TYPE-CERTIFICATE

DATA SHEET

EASA.A.005

DA 42

Diamond Aircraft Industries GmbH

N-A-Otto-Strasse 5
A-2700 Wiener Neustadt
Austria

For models: DA 42
DA 42 M
DA 42 NG
DA 42 M-NG

Issue 44: 30 August 2024

Content

ADMINISTRATIVE SECTION

SECTION A: DA 42

A.I. General

1. Data Sheet No.:	EASA.A.005
2. a) Type:	DA 42
b) Model:	DA 42
c) Variant:	--
3. Airworthiness Category:	JAR-23 Normal Category
4. Type Certificate Holder:	DIAMOND AIRCRAFT INDUSTRIES GMBH N.A. OTTO-STR. 5 A-2700 WIENER NEUSTADT AUSTRIA
5. Manufacturer:	DIAMOND AIRCRAFT INDUSTRIES GMBH N.A. OTTO-STR. 5 A-2700 WIENER NEUSTADT AUSTRIA DIAMOND AIRCRAFT INDUSTRIES INC. 1560 CRUMLIN SIDEROAD, LONDONONTARIO N5V 1S2 CANADA CETC WUHU DIAMOND AIRCRAFT MANUFACTURE CO., LTD. ANHUI XINWU ECONOMIC DEVELOPMENT ZONE, WUHU COUNTY PEOPLE'S REPUBLIC OF CHINA
6. Certification Application Date:	02-Apr-2002 (JAA Certification Application Date)
7. (Reserved)	N/A
8. (Reserved)	N/A

A.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	02-Apr-2002	
2. Airworthiness Requirements:	JAR-23, Amendment 1, issued 01 February 2001 JAR-1, Change 5, issued 15-Jul-1996	
3. Special Conditions:	CRI D-02	Variable Elevator Stop
	CRI E-02	Use of Jet Fuel for Reciprocating Engines
	CRI E-03	Use of Diesel Fuel for Reciprocating Engines
	CRI E-06	Engine Vibration Level
	CRI E-07	Engine Torque
	CRI F-01	Protection from the Effects of HIRF
	CRI F-03	Protection from the Effects ofLightning Strikes, Indirect Effects
	CRI F07	Human Factors in Integrated Avionic System
3. Exemptions:	None	
4. Deviations:	None	
5. Equivalent Safety Findings:	CRI D-01	Single Lever Power Control
	CRI E-04	Liquid Cooling – Coolant Tank
	CRI E-05	Electronically-controlled Reciprocating Diesel Engine
	CRI E-08	Fuel System – Hot Fuel Temperature
	CRI F-04	Power plant Instruments
	CRI B-03	Stall Speed in Icing Conditions
6. Requirements elected to comply:	With OÄM 42-324 installed: CS 23.2270 (a)-(d), (CS23/5)	
7. Environmental Standards:	ICAO, Annex 16, Volume 1, Third Edition, 1993, Amdt. 7 JAR 36, issued 23-May-1997 CRI A-03 for additional national requirements See Note 2	
8. (Reserved)	N/A	
9. (Reserved)	N/A	
10. Operational Suitability Requirements	OSD MMEL: CS-GEN-MMEL, Initial Issue dated 31 January 2014	

A.III. Technical Characteristics and Operational Limitations

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

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

3. Equipment: Equipment list, applicable AFM, Section 6,
See Note 3

4. Dimensions:

Span	13.42 m	(44 ft 0 in)
Length	8.56 m	(28 ft 1 in)
Height	2.49 m	(8 ft 2 in)
Wing Area	16.29 m²	(175.3 sqft)

5. Engine:

5.1.1 Model: 2 Technify Motors GmbH (formerly Thielert) TAE 125-01 or TAE 125-02-99 or TAE 125-02-114, see Note 4

5.1.2 Type Certificate: EASA Engine Type Certificate Data Sheet E.055

5.1.3 Limitations:

Max take-off rotational speed	2300 r.p.m.
Max continuous rotational speed (Propeller shaft r.p.m)	2300 r.p.m

For powerplant limits refer to applicable AFM, Section 2

5.1.4 Firmware: see DAI MSB 42-007 See Note 4

5.1.5 Mapping: see DAI MSB 42-007 See Note 4

6. Load factors:

	at v_A	at v_{NE}	with flaps in T/O or LDG position
Positive:	3.8	3.8	2.0
Negative	-1.52	0	

7. Propeller:

7.1 Model: 2 MT-Propeller MTV-6-A-C-F/CF187-129

7.2 Type Certificate: EASA Prop. Type Certificate Data Sheet P.094

7.3 Number of blades: 3

7.4 Diameter: 1870 mm

7.5 Sense of Rotation: CW

7.6 Setting:

Low pitch setting	12 °
Feather position	81 °
Start Lock	15°

8. Fluids:

8.1 Fuel:		Jet A-1 (ASTM 1655) see Note 8 Diesel (EN 590) see Note 7
8.2 Oil:	Engine	Shell Helix Ultra 5W30 synthetic API SJ/CF or see applicable AFM, Section 2
	Gearbox	Shell EP 75W90 API GL-4 or see applicable AFM, Section 2
8.3 Coolant:		Water / Cooler Protection for more details see applicable AFM, Section 2
8.4 Ice Protection Fluids:		AL-5 (DTD 406B) or Aeroshell Compound 07 for more details see applicable AFM, Suppl. S03

9. Fluid capacities:

9.1 Fuel:	Standard Fuel Tank		
	Total:	196.8 liters	52 US Gallons
	Usable:	189.2 liters	50 US Gallons
	Auxiliary Fuel Tank		
	Total:	104 liters	27,4 US Gallons
	Usable:	100 liters	26,4 US Gallons
9.2 Oil: each engine	Maximum:	6.0 liters	6.3 qts
	Minimum:	4.5 liters	4.8 qts
9.3 Coolant system capacity:	Approx. 7 Liter		

10. Air Speeds:

Design Manoeuvring Speed v_A	
up to 1542 kg	119 KEAS
above 1542 kg	125 KEAS
Flap Extended Speed v_{FE}	
Approach	135 KEAS
Landing	110 KEAS
Maximum Landing Gear Operation Speed v_{LO}	155 KEAS
Maximum Landing Gear Extended Speed v_{LE}	192 KEAS
Minimum Control Speed v_{MC}	68 KEAS
With OÄM 42-252 installed	72 KEAS
Maximum structural cruising speed v_{NO}	
(= Maximum structural design speed v_C)	155 KEAS
Never exceed speed v_{NE}	192 KEAS

11. Maximum Operating Altitude:	5486 m (18 000 ft)		
12. Allweather Operations Capability:	Day/Night-VFR, IFR Flights into known or forecast icing conditions See Note 5		
13. Maximum Weights:			
Take-off	1700 kg (3748 lb)		
	1785 kg (3935 Ib) MÄM 42-088 installed		
Zero Fuel	1650 kg (3638 lb)		
	1674 kg (3690 Ib) OÄM 42-188 installed		
	1730 kg (3814 Ib) OÄM 42-188 & -195 installed		
Landing	1700 kg (3748 lb)		
	1785 kg (3935 Ib) OÄM 42-195 installed		
	For approved Weight Configurations see Note 6		
14. Centre of Gravity Range			
Forward limit	Up to 1468 kg	2.35 m behind Datum	
	At 1785 kg	2.40 m behind Datum	
	Varying linearly with mass in between		
Rear limit	At 1250 kg	2.42 m behind Datum	
	At 1600 kg and above	2.49 m behind Datum	
	Varying linearly with mass in between		
15. Datum:	2.196 m in front of leading edge of stub-wing at the wing joint		
16. Control surface deflections:			
Aileron	trailing edge up	25º	± 2º
	trailing edge down	15º	+ 2° - 0º
Elevator	trailing edge up	15.5º	± 0.5º
	trailing edge down	13º	± 1º
Elevator Trim Tab	nose up at elevator neutral	58º	± 5º
	nose down at elevator neutral	25º	± 5º
Rudder	left	27º	± 1º
	right	29º	± 1º
Rudder Trim Tab	trim RH at rudder neutral	30º	+ 5° - 0º
	trim LH at rudder neutral	29º	+ 5° - 0º
	With OÄM 42-252 installed:		
	trim RH at rudder neutral	45º	± 3º
	trim LH at rudder neutral	41º	± 3º
Flaps	Cruise flap setting	0°	+ 2° - 0°
	Approach flap setting	20º	+ 4º - 2°
	Landing flap setting	42º	+ 3º - 1º

