TYPE-CERTIFICATE
DATA SHEET

NO. EASA.A.241

for
Glasflügel Sailplanes

Type Certificate Holder
Glasfaser Flugzeug-Service GmbH

Hofener Weg
72582 Grabenstetten
Germany

For models:

BS 1
H 301 „Libelle“
H 301 B
H 301 serial No. 1
Standard Libelle
Standard Libelle 201 B
Standard Libelle 203
Kestrel
Glasflügel 604
Club Libelle 205
Hornet
Hornet C
Mosquito
Mosquito B
Glasflügel 304
SECTION A:  BS 1

A.I.  General .......................................................... 14
  1. Type/Variant ....................................................... 14
  2. Airworthiness Category ......................................... 14
  3. Manufacturer ..................................................... 14
  4. EASA Type Certification Application Date .................. 14
  5. State of Design Authority ...................................... 14
  6. State of Design Authority Type Certificate Date .......... 14
  7. EASA Type Certification Date .................................. 14

A.II.  EASA Certification Basis .................................... 14
  1. Reference Date for determining the applicable requirements .... 14
  2. Airworthiness Requirements .................................... 14
  3. Special Conditions .............................................. 14
  4. Exemptions ........................................................ 14
  5. Equivalent Safety Findings ..................................... 14
  6. Environmental Protection ....................................... 14

Technical Characteristics and Operational Limitations: ............ 15

A.III.  Technical Characteristics and Operational Limitations ....... 15
  1. Type Design Definition .......................................... 15
  2. Description ....................................................... 15
  3. Equipment ........................................................ 15
  4. Dimensions ........................................................ 15
  5. Launching Hooks .................................................. 15
  6. Air Speeds .......................................................... 15
  7. Approved Operations Capability ................................ 16
  8. Maximum Masses .................................................. 16
  9. Centre of Gravity Range .......................................... 16
 10. Datum .............................................................. 16
 11. Datum .............................................................. 16
 12. Control surface deflections .................................... 16
 13. LevellingMeans .................................................... 16
 14. Minimum Flight Crew ............................................ 16
 15. Maximum Passenger Seating Capacity .......................... 16
 16. Flight Manual ..................................................... 16
 17. Maintenance Manual ............................................. 16

A.V.  Notes .................................................................. 16

SECTION B:  H 301 “LIBELLE” .............................................. 17

B.I.  General .............................................................. 17
  1. Type/Variant ....................................................... 17
  2. Airworthiness Category ......................................... 17
  3. Manufacturer ..................................................... 17
  4. EASA Type Certification Application Date .................. 17
  5. State of Design Authority ...................................... 17
  6. State of Design Authority Type Certificate Date .......... 17
  7. EASA Type Certification Date .................................. 17

B.II.  EASA Certification Basis .................................... 17
  1. Reference Date for determining the applicable requirements .... 17
  2. Airworthiness Requirements .................................... 17
  3. Special Conditions .............................................. 17
  4. Exemptions ....................................................... 17
  5. Equivalent Safety Findings ..................................... 17
  6. Environmental Protection ....................................... 17
B.III. Technical Characteristics and Operational Limitations .................................................. 18
  2. Description .......................................................................................................................... 18
  3. Equipment .......................................................................................................................... 18
  4. Dimensions ........................................................................................................................ 18
  5. Launching Hooks: .............................................................................................................. 18
  6. Weak links ......................................................................................................................... 18
  7. Air Speeds .......................................................................................................................... 18
  8. Approved Operations Capability ....................................................................................... 19
  9. Maximum Masses ............................................................................................................. 19
 10. Centre of Gravity Range ................................................................................................... 19
 11. Datum ............................................................................................................................... 19
 12. Control surface deflections .............................................................................................. 19
 13. Levelling Means ............................................................................................................... 19
 14. Minimum Flight Crew ...................................................................................................... 19
 15. Maximum Passenger Seating Capacity .......................................................................... 19

B.IV. Operating and Service Instructions ............................................................................... 19
  1. Flight Manual ..................................................................................................................... 19

SECTION C: H 301 B ............................................................................................................... 21
C.I. General ............................................................................................................................. 21
  1. Type/Variant ....................................................................................................................... 21
  2. Airworthiness Category ..................................................................................................... 21
  3. Manufacturer .................................................................................................................... 21
  4. EASA Type Certification Application Date ...................................................................... 21
  5. State of Design Authority ............................................................................................... 21
  6. State of Design Authority Type Certificate Date ............................................................. 21
  7. EASA Type Certification Date ......................................................................................... 21

C.II. EASA Certification Basis ............................................................................................... 21
  1. Reference Date for determining the applicable requirements .............................................. 21
  2. Airworthiness Requirements ............................................................................................ 21
  3. Special Conditions ............................................................................................................ 21
  4. Exemptions ........................................................................................................................ 21
  5. Equivalent Safety Findings ............................................................................................... 21
  6. Environmental Protection ................................................................................................. 21

C.III. Technical Characteristics and Operational Limitations ............................................... 22
  2. Description ....................................................................................................................... 22
  3. Equipment ........................................................................................................................ 22
  4. Dimensions ....................................................................................................................... 22
  5. Launching Hooks .............................................................................................................. 22
  6. Weak links ........................................................................................................................ 23
  7. Air Speeds ........................................................................................................................ 23
  8. Approved Operations Capability ....................................................................................... 23
  9. Maximum Masses ........................................................................................................... 23
 10. Centre of Gravity Range .................................................................................................. 23
 11. Datum ............................................................................................................................... 23
 12. Control surface deflections ............................................................................................. 23
 13. Levelling Means ............................................................................................................... 23
 14. Minimum Flight Crew ..................................................................................................... 23
 15. Maximum Passenger Seating Capacity ........................................................................ 23

C.IV. Operating and Service Instructions ............................................................................. 23
SECTION D: H 301 SERIAL NO.1

D.I. General
1. Type/Variant ................................................................. 25
2. Airworthiness Category .................................................... 25
3. Manufacturer ..................................................................... 25
4. EASA Type Certification Application Date ............................ 25
5. State of Design Authority .................................................... 25
6. State of Design Authority Type Certificate Date ..................... 25
7. EASA Type Certification Date .............................................. 25

D.II. EASA Certification Basis ................................................. 25
1. Reference Date for determining the applicable requirements .... 25
2. Airworthiness Requirements ................................................. 25
3. Special Conditions ................................................................ 25
4. Exemptions ........................................................................ 25
5. Equivalent Safety Findings ................................................... 25
6. Environmental Protection ..................................................... 25

D.III. Technical Characteristics and Operational Limitations ....... 25
2. Description ........................................................................ 26
3. Equipment .......................................................................... 26
4. Dimensions ........................................................................ 26
5. Launching Hooks .................................................................. 26
6. Weak links: ........................................................................ 26
7. Air Speeds .......................................................................... 26
8. Approved Operations Capability ........................................... 26
9. Maximum Masses ............................................................... 27
10. Centre of Gravity Range ..................................................... 27
11. Datum .............................................................................. 27
12. Control surface deflections .................................................. 27
13. Levelling Means ................................................................. 27
14. Minimum Flight Crew ........................................................ 27
15. Maximum Passenger Seating Capacity ................................. 27

D.IV. Operating and Service Instructions ................................... 27
1. Flight Manual ...................................................................... 27
2. Maintenance Manual ............................................................ 27

SECTION E: STANDARD LIBELLE ............................................ 28
E.I. General ............................................................................ 28
1. Type/Variant ...................................................................... 28
2. Airworthiness Category ....................................................... 28
3. Manufacturer ..................................................................... 28
4. EASA Type Certification Application Date ......................... 28
5. State of Design Authority ..................................................... 28
6. State of Design Authority Type Certificate Date .................... 28
7. EASA Type Certification Date ............................................. 28

E.II. EASA Certification Basis .................................................. 28
1. Reference Date for determining the applicable requirements .... 28
2. Airworthiness Requirements ............................................... 28
3. Special Conditions ............................................................. 28
4. Exemptions ....................................................................... 28
5. Equivalent Safety Findings ................................................. 28
6. Environmental Protection ................................................... 28

TE.CERT.00048-002©European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified. Page 5 of 64
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.
E.III  Technical Characteristics and Operational Limitations ........................................ 29
2. Description .............................................................................................................. 29
3. Equipment ............................................................................................................. 29
4. Dimensions ........................................................................................................... 29
5. Launching Hooks ................................................................................................... 29
6. Weak links ............................................................................................................. 29
7. Air Speeds ............................................................................................................. 30
8. Approved Operations Capability ......................................................................... 30
9. Maximum Masses ................................................................................................ 30
10. Centre of Gravity Range .................................................................................... 30
11. Datum .................................................................................................................. 30
12. Control surface deflections ................................................................................ 30
13. Levelling Means ................................................................................................... 30
14. Minimum Flight Crew ......................................................................................... 30
15. Maximum Passenger Seating Capacity .............................................................. 30

E.IV  Operating and Service Instructions .................................................................. 31
1. Flight Manual ......................................................................................................... 31
2. Maintenance Manual ............................................................................................ 31

SECTION F: STANDARD LIBELLE 201 B ................................................................. 32
F.I  General ............................................................................................................... 32
1. Type/Variant ......................................................................................................... 32
2. Airworthiness Category ....................................................................................... 32
3. Manufacturer ........................................................................................................ 32
4. EASA Type Certification Application Date ........................................................... 32
5. State of Design Authority .................................................................................... 32
6. State of Design Authority Type Certificate Date ................................................ 32
7. EASA Type Certification Date ............................................................................ 32

F.II  EASA Certification Basis .................................................................................... 32
1. Reference Date for determining the applicable requirements ............................. 32
2. Airworthiness Requirements .............................................................................. 32
3. Special Conditions ................................................................................................ 32
4. Exemptions ........................................................................................................... 32
5. Equivalent Safety Findings ................................................................................. 32
6. Environmental Protection .................................................................................... 32

F.III  Technical Characteristics and Operational Limitations .................................. 33
2. Description ............................................................................................................. 33
3. Equipment ............................................................................................................. 33
4. Dimensions ........................................................................................................... 33
5. Launching Hooks ................................................................................................ 33
6. Weak links .............................................................................................................. 33
7. Air Speeds ............................................................................................................. 34
8. Approved Operations Capability ......................................................................... 34
9. Maximum Masses ................................................................................................ 34
10. Centre of Gravity Range .................................................................................... 34
11. Datum .................................................................................................................. 34
12. Control surface deflections ................................................................................ 34
13. Levelling Means ................................................................................................... 34
14. Minimum Flight Crew ......................................................................................... 34
15. Maximum Passenger Seating Capacity .............................................................. 34

