



European Aviation Safety Agency

EASA

**TYPE-CERTIFICATE
DATA SHEET**

**EASA.A.591
AS202 - Series**

Type Certificate Holder

Gomolzig Flugzeug- und Maschinenbau GmbH

Eisenwerkstrasse 9
58332 Schwelm
Germany

For models: **AS202/15, AS202/15-1**
AS202/18A, AS202/18A1, AS202/18A2, AS202/18A3, AS202/18A4

Issue 01: 03-Apr-2012
Issue 02: 08 May 2015

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SECTION A: AS202/15

A.I. General

1. a) Type: AS202
b) Model: AS202/15
c) Marketing Designation: Bravo

2. Airworthiness Category: Normal, Utility and Aerobatic Category

- 3.a) Type Certificate Holder: GOMOLZIG FLUGZEUG- UND
MASCHINENBAU GMBH
Eisenwerkstrasse 9
D-58332 Schwelm

- 3.b) Contracted DOA Holder: -

4. Manufacturer: From: 15 August 1972 to 1980:

FLUG- UND FAHRZEUGWERKE AG
ALTENRHEIN (FFA)
Flugplatz
CH-9423 Altenrhein

5. Certification Application Date: Not applicable

6. National Certifying Authority: Swiss Federal Office of Civil Aviation

7. National Authority Type Certificate Date: 15 August 1972

A.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: Not applicable

2. Airworthiness Requirements: Order 748.215.1 of 14 April 1970 regarding aircraft airworthiness

14 CFR FAR Part 23 of 1 February 1965 including
amendments 23-1 through 23-11, effective
11 August 1971

- 3. Special Conditions: None
- 4. Exemptions: None
- 5. Deviations: None
- 6. Equivalent Safety Findings: None
- 7. Requirements elected to comply: None
- 8. Environmental Standards: ICAO Annex 16
- 9. (Reserved)
- 10. (Reserved)

A.III. Technical Characteristics and Operational Limitations

- 1. Type Design Definition: Doc. No. 202-10.001
- 2. Description: Single-engine, metallic construction, three seater, low-wing aeroplane, conventional tail, fixed tricycle landing gear
- 3. Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.
- 4. Dimensions:

Wing Span	9,78 m
Total Length	7,50 m
Maximum Height	2,81 m
Wing Area	13,86 m ²
- 5. Engine:
 - 5.1.1 Model: Lycoming O-320-E2A
 - 5.1.2 Type Certificate: Federal Aviation Administration (FAA) Type Certificate

Data Sheet (TCDS) E-274

5.1.3 Limitations: For all operations: 2700 PRM (150 HP)

6. Load factors:

	Normal	Utility	Aerobatic
Flaps up positive	+ 3,8 g	+ 4,4 g	+ 6,0 g
Flaps up negative	- 1,9 g	- 2,2 g	- 3,0 g
Flaps down	+ 2,0 g	+ 2,0 g	+ 2.0 g

7. Propeller:

- 7.1 Model: McCauley 1C172/MGM 7458
 7.2 Type Certificate: FAA TCDS P-910
 7.3 Number of blades: 2
 7.4 Diameter: Not over 74 inch, not under 72.5 inch
 7.5 Sense of Rotation: Clockwise

8. Fluids:

- 8.1 Fuel: 80/87 minimum grade aviation gasoline
 8.2 Oil: MIL-L-60828 normal oils or
 MIL-L-22851 multi-grade oils
 8.3 Coolant: Not applicable

9. Fluid capacities:

- 9.1 Fuel: Total capacity 140 litres
 Total usable capacity 130 litres
 Two 70 litres in wings at (+832)
 9.2 Oil: Max. 7,6 litres at (-590)
 Min. 4.7 litres
 9.3 Coolant system capacity: Not applicable

10. Air Speeds:

- VNE (Never Exceed speed) 200 mph
 VNO (Maximum structural cruising speed) 150 mph
 VA (Manoeuvring speed) 150 mph
 VFE (Maximum Flap Extended) 110 mph

11. Maximum Operating Altitude: 14'000 feet
12. All-weather Operations Capability: - Flights under Visual Flight Rules
- Aerobatic Flying
13. Masses
- 13.1 Maximum Take-off Mass (MTOM) Normal and Utility Category: 999 kg
Aerobatic Category: 885 kg
- 13.2 Maximum Landing Mass (MLM) Normal and Utility Category: 999 kg
Aerobatic Category: 885 kg
14. Centre of Gravity Range:
- Normal and Utility Category:
999 kg (+895) to (+980)
885 kg (+810) to (+980)
700 kg (+800) to (+980)
- Aerobatic Category:
885 kg (+810) to (+895)
700 kg (+800) to (+895)
15. Datum: Front face of firewall
16. Control surface deflections:
- | | | | |
|--------------|-------|-----|------|
| Wing flaps | Up | 0° | ± 1° |
| | Down | 41° | ± 1° |
| Ailerons | Up | 22° | ± 1° |
| | Down | 15° | ± 1° |
| Elevator | Up | 30° | ± 1° |
| | Down | 20° | ± 1° |
| Elevator tab | Up | 22° | ± 1° |
| | Down | 26° | ± 1° |
| Rudder | Left | 28° | ± 1° |
| | Right | 28° | ± 1° |
17. Levelling Means: Upper edge cabin frame, 5,63 inch above fuselage reference line
18. Minimum Flight Crew: 1 (Pilot) (+900) to (+1100)
19. Maximum Passenger Seating Capacity: 2 seats
1 (+900) to (+1100)

1 (+1840)

20. Baggage/Cargo Compartments: 100 kg at (+1840)
Above 50 kg consult AFM for loading instructions

21. Wheels and Tyres: Nose Gear SK-1020.19.200
Main Gear L SA-19.010-01
Main Gear R SA-19.010-02

22. Serial Numbers Eligible: S/N 001 to S/N 014
S/N 016 to S/N 022
S/N 034

A.IV. Operating and Service Instructions

1. Airplane Flight Manual:
Airplane Flight Manual AS202/15 BRAVO (FFA Report FV-827) dated December 1971, approved 14 April 1972 for serial numbers 001 and up.

