AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

TYPE CERTIFICATE DATA SHEET Nº ER-7902

Type Certificate Holder: (See Note 9)

EUROCOPTER FRANCE
Aeroport International Marseille-Provence
13725 Marignane
FRANCE

ER-7902-02
Sheet 01

EUROCOPTER

SA 330J, AS 332L,
AS 332L1, AS 332L2
EC 225 LP

15 July 2009

This data sheet, which is part of Type Certificate No. 7902, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

I - Model SA 330J (Transport Category A and B Helicopter), approved February 1979.

ENGINE	2 Turbomeca Turmo IV C (See TCDS No. EM-7903-01).
FUEL	USA ASTM D1655 (JET B), MIL-T-5624 (JP-4), ASTM D1655 (JET A or JET A-1), MIL-T-5624; NATO F.34, F.35, F.40, F-45, F.42, F.44; French AIR 3405 TR0, AIR 3407 TR4, AIR 3404 TR5; UK D. eng. RD 2453 AVTUR/FS.11,D. eng. RD 2494 AVTUR, D. eng. RD 2454 AVTAG FSII, D. eng. RD 2486 AVTAG, D. eng. RD 2498 AVCAT. Anti-icing additive must be used in accordance with the DGAC-approved Rotorcraft Flight Manual. The following fuel additives are approved for use: - Phillips PFA/55 MB, MIL-I-27686 (as revised) or French AIR 3652 (as revised), anti-icing additive in quantity up to 0.15 percent in volume (with or without glycerin); - Shell ASA-3 antistatic additive in quantity up to 0.0001 percent in volume.
ENGINE LIMITS	2.5 min power rating:* - shaft power: 1 555 hp - gas generator speed: 33 800 rpm - power turbine inlet temperature: 790°C 30 min power rating:* - shaft power: 1 380 hp - gas generator speed: 32 900 rpm - power turbine inlet temperature: 740°C Take-off (5 min):* - shaft power: 1 495 hp - gas generator speed: 33 450 rpm - power turbine inlet temperature: 780°C

ENGINE LIMITS (Cont.)

Take-off (5 min):*
- shaft power: 1 495 hp
- gas generator speed: 33 450 rpm
- power turbine inlet temperature: 780°C

Maximum continuous power:*
- shaft power: 1 260 hp
- gas generator speed: 32 400 rpm
- power turbine inlet temperature: 705°C

Maximum transient (0.5 min.)*
- gas generator speed: 34 100 rpm
- power turbine inlet temperature: 790°C

Starting
- during 0.5 min: 750°C
- before 0.5 min: 150°C (max.)

Gas generator speed: 33 500 rpm (100%).

Nominal free turbine speed is 22 840 rpm.

* Standard sea level conditions.

ROTOR LIMITS

Maximum: 310 rpm
Minimum: 220 rpm (when IAS is below 108 kt)
240 rpm (when IAS is above 108 kt)
(See Rotorcraft Flight Manual for other limits.)

MGB LIMITS

Maximum torque (takeoff): 2x108.5 mdaN (2 427 hp)
Maximum torque (continuous): 2x78.5 mdaN (1 742 hp)
Maximum torque (OEI): 156 mdaN (1 742 hp)
(Torque based on torquemeter shaft rpm.)

AIRSPEED LIMITS (IAS)

Never exceed speed (V_{NE}): 309 km/h (167 kcas)*

* At minimum weight; variation of V_{NE} with weight and altitude is in the RFM.

C. G. RANGE

Longitudinal:
- forward limit: 4 496 mm (177 in)
- rear limit: 4 945 mm (194.7 in)

Lateral:
- R. H.: 90.2 mm (3.55 in)
- L. H.: 80.0 mm (3.15 in)

See Rotorcraft Flight Manual for external load C.G. range.

DATUM

4 657.3 mm (183.36 in) forward of main rotor centerline.

LEVELING MEANS

Leveling plates on each side of fuselage.

MAXIMUM WEIGHT

7 395.64 kg. (16 300 lb), Category A and B.