F.IV  Operating and Service Instructions .................................................................. 35
1. Flight Manual ................................................................. 35

SECTION G: STANDARD LIBELLE 203 ........................................... 36

G.I. General ........................................................................... 36
1. Type/Variant ...................................................................... 36
2. Airworthiness Category ................................................... 36
3. Manufacturer .................................................................... 36
4. EASA Type Certification Application Date ......................... 36
5. State of Design Authority ................................................ 36
6. State of Design Authority Type Certificate Date ................ 36
7. EASA Type Certification Date ......................................... 36

G.II. EASA Certification Basis .................................................. 36
1. Reference Date for determining the applicable requirements 36
2. Airworthiness Requirements ............................................ 36
3. Special Conditions ......................................................... 36
4. Exemptions ..................................................................... 36
5. Equivalent Safety Findings ............................................. 36
6. Environmental Protection .............................................. 36

G.III. Technical Characteristics and Operational Limitations .......... 37
2. Description ...................................................................... 37
3. Equipment ...................................................................... 37
4. Dimensions .................................................................... 37
5. Launching Hooks ............................................................ 37
6. Weak links: ................................................................. 37
7. Air Speeds ..................................................................... 37
8. Approved Operations Capability ....................................... 38
9. Maximum Masses ........................................................... 38
10. Centre of Gravity Range ............................................... 38
11. Datum .......................................................................... 38
12. Control surface deflections ............................................ 38
13. Levelling Means ............................................................ 38
14. Minimum Flight Crew ................................................... 38
15. Maximum Passenger Seating Capacity ............................ 38

G.IV. Operating and Service Instructions .................................... 38
1. Flight Manual ................................................................. 38
2. Maintenance Manual ....................................................... 38

SECTION H: KESTREL ................................................................. 39

H.I. General ........................................................................... 39
1. Type/Variant ...................................................................... 39
2. Airworthiness Category ................................................... 39
3. Manufacturer .................................................................... 39
4. EASA Type Certification Application Date ......................... 39
5. State of Design Authority ................................................ 39
6. State of Design Authority Type Certificate Date ................ 39
7. EASA Type Certification Date ......................................... 39

H.II. EASA Certification Basis .................................................. 39
1. Reference Date for determining the applicable requirements 39
2. Airworthiness Requirements ............................................ 39
3. Special Conditions ......................................................... 39
4. Exemptions ..................................................................... 39

Annex I - Certification Basis Details

EASA Certification Basis

Class II

Type/Variant: Kestrel

Manufacturer: Glasflügel Sailplanes

EASA Type Certificate No. A.241

State of Design Authority

Date: 16 May 2024

Page 7 of 64
H.III. Technical Characteristics and Operational Limitations ........................................... 39
  2. Description .................................................................................................................. 40
  3. Equipment .................................................................................................................. 40
  4. Dimensions .................................................................................................................. 40
  5. Launching Hooks ........................................................................................................ 40
  6. Weak links: ................................................................................................................ 40
  7. Air Speeds .................................................................................................................. 40
  8. Approved Operations Capability ................................................................................ 40
  9. Maximum Masses ....................................................................................................... 40
 10. Centre of Gravity Range ............................................................................................ 41
 11. Datum ......................................................................................................................... 41
 12. Control surface deflections ......................................................................................... 41
 13. Levelling Means ......................................................................................................... 41
 14. Minimum Flight Crew ................................................................................................ 41
 15. Maximum Passenger Seating Capacity ...................................................................... 41

H.IV. Operating and Service Instructions ........................................................................... 41
  1. Flight Manual .............................................................................................................. 41
  2. Maintenance Manual .................................................................................................. 41

SECTION I: GLASFÜGEL 604 ................................................................................................. 42
I.I. General .......................................................................................................................... 42
  1. Type/ Variant ............................................................................................................... 42
  2. Airworthiness Category .............................................................................................. 42
  3. Manufacturer ............................................................................................................. 42
  4. EASA Type Certification Application Date .................................................................. 42
  5. State of Design Authority .......................................................................................... 42
  6. State of Design Authority Type Certificate Date ......................................................... 42
  7. EASA Type Certification Date .................................................................................... 42

I.II. EASA Certification Basis .............................................................................................. 42
  1. Reference Date for determining the applicable requirements ..................................... 42
  2. Airworthiness Requirements ....................................................................................... 42
  3. Special Conditions ...................................................................................................... 42
  4. Exemptions .................................................................................................................. 42
  5. Equivalent Safety Findings ......................................................................................... 42
  6. Environmental Protection ........................................................................................... 42

I.III. Technical Characteristics and Operational Limitations ........................................... 42
  2. Description .................................................................................................................. 43
  3. Equipment .................................................................................................................. 43
  4. Dimensions .................................................................................................................. 43
  5. Launching Hooks ........................................................................................................ 43
  6. Weak links: ................................................................................................................ 43
  7. Air Speeds .................................................................................................................. 43
  8. Approved Operations Capability ................................................................................ 43
  9. Maximum Masses ....................................................................................................... 43
 10. Centre of Gravity Range ............................................................................................ 44
 11. Datum ......................................................................................................................... 44
 12. Control surface deflections ......................................................................................... 44
 13. Levelling Means ......................................................................................................... 44
 14. Minimum Flight Crew ................................................................................................ 44
15. Maximum Passenger Seating Capacity ................................................................. 44

I.IV. Operating and Service Instructions .................................................................. 44
1. Flight Manual ........................................................................................................ 44
2. Maintenance Manual ......................................................................................... 44

SECTION J: CLUB LIBELLE 205 ........................................................................... 45

J.I. General ............................................................................................................ 45
1. Type/ Variant ....................................................................................................... 45
2. Airworthiness Category .................................................................................... 45
3. Manufacturer ..................................................................................................... 45
4. EASA Type Certification Application Date .................................................... 45
5. State of Design Authority ................................................................................ 45
6. State of Design Authority Type Certificate Date ........................................... 45
7. EASA Type Certification Date .......................................................................... 45

J.II. EASA Certification Basis ................................................................................ 45
1. Reference Date for determining the applicable requirements ...................... 45
2. Airworthiness Requirements ............................................................................ 45
3. Special Conditions ............................................................................................ 45
4. Exemptions ........................................................................................................ 46
5. Equivalent Safety Findings ............................................................................... 46
6. Environmental Protection ................................................................................ 46

J.III. Technical Characteristics and Operational Limitations ......................... 46
2. Description .......................................................................................................... 46
3. Equipment .......................................................................................................... 46
4. Dimensions ........................................................................................................ 46
5. Launching Hooks ............................................................................................... 46
6. Weak links: ........................................................................................................ 46
7. Air Speeds .......................................................................................................... 46
8. Approved Operations Capability ....................................................................... 46
9. Maximum Masses .............................................................................................. 47
10. Centre of Gravity Range .................................................................................. 47
11. Datum ................................................................................................................ 47
12. Control surface deflections ............................................................................ 47
13. Levelling Means ............................................................................................... 47
14. Minimum Flight Crew ..................................................................................... 47
15. Maximum Passenger Seating Capacity ......................................................... 47

J.IV. Operating and Service Instructions ............................................................. 47
1. Flight Manual ....................................................................................................... 47
2. Maintenance Manual ......................................................................................... 47

SECTION K: HORNET .......................................................................................... 48

K.I. General .......................................................................................................... 48
1. Type Variant ....................................................................................................... 48
2. Airworthiness Category .................................................................................... 48
3. Manufacturer ..................................................................................................... 48
4. EASA Type Certification Application Date .................................................... 48
5. State of Design Authority ................................................................................ 48
6. State of Design Authority Type Certificate Date ........................................... 48
7. EASA Type Certification Date .......................................................................... 48

K.II. EASA Certification Basis ............................................................................... 48
1. Reference Date for determining the applicable requirements ...................... 48
2. Airworthiness Requirements ............................................................................ 48
3. Special Conditions ............................................................................................................. 48
4. Exemptions ......................................................................................................................... 48
5. Equivalent Safety Findings ................................................................................................. 48
6. Environmental Protection ................................................................................................. 48

K.III. Technical Characteristics and Operational Limitations ................................................. 49
  2. Description ......................................................................................................................... 49
  3. Equipment .......................................................................................................................... 49
  4. Dimensions ......................................................................................................................... 49
  5. Launching Hooks ............................................................................................................... 49
  6. Weak links: ......................................................................................................................... 49
  7. Air Speeds .......................................................................................................................... 49
  8. Approved Operations Capability ....................................................................................... 49
  9. Maximum Masses .............................................................................................................. 49
10. Centre of Gravity Range ................................................................................................... 50
11. Datum ................................................................................................................................. 50
12. Control surface deflections ............................................................................................... 50
13. Levelling Means ................................................................................................................ 50
14. Minimum Flight Crew ....................................................................................................... 50
15. Maximum Passenger Seating Capacity ........................................................................... 50

K.IV. Operating and Service Instructions ................................................................................. 51
  1. Flight Manual ..................................................................................................................... 51
  2. Maintenance Manual ......................................................................................................... 51

SECTION L: HORNET C ............................................................................................................. 52
L.I. General ............................................................................................................................. 52
  1. Type/ Variant ...................................................................................................................... 52
  2. Airworthiness Category ................................................................................................... 52
  3. Manufacturer ................................................................................................................... 52
  4. EASA Type Certification Application Date .................................................................... 52
  5. State of Design Authority .............................................................................................. 52
  6. State of Design Authority Type Certificate Date ............................................................ 52
  7. EASA Type Certification Date ........................................................................................ 52

L.II. EASA Certification Basis ................................................................................................ 52
  1. Reference Date for determining the applicable requirements ....................................... 52
  2. Airworthiness Requirements .......................................................................................... 52
  3. Special Conditions .......................................................................................................... 52
  4. Exemptions ....................................................................................................................... 52
  5. Equivalent Safety Findings ............................................................................................. 52
  6. Environmental Protection ............................................................................................... 52

L.III. Technical Characteristics and Operational Limitations .................................................. 52
  2. Description ......................................................................................................................... 52
  3. Equipment........................................................................................................................ 53
  4. Dimensions ....................................................................................................................... 53
  5. Launching Hooks ............................................................................................................. 53
  6. Weak links: ....................................................................................................................... 53
  7. Air Speeds ........................................................................................................................ 53
  8. Approved Operations Capability ..................................................................................... 53
  9. Maximum Masses ........................................................................................................... 53
10. Centre of Gravity Range .................................................................................................. 54
11. Datum ............................................................................................................................... 54
12. Control surface deflections ............................................................................................. 54
13. Levelling Means ................................................................. 54
14. Minimum Flight Crew ...................................................... 54
15. Maximum Passenger Seating Capacity .................................. 54

