

型号认可证数据单

日期/Data: 2016-11-28

[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	VTC0258A Revision: 1 2016-11-28	EASA.A.513 Issue 21 25-Mar-2015
历史 History	VTC0258A Revision:0 2011-06-13	EASA.A.513 Issue 11 26-Apr-2011

2. 认可当局/Validation Authority:

中国民用航空局/CAAC

审定当局/Certifying Authority:

欧洲航空安全局/EASA

3. 型号合格证 Type Certificate Number:

EASA.A.513

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

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) 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, 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/Serial Nos. Eligible

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 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 42 M

MODEL NUMBER: DA 42 M

一、概述/General

- | | |
|--|---|
| 1. 型号合格证数据单号
Type Certificate Data Sheet No. | EASA.A.513 |
| 2. 型号、衍生型或型别
Type / Variant or Model | |
| (a) 型号/Type | DA 42 M |
| (b) 型别/Model: | DA 42 M |
| (c) 衍生型/Variant: | -- |
| 3. 适航类别
Airworthiness Category | 限制类飞机/ Restricted |
| 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 |
| 5. 制造商:
Manufacturer: | DIAMOND AIRCRAFT INDUSTRIES GMBH
N.A. OTTO-STR. 5
A-2700 WIENER NEUSTADT
AUSTRIA |
| 6. 国外适航当局申请日期
Foreign Authority Application Date: | 2006-06-01
01-Jun-2006 |

二、合格审定基础 CERTIFICATION BASIS

1.确定适用要求的参考日期	2002-04-02
Reference Date for determining the applicable requirements:	02-Apr-2002
2.CAAC 型号认证申请日期	2015-06-16
CAAC Validation of Type Certificate Application Date	
3.国外适航当局合格审定基础	JAR-23, 修订 1, 2001 年 2 月 1 日发布
Foreign Authority Certification Basis:	JAR-23, Amendment 1, issued 01-Feb-2001
	JAR-1, 更改 5, 1996 年 7 月 15 日发布
	JAR-1, Change 5, issued 15-Jul-1996
4.专用条件	CRI D-02 可调式升降舵止动点
Special Conditions:	Variable Elevator Stop
	CRI E-02 活塞式发动机上使用航空煤油
	Use of Jet Fuel for Reciprocating Engines
	CRI E-03 活塞式发动机上使用柴油
	Use of Diesel Fuel for Reciprocating Engines
	CRI E-06 发动机振动水平
	Engine Vibration Level
	CRI E-07 发动机扭矩
	Engine Torque
	CRI F-01 HIRF 防护
	Protection from the Effects of HIRF
	CRI F-03 闪电间接影响防护
	Protection from the Effects of Lightning Strikes, Indirect Effects
	CRI F-07 集成航电系统的人机要素
	Human Factors in Integrated Avionic System
	CRI F-08 任务设备鉴定要求
	Equipment Qualification for Mission Equipment
	CPI F-09 任务设备安全规定
	Safety Provisions for Mission Equipment
5.豁免	N/A
Exemptions	
6.偏离	N/A
Deviations:	
7.等效安全	CRI D-01 单杆动力控制
Equivalent Safety Findings:	Single Lever Power Control
	CRI E-04 液冷-冷却液罐
	Liquid Cooling - Coolant Tank
	CRI E-05 电子控制活塞式柴油机
	Electronically-controlled Reciprocating Diesel Engine
	CRI E-08 燃油系统-热燃油温度
	Fuel System - Hot Fuel Temperature
	CRI F-04 动力装置仪表
	Power plant Instruments

CRI B-03 结冰条件下的失速速度
Stall Speed in Icing Conditions
CRI F-10 自动电力负荷卸载
Automatic Electric Load Shedding

8. 环境标准

Environmental Standards:

CS36, ICAO, 附件 16, 第一卷, 第四版, 第十章
CS 36, ICAO, Annex 16, Volume 1, Fourth Edition, Chapter 10

三、技术特性和操作限制/TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS

1. 型号设计定义

Type Design Definition

当前有效文档, 编号 7.07.00, V002/7 章

Current issue of Doc. No. 7.07.00, Chapter V002/7

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 D60-1130-20-00_3。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, D60-1130-20-00_3. No descriptive text in English language is required, so no placard in Chinese language placards are required.

3. 描述

Description

双发, 四座, 悬挂式下单翼飞机, 复合材料结构, 可收放前三点式起落架, T 型尾翼
Twin engine, four-seated cantilever low wing airplane, composite construction, retractable tricycle landing gear, T-tail.

飞机设有安装多种任务设备接口

The airplane is equipped with provisions for installation of various mission equipment.

4. 设备

Equipment

设备列表, AFM 文档编号 7.01.05 或 7.01.06 第六章及 AFM 补充手册 M00, 见注释 7

Equipment list, AFM, Doc. No. 7.01.05 or 7.01.06, Section 6, and AFM Supplement M00 See Note 7

5. 几何尺寸

Dimensions

翼展/ Span 13.42 m (44 ft 0 in)

长/ Length 8.56 m (28 ft 1 in)

高/ Height 2.49 m (8 ft 2 in)

机翼面积/ Wing Area 16.29 m² (175.3 sqft)

6. 发动机

Engine

型别

Model

2 台 Technify Motors GmbH (Thielert 前身) TAE125-02-99 或 TAE125-02-114, 见注释 3

2 Technify Motors GmbH (formerly Thielert) TAE-125-02-99 or TAE-125-02-114, see Note 3

型号合格证

Type Certificate

EASA 发动机型号合格证数据单 E.055

EASA Engine Type Certificate Data Sheet E.055

CAAC 型号认可证

CAAC Validation

Type Certificate

限制

Limitation

CAAC 发动机型号认可证数据单 VTC0158E 版次 1

CAAC Validation Type Certificate Data Sheet VTC0158E Revision 1

最大起飞转速

Max take-off rotational speed 2300 r.p.m.

最大连续转速(螺旋桨轴 r.p.m)

Max continuous rotational speed

(Propeller shaft r.p.m) 2300 r.p.m

动力装置限制参见 AFM, 文档号 7.01.05 或 7.01.06, 第二章

For power-plants limits refer to AFM, Doc. No. 7.01.05 or 7.01.06, Section 2

7.载荷系数	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	2 MT-Propeller MTV-6-A-C-F/CF187-129		
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		
CAAC 型号认可证	CAAC 螺旋桨型号认可证数据单 VTC0254P 版本 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	1870 mm		
Diameter			
旋转方向	顺时针		
Sense of Rotation	CW		
设置	低桨距设置/Low pitch setting:	12°	
Setting	顺桨/ Feather position	81 °	
	启动锁定/ Start Lock	15°	

