EASA

TYPE-CERTIFICATE
DATA SHEET

EASA.A.362

EA 300

Extra Flugzeugproduktions- und Vertriebs GmbH

Schwarze Heide 21
46569, Hünxe
Germany

For models: EA 300; EA 300/S; EA 300/L; EA 300/200; EA 300/SC; EA 300/LT; EA 300/LC

Issue 07: 08. September 2013
CONTENT

SECTION A: EA 300

A.I. General
A.II. Certification Basis
A.III. Technical Characteristics and Operational Limitations
A.IV. Operating and Service Instructions
A.V. Notes

SECTION B: EA 300/S

B.I. General
B.II. Certification Basis
B.III. Technical Characteristics and Operational Limitations
B.IV. Operating and Service Instructions
B.V. Notes

SECTION C: EA 300/L

C.I. General
C.II. Certification Basis
C.III. Technical Characteristics and Operational Limitations
C.IV. Operating and Service Instructions
C.V. Notes

SECTION D: EA 300/200 (Sales designation: EXTRA 200)

D.I. General
D.II. Certification Basis
D.III. Technical Characteristics and Operational Limitations
D.IV. Operating and Service Instructions
D.V. Notes

SECTION E: EA 300/SC

E.I. General
E.II. Certification Basis
E.III. Technical Characteristics and Operational Limitations
E.IV. Operating and Service Instructions
E.V. Notes

SECTION F: EA 300/LT

F.I. General
F.II. Certification Basis
F.III. Technical Characteristics and Operational Limitations
F.IV. Operating and Service Instructions
F.V. Notes

SECTION G: EA 300/LC (Sales designation: EXTRA 330LX)

F.I. General
F.II. Certification Basis
F.III. Technical Characteristics and Operational Limitations
F.IV. Operating and Service Instructions
F.V. Notes

ADMINISTRATIVE SECTION

I. Acronyms
II. Type Certificate Holder Record
III. Change Record
SECTION A: EA 300

A.I. General

1. Data Sheet No.: EASA.A.362
2. a) Type: EA 300  
   b) Model: -/-  
   c) Variant: -/-  
3. Airworthiness Category: Normal, Aerobatic  
4. Type Certificate Holder: Extra Flugzeugproduktions- und Vertriebs- GmbH  
   Schwarze Heide 21  
   46569 Hünxe  
   Germany  
5. Manufacturer: Extra Flugzeugproduktions- und Vertriebs- GmbH  
   Schwarze Heide 21  
   46569 Hünxe  
   Germany  
6. Certification Application Date: 18-December-1986  
7. National Certifying Authority Luftfahrt-Bundesamt (Germany)  
8. National Authority Type Certificate Date: 16-May-1990

A.II. EASA Certification Basis

3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der Faserverbundstruktur (Fatigue/Damage Tolerance Substantiation of Composite Structure)  
   C-4, Structural Design and Loads Criteria (LBA I 311-1086/93, dated 12-March-1993 & FAA Issue Paper C-1 and C-4, Project N° CA581EU)  
   Smoke System (optional equipment) (LBA I 311-1086/96, dated 07-February-1996)  
   Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing) (LBA I 23-60/100, dated February-1971)
4. Exemptions: None
5. Deviations: None
6. Equivalent Safety Findings: None
7. Requirements elected to comply: None
8. Environmental Standards: ICAO, Annex 16, Volume 1
9. (Reserved)
10. (Reserved)
A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: EA-03102.1 Description and Operation of Aircraft and Systems (most current issue);

2. Description: Single engine, mid wing cantilever monoplane with reciprocating engine and fixed main gear in tail-wheel configuration; wing, empennage and landing gear in fibre-composite construction; fuselage and engine mount in conventional steel tube construction.

3. Equipment: Equipment List, refer to POH/AFM Doc. N° EA-03701, (See Note 4)

4. Dimensions:
   - Span: 8.0 m (26.25 ft)
   - Length: 7.12 m (23.36 ft)
   - Height: 2.62 m (8.60 ft)
   - Wing area: 10.72 m² (115.39 sq.ft.)

5. Engine:
   - 5.1.1 Model 1: Lycoming AEIO-540-L1B5
     - 5.1.2 Type Certificate: LBA No. 4535
     - 5.1.3 Limitations: Take-off and continuous power 224 kW / 300 BHP
     - Max. engine rotational speed 2700 RPM
     - Manifold Pressure 100 kPa / 29.5”Hg
   - 5.2.1 Model 2: Lycoming AEIO-540-L1B5D
     - 5.2.2 Type Certificate: LBA No. 4535
     - 5.2.3 Limitations: Take-off and continuous power 224 kW / 300 BHP
     - Max. engine rotational speed 2700 RPM
     - Manifold Pressure 100 kPa / 29.5”Hg

6. Load factors:
   - Normal category +6/ -3
   - Aerobatic category
     - Single Seat Operation / ACRO I ±10
     - Double Seat Operation / ACRO II ±8

7. Propeller:
   - 7.1.1 Model 1: MT Propeller MTV-9-B-C/C200-15
     - 7.1.2 Type Certificate: LBA No. 32.130/65
     - 7.1.3 Number of blades: 3
     - 7.1.4 Diameter: 2000 mm ± 0 mm
     - 7.1.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)
   - 7.2.1 Model 2: MT Propeller MTV-14-B-C/C190-17
     - 7.2.2 Type Certificate: EASA.P.017
     - 7.2.3 Number of blades: 4
7.2.4 Diameter: 1900 mm ± 0 mm

7.2.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)

8. Fluids:

8.1 Fuel: 100/100LL minimum grade aviation gasoline

8.2 Oil: Single or multi – viscosity aviation grade oils see latest issue of Textron Lycoming S.I. N° 1014

8.3 Coolant: None

8.4 Smoke Oil: Straight paraffin oil, kin. viscosity 30-50 cSt at 20°C (68°F), initial boiling point >330°C (626°F);
For example: Fauth FC05, Texaco Canopus 13 or equivalent.

9. Fluid capacities:

9.1.1 Fuel (Standard): Total capacity 160 Liter (42.3 US.gal)  
Usable capacity 158 Liter (41.0 US.gal)  
Usable capacity for aerobatics 38 Liter (10.0 US.gal)

9.1.2 Fuel (Long Range): Total capacity 194 Liter (51.2 US.gal)  
Usable capacity 192 Liter (50.7 US.gal)  
Usable capacity for aerobatics 38 Liter (10.0 US.gal)

9.2 Oil: Max. sump capacity 15.1 Liter (16 qts)  
Min. sump capacity aerobatic 11.3 Liter (12 qts)  
Min. sump capacity normal 8.5 Liter (9 qts)

9.3 Coolant system capacity: None

9.4 Smoke Oil: 35 Liter (9.2 US.gal)

10. Air Speeds: Design Manoeuvring Speed \( V_A \):

Aerobatic category 158 KIAS

Normal category 140 KIAS

Max. Structural Cruising Speed \( V_{NO} \):

Aerobatic category 158 KIAS

Normal category 140 KIAS

Never Exceed Speed \( V_{NE} \) : 220 KIAS

11. Maximum Operating Altitude: 4877 m (16.000 ft)


13. Maximum Weights: Take-off and Landing:

Normal category 950 kg (2095 lbs)

Aerobatic category

Single Seat Operation / ACRO I 820 kg (1808 lbs)

Double Seat Operation / ACRO II 870 kg (1918 lbs)

Empty:
14. Centre of Gravity Range:

Normal category
- Standard: 745 kg (1643 lbs)
- Long Range: 724 kg (1596 lbs)

Aerobatic category
- Single Seat Operation / ACRO I: 701 kg (1546 lbs)
- Double Seat Operation / ACRO II: 665 kg (1466 lbs)

Forward limit (aft of datum):
- at 820 kg (1808 lbs) or below: 75.0 cm (29.53")
- at 950 kg (2095 lbs): 78.0 cm (30.71")

Aerobatic category at 870 kg (1918 lbs)
- Double Seat Operation / ACRO II: 76.5 cm (30.12")

Rear limit (aft of datum):
- at 820 kg (1808 lbs) or below: 89.8 cm (35.35")
- at 950 kg (2095 lbs): 86.0 cm (33.86")

Aerobatic category at 870 kg (1918 lbs)
- Double Seat Operation / ACRO II: 88.5 cm (34.84")

Straight line variation between mass limits.

