

<u>C.G. Range</u>	Forward c/g position (aft of datum):	
	up to 3236 lbs. (1468 kg)	92.5 in. (2.35 meter)
	at 3935 lbs. (1785 kg)	94.5 in. (2.40 meter)
	Varying Linearly with weight in between	
	Rearward c/g position (aft of datum):	
	At 2756 lbs. (1250 kg)	95.3 in. (2.42 meter)
	At 3527 lbs. (1600 kg) and above	98.0 in (2.49 meter)
	Varying Linearly with weight in between	
<u>Empty Wt. C.G. Range</u>	None	
<u>Reference Datum</u>	86.5 in. (2.196 meter) in front of leading edge of stub-wing at the wing joint	
<u>Leveling Means</u>	Floor of front baggage compartment levelled.	
<u>Maximum Weight</u>	Takeoff (Normal Category)	
		3748 lbs. (1700 kgs)
		3935 lbs. (1785kgs), see Note 9
	Landing	3748 lbs. (1700 kgs)
	Zero Fuel weight	3638 lbs. (1650 kg)
<u>Minimum Crew</u>	1	
<u>No. of Seats</u>	4	
<u>Maximum Baggage</u>	Front Baggage Compartment	66 lbs (30 kgs)
	Behind Rear Seats	100 lbs (45 kgs)
	Aft part of Baggage Extension	40 lbs (18 kgs)
	Whole aft baggage compartment together	100 lbs (45 kg)
<u>Fuel Capacity</u>	With Standard Fuel Tank	
		52 gallons (196.8 liters) total.
		50 gallons (189.2 liters) usable.
	With Auxiliary Tank additional	
		27.4 gallons (104 liters) total
		26.4 gallons (100 liters) usable
<u>Oil Capacity</u>	Each engine	Maximum – 6.3 qts (6.0 liters).
		Minimum – 4.8 qts (4.5 liters)
		See Note 2
		For specification of engine and gearbox oil see AFM
<u>Coolant</u>	Distilled water / Cooler Protection	
	For more details see applicable AFM, Section 2	
<u>Maximum Operating Altitude</u>	18,000 feet. (5486 meters)	
<u>Control Surface Movements</u>	Aileron	trailing edge up 25°, ± 2°, trailing edge down 15°, +2/-0°
	Elevator	trailing edge up 15.5°, ± 0.5°, trailing edge down 13°, ± 1°
	Elevator Trim Tab:	28°, ± 5° (nose up at elevator neutral)
		25°, ± 5° (nose down at elevator neutral)
	Rudder:	left 27°, ± 1° / right 29°, ± 1°
	Rudder Trim Tab:	30°, +5/-0° (trim RH at rudder neutral)
		29°, +5/-0° (trim LH at rudder neutral)
	With OÄM 42-252 installed:	
		45° ± 3° (trim RH at rudder neutral)
		41° ± 3° (trim LH at rudder neutral)

Flaps:

Cruise flap setting	0°, + 2° - 0°
Approach flap setting	20°, + 4° - 2°
Landing flap setting	42°, +3° - 1°

Manufacturer's Serial Numbers

- a) For aircraft produced at Diamond Aircraft Industries GmbH, N.A. Otto-Str. 5, A-2700 Wiener-Neustadt Austria, eligible serial numbers are 42.004 and subsequent
- b) For aircraft produced at Diamond Aircraft Industries Inc., 1560 Crumlin Sideroad, London Ontario N5v 1S2, Canada, eligible serial numbers are 42.AC001 and subsequent

Certification Basis

Type Certification under 14 CFR Section 21.29 including the following requirements:

- Joint Aviation Requirements (JAR) 23, Amdt. 1, dated February 01, 2001.
- NOTE: The DA 42 was certificated using the FAA/JAA validation certification procedures. A list of Significant Regulatory Differences were addressed. Therefore, the certification basis is equivalent to 14 CFR Part 23 effective February 1, 1965, including Amendments 23-1 through Amendment 23-55.
- 14 CFR Part 36 effective December 1, 1969, including Amendments 36-1 through Amendment 36-24.
- Special Conditions:
- 23-167-SC applicable to the Model DA 42 for Protection of Systems for High Intensity Radiated Fields.
- 23-169-SC applicable to the Model DA 42 for Diesel Cycle Engine Using Turbine (Jet) Fuel.

Equivalent safety Items:

Equivalent Levels of Safety findings made per the provisions of 14 CFR 21.21(b)(1) for:

- Equivalent level of safety ACE-05-05 applicable to the Model DA 42 for Ignition Switches with the TAE-125-01 or TAE 125-02-99 or TAE 125-02-114 Diesel Engines.
- Equivalent level of safety ACE-05-06 applicable to the Model DA 42 for Cockpit Controls and Motion and Effect of Cockpit Controls with the TAE-125-01 or TAE 125-02-99 or TAE 125-02-114 Diesel Engines.
- Equivalent level of safety ACE-05-07 applicable to the Model DA 42 for Liquid Cooling with the TAE-125-01 or TAE 125-02-99 or TAE 125-02-114 Diesel Engines.
- The Austro Control group (ACG) originally type certificated this aircraft. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product under their Type certificate Number A.005 on behalf of Austria.
- DAI elected to comply with the following requirements:
With OÄM 42-324 installed: 14 CFR 23.2270 (a) – (d), Amendment 23-64

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) is listed in the Airplane Flight Manual and must be installed in the airplane for certification.

In addition, the following items of equipment are required:

Airplane Flight Manual, Document No. 7.01.05-E, dated 29-April-2004.

For GFC 700 equipped DA 42, Airplane Flight Manual, Document No. 7.01.06-E, dated 20-December-2007.

For TAE 125-02-114 equipped DA 42 (OÄM 42-252) AFM Supplement S07 applies.

Maintenance Manual (including Airworthiness Limitation), Document No. 7.02.01, dated 01-Dec-2004.

Import requirements

a) For aircraft produced in Austria, The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Austro Control Group (ACG) on behalf of the European Community. The Export C of A should contain the following statement “The aircraft covered by this certificate has been examined, tested, and found to comply with Code of Federal Regulations Part 23 approved under U.S. Type Certificate No. A57CE and to be in a condition for safe operation”.

b) For aircraft produced in Canada, a United States airworthiness certificate may be issued on the basis of a Canadian Certificate of Airworthiness for Export signed by a representative of the Transport Canada Civil Aviation (TCCA), containing the following statement (in the English language): ‘The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. type certificate No. A57CE and to be in a condition for safe operation.’

c) The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

d) The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is FAR Section 21.183(b) or 21.183(d).