2. Technical Manual:
AS202 BRAVO Airplane Maintenance Manual and Illustrated Parts Catalogue according ATA Specification No. 100 for serial numbers 1 to 223.

A.V. Notes

For notes see **Section H, Notes**

SECTION B: AS202/15-1

B.I. General

1. a) Type: AS202
b) Model: AS202/15-1
c) Marketing Designation: Bravo

2. Airworthiness Category: Normal, Utility and Aerobatic Category

- 3.a) Type Certificate Holder: GOMOLZIG FLUGZEUG- UND
MASCHINENBAU GMBH
Eisenwerkstrasse 9
D-58332 Schwelm

- 3.b) Contracted DOA Holder: -

4. Manufacturer: From: 15 September 1978 to 1980

FLUG- UND FAHRZEUGWERKE AG
ALTENRHEIN (FFA)
Flugplatz
CH-9423 Altenrhein

5. Certification Application Date: Not applicable

6. National Certifying Authority: Swiss Federal Office of Civil Aviation

7. National Authority Type Certificate Date: 15 September 1978

B.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: Not applicable

2. Airworthiness Requirements: Order 748.215.1 of 14 April 1970 regarding aircraft airworthiness

14 CFR FAR Part 23 of 1 February 1965 including
amendments 23-1 through 23-11, effective
11 August 1971

- 3. Special Conditions: None
- 4. Exemptions: None
- 5. Deviations: None
- 6. Equivalent Safety Findings: None
- 7. Requirements elected to comply: None
- 8. Environmental Standards: ICAO Annex 16
- 9. (Reserved)
- 10. (Reserved)

B.III. Technical Characteristics and Operational Limitations

- 1. Type Design Definition: Doc. No. 202-10.201
- 2. Description: Single-engine, metallic construction, three seater, low-wing aeroplane, conventional tail, fixed tricycle landing gear
- 3. Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.
- 4. Dimensions:
 - Wing Span 9,78 m
 - Total Length 7,50 m
 - Maximum Height 2,81 m

Wing Area 13,86 m²

5. Engine:

- 5.1.1 Model: Lycoming O-320-E2A
5.1.2 Type Certificate: FAA TCDS E-274
5.1.3 Limitations: For all operations: 2700 PRM (150 HP)

6. Load factors:

	Normal	Utility	Aerobatic
Flaps up positive	+ 3,8 g	+ 4,4 g	+ 6,0 g
Flaps up negative	- 1,9 g	- 2,2 g	- 3,0 g
Flaps down	+ 2,0 g	+ 2,0 g	+ 2,0 g

7. Propeller:

- 7.1 Model: McCauley 1C172/MGM 7458
7.2 Type Certificate: FAA TCDS P-910
7.3 Number of blades: 2
7.4 Diameter: Not over 74 inch, not under 72.5 inch
7.5 Sense of Rotation: Clockwise

8. Fluids:

- 8.1 Fuel: 80/87 minimum grade aviation gasoline
8.2 Oil: MIL-L-60828 normal oils or
MIL-L-22851 multi-grade oils
8.3 Coolant: Not applicable

9. Fluid capacities:

- 9.1 Fuel: Total capacity 174 litres
Total usable capacity 160 litres
Two 87 litres in wings at (+837)
9.2 Oil: Max. 7,6 litres at (-590)
Min. 4,7 litres
9.3 Coolant system capacity: Not applicable

10. Air Speeds: VNE (Never Exceed speed) 200 mph
VNO (Maximum structural cruising speed) 150 mph
VA (Manoeuvring speed) 150 mph
VFE (Maximum Flap Extended) 110 mph

11. Maximum Operating Altitude: 14'000 feet

12. All-weather Operations Capability: - Flights under Visual Flight Rules
- Aerobatic Flying

13. Masses

13.1 Maximum Take-off Mass (MTOM) Normal and Utility Category: 999 kg
Aerobatic Category: 885 kg

13.2 Maximum Landing Mass (MLM) Normal and Utility Category: 999 kg
Aerobatic Category: 885 kg

14. Centre of Gravity Range: Normal and Utility Category:
999 kg (+895) to (+980)
885 kg (+810) to (+980)
700 kg (+800) to (+980)

Aerobatic Category:
885 kg (+810) to (+895)
700 kg (+800) to (+895)

15. Datum: Front face of firewall

16. Control surface deflections:

Wing flaps	Up	0°	± 1°
	Down	40°	± 1°
Ailerons	Up	22°	± 1°
	Down	16°	± 1°
Elevator	Up	30°	± 1°
	Down	20°	± 1°
Elevator tab	Up	22°	± 1°
	Down	26°	± 1°
Rudder	Left	28°	± 1°
	Right	28°	± 1°

17. Levelling Means: Upper edge cabin frame, 5,63 inch above fuselage reference line
18. Minimum Flight Crew: 1 (Pilot) (+900) to (+1100)
19. Maximum Passenger Seating Capacity: 2 seats
1 (+900) to (+1100)
1 (+1840)
20. Baggage/Cargo Compartments: 100 kg at (+1840)
Above 50 kg consult AFM for loading instructions
21. Wheels and Tyres: Nose Gear 202-19.200
Main Gear L 202-19.633
Main Gear R 202-19.634
22. Serial Numbers Eligible: S/N 107 to S/N 109
S/N 112
S/N 123 to S/N 124
S/N 126 to S/N 127
S/N 129 to S/N 130

B.IV. Operating and Service Instructions

1. Airplane Flight Manual:
Airplane Flight Manual AS202/15-1 BRAVO (FFA Report FV-871) dated September 1977, approved 30 January 1978 for serial numbers 107 and up.

