

型号认可证数据单
TYPE VALIDATION CERTIFICATE DATA SHEET

编号/No: VTC0244E

版次/Revision: 0

型号/Type:

O-200 系列发动机

O-200-D

批准人/Approved By:

徐超群

日期/Date: 2010-06-10

本数据单是型号认可证(编号: VTC0244E)的组成部分, 它规定了符合中国民用航空局的适航要求所颁发此型号认可证的产品状态和限制。

This data sheet, which is part of Validation of Type Certificate (No: VTC0244E), prescribes condition and limitation under which the product for which the type certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

型号认可证持有人/Validation of Type Certificate Holder:

Teledyne Continental Motors.

2039 Broad Street

Mobile, Alabama 36601

有效页清单/List of effective pages :

页数/ Pages	1	2	3	4	5										
版次/Revision	0	0	0	0	0										

中国民用航空局
CIVIL AVIATION ADMINISTRATION OF CHINA

第1部分 概述/Section 1 GENERAL

1. CAAC认可数据单和型号合格证数据单/CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空局认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance date	型号合格证数据单号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date
当前 Current	编号: VTC0244E; 版次: 0; 颁发日期: 2010年6月10日; No. VTC0244E; Revision 0; Date of Issue: 2010-06-10	编号: E-252; 版次: 30; 颁发日期: 2008年10月10日 No. E-252, Revision 30, Date of Issue: October 10, 2008
历史 History	无	无

2. 类别/Category: 发动机/ Engine

3. 认可当局/Validation Authority: 中国民用航空局/CAAC
审定当局/Certifying Authority: 美国联邦航空局/FAA

4. 型号合格证持有人/Type Certificate Holder: Teledyne Continental Motors
Address: 2039 Broad Street, Mobile, Alabama 36601

5. 制造厂/Manufacturer: Teledyne Continental Motors.

6. ETOPS: 不适用/NA

7. CAAC专用要求/CAAC Special Requirements: 无/NONE

第2部分/Section 2

A. 审定基础/Certification Basis

1. 适航标准/Airworthiness Standards:

a) 2007年11月5日生效的美国14 FAR 33部第24修正案:

Part 33 of the Federal Air Regulations through Amendment 24 effective November 5, 2007

2. 专用条件/Special Conditions (SC): 无/none

3. 等效安全项目/Equivalent Safety Findings (ESF): 无/none

4. 偏离/Deviations: 无/none

5. 环境标准/Environmental Standards: 无/none

6. 生产基础/Production Basis: 生产许可证第7号/Production Certificate No.7

生产许可证第508号/Production Certificate No.508

B. 技术特性/Technical Characteristics

型别/Model	O-200-D
型号/Type	4HOA
标准大气, 海平面压力高度下额定最大连续马力, 转速/Rating, standard atmosphere. Max. Continuous hp., r.p.m., at sea level pressure altitude	100-2750
海平面压力高度下全油门5分钟起飞马力, 转速/Takeoff hp., 5 min. r.p.m., full throttle, at sea level pressure alt	100-2750
燃油 (最低等级航空燃油) /Fuel (min. grade aviation gasoline)	100/100LL
滑油, 环境温度/Lubricating oil, ambient air temp.	滑油等级/Oil Grade
40°F以下/Below 40°F	SAE 30
40°F以上/Above 40°F	SAE 30
汽缸内径和冲程, 英寸/Bore and stroke, in.	4.062×3.875
汽缸容积, 立方英寸/Displacement, cu. in	201
压缩比/Compression ratio	8.5:1
重量, 磅/Weight (dry), lb	176.5
重心位置 (带附件) /C.G. location (with accessories)	
附件机匣后端前向, 英寸/Fwd. of rear face of rear acc.case	6.2
曲轴中心线下部, 英寸/Below crankshaft center line, in	0.96
曲轴中心线旁1-3站位, 英寸/Beside crankshaft center line toward 1-3 side, in	0.06
螺旋桨轴/Propeller shaft, SAE No.	TCM/Cessna
汽化器 (喷嘴见注4) /Carburetion (see Note 4 for injectors)	-----
点火/Ignition	Slick Electro 4301 (both sides) or 1 ea. TCM S4LSC-200 and S4LSC 204 or 1 ea. TCM S4LSC-200 and S4LSC 204T or TCM S4LSC-21 (both sides)

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正时/Timing, °BTC	24°±1°
火花塞/Spark plugs	见注6
滑油箱容量, 夸脱/Oil sump capacity, qt	5

注1/Note 1 最大许可温度/Maximum permissible temperature:

汽缸头/Cylinder head	480°F
汽缸筒/Cylinder barrel	N/A
滑油进口/Oil inlet	240°F

注2/Note 2 汽化器燃油进口压力限制/Carburetor fuel inlet limits:

	最小/Minimum	最大/Maximum
MA-3SPA, TCM P/N 627143, 633028, 637101, 637835, 640416	5 In. Fuel Head	6PSIG
MA-3SPA, TCM P/N 627367, 629175	6 In. Fuel Head	6PSIG
MA-3SPA, TCM P/N 530625, 530726, 530846, 531126, 531157	6 In. Fuel Head	6PSIG
Carburetor Air Intake Assembly, TCM A40793, used with MA-3SPA, Marvel-Schebler Carb. (precision).		
Carburetor Air Intake Assembly, TCM A40522, used with NA-53A1, Stromberg Carburetor.		
Carburetor Air Intake Assembly, TCM 657555, used with MA-3SPA, Marvel-Schebler Carb. (precision).		
滑油压力限制/Oil pressure limits:	30~60 p.s.i.g	
最小慢车热滑油状态/Minimum idling with hot oil: 10 p.s.i.g		

注3/Note 3 附件传动或安装规定如下/The following accessory drive or mounting provisions are available:

附件/Accessory	旋转方向 /Direction of rotation*	曲柄速度比/Speed ratio to crankshaft	最大扭矩 (英寸-磅) /Max. Torque (in-lb) 连续/Continuous	最大扭矩 (英寸-磅) /Max. Torque (in-lb) 静态/Static	最大垂悬力矩 (英寸-磅) /Maximum overhang moment (in-lb)
****转速计 /Tachometer	C	0.500:1	7	50	25
发电机/交流发电机 Generator/Alternator	CC	2.035:1	60	600	100
起动机/Starter	C	35.7:1	100	800	25
**真空泵/Vacuum pump	CC	1.0:1			
***燃油泵/Fuel pump (diaphragm)		0.500:1			

对于C90系列发动机, 注3中的附件满足持续使用要求/Accessories previously listed in Note 3 are satisfactory for continued use with C90 Series engines.

*C—顺时针方向/Clockwise viewing drive pad; CC—逆时针方向/Counterclockwise.

**仅适用于C90-16F和O-200-A, B, C发动机/C90-16F and O-200-A, B, C engines only.

***设备5809与40585泵作为O-200-A, B, C发动机型号设计的一部分得到批准, 交流燃油泵631391作为C90-16F发动机的可选设备/TCM Eq.5809 incorporating TCM P/N 40585 pump approved as part of type design of the O-200-A, B, C engines. AC fuel pump, TCM P/N 631391, available as optional equipment on C90-16F.

****不适用于O-200-D发动机/Does not apply to O-200-Dengines

注4/Note 4 O-200-D发动机与O-200-A发动机相似, 除了特别的曲轴安装边、重量、滑油箱组件和更高的压缩比。在O-200-D发动机上, 真空泵或膜片燃油泵未得到批准/The model O-200-D is similar to the O-200-A except for special crankshaft flange, overall weight reduction, oil sump assembly, and higher compression pistons. The O-200-D does not have provisions for a

vacuum pump or the diaphragm fuel pump.

注5/Note 5 Bendix-Stromberg NAS-3A1化油器仅适用于装Piper消音器的Piper PA-11飞机/Bendix-Stromberg NAS-3A1 carburetor, P/N 530726, eligible only on Piper PA-11 airplanes equipped with Piper mufflers.

注6/Note 6 除了开始工作阶段, 当使用240°F滑油进口温度限制时, 去垢油需要满足大陆公司MHS-24规范。当更换滑油型号或发动机开始运行时, 依照制造商的说明手册进行。滑油只能在注油口进行添加, 且遵循MHS-24规范及240°F滑油进口温度限制/Detergent oil meeting Continental Specification MHS-24 required when using 240°F oil inlet limits except during break-in period. Follow manufacture's instructions for break-in or when changing oil types. Making or placards prescribing use of Continental Specification MHS-24 oil only shall be installed on or near the oil filler on installations using 240°F oil inlet temperatures.

注7/Note 7 下述火花塞的使用经过批准/The following spark plugs are approved for use on engine models as indicated:

O-200-A, B, C, D

AC	HSR83IR, SR83IR, HSR83P, SR83P, A88, HS88, HSR88, S88, S88D, SR88, SR88D, HSR93, SR93
Auto Lite	18A1, SH15, H15, SH15R, SH20A, SH150, SH200A, PH26
BG	RB4858, 706, 706S, 919SR5, RB955S
Champion	C27, C27S, RC27S, REM37BY, REM38P, REM38W, RHM38P, RHM38W, REM40E, RHM40E, ED41N, D41N, EM41E, EM41N, HM41E, M41E, M41N, EM42E, M42E
Red Seal	SA190, SE190, SJ190, SE230, SJ230

注8/Note 8 持续适航文件并不完整, 当持续适航文件完成并被批准时, 航空器方能合法运行/Instructions for Continued Airworthiness are incomplete. The aircraft will be eligible for return to service when the ICAs are complete and accepted.

结束/End