

# 中 国 民 用 航 空 局

## CIVIL AVIATION ADMINISTRATION OF CHINA

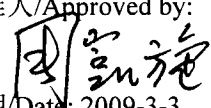
### 型号认可证数据单

### Validation Type Certificate Data Sheet

编号/No.: VTC 0223E

修订/Rev: Original Issue

型号/Type: Jabiru 2200C

批准人/Approved by: 

日期/Date: 2009-3-3

本数据单是型号认可证（编号 VTC 0223E）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 a part of Validation Type Certificate (No: VTC 0223E), prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

CAAC认可数据单和型号合格证数据单

CAAC Validation Data Sheet and Type Certificate Data Sheet

|               | 中国民用航空总局认可数据单号、版次和颁发日期<br>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<br>Type Certificate Data Sheet Number, Revision and issuance date |
|---------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 当前<br>Current | No. VTC 0223E, 版次 0<br>2009 年 3 月 3 日                                                   | CASA TCDS Number.VE501,<br>Issue 6, Feb, 2008                                       |
| 历史<br>History |                                                                                         |                                                                                     |

有效页清单/List of effective pages:

| 页数/Pages    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------|---|---|---|---|---|---|---|
| 版次/Revision | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## 一. 概要/General

### 1. 型号/Type

Jabiru 2200C

### 2. 型号认可证持有人/Validation of Type Certificate Holder

Avtech Pty Ltd PO Box 5186 Bundaberg West Queensland, 4760 Australia

### 3. 制造商/Manufacturer

Avtech Pty Ltd PO Box 5186 Bundaberg West Queensland, 4760 Australia

### 4. CASA 合格审定申请日期/Certification Application Date

2004 年 5 月 25 日/25 MAY 2004

### 5. CASA 合格审定批准日期/ Certification Approval Date

2008年2月6日/6 FEB 2008

## 二. 认可审定基础/Validation Basis

CAAC 的认可审定基础由 CASA 合格审定基础中的适用要求和 CAAC 的附加技术条件组成

The CAAC validation basis is consisted of CASA certification basis as applicable and CAAC additional technical conditions.

### (一) CASA 合格审定基础/CASA Certification Basis:

#### 1. 适航标准/Airworthiness Standards:

CASR Part 32, CS22 Sub Part H (formerly JAR 22H)

#### 2. 专用条件/Special Conditions

无/None

#### 3. 豁免/Deviations

无/None

#### 4. 等效安全符合/Equivalent Safety Findings

无/None

### (二) CAAC 附加技术条件/CAAC additional technical conditions

#### 1. 燃油符合中国航空汽油 RH95/130、RH100/130 (GB 1787-79 (1988))

Fuel conforms to China Aviation gasoline RH95/130、RH100/130 (PRC National Standard GB 1787-79)

无铅车用汽油, 最低标号为 97<sup>#</sup> (研究法辛烷值) (符合中国国家标准 GB17930-2006)

Unleaded MOGAS, Minimum Octane Rating 97<sup>#</sup> (RON) (Conforms to PRC National Standard GB17930-2006).

2. 按照CCAR 33.37的要求, 火花点火发动机必须装有双点火系统, 每个汽缸至少要有两只火花塞, 并具有电源分开的两条独立电路; 或者装有在飞行中可靠性相当的点火系统。

As per CCAR 33.37, each spark ignition engine must have a dual ignition system with at least two spark plugs for each cylinder and two separate electric circuits with separate sources of electrical energy, or have an ignition system of equivalent in-flight reliability.

Applicant should give compliance summary against CCAR 33.37.

3. 资料批准/Service Information approval

CAAC 接受的服务通告、结构修理手册、航空器飞行手册、供应商手册和航空器维护手册等使用维护资料应经 CASA 批准, CASA 的这些批准代表了 CAAC 的批准, 且仅限于本型号设计。

Service bulletins, structural repairing manuals, aircraft flight manuals, vender manuals and aircraft maintenance manuals submitted to CAAC should be approved by CASA. The approval by CASA is equivalent to CAAC' and the approval pertains to the type design only.