MINIMUM CREW

IFR operation: 2 pilots.
VFR operation: 2 pilots (Category A)
1 pilot: Category B

MAXIMUM PASSENGERS

19 (limited by emergency exits)

FUEL CAPACITY	Total: 1 573 liters (414 US Gal) LH Group: 912 liters (240 US Gal) at 5 519 mm (217.3 in) RH Group = 661 liters (174 Gal) at 3 939 mm (155.1 in) See Note 1 for data on fuel system and oil.
OIL CAPACITY	Power plant: 2 x 12.0 liters (3.17 US Gal) at 275.6 mm (108.5 in) MGB: 22 liters (5.8 US Gal) at 5 530 mm (219.7 in) IGB: 0.76 liters (0.2 US Gal) at 12507 mm (492.4 in) TGB: 1.4 liters (0.37 US Gal) at 13 810 mm (543.7 in) See Note 1 for undrainable oil.
MAXIMUM OPERATING ALTITUDE	5 030 m (16 500 ft). See RFM for added limitations.

II - <u>Model AS 332L (Transport Category A and B Helicopter)</u>, approved 30 March 2002.

ENGINE	2 Turbomeca Makila 1A turboshaft engines. (See TCDS No. EM-2001T04)
FUEL	Refer to Flight Manual for approved fuels and additive specifications.
ENGINE LIMITS	2.5 min power rating:* - shaft power: 1 756 hp - gas generator speed: 34 000 rpm - power turbine inlet temperature: 810°C 30 min power rating:* - shaft power: 1 662 hp - gas generator speed: 33 200 rpm - power turbine inlet temperature: 775°C Take-off (5 min):* - shaft power: 1 662 hp - gas generator speed: 33 200 rpm - power turbine inlet temperature: 775°C 785°C (with mod. 22 305) Maximum continuous power:* - shaft power: 1 515 hp - gas generator speed: 32 500 rpm - power turbine inlet temperature: 735°C Refer to RFM for transients.
ROTOR LIMITS	Power on flight: - rated: 265 rpm - maximum: 275 rpm - minimum: 245 rpm - minimum transient: 220 rpm Power off flight: - maximum: 290 rpm - maximum transient: 310 rpm - minimum: 220 rpm (if IAS ≤ 100 kt) 245 rpm (if IAS > 100 kt)

MGB LIMITS	Two engines operative: - maximum torque: 100% (2 235 kW) - maximum continuous torque: 81% (1 820 kW) One engine inoperative: - maximum torque: 69% (1 550 kW) - maximum 30 min: 66% (1 470 kW) - overtorque transient: 74% (1 650 kW)
AIRSPEED LIMITS (IAS)	Never exceed speed (V_{NE}): Power on: 309 km/h (167 kt)* Power off: 268 km/h (145 kt)* * At zero pressure altitude; see RFM for decrease of these values with altitude and weight.
C. G. RANGE	Longitudinal: - forward limit: 4 399 mm (173.2 in) for weight ≤ 15 430 lb 4 399 mm (173.2 in) for 18 960 lb - aft limit: 4 399 mm (173.2 in) for weight ≤ 15 430 lb Lateral: - R. H.: 90.2 mm (3.55 in) - L. H.: 80.0 mm (3.15 in)
DATUM	4 669 mm (183.8 in) forward of main rotor centerline.
LEVELING MEANS	Level Support plate on the R.H. side of fuselage. Graduated plate for plumb line on L.H. side.
MAXIMUM WEIGHT	8 603 kg (18 960 lb), Category A and B (See Note 8).
MINIMUM CREW	2 pilots (VFR and IFR conditions)
MAXIMUM PASSENGERS	24
FUEL CAPACITY	Total: 2 090 liters (550 US Gal) Longitudinal tank: - LH: 247 liters (65 US Gal) at 4 575 mm (180.1 in) - RH: 236 liters (62 US Gal) at 4 575 mm (180.1 in) Transverse tank: - FWD: 407 liters (107 US Gal) at 3 551 mm (139.8 in) - AFT: 426 liters (112 US Gal) at 5 596 mm (220.3 in) Tank 5 (rear): 247 liters (65 US Gal) at 6 340 mm (249.6 in) Tank 7: 528 liters (139 US Gal) at 2 850 mm (112.2 in) See Note 1 for data on unusable fuel.
OIL CAPACITY	Engine: 2 x 7.6 liters (2 US Gal) at 275.6 mm (108.5 in) MGB: 21.7 liters (5.71 US Gal) at 5 530 mm (219.7 in) IGB: 0.61 liters (0.16 US Gal) at 12 507 mm (492.4 in) TGB: 1.4 liters (0.38 US Gal) at 13 810 mm (543.7 in) See Note 1 for undrainable oil.
MAXIMUM OPERATING ALTITUDE	6 096 m (20 000 ft)

