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# TYPE-CERTIFICATE

## DATA SHEET

NO. EASA.A.362

**for**  
EA 300

**Type Certificate Holder**  
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  
EA 300/SX



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**SECTION A: EA 300 (SALES DESIGNATION: EXTRA 300)**

**A.I. General**

- |  |   |
|--|---|
| 1. Type/ Model/ Variant                |   |
| 1.1 Type                               | EA 300 (Sales designation EXTRA 300)  |
| 1.2 Model                              | -/-   |
| 1.3 Variant                            | -/-   |
| 2. Airworthiness Category              | Normal, Aerobatic   |
| 3. Manufacturer<br>(see Note 6)        | EXTRA Flugzeugproduktions- und Vertriebs- GmbH<br>Schwarze Heide 21<br>46569 Hünxe<br>Germany |
| 4. Type Certification Application Date | 18 December 1986  |

*Note: State of Design Authority certification application date for grandfathered products*

- |   |                               |
|---|-------------------------------|
| 5. State of Design Authority                          | Luftfahrt-Bundesamt (Germany) |
| 6. State of Design Authority Type<br>Certificate Date | 16 May 1990                   |
| 7. EASA Type Certification Date                       | 17 July 2008                  |

**A.II. EASA Certification Basis**

- |   |   |
|---|---|
| 1. 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 (Fatigue/Damage Tolerance Substantiation of Composite Structure)<br>and<br>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)<br>Smoke System (optional equipment) (LBA I 311-1086/96, dated 07-February-1996)<br>Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing) (LBA I 23-60/100, dated February-1971) |
| 4. Exemptions   | None  |
| 5. (Reserved) Deviations                                      | None  |
| 6. Equivalent Safety Findings                                 | None  |
| 7. Environmental Protection                                   | ICAO, Annex 16, Volume 1  |



### 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:	8.00 m	(26.25 ft)
Length:	7.12 m	(23.36 ft)
Height:	2.62 m	(8.60 ft)
Wing area:	10.72 m <sup>2</sup>	(115.39 sq.ft.)
5. Engine
  - 5.1 Engine Model 1
    - 5.1.1 Model Lycoming AEIO-540-L1B5
    - 5.1.2 Type Certificate LBA No. 4535
    - 5.1.3 Limitations
 

Rated power at 2700 RPM	224 kW / 300 BHP
Maximum RPM (take-off and max. continuous):	
With propeller model 1:	
Aerobatic Category only	2700 RPM
With propeller model 2:	
Normal and Aerobatic Category	2700 RPM

 (See Note 3)
  - 5.2 Engine Model 2
    - 5.2.1 Model Lycoming AEIO-540-L1B5D
    - 5.2.2 Type Certificate LBA No. 4535
    - 5.2.3 Limitations
 

Rated power at 2700 RPM	224 kW / 300 BHP
Maximum RPM (Take-off and max. continuous):	
With propeller model 1:	
Aerobatic Category only	2700 RPM
With propeller model 2:	
Normal and Aerobatic Category	2700 RPM

 (See Note 3)
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 Propeller Model 1

7.1.1 Model	MT Propeller	MTV-9-B-C/C200-15
7.1.2 Type Certificate	EASA.P.096	(replaced 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 Propeller Model 2

7.2.1 Model	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 Fuel

9.1.1 Fuel – Standard	Total capacity	160 Liter	(42.3 US.gal)
	Usable capacity	158 Liter	(41.7 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. Flight Envelope	Max. operating altitude	4877 m	(16000 ft)
12. Approved Operations Capability	Day-VFR		
13. Maximum Masses	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)
	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)
14. Centre of Gravity Range	Forward limit (aft of datum):		
	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) or below	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:	$30^{\circ} \pm 2^{\circ}$ 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:	$40^{\circ} \pm 5^{\circ}$ upward,	$50^{\circ} \pm 5^{\circ}$ 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 | None                  |   |
| 21. Wheels and Tyres           | Main Wheel Tyre Size: | 5.00-5 6ply                                   |
|                                | Tail Wheel Tyre Size: | Solid rubber 125/50-75 ZL<br>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. Maintenance Manual

Service Manual Doc. No. EA-03702

3. Structural Repair Manual

Service Manual Doc. No. EA-03702

4. Weight and Balance 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

5. Illustrated Parts Catalogue

Parts Catalogue Doc. No. EA-03703



## **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 ACC Columbia 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 ACC Columbia 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 V1, 03, 05, 06 and 15 to 67 manufactured by Extra Flugzeugbau GmbH; serial numbers 1068 and on by Extra Flugzeugproduktions- und Vertriebs- GmbH (continuation of manufacture). See type certificate holder record (Administrative Section II).



