

型号认可数据单

THE VALIDATION DATA SHEET

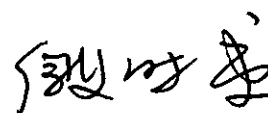
编号/No: VTC0166A

版次/Revision: 1

型号/Type:

Diamond DA 42

批准人/Approved By:



日期/Data: 2010-5-31

本数据单是型号认可证（编号：VTC0166A）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的状态和限制。

This data sheet, which is part of Validation of Type Certificate(No: VTC0166A ), 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:

Diamond Aircraft Industries GmbH

N.A. Otto-Str.5 A-2700 Wiener Neustadt Austria

有效页清单/List of effective pages:

|             |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |
|-------------|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|
| 页数/Pages    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |  |  |  |  |  |  |
| 版次/Revision | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |  |  |  |  |  |  |
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| 版次/Revision |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |

Diamond DA 42

## 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

|               | 中国民用航空局认可数据单号、版次和颁发日期<br>CAAC Validation Data Sheet Number, Revision and<br>issuance date | 型号合格证数据单号、版次和颁发日期<br>Type Certificate Data Sheet Number,<br>Revision and issuance date |
|---------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 当前<br>Current | 编号/Number: VTC0166A<br>版次/ Revision: 1<br>日期/Date: 2010-5-31                              | 编号/Number: A.005<br>版次/ Revision: 13<br>日期/Date: March 17, 2010                        |
| 历史<br>History | 编号/Number: VTC0166A<br>版次/ Revision: 0<br>日期/Date: 2005.6.23(June 23,2005)                |                                                                                        |

### 2. 类别/Category:

正常类航空器/ Normal Category

### 3. 认可当局/Validation Authority:

中国民用航空局/CAAC

审定当局/Certifying Authority:

欧洲航空安全局/EASA

### 4. EASA 合格证

型号合格证 Type Certificate Number:

EASA.A.005

型号合格证持有人/Type Certificate Holder:

Diamond Aircraft Industries GmbH

N.A. Otto-Str. 5 A-2700 Wiener Neustadt AUSTRIA

### 5. 申请 CAAC 认可审定的日期

17 AUG 2004

Date of Application for CAAC Validation:

### 6. CAAC 型号认可日期

23 JUN 2005

CAAC Validation Date:

## II. CAAC 附加技术条件/CAAC additional technical conditions

### 1 CCAR21.29, Amendment Level: R3

### 2 环保标准/Environmental Standards

Noise: CCAR-36-R1, dated 15 April 2007

### 3 用于告知乘客或地面救援人员舱门位置和打开方法的标记标牌必须满足中文要求

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.

### 4 燃油符合中国航空燃油 3 号喷气燃料 (GB-6537-2006);

Fuel conforms to China Aviation No.3 JET FUEL (PRC National Standard GB-6537-2006) ;

**5 进口要求/Import Requirements**

为具备在中国运行的资格，按本型号认可证制造的每架航空器必须具有一份出口适航证，其上签注有出口国适航当局的审定声明（用英文），即：本架航空器符合 CAAC 所批准的型号设计(VTC166A)并处于可安全运行的状态。To be considered eligible for operation in China, each aircraft manufactured under this Validation of Type Certificate must be accompanied by a certificate of airworthiness for export endorsed by EASA or EASA authorized person which states (in English language): This aircraft conforms to its CAAC type design (VTC166A) and is in a condition for safe operation .

**6 产品有效性/Series Nos. Eligible (Note 1)**

对于申请 CAAC 审定的每一架飞机，其出口适航证都必须由 EASA 按上述“进口要求”予以签注。A EASA Certificate of Airworthiness for export endorsed as noted below under “Import Requirements” must be submitted for each individual airplane for which application for the CAAC certification.

**7 资料批准/Service Information**

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 EASA 批准，EASA 的这些批准代表了 CAAC 的批准，且仅限于本型号设计。Service bulletins, structural repair manuals, aircraft flight manuals, vender manuals, and aircraft maintenance manuals which contain a statement that the document is EASA approved, are accepted by the CAAC and are considered CAAC-approved. These approvals pertain to the type design only.

## 第 2 部分 SECTION 2

### DA 42

#### A.I. 概述/General

数据单号: EASA A.005

- |                                                             |                                                                                                |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 1. a) 型号/Type                                               | DA 42                                                                                          |
| b) 型别/Variant                                               | ---                                                                                            |
| 2. 适航类别/Airworthiness Category:                             | JAR-23 正常类/JAR-23 Normal Category                                                              |
| 3. 型号合格证持有人/Type Certificate Holder                         | Diamond Aircraft Industries GmbH<br>N.A. Otto-Str. 5<br>A-2700 Wiener Neustadt<br>Austria      |
| 4. 制造商/Manufacturer:                                        | Diamond Aircraft Industries Inc.<br>1560 Crumlin Sideroad, London Ontario<br>N5V 1S2<br>Canada |
| 5. JAA 型号审查申请日期/JAACertification Application Date:          | 02-Apr-2002                                                                                    |
| 6. JAA 确认日期(JAA 推荐)/JAA validation Date(JAA recommendation) | 13 May 2004                                                                                    |
| 7. EASA 型号审查日期/EASA Type Certification Date:                | 13 May 2004                                                                                    |

