



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

TYPE CERTIFICATE DATA SHEET Nº ER-9209

Type Certificate Holder:

EUROCOPTER DEUTSCHLAND GMBH
Postfach 801140
81663 Munchen
GERMANY

ER-9209-02
Sheet 01

EUROCOPTER

MBB-BK117 A-3,
MBB-BK117 A-4,
MBB-BK117 B-1,
MBB-BK117 B-2,
MBB-BK117 C-1,
MBB-BK117 C-2

19 May 2009

This data sheet, which is part of Type Certificate No. 9209, 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 MBB-BK 117 A-3 (Transport Category Helicopter), approved 31 March 1993.

ENGINE 2 Lycoming LTS 101-650 B1

FUEL MIL-T-5624 JP-4; ASTM D 1655 Jet B;
MIL-T-5624 JP-5; ASTM D 1655 Jet A or Jet A-1.
For alternate fuels refer to the RFM.

ENGINE LIMITS	Torque (%)	Gas Generator rpm (%)	Power Turbine, rpm (%)	Exhaust Gas Temp. °C
Normal operation:				
- Takeoff power (5 min)	71	49 159 (102.7)	6 120 (102)	782
- Max. Cont. power	71	49 159 (102.7)	6 120 (102)	763
Emergency operation (single engine):				
- 2.5 min. power	100	50 548 (105.6)	6 120 (102)	832
- 30 min. power	91.5	50 169 (104.8)	6 120 (102)	796
- Max. Cont. power	83	49 159 (102.7)	6 120 (102)	763
(For ignition and transition values, see RFM)				

ROTOR LIMITS	Power On	Power Off
	Max. 102% (390.7 rpm)	Max. 104% (398.3 rpm)
	Min. 98% (375.3 rpm)	Min. 80% (306.4 rpm) up to 2 000 kg
		Min. 85% (325.5 rpm) over 2 000 kg

AIRSPEED LIMITS (IAS) Never exceed (V_{NE}): 281 km/h (152 kt)
(For reduction of V_{NE} with altitude and OAT, see approved RFM).

C. G. RANGE	Longitudinal C.G. Limits	
	- Front position max	at 1 700 kg: 4 375 mm at 2 000 kg: 4 337 mm at 3 200 kg: 4 447 mm
	- Rear position max.:	at 1 700 kg: 4 670 mm at 3 200 kg: 4 533 mm
	- Straight-line variation between points given.	
	Lateral maximum	±100 mm up to 2 850 kg ± 80 mm over 2 850 kg
DATUM	Longitudinal	4 000 mm forward of the leveling point 4/5 on the cabin floor in the rear door aperture
	Lateral	fuselage median plane
MAXIMUM WEIGHT	3 200 kg	
MAXIMUM PASSENGERS	Max: 11 see FMS 10-8. Max: 8 (with standard or VIP configuration drawing No. 11701000.00). Max: 7 (with VIP equipment drawings No.11786090, -09I or 11700100.00).	
MINIMUM CREW	1 pilot in the RH seat only.	
MAXIMUM BAGGAGE	Floor loading up to station 5 600: 600 kg/m ² Maximum cargo in compartment (up to sta 5 600): 1 200 kg Max. baggage (behind rear pass. seats): 250 kg (See Note 2)	
FUEL CAPACITY	Max. usable fuel is 598 liters, being 501.4 liters in the main tank and 96.6 liters in the supplementary tanks. Unusable fuel is 3.8 liters in the main tank and 5.8 liters in the supplementary tanks. Total fuel capacity is 607.6 liters.	
OIL CAPACITY	Engine (each tank): Usable: 3.93 liters Unusable: 0.40 liters Total: 4.33 liters Transmission: Main: 12.5 liters Intermediate gearbox: 0.75 liters Tail gearbox: 0.65 liters Main rotor hub: 1.90 liters	
ALTITUDE LIMITS	3 048 m pressure altitude.	
ROTOR BLADE AND CONTROL MOVEMENTS	See Maintenance Manual.	

II - Model MBB-BK 117 A-4 (Transport Category Helicopter), approved 31 March 1993.