17. Levelling Means:	floor of front baggage compartment levelled	
18. Minimum Flight Crew:	1 (Pilot)	
19. Maximum Passenger Seating Capacity:	3	
20. Baggage/Cargo Compartments:	Location	max. allowable Load
	Front Baggage Compartment	30 kg (66 lb)
	Behind Rear Seats	45 kg (100 lb)
	Aft part of Baggage Extension	18 kg (40 lb)
	Whole aft Baggage Compartment together	45 kg (100 lbs)
21. Wheels and Tyres:	Nose Wheel Tyre Size 5.00 – 5	
	Main Wheel Tyre Size 15x6.0–6	
22. (Reserved):	N/A	

A.IV. Operating and Service Instructions

1.	Flight Manual: Document No. 7.01.05 or 7.01.06 (with OÄM 42-102, GFC 700 Autopilot) For TAE 125-02-114 equipped DA 42 (OÄM 42-252) AFM Supplement S07 applies
2.	Technical Manual: Airplane Maintenance Manual (AMM) Document No. 7.02.01 (incl. Airworthiness Limitations) Service Information and Service Bulletins
3.	Spare Parts Catalogue: Document No. 7.03.01
4.	Instruments and aggregates: refer to AMM Doc. No. 7.02.01, Chapter 1

A.V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.005 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

1. Master Minimum Equipment List (MMEL)

The MMEL is defined in the Document No: 7.11.01, Revision Original or later approved revisions.

A.VI. Notes:

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. 42.W001 and subsequent for production in Wuhu/China, see Note 9.
2. Approved Noise Levels in accordance to the EASA data sheet for noise TCDSN A.005.
3. 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 (Design Change MÄM 42-198), 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.
4. Approved engine model for installation in the DA 42:
   TAE 125-01 (Installation Variant 125-01-(017)-(), SB TAE 000-0007)
   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)
   Approved firmware and mapping in accordance with DAI MSB 42-007 at latest issue.
   Installation of engine types in pairs only.
   The TAE 125-02-99 engine was previously approved as TAE 125-02.
   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.
   Engine retrofit installation from engine TAE 125-01 or TAE 125-02-99 to TAE 125-02-114 is approved by Design Change OÄM 42-252 with OSB 42-117.
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. The following Design Mass Configurations are approved:

Design Changes installed	Standard	MÄM 42-088	MÄM 42-088 and OÄM 42-188	MÄM 42-088 and OÄM 42-188 and OÄM 42-195
MTOM	1700 kg (3748 lb)	1785 kg (3935 lb)	1785 kg (3935 lb)	1785 kg (3935 lb)
MZFM	1650 kg (3638 lb)	1650 kg (3638 lb)	1674 kg (3690 lb)	1730 kg (3814 lb)
MLM	1700 kg (3748 lb)	1700 kg (3748 lb)	1700 kg (3748 lb)	1785 kg (3935 lb)

MTOM – maximum take-off mass; MZFM – maximum zero fuel mass; MLM – maximum landing mass

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

7. The use of Diesel fuel (EN 590) is approved if Major Design Change MÄM 42-037 is installed.
8. For additional approved Jet Fuel specifications see applicable AFM, Section 2.
9. For serial number 42.W001 and subsequent produced in Wuhu/China under Chinese Production Certificate PC0030A, EASA is considered state of design. Pending a bilateral agreement between the People's Republic of China and the European Union (EU), this aircraft serial numbers are not eligible for registration in the EU. Spareparts with a Chinese Authorized Release Certificate are not eligible for EU registered aircraft.

SECTION B: DA 42 M

B.I. General

1. Data Sheet No.:	EASA.A.005
2. a) Type:	DA 42
b) Model:	DA 42 M
c) Variant:	--
3. Airworthiness Category:	JAR 23 Normal Category
4. Type Certificate Holder:	DIAMOND AIRCRAFT INDUSTRIES GMBH N.A. OTTO-STR. 5 A-2700 WIENER NEUSTADT AUSTRIA
5. Manufacturer:	DIAMOND AIRCRAFT INDUSTRIES GMBH N.A. OTTO-STR. 5 A-2700 WIENER NEUSTADT AUSTRIA CETC WUHU DIAMOND AIRCRAFT MANUFACTURE CO., LTD. ANHUI XINWU ECONOMIC DEVELOPMENT ZONE, WUHU COUNTY PEOPLE'S REPUBLIC OF CHINA
6. Certification Application Date:	01-Jun-2006
7. (Reserved)	N/A
8. (Reserved)	N/A

B.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	02-Apr-2002	
2. Airworthiness Requirements:	JAR-23, Amendment 1, issued 01 February 2001 JAR-1, Change 5, issued 15-Jul-1996	
3. Special Conditions:	CRI D-02	Variable Elevator Stop
	CRI E-02	Use of Jet Fuel for Reciprocating Engines
	CRI E-03	Use of Diesel Fuel for Reciprocating Engines

	CRI E-06	Engine Vibration Level
	CRI E-07	Engine Torque
	CRI F-01	Protection from the Effects of HIRF
	CRI F-03	Protection from the Effects of Lightning Strikes, Indirect Effects
	CRI F-07	Human Factors in Integrated Avionic System
3. Exemptions:	None	
4. Deviations:	None	
5. Equivalent Safety Findings:	CRI D-01	Single Lever Power Control
	CRI E-04	Liquid Cooling – Coolant Tank
	CRI E-05	Electronically-controlled Reciprocating Diesel Engine
	CRI E-08	Fuel System – Hot Fuel Temperature
	CRI F-04	Power plant Instruments
	CRI B-03	Stall Speed in Icing Conditions
6. Requirements elected to comply:	With OÄM 42-324 installed: CS 23.2270 (a)-(d), (CS23/5)	
7. Environmental Standards:	ICAO, Annex 16, Volume 1, Third Edition, 1993, Amdt. 7 JAR 36, issued 23-May-1997 CRI A-03 for additional national requirements See Note 2	
8. (Reserved)	N/A	
9. (Reserved)	N/A	
10. Operational Suitability Requirements	OSD MMEL: CS-GEN-MMEL, Initial Issue dated 31 January 2014	

B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition:	Current issue of Doc. No. 7.07.00, Chapter 7 including Design Changes MÄM 42-001 to 42-012 and following
2. Description:	Twin engine, four-seated cantilever low wing airplane, composite construction, retractable tricycle landing gear, T-tail The airplane is equipped with provisions for installation of various mission options.
3. Equipment:	Equipment list, applicable AFM, Section 6, and AFM Supplement M00 See Note 7

4. Dimensions:

Span	13.42 m	(44 ft 0 in)
Length	8.56 m	(28 ft 1 in)
Height	2.49 m	(8 ft 2 in)
Wing Area	16.29 m²	(175.3 sqft)

5. Engine:

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

5.1.2 Type Certificate: EASA Engine Type Certificate Data Sheet E.055

5.1.3 Limitations:

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

(Propeller shaft r.p.m)

For power-plants limits refer to applicable AFM, Section 2

5.1.4Firmware: see DAI MSB 42-007 See Note 3

5.1.5Mapping: see DAI MSB 42-007 See Note 3

6. Load factors:

	at v_A	at v_{NE}	with flaps in T/O or LDG position
Positive:	3.8	3.8	2.0
Negative	-1.52	0	

