



TYPE CERTIFICATE DATA SHEET Nº EP-2013T03

Type Certificate Holder:

Alexander Schleicher GmbH & Co. Segelflugzeugbau
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 36163 Poppenhausen (Wasserkuppe)
 Germany

EP-2013T03

Sheet 01

SCHLEICHER

ASH 31 Mi

29 May 2013

This data sheet, which is part of Type Certificate No. 2013T03, 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 ASH 31 Mi Powered Sailplane (Utility Category), approved 29 May 2013.

ENGINE	Austro Engine IAE50R-AA (ANAC TC 2013T01)		
ENGINE LIMITS	Maximum Take-off Power (max. 3 min)	37,3 kw 7750 RPM	
	Maximum Continuous Power	35,8 kw 7100 RPM	
PROPELLER	A. Schleicher Type AS 2 F1-1/R153-92-N1 (ANAC TC 2013T02)		
	Diameter	1530 ± 5 mm	
FUEL TYPE	(minimum grade aviation gasoline)	AVGAS100LL	
FUEL QUANTITY	Tank in the fuselage	16.0 liters	
	Tank in right wing (optional)	15.0 liters	
	Tank in left wing (optional)	15.0 liters	
	Non-usable fuel	0.7 liter	
AIRSPPEED LIMITS	Maneuvering Speed (V_A):	200 km/h	
	Never Exceed Speed (V_{NE}):	270 km/h	
	Max with flaps at WK1 bis WK4	270 km/h	
	Max with flaps at WK5/WK6	160 km/h	
	Max. with flaps at WKL	140 km/h	
	Max. in rough air (V_{RA})	200 km/h	
	Max. for winch launching (V_W)	130 km/h	
	Max. for aerotowing (V_T)	160 km/h	
Max. for gear operation (V_{LO})	200 km/h		
	Max. for propeller operation (V_{PO})	120 km/h	
DIMENSIONS	Span	18.0 m	21.0 m
	Length	7.10 m	7.10 m
	Height	1.5 m	1.5 m
	Wing Area	11.83 m ²	13.16 m ²

CG RANGE	For 18m span version 290 mm to 410 mm (aft of datum point). For 21m span version 290 mm to 380 mm (aft of datum point).		
DATUM	Wing leading edge at root rib.		
LEVELING MEANS	Upper side of fuselage boom placed at slope 1000:31.		
WEIGHT		Span 18m	Span 21m
	Max. Mass	630 kg	700 kg
	Max. Mass of Non-Lifting Parts:	365 kg	365 kg
MINIMUM CREW	One Pilot		
No OF SEATS	One		
WEAK LINKS (Ultimate Strength)	Max. 935 daN for winch launching Max. 935 daN for aerotow Max. 935 daN for autotow		
REQUIRED EQUIPMENT	<p>The basic required equipment, as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane.</p> <p>a. Min. equipment</p> <ul style="list-style-type: none"> 1 Air speed indicator (up to 300 km/h) 1 Altimeter 1 Magnetic compass 1 Power-plant instrument, type ILEC control unit 31 Mi; when engine installed 1 Rear View Mirror; when engine installed 1 Fire warning indicator 1 Trim indicator 1 Parachute or back cushion (thickness compressed ~8 cm) 1 4-Point harness (symmetrical) 1 Dataplate and Trimmsheet, Cockpit Placcards, Flight Manual Gap sealing on each side of the control surfaces 1 Thermometer (see flight manual); with waterballast provision installed <p>For additional equipment refer to Flight and Maintenance Manual.</p>		
LAUNCHING HOOKS	Nose tow hook "E 72", LBA Datasheet No. 60.230/1 Nose tow hook "E 75", LBA Datasheet No. 60.230/1 Nose tow hook "E 85", LBA Datasheet No. 60.230/1 Safety hook "Europa G 72", LBA Datasheet No. 60.230/2 Safety hook "Europa G 73", LBA Datasheet No. 60.230/2 Safety hook "Europa G 88", LBA Datasheet No. 60.230/2		
OPERATIONAL CAPABILITY	VFR Day.		
LIFETIME LIMITATIONS	Refer to Maintenance Manual.		
DEFLECTION OF CONTROL SURFACES	Refer to Maintenance Manual.		
SERIAL NUMBER ELIGIBLE	31002 and on		

IMPORT ELIGIBILITY

A Brazilian Certificate of Airworthiness may be issued on the basis of on 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. 2013T03 and in condition of safe operation”.

