DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

E1CE Revision 15 CONTINENTAL

IO-360-A, -B, -C, -D, -E, -G, -H, -J, -K, -AB, -DB, -GB, -HB, -JB, -KB, -ES

September 13, 2007

TYPE CERTIFICATE DATA SHEET NO. E1CE

Engines of models described herein conforming with this data sheet (which is part of type certificate no. E1CE) 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 Teledyne Continental Motors Mobile, Alabama 36601

<u>Model</u> Type	<u>IO-360-A,-AB</u> 6HOA	<u>IO-360-B</u>	<u>IO-360-C,-CB,-D,-DB</u> <u>-E,-G,-GB,-H,-HB</u>
Rating, ICAO or ARDC	011071		
Standard atmosphere			
Max. continuous hp., r.p.m. in. Hg. at:			
Critical altitude, ft.	195-2800-26.5-2250		
Sea level pressure altitude	195-2800-26.5	180-2700	210-2800-F.T.
Takeoff hp., 5 min., r.p.m. full	210-2800	180-2700	210-2800
throttle at sea level pressure altitude			
Fuel (aviation gasoline, minimum grade)	100, 100LL, B95/130 CIS, Or RH95/130	80/87	100, 100LL, B95/130 CIS, or RH95/130
Lubricating oil	TCM Spec MHS No. 24		CIS, 01 KH95/150
Bore and stroke, in.	4.438 X 3.875		
Displacement, cu. in.	360		
Compression ratio	8.5:1	6.5:1	8:5.1
Weight (dry), lb.	294	299	298-C, -CB, -G, -GB,
weight (dry), ib.	294	299	294-D, -DB, -E, -H, -HB
C.G. Location (basic engine)			254 25, 225, 25, 11, 112
Fwd. of front face accessory case, in.	7.63		
Below crankshaft centerline, in.	1.02		
Below crankshaft centerline toward			
1-3-5 side, in.	.20		
Propeller shaft	ARP-502, Type I flange;		
1	4-7/8 in. OD with six-1/2 in.		
	bolt holes in 4 in. diameter		
	circle		
Fuel injection	TCM Injector 639230A3	Eq. No. 6006	639231A3
Ignition, dual magnetos	See NOTE 11		
Timing, °BTC	20°		
Spark plugs	See NOTE 9		
Oil sump capacity	10: 7 usable at 25° noseup		except E which is 8:
	and nosedown attitude		5.9 usable 25° noseup and nosedown attitude
Notes:	1,2,3,4,6,7,8,9	1,2,3,4,5,6,7,9	1,2,3,4,5,6,7,8,9,

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<u>Model</u> Type	<u>IO-360-J, -JB</u>	<u>IO-360-K, -KB</u>	<u>IO-360-ES</u>
Rating, ICAO or ARDC			
Standard atmosphere			
Max. continuous hp., r.p.m. in. Hg. at:			
Critical altitude, ft.			
Sea level pressure altitude	195-2600	195-2600	210-2800 F.T.
Takeoff hp., 5 min., r.p.m. full			
throttle at sea level pressure altitude	210-2800	195-2600	210-2800 F.T.
Fuel (aviation gasoline, minimum grade)			
Lubricating oil			
Bore and stroke, in.			
Displacement, cu. in.			
Compression ratio			
Weight (dry), lb.	294	294	320
C.G. Location (basic engine)			
Fwd. of front face accessory case, in.			7.08
Below crankshaft centerline, in.			.45
Below crankshaft centerline toward			
1-3-5 side, in.			14
Propeller shaft			
Fuel injection			TCM Injector 639289A95
Ignition, dual magnetos			
Timing, °BTC			24°
Spark plugs			
Oil sump capacity	10: 7 usable at 25° noseup and nosedown attitude		8: 5 usable at 26° noseup and 18° nosedown attitude
Notes:	1,2,3,4,5,6,7,8,9		Note 1 except barrel temp. not applicable, 2,3, 4,5,6,7,8,9

[&]quot;- -" indicates "same as previous model"

Certification basis CAR 13, effective June 15, 1956, as amended by 13-1 thru 13-3.

Type Certificate No. E1CE issued May 15, 1962, for Model IO-360-A, -B dated September 9, 1963; -C and -D added July 24, 1964; -L added September 30, 1966; -G and -H added September 8, 1972; -J added December 20, 1974; -K added April 6, 1976; -DB, -GB, -JB, -KB added March 13, 1978; -AB, -CB and -HB added April 10, 1979,

-ES FAR 33 through Amendment 12 added October 18,1990.

Production basis Production Certificate No. 508

[&]quot;—" indicates "does not apply"

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NOTE 1. Maximum permissible temperature:

 Cylinder head bayonet, thermocouple
 460°F

 Cylinder barrel
 310°F

 Oil inlet
 -A, -B
 225°F

 -C, -D, -E, -G, -H,-J, -K, -DB, -GB, -JB,
 -KB, -AB, -CB, -HB, -ES
 240°F

NOTE 2. Fuel pressure limits:

Inlet to injection pump, min. - minus 2 p.s.i.

max. - plus 8 p.s.i.

