



II	95x80x110	2
III	110x95x110	3
IV	125x105x110	4
Leichtbaukorb	125x105x110	4

Load ring Size IIb or IIIc

Serial No's Eligible. S/N 1039 and up

### **III. Free Balloon Model NL-510/STU, approved September 17, 2001**

<u>Description:</u>	(a) Diameter	9.91 m (32.5 ft.)
	(b) Displacement	510m <sup>3</sup> (18013 ft <sup>3</sup> )
	(c) Lifting Gases	Hydrogen, citygas, helium
	(d) Ballast Provisions	Sandbags - min. for takeoff: 3 each, 15 kg (33 lbs.)
	(e) Max. Weight	592 kg (1305 lbs.)
	(f) Empty Weight	170- 260kg (375 - 573 lbs.)

<u>Number of Occupants:</u>	<u>Basket Size</u>	<u>Dimensions (cm)</u>	<u>Max. Occupants</u>
	II	95x80x110	2
	III	110x95x110	3
	IV	125x105x110	4
	V	135x115x110	5
	Leichtbaukorb	125x105x110	4

Load ring Size IIb or IIIc

Serial No's Eligible. S/N 1039 and up

### **IV. Free Balloon Model NL-640/STU, approved September 17, 2001**

<u>Description:</u>	(a) Diameter	10.81 m (35.5 ft.)
	(b) Displacement	640m <sup>3</sup> (22605 ft <sup>3</sup> )
	(c) Lifting Gases	Hydrogen, citygas, helium
	(d) Ballast Provisions	Sandbags - min. for takeoff: 4 each, 15 kg (33 lbs.)
	(e) Max. Weight	749 kg (1652 lbs.)
	(f) Empty Weight	175 - 265 kg (386 - 584 lbs.)

<u>Number of Occupants:</u>	<u>Basket Size</u>	<u>Dimensions (cm)</u>	<u>Max. Occupants</u>
	II	95x80x110	2
	III	110x95x110	3
	IV	125x105x110	4
	V	135x115x110	5
	VI	145x125x110	6
	Leichtbaukorb	125x105x110	4

Load ring Size IIb or IIIc

Serial No's Eligible. S/N 1039 and up

**V. Free Balloon Model NL-840/STU, approved September 17, 2001**

<u>Description:</u>	(a) Diameter	11.91 m (39 ft.)
	(b) Displacement	840m <sup>3</sup> (29669 ft <sup>3</sup> )
	(c) Lifting Gases	Hydrogen, citygas, helium
	(d) Ballast Provisions	Sandbags - min. for takeoff: 4 each, 15 kg (33 lbs.)
	(e) Max. Weight	975 kg (2150 lbs.)
	(f) Empty Weight	180 - 270 kg (397 - 595 lbs.)

<u>Number of Occupants:</u>	<u>Basket Size</u>	<u>Dimensions (cm)</u>	<u>Max. Occupants</u>
	IV	125x105x110	4
	V	135x115x110	5
	VI	145x125x110	6
	Leichtbaukorb	125x105x110	4

Load ring Size IIIb

Serial No's Eligible. S/N 1039 and up

**VI. Free Balloon Model NL-1000/STU, approved September 17, 2001**

<u>Description:</u>	(a) Diameter	12.61 m (41.4 ft.)
	(b) Displacement	1000m <sup>3</sup> (35320 ft <sup>3</sup> )
	(c) Lifting Gases	Hydrogen, citygas, helium
	(d) Ballast Provisions	Sandbags - min. for takeoff: 5 each, 15 kg (33 lbs.)
	(e) Max. Weight	1.160 kg (2558 lbs.)
	(f) Empty Weight	190 - 280 kg (419 - 617 lbs.)

<u>Number of Occupants:</u>	<u>Basket Size</u>	<u>Dimensions (cm)</u>	<u>Max. Occupants</u>
	IV	125x105x110	4
	V	135x115x110	5
	VI	145x125x110	6
	Leichtbaukorb	125x105x110	4

Load ring Size III or IIIb

Serial No's Eligible. S/N 1039 and up

**DATA PERTINENT TO ALL MODELS**

Certification Basis Validated in accordance with Chapter 14 of the Code of Federal Regulations (14 CFR) Part 21.29 to 14 CFR Part 31, Airworthiness Requirements, dated July 1, 1964, as amended by 31-1 through 31-7, inclusive. Application for Type Certificate dated May 15, 2000.  
Type Certificate No. B03CE, issued September 17, 2001.

Import Requirements The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the the Luftfahrt-Bundesamt (LBA) on behalf of the European Community. The Export C of A should contain the following statement: 'The Balloon covered by this certificate has been xamined, tested, and found to comply with U.S. airworthiness regulations 14 CFR 31 approved under U.S. Type Certificate No. B03CE and to be in a condition for safe operation.'

Validation Date.

Type Certificate No. B03CE was issued September 17, 2001, pursuant to 14CFR 21.29, in validation of the Luftfahrt-Bundesamt's certification of compliance with the aforementioned certification basis.

Equipment.

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

In addition to the basic equipment required by the certification basis, the following equipment is also required:

Approved Flight and Instruction Manual, NL-STU, for Free Balloons, dated January 1993.

For night-VFR operations, approved position light system. Note: approval of position light system must include finding of compliance to 14CFR Part 31.61, Static Discharge.

Maintenance and Inspection.

Maintenance and inspection must be carried out in accordance with the Ballonbau Wörner GmbH Instructions for Continued Airworthiness, Model NL-STU, dated May 2002, or later FAA accepted revision.

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 Luftfahrt-Bundesamt" (LBA).

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

The FAA accepts such documents and considers them FAA-approved unless one of the following conditions exists:

- The documents change the limitations, performance, or procedures of the FAA approved manuals; or
- The documents make an acoustical or emissions changes to this product's U.S. type certificate as defined in 14 CFR § 21.93.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve 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.

A Current Weight and Balance Report, including a list of equipment included in the certificated empty weight, must be provided for each balloon at the time of original certification.

NOTE 2.

The following placard must be clearly visible to all occupants: "NO SMOKING".

NOTE 3.

The following operating limitations must be complied with:

- (a) All flights shall be in accordance with VFR-DAY Flight. Night-VFR operations are permitted when balloon is equipped with an approved position lighting system.

(b) Adequate and acceptable precautions will be taken during inflation and deflation procedures for the proper protection of personnel and property.

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