9.液体

Fluids

燃油	Jet A-1 (ASTM 1655) 见注释 6 see Note 6		
Fuel	Diesel (EN 590) 见注释 5 see Note 5		
滑油	发动机: 壳牌 Helix Ultra 5W30 合成机油 API SJ/CF 或参见 AFM, 文档号 7.01.05		
Oil	或 7.01.06 第二章		
	Engine: Shell Helix Ultra 5W30 synthetic API SJ/CF or see AFM, Doc. No. 7.01.05 or 7.01.06, Section 2		
	齿轮箱: 壳牌 EP 75W90 API GL-4 或参见 AFM, 文档号 7.01.05 或 7.01.06 第二章		
	Gearbox: Shell EP 75W90 API GL-4 or see AFM, Doc. No.7.01.05 or 7.01.06, Section 2		
冷却剂	水/冷却器防护液		
Coolant	更多细节参见 AFM, 7.01.05 或 7.01.06 第二章		
	Water / Cooler Protection		
	for more details see AFM,7.01.05 或 7.01.06 Section 2		
防冰液	AL-5 (DTD 406B)或 Aeroshell Compound 07		
Ice Protection Fluid	AL-5 (DTD 406B) or Aeroshell Compound 07		
	更多细节参见 AFM, 7.01.05 或 7.01.06, AFM 增补页 S03		
	for more details see AFM, 7.01.05 or 7.01.06,AFM Supplement S03		

10.液体容量

Fluid Capacities

燃油	标准油箱/Standard Fuel Tank
Fuel	总共/ Total: 196.8 升/ liters 52 US Gallons
	可用/ Usable: 189.2 升/ liters 50 US Gallons
	辅助油箱/ Auxiliary Fuel Tank
	总共/ Total: 104 升/ liters 27,4 US Gallons
	可用/ Usable: 100 升/ liters 26,4 US Gallons
滑油	每台发动机/each engine
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
冷却系统容量	大约 7 升
Coolant System Capacities	Approx. 7 Liter

11.空速

Air speeds

设计机动速度 V_A	
Design Manoeuvring Speed V_A :	
小于 1542kg/ up to 1542 kg	119 KEAS
1542kg 以上/above 1542kg	125 KEAS
襟翼放下速度 V_{FE}	
Flap Extended Speed V_{FE}	
进场/ Approach	135 KEAS
着陆/ Landing	110 KEAS
最大起落架使用速度 V_{LO}	
Maximum Landing Gear	
Operation Speed V_{LO} :	155 KEAS
最大起落架放下速度 V_{LE}	
Maximum Landing Gear	
Extended Speed V_{LE} :	192 KEAS
最小操纵速度 V_{MC}	
Minimum Control Speed V_{MC} :	68 KEAS
选装 OÄM 42-252	
With OÄM 42-252 installed	72 KEAS
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} :	155 KEAS
(= Maximum structural design	
speed V_C):	
极限速度 V_{NE}	
Never exceed speed V_{NE} :	192 KEAS
5486 m (18 000 ft)	

12.最大操作高度

Maximum Operating Altitude

13.全天候能力

All-weather

Operation

Capability

昼/夜-VFR, IFR Day/Night-VFR, IFR
 在已知或预计结冰条件下飞行, 参见注释 4, 7
 Flights into known or forecast icing conditions
 See Note 4, 7

14.最大重量

Maximum Weights	起飞/ Take-off	1785 kg (3935 lb)
	零燃油/ Zero Fuel	1650 kg (3638 lb)
		1674 kg (3690 lb) OÄM 42-188 installed
		1730 kg (3814 lb) OÄM 42-188 & -195 installed
	着陆/ Landing	1700 kg (3748 lb)
		1785 kg (3935 lb) OÄM 42-195 installed
		批准的重量构型见注释 11
		For approved Weight Configurations see Note 11

15.重心范围

Center of Gravity Range	前部限制 Forward limit:	
	1468 kg 以下	基准后 2.35 m
	Up to 1468 kg	2.35 m behind Datum
	当 1785 kg	基准后 2.40 m
	At 1785 kg	2.40 m behind Datum
	重量间线性变化	
	Varying linearly with mass in between	
	后部限制/ Rear limit:	
	当 1250kg	基准后 2.42 m
	At 1250 kg	2.42 m behind Datum
	当 1600kg 及以上	基准后 2.49m
	At 1600 kg and above	2.49 m behind Datum
	重量间线性变化	
	Varying linearly with mass in between	

16.基准

Datum	机翼对接前缘处 2.196m
	2.196m in front of leading edge of stub-wing at the wing joint

17.控制面偏转

Control surface deflections

副翼	后缘向上 trailing edge up	25° ± 2°
Aileron	后缘向下 trailing edge down	15° + 2/-0°
升降舵	后缘向上 trailing edge up	15.5° ± 0.5°
Elevator	后缘向下 trailing edge down	13° ± 1°
升降舵配平片	升降舵向上 10° 机头抬起	17° ± 5°
Elevator Trim Tab	nose up at elevator 10° up	
	升降舵向上 10° 机头向下	-35° ± 5°
	nose down at elevator 10° up	
方向舵	左 left	27° ± 1°
Rudder	右 right	29° ± 1°
方向舵配平调整片	方向舵在左侧 20° 右侧配平	
Rudder Trim Tab	trim RH at rudder 20° LH	+ 34° ± 5°
	方向舵在左侧 20° 左侧配平	
	trim LH at rudder 20° LH	+ 18° ± 5°
	选装 OÄM 42-252	

	With OÄM 42-252 installed:	
	方向舵在左侧 20° 右侧配平	
	trim RH at rudder 20° LH	+ 54° ± 5°
	方向舵在左侧 20° 左侧配平	
	trim LH at rudder 20° LH	+ 22° ± 5°
襟翼	巡航襟翼设定	
Flaps	Cruise flap setting	0° + 2° -0°
	进场襟翼设定	
	Approach flap setting	20° + 4° -2°
	着陆襟翼设定	
	Landing flap setting	42° + 3° -1°
18.测平方式	前行李舱地板为水平基准	
Leveling Means	floor of front baggage compartment levelled	
19.最小飞行机组	1 (飞行员/Pilot) 见注释 9/see Note 9	
Minimum Flight Crew		
20.最大乘员座位数	3 见注释 9/ see Note 9	
Maximum Passenger		
Seating Capacity		
行李舱/货物舱	见注释 8/ see Note 8	
Baggage/Cargo	位置/Location	最大许用负载/Max. allowable load
Compartments	前行李舱	
	Front Baggage Compartment	30kg (66 lb)
	后排座位后	
	Behind Rear Seats	45kg (100 lb)
	尾部扩展行李舱	
	Aft part of Baggage Extension	18 kg (40 lb)
	整个尾部行李舱	
	Whole aft Baggage Compartment together	45kg(100 lbs)
机轮与轮胎	前起轮胎尺寸	
Wheels and Tyre	Nose Wheel Tyre Size	5.00 - 5
	主起轮胎尺寸	
	Main Wheel Tyre Size	15×6.0-6
四、操作及维护说明/Operating and Service Instructions		
1.飞行手册		
Flight Manual	文件 No.7.01.05 或 7.01.06 (安装 OÄM 42-102, GFC 700 自动驾驶仪), 包括 AFM 增补页 M00。对于配置 TAE125-02-114 的 DA 42 M (OÄM 42-252), AFM 再增补 S07。 Document No. 7.01.05 or 7.01.06(with OÄM 42-102, GFC 700 Autopilot),including AFM Supplement M00. For TAE 125-02-114 equipped DA 42 M (OÄM 42-252) AFM Supplement S07 applies in addition.	
2.技术手册		
Technical Manual:	飞机维修手册(AMM)文件 No. 7.02.01 (包括适航限制)、服务信息和服务通告。 Airplane Maintenance Manual(AMM) Document No.7.02.01 (incl. Airworthiness Limitations) Service Information and Service Bulletins	
3.零配件目录		

