

型号认可证数据单
THE VALIDATION DATA SHEET

本数据单是型号认可证（编号：VTC 0099A）的组成部分，它规定了符合中国民用航空局的适航要求所颁发此型号认可证的产品状态和限制。

This data sheet, which is part of **Validation of Type Certificate (No: VTC 0099A)**, prescribes condition and limitation under which the product for which the type certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

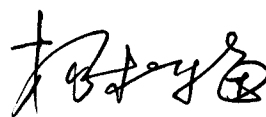
编号/No: VTC 0099A

版次/Revision: 5

型号/Type:

A318-111 A319-111 A320-111 A321-111
A318-112 A319-112 A320-211 A321-112
A318-121 A319-113 A320-212 A321-131
A318-122 A319-114 A320-214 A321-211
A319-115 A320-215 A321-212
A319-131 A320-216 A321-213
A319-132 A320-231 A321-231
A319-133 A320-232 A321-232
A320-233

批准人/Approved By: Yang Zhenmei



职务/Title: Deputy Director General of
CAAC-AAD

日期/Date: 2014-7-18

型号认可证持有人/Validation of Type Certificate Holder:

Airbus
1 Rond-point Maurice Bellonte
31707 Blagnac Cedex
France

有效页清单/List of effective pages :

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中国民用航空局
CIVIL AVIATION ADMINISTRATION OF CHINA

SECTION 0: 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	0099A, Revision 5, 2014 年 7 月 18 日	EASA A.064 (issue 12, 12 September 2013)
历史 History	0099A, Revision 1, 2007 年 12 月 4 日	EASA A.064 (issue 2, 22 June 2006)
	0099A, Revision 2, 2008 年 5 月 27 日	EASA A.064 (issue 3*, 20 May 2008)
	0099A, Revision 3, 2009 年 6 月 19 日	EASA A.064 (issue 5, 06 May 2009)
	0099A, Revision 4, 2014 年 2 月 26 日	EASA A.064 (issue 12, 12 September 2013)

* VTCDS 0099A R2 only incorporate the related section of A320 series in EASA A.064 issue 3.

- 飞机类型 / Airworthiness Category: 大飞机/Large Aeroplanes
- 认可当局/ Validation Authority: 中国民用航空局/CAAC
审定当局/ Certifying Authority: 欧洲航空安全局/ EASA
- 型号证持有人 / Type Certificate Holder: 空中客车/AIRBUS
1 Rond-point Maurice Bellonte
31707 BLAGNAC - FRANCE

4 型号认可证后被中国民航局认可的设计更改:

The following design changes have been validated post Type Validation by CAAC:

改装包 / MOD	版本/issue	描述 / Description
Major Change 36790		机载移动电话系统 CERTIFICATION-CABIN SYSTEM-On Board Mobile Telephone System-Define & Certify GSM on Board
Major Change 38616	1	在 A321 飞机引入不带干舱室的机翼翼盒标准 Introduce a Standard of Wing Box without Dry Bay on A321 Aircraft
Major Change 150700, 37048, and 36985		提高隔音隔热材料的阻燃标准—火焰穿透要求 Improved flammability standards for Thermal/acoustic insulation materials - Flame penetration requirements
Major Change 38062	3	采用中央燃油箱可燃性降低系统（燃油箱惰化系统） Introduction of fuel center tank flammability reduction system (fuel tank inerting system)
Major Change 38356	1	为安装燃油箱惰化系统进行前机身结构改装（可燃性降低系统） Fuselage-Forward Fuselage-Install Structural Provisions For Fuel Tank Inerting System (Flammability Reduction System)
Major Change 151180	1	审定 RNP AR 0.3 NM 能力 Certify Rnp Ar 0.3 Nm Capability
Major Change 150371, 150372, and 150373		审定单通道 RNP STEP 3 AR 能力 Certify Rnp Ar Capability Step 3 On Single-Aisle
Major Change 150092	1	激活 L4-A HUD 标准 Activate L4-A HUD standard
Major Change 150016	1	去除 A320 飞机前翼上应急出口 De-activation of forward over wing emergency exit on A320 a/c
Major Change 151898	1	限制商载到 3400 公斤以满足 135 部运行要求

		Limit Payload to 3400KG/7500 LB to Comply with International Standard of Operational Regulations under §135
Major Change 39622	1	审定 Fans B+构型 ICertify Fans B+Configuration(Overall Modification)(Including Atsu And Fans B+ Applications Modifications)
Major Change 153453		引入 A319 公务机的 WV013 重量变化 Introduce WV013 (MTOW 75.5T, MLW 62.5T, MZFW 52.0T) for A319CJ (A319 - 133)
Major Change 151529	1	重新设计 IGGS 控制单元软件 Redesign IGGS Control unit software
Major Change 160500	1, 2, 4, 5	鲨鱼鳍小翼 Sharklet installation
Major Change 160001	1, 2, 3	鲨鱼鳍小翼 Sharklet wing on A318/A319/A320
Major Change 160021	1	鲨鱼鳍小翼 Certify Structural Provisions for Sharklet Installation For A321
Major Change 160023	1, 2, 3, 4	鲨鱼鳍小翼 Sharklet wing on A321
Major Change 35201	1	安装不工作的机长侧的 HUD Head-Up Display (HUD)-Install Deactivated/Inoperative HUD on Captain Side(Single Configuration)
Major Change 154327	1	A320 系列飞机改装 A321 飞机的中央油箱燃油传输系统 Fuel-Main Transfer System-Introduce Centre Tank Fuel Transfer System

5. 进口要求 / Import Requirements

5.1 使用要求 / Operational Requirements

交付中国的每架飞机, 必须满足中国民用航空局的使用要求(例如, 标记和标牌的中文标识要求)。
/ For each aircraft to be delivered in China, the operational requirements of CAAC must be met(e.g Chinese language requirements for markings and placards).

5.2 出口适航证 / Export Certificate

欧洲航空安全局将颁发声明飞机符合中国民用航空局批准的型号设计的单独出口适航证, 并处于安全使用状态。/ EASA will issue an individual Export Certificate of Airworthiness stating that the aircraft complies with CAAC approved type design and is in condition for safe operation.

5.3 《飞行手册》/ Flight Manual

每架飞机配有欧洲航空安全局以中国民用航空局批准的《飞行手册》。/ The Flight Manual for each aircraft will be approved by EASA on behalf of CAAC.

SECTION 1: A320 系列 / A320 SERIES**I. 概述 / General****1. 型号/型别/构型变化 / Type/model/Variant:**

A320-111
A320-211
A320-212
A320-214
A320-215
A320-216
A320-231
A320-232
A320-233

根据第 21.101 条的产品级重大更改 / Significant Product Level Changes i.a.w. 21.A.101:

MOD 160500 适用于以下型别的鲨鱼鳍小翼

MOD 160500 Sharklet applicable on A320-214/-215/-216/-232/-233

2. 法国民航局和联合航空当局(JAA)型号审定日期 / DGAC-F / Joint Airworthiness Authority (JAA) Type Certification Date

A320-111: 1988 年 2 月 26 日/February 26, 1988
A320-211: 1988 年 11 月 8 日/November 08, 1988
A320-212: 1990 年 11 月 20 日/November 20, 1990
A320-214: 1995 年 3 月 10 日/March 10, 1995
A320-231: 1989 年 4 月 20 日/April 20, 1989
A320-232: 1993 年 9 月 28 日/September 28, 1993
A320-233: 1996 年 6 月 12 日/June 12, 1996

注释: 对于 2005 年 12 月 21 日前生产的 A320-111/-211/-212/-214/-231/-232/-233 型飞机, 法国民航局颁发的型号合格证(DGAC-F TC 180)仍保持有效。

Note: For A320-111/-211/-212/-214/-231/-232/-233 produced before the 21st of December 2005, DGAC-F TC 180 remains a valid reference.

3. EASA 型号审定日期 / EASA Type Certification Date

EASA 型号合格证数据单第 1 版颁发于 2005 年 12 月 21 日
EASA TCDS issue 1 issued December 21, 2005
A320-215: 2006 年 6 月 22 日/June 22, 2006
A320-216: 2006 年 6 月 14 日/June 14, 2006

MOD 160500 iss. 1 2012 年 11 月 30 日/November 30, 2012 (A320-214, -215, -216)
MOD 160500 iss. 2 2012 年 12 月 21 日/December 21, 2012 (A320-232, 233)

4. 中国民航局型号认可审定日期 / CAAC Type Validation Date

A320-111: 1995 年 7 月 12 日/July 12, 1995
A320-211: 1995 年 7 月 12 日/July 12, 1995
A320-212: 1995 年 7 月 12 日/July 12, 1995
A320-231: 1995 年 7 月 12 日/July 12, 1995
A320-232: 1995 年 7 月 12 日/July 12, 1995

A320-214: 1997 年 7 月 10 日/July 10, 1997
A320-215: 2007 年 12 月 04 日/December 4, 2007
A320-216: 2007 年 12 月 04 日/December 4, 2007
A320-233: 2007 年 12 月 04 日/December 4, 2007

注释: 对于 2007 年 12 月 04 日前生产并出口中国的 A320-111/-211/-212/-214/-231/-232 型飞机, 中国民航总局颁发的型号认证(VTC 038A)仍保持有效。

Note: For A320-111/-211/-212/-214/-231/-232 produced and exported before the 04 of December 2007, CAAC-VTC 038A remains a valid reference.

MOD 160500 iss. 1 2014 年 2 月 26 日/Feb.26,2014 (A320-214, -215, -216)
MOD 160500 iss. 2 2014 年 2 月 26 日/Feb.26,2014 (A320-232, 233)

5. 生产条件 / Production conditions

除了下面所列的 A320 飞机之外, 直到并包括生产序列号 MSN 0925 架机的 A320 飞机均在法国民航局给位于法国 Blagnac 的 AIRBUS INDUSTRIE 公司颁发的批准 P09 下生产。

A320 aircraft up to and including MSN 0925, with the exception of those listed below, are produced in Blagnac (France) under approval P09 issued by DGAC to AIRBUS INDUSTRIE.

生产序列号为 MSN 0844, 0861, 0863, 0868, 0870, 0918 和从并包括生产序列号为 MSN 0927 起的 A320 飞机, 在法国民航局给位于法国 Blagnac 的 AIRBUS INDUSTRIE 公司颁发的批准 F.G.035 下生产。

A320 aircraft MSN 0844, 0861, 0863, 0868, 0870, 0918, and A320 aircraft from and including MSN 0927 are produced in Blagnac (France) under approval F.G.035 issued by DGAC to AIRBUS INDUSTRIE.

自 2004 年 9 月 27 日起, A320 飞机在法国民航局给位于法国 Blagnac 的 AIRBUS 公司颁发的批准 FR.21G.0035 下生产。

Since September 27, 2004, A320 aircraft are produced in Blagnac (France) under approval FR.21G.0035 issued by DGAC France to AIRBUS.

自 2008 年 4 月 15 日起, A320 飞机在德国民航局给位于德国汉堡的 AIRBUS 公司颁发的批准 DE.21G.0009 下生产

Since April 15, 2008, A320 aircraft are produced in Hamburg (Germany) under approval DE.21G.0009 issued by LBA to AIRBUS.

自 2008 年 7 月 21 日起, A320 飞机在欧洲航空安全局给位于法国图卢兹和德国汉堡的 AIRBUS 公司颁发的批准 EASA.21G.0001 下生产。

From July 21st, 2008, A320 aircraft are produced in Toulouse (France) and Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to AIRBUS.

自 2009 年 5 月 6 日起, A320 飞机在欧洲航空安全局给位于法国图卢兹、德国汉堡和中国天津的 AIRBUS 公司颁发的批准 EASA.21G.0001 下生产。

From May 6th, 2009, A320 aircraft are produced in Toulouse (France), Hamburg (Germany) and Tianjin (People's Republic of China) under approval EASA.21G.0001 issued by EASA to AIRBUS.

II. 审定基础和认可审定基础 / Certification Basis and Validation Basis**1. 确定适用要求的参考日期 / Reference Date for determining the applicable requirements**

A320-111 型别的申请日期 / Application date of the A320-111 model

2. 最初的适航当局型号合格证数据单编号 / Initial Airworthiness Authority Type Certification Date Sheet No.

原法国 TCDS DGAC no. 180 被 EASA TCDS A.064 替代
Original French TCDS DGAC no. 180 was replaced by the EASA TCDS A.064

3. 最初的适航当局审定基础 / Initial Airworthiness Authority Certification Basis

如下所述 / See below

4. EASA 适航要求 / EASA Airworthiness Requirements

下面列出了不同 A320 型别的合格审定基础。在进一步的 A320 型别的合格审定时，针对每一型别确定特定基础的修正。

Hereafter are listed the certification bases for the different A320 models. The amendments made to a particular basis at the occasion of further A320 model certification are identified per model.

4.1 对于 A320-111, A320-211, A320-212, A320-231 和至止 006 (DGAC 信函 53170 SFACT/TC) 的重量变化, 适用的技术条件定义如下:

The applicable technical conditions for models A320 - 111, A320 - 211, A320 - 212, A320 - 231 and weight variants up to 006 (DGAC letter 53170 SFACT/TC) are defined as follows :

- 欧洲联合航空条例 JAR25 部, 及第 11 号修正案(除了保留第 10 号修正案的 25.207 条外), 如制造厂家所选。
- JAR 25 Change 11 (except paragraph 25.207 which remains at Change 10) as elected by the Manufacturer.
- A320 专用条件、经验相关条件和协调条件。
- A320 Special Conditions, Experience Related Conditions and Harmonization Conditions.

4.2 第 007 号重量变化及其后变化和所有新型别飞机(包括 A320-232), 下述 JAR 25 的条款修订如下, 符合制造厂家选择的 OP 91/1(NPA 25C205) (DGAC 信函 60667/SFACT/N.AT).

For weight variant 007 and subsequent and for all new models from and including A320 - 232, the JAR 25 paragraphs defined in paragraph (a) above are modified following the elect to comply to OP 91/1 (NPA 25C205) by the manufacturer (DGAC letter 60667/SFACT/N.AT).

JAR 25.305	JAR 25.349(b)
JAR 25.321	JAR 25.351
JAR 25.331	JAR 25.365(e)
JAR 25.333	JAR 25.371
JAR 25.335(d)	JAR 25.373
JAR 25.341	JAR 25.391
JAR 25.343(b)(1)(ii)	JAR 25.427
JAR 25.345(a)(c)	JAR 25.571(b)(2)

4.3 对于所有 A320-200 系列飞机, 通过选取符合 JAR 25 第 14 号修改中新的离散突风要

求(如同 NPA 25C-282 修正)的方式, 由标题为“飞行控制—从 A320 中删除的 LAF 特性”修正单(26334/26335, (CRI A2006)) 主要修改的应用, 对前面 a)和 b1)中定义的 JAR 25 的段落进行了修订。

For all models of A320-200 series, the JAR 25 paragraphs defined in 1.3.1.a) and b1) above are modified following the Elect-to comply with the new discrete gust requirements of JAR 25 Change 14 as amended by NPA 25C-282, by application of the major change titled "Flight Controls - deletion of LAF features from A 320", modifications 26334/26335. (CRI A2006).

4.4 ETOPS:

对于双发飞机的延程运行, 适用的技术条件包含在 AMC 20-6 (之前发布在 AMJ 120-42/IL 20 和 CAP513 中)以及 A320 ETOPS CRI 中:

For the Extended Twin Engine Airplane Operations the applicable technical conditions are contained in AMC 20-6 (as initiall published in AMJ 120-42/IL 20 and CAP 513) and A320 ETOPS CRI:

- CRI G1006 ETOPS

4.5 联合航空条例 AWO 的第 1 次修改版中包括低能见度情况下的自动着陆和运行要求。JAR AWO Change 1 for auto-land and operations in low visibility.

4.6 对于所有型别, 空客自愿满足第 106 号修正案水平的美国联邦航空规章 25.772(a)和(c)以及 25.795, 参见 CRI E12 增强保安性能的驾驶舱门

For all models Airbus Elect To Comply with 14 CFR Part 25.772(a) and (c) and 25.795 amendment 106 according to CRI E12 – Reinforced Security Cockpit Door

4.7 对于 MOD 160500 “鲨鱼鳍小翼”, 通过 CRI A-0001-001 修订审定基础。

Certification basis revised for MOD 160500 “Sharklet” by CRI A-0001-001.

CS 25 Amdt 8 for

§ 25.23	§ 25.481(a)(c) amended by SC A-2 for §25.481(a)
§ 25.25	§ 25.483
§ 25.117	§ 25.485
§ 25.147	§ 25.489
§ 25.161	§ 25.491
§ 25.177 amended by SC-F16	§ 25.571(a)(b)(e)
§ 25.235	§ 25.581
§ 25.251	§ 25.601
§ 25.301	§ 25.603
§ 25.302	§ 25.605
§ 25.303	§ 25.607
§ 25.305(a)(b)(c)(e)(f)	§ 25.609
§ 25.307(a)(d)	§ 25.613
§ 25.321(a)(b)(c)(d)	§ 25.619
§ 25.331(a)(b)(c)	§ 25.623
§ 25.333(a)(b)	§ 25.625
§ 25.335(a)(c)(d)(e)(f) amended by SC	§ 25.629
A5003 for (b) and SC A-2 for (e)	
§ 25.337 §	25.631
§ 25.341(a)(b)	§ 25.651
§ 25.343(a)(b)	§ 25.683
§ 25.345(a)(b)(c)(d)	§ 25.899

§ 25.349(a)(b) amended by SC A-2.2.2 for 25.349(a)	§ 25.903(d)(1) (see CRI E-39 for interpretative material)
§ 25.351	§ 25.1385
§ 25.365(a)(b)(d)	§ 25.1387
§ 25.367	§ 25.1389
§ 25.371	§ 25.1391
§ 25.373	§ 25.1393
§ 25.391	§ 25.1395
§ 25.393(b)	§ 25.1397
§ 25.427	§ 25.1401
§ 25.445	§ 25.1505
§ 25.457	§ 25.1511
§ 25.459	§ 25.1515
§ 25.471(a)(b)	§ 25.1527
§ 25.473	§ 25.1587
§ 25.479(a)(c)(d) amended by SC A-2 for § 25.479(a)	§ 25.1591
CS 25 Amdt 2 for	
§ 25.253	
JAR 25 Chg 15 for	
§ 25.1517	
JAR 25 Chg 14 for	
§ 25.21 amended by A318 SC F5001 (for b)	§ 25.149 + OP96/1
§ 25.101 amended by SC F11/S79	§ 25.171 replaced by SC-F5004
§ 25.103 replaced by A318 SC F5001	§ 25.173 replaced by SC-F5004
§ 25.105 amended by SC F11/S79	§ 25.175 replaced by SC-F5004
§ 25.107 amended by A318 SC-F5001	§ 25.181
§ 25.109 amended by SC F11/S79	§ 25.201 + OP96/1, replaced by SC-F5001
§ 25.111	§ 25.203 + OP96/1, replaced by SC-F5001
§ 25.113 + OP96/1 amended by SC F11/S79	§ 25.207 amended by SC-F5001
§ 25.115 amended by SC F11/S79	§ 25.231
§ 25.119 + OP96/1 amended by A318 SC F5001 (for b)	§ 25.233
§ 25.121 + OP96/1, amended by A318 SC F5001 (for c & d)	§ 25.237
§ 25.123	§ 25X261
§ 25.125 + OP96/1, amended by A318 SC F5001	§ 25.1533
§ 25.143 + OP96/1, amended by SC F3, F7 & F8	§ 25.1581
§ 25.145 + OP96/1	§ 25.1585(a)
JAR 25 Chg 11 for	
§ 25.671	
§ 25.672	
§ 25.1001	
§ 25.1301	
§ 25.1309	
§ 25.1419 amended by AMC-F14	

解释性材料 / Interpretative Material:

CRI E-39 发动机转子非包容失效 / Uncontained Engine Rotor Failure

注释：原来的适用于每一型别的解释性材料仍然有效。

Note: The original Interpretative material applicable to each model remains effective.

可接受的符合性方法 / Acceptable Means of Compliance:

AMC F-14 结冰条件下的飞行 / Flight in icing condition.

注释：带有 MOD 160500 时，AMC F-14 的适用性从 A321/A319/A318 拓展到 A320。

Note: AMC F-14 applicability extended from A321/A319/A318 to A320 with MOD 160500.

ETOPS

AMC 20-6 Rev 1 中与结冰条件下运行相关的段落 8.b.(11)，规定了鲨鱼鳍小翼上的冰型
AMC 20-6 Rev 1 paragraphs related to operation in icing conditions 8.b.(11) for ice shapes on the Sharklet device.

AMC 20-6 Rev 1 中与 AFM 补充中的性能数据相关的段落 8.f.(1) (iii)，规定了 ETOPS
AMC 20-6 Rev 1 paragraphs related to performance data in the AFM supplement for ETOPS 8.f.(1) (iii).

对于不受影响的区域，ETOPS 要求见 AMJ 120-42

AMJ 120-42 for ETOPS for non-affected areas.

注释：对应用于初始 ETOPS 验证的审定基础(参见 A320 CRI G1006)。

Note: This corresponds to the certification basis used for the initial ETOPS demonstration (refer to A320 CRI G1006).

5. 专用条件 / Special Conditions

提示：在 A320 联合合格审定基础制定的范围内，编制了三种类别的专用条件。

Reminder : within the scope of the establishment of the A320 Joint Certification Basis, three types of special conditions were developed:

- 专用条件: 履盖新颖的或独特的且联合航空条例未有公布的设计特性。 / Special conditions: raised to cover novel or unusual features not addressed by the JAR.
- 经验相关条件: 对于 A320 联合合格审定基础，按照 NPA 程序，在欧洲联合航空条例演变进程中, 记录已经同意的原文。 / Experience related conditions: raised to record an agreed text for the A320 Joint Certification Basis when evolution of JAR was in progress under the NPA procedure.
- 协调条件: 对于 A320 联合合格审定基础的意图，记录关于国家不同要求方面的共同的理解。该协调条件不应与 FAA/JAA 协调规章的活动相混淆。 / Harmonization conditions: to record, for the purpose of the A320 Joint Certification Basis, a common understanding with respect to National variant. This should not be confused with the FAA/JAA harmonised regulations.

EC-G11

一般定义/ General Definitions

(DGAC-F) SC-G17

运行校正飞行/ Operational proving flights

(CAA-UK) SC-G17

合格审定前运行飞行/ Operational flight before certification

SC-F1

失速和预定的运行速度/ Stalling and Scheduled operating Speeds

SC-F3

驾驶舱控制-驾驶舱控制运动和影响/ Cockpit control - motion and effect of cockpit control

SC-F4

静态纵向稳定性/ Static longitudinal stability

SC-F6

静态航向和横向稳定性/ Static directional and lateral stability

SC-F7

飞行包线保护/ Flight envelope protection

SC-F8

正常载荷限制/ Normal load factor limiting

SC-F9	双重操纵系统/ Dual control system
HC-F103	湿跑道上的加速停止距离,起飞距离和起飞滑行/ Accelerate Stop Distance, Take-Off Distance and Take-Off Run on a Wet Runway
HC-F114	进近和目标开始速度/ Approach and Target Threshold Speeds
SC-A.2.1.1	飞机结构性能与系统互相影响方面的设计合格审定准则/ Certification Criteria of Aircraft Designed with Systems Interacting with Structural Performance
SC-A.2.2.2	设计机动要求/ Design manoeuvre requirement
SC-A.2.2.3	设计俯冲速度/ Design dive speed
EC-A.3.6.1	高升力装置/ High Lift Devices
(CAA-UK) SC-A.4.3	协调突风载荷/ Tuned Gust Loads
HC-A.4.4	机动载荷-高升力装置展开/ Manoeuvre Loads - High Lift Devices Deployed
HC-A.4.5	刹车滚动条件/ Braked roll conditions
HC-A.4.6	速度控制装置/Speed control device
SC-S11	限制驾驶力和扭矩/ Limit pilot forces and torques
HC-S23	备用地平仪/ Standby gyroscopic horizon
HC-S24	VMO/MMO 告警 (安装)/ VMO/MMO Warning (setting)
EC-S30	自动驾驶系统/ Autoflight system
SC-S33	自动推力系统/ Autothrust system
SC-S52	无正常电力的操作/ Operation without normal electrical power
EC-S54	电路保护装置/ Circuit protective devices
HC-S61	设计着陆刹车动能/ Design Landing Brakes Kinetic Energy
HC-S62	中止起飞刹车动能/ Rejected Take-Off Brakes Kinetic Energy
HC-S72	飞行记录器/ Flight recorder
SC-S74	非正常姿态/ Abnormal attitudes
SC-S75	闪电防护间接影响/ Lightning protection indirect effects
SC-S76	外部辐射对飞机系统的影响/ Effect of external radiations up on aircraft systems
SC-S77	控制信号完整性/ Integrity of control signal
SC-P01	全权发动机控制系统/ Full Authority Engine Control System (FADEC)
SC-E1005	防火术语/ Resistance to fire terminology

5.1 对于第 007 号重量变化及其后变化和所有新型别飞机(包括 A320-232), 通过联合航空条例 JAR 25 的 91/1 修正案的应用, 下述 A320 飞机的专用条件和说明材料被删除:

For weight variant 007 and subsequent and for all new models from and including A320-232, the following A320 Special Conditions and Interpretative Materials are deleted by application of JAR 25 amendment 91/1:

IM-A3.8	离散突风载荷/ Discrete gust loads.
SC/AMC-A4.3	调谐突风载荷/ Tuned gust loads.
HC-A4.4	机动载荷-高升力装置展开/ Manoeuvre loads with high lift devices deployed.

5.2 对于 A320-233 型飞机, 编制了下述专用条件:

The following Special Conditions have been developed for the A320-233:

SC-F11	加速停止距离和相关性能, 磨损刹车(见 1996 年 6 月 4 日的 CRI F2012)/ Accelerate-Stop distances and related performances, worn brakes (see CRI F2012 dated June 4, 1996)
SC-S79	刹车要求, 资质和试验(见 1996 年 6 月 4 日的 CRI F2003), 及要求满足 Mod.24946 改装包的安装(米歇尔-比嘎的 SEPCARB III

刹车)。/ Brakes requirements, qualification and testing (see CRI SE2003 dated June 4, 1996), for which the requirements are met by installation of Mod 24946(Messier-Bugatti SEPCARB III brakes).

