

JAPAN CIVIL AVIATION BUREAU
MINISTRY OF LAND, INFRASTRUCTURE, TRANSPORT AND TOURISM

TYPE CERTIFICATE No.32
Revision 5
Kawasaki Heavy Industries, LTD
KAWASAKI-BK 117
KAWASAKI-BK 117 A-3
KAWASAKI-BK 117 A-4
KAWASAKI-BK 117 B-1
KAWASAKI-BK 117 B-2
KAWASAKI-BK 117 C-1
KAWASAKI-BK 117 C-2
May 27, 2009

TYPE CERTIFICATE DATA SHEET No.32

This data sheet, which is part of Type Certificate No.32, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Japan Civil Aeronautics Law and Regulations.

Type Certificate Holder: Kawasaki Heavy Industries, LTD. (KHI)
3-1-1, Higashi Kawasaki-Cho, Chuo-ku, Kobe-city, Hyogo-prefecture, JAPAN

I. Model KAWASAKI-BK 117 (Transport Category A&B Rotorcraft) Helicopter, Approved December 17, 1982.

Engines 2 Lycoming LTS101-650B-1

Fuel
See JCAB approved Flight Manual, Model Kawasaki-BK 117.

Engine Limits and Transmission Torque Limits

	Transmission Torque Limits	Engine Limits		
	Output Shaft Torque % (kg·m)	Gas Producer Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Turbine Outlet Temperature ℃
Normal Operation				
Takeoff power (5 min.)	70.8 (51.3)	102.7 (49,159)	102 (6,120)	782
Max. continuous power	70.8 (51.3)	102.7 (49,159)	102 (6,120)	763
One Engine Inoperative				
2.5 minimum power	100 (71.6)	105.6 (50,548)	102 (6,120)	832
30 minimum power	91.4 (65.6)	104.8 (50,169)	102 (6,120)	796
Max. continuous power	82.8 (59.7)	102.7 (49,159)	102 (6,120)	763
Transient (Max.12sec)	—	105.6 (50,548)	106 (6,365)	843
Starting (Max.12sec)	—	—	—	899

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

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Rotor Speed Limits

	Power On % (RPM)	Power Off % (RPM)
Min. Continuous		
Gross weight up to 2,000 kg	98 (376)	80 (307)
Gross weight 2,000-2,850 kg	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Min. Transient	85 (326)	—
Max. Transient	106 (406)	110 (422)
5 min. Partial Power Rating	106 (406)	—

Airspeed Limits (IAS)

Max. V_{NE} = 278 km/h (150 kt) (Power On) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

= 167 km/h (90 kt) (Power Off) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

Center of Gravity (C.G.) Range.

Longitudinal C.G. Limits

Max. forward range:

1,700 kg: 4375mm aft of datum

2,000 kg: 4337mm aft of datum

2,850 kg: 4415mm aft of datum

Max. rearward range:

1,700 kg: 4670mm aft of datum

2,850 kg: 4565mm aft of datum

Straight line variation between points given.

Lateral C.G. Limits.

Max. deviation 100mm right or left of the fuselage median plane.

Empty Weight C.G. Range

None.

Maximum Weight

Maximum gross weight: 2,850 kg.

Minimum Crew

1 (right-hand seat only) for VFR operation.

2 (pilot) for IFR operation with the dual pilot IFR kit installed.

Number of Seats

8 (2 crew/passenger seats + 3 front passenger seats + 3 rear passenger seats), with standard seats installed.

10 (2 crew/passenger seats + 3 front passenger seats + 2 side passenger seats + 3 rear passenger seats), with 8-passenger seats installed.

11 (2 crew/passenger seats + 3 rear-facing seats + 3 side-facing seats × 2), with high-density seats installed.

Maximum Baggage

Max. permissible floor loading: 600 kg/m².

Max. loading: 1,200 kg. (Moment: See Flight Manual, Model Kawasaki-BK 117.)

Front space of bulkhead: 950 kg.

Rear space of bulkhead: 250 kg.

Fuel Capacity

607.6 liter (486.1 kg)* total;
 main tank: 505.2 liter (404.2 kg)
 supply tank 1: 51.7 liter (41.3 kg)
 supply tank 2: 50.7 liter (40.6 kg)
598.0 liter (478.4 kg)* usable;
 main tank: 501.4 liter (401.1 kg)
 supply tank 1: 48.8 liter (39.0 kg)
 supply tank 2: 47.8 liter (38.3 kg)
9.6 liter (7.7 kg) unusable;
 main tank: 3.8 liter (3.1 kg)
 supply tank 1: 2.9 liter (2.3 kg)
 supply tank 2: 2.9 liter (2.3 kg)
Moment: See Flight Manual, Model Kawasaki-BK 117.
*With 80 Kg auxiliary fuel tank system installed 720.8 liter (576.6 kg) total; 709.5 liter (567.6 kg) usable.

Oil Capacity

Engine oil (each tank) has been included with the minimum gross weight.
2 x 4.3 liter (4.4 kg). (Moment: 39,486 kg·mm)
 2 x 3.9 liter (4.0 kg) usable
 2 x 0.4 liter (0.4 kg) unusable
Main transmission oil has been included with the minimum gross weight.
12.5 liter (12.6 kg). (Moment: 56,448 kg·mm)

Maximum Operating Altitude

See JCAB approved Flight Manual, Model Kawasaki-BK 117.

Datum

STA 0, located 4,430 mm in forward of the center of the main rotor hub center.

Leveling Means.

Alignment Points are given in the Maintenance Manual.

Control Surface Movements

For rigging information refer to the KHI Model Kawasaki-BK117 Maintenance Manual.

Manufacturer's Serial Numbers

1005, 1013.

II. Model KAWASAKI-BK 117A-3 (Transport Category A&B Rotorcraft) Helicopter, Approved June 14, 1985.Engines

2 Lycoming LTS101-650B-1

Fuel

See JCAB approved Flight Manual, Model Kawasaki-BK 117A-3.

Engine Limits and Transmission Torque Limits

	Transmission Torque Limits	Engine Limits		
	Output Shaft Torque % (kg·m)	Gas Producer Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Turbine Outlet Temperature °C
Normal Operation				
Takeoff power (5 min.)	70.8 (51.3)	102.7 (49,159)	102 (6,120)	782
Max. continuous power	70.8 (51.3)	102.7 (49,159)	102 (6,120)	763
One Engine Inoperative				
2.5 minimum power	100 (71.6)	105.6 (50,548)	102 (6,120)	832
30 minimum power	91.4 (65.6)	104.8 (50,169)	102 (6,120)	796
Max. continuous power	82.8 (59.7)	102.7 (49,159)	102 (6,120)	763
Transient (Max.12sec)	—	105.6 (50,548)	106 (6,365)	843
Starting (Max.12sec)	—	—	—	899

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

Rotor Speed Limits

	Power On % (RPM)	Power Off % (RPM)
Min. Continuous		
Gross weight up to 2,000 kg	98 (376)	80 (307)
Gross weight 2,000-3,200 kg	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Min. Transient	85 (326)	—
Max. Transient	106 (406)	110 (422)
5 min. Partial Power Rating	106 (406)	—

Airspeed Limits (IAS)

Max. V_{NE} = 278 km/h (150 kt) (Power On) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

= 167 km/h (90 kt) (Power Off) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

Center of Gravity (C.G.) Range.

