TYPE-CERTIFICATE

DATA SHEET

EASA.A.565

G 120TP

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

For models: G 120TP-A

Issue 03: 30 January 2018

CONTENT

SECTION A: MODEL G 120TP-A

A.I. General

1. Data Sheet No.:	EASA.A.565
2. a) Type:	G 120TP
b) Model:	G 120TP-A
c) Variant:	--
3. Airworthiness Category:	Utility Aerobatic
4. Type Certificate Holder:	GROB AIRCRAFT SE LETTENBACHSTRASSE 9 86874 TUSSENAUSEN-MATTSIES GERMANY
5. Manufacturer:	GROB AIRCRAFT SE LETTENBACHSTRASSE 9 86874 TUSSENAUSEN-MATTSIES GERMANY
6. Certification Application Date:	17. December 2009
7. (Reserved)	
8. (Reserved)	

A.II. EASA Certification Basis

1.	Reference Date for determining the applicable requirements:	17. June 2010
2.	Airworthiness Requirements:	CS-23, Amendment 1, issued 12 February 2009
3.	Special Conditions:	CRI F-52 Protection from Effects of HIRF CRI F-54 Protection from Effects of Lightning strikes, Indirect Effects *If equipped i.a.w. OÄM 565-17:* CRI B-52 Human Factors – Integrated Avionics Systems
4.	Exemptions:	None
5.	Deviations:	None
6.	Equivalent Safety Findings:	CS 23.777(g): CRI D-101 Location of Landing Gear Control Lever *If equipped i.a.w. OÄM 565-17:* CS 23.1321(d) (4): CRI F-102 Location of Heading Indicator PFD
7.	Requirements elected to comply:	None
8.	Environmental Standards:	Chapter 10 of ICAO Annex 16, Volume I, Fifth Edition, Amendment 9 CS-36, Amendment 2 CS-34,Original issue
9.	(Reserved)	
10.	(Reserved)	

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Doc.-No: DE-120TPA-000100 Master Document Index, Revision 0 or later approved revision

2. Description: Two seat side by side trainer aircraft. Single engine turbo-propeller, low wing monoplane in composite construction, retractable landing gear, normal tail plane

3. Equipment: Refer to Equipment list in AFM, Section 6

4. Dimensions:

Span	10.31 m	(33.83 ft)
Length	8.42 m	(27.64 ft)
Height	2.64 m	(8.68 ft)
Wing Area	13.52 m^2	(145.53 ft^2)

5. Engine:

5.1.1	Model:	Rolls Royce 250-B17F	
5.1.2	Type Certificate:	FAA E10CE	
5.1.3	Limitations:	MCP	380 SHP
		MTOP	450 SHP (5 min.)
		Rated Prop Shaft Speed	2030 RPM

6. Load factors:

Utility Category

-1.76 / +4.4 (flaps up)

0 / +3.8 (flaps down)

Aerobatic Category

-4.0 / +6.0 (flaps up)

0 / +3.8 (flaps down)

7. Propeller:

7.1	Model:	MT-Propeller MTV-5-1-D-C-F-R(A)/CFR210-56
7.2	Type Certificate:	LBA 32.130/103
7.3	Number of blades:	5
7.4	Diameter:	2.10 m (82.68 in.)
7.5	Sense of Rotation:	Clockwise

8. Fluids:

8.1 Fuel:	Refer to AFM, Section 2 for engine fuels
8.2 Oil:	Refer to AFM, Section 2 for engine oil
8.3 Coolant:	Not applicable

9. Fluid capacities:

9.1 Fuel:	Total	351.0 litres	(92.7 U.S. gallons)
	Usable	341.4 litres	(90.2 U.S. gallons)
9.2 Oil:	Min	5.0 litres	(5.3 U.S. quarts)
	Max	11.0 litres	(11.6 U.S. quarts)
9.3 Coolant system capacity:	Not applicable		

10. Air Speeds:

Utility Category

V_{MO}	235 KCAS (238 KIAS) (SL to 13000 ft)
M_{MO}	0.45 (13000 ft to 25000 ft)
V_{O}	142 KCAS (143 KIAS)
V_{FE-TO}	150 KCAS (151 KIAS)
V_{FE}	113 KCAS (114 KIAS)
V_{LE}	180 KCAS (182 KIAS)
V_{LOE}	180 KCAS (182 KIAS)
V_{LOR}	135 KCAS (137 KIAS)

Aerobatic Category

V_{MO}	235 KCAS (238 KIAS) (SL to 13000 ft)
M_{MO}	0.45 (13000 ft to 20000 ft)
V_{O}	162 KCAS (164 KIAS)
V_{FE-TO}	150 KCAS (151 KIAS)
V_{FE}	113 KCAS (114 KIAS)
V_{LE}	180 KCAS (182 KIAS)
V_{LOE}	180 KCAS (182 KIAS)
V_{LOR}	135 KCAS (137 KIAS)

11. Maximum Operating Altitude:

Utility Category	25000 ft
Aerobatic Category	20000 ft

12. Allweather Operations Capability:

VFR day and night, IFR
Flight into known icing conditions is prohibited

13. Maximum Weights:

Utility Category

Take-off	1515 kg (3340 lb)
Landing	1440 kg (3175 lb)
From S/N 11037 or if equipped i.a.w. OSB 565-018	
Landing	1515 kg (3340 lb)
If equipped i.a.w. OCN 565-74 or OSB 565-094:	
Take-off	1625 kg (3582 lb)
Landing	1545 kg (3406 lb)

