

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

A57EU  
Revision 9  
GROB  
G115  
G115A  
G115B  
G115C  
G115C2  
G115D  
G115D2  
  
March 12, 1999

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.                      BURKHART GROB Luft- und Raumfahrt  
GmbH & Co. KG  
Am Flugplatz  
D-86874 Tussenhausen  
Federal Republic of Germany

- 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

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)

Fuel:    AVGAS 100 or 100 LL.

	<u>Engine Limits 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 (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

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C.G. Range (Continued)

<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)

Empty Weight C.G. See Flight Manual (weight and balance, Section 6)

Datum. Wing leading edge.

Leveling Means. Canopy sill.

<u>Maximum Weight</u>	<u>G115,G115A</u>	<u>G115B</u>	<u>G115C, G115C2</u>	<u>G115C*, G115D, G115D2</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)

Minimum Crew. 1 pilot

Number of Seats. 2 (side by side) 9.84 in. (250 mm) aft of datum

Maximum Baggage. 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)

<u>Fuel Capacity:</u>	<u>G115,G115A:</u>	<u>G115B:</u>	<u>G115C, G115C2, G115D, G115D2:</u>
Total Contents	26.42 U.S. gal (100 l) 35.04 in. (890 mm) aft of datum	29.59 U.S. gal (112 l) 35.04 in. (890 mm) aft of datum	39.63 U.S. gal (150 l) 13.19 in. (335 mm) aft of datum
Usable	24.23 U.S. gal (91.7 l)	28.27 U.S. gal (107 l)	37.77 U.S. gal (143 l)

<u>Oil Capacity.</u>	<u>G115, G115A:</u>	<u>G115B:</u>	<u>G115C, G115C2, G115D, G115D2:</u>
	6 quarts (5.7 l) 52.36 in. (1330 mm) fwd of datum	8 quarts (7.6 l) 52.36 in. (1330 mm) fwd of datum	8 quarts (7.6 l) 52.36 in. (1330 mm) fwd of datum

<u>Control Surface Movements</u>		<u>G 115</u>		<u>G 115A</u>		<u>G 115B</u>		<u>G 115C, G 115C2 G 115D, G 115D2</u>	
		(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
Flaps	UP	0	0	0	0	0	0	0	0
	DOWN	6.97±0.35	177±9	6.97±0.35	177±9	6.97±0.35	177±9	9.96±0.2 -0.39	253+ 5 - 10
Aileron	UP	2.76±0.28	70±7	2.76±0.28	70±7	2.76±0.20	70±5	2.83±0.12	72±3
	DOWN	1.42±0.28	36±7	1.42±0.28	36±7	2.36±0.20	60±5	2.56±0.12	65±3
Aileron servo only S/N 8008 through 8031	UP (aileron on stop)	3.54±0.12	90±3			if installed, same movements as G 115			
	DOWN (aileron on stop)	1.54±0.12	39±3						
Elevator	UP	3.46±0.28	88±7	3.46±0.28	88±7	3.46±0.28	88±7	6.69±0.20	170±5
	DOWN	2.80±0.28	71±7	2.52±0.20	64±5	2.52±0.20	64±5	3.94±0.20	100±5
Trim tab (elevator neutral)	UP	1.14±0.08	29±2	1.14±0.08	29±2	1.14±0.08	29±2	1.69±0.12	43±3
	DOWN	2.01±0.08	51±2	2.01±0.08	51±2	2.01±0.08	51±2	2.36±0.12	60±3
Rudder up to S/N 8065 as of S/N 8066 and for replacement	LH	11.42±0.79	290±20	11.42±0.39	290±10	11.42±0.39	290±10	10.28±0.20	261±5
	RH	11.42±0.79	290±20	11.42±0.39	290±10	11.42±0.39	290±10	10.28±0.20	261±5
	LH	11.06±0.75	281±19						
	RH	11.06±0.75	281±19						

Serial Nos. Eligible.

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.

Import Requirements.

- a. To be considered eligible for operation in the United States, each aircraft manufactured under this type certificate must be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting foreign civil airworthiness authority which states (in the English language): This aircraft conforms to its U.S. type design (type certificate number A57EU) and is in a condition for safe operation.

Prior to importation G 115, G 115A, and G 115B airplanes must be modified as specified by the latest issue of Grob Service Bulletins 1078-8, 1078-12, 1078-12/1, 1078-14, 1078-17, 1078-18, 1078-29, and 1078-29/2, (as applicable to each listed airplane model), and all additional applicable mandatory continuing airworthiness information that has been issued by the Luftfahrt-Bundesamt (LBA), in addition to all other requirements of this type certificate data sheet.

b. An airplane maintenance manual in compliance with FAR 23.1529 must be furnished before delivery of the first airplane or issuance of standard certificate of airworthiness whichever occurs later.

