*European Aviation Safety Agency*

# EASA

# TYPE-CERTIFICATE DATA SHEET

# HB 21

## Type Certificate Holder: HB-Flugtechnik

HB-Flugtechnik GmbH
Dr. Adolf Schärfstraße 42
A-4053 Haid
Austria

For variants: **HB 21**
**HB 21/2400**
**HB 21/2400 B**
**HB 21 V1**
**HB 21 V2**

Issue 01; 25.Jan.2010

# CONTENT

# SECTION 1 HB 21

## A.I. General

Data Sheet No.: A.434 Issue: 01 Date: 25.Jan.2010

| | | |
|---|---|---|
| 1. | a) Type:<br>b) Variant: | HB 21<br>--- |
| 2. | Airworthiness Category: | Utility |
| 3. | Type Certificate Holder: | HB-Flugtechnik GmbH<br>Dr. Adolf Schärfstraße 42<br>A-4053 Haid<br>Austria<br>www.hb-flugtechnik.at |
| 4. | Manufacturer: | HB Brditschka GesmbH&CoKG<br>Flugzeugbau<br>A-4053 Haid<br>Austria |
| 5. | Certification Application Date: | --- |
| 6. | BAZ/ACG Certification Date : | March 1978 see Note 4 |
| 7. | The EASA Type Certificate replaces the Austrian Type Certificate SF 2/78 | |
| 8. | EASA Certification Date: | --- |

## A.II. Certification Basis

| | | |
|---|---|---|
| 1. | Reference Date for determining the applicable requirements: | --- |
| 2. | (Reserved) | |
| 3. | (Reserved) | |
| 4. | Certification Basis: | LFSM issued 1.November 1975 |
| 5. | Airworthiness Requirements: | LFSM issued 1.November 1975 |
| 6. | Requirements elected to comply: | None |
| 7. | Special Conditions: | None |
| 8. | Exemptions: | None |
| 9. | Equivalent Safety Findings: | None |
| 10. | Environmental Standards: | Zivilluftfahrzeug-Lärmzulässigkeitverordnung 429/1982 |

## A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Drawing Set and following approved Design Changes (ÄM – System)

2. Description: Single engine, two-seated high wing airplane, wooden wing/steel tube fuselage construction, tandem seating configuration, fixed tri gear, air brakes on upper wing surface and pusher propeller

3. Equipment: Minimum Equipment:
1 airspeed indicator (range up to 250 km/h)
1 altimeter with mbar barometric dial
1 magnetic compass with deviation table
1 RPM indicator
1 running time meter
1 oil pressure gauge
1 oil temperature gauge
1 Voltmeter
1 fuel pressure indicator
1 fuel quantity gauge
1 stall warning indicator
1 at least 4-point harness for each seat
1 Masterwitch
1 Currentprotection (circuit protection)
1 Generator and 1 Battery
For Acrobatic in addition
1 G-Meter
2 Safety loops for Rudderpedals
For Clowdflights
1 Variometer
1 Turn and Bank indicator
1 COM

4. Dimensions:

| | |
|---|---|
| Span | *16,24X m* |
| Length | *8,48 m* |
| Height | *2,60 m* |
| Wing Area | *19,00 m²* |

5. Engines: VW-W-1600 G or G/2
Engine Type Certificate Data Sheet: BAZ TW 2/77

5.1 Engine Limits:

| | |
|---|---|
| Max take-off rotational speed | 4000 r.p.m. |
| Max continuous rotational speed | 3600 r.p.m |

For power-plants limits refer to Flight Manual,

6. (Reserved)

