European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

No. EASA.R.145

for
CABRI G2

Type Certificate Holder
Hélicoptères Guimbal

1070, rue du Lieutenant Parayre
Aérodrome d'Aix-en-Provence
13290 Les Milles
France

For Models: G00-00-000

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SECTION 1: CABRI G2 – Model G00-00-000

I. General

1. **Data Sheet No**	EASA.R.145
2**. Type / Variant or Model**	
(a) **Type**	Cabri G2
(b) **Variant or Model**	None
3. **Airworthiness Category**	Normal category rotorcraft
4. **Type Certificate Holder**	Hélicoptères Guimbal 1070, rue du Lieutenant Parayre Aérodrome d'Aix en Provence 13 290 Les Milles France
5. **Manufacturer**	Hélicoptères Guimbal
6. **EASA Application Date**	December 21st, 2006
7. **EASA Type Certification Date**	December 14th, 2007

II. Certification Basis

1. **Airworthiness Requirements**	CS-27 (CRI A1)
2. **Special Conditions**	Protection against effects of High intensity radiated fields (HIRF). (CRI F1)
3. **Reversions and exemptions granted**	None
4. **Equivalent Safety Findings**	Separation between fuel tank and firewall (CRI E1) Fuel bladder filling drop test (CRI E2) Chip detectors test in flight (CRI F3)
5. **Environmental Standards including Noise**	JAR 36 (first issue dated May 23, 1997) subpart E (CRI A3)

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition**	G00-00-000
2. **Description**	Two seat piston engine helicopter
3. **Equipment**	As per compliance with CABRI G2 certification basis and included in the original Type Design Standard or indicated on the section 2 - limitations of the Flight Manual

4. **Dimensions**	Fuselage	Length	6 m 31 (20 ft 8 in)
		Width	1 m 24 (4 ft 1 in)
		Height	2 m 37 (7 ft 9 in)
	Main Rotor	3 blades	
		Diameter	7.2 m (23 ft 7 in)
	Tail Rotor	7 blades, shrouded	
		Diameter	0.6 m (0 ft 24 in)

5. **Engine**

One Lycoming O360-J2A piston engine
(FAA TCDS E 286)
with Hélicoptères Guimbal modification N° J45-002
(STC EASA.E.S.01001)

5.1 **Installed Engine Limits**

Maximum continuous / take-off power :
145 shp from 2575 to 2700 rpm

6. **Fluids (Fuel/Oil/Additives)**

6.1 **Fuel** (see Note 3)

AVGAS 100 LL
AVGAS UL 91 (See Oil additive for break-in in RFM Limitations)
Automotive unleaded gasoline (Refer to RFM Limitations)

6.2 **Oil**	Engine oil	Oil grade during break-in (50 hours)	MIL-L-6082B
		Oil grade after break-in	MIL-L-22851 Ashless dispersant
	Gearboxes oil	HG30-85W140	

7. **Fluid capacities**

7.1 **Fuel** 170 L, 45 USG

7.2 **Oil** 6Qt, 5.7 L

8. **Airspeed limits**

VNE power-on = 130 kt - 2kt / 1000 ft Zp
VNE power-off = 110 kt - 2kt / 1000 ft Zp

