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MBB-BK117 A-1

I. General

1. **Data Sheet No:** EASA R.010
based on LBA TCDS No. 3049 Issue No. 9 on 21.04.1993
2. **Type / Variant or Model:**
 - (a) **Type:** MBB-BK 117
 - (b) **Variant or Model:** MBB-BK 117 A-1
3. **Airworthiness Category:** Transport Category A & B Rotorcraft
4. **Type Certificate Holder:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
5. **Manufacturer:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
6. **National Certification Date:** 09 December 1982
7. **LBA Application Date:** -
8. **LBA Recommendation Date:** N/A
9. **EASA Type Certification Date:** N/A

II. Certification Basis

1. **Reference Date for determining the applicable requirements:**
2. **LBA Certification Date:** 09 December 1982
3. **LBA Type Certificate Data Sheet No:** 3049
4. **LBA Certification Basis:** (see the following points 5 to 9)
5. **Airworthiness Requirements:** FAR 29 (first issue February 1, 1965 including amendments 29-1 through 29-16)
6. **Special Conditions:** LBA Special Conditions for MBB-BK 117 helicopter dated 10 December 1979 and revised on 03 January 1980, consisting of:
 - SC1, Check Procedures
 - SC2, Engine Failure Warning System
 - SC3, Turbine Engine Bleed Air System
 - SC4, One Engine Inoperative Maximum Continuous Power
 - SC5, Lightning Protection of Structure and Occupants
7. **Reversion and Exemptions:** N/A
8. **Equivalent Safety Findings:**
 - FAR 29.175 (b) Demonstration of static longitudinal stability
 - FAR 29.811 (h) (1) Emergency exit marking
 - FAR 29.1151 (b) Rotor brake controls
9. **Environmental Standards including Noise:** German Noise Prevention Requirement for Aircraft (Lärmschutzforderungen für Luftfahrzeuge LSL) dated August 01st, 1985

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:**
2. **Description:** Rigid 4-bladed main rotor, twin-bladed tail rotor, rotor blades made from fiber-reinforced plastic, semi-monocoque fuselage, fin and tail plane fitted with endplate fins, powered by 2 independent turbo shaft engines, skid-type landing gear
3. **Equipment:** Basic equipment must be installed and operational prior to registration of the helicopter.
4. **Dimensions:**

Fuselage:	Length	5,89 m
	Width	1,60 m
	Height	3,36 m
Main Rotor:	4 blades, diameter	11,0 m
Tail Rotor:	2 blades, diameter	1,956 m
5. **Engines:**

Manufacturer:	Honeywell
Type:	LTS 101-650B-1 Turbo shaft engines
Number of engines	Two

State of design engine TCDS No: E5NE (FAA)
LBA data sheet no.: 7016
EASA engine TCDS No: -

5.1 Installed Engine and Transmission Torque Limits:

	Torque Limits %	Gas generator rpm min ⁻¹ [%]	Power turbine rpm min ⁻¹ [%]	Temperature TOT °C
All Engine Operation				
AEO-TOP (5 min)	2 x 71	49159 [102.7]	6120 [102]	782
AEO-MCP	2 x 71	49159 [102.7]	6120 [102]	763
One Engine Inoperative				
2 ¹ / ₂ min OEI-TOP	1 x 100	50548 [105.6]	6120 [102]	832
30 min OEI-TOP	1 x 91.5	50169 [104.8]	6120 [102]	796
OEI-MCP	1 x 83	49159 [102.7]	6120 [102]	763

6. Fluids (Fuel/Oil/Additives):

6.1 Fuel (see EASA approved RFM, section 2)

6.2 Oil (see EASA approved RFM, section 2)

7. Fluid capacities:

7.1 Fuel: fuel tank capacity: 607.6 l
useable fuel: 598.0 l

7.2 Engine Oil reservoir capacity: 4.33 l

8. Airspeed limits:

V_{NE} = 150 knots
(see EASA approved RFM for reduction in V_{NE} with altitude and other speed limitations)

9. Rotor Speed Limits:

Power on: maximum 102 % (390.7 rpm)
minimum 98 % (375.3 rpm)

Power off: maximum 104 % (398.3 rpm)
minimum 80 % (306.4 rpm) up to 2000 kg
minimum 85 % (325.5 rpm) above 2000 kg

Transient: (see EASA approved RFM)

10. Maximum Operating Altitude and Temp.:

4572 m [15,000 ft]
3353 m [11,000 ft DA] for takeoff, landing and Hover in ground effect

11. Operating Limitations:

11.1 General: VFR, IFR, Category A Operation, No flight into known icing condition

11.2 Additional limitations for take-off and landing: (see EASA approved RFM)

12. Maximum Certified Mass:

2850 kg

13. Centre of Gravity Range:

Longitudinal C.G Limits,
maximum forward limit:..... 4375 mm aft of DP at 1700 kg
4337 mm aft of DP at 2000 kg
4415 mm aft of DP at 2850 kg

maximum rearward limit:..... 4670 mm aft of DP at 1700 kg
4565 mm aft of DP at 2850 kg

Lateral C.G Limits,
maximum deviation on right / left:.....100 mm

14. Datum Plane:

Longitudinal: 4000 mm forward of the levelling point 4/5 on the cabin floor in the rear door aperture
Lateral: fuselage median plane

15. Levelling Means:

(see Maintenance Manual MBB-BK117 A/B, Appendix C)

16. Minimum Flight Crew:

one

17. Maximum Passenger Seating Capacity:

seven (or ten if the kit described in FMS 10-8 is installed and operated)

18. Passenger Emergency Exit:

two (one on each side of the passengers cabin)

19. Maximum Baggage/Cargo Loads:

1200 kg (250 kg in aft of rear seat bank) with maximum loading of 600 kg/m²

20. **Rotor blade and control movement:** (For rigging information refer to the Maintenance Manual MBB-BK117 A/B)
21. **Auxiliary Power Unit (APU):** N/A
22. **Life-limited parts:** The periods specified in the latest revision of the Airworthiness Limitations section in Appendix A of the Maintenance Manual MBB-BK117 A/B must not be exceeded.
23. **Wheels and Tires:** Skid type landing gear

IV. Operating and Service Instructions

1. **Rotorcraft Flight Manual, Document No:** BK 117 A-1, firstly LBA approved on 09.12.1982, in the latest revision, including the supplements for Special Operations and Optional Equipment.
2. **Maintenance Manual, Document No:**
- a. Maintenance Manual MBB-BK117 A/B, latest revision
 - b. Illustrated Parts Catalogue MBB-BK117, latest revision
 - c. Wiring Diagram Manual MBB-BK117, latest revision
 - d. Engine documents as per LBA Engine TCDS No. 7016
3. **Service Letters and Service Bulletins:** safety information notice (from October 2008 onwards, before: Alert Service Information), information notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets.
4. **Required Equipment:** Special equipment and kits necessary for intended kind of operations as defined in the approved Flight Manual Supplements Section 10 are permissible.

V. Notes

1. **Eligible serial numbers:** 7001 to 7006, 7008 to 7046, 7048 to 7054
2. **Record of Type Certificate Holder:** The Type Certificate was originally issued on 09 December 1982 to Messerschmitt-Bölkow-Blohm GmbH, Postfach 801140, 8000 München 80. The Type Certificate was reissued on 17 April 2007 to EUROCOPTER DEUTSCHLAND GmbH, D-86607 Donauwörth. On January 2014, the Type Certificate was reissued to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.
3. **Record of Manufacturer:** Until May 1992 the manufacturer name was Eurocopter Hubschrauber GmbH, Postfach 1353, W-8850 Donauwörth. From May 1992 the company name has been changed to: Eurocopter Deutschland GmbH, Postfach 1353, W-8850 Donauwörth or 86603 Donauwörth or 86607 Donauwörth. From January 2014 the company name has been changed to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.