#### A.II. 审定基础/Certification Basis

- |                                                                             |                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. 确定申请人需求的参考日期/Reference Date for determining the applicable requirements: | 02-Apr-2002                                                                                                                                                                                                                                                                                    |
| 2. (保留)/(Reserved)                                                          |                                                                                                                                                                                                                                                                                                |
| 3. (保留)/(Reserved)                                                          |                                                                                                                                                                                                                                                                                                |
| 4. 审定基础/Certification Basis:                                                | 如最新版 CRI A-01 所示/As defined in CRI A-01, latest Issue                                                                                                                                                                                                                                          |
| 5. 适航需求/Airworthiness Requirements:                                         | JAR-23, 修订 1, 2001 年 2 月 1 日发布<br>AR-23, Amendment 1, issued 01 February 2001                                                                                                                                                                                                                  |
|                                                                             | JAR-1, 更改 5, 1996 年 7 月 15 日发布<br>JAR-1, Change 5, issued 15-Jul-1996                                                                                                                                                                                                                          |
| 6. 选出的符合性要求/Requirements elected to comply:                                 | 无/None                                                                                                                                                                                                                                                                                         |
| 7. EASA 专用技术条件/EASA Special Conditions:                                     | CRI D-02,<br>CRI D-02, Variable Elevator Stop<br>CRI E-02, 往复式发动机上使用航空煤油<br>CRI E-02, Use of Jet Fuel for Reciprocating Engines<br>CRI E-03, 往复式发动机上使用柴油<br>CRI E-03, Use of Diesel Fuel for Reciprocating Engines<br>CRI E-06, 发动机振动水平<br>CRI E-06, Engine Vibration Level<br>CRI E-07, 发动机扭矩 |

- CRI E-07, Engine Torque
- CRI F-01, HIRF 防护
- CRI F-01, Protection from the Effects of HIRF
- CRI F-03, 闪电间接影响防护
- CRI F-03, Protection from the Effects of Lightning Strikes, Indirect Effects
- CRI F-05, 往复式柴油发动机及螺旋桨的全权数字发动机控制(FADEC)的安装
- CRI F-05, Installation of FADEC reciprocating Diesel engine and propeller
- CRI F-07, 集成航电系统的人机要素
- CRI F-07, Human Factors in Integrated Avionic System
- 8. (保留)/(Reserved):
- 9. EASA 等效安全/EASA Equivalent Safety Findings:
  - CRI D-01, 单杆动力控制
  - CRI D-01, Single Lever Power Control
  - CRI E-04, 液冷 - 冷却液罐
  - CRI E-04, Liquid Cooling - Coolant Tank
  - CRI E-05, 电子控制 - 往复式柴油机
  - CRI E-05, Electronically-controlled Reciprocating Diesel Engine
  - CRI E-08, 燃油系统 - 热燃油温度
  - CRI E-08, Fuel System - Hot Fuel Temperature
  - CRI F-04, 动力装置仪表
  - CRI F-04, Power plant Instruments
  - CRI B-03, 结冰条件下的失速速度
  - CRI B-03, Stall Speed in Icing Conditions
- 10. EASA 环境标准/EASA Environmental Standards:
  - CAO, Annex 16, Volume 1, Third Edition, 1993, Amdt. 7
  - JAR 36, issued 23-May-1997
  - CRI A-03 其他国家的要求, 见注 2
  - CRI A-03 for additional national requirements See Note 2

### **A.III. 技术特性和运行限制/Technical Characteristics and Operational Limitations**

1. 型号设计定义/Type Design Definition:
 

当前发布的文档: 编号 7.07.00, 第七章中包含有从 MÄM 42-001 到 42-012 及随后的设计更改

Current issue of Doc. No. 7.07.00, Chapter 7 including Design Changes MÄM 42-001 to 42-012 and following
2. 描述/Description:
 

双发, 四座悬挂式低翼机, 符合材料结构, 收放式三轮起落架, T 型尾翼

Twin engine, four-seated cantilever low wing airplane, composite construction, retractable tricycle landing gear, T-tail,
3. 设备/Equipment:
 

设备列表, AMF 文档, 编号 7.01.05, 章节 6, 见注 3

Equipment list, AFM, Doc. No. 7.01.05, Section 6, See Note 3

4. 几何尺寸/Dimensions:

|                |                      |              |
|----------------|----------------------|--------------|
| 跨度/Span        | 13.42 m              | (44 ft 0 in) |
| 长度/Length      | 8.56 m               | (28 ft 1 in) |
| 高度/Height      | 2.49 m               | (8 ft 2 in)  |
| 机翼面积/Wing Area | 16.29 m <sup>2</sup> | (175.3 sqft) |

5. 发动机/Engines:

2 台 Thielert TAE 125-01 或 TAE 125-02-99

见 注 4 和注 9

EASA 发动机型号合格证数据单 E.005

2 Thielert TAE 125-01 or TAE 125-02-99

see Note 4 and Note 9

EASA Engine Type Certificate Data Sheet E.055

5.1 防火墙/Firmware:

见 DAI MSB 42-007/see DAI MSB 42-007

见 注 4/See Note 4

5.2 映像/Mapping:

见 DAI MSB 42-007/see DAI MSB 42-007

见 注 4/See Note 4

5.3 发动机限制/Engine Limits:

最大起飞转速/Max take-off rotational speed 2300 r.p.m.

最大连续转速/Max continuous rotational speed 2300 r.p.m.

(传动轴 r.p.m.)/(Propeller shaft r.p.m.)