**SECTION B: EA 300/S (Sales designation: EXTRA 300S)**

**B.I. General**

- |  |   |
|--|---|
| 1. Type/ Model/ Variant                |   |
| 1.1 Type                               | EA 300  |
| 1.2 Model                              | EA 300/S (Sales designation EXTRA 300S)   |
| 1.3 Variant                            | -/-   |
| 2. Airworthiness Category              | Normal, Aerobatic   |
| 3. Manufacturer<br>(see Note 6)        | EXTRA Flugzeugproduktions- und Vertriebs- GmbH<br>Schwarze Heide 21<br>46569 Hünxe<br>Germany |
| 4. Type Certification Application Date | 17 September 1991   |

*Note: State of Design Authority certification application date for grandfathered products*

- |   |                               |
|---|-------------------------------|
| 5. State of Design Authority                          | Luftfahrt-Bundesamt (Germany) |
| 6. State of Design Authority Type<br>Certificate Date | 19 March 1993                 |
| 7. EASA Type Certification Date                       | 17 July 2008                  |

**B.II. EASA Certification Basis**

- |   |   |
|---|---|
| 1. 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 (Fatigue/Damage Tolerance Substantiation of Composite Structure)<br>and<br>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)<br>Smoke System (optional equipment) (LBA I 311-1086/96, dated 07-February-1996)<br>Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing) (LBA I 23-60/100, dated February-1971) |
| 4. Exemptions   | None  |
| 5. (Reserved) Deviations                                      | None  |
| 6. Equivalent Safety Findings                                 | None  |
| 7. Environmental Protection                                   | ICAO, Annex 16, Volume 1  |



**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:	7.50 m	(24.61 ft)
Length:	6.65 m	(21.82 ft)
Height:	2.62 m	(8.60 ft)
Wing area:	10.44 m <sup>2</sup>	(112.38 sq.ft.)
5. Engine
  - 5.1 Engine Model 1
    - 5.1.1 Model Lycoming AEIO-540-L1B5
    - 5.1.2 Type Certificate LBA No. 4535
    - 5.1.3 Limitations
 

Rated power at 2700 RPM	224 kW / 300 BHP
Maximum RPM (take-off and max. continuous):	
With propeller model 1:	
Aerobatic Category only	2700 RPM
With propeller model 2:	
Normal and Aerobatic Category	2700 RPM

 (See Note 3)
  - 5.2 Engine Model 2
    - 5.2.1 Model Lycoming AEIO-540-L1B5D
    - 5.2.2 Type Certificate LBA No. 4535
    - 5.2.3 Limitations
 

Rated power at 2700 RPM	224 kW / 300 BHP
Maximum RPM (Take-off and max. continuous):	
With propeller model 1:	
Aerobatic Category only	2700 RPM
With propeller model 2:	
Normal and Aerobatic Category	2700 RPM

 (See Note 3)
6. Load factors
 

Normal category	+6 / -3
Aerobatic category	±10



## 7. Propeller

### 7.1 Propeller Model 1

7.1.1 Model	MT Propeller	MTV-9-B-C/C200-15
7.1.2 Type Certificate	EASA.P.096	(replaced 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 Propeller Model 2

7.2.1 Model	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 Fuel

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. Flight Envelope	Max. operating altitude	4877 m	(16000 ft)
12. Approved Operations Capability	Day-VFR		
13. Maximum Masses	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	686 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:	$30^\circ \pm 2^\circ$ 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:	$40^\circ \pm 5^\circ$ upward,	$50^\circ \pm 5^\circ$ downward
17. Levelling Means	Upper fuselage longeron		
18. Minimum Flight Crew	1 Pilot		
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) &  
Airplane Flight Manual (AFM) Doc. No. EA-04701

2. Maintenance Manual

Service Manual Doc. No. EA-04702

3. Structural Repair Manual

Service Manual Doc. No. EA-04702

4. Weight and Balance Manual

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

Pilot's operating Handbook (POH) &  
Airplane Flight Manual (AFM) Doc. No. EA-04701

5. Illustrated Parts Catalogue

Parts Catalogue Doc. No. EA-04703



## **B.V. Notes**

1. This certification applies to Serial numbers 01 and on.
2. The use of an exhaust silencer system type ACC Columbia 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 ACC Columbia 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 numbers 1 to 31 manufactured by Extra Flugzeugbau GmbH; serial numbers 1032 and on by Extra Flugzeugproduktions- und Vertriebs- GmbH (continuation of manufacture). See type certificate holder record (Administrative Section II).