5.3 对于 A320-233 和安装 OCTOPUS 飞机飞行手册(见 CRI F2013)的所有 A320-200 飞机, 通过自愿符合专用条件 SC-F11 和 SC-S79, 下述 JAR 25 条款被修订。

For A320-233 and all A320-200 with OCTOPUS AFM (see CRI F2013), the JAR 25 paragraphs are modified following the Elect-to-comply with SC-F11 and SC-S79.

下述联合航空条例的第 11 次修订的条款被删除:

The following JAR Change 11 paragraphs are deleted:

JAR 25x131
JAR 25x132
JAR 25x133
JAR 25x135
JAR 25x1588

下述的 A320 系列飞机协调条件被删除:

The following A320 Harmonisation Conditions are deleted:

HC-F103	湿跑道上的加速停止距离,起飞距离和起飞滑行/ Accelerate Stop Distance, Take-Off Distance and Take-Off Run on a Wet Runway
HC-S61	设计着陆刹车动能/ Design Landing Brakes Kinetic Energy
HC-S62	中止起飞刹车动能/ Rejected Take-Off Brakes Kinetic Energy

通过 SC-F11 和 SC-S79, 下述联合航空条例已升级至第 13 次修订版:

The following JAR 25 paragraphs are upgraded at Change 13 and amended by SC-F11 and SC-S79:

JAR 25.101
JAR 25.105
JAR 25.109
JAR 25.113
JAR 25.115
JAR 25.735
JAR 25x1591

5.4 对于任何 1998 年 7 月 10 日以后新的申请(新的或改装飞机系统和关联的零组件), 专用条件 IM-S76 (外部辐射对飞机系统的影响)被专用条件 SC/IM-S76-1 (CRI SE14)取代。

For any new application (new or modified aeroplane system and associated components) after July 10, 1998, SC/IM-S76 (Effect of external radiations upon aircraft systems) are superseded by SC/IM-S76-1 (CRI SE14).

5.5 1998 年 8 月 10 日后的任何进一步变化的合格审定, 协调专用条件 HC-A.4.5 (刹车滚动条件)被联合航空条例第 14 次修改的 JAR 25.943(d)替代(CRI A7)。

For any further variant certification after Aug. 10, 1998, the HC-A.4.5 (Braked roll conditions) is superseded by JAR 25.943(d) at Change 14 (CRI A7).

5.6 在证后型号合格审定过程中, 制定了下述专用条件:

The following special conditions have been developed post Type Certification:

SC H-01	飞机系统的提高适航大纲—关于 EWIS 的 ICA (自 2010 年 5 月起生效) / Enhanced Airworthiness Programme for Aeroplane
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	Systems - ICA on EWIS (applicable from May 2010)
SC E-34	带有充气安全带的座椅 / Seat with inflatable restraints
SC E-13	充气安全带的安装(选装) / Installation of inflatable restraints (optional)
SC D-0306	座椅材料的热释放和烟雾浓度要求(自 2010 年 6 月起生效)/ Heat release and smoke density requirements to seat material (applicable from June 2010)
SC P-27	可燃性降低系统/ Flammability Reduction System 如果满足, 则 2012 年 1 月 1 日后首次飞行的航空器的中央油箱必须在生产线上安装油箱可燃性降低系统 (MOD 38062)。带有 MOD 38062 后, 该系统必须保持安装和可用状态, 并且仅能根据 MMEL 改版中的条款在不能工作状态下派遣。如果在 A318、A319、A320 或者 A321 飞机上安装了 MOD 38062 (油箱惰性系统(FTIS)), 则飞机满足 25-102 修正案水平的 25.981(a)和(b)的 FR 段、25-125 修正案水平的 25 部附录 M 和 N、以及 26-3 修正案水平的 26.33 条。 / If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (modification 38062). This system shall remain installed and operative and can only be dispatched inoperative in accordance with the provisions of the MMEL revision associated with modification 38062. If modification 38062 (Fuel Tank Inerting System (FTIS)) is embodied on A318, A319, A320, or A321 airplanes, the airplane is compliant with paragraph FR Section 25.981(a) & (b) at amendment 25-102, Part 25 appendix M & N at amendment 25-125, and Section 26.33 at amendment 26-3.
SC-E10	高高度机场运行(至止 14,100 英尺)(见 CRI E10)/ High altitude airport operations (up to 14,100 ft) (see CRI E10).

5.7 带有 MOD 160500 的航空器的专用条件

Special Conditions for aircraft equipped with MOD 160500

SC F-16	航向和横向静稳定性 / Static directional and lateral stability
A318 SC F-5001	失速和计划运行速度 / Stalling and scheduled operating speeds
A318 SC F-5004	纵向静稳定性和低能量警告 / Static Longitudinal Stability and Low energy awareness
A318 SC A-5003	设计俯冲速度 / Design Dive Speed Vd

6. 豁免 / Exemptions

没有豁免 / No exemptions

7. 偏离 / Deviations

无 / None

8. 等效安全 / Equivalent safety findings

8.1 下述条款通过等效安全的方式来满足:

The following paragraphs have been complied with through equivalent safety demonstrations:

JAR 25.783 (e)	货舱门(见 CRI SM 2005) / for cargo doors (see CRI SM 2005)
JAR 25.783 (f)	客舱门和散装货舱门(改装包 20029)(见 CRI SM 2004 和 SM 2007) / for passenger doors and bulk cargo door (Mod 20029) (see

JAR 25.813 (c)	CRI SM 2004 and SM 2007) 应急通道(见 CRI E 2105 第 3 次颁发的“III 型翼上应急撤离通道”, 椅垫高度) / for emergency exits (see CRI E 2105 issue 3 "Type III overwing emergency exit access", seat cushion height)
JAR 25.807	最大乘员数量(180 PAX)(见 CRI E 2107 "乘员延至 180") / for maximum number of passengers (180 PAX) (see CRI E 2107 "Passenger extension to 180")
JAR 25.933 (a)	反推自动装载功能(见 CRI P 1002) / for thrust reverser autorestow function (see CRI P 1002).
JAR 25.791	乘客信息指示 / Passenger information signs (CRI S53)

8.2 在证后型号合格审定过程中, 制定了下述等效安全:

The following Equivalent Safety Findings have been developed post Type Certification:

FAR 25.856(b)	舱内区域的机身烧穿保护(参见 CRI E-32), 如果在生产线上 A318、A319、A320 或者 A321 飞机实施了 MOD 150700 和 37270 (仅带有 CLS 选项)、37048 和 36985, 飞机满足机身火焰穿透“烧穿”要求, 即 25-111 修正案水平的 14 CFR Part 25.856(b) (参见 CRI E-18) Fuselage burnthrough protection in bilge area (see CRI E-32), see note below If modifications 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration “Burnthrough” requirements addressed by paragraph 14 CFR Part 25.856(b) Amdt 25-111(See CRI E-28).
14CFR Part 25.856(a)	针对绝缘材料的提高的阻燃性标准 (CRI E18) Improved flammability standards for insulation materials (CRI E18)
JAR 25.812(b)(1)(ii)	光致发光出口标志(可拆除的舱位分离装置) (CRI E14) (可选构型) Photo-luminescent EXIT sign for MCD (Moveable Class Divider) (CRI E14) (optional)
JAR 25.811(f)	应急出口标志反射率(CRI E16) Emergency exit marking reflectance (CRI E16)
JAR 25.812(b)(1)(i)(ii)	对于客运航空器, 图形化出口标志作为红色出口标志的替代(CRI SE-42) (可选构型) Symbolic EXIT signs as an alternative to red EXIT signs for passenger aircraft (CRI SE-42) (optional)

8.3 带有 MOD 160500 的航空器的等效安全

Equivalent Safety Findings for aircraft equipped with MOD 160500

ESF F-19	自然结冰条件下的飞行 (§25.1419 (c)) Flight in natural icing condition (§25.1419 (c))
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注释: 原来的适用于每一型别的等效安全仍然保持有效。

Note: The original ESFs applicable to each model remain effective.

9. 环保标准 / Environmental Protection Standards

国际民航组织附件 16 / ICAO Annex 16

Vol. I Part II	噪声要求 / Noise Requirements
Vol. II Part II	燃油排放 / Fuel Venting
Vol. II Part III Chapter 2	排气排出物 / Emissions

注释：进一步的细节在 TCDSN EASA.A.064 中定义。

Notes: Further details are defined within TCDSN EASA.A.064

10. ETOPS

当其构型、维护和运行符合当前版次的《ETOPS 构型、维护和程序(CMP)》文件 SA/EASA: AMC 20-6/CMP 的要求时，A318/A319/A320/A321 型别的型号设计、系统可靠性和性能有能力进行延程运行（ETOPS）。

The Type Design, system reliability and performance of A318/A319/A320/A321 models were found capable for Extended Range Operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, SA/EASA: AMC 20-6/CMP.

此处不构成进行延程运行（ETOPS）的批准（必须从相关当局获得运行批准）。

This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

下表提供 ETOPS 批准的详细内容

The following table provides details on the ETOPS approvals.

航空器型别 /Aircraft Model	发动机型号/Engine Type	120 分钟批准的日期 /120 Min Approval Date	180 分钟批准的日期 /180 Min Approval Date
A320-111	CFM56-5A1	17 September 1991	11 March 2004
A320-211	CFM56-5A1	17 September 1991	11 March 2004
A320-212	CFM56-5A3	17 September 1991	11 March 2004
A320-214	CFM56-5B4	28 April 1995	11 March 2004
A320-215	CFM56-5B5	N/A	06 November 2006
A320-216	CFM56-5B6	N/A	06 November 2006
A320-231	V2500-A1	13 January 1992	11 March 2004
A320-232	V2527-A5	28 April 1995	11 March 2004
A320-233	V2527E-A5	14 February 1997	11 March 2004

注释 / Note:

双方飞机延程运行的构型、维护和程序标准包含在 ETOPS CMP 文件参考最新版次的 SA/EASA: AMC 20-6/CMP 中。经审定的型别为所有适用发动机的 A320-111/-211/-212/-214/-215/-216/-231/-232/-233

运行符合当前版次的《ETOPS 构型、维护和程序(CMP)》文件 SA/EASA: AMC 20-6/CMP 的要求时，A318/A319/A320/A321 型别的型号设计、系统可靠性和性能有能力进行延程运行（ETOPS）。

The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in ETOPS CMP document reference SA/EASA: AMC 20-6/CMP at latest applicable revision. Certificated models are A320-111/-211/-212/-214/-215/-216/-231/-232/-233, with all applicable engines.

实施改装 / Embodiment of modification:

36666 提供 EASA 批准的 120 分钟 ETOPS 能力 / 36666 provides ETOPS 120 mn capability for EASA

32009TIGONG EASA 批准的 180 分钟 ETOPS 能力 / 32009 provides ETOPS 180 mn capability for EASA

11. 认可审定基础 / Validation Basis

中国民用航空局接受审定当局的审定基础作为认可审定基础。

CAAC accepts the Certification Basis of Certification Authority as the Validation Basis.

III. 技术特性和运行限制 / Technical Characteristics and Operational Limitations

1. 型号设计定义 / Type Design Definition

1.1 合格审定型别: / Certificated models: A320-111

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 414.197/87

1.2 合格审定型别 / Certificated models: A320-211

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 413.630/88

1.3 合格审定型别 / Certificated models: A320-212

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 412.1589/90 (00D000A0004/C0S)

1.4 合格审定型别 / Certificated models: A320-214

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 413.0150/95 (00D000A0006/C21)

1.5 合格审定型别 / Certificated models: A320-215

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: D00D06006382 (00D000A0215/C21)

1.6 合格审定型别 / Certificated models: A320-216

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: D00D06011383 (00D000A0216/C21)

1.7 合格审定型别 / Certificated models: A320-231

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 414.301/89

1.8 合格审定型别 / Certificated models: A320-232

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 414.0502/93 (00D000A0005/C21)

1.9 合格审定型别 / Certificated models: A320-233

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 413.1984/95 (00D000A0007/C21)

注释 / Notes:

a. 型别转换 / Model conversions:

如果在安装 CFM56-5A3 发动机的 A320-212 型别上实施 MOD 34647, 则可将其转换为安装 CFM56-5A1 发动机的 A320-211 型别

If modification 34647 is embodied on A320-212 model powered with CFM56-5A3 engines, it is converted into A320-211 model, powered with CFM56-5A1 engines

如果在安装 CFM56-5A1 发动机的 A320-211 型别上实施 MOD 35962, 则可将其转换为安装 CFM56-5A3 发动机的 A320-212 型别

If modification 35962 is embodied on A320-211 model powered with CFM56-5A1 engines, it is converted into A320-212 model, powered with CFM56-5A3 engines

b. 在 A320-214 型别上实施 MOD 36311 将其转换为 A320-216

A320-216 model results of the embodiment of modification 36311 on A320-214 model.

c. 在 A320-214 型别上实施 MOD 36297 将其转换为 A320-215

A320-215 model results of the embodiment of modification 36297 on A320-214 model.

2. 描述 / Description

两台涡轮风扇发动机、中短程、单通道的运输类飞机。
Twin turbo-fan, short to medium range, single aisle, transport category airplane.

3. 设备 / Equipment

批准的装机设备开列在《合格审定标准设备清单(No.00D000A0101/C1S)》中。
Equipment approved for installation is listed in the Certification Standard Equipment List 00D000A0101/C1S.

客舱设施、设备及布置符合下述规范:

Cabin furnishings, equipment and arrangement shall be in conformance to the following specifications :

- 00D252K0004/C01 客舱座椅/for cabin seats
- 00D252K0019/C01 厨房/for galleys.

4. 尺寸/Dimensions

A320 飞机的主要尺寸/Principal dimensions of A320 Aircraft

- 机长/Length:	37,57 m
- 翼展/Width:	34,10 m
(如果安装 MOD 160500 / if MOD 160500 is installed)	35,80 m
- 机高/Height:	11,76 m
- 水平安定面宽度/Width at horizontal stabilizer:	12,45 m
- 机身直径/Outside fuselage diameter:	3,95 m
- 发动机轴间距/Distance between engines axis:	11,51 m
- 主起间距/Distance between main landing gear:	7,59 m
- 前/主起间距/Distance between nose and main landing gear:	12,64 m

5. 发动机 / Engines

安装在航空器型别上的发动机如下所述。对于常用名称和审定名称以及新发动机的构型变化, 参见注释。

The list below lists the basic engines fitted on the aircraft models. The notes describe usual names and certified names as well as new engines variants.

A320-111

2 台 CFMI 发动机 / Two CFMI:
CFM 56-5A1 (MOD20141), or
CFM56-5A1/F (MOD23755)

A320-211

2 台 CFMI 发动机 / Two CFMI:
CFM 56-5A1 (MOD20141), or
CFM56-5A1/F (MOD23755)

A320-212

2 台 CFMI 发动机 / Two CFMI:
CFM 56-5A3 (MOD22093)

A320-214

2 台 CFMI 发动机 / Two CFMI:
CFM 56-5B4 (MOD24251), or
CFM56-5B4/2 (MOD24405)

A320-215

2 台 CFMI 发动机 / Two CFMI:
CFM 56-5B5/P (MOD25800)

A320-216
2 台 CFMI 发动机 / Two CFMI:
CFM 56-5B6/P (MOD25800)

A320-231
2 台 IAE 发动机 / Two IAE:
V2500-A1 (Mod 20165)

A320-232
2 台 IAE 发动机 / Two IAE:
V2527-A5 (Mod 23008)

A320-233
2 台 IAE 发动机 / Two IAE:
V2527E-A5 (Mod 25068)

注释 / Notes:

1 鉴于 CFMI 公司 CFM56-5A1 和 CFM56-5A1/F 发动机使用共同的名称, 审定发动机的正确名称:

Whereas it is common use to apply the name of CFMI engines CFM56-5A1 and CFM56-5A1/F, the correct names of the certified engines are:

- CFM56-5 是发动机审定名称, CFM56-5A1 是常用名称。

CFM56-5 is the certified engine name, when CFM56-5A1 is the usual name.

- CFM56-5-A1/F 是发动机审定名称, CFM56-5A1/F 是常用名称。

CFM56-5-A1/F is the certified engine name, when CFM56-5A1/F is the usual name.

2 装有 CFM 56-5A1 型发动机的 A320-111/-211 飞机上可在同一架飞机上与 CFM 56-5A1/F 型发动机混装(改装包 23755)。

A320-111/-211 CFM 56-5A1 engine can be intermixed with CFM 56-5A1/F engine (mod 23755) on the same aircraft (see note 1.4.14 for usual names and certified names).

3 从 2008 年 3 月 31 日起, 外场和生产线上不再有不带后缀/P 的 CFM56-5B/2 发动机。CFM56-5B4/2 发动机型别已经从 CFM56-5B 的型号合格证数据单中删除。

From March 31st 2008, there is no longer any CFM56-5B/2 non /P in field or in production. CFM56-5B4/2 engine model has been removed from CFM56-5B Type Certificate Data Sheet.

4 如果 CFM56-5B 发动机实施了改装包 25800, 则改进了发动机性能。该发动机变为加尾号 “/P”。

If modification 25800 is embodied on models with CFM56-5B engines, the engine performance is improved. The engine denomination changes to /P.

当前该改装包普遍适用于: / The modification is currently applicable for:

A320-214: CFM56-5B4(SAC)变为 CFM56-5B4/P。

A320-214: CFM56-5B4 (SAC) which changes to CFM56-5B4/P.

CFM 56-5B 型无 “/P” 发动机可与有 “/P” 发动机在飞机上混装。

CFM 56-5B/"non-P" engine can be intermixed with CFM 56-5B/P engine on the same aircraft.

5 如果 CFM56-5B/2 (DAC) 发动机实施了改装包 26610, 则改进了发动机性能和和尾气排放水平。该改装包普遍适用于:

If modification 26610 is embodied on models with CFM-5B/2 (DAC) engines, the engine performance and gaseous emission levels are improved. The modification is currently applicable for:

A320-214: CFM56-5B4(DAC)变为 CFM56-5B4/2P(DAC II C)。

A320-214: CFM 56-5B4/2 (DAC) which changes to CFM 56-5B4/2P (DAC II C).

CFM 56-5B /2 型 “无/P” (DAC)发动机可与有” /P” (DAC II C)发动机在飞机上混装(飞行手册补充材料)。

CFM 56-5B/2 "non-P" (DAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

CFM 56-5B/P 或无 “/P” (SAC)发动机可与 CFM 56-5B/2P(DAC II C)发动机在飞机上混装(飞行手册补充材料)。

CFM 56-5B/P or / "non-P" (SAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

6 装有 CFM 56-5B4 型发动机的 A320-214 飞机上可在同一架飞机上与 CFM 56-5B4/2 型发动机混装(改装包 24405)(飞机飞行手册补充)。

A320-214 CFM 56-5B4 engine can be intermixed with CFM 56-5B4/2 engine (mod 24405) on the same aircraft (AFM supplement). See note 1.4.24 as well.

7 通过在生产线上纳入改装包 37147 或者在外场纳入改装包 38770 可以引入 CFM56-5Bx/3 “Tech Insertion” 发动机。

Introduction of CFM56-5Bx/3 “Tech Insertion” engine is done through embodiment of modification 37147 in production or 38770 in field.

该改装包仅适用于 CFM56-5Bx /P SAC 发动机。

This modification is only applicable on CFM56-5Bx /P SAC engines.

如果对 CFM-5B 发动机纳入改装包 37147, 则发动机后缀增加/3。

If modification 37147 is embodied on models with CFM-5B engines, the engine denomination changes to /3.

本改装包现在适用于: / The modification is currently applicable for:

A320-214: CFM 56-5B4 (SAC) 更改为/ which changes to CFM 56-5B4/3

A320-215: CFM 56-5B5 (SAC) 更改为/ which changes to CFM 56-5B5/3

A320-216: CFM 56-5B6 (SAC) 更改为/ which changes to CFM 56-5B6/3

已经证明改装包 37147 对之前审定的噪声等级没有影响。

Modification 37147 has been demonstrated as having no impact on previously certified noise levels.

发动机特性没有变化。/ The engine characteristics remain unchanged.

如改装包 38573 所述, CFM56-5Bx/3 发动机可以与 CFM56-5Bx/P 混装。

CFM56-5Bx/3 engine can be intermixed with CFM56-5Bx/P engine under considerations as prescribes in modification 38573.

8 通过纳入改装包 38946 可以引入 “BUMP” 功能。如果对 CFM-5B 发动机纳入改装包 38946, 则发动机后缀变为/P1 (SAC)或者/2P1(DAC)或者/3B1 (Tech Insertion)。

Introduction of “BUMP” function is done through embodiment of modification 38946. If modification 38946 is embodied on models with CFM-5B engines, the engine denomination changes to /P1 (SAC) or /2P1(DAC) or /3B1 (Tech Insertion).

本改装包现在适用于: / The modification is currently applicable for:

A320-214: CFM 56-5B4 (SAC) 更改为/ which changes to CFM 56-5B4/P1

已经证明改装包 38946 对之前审定的噪声等级没有影响。

Modification 38946 has been demonstrated as having no impact on previously certified noise levels.

发动机特性没有变化。 / The engine characteristics remain unchanged.

不允许在飞机上混装 “Non Bump” 发动机和 “Bump” 发动机。

Intermix at aircraft level between “Non Bump” engine and “Bump” engine is not allowed.

6. 辅助动力装置 / Auxiliary Power Unit

APU GARRETT

GARRETT 公司, 型号 GTCP 36-300(A)。

GARRETT AIRESEARCH GTCP 36-300 (A).

(规范 No.31-5306B /Specification 31-5306B)

批准的滑油: 参见 GARRETT 报告 GT. 7800

Approved oils: see GARRETT REPORT GT. 7800

APU APIC (选装 / Option)

APIC 公司 APU 的安装由改装包(MOD 22562 或 MOD 35864)定义。

The APU APIC installation is defined by MOD 22562 or MOD 35864.

APIC 公司 APS 3200 (规范 No. ESR 0802, A 版)。

APIC APS 3200 (Specification ESR 0802, Rev. A).

批准的滑油:与 MIL-L-7808, MIL-L-23699 或 DERD 2487 规范一致。

Approved oils : in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487.

APU AlliedSignal (选装 / Option)

AlliedSignal 公司 APU 的安装由改装包(MOD 25888)定义。

The APU AlliedSignal installation is defined by MOD 25888.

AlliedSignal 公司文件(131-9[A]) (规范 No. 4900 M1E 03 19 01)。

AlliedSignal 131-9[A] (Specification 4900 M1E 03 19 01).

批准的滑油:依照 31-12048A-3A 规范的型号。

Approved oils : according to Model Specification 31-12048A-3A.

注释: A320 型飞机, APIC 公司 APU (APS 3200) (改装包 MOD 35864)是自 MSN 2645 开始的生产标准。

Note: for A320 models, the APU APIC APS 3200 (Mod 35864) is the production standard from MSN 2645

7. 螺旋桨 / Propellers

不适用 / N/A

8. 液体 (燃油、滑油、添加剂、液压油) / Fluids (Fuel, Oil, Additives, Hydraulics)

燃油 / Fuel

燃油规范: 见安装手册: CFM 2026 或者 CFM 2129 或者 IAE 0043

Fuel Specification: See installation manual: document CFM 2026 or CFM 2129 or document IAE - 0043

类型/ TYPE	规范/SPECIFICATION (NAME)				
	法国 /FRANCE	美国/USA	英国/UK	俄国/RUSSIA	中国 /CHINA
煤油/ Kerosene	DCSEA 134	ASTM D 1655 (JET A) (JET A1)	DEF STAN 91/91 (AVTUR) (JET A1)	GOST 10227-86 (RT) (TS1)*	GB 6537-2006 N°3 JET
		MIL - T -83133 (JP 8)	DEF STAN 91/87 (AVTUR) (JET A1)(AIA)	GOST R 52050-2003	
宽硫分/ Wide cut		ASTM D 1655 (JET B)	DEF STAN 91/88 (AVTAG)		
		MIL - T 5624 (JP 4)			
高闪点/ High flash point	DCSEA 144/A (F-44) (XF-43)	MIL - T 5624 (JP 5)	DEF STAN 91/86 (AVCAT)		

* 对于IAE发动机, TS-1牌号燃油短期使用是允许的(小于50%工作时间)。
For IAE engines, TS-1 is cleared for transient use (less than 50% of operations).

滑油 / Oil

对于滑油规范: / For oil specification:

发动机 Engine	CFM56-5B5/P CFM56-5B6/P CFM56-5A1 CFM56-5A1/F CFM56-5A3 CFM56-5B4 CFM56-5B4/2	IAE V2500-A1 IAE V2527-A5 IAE V2527E-A5
经批准的滑油 Approved Oils	SB CFMI 79-001	See doc IAE 0043 Sect 4.9 (MIL-L-23699)

添加剂/Additives:

参见空客耗材清单(CML)和 CFM 公司服务通告 SB 73-0122 或者 IAE 公司关于 CIS 燃油添加剂的“标准措施和程序手册”

Refer to Airbus Consumable Material List (CML) and CFM SB 73-0122 or IAE Standard Practices and Processes Manual for CIS fuel additives

上述燃油也适用于辅助动力装置。

The above mentioned fuels and additives are also suitable for the APU.

液压油 / Hydraulics

液压油 / Hydraulic fluids: Type IV - Specification NSA 30.7110

9. 燃油量 / Fuel Quantity

燃油量 / Fuel Quantity (0.8kg/liter)

A320-100 系列 / A320-100 series

油箱/TANK		2 油箱飞机/ 2 TANK AIRPLANE		3 油箱飞机/ 3 TANK AIRPLANE *	
		可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)
机翼/WING	Basis	15 588 (12 470)	57.3 (45.8)	15 588 (12 470)	58.9 (47.1)
	Mod. 21145	15 843 (12 674)		15 843 (12 674)	
中央 /CENTER	Basis	-	-	8 079 (6 463)	23.2 (18.6)
	Mod. 21145			8 250 (6 600)	
总计/TOTAL	Basis	15 588 (12 470)	57.3 (45.8)	23 667 (18 933)	82.1 (65.7)
	Mod. 21145	15 843 (12 674)		24 093 (19 274)	

如果在 A320-100 系列飞机上实施改装包 20024, 则机翼中央翼盒可作为中央燃油箱使用。
If modification 20024 is embodied on the A320-100 series, the central wing box is used as a central fuel tank.

