

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

G09CE  
Alexander Schleicher, GmbH  
ASH 25M  
May 21, 1998

**TYPE CERTIFICATE DATA SHEET No. G09CE**

This data sheet, which is part of Type Certificate No. G09CE, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Alexander Schleicher GmbH & Co. Segelflugzeugbau  
Huhnrain 1  
D-36161 Poppenhausen/Wasserkuppe  
Germany

Model ASH 25M Self Launching Powered Glider, Utility Category, approved September 30, 1997

Engine. Mid-West Aero Engines Ltd. Model AE 50R

Fuel. AVGAS 100LL (Premium 94 RON or unleaded)

Engine Limits. Take off power:  
50 BHP at 7500 r.p.m.

Max. Continuous power:  
46 HP at 6900 r.p.m.

Propeller and Propeller Limits. KS 1 C 154 R 110

Diameter range    maximum 60.83 in. (1545 mm)  
                              minimum 60.43 in. (1535 mm)

<u>Airspeed Limits (IAS).</u>		mph	km/h	knots
$V_{NE}$ (never exceed)		177	285	154
$V_{RA}$ (in rough air)		115	185	100
$V_A$ (maneuvering)		115	185	100
$V_T$ (Aero-tow)		99	160	86
$V_W$ (Winch launch)		81	130	70
$V_{FE}$ (WK 1)		177	285	154
	(WK 2)	177	285	154
	(WK 3)	177	285	154
	(WK 4)	99	160	86
	(WK 5)	99	160	86
	(WK L)	87	140	76

WK = Wing Flaps

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<u>Airspeed Limits (IAS)</u> (cont'd)		mph	km/h	knots
V <sub>PO MAX</sub> (Max Speed for extending and retracting propeller)		75	120	65
V <sub>PO MIN</sub> (Min Speed for extending and retracting propeller)		56	90	49
V <sub>LO</sub> (Landing Gear operating)		115	185	100
Maximum Speed with Propeller Extended		115	185	100
<u>VNE Speed Limit High Altitude:</u>				
Altitude MSL (ft.)	VNE IAS	km/h	kts	
< 10,000		285	154	
< 16,500		246	133	
< 23,000		220	113	
< 29,500		196	119	
< 36,000		173	93	
< 42,500		148	80	

Center of Gravity (C.G.) Range: Forward Limit: 0.72 feet aft of datum  
 Aft Limit: 1.31 feet aft of datum  
 Reference ASH 25M Flight Manual, page 2.8, dated June 97.

Empty Weight C.G. Range Reference Maintenance Manual, Diagram of Empty Mass C.G. Position, Section 6.4, Figures 6.4-1 and 6.4-2, pages 6.6 and 6.7, dated June 1997.

Note: When the empty weight C.G. falls within the range given, complete computations of critical fore and aft C.G. positions are unnecessary. Range is not valid for nonstandard arrangements.

Datum. Wing leading edge at wing root rib

Leveling Means. Rear end of fuselage tail boom top edge horizontal (no wedge)

Maximum Weight. 790 kg (1742 lbs).  
 Max, permissible mass of non-lifting parts 460 kg (1014 lbs)

Minimum Crew One pilot

No. of Seats. Two

Maximum Baggage. See ASH 26M Maintenance Manual

Fuel Capacity. Fuselage tank 2.24 U.S.Gal (8.5 l)  
 Each wing tank (1 is standard 1 is optional) 3.97 U.S. gal (15.0 l)

Water Capacity. 120 kg (264 lbs)

Control Surface Movements.

Aileron at flap setting 0 degrees (WK 3):

Up -1.30 ± 0.12 in. (-33 ± 3 mm)

Down 0.43 ± 0.12 in. ( 11 ± 3 mm)

Measurement radius 2.83 in. (72 mm) from hinge line

Elevator: Up -2.40 ± 0.24 in. (-61 ± 6 mm)

Down 1.90 ± 0.24 in. ( 47 ± 6 mm)

Measurement radius 6.34 in. (161 mm) from hinge line

Rudder: ±8.5 ±0.6 in. (±215 ± 15 mm) to the right and left.

Measurement radius 17.5 in. (445 mm) from hinge line.

