

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A57EU
Revision 14
GROB Aircraft AG
[GROB Aerospace GmbH i. l.]
[GROB Aerospace GmbH]
[BURKHART GROB Luft- und
Raumfahrt GmbH & Co. KG]
[Grob Werke GmbH & Co. KG]
G115
G115A
G115B
G115C
G115C2
G115D
G115D2
G115EG
June 23, 2016

TYPE CERTIFICATE DATA SHEET NO. A57EU

This Data Sheet which is a part of Type Certificate No. A57EU prescribes conditions and limitations under which the product for which the Type Certificate was issued, meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: GROB Aircraft AG
Lettenbachstrasse 9
86874 Tussenhausen-Mattsies
Germany

Type Certificate Ownership Record: Grob Werke GmbH & Co. KG
Unternehmensbereich Burkhart Grob
Flugzeugbau
8939 Mattsies, Am Flugplatz
Germany, transferred TC A57EU to BURKHART GROB Luft- und
Raumfahrt GmbH & Co. KG on November, 1989.

BURKHART GROB Luft- und Raumfahrt GmbH & Co. KG
Am Flugplatz
D-86874 Tussenhausen
Federal Republic of Germany, transferred TC A57EU to
GROB Aerospace GmbH on December, 2006

GROB Aerospace GmbH
Lettenbachstrasse 9
86874 Tussenhausen-Mattsies
Germany, transferred TC A57EU to GROB Aerospace GmbH i.l.
On August, 2008

GROB Aerospace GmbH i.l.
Lettenbachstrasse 9
86874 Tussenhausen-Mattsies
Germany, transferred TC A57EU to GROB Aircraft AG on February, 2009.

Page No.	1	2	3	4	5	6	7	8
Rev. No.	14	10	10	10	12	14	14	10

- I. Model GROB G115 (normal, utility category), approved December 21, 1988.
Model GROB G115A (normal, utility category), approved December 06, 1990.
Model GROB G115B (normal, utility category), approved July 19, 1993.
Model GROB G115C (utility category), approved August 13, 1993.
Model GROB G115C (utility, acrobatic category), approved February 8, 1996.
Model GROB G115C2 (utility category), approved September 14, 1994
Model GROB G115D (utility, acrobatic category), approved October 28, 1993
Model GROB G115D2 (utility, acrobatic category), approved September 14, 1994
Model GROB G115EG (acrobatic category), approved February 6, 2001

Engine. Avco Lycoming O-235-H2C (G 115 and G 115A)
 Avco Lycoming O-320-D1A or -D2A or -D3G (G 115B)
 Avco Lycoming O-320-D1A (G 115C)
 Avco Lycoming O-360-A1F6 (G 115C2)
 Avco Lycoming AEIO-360-B1F (G 115D)
 Avco Lycoming AEIO-320-D1B (G 115D2)
 Avco Lycoming AEIO-360-B1B (G 115EG)

Fuel: AVGAS 100 or 100 LL.

<u>Engine Limits</u>	<u>G115,G115A(O-235):</u>	<u>G115B,G115C, G115D2, (O-320, AEIO-320):</u>
Max. power	115 HP (85.8 KW)	160 HP (119.3 KW)
Max. permitted RPM	2800 RPM	2700 RPM
Max. continuous power	112 HP (83.5 KW)	160 HP (119.3 KW)
Max. continuous RPM	2700 RPM	2700 RPM

<u>Engine Limits</u>	<u>G115D, G115C2, G115EG (O-360, AEIO-360):</u>
Max. power	180 HP (134.2 KW)
Max. permitted RPM	2700 RPM
Max. continuous power	180 HP (134.2 KW)
Max. continuous RPM	2700 RPM

<u>Propeller and Propeller Limits</u>	<u>G115, G115A</u>	<u>G115, G115A</u>	<u>G115B</u>	<u>G115C</u>
	Hoffmann	Sensenich	Sensenich	Sensenich
	HO 14-175 120	72 CKS6-2-53	74 DM6S5-2-64	74 DM7S14-2-64
	or HO 14 HM -175 120			
Diameter max.	5.74 ft (1.75 m)	5.84 ft (1.78 m)	6.00 ft (1.83 m)	6.00 ft (1.83 m)
Pitch at 0.75 R	3.94 ft (1.20 m)	4.43 ft (1.35 m)	5.35 ft (1.63 m)	5.35 ft (1.63 m)
Propeller RPM Limits	2900	2800	2800	2800
Static RPM Limits	2400	2350	2250	2250

