European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

HK 36 TTC-ECO

Type Certificate Holder: Diamond Aircraft Industries

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

For variant: ---

CONTENT

SECTION 1: HK 36 TTC-ECO

Change Record

SECTION 1 HK 36 TTC-ECO

A.I. General

1.	a) Type: b) Variant:	HK 36 TTC-ECO --
2.	Airworthiness Category:	Restricted
3.	Type Certificate Holder:	Diamond Aircraft Industries GmbH N.A. Otto-Str. 5 A-2700 Wiener Neustadt Austria
4.	Manufacturer:	Diamond Aircraft Industries GmbH N.A. Otto-Str. 5 A-2700 Wiener Neustadt Austria
5.	Certification Application Date:	26. March 1997
6.	ACG Certification Date :	19. Jan. 1999

The EASA Type Certificate replaces the Austrian Type Certificate SF 3/82

7.	EASA Certification Date:	21. December 2005 (reissue for EASA)

A.II. Certification Basis

1.	Reference Date for determining the applicable requirements:	---
2.	(Reserved)	
3.	(Reserved)	
4.	Certification Basis:	CRI A-1 Type Certification Basis and CRI A-4 Operation with under wing Container and CRI A-8 Aerial Photography
5.	Airworthiness Requirements:	JAR-22, Change 5, issued 28-Oct-1995
6.	Requirements elected to comply:	None
7.	Special Conditions:	CRI E-1 Propeller Feathering Control CRI G-1 Engine Operating Limitation CRI O-1 Use as Tow-plane CRI C-1 Loads on under wing container
8.	Exemptions:	None

9.	Equivalent Safety Findings:	CRI E-2 Propeller Type Definition CRI D-1 Middle Air brake stop CRI E-3 Fuel System CRI A-4 Operation with under wing container
10.	Environmental Standards:	CRI N-1 Noise for 930 kg

A.III. Technical Characteristics and Operational Limitations

1.	Type Design Definition:	Drawing List HK 36 T** Doc. 3.08.01 dated 20.December 1996 including Design Changes up to 57 and following List of Design Changes (ÄM) HK 36 T**
2.	Description:	Single engine, two-seated cantilever low wing airplane, GFRP-construction, T-tail, side by side seating configuration, fixed two-legged tri cycle landing gear, air brakes on upper wing surface, wing tanks and under wing container for installation of additional equipment. The airplane is technically identical to the HK 36 TTC-ECO of TCDS A.065 with the additional installed under wing container for possibility to install special mission equipment. Mission equipment is not part of the certification.
3.	Equipment:	Minimum Equipment: 1 airspeed indicator (range up to 300 km/h) 1 altimeter with mbar barometric dial 1 magnetic compass with deviation table 1 RPM indicator (Showing engine RPM) 1 running time meter 1 oil pressure indicator 1 oil temperature indicator 1 cylinder head temperature or coolant temperature gauge (MÄM 36-450 installed) 2 fuel quantity indicators 1 “Low Fuel” caution light 1 manifold pressure indicator 1 fuel pressure warning light 1 ammeter 1 4-piece harness for each seat 1 temperature control light (EGT, airbox) 1 generator warning light 1 TCU warning light 1 TCU control light

4. Dimensions:

Span	16,33 m including Winglet
Length	7,28 m
Height	1,78 m
Wing Area	15,3 m²

5. Engines: Designation: Rotax 914 F3 or F4
Data Sheet: TW 10-ACG

5.1	Engine Limits:	Max take-off (5 min)	5800 r.p.m/ 38,4 inHg or 39,0

	inHg max. 39,9 in Hg.
Max continuous	5500 r.p.m/34,0 inHg or 34,9 inHg max. 35,4 inHg
	see Note 8

6. (Reserved)

7. Propellers: 1 mt-Propeller MTV-21-A-C-F/CF175-05
Data Sheet No.: LBA 32.130/86

7.1 Settings

Low pitch setting:	16.5°±0.2°
High pitch setting:	28°±1°
Start lock setting	19°±1°
Feather setting	83°±1°
Ctrwts at low pitch:	32,5°±1°
Diameter	1750 mm±0
Gearbox Ratio	1: 2,4286

8. Fluids:

8.1 Fuel: AVGAS 100 LL or
EN 228 Super /Super Plus unleaded min ROZ 95
(see Flight Manual)

8.2 Oil: "SF" or "SG" + "GL4" or "GL5"automotive oils in accordance to the API System, the use of full synthetic oils is not approved (see Flight Manual)

