TYPE CERTIFICATE DATA SHEET Nº EA-9606

Type Certificate Holder:

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EA-9606-23
Sheet 01

EMBRAER

EMB-145, -145ER, -145EU, -145EP, -145LR, -145MR, -145LU, -135ER, -135LR, -145MP, -145MK, -135KE, -135KL, -135BJ, -145XR.

25 April 2013

This data sheet, which is part of Type Certificate No. 9606, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

I - Model EMB-145 (Transport Category), approved 29 November 1996.

ENGINE

Two Rolls-Royce Corporation models: AE3007A or AE3007A1/1. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	370 km/h (200 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)

AIRSPEED LIMITS (EAS) (Cont.)

Maximum Landing Gear Operating Speed (V_{LO}):

- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

19 300 kg:	15 047 to 15 832 mm (15.6% to 43.0% MAC)
19 200 kg:	15 047 to 15 832 mm (15.6% to 43.0% MAC)
15 500 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
13 000 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
12 000 kg:	15 746 mm (40.0% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:

- 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	19 300 kg
Takeoff:	19 200 kg
Landing:	18 700 kg
Zero Fuel:	17 100 kg

MAXIMUM BAGGAGE

1 200 kg

FUEL CAPACITY

Maximum usable fuel of 5 146 liters (two tanks of 2 573 liters at +15 332 mm).
Unusable fuel of 54 liters (27 liters each tank).

SERIAL NUMBERS ELIGIBLE

145004 and subsequent.

II - <u>Model EMB-145ER (Transport Category)</u>, approved 29 November 1996.

ENGINE

Two Rolls-Royce Corporation models: AE3007A, AE3007A1/1, AE3007A1/2 , AE3007A1 or AE3007A1P. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See[1].
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	370 km/h (200 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

20 700 kg:	15 087 to 15 832 mm (17.0% to 43.0% MAC)
20 600 kg:	15 087 to 15 832 mm (17.0% to 43.0% MAC)
15 500 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
13 000 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
12 000 kg:	15 746 mm (40.0% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:
- 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	20 700 kg
Takeoff:	20 600 kg
Landing:	18 700 kg
Zero Fuel:	17 100 kg (see note 15)

MAXIMUM BAGGAGE

1 200 kg

FUEL CAPACITY

Maximum usable fuel of 5 146 liters (two tanks of 2 573 liters at +15 332 mm).
Unusable fuel of 54 liters (27 liters each tank).

SERIAL NUMBERS ELIGIBLE

145004 and subsequent (see Note 7 and 14).

III - <u>Model EMB-145EU (Transport Category)</u>, approved 15 April 1997.

ENGINE

Two Rolls-Royce Corporation models: AE3007A, AE3007A1/1, AE3007A1/2, AE3007A1 or AE3007A1P. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See[1].
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	370 km/h (200 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

20 090 kg:	15 070 to 15 832 mm (16.4% to 43.0% MAC)
19 990 kg:	15 070 to 15 832 mm (16.4% to 43.0% MAC)
15 500 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
13 000 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
12 000 kg:	15 746 mm (40.0% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:

- 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	20 090 kg
Takeoff:	19 990 kg
Landing:	18 700 kg
Zero Fuel:	17 100 kg

MAXIMUM BAGGAGE

1 200 kg

FUEL CAPACITY

Maximum usable fuel of 5 146 liters (two tanks of 2 573 liters at +15 332 mm).
Unusable fuel of 54 liters (27 liters each tank).

SERIAL NUMBERS ELIGIBLE

145008 and subsequent.

IV - Model EMB-145EP (Transport Category), approved 23 October 1997.

ENGINE

Two Rolls-Royce Corporation models: AE3007A, AE3007A1/1, AE3007A1/2, AE3007A1 or AE3007A1P. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	370 km/h (200 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

21 090 kg:	15 099 to 15 732 mm (17.4% to 39.5% MAC)
20 990 kg:	15 099 to 15 732 mm (17.4% to 39.5% MAC)
Above 20 600 kg:	15 087 to 15 732 mm (17.0% to 39.5% MAC)
20 600 kg:	15 087 to 15 832 mm (17.0% to 43.0% MAC)
15 500 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
13 000 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
12 000 kg:	15 746 mm (40.0% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:

- 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	21 090 kg
Takeoff:	20 990 kg
Landing:	18 700 kg
Zero Fuel:	17 100 kg (see note 15)

MAXIMUM BAGGAGE 1 200 kg

FUEL CAPACITY Maximum usable fuel of 5 146 liters (two tanks of 2 573 liters at +15 332 mm).
Unusable fuel of 54 liters (27 liters each tank).

SERIAL NUMBERS ELIGIBLE 145031 and subsequent (see Note 7a).

V - <u>Model EMB-145LR (Transport Category)</u>, approved 20 April 1998.

ENGINE Two Rolls-Royce Corporation models: AE3007A1/1, AE3007A1/2, AE3007A1 or AE3007A1P. See Note 8.

APU Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	374 km/h (202 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

22 100 kg:	15 127 to 15 732 mm (18,4% to 39.5% MAC)*
22 000 kg:	15 127 to 15 732 mm (18.4% to 39.5% MAC)*
19 300 kg:	15 050 to 15 732 mm (15.7% to 39.5% MAC)
17 100 kg:	14 989 to 15 832 mm (13.6% to 43.0% MAC)
15 500 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
13 400 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
12 400 kg:	15 459 mm (30.0% MAC)

C. G. RANGE
(Landing Gear Extended)
(Cont.)

Straight linear variation between the points given.
Moment due to landing gear retraction:
- 124 000 kg x mm (the aircraft CG is moved forward with the retraction). See Note 16.

MAXIMUM WEIGHT

Ramp:	22 100 kg*
Takeoff:	22 000 kg* **
Landing:	19 300 kg*
Zero Fuel:	17 900 kg*

* See note 16
** For airplanes Pos-mod. SB145-53-0065 the MTOW will be 21450 kg (to increase again the MTOW to 22000 kg, the SB145-53-0066 must be incorporated).

MAXIMUM BAGGAGE

1 200 kg

FUEL CAPACITY

Maximum usable fuel of 6 396 liters (two tanks of 3 198 liters at +15 153 mm).
Unusable fuel of 44 liters (22 liters each tank).

SERIAL NUMBERS ELIGIBLE

145002, 145003, 145048 and subsequent (see Note 7c and 14).

VI - <u>Model EMB-145MR (Transport Category)</u>, approved 20 April 1998.

ENGINE

Two Rolls-Royce Corporation models: AE3007A1/1, AE3007A1/2, AE3007A1 or AE3007A1P. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	374 km/h (202 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)

AIRSPEED LIMITS (EAS) (Cont.)

Maximum Landing Gear Operating Speed (V_{LO}):
- Retraction 370 km/h (200 keas)
- Extension 463 km/h (250 keas)

Maximum Landing Gear Extended Speed (V_{LE}): 463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

22 100 kg:	15 127 to 15 732 mm (18.4% to 39.5% MAC)
22 000 kg:	15 127 to 15 732 mm (18.4% to 39.5% MAC)
19 300 kg:	15 050 to 15 732 mm (15.7% to 39.5% MAC)
17 100 kg:	14 989 to 15 832 mm (13.6% to 43.0% MAC)
15 500 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
13 400 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
12 400 kg:	15 459 mm (30.0% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:
- 124 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	22 100 kg
Takeoff:	22 000 kg
Landing:	19 300 kg
Zero Fuel:	17 900 kg

MAXIMUM BAGGAGE

1 200 kg

FUEL CAPACITY

Maximum usable fuel of 5 146 liters (two tanks of 2 573 liters at +15 332 mm).
Unusable fuel of 54 liters (27 liters each tank).

SERIAL NUMBERS ELIGIBLE

145048 and subsequent (see Note 7b and 7c).

VII - Model EMB-145LU (Transport Category), approved 12 April 1999.

ENGINE

Two Rolls-Royce Corporation models: AE3007A1/1, AE3007A1/2, AE3007A1 or AE3007A1P. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	374 km/h (202 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

22 090 kg:	15 127 to 15 732 mm (18.4% to 39.5% MAC)
21 990 kg:	15 127 to 15 732 mm (18.4% to 39.5% MAC)
19 300 kg:	15 050 to 15 732 mm (15.7% to 39.5% MAC)
17 100 kg:	14 989 to 15 832 mm (13.6% to 43.0% MAC)
15 500 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
13 400 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
12 400 kg:	15 459 mm (30.0% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:
- 124 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	22 090 kg
Takeoff:	21 990 kg
Landing:	19 300 kg
Zero Fuel:	17 900 kg

MAXIMUM BAGGAGE

1 200 kg

FUEL CAPACITY

Maximum usable fuel of 6 396 liters (two tanks of 3 198 liters at +15 153 mm).
Unusable fuel of 44 liters (22 liters each tank).

SERIAL NUMBERS ELIGIBLE

145129 and subsequent.

VIII - <u>Model EMB-135ER (Transport Category)</u>, approved 11 June 1999.

ENGINE

Two Rolls-Royce Corporation models: AE3007A1/3 or AE 3007A3. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM: T-62T-40C11 108%
T-62T-40C14 104%
Maximum EGT: 717°C
Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):
- 0 a 2 438 m: 463 km/h (250 keas)
- 2 438 a 3 048 m: See (1).
- 3 048 a 8 015 m: 593 km/h (320 keas)
- 8 015 a 11 278 m: 0.78 Mach

Maneuvering Speed (V_A): 374 km/h (202 keas)
Maximum Flap Extended Speed (V_{FE})
- Takeoff/approach (9°): 463 km/h (250 keas)
- Takeoff/approach (18°) 370 km/h (200 keas)
- Approach /landing (22°): 370 km/h (200 keas)
- Landing (45°): 269 km/h (145 keas)

Maximum Landing Gear Operating Speed (V_{LO}):
- Retraction 370 km/h (200 keas)
- Extension 463 km/h (250 keas)

Maximum Landing Gear Extended Speed (V_{LE}): 463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

19 100 kg:	13 167 to 13 682 mm (20,0% to 38,0% MAC)
19 000 kg:	13 167 to 13 682 mm (20,0% to 38,0% MAC)
18 500 kg:	13 149 to 13 682 mm (19,4% to 38,0% MAC)
16 000 kg:	13 072 to 13 682 mm (16,7% to 38,0% MAC)
14 500 kg:	13 023 to 13 682 mm (15,0% to 38,0% MAC)
12 500 kg:	13 023 to 13 682 mm (15,0% to 38,0% MAC)
12 000 kg	13 023 to 13 682 mm (15,0% to 38,0% MAC)
11 500 kg:	13 453 mm (30.0% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:
- 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	19 100 kg
Takeoff:	19 000 kg*
Landing:	18 500 kg
Zero Fuel:	16 000 kg

***** For airplanes Pos-mod SB145-00-0028 the MTOW will be 19600 kg (to decrease again the MTOW to 19000 kg, the SB SB145-00-0029 must be incorporated).