<u>Propeller and Propeller Limits:</u>	<u>G115C2</u>	<u>G115D</u>	<u>G115D2</u>	<u>G115EG</u>
	Hartzell	Hoffmann	Hoffmann	MT-Propeller
	HC-F2YR-1F/F7666A-3R	HO-V 343 K()-V/180 FP	HO23CHM-() 188 156	MTV-12-B-C/C-183-17e
Diameter max.	6.09 ft (1.86 m)	5.90 ft (1.80 m)	6.17 ft (1.88 m)	6.004 ft (1.83 m)
Pitch at .75 R	13° ± 0.2°	4.43 ft (1.35 m)	5.12 ft (1.56 m)	5.36 ft (1.635 m)
Propeller RPM Limits	2900	2700	2700	2800
Static RPM Limits	2600	2550	2200	2600

<u>Airspeed Limits.</u>	<u>G115, G115A</u>	<u>G115B</u>	<u>G115C, G115C2</u>	<u>G115C* G115D</u>	<u>G115D2</u>
V _{NE} (never exceed)	164 kts (303 km/h)	159 kts (295 km/h)	184 kts (341 km/h)	184 kts (341 km/h)	166 kts (308 km/h)
V _{NO} (normal operating)	135 kts (250 km/h)	129 kts (240 km/h)	134 kts (248 km/h)	134 kts (248 km/h)	134 kts (248 km/h)
V _A (maneuvering)					
normal aircraft	95 kts (176 km/h)	100 kts (186 km/h)			
utility aircraft	99 kts (184 km/h)	104 kts (192 km/h)	114 kts (212 km/h)	114 kts (212 km/h)	114 kts (212 km/h)
acrobatic aircraft				128 kts (237 km/h)	128 kts (237 km/h)
V _{FE} (flaps extended)	94 kts (175 km/h)	94 kts (175 km/h)	112 kts (208 km/h)	112 kts (208 km/h)	112 kts (208 km/h)

* G 115C only if used for limited acrobatics according to Service Bulletin 1078-55.

<u>Airspeed Limits.</u>	<u>G115EG</u>
V _{NE} (never exceed)	184 kts (341 km/h)
V _{NO} (normal operating)	150 kts (278 km/h)
V _A (maneuvering)	
acrobatic aircraft	130 kts (241 km/h)

V _{FE} (flaps extended)	112 kts (208 km/h)
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<u>C.G. Range.</u>	<u>G115, G115A</u>	<u>G115B</u>	<u>G115C, G115C2</u>	<u>G115C*, G115D, G115D2</u>
<u>Most Forward C.G.:</u>	<i>(Between the given values linear change)</i>			
Normal aircraft	8.70 in. (221 mm) aft of datum at 1874.0 lbs (850 kg) 7.83 in. (199 mm) aft of datum at 1818.8 lbs (825 kg) or less	10.04 in. (255 mm) aft of datum at 2028.2 lbs (920 kg) 7.83 in. (199 mm) aft of datum at 1851.4 lbs (840 kg) or less		
Utility aircraft	7.83 in. (199 mm) aft of datum	10.04 in. (255 mm) aft of datum at 1873.9 lbs (850 kg) 7.83 in. (199 mm) aft of datum at 1763.7 lbs (800 kg) or less	8.94 in. (227 mm) aft of datum at 2182 lbs (990 kg) 7.76 in. (197 mm) aft of datum at 1653 lbs (750 kg)	8.94 in. (227 mm) aft of datum at 2182 lbs (990 kg) 7.76 in. (197 mm) aft of datum at 1653 lbs (750 kg)
Acrobatic aircraft				8.62 in. (219 mm) aft of datum at 2028 lbs (920 kg) 7.76 in. (197 mm) aft of datum at 1653 lbs (750 kg)

<u>C.G. Range.</u>	<u>G115EG</u>
<u>Most Forward C.G.:</u>	<i>(Between the given values linear change)</i>
Acrobatic aircraft	8.46 in. (215 mm) aft of datum at 2183.0 lbs (990 kg) 7.76 in. (197 mm) aft of datum at 1653 lbs (750 kg) or less

