

型号认可证数据单

杨树德

日期/Data: 2017-6-9

Diamond Aircraft Industries GmbH
N.A. Otto-Str. 5, A-2700 Wiener Neustadt
AUSTRIA

[illegible]

第1部分 型号认可证概述

SECTION 1 GENERAL OF VTC

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	VTC0154A Revision: 8 2017-6-9	EASA.A.022 Issue 21 17 August 2016 -DA 40 NG Issue 20 -DA 40 -DA 40 F Issue 12 -DA 40 D
历史 History	VTC0154A Revision:7 2011-08-29	EASA.A.022 Issue 12 12 April 2011
	VTC0154A Revision:6 2008-06-10	EASA.A.022 Issue 07 28 January 2008
	VTC0154A Revision:5 2008-05-13	EASA.A.022 Issue 07 28 January 2008
	VTC0154A Revision:4 2007-10-28	EASA.A.022 Issue 05 28 March 2007
	VTC0154A Revision:3 2007-06-27	EASA.A.022 Issue 04 21 December 2006
	VTC0154A Revision:2 2006-06-19	EASA.A.022 Issue 03 28 September 2005
	VTC0154A Revision:1 2005-02-06	JAA/23/00-001 Issue 12 07 May 2004
	VTC0154A Revision:0 2004-10-26	JAA/23/00-001 Issue 12 07 May 2004

2. 认可当局/Validation Authority:

中国民用航空局/CAAC

审定当局/Certifying Authority:

欧洲航空局/EASA

3. 型号合格证 Type Certificate Number:

EASA.A.022

型号合格证持有人/Type Certificate Holder:

钻石飞机工业有限公司

DIAMOND AIRCRAFT INDUSTRIES GMBH

N.A. OTTO-STR. 5

A-2700 WIENER NEUSTADT

AUSTRIA

EASA.21J.052

4. CAAC 附加技术要求/CAAC additional technical conditions

(1)CCAR21.29, Amendment Level: R3

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

(3)用于警告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 marking 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 号喷气燃油 (GB-6537-2006) ;

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

(5)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,即:本架航空器符合 CAAC 所批准的型号设计,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 Export Authority which states (in English language): This aircraft conforms to its CAAC type design and is in a condition for safe operation.

(6)产品有效性/Series Nos. Eligible

A EASA Certification 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, vendor manuals, and aircraft maintenance manual which contain a statement that the document is EASA approved, and accepted by the CAAC and are considered CAAC-approved. These approvals pertain to the type design only.

第2部分 型号数据 SECTION 2 TYPE DATA

I.型别: DA 40

MODEL NUMBER: DA 40

一、 产品型别和批准日期/THE PRODUCT MODEL AND APPROVAL DATE

1. 型号合格证数据单号 EASA.A.022
Type Certificate Data Sheet No.
2. 型号、衍生型或型别
Type / Variant or Model
 - (a) 型号/Type DA 40
 - (b) 型别/Model: DA 40
 - (c) 衍生型/Variant: --
3. 适航类别
Airworthiness Category
正常类飞机/Normal
实用类飞机/Utility
4. 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
EASA.21J.052 .
5. 制造商:
Manufacturer:
DIAMOND AIRCRAFT INDUSTRIES GMBH
N.A. OTTO-STR. 5
A-2700 WIENER NEUSTADT
AUSTRIA
AT.21G.0001
DIAMOND AIRCRAFT INDUSTRIES INC.
1560 CRUMLIN SIDEROAD, LONDON ONTARIO,
N5V 1S2 CANADA
161-93 (TCCA)
6. 国外适航当局申请日期
Foreign Authority Application Date:
20-Feb-1997
7. 国家审定当局
National Certifying Authority
奥控制股份有限公司/奥地利
Austro Control GmbH / Austria
8. 国家当局型号合格审定日期
National Authority Type
Certificate Date
2000-10-24 (JAA 推荐日期) FZ 021-JAA
24-Oct-2000 (JAA Recommendation Date) FZ 021-JAA

二、合格审定基础 CERTIFICATION BASIS

1.确定适用要求的参考日期	1998-10-24
Reference Date for determining the applicable requirements:	24-OCT-1998
2.CAAC 型号认可证申请日期	2015-06-16
CAAC Validation of Type Certificate Application Date	
3.国外适航当局合格审定基础	定义在最新发布的 CRI A-01 中
Foreign Authority Certification Basis:	JAR-23, 更改-, 1994 年 3 月 11 日发布 JAR-1, 更改 5, 1996 年 7 月 15 日发布 As defined in CRI A-01, latest issue JAR-23, Change-, issued 11-Mar-1994 JAR-1, Change 5, issued 15-Jul-1996.
4. 专用条件	CRI F-01 高强度辐射场作用下的保护
Special Conditions:	Protection from the Effects of HIRF
	CRI F-03 闪电影响与间接影响防护
	Protection from the Effects of Lightning Strikes, Indirect Effects
	CRI O-01 牵引滑翔
	Glider Towing
	CRI O-02 牵引索回收机构
	Tow Cable Retraction Mechanisms
5.豁免	无
Exemptions	None
6.偏离	无
Deviations :	None
7.选择符合的规章	JAR-23, NPA 23-3, ACJ Material
Requirement elected to comply:	
8.等效安全	无
Equivalent Safety Findings:	None
9. 环境标准	ICAO, 附件 16, 第一卷, 第 3 版, 1993
Environmental Standards:	ICAO, Annex 16, Volume 1, Third Edition, 1993 CRI A-03 附件的国家要求, 见注释 2 CRI A-03 for additional national requirements See Note 2 CRI A-03 1200, 最大起飞重量 1200kg, 见注释 10 CRI A-03 1200, for Take Off mass of 1200 kg See Note 10

三、技术特性和使用限制/TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS

1.型号设计定义
Type Design Definition

型号设计定义文件 No. 6.07.00 现版第 5 章,包括 MAM40-001 到 40-007 的设计更改以及后续内容。
Current issue of Doc. No. 6.07.00, Chapter 5 including Design Changes MAM 40-001 to 40-007 and following

2.中文标牌和标识
Chinese Placards and marking

DAI 只使用象形图向乘客或者舱外救援人员指示舱门位置和打开方式,文件编号 D41-1120-20-00。内容不包含英文,所以不需要中文标牌。
DAI uses only pictogram for indicating passengers or outboard rescue personnel the location of doors and means of opening, document No.D41-1120-20-00. No descriptive text in English language is required, so no placard in Chinese language placards are required.

3.描述
Description

单发,四座悬臂梁下单翼,固定前三点式起落架,T 型尾翼
Single engine, four-seated cantilever low wing airplane, composite construction, fixed tricycle landing gear, T-tail

4.设备
Equipment

设备清单, AFM, 文件 No. 6.01.01 第六章
Equipment list, AFM, Doc. No. 6.01.01, Section 6

5.尺寸
Dimensions

翼展/Span	11.94 m (39 ft 2 in)
长度/Length	8.01 m (26 ft 3 in)
高度/Height	1.97 m (6 ft 6 in)
机翼面积/Wing Area	13.54 m ² (146 sqft)

6.发动机
Engine

型别	一台 Textron Lycoming IO-360 M1A 型发动机
Model	1 Textron Lycoming IO-360 M1A
型号合格证	FAA 发动机型号合格证数据单 1E10
Type Certificate	FAA Engine Type Certificate Data Sheet 1E10
CAAC 型号认可证	CAAC 发动机型号认可证数据单 VTC0149E 版次 3
CAAC Validation Type Certificate	CAAC Validation Type Certificate Data Sheet VTC0149E Revision 3
限制	最大起飞转速 2700 转每分
Limitation	Max take-off rotational speed 2700 r.p.m
	最大连续转速 2400 转每分
	Max continuous rotational speed 2400 r.p.m
	发动机限制参见 AFM, 文件 No.6.01.01 第二章
	For power-plants limits refer to AFM, Doc. No. 6.01.01, Section 2

7.载荷因数	在 V _A	在 V _{NE}	起飞或着陆使用襟翼时
Load factors	at V _A	at V _{NE}	With flaps in T/O or LDG position

正常类/Normal Category

正值: Positive	3.8	3.8	2.0
负值: Negative	-1.52	0	
通用类/Utility Category			
正值: Positive	4.4	4.4	2.0
负值: Negative	-1.76	-1	

8.螺旋桨

Propeller

型别	1 mt-Propeller MTV-12-B/180-17()
Model	() - designations: none or f
型号合格证	EASA 螺旋桨型号合格证数据单 P.013
Type Certificate	EASA Propeller Type Certificate Data Sheet P.013
CAAC 型号认可证	CAAC 螺旋桨型号认可证数据单 VTC0159P, 颁发日期 2005-06-24
CAAC Validation Type Certificate	CAAC Propeller Validation Type Certificate Data Sheet VTC0159P, date of issue 24-June-2005
桨叶数量	3
Number of blades	
直径	1800 mm
Diameter	
旋转方向	顺时针
Sense of Rotation	Clockwise
设置	低桨距设置/Low pitch setting: 10.5°
Setting	高桨距设置/ High pitch setting: 30°