MAXIMUM BAGGAGE

1 000 kg

FUEL CAPACITY

Maximum usable fuel of 5 146 liters (two tanks of 2 573 liters at +13 326 mm).
Unusable fuel of 54 liters.

SERIAL NUMBERS ELIGIBLE

145145 and subsequent

IX - Model EMB-135LR (Transport Category), approved 11 June 1999.

ENGINE

Two Rolls-Royce Corporation models: AE3007A1/3. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	374 km/h (202 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

20 100 kg:	13 198 to 13 682 mm (21,1% to 38,0% MAC)
20 000 kg:	13 198 to 13 682 mm (21,1% to 38,0% MAC)
18 500 kg:	13 149 to 13 682 mm (19,4% to 38,0% MAC)
16 000 kg:	13 072 to 13 682 mm (15,4% to 38,0% MAC)
14 500 kg:	13 023 to 13 682 mm (15,0% to 38,0% MAC)
12 500 kg:	13 238 to 13 682 mm (15,0% to 38,0% MAC)
12 000 kg	13 023 to 13 682 mm (15,0% to 38,0% MAC)
11 500 kg:	13 453 mm (30.0% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:
• 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	20 100 kg
Takeoff:	20 000 kg
Landing:	18 500 kg
Zero Fuel:	16 000 kg

MAXIMUM BAGGAGE

1 000 kg

FUEL CAPACITY

Maximum usable fuel of 6 396 liters (two tanks of 3 198 liters at +13 147 mm).
Unusable fuel of 44 liters.

SERIAL NUMBERS ELIGIBLE

145145 and subsequent

X - <u>Model EMB-145MP (Transport Category)</u>, approved 04 August 1999.

ENGINE

Two Rolls-Royce Corporation models: AE3007A1/1, AE3007A1/2, AE3007A1 or AE3007A1P. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	370 km/h (200 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

21 090 kg:	15 099 to 15 732 mm (17.4% to 39.5% MAC)
20 990 kg:	15 099 to 15 732 mm (17.4% to 39.5% MAC)
19 300 kg:	15 050 a 15 732 mm (15,7% a 39,5% da CMA)
17 100 kg:	14 990 a 15 832 mm (13,6% a 43,0% da CMA)
15 500 kg:	14 944 a 15 832 mm (12,0% a 43,0% da CMA)
13 400 kg:	14 944 a 15 832 mm (12,0% a 43,0% da CMA)
12 400 kg:	15460 mm (30,0% da CMA)

Straight linear variation between the points given.
Moment due to landing gear retraction:
- 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	21 090 kg
Takeoff:	20 990 kg
Landing:	19 300 kg
Zero Fuel:	17 900 kg

MAXIMUM BAGGAGE
1 200 kg

FUEL CAPACITY
Maximum usable fuel of 5 146 liters (two tanks of 2 573 liters at +15 153 mm).
Unusable fuel of 54 liters (27 liters each tank).

SERIAL NUMBERS ELIGIBLE
145178 and subsequent.

XI - <u>Model EMB-145MK (Transport Category)</u>, approved 12 June 2000.

ENGINE
Two Rolls-Royce Corporation models: AE3007A1/1, AE3007A1/2, AE3007A1 or AE3007A1P. See Note 8.

APU
Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL
Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL
Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	374 km/h (200 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

20 090 kg:	15 070 to 15 732 mm (16.4% to 39.5% MAC)
19 990 kg:	15 070 to 15 732 mm (16.4% to 39.5% MAC)
19 300 kg:	15 050 a 15 732 mm (15,7% a 39,5% da CMA)
17 100 kg:	14 990 a 15 832 mm (13,6% a 43,0% da CMA)
15 500 kg:	14 944 a 15 832 mm (12,0% a 43,0% da CMA)
13 400 kg:	14 944 a 15 832 mm (12,0% a 43,0% da CMA)
12 400 kg:	15 460 mm (30,0% da CMA)

Straight linear variation between the points given.
Moment due to landing gear retraction:
- 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	20 090 kg
Takeoff:	19 990 kg
Landing:	19 300 kg
Zero Fuel:	17 900 kg

MAXIMUM BAGGAGE 1 200 kg

FUEL CAPACITY Maximum usable fuel of 5 146 liters (two tanks of 2 573 liters at +15 153 mm).
Unusable fuel of 54 liters (27 liters each tank).

SERIAL NUMBERS ELIGIBLE Not applicable.

XII - <u>Model EMB-135KE (Transport Category)</u>, approved 19 June 2001.

ENGINE Two Rolls-Royce Corporation models: AE3007A1/3. See Note 8.

APU Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14

FUEL Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR 1112.

OIL Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	374 km/h (202 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)

AIRSPEED LIMITS (EAS) (Cont.)

Maximum Landing Gear Operating Speed (V_{LO}):

- Retraction	370 km/h (200 keas)
- Extention	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

20 200 kg:	14 206 to 14 788 mm (18.2% to 38.5% MAC)
20 100 kg:	14 206 to 14 788 mm (18.2% to 38.5% MAC)
19 300 kg:	14 186 a 14 788 mm (17,5% a 38,5% MAC)
17 100 kg:	14 135 a 14 859 mm (15,7 % a 41 % MAC)
15 000 kg:	14 086 to 14 859 mm (14% to 41% MAC)
13 000 kg:	14 086 to 14 859 mm (14% to 41% MAC)
12 000 kg	14 544 mm (30% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:

- 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	20 200 kg
Takeoff:	20 100 kg
Landing:	18 700 kg
Zero Fuel:	17 100 kg

MAXIMUM BAGGAGE

1 200 kg

FUEL CAPACITY

Maximum usable fuel of 5 146 liters (two tanks of 2 573 liters at +14 417 mm)
Unusable fuel of 54 liters.

SERIAL NUMBERS ELIGIBLE

145425 and subsequent.

XIII - <u>Model EMB-135KL (Transport Category)</u>, approved 19 June 2001.

ENGINE

Two Rolls-Royce Corporation models: AE3007A1/3. See Note 8.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR 1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach
Maneuvering Speed (V_A):	374 km/h (202 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extention	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

21 200 kg:	14 229 to 14 788 mm (19% to 38.5% MAC)
21 100 kg:	14 229 to 14 788 mm (19% to 38.5% MAC)
19 300 kg:	14 186 a 14 788 mm (17,5% a 38,5% da MAC)
17 100 kg:	14 135 a 14 859 mm (15,7 % a 41 % da MAC)
15 000 kg:	14 086 to 14 859 mm (14% to 41% MAC)
13 000 kg:	14 086 to 14 859 mm (14% to 41% MAC)
12 000 kg	14 544 mm (30% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:
• 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	21 200 kg
Takeoff:	21 100 kg
Landing:	18 700 kg
Zero Fuel:	17 100 kg

MAXIMUM BAGGAGE

1 200 kg

FUEL CAPACITY

Maximum usable fuel of 6 396 liters (two tanks of 3 198 liters at +14 238 mm)
Unusable fuel of 44 liters.

SERIAL NUMBERS ELIGIBLE

145425 and subsequent.

XIV - <u>Model EMB-135BJ (Transport Category)</u>, approved 10 December 2001.

(a) Basic Model:

ENGINE

Two Rolls-Royce Corporation model AE3007A1E. (See Notes 8 and 12).

APU

Sundstrand Aerospace model: T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM: 104%
Maximum EGT: 717°C
Other limitations as stated in Sundstrand Doc. No. ESR 1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 to 2 438 m:	463 km/h (250 keas)
- 2 438 to 3 048 m:	See (1).
- 3 048 to 8 420 m:	593 km/h (320 keas)
- 8 420 to 11 887 m:	0.80 Mach
Maneuvering Speed (V_A):	374 km/h (200 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Approach /landing (22°):	370 km/h (200 keas)
- Approach /landing (22°) in icing conditions and yaw damper off:	333 km/h (180 keas)
- Landing (45°):	269 km/h (145 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extention	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

22 570 kg *:	13 095 to 13 597 mm (27,5% to 35% MAC)
22 500 kg *:	13 095 to 13 597 mm (27,5% to 35% MAC)
18 500 kg *:	13 147 to 13 597 mm (19,3% to 35% MAC)
14 500 kg *:	13 024 to 13 597 mm (15,0% to 35 % MAC)
14 000 kg *:	13 024 to 13 597 mm (15,0% to 35% MAC)
13 313 kg *:	13 319 to 13 597 mm (25,3% to 35% MAC)
13 000 kg *:	13 453 mm (30% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:
- 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

* See Note 12.

MAXIMUM WEIGHT

Ramp:	22 570 kg *
Takeoff:	22 500 kg *, **
Landing:	18 500 kg *
Zero Fuel:	16 000 kg *

* See Note 12.
** For airplanes Pos-mod. SB 145LEG-25-0078 the MTOW will be 22 000 kg (to increase again the MTOW to 22 500 kg, the SB 145LEG-25-0079 must be incorporated)

MAXIMUM BAGGAGE

454 kg

FUEL CAPACITY

Maximum usable fuel of 10 264 liters (two forward fuselage tanks of 1 112 liters at +8 440 mm, two wing tanks of 3 198 liters at +13 147 mm and two aft fuselage tanks of 822 liters at +20 293 mm).
Unusable fuel of 106 liters (forward tanks 27 liters, wing tanks 44 liters and aft tanks 35 liters).
See Note 12.