ENGINE	2 Lycoming LTS 101-650 B1				
FUEL	MIL-T-5624 JP-4; ASTM D 1655 Jet B; MIL-T-5624 JP-5; ASTM D 1655 Jet A or Jet A-1. For alternate fuels refer to the RFM.				
ENGINE LIMITS		Torque (%)	Gas Generator rpm (%)	Power Turbine, rpm (%)	Exhaust Gas Temp. °C
	Normal operation:				
	- Takeoff power (5 min)	83	49 159 (102.7)	6 120 (102)	782
	- Max. Cont. power	71	49 159 (102.7)	6 120 (102)	763
	Emergency operation (single engine):				
	- 2.5 min. power	100	50 548 (105.6)	6 120 (102)	832
	- 30 min. power	91.5	50 169 (104.8)	6 120 (102)	796
	- Max. Cont. power	83	49 159 (102.7)	6 120 (102)	763
	(For ignition and transition values, see RFM)				
ROTOR LIMITS	Power On	Power Off			
	Max. 102% (390.7 rpm)	Max. 104% (398.3 rpm)			
	Min. 98% (375.3 rpm)	Min. 80% (306.4 rpm) up to 2 000 kg			
		Min. 85% (325.5 rpm) over 2 000 kg			
AIRSPEED LIMITS (IAS)	Never exceed (V_{NE}):		278 km/h (150 kt)		
	(For reduction of V_{NE} with altitude and OAT, see approved RFM).				
C. G. RANGE	Longitudinal C.G. Limits				
	- Front position max	at 1 700 kg: 4 375 mm at 2 000 kg: 4 337 mm at 3 200 kg: 4 447 mm			
	- Rear position max.:	at 1 700 kg: 4 670 mm at 3 200 kg: 4 533 mm			
	- Straight-line variation between points given.				
	Lateral maximum	±100 mm	up to 2 850 kg		
		± 80 mm	over 2 850 kg		
DATUM	Longitudinal	4 000 mm forward of the leveling point 4/5 on the cabin floor in the rear door aperture			
	Lateral	fuselage median plane			
MAXIMUM WEIGHT	3 200 kg				
MAXIMUM PASSENGERS	Max: 11 see FMS 10-8. Max: 8 (with standard or VIP configuration drawing No. 11701000.00). Max: 7 (with VIP equipment drawings No.11786090, -09I or 11700100.00).				
MINIMUM CREW	1 pilot in the RH seat only.				

MAXIMUM BAGGAGE	Floor loading up to station 5 600: 600 kg/m ² Maximum cargo in compartment (up to sta 5 600): 1 200 kg Max. baggage (behind rear pass. seats): 250 kg (See Note 2)
FUEL CAPACITY	Max usable fuel is 598 liters, being 501.4 liters in the main tank and 96.6 liters in the supplementary tanks. Unusable fuel is 3.8 liters in the main tank and 5.8 liters in the supplementary tanks. Total fuel capacity is 607.6 liters.
OIL CAPACITY	Engine (each tank): Usable: 3.93 liters Unusable: 0.40 liters Total: 4.33 liters Transmission: Main: 12.5 liters Intermediate gearbox: 0.75 liters Tail gearbox: 0.65 liters Main rotor hub: 1.90 liters
ALTITUDE LIMITS	3 048 m pressure altitude.
ROTOR BLADE AND CONTROL MOVEMENTS	See Maintenance Manual.

III- Model MBB-BK 117 B-1 (Transport Category Helicopter), approved 31 March 1993.

ENGINE	2 Lycoming LTS 101-750 B1				
FUEL	MIL-T-5624 JP-4; ASTM D 1655 Jet B; MIL-T-5624 JP-5; ASTM D 1655 Jet A or Jet A-1. For alternate fuels refer to the RFM.				
ENGINE LIMITS	Torque (%)	Gas Generator rpm (%)	Power Turbine, rpm (%)	Exhaust Gas Temp. °C	
	Normal operation:				
	- Takeoff power (5 min)	83	49 159 (102.7)	6 120 (102)	786
	- Max. Cont. power	71	49 159 (102.7)	6 120 (102)	765
	Emergency operation (single engine):				
	- 2.5 min. power	100	50 548 (105.6)	6 120 (102)	836
	- 30 min. power	91.5	50 169 (104.8)	6 120 (102)	800
	- Max. Cont. power	83	49 159 (102.7)	6 120 (102)	765
	(For ignition and transition values, see RFM)				
ROTOR LIMITS	Power On	Power Off			
	Max. 102% (390.7 rpm)	Max. 104% (398.3 rpm)			
	Min. 98% (375.3 rpm)	Min. 80% (306.4 rpm) up to 2 000 kg			
		Min. 85% (325.5 rpm) over 2 000 kg			
AIRSPEED LIMITS (IAS)	Never exceed (V_{NE}):		278 km/h (150 kt)		
	(For reduction of V_{NE} with altitude and OAT, see approved RFM).				