Longitudinal C.G. Limits

Max. forward range:

1,700 kg: 4375mm aft of datum

2,000 kg: 4337mm aft of datum

3,200 kg: 4447mm aft of datum

Max. rearward range:

1,700 kg: 4670mm aft of datum

3,200 kg: 4533mm aft of datum

Straight line variation between points given.

Lateral C.G. Limits.

Up to 2,850kg: Max. deviation 100mm right or left of the fuselage median plane.

Above 2,850kg: Max. deviation 80mm right or left of the fuselage median plane.

Empty Weight C.G. Range

None.

Maximum Weight

Maximum gross weight: 3,200 kg.

Minimum Crew

- 1 (right-hand seat only) for VFR operation.
- 2 (pilot) for IFR operation with the dual pilot IFR kit installed.

Number of Seats

- 8 (2 crew/passenger seats + 3 front passenger seats + 3 rear passenger seats), with standard seats installed.
- 10 (2 crew/passenger seats + 3 front passenger seats + 2 side passenger seats + 3 rear passenger seats), with 8-passenger seats installed.
- 11 (2 crew/passenger seats + 3 rear-facing seats + 3 side-facing seats × 2), with high-density seats installed.

Maximum Baggage

- Max. permissible floor loading: 600 kg/m².
- Max. loading: 1,200 kg. (Moment: See Flight Manual, Model Kawasaki-BK 117A-3.)
 - Front space of bulkhead: 950 kg.
 - Rear space of bulkhead: 250 kg.

Fuel Capacity

- 607.6 liter (486.1 kg)* total;
 - main tank: 505.2 liter (404.2 kg)
 - supply tank 1: 51.7 liter (41.3 kg)
 - supply tank 2: 50.7 liter (40.6 kg)
- 598.0 liter (478.4 kg)* usable;
 - main tank: 501.4 liter (401.1 kg)
 - supply tank 1: 48.8 liter (39.0 kg)
 - supply tank 2: 47.8 liter (38.3 kg)
- 9.6 liter (7.7 kg) unusable;
 - main tank: 3.8 liter (3.1 kg)
 - supply tank 1: 2.9 liter (2.3 kg)
 - supply tank 2: 2.9 liter (2.3 kg)
- Moment: See Flight Manual, Model Kawasaki-BK 117A-3.
- *With 80 Kg auxiliary fuel tank system installed 720.8 liter (576.6 kg) total; 709.5 liter (567.6 kg) usable.

Oil Capacity

- Engine oil (each tank) has been included with the minimum gross weight.
 - 2 x 4.3 liter (4.4 kg). (Moment: 39,486 kg·mm)
 - 2 x 3.9 liter (4.0 kg) usable
 - 2 x 0.4 liter (0.4 kg) unusable
- Main transmission oil has been included with the minimum gross weight.
 - 12.5 liter (12.6 kg). (Moment: 56,448 kg·mm)

Maximum Operating Altitude

- See JCAB approved Flight Manual, Model Kawasaki-BK 117A-3.

Datum

- STA 0, located 4,430 mm in forward of the center of the main rotor hub center.

Leveling Means.

- Alignment Points are given in the Maintenance Manual.

Control Surface Movements

- For rigging information refer to the KHI Model Kawasaki-BK117 Maintenance Manual.

Manufacturer's Serial Numbers

- 1001-1004, 1008, 1010.

III. Model KAWASAKI-BK 117A-4 (Transport Category A&B Rotorcraft) Helicopter, Approved August 29, 1986.

Engines 2 Lycoming LTS101-650B-1

Fuel

See JCAB approved Flight Manual, Model Kawasaki-BK 117A-4.

Engine Limits and Transmission Torque Limits

	Transmission Torque Limits	Engine Limits		
	Output Shaft Torque % (kg·m)	Gas Producer Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Turbine Outlet Temperature °C
Normal Operation				
Takeoff power (5 min.)	82.8 (59.7)	102.7 (49,159)	102 (6,120)	782
Max. continuous power	70.8 (51.3)	102.7 (49,159)	102 (6,120)	763
One Engine Inoperative				
2.5 minimum power	100 (71.6)	105.6 (50,548)	102 (6,120)	832
30 minimum power	91.4 (65.6)	104.8 (50,169)	102 (6,120)	796
Max. continuous power	82.8 (59.7)	102.7 (49,159)	102 (6,120)	763
Transient (Max.12sec)	—	105.6 (50,548)	106 (6,365)	843
Starting (Max.12sec)	—	—	—	899

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

Rotor Speed Limits

	Power On % (RPM)	Power Off % (RPM)
Min. Continuous		
Gross weight up to 2,000 kg	98 (376)	80 (307)
Gross weight 2,000-3,200 kg	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Min. Transient	85 (326)	—
Max. Transient	106 (406)	110 (422)
5 min. Partial Power Rating	106 (406)	—

Airspeed Limits(IAS)

Max. V_{NE} = 278 km/h (150 kt) (Power On) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

= 167 km/h (90 kt) (Power Off) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

Center of Gravity (C.G.) Range.

Longitudinal C.G. Limits

Max. forward range:

1,700 kg: 4375mm aft of datum

2,000 kg: 4337mm aft of datum

3,200 kg: 4447mm aft of datum

Max. rearward range:

1,700 kg: 4670mm aft of datum

3,200 kg: 4533mm aft of datum

Straight line variation between points given.
 Lateral C.G. Limits.
 Up to 2,850kg: Max. deviation 100mm right or left of the fuselage median plane.
 Above 2,850kg: Max. deviation 80mm right or left of the fuselage median plane.

Empty Weight C.G. Range

None.

Maximum Weight

Maximum gross weight: 3,200 kg.

Minimum Crew

1 (right-hand seat only) for VFR operation, and IFR operation with the single pilot IFR kit installed.
 2 (pilot) for IFR operation with the dual pilot IFR kit installed.

Number of Seats

8 (2 crew/passenger seats + 3 front passenger seats + 3 rear passenger seats), with standard seats installed.
 10 (2 crew/passenger seats + 3 front passenger seats + 2 side passenger seats + 3 rear passenger seats), with 8-passenger seats installed.
 11 (2 crew/passenger seats + 3 rear-facing seats + 3 side-facing seats × 2), with high-density seats installed.

Maximum Baggage

Max. permissible floor loading: 600 kg/m².
 Max. loading: 1,200 kg. (Moment: See Flight Manual, Model Kawasaki-BK 117A-4.)
 Front space of bulkhead: 950 kg.
 Rear space of bulkhead: 250 kg.

