

CENTRO TÉCNICO AEROESPACIAL  
INSTITUTO DE FOMENTO E COORDENAÇÃO INDUSTRIAL  
VICE-DIREÇÃO DE HOMOLOGAÇÃO E PADRÕES

TYPE CERTIFICATE DATA SHEET Nº 8713

Type Certificate Holder:

Fa. GLASER-DIRKS  
Flugzeugbau GmbH  
Im Schollengarten 19-20  
D-7520 Bruchsal 4  
WEST GERMANY

EP-8713

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GLASER-DIRKS

DG-400

October 1987

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I - MODEL DG-400. powered glider (self launching), Utility Category  
approved October 06, 1987.

- ENGINE
- Approved by CTA-TCDS nº 8710
  - Manufacturer:  
Bombardier-Rotax GmbH,  
Gunskirchen, Austria
  - Model:  
Rotax 505
  - Type:  
Retractable, ram air cooling, two  
stroke, 500 c.c, 2 cylinder in line,  
drive belt reduction 2:1.
  - Maximum allowed rpm:  
6800 rpm
  - Maximum continuous power:  
29,5 kW (40 hp) at 6050 rpm
  - Take-off power:  
31,7 kW (43 hp) at 6200 rpm
- FUEL
- Oil-fuel mixture to two stroke engine  
with mixing ratio 1:50. AVGAS 100/130  
or 100LL.
- PROPELLER
- Manufacturer:  
Propellerwerk Hoffmann GmbH,  
Rosenheim, West Germany
  - Model:  
HO-11F-128 B84
  - Diameter:  
1280mm
  - Type:  
2 blades, fixed pitch wooden  
composite.
- See Note 9.
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MAXIMUM AIRSPEEDS (Cont)  
(IAS)

	Km/h	Kts
Extended powerplant	190	103
Retracting and operating of the powerplant	110	59
Landing gear operating (VLO)	190	103
Maximum for flap extended settings +4° e +8°	190	103
Maximum for flap extended in landing position	150	81
Aero-tow (VR)	190	103
Winch launch	130	70

SERIAL NUMBERS

4-1, 4-2 and up.

C. G. RANGE

datum: wing leading edge at wing root  
most forward C.G.: 250mm (9,84 in)  
aft C.G. : 390mm (15,35 in)

N<sup>o</sup> OF SEATS

1

MAXIMUM BAGGAGE

15 Kg (33 lb)

FUEL CAPACITY

fuselage tank: 20 liters  
wing tank : 30 liters (each wing  
15 liters)  
unusable fuel: 0,3 liters

REFERENCE LINE

Wing leading edge at wing root

LEVELING LINE

Aft fuselage boom slope 100:3,67 (tail down)

AERO TOW AND WINCH  
LAUNCH MAXIMUM CABLE  
STRENGTH

(500 ± 50)Kgf

CERTIFICATION BASIS

Brazilian Requirements for Airworthiness Certification - RBHA 1330 RBHA 1111/01 chapters 7 and 10 September 30, 1975 (see Note 09).

Type Certificate n<sup>o</sup> 8713 issued on October 6, 1987. The Application for Type Certification is dated March 24, 1986.

Validation:

The Type Certificate n<sup>o</sup> 8713 was issued in accordance with the RBHA 1111/01 article 10.2 and in validation of the

Type Certificate issued by LUFTFAHRT BUNDESAMT of Federal Republic of Germany, in the basis of the Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22) issued on April 1, 1980 with amendment effective May 18, 1981 and the special conditions established by LBA through the document entitled Preliminary guideline for the stress analysis of glasfibre and carbonfibre reinforced plastic structures for sailplanes and powered sailplanes, issued Jan 1981.

REQUIREMENTS FOR  
IMPORTATION

A Brazilian Airworthiness Certificate may be issued in the basis of the Airworthiness Certificate for Exportation issued by LUFTFAHRT BUNDESAMT including the following statement:

"The powered glider covered by this certificate was inspected, tested and was found to comply with the Brazilian approved type design as defined by the CTA Type Certificate n<sup>o</sup> 8713 and is in condition for safe operation".

REQUIRED EQUIPMENTS

The following equipments must be installed in the powered-glider:

1. Instruments and basic equipments:

- a) Airspeed indicador
- b) Altimeter
- c) Magnetic compass
- d) Side slip indicador
- e) Variometer
- f) Tachometer
- g) Fuel quantity indicador
- h) Elapsed-time indicador
- i) Safety harness
- j) Back cushion
- k) Rear view mirror

2. Additional instrumento for cloud flying:

- a) Artificial horizon

3. Flight, Maintenance and Repair Manuals approved by CTA.

NOTE 1

A weight and balance report listing all equipment included in the empty weight must be supplied with each powered glider, including instructions for weight and balance calculations if applicable.

NOTE 2

The inspections, maintenance, repairs and painting shall be performed in accordance with the Maintenance and Repair Manuals instructions.

Major repairs may only be performed following the manufacturer instructions approved by CTA.

NOTE 3

The placards listed in the Flight Manual, section 2, paragraph 2.3 - PLACARDS, must be installed in the appropriate locations of the powered glider as indicated in the Manual.

The ayspeed limits of the airspeed indicator and the engine instruments must be marked in accordance with the Flight Manual.

NOTE 4

All external portions of the glider exposed to sunlight must be painted white. The registration marks must be painted only in the lower surface of the wings and in both sides of the fuselage in grey color because the structural strenght is affected by temperature. A special authorization must be requested by the applicant to DAC (Department of Civil Aviation) to obtain a exemption to the procedures out-lined in the IAC 3119-0482 (Instructions for Civil Aircraft Identification) in respect to registration marks on the upper surfaces of the wings and on the vertical tail.

NOTE 5

For cloud flying and aerobatic manoeuvres see the approved Flight Manual.

NOTE 6

It is only allowed to flight with the engine removed if a fixed ballast is installed following the Flight and Maintenance instructions.

NOTE 7

The powered glider life limit is 3000 hours and may be extended up to 4000, 5000 and 6000 hours after performing the inspections established in the document "Inspection Procedure for Increase of Service Time" under the CTA supervision.

NOTE 8

The flight at high altitude (above 10000 fts/3048m) is only allowed if an approved oxygen system is installed.

NOTE 9

Substantiation was not presented that the installed propeller

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complies with the applicable Brazilian requirements (JAR 22 Subpart J). The propeller installation approval was granted in the basis of the satisfactory operational experiente.

JOSÉ ANTONIO ROSA DOS SANTOS - Ten Cel Av  
Vice-Diretor de Homologação e Padrões

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