



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

**TYPE CERTIFICATE DATA SHEET Nº EA-2007T14**

Type Certificate Holder:

**BOMBARDIER AEROSPACE  
BOMBARDIER INC.**

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Montreal, Quebec H3C 3G9  
**CANADA**

EA-2007T14-00  
Sheet 01  
  
BOMBARDIER  
BD-100-1A10 (CL-300)  
January 2008

This data sheet, which is part of Type Certificate No. 2007T14, 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 BD-100-1A10 Challenger 300 (Transport Category), approved 22 January 2008.**

**ENGINE** Two Honeywell AS907-1-1A, engine type certificate number 2007T12.  
Approved by ANAC 27 December 2007.

<b>FUEL</b>	Type	Specifications		
		Canada	USA	UK
Jet A	CAN2-3.23	ASTM D1655	D. Eng RD2494	
Jet A-1	CAN2-3.23	ASTM D1655	D. Eng RD2494	

**OIL** Engine, APU: Refer to Aircraft Maintenance Manual, Bombardier  
Publication BD 100 AMM, Chapter 12.

<b>ENGINE LIMITS CONDITIONS</b>	SL Static Thrust (installed)		Fan RPM	Core RPM	ITT		Time Limit
	lbf	kN	%N1	%N2	°C	°F	
Max Takeoff	6924	30.8	95.9	98.1	941	1 726	5 min*
Max Continuous Idle range	6910	30.7	95.0	97.2	923	1 693	-
Reverse Thrust	-	-	-	46.0 min.	-	-	-
Starting, on ground	-	-	-	N/A	650	1 202	-
Starting, in air	-	-	-	N/A	700**	1 292**	-

\* The takeoff limit may be extended to 10 minutes for engine out contingency.

\*\* Varies with N2 speed.

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<b>OIL TEMPERATURE</b>			°C	°F	
	Maximum for Starting (ground)		-40	-40	
	Maximum before acceleration above idle		N/A	N/A	
	Maximum continuous:		138	280	
	Minimum Permissible (transient, 2 minutes)		154	309	
<b>OIL PRESSURE</b>	Take-off Power (minimum)	*			
	Steady State Idle (minimum)	28 psi			
	* Oil pressure is not regulated and pressure limits varies with N2 speeds				
<b>APU</b>	HONEYWELL 36-150[BD]				
<b>APU LIMITS</b>	Maximum RPM	110%			
	Maximum EGT	°C	°F		
	Starting	512 - 1024	954 - 1 875		
	Running	594 - 714	1 101 - 1 317		
<b>AIRSPEED LIMITS (IAS)</b>	$V_{MO}$ and $M_{MO}$ (Maximum Operating)		mph	knots	Mach
	Sea Level to 8000 ft		345	300	-
	8001 ft to 29475 ft		368	320	-
	Above 29475 ft		-	-	0.83
	$V_{FE}$		242	210	-
	10°				
	20°		242	210	-
	30°		201	175	-
	$V_D$ and $M_D$				
	Sea Level to 25525 ft		437	380	-
	Above 25525 ft		-	-	0.90
	See Flight Manual for variation of $V_a$ with altitude and aircraft weight				
	$V_{MCA}$	Flap 10°	122	106	-
		Flap 20°	117	102	-
	$V_{MCG}$		128	111	-
	$V_{LO (EXT)}$		288	250	-
	$V_{LO (RET)}$		230	200	-
	$V_{LE}$		288	250	-
<b>C. G. RANGE</b>	See Figure 1.0, Longitudinal C.G. Envelope				
	MRW=Maximum Ramp Weight				
	MTOW= Maximum Takeoff Weight				
	MLW=Maximum Landing Weight				
	MZFW=Maximum Zero Fuel Weight				
	MFW=Minimum Fuel Weight				
<b>DATUM</b>	Fuselage Station 0.0 located at 195 in. Fwd of the aircraft nose.				
<b>LEVELING MEANS</b>	Plumb bob and target in the aft equipment bay at FS 755.5 and RBL 1.0.				
<b>MEAN AERODYNAMIC CHORD</b>	112.2 in (MAC leading edge at fuselage station 556.67 in)				

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**MAXIMUM WEIGHT**

		lb.	Kg.
(See Figure 1)	Max. Taxi and Ramp	38 650	17 530
(See Note 1)	Max. Takeoff	38 500	17 460
	Max. Landing	33 750	15 310
	Max. Zero Fuel	26 100	11 840