2. Technical Manual:
AS202 BRAVO Airplane Maintenance Manual and Illustrated Parts Catalogue according ATA Specification No. 100 for serial numbers 1 to 223.

B.V. Notes

For notes see **Section H, Notes**

SECTION C: AS202/18A

C.I. General

1. a) Type: AS202
b) Model: AS202/18A
c) Marketing Designation: Bravo

2. Airworthiness Category: Normal, Utility and Aerobatic Category

- 3.a) Type Certificate Holder: GOMOLZIG FLUGZEUG- UND
MASCHINENBAU GMBH
Eisenwerkstrasse 9
D-58332 Schwelm

- 3.b) Contracted DOA Holder: -

4. Manufacturer: From: 11 December 1975 to 1980

FLUG- UND FAHRZEUGWERKE AG
ALTENRHEIN (FFA)
Flugplatz
CH-9423 Altenrhein

5. Certification Application Date: Not applicable

6. National Certifying Authority: Swiss Federal Office of Civil Aviation

7. National Authority Type Certificate Date: 11 December 1975

C.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: Not applicable

2. Airworthiness Requirements: Order 748.215.1 of 14 April 1970 regarding aircraft airworthiness

14 CFR FAR Part 23 of 1 February 1965 including
amendments 23-1 through 23-14, effective
20 December 1973

- 3. Special Conditions: None
- 4. Exemptions: None
- 5. Deviations: None
- 6. Equivalent Safety Findings: None
- 7. Requirements elected to comply: None
- 8. Environmental Standards: ICAO Annex 16
- 9. (Reserved)
- 10. (Reserved)

C.III. Technical Characteristics and Operational Limitations

- 1. Type Design Definition: Doc. No. 202-10.601
- 2. Description: Single-engine, metallic construction, three seater, low-wing aeroplane, conventional tail, fixed tricycle landing gear
- 3. Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.
- 4. Dimensions:

Wing Span	9,78 m
Total Length	7,50 m
Maximum Height	2,81 m

Wing Area 13,86 m²

5. Engine:

- 5.1.1 Model: Lycoming AEIO-360-B1F
 5.1.2 Type Certificate: FAA TCDS 1E10
 5.1.3 Limitations: For all operations: 2700 PRM (180 HP)

6. Load factors:

	Normal	Utility	Aerobatic
Flaps up positive	+ 3,8 g	+ 4,4 g	+ 6,0 g
Flaps up negative	- 1,9 g	- 2,2 g	- 3,0 g
Flaps down	+ 2,0 g	+ 2,0 g	+ 2,0 g

7. Propeller:

- 7.1 Model: Hartzell HC-C2YK-1BF
 7.2 Type Certificate: FAA TCDS P-920 / EASA TCDS EASA.IM.P.130
 7.3 Number of blades: 2
 7.4 Diameter: Not over 74 inch, not under 72 inch
 7.5 Sense of Rotation: Clockwise

8. Fluids:

- 8.1 Fuel: 91/96 minimum grade aviation gasoline
 8.2 Oil: MIL-L-60828 normal oils or
 MIL-L-22851 multi-grade oils
 8.3 Coolant: Not applicable

9. Fluid capacities:

- 9.1 Fuel: Total capacity 140 litres
 Total usable capacity 130 litres
 Two 70 litres in wings at (+832)
 9.2 Oil: Max. 7,6 litres at (-590)
 Min. 4,7 litres
 9.3 Coolant system capacity: Not applicable

10. Air Speeds: VNE (Never Exceed speed) 200 mph
VNO (Maximum structural cruising speed) 150 mph
VA (Manoeuvring speed) 150 mph
VFE (Maximum Flap Extended) 110 mph

11. Maximum Operating Altitude: 18'000 feet

12. All-weather Operations Capability: - Flights under Visual Flight Rules
- Aerobatic Flying

13. Masses

13.1 Maximum Take-off Mass (MTOM) Normal and Utility Category: 1050 kg
Aerobatic Category: 950 kg

13.2 Maximum Landing Mass (MLM) Normal and Utility Category: 1050 kg
Aerobatic Category: 950 kg

14. Centre of Gravity Range: Normal and Utility Category:
1050 kg (+852) to (+936)
950 kg (+768) to (+936)
700 kg (+740) to (+936)

Aerobatic Category:
950 kg (+768) to (+852)
700 kg (+740) to (+852)

15. Datum: Front face of firewall

16. Control surface deflections:

Wing flaps	Up	0°	± 1°
	Down	41°	± 1°
Ailerons	Up	22°	± 1°
	Down	15°	± 1°
Elevator	Up	30°	± 1°
	Down	30°	± 1°
Elevator tab	Up	22°	± 1°
	Down	26°	± 1°
Rudder	Left	28°	± 1°
	Right	28°	± 1°

Rudder tab			$\pm 2^\circ$
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17. Levelling Means: Upper face of top fuselage longerons along the sliding canopy rails
18. Minimum Flight Crew: 1 (Pilot) (+900) to (+1100)
19. Maximum Passenger Seating Capacity: 2 seats
1 (+900) to (+1100)
1 (+1840)
20. Baggage/Cargo Compartments: 100 kg at (+1840)
Above 50 kg consult AFM for loading instructions
21. Wheels and Tyres: Nose Gear 202-19.200
Main Gear L 202-19.633
Main Gear R 202-19.634
22. Serial Numbers Eligible: S/N 023 to S/N 026
S/N 029 to S/N 030

C.IV. Operating and Service Instructions

1. Airplane Flight Manual:
Airplane Flight Manual AS202/18A BRAVO (FFA Report FV-865) dated December 1975, approved 11 December 1975 for serial numbers 026 and up.

