



**TYPE CERTIFICATE DATA SHEET Nº EP-2020T05**

Type Certificate Holder:

**SCHEMPP-HIRTH FLUGZEUGBAU GMBH**  
KREBENSTRASSE 25  
73230 KIRCHHEIM / TECK  
**GERMANY**

EP-2020T05-00  
Sheet 01

**SCHEMPP-HIRTH**

DISCUS 2cT

26 June 2020

This data sheet, which is part of Type Certificate No. 2020T05, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

**I - Model Discus 2cT (Utility Category), approved 26 June 2020.**

|                                       |  |
|---------------------------------------|--|
| <b>ENGINE</b>                         | 1 SOLO 2350 (EM 2020T02)<br>NOTE: SOLO engine type 2350 modified in compliance with LBA-approved Technical Note 4603-1 and 4603-3 by Messrs. SOLO Kleinmotoren GmbH.   |
| <b>FUEL</b>                           | Two-stroke mixture, AVGAS 100 LL   |
| <b>ENGINE LIMITS</b>                  | Maximum continuous Power            15,3 kW at 5500 RPM<br>Maximum RPM                                    5800 RPM   |
| <b>OIL</b>                            | Fuel / oil mixture, mixing proportion for "CASTROL Super TT" 40:1  |
| <b>PROPELLER AND PROPELLER LIMITS</b> | OE-FL 5.83/83 a5, v92<br>Diameter: 830 mm +/- 0 mm<br>1 - Propeller Data Sheet No. OE-FL ./83<br>2 - Propeller features blades of different length (dmin/d = 92%) and a modified propeller hub according to LBA-approved Technical Note 4603-2 by Messrs. SOLO Kleinmotoren GmbH.  |
| <b>AIRSPEED LIMITS (IAS)</b>          | Maneuvering Speed $V_A$ 190 km/h<br>Never Exceed Speed $V_{NE}$ 280 km/h<br>Maximum permitted speeds<br>- in rough air $V_{RA}$ 190 km/h<br>- in aero-tow $V_T$ 180 km/h<br>- in winch-launch $V_W$ 150 km/h<br>- for gear operating $V_{LO}$ 180 km/h<br>Max. power plant extended speed $V_{MAX}$ 180 km/h<br>Max. power on Speed $V_{MAX}$ 150 km/h<br>Permitted speeds for power plant extension/retraction:<br>- min. for extending/retracting power plant $V_{Pmin}$ 90 km/h |

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|                                  |  |                                      |
|----------------------------------|--|--------------------------------------|
|                                  | - max. for extending/retracting power plant $V_{POmax}$  | 120 km/h                             |
| <b>CG RANGE</b>                  | Forward Limit 280 mm aft of datum point<br>Rearward Limit 420 mm aft of datum point  |                                      |
| <b>DATUM</b>                     | Wing leading edge at root rib  |                                      |
| <b>LEVELING MEANS</b>            | Tail jacked up such that the upper edge of a wedge 100:4.4 is horizontal when placed on rear top of fuselage   |                                      |
| <b>MAXIMUM WEIGHT</b>            | With 15 m Wing Span<br>Max. Mass with Water Ballast<br>Max. Mass of Non-Lifting Parts<br>With 18 m Wing Span<br>Max. Mass with Water Ballast<br>Max. Mass of Non-Lifting Parts | 525 kg<br>305 kg<br>565 kg<br>305 kg |
| <b>MINIMUM CREW</b>              | 1 Pilot  |                                      |
| <b>MAXIMUM SEATS</b>             | 1  |                                      |
| <b>MAXIMUM BAGGAGE</b>           | An enclosed baggage compartment is not provided  |                                      |
| <b>FUEL CAPACITY</b>             | 13.5 Liters (3.57 U.S. gallons)<br>Usable: 13.0 Liter (3.43 U.S. gallons)<br>Non-usable: 0.5 liters (0.14 U.S. gallons)  |                                      |
| <b>LAUNCHING HOOKS:</b>          | 1) Nose tow hook „E 85“, LBA Datasheet No. 60.230/1<br>2) Safety hook „Europa G 88“, LBA Datasheet No. 60.230/2<br>Remark: Tow hook 1 or 2 optional                            |                                      |
| <b>WEAK LINKS:</b>               | Ultimate Strength:<br>- for winch launching max. 735 daN<br>- for aero-tow max. 735 daN  |                                      |
| <b>OPERATIONAL CAPABILITY</b>    | Approved for VFR Day only.<br>Cloud flying and aerobatic flying according to the specifications in the Flight Manual with restricted maximum mass, without water ballast.      |                                      |
| <b>CONTROL SURFACE MOVEMENTS</b> | Refer to Maintenance Manual  |                                      |
| <b>LIFETIME LIMITATIONS:</b>     | Refer to Maintenance Manual  |                                      |
| <b>SERIAL NUMBER ELIGIBLE</b>    | 1 and subsequent   |                                      |

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**IMPORT ELIGIBILITY**

A Brazilian Certificate of Airworthiness may be issued on the basis of an EASA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:

“The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the Brazilian Type Certificate no. 2020T05 and in condition of safe operation”.

