

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

H13EU  
Revision 10  
EUROCOPTER  
DEUTSCHLAND GMBH

MBB-BK 117 A-1  
MBB-BK 117 A-3  
MBB-BK 117 A-4  
MBB-BK 117 B-1  
MBB-BK 117 B-2  
MBB-BK 117 C-1  
MBB-BK 117 C-2

July 30, 2002

**TYPE CERTIFICATE DATA SHEET No. H13EU**

This data sheet which is part of Type Certificate No. H13EU prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder. EUROCOPTER DEUTSCHLAND GMBH (ECD)  
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**I. Model MBB-BK 117 A-1 (Transport Category A&B) Helicopter, Approved March 29, 1983.**

Engines. 2 Lycoming LTS 101-650 B-1

Fuel. See Rotorcraft Flight Manual.

Installed Engine Limits

	Output Shaft Torque % (Ft-Lbs.)	Gas Generator Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Measured Gas Temperature °C (°F)
<u>Normal Operation</u>				
Takeoff power (5 min.)	71 (368)	102.7 (49159)	102 (6120)	782 (1440)
Max. continuous	71 (368)	102.7 (49159)	102 (6120)	763 (1405)
<u>One Engine Inoperative</u>				
2.5 minimum power	100 (519)	106.6 (50548)	102 (6120)	832 (1528)
30 minimum power	91.5 (475)	104.8 (50469)	102 (6120)	796 (1463)
Max. continuous	83 (431)	102.7 (49159)	102 (6120)	763 (1404)

See Rotorcraft Flight Manual for other limitations including speed and temperature transients.

<u>Rotor Limits.</u>	<u>Power On, % (RPM)</u>	<u>Power Off, % (RPM)</u>
Min. Continuous		
gross weight up to 4409 lbs.	98 (376)	80 (307)
gross weight 4409 - 6283 lbs.	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Max. Transient	106 (406)	110 (422)
Min. Transient	85 (326)	---

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**I. Model MBB-BK 117 A-1 (Transport Category A&B) Helicopter** (cont'd)

<u>Airspeed Limits (IAS).</u>	Max. $V_{NE}$ = 150 Kt. See Rotorcraft Flight Manual for airspeed limit decrease with outside air temperature and altitude.
<u>C.G. Range.</u>	<p>Longitudinal C.G. Limits</p> <p>Max. forward range: up to 3747.8 lb: 172.2 in. aft of datum  up to 4409.2 lb: 170.7 in. aft of datum  up to 6283.1 lb: 173.8 in. aft of datum</p> <p>Max. rearward range: up to 3747.8 lb: 183.9 in. aft of datum  up to 6283.1 lb: 179.7 in. aft of datum</p> <p>Straight line variation between points given.</p> <p>Lateral C.G. Limits.</p> <p>Max. deviation 3.9 in right or left of the fuselage median plane.</p>
<u>Empty Weight C.G. Range.</u>	None
<u>Max. Weight.</u>	6283 lbs.
<u>Min. Crew.</u>	1 (right-hand seat only).
<u>Passengers.</u>	7 (See NOTE 1A).
<u>Max. Baggage.</u>	<p>Max. permissible floor loading: 123 lb/sq. ft.</p> <p>Max. loading: 2645 lb</p> <p>Aft of rear seatbank: 551 lb</p>
<u>Fuel Capacity.</u>	<p>160.5 US gal. (1071.6 lb., 179.6 in.) total; 158.0 US gal. (1054.9 lb.) usable;</p> <p>132.5 US gal. (884.5 lb., 179.88 in.) in main tank, and 25.5 US gal (170.4 lb., 187.36 in.) in supply tank.</p> <p>(See NOTE 1B)</p>
<u>Oil Capacity.</u>	<p>Engine oil (each tank) has been included with the minimum gross weight. 2x1.14 US gals. (176.77 in.).</p> <p>Main transmission oil has been included with the minimum gross weight. 3.3 US gals. (176.38 in.)</p>
<u>Max. Operating Altitude.</u>	See Rotorcraft Flight Manual, Model MBB-BK 117 A-1.
<u>Rotor Blade and Control Movements.</u>	For rigging information refer to the MBB Model MBB-BK 117 Maintenance Manual.

## **II. Model MBB-BK 117 A-3 (Transport Category A&B) Helicopter, Approved September 10, 1985.**

Engines. 2 Lycoming LTS 101-650B-1

Fuel. See Rotorcraft Flight Manual.