A320-200 系列 (不带有 MOD 160001) / A320-200 series (without MOD 160001)

油箱/ TANK	3 油箱飞机/ 3 TANK AIRPLANE		4 油箱飞机/ 4 TANK AIRPLANE		4 或 5 油箱飞机/ 4 or 5 TANK AIRPLANE *	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)
机翼 /WING	15 609 (12 487)	58.9 (47.1)	15 609 (12 487)	58.9 (47.1)	15 609 (12 487)	58.9 (47.1)
中央 /CENTER	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)
附加中央 油箱/ACT (*)			2 900 (2 320)	17 (13.6)	2 900 / 5 800 (2 320 / 4 640)	17 / 34 (13.6 / 27.2)
总计 /TOTAL	23 859 (19 087)	82.1 (65.7)	26 759 (21 407)	99.1 (79.3)	26 759 / 29 659 (21 407 / 23 727)	99.1 / 116.1 (79.3 / 92.9)

在 A320-200 系列飞机上, 大多数情况下安装一个或两个附加中央油箱(ACT)的合格审定由改装包 28378 所定义。

On the series A320-200, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 28378.

二中选一的方案是仅安装一个中央油箱(ACT) (具有一个 ACT 的规定), 由改装包 34456 所定义。

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 34456.

A320-211/-212/-214/-215/-216 (带有 MOD 37331 并且不带有 MOD 160001)

A320-211/-212/-214/-215/-216 (with MOD 37331 and without MOD 160001)

油箱/ TANK	3 油箱飞机/ 3 TANK AIRPLANE		4 油箱飞机/ 4 TANK AIRPLANE		4 或 5 油箱飞机/ 4 or 5 TANK AIRPLANE *	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)
机翼 /WING	15 959 (12 767)	58.9 (47.1)	15 959 (12 767)	58.9 (47.1)	15 959 (12 767)	58.9 (47.1)
中央 /CENTER	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)
附加中央 油箱/ACT (*)			2 992 (2 393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)
总计 /TOTAL	24 209 (19 367)	82.1 (65.7)	27 201 (21 761)	99.1 (79.3)	27 201 / 30 193 (21 761 / 24 154)	99.1 / 116.1 (79.3 / 92.9)

在 A320-200 系列飞机上, 大多数情况下安装一个或两个附加中央油箱(ACT)的合格审定由改装包 28378 所定义。

On the series A320-200, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 28378.

二中选一的方案是仅安装一个中央油箱(ACT) (具有一个 ACT 的规定), 由改装包 34456 所定义。

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 34456.

A320-200 系列 (不带有 MOD 37331 并且带有 MOD 160001)

A320-200 series (without MOD 37331 and with MOD 160001)

油箱/ TANK	3 油箱飞机/ 3 TANK AIRPLANE		4 油箱飞机/ 4 TANK AIRPLANE		4 或 5 油箱飞机/ 4 or 5 TANK AIRPLANE *	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)
机翼 /WING	15 569 (12 455)	58.9 (47.1)	15 569 (12 455)	58.9 (47.1)	15 569 (12 455)	58.9 (47.1)

中央 /CENTER	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)
附加中央 油箱/ACT (*)			2 992 (2 393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)
总计 /TOTAL	23 817 (19 367)	82.1 (65.7)	26 809 (21 447)	99.1 (79.3)	26 809 / 29 801 (21 447 / 23 841)	99.1 / 116.1 (79.3 / 92.9)

在 A320-200 系列飞机上, 大多数情况下安装一个或两个附加中央油箱(ACT)的合格审定由改装包 28378 所定义。

On the series A320-200, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 28378.

二中选一的方案是仅安装一个中央油箱(ACT) (具有一个 ACT 的规定), 由改装包 34456 所定义。

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 34456.

A320-214/-215/-216 (带有 MOD 37331 和 MOD 160001)

A320-214/-215/-216 (with MOD 37331 and MOD 160001)

油箱/ TANK	3 油箱飞机/ 3 TANK AIRPLANE		4 油箱飞机/ 4 TANK AIRPLANE		4 或 5 油箱飞机/ 4 or 5 TANK AIRPLANE *	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)
机翼 /WING	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)
中央 /CENTER	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)
附加中央 油箱/ACT (*)			2 992 (2 393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)
总计 /TOTAL	24 167 (19 334)	82.1 (65.7)	27 159 (21 727)	99.1 (79.3)	27 159 / 30 151 (21 727 / 24 121)	99.1 / 116.1 (79.3 / 92.9)

10. 速度限制 (除非另有声明, 指示空速-IAS) / Limit speeds(Indicated Airspeed - IAS - unless otherwise stated)

最大使用马赫数 / Maximum Operating Mach 0.82

(MMO):

最大使用速度 / Maximum Operating Speed (VMO): 350 kt

机动速度 / Maneuvering Speed VA VA:

参见EASA批准的飞行手册的限制章节/
see Limitations Section of the EASA

襟翼/缝翼展态速度 / Extended Flaps/ Slats Speed
(VFE)

approved Flight Manual
见下表 / see table below

构型 / Configuration	缝翼/襟翼/ Slats/Flaps (°)	VFE (kt)	
1	18/0	230	中间进场/Intermediate approach
	*18/10	215	起飞/Take-off
2	22/15	200	起飞和近场/Take-off and approach
3	22/20	185	起飞、近场、着陆/Take-off, approach, landing
全放/Full	27/35	177	着陆/Landing

* 起飞构形中, 210 节襟翼自动收回
Auto flap retraction at 210 kt in take-off configuration

起落架/ Landing gear :

VLE – 展开/Extended: 280 kt/ Mach 0.67

VLO – 展开/Extension: 250 kt

收回/Retraction: 220 kt

轮胎限制速度(地面速度) / Tyres limit speed (ground speed) 195.5 kt (225 mph)

11. 飞行包线 / Flight Envelope

最大使用高度/ Maximum operating altitude

39 100 (英尺/ft) (压力高度/pressure altitude)

39 800 (英尺/ft) (压力高度/pressure altitude) 如果贯彻 30748 号改装包/if modification 30748 is embodied.

参见适用的 EASA 批准的飞机飞行手册

See the appropriate EASA approved Airplane Flight Manual

12. 运行限制 / Operating Limitations

参见适用的 EASA 批准的飞机飞行手册

See the appropriate EASA approved Airplane Flight Manual

动力装置 (2.2482 磅/daN) / Powerplant (2.2482 lb/daN)

发动机 /Engine	CFMI				
	CFM56-5B5/P	CFM56-5B6/P	CFM56-5A1 CFM56-5A1/F (**)	CFM56-5A3	CFM56-5B4 CFM56-5B4/2 (***)
数据单/ Data sheets	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)	E28NE (FAA) M-15 (DGAC) M-IM19 (DGAC)	E28NE (FAA) M-15 (DGAC) M-IM19 (DGAC)	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)
海平面静止推力/Static thrust at sea level					

起飞(5分钟)(统一额定30℃)/ Take-off (5 min)* (Flat rated 30℃)	9 786 daN (22 000 lbs)	10 453 daN (23 500 lbs)	11 120 daN (25 000 lb)	11 787 daN (26 500 lbs)	12 010 daN (27 000 lbs)
最大连续(统一额定25℃)/ Maximum continuous (Flat rated 25℃)	9 008 daN (20 250 lbs)	9 008 daN (20 250 lbs)	10 542 daN (23 700 lbs)	10 542 daN (23 700 lbs)	10 840 daN (24 370 lbs)
批准的滑油:/Approved Oils: SB CFMI 79-001-OX					

(**): 参见第 5 章注释 1, 常用名称和审定名称。

see note 1 chapter 5 for usual names and certified names

(**): 参见第 5 章注释 3, 不再生产/不在役的发动机型别。

see note 3 chapter 5 for engine models no longer in prod/service.

发动机 /Engine	IAE V2500-A1	IAE V2527-A5 IAE V2527E-A5
数据单/ Data sheets	E31NE (FAA) M-IM22 (DGAC)	E40NE (FAA) M-IM31 (DGAC)
海平面静止推力/Static thrust at sea level		
起飞(5分钟)(统一额定30℃)/ Take-off (5 min)* (Flat rated 30℃)	11 031 daN (24 800 lbs)	11 031 daN (24 800 lbs)
最大连续(统一额定25℃)/ Maximum continuous (Flat rated 25℃)	9 893 daN (22 240 lbs)	9 893 daN (22 240 lbs)
批准的滑油:见文件(No. IAE 0043) 第4.9节 (MIL-L-23699)。/Approved Oils: See doc IAE 0043 Sect 4.9 (MIL-L-23699).		

* 假如在起飞和地面滑行期间发动机故障, 依据法国民航局颁发的“发动机型号合格证数据单”, 仅允许起飞推力状态工作 10 分钟。

10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around) in accordance with DGAC "Fiche de Caractéristiques Moteur".

其它发动机限制: 见相应发动机型号合格证数据单。

Other engine limitations : see the relevant Engine Type Certificate Data Sheet.

注释 / Notes:

1. A320-212(CFM 56-5A3 发动机)和 A320-111/-211 (CFM 56-5A1/F 发动机, 参见第 5 章“发动机”注释 1, 常用名称和审定名称)飞机, 在起飞和最大连续状态, 最大燃气温度分别延伸至 915℃ 和 880℃, 然而 ECAM 的指示仍保持为 890℃ 和 855℃。
A320-212 (CFM 56-5A3 engines) & A320-111/-211 (CFM 56-5A1/F engines, see note 1 in Chapter 5 “engines” for usual names and certified names). The maximum permissible gas temperature at take-off and max continuous is extended to 915℃ and 880℃ respectively. However, the ECAM indication remains at 890℃ and 855℃.

2. 具有改装包 23872(对于 IAE 发动机,发动机安全 EGT 红线增加)的 A320-231 飞机 /A320-231 with modification 23872 (EGT redline increase for IAE engines):

- 对于统一 bump 额定运行(Mod 22461 或 23408),起飞状态下,最大允许温度延伸至 650℃, ECAM 的指示仍保持为 635℃。 /for consolidated bump rating operation (mod 22461 or 23408), the maximum permissible gas temperature is extended to 650℃ at take-off. The ECAM indication remains at 635℃;

- 对于非统一 bump 额定运行,起飞状态下,最大允许温度延伸至 640℃, ECAM 的指示仍保持为 635℃。 /for non rating bump operation, the maximum permissible gas temperature is extended to 640℃ at take-off. The ECAM indication remains at 635℃;

- 最大连续和起飞状态运行,最大允许温度延伸至 615℃, ECAM 的指示仍保持为 610℃。 /for maximum continuous and take-off operation, the maximum permissible gas temperature is extended to 615℃. The ECAM indication remains at 610℃.

3. 具有改装包 25000(IAE 发动机,全权数字式电子控制标准 SCN12C)的 A320-231 飞机:/A320-231 with modification 25000 (FADEC Standard SCN12C for IAE engines):

- 对于起飞运行,最大允许温度延伸至 650℃, ECAM 的指示仍保持为 635℃。 /for take-off operation, the maximum permissible gas temperature is extended to 650℃. The ECAM indication remains at 635℃;

- 对于最大连续运行,最大允许温度延伸至 625℃, ECAM 的指示仍保持为 610℃。 /for maximum continuous operation, the maximum permissible gas temperature is extended to 625° C. The ECAM indication remains at 610℃.

12.1 经批准的运行 / Approved Operations

运输商业运行 / Transport commercial operations

12.2 其它限制 / Other limitations

完整的适用限制参见适用的 EASA 批准的飞机飞行手册。

For a complete list of applicable limitations see the appropriate EASA approved Airplane Flight Manual

13. 最大审定质量 / Maximum Certified Masses

A320-111

变化/VARIANT	000 (BASIC)	001 (MOD 20939)	002 (MOD 22520)
最大滑行重量/Max.ramp weight	68 400	66 400	68 400
最大起飞重量/Max. take-off weight	68 000	66 000	68 000
最大着陆重量/Max. landing weight	63 000	63 000	63 000
最大零燃油重量/Max. zero fuel weight	59 000	59 000	59 800
最小重量/Minimum weight	36 750	36 750	36 750

A320-211/A320-212/A320-231

变化/VARIANT	000 (BASIC) (MOD 20802)	001 (MOD 20966)	002 (MOD 21601)	003 (MOD 22269)	004 (MOD 21532)	005 (MOD 21711)
最大滑行重量/ Max.rampweight	73 900	68 400	70 400	75 900	71 900	67 400

最大起飞重量/ Max. take-off weight	73 500	68 000	70 000	75 500	71 500	67 000
最大着陆重量/ Max. landing weight	64 500	64 500	64 500	64 500	64 500	64 500
最大零燃油重量/ Max. zero fuel weight	60 500	60 500	60 500	60 500	60 500	60 500
最小重量/ Minimum weight	37 230	37 230	37 230	37 230	37 230	37 230

变化/VARIANT	006 (MOD 22436)	007 (MOD 23264)	008 (MOD 23900)	009 (MOD 23900 & 22269)	010 (MOD 23900 & 23264)	011 (MOD 30307)
最大滑行重量/ Max.rampweight	66 400	77 400	73 900	75 900	77 400	75 900
最大起飞重量/ Max. take-off weight	66 000	77 000	73 500	75 500	77 000	75 500
最大着陆重量/ Max. landing weight	64 500	64 500	64 500	64 500	64 500	66 000
最大零燃油重量/ Max. zero fuel weight	60 500	60 500	61 000	61 000	61 000	62 500
最小重量/ Minimum weight	37 230	37 230	37 230	37 230	37 230	37 230

变化/VARIANT	012 (MOD 30479)	013 (MOD 31132)	014 (MOD 31385)	016 (MOD 34094)	018 (MOD 151710)
最大滑行重量/ Max.rampweight	77 400	71 900	73 900	73 900	71 900
最大起飞重量/ Max. take-off weight	77 000	71 500	73 500	73 500	71 500
最大着陆重量/ Max. landing weight	66 000	64 500	64 500	66 000	66 000
最大零燃油重量/ Max. zero fuel weight	62 500	61 000	61 500	62 500	62 500
最小重量/ Minimum weight	37 230	37 230	37 230	37 230	37 230

A320-214/A320-232/A320-233

变化/VARIANT	000 (BASI C)	001 (MOD 20966)	002 (MOD 21601)	003 (MOD 22269)	005 (MOD 21711)	007 (MOD 23264)	008 ⁽³⁾ (MOD 23900)
最大滑行重量/Max.rampweight	73 900	68 400	70 400	75 900	67 400	77 400	73 900
最大起飞重量/Max. take-off weight	73 500	68 000	70 000	75 500	67 000	77 000	73 500
最大着陆重量/ Max. landing weight	64 500	64 500	64 500	64 500	64 500	64 500	64 500
最大零燃油重量/ Max. zero fuel weight	60 500	60 500	60 500	60 500	60 500	60 500	61 000
最小重量/Minimum weight	37 230	37 230	37 230	37 230	37 230	37 230	37 230

变化/VARIANT	009 ⁽³⁾ (MOD 23900 & 22269)	010 ⁽³⁾ (MOD 23900 & 23264)	011 ⁽³⁾ (MOD 30307)	012 ⁽³⁾ (MOD 30479)	013 ⁽³⁾ (MOD 31132)	014 ⁽³⁾ (MOD 31385)	015 ⁽³⁾ (MOD 34047)
最大滑行重量/Max.rampweight	75 900	77 400	75 900	77 400	71 900	73 900	78 400
最大起飞重量/Max. take-off weight	75 500	77 000	75 500	77 000	71 500	73 500	78 000
最大着陆重量/ Max. landing weight	64 500	64 500	66 000	66 000	64 500	64 500	64 500

最大零燃油重量/ Max. zero fuel weight	61 000	61 000	62 500	62 500	61 000	61 500	61 000
最小重量/Minimum weight	37230	37230	37 230	37 230	37 230	37 230	37 230

变化/VARIANT	016 ⁽³⁾ (MOD 34094)	017 ⁽³⁾ (MOD 151634)	018 ⁽³⁾ (MOD 151710)	
最大滑行重量/Max.rampweight	73 900	78 400	71 900	
最大起飞重量/Max. take-off weight	73 500	78 000	71 500	
最大着陆重量/ Max. landing weight	66 000	66 000	66 000	
最大零燃油重量/ Max. zero fuel weight	62 500	62 500	62 500	
最小重量/Minimum weight	37 230	37 230	37 230	

A320-215/A320-216

变化/VARIANT	000 (BASIC) (MOD 20802)	001 ⁽¹⁾ (MOD 20966)	002 (MOD 21601)	003 (MOD 22269)	005 ⁽²⁾ (MOD 21711)	008 ⁽³⁾ (MOD 23900)
最大滑行重量/ Max.rampweight	73 900	68 400	70 400	75 900	67 400	73 900
最大起飞重量/ Max. take-off weight	73 500	68 000	70 000	75 500	67 000	73 500
最大着陆重量/ Max. landing weight	64 500	64 500	64 500	64 500	64 500	64 500
最大零燃油重量/ Max. zero fuel weight	60 500	60 500	60 500	60 500	60 500	61 000
最小重量/ Minimum weight	37 230	37 230	37 230	37 230	37 230	37 230

变化/VARIANT	009 ⁽³⁾ (MOD 23900 & 22269)	011 ⁽³⁾ (MOD 30307)	013 ⁽³⁾ (MOD 31132)	014 ⁽³⁾ (MOD 31385)	016 ⁽³⁾ (MOD 34094)	018 ⁽³⁾ (MOD 151710)
最大滑行重量/ Max.rampweight	75 900	75 900	71 900	73 900	73 900	71 900
最大起飞重量/ Max. take-off weight	75 500	75 500	71 500	73 500	73 500	71 500
最大着陆重量/ Max. landing weight	64 500	66 000	64 500	64 500	66 000	66 000
最大零燃油重量/ Max. zero fuel weight	61 000	62 500	61 000	61 500	62 500	62 500
最小重量/ Minimum weight	37 230	37 230	37 230	37 230	37 230	37 230

注释 / Notes:

(1) WV001 仅从 MSN 530 (引入 A320-214 型别) 开始适用于 A320-215 (和-216)

WV005 仅适用于采用了 mod 28154 的 A320-215 (和-216)

Note: WV001 applicable to A320-215 (and -216) model only from MSN 530 (introduction of A320-214 model)

(2) WV005 仅适用于实施了 MOD 28154 的 A320-215 (和-216)
WV005 applicable to A320-215 (and -216) model only for a/c have modification 28154 embodied

(3) MOD 160500 仅针对 WV 008 至 WV 018 得到批准。
MOD 160500 is approved for WV 008 to WV 018, only.

14. 重心范围 / Center of gravity range

见经批准的飞机飞行手册。/ See approved Airplane Flight Manual.

15. 基准 / Datum

0.0 站位, 位于飞机机头前方 2.540 米
Station 0.0, located 2.540 meters forward of airplane nose

16. 平均气动弦 / Mean Aerodynamic Chord (MAC)

4.1935 米 / meters

17. 水平方法 / Levelling Means

飞机可从 3 个主顶起点顶起。/ The A/C can be jacked on three primary jacking points.
参见适用的 EASA 批准的重量和平衡手册
See the appropriate EASA approved Weight and Balance Manual

18. 最小飞行机组 / Minimum Flight Crew

2 位驾驶员/pilots

19. 最大乘员座位数 / Maximum number of passengers seats

180

注释 / Note:

实施改装包 35177 (后翼上出口)或者改装包 150016 (前翼上出口)可以使第 2 个 III 型应急出口失效。这种情况下, 最大乘客数量为 145 人。任意一个翼上出口舱门与后舱门之间的最大乘客数量为 90 人。

The second Type III emergency exit can be de-activated by embodiment of modification 35177 (aft overwing exit) or modification 150016 (forward overwing exit). In this case, the maximum number of passengers is 145. The maximum number of passengers between any of the overwing exit doors and rear door is 90.

如果实施改装包 150364, A320 所有型别可以增加客舱灵活性, 包括 150 名乘客和 3 名客舱乘务员。

A320 all models aircraft can be operated with 150 passengers and with 3 cabin attendants for increased cabin flexibility if modification 150364 is embodied.

20. 行李舱/货舱 / Baggage / Cargo compartment

货舱/ CARGO COMPARTMENT	最大载荷/ MAXIMUM LOAD (kg)
--------------------------	----------------------------

前/Forward	3 402
后/Aft	4 536
尾/Rear (散装/bulk)	1 497

对于位置和条件, 每一批准位置(容量、货盘和关联重量)见重量平衡手册(文件编号: 00D080A0001/C1S) 1.10 章节。

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights) see Weight and Balance Manual, ref. 00D080A0001/C1S Chapter 1.10.

21. 机轮和轮胎 / Wheels and Tyres

见服务通告, No. SB A320 - 32 - 1007。/See SB A320 - 32 - 1007.

带有 MOD 20139 并且不带有 MOD 22129 的航空器, 安装了 4 轮起落架 (直至 73.5 T MTOW)

Aircraft incorporating modification 20139 and without modification 22129, are equipped with a four-wheel bogie landing gear (up to 73.5 T MTOW).

IV. 运行和服务指令 / Operating and Service Instructions

1. 飞机飞行手册 / Airplane Flight Manual (AFM)

EASA 批准的 A320 飞机飞行手册

EASA Approved Airplane Flight Manual for A320.

2. 持续适航文件和适航性限制

Instructions for Continued Airworthiness and Airworthiness Limitations

适航性限制 / Airworthiness Limitations

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的子分部 1-2 和 1-3 章节中, 提供了适用的安全寿命适航性限制项目。/ Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3 approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 2 分部中, 提供了适用的损伤容限限制项目。

Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Items document (ALS Part 2) approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 3 分部中, 提供了合格审定维修要求项目。

Certification Maintenance Requirements are provided in A318/A319/A320/A321 ALS Part 3 - CMR (Certification Maintenance Requirements) approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 4 分部中, 提供了老龄系统维修 (ASM) 限制。

Ageing Systems Maintenance (ASM) limitations are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 4 approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 5 分部中, 提供了燃油适航性限制。

Fuel Airworthiness Limitations are provided in A318/A319/A320/A321 Fuel Airworthiness Limitations document (ALS Part 5) approved by the EASA.

注释 / Note:

对于 A320-213、-232 和-233 型别，纳入改装包 37734 会导致维修大纲及其有效性限制 (LoV) 的变化，LoV 从 48,000FC/60,000FH 变为 37,500FC/80,000FH (先到为准)。
For A320-231, -232 and -233 models, the embodiment of modification 37734 leads to change the maintenance program and its associated Limit of Validity (LoV) from 48,000FC/60,000FH to 37,500FC/80,000FH (whichever occurs first).

其他限制 / Other limitations

参见 EASA 批准的飞行手册。 / See EASA approved Flight Manual.

3. 重量和平衡手册 / Weight and Balance Manual (WBM)

空客符合性文件 / Airbus Compliance Document 00D80A0001/C1S

V. 注释 / Notes

1. 对于 A320-111、A320-211 和 A320-212，改装包 21038 是三类 B 级精确进近资质的最低标准。

For models A320-111, A320-211 and A320-212, modification 21038 is the minimum standard to be qualified for Cat IIIB precision approach.

对于 A320-231，改装包 21039 是三类 B 级精确进近资质的最低标准。

For model A320-231, modification 21039 is the minimum standard to be qualified for Cat IIIB precision approach.

其他所有型别的基本设计定义就具有三类 B 级精确进近资质。

All other models are qualified for Cat IIIB precision approach per basic design definition.

2. A320-111 型飞机序列号限于 MSN 001 直到 MSN 021。

A320 - 111 aircraft serial numbers eligible are restricted from MSN 001 up to MSN 021.

SECTION 2: A321 系列 / A321 SERIES**I. 概述 / General****1. 型号/型别/构型变化 / Type/model/Variant:**

A321-111
A321-112
A321-131
A321-211
A321-212
A321-213
A321-231
A321-232

根据第 21.101 条的产品级重大更改 / Significant Product Level Changes i.a.w. 21.A.101:

MOD 160023 适用于以下型别的鲨鱼鳍小翼

MOD 160023 Sharklet applicable on A321-211, A321-231

2. 法国民航局/联合航空当局型号审定日期 / DGAC-F / Joint Airworthiness Authority (JAA) Type Certification Date

A321-111: 1994 年 5 月 27 日/May 27, 1994
A321-112: 1994 年 2 月 15 日/February 15, 1994
A321-131: 1993 年 12 月 17 日/December 17, 1993
A321-211: 1997 年 3 月 20 日/March 20, 1997
A321-212: 2001 年 8 月 31 日/August 31, 2001
A321-213: 2001 年 8 月 31 日/August 31, 2001
A321-231: 1997 年 3 月 20 日/March 20, 1997
A321-232: 2001 年 8 月 31 日/August 31, 2001

注释: 对于 2005 年 12 月 21 日前生产的 A321 型飞机, 法国民航局颁发的型号合格证 (DGAC-F TC 180)仍保持有效。

Note: For A321 produced before the 21st of December 2005, DGAC-F TC 180 remains a valid reference.

3. EASA 型号审定日期 / EASA Type Certification Date

EASA 型号合格证数据单第 1 版颁发于 2005 年 12 月 21 日
EASA TCDS issue 1 issued December 21, 2005

MOD 160023 issue 1	2013 年 7 月 17 日/17 July, 2013 (A320-211)
MOD 160023 issue 2	2012 年 7 月 30 日/30 July, 2013 (A320-231)
MOD 160023 issue 3	2014 年 1 月 10 日/Jan.10, 2014 (A321-211, -231)
MOD 160023 issue 4	2014 年 6 月 16 日/Jun.16, 2014 (A321-211, -212, -213, -231, -232)

4. 中国民航局型号认可审定日期 / CAAC Type Validation Date

b) 认可审定日期 / Validation dates:

A321-111: 1998 年 9 月 15 日/September 15, 1998
A321-112: 1998 年 9 月 15 日/September 15, 1998
A321-131: 1998 年 9 月 15 日/September 15, 1998
A321-211: 1998 年 9 月 15 日/September 15, 1998

A321-231: 1998 年 9 月 15 日/September 15, 1998
A321-212: 2007 年 12 月 04 日/December 4, 2007
A321-213: 2007 年 12 月 04 日/December 4, 2007
A321-232: 2007 年 12 月 04 日/December 4, 2007

注释: 对于 2007 年 12 月 04 日前生产并出口中国的 A321-111/-112/-131/-211/-231 型飞机, 中国民航总局颁发的型号认可证(VTC 085A)仍保持有效。

Note: For A321-111/-112/-131/-211/-231 produced and exported before the 04 of December 2007, CAAC-VTC 085A remains a valid reference.

