

中 国 民 用 航 空 总 局
GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA

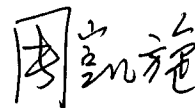
编号/No.: VTC0178E

修订 / Rev: 0

型号 / Models:

IO-360-ES

批准人 / Approved by:



日期 / Date: 2007-1-19

型号认可证数据单编号: VTC0178E

Validation Type Certificate Data Sheet No. VTC0178E

本数据单, 作为型号认可证(编号: VTC0178E)的一部分, 规定了一些条件和限制, 在此条件和限制下, 获得本型号认可证的产品满足下述“认可审定基础”段落给出的适航要求。

This data sheet which is a part of Validation Type Certificate No. VTC0178E prescribes conditions and limitations under which the product for which the Validation Type Certificate was issued meets the airworthiness requirements indicated in the paragraph “Validation Basis”.

IO-360-ES 型于 1990 年 10 月 18 日由美国 FAA 颁发的型号合格证 No. E1CE 批准, 最新数据单版次为 FAA 于 1995 年 9 月 28 日批准的第 13 版。

Model IO-360-ES is Approved by Type Certificate No. E1CE issued by American FAA on October 18, 1990 , The latest Data Sheet Revision 13 Issued by American FAA on September 28, 1995.

型号合格证持有人: Teledyne Continental Motors 美国阿拉巴马州 莫比尔市 36601

TYPE CERTIFICATE HOLDER: Teledyne Continental Motors Mobile, Alabama 36601

型号/Model

IO-360-ES

型式/ Type

6HOA

ICAO 或 ARDC 标准大气下的额定值/

Rating, ICAO or ARDC Standard atmosphere

最大连续 马力, r.p.m 海平面压力高度

/Max.continuous hp,r.p.m.in.Hg.at: Sea level

pressure altitude

210-2800F.T

起飞 马力, 5 分钟, r.p.m 全油门, 海平面压

210-2800F.T

力高度/ Takeoff hp,5 min,r.p.m.full throttle at sea level pressure altitude	
燃油（航空汽油，最低品级）/ Fuel(aviation gasoline,minimum grade)	100,100LL ~~895~~ /130CIS
润滑油/Lubricating oil	TCM Spec MHS No.24
气缸内径和行程，英寸/Bore and stroke, in.	4.438 x 3.875
气缸容积/ Displacement, cu.in	360
压缩比/Compression ratio	8:5.1
干重，磅/Weight(dry), lb	320
重心位置（基本发动机）/ C.G Location(basic engine)附件机匣前端前向，英寸/ Fwd of front face accessory case, in	7.08
附件机匣后端前向，英寸/Fwd of rear face accessory case, in	N/A
曲轴中线下，英寸/ Below crankshaft centerline, in	.45
曲轴中线下向 1-3-5 侧，英寸 /Below crankshaft centerline toward 1-3-5side, in	-.14
螺旋桨轴/Propeller shaft	APR-502, Type I flange,4-7/8 in.OD with six-1/2 in.bolt holes in 4 in.diameter circle
燃油喷嘴/Fuel injection	TCM Injector 639230A3
点火，双磁电机/Ignition, dual magnetos	见注 2/See Note2

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ICAO 或 ARDC 标准大气下的额定值/

Rating, ICAO or ARDC Standard atmosphere

最大连续 马力, r.p.m 海平面压力高度
/Max.continuous hp,r.p.m.in.Hg.at: Sea level
pressure altitude

210-2800F.T

起飞 马力, 5 分钟, r.p.m 全油门, 海平面压

210-2800F.T

力高度/ Takeoff hp,5 min,r.p.m.full throttle at sea level pressure altitude	
燃油（航空汽油，最低品级）/ Fuel(aviation gasoline,minimum grade)	100,100LL
润滑油/Lubricating oil	TCM Spec MHS No.24
气缸内径和行程，英寸/Bore and stroke, in.	4.438 x 3.875
气缸容积/ Displacement, cu.in	360
压缩比/Compression ratio	8:5.1
干重，磅/Weight(dry), lb	320
重心位置（基本发动机）/ C.G Location(basic engine)附件机匣前端前向，英寸/ Fwd of front face accessory case, in	7.08
附件机匣后端前向，英寸/Fwd of rear face accessory case, in	N/A
曲轴中线下，英寸/ Below crankshaft centerline, in	.45
曲轴中线下向 1-3-5 侧，英寸 /Below crankshaft centerline toward 1-3-5side, in	-.14
螺旋桨轴/Propeller shaft	APR-502, Type I flange,4-7/8 in.OD with six-1/2 in.bolt holes in 4 in.diameter circle
燃油喷嘴/Fuel injection	TCM Injector 639230A3
点火，双磁电机/Ignition, dual magnetos	见注 2/See Note2

