

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

E9CE
Revision 20
CONTINENTAL

**TSIO-360-A, -AB, -B,
-C, -CB, -D, -DB, -E,
-F, -G, -GB, -H, -HB,
-EB, -FB, -JB, -KB,
-LB, -BB, -MB, -NB,
-PB, -RB, -SB**

LTSIO-360-E, -EB, -KB, -RB
July 18, 2008

TYPE CERTIFICATE DATA SHEET NO. E9CE

Engines of models described herein conforming with this data sheet (which is part of type certificate No. E9CE) 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
P.O. Box 90
Mobile, Alabama 36601

Model	<u>TSIO-360-A, -AB, -B, -BB</u>	<u>TSIO-360-C, -CB</u>	<u>TSIO-360-D, -DB</u>
Type	6HOA	- -	- -
Rating, ICAO or ARDC, standard atmosphere			
Max. continuous hp, r.p.m., in. Hg at:			
Critical altitude, ft.	195-2800-32.0-20, 000	208-2800-37-20, 000	218-2800-36-20,000
Sea level pressure altitude	210-2800-32.0	225-2800-37	225-2800-36
Takeoff hp, 5 min., rpm, full throttle at sea level pressure altitude	210-2800-32.0	225-2800-37	225-2800-36
Fuel (aviation gasoline, min. grade)	100 or 100LL	- -	- -
Lubricating oil	TCM Spec. MHS No. 24	- -	- -
Bore and stroke, in.	4.438 x 3.875	- -	- -
Displacement, cu. in.	360	- -	- -
Compression ratio	7.5:1	- -	- -
Weight (dry), lb.	301 for -A, -AB 297 for -B, -BB	317	300

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Model	<u>TSIO-360-A, -AB, -B, -BB</u>	<u>TSIO-360-C, -CB</u>	<u>TSIO-360-D, -DB</u>
C.G. Location (basic engine)			
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 4 7/8" O.D. with six 1/2" bolt holes in 4" diameter circle	- -	- -
Fuel injection	TCM Injector P/N 635798A3	- - P/N 639289A11	- - P/N 639289A12
Ignition, dual magnetos	Two TCM or Bendix S6LN-25 or two TCM S6LSC-25	Two TCM or Bendix S6LN-25 or TCM S6LSC-25 (R.H.) & S6LSC-25T (L.H.)	- -
Timing, °BTC	20	- -	- -
Spark Plugs	(See NOTE 12)	- -	- -
Oil sump capacity, qt.	10; 7 usable at 25° noseup and nosedown attitudes	- -	- -
Notes	1 thru 7, 9 thru 12	1 thru 12	1 thru 7, 9 thru 12
Model	<u>TSIO-360-E, EB</u>	<u>LTSIO-360-E, -EB</u>	<u>TSIO-360-F, -FB</u>
Type	6HOA	- -	- -
Rating, ICAO or ARDC, standard atmosphere			
Max. continuous hp, r.p.m., in. Hg at:			
Critical altitude, ft.	215-2575-40-12,000	215-2575-40-12,000	200-2575-41-12,000
Sea level pressure altitude	200-2575-40	200-2575-40	200-2575-41
Takeoff hp, 5 min., rpm, full throttle at sea level pressure altitude	200-2575-40	200-2575-40	200-2575-41
Fuel (aviation gasoline, min. grade)	100 or 100LL	- -	- -
Lubricating oil	TCM Spec. MHS No.24	- -	- -
Bore and stroke, in.	4.438 x 3.875	- -	- -
Displacement, cu. in.	360	- -	- -
Compression ratio	7.5:1	- -	- -
Weight (dry), lb.	352	352	359