7. Propellers: 1 Hoffmann HO 14 *175 117 LD or
HO 14 *172 117 LD
Propeller Type Certificate Data Sheet: LBA 32.110/1

| | | |
|---|---|---|
| 7.1 Settings | Low pitch setting/ Static RPM: | 3400+/- 200 |
| 8. Fluids: | | |
| 8.1 Fuel: | AVGAS 100 LL or<br>Automotive Gasoline,<br>Leaded/unleaded min ROZ 98<br>(see Note 2) | |
| 8.2 Oil: | quality automotive oils Castrol GTX2 or<br>all HD SAE 15W40<br>(see Flight Manual) | |
| 9. Fluid capacities: | | |
| 9.1 Fuel: Standard Fuel Tank | Total: 54 liters<br>Usable: 53 liters | |
| 9.2 Oil: | Maximum: 2,5 liters<br>Minimum: 1,5 liters | |
| 10. Air Speeds: | | |
| Design Manoeuvring Speed $v_A$: | | 173 km/h |
| Maximum rough air speed Vra): | | 173 km/h. |
| Never exceed speed $v_{NE}$: | | 200 km/h |
| 11. Maximum Operating Altitude: | --- | |
| 12. Allweather Capability: | Day-VFR, Cloud Flying | |
| 13. Maximum Masses: (see Note 6) | | |
| Take-off | | 750 kg |
| Maximum mass of non lifting parts | | 550 kg |
| 14. Centre of Gravity Range: | | |
| Forward limit | | 2,410 m behind Datum |
| Rear limit: | | 2,520 m behind Datum |
| 15. Datum: | 2,00 m in front of wing leading edge at root rib 2 | |
| 16. (reserved) | | |
| 17. Levelling Means: | top of fuselage aft of propeller horizontal | |
| 18. Minimum Flight Crew: | 1 (Pilot) | |
| 19. Maximum Passenger Seating Capacity: | 2 | |
| 20. (Reserved) | | |
| 21. Baggage / Cargo Compartments | | |
| Behind Seats | 10 kg | |
| 22. Wheels and Tyres | | |
| Main/Tail Wheel Tyre Size | For approved Types and rating | |

see AMM

## A.IV. Operating and Service Instructions

| | |
|---|---|
| Airplane Flight Manual (AFM) | Airplane Flight Manual HB 21, Issue 24.March 1983, BAZ approved (German Version) |
| Airplane Maintenance Manual (AMM) (incl. Airworthiness Limitations) | Maintenance Manual, Issue 24. March 1983, (German Version) |
| | Engine Manual , Westermayer– VW-V-1600 G |
| | Hoffmann, Operation and Maintenance Manual for the HOCO propeller, latest Issue or |
| Service Informations and Service Bulletins | |

All Master Manuals are issued in German Language only

## A.V. Notes

1) Only industrial manufacturing is permitted.

2) Use of unleaded automotive fuel SUPER PLUS 98 ÖNorm C1100, min. ROZ 98, in accordance with TM/HB/23/23/93, latest issue, is permitted.

3) Modification from engine VW-W 1600-G to G/2 is approved with TM 016

4) Initial Certification carried out by the Austrian Aviation Authority – Bundesamt für Zivilluftfahrt renamed to Austro Control

5) The certification applies to SNo. 21.008 up to 21.029 inclusive.

6) The extension of the maximum take off weight from 710 to 750 kg and the maximum weight of the lifting parts from 500 to 550 kg is approved with TM 032/83 dated 13. July 1983, BAZ approved.

7) Clowd Flights and Acrobatic is approved in accordance with TM 017/80 dated 1. Sept.1980, BAZ approved.

## SECTION 2 HB 21/2400

### B.I. General

Data Sheet No.: A.434 Issue: 01 Date: 25.Jan.2010

| | | |
|---|---|---|
| 1. | a) Type:<br>b) Variant: | HB 21<br>HB 21/2400 |
| 2. | Airworthiness Category: | Utility |
| 3. | Type Certificate Holder: | HB-Flugtechnik GmbH<br>Dr. Adolf Schärfstraße 42<br>A-4053 Haid<br>Austria<br>www.hb-flugtechnik.at |
| 4. | Manufacturer: | HB Brditschka GesmbH&CoKG<br>Flugzeugbau<br>A-4053 Haid<br>Austria |
| 5. | Certification Application Date: | --- |
| 9. | BAZ/ACG Certification Date : | March 1983 see Note 3 |
| 10. | The EASA Type Certificate replaces the Austrian Type Certificate SF 2/78 | |
| 11. | EASA Certification Date: | --- |