### Installed Engine Limits

	Output Shaft Torque % (Ft-Lbs.)	Gas Generator Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Measured Gas Temperature °C (°F)
<u>Normal Operation</u>				
Takeoff power (5 min.)	71 (368)	102.7 (49159)	102 (6120)	782 (1440)
Max. continuous	71 (368)	102.7 (49159)	102 (6120)	763 (1405)
<u>One Engine Inoperative</u>				
2.5 minimum power	100 (519)	105.6 (50548)	102 (6120)	832 (1528)
30 minimum power	91.5 (475)	104.8 (50469)	102 (6120)	796 (1463)
Max. continuous (See Note 6.)	83 (431)	102.7 (49159)	102 (6120)	763 (1404)

See Rotorcraft Flight Manual for other limitations including speed and temperature transients.

<u>Rotor Limits.</u>	<u>Power On, % (RPM)</u>	<u>Power Off, %(RPM)</u>
Min. Continuous gross weight up to 4409 lbs.	98 (376)	80 (307)
gross weight 4409 - 6283 lbs.	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Max. Transient	106 (406)	110 (422)
Min. Transient	85 (326)	---

Airspeed Limits (IAS). Max.  $V_{NE}$  = 150 Kt. See Rotorcraft Flight Manual for airspeed limit decrease with outside air temperature and altitude.

C.G. Range. Longitudinal C.G. Limits

Max. forward range: at 3748 lb: 172.2 in. aft of datum  
at 4409 lb: 170.7 in. aft of datum  
at 7055 lb: 175.1 in. aft of datum

Max. rearward range: at 3748 lb: 183.9 in. aft of datum  
at 7055 lb: 178.5 in. aft of datum

Straight line variation between points given.

Lateral C.G. Limits. Up to 6283 lb.: Max. deviation 3.94 in. right or left of the fuselage median plane.  
Above 6283 lb.: Max. deviation 3.15 in. right or left of the fuselage median plane.

Empty Weight C.G. Range. None.

Max. Weight. 7055 lb.

Min. Crew. 1 (right-hand seat only).

Passengers. 7 (See NOTE 1A).

Max. Baggage. Max. permissible floor loading: 123 lb/sq.ft.  
Max. loading: 2645 lb.  
Aft of rear seatbank: 551 lb.

**II. Model MBB-BK 117 A-3 (Transport Category A&B) Helicopter** (cont'd)

Fuel Capacity. 160.5 US gal. (1071.6 lb., 179.6 in.) total; 158.0 US gal. (1054.9 lb.) usable: 132.5 US gal. (884.5 lb., 179.88 in.) in main tank, and 25.5 US gal (170.4 lb., 187.36 in.) in supply tank. (See NOTE 1B)

Oil Capacity. Engine oil (each tank) has been included with the minimum gross weight. 2x1.4 U.S. gals (176.77 in.).

Main transmission oil has been included with the minimum gross weight. 3.3 US gals. (176.77 in.).

Max. Operating Altitude. See Rotorcraft Flight Manual, MBB BK-117 A-3.

Rotor Blade and Control Movements. For rigging information refer to the MBB Model BK 117 Maintenance Manual.

**III. Model MBB-BK 117 A-4 (Transport Category A&B) Helicopter, Approved April 24, 1987.**

Engine. 2 Lycoming LTS 101-650B-1

Fuel. See Rotorcraft Flight Manual.

Installed Engine Limits

	Output Shaft Torque % (Ft-Lbs.)	Gas Generator Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Measured Gas Temperature °C (°F)
<u>Normal Operation</u>				
Takeoff power	83 (430)	102.7 (49159)	102 (6120)	782 (1440)
Max. continuous	71 (368)	102.7 (49159)	102 (6120)	763 (1405)
<u>One Engine Inoperative</u>				
2.5 minimum power	100 (519)	105.6 (50548)	102 (6120)	832 (1528)
30 minimum power	91.5 (475)	104.8 (50469)	102 (6120)	796 (1463)
Max. continuous (See Note 6.)	83 (431)	102.7 (49159)	102 (6120)	763 (1404)

See Rotorcraft Flight Manual for other limitations including speed and temperature transients.

<u>Rotor Limits.</u>	<u>Power On, % (RPM)</u>	<u>Power Off, % (RPM)</u>
Min. Continuous gross weight up to 4409 lbs.	98 (376)	80 (307)
gross weight 4409 - 6283 lbs.	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Max. Transient	106 (406)	110 (422)
Min. Transient	85 (326)	---

Airspeed Limits (IAS). Max.  $V_{NE}$  = 150 Kt. See Rotorcraft Flight Manual for airspeed limit decrease with outside air temperature and altitude.