9.液体

Fluids

燃油	AVGAS 100 LL, 100 (ASTM D910) 见注释 11/see Note 11
Fuel	
滑油	滑油符合规范 SAE J1899 / MIL-L-22851
Oil	更多细节见 AFM, 文件 No. 6.01.02, 第二章
	Oils conforming to spec. SAE J1899 / MIL-L-22851
	For more details see AFM, Doc. No. 6.01.01, Section 2
冷却剂	无
Coolant	None

10.液体容量

Fluid Capacities

燃油	标准油箱/Standard Fuel Tank
Fuel	总共/Total: 156 升/liters 41.2 美国加仑 /US Gallons
	可用/Usable: 152.2 升/liters 40.2 美国加仑/US Gallons
	远程油箱/Long Range Fuel Tank 见注释 6 (see note 6):
	总共/Total: 193 升/liters 51 美国加仑 /US Gallons
	可用/Usable: 189.2 升/liters 50 美国加仑 /US Gallons
滑油	最大/Maximum: 7.70 升/liters 8 夸托/qts
Oil	最小/Minimum: 3.785 升/liters 4 夸托/qts

冷却系统容量	N/A	
Coolant System Capacities		
11.空速	设计机动速度 V_A /Design Maneuvering Speed V_A :	
Air speeds	不大于 980kg/up to 980 kg	94 KIAS
	大于 980kg/above 980 kg	108 KIAS
	襟翼放下速度/Flap Extended Speed V_{FE} :	
	完全襟翼/full flaps	91 KIAS
	起飞襟翼/take-off flaps	108 KIAS
	最大结构巡航速度 V_{NO}	
	(=最大结构设计速度 V_C)	
	Maximum structural cruising speed V_{NO}	
	(= Maximum structural design speed V_C):	129 KIAS
	不可超越 Never exceed speed V_{NE} : 178 KIAS	
12.最大操作高度	5000 m (16404 ft)	
Maximum Operating Altitude		
13.全天候能力	昼间目视/Day-VFR	
All-weather Operation Capability	夜间目视见注释 3/Night VFR see Note 3	
	仪表条件下飞行见注释 4/IFR see Note 4	
	禁止在预计或实际结冰条件下飞行/Flight into expected or actual icing conditions is prohibited	
14.最大重量	起飞/Take-off:	
Maximum Weights	实用类/Utility Category:	980 kg (2161 lb)
	正常类/Normal Category:	1150 kg (2535 lb) or 1200 kg (2646 lb)
		见注释 10/ see Note 10
	着陆/Landing:	1092 kg (2407 lb) or 1150 kg (2535 lb)
		见注释 9/ see Note 9
15.重心范围	前部限制/Forward limit:	
Center of Gravity Range	不大于 980kg	基准后 2.40m
	up to 980 kg	2.40 m behind Datum
	在 1200kg	基准后 2.48m
	at 1200 kg	2.48 m behind Datum
	中间质量线性变化	
	varying linearly with mass in between	
	后部限制/Rear limit:	
	所有重量	基准后 2.59m
	for all masses	2.59 m behind Datum
	带远程油箱	基准后 2.55m

with Long Range Fuel Tank

2.55 m behind Datum

16.基准

机翼对接前缘处 2.194m

Datum

2.194m in front of leading edge of stub-wing at the wing joint

17.控制面变量

Control surface deflections

副翼	向上/up	20°, ± 2°
Aileron	向下/down	13°, +2/-0°
升降舵	(a) 标准油箱/With Standard Fuel Tank:	
Elevator	向上/up	23°, ± 1°
	向下/down	15°, ± 1°
	或是(c)中列出的值	
	or values listed under (c)	
	(b) 带远程油箱/With Long Range Fuel Tank:	
	向上/up	23°, +0/-1°
	向下/down	16°, +1/-0°
	或是(c)中列出的值	
	or values listed under (c)	
	(c) 最大起飞重量 1200kg(安装了 MÄM 40-227)和所有允许的构型	
	With MTOM 1200 kg (MÄM 40-227 installed)	
	and for all configurations permitted:	
	向上/up	18°, +0/-1°
	向下/down	16°, +1/-0°
配平片	序列号 40.006 到 40.044 (40.030 除外):	
(升降舵中立位置)	Serial Numbers 40.006 to 40.044 (except	
Trim tab	40.030):	
(elevator neutral)	向上配平/Trim nose up	+ 18°, ± 2°
	向下配平/Trim nose down	- 33°, ± 2°
	序列号 40.030 和 40.045 及以后:	
	Serial Numbers 40.030 and 40.045 and	
	subsequent:	
	向上配平/Trim nose up	+ 12°, ± 2°
	向下配平/Trim nose down	- 39°, ± 2°
方向舵	标准油箱/With Standard Fuel Tank:	
Rudder	向左/Left	29°, ± 1°
	向右/Right	31°, ± 1°
	远程油箱或安装了 MÄM 40-113(大方向舵)	
	/With Long Range Fuel Tank or MÄM 40-113	
	(Large Rudder) installed:	
	向左/Left	24°, ± 1°
	向右/Right	26°, ± 1°
襟翼	起飞襟翼设置/Take off flap setting	20°, ± 2°
Flaps	着陆襟翼设置/Landing flap setting	42°, ± 1°

18.测平方式 Leveling Means	楔比 600: 31/wedge 600 : 31 背鳍前部的机身管舱上部表面 top surface of fuselage tube in front of dorsal fin	
19.最小飞行机组 Minimum Flight Crew	1 (飞行员/Pilot)	
20.最大乘员座位数 Maximum Passenger Seating Capacity	3	
21.行李舱/货物舱 Baggage/Cargo Compartments	位置/Location 后排座位后/Behind Rear Seats 行李舱/Baggage Tube 行李扩展/With Baggage Extension	最大许用载荷/Max. allowable Load 30 kg (66.14 lbs) 5 kg (11.02 lbs) 45 kg (100 lbs) 见注释 8/see note 8
22.机轮与轮胎 Wheels and Tyre	前轮轮胎尺寸 Nose Wheel Tyre Size 主轮轮胎尺寸 Main Wheel Tyre Size 批准的类型和等级见 AMM, 文件 No.6.02.01 For approved Types and rating see AMM, Doc. No.6.02.01	5.00 - 5 5.00 - 5 6.00 - 6 或 15x6.0-6 见注释 7 6.00 - 6 or 15x6.0-6 see note 7

四、操作及维护说明/Operating and Service Instructions

1.飞行手册 Flight Manual	飞机飞行手册文件 No.6.01.01-E Airplane Flight Manual Doc. No. 6.01.01-E
2.技术手册 Technical Manual:	飞机维护手册文件 No. 6.02.01 (包括适航限制) 服务信息和服务公告 Airplane Maintenance Manual Doc. No. 6.02.01 (incl. Airworthiness Limitations) Service Information and Service Bulletins
3.零配件目录 Spare Parts Catalogue:	图解零件目录文件 No. 6.03.01/02 Illustrated Parts Catalogue Doc. No. 6.03.01/02
4.设备及组件 Instruments and aggregates:	参考 AMM 文件 No. 6.02.01 第 1 章 refer to AMM Doc. No. 6.02.01 Chapter 1

五、注释/Notes

1. 本合格审定适用于序列号 40.006 到 40.200 的奥地利钻石飞机和序列号 40.201 及以后的加拿大钻石飞机, 包括序列号 40.010。

This certification applies to Serial numbers 40.006 to 40.200 for production at Diamond-Austria and Serial numbers 40.201 and subsequent for production at Diamond-Canada, excluding Serial Number 40.010.

2. 批准的噪声水平是 EASA 噪声 TCDS 的一部分。
Approved Noise Levels are part of the EASA Noise TCDS.

3. 对于夜间的 VFR 操作必须纳入可选的设计更改 OÄM 40-064。

For Night VFR operation the optional design change OÄM 40-064 must be incorporated.

4. 对于 IFR 操作必须纳入可选的设计更改 OÄM 40-067。

For IFR operation the optional design change OÄM 40-067 must be incorporated.

5. 对于牵引滑翔操作必须纳入可选的设计更改 OÄM 40-063。

For glider towing operation the optional design change OÄM 40-063 must be incorporated.

6. 在 OÄM 40-071 中定义的远程油箱，适用于序列号 40.030 及以后的飞机。

The Long Range Fuel Tank, as defined in OÄM 40-071, applicable for Serial Number 40.030 and subsequent.