CERTIFICATION BASIS

Brazilian Type Certificate No. 2013T03 issued on 29 May 2013 based on the RBAC 21.29, 21.17(b), amdt. 01, and:

- a. CS-22, Issue 24.09.2008;
- b. That defined by LBA letter dated 12 February 2009;
- c. Standards for Structural Substantiation of Sailplane and Powered Sailplane Components Consisting of Glass or Carbon Fibre Reinforced Plastics, LBA doc. I4-FVK/91, issued July 1991;
- d. Guideline for the analysis of the electrical system for powered sailplanes, LBA doc. I334-MS 92, issued 15. September 1992.

Special Conditions: None

Exemptions: None

Equivalent Safety Findings: CS 22.335(f) – V_D Determination CS 22.585 (a), reduction of the spec. factor for use of textile towing rope according to LBA-note dated 09.12.2004.

Environmental Standards: ICAO Annex 16

NOTES:**NOTE 1****Weight and balance.**

Current weight and balance data together with list of equipment included in certificate empty weight, and loading instructions, when necessary, must be provided for each glider at the time of original certification.

NOTE 2**Markings and placards.**

The placards listed in the flight manual must be displayed. A complete listing of placards is in the Section 9 of Maintenance Manual.

NOTE 3**Continuing Airworthiness.**

The inspections, maintenance, repairs and painting shall be performed in accordance with the ASH 31 Mi Maintenance Manual and General Repair Manual for Alexander Schleicher Sailplanes and Powered Sailplanes instructions.

NOTE 4

The differences of the Brazilian airplanes in relation to the basic EASA type design are summarized below:

1. The Brazilian Airplane Flight Manual cover page must be included.
2. Markings and placards related to baggage compartments must be in Portuguese (or English and Portuguese).
3. Only altimeters which present barometric setting units of “mbar” or “hpa” may be installed.

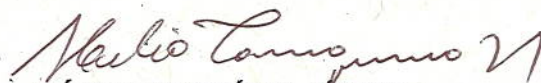
NOTE 5**Operating and Servicing Instructions.**

1. Flight Manual for the ASH 31 Mi, Issue 05 July 2012 or later EASA approved revisions;
2. Maintenance Manual for the ASH 31 Mi, Issue 01 October 2011 or later approved revisions;
3. General Repair Manual for A. Schleicher Sailplanes and Powered Sailplanes, latest revision;
4. Operating Manual and Maintenance Manual for engine Austro Engine IAE50R-AA series, latest approved version (The Operation Manual and Maintenance Manual are elements of the operation instructions of the ASH 31 Mi. Necessary revisions are not be done in the Manuals of the ASH 31 Mi but separately by Austro Engine);
5. Operation and Maintenance Manual for Propeller: Alexander Schleicher, AS2F1, latest approved version (The Operation Manual and Maintenance Manual are elements of the operation instructions of the ASH 31 Mi. Necessary revisions are not be done in the Manuals of the ASH 31 Mi but separately by Alexander Schleicher);
6. Manual for the TOST Release, latest approved version.

NOTE 6 According to the Flight Manual of the ASH 31 Mi, it is allowed to operate the ASH 31 Mi with removed engine as a sailplane.

NOTE 7 All parts exposed to sun radiation – except the areas for markings and registration – must have a white color surface.

NOTE 8 Major structural repairs must be accomplished at ANAC certificated repair station, in accordance with General Repair Manual for Alexander Schleicher Sailplanes and Powered Sailplanes, latest revision.



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