

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

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Change Record

SECTION 1 HB 21

A.I. General

- | | | |
|---|--|-------------------|
| Data Sheet No.: A.434 | Issue: 01 | Date: 25.Jan.2010 |
| 1. a) Type: | HB 21 | |
| b) Variant: | --- | |
| 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: | --- | |
| 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 Clowdflyths
 - 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 Automotive Gasoline, Leaded/unleaded min ROZ 98 (see Note 2)	
8.2 Oil:	quality automotive oils Castrol GTX2 or all HD SAE 15W40 (see Flight Manual)	
9. 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	
10. Air Speeds:		
Design Manoeuvring Speed v_A :		173 km/h
Maximum rough air speed V_{ra} :		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) Cloud 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: | HB 21 | |
| b) Variant: | HB 21/2400 | |
| 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: | --- | |
| 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 Clowdfights
 - 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 Automotive Gasoline, Leaded/unleaded min ROZ 98 (see Note 4)	
8.2 Oil:	quality automotive oils (see Flight Manual)	
12. Fluid capacities:		
9.1 Fuel: Standard Fuel Tank	Total: 54 liters Usable: 53 liters	
9.2 Oil:	Maximum: 4,0 liters Minimum: 3,0 liters	
13. Air Speeds:		
Design Manoeuvring Speed v_A :		173 km/h
Maximum rough air speed V_{ra} :		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 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

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|--|--|-------------------|
| 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

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|--|--|
| 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 Clowdflyths
 - 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 Automotive Gasoline, Leaded/unleaded min ROZ 98 (see Note 2)	
8.2 Oil:	quality automotive oils (see Flight Manual)	
15. Fluid capacities:		
9.1 Fuel: Standard Fuel Tank	Total: 54 liters Usable: 53 liters	
9.2 Oil:	Maximum: 4,0 liters Minimum: 3,0 liters	
16. Air Speeds:		
Design Manoeuvring Speed v_A :		173 km/h
Maximum rough air speed V_{ra} :		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 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

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|--|--|-------------------|
| 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

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|--|--|
| 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

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|---------------------------------|---|-------------------------------|-------------|---------------------------------|------------|
| 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: | <p>Minimum Equipment:</p> <ul style="list-style-type: none">1 airspeed indicator (range up to 200 km/h)1 altimeter with mbar barometric dial1 magnetic compass with deviation table1 RPM indicator1 running time meter1 oil pressure gauge1 oil temperature gauge1 Voltmeter1 fuel pressure indicator1 fuel quantity gauge1 stall warning indicator1 at least 4-point harness for each seat1 Masterwitch1 Currentprotection (circuit protection)1 Generator and 1 Battery | | | | |
| 7. Dimensions: | | | | | |
| Span | 16,24 m | | | | |
| Length | 8,48 m | | | | |
| Height | 2,60 m | | | | |
| Wing Area | 19,00 m ² | | | | |
| 5. Engines: | <p>VW-W 1600 G</p> <p>Engine Type Certificate Data Sheet: BAZ 2/77</p> | | | | |
| 5.1 Engine Limits: | <table border="0"><tr><td>Max take-off rotational speed</td><td>4000 r.p.m.</td></tr><tr><td>Max continuous rotational speed</td><td>3600 r.p.m</td></tr></table> <p>For power-plants limits refer to Flight Manual,</p> | Max take-off rotational speed | 4000 r.p.m. | Max continuous rotational speed | 3600 r.p.m |
| Max take-off rotational speed | 4000 r.p.m. | | | | |
| Max continuous rotational speed | 3600 r.p.m | | | | |
| 6. (Reserved) | | | | | |
| 7. Propellers: | <p>1 Hoffmann HO 14 *175 117</p> <p>Propeller Type Certificate Data Sheet: LBA 32.110/1</p> | | | | |
| 7.4 Settings | <p>Low pitch setting/ Static RPM: 3400+/- 200</p> | | | | |
| 17. Fluids: | | | | | |
| 8.1 Fuel: | <p>AVGAS 100 LL or</p> <p>Automotive Gasoline,</p> <p>Leaded/unleaded min ROZ 98</p> <p>(see Note 1)</p> | | | | |

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 Usable: 53 liters
9.2 Oil:	Maximum: 2,5 liters Minimum: 1,5 liters
19. Air Speeds:	
Design Manoeuvring Speed v_A :	160 km/h
Maximum rough air speed V_{ra} :	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)
(incl. Airworthiness Limitations)

Maintenance Manual HB21, Issue 16.Aug 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

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: | HB 21 | |
| b) Variant: | HB 21 V2 | |
| 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: | --- | |
| 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: | <p>Minimum Equipment:</p> <ul style="list-style-type: none"> 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 | | | | |
| 8. Dimensions: | | | | | |
| Span | 16,24 m | | | | |
| Length | 8,48 m | | | | |
| Height | 2,60 m | | | | |
| Wing Area | 19,00 m ² | | | | |
| 5. Engines: | <p>VW-W 1600 G</p> <p>Engine Type Certificate Data Sheet: BAZ 2/77</p> | | | | |
| 5.1 Engine Limits: | <table border="0"> <tr> <td>Max take-off rotational speed</td> <td>4000 r.p.m.</td> </tr> <tr> <td>Max continuous rotational speed</td> <td>3600 r.p.m</td> </tr> </table> <p>For power-plants limits refer to Flight Manual,</p> | Max take-off rotational speed | 4000 r.p.m. | Max continuous rotational speed | 3600 r.p.m |
| Max take-off rotational speed | 4000 r.p.m. | | | | |
| Max continuous rotational speed | 3600 r.p.m | | | | |
| 6. (Reserved) | | | | | |
| 7. Propellers: | <p>1 Hoffmann HO 14 *175 117</p> <p>Propeller Type Certificate Data Sheet: LBA 32.110/1</p> | | | | |
| Settings | Low pitch setting/ Static RPM: 3400+/- 200 | | | | |
| 20. Fluids: | | | | | |
| 8.1 Fuel: | <p>AVGAS 100 LL or</p> <p>Automotive Gasoline,</p> <p>Leaded/unleaded min ROZ 98</p> <p>(see Note 1)</p> | | | | |
| 8.2 Oil: | <p>quality automotive oils Castrol GTX2 or</p> <p>all HD SAE 15W40 (see Flight Manual)</p> | | | | |

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 V_{ra} :		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