TYPE-CERTIFICATE
DATA SHEET

NO. EASA.A.599

for

ASG 32

Type Certificate Holder

Alexander Schleicher GmbH & Co. Segelflugzeugbau

Alexander-Schleicher-Str. 1
36163 Poppenhausen
Germany

For model:  ASG 32
            ASG 32 El
Contents

Section A: ASG 32 .................................................................................................................. 4
   A.I General.................................................................................................................. 4
   A.II EASA Certification Basis .................................................................................. 4
   A.III Technical Characteristics and Operational Limitations .................................. 5
   A.IV Operating and Service Instructions ................................................................... 8
   A.V Notes ................................................................................................................. 9

Section B: ASG 32 El........................................................................................................... 10
   B.I General ............................................................................................................. 10
   B.II EASA Certification Basis ................................................................................ 10
   B.III Technical Characteristics and Operational Limitations .................................. 11
   B.IV Operating and Service Instructions .................................................................. 14
   B.V Notes ............................................................................................................. 15

Section C: Administrative Section ................................................................................. 16
   C.I Acronyms & Abbreviations ............................................................................. 16
   C.II Type Certificate Holder Record ....................................................................... 16
   C.III Change Record ............................................................................................... 16
Section A: ASG 32

A.I General

1. Type/ Model/ Variant
   1.1 Type: ASG 32
   1.2 Model: ASG 32
   1.3 Variants: ASG 32 Mi (with propulsion, self-launchable)

2. Airworthiness Category
   Sailplane, CS-22 - Utility

3. Manufacturer
   Alexander Schleicher GmbH & Co. Segelflugzeugbau

4. EASA Type Certification Application Date
   01 November 2012

5. EASA Type Certification Date
   11 February 2016

A.II EASA Certification Basis

1. Reference Date for determining the applicable requirements

2. Airworthiness Requirements

3. Special Conditions
   EASA SC A.22.1-01 - 850 kg MTOM for variant ASG 32

4. Exemptions
   None

5. (Reserved) Deviations
   None

6. Equivalent Safety Findings
   CS 22.335 (f) calculation of \( V_D \) according to OSTIV
   CS 22.585(a) reduced by factor 1.2

7. Environmental Protection
   ICAO Annex 16 (details refer to TCDSN EASA.A.599)
A.III  Technical Characteristics and Operational Limitations

1. Type Design Definition
   List of the drawing files ASG 32, issue 31.01.2016

2. Description
   Double-seat, mid-wing CRP/GRP/ARP-composite construction for FAI 20m class with flaps, double-panel Schempp-Hirth airbrakes on upper wing surface, winglets, water ballast tanks in the wing and optional in the fuselage, retractable landing gear with hydraulic disc brake, T-shaped horizontal tail (fixed horizontal stabilizer with elevator) fin and rudder.

   Variant ASG 32 Mi:
   Self-launching, power-plant mounted in the centre fuselage.

3. Equipment
   3.1 Min. required Equipment:
   1 Air speed indicator (up to 300 km/h) (front seat)
   1 Altimeter (front seat)
   1 Outside air temperature gauge (front seat)
   2 4-Point safety harness (symmetrical)
   2 Parachute or Cushion for back rest (~ 8cm thickness)
   Additional Equipment refer to Flight and Maintenance Manual

   3.2 Additional Equipment if propulsion system installed (variant ASG 32 Mi):
   1 Magnetic compass (front seat)
   1 Power-plant instrument, type ILEC MCU ASH 30Mi (front seat); when engine installed
   1 Rear view mirror (front seat); when engine installed