动力装置限制参见 FAM, 文档号 7.01.05 第二节/For power-plants limits refer to AFM, Doc. No. 7.01.05, Section 2

6. (保留)/(Reserved)

7. 螺旋桨/Propellers:

2 mt-Propeller MTV-6-A-C-F/CF187-129

EASA 螺旋桨型号合格证数据单 P.094

2 mt-Propeller MTV-6-A-C-F/CF187-129

EASA Prop. Type Certificate Data Sheet P.094

7.1 设置/Settings

低俯仰角设置/Low pitch setting: 12°

桨位/Feather position 81°

启动锁/Start Lock 15°

8. 液体/Fluids:

8.1 燃油/Fuel:

Jet A-1(ASTM 1655) 见 注 8

Diesel(EN 590) 见 注 7

Jet A-1 (ASTM 1655) see Note 8

Diesel (EN 590) see Note 7

8.2 滑油/Oil: 发动机/engine

壳牌 Helix Ultra 5W30 合成机油 API SJ/CF 或参见 AFM, 文档号 7.01.05, 第二节

Shell Helix Ultra 5W30 synthetic API SJ/CF or see AFM, Doc. No. 7.01.05, Section 2

齿轮箱/Gearbox

壳牌 EP75W90 API GL-4 或参见 AFM, 文档号 7.01.05, 第二节

Shell EP 75W90 API GL-4 or see AFM, Doc. No. 7.01.05, Section 2

8.3 冷却剂/Coolant:

水/冷却器防护液

更多细节参见 AFM, 7.01.05, 第二节

|                                               |                                                            |                                               |                            |
|-----------------------------------------------|------------------------------------------------------------|-----------------------------------------------|----------------------------|
|                                               |                                                            | Water / Cooler Protection                     |                            |
|                                               |                                                            | for more details see AFM, 7.01.05, Section 2  |                            |
| 8.4 防冰液/Ice Protection Fluids                 |                                                            | AL-5(DTD 406B)或 Aeroshell Compound 07         |                            |
|                                               |                                                            | 更多细节参见 AFM, 7.01.05, 增补 S03                   |                            |
|                                               |                                                            | AL-5 (DTD 406B) or Aeroshell Compound 07      |                            |
|                                               |                                                            | for more details see AFM, 7.01.05, Suppl. S03 |                            |
| 9.液体容量/Fluid capacities                       |                                                            |                                               |                            |
| 9.1 燃油/Fuel:                                  | 标准油箱/                                                      | 总共/Total                                      | 196.8 升/liters             |
|                                               | Standard Fuel Tank                                         | 可用/Usable:                                    | 189.2 升/liters             |
|                                               | 辅助油箱/                                                      |                                               |                            |
|                                               | Auxiliary Fuel Tank                                        |                                               |                            |
| 9.2 滑油/Oil                                    | 每台发动机                                                      | 最大/Maximum:                                   | 6.0 升/liters               |
|                                               |                                                            | 最小/Minimum:                                   | 4.5 升/liters               |
| 10. 空速/Air Speeds:                            |                                                            |                                               |                            |
| 设计机动速度 $V_A$ /                                |                                                            | 小于 1542kg /up to 1542 kg                      | 119 KEAS                   |
| Design Manoeuvring Speed $V_A$                |                                                            | 1542kg 以上/above 1542 kg                       | 125 KEAS                   |
| 襟翼放下速度 $V_{FE}$ /                             |                                                            | 进场/Approach                                   | 135 KEAS                   |
| Flap Extended Speed $V_{FE}$                  |                                                            | 着陆/Landing                                    | 110 KEAS                   |
| 最大起落架使用速度速度 $V_{LO}$ /                        |                                                            |                                               | 155 KEAS                   |
| Maximum Landing Gear Operation Speed $V_{LO}$ |                                                            |                                               |                            |
| 最大起落架放下速度 $V_{LE}$ /                          |                                                            |                                               | 192 KEAS                   |
| Maximum Landing Gear Extended Speed $V_{LE}$  |                                                            |                                               |                            |
| 最小操纵速度 $V_{MC}$ /                             |                                                            |                                               | 68 KEAS                    |
| Minimum Control Speed $V_{MC}$                |                                                            |                                               |                            |
| 最大结构巡航速度 $V_{NO}$                             |                                                            |                                               | 155 KEAS                   |
| (=最大结构设计速度 $V_C$ ) /                          |                                                            |                                               |                            |
| Maximum structural cruising speed $V_{NO}$    |                                                            |                                               |                            |
| (= Maximum structral design speed $V_C$ )     |                                                            |                                               |                            |
| 极限速度 $V_{NE}$ /                               |                                                            |                                               | 192 KEAS                   |
| Never exceed speed $V_{NE}$                   |                                                            |                                               |                            |
| 11. 最大运行高度/Maximum Operating Altitude:        | 5486 m (18 000 ft)                                         |                                               |                            |
| 12. 全天候能力/All weather Capability:             | 日/夜-VFR,IFR /                                              |                                               |                            |
|                                               | Day/Night - VFR, IFR                                       |                                               |                            |
|                                               | 在已知或预计结冰条件下飞行, 参见注 5                                       |                                               |                            |
|                                               | Flights into known or forecast icing conditions See Note 5 |                                               |                            |
| 13. 最大重量/Maximum Masses:                      |                                                            |                                               |                            |
| 起飞/Take-off                                   |                                                            | 1700 kg(3748 lb)                              |                            |
|                                               |                                                            | 1785 kg(3935 lb)                              | 见注 6/See Note 6            |
| 空油/Zero Fuel                                  |                                                            | 1650 kg(3638 lb)                              |                            |
| 着陆/Landing                                    |                                                            | 1700 kg(3560 lb)                              |                            |
| 14. 重心范围/Centre of Gravity Range:             |                                                            |                                               |                            |
| 前部限制/Forward limit                            |                                                            | 1468 kg 以下/Up to 1468kg                       | 基准后 2.35m/                 |
|                                               |                                                            |                                               | 2.35m behind Datum         |
|                                               |                                                            | 1785 kg/At 1785 kg                            | 基准后 2.4m/2.4m behind Datum |