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, *Airworthiness Certification of Aircraft*, for requirements for issuance of an *airworthiness certificate* for imported aircraft.

Service Information

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003- by Austro Control Group.

- Service bulletins
- Structural Repair Manuals
- Vendor Manuals
- Aircraft Flight Manuals, and
- Overhaul and Maintenance Manuals

The FAA accepts such documents and considers them FAA-approved unless one of the following condition exists:

- The documents change the limitations, performance, or procedures of the FAA approved manuals; or
- The documents make an acoustical or emissions changes to this product’s U.S.type certificate as defined in 14 CFR § 21.93.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

NOTE 1: Engine part number of TAE 125-01 approved for installation in the DA 42 is 125-01-(017)-(), engine part number of TAE 125-02-99 approved for installation in the DA 42 is 125-02-99-(0003)-(), engine part number of

TAE 125-02-114 approved for installation in the DA 42 is 125-02-114-(0006)-(), with approved firmware and mapping according to DAI MSB 42-007, always latest issue.

NOTE 2: Weight and Balance:

A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

The certificated empty weight and corresponding center of gravity location must include full oil, coolant and unusable fuel.

NOTE 3: The placards specified in the EASA approved Airplane Flight Manual must be displayed.

NOTE 4: "Compliance with requirements of 14 CFR § 23.1419 as amended by Amendment 23-43 effective May 10, 1993, has been established by the Exemption Number 9623 granted to Diamond Aircraft Industries, Austria, dated February 22, 2008, provided required ice protection systems are installed and functioning properly, and the airplane and the ice protections system are operated in accordance with Airplane Flight Manual Supplement S03, "Ice Protection System," dated February 10, 2007, or later approved revision."

NOTE 5: For approved software versions of Garmin G1000 Integrated Avionics System, see DAI MSB 42-008, always latest version.

NOTE 6: Instructions for Continued Airworthiness and Service Life Limited components is included in the Maintenance Manual Document No. 7.02.01. (Revisions to Airworthiness Limitations must be approved by the FAA)

NOTE 7: Exterior color is limited to that specified in Diamond Document No. 7.02.01.

NOTE 8: Major structural repair must be accomplished at a FAA certified repair stations rated for composite aircraft structure work, in accordance with Diamond repair methods approved by ACG and accepted by FAA.

NOTE 9: The maximum takeoff mass of 3935 lbs.(1785 kgs) is approved if major Change MAM 42-088 is installed.

NOTE 10: Approved major changes on Diamond DA-42 are:

- MÄM 42-007 AFM Revision 5, part of initial type design
- MÄM 42-031 Increase of the initial Major Inspection Interval, part of initial type design
- MAM 42-046 Rough field Operations
- MAM 42-088 Increased gross weight
- MAM 42-101 New engine instrument marking
- MÄM 42-102 Increase of the cont. major inspection interval, part of initial type design
- MÄM 42-111/b, New ROC for Single Engine Operation
- MAM 42-198 Engine change to TAE 125-02-99
- MÄM 42-361/c DA 42 Installation NG Safety Walk Strips
- OÄM 42-051, Autopilot, part of initial type design
- OÄM 42-052 IFR Operation, part of initial type design
- OÄM 42-054 Known Icing
- OAM 42-056 Auxilliary tank
- OÄM 42-067 Adjustable back rest for front seats
- OAM 42-102 Installation of Garmin GFC 700 Autopilot
- OÄM 42-146 Garmin Synthetic Vision (SVT)
- OÄM 42-188 Increase of Maximum Zero Fuel Weight
- OÄM 42-195 DA 42 NG Landing Gear for DA 42
- OÄM 42-252 Installation of TAE 125-02-114 Engine
- OÄM 42-324 AmSafe V23 AAIR Aviation Inflatable Restraint System

NOTE 11: For Airplanes registered in the United States of America, an ECU Backup Battery must be installed. The ECU Backup Battery may be installed during production per the requirements of OAM 42-129, or in compliance with FAA Airworthiness Directive 2007-23-14 per the requirements of OSB 42-050/1.

II. Model DA 42 NG (Normal Category), approved April 02, 2010

<u>Engine</u>	2 Austro Engine E4, see Note 1 FAA Type Certification Data Sheet No. E00081EN	
<u>Fuel</u>	Jet A, Jet A-1 (ASTM 1655)	
<u>Engine Limits</u>	Maximum Take-Off (5 min), 2300 rpm Maximum Continuous Operation, 2100 rpm With MÄM 42-600 installed, 2300 rpm see note 12 (Propeller shaft RPM) Max T/O Power (5min) 100%(123,5 kW) Max. Continuous Power 92% (114 kW)	
<u>Propeller</u>	2 MT Propeller Co. MTV-6-R-C-F/CF187-129 or 2 MT Propeller Co. MTV-6-R-C-F/CF190-69 see Note 12 FAA Type Certification Data Sheet No. P19NE	
<u>Propeller Limits</u>	Diameter 74.0 in., +0.0 in., -2.0 in; (1870 mm, +0.0mm, -50mm) or 75.0 in., +0.0 in., -2.0 in; (1900 mm, +0.0mm, -50mm) (MÄM 42-600) Low Pitch Setting 12° 13° (MÄM 42-600) see Note 12 Feather Position 81° 80° (MÄM 42-600) see Note 12 Start Lock 15°	
<u>Airspeed Limits</u>	Maximum Never Exceed Speed V_{NE} 192 KCAS, 220 mph Maximum Structural Cruising Speed V_{NO} 155 KEAS, 178 mph Design Cruising Speed V_C 155 KEAS, 178 mph Operating Maneuvering Speed V_O (up to 3748 lbs / 1700 kg) 114 KEAS, 131 mph V_O (3748 lbs / 1701 kg through 3968 lbs / 1800kg) 121 KEAS, 139 mph V_O (above 3968 lbs / 1800 kg) 125 KEAS, 144 mph Maximum Flap Extending Speed V_{FE} Full Flaps 110 KEAS, 127 mph V_{FE} Approach Flaps 135 KEAS, 155 mph Maximum Landing Gear Operation Speed V_{LO} 155 KEAS, 178 mph Maximum Landing Gear Extended Speed V_{LE} 192 KCAS, 220 mph	
<u>C.G. Range</u>	Forward c/g position (aft of datum): Forward limit at 3197 lbs. (1450 kgs) 92.5 in. (2.350 meters) at 3236 lbs. (1468 kgs) 92.5 in. (2.350 meters) at 4189 lbs. (1900 kgs) 95.2 in. (2.418 meters) If MÄM 42-678 is installed: at 4407 lbs. (1999 kgs) 95.8 in. (2.434 meters) Varying Linearly with weight in between Rearward c/g position (aft of datum): at 3197 lbs. (1450 kgs) 96.6 in. (2.454 meters) at 3748 lbs. (1700 kgs) and above 97.6 in. (2.480 meters) Varying Linearly with weight in between If OÄM 42-199 is installed (see note 13): For all weights 96.5 in. (2.450 meters) If OÄM 42-199 and MÄM 42-600 are installed (see note 13): at 3197 lbs. (1450 kgs) 96.6 in. (2.454 meters)	

at 3329 lbs. (1510 kgs) and above 96.9 in. (2.460 meters)