7. Propeller:

7.1 Model: 2 MT-Propeller MTV-6-A-C-F/CF187-129

7.2 Type Certificate: EASA Prop. Type Certificate Data Sheet P.094

7.3 Number of blades: 3

7.4 Diameter: 1870 mm

7.5 Sense of Rotation: CW

7.6 Settings:

Low pitch setting:	12 °
Feather position:	81 °
Start Lock:	15°

8. Fluids:

8.1 Fuel: Jet A-1 (ASTM 1655) see Note 6
Diesel (EN 590) see Note 5

8.2 Oil: Engine: Shell Helix Ultra 5W30 synthetic API SJ/CF
or see applicable AFM, Section 2

Gearbox: Shell EP 75W90 API GL-4
or see applicable AFM, Section 2

8.3 Coolant: Water / Cooler Protection
for more details see applicable AFM, Section 2

8.4 Ice Protection Fluids:	AL-5 (DTD 406B) or Aeroshell Compound 07 for more details see applicable AFM, Suppl. S03		
9. Fluid capacities:			
9.1 Fuel:	Standard Fuel Tank		
	Total:	196.8 liters	52 US Gallons
	Usable:	189.2 liters	50 US Gallons
	Auxiliary Fuel Tank		
	Total:	104 liters	27,4 US Gallons
	Usable:	100 liters	26,4 US Gallons
9.2 Oil: each engine	Maximum:	6.0 liters	6.3 qts
	Minimum:	4.5 liters	4.8 qts
9.3 Coolant system capacity:	Approx. 7 liters		
10. Air Speeds:	Design Manoeuvring Speed v_A		
	up to 1542 kg		119 KEAS
	above 1542 kg		125 KEAS
	Flap Extended Speed v_{FE}		
	Approach		135 KEAS
	Landing		110 KEAS
	Maximum Landing Gear Operation Speed v_{LO}		155 KEAS
	Maximum Landing Gear Extended Speed v_{LE}		192 KEAS
	Minimum Control Speed v_{MC}		68 KEAS
	With OÄM 42-252 installed		72 KEAS
	Maximum structural cruising speed v_{NO}		155 KEAS
	(= Maximum structural design speed v_C)		
	Never exceed speed v_{NE}		192 KEAS
11. Maximum Operating Altitude:	5486 m (18 000 ft)		
12. Allweather Operations Capability:	Day/Night-VFR, IFR Flights into known or forecast icing conditions See Note 4		
13. Maximum Weights:			
Take-off	1785 kg (3935 lb)		
Zero Fuel	1650 kg (3638 lb)		
	1674 kg (3690 lb) OÄM 42-188 installed		
	1730 kg (3814 lb) OÄM 42-188 & -195 installed		

Landing	1700 kg (3748 lb)	
	1785 kg (3935 Ib) OÄM 42-195 installed	
	For approved Weight Configurations see Note 8	

14. Centre of Gravity Range:

Forward limit		
Up to 1468 kg	2.35 m behind Datum	
At 1785 kg	2.40 m behind Datum	
	Varying linearly with mass in between	
Rear limit		
At 1250 kg	2.42 m behind Datum	
At 1600 kg and above	2.49 m behind Datum	
	Varying linearly with mass in between	

15. Datum: 2.196 m in front of leading edge of stub-wing at the wing joint

16. Control surface deflections:

Aileron	trailing edge up	25º	± 2º
	trailing edge down	15º	+ 2°- 0°
Elevator	railing edge up	15.5º	± 0.5º
	trailing edge down	13º	± 1º
Elevator Trim Tab	nose up at elevator neutral	28º	± 5º
	nose down at elevator neutral	25º	± 5º
Rudder	left	27º	± 1º
	right	29º	± 1º
Rudder Trim Tab	trim RH at rudder neutral	30º	+ 5°- 0°
	trim LH at rudder neutral	29º	+ 5°- 0°
	With OÄM 42-252 installed:		
	trim RH at rudder neutral	45º	± 3º
	trim LH at rudder neutral	41º	± 3º
Flaps	Cruise flap setting	0°	+ 2°- 0°
	Approach flap setting	20º	+ 4º - 2°
	Landing flap setting	42º	+ 3º - 1º

17. Levelling Means: floor of front baggage compartment levelled

18. Minimum Flight Crew: 1 (Pilot)

19. Maximum Passenger Seating Capacity: 3

20. Baggage/Cargo Compartments:

Location	max. allowable Load
Front Baggage Compartment	30 kg (66 lb)
Behind Rear Seats	45 kg (100 lb)
Aft part of Baggage Extension	18 kg (40 lb)

	Whole aft Baggage Compartment together	45 kg (100 lbs)
21. Wheels and Tyres:	Nose Wheel Tyre Size 5.00 – 5 Main Wheel Tyre Size 15x6.0–6	
22. (Reserved):	N/A	

B.IV. Operating and Service Instructions

1. Flight Manual: 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. Technical Manual: Airplane Maintenance Manual (AMM) Document No. 7.02.01 (incl. Airworthiness Limitations) Service Information and Service Bulletins

3. Spare Parts Catalogue: Document No. 7.03.01

4. Instruments and aggregates: refer to AMM Doc. No. 7.02.01 Chapter 1

B.V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.005 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

1. Master Minimum Equipment List (MMEL)
The MMEL is defined in the Document No: 7.11.01, Revision Original or later approved revisions.

B.VI. Notes:

1. 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 DA42 must be modified with Optional Service Bulletin OSB42-056 to comply with the DA42M type design. In addition 42.MW001 and subsequent for production in Wuhu/China, see Note 9.
2. 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. 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 42-117.
4. 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.
5. The use of Diesel fuel (EN 590) is approved if Major Design Change MÄM 42-037 is installed.
6. For additional approved Jet Fuel specifications see applicable AFM Section 2.
7. The basic DA42 M does not include provisions for specific mission purposes. The specific type design for mission equipment and its installations are not part of the DA42 M certification; this is approved only in accordance with EASA TCDS A.513
8. The following Design Mass Configurations are approved:

Design Changes installed	Standard	MÄM 42-088 and OÄM 42-188	MÄM 42-088 and 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 – maximum take-off mass; MZFM – maximum zero fuel mass; MLM – maximum landing mass

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

9. For serial number 42.MW001 and subsequent produced in Wuhu/China under Chinese Production Certificate PC0030A, EASA is considered state of design. Pending a bilateral agreement between the People's Republic of China and the European Union (EU), this aircraft serial numbers are not eligible for registration in the EU. Spareparts with a Chinese Authorized Release Certificate are not eligible for EU registered aircraft

SECTION C: DA 42 NG

C.I. General

1. Data Sheet No.:	EASA.A.005
2. a) Type:	DA 42
b) Model:	DA 42 NG
c) Variant:	--
3. Airworthiness Category:	JAR 23 Normal Category
4. Type Certificate Holder:	DIAMOND AIRCRAFT INDUSTRIES GMBH N.A. OTTO-STR. 5 A-2700 WIENER NEUSTADT AUSTRIA
5. Manufacturer:	DIAMOND AIRCRAFT INDUSTRIES GMBH N.A. OTTO-STR. 5 A-2700 WIENER NEUSTADT AUSTRIA DIAMOND AIRCRAFT INDUSTRIES INC. 1560 CRUMLIN SIDEROAD, LONDON ONTARIO N5V 1S2 CANADA CETC WUHU DIAMOND AIRCRAFT MANUFACTURE CO., LTD. ANHUI XINWU ECONOMIC DEVELOPMENT ZONE, WUHU COUNTY PEOPLE'S REPUBLIC OF CHINA
6. Certification Application Date:	17-Jan-2008
7. (Reserved)	N/A
8. (Reserved)	N/A