|                                                     |                                                                                                                                                                   |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 后部限制/Rear limit                                     | 重量间线性变化/Varying linearly with mass in between<br>1250 kg/At 1250 kg 基准后 2.42m/2.42m behind Datum<br>1600kg 以上/At 1600kg and 基准后 2.49m/2.49m behind Datum<br>above |
| 15. 基准/Datum:                                       | 重量间线性变化/Varying linearly with mass in between<br>2.196 m 短翼前沿机翼接头前<br>In front of leading edge of stub-wing at the wing joint                                     |
| 16. (保留)/(Reserved)                                 |                                                                                                                                                                   |
| 17. 测平方式/Levelling Means:                           | 前行李舱地板水平/floor of front baggage compartment levelled                                                                                                              |
| 18. 最小飞行机组/Minimum Flight Crew:                     | 1 (飞行员/Pilot)                                                                                                                                                     |
| 19. 最多成员座位数/<br>Maximum Passenger Seating Capacity: | 3                                                                                                                                                                 |
| 20. (保留)/(Reserved)                                 |                                                                                                                                                                   |
| 21. 行李舱/货舱<br>Baggage/Cargo Compartments            |                                                                                                                                                                   |
| 位置/Location                                         | 最大允许负载                                                                                                                                                            |
| 前行李舱/Front Baggage Compartment                      | 30 kg (66 lb)                                                                                                                                                     |
| 后排座位后/Behind Rear Seats                             | 45 kg (100 lb)                                                                                                                                                    |
| 尾部行李扩展/Aft part of Baggage Extension                | 18 kg (40 lb)                                                                                                                                                     |
| 整个尾部行李舱/<br>Whole aft Baggage Compartment together  | 45 kg (100 lbs)                                                                                                                                                   |
| 22. 机轮与轮胎/Wheels and Tyres                          |                                                                                                                                                                   |
| 前轮轮胎尺寸/Nose Wheel Tyre Size                         | 5.00 - 5                                                                                                                                                          |
| 最大轮胎尺寸/Main Wheel Tyre Size                         | 15x6.0 -6                                                                                                                                                         |

**A.I.V. 操作及服务说明/Operating and Service Instructions**

|                                                                                                                                  |                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 飞行手册(AFM)                                                                                                                        | 文件 No.7.01.05 或<br>7.01.06(带 OÄM 42-102, GFC 700 自动驾驶仪)               |
| Airplane Flight Manual(AFM)                                                                                                      | Document No.7.01.05 or<br>7.01.06(with OÄM 42-102, GFC 700 Autopilot) |
| 飞机维修手册(AMM)<br>(含适航限制)                                                                                                           | 文件 No.7.02.01                                                         |
| Airplane Maintenance Manual(AMM)<br>(incl. Airworthiness Limitations)<br>服务信息及服务通告<br>Service Informations ans Service Bulletins | Document No.7.02.01                                                   |

**A.V. 注/Notes**

1. 本适航证书适用的产品包括奥地利钻石公司的序列号 42.004 及其后的产品, 加拿大钻石公司的序列号 42.AC001 及其后的产品, 不包括序列号 42.L001 和 42.L002.产品

1. This certification applies to serial numbers 42.004 and subsequent for production at Diamond-Austria, serial numbers 42.AC001 and subsequent for production at Diamond - Canada, excluding serial numbers 42L.001 and 42L.002.

2. 批准的噪音水平符合 EASA 的噪声数据单 TCDSN A.005

2. Approved Noise Levels in accordance to the EASA data sheet for noise TCDSN A.005

3. 批准的 Garmin G1000 集成航电系统的软件版本参见 DAI MSB 42-008 最新版。如果安装了 TAE 125-02-99 发动机(设计更改 Design Change MÄM 42-198), 则需要 Garmin PNo 010-00370-15 及其后批准的版本的软件

3. For approved software versions of Garmin G1000 Integrated Avionic System see DAI MSB 42-008, at latest issue. If engine TAE 125-02-99 is installed (Design Change MÄM 42-198), than Garmin Software PNo. 010-00370-15 or later approved version is required.

4. DA 42 上批准安装的发动机:

|               |                   |
|---------------|-------------------|
| TAE 125-01    | 125-01-(017)-( )  |
| TAE 125-02-99 | 125-02-(0003)-( ) |

4. Approved engine model for installation in the DA 42:

批准的固件和映像符合 DAI MSB 42-007 最新版  
仅仅对应配对发动机型号的安装

The approved firmware and mapping is according to DAI MSB 42-007 at latest issue.  
Installation of engine types in pairs only.  
TAE 125-02-99 发动机之前是作为 TAE 125-02 批准的

The engine TAE 125-02-99 engine was previously approved as TAE 125-02

5. 如果按照重大设计变更 OÄM 42-054 安装了液流防冰系统, 则在已知或预见的结冰环境中的飞行是获得批准的。

5. Flights into known or forecast icing conditions is approved if the liquid fluid ice protection system in accordance to Major Design Change OÄM 42-054 is installed.