<u>Empty Wt. C.G. Range</u>	None	
<u>Reference Datum</u>	86.5 in. (2.196 meter) in front of leading edge of stub-wing at the wing joint	
<u>Leveling Means</u>	Floor of front baggage compartment levelled.	
<u>Maximum Weight</u>	(see note 14)	
	Takeoff (Normal Category)	4189 lbs. (1900 kgs)
	If MÄM 42-678 is installed 4407 lbs. (1999 kgs)	
	Landing	3979 lbs. (1805 kgs)
	If MÄM 42-659 is installed 4407 lbs. (1999 kgs)	
	Zero Fuel weight	3891 lbs. (1765 kgs)
	If MÄM 42-659 is installed 4045 lbs. (1835 kgs)	
<u>Minimum Crew</u>	1	
<u>No. of Seats</u>	4	
<u>Maximum Baggage</u>	Front Baggage Compartment	66 lbs (30 kgs)
	Behind Rear Seats	100 lbs (45 kgs)
	Aft part of Baggage Extension	40 lbs (18 kgs)
	Whole aft baggage compartment together	100 lbs (45 kg)
<u>Fuel Capacity</u>	With Standard Fuel Tank	52 gallons (196.8 liters) total. 50 gallons (189.2 liters) usable.
	With Auxiliary Tank additional	27.4 gallons (104 liters) total 26.4 gallons (100 liters) usable
<u>Oil Capacity</u>	Each engine	Maximum – 7,4 qts (7.0 liters). Minimum – 5,3 qts (5.0 liters) See Note 2 For specification of engine and gearbox oil see AFM, 7.01.15, Section 2
<u>Coolant</u>	Water / Cooler Protection For more details see AFM, Section 2	
<u>Maximum Operating Altitude</u>	18,000 feet. (5486 meters)	
<u>Control Surface Movements</u>	Aileron	trailing edge up 25°, ± 2°, trailing edge down 15°, +2/-0°
	Elevator	trailing edge up 15.5°, ± 0.5°, trailing edge down 13°, ± 1°
	Elevator Trim Tab:	28°, ± 5° (nose up at elevator neutral) 25°, ± 5° (nose down at elevator neutral)
	Rudder:	left 27°, ± 1° / right 29°, ± 1°
	Rudder Trim Tab:	45°, ± 3° (trim RH at rudder neutral) 41°, ± 3° (trim LH at rudder neutral)
	MÄM 42-600	43°, ± 3° (trim RH at rudder neutral)
	MÄM 42-600	39°, ± 5° (trim LH at rudder neutral)
	MÄM 42-600 and MÄM 42-885:	48°, ± 3° (trim RH at rudder neutral) 36°, ± 5° (trim LH at rudder neutral)
	Flaps:	
	Cruise flap setting	0°, + 2°/- 0°

Approach flap setting	20°, + 4° / - 2°
Landing flap setting	42°, +3° - 1°

Manufacturer's Serial Numbers

- a) For aircraft produced at Diamond Aircraft Industries GmbH, N.A. Otto-Str. 5, A-2700 Wiener-Neustadt Austria, eligible serial numbers are 42.N001 and subsequent
See Note 10.
- b) For aircraft produced at Diamond Aircraft Industries Inc., 1560 Crumlin Sideroad, London Ontario N5v 1S2, Canada, eligible serial numbers are 42.NC001 and subsequent
See Note 10.

Certification Basis

Type Certification under 14 CFR Section 21.29 including the following requirements:

- Joint Aviation Requirements (JAR) 23, Amdt. 1, dated February 01, 2001.
NOTE: The DA 42 NG was certificated using the FAA/EASA interim validation certification procedures. A list of Significant Regulatory Differences were addressed. Therefore, the certification basis is equivalent to 14 CFR Part 23 effective February 1, 1965, including Amendments 23-1 through Amendment 23-55.
- 14 CFR Part 36 effective December 1, 1969, including Amendments 36-1 through Amendment 36-24.
- Special Conditions:
- 23-167-SC applicable to the Model DA 42 for Protection of Systems for High Intensity Radiated Fields.
- 23-169-SC applicable to the Model DA 42 for Diesel Cycle Engine Using Turbine (Jet) Fuel.

Equivalent safety Items:

Equivalent Levels of Safety findings made per the provisions of 14 CFR 21.21(b)(1) for:

- Equivalent level of safety ACE-05-05A: Extension of Equivalent Level of Safety (ELOS) to 14 CFR part 23, §23.1145, Motion and Effect of Cockpit Controls for the Diamond Aircraft Industries Model DA-42NG Airplane.
- Equivalent level of safety ACE-05-06A: Extension of Equivalent Level of Safety (ELOS) to 14 CFR part 23, §23.777(d), Ignition Switches, for the Diamond Aircraft Industries for the DA-42NG Airplane.
- Equivalent level of safety ACE-05-07A: Extension of Equivalent Level of Safety (ELOS) to 14 CFR part 23, §23.1061, Liquid Cooling – Installation, and §23.1063 Liquid Cooling – Coolant tank tests for the Diamond Aircraft Industries DA-42NG Airplane
- Equivalent level of safety ACE-10-07: Equivalent level of safety (ELOS) to 14 CFR part 23, § 23.991(a)(1) and §23.991(b), Fuel pumps for the Diamond Aircraft Industries DA 42 NG airplane
- The European Aviation Safety Agency (EASA) certificated this aircraft under their Type certificate Number A.005.
- DAI elected to comply with the following requirements:
With OAM 42-324 installed: 14 CFR 23.2270 (a) – (d), Amendment 23-64

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) is listed in the Airplane Flight Manual and must be installed in the airplane for certification.