Spare Parts Catalogue:

文件 No. 7.03.01/Document No. 7.03.01

4.设备及数量

参考 AMM Doc. No. 7.02.01 第一章

Instruments and aggregates:

refer to AMM Doc. No. 7.02.01 Chapter 1

五、注释/Notes

1.本合格证用于系列号 42.005, 42.008, 42.157, 42.177, 42.191, 42.234, 42.247, 42.255, 42.262, 42.272, 42.282, 42.286, 42.293, 42.304, 42.319, 42.328 和系列号 42.M001 及后继系列号。为了符合 DA42M 型号设计, 所有起始按 DA42 状态交付的飞机必须按照可选服务通告 OSB 42-056 改装。

This certification applies to serial numbers 42.005, 42.008, 42.157, 42.177, 42.191, 42.234, 42.247, 42.255, 42.262, 42.272, 42.282, 42.286, 42.293, 42.304, 42.319, 42.328 and serial number 42.M001 and subsequent . All of these serial numbers initially delivered as a DA 42 must be modified in accordance with Optional Service Bulletin OSB 42-056 to comply with the DA 42 M type design.

2.对批准的 Garmin G1000 集成航电系统软件版本见最新版的 DAI MSB 42-008。

如果是安装了 TAE 125-02-99 发动机, 要求安装 Garmin 软件 PNo.010-00370-15 或之后批准版本的软件。

如果安装了 TAE 125-02-114 发动机(设计更改 OÄM 42-252), 要求安装 Garmin 软件 PNo.010-00370-22 包括二级配置卡或之后批准版本的软件。

For approved software versions of Gamin G1000 Integrated Avionic System see DAI MSB 42-008, at latest issue.

If engine TAE 125-02-99 is installed then Garmin Software PNo.010-00370-15 or later approved version is required.

If engine TAE 125-02-114 is installed (Design Change OÄM 42-252), then Garmin Software PNo.010-00370-22 including secondary configuration card or later approved version is required.

3.批准安装在 DA 42 M 上的发动机型号:

TAE 125-02-99 (安装衍生型 125-02-99-(0003)-(), SB TAE 000-0007)

TAE 125-02-114 (安装衍生型 125-02-114-(0006)-(), SB TAE 000-0007)

发动机只能成对安装。批准的固件和参数谱依据最新版的 DAI MSB 42-007。

发动机从 TAE 125-02-99 改装到 TAE 125-02-114, 是由设计更改 OÄM 42-252 和 OSB 42-107 批准的。

Approved engine model for installation in the DA 42 M:

TAE 125-02-99 (Installation Variant 125-02-99-(0003)-(), SB TAE 000-0007)

TAE 125-02-114 (Installation Variant 125-02-114-(0006)-(), SB TAE 000-0007)

Installation of engine types in pairs only.

Approved firmware and mapping in accordance with DAI MSB 42-007 at latest issue. Engine retrofit installation from engine TAE 125-02-99 to TAE 125-02-114 is approved by Design Change OÄM 42-252 with OSB 42-107.

4.如果按照设计大改 OÄM 42-054 安装了液体防冰系统时, 在已知或预报结冰条件下飞行是被批准的。安装任务选装件或任务设备必须符合附加限制要求, 见注释 7。

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. Additional Limitations apply with Mission Options or Mission Equipment installed, see Note 7.

5.如果安装了设计大改 MÄM 42-037, 则使用柴油燃料 (EN590) 是获批准的

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

6.批准的其他燃油牌号见 AFM 第二章

For additional approved Jet Fuel specifications see AFM Section 2.

JET A, JET A-1 (ASTM D 1655), TS-1 (Russia, GOST 10227-86), (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.

JET A, JET A-1 (ASTM D 1655), TS-1 (Russia, GOST 10227-86), (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.基本型的 DA42M 不包括专用任务目的的接口，以下特定任务的可选装设计大改是安装任务设备的接口，是经批准的。

The basic DA42 M does not include provisions for specific mission purposes. The following optional major design changes for specific missions as a provision for installation of mission equipment are approved.

OÄM 42-106 机腹吊舱/ Belly Pod

采用以下附加限制/ The following additional Limitations apply:

- 禁止在已知或与预计结冰条件下飞行/Flights into known or forecast icing conditions prohibited
- 最大机腹吊舱负荷/ Maximum load in the belly pod: 80 kg
- 最小飞行重量/ Minimum flight mass: 1430 kg
- 最小任务机组/ Minimum Crew for Mission Operations: 1 Pilot + 1 Operator
- 必须配备 AFM 和 AMM 增补页 M01/ AFM and AMM Supplement M01 must be furnished

OÄM 42-107 通用机头/ Universal Nose

采用以下附加限制/ The following additional Limitations apply:

- 禁止在已知或与预计结冰条件下飞行/Flights into known or forecast icing conditions prohibited
- 最大通用机头负荷/ Maximum load in Universal Nose: 31 kg
- 最大地板下吊舱负荷/ Maximum load in Underfloor Pod: 20 kg
- 最小飞行重量/ Minimum flight mass: 1430 kg
- 最小任务机组/ Minimum Crew for Mission Operations: 1 Pilot + 1 Operator
- 必须配备 AFM 和 AMM 补充页 M30/ AFM and AMM Supplement M30 must be furnished
- 装有通用机头和（或）地板下吊舱时，最大操纵速度/ Maximum operating speed with Universal Nose and/or Underfloor Pod installed 130KEAS

OÄM 42-107/c 通用机头/ Universal Nose

采用以下附加限制/ The following additional Limitations apply:

- 禁止在已知或与预计结冰条件下飞行/ Flights into known or forecast icing conditions prohibited
- 最大通用机头负荷/ Maximum load in Universal Nose: 65 kg
- 最大地板下吊舱负荷/ Maximum load in Underfloor Pod: 20 kg
- 最小飞行重量/ Minimum flight mass: 1430 kg
- 最小任务机组/ Minimum Crew for Mission Operations: 1 Pilot + 1 Operator
- 最大后飞行重心/ Most rearward flight CG: 当 1430 kg 时，基准后 2.436 m/ 2,436 m aft of Datum at 1430 kg
当 1600 kg 时，基准后 2.47 m/ 2,47 m aft of Datum at 1600 kg
当 1785 kg 时，基准后 2.47 m/ 2,47 m aft of Datum at 1785 kg
其间线性变化/Linear variation in between
- 必须配备 AFM 和 AMM 增补页 M30/ AFM and AMM Supplement M130 must be furnished
- 装有通用机头和（或）地板下吊舱时，最大操纵速度/ Maximum operating speed with Universal Nose and/or Underfloor Pod installed 160KEAS