<u>Most rearward C.G.:</u>	<u>G115, G115A</u>	<u>G115B</u>	<u>G115C, G115C2</u>	<u>G115C*, G115D, G115D2</u>
Normal aircraft	11.72 in. (298 mm) aft of datum	11.72 in. (298 mm) aft of datum		
Utility aircraft	11.72 in. (298 mm) aft of datum	11.72 in. (298 mm) aft of datum	11.72 in. (298 mm) aft of datum at 2182 lbs (990 kg) 11.34 in. (288 mm) aft of datum at 1653 lbs (750 kg)	11.72 in. (298 mm) aft of datum at 2182 lbs (990 kg) 11.34 in. (288 mm) aft of datum at 1653 lbs (750 kg)
Acrobatic aircraft				11.61 in. (295 mm) aft of datum at 2028 lbs (920 kg) 11.34 in. (288 mm) aft of datum at 1653 lbs (750 kg)
<u>Most rearward C.G.:</u>	<u>G115EG</u>			
Acrobatic aircraft	11.73 in. (298 mm) aft of datum at 2183 lbs (990 kg) 11.48 in. (292 mm) aft of datum at 1653 lbs (750 kg)			
<u>Empty Weight C.G.</u>	See Flight Manual (weight and balance, Section 6)			
<u>Datum.</u>	Wing leading edge.			
<u>Leveling Means.</u>	Canopy sill.			
<u>Maximum Weight</u>	<u>G115, G115A</u>	<u>G115B</u>	<u>G115C, G115C2</u>	<u>G115C*, G115D, G115D2</u> <u>G115EG</u>
Normal aircraft	1873.9 lbs (850 kg)	2028.2 lbs (920 kg)		
Utility aircraft	1763.7 lbs (800 kg)	1873.9 lbs (850 kg)	2182.6 lbs (990 kg)	2182.6 lbs (990 kg)
Acrobatic aircraft				2028.2 lbs (920 kg) 2183 lbs (990 kg)
<u>Minimum Crew.</u>	1 pilot			
<u>Number of Seats.</u>	2 (side by side) 9.84 in. (250 mm) aft of datum			
<u>Maximum Baggage.</u>	44.1 lbs (20 kg) 35.43 in. (900 mm) aft of datum (for G115, G115A, G115B) 121 lbs (55 kg) 38.98 in. (990 mm) aft of datum (for G115C, G115C2, G115D, G115D2, G115EG)			

<u>Serial Nos. Eligible.</u>	<p>Model G 115 Serial # 8008 through 8088 G115A Serial # 8090 through 8109 Serial # 8008 through 8109 must be modified according to GROB Service Bulletin TM 1078-5 "Special equipment of GROB G 115 for the export to the USA". Model G 115B is formed by modification of Serial # 8008 through 8088 and 8090 through 8109 according to GROB Service Bulletin TM 1078-27/2 "Modification of the G 115/G 115A to the G 115B standard". Model G 115C as of Serial # 82001/C. Model G 115C2 as of Serial # 82015/C2. Model G 115D as of Serial # 82003/D. Model G 115D2 as of Serial # 82002/D2. Model G 115EG as of Serial # 82200.</p>
<u>Import Requirements</u>	<p>The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Luftfahrt Bundesamt on behalf of the European Community. The Export C of A should contain the following statement: 'The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. airworthiness regulations 14 CFR Part 23 approved under U.S. Type Certificate No. A57EU and to be in a condition for safe operation.'</p>
<u>Certification Basis.</u>	<ol style="list-style-type: none"> 1) 14 CFR Sections 21.29, 21.183(c) and 14 CFR 23, effective February 1, 1965, including Amendments 23-1 through 23-32, and 2) 14 CFR Section 36, effective November 18, 1969, including Amendments 36-1 through amendment in effect at the time of U.S. Type Certification, and 3) Special Conditions; GROB Model G 115 - Series Airplanes, published in Federal Register 53FR39448, and 4) Section 611(b) of the FAA Act of 1958 <p>The Luftfahrt Bundesamt originally type certificated this aircraft under its type certificate Number 1078. The FAA validated this product under U.S. Type Certificate Number A57EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of Germany.</p> <p>The EASA type certificate for the G115 series models is EASA.A.364.</p>
<u>Equipment.</u>	<p>The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.</p>
<u>Service Information</u>	<p>Service bulletins, structural repair manuals, vendor manuals, AFMs and overhaul and maintenance manuals, which contain a statement that the document is approved by the EASA, are accepted by the FAA and are considered FAA approved. (These approvals pertain to the design data only.)</p>

