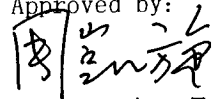


中国民用航空总局
GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA

编号/No.: VTC136E
修订 / Rev: 0
型号 / Models: IO-240-B
IOF-240-B
批准人 / Approved by: 
日期 / Date: 2007 年 5 月 9 日

型号认可证数据单编号: VTC136E
Validation Type Certificate Data Sheet No. VTC136E

本数据单, 作为型号认可证编号: VTC136E 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. VTC136E 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".

美国 FAA 型号合格证 No.E7SO 数据单第 4 版, 批准日期: 2007 年 3 月 7 日

Type Certificate No.E7SO, Data Sheet Revision 4, approved by FAA USA on March 7, 2007.

CAAC 型号认可证 VTC136E 颁发日期: 2003 年 01 月 10 日。修订日期: 2007 年 05 月 09 日

CAAC Validated Type Certificate Datasheet No. VTC136E, Date of issue: January 10, 2003. Date of Revised: May 9 2007

型号合格证持有人: Teledyne Continental Motors
P.O.Box 90 Mobile, Alabama 36608
Type Certificate Holder: Teledyne Continental Motors
P.O.Box 90 Mobile, Alabama 36608

型别
MODEL **IO-240-B**

型式
Type **4HOA**

额定值ICAO 或
ARDC 标准大气
以海平面高度飞行试
验, 最大连续马力,
转速, 125-2800
以海平面高度飞行试
验, 起飞, 5分钟,
马力, 转速 125-2800

Rating ICAO or
ARDC Standard
Atmosphere
Max. Continuous hp,
RPM,

FT at SL pressure altitude	125-2800
Takeoff, 5min., hp, RPM	
FT at SL pressure altitude	125-2800
燃油（最小等级航空汽油）	经美国材料实验协会D910或B95/130CIS的100，100LL，
Fuel (min. grade aviation gas.)	100, 100LL per ASTM D910 or B95/130CIS
润滑油	
Lubricating Oil	TCM 规格 MHS-24 TCM Spec MHS-24
钻孔和冲程	
Bore and Stroke	4.438×3.875 4.438×3.875
容积 立方英寸	
Displacement, cu. in.	240 240
压缩比	
Compression ratio	8.5:1 8.5:1
重量（干）磅	
Weight (dry), lb.	246 246
C.G. 位置（基础发动机）前表面支撑边缘后部：	
曲轴中心线下	14.55 英寸
曲轴中心线旁边2-4个侧面：	.96 英寸 .06 英寸
C.G. location (basic engine) Aft of prop flange forward face:	
Blow crankshaft centreline	14.55 in.
Beside crankshaft centerline toward 2-4 side:	.96 in. .06 in.
传动轴	
Propeller Shaft	ARP-502，一个凸缘， 6个0.5英寸的螺栓，螺栓孔4.785英寸，螺栓直径4 英寸。 ARP-502, Type 1 flange; 4.875 in. OD with six 0.5 in. bolt holes in 4 in. diameter circle.
喷注燃油	
Fuel Injection	TCM喷嘴 639231A34 TCM
点火	
Ignition	两个TCM S4LSC-21或两个光滑的4301 Two TCM S4LSC-21or TWO Slick4301
定时 ° BTC	
Timing, ° BTC	26

	26
<u>火花塞</u> Spark Plugs	见注6 See NOTE 6
<u>滑油槽容积</u> Oil Sump Capacity	夸脱 6.0 可用油 - 10° 升起 3.0 可用油 - 10° 俯冲 3.0 quarts 6.0 usable oil - 10° nose up 3.0 usable oil - 10° nose down 3.0
<u>注</u> NOTES	1 到 9 1 thru 9
型别 MODEL	IOF-240-B
<u>型式</u> Type	4缸，空气冷却，自然吸入，水平放置，喷注燃油，火花点火，4冲程，直接驱动。发动机FADEC系统控制点火和喷油功能。 4-cylinder, air-cooled, naturally aspirated, horizontally opposed, fuel injected, spark ignition, four-stroke, direct drive. The engine incorporates a full authority digital electronic control (FADEC) system to control the ignition and fuel injection functions.
<u>额定值ICAO 和 ARDC 标准大气</u> 以海平面高度飞行试验，最大连续马力，转速 以海平面高度飞行试验，起飞，5分钟，马力，转速	125-2800 125-2800
<u>Rating ICAO or ARDC Standard Atmosphere</u> Max. Continuous hp, RPM, FT at SL pressure altitude Takeoff, 5min., hp, RPM FT at SL pressure altitude	125-2800 125-2800
<u>燃油（最小等级航空汽油）</u> Fuel(min. grade aviation gas.)	经美国材料实验协会D910、B95/130CIS或RH95/130的100，100LL 100，100LL per ASTM D910, B95/130CIS, or RH95/130
<u>润滑油</u> Lubricating Oil	TCM 规格 MHS-24 TCM Spec MHS-24

