

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A47CE
Revision 10
DIAMOND
DA 40
DA 40 F
DA 40 NG

NOV 16, 2011

TYPE CERTIFICATE DATA SHEET NO. A47CE

This data sheet which is part of Type Certificate No. A47CE prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Revision no.10 to this data sheet adds the Model DA 40 NG Design Change VÄM 40-004.

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

I. Model DA 40 (Normal and Utility Category), approved August 15, 2001

<u>Engine</u>	Textron Lycoming IO-360 M1A, TCDS 1E10	
<u>Fuel</u>	100LL minimum grade aviation gasoline	
<u>Engine Limits</u>	Maximum Take-Off, 2700 rpm Continuous Operation, 2400 rpm	
<u>Propeller</u>	(a) MT Propeller Co. MTV-12-B/180-17(), TCDS P25NE () – designations: none or f	
<u>Propeller Limits</u>	Diameter	70.9 in., +0.0 in., -2.0 in; (1800 mm, +0.0mm, -50mm)
	Low Pitch	10.5°
	High Pitch	30°
<u>Airspeed Limits</u>	Maximum Never Exceed Speed V_{NE}	173 KCAS, 199 mph
	Maximum Structural Cruising Speed V_{NO}	128 KCAS, 147 mph
	Design Cruising Speed V_C	128 KCAS, 147 mph
	Maneuvering Speed V_A (up to 2161 lbs / 980 kg)	97 KCAS, 112 mph
	V_A (up to 2535 lbs / 1150 kg)	109 KCAS, 125 mph
	Maximum Flap Extending Speed $V_{FE \text{ Full Flaps}}$	94 KCAS, 108 mph
	$V_{FE \text{ Take-off Flaps}}$	109 KCAS, 125 mph
<u>Maximum Weight</u>	Takeoff (Utility Category)	2161 lbs. (980 kgs)
	Takeoff (Normal Category)	2535 lbs. (1150 kgs)
	Takeoff (Normal Category)	2646 lbs. (1200 kgs) see Note 13
	Landing	2407 lbs. (1092 kgs)
		2535 lbs. (1150 kgs) see Note 10
<u>C.G. Range</u>	Forward c/g position (aft of datum):	
	up to 2161 lbs.	94.5 in. (2.4 meter)
	at 2535 lbs.	96.8 in. (2.46 meter)
	at 2646 lbs.	97.6 in. (2.48 meter) see Note 13
	Varying Linearly with weight in between	
	Rearward c/g position (aft of datum):	

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	With Standard Fuel Tank	102.0 in. (2.59 meter)
	With Long Range Fuel Tank	100.4 in (2.55 meter)
<u>Empty Wt. C.G. Range</u>	None	
<u>Reference Datum</u>	86.4 in. (2.194 meter) in front of leading edge of stub-wing at the wing joint	
<u>Leveling Means</u>	Wedge 600:31 top surface of fuselage tube in front of dorsal fin.	
<u>Minimum Crew</u>	1	
<u>No. of Seats</u>	4	
<u>Maximum Baggage</u>	Behind Rear Seats	66.14 lbs (30 kgs)
	Baggage Tube	11.02 lbs (5 kgs)
	With Baggage Extension	100 lbs (45kgs); see Note 8
<u>Fuel Capacity</u>	With Standard Fuel Tank	41.2 gallons (156 liters) total. 40.2 gallons (152 liters) usable.
	With Long Range Fuel Tank	51.0 gallons (193 liters) total. 50.0 gallons (189.2 liters) usable.
<u>Oil Capacity</u>	Maximum - 8 qts (7.7 liters). Minimum - 4 qts (3.785 liters) See Note 1.	
<u>Maximum Operating Altitude</u>	16,404 feet. (5000 meters)	
<u>All weather capability</u>	Day- VFR Night VFR See Note 11 IFR See Note 12 Flight into known icing conditions is prohibited	
<u>Control Surface Movements</u>	Aileron	trailing edge up 20°, ± 2°, trailing edge down 13°, +2/-0°
	Elevator	With Standard Fuel Tank: trailing edge up 23°, ± 1°, trailing edge down 15°, ± 1° With Long Range Fuel Tank: trailing edge up 23°, +0/-1°, trailing edge down 16°, +1/-0° With Standard or Long Range Fuel Tank (see Note 13): trailing edge up 18°, +0/-1°, trailing edge down 16°, +1/-0°
	Trim tab	Serial Numbers 40.006 to 40.044 (except 40.030): + 18°, ± 2° (nose up) / - 33°, ± 2° (nose down) Serial Numbers 40.030 and 40.045 and subsequent: + 12°, ± 2° (nose up) / - 39°, ± 2° (nose down)
	Rudder	With Standard Fuel Tank: left 29°, ± 1° / right 31°, ± 1° With Long Range Fuel Tank: left 24°, ± 1° / right 26°, ± 1° MÄM 40-113 installed: left 24°, ± 1° / right 26°, ± 1° (see NOTE 9)
	Take off flap setting	20°, ± 2°
	Landing flap setting	42°, ± 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 40.006 to 40.200.
- b) For aircraft produced at Diamond Aircraft Industries Inc., 1560 Crumlin Sideroad, London, Ontario, N5V 1S2 Canada, eligible serial numbers are 40.201 and subsequent.