III - Model AS 332L1 (Transport Category A and B Helicopter), approved 30 March 2002.

ENGINE

2 Turbomeca Makila 1A turboshaft engines.
(See TCDS No. EM-2001T04)

FUEL

Refer to Flight Manual for approved fuels and additive specifications.

ENGINE LIMITS

2.5 min power rating:*
- shaft power: 1 877 hp
- gas generator speed: 34 000 rpm
- power turbine inlet temperature: 830°C

30 min power rating:*
- shaft power: 1 783 hp
- gas generator speed: 33 200 rpm
- power turbine inlet temperature: 785°C

Take-off (5 min):*
- shaft power: 1 819 hp
- gas generator speed: 33 350 rpm
- power turbine inlet temperature: 795°C

Maximum continuous power:*
- shaft power: 1 588 hp
- gas generator speed: 32 300 rpm
- power turbine inlet temperature: 735°C

Refer to RFM for transients.

ROTOR LIMITS

Power on flight:
- rated: 265 rpm
- maximum: 275 rpm
- minimum: 245 rpm
- minimum transient: 220 rpm

Power off flight:
- maximum: 290 rpm
- maximum transient: 310 rpm
- minimum: 220 rpm (if IAS ≤ 100 kt)
  245 rpm (if IAS > 100 kt)

MGB LIMITS

Two engines operative:
- maximum torque: 100% (2 235 kW)
- maximum continuous torque: 81% (1 820 kW)

One engine inoperative:
- maximum torque: 69% (1 550 kW)
- maximum 30 min: 66% (1 470 kW)
- overtorque transient: 74% (1 650 kW)

AIRSPEED LIMITS (IAS)

Never exceed speed (V_{NE}): Power on: 309 km/h (167 kt)*
Power off: 268 km/h (145 kt)*

* At zero pressure altitude; see RFM for decrease of these values with altitude and weight.

C. G. RANGE	Longitudinal: - Forward limit: 4 399 mm (173.2 in) for weight ≤ 15 430 lb 4 519 mm (177.9 in) for 18 960 lb - Aft limit: 4 399 mm (173.2 in) for weight ≤ 15 430 lb Lateral: - R. H.: 90.2 mm (3.55 in) - L. H.: 80.0 mm (3.15 in)
DATUM	4 669 mm (183.8 in) forward of main rotor centerline.
LEVELING MEANS	Level Support plate on the R.H. side of fuselage. Graduated plate for plumb line on L.H. side.
MAXIMUM WEIGHT	8 603 kg (18 960 lb), Category A and B.
MINIMUM CREW	2 pilots (VFR and IFR conditions)
MAXIMUM PASSENGERS	24
FUEL CAPACITY	Total: 2 090 liters (550 US Gal) Longitudinal tank: - LH: 247 liters (65 US Gal) at 4 575 mm (180.1 in) - RH: 236 liters (62 US Gal) at 4 575 mm (180.1 in) Transverse tank: - FWD: 407 liters (107 US Gal) at 3 551 mm (139.8 in) - AFT: 426 liters (112 US Gal) at 5 596 mm (220.3 in) Tank 5 (rear): 247 liters (65 US Gal) at 6 340 mm (249.6 in) Tank 7: 528 liters (139 US Gal) at 2 850 mm (112.2 in) See Note 1 for data on unusable fuel.
OIL CAPACITY	Engine: 2 x 7.6 liters (2 US Gal) at 2756 mm (108.5 in) MGB: 21.7 liters (5.71 US Gal) at 5 530 mm (219.7 in) IGB: 0.61 liters (0.16 US Gal) at 12 507 mm (492.4 in) TGB: 1.4 liters (0.38 US Gal) at 13 810 mm (543.7 in) See Note 1 for undrainable oil.
MAXIMUM OPERATING ALTITUDE	6 096 m (20 000 ft)

IV - Model AS 332L2 (Transport Category A and B Helicopter), approved 30 March 2002.

