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第 1 部分 总则 / SECTION 1 GENERAL

1. CAAC 认可数据单和型号合格证数据单

CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空总局认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance date	型号合格证数据单号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date
当前/ Current	VTC0251A, Revision 0, 2010 年 12 月 3 日	TCCA TCDS A-234, Issue No.5, March 16, 2010
历史/ History	N/A 无	TCCA TCDS A-234, Issue No.4, September 26, 2007

2. 适航类别/Airworthiness Category: 运输类航空器/ Transport Category aircraft

3. 认可当局/Validation Authority: 中国民用航空局/CAAC
审定当局/Certifying Authority: 加拿大运输部/TCCA

4. 型号合格证持有人/Type Certificate Holder: Bombardier Inc.
P.O. Box 6087,
Station Centre-Ville
Montreal,
Quebec, Canada H3C 3G9

5. ETOPS: 不适用

6. 认可审定基础/Validation Certification Basis

CAAC 的认可审定基础由 TCCA 的审定基础（详见 TCCA 型号合格证数据单：编号 A-234 中的 BD-100-1A10 Challenger 300 型别部分的审定基础）和 CAAC 的附加技术条件组成。

The CAAC validation basis consists of the TCCA certification basis (refer to the certification basis of BD-100-1A10 Challenger 300 in TCCA Type Certificate Data Sheet No. A-234) and the CAAC additional technical conditions.

第 2 部分/SECTION 2: BD-100-1A10 Challenger 300

I. 总则/General

1. 型号/Variant or Model: BD-100-1A10 (Challenger 300)
2. 适航类别/Airworthiness Category: 运输类航空器/Transport category Aircraft
3. 型号合格证持有人/Type Certificate Holder: Bombardier Inc.
P.O. Box 6087,
Station Centre-Ville
Montreal,
Quebec, Canada H3C 3G9
4. TCCA 批准日期/TCCA Approved Date: 2003.05.30/May 30, 2003
5. CAAC 批准日期/CAAC Approved Date: 2010.12.3/Dec.3, 2010

II. 认可审定基础/Validation Certification Basis

CAAC 的认可审定基础由 TCCA 的审定基础（详见 TCCA 型号合格证数据单：编号 A-234 中的 BD-100-1A10 Challenger 300 型别部分的审定基础）和 CAAC 如下附加技术条件组成：

(1) 必须符合 TCCA 颁布的所有适用的适航指令（ADs）。

(2) 标牌要求：

(a) 根据 CCAR 21.29(5)要求，机上所有对旅客进行的提示、警告和通知的文字标记和标牌，机上所有向旅客或者机外营救人员指示应急出口和门的位置以及开启方法的文字标记和标牌，旅客可能使用的机上所有应急设备的操作、使用说明至少有简体中文表述。

(b) 根据适用性，中文字的尺寸应符合 CCAR 25.811(e)(4)(iii)和 CCAR 25.812。

(c) 如有任何其他的中文标记标牌，在飞机交付时或之前应被 CAAC 接受或批准。

(3) CCAR 25R3 和 TCCA AWM 525 第 7 次改版加上 FAA FAR 25 部 25-85 至 25-105 修正案，除 25-102 和 25-104 修正案之间的规章差异：

CCAR 章节	评论
25.1325e	CCAR 规章中，指示的气压高度误差不能超过±30 节每 100 节，而 AWM 中的误差值是不能超过+30 节。该款下一句中存在同样的情况。 In CCAR, the error in indicated pressure altitude does not result in an error of more than ±30feet per 100knots, while in AWM the value of error is not more than +30feet. It is the same situation for the next sentence in this paragraph.

(4) CAAC 考虑以下 FAA 的专用条件加入认可审定基础：

(a) 使用自动动力储备的进近和复飞

(b) 发动机突然停车的限制发动机扭矩载荷

(5) 根据 CAAC 的适航指令 CAD97-MULT-38，应安装快速存储器（QAR）。

(6) 参考 CCAR 121.301(d)，飞机应当至少装备有以米为单位显示的高度表。

(7) 应定义 P.R.C.喷气三号燃油（GB 6537-2006）的运行条件。

The CAAC validation basis consists of the TCCA certification basis (refer to the certification basis of BD-100-1A10 Challenger 300 in TCCA Type Certificate Data Sheet No. A-234) and the following CAAC additional technical conditions:

(1) All applicable Airworthiness Directives (ADs) issued by the TCCA shall be complied with.

