

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

TYPE CERTIFICATE DATA SHEET Nº EM-2005T07

Type Certificate Holder:

TELEDYNE CONTINENTAL MOTORS
P.O. Box 90
Mobile, Alabama 36601
USA

EM-2005T07 Sheet 01 CONTINENTAL IO-360-ES April 2005
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Engines of models described herein conforming with this data sheet, which is part of Type Certificate No. 2005T07, 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	IO-360-ES (See Note 4)
TYPE	Six cylinders horizontally opposed, four strokes, fuel injected, spark ignition, direct drive, air-cooled, wet sump engine incorporating a top induction system, bottom exhaust.
RATINGS	IO-360-ES
	Max. continuous, hp (rpm) full throttle at:
	Sea level pressure altitude: 210 (2 800)
	Takeoff, hp (rpm) full throttle at:
	Sea level pressure altitude: 210 (2 800)

FUEL	Minimum grade aviation gasoline	IO-360-ES 100, 100LL
OIL, LUBRICATION	TCM Specification MHS # 24	-
OIL SUMP CAPACITY	Total (qts)	8.0
	Usable at nose up attitude (qts)	5.0 (26.0°)
	Usable at nose down attitude (qts)	5.0 (18.0°)
BORE & STROKE	(in.)	4.438 x 3.875
DISPLACEMENT	(cu. in.)	360
COMPRESSION		8.5 : 1
WEIGHT (dry)	(Kg / lb)	145.15 (320.00)
C.G. LOCATION (basic engine)	Behind front face of the propeller flange (in)	18.70
	Below crankshaft centerline (in)	0.46
	Beside crankshaft centerline, toward 1-3-5 side (in)	0.14
PROPELLER SHAFT	ARP-502, Type I flange 4-7/8 in. O.D. with six 1/2 in bolts holes in 4 in. diameter circle	-
FUEL INJECTION	TCM Injector	639289A95
IGNITION	TCM / Bendix S6LN-25	two
	TCM S6LSC-25	two
	S6LSC-25T (right side)	one
	S6LSC-25 (left side)	one
	Slick Electro model 6214	two
	Slick Electro model 6314	two
TIMING	°BTC	24

SPARK PLUGS	AC	SR86, HSR86	-		
	Auto Lite	SH26, SH260	-		
	Champion	REM38E, REM38P, RMM38E, RHM38P	-		
	Smiths Ind.	RSE-23-3R, RSH-23-3R	-		
TEMPERATURE LIMITS	Cylinder head bayonet, thermocouple °C(°F)		238 (460)		
	Oil inlet °C(°F)		116 (240)		
PRESSURE LIMITS	Fuel pressure (psig)				
	Inlet to injection pump, min.		- 2.0		
	max.		+8.0		
	Outlet to vapor return line, max.		+3.5		
	Oil pressure limits (psig) 2-4-6 side,				
	Normal		30 – 60		
	Idle		10		
	Maximum (cold oil)		100		
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 (USA), 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.				
CERTIFICATION BASIS	The certification basis for the engine is RBHA 33, corresponding to FAR 33	<u>Amendment</u> 1 through 12 effective on 02 September 1988.	<u>Model</u> IO-360-ES	<u>Application</u> 1 September 2004	<u>Issued TC</u> 15 April 2005

NOTES:**NOTE 1** Accessory drive or mounting provisions:

	Accessory	Direction of rotation (*)	Speed Ratio to Crankshaft	Max. Torque (in.-lb.)		Max. Overhang Moment (in.-lb.)
				Cont	Static	
IO-360-ES	Propeller governor	C	1 : 1	29.0	825.0	50.0
	Tachometer (mech. opt.)	C	0.495 : 1	-	-	-
	Magneto	C	1.5 : 1	-	-	-
	Alternator	CC	2.035 : 1	60.0	100.0	100.0
	Fuel injection pump	CC	1 : 1	-	-	-
	Opt.Compr. drive (V-belt)	C	3.25 : 1	110.0	400.0	-
	Opt. Alt. drive (V-belt)	C	3.18 : 1	110.0	400.0	-
	Generator	CC	2.035 : 1	60.0	600.0	50.0

(*) "C" Clockwise viewing drive pad; "CC" Counter Clockwise.

NOTE 2 TCM Eq. N° 6001 oil filter adapter is eligible for installation.

NOTE 3 TCM P/N 627841 (Delco-Remy P/N 1108234) starter is eligible for installation.

NOTE 4 Additional suffix to model designation on engine data plate defines accessory configuration and do not affect eligibility. Example: IO-360-ES4.

NOTE 5 Model IO-360-ES incorporates a crankshaft with one 6th and one 4 1/2th order dampers.

NOTE 6 Model IO-360-ES is eligible for pusher and tractor operation and are approved for installation of propellers or propeller-fan combination having inertias up to 20.-lb sec. and overhang moments up to 490 in.-lb. The maximum overhung weight and moment are 70 lb. and 8 in. respectively.

NOTE 7	Applicable FAA approved and/or accepted manuals:	Maintenance & Operator's	Overhaul
	IO-360-ES	X30617	X30594A

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