

型号认可证数据单

Validation Type Certificate Data Sheet

编号/No: VTC0311A

版次/Revision:0

型号/Type:

XA41

XA42

批准人/Approved By:Yang Zhenmei



职务/Title: Deputy Director General of CAAC-AAD

日期/Date:2014-12-24

本数据单是型号认可证(编号: VTC0311A)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: VTC0311A) , 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:

XtremeAir GmbH

Harzstrasse 2, Am Flughafen Cochstedt

39444 Hecklingen

GERMANY

有效页清单/List of effective pages :

Pages	1	2	3	4	5	6	7	8	9	10	11	12							
Revision	0	0	0	0	0	0	0	0	0	0	0	0							

第1部分 概述（所有机型）

SECTION 1 GENERAL (ALL MODELS)

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	VTC0311A , Rev. 0, 2014-12-24	TCDS EASA.A.507, Revision 5, 27 February, 2013
历史 History		

2. 类别/Category:

XA41 特技和实用类飞机/Acrobatc and Utility Categories Aircraft

XA42 特技和实用类飞机/Acrobatc and Utility Categories Aircraft

3. 认可当局/Validation Authority:

中国民用航空局/CAAC

审定当局/Certifying Authority:

欧洲民航局/EASA

4. 型号合格证持有人/Type Certificate Holder:

XtremeAir GmbH
Harzstrasse 2, Am Flughafen Cochstedt
39444 Hecklingen
GERMANY

5. 认可基础/Validation Basis:

CAAC的认可基础由EASA的审定基础和CAAC的附加技术条件组成。

The CAAC validation basis consists of the EASA certification basis and the CAAC additional technical conditions.

6. CAAC附加技术条件/CAAC Additional Conditions

交付到中国的每一架XA41和XA42飞机须满足下述特殊要求/ Each of XA41and/or XA42 aircraft delivered to China shall meet the following special requirements:

(1) 按照CCAR21.29（5），对用于为乘客或外侧救援人员指示开门位置的标牌需有中文标识。
/ As per CCAR21.29(5),all literal markings and placards on an airplane used for indicating passengers or outboard rescue personnel of the location of doors and their means of opening must be at least in Chinese language.

(2) 必须满足中国民用航空局的噪声要求CCAR-36-R1 dated 15, April 2007./The noise requirements of CAAC (i.e. CCAR-36-R1 dated 15, April 2007) must be met.

(3) 必须满足欧洲民用航空局颁发的所有适用于XA41和XA42飞机的适航指令要求。/ All Issued AD's against XA41 and XA42 by EASA must be met.

(4) 必须满足中国民用航空局CCAR-23.221(a)(2)。/ The CCAR-23.221(a)(2) must be met.

(5) 必须满足中国民用航空局CCAR-23.855。/ The CCAR-23.855must be met.

第2部分 SECTION 2

I - 型号 XA42 (特技和实用类) 2007 年 7 月 30 日获得批准/Model XA42 (Acrobatic and Utility categories) Approved 30.07.2007

发动机/Engine:

Lycoming AEIO-580-B1A

中国民航认证: VTC0298E

CAAC Validation Type Certificate: VTC0298E

发动机限制/Engine Limits:

起飞和续航推力: 235 KW/315HP

最大转速: 特技类: 2.700rpm

实用类: 2.670rpm

Take-off & continuous power: 235 kW / 315 HP

Max. rotational speed: Aerobatic: 2.700rpm

Utility: 2.670rpm

螺旋桨/Propeller:

构型一: MT 螺旋桨 MTV-9-B-C/C203-20d

中国民航认证: VTC0255P

桨叶数: 3

直径: 2030mm-50mm

构型二: MT 螺旋桨 MTV-14-B-C/C190-130

中国民航认证: VTC0297P

桨叶数: 4

直径: 1900mm-50mm

Model 1:MT Propeller MTV-9-B-C/C203-20d

CAAC Validation Type Certificate: VTC0255P

Number of blades: 3

Diameter: 2030mm-50mm

Model 2:MT Propeller MTV-14-B-C/C190-130

CAAC Validation Type Certificate: VTC0297P

Number of blades: 4

Diameter: 1900mm-50mm

燃油/Fuel:

全部: 275 升

可用: 273 升

特技类可用: 57升

Total: 275 l

Usable: 273 l

Usable for aerobatics: 57 l

滑油/Oil:

最大滑油容量:15.15 升/16 美夸脱

最小滑油容量:8.52 升/9 美夸脱

滑油规格参见 AFM 手册

Maximum sump capacity: 15,15 l / 16 US qt

Minimum sump capacity: 8,52 l / 9 US qt

Oil Specifications see AFM

冷却系统容量/Coolant system capacity:

不适用/ Not applicable

喷烟用油容量/Smoke Oil capacity:

28 升/7.4 美夸脱

28 l / 7.4 US gal

喷烟用油类型/Smoke oil type:

直链石蜡油, 在 20° C (68° F) 时粘度 30-50 CTS, 初始沸点>330°C (626° F)。

例如: Fauth FC05 , 德士古润滑油 13 或等同的。

Straight paraffin oil, viscosity 30-50 cts at 20°C (68°F), initial boiling point > 330°C (626°F).

For example: Fauth FC05, Texaco Canopus 13 or equivalent.

空速 (指示空速) /Airspeed Limits (IAS) :

VNE	最大速度	225 节
VNO	结构最大巡航速度	185 节
VA	机动速度	174 节
VNE	Never exceed speed	225 kts
VNO	Maximum structural cruising speed	185 kts
VA	Maneuvering speed	174 kts

最大运行高度/ Maximum Operating Altitude:

4572 米/15000 英尺

4572m/15000ft

全天候运行能力/Allweather Operations Capability:

日视规则昼间运行, 禁止在已知或预计结冰条件下运行。

VFR-day, Flights in known or expected icing conditions are prohibited.

最大重量/Maximum Weight:

最大空重: 670 千克/1477 磅

最大起飞和着陆重量

实用类/Utility: 999 千克/2200 磅

特技 I 类和 II 类: 999 千克/2200 磅

特技 III 类: 850 千克/1874 磅

Maximum empty weight: 670 kg / 1477 lbs

Maximum take-off and landing weight

Utility: 999 kg / 2200 lbs

Acro I and II: 999 kg / 2200 lbs

Acro III: 850 kg / 1874 lbs

类 型 /Category	最 大 起 飞 重 量 / MTOW	最 大 载 荷 /max. load factors	最大机翼油量 /max. wing fuel	机动/Maneuvers
实 用 类 /Utility	999 kg 2200 lbs.	+ 4,4 g -2,0 g	满/full	除失速和坡度不大於90度的急上升转弯、缓8字、急转弯和类似机动动作外，禁止做包括尾旋在内的特技动作。/acrobatic maneuvers, including spins, are prohibited except Stalls, Chandelles, Lazy eights, Steep turns and similar maneuvers in which the angle of bank is not more than 90°.
特技 II 类 /AcrobaticII	999 kg 2200 lbs.	+8 g -8 g	2x20 升 2x5.3 加仑 /2x20L 2x5.3gal.	无限制，参见 AFM-XA42-0040-002-C () 2.9.2 段/ unlimited, see AFM-XA42-0040-002-C () para. 2.9.2
特技 II 类 /AcrobaticIII	850 kg 1874 lbs.	+10g -10g	空/empty	

重心范围/ Centre of Gravity Range:

前重心:基准点后 550 毫米(25%MAC)

后重心:基准点后 700 毫米(33%MAC)

Forward: 550 mm behind datum (25 % MAC)

Rear: 700 mm behind datum (33 % MAC)

基准点/Datum:

防火墙前面板

Forward face of firewall

操纵面位移/Control Surface deflections:

副翼/Aileron : ±30°

升降舵/Elevator: ±27°

配重/Trim tap: ±3°

方向舵/Rudder: ±30°

水平方式/Leveling means: 座舱盖开口的水平框

Horizontal frame of cockpit canopy cut out.