15. Datum: Plane of Firewall

16. Control surface deflections:
- Aileron: 30°±2° upward; 30°±2° downward
- Elevator: 25°±2° upward, 25°±2° downward
- Rudder: 30°±2° left, 30°±2° right
- Elevator trim tab: 40°±5° upward, 50°±5° downward

17. Levelling Means: Upper fuselage longeron

18. Minimum Flight Crew: 1 Pilot (rear seat)

19. Maximum Passenger Seating Capacity: 1 (front seat)

20. Baggage/Cargo Compartments: None

21. Wheels and Tyres:
- Main Wheel Tyre Size: 5.00-5 6ply
- Tail Wheel Tyre Size: Solid rubber 125/50-75 ZL or 6" (optional)

22. (Reserved):
A.IV. **Operating and Service Instructions**

1. **Flight Manual:**
   - Flughandbuch (FHB) Doc. No. EA-03701D
   - Manuel de Vol (MdV) Doc. No. EA-03701F

2. **Technical Manual:**
   - Service Manual Doc. No. EA-03702

3. **Repair Manual:**
   - Service Manual Doc. No. EA-03702

4. **Manual for Operation:**
   - Flughandbuch (FHB) Doc. No. EA-03701D
   - Manuel de Vol (MdV) Doc. No. EA-03701F

5. **Spare Parts Catalogue:**
   - Parts Catalogue Doc. No. EA-03703

6. **Table of Dimensions, Limits and Clearances:**
   - Service Manual Doc. No. EA-03702

7. **Instruments and aggregates:**
   - None
A.V. Notes:
1. This certification applies to Serial numbers V1, 03, 05, 06, 015 and on.
2. The use of an exhaust silencer system type Gomolzig EA300-606500 is certified. The installation of the exhaust silencer system has to be in accordance with the Retrofit-Instruction UA-300-1-92. For service of the optional system the instructions of the appendix to the Service Manual EA 300 are obligatory.
3. A standard Certificate of Airworthiness can only be issued for an aircraft which is equipped with the 4-blade propeller MTV-14-B-C/C190-17 in combination with the exhaust silencer system type Gomolzig EA300-606500 or EA300-606000. Otherwise a Certificate of Airworthiness can only be issued for aerial work.
4. For more certified optional equipment refer to EXTRA Doc. No. EA-03707, or AFM/POH latest revision. The applicable Retrofit-Instructions and supplements of the AFM are to be observed. Available: At manufacturer
5. Structure is qualified up to 72°C (161.6°F). Structure temperatures (composite) above 72°C (161.6°F) are not permitted. Not to exceed this temperature limit, colour specification for composite structure of the manufacturer (document EA-03205.19) has to be complied with.
6. The address of the design and production organization until September 15th, 2003 is:
   Extra-Flugzeugbau GmbH
   Flugplatz Dinslaken
   46569 Hünxe
   Germany
7. Model EA 300 serial numbers 35 to 67 (airplanes manufactured by Extra Flugzeugbau GmbH) and serial numbers 1068 and on (continuation of manufacture by Extra Flugzeugproduktions- und Vertriebs- GmbH.) See type certificate holder record. (Administrative Section II)
SECTION B: EA 300/S

B.I. General

1. Data Sheet No.: EASA.A.362
2. a) Type: EA 300
   b) Model: EA 300/S
   c) Variant: -/-
3. Airworthiness Category: Normal, Aerobatic
4. Type Certificate Holder: Extra Flugzeugproduktions- und Vertriebs- GmbH
   (see Note 6)
   Schwarze Heide 21
   46569 Hünxe
   Germany
5. Manufacturer: Extra Flugzeugproduktions- und Vertriebs- GmbH
   (see Note 6)
   Schwarze Heide 21
   46569 Hünxe
   Germany
6. Certification Application Date: 17-September-1991
7. National Certifying Authority Luftfahrt-Bundesamt (Germany)
8. National Authority Type Certificate Date: 19-March-1993

B.II. EASA Certification Basis

3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der Faserverbundstruktur (Fatigue/Damage Tolerance Substantiation of Composite Structure)
   C-4, Structural Design and Loads Criteria
   (LBA I 311-1086/93, dated 12-March-1993 & FAA Issue Paper C-1 and C-4, Project N° CA581EU)
   Smoke System (optional equipment)
   (LBA I 311-1086/96, dated 07-February-1996)
   Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing)
   (LBA I 23-60/100, dated February-1971)
4. Exemptions: None
5. Deviations: None
6. Equivalent Safety Findings: None
7. Requirements elected to comply: None
8. Environmental Standards: ICAO, Annex 16, Volume 1
9. (Reserved)
10. (Reserved)
B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: EA-04102.1 Description and Operation of Aircraft and Systems (most current issue);

2. Description: Single engine, low wing cantilever monoplane with reciprocating engine and fixed main gear in tail-wheel configuration; wing, empennage and landing gear in fibre-composite construction; fuselage and engine mount in conventional steel tube construction.

3. Equipment: Equipment List, refer to POH/AFM Doc. No. EA-04701, (See Note 4)

4. Dimensions:
   - Span: 7.5 m (24.61 ft)
   - Length: 6.65 m (21.82 ft)
   - Height: 2.62 m (8.60 ft)
   - Wing area: 10.44 m² (112.38 sq.ft.)

5. Engine:
   - 5.1.1 Model 1:
     - Lycoming AEIO-540-L1B5
     - Type Certificate: LBA No. 4535
     - Limitations: Take-off and continuous power 224 kW / 300 BHP
     - Max. engine rotational speed 2700 RPM
     - Manifold Pressure 100 kPa / 29.5"Hg
   - 5.2.1 Model 2:
     - Lycoming AEIO-540-L1B5D
     - Type Certificate: LBA No. 4535
     - Limitations: Take-off and continuous power 224 kW / 300 BHP
     - Max. engine rotational speed 2700 RPM
     - Manifold Pressure 100 kPa / 29.5"Hg

6. Load factors:
   - Normal category +6/ -3
   - Aerobatic category ±10

7. Propeller:
   - 7.1.1 Model 1:
     - MT Propeller MTV-9-B-C/C200-15
     - Type Certificate: LBA No. 32.130/65
     - Number of blades: 3
     - Diameter: 2000 mm ± 0 mm
     - Sense of Rotation: Right-hand tractor (viewed in direction of flight)
   - 7.2.1 Model 2:
     - MT Propeller MTV-14-B-C/C190-17
     - Type Certificate: EASA.P.017
     - Number of blades: 4
     - Diameter: 1900 mm ± 0 mm
7.2.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)

8. Fluids:

8.1 Fuel: 100/100LL minimum grade aviation gasoline

8.2 Oil: Single or multi – viscosity aviation grade oils see latest issue of Textron Lycoming S.I. N° 1014

8.3 Coolant: None

8.4 Smoke Oil: Straight paraffin oil, kin. viscosity 30-50 cSt at 20°C (68°F), initial boiling point >330°C (626°F);
For example: Fauth FC05, Texaco Canopus 13 or equivalent.

9. Fluid capacities:

9.1.1 Fuel (Standard): Total capacity 171 Liter (45.1 US.gal)
Usable capacity 169 Liter (44.6 US.gal)
Usable capacity for aerobatics 49 Liter (12.9 US.gal)

9.1.2 Fuel (Long Range):
Total capacity 205 Liter (54.1 US.gal)
Usable capacity 203 Liter (53.5 US.gal)
Usable capacity for aerobatics 49 Liter (12.9 US.gal)

9.2 Oil:
Max. sump capacity 15.1 Liter (16 qts)
Min. sump capacity aerobatic 11.3 Liter (12 qts)
Min. sump capacity normal 8.5 Liter (9 qts)

9.3 Coolant system capacity: None

9.4 Smoke Oil: 35 Liter (9.2 US.gal)

10. Air Speeds:
Design Manoeuvring Speed $V_A$:
Aerobatic category 158 KIAS
Normal category 140 KIAS

Max. Structural Cruising Speed $V_{NO}$:
Aerobatic category 158 KIAS
Normal category 140 KIAS