**SECTION C: EA 300/L (Sales designation: EXTRA 300L)**

**C.I. General**

- |  |   |
|--|---|
| 1. Type/ Model/ Variant                |   |
| 1.1 Type                               | EA 300  |
| 1.2 Model                              | EA 300/L (Sales designation EXTRA 300L)   |
| 1.3 Variant                            | -/-   |
| 2. Airworthiness Category              | Normal, Aerobatic   |
| 3. Manufacturer<br>(see Note 6)        | EXTRA Flugzeugproduktions- und Vertriebs- GmbH<br>Schwarze Heide 21<br>46569 Hünxe<br>Germany |
| 4. Type Certification Application Date | 02 February 1994  |

*Note: State of Design Authority certification application date for grandfathered products*

- |   |                               |
|---|-------------------------------|
| 5. State of Design Authority                          | Luftfahrt-Bundesamt (Germany) |
| 6. State of Design Authority Type<br>Certificate Date | 31 January 1995               |
| 7. EASA Type Certification Date                       | 17 July 2008                  |

**C.II. EASA Certification Basis**

- |   |  |
|---|--|
| 1. Reference Date for determining the applicable requirements | 03 February 1994   |
| 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 (Fatigue/Damage Tolerance Substantiation of Composite Structure) and<br>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. (Reserved) Deviations                                      | None   |
| 6. Equivalent Safety Findings                                 | None   |
| 7. Environmental Protection                                   | ICAO, Annex 16, Volume 1   |



### 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:	8.00 m	(26.25 ft)
Length:	6.96 m	(22.83 ft)
Height:	2.62 m	(8.60 ft)
Wing area:	10.84 m <sup>2</sup>	(116.68 sq.ft.)
5. Engine
  - 5.1 Engine Model 1
    - 5.1.1 Model Lycoming AEIO-540-L1B5
    - 5.1.2 Type Certificate LBA No. 4535
    - 5.1.3 Limitations
 

Rated power at 2700 RPM	224 kW / 300 BHP
Maximum RPM (take-off and max. continuous):	
With propeller model 1:	
Aerobatic Category only	2700 RPM
With propeller model 2:	
Normal and Aerobatic Category	2700 RPM

 (See Note 3)
  - 5.2 Engine Model 2
    - 5.2.1 Model Lycoming AEIO-540-L1B5D
    - 5.2.2 Type Certificate LBA No. 4535
    - 5.2.3 Limitations
 

Rated power at 2700 RPM	224 kW / 300 BHP
Maximum RPM (Take-off and max. continuous):	
With propeller model 1:	
Aerobatic Category only	2700 RPM
With propeller model 2:	
Normal and Aerobatic Category	2700 RPM

 (See Note 3)
  - 5.3 Engine Model 3
    - 5.3.1 Model Lycoming AEIO-580-B1A
    - 5.3.2 Type Certificate IM.E.027



5.3.3	Limitations	Rated power at 2700 RPM	235 kW / 315 BHP
		Rated power at 2600 RPM	226 kW / 303 BHP
		Maximum RPM (Take-off and max. continuous):	
		With propeller model 2:	
		Normal and Aerobatic Category	2700 RPM
		With propeller model 3:	
		Normal and Aerobatic Category	2600 RPM
		Aerobatic Category only	2700 RPM
		(See Note 3 and Note 8)	
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	Propeller Model 1		
7.1.1	Model	MT Propeller	MTV-9-B-C/C200-15
7.1.2	Type Certificate	EASA.P.096	(replaced 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	Propeller Model 2		
7.2.1	Model	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	Propeller Model 3		
7.3.1	Model	MT Propeller	MTV-9-B-C/C198-25
7.3.2	Type Certificate	EASA.P.096	(replaced 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 Fuel			
9.1.1	Fuel – Standard	Total capacity	171.0 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	205.0 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 see Note 9	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			
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.	Flight Envelope	Max. operating altitude	4877 m (16000 ft)
12.	Approved Operations Capability	Day-VFR	
13. Maximum Masses			
		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	(33.10")
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)			



#### **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. Maintenance Manual

Service Manual Doc. No. EA-06702

3. Structural Repair Manual

Service Manual Doc. No. EA-06702

4. Weight and Balance Manual

Flughandbuch (FHB) Doc. No. EA-06701D

Pilot's operating Handbook (POH) &  
Airplane Flight Manual (AFM) Doc. No. EA-06701

5. Illustrated Parts Catalogue

Parts Catalogue Doc. No. EA-06703



## C.V. Notes

1. This certification applies to Serial numbers 01 and on.
2. The use of an exhaust silencer system type ACC Columbia 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 ACC Columbia EA300-606500 or EA300-606000 or
  - the 3-blade propeller MTV-9-B-C/C198-25 in combination with the exhaust silencer type ACC Columbia EA300-606000 and a reduced max. take-off engine rotational speed of 2600 RPM.