Certification Basis

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

- Joint Aviation Requirements (JAR) 23, Initial Issue, dated March 11, 1994.
- NOTE: The DA 40 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 23-51.
- 14 CFR Part 36 effective December 1, 1969, including Amendments 36-1 through Amendment 36-21.
- Special Condition 23-107-SC applicable to the Model DA 40 for Protection of Systems for High Intensity Radiated Fields, published on June 7, 2001.
- Equivalent Level of Safety ACE-03-01 to 14 CFR Part 23, § 23.1337(b), for auxiliary fuel level indication system is applicable to the Model DA40 equipped with long range fuel tanks per Optional Design Change OÄM 40-071c (ref. Note 7).
- The Austro Control Group (ACG) originally type certificated this aircraft under its Type Certificate Number FZ021-JAA. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product under their Type certificate Number A.022 on behalf of Austria.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

In addition, the following items of equipment are required:

DA 40 Airplane Flight Manual, Document No. 6.01.01-E, dated July 15, 2006
Maintenance Manual (including Airworthiness Limitation), Document No. 6.02.01, dated January 9, 2003.

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. A 47CE 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. A47CE 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).

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: 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 2: The placards specified in the ACG approved Airplane Flight Manual must be displayed.

NOTE 3: Instructions for Continued Airworthiness and Service Life Limited components is included in the Maintenance Manual Document No. 6.02.01. Revisions to Airworthiness Limitations must be ACG approved for the FAA.

NOTE 4: Exterior color is limited to that specified in Document No. 6.02.01.

NOTE 5: 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 6: This NOTE was removed under Revision 1.

NOTE 7: Optional design change OÄM 40-071c, Long Range Fuel Tank, approved for Serial Number 40.030 and subsequent.

NOTE 8: The increased baggage load is applicable if the baggage extension, Optional Design Change OÄM 40-163, is installed.

NOTE 9: If Mandatory Design Change MÄM 40-113 has been accomplished, the rudder and rudder deflections are the same as those listed for the Long Range Fuel Tank.

NOTE 10: The landing mass of 2535 lbs (1150 kg) is only approved with Mandatory Design Change MÄM 40-123 installed.

NOTE 11: For Night VFR Operation the optional design change OÄM 40-064 must be incorporated.

NOTE 12: For IFR Operation the optional design change OÄM 40-067 must be incorporated.

NOTE 13: The maximum takeoff mass of 2646 lbs (1200 kgs) is only approved if Mandatory Design Change MÄM 40-227 2646 lbs. (1200 kgs) Maximum Takeoff Mass and MÄM 40-123 2535 lbs. (1150 kgs) Maximum Landing Mass are installed. Flight Manual Temporary Revision TR-MÄM-40-227 or later approved revision of DA 40 Airplane Flight Manual, Document No. 6.01.01-E where this TR has been incorporated is required.