Never Exceed Speed $V_{NE}$: 220 KIAS

11. Maximum Operating Altitude: 4877 m (16,000 ft)


13. Maximum Weights:
Take-off and Landing:
Normal category 920 kg (2028 lbs)
Aerobatic category 820 kg (1808 lbs)

Empty:
Normal category
Standard 711 kg (1568 lbs)
Long Range 786 kg (1513 lbs)
Aerobatic category 697 kg (1537 lbs)
14. Centre of Gravity Range:
   Forward limit (aft of datum):
   920 kg (2028 lbs) or below 48.9 cm (19.3")
   Rear limit (aft of datum):
   920 kg (2028 lbs) or below 71.4 cm (28.1")

15. Datum:
   Plane of Firewall

16. Control surface deflections:
   Aileron: 30°±2° upward; 30°±2° downward
   Elevator: 25°±2° upward, 25°±2° downward
   Rudder: 30°±2° left, 30°±2° right
   Elevator trim tab: 40°±5° upward, 50°±5° downward

17. Levelling Means:
   Upper fuselage longeron

18. Minimum Flight Crew:
   1 Pilot (rear seat)

19. Maximum Passenger Seating Capacity:
   None

20. Baggage/Cargo Compartments:
   None

21. Wheels and Tyres:
   Main Wheel Tyre Size: 5.00-5 6ply
   Tail Wheel Tyre Size: Solid rubber 125/50-75 ZL or 6" (optional)

22. (Reserved):
B.IV. **Operating and Service Instructions**

1. **Flight Manual:**
   - Flughandbuch (FHB) Doc. No. EA-04701D
   - Pilot’s Operating Handbook (POH) &

2. **Technical Manual:**
   - Service Manual Doc. No. EA-04702

3. **Repair Manual:**
   - Service Manual Doc. No. EA-04702

4. **Manual for Operation:**
   - Flughandbuch (FHB) Doc. No. EA-04701D
   - Pilot’s Operating Handbook (POH) &

5. **Spare Parts Catalogue:**
   - Parts Catalogue Doc. No. EA-04703

6. **Table of Dimensions, Limits and Clearances:**
   - Service Manual Doc. No. EA-04702

7. **Instruments and aggregates:**
   - None
B.V. **Notes:**

1. This certification applies to Serial Numbers 01 and on.
2. The use of an exhaust silencer system type Gomolzig EA300-606500 is certified. The installation of the exhaust silencer system has to be in accordance with the Retrofit-Instruction UA-300-1-92. For service of the optional system the instructions of the appendix to the Service Manual EA 300 are obligatory.
3. A standard Certificate of Airworthiness can only be issued for an aircraft which is equipped with the 4-blade propeller MTV-14-B-C/C190-17 in combination with the exhaust silencer system type Gomolzig EA300-606500 or EA300-606000. Otherwise a Certificate of Airworthiness can only be issued for aerial work.
4. For more certified optional equipment refer to EXTRA Doc. No. EA-04707, or AFM/POH latest revision. The applicable Retrofit-Instructions and supplements of the AFM are to be observed. Available: At manufacturer
5. Structure is qualified up to 72°C (161.6°F). Structure temperatures (composite) above 72°C (161.6°F) are not permitted. Not to exceed this temperature limit, colour specification for composite structure of the manufacturer (document EA-03205.19) has to be complied with.
6. The address of the design and production organization until September 15th, 2003 is:
   - Extra-Flugzeugbau GmbH
   - Flugplatz Dinslaken
   - 46569 Hünxe
   - Germany
7. Model EA 300/S serial number 1 to 31 (airplanes manufactured by Extra Flugzeugbau GmbH) and serial numbers 1032 and on (continuation of manufacture by Extra Flugzeugproduktions- und Vertriebs- GmbH) See type certificate holder record. (Administrative Section II)
C.I. General

1. Data Sheet No.: EASA.A.362
2. 
   a) Type: EA 300
   b) Model: EA 300/L
   c) Variant: -/-
3. Airworthiness Category: Normal, Aerobatic
4. Type Certificate Holder: Extra Flugzeugproduktions- und Vertriebs- GmbH
   Schwarze Heide 21
   46569 Hünxe
   Germany
5. Manufacturer: Extra Flugzeugproduktions- und Vertriebs- GmbH
   Schwarze Heide 21
   46569 Hünxe
   Germany
6. Certification Application Date: 02-February-1994
7. National Certifying Authority: Luftfahrt-Bundesamt (Germany)
8. National Authority Type Certificate Date: 31-January-1995

C.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: 03-February-1994
3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der Faserverbundstruktur (Fatigue/Damage Tolerance Substantiation of Composite Structure)
   C-4, Structural Design and Loads Criteria (LBA I 311-1086/93, dated 12-March-1993 & FAA Issue Paper C-1 and C-4, Project N° CA581EU)
   Smoke System (optional equipment)
   (LBA I 311-1086/96, dated 07-February-1996)
   Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing)
   (LBA I 23-60/100, dated February-1971)
4. Exemptions: None
5. Deviations: None
6. Equivalent Safety Findings: None
7. Requirements elected to comply: None
8. Environmental Standards: ICAO, Annex 16, Volume 1
9. (Reserved)
10. (Reserved)
C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: EA-06102.1 Description and Operation of Aircraft and Systems (most current issue);

2. Description: Single engine, low wing cantilever monoplane with reciprocating engine and fixed main gear in tail-wheel configuration; wing, empennage and landing gear in fibre-composite construction; fuselage and engine mount in conventional steel tube construction.

3. Equipment: Equipment List, refer to POH/AFM Doc. N° EA-06701, (See Note 4)

4. Dimensions: Span: 8.0 m (26.25 ft)  
   Length: 6.96 m (22.83 ft)  
   Height: 2.62 m (8.60ft)  
   Wing area: 10.84 m² (116.68 sq.ft.)

5. Engine:
   5.1.1 Model 1: Lycoming AEIO-540-L1B5  
   5.1.2 Type Certificate: LBA No. 4535  
   5.1.3 Limitations: Take-off and continuous power 224 kW / 300 BHP  
   Max. engine rotational speed 2700 RPM  
   Manifold Pressure 100 kPa / 29.5"Hg

   5.2.1 Model 2: Lycoming AEIO-540-L1B5D  
   5.2.2 Type Certificate: LBA No. 4535  
   5.2.3 Limitations: Take-off and continuous power 224 kW / 300 BHP  
   Max. engine rotational speed 2700 RPM  
   Manifold Pressure 100 kPa / 29.5"Hg

   5.3.1 Model 3: Lycoming AEIO-580-B1A  
   5.3.2 Type Certificate: IM.E.027  
   5.3.3 Limitations: Take-off and continuous power 235 kW / 315 BHP  
   Max. engine rotational speed 2700 RPM  
   Manifold Pressure 100 kPa / 29.5"Hg

6. Load factors: Normal category +6/-3  
   Aerobatic category  
   Single Seat Operation / ACRO I ±10  
   Double Seat Operation / ACRO II ±8  
   Double Seat Operation / ACRO III ±6

7. Propeller:
   7.1.1 Model 1: MT Propeller MTV-9-B-C/C200-15  
   7.1.2 Type Certificate: LBA No. 32.130/65  
   7.1.3 Number of blades: 3
7.1.4 Diameter: 2000 mm ± 0 mm
7.1.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)
7.2.1 Model 2: MT Propeller MTV-14-B-C/C190-17
7.2.2 Type Certificate: EASA.P.017
7.2.3 Number of blades: 4
7.2.4 Diameter: 1900 mm ± 0 mm
7.2.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)
7.3.1 Model 3: MT Propeller MTV-9-B-C/C198-25 (see Note 8)
7.3.2 Type Certificate: LBA No. 32.130/65
7.3.3 Number of blades: 3
7.3.4 Diameter: 1980 mm ± 5 mm
7.3.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)

8. Fluids:
8.1 Fuel: 100/100LL minimum grade aviation gasoline
8.2 Oil: Single or multi – viscosity aviation grade oils see latest issue of Textron Lycoming S.I. N° 1014
8.3 Coolant: None
8.4 Smoke Oil: Straight paraffin oil, kin. viscosity 30-50 cSt at 20°C (68°F), initial boiling point >330°C (626°F); For example: Fauth FC05, Texaco Canopus 13 or equivalent.