7. 轮胎尺寸 15x6.0-6 只和与 MÄM 40-123 一致的 18mm 主起落架结构或者与 OÄM 40-283 一致的高主起落架结构同时批准。

The tire dimension 15x6.0-6 is only approved in conjunction with the 18 mm MLG strut in accordance with MÄM 40-123 or the tall MLG strut in accordance to OÄM 40-283.

8. 如果行李舱扩展以增加行李载荷，需安装选装设计更改 OÄM 40-163。

The increased baggage load is applicable if the baggage extension, Optional Design Change OÄM 40-163 is installed.

9. 只有进行了 MÄM 40-123 强制设计更改或安装了 OÄM 40-283 一致的高起落架结构时才批准着陆重量为 1150 kg (2535 lbs)。

The landing mass of 1150 kg (2535 lbs) is only approved with Mandatory Design Change MÄM 40-123 or the tall MLG strut in accordance to OÄM 40-283 is installed.

10. 只有进行了 MÄM 40-227 强制设计更改，并且主起落架按照 MÄM 40-123 最大着陆重量 1150 kg (2535 lbs) 要求的结构或安装了与 OÄM 40-283 一致的高主起落架结构才批准最大着陆重量为 1200kg (2646 lbs)。

The maximum take off mass of 1200kg (2646 lbs) is only approved if mandatory design change MÄM 40-227 and a main landing gear strut by MÄM 40-123 maximum landing mass of 1150 kg (2535 lbs) or the tall MLG strut in accordance to OÄM 40-283 is installed.

11. AVGAS 100 和 100LL 也被指定为 100/130 或 100/130LL，更多的批准燃油等级见飞机飞行手册第二章。

AVGAS 100 / AVGAS 100/130 (ASTM D910)

AVGAS 100LL / AVGAS 100/130LL (ASTM D910)

AVGAS 100 and 100LL also designated as 100/130 or 100/130LL, for additional approved fuel grades see AFM Section 2.

AVGAS 100 / AVGAS 100/130 (ASTM D910)

AVGAS 100LL / AVGAS 100/130LL (ASTM D910)

II. 型别: DA 40 D

MODEL NUMBER: DA 40 D

一、产品型别和批准日期/THE PRODUCT MODEL AND APPROVAL DATE

型号合格证数据单号 EASA.A.022

Type Certificate Data Sheet No.

1. 型号、衍生型或型别 Type / Variant or Model

- | | |
|-----------------|---------|
| (a) 型号/Type | DA 40 |
| (b) 型别/ Model: | DA 40 D |
| (c) 衍生/Variant: | -- |

2. 适航类别 正常类飞机/Normal

Airworthiness Category 实用类飞机/Utility

3. 型号合格证持有人 DIAMOND AIRCRAFT INDUSTRIES GMBH

Type Certificate Holder: N.A. OTTO-STR. 5
A-2700 WIENER NEUSTADT
AUSTRIA
EASA.21J.052 .

4. 制造商: DIAMOND AIRCRAFT INDUSTRIES GMBH

Manufacturer: N.A. OTTO-STR. 5
A-2700 WIENER NEUSTADT
AUSTRIA
AT.21G.0001

SHANDONG BIN AO AIRCRAFT INDUSTRIES
CO.,LTD

DAGAO, ZHANHUA COUNTY, BINZHOU
PEOPLE'S REPUBLIC OF CHINA

EASA.21G.0014

5. 审查申请日期 1997 年 2 月 20 日

Certification Application Date: 大改 OÄM 40-100 – DA40D: 2002 年 1 月 11 日
20-Feb-1997
For Major Change OÄM 40-100 – DA40D: 11-Jan-2002

6. JAA 推荐日期 2000 年 10 月 24 日

JAA Recommendation Date: 24-OCT-2000

7. 奥地利民航局型号合格证 FZ 021-JAA

Austro Control GmbH Type
Certificate

8. EASA 审定日期: 2005 年 1 月 21 日 (EASA 再次颁发)

EASA Certificate Date;

9. 认可申请日期 2003 年 10 月 30 日

Validation Application Date: 30-Oct-2003

10. CAAC 认可日期: 2004 年 10 月 26 日

CAAC Validation Date: 26-Oct-2004

二、合格审定基础 CERTIFICATION BASIS

1.确定适用要求的参考日期	1998 年 10 月 24 日
Reference Date for determining the applicable requirements:	24-OCT-1998
2.(备用/Reserved)	
3.(备用/Reserved)	
4.审定基础	As defined in CRI A-01, latest issue
Certification Basis:	
5.适航规章	JAR-23, Change-, issued 11-Mar-1994, incl.Amdt.1
Airworthiness Requirements:	JAR-1, Change 5, issued 15-Jul-1996.
6.选择符合的规章	无
Requirement elected to comply:	none
7. 专用条件	CRI E-05 活塞式发动机使用喷气燃油
Special Conditions:	Reciprocating Engine using Jet Fuel
	CRI E-06 活塞式发动机的柴油和柴油/喷气燃油混合的使用
	Use of Diesel Fuel and Diesel/Jet Fuel Blends for Reciprocating Engines
	CRI E-09 发动机振动等级
	Engine Vibration Level
	CRI E-10 发动机扭矩
	Engine Torque
	CRI F-01 高强度辐射场作用下的保护
	Protection from the Effects of HIRF
	CRI F-03 闪电影响与间接影响防护
	Protection from the Effects of Lightning Strikes, Indirect Effects
	CRI F-06 FADEC 柴油发动机和螺旋桨的安装
	Installation of a FADEC Diesel Engine and Propeller
	CRI F-07 综合航电系统的 CRI F-08 软件, 硬件保证等级和高度集成或复杂飞机系统的人为因素。
	Human Factors in Integrated Avionic Systems CRI F-08 Software, Hardware Assurance Level and Highly, Integrated or Complex Aircraft Systems
	CRI F-08 软件, 硬件保证等级和高度集成或复杂飞机系统
	Software, Hardware Assurance Level and Highly Integrated or Complex Aircraft Systems
8.(备用/Reserved)	
9. 等效安全	CRI D-01 单杆功率控制
Equivalent Safety Findings:	Single Lever Power Control
	CRI E-07 冷却水箱
	Coolant Tank
	CRI E-08 电子控制的活塞式柴油发动机
	Electronically-controlled Reciprocating Diesel Engine
	CRI E-11 燃油系统-热燃油温度
	Fuel System - Hot Fuel Temperature

CRI F-05 动力装置仪表

Power plant Instruments

国际民航组织附件 16, 第一卷,

1993 年 3 版, 第 7 次修订

ICAO, Annex 16, Volume 1, Third Edition, 1993, Amdt.7

JAR 36, 1997 年 5 月 23 日版

JAR 36, issued 23-May-1997

CRI A-03 附加的国家要求, 见注释 2

CRI A-03 for additional national requirements See Note 2

10. 环境标准

Environmental Standards:

11. 认可审定基础

接受审定基础/Accept Certification Basis

三、技术特性和使用限制/TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS

1. 型号设计定义

Type Design Definition

型号设计定义文件 No. 6.07.00 第 O 100/7 章, 包括 MÄM 40-075 的设计更改以及其后的设计更改

Current issue of Doc. No. 6.07.00, Chapter O100/7 including Design Changes MÄM 40-075 and following

2. 描述

Description

单柴油发动机, 四座悬臂梁下单翼, 固定前三点式起落架, T 型尾翼

Single diesel engine, four-seated cantilever low wing airplane, composite construction, fixed tricycle landing gear, T-tail

3. 设备

Equipment

设备清单, AFM, 文件 No. 6.01.05 第 6 章 见注释 9

Equipment list, AFM, Doc. No. 6.01.05, Section 6 see Note 9

4. 尺寸

Dimensions

翼展/Span 11.94 m (39 ft 2 in)

长度/Length 8.01 m (26 ft 3 in)

高度/Height 1.97 m (6 ft 6 in)

机翼面积/Wing Area 13.54 m² (146 sqft)

5. 发动机

Engine

型别

一台 Thielert TAE 125-01 或 TAE 125-02-99 型发动机, 见注释 10 和注释 11

Model

1 Thielert TAE 125-01 or TAE 125-02-99 see Note 10 and Note 11

型号合格证

发动机型号合格证数据单 EASA E.055

Type Certificate

Engine Type Certificate Data Sheet EASA E.055

5.1 计算机软件

见注释 5/see Note 5; MSB D4-044

Firmware

5.2 参数谱

见注释 5/see Note 5; MSB D4-044

mapping

5.3 限制

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

Limitation

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

(桨轴转速/Propeller shaft r.p.m)