ENGINE	2 Turbomeca Makila 1A2 turboshaft engines. (See TCDS No. EM-2001T04)
FUEL	Refer to Flight Manual for approved fuels and additive specifications.
ENGINE LIMITS	OEI 2.5 min power rating:* - shaft power: 1 966 hp - gas generator speed: + 2% - power turbine inlet temperature: 870°C
ENGINE LIMITS (Cont.)	OEI 30 min power rating:*

- shaft power: 2 108 hp
- gas generator speed: + 4.5%
- power turbine inlet temperature: N/A

OEI continuous power rating:*
- shaft power: 1 903 hp
- gas generator speed: + 1%
- power turbine inlet temperature: 840°C

Take-off:*
- shaft power: 1 844 hp
- gas generator speed: 0%
- power turbine inlet temperature: 825°C

Maximum continuous power:*
- shaft power: 1 656 hp
- gas generator speed: - 2.7%
- power turbine inlet temperature: 770°C

Refer to RFM for transients.

ROTOR LIMITS

Power on flight:
- rated: 265 rpm
- maximum: 275 rpm
- minimum: 245 rpm
- minimum transient: 220 rpm

Power off flight:
- maximum: 290 rpm
- maximum transient: 310 rpm
- minimum: 220 rpm (if IAS ≤ 100 kt)
  245 rpm (if IAS > 100 kt)

MGB LIMITS

Two engines operative:
- maximum continuous torque: 77%
- maximum (5 minutes) torque: 100%
- overtorque (transient): 110%

One engine inoperative:
- maximum continuous torque: 68.4%
- maximum 2 min. torque: 70.6%
- maximum 30 min. torque: 74.8%

AIRSPEED LIMITS (IAS)

Never exceed speed (V_{NE}): Power on: 315 km/h (170 kt)
Power off: 278 km/h (150 kt)

C. G. RANGE

Longitudinal:
- forward limit: 4 399 mm (173.2 in)
- aft limit: 4 593 mm (195 in)

Lateral:
- R. H.: 50.8 mm (2.00 in)
- L. H.: 50.8 mm (2.00 in)

See RFM for variation function of weight

DATUM

Longitudinal: 4 669 mm (183.8 in) forward of main rotor centerline.
Lateral: aircraft symmetry plane.

LEVELING MEANS

Level Support plate on the R.H. side of fuselage.
Graduated plate for plumb line on L.H. side.

MAXIMUM WEIGHT

9 150 kg (20 167 lb), Category A and B.

MINIMUM CREW	2 pilots (VFR and IFR conditions)
MAXIMUM PASSENGERS	25
FUEL CAPACITY	Total: 2 052 liters (540 US Gal) - LH Group: 920 liters (242 US Gal) - RH Group: 1 132 liters (298 US Gal) Longitudinal tank: - LH: 247 liters (65 US Gal) at 4 575 mm (180.1 in) - RH: 236 liters (62 US Gal) at 4 575 mm (180.1 in) Transverse tank: - RH: 407 liters (107 US Gal) at 3 551 mm (139.8 in) - LH: 426 liters (112 US Gal) at 5 601 mm (220.5 in) Tank 5 (LH): 247 liters (65 US Gal) at 6 340 mm (249.6 in) Tank 7 (RH): 490 liters (129 US Gal) at 2 850 mm (112.2 in) See Note 1 for data on unusable fuel.
OIL CAPACITY	Engine: 2 x 4.9 liters (1.3 US Gal) at 2 756 mm (108.5 in) MGB: 23.9 liters (6.3 US Gal) at 5 507 mm (216.8 in) IGB: 0.76 liters (0.2 US Gal) at 12 510 mm (492.5 in) TGB: 1.52 liters (0.4 US Gal) at 13 810 mm (543.7 in) See Note 1 for undrainable oil.
MAXIMUM OPERATING ALTITUDE	2 500 m (8 200 ft)

V - Model EC 225 LP (Transport Category A and B Helicopter), approved 15 July 2009.