9. Fluid capacities:
9.1.1 Fuel (Standard): Total capacity 171 Liter (45.1 US.gal) Usable capacity 165.5 Liter (43.7 US.gal) Usable capacity for aerobatics 45.5 Liter (12.0 US.gal)
9.1.2 Fuel (Long Range): Total capacity 205 Liter (54.1 US.gal) Usable capacity 199.5 Liter (52.7 US.gal) Usable capacity for aerobatics 45.5 Liter (12.0 US.gal)
9.1.3 Fuel (Raised Standard): Total capacity 189 Liter (49.9 US.gal) Usable capacity 187 Liter (49.4 US.gal) See Note 9 Usable capacity for aerobatics 67 Liter (17.7 US.gal)
9.2.1 Oil (Engine Model 1 & 2): Max. sump capacity 15.1 Liter (16 qts) Min. sump capacity aerobatic 11.3 Liter (12 qts) Min. sump capacity normal 8.5 Liter (9 qts)
9.2.2 Oil (Engine Model 3): Max. sump capacity 15.1 Liter (16 qts) Min. sump capacity normal 8.5 Liter (9 qts)
9.3 Coolant system capacity: None
9.4 Smoke Oil: 31 Liter (8.2 US.gal)
10. Air Speeds: 
   Design Manoeuvring Speed $V_A$:
   Aerobatic category 158 KIAS
   Normal category 140 KIAS

   Max. Structural Cruising Speed $V_{NO}$:
   Aerobatic category 158 KIAS
   Normal category 140 KIAS

   Never Exceed Speed $V_{NE}$: 220 KIAS

11. Maximum Operating Altitude: 4877 m (16,000 ft)


13. Maximum Weights: Take-off and Landing:
   Normal category 950 kg (2095 lbs)
   Aerobatic category
   Single Seat Operation / ACRO I 820 kg (1808 lbs)
   Double Seat Operation / ACRO II 870 kg (1918 lbs)
   Double Seat Operation / ACRO III 950 kg (2095 lbs)

   Empty (with Engine Model 1 & 2):
   Normal category
   Standard 745 kg (1643 lbs)
   Raised Standard 729 kg (1607 lbs)
   Long Range 720 kg (1588 lbs)
   Aerobatic category
   Single Seat Operation / ACRO I 701 kg (1546 lbs)
   ACRO I (raised Standard) 686 kg (1513 lbs)
   Double Seat Operation / ACRO II 665 kg (1466 lbs)
   Double Seat Operation / ACRO III 745 kg (1643 lbs)

   Empty (with Engine Model 3):
   Normal category
   Standard 742 kg (1636 lbs)
   Raised Standard 729 kg (1607 lbs)
   Long Range 720 kg (1588 lbs)
   Aerobatic category
   Single Seat Operation / ACRO I 698 kg (1540 lbs)
   ACRO I (raised Standard) 686 kg (1513 lbs)
   Double Seat Operation / ACRO II 662 kg (1460 lbs)
   Double Seat Operation / ACRO III 742 kg (1636 lbs)

14. Centre of Gravity Range:
   Forward limit (aft of datum): at 950 kg (2095 lbs) or below 67.1 cm (29.4")
   Rear limit (aft of datum): at 950 kg (2095 lbs) or below 84.1 cm (33.1")

15. Datum: Plane of Firewall
16. Control surface deflections:
   - Aileron: 30°±2° upward; 30°±2° downward
   - Elevator: 25°±2° upward, 25°±2° downward
   - Rudder: 30°±2° left, 30°±2° right
   - Elevator trim tab: 40°±2° upward, 50°±2° downward

17. Levelling Means:
   - Upper fuselage longeron

18. Minimum Flight Crew: 1 Pilot (rear seat)

19. Maximum Passenger Seating Capacity: 1 (front seat)

20. Baggage/Cargo Compartments: None

21. Wheels and Tyres:
   - Main Wheel Tyre Size: 5.00-5 6ply
   - Tail Wheel Tyre Size: Solid rubber 125/50-75 ZL or 6” (optional)

22. (Reserved):
C.IV. Operating and Service Instructions

1. Flight Manual:
   Flughandbuch (FHB) 
   Pilot’s Operating Handbook (POH) & 
   Airplane Flight Manual (AFM) 
   Doc. No. EA-06701D
   Doc. No. EA-06701

2. Technical Manual:
   Service Manual 
   Doc. No. EA-06702

3. Repair Manual:
   Service Manual 
   Doc. No. EA-06702

4. Manual for Operation:
   Flughandbuch (FHB) 
   Pilot’s Operating Handbook (POH) & 
   Airplane Flight Manual (AFM) 
   Doc. No. EA-06701D
   Doc. No. EA-06701

5. Spare Parts Catalogue:
   Illustrated Parts Catalogue 
   Doc. No. EA-06703

6. Table of Dimensions, Limits and Clearances:
   Service Manual 
   Doc. No. EA-06702

7. Instruments and aggregates:
   None
C.V.  **Notes:**

1. This certification applies to Serial Numbers 01 and on.
2. The use of an exhaust silencer system type Gomolzig EA300-606500 is certified. The installation of the exhaust silencer system has to be in accordance with the Retrofit-Instruction UA-300-1-92. For service of the optional system the instructions of the appendix to the Service Manual EA 300 are obligatory.
3. A standard Certificate of Airworthiness can only be issued for an aircraft which is equipped with
   a) the 4-blade propeller MTV-14-B-C/C190-17 in combination with the exhaust silencer system type Gomolzig EA300-606500 or EA300-606000 or
   b) the 3-blade propeller MTV-9-B-C/C198-25 in combination with the exhaust silencer system type Gomolzig EA300-606000 and a reduced max. take-off engine rotational speed of 2600RPM. Otherwise a Certificate of Airworthiness can only be issued for aerial work.
4. For more certified optional equipment refer to EXTRA Doc. No. EA-06707, or AFM/POH latest revision. The applicable Retrofit-Instructions and supplements of the AFM are to be observed. Available: At manufacturer
5. Structure is qualified up to 72°C (161.6°F). Structure temperatures (composite) above 72°C (161.6°F) are not permitted. Not to exceed this temperature limit, colour specification for composite structure of the manufacturer (document EA-03205.19) has to be complied with.
6. The address of the design and production organization until September 15th, 2003 is:
   Extra-Flugzeugbau GmbH
   Flugplatz Dinslaken
   46569 Hünxe
   Germany
7. Model EA 300/L serial number 1 to 167 (airplanes manufactured by Extra Flugzeugbau GmbH) and serial numbers 168 to 170, 1171, 172, 173, 1174 and on (continuation of manufacture by Extra Flugzeugproduktions- und Vertriebs-GmbH.) See type certificate holder record. (Administrative Section II) Serial numbers 166 and 167 are under warranty of Extra Flugzeugproduktions- und Vertriebs- GmbH although manufactured by Extra Flugzeugbau GmbH.
8. The 3-blade propeller MTV-9-B-C/C198-25 is only approved in combination with the Lycoming engine AEIO-580-B1A specified in section C.III 5.3.1
9. The raised-standard fuel system provides an increased fuel capacity of the center fuel tank approved for operation in the normal and aerobatic category delivered ex factory. It can not be combined with the increased fuel capacity of the wing fuel tank of the long range tank option specified in section C.III 9.1.2.
SECTION D: EA 300/200 (Sales designation: EXTRA 200)

D.I. General

1. Data Sheet No.: EASA.A.362
2. a) Type: EA 300
   b) Model: EA 300/200 (Sales designation EXTRA 200)
   c) Variant: -/-
3. Airworthiness Category: Normal, Aerobatic
4. Type Certificate Holder:
   (see Note 6) Extra Flugzeugproduktions- und Vertriebs- GmbH
   Schwarze Heide 21
   46569 Hünxe
   Germany
5. Manufacturer:
   (see Note 6) Extra Flugzeugproduktions- und Vertriebs- GmbH
   Schwarze Heide 21
   46569 Hünxe
   Germany
6. Certification Application Date: 26-May-1995
7. National Certifying Authority Luftfahrt-Bundesamt (Germany)
8. National Authority Type Certificate Date: 12-August-1996

D.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: 26-May-1995
3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der Faserverbundstruktur (Fatigue/Damage Tolerance Substantiation of Composite Structure)
   C-4, Structural Design and Loads Criteria (LBA I 311-1086/93, dated 12-March-1993 & FAA Issue Paper C-1 and C-4, Project N° CA581EU)
   Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing) (LBA I 23-60/100, dated February-1971)
4. Exemptions: None
5. Deviations: None
6. Equivalent Safety Findings: EA-07406.1 issued 31-May-1999 and ACE-96-6, dated December 4, 1996, for paragraphs §§23.963(e), 23.1337(b), and 23.1553
7. Requirements elected to comply: None
8. Environmental Standards: ICAO, Annex 16, Volume 1
9. (Reserved)
10. (Reserved)
D.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: EA-07102.1 Description and Operation of Aircraft and Systems (most current issue);

2. Description: Single engine, low wing cantilever monoplane with reciprocating engine and fixed main gear in tail-wheel configuration; wing, empennage and landing gear in fibre-composite construction; fuselage and engine mount in conventional steel tube construction.