(2) Placard Requirements:

(a) Per CCAR 21.29 (5), all on-board placard and marking for awareness, warning, and note to the passenger; all on-board placard and marking for opening method and location indication of the emergency exit and door to passenger and outside rescuer; and all operational instructions for on-board emergency equipments possible operated by passengers shall be presented in Simplified Chinese at least.

(b) The dimension of the Chinese characters shall comply with the provision of the CCAR 25.811

(e) (4) (iii) and CCAR 25.812 as applicable.

(c) Other placard and marking in Chinese, if any, shall be accepted or approved by the CAAC before or at the moment of the aircraft delivery.

(3) Regulatory Differences between CCAR 25R3 and TCCA AWM 525 at change 7 Plus
FAA FAR Part 25 with Amendments 25-85 through 25-105, excluding amendments 25-102 and 25-104:

CCAR Sections	Remarks
25.1325e	In CCAR, the error in indicated pressure altitude does not result in an error of more than ± 30 feet per 100 knots, while in AWM the value of error is not more than +30 feet. It is the same situation for the next sentence in this paragraph.

(4) CAAC considered the following FAA's Special Conditions should be added into the validation Certification Basis

(a) Approach and Go-around use of Automatic Power Reserve

(b) Limit Engine Torque Loads for Sudden Engine Stoppage

(5) Per CAAC Airworthiness Directive CAD97-MULT-38, the Quick Access Recorder (QAR) shall be installed.

(6) Refer to CCAR 121.301(d), the altimeter measure unit shall be indicated in meter at least.

(7) Operational condition for the P.R.C. JET fuel No.3 (GB 6537-2006) shall be defined.

TCCA 审定基础 / TCCA Certification Basis:

1. 加拿大适航手册第 525 章, “适航标准: 运输类飞机” 1996 年 9 月 30 日的第 7 次改版和 FAR 25 部的 25-85 至 25-105 修正案, 除 25-102 和 25-104 修正案外。

这等同于 14CFR 25 部 25-1 至 25-105 修正案 (除 25-102 和 25-104 修正案外)。/
1. Canadian Airworthiness Manual Chapter 525, “Airworthiness Standards: Transport Category Aeroplanes” at Change 7 dated September 30, 1996 and FAR Part 25 amendments 25-85 through 25-105, excluding amendments 25-102 and 25-104.

This is equivalent to the 14 CFR Part 25 including Amendments 25-1 through 25-105 (excluding 25-102 and 25-104).

加上以下附加的加拿大适航要求 / Plus the following AWM requirements :

525.105(c)(1)*	无铺面跑道上的起飞性能/ Take-off Performance, Unpaved Runways	改版 525-2/ Change 525-2
525.125(b)*	无铺面跑道上的着陆性能/ Landing Performance, Unpaved Runways	改版 525-2/ Change 525-2
525.207(b)	失速警告/ Stall Warning	首版/ First Edition
525.697(b)	增升和阻力装置 / Lift and Drag Devices	首版/ First Edition
525.699(d)	增升和阻力装置指示器 / Lift and Drag Devices, Indicator	首版 / First Edition
525.1301-1	地面冷浸后的飞机操作 / Aeroplane Operations after Ground Cold Soak	首版 / First Edition
525.1521(e)	10 分钟额定起飞功率 / 10 Minutes Rated Take-off Power	改版 525-3 / Change 525-3
525.1557(b)(4)	其他标记和标牌 / Miscellaneous Markings and Placards	改版 525-3 / Change 525-3

525.1581(e),(f)	飞机飞行手册 / Aeroplane Flight Manual	改版 525-6 / Change 525-6
525.1581(g)	湿的和污染的跑道 / Wet or Contaminated Runways	改版 525-6 / Change 525-6

* (见注释 6) /

*(See NOTE 6)

2. 适航手册, 第 516 章飞机噪声和排放 516-07 改版, 基于 ICAO 附录 16, 卷 I 和 II。 /

2. Airworthiness Manual, Chapter 516 Aircraft Noise and Emission at Change 516-07, which is based on ICAO Annex 16, Volumes I and II.