OÄM 42-108 机头吊舱 Nose Pod

采用以下附加限制/ The following additional Limitations apply:

- 禁止在已知或与预计结冰条件下飞行/ Flights into known or forecast icing conditions prohibited
- 最大机头吊舱负荷/ Maximum load in Nose Pod: 85 kg
- 适用机头吊舱负荷可能需要在垂尾下面安装配平重量 The use load in the Nose Pod may lead to Trim Weight installations in the lower vertical tail
- 最大后设备舱负荷/ Maximum load in rear equipment compartment: 93 kg
- 最小飞行重量/ Minimum flight mass: 1430 kg
- 最小任务机组/ Minimum Crew for Mission Operations: 1 Pilot + 1 Operator
- 最大后飞行重心/ Most rearward flight CG: 当 1430 kg 时，基准后 2.426 m

2,426 m aft of Datum at 1430 kg
 当 1600 kg 时, 基准后 2.46 m
 2,46 m aft of Datum at 1600 kg
 当 1785 kg 时, 基准后 2.46 m
 2,46 m aft of Datum at 1785 kg
 其间线性变化/ Linear variation in between

- 必须配备 AFM 和 AMM 增补页 M60/ AFM and AMM Supplement M60 must be furnished
- 安装设备后最大操纵速度/ Maximum operating speed with Equipment installed 160 KEAS

OÄM 42-208 配装标准行李舱和机腹吊舱/ Nose Pod with standard baggage compartment

采用以下附加限制/ The following additional Limitations apply:

- 禁止在已知或与预计结冰条件下飞行/ Flights into known or forecast icing conditions prohibited
- 最大机头吊舱负荷/ Maximum load in Nose Pod: 85 kg
- 使用机头吊舱负荷时, 可能需要在垂尾下面安装配平重量/ The use load in the Nose Pod may lead to Trim Weight installations in the lower vertical tail
- 最小飞行重量/ Minimum flight mass: 1430 kg
- 最小任务机组/ Minimum Crew for Mission Operations: 1 Pilot + 1 Operator
- 最大后飞行重心/ Most rearward flight CG:

当 1430 kg 时, 基准后 2.426 m
 2,426 m aft of Datum at 1430 kg
 当 1600 kg 时, 基准后 2.46 m
 2,46 m aft of Datum at 1600 kg
 当 1785 kg 时, 基准后 2.46 m
 2,46 m aft of Datum at 1785 kg
 其间线性变化/ Linear variation in between

- 必须配备 AFM 和 AMM 增补页 M160/ AFM and AMM Supplement M160 must be furnished
- 安装设备后最大操纵速度/ Maximum operating speed with Equipment installed 160 KEAS

专用任务设备及其安装不在 DA42M 型号合格证中。设备的安装必须通过按相关的 AMM 增补页及按 CRI F-08 “任务设备的设备鉴定”中规定的鉴定要求来批准。任务主开关激活状态下的 IFR 飞行, 以 OÄM 42-141 安装方式批准。

The specific mission equipment and its installations are not part of the DA 42 M certification. Installation must be approved using the relevant AMM Supplement and the qualification criteria of CRI F-08 “Equipment Qualification for mission equipment” .

IFR Flights with mission master switch activated approved with OÄM 42-141 installed.

8.安装任务设备后, 可能对行李舱的装载有附加限制, 这些限制包含在相关的飞行手册增补页中。

Additional Limitations to the Baggage Compartment payload may apply after installation of mission equipment, these are included in the relevant Flight Manual Supplement

9.当任务设备更改安装时, 可能对机组、操作者或乘客有附加限制或要求, 这些限制包含在相关的飞行手册增补页中, 见注释 7。

Additional Limitations/Requirements for the Flight Crew/Operator or passenger may apply when the specific mission changes are installed. These Limitations are included in the relevant AFM Supplement. See Note 7

10.已经展示基本型 DA42M 及批准的接口符合 ICAO (附件 8)。对任务设备自身及其安装, 展示符合 ICAO 附件 8 必须是每次安装批准的一部分, 否则飞机不满足 ICAO 要求。

Compliance to ICAO Requirements (Annex 8) has been demonstrated for the basic DA 42 M and its approved provisions only. For the mission equipment itself and its installation, demonstration of compliance to ICAO Annex 8 must be part of the individual installation approval otherwise this airplane does not comply to ICAO requirements.

11.以下设计重量构型是经批准的/

The following Design Mass Configurations are approved.

Design Changes installed 安 的设计更改	Standard 标准型	OÄM 42-188	OÄM 42-188 and OÄM 42-195
MTOM	1785 kg (3935 lb)	1785 kg (3935 lb)	1785 kg (3935 lb)
MZFM	1650 kg (3638 lb)	1674 kg (3690 lb)	1730 kg (3814 lb)
MLM	1700 kg (3748 lb)	1700 kg (3748 lb)	1785 kg (3935 lb)

MTOM - 最大起飞重量/ maximum take-off mass; MZFM - 最大零燃油重量/ maximum zero fuel mass; MLM - 最大着陆重量/ maximum landing mass

只有按 TC 持有人服务通告进行的设计更改改装是经批准的。

The retrofit installation of the design changes is only approved per TC Holder Service Bulletins.

II. 型别: DA 42 M-NG

MODEL NUMBER: DA 42 M-NG

一、概述/General

1. 型号合格证数据单号 EASA.A.513
Type Certificate Data Sheet No.
2. 型号、衍生型或型别 Type / Variant or Model
 - (a) 型号/Type DA 42 M
 - (b) 型别/ Model: DA 42 M-NG
 - (c) 衍生/Variant: --
3. 适航类别 限制类飞机/ Restricted
Airworthiness Category
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
5. 制造商: DIAMOND AIRCRAFT INDUSTRIES GMBH
Manufacturer: N.A. OTTO-STR. 5
A-2700 WIENER NEUSTADT
AUSTRIA
6. 国外适航当局申请日期 02-Jun-2009
Foreign Authority Application Date:
7. 保留/ (Reserved) N/A
8. 保留/ (Reserved) N/A

二、合格审定基础和生产依据 CERTIFICATION BASIS AND PRODUCTION BASIS

1. 确定适用要求的参考日期 02-Apr-2002
Reference Date for determining the applicable requirements
2. CAAC 型号认可证申请日期 2011-06-23
CAAC Validation of Type Certificate Application Date
3. 国外适航当局合格审定基础 JAR-23, 修订 1, 2001 年 2 月 1 日发布
Foreign Authority Certification Basis: JAR-23, Amendment 1, issued 01-Feb-2001
JAR-1, 更改 5, 1996 年 7 月 15 日发布
JAR-1, Change 5, issued 15-Jul-1996
4. 专用条件 CRI A-06 超重操作
Special Conditions: Overweight Operation
CRI D-02 可调式升降舵止动点
Variable Elevator Stop
CRI E-02 活塞式发动机上使用航空煤油
Use of Jet Fuel for Reciprocating Engines
CRI E-03 活塞式发动机上使用柴油
Use of Diesel Fuel for Reciprocating Engines
CRI E-04 液冷-冷却剂罐
Liquid Cooling - Coolant Tank