ENGINE	2 Turboméca Makila 2A (ANAC TCDS EM-2009T09) or 2 Turboméca Makila 2A1 (ANAC TCDS EM-2009T09)
AUXILIARY POWER UNIT	Optional equipment, to be used on ground only see relevant approved Flight Manual Supplement
FUEL	Refer to Flight Manual for approved fuels and additive specifications
HYDRAULIC FLUIDS	Refer to approved Flight Manual
ENGINE LIMITS	Refer to approved Flight Manual
TRANSMISSION TORQUE LIMITS	Refer to approved Flight Manual
ROTOR LIMITS	Power on: Maximum 275 rpm Minimum 246 rpm Min transient 220 rpm Power off: Max transient 310 rpm (20 sec) Maximum 290 rpm Minimum 246 rpm (IAS > 100Kt) 220 rpm (IAS > 100Kt)
AIRSPEED LIMITS	Vne (never exceed speed):

	Power on 175 Kt up to 5 000 ft density altitude and 175 Kt – 3 Kt / 1 000 ft above 5 000 ft Power off Vne power on limited to 150 Kt See Flight Manual for other approved airspeed limits
CENTER OF GRAVITY LIMITS	Refer to approved Flight Manual
DATUM	Longitudinal: 4.67 m (183.85 in) forward of main rotor centreline Lateral: aircraft symmetry plane
LEVELING MEANS	Levelling plate on right side of the fuselage and graduated plate for plumb line on left side
MAXIMUM WEIGHT	Take-off and landing: 11 000 kg (24 251 lb)
MINIMUM FLIGHT CREW	Two (2): Pilot and Co-pilot in IFR One (1): Pilot in VFR
MAXIMUM PASSENGER	19

ALTITUDE LIMITS

	EC 225 LP - Standard	EC 225 LP – MPAI* equipped
Take-off and landing	OAT from -30°C to +7°C: – 3.500ft density altitude + 4.000ft density altitude OAT from +7°C to ISA +40°C (without exceeding +50°C): – 2.000ft pressure altitude + 4.000ft density altitude	OAT from -30°C to +7°C: – 3.500ft density altitude + 11.000ft density altitude OAT from +7°C to ISA +40°C (without exceeding +50°C): – 2.000ft pressure altitude + 11.000ft density altitude
En route	OAT from -30°C to +7°C: – 3.500ft density altitude + 20.000ft pressure altitude OAT from +7°C to ISA +40°C (without exceeding +50°C): – 2.000ft pressure altitude + 20.000ft pressure altitude	OAT from -30°C to +7°C: – 3.500ft density altitude + 20.000ft pressure altitude OAT from +7°C to ISA +40°C (without exceeding +50°C): – 2.000ft pressure altitude + 20.000ft pressure altitude

TEMPERATURE LIMITS

EC 225 LP - Standard	EC 225 LP – MPAI* equipped
-30°C to ISA +40°C limited to +50°C	-30°C to ISA +40°C limited to +50°C

*MPAI: Multi-Purpose Air Intakes

FUEL CAPACITY

standard configuration consists of internal fuel tanks (without 6th tank) and external sponson mounted tanks

standard configuration	2 588 l (682 US gals)
with optional internal 6TH tank	+ 320 l (84 US gals)
	2 908 l (766 US gals)

see Flight Manual for other approved optional fuel tanks configurations and for unusable fuel quantities

See Note 1 for data on unusable fuel

OIL CAPACITY

Engines	4,92 l
MGB	27 l
IGB	0.62 l
TGB	1.5 l

HYDRAULIC CAPACITY

RH system	5.0 l
LH system	9.5 l

DATA PERTINENT TO ALL MODELS:

OIL

See Rotorcraft Flight Manual for approved engine and gearbox oils. Also see appropriate Engine Maintenance Manual for applicable procedure if oil specification or brand is changed.