SERIAL NUMBERS ELIGIBLE

145412, 145462 and subsequent.

(b) Legacy 650 (see Note 18):

ENGINE

Two Rolls-Royce Corporation model AE3007A2. (See Note 8).

APU

Sundstrand Aerospace model: T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A and JET A1; Specification MIL-T-83133A JP-8; Specification GOST 10227-86 TS-1 Premium and Regular grades; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM: 104%
717°C
Other limitations as stated in Sundstrand Doc. No. ESR 1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):	
- 0 to 2 438 m:	556 km/h (300 keas)
- 2 438 to 3 048 m:	See (1).
- 3 048 to 8 420 m:	593 km/h (320 keas)
- 8 420 to 12 496 m:	0.80 Mach
Maneuvering Speed (V_A):	393 km/h (212 keas)
Maximum Flap Extended Speed (V_{FE})	
- Takeoff/approach (9°):	463 km/h (250 keas)
- Approach /landing (22°):	370 km/h (200 keas)
- Approach /landing (22°) in icing conditions and yaw damper off:	296 km/h (160 keas)
- Landing (45°):	296 km/h (160 keas)
Maximum Landing Gear Operating Speed (V_{LO}):	
- Retraction	370 km/h (200 keas)
- Extention	463 km/h (250 keas)
Maximum Landing Gear Extended Speed (V_{LE}):	463 km/h (250 keas)

(1) Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

24 370 kg	12 602 to 12 605 mm (28.2% to 38% MAC)
24 300 kg	12 602 to 12 605 mm (28.2% to 38% MAC)
17 722 kg	12 600 to 12 605 mm (21% to 38 % MAC)
14 000 kg	12 600 to 12 605 mm (21% to 38% MAC)
13 500 kg	12 601 to 12 605 mm (25.5% to 38% MAC)
13 000 kg	12 603 (30% MAC)

C. G. RANGE
(Landing Gear Extended)
(Cont.)

Straight linear variation between the points given.
Moment due to landing gear retraction:
- 171 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	24 370 kg
Takeoff:	24 300 kg *
Landing:	20 000 kg
Zero Fuel:	16 400 kg

* For airplanes modified by SB 145LEG-25-0077 and 145LEG-25-0078 the MTOW will be 22000 kg (to increase again the MTOW to 24300 kg, the SB 145LEG-25-0079 must be incorporated).

MAXIMUM BAGGAGE

454 kg

FUEL CAPACITY

Maximum usable fuel of 11 681 liters (two forward tanks of 1 143 liters at +8 439 mm, two wing tanks of 3 365 liters at +13 178 mm, two aft tanks of 825 liters at +20 304 mm and one ventral tank of 1 015 liters at 15 753 mm).
Unusable fuel of 167.2 liters (forward tanks 23 liters, wing tanks 97 liters, aft tanks 22 liters and ventral tank 25.2 liters).

SERIAL NUMBERS ELIGIBLE

1451115 and subsequent.

XV - <u>Model EMB-145XR (Transport Category)</u>, approved 30 August 2002.

ENGINE

Two Rolls-Royce Corporation model: AE3007A1E.

APU

Sundstrand Aerospace models: T-62T-40C11 or T-62T-40C14.

FUEL

Brazilian Specification CNP-08/QAV1; ASTM Specification D-1655 JET A or JET A1; Specification MIL-T-83133A JP-8; Chinese Specifications GB6537-94 JET A3 and GB6537-2006 N° 3 Jet Fuel (PRC N° 3 Kerosene).

APU LIMITS

Maximum RPM:	T-62T-40C11	108%
	T-62T-40C14	104%
Maximum EGT:	717°C	

Other limitations as stated in Sundstrand Doc. No. ESR0921 and ESR1112.

OIL

Engine and APU: MIL-L-7808 or MIL-L-23699.

AIRSPEED LIMITS (EAS)

Maximum Operating Limit Speed (V_{MO}):

- 0 a 2 438 m:	463 km/h (250 keas)
- 2 438 a 3 048 m:	See (1).
- 3 048 a 8 015 m:	593 km/h (320 keas)
- 8 015 a 11 278 m:	0.78 Mach

Maximum Operating Limit Speed (V_{MO}) for aiplanes modified according to SB 145-31-0038 or factory incorporated modification:

- 0 a 2 438 m:	556 km/h (300 keas)
- 2 438 a 3 048 m:	See note (1).
- 3 048 a 8 420 m:	593 km/h (320 keas)
- 8 420 a 11 887 m:	0,80 Mach
Maneuvering Speed (V_A):	370 km/h (200 keas)

AIRSPEED LIMITS (EAS) (Cont.)

Maximum Flap Extended Speed (V_{FE})

- Takeoff/approach (9°):	463 km/h (250 keas)
- Takeoff/approach (18°)	370 km/h (200 keas)
- Takeoff/approach /landing (22°):	370 km/h (200 keas)
- Landing (45°):	296 km/h (160 keas)

Maximum Landing Gear Operating Speed (V_{LO}):

- Retraction	370 km/h (200 keas)
- Extension	463 km/h (250 keas)

Maximum Landing Gear Extended Speed (V_{LE}): 463 km/h (250 keas)

(1)Linear variation from 2 438 m to 3 048 m.

C. G. RANGE
(Landing Gear Extended)

24 200 kg:	15 185 to 15 689 mm (20.4% to 38.0% MAC)
24 100 kg:	15 185 to 15 689 mm (20.4% to 38.0% MAC)
15 500 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
13 800 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
12 800 kg:	15 474 mm (30.5% MAC)

Straight linear variation between the points given.
Moment due to landing gear retraction:
• 117 000 kg x mm (the aircraft CG is moved forward with the retraction).

MAXIMUM WEIGHT

Ramp:	24 200 kg
Takeoff:	24 100 kg
Landing:	20 000 kg
Zero Fuel:	18 500 kg

MAXIMUM BAGGAGE

1 200 kg

FUEL CAPACITY

Maximum usable fuel of 7 438 liters (two tanks of 3 198 liters at +14 238 mm and one ventral tank of 1042 liters)
Unusable fuel of 56 liters.

SERIAL NUMBERS ELIGIBLE

145590 and subsequent.

DATA PERTINENT TO ALL EMB-145( ) MODELS:

ENGINE LIMITS

	AE3007A AE3007A1/1	AE3007A1/2 AE3007A1
Static Thrust (-1000 ft) (lb):		
- Takeoff	7 580	
- Maximum Continuous	6 820	
Rotor Speed (%):		
- Maximum N1	100 (2)	
- Maximum N2	102.5 (3)	
- N2 (ground)	53.6 a 102.5	
Temperature Interturbine ITT (°C):		
- Takeoff	921 (1)	948 (1)
- Maximum Continuous	868	901
- Starting	800	800
Oil Temperature (°C):		
- Maximum	126	
- Normal range	21 a 126	
- Minimum for starting:		
oil specified by MIL-L-23699	above -40	
oil specified by MIL-L-7808	above –54	
Oil Pressure (psig):		
- Maximum		
Steady State	95(4) (5) (9)	
	110(4) (5) (9) (10)	
Transient	115(6)	
Transient	155(7) (8)	
- Minimum		
N2 above or equal to 88%	48	
N2 below 88%	34	

(1) Time limited to 5 minutes.
(2) 100 % N1 = 8 700 rpm.
(3) 102.5 % N2 = 16 270 rpm.
(4) For oil temperature above 21°C.
(5) No time limit.
(6) Duration limited to 5 min maximum.
(7) Duration limited to 2 min maximum.
(8) Must comply with SB AE 3007A-79-025 or equivalent.
(9) During cold day starting, there is no maximum limit on initial oil pressure.
(10) For airplanes with engine FADEC software version B7.6 installed (or later approved version)

ENGINE LIMITS (Cont.)

	AE3007A1P
Static Thrust (-1000 ft) (lb):	
- Takeoff	8 338
- Maximum Continuous	6 820
Rotor Speed (%):	
- Maximum N1	100 (2)
- Maximum N2	102.5 (3)
- N2 (ground)	53.6 a 102.5
Temperature Interturbine ITT (°C):	
- Takeoff	948 (1)
- Maximum Continuous	901
- Starting	800
Oil Temperature (°C):	
- Maximum	126
- Normal range	21 a 126
- Minimum for starting:	
oil specified by MIL-L-23699	above -40
oil specified by MIL-L-7808	above -54
Oil Pressure (psig):	
- Maximum	
Steady State	95(4) (5) (9)
	110(4) (5) (9) (10)
Transient	115(6)
Transient	155(7) (8)
- Minimum	
N2 above or equal to 88%	48
N2 below 88%	34

(1) Time limited to 5 minutes.
(2) 100 % N1 = 8 700 rpm.
(3) 102.5 % N2 = 16 270 rpm.
(4) For oil temperature above 21°C.
(5) No time limit.
(6) Duration limited to 5 min maximum.
(7) Duration limited to 2 min maximum.
(8) Must comply with SBAE 3007A-79-025 or equivalent.
(9) During cold day starting, there is no maximum limit on initial oil pressure.
(10) For airplanes with engine FADEC software version B7.6 installed (or later approved version)

ENGINE LIMITS (Cont.)