6. 如果实施了重大设计更改 MÄM 42-088, 则最大起飞重量 1785kg(3935 lbs)是获得批准的

6. The maximum takeoff mass of 1785 kg (3935 lbs) is approved if Major Design Change MÄM 42-088 is installed.

7. 如果实施了重大设计更改 MÄM 42-037, 则使用 Diesel 燃油(EN 590)是获得批准的

7. The use of Diesel fuel (EN 590) is approved if Major Design Change MÄM 42-037 is installed.

8. 详细获批的燃油型号参见 AFM 章节 2

获批的燃油型号包括: JET A(ASM D 1655), Jet Fuel 3(GB6537-94)以及 TS-1(GOST 10227-86)

8. For the detailed approved Jet fuel types see AFM Section 2.

JET A (ASM D 1655), Jet Fuel 3 (GB6537-94) and TS-1 (GOST 10227-86) are approved fuel types.

9. 从发动机 TAE 125-01 到 TAE 125-02-99 的发动机改装是含 OSB 42-046 的设计更改 MÄM 42-198 批准的

9. Engine retrofit installation from engine TAE 125-01 to TAE 125-02-99 is approved by Design Change MÄM 42-198 with OSB 42-046.

型号认可数据单

THE VALIDATION DATA SHEET

编号/No: VTC166A

版次/Revision: 1

型号/Type:

Diamond DA 42

批准人/Approved By:

日期/Data: 2010.5.24

本数据单是型号认可证（编号：VTC166A）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: VTC166A ), 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:

Diamond Aircraft Industries GmbH

N.A. Otto-Str.5 A-2700 Wiener Neustadt Austria

有效页清单/List of effective pages:

|             |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |
|-------------|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|
| 页数/Pages    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |  |  |  |  |  |  |
| 版次/Revision | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |  |  |  |  |  |  |
| 页数/Pages    |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |
| 版次/Revision |   |   |   |   |   |   |   |   |   |  |  |  |  |  |  |  |

Diamond DA 42

**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**

|               | 中国民用航空局认可数据单号、版次和颁发日期<br>CAAC Validation Data Sheet Number, Revision and<br>issuance date | 型号合格证数据单号、版次和颁发日期<br>Type Certificate Data Sheet Number,<br>Revision and issuance date |
|---------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 当前<br>Current | 编号/Number: VTC166A<br>版次/ Revision: 1<br>日期/Date: 2010.5.24                               | 编号/Number: A.005<br>版次/ Revision: 13<br>日期/Date: March 17, 2010                        |
| 历史<br>History | 编号/Number: VTC166A<br>版次/ Revision: 0<br>日期/Date: 2005.6.23 (June 23, 2005)               |                                                                                        |

2. 类别/Category: 正常类航空器/ Normal Category

3. 认可当局/Validation Authority: 中国民用航空局/CAAC

审定当局/Certifying Authority: 欧洲航空安全局/EASA

**4. EASA 合格证**

型号合格证 Type Certificate Number: EASA.A.005

型号合格证持有人/Type Certificate Holder: Diamond Aircraft Industries GmbH  
N.A. Otto-Str. 5 A-2700 Wiener Neustadt AUSTRIA

**5. 申请 CAAC 认可审定的日期**

Date of Application for CAAC Validation:

6. CAAC 型号认可日期 23 JUN 2005

CAAC Validation Date:

**II. CAAC 附加技术条件/CAAC additional technical conditions****1 CCAR21.29, Amendment Level: R3**

2 环保标准/Environmental Standards Noise: CCAR-36-R1, dated 15 April 2007

3 用于告知乘客或地面救援人员舱门位置和打开方法的标记标牌必须满足中文要求

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.

4 燃油符合中国航空燃油 3 号喷气燃料 (GB-6537-2006);

Fuel conforms to China Aviation No.3 JET FUEL (PRC National Standard GB-6537-2006);

## 5 进口要求/Import Requirements

为具备在中国运行的资格，按本型号认可证制造的每架航空器必须具有一份出口适航证，其上签注有出口国适航当局的审定声明（用英文），即：本架航空器符合 CAAC 所批准的型号设计(VTC166A)并处于可安全运行的状态。  
To be considered eligible for operation in China, each aircraft manufactured under this Validation of Type Certificate must be accompanied by a certificate of airworthiness for export endorsed by EASA or EASA authorized person which states (in English language): This aircraft conforms to its CAAC type design (VTC166A) and is in a condition for safe operation .

## 6 产品有效性/Series Nos. Eligible (Note 1)

对于申请 CAAC 审定的每一架飞机，其出口适航证都必须由 EASA 按上述“进口要求”予以签注。  
A EASA Certificate of Airworthiness for export endorsed as noted below under “Import Requirements” must be submitted for each individual airplane for which application for the CAAC certification.

## 7 资料批准/Service Information

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 EASA 批准，EASA 的这些批准代表了 CAAC 的批准，且仅限于本型号设计。  
Service bulletins, structural repair manuals, aircraft flight manuals, vender manuals, and aircraft maintenance manuals which contain a statement that the document is EASA approved, are accepted by the CAAC and are considered CAAC-approved. These approvals pertain to the type design only.