EMPTY WEIGHT C. G. RANGE

None

MAXIMUM BAGGAGE

The cabin floor area between station 2 479 mm (+97.6 in.) and 7 630 mm (300.4 in) (except models AS 332 L2 and EC 225 LP) or 7 729 mm (304.3 in) (model AS 332L2 and EC 225 LP) is structurally satisfactory for uniformly distributed loading of 800 kg/m^2 (164 lb/sq. ft.)
(See Note 8).

ROTOR BLADE AND CONTROL MOVEMENTS

For rigging information refer to the Maintenance Manual.

S/N'S ELIGIBLE

A Certificate of Airworthiness for Export endorsed as noted under "Import Requirements" must be submitted for each individual aircraft for which application for a Brazilian Certificate of Airworthiness is made.

IMPORT ELIGIBILITY

A Brazilian Certificate of Airworthiness may be issued on the basis of a EASA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:

"The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the Brazilian Type Certificate nº 7902 and in the condition of safe operation."

The ANAC Reports H.10-0020-0 (SA330J), issued on 19 February 1979 or further revisions, and H.10-0022-01 (AS332L, AS332L1, AS332L2, EC 225 LP), issued on 15 July 2009 or further revisions, contain the Brazilian requirements for the acceptance of these rotorcraft. (See Note 4)

CERTIFICATION BASIS

For Model SA 330J:

- RBHA 29, which endorses the 14 CFR Part 29 dated 01 February 1965, including Amdt. 29-1 through 29-9, plus paragraphs 29.951(c), 29.1183 and 29.1305(a)(16) of Amdt. 29-10.
- The helicopters equipped with the anticollision red light are not in compliance with RBHA/14 CFR 29 Amdt. 29-7.

For Models AS 332L, and AS 332L1:

- RBHA 29, which endorses the 14 CFR Part 29 dated 01 February 1965, including Amdt. 29-1 through 29-9, plus paragraphs 29.951(c), 29.1183 and 29.1305(a)(16) of Amdt. 29-10.
- The applicant has elected to comply with RBHA/14 CFR Part 29 Amdts. 29-10 through 29-16, except RBHA/14 CFR 29.397 Amdt. 29-12 as concerns rotor brake, and with the "Airworthiness Criteria for Helicopter Instrument Flight" dated 15 December 1978.
- Date for application of type certificate: 12 December 2000.

For Model AS 332L2

- RBHA 29, which endorses the 14 CFR Part 29 dated 01 February 1965, including Amdt. 29-1 through 29-9, plus paragraphs 29.305, 29.307, 29.571, 29.603, 29.605, 29. 609, 29.610, 29.629,29.691(c), 29.1183, 29.1305(a)(16) and 29.1529 of Amdt. 29-10.
- The applicant has elected to comply with RBHA/14 CFR Part 29 Amdts. 29-10 through 29-16, except RBHA/14 CFR 29.397 Amdt. 29-12 as concerns rotor brake, and with the "Airworthiness Criteria for Helicopter Instrument Flight" dated 15 December 1978.
- Special conditions:
  - N° 29-ASW-1, Docket N° 90-ASW-4, effective 23 January 1991, containing provisions for the protection of electrical/eletronic systems for high intensity radiated fields; and
  - N° 29-ASW-2, Docket N° 90-ASW-5, effective 14 October 1992, containing additional safety standards for 30-Second contingency rating certification.
- RBHA 36, which endorses 14 CFR 36 (Noise Standards) dated 01 February 1965, including Amdts. 36-1 through 36-18.
- Date for application of type certificate: 25 January 2001.

For Model EC 225 LP

- RBHA 21 paragraph 21.29 effective on 18 February 2005, as amended by 21-1 through 21-5.
- RBHA 29 corresponding to 14 CFR Part 29, effective on 01 February 1965, Airworthiness Regulation; Amendments 29-1 through 29-47, excluding the following:
  1. Amdt. 29-43 Rotorcraft Load Combination Safety Requirements (§§25, 865) – (Reference CRI D-06)
  2. Amdt. 29-35 Crash Resistant Fuel systems (§§952, 963, 967, 973, 975) – (Reference CRI E-01, and CRI E-02)

CERTIFICATION BASIS (Cont.)