II. Model DA 40 F (Normal and Utility Category), approved July 15, 2005

<u>Engine</u>	Textron Lycoming O-360-A4M, TCDS E286	
<u>Engine Limits</u>	Maximum Take-Off, 2700 rpm Continuous Operation, 2700 rpm	
<u>Propeller</u>	(a) Sensenich Propeller 76EM8S10-0-63, TCDS P4EA (b) MT Propeller MT188R135-4G, TCDS P19BO	
<u>Fuel</u>	100LL minimum grade aviation gasoline	
<u>Maximum Weight</u>	Takeoff (Utility Category)	2161 lbs. (980 kgs)
	Takeoff (Normal Category)	2535 lbs. (1150 kgs)
	Landing	2535 lbs. (1150 kgs)
<u>Airspeed Limits</u>	Maximum Never Exceed Speed V_{NE}	173 KCAS, 199 mph
	Maximum Structural Cruising Speed V_{NO}	128 KCAS, 147 mph
	Design Cruising Speed V_C	128 KCAS, 147 mph
	Maneuvering Speed V_A (up to 2161 lbs / 980 kg)	97 KCAS, 112 mph
	V_A (up to 2535 lbs / 1150 kg)	109 KCAS, 125 mph
	Maximum Flap Extending Speed $V_{FE \text{ Full Flaps}}$	94 KCAS, 108 mph
	$V_{FE \text{ Take-off Flaps}}$	109 KCAS, 125 mph
<u>C.G. Range</u>	Forward c/g position (aft of datum):	
	up to 2161 lbs.	94.5 in. (2.4 meter)
	at 2535 lbs.	96.8 in. (2.46 meter)
	Varying Linearly with weight in between	
	Rearward c/g position (aft of datum):	
	With Standard Fuel Tank	102.0 in. (2.59 meter)
	With Long Range Fuel Tank	100.4 in (2.55 meter)
<u>Empty Wt. C.G. Range</u>	None	
<u>Reference Datum</u>	86.4 in. (2.194 meter) in front of leading edge of stub-wing at the wing joint	
<u>Leveling Means</u>	Wedge 600:31 top surface of fuselage tube in front of dorsal fin.	
<u>Minimum Crew</u>	1	
<u>No. of Seats</u>	4	
<u>Maximum Baggage</u>	Behind Rear Seats	66.14 lbs (30 kgs)
	Baggage Tube	11.02 lbs (5 kgs)
	With Baggage Extension	100 lbs (45kgs); see Note 8
<u>Fuel Capacity</u>	With Standard Fuel Tank	41.2 gallons (156 liters) total. 40.2 gallons (152 liters) usable.
	With Long Range Fuel Tank	51.0 gallons (193 liters) total. 50.0 gallons (189.2 liters) usable.
<u>Oil Capacity</u>	Maximum - 8 qts (7.7 liters). Minimum - 4 qts (3.785 liters) See Note 1.	
<u>Maximum Operating Altitude</u>	16,404 feet. (5000 meters)	
<u>All weather capability</u>	Day- VFR	

Night VFR
IFR
Flight into known icing is prohibited

Control Surface Movements

Aileron	trailing edge up 20°, ± 2°, trailing edge down 13°, +2/-0°
Elevator	
With Standard Fuel Tank:	trailing edge up 23°, ± 1°, trailing edge down 15°, ± 1°
With Standard Fuel Tank for intentional spinning (see Note 8):	trailing edge up 21°, ±0.5°, trailing edge down 18°, ±0.5°
With Long Range Fuel Tank:	trailing edge up 23°, +0/-1°, trailing edge down 16°, +1/-0°
Trim tab	+ 12°, ± 2° (nose up) / - 39°, ± 2° (nose down)
Rudder	left 24°, ± 1° / right 26°, ± 1°
Take off flap setting	20°, ± 2°
Landing flap setting	42°, ± 1°

Manufacturer's Serial Numbers

- For aircraft produced at Diamond Aircraft Industries GmbH, N.A. Otto-Str. 5, A-2700 Wiener-Neustadt Austria, eligible serial numbers are 40.F001 and subsequent.
- For aircraft produced at Diamond Aircraft Industries Inc., 1560 Crumlin Sideroad, London, Ontario, N5V 1S2 Canada, eligible serial numbers are 40.FC001 and subsequent.

Certification Basis

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

- Joint Aviation Requirements (JAR) 23, Initial Issue, dated March 11, 1994.
- NOTE: The DA 40 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 23-51.
- 14 CFR Part 36 effective December 1, 1969, including Amendments 36-1 through Amendment 36-21.
- Special Condition 23-107-SC applicable to the Model DA 40 for Protection of Systems for High Intensity Radiated Fields, published on June 7, 2001.
- Equivalent Level of Safety ACE-03-01 to 14 CFR Part 23, § 23.1337(b), for auxiliary fuel level indication system is applicable to the Model DA40 equipped with long range fuel tanks per Optional Design Change OÄM 40-071c (ref. Note 6).
- The Austro Control Group (ACG) originally type certificated this aircraft under its Type Certificate Number FZ021-JAA. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product under their Type certificate Number A.022 on behalf of Austria.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

In addition, the following items of equipment are required:

DA 40 F Airplane Flight Manual, Document No. 6.01.02-E, August 22, 2005
Maintenance Manual (including Airworthiness Limitation), Document No. 6.02.01, dated January 9, 2003 and including Temporary Revision TR-VÄM-40-002a, dated December 10, 2006 or later approved revision of Document No. 6.02.01.