	AE3007A1E
Static Thrust (-1000 ft) (lb):	
- Takeoff	8 895
- Maximum Continuous	7 354
Rotor Speed (%):	
- Maximum N1	100 (2)
- Maximum N2	103.8 (3)
- N2 (ground)	57 a 103.8
Temperature Interturbine ITT (°C):	
- Takeoff	970 (1)
- Maximum Continuous	935
- Starting	800
Oil Temperature (°C):	
- Maximum	126
- Normal range	21 a 126
- Minimum for starting:	
oil specified by MIL-L-23699	above -40
oil specified by MIL-L-7808	above -54
Oil Pressure (psig):	
- Maximum	
Steady State	95(4) (5) (9)
	110(4) (5) (9) (10)
Transient	115(6)
Transient	155(7) (8)
- Minimum	
N2 above or equal to 88%	48
N2 below 88%	34

(1) Time limited to 5 minutes.
(2) 100 % N1 = 8 700 rpm.
(3) 103.8 % N2 = 16 470 rpm.
(4) For oil temperature above 21°C.
(5) No time limit.
(6) Duration limited to 5 min maximum.
(7) Duration limited to 2 min maximum.
(8) Must comply with SBAE 3007A-79-025 or equivalent.
(9) During cold day starting, there is no maximum limit on initial oil pressure.
(10) For airplanes with engine FADEC software version B7.6 installed (or later approved version)

DATUM

A perpendicular plane to fuselage centerline located 13 601 mm forward the center section spar of the wing (wing stub). This spar is located 2 899 mm forward the aft jacking points.

LEVELING MEANS

Plumb between the upper part hole and a mark in the lower part of the forward window frame which is located after the emergency exit (15 500 mm of the reference).

MEAN AERODYNAMIC CHORD

2 865 mm. The MAC leading edge is 14 600 mm of the datum.

MAXIMUM PASSENGERS

50 (See Note 10)

OIL CAPACITY

11.4 liters per engine.

CERTIFICATION BASIS

EMB-145/ER/EU/EP/LR/MR/LU/MP/MK:

RBHA 25 "Airworthiness Requirements for Aircraft Transport Category", corresponding to US FAR Part 25 of Federal Aviation Administration, including Amendment 25-1 through Amendment 25-84 effective 09 June 1995

RBHA 21 "Certification Procedures for Aeronautical Products and Parts", Amendment 21-02

Special Condition:

- High Intensity Radiated Fields (HIRF) Protection (RBHA 21.16, RBHA/FAR 25.1309, 25.1333 and 25.1431) - EMB-145 FCAR HSI-01;

- Seats With Non-Traditional, Large, Non-Metallic Panels (RBHA/14 CFR Part 25.853) – EMB-145 FCAR HES-08.

Equivalent Level of Safety Findings:
- Use of 1 g stall criteria (various RBHA) - EMB-145 FCAR HDE-03;
- Lack of pressurization prevention means for maintenance access hatches (RBHA/FAR 25.783(f)) - EMB-145 FCAR HES-03;
- Flight critical thrust reverser (RBHA/FAR 25.933(a)(1)(ii)) - EMB-145 FCAR HPR-03
- Digital only display of turbine engine high/intermediate pressure rotor speed (N2) (RBHA/FAR 25.1305(c)) - EMB-145 FCAR HPR-04
- APU instrumentation and monitoring requirements (RBHA/FAR 25.1305 and 25.1501(b)) - EMB-145 FCAR HPR-06;
- Digital only display of turbine engine high/intermediate pressure rotor speed (N2) (RBHA/FAR 25.1305(c)) - EMB-145 FCAR HPR-04;
- Fire detector in the tail pipe (RBHA/FAR 25.1203(a)) - EMB-145 FCAR HPR-01;
- Bird strike speed (RBHA 21.17, RBHA/FAR 25.571(e)) - for head-up display installation – EMB-145 FCAR HES-05;
- Indication of Unlocked Flightdeck Door (RBHA/FAR 21.21(b)(1) and 25.1309(c)) – EMB-145 FCAR HES-06.

RBAC nº26 – Continued Airworthiness and Safety Improvements for Transport Category Airplanes:
- Based on RBAC 21.101 (g) for changes made to type certificates (TC) applicable provisions of RBAC nº26 must be included in the certification basis.
- For any future RBAC nº26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Noise standards:

- RBHA 36 "Noise Standard - Type Certification", corresponding to US FAR Part 36 of Federal Aviation Administration, including Amendment 36-1 through 36-27, effective 6 September 2005.

Fuel venting and exhaust emission:

- RBHA 34 "Fuel Venting and Exhaust Emission requirements for Turbine Engine Powered Airplanes – Type Certification", corresponding to US FAR Part 34 of Federal Aviation Administration, including Amendment 34-1 through 34-2 effective 21 January 1996.

CERTIFICATION BASIS (Cont.)

EMB-145XR:

RBHA 25 "Airworthiness Requirements for Aircraft Transport Category", corresponding to US FAR Part 25 of Federal Aviation Administration, including Amendment 25-1 through Amendment 25-84 effective 09 June 1995, plus the following:

- Amdt. 25-85 Integral;
- Amdt. 25-86 Section 25.1517;
- Amdt. 25-88 Integral;
- Amdt. 25-90 Integral;
- Amdt. 25-91 Sections 25.331; 25.335(b)(2); 25.345; 25.351; 25.363; 25.371; 25.415; 25.491; 25.499 and 25.561;
- Amdt. 25-93 Integral;
- Amdt. 25-94 Section 25.807;
- Amdt. 25-96 Paragraph 25.571(e)(1);
- Amdt. 25-97 Integral; and
- Amdt. 25-98 Integral.

RBHA 21 "Certification Procedures for Aeronautical Products and Parts", Amendment 21-03, dated 27 July 2000.

Special Conditions:

- High Intensity Radiated Fields (HIRF) Protection (RBHA 21.16, RBHA/FAR 25.1309, 25.1333 and 25.1431) - EMB-135 FCAR HSI-01;
- Interaction of systems and structures (fuel mismanagement) (RBHA/FAR 25.671 and 25.1309) – EMB-135XR FCAR HES-01;
- Ventral fuel tank penetration (RBHA 21.16, RBHA/FAR 25.963(e)) – EMB-145XR FCAR HES-04;
- Seats With Non-Traditional, Large, Non-Metallic Panels (RBHA/14 CFR Part 25.853) – EMB-145 FCAR HES-08.

Equivalent Level of Safety Findings:

- Use of 1g stall criteria (various RBHA) - EMB-135 FCAR HDE-01;
- Lack of pressurization prevention means for maintenance access hatches (RBHA/FAR 25.783(f) – EMB-135 FCAR HES-03;
- Flight critical thrust reverser (RBHA/FAR 25.933(a)(1)(i), (a)(1)(ii), (a)(2) and 25.1309(b)(1)) - EMB-135 FCAR HPR-03;
- Digital only display of turbine engine high/intermediate pressure rotor speed (N2) (RBHA/FAR 25.901, 25.1305(c), 25.1309, 25.1321 and 25.1549) - EMB-135 FCAR HPR-04;
- APU instrumentation and monitoring requirements (RBHA/FAR 25.1305 and 25.1501(b)) - EMB-135 FCAR HPR-06;
- Fire detector in the tail pipe (RBHA/FAR 25.1203(a)) - EMB-135 FCAR HPR-01;
- Checked maneuver loads (RBHA 21.21(b)(1), RBHA/FAR 25.331(c)(2)) - EMB-135BJ FCAR HES-09; and
- Wheels-up landing (RBHA/FAR 25.721(b) and 25.963(d)) - EMB-145XR FCAR HES-03;
- Cabin Altitude Warning System – High Altitude Takeoff and Landing Operations" (RBHA/FAR 25.841(b)(6) – EMB-145XR FCAR HSI-02;
- Indication of Unlocked Flightdeck Door - (RBHA/FAR 21.21(b)(1) and 25.1309(c)) – EMB-145 FCAR HES 06.

Exemption:
- Uncontrollable High Thrust (RBHA 25.901 (c)) – Granted through Ordinance DAC No. 1127/DGAC, dated 27 Aug. 2002 - EMB-145XR FCAR HPR-02.

CERTIFICATION BASIS (Cont.)

RBAC nº26 – Continued Airworthiness and Safety Improvements for Transport Category Airplanes:
- Based on RBAC 21.101 (g) for changes made to type certificates (TC) applicable provisions of RBAC nº26 must be included in the certification basis.
- For any future RBAC nº26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Noise standards:
- RBHA 36 "Noise Standard - Type Certification", corresponding to US FAR Part 36 of Federal Aviation Administration, including Amendment 36-1 through 36-27, effective 6 September 2005.

Fuel venting and exhaust emission:
- RBHA 34 "Fuel Venting and Exhaust Emission requirements for Turbine Engine Powered Airplanes – Type Certification", corresponding to US FAR Part 34 of Federal Aviation Administration, including Amendment 34-1 through 34-3, effective 03 February 1999.

PRODUCTION

Production approved under COP E-7203-01 (see Note 14).

DATA PERTINENT TO ALL EMB-135( ) MODELS:

ENGINE LIMITS

	AE3007		
	A1/3	A3	A1P
Static Thrust (-1000 ft) (lb):			
- Takeoff	7 580	7 201	8 388
- Maximum Continuous	6 820	6 820	6 820
Rotor Speed (%):			
- Maximum N1		100 (2)	
- Maximum N2		102.5 (3)	
- N2 (ground)		53.6 a 102.5	
Temperature Interturbine ITT (°C):			
- Takeoff		948 (1)	
- Maximum Continuous		901	
- Starting		800	
Oil Temperature (°C):			
- Maximum		126	
- Normal range		21 a 126	
- Minimum for starting:			
oil specified by MIL-L-23699		Above -40	
oil specified by MIL-L-7808		Above -54	
Oil Pressure (psig):			
- Maximum			
Steady State		95 (4) (5) (9)	
		110 (4) (5) (9) (10)	
Transient		115 (6)	
Transient		155(7) (8)	
- Minimum			
N2 above or equal to 88%		48	
N2 below 88%		34	

(1) Time limited to 5 minutes.
(2) 100 % N1 = 8 700 rpm.

(3) 102.5 % N2 = 16 270 rpm.
(4) For oil temperature above 21°C.
(5) No time limit.
(6) Duration limited to 5 min maximum.
(7) Duration limited to 2 min maximum.
(8) Must comply with SBAE 3007A-79-025 or equivalent.
(9) During cold day starting, there is no maximum limit on initial oil pressure.
(10) For airplanes with engine FADEC software version B7.6 installed (or later approved version)

ENGINE LIMITS (Cont.)

