



<u>C.G. Range.</u>	-10 in. to -16.5 in. (-254 mm to -420 mm) (aft of datum) No moment change due to the retracting of the landing gear.								
<u>Empty Mass C.G. Range.</u>	-20.26 in. to -20.70 in. at 1407 lb. (-515 to -526 mm at 638 kg) -20.10 in. to -20.63 in. at 1429.5 lb. (-511 to -524 mm at 648 kg) -19.33 in. to -20.44 in. at 1500 lb. (-491 to -519 mm at 680 kg) aft of datum; approx. straight line variation between points.  When the empty weight C.G. falls within the range given and the permissible loads are not exceeded, computations of critical fore and aft C.G. locations are unnecessary. Any change of equipment requires recalculation or new weighing. For more details see Maintenance Manual Section 6.3.								
<u>Maximum Weight.</u>	1874 lb. (850 kg)								
<u>Minimum Crew.</u>	One pilot.								
<u>No. of Seats.</u>	Two seats Moment arm +23.5 in. (596.9 mm) forward of datum								
<u>Maximum Baggage.</u>	48.5 lb. at -3.67 in. (22 kg at -93 mm).								
<u>Fuel Capacity.</u>	23.8 U.S. gal. total (two wing tanks 11.9 U.S. gal. each) at -10.43 in. (-265 mm). 0.4 U.S. gal. unusable fuel per tank. (See NOTE 1).								
<u>Oil Capacity.</u>	4.2 qt. total. Engine: 3.2 qt. at -52.4 in. (-1330 mm). Radiator: 0.6 qt. at -35.4 in. (-900 mm). Engine and hoses: 0.4 qt at -25.6 in. (-650 mm) (See NOTE 1).								
<u>Serial Nos. Eligible.</u>	See Import Requirements								
<u>Datum.</u>	Inner wing leading edge.								
<u>Leveling Means.</u>	Wedge 1000: 84 and level on upper face of tailboom in front of vertical fin (see maintenance manual Fig. 6.3-1).								
<u>Control Surface Movements.</u>	<table> <tr> <td>Aileron:</td> <td>Up: 1.89 ± 0.16 in. (48 ± 4 mm) Down: 1.06 ± 0.12 in. (27 ± 3 mm). Measuring radius 6.42 in. (163 mm) on inboard of aileron.</td> </tr> <tr> <td>Wing Flaps:</td> <td>Up: 1.22 ± 0.16 in. (31 ± 4 mm) Down: 2.0 ± 0.16 in. (51 ± 4 mm) Measuring radius 6.89 in. (175 mm) on inboard of wing flap.</td> </tr> <tr> <td>Elevator:</td> <td>Up: 1.89 <sup>+0.2</sup>/<sub>-0.08</sub> (48 <sup>+5</sup>/<sub>-2</sub> mm) Down: 1.89 <sup>+0.2</sup>/<sub>-0.08</sub> (48 <sup>+5</sup>/<sub>-2</sub> mm) Measuring radius 5.51 in. (140 mm) on inboard of stabilizer.</td> </tr> <tr> <td>Rudder:</td> <td>Left: 8.7 ± 0.6 in. (220 ± 15 mm) Right: 8.7 ± 0.6 in. (220 ± 15 mm) Measuring radius 16.5 in. (420 mm) on bottom of the rudder's trailing edge.</td> </tr> </table>	Aileron:	Up: 1.89 ± 0.16 in. (48 ± 4 mm) Down: 1.06 ± 0.12 in. (27 ± 3 mm). Measuring radius 6.42 in. (163 mm) on inboard of aileron.	Wing Flaps:	Up: 1.22 ± 0.16 in. (31 ± 4 mm) Down: 2.0 ± 0.16 in. (51 ± 4 mm) Measuring radius 6.89 in. (175 mm) on inboard of wing flap.	Elevator:	Up: 1.89 <sup>+0.2</sup> / <sub>-0.08</sub> (48 <sup>+5</sup> / <sub>-2</sub> mm) Down: 1.89 <sup>+0.2</sup> / <sub>-0.08</sub> (48 <sup>+5</sup> / <sub>-2</sub> mm) Measuring radius 5.51 in. (140 mm) on inboard of stabilizer.	Rudder:	Left: 8.7 ± 0.6 in. (220 ± 15 mm) Right: 8.7 ± 0.6 in. (220 ± 15 mm) Measuring radius 16.5 in. (420 mm) on bottom of the rudder's trailing edge.
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All measured from hinge line. See STEMME S 10-VT Maintenance Manual Section 3.3.