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 numbers 1 to 167 manufactured by Extra Flugzeugbau GmbH; serial numbers 168 to 170, 1171, 172, 173, 1174 an on by Extra Flugzeugproduktions- und Vertriebs-GmbH (continuation of manufacture). See type certificate holder record (Administrative Section II).  
Serial number 166 & 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. Type/ Model/ Variant                |   |
| 1.1 Type                               | EA 300  |
| 1.2 Model                              | EA 300/200 (Sales designation EXTRA 200)  |
| 1.3 Variant                            | -/-   |
| 2. Airworthiness Category              | Normal, Aerobatic   |
| 3. Manufacturer<br>(see Note 6)        | EXTRA Flugzeugproduktions- und Vertriebs- GmbH<br>Schwarze Heide 21<br>46569 Hünxe<br>Germany |
| 4. Type Certification Application Date | 26 May 1995   |

*Note: State of Design Authority certification application date for grandfathered products*

- |   |                               |
|---|-------------------------------|
| 5. State of Design Authority                          | Luftfahrt-Bundesamt (Germany) |
| 6. State of Design Authority Type<br>Certificate Date | 12 August 1996                |
| 7. EASA Type Certification Date                       | 17 July 2008                  |

**D.II. EASA Certification Basis**

- |   |  |
|---|--|
| 1. Reference Date for determining the applicable requirements | 26 May 1995  |
| 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 (Fatigue/Damage Tolerance Substantiation of Composite Structure)<br>and<br>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)<br>Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing) (LBA I 23-60/100, dated February-1971) |
| 4. Exemptions   | None   |
| 5. (Reserved) 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. Environmental Protection                                   | ICAO, Annex 16, Volume 1   |



### **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:	7.50 m	(24.61 ft)
Length:	6.65 m	(21.82 ft)
Height:	2.62 m	(8.60 ft)
Wing area:	10.44 m <sup>2</sup>	(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

Rated power at 2700 RPM	149 kW / 200 BHP
Rated power at 2500 RPM	138 kW / 185 BHP
Maximum RPM (take-off)	2700 RPM
Maximum RPM (max. continuous)	2500 RPM
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 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 Fuel

9.1.1 Fuel – Standard	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	(48.9 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

9.4 Smoke Oil: 35 Liter (9.2 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 $V_{NE}$ :		217 KIAS / 220 KCAS	

11. Flight Envelope Max. operating altitude 4877 m (16000 ft)

12. Approved Operations Capability Day-VFR

13. Maximum Masses

Take-off and Landing:			
Normal category		840 kg	(1852 lbs)
Aerobatic category			
Single Seat Operation / ACRO I		700 kg	(1543 lbs)
Double Seat Operation / ACRO II		800 kg	(1764 lbs)
Empty:			
Normal category			
Standard		646 kg	(1424 lbs)
Long Range		621 kg	(1369 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°±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)			



**D.IV. Operating and Service Instructions**

- |  |  |                    |
|--|--|--------------------|
| 1. Flight Manual   |  |                    |
| Flughandbuch (FHB)   |  | Doc. No. EA-07701D |
| Pilot's operating Handbook (POH) &<br>Airplane Flight Manual (AFM) |  | Doc. No. EA-07701  |
| 2. Maintenance Manual  |  |                    |
| Service Manual   |  | Doc. No. EA-07702  |
| 3. Structural Repair Manual  |  |                    |
| Service Manual   |  | Doc. No. EA-07702  |
| 4. Weight and Balance Manual                                       |  |                    |
| Flughandbuch (FHB)   |  | Doc. No. EA-07701D |
| Pilot's operating Handbook (POH) &<br>Airplane Flight Manual (AFM) |  | Doc. No. EA-07701  |
| 5. Illustrated Parts Catalogue                                     |  |                    |
| Parts Catalogue  |  | 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:
  - Maneuvering speed (Acrobatic category):  $V_A = 138$  KIAS
  - Wing- and acro tank:

Total fuel capacity	156 L
Usable fuel capacity	151 L
  - 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
7. Model EA 300/200 serial numbers 1 to 31 manufactured by Extra Flugzeugbau GmbH; serial numbers 1032 and on by Extra Flugzeugproduktions- und Vertriebs- GmbH (continuation of manufacture). See type certificate holder record (Administrative Section II).