L.IV. Operating and Service Instructions .................................. 54
1. Flight Manual ..................................................................... 54
2. Maintenance Manual .......................................................... 54

SECTION M: MOSQUITO ....................................................... 55
M.I. General ................................................................. 55
1. Type/Variant ...................................................................... 55
2. Airworthiness Category ...................................................... 55
3. Manufacturer ...................................................................... 55
4. EASA Type Certification Application Date .............................. 55
5. State of Design Authority .................................................. 55
6. State of Design Authority Type Certificate Date ...................... 55
7. EASA Type Certification Date ............................................... 55

M.II. EASA Certification Basis .............................................. 55
1. Reference Date for determining the applicable requirements .......................... 55
2. Airworthiness Requirements ................................................ 55
3. Special Conditions ............................................................. 55
4. Exemptions ........................................................................ 55
5. Equivalent Safety Findings .................................................. 55
6. Environmental Protection .................................................... 55

M.III. Technical Characteristics and Operational Limitations ........ 55
2. Description ....................................................................... 55
3. Equipment ......................................................................... 56
4. Dimensions ....................................................................... 56
5. Launching Hooks ............................................................... 56
6. Weak links: ....................................................................... 56
7. Air Speeds ........................................................................ 56
8. Approved Operations Capability ........................................ 56
9. Maximum Masses .............................................................. 56
10. Centre of Gravity Range ................................................... 57
11. Datum .............................................................................. 57
12. Control surface deflections ............................................... 57
13. Levelling Means ............................................................... 57
14. Minimum Flight Crew ...................................................... 57
15. Maximum Passenger Seating Capacity ................................. 57

M.IV. Operating and Service Instructions ................................ 57
1. Flight Manual ..................................................................... 57
2. Maintenance Manual .......................................................... 57

SECTION N: MOSQUITO B .................................................. 58
N.I. General ................................................................. 58
1. Type/Variant ...................................................................... 58
2. Airworthiness Category ...................................................... 58
3. Manufacturer ...................................................................... 58
4. EASA Type Certification Application Date .............................. 58
5. State of Design Authority .................................................. 58
6. State of Design Authority Type Certificate Date ...................... 58
7. EASA Type Certification Date ............................................... 58

N.II. EASA Certification Basis .............................................. 58
1. Reference Date for determining the applicable requirements ........................................... 58
2. Airworthiness Requirements ........................................................................................... 58
3. Special Conditions ........................................................................................................... 58
4. Exemptions ....................................................................................................................... 58
5. Equivalent Safety Findings .............................................................................................. 58
6. Environmental Protection ............................................................................................... 58

N.III. Technical Characteristics and Operational Limitations .............................................. 58
2. Description ........................................................................................................................ 58
3. Equipment ......................................................................................................................... 59
4. Dimensions ....................................................................................................................... 59
5. Launching Hooks ............................................................................................................. 59
6. Weak links: ....................................................................................................................... 59
7. Air Speeds ......................................................................................................................... 59
8. Approved Operations Capability .................................................................................... 60
9. Maximum Masses ........................................................................................................... 60
10. Centre of Gravity Range ............................................................................................... 60
11. Datum ............................................................................................................................. 60
12. Control surface deflections ........................................................................................... 60
13. Levelling Means ............................................................................................................ 60
14. Minimum Flight Crew .................................................................................................. 60
15. Maximum Passenger Seating Capacity ....................................................................... 60

N.IV. Operating and Service Instructions ......................................................................... 60
1. Flight Manual .................................................................................................................... 60
2. Maintenance Manual ....................................................................................................... 60

SECTION O: GLASFÜGLE 304 ....................................................................................... 61
O.I. General ......................................................................................................................... 61
1. Type/ Variant .................................................................................................................... 61
2. Airworthiness Category ................................................................................................. 61
3. Manufacturer .................................................................................................................. 61
4. EASA Type Certification Application Date ................................................................... 61
5. State of Design Authority ............................................................................................. 61
6. State of Design Authority Type Certificate Date ........................................................... 61
7. EASA Type Certification Date ...................................................................................... 61

O.II. EASA Certification Basis ............................................................................................ 61
1. Reference Date for determining the applicable requirements ...................................... 61
2. Airworthiness Requirements .......................................................................................... 61
3. Special Conditions .......................................................................................................... 61
4. Exemptions ..................................................................................................................... 61
6. Equivalent Safety Findings ............................................................................................ 61
7. Environmental Protection ............................................................................................. 61

O.III. Technical Characteristics and Operational Limitations ............................................ 61
2. Description ....................................................................................................................... 61
3. Equipment ....................................................................................................................... 62
4. Dimensions ..................................................................................................................... 62
5. Launching Hooks ............................................................................................................ 62
6. Weak links: ..................................................................................................................... 62
7. Air Speeds ....................................................................................................................... 62
8. Approved Operations Capability ................................................................................... 63
9. Maximum Masses ......................................................................................................... 63
10. Centre of Gravity Range .............................................................................................. 63
11. Datum ........................................................................................................................................... 63
12. Control surface deflections ........................................................................................................... 63
13. Levelling Means ............................................................................................................................. 63
14. Minimum Flight Crew ..................................................................................................................... 63
15. Maximum Passenger Seating Capacity ......................................................................................... 63

O.IV. Operating and Service Instructions ....................................................................................... 63
1. Flight Manual .................................................................................................................................. 63
2. Maintenance Manual ....................................................................................................................... 63

SECTION ADMINISTRATIVE ........................................................................................................... 64
I. Acronyms & Abbreviations .............................................................................................................. 64
II. Type Certificate Holder Record .................................................................................................... 64
III. ........................................................................................................................................................ 64
IV. Change Record .............................................................................................................................. 64
SECTION A: BS 1

A.I. General

1. Type/Model/Variant
   1.1 Type
   Glasflügel Sailplanes
   1.2 Model
   BS 1

2. Airworthiness Category
   Sailplane Utility “U”

3. Manufacturer
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Germany

4. Type Certification Application Date
   25 June 1962

5. State of Design Authority
   Germany

6. State of Design Authority Type Certificate Date
   04 February 1999

7. EASA Type Certification Date
   10 July 2008

A.II. EASA Certification Basis

1. Reference Date for determining
   the applicable requirements
   Defined by LBA letter 3-238/Tgb-Nr. 1892/62, dated
   June 28th 1962

2. Airworthiness Requirements
   - Design Specification (BVS, book 1 to 3)
   - Airworthiness Requirements
     for Sailplanes (LFS), issue 1966, chapter “Flight”
   - Preliminary Airworthiness
     Requirements for Towing
     issue October 1955
   - Preliminary Standards for
     Structural Substantiation of
     Sailplane Components
     consisting of Glass Fibre
     Reinforced Plastics, issue 1965

3. Special Conditions
   None

4. Exemptions
   LFS § 13(2)
   LFS § 18(2)
   LFS § 34(1)

5. Equivalent Safety Findings
   None

6. Environmental Protection
   None
A.III. **Technical Characteristics and Operational Limitations**

1. **Type Design Definition**
   
   List of Drawings BS1
   Amendment to the Definition of the Type BS, LBA-approved January 04th 1999

2. **Description**
   
   Single Seater, shoulder winged sailplane, all composite construction, flaps, Schempp-Hirth type air-brake on the upper and lower wing surface, braking parachute. Springmounted retractable landing gear, all moving T-tail.

3. **Equipment**
   
   Min. Equipment:
   - 1 Air speed indicator (up to 210 km/h)
   - 1 Altimeter
   - 1 4-Point safety harness (symmetrical)
   - 1 Parachute or back cushion per person (thickness approx. 10 cm / 3.94 in. when compressed)

   Additional Equipment refer to Flight and Maintenance Manual

4. **Dimensions**

5. **Launching Hooks**
   
   - Special Hook “SH 72”, LBA Datasheet No. 60.230/3
   - Nose tow hook “E72”, LBA Datasheet No. 60.230/1
   - Nose tow hook “E75”, LBA Datasheet No. 60.230/1
   - Nose tow hook “E85”, LBA Datasheet No. 60.230/1

6. **Weak links**
   
   For winch launching
   - max. 900 daN
   
   For aero towing
   - max. 600 daN

7. **Air Speeds**
   
   - Manoeuvring Speed $v_A$ 200 km/h
   - Never Exceed Speed $v_{NE}$ 200 km/h
   - Maximum permitted speeds
     - With flaps at -4, 0, +2 200 km/h
     - With flaps at +5 150 km/h
     - With extendet Speedbreaks 200 km/h
Winch launching $v_w$ 130 km/h
Aero Towing $v_T$ 170 km/h

8. Approved Operations Capability
Approved for VFR-flying in daytime

9. Maximum Masses
   Max. Mass 460 kg
   Max. Mass of Non-Lifting Parts 270 kg

10. Centre of Gravity Range
    Forward Limit 336 mm aft of datum point
    Rearward Limit 420 mm aft of datum point

11. Datum
    Wing leading edge at wing root rip

12. Control surface deflections
    Refer to Maintenance Manual

13. Levelling Means
    Wedge 1000:88 on top fuselage to be horizontal

14. Minimum Flight Crew
    1

15. Maximum Passenger Seating Capacity
    0

A.IV.  Operating and Service Instructions

1. Flight Manual
   – Glider Flight Manual BS 1, issue June 1998, LBA approved

   – Maintenance manual BS 1, issue June 1998
   – Manuals for the Tost Releases, latest approved version
   – Operating Instructions for the braking parachute for sailplanes, issue November 1968

A.V.  Notes

1. Manufacturing is confined to industrial production. The certification is limited to S/N 6, 10, 11, 13, 14, and 20
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface
3. Before final registration compliance has to be shown with the “Amendment to the type definition of the BS1” during a full scale inspection.
4. Full inspection according to A.V.3 as well as major repair of the type are only allowed to:
   Glasfaser Flugzeug-Service GmbH
   Hofener Weg
   72582 Grabenstetten
   Germany
5. In addition to A.IV.2.: Service Bulletin 1-2005 of Company Glasfaser-Flugzeug-Service GmbH;
   Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.
SECTION B: H 301 “LIBELLE”

B.I. General

1. Type/Model
   1.1 Type
   1.2 Model
2. Airworthiness Category
3. Manufacturer
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Germany

4. Type Certification Application Date
5. State of Design Authority
6. State of Design Authority Type Certificate Date
7. EASA Type Certification Date