Certification Basis.

- 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

Equipment.

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

Service Information.

"Service Bulletins, Structural Repair Manuals, Vendor Manuals, Aircraft Flight Manuals, and Overhaul and Maintenance Manuals, which contain a statement that the document is (LBA) approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only."

Available Documents for GROB Models G 115/G 115A:

- Airplane Flight Manual GROB G115/G 115A and subsequent revisions, LBA approved
- Maintenance Manual GROB G 115/G 115A, including "FAA Approved" Airworthiness Limitation Section
- Part Catalogue GROB G 115
- Operators Manual for AVCO LYCOMING O-235 Series Aircraft Engines
- Owner's Manual for HOFFMANN Propeller HO 14-175 120 and HO 14 HM-175 120
- Owner's Manual for SENSENICH Propeller 72 CKS6-2-53

Available Documents for GROB Model G 115B:

- Airplane Flight Manual GROB G 115B and subsequent revisions, LBA approved
- Maintenance Manual GROB G 115B, including "FAA Approved" Airworthiness Limitation Section
- Part Catalogue GROB G 115
- Operators Manual for AVCO LYCOMING O-320 Series Aircraft Engines
- Owner's Manual for SENSENICH Propeller 74 DM6S5-2-64

Available Documents for GROB Model G 115C:

- Airplane Flight Manual GROB G 115C and subsequent revisions, LBA approved
- Maintenance Manual GROB G 115C and G 115D, including "FAA Approved" Airworthiness Limitation Section
- Operators Manual for AVCO LYCOMING O-320 Series Aircraft Engines



Available Documents for GROB Model G 115C2:

- Airplane Flight Manual GROB G 115C2 and subsequent revisions, LBA approved
- Maintenance Manual GROB G 115C and G 115D, including "FAA Approved" Airworthiness Limitation Section
- Operators Manual for AVCO LYCOMING O-360 Series Aircraft Engines
- Owner's Manual for HARTZELL Propeller HC-F2YR-1F/F7666A-3R

Available Documents for GROB Model G 115D:

- Airplane Flight Manual GROB G 115D and subsequent revisions, LBA approved
- Maintenance Manual GROB G 115C and G 115D, including "FAA Approved" Airworthiness Limitation Section
- Operators Manual for AVCO LYCOMING AEIO-360 Series Aircraft Engines
- Operation Manual for HOFFMANN Propeller HO-V 343K

Available Documents for GROB Model G 115D2:

- Airplane Flight Manual GROB G 115D2 and subsequent revisions, LBA approved
- Maintenance Manual GROB G 115C and G 115D, including "FAA Approved" Airworthiness Limitation Section
- Operators Manual for AVCO LYCOMING AEIO-320 Series Aircraft Engines
- Operation Manual for HOFFMANN Propeller HO23CHM-() 188 156

**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, G 115D, G 115D2) at 13.19 in. aft of datum.
  - b) engine oil of 11.18 lbs (G 115, G 115A) respectively 14.91 lbs (G 115B, G 115C, G 115C2, G 115D, G 115D2) at 52.36 in. fwd of datum.
- Note 2. The placards listed in Section 2 of the LBA-approved Airplane Flight Manual GROB G115, G 115B, G 115C, G 115C2, G 115D, G 115D2 must be displayed.
- Note 3. Service Life Limited components airframe:  
12,000 flight hours for G 115, G 115A, G 115B, G 115C, G 115C2  
4,000 flight hours for G 115C only if used for limited acrobatics according to Service Bulletin 1078-55, G 115D, G115D2  
Every 3000 (for G 115/G 115A/G 115 B/G 115C/G 115C2)/2000 (for G 115C only if used for limited acrobatics according to Service Bulletin 1078-55, G 115D, G115D2) flight hours the "Significant Structural Items Inspection" must be performed. This may provide the necessary clearance for further flight.
- Note 4. Changing the color and the thickness of the coat is only permissible after prior approval by the manufacturer (refer to GROB process specification GPS 1078/1).
- 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 G 115 models are approved for VFR day and night.  
 G 115C, G 115C2, G115D and G 115D2 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 G 115, G 115A, G 115B:  
 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 “G 115C1 ACRO”.  
 The G 115C must be operated in the acrobatic category according to Supplement 2 to the Airplane Flight Manual G 115C, LBA approved.