This data sheet which is a part of Type Certificate No. G47EU 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
Alexander-Schleicher-Str. 1
36163 Poppenhausen
Germany

I. - Model ASK 21 Glider, Utility and Aerobatic Category, approved October 18, 1983.

**Description.** The ASK 21 is a two-seat, mid-winged, all composite glider with a T-shaped tail, a 56 ft (17 m) wingspan, and airbrakes on the upper wing surface. It has a non-retractable landing gear with a nose wheel and a shock-absorbing, braked main wheel.

<table>
<thead>
<tr>
<th>Airspeed Limits (I.A.S.)</th>
<th>mph</th>
<th>km/h</th>
<th>kts</th>
</tr>
</thead>
<tbody>
<tr>
<td>$V_{NE}$ (Never exceed)</td>
<td>174</td>
<td>280</td>
<td>151</td>
</tr>
<tr>
<td>$V_B$ (In rough air)</td>
<td>124</td>
<td>200</td>
<td>108</td>
</tr>
<tr>
<td>$V_A$ (Maneuvering)</td>
<td>112</td>
<td>180</td>
<td>97</td>
</tr>
<tr>
<td>Air Brakes</td>
<td>174</td>
<td>280</td>
<td>151</td>
</tr>
<tr>
<td>$V_T$ (Aero tow)</td>
<td>112</td>
<td>180</td>
<td>97</td>
</tr>
<tr>
<td>$V_W$ (Winch tow)</td>
<td>93</td>
<td>150</td>
<td>81</td>
</tr>
</tbody>
</table>

**C.G. Range.** 9.2 to 18.4 in (234 to 469 mm) aft of datum

**Empty Weight C.G.** See Section 6 of the ASK 21 Flight Manual

**Datum.** Wing leading edge of the straight center part of the wing

**Leveling Means.** Wedge on the rear top edge of fuselage 1000:52 horizontal

**Maximum Weight.** 1323 lbs (600 kg)

**Minimum Crew.** One pilot

**No. of Seats.** Two seats
Front seat: 46.6 to 49.2 in (1185 to 1250 mm) forward of datum
Rear seat: 3.1 in (80 mm) forward of datum

**Maximum Baggage.** 2 times 22 lbs (2 x 10 kg) at 7.9 in (200 mm) behind datum.

**Control Surface Movements.**
- **Aileron**
  - Up: 4.33 ± 0.40 in (110 ± 10 mm)
  - Down: 1.80 ± 0.20 in (45 ± 5 mm)
  - Distance from hinge line = 9.45 in (240 mm)

- **Elevator**
  - Up: 3.50 ± 0.20 in (90 ± 5 mm)
  - Down: 2.56 ± 0.20 in (65 ± 5 mm)
  - Distance from hinge line = 9.06 in (230 mm)
Rudder: Right / Left 7.10 ± 0.80 in (180 ± 20 mm)  
Distance from hinge line = 14.80 in (375 mm)

Airbrakes gap: 1.0 to 1.3 in (25 to 35 mm)

Weak Link:  
Ultimate strength: For winch launch Max 1870 lbs (850 daN)  
For aero tow Max 1320 lbs (600 daN)

Tow release: Both releases connected Max 26 lbs (12.5 daN)

Serial Nos. Eligible:  
See Import Requirements.

Certification Basis:  
Based on the Special Class provisions of Title 14 Code of Federal Regulations (CFR)  
Part 21, § 21.17(b), the following airworthiness requirements form the FAA Certification  
Basis for this design:
1) 14 CFR Part 21, effective February 1, 1965 including Amendments 21-1 through 21-  
53, as applicable;
2) Airworthiness Requirements for Sailplanes and Powered Sailplanes – (LFSM), dated  
October 23, 1975;
3) Advisory Circular 21.23-1, Section 5(e)(6), dated January 12, 1981;
4) Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR-22),  
dated April 1, 1980, including Amendment No. 1, dated May 18, 1981;
5) Date of Application for Type Certificate: October 1, 1982.
6) The following kinds of operation are allowed:  
   - VFR - Day  
   - “Cloud Flying” (if properly equipped, see NOTE 8)

The German Airworthiness Authority, the Luftfahrt-Bundesamt (LBA) originally type  
certificated this glider under its Type Certificate (TC) No. 339, issued April 18, 1980.  
Effective March 4, 2008, the European Aviation Safety Agency (EASA) began oversight  
of this model and the LBA TCDS was transferred to EASA. The EASA Type Certificate  
No. is EASA.A221.

Import Requirements:  
A U.S. Standard Airworthiness Certificate may be issued on the basis of an Export  
Certificate of Airworthiness (Export C of A) signed by a representative of the German  
Airworthiness Authority (LBA), on behalf of the European Community. The Export C of  
A should contain the following statement: "The glider covered by this certificate has been  
examined, tested and found to conform to the type design approved under FAA Type  
Certificate G47EU and is in condition for safe operation."