3. 适航手册, 第 511 章, 511.09 节, 功能和可靠性试飞。 /

3. Airworthiness Manual, Chapter 511, Section 511.09, Function and Reliability Test Flying.

4. 专用条件/ Special Conditions:

SCA 2000-2, 高强度辐射场 /

SCA 2000-2, High Intensity Radiated Fields

SCA H2002-01, 自动性能储备 /

SCA H2002-01, Automatic Performance Reserve

SCA 2004-02, 单乘客侧向座椅 /

SCA 2004-02, Single-Occupancy Side-Facing Seat

5. 等效安全 / Equivalent Safety Findings:

1. AWM 525.177(c) 横向/航向静稳定性 /

Static Lateral/Directional Stability

2. AWM 525.103* 减少的最小运行速度因子 /

Reduced Minimum Operating Speeds Factors

3. AWM 525.361 发动机和 APU 卡住的考虑 /

Engine and APU Seizure Considerations

4. AWM 525.933 反推空中打开 /

Thrust Reverser Inflight Deployment

5. AWM 525.1203 反推区域火警探测 /

Thrust Reverser Zone Fire Detection

6. AWM 525.1435(b)(1) 液压系统符合性证明的压力试验 /

Hydraulic System Proof Pressure Testing

* 其他影响的条款见 TC 问题纪要 F-1 /

* See TC Issue Paper F-1 for other affected requirements

6. 豁免 180-2004-NCR/RCN, 侧向沙发的安装 /

6. Exemption 180-2004-NCR/RCN, Installation of Side-Facing Divan(s).

III. 技术特征和运行限制 / Technical Characteristics and Operational Limitations

发动机 / Engines:

两台霍尼韦尔 AS907-1-1A 发动机 /

Two Honeywell AS907-1-1A

燃油 / Fuel:

所有批准的燃油牌号参见飞机飞行手册 (AFM) CSP 100-1 (限制, 批准的燃油添加剂) /

For all approved fuel types, refer to Airplane Flight Manual (AFM) CSP 100-1 (Limitations, Approved Fuel Additives)

燃油添加剂仅限于飞机飞行手册 (AFM) CSP 100-1 (限制, 批准的燃油添加剂) 中所列的各项 /

Fuel additives restricted to those listed in Aircraft Flight Manual (AFM) CSP 100-1 (Limitations, Approved Fuel Additives)

中国 3 号喷气燃油 (GB6537-2006) /

Chinese fuel No.3 jet fuel (GB6537-2006)

滑油 / Oil:

发动机, APU: 参见飞机维护手册, 庞巴迪出版物 BD 100 AMM, 第 12 章 /

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

发动机运行限制 / Engine Operating Limits:

见列于批准的出版物中的飞机飞行手册 (AFM) /

See AFM as listed in Approved Publications

辅助动力装置 / APU:

霍尼韦尔 36-150 [BD]

Honeywell 36-150[BD]

有关运行限制, 见批准的出版物中的飞机飞行手册 (AFM) /

For operating limits, see AFM as listed in Approved Publications.

空速限制/Airspeed Limits (IAS):

	节/Knots	马赫数/Mach
V_{MO} 和 M_{MO} / V_{MO} and M_{MO}	-	-
海平面到 8000 英尺 / Sea Level to 8000ft.	300	-
8100 英尺到 29475 英尺 / 8100ft. to 29475ft.	320	-
29475 英尺以上 / Above 29475ft.	-	0.83
V_{FE} (襟翼放出) 10° / V_{FE} (Flaps Extended) 10°	210	-
20°	210	-
30°	175	-
V_A (机动) V_A 随高度和飞机重量的变化见飞机飞行手册 V_A (maneuvering) See Airplane Flight Manual for variation of V_A with altitude and aircraft weight		
$V_{LO(RET)}$	200	-
$V_{LO(EXT)}$	250	-
V_{LE}	250	-

重心限制 (见注释 1) / C.G. Limits (See NOTE 1):

见加拿大运输部批准的飞机飞行手册 (AFM), 庞巴迪出版物 CSP 100-1 /

Refer to Transport Canada approved Airplane Flight Manual (AFM), Bombardier Publication CSP 100-1.

增压状态 / Pressurization Status:

增压 /
Pressurized

基准 / Datum:

FS 0.0, 位于飞机机头前方 495 厘米 (195 英寸) 处/
FS 0.0, located at 495 cm (195 in.) Fwd of the aircraft nose

水平测量设施 / Leveling Means:

通过后设备舱内在 FS 755.5 和 RBL 1.0 处的铅锤和标度对飞机进行纵轴和横轴方向的水平测量。 /

Aircraft is leveled in the longitudinal and lateral axis by means of a plumb bob and target in the aft equipment bay at FS 755.5 and RBL 1.0.