Model	<u>TSIO-360-E, EB</u>	<u>LTSIO-360-E, -EB</u>	<u>TSIO-360-F, -FB</u>
C.G. Location (basic engine)			
Fwd of front face accessory case, in.	6.746	6.746	6.714
Below crankshaft centerline, in.	1.555	1.555	1.478
Below crankshaft centerline toward 1-3-5 side, in.	.476	.476	.757
Propeller shaft	ARP-502, Type I Flange 4 7/8" O.D. with six 1/2" bolt holes in 4" diameter circle	- -	- -
Fuel injection	TCM Injector P/N 639289A17	- - P/N 639289A18	- - P/N 639289A17
Ignition, dual magnetos	Two TCM or Bendix S6LN-25 or two TCM S6LSC-25 or two TCM S6LSC-25P Note 17	Two TCM or Bendix S6RN-25 or two TCM S6RSC-25 or two TCM S6RSC-25P Note 17	Two TCM or Bendix S6LN-25 or two TCM S6LSC-25 or two TCM S6LSC-25P
Timing, °BTC	20	- -	- -
Spark Plugs	See NOTE 12	- -	- -
Oil Sump capacity, qt.	8; 5 useable at 25° noseup and 5 usable at 18° nosedown	- -	- -
Notes	1 thru 6, 9, 10, 12, 13 and 17	- -	1 thru 6, 9, 10, 12, and 14
Model	<u>TSIO-360-G, -GB</u>	<u>TSIO-360-H, -HB</u>	<u>TSIO-360-JB</u>
Type	6HOA	- -	- -
Rating, ICAO or ARDC, standard atmosphere			
Max. continuous hp, r.p.m., in. Hg at:			
Critical altitude, ft. 20,000	210-2700-40-15,000	195-2800-34.5-20,000	210-2800-37.0-
Sea level pressure altitude	210-2700-40	210-2800-34.5	225-2800-37.0
Takeoff hp, 5 min., rpm, full throttle at sea level pressure altitude	210-2700-40	210-2800-34.5	225-2800-37.0
Fuel (aviation gasoline, min. grade)	100 or 100LL	- -	- -
Lubricating oil	TCM Spec. MHS No. 24	- -	- -
Bore and stroke, in.	4.438 x 3.875	- -	- -
Displacement, cu. in.	360	- -	- -
Compression ratio	7.5:1	- -	- -

Model	<u>TSIO-360-G, -GB</u>	<u>TSIO-360-H, -HB</u>	<u>TSIO-360-JB</u>
Weight (dry), lb.	350	313	313
C.G. Location (basic engine)			
Fwd of front face accessory case, in.	7.35	7.63	--
Below crankshaft centerline, in.	1.64	1.02	--
Below crankshaft centerline toward 1-3-5 side, in.	.965	.20	--
Propeller shaft	ARP-502, Type I Flange 4 7/8" O.D. with six 1/2" bolt holes in 4" diameter circle	--	--
Fuel injection	TCM Injector P/N 639289A15	-- P/N 639289A16	-- P/N639289A
Ignition, dual magnetos	Two TCM or Bendix S6LN-25 or two TCM S6LSC-25 or two TCM S6LSC-25P Note 17	Two TCM or Bendix S6LN-25 or TCM S6LSC-25 (L.H.) & S6LSC-25T (R.H.)	--
Timing, °BTC	20	--	--
Spark plugs	See NOTE 12	--	--
Oil Sump capacity, qt.	8; 5 useable at 25° noseup and 5 usable at 18° nosedown	--	--
Notes	1 thru 6, 9 thru 12, 15 and 17	1 thru 7, 9 thru 12	--
Model	<u>TSIO-360-KB</u>	<u>LTSIO-360-KB</u>	<u>TSIO-360-LB</u>
Type	6HOA	--	--
Rating, ICAO or ARDC, standard atmosphere			
Max. continuous hp, r.p.m., in. Hg at:			
Critical altitude, ft.	220-2800-40.0-14,500	--	210-2700-40-15,000
Sea level pressure altitude	220-2800-40.0	--	210-2700-40
Takeoff hp, 5 min., rpm, full throttle at sea level pressure altitude	220-2800-40.0	--	210-2700-40
Fuel (aviation gasoline, min. grade)	100 or 100LL	--	--
Lubricating oil	TCM Spec MHS #24	--	--
Bore and stroke, in.	4.438 x 3.875	--	--
Displacement, cu. in.	360		