3. Amdt. 29-29 Occupant Protection and Restraint (§§561(b)(3), 562, 785) – (Reference CRI C-01, CRI C-02, and CRI D-01)
4. Amdt. 29-28 Structural Fatigue Evaluation (§571) – (Reference CRI C-03)
5. Amdt. 29-26 Fuel Transfer (§955(b)) – (Reference CRI E-05)

- RBHA 34 and RBHA 36 (Environmental Standards) as follow:
  1. Noise: compliant with ICAO Annex 16, Volume 1, Part II, Chapter 8 and Appendix 4, Third Edition (November 1993) - see Flight Manual for measured noise levels
  2. Engine Emission: compliant with ICAO Annex 16, volume 2, Part II, Second edition (July 1993) - Fuel Discharge.
- EASA Special Conditions as follows:
  1. SAR (Search and Rescue) system (Reference CRI B-02);
  2. Protection from the effects of High Intensity Radiated Field (Reference CRI F-02);
  3. Helicopter limited icing approval as prescribed by the EASA (Reference CRI O-01).
- EASA Equivalent Levels of Safety as following:
  1. RBHA/CFR 14 paragraphs 29.173, 175 Static longitudinal Stability (Reference CRI B-03)
  2. RBHA/CFR 14 29 Apdx B §IV IFR Static longitudinal Stability – Airspeed stability (Reference CRI B-04)
  3. RBHA/CFR 14 paragraph 29.571 Fatigue evaluation of structure for changed metallic PSE (Reference CRI C-04)
  4. RBHA/CFR 14 paragraph 29.807(c)(1) Passenger emergency exits other than side-of-fuselage (Reference CRI D-02)
  5. RBHA/CFR 14 paragraph 29.813(a), 29.815 Emergency exit access - Main aisle width (Reference CRI D-03)
  6. RBHA/CFR 14 paragraph 29.807(d)(2) Ditching emergency exits for passengers (Reference CRI D-07)
  7. RBHA/CFR 14 paragraph 29.923(a)(2) Rotor drive system and control mechanism tests (Reference CRI E-03)
  8. RBHA/CFR 14 paragraph 29.1303(j) VNE aural warning (Reference CRI F-01)
  9. RBHA/CFR 14 paragraph 29.1545(b)(4) Airspeed indicators markings (Reference CRI G-01)
  10. RBHA/CFR 14 paragraph 29.1549(b) Powerplant instruments markings (Reference CRI G-02).
- Date for application of type certificate: 02 June 2008.

REQUIRED EQUIPMENT

The basic required equipment, as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane.
A Brazilian Rotorcraft Flight Manual approved by the EASA on behalf of the ANAC (coded G) should be carried on each aircraft (See Note 7).

NOTES:

NOTE 1 Weight and balance.

(a) Current weight and balance report, including list of equipment included in the certificated empty weight and loading instructions when necessary, must be provided with each helicopter.

(b) Unusable fuel, undrainable oil and all hydraulic fluid must be included in the certificated empty weight. See table below and RFM for additional data.

(unusable fuel @ 6.6 lb/US Gal):

Model	LH Group Quantity (US Gal)	LH Group Weight (lb)	LH Group CG Longit. Pos. (in)	RH Group Quantity (US Gal)	RH Group Weight (lb)	RH Group CG Longit. Pos. (in)
330 Series	4.2	27.7	197	1.3	8.6	163
332 L,L1,L2	4.2	27.7	197	1.9	12.6	163
EC 225 LP	1.65	10.9	180	2.18	14.4	180

NOTE 2 Markings and placards. All markings and placards for passenger information, external markings for emergency, and load limits in cargo/baggage compartments must be presented in Portuguese or bilingual. A list of these placards and the respective translations acceptable to ANAC is provided in the ANAC Reports H.10-0020-0 (SA330J), issued on 19 February 1979 or further revisions, and H.10-0022-01 (AS332L, AS332L1, AS332L2, EC 225 LP), issued on 15 July 2009 or further revisions.

Models SA330J/AS332L/AS332L1:

The following placard must be displayed in front of and in clear view of the pilot:

"THIS HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE ANAC APPROVED ROTORCRAFT FLIGHT MANUAL. THE AIRWORTHINESS LIMITATIONS SECTION OF THE ROTORCRAFT MAINTENANCE MANUAL MUST BE COMPLIED WITH".