	AE3007A1E
Static Thrust (-1000 ft) (lb):	
- Takeoff	8 895
- Maximum Continuous	7 354
Rotor Speed (%):	
- Maximum N1	100 (2)
- Maximum N2	103.8 (3)
- N2 (ground)	57 a 103.8
Temperature Interturbine ITT (°C):	
- Takeoff	970 (1)
- Maximum Continuous	935
- Starting	800
Oil Temperature (°C):	
- Maximum	126
- Normal range	21 a 126
- Minimum for starting:	
oil specified by MIL-L-23699	above -40
oil specified by MIL-L-7808	above -54
Oil Pressure (psig):	
- Maximum	
Steady State	95 (4) (5) (9)
	110 (4) (5) (9) (10)
Transient	115 (6)
Transient	155 (7) (8)
- Minimum	
N2 above or equal to 88%	48
N2 below 88%	34

(1) Time limited to 5 minutes.
(2) 100 % N1 = 8 700 rpm.
(3) 103.8 % N2 = 16 470 rpm.
(4) For oil temperature above 21°C.
(5) No time limit.
(6) Duration limited to 5 min maximum.
(7) Duration limited to 2 min maximum.
(8) Must comply with SBAE 3007A-79-025 or equivalent.
(9) During cold day starting, there is no maximum limit on initial oil pressure.
(10) For airplanes with engine FADEC software version B7.6 installed (or later approved version)

ENGINE LIMITS (Cont.)

	AE3007A2
SL Static Thrust (lb):	
- Takeoff	9 278 (1)
- Maximum Continuous	7 970 (1)
Rotor Speed (%):	
- Maximum N1	97.7%
- Maximum N2	105.1%
Temperature Interturbine ITT (°C):	
- Starting	800 (2)
- Takeoff	994 (3) (4)
	970 (3) (5)
- Maximum Continuous	937
Oil Temperature (°C):	
- Maximum	126
- Normal range	21 a 126
- Minimum for starting:	
oil specified by MIL-L-23699	above -40
oil specified by MIL-L-7808	above -54
Oil Pressure (psig):	
- Maximum	110 (6) (7) (8) (9) (10)
Transient	115(11)
Transient	155(12)
- Minimum	
N2 above or equal to 88%	48 (13)
N2 below 88%	34

(1) Sea level, ISA, static condition and Pack OFF
(2) During start the ITT limit of 800°C may be exceeded for up to 5 seconds to a maximum temperature of 850°C.
(3) In icing conditions (REF A-ICE ON) the maximum ITT limit is 939°C.
(4) Temperatures between 971°C and 994°C are time limited to 90 seconds.
(5) Time limited to 5 minutes (including the transient allowance).
(6) For oil temperature above 21ºC.
(7) No time limit.
(8) During cold day starting, there is no maximum limit on initial oil pressure.
(9) May be exceeded during starts if oil temperature is below 21°C. The engine must remain at IDLE until the oil pressure is less than 110 psi.
(10) The upper limit of the oil pressure green range is 110 psi. Operation in oil pressure amber range is permitted between 111 and 115 psi in all operational modes and time limited to 5 minutes, or between 116 and 155 psi in all operational modes time limited to 2 minutes. Total time above 110 psi may not exceed 5 minutes.
(11) Duration limited to 5 min maximum.
(12) Duration limited to 2 min maximum
(13) Operation between 34 psi and 48 psi is allowed during the takeoff or go-around phases.

DATUM

A perpendicular plane to fuselage centerline located 11 595 mm (EMB-135ER/EL/BJ) or 12 686 mm (EMB-135KE/KL) forward the center section spar of the wing (wing stub). This spar is located 2 899 mm forward the aft jacking points.

LEVELING MEANS

Plumb between the upper part hole and a mark in the lower part of the forward window frame which is located after the emergency exit, 13 500 mm (EMB-135ER/EL/BJ) or 14 591 mm (EMB-135KE/KL) of the datum.

MEAN AERODYNAMIC CHORD

2 865 mm; the MAC leading edge is 12 594 mm (EMB-135ER/EL/BJ) or 13 685 mm (EMB-135KE/KL) of the datum.

MAXIMUM PASSENGERS

EMB-135ER/LR: 37
EMB-135KE/KL: 44
EMB-135BJ: 19 (See Note 9).

OIL CAPACITY

11.4 liters per engine.

CERTIFICATION BASIS

EMB-135/ER/ LR:

RBHA 25 "Airworthiness Requirements for Aircraft Transport Category", corresponding to US FAR Part 25 of Federal Aviation Administration, including Amendment 25-1 through Amendment 25-84 effective 09 June 1995, plus the following:

- Amdt. 25-85 Integral;
- Amdt. 25-86 Section 25.1517;
- Amdt. 25-88 Integral;
- Amdt. 25-90 Integral;
- Amdt. 25-91 Sections 25.331, 25.335(b)(2), 25.345, 25.351, 25.363, 25.371, 25.415, 25.491, 25.499 and 25.561;
- Amdt. 25-93 Integral;
- Amdt. 25-94 Section 25.807;
- Amdt. 25-97 Integral and
- Amdt. 25-98 Integral

RBHA 21 "Certification Procedures for Aeronautical Products and Parts", Amendment 21-02, dated 20 July 1993.

Special Condition:

- High Intensity Radiated Fields (HIRF) Protection (RBHA 21.16, RBHA/FAR 25.1309, 25.1333 and 25.1431) – EMB-135 FCAR HSI-01;
- Seats With Non-Traditional, Large, Non-Metallic Panels (RBHA/14 CFR Part 25.853) – EMB-135 FCAR HES-08.

Equivalent Level of Safety Findings:

- Use of 1 g stall criteria (various RBHA) – EMB-135 FCAR HDE-01;
- Lack of pressurization prevention means for maintenance access hatches (RBHA/FAR 25.783(f)) – EMB-135 FCAR HES-03;
- Fire Detector in the Tail Pipe (RBHA/FAR 25.1203(a)) – EMB-135 FCAR HPR-01;
- Flight critical thrust reverser (RBHA/FAR 25.933(a)(1)(ii)) – EMB-135 FCAR HPR-03;
- Digital only display of turbine engine high/intermediate pressure rotor speed (N2) (RBHA/FAR 25.1305(c)) – EMB-135 FCAR HPR-04;
- APU instrumentation and monitoring requirements (RBHA/FAR 25.1305 and 25.1501(b)) – EMB-135 FCAR HPR-06;
- Indication of Unlocked Flightdeck Door - (RBHA/FAR 21.21(b)(1) and 25.1309(c)) – EMB-145 FCAR HES 06.

RBAC nº26 – Continued Airworthiness and Safety Improvements for Transport Category Airplanes:

- Based on RBAC 21.101 (g) for changes made to type certificates (TC) applicable provisions of RBAC nº26 must be included in the certification basis.
- For any future RBAC nº26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Noise standards:
- RBHA 36 “Noise Standard – Type Certification”, corresponding to US FAR Part 36 of Federal Aviation Administration, including Amdt. 36-1 through 36-27, effective 6 September 2005.

Fuel venting and exhaust emission:
- RBHA 34 “Fuel Venting and Exhaust Emission requirements for Turbine Engine Powered Airplanes – Type Certification”, corresponding to US FAR Part 34 of Federal Aviation Administration, including Amdt. 34-1 through 34-2, effective 29 December 1995.

CERTIFICATION BASIS (Cont.)

EMB-135/KE/KL:

RBHA 25 “Airworthiness Requirements for Aircraft Transport Category”, corresponding to US FAR Part 25 of Federal Aviation Administration, including Amendment 25-1 through Amendment 25-84 effective 09 June 1995, plus the following:
- Amdt. 25-85 Integral;
- Amdt. 25-86 Section 25.1517;
- Amdt. 25-88 Integral;
- Amdt. 25-90 Integral;
- Amdt. 25-91 Sections 25.331, 25.335(b)(2), 25.345, 25.351, 25.363, 25.371, 25.415, 25.491, 25.499 and 25.561;
- Amdt. 25-93 Integral;
- Amdt. 25-94 Section 25.807;
- Amdt. 25-97 Integral; and
- Amdt. 25-98 Integral.

RBHA 21 “Certification Procedures for Aeronautical Products and Parts”, Amendment 21-02, dated 20 July 1993.

Special Condition:
- High Intensity Radiated Fields (HIRF) Protection (RBHA 21.16, RBHA/FAR 25.1309, 25.1333 and 25.1431) – EMB-135 FCAR HSI-01;
- Seats With Non-Traditional, Large, Non-Metallic Panels (RBHA/14 CFR Part 25.853) – EMB-145 FCAR HES-08.

Equivalent Level of Safety Findings:
- Use of 1 g stall criteria (various RBHA) – EMB-135 FCAR HDE-01;
- Lack of pressurization prevention means for maintenance access hatches (RBHA/FAR 25.783(f)) – EMB-135 FCAR HES-03;
- Fire Detector in the Tail Pipe (RBHA/FAR 25.1203(a)) – EMB-135 FCAR HPR-01;
- Flight critical thrust reverser (RBHA/FAR 25.933(a)(1)(ii)) – EMB-135 FCAR HPR-03;
- Digital only display of turbine engine high/intermediate pressure rotor speed (N2) (RBHA/FAR 25.1305(c)) – EMB-135 FCAR HPR-04;
- APU instrumentation and monitoring requirements (RBHA/FAR 25.1305 and 25.1501(b)) – EMB-135 FCAR HPR-06;
- Indication of Unlocked Flightdeck Door - (RBHA/FAR 21.21(b)(1) and 25.1309(c)) – EMB-145 FCAR HES 06.

Noise standards:
- RBHA 36 “Noise Standard – Type Certification”, corresponding to

US FAR Part 36 of Federal Aviation Administration, including Amdt. 36-1 through 36-27, effective 6 September 2005.

Fuel venting and exhaust emission:
- RBHA 34 “Fuel Venting and Exhaust Emission requirements for Turbine Engine Powered Airplanes – Type Certification”, corresponding to US FAR Part 34 of Federal Aviation Administration, including Amdt. 34-1 through 34-03, effective 03 February 1999.

CERTIFICATION BASIS (Cont.)