正时/Timing, ° BTC

20°

火花塞/Spark plugs

见注 3/See Note3

滑油箱容积，夸脱/Oil sump capacity, qts

10 夸脱:上仰或下俯 25° 时可用量为 7 夸脱/10:7 usable at 25° noseup and nosedown attitude

FAA 审定基础

FAA Certification Basis

对 IO-360-ES 型/Applicable to Model IO-360-ES:

1965年2月1日生效的联邦航空规章第33部的1至12修正案。

Federal Aviation Regulations Part 33 effective February 1, 1965, as amended through Amendment 33-12.

CAAC 认可审定基础

CAAC Validation Certification Basis

CAAC 接受 FAA 的审定基础为认可审定基础

CAAC accepts FAA certification basis as validation basis for this validation program

生产基础

生产许可证 No.508

Production Basis

Production Certificate No.508

注 1/Note 1

最大许用温度/Maximum permissible temperature:

对 IO-360-ES 型/Applicable to Model IO-360-ES:

气缸头 bayonet, 热电偶/Cylinder head bayonet, thermocouple

460°F

滑油进口/Oil inlet

240°F

注 2/Note 2

重量变化如下所示的下列装有适用导线的磁电机可安装在相应发动机上/The following magnetos with the appropriate harness are eligible on applicable engines at the indicated weight change.

对 IO-360-ES 型/ Applicable to Model IO-360-ES:

磁电机型号/Magneto Model

Weight Change

2 个 TCM/Bendix S6LN-25

无/None

2 个 TCM S6LSC-25

无/None

1 个 TCM S6LSC-25T (R) 和 1 个 TCM S6LSC-25 (L)

无/None

2 个 Slick 6214

-1.4lb/磅

2 个 Slick 6314

-1.4lb/磅

注 3/Note 3

下列火花塞经批准，可用于相应型号发动机：

对 IO-360-ES 型/ Applicable to Model IO-360-ES:

AC	SR86,HSR86
Auto Lite	SH26,SH260
Champion	REM38E,REM38P,RMM38E,RHM38P
Smiths Industries	RSE-23-3R,RSH-23-3R

注 4/Note 4

燃油压力限制/Fuel pressure limits:

对 IO-360-ES 型/ Applicable to Model IO-360-ES:

燃油喷射泵进口/Inlet to injection pump,	min-	-3.5 p.s.i.g
	max-	+6.0 p.s.i.g
上回油管出口/Outlet to upper return line,	max-	+3.5 p.s.i.g

注 5/Note 5

滑油压力限制/Oil pressure limits:

对 IO-360-ES 型/ Applicable to Model IO-360-ES:

2-4-6 侧/side	- 正常/Normal	30-60 p.s.i.g
	- 慢车/Idle	10 p.s.i.g
	- 最大（冷滑油）Maximum(cold oil)	100 p.s.i.g

注 6/Note 6

对 IO-360-ES 型/ Applicable to Model IO-360-ES :

附件传动或安装规定如下/The following accessory drive or mounting provisions are available:

附 件	方向或旋 转	曲轴传动 比 /Drive Ratio to Crankshaft	最大扭矩/Max Torque (英寸-磅/In-Lbs) 连续/Cont 静态/Static	最大垂悬 力矩 /Max Overhang Moment	衬 垫 构 型 /Pad Configuration
* 转 速 计 /Tachometer					
螺旋桨调 速 器 /Propeller Gov	CCW	.5:1	7	50	25
磁 电 机 /Magnet	CW	1:1	29	825	50
启 动 机	CCW	48:1	200	400	60

Starter						
燃 油 泵	CW	1:1	25	680	60	特殊/Special
/Fuel Pump						
** 附 件 传	CW	1.5:1	100	800	40	AND20000
动 (2)						or mod per
/Accessory						MS3325
Drive(2)						
交 流 发 电	CCW	3:1	100	500	150	特殊/Special
机 齿 轮 传						
动						
/Alternator						
Gear Drive						

* CW-Clockwise/顺时针方向, CCW-Counterclockwise(viewing drive pad)/逆时针方向