2. Technical Manual:
AS202 BRAVO Airplane Maintenance Manual and Illustrated Parts Catalogue according ATA Specification No. 100 for serial numbers 1 to 223.

C.V. Notes

For notes see **Section H, Notes**

SECTION D: AS202/18A1

D.I. General

1. a) Type: AS202
b) Model: AS202/18A1
c) Marketing Designation: Bravo

2. Airworthiness Category: Normal, Utility and Aerobatic Category

- 3.a) Type Certificate Holder: GOMOLZIG FLUGZEUG- UND
MASCHINENBAU GMBH
Eisenwerkstrasse 9
D-58332 Schwelm

- 3.b) Contracted DOA Holder: -

4. Manufacturer: From: 10 January 1978 to 1980

FLUG- UND FAHRZEUGWERKE AG
ALTENRHEIN (FFA)
Flugplatz
CH-9423 Altenrhein

5. Certification Application Date: Not applicable

6. National Certifying Authority: Swiss Federal Office of Civil Aviation

7. National Authority Type Certificate Date: 10 January 1978

D.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: Not applicable

2. Airworthiness Requirements: Order 748.215.1 of 14 April 1970 regarding aircraft airworthiness

14 CFR FAR Part 23 of 1 February 1965 including
amendments 23-1 through 23-14, effective
20 December 1973

- 3 Special Conditions: None
- 4. Exemptions: None
- 5. Deviations: None
- 6. Equivalent Safety Findings: None
- 7. Requirements elected to comply: None
- 8. Environmental Standards: ICAO Annex 16
- 9. (Reserved)
- 10. (Reserved)

D.III. Technical Characteristics and Operational Limitations

- 1. Type Design Definition: Doc. No. 202-10.701
- 2. Description: Single-engine, metallic construction, three seater, low-wing aeroplane, conventional tail, fixed tricycle landing gear
- 3. Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.
- 4. Dimensions:
 - Wing Span 9,78 m
 - Total Length 7,50 m
 - Maximum Height 2,81 m

Wing Area 13,86 m²

5. Engine:

- 5.1.1 Model: Lycoming AEIO-360-B1F
 5.1.2 Type Certificate: FAA TCDS 1E10
 5.1.3 Limitations: For all operations: 2700 PRM (150 HP)

6. Load factors:

	Normal	Utility	Aerobatic
Flaps up positive	+ 3,8 g	+ 4,4 g	+ 6,0 g
Flaps up negative	- 1,9 g	- 2,2 g	- 3,0 g
Flaps down	+ 2,0 g	+ 2,0 g	+ 2,0 g

7. Propeller:

- 7.1 Model: Hartzell HC-C2YK-1BF
 7.2 Type Certificate: FAA TCDS P-920 / EASA TCDS EASA.IM.P.130
 7.3 Number of blades: 2
 7.4 Diameter: Not over 74 inch, not under 72 inch
 7.5 Sense of Rotation: Clockwise

8. Fluids:

- 8.1 Fuel: 91/96 minimum grade aviation gasoline
 8.2 Oil: MIL-L-60828 normal oils or
 MIL-L-22851 multi-grade oils
 8.3 Coolant: Not applicable

9. Fluid capacities:

- 9.1 Fuel: Total capacity 174 litres
 Total usable capacity 160 litres
 Two 87 litres in wings at (+837)
 9.2 Oil: Max. 7,6 litres at (-590)
 Min. 4,7 litres
 9.3 Coolant system capacity: Not applicable

10. Air Speeds: VNE (Never Exceed speed) 200 mph
VNO (Maximum structural cruising speed) 150 mph
VA (Manoeuvring speed) 150 mph
VFE (Maximum Flap Extended) 110 mph

11. Maximum Operating Altitude: 18'000 feet

12. All-weather Operations Capability: - Flights under Visual Flight Rules
- Aerobatic Flying

13. Masses

13.1 Maximum Take-off Mass (MTOM) Normal and Utility Category: 1050 kg
Aerobatic Category: 950 kg

13.2 Maximum Landing Mass (MLM) Normal and Utility Category: 1050 kg
Aerobatic Category: 950 kg

14. Centre of Gravity Range: Normal and Utility Category:
1050 kg (+852) to (+936)
950 kg (+768) to (+936)
700 kg (+740) to (+936)

Aerobatic Category:
950 kg (+768) to (+852)
700 kg (+740) to (+852)

15. Datum: Front face of firewall

16. Control surface deflections:

Wing flaps	Up	0°	± 1°
	Down	41°	± 1°
Ailerons	Up	22°	± 1°
	Down	16°	± 1°
Elevator	U	30°	± 1°
	Down	30°	± 1°
Elevator tab	Up	22°	± 1°
	Down	26°	± 1°
Rudder	Left	28	± 1°
	Right	28°	± 1°

Rudder tab			$\pm 2^\circ$
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17. Levelling Means: Upper face of top fuselage longerons along the sliding canopy rails
18. Minimum Flight Crew: 1 (Pilot) (+900) to (+1100)
19. Maximum Passenger Seating Capacity: 2 seats
1 (+900) to (+1100)
1 (+1840)
20. Baggage/Cargo Compartments: 100 kg at (+1840)
Above 50 kg consult AFM for loading instructions
21. Wheels and Tyres: Nose Gear 202-19.200
Main Gear L 202-19.633
Main Gear R 202-19.634
22. Serial Numbers Eligible: S/N 027 to S/N 028
S/N 101 to S/N 106
S/N 110 to S/N 111
S/N 113 to S/N 122
S/N 125
S/N 128
S/N 134 to S/N 135

D.IV. Operating and Service Instructions

1. Airplane Flight Manual:
Airplane Flight Manual AS202/18A1 BRAVO (FFA Reports FV-869 and FV-870) dated 30 June 1977 for serial numbers 101 and up.