EMB-135BJ:

(a) Basic Model – Legacy 600 (see note 11):

RBHA 25 “Airworthiness Requirements for Aircraft Transport Category”, corresponding to US FAR Part 25 of Federal Aviation Administration, including Amendment 25-1 through Amendment 25-84 effective 09 June 1995, plus the following:
- Amdt. 25-85 Integral;
- Amdt. 25-86 Section 25.1517;
- Amdt. 25-88 Integral;
- Amdt. 25-90 Integral;
- Amdt. 25-91 Sections 25.331, 25.335(b)(2), 25.345, 25.351, 25.363, 25.371, 25.415, 25.491, 25.499 and 25.561;
- Amdt. 25-93 Integral;
- Amdt. 25-94 Section 25.807;
- Amdt. 25-96 Section 25.571(e)(1);
- Amdt. 25-97 Integral; and
- Amdt. 25-98 Integral.

RBHA 21 “Certification Procedures for Aeronautical Products and Parts”, Amendment 21-02, dated 20 July 1993.

Special Conditions:
- High Intensity Radiated Fields (HIRF) Protection (RBHA 21.16, RBHA/FAR 25.1309, 25.1333 and 25.1431) – EMB-135 FCAR HSI-01;
- Interaction of systems and structures (fuel mismanagement) (RBHA/FAR 25.671 and 25.1309) - EMB-135BJ FCAR HES-01 ;
- Ventral fuel tank penetration (RBHA 21.16, RBHA/FAR 25.963(e)) - EMB-135BJ FCAR HES-04.

Equivalent Level of Safety Findings:
- Use of 1 g stall criteria (various RBHA) – EMB-135 FCAR HDE-01;
- Lack of pressurization prevention means for maintenance access hatches (RBHA/FAR 25.783(f)) – EMB-135 FCAR HES-03;
- Fire Detector in the Tail Pipe (RBHA/FAR 25.1203(a)) – EMB-135 FCAR HPR-01;
- Flight critical thrust reverser (RBHA/FAR 25.933(a)(1)(ii)) – EMB-135 FCAR HPR-03;
- Digital only display of turbine engine high/intermediate pressure rotor speed (N2) (RBHA/FAR 25.1305(c)) – EMB-135 FCAR HPR-04;
- APU instrumentation and monitoring requirements (RBHA/FAR 25.1305 and 25.1501(b)) – EMB-135 FCAR HPR-06;
- Wheels-up landing (RBHA/FAR 25.721(b) and 25.963(d)) – EMB-135BJ FCAR HES-03;
- Checked maneuver loads (RBHA 21.21(b)(1), RBHA/FAR 25.331(c)(2)) – EMB-135BJ FCAR HES-09;
- Class C baggage compartment isolation (RBHA/FAR 25.855(h) and

25.857(c)) – EMB-135BJ FCAR HES-10; and
- Cabin Altitude Warning System – High Altitude Takeoff and Landing Operations" (RBHA/FAR 25.841(b)(6) – EMB-145XR FCAR HSI-02.

CERTIFICATION BASIS (Cont.)

Exemptions:
- Dynamic test requirement for side-facing divan (sofa) (RBHA/FAR 25.785(b)) – Granted through Ordinance DAC No. 1631/DGAC, dated 27 Nov. 2001 - EMB-135BJ FCAR HES-07;
- Uncontrollable High Thrust (RBHA 25.901 (c)) – Granted through Ordinance DAC No. 1127/DGAC, dated 27 Aug. 2002 - EMB-145XR FCAR HPR-02 (S/N 145625 and on only).
- RBAC nº26 Subparts B, D and E from Decision nº132 dated 21 September 2010.

Noise standards:
- RBHA 36 "Noise Standard – Type Certification", corresponding to US FAR Part 36 of Federal Aviation Administration, including Amdt. 36-1 through 36-27, effective 6 September 2005.

Fuel venting and exhaust emission:
- RBHA 34 "Fuel Venting and Exhaust Emission requirements for Turbine Engine Powered Airplanes – Type Certification", corresponding to US FAR Part 34 of Federal Aviation Administration, including Amdt. 34-1 through 34-03, effective 03 February 1999.

(b) Legacy 650 (see Note 18):

For all areas not affected by the Major Change Modification 0145-000-00020-2008/ANAC: RBHA 25 "Airworthiness Requirements for Aircraft Transport Category", corresponding to US Title 14CFR part 25 of Federal Aviation Administration, including Amendment 25-1 through Amendment 25-84 effective 10 July 1995, plus the following:
- Amdt. 25-85 Integral;
- Amdt. 25-86 Section 25.1517;
- Amdt. 25-88 Integral;
- Amdt. 25-90 Integral;
- Amdt. 25-91 Sections 25.331, 25.335(b)(2), 25.345, 25.351, 25.363, 25.371, 25.415, 25.491, 25.499 and 25.561;
- Amdt. 25-93 Integral;
- Amdt. 25-94 Section 25.807;
- Amdt. 25-96 Section 25.571(e)(1);
- Amdt. 25-97 Integral; and
- Amdt. 25-98 Integral.

For the areas affected by the Major Change Modification 0145-000-00020-2008/ANAC: RBHA 25 "Airworthiness Requirements for Aircraft Transport Category", corresponding to US Title 14CFR part 25 of Federal Aviation Administration, including Amendment 25-1 through Amendment 25-124 effective 07 April 2008 for the following list of the Aviation Regulations as presented below:

25.1	25.2	25.5	25.21	25.23
25.25	25.27	25.29	25.31	25.101
25.103	25.105	25.107	25.109	25.111 (a)(b)(c)(d)
25.113	25.115	25.117	25.119	25.121
25.123 (a)(b)	25.125 (a)(b)(c)(f)(g)	25.143	25.145	25.147 (a)(c)(d)(f)
25.149 (a)(b)(c)(d)(e)(f)(h)	25.161 (a)(b)(c)(d)	25.171	25.173	25.175

CERTIFICATION BASIS (Cont.)

25.177	25.181	25.201	25.203	25.207
25.231 (a)	25.233	25.235	25.237 (a)	25.251
25.253	25.255	25.301	25.303	25.305
25.307	25.321	25.331	25.333	25.335 (a)(b)(c) (d)(1)(2)(e)(1)(3)(f)
25.337 (a)(b)(c)	25.341	25.343 (a)(b)(3)	25.345 (a)(b)(2)(d)	25.349
25.351	25.361 (b)	25.363	25.365	25.367
25.371	25.373 (a)	25.391	25.393	25.395
25.397	25.399 (a)(1)(b)	25.409 (c)	25.415 (a)(1)(2)(b)	25.427 (a) (b) (c)
25.445 (a)	25.457	25.459	25.471	25.477
25.479 (a)(c)(d)	25.481 (a)(c)	25.483	25.485	25.487
25.489	25.491	25.493 (b)(d)(e)	25.495	25.499 (a)(b)(c)(e)
25.503	25.507 (a)(b)	25.509 (a)(1)(2) (3)(ii)(c)(d)	25.511	25.519
25.561	25.571	25.581	25.601	25.603
25.605	25.607	25.609	25.611	25.613
25.619	25.621	25.623	25.625	25.629
25.631	25.651	25.657	25.671 (a)(b)(c)	25.672 (b)(c)
25.675	677 (c)	25.683	25.685	25.689
25.693	25.697	25.699	25.701	25.703
25.721	25.729 (a)(1) (b)(c)(d) (e)(f)	25.731 (a)(b)(c)(d)	25.733 (b)(c)	25.735 (a)(d)(e)(1) (f)(g) (h)(1)(i)(k)
25.775	25.777(a)(b)(d)	25.785 (b)(c) (f)(1)(3)	25.787 (a)(b)	25.789 (a)
25.807 (i)(2)	25.831 (a)	25.855 (j)	25.863	25.865
25.869 (a)(3)	25.899	25.901 (a) (b)(2)(3)(c)	25.903 (a)(b)(c) (d)(e)	25.904
25.933 (a)	25.934	25.939	25.943	25.951 (a)(b)(2) (c)(d)
25.952	25.953	25.954	25.955	25.957
25.959	25.961	25.963	25.965 (a)(b)	25.967
25.969	25.971	25.973	25.975 (a)	25.977 (a)(2) (c)(d)(e)
25.979	25.981	25.991	25.993	25.994
25.995	25.997	25.999	25.1001 (a)	25.1011 (a)
25.1013 (b)(c)(d)(e)	25.1015	25.1017	25.1019	25.1021
25.1023	25.1041	25.1043 (a)(1)(2) (b)(c)	25.1045 (a)(b)(c)	25.1091 (a)(1) (d)(1)(2)
25.1093 (b)	25.1103 (c)(d)	25.1141 (f)(2)	25.1143 (c)	25.1181 (b)
25.1182	25.1183	25.1185	25.1187	25.1189 (a)(1) (b)(c)(d)(e)(f)(g)(h)
25.1191	25.1193 (a)(b)(d)	25.1195	25.1199 (d)	25.1203
25.1207	25.1301	25.1303	25.1305 (a)(1)(2) (d)(1)	25.1309
25.1316	25.1317	25.1321 (a)(c)(1)	25.1322	25.1323 (b)(c)(h)
25.1325 (e)	25.1329 (g)	25.1337 (b)(1)	25.1351 (a)(1)(d)	25.1353 (a)(c)
25.1357 (a)(c)(d) (e)(f)(g)	25.1360 (a)(b)	25.1419	25.1431	25.1438 (b)(c)
25.1455	25.1459	25.1461(b)(c)	25.1501 (a)(b)	25.1503
25.1505	25.1507	25.1511	25.1513	25.1515
25.1516	25.1517	25.1519	25.1521 (a)(c)(d)	25.1523 (as per App. D)
25.1527	25.1529 (as per App. H)	25.1531	25.1533 (a)(b)	25.1541
25.1549	25.1551	25.1553	25.1555 (c)	25.1581
25.1583 (a)(b) (c)(h)	25.1585	25.1587	25.1701	25.1703
25.1705 (a)(b)(2)(4)	25.1707 (a) (b)(e) (f)(i)(j)(k)(l)	25.1709	25.1711 (e)	25.1713
25.1715	25.1717	25.1719	25.1721 (b)	25.1723
25.1725	25.1727	25.1729		

The following lists the exceptions to show compliance with US Title 14CFR Part / RBHA 25 Amendment 25-124, as per RBHA § 21.101(b):

SECTION NO.	TITLE	AMENDMENT 25-
25.473	Landing load conditions and assumptions	23

25.723	Shock absorption tests	72
25.725	Limit drop tests	23
25.727	Reserve energy absorption drop tests	23
25.1435	Hydraulic systems	72

CERTIFICATION BASIS (Cont.)