9. **Rotor Speed Limits**

Power on 515 – 540 rpm
Power off 450 – 610 rpm

10. **Maximum Operating Altitude and Temperature**

10.1 Altitude 13 000 ft ZP

10.2 Temperature - 20°C to ISA + 30°C limited to + 45°C
(Minimum for storage: - 30°C)

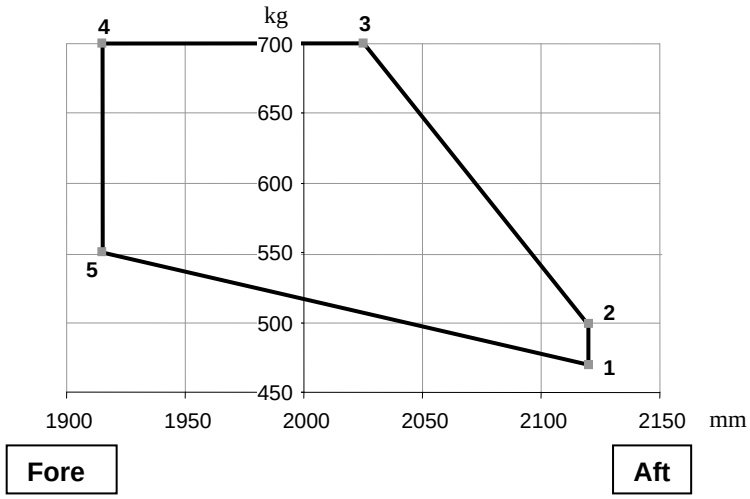
11. **Operating Limitations**

Day and Night VFR (see Note 2)
Flight under known icing condition and aerobatic maneuvers prohibited
For additional information, refer to flight manual

12. **Maximum Certified Weights** Take-off and landing 700 kg (1543 lb)

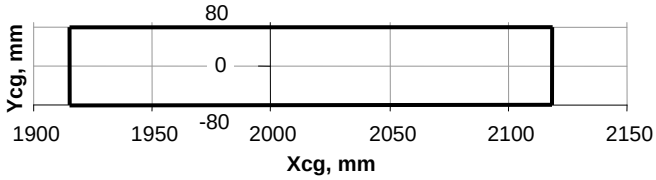
13. **Centre of Gravity Range**

Longitudinal Weight and Balance diagram



Point 1	**470 kg**	**2120 mm**
Point 2	**500 kg**	**2120 mm**
Point 3	**700 kg**	**2025 mm**
Point 4	**700 kg**	**1915 mm**
Point 5	**550 kg**	**1915 mm**