### B.II. Certification Basis

| | | |
|---|---|---|
| 1. | Reference Date for determining the applicable requirements: | --- |
| 2. | (Reserved) | |
| 3. | (Reserved) | |
| 4. | Certification Basis: | LFSM issued 1.November 1975 |
| 5. | Airworthiness Requirements: | LFSM issued 1.November 1975 |
| 6. | Requirements elected to comply: | None |
| 7. | Special Conditions: | None |
| 8. | Exemptions: | None |
| 9. | Equivalent Safety Findings: | None |
| 10. | Environmental Standards: | Zivilluftfahrzeug-Lärmzulässigkeitverordnung 429/1982 |

## B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Drawing Set and following approved Design Changes (ÄM – System)

2. Description: Single engine, two-seated high wing airplane, wooden wing/steel tube fuselage construction, tandem seating configuration, fixed tri gear, air brakes on upper wing surface and pusher propeller

3. Equipment: Minimum Equipment:
1 airspeed indicator (range up to 250 km/h)
1 altimeter with mbar barometric dial
1 magnetic compass with deviation table
1 RPM indicator
1 running time meter
1 oil pressure gauge
1 oil temperature gauge
1 Voltmeter
1 fuel pressure indicator
1 fuel quantity gauge
1 stall warning indicator
1 at least 4-point harness for each seat
1 Masterwitch
1 Currentprotection (circuit protection)
1 Generator and 1 Battery
For Acrobatic in addition
1 G-Meter
2 Safety loops for Rudderpedals
For Clowdflights
1 Variometer
1 Turn and Bank indicator
1 COM

5. Dimensions:

| | |
|---|---|
| Span | *16,24 m* |
| Length | *8,48 m* |
| Height | *2,60 m* |
| Wing Area | *19,00 m²* |

5. Engines: VW-HB-2400 G
Engine Type Certificate Data Sheet: BAZ 4/82

5.1 Engine Limits:

| | |
|---|---|
| Max take-off rotational speed | 4000 r.p.m. |
| Max continuous rotational speed | 3600 r.p.m |

For power-plants limits refer to Flight Manual,

6. (Reserved)

7. Propellers: 1 Hoffmann HO 14 *175 130 LD or
HO 14 *172 130 LD
Propeller Type Certificate Data Sheet: LBA 32.110/1

| | | |
|---|---|---|
| 7.2 Settings | Low pitch setting/ Static RPM: | 3400+/- 200 |
| 11. Fluids: | | |
| 8.1 Fuel: | AVGAS 100 LL or<br>Automotive Gasoline,<br>Leaded/unleaded min ROZ 98<br>(see Note 4) | |
| 8.2 Oil: | quality automotive oils<br>(see Flight Manual) | |
| 12. Fluid capacities: | | |
| 9.1 Fuel: Standard Fuel Tank | Total: 54 liters<br>Usable: 53 liters | |
| 9.2 Oil: | Maximum: 4,0 liters<br>Minimum: 3,0 liters | |
| 13. Air Speeds: | | |
| Design Manoeuvring Speed $v_A$: | | 173 km/h |
| Maximum rough air speed Vra): | | 173 km/h. |
| Never exceed speed $v_{NE}$: | | 200 km/h |
| 11. Maximum Operating Altitude: | --- | |
| 12. Allweather Capability: | Day-VFR, Cloud Flying | |
| 14. Maximum Masses: (see Note 6) | | |
| Take-off | | 750 kg |
| Maximum mass of non lifting parts | | 550 kg |
| 15. Centre of Gravity Range: | | |
| Forward limit | | 2,410 m behind Datum |
| Rear limit: | | 2,520 m behind Datum |
| 15. Datum: | 2,00 m in front of wing leading edge at root rib 2 | |
| 18. (reserved) | | |
| 19. Levelling Means: | top of fuselage aft of propeller horizontal | |
| 18. Minimum Flight Crew: | 1 (Pilot) | |
| 19. Maximum Passenger Seating Capacity: | 2 | |
| 20. (Reserved) | | |
| 22. Baggage / Cargo Compartments | | |
| Behind Seats | 10 kg | |
| 22. Wheels and Tyres | | |
| Main/Tail Wheel Tyre Size | For approved Types and rating<br>see AMM | |