Models AS332L2 and EC 225 LP:

The following placard must be displayed in front of and in clear view of the pilot:

"THIS HELICOPTER IS CERTIFIED FOR DAY/NIGHT VFR AND IFR NON-ICING OPERATIONS. IT MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE ANAC APPROVED ROTORCRAFT FLIGHT MANUAL. THE AIRWORTHINESS LIMITATIONS SECTION OF THE ROTORCRAFT MAINTENANCE MANUAL MUST BE COMPLIED WITH".

All Models:

All placards required in the approved Helicopter Flight Manual must be installed in the appropriate locations.

In the aft faced seats must be installed the following placard:

"HEADREST MUST BE IN PLACE DURING FLIGHT".

"O APOIO DE CABEÇA É REQUERIDO PARA VÔO".

NOTE 3 Continuing Airworthiness. The retirement times of certain parts and inspection requirements are listed in Airworthiness Limitations, Chapter 5, of the Model SA330J/AS332L/AS332L1/AS332L2/EC225LP Series Maintenance Manuals. These values of retirement or service life and inspections cannot be increased without EASA and ANAC approval. In addition, information essential for proper maintenance of the helicopter is contained in the Eurocopter Model SA330J/AS332L/AS332L1/AS332L2/ EC225LP Series Maintenance Manuals and Component Repair and Overhaul Manuals. For the Model AS332L, AS332L1, AS332L2, EC225LP life limited components and their associated retirement times are contained in Section 5.99 titled “Airworthiness Limitations” of the Master Servicing Recommendations appropriate to the Model.

NOTE 4 The differences of the Brazilian rotorcraft in relation to the EASA type design are summarized below:

1. The Brazilian Rotorcraft Flight Manuals are approved by the EASA on behalf of the ANAC and coded by letter G (See Note 7).
2. The Markings and placards in the Portuguese language, listed in the ANAC Reports (See Note 2).

NOTE 5 To prevent icing of fuel system components, all fuel in the tanks before takeoff must contain anti-icing additives in accordance with the Rotorcraft Flight Manual.
Blending this additive into the fuel and checking its concentration must be conducted in the manner prescribed by the Rotorcraft Flight Manual.

NOTE 6 Composite main rotor blades P/N 330A.11.0020, 330A.11.0030 having the following serial numbers may be installed: serial numbers less than 750 and greater than 1500 and 20 750 through 21 500. Refer to SA 330 "Puma" Service Bulletin N° 01.31, amended 11 February 1981.

NOTE 7 In regard to RFM approved revisions the following apply for each model:

- Model AS332L, Issue 2 normal Revision 1, with Code G pages (dated coded 97-40) or later DGAC approved revision;
- Model AS332L1, Issue 2 normal Revision 1, with Code G pages (dated coded 97-40) or later DGAC approved revision; and
- Model AS332L,2 Issue 2 normal Revision 6, with Code G pages (dated coded 53-05) or later DGAC approved revision.
- Model EC 225 LP:
  - MPAI RFM G-coded: section 1 to 5 at NR21 code-date 09-27 or further EASA approved revision;
  - STD RFM G-coded: section 1 to 5 at NR11 code-date 09-26 or further EASA approved revision.

NOTE 8

a. When rear baggage compartment is installed per Eurocopter drawing 332A.82.0703 the maximum load is placarded on the floor and shelves.
b. When the rear baggage compartment is installed per Eurocopter drawing 332A.82.0310 (Model AS 332L2 and EC 225 LP) the maximum load is placarded on the bulkhead and upholstering.

NOTE 9 The TC Holder before 01 January 1992 was:
SOCIÉTÉ NATIONALE INDUSTRIELLE AEROSPATIALE
37, Boulevard de Montmorency
75781 Paris Cedex 16
FRANCE

NOTE 10 Comercial designation: SUPER PUMA Mk II+ or LP corresponds to EC 225 LP version.

ADEMIR ANTÔNIO DA SILVA
Gerente Geral, Certificação de Produto Aeronáutico
(Manager, Aeronautical Product Certification)