MOD 160023 issue 1	2014 年 2 月 26 日/Feb.26,2014 (A321-211)
MOD 160023 issue 2	2014 年 2 月 26 日/Feb.26,2014 (A321-231)
MOD 160023 issue 3	2014 年 1 月 10 日/Jan.10, 2014 (A321-211, -231)
MOD 160023 issue 4	2014 年 7 月 18 日/Jul.18, 2014 (A321-211, -212, -213, -231, -232)

5. 生产条件 / Production conditions

直到 1999 年 4 月, 依据德国民航局给位于德国汉堡 AIRBUS INDUSTRIE 公司颁发的批准 I-A9, 或自 1999 年 4 月起, 批准 LBA.G.0009, 生产 A321 系列各型别飞机。

A321 aircraft, all series, all models, are all produced in Hamburg - Germany - under approval I-A9 (until April 1999) or LBA.G.0009 (since April 1999) issued by LBA to AIRBUS INDUSTRIE.

自 2004 年 9 月 27 日起, 依据德国民航局给位于德国汉堡 AIRBUS 公司颁发的批准 DE.21G.0009, 生产 A321 系列各型别飞机。

Since September 27, 2004, A321 aircraft are produced in Hamburg - Germany under approval DE.21G.0009 issued by LBA to AIRBUS.

自 2008 年 7 月 21 日起, A321 飞机在欧洲航空安全局给位于德国汉堡的 AIRBUS 公司颁发的批准 EASA.21G.0001 下生产。

From July 21st, 2008, A321 aircraft are produced in Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to AIRBUS.

II. 审定基础和认可审定基础 / Certification Basis and Validation Basis

1. 确定适用要求的参考日期 / Reference Date for determining the applicable requirements

空客公司申请 A321-100 合格审定的日期为 1989 年 11 月 30 日, 信函 AI/EA-410.106/89。AIRBUS INDUSTRIE has applied for A321-100 certification on November 30, 1989 by letter AI/EA-410.106/89.

2. 最初的适航当局型号合格证数据单编号 / Initial Airworthiness Authority Type Certification Date Sheet No.

原法国 TCDS DGAC no. 180 被 EASA TCDS A.064 替代
Original French TCDS DGAC no. 180 was replaced by the EASA TCDS A.064

3. 最初的适航当局审定基础 / Initial Airworthiness Authority Certification Basis

如下所述 / See below

4. EASA 适航要求 / EASA Airworthiness Requirements

下面列出了不同 A321 型别的合格审定基础。在进一步的 A321 型别的合格审定时，针对每一型别确定特定基础的修正。

Hereafter are listed the certification bases for the different A321 models. The amendments made to a particular basis at the occasion of further A321 model certification are identified per model.

JAA 的审定基础确定在 1993 年 11 月 29 日的 CRI G3001 Issue 4 中：

The applicable Joint Certification Basis defined in CRI G3001 Issue 4 dated 29/11/93 is:

4.1 欧洲联合航空条例 JAR25 部含第 11 次修订版，及 1989 年 10 月 5 日生效的第 13 次修订版中的下列条款：

JAR 25 Change 11 as amended by the following JAR 25 Change 13 paragraphs effective on the reference date November 30, 1989:

JAR 25X20	JAR 25.253
JAR 25.101	JAR 25.345(a)
JAR 25.105	JAR 25.365
JAR 25.107(d)	JAR 25.812(e)
JAR 25.109(a)	JAR 25.857(d)(6)
JAR 25.113	JAR 25.1501(c)
JAR 25.119(b)	JAR 25.1533(b)
JAR 25.121	JAR 25.1581(b)
JAR 25.125	JAR 25.1583(k)
JAR 25.143(f)	JAR 25.1587
JAR 25.207	JAR 25X1591

关联 JAR 25 部第 13 次修订版，删除下列条款：

Associated to JAR 25 Change 13, the following paragraphs are deleted:

- 25X131	第 11 次修订/Change 11
- 25X132	第 11 次修订/Change 11
- 25X133	第 11 次修订/Change 11
- 25X135	第 11 次修订/Change 11
- 25X1588	第 11 次修订/Change 11

4.2 由制造厂家选择的 JAR 25 部要求(1992 年 3 月 13 日信函: AI/EA 412.0033/92)。

JAR 25 Requirements elected by the manufacturer (Letter AI/EA 412.0033/92 dated March 13, 1992).

a. JAR 25 部第 13 次修订中的条款和由 NPA 25C205 文件桔黄页 91/1 介绍修正的统一离散突风要求。

JAR 25 paragraphs at Change 13 and amended by the NPA 25C205 Unified Discrete Gust Requirements introduced by Orange Paper 91/1:

JAR 25.305	JAR 25.349(b)
JAR 25.321	JAR 25.351
JAR 25.331	JAR 25.365
JAR 25.333	JAR 25.371
JAR 25.335(d)	JAR 25.373

JAR 25.341	JAR 25.391
JAR 25.343(b)(1)(ii)	JAR 25.427
JAR 25.345(a) and (c)	JAR 25.571(b)(2)

b. JAR 25 部第 13 次修订中的条款和由 NPA 25 BDG 244 修正的加速停止距离和关联性能。

JAR 25 paragraphs at Change 13 and amended by the NPA 25 BDG 244 Accelerate Stop Distances and Associated Performance.

参见专用条件 F-10, S-79 和 IM-S79。/Refer to Special Conditions F-10, S-79 and IM-S79.

4.3 Airbus 公司已于 1996 年 7 月 17 日的信函(AI/EA-S 413.1938/96)中提出了 A321-200 飞机型号合格审定。

Airbus Industrie has applied for A321-200 certification on July 17, 1996 by letter AI/EA-S 413.1938/96.

除了 4.3.b 外, 1993 年 11 月 29 日颁发 CRI G3001 文件中定义的适用联合审定基础仍然适用。4.3.b 被 Airbus 公司自愿满足(1997 年 1 月 29 日信函: AI/EA-S 413.0278/97)的要求所取代, 使用 1996 年 1 月的 NPA 25 BDG 244 文件, 并且 1996 年 4 月 24 日、1996 年 5 月 22 日、1996 年 6 月 7 日、1996 年 7 月 4 日进行了修订 (参见 CRI F3012)。

4.4 联合航空条例 AWO 的第 1 次修改版中包括低能见度情况下的自动着陆和运行要求。
JAR AWO Change 1 for auto-land and operations in low visibility.

4.5 ETOPS:

对于双发飞机的延程运行, 适用的技术条件包含在 AMC 20-6 (之前发布在 AMJ 120-42/IL 20 和 CAP513 中)以及 A321 ETOPS CRI 中:

For the Extended Twin Engine Airplane Operations the applicable technical conditions are contained in AMC 20-6 (as initiall published in AMJ 120-42/IL 20 and CAP 513) and A321 ETOPS CRI:

CRI G3006 ETOPS

CRI G3007 ETOPS 一发不工作巡航速度 / One engine inoperative cruise speed.

4.6 对于所有型别, 空客自愿满足第 106 号修正案水平的美国联邦航空规章 25.772(a)和(c)以及 25.795, 参见 CRI E12 增强保安性能的驾驶舱门

For all models Airbus Elect To Comply with 14 CFR Part 25.772(a) and (c) and 25.795 amendment 106 according to CRI E12 – Reinforced Security Cockpit Door

4.7 对于 MOD 160023 “鲨鱼鳍小翼”, 通过 E3401-001 修订审定基础。

Certification basis revised for MOD 160023 “Sharklet” by CRI A-0001-001.

CS 25 Amdt 8 for

§ 25.23	§ 25.481(a)(c) amended by SC A-2 for §25.481(a)
§ 25.25	§ 25.483
§ 25.117	§ 25.485
§ 25.147	§ 25.489
§ 25.161	§ 25.491
§ 25.177 amended by SC-F16	§ 25.571(a)(b)(e)
§ 25.235	§ 25.581
§ 25.251	§ 25.601
§ 25.301	§ 25.603
§ 25.302	§ 25.605
§ 25.303	§ 25.607

§ 25.305(a)(b)(c)(e)(f)	§ 25.609
§ 25.307(a)(d)	§ 25.613
§ 25.321(a)(b)(c)(d)	§ 25.619
§ 25.331(a)(b)(c)	§ 25.623
§ 25.333(a)(b)	§ 25.625
§ 25.335(a)(c)(d)(e)(f) amended by SC A5003 for (b) and SC A-2 for (e)	§ 25.629
§ 25.337 §	25.631
§ 25.341(a)(b)	§ 25.651
§ 25.343(a)(b)	§ 25.683
§ 25.345(a)(b)(c)(d)	§ 25.899
§ 25.349(a)(b) amended by SC A-2.2.2 for 25.349(a)	§ 25.903(d)(1) (see CRI E-39 for interpretative material)
§ 25.351	§ 25.1385
§ 25.365(a)(b)(d)	§ 25.1387
§ 25.367	§ 25.1389
§ 25.371	§ 25.1391
§ 25.373	§ 25.1393
§ 25.391	§ 25.1395
§ 25.393(b)	§ 25.1397
§ 25.427	§ 25.1401
§ 25.445	§ 25.1505
§ 25.457	§ 25.1511
§ 25.459	§ 25.1515
§ 25.471(a)(b)	§ 25.1527
§ 25.473	§ 25.1587
§ 25.479(a)(c)(d) amended by SC A-2 for § 25.479(a)	§ 25.1591
CS 25 Amdt 2 for	
§ 25.253	
JAR 25 Chg 15 for	
§ 25.1517	
JAR 25 Chg 14 for	
§ 25.21 amended by A318 SC F5001 (for b)	§ 25.149 + OP96/1
§ 25.101 amended by SC F11/S79	§ 25.171 replaced by SC-F5004
§ 25.103 replaced by A318 SC F5001	§ 25.173 replaced by SC-F5004
§ 25.105 amended by SC F11/S79	§ 25.175 replaced by SC-F5004
§ 25.107 amended by A318 SC-F5001	§ 25.181
§ 25.109 amended by SC F11/S79	§ 25.201 + OP96/1, replaced by SC-F5001
§ 25.111	§ 25.203 + OP96/1, replaced by SC-F5001
§ 25.113 + OP96/1 amended by SC F11/S79	§ 25.207 amended by SC-F5001
§ 25.115 amended by SC F11/S79	§ 25.231
§ 25.119 + OP96/1 amended by A318 SC F5001 (for b)	§ 25.233
§ 25.121 + OP96/1, amended by A318 SC F5001 (for c & d)	§ 25.237
§ 25.123	§ 25X261
§ 25.125 + OP96/1, amended by A318 SC F5001	§ 25.1533

§ 25.143 + OP96/1, amended by SC F3, F7 & F8 § 25.1581
§ 25.145 + OP96/1 § 25.1585(a)

JAR 25 Chg 11 for
§ 25.671
§ 25.672
§ 25.1001
§ 25.1301
§ 25.1309
§ 25.1419 amended by AMC-F14

解释性材料 / Interpretative Material:

CRI E-39 发动机转子非包容失效 / Uncontained Engine Rotor Failure

注释: 原来的适用于每一型别的解释性材料仍然有效。

Note: The original Interpretative material applicable to each model remains effective.

可接受的符合性方法 / Acceptable Means of Compliance:

AMC F-14 结冰条件下的飞行 / Flight in icing condition.

注释: 带有 MOD 160500 时, AMC F-14 的适用性从 A321/A319/A318 拓展到 A320。

Note: AMC F-14 applicability extended from A321/A319/A318 to A320 with MOD 160500.

ETOPS

AMC 20-6 Rev 1 中与结冰条件下运行相关的段落 8.b.(11), 规定了鲨鱼鳍小翼上的冰型
AMC 20-6 Rev 1 paragraphs related to operation in icing conditions 8.b.(11) for ice shapes on the Sharklet device.

AMC 20-6 Rev 1 中与 AFM 补充中的性能数据相关的段落 8.f.(1) (iii), 规定了 ETOPS
AMC 20-6 Rev 1 paragraphs related to performance data in the AFM supplement for ETOPS 8.f.(1) (iii).

对于不受影响的区域, ETOPS 要求见 AMJ 120-42

AMJ 120-42 for ETOPS for non-affected areas.

注释: 对应用于初始 ETOPS 验证的审定基础(参见 A320 CRI G1006)。

Note: This corresponds to the certification basis used for the initial ETOPS demonstration (refer to A320 CRI G1006).

5. 专用条件 / Special Conditions

提示: 在 A320 联合合格审定基础制定的范围内, 编制了三种类别的专用条件。

Reminder : within the scope of the establishment of the A320 Joint Certification Basis, three types of special conditions were developed:

- 专用条件: 覆盖新颖的或独特的且联合航空条例未有公布的设计特性。 / Special conditions: raised to cover novel or unusual features not addressed by the JAR.

- 经验相关条件: 对于 A320 联合合格审定基础, 按照 NPA 程序, 在欧洲联合航空条例演变进程中, 记录已经同意的原文。 / Experience related conditions: raised to record an agreed text for the A320 Joint Certification Basis when evolution of JAR was in progress under the NPA procedure.

- 协调条件: 对于 A320 联合合格审定基础的意图, 记录关于国家不同要求方面的共同的理解。该协调条件不应与 FAA/JAA 协调规章的活动相混淆。 / Harmonization conditions: to record, for the purpose of the A320 Joint Certification Basis, a common understanding with

respect to National variant. This should not be confused with the FAA/JAA harmonised regulations.

5.1 删除下述 A320 型飞机的专用条件，经验相关条件和协调条件：

The following A320 Special Conditions, Experience Related Conditions and Harmonization Conditions are deleted:

a. 在 4.1 和 4.2 段基础进一步应用更新的要求：

Further to application of the updated requirements of above paragraphs 4.1 and 4.2:

HC-F103	湿跑道上的加速停止距离,起飞距离和起飞滑行/ASD-TOD-TOR on wet runways
HC-F114	进近和目标开始速度/ Approach and Target Threshold Speeds
EC-A.3.6.1	高升力装置/ High Lift Devices
SC-A.4.3	协调突风载荷/Tuned Gust Loads (UK)
HC-A.4.4	机动载荷-高升力装置展开/ Manoeuvre Loads - High Lift Devices Deployed
HC-S61	设计着陆刹车动能/ Design Landing Brake Kinetic Energy
HC-S62	中止起飞刹车动能/ Rejected Take-Off Brake Kinetic Energy
IM-AMC-F101	湿跑道摩擦特性/ Wet Runway Friction Characteristics
IM-F103	湿跑道上的加速停止距离,起飞距离和起飞滑行/ASD-TOD-TOR on Wet Runways
IM-A38	离散突风要求/ Discrete Gust Requirements
AMC-A43	协调突风载荷/ Tuned Gust Loads (UK)

b. JAR 25 部要求的进一步发展：

Further to JAR 25 requirements evolution:

EC-G11	一般定义/ General Definition
IM-F107	着陆距离确定/ Landing Distance Determination
AMC-F111	起飞速度 VMU/ Take-Off Speeds VMU

c. A321 飞机专用条件和(d)节所列解释材料进一步发布：

Further to issuance of A321 Special Conditions and Interpretative Materials listed in paragraph 5.2 below:

SC-A211/IM-A211	飞机结构性能与系统互相影响方面的设计合格审定准则 / Certification criteria for aircraft designed with systems interacting with structural performance
IM-A35	迅速释压/ Rapid Decompression
IM-A47	应急着陆条件/ Emergency Landing Conditions

5.2 新的或升级的 A321 专用条件和咨询材料/ New or updated A321 Special Conditions and Advisory Material

飞行/Flight

SC-F1 and IM-F1 (CRI F3001)	失速和预定运行速度/ Stalling and Scheduled Operating Speeds
SC-F10 (CRI F3002)	加速-停止距离/ Accelerate - Stop Distance
IM-F4 (CRI F3003)	静态纵向稳定性(低能告警)/ Static Longitudinal Stability (low energy awareness)
IM-F12 (CRI F3004)	计算机化飞机飞行手册/ Computerized Airplane Flight

IM-F13 (CRI F3005)	Manual
AMC-F14 (CRI F3006)	着陆距离外延/ Landing Distance Extrapolation 结冰条件飞行/ Flight in Icing Conditions
结构/Structure	
SC-A1 and IM-A1 (CRI A3001)	系统与结构交互作用/ Interaction of Systems and Structure
SC-A2 (CRI A3002)	结构设计失速速度/ Stalling Speeds for Structural Design
IM-A3 (CRI A3003)	迅速释压/ Rapid Decompression
IM-A4 (CRI A3004)	机身外燃油箱的失坠性/ Crashworthiness of Fuel Tanks outside the fuselage
动力/Propulsion	
SC-P1 and IM-P1 (CRI P3001)	全权数字式发动机控制/ FADEC
IM-P2 (CRI P3003)	短舱罩防火/ Nacelle Cowling Resistance to Fire
环境/Environment	
SC-E1 and IM-E1 (CRI E3005)	防火术语/ Resistance to Fire Terminology
AMC-E2 (CRI E3006)	应急撤离演示/ Emergency Evacuation Demonstration
SC-E3 (CRI E3001)	应急出口构形/ Exit Configuration
IM-E4 (CRI E3002)	2 个和 3 个 III 型登机门重新布置/ Reclassification of door 2 and 3 to Type III
系统/Systems	
IM-S78	低高度自动驾驶交联/ Low altitude autopilot engagement
SC-S79 and IM-S79	刹车要求资质和试验/ Brakes requirements qualification and testing
5.3 下列 A320 专用条件和解释材料对 A321 是有效的: The following A320 Special Conditions and Interpretative Material are validated for A321 :	
SC-G17 (F)	运行校对飞行/ Operational proving flights
SC-G17 (G)	合格审定运行飞行/ Operational flight for certification
SC-F3	驾驶舱控制-驾驶舱操纵运动和影响/ Cockpit Control - motion and effect of cockpit control
SC-F4	静态纵向稳定性/ Static Longitudinal Stability
SC-F6	静态航向和横向稳定性/ Static Directional and Lateral Stability
SC-F7/IM-F7	飞行包线保护/ Flight Envelope Protection
SC-F8	正常载荷因子限制/ Normal Load Factor Limiting
SC-F9	双套操纵系统/ Dual Control System
AMC-F116	起飞速度 VMU/ Take-off Speeds VMU
SC-A222/IM-A222	设计机动速度/ Design Manoeuvre requirement
SC-A223/IM-A223	设计俯冲速度/ Design Dive Speed
AMC-A23	复合材料结构/ Composite Aircraft Structure
IM-A313	复合湍流-计算结果的使用/ Composite Turbulence - use of calculation results
IM-A37	应急着陆条件和起落架/ Emergency Landing Conditions and Landing Gear
IM-A39	离散源损伤/ Discrete Source Damage

HC-A45/IM-A45	刹车滚动条件/ Brake Roll Conditions
HC-A46	速度控制装置/ Speed control device
AMC-S1	数字设备/ Digital Equipment
AMC-S5	电焊和闪电防护(直接影响)/ Electrical bonding and lightning protection (direct effects)
SC-S11	限制操纵力和扭矩/ Limit pilot forces and torques
IM-S13	备用地平仪/ Standby gyroscopic horizon
IM/AMC-S14	电子飞行控制(手控飞行)/ Electrical flight controls (manual flight)
AMC-S20	电子器具系统/ Electronic instrument systems
IM-S21	起落架/ Landing Gear
HC-S23/IM-S23	备用地平仪/ Standby Gyroscopic Horizon
HC-S24	VMO/MMO 警告(设定)/ VMO/MMO Warning (Setting)
IM/AMC-S27	刻度显示系统/ Altitude Display System
EC-S30/AMC-S30	自动飞行系统/ Autoflight System
SC-S33	自动推力系统/Autothrust System
IM-S35	自动驾驶同步/ Autopilot Synchronization
IM/AMC-S42	APU 转子爆裂/ APU Rotor Burst
IM-S51	应急载荷/ Emergency Loads
SC-S52/IM-S52	无正常电力的运行/ Operation without normal electrical power
SC-S54/IM-S54	线路保护装置/ Circuit protective devices
HC-S72/IM-S73	飞行记录器/ Flight recorder
SC-S74	非正常姿态/ Abnormal attitudes
SC-S75	闪电防护(间接影响)/ Lightning protection (indirect effects)
SC-S76/IM-S76	外部辐射对机上设备的影响/ Effect of external radiations upon aircraft systems
SC-S77/IM-S77	信号控制完整性/ Integrity of signal control

5.4 对于任何 1998 年 7 月 10 日以后新的申请(新的或改装飞机系统和关联的零组件), 专用条件 IM-S76 (外部辐射对飞机系统的影响)被专用条件 SC/IM-S76-1 (CRI SE14)取代。
For any new application (new or modified aeroplane system and associated components) after July 10, 1998, SC/IM-S76 (Effect of external radiations upon aircraft systems) are superseded by SC/IM-S76-1 (CRI SE14).

5.5 1998 年 8 月 10 日后的任何进一步变化的合格审定, 协调专用条件 HC-A.4.5 (刹车滚动条件)被联合航空条例第 14 次修改的 JAR 25.943(d)替代(CRI A7)。
For any further variant certification after Aug. 10, 1998, the HC-A.4.5 (Braked roll conditions) is superseded by JAR 25.943(d) at Change 14 (CRI A7).

5.6 在证后型号合格审定过程中, 制定了下述专用条件:

The following special conditions have been developed post Type Certification:

SC H-01	飞机系统的提高适航大纲—关于 EWIS 的 ICA (自 2010 年 5 月起生效) / Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS (applicable from May 2010)
SC E-34	带有充气安全带的座椅 / Seat with inflatable restraints
SC E-13	充气安全带的安装(选装) / Installation of inflatable restraints (optional)
SC D-0306	座椅材料的热释放和烟雾浓度要求(自 2010 年 6 月起生效)/ Heat release and smoke density requirements to seat material (applicable from June 2010)
SC P-27	可燃性降低系统/ Flammability Reduction System 如果满足, 则 2012 年 1 月 1 日后首次飞行的航空器的中央油箱

必须在生产线上安装油箱可燃性降低系统 (MOD 38062)。带有 MOD 38062 后, 该系统必须保持安装和可用状态, 并且仅能根据 MMEL 改版中的条款在不能工作状态下派遣。如果在 A318、A319、A320 或者 A321 飞机上安装了 MOD 38062 (油箱惰性系统 (FTIS)), 则飞机满足 25-102 修正案水平的 25.981(a) 和 (b) 的 FR 段、25-125 修正案水平的 25 部附录 M 和 N、以及 26-3 修正案水平的 26.33 条。/ If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (modification 38062). This system shall remain installed and operative and can only be dispatched inoperative in accordance with the provisions of the MMEL revision associated with modification 38062. If modification 38062 (Fuel Tank Inerting System (FTIS)) is embodied on A318, A319, A320, or A321 airplanes, the airplane is compliant with paragraph FR Section 25.981(a) & (b) at amendment 25-102, Part 25 appendix M & N at amendment 25-125, and Section 26.33 at amendment 26-3.

SC-E10 高高度机场运行(至止 14,100 英尺)(见 CRI E10)/ High altitude airport operations (up to 14,100 ft) (see CRI E10).

5.7 带有 MOD 160023 的航空器的专用条件

Special Conditions for aircraft equipped with MOD 160023

SC F-16	航向和横向静稳定性 / Static directional and lateral stability
A318 SC F-5001	失速和计划运行速度 / Stalling and scheduled operating speeds
A318 SC F-5004	纵向静稳定性和低能量警告 / Static Longitudinal Stability and Low energy awareness
A318 SC A-5003	设计俯冲速度 / Design Dive Speed Vd

注释: 所有其他的适用于每一型别的原始专用条件仍然有效。

Note: All other original Special Conditions applicable to each model remain effective.

6. 豁免 / Exemptions

没有豁免 / No exemptions

7. 偏离 / Deviations

无 / None

8. 等效安全 / Equivalent safety findings

8.1 下述条款通过等效安全的方式来满足:

The following paragraphs have been complied with through equivalent safety demonstrations:

JAR 25.783 (f)	客舱门和散装货舱门(见 CRI SM 3001, SM 3002 和 SM 2007)/ for passenger doors and bulk door (see CRI SM 3001, SM 3002 and SM 3004)
JAR 25.933(a)	反推自动装载功能(见 CRI P 3008)/ for thrust reverser autorestow function (see CRI P 3008).

8.2 在证后型号合格审定过程中, 制定了下述等效安全:

The following Equivalent Safety Findings have been developed post Type Certification:

FAR 25.856(b)	舱内区域的机身烧穿保护(参见 CRI E-32), 如果在生产线上
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A318、A319、A320 或者 A321 飞机实施了 MOD 150700 和 37270 (仅带有 CLS 选项)、37048 和 36985, 飞机满足机身火焰穿透“烧穿”要求, 即 25-111 修正案水平的 14 CFR Part 25.856(b) (参见 CRI E-18)

Fuselage burnthrough protection in bilge area (see CRI E-32), see note below If modifications 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration “Burnthrough” requirements addressed by paragraph 14 CFR Part 25.856(b) Amdt 25-111(See CRI E-28).

14CFR Part 25.856(a) 针对绝缘材料的提高的阻燃性标准 (CRI E18)

JAR 25.812(b)(1)(ii) Improved flammability standards for insulation materials (CRI E18)
光致发光出口标志(可拆除的舱位分离装置) (CRI E14) (可选构型)

JAR 25.811(f) Photo-luminescent EXIT sign for MCD (Moveable Class Divider) (CRI E14) (optional)

应急出口标志反射率(CRI E16)

JAR 25.812(b)(1)(i)(ii) Emergency exit marking reflectance (CRI E16)

对于客运航空器, 图形化出口标志作为红色出口标志的替代(CRI SE-42) (可选构型)

Symbolic EXIT signs as an alternative to red EXIT signs for passenger aircraft (CRI SE-42) (optional)

8.3 带有 MOD 160023 的航空器的等效安全

Equivalent Safety Findings for aircraft equipped with MOD 160500

ESF F-19

自然结冰条件下的飞行 (§25.1419 (c))

Flight in natural icing condition (§25.1419 (c))

注释: 原来的适用于每一型别的等效安全仍然保持有效。

Note: The original ESFs applicable to each model remain effective.