## B.IV. Operating and Service Instructions

| | |
|---|---|
| Airplane Flight Manual (AFM) | Airplane Flight Manual HB 21/2400, Issue 15.6. 1983, BAZ approved (German Version) |
| Airplane Maintenance Manual (AMM) (incl. Airworthiness Limitations) | Maintenance Manual, Issue 24.3.1983, (German Version) |
| | Engine Manual – VW-HB-2400 G, Oktober 1981 or later approved Issue |
| | Hoffmann, Operation and Maintenance Manual for the HOCO propeller, latest Issue or |

Service Informations and Service Bulletins

All Master Manuals are issued in German Language only

## B.V. Notes

1) Only industrial manufacturing is permitted.

2) Use of unleaded automotive fuel SUPER PLUS 98 ÖNorm C1100, min. ROZ 98, in accordance with TM/HB/23/23/93, latest issue, is permitted.

3) Initial Certification carried out by the Austrian Aviation Authority – Bundesamt für Zivilluftfahrt renamed to Austro Control

4) The certification applies to SNo. 21.008 up to 21.029 inclusive. The conversion from m HB 21 to variant HB21/2400 is approved.

5) The extension of the maximum take off weight from 710 to 750 kg and the maximum weight of the lifting parts from 500 to 550 kg is approved with TM 023/83 dated 13. July 1983, BAZ approved

6) Cloud Flights and Acrobatic is approved in accordance with TM 017/80 dated 1. Sept.1980, BAZ approved.

7) Glider and Banner towing is approved with TM 021/81 dated 27.2.1982, the following additional equipment must be installed:
   1 cylinder head temperature gauge
   1 Tow indicator in the instrument panel
   1 coupling type Tost E75
   1 mirror

## SECTION 3 HB 21/2400 B

### C.I. General

Data Sheet No.: A.434 Issue: 01 Date: 25-Jan-2010

1. a) Type: HB 21
   b) Variant: HB 21/2400 B
2. Airworthiness Category: Utility
3. Type Certificate Holder:
   HB-Flugtechnik GmbH
   Dr. Adolf Schärfstraße 42
   A-4053 Haid
   Austria
   www.hb-flugtechnik.at
4. Manufacturer:
   HB Brditschka GesmbH&CoKG
   Flugzeugbau
   A-4053 Haid
   Austria
5. Certification Application Date: ---
12. BAZ/ACG Certification Date : March 1983 see Note 3
13. The EASA Type Certificate replaces the Austrian Type Certificate SF 2/78
14. EASA Certification Date: ---

### C.II. Certification Basis

1. Reference Date for determining the applicable requirements: ---
2. (Reserved)
3. (Reserved)
4. Certification Basis: LFSM issued 1.November 1975
5. Airworthiness Requirements: LFSM issued 1.November 1975
6. Requirements elected to comply: None
7. Special Conditions: None
8. Exemptions: None
9. Equivalent Safety Findings: BAZ approval 6285-2/26-83 dated 25.Juli 1983
10. Environmental Standards: Zivilluftfahrzeug-Lärmzulässigkeitverordnung 429/1982

## C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Drawing Set and following approved Design Changes (ÄM – System)

2. Description: Single engine, two-seated high wing airplane, wooden wing/steel tube fuselage construction, tandem seating configuration, fixed tri gear, air brakes on upper wing surface and pusher propeller

3. Equipment: Minimum Equipment:
1 airspeed indicator (range up to 250 km/h)
1 altimeter with mbar barometric dial
1 magnetic compass with deviation table
1 RPM indicator
1 running time meter
1 oil pressure gauge
1 oil temperature gauge
1 Voltmeter
1 fuel pressure indicator
1 fuel quantity gauge
1 stall warning indicator
1 at least 4-point harness for each seat
1 Masterwitch
1 Currentprotection (circuit protection)
1 Generator and 1 Battery
For Acrobatic in addition
1 G-Meter
2 Safety loops for Rudderpedals
For Clowdflights
1 Variometer
1 Turn and Bank indicator
1 COM