**INCREASED MAXIMUM WEIGHT\***

		lb.	Kg.
(See Figure 2)	Max. Taxi and Ramp	39 000	17 690
(See Note 1)	Max. Takeoff	38 850	17 622
	Max. Landing	33 750	15 310
	Max. Zero Fuel	27 000	12 247

\* With MS100T10126, BB100T010126 and SB 100-11-01

**MINIMUM CREW**

Two (Pilot and Co-pilot)

**MAXIMUM OCCUPANTS**

19 (includes the crew and no more than 16 passengers)

(See Note 4)

**FUEL CAPACITY**

	Load		Weight**	
	US Gal.	Liters	lb	kg
Usable 2 main tanks (each)	1 048	3 967	7 074	3 209
Total	2 096	7 934	14 150	6 418
*Total Unusable (drainable)	7.5	28.2	50.4	22.8
*Total Undrainable)	6.4	24.3	43.4	19.7

\* See NOTE 3

\*\* Assuming a fuel density of 6.75 lbs/U.S. Gal.

**OIL CAPACITY**

	Load		Weight**	
	US Qts.	Liters	lb	kg
Left Engine	6.0	5.7	12.6	5.7
Right Engine	5.0	4.7	10.4	4.7
Total	11	10.4	23.0	10.4
Usable per Engine	1.7	1.6	3.5	1.6

**MAXIMUM OPERATING ALTITUDE**

Takeoff and Landing	10 000 feet
En route	41 000 feet

**CONTROL SURFACE MOVEMENTS**

Elevator:	24° TE Up	18° TE Down
Horizontal Stabilizer:	2° LE Up	12° LE Down
Rudder:	30° Left	30° Right
Aileron:	18° TE Up	18° TE Down
Ground Spoilers	60° Up	
Multi-function spoilers (Inboard to Outboard)	45° Up	

**S/N ELIGIBLE**

20168 and 20178

A Certificate of Airworthiness for Export endorsed as noted under "Import Requirements" must be submitted for each individual aircraft for which application for a Brazilian Certificate of Airworthiness is made.

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**IMPORT ELIGIBILITY**

A Brazilian Certificate of Airworthiness may be issued on the basis of on an FAA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:

“The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the Brazilian Type Certificate No. 2007T14 and in condition of safe operation”.

The ANAC Report H.10-2270-00, dated 22 January 2008 for BD-100-1A10, or further revisions, contains the Brazilian requirements for the acceptance of these airplanes. (See note 4)

**CERTIFICATION BASIS**

Brazilian Type Certificate No. 2007T14 issued on 22 January 2008 based on RBHA 25 “Transport Category Airplanes”, which endorses the FAR 25 effective 01 February 1965 as amended by 25-1 through 25-105 except amendments 25-102 and 25-104, correspondent to Canadian Airworthiness Manual 525 Change 7.

Special Conditions (adopted the TCCA):

- SCA 2000-2 - High Intensity Radiated Fields.
- SCA H2002-01 - Automatic Performance Reserve.
- SCA 2004-02 - Single-Occupancy Side-Facing Seat.

Equivalent levels of safety findings:

- RBHA/FAR 25.177 - Static Lateral - Directional Stability.
- RBHA/FAR 25.103 - Stall Speed.
- RBHA/FAR 25.361 - Engine Torque.
- RBHA/FAR 25.933 - Reversing Systems.
- RBHA/FAR 25.1203 - Fire Detector System.
- RBHA/FAR 25.1435(b)(1) - Hydraulic Systems.

Exemptions:

- 180-2004-NCR/RCN for Installation of Side-Facing Divan(s), and
- ANAC partial exemption granted on 21 January 2008 to RBHA/FAR 25.901(c), amendment 25-46, related to Uncontrollable High Engine Thrust or Power.

Noise requirements:

RBHA/FAR 36 corresponding to ICAO Annex 16, Vol. I, Amend 5, (1997).

Emission requirements:

RBHA/FAR 34 corresponding to ICAO Annex 16, Vol. II, Amend 2, (1992).

**REQUIRED EQUIPMENT**

The basic required equipment, as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane.