MBB-BK117 A-3

I. General

1. **Data Sheet No:** EASA R.010
based on LBA TCDS No. 3049 Issue No. 9 on 21.04.1993
2. **Type / Variant or Model:**
 - (a) **Type:** MBB-BK 117
 - (b) **Variant or Model:** MBB-BK 117 A-3
3. **Airworthiness Category:** Transport Category A & B Rotorcraft
4. **Type Certificate Holder:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
5. **Manufacturer:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
6. **National Certification Date:** 15 March 1985
7. **LBA Application Date:** -
8. **LBA Recommendation Date:** N/A
9. **EASA Type Certification Date:** N/A

II. Certification Basis

1. **Reference Date for determining the applicable requirements:**
2. **LBA Certification Date:** 15 March 1985
3. **LBA Type Certificate Data Sheet No:** 3049
4. **LBA Certification Basis:** (see the following points 5 to 9)
5. **Airworthiness Requirements:** FAR 29 (first issue February 1, 1965 including amendments 29-1 through 29-16)
6. **Special Conditions:** LBA Special Conditions for MBB-BK 117 helicopter dated 10 December 1979 and revised on 03 January 1980, consisting of:
 - SC1, Check Procedures
 - SC2, Engine Failure Warning System
 - SC3, Turbine Engine Bleed Air System
 - SC4, One Engine Inoperative Maximum Continuous Power
 - SC5, Lightning Protection of Structure and Occupants
7. **Reversion and Exemptions:** N/A
8. **Equivalent Safety Findings:**
 - FAR 29.175 (b) Demonstration of static longitudinal stability
 - FAR 29.811 (h) (1) Emergency exit marking
 - FAR 29.1151 (b) Rotor brake controls
9. **Environmental Standards including Noise:** German Noise Prevention Requirement for Aircraft (Lärmschutzforderungen für Luftfahrzeuge LSL) dated August 01st, 1985

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:**
2. **Description:** Rigid 4-bladed main rotor, twin-bladed tail rotor, rotor blades made from fiber-reinforced plastic, semi-monocoque fuselage, fin and tail plane fitted with endplate fins, powered by 2 independent turbo shaft engines, skid-type landing gear
3. **Equipment:** Basic equipment must be installed and operational prior to registration of the helicopter.
4. **Dimensions:**

Fuselage:	Length	5,89 m
	Width	1,60 m
	Height	3,36 m
Main Rotor:	4 blades, diameter	11,0 m
Tail Rotor:	2 blades, diameter	1,956 m

5. **Engines:** Manufacturer: Honeywell
 Type: LTS 101-650B-1 Turbo shaft engines
 Number of engines: Two
 State of design engine TCDS No: E5NE (FAA)
 LBA data sheet no.: 7016
 EASA engine TCDS No: -

5.1 Installed Engine and Transmission Torque Limits:

	Torque Limits %	Gas generator rpm min ⁻¹ [%]	Power turbine rpm min ⁻¹ [%]	Temperature TOT °C
All Engine Operation				
AEO-TOP (5 min)	2 x 71	49159 [102.7]	6120 [102]	782
AEO-MCP	2 x 71	49159 [102.7]	6120 [102]	763
One Engine Inoperative				
2 ¹ / ₂ min OEI-TOP	1 x 100	50548 [105.6]	6120 [102]	832
30 min OEI-TOP	1 x 91.5	50169 [104.8]	6120 [102]	796
OEI-MCP	1 x 83	49159 [102.7]	6120 [102]	763

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

6.1 Fuel (see EASA approved RFM, section 2)

6.2 Oil (see EASA approved RFM, section 2)

7. **Fluid capacities:**

7.1 Fuel: fuel tank capacity: 607.6 l
 useable fuel: 598.0 l

7.2 Engine Oil reservoir capacity: 4.33 l

8. **Airspeed limits:**

V_{NE} = 150 knots
 (see EASA approved RFM for reduction in V_{NE} with altitude and other speed limitations)

9. **Rotor Speed Limits:**

Power on: maximum 102 % (390.7 rpm)
 minimum 98 % (375.3 rpm)
 Power off: maximum 104 % (398.3 rpm)
 minimum 80 % (306.4 rpm) up to 2000 kg
 minimum 85 % (325.5 rpm) above 2000 kg
 Transient: (see EASA approved RFM)

10. **Maximum Operating Altitude and Temp.:**

4572 m [15,000 ft] up to 3000 kg
 3048 m [10,000 ft] above 3000 kg
 3658 m [12,000 ft] if OAT is below -30°C
 3353 m [11,000 ft DA] for takeoff, landing and Hover in ground effect

11. **Operating Limitations:**

11.1 General: VFR, IFR, Category A Operation, No flight into known icing condition

11.2 Additional limitations for take-off and landing: (see EASA approved RFM)

12. **Maximum Certified Mass:**

3200 kg

13. **Centre of Gravity Range:**

Longitudinal C.G Limits,
 maximum forward limit..... 4375 mm aft of DP at 1700 kg
 4337 mm aft of DP at 2000 kg
 4447 mm aft of DP at 3200 kg
 maximum rearward limit..... 4670 mm aft of DP at 1700 kg
 4533 mm aft of DP at 3200 kg

Lateral C.G Limits,
 maximum deviation on right / left:..... 100 mm up to 2850 kg
 80 mm above 2850 kg

14. **Datum Plane:**

Longitudinal: 4000 mm forward of the levelling point 4/5 on the cabin floor in the rear door aperture
 Lateral: fuselage median plane

15. **Levelling Means:**

(see Maintenance Manual MBB-BK117 A/B, Appendix C)

16. **Minimum Flight Crew:** one
17. **Maximum Passenger Seating Capacity:** seven (or ten if the kit described in FMS 10-8 is installed and operated)
18. **Passenger Emergency Exit:** two (one on each side of the passengers cabin)
19. **Maximum Baggage/Cargo Loads:** 1200 kg (250 kg in aft of rear seat bank) with maximum loading of 600 kg/m²
20. **Rotor blade and control movement:** (For rigging information refer to the Maintenance Manual MBB-BK117 A/B)
21. **Auxiliary Power Unit (APU):** N/A
22. **Life-limited parts:** The periods specified in the latest revision of the Airworthiness Limitations section in Appendix A of the Maintenance Manual MBB-BK117 A/B must not be exceeded.
23. **Wheels and Tires:** Skid type landing gear

IV. Operating and Service Instructions

1. **Rotorcraft Flight Manual, Document No:** BK 117 A-3, firstly LBA approved on 15.03.1985, in the latest revision, including the supplements for Special Operations and Optional Equipment.
2. **Maintenance Manual, Document No:**
- a. Maintenance Manual MBB-BK117 A/B, latest revision
 - b. Illustrated Parts Catalogue MBB-BK117, latest revision
 - c. Wiring Diagram Manual MBB-BK117, latest revision
 - d. Engine documents as per LBA Engine TCDS No. 7016
3. **Service Letters and Service Bulletins:** safety information notice (from October 2008 onwards, before: Alert Service Information), information notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin, Repair Design Approval Sheets.
4. **Required Equipment:** Special equipment and kits necessary for intended kind of operations as defined in the approved Flight Manual Supplements Section 10 are permissible.