Fuel Capacity

607.6 liter (486.1 kg)* total;
 main tank: 505.2 liter (404.2 kg)
 supply tank 1: 51.7 liter (41.3 kg)
 supply tank 2: 50.7 liter (40.6 kg)
 598.0 liter (478.4 kg)* usable;
 main tank: 501.4 liter (401.1 kg)
 supply tank 1: 48.8 liter (39.0 kg)
 supply tank 2: 47.8 liter (38.3 kg)
 9.6 liter (7.7 kg) unusable;
 main tank: 3.8 liter (3.1 kg)
 supply tank 1: 2.9 liter (2.3 kg)
 supply tank 2: 2.9 liter (2.3 kg)
 Moment: See Flight Manual, Model Kawasaki-BK 117A-4.
 *With 80 Kg auxiliary fuel tank system installed 720.8 liter (576.6 kg) total; 709.5 liter (567.6 kg) usable.

Oil Capacity

Engine oil (each tank) has been included with the minimum gross weight.
 2 x 4.3 liter (4.4 kg). (Moment: 39,486 kg·mm)
 2 x 3.9 liter (4.0 kg) usable
 2 x 0.4 liter (0.4 kg) unusable
 Main transmission oil has been included with the minimum gross weight.
 12.5 liter (12.6 kg). (Moment: 56,448 kg·mm)

Maximum Operating Altitude

See JCAB approved Flight Manual, Model Kawasaki-BK 117A-4.

Datum

STA 0, located 4,430 mm in forward of the center of the main rotor hub center.

Leveling Means.

Alignment Points are given in the Maintenance Manual.

Control Surface Movements

For rigging information refer to the KHI Model Kawasaki-BK117 Maintenance Manual.

Manufacturer's Serial Numbers

1014, 1016, 1020, 1023, 1024.

IV. Model KAWASAKI-BK 117B-1 (Transport Category A&B Rotorcraft) Helicopter, Approved March 31, 1988.Engines

2 Lycoming LTS101-750B-1

Fuel

See JCAB approved Flight Manual, Model Kawasaki-BK 117B-1.

Engine Limits and Transmission Torque Limits

	Transmission Torque Limits	Engine Limits		
	Output Shaft Torque % (kg·m)	Gas Producer Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Turbine Outlet Temperature °C
Normal Operation				
Takeoff power (5 min.)	82.8 (59.7)	102.7 (49,159)	102 (6,120)	786
Max. continuous power	70.8 (51.3)	102.7 (49,159)	102 (6,120)	765
One Engine Inoperative				
2.5 minimum power	100 (71.6)	105.6 (50,548)	102 (6,120)	836
30 minimum power	91.4 (65.6)	104.8 (50,169)	102 (6,120)	800
Max. continuous power	82.8 (59.7)	102.7 (49,159)	102 (6,120)	765
Transient (Max.12sec)	—	105.6 (50,548)	106 (6,365)	847
Starting (Max.12sec)	—	—	—	899

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

Rotor Speed Limits

	Power On % (RPM)	Power Off % (RPM)
Min. Continuous		
Gross weight up to 2,000 kg	98 (376)	80 (307)
Gross weight 2,000-3,200 kg	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Min. Transient	85 (326)	—
Max. Transient	106 (406)	110 (422)
5 min. Partial Power Rating	106 (406)	—

Airspeed Limits(IAS)

Max. V_{NE} = 278 km/h (150 kt) (Power On) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

= 167 km/h (90 kt) (Power Off) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

Center of Gravity (C.G.) Range.

Longitudinal C.G. Limits

Max. forward range:

1,700 kg: 4375mm aft of datum

2,000 kg: 4337mm aft of datum

3,200 kg: 4447mm aft of datum

Max. rearward range:

1,700 kg: 4670mm aft of datum

3,200 kg: 4533mm aft of datum

Straight line variation between points given.

Lateral C.G. Limits.

Up to 2,850kg: Max. deviation 100mm right or left of the fuselage median plane.

Above 2,850kg: Max. deviation 80mm right or left of the fuselage median plane.

Empty Weight C.G. Range

None.

Maximum Weight

Maximum gross weight: 3,200 kg.

Minimum Crew

1 (right-hand seat only) for VFR operation, and IFR operation with the single pilot IFR kit installed.

2 (pilot) for IFR operation with the dual pilot IFR kit installed.

Number of Seats

8 (2 crew/passenger seats + 3 front passenger seats + 3 rear passenger seats), with standard seats installed.

10 (2 crew/passenger seats + 3 front passenger seats + 2 side passenger seats + 3 rear passenger seats), with 8-passenger seats installed.

11 (2 crew/passenger seats + 3 rear-facing seats + 3 side-facing seats × 2), with high-density seats installed.

Maximum BaggageMax. permissible floor loading: 600 kg/m².

Max. loading: 1,200 kg. (Moment: See Flight Manual, Model Kawasaki-BK 117B-1.)

Front space of bulkhead: 950 kg.

Rear space of bulkhead: 250 kg.

Fuel Capacity

607.6 liter (486.1 kg)* total;

main tank: 505.2 liter (404.2 kg)

supply tank 1: 51.7 liter (41.3 kg)

supply tank 2: 50.7 liter (40.6 kg)

598.0 liter (478.4 kg)* usable;

main tank: 501.4 liter (401.1 kg)

supply tank 1: 48.8 liter (39.0 kg)

supply tank 2: 47.8 liter (38.3 kg)

9.6 liter (7.7 kg) unusable;

main tank: 3.8 liter (3.1 kg)

supply tank 1: 2.9 liter (2.3 kg)

supply tank 2: 2.9 liter (2.3 kg)

Moment: See Flight Manual, Model Kawasaki-BK 117B-1.

*With 80 Kg auxiliary fuel tank system installed 720.8 liter (576.6 kg) total; 709.5 liter (567.6 kg) usable.

Oil Capacity

Engine oil (each tank) has been included with the minimum gross weight.

2 x 4.3 liter (4.4 kg). (Moment: 39,486 kg·mm)

2 x 3.9 liter (4.0 kg) usable

2 x 0.4 liter (0.4 kg) unusable

Main transmission oil has been included with the minimum gross weight.

12.5 liter (12.6 kg). (Moment: 56,448 kg·mm)

Maximum Operating Altitude

See JCAB approved Flight Manual, Model Kawasaki-BK 117B-1.

Datum

STA 0, located 4,430 mm in forward of the center of the main rotor hub center.

Leveling Means.

Alignment Points are given in the Maintenance Manual.

Control Surface Movements

For rigging information refer to the KHI Model Kawasaki-BK117 Maintenance Manual.

Manufacturer's Serial Numbers

1012, 1025-1027, 1030, 1032, 1033, 1035, 1037, 1039-1041, 1044, 1047, 1049-1056,

1058, 1060, 1061, 1064, 1066-1071, 1075, 1078, 1080, 1082-1084, 1089, 1096.