Aerobatic Category

Take-off	1440 kg (3175 lb)
Landing	1440 kg (3175 lb)
If equipped i.a.w. OCN 565-74 or OSB 565-094:	
Take-off	1515 kg (3340 lb)
Landing	1515 kg (3340 lb)

14. Centre of Gravity Range:

Utility Category

Most forward C.G.	2.676 m (25% MAC) aft of datum
Most aft C.G.	2.732 m (29% MAC) aft of datum to 2.766 m (31.5% MAC) aft of datum for 1170 kg to 1370 kg
	2.766 m (31.5% MAC) aft of datum for 1370 kg to 1515 kg
If equipped i.a.w. OCN 565-74 or OSB 565-094:	
Most forward C.G.	2.676 m (25% MAC) aft of datum for 1170 kg to 1550 kg
	2.676 m (25% MAC) aft of datum to 2.683 m (25.5% MAC) aft of datum for 1550 kg to 1625 kg
Most aft C.G.	2.732 m (29% MAC) aft of datum to 2.766 m (31.5% MAC) aft of datum for 1170 kg to 1370 kg
	2.766 m (31.5% MAC) aft of datum for 1370 kg to 1515 kg
	2.766 m (31.5% MAC) aft of datum to 2.759 m (31.0% MAC) aft of datum for 1515 kg to 1625 kg

Aerobatic Category

Most forward C.G.	2.676 m (25% MAC) aft of datum
Most aft C.G.	2.732 m (29% MAC) aft of datum

15.	Datum:	2.335 m in front of wing leading edge at 1.150 m outside the symmetry axis	
16.	Control surface deflections:	Refer to AMM, Section 6	
17.	Levelling Means:	Canopy frame bottom edge	
18.	Minimum Flight Crew:	1 Pilot	
19.	Maximum Passenger Seating Capacity:	1 Seat	
20.	Baggage/Cargo Compartments:	Location	3.800 m aft of datum
		max. Baggage. weight	
		Utility	50 kg (110 lb)
		Aerobatic	no baggage allowed
21.	Wheels and Tyres:	Nose Wheel Tyre Size	5.00-5
		Main Wheel Tyre Size	15x6.0-6
22.	(Reserved):		

A.IV. Operating and Service Instructions

1. Flight Manual:	Airplane Flight Manual GROB G 120TP-A, Doc.-No. 1T-120TPA-1, Issue 1, Revision 0 or later approved revision
If equipped i.a.w. *OÄM 565-17:*	Airplane Flight Manual GROB G 120TP-A, Doc.-No. 1T-120TPAD-1, Issue 1, Revision 0 or later approved revision
2. Maintenance Manual:	Airplane Maintenance Manual GROB G 20TP-A, Doc.-No. 1T-120TPA-2, Issue 1, Revision 0 or later approved revision
3. Structural Repair Manual:	Included in Airplane Maintenance Manual
4. Illustrated Parts Catalogue:	Illustrated Parts Catalogue GROB G120TP-A, Doc.-No. 1T-120TPA-4

A.V. Notes:

1. This TCDS, Section A applies to S/N 11002 and following model G 120TP-A aeroplanes.
2. Paint schemes have to be approved by the TC holder or National Airworthiness Authority.

ADMINISTRATIVE SECTION

I. Acronyms

AFM	Airplane Flight Manual
AMM	Airplane Maintenance Manual
C.G.	Centre of Gravity
CRI	Certification Review Item
HIRF	High Intensity Radiated Field
IFR	Instrument Flight Rules
IPC	Illustrated Parts Catalogue
MCP	Maximum Continuous Power
MTOP	Maximum Takeoff Power
OÄM	Optional Änderungsmitteilung (Optional Change Note)
OCN	Optional Change Note
OSB	Optional Service Bulletin
TCDS	Type Certificate Data Sheet
VFR	Visual Flight Rules
v_{FE-TO}	Maximum Flaps Extended Speed, Takeoff Configuration
v_{FE}	Maximum Flaps Extended Speed, Landing Configuration
v_{LE}	Maximum Landing Gear Extended Speed
v_{LOE}	Maximum Landing Gear Extension Speed
v_{LOR}	Maximum Landing Gear Retraction Speed
v_{MO}	Maximum Operating Speed
M_{MO}	Maximum Operating Mach Number
v_O	Maximum Manoeuvring Speed

II. Type Certificate Holder Record

TC Holder	Period
GROB Aircraft AG Lettenbachstrasse 9 86874 Tussenhausen-Mattsies Germany	Until 01-Sep-2017
GROB Aircraft SE Lettenbachstrasse 9 86874 Tussenhausen-Mattsies Germany	since 01-Sep-2017

IV. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	06 May 2013	Initial Issue	01 May 2013
Issue 02	11 December 2014	Major change “G 120TP-A Digital Cockpit” implemented with optional change note OÄM 565-17 and administrative update to include Major Change “Increased Maximum Landing Weight” implemented from S/N 11037 and through OSB 565-018 and to correct some typos	02, Dec 2014
Issue 03	30 January 2018	Major change “Maximum Mass Increase” implemented with optional change note OCN 565-74, Change of corporate form of Type Certificate Holder and of Production Organisation and administrative update	tbd