NOTES

- Note 1. Current weight and balance data together with a list of equipment included in the certificated empty weight, and loading instructions, when necessary, must be provided for each powered aircraft at the time of original certification. The certificated empty weight and corresponding center of gravity locations must include the following:
- a) unusable fuel of 13.18 lbs (G 115, G 115A), 7.94 lbs (G 115B) at 35.04 in. aft of datum, 11.10 lbs (G 115C, G 115C2, G115D, G 115D2, G115EG) at 13.19 in. aft of datum.
 - b) engine oil of 11.18 lbs (G115, G115A) respectively 14.91 lbs (G 115B, G115C, G115C2, G115D, G115D2) at 52.36 in. and 50.79 in (G115EG) fwd of datum.
- Note 2. The placards listed in Section 2 of the LBA-approved Airplane Flight Manual GROB G115, G115B, G115C, G115C2, G115D, G115D2, G115EG must be displayed. See Note 9.

- Note 3. Service Life Limited components airframe:
- 12,000 flight hours for G115, G115A, G115B, G115C, G115C2; extended to 22,900 flight hours if inspected in accordance with AMM chapter 05-41 (see also Service Bulletin MSB1078-161)
- 4,000 flight hours for the G115D, G115D2 and for the G115C if certified for limited acrobatics in accordance with Service Bulletin 1078-55. This Service Life Limit can be extended to 12,000 flight hours, if an Inspection in accordance with Service Bulletin OSB1078-105 is performed before reaching 4,000 flight hours.
- Every 3000 flight hours for the G115, G115A, G115B, G115C, G115C2 a scheduled inspection must be performed in accordance with the Maintenance Manual.
- After 2,000, 6,000, 8,000 and 10,000 flight hours for the G115D, G115D2 and for the G115C if certified for limited acrobatics in accordance with Service Bulletin 1078-55 a scheduled inspection must be performed in accordance with the Maintenance Manual, including a fuel tank pressure test after 8,000 flight hours.
- 24,000 flight hours for G115EG.
- Note 4. Changes to the factory delivered paint schemes have to be coordinated with the Federal Aviation Administration's Certificate Management Office responsible for this type certificate.
- Note 5. Major structural repairs must be accomplished at FAA certified repair stations rated for composite aircraft structure work, in accordance with GROB repair methods approved by FAA.
- Note 6. All G115 models are approved for VFR day and night.
G115C, G115C2, G115D and G115D2 models are approved for IFR when equipped with Service Bulletin 1078-50 and the associated Airplane Flight Manual Supplement as shown in Service Bulletin 1078-50 or later (LBA) approved AFM Supplement Revision.
- Note 7. Only G115, G115A, G115B:
Normal Cat.: Acrobatic maneuvers inclusive spins are not approved.
Utility Cat.: Spins with equipment according to Service Bulletin TM 1078-9/2 and with flap setting 0° are approved. Spins without wheel fairings are not approved.
- Control Surface Movements (restricted):
- | | | (in) | (mm) |
|----------|------|------------|--------|
| Elevator | Down | 2.52±0.20 | 64 ±5 |
| Rudder | LH | 11.42±0.39 | 290±10 |
| | RH | 11.42±0.39 | 290±10 |
- Note 8. Airplanes of the model G115C may be operated in the acrobatic category for limited acrobatics after embodiment of Service Bulletin 1078-55. The equipment required by Service Bulletin 1078-55 may be installed already complete or partly by the manufacturer. So modified airplanes are marked with the suffix "/C1" to the S/N and the sales designation is "G115C1 ACRO".
The G115C must be operated in the acrobatic category according to Supplement 2 to the Airplane Flight Manual G115C, LBA approved.

Note 9.

In addition to all other requirements of this type certificate data sheet, G115EG airplanes must additionally have the following instruments marked in US units:

- 1) EGT and OAT indicator in degrees centigrade (or Fahrenheit).
- 2) Manifold pressure in inches of mercury pressure, fuel flow indicator in gallons.
- 3) Fuel quantity in gallons.
- 4) Oil temperature and pressure in degrees centigrade (or Fahrenheit) and in pounds per square inch, (psi).
- 5) Fuel pressure and cylinder head temperature, in psi and degrees centigrade (or Fahrenheit).

The following placards must be shown in US units:

- 1) *Limitations* must be in US units, weight in pounds.
- 2) *Fuel Filler Cap*, gallons.
- 3) *Fuel Tank Selector*, consistent with fuel quantity indicator.
- 4) *Fuel Flow*, gallons per hour.
- 5) *Manifold Pressure*, inches of mercury

Procedures and methods for accomplishing this remarking should be obtained from the manufacturer.

- END -