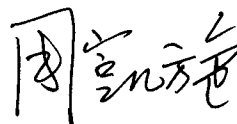


型号认可证数据单
THE VALIDATION DATA SHEET

编号/No: VTC0186A
版次/Revision: 1
型号/Type: LIBERTY
XL-2

批准人/Approved By:



日期/Date: 2008/02/25

本数据单是型号认可证（编号：VTC0186A）的组成部分，它规定了符合中国民用航空总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:VTC0186A), prescribes condition and limitation under which the product for which the type certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulations.

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

Liberty Aerospace Incorporated
100 Aerospace Drive, Melbourne, FL 32901

有效页清单/List of effective pages :

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

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

I. 概述/ 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

	中国民用航空总局认可数据单号、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
历史 History	0186A, Revision 0, 2007 年 5 月 9 日	FAA No. A00008DE Revision 1 dated on February 19, 2004
当前 Current	0186A, Revision 1, 2008 年 2 月 25 日	FAA No. A00008DE Revision 3 dated on January 29, 2008

2. 飞机类型 / Airworthiness Category: 正常类/ Normal Airplanes

3. 机型/Airplane: XL-2

4. 审定当局 / Certifying Authority: FAA

5. 型号证持有人 / Type Certificate Holder:

Liberty Aerospace Incorporated

100 Aerospace Drive

Melbourne, FL 32901

II. 认可审定基础/ Validation Basis

中国民用航空总局接受美国适航当局的审定基础作为认可审定基础: / CAAC accepts the Certification Basis of FAR as the Validation Basis:

审定基础/Certification Basis

美国联邦航空条例 FAR23 部及其 1—55 号修正案、环境保护要求 FAR36 部及其 1—24 号修正案和美国联邦航空条例 FAR21 部及其 21—57 号修正案/ Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by 23-1 thru 23-55 (Normal Category) and FAR 36 as amended thru 36-24, FAR 21 amended thru 21-57.

安装 FADEC 的专用条件和 HIRF 影响的系统保护, 见注释 6/Special Condition (23-119-SC) for Installation of Full Authority Digital Engine Control (FADEC) and the protection of the system from the effects of High Intensity Radiated Fields (HIRF). See NOTE 6.

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等效安全/Findings of Equivalent Levels of Safety as follows:

ACE-02-06, 14 CFR Part 23.777(d) and 23.781(b), 单功率杆 / Single Power Lever

ACE-03-03, 14 CFR Part 23.1143(g) and 23.1147(b), 油门和混合线失效 / Throttle and mixture cable failures

Exemptions:豁免

豁免编号 7865: 对 14 CFR Part 23.562 的豁免一应急着陆动态要求 / Exemption number 7865 granted for 14 CFR Part 23.562, Emergency landing dynamic condition

TC 证号 A00008DE 的颁发日期: 2004 年 2 月 19 日 / Type Certificate Number A00008DE issued February 19, 2004

型号合格证申请日期: 2000 年 10 月 26 日 / Application for Type Certificate dated October 26, 2000

Production Basis 生产基础 2006 年 4 月 6 日向 Liberty Aerospace 颁发编号为 PC344CE 的生产许可证, 生产序列号 S/N0017 及以后的航空器
Production Certificate Number PC344CE was issued to Liberty Aerospace on April 6, 2006 for production of S/N 0017 and subsequent.

Liberty Aerospace 生产的序列号 S/N 0007 至 0016 的航空器依据编号为 A00008DE 的型号合格证生产

S/N's 0007 through 0016 built by Liberty Aerospace under Type Certificate A00008DE.

Equipment 设备

适用的适航规章(见审定基础)所要求的基本设备必须被安装在航空器上用于合格审定/The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

除了上述的设备, 下列的设备也需要被安装/In addition to the above required equipment, the following equipment are also required:

1. Liberty Aerospace, Inc 公司的飞机飞行手册。文件号 135A-970-005, 修订版 D, 2005 年 10 月 31 号批准, 或 FAA 以后批准的版本/Airplane Flight Manual, Liberty Aerospace, Inc. Document Number 135A-970-005, Revision D, dated October 31, 2005, or later FAA approved revision.
2. 失速警告指示器/Stall Warning indicator.
3. 汽缸头温度计量器/Cylinder head temperature gage.

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III. 2004 年 2 月 19 日批准的型别 XL-2, 2PCLM (正常类)

Model XL-2, 2PCLM (Normal Category), Approved February 19, 2004

发动机 /Engines: Teledyne Continental IOF-240-B 型发动机, 型号合格证数据单 E7S0。发动机通过 FADEC 控制 /Teledyne Continental IOF-240-B, Type Certificate Data Sheet (TCDS) E7S0. Engines controlled by Full Authority Digital Electronic Control (FADEC).