B.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements
   Defined by LBA letter 3 –
   251/Tgb.-Nr- 3676/63, dated
   October 01rd 1963

2. Airworthiness Requirements
   – Design Specification (BVS,
   book 1 to 3) in combination
   with
   – British Civil Airworthiness
   Requirements (BCAR) Section
   E “Gliders”, Subsection 2
   “Flight”
   – Standards for Structural
   Substantiation of Sailplane
   Components consisting of
   Glass Fibre Reinforced
   Plastics, issue 1965

3. Special Conditions
   None

4. Exemptions
   None

5. Equivalent Safety Findings
   None

6. Environmental Protection
   None
B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Drawings, list of drawings, manufacturing instructions for H 301 DVL/Pfl-checked, August 03rd 1965

2. Description

Single seater, mid-wing sailplane, all composite construction, flaps, air brake. Normal tail unit, springmounted retractable landing gear

3. Equipment

Min. Equipment:
- 1 Air speed indicator (up to 250 km/h)
- 1 Altimeter
- 1 4-Point safety harness (symmetrical)
- 1 Parachute or back cushion (thickness approx. 10cm/3.94 in when compressed)

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

Wing Span 15 m

5. Launching Hooks:

1) Special hook “SH72”, LBA Datasheet No. 60.230/3
2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

Note:
Tow hook 2,3,4 optional
Tow hook 4 see B.V.6

6. Weak links

For winch launching max. 670 daN
For Aero towing max. 450 daN

7. Air Speeds

Manoeuvring Speed $v_A$ 175 km/h
Never Exceed Speed $V_{NE}$ 200 km/h
Maximum permitted speeds
With flaps at -4, 0, 200 km/h
With flaps at +4 140 km/h
With flaps at +3
With flaps at +2
With flaps at +1
In rough air
Winch launching $v_w$
Aero Towing $v_T$

8. Approved Operations Capability

Approved for VFR-flying in daytime

9. Maximum Masses

<table>
<thead>
<tr>
<th>Max. Mass</th>
<th>300kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Mass of Non-Lifting Part</td>
<td>200kg</td>
</tr>
</tbody>
</table>

10. Centre of Gravity Range

| Forward Limit | 215 mm aft of datum point |
| Rearward Limit | 354 mm aft of datum point |

11. Datum

Wing leading edge $y=425$ mm from the centerline

12. Control surface deflections

Refer to Maintenance Manual

13. Levelling Means

Wedge 100:7 on rear top fuselage to be horizontal

14. Minimum Flight Crew

1

15. Maximum Passenger Seating Capacity

0

B.IV. Operating and Service Instructions

1. Flight Manual

- Glider Flight Manual H301 “Libelle”, issue May 1965, DVL/PfL-checked
- Replacement pages to the Glider Flight Manual H301 “Libelle” initiated by Service Bulletins
- Limitation placard
- Trim sheet


- Service Manual H301 “Libelle”
- Repair instruction U.Hänle, Fiberglas-Flugzeug-Flick-Fibel
- Manual for the Tost Releases, latest approved version
- Operating Instructions for the braking parachute for sailplanes, issue November 1968 (if installed)
B.V.  **Notes**

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. The Certification belongs to S/N 2 up to 41 with the requirement that the modification for the fuselage No.8 has been performed.
5. The use of a braking parachute for sailplanes is allowed, if modification No. 14 of company Glasflügel, Ing. Eugen Hänle, DVL/PfL checked has been performed. This modification can only be performed at the manufacturer.
6. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 35 of company Streifeneder, LBA-approved.
7. In addition to B.IV.2.2.: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.
8. The increase of MTOM of max. 5% is possible according to the measures and procedures described in SB 301-42 of Company Glasfaser Flugzeug-Service GmbH, H. Streifeneder.
SECTION C: H 301 B

C.I. General

1. Type/Model/Variant
   1.1 Type
   Glasflügel Sailplanes
   H301 B
   1.2 Model
2. Airworthiness Category
   Sailplane – Utility “U”
3. Manufacturer
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Germany

4. Type Certification Application Date
   15 August 1968
5. State of Design Authority
   Germany
6. State of Design Authority Type Certificate Date
   16 September 1968
7. EASA Type Certification Date
   10 July 2008

C.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements
   Defined by LBA letter I 30 – 251/68, dated August 19th 1968

2. Airworthiness Requirements
   – Design Specification (BVS, book 1 to 3) in combination with
   – British Civil Airworthiness Requirements (BCAR) Section E “Gliders”, Subsection 2 “Flight”
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue 1965

3. Special Conditions
   None
4. Exemptions
   None
5. Equivalent Safety Findings
   None
6. Environmental Protection
   None
C.III. **Technical Characteristics and Operational Limitations**

1. Type Design Definition

   - Drawings, list of drawings, manufacturing instructions for H 301 DVL/Pfl-checked, August 03rd 1965
   - List of modifications incorporated into the variant H301 B (note, dated September 17th 1968)

2. Description

   Single seater, mid-wing sailplane, all composite construction, flaps, air brake, braking parachute in the rudder. Normal tail unit, spring mounted retractable landing gear.

3. Equipment

   Min. Equipment:
   - 1 Air speed indicator (up to 265 km/h)
   - 1 Altimeter
   - 1 4-Point safety harness (symmetrical)
   - 1 Parachute or back cushion per person (thickness approx. 10cm/3.94 in when compressed)

   Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

   Wing Span 15 m

5. Launching Hooks

   1) Special hook “SH72”, LBA Datasheet No. 60.230/3
   2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
   3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
   4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

   Note:
   Tow hook 2,3,4 optional
   Tow hook 4 see C.V.5
6. Weak links
For winch launching max. 670 daN
For aero towing max. 450 daN

7. Air Speeds
Manoeuvring Speed $v_A$ 150 km/h
Never Exceed Speed $v_{NE}$ 200 km/h
Maximum permitted speeds
With flaps at -4, 0, 200 km/h
With flaps at +4 140 km/h
With flaps at +3 155 km/h
With flaps at +2 170 km/h
With flaps at +1 185 km/h
Winch launching $v_W$ 120 km/h
Aero Towing $v_T$ 140 km/h

8. Approved Operations Capability
Approved for VFR-flying in daytime

9. Maximum Masses
Max. Mass 300kg
Max. Mass of Non-Lifting Part 200kg

10. Centre of Gravity Range
Forward Limit 215 mm aft of datum point
Rearward Limit 354 mm aft of datum point

11. Datum
Wing leading edge $y=425$ mm from the centerline

12. Control surface deflections
Refer to Maintenance Manual

13. Levelling Means
Wedge 100:7 on rear top fuselage to be horizontal

14. Minimum Flight Crew
1

15. Maximum Passenger Seating Capacity
0

C.IV. Operating and Service Instructions

1. Flight Manual
   – Glider Flight Manual H301 “Libelle”, issue May 1965, DVL/PFL-checked, with page 11a
   – Replacement pages to the Glider Flight Manual H301 “Libelle” initiated by Service Bulletins
   – Limitation placard
   – Trim sheet

   – Repair instruction U.Hänle, Fiberglas-Flugzeug-Flick-Fibel
   – Manual for the Tost Releases, latest approved version
   – Operating Instructions for the braking parachute for sailplanes, issue November 1968 (if installed)
C.V. Notes

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. The Certification is valid beginning with S/N 42
5. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 35 of company Streifeneder, LBA-approved.
6. In Addition to C.IV.2.2: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M
7. The increase of MTOW of max. 5% is possible according to the measures and procedures described in SB 301-42 of Company Glasfaser Flugzeug-Service GmbH, H. Streifeneder.
SECTION D: H 301 SERIAL NO.1

D.I. General

1. Type/Model/Variant
   1.1 Type      Glasflügel Sailplanes
   1.2 Model     H301 serial No. 1

2. Airworthiness Category
   Sailplane – Utility “U”

3. Manufacturer
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Germany

4. Type Certification Application Date
   05 April 1967

5. State of Design Authority
   Germany

6. State of Design Authority Type Certificate Date
   07 April 1967

7. EASA Type Certification Date
   10 July 2008

D.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements
   Defined by LBA letter I 30 – 251/67, dated April 07th 1967

2. Airworthiness Requirements
   – Design Specification (BVS, book 1 to 3) in combination with
   – British Civil Airworthiness Requirements (BCAR) Section E “Gliders”, Subsection 2 “Flight”
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics issue 1965

3. Special Conditions
   None

4. Exemptions
   None

5. Equivalent Safety Findings
   None

6. Environmental Protection
   None

D.III. Technical Characteristics and Operational Limitations

1. Type Design Definition
   Collection of blue prints of the Type, DVL/Pfl-checked, dated March 22nd 1967
2. Description

Single seater, mid-wing sailplane, all composite construction, flaps, air brake, braking parachute in the rudder. Normal tail unit, spring mounted retractable landing gear.

3. Equipment

Min. Equipment:
- 1 Air speed indicator (up to 250 km/h)
- 1 Altimeter
- 1 4-Point safety harness (symmetrical)
- 1 Parachute or back cushion (thickness approx. 10cm/3.94 in when compressed)

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

Wing Span 15 m

5. Launching Hooks

1) Special hook “SH72”, LBA Datasheet N. 60.230/3
2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

Note:
Tow hook 2,3,4 optional
Tow hook 4 see D.V.6

6. Weak links:

For aero towing
max. 450 daN

7. Air Speeds

Manoeuvring Speed $v_A$ 175 km/h
Never Exceed Speed $v_{NE}$ 200 km/h

Maximum permitted speeds
- With flaps at 0,-3 200 km/h
- With flaps at +4 140 km/h
- With flaps at +3 155 km/h
- With flaps at +2 170 km/h
- With flaps at +1 185 km/h
- In rough air $v_{RA}$ 175 km/h
- Aero Towing $v_T$ 140 km/h

8. Approved Operations Capability

Approved for VFR-flying in daytime
9. Maximum Masses
   Max. Mass 300kg
   Max. Mass of Non-Lifting Part 200kg

10. Centre of Gravity Range
    Forward Limit 255 mm aft of datum point
    Rearward Limit 395 mm aft of datum point

   The above mentioned data belongs to the c.g. during flight.

