# *European Aviation Safety Agency*

## EASA

## TYPE-CERTIFICATE DATA SHEET

## Diamond DV 20

**Type Certificate Holder:**

**Diamond Aircraft Industries GmbH.**
N.A. Otto-Strasse 5
2700 Wr. Neustadt
AUSTRIA

**Manufacturer:**

**HOAC-AUSTRIA**
Flugzeugwerk Wr. Neustadt GesmbH.
N.A. Otto-Strasse 5
2700 Wr. Neustadt
AUSTRIA

**Diamond Aircraft Industries GmbH.**
N.A. Otto-Strasse 5
2700 Wr. Neustadt
AUSTRIA

For variants: **DV 20**

Issue 01 : March, 27. 2009

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## SECTION 1: DV 20



## Change Record

# SECTION 1 DV 20

## A.I. General

| | | |
|---|---|---|
| 1. | a) Type:<br>b) Variant: | DV 20<br>--- |
| 2. | Airworthiness Category: | CS-VLA |
| 3. | Type Certificate Holder: | Diamond Aircraft Industries GmbH.<br>N.A. Otto-Strasse 5<br>2700 Wr. Neustadt<br>AUSTRIA<br>DOA No. EASA 21J.052 |
| 4. | Manufacturer: | Diamond Aircraft Industries GmbH.<br>N.A. Otto-Strasse 5<br>2700 Wr. Neustadt<br>AUSTRIA |
| 5. | EASA Certification Application Date: | None (Prior to 28. September 2003, accepted under Regulation EC 1702/2003) |
| 6. | ACG Type Certification Date: | 15. April 1993 |
| 7. | EU Member States reference Type Certificates | Austria: FZ 1/93 |
| 8. | EASA Type Certificate Issue Date: | 27. March 2009 |

## A.II. Certification Basis

| | | |
|---|---|---|
| 1. | Reference Date for determining the applicable requirements: | Accepted under Regulation EC 1702/2003 |
| 2. | (Reserved) | |
| 3. | (Reserved) | |
| 4. | Certification Basis: | The EASA Aircraft Type Certification standard includes that of ACG TCDS FZ 1/93, based on individual EU member state certification of this standard prior to 28. September 2003 using JAR-VLA as the applicable airworthiness requirement. |
| 5. | Airworthiness Requirements: | JAR-VLA including Amendment VLA/92/1 |
| 6. | Requirements elected to comply: | None |
| 7. | Special Conditions: | None |
| 8. | (Reserved): | |
| 9. | Equivalent Safety Findings: | None |

10. Environmental Standards: ICAO, Annex 16, Volume I, see EASA Type Certificate Data Sheet Noise TCDSN A.439

## A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Configuration - Drawing List dated 25.4.1993 including Design Changes ÄM 1 through 237
MÄM 20-239 and subsequent
OÄM 20-238 and subsequent
RÄM 20-001 and subsequent

2. Description: Single engine, two-seated cantilever low wing airplane, composite construction, fixed tricycle landing gear, T-tail

3. Equipment: see Equipment List, AFM. In addition a fire extinguisher and a fuel pipette acc. To AFM must be installed.

4. Dimensions:

| | |
|---|---|
| Span | 10.78 m |
| Length | 7.16 m |
| Height | 2.10 m |
| Wing Area | 11.6 m² |

5. Engines: Rotax 912 A3 or 912 S3
EASA Engine TCDS No. E.121
see Note 5

Engine Limits (prop r.p.m)

Model with engine Rotax 912 A3

| | |
|---|---|
| Max take-off rotational speed | 2550 r.p.m. |
| Max continuous rotational speed | 2420 r.p.m. |
| Propeller reduction | 1:2.2727 |

Model with engine Rotax 912 S3

| | |
|---|---|
| Max take-off rotational speed | 2385 r.p.m. |
| Max continuous rotational speed | 2260 r.p.m. |
| Propeller reduction | 1:2.43 |

For power-plants limits, refer to AFM.