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

Max. forward range: at 3748 lb: 172.2 in. aft of datum  
at 4409 lb: 170.7 in. aft of datum  
at 7055 lb: 175.1 in. aft of datum

Max. rearward range: at 3748 lb: 183.9 in. aft of datum  
at 7055 lb: 178.5 in. aft of datum

**III. Model MBB-BK 117 A-4 (Transport Category A&B) Helicopter** (cont'd)

<u>Lateral C.G. Limits.</u>	Up to 6283 lb.: Max. deviation 3.84 in. right or left of the fuselage median plane. Above 6283 lb.: Max. deviation 3.15 in. right or left of the fuselage median plane.
<u>Empty Weight C.G. Range.</u>	None.
<u>Max. Weight.</u>	7055 lb.
<u>Min. Crew.</u>	1 (right-hand seat only).
<u>Passengers.</u>	7 (See NOTE 1A).
<u>Max. Baggage.</u>	Max. permissible floor loading: 123 lb/sq.ft. Max. loading: 2645 lb. Aft of rear seatbank: 551 lb.
<u>Fuel Capacity.</u>	160.5 US gal. (1071.6 lb., 179.6 in.) total: 158.0 US gal (1054.8 lb.) usable: 132.5 US gal. (884.5 lb., 179.6 in.) in main tank, and 25.5 US gal (170.4 lb., 187.36 in.) in supply tank. (See NOTE 1B)
<u>Oil Capacity.</u>	Engine oil (each tank) has been included with the minimum gross weight. 2x1.14 U.S. gals. (176.77 in.).  Main transmission oil has been included with the minimum gross weight. 3.3 US gals. (176.77 in.).
<u>Max. Operating Altitude.</u>	See Rotorcraft Flight Manual, MBB BK-117 A-4.
<u>Rotor Blade and Control Movements.</u>	For rigging information refer to the MBB Model BK 117 Maintenance Manual.

**IV. Model MBB-BK 117 B-1 (Transport Category A & B) Helicopter, Approved December 11, 1987.**

<u>Engines.</u>	2 Lycoming LTS 101-750B-1
<u>Fuel.</u>	See Rotorcraft Flight Manual.

Installed Engine Limits

	Output Shaft Torque % (Ft-Lbs.)	Gas Generator Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Measured Gas Temperature °C (°F)
<u>Normal Operation</u>				
Takeoff power (5 min.)	83 (430)	102.7 (49159)	102 (6120)	786 (1447)
Max. continuous	71 (368)	102.7 (49159)	102 (6120)	765 (1408)
<u>One Engine Inoperative</u>				
2.5 minimum power	100 (519)	105.6 (50548)	102 (6120)	836 (1536)
30 minimum power	91.5 (475)	104.8 (50469)	102 (6120)	800 (1471)
Max. continuous (See Note 6.)	83 (431)	102.7 (49159)	102 (6120)	765 (1408)

See Rotorcraft Flight Manual for other limitations including speed and temperature transients.

**IV. Model MBB-BK 117 B-1 (Transport Category A & B) Helicopter** (cont'd)

<u>Rotor Limits.</u>	<u>Power On, % (RPM)</u>	<u>Power Off, %(RPM)</u>
Min. Continuous		
gross weight up to 4409 lbs.	98 (376)	80 (307)
gross weight 4409 - 6283 lbs.	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Max. Transient	106 (406)	110 (422)
Min. Transient	85 (326)	---
 <u>Airspeed Limits (IAS).</u>	Max. V <sub>NE</sub> = 150 Kt. See Rotorcraft Flight Manual for airspeed limit decrease with outside air temperature and altitude.	
 <u>C.G. Range.</u>	Longitudinal C.G. Limits	
	Max. forward range: at 3748 lb: 172.2 in. aft of datum at 4409 lb: 170.7 in. aft of datum at 7055 lb: 175.1 in. aft of datum	
	Max. rearward range: at 3748 lb: 183.9 in. aft of datum at 7055 lb: 178.5 in. aft of datum	
	Straight line variation between points given.	
 <u>Lateral C.G. Limits.</u>	Up to 6283 lb.: Max. deviation 3.84 in. right or left of the fuselage median plane. Above 6283 lb.: Max. deviation 3.15 in. right or left of the fuselage median plane.	
 <u>Empty Weight C.G. Range.</u>	None.	
 <u>Max. Weight.</u>	7055 lb.	
 <u>Min. Crew.</u>	1 (right-hand seat only)	
 <u>Passengers.</u>	7 (See NOTE 1A)	
 <u>Max. Baggage.</u>	Max. permissible floor loading 123 lb/sq. ft. Max. loading: 2645 lb. Aft of rear seatbank: 551 lb.	
 <u>Fuel Capacity.</u>	160.5 US gal. (1071.6 lb., 179.6 in.) total: 158.0 US gal (1054.8 lb.) usable: 132.5 US gal. (884.5 lb., 179.6 in.) in main tank, and 25.5 US gal (170.4 lb., 187.36 in.) in supply tank. (See NOTE 1B)	
 <u>Oil Capacity.</u>	Engine oil (each tank) has been included with the minimum gross weight. 2x1.14 U.S. gals. (176.77 in.).  Main transmission oil has been included with the minimum gross weight. 3.3 US gals. (176.77 in.)	
 <u>Max. Operating Altitude.</u>	See Rotorcraft Flight Manual, MBB BK-117 B-1.	
 <u>Rotor Blade and Control Movements.</u>	For rigging information refer to the MBB BK 117 Maintenance Manual.	