9. 环保标准 / Environmental Protection Standards

国际民航组织附件 16 / ICAO Annex 16

Vol. I Part II	噪声要求 / Noise Requirements
Vol. II Part II	燃油排放 / Fuel Venting
Vol. II Part III Chapter 2	排气排出物 / Emissions

注释: 进一步的细节在 TCDSN EASA.A.064 中定义。

Notes: Further details are defined within TCDSN EASA.A.064

10. ETOPS

当其构型、维护和运行符合当前版次的《ETOPS 构型、维护和程序(CMP)》文件 SA/EASA: AMC 20-6/CMP 的要求时, A321 型别的型号设计、系统可靠性和性能有能力进行延程运行 (ETOPS)。

The Type Design, system reliability and performance of A321 models were found capable for Extended Range Operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, SA/EASA: AMC 20-6/CMP.

此处不构成进行延程运行 (ETOPS) 的批准 (必须从相关当局获得运行批准)。

This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

下表提供 ETOPS 批准的详细内容

The following table provides details on the ETOPS approvals.

航空器型别 /Aircraft Model	发动机型号/Engine Type	120 分钟批准的日期 /120 Min Approval Date	180 分钟批准的日期 /180 Min Approval Date
A321-111	CFM56-5B1	29 May 1996	11 March 2004
A321-112	CFM56-5B2	29 May 1996	11 March 2004
A321-211	CFM56-5B3	28 July 1997	11 March 2004
A321-212	CFM56-5B1	N/A	28 April 2006
A321-213	CFM56-5B2	N/A	28 April 2006
A321-131	V2530-A5	29 May 1996	11 March 2004
A321-231	V2533-A5	28 July 1997	11 March 2004
A321-232	V2530-A5	N/A	28 April 2006

注释 / Note:

双方飞机延程运行的构型、维护和程序标准包含在 ETOPS CMP 文件参考最新版次的 SA/EASA: AMC 20-6/CMP 中。经审定的型别为所有适用发动机的 A321-111/-112/-131/-211/-212/-213/-231/-232

The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in ETOPS CMP document reference SA/EASA: AMC 20-6/CMP at latest applicable revision. Certificated models are A321-111/-112/-131/-211/-212/-213/-231/-232/, with all applicable engines.

实施改装 / Embodiment of modification:

36666 提供 EASA 批准的 120 分钟 ETOPS 能力 / 36666 provides ETOPS 120 mn capability for EASA

32009TIGONG EASA 批准的 180 分钟 ETOPS 能力 / 32009 provides ETOPS 180 mn capability for EASA

11. 认可审定基础 / Validation Basis

中国民用航空局接受审定当局的审定基础作为认可审定基础。

CAAC accepts the Certification Basis of Certification Authority as the Validation Basis.

III. 技术特性和运行限制 / Technical Characteristics and Operational Limitations

1. 型号设计定义 / Type Design Definition

1.1 合格审定型别: / Certificated models: A321-111

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 413.1063/94(00E000A0008/C21)

1.2 合格审定型别 / Certificated models: A321-112

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 414.0118/94(00E000A0002/C11)

1.3 合格审定型别 / Certificated models: A321-131

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 414.0900/93(00E000A0003/C21)

1.4 合格审定型别 / Certificated models: A321-211

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 413.0400/97 (00E000A0211/C21)

1.5 合格审定型别 / Certificated models: A321-212

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-S 413.1359/01 (00E000A0212/C21)

1.6 合格审定型别 / Certificated models: A321-213

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-S 413.1360/01 (00E000A0213/C21)

1.7 合格审定型别 / Certificated models: A321-231

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-A 413.0388/97 (00E000A0231/C21)

1.8 合格审定型别 / Certificated models: A321-232

下述文件定义相应飞机 / Definition of reference airplane by AIRBUS INDUSTRIE documents: AI/EA-S 413.1361/01 (00E000A0232/C21)

注释 / Notes:

a. 型别转换 / Model conversions:

- 如果在装备 CFM56-5B1/2P 发动机 A321-111 机型实施改装包 34368, 则该机型转化为装备 CFM56-5B3/2P 发动机 A321-211 机型。

If modification 34368 is embodied on A321-111 model powered with CFM56-5B1/2P engines, it is converted into A321-211 model, powered with CFM56-5B3/2P engines.

- 如果在装备 CFM56-5B3/P 发动机 A321-211 机型实施改装包 34181, 则该机型转化为装备 CFM56-5B1/P 发动机 A321-212 机型。

If modification 34181 is embodied on A321-211 model powered with CFM56-5B3/P engines, it is converted into A321-212 model, powered with CFM56-5B1/P engines.

- 如果在装备 CFM56-5B1/P 发动机 A321-212 机型实施改装包 35252, 则该机型转化为装备 CFM56-5B3/P 发动机 A321-211 机型。

If modification 35252 is embodied on A321-212 model powered with CFM56-5B1/P engines, it is converted into A321-211 model, powered with CFM56-5B3/P engines.

- 如果在装备 V2530-A5 发动机 A321-131 机型实施改装包 35718, 则该机型转化为装备 V2533-A5 发动机 A321-231 机型。/If modification 35718 is embodied on A321-131 model powered with V2530-A5 engines, it is converted into A321-231 model, powered with V2533-A5 engines.

2. 描述 / Description

两台涡轮风扇发动机、中短程、单通道的运输类飞机。

Twin turbo-fan, short to medium range, single aisle, transport category airplane.

3. 设备 / Equipment

A321-111

经批准安装的设备列于文件号为00E000A0007/C1S的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00E000A0007/C1S.

A321-112

经批准安装的设备列于文件号为00E000A0006/C1S的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00E000A0006/C1S.

A321-131

经批准安装的设备列于文件号为00E000A0004/C0S的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List

00E000A0004/C0S.

A321-211

经批准安装的设备列于文件号为00E000A0211/C0S的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List

00E000A0211/C0S.

A321-212

经批准安装的设备列于文件号为00E000A0212/C0S的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List

00E000A0212/C0S.

A321-213

经批准安装的设备列于文件号为00E000A0213/C0S的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List

00E000A0213/C0S.

A321-231

经批准安装的设备列于文件号为00E000A0231/COS的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List

00E000A0231/COS.

A321-232

经批准安装的设备列于文件号为00E000A0232/COS的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List

00E000A0232/COS.

注释 / Note:

型号设计定义和审定标准设备清单，参见《A319-100/A321-200 FMGC 型号标准演变(No. 00D000A0546/C0S)》。

The type design definitions and certification standard equipment lists are complemented by doc. 00D000A0546/C0S “A319-100/A321-200 FMGC Type Std Evolution”.

客舱设施、设备及布置符合下述规范：

Cabin furnishings, equipment and arrangement shall be in conformance to the following specifications :

- 00D252K0004/C01 客舱座椅/for cabin seats
- 00D252K0019/C01 厨房/for galleys.

4. 尺寸/Dimensions

A321 飞机的主要尺寸/Principal dimensions of A321 Aircraft

- 机长/Length:	44,51 m
- 翼展/Width:	34,10 m
(如果安装 MOD 160023 / if MOD 160023 is installed)	35,80 m
- 机高/Height:	11,76 m
- 水平安定面宽度/Width at horizontal stabilizer:	12,45 m
- 机身直径/Outside fuselage diameter:	3,95 m
- 发动机轴间距/Distance between engines axis:	11,51 m
- 主起间距/Distance between main landing gear:	7,59 m
- 前/主起间距/Distance between nose and main landing gear:	16,91 m

5. 发动机 / Engines

安装在航空器型别上的发动机如下所述。对于常用名称和审定名称以及新发动机的构型变化，参见注释。

The list below lists the basic engines fitted on the aircraft models. The notes describe usual names and certified names as well as new engines variants.

A321-111

2 台 CFMI 发动机 / Two CFMI:
CFM56-5B1 (MOD23083) or
CFM56-5B1/2 (MOD24404)

A321-112
2 台 CFMI 发动机 / Two CFMI:
CFM56-5B2 (MOD23152)

A321-131
2 台 IAE 发动机 / Two IAE:
V2530-A5 (MOD22989)

A321-211
2 台 CFMI 发动机 / Two CFMI:
CFM56-5B3/P (MOD26359+25800) or
CFM56-5B3/2P (MOD27640).

A321-212
2 台 CFMI 发动机 / Two CFMI:
CFM56-5B1 (MOD23083) or
CFM56-5B1/2 (MOD24404)

A321-213
2 台 CFMI 发动机 / Two CFMI:
CFM56-5B2 (MOD23152)

A321-231
2 台 IAE 发动机 / Two IAE:
V2533-A5 (MOD25643)

A321-232
2 台 IAE 发动机 / Two IAE:
V2530-A5 (MOD22989)

注释 / Notes:

1 如果 CFM-5B 发动机实施改装包 25800, 则改进发动机性能, 该发动机演变为 “/P”。
If modification 25800 is embodied on models with CFM-5B engines, the engine performance is improved. The engine denomination changes to /P.

当前该改装包适用于: / The modification is currently applicable for :

A 321-111: CFM 56-5B1 (SAC) 变为 CFM 56-5B1/P /CFM 56-5B1 (SAC) which changes to CFM 56-5B1/P

A 321-112: CFM 56-5B2 (SAC) 变为 CFM 56-5B2/P /CFM 56-5B2 (SAC) which changes to CFM 56-5B2/P

A 321-212: CFM 56-5B1 (SAC) 变为 CFM 56-5B1/P /CFM 56-5B1 (SAC) which changes to CFM 56-5B1/P

A 321-213: CFM 56-5B2 (SAC) 变为 CFM 56-5B2/P /CFM 56-5B2 (SAC) which changes to CFM 56-5B2/P

CFM 56-5B/ “无 P” 发动机可与 CFM 56-5B/P 发动机混装。还请参见下面的注释 3 和 4。
CFM 56-5B/"non-P" engine can be intermixed with CFM 56-5B/P engine on the same aircraft. See notes 3 & 4 below as well.

2 如果 CFM-5B/2 (DAC) 发动机实施改装包 26610, 则该发动机的性能和燃气排放水平

均有改进, 名称变化为 “/2P”。

If modification 26610 is embodied on models with CFM-5B/2 (DAC) engines, the engine performance and gaseous emission levels are improved. The engine denomination changes to /2P.

当前该改装包适用于: / The modification is currently applicable for:

A 321-111: CFM 56-5B1/2 (DAC) 变为 CFM 56-5B1/2P (DAC II C)。/ CFM 56-5B1/2 (DAC) which changes to CFM 56-5B1/2P (DAC II C).

A 321-212: CFM 56-5B1/2 (DAC) 变为 CFM 56-5B1/2P (DAC II C)。/ CFM 56-5B1/2 (DAC) which changes to CFM 56-5B1/2P (DAC II C)

CFM 56-5B/2 “无 P” (DAC)发动机可与 CFM 56-5B/2P (DAC II C) 发动机混装在同一架飞机上(飞机飞行手册补充)。/ CFM 56-5B/2 "non P" (DAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

CFM 56-5B/P 或 “无 P” (SAC)发动机可与 CFM 56-5B/2P (DAC II C) 发动机混装在同一架飞机上(飞机飞行手册补充)。/ CFM 56-5B/P or "non-P" (SAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

3 从 2008 年 3 月 31 日起, 外场和生产线上不再有不带后缀/P 的 CFM56-5B1 发动机。
From March 31st 2008, there is no longer any CFM56-5B1 non /P in field or in production.

4 从 2008 年 3 月 31 日起, 外场和生产线上不再有不带后缀/P 的 CFM56-5B1/2 发动机。
From March 31st 2008, there is no longer any CFM56-5B1/2 non /P in field or in production.

5 安装 CFM 56-5B1 的 A321-111 飞机上,可混装 CFM 56-5B1/2 型发动机(mod. 24404)(飞机飞行手册补充材料)。还请参见注释 2.4.23 和 2.4.24。/ A321-111 CFM 56-5B1 engine can be intermixed with CFM 56-5B1/2 engine (mod. 24404) on the same aircraft (AFM supplement). See notes 2.4.23 & 2.4.24 as well.

6 CFM56-5B3/P(SAC)发动机(mod 26359 + 25800)可与 CFM56-5B3/2P(DAC II C PIP) 发动机(mod 27640)混装在同一架 2 架上。/ CFM56-5B3/P (SAC) engine (mod 26359 + 25800) can be intermixed with CFM56-5B3/2P (DAC II C PIP) engine (mod 27640) on the same aircraft (AFM supplement).

7 通过在生产线上纳入改装包 37147 或者在外场纳入改装包 38770 可以引入 CFM56-5Bx/3 “Tech Insertion” 发动机。该改装包仅适用于 CFM56-5Bx /P SAC 发动机。
Introduction of CFM56-5Bx/3 “Tech Insertion” engine is done through embodiment of modification 37147 in production or 38770 in field. This modification is only applicable on CFM56-5Bx /P SAC engines.

如果对 CFM-5B 发动机纳入改装包 37147, 则发动机后缀增加/3。/ If modification 37147 is embodied on models with CFM-5B engines, the engine denomination changes to /3.

本改装包适用于下述型别: / The modification is currently applicable for:

A321-111: CFM 56-5B1 (SAC) 更改为/ which changes to CFM 56-5B1/3

A321-112: CFM 56-5B2 (SAC) 更改为/ which changes to CFM 56-5B2/3

A321-211: CFM 56-5B3 (SAC) 更改为/ which changes to CFM 56-5B3/3

A321-212: CFM 56-5B1 (SAC) 更改为/ which changes to CFM 56-5B1/3

A321-213: CFM 56-5B2 (SAC) 更改为/ which changes to CFM 56-5B2/3

发动机特性没有变化。/ The engine characteristics remain unchanged.

已经证明改装包 37147 对之前审定的噪声等级没有影响。/ Modification 37147 has been demonstrated as having no impact on previously certified noise levels.

如改装包 38573 所述, CFM56-5Bx/3 发动机可以与 CFM56-5Bx/P 混装。/ CFM56-5Bx/3 engine can be intermixed with CFM56-5Bx/P engine under considerations as prescribes in modification 38573.

8 通过纳入改装包 38946 可以引入“BUMP”功能。如果对 CFM-5B 发动机纳入改装包 38946, 则发动机后缀变为/P1 (SAC)或者/2P1(DAC)或者/3B1 (Tech Insertion)。/ Introduction of “BUMP” function is done through embodiment of modification 38946. If modification 38946 is embodied on models with CFM-5B engines, the engine denomination changes to /P1 (SAC) or /2P1(DAC) or /3B1 (Tech Insertion).

本改装包适用于下述型别: / The modification is currently applicable for:

A321-211: CFM 56-5B3 (SAC) 更改为/ which changes to CFM 56-5B3/P1

已经证明改装包 38946 对之前审定的噪声等级没有影响。/ Modification 38946 has been demonstrated as having no impact on previously certified noise levels.

发动机特性没有变化。/ The engine characteristics remain unchanged.

不允许在飞机上混装“Non Bump”发动机和“Bump”发动机。/ Intermix at aircraft level between “Non Bump” engine and “Bump” engine is not allowed.

6. 辅助动力装置 / Auxiliary Power Unit

APU GARRETT

GARRETT 公司, 型号 GTCP 36-300(A)。

GARRETT AIRESEARCH GTCP 36-300 (A).

(规范 No.31-5306B /Specification 31-5306B)

批准的滑油: 参见 GARRETT 报告 GT. 7800

Approved oils: see GARRETT REPORT GT. 7800

APU APIC (选装 / Option)

APIC 公司 APU 的安装由改装包(MOD 22562 或 MOD 35864)定义。

The APU APIC installation is defined by MOD 22562 or MOD 35864.

APIC 公司 APS 3200 (规范 No. ESR 0802, A 版)。

APIC APS 3200 (Specification ESR 0802, Rev. A).

批准的滑油:与 MIL-L-7808, MIL-L-23699 或 DERD 2487 规范一致。

Approved oils : in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487.

APU AlliedSignal (选装 / Option)

AlliedSignal 公司 APU 的安装由改装包(MOD 25888)定义。

The APU AlliedSignal installation is defined by MOD 25888.

AlliedSignal 公司文件(131-9[A]) (规范 No. 4900 M1E 03 19 01)。

AlliedSignal 131-9[A] (Specification 4900 M1E 03 19 01).

批准的滑油:依照 31-12048A-3A 规范的型号。

Approved oils : according to Model Specification 31-12048A-3A.

注释: A321 型飞机, APIC 公司 APU (APS 3200) (改装包 MOD 35864)是自 MSN 2653 开始的生产标准。

Note: for A321 models, the APU APIC APS 3200 (Mod 35864) is the production standard from MSN 2653

7. 螺旋桨 / Propellers

不适用 / N/A

8. 液体 (燃油、滑油、添加剂、液压油) / Fluids (Fuel, Oil, Additives, Hydraulics)

燃油 / Fuel

燃油规范: 见安装手册: CFM 2026 或者 CFM 2129 或者 IAE 0043

Fuel Specification: See installation manual: document CFM 2026 or CFM 2129 or document IAE – 0043

类型/ TYPE	规范/SPECIFICATION (NAME)				
	法国 /FRANCE	美国/USA	英国/UK	俄国/RUSSIA	中国 /CHINA
煤油/ Kerosene	DCSEA 134	ASTM D 1655 (JET A) (JET A1)	DEF STAN 91/91 (AVTUR) (JET A1)	GOST 10227-86 (RT) (TS1)*	GB 6537-2006 N°3 JET
		MIL - T -83133 (JP 8)	DEF STAN 91/87 (AVTUR) (JET A1)(AIA)	GOST R 52050-2003	
宽硫分/ Wide cut		ASTM D 1655 (JET B)	DEF STAN 91/88 (AVTAG)		
		MIL - T 5624 (JP 4)			
高闪点/ High flash point	DCSEA 144/A (F-44) (XF-43)	MIL - T 5624 (JP 5)	DEF STAN 91/86 (AVCAT)		

* 对于IAE发动机, TS-1牌号燃油短期使用是允许的(小于50%工作时间)。

For IAE engines, TS-1 is cleared for transient use (less than 50% of operations).

滑油 / Oil

对于滑油规范: / For oil specification:

发动机 Engine	CFMI CFM56-5B1 (**) CFM56-5B1/2 (**) CFM56-5B2 CFM56-5B3 (/P only) CFM56-5B3/2P	IAE V2530-A5 V2533-A5
经批准的滑油 Approved Oils	See SB CFMI 79-001-OX	See Doc IAE 0043 Sect 4.9 (MIL-L 23 699)

(**): 参见第 5 章注释 3 和 4, 不再生产和服役的发动机。/ see notes 3 and 4 in chapter 5 for engine models no longer in prod/service.

添加剂/Additives:

参见空客耗材清单(CML)和 CFM 公司服务通告 SB 73-0122 或者 IAE 公司关于 CIS 燃油添加剂的“标准措施和程序手册”

Refer to Airbus Consumable Material List (CML) and CFM SB 73-0122 or IAE Standard Practices and Processes Manual for CIS fuel additives

上述燃油也适用于辅助动力装置。

The above mentioned fuels and additives are also suitable for the APU.

液压油 / Hydraulics

液压油 / Hydraulic fluids: Type IV - Specification NSA 30.7110

9. 燃油量 / Fuel Quantity

燃油量 / Fuel Quantity (0.8kg/liter) (参见下面的注释 1 / see note 1 below)

油箱/ TANK	3 油箱飞机/ 3 TANK AIRPLANE		4 或 5 油箱飞机/ 4 or 5 TANK AIRPLANE (*)(**)	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)
机翼 /WING	15 500 (12 400)	22.6 (18)	15 500 (12 400)	22.6 (18)
中央 /CENTER	8 200 (6 560)	23.2 (18.6)	8 200 (6 560)	23.2 (18.6)
附加中央 油箱/ACT (*)(**)			2 900 or 2 992 / 5 984 ** (2 320) or (2 393 / 4 786) **	17 / 34 (13.6 / 27.2)
总计 /TOTAL	23 700 (18 960)	45.8 (36.6)	26 600 or 26 692 / 29 684 ** (21 280) or (21 353 / 23 746) **	62.8 / 79.8 (50.2 / 63.8)

* 见下面的注释2和3。 / See notes 2 and 3 below.

** A321-200飞机, 1个附加中央油箱高压系统, 2900升; 1/2个附加中央油箱低压系统, 2992/5984升。
1 ACT high pressure system, 2900 liters on A321-200, on additional center tanks 1 / 2 ACT low pressure system 2992/5984 liters on A321-200.

注释 / Note:

1. 带有 IAE 发动机的 A321-200 飞机上, 引入不带有干舱 (MOD 38616)的标准翼盒将增加燃油容量 350 升。

On series A321-200 equipped with IAE engines, introduction of standard of wingbox without dry bay (modification 38616) will increase the fuel capacity by 350 liters.

2. 在 A321-200 系列飞机上, 一个附加中央油箱(ACT)由改装包 25453 (高压系统)所定义。其与结构和系统条款一起批准, 服从于主要改进文件 E2-001(符合 CRI P9)。

On the series A321-200, one Additional Center Tank (ACT) in bulk version is defined by modification 25453 (high pressure system). Its approval together with structural and system provisions is subject of Major Change E2-001 (compliance to CRI P9).

3. 在 A321-200 系列飞机上, 一个或两个附加中央油箱(ACT)由改装包 30422(低压系统)所定义。其与结构和系统条款一起批准, 服从于主要改进文件 E2-002(符合 CRI P9)。

On the series A321-200, one or two Additional Center Tanks (ACT) in bulk version are defined by modification 30422 (low pressure system). Their approval together with structural and system provisions is subject of Major Change E2-002 (compliance to CRI P9).

10. 速度限制 (除非另有声明, 指示空速-IAS) / Limit speeds(Indicated Airspeed - IAS - unless otherwise stated)

最大使用马赫数 / Maximum Operating Mach 0.82

(MMO):

最大使用速度 / Maximum Operating Speed (VMO): 350 kt

机动速度 / Maneuvering Speed VA:

见EASA批准的飞行手册的限制章节

see Limitations Section of the EASA approved Flight Manual

襟翼/缝翼展态速度 / Extended Flaps/ Slats Speed

见下表 / see table below

(VFE)

构型 / Configuration	缝翼/襟翼/ Slats/Flaps (°)	VFE (kt)	
1	18/0	230**	中间进近/Intermediate approach
	18/10	215**	起飞/Take-off
2	22/14	205 215*	起飞和进近/Take-off and approach
3	22/22	195	起飞、进近、着陆/Take-off, approach, landing
全放/Full	27/25	190	着陆/Landing

* 参见注释 1 / See note 1

** 参见注释 2 / See note 2

起落架/ Landing gear :

VLE – 展开/Extended:

280 kt/ Mach 0.67

VLO – 展开/Extension:

250 kt

收回/Retraction:

220 kt

轮胎限制速度(地面速度) / Tyres limit speed (ground speed) 195.5 kt (225 mph)

注释 / Notes:

1. 如果在 A321 飞机上安装 FWC 标准 D2 和 FAC 标准 BAM 0510, 则构形 2 中的襟翼展态速度 VFE 从 205 节增大至 215 节(按改装包 Mod.24641, 安装速度限制标牌加以识别)。If FWC Standard D2 and FAC Standard BAM 0510 are fitted on A321 aircraft, VFE speed in Configuration 2 is increased from 205 kts to 215 kts (as identified by speed limitation placard installed by modification 24641).

2. 在具有第 001 号、第 002 号和第 011 号重量变化的 A321-200 系列飞机上, 构形 1 的 VFE 从 230 节增大至 235 节, 构形 1+F 的 VFE 从 215 节增大至 225 节(由改装包 28960 或 28721 安装限制标牌加以标识)。

On the series A321-200, Weight Variant 001, 002 & 011, VFE speed in Configuration 1 is increased from 230 to 235 kts, and in Configuration 1+F increased from 215 to 225 kts (as identified by speed limitation placard installed by modification 28960 or 28721).

11. 飞行包线 / Flight Envelope

最大使用高度/ Maximum operating altitude

39 100 (英尺/ft) (压力高度/pressure altitude)

39 800 (英尺/ft) (压力高度/pressure altitude) 如果贯彻 30748 号改装包/if modification 30748 is embodied.

参见适用的 EASA 批准的飞机飞行手册

See the appropriate EASA approved Airplane Flight Manual

12. 运行限制 / Operating Limitations

参见适用的 EASA 批准的飞机飞行手册
See the appropriate EASA approved Airplane Flight Manual

动力装置 (2.2482 磅/daN) / Powerplant (2.2482 lb/daN)

A321-111 or -212 / A321-112 or -213 / A321-131 or -232

发动机 /Engine	CFMI CFM56-5B1 (**) CFM56-5B1/2 (**)	CFMI CFM56-5B2	IAE V2530-A5
数据单/ Data sheets	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)	E40NE (FAA) M-IM31 (DGAC)
海平面静止推力/Static thrust at sea level			
起飞(5分钟)(统一额定30℃)/ Take-off (5 min)* (Flat rated 30℃)	13 344 daN (30 000 lbs)	13 789 daN (31 000 lbs)	13 300 daN (29 900 lbs)
最大连续(统一额定25℃)/ Maximum continuous (Flat rated 25℃)	12 940 daN (29 090 lbs)	12 940 daN (29 090 lbs)	11 988 daN (26 950 lbs)
批准的滑油/Approved oils	See SB CFMI 79-001-OX	See SB CFMI 79-001-OX	See Doc IAE 0043Sect 4.9 (MIL-L 23 699)

* 假如在起飞和地面滑行期间发动机故障，依据法国民航局的“发动机型号合格证数据单”文件，仅允许起飞推力状态工作10分钟。/10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around) in accordance with DGAC "Fiche de caractéristiques moteur".