V. Notes

1. **Eligible serial numbers:** 7055 to 7073, 7075 to 7099, 7101 to 7121
plus upgraded MBB-BK 117 A-1 model according to SB-MBB-BK 117-10-4
2. **Record of Type Certificate Holder:** The Type Certificate was originally issued on 15 March 1985 to Messerschmitt-Bölkow-Blohm GmbH, Postfach 801140, 8000 München 80. The Type Certificate was reissued on 17 April 2007 to EUROCOPTER DEUTSCHLAND GmbH, D-86607 Donauwörth. On January 2014, the Type Certificate was reissued to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.
3. **Record of Manufacturer:** Until May 1992 the manufacturer name was Eurocopter Hubschrauber GmbH, Postfach 1353, W-8850 Donauwörth. From May 1992 the company name has been changed to: Eurocopter Deutschland GmbH, Postfach 1353, W-8850 Donauwörth or 86603 Donauwörth or 86607 Donauwörth. From January 2014 the company name has been changed to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.

MBB-BK117 A-4

I. General

1. **Data Sheet No:** EASA R.010
based on LBA TCDS No. 3049 Issue No. 9 on 21.04.1993
2. **Type / Variant or Model:**
 - (a) **Type:** MBB-BK 117
 - (b) **Variant or Model:** MBB-BK 117 A-4
3. **Airworthiness Category:** Transport Category A & B Rotorcraft
4. **Type Certificate Holder:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
5. **Manufacturer:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
6. **National Certification Date:** 29 July 1986
7. **LBA Application Date:** -
8. **LBA Recommendation Date:** N/A
9. **EASA Type Certification Date:** N/A

II. Certification Basis

1. **Reference Date for determining the applicable requirements:**
2. **LBA Certification Date:** 29 July 1986
3. **LBA Type Certificate Data Sheet No:** 3049
4. **LBA Certification Basis:** (see the following points 5 to 9)
5. **Airworthiness Requirements:** FAR 29 (first issue February 1, 1965 including amendments 29-1 through 29-16)
6. **Special Conditions:** LBA Special Conditions for MBB-BK 117 helicopter dated 10 December 1979 and revised on 03 January 1980, consisting of:
 - SC1, Check Procedures
 - SC2, Engine Failure Warning System
 - SC3, Turbine Engine Bleed Air System
 - SC4, One Engine Inoperative Maximum Continuous Power
 - SC5, Lightning Protection of Structure and Occupants
7. **Reversion and Exemptions:** N/A
8. **Equivalent Safety Findings:**
 - FAR 29.175 (b) Demonstration of static longitudinal stability
 - FAR 29.811 (h) (1) Emergency exit marking
 - FAR 29.1151 (b) Rotor brake controls
9. **Environmental Standards including Noise:** German Noise Prevention Requirement for Aircraft (Lärmschutzforderungen für Luftfahrzeuge LSL) dated August 01st, 1985

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:**
2. **Description:** Rigid 4-bladed main rotor, twin-bladed tail rotor, rotor blades made from fiber-reinforced plastic, Semi-monocoque fuselage, fin and tail plane fitted with endplate fins, powered by 2 independent turbo shaft engines, skid-type landing gear
3. **Equipment:** Basic equipment must be installed and operational prior to registration of the helicopter.
4. **Dimensions:**

Fuselage:	Length	5,89 m
	Width	1,60 m
	Height	3,36 m
Main Rotor:	4 blades, diameter	11,0 m
Tail Rotor:	2 blades, diameter	1,956 m

5. **Engines:** Manufacturer: Honeywell
 Type: LTS 101-650B-1 Turbo shaft engines
 Number of engines: Two
 State of design engine TCDS No: E5NE (FAA)
 LBA data sheet no.: 7016
 EASA engine TCDS No: -

5.1 Installed Engine and Transmission Torque Limits:

	Torque Limits %	Gas generator rpm min ⁻¹ [%]	Power turbine rpm min ⁻¹ [%]	Temperature TOT °C
All Engine Operation				
AEO-TOP (5 min)	2 x 83	49159 [102.7]	6120 [102]	782
AEO-MCP	2 x 71	49159 [102.7]	6120 [102]	763
One Engine Inoperative				
2 ¹ / ₂ min OEI-TOP	1 x 100	50548 [105.6]	6120 [102]	832
30 min OEI-TOP	1 x 91.5	50169 [104.8]	6120 [102]	796
OEI-MCP	1 x 83	49159 [102.7]	6120 [102]	763

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

6.1 Fuel (see EASA approved RFM, section 2)

6.2 Oil (see EASA approved RFM, section 2)

7. **Fluid capacities:**

7.1 Fuel: fuel tank capacity: 607.6 l
 useable fuel: 598.0 l

7.2 Engine Oil reservoir capacity: 4.33 l

8. **Airspeed limits:**

V_{NE} = 150 knots
 (see EASA approved RFM for reduction in V_{NE} with altitude and other speed limitations)

9. **Rotor Speed Limits:**

Power on: maximum 102 % (390.7 rpm)
 minimum 98 % (375.3 rpm)
 Power off: maximum 104 % (398.3 rpm)
 minimum 80 % (306.4 rpm) up to 2000 kg
 minimum 85 % (325.5 rpm) above 2000 kg
 Transient: (see EASA approved RFM)

10. **Maximum Operating Altitude and Temp.:**

4572 m [15,000 ft] up to 3000 kg
 3048 m [10,000 ft] above 3000 kg
 3658 m [12,000 ft] if OAT is below -30°C
 3353 m [11,000 ft DA] for takeoff, landing and Hover in ground effect

11. **Operating Limitations:**

11.1 General: VFR, IFR, Category A Operation, No flight into known icing condition

11.2 Additional limitations for take-off and landing: (see EASA approved RFM)

12. **Maximum Certified Mass:**

3200 kg

13. **Centre of Gravity Range:**

Longitudinal C.G Limits,
 maximum forward limit:..... 4375 mm aft of DP at 1700 kg
 4337 mm aft of DP at 2000 kg
 4447 mm aft of DP at 3200 kg
 maximum rearward limit:..... 4670 mm aft of DP at 1700 kg
 4533 mm aft of DP at 3200 kg

Lateral C.G Limits,
 maximum deviation on right / left:..... 100 mm up to 2850 kg
 80 mm above 2850 kg

14. **Datum Plane:**

Longitudinal: 4000 mm forward of the levelling point 4/5 on the cabin floor in the rear door aperture
 Lateral: fuselage median plane

15. **Levelling Means:**

(see Maintenance Manual MBB-BK117 A/B, Appendix C)

16. **Minimum Flight Crew:** one
17. **Maximum Passenger Seating Capacity:** seven (or ten if the kit described in FMS 10-8 is installed and operated)
18. **Passenger Emergency Exit:** two (one on each side of the passengers cabin)
19. **Maximum Baggage/Cargo Loads:** 1200 kg (250 kg in aft of rear seat bank) with maximum loading of 600 kg/m²
20. **Rotor blade and control movement:** (For rigging information refer to the Maintenance Manual MBB-BK117 A/B)
21. **Auxiliary Power Unit (APU):** N/A
22. **Life-limited parts:** The periods specified in the latest revision of the Airworthiness Limitations section in Appendix A of the Maintenance Manual MBB-BK117 A/B must not be exceeded.
23. **Wheels and Tires:** Skid type landing gear

IV. Operating and Service Instructions

1. **Rotorcraft Flight Manual, Document No:** BK 117 A-4, firstly LBA approved on 29.07.1986, in the latest revision, including the supplements for Special Operations and Optional Equipment.
2. **Maintenance Manual, Document No:**
- Maintenance Manual MBB-BK117 A/B, latest revision
 - Illustrated Parts Catalogue MBB-BK117, latest revision
 - Wiring Diagram Manual MBB-BK117, latest revision
 - Engine documents as per LBA Engine TCDS No. 7016
3. **Service Letters and Service Bulletins:** safety information notice (from October 2008 onwards, before: Alert Service Information), information notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin, Repair Design Approval Sheets.
4. **Required Equipment:** Special equipment and kits necessary for intended kind of operations as defined in the approved Flight Manual Supplements Section 10 are permissible.