Model (cont'd)	<u>TSIO-360-KB</u>	<u>LTSIO-360-KB</u>	<u>TSIO-360-LB</u>
Compression ratio	7.5:1	--	--
Weight (dry), lb.	359	359	354
C.G. Location (basic engine)			
Fwd of front face accessory case, in.	6.746	6.746	7.35
Below crankshaft centerline, in.	1.555	1.555	1.64
Below crankshaft centerline toward 1-3-5 side, in.	.476	.476	.965
Propeller shaft	ARP-502 Type I Flange 4 7/8" O.D. with six 1/2" bolt holes in 4" diameter circle.	--	--
Fuel injection	TCM Injector P/N 639289A31	-- P/N 639289A32	-- P/N 639289A41
Ignition, dual magnetos	Two TCM or Bendix S6LN-25 or two TCM S6LSC-25 or two TCM S6LSC-25P Note 17	Two TCM or Bendix S6RN-25 or two TCM S6RSC-25 or two TCM S6RSC-25P Note 17	Two TCM or Bendix S6LN-25 or two TCM S6LSC-25 or two TCM S6LSC-25P Note 17
Timing, °BTC	20	--	--
Spark Plugs	See NOTE 12	--	--
Oil sump capacity, qt.	10; 7 useable at 25° noseup and nosedown attitudes	--	8; 5 useable at 26° noseup and 5 useable at 18° nosedown
Notes	1 thru 6, 9, 10, 12, 13 and 17	--	1 thru 6, 9 thru 12, 15 and 17
Model	<u>TSIO-360-MB</u>	<u>TSIO-360-NB</u>	<u>TSIO-360-PB</u>
Type	6HOA	--	--
Rating, ICAO or ARDC, standard atmosphere			
Max. continuous hp, r.p.m., in. Hg at:			
Critical altitude, ft.	210-2700-36-22,000	210-2700-38-15,000	200-2600-37-18,000
Sea level pressure altitude	210-2700-36	210-2700-38	200-2600-37
Takeoff hp, 5 min., rpm, full throttle at sea level pressure altitude	210-2700-36	210-2700-38	200-2600-37
Fuel (aviation gasoline, min. grade)	100 or 100LL	--	--
Lubricating oil	TCM Spec. MHS No. 24	--	--
Bore and stroke, in. 4.438 x 3.875	--	--	--

Model (cont'd)	<u>TSIO-360-MB</u>	<u>TSIO-360-NB</u>	<u>TSIO-360-PB</u>
Displacement, cu. in.	360	--	--
Compression ratio - -	7.5:1	--	--
Weight (dry), lb.	354	--	--
C.G. Location (basic engine)			
Fwd of front face accessory case, in.			
Below crankshaft centerline, in.	7.35	--	--
Below crankshaft centerline toward 1-3-5 side, in.	1.64 .965	--	--
Propeller shaft	ARP-502, Type I Flange 4 7/8" O.D. with six 1/2" bolt holes in 4" diameter circle.	--	--
Fuel injection	TCM Injector P/N 639289A41	--	--
Ignition, dual magnetos	Two TCM or Bendix S6LN-25P or two TCM S6LSC-25P Note 17	--	--
Timing, °BTC	20	--	--
Spark Plugs	See NOTE 12	--	--
Oil sump capacity, qt.	8; 5 usable at 26° noseup and 5 usable at 18° nose down	--	--
Notes	1 thru 6, 9, 10, 12, 17 and 18	1 thru 6, 9 thru 12, 15 and 17	1 thru 6, 9, 10, 12 17 and 18
Model	<u>TSIO-360-RB</u>	<u>LTSIO-360-RB</u>	<u>TSIO-360-SB</u>
Type	6HOA	--	--
Rating, ICAO or ARDC, standard atmosphere			
Max. continuous hp, rpm, in. Hg. at critical altitude, ft.	220-2600-38-19,000	220-2600-38-19,000	220-2600-39-19,000
Sea level pressure altitude	220-2600-38	220-2600-38	220 2600-39
Tkeoff hp, 5 min., rpm, full throttle at sea level pressure altitude	220-2600-38	220-2600-38	220-2600-39
Fuel (aviation gasoline, Min. grade)	100 or 100LL, RH95/130, or B95/130 CIS (See Note 20)	--	100 or 100LL
Lubricatin oil	TCM Spec. MHS 24	--	--
Bore and stroke, in.	4.438 X 3.875	--	--

