

European Aviation Safety Agency

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

(see Note 6) Schwarze Heide 21

46569 Hünxe Germanv

5. Manufacturer: Extra Flugzeugproduktions- und Vertriebs- GmbH

(see Note 6) Schwarze Heide 21

46569 Hünxe Germany

6. Certification Application 18-December-1986

Date:

7. National Certifying Authority Luftfahrt-Bundesamt (Germany)

8. National Authority Type 16-May-1990

Certificate Date:

A.II. EASA Certification Basis

Reference Date for determining the applicable requirements:
 Updated on 12-March-1993 (from initial 14 CFR eff. Feb. 1, 1965, incl. Amdt 23-1 through 23-33)

2. Airworthiness Requirements: 14 CFR eff. 1-February-1965, incl. Amdt 23-1

through 23-34, effective 14-September-1987

3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der

Faserverbundstruktur (Fatique/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)

Exemptions: None
 Deviations: None
 Equivalent Safety Findings: None
 Requirements elected to None

comply:

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 (8.60ft)

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: $2000 \text{ mm} \pm 0 \text{ mm}$

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: $1900 \text{ mm} \pm 0 \text{ mm}$

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 Total capacity 194 Liter (51.2 US.gal)

(Long Range): 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)

12. Allweather Operations

Capability:

Day-VFR

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:

Normal category

Standard 745 kg (1643 lbs) 724 kg (1596 lbs) Long Range

Aerobatic category

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

14. Centre of Gravity

Forward limit (aft of datum): Range:

at 820 kg (1808 lbs) or below 75.0 cm (29.53")

Normal category

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")

Normal category

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

Elevator trim tab: 40°±5° upward, 50°±5° downward

Rudder:

30°±2° left,

30°±2° right

Upper fuselage longeron

17. Levelling Means:

18. Minimum Flight Crew:

1 Pilot (rear seat)

1 (front seat)

19. Maximum Passenger

Seating Capacity:

None

20. Baggage/Cargo

Compartments:

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

Pilot's Operating Handbook (POH) &

Airplane Flight Manual (AFM) Doc. No. EA-03701 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

Pilot's Operating Handbook (POH) &

Airplane Flight Manual (AFM) Doc. No. EA-03701 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

 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 300b) 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 17-September-1991

Date:

7. National Certifying Authority Luftfahrt-Bundesamt (Germany)

8. National Authority Type 19-March-1993

Certificate Date:

B.II. EASA Certification Basis

Reference Date for determining the applicable requirements:
 Updated on 12-March-1993 (from initial 14 CFR eff. Feb. 1, 1965, incl. Amdt 23-1 through 23-33)

2. Airworthiness Requirements: 14 CFR eff. 1-February-1965, incl. Amdt 23-1

through 23-34, effective 14-September-1987

3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der

Faserverbundstruktur (Fatique/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)

Page 12 of 54

Exemptions: None
 Deviations: None
 Equivalent Safety Findings: None
 Requirements elected to None

comply:

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. N° 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 (8.60ft)

Wing area: 10.44 m² (112.38 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 ±10

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: $2000 \text{ mm} \pm 0 \text{ mm}$

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 di	rection 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):	• •	171 Liter (45.1 US.gal) 169 Liter (44.6 US.gal) 49 Liter (12.9 US.gal)		
	9.1.2 Fuel (Long Range):		205 Liter (54.1 US.gal) 203 Liter (53.5 US.gal) 49 Liter (12.9 US.gal)		
	9.2 Oil:	Min. sump capacity aerobatic	15.1 Liter (16 qts) 11.3 Liter (12 qts) 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 Normal category	158 KIAS 140 KIAS		
		Max. Structural Cruising Speed Aerobatic category Normal category	V _{NO} : 158 KIAS 140 KIAS		
		Never Exceed Speed V _{NE} :	220 KIAS		
11.	Maximum Operating Altitude:	4877 m (16.000 ft)			
12.	Allweather Operations Capability:	Day-VFR			
13.	Maximum Weights:	Take-off and Landing: Normal category Aerobatic category Empty: Normal category Standard Long Range	920 kg (2028 lbs) 820 kg (1808 lbs) 711 kg (1568 lbs) 786 kg (1513 lbs)		
		Aerobatic category	697 kg (1537 lbs)		