3. Equipment: Equipment List, refer to POH/AFM Doc. N° EA-07701, (See Note 3)

4. Dimensions: Span: 7.5 m (24.61 ft) Length: 6.65 m (21.82 ft) Height: 2.62 m (8.60ft) Wing area: 10.44 m² (112.38 sq.ft.)

5. Engine:

   5.1.1 Model: Lycoming AEIO-360-A1E
   5.1.2 Type Certificate: LBA No. 4569
   5.1.3 Limitations: Max. take-off power 149 kW/200 BHP Max. take-off engine rotational speed 2700 RPM Manifold Pressure 96.9 kPa/28.6”Hg Max. continuous power 138 kW/185 BHP Max. cont. engine rotational speed 2500 RPM Manifold Pressure 97.2 kPa/28.7”Hg


7. Propeller:

   7.1.1 Model: MT Propeller MTV-12-B-C/C183-17e
   7.1.2 Type Certificate: EASA.P.013
   7.1.3 Number of blades: 3
   7.1.4 Diameter: 1830 mm ± 0 mm
   7.1.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)

8. Fluids:

   8.1 Fuel: 100/100LL minimum grade aviation gasoline
   8.2 Oil: Single or multi – viscosity aviation grade oils see latest issue of Textron Lycoming S.I. N° 1014
   8.3 Coolant: None
9. Fluid capacities:

9.1.1 Fuel (Standard):
See Note 2
Total capacity 122 Liter (32.1 US.gal)
Usable capacity 117 Liter (30.8 US.gal)
Usable capacity for aerobatics 32 Liter (8.5 US.gal)

9.1.2 Fuel (Long Range):
Total capacity 190 Liter (50.2 US.gal)
Usable capacity 185 Liter (48.0 US.gal)
Usable capacity for aerobatics 32 Liter (8.5 US.gal)

9.2. Oil:
Max. sump capacity 7.6 Liter (8 qts)
Min. sump capacity aerobatic 5.7 Liter (6 qts)
Min. sump capacity normal 3.8 Liter (4 qts)

9.3 Coolant system capacity:
None

10. Air Speeds:
See Note 2
Design Manoeuvring Speed $V_A$:
Aerobatic category 154 KIAS / 158 KCAS
Normal category 138 KIAS / 140 KCAS
Max. Structural Cruising Speed $V_{NO}$:
Aerobatic category 154 KIAS / 158 KCAS
Normal category 138 KIAS / 140 KCAS
Never Exceed Speed $V_{NE}$: 217 KIAS / 220 KCAS

11. Maximum Operating Altitude:
4877 m (16.000 ft)

12. Allweather Operations Capability:
Day-VFR

13. Maximum Weights: Take-off and Landing:
Normal category 840 kg (1852 lbs)
Aerobatic category
Single Seat Operation / ACRO I 700 kg (1808 lbs)
Double Seat Operation / ACRO II 800 kg (1764 lbs)

Empty:
Normal category
Standard 646 kg (1424 lbs)
Long Range 621 kg (1368 lbs)
Aerobatic category
Single Seat Operation / ACRO I 591 kg (1303 lbs)
Double Seat Operation / ACRO II 606 kg (1336 lbs)

14. Centre of Gravity Range:
Forward limit (aft of datum): at 840 kg (1852 lbs) or below 73.2 cm (28.8")
Rear limit (aft of datum): at 840 kg (1852 lbs) or below 89.1 cm (35.1")

15. Datum:
Plane of Firewall

16. Control surface deflections:
Aileron: $30^\circ \pm 2^\circ$ upward; $30^\circ \pm 2^\circ$ downward
Elevator: $25^\circ \pm 2^\circ$ upward, $25^\circ \pm 2^\circ$ downward
Rudder: 30°±2° left, 30°±2° right
Elevator trim tab: 40°±5° upward, 50°±5° downward

17. Levelling Means: Upper fuselage longeron

18. Minimum Flight Crew: 1 Pilot (rear seat)

19. Maximum Passenger Seating Capacity: 1 (front seat)

20. Baggage/Cargo Compartments: None

21. Wheels and Tyres: Main Wheel Tyre Size: 5.00-5 6ply
Tail Wheel Tyre Size: Solid rubber 125/50-75 ZL or 6” (optional)

22. (Reserved):
D.IV. **Operating and Service Instructions**

1. **Flight Manual:**
   - Flughandbuch (FHB)  Doc. No. EA-07701D

2. **Technical Manual:**
   - Service Manual  Doc. No. EA-07702

3. **Repair Manual:**
   - Service Manual  Doc. No. EA-07702

4. **Manual for Operation:**
   - Flughandbuch (FHB)  Doc. No. EA-07701D

5. **Spare Parts Catalogue:**
   - None

6. **Table of Dimensions, Limits and Clearances:**
   - Service Manual  Doc. No. EA-07702

7. **Instruments and aggregates:**
   - None
D.V. Notes:

1. This certification applies to Serial Numbers 01 and on.
2. The fuel capacity of the wing tank and the maneuvering speed of Serial Number 01 and 02 differ from the model design as follows:
   a) Maneuvering speed (Acrobatic category): $V_A = 138$ KIAS
   b) Wing- and acro tank:
      - Total fuel capacity: 156 L
      - Usable fuel capacity: 151 L
   c) Operator's instruction:
3. For more certified optional equipment refer to EXTRA Doc. No. EA-07707, or AFM/POH latest revision. The applicable Retrofit-Instructions and supplements of the AFM are to be observed. Available: At manufacturer
4. Structure is qualified up to 72°C (161.6°F). Structure temperatures (composite) above 72°C (161.6°F) are not permitted. Not to exceed this temperature limit, colour specification for composite structure of the manufacturer (document EA-03205.19) has to be complied with.
5. Export to USA:
   The airplanes to be registered in USA must comply with the provisions of “Modification Instruction for conformity to the Type Certificate A67EU EA 300/200” (EXTRA Doc. N° UA-300-1-96)
6. The address of the design and production organization until September 15th, 2003 is:
   - Extra-Flugzeugbau GmbH
   - Flugplatz Dinslaken
   - 46569 Hünxe
   - Germany
7. Model EA 300/200 serial number 1 to 31 (airplanes manufactured by Extra Flugzeugbau GmbH) and serial numbers 1032 and on (continuation of manufacture by Extra Flugzeugproduktions- und Vertriebs- GmbH.) See type certificate holder record. (Administrative Section II)
SECTION E:  EA 300/SC

E.I.  General

1. Data Sheet No.: EASA.A.362
2. a) Type: EA 300
     b) Model: EA 300/SC
     c) Variant: -/-
3. Airworthiness Category: Normal, Aerobatic
4. Type Certificate Holder: Extra Flugzeugproduktions- und Vertriebs- GmbH
     Schwarze Heide 21
     46569 Hünxe
     Germany
5. Manufacturer: Extra Flugzeugproduktions- und Vertriebs- GmbH
     Schwarze Heide 21
     46569 Hünxe
     Germany
6. Certification Application Date: 23-November-2007
7. Reserved
8. Reserved

E.II.  EASA Certification Basis

1. Reference Date for determining the applicable requirements: 31-January-2008
   (initial type board meeting at EASA)
   through 23-34, effective 14-September-1987
3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der Faserverbundstruktur (Fatigue/Damage Tolerance Substantiation of Composite Structure)
   C-4, Structural Design and Loads Criteria
   (LBA I 311-1086/93, dated 12-March-1993 & FAA Issue Paper C-1 and C-4, Project N°
   CA581EU)
   Smoke System (optional equipment)
   (LBA I 311-1086/96, dated 07-February-1996)
4. Exemptions: None
5. Deviations: None
6. Equivalent Safety Findings: a) Static longitudinal stability §§23.171; 23.173,
7. Requirements elected to comply: None

9. (Reserved)
10. (Reserved)
E.III. **Technical Characteristics and Operational Limitations**

1. **Type Design Definition**: EA-04102.1 Description and Operation of Aircraft and Systems (most current issue); and EA-0C102.1 Description of differences to EA 300/S type design (most current issue)

2. **Description**: Single engine, low wing cantilever monoplane with reciprocating engine and fixed main gear in tail-wheel configuration; wing, empennage and landing gear in fibre-composite construction; fuselage and engine mount in conventional steel tube construction.