Serial numbers 21 131, 21 174 and 21 179 are eligible for a United States Standard  
Airworthiness Certificate when modified in accordance with LBA approved Alexander  
Schleicher ASK 21 Technical Note No. 9, dated February 24, 1983, and when other  
import requirements of this TCDS are satisfied.

Equipment:  
The basic required equipment as prescribed in the applicable airworthiness regulations  
(see Certification Basis) must be installed in the glider for certification. Also, see NOTE  
7. In addition, the ASK 21 Flight Manual, LBA-approved dated March 1, 1983 is  
required.

Service Information:  
Each of the documents listed below must state that it is approved by the EASA or – for  
approvals made before March 4, 2008 – by the German Airworthiness Authority (LBA):  
- Service bulletins  
- Structural repair manuals  
- Vendor manuals  
- Aircraft flight manuals  
- Overhaul and maintenance manuals

The FAA accepts such documents and considers them FAA-approved for type design  
data only unless one of the following conditions exists:
• The documents change the limitations, performance, or procedures of the FAA approved manuals.

The FAA uses post type validation procedures to approve these documents. The FAA may delegate on a case-by-case basis to EASA to approve these on behalf of the FAA for the U.S. type certificate. If this is the case, it will be noted on the document.

ASK 21 Operating and Service Instructions:


NOTES.

NOTE 1. Current weight and balance report including list of equipment in certificated empty weight, and loading instructions, when necessary, must be provided for each glider at the time of original certification.

NOTE 2. The placards listed in Section II of the ASK 21 Flight Manual must be displayed.

NOTE 3. Section 5 of the ASK 21 Maintenance Manual, is FAA- approved and it specifies mandatory replacement times, and structural repair procedures. These airworthiness limitations may not be changed without FAA approval.

NOTE 4. All external portions of the glider exposed to sunlight must be painted with white gelcoat. Wing tips, nose of fuselage and rudder may be painted with an additional color.

NOTE 5. Information essential for the proper operation, maintenance and inspection of the glider is contained in the ASK-21 Flight Manual, and Maintenance Manual.

NOTE 6. Major structural repairs must be accomplished by a properly certificated mechanic in accordance with data approved by the FAA.

NOTE 7. The approved flight and navigation instruments, for all types of operations for the Model ASK-21 are listed on page 8 of the ASK-21 Flight Manual dated March 9, 1983.

NOTE 8. “Cloud Flying” is considered flying in Instrument Meteorological Conditions (IMC) and requires an Instrument Flight Rules (IFR) clearance in the U.S. This is permissible in the U.S. provided the pilot has the appropriate rating per 14 CFR 61.3, the glider contains the necessary equipment specified under 14 CFR 91.205, and the pilot complies with IFR requirements.


Description. The ASK 21 B is a two-seat, mid-winged, all composite glider with a T-shaped tail, a 56 ft (17 m) wingspan, and airbrakes on the upper wing surface. It has a non-retractable landing gear with a nose wheel and a shock-absorbing, braked main wheel.

Airspeed Limits (I.A.S.).

<table>
<thead>
<tr>
<th>Speed Type</th>
<th>mph</th>
<th>km/h</th>
<th>kts</th>
</tr>
</thead>
<tbody>
<tr>
<td>VNE (Never exceed)</td>
<td>174</td>
<td>280</td>
<td>151</td>
</tr>
<tr>
<td>VB (In rough air)</td>
<td>124</td>
<td>200</td>
<td>108</td>
</tr>
<tr>
<td>VA (Maneuvering)</td>
<td>112</td>
<td>180</td>
<td>97</td>
</tr>
<tr>
<td>Air Brakes</td>
<td>174</td>
<td>280</td>
<td>151</td>
</tr>
<tr>
<td>VT (Aero tow)</td>
<td>112</td>
<td>180</td>
<td>97</td>
</tr>
<tr>
<td>VW (Winch tow)</td>
<td>93</td>
<td>150</td>
<td>81</td>
</tr>
</tbody>
</table>

C.G. Range. 9.2 to 18.4 in (234 to 469 mm) aft of datum

Empty Weight C.G. See Section 6 of the ASK 21 B Flight Manual

Datum. Wing leading edge at the wing root rib

Leveling Means. Wedge on the rear top edge of fuselage 1000:52 horizontal
### Maximum Weight
1323 lbs (600 kg)

### Minimum Crew
One pilot

### No. of Seats
Two seats
- Front seat: 44.88 to 48.82 in (1140 to 1240 mm) forward of datum
- Rear seat: 1.18 to 3.54 in (30 to 90 mm) forward of datum