6. Dimensions:

| | |
|---|---|
| Span | *16,24 m* |
| Length | *8,48m* |
| Height | *2,60 m* |
| Wing Area | *19,00 m²* |

5. Engines: VW-HB-2400 G
Engine Type Certificate Data Sheet: BAZ 4/82

5.1 Engine Limits:

| | |
|---|---|
| Max take-off rotational speed | 4000 r.p.m. |
| Max continuous rotational speed | 3600 r.p.m |

For power-plants limits refer to Flight Manual,

6. (Reserved)

7. Propellers: 1 Hoffmann HO 14 *175 130 LD or
HO 14 *172 130 LD
Propeller Type Certificate Data Sheet: LBA 31.110/1

| | |
|---|---|
| 7.3 Settings | Low pitch setting/ Static RPM: 3400+/- 200 |
| 14. Fluids: | |
| 8.1 Fuel: | AVGAS 100 LL or<br>Automotive Gasoline,<br>Leaded/unleaded min ROZ 98<br>(see Note 2) |
| 8.2 Oil: | quality automotive oils<br>(see Flight Manual) |
| 15. Fluid capacities: | |
| 9.1 Fuel: Standard Fuel Tank | Total: 54 liters<br>Usable: 53 liters |
| 9.2 Oil: | Maximum: 4,0 liters<br>Minimum: 3,0 liters |
| 16. Air Speeds: | |
| Design Manoeuvring Speed $v_A$: | 173 km/h |
| Maximum rough air speed Vra): | 173 km/h. |
| Never exceed speed $v_{NE}$: | 200 km/h |
| 11. Maximum Operating Altitude: | --- |
| 12. Allweather Capability: | Day-VFR, Cloud Flying |
| 15. Maximum Masses: | |
| Take-off | 775 kg |
| Maximum mass of non lifting parts | 550 kg |
| 16. Centre of Gravity Range: | |
| Forward limit | 2,410 m behind Datum |
| Rear limit: | 2,520 m behind Datum |
| 15. Datum: | 2,00 m in front of wing leading edge at root rib 2 |
| 20. (reserved) | |
| 21. Levelling Means: | top of fuselage aft of propeller horizontal |
| 18. Minimum Flight Crew: | 1 (Pilot) |
| 19. Maximum Passenger Seating Capacity: | 2 |
| 20. (Reserved) | |
| 23. Baggage / Cargo Compartments | |
| Behind Seats | 10 kg |
| 22. Wheels and Tyres | |
| Main/Tail Wheel Tyre Size | For approved Types and rating<br>see AMM |

## C.IV. Operating and Service Instructions

| | |
|---|---|
| Airplane Flight Manual (AFM) | Airplane Flight Manual HB 21/2400 B, Issue 24.3.1983, BAZ approved (German Version) |
| Airplane Maintenance Manual (AMM) (incl. Airworthiness Limitations) | Maintenance Manual, Issue 24.3.1983, (German Version) |
| | Engine Manual – VW-HB-2400 G, Oktober 1981 or later approved Issue |
| | Hoffmann, Operation and Maintenance Manual for the HOCO propeller, latest Issue or |

Service Informations and Service Bulletins

All Master Manuals are issued in German Language only

## C.V. Notes

1) Only industrial manufacturing is permitted.

2) Use of unleaded automotive fuel SUPER PLUS 98 ÖNorm C1100, min. ROZ 98, in accordance with TM/HB/23/23/93, latest issue, is permitted.

3) Initial Certification carried out by the Austrian Aviation Authority – Bundesamt für Zivilluftfahrt renamed to Austro Control

4) The certification applies to SNo. 21.008 up to 21.029 inclusive.

5) Cloud Flights and Acrobatic is approved in accordance with TM 017/80 dated 1. Sept.1980, BAZ approved.