最大重量 (见注释 1) / Maximum Weights (See NOTE 1):

	磅 / lb.	千克 / kg.
最大滑行和停机重量 / Max. Taxi and Ramp	38 650	17 532
最大起飞重量 / Max. Takeoff	38 500	17 463
最大着陆重量 / Max. Landing	33 750	15 309
最大零燃油重量 / Max. Zero Fuel	26 100	11 839

M.S.100T010126 BB100T010126 & S.B.100-11-01 增加的最大重量 (见注释 1)

Increased Maximum Weight with M.S.100T010126 BB100T010126 & S.B. 100-11-01 (See NOTE 1):

	磅 / lb.	千克 / kg.
最大滑行和停机重量 / Max. Taxi and Ramp	39 000	17 690
最大起飞重量 / Max. Takeoff	38 850	17 622
最大着陆重量 / Max. Landing	33 750	15 309
最大零燃油重量 / Max. Zero Fuel	27 000	12 247

最小机组 / Minimum Crew:

2 人(正驾驶和副驾驶)
2 (pilot and Co-pilot)

最大乘员 (见注释 2) / Maximum Occupants (See NOTE 2):

19 人, 包括机组和不超过 16 人的乘客 /
19 (including the crew and no more than 16 passengers)

最大行李 (见注释 4) / Maximum Baggage (See NOTE 4):

该型号合格审定构型不包括行李舱 / 货舱 /
The type certification configuration does not include baggage / cargo compartments.

燃油容量 / Fuel Capacity:

可用 / Usable	装载 / Load		重量 / Weight**	
	美制加仑 / U.S.Gal.	升 / Litres	磅 / lb.	千克 / kg
2 个主油箱 (每个) / 2 main tanks (each)	1048	3967	7074	3209
总量 / Total	2096	7934	14150	6418
* 总不可用容量 (可放油) / Total Unusable (drainable)	7.5	28.2	50.4	22.8
* 总不可放油量 / Total Undrainable	6.4	24.3	43.4	19.7

* 见注释 3

** 假设燃油密度为 6.75 磅/美制加仑 / Assuming a fuel density of 6.75 lbs/U.S.Gal.

滑油容量/Oil Capacity:

可用 / Usable	装载 / Load		重量 / Weight**	
	美制夸脱 / U.S.Qts.	升 / Litres	磅 / lb.	千克 / kg
左发动机 / Left Engine	6.0	5.7	12.6	5.7
右发动机 / Right Engine	5.0	4.7	10.4	4.7
总量 / Total	11.0	10.4	23.0	10.4
各发动机可用 / Usable per Engine	1.7	1.6	3.5	1.6

最大使用高度 / Maximum Operating Altitude:

起飞和着陆 / Take-off and landing (3049m)	10,000 英尺 (3049 米) / 10,000 feet
航线 / Enroute (13720 m)	45,000 英尺 (13720 米) / 45,000 feet

外部大气温度限制 / Outside Air Temperature Limits:

最高 50°C。(对于序列号是 20006 至 20033 的飞机, 见注释 7。) /
50°C max. (For Serial Number 20006 to 20033, see NOTE 7.)

型号合格审定构型 (见注释 2 和 5) / Type Certification Configuration (See NOTES 2 & 5):

批准的型号设计在文件 RAZ-BA100-123 第 A 版和 RAL-100-0001 第 A 版及以后批准的版次中定义。 /

The approved type design is defined in the document RAZ-BA100-124 at Issue A and RAL-100-0001 at Issue A or later approved revision.

型号设计号适用于定义在文件 RAL-100-XXXXX 中特定 BD-100-1A10 飞机的“作为交付”的构型 (XXXXX 指的是对应飞机的序列号) /

The type design number appropriate for the “as delivered” configuration of a particular BD-100-1A10 airplane is defined in the document RAL-100-XXXXX (XXXXX denotes the serial number for the aircraft concerned).

型号合格审定申请日期 / Type Certification Application Date:

1999 年 3 月 26 日 /
March 26, 1999

要求的设备 / Required Equipment:

适用的适航规章 (见 RAZ-BA100-102 第-版) 所规定的基本要求的设备必须在飞机上安装。 /

The basic required equipment as prescribed in the applicable airworthiness regulation (see RAZ-BA100-102 at Issue -) must be installed in the aircraft.

适用的生产序号 / Serial Numbers Eligible:

20002 及以后 /
20002 and subsequent

标牌 / Placards:

所有的中文标牌（内部和外部）必须根据庞巴迪 1001110303, 1001120005, 1001120303, 1001122101, 1001131031, 1001131032, 1001134328- 1001134333 和 1003354001 图纸进行安装。 /

All chinese placards (interior and exterior) must be installed in accordance with Bombardier Drawings 1001110303, 1001120005, 1001120303, 1001122101, 1001131031, 1001131032, 1001134328- 1001134333 和 1003354001.