**SECTION E: EA 300/SC (Sales designation: EXTRA 330SC)**

**E.I. General**

- |   |   |
|---|---|
| 1. Type/ Model/ Variant                     |   |
| 1.1 Type                                    | EA 300  |
| 1.2 Model                                   | EA 300/SC (Sales designation EXTRA 330SC)   |
| 1.3 Variant                                 | -/-   |
| 2. Airworthiness Category                   | Normal, Aerobatic   |
| 3. Manufacturer                             | EXTRA Flugzeugproduktions- und Vertriebs- GmbH<br>Schwarze Heide 21<br>46569 Hünxe<br>Germany |
| 4. EASA Type Certification Application Date | 23 November 2007  |

*Note: State of Design Authority certification application date for grandfathered products*

- |  |              |
|--|--------------|
| 5. State of Design Authority                       | -/-          |
| 6. State of Design Authority Type Certificate Date | -/-          |
| 7. EASA Type Certification Date                    | 17 July 2008 |

**E.II. EASA Certification Basis**

- |   |   |
|---|---|
| 1. Reference Date for determining the applicable requirements | 31 January 2008<br>(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 (Fatigue/Damage Tolerance Substantiation of Composite Structure)<br>and<br>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)<br>Smoke System (optional equipment) (LBA I 311-1086/96, dated 07-February-1996) |
| 4. Exemptions   | None  |
| 5. (Reserved) Deviations                                      | None  |
| 6. Equivalent Safety Findings                                 | a) Static longitudinal stability §§ 23.171, 23.173 & 23.175<br>b) Stall warning §23.207   |
| 7. Environmental Protection                                   | ICAO, Annex 16, Volume 1, Fourth Edition, Amdt. 8   |



### **E.III. Technical Characteristics and Operational Limitations**

1. Type Design Definition EA 300/SC , EA-0C102.1 Description of differences to EA 300/S type design (most current issue); based on EA 300/S, 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-0C701, (See Note 3)
4. Dimensions

Span:	7.50 m	(24.61 ft)
Length:	6.88 m	(22.55 ft)
Height:	2.55 m	(8.36 ft)
Wing area:	9.81 m <sup>2</sup>	(105.59 sq.ft.)
5. Engine
  - 5.1 Model Lycoming AEIO-580-B1A
  - 5.2 Type Certificate IM.E.027
  - 5.3 Limitations

Rated power at 2700 RPM:	235 kW/ 315 BHP
Rated power at 2600 RPM:	226 kW/ 303 BHP
Maximum RPM (take-off and max. continuous):	
With propeller model 1 and model 2:	
Normal & Aerobatic Category:	2600 RPM
Aerobatic Category only:	2700 RPM
(see Note 2)	
6. Load factors

Normal category	+6 / -3
Aerobatic category (780 kg and below)	±10
7. Propeller
  - 7.1 Propeller Model 1
    - 7.1.1 Model MT Propeller MTV-9-B-C/C198-25
    - 7.1.2 Type Certificate EASA.P.096 (replaced 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	Propeller Model 2		
7.2.1	Model	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 / 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.	Flight Envelope	Max. operating altitude	3048 m (10000 ft)
12.	Approved Operations Capability	Day-VFR	
13.	Maximum Masses	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 870 kg (1918 lbs)	54,5 cm	(21.5")
	at 820 kg (1808 lbs) or below	53.7 cm	(21.1")
	Aerobatic category		
	at 780 kg (1720 lbs)	53.7 cm	(21.1")
	Rear limit (aft of datum):		
	Normal category		
	at 870 kg (1918 lbs)	62.6 cm	(24.6")
	at 780 kg (1720 lbs) or below	66.8 cm	(26.3")
	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		
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**

1. Flight Manual  
Pilot's operating Handbook (POH) &  
Airplane Flight Manual (AFM) Doc. No. EA-0C701
2. Maintenance Manual  
Service Manual Doc. No. EA-0C702
3. Structural Repair Manual  
Service Manual Doc. No. EA-0C702
4. Weight and Balance Manual  
Pilot's operating Handbook (POH) &  
Airplane Flight Manual (AFM) Doc. No. EA-0C701
5. Illustrated Parts Catalogue  
Parts Catalogue Doc. No. EA-0C703



**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 ACC Columbia EA300-606000 and a reduced max. takeoff engine rotational speed of 2600 RPM.
  - the 4-blade propeller MTV-14-B-C/C190-130 in combination with the exhaust silencer system type ACC Columbia EA300-606000 and a reduced max. take-off engine rotational speed of 2600 RPM.

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 (Sales designation: EXTRA 330LT)**

**F.I. General**

- |   |   |
|---|---|
| 1. Type/ Model/ Variant                     |   |
| 1.1 Type                                    | EA 300  |
| 1.2 Model                                   | EA 300/LT (Sales designation EXTRA 330LT)   |
| 1.3 Variant                                 | -/-   |
| 2. Airworthiness Category                   | Normal, Aerobatic   |
| 3. Manufacturer                             | EXTRA Flugzeugproduktions- und Vertriebs- GmbH<br>Schwarze Heide 21<br>46569 Hünxe<br>Germany |
| 4. EASA Type Certification Application Date | 22 January 2009   |

*Note: State of Design Authority certification application date for grandfathered products*

- |   |             |
|---|-------------|
| 5. State of Design Authority                          | -/-         |
| 6. State of Design Authority Type<br>Certificate Date | -/-         |
| 7. EASA Type Certification Date                       | 31 May 2010 |