动力装置限制参见 AFM, 文件 No.6.01.05 第二章

For power-plants limits refer to AFM, Doc. No. 6.01.05, Section 2

6.Load factors	at V _A	at V _{NE}	with flaps in T/O or LDG position
Normal Category			
正值 Positive:	3.8	3.8	2.0
负值 Negative	-1.52	0	
Utility Category			
正值 Positive:	4.4	4.4	2.0
负值 Negative	-1.76	-1	

7.螺旋桨

Propeller

型别	1 mt-Propeller MTV-6-A/187-129
Model	
型号合格证	EASA 螺旋桨型号合格证数据单 P.094
Type Certificate	EASA Propeller Type Certificate Data Sheet P.094
桨叶数量	3
Number of blades	
直径	1870mm
Diameter	顺时针
旋转方向	Clockwise
Sense of Rotation	
设置	低桨距设置/Low pitch setting: 12°
Setting	高桨距设置/ High pitch setting: 28°

8.液体

Fluids

8.1 燃油	Jet A-1 (ASTM 1655)见注释 12
Fuel	柴油(EN 590) 见注释 6
	Jet A-1 (ASTM 1655) see Note 12
	Diesel (EN 590) see Note 6
8.2 滑油	发动机: Shell Helix Ultra 5W30 synthetic API SJ/CF
Oil	更多细节见飞行手册, 文件 No.6.01.05, 第二章
	Engine: Shell Helix Ultra 5W30 synthetic API SJ/CF
	For more details see AFM, Doc. No.6.01.05, Section 2
	齿轮箱: Shell EP 75W90 API GL-4
	更多细节见飞机飞行手册, 文件 No.6.01.05, 第二章
	Gearbox: Shell EP 75W90 API GL-4
	For more details see AFM, Doc. No.6.01.05, Section 2
8.3 冷却剂	水/冷却剂保护-混合
Coolant	更多细节见飞机飞行手册, 文件 No.6.01.05, 第二章
	Water / Cooler Protection-Mixture
	for more details see AFM, 6.01.05, Section 2

9.液体容量

Fluid Capacities

9.1 燃油

Fuel

标准油箱/Standard Fuel Tank

总共/Total: 113.6 升/liters 30 美国加仑 /US Gallons

可用/Usable: 106.0 升/liters 28 美国加仑/US Gallons

远程油箱/Long Range Fuel Tank

总共/Total: 155.2 升/liters 41 美国加仑 /US Gallons

可用/Usable: 147.6 升/liters 39 美国加仑 /US Gallons

9.2 滑油

Oil

最大/Maximum: 6.0 升/liters 6.3 夸托/qts

最小/Minimum: 4.5 升/liters 4.8 夸托/qts

9.3 冷却系统容量

Coolant System Capacity

大约 7 升

Approx. 7 Liter

10.空速

Air speeds

设计机动速度 V_A /Design Maneuvering Speed V_A :

小于 980kg/up to 980 kg 94 KIAS

大于 980kg/above 980 kg 108 KIAS

襟翼放下速度/Flap Extended Speed V_{FE} :

完全襟翼/full flaps 91 KIAS

起飞襟翼/take-off flaps 108 KIAS

最大结构巡航速度 V_{NO}

(=最大结构设计速度 V_C)

Maximum structural cruising speed V_{NO}

(= Maximum structural design speed V_C): 129 KIAS

不可超越 Never exceed speed V_{NE} :

178 KIAS

11.最大操作高度

Maximum Operating Altitude

5000 m (16 404 ft)

12.全天候能力

All-weather Operation Capability

昼间目视/Day-VFR

夜间目视/Night VFR

仪表飞行见注释 3/IFR see Note 3

禁止在预计或实际结冰条件下飞行/Flight into expected or actual icing conditions is prohibited

13.最大质量

Maximum Masses

起飞/Take-off:

实用类/Utility Category: 980 kg (2161 lb)

正常类/Normal Category: 1150 kg (2535 lb)

着陆/Landing:

1092 kg (2407 lb) or 1150 kg (2535 lbs)

见注释 8/ see Note 8

14.重心范围

Center of Gravity Range	前部限制/Forward limit:	
	小于 980kg	基准后 2.40m
	up to 980 kg	2.40 m behind Datum
	在 1150kg	基准后 2.46m
	at 1150 kg	2.46 m behind Datum
	中间质量线性变化/varying linearly with mass in between	
	后部限制/Rear limit:	
	所有重量	基准后 2.59m
	for all masses	2.59 m behind Datum
	带远程油箱	基准后 2.55m
	with Long Range Fuel Tank	2.55 m behind Datum
15.基准	机翼对接前缘处 2.194m	
Datum	2.194m in front of leading edge of stub-wing at the wing joint	
16.控制面变量		
Control surface deflections		
副翼	向上/up	20°, ± 2°
Aileron	向下/down	13°, +2/-0°
升降舵	标准油箱/With Standard Fuel Tank:	
Elevator	向上/up	23°, ± 1°
	向下/down	15°, ± 1°
	远程油箱/With Long Rang Fuel Tank installed:	
	向上/up	23°, +0/-1°
配平片 (升降舵中立位置)	向下/down	16°, +1/-0°
Trim tab	向上配平/Trim nose up	+12°, ± 2°
方向舵	向下配平/Trim nose down	-39°, ± 2°
Rudder	标准油箱/With Standard Fuel Tank:	
	向左/left	29°, ± 1°
	向右/right	31°, ± 1°
	远程油箱或大方向舵/With Long Rang Fuel Tank installed or MÄM 40-113(Large Rudder) installed:	
	向左/left	24°, ± 1°
	向右/right	26°, ± 1°
襟翼	起飞襟翼设置/Take off flap setting	20°, ± 2°
Flaps	着陆襟翼设置/Landing flap setting	42°, ± 1°
17.水平措施	楔比 600: 31/wedge 600 : 31	
Leveling Means	背鳍前部的机身管舱上部表面	
	top surface of fuselage tube in front of dorsal fin	
18.最小飞行机组	1 (飞行员/Pilot)	
Minimum Flight Crew		
19.最多成员座位数	3	
Maximum Passenger Seating		

Capacity

20.(备用/Reserve)

21.行李舱/货物舱	位置/Location	最大许用载荷/Max. allowable Load
Baggage/Cargo Compartments	后排座位后/Behind Rear Seats	30 kg (66.14 lbs)
	行李舱/Baggage Tube	5 kg (11.02 lbs)
	行李扩展/With Baggage Extension	45 kg (100 lbs) 见注释 7/see note 7

22.机轮与轮胎

Wheels and Tyres

前轮轮胎尺寸

Nose Wheel Tyre Size

5.00 - 5

主轮轮胎尺寸

Main Wheel Tyre Size

6.00 - 6 或 15x6.0-6 见注释 4

6.00 - 6 or 15x6.0-6 see note 4

批准的类型和等级见 AMM, 文件 No.6.02.01

For approved Types and rating see AMM, Doc.
No.6.02.01

四、操作及维护说明/Operating and Service Instructions

1.飞机飞行手册文件 No.6.01.05-E

Airplane Flight Manual Doc. No. 6.01.05-E

2.飞机维护手册文件 No. 6.02.01

(包括适航限制)

服务信息和服务通告

Airplane Maintenance Manual Doc. No. 6.02.01

(incl. Airworthiness Limitations)

Service Information and Service Bulletins

3.零部件图解手册 No.6.03.05

Illustrated Parts Catalogue Doc.No.6.03.05

4.设备和组件参照 AMM No.6.02.01 第一章

Instruments and aggregates refer to AMM Doc.No.6.02.01 Chapter 1

五、注释

Notes

1. 本合格审定适用于序列号 40.080, 40.084 和 D4.001 及以后的飞机,除了序列号 D4.013, D4.111, D4.198,D4.199, D4.200 和 D4.201 的奥地利产品外, 序列号 40.DS001 及以后的产品适用于中国。

This certification applies to Serial Numbers 40.080, 40.084 and D4.001 and subsequent, with the exception of Serial Number D4.013, D4.111, D4.198, D4.199, D4.200 and D4.201 for the Production in Austria. Serial Numbers 40.DS001 and subsequent are applicable for the production in China.

2. 批准的噪声水平是 EASA 噪声 TCDS 的一部分。

Approved Noise Levels are part of the EASA Noise TCDS.

3. 对于仪表飞行规则, 必须纳入可选的设计更改 OÄM 40-136 or OÄM 40-193。

For IFR operation the optional design change OÄM 40-136 or OÄM 40-193 must be incorporated.

4. 轮胎尺寸 15x6.0-6 只和与 MÄM 40-123 一致的 18mm 主起落架结构同时批准。

The tire dimension 15x6.0-6 is only approved in conjunction with the 18 mm MLG strut in accordance with MÄM 40-123.