第 2 部分  
SECTION 2

DA 42

**A.I. 概述/General**

数据单号: EASA A.005

- |                                                             |                                                                                               |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 1. a) 型号/Type                                               | DA 42                                                                                         |
| b) 型别/Variant                                               | ---                                                                                           |
| 2. 适航类别/Airworthiness Category:                             | JAR-23 正常类/JAR-23 Normal Category                                                             |
| 3. 型号合格证持有人/Type Certificate Holder                         | Diamond Aircraft Industries GmbH<br>N.A. Otto-Str. 5<br>A-2700 Wiener Neustadt<br>Austria     |
| 4. 制造商/Manufacturer:                                        | Diamon Aircraft Industries Inc.<br>1560 Crumlin Sideroad, London Ontario<br>N5V 1S2<br>Canada |
| 5. JAA 型号审查申请日期/JAACertification Application Date:          | 02-Apr-2002                                                                                   |
| 6. JAA 确认日期(JAA 推荐)/JAA validation Date(JAA recommendation) | 13 May 2004                                                                                   |
| 7. EASA 型号审查日期/EASA Type Certification Date:                | 13 May 2004                                                                                   |

**A.II. 审定基础/Certification Basis**

- |                                                                             |                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. 确定申请人需求的参考日期/Reference Date for determining the applicable requirements: | 02-Apr-2002                                                                                                                                                                                                                                                                                    |
| 2. (保留)/(Reserved)                                                          |                                                                                                                                                                                                                                                                                                |
| 3. (保留)/(Reserved)                                                          |                                                                                                                                                                                                                                                                                                |
| 4. 审定基础/Certification Basis:                                                | 如最新版 CRI A-01 所示/As defined in CRI A-01, latest Issue                                                                                                                                                                                                                                          |
| 5. 适航需求/Airworthiness Requirements:                                         | JAR-23, 修订 1, 2001 年 2 月 1 日发布<br>AR-23, Amcndment 1, issued 01 February 2001                                                                                                                                                                                                                  |
|                                                                             | JAR-1, 更改 5,, 1996 年 7 月 15 日发布<br>JAR-1, Change 5, issued 15-Jul-1996                                                                                                                                                                                                                         |
| 6. 选出的符合性要求/Requirements elected to comply:                                 | 无/None                                                                                                                                                                                                                                                                                         |
| 7. EASA 专用技术条件/EASA Special Conditions:                                     | CRI D-02,<br>CRI D-02, Variable Elevator Stop<br>CRI E-02, 往复式发动机上使用航空煤油<br>CRI E-02, Use of Jet Fuel for Reciprocating Engines<br>CRI E-03, 往复式发动机上使用柴油<br>CRI E-03, Use of Diesel Fuel for Reciprocating Engines<br>CRI E-06, 发动机振动水平<br>CRI E-06, Engine Vibration Level<br>CRI E-07, 发动机扭矩 |

CRI E-07, Engine Torque  
 CRI F-01, HIRF 防护  
 CRI F-01, Protection from the Effects of HIRF  
 CRI F-03, 闪电间接影响防护  
 CRI F-03, Protection from the Effects of Lightning Strikes,  
 Indirect Effects  
 CRI F-05, 往复式柴油发动机及螺旋桨的全权数字发动机  
 控制(FADEC)的安装  
 CRI F-05, Installation of FADEC reciprocating Diesel engine  
 and propeller  
 CRI F-07, 集成航电系统的人机要素  
 CRI F-07, Human Factors in Integrated Avionic System

8. (保留)/(Reserved):

9. EASA 等效安全/EASA Equivalent Safety Findings:

CRI D-01, 单杆动力控制  
 CRI D-01, Single Lever Power Control  
 CRI E-04, 液冷 - 冷却液罐  
 CRI E-04, Liquid Cooling - Coolant Tank  
 CRI E-05, 电子控制 - 往复式柴油机  
 CRI E-05, Electronically-controlled Reciprocating Diesel  
 Engine  
 CRI E-08, 燃油系统 - 热燃油温度  
 CRI E-08, Fuel System - Hot Fuel Temperature  
 CRI F-04, 动力装置仪表  
 CRI F-04, Power plant Instruments  
 CRI B-03, 结冰条件下的失速速度  
 CRI B-03, Stall Speed in Icing Conditions  
 CAO, Annex 16, Volume 1, Third Edition, 1993, Amdt. 7  
 JAR 36, issued 23-May-1997  
 CRI A-03 其他国家的要求, 见注 2  
 CRI A-03 for additional national requirements See Note 2

10. EASA 环境标准/EASA Environmental Standards:

### **A.III. 技术特性和运行限制/Technical Characteristics and Operational Limitations**

1. 型号设计定义/Type Design Definition:

当前发布的文档: 编号 7.07.00, 第七章中包含有从MÄM 42-001 到  
 42-012 及随后的设计更改

Current issue of Doc. No. 7.07.00, Chapter 7 including Design Changes  
 MÄM 42-001 to 42-012 and following

2. 描述/Description:

双发, 四座悬挂式低翼机, 符合材料结构, 收放式三轮起落架, T  
 型尾翼

Twin engine, four-seated cantilever low wing airplane, composite  
 construction, retractable tricycle landing gear, T-tail,

3. 设备/Equipment:

设备列表, AMF 文档, 编号 7.01.05, 章节 6, 见注 3

Equipment list, AFM, Doc. No. 7.01.05, Section 6, See Note 3

## 4. 几何尺寸/Dimensions:

|                |                      |              |
|----------------|----------------------|--------------|
| 跨度/Span        | 13.42 m              | (44 ft 0 in) |
| 长度/Length      | 8.56 m               | (28 ft 1 in) |
| 高度/Height      | 2.49 m               | (8 ft 2 in)  |
| 机翼面积/Wing Area | 16.29 m <sup>2</sup> | (175.3 sqft) |