	CRI E-05 电子控制活塞式柴油发动机 Electronically-controlled Reciprocating Diesel Engine
	CRI E-06 发动机振动水平 Engine Vibration Level
	CRI E-07 发动机扭矩 Engine Torque
	CRI F-01 HIRF 防护 Protection from the Effects of HIRF
	CRI F-03 闪电间接影响防护 Protection from the Effects of Lightning Strikes, Indirect Effects
	CRI F-04 动力装置仪表 Power plant Instruments
	CRI F-07 集成航电系统的人机要素 Human Factors in Integrated Avionic System
	CRI F-08 任务设备鉴定要求 Equipment Qualification for Mission Equipment
	CRI F-09 任务设备安全规定 Safety Provisions for Mission Equipment
5.豁免 Exemptions:	N/A
6.偏离 Deviations	N/A
7.等效安全 Equivalent Safety Findings:	CRI E-10 电动燃油泵 Electrical Fuel Pump
	CRI F-10 自动电力负荷卸载 Automatic Electric Load Shedding
8.选出的符合性要求 Requirements elected to comply	CS 23.1507 机动速度 Manoeuvring Speed
	CS 23.49 失速速度 Stalling Speed
	CS 23.562(d)应急着陆动态情况 Emergency Landing Dynamic Conditions
9.环境标准包括噪声 Environmental Standards including Noise:	ICAO, 附件 16, 第一册, 第 II 部分及 2007 年 4 月 2 日民航局局长令 2007/007/R, 即民航局局长令 No.2003/04RM——《关于航空器噪声合格 审定规范提供可接受的符合性方法》的修订稿的要求 CS-36 修正案 1 见注释 2 ICAO, Annex 16, Volume 1, Part II and as implemented in Decision No. 2003/4/RM amended by Decision 2007/007/R of The Executive Director of the Agency dated 2 April 2007, on certification specifications providing for acceptable means of compliance for aircraft noise CS-36, Amendment 1 see Note 2

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	当前有效文档, 编号 7.07.00, V006/7 章, 包括设计更改 VÄM 42-004, VÄM 42-005 和 VÄM 42-006
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		Current issue of Doc. No. 7.07.00, Chapter V006/7 including Design Changes VÄM 42-004,VÄM 42-005 and VÄM 42-006	
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 D64-11-30-20-00_2。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, D64-11-30-20-00_2. No descriptive text in English language is required, so no placard in Chinese language placards are required.	
3.描述	Description	双发, 四座, 悬挂式下单翼飞机, 复合材料结构, 可收放前三点式起落架, T 型尾翼 Twin engine, four-seated cantilever low wing airplane, composite construction, retractable tricycle landing gear, T-tail.	
4.设备	Equipment	设备列表, AFM, 文档号 7.01.15 第六章及 AFM 增补页 M00 见注释 3 和 7。 Equipment list, AFM, Doc. No. 7.01.15, Section 6 and AFM Supplement M00 See Note 3 and 7.	
5.几何尺寸	Dimensions	翼展/ Span	13.42 m (44 ft 0 in)
		长/ Length	8.56 m (28 ft 1 in)
		高/ Height	2.49 m (8ft 2 in)
		机翼面积/ Wing Area	16.29 m ² (175.3 sqft)
6.发动机	Engine		
	型别	2 台 Austro 的 E4 发动机, 见注释 4	
	Model	2 Austro Engine E4 see Note 4	
	型号合格证	EASA 发动机型号合格证数据单 E.200	
	Type Certificate	EASA Engine Type Certificate Data Sheet E.200	
	CAAC 型号认可证	CAAC 发动机型号认可证数据单 VTC0252E 版本 0	
	CAAC Validation Type Certificate	CAAC Validation Type Certificate Data Sheet VTC0252E Revision 0	
	限制	大起飞转速 (5 分钟) /	
	Limitation	Max take-off rotational speed (5min)	2300 r.p.m.
		最大连续转速(螺旋桨轴 r.p.m)/	
		Max continuous rotational speed	
		/ (Propeller shaft r.p.m)	2100 r.p.m
		安装 MÄM 42-600	
		with MÄM 42-600 installed	2300 r.p.m
		最大起飞功率 (5 分钟)	
		Max T/O Power (5min)	100% (123.5 kW)
		最大连续功率	
		Max. continuous Power	92% (114 kW)
		动力装置限制参见 AFM,第二章	
		For power-plants limits refer to AFM, Section 2	
	固件	见 DAI MSB 42NG-002, 见注释 4	
	Firmware	See DAI MSB 42NG-002, See note 4	
	参数谱	见 DAI MSB 42NG-002, 见注释 4	
	Mapping	See DAI MSB 42NG-002, See note 4	
7.载荷系数	Load factors	在 V _A	在 V _{NE}
		at V _A	at V _{NE}
			起飞或着陆使用襟翼时
			With flaps in T/O or

LDG position

正 Positive

3.8

3.8

2.0

负 Negative

-1.52

0

8.螺旋桨

Propeller

型别

2 MT-Propeller MTV-6-R-C-F/CF187-129 或

Model

2 MT-Propeller MTV-6-R-C-F/CF 190-69 见注释 17/ see Note 17

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

CAAC 型号认可证

CAAC 螺旋桨型号认可证数据单 VTC0254P 版本 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

1870 mm or 1900 mm (MÄM 42-600)

Diameter

旋转方向

顺时针

Sense of Rotation

CW

设置

低桨距设置

Setting

Low Pitch setting 12°

13° (MÄM 42-600)

顺桨

Feather position

81 °

80° (MÄM 42-600)

启动锁定

Start Lock

15°

9.液体

Fluids

燃油

Jet A-1 (ASTM 1655)见注释 12 see Note 12

Fuel

Diesel (EN590) 见注释 15 see Note 15

滑油

发动机/ Engine: 壳牌 Helix Ultra 5W30 或 5W40

Oil

Shell Helix Ultra 5W30 or 5W40

或参见 AFM 第二章

or see AFM, Section 2

齿轮箱/Gearbox

壳牌 SPIRAX GSX 75W-80

Shell SPIRAX GSX 75W-80

或参见 AFM 第二章

or see AFM, Section 2

冷却液/ Coolant:

水/冷却器防护液

Water / Cooler Protection

更多细节参见 AFM, 第二章

for more details see AFM, Section 2

防冰液

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

Ice Protection Fluid	AL-5 (DTD 406B) or Aeroshell Compound 07 更多细节参见 AFM, 附录 S03 for more details see AFM, Suppl. S03	
10.液体容量		
Fluid Capacities		
燃油	标准油箱/Standard Fuel Tank	
Fuel	总共/ Total:	196.8 升/liters 52 US Gallons
	可用/ Usable	189.2 升/liters 50 US Gallons
	辅助油箱/ Auxiliary Fuel Tank Total:	
	总共/ Total:	104 升/ liters 27.4 US Gallons
	可用/ Usable	100 升/liters 26.4 US Gallons
滑油	每台发动机/ each engine	
Oil	最大/ Maximum:	7 升/ liters
	最小/ Minimum:	5 升/ liters
冷却系统容量	大约 7 升	
Coolant System Capacities	Approx. 7 Liter	
11.空速	设计机动速度	
Air speeds	Design Manoeuvring Speed V_A	
	小于 1700kg/ up to 1700 kg	114 KEAS
	1701 至 1800 kg/1701 to 1800 kg	121 KEAS
	1800 kg 以上/ above 1800 kg	125 KEAS
	襟翼放下速度 V_{FE} /	
	Flap Extended Speed V_{FE}	
	进场/ Approach	135 KEAS
	着陆/ Landing	110 KEAS
	最大起落架使用速度 V_{LO} /	
	Maximum Landing Gear Operation Speed V_{LO}	
		155 KEAS
	最大起落架放下速度 V_{LE} /	
	Maximum Landing Gear Extended Speed V_{LE}	
		192 KEAS
	空中最小操纵速度 V_{MCA}	
	Minimum Control Speed Airborne V_{MCA}	
		75 KEAS
	MÄM 42-600	70 KEAS
	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)	
		155 KEAS
	极限速度 V_{NE}	
	Never exceed speed V_{NE}	192 KEAS
12.最大操作高度	5486 m (18 000 ft)	
Maximum Operating Altitude		
全天候气象能力	日/夜-VFR, IFR Day/Night-VFR, IFR	
All-weather Operation Capability	在已知或预计结冰条件下飞行, 参见注释 6 和 7	

Flights into known or forecast icing conditions

See Note 6,7

13.最大重量

Maximum Weights

见注释 16/See Note 16

起飞/ Take-off 1900 kg (4189 lb)

如果安装 MÄM 42-678

If MÄM 42-678 is installed 1999 kg (4407 lb)

零燃油/ Zero Fuel 1765 kg (3891 lb)

如果安装 MÄM 42-659

If MÄM 42-659 is installed 1835 kg (4045 lb)

着陆/ Landing 1805 kg (3979 lb)

如果安装 MÄM 42-659

If MÄM 42-659 is installed 1999 kg (4407 lb)

14.重心范围

Center of Gravity Range

前部限制/ Forward limit:

当 1450 kg 时 基准后 2.350m

At 1450 kg 2.350 m behind Datum

当 1468 kg 时 基准后 2.350m

At 1468 kg 2.350 m behind Datum

当 1900 kg 时 基准后 2.418m

At 1900 kg 2.418 m behind Datum

如果安装 MÄM 42-678

If MÄM 42-678 is installed

当 1999 kg 时 基准后 2.434m

At 1999 kg 2.434 m behind Datum

重量间线性变化

Varying linearly with mass in between

后部限制/ Rear limit:

当 1450 kg 时 基准后 2.454m

At 1450 kg 2.454 m behind Datum

当大于等于 1700 kg 时 基准后 2.480m

At 1700 kg and above 2.480 m behind Datum

重量间线性变化

Varying linearly with mass in between

如果安装 OÄM 42-199 (见注释 13)

If OÄM 42-199 is installed (see note 13)

对于所有重量 基准后 2.450m

For all weights 2.450 m behind Datum

15.基准

Datum

机翼连接翼根前缘 2.196m

2.196m in front of leading edge of stub-wing at the wing joint

16.控制面偏转

Control surface deflections

副翼

后缘向上 trailing edge up

25° ± 2°

Aileron

后缘向下 trailing edge down

15° + 2 -0°

升降舵	后缘向上 trailing edge up	15.5° ± 0.5°
Elevator	后缘向下 trailing edge down	13° ± 1°
升降舵配平片	升降舵向上 10° , 机头抬起	
Elevator Trim Tab	nose up at elevator 10° up	+ 17° ± 5°
	升降舵向上 10° , 机头向下	
	nose down at elevator 10° up	-35° ± 5°
方向舵	左 left	27° ± 1°
Rudder	右 right	29° ± 1°
方向舵配平片	方向舵在左侧 20° 右侧配平	
Rudder Trim Tab	trim RH at rudder 20° LH	+ 54° ± 5°
	方向舵在左侧 20° 左侧配平	
	trim LH at rudder 20° LH	+ 22° ± 5°
	安装 MÄM 42-600 和 MÄM 42-885	
	With MÄM 42-600 and MÄM 42-885 installed	
	方向舵在左侧 20° 右侧配平	
	trim RH at rudder 20° LH	+ 56° ± 5°
	方向舵在左侧 20° 左侧配平	
	trim LH at rudder 20° LH	+ 34° ± 5°
襟翼	巡航襟翼设定	
Flaps	Cruise flap setting	0° + 2° -0°
	进场襟翼设定	
	Approach flap setting	20° + 4° -2°
	着陆襟翼设定	
	Landing flap setting	42° + 3° -1°
17.测平方式	前行李舱地板为水平基准	
Leveling Means	floor of front baggage compartment levelled	
18.最小飞行机组	1 (飞行员/Pilot)	
Minimum Flight Crew		
19.最大乘员座位数	3	
Maximum Passenger		
Seating Capacity		
20.行李舱/货物舱	位置/Location	最大许用负载/Max. allowable Load
Baggage/Cargo	前行李舱/Front Baggage Compartment	30 kg (66 lbs)
Compartments	后排座位后/ Behind Rear Seats	45kg(100 lb)
	尾部扩展行李舱 /Aft part of Baggage	18 kg (40 lb)
	Extension	
	整个尾部行李舱 /Whole aft Baggage	45kg(100 lbs)
	Compartment together	
21.机轮与轮胎	前轮轮胎尺寸	5.00 - 5
Wheels and Tyre	Nose Wheel Tyre Size	
	主轮轮胎尺寸	15×6.0-6
	Main Wheel Tyre Size	

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

1.飞行手册	文件 No. 7.01.15 或 7.01.16(安装了 MÄM 42-600), 包括 AFM 增补页 M00
Flight Manual	Document No. 7.01.15 or 7.01.16 (MÄM 42-600 installed), including AFM Supplement

	M00
2.技术手册 Technical Manual:	飞机维修手册 (AMM) 文件 No. 7.02.15 (包括适航限制)、服务信息和服务通告 Airplane Maintenance Manual (AMM) Document No. 7.02.15 (incl. Airworthiness Limitations) Service Information and Service Bulletins
3.零配件目录 Spare Parts Catalogue:	文件 No. 7.03.15 Document No. 7.03.15
4.设备及数量 Instruments and aggregates:	参考 AMM 文件 No.7.02.15 第 1 章 refer to AMM Doc. No. 7.02.15 Chapter 1

五、注释

Notes

1.本合格证适用于系列号 42.339, 42.MN001 及在奥地利钻石飞机公司生产的后继飞机。DA42M 可以通过奥地利钻石飞机公司批准的服务通告 OSB 42-081 转变成 DA42M-NG

This certification applies to serial numbers 42.339, 42.MN001 and subsequent for production at Diamond-Austria. DA 42 M may be converted to Model DA 42 M-NG by DAI approved SB OSB 42-081

2.批准的噪声水平符合 EASA 噪声数据单 TCDSN A.513, 注释 7 所列任务构型是 TCDSN 的一部分。

Approved Noise Levels in accordance to the EASA data sheet for noise TCDSN A.513, Mission Configurations as listed in Note 7 are part of the TCDSN.