** 对于不再生产/不在役的发动机型别，参见注释3和4。/ See notes 3 & 4 for engine models no longer in prod/service.

A321-211/-231

发动机 /Engine	CFMI CFM56-5B3 (/P only) CFM56-5B3/2P	IAE V2533-A5
数据单/ Data sheets	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)	E40NE (FAA) M-IM31 (DGAC)
海平面静止推力/Static thrust at sea level		
起飞(5分钟)(统一额定30℃)/ Take-off (5 min)* (Flat rated 30℃)	14 234 daN (32 000 lbs)	14 055 daN (31 600 lbs)
最大连续(统一额定25℃)/ Maximum continuous (Flat rated 25℃)	12 940 daN (29 090 lbs)	11 988 daN (26 950 lbs))
批准的滑油/Approved Oils	SB CFMI 79-001-OX	Doc IAE 0043 Sect 4.9 (MIL-L 23 699)

* 假如在起飞和地面滑行期间发动机故障，依据法国民航局的“发动机型号合格证数据单”文

件, 仅允许起飞推力状态工作10分钟。/10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around) in accordance with DGAC "Fiche de caractéristiques moteur".

Other engine limitations : see the relevant Engine Type Certificate Data Sheet.

12.1 经批准的运行 / Approved Operations

运输商业运行 / Transport commercial operations

12.2 其它限制 / Other limitations

完整的适用限制参见适用的 EASA 批准的飞机飞行手册。

For a complete list of applicable limitations see the appropriate EASA approved Airplane Flight Manual

13. 最大审定质量 / Maximum Certified Masses

A321-111/A321-112

变量 /VARIANT	000 (BASIC)	002 (MOD 24178)	003 (MOD 24899)	004 (MOD 24308)	005 (MOD 25649)	006 (MOD 26600*)	007 (MOD 26888)	008 (MOD 30334)
最大滑行重量 / Max. Ramp Weight	83 400	83 400	85 400	78 400	83 400	78 400	80 400	89 400
最大起飞重量 / Max. take-off weight	83 000	83 000	85 000	78 000	83 000	78 000	80 000	89 000
最大着陆重量 / Max. landing weight	73 500	74 500	74 500	73 500	75 000	74 500	73 500	75 500
最大零燃油重量 / Max. zero fuel weight	69 500	70 500	70 500	69 500	71 000	70 500	69 500	71 500
最小重量 / Minimum weight	47 500	47 500	47 500	47 500	47 500	47 500	47 500	47 500

A321-131

变量/VARIANT	000 (BASIC)	002 (MOD 24178)	003 (MOD 24899)	004 (MOD 24308)	006 (MOD 26600*)	007 (MOD 26888)	008 (MOD 30334)
最大滑行重量 / Max. Ramp Weight	83 400	83 400	85 400	78 400	78 400	80 400	89 400
最大起飞重量 / Max. take-off weight	83 000	83 000	85 000	78 000	78 000	80 000	89 000
最大着陆重量 / Max.	73 500	74 500	74 500	73 500	74 500	73 500	75 500

landing weight							
最大零燃油重量/ Max. zero fuel weight	69 500	70 500	70 500	69 500	70 500	69 500	71 500
最小重量 /Minimum weight	47 500	47 500	47 500	47 500	47 500	47 500	47 500

注释 / Note:

在 A321-100 系列飞机上,第 006 号重量变化是由基于第 003 号重量变化,或是由基于第 000 号重量变化改装包 30310 而生产的改装包 26600 所定义。

On the series A321-100, Weight Variant 006 is defined either by mod 26600, building up on Weight Variant 003, or mod 30310, building up on Weight Variant 000.

A321-211/A321-231

变化/VARIANT	000 (BASIC)	001 (MOD 28960)	002 (MOD 28721)	003 (MOD 31613)	004 (MOD 31614)	005 (MOD 31615)
最大滑行重量/ Max. Ramp Weight	89 400	93 400	89 40	91 400	87 400	85 400
最大起飞重量/ Max. take-off weight	89 000	93 000	89 000	91 000	87 000	85 000
最大着陆重量/ Max. landing weight	75 500	77 800	77 800	77 800	75 500	75 500
最大零燃油重量/ Max. zero fuel weight	71 500	73 800	73 800	73 800	71 500	71 500
最小重量/ Minimum weight	47 500	47 500	47 500	47 500	47 500	47 500

变化/VARIANT	006 (MOD 31616)	010 (MOD 31321)	011 (MOD 32456)
最大滑行重量/ Max. Ramp Weight	83 400	85 400	93 900
最大起飞重量/ Max. take-off weight	83 000	85 000	93 500
最大着陆重量/ Max. landing weight	75 500	77 800	77 800
最大零燃油重量/ Max. zero fuel weight	71 500	73 800	73 800
最小重量/ Minimum weight	47 500	47 500	47 500

A321-212/A321-213/A321-232

变化/VARIANT	000 (BASIC)	001 (MOD 28960)	002 (MOD 28721)	003 (MOD 31613)	004 (MOD 31614)	005 (MOD 31615)
最大滑行重量/ Max. Ramp Weight	89 400	93 400	89 40	91 400	87 400	85 400
最大起飞重量/ Max. take-off	89 000	93 000	89 000	91 000	87 000	85 000

weight						
最大着陆重量/ Max. landing weight	75 500	77 800	77 800	77 800	75 500	75 500
最大零燃油重量/ Max. zero fuel weight	71 500	73 800	73 800	73 800	71 500	71 500
最小重量/ Minimum weight	47 500	47 500	47 500	47 500	47 500	47 500

变化/VARIANT	006 (MOD 31616)	007 (MOD 31617)	008 (MOD 31618)	009 (MOD 31619)	010 (MOD 31321)	011 (MOD 32456)
最大滑行重量/ Max. Ramp Weight	83 400	83 400	84 000	78 400	85 400	93 900
最大起飞重量/ Max. take-off weight	83 000	83 000	80 000	78 000	85 000	93 500
最大着陆重量/ Max. landing weight	75 500	73 500	73 500	73 500	77 800	77 800
最大零燃油重量/ Max. zero fuel weight	71 500	69 500	69 500	69 500	73 800	73 800
最小重量/ Minimum weight	47 500	47 500	47 500	47 500	47 500	47 500

14. 重心范围 / Center of gravity range

见经批准的飞机飞行手册。/ See approved Airplane Flight Manual.

15. 基准 / Datum

0.0 站位，位于飞机机头前方 2.540 米

Station 0.0, located 2.540 meters forward of airplane nose

16. 平均气动弦 / Mean Aerodynamic Chord (MAC)

4.1935 米 / meters

17. 水平方法 / Levelling Means

飞机可从 3 个主顶起点顶起。/ The A/C can be jacked on three primary jacking points.

参见适用的 EASA 批准的重量和平衡手册

See the appropriate EASA approved Weight and Balance Manual

18. 最小飞行机组 / Minimum Flight Crew

2 位驾驶员/pilots

19. 最大乘员座位数 / Maximum number of passengers seats

220

注释 / Note:

旅客座位为 201 至 220 客舱布置，需要 5 位乘务人员。/ For cabin arrangements of 201 passenger seats up to the maximum number of 220 passenger seats, five cabin crew are required.

旅客座位为直到 200 客舱布置，需要 4 位乘务人员。/ For cabin arrangements up to and

including 200 passenger seats, only four cabin crewmembers are required.

20. 行李舱/货舱 / Baggage / Cargo compartment

货舱/ CARGO COMPARTMENT	最大载荷/ MAXIMUM LOAD (kg)
前/Forward	5 670
后/Aft	5 670
尾/Rear (散装/bulk)	1 497

对于位置和条件, 每一批准位置(容量、货盘和关联重量)见重量平衡手册(文件编号: 00E080A0001/C1S) 1.10 章节。

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights) see Weight and Balance Manual, ref. 00E080A0001/C1S Chapter 1.10.

21. 机轮和轮胎 / Wheels and Tyres

见服务通告, No. SB A320 - 32 - 1007。 / See SB A320 - 32 - 1007.

IV. 运行和服务指令 / Operating and Service Instructions

1. 飞机飞行手册 / Airplane Flight Manual (AFM)

EASA 批准的 A321 飞机飞行手册

EASA Approved Airplane Flight Manual for A321.

2. 持续适航文件和适航性限制

Instructions for Continued Airworthiness and Airworthiness Limitations

适航性限制 / Airworthiness Limitations

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的子分部 1-2 和 1-3 章节中, 提供了适用的安全寿命适航性限制项目。 / Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3 approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 2 分部中, 提供了适用的损伤容限限制项目。

Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Items document (ALS Part 2) approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 3 分部中, 提供了合格审定维修要求项目。

Certification Maintenance Requirements are provided in A318/A319/A320/A321 ALS Part 3 - CMR (Certification Maintenance Requirements) approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 4 分部中, 提供了老龄系统维修 (ASM) 限制。

Ageing Systems Maintenance (ASM) limitations are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 4 approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 5 分部中,

提供了燃油适航性限制。

Fuel Airworthiness Limitations are provided in A318/A319/A320/A321 Fuel Airworthiness Limitations document (ALS Part 5) approved by the EASA.

其他限制 / Other limitations

参见 EASA 批准的飞行手册。 / See EASA approved Flight Manual.

3. 重量和平衡手册 / Weight and Balance Manual (WBM)

空客符合性文件 / Airbus Compliance Document 00E80A0001/C1S

V. 注释 / Notes

1. 对于 A321-111 和 A321-112, 改装包 25199 是飞机具有三类 B 级精密进近资质的最低标准。

For models A321-111 and A321-112, modification 25199 is the minimum standard to be qualified for Cat IIIB precision approach.

对于 A321-131, 改装包 25200 是飞机具有三类 B 级精密进近资质的最低标准。

For models A321-131, modification 25200 is the minimum standard to be qualified for Cat IIIB precision approach.

所有其他型别本身都具有三类 B 级精密进近资质。

All other models are basically qualified for Cat IIIB precision approach.

2. 第 2 号门和/或第 3 号门可降级为 III 型门。 / DOOR 2 and/or DOOR 3 may be derated to Type III.

SECTION 3: A319 系列 / A319 SERIES**I. 概述 / General****1. 型号/型别/构型变化 / Type/model/Variant:**

A319-111
A319-112
A319-113
A319-114
A319-115
A319-131
A319-132
A319-133

根据第 21.101 条的产品级重大更改 / Significant Product Level Changes i.a.w. 21.A.101:

MOD 160500 适用于以下型别的鲨鱼鳍小翼

MOD 160500 Sharklet applicable on A319-111/-112/-115/-131/-132/-133 (包括公务机 / including CJ)

2. 法国民航局和联合航空当局(JAA)型号审定日期 / DGAC-F / Joint Airworthiness Authority (JAA) Type Certification Date

A319-111: 1996 年 4 月 10 日 / April 10, 1996
A319-112: 1996 年 4 月 10 日 / April 10, 1996
A319-113: 1996 年 5 月 31 日 / May 31, 1996
A319-114: 1996 年 5 月 31 日 / May 31, 1996
A319-115: 1999 年 7 月 30 日 / July 30, 1999
A319-131: 1996 年 12 月 18 日 / December 18, 1996
A319-132: 1996 年 12 月 18 日 / December 18, 1996
A319-133: 1999 年 7 月 30 日 / July 30, 1999

注释: 对于 2005 年 12 月 21 日前生产的 A319 型飞机, 法国民航局颁发的型号合格证 (DGAC-F TC 180)仍保持有效。

Note: For A319 produced before the 21st of December 2005, DGAC-F TC 180 remains a valid reference.

3. EASA 型号审定日期 / EASA Type Certification Date

EASA 型号合格证数据单第 1 版颁发于 2005 年 12 月 21 日
EASA TCDS issue 1 issued December 21, 2005

MOD 160500 issue 4	2013 年 5 月 28 日 / May 28, 2013 A319-111,-112,-115 (公务机除外 / excluding CJ)
MOD 160500 issue 5	2013 年 9 月 6 日 / September 6, 2013 A319-112 (公务机 / CJ), A319-115 (公务机 / CJ), A319-131 (客机 / PAX), A319-132 (客机和公务机 / PAX and CJ), A319-133 (客机和公务机 / PAX and CJ)

4. 中国民航局型号认可审定日期 / CAAC Type Validation Date

A319-111: 2000 年 7 月 5 日 / July 5, 2000
A319-112: 2000 年 7 月 5 日 / July 5, 2000
A319-113: 2000 年 7 月 5 日 / July 5, 2000

A319-114: 2000 年 7 月 5 日/ July 5, 2000
A319-115: 2000 年 7 月 5 日/ July 5, 2000
A319-131: 2000 年 7 月 5 日/ July 5, 2000
A319-132: 2000 年 7 月 5 日/ July 5, 2000
A319-133: 2000 年 7 月 5 日/ July 5, 2000

注释: 对于 2007 年 12 月 04 日前生产并出口中国的 A319-111/-112/-113/-114/-115/-131/-132/-133 型飞机, 中国民航总局颁发的型号认可证(VTC 099A)仍保持有效。/Note: For A319-111/-112/-113/-114/-115/-131/-132/-133 produced and exported before the 04 of December 2007, CAAC-VTC 099A remains a valid reference.

MOD 160500 issue 4 2014 年 2 月 26 日/Feb.26,2014 (A320-214, -215, -216)
MOD 160500 issue 5 2014 年 2 月 26 日/Feb.26,2014 (A320-232, 233)

5. 生产条件 / Production conditions

直到 1999 年 4 月, 依据德国民航局给位于德国汉堡 AIRBUS INDUSTRIE 公司颁发的批准 No.I-A9, 或自 1999 年 4 月起, 生产许可证(No. LBA.G.0009), 生产 A319 系列各型别飞机。

A319 aircraft, all series, all models, are all produced in Hamburg - Germany - under approval I-A9 (until April 1999) or LBA.G.0009 (since April 1999) issued by LBA to AIRBUS INDUSTRIE.

自 2004 年 9 月 27 日起, 依据德国民航局给位于德国汉堡 AIRBUS 公司颁发的批准 DE.21G.0009, 生产 A319 系列各型别飞机。

Since September 27, 2004, A319 aircraft are produced in Hamburg - Germany under approval DE.21G.0009 issued by LBA to AIRBUS.

自 2008 年 7 月 21 日起, A319 飞机在欧洲航空安全局给位于德国汉堡的 AIRBUS 公司颁发的批准 EASA.21G.000 下生产。

From July 21st, 2008, A319 aircraft are produced in Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to AIRBUS.

自 2009 年 5 月 6 日起, A319 飞机在欧洲航空安全局给位于德国汉堡和中国天津的 AIRBUS 公司颁发的批准 EASA.21G.0001 下生产。

From May 6th, 2009, A319 aircraft are produced in Hamburg (Germany) and Tianjin (People's Republic of China) under approval EASA.21G.0001 issued by EASA to AIRBUS.

II. 审定基础和认可审定基础 / Certification Basis and Validation Basis

1. 确定适用要求的参考日期 / Reference Date for determining the applicable requirements

AIRBUS INDUSTRIE 公司已于 1992 年 6 月 17 日以信函(AI/EA-410.0122/92)对 A319 飞机申请了合格审定。

AIRBUS INDUSTRIE has applied for A319 certification on June 17, 1992 by letter AI/EA 410.0122/92.

2. 最初的适航当局型号合格证数据单编号 / Initial Airworthiness Authority Type Certificaiton Date Sheet No.

原法国 TCDS DGAC no. 180 被 EASA TCDS A.064 替代
Original French TCDS DGAC no. 180 was replaced by the EASA TCDS A.064

3. 最初的适航当局审定基础 / Initial Airworthiness Authority Certification Basis

如下所述 / See below

4. EASA 适航要求 / EASA Airworthiness Requirements

下面列出了不同 A319 型别的合格审定基础。在进一步的 A319 型别的合格审定时，针对每一型别确定特定基础的修正。

Hereafter are listed the certification bases for the different A319 models. The amendments made to a particular basis at the occasion of further A319 model certification are identified per model.

JAA 的审定基础确定在 1996 年 3 月 21 日的 CRI G4001 Issue 4 中：

The applicable Joint Certification Basis defined in CRI G4001 Issue 4 dated 21/03/96 is:

4.1 欧洲联合航空条例 JAR25 部及第 11 次修订版/ JAR 25 Change 11

- BB 分部除外/ except Subpart BB,
- 所有国家变化的要求除外/except all National Variants,
- 由于衍生型大飞机制定的《联合型号合格审定基础》的程序应用，除了下述 JAR25 部的条款升级至第 13 次修订并最终以桔黄页 90/1 或 91/1 修正外： / except, due to the application of the procedure for establishing the Joint Type Certification Basis for derivative large aeroplanes, the following JAR 25 paragraphs which are upgraded at Change 13 and eventually amended by Orange Paper 90/1 or Orange Paper 91/1:

25 X 20	25.253
25.107(d)	25.365 amended by OP 91/1
25.121	25.807(c) amended by OP 90/1
25.125	25.812(e)
25.143(f)	25.857(d)(6)
25.207	

- 由于选择符合 NPA 25-C205 文件，除已升级至第 13 次修订并以桔黄页 91/1 修正的下述条款外： /except, due to the Elect to Comply with NPA 25-C205, the following JAR 25 paragraphs which are upgraded at Change 13 and amended by Orange Paper 91/1:

25.305	25.349 (b)
25.321	25.351
25.331	25.365 (e)
25.333	25.371
25.335 (d)	25.373
25.341	25.391
25.343 (b) (1) (ii)	25.427
25.345 (a) and (c)	25.571 (b) (2)

- 由于选择符合 SC-F11 和 SC-S79 专用条件，删除下述条款： / except, due to the Elect to Comply with SC-F11 and SC-S79, the following deleted paragraphs:

25x131	25x135
25x132	25x1588
25x133	

- 下述 JAR25 部条款已升级至第 13 次修订并由 SC-F11 和 SC-S79 修正： / the following

JAR 25 paragraphs upgraded at Change 13 and amended by SC-F11 and SC-S79:

25.101	25.115
25.105	25.735
25.109	25x1591
25.113	

- 如果在 A319 飞机上实施改装包 153945, 下述条款通过自愿符合升级到 CS25 第 11 修正号水平 / if modification 153945 is embodied on A319 aircraft, the following paragraph is upgraded at CS25 amendment 11 due to an Elect-to-Comply:

25.813(c)(2)(ii)

4.2 联合航空条例 AWO 的第 1 次修改版中包括低能见度情况下的自动着陆和运行要求。
JAR AWO Change 1 for auto-land and operations in low visibility.

4.3 ETOPS:

对于双发飞机的延程运行, 适用的技术条件包含在 AMC 20-6 (之前发布在 AMJ 120-42/IL 20 中)以及 A319 ETOPS CRI 中:

For the Extended Twin Engine Airplane Operations the applicable technical conditions are contained in AMC 20-6 (as initial published in AMJ 120-42/IL 20) and A319 ETOPS CRI:

- CRI G4006 ETOPS
- CRI G4007 ETOPS - 一发不工作巡航速度 / One engine inoperative cruise speed.

4.4 对于所有型别, 空客自愿满足第 106 号修正案水平的美国联邦航空规章 25.772(a)和(c)以及 25.795, 参见 CRI E12 增强保安性能的驾驶舱门

For all models Airbus Elect To Comply with 14 CFR Part 25.772(a) and (c) and 25.795 amendment 106 according to CRI E12 – Reinforced Security Cockpit Door

4.5 对于 MOD 160500 “鲨鱼鳍小翼”, 通过 CRI A-0001-001 修订审定基础。

Certification basis revised for MOD 160500 “Sharklet” by CRI A-0001-001.

CS 25 Amdt 8 for

§ 25.23	§ 25.481(a)(c) amended by SC A-2 for §25.481(a)
§ 25.25	§ 25.483
§ 25.117	§ 25.485
§ 25.147	§ 25.489
§ 25.161	§ 25.491
§ 25.177 amended by SC-F16	§ 25.571(a)(b)(e)
§ 25.235	§ 25.581
§ 25.251	§ 25.601
§ 25.301	§ 25.603
§ 25.302	§ 25.605
§ 25.303	§ 25.607
§ 25.305(a)(b)(c)(e)(f)	§ 25.609
§ 25.307(a)(d)	§ 25.613
§ 25.321(a)(b)(c)(d)	§ 25.619
§ 25.331(a)(b)(c)	§ 25.623
§ 25.333(a)(b)	§ 25.625
§ 25.335(a)(c)(d)(e)(f) amended by SC A5003 for (b) and SC A-2 for (e)	§ 25.629

§ 25.337 §	25.631
§ 25.341(a)(b)	§ 25.651
§ 25.343(a)(b)	§ 25.683
§ 25.345(a)(b)(c)(d)	§ 25.899
§ 25.349(a)(b) amended by SC A-2.2.2 for 25.349(a)	§ 25.903(d)(1) (see CRI E-39 for interpretative material)
§ 25.351	§ 25.1385
§ 25.365(a)(b)(d)	§ 25.1387
§ 25.367	§ 25.1389
§ 25.371	§ 25.1391
§ 25.373	§ 25.1393
§ 25.391	§ 25.1395
§ 25.393(b)	§ 25.1397
§ 25.427	§ 25.1401
§ 25.445	§ 25.1505
§ 25.457	§ 25.1511
§ 25.459	§ 25.1515
§ 25.471(a)(b)	§ 25.1527
§ 25.473	§ 25.1587
§ 25.479(a)(c)(d) amended by SC A-2 for § 25.479(a)	§ 25.1591

CS 25 Amdt 2 for
§ 25.253

JAR 25 Chg 15 for
§ 25.1517

JAR 25 Chg 14 for	
§ 25.21 amended by A318 SC F5001 (for b)	§ 25.149 + OP96/1
§ 25.101 amended by SC F11/S79	§ 25.171 replaced by SC-F5004
§ 25.103 replaced by A318 SC F5001	§ 25.173 replaced by SC-F5004
§ 25.105 amended by SC F11/S79	§ 25.175 replaced by SC-F5004
§ 25.107 amended by A318 SC-F5001	§ 25.181
§ 25.109 amended by SC F11/S79	§ 25.201 + OP96/1, replaced by SC-F5001
§ 25.111	§ 25.203 + OP96/1, replaced by SC-F5001
§ 25.113 + OP96/1 amended by SC F11/S79	§ 25.207 amended by SC-F5001
§ 25.115 amended by SC F11/S79	§ 25.231
§ 25.119 + OP96/1 amended by A318 SC F5001 (for b)	§ 25.233
§ 25.121 + OP96/1, amended by A318 SC F5001 (for c & d)	§ 25.237
§ 25.123	§ 25X261
§ 25.125 + OP96/1, amended by A318 SC F5001	§ 25.1533
§ 25.143 + OP96/1, amended by SC F3, F7 & F8	§ 25.1581
§ 25.145 + OP96/1	§ 25.1585(a)

JAR 25 Chg 11 for
§ 25.671
§ 25.672

- § 25.1001
- § 25.1301
- § 25.1309
- § 25.1419 amended by AMC-F14

解释性材料 / Interpretative Material:

CRI E-39 发动机转子非包容失效 / Uncontained Engine Rotor Failure

注释: 原来的适用于每一型别的解释性材料仍然有效。

Note: The original Interpretative material applicable to each model remains effective.

可接受的符合性方法 / Acceptable Means of Compliance:

AMC F-14 结冰条件下的飞行 / Flight in icing condition.

注释: 带有 MOD 160500 时, AMC F-14 的适用性从 A321/A319/A318 拓展到 A320。

Note: AMC F-14 applicability extended from A321/A319/A318 to A320 with MOD 160500.

ETOPS

AMC 20-6 Rev 1 中与结冰条件下运行相关的段落 8.b.(11), 规定了鲨鱼鳍小翼上的冰型
AMC 20-6 Rev 1 paragraphs related to operation in icing conditions 8.b.(11) for ice shapes on the Sharklet device.

AMC 20-6 Rev 1 中与 AFM 补充中的性能数据相关的段落 8.f.(1) (iii), 规定了 ETOPS
AMC 20-6 Rev 1 paragraphs related to performance data in the AFM supplement for ETOPS 8.f.(1) (iii).

对于不受影响的区域, ETOPS 要求见 AMJ 120-42

AMJ 120-42 for ETOPS for non-affected areas.

注释: 对应用于初始 ETOPS 验证的审定基础(参见 A320 CRI G1006)。

Note: This corresponds to the certification basis used for the initial ETOPS demonstration (refer to A320 CRI G1006).

5. 专用条件 / Special Conditions

5.1 下述 A320 型飞机的专用条件, 经验相关条件和协调条件仍对 A319 型飞机保留:

The following A320 Special conditions, Experience Related Conditions and Harmonization Conditions which are kept for the A319:

提示: 在 A320 联合合格审定基础制定的范围内, 编制了三种类别的专用条件。

Reminder : within the scope of the establishment of the A320 Joint Certification Basis, three types of special conditions were developed:

- 专用条件: 覆盖新颖的或独特的且联合航空条例未有公布的设计特性。 / Special conditions: raised to cover novel or unusual features not addressed by the JAR.
- 经验相关条件: 对于 A320 联合合格审定基础, 按照 NPA 程序, 在欧洲联合航空条例演变进程中, 记录已经同意的原文。 / Experience related conditions: raised to record an agreed text for the A320 Joint Certification Basis when evolution of JAR was in progress under the NPA procedure.
- 协调条件: 对于 A320 联合合格审定基础的意图, 记录关于国家不同要求方面的共同的理解。该协调条件不应与 FAA/JAA 协调规章的活动相混淆。 / Harmonization conditions: to record, for the purpose of the A320 Joint Certification Basis, a common understanding with respect to National variant. This should not be confused with the FAA/JAA harmonised regulations.