Model	TSIO-360-RB	LTSIO-360-RB	TSIO-360-SB
Displacement, cu. in.	360	--	--
Compression ratio	7.5:1	--	--
Weight	357	--	354
CG Location (basic engine)			
Fwd of front face accessory case, in.	5.86	--	7.35
Below crankshaft centerline, in.	1.26	--	1.64
Below crankshaft centerline toward 1-3-5 side, in.	0.56	--	0.965
Propeller shaft	ARP-502, Type In Flange 4 7/8" O.D. with six 1/2" bolt holes in 4" diameter circle	--	--
Fuel Injection	Precision Airmotive RSA-5AD2	--	TCM Injector 639289A125
Ignition, dual magnetos	Two Unison Slick 6324 Note 19	Two Unison Slick 6320 Note 19	Two Unison Slick 6324 Note 19
Timing, °BTC	22	22	20
Spark plugs	See NOTE 12	--	--
Oil sump capacity, qt.	8: 5 useable at 26° noseup and 5 useable at 18° nosedown	--	--
Notes	1 thru 6, 9, 10, 12, 18, 19, and 20	--	1 thru 6, 9, 10, 12, 18, and 19

"- -" indicates same as "preceding model."

"—" indicates "does not apply"

"E" designates both the Models TSIO-360-E and LTSIO-360-E unless otherwise specified.

"EB" designates both the Model & TSIO-360-EB and LTSIO-360-EB unless otherwise specified.

Certification basis Federal Aviation Regulations Part 33 effective February 1, 1965, as amended by 33-1.

Application for Type Certificate dated March 22, 1966.

Type Certificate No. E9CE issued October 11, 1966, for Models TSIO-360-A and TSIO-360-B; TSIO-360-C added January 19, 1972;

TSIO-360-D added June 7, 1973; TSIO-360-E added June 14, 1974; LTSIO-360-E added June 14, 1974; TSIO-360-F added June 24, 1976; TSIO-360-G added April 5, 1977; TSIO-360-H added September 1, 1977. TSIO-360-EB and LTSIO-360-EB added November 17, 1977; TSIO-360-FB added November 17, 1977; TSIO-360-CB added March 13, 1978; TSIO-360-DB added March 13, 1978; TSIO-360-GB added March 13, 1978; TSIO-360-HB added March 13, 1978. TSIO-360-JB added September 19, 1979; TSIO-360-AB added March 25, 1980; TSIO-360-KB and LTSIO-360-KB added July 30, 1980; TSIO-360-LB added March 9, 1982; TSIO-360-BB added July 29, 1982, TSIO-360-MB added October 11, 1985, TSIO-360-NB added December 10, 1986, TSIO-360-PB added December 10, 1986, TSIO-360-RB added October 21, 1996, LTSIO-360-RB added October 21, 1996 and TSIO-360-SB added February 27, 1997.

Production Basis Production Certificate No. 7, except Model -D, and/or Production Certificate No. 508.

