



TYPE-CERTIFICATE DATA SHEET

NO. EASA.A.507

for
XA42

Type Certificate Holder
LIFTIFY UG (Haftungsbeschränkt)

FELSENBERGSTR. 25
39110 MAGDEBURG
Germany

For models: XA42, XA41



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SECTION A: XA42

A.I. General

1. Type/ Model/ Variant	
1.1 Type	XA42
1.2 Model	XA42
1.3 Variant	
2. Airworthiness Category	Utility, Aerobatic
3. Manufacturer	XtremeAir GmbH Harzstrasse 2, Am Flughafen Cochstedt 39444 Hecklingen – Germany
4. EASA Type Certification Application Date	30 July 2007
5. EASA Type Certification Date	21 March 2011

A.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements	31 March 2008
2. Airworthiness Requirements	CS-23 Amdt. 1 CS-GEN-MMEL, Initial issue
3. Special Conditions	SC-E23.863-01, Smoke system SC-F23.1309-02, Protection from Effect of HIRF SC-F23.1309-03, Protection from the Effect of Lightning Strike - Indirect Effects
4. Exemptions	none
5. (Reserved) Deviations	none
6. Equivalent Safety Findings	CRI B-101, Stall Warning CRI B-102, Aerodynamic Stability CRI D-102, Position and shape of engine controls
7. Environmental Protection	ICAO Annex 16, Volume I, Chapter 10 (Utility Category)



A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition	MDL-XA42-0240-001
2. Description	<p>The XA42 is an unlimited aerobatic, two-seater airplane in fibre composite construction. It has a low-wing design and a conventional tail with a fixed tail wheel. The single engine propulsion system uses a constant speed propeller. A six-cylinder, four stroke piston engine acts directly on the propeller.</p> <p>The XA42 is designed as aerobatic and touring aircraft for VFR-day operation.</p>
3. Equipment	see AFM XA42-0040-002-()
4. Dimensions	
	Wing span: 7,50 m / 24,61 ft
	Total length: 6,67 m / 21,88 ft
	Maximum height: 2,54 m / 8,33 ft
	Wing area: 11,25 m ² / 121,10 ft ²
5. Engine	
5.1. Model	Lycoming AEIO-580-B1A
5.2 Type Certificate	EASA.IM.E.027
5.3 Limitations	Take-off & continuous power: 235 kW / 315 HP Max. rotational speed: Aerobatic: 2.700 rpm Utility: 2.670 rpm
6. Load factors	see "Maximum Masses"
7. Propeller	
7.1.1 Model 1:	MT Propeller MTV-9-B-C/C203-20d
7.1.2 Type Certificate:	LBA 32.130/65
7.1.3 Number of blades:	3
7.1.4 Diameter:	2030 mm - 50 mm
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 - 50 mm
8. Fluids	
8.1 Fuel	see AFM
8.2 Oil	see AFM
8.3 Smoke Oil	Straight paraffin oil, viscosity 30-50 cts at 20°C (68°F), initial boiling point > 330°C (626°F). For example: Fauth FC05, Texaco Canopus 13 or equivalent



8.4 Coolant none

9. Fluid capacities

9.1 Fuel: Total: 277 l
 Usable: 266 l
 Usable for aerobatics: 57 l

9.2 Oil: Maximum sump capacity: 15,15 l / 16 US qt
 Minimum sump capacity: 8,52 l / 9 US qt

9.3 Coolant system capacity Not applicable

9.4 Smoke Oil Capacity 28 l / 7.4 US gal

10. Air Speeds Never exceed speed: V_{NE} 225 kts
 Maximum structural cruising speed: V_{NO} 185 kts
 Maneuvering speed: V_A 174 kts

11. Maximum Operating Altitude 4572 m / 15.000 ft

12. Approved Operations Capability VFR-day, Flights in known or expected icing conditions are prohibited

13. Maximum Masses

Maximum empty weight: 670 kg / 1477 lbs

Maximum take-off and landing weight

- Utility: 999 kg / 2200 lbs
- Acro I and II: 999 kg / 2200 lbs
- Acro III: 850 kg / 1874 lbs

Category	MTOW	max. load factors	max. wing fuel	Maneuvers
UTILITY	999 kg 2200 lbs.	+ 4,4 g - 2,0 g	full	acrobatc maneuvers, including spins, are prohibited except Stalls, Chandelles, Lazy eights, Steep turns and similar maneuvers in which the angle of bank is not more than 90°
ACRO II	999 kg 2200 lbs.	+8 g -8 g	2 x 20 L 2 x 5.3 gal.	unlimited, see AFM-XA42-0040-002-C() para. 2.9.2
ACRO III	850 kg. 1874 lbs.	+10 g -10 g	empty	