In addition, the following items of equipment are required:

Airplane Flight Manual, Document No. 7.01.15-E, Rev. 2, dated 30-Nov-2009, or a later approved revision or if MÄM 42-600 is installed, Airplane Flight Manual, Document Number 7.01.16-E, Rev. 0, dated 01-Apr-2012 or a later approved revision.
Maintenance Manual (including Airworthiness Limitation), Document No. 7.02.15, Rev. 1, dated 15-Oct-2009, or a later approved revision..

Import requirements

a) For aircraft produced in Austria, The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Austro Control (ACG) on behalf of the European Community. The Export C of A should contain the following statement “The aircraft covered by this certificate has been examined, tested, and found to comply with Code of Federal Regulations Part 23 approved under U.S. Type Certificate No. A57CE and to be in a condition for safe operation”.

b) For aircraft produced in Canada, a United States airworthiness certificate may be issued on the basis of a Canadian Certificate of Airworthiness for Export signed by a representative of the Transport Canada Civil Aviation (TCCA), containing the following statement (in the English language): ‘The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. type certificate No. A57CE and to be in a condition for safe operation.’

c) The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

d) The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is FAR Section 21.183(b) or 21.183(d).

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, *Airworthiness Certification of Aircraft*, for requirements for issuance of an *airworthiness certificate* for imported aircraft.

Service Information

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or Diamond Aircraft DOA No. EASA.21J.052:.

- Service bulletins
- Structural Repair Manuals
- Vendor Manuals
- Aircraft Flight Manuals, and
- Overhaul and Maintenance Manuals

The FAA accepts such documents and considers them FAA-approved unless one of the following condition exists:

- The documents change the limitations, performance, or procedures of the FAA approved manuals; or
- The documents make an acoustical or emissions changes to this product’s U.S.type certificate as defined in 14 CFR § 21.93.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

- NOTE 1: Approved engine configuration for installation in the DA 42 NG: E4-B
With MÄM 42-600: E4-C
With approved engine software according to DAI MSB 42NG-002/3 or later issue.
- NOTE 2: Weight and Balance:

A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

The certificated empty weight and corresponding center of gravity location must include full oil, coolant and unusable fuel.
- NOTE 3: The placards specified in the EASA approved Airplane Flight Manual must be displayed.
- NOTE 4: Compliance with requirements of 14 CFR § 23.1419 as amended by Amendment 23-43 effective May 10, 1993, has been established by the Exemption Number 10036 granted to Diamond Aircraft Industries, Austria, dated March 23 2010, provided required ice protection systems are installed and functioning properly, and the airplane and the ice protections system are operated in accordance with Airplane Flight Manual Supplement S03, "Ice Protection System," dated 28-May-2009, or later approved revision.
- NOTE 5: For approved software versions of Garmin G1000 Integrated Avionics System, see DAI MSB 42NG-003, always latest version.
- NOTE 6: Instructions for Continued Airworthiness and Service Life Limited components is included in the Maintenance Manual Document No. 7.02.15. (Revisions to Airworthiness Limitations must be approved by the FAA)
- NOTE 7: Exterior color is limited to that specified in Diamond Document No. 7.02.15.
- NOTE 8: Major structural repair must be accomplished at a FAA certified repair stations rated for composite aircraft structure work, in accordance with Diamond repair methods approved by EASA or Diamond Aircraft DOA No. EASA.21J.052 and accepted by FAA.
- NOTE 10: Aircraft Model DA-42 converted to DA42-NG via Diamond Aircraft Industries Service Bulletin OSB 42-068 are also eligible for this TCDS
Necessary design changes to be incorporated in the Diamond DA-42 NG (factory installed or via service bulletin) are:
MÄM 42-403 Modification of the electrical system
MÄM 42-415 DA 42 NG Sealing of center wing push-rod cutout
- NOTE 11: Approved major changes on Diamond DA-42 NG are:
MÄM 42-325 DA 42 NG Exhaust shielding, part of initial type design
OAM 42-160 Flight into known icing conditions, part of initial type design
OÄM 42-179 SBAS and P-RNAV Operation
OÄM 42-193 Recirculating Air Cabin Cooling
OÄM 42-204 Additional Alternator
OÄM 42-207 Short Baggage Compartment
OÄM 42-173 On Top Exhaust System
MÄM 42-600 Performance Enhancement
OÄM 42-199 Removal of Variable Elevator Stop
MÄM 42-659 Maximum Landing Weight 1999 kg
MÄM 42-678 Maximum Take-Off Weight 1999 kg, Maximum Zero Fuel Weight 1835 kg
MÄM 42-885 Improved Rudder and Rudder Trim Tab Installation
MÄM 42-1114 Use of Portable Electronic Device
OÄM 42-337 Garmin Flight Stream 510
OÄM 42-324 AmSafe V23 AAIR Aviation Inflatable Restraint System
- NOTE 12: 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.
- NOTE 13: The Variable Elevator Stop is removed with OÄM 42-199 installed.

Design Changes installed	Standard	MÄM 42-659	MÄM 42-659 and MÄM 42-678
MTOW	1900 kgs (4189 lbs.)	1900 kgs (4189 lbs.)	1999 kgs (4407 lbs.)
MZFW	1765 kgs (3891 lbs.)	1835 kgs (4045 lbs.)	1835 kgs (4045 lbs.)
MLW	1805 kgs (3979 lbs.)	1900 kgs (4189 lbs.)	1999 kgs (4407 lbs.)