V. Model KAWASAKI-BK 117B-2 (Transport Category A&B Rotorcraft) Helicopter. Approved March 18, 1993.

Engines

2 Lycoming LTS101-750B-1

Fuel

See JCAB approved Flight Manual, Model Kawasaki-BK 117B-2.

Engine Limits and Transmission Torque Limits

	Transmission Torque Limits	Engine Limits		
	Output Shaft Torque % (kg·m)	Gas Producer Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Turbine Outlet Temperature °C
Normal Operation				
Takeoff power (5 min.)	82.8 (59.7)	102.7 (49,159)	102 (6,120)	786
Max. continuous power	70.8 (51.3)	102.7 (49,159)	102 (6,120)	765
One Engine Inoperative				
2.5 minimum power	100 (71.6) *1 125 (89.0) *2	105.6 (50,548)	102 (6,120)	836
30 minimum power	91.4 (65.6)	104.8 (50,169)	102 (6,120)	800
Max. continuous power	82.8 (59.7) *1 91.4 (65.6) *2	102.7 (49,159)	102 (6,120)	765
Transient (Max.12sec)	—	105.6 (50,548)	106 (6,365)	847
Starting (Max.12sec)	—	—	—	899

*1) Up to Mfg S/N 1116 on which KSB-117-125 is not incorporated.

*2) Mfg S/N 1117 and subsequent, and helicopters which are incorporated KSB-117-125.

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

Rotor Speed Limits

	Power On % (RPM)	Power Off % (RPM)
Min. Continuous		
Gross weight up to 2,000 kg	98 (376)	80 (307)
Gross weight 2,000-3,350 kg	98 (376)	85 (326)
Max. Continuous	102 (391)	104 (399)
Min. Transient	85 (326)	—
Max. Transient	106 (406)	110 (422)
5 min. Partial Power Rating	106 (406)	—

Airspeed Limits(IAS)

Max. V_{NE} = 278 km/h (150 kt) (Power On) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

= 167 km/h (90 kt) (Power Off) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

Center of Gravity (C.G.) Range.

Longitudinal C.G. Limits

Max. forward range:

1,700 kg: 4375mm aft of datum

2,000 kg: 4337mm aft of datum

3,350 kg: 4400mm aft of datum

Max. rearward range:

1,700 kg: 4670mm aft of datum

3,350 kg: 4520mm aft of datum

Straight line variation between points given.

Lateral C.G. Limits.

Up to 2,850kg: Max. deviation 100mm right or left of the fuselage median plane.

Above 2,850kg: Max. deviation 80mm right or left of the fuselage median plane.

Empty Weight C.G. Range

None.

Maximum Weight

Maximum gross weight: 3,350 kg.

Minimum Crew

1 (right-hand seat only) for VFR operation, and IFR operation with the single pilot IFR kit installed.
 2 (pilot) for IFR operation with the dual pilot IFR kit installed.

Number of Seats

8 (2 crew/passenger seats + 3 front passenger seats + 3 rear passenger seats), with standard seats installed.
 10 (2 crew/passenger seats + 3 front passenger seats + 2 side passenger seats + 3 rear passenger seats), with 8-passenger seats installed.
 11 (2 crew/passenger seats + 3 rear-facing seats + 3 side-facing seats × 2), with high-density seats installed.

Maximum Baggage

Max. permissible floor loading: 600 kg/m².
 Max. loading: 1,200 kg. (Moment: See Flight Manual, Model Kawasaki-BK 117B-2.)
 Front space of bulkhead: 950 kg.
 Rear space of bulkhead: 250 kg.

Fuel Capacity

607.6 liter (486.1 kg)* total;
 main tank: 505.2 liter (404.2 kg)
 supply tank 1: 51.7 liter (41.3 kg)
 supply tank 2: 50.7 liter (40.6 kg)
 598.0 liter (478.4 kg)* usable;
 main tank: 501.4 liter (401.1 kg)
 supply tank 1: 48.8 liter (39.0 kg)
 supply tank 2: 47.8 liter (38.3 kg)
 9.6 liter (7.7 kg) unusable;
 main tank: 3.8 liter (3.1 kg)
 supply tank 1: 2.9 liter (2.3 kg)
 supply tank 2: 2.9 liter (2.3 kg)
 Moment: See Flight Manual, Model Kawasaki-BK 117B-2.
 *With 80 Kg auxiliary fuel tank system installed 720.8 liter (576.6 kg) total; 709.5 liter (567.6 kg) usable.

Oil Capacity

Engine oil (each tank) has been included with the minimum gross weight.
 2 x 4.3 liter (4.4 kg). (Moment: 39,486 kg·mm)
 2 x 3.9 liter (4.0 kg) usable
 2 x 0.4 liter (0.4 kg) unusable
 Main transmission oil has been included with the minimum gross weight.
 12.5 liter (12.6 kg). (Moment: 56,448 kg·mm)

Maximum Operating Altitude

See JCAB approved Flight Manual, Model Kawasaki-BK 117B-2.

Datum

STA 0, located 4,430 mm in forward of the center of the main rotor hub center.

Leveling Means.

Alignment Points are given in the Maintenance Manual.

Control Surface Movements

For rigging information refer to the KHI Model Kawasaki-BK117 Maintenance Manual.

Manufacturer's Serial Numbers

1006, 1009, 1011, 1015, 1017-1019, 1021, 1022, 1028, 1029, 1031, 1034, 1042, 1043, 1045, 1046, 1048, 1057, 1059, 1062, 1063, 1065, 1072-1074, 1076, 1077, 1081, 1086-1088, 1090-1095, 1097-1099, 1101-1103, 1105, 1109, 1113-1115, 1117-1119.

VI. Model KAWASAKI-BK 117C-1 (Transport Category A&B Rotorcraft) Helicopter, Approved June 8, 1995.Engines

2 Turbomeca ARRIEL 1E2

Type Approval No: 636 (dated October 28, 2003 with later revisions.)

Fuel

See JCAB approved Flight Manual, Model Kawasaki-BK 117C-1.

Engine Limits and Transmission Torque Limits

	Transmission Torque Limits	Engine Limits		
	Output Shaft Torque % (kg·m)	Gas Producer Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Turbine Outlet Temperature °C
Normal Operation				
Takeoff power (5 min.)	82.8 (59.7)	102 (52,835)	102 (6,120) *	845
Max. continuous power	70.8 (51.3)	100.3 (51,955)	102 (6,120) *	845
One Engine Inoperative				
Transient (Max.20sec)	—	107.5 (55,685)	—	920
2.5 minimum power	125 (89.0)	103.3 (53,509)	102 (6,120)	885
Max. continuous power	91.4 (65.6)	102 (52,835)	102 (6,120)	845
Starting	—	—	—	785
Starting transient (Max.5sec)	—	—	—	865

* Max Pressure Altitude above 8,000 ft and Airspeed up to 55 KIAS : 104%.