Wing flaps: Flap setting - 9° (WK 1)

Up: -0.94 ± 0.08 in (-24 ± 2 mm)

Flap setting -5° (WK 2)

Up: -0.51 ± 0.08 in (-13 ± 2 mm)

Flap setting 0° (WK 3)

0 in. (0 ±2 mm)

Flap setting +6° (WK 4)

Down: 0.63 ± 0.08 in. (+16 ± 2 mm)

Flap setting +8° (WK 5)

Down: 0.83 ± 0.08 in. (+21 ± 2 mm)

Flap setting L=+38° (WK L)

Down: 3.5 ± 0.2 in. (+89 ± 5 mm)

Measurement radius 5.94 in. (151 mm) from hinge line

Weak Link

Ultimate strength

For winch tow

750 to 900 daN

For aerotow

750 to 900 daN

**Common information**

Serial Nos. Eligible.

See Import Requirement

Certification Basis.

- 1) FAR 21.17, 21.23, 21.29 and 21.50 effective February 1, 1965 including Amendment 21-1 through 21-71.
- 2) Joint Airworthiness requirements for Sailplanes and Powered Sailplanes (JAR-22) Change 4 dated May 17, 1987, and the requirements described in AC21.17-2.
- 3) Exemption No. 4988 to 14CFR45, Effective April 20, 1964, Amendments 45-1 through 45-16, section 45.11(a) and (d) "External Identification plate".
- 4) Finding of Equivalent Level of Safety pursuant to Section 21.21(b)(1), for JAR22.73 "Descent, high speed" and JAR22.75 „Descent, approach“.
- 5) Date of Application for: ASH 25M Type certificate September 30, 1997  
  
German Type Certificate No. 858 for ASH 25 M issued September 30, 1997

Import Requirements.

A U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of the Luftfahrt-Bundesamt (LBA) containing the following statement: "The aircraft covered by this certificate has been examined, tested and found to conform to the type design approved under FAA Type Certificate G09CE and is in condition for safe operation."

Equipment.

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

Minimum Equipment:

- 1 Airspeed indicator up to 300 km/h range in front instrument panel
- 1 Altimeter in front instrument panel
- 1 Magnetic direction indicator (Compass) in front instrument panel
- 2 Four part safety harness (Symmetric)
- 1 ILEC engine control unit
- 1 Rear view mirror
- Parachute or back cushion (at least as thick as a parachute when compressed)
- 1 Flight manual, LBA approved June, 1997

For instructing Pilots:

- 1 Airspeed indicator up to 300 km/h range in rear instrument panel
- 1 Altimeter in rear instrument panel

Service Information.

"Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is LBA approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only."

NOTES

NOTE 1.

Current weight and balance data together with 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.

For the ASH 25M, the certificated empty weight and corresponding center of gravity locations must include the following:

Unusable fuel of 0.106 U.S. gal (0.4 liter)

NOTE 2.

The placards listed in LBA approved ASH 25 M Instructions for Continued Airworthiness Manual must be displayed.

NOTE 3.

The ASH 25 M Flight Manual, dated June, 1997 is FAA approved. Airworthiness limitations contained therein may not be changed without FAA approval.

Instructions for Continued Airworthiness are FAA-approved. They specify mandatory replacement times, and structural repair procedures. The airworthiness Limitations contained there-in may not be changed without FAA approval.

Maintenance Manual, dated June, 1997,  
Repair Manual, dated February 1983, including Amendment dated July 1994

NOTE 4.

All external portions of the powered glider exposed to sunlight must be painted white except the surfaces for the registration Nos. and anti- collision paint as specified by the manufacturer.

NOTE 5.

Major structural repairs must be accomplished at FAA certificated repair stations rated for composite aircraft structure work, in accordance with Alexander Schleicher Instructions for Continued Airworthiness.

NOTE 6.

Information essential for the proper operation, maintenance and inspection of the ASH 25M glider is contained in the appropriate Alexander Schleicher Flight Manual and Instructions for Continued Airworthiness

NOTE 7.

The Model ASH-25 may be transformed by the factory into a ASH-25M provided Technical Note No. 3 was incorporated during production.