<u>钻孔和冲程</u>	4.438×3.875
<u>Bore and Stroke</u>	4.438×3.875
<u>容积 立方英寸</u>	240
<u>Displacement, cu. in.</u>	240
<u>压缩比</u>	8.5:1
<u>Compression ratio</u>	8.5:1
<u>重量 (干) 磅</u>	255
<u>Weight (dry), lb.</u>	255
<u>C.G. 位置 (基础发动 动机) 前表面支撑边 缘后部:</u>	14.55英寸
曲轴中心线下	.96英寸
曲轴中心线旁边2-4个 侧面	.06 英寸
<u>C.G. location (basic engine) Aft of prop flange forward face:</u>	14.55 in.
Blow crankshaft centreline	.96 in.
Beside crankshaft centerline toward 2-4 side:	.06 in.
<u>传动轴</u>	ARP-502, 一个凸缘, 6个0.5英寸的螺栓, 螺栓孔4.785英寸, 螺栓直径4英寸。
<u>Propeller Shaft</u>	ARP-502, Type 1 flange; 4.875 in. OD with six 0.5 in. bolt holes in 4 in. diameter circle.
<u>喷注燃油</u>	Aerosance, 公司。 FADEC
<u>Fuel Injection</u>	Aerosance, Inc. FADEC
<u>点火</u>	Aerosance, 公司。 FADEC
<u>Ignition</u>	Aerosance, Inc. FADEC
<u>定时</u>	自动
<u>Timing, ° BTC</u>	Automatic
<u>火花塞</u>	见注6
<u>Spark Plugs</u>	See NOTE 6
<u>滑油槽容积</u>	夸脱 6.0
	可用油 - 10° 升起 3.0
	可用油 - 10° 俯冲 3.0
<u>Oil Sump Capacity</u>	quarts 6.0
	usable oil - 10° nose up 3.0
	usable oil - 10° nose down 3.0
<u>注</u>	1 到 14
<u>NOTES</u>	1 thru 14
<u>审定基础</u>	IO-240-B型, FAR 33至1990年8月10日生效的14修正案。

IOF-240-B型， FAR 33至1990年8月10日生效的14修正案和FAR 33.28（15修正案）。

Certification Basis: Models IO-240 -B, FAR 33 through Amendment 14 effective August 10, 1990.
Model IOF-240-B, FAR 33 through Amendment 14 effective August 10, 1990 and FAR 33.28 (Amdt. 15).

生产基础
Production Basis 生产许可证号 508
Production Certificate No. 508

注1 最大允许温度：
气缸头尖，热电偶 460°
滑油进口 240°

NOTE 1. Maximum permissible temperatures:
Cylinder head bayonet, thermocouple 460°
Oil inlet 240°

注2. 燃油压力限制：
供油泵进口，最小 IO-240-B -2.0 psig IOF-240-B -2.0 psig
最大 +6.0 psig +50.0 psig
蒸发出口，最大 +3.5 psig +3.5 psig

NOTE 2. Fuel Pressure Limits:
Inlet to injection pump, min. IO-240-B -2.0 psig IOF-240-B -2.0 psig
Max +6.0 psig +50.0 psig
Outlet to vapor return line, max. +3.5 psig +3.5 psig

注3. 滑油压力限制：
正常工作 30 - 60 psi
慢车 10 psi
最大（冷滑油） 100 psi

NOTE 3. Oil pressure limits:
Normal operation 30 - 60 psi
Idle 10 psi
Maximum (cold oil) 100 psi

注4. 下列附件传动备件是可用的

附件	旋转方向	对曲轴的传动比	最大扭矩(英寸. 磅)		最大悬垂 力矩（英寸. 磅）
			连续	静态	
流量计	OPT-CW	0.5:1	7	50	25
**磁发电机	CW	1.0:1	--	--	--
起动机	CCW	24.727:1	50		
交流发电机	CCW	2.035:1	30	100	100
燃油泵	CCW	1:1	40	800	
***真空泵	CW	1:1	25	800	25

"CW"-顺时针方向

"CCW"-反时针方向

"OPT" -随意的

** IOF-240-B FADEC 发动机不用磁发电机驱动

NOTE 4.

