

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

G49EU
SCHEMPP-HIRTH
Mini-Nimbus HS-7
Mini-Nimbus B
September 21, 1984

TYPE CERTIFICATE DATA SHEET NO. G49EU

This data sheet which is a part of type certificate No. G49EU 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 SCHEMPP-HIRTH GMBH & Co. KG
Krebenstrasse 25
7312 Kirchheim-Teck
Federal Republic of Germany

I - Model Mini-Nimbus HS-7 (Utility Category), approved September 21, 1984

Airspeed limits (I.A.S.)	<p>Maximum Airspeeds In Calm Air Never Exceed (Vne)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">0 - 9800 ft. alt.</td> <td style="width: 15%;">135 kts</td> <td style="width: 15%;">155 mph</td> <td style="width: 15%;">250 km/h</td> </tr> <tr> <td>9801 - 19700 ft. alt.</td> <td>120 kts</td> <td>139 mph</td> <td>223 km/h</td> </tr> <tr> <td>19701 - 32800 ft. alt.</td> <td>96 kts</td> <td>110 mph</td> <td>177 km/h</td> </tr> </table> <p>Never exceed</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">With Airbrakes Extended Maximum Airspeed</td> <td style="width: 15%;">135 kts</td> <td style="width: 15%;">155 mph</td> <td style="width: 15%;">250 km/h</td> </tr> <tr> <td>In rough air (Vb)</td> <td>108 kts</td> <td>124 mph</td> <td>200 km/h</td> </tr> <tr> <td>Maneuvering Speed (VA)</td> <td>108 kts</td> <td>124 mph</td> <td>200 km/h</td> </tr> <tr> <td>Airplane Tow (Vt)</td> <td>97 kts</td> <td>112 mph</td> <td>180 km/h</td> </tr> <tr> <td>Winch tow</td> <td>81 kts</td> <td>93 mph</td> <td>150 km/h</td> </tr> <tr> <td>With flaps extended (Vfe)</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Position 0, +6, or +10 (down)</td> <td>97 kts</td> <td>112 mph</td> <td>180 km/h</td> </tr> <tr> <td style="padding-left: 20px;">Position -4, or -7 (up)</td> <td>135 kts</td> <td>155 mph</td> <td>250 km/h</td> </tr> </table>	0 - 9800 ft. alt.	135 kts	155 mph	250 km/h	9801 - 19700 ft. alt.	120 kts	139 mph	223 km/h	19701 - 32800 ft. alt.	96 kts	110 mph	177 km/h	With Airbrakes Extended Maximum Airspeed	135 kts	155 mph	250 km/h	In rough air (Vb)	108 kts	124 mph	200 km/h	Maneuvering Speed (VA)	108 kts	124 mph	200 km/h	Airplane Tow (Vt)	97 kts	112 mph	180 km/h	Winch tow	81 kts	93 mph	150 km/h	With flaps extended (Vfe)				Position 0, +6, or +10 (down)	97 kts	112 mph	180 km/h	Position -4, or -7 (up)	135 kts	155 mph	250 km/h
0 - 9800 ft. alt.	135 kts	155 mph	250 km/h																																										
9801 - 19700 ft. alt.	120 kts	139 mph	223 km/h																																										
19701 - 32800 ft. alt.	96 kts	110 mph	177 km/h																																										
With Airbrakes Extended Maximum Airspeed	135 kts	155 mph	250 km/h																																										
In rough air (Vb)	108 kts	124 mph	200 km/h																																										
Maneuvering Speed (VA)	108 kts	124 mph	200 km/h																																										
Airplane Tow (Vt)	97 kts	112 mph	180 km/h																																										
Winch tow	81 kts	93 mph	150 km/h																																										
With flaps extended (Vfe)																																													
Position 0, +6, or +10 (down)	97 kts	112 mph	180 km/h																																										
Position -4, or -7 (up)	135 kts	155 mph	250 km/h																																										

C.G. range +8.66 in. to +13.97 in. (+220 mm to 355 mm) aft of datum at all weights.

Datum Wing leading edge at root rib.

Empty Weight C.G. Range Refer to Page 11 of the LBA approved "Mini-Nimbus HS-7" Glider Flight Manual.

Leveling means Slope of rear top surface of fuselage: 100 to 5.1 tail down, i.e main landing wheel on the ground and tail skid jacked up about 19.3 in. (49 cm).

Maximum weight Maximum takeoff weight 992 lb. (450 kg) with water ballast.

No. of seats 1 at 21.65 in. (550 mm) ahead of datum.

Maximum Baggage Refer to Page 9 of the LBA-approved Mini-Nimbus Glider Flight Manual.

Page No.	1	2	3	4	5
Rev. No.	-	-	-	-	-

I - Model Mini-Nimbus HS-7 (Utility Category), approved September 21, 1984 (Cont'd)

Control surface movements	Elevator	Up	2.16 ± .4 in - (radius 11.3 in.)
		Down	2.16 ± .4 in. - .2 in.