Outlet to vapor return line - plus 3.5 p.s.i.

NOTE 3. Oil pressure limits:

2-4-6 side - normal 30 to 60 p.s.i. - idle 10 p.s.i.

NOTE 4. The following accessory drive or mounting provisions are available:

			Speed Ratio			Maximum
	Original	Direction	to	Max. Torque	e (in-lb.)	Overhang
	Accessory	of Rotation*	Crankshaft	Continuous	Static	Moment (inlb.)
**	Propeller governor	С	1:1	29	825	50
	Tachometer	CC	1.239	7	50	25
	(Mech. optional)					
***	Vacuum pump Optional	CC	1.545:1	100	800	50
****	(1-3-5 side)	C	1.316:1	27	800	8.3
****	(2-4-6 side)	CC	1.316:1	27	800	8.3
	Generator	CC	2.035:1	60	600	50
	Oil Cooler					65

Starter: TCM P/N 627841 (Delco-Remy P/N 1108234) eligible.

***AND 20000 pad modified for speed, -A, -AB, -B, -D, -DB, -E, H, -HB, -J, -JB, -K, -KB, -ES only.

****AND 20000 pad - Modified (no oil provision; accessory clearances limited) -C, -CB, -G, and -GB only.

*****AND 20000 pad - Modified -C, -GN, -G, and -GB only.

NOTE 5. The Model IO-360-D is similar to IO-360-A except for rating and oil cooled pistons.

The Model IO-360-B is similar to IO-360-A except for reduced compression ratio and rated power.

The Model IO-360-C is similar to IO-360-D except for accessory drive provisions.

The Model IO-360-E is similar to IO-360-D except for oil sump and suction tube.

The Model IO-360-G is similar to IO-360-C except for crankshaft counterweight tuning.

The Model IO-360-H is similar to IO-360-D except for crankshaft counterweight tuning.

The Model IO-360-J is similar to IO-360-H except for rating.

The Model IO-360-K is similar to IO-360-H except for rating.

The Model IO-360-DB is similar to the IO-360-D except for modified crankshaft.

The Model IO-360-GB is similar to the IO-360-G except for modified crankshaft.

The Model IO-360-JB is similar to the IO-360-J except for modified crankshaft.

The Model IO-360-KB is similar to the IO-360-K except for modified crankshaft.

The Model IO-360-AB is similar to the IO-360-A except for modified crankshaft.

The Model IO-360-CB is similar to the IO-360-C except for modified crankshaft.

The Model IO-360-HB is similar to the IO-360-H except for modified crankshaft.

The Model IO-360-ES is similar to the IO-360-HB except for the modified spider induction system.

NOTE 6. These engines are eligible for installation of TCM Eq. No. 6001 oil filter adapter.

^{*}C - Clockwise viewing drive pad; CC - Counterclockwise.

^{**}Modified AND 20010 pad.

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NOTE 7. Models IO-360-A, -B, -C, -D and -E incorporate crankshaft with two 6th order dampers.

Models IO-360-AB, -CD, -DB, -HB, -G, -GB, -H, -J, -JB, -K, and -KB incorporate crankshaft with one 6th and one 4 1/2 order damper.

Model IO-360-ES incorporates crankshaft with one 6th and one 4 1/2 order damper.

NOTE 8. The IO-360-A, -AB, -C, -CB, -D, -DB, -G, -GB, -H, -HB, -J, -JB, -K, -KB, -ES are 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 9. The following spark plugs are approved for these engines:

Engine Models	Spark Plugs		
IO-360-A, -AB, -C, -CB, -D, -E,	AC	SR86, HSR86	
-G, -H, -HB, -J, -K,	Auto Lite	SH26, SH260	
-DB, -GB, -JB,	Champion	REM38E, REM38P, RMM38E, RHM38P	
-KB, -ES	Smiths Industries	RSE-23-3R, RSH-23-3R	
IO-360-B	AC	SR83IR, SR83P, HSR83P, S88, HS88,	
		HSR83IR, S88D, SR88, SR88D, HSR88	
	Auto Lite	SH15, SH15R, SH20A, SH200A	
	Champion	RHM38E, REM38P, RHM38P, REM40E,	
		RHM40E, EM42E	
	Red Seal	SJ190, SE230, SJ230, SE270	
	Smiths Industries	RSE-23-3R, RSH-23-3R	

NOTE 10. Those engines which are designated with a suffix letter "B" (i.e., IO-360-DB) are interchangeable with those engines of the same model letter without the suffix letter (i.e., IO-360-D).

Those engines which are designated without the suffix letter (i.e., IO-360-D) are non-interchangeable with those engines which are designated with the suffix letter "B" (i.e., IO-360-DB).

NOTE 11. The following magnetos with the appropriate harness are eligible on these engines at the indicated weight change.

Magneto Model	Weight Change
Two TCM/Bendix S6LN-25	None
Two TCM S6LSC-25	None
One TCM S6LSC-25T (R) and One TCM S6LSC-25 (L)	None
Two Slick 6214	-1.4 lb.
Two Slick 6314	-1.4 lb.

...END...