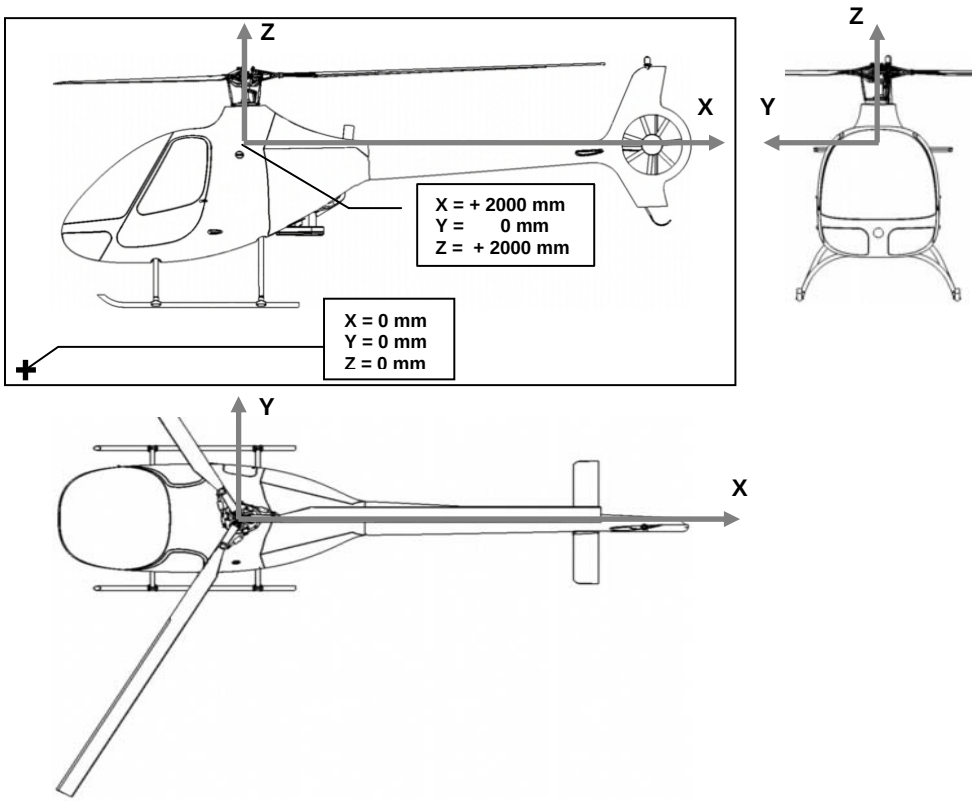
Lateral Balance diagram



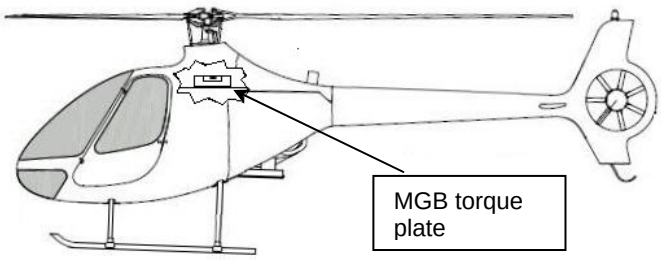
14. **Datum**

Datum is defined such that main gearbox center coordinates are:

X = + 2000 mm
Y = 0 mm
Z = + 2000 mm



15. **Leveling Means**



16. **Minimum Flight Crew**	One pilot on the right seat
17. **Maximum Passenger Seating Capacity**	One passenger or copilot on the left seat
18. **Passenger Emergency Exit** *(location)*	One, on the left.
19. **Maximum Baggage/Cargo Loads**	Location Max Load/Loading
	Baggage compartments 40 kg ; 2.kg/cm2
	Cabin compartment 5kg
20. **Rotor blade and control movement**	For rigging information, refer to Cabri G2 Maintenance manual
21. **Auxiliary Power Unit (APU)**	No
22. **Life-limited parts**	No
23. **Wheels and Tyres**	For ground handling only

IV. Operating and Service Instructions

1. **Rotorcraft Flight Manual, Document No**	J40-001
2. **Maintenance Manual, Document No**	J70-002
3. **Service Letters and Service Bulletins**	As published by Hélicoptères Guimbal and approved by EASA**.**
4. **Airworthiness Limitations, Document No**	J40-002
5. **Required Equipment**	EPM, BARC, RRM (engine governor)

V. Notes

1. Equipment: EPM, BARC and RRM (engine governor) equipment substantiation is limited to Cabri G2

2. Night VFR operation: This kind of operation requires installation of:

1) Hélicoptères Guimbal modifications n° MOD-045-08 (Wide instrument panel option), MOD-054-08 (EPM modification), MOD-063-08 (Interior light – instrument and cabin - night VFR compatible), MOD-066-08 (Electrical harness modification including interior light harness) and EPM acquisition software version 1.2 or later approved version.

2) Avionics instruments requested by operational rules. Hélicoptères Guimbal basic night VFR avionics configuration consists in MOD-065-08 (Gyroscopes – night VFR compatible) and MOD-013-08 (GNS 430 W and CDI indicator). Installation of alternative or additional instruments requires an airworthiness approval by EASA.

3. Fuel types: All authorized fuel types are mixable, in any proportion.

SECTION 2 : ADMINISTRATIVE

I. Acronyms and Abbreviations

BARC	Boitier d'Alarmes Rotor et Carburant (Rotor and fuel warning device)
EPM	Electronic Pilot Monitor
RRM	Régulateur de Régime Moteur (Engine governor)

II. Type Certificate Holder Record

Since 14 December 2007 : Hélicoptères Guimbal
1070, rue du Lieutenant Parayre
Aérodrome d'Aix en Provence
13 290 Les Milles
France

III. Change Record

Issue	Date	Changes	TC issue
Issue 01	14 December 2007	Initial Issue	Initial Issue, December, 14th 2007
Issue 02	25 May 2009	Addition of Night VFR	
Issue 03	18 May 2011	New TCDS format, change in minimum operating temperature and minor corrections	
Issue 04	18 March 2013	Authorization for use of unleaded fuel types	

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