**V. Model MBB-BK 117 B-2 (Transport Category A & B) Helicopter, Approved December 7, 1992.**

Engines. 2 Lycoming LTS 101-750B-1

Fuel. See Rotorcraft Flight Manual.

Installed Engine Limits

	Output Shaft Torque % (Ft-Lbs.)	Gas Generator Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Measured Gas Temperature °C (°F)
<u>Normal Operation</u>				
Takeoff power (5 min.)	83 (430)	102.7 (49159)	102 (6120)	786 (1447)
Max. continuous	71 (368)	102.7 (49159)	102 (6120)	765 (1408)
<u>One Engine Inoperative</u>				
2.5 minimum power	100 (519)	105.6 (50548)	102 (6120)	836 (1536)
30 minimum power	91.5 (475)	104.8 (50469)	102 (6120)	800 (1471)
Max. continuous (See Note 6.)	83 (431)	102.7 (49159)	102 (6120)	765 (1408)

See Rotorcraft Flight Manual for other limitations including speed and temperature transients.

<u>Rotor Limits.</u>	<u>Power On, % (RPM)</u>	<u>Power Off, % (RPM)</u>
Min. Continuous		
gross weight up to 4409 lbs.	98 (376)	80 (307)
gross weight 4409 - 7385 lbs.	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Max. Transient (max 12 sec.)	106 (406)	110 (422)
Min. Transient	85 (326)	---

Airspeed Limits (IAS). Max.  $V_{NE}$  = 150 Kt. See Rotorcraft Flight Manual for airspeed limit decrease with outside air temperature and altitude.

C.G. Range. Longitudinal C.G. Limits

Max. forward range: at 3748 lb: 172.2 in. aft of datum  
at 4409 lb: 170.7 in. aft of datum  
at 7385 lb: 173.2 in. aft of datum

Max. rearward range: at 3748 lb: 183.9 in. aft of datum  
at 7385 lb: 178.0 in. aft of datum

Straight line variation between points given.

Lateral C.G. Limits. Up to 6283 lb.: Max. deviation 3.94 in. right or left of the fuselage median plane.  
Above 6283 lb.: Max. deviation 3.15 in. right or left of the fuselage median plane.

Empty Weight C.G. Range. None.

Max. Weight. 7385 lb.

Min. Crew. 1 (right-hand seat only)

Passengers. 7 (See NOTE 1A)

**V. Model MBB-BK 117 B-2 (Transport Category A & B) Helicopter** (cont'd)

<u>Max. Baggage.</u>	Max. permissible floor loading 123 lb/sq. ft. Max. loading: 2645 lb. Aft of rear seatbank: 551 lb.
<u>Fuel Capacity.</u>	160.5 US gal. (1071.6 lb., 179.6 in.) total: 158.0 US gal (1054.8 lb) usable: 132.5 US gal. (884.5 lb., 179.6 in.) in main tank, and 25.5 US gal (170.4 lb., 187.36 in.) in supply tank. (See NOTE 1B)
<u>Oil Capacity.</u>	Engine oil (each tank) has been included with the minimum gross weight. 2x1.14 U.S. gals. (176.77 in.).  Main transmission oil has been included with the minimum gross weight. 3.3 US gals. (176.77 in.)
<u>Max. Operating Altitude.</u>	See Rotorcraft Flight Manual, BK-117 B-2.
<u>Rotor Blade and Control Movements.</u>	For rigging information refer to the MBB BK 117 Maintenance Manual.

**VI. Model MBB-BK 117 C-1 (Transport Category A&B) Helicopter, Approved December 7, 1992.**

For S/N up to and including 7509 without modification per SB-MBB-BK117-60-112

<u>Engines.</u>	2 Turbomeca Arriel 1E.
<u>Fuel.</u>	See Rotorcraft Flight Manual.

**Installed Engine Limits**

	Output Shaft Torque % (Ft-Lbs.)	Gas Generator Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Measured Gas Temperature °C (°F)
<u>Normal Operation</u>				
Takeoff power (5 min.)	83 (432)	100.9 (52266)	102 (6120)	845 (1553)
Max. continuous	71 (371)	100.3 (51955)	102 (6120)	845 (1553)
<u>One Engine Inoperative</u>				
2.5 minimum power	100 (518)	102.5 (53095)	102 (6120)	885 (1625)
30 minimum power	91.5 (474)	101.9 (52784)	102 (6120)	845 (1553)
Max. continuous	83 (432)	100.3 (51955)	102 (6120)	845 (1553)

<u>Rotor Limits.</u>		<u>Power On, % (RPM)</u>	<u>Power Off, %(RPM)</u>
Min. Continuous			
gross weight up to 4409 lbs.		98 (376)	80 (307)
gross weight 4409 - 7385 lbs.		98 (376)	85 (326)
Max. Continuous		102 (391)	104 (399)
Max. Transient (Max 17 sec.)		106 (406)	110 (422)
Min. Transient		85 (326)	---

**For Serial number up to and including 7509 with modification per SB-MBB-B117-60-112, and serial number greater than or equal to 7510:**

<u>Engines</u>	2 Turbomeca Arriel 1E2
<u>Fuel</u>	See Rotorcraft Flight Manual.