C. G. RANGE	Longitudinal C.G. Limits	
	- Front position max	at 1 700 kg: 4 375 mm at 2 000 kg: 4 337 mm at 3 200 kg: 4 447 mm
	- Rear position max.:	at 1 700 kg: 4 670 mm at 3 200 kg: 4 533 mm
	- Straight-line variation between points given.	
	Lateral maximum	±100 mm up to 2 850 kg ± 80 mm over 2 850 kg
DATUM	Longitudinal	4 000 mm forward of the leveling point 4/5 on the cabin floor in the rear door aperture
	Lateral	fuselage median plane
MAXIMUM WEIGHT	3 200 kg	
MAXIMUM PASSENGERS	Max: 11 see FMS 10-8. Max: 8 (with standard or VIP configuration drawing No. 11701000.00). Max: 7 (with VIP equipment drawings No.11786090, -09I or 11700100.00).	
MINIMUM CREW	1 pilot in the RH seat only.	
MAXIMUM BAGGAGE	Floor loading up to station 5 600: 600 kg/m ² Maximum cargo in compartment (up to sta 5 600): 1 200 kg Max. baggage (behind rear pass. seats): 250 kg (See Note 2)	
FUEL CAPACITY	Max usable fuel is 598 liters, being 501.4 liters in the main tank and 96.6 liters in the supplementary tanks. Unusable fuel is 3.8 liters in the main tank and 5.8 liters in the supplementary tanks. Total fuel capacity is 607.6 liters.	
OIL CAPACITY	Engine (each tank): Usable: 3.93 liters Unusable: 0.40 liters Total: 4.33 liters Transmission: Main: 12.5 liters Intermediate gearbox: 0.75 liters Tail gearbox: 0.65 liters Main rotor hub: 1.90 liters	
ALTITUDE LIMITS	3 048 m pressure altitude.	
ROTOR BLADE AND CONTROL MOVEMENTS	See Maintenance Manual.	

IV - Model MBB-BK 117 B-2 (Transport Category Helicopter), approved 31 March 1993.

ENGINE	2 Lycoming LTS 101-750 B1				
FUEL	MIL-T-5624 JP-4; ASTM D 1655 Jet B; MIL-T-5624 JP-5; ASTM D 1655 Jet A or Jet A-1 For alternate fuels refer to the RFM.				
ENGINE LIMITS		Torque (%)	Gas Generator rpm (%)	Power Turbine, rpm (%)	Exhaust Gas Temp. °C
	Normal operation:				
	- Takeoff power (5 min)	83	49 159 (102.7)	6 120 (102)	786
	- Max. Cont. power	71	49 159 (102.7)	6 120 (102)	765
	Emergency operation (single engine):				
	- 2.5 min. power	100	50 548 (105.6)	6 120 (102)	836
	- 30 min. power	91	50 169 (104.8)	6 120 (102)	800
	- Max. Cont. power	83	49 159 (102.7)	6 120 (102)	765
	(For ignition and transition values, see RFM)				
ROTOR LIMITS	Power On		Power Off		
	Max. 102% (390.7 rpm)		Max. 104% (398.3 rpm)		
	Min. 98% (375.3 rpm)		Min. 80% (306.4 rpm) up to 2 000 kg		
			Min. 85% (325.5 rpm) over 2 000 kg		
AIRSPEED LIMITS (IAS)	Never exceed (V_{NE}):		278 km/h (150 kt)		
	(For reduction of V_{NE} with altitude and OAT, see approved RFM).				
C. G. RANGE	Longitudinal C.G. Limits				
	- Front position max		at 1 700 kg: 4 375 mm		
			at 2 000 kg: 4 337 mm		
			at 3 350 kg: 4 400 mm		
	- Rear position max.:		at 1 700 kg: 4 670 mm		
			at 3 350 kg: 4 400 mm		
	- Straight-line variation between points given.				
	Lateral maximum	±100 mm	up to 2 850 kg		
		± 80 mm	over 2 850 kg		
DATUM	Longitudinal	4 000 mm forward of the leveling point 4/5 on the cabin floor in the rear door aperture			
	Lateral	fuselage median plane			
MAXIMUM WEIGHT	3 350 kg				
MAXIMUM PASSENGERS	Max: 11 see FMS 10-8. Max: 8 with standard equipment.				
MINIMUM CREW	1 pilot in the RH seat only.				
MAXIMUM BAGGAGE	Floor loading up to station 5 600: 600 kg/m ² Maximum cargo in compartment (up to sta 5 600): 1 200 kg Max. baggage (behind rear pass. seats): 250 kg (See Note 2)				

FUEL CAPACITY Max usable fuel is 598 liters, being 501.4 liters in the main tank and 96.6 liters in the supplementary tanks.
Unusable fuel is 3.8 liters in the main tank and 5.8 liters in the supplementary tanks.
Total fuel capacity is 607.6 liters.

