification MHS-24 are eligible for use in this engine.		
IGNITION		See Note 10	--
COMPRESSION RATIO		7.5:1	--
WEIGHT (BASIC ENGINE, DRY)	kg (lb)	200.5 (442)	251.3 (554)
WEIGHT (TURBO, DRY)	kg (lb) (2 each)	12.8 (28.2)	--
BORE AND STROKE	mm (in)	133.4 x 108 (5.25 x 4.25)	--
DISPLACEMENT	liters (Cu in)	9.1 (552)	--
PROPELLER SHAFT-SPECIFICATIONS	Special Integral Flange 4-7/8” O.D. with six ½” bolt holes in 4” diameter circle.		
TIMING	°BTC	R - 24º, L - 24º	-- --
SPARKS PLUGS	Ref. TCM Service Bulletin 85-7 or latest FAA approved revision.		
OIL SUMP CAPACITY	liters (Qts)	7.57 (8); 4.73 (5) usable at 16º nose up and 4.26 (4.5) usable at 10º nose down attitudes.	--

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, 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.

CERTIFICATION BASIS

Brazilian Type Certificate No. 2006T06 based on the RBHA 33, which endorses the FAR 33, amendments 1 through amendment 13, effective 18 August 1990.

Model	Application	Issued TC
TSIO-550-C	26 Jan. 2006	16 Mar. 2007
TSIO-550-G	16 Oct. 2007	15 Feb. 2007

PRODUCTION BASIS

FAA Production Certificate No. 508.

NOTES:

NOTE 1

Maximum Permissible Temperatures:

Cylinder Head	238ºC (460ºF)
Oil Inlet	116ºC (240ºF)

Exhaust Gas – Turbocharger Inlet Temperature (TIT)

Continuous Operation	954ºC (1 750ºF)
30 Second limit	982ºC (1 800ºF)

NOTE 2

Fuel Pressure Limits:

Inlet to injection pump,	Min -	Minus 2 psig
	Max -	Plus 6 psig
Outlet to Vapor Return Line	Max -	3.5 psig

NOTE 3

Oil Pressure Limits, at Outlet	Normal	30-60 psig
	Idle	10 psig
	Max (Cold oil)	100 psig
Turbocharger Oil Inlet	Normal	30-60 psig
	Idle	10 psig

NOTE 4 The following accessory drive or mounting provisions are available for TSIO-550 series engines.

Accessory	Direction of Rotation (*)	Speed Ratio to Crankshaft	Max. Torque (in-lb)		Max. Overhang Moment (in-lb)
			Cont	Static	
Starter	CCW	48:1	200	400	60
Alternator (Gear Dr.)	CW	3:1	150	800	150
Tachometer	CCW	0.5:1	7	50	25
Prop. Governor (**)	CW	1:1	29	825	50
Magneto	CCW	1.5:1	#	#	#
Fuel Pump (injection)	CW	1:1	25	680	60
Accessory drivers (2) (***)	CW	1.5:1	100	800	40

(*) "CW" = Clockwise and "CCW" = Counterclockwise (viewing drive pad).
(**) This Drive is a modified and 20010 and shall be supplied with cover.
(***) One drive eligible at 200 in-lb continuous torque load provided the other does not exceed 100 in-lb. Continuous torque load. These drives shall be supplied with covers.

NOTE 5 Reserved.

NOTE 6 The TSIO-550-C and -550-G engine models incorporate a crankshaft with two sixth, one fourth, and one fifth order dampers.

NOTE 7 Maximum exhaust back pressure shall not exceed 5.08 cm Hg (2 in Hg) above ambient at the turbocharger exhaust outlet flange.

NOTE 8 A means of controlling maximum turbocharger discharge pressure, engine manifold pressure and proper placard shall be provided to limit manifold pressure as outlined below.

Maximum Allowable Manifold Pressure – cm Hg (in Hg)

Altitude m (ft)	TSIO-550-C	TSIO-550-G
5 486.4 (18 000)	90.17 (35.5)	
6 705.6 (22 000)		86036 (34.0) (See Note 13)

NOTE 9 The engines are provided with a gear driven alternator, optional provisions for a front mounted, belt-driven alternator, and for a belt-driven freon compressor are available. The compatibility of these options must be accomplished by the installer.

NOTE 10 The following magnetos are suitable for use on these engines:
- Slick Electro 6220 (both sides) or TCM S6RN-201 and S6RN-205, or TCM S6RSC-25P pressurized with appropriate pressurization system and ignition harness.

NOTE 11 When operating with 95/130 grade fuel, the altitude limitation for maximum continuous power and speed is 3 000 m (9 840 ft) and, for maximum recommended cruise power and speed, is 6 000 m (19 680 ft).

NOTE 12 Engine model numbers may include a suffix to define minor specification changes and/or accessory packages.
Example: TSIO-550-C(10).

NOTE 13 The model TSIO-550-G is limited to 913°C (1 675°F) maximum TIT at altitudes at and above 6 705.60 m (22 000 ft).

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