C.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	02-Apr-2002

2. Airworthiness Requirements:	JAR-23, Amendment 1, issued 01-Feb-2001 JAR-1, Change 5, issued 15-Jul-1996	
3. Special Conditions:	CRI D-02	Variable Elevator Stop
	CRI E-02	Use of Jet Fuel for Reciprocating Engines
	CRI E-03	Use of Diesel Fuel for Reciprocating Engines
	CRI E-04	Liquid Cooling – Coolant Tank
	CRI E-05	Electronically-controlled Reciprocating Diesel Engine
	CRI E-06	Engine Vibration Level
	CRI E-07	Engine Torque
	CRI F-01	Protection from the Effects of HIRF
	CRI F-03	Protection from the Effects of Lightning Strikes, Indirect Effects
	CRI F-04	Power plant Instruments
	CRI F-07	Human Factors in Integrated Avionic System
3. Exemptions:	None	
4. Deviations:	None	
5. Equivalent Safety Findings:	CRI E-10	Electrical Fuel Pump
6. Requirements elected to comply:	CS 23.1507 (CS 23/0) CS 23.49 (CS 23/1) CS 23.562 (CS 23/1) With OÄM 42-324 installed: CS 23.2270 (a)-(d), (CS23/5)	
7. Environmental Standards:	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	
8. (Reserved)	N/A	
9. (Reserved)	N/A	
10. Operational Suitability Requirements	OSD MMEL: CS-GEN-MMEL, Initial Issue dated 31 January 2014	

C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition:	Current issue of Doc. No. 7.07.00, Chapter V004/7including Design Changes VÄM 42-004, MÄM 42-313, MÄM 42-316 to 318, 42-322, 42-325 and following			
2. Description:	Twin engine, four-seated cantilever low wing airplane, composite construction, retractable tricycle landing gear, T-tail			
3. Equipment:	Equipment list, AFM, Section 6, see Note 3			
4. Dimensions:	Span	13.42 m	(44 ft 0 in)	
	Length	8.56 m	(28 ft 1 in)	
	Height	2.49 m	(8 ft 2 in)	
	Wing Area	16.29 m²	(175.3 sqft)	
5. Engine:				
5.1.1 Model:	2 Austro Engine E4 see Note 4			
5.1.2 Type Certificate:	EASA Engine Type Certificate Data Sheet E.200			
5.1.3 Limitations:	Max take-off rotational speed (5 min.)			2300 r.p.m.
	Max continuous rotational speed (Propeller shaft r.p.m)			2100 r.p.m
	with MÄM 42-600 installed			2300 r.p.m
	Max T/O Power (5min)		100%	(123,5 kW)
	Max. continuous Power		92%	(114 kW)
	For power-plants limits refer to AFM, Section 2			
5.1.4Firmware:	see DAI MSB 42NG-002			See Note 4
5.1.5Mapping:	see DAI MSB 42NG-002			See Note 4
6. Load factors:		at v_A	at v_{NE}	with flaps in T/O or LDG position
	Positive:	3.8	3.8	2.0
	Negative	-1.52	0	
7. Propeller:				
7.1 Model:	2 MT-Propeller MTV-6-R-C-F/CF187-129 or 2 MT-Propeller MTV-6-R-C-F/CF 190-69 see Note 8			
7.2 Type Certificate:	EASA Prop. Type Certificate Data Sheet P.094 See note 5			
7.3 Number of blades:	3			
7.4 Diameter:	1870 mm or 1900 mm (MÄM 42-600)			
7.5 Sense of Rotation:	CW			

7.6 Settings:	Low pitch setting	12 ° 13° (MÄM 42-600)
	Feather position:	81 ° 80° (MÄM 42-600)
	Start Lock:	15°

8. Fluids:

8.1 Fuel:		Jet A-1 (ASTM 1655), see note 7 Diesel (EN590), see note 11
8.2 Oil:	Engine:	Shell Helix Ultra 5W30 or 5W40 or see AFM, Section 2
	Gearbox:	Shell SPIRAX GSX 75W-80 or Shell SPIRAX S6 GXME 75W-80 or see AFM, Section 2
8.3 Coolant:		Water / Cooler Protection for more details see AFM, Section 2
8.4 Ice Protection Fluids:		AL-5 (DTD 406B) or Aeroshell Compound 07 for more details see AFM, Suppl. S03

9. Fluid capacities:

9.1 Fuel:	Standard Fuel Tank		
	Total:	196.8 liters	52 US Gallons
	Usable:	189.2 liters	50 US Gallons
	Auxiliary Fuel Tank		
	Total:	104 liters	27,4 US Gallons
	Usable:	100 liters	26,4 US Gallons
9.2 Oil: each engine	Maximum:	7 liters	
	Minimum:	5 liters	
9.3 Coolant system capacity:	Approx. 7 liters		

10. Air Speeds:	Design Manoeuvring Speed v_A	
	up to 1700 kg	114 KEAS
	1701 to 1800 kg	121 KEAS
	above 1800 kg	125 KEAS
	Flap Extended Speed v_{FE}	
	Approach	135 KEAS
	Landing	110 KEAS
	Maximum Landing Gear Operation Speed v_{LO}	155 KEAS

	Maximum Landing Gear Extended Speed v_{LE} 192 KEAS
	Minimum Control Speed Airborne v_{MCA} 75 KEAS MÄM 42-600 70 KEAS
	Maximum structural cruising speed v_{NO} (= Maximum structural design speed v_C) 155 KEAS
	Never exceed speed v_{NE} 192 KEAS
11. Maximum Operating Altitude:	5486 m (18 000 ft)
12. Allweather Operations Capability:	Day/Night-VFR, IFR Flights into known or forecast icing conditions See Note 6
13. Maximum Weights:	See Note 12
Take-off	1900 kg (4189 lb)
If MÄM 42-678 is installed	1999 kg (4407 lb)
Zero Fuel	1765 kg (3891 lb)
If MÄM 42-659 is installed	1835 kg (4045 lb)
Landing	1805 kg (3979 lb)
If MÄM 42-659 is installed	1999 kg (4407 lb)
14. Centre of Gravity Range:	Forward limit
At 1450 kg	2.350 m behind Datum
At 1468 kg	2.350 m behind Datum
At 1900 kg	2.418 m behind Datum
If MÄM 42-678 is installed	
At 1999 kg	2.434 m behind Datum
	Varying linearly with mass in between
Rear limit	
At 1450 kg	2.454 m behind Datum
At 1700 kg and above	2.480 m behind Datum
	Varying linearly with mass in between
If OÄM 42-199 is installed (see note 10):	
For all weights	2.450 m behind Datum
If OÄM 42-199 and MÄM 42-600 are installed: (see note 10)	
At 1450 kg	2.454 m behind Datum
At 1510 kg and above	2.460 m behind Datum

15. Datum:	2.196 m in front of leading edge of stub-wing at the wing joint			
16. Control surface deflections:				
	Aileron	trailing edge up	25º	± 2º
		trailing edge down	15º	+2/-0º
	Elevator	trailing edge up	15.5º	± 0.5º
		trailing edge down	13º	± 1º
	Elevator Trim Tab	nose up at elevator neutral	28º	± 5º
		nose down at elevator neutral	25º	± 5º
	Rudder	left	27º	± 1º
		right	29º	± 1º
	Rudder Trim Tab	trim RH at rudder neutral	45º	± 3º
		trim LH at rudder neutral	41º	± 3º
		with MÄM 42-600 installed:		
		trim RH at rudder neutral	43º	± 3º
		trim LH at rudder neutral	39º	± 5º
		with MÄM 42-600 and MÄM 42-885 installed:		
		trim RH at rudder neutral	48º	± 3º
	Flaps	trim LH at rudder neutral	36°	± 5º
		Cruise flap setting	0°	+ 2°- 0°
		Approach flap setting	20º	+ 4º - 2°
		Landing flap setting	42º	+3º - 1º
17. Levelling Means:	floor of front baggage compartment levelled			
18. Minimum Flight Crew:	1 (Pilot)			
19. Maximum Passenger Seating Capacity:	3			
20. Baggage/Cargo Compartments:	Location		max. allowable Load	
	Front Baggage Compartment		30 kg (66 lb)	
	Behind Rear Seats		45 kg (100 lb)	
	Aft part of Baggage Extension		18 kg (40 lb)	
	Whole aft Baggage Compartment together		45 kg (100 lbs)	
21. Wheels and Tyres:	Nose Wheel Tyre Size	5.00 – 5		
	Main Wheel Tyre Size	15x6.0–6 see Note 9		
22. (Reserved):	N/A			

C.IV. Operating and Service Instructions

1. Flight Manual: Document No. 7.01.15 or 7.01.16 (MÄM 42-600 installed)

2. Technical Manual: Airplane Maintenance Manual (AMM) Document No. 7.02.15 (incl. Airworthiness Limitations) Service Information and Service Bulletins

3. Spare Parts Catalogue (IPC): Document No. 7.03.15

4. Instruments and aggregates: refer to AMM Doc. No. 7.02.15 Chapter 1

C.V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.005 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

1. Master Minimum Equipment List (MMEL)

The MMEL is defined in the Document No: 7.11.01, Revision Original or later approved revisions.