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

<u>Engine</u>	2 Austro Engine E4, see Note 1 FAA Type Certification Data Sheet No. E00081EN	
<u>Fuel</u>	Jet A, Jet A-1 (ASTM 1655)	
<u>Engine Limits</u>	Maximum Take-Off (5 min), 2300 rpm Maximum Continuous Operation, 2100 rpm (Propeller shaft RPM) With MÄM 42-600 installed, 2300 rpm (Propeller shaft RPM) Max T/O Power (5min) 100%(123,5 kW) Max. Continous Power 92% (114 kW)	
<u>Propeller</u>	2 MT Propeller Co. MTV-6-R-C-F/CF187-129 or 2 MT Propeller Co. MTV-6-R-C-F/CF190-69 see Note 15 FAA Type Certification Data Sheet No. P19NE	
<u>Propeller Limits</u>	Diameter 74.0 in., +0.0 in., -2.0 in; (1870 mm, +0.0mm, -50mm) or 75.0 in., +0.0 in., -2.0 in; (1900 mm, +0.0mm, -50mm) (MÄM 42-600) Low Pitch Setting 12° 13° (MÄM 42-600) Feather Position 81° 80° (MÄM 42-600) Start Lock 15°	
<u>Airspeed Limits</u>	Maximum Never Exceed Speed V _{NE} 192 KCAS, 220 mph Maximum Structural Cruising Speed V _{NO} 155 KEAS, 178 mph Design Cruising Speed V _C 155 KEAS, 178 mph Operating Maneuvering Speed V _O (up to 3748 lbs / 1700 kg) 114 KEAS, 131 mph V _O (3748 lbs / 1701 kg through 3968 lbs / 1800kg) 121 KEAS, 139 mph V _O (above 3968 lbs / 1800 kg) 125 KEAS, 144 mph Maximum Flap Extending Speed V _{FE} Full Flaps 110 KEAS, 127 mph V _{FE} Approach Flaps 135 KEAS, 155 mph Maximum Landing Gear Operation Speed V _{LO} 155 KEAS, 178 mph Maximum Landing Gear Extended Speed V _{LE} 192 KCAS, 220 mph	
<u>C.G. Range</u>	Forward c/g position (aft of datum): at 3197 lbs. (1450 kgs) 92.5 in. (2.350 meters)	

at 3236 lbs. (1468 kgs)	92.5 in. (2.350 meters)
at 4189 lbs. (1900 kgs)	95.2 in. (2.418 meters)

If MÄM 42-678 is installed:
 at 4407 lbs. (1999 kgs) 95.8 in. (2.434 meters)
 Varying Linearly with weight in between

Rearward c/g position (aft of datum):
 at 3197 lbs. (1450 kgs) 96.6 in. (2.454 meters)
 at 3748 lbs. (1700 kgs) and above 97.6 in. (2.480 meters)
 Varying Linearly with weight in between

If OÄM 42-199 is installed (see note 12):
 For all weights 96.5 in. (2.450 meters)

Empty Wt. C.G. Range None

Reference Datum 86.5 in. (2.196 meter) in front of leading edge of stub-wing at the wing joint

Leveling Means Floor of front baggage compartment levelled.

Maximum Weight (see note 14)

Takeoff (Normal Category)	4189 lbs. (1900 kgs)
If MÄM 42-678 is installed	4407 lbs. (1999 kgs)

Landing	3979 lbs. (1805 kgs)
If MÄM 42-659 is installed	4407 lbs. (1999 kgs)

Zero Fuel weight	3891 lbs. (1765 kg)
If MÄM 42-659 is installed	4045 lbs. (1835 kgs)

Minimum Crew 1

No. of Seats 4

<u>Maximum Baggage</u>	Front Baggage Compartment	66 lbs (30 kgs)
	Behind Rear Seats	100 lbs (45 kgs)
	Aft part of Baggage Extension	40 lbs (18 kgs)
	Whole aft baggage compartment together	100 lbs (45 kg)

<u>Fuel Capacity</u>	With Standard Fuel Tank	52 gallons (196.8 liters) total. 50 gallons (189.2 liters) usable.
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	With Auxiliary Tank additional	27.4 gallons (104 liters) total 26.4 gallons (100 liters) usable
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<u>Oil Capacity</u>	Each engine	Maximum – 7,4 qts (7.0 liters). Minimum – 5,3 qts (5.0 liters) See Note 2 For specification of engine and gearbox oil see AFM, 7.01.15, Section 2
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Coolant Distilled water / Cooler Protection
 For more details see AFM, 7.01.15, Section 2

Maximum Operating Altitude 18,000 feet. (5486 meters)

<u>Control Surface Movements</u>	Aileron	trailing edge up 25°, ± 2°, trailing edge down 15°, +2/-0°
	Elevator	trailing edge up 15.5°, ± 0.5°, trailing edge down 13°, ± 1°
	Elevator Trim Tab:	28°, ± 5° (nose up at elevator neutral)

	25°, ± 5° (nose down at elevator neutral)
Rudder:	left 27°, ± 1° / right 29°, ± 1°
Rudder Trim Tab:	45°, ± 3° (trim RH at rudder neutral) 41°, ± 3° (trim LH at rudder neutral)
MÄM 42-600 and MÄM 42-885:	48°, ± 3° (trim RH at rudder neutral) 36°, ± 5° (trim LH at rudder neutral)
Flaps:	
Cruise flap setting	0°, + 2°/- 0°
Approach flap setting	20°, + 4°/- 2°
Landing flap setting	42°, +3° - 1°

Manufacturer's Serial Numbers

- c) For aircraft produced at Diamond Aircraft Industries GmbH, N.A. Otto-Str. 5, A-2700 Wiener-Neustadt Austria, eligible serial numbers are 42.339, 42.379, 42.MN001 and subsequent
See Note 10.

Certification Basis

Type Certification under 14 CFR Section 21.29 including the following requirements:

- Joint Aviation Requirements (JAR) 23, Amdt. 1, dated February 01, 2001.
NOTE: The DA 42 NG was certificated using the FAA/EASA interim validation certification procedures. A list of Significant Regulatory Differences were addressed. Therefore, the certification basis is equivalent to 14 CFR Part 23 effective February 1, 1965, including Amendments 23-1 through Amendment 23-55.
- 14 CFR Part 36 effective December 1, 1969, including Amendments 36-1 through Amendment 36-24.
- Special Conditions:
- 23-167-SC applicable to the Model DA 42 for Protection of Systems for High Intensity Radiated Fields.
- 23-169-SC applicable to the Model DA 42 for Diesel Cycle Engine Using Turbine (Jet) Fuel.

Equivalent safety Items:

Equivalent Levels of Safety findings made per the provisions of 14 CFR 21.21(b)(1) for:

- Equivalent level of safety ACE-05-05B: Extension of Equivalent Level of Safety (ELOS) to 14 CFR part 23, §23.1145, Motion and Effect of Cockpit Controls for the Diamond Aircraft Industries Model DA-42 M-NG Airplane.
- Equivalent level of safety ACE-05-06B: Extension of Equivalent Level of Safety (ELOS) to 14 CFR part 23, §23.777(d), Ignition Switches, for the Diamond Aircraft Industries for the DA-42 M-NG Airplane.
- Equivalent level of safety ACE-05-07B: Extension of Equivalent Level of Safety (ELOS) to 14 CFR part 23, §23.1061, Liquid Cooling – Installation, and §23.1063 Liquid Cooling – Coolant tank tests for the Diamond Aircraft Industries DA-42 M-NG Airplane
- Equivalent level of safety ACE-10-07: Equivalent level of safety (ELOS) to 14 CFR part 23, § 23.991(a)(1) and §23.991(b), Fuel pumps for the Diamond Aircraft Industries DA 42 NG airplane

- The European Aviation Safety Agency (EASA) certificated this aircraft under their Type certificate Number A.005.
- DAI elected to comply with the following requirements:
With OÄM 42-324 installed: 14 CFR 23.2270 (a) – (d), Amendment 23-64

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) is listed in the Airplane Flight Manual and must be installed in the airplane for certification.