Certification Basis.

14 CFR 21, effective February 1, 1965, Amendments 21-1 through 21-71, Sections 21.17, 21.29 and 21.50.

JAR-22, Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes, effective through Change 4, including 22.375 of Amendment 22/90/1.

AC 21.17-2, Advisory Circular, effective July 13, 1989.

Date of Application for Type Certificate, January 23, 1997.  
Type Certificate No. G06CE, September 22, 1997.

NOTE: The Models S 10 and S 10-V (Type Certificate Number G58EU) certification was conducted by the Brussels Aircraft Certification Office. A new Type Certificate was issued to the Model S 10-VT (G06CE) based on the change of the certification responsibility being transferred to the Small Airplane Directorate. The Model S 10-VT differs from the type design of the S 10-V in the following areas: Engine - Rotax 914 turbocharged engine; Drivetrain System - new gearbox, freewheel clutch, and joints; Electrical System - extensive modifications; Longitudinal Control - new incidence of horizontal tail, modified elevator, down spring added, modified trim system; Other, associated modifications; and winglets. The certification basis was updated from the Models S 10 and S 10-V to the Model S 10-VT to include Change 4 of JAR 22 included JAR 22.375, amendment 22/90/1 for the change in the winglets.

The German civil airworthiness authority, the Luftfahrt-Bundesamt (LBA), originally type certificated this glider under its type certificate Number 846. The FAA validated this product under U.S. Type Certificate Number G06CE. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of Germany. The EASA TCDS number is EASA.A.054.

Production Basis.

Stemme AG  
Flugplatzstraße F2, Nr. 6 - 7  
D-15344 Strausberg, Germany  
EASA Production Organization Approval Number: DE.21G.0068

Manufacturer Historical Record:  
Stemme AG  
Flugplatzstraße F2, Nr. 7  
D-15344 Strausberg, Germany

Stemme GmbH & Co. KG  
Flugplatzstraße F2, Nr. 7  
D-15344 Strausberg, Germany

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 LBA on behalf of the European Community. The Export C of A should contain the following statement: "The powered glider covered by this certificate has been examined, tested and found to conform to the type design approved under FAA Type Certificate No. G06CE and is in condition for safe operation.

Serial Numbers Eligible: 11-002 and up.

Equipment.

The basic required equipment as prescribed in Stemme S 10-VT Flight Manual, Section 2.12; Date of Issue: August 8, 1997, LBA-approved, dated September 18, 1997. In addition, the following item of equipment is required:

- a) canopy breakage tool for emergency exit

Service Information.

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003 – by the German civil airworthiness authority (LBA).

- Service bulletins

Service Information cont'd.

- 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 unless one of the following conditions exist:

- The documents change the limitations, performance, or procedures of the FAA approved manuals.

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

NOTES.

- NOTE 1. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions, when necessary, must be provided for each motorglider at the time of original certification. The certificated empty weight and corresponding center of gravity locations must include the following:
- a) unusable fuel of 6.7 lb. (0.8 U.S. gal.) at -10.43 in.
- NOTE 2. The placards listed in Section 2 of the LBA-approved Stemme S 10-VT Flight Manual, must be installed in the appropriate location. Complete listing of all placards is shown in Section 8 of the Stemme Maintenance Manual. The Flight Manual airworthiness limitations may not be changed without FAA approval.
- NOTE 3. Section 4 of the LBA-approved Stemme S 10-VT Maintenance Manual specifies mandatory replacement times. These Maintenance Manual airworthiness limitations may not be changed without FAA approval. A Maintenance Manual acceptable to the FAA must be issued prior to the issuance of a Standard Airworthiness Certificate.
- NOTE 4. All external portions of the glider exposed to the solar radiation must be painted white, except of areas provided for registration markings and for warning paint.
- NOTE 5. Removed.
- NOTE 6. Optionally the motorglider may be equipped with 2 enlarged fuel tanks of 15.85 U.S. gallons each. This is accomplished in accordance with Modification Bulletin Number A30-92-077, dated July 14, 1992.
- NOTE 7. The S 10-VT may optionally be equipped with winglets. This may be accomplished in accordance with Stemme Service Bulletin Number A31-10-023.

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