Page 15 of 54

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")

Plane of Firewall 15. Datum:

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

Upper fuselage longeron 17. Levelling Means:

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:

> Tail Wheel Tyre Size: Solid rubber 125/50-75 ZL

> > or 6" (optional)

5.00-5 6ply

22. (Reserved):

B.IV. Operating and Service Instructions

1. Flight Manual:

Flughandbuch (FHB) Doc. No. EA-04701D

Pilot's Operating Handbook (POH) &

Airplane Flight Manual (AFM) Doc. No. EA-04701

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) &

Airplane Flight Manual (AFM) Doc. No. EA-04701

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

 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)

SECTION C: EA 300/L

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

Type Certificate Holder: Extra Flugzeugproduktions- und Vertriebs- GmbH

46569 Hünxe

(see Note 6) Schwarze Heide 21

Germany

5. Manufacturer: Extra Flugzeugproduktions- und Vertriebs- GmbH

(see Note 6) Schwarze Heide 21

46569 Hünxe Germany

Certification Application

Date:

02-Februrary-1994

7. National Certifying Authority Luftfahrt-Bundesamt (Germany)

8. National Authority Type

Certificate Date:

31-January-1995

C.II. EASA Certification Basis

Reference Date for 03-February-1994 determining the applicable

requirements:

2. Airworthiness Requirements: 14 CFR eff. 1-February-1965, incl. Amdt 23-1

through 23-34, effective 14-September-1987

3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der

Faserverbundstruktur (Fatique/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)

Page 19 of 54

Exemptions: None
 Deviations: None
 Equivalent Safety Findings: None
 Requirements elected to None

comply:

8. Environmental Standards: ICAO, Annex 16, Volume 1

9. (Reserved)

10. (Reserved)

C.III. <u>Technical Characteristics and Operational Limitations</u>

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 d	irection of	flight)
8.	8. Fluids:				
	8.1	Fuel:	100/100LL minimum grade avia	ation gasol	ine
	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. viscos (68°F), initial boiling point >330 For example: Fauth FC05, Texequivalent.	°C (626°F)) ;
9.	9. Fluid capacities:				
	9.1.1	Fuel (Standard):	Total capacity Usable capacity Usable capacity for aerobatics	165.5 Lite	(45.1 US.gal) r(43.7 US.gal) (12.0 US.gal)
	9.1.2	Fuel (Long Range):	Total capacity Usable capacity Usable capacity for aerobatics	199.5 Lite	(54.1 US.gal) r(52.7 US.gal) (12.0 US.gal)
	9.1.3	Fuel (Raised Standard): See Note 9	Total capacity Usable capacity Usable capacity for aerobatics	187 Liter	(49.9 US.gal) (49.4 US.gal) (17.7 US.gal)
	9.2.1	Oil (Engine Model 1 & 2):	Max. sump capacity Min. sump capacity aerobatic Min. sump capacity normal	15.1 Liter 11.3 Liter 8.5 Liter	\ I /
	9.2.2	Oil (Engine Model 3):	Max. sump capacity Min. sump capacity normal	15.1 Liter 8.5 Liter	
		Coolant system capacity:	None		
	9.4	Smoke Oil:	31 Liter (8.2 US.gal)		

EA 300/L Issue 05, 08-April-2011 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 4877 m (16.000 ft) Altitude: 12. Allweather Operations Day-VFR Capability: 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 742 kg (1636 lbs) Standard 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)

14. Centre of Gravity Forward limit (aft of datum):

at 950 kg (2095 lbs) or below 67.1 cm (29.4") Range:

Rear limit (aft of datum):

at 950 kg (2095 lbs) or below 84.1 cm (33.1")

Double Seat Operation / ACRO III 742 kg (1636 lbs)

15. Datum: Plane of Firewall EA 300/L

16. Control surface deflections:

Aileron: Elevator:

25°±2° upward, 25°±2° downward

30°±2° upward; 30°±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

21. Wheels and Tyres:

None

Compartments:

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) Doc. No. EA-06701D

Pilot's Operating Handbook (POH) &

Airplane Flight Manual (AFM) 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) Doc. No. EA-06701D