3. **Equipment**: Equipment List, refer to POH/AFM Doc. N° EA-0C701, (See Note 3)

4. **Dimensions**: Span: 7.5 m (24.61 ft)  
   Length: 6.72 m (22.05 ft)  
   Height: 2.55 m (8.36 ft)  
   Wing area: 9.81 m² (105.59 sq.ft.)

5. **Engine**:
   
   5.1.1 **Model 1**: Lycoming AEIO-580-B1A
   5.1.2 **Type Certificate**: IM.E.027
   5.1.3 **Limitations**:  
      Aerobatic category: Take-off and continuous power 235 kW / 315 BHP  
      Max. engine rotational speed 2700 RPM  
      Manifold Pressure 100 kPa / 29.5"Hg
   5.1.4 **Limitations**:  
      Normal category; see Note 2  
      Take-off and continuous power 226 kW / 303 BHP  
      Max. engine rotational speed 2600 RPM  
      Manifold Pressure 100 kPa / 29.5"Hg

6. **Load factors**: Normal category +6/ -3  
   Aerobatic category (780kg and below) ±10

7. **Propeller**:
   
   7.1.1 **Model 1**: MT Propeller MTV-9-B-C/C198-25
   7.1.2 **Type Certificate**: LBA No. 32.130/65
   7.1.3 **Number of blades**: 3
   7.1.4 **Diameter**: 1980 mm ± 5 mm
   7.1.5 **Sense of Rotation**: Right-hand tractor (viewed in direction of flight)
   
   7.2.1 **Model 2**: MT Propeller MTV-14-B-C/C190-130
   7.2.2 **Type Certificate**: EASA.P.017
   7.2.3 **Number of blades**: 4
   7.2.4 **Diameter**: 1900 mm ± 5 mm
   7.2.5 **Sense of Rotation**: Right-hand tractor (viewed in direction of flight)
8. Fluids:

8.1 Fuel: 100/100LL minimum grade aviation gasoline

8.2 Oil: Single or multi – viscosity aviation grade oils see latest issue of Textron Lycoming S.I. N° 1014

8.3 Coolant: None

8.4 Smoke Oil: Straight paraffin oil, kin. viscosity 30-50 cSt at 20°C (68°F), initial boiling point >330°C (626°F);
For example: Fauth FC05, Texaco Canopus 13 or equivalent.

9. Fluid capacities:

9.1. Fuel: Total capacity 224 Liter (59.2 US.gal)
Usable capacity 221 Liter (58.4 US.gal)
Usable capacity for aerobatics 101 Liter (26.7 US.gal)

9.2. Oil: Max. sump capacity 15.1 Liter (16 qts)
Min. sump capacity normal 8.5 Liter (9 qts)

9.3 Coolant system capacity: None

9.4 Smoke Oil: 23 Liter (6.1 US.gal)

10. Air Speeds: Design Manoeuvring Speed $V_A$:
Aerobatic category 154 KIAS / 158 KCAS
Normal category 138 KIAS / 141 KCAS

Max. Structural Cruising Speed $V_{NO}$:
Aerobatic category 154 KIAS / 158 KCAS
Normal category 138 KIAS / 141 KCAS

Never Exceed Speed $V_{NE}$: 219 KIAS / 220 KCAS

11. Maximum Operating Altitude: 3048 m (10.000 ft)

12. Allweather Operations Capability: Day-VFR (limited from SR to SS)
Day-VFR (if position light system is installed)

13. Maximum Weights: Take-off and Landing:
Normal category 870 kg (1918 lbs)
Aerobatic category 780 kg (1720 lbs)

Empty:
Normal category 624 kg (1377 lbs)
Aerobatic category 620 kg (1367 lbs)

14. Centre of Gravity Range:
Forward limit (aft of datum):
Normal category at 820 kg (1808 lbs) or below 53.7 cm (21.1”)
at 870 kg (1918 lbs) 54.5 cm (21.5”)
Aerobatic category at 780 kg (1720 lbs) or below 53.7 cm (21.1”)
Rear limit (aft of datum):

Normal category
at 780 kg (1720 lbs) or below 66.8 cm (26.3")
at 870 kg (1918 lbs) 62.6 cm (24.6")

Aerobatic category
at 780 kg (1720 lbs) or below 66.8 cm (26.3")

Straight line variation between mass limits.

15. Datum: Plane of Firewall

16. Control surface deflections:
   Aileron: 30°±2° upward; 30°±2° downward
   Elevator: 25°±1° upward, 25°±1° downward
   Rudder: 30°-2° left, 30°-2° right
   Elevator trim tab: 32°±2° upward, 32°±2° downward

17. Levelling Means: Upper fuselage longeron

18. Minimum Flight Crew: 1 Pilot (rear seat)

19. Maximum Passenger Seating Capacity: None

20. Baggage/Cargo Compartments: None

21. Wheels and Tyres:
   Main Wheel Tyre Size: 5.00-5 6ply
   Tail Wheel Tyre Size: Solid rubber 125/50-75 ZL or 6" (optional)

22. (Reserved):
E.IV. Operating and Service Instructions

8. Flight Manual:
   Pilot’s Operating Handbook (POH) &
   Airplane Flight Manual (AFM)  
   Doc. No. EA-0C701

9. Technical Manual:
   Service Manual  
   Doc. No. EA-0C702

10. Repair Manual:
    Service Manual  
    Doc. No. EA-0C702

11. Manual for Operation:
    Pilot’s Operating Handbook (POH) &
    Airplane Flight Manual (AFM)  
    Doc. No. EA-0C701

12. Spare Parts Catalogue:
    Illustrated Parts Catalogue  
    Doc. No. EA-0C703

13. Table of Dimensions, Limits and Clearances:
    Service Manual  
    Doc. No. EA-0C702

14. Instruments and aggregates:
    None
E.V. **Notes:**

1. This certification applies to Serial Numbers SC003 and on.

2. A standard Certificate of Airworthiness can only be issued for an aircraft which is equipped with:
   - the 3-blade propeller MTV-9-B-C/C198-25 in combination with the exhaust silencer system type Gomolzig EA300-606000 and a reduced max. take-off engine rotational speed of 2600RPM.
   - the 4-blade propeller MTV-14-B-C/C190-130 in combination with the exhaust silencer system type Gomolzig EA300-606000 and a reduced max. take-off engine rotational speed of 2600RPM.

   Otherwise a Certificate of Airworthiness can only be issued for aerial work.

3. For more certified optional equipment refer to approved AFM/POH Supplements latest revision.

4. Structure is qualified up to 72°C (161.6°F). Structure temperatures (composite) above 72°C (161.6°F) are not permitted. Not to exceed this temperature limit, colour specification for composite structure of the manufacturer (document EA-03205.19) has to be complied with.
SECTION F: EA 300/LT

F.I. General

1. Data Sheet No.: EASA.A.362
2. a) Type: EA 300
   b) Model: EA 300/LT
   c) Variant: -/-
3. Airworthiness Category: Normal, Aerobatic
4. Type Certificate Holder: Extra Flugzeugproduktions- und Vertriebs- GmbH
   Schwarze Heide 21
   46569 Hünxe
   Germany
5. Manufacturer: Extra Flugzeugproduktions- und Vertriebs- GmbH
   Schwarze Heide 21
   46569 Hünxe
   Germany
6. Certification Application Date: 22-January-2009
7. Reserved
8. Reserved

F.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: 28-April-2009
   (initial type board meeting at EASA)
3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der Faserverbundstruktur (Fatigue/Damage Tolerance Substantiation of Composite Structure)
   C-4, Structural Design and Loads Criteria (LBA I 311-1086/93, dated 12-March-1993 & FAA Issue Paper C-1 and C-4, Project N° CA581EU)
   Smoke System (optional equipment) (LBA I 311-1086/96, dated 07-February-1996)
   Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing) (LBA I 23-60/100, dated February-1971)
4. Exemptions: None
5. Deviations: None
7. Requirements elected to comply: None
8. Environmental Standards: ICAO, Annex 16, Volume 1
   Fourth Edition, Amdt. 8
9. (Reserved)
10. (Reserved)
F.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: EA-06102 Description and Operation of Aircraft and Systems (most current issue); and EA-0D102.1 Description of differences to EA 300/L type design (most current issue)

2. Description: Single engine, low wing cantilever monoplane with reciprocating engine and fixed main gear in tail-wheel configuration; wing, empennage and landing gear in fibre-composite construction; fuselage and engine mount in conventional steel tube construction.