- NOTE 1. Maximum permissible temperatures:
 Cylinder head bayonet, thermocouple 460°F
 Cylinder barrel 310°F (Not required on the L/TISO-360-E, -EB, -F, -FB, -MB, -NB, -PB, -KB, -LB, -RB, -SB.)
 Oil inlet 240°F
 Turbocharger inlet temperature (TIT): Maximum continuous TIT is 1650°F for TSIO-360-A, -AB, -B, -BB, -C, -CB, -D, -DB, -F, -FB, -G, -GB, -H, -HB, -JB, -MB, -NB, -PB, -RB, -SB and LTSIO-360-RB. Maximum continuous TIT is 1725°F for TSIO-360-E, -EB, -KB, -LB and LTSIO-360-E, -EB, -KB. The TSIO-360-MB, -PB, -RB, -SB and LTSIO-360-RB may be operated at 1700°F for a maximum of 60 seconds to determine peak TIT. The TSIO-360-NB may be operated at 1725°F for a maximum of 30 seconds to determine peak TIT.
- NOTE 2. Fuel pressure limits:
 TSIO-360-A, -B, -AB, -BB
 Inlet to injection pump, min. minus 2 p.s.i.g.
 max. plus 8 p.s.i.g.
 Outlet to vapor return line plus 3.5 p.s.i.g. (at T.O. speed and power)
 TSIO-360-C, -D, -E, -F, -G, -H, -EB, -FB, LTSIO-360-E and -EB, -KB, TSIO-360-CB, -DB, -GB, -HB, -JB, -KB, -LB, -MB, -NB, -PB.
 Inlet to injection pump, min. minus 2.5 p.s.i.g.
 max. plus 8 p.s.i.g.
 Outlet to vapor return line plus 3.5 p.s.i.g. at 80 lb./hr. flow
 For L/TISO-360-RB: Maximum Pressure into Pump plus 6.5 psi
 Minimum Pressure into Pump minus 2 psi
- NOTE 3. Oil pressure limits:
 2-4-6 side - Normal 30-60 p.s.i.g.; Except 30-80 psi for -E, -EB, -F, -FB, -G, -GB, -KB, -LB, -MB, -NB, -PB, -RB and -SB.
 Idle 10 p.s.i.g.
 Max. allowable (cold oil) 100 p.s.i.g.
- NOTE 4. Induction and exhaust system limits: -A, -B, -AB, -BB, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -G, -GB, -H, -HB, -JB, -KB, -LB, -MB, -NB, -PB, -RB, -SB
 Induction air max temperature
 T.O. and max continuous power 250°F 280°F
 75 percent power 250°F 280°F
 Exhaust system max back pressure
 1.5 in. from cylinder flange, in. Hg abs. 40; Except 48 for -E, -EB, -F, -FB, -G, -GB, -KB, -LB, -MB, -NB, -PB, and -SB.
 Turbine outlet, above ambient 2 in. Hg
- NOTE 5. The following accessory drive or mounting provisions are available:

<u>Original Accessory</u>	<u>Direction of Rotation *</u>	<u>Speed Ratio to Crankshaft</u>	<u>Maximum Continuous Torque (in. lb.)</u>	<u>Static torque (in. lb.)</u>	<u>Maximum Overhang Moment (in. lb.)</u>
** Propeller governor	C	1:1	29	825	50
*** Vacuum Pump	CC	1.545:1	100	800	50

NOTE 5: Continued

<u>Original</u> <u>Accessory</u>	<u>Direction of</u> <u>Rotation *</u>	<u>Speed Ratio to</u> <u>Crankshaft</u>	<u>Maximum</u> <u>Continuous</u> <u>Torque</u> <u>(in. lb.)</u>	<u>Static torque</u> <u>(in. lb.)</u>	<u>Maximum</u> <u>Overhang Moment</u> <u>(in. lb.)</u>
Optional Kit - Freon compressor drive	C	1.545:1	110	400	----
Optional **** (1-3-5 side)	C	1.316:1	27	800	8.3
***** (2-4-6 side)	CC	1.316:1	27	800	8.3
# Tachometer	CC	0.495:1	----	----	----
## Generator (Alternator)	CC	2.035:1	60	600	50
Belt Drive Alternator					
TSIO-360-RB	CC	3.276:1	100	800	50
LTSIO-360-RB	C	3.276:1	100	800	50
Oil cooler	----	----	----	----	65

Starter: TCM P/N 627841 (Delco-Remy P/N 1108234), TCM 634592 (Prestolite MCL-6501), TCM 634433 (Prestolite MHJ 4002), TCM 646275 (24 volt), TCM 646238 (12 volt), 655565 (12 volt), and 655566 (24 volt) eligible.

* C - Clockwise viewing drive pad; CC - Counterclockwise.