Pilot's Operating Handbook (POH) &

Airplane Flight Manual (AFM) 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.
- 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: 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:

26-May-1995

7. National Certifying Authority Luftfahrt-Bundesamt (Germany)

8. National Authority Type

Certificate Date:

12-August-1996

D.II. EASA Certification Basis

Reference Date for 26-May-1995 determining the applicable

requirements:

2. Airworthiness Requirements: 14 CFR eff. 1-February-1965, incl. Amdt 23-1

through 23-34, effective 14-September-1987

3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der

Faserverbundstruktur (Fatique/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

Page 27 of 54

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. <u>Technical Characteristics and Operational Limitations</u>

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 speed2700 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

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: 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: $1830 \text{ mm} \pm 0 \text{ mm}$

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): Total capacity 122 Liter (32.1 US.gal)

See Note 2 Usable capacity 117 Liter (30.8 US.gal)

Usable capacity for aerobatics 32 Liter (8.5 US.gal)

9.1.2 Fuel Total capacity 190 Liter (50.2 US.gal)

(Long Range): 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 None

capacity:

10. Air Speeds: Design Manoeuvring Speed V_A:

See Note 2 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_{NF}: 217 KIAS / 220 KCAS

11. Maximum Operating 4877 m (16.000 ft)

Altitude:

12. Allweather Operations Day-VFR

Capability:

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 Forward limit (aft of datum):

Range: 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 Aileron: 30°±2° upward; 30°±2° downward

deflections: 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)

None

20. Baggage/Cargo

Compartments: 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

Pilot's Operating Handbook (POH) &

Airplane Flight Manual (AFM) Doc. No. EA-07701

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

Pilot's Operating Handbook (POH) &

Airplane Flight Manual (AFM) Doc. No. EA-07701

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:

Supplement Airplane Flight Manual / POH EXTRA 300/200 Doc. No. EA-07701D.2

- 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

 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 300b) Model: EA 300/SC

c) Variant:

3. Airworthiness Category: Normal, Aerobatic

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

23-November-2007

6. Certification Application

Date:

7. Reserved

8. Reserved

E.II. <u>EASA Certification Basis</u>

1. Reference Date for 31-January-2008

determining the applicable (initial type board meeting at EASA)

requirements:

2. Airworthiness Requirements: 14 CFR eff. 1-February-1965, incl. Amdt 23-1

through 23-34, effective 14-September-1987

3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der

Faserverbundstruktur (Fatique/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: None5. Deviations: None

6. Equivalent Safety Findings: a) Static longitudinal stability §§23.171; 23.173,

23.175

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)

E.III. <u>Technical Characteristics and Operational Limitations</u>

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 (8.36ft)

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: Take-off and continuous power 235 kW / 315 BHP

Aerobatic category Max. engine rotational speed 2700 RPM

Manifold Pressure 100 kPa / 29.5"Hg

5.1.4 Limitations: Take-off and continuous power 226 kW / 303 BHP

Normal category; Max. engine rotational speed 2600 RPM

see Note 2 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: $1980 \text{ mm} \pm 5 \text{ mm}$

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)

TCDS EASA.A.362	
1000 LAOA.A.302	EA 300/SC
Innue OC 20 April 2042	EA 300/3C

Page 36 of 54

Issue 06, 30-April-2013 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 None capacity: 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}: 154 KIAS / 158 KCAS Aerobatic category Normal category 138 KIAS / 141 KCAS 219 KIAS / 220 KCAS Never Exceed Speed V_{NF}: 11. Maximum Operating 3048 m (10.000 ft) Altitude: 12. Allweather Operations Day-VFR (limited from SR to SS) Capability: Day-VFR (if position light system is installed) Take-off and Landing: 13. Maximum Weights: 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 Forward limit (aft of datum):

Range:

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.