In addition, the following items of equipment are required:

Airplane Flight Manual, Document No. 7.01.15-E, Rev. 2, dated 30-Nov-2009, or a later approved revision including Supplement M00, dated 01-Jun-2009 or a later approved revision, or if MÄM 42-600 is installed, Airplane Flight Manual, Document Number 7.01.16-E, Rev. 0, dated 01-Apr-2012 or a later approved revision including Supplement M00 Revision 2 dated 28-Oct-2019.

Maintenance Manual (including Airworthiness Limitation), Document No. 7.02.15, Rev. 1, dated 15-Oct-2009, or a later approved revision and Supplemental AMM Doc. No. 7.02.15-M00, date 01-Jun-2009 or a later approved revision.

Import requirements

a) For aircraft produced in Austria, The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Austro Control (ACG) on behalf of the European Community. The Export C of A should contain the following statement “The aircraft covered by this certificate has been examined, tested, and found to comply with Code of Federal Regulations Part 23 approved under U.S. Type Certificate No. A57CE and to be in a condition for safe operation”.

b) For aircraft produced in Canada, a United States airworthiness certificate may be issued on the basis of a Canadian Certificate of Airworthiness for Export signed by a representative of the Transport Canada Civil Aviation (TCCA), containing the following statement (in the English language): ‘The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. type certificate No. A57CE and to be in a condition for safe operation.’

c) The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

d) The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is FAR Section 21.183(b) or 21.183(d).

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, *Airworthiness Certification of Aircraft*, for requirements for issuance of an *airworthiness certificate* for imported aircraft.

Service Information

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or Diamond Aircraft DOA No. EASA.21J.052:.

- Service bulletins
- Structural Repair Manuals
- Vendor Manuals
- Aircraft Flight Manuals, and
- Overhaul and Maintenance Manuals

- The documents change the limitations, performance, or procedures of the FAA approved manuals; or
- The documents make an acoustical or emissions changes to this product's U.S.type certificate as defined in 14 CFR § 21.93.

NOTE 1: Approved engine configuration for installation in the DA 42 NG: E4-B
With MÄM 42-600 installed: E4-C
With approved engine software according to DAI MSB 42NG-002/3 or later issue.

NOTE 2: Weight and Balance:

A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

The certificated empty weight and corresponding center of gravity location must include full oil, coolant and unusable fuel.

NOTE 3: The placards specified in the EASA approved Airplane Flight Manual must be displayed.

NOTE 4: "Compliance with requirements of 14 CFR § 23.1419 as amended by Amendment 23-43 effective May 10, 1993, has been established by the Exemption Number 10037 granted to Diamond Aircraft Industries, Austria, dated March 29, 2010 provided required ice protection systems are installed and functioning properly, and the airplane and the ice protections system are operated in accordance with Airplane Flight Manual Supplement S03, "Ice Protection System," dated 28-May-2009, or later approved revision."

NOTE 5: For approved software versions of Garmin G1000 Integrated Avionics System, see DAI MSB 42NG-003, always latest version.

NOTE 6: Instructions for Continued Airworthiness and Service Life Limited components is included in the Maintenance Manual Document No. 7.02.15. (Revisions to Airworthiness Limitations must be approved by the FAA)

NOTE 7: Exterior color is limited to that specified in Diamond Document No. 7.02.15.

NOTE 8: Major structural repair must be accomplished at a FAA certified repair stations rated for composite aircraft structure work, in accordance with Diamond repair methods approved by EASA or Diamond Aircraft DOA No. EASA.21J.052 and accepted by FAA.

NOTE 10: Aircraft Model DA-42 M converted to DA42 M-NG via Diamond Aircraft Industries Service Bulletin OSB 42-081 are also eligible for this TCDS.
Necessary design changes to be incorporated in the Diamond DA-42 NG (factory installed or via service bulletin) are:
MÄM 42-403 Modification of the electrical system
MÄM 42-415 DA 42 NG Sealing of center wing push-rod cutout

NOTE 11: Approved major changes on Diamond DA-42M- NG:
MÄM 42-325 DA 42 NG Exhaust shielding, part of initial type design
OAM 42-160 Flight into known icing conditions, part of initial type design
OÄM 42-179 SBAS and P-RNAV Operation
OÄM 42-173 On Top Exhaust System
OÄM 42-199 Removal of Variable Elevator Stop

MÄM 42-659 Maximum Landing Weight 1999 kg
 MÄM 42-678 Maximum Take-Off Weight 1999 kg, Maximum Zero Fuel Weight 1835 kg
 MÄM 42-600/c Performance Enhancement
 MÄM 42-600/e Performance Enhancement
 MÄM 42-885 Improved Rudder and Rudder Trim Tab Installation
 MÄM 42-1114 Use of Portable Electronic Device
 OÄM 42-228/e Universal Nose
 OÄM 42-240/c Nose Pod
 OÄM 42-337 Gamin Flight Stream 510
 OÄM 42-342 GeoStar Pod
 OÄM 42-324 AmSafe V23 AAIR Aviation Inflatable Restraint System

NOTE 12: The Variable Elevator Stop is removed with OÄM 42-199 installed.

NOTE 13: 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:

OÄM 42-241 Belly Pod (Std. TC)

The following additional Limitations apply:

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

OÄM 42-228 Nose with Hard Points

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
2,47 m aft of Datum at 1900 kg
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
- Maximum operating speed with Equipment installed 156 KIAS

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
2,46 m aft of Datum at 1900 kg
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

2,45 m aft of Datum at 1900 kg

Linear variation in between

- AFM and AMM Supplement M06 must be furnished
- Maximum operating speed with Equipment installed 156 KIAS

OÄM 42-242 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

NOTE 14: The following Design Weight Configurations are approved:

Design Changes installed	Standard	MÄM 42-659	MÄM 42-659 and MÄM 42-678
MTOW	1900 kgs (4189 lbs.)	1900 kgs (4189 lbs.)	1999 kgs (4407 lbs.)