4. Dimensions
   Span: 20,00 m
   Wing area: 15,70 m²
   Length: 9,07 m
   Height: 1,84 m

5. Engine (optional Variant ASG 32 Mi)
   5.1 Model
   Austro Engine IAE50R-AA
   5.2 Type Certificate
   EASA.E.085
   5.3 Limitations
   Maximum Take-off Power (max. 3 min.): 37,3 kW at 7750 rpm
   5.4 Maximum Continuous Power
   35,8 kW at 7100 rpm
6. Propeller (optional Variant ASG 32 Mi)
   6.1 Model  
   Alexander Schleicher AS2F1-1/R153-92-N1
   6.2 Type Certificate  
   EASA.P.004
   6.3 Number of blades  
   2
   6.4 Diameter  
   1530 mm ± 5 mm
   6.5 Sense of Rotation  
   Right
   or
   6.6 Model  
   Alexander Schleicher AS2F1-5/R153-88-N1
   6.7 Type Certificate  
   EASA.P.004
   6.8 Number of blades  
   2
   6.9 Diameter  
   1530 mm ± 5 mm
   6.10 Sense of Rotation  
   Right

7. Fuel capacities/Battery (optional Variant ASG 32 Mi)
   7.1 Tank in the fuselage  
   14 l
   7.2 Tank in right wing  
   15 l
   7.3 Tank in left wing  
   15 l
   7.4 Non-usable fuel  
   0,4 l

8. Launching Hooks  
   Nose tow hook “E 22”, LBA Datasheet No. 11.402/9 NTS
   Safety hook „Europa G 88”, LBA Datasheet No. 60.230/2

9. Weak Links  
   Ultimate Strength:
   - for winch- and auto-tow launching  
     max. 1100 daN
   - for aero-tow  
     max. 1100 daN

10. Load Factors  
    +5,3 / -2,65 (up to $V_A$)
    +4,0 / -1,5 (up to $V_{NE}$)

11. Air Speeds  
    Manoeuvering Speed  
    $V_A$  
    180 km/h
    Never Exceed Speed  
    $V_{NE}$  
    270 km/h
    Maximum permitted Speeds
    - with flaps at 1, 2, 3, 4  
      $V_{FE}$  
      270 km/h
    - with flaps at 5,6  
      $V_{FE}$  
      180 km/h
    - with flaps at L  
      $V_{FE}$  
      150 km/h
    - in rough air  
      $V_{RA}$  
      180 km/h
    - for winch launching  
      $V_W$  
      140 km/h
    - for aerotowing  
      $V_T$  
      180 km/h
    - for gear operation  
      $V_{LO}$  
      180 km/h
    - for propeller operation  
      $V_{PO}$  
      120 km/h
    - with propeller extended  
      $V_{PE}$  
      180 km/h

12. Approved Operations Capability  
    VFR-Day
    Cloud flying not permitted
    Aerobatic manoeuvres not permitted, except Spinning

13. Launch methods  
    Aerotow
    Winch and Auto-Tow
    Self Launch (only variant ASG 32 Mi)
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
Max. Mass of Non-Lifting Parts: 550 kg |
| 15. Centre of Gravity Range | 156 mm – 385 mm aft of datum |
| 16. Datum | Wing leading edge at root rib |
| 17. Levelling Means | Slope 1000: 27 placed on upper side of fuselage boom horizontal |
| 18. Control Surface Deflections | Refer to Maintenance Manual |
| 19. Minimum Flight Crew | 1 |
| 20. Maximum Passenger Seating Capacity | 1 |
| 21. Baggage/Cargo Compartments | 9 kg |
| 22. Lifetime limitations | Refer to Maintenance Manual |
A.IV  Operating and Service Instructions

1. Flight Manuals:
   1.1 Variant ASG 32: Flight Manual ASG 32, issue 01.12.2015, or later EASA approved revisions
   1.2 Variant ASG 32 Mi: Flight Manual ASG 32 Mi, issue 01.12.2015, or later EASA approved revisions

2. Maintenance Manuals:
   2.1 Variant ASG 32: Maintenance Manual ASG 32, issue 15.01.2016, or later revisions
   2.2 Variant ASG 32 Mi: Maintenance Manual ASG 32 Mi, issue 15.01.2016, or later revisions


5. Operating Manual and Maintenance Manual for Propeller Alexander Schleicher AS2F1-1, latest approved version *), or as applicable


7. Manual for the TOST Release, latest approved version

*) For Variant ASG 32 Mi: The operation and maintenance manuals are elements of the operation instructions of the ASG 32 Mi. Necessary revisions are not be done in the manuals of the ASG 32 Mi but separately by the engine and propeller manufacturer.
A.V Notes