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

Rotor Speed Limits

	Power On % (RPM)	Power Off % (RPM)
Min. Continuous		
Gross weight up to 2,000 kg	98 (376)	80 (307)
Gross weight 2,000-3,350 kg	98 (376)	85 (326)
Max. Continuous	102 (391)*	104 (399)
Min. Transient	85 (326)	—
Max. Transient (Max.12sec)		
With more than 2x30% torque	106 (406)	—
With less than 2x30% torque	110 (422)	110 (422)

* Max Pressure Altitude above 8,000 ft and Airspeed up to 55 KIAS : 104%.

Airspeed Limits(IAS)

Max. V_{NE} = 278 km/h (150 kt) (Power On) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

= 167 km/h (90 kt) (Power Off) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

Center of Gravity (C.G.) Range.

Longitudinal C.G. Limits

Max. forward range:

1,700 kg: 4375mm aft of datum

2,000 kg: 4337mm aft of datum

3,350 kg: 4400mm aft of datum

Max. rearward range:

1,700 kg: 4670mm aft of datum

3,350 kg: 4520mm aft of datum

Straight line variation between points given.

Lateral C.G. Limits.

Up to 2,850kg: Max. deviation 100mm right or left of the fuselage median plane.

Above 2,850kg: Max. deviation 80mm right or left of the fuselage median plane.

Empty Weight C.G. Range

None.

Maximum Weight

Maximum gross weight: 3,350 kg.

Minimum Crew

1 (right-hand seat only) for VFR operation, and IFR operation with the single pilot IFR kit installed.

2 (pilot) for IFR operation with the dual pilot IFR kit installed.

Number of Seats

8 (2 crew/passenger seats + 3 front passenger seats + 3 rear passenger seats), with standard seats installed.

10 (2 crew/passenger seats + 3 front passenger seats + 2 side passenger seats + 3 rear passenger seats), with 8-passenger seats installed.

11 (2 crew/passenger seats + 3 rear-facing seats + 3 side-facing seats × 2), with high-density seats installed.

Maximum BaggageMax. permissible floor loading: 600 kg/m².

Max. loading: 1,200 kg. (Moment: See Flight Manual, Model Kawasaki-BK 117C-1.)

Front space of bulkhead: 950 kg.

Rear space of bulkhead: 250 kg.

Fuel Capacity

607.6 liter (486.1 kg)* total;

main tank: 505.2 liter (404.2 kg)

supply tank 1: 51.7 liter (41.3 kg)

supply tank 2: 50.7 liter (40.6 kg)

598.0 liter (478.4 kg)* usable;

main tank: 501.4 liter (401.1 kg)

supply tank 1: 48.8 liter (39.0 kg)

supply tank 2: 47.8 liter (38.3 kg)

9.6 liter (7.7 kg) unusable;
main tank: 3.8 liter (3.1 kg)
supply tank 1: 2.9 liter (2.3 kg)
supply tank 2: 2.9 liter (2.3 kg)
Moment: See Flight Manual, Model Kawasaki-BK 117C-1.
*With 80 Kg auxiliary fuel tank system installed 720.8 liter (576.6 kg) total; 709.5 liter (567.6 kg) usable.

Oil Capacity

Engine oil (each tank) has been included with the minimum gross weight.
2 x 4.3 liter (4.4 kg). (Moment: 39,486 kg·mm)
2 x 3.9 liter (4.0 kg) usable
2 x 0.4 liter (0.4 kg) unusable
Main transmission oil has been included with the minimum gross weight.
12.5 liter (12.6 kg). (Moment: 56,448 kg·mm)

Maximum Operating Altitude

See JCAB approved Flight Manual, Model Kawasaki-BK 117C-1.

Datum

STA 0, located 4,430 mm in forward of the center of the main rotor hub center.

Leveling Means.

Alignment Points are given in the Maintenance Manual.

Control Surface Movements

For rigging information refer to the KHI Model Kawasaki-BK117C Maintenance Manual.

Manufacturer's Serial Numbers

1036, 1038, 1079, 1100, 1104, 1106, 1108, 1110-1112, 1116, 1120-1133.

VII. Model KAWASAKI-BK 117C-2 (Transport Category A&B Rotorcraft) Helicopter, Approved March 30, 2001.

Engines

2 Turbomeca ARRIEL 1E2
Type Approval No: 636 (dated October 28, 2003 with later revisions.)

Fuel

See JCAB approved Flight Manual, Model Kawasaki-BK 117C-2.

Engine Limits and Transmission Torque Limits

	Transmission Torque Limits	Engine Limits		
	Output Shaft Torque % (kg·m)	Gas Producer Speed N-1 % (RPM)	Output Shaft Speed N-2 % (RPM)	Turbine Outlet Temperature °C
Normal Operation				
Takeoff power (5 min.)	83 (59.7) *3 88 (63.0) *4	*5	*1	845
Max. continuous power	71 (51.3)	*6	*1	845
One Engine Inoperative				
2.5 minimum power	125 (89.0)	*7	101 (6,060) *2	885
Max. continuous power	91.5 (65.6)	*8	101 (6,060) *2	845
Starting	—	—	—	785
Starting transient (Max.5sec)	—	—	—	865

*1) 96 %(5760)—104 %(6240).

*2) Max Density Altitude of 6,500 ft or higher and Airspeed up to 55 KIAS : 104%.

*3) Mfg S/N 4002,4003,4005,4006 on which KSB-117-205 is not incorporated.

*4) Mfg S/N 4001,4004,4007 and subsequent, and helicopters which are incorporated KSB-117-205.

*5) 100.2%(51904)—101.9%(52784)

*6) 98.8%(51178)—100.0%(51800)

*7) 101.8%(52732)—103.3%(53509)

*8) 100.2%(51904)—101.9%(52784)

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

Rotor Speed Limits

	Power On % (RPM)	Power Off % (RPM)
Min. Continuous		
Gross weight up to 2,000 kg	96 (368)	80 (307)
Gross weight 2,000-3,585 kg	96 (368)	85 (326)
Max. Continuous	104 (399)	104 (399)
Min. Transient (Max.20sec)	85 (326)	—
Max. Transient (Max.12sec)	106 (406)	110 (422)

Airspeed Limits(IAS)

Max. V_{NE} = 278 km/h (150 kt) (Power On) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

= 167 km/h (90 kt) (Power Off) See the appropriate JCAB approved Flight Manual for airspeed limit decrease with outside air temperature and altitude.

Center of Gravity (C.G.) Range.

Longitudinal C.G. Limits

Max. forward range:

2,000 kg: 4337mm aft of datum

3,585 kg: 4377mm aft of datum

Max. rearward range:

1,750 kg: 4667mm aft of datum

3,585 kg: 4544mm aft of datum

Straight line variation between points given.

Lateral C.G. Limits.