MTOW – maximum take-off weight; MZFW – maximum zero fuel weight; MLW – maximum landing weight

NOTE 15: 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.

<u>Engine</u>	2 Austro Engine E4P, see Note 1 FAA Type Certification Data Sheet No. E00081EN		
<u>Fuel</u>	Jet A, Jet A-1 (ASTM 1655)		
<u>Engine Limits</u>	Maximum Take-Off (5 min)	2300 rpm	
	Maximum Continuous Operation (Propeller shaft RPM)	2200 rpm	
	Max T/O Power (5min)	100%	(132 kW)
	Max. Continous Power	95%	(126 kW)
<u>Propeller</u>	2 MT Propeller Co. MTV-6-R-C-F/CF194-80 FAA Type Certification Data Sheet No. P19NE		
<u>Propeller Limits</u>	Diameter	76.4 in., +0.0 in., -2.0 in.; (1940 mm, +0.0mm, -50mm)	
	Low Pitch Setting	11°	
	Feather Position	80°	
	Start Lock	15°	
<u>Airspeed Limits</u>	Maximum Never Exceed Speed V _{NE}	201 KEAS, 231 mph	
	Maximum Structural Cruising Speed V _{NO}	160 KEAS, 184 mph	
	Design Cruising Speed V _C	160 KEAS, 184 mph	
	Operating Maneuvering Speed		
	V _O (up to 3968 lbs / 1800 kg)	119 KEAS, 137 mph	
	V _O (3969 lbs / 1801 kg through 4189 lbs / 1900 kg)	126 KEAS, 145 mph	
	V _O (4190 lbs / 1901 kg through 4407 lbs / 1999 kg)	130 KEAS, 149 mph	
	V _O (4408 lbs / 2000 kg through 4630 lbs / 2100 kg)	133 KEAS, 153 mph	
	V _O (4631 lbs / 2101 kg through 4850 lbs / 2200 kg)	136 KEAS, 156 mph	
	V _O (above 4851 lbs / 2201 kg through 5071 lbs / 2300 kg)	140 KEAS, 161 mph	
	Maximum Flap Extending Speed V _{FE} Full Flaps	118 KEAS, 136 mph	
	V _{FE} Approach Flaps	135 KEAS, 155 mph	
	Maximum Landing Gear Operation Speed V _{LO}	160 KEAS, 184 mph	
	Maximum Landing Gear Extended Speed V _{LE}	201 KCAS, 231 mph	
<u>C.G. Range</u>	Forward c/g position (aft of datum):		
	Forward limit		
	Between 3527 lbs. (1600 kg) and 3968 lbs. (1800 kgs)	92.1 in. (2.340 meters)	
	at 5071 lbs. (2300 kgs)	96.9 in. (2.460 meters)	
	Varying Linearly with weight in between		
	Rearward c/g position (aft of datum):		

at 3527 lbs. (1600 kgs)	96.9 in. (2.460 meters)
Between 4189 lbs. (1900 kg) and 4407 lbs. (1999 kgs)	98.8 in. (2.510 meters)
at 5071 lbs. (2300 kgs) and above	99.6 in. (2.530 meters)
Varying Linearly with weight in between	

Empty Wt. C.G. Range

None

Reference Datum

86.5 in. (2.196 meter) in front of leading edge of stub-wing at the wing joint

Leveling Means

Floor of front baggage compartment levelled.

Maximum Weight

Takeoff (Normal Category)	4407 lbs. (1999 kgs)
If MÄM 62-001 is installed	5071lbs. (2300 kgs)
Landing	5071 lbs. (2300 kgs)
Zero Fuel weight	4489 lbs. (2036 kgs)
If MÄM 62-063 is installed	4850 lbs. (2200 kgs)

Minimum Crew

1

No. of Seats

5, If OÄM 62-019 is installed 7

Maximum Baggage

LH Front Baggage Compartment	66 lbs (30 kgs)
RH Front Baggage Compartment	66 lbs (30 kgs)
Rear Baggage Compartment	265 lbs (120 kgs)
If OÄM 62-019 is installed	101 lbs (46 kgs)

Fuel Capacity

With Standard Fuel Tank	52 gallons (196.8 liters) total. 50 gallons (189.2 liters) usable.
With Auxiliary Tank additional	37 gallons (140 liters) total 36.4 gallons (137.8 liters) usable

Oil Capacity

Each engine Maximum – 7.4 qts (7.0 liters).
 Minimum – 5.3 qts (5.0 liters)
 See Note 2
 For specification of engine and gearbox oil see AFM, 7.01.25, Section 2

Coolant

Water / Cooler Protection
 For more details see AFM, Section 2

Maximum Operating Altitude

20,000 feet. (6096 meters)

Control Surface Movements

Aileron	trailing edge up 25°, ± 2°, trailing edge down 15°, +2/-0°
Elevator	trailing edge up 18°, ± 0.5°, trailing edge down 15°, ± 1°
Elevator Trim Tab:	+ 17°, ± 5° (nose up at elevator 10° up) - 35°, ± 5° (nose down at elevator 10° up)
Rudder:	left 30°, ± 1° / right 30°, ± 1°
Rudder Trim Tab:	+ 45°, ± 5° (trim RH at rudder 20° LH) + 28°, ± 3° (trim LH at rudder 20° LH)
Flaps:	
Cruise flap setting	0°, + 2° / - 0°
Approach flap setting	20°, + 4° / - 2°
Landing flap setting	42°, + 3° / - 1°

Manufacturer's Serial Numbers

- a) For aircraft produced at Diamond Aircraft Industries GmbH, N.A. Otto-Str. 5, A-2700 Wiener-Neustadt Austria, eligible serial numbers are 62.007, 62.009 through 62.100.
- b) For aircraft produced at Diamond Aircraft Industries Inc., 1560 Crumlin Sideroad, London Ontario N5v 1S2, Canada, eligible serial numbers are 62.C001 through 62.C010.

Certification Basis

Type Certification under 14 CFR Section 21.29 including the following requirements:

- Joint Aviation Requirements (JAR) 23, Amdt. 1, dated February 01, 2001.
- A list of Significant Regulatory Differences were addressed using 14 CFR Part 23 amendment compared to CS-23, Original Issue . The certification basis is equivalent to 14 CFR Part 23 effective February 1, 1965, including Amendments 23-1 through Amendment 23-55.
- §23.1306 Electrical and electronic system lightning protection.
- §23.1308 High-intensity Radiated Fields (HIRF) Protection. [please add]
- 14 CFR Part 36, effective December, 1969, including Amendments 36-1 through Amendments 36-28.
- Special Conditions:
- 23-169-SC applicable to the derivative model DA-62 for Diesel Cycle Engine Using Turbine (Jet) Fuel.

