

CONTENT

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Change Record

SECTION 8 HK 36 TTC-ECO

H.I. General

Data Sheet No.:	A.066	Issue:	01	Date:	21-December-2005
1. a) Type:		HK 36 TTC-ECO			
b) Variant:		--			
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			
7. The EASA Type Certificate replaces the Austrian Type Certificate SF 3/82					
8. EASA Certification Date:		21. December 2005 (reissue for EASA)			

H.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

H.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 indicator
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 m ² |

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: $16.5^{\circ} \pm 0.2^{\circ}$
High pitch setting: $28^{\circ} \pm 1^{\circ}$
Start lock setting $19^{\circ} \pm 1^{\circ}$
Feather setting $83^{\circ} \pm 1^{\circ}$
Ctrwts at low pitch: $32,5^{\circ} \pm 1^{\circ}$
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 V_{ra} : | 210 km/h |
| Never exceed speed v_{NE} : | 261 km/h |
| Air Brake in Middle Stop V_{abf} : | 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

H.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 R, TS, TC, TTS,
TTC, TTC-ECO, Doc. No. 3.02.04 (3.02.21 English),
Revision 13 and on.

Operators Manual for Rotax Engine 914 F, latest revision

Operation and Installation Manual,
Hydraulically Variable Pitch Propeller No. E-124
of mt-Propeller, latest revision

Service Informations and Service Bulletins

All Master Manuals are Issued in German Language

H.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) Aerobatics, cloud flying and spinning are not permitted.
- 5) Winch and airplane towing launch is not permitted.
- 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 photography 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