11. Datum
    Wing leading edge y=425 mm from the centerline

12. Control surface deflections
    Refer to Maintenance Manual

13. Levelling Means
    wing chord at y = 425 mm horizontal or wedge 100:5,0 on rear top fuselage to be horizontal

14. Minimum Flight Crew
    1

15. Maximum Passenger Seating Capacity
    0

D.IV. Operating and Service Instructions

1. Flight Manual
   – Glider Flight Manual H301 S/N 1, issue March 1967, DVL/PfL-checked, with page 11a
   – Replacement pages to the Glider Flight Manual H301 initiated by Service Bulletins
   – Limitation placard
   – Trim sheet

   – Service Manual H301, Werk-Nr. 1
   – Repair instruction U.Hänle, Fiberglas-Flugzeug-Flick-Fibel
   – Manual for the Tost Releases, latest approved version
   – Operating Instructions for the braking parachute for sailplanes, issue November 1968

D.V. Notes

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. The Certification is limited to S/N 1
4. Qualified for cloud flying according to the Flight Manual
5. Winch launching is not allowed
6. The installation of a nose tow hook “E85” is allowed according to the Service Bulletin No. 35 of company Streifeneder, LBA-approved.
7. In addition to D.IV.2.2.: Service Bulletin No.35 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M
SECTION E: STANDARD LIBELLE

E.I. General

1. Type/Model/Variant
   1.1 Type
   Glasflügel Sailplanes
   1.2 Model
   Standard Libelle

2. Airworthiness Category
   Sailplane – Utility “U”

3. Manufacturer
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Germany

4. Type Certification Application Date
   16 August 1967

5. State of Design Authority
   Germany

6. State of Design Authority Type Certificate Date
   22 October 1968

7. EASA Type Certification Date
   10 July 2008

E.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

2. Airworthiness Requirements
   – Airworthiness Requirements for Sailplanes – (LFS), issue 1966
   – Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), issue 27th 1989 (Change 4 of the English original Issue), with JAR 22.375 (Winglets) from amendment 22/90/1 dated February 12th 1991 (see E.V.7)
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions
   None

4. Exemptions
   None

5. Equivalent Safety Findings
   None

6. Environmental Protection
   None
E.III.  **Technical Characteristics and Operational Limitations**

1. Type Design Definition  
   Drawings, list of drawings, marked as for H 201, LBA-Approved, October 18th 1968

2. Description  
   Single seater, mid-wing sailplane, all composite construction, air brake, wing fixed profile, optional conventional wing tip or winglets (see E.V.7). Normal tail unit, fixed or retractable landing gear.

3. Equipment  
   Min. Equipment:  
   - 1 Air speed indicator (up to 250 km/h)  
   - 1 Altimeter  
   - 1 4-Point safety harness (symmetrical)  
   - 1 Parachute or back cushion per person (thickness approx.. 10cm/3.94 in when compressed)
   
   Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions  
   Wing Span  15 m

5. Launching Hooks
   1) Special hook “SH72”, LBA Datasheet No. 60.230/3  
   2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1  
   3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1  
   4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

   Note:  
   Tow hook 2,3,4 optional  
   Tow hook 4 see E.V.6

6. Weak links  
   For winch launching  
   max. 500 daN  
   For aero towing  
   max. 500 daN
7. Air Speeds
   Manoeuvring Speed $v_A$ 150 km/h
   Never Exceed Speed $v_{NE}$ 220 km/h
   Maximum permitted speeds
   In rough air $v_{RA}$ 150 km/h
   In winch-launch $v_W$ 120 km/h
   in aero-tow $v_T$ 150 km/h

8. Approved Operations Capability
   Approved for VFR-flying in daytime.

9. Maximum Masses
   Max. Mass 290kg
   Max. Mass of Non-Lifting Part 200kg

10. Centre of Gravity Range
    Forward Limit 244 mm aft of datum point
    Rearward Limit 348 mm aft of datum point

11. Datum
    Wing leading edge $y=425$ mm from the centreline

12. Control surface deflections
    Refer to Maintenance Manual

13. Levelling Means
    Wedge 100:7 on rear top fuselage to be horizontal

14. Minimum Flight Crew
    1

15. Maximum Passenger Seating Capacity
    0
E.IV. Operating and Service Instructions

1. Flight Manual
   - Replacement pages to the Glider Flight Manual “Standard Libelle” initiated by Service Bulletins
   - Limitation placard
   - Trim sheet

   - Service Manual “Standard Libelle”
   - Repair instruction U.Hänle, Fiberglas-Flugzeug-Flick-Fibel
   - Manual for the Tost Releases, latest approved version

E.V. Notes

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. Subsequent conversion into the variant « Standard Libelle 201 B » (without water ballast) is allowed, if the measures described in Service Bulletin No. 201-11 of Company Glasflügel are performed.
5. Subsequent conversion into the variant „Standard Libelle 201 B“ (with water ballast) is allowed, if the measures described in Service Bulletin No. 201-10 of Company Glasflügel are performed.
6. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 35 of company Streifeneder, LBA-approved.
7. According to Service Bulletin No. 201-30 of Company H. Streifeneder, Glasfaser Flugzeugbau GmbH, LBA-approved, the use of winglets is allowed.
8. In addition to E.IV.2.2.: Service Bulletin No.35 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M
9. According to Service Bulletin No. 201-42 of Company H. Streifeneder, Glasfaser Flugzeugbau GmbH, EASA-approved, the use of the modified winglets is allowed.
SECTION F: STANDARD LIBELLE 201 B

F.I. General

1. Type/Model/Variant
   1.1 Type                Glasflügel Sailplanes
   1.2 Model               Standard Libelle 201 B

2. Airworthiness Category
   Sailplane – Utility “U”

3. Manufacturer
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Germany

4. Type Certification Application Date
   13 September 1971

5. State of Design Authority
   Germany

6. State of Design Authority Type Certificate Date
   02 June 1972

7. EASA Type Certification Date
   10 July 2008

F.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements
   Defined by LBA letter I 30 – 251/71, dated September 21\textsuperscript{st} 1971

2. Airworthiness Requirements
   - Airworthiness Requirements for Sailplanes – (LFS), issue 1966
   - Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), issue 27\textsuperscript{th} 1989 (Change 4 of the English original Issue), with JAR 22.375 (Winglets) from amendment 22/90/1 dated February 12\textsuperscript{th} 1991 (see E.V.7)
   - Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions
   None

4. Exemptions
   None

5. Equivalent Safety Findings
   None

6. Environmental Protection
   None
F.III. **Technical Characteristics and Operational Limitations**

1. **Type Design Definition**
   Drawings and list of drawings, LBA-Approved May 30th 1972

2. **Description**
   Single seater, mid-wing sailplane, all composite construction, air brake, wing with fixed profile, optional conventional wing tip or winglets (see F.V.8). Normal tail unit, fixed landing gear with break, or retractable landing gear with break.

3. **Equipment**
   Min. Equipment:
   - 1 Air speed indicator (50 up to 265 km/h)
   - 1 Altimeter
   - 1 4-Point safety harness (symmetrical)
   - 1 Parachute or back cushion per person (thickness approx. 10cm/3.94 in when compressed)
   Additional Equipment refer to Flight and Maintenance Manual

4. **Dimensions**
   Wing Span 15 m
   Optional (see F.V.6) 17 m

5. **Launching Hooks**
   1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
   2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
   3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
   4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1
   Note:
   Tow hook 2,3,4 optional
   Tow hook 4 see F.V.7

6. **Weak links:**
   For winch launching max. 500 daN
   For aero towing max. 500 daN
7. Air Speeds

- Manoeuvring Speed $v_A$ 150 km/h
- Never Exceed Speed $v_{NE}$ 250 km/h

Maximum permitted speeds
- In rough air $v_{RA}$ 150 km/h
- In winch-launch $v_{W}$ 120 km/h
- In aero-tow $v_{T}$ 150 km/h

8. Approved Operations Capability

Approved for VFR-flying in daytime.

9. Maximum Masses

- Max. Mass 350kg
- Max. Mass of Non-Lifting Part 210kg

10. Centre of Gravity Range

- Forward Limit 244 mm aft of datum point
- Rearward Limit 348 mm aft of datum point

11. Datum

Wing leading edge $y=425$ mm from the centreline

12. Control surface deflections

Refer to Maintenance Manual

13. Levelling Means

Wedge 100:7 on rear top fuselage to be horizontal

14. Minimum Flight Crew

1

15. Maximum Passenger Seating Capacity

0
F.IV. Operating and Service Instructions

1. Flight Manual
   - Glider Flight Manual “Standard Libelle 201 B”, issue 1968, LBA-approved, with
     supplement to the Flider Flight Manual “Standard Libelle 201 B” issue April 1972,
     LBA-approved.
   - Replacement pages to the Glider Flight Manual “Standard Libelle201 B” initiated by
     Service Bulletins
   - Limitation placard
   - Trim sheet

   - Service Manual “Standard Libelle 201 B”
   - Repair instruction U.Hänle, Fiberglas-Flugzeug-Flick-Fibel
   - Manual for the Tost Releases, latest approved version

F.V. Notes

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration –
   must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. Sunsequent installation of water ballast tanks is allowed, if the measures described
   in Service Bulletin No.201-12 of Company Glasflügel are performed.
5. Subsequent installation of landing flaps according to the Service Bulletin No. 201 R-1
   of Mr. J. Renner, Am Gerstenfeld 2, 5561 Greimerath is allowed.
6. The optional modification to a wing span of 17,00 m according to the Service Bulletin
   No. 201 R-2 of Mr. J. Renner, Am Gerstenfeld 2, 5561 Greimrath is allowed.
7. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin
   No. 28 of company Streifeneder, LBA-approved.
8. According to Service Bulletin No. 201-30 of Company H. Streifeneder, Glasfaser
   Flugzeugbau GmbH, LBA-approved, the use of winglets is allowed.
9. In addition to F.IV.2.2.: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-
   Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21,
   subpart M.
10. According to Service Bulletin No. 201-42 of Company H. Streifeneder, Glasfaser
    Flugzeugbau GmbH, EASA-approved, the use of the modified winglets is allowed.
SECTION G: STANDARD LIBELLE 203

G.I. General

1. Type/Model/Variant
   1.1 Type Glasflügel Sailplanes
   1.2 Model Standard Libelle 203

2. Airworthiness Category
   Sailplane – Utility “U”

3. Manufacturer
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Germany

4. Type Certification Application Date
   02 December 1971

5. State of Design Authority
   Germany

6. State of Design Authority Type Certificate Date
   12 February 1976

7. EASA Type Certification Date
   10 July 2008

G.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements
   Defined by LBA letter I 30 – 251/71, dated December 23rd 1971

2. Airworthiness Requirements
   – Airworthiness Requirements for Sailplanes – (LFS), issue 1966
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions
   None

4. Exemptions
   None

5. Equivalent Safety Findings
   None

6. Environmental Protection
   None
G.III. Technical Characteristics and Operational Limitations

1. Type Design Definition
   Drawings and list of drawings, LBA-Approved May 30th 1972

2. Description
   Single seater, mid-wing sailplane, all composite construction, air brake, wing with fixed profile, conventional wing tip, water ballast in the wing, T-tail, retractable landing gear with break.