**VI. Model MBB-BK 117 C-1 (Transport Category A&B) Helicopter** (cont'd)Installed Engine Limits

	Torque Limits %	Gas Generator Speed N-1 % (RPM) °C	Temperature TOT °C	Power RPM %
<u>Normal Operation</u>				
Takeoff power (5 min.)	83	100.6 (52111)	845	102*
Max. continuous	71	100.0 (51800)	845	102*
<u>One Engine Inoperative</u>				
2.5 minimum power	125	103.3 (53509)	885	102
Max. continuous	91.5	100.3 (51955)	845	102

\*Max PA > 8000 ft and V < 55 KIAS 104%.

<u>Rotor Limits.</u>	<u>Power On, % (RPM)</u>	<u>Power Off, %(RPM)</u>
Min. continuous	98	80 (<2000 kg) 85 (>2000 kg)
Max. continuous PA > 8000 ft + V <55 KIAS	102	104

For all serial numbers

See Rotorcraft Flight Manual for other limitations including speed and temperature transients.

Airspeed Limits (IAS). Max.  $V_{NE}$  = 150 Kt. See Rotorcraft Flight Manual for airspeed limit decrease with outside air temperature and altitude.

C.G. Range. Longitudinal C.G. Limits

Max. forward range: at 3748 lb: 172.2 in. aft of datum  
at 4409 lb: 170.7 in. aft of datum  
at 7385 lb: 173.2 in. aft of datum

Max. rearward range: at 3748 lb: 183.9 in. aft of datum  
at 7385 lb: 178.0 in. aft of datum

Straight line variation between points given.

Lateral C.G. Limits. Up to 6283 lb.: Max. deviation 3.94 in. right or left of the fuselage median plane.  
Above 6283 lb.: Max. deviation 3.15 in. right or left of the fuselage median plane.

Empty Weight C.G. Range. None.

Max. Weight. 7385 lb.

Min. Crew. 1 (right-hand seat only)

Passengers. 7 (See NOTE 1A)

Max. Baggage. Max. permissible floor loading 123 lb/sq. ft.  
Max. loading: 2645 lb.  
Aft of rear seatbank: 551 lb.

**VI. Model MBB-BK 117 C-1 (Transport Category A&B) Helicopter** (cont'd)

Fuel Capacity. 187 US gal. (1248 lb., 173.6 in.) total: 184.2 US gal (1230.2 lb.) usable: 132.5 US gal. (884.5 lb., 179.6 in.) in main tank, and 26.2 US gal 175.3 lb., 134.6 in.) in auxiliary fuel tank, and 25.5 US gal (170.4 lb., 187.36 in.) in supply tank.

Oil Capacity. Engine oil (each tank) has been included with the minimum gross weight. 2x1.14 U.S. gals. (176.77 in.)  
Main transmission oil has been included with the minimum gross weight. 3.3 US gals. (176.77 in.).

Max. Operating Altitude. See Rotorcraft Flight Manual, MBB-BK 117 C-1.

Rotor Blade and Control Movements. For rigging information refer to the MBB BK 117 C Maintenance Manual.

**VII. Model MBB-BK 117 C-2 (Transport Category B) Helicopter, Approved December 3, 2001.**

For Serial Numbers 9003, 9004, 9005 and subsequent

Engines. 2 Turbomeca ARRIEL 1E2 engines

Fuel. See Rotorcraft Flight Manual.

Installed Engine Limits

	Torque Limits %	Gas Generator Speed N-1 % (RPM)	Temperature TOT °C	Power RPM %
<u>Normal Operation</u>				
Takeoff power (5 min.)	83	101.9 (52835)	845	102*
Max. continuous	71	100.0 (51995)	845	102*
<u>One Engine Inoperative</u>				
2.5 minimum power	125	103.3 (53509)	885	102
Max. continuous	91.5	101.9 (52835)	845	102

\*Max PA > 8000 ft and V < 55 KIAS 104%.

<u>Rotor Limits.</u>	<u>Power On, % (RPM)</u>	<u>Power Off, % (RPM)</u>
Min. continuous	96	80 (<2000 kg) 85 (>2000 kg)
Max. continuous	104	104

For all serial numbers  
See Rotorcraft Flight Manual for other limitations including speed and temperature transients.

