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 EI
            ASG 32 Mi
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Section A: ASG 32

A.I General

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

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
   Certification Specification for Sailplanes and
   Powered Sailplanes, issued 24. September 2008 (CS-
   22, Amdt. 2)

3. Special Conditions
   EASA SC A.22.1-01 - 850 kg MTOM

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
   None
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.

3. Equipment
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

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

5. 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

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

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

8. 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
9. Approved Operations Capability
   VFR-Day
   Cloud flying not permitted
   Aerobatic manoeuvres not permitted, except Spinning

10. Launch methods
    Aerotow
    Winch and Auto-Tow

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

12. Centre of Gravity Range
    156 mm – 385 mm aft of datum

13. Datum
    Wing leading edge at root rib

14. Levelling Means
    Slope 1000 : 27 placed on upper side of fuselage
    boom horizontal

15. Control Surface Deflections
    Refer to Maintenance Manual

16. Minimum Flight Crew
    1

17. Maximum Passenger Seating Capacity
    1

18. Baggage/ Cargo Compartments
    9 kg

19. Lifetime limitations
    Refer to Maintenance Manual
A.IV  Operating and Service Instructions

1. Flight Manual  
   Flight Manual ASG 32, issue 01.12.2015, or later EASA approved revisions

   Maintenance Manual ASG 32, issue 15.01.2016, or later revisions

   General Repair Manual for Alexander Schleicher Sailplanes and Powered Sailplanes, latest revision

4. Manual for the TOST Release, latest approved version
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.
3. Alexander Schleicher TM 11 changes the Variant ASG 32 Mi into the Model ASG 32 Mi for which
   Section C of this TCDS applies
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
   SC 22.2014-01 – Electrical Propulsion
   SC E-01 – Electrical Engine
   SC B22.151-01 – Sustainer Assisted Aerotow

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 El, 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**
   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

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>6.1 Model</td>
<td>Alexander Schleicher AS2F1-4/L155-88-N3</td>
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<tr>
<td>6.2 Type Certificate</td>
<td>EASA.P.004</td>
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<tr>
<td>6.3 Number of blades</td>
<td>2</td>
</tr>
<tr>
<td>6.4 Diameter</td>
<td>1550 mm +3mm / -10 mm</td>
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<tr>
<td>6.5 Sense of Rotation</td>
<td>Left</td>
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7. Battery

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<tr>
<td>7.1 Battery capacity</td>
<td>26 Ah</td>
</tr>
<tr>
<td>7.2 Non-usable battery capacity</td>
<td>10 Ah (39%)</td>
</tr>
<tr>
<td>7.3 Max battery discharge temperature</td>
<td>60°C</td>
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<td>7.4 Min battery discharge temperature</td>
<td>-20°C</td>
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<td>7.5 Max battery charge temperature</td>
<td>50°C</td>
</tr>
<tr>
<td>7.6 Min battery charge temperature</td>
<td>0°C</td>
</tr>
<tr>
<td>7.7 Range of permissable cell voltage</td>
<td>3 – 4.15 V</td>
</tr>
</tbody>
</table>

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

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<table>
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<tr>
<td>Maneuvering Speed</td>
<td>( V_A ) 180 km/h</td>
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<tr>
<td>Never Exceed Speed</td>
<td>( V_{NE} ) 270 km/h</td>
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<tr>
<td>Maximum permitted Speeds</td>
<td></td>
</tr>
<tr>
<td>- with flaps at 1, 2, 3, 4</td>
<td>( V_{FE} ) 270 km/h</td>
</tr>
<tr>
<td>- with flaps at 5,6</td>
<td>( V_{FE} ) 180 km/h</td>
</tr>
<tr>
<td>- with flaps at L</td>
<td>( V_{VE} ) 150 km/h</td>
</tr>
<tr>
<td>- in rough air</td>
<td>( V_{RA} ) 180 km/h</td>
</tr>
<tr>
<td>- for winch launching</td>
<td>( V_W ) 140 km/h</td>
</tr>
<tr>
<td>- for aerotowing</td>
<td>( V_T ) 180 km/h</td>
</tr>
<tr>
<td>- for sustainer assisted aerotow</td>
<td>( V_{TA} ) 180 km/h</td>
</tr>
<tr>
<td>- for gear operation</td>
<td>( V_{LO} ) 180 km/h</td>
</tr>
<tr>
<td>- for propeller operation</td>
<td>( V_{PO} ) 120 km/h</td>
</tr>
<tr>
<td>- with propeller extended</td>
<td>( V_{PE} ) 180 km/h</td>
</tr>
</tbody>
</table>

12. Approved Operations Capability

VFR-Day
Cloud flying not permitted
Aerobatic manoeuvres are not permitted, except spinning