3.批准的 Garmin G1000 集成航电系统软件版本见最新版次的 DAI MSB 42NG-003。

要求安装 Garmin PNo.010-00670-01 或之后批准版本的软件。

For approved software versions of Gamin G1000 Integrated Avionic System see DAI MSB 42NG-003, at latest issue. Garmin Software PNo.010-00670-01 or later approved version is required.

4.批准安装在 DA 42M-NG 上的发动机型号: E4-B;

安装 MÄM 42-600 后需要安装: E4-C。

批准的固件及参数谱依据最新版 DAI MSB 42NG-002

Approved engine model for installation in the DA 42 M-NG: E4-B

with MÄM 42-600 installed : E4-C

The approved firmware and mapping is according to DAI MSB 42NG-002 at latest issue.

5.螺旋桨设备: 控制器: P-877-16

Propeller Equipment: Governor: P-877-16

6.如安装了附加任务设备接口 (注释 7), 禁止在已知或预计结冰条件下飞行。

Fights into known or forecast icing conditions is prohibited if provisions for additional mission equipment (Note 7) are installed.

7.基本型 DA 42M-NG 不包括专用任务目的的接口, 以下特定任务的可选装设计大改是安装任务设备的接口, 是经批准的。

The basic DA42 M-NG does not include provisions for specific mission purposes. The following optional major design changes for specific missions as a provision for installation of mission equipment are approved.

OÄM 42-168 机腹吊舱/ Belly Pod

采用以下附加限制/ The following additional Limitations apply:

- 禁止在已知或与预计结冰条件下飞行/Flights into known or forecast icing conditions prohibited
- 最大机腹吊舱负荷/ Maximum load in the belly pod: 80 kg
- 最小飞行重量/ Minimum flight mass: 1510 kg
- 最小任务机组/ Minimum Crew for Mission Operations: 1 Pilot + 1 Operator
- 必须配备 AFM 和 AMM 增补页 M01/ AFM and AMM Supplement M01 must be furnished

OÄM 42-169 通用机头/ Universal Nose

采用以下附加限制/ The following additional Limitations apply:

- 禁止在已知或与预计结冰条件下飞行/ Flights into known or forecast icing conditions prohibited
- 最大通用机头负荷/ Maximum load in Universal Nose: 65 kg
- 最大地板下吊舱负荷/ Maximum load in Underfloor Pod: 20 kg
- 最大 Gimbal SAR 吊舱负荷/ Maximum load of Gimbal SAR Pod: 50 kg
- 最小飞行重量/ Minimum flight mass: 1510 kg
- 最小任务机组/ Minimum Crew for Mission Operations: 1 Pilot + 1 Operator
- 最大后飞行重心/ Most rearward flight CG: 当 1510kg 时, 基准后 2.45m
2,45 m aft of Datum at 1510 kg
当 1700kg 及以上时, 基准后 2.47m
2,47 m aft of Datum at 1700 kg and above
其间线性变化/ Linear variation in between
如果选装 OÄM 42-199 (见注释 13)
If OÄM 42-199 is installed (see note 13)
对于所有重量, 基准后 2.45m
For all weights 2.45m aft of Datum
- 必须配备 AFM 和 AMM 增补页 M30/ AFM and AMM Supplement M30 must be furnished
- 装有通用机头和 (或) 地板下吊舱时, 最大操纵速度
Maximum operating speed with Universal Nose and/or Underfloor Pod installed 156KIAS

OÄM 42-170 机头吊舱 Nose Pod

采用以下附加限制/ The following additional Limitations apply:

- 禁止在已知或与预知结冰条件下飞行/ Flights into known or forecast icing conditions prohibited
- 最大机头吊舱负荷/ Maximum load in Nose Pod: 85 kg
- 使用机头吊舱负荷时, 可能需要在垂尾下面安装配平重量 The use load in the Nose Pod may lead to Trim Weight installations in the lower vertical tail
- 最大后设备舱负荷/ Maximum load in rear equipment compartment: 93 kg
- 最小飞行重量/ Minimum flight mass: 1510 kg
- 最小任务机组/ Minimum Crew for Mission Operations: 1 Pilot + 1 Operator
- 最大后飞行重心/ Most rearward flight CG: 当 1510kg 时 基准后 2.44m
2,44 m aft of Datum at 1510 kg
当 1700kg 及以上时 基准后 2.46m
2,46 m aft of Datum at 1700 kg and above
其间线性变化/ Linear variation in between
如果选装 OÄM 42-199 (见注释 13)
If OÄM 42-199 is installed (see note 13)
当 1510kg 时 基准后 2.44m
2,44 m aft of Datum at 1510 kg
当 1605kg 及以上时 基准后 2.45m
2,45 m aft of Datum at 1605 kg and above
其间线性变化/ Linear variation in between
- 必须配备 AFM 和 AMM 增补页 M60/ AFM and AMM Supplement M60 must be furnished
- 安装设备后最大操纵速度/ Maximum operating speed with Equipment installed 156KIAS

OÄM 42-208 配装标准行李舱和机头吊舱 Nose Pod with standard baggage compartment

采用以下附加限制/ The following additional Limitations apply:

- 禁止在已知或与预计结冰条件下飞行/ Flights into known or forecast icing conditions prohibited
- 最大机头吊舱负荷/ Maximum load in Nose Pod: 85 kg
- 使用机头吊舱负荷时，可能需要在垂尾下面安装配平重量 The use load in the Nose Pod may lead to Trim Weight installations in the lower vertical tail
- 最小飞行重量/ Minimum flight mass: 1510 kg
- 最小任务机组/ Minimum Crew for Mission Operations: 1 Pilot + 1 Operator
- 最大后飞行重心/ Most rearward flight CG:

当 1510kg 时	基准后 2.44m
2,44 m aft of Datum at 1510 kg	
当 1700kg 及以上时	基准后 2.46m
2,46 m aft of Datum at 1700 kg and above	
其间线性变化/ Linear variation in between	
如果选装 OÄM 42-199（见注释 13）	
If OÄM 42-199 is installed (see note 13)	
当 1510kg 时	基准后 2.44m
2,44 m aft of Datum at 1510 kg	
当 1605kg 及以上时	基准后 2.45m
2,45 m aft of Datum at 1605 kg and above	
其间线性变化/ Linear variation in between	
- 必须配备 AFM 和 AMM 增补页 M160/ AFM and AMM Supplement M160 must be furnished
- 安装设备后最大操纵速度/ Maximum operating speed with Equipment installed 156KIAS