Airspeed Limits (IAS). Max. V<sub>NE</sub> = 150 Kt. See Rotorcraft Flight Manual for airspeed limit decrease with outside air temperature and altitude.

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

Max. forward range: at 7900 lb: 172.2 in. aft of datum  
at 4409 lb: 170.7 in. aft of datum

Max. rearward range: at 3858 lb: 183.7 in. aft of datum  
at 7900 lb: 179.0 in. aft of datum

**VII. Model MBB-BK 117 C-2 (Transport Category B) Helicopter** (cont'd)

<u>Lateral C.G. Limits.</u> median plane.	Up to 6614 lbs (3000 kg): Max. deviation 3.94 in. (100 mm) right or left of the fuselage median plane.
	Above 6614 lbs (3000 kg): Max. deviation 3.15 in. (80 mm) right or left of the fuselage median plane.
<u>Empty Weight C.G. Range.</u>	None.
<u>Max. Weight.</u>	3585 (kg) (7900 lbs)
<u>Min. Crew.</u>	1 (right-hand seat only)
<u>Passengers.</u>	9
<u>Max. Baggage.</u>	Max. permissible floor loading 123 lb/sq. ft.
<u>Fuel Capacity.</u>	Refer to Rotorcraft Flight Manual
<u>Oil Capacity.</u>	Refer to Rotorcraft Flight Manual
<u>Max. Operating Altitude.</u>	18000 ft.
<u>Rotor Blade and Control Movements.</u>	For rigging information refer to the MBB BK 117 C-2 Maintenance Manual.

**DATA PERTINENT TO ALL MODELS.**

<u>Datum.</u>	Refer to the appropriate BK117 RFM or MM.
<u>Leveling Means.</u>	Alignment Points are given in the Maintenance Manual.
<u>Serial Nos. Eligible.</u>	A German (Luftfahrt-Bundesamt (LBA)) Certificate of Airworthiness endorsed as noted below under "Import Requirements" must be submitted for each individual rotorcraft for which application for FAA certification is made.
<u>Certification Basis.</u>	FAR 21.29 and FAR 29 effective Feb. 1, 1965 plus Amendments 29-1 through 29-16.  Equivalent Safety Findings in NOTE 4.  The Airworthiness criteria for Helicopter Instrument Flight, dated December 15, 1978 for IFR certification.  For the Model MBB-BK 117 A-1: Type Certificate No. H13EU issued March 29, 1983. Date of application for Type Certificate: February 19, 1979.  For the Model MBB-BK 117 A-3: Type Certificate No. H13EU amended September 10, 1985. Date of application for amended Type Certificate: April 2, 1985.  For the Model MBB-BK 117 A-4: Type Certificate No. H13EU amended: April 24, 1987. Date of application for amended Type Certificate: August 14, 1986.  For the Model MBB-BK 117 B-1: Type Certificate No. H13EU amended: December 11, 1987. Date of application for amended Type Certificate: June 22, 1987.  For the Model MBB-BK 117 B-2:

Type Certificate No. H13EU amended: December 7, 1992.  
Date of application for amended Type Certificate: January 23, 1991.

For the Model MBB-BK 117 C-1:  
Type Certificate No. H13EU amended: December 7, 1992.  
Date of application for amended Type Certificate: March 8, 1991.

For S/N up to and including 7509 with modification per SB-MBB-BK117-60,112 and S/N greater than or equal to 7510.

FAR Part 29 dated. Feb. 1, 1965,  
including Amendments 29-1 to 29-16  
FAR 29.927, 29.1091, 29.1103, 29.1195 Amend. 17  
FAR 29.1, 29.1517, 29.1587 Amend. 21  
FAR 29.143 Amend. 24  
FAR 29.901, 29.903, 29.908, 29.955, 29.961, 29.1041, 29.1043, 29.1045, 29.1047,  
29.1093 Amend. 26  
FAR 29.2 Amend. 32  
JAR 29 (First Issue): 29.45 to 29.87

For the Model MBB-BK 117 C-2:  
Type Certificate No. H13EU amended: December 3, 2001.  
Date of application for amended Type Certificate: October 18, 2000.

FAR 21.29 and FAR 29 effective Feb. 1, 1965 plus Amendments 29-1 through 29-40 with the following exceptions.