(三) 生产基础/Production Basis

JABIRU 生产许可证 444128

JABIRU Production Certification No. 444128

三. 技术特征和运行限制/Technical Characteristics and Operational Limitations

1. 类型/ Type

4 缸, 水平对置, 空冷, 直接驱动发动机

4 cylinder, horizontally opposed, air cooled, direct drive engine

2. 额定值/ Rating

海平面最大持续功率和转数, 60.0kw, 3300-rpm; 海平面起飞 (5 分钟) 功率和转数, 60.0kw, 3300-rpm.

Max continuous power and rpm at sea level pressure altitude, 60.0kw, 3300-rpm. Take Off (5Minutes) power and rpm at sea level pressure altitude, 60.0kw, 3300-rpm

3. 燃油/ Fuel

最低号航空汽油, 100LL 和 100/130

Minimum Grade Aviation Gasoline, 100LL 和 100/130

澳大利亚优质无铅车用汽油, 最低标号为 95<sup>#</sup> (研究法辛烷值)

Premium Unleaded MOGAS, Minimum Octane Rating 95(ROn)

消耗量 最大持续功率下 21L/hr.

Consumption 21L/hr at Maximum Continuous Power

#### 4. 滑油/Oil

型号, 航空润滑油多级通用 15W-50; 或符合美军标 MIL-L-22851C 或莱康明公司规范 301F, 或大陆公司规范 MHF-24B

Type, Aero Oil Multi Grade 15W-50, or equivalent lubrication complying with MIL-L-22851C, or Lycoming Specification 301F, or Continental Specification MHF-24B.

可用容积: 1.1L

Usable: 1.1 litres.

沉淀槽容积: 2.3L。

Sump Capacity: 2.3 litres.

消耗量: 最大持续功率下 0.1L/hr

Consumption: 0.1 litres /hr at Max Continuous Power

#### 5. 点火/ Ignition

双路点火, JABIRU 双磁、高压、晶体管化非接触式点火, P/No PI10522N。

火花塞, NGK D9EA

点火定时, 点火提前角, 25° (注 1)

缸径和冲程, 97.5- mm x74-mm

Dual, JABIRU Dual Magneto, High Voltage transistorized contactless P/No PI0522N

Spark Plugs, NGK D9EA

Timing, 25° BTC (Note 1)

Bore and Stroke, 97.5- mm x74-mm

#### 6. 排量/ Displacement

2209cm<sup>3</sup>/2209 cubic cm

#### 7. 压缩比/ Compression Ratio 8.3:1

#### 8. 主要尺寸/ Principal Dimensions

长度 536-mm; 宽度 582-mm; 高度 445-mm

Length 536-mm, Width 582-mm, Height 445-mm

#### 9. 重量 (干) / Weight(dry) 60kg (注 2) /60kg (Note 2)

#### 10. 重心位置/ Centre of Gravity Location:

A: 螺旋桨安装法兰前表面向后 260-mm B: 曲轴中心线向下 15-mm

A: 260-mm aft of the centre line of the crankshaft B: 15-mm below the centre line of the crankshaft

11. 螺旋桨旋转方向: 从未部向前看为顺时针转动

Propeller Rotation: Clockwise when viewed from the rear

12. 汽化器/Carburetor

1 个 Bing 94/40.144 恒压汽化器, 直径为  $\phi 40$ -mm, 主喷嘴为  $\phi 2.25$ -mm, 针阀为 PGA012N

1 Bing 94/40.144 constant pressure carburetor 40-mm diameter Main Jet 2.25-mm Needle PGA012N

13. 燃油泵/ Fuel Pump

机械泵, JABIRU P/No PH0625N

Mechanical, JABIRU P/No PH0625N

14. 交流发电机/ Alternator

由整流器 P/N P II 0652N 与 Jabiru P/No 4532064 或 4535064 永久磁铁组成的集成式交流发电机

Integrated JABIRU Permanent Magnet Jabiru P/No 4532064 or 4535064 with Regulator Rectifier P/N P II 0652N