V. Notes

1. **Eligible serial numbers:** 7047, 7074, 7100, 7122 to 7139
plus upgraded MBB-BK 117 A-3 model according to SB-MBB-BK 117-80-105
2. **Record of Type Certificate Holder:** The Type Certificate was originally issued on 29 July 1986 to Messerschmitt-Bölkow-Blohm GmbH, Postfach 801140, 8000 München 80. The Type Certificate was reissued on 17 April 2007 to EUROCOPTER DEUTSCHLAND GmbH, D-86607 Donauwörth. On January 2014, the Type Certificate was reissued to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.
3. **Record of Manufacturer:** Until May 1992 the manufacturer name was Eurocopter Hubschrauber GmbH, Postfach 1353, W-8850 Donauwörth. From May 1992 the company name has been changed to: Eurocopter Deutschland GmbH, Postfach 1353, W-8850 Donauwörth or 86603 Donauwörth or 86607 Donauwörth. From January 2014 the company name has been changed to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.

MBB-BK117 B-1

I. General

1. **Data Sheet No:** EASA R.010
based on LBA TCDS No. 3049 Issue No. 9 on 21.04.1993
2. **Type / Variant or Model:**
 - (a) **Type:** MBB-BK 117
 - (b) **Variant or Model:** MBB-BK 117 B-1
3. **Airworthiness Category:** Transport Category A & B Rotorcraft
4. **Type Certificate Holder:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
5. **Manufacturer:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
6. **National Certification Date:** 10 December 1987
7. **LBA Application Date:** -
8. **LBA Recommendation Date:** N/A
9. **EASA Type Certification Date:** N/A

II. Certification Basis

1. **Reference Date for determining the applicable requirements:**
2. **LBA Certification Date:** 10 December 1987
3. **LBA Type Certificate Data Sheet No:** 3049
4. **LBA Certification Basis:** (see the following points 5 to 9)
5. **Airworthiness Requirements:** FAR 29 (first issue February 1, 1965 including amendments 29-1 through 29-16)
6. **Special Conditions:** LBA Special Conditions for MBB-BK 117 helicopter dated 10 December 1979 and revised on 03 January 1980, consisting of:
 - SC1, Check Procedures
 - SC2, Engine Failure Warning System
 - SC3, Turbine Engine Bleed Air System
 - SC4, One Engine Inoperative Maximum Continuous Power
 - SC5, Lightning Protection of Structure and Occupants.
7. **Reversion and Exemptions:** N/A
8. **Equivalent Safety Findings:**
 - FAR 29.175 (b) Demonstration of static longitudinal stability
 - FAR 29.811 (h) (1) Emergency exit marking
 - FAR 29.1151 (b) Rotor brake controls
9. **Environmental Standards including Noise:** German Noise Prevention Requirement for Aircraft (Lärmschutzforderungen für Luftfahrzeuge LSL) dated August 01st, 1985

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:**
2. **Description:** Rigid 4-bladed main rotor, twin-bladed tail rotor, rotor blades made from fiber-reinforced plastic, semi-monocoque fuselage, fin and tail plane fitted with endplate fins, powered by 2 independent turbo shaft engines, skid-type landing gear
3. **Equipment:** Basic equipment must be installed and operational prior to registration of the helicopter.
4. **Dimensions:**

Fuselage:	Length	5,89 m
	Width	1,60 m
	Height	3,36 m
Main Rotor:	4 blades, diameter	11,0 m
Tail Rotor:	2 blades, diameter	1,956 m

5. **Engines:** Manufacturer: Honeywell
 Type: LTS 101-750B-1 Turbo shaft engines
 Number of engines: Two
 State of design engine TCDS No: E5NE (FAA)
 LBA data sheet no.: 7016
 EASA engine TCDS No: -

5.1 Installed Engine and Transmission Torque Limits:

	Torque Limits %	Gas generator rpm min ⁻¹ [%]	Power turbine rpm min ⁻¹ [%]	Temperature TOT °C
All Engine Operation				
AEO-TOP (5 min)	2 x 83	49159 [102.7]	6120 [102]	786
AEO-MCP	2 x 71	49159 [102.7]	6120 [102]	765
One Engine Inoperative				
2 ¹ / ₂ min OEI-TOP	1 x 100	50548 [105.6]	6120 [102]	836
30 min OEI-TOP	1 x 91.5	50169 [104.8]	6120 [102]	800
OEI-MCP	1 x 83	49159 [102.7]	6120 [102]	765

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

6.1 Fuel (see EASA approved RFM, section 2)

6.2 Oil (see EASA approved RFM, section 2)

7. **Fluid capacities:**

7.1 Fuel: fuel tank capacity: 607.6 l
 useable fuel: 598.0 l

7.2 Engine Oil reservoir capacity: 4.33 l

8. **Airspeed limits:**

V_{NE} = 150 knots
 (see EASA approved RFM for reduction in V_{NE} with altitude and other speed limitations)

9. **Rotor Speed Limits:**

Power on: maximum 102 % (390.7 rpm)
 minimum 98 % (375.3 rpm)
 Power off: maximum 104 % (398.3 rpm)
 minimum 80 % (306.4 rpm) up to 2000 kg
 minimum 85 % (325.5 rpm) above 2000 kg
 Transient: (see EASA approved RFM)

10. **Maximum Operating Altitude and Temp.:**

4572 m [15,000 ft] up to 3000 kg
 3048 m [10,000 ft] above 3000 kg
 3658 m [12,000 ft] if OAT is below -30°C
 5182 m [17,000 ft DA] or 4572 m [15,000 ft PA] whichever is less for takeoff, landing and Hover in ground effect

11. **Operating Limitations:**

11.1 General: VFR, IFR, Category A Operation, No flight into known icing condition

11.2 Additional limitations for take-off and landing: (see EASA approved RFM)

12. **Maximum Certified Mass:**

3200 kg

13. **Centre of Gravity Range:**

Longitudinal **C.G Limits,**
 maximum forward limit..... 4375 mm aft of DP at 1700 kg
 4337 mm aft of DP at 2000 kg
 4447 mm aft of DP at 3200 kg
 maximum rearward limit..... 4670 mm aft of DP at 1700 kg
 4533 mm aft of DP at 3200 kg

Lateral C.G Limits,
 maximum deviation on right / left:..... 100 mm up to 2850 kg
 80 mm above 2850 kg

14. **Datum Plane:**

Longitudinal: 4000 mm forward of the levelling point 4/5 on the cabin floor in the rear door aperture
 Lateral: fuselage median plane

15. **Levelling Means:** (see Maintenance Manual MBB-BK117 A/B, Appendix C)
16. **Minimum Flight Crew:** one
17. **Maximum Passenger Seating Capacity:** seven (or ten if the kit described in FMS 10-8 is installed and operated)
18. **Passenger Emergency Exit:** two (one on each side of the passengers cabin)
19. **Maximum Baggage/Cargo Loads:** 1200 kg (250 kg in aft of rear seat bank) with maximum loading of 600 kg/m²
20. **Rotor blade and control movement:** (For rigging information refer to the Maintenance Manual MBB-BK117 A/B)
21. **Auxiliary Power Unit (APU):** N/A
22. **Life-limited parts:** The periods specified in the latest revision of the Airworthiness Limitations section in Appendix A of the Maintenance Manual MBB-BK117 A/B must not be exceeded.
23. **Wheels and Tires:** Skid type landing gear

IV. Operating and Service Instructions

1. **Rotorcraft Flight Manual, Document No:** BK 117 B-1, firstly LBA approved on 10.12.1987, in the latest revision, including the supplements for Special Operations and Optional Equipment.
2. **Maintenance Manual, Document No:**
a. Maintenance Manual MBB-BK117 A/B, latest revision
b. Illustrated Parts Catalogue MBB-BK117, latest revision
c. Wiring Diagram Manual MBB-BK117, latest revision
d. Engine documents as per LBA Engine TCDS No. 7016
3. **Service Letters and Service Bulletins:** safety information notice (from October 2008 onwards, before: Alert Service Information), information notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin, Repair Design Approval Sheets.
4. **Required Equipment:** Special equipment and kits necessary for intended kind of operations as defined in the approved Flight Manual Supplements Section 10 and 11 are permissible.