### Maximum Baggage
22 lbs (10 kg) at 9.84 in (250 mm) behind datum.

### Control Surface Movements

<table>
<thead>
<tr>
<th>Surface</th>
<th>Up</th>
<th>Down</th>
<th>Distance from hinge line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aileron</td>
<td>5.51 ± 0.39 in (140 ± 10 mm)</td>
<td>2.05 ± 0.20 in (52 ± 5 mm)</td>
<td>9.45 in (240 mm)</td>
</tr>
<tr>
<td>Elevator</td>
<td>3.54 ± 0.20 in (90 ± 5 mm)</td>
<td>2.56 ± 0.20 in (65 ± 5 mm)</td>
<td>9.06 in (230 mm)</td>
</tr>
<tr>
<td>Rudder</td>
<td>7.09 ± 0.79 in (180 ± 20 mm)</td>
<td></td>
<td>14.76 in (375 mm)</td>
</tr>
</tbody>
</table>

### Weak Link
- **Ultimate strength:**
  - For winch launch: Max 2248 lbs (1000 daN ± 10%)
  - For aero tow: Max 2248 lbs (600 daN ± 10%)

### Serial Nos. Eligible
21954 and up. See Import Requirements.

### Certification Basis
Based on the Special Class provisions of Title 14 Code of Federal Regulations (CFR) Part 21, § 21.17(b), the following airworthiness requirements form the FAA Certification Basis for this design:

1. 14 CFR Part 21, effective February 1, 1965, including Amendments 21-1 through 21-53, as applicable;
2. Airworthiness Requirements for Sailplanes and Powered Sailplanes – (LFSM), issued October 23, 1975;
3. Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR-22), dated April 1, 1980, including Amendment 1, dated May 18, 1981;
6. The following kinds of operation are allowed:
   - VFR - Day
   - “Cloud Flying” (if properly equipped, see NOTE 8);
7. Date of application for FAA Type Certificate: August 16, 2018.
8. EASA type certificated this glider model under its Type Certificate No. EASA.A.221 on August 9, 2018.

### Production Basis
Alexander Schleicher GmbH & Co. Segelflugzeugbau
Alexander-Schleicher-Straße 1
D-36163 Poppenhausen, Germany
EASA Production Organization Approval Number: DE.21G.0010

### Import Requirements
A U.S. Standard Airworthiness Certificate may be issued on the basis of an Export Certificate of Airworthiness (Export C of A) signed by a representative of the German Airworthiness Authority (LBA), on behalf of the European Community. The Export C of A should contain the following statement: "The glider covered by this certificate has been examined, tested and found to conform to the type design approved under FAA Type Certificate G47EU 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. Also, see NOTE 7. In addition, a copy of the ASK 21 B Flight Manual, dated November 23, 2018 is required.

Service Information. Each of the documents listed below must state that it is approved by EASA:
- Service bulletins
- Structural repair manuals
- Vendor manuals
- Aircraft flight manuals
- Overhaul and maintenance manuals

The FAA accepts such documents and considers them FAA-approved for type design data only unless one of the following conditions exists:
- The documents change the limitations, performance, or procedures of the FAA approved manuals.

The FAA uses post type validation procedures to approve these documents. The FAA may delegate on a case-by-case basis to EASA to approve these on behalf of the FAA for the U.S. type certificate. If this is the case, it will be noted on the document.

ASK 21 B Operating and Service Instructions:

NOTES.

NOTE 1. Current weight and balance report including list of equipment in certificated empty weight, and loading instructions, when necessary, must be provided for each glider at the time of original certification.

NOTE 2. The placards listed in Section 2 of the ASK 21 B Flight Manual must be displayed.

NOTE 3. Section 4 of the ASK 21 B Maintenance Manual, titled “Airworthiness Limitations”, is FAA-approved, and specifies mandatory replacement times, structural inspection intervals, and related procedures. These Airworthiness Limitations may not be changed without FAA approval.

NOTE 4. All external portions of the glider exposed to sunlight must be painted with white gelcoat. Wing tips, nose of fuselage and rudder may be painted with an additional color.

NOTE 5. Information essential for the proper operation, maintenance and inspection of the glider is contained in the ASK-21 B Flight Manual, and Maintenance Manual.

NOTE 6. Major structural repairs must be accomplished by a properly certificated mechanic in accordance with data approved by the FAA.

NOTE 7. The manufacturer’s approved minimum equipment for all types of operations are listed in Section 2.11 of the ASK 21 B Flight Manual.

NOTE 8. “Cloud Flying” is considered flying in Instrument Meteorological Conditions (IMC) and requires an Instrument Flight Rules (IFR) clearance in the U.S. This is permissible in the U.S. provided the pilot has the appropriate rating per 14 CFR 61.3, the glider contains the necessary equipment specified under 14 CFR 91.205, and the pilot complies with IFR requirements.

...END...