3. Equipment: Equipment List, refer to POH/AFM Doc. N° EA-0D701, (See Note 3)

4. Dimensions: Span: 8.0 m (26.25 ft)  
Length: 7.01 m (23.00 ft)  
Height: 2.62 m (8.60 ft)  
Wing area: 10.84 m² (116.68 sq.ft.)

5. Engine:
   5.1.1 Model 1: Lycoming AEIO-580-B1A  
   5.1.2 Type Certificate: IM.E.027  
   5.1.3 Limitations: Take-off and continuous power 235 kW / 315 BHP  
                      Max. engine rotational speed 2700 RPM  
                      Manifold Pressure 100 kPa / 29.5"Hg

Aerobatic category  
Single Seat Operation / ACRO I ±10  
Double Seat Operation / ACRO II ±8  
Double Seat Operation / ACRO III ±6

7. Propeller:
   7.1.1 Model 3: MT Propeller MTV-9-B-C/C198-25  
   7.1.2 Type Certificate: LBA No. 32.130/65  
   7.1.3 Number of blades: 3  
   7.1.4 Diameter: 1980 mm ± 5 mm  
   7.1.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)

8. Fluids:
   8.1 Fuel: 100/100LL minimum grade aviation gasoline  
   8.2 Oil: Single or multi – viscosity aviation grade oils see latest issue of Textron Lycoming S.I. N° 1014  
   8.3 Coolant: None
8.4 Smoke Oil: Straight paraffin oil, kin. viscosity 30-50 cSt at 20°C (68°F), initial boiling point >330°C (626°F);
For example: Fauth FC05, Texaco Canopus 13 or equivalent.

9. Fluid capacities:

9.1. Fuel:
- Total capacity 221 Liter (58.4 US.gal)
- Usable capacity 209 Liter (55.2 US.gal)
- Usable capacity for aerobatics 67 Liter (17.7 US.gal)

9.2. Oil:
- Max. sump capacity 15.1 Liter (16 qts)
- Min. sump capacity normal 8.5 Liter (9 qts)

9.3 Coolant system capacity: None

9.4 Smoke Oil: 31 Liter (8.2 US.gal)

10. Air Speeds: Design Manoeuvring Speed $V_A$:
- Aerobatic category 160 KIAS / 158 KCAS
- Normal category 143 KIAS / 140 KCAS

Max. Structural Cruising Speed $V_{NO}$:
- Aerobatic category 160 KIAS / 158 KCAS
- Normal category 143 KIAS / 140 KCAS

Never Exceed Speed $V_{NE}$: 221 KIAS / 220 KCAS

11. Maximum Operating Altitude: 3048 m (10,000 ft)


13. Maximum Weights: Take-off and Landing:
- Normal category 950 kg (2095 lbs)
- Aerobatic category
  - Single Seat Operation / ACRO I 820 kg (1808 lbs)
  - Double Seat Operation / ACRO II 870 kg (1918 lbs)
  - Double Seat Operation / ACRO III 950 kg (2095 lbs)

- Empty:
  - Normal category 723 kg (1594 lbs)
  - Aerobatic category
    - Single Seat Operation / ACRO I 686 kg (1513 lbs)
    - Double Seat Operation / ACRO II 662 kg (1460 lbs)
    - Double Seat Operation / ACRO III 742 kg (1636 lbs)

14. Centre of Gravity Range:
- Forward limit (aft of datum):
  - at 820 kg (1808 lbs) or below 70.7 cm (27.8")
  - at 870 kg (1918 lbs) 71.6 cm (28.2")
  - at 950 kg (2095 lbs) 73.0 cm (28.7")

- Rear limit (aft of datum):
  - at 915 kg (2018 lbs) or below 88.0 cm (34.6")
15. Datum: Plane of Firewall

16. Control surface deflections:
   - Aileron: $30^\circ \pm 2^\circ$ upward; $30^\circ \pm 2^\circ$ downward
   - Elevator: $25^\circ \pm 2^\circ$ upward, $25^\circ \pm 2^\circ$ downward
   - Rudder: $30^\circ \pm 2^\circ$ left, $30^\circ \pm 2^\circ$ right
   - Elevator trim tab: $35^\circ \pm 2^\circ$ upward, $27^\circ \pm 2^\circ$ downward

17. Levelling Means: Upper fuselage longeron

18. Minimum Flight Crew: 1 Pilot (rear seat)

19. Maximum Passenger Seating Capacity: 1 (front seat)

20. Baggage/Cargo Compartments: 1 baggage compartment within the upper aft fuselage section behind the rear seat. The baggage compartment must be empty for aerobatics.
   - Max. baggage mass: 10 kg (22 lbs)
   - C.G. (aft of datum): 331 cm (130.3”)

21. Wheels and Tyres:
   - Main Wheel Tyre Size: 5.00-5 6ply
   - Tail Wheel Tyre Size: Solid rubber 125/50-75 ZL or 6” (optional)

22. (Reserved):
F.IV. Operating and Service Instructions

15. Flight Manual:
   Pilot’s Operating Handbook (POH) &
   Airplane Flight Manual (AFM)  
   Doc. No. EA-0D701

16. Technical Manual:
   Service Manual
   Doc. No. EA-0D702

17. Repair Manual:
   Service Manual
   Doc. No. EA-0D702

18. Manual for Operation:
   Pilot’s Operating Handbook (POH) &
   Airplane Flight Manual (AFM)  
   Doc. No. EA-0D701

19. Spare Parts Catalogue:
   Illustrated Parts Catalogue
   Doc. No. EA-0D703

20. Table of Dimensions, Limits and Clearances:
   Service Manual
   Doc. No. EA-0D702

21. Instruments and aggregates:
   None
F.V. **Notes:**

1. This certification applies to Serial Numbers LT001 and on.
2. res.
3. For more certified optional equipment refer to approved AFM/POH Supplements latest revision.
4. Structure is qualified up to 72°C (161.6°F). Structure temperatures (composite) above 72°C (161.6°F) are not permitted. Not to exceed this temperature limit, colour specification for composite structure of the manufacturer (document EA-03205.19) has to be complied with.
SECTION G:  EA 300/LC (Sales designation: EXTRA 330LX)

G.I.  General

1. Data Sheet No.: EASA.A.362
2. a) Type: EA 300
   b) Model: EA 300/LC (Sales designation: EXTRA 330LX)
   c) Variant: -/-
3. Airworthiness Category: Normal, Aerobatic
4. Type Certificate Holder: Extra Flugzeugproduktions- und Vertriebs- GmbH
   Schwarze Heide 21
   46569 Hünxe
   Germany
5. Manufacturer: Extra Flugzeugproduktions- und Vertriebs- GmbH
   Schwarze Heide 21
   46569 Hünxe
   Germany
6. Certification Application Date: 27-October-2009; amended on 02-December-2009
7. Reserved
8. Reserved

G.II.  EASA Certification Basis

1. Reference Date for determining the applicable requirements: 21-January-2010
   (initial type board meeting at EASA)
3. Special Conditions:
   C-1, Ermüdungs-/Schadens-Toleranznachweis der Faserverbundstruktur (Fatigue/Damage Tolerance Substantiation of Composite Structure)
   C-4, Structural Design and Loads Criteria (LBA I 311-1086/93, dated 12-March-1993 & FAA Issue Paper C-1 and C-4, Project N° CA581EU)
   Smoke System (optional equipment) (LBA I 311-1086/96, dated 07-February-1996)
   Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing) (LBA I 23-60/100, dated February-1971)
4. Exemptions: None
5. Deviations: None
   b) Stall warning §23.207
7. Requirements elected to comply: None
8. Environmental Standards: ICAO, Annex 16, Volume 1
   Fourth Edition, Amdt. 8
9. (Reserved)
10. (Reserved)
G.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: EA-06102.1 Description and Operation of Aircraft and Systems (most current issue); and EA-0E102.1 Description of differences to EA 300/L type design (most current issue)

2. Description: Single engine, low wing cantilever monoplane with reciprocating engine and fixed main gear in tail-wheel configuration; wing, empennage and landing gear in fibre-composite construction; fuselage and engine mount in conventional steel tube construction.

