

European Aviation Safety Agency

EASA

**TYPE-CERTIFICATE
DATA SHEET**

Schleicher ASW 28

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

Models:

ASW 28
ASW 28-18

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SECTION 1: ASW 28

I GENERAL

1. Sailplane : ASW 28
2. Airworthiness Category: Utility
3. Data Sheet No.: A.017
4. Type Certificate Holder: Alexander Schleicher GmbH & Co.
Poppenhausen/Wasserkuppe
Germany
5. Manufacturer: Alexander Schleicher GmbH & Co.
Poppenhausen/Wasserkuppe
Germany
6. LBA Type Certification Date: 18 July 2001
7. This EASA TCDS replaces LBA Type Certification Data Sheet Nr. 423 issue 1 dated 18 July 2001

II. Certification Basis

1. Certification Basis: Defined by LBA letter M 531-423/00, dated 28 December 2000
2. Airworthiness Requirements: JAR-22, Change 5, issued 28-Oct-1995
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

JAR NPA D-46 Seats and Safety Harnesses
JAR NPA D-64 Headrests
4. Special Conditions: None
5. Exemptions: None
6. Equivalent Safety Findings: 22.335(f) V_D – Determination

III. Technical Characteristics and Operational Limitations

1. Type Design Definition: List of the drawing files of the sailplane ASW 28, 6 June 2001, LBA approved.
2. Description: Single-seat, shoulder-winged 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, 15 m span with winglets.
3. Equipment:
 - 1 Air speed indicator (up to 300 km/h)
 - 1 Altimeter
 - 1 4-Point harness (symmetrical)Additional Equipment refer to Maintenance Manual
4. Dimensions:

Span	15.0 m
Length	6.59 m
Height	1.3 m
Wing Area	10.5 m ²
5. 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
6. Weak links:

Ultimate Strength:	
- for winch launching	max. 660 daN
- for aero-tow	max. 660 daN
- for auto-tow	max. 660 daN
7. 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. Landing Gear Operating Speed V_{LO}	200 km/h
8. Operational Capability: VFR Day
Cloud flying and limited aerobatic manoeuvres according to the specifications in the Flight Manual without water ballast.

9. Maximum Masses:
- | | |
|---------------------------------|--------|
| Max. Mass with Water Ballast: | 525 kg |
| Max. Mass of Non-Lifting Parts: | 260 kg |
10. Centre of Gravity Range: Datum: Wing leading edge at root rib
Upper side of fuselage boom placed at slope 1000:49
- | | | |
|-----------------|--------|--------------------|
| Forward limit: | 222 mm | aft of datum point |
| Rearward limit: | 345 mm | aft of datum point |
11. Minimum Flight Crew: 1 (Pilot)
12. Maximum Passenger Seating Capacity: ---
13. Lifetime limitations: Refer to Maintenance Manual
14. Deflection angles of control surfaces: Refer to Maintenance Manual

IV. Operating and Service Instructions

1. Flight Manual ASW 28, issued 2 July 2001, LBA approved
2. Maintenance Manual ASW 28, issued 2 July 2001
3. Repair Manual Schleicher, issue February 1983
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 color surface.

Section 2: ASW 28-18

I. General

- | | |
|--|--|
| 1. Sailplane: | ASW 28-18 |
| 2. Airworthiness Category: | Utility |
| 3. Data Sheet No.: | A.017 |
| 4. Type Certificate Holder: | Alexander Schleicher GmbH & Co.
Poppenhausen/Wasserkuppe
Germany |
| 5. Manufacturer: | Alexander Schleicher GmbH & Co.
Poppenhausen/Wasserkuppe
Germany |
| 6. LBA Certification Application Date: | 16 November 2000 |
| 7. EASA Type Certification Date: | 6 December 2004 |

II. Certification Basis

- | | |
|------------------------------------|--|
| 1. Certification Basis: | Defined by LBA letter M 531-423/00, dated 28 December 2000 |
| 2. Airworthiness Requirements: | JAR-22, Change 5, issued 28-Oct-1995 |
| 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

JAR NPA D-46 Seats and Safety Harnesses
JAR NPA D-64, Headrests |
| 4. Special Conditions: | None |
| 5. Exemptions: | None |
| 6. Equivalent Safety Findings: | 22.335(f) V _D – Determination |

III. Technical Characteristics and Operational Limitations

1. Type Design Definition: List of the drawing files ASW 28, issued 21. September 2004, LBA approved
Optional with engine preparation: List of the drawing files ASW 28 (E), issued 18 October 2004, LBA approved
2. Description: Single-seat, shoulder-winged 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. Optional preparation for engine installation.
3. Equipment: Min. Equipment:
1 Air speed indicator (up to 300 km/h)
1 Altimeter
1 4-Point harness (symmetrical)

Additional Equipment refer to 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. 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
6. Weak links: Ultimate Strength:
- for winch launching max. 825 daN
- for aero-tow max. 825 daN
- for auto-tow max. 825 daN
7. 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. Landing Gear Operating Speed V_{LO}	200 km/h

8. Operational Capability: VFR Day
Cloud flying and limited aerobatic manoeuvres according to the specifications in the Flight Manual with restricted maximum mass.
9. 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 |
10. 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 |
11. Minimum Flight Crew: 1 (Pilot)
12. Maximum Passenger Seating Capacity: ---
13. Lifetime limitations: Refer to Maintenance Manual
14. Deflection angles of control surfaces: Refer to Maintenance Manual

IV. Operating and Service Instructions

1. Flight Manual for the sailplane ASW 28-18, issued 21 October 2004, LBA approved
2. Repair Manual Schleicher, issue February 1983
3. Maintenance Manual for the sailplane ASW 28-18, issued 21 October 2004
4. Tost Manual for the launching hook "Europa G 88", 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 color surface.