6. (Reserved)

7. Propellers: Model with engine Rotax 912 A3
Hoffmann HO-V72F/S170DW
LBA TCDS 32.130/19
or
Hoffmann HO-V352F/170FQ or
Hoffmann HO-V352F/C170FQ
LBA TCDS No. 32.130/88
or
MT-Propeller MTV-21-A/175-05
LBA TCDS 32.130/86
See Note 4

Model with engine Rotax 912 S3
Hoffmann HO-V352F/170FQ or

Hoffmann HO-V352F/C170FQ
LBA TCDS No. 32.130/88

Propeller limits: for Hoffmann Propeller; Diameter
Maximum: 1700 + 0 mm
Minimum: 1700 – 10 mm

For mt-Propeller; Diameter
Maximum: 1750 + 0 mm
Minimum: 1750 – 0 mm

8. Fluids:
   Fuel: AVGAS 100LL or
   Unleaded Automotive Fuel 95 RON / 91 AKI
   (Specification EN 228)

   See AFM for approved fuel grades.

   Oil: See AFM for approved oil types and grades.

9. Fluid capacities:
   Fuel: Usable: 77 litres
   Total: 79 litres

   Oil: Minimum: 2.5 litres
   Maximum: 3.0 litres

10. Air Speeds:
    Design Manoeuvring Speed $v_A$: 193 km/h (104 KCAS)
    Flap Extended Speed $v_{FE}$: 150 km/h (81 KCAS)
    Maximum structural cruising speed $v_{NO}$: 215 km/h (116 KCAS)
    Never exceed speed $v_{NE}$: 291 km/h (157 KCAS)

11. All-weather Capability: Day-VFR (see note 2)

12. Maximum Masses: Take-Off 730 kg
    Landing 730 kg

13. Centre of Gravity Range:
    Forward limit (for all masses): 250 mm behind Datum
    Rear limit (for all masses): 390 mm behind Datum

14. Datum: tangent to the leading edge of the wing at the root rib

15. (reserved)

16. Levelling Means: Wedge 52:1000, 500 mm (19.69 in) in front of the rudder fin.

17. Minimum Flight Crew: 1 (Pilot)

18. Maximum Passenger Seating Capacity: 1

19. (Reserved)

20. Baggage / Cargo Compartments: Max. allowable load
    20 kg only permissible with baggage harness

21. Wheels and Tyres

| | |
|---|---|
| Nose Wheel Tyre Size | 300x100/4.00 - 4 or 5.00 - 4 |
| Main Wheel Tyre Size | 380x150/ 15 x 6.00-5 |
| | For approved types and rating, refer to AFM. |

## A.IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM) — Model with engine Rotax 912 A3
   See Note 3 — Document No. 4.01.01

   Model with engine Rotax 912 S3
   Document No. 4.01.20

2. Airplane Maintenance Manual (AMM) (incl. Airworthiness Limitations) — Document No. 4.02.02

3. Service Informations, Service Bulletins and Services Letters

4. Life Limited Parts — as listed in AMM

## A.V. Notes

1. This certification applies to SNo.20003, 20005 to 20160 for production at HOAC Austria, SNo. 20200 and subsequent for production at Diamond Austria.

   SNo. 20003 has approved deviations from the original type design according to Diamond Doc. 4.07.200 Chpt.1 und Doc.No.4.07.200 Chpt.2. and AFM Supplement No. 4 dated 20.April 1998.

2. Any structural part must be painted white, except in the area of the registration marks and decorative painting areas according to the AMM.

3. Master Manual is the approved German Version, in addition approved English Version is available.

4. For the propeller MTV-21-A/175-05, AFM Supplement 5 dated 20.December 1998 applies.

5. The retrofit installation of the Rotax 912 S3 engine is approved with SB 20-37.

## Change Record

| Issue | Date | Changes |
|---|---|---|
| Issue 1 | 27. Mar 2009 | Initial Issue; Transfer from Austrian TCDS FZ 1/93<br>Production by Diamond Aircraft Industries GmbH. |