**DATA PERTINENT TO ALL MODELS:**

Approved Publications:

- a) Airplane Flight Manual, Canadair Publication CSP 100-1, revision 7 dated 29 September 2006 for the appropriate weight configuration and subsequent approved revisions.
- b) Structural Repair Manual (SRM), Bombardier Publication BD 100 SRM and subsequent approved revisions.
- c) Time Limits/Maintenance Checks Manual, Bombardier Publication BD 100 TLMC and subsequent approved revisions contains the Certification Maintenance Tasks, Life Limited Parts and Damage Tolerant Inspections.
- d) Drawing List, Bombardier Publication RAL-100-0001, Issue A and subsequent approved revisions.

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**OTHER OPERATING  
LIMITATIONS**

See appropriate ANAC Approved Airplane Flight Manual Supplement.

**NOTES:****NOTE 1****Weight and balance.**

This Aircraft Type Certificate Data Sheet defines a configuration which does not include passenger provision for the CL300 models. Carriage of persons in the cabin is permitted when an approved seating arrangement and related required passenger provisions are incorporated.

- (a) Current weight and balance report including the list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.
- (b) System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tanks to the undrainable level plus unusable fuel in the fuel tanks. The weight of undrainable and unusable fuel defined in the Fuel Capacity section must be included in the empty weight of the airplane.

**NOTE 2****Markings and placards.**

All placards (for interior and exterior) must be installed in accordance with Bombardier Drawings RAQ-BA100-115 and RAQ-BA100-116.

Note: Customized markings and placards drawings are not included.

**NOTE 3****Continuing Airworthiness.**

The airplane life limits and repetitive inspections for components and equipment and information essential for proper maintenance, are listed in Bombardier Publication BD 100 TLMC. These limitations may not be changed without ANAC approval.

Instructions for Continued Airworthiness consist of the following Publications:

- a) BD 100 AMM, Aircraft Maintenance Manual (Publication No. CH300 AMM)
- b) BD100 TLMC, Time Limits/Maintenance Checks Manual (Publication No. CH300 TLMC)
- c) BD 100 SRM, Structural Repair Manual (Publication No. CH300 SRM)
- d) BD 100 NDT, Non-Destructive Testing Manual (Publication No. CH300 NDTM)
- e) BD 100 JIC, Job Instruction Card Manual (Publication No. CH300 JICM)

**NOTE 4**

The difference of the Brazilian airplanes in relation to the basic FAA type design is summarized below:

- ANAC partial exemption granted on 21 January 2008 to RBHA/FAR 25.901(c), amendment 25-46, related to Uncontrollable High Engine Thrust or Power.

**NOTE 5**

The green aircraft type design does not include passenger provisions. Carriage of persons in the cabin is permitted when an approved seating arrangement and related required passenger provisions are incorporated in accordance with the Type Approval Basis.

The aircrafts delivered in the green configuration are eligible for carriage of up to 16 passengers provided approved seating arrangement and related required passenger provisions are incorporated in accordance with the Basis of Certification.

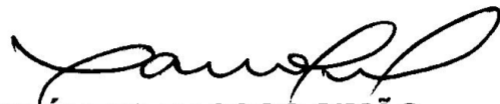
**NOTE 6**

The following FAA or TCCA Supplemental Type Certificates (STC's) owned by Bombardier Aerospace/Learjet Inc, applicable to the BD-100-1A10 models, were validated by ANAC without corresponding Brazilian CHST document issuance and may be incorporated on Brazilian registered aircraft, provided the modification does not affect compliance with the Brazilian acceptance requirements (see paragraph Import Eligibility):

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ANAC PROJECT NUMBER	STC NUMBER	DESCRIPTION OF TYPE DESIGN CHANGE	AIRPLANE FLIGHT MANUAL SUPPLEMENT (AFMS)
H.02-2712-0	SA04-112 (limited to the S/N 20168)	Installation of Complete Custom Aircraft Interior in accordance with Aero Consulting Services Ltd. Configuration Definition List D921000, Rev. K, dated 27 Sep. 2005, or later approved revisions.	Doc. Nº D921090, Rev. B, dated 23 May. 2006, or later TCCA approved revisions.
H.02-2713-0	SA06-14	Installation of an Artex ELT C406-N with a Navigation Interface in accordance with Aero Consulting Services Ltd. Modification Data Summary Number E618000, Rev. A, dated 14 Feb. 2006, or later approved revisions.	N/A

Note: Or later approved revisions.



**CLÁUDIO PASSOS SIMÃO**  
**Gerente Geral, Certificação de Produtos Aeronáuticos**  
**(Manager, Aeronautical Products Certification)**