Up to 3,000kg: Max. deviation 100mm right or left of the fuselage median plane.

Above 3,000kg: Max. deviation 80mm right or left of the fuselage median plane.

Empty Weight C.G. Range

None.

Maximum Weight

Maximum gross weight: 3,585 kg.

Minimum Crew

1 (right-hand seat only) for VFR operation, and IFR operation with the single pilot IFR kit installed.

2 (pilot) for IFR operation with the dual pilot IFR kit installed.

Number of Seats

2 (2 crew/passenger seats), with standard seats installed.

10 (2 crew/passenger seats + 3 front passenger seats + 2 side passenger seats + 3 rear passenger seats), with passenger seats installed.

11 (2 crew/passenger seats + 3 rear-facing seats + 3 side-facing seats × 2), with high-density seats installed.

Maximum Baggage

Max. permissible floor loading: 600 kg/m².

Max. loading: 1,400 kg. (Moment: See Flight Manual, Model Kawasaki-BK 117C-2.)

Fuel Capacity

879.2 liter (703.3 kg)* total;

main tank: 740.6 liter (592.5 kg)

supply tank left: 64.3 liter (51.4 kg)

supply tank right: 74.3 liter (59.4 kg)

866.2 liter (692.9 kg)* usable;

main tank: 736.4 liter (589.1 kg)

supply tank left: 60.5 liter (48.4 kg)

supply tank right: 69.3 liter (55.4 kg)

13.0 liter (10.4 kg) unusable;

main tank: 4.2 liter (3.4 kg)

supply tank left: 3.8 liter (3.0 kg)

supply tank right: 5.0 liter (4.0 kg)

Moment: See Flight Manual, Model Kawasaki-BK 117C-2.

Oil Capacity

Engine oil (each tank) has been included with the minimum gross weight.

2 x 4.3 liter (4.4 kg). (Moment: 39,486 kg·mm)

2 x 3.9 liter (4.0 kg) usable

2 x 0.4 liter (0.4 kg) unusable

Main transmission oil has been included with the minimum gross weight.

12.5 liter (12.6 kg). (Moment: 56,536 kg·mm)

Maximum Operating Altitude

See JCAB approved Flight Manual, Model Kawasaki-BK 117C-2.

Datum

STA 0, located 4,430 mm in forward of the center of the main rotor hub center.

Leveling Means.

Alignment Points are given in the Maintenance Manual.

Control Surface Movements

For rigging information refer to the KHI Model Kawasaki-BK117C-2 Maintenance Manual.

Manufacturer's Serial Numbers

4001-4013.

DATA PERTINENT TO ALL MODELS.

Certification Basis

Type certificate No.: 32

Certification date:

BK117 : December 17, 1982
 BK117A-3 : June 14, 1985
 BK117A-4 : August 29, 1986
 BK117B-1 : March 31, 1988
 BK117B-2 : March 18, 1993
 BK117C-1 : June 8, 1995
 BK117C-2 : March 30, 2001

Application date:

KHI has applied for BK117 certification on April 18, 1977 to JCAB.
 KHI has applied for BK117A-3 certification on August 27, 1984 to JCAB.
 KHI has applied for BK117A-4 certification on June 14, 1985 to JCAB.
 KHI has applied for BK117B-1 certification on August 29, 1986 to JCAB.
 KHI has applied for BK117B-2 certification on April 22, 1992 to JCAB.
 KHI has applied for BK117C-1 certification on March 18, 1993 to JCAB.
 KHI has applied for BK117C-2 certification on November 4, 1997 to JCAB.

BK117 & BK117A-3:

Civil Aeronautics Regulations Annex 1 "Technical Standards for Ensuring Safety of Aircraft and Equipment" dated December 28, 1960 with later revisions.

Part V of the TAIKUSEI-SHINSA-YORYO (JCAB Airworthiness Standards) dated November 11, 1981 (transfer from Part 29 of the Federal Aviation Regulations Amendment 29-1 through 29-16), with the following changes and/or addition:

- i) For "Flights in accordance with Instrument Flight Rules" and "Instrument Flight" using 3-Axis CSAS, KU-KEN-403, dated September 25, 1984.
- ii) Appendix II of the TAIKUSEI-SHINSA-YORYO dated April 17, 1995.

JCAB Special Conditions Applicable to Kawasaki BK117 Helicopter, KU-KEN-39, dated February 22, 1982.

- i) Check Procedures (No.1)
- ii) Engine Failure Warning System (No.2)
- iii) Turbine Engine Bleed Air System (No.3)
- iv) One Engine Inoperative Maximum Continuous Power (MCP) (No.4)
- v) Lightning Protection of Structure and Occupants (No.5)

Civil Aeronautics Regulations Annex 2 for Noise Requirements is not applicable.

Civil Aeronautics Regulations Annex 3 Chapter 1 (equivalent to ICAO Annex 16 Volume 2 Part 2) for Fuel Venting Requirements dated April 1, 1997 with later revisions.

BK117A-4: Civil Aeronautics Regulations Annex 1 "Technical Standards for Ensuring Safety of Aircraft and Equipment" dated December 28, 1960 with later revisions.

Part V of the TAIKUSEI-SHINSA-YORYO (JCAB Airworthiness Standards) dated November 11, 1981 (transfer from Part 29 of the Federal Aviation Regulations Amendment 29-1 through 29-16), with the following changes and/or addition:

- i) For "Flights in accordance with Instrument Flight Rules" and "Instrument Flight" using 3-Axis CSAS, KU-KEN-403, dated September 25, 1984.

- ii) The TAIKUSEI-SHINSA-YORYO, in part, related to “Flight in accordance with Instrument Flight Rules” and “Instrument Flight” using automatic pilot system, is changed (transfer from Federal Aviation Regulations 29.141(c) Amendment 29-21, and 29.671(c), 29.672, 29.673, 29.1329(a)/(e) Amendment 29-24 and Appendix B Amendment 29-21).
 - iii) Appendix II of the TAIKUSEI-SHINSA-YORYO dated April 17, 1995.
- JCAB Special Conditions Applicable to Kawasaki BK117 Helicopter, KU-KEN-39, dated February 22, 1982.
- i) Check Procedures (No.1)
 - ii) Engine Failure Warning System (No.2)
 - iii) Turbine Engine Bleed Air System (No.3)
 - iv) One Engine Inoperative Maximum Continuous Power (MCP) (No.4)
 - v) Lightning Protection of Structure and Occupants (No.5)
- Civil Aeronautics Regulations Annex 2 for Noise Requirements is not applicable.
Civil Aeronautics Regulations Annex 3 Chapter 1 (equivalent to ICAO Annex 16 Volume 2 Part 2) for Fuel Venting Requirements dated April 1, 1997 with later revisions.

BK117B-1: Civil Aeronautics Regulations Annex 1 “Technical Standards for Ensuring Safety of Aircraft and Equipment” dated December 28, 1960 with later revisions.