**F.II. EASA Certification Basis**

- |   |   |
|---|---|
| 1. Reference Date for determining the applicable requirements | 28 April 2009<br><u>(initial type board meeting at EASA)</u>  |
| 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 (Fatigue/Damage Tolerance Substantiation of Composite Structure)<br>and<br>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)<br>Smoke System (optional equipment) (LBA I 311-1086/96, dated 07-February-1996)<br>Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing) (LBA I 23-60/100, dated February-1971) |
| 4. Exemptions   | None  |
| 5. (Reserved) Deviations                                      | None  |
| 6. Equivalent Safety Findings                                 | Static longitudinal stability §§ 23.171, 23.173, 23.175 & 23.177  |
| 7. Environmental Protection                                   | ICAO, Annex 16, Volume 1, Fourth Edition, Amdt. 8   |



### F.III. Technical Characteristics and Operational Limitations

1. Type Design Definition EA 300/LT, EA-0D102.1 Description of differences to EA 300/L type design (most current issue);  
based on:  
EA 300/L, 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-0D701, (See Note 3)
4. Dimensions

Span:	8.00 m	(26.25 ft)
Length:	7.01 m	(23.00 ft)
Height:	2.62 m	(8.60 ft)
Wing area:	10.84 m <sup>2</sup>	(116.68 sq.ft.)
5. Engine
  - 5.1 Model Lycoming AEIO-580-B1A
  - 5.2 Type Certificate IM.E.027
  - 5.3 Limitations

Rated power at 2700 RPM	235 kW / 315 BHP
Maximum RPM (take-off and max. continuous): Normal and Aerobatic Category	2700 RPM
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 Model MT Propeller MTV-9-B-C/C198-25
  - 7.2 Type Certificate EASA.P.096 (replaced LBA No. 32.130/65)
  - 7.3 Number of blades 3
  - 7.4 Diameter 1980 mm ± 5 mm
  - 7.5 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. Flight Envelope			
	Max. operating altitude	3048 m	(10000 ft)
12. Approved Operations Capability			
Day-VFR			
13. Maximum Masses			
	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")
	at 950 kg (2095 lbs)	84.1 cm	(33.1")
	Straight line variation between mass limits.		
15. Datum			
	Plane of Firewall		



16. Control surface deflections	Aileron:	30°±2° upward;	20°±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	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	(130.1")
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**

- |                                |  |                   |
|--------------------------------|--|-------------------|
| 1. Flight Manual               |  |                   |
|                                | Pilot's operating Handbook (POH) &<br>Airplane Flight Manual (AFM) | Doc. No. EA-0D701 |
| 2. Maintenance Manual          |  |                   |
|                                | Service Manual   | Doc. No. EA-0D702 |
| 3. Structural Repair Manual    |  |                   |
|                                | Service Manual   | Doc. No. EA-0D702 |
| 4. Weight and Balance Manual   |  |                   |
|                                | Pilot's operating Handbook (POH) &<br>Airplane Flight Manual (AFM) | Doc. No. EA-0D701 |
| 5. Illustrated Parts Catalogue |  |                   |
|                                | Parts Catalogue  | None              |



**F.V. Notes**

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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. Type/ Model/ Variant  |   |
| 1.1 Type   | EA 300  |
| 1.2 Model  | EA 300/LC (Sales designation: EXTRA 330LX)  |
| 1.3 Variant  | -/-   |
| 2. Airworthiness Category  | Normal, Aerobatic   |
| 3. Manufacturer  | EXTRA Flugzeugproduktions- und Vertriebs- GmbH<br>Schwarze Heide 21<br>46569 Hünxe<br>Germany |
| 4. EASA Type Certification Application Date  | 27 October 2009; amended on 02 December 2009  |
| <i>Note: State of Design Authority certification application date for grandfathered products</i> |   |
| 5. State of Design Authority   | -/-   |
| 6. State of Design Authority Type Certificate Date   | -/-   |
| 7. EASA Type Certification Date  | 08 April 2011   |

**G.II. EASA Certification Basis**

- |   |  |
|---|--|
| 1. Reference Date for determining the applicable requirements | 21 January 2010<br>(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 (Fatigue/Damage Tolerance Substantiation of Composite Structure), and 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)<br>Smoke System (optional equipment) (LBA I 311-1086/96, dated 07-February-1996)<br>Lufttüchtigkeitsforderungen für den Schleppflug (Airworthiness Requirement for Glider Towing) (LBA I 23-60/100, dated February-1971) |
| 4. Exemptions   | None   |
| 5. (Reserved) Deviations                                      | None   |
| 6. Equivalent Safety Findings                                 | a) Static longitudinal stability §§ 23.171, 23.173 & 23.175<br>b) Stall warning § 23.207   |
| 7. Environmental Protection                                   | ICAO, Annex 16, Volume 1, Fourth Edition, Amdt. 8  |