*** 这个驱动是一个脉冲20000 衬垫缓和速度
The following accessory drive provisions are available:

Accessory	Direction of Rotation*	Drive Ratio to Crankshaft	Max. Torque (In-lb.)		Max. Overhang Moment (In-lb.)
			Cont.	Static	
Tachometer	OPT-CW	0.5:1	7	50	25
**Magneto	CW	1.0:1	--	--	--
Starter	CCW	24.727:1	50		
Alternator	CCW	2.035:1	30	100	100
Fuel Pump	CCW	1:1	40	800	
***Vacuum Pump	CW	1:1	25	800	25

* "CW" - Clockwise
"CCW" - Counter clockwise (viewing drive pad) and
"OPT" - Optional
**Magneto drives not used on IOF-240-B FADEC engine.
***This drive is an AND 20000 pad modified for speed only.

注5.
NOTE 5.

这些发动机符合推和牵引式操作
These engines are eligible for pusher and tractor operation.

注6.
NOTE 6.

下列火花塞被批准安装在本发动机上:
Champion REM38E, REM38P, RHM38E, RHM38P
The following spark plugs are approved on this engine.
Champion REM38E, REM38P, RHM38E, RHM38P

注7.
NOTE 7.

除FADEC 燃油和点火控制系统外IOF-240-B 型与IO-240-B相似
Model IOF-240-B is similar to the IO-240-B except for the FADEC fuel and ignition control system.

注8.
NOTE 8.

发动机型号包括一个后缀对于定义微小的规格变化, 例如IO-240-B(1B)
Engine model numbers may include a suffix to define minor specification changes. Example: IO-240-B(1B)

注9.

FAA 批准和/或认可的手册

	操作和安装	维护	大修
IO-240-B	X30620	X30621A	X30622A
IOF-240-B	OI-22	M-22	OH-22

NOTE 9.

Applicable FAA approved and/or accepted manuals:

	Operation & Installation	Maintenance	Overhaul
IO-240-B	X30620	X30621A	X30622A
IOF-240-B	OI-22	M-22	OH-22

注10.
NOTE 10.

电控制系统包含C级软件满足低于最大起飞重量6000磅的单发和多发动机飞机的要求。
The electronic control system contains level "C" software which has been shown to meet the requirements for single and multi-engine aircraft of less than 6,000 lbs. maximum takeoff weight.

注11.
NOTE 11.

必须为电控制系统提供两套独立的电源以满足操作和安装手册里的可靠性要求。这些电源之一可以是飞机的主汇流条。第二条电源必须独立于飞机的汇流条, 如果由电池支撑, 这个电池不

能依靠发动机起动。只要这个电源有足够的能量满足飞机取证要求，利用一个基本汇流条或一个专门的备用电池是提供第二条电源的可接受的方法，

The electronic control system must be supplied with two isolated sources of electrical power which meet the reliability requirements set forth in the Operation and Installation Manual. One of these power sources may be the aircraft primary bus. The second power source must be isolated from the aircraft bus, and if supported by a battery, this battery cannot be the battery which is utilized for engine starting. The use of an essential bus or a dedicated backup battery is an acceptable method of providing secondary power, as long as this source has sufficient capacity to meet aircraft certification requirements.

注12.
NOTE 12.

如果电控制系统使用备用电池作为第二套电源，在操作和安装手册里必须说明备用电池更换的间隔。

If a back-up battery is used as a secondary source of electrical power for the electronic control system, the back-up battery must be replaced at the interval specified in the Operation and Installation Manual.

注13.
NOTE 13.

健康状态信号显示器的安装和评估是从属于飞机审定基础确定的要求。

Installation and evaluation of the Health Status Annunciator (HSA) display is subject to the requirements established by the certification basis of the aircraft.

注14.
NOTE 14.

健康状态信号显示器故障禁止飞机起飞。

Takeoff is prohibited with annunciated faults shown on the Health Status Annunciator (HSA).

结束/END

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