3. Equipment
   Min. Equipment:
   - 1 Air speed indicator (50 up to 265 km/h)
   - 1 Altimeter
   - 1 4-Point safety harness (symmetrical)
   - 1 Parachute or back cushion per person (thickness approx. 10cm/3.94 in when compressed)
   Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions
   Wing Span 15 m

5. Launching Hooks
   1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
   2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
   3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
   4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1
   Note:
   Tow hook 2,3,4 optional
   Tow hook 4 see G.V.5

6. Weak links:
   For winch launching max. 500 daN
   For aero towing max. 500 daN

7. Air Speeds
   Manoeuvring Speed $v_A$ 150 km/h
   Never Exceed Speed $v_{NE}$ 255 km/h
   Maximum permitted speeds
   In rough air $v_{RA}$ 150 km/h
   In winch-launch $v_W$ 120 km/h
   in aero-tow $v_T$ 150 km/h
8. Approved Operations Capability

Approved for VFR-flying in daytime.

9. Maximum Masses

Max. Mass 380kg
Max. Mass of Non-Lifting Part 210kg

10. Centre of Gravity Range

Forward Limit 244 mm aft of datum point
Rearward Limit 348 mm aft of datum point

11. Datum

Wing leading edge y=425 mm from the centreline

12. Control Surface Deflections

Refer to Maintenance Manual

13. Levelling Means

Wedge 100 : 5,2 on rear top fuselage to be horizontal

14. Minimum Flight Crew

1

15. Maximum Passenger Seating Capacity

0

G.IV. Operating and Service Instructions

1. Flight Manual
   - Replacement pages to the Glider Flight Manual “Standard Libelle 203” initiated by Service Bulletins
   - Limitation placard
   - Trim sheet

   - Service Manual “Standard Libelle 203”
   - Repair instruction U.Hänle, Fiberglas-Flugzeug-Flick-Fibel
   - Manual for the Tost Releases, latest approved version

G.V. Notes

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. The certification is limited to the S/N 1 and 2 and is linked to the accomplishment of Service Bulletin No. 203/1
5. The installation of a nose tow hoko “E85” is allowed according to the Service Bulletin No. 28 of company Streifeneder, LBA-approved.
6. In addition to G.IV.2.2.: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.
SECTION H: KESTREL

H.I. General

1. Type/Model/Variant
   1.1 Type
      Glasflügel Sailplanes
   1.2 Model
      Kestrel

2. Airworthiness Category
   Sailplane – Utility “U”

3. Manufacturer
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Germany

4. Type Certification Application Date
   05 April 1968

5. State of Design Authority
   Germany

6. State of Design Authority Type Certificate Date
   05 February 1970

7. EASA Type Certification Date
   10 July 2008

H.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements
   Defined by LBA letter I 30 – 276/68, dated February 11th 1968

2. Airworthiness Requirements
   – Airworthiness Requirements for Sailplanes – (LFS), issue 1966
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions
   None

4. Exemptions
   None

5. Equivalent Safety Findings
   None

6. Environmental Protection
   None

H.III. Technical Characteristics and Operational Limitations

1. Type Design Definition
   List of drawings for Type 401, LBA-Approved February 4th 1970
2. Description

Single seater, mid-wing sailplane, all composite glassfibre construction, flaps, air brake, braking parachute, conventional wingtip, water ballast in the wing, T-tail, retractable landing gear with break.

3. Equipment

Min. Equipment:
- 1 Air speed indicator (up to 300 km/h)
- 1 Altimeter
- 1 4-Point harness (symmetrical)
- 1 Parachute or back cushion per person
  (thickness approx. 10cm/3.94 in when compressed)

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

Wing Span 17,00 m

5. Launching Hooks

1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

Note:
Tow hook 2,3,4 optional
Tow hook 4 see H.V.5

6. Weak links:

For winch launching max. 600 daN
For aero towing max. 500 daN

7. Air Speeds

Manoeuvring Speed $v_A$ 150 km/h
Never Exceed Speed $v_{NE}$ 250 km/h

Maximum permitted speeds
- With flaps at -1, .2 250 km/h
- With flaps at +1 , 0 200 km/h
- With flaps at +2 150 km/h
- With flaps at L 120 km/h
- In rough air $v_{RA}$ 150 km/h
- In winch-launch $v_W$ 130 km/h
- In aero-tow $v_T$ 150 km/h

8. Approved Operations Capability

Approved for VFR-flying in daytime.

9. Maximum Masses

Max. Mass 400kg
Max. Mass of Non-Lifting Part 239kg
10. Centre of Gravity Range
   Forward Limit: 287 mm aft of datum point
   Rearward Limit: 379 mm aft of datum point

11. Datum
   Wing leading edge y=500 mm from the centreline

12. Control surface deflections
   Refer to Maintenance Manual

13. Levelling Means
   Wedge 100:4,4 on rear top fuselage to be horizontal

14. Minimum Flight Crew
   1

15. Maximum Passenger Seating Capacity
   0

H.IV. Operating and Service Instructions

1. Flight Manual
   - Limitation placard
   - Trim sheet

   - Service Manual “Kestrel”
   - Repair instruction U.Hänle, Fiberglas-Flugzeug-Flick-Fibel
   - Manual for the Tost Releases, latest approved version

H.V. Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. For S/N which are modified according to Service Bulletin 401-14, differing from H.III.9 the max Mass of Non-Lifting Parts is 250 kg
5. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 22 of company Streifeneder, LBA-approved.
6. In addition to H.IV.2.2: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.
SECTION I: GLASFLÜGEL 604

I.I. General

1. Type/ Model/Variant
   - 1.1 Type: Glasflügel 604
   - 1.2 Model: Glasflügel Sailplanes

2. Airworthiness Category: Sailplane – Utility “U”

3. Manufacturer:
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Germany

4. Type Certification Application Date: 17 March 1970
5. State of Design Authority: Germany
6. State of Design Authority Type Certificate Date: 06 September 1982
7. EASA Type Certification Date: 10 July 2008

I.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:
   Defined by LBA letter I 30 – 281/70, dated March 14th 1970

2. Airworthiness Requirements:
   - Airworthiness Requirements for Sailplanes – (LFS), issue 1966
   - Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions: None
4. Exemptions: None
5. Equivalent Safety Findings: None
6. Environmental Protection: None

I.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: List of drawings, LBA-Approved September 1982
2. Description

Single seater, mid-wing sailplane, all composite glasfibre construction, flaps, air brake only on the upper wing surface, braking parachute, conventional wing tips, water ballast in the wings, T-tail, retractable landing gear with break.

3. Equipment

Min. Equipment:
- 1 Air speed indicator (up to 300 km/h)
- 1 Altimeter
- 1 4-Point harness (symmetrical)
- 1 Parachute or back cushion per person (thickness approx. 10cm/3.94 in when compressed)

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

Wing Span 22.00 m

5. Launching Hooks

1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

Note:
Tow hook 2, 3, 4 optional
Tow hook 4 see I.V.6

6. Weak links:

For winch launching max. 850 daN
For aero towing max. 500 daN

7. Air Speeds

Manoeuvring Speed $v_A$ 150 km/h
Never Exceed Speed $v_{NE}$ 250 km/h

Maximum permitted speeds
- With flaps at -1, -2 250 km/h
- With flaps at +1, 0 200 km/h
- With flaps at +2 150 km/h
- With flaps at L 120 km/h
- In rough air $v_{RA}$ 150 km/h
- Braking parachute ejection up to 250 km/h
- In winch-launch $v_W$ 130 km/h
- in aero-tow $v_T$ 150 km/h

8. Approved Operations Capability

Approved for VFR-flying in daytime.
9. Maximum Masses
   - Max. Mass: 650kg
   - Max. Mass of Non-Lifting Part: 300kg

10. Centre of Gravity Range
    - Forward Limit: 378 mm aft of datum point
    - Rearward Limit: 455 mm aft of datum point

11. Datum
    - Wing leading edge y=500 mm from the centreline

12. Control surface deflections
    - Refer to Maintenance Manual

13. Levelling Means
    - Wedge 100:4,4 on rear top fuselage to be horizontal

14. Minimum Flight Crew
    - 1

15. Maximum Passenger Seating Capacity
    - 0

I.IV. Operating and Service Instructions

1. Flight Manual
   - Limitation placard.
   - Trim sheet.

   - Service Manual “Glasflügel 604”
   - Repair instruction U.Hänle, Fiberglas-Flugzeug-Flick-Fibel
   - Manual for the Tost Releases, latest approved version

I.V. Notes

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. Manufacturing is limited to S/N 1 up to 10
5. The measures according to Modification Bulletin dated February 04th 1974 of Company Glasflügel have to be performed
6. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 4 of company Streifeneder, LBA-approved.
7. In addition to I.IV.2.2: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.
SECTION J: CLUB LIBELLE 205

J.I. General

1. Type/Model/ Variant
   1.1 Type
       Glasflügel Sailplanes
   1.2 Model
       Club Libelle 205

2. Airworthiness Category
   Sailplane – Utility “U”

3. Manufacturer
   Fa. Glasflügel
   Ing. Eugen Hänle
   7311 Schlattstall
   Glasflügel Segelflugzeugbau
   Hollighaus & Hillenbrand
   GmbH & Co. KG
   7318 Lenningen/Württ. 1

4. Type Certification Application Date
   22 September 1972

5. State of Design Authority
   Germany

6. State of Design Authority Type Certificate Date
   28 October 1974

7. EASA Type Certification Date
   10 July 2008

J.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements
   Defined by LBA letter I 30 – 251/72, dated September 05th 1972

2. Airworthiness Requirements
   - Airworthiness Requirements for Sailplanes – (LFS), issue 1966
   - Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), issue 27th June 1989 (Change 4 of the English original Issue), with JAR 22.375 (Winglets) from amendment 22/90/1 dated 12th February 1991 (see J.V.6)
   - Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions
   None
4. Exemptions

None

5. Equivalent Safety Findings

None

6. Environmental Protection

None

J.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

List of drawings, LBA-Approved, October 1974

2. Description

Single seater, high wing sailplane, all composite glasfibre construction, air brake at the trailing edge, optional conventional wing tips or winglets (see J.V.6), T-tail, spring mounted landing gear with break.