** AND 20010 pad - Modified (speed increased).

*** AND 20000 pad - Modified (speed increased), -B only.

**** AND 20000 pad - Modified (no oil provision; accessory clearances limited), -A and -C, -AB.

***** AND 20000 pad - Modified (opposite rotation), -A, -C, and -AB.

Mechanical drive for TSIO-360-E, -EB, -F, -FB, -G, -GB, -KB, -LB only, rotation reversed for LTSIO-360-E, -EB, and -KB. The above values are the same for the LTSIO-360-E, -EB, -KB and -RB except the direction of rotation is reversed from that indicated.

L/TSIO-360-RB has optional gear driven alternator.

---- No data presented.

NOTE 6. The Model TSIO-360-B is similar to the TSIO-360-A except for accessory drive provisions.
The Model TSIO-360-C is similar to the TSIO-360-A except for rating, crankshaft dampers provision for cabin pressurization.
The Model TSIO-360-D is similar to the TSIO-360-C except for cabin pressurization.
The Model TSIO-360-E is similar to the TSIO-360-C except for rating, engine mounted turbocharger, freon compressor drive and cabin pressurization.
The Model LTSIO-360-E is similar to the TSIO-360-E except for direction of rotation.
The Model TSIO-360-F is similar to the TSIO-360-E except for rating and exhaust system configuration.
The Model TSIO-360-G is similar to the TSIO-360-E except for rating and exhaust system configuration.
The Model TSIO-360-H is similar to the TSIO-360-G except for rating and cabin pressurization.
The Model TSIO-360-EB is similar to the TSIO-360-E except for modified crankshaft.
The Model LTSIO-360-EB is similar to the LTSIO-360-E except for modified crankshaft.
The Model TSIO-360-FB is similar to the TSIO-360-F except for modified crankshaft.
The Model TSIO-360-CB is similar to the TSIO-360-C except for modified crankshaft.
The Model TSIO-360-DB is similar to the TSIO-360-D except for modified crankshaft.
The Model TSIO-360-GB is similar to the TSIO-360-G except for modified crankshaft.
The Model TSIO-360-HB is similar to the TSIO-360-H except for modified crankshaft.
The Model TSIO-360-JB is similar to the TSIO-360-HB except for the increased rating.
The Model TSIO-360-AB is similar to the TSIO-360-A except for the modified crankshaft.
The Model TSIO-360-KB is similar to the TSIO-360-EB except for the increased rating.

The Model LTSIO-360-KB is similar to the LTSIO-360-EB except for the increased rating.
 The Model TSIO-360-LB is similar to the TSIO-360-GB except for the larger throttle body, larger induction elbows, relocated overboost valve, magneto pressurization and an exhaust muffler.
 The Model TSIO-360-BB is similar to the TSIO-360-B except for modified crankshaft and different dampers.
 The Model TSIO-360-MB is similar to the TSIO-360-LB except for intercooler, wastegate controller and cluster manifold.
 The Model TSIO-360-NB is similar to the TSIO-360-LB except for intercooler.
 The Model TSIO-360-PB is similar to the TSIO-360-MB except for no intercooler.
 The Model TSIO-360-RB is similar to the TSIO-360-KB except the manifold pressure is controlled with a wastegate controller and an intercooler has been installed in the induction system.
 The Model LTSIO-360-RB is similar to the TSIO-360-RB except for direction of rotation.
 The Model TSIO-360-SB is similar to the TSIO-360-MB except for RPM and rating.