5. 对于 TAE 125-01 或 TAE 125-02-99 型发动机, 批准的发动机软件版次 (固件和参数谱) 见最新版 DAI 的服务通告 MSB D4-044。

For approved engine software version (Firmware and Mapping) of TAE 125-01 or TAE 125-02-99 see DAI Service Bulletin MSB D4-044, latest issue.

6. 只有纳入 MÄM 40-129 才可批准使用柴油。

Operation with Diesel fuel is only approved if MÄM 40-129 is incorporated.

7. 如果增加行李舱容积以增加行李舱载荷, 需要安装选装设计 OÄM 40-163。

The increased baggage load is applicable if the baggage extension, Optional Design Change OÄM 40-163 is installed.

8. 只有安装了 MÄM 40-123 强制设计更改, 才批准着陆重量为 1150 kg (2535 lbs)

The landing mass of 1150 kg (2535 lbs) is only approved with Mandatory Design Change MÄM 40-123 is installed.

9. 只有纳入 OÄM 40- 193 (IFR) 或 OÄM 40-224 (VFR) 才可批准安装 G1000 综合航电系统。批准的软件版次见 DAI 最新版的服务通告 MSB D4-045。

Installation of the G1000 Integrated Avionic System is only approved if OÄM 40- 193 (IFR) or OÄM 40-224 (VFR) is incorporated. For approved software version see DAI Service Bulletin MSB D4-045, latest issue.

10. 经批准的安装在 DA40 D 型飞机上的发动机: TAE 125-01 125-01-(005)-() TAE 125-02-99 125-02-(0001)-()

发动机 TAE 125-02-99 在之前的 TAE 125-02 已批准

Approved engine model for installation in the DA 40D: TAE 125-01 125-01-(005)-() TAE 125-02-99 125-02-(0001)-()

Engine TAE 125-02-99 was previously approved as TAE 125-02

11. 从 TAE 125-01 到 TAE 125-02-99 的发动机该型在包含 OSB D4-055 的设计更改 MÄM 40-256 中。

Engine retrofit installation from engine TAE 125-01 to TAE 125-02-99 is approved by Design Change MÄM 40-256 with OSB D4-055.

III.型别: DA 40 F

MODEL NUMBER: DA 40 F

一、产品型别和批准日期/THE PRODUCT MODEL AND APPROVAL DATE

1. 型号合格证数据单号 EASA.A.022

Type Certificate Data Sheet No.

2. 型号、衍生型或型别 Type / Variant or Model

(a) 型号/Type DA 40
(b) 型别/ Model: DA 40 F
(c) 衍生/Variant: --

3. 适航类别 正常类飞机/Normal

Airworthiness Category 实用类飞机/Utility
(见注释 6/see Note 6)

4. 型号合格证持有人 DIAMOND AIRCRAFT INDUSTRIES GMBH

Type Certificate Holder: N.A. OTTO-STR. 5
A-2700 WIENER NEUSTADT
AUSTRIA
EASA.21J.052 .

5. 制造商: DIAMOND AIRCRAFT INDUSTRIES GMBH

Manufacturer: N.A. OTTO-STR. 5
A-2700 WIENER NEUSTADT
AUSTRIA
AT.21G.0001

DIAMOND AIRCRAFT INDUSTRIES INC.
1560 CRUMLIN SIDEROAD, LONDON ONTARIO,
N5V 1S2 CANADA
161-93 (TCCA)

6. 国外适航当局申请日期 1997 年 2 月 20 日

Foreign Authority Application Date: DA 40 F(VÄM 40-002)2004 年 7 月 8 日
20-Feb-1997

8- July -2004 for DA 40 F (VÄM 40-002)

7. 国家审定当局 N/A

National Certifying Authority

8. 国家当局型号合格审定日期 N/A

National Authority Type

Certificate Date

二、合格审定基础 CERTIFICATION BASIS

1. 确定适用要求的参考日期 1998-10-24

Reference Date for determining the applicable requirements: 24-Oct-1998

2. CAAC 型号认可证申请日期 2015-06-16

CAAC Validation of Type Certificate

Application Date

3.国外适航当局合格审定基础

Foreign Authority Certification Basis:

定义在最新发布的 CRI A-01 中

JAR-23, 更改-, 1994 年 3 月 11 日发布

JAR-1, 更改 5, 1996 年 7 月 15 日发布

As defined in CRI A-01, latest issue

JAR-23, Change-, issued 11-Mar-1994

JAR-1, Change 5, issued 15-Jul-1996.

4.专用条件

Special Conditions:

CRI F-01 高强度辐射场作用下的保护

Protection from the Effects of HIRF

CRI F-03 雷电影响与间接影响防护

Protection from the Effects of Lightning Strikes, Indirect Effects

CRI O-01 牵引滑翔

Glider Towing

CRI O-02 牵引索回收机构

Tow Cable Retraction Mechanisms

5.豁免

无

Exemptions:

None

6.偏离

无

Deviations

None

7. 等效安全

无

Equivalent Safety Findings:

None

8.选择符合的规章

JAR-23, NPA 23-3, ACJ Material

Requirements elected to comply:

9.环境标准

ICAO, 附件 16, 第 1 卷, 第 2 部分, 第 10 章, 修正案 7, CRI A-03F

Environmental Standards:

ICAO Annex 16, Volume 1, Part 2, Chapter 10, Amendment 7, CRI A-03F

三、技术特性和使用限制/TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS

1.型号设计定义

型号设计定义文件 No. 6.07.00 现版第 V002/7 章设计更改 VÄM 40-002

Type Design Definition

(是否包含的设计更改在 VÄM 中列出)

Current issue of Doc.No. 6.07.00, Chapter V002/7 Design Change VÄM 40-002 (including and excluding the design changes as listed in the VÄM).

2.中文标牌和标识

Chinese Placards and marking

DAI 只使用象形图向乘客或者舱外救援人员指示舱门位置和打开方式, 文件编号 D41-1120-20-00。内容不包含英文, 所以不需要中文标牌。

DAI uses only pictogram for indicating passengers or outboard rescue personnel the location of doors and means of opening, document No. D41-1120-20-00. No descriptive text in English language is required, so no placard in Chinese language placards are required.

3.描述

Description

单发, 四座悬臂梁下单翼, 固定前三点式起落架, T 型尾翼, 定距螺旋桨。

Single engine, four-seated cantilever low wing airplane, composite construction, fixed tricycle landing gear, T-tail, fix pitch propeller.

4.设备

Equipment

设备清单, AFM, 文件 No. 6.01.02 第 6 章

Equipment list, AFM, Doc. No. 6.01.02, Section 6

5.尺寸	翼展/Span	11.94 m (39 ft 2 in)
Dimensions	长度/Length	8.01 m (26 ft 3 in)
	高度/Height	1.97 m (6 ft 6 in)
	机翼面积/Wing Area	13.54 m ² (146 sqft)

6.发动机

Engine

型别	一台 Textron Lycoming O-360-A4M 型发动机	
Model	1 Textron Lycoming O-360-A4M	
型号合格证	FAA 发动机型号合格证数据单 286	
Type Certificate	FAA Engine Type Certificate Data Sheet 286	
CAAC 型号认可证	CAAC 发动机型号认可证数据单 VTC0170E 版次 1	
CAAC Validation Type Certificate	CAAC Validation Type Certificate Data Sheet VTC0170E Revision 1	
限制	最大起飞转速/Max take-off rotational speed	2700 r.p.m
Limitation	最大连续转速/Max continuous rotational speed	2700 r.p.m
	动力装置限制参见 AFM, 文件 No.6.01.02 第二章	
	For power-plants limits refer to AFM, Doc. No. 6.01.02,Section 2	

7.载荷因数	在 V _A	在 V _{NE}	起飞或着陆使用襟翼时
Load factors	at V _A	at V _{NE}	With flaps in T/O or LDG position
正常类/Normal Category			
正值: Positive	3.8	3.8	2.0
负值: Negative	-1.52	0	
通用类/Utility Category			
正值: Positive	4.4	4.4	2.0
负值: Negative	-1.76	-1	

8.螺旋桨

Propeller

型别	1 套 Sensenich 76EM8S10-0-63 或 1 套 mt propeller MT 188R135-4G
Model	1 Sensenich 76EM8S10-0-63 或 1 mt propeller MT 188R135-4G
型号合格证	FAA 螺旋桨型号合格证数据单 P4EA (Sensenich 76EM8S10-0-63)或
Type Certificate	EASA 螺旋桨型号合格证数据单 P.006(mt propeller MT 188R135-4G)
	FAA TCDS P4EA (Sensenich 76EM8S10-0-63)
	Or EASA TCDS P.006 (mt propeller MT 188R135-4G)
CAAC 型号认可证	CAAC 螺旋桨型号认可证数据单 VTC0168P 版次 0
CAAC Validation Type Certificate	或 VTC0163P 颁发日期 2005-04-30
	CAAC Propeller Validation Type Certificate Data Sheet VTC0168P revision 0 or VTC0163P date of issue 30-April-2005
桨叶数量	2
Number of blades	
直径	1930 mm (Sensenich 76EM8S10-0-63)
Diameter	1880 mm (mt propeller MT 188R135-4G)