C.VI. Notes:

1. This certification applies to serial numbers 42.339, 42.379, 42.N001 and subsequent, 42.N.A.A.001 and subsequent for production at Diamond-Austria, 42.NC001 and subsequent for production at Diamond-Canada. 42.NW002 and subsequent for production in Wuhu/China, see Note 14. DA42 may be converted to Model DA 42 NG by DAI approved SB OSB 42-068.
2. Approved Noise Levels in accordance to the EASA data sheet for noise TCDSN A.005.
3. 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. Approved engine model for installation in the DA 42 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. Propeller Equipment: Governor P-877-16
6. Flights into known or forecast icing conditions is approved if the liquid fluid ice protection system in accordance to Major Design Change OÄM 42-160 is installed.
7. For additional approved Jet Fuel specifications see AFM Section 2.
8. The installation of Propeller MTV-6-R-C-F/CF 190-69 is only approved by complete installation of design change MÄM 42-600 which includes a number of different modifications.
9. Only specific brand names and types of tires are allowed for installation, see AMM and IPC
10. The Variable Elevator Stop is removed with OÄM 42-199 installed.

11. Operation with Diesel fuel is only approved if OÄM 42-251.
12. The following Design Mass Configurations are approved:

Design Changes installed	Standard	MÄM 42-659	MÄM 42-659 and MÄM 42-678	MÄM 42-659 and MÄM 42-678 and OÄM 42-260
MTOM	1900 kg (4189 lb)	1900 kg (4189 lb)	1999 kg (4407 lb)	2001 kg (4411 lb)
MZFM	1765 kg (3891 lb)	1835 kg (4045 lb)	1835 kg (4045 lb)	1835 kg (4045 lb)
MLM	1805 kg (3979 lb)	1900 kg (4189 lb)	1999 kg (4407 lb)	1999 kg (4407 lb)

MTOM – maximum take-off mass; MZFM – maximum zero fuel mass; MLM – maximum landing mass

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

The Maximum Take Off Mass of 2001 kg (4411 lb) per OÄM 42-260 is intended only for cases where it is operationally more suitable to have a 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.

13. The commercial designation of the DA 42 NG with MÄM 42-600 installed is DA42-VI.
14. For serial number 42.NW002 and subsequent produced in Wuhu/China under Chinese Production Certificate PC0030A, EASA is considered state of design. Pending a bilateral agreement between the People's Republic of China and the European Union (EU), this aircraft serial numbers are not eligible for registration in the EU. Spareparts with a Chinese Authorized Release Certificate are not eligible for EU registered aircraft.

SECTION D: DA 42 M-NG

D.I. General

1. Data Sheet No.:	EASA.A.005
2. a) Type:	DA 42
b) Model:	DA 42 M-NG
c) Variant:	--
3. Airworthiness Category:	JAR 23 Normal Category
4. Type Certificate Holder:	DIAMOND AIRCRAFT INDUSTRIES GMBH N.A. OTTO-STR. 5 A-2700 WIENER NEUSTADT AUSTRIA
5. Manufacturer:	DIAMOND AIRCRAFT INDUSTRIES GMBH N.A. OTTO-STR. 5 A-2700 WIENER NEUSTADT AUSTRIA CETC WUHU DIAMOND AIRCRAFT MANUFACTURE CO., LTD. ANHUI XINWU ECONOMIC DEVELOPMENT ZONE, WUHU COUNTY PEOPLE'S REPUBLIC OF CHINA
6. Certification Application Date:	12-Nov-2008
7. (Reserved)	N/A
8. (Reserved)	N/A

D.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	02-Apr-2002	
2. Airworthiness Requirements:	JAR-23, Amendment 1, issued 01-Feb-2001 JAR-1, Change 5, issued 15-Jul-1996	
3. Special Conditions:	CRI D-02	Variable Elevator Stop
	CRI E-02	Use of Jet Fuel for Reciprocating Engines
	CRI E-03	Use of Diesel Fuel for Reciprocating Engines

	CRI E-04	Liquid Cooling – Coolant Tank
	CRI E-05	Electronically-controlled Reciprocating Diesel Engine
	CRI E-06	Engine Vibration Level
	CRI E-07	Engine Torque
	CRI F-01	Protection from the Effects of HIRF
	CRI F-03	Protection from the Effects ofLightning Strikes, Indirect Effects
	CRI F-04	Power plant Instruments
	CRI F-07	Human Factors in Integrated Avionic System
3. Exemptions:	None	
4. Deviations:	None	
5. Equivalent Safety Findings:	CRI E-10	Electrical Fuel Pump
6. Requirements elected to comply:	CS 23.1507 (CS 23/0) CS 23.49 (CS 23/1) CS 23.562 (CS 23/1) With OÄM 42-324 installed: CS 23.2270 (a)-(d), (CS23/5)	
7. Environmental Standards:	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	
8. (Reserved)	N/A	
9. (Reserved)	N/A	
10. Operational Suitability Requirements	OSD MMEL: CS-GEN-MMEL, Initial Issue dated 31 January 2014	

D.III. Technical Characteristics and Operational Limitations

1. Type Design Definition:	Current issue of Doc. No. 7.07.00, Chapter V005/7including Design Changes VÄM 42-004 and VÄM 42-005
2. Description:	Twin engine, four-seated cantilever low wing airplane, composite construction, retractable tricycle landing gear, T-tail

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

3. Equipment: Equipment list, AFM, Section 6,and AFM Supplement M00
See Notes 3 and 7

4. Dimensions:

Span	13.42 m	(44 ft 0 in)
Length	8.56 m	(28 ft 1 in)
Height	2.49 m	(8 ft 2 in)
Wing Area	16.29 m²	(175.3 sqft)

5. Engine:

5.1.1 Model: 2 Austroengine E4 see Note 4

5.1.2 Type Certificate: EASA Engine Type Certificate Data Sheet E.200

5.1.3 Limitations:

Max take-off rotational speed (5 min.)	2300 r.p.m.
Max continuous rotational speed	2100 r.p.m
	(Propeller shaft r.p.m)
with MÄM 42-600 installed	2300 r.p.m
Max T/O Power (5min)	100%(123,5 kW)
Max. continuous Power	92% (114 kW)

For power-plants limits refer to AFM, Section 2

5.1.4Firmware: see DAI MSB 42NG-002 See Note 4

5.1.5Mapping: see DAI MSB 42NG-002 See Note 4

6. Load factors:

	at v_A	at v_{NE}	with flaps in T/O or LDG position
Positive:	3.8	3.8	2.0
Negative	-1.52	0	