Part V of the TAIKUSEI-SHINSA-YORYO (JCAB Airworthiness Standards) dated November 11, 1981 (transfer from Part 29 of the Federal Aviation Regulations Amendment 29-1 through 29-16), with the following changes and/or addition:

- i) The TAIKUSEI-SHINSA-YORYO, in part, related to limiting height-speed envelope is changed (transfer from Federal Aviation Regulations 29.1(e)/(f), 29.79(a), 29.1517 and 29.1587(b)(6) Amendment 29-21).
 - ii) For “Flights in accordance with Instrument Flight Rules” and “Instrument Flight” using 3-Axis CSAS, KU-KEN-403, dated September 25, 1984.
 - iii) The TAIKUSEI-SHINSA-YORYO, in part, related to “Flight in accordance with Instrument Flight Rules” and “Instrument Flight” using automatic pilot system, is changed (transfer from Federal Aviation Regulations 29.141(c) Amendment 29-21, and 29.671(c), 29.672, 29.673, 29.1329(a)/(e) Amendment 29-24 and Appendix B Amendment 29-21).
 - iv) Appendix II of the TAIKUSEI-SHINSA-YORYO dated April 17, 1995.
- JCAB Special Conditions Applicable to Kawasaki BK117 Helicopter, KU-KEN-39, dated February 22, 1982.
- i) Check Procedures (No.1)
 - ii) Engine Failure Warning System (No.2)
 - iii) Turbine Engine Bleed Air System (No.3)
 - iv) One Engine Inoperative Maximum Continuous Power (MCP) (No.4)
 - v) Lightning Protection of Structure and Occupants (No.5)
- Civil Aeronautics Regulations Annex 2 for Noise Requirements is not applicable.
Civil Aeronautics Regulations Annex 3 Chapter 1 (equivalent to ICAO Annex 16 Volume 2 Part 2) for Fuel Venting Requirements dated April 1, 1997 with later revisions.

BK117B-2: Civil Aeronautics Regulations Annex 1 “Technical Standards for Ensuring Safety of Aircraft and Equipment” dated December 28, 1960 with later revisions.

Part V of the TAIKUSEI-SHINSA-YORYO (JCAB Airworthiness Standards) dated November 11, 1981 (transfer from Part 29 of the Federal Aviation Regulations Amendment 29-1 through 29-16), with the following changes and/or addition:

- i) The TAIKUSEI-SHINSA-YORYO, in part, related to limiting height-speed envelope is changed (transfer from Federal Aviation Regulations 29.1(e)/(f), 29.79(a), 29.1517 and 29.1587(b)(6) Amendment 29-21).
- ii) For “Flights in accordance with Instrument Flight Rules” and “Instrument Flight” using 3-Axis CSAS, KU-KEN-403, dated September 25, 1984.
- iii) The TAIKUSEI-SHINSA-YORYO, in part, related to “Flight in accordance with Instrument Flight Rules” and “Instrument Flight” using automatic pilot system, is changed (transfer from Federal Aviation Regulations 29.141(c) Amendment 29-21, and 29.671(c), 29.672, 29.673, 29.1329(a)/(e) Amendment 29-24 and Appendix B Amendment 29-21).
- iv) The TAIKUSEI-SHINSA-YORYO, in part, related to “Controllability and Maneuverability” and “Performance Information” is changed (transfer from Federal Aviation Regulations 29.143(c) and 29.1587 (b)(1)/(b)(8) Amendment 29-24).

- v) The TAIKUSEI-SHINSA-YORYO, in part, related to “Performance”, “Rotor Drive System”, and “Cooling” is changed, “Upgrade of OEI Rating Power for Model BK117B-2 (which applies to Mfg S/N 1117 and subsequent, and helicopters which are incorporated KSB-117-125)”, in accordance with KU-KI-1459, dated December 24, 1997 (transfer from Federal Aviation Regulations 29.75(b)(6)/(c)(2), 29.927(b)/(d)/(e) Amendment 29-17, and 29.45(b)(2)/(c)(2)/(f), 29.59(c), 29.77(c) Amendment 29-24, and 29.67(b), 29.923(k), 29.1045(c) and 29.1047(a)(4) Amendment 29-26).

- vi) Appendix II of the TAIKUSEI-SHINSA-YORYO dated April 17, 1995.

JCAB Special Conditions Applicable to Kawasaki BK117 Helicopter, KU-KEN-39, dated February 22, 1982. For “Upgrade of OEI Rating Power for Model BK117B-2 (which applies to Mfg S/N 1117 and subsequent, and helicopters which are incorporated KSB-117-125), Special Condition No.1 and No.4 are not applicable.

- i) Check Procedures (No.1)
- ii) Engine Failure Warning System (No.2)
- iii) Turbine Engine Bleed Air System (No.3)
- iv) One Engine Inoperative Maximum Continuous Power (MCP) (No.4)
- v) Lightning Protection of Structure and Occupants (No.5)

Civil Aeronautics Regulations Annex 2 Chapter 5 (equivalent to ICAO Annex 16 Volume 1 Chapter 8) for Noise Requirements dated April 1, 1997 with later revisions.

Civil Aeronautics Regulations Annex 3 Chapter 1 (equivalent to ICAO Annex 16 Volume 2 Part 2) for Fuel Venting Requirements dated April 1, 1997 with later revisions.

BK117C-1: Civil Aeronautics Regulations Annex 1 “Technical Standards for Ensuring Safety of Aircraft and Equipment” dated December 28, 1960 with later revisions.

Part V of the TAIKUSEI-SHINSA-YORYO (JCAB Airworthiness Standards) dated November 11, 1981 (transfer from Part 29 of the Federal Aviation Regulations Amendment 29-1 through 29-16), with the following changes and/or addition:

- i) The TAIKUSEI-SHINSA-YORYO, in part, related to limiting height-speed envelope is changed (transfer from Federal Aviation Regulations 29.1(e)/(f), 29.79(a), 29.1517 and 29.1587(b)(6) Amendment 29-21).
- ii) For “Flights in accordance with Instrument Flight Rules” and “Instrument Flight” using 3-Axis CSAS, KU-KEN-403, dated September 25, 1984.
- iii) The TAIKUSEI-SHINSA-YORYO, in part, related to “Flight in accordance with Instrument Flight Rules” and “Instrument Flight” using automatic pilot system, is changed (transfer from Federal Aviation Regulations 29.141(c) Amendment 29-21, and 29.671(c), 29.672, 29.673, 29.1329(a)/(e) Amendment 29-24 and Appendix B Amendment 29-21).
- iv) The TAIKUSEI-SHINSA-YORYO, in part, related to “Controllability and Maneuverability” and “Performance Information” is changed (transfer from Federal Aviation Regulations 29.143(c) Amendment 29-24).
- v) The TAIKUSEI-SHINSA-YORYO, in part, related to “Performance”, “Drive System”, “Induction System” and “Fire Extinguishing Systems” is changed (transfer from Federal Aviation Regulations 29.75(b)(6), 29.927(b)/(d)/(e), 29.1091(a)/(f)(1), 29.1103 (d) and 29.1195(d) Amendment 29-17).
- vi) The TAIKUSEI-SHINSA-YORYO, in part, related to “Performance” is changed (transfer from Federal Aviation Regulations 29.45(b)(2)/(c)(2)/(f), 29.59(c) and 29.77(c) Amendment 29-24).
- vii) The TAIKUSEI-SHINSA-YORYO, in part, related to “Performance”, “Powerplant”, “Rotor Drive System”, “Fuel System”, “Cooling” and “Induction System” is changed (transfer from Federal Aviation Regulations 29.67(b), 29.901(b)(2)/(b)(6), 29.903(a)/(b)(2)/(c)(3), 29.908(a), 29.923(k)(2), 29.955(a)(1), 29.961, 29.1041(a)/(c), 29.1043(a)(5), 29.1045(c), 29.1047(a)(4) and 29.1093(b) Amendment 29-26).