3. Equipment

Min. Equipment:
- 1 Air speed indicator (up to 250 km/h)
- 1 Altimeter
- 1 4-Point harness (symmetrical)
- 1 Parachute or back cushion per person (thickness approx. 10cm/3.94 in when compressed)

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

Wing Span 15,00 m

5. Launching Hooks

1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

Note:
Tow hook 2,3,4 optional
Tow hook 4 see J.V.5

6. Weak links:

For winch launching max. 500 daN
For aero towing max. 500 daN

7. Air Speeds

Manoeuvring Speed $v_A$ 150 km/h
Never Exceed Speed $v_{NE}$ 200 km/h
Maximum permitted speeds
In rough air $v_{RA}$ 150 km/h
In winch-launch $v_W$ 120 km/h
In aero-tow $v_T$ 135 km/h

8. Approved Operations Capability

Approved for VFR-flying in daytime.
9. Maximum Masses
   | Max. Mass | 350kg |
   | Max. Mass of Non-Lifting Part | 225kg |
10. Centre of Gravity Range
    | Forward Limit | 256 mm aft of datum point |
    | Rearward Limit | 380 mm aft of datum point |
11. Datum
    | Wing leading edge y=425 mm from the centreline |
12. Control surface deflections
    | Refer to Maintenance Manual |
13. Levelling Means
    | Wedge 100:5,2 on rear top fuselage to be horizontal |
14. Minimum Flight Crew
    | 1 |
15. Maximum Passenger Seating Capacity
    | 0 |

J.IV. **Operating and Service Instructions**

1. Flight Manual
   - Limitation placard.
   - Trim sheet.

   - Service Manual “Club Libelle 205”
   - Repair instruction U.Hänle, Fiberglas-Flugzeug-Flick-Fibel
   - Manual for the Tost Releases, latest approved version

J.V. **Notes**

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. Qualified for basic aerobatics according to the Flight Manual
5. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 18 of company Streifeneder, LBA-approved.
6. According to Service Bulletin No. 205-21 of Company H. Streifeneder, Glasfaser Flugzeugbau GmbH, LBA-approved, the use of winglets is allowed.
7. In addition to J.IV.2.2.: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.
SECTION K: HORNET

K.I. General

1. Type/Model/ Variant
   1.1 Type
   1.2 Model
   2. Airworthiness Category
   3. Manufacturer

2. Airworthiness Category
   Sailplane – Utility “U”

3. Manufacturer
   Glasflügel Segelflugzeugbau Hollighaus & Hillenbrand GmbH & Co. KG
   7318 Lenningen/Württ. 1

4. Type Certification Application Date
   05 February 1974

5. State of Design Authority
   Germany

6. State of Design Authority Type Certificate Date
   07 November 1975

7. EASA Type Certification Date
   July 10th 2008

K.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements
   Defined by LBA letter I 30 – 304/74, dated February 13th 1974

2. Airworthiness Requirements
   – Airworthiness Requirements for Sailplanes – (LFS), issue 1966
   – Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), issue 27th June 1989 (Change 4 of the English original Issue), with JAR 22.375 (Winglets) from amendment 22/90/1 dated February 12th 1991 (see J.V.6)
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions
   None

4. Exemptions
   None

5. Equivalent Safety Findings
   None

6. Environmental Protection
   None
K.III. **Technical Characteristics and Operational Limitations**

1. **Type Design Definition**
   List of drawings, LBA-Approved, November 1975

2. **Description**
   Single seater, mid-wing sailplane, all composite glassfibre construction, air brake at the trailing edge, optional conventional wing tips or winglets (see K.V.8), water ballast tanks in the wings, T-tail, retractable landing gear with break.

3. **Equipment**
   Min. Equipment:
   - 1 Air speed indicator (up to 300 km/h)
   - 1 Altimeter
   - 1 4-Point harness (symmetrical)
   - 1 Parachute or back cushion per person
   (thickness approx. 10cm/3.94 in when compressed)
   Additional Equipment refer to Flight and Maintenance Manual

4. **Dimensions**
   Wing Span 15,00 m

5. **Launching Hooks**
   1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
   2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
   3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
   4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

   Note:
   Tow hook 2,3,4 optional
   Tow hook 4 see K.V.7

6. **Weak links:**
   For winch launching max. 500 daN
   For aero towing max. 500 daN

7. **Air Speeds**
   Manoeuvring Speed $v_A$ 150 km/h
   Never Exceed Speed $v_{NE}$ 250 km/h
   Maximum permitted speeds
   In rough air $v_{RA}$ 150 km/h
   In winch-launch $v_W$ 150 km/h
   In aero-tow $v_T$ 135 km/h

8. **Approved Operations Capability**
   Approved for VFR-flying in daytime.

9. **Maximum Masses**
   Max. Mass 420kg
   Max. Mass of Non-Lifting Part 225kg
10. Centre of Gravity Range
   Forward Limit 250 mm aft of datum point
   Rearward Limit 375 mm aft of datum point

11. Datum
   Wing leading edge y=425 mm from the centreline

12. Control surface deflections
    Refer to Maintenance Manual

13. Levelling Means
    Wedge 100:5,2 on rear top fuselage to be horizontal

14. Minimum Flight Crew
    1

15. Maximum Passenger Seating Capacity
    0
K.IV. Operating and Service Instructions

1. Flight Manual
   - Limitation placard.
   - Trim sheet.

   - Service Manual “Hornet” (see above)
   - Manual for the Tost Releases, latest approved version

K.V. Notes

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. Qualified for basic aerobatics according to the Flight Manual
5. Compared to the serial production the following S/N have the defined major modification:
   - S/N 1: High wing sailplane; max. mass: 350 kg
   - S/N 2: max. mass: 350 kg
   - S/N 4: winch launching: not allowed
6. Compared to the serial production the S/N 89 has the following major modifications:
   - No water ballast; modified airbrake drive
   - Maximum permitted speeds:
     - Never Exceed Speed $v_{NE}$: 200 km/h
     - In Winch-launch $v_{W}$: 120 km/h
   - Max. Mass: 350 kg
7. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 15 of company Streifeneder, LBA-approved.
8. According to Service Bulletin No. 206-20 of Company H. Streifeneder, Glasfaser Flugzeugbau GmbH, LBA-approved, the use of winglets is allowed.
9. In addition to K.IV.2: Service Bulletin 1-2205 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.
10. According to Service Bulletin No. 206-28 of Company H. Streifeneder, Glasfaser Flugzeugbau GmbH, EASA-approved, the use of modified Winglets is allowed.
SECTION L: HORNET C

L.I. General

1. Type/Model/Variant
   1.1 Type
   1.2 Model

2. Airworthiness Category

3. Manufacturer

4. Type Certification Application Date

5. State of Design Authority

6. State of Design Authority Type Certificate Date

7. EASA Type Certification Date

L.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

2. Airworthiness Requirements
   – Airworthiness Requirements for Sailplanes – (LFS), issue 1966
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions

4. Exemptions

5. Equivalent Safety Findings

6. Environmental Protection

L.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

2. Description

Single seater, mid-wing sailplane, all composite construction, fuselage glass fibre, wing carbon fibre with water ballast tanks, air brake
3. Equipment

Min. Equipment:
- 1 Air speed indicator (up to 300 km/h)
- 1 Altimeter
- 1 4-Point harness (symmetrical)
- 1 Parachute or back cushion per person (thickness approx. 10cm/3.94 in when compressed)

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

Wing Span 15,00 m

5. Launching Hooks

1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

Note:
Tow hook 2,3,4 optional
Tow hook 4 see L.V.6

6. Weak links:
For winch launching max. 500 daN
For aero towing max. 500 daN

7. Air Speeds

Manoeuvring Speed $v_A$ 150 km/h
Never Exceed Speed $v_{NE}$ 250 km/h
Maximum permitted speeds
In rough air $v_{RA}$ 150 km/h
In winch-launch $v_W$ 150 km/h
in aero-tow $v_T$ 150 km/h

8. Approved Operations Capability

Approved for VFR-flying in daytime.

9. Maximum Masses

Max. Mass 450kg
Max. Mass of Non-Lifting Part 225kg
10. Centre of Gravity Range
   Forward Limit 250 mm aft of datum point
   Rearward Limit 375 mm aft of datum point

11. Datum
   Wing leading edge y=425 mm from the centreline

12. Control surface deflections
   Refer to Maintenance Manual

13. Levelling Means
   Wedge 100:5,2 on rear top fuselage to be horizontal

14. Minimum Flight Crew
   1

15. Maximum Passenger Seating Capacity
   0

L.IV. Operating and Service Instructions

1. Flight Manual
   - Limitation placard.
   - Trim sheet.

   - Service Manual “Hornet C” (see above)
   - Manual for the Tost Releases, latest approved version

L.V. Notes

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. Qualified for basic aerobatics according to the Flight Manual
5. Compared to the serial production the following S/N have the defined major modification:
   S/N 90,91,92,93: Water ballast tank as integral tank in the wings.
6. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 15 of company Streifeneder, LBA-approved.
7. In addition to L.IV.2.: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.
SECTION M: MOSQUITO

M.I. General

1. Type/Model/Variant
   1.1 Type
   1.2 Model
2. Airworthiness Category
3. Manufacturer

4. Type Certification Application Date
5. State of Design Authority
6. State of Design Authority Type Certificate Date
7. EASA Type Certification Date

M.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements
   Defined by LBA letter I 3 – 318/75, dated 18th November 1975

2. Airworthiness Requirements
   – Airworthiness Requirements for Sailplanes and powered sailplanes – (LFSM), issue October 23rd 1975
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions
4. Exemptions
5. Equivalent Safety Findings
6. Environmental Protection

M.III. Technical Characteristics and Operational Limitations

1. Type Design Definition
   List of drawings: Mosquito, dated January 1977

2. Description
   Single seater, mid-wing sailplane, all composite glass fibre construction, water ballast tanks, flaps combined
with the air brake at the trailing edge, conventional wing tips, T-tail, retractable landing gear with break.

3. Equipment

Min. Equipment:
- 1 Air speed indicator (up to 300 km/h)
- 1 Altimeter
- 1 4-Point safety harness (symmetrical)
- 1 Parachute or back cushion per person (thickness approx. 10cm/3.94 in when compressed)

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

Wing Span 15,00 m

5. Launching Hooks

1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

Note:
Tow hook 2,3,4 optional
Tow hook 4 see M.V.6

6. Weak links:

For winch launching max. 650 daN
For aero towing max. 650 daN

7. Air Speeds

Manoeuvring Speed $v_A$ 200 km/h
Never Exceed Speed $v_{NE}$ 250 km/h

Maximum permitted speeds
- With flaps at -1,-2,0 250 km/h
- With flaps at +1,+2 200 km/h
- In rough air $v_{RA}$ 200 km/h
- In winch-launch $v_W$ 150 km/h
- In aero-tow $v_{T}$ 150 km/h

8. Approved Operations Capability

Approved for VFR-flying in daytime.