OIL CAPACITY Engine (each tank):
Usable: 3.93 liters
Unusable: 0.40 liters
Total: 4.33 liters
Transmission:
Main: 12.5 liters
Intermediate gearbox: 0.75 liters
Tail gearbox: 0.65 liters
Main rotor hub: 1.90 liters

ALTITUDE LIMITS 3 048 m pressure altitude.

ROTOR BLADE AND CONTROL MOVEMENTS See Maintenance Manual

V - Model MBB-BK 117 C-1 (Transport Category Helicopter), approved 31 March 1993.

ENGINE 2 Turbomeca Arriel 1E2

FUEL MIL-T-5624 JP-4; ASTM D 1655 Jet B;
MIL-T-5624 JP-5; ASTM D 1655 Jet A or Jet A-1.
For alternate fuels refer to the RFM.

ENGINE LIMITS	Torque (%)	Gas Generator rpm (%)	Power Turbine, rpm (%)	Exhaust Gas Temp. °C
Normal operation:				
- Takeoff power (5 min)	83	49 159 (102.7)	6 120 (102)	786
- Max. Cont. power	71	49 159 (102.7)	6 120 (102)	765
Emergency operation (single engine):				
- 2.5 min. power	100	53 095 (102.5)	6 120 (102)	885
- 30 min. power	91.5	52 784 (101.9)	6 120 (102)	845
- Max. Cont. power	83	51 955 (100.3)	6 120 (102)	845
(For ignition and transition values, see RFM)				

ROTOR LIMITS	Power On	Power Off
	Max. 102% (390.7 rpm)	Max. 104% (398.3 rpm)
	Min. 98% (375.3 rpm)	Min. 80% (306.4 rpm) up to 2 000 kg
		Min. 85% (325.5 rpm) over 2 000 kg

AIRSPEED LIMITS (IAS) Never exceed (V_{NE}): 278 km/h (150 kt)
(For reduction of V_{NE} with altitude and OAT, see approved RFM).

C. G. RANGE Longitudinal C.G. Limits
- Front position max
at 1 700 kg: 4 375 mm
at 2 000 kg: 4 337 mm
at 3 350 kg: 4 400 mm

- Rear position max.: at 1 700 kg: 4 670 mm
at 3 350 kg: 4 520 mm
- Straight-line variation between points given.

Lateral maximum ± 100 mm up to 2 850 kg
 ± 80 mm over 2 850 kg

DATUM

Longitudinal 4 000 mm forward of the leveling point 4/5 on the cabin floor in the rear door aperture
Lateral fuselage median plane

MAXIMUM WEIGHT 3 350 kg

MAXIMUM PASSENGERS Max: 11 see FMS 10-8.
Max: 8 with standard equipment.

MINIMUM CREW 1 pilot in the RH seat only

MAXIMUM BAGGAGE Floor loading up to station 5 600: 600 kg/m²
Maximum cargo in compartment (up to sta 5 600): 1 200 kg
Max. baggage (behind rear pass. seats): 250 kg (See Note 2)

FUEL CAPACITY Max usable fuel is 697.4 liters, being 600.8 liters in the main tank and 96.6 liters in the supplementary tanks.
Unusable fuel is 4.4 liters in the main tank and 5.8 liters in the supplementary tanks.
Total fuel capacity is 707.6 liters.

OIL CAPACITY Engine (each tank):
Usable: 3.93 liters
Unusable: 0.40 liters
Total: 4.33 liters
Transmission:
Main: 12.5 liters
Intermediate gearbox: 0.75 liters
Tail gearbox: 0.65 liters
Main rotor hub: 1.90 liters

ALTITUDE LIMITS 3 048 m pressure altitude.

ROTOR BLADE AND CONTROL MOVEMENTS See Maintenance Manual.