6) Glider and Banner towing is approved with TM 021/81 dated 27.2.1982, the following additional equipment must be installed:
   1 cylinder head temperature gauge
   1 Tow indicator in the instrument panel
   1 coupling type Tost E75
   1 mirror

## SECTION 4 HB 21 V1

### D.I. General

Data Sheet No.: A.434 Issue: 01 Date: 25-Jan-2010

1. a) Type: HB 21
   b) Variant: HB 21 V1

2. Airworthiness Category: Utility

3. Type Certificate Holder:
   HB-Flugtechnik GmbH
   Dr. Adolf Schärfstraße 42
   A-4053 Haid
   Austria
   www.hb-flugtechnik.at

4. Manufacturer:
   H.W. Brditschka OHG
   Flugzeugbau
   A-4053 Haid
   Austria

5. Certification Application Date: ---

15. BAZ/ACG Certification Date : 16.Aug 1978 see Note 2

16. The EASA Type Certificate replaces the Austrian Type Certificate SF 4/78

17. EASA Certification Date: ---

### D.II. Certification Basis

1. Reference Date for determining the applicable requirements: ---

2. (Reserved)

3. (Reserved)

4. Certification Basis: LFSM issued 1.November 1975

5. Airworthiness Requirements: LFSM issued 1.November 1975

6. Requirements elected to comply: None

7. Special Conditions: None

8. Exemptions: None

9. Equivalent Safety Findings: None

10. Environmental Standards: Zivilluftfahrzeug-Lärmzulässigkeitverordnung 486/1972

## D.III. Technical Characteristics and Operational Limitations

| | | |
|---|---|---|
| 1. | Type Design Definition: | Drawing Set and following approved Design Changes (ÄM – System) |
| 2. | Description: | Single engine, two-seated high wing airplane, wooden wing/steel tube fuselage construction, tandem seating configuration, fixed tri gear, air brakes on upper wing surface and pusher propeller |
| 3. | Equipment: | Minimum Equipment:<br>1 airspeed indicator (range up to 200 km/h)<br>1 altimeter with mbar barometric dial<br>1 magnetic compass with deviation table<br>1 RPM indicator<br>1 running time meter<br>1 oil pressure gauge<br>1 oil temperature gauge<br>1 Voltmeter<br>1 fuel pressure indicator<br>1 fuel quantity gauge<br>1 stall warning indicator<br>1 at least 4-point harness for each seat<br>1 Masterwitch<br>1 Currentprotection (circuit protection)<br>1 Generator and 1 Battery |
| 7. | Dimensions: | |
| | Span | *16,24 m* |
| | Length | *8,48 m* |
| | Height | *2,60 m* |
| | Wing Area | *19,00 m²* |
| 5. | Engines: | VW-W 1600 G<br>Engine Type Certificate Data Sheet: BAZ 2/77 |
| | 5.1 Engine Limits: | Max take-off rotational speed 4000 r.p.m.<br>Max continuous rotational speed 3600 r.p.m<br><br>For power-plants limits refer to Flight Manual, |
| 6. | (Reserved) | |
| 7. | Propellers: | 1 Hoffmann HO 14 *175 117<br>Propeller Type Certificate Data Sheet: LBA 32.110/1 |
| | 7.4 Settings | Low pitch setting/ Static RPM: 3400+/- 200 |
| 17. | Fluids: | |
| | 8.1 Fuel: | AVGAS 100 LL or<br>Automotive Gasoline,<br>Leaded/unleaded min ROZ 98<br>(see Note 1) |

| | |
|---|---|
| 8.2 Oil: | quality automotive oils Castrol GTX2 or all HD SAE 15W40 (see Flight Manual) |
| 18. Fluid capacities: | |
| 9.1 Fuel: Standard Fuel Tank | Total: 54 liters<br>Usable: 53 liters |
| 9.2 Oil: | Maximum: 2,5 liters<br>Minimum: 1,5 liters |
| 19. Air Speeds: | |
| Design Manoeuvring Speed $v_A$: | 160 km/h |
| Maximum rough air speed Vra): | 160 km/h. |
| Never exceed speed $v_{NE}$: | 175 km/h |
| 11. Maximum Operating Altitude: | --- |
| 12. Allweather Capability: | Day-VFR |
| 16. Maximum Masses: | |
| Take-off | 661 kg |
| Maximum mass of non lifting parts | 467 kg |
| 17. Centre of Gravity Range: | |
| Forward limit | 2,410 m behind Datum |
| Rear limit: | 2,520 m behind Datum |
| 15. Datum: | 2,00 m in front of wing leading edge at root rib 2 |
| 22. (reserved) | |
| 23. Levelling Means: | top of fuselage aft of propeller horizontal |
| 18. Minimum Flight Crew: | 1 (Pilot) |
| 19. Maximum Passenger Seating Capacity: | 2 |
| 20. (Reserved) | |
| 24. Baggage / Cargo Compartments | |
| Behind Seats | 10 kg |
| 22. Wheels and Tyres | |
| Main/Tail Wheel Tyre Size | For approved Types and rating see AMM |