7. Propeller:

7.1 Model: 2 MT-Propeller MTV-6-R-C-F/CF187-129 or
2 MT-Propeller MTV-6-R-C-F/CF 190-69 see Note 12

7.2 Type Certificate: EASA Prop. Type Certificate Data Sheet P.094
See note 5

7.3 Number of blades: 3

7.4 Diameter: 1870 mm or 1900 mm (MÄM 42-600)

7.5 Sense of Rotation: CW

7.6 Settings:

Low pitch setting:	12°
	13° (MÄM 42-600)
Feather position:	81°

		80° (MÄM 42-600)
	Start Lock:	15°

8. Fluids:

8.1 Fuel:		Jet A-1 (ASTM 1655), see note 8 Diesel (EN590), see note 10
8.2 Oil:	Engine:	Shell Helix Ultra 5W30 or 5W40 or see AFM, Section 2
	Gearbox:	Shell SPIRAX GSX 75W-80 or see AFM, Section 2
8.3 Coolant:		Water / Cooler Protection for more details see AFM, Section 2
8.4 Ice Protection Fluids:		AL-5 (DTD 406B) or Aeroshell Compound 07 for more details see AFM, Suppl. S03

9. Fluid capacities:

9.1 Fuel:	Standard Fuel Tank		
	Total:	196.8 liters	52 US Gallons
	Usable:	189.2 liters	50 US Gallons
	Auxiliary Fuel Tank		
	Total:	104 liters	27,4 US Gallons
	Usable:	100 liters	26,4 US Gallons
9.2 Oil: each engine	Maximum:	7 liters	
	Minimum:	5 liters	
9.3 Coolant system capacity:	Approx. 7 liters		

11. Air Speeds:	Design Manoeuvring Speed v_A	
	up to 1700 kg	114 KEAS
	1701 to 1800 kg	121 KEAS
	above 1800 kg	125 KEAS
	Flap Extended Speed v_{FE}	
	Approach	135 KEAS
	Landing	110 KEAS
	Maximum Landing Gear Operation Speed v_{LO}	155 KEAS
	Maximum Landing Gear Extended Speed v_{LE}	192 KEAS
	Minimum Control Speed Airborne v_{MCA}	75 KEAS
	MÄM 42-600	70 KEAS

	Maximum structural cruising speed v_{NO}		
	(= Maximum structural design speed v_C)		
			155 KEAS
	Never exceed speed v_{NE}		192 KEAS
11. Maximum Operating Altitude:	5486 m (18 000 ft)		
12. Allweather Operations Capability:	Day/Night-VFR, IFR		
	Flights into known or forecast icing conditions		
	See Note 6		
13. Maximum Weights:	See Note 11		
Take-off			1900 kg (4189 lb)
	If MÄM 42-678 is installed		1999 kg (4407 lb)
Zero Fuel			1765 kg (3891 lb)
	If MÄM 42-659 is installed		1835 kg (4045 lb)
Landing			1805 kg (3979 lb)
	If MÄM 42-659 is installed		1999 kg (4407 lb)
14. Centre of Gravity Range:	Forward limit		
	At 1450 kg		2.350 m behind Datum
	At 1468 kg		2.350 m behind Datum
	At 1900 kg		2.418 m behind Datum
	If MÄM 42-678 is installed		
	At 1999 kg		2.434 m behind Datum
			Varying linearly with mass in between
	Rear limit		
	At 1450 kg		2.454 m behind Datum
	At 1700 kg and above		2.480 m behind Datum
			Varying linearly with mass in between
	If OÄM 42-199 is installed (see note 9):		
	For all weights		2.450 m behind Datum
15. Datum:	2.196 m		in front of leading edge of stub-wing at the wing joint

16. Control surface deflections:

Aileron	trailing edge up	25º	± 2º
	trailing edge down	15º	+ 2° - 0º
Elevator	railing edge up	15.5º	± 0.5º
	trailing edge down	13º	± 1º
Elevator Trim Tab	nose up at elevator neutral	28º	± 5º
	nose down at elevator neutral	25º	± 5º
Rudder	left	27º	± 1º

	right	29º	± 1º
Rudder Trim Tab	trim RH at rudder neutral	45º	± 3º
	trim LH at rudder neutral	41º	± 3º
	with MÄM 42-600 and MÄM 42-885 installed:		
	trim RH at rudder neutral	48º	± 3º
	trim LH at rudder neutral	36°	± 5º
Flaps	Cruise flap setting	0°	+ 2° - 0°
	Approach flap setting	20º	+ 4º - 2°
	Landing flap setting	42º	+ 3º - 1º

17. Levelling Means: floor of front baggage compartment levelled

18. Minimum Flight Crew: 1 (Pilot)

19. Maximum Passenger Seating Capacity: 3

20. Baggage/Cargo Compartments:

Location	max. allowable Load
Front Baggage Compartment	30 kg (66 lb)
Behind Rear Seats	45 kg (100 lb)
Aft part of Baggage Extension	18 kg (40 lb)
Whole aft Baggage Compartment together	45 kg (100 lbs)

21. Wheels and Tyres: Nose Wheel Tyre Size 5.00 – 5
Main Wheel Tyre Size 15x6.0–6

22. (Reserved): N/A

D.IV. Operating and Service Instructions

1. Flight Manual: Document No. 7.01.15 or 7.01.16 (MÄM 42-600 installed) including AFM Supplement M00

2. Technical Manual: Airplane Maintenance Manual (AMM) Document No. 7.02.15 (incl. Airworthiness Limitations)including Supplement M00,
3. Service Information and Service Bulletins
4. Spare Parts Catalogue: Document No. 7.03.15
5. Instruments and aggregates: refer to AMM Doc. No. 7.02.15 Chapter 1

D.V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.005 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

1. Master Minimum Equipment List (MMEL)

The MMEL is defined in the Document No: 7.11.01, Revision Original or later approved revisions.

D.VI. Notes:

1. This certification applies to serial numbers 42.339, 42.MN001 and subsequent for production at Diamond-Austria. 42.MNW001 and subsequent for production in Wuhu/China, see Note 13. DA 42 M may be converted to Model DA 42 M-NG by DAI approved SB OSB 42-081. Serial Number 42.009 may be converted to DA 42 M-NG by OÄM 42-296. Serial Number 42.N034 may be converted to DA 42 M-NG by OÄM 42-295.
2. Approved Noise Levels in accordance to the EASA data sheet for noise TCDSN A.005.
3. 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. Approved engine model for installation in the DA 42 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. Propeller Equipment : Governor: P-877-16
6. Flights into known or forecast icing conditions is approved if the liquid fluid ice protection system in accordance to Major Design Change OÄM 42-160 is installed.
7. The basic DA42 M-NG does not include provisions for specific mission purposes.

   The specific type design for mission equipment and its installations are not part of the DA42 M-NG certification; this is approved only in accordance to EASA TCDS A.513

   For the purpose of a later on STC or installation of mission equipment that can fully comply with the standard TC Basis the following Modifications are approved for installation.

   <u>OÄM 42-241 Belly Pod (Std. TC)</u>

   The following additional Limitations apply:

   - Flights into known or forecast icing conditions prohibited
   - AFM and AMM Supplement M07 must be furnished

   <u>OÄM 42-228 Universal Nose Std. TC</u>

   The following additional Limitations apply:

   - Flights into known or forecast icing conditions prohibited
   - Most rearward flight CG: 2,45 m aft of Datum at 1510 kg
     2,47 m aft of Datum at 1700 kg and above
     Linear variation in between
     If the Belly Recce Pod without the Universal Nose is installed:
     2.454 m aft of Datum at 1450 kg

2.480 m aft of Datum at 1700 kg and above
Linear variation in between

If OÄM 42-199 is installed (see note 09):
for all weights 2,45 m aft of Datum

- AFM and AMM Supplement M05 must be furnished

OÄM 42-240 Nose Pod (Std. TC)

The following additional Limitations apply:

- Flights into known or forecast icing conditions prohibited
- Most rearward flight CG: 2,44 m aft of Datum at 1510 kg
  2,46 m aft of Datum at 1700 kg and above
  Linear variation in between

  If OÄM 42-199 is installed (see note 09):
  2,44 m aft of Datum at 1510 kg
  2,45 m aft of Datum at 1605 kg and above
  Linear variation in between
- AFM and AMM Supplement M06 must be furnished

OÄM 42-342 GeoStar Pod (Std. TC)

The following additional Limitations apply:

- Flights into known or forecast icing conditions prohibited
- AFM and AMM Supplement M09 must be furnished

8. For additional approved Jet Fuel specifications see AFM Section 2.
9. The Variable Elevator Stop is removed with OÄM 42-199 installed.
10. Operation with Diesel fuel is only approved, if OÄM 42-251 is installed.
11. The following Design Mass Configurations are approved:

Design Changes installed	Standard	MÄM 42-659	MÄM 42-659 and MÄM 42-678	MÄM 42-659 and MÄM 42-678 and OÄM 42-260
MTOM	1900 kg (4189 lb)	1900 kg (4189 lb)	1999 kg (4407 lb)	2001 kg (4411 lb)
MZFM	1765 kg (3891 lb)	1835 kg (4045 lb)	1835 kg (4045 lb)	1835 kg (4045 lb)
MLM	1805 kg (3979 lb)	1900 kg (4189 lb)	1999 kg (4407 lb)	1999 kg (4407 lb)

MTOM – maximum take-off mass; MZFM – maximum zero fuel mass; MLM – maximum landing mass

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

The Maximum Take Off Mass of 2001 kg (4411 lb) per OÄM 42-260 is intended only for cases where it is operationally more suitable to have a 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.