旋转方向	顺时针
Sense of Rotation	Clockwise
9.液体	
Fluids	
燃油	AVGAS 100 LL, 100 (ASTM D910) 见注释 7/see Note 7
Fuel	
滑油	滑油符合规范 SAE J1899 / MIL-L-22851
Oil	更多细节见 AFM, 文件 No. 6.01.02, 第二章
	Oils conforming to spec. SAE J1899 / MIL-L-22851
	For more details see AFM, Doc. No. 6.01.02, Section 2
冷却剂	N/A
Coolant	
10.液体容量	
Fluid Capacities	
燃油	标准油箱/Standard Fuel Tank
Fuel	总共/Total: 156 升/liters 41.2 美国加仑 /US Gallons
	可用/Usable: 152.2 升/liters 40.2 美国加仑/US Gallons
	远程油箱/Long Range Fuel Tank
	总共/Total: 193 升/liters 51 美国加仑 /US Gallons
	可用/Usable: 189.2 升/liters 50 美国加仑 /US Gallons
滑油	最大/Maximum: 7.70 升/liters 8 夸托/qts
Oil	最小/Minimum: 3.785 升/liters 4 夸托/qts
冷却系统容量	N/A
Coolant System Capacities	
11.空速	设计机动速度 V_A /Design Maneuvering Speed V_A :
Air speeds	不大于 980kg/up to 980 kg 94 KIAS
	大于 980kg/above 980 kg 108 KIAS
	襟翼放下速度/Flap Extended Speed V_{FE} :
	完全襟翼/full flaps 91 KIAS
	起飞襟翼/take-off flaps 108 KIAS
	最大结构巡航速度 V_{NO}
	(=最大结构设计速度 V_C)
	Maximum structural cruising speed V_{NO}
	(= Maximum structural design speed V_C): 129 KIAS
	不可超越 Never exceed speed V_{NE} : 178 KIAS
12.最大操作高度	5000 m (16 404 ft)
Maximum Operating Altitude	
13.全天候能力	昼间目视/Day-VFR
All-weather Operation Capability	夜间目视/Night VFR
	仪表飞行/IFR

禁止在预计或实际结冰条件下飞行

Flight into expected or actual icing conditions is prohibited

14.最大重量

Maximum Weights

起飞/Take-off:

实用类/Utility Category: 980 kg (2161 lb)

正常类/Normal Category: 1150 kg (2535 lb)

着陆/Landing: 1150 kg (2535 lb)

15.重心范围

Center of Gravity Range

前部限制/Forward limit:

不大于 980kg 基准后 2.40m

up to 980 kg 2.40 m behind Datum

在 1150kg 基准后 2.46m

at 1150 kg 2.46 m behind Datum

中间质量线性变化/varying linearly with mass in between

后部限制/Rear limit:

所有重量 基准后 2.59m

for all masses 2.59 m behind Datum

带远程油箱 基准后 2.55m

with Long Range Fuel Tank 2.55 m behind Datum

16.基准

Datum

机翼对接前缘处 2.194m

2.194m in front of leading edge of stub-wing at the wing joint

17.控制面变量

Control surface deflections

副翼

向上/up $20^\circ, \pm 2^\circ$

Aileron

向下/down $13^\circ, +2/-0^\circ$

升降舵

标准油箱/With Standard Fuel Tank:

Elevator

向上/up $23^\circ, \pm 1^\circ$

向下/down $15^\circ, \pm 1^\circ$

刻意尾旋的标准油箱/With Standard Fuel

Tank for intentional spinning

(见注释 6/see Note 6):

向上/up $21^\circ, \pm 0.5^\circ$

向下/down $18^\circ, \pm 0.5^\circ$

远程油箱/ With Long Range Fuel Tank:

向上/up $23^\circ, +0/-1^\circ$

向下/down $16^\circ, +1/-0^\circ$

配平片

向上配平/Trim nose up $+12^\circ, \pm 2^\circ$

Trim tab

向下配平/Trim nose down $-39^\circ, \pm 2^\circ$

(升降舵中立位置)

(elevator neutral)

方向舵	向左/Left	24°, ± 1°
Rudder	向右/Right	26°, ± 1°
襟翼	起飞襟翼设置/Take off flap setting	20°, ± 2°
Flaps	着陆襟翼设置/Landing flap setting	42°, ± 1°
18.测平方式	楔比 600: 31/wedge 600 : 31	
Leveling Means	背鳍前部的机身管舱上部表面 top surface of fuselage tube in front of dorsal fin	
19.最小飞行机组	1 (飞行员/Pilot)	
Minimum Flight Crew		
20.最大乘员座位数	3	
Maximum Passenger Seating Capacity		
21.行李舱/货物舱	位置/Location	最大许用载荷/Max. allowable Load
Baggage/Cargo	后排座位后/Behind Rear Seats	30 kg (66.14 lbs)
Compartments	行李舱/Baggage Tube	5 kg (11.02 lbs)
	行李扩展/With Baggage Extension	45 kg (100 lbs) 见注释 5/see note 5
22.机轮与轮胎	前轮轮胎尺寸	5.00 - 5
Wheels and Tyre	Nose Wheel Tyre Size	5.00 - 5
	主轮轮胎尺寸	6.00 - 6 或 15x6.0-6
	Main Wheel Tyre Size	6.00 - 6 or 15x6.0-6
	批准的类型和等级见 AMM, 文件 No.6.02.01	
	For approved Types and rating see AMM, Doc. No.6.02.01	
四、操作及维护说明/Operating and Service Instructions		
1.飞行手册	飞机飞行手册文件 No.6.01.02-E	
Flight Manual	Airplane Flight Manual Doc. No. 6.01.02-E	
2.技术手册	飞机维护手册文件 No. 6.02.01	
Technical Manual:	(包括适航限制)	
	服务信息和服务公告	
	Airplane Maintenance Manual Doc. No. 6.02.01	
	(incl. Airworthiness Limitations)	
	Service Information and Service Bulletins	
3.零配件目录	图解零件目录文件 No. 6.03.01/02	
Spare Parts Catalogue:	Illustrated Parts Catalogue Doc. No.6.03.01/02	
4.设备及组件	参考 AMM 文件 No. 6.02.01 第 1 章	
Instruments and aggregates:	refer to AMM Doc. No. 6.02.01 Chapter 1	

五、注释

Notes

1. 本合格审定适用于序列号 40.F001 及以后的奥地利钻石的产品, 和序列号 40.FC001 及以后的加拿大钻石的产品。
This certification applies to Serial numbers 40.F001 and subsequent for production at Diamond-Austria, and Serial numbers

40.FC001 and subsequent for production at Diamond-Canada.

2. 批准的噪声水平是 EASA 噪声 TCDS 的一部分。

Approved Noise Levels are part of the EASA Noise TCDS.

3. 保留。

reserved.

4. 保留。

reserved.

5. 如果增加行李舱容积以增加行李舱载荷，需要安装选装设计 OÄM 40-163。

The increased baggage load is applicable if the baggage extension, Optional Design Change OÄM 40-163 is installed.

6.如果安装了 OÄM 40-201，DA40F 可以准许主动尾旋。

以下是应用的限制和条件：

重心范围 2.45-2.50m

最大燃油载荷 2x38 升（2x10 加仑）

必须安装 OÄM 40-203 定义的座舱盖抛离系统

必须安装 MT 188R135-4G 型 Mt 螺旋桨

必须按照 OÄM 40-201 设置升降舵

不许安装远程油箱

不许安装轮罩

不许有行李

The DA40F is certified for intentional spin if OÄM 40-201 is installed.

The following additional Limitations/Conditions apply:

Center of Gravity Range 2,45 - 2,50 m

Maximum fuel loading 2x38 liters (2x10gal)

Canopy Jettison System OÄM 40-203 must be installed

Mt Propeller MT 188R135-4G must be installed

Elevator settings must be according to OÄM 40-201

Long Range Tank must not be installed

Wheel fairings must not be installed

Baggage is not allowed

7.AVGAS 100 和 100LL 也被指定为 100/130 或 100/130LL，附加的燃油等级批准见 AFM 第二章。

AVGAS 100LL / AVGAS 100/130LL (ASTM D910)

AVGAS 100 / AVGAS 100/130 (ASTM D910)

AVGAS 100 and 100LL also designated as 100/130 or 100/130LL, for additional approved fuel grades see AFM Section 2.