RBHA 21 “Certification Procedures for Aeronautical Products and Parts”, Amendment 21-02, dated 20 July 1993.

Special Conditions:
- Interaction of systems and structures (fuel mismanagement) (RBHA/FAR 25.671 and 25.1309) - EMB-135BJ FCAR HES-01;
- Ventral fuel tank penetration (RBHA 21.16, RBHA/FAR 25.963(e)) - EMB-135BJ FCAR HES-04;
- Interaction of systems and structures (fuel mismanagement) (RBHA/FAR 25.671 and 25.1309) – EMB-135XR FCAR HES-01; and
- Ventral fuel tank penetration (RBHA 21.16, RBHA/FAR 25.963(e)) – EMB-145XR FCAR HES-04; and
- Limit Engine Torque Loads for Sudden Engine Stoppage (RBHA/14 CFR Part 25.361(b)) - EMB-135BJ FCAR HES-12.

Equivalent Level of Safety Findings:
- Use of 1 g stall criteria (only for RBHA/FAR 25.773(b)(1)(i)) – EMB-135 FCAR HDE-01;
- Lack of pressurization prevention means for maintenance access hatches (RBHA/FAR 25.783(f)) – EMB-135 FCAR HES-03;
- Fire Detector in the Tail Pipe (RBHA/FAR 25.1203(a)) – EMB-135 FCAR HPR-01;
- Flight critical thrust reverser (RBHA/FAR 25.933(a)(1)(ii)) – EMB-135 FCAR HPR-03;
- Digital only display of turbine engine high/intermediate pressure rotor speed (N2) (RBHA/FAR 25.1305(c)) – EMB-135 FCAR HPR-04;
- APU instrumentation and monitoring requirements (RBHA/FAR 25.1305 and 25.1501(b)) – EMB-135 FCAR HPR-06;
- Wheels-up landing (RBHA/FAR 25.721(b) and 25.963(d)) – EMB-135BJ FCAR HES-03;
- Checked maneuver loads (RBHA 21.21(b)(1), RBHA/FAR 25.331(c)(2)) – EMB-135BJ FCAR HES-09;
- Class C baggage compartment isolation (RBHA/FAR 25.855(h) and 25.857(c)) – EMB-135BJ FCAR HES-10; and
- Wheels-up landing (RBHA/FAR 25.721(b) and 25.963(d)) - EMB-145XR FCAR HES-03.

Exemptions:
- Dynamic test requirement for side-facing divan (sofa) (RBHA 25.785(b)) – Granted through Ordinance DAC No. 1631/DGAC, dated 27 Nov. 2001 - EMB-135BJ FCAR HES-07;
- Uncontrollable High Thrust (RBHA 25.901 (c)) – Granted through Ordinance DAC No. 1127/DGAC, dated 27 Aug. 2002 - EMB-145XR FCAR HPR-02;
- Lightning Protection of Fuel Tank Structure (RBHA 25.981(a)(3)) – Granted through “DECISÃO Nº 29” dated 02 March 2010 - EMB-135BJ FCAR HSI-04.
- *RBAC* nº26 Subparts B, D and E from Decision nº132 dated 21 September 2010.

Noise standards:
- RBAC 36 “NOISE STANDARDS: AIRCRAFT TYPE AND AIRWORTHINESS CERTIFICATION”, corresponding to Amendment 28 of the US Title 14CFR part 36 of Federal Aviation Administration effective February 3rd 2006.

Fuel venting and exhaust emission:
- RBHA 34 “Fuel Venting and Exhaust Emission requirements for Turbine Engine Powered Airplanes – Type Certification”, corresponding to US Title 14CFR Part 34 of Federal Aviation Administration, including Amdt. 34-1 through Amdt. 34-03, effective 03 February 1999.

PRODUCTION CERTIFICATION

Production approved under COP E-7203-01.

DATA PERTINENT TO ALL MODELS EMB-145( ) AND EMB-135( ):

MINIMUM CREW

2 (pilot and copilot)

HYDRAULIC FLUID

6 liters in each reservoir.

MAXIMUM ALTITUDES

Operating:	
- EMB-145	11 278 m (37 000 ft)
- EMB-135ER/LR/KE/KL:	11 278 m (37 000 ft)
- EMB-135BJ S/N 145863 and on (or modified according to SB 145LEG-00-0007):	12 497 m (41 000 ft)
- EMB-135BJ S/N below 145863:	11 887 m (39 000 ft)
Takeoff and Landing:	
- EMB-135 ( ) except EMB-135 BJ	2 438 m (8 000 ft)
- EMB-135BJ equipped with nose landing gear tire 19.5X6.75-8 10PR	2 895 m (9 500 ft)
- EMB-135BJ not equipped with nose landing gear tire 19.5X6.75-8 10PR	2 591 m (8 500 ft)
- EMB-145 ( ) except EMB-145 XR	
- EMB-145XR	2 438 m (8 000 ft)
- EMB-145XR e EMB-145LR modified according to SB 145-21-042 and 145-32-0093	3 048 m (10 000ft) 3 048 m (10 000ft)
- EMB-145LR with EOs 145-143102, 145-976190, 145-149308, 145-153411 or SBs 145-21-0044, 145-25-0299, 145-53-0060, 145-32-0109,and 145-31-0042 incorporated	4 115 m (13 500 ft)
- EMB-135BJ modified by OE 145001707-00 or SB 145LEG-21-0014	4206m (13.800ft)
- EMB-135BJ (Legacy 650) modified by OE 145003191-04 or SB 145LEG-21-0014	4206m (13.800ft)

TEMPERATURE OPERATING LIMITS

Altitude:	Maximum:	Minimum:
- Sea level	50°C	-54°C
- 7 620 m (25 000 ft)	25°C	-54°C
- 10 973 m (35 000 ft)	-21,5°C	-64°C
- 11 278 m (37 000 ft)	-21,5°C	-65°C

Straight linear variation between the points given.

CONTROL SURFACE MOVEMENTS

Elevator: (1)	Up 27.0° ±	Down 16,5° ±1.0 (a) Down 14,0° ±1.0 (b)
Rudder I: (1)	Right 15.0° ±	Left 15.0° ±1.0°
Rudder II: (1)(3)	Right 11.25° ±	Left 11.25° ±1.0°
Aileron: (1)	Up 25.0° ±	Down 15.0° ±1.0°
Flaps (outboard): (2)	7.5° ±1.0° 45.0° ±1.5° maximum deflection	
Flaps (inboard): (2)	9.18° ±0.8° 45.1° ±1.5° maximum deflection	
Stabilizer: (1)	Neutral 0° ±0.5° Up 4.0° +0.5°, -0.0° Down 10.0° +0.5°, -0.0°	
Spring tab: (1)(4)	9.0° to 10.5° up	12.0° to 13.5° (5) down 5.5° to 6.5° (6) down
Servo tab: (1) (3)(4)	Up 8.5° ± 0.5° (a) Up 7.2° ± 0.5° (b)	Down 13.0 ° ± 0.5°
Spoiler (inboard): (1)	52.0° ±2.0°	
Spoiler (outboard): (1)	30.0° ±2.0°	

(1) Deflections measured normal plane to hinge lines.
(2) Deflections measured parallel to the fuselage center line and normal to wing reference plane.
(3) Deflections measured are relative to the main control surface.
(4) Allowable asymmetry 1° (abating elevator asymmetry).
(a) Pre-mod EO 145-056355 or SB 145-27-0043.
(b) Pos-mod EO 145-056355 or SB 145-27-0043.
(5) Pre-mod EO 145-099134 ou BS 145-27-0110.
(6) Pos-mod EO 145-099134 ou BS 145-27-0110.

REQUIRED EQUIPMENT

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft. The approved equipment are listed in the Embraer Technical Report 145-MS-370.

The following ANAC approved Aircraft Flight Manual (AFM) must be on board:

- P/N 135/1539, for EMB-135BJ;
- P/N 140/1329, for EMB-135KE/KL; and
- P/N 145/1152, for all EMB-145( ) and other EMB-135( ) models.

NOTES:

NOTE 1 Weight and balance. Current weight and balance report including list of equipment included in certificated empty weight and loading instructions must be provided for each aircraft at the time of original certification.
The certificated basic empty weight and corresponding center of gravity location must include the total engine oil, hydraulic fluid and unusable fuel.

NOTE 2 Markings and placards. All markings and placards required by the applicable certification requirements (see Certification Basis) and by the operational requirements must be installed in the appropriate locations.

NOTE 3 Continuing Airworthiness. Except for the EMB-135BJ, all the life limitations are provided in the item A 2.2 of the “Appendix 2”, “Airworthiness Limitation Requirements” of the document MRB 145/1150. Life limitations for the EMB-135BJ are provided in section A 2.2 of “Appendix 2” of the document MPG-1483.
Except for the EMB-135BJ, the mandatory structural maximum inspection interval limits, raised from the damage tolerance analysis, are listed in the item A2.3 of the “Appendix 2 - Airworthiness Limitation Requirements” of the document MRB 145/1150. The structural maximum inspection interval limits for the EMB-135BJ are provided in section A 2.3 of “Appendix 2” of the document MPG-1483.

Except for the EMB-135BJ, all the mandatory systems certification maintenance requirements, raised from the safety analysis, are listed in the “Appendix 1 – Certification Maintenance Requirements” of the document MRB 145/1150. The certification maintenance requirements for the EMB-135BJ are listed in the “Appendix 1 – Certification Maintenance Requirements” of the document MPG-1483.
The Structures Repair Manual 145/1142 is approved and controlled by ANAC, and all Service Bulletins issued by Embraer are approved by ANAC. An approval statement is stamped in each Service Bulletin.