### G.III. Technical Characteristics and Operational Limitations

1. Type Design Definition EA 300/LC, EA-0E102.1 Description of differences to EA 300/L type design (most current issue);  
based on:  
EA 300/L, 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-0E701, (See Note 3)
4. Dimensions
 

Span:	8.00 m	(26.25 ft)
Length:	7.20 m	(23.62 ft)
Height:	2.62 m	(8.60 ft)
Wing area:	10.72 m <sup>2</sup>	(115.39 sq.ft.)
5. Engine
  - 5.1 Model Lycoming AEIO-580-B1A
  - 5.2 Type Certificate IM.E.027
  - 5.3 Limitations
 

Rated power at 2700 RPM:	235 kW/ 315 BHP
Rated power at 2600 RPM:	226 kW/ 303 BHP
Maximum RPM (take-off and max. continuous):	
With propeller model 1 and model 2:	
Normal & Aerobatic Category:	2600 RPM
Aerobatic Category only:	2700 RPM
(see Note 2)	
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 Propeller Model 1
    - 7.1.1 Model MT Propeller MTV-9-B-C/C198-25
    - 7.1.2 Type Certificate EASA.P.096 (replaced 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 Propeller Model 2		
7.2.1 Model	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 (Standard)	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. Flight Envelope	Max. operating altitude	3048 m (10000 ft)
12. Approved Operations Capability	Day-VFR	



13. Maximum Masses	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)
	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	(26.4")
	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**

- |                                |  |                   |
|--------------------------------|--|-------------------|
| 1. Flight Manual               |  |                   |
|                                | Pilot's operating Handbook (POH) &<br>Airplane Flight Manual (AFM) | Doc. No. EA-0E701 |
| 2. Maintenance Manual          |  |                   |
|                                | Service Manual   | Doc. No. EA-0E702 |
| 3. Structural Repair Manual    |  |                   |
|                                | Service Manual   | Doc. No. EA-0E702 |
| 4. Weight and Balance Manual   |  |                   |
|                                | Pilot's operating Handbook (POH) &<br>Airplane Flight Manual (AFM) | Doc. No. EA-0E701 |
| 5. Illustrated Parts Catalogue |  |                   |
|                                | Parts Catalogue  | 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 ACC Columbia EA300-606000 and a reduced max. take-off engine rotational speed of 2600 RPM.
  - the 4-blade propeller MTV-14-B-C/C190-130 in combination with the exhaust silencer system type ACC Columbia EA300-606000 and a reduced max. take-off engine rotational speed of 2600 RPM.

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 H: EA 300/SX (Sales designation: EXTRA 330SX)**

**H.I. General**

- |   |   |
|---|---|
| 1. Type/ Model/ Variant                     |   |
| 1.1 Type                                    | EA 300  |
| 1.2 Model                                   | EA 300/SX (Sales designation EXTRA 330SX)   |
| 1.3 Variant                                 | -/-   |
| 2. Airworthiness Category                   | Normal, Aerobatic   |
| 3. Manufacturer                             | EXTRA Flugzeugproduktions- und Vertriebs- GmbH<br>Schwarze Heide 21<br>46569 Hünxe<br>Germany |
| 4. EASA Type Certification Application Date | 02 December 2022  |

*Note: State of Design Authority certification application date for grandfathered products*

- |   |                  |
|---|------------------|
| 5. State of Design Authority                          | -/-              |
| 6. State of Design Authority Type<br>Certificate Date | -/-              |
| 7. EASA Type Certification Date                       | 29 February 2024 |

**H.II. EASA Certification Basis**

- |   |   |
|---|---|
| 1. Reference Date for determining the applicable requirements | 02 December 2022  |
| 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 (Fatigue/Damage Tolerance Substantiation of Composite Structure)<br>and<br>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)<br>Smoke System (optional equipment) (LBA I 311-1086/96, dated 07-February-1996) |
| 4. Exemptions   | None  |
| 5. (Reserved) Deviations                                      | None  |
| 6. Equivalent Safety Findings                                 | a) ESF-B23-0207-01 Stall warning §23.207<br>b) ESF-D23-777/781 Position and Shape of Engine Controls §23.777(d) & §23.781(b)  |
| 7. Environmental Protection                                   | ICAO, Annex 16, Volume 1, Eighth Edition, Amdt. 13  |



### H.III. Technical Characteristics and Operational Limitations

1. Type Design Definition EA 300/SX, EA-0F102.1 Description of differences to EA 300/SC type design (most current issue); based on:  
EA 300/SC, EA-0C102.1 Description of differences to EA 300/S type design (most current issue); and  
EA 300/S, 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-0F701, (See Note 3)
4. Dimensions

