

European Aviation Safety Agency

EASA TYPE-CERTIFICATE DATA SHEET

ASW 28-18 E

Manufacturer:
Alexander Schleicher GmbH & Co Segelflugzeugbau
Poppenhausen/Wasserkuppe
Germany

Models:

ASW 28-18E

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Section 1: ASW 28-18 E

I. General

Data Sheet No.: EASA .A..034	Issue: 01	Date: 12 April 2005
1. a) Type:	ASW 28-18 E	
b) Variant:	ASW 28-18 E	
2. Airworthiness Category:	Powered Sailplane, JAR 22 - Utility	
3. Type Certificate Holder:	Alexander Schleicher GmbH & Co. Poppenhausen/Wasserkuppe Germany	
4. Manufacturer:	Alexander Schleicher GmbH & Co. Poppenhausen/Wasserkuppe Germany	
5. LBA Certification Application Date:	29 October 2002	
6. EASA Type Certification Date:	12 April 2005	

II. Certification Basis

1. Certification Basis:	Defined by LBA letter M312-905/MZ-11/02, dated 11. November 2001
2. Airworthiness Requirements:	JAR-22, Change 6, issued 1. August 2001
e	
3. 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 Additional Requirements for the Installation of a Water Ballast System in the Vertical Tail for the Purpose of Balancing a Nose Down Moment Caused by Water Ballast in the Wing, issued August 1991
4. Special Conditions:	None
5. Exemptions:	None
6. Equivalent Safety Findings:	22.335(f) V _D – Determination
7. LBA Environmental Standards:	Lärmvorschrift für Luftfahrzeuge (LVL), third edition, issued 01-August-2004

III. Technical Characteristics and Operational Limitations

1. Type Design Definition: List of the drawing files ASW 28-18 E, issued 07. April 2005, LBA approved

2. Description: Single-seat, shoulder-winged Self sustaining powered sailplane, CRP/GRP/PRP-composite construction, T-shaped horizontal tailplane with fin and elevator, Schempp-Hirth brake-flaps on upper wing surface, water ballast tanks in the wing and optionally in the vertical fin, retractable landing gear equipped with brakes and spring suspension, optionally 15 m span with winglets, or 18 m span with winglets.

3. Equipment:

Min. Equipment:
1 Air speed indicator (up to 300 km/h)
1 Altimeter
1 4-Point harness (symmetrical)
1 Magnetic Compass

With installed Engine:
1 Engine Control Unit Typ ASW 28E

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions:

Span	15.0 m	18.0 m
Length	6.59 m	6.59 m
Height	1.3 m	1.3 m
Wing Area	10.5 m ²	11.88 m ²

5. Engines: Solo Type 2350
LBA Engine Type Certificate Data Sheet No. 4603
 - 5.1 Engine Limits: Maximum Take-off Power not applicable
Maximum Continuous Power 4500 RPM (15 kW)

6. Propellers: AS2F1-2/L120-43-N2
Alexander Schleicher GmbH & Co.
EASA Type Certificate Data Sheet EASA P.004

7. Fluids and Fluid capacities: Refer to Flight Manual

8. Launching Hooks:
 1. Sicherheitskupplung Europa G 73
LBA Datasheet No. 60.230/2
 2. Sicherheitskupplung Europa G 72
LBA Datasheet No. 60.230/2
 3. Sicherheitskupplung Europa G 88
LBA Datasheet No. 60.230/2
 4. Bugkupplung E 72
LBA Datasheet No. 60.230/1
 5. Bugkupplung E 75
LBA Datasheet No. 60.230/1
 6. Bugkupplung E 85
LBA Datasheet No. 60.230/1

9. Weak links: Ultimate Strength:
- for winch launching max. 825 daN
- for aero-tow max. 825 daN
- for auto-tow max. 825 daN
10. Air Speeds:
Manoeuvring Speed V_A 200 km/h
Never Exceed Speed V_{NE} 270 km/h
Rough Air Speed V_{RA} 200 km/h
Max. Aerotow Speed V_T 170 km/h
Max. Winch-launch Speed V_W 140 km/h
Max. Engine Operating Speed V_{PO} 140 km/h
11. Operational Capability: VFR Day
Cloud flying and limited aerobatic manoeuvres according to the specifications in the Flight Manual with restricted maximum mass.
12. Maximum Masses:
- | | Span 15 m | Span 18 m |
|--------------------------------------|-----------|-----------|
| Max. Mass with Water Ballast: | 525 kg | 575 kg |
| Max. Mass of Non-Lifting Parts: | 285 kg | 285 kg |
| Max. Mass for Aerobatic/Cloud Flying | 409 kg | 419 kg |
13. Centre of Gravity Range: Datum: Wing leading edge at root rib
Upper side of fuselage boom placed at slope 1000:49
- | | | | |
|-----------------|--------------|--------------|--------------------|
| Forward Limit: | 227 mm (15m) | 233 mm (18m) | aft of datum point |
| Rearward Limit: | 406 mm (15m) | 406 mm (18m) | aft of datum point |
14. Minimum Flight Crew: 1 (Pilot)
15. Maximum Passenger Seating Capacity: ---
16. Lifetime limitations: Refer to Maintenance Manual
17. Deflection angles of control surfaces: Refer to Maintenance Manual

IV. Operating and Service Instructions

1. Flight Manual for the sailplane ASW 28-18 E, issued 10. February 2005, LBA approved.
2. Maintenance Manual for the sailplane ASW 28-18 E, issued 10. February 2005
3. Repair Manual Schleicher, latest approved version.
4. Tost Manual for the launching hook, latest approved version.

V. Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.