2. Technical Manual:
AS202 BRAVO Airplane Maintenance Manual and Illustrated Parts Catalogue according ATA Specification No. 100 for serial numbers 1 to 223.

D.V. Notes

For notes see **Section H, Notes**

SECTION E: AS202/18A2

E.I. General

1. a) Type: AS202
b) Model: AS202/18A2
c) Marketing Designation: Bravo

2. Airworthiness Category: Normal, Utility and Aerobatic Category

- 3.a) Type Certificate Holder: GOMOLZIG FLUGZEUG- UND
MASCHINENBAU GMBH
Eisenwerkstrasse 9
D-58332 Schwelm

- 3.b) Contracted DOA Holder: -

4. Manufacturer: From: 18 June 1979 to 1980

FLUG- UND FAHRZEUGWERKE AG
ALTENRHEIN (FFA)
Flugplatz
CH-9423 Altenrhein

5. Certification Application Date: Not applicable

6. National Certifying Authority: Swiss Federal Office of Civil Aviation

7. National Authority Type Certificate Date: 18 June 1979

E.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: Not applicable

2. Airworthiness Requirements: Order 748.215.1 of 14 April 1970 regarding aircraft airworthiness

14 CFR FAR Part 23 of 1 February 1965 including
amendments 23-1 through 23-14, effective
20 December 1973

- 3. Special Conditions: None
- 4. Exemptions: None
- 5. Deviations: None
- 6. Equivalent Safety Findings: None
- 7. Requirements elected to comply: None
- 8. Environmental Standards: ICAO Annex 16
- 9. (Reserved)
- 10. (Reserved)

E.III. Technical Characteristics and Operational Limitations

- 1. Type Design Definition: Doc. No. 202-10.702
- 2. Description: Single-engine, metallic construction, three seater, low-wing aeroplane, conventional tail, fixed tricycle landing gear
- 3. Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.
- 4. Dimensions:
 - Wing Span 9,78 m
 - Total Length 7,50 m
 - Maximum Height 2,81 m

Wing Area 13,86 m²

5. Engine:

- 5.1.1 Model: Lycoming AEIO-360-B1F
 5.1.2 Type Certificate: FAA TCDS 1E10
 5.1.3 Limitations: For all operations: 2700 PRM (150 HP)

6. Load factors:

	Normal	Utility	Aerobatic
Flaps up positive	+ 3,8 g	+ 4,4 g	+ 6,0 g
Flaps up negative	- 1,9 g	- 2,2 g	- 3,0 g
Flaps down	+ 2,0 g	+ 2,0 g	+ 2,0 g

7. Propeller:

- 7.1 Model: Hartzell HC-C2YK-1BF
 7.2 Type Certificate: FAA TCDS P-920 / EASA TCDS EASA.IM.P.130
 7.3 Number of blades: 2
 7.4 Diameter: Not over 74 inch, not under 72 inch
 7.5 Sense of Rotation: Clockwise

8. Fluids:

- 8.1 Fuel: 91/96 minimum grade aviation gasoline
 8.2 Oil: MIL-L-60828 normal oils or
 MIL-L-22851 multi-grade oils
 8.3 Coolant: Not applicable

9. Fluid capacities:

- 9.1 Fuel: Total capacity 174 litres
 Total usable capacity 160 litres
 Two 87 litres in wings at (+837)
 9.2 Oil: Max. 7,6 litres (-590)
 Min. 4,7 litres
 9.3 Coolant system capacity: Not applicable

10. Air Speeds: VNE (Never Exceed speed) 200 mph
VNO (Maximum structural cruising speed) 150 mph
VA (Manoeuvring speed) 150 mph
VFE (Maximum Flap Extended) 110 mph

11. Maximum Operating Altitude: 18'000 feet

12. All-weather Operations Capability: - Flights under Visual Flight Rules
- Aerobatic Flying

13. Masses

13.1 Maximum Take-off Mass (MTOM) Normal and Utility Category: 1080 kg
Aerobatic Category: 980 kg

13.2 Maximum Landing Mass (MLM) Normal and Utility Category: 1050 kg
Aerobatic Category: 980 kg

14. Centre of Gravity Range: Normal and Utility Category:
1080 kg (+852) to (+936)
980 kg (+771) to (+936)
700 kg (+740) to (+936)

Aerobatic Category:
980 kg (+771) to (+852)
700 kg (+740) to (+852)

15. Datum: Front face of firewall

16. Control surface deflections:

Wing flaps	Up	0°	± 1°
	Down	41°	± 1°
Ailerons	Up	22°	± 1°
	Down	16°	± 1°
Elevator	Up	30°	± 1°
	Down	30°	± 1°
Elevator tab	Up	22°	± 1°
	Down	26°	± 1°
Rudder	Left	28°	± 1°
	Right	28°	± 1°
Rudder tab			± 2°

17. Levelling Means: Upper face of top fuselage longerons along the sliding canopy rails
18. Minimum Flight Crew: 1 (Pilot) (+900) to (+1100)
19. Maximum Passenger Seating Capacity: 2 seats
1 (+900) to (+1100)
1 (+1840)
20. Baggage/Cargo Compartments: 100 kg at (+1840)
Above 50 kg consult AFM for loading instructions
21. Wheels and Tyres: Nose Gear 202-19.200
Main Gear L 202-19.633
Main Gear R 202-19.634
22. Serial Numbers Eligible: S/N 136 to S/N 183

E.IV. Operating and Service Instructions

1. Airplane Flight Manual:
Airplane Flight Manual AS202/18A2 BRAVO (FFA Reports FV-872) dated March 1979, approved 22 May 1979 for serial numbers 136 and up.

2. Technical Manual:
AS202 BRAVO Airplane Maintenance Manual and Illustrated Parts Catalogue according ATA Specification No. 100 for serial numbers 1 to 223.