Span:	7.80 m	(25.59 ft)
Length:	6.65 m	(21.82 ft)
Height:	2.55 m	(8.36 ft)
Wing area:	10.03 m <sup>2</sup>	(108.00 sq.ft.)
5. Engine
  - 5.1 Model Lycoming AEIO-580-B1A
  - 5.2 Type Certificate IM.E.027
  - 5.3 Limitations

Rated power at 2700 RPM:	235 kW/ 315 BHP
Rated power at 2600 RPM:	226 kW/ 303 BHP
Maximum RPM (take-off and max. continuous):	
With propeller model 1 and model 2:	
Normal & Aerobatic Category:	2600 RPM
Aerobatic Category only:	2700 RPM
(see Note 2)	
6. Load factors

Normal category	+6 / -3
Aerobatic category	
at 780 kg (1720 lbs) or below / ACRO I	±10
at 820 kg (1808 lbs) or below / ACRO II	± 8
7. Propeller
  - 7.1 Propeller Model 1
    - 7.1.1 Model MT Propeller MTV-9-B-C/C198-25
    - 7.1.2 Type Certificate EASA.P.096 (replaced 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	Propeller Model 2		
7.2.1	Model	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	189.1 Liter (49.9 US.gal)
		Usable capacity	187.5 Liter (49.5 US.gal)
		Usable capacity for aerobatics	67.5 Liter (17.8 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:		21 Liter (5.5 US.gal)
10.	Air Speeds	Design Manoeuvring Speed V <sub>A</sub> :	
		Aerobatic category	154 KIAS / 158 KCAS
		Normal category	138 KIAS / 140 KCAS
		Max. Structural Cruising Speed V <sub>NO</sub> :	
		Aerobatic category	154 KIAS / 158 KCAS
		Normal category	138 KIAS / 140 KCAS
		Never Exceed Speed V <sub>NE</sub> :	217 KIAS / 220 KCAS
11.	Flight Envelope	Max. operating altitude	3048 m (10000 ft)
12.	Approved Operations Capability	Day-VFR	
13.	Maximum Masses	Take-off and Landing:	
		Normal category	870 kg (1918 lbs)
		Aerobatic category	
		ACRO I	780 kg (1720 lbs)
		ACRO II	820 kg (1808 lbs)



	Empty:		
	Normal category	658 kg	(1451 lbs)
	Aerobatic category		
	ACRO I	645 kg	(1422 lbs)
	ACRO II	685 kg	(1510 lbs)
14. Centre of Gravity Range	Forward limit (aft of datum):		
	at 870 kg (1918 lbs) or below	34.4 cm	(13.54")
	Rear limit (aft of datum):		
	at 870 kg (1918 lbs) or below	48.2 cm	(18.98")
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		
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)			



#### **H.IV. Operating and Service Instructions**

- |  |                   |
|--|-------------------|
| 6. Flight Manual   |                   |
| Pilot's operating Handbook (POH) &<br>Airplane Flight Manual (AFM) | Doc. No. EA-0F701 |
| 7. Maintenance Manual  |                   |
| Service Manual   | Doc. No. EA-0F702 |
| 8. Structural Repair Manual  |                   |
| Service Manual   | Doc. No. EA-0F702 |
| 9. Weight and Balance Manual                                       |                   |
| Pilot's operating Handbook (POH) &<br>Airplane Flight Manual (AFM) | Doc. No. EA-0F701 |
| 10. Illustrated Parts Catalogue                                    |                   |
| Parts Catalogue  | None              |



## H.V. Notes

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1. This certification applies to Serial Numbers SX001 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 ACC Columbia EA300-606000 and a reduced max. takeoff engine rotational speed of 2600 RPM.
  - the 4-blade propeller MTV-14-B-C/C190-130 in combination with the exhaust silencer system type ACC Columbia EA300-606000 and a reduced max. take-off engine rotational speed of 2600 RPM.

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 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 ADMINISTRATIVE**

### **I. Acronyms & Abbreviations**

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### **II. Type Certificate Holder Record**

EXTRA Flugzeugbau GmbH

EXTRA Flugzeugproduktions- und Vertriebs- GmbH

until 15 September 2003

from 15 September 2003

### **III. Change Record**

<b>Issue</b>	<b>Date</b>	<b>Changes</b>	<b>TC Issue No. &amp; Date</b>
Issue 01	17 July 2008	Initial issue (replaces LBA TCDS 1086) including new model EA 300/SC	Original 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	
Issue 08	29 February 2024	New model EA 300/SX Added sales designation for all models Engine limitations section further specified (all models) "Gomolzig" replaced with "ACC Columbia" in Notes 2 or 3 Note 7 of section A through D wording corrected General review & update to current template/layout	29 February 2024

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