V. Notes

1. **Eligible serial numbers:** 7140 to 7243 (except 7203 which is of the model MBB-BK 117 B-2) plus upgraded MBB-BK 117 A-4 model according to the drawing 117 KM 80024-1
2. **Record of Type Certificate Holder:** The Type Certificate was originally issued on 10 December 1987 to Messerschmitt-Bölkow-Blohm GmbH, Postfach 801160, 8000 München 80. The Type Certificate was reissued on 17 April 2007 to EUROCOPTER DEUTSCHLAND GmbH, D-86607 Donauwörth. On January 2014, the Type Certificate was reissued to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.
3. **Record of Manufacturer:** Until May 1992 the manufacturer name was Eurocopter Hubschrauber GmbH, Postfach 1353, W-8850 Donauwörth. From May 1992 the company name has been changed to: Eurocopter Deutschland GmbH, Postfach 1353, W-8850 Donauwörth or 86603 Donauwörth or 86607 Donauwörth. From January 2014 the company name has been changed to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.

MBB-BK117 B-2

I. General

1. **Data Sheet No:** EASA R.010
based on LBA TCDS No. 3049 Issue No. 5 on 16.01.1998
2. **Type / Variant or Model:**
 - (a) **Type:** MBB-BK 117
 - (b) **Variant or Model:** MBB-BK 117 B-2
3. **Airworthiness Category:** Transport Category A & B Rotorcraft
4. **Type Certificate Holder:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
5. **Manufacturer:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
6. **National Certification Date:** 17 January 1992
7. **LBA Application Date:** -
8. **LBA Recommendation Date:** N/A
9. **EASA Type Certification Date:** N/A

II. Certification Basis

1. **Reference Date for determining the applicable requirements:**
2. **LBA Certification Date:** 17 January 1992
3. **LBA Type Certificate Data Sheet No:** 3049
4. **LBA Certification Basis:** (see the following points 5 to 9)
5. **Airworthiness Requirements:** FAR 29 (first issue February 1, 1965 including amendments 29-1 through 29-16), and Including FAR 29 Amendment 29-17 for:
 - FAR 29.927
 - Including FAR 29 Amendment 29-21 for:
 - FAR 29.1, FAR 29.1517
 - Including FAR 29 Amendment 29-24 for:
 - FAR 29.143, FAR 29.672, FAR 29.1329, FAR 29.1587
 - Including FAR 29 Amendment 29-26 for:
 - FAR 29.923
 - Including FAR 29 Amendment 29-32 for:
 - FAR 29.2
 - Including JAR 29 (First Issue) for:
 - JAR 29.45 to JAR 29.87
6. **Special Conditions:** LBA Special Conditions for MBB-BK 117 helicopter dated 10 December 1979 and revised on 03 January 1980, consisting of:
 - SC1, Check Procedures
 - SC2, Engine Failure Warning System
 - SC3, Turbine Engine Bleed Air System
 - SC4, One Engine Inoperative Maximum Continuous Power
 - SC5, Lightning Protection of Structure and Occupants.
7. **Reversion and Exemptions:**
8. **Equivalent Safety Findings:**
 - FAR 29.811 (h) (1) Emergency exit marking
 - FAR 29.1151 (b) Rotor brake controls
9. **Environmental Standards including Noise:** German Noise Prevention Requirement for Aircraft (Lärmschutzforderungen für Luftfahrzeuge LSL) Chapter VIII dated January 01st, 1991

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:**
2. **Description:** Rigid 4-bladed main rotor, twin-bladed tail rotor, rotor blades made from fiber-reinforced plastic, semi-monocoque fuselage, fin and tail plane fitted with endplate fins, powered by 2 independent turbo shaft engines, skid-type landing gear

3. **Equipment:** Basic equipment must be installed and operational prior to registration of the helicopter.
4. **Dimensions:**
- | | | |
|-------------|--------------------|---------|
| Fuselage: | Length | 5,89 m |
| | Width | 1,60 m |
| | Height | 3,36 m |
| Main Rotor: | 4 blades, diameter | 11,0 m |
| Tail Rotor: | 2 blades, diameter | 1,956 m |
5. **Engines:**
- | | |
|---------------------------------|----------------|
| Manufacturer: | Honeywell |
| Type: | LTS 101-750B-1 |
| Number of engines | Two |
| State of design engine TCDS No: | E5NE (FAA) |
| LBA data sheet no.: | 7016 |
| EASA engine TCDS No: | - |

5.1 Installed Engine and Transmission Torque Limits:

	Torque Limits %	Gas generator rpm min ⁻¹ [%]	Power turbine rpm %	Temperature TOT °C
All Engine Operation				
AEO-TOP (5 min)	2 x 83	49159 [102.7]	102	786
AEO-MCP	2 x 71	49159 [102.7]	102	765
One Engine Inoperative (up to S/N 7252, if SB-MBB-BK117-60-113 is not installed)				
2 ¹ / ₂ min OEI-TOP	1 x 100	50548 [105.6]	102	836
30 min OEI-TOP	1 x 91.5	50169 [104.8]	102	800
OEI-MCP	1 x 83	49159 [102.7]	102	765
One Engine Inoperative (from S/N 7253, or if SB-MBB-BK117-60-113 is installed)				
2 ¹ / ₂ min OEI-TOP	1 x 125	50548 [105.6]	102	836
30 min OEI-TOP	1 x 91.5	50169 [104.8]	102	800
OEI-MCP	1 x 91.5	49159 [102.7]	102	765

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

6.1 Fuel (see EASA approved RFM, section 2)

6.2 Oil (see EASA approved RFM, section 2)

7. **Fluid capacities:**

7.1 Fuel: fuel tank capacity: 607.6 l
useable fuel: 598.0 l

7.2 Engine Oil reservoir capacity: 4.33 l

8. **Airspeed limits:**

V_{NE} = 150 knots
(see EASA approved RFM for reduction in V_{NE} with altitude and other speed limitations)

9. **Rotor Speed Limits:**

Power on:	maximum	102 %	(390.7 rpm)	
	minimum	98 %	(375.3 rpm)	
	minimum	99 %	(after SB-MBB-BK117-60-110)	
Power off:	maximum	104 %	(398.3 rpm)	
	minimum	80 %	(306.4 rpm)	up to 2000 kg
	minimum	85 %	(325.5 rpm)	above 2000 kg

Transient: (see EASA approved RFM)

10. **Maximum Operating Altitude and Temp.:**

Up to S/N 7252:
4572 m [15,000 ft] up to 3000 kg
3048 m [10,000 ft] above 3000 kg
3658 m [12,000 ft] if OAT is below -30°C
5182 m [17,000 ft DA] or 4572 m [15,000 ft PA] whichever is less for takeoff, landing and Hover in ground effect

From S/N 7253 or if SB-MBB-BK 117-80-111 is installed:
5486 m [18,000 ft] up to 3000 kg
3048 m [10,000 ft] above 3000 kg
3658 m [12,000 ft] if OAT is below -30°C
5182 m [17,000 ft DA] or 5486 m [18,000 ft PA] whichever is less for takeoff, landing and Hover in ground effect