**CERTIFICATION BASIS**

Brazilian Type Certificate No. 2020T05 issued on 26 June 2020 based on the RBAC 21.29 and 21.17(b), which endorses the JAR 22 effective on June 27, 1989 (Change 4 of the English original version). Including:

- Amendment 22/90/1

Requirements elected to comply:

- Standards for Structural Substantiation of Sailplane and Powered Sailplane Components consisting of Glass or Carbon Fibre Reinforced Plastics, issued July 1991

- NPA 22A, B, G-18 concerning powered sailplanes not capable of self-launching, dated April 1990.

- Additional requirements for the installation of a water ballast system into the fin (for compensating the nose heavy moment of water ballast in wing tanks). LBA-Letter: I 4 – I 413/89 dated October 25th, 1989.

- Draft NPA 22 D-46 dated 7 April 1994 relating to JAR 22.785 (e)(f) “Seat and Restraint System”.

- Draft NPA 22 D-64 dated 12 April 1994 relating to JAR 22.788 “Head Rests”

Special Conditions: None

Equivalent levels of safety findings:

JAR 22.207(a) (for power plant extended with ignition off)

JAR 22.207(c) (begin of Stall Warning),

JAR 22.1093 (a) (Induction System Icing Protection)

Exemptions: None

**REQUIRED EQUIPMENT**

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

Min. Equipment:

1 Air speed indicators (up to 300 km/h)

1 Altimeter

1 Magnetic compass

1 Outside air temperature indicator with sensor (when flying with water ballast)

1 Engine control unit featuring:

- RPM indicator

- Engine hour meter

1 Fuel quantity indicator

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1 Rear view mirror  
1 4-Point harness (symmetrical)  
1 Automatic or manual parachute  
or  
1 Back cushions (thickness approx. 10 cm / 3.94 in. when compressed), when flying without parachute  
Additional Equipment refer to Flight and Maintenance Manual

**DATA PERTINENT TO ALL MODELS:**

**NOTES:**

- NOTE 1** Weight and balance. Current weight and balance data including list of equipment included in the certificated empty weight and loading instructions, when necessary, must be provided for each glider at the time of original certification and at all times thereafter.
- NOTE 2** Markings and placards. Powered Sailplane operation must be in accordance with the Brazilian Approved Airplane Flight Manual.  
All placards required by the Flight Manual, the applicable operating rules and the Certification Bases must be installed in the airplane.
- NOTE 3** continuing airworthiness.  
Maintenance manual for the powered sailplane discus 2cT, issued January 2005.  
Repair manual for the powered sailplane model discus 2cT issued January 2005.  
Manual for the folding propeller type "OE-FL./83", the latest applicable issue, issued by Messrs. Ingrid Oehler TB GmbH.  
Repair manual for the folding propeller type "OE-FL./83, the latest applicable issue, issued by Messrs. Ingrid Oehler TB GmbH  
Operating Instructions for the Tost nose tow release mechanism model "E 85", latest approved version (if installed)  
Operating instruction for the Tost safety tow release mechanism model "EUROPA G 88" latest approved version (if installed)
- NOTE 4** The differences of the Brazilian airplanes in relation to the basic EASA type design are summarized below:  
1. Brazilian Aircraft FLIGHT MANUAL for Powered Sailplane (Discus 2cT)  
2. Markings and placards.  
Only the placard "**SOMENTE GASOLINA DE AVIAÇÃO**" is translated to Portuguese.
- NOTE 5** Manufacturing is confined to industrial production.
- NOTE 6** All parts exposed to sun radiation – except the areas for markings and registration – must have a white color surface.
- NOTE 7** Suitable for cloud flying in accordance with the instructions given in the Flight Manual.
- NOTE 8** Suitable for restricted aerobatic manoeuvres in accordance with the instructions given in the Flight Manual.
- NOTE 9** Approved for VFR-flying in daytime.
- NOTE 10** Approved for operations with the power plant temporarily removed or inoperative in accordance with the instructions given in the Flight Manual.
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**MARIO IGAWA**

**Gerente Geral de Certificação de Produtos Aeronáuticos  
(Manager, Aeronautical Products Certification Branch)**

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AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL

Rua Dr. Orlando Feirabend Filho, 230 - Centro Empresarial Aquarius - Torre B - Andares 14 a 18, Parque Residencial Aquarius, São José dos Campos/SP - CEP 12.246-190  
- www.anac.gov.br

Ofício nº 567/2020/GCPR/GGCP/SAR-ANAC

São José dos Campos, 26 June 2020.

**Schempp-Hirth Flugzeugbau GmbH**

Krebenstraße 25  
73230 Kirchheim / Teck  
Germany

**Subject: Discus 2cT – TCDS Issuance.**

Ref.: EP-2020T05-00, SEI no. 4461988.

1. In attention to the document referred above, ANAC hereby issues Revision 00 of TCDS no. EP-2020T05.
2. This TCDS revision is available at ANAC website: <https://sistemas.anac.gov.br/certificacao/Produtos/EspecificacaoOrgE.asp>

**Mario Igawa**

General Manager, Aeronautical Product Certification Branch

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Documento assinado eletronicamente por **Mário Igawa, Gerente-Geral de Certificação de Produtos Aeronáuticos**, em 29/06/2020, às 15:26, conforme horário oficial de Brasília, com fundamento no art. 6º, § 1º, do [Decreto nº 8.539, de 8 de outubro de 2015](#).



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Referência: Caso responda este Ofício, indicar expressamente o Processo nº 00066.004845/2020-61

SEI nº 4461968