12. The installation of Propeller MTV-6-R-C-F/CF 190-69 is only approved by complete installation of design change MÄM 42-600 which includes a number of different modifications.
13. For serial number 42.MNW001 and subsequent produced in Wuhu/China under Chinese Production Certificate PC0030A, EASA is considered state of design. Pending a bilateral agreement between the People's Republic of China and the European Union (EU), this aircraft serial numbers are not eligible for registration in the EU. Spareparts with a Chinese Authorized Release Certificate are not eligible for EU registered aircraft.

ADMINISTRATIVE SECTION

I. Acronyms

N/A

II. Type Certificate Holder Record

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

III. Change Record

Issue	Date	Changes	TC Issue No.& Date
Issue 1	13-May-2004	Initial Issue	13-May-2004
Issue 2	17-Dec-2004	Changed to reflect IFR certification	
Issue 3	29-Sep-2005	Page 1: Issue 3 added Page1, List of effective pages: page "9" added Page 2: Section 3 added Page 3, Section 1, I: Issue to 3 changed Page 3. Section 1, II: Exemption deleted not applicable in EASA Page 4, Section 1, II.9: CRI E-04 added Page 4, Section 1, III.5.1: reference changed from SI 42-002 to MSB 42-007 Page 4, Section 1, III.5.2: reference changed from SI 42-003 to MSB 42-008 Page 5, Section 1, III.8.3: "Distilled Water" changed to "Water" Page 7, Section 1, V.3: reference changed from SI 42-002 to MSB 42-007 Page 7, Section 1, V.4: reference changed from SI 42-003 to MSB 42-008 Page 9, Section 3: Section 3 added completely	
Issue 4	16-Dec-2005	OÄM 42-056 Auxiliary fuel tank OÄM 42-054 Flights into known icing conditions MÄM 42-037 Diesel Fuel Operation MÄM 42-088 Take off mass 1785 kg Page 3, Section 1, II.7 : add CRI E-03 Page 4, Section 1, II.9 : add CRI B-03 Page 5, Section 1, III.8 : add 8.1 Diesel (EN 590) and 8.4 Ice protection fluid Page 5, Section 1, III.9.1 : add Auxiliary fuel tank Page 5, Section 1, III.10 : add and change design manoeuvring speed Page 5, Section 1, III.12 : add known icing Page 5, Section 1, III.13 : add 1785 kg Page 5, Section 1, III.14: change cg range up to 1785 kg Page 7, Section 1, V: add Notes 5,6,7, noise level in note 2	

		Page 7, Section 1, V: add in Notes 1, excluding Sno. 42L.001 and 42L.002	
Issue 5	24-April-2006	Canadian Production Fuel Changes from Engine Certification Misprint correction of VLO Page 3, Section 1, I.4: add Diamond CanadaPage 4, Section 1, III.5: change JAA TCDS in EASA TCDS Page 5, Section 1, III.10: VLO corrected misprint since initial version Page 7. Section 1, V.8: add approved jet fuel variants	
Issue 6	21-Dec-2006	MÄM 42-198 Engine TAE 125-02 Page 4, Section 1, III.5 : add TAE 125-02 Page 7. Section 1, V.2 : add noise level for TAE 125-02 Page 7. Section 1, V.3 : add minimum Garmin software version for TAE 125-02 Page 7. Section 1, V.4 : add engine model for TAE 125-02 Page 7. Section 1, V.9 : add note 9 retrofit for TAE 125-02	
Issue 7	11-Jun-2007	Engine TAE 125-02 renamed TAE 125-02-99 Page 4, Section 1, III.5 Page 7. Section 1, V.2 Page 7. Section 1, V.3 Page 7. Section 1, V.4 Page 7. Section 1, V.9	
Issue 8	14-Dec-2007	DA 42 M Model Page 7, Section 1, A.V. 9: OSB 42-033 changed to OSB 42-046	14-Dec-2007
Issue 9	02-Apr-2008	OÄM 42-102 Autopilot Garmin GFC 700 Page 6. Section 1, AIV AFM Page 11.Section 2, BIV AFM	
Issue 10	09-Mar-2009	VÄM 42-004 Model DA 42 NG, P-EASA.A.C.09012 Section 3 complete new	09-Mar-2009
Issue 11	09-Jun-2009	VÄM 42-005 Model DA 42 M-NG, P-EASA.A.C.11271 Section 4 complete new OÄM 42-160 “Flights into Known Icing for DA42 NG” Page 15, Section 3,C.III.12, All weather capability Page 17, Section 3,CV.6, Note	09-Jun-2009
Issue 12	09-Jul-2009	OÄM 42-175 Fuel TS-1; P-EASA.A.C.12574 BV Note 6 and AV Note 8	
Issue 13	17-Mar-2010	Administrative Changes Coverpage Page Change Record has been removed no longer required D.V. Note 1 Conversion SB added	
Issue 14	16-Jul-2010	OÄM 42-188 Increase of the maximum Zero Fuel Weight , EASA Project Nr. 0010004589-001 including OÄM 42-195 maximum Landing mass 1785 kg AIII.13 weights changed AV. Note 6 changed BIII.13 weights changed BV. Note 8 added Format modified to standard EASA TCDS format.	
Issue 15	13-Dec-2010	Inclusion of Production in Canada for Model DA 42 NG TS-1 fuels for models DA 42 NG, DA 42 M-NG Editorial Changes	
Issue 16	26-April-2011	Section C.V, Note 7; D.V, Note 8: Additional Fuel Grades added, EASA Project No. 0010010748-001	
Issue 17	15-Sep-2011	Section A.V, Note 8; B.V, Note 6; C.V, Note 7; D.V, Note 8: General Ref. to AFM	