最小飞行机组/Minimum Flight Crew:

1 个驾驶员(后座)/1 Pilot (rear seat)

最大乘客座位数/ Maximum Passenger Seating Capacity:

1(前座)/1(front seat)

行李/货舱/Baggage/Cargo Compartments:

在飞行员座椅后面, 最大10千克(在携带行李时禁止做特技动作)/

Max. 10 kg behind pilot's seat(no aerobatic manoeuvres allowed with baggage).

机轮和轮胎/Wheels and Tyres:

主轮: 5.00-5 10斜交

尾轮: 105/45-65实心橡胶

Main wheel: 5.00-5 10ply

Tail wheel: 105/45-65 solid rubber

运行和服务通告/ Operating and Service Instructions

1a. 飞机飞行手册: AFM-XA42-0040-002-A(), 欧洲航空安全局 2011 年 3 月 18 日批准

1b. 飞机飞行手册: AFM-XA42-0040-002-B(), 欧洲航空安全局 2011 年 10 月 6 日批准, 符合 AM-2011-016

1c. 飞机飞行手册: AFM-XA42-0040-002-C(), 欧洲航空安全局 2012 年 10 月 16 日批准, 符合 AM-2011-047

1d. 飞行手册附录 AFM-XA42-0040-002-S10.02 如果安装构型 2 螺旋桨(参照 A.III.7.2.1)。

2. 维修手册(包括适航限制): AMM-XA42-0040-001-B()

3. 螺旋桨/发动机操作和安装说明

4. 服务信息和服务通告

1a. Airplane Flight Manual: AFM-XA42-0040-002-A(), EASA approved March 18, 2011

1b. Airplane Flight Manual: AFM-XA42-0040-002-B(), EASA approved October 6, 2011 for aircraft complying with AM-2011-016

1c. Airplane Flight Manual: AFM-XA42-0040-002-C(), EASA approved October 16, 2012 for aircraft complying with AM-2011-047

1d. Flight Manual Supplement AFM-XA42-0040-002-S10.02 if equipped with Propeller No. 2 (refer to

A.III.7.2.1) .

2. Maintenance Manual (incl. Airworthiness Limitation): AMM-XA42-0040-001-B()

3. Operating and Installation Instructions for propeller/engine

4. Service Information and Service Bulletin

II - 型号 XA41 (特技和实用类) 2007 年 10 月 4 日获得批准/Model XA41 (Acrobatic and Utility categories) Approved 04.10.2007

发动机/Engine:

Lycoming AEIO-580-B1A

中国民航认证: VTC0298E

CAAC Validation Type Certificate: VTC0298E

发动机限制/Engine Limits:

起飞和续航推力: 235 KW/315HP

最大转速: 特技类: 2.700rpm

实用类: 2.670rpm

Take-off & continuous power: 235 kW / 315 HP

Max. rotational speed: Aerobatic: 2.700rpm

Utility: 2.670rpm

螺旋桨/Propeller:

构型一: MT 螺旋桨 MTV-9-B-C/C203-20d

中国民航认证: VTC0255P

桨叶数: 3

直径: 2030mm-50mm

构型二: MT 螺旋桨 MTV-14-B-C/C190-130

中国民航认证: VTC0297P

桨叶数: 4

直径: 1900mm-50mm

Model 1: MT Propeller MTV-9-B-C/C203-20d

CAAC Validation Type Certificate: VTC0255P

Number of blades: 3

Diameter: 2030mm-50mm

Model 2: MT Propeller MTV-14-B-C/C190-130

CAAC Validation Type Certificate: VTC0297P

Number of blades: 4

Diameter: 1900mm-50mm

燃油/Fuel:

全部: 277 升

可用: 266 升

特技类可用: 57 升

Total: 277 l

Usable: 266 l

Usable for aerobatics: 57 l

滑油/Oil:

最大滑油容量: 15.15 升/16 美夸脱

最小滑油容量: 8.52 升/9 美夸脱

滑油规格参见 AFM 手册

Maximum sump capacity: 15,15 l / 16 US qt

Minimum sump capacity: 8,52 l / 9 US qt

Oil Specifications see AFM

冷却系统容量/Coolant system capacity:

不适用/ Not applicable

喷烟用油容量/Smoke Oil capacity:

28 升/7.4 美夸脱

28 l / 7.4 US gal

喷烟用油类型/Smoke oil type:

直链石蜡油, 在 20° C (68° F) 时粘度 30-50 CTS, 初始沸点 > 330°C (626° F)。

例如: Fauth FC05, 德士古润滑油 13 或等同的。

Straight paraffin oil, viscosity 30-50 cts at 20°C (68°F), initial boiling point > 330°C (626°F).

For example: Fauth FC05, Texaco Canopus 13 or equivalent.

空速 (指示空速) /Airspeed Limits (IAS) :

V _{NE}	最大速度	225 节
V _{NO}	结构最大巡航速度	185 节
V _A	机动速度	174 节
V _{NE}	Never exceed speed	225 kts
V _{NO}	Maximum structural cruising speed	185 kts
V _A	Maneuvering speed	174 kts

最大运行高度/ Maximum Operating Altitude:

4572 米/15000 英尺

4572m/15000ft

全天候运行能力/Allweather Operations Capability:

目视规则昼间运行, 禁止在已知或预计结冰条件下运行。

VFR-day, Flights in known or expected icing conditions are prohibited.

最大重量/Maximum Weight:

最大空重:

- 实用类: 670 千克/1477 磅
- 特技类: 670 千克/1477 磅

最大起飞重量:

- 实用类: 999 千克/2200 磅
- 特技类: 850 千克/1874 磅

最大着陆重量:

- 实用类: 999 千克/2200 磅
- 特技类: 850 千克/1874 磅

Maximum empty weight

- Utility: 670 kg / 1477 lbs
- Acro: 670 kg / 1477 lbs

Maximum take-off weight

- Utility: 999 kg / 2200 lbs
- Acro: 850 kg / 1874 lbs

Maximum landing weight

- Utility: 999 kg / 2200 lbs
- Acro: 850 kg / 1874 lbs

重心范围/ Centre of Gravity Range:

前重心:基准点后 550 毫米(25%MAC)

后重心:基准点后 700 毫米(33%MAC)

Forward: 550 mm behind datum (25 % MAC)

Rear: 700 mm behind datum (33 % MAC)

基准点/Datum:

防火墙前面板

Forward face of firewall

操纵面位移/Control Surface deflections:副翼/Aileron : $\pm 30^\circ$ 升降舵/Elevator: $\pm 27^\circ$ 配重/Trim tap: $\pm 3^\circ$ 方向舵/Rudder: $\pm 30^\circ$

水平方式/Leveling means: 座舱盖开口的水平框

Horizontal frame of cockpit canopy cut out.

最小飞行机组/Minimum Flight Crew:

1 个驾驶员(后座)/1 Pilot (rear seat)

最大乘客座位数/ Maximum Passenger Seating Capacity:

无/ n/a

行李/货舱/Baggage/Cargo Compartments:

在飞行员座椅后面, 最大10千克(在携带行李时禁止做特技动作)/

Max. 10 kg behind pilot's seat (no aerobatic manoeuvres allowed with baggage).

机轮和轮胎/Wheels and Tyres:

主轮: 5.00-5 10斜交

尾轮: 105/45-65实心橡胶

Main wheel: 5.00-5 10ply

Tail wheel: 105/45-65 solid rubber

运行和服务通告/ Operating and Service Instructions:

1a. 飞机飞行手册: AFM-XA41-0040-002-(), 欧洲航空安全局2012年1月31日批准或更高版本。

1b. 飞行手册附录 AFM-XA41-0040-002-S10.01 如果装备构型2螺旋桨(参照B.III.7.2.1)。

2. 维修手册(包括适航限制): AMM-XA42-0040-001-B()

3. 螺旋桨/发动机操作和安装说明

4. 服务信息和服务通告

1a. Airplane Flight Manual: AFM-XA41-0040-002-(), EASA approved January 31, 2012 or later revisions approved by EASA.