E.V. Notes

For notes see **Section H, Notes**

SECTION F: AS202/18A3

F.I. General

1. a) Type: AS202
b) Model: AS202/18A3
c) Marketing Designation: Bravo

2. Airworthiness Category: Normal, Utility and Aerobatic Category

- 3.a) Type Certificate Holder: GOMOLZIG FLUGZEUG- UND
MASCHINENBAU GMBH
Eisenwerkstrasse 9
D-58332 Schwelm

- 3.b) Contracted DOA Holder: -

4. Manufacturer: From: 14 May 1981 to 1982:

FLUGZEUGWERKE ALTENRHEIN AG (FWA)
Flugplatz
CH-9423 Altenrhein

From: 1983 to 1986:

FFA FLUG- UND FAHRZEUGWERKE AG
Flugplatz
CH-9423 Altenrhein

5. Certification Application Date: Not applicable

6. National Certifying Authority: Swiss Federal Office of Civil Aviation

7. National Authority Type Certificate Date: 14 May 1981

F.II. EASA Certification Basis

1. Reference Date for: Not applicable

determining the applicable requirements:

2. Airworthiness Requirements: Order 748.215.1 of 14 April 1970 regarding aircraft airworthiness
14 CFR FAR Part 23 of 1 February 1965 including amendments 23-1 through 23-14, effective 20 December 1973
3. Special Conditions: None
4. Exemptions: None
5. Deviations: None
6. Equivalent Safety Findings: None
7. Requirements elected to comply: None
8. Environmental Standards: ICAO Annex 16
9. (Reserved)
10. (Reserved)

F.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Doc. No. 202-10.703
2. Description: Single-engine, metallic construction, three seater, low-wing aeroplane, conventional tail, fixed tricycle landing gear
3. Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.
4. Dimensions:

Wing Span	9,78 m
Total Length	7,50 m
Maximum Height	2,81 m

Wing Area 13,86 m²

5. Engine:

- 5.1.1 Model: Lycoming AEIO-360-B1F
 5.1.2 Type Certificate: FAA TCDS 1E10
 5.1.3 Limitations: For all operations: 2700 PRM (150 HP)

6. Load factors:

	Normal	Utility	Aerobatic
Flaps up positive	+ 3,8 g	+ 4,4 g	+ 6,0 g
Flaps up negative	- 1,9 g	- 2,2 g	- 3,0 g
Flaps down	+ 2,0 g	+ 2,0 g	+ 2,0 g

7. Propeller:

- 7.1 Model: Hartzell HC-C2YK-1BF
 7.2 Type Certificate: FAA TCDS P-920 / EASA TCDS EASA.IM.P.130
 7.3 Number of blades: 2
 7.4 Diameter: Not over 74 inch, not under 72 inch
 7.5 Sense of Rotation: Clockwise

8. Fluids:

- 8.1 Fuel: 91/96 minimum grade aviation gasoline
 8.2 Oil: MIL-L-60828 normal oils or
 MIL-L-22851 multi-grade oils
 8.3 Coolant: Not applicable

9. Fluid capacities:

- 9.1 Fuel: Total capacity 174 litres
 Total usable capacity 160 litres
 Two 87 litres in wings at (+837)
 9.2 Oil: Max. 7,6 litres (-590)
 Min. 4,7 litres
 9.3 Coolant system capacity: Not applicable

10. Air Speeds:

VNE (Never Exceed speed)	200 mph
VNO (Maximum structural cruising speed)	150 mph
VA (Manoeuvring speed)	150 mph
VFE (Maximum Flap Extended)	110 mph

11. Maximum Operating Altitude: 18'000 feet

12. All-weather Operations Capability: - Flights under Visual Flight Rules
- Aerobatic Flying

13. Masses

13.1 Maximum Take-off Mass (MTOM)

Normal and Utility Category:	1080 kg
Aerobatic Category:	980 kg

13.2 Maximum Landing Mass (MLM)

Normal and Utility Category:	1050 kg
Aerobatic Category:	980 kg

14. Centre of Gravity Range:

Normal and Utility Category:	1080 kg (+852) to (+936)
	980 kg (+771) to (+936)
	700 kg (+740) to (+936)

Aerobatic Category:

	980 kg (+771) to (+852)
	700 kg (+740) to (+852)

15. Datum: Front face of firewall

16. Control surface deflections:

Wing flaps	Up	0°	± 1°
	Down	41°	± 1°
Ailerons	Up	22°	± 1°
	Down	16°	± 1°
Elevator	Up	30°	± 1°
	Down	30°	± 1°
Elevato tab	Up	22°	± 1°
	Down	26°	± 1°
Rudder	Left	28°	± 1°

	Right	28°	± 1°
Rudder tab			± 2°

17. Levelling Means: Upper face of top fuselage longerons along the sliding canopy rails
18. Minimum Flight Crew: 1 (Pilot) (+900) to (+1100)
19. Maximum Passenger Seating Capacity: 2 seats
1 (+900) to (+1100)
1 (+1840)
20. Baggage/Cargo Compartments: 100 kg at (+1840)
Above 50 kg consult AFM for loading instructions
21. Wheels and Tyres: Nose Gear 202-19.200
Main Gear L 202-19.633
Main Gear R 202-19.634
22. Serial Numbers Eligible: S/N 184 to S/N 223

F.IV. Operating and Service Instructions

1. Airplane Flight Manual:
Airplane Flight Manual AS202/18A3 BRAVO (FFA Report FV-873) dated December 1980, approved 30 April 1981 for serial numbers 184 and up.
2. Technical Manual:
AS202 BRAVO Airplane Maintenance Manual and Illustrated Parts Catalogue according ATA Specification No. 100 for serial numbers 1 to 223.