11. **Operating Limitations:**

- 11.1 General: VFR, IFR, Category A Operation, No flight into known icing condition
- 11.2 Additional limitations for take-off and landing: (see EASA approved RFM)
12. **Maximum Certified Mass:** 3350 kg
13. **Centre of Gravity Range:**
- Longitudinal C.G Limits,**
maximum forward limit:..... 4375 mm aft of DP at 1700 kg
4337 mm aft of DP at 2000 kg
4400 mm aft of DP at 3350 kg
- maximum rearward limit:..... 4670 mm aft of DP at 1700 kg
4520 mm aft of DP at 3350 kg
- Lateral C.G Limits,**
maximum deviation on right / left:.....100 mm up to 2850 kg
80 mm above 2850 kg
14. **Datum Plane:** Longitudinal: 4000 mm forward of the levelling point 4/5 on the cabin floor in the rear door aperture
Lateral: fuselage median plane
15. **Levelling Means:** (see Maintenance Manual MBB-BK117 A/B, Appendix C)
16. **Minimum Flight Crew:** one
17. **Maximum Passenger Seating Capacity:** seven (or ten if the kit described in FMS 10-8 is installed and operated)
18. **Passenger Emergency Exit:** two (one on each side of the passengers cabin)
19. **Maximum Baggage/Cargo Loads:** 1200 kg (250 kg in aft of rear seat bank) with maximum loading of 600 kg/m²
20. **Rotor blade and control movement:** (For rigging information refer to the Maintenance Manual MBB-BK 117 A/B)
21. **Auxiliary Power Unit (APU):** N/A
22. **Life-limited parts:** The periods specified in the latest revision of the Airworthiness Limitations section in Appendix A of the Maintenance Manual MBB-BK 117 A/B must not be exceeded
23. **Wheels and Tires:** Skid type landing gear

IV. Operating and Service Instructions

1. **Rotorcraft Flight Manual, Document No:** a. BK 117 B-2, firstly LBA approved on 17.01.1992,
b. BK 117 B-2-7203, firstly LBA approved on 21.04.1993,

in the latest revision, including the supplements for Special Operations and Optional Equipment.
2. **Maintenance Manual, Document No:** a. Maintenance Manual MBB-BK117 A/B, latest revision
b. Illustrated Parts Catalogue MBB-BK117, latest revision
c. Wiring Diagram Manual MBB-BK117, latest revision
d. Engine documents as per LBA Engine TCDS No. 7016
3. **Service Letters and Service Bulletins:** safety information notice (from October 2008 onwards, before: Alert Service Information), information notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin, Repair Design Approval Sheets.
4. **Required Equipment:** Special equipment and kits necessary for intended kind of operations as defined in the approved Flight Manual Supplements Section 10 are permissible.

V. Notes

1. **Eligible serial numbers:** 7203, 7244 and upwards
plus upgraded MBB-BK 117 B-1 model according to the drawing 117-800121
2. **Record of Type Certificate Holder:** The Type Certificate was originally issued on 17 January 1992 to Eurocopter Hubschrauber GmbH, Postfach 801140, 8000 München 80. The Type Certificate was reissued on 17 April 2007 to EUROCOPTER DEUTSCHLAND GmbH, D-86607 Donauwörth. On January 2014, the Type Certificate was reissued to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.
3. **Record of Manufacturer:** Until May 1992 the manufacturer name was Eurocopter Hubschrauber GmbH, Postfach 1353, W-8850 Donauwörth. From May 1992 the manufacturer name has been changed to: Eurocopter Deutschland GmbH, Postfach 1353, W-8850 Donauwörth or 86603 Donauwörth or 86607 Donauwörth. From January 2014 the company name has been changed to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.

4. **Designation:**

The designation MBB-BK117 B-2-7203 is used for the serial number 7203.

MBB-BK117 C-1

I. General

1. **Data Sheet No:** EASA R.010
based on LBA TCDS No. 3049 Issue No. 4 on 09.07.1996
2. **Type / Variant or Model:**
 - (a) **Type:** MBB-BK 117
 - (b) **Variant or Model:** MBB-BK 117 C-1 (see Note V.3)
3. **Airworthiness Category:** Transport Category A & B Rotorcraft
4. **Type Certificate Holder:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
5. **Manufacturer:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
6. **National Certification Date:** 02 October 1992
7. **LBA Application Date:** -
8. **LBA Recommendation Date:** N/A
9. **EASA Type Certification Date:** N/A

II. Certification Basis

1. **Reference Date for determining the applicable requirements:**
2. **LBA Certification Date:** 02 October 1992
3. **LBA Type Certificate Data Sheet No:** 3049
4. **LBA Certification Basis:** (see the following points 5 to 9)
5. **Airworthiness Requirements:** FAR 29 (first issue February 1, 1965 including amendments 29-1 through 29-16), and including FAR 29 Amendment 29-17 for:
 - FAR 29.927, FAR 29.1091, FAR 29.1103, FAR 29.1195Including FAR 29 Amendment 29-21 for:
 - FAR 29.1, FAR 29.1517, FAR 29.1587Including FAR 29 Amendment 29-24 for:
 - FAR 29.143Including FAR 29 Amendment 29-26 for:
 - FAR 29.901, FAR 29.903, FAR 29.908, FAR 29.955, FAR 29.961
 - FAR 29.1041, FAR 29.1043, FAR 29.1045, FAR 29.1047, FAR 29.1093Including FAR 29 Amendment 29-32 for:
 - FAR 29.2Including JAR 29 (First Issue) for:
 - JAR 29.45 to 29.87
6. **Special Conditions:** LBA Special Conditions for MBB-BK 117 helicopter dated 10 December 1979 and revised on 03 January 1980, consisting of:
 - SC1, Check Procedures
 - SC2, Engine Failure Warning System
 - SC3, Turbine Engine Bleed Air System
 - SC4, One Engine Inoperative Maximum Continuous Power
 - SC5, Lightning Protection of Structure and Occupants.
7. **Reversion and Exemptions:** -
8. **Equivalent Safety Findings:**
 - FAR 29.811 (h) (1) Emergency exit marking
 - FAR 29.1151 (b) Rotor brake controls
9. **Environmental Standards including Noise:** Noise Prevention Requirement for Aircraft (LSL) Chapter VIII dated January 01st, 1991

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:**
2. **Description:** Rigid 4-bladed main rotor, twin-bladed tail rotor, rotor blades made from fiber-reinforced plastic, semi-monocoque fuselage, fin and tail plane fitted with endplate fins, powered by 2 independent turbo shaft engines, skid-type landing gear.