Issue 18	12-April-2012	MÄM 42-600 Performance Enhancement ,EASA Project Number 0010015152 Section C.III. 16, 9,7,5; Section C.IV.5.AFM New; Section C.V. Note 4, Note 8,9 added Editorial changes	
Issue 19	06-Dec-2012	Editorial Changes CRI F-05 deleted in accordance to CRI A-01	
Issue 20	18-Dec-2012	Section C and D: OÄM 42-199 Removal of Variable Elevator Stop – aft CG Limits EASA Project No. 0010007850-001	
Issue 21	06-Feb-2013	Conversion error corrected Section D.V, Note 1: S/N 42.339 included	
Issue 22	14-Jun-2013	Section D.V. Note 7 OÄM 42-240,-241,-228b Nose and Belly Container on Standard TC EASA Project 0010021849	
Issue 23	19-Dec-2013	Section B.III., 5.1.1 Engine TC-Holder Change Section D.III., 8.1 Diesel fuel Operation Section D.V., 10 OÄM 42-251 EASA 0010026322	
Issue 24	25-April-2014	Section C.II 6: CS 23.49, CS 23.562 Section C.III 13 and 14: MTOM and MLM 1999 kg added, MZFM 1835 kg added, CG Limits updated. Section C.V Note 12 added. Section D.II 6: CS 23.49, CS 23.562 Section D.III 13 and 14: MTOM and MLM 1999 kg added, MZFM 1835 kg added, CG Limits updated. Section D.V Note 7 updated, Note 11 added. EASA 0010018576	
Issue 25	03-Dec-2014	Section A.III: replaced reference to AFM Doc No. 7.01.0X with „applicable AFM“ Section A.III 5.1.1: TAE 125-02-114 engine added Section A.III 10: Vmc with TAE 125-02-114 installed updated Section A.III 16: Rudder Trim Tab deflection with TAE 125-02-114 installed updated Section A.IV 1: Added reference to TAE 125-02-114 AFMS S07 Section A.V Note 3: Garmin Software with TAE 125-02-114 installed updated Section A.V Note 4: TAE 125-02-114 engine added, Installation Variants clarified Section B.III: replaced reference to AFM Doc No. 7.01.0X with „applicable AFM“ Section B.III 5.1.1: TAE 125-02-114 engine added Section B.III 10: Vmc with TAE 125-02-114 installed updated Section B.III 16: Rudder Trim Tab deflection with TAE 125-02-114 installed updated Section B.IV 1: Added reference to TAE 125-02-114 AFMS S07 Section B.V Note 2: Garmin Software for different engine models updated Section B.V Note 3: TAE 125-02-114 engine added, Installation Variants clarified EASA 0010027848	
Issue 26	21-Jan-2015	Section C.V, Note 13 added: „Commercial designation of DA 42 NG with MÄM 42-600 is DA42-VI“	
Issue 27	27-Feb-2015	Section C.III 15 Control Surface Deflections updated	

		MÄM 42-600/c Performance Enhancement EASA Project Number 0010035292: Section D.III 5.1.3, 7.1, 7.3, 7.6 10, 16 Section D.IV 1. AFM Doc. No. 7.01.16 added. Section D.V Note 4 E-4C added.Note 12 added.	
Issue 28	16-Apr-2015	Section E DA 62 added. EASA Project Number 0010017825	16-Apr-2015
Issue 29	21-Oct-2015	Section E.III 8.4: De-Icing fluids added (EASA PN 0010037629) Section E.III 9.1: Aux Tanks added (EASA PN 0010037357) Section E.III 20: Nose and Rear Baggage Compartment added (EASA PN 0010037789 and 0010039837) Section E.III 21: Tire Sizes and Note references updated Section E.V 1. S/N 62.008 removed, became structural test cell	
Issue 30	04-Nov-2015	Section E.III 2.: Number of Seats updated (EASA PN 0010038427) Section E.III 13.: MTOM, MZFM and MLM update (EASA PN 0010038426) Section E.III 14.: CoG limits updated (EASA PN 0010038426) Section E.III 19.: Number of Passengers updated (EASA PN 0010038427) Section E.III 20.: Rear Baggage Compartment load updated (EASA PN 0010038427)	
Issue 31	01-Jul-2016	Section A.V. 4.: Correction of SB reference for TAE 125-02-114 Section B.V. 3.: Correction of SB reference for TAE 125-02-114 Section D.V note 1: Serial Numbers 42.009 and 42.N034 added as eligible for model DA 42 M-NG	
Issue 32	20-Jul-2016	Section A.IV: Item 5, MMEL added Section B.IV: Item 5, MMEL added Section C.IV: numbering corrected, Item 5, MMEL added Section D.IV: Item 6, MMEL added Section E.II. 2.: CS 23.775 and 23 1419 added (EASA PN 0010037934) Section E.II. 6.: CS 23.1093 added (EASA PN 0010037934) Secton E.II. 8.4.: Fluid Spec Reference (EASA PN 0010037934) Section E.III. 11.: Operating Maneuvring Speeds completed up to new MTOM Section E.III. 12.: Approval for FIKI added (EASA PN 0010037934) Section E.IV: Item 5, MMEL added Section E.V.: Note 8 added (EASA PN 0010037934)	
Issue 33	12-Dec-2016	Section E.II. 2.: Applicable Airworthiness Requirement corrected Section E.V.: Note 1 revised for transfer of DA 62 model to new DA 62 TC EASA.A.629 (EASA PN 0010040150)	
Issue 34	22-Dec-2016	Introduction of OSD MMEL	
Issue 35	23-Dec-2016	Section A.IV: Item 5, MMEL removed (now in Section A.V.) Section B.IV: Item 5, MMEL removed (now in Section B.V.) Section C.IV: Item 5, MMEL removed (now in Section C.V.) Section D.IV: Item 6, MMEL removed (now in Section D.V.) Section E.III. 13.: MZFM 2200 kg added (EASA PN 0010040738) Section E.IV: Item 5, MMEL removed (now in Section E.V.)	
Issue 36	17-Aug-2017	Additional Manufacturer Cetec Wuhu/China for DA 42 NG and DA 42 M-NG Section A.I: Item 5: Manufacturer Cetec Wuhu/China added Section A.VI: Note 1 amended, S/Nos for Cetec Wuhu/China added Section A.VI: Note 9 added Section B.I: Item 5: Manufacturer Cetec Wuhu/China added Section B.VI: Note 1 amended, S/Nos for Cetec Wuhu/China added Section B.VI: Note 9 added Section C.I: Item 5: Manufacturer Cetec Wuhu/China added Section C.VI: Note 1 amended, S/Nos for Cetec Wuhu/China added	

		Section C.VI: Note 14 added Section D.I: Item 5: Manufacturer Cetec Wuhu/China added Section D.VI: Note 1 amended, S/Nos for Cetec Wuhu/China added Section D.VI: Note 13 added	
Issue 37	20-Sep-2017	Additional Manufacturer Diamond Canada for DA 62 Section E.I: Item 5: Manufacturer Diamond Canada added Section E.VI: Note 1 amended, S/Nos for Diamond Canada added	
Issue 38	15-Nov-2017	Section E.VI: Note 1 amended, clarification with regard to type design transfer of EASA TC A.629 to TCCA TC A-273.	
Issue 39	06-Dec-2017	Section A.III.16: Rudder and Elevator Trim Tab, identification of adjustable values (main surface neutral) Section B.III.16: Rudder and Elevator Trim Tab, identification of adjustable values (main surface neutral) Section C.III.16: Rudder and Elevator Trim Tab, identification of adjustable values (main surface neutral) Section D.III.16: Rudder and Elevator Trim Tab, identification of adjustable values (main surface neutral) This is an editorial change to the TCDS only for harmonization with the data provided in EASA TCDS A.513	
Issue 40	12-Jan-2018	Optional Installation of Inflateable Restraint Safety Belt with Integrated Airbag (OÄM 42-324, EASA PN 10052689 Section A.II.6.: With OÄM 42-324 installed: CS 23.2270 (a)-(d), (CS23/5) Section B.II.6.: With OÄM 42-324 installed: CS 23.2270 (a)-(d), (CS23/5) Section C.II.6.: With OÄM 42-324 installed: CS 23.2270 (a)-(d), (CS23/5) Section D.II.6.: With OÄM 42-324 installed: CS 23.2270 (a)-(d), (CS23/5)	
Issue 41	05-Jul-2018	EASA PN 10055661: Section E.VI. 1.: Serial Nos eligible updated, S/Ns 62.078 through 62.100 for production in Austria added.	
Issue 42	14-Jun-2019	EASA P/N 0010060257: Section D VI. Note 7: Maximum operating speed for OÄM 42-228 and OÄM 42-240 removed. Most rearward flight CG if Belly Recce Pod without the Universal nose installed added. OÄM 42-342 added.	
Issue 43	29-Mar-2023	Removed Section E for Model DA 62. All DA 62 airplanes are now part of TCDS EASA.IM.A.629	29-Mar-2023
Issue 44	30- Aug-2024	Addition of new Serial Number range for Model DA 42 NG	