NOTE 4 All EMB-145( ) and EMB-135( ) models are not approved for ditching.

NOTE 5 The systems containing User Modifiable Software are:
- IC-600 User modifiable Check List; and
- FMS User Modifiable Jeppesen Data Plan Flight Plans.

The “User Modifiable Software” was not approved by ANAC; all modifications made by the airplane operator must be submitted to ANAC approval.

NOTE 6 Approved engine and FADEC combinations are listed below. Different combinations are allowed only if approved by ANAC in Embraer Service Bulletins. No intermixing of FADECs is permitted.

Engine Model	FADEC P/N	Software Version
AE3007A	23068661 (*)	VI.2
AE3007A	23068689 (*)	VI.6A

NOTE 6 (Cont.)

AE3007A	23071903 (*)	VI.7
AE3007A1/1	23071903 (*)	VI.7
AE3007A1/1	23068670 (*)	VI.4
AE3007A1/1	23068689 (*)	VI.6A
AE3007A1/1	23073999 (*)	B5.1.1
AE3007A1/1	23076627(*)	B7.5
AE3007A1/1	23078458(*)	B7.6
AE3007A1/1	23078828(*)	B8.0
AE3007A1/2	23068679 (*)	II.2
AE3007A1/3	23072295 (*)	IV.2
AE3007A1/3	23072554 (*)	B4.3
AE3007A1/3	23074002 (*)	B5.1.1
AE3007A1/3	23076630(*)	B7.5
AE3007A1/3	23078445(*)	B7.6
AE3007A1/3	23078836(*)	B8.0
AE3007A1	23068697 (*)	II.6
AE3007A1	23072296 (*)	IV.2
AE3007A1	23074000 (*)	B5.1.1
AE3007A1	23076628(*)	B7.5
AE3007A1	23078457(*)	B7.6
AE3007A1	23078829(*)	B8.0
AE3007A1	23083670(*)	B8.0.5
AE3007A3	23072509 (*)	B4.3A3
AE3007A3	23074003 (*)	B5.1.1
AE3007A3	23076631(*)	B7.5
AE3007A3	23078444(*)	B7.6
AE3007A1P	23072298 (*)	IV.2
AE3007A1P	23074001 (*)	B5.1.1
AE3007A1P	23076629(*)	B7.5
AE3007A1P	23078456(*)	B7.6
AE3007A1P	23078830(*)	B8.0
AE3007A1P	23083671(*)	B8.0.5
AE3007A1E	23076287 (*)	B7.4
AE3007A1E	23076632(*)	B7.5
AE3007A1E	23078443(*)	B7.6
AE3007A1E	23078837(*)	B8.0
AE3007A2	23089364(*)	B9.2

(*) Capital letters indicates minor variations and are considered approved.

NOTE 7

(a) The airplanes EMB-145ER serial numbers 145014 and 145017 may be converted to the model EMB-145EP if the Embraer Service Bulletin No. 145-00-0001 is accomplished.

(b) The airplanes EMB-145ER serial numbers 145044 and 145046 may be converted to the model EMB-145MR if the Embraer Service Bulletin No. 145-00-0002 is accomplished.

(c) The airplanes EMB-145MR serial numbers 145044 and 145046 may be converted to the model EMB-145LR if the Embraer Service Bulletin No. 145-28-0007 is accomplished.

NOTE 8

The engine data plates identifying the engines models installed on all aircraft models, which are the subject of this Type Certificate Data Sheet, may have either the name “Allison Engine Company” or “Rolls-Royce Corporation” on them. This is a manufacturer name change only, and does not affect the configuration or certification status of the engines identified in Type Certificate Data Sheet EM-9608.

NOTE 9

(a) The interior configuration for each EMB-135BJ airplanes serial number, including the maximum number of passengers, is defined and approved in the Embraer technical report 135-IR-708. The seats installation limitations are defined and approved in the Embraer technical report 135-SA-770. For the aircraft S/N 145686 and on the respective reports are 135-IR-1208 e 135-SA-1270.

(b) All replacement seats (crew and passenger) and foam cushion construction deviations, even though compliant with TSO C127, must be evaluated for their impact to the surrounding seat envelope (i.e. cabinet changes, galley changes, sidewall changes, floor changes, etc.) and for the impact on the certification requirements of the RBHA/FAR 25.562(e)(5) and the applicable parts of the RBHA/FAR 25.803 through 25.815.

NOTE 10

The interior configuration for each EMB-145XR airplanes serial number, including the maximum number of passengers, is defined and approved in the Embraer technical report 145-IR-1106.

NOTE 11

The models EMB-145( ) and EMB-135( ) are often referred to in Embraer marketing literature as the “ERJ-145( )”, “RJ145( )”, “ERJ-135( )” or “RJ135( )”, plus the designation of the specific model (LR, MR, ER, etc.). The Model EMB-135KE is often referred to in Embraer marketing literature as the “EMB-140ER”, “ERJ-140ER” or “RJ-140ER”. The Model EMB-135KL is often referred to in Embraer marketing literature as the “EMB-140LR”, “ERJ-140LR,” or “RJ-140LR”. The model EMB-135BJ is often referred to in Embraer marketing literature as Legacy 600 or Legacy 650 (see note 18). These names are strictly marketing designations, and are not part of the official EMB-145( ) and EMB-135( ) models designation.

NOTE 12:

The following data is applicable to the airplanes EMB-135BJ S/N 145625 and below:

ENGINE

Two Rolls-Royce Corporation model AE3007A1P. See Note 8.

C. G. RANGE
(Landing Gear Extended)

22 270 kg:	13 365 a 13 597 mm (26,9% a 35% da CMA)
22 200 kg:	13 365 a 13 597 mm (26,9% a 35% da CMA)
18 500 kg:	13 147 a 13 597 mm (19,3% a 35% da CMA)
14 500 kg:	13 024 a 13 597 mm (15,0% a 35 % da CMA)
14 000 kg:	13 024 a 13 597 mm (15,0% a 35% da CMA)
13 313 kg:	13 319 a 13 597 mm (25,3% a 35% da CMA)
13 000 kg	13 453 mm (30% da CMA)

MAXIMUM WEIGHT

Ramp:	22 270 kg
Takeoff:	22 200 kg*
Landing:	18 500 kg
Zero Fuel:	16 000 kg

*For airplanes Pos-mod. SB 145LEG-25-0078 the MTOW will be 22 000 kg (to increase again the MTOW to 22 200 kg, the SB 145LEG-25-0079 must be incorporated)

FUEL CAPACITY

Maximum usable fuel of 10 152 liters (two forward fuselage tanks of 1 056 liters at +8 440 mm, two wing tanks of 3 198 liters at +13 147 mm and two aft fuselage tanks of 822 liters at +20 293 mm).
Unusable fuel of 106 liters (forward fuselage tanks 27 liters, wing tanks 44 liters and aft fuselage tanks 35 liters).

NOTE 13 EMB-135LR model with S/N 145599, and any subsequent, may be configurated with 18 passengers seats, other equipment and placards in accordance with Embraer reports 135-IR-008 and 135-MS-322. EMB-135LR having serial number prior may be converted to the 18 passengers seat configuration with accomplishment of an Embraer Service Bulletin approved by the CTA.

NOTE 14 The EMB-145 ER and LR models with serial numbers listed on Embraer technical report 145-MS-467 "List of serial numbers manufactured by HEAI" were manufactured by the associated facility Harbin Embraer Aircraft Industry (HEAI) – China, according to production certificate CHE E-7203-01.

NOTE 15 The airplanes models EMB-145ER and EMB-145EP, when modified by Embraer Service Bulletin N° 145-53-0064, have a Maximum Zero Fuel Weight of 17 350 kg.

NOTE 16 The following data is applicable to the airplanes model EMB-145LR modified according to Service Bulletin N° 145-00-0032:

C. G. RANGE (Landing Gear Extended)	22 700 kg:	15 127 to 15 732 mm (19,0% to 38.5% MAC)
	22 600 kg:	15 127 to 15 732 mm (19.0% to 38.5% MAC)
	19 300 kg:	15 050 to 15 732 mm (15.7% to 39.5% MAC)
	17 100 kg:	14 989 to 15 832 mm (13.6% to 43.0% MAC)
	15 500 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
	13 400 kg:	14 944 to 15 832 mm (12.0% to 43.0% MAC)
	12 400 kg:	15 459 mm (30.0% MAC)
MAXIMUM WEIGHT	Ramp:	22 700 kg
	Takeoff:	22 600 kg
	Landing:	19 800 kg
	Zero Fuel:	18 400 kg

NOTE 17 From the airplanes Serial Number 145801 and on, the identification serial number changed with the inclusion of two more digits (for example, the Serial Number 145802 turned into 14500802).

NOTE 18 Legacy 650 does not correspond to a model designation. This is only a commercial designation for airplanes EMB-135BJ on which Major Modification 0145-000-00020-2008/ANAC (EMB-135BJ Performance Enhancements) revision D, approved 11 August 2010, have been embodied. The Major Change Modification 0145-000-00020-2008/ANAC to the EMB-135BJ basically consists of more onboard fuel mass (ventral tank addition and modified stub tanks), more fuel efficient engines (AE3007A2, an improved version in the AE3007A family), and more takeoff weight (MTOW increased to 24 300 kg).

NOTE 19 The type certificate holder has changed its commercial name. All the ANAC documentation issued to the previous name up to this date remains valid. All documentation issued previously bearing the previous name continues valid.

NOTE 20 To comply with the operational requirement RBHA 121.312(e)(3), the EMB-145 models modified by DCA 145-025-00004-2012/ANAC, comply with the flammability requirements RBHA/14CFR Parte 25.856(b) "Thermal/ Acoustic Insulation for Burn through Protection".

Original in the Portuguese language signed by

HÉLIO TARQUÍNIO JÚNIOR
Gerente Geral de Certificação de Produto Aeronáutico
(General Manager, Aeronautical Products Certification)