- NOTE 7. These engines are eligible for installation of TCM Eq. No. 6001 oil filter and adapter.
- NOTE 8. The Model TSIO-360-C and -CB supply approximately 4.5 lbs. of air per minute through a .5 inch diameter sonic venturi for cabin pressurization.
- NOTE 9. These engines are eligible for pusher or tractor operation.
- NOTE 10. Models TSIO-360-A and -B incorporate crankshafts with two 6th order dampers.
 Models TSIO-360-C, -AB, -CB, -D, -DB, -E, -EB, -F, -FB, -G, -GB, -H, -HB, -JB, KB, -LB, -MB, -NB, -PB, -BB, -RB, and -SB incorporate crankshafts with one 4 1/2 and one 6th order damper.
- NOTE 11. Required equipment:
- (a) Unless otherwise substantiated by the installer, the turbocharger oil return line must be equipped with an oil air separator having a capacity of one pint maximum and capable of separating an air flow of 2 c.f.m. and oil flow of 15 lb./min. at 240°F.
 - (b) A turbocharger and exhaust system in accordance with or equivalent to TCM drawing 633737 for the -A and -AB, 633738 for the -B, 633737 for the -C, -CB, -D, and -DB.
 - (c) The -H engine was calibrated utilizing an AiResearch turbosupercharger Model TA0401, Cessna P/N C295001-0301, and TCM exhaust system outline Drawing 642374. This turbosupercharger has been found compatible with the -H, -HB, and -JB engines; however, the turbosupercharger and exhaust system are not included in this Type Certificate and must be found acceptable in accordance with FAR 23.909 at installation.
- NOTE 12. The following spark plugs are approved for these engines:

<u>Engine Models</u>	<u>Spark Plugs</u>	
TSIO-360-A, -B, -AB, -BB, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -G, -GB, -H, -HB, -JB, -KB, -LB, -MB, -NB, -PB, -RB, -SB	AC	SR83P, HSB83P, S86R, SR86, HSR86, SR93, HSR93
	Auto Lite	PH26, PH260
	Champion	REM38W, RHM38W, REM38P, RHM38P, REM38E, RHM38E
	Red Seal	SE270, SE270P, SJ270, SJ270P
	Smith Industries	RSE23-3R, RSH23-3R
Also for the TSIO-360-A, -B, -AB, -BB	Smith Industries	SR86, S86R, HSR86, HSR83P

- NOTE 13. The TSIO-360-E, -EB, -KB and LTSIO-360-E, -EB, -KB are equipped with engine mounted Rajay turbosupercharger Model 325E10-1 utilizing TCM exhaust system 640964. Compliance with FAR 23.909(c), effective with Amendments 23-7 has been shown.

- NOTE 14. The TSIO-360-F, -FB is equipped with engine mounted Rajay turbosupercharger Model 325E10-1 utilizing TCM exhaust system 641911. Compliance with FAR 23.909(c) effective with Amendment 23-7 has been shown.
- NOTE 15. The TSIO-360-G, -GB, -LB and -NB are equipped with engine mounted Rajay turbosupercharger Model 325E10-1 and the following TCM exhaust systems: TSIO-360-G, -GB1, -GB2, -GB3 (Exhaust System TCM 642220); TSIO-360-GB4B, -LB (Exhaust System TCM 646051); TSIO-360-NB (Exhaust System TCM 649202). Compliance with FAR 23.909(c) effective with amendment 23-7 has been shown.
- NOTE 16. Those engines which are designated with the suffix letter "B" (i.e., TSIO-360-EB) are interchangeable with those engines of the same model letter without the suffix letter (i.e., TSIO-360-E).
- Those engines which are designated with the suffix letter (i.e., TSIO-360-E) are non-interchangeable with those engines which are designated with the suffix letter "B" (i.e., TSIO-360-EB).
- NOTE 17. These engines are eligible for installation of two Slick Electro Model 6214 magnetos (6210 for LTSIO) or two Unison Slick model 6314 (6310 for LTSIO) equipped with an appropriate harness, resulting in a weight change of -1 LB, or two Slick Electro Model 6224 magnetos (6220 for LTSIO) or two Unison Slick model 6324 (6320 for LTSIO) equipped with an appropriate pressurization manifold.
- NOTE 18. The TSIO-360-MB, -PB, RB, SB and LTSIO-360-RB are equipped with engine mounted AiResearch turbosupercharger Model TAO4 utilizing TCM exhaust systems.
- NOTE 19. These engines are eligible for installation of two TCM Model S6LSC-25P magnetos (S6RSC-25P for LTSIO) equipped with an appropriate harness and pressurization manifold, resulting in a weight change of +1.4 Lbs.
- NOTE 20. When operating with 95/130 grade fuel, the altitude limitation for maximum continuous power and speed is 3000 meters (9840 feet) and, for maximum recommended cruise power and speed, is 6000 meters (19680 feet).

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