- viii) Appendix II of the TAIKUSEI-SHINSA-YORYO dated April 17, 1995.

JCAB Special Conditions Applicable to Kawasaki BK117 Helicopter, KU-KEN-39, dated February 22, 1982.

- i) Check Procedures (No.1)
- ii) Engine Failure Warning System (No.2)
- iii) Turbine Engine Bleed Air System (No.3)
- iv) Lightning Protection of Structure and Occupants (No.5)

Civil Aeronautics Regulations Annex 2 Chapter 5 (equivalent to ICAO Annex 16 Volume 1 Chapter 8) for Noise Requirements dated April 1, 1997 with later revisions.

Civil Aeronautics Regulations Annex 3 Chapter 1 (equivalent to ICAO Annex 16 Volume 2 Part 2) for Fuel Venting Requirements dated April 1, 1997 with later revisions.

BK117C-2: Civil Aeronautics Regulations Annex 1 “Technical Standards for Ensuring Safety of Aircraft and Equipment” dated December 28, 1960 with later revisions.

Part V of the TAIKUSEI-SHINSA-YORYO (JCAB Airworthiness Standards) dated May 22, 1998 (transfer from Part 29 of the Federal Aviation Regulations Amendment 29-1 through 29-40), with the following changes and equivalent safety:

- i) The TAIKUSEI-SHINSA-YORYO, in part, related to “Main Component Requirements”, “Fatigue Evaluation”, “Fire Protection”, “Powerplant General”, “Rotor Drive System”, “Oil System”, “Powerplant Controls and Accessories”, “Powerplant Fire Protection”, “Equipment General” and “Operating Limitations” is changed (transfer from Federal Aviation Regulations 29.547*1, 29.571*2, 29.863*3, 29.901(c), 29.917, 29.1011, 29.1019(a), 29.1021, 29.1163, 29.1181, 29.1183, 29.1189, 29.1309(b)/(d)/(e)*3, 29.1521 Amendment 29-16).
 - *1: except for main rotor blades
 - *2: for unchanged and minor changed parts from BK117C-1 version
 - *3: for unchanged parts from BK117C-1 version
- ii) The TAIKUSEI-SHINSA-YORYO, in part, related to “Rotor Drive System” is changed (transfer from Federal Aviation Regulations 29.927 Amendment 29-17).
- iii) The TAIKUSEI-SHINSA-YORYO, in part, related to “Powerplant General” and “Rotor Drive System” is changed (transfer from Federal Aviation Regulations 29.903, 29.923 Amendment 29-26).
- iv) Exemption from the TAIKUSEI-SHINSA-YORYO, related to “Design and Construction General”, “Oil System”, “Equipment General” and “Instruments Installation”.
 - FAR 29.610(d)(4) (for unchanged parts categorized as “Essential”)
 - FAR 29.631 (except for the center beam and the overhead panel cowling)
 - FAR 29.1027
 - FAR 29.1305(a)(21),(23)
 - FAR 29.1337(e)
- v) The TAIKUSEI-SHINSA-YORYO, in part, related to optional equipment “High Density Seat (P/N B252K2801-053 or equivalent)” for BK117 C-2 is changed as follows. However, it must not significantly effect the safety of crews under the TAIKUSEI-SHINSA-YORYO dated May 22, 1998 (transfer from Part 29 of the Federal Aviation Regulations Amendment 29-1 through 29-40).
 - Transfer from FAR 29.561(b)/(c), 29.785 Amendment 29-16.
 - Exemption from the TAIKUSEI-SHINSA-YORYO.
FAR 29.562
- vi) “Equivalent Safety” Items
 - FAR 29.807(a)(4) “Passenger Emergency Exits”
 - FAR 29.1303(a),(j) “Flight and Navigation Instruments”
 - FAR 29.1549(b) “Powerplant Instruments”
 - FAR 29.1151(b) “Rotor Brake Controls”

BK117C-2 Special Conditions

- i) Protection from the effects of HIRF.
- ii) BK117C-2 Primary structures designed with composite material.
- iii) Turbine Engine Bleed Air System

Civil Aeronautics Regulations Annex 2 Chapter 5 (equivalent to ICAO Annex 16 Volume 1 Chapter 8) for Noise Requirements dated April 1, 1997 with later revisions.

Civil Aeronautics Regulations Annex 3 Chapter 1 (equivalent to ICAO Annex 16 Volume 2 Part 2) for Fuel Venting Requirements dated April 1, 1997 with later revisions.

Production Basis

Approved Organization Certificate No. 005. The organization (KHI) is authorized to make under Japan Civil Aeronautics Law Article 20 Paragraph (1) Number (ii).

Equipment

The basic required equipment as prescribed in the applicable Japan Civil Aeronautics Law and Regulations must be installed on the aircraft.

For required equipment and necessary equipment for type certificate, refer to equipment and parts list.

Notes

- Note 1 A current Weight & Balance Report must be in each aircraft at the time of original airworthiness certification and at all times thereafter except in the case of an operator having an JCAB approved loading system for weight and balance control.
- Note 2 Helicopter operation must be in accordance with the JCAB approved Flight Manual. All placards required by either JCAB approved Flight Manual, the applicable operating rules, or the Certification Basis must be installed in the helicopter.
- Note 3 For retirement times, inspection intervals and inspection procedures of components, refer to Maintenance Manual. ("Airworthiness limitations" section are JCAB approved.)
- Note 4 When equipped with Cargo Hook, Rescue Winch System, Floor Hatch, Rappelling Device, Fire Fighting System-Belly Tank, Searchlight-Side Mount, Searchlight-Nose Mount, or External Loudspeaker System-Public Address, airworthiness category of "Special Aircraft X" is applied. Refer to the related JCAB approved Flight Manual Supplements.
- Note 5 As service information, Service Bulletins and other service information when JCAB-approved will carry a statement to that effect.