14. Centre of Gravity Range Forward: 550 mm behind datum (25 % MAC)
 Rear: 700 mm behind datum (33 % MAC)

15. Datum Forward face of firewall

16. Control surface deflections

Aileron ± 30 °
 Elevator ± 27 °
 Trim tap ± 3 °
 Rudder ± 30 °



17. Levelling Means	Horizontal frame of cockpit canopy cut out
18. Minimum Flight Crew	1 Pilot (rear seat)
19. Maximum Passenger Seating Capacity	1 (front seat)
20. Baggage/ Cargo Compartments	Max. 10 kg behind pilot's seat (no aerobatic manoeuvres allowed with baggage)
21. Wheels and Tyres	Main wheel 5.00-5 10ply Tail wheel: 105/45-65 solid rubber
22. (Reserved)	



A.IV. Operating and Service Instructions

1. Flight Manual

1a. Airplane Flight Manual: AFM-XA42-0040-002-A(), EASA approved March 18, 2011 or later EASA approved revision

1b. Airplane Flight Manual: AFM-XA42-0040-002-B(), EASA approved October 6, 2011 for aircraft complying with AM-2011-016

1c. Airplane Flight Manual: AFM-XA42-0040-002-C(), EASA approved October 16, 2012 for aircraft complying with AM-2011-047

1d. Flight Manual Supplement AFM-XA42-0040-002-S10.02 if equipped with Propeller No. 2 (refer to A.III.7.2.1).

2. Maintenance Manual

AMM-XA42-0040-001-C()

3. Structural Repair Manual

see AMM

4. Weight and Balance Manual

see AFM and AMM

5. Operational Suitability Data

Master Minimum Equipment List XA42-MMEL-A(), Initial issue, or any later EASA approved issue



A.IV. Notes

1. Eligible serial numbers: from 106 to 153
2. The composite structure is qualified up to 72 °C (161.6 °F).
3. The structure is designed for full and abrupt aileron control inputs up to V_{NE} .



SECTION B: XA41

B.I. General

1. Type/ Model/ Variant	
1.1 Type	XA42
1.2 Model	XA41
2. Airworthiness Category	Utility, Aerobatic
3. Manufacturer	XtremeAir GmbH Harzstrasse 2, Am Flughafen Cochstedt 39444 Hecklingen – Germany
4. EASA Type Certification Application Date	4 October 2007
5. EASA Type Certification Date	01 February 2012

B.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements	15 February 2009
2. Airworthiness Requirements	CS-23 Amdt. 1 CS-GEN-MMEL, Initial issue
3. Special Conditions	SC-E23.863-01, Smoke system SC-F23.1309-02, Protection from Effect of HIRF SC-F23.1309-03, Protection from the Effect of Lightning Strike - Indirect Effects
4. Exemptions	none
5. (Reserved) Deviations	none
6. Equivalent Safety Findings	CRI B-101, Stall Warning CRI B-102, Aerodynamic Stability CRI D-102, Position and shape of engine controls
7. Environmental Protection	ICAO Annex 16, Volume I, Chapter 10 (Utility Category)



B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition	AM-2012-003
2. Description	<p>The XA41 is a single-seat unlimited aerobatic airplane of carbon fibre composite construction. It has a low-wing design and a conventional tail with a fixed tail wheel landing gear. The propulsion system consists of a six-cylinder, four stroke piston engine acting directly on a constant speed propeller.</p> <p>The XA41 is designed as aerobatic and touring aircraft for VFR-day operation.</p>
3. Equipment	see AFM XA41-0040-002-()
4. Dimensions	
	Wing span: 7,50 m / 24,61 ft
	Total length: 6,42 m / 21,06 ft
	Maximum height: 2,54 m / 8,33 ft
	Wing area: 11,25 m ² / 121,10 ft ²
5. Engine	
5.1. Model	Lycoming AEIO-580-B1A
5.2 Type Certificate	EASA.IM.E.027
5.3 Limitations	Take-off & continuous power: 235 kW / 315 HP
	Max. rotational speed: Aerobatic: 2.700 rpm
	Utility: 2.670 rpm
6. Load factors	see "Maximum Masses"
7. Propeller	
7.1.1 Model 1:	MT Propeller MTV-9-B-C/C203-20d
7.1.2 Type Certificate:	LBA 32.130/65
7.1.3 Number of blades:	3
7.1.4 Diameter:	2030 mm - 50 mm
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 - 50 mm
8. Fluids	
8.1 Fuel	see AFM
8.2 Oil	see AFM
8.3 Smoke Oil	Straight paraffin oil, viscosity 30-50 cts at 20°C (68°F), initial boiling point > 330°C (626°F). For example: Fauth FC05, Texaco Canopus 13 or equivalent
8.4 Coolant	none