OÄM 42-250 地理星/ Geostar

此设计更改仅在结合以下任一任务构型才可获批准

This Design Change is approved only in combination with one of the following Mission Configurations:

- OÄM 42-170 机头吊舱/ Nose Pod
- OÄM 42-208 配装标准行李舱和机腹吊舱/ Nose Pod with standard baggage compartment

采用以下附加限制/ The following additional Limitations apply:

- 最大地理星吊舱负荷/ Maximum load in Geostar Pod: 26 kg
- 必须配备 AFM 和 AMM 增补页 M62/ AFM and AMM Supplement M62 must be furnished

OÄM 42-255 大型卫星上传/ Large Satellite Uplink

如果没有安装 MÄM 42-600，此设计更改仅在结合以下任一任务构型才可获批准

If MÄM 42-600 is not installed, this Design Change is approved only in combination with one of the following Mission Configurations:

- OÄM 42-170 机头吊舱/ Nose Pod
- OÄM 42-208 配装标准行李舱和机腹吊舱/ Nose Pod with standard baggage compartment

采用以下附加限制/ The following additional Limitations apply:

- 最大天线罩负荷/ Maximum load in Radome: 11kg
- 必须配备 AFM 增补页 M62 和 AMM 补充页 M20/ AFM Supplement M62 and AMM Supplement M20 must be furnished

8. 专用任务设备及其安装不在 DA42 M-NG 型号合格证中。设备的安装必须按相关的 AMM 增补页及按 CRI F-08 “任务设备的鉴定要求”中规定的设备鉴定要求来批准。

The specific mission equipment and its installations are not part of the DA 42 M-NG certification. Installation must be approved using the relevant AMM Supplement and the qualification criteria of CRI F-08 “Equipment Qualification for mission equipment”

9. 安装任务设备后，对行李舱负荷有附加限制，这些限制包含在相关的飞行手册增补页中。

Additional Limitations to the Baggage Compartment payload may apply after installation of mission equipment, these are included in the relevant Flight Manual Supplement

10. 当任务设备更改安装时，可能对机组、操作者或乘客有附加限制或要求，这些限制包含在相关的飞行手册增补页中。

Additional Limitations/Requirements for the Flight Crew/Operator or passenger may apply when the specific mission changes are installed. These Limitations are included in the relevant AFM Supplement.

11. 基本型 DA42 M-NG 及批准的接口已展示符合 ICAO (附件 8) 要求。对任何设备自身及其安装，展示符合 ICAO 附件 8 必须是每次安装批准的一部分，否则飞机不满足 ICAO 要求。

Compliance to ICAO Requirements (Annex 8) has been demonstrated for the basic DA 42 M-NG and its approved provisions only. For the mission equipment itself and its installation, demonstration of compliance to ICAO Annex 8 must be part of the individual installation approval otherwise this airplane does not comply with ICAO requirements.

12. 批准的其他燃油牌号见 AFM 第二章。

For additional approved Jet Fuel specifications see AFM Section 2.

JET A, JET A-1 (ASTM D 1655), TS-1 (Russia, GOST 10227-86), (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.

JET A, JET A-1 (ASTM D 1655), TS-1 (Russia, GOST 10227-86), (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.

13. 当安装 OÄM 42-199 时，需要撤去可调式升降舵止动点

The Variable Elevator Stop is removed with OÄM 42-199 installed.

14. 超重操作

当安装了设计更改 OÄM 42-221 “超重操作” 并且未安装 MÄM 42-678，某些类型任务的以下超重操作是经批准的。

AFM 增补页 M100, MTOM 2001 kg, MZFM 1835 kg

AFM 增补页 M101, MTOM 1995 kg, MZFM 1835 kg

这些操作受到具体的限制，例如舱外空气气温，结构温度，飞行员的经验，机动限制等，并且只有在安装了注释 7 规定的任务设备后才能有效。细节参考 AFM 增补页 M100 或 M101.

Overweight Operations`

When Design Change OÄM 42-221 “Overweight Operations” is installed and MÄM 42-678 is not installed, certain types of missions are approved for the following Overweight Operations.

AFM Supplement M100, MTOM 2001 kg, MZFM 1835 kg

AFM Supplement M101, MTOM 1995 kg, MZFM 1835 kg

These Operations are subject to specific limitations such as OAT (Outside Air Temperature), Structural Temperature, Pilot’ s Experience, Maneuver Limitations and only valid when Mission equipment as specified in Note 7 is installed. For details refer to AFM Supplement M100 or M101.

15. 只有在安装 OÄM 42-251 后，使用柴油燃料运行才是获批准的。

Operation with Diesel fuel is only approved, if OÄM 42-251 is installed.

16. 以下设计重量构型是经批准的

The following Design Mass Configurations are approved:

Design Changes installed 安装的设计更改	Standard 标准型	OÄM 42-221		MÄM 42-659	MÄM 42-659 and MÄM 42-678	MÄM 42-659 and MÄM 42-678 and OÄM 42-260
		AFMS M100	AFMS M101			
MTOM	1900 kg	2001 kg	1995 kg	1900 kg	1999 kg	2001 kg

	(4189 lb)	(4411 lb)	(4398 lb)	(4189 lb)	(4407 lb)	(4411 lb)
MZFM	1765 kg (3891 lb)	1835 kg (4045 lb)	1835 kg (4045 lb)	1835 kg (4045 lb)	1835 kg (4045 lb)	1835 kg (4045 lb)
MLM	1805 kg (3979 lb)	2001 kg (4411 lb)	1995 kg (4398 lb)	1900 kg (4189 lb)	1999 kg (4407 lb)	1999 kg (4407 lb)

MTOM - 最大起飞重量/ maximum take-off mass; MZFM - 最大零燃油重量/ maximum zero fuel mass; MLM - 最大着陆重量/ maximum landing mass

只有按 TC 持有人服务通告进行的设计更改改装才是经批准的。

The retrofit installation of the design changes is only approved per TC Holder Service Bulletins.

执行 OÄM 42-260 而获得最大起飞重量为 2001 kg (4411 lb)，仅是为了更适合于在最大起飞重量超过 2000kg 时进行操作的情况。在最大起飞重量 2001 kg (4407 lb)时，前重心限制在飞机基准面后的 2.434m (95.83 in)处。

The Maximum Take Off Mass of 2001 kg (4411 lb) per OÄM 42-260 is intended only for cases were operationally more suitable to have an MTOM above 2000 kg. The forward Center of Gravity Limit at MTOM 2001 kg (4407 lb) is 2.434 m (95.83 in) aft of datum plane.

17.螺旋桨 MTV-6-R-C-F/CF 190-69 的安装，只有在完整安装了包括一系列各种更改的设计更改 MÄM 42-600 后才是获批准的。

The installation of Propeller MTV-6-R-C-F/CF190-69 is only approved by complete installation of design change MÄM 42-600 which includes a number of different modifications.

- THE END -