9. Maximum Masses

Max. Mass 450kg
Max. Mass of Non-Lifting Part 240kg
10. Centre of Gravity Range
   
   Forward Limit: 235 mm aft of datum point
   Rearward Limit: 360 mm aft of datum point

11. Datum
   
   Wing leading edge y=425 mm from the centreline

12. Control surface deflections
   
   Refer to Maintenance Manual

13. Levelling Means
   
   Wedge 100:5,2 on rear top fuselage to be horizontal

14. Minimum Flight Crew
   
   1

15. Maximum Passenger Seating Capacity
   
   0

**M.IV. Operating and Service Instructions**

1. Flight Manual
   

   
   - Manual for the Tost Releases, latest approved version

**M.V. Notes**

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. Qualified for basic aerobatics according to the Flight Manual
5. Actions and obligations in the sense of Part 21 for the type „Mosquito“ have been transferred to: Glasfaser-Flugzeug-Service, Hofener Weg, 72582 Grabenstetten, Germany
6. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 16 of company Streifeneder, LBA-approved.
7. In addition to M.IV.2: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-vO 1702/2003, Part 21, subpart M.
8. The optional use of winglets is allowed by major change approval 10084494.
SECTION N: MOSQUITO B

N.I. General

1. Type/ Model/Variant
   1.1 Type Glasflügel Sailplanes
   1.2 Model Mosquito B

2. Airworthiness Category Sailplane – Utility “U”

3. Manufacturer Glasflügel Segelflugzeugbau Hollighaus & Hillenbrand GmbH & Co. KG 7318 Lenningen/Württ. 1

4. Type Certification Application Date 19 September 1977
5. State of Design Authority Germany
6. State of Design Authority Type Certificate Date 29 November 1977
7. EASA Type Certification Date 10 July 2008

N.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements Defined by LBA letter I 321 – 318/77, dated September 23rd 1977

2. Airworthiness Requirements
   – Airworthiness Requirements for Sailplanes and powered sailplanes – (LFSM), issue October 23rd 1975
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions None
4. Exemptions None
5. Equivalent Safety Findings None
6. Environmental Protection None

N.III. Technical Characteristics and Operational Limitations

1. Type Design Definition List of drawings: Additions to the list of drawings of the basic type “Mosquito”
2. Description Single seater, mid-wing sailplane, all composite glass fibre construction, water
3. Equipment

Min. Equipment:
- 1 Air speed indicator (up to 300 km/h)
- 1 Altimeter
- 1 4-Point safety harness (symmetrical)
- 1 Parachute or back cushion per person (thickness approx. 10cm/3.94 in when compressed)

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

Wing Span 15,00 m

5. Launching Hooks

1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

Note:
Tow hook 2,3,4 optional
Tow hook 4 see N.V.6

6. Weak links:
For winch launching
For aero towing
max. 650 daN
max. 650 daN

7. Air Speeds

Manoeuvring Speed $v_A$
200 km/h

Never Exceed Speed $v_{NE}$
250 km/h

Maximum permitted speeds
- With flaps at -1,-2,0 250 km/h
- With flaps at +1,+2 200 km/h
- In rough air $v_{RA}$ 200 km/h
- In winch-launch $v_W$ 150 km/h
- In aero-tow $v_T$ 150 km/h
8. Approved Operations Capability
   Approved for VFR-flying in daytime.

9. Maximum Masses
   Max. Mass
   Max. Mass of Non-Lifting Part
   450kg
   240kg

10. Centre of Gravity Range
    Forward Limit
    Rearward Limit
    200 mm aft of datum point
    325 mm aft of datum point

11. Datum
    Wing leading edge y=425 mm from the centreline

12. Control surface deflections
    Refer to Maintenance Manual

13. Levelling Means
    Wedge 100:5,2 on rear top fuselage to be horizontal

14. Minimum Flight Crew
    1

15. Maximum Passenger Seating Capacity
    0

N.IV.  Operating and Service Instructions

1. Flight Manual

   - Manual for the Tost Releases, latest approved version

N.V.  Notes

1. Manufacturing is confined to industrial production
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.
3. Qualified for cloud flying according to the Flight Manual
4. Qualified for basic aerobatics according to the Flight Manual
5. Actions and obligations in the sense of Part 21 for the type „Mosquito B“ have been transferred to: Glasfaser-Flugzeug-Service, Hofener Weg, 72582 Grabenstetten, Germany
6. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 16 of company Streifeneder, LBA-approved.
7. In addition to N.IV.2.: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.
8. The optional use of winglets is allowed by major change approval 10084494.
SECTION O: GLASFLÜGEL 304

O.I. General

1. Type/Model/Variant
   1.1 Type          Glasflügel Sailplanes
   1.2 Model         Glasflügel 304

2. Airworthiness Category
   Sailplane – Utility “U”

3. Manufacturer
   Glasflügel Deutsch-Brasilianische Flugzeug-und Fahrzeug GmbH
   7318 Lenningen 1

4. Type Certification Application Date          30 April 1980
5. State of Design Authority                   Germany
6. State of Design Authority Type Certificate Date 22 September 1980
7. EASA Type Certification Date                10 July 2008

O.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements

   Defined by LBA letter I 3 – 318/80, dated May 08th 1980

2. Airworthiness Requirements

   – Airworthiness Requirements for Sailplanes and powered sailplanes – (LFSM), issue 23rd October 1975
   – Standards for Structural Substantiation of Sailplane Components consisting of Glass Fibre Reinforced Plastics, issue March 1965

3. Special Conditions                           None
4. Exemptions                                  None
6. Equivalent Safety Findings                  None
7. Environmental Protection                    None

O.III. Technical Characteristics and Operational Limitations

1. Type Design Definition

   List of drawings: “Glasflügel 304”, LBA-approved
   September 17th 1980

2. Description

   Single seater, mid-wing sailplane, all composite glass fibre construction, water ballast tanks, flaps combined
with the air brake at the trailing edge, optional conventional wing tips or winglets (see O.V.8), T-tail, horizontal tail reduced to 2.1 m span compared to the “Mosquito”, retractable landing gear with break.

3. Equipment

Min. Equipment:
- 1 Air speed indicator (up to 300 km/h)
- 1 Altimeter
- 1 4-Point safety harness (symmetrical)
- 1 Parachute or back cushion per person (thickness approx. 10cm/3.94 in when compressed)

Additional Equipment refer to Flight and Maintenance Manual

4. Dimensions

Wing Span 15,00 m

5. Launching Hooks

1) Special Hook “SH72”, LBA Datasheet No. 60.230/3
2) Nose tow hook “E72”, LBA Datasheet No. 60.230/1
3) Nose tow hook “E75”, LBA Datasheet No. 60.230/1
4) Nose tow hook “E85”, LBA Datasheet No. 60.230/1

Note:
Tow hook 2,3,4 optional
Tow hook 4 see O.V.6

6. Weak links:
For winch launching max. 650 daN
For aero towing max. 650 daN

7. Air Speeds

Manoeuvring Speed $v_A$ 200 km/h
Never Exceed Speed $V_{NE}$ 250 km/h

Maximum permitted speeds
- With flaps at -1,-2,0 250 km/h
- With flaps at +1,+2 200 km/h
- In rough air $v_{RA}$ 200 km/h
- In winch-launch $v_W$ 150 km/h
- In aero-tow $v_T$ 150 km/h
8. Approved Operations Capability

Approved for VFR-flying in daytime.

9. Maximum Masses

Max. Mass

Max. Mass of Non-Lifting Part

450kg

240kg

10. Centre of Gravity Range

Forward Limit

Rearward Limit

200 mm aft of datum point

325 mm aft of datum point

11. Datum

Wing leading edge y=425 mm from the centreline

12. Control surface deflections

Refer to Maintenance Manual

13. Levelling Means

Wedge 100:5,2 on rear top fuselage to be horizontal

14. Minimum Flight Crew

1

15. Maximum Passenger Seating Capacity

0

O.IV. Operating and Service Instructions

1. Flight Manual


Manual for the Tost Releases, latest approved version

O.V. Notes

1. Manufacturing is confined to industrial production

2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white coloured surface.

3. Qualified for cloud flying according to the Flight Manual

4. Qualified for basic aerobatics according to the Flight Manual

5. Actions and obligations in the sense of Part 21 for the type „Mosquito B“ have been transferred to: Glasfaser-Flugzeug-Service, Hofener Weg, 72582 Grabenstetten, Germany

6. The installation of a nose tow hook „E85“ is allowed according to the Service Bulletin No. 16 of company Streifeneder, LBA-approved.

7. In addition to O.IV.2.: Service Bulletin 1-2005 of Company Glasfaser Flugzeug-Service GmbH; Accepted repair methods according to EU-VO 1702/2003, Part 21, subpart M.

8. According to Service Bulletin No. 304-13 of Company Glasfaser Flugzeug-Service, GmbH, H. Streifeneder, the use of winglets is allowed.
SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

II. Type Certificate Holder Record

III. 
Fa.Glasflügel
Ing. Eugen Hänle
7311 Schlattstall
Glasfaser Flugzeug-Service GmbH
Hofener Weg
72582 Grabenstetten

IV. Change Record

<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>Changes</th>
<th>TC Issue No. &amp; Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue 01</td>
<td>10th July 2008</td>
<td>Transfer of Glasflügel Sailplanes to EASA Type Design</td>
<td>Initial Issue,</td>
</tr>
<tr>
<td>Issue 3</td>
<td>September 15th 2022</td>
<td>-Certification of modified winglets for the Standard Libelle, Standard Libelle 201 B, Club-Libelle 205 and Hornet, changes under V.Notes</td>
<td></td>
</tr>
<tr>
<td>Issue 4</td>
<td>September 27th 2022</td>
<td>- Correction of errors/typos due to the transfer from issue 2 to issue 3 - B.III.13 correction of the information in accordance with the Flight Manual - E.III.2 correction of the wrong description of the gear</td>
<td></td>
</tr>
<tr>
<td>Issue 5</td>
<td>16th May 2024</td>
<td>- Certification of winglets for the models Mosquito and Mosquito B - Correction aero-tow speed of the model Hornet</td>
<td></td>
</tr>
</tbody>
</table>

-END-