F.V. Notes

For notes see **Section H, Notes**

SECTION G: AS202/18A4

G.I. General

1. a) Type: AS202
b) Model: AS202/18A4
c) Marketing Designation: Bravo

2. Airworthiness Category: Normal, Utility and Aerobatic Category

- 3.a) Type Certificate Holder: GOMOLZIG FLUGZEUG- UND
MASCHINENBAU GMBH
Eisenwerkstrasse 9
D-58332 Schwelm

- 3.b) Contracted DOA Holder: -

4. Manufacturer: From: 14 December 1987 to 11 June 2002

FFA FLUGZEUGWERKE ALTENRHEIN AG
Flugplatz
CH-9423 Altenrhein

5. Certification Application Date: Not applicable

6. National Certifying Authority: Swiss Federal Office of Civil Aviation

7. National Authority Type Certificate Date: 14 December 1987

G.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: Not applicable

2. Airworthiness Requirements: Order 748.215.1 of 14 April 1970 regarding aircraft airworthiness
14 CFR FAR Part 23 of 1 February 1965 including

amendments 23-1 through 23-14, effective
20 December 1973

- 3. Special Conditions: None
- 4. Exemptions: None
- 5. Deviations: None
- 6. Equivalent Safety Findings: None
- 7. Requirements elected to comply: None
- 8. Environmental Standards: ICAO Annex 16
- 9. (Reserved)
- 10. (Reserved)

G.III. Technical Characteristics and Operational Limitations

- 1. Type Design Definition: Doc. No. 202-10.705
- 2. Description: Single-engine, metallic construction, three seater, low-wing aeroplane, conventional tail, fixed tricycle landing gear
- 3. Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.
- 4. Dimensions:
 - Wing Span 9,78 m
 - Total Length 7,50 m
 - Maximum Height 2,81 m
 - Wing Area 13,86 m²
- 5. Engine:
 - 5.1.1 Model: Lycoming AEIO-360-B1F
 - 5.1.2 Type Certificate: FAA TCDS 1E10
 - 5.1.3 Limitations: For all operations: 2700 PRM (150 HP)

6. Load factors:

	Normal	Utility	Aerobatic
Flaps up positive	+ 3,8 g	+ 4,4 g	+ 6,0 g
Flaps up negative	- 1,9 g	- 2,2 g	- 3,0 g
Flaps down	+ 2,0 g	+ 2,0 g	+ 2.0 g

7. Propeller:

- 7.1 Model: Hartzell HC-C2YK-1BF
 7.2 Type Certificate: FAA TCDS P-920 / EASA TCDS EASA.IM.P.130
 7.3 Number of blades: 2
 7.4 Diameter: Not over 74 inch, not under 72 inch
 7.5 Sense of Rotation: Clockwise

8. Fluids:

- 8.1 Fuel: 91/96 minimum grade aviation gasoline
 8.2 Oil: MIL-L-60828 normal oils or MIL-L-22851 multi-grade oils
 8.3 Coolant: Not applicable

9. Fluid capacities:

- 9.1 Fuel: Total capacity 174 litres
 Total usable capacity 160 litres
 Two 87 litres in wings at (+837)
 9.2 Oil: Max. 7,6 litres (-590)
 Min. 4,7 litres
 9.3 Coolant system capacity: Not applicable

10. Air Speeds:

- VNE (Never Exceed speed) 200 mph
 VNO (Maximum structural cruising speed) 150 mph
 VA (Manoeuvring speed) 150 mph
 VFE (Maximum Flap Extended) 110 mph

11. Maximum Operating Altitude:

18'000 feet

12. All-weather Operations Capability:

- Flights under Visual Flight Rules
- Aerobatic Flying

13. Masses

- 13.1 Maximum Take-off Mass (MTOM) Normal and Utility Category: 1080 kg
 Aerobatic Category: 1010 kg
 13.2 Maximum Landing Mass (MLM) Normal and Utility Category: 1050 kg
 Aerobatic Category: 1010 kg

14. Centre of Gravity
Range:

Normal and Utility Category:

1080 kg (+824) to (+936)

1010 kg (+775) to (+936)

700 kg (+740) to (+936)

Aerobatic Category:

1010 kg (+775) to (+852)

700 kg (+740) to (+852)

15. Datum:

Front face of firewall

16. Control surface
deflections:

Wing flaps	Up	0°	± 1°
	Down	41°	± 1°
Ailerons	Up	22°	± 1°
	Down	16°	± 1°
Elevator	Up	30°	± 1°
	Down	30°	± 1°
Elevator tab	Up	22°	± 1°
	Down	26°	± 1°
Rudder	Left	28°	± 1°
	Right	28°	± 1°
Rudder tab	Left	14°	± 2°
	Right	5°	± 2°

17. Levelling Means:

Upper face of top fuselage longerons along the sliding canopy rails

18. Minimum Flight Crew:

1 (Pilot) (+900) to (+1100)

19. Maximum Passenger
Seating Capacity:

2 seats

1 (+900) to (+1100)

1 (+1840)

20. Baggage/Cargo
Compartments:

100 kg at (+1840)

Above 50 kg consult AFM for loading instructions

21. Wheels and Tyres: Nose Gear 202-19.200
 Main Gear L 202-19.641
 Main Gear R 202-19.642

22. Serial Numbers Eligible: S/N 224 to S/N 238

G.IV. Operating and Service Instructions

1. Airplane Flight Manual:
Airplane Flight Manual AS202/18A4 BRAVO (FFA Report FV-874) dated November 1987, approved 11 December 1987 for serial numbers 224 and up.
2. Technical Manual:
AS202/18A4 BRAVO Airplane Maintenance Manual FV-901 for serial numbers 224 and up.
3. Spare Parts Catalogue:
AS202/18A4 BRAVO Illustrated Parts Catalogue FV-902 for serial numbers 224 and up.