(DGAC-F)
SC-G17

运行校对飞行 / Operational proving flights

(CAA-UK)	合格审定前运行飞行/Operational flight before certification
SC-G17	
SC-F3	驾驶舱控制-驾驶舱操纵运动和影响/ Cockpit Control - motion and effect of cockpit control
SC-F4	静态纵向稳定性/ Static Longitudinal Stability
SC-F6	静态航向和横向稳定性/ Static Directional and Lateral Stability
SC-F7	飞行包线保护/ Flight Envelope Protection
SC-F8	正常载荷因子限制/ Normal Load Factor Limiting
SC-F9	双套操纵系统/ Dual Control System
SC-A.2.2.2.	设计机动要求/Design manoeuvre requirement
SC-A.2.2.3.	设计俯冲速度/Design dive speed
HC-A.4.5.	刹车滚动条件/Braked roll conditions
HC-A.4.6.	速度控制装置/Speed control device
SC-S11	限制操纵力和扭矩 Limit pilot forces and torques
HC-S23	备用地平仪/Standby gyroscopic horizon
HC-S24	VMO/MMO 告警 (设定)/VMO/MMO Warning (setting)
EC-S30	自动飞行系统/ Autoflight system
SC-S33	自动推力系统/Autothrust system
SC-S52	无正常电力运行/Operation without normal electrical power
EC-S54	线路保护装置/Circuit protective devices
HC-S72	飞行记录器/Flight recorder
SC-S74	非正常姿态 Abnormal attitudes
SC-S75	闪电防护的间接影响/Lightning protection indirect effects
SC-S76	外部辐射对机上系统的影响/Effect of external radiations up on aircraft systems
SC-S77	控制信号完整性/Integrity of control signal

5.2 对于 A319 制订的专用条件:/ The following Special Conditions developed for the A319:

SC-A2	结构设计失速速度(见 CRI A4002)/" Stalling Speeds for Structural Design " (see CRI A4002)
SC-F1	失速和预期使用速度(见 CRI F4001)/" Stalling and Scheduled Operating Speeds " (see CRI F4001)
SC-F11	加速停止距离和相关性能,磨损刹车(见 CRI F4012)/" Accelerate-Stop distances and related performances, worn brakes (see CRI F4012)
SC-S79	刹车要求,资质和试验(见 CRI SE4003) /" Brakes requirements, qualification and testing " (see CRI SE4003)

5.3 对于 A319, Airbus Industrie 公司选择符合的 A321 专用条件如下: / For A 319, Airbus Industrie has elected to comply with the following A 321 Special Conditions:

SC-A1	系统和结构和交互作用(见 CRI A 4001)/"Interaction of Systems and Structure" (see CRI A 4001)
SC-P1	全权数字式电子控制(见 CRI P 4001)/"FADEC" (see CRI P 4001)
SC-E1	防火术语(见 CRI E 4005)/"Resistance to Fire Terminology" (see CRI E 4005)

5.4 对于任何 1998 年 7 月 10 日以后新的申请(新的或改装飞机系统和关联的零组件), 专用条件 IM-S76 (外部辐射对飞机系统的影响)被专用条件 SC/IM-S76-1 (CRI SE14)取代。
For any new application (new or modified aeroplane system and associated components) after July 10, 1998, SC/IM-S76 (Effect of external radiations upon aircraft systems) are superseded by SC/IM-S76-1 (CRI SE14).

5.5 A319 WV002 以及 1998 年 8 月 10 日后的任何进一步变化的合格审定, 协调专用条件 HC-A.4.5 (刹车滚动条件)被联合航空条例第 14 次修改的 JAR 25.943(d)替代(CRI A7)。
For A319 weight variant 002 and for any further variant certification after Aug. 10, 1998, the HC-A.4.5 (Braked roll conditions) is superseded by JAR 25.493(d) at Change 14 (CRI A7).

5.6 对于 A319-115 和 A319-133 型飞机, 下述 JAR25 部条款和专用条件已以桔黄页 91/1 升级至第 14 次修订。/ For A319-115 and -133 models, the following JAR 25 paragraphs and Special Conditions are upgraded at Change 14 and Orange Paper 96/1:

25.119(a)

25.121(d)/SC-F1 附录 3. / 25.121(d)/SC-F1 Appendix 3.

25.145(b)(c)

25.149(f)(g)(h)(i)和关联的咨询通告(ACJ). / 25.149(f)(g)(h)(i) and associated ACJ.

具有与包括“Go-around 等级”(CRI F8)的 NPA 25B-261 中的条款尽可能接近的措词, 引入适用于“第 3 等级”的专用条件。

This is introduced as Special Condition applicable to the "Third Rating", with a wording as close as possible to those paragraphs of the NPA 25B-261 involving the Go-around rating (CRI F8).

5.7 在证后型号合格审定过程中, 制定了下述专用条件:

The following special conditions have been developed post Type Certification:

SC H-01	飞机系统的提高适航大纲—关于 EWIS 的 ICA (自 2010 年 5 月起生效) / Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS (applicable from May 2010)
SC E-34	前排座椅的 HIC 符合性/ HIC Compliance to Front Row Seating
SC E-13	Installation of inflatable restraints (optional)
SC D-0306	座椅材料的热释放和烟雾浓度要求(自 2010 年 6 月起生效)/ Heat release and smoke density requirements to seat material (applicable from June 2010)
SC P-27	可燃性降低系统/ Flammability Reduction System 如果满足, 则 2012 年 1 月 1 日后首次飞行的航空器的中央油箱必须在生产线上安装油箱可燃性降低系统 (MOD 38062)。带有 MOD 38062 后, 该系统必须保持安装和可用状态, 并且仅能根据 MMEL 改版中的条款在不能工作状态下派遣。如果在 A318、A319、A320 或者 A321 飞机上安装了 MOD 38062 (油箱惰性系统(FTIS)), 则飞机满足 25-102 修正案水平的 25.981(a)和(b)的 FR 段、25-125 修正案水平的 25 部附录 M 和 N、以及 26-3 修正案水平的 26.33 条。/ If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (modification 38062). This system shall remain installed and operative and can only be dispatched inoperative in accordance with the provisions of the MMEL revision associated with modification 38062. If modification 38062 (Fuel Tank Inerting System (FTIS)) is embodied on A318, A319, A320, or A321 airplanes, the airplane is compliant with paragraph FR Section 25.981(a) & (b) at amendment 25-102, Part 25 appendix M & N at amendment 25-125, and Section 26.33 at amendment 26-3.
SC-E10	高高度机场运行(至止 14,100 英尺)(见 CRI E10)/ High altitude airport operations (up to 14,100 ft) (see CRI E10).

5.8 带有 MOD 160500 的航空器的专用条件

Special Conditions for aircraft equipped with MOD 160500

SC F-16	航向和横向静稳定性 / Static directional and lateral stability
A318 SC F-5001	失速和计划运行速度 / Stalling and scheduled operating speeds
A318 SC F-5004	纵向静稳定性和低能量警告 / Static Longitudinal Stability and Low energy awareness
A318 SC A-5003	设计俯冲速度 / Design Dive Speed Vd

注释：所有其他的适用于每一型别的原始专用条件仍然有效。

Note: All other original Special Conditions applicable to each model remain effective.

6. 豁免 / Exemptions

没有豁免 / No exemptions

7. 偏离 / Deviations

无 / None

8. 等效安全 / Equivalent safety findings

8.1 下述条款通过等效安全的方式来满足，记录在相关 CRI 中：

Equivalent Safety findings to the following requirements are granted, as documented in relevant CRIs:

JAR 25-783 (f)	相关“舱门”(见 CRI SM 4004 “旅客舱门”，与 A320 和 A321 同样的等效安全纪要已获得准予)。/related to " Doors " (see CRI SM 4004 " Passenger doors " ; The same Equivalent Safety finding was previously granted for A320 and A321).
JAR 25-807(c)(1)	相关“旅客应急出口”(见 CRI E 4001 1995 年 12 月颁发 JAA 政策基础中的“出口构形”)。/related to " Passengers emergency exits " (see CRI E 4001 " Exit configuration " issued on the basis of the JAA policy dated December 1995).
JAR 25-813(c)(1)	相关“应急出口通道”(见 CRI E4105 A320 基础(CRI E2105 第 3 版)颁发中的“翼上 III 型出口通道”)。/related to " Emergency exit access " (see CRI E 4105 " Type III over wing emergency exit access ", issued on the basis of A320 CRI E2105 issue 3).
JAR 25-933(a)(1)	相关“回复系统”(见 CRI P4008 A320 基础(CRI P1002)颁发中的“反推自动重置”)。/ related to " Reversing systems " (see CRI P4008 " Thrust Reverser Auto restow ", issued on the basis of A320 CRI P1002).
JAR AWO 313	相关“最低进近中止高度”(见 CRI SE 4005 “最低进近中止高度”)。/related to " Minimum approach break-off height " (see CRI SE 4005 " Minimum approach break-off height ").

8.2 在证后型号合格审定过程中，制定了下述等效安全：

The following Equivalent Safety Findings have been developed post Type Certification:

FAR 25.856(b)	舱内区域的机身烧穿保护(参见 CRI E-32)，如果在生产线上 A318、A319、A320 或者 A321 飞机实施了 MOD 150700 和 37270 (仅带有 CLS 选项)、37048 和 36985，飞机满足机身火焰穿透“烧穿”要求，即 25-111 修正案水平的 14 CFR Part 25.856(b) (参见 CRI E-18) Fuselage burnthrough protection in bilge area (see CRI E-32), see
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	note below If modifications 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration “Burnthrough” requirements addressed by paragraph 14 CFR Part 25.856(b) Amdt 25-111(See CRI E-28).
14CFR Part 25.856(a)	针对绝缘材料的提高的阻燃性标准 (CRI E18)
JAR 25.812(b)(1)(ii)	Improved flammability standards for insulation materials (CRI E18) 光致发光出口标志(可拆除的舱位分离装置) (CRI E14) (可选构型)
JAR 25.811(f)	Photo-luminescent EXIT sign for MCD (Moveable Class Divider) (CRI E14) (optional) 应急出口标志反射率(CRI E16)
JAR 25.812(b)(1)(i)(ii)	Emergency exit marking reflectance (CRI E16) 对于客运航空器，图形化出口标志作为红色出口标志的替代(CRI SE-42) (可选构型) Symbolic EXIT signs as an alternative to red EXIT signs for passenger aircraft (CRI SE-42) (optional)

8.3 带有 MOD 160500 的航空器的等效安全
Equivalent Safety Findings for aircraft equipped with MOD 160500

ESF F-19	自然结冰条件下的飞行 (§25.1419 (c)) Flight in natural icing condition (§25.1419 (c))
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注释：原来的适用于每一型别的等效安全仍然保持有效。
Note: The original ESFs applicable to each model remain effective.

9. 环保标准 / Environmental Protection Standards

国际民航组织附件 16 / ICAO Annex 16

Vol. I Part II	噪声要求 / Noise Requirements
Vol. II Part II	燃油排放 / Fuel Venting
Vol. II Part III Chapter 2	排气排出物 / Emissions

注释：进一步的细节在 TCDSN EASA.A.064 中定义。
Notes: Further details are defined within TCDSN EASA.A.064

10. ETOPS

当其构型、维护和运行符合当前版次的《ETOPS 构型、维护和程序(CMP)》文件 SA/EASA: AMC 20-6/CMP 的要求时，A318/A319/A320/A321 型别的型号设计、系统可靠性和性能有能力进行延程运行（ETOPS）。

The Type Design, system reliability and performance of A318/A319/A320/A321 models were found capable for Extended Range Operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, SA/EASA: AMC 20-6/CMP.

此处不构成进行延程运行（ETOPS）的批准（必须从相关当局获得运行批准）。
This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

下表提供 ETOPS 批准的详细内容
The following table provides details on the ETOPS approvals.

航空器型别 /Aircraft Model	发动机型号/Engine Type	120 分钟批准的日期 /120 Min Approval Date	180 分钟批准的日期 /180 Min Approval Date
A319-111	CFM56-5B5	14 February 1997	11 March 2004
A319-112	CFM56-5B6	14 February 1997	11 March 2004
A319-113	CFM56-5A4	14 February 1997	11 March 2004
A319-114	CFM56-5A5	14 February 1997	11 March 2004
A319-115	CFM56-5B7	25 November 1999	11 March 2004
A319-131	V2522-A5	14 February 1997	11 March 2004
A319-132	V2524-A5	14 February 1997	11 March 2004
A319-133	V2527M-A5	25 November 1999	11 March 2004

注释 / Note:

双方飞机延程运行的构型、维护和程序标准包含在 ETOPS CMP 文件参考最新版次的 SA/EASA: AMC 20-6/CMP 中。经审定的型别为所有适用发动机的 A319-111/-112/-113/-114/-115/-131/-132/-133

运行符合当前版次的《ETOPS 构型、维护和程序(CMP)》文件 SA/EASA: AMC 20-6/CMP 的要求时, A318/A319/A320/A321 型别的型号设计、系统可靠性和性能有能力进行延程运行 (ETOPS)。

The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in ETOPS CMP document reference SA/EASA: AMC 20-6/CMP at latest applicable revision. Certificated models are A319-111/-112/-113/-114/-115/-131/-132/-133, with all applicable engines.

实施改装 / Embodiment of modification:

36666 提供 EASA 批准的 120 分钟 ETOPS 能力 / 36666 provides ETOPS 120 mn capability for EASA

32009TIGONG EASA 批准的 180 分钟 ETOPS 能力 / 32009 provides ETOPS 180 mn capability for EASA

11. 认可审定基础 / Validation Basis

中国民用航空局接受审定当局的审定基础作为认可审定基础。

CAAC accepts the Certification Basis of Certification Authority as the Validation Basis.

III. 技术特性和运行限制 / Technical Characteristics and Operational Limitations**1. 型号设计定义 / Type Design Definition**

1.1 合格审定型别: / Certificated models: A319-111

下述文件定义相应飞机 / Definition of reference airplane by doc: AI/EA-A 413.0700/96 (00J000A0011/C21)

1.2 合格审定型别 / Certificated models: A319-112

下述文件定义相应飞机 / Definition of reference airplane by doc: AI/EA-A 413.0505/96 (00J000A0003/C21)

1.3 合格审定型别 / Certificated models: A319-113

下述文件定义相应飞机 / Definition of reference airplane by doc: AI/EA-A 413.1377/96 (00J000A0113/C21)

1.4 合格审定型别 / Certificated models: A319-114

下述文件定义相应飞机 / Definition of reference airplane by doc: AI/EA-A 413.1400/96 (00J000A0114/C21)

1.5 合格审定型别 / Certificated models: A319-115

下述文件定义相应飞机 / Definition of reference airplane by doc: AI/EA-A 413.1204/99 (00J000A0115/C21)

1.6 合格审定型别 / Certificated models: A319-131

下述文件定义相应飞机 / Definition of reference airplane by doc: AI/EA-A 413.3250/96 (00J000A0131/C21)

1.7 合格审定型别 / Certificated models: A319-132

下述文件定义相应飞机 / Definition of reference airplane by doc: AI/EA-A 413.3300/96 (00J000A0132/C21)

1.8 合格审定型别 / Certificated models: A319-133

下述文件定义相应飞机 / Definition of reference airplane by doc: AI/EA-A 413.1205/99 (00J000A0133/C21)

注释 / Notes:

型别转换 / Model conversions:

- 如果在装备 CFM56-5A4 发动机 A319-113 机型实施改装包 30149, 则该机型转化为装备 CFM56-5B3/2P 发动机 A321-211 机型。 / If modification 30149 is embodied on A319-113 model powered with CFM56-5A4 engines, it is converted into A319-114 model, powered with CFM56-5A5 engines.
- 如果在装备 CFM56-5B5/P 发动机 A319-111 机型实施改装包 34281, 则该机型转化为装备 CFM56-5B6/P 发动机 A319-112 机型。 / If modification 34281 is embodied on A319-111 model powered with CFM56-5B5/P engines, it is converted into A319-112 model, powered with CFM56-5B6/P engines.
- 如果在装备 V2524-A5 发动机 A319-132 机型实施改装包 34815, 则该机型转化为装备 V2527M-A5 发动机 A319-133 机型。 / If modification 34815 is embodied on A319-132 model powered with V2524-A5 engines, it is converted into A319-133 model, powered with V2527M-A5 engines.

2. 描述 / Description

两台涡轮风扇发动机、中短程、单通道的运输类飞机。

Twin turbo-fan, short to medium range, single aisle, transport category airplane.

3. 设备 / Equipment

A319-111

经批准安装的设备列于文件号为 00J000A0012/COS 的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00J000A0012/COS.

A319-112

经批准安装的设备列于文件号为 00J000A0004/COS 的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00J000A0004/COS.

A319-113

经批准安装的设备列于文件号为 00J000A0113/COS 的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00J000A0113/COS.

A319-114

经批准安装的设备列于文件号为 00J000A0114/COS 的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00J000A0114/COS.

A319-115

经批准安装的设备列于文件号为 00J000A0115/COS 的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00J000A0115/C0S.

A319-131

经批准安装的设备列于文件号为 00J000A0131/C0S 的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00J000A0131/C0S.

A319-132

经批准安装的设备列于文件号为 00J000A0132/C0S 的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00J000A0132/C0S.

A319-133

经批准安装的设备列于文件号为 00J000A0133/C0S 的审定标准设备清单中

Equipment approved for installation is listed in the Certification Standard Equipment List 00J000A0133/C0S.

注释 / Note:

型号设计定义和审定标准设备清单，参见《A319-100/A321-200 FMGC 型号标准演变(No. 00D000A0546/C0S)》。

The type design definitions and certification standard equipment lists are complemented by doc. 00D000A0546/C0S “A319-100/A321-200 FMGC Type Std Evolution”.

客舱设施、设备及布置符合下述规范：

Cabin furnishings, equipment and arrangement shall be in conformance to the following specifications :

- 00 D 252 K 0004/C01 客舱座椅/for cabin seats
- 00 D 252 K 0019/C01 厨房/for galleys.

4. 尺寸/Dimensions

A319 飞机的主要尺寸/Principal dimensions of A319 Aircraft

- 机长/Length:	33,84 m
- 翼展/Width:	34,10 m
(如果安装 MOD 160500 / if MOD 160500 is installed)	35,80 m
- 机高/Height:	11,76 m
- 水平安定面宽度/Width at horizontal stabilizer:	12,45 m
- 机身直径/Outside fuselage diameter:	3,95 m
- 发动机轴间距/Distance between engines axis:	11,51 m
- 主起间距/Distance between main landing gear:	7,59 m
- 前/主起间距/Distance between nose and main landing gear:	11,04 m

5. 发动机 / Engines

安装在航空器型别上的发动机如下所述。对于常用名称和审定名称以及新发动机的构型变化，参见注释。

The list below lists the basic engines fitted on the aircraft models. The notes describe usual names and certified names as well as new engines variants.

A319-111

2 台 CFMI 发动机 / Two CFMI:
CFM56-5B5 (MOD24932)

A319-112

2 台 CFMI 发动机 / Two CFMI:
CFM56-5B6 (MOD25287) or
CFM56-5B6/2 (MOD25530)

A319-113

2 台 CFMI 发动机 / Two CFMI:
CFM56-5A4 (MOD25238) or
CFM56-5A4/F (MOD23755)

A319-114

2 台 CFMI 发动机 / Two CFMI:
CFM56-5A5 (MOD25286) or
CFM56-5A5/F (MOD23755)

A319-115

2 台 CFMI 发动机 / Two CFMI:
CFM56-5B7 (MOD27567)

A319-131

2 台 IAE 发动机 / Two IAE:
V2522-A5 (MOD26152)

A319-132

2 台 IAE 发动机 / Two IAE:
V2524-A5 (MOD26298)

A319-133

2 台 IAE 发动机 / Two IAE:
V2527M-A5 (MOD27568)

注释 / Notes:

1 从 2008 年 3 月 31 日起, 外场和生产线上不再有不带后缀/P 的 CFM56-5B5 发动机。/
From March 31st 2008, there is no longer any CFM56-5B5 non /P in field or in production.

2 从 2008 年 3 月 31 日起, 外场和生产线上不再有不带后缀/P 的 CFM56-5B6 发动机。/
From March 31st 2008, there is no longer any CFM56-5B6 non /P in field or in production.

3 从 2008 年 3 月 31 日起, 外场和生产线上不再有不带后缀/P 的 CFM56-5B6/2 发动机。
/ From March 31st 2008, there is no longer any CFM56-5B6/2 non /P in field or in production.

4 从 2008 年 3 月 31 日起, 外场和生产线上不再有不带后缀/P 的 CFM56-5B7 发动机。/
From March 31st 2008, there is no longer any CFM56-5B7 non /P in field or in production.

5 如果 CFM-5B 发动机实施改装包 25800, 则改进发动机性能, 该发动机演变为 “/P”。
/If modification 25800 is embodied on models with CFM-5B engines, the engine performance is improved. The engine denomination changes to /P.

当前该改装包适用于: / The modification is currently applicable for :

- A 319-111: CFM 56-5B5 (SAC) 变为 CFM 56-5B5/P /CFM 56-5B5 (SAC) which changes to CFM 56-5B5/P

- A 319-112: CFM 56-5B6 (SAC) 变为 CFM 56-5B6/P /CFM 56-5B6 (SAC) which changes to CFM 56-5B6/P

- A 319-112: CFM 56-5B6/2 (DAC) 变为 CFM 56-5B6/2P /CFM 56-5B6/2 (DAC) which changes to CFM 56-5B6/2P

- A 321-115: CFM 56-5B7 (SAC) 变为 CFM 56-5B7/P /CFM 56-5B7 (SAC) which changes to CFM 56-5B7/P

CFM 56-5B/“无 P”发动机可与 CFM 56-5B/P 发动机混装。/CFM 56-5B/"non-P" engine can be intermixed with CFM 56-5B/P engine on the same aircraft.

6 对于 A319-112,CFM 56-5B6 发动机可与 CFM 56-5A6/2 发动机(mod. 25532)混装在同一飞机上(飞机飞行手册补充)。 / A319-112 CFM 56-5B6 engine can be intermixed with CFM 56-5B6/2 engine (mod. 25532) on the same aircraft (AFM supplement).

7 如果 CFM-5B/2 (DAC) 发动机实施改装包 26610, 则该发动机的性能和燃气排放水平均有改进。 / If modification 26610 is embodied on models with CFM-5B/2 (DAC) engines, the engine performance and gaseous emission levels are improved.

当前该改装包适用于: / The modification is currently applicable for:

A 319-112: CFM 56-5B6/2 (DAC) 变为 CFM 56-5B6/2P (DAC II C)。/ CFM 56-5B6/2 (DAC) which changes to CFM 56-5B6/2P (DAC II C).

CFM 56-5B/2 “无 P” (DAC)发动机可与 CFM 56-5B/2P (DAC II C) 发动机混装在同一架飞机上(飞机飞行手册补充)。 / CFM 56-5B/2 "non P" (DAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

CFM 56-5B/P 或 “无 P” (SAC)发动机可与 CFM 56-5B/2P (DAC II C) 发动机混装在同一架飞机上(飞机飞行手册补充)。 / CFM 56-5B/P or / "non P" (SAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

8 如果 CFM-5B 发动机实施改装包 25800, 则改进发动机性能, 该发动机演变为 “/P”。 /If modification 25800 is embodied on models with CFM-5B engines, the engine performance is improved. The engine denomination changes to /P.

当前该改装包适用于: / The modification is currently applicable for :

- A 319-111: CFM 56-5B5 (SAC) 变为 CFM 56-5B5/P /CFM 56-5B5 (SAC) which changes to CFM 56-5B5/P

- A 319-112: CFM 56-5B6 (SAC) 变为 CFM 56-5B6/P /CFM 56-5B6 (SAC) which changes to CFM 56-5B6/P

- A 319-112: CFM 56-5B6/2 (DAC) 变为 CFM 56-5B6/2P /CFM 56-5B6/2 (DAC) which changes to CFM 56-5B6/2P

- A 321-115: CFM 56-5B7 (SAC) 变为 CFM 56-5B7/P /CFM 56-5B7 (SAC) which changes to CFM 56-5B7/P

CFM 56-5B/“无 P”发动机可与 CFM 56-5B/P 发动机混装。/CFM 56-5B/"non-P" engine can be intermixed with CFM 56-5B/P engine on the same aircraft.

9 通过纳入改装包 37147 可以引入 CFM56-5Bx/3 “Tech Insertion” 发动机。 / Introduction of CFM56-5Bx/3 “Tech Insertion” engine is done through embodiment of modification 37147.

该改装包仅适用于 CFM56-5Bx /P SAC 发动机。 / This modification is only applicable on CFM56-5Bx /P SAC engines.

如果对 CFM-5B 发动机纳入改装包 37147, 则发动机后缀增加/3。 / If modification 37147 is embodied on models with CFM-5B engines, the engine denomination changes to /3.

本改装包适用于下述型别: / The modification is currently applicable for:

A319-111: CFM 56-5B5 (SAC) 更改为/ which changes to CFM 56-5B5/3

A319-112: CFM 56-5B6 (SAC) 更改为/ which changes to CFM 56-5B6/3

A319-115: CFM 56-5B7 (SAC) 更改为/ which changes to CFM 56-5B7/3

已经证明改装包 37147 对之前审定的噪声等级没有影响。 / Modification 37147 has been demonstrated as having no impact on previously certified noise levels.

如表 3.2.13.1a)所述的发动机特性没有变化。 / The engine characteristics as per table 3.2.13.1a) remain unchanged.

如改装包 38573 所述, CFM56-5Bx/3 发动机可以与 CFM56-5Bx/P 混装。 / CFM56-5Bx/3 engine can be intermixed with CFM56-5Bx/P engine under considerations as prescribes in modification 38573.

6. 辅助动力装置 / Auxiliary Power Unit

APU GARRETT

GARRETT 公司, 型号 GTCP 36-300(A)。

GARRETT AIRESEARCH GTCP 36-300 (A).

(规范 No.31-5306B /Specification 31-5306B)

批准的滑油: 参见 GARRETT 报告 GT. 7800

Approved oils: see GARRETT REPORT GT. 7800

APU APIC (选装 / Option)

APIC 公司 APU 的安装由改装包(MOD 22562 或 MOD 35864)定义。

The APU APIC installation is defined by MOD 22562 or MOD 35864.

APIC 公司 APS 3200 (规范 No. ESR 0802, A 版)。

APIC APS 3200 (Specification ESR 0802, Rev. A).

批准的滑油:与 MIL-L-7808, MIL-L-23699 或 DERD 2487 规范一致。

Approved oils : in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487.

APU AlliedSignal (选装 / Option)

AlliedSignal 公司 APU 的安装由改装包(MOD 25888)定义。

The APU AlliedSignal installation is defined by MOD 25888.

AlliedSignal 公司文件(131-9[A]) (规范 No. 4900 M1E 03 19 01)。

AlliedSignal 131-9[A] (Specification 4900 M1E 03 19 01).

批准的滑油:依照 31-12048A-3A 规范的型号。

Approved oils : according to Model Specification 31-12048A-3A.