AVGAS 100LL / AVGAS 100/130LL (ASTM D910)

AVGAS 100 / AVGAS 100/130 (ASTM D910)

IV.型别: DA 40 NG

MODEL NUMBER: DA 40 NG

一、产品型别和批准日期/THE PRODUCT MODEL AND APPROVAL DATE

1.数据单号 Data Sheet No.	A.022
2.型号、衍生型或型别 Type / Variant or Model	
(a) 型号/Type	DA 40
(b) 型别/ Model:	DA 40 NG
(c) 衍生/Variant:	--
3.适航类别 Airworthiness Category	正常类飞机/Normal
4. 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 EASA.21J.052 .
5.制造商: Manufacturer:	DIAMOND AIRCRAFT INDUSTRIES GMBH N.A. OTTO-STR. 5 A-2700 WIENER NEUSTADT AUSTRIA AT.21G.0001 SHANDONG BIN AO AIRCRAFT INDUSTRIES CO.,LTD DAGAO, ZHANHUA COUNTY, BINZHOU PEOPLE' S REPUBLIC OF CHINA EASA.21G.0014
6.国外适航当局申请日期 Foreign Authority Application Date:	1997 年 2 月 20 日 大改 VÄM 40-004 – DA40NG: 2008 年 1 月 17 日 for Major Change VÄM 40-004 – DA40NG: 17-Jan-2008
7.国家审定当局 National Certifying Authority	N/A
8.国家当局型号合格审定日期 National Authority Type Certificate Date	N/A

二、合格审定基础 CERTIFICATION BASIS

1.确定适用要求的参考日期 Reference Date for determining the applicable requirements:	1998-10-24 24-Oct-1998
2.CAAC 型号认可证申请日期 CAAC Validation of Type Certificate	2015-06-16

Application Date

3. 国外适航当局合格审定基础

Foreign Authority Certification Basis:

定义在最新发布的 CRI A-01NG 中

JAR-23, 1994 年 3 月 11 日发布, 修正案 1

As defined in CRI A-01 NG, latest issue

JAR-23, issued 11-Mar-1994, incl. Amdt. 1

4. 适航要求

JAR-23, NPA 23-3, ACJ Material

Airworthiness Requirements:

5. 专用条件

CRI E-05 活塞发动机使用喷气燃油

Reciprocating Engine using Jet Fuel

CRI E-06 柴油和柴油/喷气燃油混合的活塞发动机使用

Use of Diesel Fuel and Diesel/Jet Fuel Blends for Reciprocating Engines

CRI E-09 发动机振动等级

Engine Vibration Level

CRI E-10 发动机扭矩

Engine Torque

CRI F-01 高强度辐射场作用下的防护

Protection from the Effects of HIRF

CRI F-03 闪电影响与间接影响的防护

Protection from the Effects of Lightning Strikes, Indirect Effects

CRI F-06 FADEC 柴油发动机和螺旋桨的安装

Installation of a FADEC Diesel Engine and Propeller

CRI F-07 综合航电系统的人为因素

Human Factors in Integrated Avionic Systems

6. 追溯和豁免

无

Reversion and Exemptions:

None

7. 等效安全

CRI D-01 单杆功率控制

Single Lever Power Control

CRI E-07 冷却水箱

Coolant Tank

CRI E-08 电控柴油活塞发动机

Electronically-controlled Reciprocating Diesel Engine

CRI E-11 燃油系统-热燃油温度

Fuel System - Hot Fuel Temperature

CRI E-12 电动燃油泵

Electric Fuel Pumps

CRI B-01 失速告警

Stall Warning

CRI F-05 动力装置仪表

Powerplant Instruments

8. 环境标准

ICAO 附件 16, 第 1 卷, 第 10 章第 5 版

Environmental Standards :

CS 36, 修正案 1

ICAO, Annex 16, Volume 1, Chpt. 10, 5. Edition

CS 36, Amendment 1

三、技术特性和使用限制/TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS

1.型号设计定义
Type Design Definition

2.中文标牌和标识
Chinese Placards and marking

3.描述
Description

4.设备
Equipment

5.尺寸
Dimensions

6.发动机
Engine

型号设计定义文件 No. 6.07.00 现版第 V004/7 章
包括设计更改 VÄM 40-004; MÄM 40-398; MÄM 40-403; MÄM 40-404; MÄM 40-409; MÄM 40-411; MÄM 40-414; OÄM 40-306 + OÄM 40-307 或 MÄM 40-574 及随后的
Current issue of Doc. No. 6.07.00, Chapter V004/7
together with Design Changes VÄM 40-004; MÄM 40-398; MÄM 40-403; MÄM 40-404; MÄM 40-409; MÄM 40-411; MÄM 40-414; OÄM 40-306 + OÄM 40-307 or MÄM 40-574; and following

DAI 只使用象形图向乘客或者舱外救援人员指示舱门位置和打开方式, 文件编号 D44-1130-20-00。内容不包含英文, 所以不需要中文标牌。
DAI uses only pictogram for indicating passengers or outboard rescue personnel the location of doors and means of opening, document No. D44-1130-20-00. No descriptive text in English language is required, so no placard in Chinese language placards are required.

单柴油发动机, 四座悬臂梁下单翼, 固定前三点式起落架, T 型尾翼, 翼尖小翼(选装)。
Single diesel engine, four-seated cantilever low wing airplane, composite construction, fixed tricycle landing gear, T-tail, winglets (option)

设备清单, AFM, 第 6 章
Equipment list, AFM, Section 6

翼展/Span 11.63m (38 ft 2 in)
长度/Length 8.06 m (26 ft 5 in)
高度/Height 1.97 m (6 ft 6 in)
机翼面积/Wing Area 13.244 m² (142.6 sqft)

型别 一台 Austro Engine E4 型发动机, 见注释 7
Model 1 Austro Engine E4, see Note 7
型号合格证 发动机型号合格证数据单 EASA E.200
Type Certificate Engine Type Certificate Data Sheet EASA E.200
CAAC 型号认可证 CAAC 发动机型号认可证数据单 VTC0252E 版次 0
CAAC Validation Type Certificate CAAC Validation Type Certificate Data Sheet VTC0252E Revision 0
固件 见注释 3/see Note 3;MSB 40NG-002
Firmware
参数谱 见注释 3/see Note 3;MSB 40NG-002
mapping
限制 最大起飞转速/Max take-off rotational speed 2300 r.p.m
Limitation 最大连续转速/Max continuous rotational speed 2100 r.p.m
(桨轴转速/Propeller shaft r.p.m)
动力装置限制参见 AFM, 文件 No.6.01. 15 第二章

For power-plants limits refer to AFM, Doc. No. 6.01. 15, Section 2

7.载荷因数	在 V_A	在 V_{NE}	起飞或着陆使用襟翼时
Load factors	at V_A	at V_{NE}	With flaps in T/O or
			LDG position
正值: Positive	3.8	3.8	2.0
负值: Negative	-1.52	0	

8.螺旋桨

Propeller

型别	1 mt-Propeller MTV-6-R/190-69
Model	
型号合格证	FAA 螺旋桨型号合格证数据单 P.094
Type Certificate	EASA Propeller Type Certificate Data Sheet P.094
CAAC 型号认可证	CAAC 螺旋桨型号认可证数据单 VTC0254P 版次 1
CAAC Validation Type Certificate	CAAC Propeller Validation Type Certificate Data Sheet VTC0254P Revision 1
桨叶数量	3
Number of blades	
直径	1900mm
Diameter	
旋转方向	顺时针
Sense of Rotation	Clockwise
设置	低桨距设置/Low pitch setting: $14.5^\circ \pm 0.2^\circ$ (@0.75R)
Setting	高桨距设置/ High pitch setting: $35^\circ \pm 1.0^\circ$ (@0.75R)

9.液体

Fluids

燃油	Jet A, Jet A-1 (ASTM 1655), 见注释 6/see note 6
Fuel	Diesel (EN590) 见注释 10/see note 10
滑油	发动机/engine: Shell Helix Ultra 5W30 and 5W40
Oil	齿轮箱/Gearbox: Shell SPIRAX GSX or S6 GXME 75W-80
冷却剂	水/散热器保护混合液, 更多细节见 AFM, 第二章
Coolant	Water / Cooler Protection-Mixture, for more details see AFM, Section 2

10.液体容量

Fluid Capacities

燃油	标准油箱/Standard Fuel Tank
Fuel	总共/Total: 113.6 升/liters 30 美国加仑 /US Gallons
	可用/Usable: 106.0 升/liters 28 美国加仑/US Gallons
	远程油箱/Long Range Fuel Tank
	总共/Total: 155.2 升/liters 41 美国加仑 /US Gallons
	可用/Usable: 147.6 升/liters 39 美国加仑 /US Gallons
滑油	最大/Maximum: 7.0 升/liters
Oil	最小/Minimum: 5.0 升/liters
冷却系统容量	大约 7 升