## D.IV. Operating and Service Instructions

| | |
|---|---|
| Airplane Flight Manual (AFM) | Airplane Flight Manual HB 21, Issue 16.Aug 1978, BAZ approved (German Version) |

| | |
|---|---|
| Airplane Maintenance Manual (AMM)<br>(incl. Airworthiness Limitations) | Maintenance Manual HB21, Issue 16.Aug 1978,<br>(German Version)<br><br>Engine Manual – VW-W 1600 G,<br><br>Hoffmann, Operation and Maintenance Manual for the HOCO propeller, latest Issue or |

Service Informations and Service Bulletins

All Master Manuals are issued in German Language only

## D.V. Notes

1) Use of unleaded automotive fuel SUPER PLUS 98 ÖNorm C1100, min. ROZ 98, is permitted.

2) Initial Certification carried out by the Austrian Aviation Authority – Bundesamt für Zivilluftfahrt renamed to Austro Control

3) The certification applies to SNo. 21.001

## SECTION 5 HB 21 V2

### E.I. General

Data Sheet No.: A.434 Issue: 01 Date: 25-Jan-2010

| | | |
|---|---|---|
| 1. | a) Type:<br>b) Variant: | HB 21<br>HB 21 V2 |
| 2. | Airworthiness Category: | Utility |
| 3. | Type Certificate Holder: | HB-Flugtechnik GmbH<br>Dr. Adolf Schärfstraße 42<br>A-4053 Haid<br>Austria<br>www.hb-flugtechnik.at |
| 4. | Manufacturer: | H.W. Brditschka OHG<br>Flugzeugbau<br>A-4053 Haid<br>Austria |
| 5. | Certification Application Date: | --- |
| 18. | BAZ/ACG Certification Date : | 10.Apr.1978 see Note 2 |
| 19. | The EASA Type Certificate replaces the Austrian Type Certificate SF 3/78 | |
| 20. | EASA Certification Date: | --- |

### E.II. Certification Basis

| | | |
|---|---|---|
| 1. | Reference Date for determining the applicable requirements: | --- |
| 2. | (Reserved) | |
| 3. | (Reserved) | |
| 4. | Certification Basis: | LFSM issued 1.November 1975 |
| 5. | Airworthiness Requirements: | LFSM issued 1.November 1975 |
| 6. | Requirements elected to comply: | None |
| 7. | Special Conditions: | None |
| 8. | Exemptions: | None |
| 9. | Equivalent Safety Findings: | None |
| 10. | Environmental Standards: | Zivilluftfahrzeug-Lärmzulässigkeitverordnung 486/1972 |