VI - Model MBB-BK 117 C-2 (Transport Category Helicopter), approved 19 May 2009**ENGINE** 2 Turbomeca Arriel 1E2**FUEL** See approved RFM**ENGINE LIMITS**

	Torque Limits %	Gas Generator RPM min ⁻¹ (%)	P. Turbine rpm %	Temperatur eTOT °C
<u>Normal operation</u>				
Takeoff Power (5 min)	88	52 835 (101.9)	104	845
Max. Cont. power	71	51 955 (100.0)	104	845
<u>One engine inoperative</u>				
2.5 minimum power	125	53 509 (103.3)	104	885
Max. continuous	91.5	52 835 (101.9)	104	845

ROTOR LIMITS

Power On	Maximum	104%
	Minimum	96%
Power Off	Maximum	104%
	Minimum	80% (up to 2 000 kg)
	Minimum	85% (above 2 000 kg)
Transient	(see approved RFM)	

AIRSPEED LIMITS (IAS)

Never exceed (V_{NE}) = 278 km/h (150 kt)
(see approved RFM for reduction in V_{NE} with altitude and other speed limitations)

C.G. RANGE

Longitudinal C.G. Limits (Straight line variation between points given)

Max. forward range: at 2 000 kg: 4 337 mm aft of datum
 at 3 585 kg: 4 377 mm aft of datum

Max. reward range: at 1 750 kg: 4 667 mm aft of datum
 at 3 585 kg: 4 544 mm aft of datum

Lateral C.G. Limits

Max. deviation on right/left: ± 100 mm up to 3 000 kg
 ± 80 mm above 3 000 kg

DATUM

Longitudinal: 3 950 mm forward of the leveling point in the
 aft door frame
Lateral: Fuselage median plane

MAXIMUM WEIGHT 3 585 kg**MINIMUM CREW** 1 (right-hand seat only)**MAXIMUM PASSENGERS** 9

MAXIMUM BAGGAGE	Max. permissible floor loading 600 kg/m ²
FUEL CAPACITY	See approved RFM
OIL CAPACITY	See approved RFM
ALTITUDE LIMITS	5 486 m (18 000 ft) pressure altitude
ROTOR BLADE AND CONTROL MOVEMENTS	See Maintenance Manual MBB-BK117 C-2

DATA PERTINENT TO ALL MODELS:

LEVELLING MEANS	Alignment points are given in the Maintenance Manual.
SERIAL NUMBERS	A German (LBA) Certificate of Airworthiness for export as noted under "Import Requirements" must be submitted for each individual rotorcraft for which application for Brazilian airworthiness certification is made.
IMPORT REQUIREMENTS	<p>A Brazilian Certificate of Airworthiness may be issued on the basis of a Certificate of Airworthiness for Export issued by the LBA or by the FAA (for aircraft manufactured under FAA Production Certificate No. 343CE), or a third country Certificate of Airworthiness for Export (in case of used aircraft imported from such country), including the following statement:</p> <p>"The rotorcraft covered by this Certificate has been inspected, tested and found to comply with the Brazilian approved type design as defined by the ANAC Type Certificate No 9209, and is in condition for safe operation."</p>
CERTIFICATION BASIS	<p><u>Models A-3, A-4 and B-1:</u></p> <ul style="list-style-type: none"> - RBHA 29, equivalent to 14 CFR Part 29, including amendments 29-1 through 29-16. - LBA "Special Conditions" dated 10 Dec.1979, revised Jan. 1980. - Equivalent Safety Findings, adopted by the CTA, demonstrated for: <ul style="list-style-type: none"> - 29.175(b) Static Longitudinal Stability; - 29.811(4)(1) Markings for Emergency Exits; - 29.1151(b) Rotor Brake <p><u>Model B-2:</u> Same as models above plus Sections 29.1, 29.79 and 29.1517 of amendment 29-21. Sections 29.143, 29.672, 29.672, 29.1329 and 29.1587 of amendment 29-24.</p> <p><u>Model C-1:</u> Same as model B-2 plus: Sections 29.901, 29.903, 29.908, 29.955, 29.961, 29.1041, 29.1043, 29.1045, 29.1047 and 29.1093 of amdt. 29-26. Section 29.2 of amdt 29-32. Brazilian Requirements for Acceptance of the Eurocopter Deutschland Helicopter BK117, Report H.10-1310-01, dated 24 March 1993.</p>

CERTIFICATION BASIS (CONT.)Model C-2:

- 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 29-40.
- RBHA 36 corresponding to 14 CFR Part 36, effective on 01 December 1969, Noise Standards; Amendments 36-1 through 36-22.
- The following LBA Special Conditions has been adopted by ANAC:
 - SC No. 3: BK117 (Turbine Engine Bleed Air System, if installed)
 - SC No. 6: HIRF (JAA INT/POL/27&29/1, dated 1 June 1997), see CRI No. F-1
 - SC No. 7: BK117 C-2 Primary structures designed with composite material
- The following LBA Reversions has been adopted by ANAC:
 - Reversion to RBHA/14 CFR Part 29 amendment 26 for:
 - RBHA/14 CFR 29.903 (see CRI No. E-4),
 - RBHA/14 CFR 29.923 (see CRI No. E-2)
 - Reversion to RBHA/14 CFR Part 29 amendment 17 for:
 - RBHA/14 CFR 29.927 (see CRI No. E-2)
 - Reversion to RBHA/14 CFR 29 amendment 16 for:
 - RBHA/14 CFR 29.547 (for unchanged parts),
 - RBHA/14 CFR 29.571 (see CRI No. C-1),
 - RBHA/14 CFR 29.863 (see CRI No. D-6),
 - RBHA/14 CFR 29.901(c) (see CRI No. E-4),
 - RBHA/14 CFR 29.917,
 - RBHA/14 CFR 29.1011,
 - RBHA/14 CFR 29.1019 (a),
 - RBHA/14 CFR 29.1021,
 - RBHA/14 CFR 29.1163,
 - RBHA/14 CFR 29.1181,
 - RBHA/14 CFR 29.1183,
 - RBHA/14 CFR 29.1189,
 - RBHA/14 CFR 29.1309 (b), (d), (e) (see CRI No. F-2, F-4),
 - RBHA/14 CFR 29.1521.
- The following LBA Exemptions has been adopted by ANAC:
 - Exemption from 14 CFR Part 29 for:
 - RBHA/14 CFR 29.610(d)(4) for unchanged parts categorized as "Essential"- (see CRI No. D-4),
 - RBHA/14 CFR 29.631 (see CRI No. D-2),
 - RBHA/14 CFR 29.1027,
 - RBHA/14 CFR 29.1305 (a)(21) and (23),
 - RBHA/14 CFR 29.1337 (e).
- The following LBA Equivalent Safety Findings has been adopted by ANAC:
 - RBHA/14 CFR 29.807 (a)(4) Emergency exits (see CRI No. D-1)
 - RBHA/14 CFR 29.1303 (a), (j) VNE indication (see CRI No. F-3)
 - RBHA/14 CFR 29.1549 (b) Powerplant Instruments (see CRI No. G-1)
 - RBHA/14 CFR 29.1151 (b) Rotor Brake Controls

REQUIRED EQUIPMENT

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

A Brazilian RFM approved by the LBA on behalf of the ANAC should be carried on the rotorcraft.

NOTES:

NOTE 1 Weight and balance: Current weight and balance report, including list of required equipment and list of equipment included in certificated empty weight, and loading instructions, when necessary, must be provided for each rotorcraft at the time of original certification.

NOTE 2 Markings and placards: 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 LBA APPROVED ROTORCRAFT FLIGHT MANUAL. THE "AIRWORTHINESS LIMITATIONS" SECTION OF THE ROTORCRAFT MAINTENANCE MANUAL MUST BE COMPLIED WITH"

In addition all placards required in the LBA approved RFM, including those in Portuguese listed in paragraph 08 of CTA Report No H.10-1310-01 (or further revisions), must be installed in the rotorcraft in appropriate locations.

NOTE 3 Life limited components and approved retirement times are listed in the Chapter 9 of corresponding Maintenance Manual applicable to each helicopter model. These values of retirement times cannot be increased without LBA and ANAC Engineering approval.

NOTE 4 The differences of the Brazilian aircraft in relation to the basic LBA type design are summarized below:

1. The LBA approved Brazilian Rotorcraft Flight Manuals are:
Model **MBB-BK 117** A-3, Revision 6 dated 11 March 1993;
Model **MBB-BK 117** A-4, Revision 5 dated 11 March 1993;
Model **MBB-BK 117** B-1, Revision 7 dated 11 March 1993;
Model **MBB-BK 117** B-2, Revision 3 dated 11 March 1993;
Model **MBB-BK 117** C-1, Revision 2 dated 11 March 1993; and
Model MBB-BK 117 C-2, Revision 19.5 dated 19 December 2008 or further revisions.
2. Markings and placards in Portuguese language or bilingual (see Note 2).



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