Coolant System Capacity	Approx. 7 Liter	
11.空速	操作机动速度 Vo/Operating Manoeuvring Speed Vo:	
Air speeds	小于 1080kg/up to 1080 kg	101 KIAS
	1080 到 1180kg/from 1080 to 1180 kg	108 KIAS
	大于 1180kg/above 1180 kg	113KIAS
	襟翼放下速度/Flap Extended Speed V_{FE} :	
	完全襟翼/full flaps	98 KIAS
	起飞襟翼/take-off flaps	110 KIAS
	最大结构巡航速度 V_{NO} (=最大结构设计速度 V_C)	
	Maximum structural cruising speed V_{NO} (= Maximum structural design speed V_C):	130 KIAS
	不可超越 Never exceed speed V_{NE} :	172 KIAS
12.最大操作高度	5000 m (16 404 ft)	
Maximum Operating Altitude		
13.全天候能力	昼间目视/Day-VFR	
All-weather Operation Capability	夜间目视/Night VFR	
	仪表飞行/IFR	
	禁止在预计或实际结冰条件下飞行	
	Flight into expected or actual icing conditions is prohibited	
14.最大重量		
Maximum Weights	起飞/Take-off:	1280kg(2822lb)
		1310kg(2888lb)见注释 8/see note 8
	着陆/Landing:	1216 kg (2681lb)
		1280kg(2822lb)见注释 8/see note 8
	最小飞行/Minimum Flight:	940kg(2072lb)
	最大零燃油/Maximum Zero Fuel:	1200 kg (2646 lb)
		1265kg(2789lb) 见注释 8/see note 8
15.重心范围		
Center of Gravity Range	前部限制/Forward limit:	
	从 940 到 1080kg	基准后 2.40m
	From 940 to 1080 kg	2.40 m behind Datum
	在 1310kg	基准后 2.469m
	at 1310 kg	2.469m behind Datum
	中间质量线性变化/varying linearly with mass in between	
	后部限制/Rear limit:	
		基准后 2.53m
		2.53 m behind Datum
16.基准	机翼对接前缘处 2.194m	

Datum	2.194m in front of leading edge of stub-wing at the wing joint	
17.控制面变量		
Control surface deflections		
副翼	向上/up	20°, ± 2°
Aileron	向下/down	13°, +2/-2°
升降舵	向上/up	21°, +0/-1°
Elevator	向下/down	17°, +1/-0°
配平片	向上配平/Trim nose up	+ 12°, ± 2°
Trim tab	向下配平/Trim nose down	- 39°, ± 2°
(升降舵中立位置)		
(elevator neutral)		
方向舵	向左/Left	24°, ± 1°
Rudder	向右/Right	26°, ± 1°
襟翼	起飞襟翼设置/Take off flap setting	20°, ± 2°
Flaps	着陆襟翼设置/Landing flap setting	42°, ± 1°
18.测平方式	楔比 600: 31/wedge 600 : 31	
Leveling Means	背鳍前部的机身管舱上部表面	
	top surface of fuselage tube in front of dorsal fin	
19.最小飞行机组	1 (飞行员/Pilot)	
Minimum Flight Crew		
20.最大乘员座位数	3	
Maximum Passenger		
Seating Capacity		
21.行李舱/货物舱	位置/Location	最大许用载荷/Max. allowable Load
Baggage/Cargo	后排座位后/Behind Rear Seats	30 kg (66.14 lbs)
Compartments	行李舱/Baggage Tube	5 kg (11.02 lbs)
	短行李舱扩展/Short Baggage Extension	15 kg (33 lbs) 见注释 4/see note 4
	行李扩展/With Baggage Extension	45 kg (100 lbs) 见注释 4/see note 4
22.机轮与轮胎	前轮轮胎尺寸/Nose Wheel Tyre Size	5.00 - 5.6 PR, 120 mph
Wheels and Tyres	OÄM 40-334:	6.00-6, 6 PR, 见注释 8/see note 8
	主轮轮胎尺寸/Main Wheel Tyre Size	15x6.0-6 PR, 160 mph
	OÄM 40-334:	8,50-6,6 PLY, 见注释 8/ see note 8
四、操作及维护说明/Operating and Service Instructions		
1.飞行手册	飞机飞行手册文件 No.6.01.15-E	
Flight Manual	Airplane Flight Manual Doc. No. 6.01.15-E	
2.技术手册	飞机维护手册文件 No. 6.02.15	
Technical Manual:	(包括适航限制)	
	服务信息和服务公告	
	Airplane Maintenance Manual Doc. No. 6.02.15	
	(incl. Airworthiness Limitations)	
	Service Information and Service Bulletins	
3 零配件目录	图解零件目录文件 No. 6.03.15	

Spare Parts Catalogue: Illustrated Parts Catalogue Doc. No.6.03.15

4.设备及组件 参考 AMM 文件 No. 6.02.15 第 1 章

Instruments and aggregates: refer to AMM Doc. No. 6.02.15 Chapter 1

五、注释

Notes

1. 本合格审定适用于序列号 D4.111, D4.365, 40.N001 及以后的产品在奥地利生产。序列号 40.NS001 及以后的产品适用于在中国生产。序列号为 40.080, 40.084, D4.001 及以后的在奥地利制造的 DA 40 D 型别的飞机如果按照服务通告 OSB D4-080 被 DAI 批准, 则可并入 D40 NG 型别。

This certification applies to Serial Numbers D4.111, D4.365, 40.N001 and subsequent, for the Production in Austria. Serial numbers 40.NS001 and subsequent are applicable for the production in China. DA 40 D airplanes with Serial Numbers 40.080, 40.084, D4.001 and subsequent manufactured in Austria may be converted to Model DA 40 NG by DAI approved Service Bulletin OSB D4-080.

2. 批准的噪声水平是 EASA 噪声 TCDS 的一部分。

Approved Noise Levels are part of the EASA Noise TCDS.

3.批准的 E4 发动机软件版次见最新发布的 DAI 服务通告 MSB 40NG-002。

For approved E4 engine software version see DAI Service Bulletin MSB 40NG-002, latest issue.

4.如果安装了选装设计更改 OÄM 40-331 短行李扩展的行李载荷是适用的。如果安装了选装设计更改 OÄM 40-164, 行李舱扩展时增加的 45kg(100 lbs)行李载荷是适用的。

The baggage load in the short baggage extension is applicable if Optional Design Change OÄM 40-331 is installed. The increased baggage load of 45 kg (100 lbs) is applicable if the baggage extension, Optional Design Change OÄM 40-164, is installed.

5. 批准的 G1000 综合航电系统的软件版次见最新发布的 DAI 服务通告 MSB 40NG-003。

For approved software version of the G1000 Integrated Avionic System see DAI Service Bulletin MSB 40NG-003, latest issue.

6. 附加批准的喷气燃油见 AFM 第二章。

JET A, JET A-1 (ASTM D 1655), TS-1 (Russia, GOST 10227-86), TS-1 (Ukraine, GSTU 320.00149943.011-99), RT (Russia, GOST 10227-86), RT (Ukraine GSTU 320.00149943.007-97), No. 3 Jet Fuel (China, GB 6537-2006), JP-8 (F34) (USA, MIL-DTL-83133G-2010) 和以上列出燃油等级的混合物。.

For additional approved Jet Fuel specification see applicable AFM, Section 2.

AVGAS 100 and 100LL also designated as 100/130 or 100/130LL, for additional approved fuel grades see AFM Section 2.

JET A, JET A-1 (ASTM D 1655), TS-1 (Russia, GOST 10227-86), TS-1 (Ukraine, GSTU 320.00149943.011-99), RT (Russia, GOST 10227-86), RT (Ukraine GSTU 320.00149943.007-97), No. 3 Jet Fuel (China, GB 6537-2006), JP-8 (F34) (USA, MIL-DTL-83133G-2010) and blends of the above listed fuel grades.

7.DA40 NG 上安装的经批准的发动机型别构型: E4-A。

Approved engine model configuration for installation in the DA 40 NG: E4-A.

8.以下的设计重量组合已批准/The following Design Mass Combinations are approved:

安装的设计更改 Installed Design Change	标准 Standard	MÄM 40-574 or OÄM 40-334	MÄM 40-662
MTOM	1280kg (2822 lb)	1280kg (2822 lb)	1310kg (2888 lb)
MZFM	1200kg (2646 lb)	1265kg (2789 lb)	1265kg (2789lb)
MLM	1216kg (2681 lb)	1280kg (2822 lb)	1280kg (2822 lb)

9.滑翔机牵引操作必须并入选装设计更改 OÄM 40-312。

For glider towing operation the optional design change OÄM 40-312 must be incorporated.

10.只有安装了 OÄM 40-370, 才批准使用柴油。

Operation with Diesel fuel is only approved, if OÄM 40-370 is installed

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