

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

E12CE  
Revision 9  
CONTINENTAL  
6-285-A  
-B, -BA  
-C, -CA  
  
November 2, 2011

TYPE CERTIFICATE DATA SHEET NO. E12CE

Engines of models described herein conforming with this data sheet (which is part of type certificate No. E12CE) and other approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder	Continental Motors P.O. Box 90 Mobile, Alabama 36601
Type Certificate Holder Record	Teledyne Continental Motors Ownership & name change as of April 19, 2011 (Continental Motors, Inc.)
Model	6-285-A, -B, -BA, -C, -CA
Type	6HOGA
Reduction Gear Ratio	.5:1
Rating, ICAO or ARDC standard atmosphere	
Max. continuous hp, rpm,	
Full throttle at sea level pressure altitude	285-4000
Takeoff hp. 5 min. rpm full throttle at sea level pressure altitude	285-4000
Fuel (minimum grade aviation gasoline conforming to ASTM D910-76)	100LL or 100
Lubricating oil	Lubricating oils qualified under SAE-J1899 or J1966 are considered qualified under CMI Spec MHS-24
Bore and stroke, in.	4.875 x 3.625
Displacement, cu. in.	406
Compression ratio	9.0:1
Weight (dry), lb.	-A, -B, -BA 375; -C, -CA 382
C.G. location (basic engine)	
Aft of front face of prop flange, in.	20.65
Below crankshaft centerline, in.	.66
Beside crankshaft centerline	0
Propeller shaft	ARP-502 Type I Flange 4 7/8 in. O.D. with six 1/2 in. bolt holes in 4 in. diameter circle
Fuel injection	TCM Injector
Ignition, dual magneto	One CMI/TCM/Scintilla D-2000
Timing, °BTC	30
Spark plugs	(See NOTE 3)
Oil Sump Capacity, qt.	9:5.0 usable at 18° noseup and nosedown attitudes
NOTES	1, 2, 3, 4, 5

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Certification basis Federal Aviation Regulations Part 33 dated February 1, 1965, as amended by 33-1 through 33-3.  
Application for Type Certificate dated July 2, 1968  
Type Certificate No. E12CE issued September 8, 1969, for  
Model 6-285-A, -B added November 29, 1971, -C added January 17, 1975, -BA, -CA added April 27, 1977.

Production basis None. Each engine produced is subject to compliance with FAR 21.128 and a detailed inspection by an FAA representative for workmanship and conformance to the approved technical data.

NOTE 1. Operating Limitations

A. Maximum permissible temperatures  
Cylinder head bayonet, thermocouple 460°F  
Oil inlet 240°F

B. Fuel pressure limits:  
Inlet to injection pump, min. - minus 3.5 p.s.i.  
max. - plus 5.5 p.s.i.  
Recommended flight min. - minus 1.0 p.s.i.

C. Fuel flow limits: See manufacturer's FAA approved fuel flow schedule, Curve No. E-6849 for -A 71-12 for -B, -BA, -C, -CA

D. Oil pressure limits:

	<u>-B and -C</u>	<u>-BA, -CA</u>
2-4-6 side - Normal	30 - 60 p.s.i. (30 p.s.i. min. in flight)	85 - 50 p.s.i.
Idle	10 p.s.i.	10 p.s.i.
Max. (Cold Oil)	100 p.s.i.	105 p.s.i. (40 p.s.i. min. in flt)

NOTE 2. The following accessory drive or mounting provisions are available:

Accessory	Direction of Rotation	Speed Ratio to Crankshaft	Max. Torque (in.-lb.)		Maximum Overhang Moment (in.-lb.)
			Continuous	Static	
**Propeller governor	C	.59:1	30	825	50
Tachometer	C	.59:1	7	50	25
Optional (2)	C	.75:1	***50	800	80
Generator (belt driven)	C	2:1	150	800	150
Oil cooler	—	—	—	—	65
Starter: TCM P/N 636364 eligible					

\*C - Clockwise viewing drive pad

\*\*Modified AND 20010 pad.

\*\*\*One drive approved at 100 in. lbs. max. cont. provided second does not exceed 50 in. lbs. max. cont.

NOTE 3. The following spark plugs and/or those listed in CMI Service Information Letter SIL03-2 are approved on this engine.

Champion RHU-27E, RHU-30E, RHU-30P, RHU-30W, and Smith Industries, Ltd. RS101R.

NOTE 4. Overhaul Manual X 30144, approved May 31, 1973 or latest FAA accepted manual.

NOTE 5. The Model 6-285-C is similar to the 6-285-B except for crankcase and crankshaft design.  
The Model 6-285-BA is similar to the 6-285-B except for oil pressure limit change.  
The Model 6-285-CA is similar to the 6-285-C except for throttle bore size, and oil pressure limit change.

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