## 5. 发动机/Engines:

2 台 Thielert TAE 125-01 或 TAE 125-02-99

见 注 4 和注 9

EASA 发动机型号合格证数据单 E.005

CAAC 型号认可证 VTC0158E。

2 Thielert TAE 125-01 or TAE 125-02-99

see Note 4 and Note 9

EASA Engine Type Certificate Data Sheet E.055

CAAC VTC No. VTC0158E。

## 5.1 防火墙/Firmware:

见 DAI MSB 42-007/see DAI MSB 42-007

见 注 4/See Note 4

## 5.2 映像/Mapping:

见 DAI MSB 42-007/see DAI MSB 42-007

见 注 4/See Note 4

## 5.3 发动机限制/Engine Limits:

最大起飞转速/Max take-off rotational speed 2300 r.p.m.

最大连续转速/Max continuous rotational speed 2300 r.p.m.

(传动轴 r.p.m.)/(Propeller shaft r.p.m.)

动力装置限制参见 FAM, 文档号 7.01.05 第二节/For power-plants limits refer to AFM, Doc. No. 7.01.05, Section2

## 6. (保留)/(Reserved)

## 7. 螺旋桨/Propellers:

2 mt-Propeller MTV-6-A-C-F/CF187-129

EASA 螺旋桨型号合格证数据单 P.094

2 mt-Propeller MTV-6-A-C-F/CF187-129

EASA Prop. Type Certificate Data Sheet P.094

## 7.1 设置/Settings

低俯仰角设置/Low pitch setting: 12°

桨位/Feather position 81°

启动锁/Start Lock 15°

## 8. 液体/Fluids:

## 8.1 燃油/Fuel:

Jet A-1(ASTM 1655) 见 注 8

Diesel(EN 590) 见 注 7

Jet A-1 (ASTM 1655) see Note 8

Diesel (EN 590) see Note 7

## 8.2 滑油/Oil:

发动机/engine

壳牌 Helix Ultra 5W30 合成机油 API SJ/CF 或参见 AFM, 文档号 7.01.05, 第二节

Shell Helix Ultra 5W30 synthetic API SJ/CF or see AFM, Doc. No. 7.01.05, Section 2

齿轮箱/Gearbox

壳牌 EP75W90 API GL-4 或参见 AFM, 文档号 7.01.05, 第二节

Shell EP 75W90 API GL-4 or see AFM, Doc. No. 7.01.05, Section 2

## 8.3 冷却剂/Coolant:

水/冷却器防护液

更多细节参见 AFM, 7.01.05, 第二节

#### 8.4 防冰液/Icc Protection Fluids

Water / Cooler Protection

for more details see AFM, 7.01.05, Section 2

AL-5(DTD 406B)或 Aeroshell Compound 07

更多细节参见 AFM, 7.01.05, 增补 S03

AL-5 (DTD 406B) or Aeroshell Compound 07

for more details see AFM, 7.01.05, Suppl. S03

#### 9.液体容量/Fluid capacities

##### 9.1 燃油/Fuel: 标准油箱/

Standard Fuel Tank

辅助油箱/

Auxiliary Fuel Tank

总共/Total

196.8 升/liters

可用/Usable:

189.2 升/liters

##### 9.2 滑油/Oil 每台发动机

最大/Maximum:

6.0 升/liters

最小/Minimum:

4.5 升/liters

#### 10. 空速/Air Speeds:

设计机动速度  $V_A$  /

小于 1542kg /up to 1542 kg

119 KEAS

Design Manoeuvring Speed  $V_A$

1542kg 以上/above 1542 kg

125 KEAS

襟翼放下速度  $V_{FE}$  /

进场/Approach

135 KEAS

Flap Extended Speed  $V_{FE}$

着陆/Landing

110 KEAS

最大起落架使用速度  $V_{LO}$  /

155 KEAS

Maximum Landing Gear Operation Speed  $V_{LO}$

最大起落架放下速度  $V_{LE}$  /

192 KEAS

Maximum Landing Gear Extended Speed  $V_{LE}$

最小操纵速度  $V_{MC}$  /

68 KEAS

Minimum Control Speed  $V_{MC}$

最大结构巡航速度  $V_{NO}$

155 KEAS

(=最大结构设计速度  $V_C$ ) /

Maximum structural cruising speed  $V_{NO}$

(= Maximum structural design speed  $V_C$ )

极限速度  $V_{NE}$  /

192 KEAS

Never exceed speed  $V_{NE}$

#### 11. 最大运行高度/Maximum Operating Altitude:

5486 m (18 000 ft)

#### 12. 全天候能力/All weather Capability:

日/夜-VFR, IFR /

Day/Night - VFR, IFR

在已知或预计结冰条件下飞行, 参见注 5

Flights into known or forecast icing conditions See Note 5

#### 13. 最大重量/Maximum Masses:

起飞/Take-off

1700 kg(3748 lb)

1785 kg(3935 lb) 见注 6/See Note 6

空油/Zero Fuel

1650 kg(3638 lb)

着陆/Landing

1700 kg(3560 lb)