燃料/Fuel: 最小等级为 100/100LL 的航油/100/100LL minimum grade aviation gasoline
在中国使用 RH95/130 型航油/RH95/130 (China)

发动机限制/Engine Limits: 对所有操作/For all operations:
最大发动机转速 2800 RPM (125 hp)/Maximum engine speed 2800 RPM (125 hp)
最小发动机转速 825 RPM/ Minimum engine speed 825 RPM

螺旋桨及其限制/Propeller and Propeller Limits:
Sensenich Corp 的 W69EK7-63G 型螺旋桨, 型号合格证数据单 P00001NY/Sensenich Corp W69EK7-63G, TCDS P00001NY
直径/Diameter: 69 英寸/69 inches
桨叶数/Number of blades: 2/个

MT Propeller 的 MT175R127-2Ca 型螺旋桨, 型号合格证数据单 P19B0/MT Propeller MT175R127-2Ca, TCDS P19B0
直径/Diameter: 175 厘米/ 175 centimeters
桨叶数/Number of blades: 2/个

速度限制/Airspeed Limits:
不可超越速度/VNE Never Exceed Speed 162 KIAS
结构能接受的最大巡航速度/VNO Maximum Structural Cruising Speed 125 KIAS
最大允许机动速度/VA (1653 lbs) Maneuvering Speed 100 KIAS
最大收放起落架速度/VFE Maximum Flap Extension Speed 80 KIAS

重心限制/ C.G. Range: 前重心限制/Forward limits: 82.20 inches aft of datum up to 1554 lbs with a straight line taper to 83.48 inches at 1653 lbs.
后重心限制/Aft Limits: 86.75 inches aft of datum up

基准/Datum

空重重心限制/Empty wt. C.G. Range

水平測量/Leveling Means

最大重量/Maximum Weight

座位个数/No. of Seats

最大行李/Maximum baggage

燃料容量/Fuel Capacity

滑油容量/Oil Capacity

最大运行高度/Maximum Operating Altitude

控制面行程 / Control Surface Movements

襟翼 Flaps UP 0° DOWN 29° ± 1.0°

Additional Limitations:

设计数据/Design Data:

飞机应该按照 FAA 批准的 Liberty Aerospace 主图纸清单

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135A-900-005 或者 FAA 批准的其他资料进行制造/The airplane shall be manufactured in accordance with the latest FAA approved revision of Liberty Aerospace, Inc. Master Drawing List:, Document Number 135A-900-005, or other FAA approved data.

适用的序列号 / Serial Nos. Eligible:

0007 0009 及其后续序列号版本 / 0007 0009 and subsequent

注释/NOTE 1

必须对每一架飞机提供原始的载重平衡报告, 经审定的空机重量必须包括 1.5 加仑 (9.31 磅) 的不可用燃油/Current weight and balance report, including a list of equipment included in certificated empty weight, must be provided for each aircraft at the time of the original certification. The certified empty weight and corresponding center of gravity location must include unusable fuel of 1.5 US gallons (9.3 lb) at 101.80 inches aft of the datum.

注释/NOTE 2

所有在 FAA 批准的飞行手册里 (Liberty Aerospace, Inc 文档号 135A-970-005, D 版次, 或者其后续版本) 的标牌, 要在飞机适当位置上显示。

All placards specified in the FAA Approved Airplane Flight Manual (AFM), Liberty Aerospace, Inc. Document Number 135A-970-005, Revision D, or later FAA approved revision, must be displayed in the airplane in the appropriate locations.

注释/NOTE 3

持续适航文件, 维修信息和更换时间被包含在 Liberty Aerospace, Inc 文档号为 135A-970-006 的维修手册中。参见维修手册的第 4 章的强制性适航限制, 其优先于数据单的任何限制。

Instructions for Continued Airworthiness, maintenance information, and replacement times are contained in Liberty Aerospace, Inc. Maintenance Manual Document Number 135A-970-006. See Chapter 04 of the Maintenance Manual for mandatory Airworthiness Limitations which take precedence over any limitations shown in this TCDS.

注释/NOTE 4

在持续适航文件第 4 章中限定了外观的颜色 (Liberty

Aerospace Inc. 维修手册文档号为 135A-970-006)。注册标记应位于结构连接线之上, 高 10 英寸。

Exterior colors are to be limited to those specified in Instructions for Continued Airworthiness Chapter 04 (Liberty Aerospace Inc. Maintenance Manual Document Number 135A-970-006). Registration marks shall be located above the structural bond line and shall be 10 inches in height.

注释/NOTE 5

主体结构上的维修要按照 FAA 批准的对 Liberty Aerospace 维修方法和 FAA 批准的其他方法执行。

Major structural repairs must be accomplished in accordance with FAA approved Liberty Aerospace repair methods or other methods approved by the FAA.

注释/NOTE 6

安装诸如 EFIS 的其他重要飞行电子设备, 需要 FAA 航空器审定司的评审, 以确定是否需要进行飞机级的闪电和/或 HIRF 试验。

Installation of additional flight-critical electronic equipment, such as an Electronic Flight Instrument System (EFIS), will require review by the FAA Aircraft Certification Service to determine whether aircraft-level lightning and/or High Intensity Radiated Field (HIRF) testing is required.

注释/NOTE 7

备用电池仅用于给 FADEC 和姿态及转动配位仪陀螺供电

The second battery is to be utilized as a power source for FADEC and attitude and turn coordinator gyros only.

注释/NOTE 8

任何对驾驶舱透明度的更改都要得到 FAA 航空器审定司的评审, 以确定满足 14 CFR 23.807(c)。

Any change to the canopy transparency will require review by the FAA Aircraft Certification Service to determine compliance with 14 CFR 23.807(c).

……结束 END……