Import requirements

- 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. A 47CE 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. A47CE 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).

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: 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 2: The placards specified in the ACG approved Airplane Flight Manual must be displayed.

NOTE 3: Instructions for Continued Airworthiness and Service Life Limited components is included in the Maintenance Manual Document No. 6.02.01. Revisions to Airworthiness Limitations must be ACG approved for the FAA.

- NOTE 4: Exterior color is limited to that specified in Document No. 6.02.01.
- NOTE 5: 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 6: Optional design change OÄM 40-071c, Long Range Fuel Tank, approved for Serial Number 40.F001 and subsequent and 40.FC001 and subsequent.
- NOTE 7: The increased baggage load is applicable if the baggage extension, Optional Design Change OÄM 40-163, is installed.
- NOTE 8: For intentional spinning, OÄM 40-201 Intentional Spinning for DA 40 F, OÄM 40-203 MT188R135-4G Propeller and OÄM 40-232 Canopy Jettison System must be incorporated. Intentional spinning not allowed with OÄM 40-071 Long Range Fuel Tanks. Intentional spinning not allowed with wheel fairings installed. Flight Manual Temporary Revision TR-OÄM-40-201 or later approved revision of DA 40 F Airplane Flight Manual, Document No. 6.01.02-E where this TR has been incorporated is required.

III. Model DA 40 NG (Normal Category), approved November 16, 2011

<u>Engine</u>	Austro Engine E4, TCDS E00081EN		
<u>Engine Limits</u>	Maximum Take-Off, 2300 rpm Continuous Operation, 2100 rpm (Propeller shaft r.p.m.)		
<u>Propeller</u>	MT Propeller MTV-6-R/190-69 TCDS P19NE		
<u>Fuel</u>	Jet A, Jet A-1 (ASTM 1655)		
<u>Maximum Weight</u>	Takeoff	2822 lbs. (1280 kgs)	
	Landing	2681 lbs. (1216 kgs)	
	With OÄM 40-334 installed	2822 lbs. (1280 kgs)	see Note 9
<u>Airspeed Limits</u>	Maximum Never Exceed Speed V_{NE}	173 KCAS	199 mph
	Maximum Structural Cruising Speed V_{NO}	128 KCAS	147 mph
	Design Cruising Speed V_C	128 KCAS	147 mph
	Maneuvering Speed V_A		
	(up to 2381 lbs / 1080kgs)	99 KCAS	114 mph
	(from 2381 lbs / 1080 kgs to 2602 lbs / 1180 kgs)	106 KCAS	122 mph
	(above 2602 lbs / 1180 kgs)	111 KCAS	127 mph
	Maximum Flap Extending Speed V_{FE} Full Flaps	97 KCAS	111 mph
	V_{FE} Take-off Flaps	109 KCAS	125 mph
<u>C.G. Range</u>	Forward c/g position (aft of datum):		
	From 2072 lbs up to 2381 lbs.	94.5 in. (2.4 meter)	
	at 2822 lbs.	96.8 in. (2.46 meter)	
	Varying Linearly with weight in between		
	Rearward c/g position (aft of datum):	99,6 in. (2.53 meter)	
<u>Empty Wt. C.G. Range</u>	None		
<u>Reference Datum</u>	86.4 in. (2.194 meter) in front of leading edge of stub-wing at the wing joint		
<u>Leveling Means</u>	Wedge 600:31 top surface of fuselage tube in front of dorsal fin.		
<u>Minimum Crew</u>	1		
<u>No. of Seats</u>	4		
<u>Maximum Baggage</u>	Behind Rear Seats	66.14 lbs (30 kgs)	
	Baggage Tube	11.02 lbs (5 kgs)	
	With Short Baggae Extension	33 lbs (15kgs)	
	With Baggage Extension	100 lbs (45kgs);	
<u>Fuel Capacity</u>	With Standard Fuel Tank	30 gallons (113.6 liters) total.	
		28 gallons (106 liters) usable.	
	With Long Range Fuel Tank	41 gallons (155.2 liters) total.	
		39 gallons (147.6 liters) usable.	
<u>Oil Capacity</u>	Maximum – 7.4 qts (7 liters). Minimum – 5.3 qts (5 liters) See Note 1.		
<u>Maximum Operating Altitude</u>	16,404 feet. (5000 meters)		
<u>All weather capability</u>	Day- VFR Night VFR IFR		