#### 14. 重心范围/Centre of Gravity Range:

前部限制/Forward limit

1468 kg 以下/Up to 1468kg 基准后 2.35m/

2.35m behind Datum

1785 kg/At 1785 kg 基准后 2.4m/2.4m behind Datum

重量间线性变化/Varying linearly with mass in between

后部限制/Rear limit

1250 kg/At 1250 kg 基准后 2.42m/2.42m behind Datum

1600kg 以上/At 1600kg and 基准后 2.49m/2.49m behind Datum  
above

重量间线性变化/Varying linearly with mass in between

15. 基准/Datum:

2.196 m 短翼前沿机翼接头前

In front of leading edge of stub-wing at the wing joint

16. (保留) / (Reserved)

17. 测平方式/Levelling Means:

前行李舱地板水平/floor of front baggage compartment levelled

18. 最小飞行机组/Minimum Flight Crew:

1 (飞行员/Pilot)

19. 最多成员座位数/

3

Maximum Passenger Seating Capacity:

20. (保留)/(Reserved)

21. 行李舱/货舱

Baggage/Cargo Compartments

位置/Location

最大允许负载

前行李舱/Front Baggage Compartment

30 kg (66 lb)

后排座位后/Behind Rear Seats

45 kg (100 lb)

尾部行李扩展/Aft part of Baggage Extension

18 kg (40 lb)

整个尾部行李舱/

45 kg (100 lbs)

Whole aft Baggage Compartment together

22. 机轮与轮胎/Wheels and Tyres

前轮轮胎尺寸/Nose Wheel Tyre Size

5.00 - 5

最大轮胎尺寸/Main Wheel Tyre Size

15x6.0 -6

#### **A.I.V. 操作及服务说明/Operating and Service Instructions**

飞行手册(AFM)

文件 No.7.01.05 或

7.01.06(带 OÄM 42-102, GFC 700 自动驾驶仪)

Airplane Flight Manual(AFM)

Document No.7.01.05 or

7.01.06(with OÄM 42-102, GFC 700 Autopilot)

飞机维修手册(AMM)

文件 No.7.02.01

(含适航限制)

Airplane Maintenance Manual(AMM)

Document No.7.02.01

(incl. Airworthiness Limitations)

服务信息及服务通告

Service Informations ans Service Bulletins

#### **A.V. 注/Notes**

1. 本适航证书适用的产品包括奥地利钻石公司的序列号 42.004 及其后的产品, 加拿大钻石公司的序列号 42.AC001 及其后的产品, 不包括序列号 42.L001 和 42.L002.产品

1. This certification applies to serial numbers 42.004 and subsequent for production at Diamond-Austria, serial numbers 42.AC001 and subsequent for production at Diamond - Canada, excluding serial numbers

42L.001 and 42L.002.

2. 批准的噪音水平符合 EASA 的噪音数据单 TCDSN A.005

2. Approved Noise Levels in accordance to the EASA data sheet for noise TCDSN A.005

3. 批准的 Garmin G1000 集成航电系统的软件版本参见 DAI MSB 42-008 最新版。如果安装了 TAE 125-02-99 发动机(设计更改 Design Change MÄM 42-198), 则需要 Garmin PNo 010-00370-15 及其后批准的版本的软件

3. For approved software versions of Garmin G1000 Integrated Avionic System see DAI MSB 42-008, at latest issue. If engine TAE 125-02-99 is installed (Design Change MÄM 42-198), than Garmin Software PNo. 010-00370-15 or later approved version is required.

4. DA 42 上批准安装的发动机:

TAE 125-01 125-01-(017)-()

TAE 125-02-99 125-02-(0003)-()

4. Approved engine model for installation in the DA 42:

批准的固件和映像符合 DAI MSB 42-007 最新版

仅仅对应配对发动机型号的安装

The approved firmware and mapping is according to DAI MSB 42-007 at latest issue.

Installation of engine types in pairs only.

TAE 125-02-99 发动机之前是作为 TAE 125-02 批准的

The engine TAE 125-02-99 engine was previously approved as TAE 125-02

5. 如果按照重大设计变更 OÄM 42-054 安装了液流防冰系统, 则在已知或预见的结冰环境中的飞行是获得批准的。

5. Flights into known or forecast icing conditions is approved if the liquid fluid ice protection system in accordance to Major Design Change OÄM 42-054 is installed.

6. 如果实施了重大设计更改 MÄM 42-088, 则最大起飞重量 1785kg(3935 lbs)是获得批准的

6. The maximum takeoff mass of 1785 kg (3935 lbs) is approved if Major Design Change MÄM 42-088 is installed.

7. 如果实施了重大设计更改 MÄM 42-037, 则使用 Diesel 研友(EN 590)是获得批准的

7. The use of Diesel fuel (EN 590) is approved if Major Design Change MÄM 42-037 is installed.

8. 详细获批的燃油型号参见 AFM 章节 2

获批的燃油型号包括: JET A(ASTM D 1655), Jet Fuel 3(GB6537-94)以及 TS-1(GOST 10227-86)

8. For the detailed approved Jet fuel types see AFM Section 2.

JET A (ASTM D 1655) , Jet Fuel 3 (GB6537-94) and TS-1 (GOST 10227-86) are approved fuel types.

9. 从发动机 TAE 125-01 到 TAE 125-02-99 的发动机改装是含 OSB 42-046 的设计更改 MÄM 42-198 批准的

9. Engine retrofit installation from engine TAE 125-01 to TAE 125-02-99 is approved by Design Change MÄM 42-198 with OSB 42-046.