Equivalent safety Items:

Equivalent Levels of Safety findings made per the provisions of 14 CFR 21.21(b)(1) for:

- ACE-05-05 - Ignition Switches with the Austro AE300 Diesel Engine.
- ACE-05-06C - Cockpit Controls and Motion and Effect of Cockpit Controls with the Austro AE300 Diesel Engine.
- ACE-05-07 - Liquid Cooling with the Austro AE300 Diesel Engine.
- ACE-10-07 - Fuel Pump Installations with the Austro AE300 Diesel Engine.

FAA agrees with the EASA assessment for the changed product rule regarding the changes for this derivative model. The following are required regulations determined by the EASA that applicable due to the significantly changed areas:

- CS 23.573 Damage tolerance and fatigue evaluation of structures (CS 23, amendment 2)
- CS 23.603 Materials and workmanship (CS 23, amendment 2)
- CS 23.613 Material strength and properties and design values (CS 23, amendment 2)
- CS 23.629 Flutter (CS 23, amendment 2)
- CS 23.775 Windshields and windows (CS 23, amendment 4)
- CS 23.1419 Ice protection (CS 23, amendment 4)

Based on editorial changes or references to guidance material the following later amendments apply:

- CS 23.851 Fire extinguishers (CS 23, amendment 2)
- CS 23.909 Turbo charger system (CS 23, amendment 2)

DAI elected to comply with the following requirements:

- CS 23.0049 Stalling Speed (CS 23, amendment 1)
- CS 23.149(d) Vsse (CS 23 Initial issue)
- CS 23.562 Emergency landing dynamic conditions (CS 23, amendment 1)
- CS 23.807 Emergency Exits (CS 23, Initial issue)
- CS 23.1093 Induction system icing protection (CS 23, Initial issue)
- CS 23.1326 Pitot heat indication system (CS 23, amendment 3)
- CS 23.1431 Electronic equipment (CS 23, amendment 3)
- CS 23.1507 Maneuvering speed (CS 23, Initial issue)
- CS 23.1563 Airspeed placards (CS 23, Initial issue)
- The European Aviation Safety Agency (EASA) certificated this aircraft under their Type certificate Number A.005.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) is listed in the Airplane Flight Manual and must be installed in the airplane for certification.

In addition, the following items of equipment are required:

Airplane Flight Manual, Document No. 7.01.25-E, Rev. 3, dated 15-Nov-2015, or a later approved revision.

Maintenance Manual (including Airworthiness Limitation), Document No. 7.02.25, Rev. 0, dated 01-Apr-2015, or a later approved revision..

Import requirements

a) For aircraft produced in Austria, The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Austro Control (ACG) on behalf of the European Community. The Export C of A should contain the following statement “The aircraft covered by this certificate has been examined, tested, and found to comply with Code of Federal Regulations Part 23 approved under U.S. Type Certificate No. A57CE and to be in a condition for safe operation”.

b) For aircraft produced in Canada, a United States airworthiness certificate may be issued on the basis of a Canadian Certificate of Airworthiness for Export signed by a representative of the Transport Canada Civil Aviation (TCCA), containing the following statement (in the English language): ‘The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. type certificate No. A57CE and to be in a condition for safe operation.’

c) The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

d) The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is FAR Section 21.183(b) or 21.183(d).

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, *Airworthiness Certification of Aircraft*, for requirements for issuance of an *airworthiness certificate* for imported aircraft.

Service Information

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or Diamond Aircraft DOA No. EASA.21J.052:

- Service bulletins
- Structural Repair Manuals
- Vendor Manuals
- Aircraft Flight Manuals, and
- Overhaul and Maintenance Manuals

The FAA accepts such documents and considers them FAA-approved unless one of the following condition exists:

- The documents change the limitations, performance, or procedures of the FAA approved manuals; or
- The documents make an acoustical or emissions changes to this product’s U.S.type certificate as defined in 14 CFR § 21.93.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type

certificate. If this is the case it will be noted on the document.

- NOTE 1: Approved engine configuration for installation in the DA 62: E4P-C
With approved engine software according to DAI MSB 62-002, always latest version.
- NOTE 2: Weight and Balance:
A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.
The certificated empty weight and corresponding center of gravity location must include full oil, coolant and unusable fuel.
- NOTE 3: The placards specified in the EASA approved Airplane Flight Manual must be displayed.
- NOTE 4: "Compliance with requirements of 14 CFR § 23.1419 as amended by Amendment 23-43 effective May 10, 1993, has been established by the Exemption Number 17118 granted to Diamond Aircraft Industries, Austria, dated Oct 03, 2016 provided required ice protection systems are installed and functioning properly, and the airplane and the ice protections system are operated in accordance with Airplane Flight Manual Supplement S03, "Ice Protection System For Flight Into Known Icing Rev. 1," dated 14-Oct-2016, or later approved revision."
- NOTE 5: For approved software versions of Garmin G1000 Integrated Avionics System, see DAI MSB 62-003, always latest version.
- NOTE 6: Instructions for Continued Airworthiness and Service Life Limited components is included in the Maintenance Manual Document No. 7.02.25. (Revisions to Airworthiness Limitations must be approved by the FAA)
- NOTE 7: Exterior color is limited to that specified in Diamond Document No. 7.02.25.
- NOTE 8: Major structural repair must be accomplished at a FAA certified repair stations rated for composite aircraft structure work, in accordance with Diamond repair methods approved by EASA or Diamond Aircraft DOA ref. EASA.21J.052 and accepted by FAA.
- NOTE 9: Approved major changes on Diamond DA 62 are:
- | | |
|------------|-------------------------------------|
| MÄM 62-001 | 2300 kg MTOM |
| MÄM 62-003 | Rear Baggage Compartment (5 seater) |
| MÄM 62-006 | 2300 kg MLM |
| MÄM 62-007 | Colors other than white |
| MÄM 62-008 | Nose Baggage Compartment |
| MÄM 62-063 | Maximum Zero Fuel Mass 2200 kg |
| OÄM 62-001 | Aux Fuel Tank Installation |
| OÄM 62-002 | TKS System (non FIKI) |
| OÄM 62-003 | Flights into Known Icing Conditions |
| OÄM 62-004 | Oxygen System |
| OÄM 62-019 | 7 Seat Configuration |

.....END.....