Flight into known icing is prohibited

<u>Control Surface Movements</u>	Aileron	trailing edge up 20°, ± 2°, trailing edge down 13°, +2/-2°
	Elevator	trailing edge up 21°, + 0°/-1°, trailing edge down 17°, + 1°/-0°
	Trim tab	+ 12°, ± 2° (nose up) / - 39°, ± 2° (nose down)
	Rudder	left 24°, ± 1° / right 26°, ± 1°
	Take off flap setting	20°, ± 2°
	Landing flap setting	42°, ± 1°

Manufacturer's Serial Numbers

For aircraft produced at Diamond Aircraft Industries GmbH, N.A. Otto-Str. 5, A-2700 Wiener-Neustadt Austria, eligible serial numbers are D4.111, D4.365, 40.N001 and subsequent. DA 40 D aircraft with Serial Numbers 40.080, 40.084, D4.001 and subsequent manufactured in Austria may be converted to DA 40 NG via Service Bulletin OSB D4-080.

Certification Basis

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

- Joint Aviation Requirements (JAR) 23, Initial Issue, dated March 11, 1994.
- NOTE: The DA 40 was certificated using the FAA/EASA 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 23-51.
- 14 CFR Part 36 effective December 1, 1969, including Amendments 36-1 through Amendment 36-21.
- Special Condition 23-250-SC applicable to the Model DA 40 NG, Diesel Cycle Engine, published on April 1, 2011.
- Special Condition 23-253-SC applicable to the Model DA 40 NG, Electronic Engine Control System published on October 28, 2011.
- Special Condition 23-107-SC applicable to the Model DA 40 for Protection of Systems for High Intensity Radiated Fields, published on June 7, 2001
- Equivalent Level of Safety ACE-11-04 to 14 CFR Part 23, § 23.777(d) for cockpit controls and 23.779(b) for Motion and Effect of cockpit controls for the Diamond Aircraft Industries Model DA 40 NG airplane.
- Equivalent Level of Safety ACE-11-05 to 14 CFR Part 23, § 23.1145 Ignition Switches for the Diamond Aircraft Industries Model DA 40 NG airplanes with Austro E-4 Aircraft Diesel Engine.
- Equivalent Level of Safety ACE-11-06 to 14 CFR Part 23, § 23.1061 Liquid Cooling Installation for the Diamond Aircraft Industries Model DA 40 NG airplanes with Austro E-4 Aircraft Diesel Engine.
- Equivalent Level of Safety ACE-11-08 to 14 CFR Part 23, § 23.991(a)(1) and § 23.991(b) Fuel Pumps for the Diamond Aircraft Industries Model DA 40 NG airplanes with Austro E-4 Aircraft Diesel Engine.
- The Austro Control (ACG) originally type certificated this aircraft under its Type Certificate Number FZ021-JAA. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product under their Type certificate Number A.022 on behalf of Austria.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

In addition, the following items of equipment are required:

DA 40 NG Airplane Flight Manual, Document No. 6.01.15-E, revision 1 dated June 15, 2011 or a later approved revision.

Maintenance Manual (including Airworthiness Limitation), Document No. 6.02.15 revision 1 dated June 15, 2011 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. A 47CE and to be in a condition for safe operation”.

b) 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).

c) 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).

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

NOTE 3: Instructions for Continued Airworthiness and Service Life Limited components is included in the Maintenance Manual Document No. 6.02.15. Revisions to Airworthiness Limitations must be EASA approved for the FAA.

- NOTE 4: Exterior color is limited to that specified in Document No. 6.02.15.
- NOTE 5: 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 and accepted by FAA.
- NOTE 6: For approved Software version of Garmin G1000 Integrated Avionic System see DAI Service Bulletin MSB 40NG-003, always latest revision.
- NOTE 7: Approved engine model configuration for installation in the DA 40 NG: E4-A.
- NOTE 8: For approved E4 engine software version see DAI Service Bulletin MSB 40NG-002, latest issue.
- NOTE 9: The Maximum Landing Mass of 1280 kg is only applicable, if Optional Design Change OÄM 40-334 (reinforcements, struts and large wheels) is installed. For approved wheel brands and types refer to the AFM and AMM.

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