3. **Equipment:** Basic equipment must be installed and operational prior to registration of the helicopter.
4. **Dimensions:**
- | | | |
|-------------|--------------------|---------|
| Fuselage: | Length | 5,89 m |
| | Width | 1,60 m |
| | Height | 3,36 m |
| Main Rotor: | 4 blades, diameter | 11,0 m |
| Tail Rotor: | 2 blades, diameter | 1,956 m |
5. **Engines:**
- | | |
|---------------------------------|------------|
| Manufacturer: | Turbomeca |
| Type: | Arriel 1E2 |
| Number of engines | Two |
| State of design engine TCDS No: | - |
| LBA data sheet no.: | 7010 |
| EASA engine TCDS No: | E.073 |

5.1 Installed Engine and Transmission Torque Limits:

	Torque Limits %	Gas generator rpm min ⁻¹ [%]	Power turbine rpm %	Temperature TOT °C
All Engine Operation				
AEO-TOP (5 min)	2 x 83	52111 [100.6]	102 ^{*)}	845
AEO-MCP	2 x 71	51800 [100.0]	102 ^{*)}	845
One Engine Inoperative				
2 ¹ / ₂ min OEI-TOP	1 x 125	53509 [103.3]	102	885
OEI-MCP	1 x 91.5	51955 [100.3]	102	845

^{*)} Maximum power turbine rpm for pressure altitude > 8000 ft and v < 55 KIAS is 104%

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

- 6.1 Fuel (see EASA approved RFM, section 2)
- 6.2 Oil (see EASA approved RFM, section 2)

7. **Fluid capacities:**

- 7.1 Fuel: fuel tank capacity: 707.6 l
useable fuel: 697.4 l
- 7.2 Engine Oil reservoir capacity: 4.33 l

8. **Airspeed limits:**

V_{NE} = 150 knots
(see EASA approved RFM for reduction in V_{NE} with altitude and other speed limitations)

9. **Rotor Speed Limits:**

Power on:	maximum	102 %	
	maximum	104% (for PA > 8000 ft and v < 55 KIAS)	
	minimum	98 %	
Power off:	maximum	104 %	
	minimum	80 %	up to 2000 kg
	minimum	85 %	above 2000 kg

Transient: (see EASA approved RFM)

10. **Maximum Operating Altitude and Temp.:** 5486 m [18,000 ft]

11. **Operating Limitations:**

- 11.1 General: VFR, IFR, Category A Operation, No flight into known icing condition
- 11.2 Additional limitations for take-off and landing: (see EASA approved RFM)

12. **Maximum Certified Mass:** 3350 kg

13. **Centre of Gravity Range:**

Longitudinal C.G Limits,
 maximum forward limit..... 4375 mm aft of DP at 1700 kg
 4337 mm aft of DP at 2000 kg
 4400 mm aft of DP at 3350 kg
 maximum rearward limit..... 4670 mm aft of DP at 1700 kg
 4520 mm aft of DP at 3350 kg

Lateral C.G Limits,
 maximum deviation on right / left..... 100 mm up to 2850 kg
 80 mm above 2850 kg

14. **Datum Plane:** Longitudinal: 4000 mm forward of the levelling point 4/5 on the cabin floor in the rear door aperture
Lateral: fuselage median plane
15. **Levelling Means:** (see Maintenance Manual MBB-BK117 C-1, Appendix C)
16. **Minimum Flight Crew:** one
17. **Maximum Passenger Seating Capacity:** seven (or ten if the kit described in FMS 10-8 is installed and operated)
18. **Passenger Emergency Exit:** two (one on each side of the passengers cabin)
19. **Maximum Baggage/Cargo Loads:** 1200 kg (250 kg in aft of rear seat bank) with maximum loading of 600 kg/m²
20. **Rotor blade and control movement:** (For rigging information refer to the Maintenance Manual MBB-BK 117 C-1)
21. **Auxiliary Power Unit (APU):** N/A
22. **Life-limited parts:** The periods specified in the latest revision of the Airworthiness Limitations section in Appendix A of the Maintenance Manual MBB-BK 117 C-1 must not be exceeded
23. **Wheels and Tires:** Skid type landing gear

IV. Operating and Service Instructions

1. **Rotorcraft Flight Manual, Document No:** a. BK 117 C-1, firstly LBA approved on 02.10.1992,
b. BK117 C-1C, firstly CAA-UK approved on 28.08.1995,

in the latest revision, including the supplements for Special Operations and Optional Equipment.
2. **Maintenance Manual, Document No:** a. Maintenance Manual MBB-BK117 C-1, latest revision
b. Illustrated Parts Catalogue MBB-BK117, latest revision
c. Wiring Diagram Manual MBB-BK117, latest revision
d. Engine documents as per LBA Engine TCDS No. 7010
3. **Service Letters and Service Bulletins:** safety information notice (from October 2008 onwards, before: Alert Service Information), information notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin, Repair Design Approval Sheets.
4. **Required Equipment:** Special equipment and kits necessary for intended kind of operations as defined in the approved Flight Manual Supplements Section 10 are permissible.

V. Notes

1. **Eligible serial numbers:** 7007, 7500 and upwards
2. **Record of Type Certificate Holder:** The Type Certificate was originally issued on 02 October 1992 to Eurocopter Deutschland GmbH, Postfach 801140, 8000 München 80. The Type Certificate was reissued on 17 April 2007 to EUROCOPTER DEUTSCHLAND GmbH, D-86607 Donauwörth. On January 2014, the Type Certificate was reissued to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.
3. **Record of Manufacturer:** Eurocopter Deutschland GmbH, Postfach 1353, W-8850 Donauwörth or 86603 Donauwörth or 86607 Donauwörth. From January 2014 the company name has been changed to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.
4. **Designation:** The designation MBB-BK117 C-1C is used for UK registration. It differs from MBB-BK117 C-1 only by the modifications necessary for compliance with the UK Additional Requirements (Documents No. 9/31/Ry2601).

MBB-BK117 C-2

I. General

1. **Data Sheet No:** EASA R.010
based on LBA TCDS No. 3049 Issue No. 5 on 01.04.2003
2. **Type / Variant or Model:**
 - (a) **Type:** MBB-BK117
 - (b) **Variant or Model:** MBB-BK117 C-2 (see Note V.3)
3. **Airworthiness Category:** Transport Category A & B Rotorcraft
4. **Type Certificate Holder:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
5. **Manufacturer:**
 1. AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth, Germany
 2. American Eurocopter LLC, 1782 Airport Road, Columbus, Mississippi 39701, USA. (see Note V.4)
6. **National Certification Date:** 20 December 2000
7. **LBA Application Date:** 02 October 1997
8. **LBA Recommendation Date:** N/A
9. **EASA Type Certification Date:** N/A

II. Certification Basis

1. **Reference Date for determining the applicable requirements:** 02 October 1997
2. **LBA Certification Date:** 20 December 2000
3. **LBA Type Certificate Data Sheet No:** 3049
4. **LBA Certification Basis:** see II.5 to II.8 below, as defined in CRI A-01
5. **Airworthiness Requirements:** FAR 29 (first issue February 1, 1965 including amendments 29-1 through 29-40), with reversions and exemptions listed below.
FAR 29 Appendix B including amendment 40
6. **Special Conditions:**
 - SC No. 3: BK117 (Turbine Engine Bleed Air System, if installed)
 - SC No. 6: HIRF (JAA INT/POL/27&29/1, dated June 1, 1997), see CRI No. F-1
 - SC No. 7: BK117 C-2 Primary structures designed with composite material
7. **Reversion and Exemptions:**

Reversion to FAR 29 amendment 26 for:

 - FAR 29.903 (see CRI No. E-4), FAR 29.923 (see CRI No. E-2)

Reversion to FAR 29 amendment 17 for:

 - FAR 29.927 (see CRI No. E-2)

Reversion to FAR 29 amendment 16 for:

 - FAR 29.547 (for unchanged parts) , FAR 29.571 (see CRI No. C-1),
 - FAR 29.863 (see CRI No. D-6) , FAR 29.901(c) (see CRI No. E-4),
 - FAR 29.917, FAR 29.1011, FAR 29.1019(a), FAR 29.1021, FAR 29.1163,
 - FAR 29.1181, FAR 29.1183, FAR 29.1189,
 - FAR 29.1309 (b), (d), (e) (see CRI No. F-2, F-4), FAR 29.1521.