1. Manufacturing is confined to industrial production.

2. The surface colour of all fibre reinforced parts, which are exposed to sun radiation, must be painted either in
   - White
   - RAL 2004 (Reinorange)
   - RAL 2009 (Verkehrsorange)
   - RAL 3020 (Verkehrsrot)
   - or other colours listed in the maintenance manual section 13.4, maintenance instruction “coloured surfaces”

Exceptions are the areas for markings and registration, engine bay and cockpit.
Section B: **ASG 32 El**

**B.I General**

1. **Type/ Model/ Variant**
   1.1 Type: ASG 32
   1.2 Model: ASG 32 El

2. **Airworthiness Category**
   Sailplane, CS-22 - Utility

3. **Manufacturer**
   Alexander Schleicher GmbH & Co. Segelflugzeugbau

4. **EASA Type Certification Application Date**
   28 October 2013

5. **EASA Type Certification Date**
   22 December 2017

**B.II EASA Certification Basis**

1. **Reference Date for determining the applicable requirements**
2. **Airworthiness Requirements**

3. **Special Conditions**
   CRI E-101 – Electrical Propulsion
   CRI H-101 – Electrical Engine

4. **Exemptions**
   None

5. **(Reserved) Deviations**
   None

6. **Equivalent Safety Findings**
   CS 22.335 (f) calculation of $V_D$ according to OSTIV
   CS 22.585(a) reduced by factor 1.2

7. **Environmental Protection**
   ICAO Annex 16 (details refer to TCDSN EASA.A.599)
## B.III Technical Characteristics and Operational Limitations

1. Type Design Definition
   - List of the drawing files ASG 32 EI, issue 15.12.2017

2. Description
   - Double-seat, mid-wing CRP/GRP/ARP-composite construction for FAI 20m class with flaps, double-panel Schempp-Hirth airbrakes on upper wing surface, winglets, water ballast tanks in the wing and optional in the fuselage, retractable landing gear with hydraulic disc brake, T-shaped horizontal tail (fixed horizontal stabilizer with elevator) fin and rudder.
     
     Self-sustaining, electrical power-plant mounted in the centre fuselage.

3. Equipment
   3.1 Min. required Equipment:
     - 1 Air speed indicator (up to 300 km/h) (front seat)
     - 1 Altimeter (front seat)
     - 1 Magnetic compass (front seat)
     - 1 Power-plant instrument (front seat)
     - 1 Rear view mirror
     - 1 Outside air temperature gauge (front seat)
     - 1 4-Point safety harness (symmetrical) for each occupant
     - 1 Parachute or Cushion for back rest (~ 8cm thickness) for each occupant
     
     Additional Equipment refer to Flight and Maintenance Manual

     Additionally required for instruction or of the pilot in command sits in the rear seat:

     - 1 Air speed indicator in the rear seat (up to 300 km/h)
     - 1 Altimeter in the rear seat

4. Dimensions
   - Span: 20,00 m
   - Wing area: 15,70 m²
   - Length: 9,07 m
   - Height: 1,84 m

5. Engine
   5.1 Model
     - Alexander Schleicher EA900/1-25LK
   5.2 Type Certificate
     - n/a (accepted as part of the airframe)
   5.3 Limitations
     - Maximum Power: 25 kW at 3000 rpm
   5.4 Max. continuous revs
     - 2500 rpm
   5.5 Max. overspeed revs
     - 3000 rpm
   5.6 Max. motor temperature
     - 110°C
   5.7 Max. power electronics temperature
     - 80°C
6. Propeller
   6.1 Model  Alexander Schleicher AS2F1-4/L155-88-N3
   6.2 Type Certificate  EASA.P.004
   6.3 Number of blades  2
   6.4 Diameter  1550 mm +3mm / -10 mm
   6.5 Sense of Rotation  Left

7. Battery
   7.1 Battery capacity  26 Ah
   7.2 Non-usable battery capacity  10 Ah (39%)
   7.3 Max battery discharge temperature  60°C
   7.4 Min battery discharge temperature  -20°C
   7.5 Max battery charge temperature  50°C
   7.6 Min battery charge temperature  0°C
   7.7 Range of permissible cell voltage  3 – 4,15 V