13. Launch methods

Aerotow including Sustainer Assisted Aerotow
Winch and Auto-Tow

14. Maximum Masses

Max. Mass: 850 kg
<p>| | |</p>
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<thead>
<tr>
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<tr>
<td>15.</td>
<td>Centre of Gravity Range</td>
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<td>16.</td>
<td>Datum</td>
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<td>17.</td>
<td>Levelling Means</td>
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<td>18.</td>
<td>Control Surface Deflections</td>
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<td>19.</td>
<td>Minimum Flight Crew</td>
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<td>20.</td>
<td>Maximum Passenger Seating Capacity</td>
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<td>21.</td>
<td>Baggage/ Cargo Compartments</td>
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<td>22.</td>
<td>Lifetime limitations</td>
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<tr>
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<tr>
<td></td>
<td>Max. Mass of Non-Lifting Parts: 550 kg</td>
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<tr>
<td></td>
<td>156 mm – 385 mm aft of datum</td>
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<tr>
<td></td>
<td>Wing leading edge at root rib</td>
</tr>
<tr>
<td></td>
<td>Slope 1000 : 27 placed on upper side of fuselage boom horizontal</td>
</tr>
<tr>
<td></td>
<td>Refer to Maintenance Manual</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>9 kg</td>
</tr>
<tr>
<td></td>
<td>Refer to Maintenance Manual</td>
</tr>
</tbody>
</table>
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.
3. Sustainer Assisted Aerotow is only permitted after embodiment of Alexander Schleicher ASG 32 Technical Note Nr. 12.
Section C: ASG 32 Mi

C.I General

1. Type/ Model/ Variant
   1.1 Type: ASG 32
   1.2 Model: ASG 32 Mi
2. Airworthiness Category: Sailplane, CS-22 - Utility
4. EASA Type Certification Application Date: 01 November 2012
5. EASA Type Certification Date: 11 Februray 2016

C.II EASA Certification Basis

1. Reference Date for determining the applicable requirements
3. Special Conditions: None
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)
C.III  Technical Characteristics and Operational Limitations

1. Type Design Definition

List of the drawing files ASG 32 Mi, issue 31.01.2016

2. Description

Double-seat, self-launching powered sailplane, 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. Retractable power-plant mounted in the centre fuselage.

3. Equipment

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

With engine installed:
1. Magnetic compass (front seat)
1. Power-plant instrument, type ILEC MCU ASH 30Mi (front seat)
1. Rear view mirror (front 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  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

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

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

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
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
C.IV  Operating and Service Instructions

1. Flight Manual
   Flight Manual ASG 32 Mi, issue 01.12.2015, or later EASA approved revisions
   Maintenance Manual ASG 32 Mi, issue 15.01.2016, or later revisions
   General Repair Manual for Alexander Schleicher Sailplanes and Powered Sailplanes, latest revision
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

*) 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.
C.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.

3. The model ASG 32 Mi has previously been addressed by Section A as variant ASG 32 Mi. The optional implementation of the AS Technical Note 11 converts the variant ASG 32 Mi into the model ASG 32 Mi.
Section D: Administrative Section

D.I Acronyms & Abbreviations
- AS: Alexander Schleicher GmbH & Co. Segelflugzeugbau
- VFR: Visual Flight Rules
- MTOM: Maximum Take-off Mass
- EASA: European Union Aviation Safety Agency

D.II Type Certificate Holder Record

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

D.III Change Record

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<th>Date</th>
<th>Changes</th>
<th>TC Issue No. &amp; Date</th>
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<tr>
<td>Issue 01</td>
<td>11 February 2016</td>
<td>Initial Issue</td>
<td>Initial Issue, 11 February 2016</td>
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<tr>
<td>Issue 02</td>
<td>17 March 2016</td>
<td>Correction missing SC in A.II.3, separate manuals for both variants.</td>
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<tr>
<td>Issue 03</td>
<td>11 January 2018</td>
<td>Addition of model ASG 32 El</td>
<td>11 January 2018</td>
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<tr>
<td>Issue 04</td>
<td>06 June 2019</td>
<td>Alternative propeller for model ASG 32 Mi</td>
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<td>Issue 05</td>
<td>23 August 2021</td>
<td>Split of model ASG 32 with its variants ASG 32 and ASG 32 Mi into two models: ASG 32 and ASG 32 Mi See notes of Section A and C.</td>
<td>16 August 2021</td>
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<tr>
<td>Issue 06</td>
<td>13 January 2022</td>
<td>Model ASG 32 El, addition to launch methods: Sustainer Assisted Aerotow, Note B.V.3</td>
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