The radius is the distance measured from the hingeline of the elevator at the inboard edge of the elevator to the rear upper edge.

Rudder	Left	5.31 ± .8 in. - (radius 13.8 in.)
		- .4 in.
		Right

The radius is the distance measured from the hingeline of the rudder at the base of the rudder.

Ailerons with flaps in position 0

Up	1.22 ± .12 in. - (radius 3.23 in.)
Down	0.59 ± .08 in.

The radius is the distance measured from the hingeline of the aileron at the outboard edge of the aileron.

Flaps Maximum	Up	1.14 ± .2 in. - (radius 9.25 in.)
	Maximum Down	1.77 ± .2 in.

The radius is the distance measured from the hingeline of the wing flaps at the inboard edge of the wing flaps.

Weak Links for Towing 1320 ± 66 lb. (600 ± 30 kg).

II - Model Mini-Nimbus B (Utility Category), approved September 21, 1984

(Similar to Mini-Nimbus HS-7 except horizontal tail incorporates an elevator instead of a single piece stabilator)

Airspeed limits (I.A.S.)	Maximum Airspeeds In Calm Air			
	Never Exceed (Vne)			
	0 - 9800 ft. alt.	135 kts	155 mph	250 km/h
	9801 - 19700 ft. alt.	120 kts	139 mph	223 km/h
	19701 - 32800 ft. alt.	96 kts	110 mph	177 km/h
	Never exceed			
	With Airbrakes Extended	135 kts	155 mph	250 km/h
	Maximum Airspeed			
	In rough air (Vb)	108 kts	124 mph	200 km/h
	Maneuvering Speed (VA)	108 kts	124 mph	200 km/h
Airplane Tow (Vt)	97 kts	112 mph	180 km/h	
Winch tow	81 kts	93 mph	150 km/h	
With flaps extended (Vfe)				
Position 0, or +8 (down)	97 kts	112 mph	180 km/h	
Position -4, or -7 (up)	135 kts	155 mph	250 km/h	

C.G. range +8.66 in. to +14.96 in. (+220 mm to 380 mm) aft of datum at all weights.

Datum Wing leading edge at root rib.

Empty Weight C.G. Range Refer to Page 11 of the LBA approved "Mini-Nimbus B" Glider Flight Manual.

Leveling means Slope of rear top surface of fuselage: 100 to 5.1 tail down, i.e main landing wheel on the ground and tail skid jacked up about 19.3 in. (49 cm).

Maximum weight Maximum takeoff weight 992 lb. (450 kg) with water ballast.

No. of seats 1 at 21.65 in. (550 mm) ahead of datum.

Maximum Baggage Refer to Page 9 of the LBA-approved "Mini-Nimbus B" Glider Flight Manual.

II - Model Mini-Nimbus B (Utility Category), approved September 21, 1984 (Cont'd)

Control surface movements	Elevator	Up	1.93 ± .2 in - (radius 6.38 in.)
		Down	1.93 ± .2 in.
			The radius is the distance measured from the hingeline of the elevator at the inboard edge of the elevator to the rear upper edge.
	Rudder	Left	5.31 ± .8 in. - (radius 13.8 in.)
			- .4 in.
	Right	5.31 ± .8 in.	
		- .4 in.	
			The radius is the distance measured from the hingeline of the rudder at the base of the rudder.
			Ailerons with flaps in position 0
		Up	1.22 ± .12 in. - (radius 3.23 in.)
		Down	0.59 ± .08 in.
			The radius is the distance measured from the hingeline of the aileron at the outboard edge of the aileron.
	Flaps	Maximum Up	1.14 ± .2 in. - (radius 9.25 in.)
		Maximum Down	1.30 ± .2 in.
			The radius is the distance measured from the hingeline of the wing flaps at the inboard edge of the wing flaps.
Weak Links for Towing			1320 ± 66 lb. (600 ± 30 kg).

DATA PERTINENT TO ALL MODELS

Certification Basis	FAR 21.23 and FAR 21.29 effective February 1, 1965.
	For the Model MINI-NIMBUS HS-7
	Federal Republic of Germany Airworthiness Requirements for Sailplanes and Powered Sailplanes (LFSM); Dated 1975 which has been found to provide a level of safety equivalent to that provided by the airworthiness requirements of FAR 23 through amendment 16 appropriate to gliders.
	Type Certificate G49EU issued 21 September 1984.
	Date of application for Type Certificate: 26 August 1976.
	For the Model MINI-NIMBUS B
	Federal Republic of Germany Airworthiness Requirements for Sailplanes and Powered Sailplane (LFSM); dated October 1975 which has been found to provide a level of safety equivalent to that provided by the airworthiness requirements of FAR 23 through amendment 21 appropriate to gliders.
	Type Certificate G49EU issued 21 September 1984.
	Date of Application for Type Certificate: 26 August 1978.