FAR 29.903 at Amendment 29-26  
FAR 29.923 at Amendment 29-26  
FAR 29.927 at Amendment 29-17  
FAR 29.547 at Amendment 29-16  
FAR 29.571 at Amendment 29-16  
FAR 29.863 at Amendment 29-16  
FAR 29.901(c) at Amendment 29-16  
FAR 29.917 at Amendment 29-16  
FAR 29.1011 at Amendment 29-16  
FAR 29.1019(a) at Amendment 29-16  
FAR 29.1021 at Amendment 29-16  
FAR 29.1163 at Amendment 29-16  
FAR 29.1181 at Amendment 29-16  
FAR 29.1183 at Amendment 29-16  
FAR 29.1189 at Amendment 29-16  
FAR 29.1309(b),(d),(e) at Amendment 29-16  
FAR 29.1521 at Amendment 29-16 and the following FAR's that revert to the original Amendment 29-16 certification basis and were not codified at that time  
FAR 29.610(d)(4)  
FAR 29.631  
FAR 29.1027  
FAR 29.1305(a)(21 and (23)  
FAR 29.1337(e)

FAR Part 36 Appendix H at Amendment 36-22

Equivalent level of safety findings for FAR 29.807(a)(4), FAR 29.1303(a) and (j), FAR 29.1549(b), and 29.1151(b)

Import Requirements.

To be considered eligible for operation in the United States, each aircraft manufactured under this type certificate must be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting foreign civil airworthiness authority which states (in the English language): This aircraft conforms to its U.S. type design (type certificate number H13EU) and is in a condition for safe operation.

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is FAR Sections 21.183(d) or 21.183(b).

Equipment.

The minimum required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the respective helicopter for certification.

For the Model MBB-BK 117 A-1, LBA-approved MBB-BK 117 A-1 Rotorcraft Flight Manual dated December 9, 1982 Revision 0, or later approved revision, is required.

For the Model MBB-BK 117 A-3, LBA-approved MBB-BK 117 A-3 Rotorcraft Flight Manual dated March 15, 1985, or later as required.

For the Model MBB-BK 117 A-4, LBA-approved MBB-BK 117 A-4 Rotorcraft Flight Manual Revision 1 dated April 8, 1987 or later as required.

For the Model MBB-BK 117 B-1, LBA-approved MBB-BK 117 B-1 Rotorcraft Flight Manual Revision 0, dated December 10, 1987 or later as required.

For the Model MBB-BK 117 B-2, LBA-approved MBB-BK 117 B-2 Rotorcraft Flight Manual Revision 2 dated November 20, 1992, or later as required.

For the Model MBB-BK 117 C-1, LBA-approved MBB-BK 117 C-1 Rotorcraft Flight Manual Revision 0 dated October 2, 1992, or later as required.

For the Model MBB-BK 117 C-2, LBA-approved MBB-BK 117 C-2 Rotorcraft Flight Manual Revision 0 dated December 20, 2000, or later as required.

Service Information.

Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul maintenance manuals, which contain a statement that the document is LBA approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

NOTESNOTE 1

Current weight and balance report including list of required equipment and list of equipment included in certified empty weight and loading instructions when necessary, must be provided for each helicopter at the time of original certification: the certificated empty weight and corresponding center of gravity location must include unusable fuel of (16.7 lb. at 176.77 in.) and engine oil (2 x 9.64 lb. at 176.77 in.) and transmission oil of (27.8 lb. at 176.38 in.).

NOTE 1A

Ten (10) passengers are permitted with MBB Kit Number 117-86099 or, -86100 installed.

NOTE 1B

With 80 Kg auxiliary fuel tank installed (P/N 117-891011) 187 US gal. (1248 lbs, 173.6 in.) total; 184.2 US gal. (1230.2 lbs, 173.5 in) usable.

NOTE 2

The following placard must be displayed 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 Rotorcraft Flight Manual must be installed in the appropriate locations.

NOTE 3

For Model MBB-BK 117 A-1: Refer to the MBB-BK 117 Maintenance Manual Appendix A; Chapter 9, "AIRWORTHINESS LIMITATIONS", Preliminary Revision 4, dated 20 February 1983, or a later LBA-approved issue, for the retirement life limitations of the helicopter parts which are critical from a fatigue standpoint. These values of retirement on service life cannot be increased without FAA Engineering approval.

For Model MBB-BK 117 A-3 and Model MBB-BK 117 A-4: Refer to the MBB-BK 117 Maintenance Manual Appendix A; Chapter 9, "AIRWORTHINESS LIMITATIONS", Temporary Revision 6, dated 5 March 1983, or a later LBA-approved issue, for the retirement life limitations of the helicopter parts which are critical from a fatigue standpoint. These values of retirement on service life cannot be increased without FAA Engineering approval.

For Model MBB-BK 117 A-4: Refer to the MBB-BK 117 Maintenance Manual Appendix A; Chapter 9, "AIRWORTHINESS LIMITATIONS", Revision 4, dated July 1, 1986 or later LBA-approved issue, for the retirement life limitations of the helicopter parts which are critical from a fatigue standpoint. These values of retirement on service life cannot be increased without FAA Engineering approval.