15. 起动机/ Starter

JABIRU 12V/1.0 kW, 通过减速齿轮和飞轮 P/N4A070A0D 啮合

JABIRU 12V/1.0 kW, engagement via reduction gear and freewheel P/N4A070A0D

16. 图纸清单/ Draw List

发动机机构型由图纸 “W000511-1- Jabiru 2200C 发动机装配” 确定

The engine Configuration is defined in drawing W000511-1-Engine Assembly, Jabiru 2200C

17. 适用系列号/ Eligible Serial Nos.

22C001 (含) 以后

22C001 and subsequent

四. 使用限制/ Operating Limitations

1. 温度限制/ Temperature Limits

- |                                                                                       |          |
|---------------------------------------------------------------------------------------|----------|
| 1.1 运行最低滑油进口温度/ Oil Inlet Minimum for Operation                                       | 15°C     |
| 1.2 最高滑油进口温度/Oil Inlet Maximum                                                        | 110°C    |
| 1.3 持续滑油进口温度/ Oil Inlet Continuous                                                    | 80-100°C |
| 1.4 汽缸盖最高温度 (持续时间不能超过 5 分钟) / Cylinder Head Maximum(Not to exceed 5 minutes duration) | 200°C    |
| 1.5 汽缸盖持续最高温度/ Cylinder Head Maximum Continuous                                       | 180°C    |
| 1.6 点火线圈最高使用温度/ Ignition Coils Maximum                                                | 100°C    |

1.7 点火线圈最低使用温度/ Ignition Coils Minimum -5°C

## 2. 滑油压力限制/ Pressure Limits

### 2.1 正常运行最低压力 100kPa，最高压力 525kPa

Normal Operation Minimum 100kPa Minimum, Maximum 525kPa

### 2.2 怠速最低压力/ Idle Minimum 40kPa

### 3.3 启动和暖机最大压力/Starting and Warm up Maximum 525kPa

## 五. 运行和服务指南/ Operating and Service Instructions

1. CASA 批准的发动机安装手册 JEM2202-4 或其后续版本/Engine Installation Manual JEM2202-4 or its later revision approved by CASA (is it suitable to airplane to china?)

2. CASA 批准的发动机零部件图解手册 JEM2203-2 或其后续版本/Engine Parts Book JEM2203-2 or its later revision approved by CASA

3. CASA 批准的发动机安装和维护手册 JEM2204-4 或其后续版本/ Engine Instruction & Maintenance Manual JEM2204-4 or its later revision approved by CASA

## 4. 服务通告/Service Bulletin

## 六. 注释/ Notes:

1. Avtech公司的发动机机序列号是连续的，只有生产过程符合本数据单生产基础要求的发动机，才符合该型号认证。

The serial numbers of engine produced by Avtech Pty Ltd are sequential. Only the engine produced in accordance with the production basis described in this TCDS are eligible for certification under this VTC.

2. 发动机工作上限高度海拔 10000 英尺由点火电路确定

Engine operating Limit of 10000 feet above sea level as defined by ignition circuit

3. 净干重量包括排气系统、起动机、飞轮和交流发电机

Net dry weight includes exhaust, starter, flywheel, and alternator

4. 重心: A: 相对于具体纵向参考面 B: 相对于发动机曲轴中心线

Center of gravity: A: specific longitudinal reference B: Relative to engine crankshaft centerline

5. Jabiru 2200J 是 2200 系列发动机的早期型，在仍然生效的型号批准证书 160-2 中作为参考。

The Jabiru 2200J, which is an early model of Jabiru 2200 series engines, is referenced in Certificate of Type Approval 160-2 which remains in force.