批准的出版物/ Approved Publications:

a) 飞机飞行手册 (AFM), 庞巴迪出版物 CSP 100-1 出版日期 2003 年 5 月 30 日 /
a) Airplane Flight Manual (AFM), Bombardier Publication CSP 100-1 dated May 30, 2003

b) 图纸清单, 庞巴迪出版物 RAL-100-0001 第 A 版及以后批准的版次 /
b) Drawing List, Bombardier Publication RAL-100-0001 at Issue A or later approved revision.

c) 时限 / 维护检查手册, 包含审定维修任务, 时限件, 损伤容限检查和 MRB 报告的庞巴迪出版物 No. CH300 TLMC 或以后批准的版次。损伤容限检查的信息应与工程报告 RAS-BA100-990 保持一致。 /

c) Time Limits / Maintenance Checks Manual, Bombardier Publication No. CH300 TLMC or later approved revisions containing the Certification Maintenance Tasks, Life Limited Parts, Damage Tolerant Inspections and MRB Report. The information on Damage Tolerant Inspections is consistent with Engineering Report RAS-BA100-990.

持续适航文件 / Instructions for Continued Airworthiness:

持续适航文件包括以下出版物 /

The Instructions for Continued Airworthiness consist of the following publications:

a) BD 100 AMM, 飞机维护手册 (出版号 No. CH300 AMM) /

a) BD 100 AMM, Aircraft Maintenance Manual (Publication No. CH 300 AMM)

b) BD 100 TLMC, 时限/维护检查手册 (出版号 No. CH300 TLMC) /

b) BD 100 TLMC, Time Limits / Maintenance Checks Manual (Publication No. CH300 TLMC)

c) BD 100 SRM, 结构修理手册 (出版号 No. CH300 SRM) /

c) BD 100 SRM, Structural Repair Manual (Publication No. CH300 SRM)

d) BD 100 NDT, 无损检测手册 (出版号 No. CH300 NDTM) /

d) BD 100 NDT, Non-Destructive Testing Manual (Publication No. CH300 NDTM)

IV. 注释/Notes

注释 1 / NOTE 1:

每架飞机初始取适航证时都必须有当前的重量和平衡报告, 此报告包含了列于经审定的空机重量中的设备清单和装货说明 (当必要时)。 /

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.

注释 2 / NOTE 2:

本航空器型号合格审定构型不包括批准的内饰或乘客设施。当按照审定基础纳入经

批准的座椅布局和相关要求的乘客设施后（通过 CAAC VSTC 批准），才允许客舱载人。/

The aircraft type certification configuration does not include an approved interior or 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 Basis of Certification (approved through CAAC VSTC).

注释 3 / NOTE 3:

充填系统管道和油箱至不可放油的水平，加上在燃油容量章节确定的油箱内不可用燃油所需燃油总量必须计入空机重量。/

The amount of fuel required to fill the system plumbing and tanks to the undrainable level plus unusable fuel in the fuel tanks as defined in the Fuel Capacity section must be included in the empty weight.

注释 4 / NOTE 4:

BA 报告 RAZ-BA100-110 给内饰完成中心提供了关于装有完整内饰的挑战者 300 型飞机审定基础符合性的指导。/

BA report RAZ-BA100-110 provides guidance to completion centers regarding compliance with the basis of certification for the Challenger 300 with a completed interior.

注释 5 / NOTE 5:

备用/ Reserved

注释 6 / NOTE 6:

尚未表明 525.105(c) (1)和 525.125(b)条关于在无铺面跑道上起飞和着陆性能的符合性。/

Compliance with 525.105(c) (1) and 525.125(b), associated with Take-off and Landing Performance on Unpaved Runways, has not been demonstrated.

注释 7 / NOTE 7:

对于序号是 20006 至 20033，未纳入服务通告 100-52-05 的飞机，当关闭发动机并暴露在-20℃或更低的地面环境温度下超过 2 小时时，禁止其运行，除非在暴露后采用经批准程序进行暖机。/

For Serial Number 20006 to 20033, without the incorporation of Service Bulletin 100-52-05, operation is prohibited with engines shut down when the aircraft is exposed to a ground ambient temperature of -20℃ or below for a period of more than 2 hours, unless an approved procedure is used to warm the aircraft following the exposure.

- 结束 -

- End -