9. Fluid capacities:

9.1 Fuel:

Total:	110 (2x55) liters
Usable:	106 liters additional 9 liter system fuel

9.2 Oil:

Maximum:	3 liters
Minimum:	2 liters

9.3 Coolant: Anti Freeze Mixture acc AFM 2,8 liters

10. Air Speeds:

Design Manoeuvring Speed v_A:	176 km/h
Maximum rough air speed Vra:	210 km/h
Never exceed speed v_{NE}:	261 km/h
Air Brake in Middle Stop Vabf:	150 km/h

11. Maximum Operating Altitude: ---

12. Allweather Capability: Day-VFR see Note 4

13. Maximum Masses:

Take-off/ Landing	930 kg
Maximum mass of non lifting parts	650 kg

14. Centre of Gravity Range:
    Forward limit: 318 mm behind Datum
    Rear limit: 430 mm behind Datum

15. Datum: wing leading edge at Y = 0,6 m

16. (reserved)

17. Levelling Means: wedge 1000 : 52 horizontal to fuselage tube

18. Minimum Flight Crew: 1 (Pilot)

19. Maximum Passenger Seating Capacity: 2

20. (Reserved)

21. Baggage / Cargo Compartments

Behind Seats	30 kg
Underwing Container	2 x 55 kg

22. Wheels and Tyres: see AMM

A.IV. Operating and Service Instructions

Airplane Flight Manual (AFM)	Airplane Flight Manual, HK 36 TTC-ECO, Doc. No. 3.01.25, ACG approved, issued 10. July 1998 including Supplement 7 " Operation with Underwing Container"
Airplane Maintenance Manual (AMM) (incl. Airworthiness Limitations)	Airplane Maintenance Manual, HK 36 "SUPER DIMONA", Doc 3.02.21 or Doc. 3.02.04 (German Version) See Note 5
	Service Informations and Service Bulletins

A.V. Notes

1) Only industrial manufacturing is permitted.

2) All components exposed to direct sunlight, except for areas used for registration markings and warning marks, must basically have a white surface. Deviations, carried out in accordance with the Maintenance Manual, are permitted.

3) Certification is eligible for Serial Nos. 36.581 and subsequent, except 36.713, 36,717, 36.719, 36.725 and 36.729.

4) Acrobatics, cloud flying, night VFR and intentional spinning are not permitted

5) The HK 36 Series AMM doc. 3.02.21 and 3.02.04 replaces the former singular AMM doc 3.02.01 and 3.02.01E which will be no longer revised. Supplemental supplier manuals which are required for maintenance are listed in the HK Series AMM.

6) The engine Rotax 914 F must be modified in accordance with Rotax SB 914-01, ACG approved, with Propeller Governor WOODWARD A210790, or Rotax SB 912-24, ACG approved, with Propeller Governor McCauley DCFU290D17B/T2 and Rotax TM 914-06 exhaust muffler.

7) The installation and use of the type HK 36 TTC-ECO as a towing airplane, in accordance with the manufacturer's SB No. 40, latest revision, is permitted.

8) Use of different engine TCU-versions in accordance with the manufacturer`s SB No. 66, is permitted.

9) Operation of the HK 36 TTC-ECO with underwing containers and a maximum mass of 930 kg is permitted in the Restricted Category only. The retrofitting must be carried out in accordance with the manufacturer's Service Bulletin No. 63. The specifications given in Supplement No. 7 to the Airplane Flight Manual must be applied for such operation. Airworthiness requirements: see CRI A-1.

10) Operation with an additional 28 Volt electrical system, in accordance with Supplement No. 8 to the Airplane Flight Manual (ACG approved) is permitted.

11) The operation of the type HK 36 TTC-ECO as aerial photograpy airplane and with a maximum mass of 930 kg is permitted in the Restricted Category only. The modification must be carried out in accordance with Service Bulletin No. OSB36-69 of the manufacturer. For the operation, the specifications of Supplement No. 12 to the Airplane Flight Manual apply. Airworthiness requirements according to CRI A-8.

Change Record

Issue	Date	Changes
Issue 1	21.12.2005	Transfer from ACG TCDS SF 3/82 issue 15 to the EASA Type Design
Issue 2	21 Aug 2015	Corrections of chapter designation from H. to A. in accordance with the Table of Contents MÄM 36-450, EASA Project No. 0010037087; A.III.3: "1 cylinder head temperature or coolant temperature gauge (MÄM 36-450 installed)"
Issue 3	03. Aug 2016	MÄM 36-396 EASA Project 0010008901 A.IV - AMM document number, applicable manuals included in the AMM A.V - standard wording in all notes for color and marking limitations