

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

E-281  
Revision 9  
CONTINENTAL  
FSO-470-A  
O-470-2  
November 1, 2011

TYPE CERTIFICATE DATA SHEET NO. E-281

Engines of models described herein conforming with this data sheet (which is part of type certificate no. 281) and other approved data on file with the Federal Aviation Agency, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Civil Air Regulations provided they are installed, operated and maintained as prescribed by the FAA approved manufacturer's manuals and other approved instructions.

Manufacturer	Continental Motors P. O. Box 9 Mobile, Alabama 36601	
Type Certificate Holder Record	Teledyne Continental Motors Ownership & name change as of April 19, 2011 (Continental Motors, Inc.)	
Model	<u>FSO-470-A</u>	<u>O-470-2</u>
Type	6HOA	--
Rating		
Max. continuous, hp., r.p.m., in.		
Hg., at:		
Rated press. alt. (ft.)	260-3000-33.0-10,000	250-2600-30.5-10,000
Sea level press. alt. (ft.)	260-3000-38.0-S.L.	250-2600-34.0-S.L.
Takeoff (5 min.), hp., r.p.m., in.	260-3000-38.0-S.L.	265-2600-36.0-S.L.
Hg., at:		
Fuel (Min. grade aviation gas)	91/96	100/130
Lubricating oil:		
Ambient Air Temperature:	Oil grade	
Above 40°F.	SAE 50	--
Below 40°F.	SAE 30	--
Bore and stroke, in.	5.00 x 4.00	--
Displacement, cu. in.	471	--
Supercharging ratio	10.13:1	10.36:1
Compression ratio	6.0:1	7.0:1
Weight (dry), lb.	533 (with cooling fans)	484
C.G. location		10.48
Fwd. of rear face engine acc. case,	9.13	2.35 (below)
in.		
From crankshaft centerline, in.	2.29 (above)	
Beside crankshaft centerline, fwd. 1-		
3-5		
side, in.	.45	.23
Propeller shaft	Special integral flange 4-7/8 in. O.D. with six 1/2 in. bolt holes in 4 in. bolt circle.	--
Carburetion	Bendix-Stromberg Model PSH-7ED (TCM/CMI/CMC No. 538809)	Bendix-Stromberg Model PSH-5CD (TCM/CMI /CMC No. 538822)
Ignition, Dual magnetos	TCM/CMI/Bendix-Scintilla S6RN-26  (TCM/CMI/CMC No. 537590)	TCM/CMI/Bendix-Scintilla S6RN-25 or TCM/CMI S6RSC-25 (TCM/CMI/CMC No. 536301)
Timing, °ATC	Right 10°, Left 10° (static)	
°BTC	Right 26°, left 26° (running, fully advanced)	Right 22°, left 22°

Page No.	1	2
Rev. No.	9	9

Spark plugs	(See NOTE 6)	--
Oil sump capacity, qt.	12; 8 usable with accessory end down 12°	16, 10 usable at 30° nose-up and 14° nose-down attitudes
NOTES	1,2,3,4,5,6	1,2,3,5,6

“- -” indicates “does not apply.”

“\_\_” Indicates “same as preceding model.”

Certification basis CAR 13, effective March 5, 1952  
Type Certificate No. 281 issued February 2, 1955  
Date of Application for Type Certificate October 20, 1953.

Production basis Production Certificate No. 7

NOTE 1. Maximum permissible temperatures:

Cylinder head	525°F. (spark plug gasket), 475°F. (bayonet thermocouple downdraft cooling only)
Cylinder barrel	280°F. (FSO-470-A), 290°F. (O-470-2)
Oil inlet	225°F.

NOTE 2. Fuel inlet pressure limits: 9 - 15 p.s.i.  
Oil pressure limits: 40 - 60 p.s.i. (FSO-470-A) (min. at idle: 10 p.s.i.)  
(max. with cold oil: 100 p.s.i.)  
30 - 60 p.s.i. (O-470-2)

NOTE 3. The following accessory mounting provisions are available:

Original Accessory	Direction of Rotation*	Speed Ratios to Crankshaft	Maximum Torque (in.-lb.)		Maximum Overhang Moment (in. - lb.)
			Continuous	Static	
**Governor	C	1.0:1	29	438	50
***Governor	CC	1.0:1	29	438	50
Tachometer	CC	.5:1	7	50	25
***Generator (belt driven)	CC	2.95:1	50	650	—
**Fluid pump	C	1.5:1	100	800	25
***Fluid Power Pump	CC	1.5:1	100	800	25
Fuel pump	C	1.0:1	25	680	60
Starter	These engines eligible with Continental P/N 537241 starter.				

\*\*“C” - Clockwise viewing drive pad

“CC” - Counterclockwise

\*\*F or FSO-470-A engine only

\*\*\*For O-470-2 engine only

NOTE 4. The FSO-470-A engine has been specifically approved for helicopter installation.

NOTE 5. Supercharger oil filter TCM/CMI/CMC No. 539609 weight of 2 pounds is included in engine dry weight.

NOTE 6. The following spark plugs and/or those listed in CMI Service Information Letter SIL03-2 are approved on this engine:

Champion	R25S, RED37N, REM37N, RHD37N, RHM37N, REM38E, RHM38E, REM38P, RHM38P
----------	----------------------------------------------------------------------

...END...