9. Fluid capacities

9.1 Fuel:	Total:	277 l
	Usable:	266 l
	Usable for aerobatics:	57 l
9.2 Oil:	Maximum sump capacity:	15,15 l / 16 US qt
	Minimum sump capacity:	8,52 l / 9 US qt
9.3 Coolant system capacity	Not applicable	
9.4 Smoke Oil Capacity	28 l / 7.4 US gal	

10. Air Speeds	Never exceed speed:	V_{NE}	225 kts
	Maximum structural cruising speed:	V_{NO}	185 kts
	Maneuvering speed:	V_A	174 kts

11. Maximum Operating Altitude 4572 m / 15.000 ft

12. Approved Operations Capability VFR-day, Flights in known or expected icing conditions are prohibited

13. Maximum Masses

Maximum empty weight:	670 kg / 1477 lbs
Maximum take-off and landing weight	
Utility:	999 kg / 2200 lbs
Acro:	850 kg / 1874 lbs

Category	MTOW	max. load factors	max. wing fuel	Maneuvers
UTILITY	999 kg 2200 lbs.	+ 4,4 g -2,0 g	full	acrobatic maneuvers, including spins, are prohibited except Stalls, Chandelles, Lazy eights, Steep turns and similar maneuvers in which the angle of bank is not more than 90°
ACRO	850 kg. 1874 lbs.	+10 g -10 g	empty	unlimited, see AFM-XA41-0040-002-A() para. 2.9.2

14. Centre of Gravity Range Forward: 550 mm behind datum (25 % MAC)
Rear: 700 mm behind datum (33 % MAC)

15. Datum Forward face of firewall

16. Control surface deflections

Aileron	± 30 °
Elevator	± 27 °
Trim tap	± 3 °
Rudder	± 30 °

17. Levelling Means Horizontal frame of cockpit canopy cut out

18. Minimum Flight Crew 1 Pilot (rear seat)

19. Maximum Passenger Seating Capacity n/a



20. Baggage/ Cargo Compartments

Max. 10 kg behind pilot's seat
(no aerobatic manoeuvres allowed with baggage)

21. Wheels and Tyres

Main wheel 5.00-5 10ply
Tail wheel: 105/45-65 solid rubber

22. (Reserved)



B.IV. Operating and Service Instructions

1. Flight Manual

1a. Airplane Flight Manual: AFM-XA41-0040-002-A(), EASA approved January 31, 2012 or later revisions approved by EASA

1b. Flight Manual Supplement AFM-XA41-0040-002-S10.01 if equipped with Propeller No. 2 (refer to B.III.7.2.1).

2. Maintenance Manual

AMM-XA42-0040-001-C()

3. Structural Repair Manual

see AMM

4. Weight and Balance Manual

see AFM and AMM

5. Operational Suitability Data

Master Minimum Equipment List XA42-MMEL-A(), Initial issue, or any later EASA approved issue



B.V. Notes

1. Eligible serial numbers: from 05 to 07.
2. The composite structure is qualified up to 72 °C (161.6 °F).
3. The structure is designed for full and abrupt aileron control inputs up to V_{NE} .



SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

AFM	Airplane Flight Manual
Amdt.	Amendment
AMM	Airplane Maintenance Manual
CRI	Certification Review Item
CS-23	Certification Specification for Small Aircraft (Part 23)
EASA	European Union Aviation Safety Agency
LBA	Luftfahrt-Bundesamt
OSD	Operational Suitability Data
SC	Special Condition
TC	Type Certificate
TCDS	Type Certificate Data Sheet

II. Type Certificate Holder Record

Date	Type Certificate Holder
21-March -2011	XtremeAir GmbH
26-Oct-2021	Liftify UG (Haftungsbeschränkt)

III. Change Record

Issue	Date	Changes	TC Date
1	18 March 2011	-	21 March 2011
2	01 February 2012	Certification Basis updated (CRI D-102), New model added	01 February 2012
3	18 October 2012	Sections A.III.13, A.IV	-
4	04 January 2013	Sections A.III.7, A.IV, B.III.7, B.IV	-
5	27 February 2013	Sections A.III.5/B.III.5: TO & continuous power (kW) corrected	-
6	08 December 2015	S/N corrected in A.VI and B.VI; OSD data added	-
7	26 October 2021	TC and TCDS reissuance to reflect TC transfer to Liftify UG; AMM revision update; S/N eligibility specified.	26 October 2021

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