Exemption from FAR 29 for:

 - FAR 29.610(d)(4) for unchanged parts categorized as "Essential"- (see CRI No. D-4),
 - FAR 29.631 (see CRI No. D-2), FAR 29.1027, FAR 29.1305(a)(21) and (23),
 - FAR 29.1337(e).
8. **Equivalent Safety Findings:**
 - FAR 29.807 (a)(4) Emergency exits (see CRI No. D-1)
 - FAR 29.1303 (a),(j) VNE indication (see CRI No. F-3)
 - FAR 29.1549 (b) Powerplant Instruments (see CRI No. G-1)
 - FAR 29.1151 (b) Rotor Brake Controls
9. **Environmental Standards including Noise:** German Noise Prevention Requirement for Aircraft (Lärmschutzforderungen für Luftfahrzeuge LSL) Chapter VIII dated January 01st, 1991

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:** MBB-BK117 C-2 Basic Master List Drawing No. 117-C2-99
2. **Description:**
 Main rotor: Rigid 4-bladed main rotor
 Tail rotor: 2 blades
 Fuselage: metal-composite structure with Skid-type landing gear
 Power plant: Two independent freewheel turbines
3. **Equipment:** Basic equipment must be installed and operational prior to registration of the helicopter.
4. **Dimensions:**
 Fuselage: Length 6,186 m
 Width 1,845 m
 Height 3,450 m
 Main Rotor: 4 blades, diameter 11,000 m
 Tail Rotor: 2 blades, diameter 1,962 m
5. **Engines:**
 Manufacturer: Turbomeca
 Type: Arriel 1E2
 Number of engines: Two
 State of design engine TCDS No: -
 LBA data sheet no.: 7010
 EASA engine TCDS No: E.073

5.1 Installed Engine and Transmission Torque Limits:

	Torque Limits %	Gas generator rpm min ⁻¹ [%]	Power turbine rpm %	Temperature TOT °C
All Engine Operation				
AEO-TOP (5 min)	2 x 88	52835 [101.9]	104	845
AEO-MCP	2 x 71	51955 [100.0]	104	845
One Engine Inoperative				
2½ min OEI-TOP	1 x 125	53509 [103.3]	104	885
OEI-MCP	1 x 91.5	52835 [101.9]	104	845

6. **Fluids (Fuel/Oil/Additives):**
- 6.1 Fuel (see EASA approved RFM)
- 6.2 Oil (see EASA approved RFM)
7. **Fluid capacities:**
- 7.1 Fuel: *with standard fuel tank* total fuel: 879.1 l
 usable fuel: 867.5 l
- with self sealing fuel tank* total fuel: 861.6 l maximum
 useable fuel: 850.0 l
- 7.2 Engine Oil: 4.33 l
8. **Airspeed limits:** V_{NE} = 150 knots
 (see EASA approved RFM for reduction in V_{NE} with altitude and other speed limitations)
9. **Rotor Speed Limits:**
 Power on: maximum 104 %
 minimum 96 %
- Power off: maximum 104 %
 minimum 80 % (up to 2000 kg)
 minimum 85 % (above 2000 kg)
- Transient: (see EASA approved RFM)
10. **Maximum Operating Altitude and Temp.:** 5486 m [18,000 ft]
11. **Operating Limitations:**
- 11.1 General: VFR, IFR, Category A Operation, No flight in icing condition
- 11.2 Additional limitations for take-off and landing: (see EASA approved RFM)
- 11.3 Ditching provision: (see Note 6)
12. **Maximum Certified Mass:** 3585 kg

13. **Centre of Gravity Range:**
- Longitudinal C.G Limits,**
maximum forward limit..... 4337 mm aft of DP at 2000 kg
4377 mm aft of DP at 3585 kg
- maximum rearward limit:..... 4667 mm aft of DP at 1750 kg
4544 mm aft of DP at 3585 kg
- Lateral C.G Limits,**
maximum deviation on right / left:.....100 mm (up to 3000 kg)
80 mm (above 3000 kg)
14. **Datum Plane:** Longitudinal: 3950 mm forward of the levelling point in the aft door frame
Lateral: fuselage median plane
15. **Levelling Means:** (see Aircraft Maintenance Manual MBB-BK117 C-2 Chapter 08 and Levelling Procedure TS-B082M0101X02)
16. **Minimum Flight Crew:** one
17. **Maximum Passenger Seating Capacity:** standard: nine
when equipped and operated in accordance with FMS 9.2-27: ten
18. **Passenger Emergency Exit:** two (one on each side of the passengers cabin)
19. **Maximum Baggage/Cargo Loads:** 600 kg/m²
20. **Rotor blade and control movement:** (see Aircraft Maintenance Manual MBB-BK117 C-2)
21. **Auxiliary Power Unit (APU):** N/A
22. **Life-limited parts:** The periods specified in the latest revision of EASA approved Chapter 4 of the Master Servicing Manual MBB-BK117 C-2 must not be exceeded
23. **Wheels and Tires:** Skid type landing gear

IV. Operating and Service Instructions

1. **Rotorcraft Flight Manual, Document No:** BK117 C-2, firstly LBA approved on 20.12.2000, in the latest revision, including the supplements for Special Operations FMS 9.1 and for Optional Equipment FMS 9.2.
2. **Maintenance Manual, Document No:**
- Master Servicing Manual MBB-BK117 C-2, latest revision
 - Aircraft Maintenance Manual MBB-BK117 C-2, latest revision
 - Illustrated Parts Catalogue MBB-BK117 C-2, latest revision
 - Wiring Diagram Manual MBB-BK117 C-2, latest revision
 - Engine documents as per LBA Engine TCDS No. 7010
 - Structural Repair Manual MBB-BK117 C-2, latest revision
3. **Service Letters and Service Bulletins:** safety information notice (from October 2008 onwards, before: Alert Service Information), information notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin, Repair Design Approval Sheets.
4. **Required Equipment:** Special equipment and kits necessary for intended kind of operations as defined in the approved Flight Manual Supplements FMS 9.2 are permissible.

V. Notes

1. **Eligible serial numbers:** 9004 and upwards
2. **Record of Type Certificate Holder:** The Type Certificate was originally issued on 20 December 2000 to Eurocopter Deutschland GmbH, Postfach 801140, 8000 München 80. The Type Certificate was reissued on 17 April 2007 to EUROCOPTER DEUTSCHLAND GmbH, D-86607 Donauwörth. On January 2014, the Type Certificate was reissued to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.
3. **Record of Manufacturer:**
- Eurocopter Deutschland GmbH, Postfach 1353, W-8850 Donauwörth or 86603 Donauwörth or 86607 Donauwörth. From January 2014 the company name has been changed to AIRBUS HELICOPTERS DEUTSCHLAND GmbH, Industriestrasse 4, D-86609 Donauwörth.
 - American Eurocopter LLC, Columbus, Mississippi 39701 USA under License of Eurocopter Deutschland GmbH according to License Agreement No: EI 102-02-10A dated 04/07 for the MBB BK117 C-2 in LUH configuration (Drawing No: B000LUHSNBOM0000).
4. **Designation:** EC145 and UH145 are used as marketing designation for MBB-BK117 C-2 helicopters.
5. **Night Vision Goggles Operational Capability:** Night Vision Goggles aided operations are enabled according to Rotorcraft Flight Manual Supplement 9.2-48 and the related serial number specific Flight Manual Appendix FMA

11-x, when the rotorcraft is accordingly equipped. The helicopter configuration involving internal/external emitting/reflecting equipment approved for use with Night Vision Goggles is described in the serial number specific ECD NVIS Substantiation Report.

Subsequent modifications and deviations to the NVG helicopter configuration are managed by ECD in accordance with ECD document ECD-TN-ETZN-025-2009. Modifications that add or change systems that emit or reflect light, have the potential to alter or change the NVIS lighting – NVG compatibility. For this reason they require an engineering evaluation and related airworthiness approval.

6. Ditching:

The emergency floatation system according to Rotorcraft Flight Manual Supplement 9.2-6 is certified as ditching provision in accordance with FAR29.

The helicopter may be certified for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.