G.V. Notes

For notes see **Section H, Notes**

SECTION H: NOTES PERTINENT TO ALL MODELS

Equipment

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

Note 1

Current weight and balance report, including list of equipment included in certificated empty weight and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

The certificated empty weight and corresponding center of gravity location of models AS202/15 and 18A must include unusable fuel of 10 l /7,2 kp) at (+832) and full oil of 7,6 l (6,1 kp) at (-590). For AS202/15-1 and 18A1, AS202/18A2 and 18A3 and AS202/18A4 models an unusable fuel of 14 l (10,1 kp) at (+837) must be taken into account.

Note 2

Required placards for basic aircraft see approved Airplane Flight Manual section "limitations".

Note 3

Optional equipment

- A. 1.) The airplane may be operated with a Whelen Anti-Collision Strobelight System Model HD T3 (14 Volts) with two lights A429 on the wing tips and one light A470R/W on the rudder fairing. This installation according to drawing 202-18.560 meets the requirements of FAR23.1401 (b) according to the Supplemental Type Certificates SA 615 EA and SA 800 EA. The following placards must be installed in the airplane:

- 1.1.) Whelen Part No. A421

Warning

To avoid optical illusion and severe vertigo, turn anti-collision lights off upon entering clouds, fog or haze.

- 1.2.) Whelen Part No. A421-1

Warning

Turn off strobe lights when taxiing in vicinity of other aircraft or during flight through clouds, fog or haze. Standard position lights to be on for all night operations.

- 2.) If approved anti-collision System "Flight Components ACL 800" or ACL 900 is installed, the following placard is required:

Warning

Turn off strobe lights when taxiing in vicinity of other aircraft or during flight through clouds, fog or haze.

- B. Airplanes S/N 001 – 014 and further airplanes AS202/15 with Lycoming engine O-320-E2A (S/N 016 and up) are eligible for installation of muffler system "Balmer" in accordance with FAA-kit 202-15.100. Carburetors MA4-SPA 10-5009 (on airplanes S/N 012 – 014, 016 and up) must be adapted to setting 10-5009N by Balmer muffler system is installed.
- C. Additional canopy stop SK 202-1252 allows flight with partly open canopy. The following placard is required:
- "Close canopy for acrobatics"
"Do not move canopy above 70 kts (80 mph)"
- D. Approved autopilot installation: NAV-0-MATIC 200A (AF 295B, modified per drawing SK 202-1298). Approved AFM-Supplement No. 1 required.
- E. Removable ferry tank installation on rear seat SK 202-1280 is RESTRICTED to ferry flights only. Approved AFM-Supplement No. 7 required for operation in overweight condition.
- F. Airplanes AS202/18A1 with 28 V DC Nominal System voltage available, according to drawings 202-18.860 B1. 1-4 and 202-18-800 B1. 1-4.
- G. Glider towing system available for AS202/18A, AS202/18A1, AS202/18A2 and AS202/18A3, approved AFM-Supplement No. required.
- H. Fire warning and extinguisher system available for AS202/18A1, AS202/18A2 and AS202/18A3. Approved AFM-Supplement No. 9 required.
- I. Electrical elevator trim system available for AS202/18A2, AS202/18A3 and AS202/18A4.

- J. Additional LH propeller control system available for AS202/18A2, AS202/18A3 and AS202/18A4.
- K. Preselecting flap control system available for AS202/18A2 and AS202/18A4.
- L. Electrical rudder trim system available for AS202/18A4.

Note 4

Approved AFM-Supplements

- AFM-S1 issue December 1980, approved 28 January 1981
Navomatic 200A autopilot
- AFM-S2 issue December 1980, approved 22 January 1981
Removal Auxiliary Fuel Tank Installation – 120 liters
- AFM-S3 issue November 1975, approved 15 June 1979
Failure in the Audio System
- AFM-S4A issue December 1980, approved 28 January 1981
Audio System with Intercom IC-765A
- AFM-S5 issue December 1980, approved 22 January 1981
Removable Auxiliary Fuel Tank Installation – 155 liters
- AFM-S6 issue December 1980, approved 22 January 1981
Glider Towing System
- AFM-S7 issue December 1980, approved 22 January 1981
Ferry Flights at Overload with Removable Auxiliary Fuel Tank
Installation – 155 liters
- AFM-S8 issue December 1980, approved 28 January 1981
Alternate Static Air Source
- AFM-S9 issue December 1980, approved 22 January 1981
Fire warning and Extinguisher System

ADMINISTRATIVE SECTION

I. Acronyms

None

II. Type Certificate Holder Record

From 15-Aug-1972 to 1980:

Flug- und Fahrzeugwerke AG Altenrhein (FFA)

Flugplatz

CH-9423 Altenrhein

Switzerland

From 1981 to 1982:

Flugzeugwerke Altenrhein AG (FWA)

Flugplatz

CH-9423 Altenrhein

Switzerland

From 1983 to 1986:

FFA Flug- und Fahrzeugwerke AG

Flugplatz

CH-9423 Altenrhein

Switzerland

From 1987 to 11 June 2002:

FFA Fahrzeugwerke Altenrhein AG

Flugplatz

CH-9423 Altenrhein

Switzerland

From 03-Nov-2009 to 02-Apr-2012:

EASA.SAS.A.067

From 03-Apr-2012:

FFA AIRCRAFT BRAVO AG

Flughafenstrasse 11

CH-9423 Altenrhein

Switzerland

Since 08 May-2015:
GOMOLZIG FLUGZEUG- UND MASCHINENBAU GMBH
Eisenwerkstrasse 9
D-58332 Schwelm

III. Change Record

Issue	Date	Changes
01	03-Apr-2012	Transfer from EASA.SAS.A.067 (FOCA TCDS F 72-05) to the EASA Type Design New TC-Holder
02	08 May 2015	Change from contracted DOA Holder to TC Holder; correction of history for TC and Manufacturer