DATA PERTINENT TO ALL MODELS (Cont'd)

Airworthiness Requirements	<p>A U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of the Luftfahrt-Bundesamt (LBA), containing the following statement:</p> <p>"The glider covered by this certificate has been examined, tested, and found to conform to the type design approved under FAA Type Certificate No. G49EU and is in condition for safe operation," and the FAA inspector finds that the glider conforms to the U.S. Type Design and is in condition for safe operation.</p> <p>For the Model MINI-NIMBUS HS-7 SCHEMPP-HIRTH Mini-Nimbus HS-7 glider serial numbers 02, 05, 11, 16, 26, 27, 47, 48, 50, 53, 61, and 62 are eligible for U.S. Standard Airworthiness Certification when:</p> <ol style="list-style-type: none"> 1) The FAA inspector is provided with the original Export Certificate of Airworthiness issued by the LBA which certifies the glider conforms to the U.S. type certificate, 2) The glider has been modified in accordance with the LBA-approved SCHEMPP-HIRTH Technical Note Nos. 328-5 and 328-6, and 3) The glider is found to be in condition for safe operation by the FAA inspector. Modifications pre-dating the issuance of this Type Certificate and not included in paragraph 1 and 2 of this note and modifications dated after the issuance of this Type Certificate not covered by the note contained in the Service Information paragraph of this Type Certificate must be assumed not to be approved under this Type Certificate. <p>For the Model MINI-NIMBUS B SCHEMPP-HIRTH Mini-Nimbus B glider serial numbers 67, 79, and 88 are eligible for U.S. Standard Airworthiness Certification when:</p> <ol style="list-style-type: none"> 1) The FAA inspector is provided with the original Export Certificate of Airworthiness issued by the LBA which certifies the glider conforms to the U.S. type certificate, 2) The glider has been modified in accordance with the LBA-approved SCHEMPP-HIRTH Technical Note Nos. 328-6 and 328-5, and 3) The glider is found to be in condition for safe operation by the FAA inspector. Modifications pre-dating the issuance of this Type Certificate and not included in paragraph 1 and 2 of this note and modifications dated after the issuance of this Type Certificate not covered by the note contained in the Service Information paragraph of this Type Certificate must be assumed not to be approved under this Type Certificate.
Equipment	<p>For Model Mini-Nimbus HS-7 SCHEMPP-HIRTH Model Mini-Nimbus HS-7 Glider Flight Manual dated July, 1979. The equipment approved for the SCHEMPP-HIRTH Model Mini-Nimbus HS-7 is listed on the SCHEMPP-HIRTH Master Equipment List dated July 23, 1984. The minimum required equipment for the kinds of approved operations are listed in the SCHEMPP-HIRTH Model Mini-Nimbus HS-7 Glider Flight Manual, dated July, 1979.</p> <p>For Model Mini-Nimbus B SCHEMPP-HIRTH Model Mini-Nimbus B Glider Flight Manual dated July 1979. The equipment approved for the SCHEMPP-HIRTH Model Mini-Nimbus B is listed on the SCHEMPP-HIRTH Master Equipment List dated July 23, 1984. The minimum required equipment for the kinds of approved operations are listed in the SCHEMPP-HIRTH Model Mini-Nimbus B Glider Flight Manual, dated July, 1979.</p>
Service Information	<p>SCHEMPP-HIRTH Technical Information (Service Bulletins), published in the English language for the U.S. Type Design that carry a statement "Approved by the Luftfahrt-Bundesamt (LBA)" may be interpreted as "FAA-Approved."</p> <p>Available documents for SCHEMPP-HIRTH Mini-Nimbus HS-7:</p> <ul style="list-style-type: none"> - Flight Manual, Maintenance and Service Manual, dated July 1979. <p>Available Documents for SCHEMPP-HIRTH Mini-Nimbus B:</p> <ul style="list-style-type: none"> - Flight Manual, Maintenance and Service Manual, dated July 1979.

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 airworthiness certification.
- NOTE 2. The placards listed in the LBA-approved SCHEMPP-HIRTH Flight Manual must be displayed in the location defined.
- NOTE 3. Information essential for proper operation, maintenance, inspection, and repair of the glider is contained in the SCHEMPP-HIRTH "Flight and Service Manual for the Sailplane Mini-Nimbus HS-7" and the SCHEMPP-HIRTH "Flight and Service Manual for the Sailplane Mini-Nimbus B". SHCEMPP-HIRTH should be consulted for all major repairs.
The service life of the SCHEMPP-HIRTH Model Mini-Nimbus HS-7 and Model Mini-Nimbus 2B is limited to 3000 flight hours without repetitive inspection other than the obligatory annual inspections. Extension of the service life beyond 3000 flight hours may be obtained provided the structural inspection procedures and limitations contained in the LBA-approved SCHEMPP-HIRTH Technical Information (Service Bulletin) No. XXXX (number to be provided at a later date) are used.
- NOTE 4. All external portions of the glider exposed to sunlight must be painted white except for wing tips, nose of fuselage and rudder.
- NOTE 5. Major airframe repairs must be accomplished at FAA certificated repair stations rated for composite construction of small aircraft, using SCHEMPP-HIRTH repair methods or using other methods acceptable to the Administrator.

...END...