8. Launching Hooks
   Nose tow hook “E 22”, LBA Datasheet No. 11.402/9 NTS
   Safety hook „Europa G 88”, LBA Datasheet No. 60.230/2

9. Weak Links
   Ultimate Strength:
   - for winch- and auto-tow launching  max. 1100 daN
   - for aero-tow  max. 1100 daN

10. Load Factors
    +5,3 / -2,65 (up to \( V_A \))
    +4,0 / -1,5 (up to \( V_{NE} \))

11. Air Speeds
    Maneouvering Speed \( V_A \)  180 km/h
    Never Exceed Speed \( V_{NE} \)  270 km/h
    Maximum permitted Speeds
    - with flaps at 1, 2, 3, 4 \( V_{FE} \)  270 km/h
    - with flaps at 5,6 \( V_{FE} \)  180 km/h
    - with flaps at L \( V_{FE} \)  150 km/h
    - in rough air \( V_{RA} \)  180 km/h
    - for winch launching \( V_W \)  140 km/h
    - for aerotowing \( V_T \)  180 km/h
    - for gear operation \( V_{LO} \)  180 km/h
    - for propeller operation \( V_{PO} \)  120 km/h
    - with propeller extended \( V_{PE} \)  180 km/h

12. Approved Operations Capability
    VFR-Day
    Cloud flying not permitted
    Aerobatic manoeuvres are not permitted, except spinning

13. Launch methods
    Aerotow

14. Maximum Masses
    Max. Mass: 850 kg
    Max. Mass of Non-Lifting Parts: 550 kg

15. Centre of Gravity Range
    156 mm – 385 mm aft of datum
16. Datum

Wing leading edge at root rib

17. Levelling Means

Slope 1000 : 27 placed on upper side of fuselage boom horizontal

18. Control Surface Deflections

Refer to Maintenance Manual

19. Minimum Flight Crew

1

20. Maximum Passenger Seating Capacity

1

21. Baggage/ Cargo Compartments

9 kg

22. Lifetime limitations

Refer to Maintenance Manual
**B.IV Operating and Service Instructions**

1. Flight Manual ASG 32 El, issue 15.09.2017, or later EASA approved revisions
6. Manual for the TOST Release, latest approved version

*) The operation and maintenance manuals are elements of the operation instructions of the ASG 32 El. Necessary revisions are not be done in the manuals of the ASG 32 El but separately by the engine and propeller manufacturer.
B.V  Notes

1. Manufacturing is confined to industrial production.
2. The surface colour of all fibre reinforced parts, which are exposed to sun radiation, must be painted either in
   White
   RAL 2004 (Reinorange)
   RAL 2009 (Verkehrsorange)
   RAL 3020 (Verkehrsrot)
   or other colours listed in the maintenance manual section 13.4, maintenance instruction “coloured surfaces”
   Exceptions are the areas for markings and registration, engine bay and cockpit.
Section C: Administrative Section

C.I  Acronyms & Abbreviations
n/a

C.II  Type Certificate Holder Record

Alexander Schleicher GmbH & Co. Segelflugzeugbau
Alexander-Schleicher-Str. 1
36163 Poppenhausen
Germany

C.III  Change Record

<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>Changes</th>
<th>TC Issue No. &amp; Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 01</td>
<td>11 February 2016</td>
<td>Initial Issue</td>
<td>Initial Issue, 11 February 2016</td>
</tr>
<tr>
<td>Issue 02</td>
<td>17 March 2016</td>
<td>Correction missing SC in A.II.3, separate manuals for both variants.</td>
<td></td>
</tr>
<tr>
<td>Issue 03</td>
<td>11 January 2018</td>
<td>Addition of model ASG 32 El</td>
<td>11 January 2018</td>
</tr>
<tr>
<td>Issue 4</td>
<td>06 June 2019</td>
<td>Alternative propeller for variant ASG 32 Mi</td>
<td></td>
</tr>
</tbody>
</table>

-END-