## E.III. Technical Characteristics and Operational Limitations

| | | |
|---|---|---|
| 1. | Type Design Definition: | Drawing Set and following approved Design Changes (ÄM – System) |
| 2. | Description: | Single engine, two-seated high wing airplane, wooden wing/steel tube fuselage construction, tandem seating configuration, fixed tri gear, air brakes on upper wing surface and pusher propeller |
| 3. | Equipment: | Minimum Equipment:<br>1 airspeed indicator (range up to 250 km/h)<br>1 altimeter with mbar barometric dial<br>1 magnetic compass with deviation table<br>1 RPM indicator<br>1 running time meter<br>1 oil pressure gauge<br>1 oil temperature gauge<br>1 Voltmeter<br>1 fuel pressure indicator<br>1 fuel quantity gauge<br>1 stall warning indicator<br>1 at least 4-point harness for each seat<br>1 Masterwitch<br>1 Currentprotection (circuit protection)<br>1 Generator and 1 Battery |
| 8. | Dimensions: | |
| | Span | *16,24 m* |
| | Length | *8,48 m* |
| | Height | *2,60 m* |
| | Wing Area | *19,00 m²* |
| 5. | Engines: | VW-W 1600 G<br>Engine Type Certificate Data Sheet: BAZ 2/77 |
| | 5.1 Engine Limits: | Max take-off rotational speed 4000 r.p.m.<br>Max continuous rotational speed 3600 r.p.m<br><br>For power-plants limits refer to Flight Manual, |
| 6. | (Reserved) | |
| 7. | Propellers: | 1 Hoffmann HO 14 *175 117<br>Propeller Type Certificate Data Sheet: LBA 32.110/1 |
| | Settings | Low pitch setting/ Static RPM: 3400+/- 200 |
| 20. | Fluids: | |
| | 8.1 Fuel: | AVGAS 100 LL or<br>Automotive Gasoline,<br>Leaded/unleaded min ROZ 98<br>(see Note 1) |
| | 8.2 Oil: | quality automotive oils Castrol GTX2 or<br>all HD SAE 15W40 (see Flight Manual) |

21. Fluid capacities:

| | | | |
|---|---|---|---|
| 9.1 Fuel: | Standard Fuel Tank | Total: | 54 liters |
| | | Usable: | 53 liters |
| 9.2 Oil: | | Maximum: | 2,5 liters |
| | | Minimum: | 1,5 liters |

22. Air Speeds:

| | |
|---|---|
| Design Manoeuvring Speed $v_A$: | 166 km/h |
| Maximum rough air speed Vra): | 166 km/h. |
| Never exceed speed $v_{NE}$: | 200 km/h |

| | |
|---|---|
| 11. Maximum Operating Altitude: | --- |
| 12. Allweather Capability: | Day-VFR |

17. Maximum Masses:

| | |
|---|---|
| Take-off | 661 kg |
| Maximum mass of non lifting parts | 467 kg |

18. Centre of Gravity Range:

| | |
|---|---|
| Forward limit | 2,410 m behind Datum |
| Rear limit: | 2,520 m behind Datum |

| | |
|---|---|
| 15. Datum: | 2,00 m in front of wing leading edge at root rib 2 |
| 24. (reserved) | |
| 25. Levelling Means: | top of fuselage aft of propeller horizontal |
| 18. Minimum Flight Crew: | 1 (Pilot) |
| 19. Maximum Passenger Seating Capacity: | 2 |
| 20. (Reserved) | |

25. Baggage / Cargo Compartments

| | |
|---|---|
| Behind Seats | 10 kg |

22. Wheels and Tyres

| | |
|---|---|
| Main/Tail Wheel Tyre Size | For approved Types and rating see AMM |

## E.IV. Operating and Service Instructions

| | |
|---|---|
| Airplane Flight Manual (AFM) | Airplane Flight Manual HB 21, Issue 10.April 1978, BAZ approved (German Version) |
| Airplane Maintenance Manual (AMM) (incl. Airworthiness Limitations) | Maintenance Manual HB21, Issue 10.April 1978, (German Version) |

Engine Manual – VW-W 1600 G,

Hoffmann, Operation and Maintenance Manual for the HOCO propeller, latest Issue or

Service Informations and Service Bulletins

All Master Manuals are issued in German Language only

## E.V. Notes

4) Use of unleaded automotive fuel SUPER PLUS 98 ÖNorm C1100, min. ROZ 98, is permitted.

5) Initial Certification carried out by the Austrian Aviation Authority – Bundesamt für Zivilluftfahrt renamed to Austro Control

6) The certification applies to SNo. 21.002 up to 21.007 including

## Change Record

| Issue | Date | Changes |
|---|---|---|
| Issue 1 | 25.Jan 2010 | Transfer from ACG TCDS SF 2/78 issue 5, SF 4/78 issue 1 and SF 3/78 issue 1 to the EASA Type Design |