Plane of Firewall 15. Datum:

16. Control surface Aileron: 30°±2° upward; 30°±2° downward deflections:

25°±1° upward, 25°±1° downward Elevator:

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 None

Seating Capacity:

20. Baggage/Cargo None

Compartments:

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. takeoff 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 300b) Model: EA 300/LT

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

22-January-2009

(see Note 6) Schwarze Heide 21

46569 Hünxe Germany

6. Certification Application

Date:

7. Reserved

8. Reserved

F.II. <u>EASA Certification Basis</u>

Reference Date for determining the applicable (iii)

requirements:

28-April-2009

(initial type board meeting at EASA)

2. Airworthiness Requirements: 14 CFR eff. 1-February-1965, incl. Amdt 23-1

through 23-34, effective 14-September-1987

3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der

Faserverbundstruktur (Fatique/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: None5. Deviations: None

6. Equivalent Safety Findings: Static longitudinal stability §§23.171; 23.173,

23.175 & 23.177

7. Requirements elected to

comply:

None

8. Environmental Standards: ICAO, Annex 16, Volume 1

Fourth Edition, Amdt. 8

9. (Reserved)

10. (Reserved)

F.III. <u>Technical Characteristics and Operational Limitations</u>

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 (8.60ft)

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

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 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

Page 43 of 54

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 gts)

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

Maximum Operating

Altitude:

3048 m (10.000 ft)

12. Allweather Operations

Capability:

Day-VFR

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

Forward limit (aft of datum):

Range: 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")

at 950 kg (2095 lbs)

84.1 cm (33.1")

Straight line variation between mass limits.

Plane of Firewall 15. Datum:

16. Control surface deflections:

Aileron:

30°±2° upward; 30°±2° downward

Elevator: Rudder:

30°±2° left,

30°±2° right

Elevator trim tab: 35°±2° upward, 27°±2° downward

25°±2° upward, 25°±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:

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

(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:

27-October-2009; amended on 02-December-2009

- 7. Reserved
- 8. Reserved

G.II. <u>EASA Certification Basis</u>

1. Reference Date for 21-January-2010

determining the applicable

requirements:

(initial type board meeting at EASA)

2. Airworthiness Requirements: 14 CFR eff. 1-February-1965, incl. Amdt 23-1

through 23-34, effective 14-September-1987

3. Special Conditions: C-1, Ermüdungs-/Schadens-Toleranznachweis der

Faserverbundstruktur (Fatique/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)

Page 48 of 54

4. Exemptions: None

5. Deviations: None

6. Equivalent Safety Findings: a) Static longitudinal stability §§23.171; 23.173,

23.175

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. <u>Technical Characteristics and Operational Limitations</u>

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 (8.60ft)

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: Take-off and continuous power 235 kW / 315 BHP

Aerobatic category Max. engine rotational speed 2700 RPM

Manifold Pressure 100 kPa / 29.5"Hg

5.1.4 Limitations: Take-off and continuous power 226 kW / 303 BHP

Normal category; Max. engine rotational speed 2600 RPM

see Note 2 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 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: $1900 \text{ mm} \pm 5 \text{ mm}$

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)

12. Allweather Operations

Capability:

Day-VFR

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)

Page 51 of 54

Double Seat Operation / ACRO III 742 kg (1636 lbs)

14. Centre of Gravity Forward limit (aft of datum):

at 950 kg (2095 lbs) or below Range: 67.1 cm (29.4")

Rear limit (aft of datum):

at 950 kg (2095 lbs) or below 84.1 cm (33.1")

Plane of Firewall 15. Datum:

16. Control surface Aileron: 30°±2° upward; 30°±2° downward

deflections: 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 1 (front seat)

20. Baggage/Cargo None

Seating Capacity:

21. Wheels and Tyres:

Compartments:

Main Wheel Tyre Size: Tail Wheel Tyre Size: Solid rubber 125/50-75 ZL

or 6" (optional)

5.00-5 6ply

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. takeoff 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

Issue	Date	Changes	TC Issue No. & Date
Issue 01	17 July 2008	Initial issue (replaces LBA TCDS 1086) including new model	Original
		EA 300/SC	17 July 2008
Issue 02	25 July 2008	Added alternative engine for model EA 300/L	
Issue 03	18 February 2009	Added alternative propeller and increased center fuel tank capacity	
		(as raised standard) for model EA 300/L, general review	
Issue 04	31 May 2010	New model EA 300/LT	
Issue 05	08 April 2011	New model EA 300/LC	
Issue 06	30 April 2013	Added alternative propeller for model EA 300/SC	
Issue 07	08 September 2013	Added alternative propeller for model EA 300/LC	