3. Equipment: Equipment List, refer to POH/AFM Doc. N° EA-0E701, (See Note 3)

4. Dimensions: Span: 8.0 m (26.25 ft) 
Length: 7.20 m (23.62 ft) 
Height: 2.62 m (8.60 ft) 
Wing area: 10.72 m² (115.39 sq.ft.)

5. Engine:
   5.1.1 Model 1: Lycoming AEIO-580-B1A
   5.1.2 Type Certificate: IM.E.027
   5.1.3 Limitations: Aerobatic category 
   Take-off and continuous power 235 kW / 315 BHP 
   Max. engine rotational speed 2700 RPM 
   Manifold Pressure 100 kPa / 29.5”Hg
   5.1.4 Limitations: Normal category; see Note 2 
   Take-off and continuous power 226 kW / 303 BHP 
   Max. engine rotational speed 2600 RPM 
   Manifold Pressure 100 kPa / 29.5”Hg

   Aerobatic category 
   Single Seat Operation / ACRO I ±10 
   Double Seat Operation / ACRO II ±8 
   Double Seat Operation / ACRO III ±6

7. Propeller:
   7.1.1 Model 3: MT Propeller MTV-9-B-C/C198-25
   7.1.2 Type Certificate: LBA No. 32.130/65
   7.1.3 Number of blades: 3
   7.1.4 Diameter: 1980 mm ± 5 mm
   7.1.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)
   7.2.1 Model 2: MT Propeller MTV-14-B-C/C190-130
   7.2.2 Type Certificate: EASA.P.017
   7.2.3 Number of blades: 4
7.2.4 Diameter: 1900 mm ± 5 mm
7.2.5 Sense of Rotation: Right-hand tractor (viewed in direction of flight)

8. Fluids:

8.1 Fuel: 100/100LL minimum grade aviation gasoline

8.2 Oil: Single or multi – viscosity aviation grade oils see latest issue of Textron Lycoming S.I. N° 1014

8.3 Coolant: None

8.4 Smoke Oil: Straight paraffin oil, kin. viscosity 30-50 cSt at 20°C (68°F), initial boiling point >330°C (626°F); For example: Fauth FC05, Texaco Canopus 13 or equivalent.

9. Fluid capacities:

9.1 Fuel: Total capacity 189 Liter (49.9 US.gal)
Usable capacity 187 Liter (49.4 US.gal)
Usable capacity for aerobatics 67 Liter (17.7 US.gal)

9.2 Oil: Max. sump capacity 15.1 Liter (16 qts)
Min. sump capacity normal 8.5 Liter (9 qts)

9.3 Coolant system capacity: None

9.4 Smoke Oil: 31 Liter (8.2 US.gal)

10. Air Speeds: Design Manoeuvring Speed $V_A$:  
    Aerobatic category 154 KIAS / 158 KCAS  
    Normal category 138 KIAS / 140 KCAS  

    Max. Structural Cruising Speed $V_{NO}$:  
    Aerobatic category 154 KIAS / 158 KCAS  
    Normal category 138 KIAS / 140 KCAS  

    Never Exceed Speed $V_{NE}$: 219 KIAS / 220 KCAS

11. Maximum Operating Altitude: 3048 m (10.000 ft )


13. Maximum Weights: Take-off and Landing:  
    Normal category 950 kg (2095 lbs)  
    Aerobatic category  
    Single Seat Operation / ACRO I 820 kg (1808 lbs)  
    Double Seat Operation / ACRO II 870 kg (1918 lbs)  
    Double Seat Operation / ACRO III 950 kg (2095 lbs)

    Empty:  
    Normal category 738 kg (1627 lbs)  
    Aerobatic category  
    Single Seat Operation / ACRO I 686 kg (1513 lbs)  
    Double Seat Operation / ACRO II 662 kg (1460 lbs)
14. Centre of Gravity Range:
   Forward limit (aft of datum):
   at 950 kg (2095 lbs) or below 67.1 cm (29.4”)
   Rear limit (aft of datum):
   at 950 kg (2095 lbs) or below 84.1 cm (33.1”)

15. Datum: Plane of Firewall

16. Control surface deflections:
   Aileron: 30°±2° upward; 30°±2° downward
   Elevator: 25°±2° upward, 25°-2° downward
   Rudder: 30°±2° left, 30°±2° right
   Elevator trim tab: 35°±2° upward, 27°±2° downward

17. Levelling Means: Upper fuselage longeron

18. Minimum Flight Crew: 1 Pilot (rear seat)

19. Maximum Passenger Seating Capacity: 1 (front seat)

20. Baggage/Cargo Compartments: None

21. Wheels and Tyres:
   Main Wheel Tyre Size: 5.00-5 6ply
   Tail Wheel Tyre Size: Solid rubber 125/50-75 ZL or 6” (optional)

22. (Reserved):
G.IV. **Operating and Service Instructions**

22. Flight Manual:
   - Pilot’s Operating Handbook (POH) &
     Airplane Flight Manual (AFM)  
   - Doc. No. EA-0E701

23. Technical Manual:
   - Service Manual  
   - Doc. No. EA-0E702

24. Repair Manual:
   - Service Manual  
   - Doc. No. EA-0E702

25. Manual for Operation:
   - Pilot’s Operating Handbook (POH) &
     Airplane Flight Manual (AFM)  
   - Doc. No. EA-0E701

26. Spare Parts Catalogue:
   - None

27. Table of Dimensions, Limits and Clearances:
   - Service Manual  
   - Doc. No. EA-0E702

28. Instruments and aggregates:
   - None
G.V. Notes:

1. This certification applies to Serial Numbers LC001 and on.
2. A standard Certificate of Airworthiness can only be issued for an aircraft which is equipped with:
   - the 3-blade propeller MTV-9-B-C/C198-25 in combination with the exhaust silencer system type Gomolzig EA300-606000 and a reduced max. take-off engine rotational speed of 2600RPM.
   - the 4-blade propeller MTV-14-B-C/C190-130 in combination with the exhaust silencer system type Gomolzig EA300-606000 and a reduced max. take-off engine rotational speed of 2600RPM.
   Otherwise a Certificate of Airworthiness can only be issued for aerial work.
3. For more certified optional equipment refer to approved AFM/POH Supplements latest revision.
4. Structure is qualified up to 72°C (161.6°F). Structure temperatures (composite) above 72°C (161.6°F) are not permitted. Not to exceed this temperature limit, colour specification for composite structure of the manufacturer (document EA-03205.19) has to be complied with.
ADMINISTRATIVE SECTION

I. Acronyms

II. Type Certificate Holder Record

EXTRA Flugzeugbau GmbH: until 15 September-2003
EXTRA Flugzeugproduktions- und Vertriebs GmbH: from 15 September-2003

III. 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>17 July 2008</td>
<td>Initial issue (replaces LBA TCDS 1086) including new model EA 300/SC</td>
<td>Original 17 July 2008</td>
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<tr>
<td>Issue 02</td>
<td>25 July 2008</td>
<td>Added alternative engine for model EA 300/L</td>
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<tr>
<td>Issue 03</td>
<td>18 February 2009</td>
<td>Added alternative propeller and increased center fuel tank capacity (as raised standard) for model EA 300/L, general review</td>
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<tr>
<td>Issue 04</td>
<td>31 May 2010</td>
<td>New model EA 300/LT</td>
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<tr>
<td>Issue 05</td>
<td>08 April 2011</td>
<td>New model EA 300/LC</td>
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<tr>
<td>Issue 06</td>
<td>30 April 2013</td>
<td>Added alternative propeller for model EA 300/SC</td>
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<td>Issue 07</td>
<td>08 September 2013</td>
<td>Added alternative propeller for model EA 300/LC</td>
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