For Model MBB-BK 117 B-1; Refer to the MBB-BK 117 Maintenance Manual Appendix A; Chapter 9, "AIRWORTHINESS LIMITATIONS", Revision 8, dated December 15, 1987 or later LBA-approved issue, for the retirement life limitations of the helicopter parts which are critical from a fatigue standpoint. These values of retirement on service life cannot be increased without FAA Engineering approval.

For Model MBB-BK 117 B-2; Refer to the MBB-BK 117 Maintenance Manual Appendix A; Chapter 9, "AIRWORTHINESS LIMITATIONS", Revision 18, dated January 17, 1992 or later LBA-approved issue, for the retirement life limitations of the helicopter parts which are critical from a fatigue standpoint. These values of retirement on service life cannot be increased without FAA Engineering approval.

For Model MBB-BK 117 C-1; Refer to the MBB-BK 117 C Maintenance Manual Appendix A; Chapter 9, "AIRWORTHINESS LIMITATIONS", Revision 0, dated October 2, 1992 or later LBA-approved issue, for the retirement life limitations of the helicopter parts which are critical from a fatigue standpoint. These values of retirement on service life cannot be increased without FAA Engineering approval.

For Model MBB-BK 117 C-2; Refer to the MBB-BK 117 C-2 Maintenance Manual Appendix A; Chapter 9, "AIRWORTHINESS LIMITATIONS", Revision 0, or later LBA-approved issue, for the retirement life limitations of the helicopter parts which are critical from a fatigue standpoint. These values of retirement on service life cannot be increased without FAA Engineering approval.

Additional information essential for proper maintenance of the helicopter is contained in the MBB-BK 117 Maintenance and Repair Manual.

NOTE 4

Equivalent Safety Findings  
For all Models MBB-BK 117;  
FAR 29.175(b) Demonstration of Static Longitudinal Stability (See NOTE 8)

For Model MBB-BK 117 A-1 and MBB-BK 117 A-3  
FAR 29.811 (h)(l) Exterior Markings  
FAR 29.921 Rotor Brake Control  
FAR 29.1151 Rotor Brake Warning  
FAR 29.1121 (c) Exhaust System Component Shielding  
FAR 29.1203 (a) Fire Detector System

For Model MBB-BK 117 A-3 and Model MBB-BK 117 A-4:  
FAR 29.401 (a) Auxiliary Rotor Assemblies  
FAR 29.865 (b) (2) manual control for the release device on rescue hoist  
FAR 29.923 (a) (3) (ii) and (c) (2) Rotor Drive System

For Model MBB-BK 117 B-2 and Model MBB-BK 117 C-1:  
FAR 29.811(h)(1) Exterior Markings  
FAR 29.1151(b) Rotor Brake Control  
See NOTE 7.

NOTE 5

The limits shown are installed limits. For computation purposes 100 percent engine output shaft torque is 519 ft.-lb. and, 100 per cent engine output shaft (N2) speed is 6000 rpm. Also 100% Gas Generator speed is 47,870 r.p.m.

NOTE 6

This emergency rating can be used for demonstration/training purposes.

NOTE 7

All modifications or alterations of the powerplant installation type design approved under H13EU must be reviewed by the type certificating office before approval of changes in type design are granted. This includes the engine air intake system, the transmission compartment, engine model, and fuel changes.

NOTE 8

Airspeed limitations must comply with MBB Service Bulletin BK-117-40-4 (Reference U.S. AD 85-02-04) and minimum ambient air temperature must be limited to -35°C unless MBB Service Bulletin BK-117-40-7 has been accomplished or the MBB stick Position Augmentation System (SPAS) kit has been installed as basic equipment).

NOTE 9

Model MBB-BK 117 A-1 S/N 7001 to S/N 7054 may be converted to Model BK 117 A-3 in accordance with MBB Service Bulletin SB-MBB-BK 117-10-4 dated April 15, 1985 or later revision. In addition, these serial number helicopters may be further converted to model BK117 A-4 in accordance with MBB Service Bulletin SB-MBB-BK117-80-105 dated November 26, 1987 or later revision.

Model MBB-BK 117 A-3 S/N 7055 to S/N 7121 may be converted to Model BK 117 A-4 in accordance with MBB Service Bulletin SB-MBB-BK 117-80-105 dated November 26, 1987, or later revision.

Model MBB-BK 117-B1 S/N 7140 to S/N 7243 may be converted to Model BK 117 B-2 in accordance with ECD Drawing No. 117-800121 (refer to BK 117 Service Information SI-MBB-BK117-36).

Model MBB-BK-117 A-4, any eligible serial number, may be converted to Model MBB-BK-117 B-1 in accordance with MBB Service Bulletin SB-MBB-BK 117-80-126, revision 1, dated May 16, 1995.

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