1b. Flight Manual Supplement AFM-XA41-0040-002-S10.01 if equipped with Propeller No. 2 (refer to B.III.7.2.1).

2. Maintenance Manual (incl. Airworthiness Limitations): AMM-XA42-0040-001-B()

3. Operating and Installation Instructions for propeller/engine

4. Service Information and Service Bulletin

认可基础/Validation Basis:

CAAC 的认可基础由 EASA 的审定基础和 CAAC 的附加技术条件组成。

The CAAC validation basis consists of the EASA certification basis and the CAAC additional technical conditions.

EASA 审定基础/EASA Certification Basis:

CS-23 第 1 修正案, 详细信息请参见 CRI A-01, 第 5 版(2012 年 1 月 16 日)及其附件

CS-23, Amdt.1, For detailed information see CRI A-01, revision 5, dated 16 January 2012 and Annex A to CRI A-01.

专用条件/Special Conditions:

SC-E23.863-01, 烟雾系统

SC-F23.1309-02, 防HIRF

SC-F23.1309-03, 防雷击-间接

SC-E23.863-01, Smoke system

SC-F23.1309-02, Protection from Effect of HIRF

SC-F23.1309-03, Protection from the Effect of Lightning Strike - Indirect Effects

等效安全/Equivalent Safety Findings:

CRI B-101, 失速告警/Stall Warning

CRI B-102, 气动稳定性/Aerodynamic Stability

CRI D-102, 发动机控制的位置和形状/Position and shape of engine controls

环境标准(实用类)/Environmental Standards(Utility Category):

ICAO 附件 16, 第 I 卷, 第 10 章

ICAO Annex 16, Volume I, Chapter 10

CAAC 附加技术条件/CAAC Additional Conditions

交付到中国的每一架 XA41 和 XA42 飞机须满足下述特殊要求/ Each of XA41 and/or XA42 aircraft delivered to China shall meet the following special requirements:

(1) 按照CCAR21.29(5), 对用于为乘客或外侧救援人员指示开门位置的标牌需有中文标识。/ As per CCAR21.29(5), all literal markings and placards on an airplane used for indicating passengers or outboard rescue personnel of the location of doors and their means of opening must be at least in Chinese language.

(2) 必须满足中国民用航空局的噪声要求CCAR-36-R1 dated 15, April 2007./The noise requirements of CAAC (i.e. CCAR-36-R1 dated 15, April 2007) must be met.

(3) 必须满足欧洲民用航空局颁发的所有适用于XA41和XA42飞机的适航指令要求。/ All Issued AD's against XA41 and XA42 by EASA must be met.

(4) 必须满足中国民用航空局CCAR-23.221(a)(2)。/ The CCAR-23.221(a)(2) must be met.

(5) 必须满足中国民用航空局CCAR-23.855。/ The CCAR-23.855 must be met.

备注 1/NOTE 1

受影响的序列号:

XA42:101-103、106 及以后。

XA41:01 及以后。

Affected serial numbers:

XA42:101-103, 106 and up.

XA41:01 and on.

备注 2/NOTE 2

复合材料结构鉴定温度限制为 72°C (161.6°F)。

The composite structure is qualified up to 72 °C (161.6 °F).

备注 3/NOTE 3

结构能承受全部和突然的副翼控制输入直到 V_{NE} 速度。

The structure is designed for full and abrupt aileron control inputs up to V_{NE}.

备注 4/NOTE 4

中文标牌和标识包含在 CAAC 批准的 DW-XA42-1120-005 和 DW-XA42-1130-005 文件中。

Chinese markings and placards are included in DW-XA42-1120-005 and DW-XA42-1130-005 which are approved by CAAC.

结束/END