注释: A319 型飞机, APIC 公司 APU (APS 3200) (改装包 MOD 35864)是自 MSN 2643 开始的生产标准。

Note: for A319 models, the APU APIC APS 3200 (Mod 35864) is the production standard from MSN 2643

7. 螺旋桨 / Propellers

不适用 / N/A

8. 液体 (燃油、滑油、添加剂、液压油) / Fluids (Fuel, Oil, Additives, Hydraulics)

燃油 / Fuel

燃油规范: 见安装手册: CFM 2026 或者 CFM 2129 或者 IAE 0043

Fuel Specification: See installation manual: document CFM 2026 or CFM 2129 or document IAE – 0043

类型/ TYPE	规范/SPECIFICATION (NAME)				
	法国 /FRANCE	美国/USA	英国/UK	俄国/RUSSIA	中国 /CHINA
煤油/ Kerosene	DCSEA 134	ASTM D 1655 (JET A) (JET A1)	DEF STAN 91/91 (AVTUR) (JET A1)	GOST 10227-86 (RT) (TS1)*	GB 6537-2006 N°3 JET
		MIL - T -83133 (JP 8)	DEF STAN 91/87 (AVTUR) (JET A1)(A1A)	GOST R 52050-2003	
宽硫分/ Wide cut		ASTM D 1655 (JET B)	DEF STAN 91/88 (AVTAG)		
		MIL - T 5624 (JP 4)			
高闪点/ High flash point	DCSEA 144/A (F-44) (XF-43)	MIL - T 5624 (JP 5)	DEF STAN 91/86 (AVCAT)		

* 对于IAE发动机, TS-1牌号燃油短期使用是允许的(小于50%工作时间)。

For IAE engines, TS-1 is cleared for transient use (less than 50% of operations).

滑油 / Oil

对于滑油规范: / For oil specification:

发动机 Engine	CFM56-5B5 CFM56-5B6 CFM56-5B6/2 CFM56-5B7 CFM56-5A4 CFM56-5A4/F CFM56-5A5 CFM56-5A5/F	IAE V2522-A5 IAE V2524-A5 IAE V2527M-A5
经批准的滑油 Approved Oils	SB CFMI 79-001-OX	See doc IAE 0043 Sect 4.9 (MIL-L-23699)

添加剂/Additives:

参见空客耗材清单(CML)和 CFM 公司服务通告 SB 73-0122 或者 IAE 公司关于 CIS 燃油添加剂的“标准措施和程序手册”

Refer to Airbus Consumable Material List (CML) and CFM SB 73-0122 or IAE Standard Practices and Processes Manual for CIS fuel additives

上述燃油也适用于辅助动力装置。

The above mentioned fuels and additives are also suitable for the APU.

液压油 / Hydraulics

液压油 / Hydraulic fluids: Type IV - Specification NSA 30.7110

9. 燃油量 / Fuel Quantity

燃油量 / Fuel Quantity (0.8kg/liter)

A319 aircraft (不带有 / without MOD 160001)

油箱/ TANK	3 油箱飞机/ 3 TANK AIRPLANE		4 或 5 油箱飞机/ * 4 or 5 TANK AIRPLANE*		4 或 5 油箱飞机/ ** 4 or 5 TANK AIRPLANE **	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)
机翼 /WING	15 609 (12 487)	58.9 (47.1)	15 609 (12 487)	58.9 (47.1)	15 609 (12 487)	58.9 (47.1)
中央 /CENTER	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)
附加中央 油箱/ACT			3 121 / 6 242 (2 497 / 4 994)	17 / 34 (13.6 / 27.2)	2 900 / 5 800 (2 320 / 4 640)	17 / 34 (13.6 / 27.2)
总计 /TOTAL	23 859 (19 087)	82.1 (65.7)	26 980 / 30 101 (21 584 / 24 081)	99.1 / 116.1 (79.3 / 92.9)	26 759 / 29 659 (21 407 / 23 727)	99.1 / 116.1 (79.3 / 92.9)

* 参见以下注释 1 / see note 1 below

** 参见以下注释 2 / see note 2 below

油箱/ TANK	6 或 7 油箱飞机/ * 6 or 7 TANK AIRPLANE *		8 或 9 油箱飞机/ * 8 or 9 TANK AIRPLANE *	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公 斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公 斤) /Unusable fuel liters (kg)
机翼 /WING	15 609 (12 487)	58.9 (47.1)	15 609 (12 487)	58.9 (47.1)
中央 /CENTER	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)
附加中央 油箱/ACT	8 428 / 10 614 (6 743 / 8 492)	56 / 78 (44.8 / 62.4)	13 660 / 16 781 (10 929 / 13 426)	90 / 107 (72 / 85.6)
总计 /TOTAL	32 287 / 34 473 (25 830 / 27 579)	138.1 / 160.1 (110.5 / 128.1)	37 519 / 40 640 (30 016 / 32 513)	172.1 / 189.1 (137.7 / 151.3)

* 参见以下注释 1 / see note 1 below

A319 aircraft (带有 / with MOD 37331 and MOD 160001)

油箱/ TANK	3 油箱飞机/ 3 TANK AIRPLANE		4 油箱飞机/ 4 or 5 TANK AIRPLANE*		4 或 5 油箱飞机/ ** 4 or 5 TANK AIRPLANE **	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)
机翼 /WING	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)
中央 /CENTER	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)
附加中央 油箱/ACT			2992 (2393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)
总计 /TOTAL	24 167 (19 334)	82.1 (65.7)	27 159 (21 727)	99.1 (79.3)	27 159 / 30 151 (21 727 / 24 121)	99.1 / 116.1 (79.3 / 92.9)

(*) 在 A319 飞机上, 改装包 33973 定义了以分散方式安装 1 或 2 个附加中央油箱(ACT)的合格审定。

On the A319 aircraft, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 33973.

如改装包 37226 所定义的, 替代方案是仅安装一个 ACT (具有一个 ACT 的规定)。

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 37226.

油箱/ TANK	6 或 7 油箱飞机*/ 6 or 7 TANK AIRPLANE *		8 或 9 油箱飞机*/ 8 or 9 TANK AIRPLANE *	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公 斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公 斤) /Unusable fuel liters (kg)
机翼 /WING	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)
中央 /CENTER	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)
附加中央 油箱/ACT	8 428 / 10 614 (6 743 / 8 492)	56 / 78 (44.8 / 62.4)	13 660 / 16 781 (10 929 / 13 426)	90 / 107 (72 / 85.6)
总计 /TOTAL	32 595 / 34 781 (26 076 / 27 825)	138.1 / 160.1 (110.5 / 128.1)	37 827 / 40 948 (30 262 / 32 759)	172.1 / 189.1 (137.7 / 151.3)

* 参见以下注释 1 / see note 1 below

A319 aircraft (不带有 / without MOD 37331 and 带有/ with MOD 160001)

油箱/ TANK	3 油箱飞机/ 3 TANK AIRPLANE		4 油箱飞机/ 4 or 5 TANK AIRPLANE*		4 或 5 油箱飞机/ ** 4 or 5 TANK AIRPLANE **	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuel liters (kg)
机翼 /WING	15 569 (12 455)	58.9 (47.1)	15 569 (12 455)	58.9 (47.1)	15 569 (12 455)	58.9 (47.1)
中央 /CENTER	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)
附加中央 油箱/ACT			2 992 (2 393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)
总计 /TOTAL	23 817 (19 054)	82.1 (65.7)	26 809 (21 447)	99.1 (79.3)	26 809 / 29 801 (21 447 / 23 841)	99.1 / 116.1 (79.3 / 92.9)

(*) 在 A319 飞机上, 改装包 33973 定义了以分散方式安装 1 或 2 个附加中央油箱(ACT)的合格审定。

On the A319 aircraft, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 33973.

如改装包 37226 所定义的, 替代方案是仅安装一个 ACT (具有一个 ACT 的规定)。

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 37226.

油箱/ TANK	6 或 7 油箱飞机*/ 6 or 7 TANK AIRPLANE *		8 或 9 油箱飞机*/ 8 or 9 TANK AIRPLANE *	
	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公 斤) /Unusable fuel liters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公 斤) /Unusable fuel liters (kg)
机翼 /WING	15 569 (12 455)	58.9 (47.1)	15 569 (12 455)	58.9 (47.1)
中央 /CENTER	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)
附加中央 油箱/ACT	8 428 / 10 614 (6 743 / 8 492)	56 / 78 (44.8 / 62.4)	13 660 / 16 781 (10 929 / 13 426)	90 / 107 (72 / 85.6)

总计 /TOTAL	32 245 / 34 431 (25 796 / 27 545)	138.1 / 160.1 (110.5 / 128.1)	37 477 / 40 598 (29 982 / 32 479)	172.1 / 189.1 (137.7 / 151.3)
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* 参见以下注释 1 / see note 1 below

注释 / Notes:

1 在 A319 公务机上, 改装包 28238 定义了以分散方式安装多达 6 个附加中央油箱(ACT)的合格审定, 与其相关的结构和系统的规定的批准服从大改 J1-CJT (符合 CRI P9)。
On A319 for Corporate Jet use, the certification of installing up to six Additional Center Tanks (ACT) in bulk version is defined by modification 28238. The approval together with structural and system provisions is subject of Major Change J1-CJT (compliance to CRI P9).

通过下面一套改装包定义 A319 公务机:

A319 for Corporate Jet use are defined through the following set of modifications:

Modification 28238: 多达 6 个附加中央油箱的安装/Installation of up to 6 ACTs.

Modification 28162: 直到 41000 英尺飞行包线的扩充/Extension of the flight envelope up to 41000ft.

Modification 28342: 重心前移扩充/Extension of the forward C.G.

2 改装包 33973 定义了以分散方式安装 1 或 2 个附加中央油箱(ACT)的合格审定, 与其相关的结构和系统的规定的批准服从大改 J-33973 (符合 CRI P9)。

The certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 33973. The approval together with structural and system provisions is subject of Major Change J-33973 (compliance to CRI P9).

10. 速度限制 (除非另有声明, 指示空速-IAS) / Limit speeds(Indicated Airspeed - IAS - unless otherwise stated)

最大使用马赫数 / Maximum Operating Mach 0.82

(MMO):

最大使用速度 / Maximum Operating Speed (VMO): 350 kt

机动速度 / Maneuvering Speed VA VA: 参见EASA批准的飞行手册的限制章节
/ see Limitations Section of the EASA approved Flight Manual

襟翼/缝翼展态速度 / Extended Flaps/ Slats Speed 见下表 / see table below
(VFE)

构型 / Configuration	缝翼/襟翼/ Slats/Flaps (°)	VFE (kt)	
1	18/0 18/10 *	230 215	中间进近/Intermediate approach 起飞/Take-off
2	22/15	200	起飞和进近/Take-off and approach
3	22/20	185	起飞、进近、着陆/Take-off, approach, landing
全放/Full	27/35	177	着陆/Landing

* 起飞构型中, 210 节襟翼自动收回

Auto flap retraction at 210 kt in take-off configuration

起落架/ Landing gear :

VLE – 展开/Extended:	280 kt/ Mach 0.67
VLO – 展开/Extension:	250 kt
收回/Retraction:	220 kt
轮胎限制速度(地面速度) / Tyres limit speed (ground speed)	195.5 kt (225 mph)

11. 飞行包线 / Flight Envelope

最大使用高度/ Maximum operating altitude	
39 100 (英尺/ft) (压力高度/pressure altitude)	
41 000 (英尺/ft) (压力高度/pressure altitude)	如果实施 28162 号改装包/if modification 28162 is embodied (仅适用于 A319-112/-115/-132/-133 only)
39 800 (英尺/ft) (压力高度/pressure altitude)	如果实施 30748 号改装包/if modification 30748 is embodied.

12. 运行限制 / Operating Limitations

参见适用的 EASA 批准的飞机飞行手册
See the appropriate EASA approved Airplane Flight Manual

动力装置 (2.2482 磅/daN) / Powerplant (2.2482 lb/daN)

CFMI 发动机 /CFMI Engines

发动机 /Engine	CFMI				
	CFM56-5B5 (**)	CFM56-5B6 CFM56-5B6/ 2 (**)	CFM56-5B7 (**)	CFM56-5A4 CFM56-5A4/F	CFM56-5A5 CFM56-5A5/ F
数据单/ Data sheets	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)	E28NE (FAA) M-15 (DGAC) M-IM19 (DGAC)	E28NE (FAA) M-15 (DGAC) M-IM19 (DGAC)
海平面静止推力/Static thrust at sea level					
起飞(5分钟)(统一 额定30℃)/ Take-off (5 min)* (Flat rated 30℃)	9 786 daN (22 000 lbs)	10 453 daN (23 500 lbs)	12 010 daN (27 000 lb)	9 786 daN (22 000 lbs)	10 453 daN (23 500 lbs)
最大连续(统一 额定25℃)/ Maximum continuous (Flat rated 25℃)	9 008 daN (20 250 lbs)	9 008 daN (20 250 lbs)	10 840 daN (24 370 lb)	9 195 daN (20 670 lbs)	9 195 daN (20 670 lbs)
批准的滑油:/Approved Oils: SB CFMI 79-001-OX					

* 假如在起飞和地面滑行期间发动机故障，依据法国民航局颁发的“发动机型号合格证数据单”，仅允许起飞推力状态工作 10 分钟。

10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during

go-around) in accordance with DGAC "Fiche de Caractéristiques Moteur".

其它发动机限制：见相应发动机型号合格证数据单。

Other engine limitations : see the relevant Engine Type Certificate Data Sheet.

IAE 发动机 /IAE Engines

发动机 /Engine	V2522-A5	V2524-A5	V2527M-A5
数据单/ Data sheets	E40NE (FAA) M-IM31 (DGAC)	E40NE (FAA) M-IM31 (DGAC)	E40NE (FAA) M-IM31 (DGAC)
海平面静止推力/Static thrust at sea level			
起飞(5分钟)(统一额定30℃)/ Take-off (5 min)* (Flat rated 30℃)	10 249 daN (23 040 lb)	10 889 daN (24 480 lb)	11 031 daN (24 800 lb)
最大连续(统一额定25℃)/ Maximum continuous (Flat rated 25℃)	8 540 daN (19 200 lb)	8 540 daN (19 200 lb)	9 893 daN (22 240 lb)
批准的滑油/Approved oils	See Doc IAE 0043Sect 4.9 (MIL-L 23 699)		

* 假如在起飞和地面滑行期间发动机故障，依据法国民航局颁发的“发动机型号合格证数据单”，仅允许起飞推力状态工作 10 分钟。

10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around) in accordance with DGAC "Fiche de Caractéristiques Moteur".

其它发动机限制：见相应发动机型号合格证数据单。

Other engine limitations : see the relevant Engine Type Certificate Data Sheet.

注释 / Notes:

A319-113/-114 (CFM 56-5A4/F 或/or -5A5/F 发动机/engines):

- 起飞和最大连续状态最大允许燃气温度可分别扩大至 915℃ 和 880℃。然而, ECAM 指示仍保持在 890℃ 和 855℃。/The maximum permissible gas temperature at take-off and max. continuous is extended to 915℃ and 880℃ respectively. However, the ECAM indication remains at 890℃ and 855℃.

- CFM 56-5A4 发动机可与 CFM 56-5A4/F 发动机(mod. 23755)混装在同一架飞机上。/CFM 56-5A4 engines can be intermixed with CFM 56-5A4/F engine (mod. 23755) on the same aircraft.

- CFM 56-5A5 发动机可与 CFM 56-5A5/F 发动机(mod. 23755)混装在同一架飞机上。/CFM 56-5A5 engines can be intermixed with CFM 56-5A5/F engine (mod. 23755) on the same aircraft.

12.1 经批准的运行 / Approved Operations

运输商业运行 / Transport commercial operations

12.2 其它限制 / Other limitations

完整的适用限制参见适用的 EASA 批准的飞机飞行手册。

For a complete list of applicable limitations see the appropriate EASA approved Airplane Flight Manual

13. 最大审定质量 / Maximum Certified Masses

A319-111/A319-112/A319-113/A319-114/A319-115/A319-131/A319-132/A319-133

变量/VARIANT	000 BASIC	001 Mod 25328	002 Mod 27112	003 Mod 26457	004 Mod 28053	005 Mod 28136	006 Mod 33418
最大滑行重量/ Max. Ramp Weight	64 400	70 400	75 900	68 400	68 400	70 400	73 900
最大起飞重量/Max. Take-off Weight	64 000	70 000	75 500	68 000	68 000	70 000	73 500
最大着陆重量/Max. Landing Weight	61 000	61 000	62 500	61 000	62 500	62 500	62 500
最大零燃油重量 /Max. Zero Fuel Weight	57 000	57 000	58 500	57 000	58 500	58 500	58 500
最小重量/Minimum Weight	35 400	35 400	35 400	35 400	35 400	35 400	35 400

变量/VARIANT	007 Mod 35197	008 Mod 36291	009 Mod 36292	010 (*) Mod 39021	011 Mod 36933	012 Mod 36934	013 (**) Mod 153453
最大滑行重量/ Max. Ramp Weight	75 900	64 400	66 400	76 900	66 400	62 400	75 900
最大起飞重量/Max. Take-off Weight	75 500	64 000	66 000	76 500	66 000	62 000	75 500
最大着陆重量/Max. Landing Weight	61 000	62 500	62 500	62 500	61 000	61 000	62 500
最大零燃油重量/Max. Zero Fuel Weight	57 000	58 500	58 500	58 500	57 000	57 000	52 000
最小重量/Minimum Weight	35 400	35 400	35 400	35 400	35 400	35 400	35 400

* WV010 仅审定为 A319 公务机构型（改装包 28238、28162 和 28342）。/ WV010 is only certified for A319 in Corporate Jet configuration (modification 28238, 28162 and 28342).

** WV013 仅审定为 A319-133, MSN 4042 / WV013 is only certified for A319-133, MSN 4042

14. 重心范围 / Center of gravity range

见经批准的飞机飞行手册。/ See approved Airplane Flight Manual.

15. 基准 / Datum

0.0 站位，位于飞机机头前方 2.540 米

Station 0.0, located 2.540 meters forward of airplane nose

16. 平均气动弦 / Mean Aerodynamic Chord (MAC)

4.1935 米 / meters

17. 水平方法 / Levelling Means

飞机可从 3 个主顶起点顶起。/ The A/C can be jacked on three primary jacking points.

参见适用的 EASA 批准的重量和平衡手册
See the appropriate EASA approved Weight and Balance Manual

18. 最小飞行机组 / Minimum Flight Crew

2 位驾驶员/pilots

19. 最大乘员座位数 / Maximum number of passengers seats

145

注释 / Note:

1 通过实施改装包 32208 可以安装第二对翼上应急出口 (III 型)。在该情况下, 最大乘客数为 160。

A second pair of overwing emergency exit (Type III) can be installed by embodiment of modification 32208. In this case, the maximum number of passengers is 160.

如果实施了改装包 150365, 则飞机可以搭乘 150 名乘客和 3 名客舱乘务员以增加客舱灵活性。

If in addition the modification 150365 is embodied, the aircraft can be operated with 150 passengers and with 3 cabin attendants for increased cabin flexibility.

2 通过实施改装包 37807 可以去除左侧和右侧后登机门功能。在该情况下, 最大乘客数为 80。

The LH & RH rear passenger doors can be de-activated by embodiment of modification 37807. In this case, the maximum number of passengers is 80.

3 对于 A319-115、A319-132 和 A319-133 飞机型别, III 型应急出口舱门可以通过实施 152777 来去除。这时, 客舱的最大乘员数在滑行、起飞、飞行和着陆过程中被限制为 0, 除非运营人的适航当局另行批准乘坐特定客舱区域的条件。

For aircraft models A319-115, A319-132 and A319-133, the Type III emergency exit hatch can be de-activated by embodiment of modification 152777. In this case, the maximum number of occupants in the passenger cabin is limited to zero during taxi, take-off, flight and landing, unless terms and conditions to occupy specific cabin areas have been approved by operator's competent airworthiness authority

20. 行李舱/货舱 / Baggage / Cargo compartment

货舱/ CARGO COMPARTMENT	最大载荷/ MAXIMUM LOAD (kg)
前/Forward	2 268
后/Aft	3 021
尾/Rear (散装/bulk)	1 497

对于位置和条件, 每一批准位置(容量、货盘和关联重量)见重量平衡手册(文件编号: 00J080A0001/C1S) 1.10 章节。/For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights) see Weight and Balance Manual, ref. 00J080A0001/C1S Chapter 1.10.

21. 机轮和轮胎 / Wheels and Tyres

见服务通告, No. SB A320 - 32 - 1007。/See SB A320 - 32 - 1007.

IV. 运行和服务指令 / Operating and Service Instructions

1. 飞机飞行手册 / Airplane Flight Manual (AFM)

EASA 批准的 A319 飞机飞行手册
EASA Approved Airplane Flight Manual for A319

2. 持续适航文件和适航性限制

Instructions for Continued Airworthiness and Airworthiness Limitations

适航性限制 / Airworthiness Limitations

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的子分部 1-2 和 1-3 章节中, 提供了适用的安全寿命适航性限制项目。 / Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3 approved by the EASA .

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 2 分部中, 提供了适用的损伤容限限制项目。
Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Items document (ALS Part 2) approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 3 分部中, 提供了合格审定维修要求项目。
Certification Maintenance Requirements are provided in A318/A319/A320/A321 ALS Part 3 - CMR (Certification Maintenance Requirements) approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 4 分部中, 提供了老龄系统维修 (ASM) 限制。
Ageing Systems Maintenance (ASM) limitations are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 4 approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 5 分部中, 提供了燃油适航性限制。
Fuel Airworthiness Limitations are provided in A318/A319/A320/A321 Fuel Airworthiness Limitations document (ALS Part 5) approved by the EASA.

注释 / Note:

对于 A320-213、-232 和-233 型别, 纳入改装包 37734 会导致维修大纲及其有效性限制 (LoV) 的变化, LoV 从 48,000FC/60,000FH 变为 37,500FC/80,000FH (先到为准)。
For A320-231, -232 and - 233 models, the embodiment of modification 37734 leads to change the maintenance program and its associated Limit of Validity (LoV) from 48,000FC/60,000FH to 37,500FC/80,000FH (whichever occurs first).

其他限制 / Other limitations

参见 EASA 批准的飞行手册。 / See EASA approved Flight Manual.

3. 重量和平衡手册 / Weight and Balance Manual (WBM)

空客符合性文件 / Airbus Compliance Document 00D80A0001/C1S

V. 注释 / Notes

1. 对于 A319-111、A319-112、A319-113 和 A319-114 型别, 改装包 26799 (不带有 ACARS 的 FM) 或者 26968 (FM ACARS) 是具有三类 B 级精确进近资质的最低标准。

For models A319-111, A319-112, A319-113 and A319-114, modification 26799 (FM without ACARS) or 26968 (FM ACARS) is the minimum standard to be qualified for Cat IIIB precision approach.

对于 A319-131 和 A319-132 型别, 改装包 26716 (不带有 ACARS 的 FM) 或者 26717 (FM ACARS) 是具有三类 B 级精确进近资质的最低标准。

For models A319-131 and A319-132, modification 26716 (FM without ACARS) or 26717 (FM ACARS) is the minimum standard to be qualified for Cat IIIB precision approach.

其他所有型别的基本设计定义就具有三类 B 级精确进近资质。

All other models are qualified for Cat IIIB precision approach per basic design definition.

SECTION 4: A318 系列 / A318 SERIES**I. 概述 / General****1. 型号/型别/构型变化 / Type/model/Variant:**

A318-111
A318-112
A318-121
A318-122

2. 法国民航局和联合航空当局(JAA)型号审定日期 / DGAC-F / Joint Airworthiness Authority (JAA) Type Certification Date

A318-111: 2003 年 5 月 23 日/ May 23, 2003
A318-112: 2003 年 5 月 23 日/ May 23, 2003

3. EASA 型号审定日期 / EASA Type Certification Date

EASA 型号合格证数据单第 1 版颁发于 2005 年 12 月 21 日
EASA TCDS issue 1 issued December 21, 2005

A318-121: 2005 年 12 月 21 日/ December 21, 2005
A318-122: 2005 年 12 月 21 日/ December 21, 2005

注释: 对于 2005 年 12 月 21 日前生产的 A318-111/-112 型飞机, 法国民航局颁发的型号合格证(DGAC-F TC 180)仍保持有效。/Note: For A318-111/-112 produced before the 21st of December 2005, DGAC-F TC 180 remains a valid reference.

4. 中国民航局型号认可审定日期 / CAAC Type Validation Date

A318-111: 2007 年 12 月 04 日/December 4, 2007
A318-112: 2007 年 12 月 04 日/December 4, 2007
A318-121: 2007 年 12 月 04 日/December 4, 2007
A318-122: 2007 年 12 月 04 日/December 4, 2007

5. 生产条件 / Production conditions

依据德国民航局给位于德国汉堡 AIRBUS 公司颁发批准 LBA.G.0009, 生产 A318 系列各型别飞机。

A318 aircraft, all series, all models, are all produced in Hamburg - Germany - under approval LBA.G.0009 issued by LBA to AIRBUS.

自 2004 年 9 月 27 日起, 依据德国民航局给位于德国汉堡 AIRBUS 公司颁发的批准 DE.21G.0009, 生产 A318 系列各型别飞机。

Since September 27, 2004, A318 aircraft are produced in Hamburg - Germany under approval DE.21G.0009 issued by LBA to AIRBUS.

自 2008 年 7 月 21 日起, A318 飞机在欧洲航空安全局给位于德国汉堡的 AIRBUS 公司颁发的批准 EASA.21G.0001 下生产。

From July 21st, 2008, A318 aircraft are produced in Hamburg (Germany) under approval

EASA.21G.0001 issued by EASA to AIRBUS.

II. 审定基础和认可审定基础 / Certification Basis and Validation Basis

1. 确定适用要求的参考日期 / Reference Date for determining the applicable requirements

AIRBUS INDUSTRIE 公司已于 1998 年 12 月 11 日以信函(AI/EA- S 413.2952/1998)对 A318 飞机申请了合格审定。

Airbus Industrie has applied for A318 certification on December 11, 1998 by letter AI/EA-S 413.2952/1998.

2. 最初的适航当局型号合格证数据单编号 / Initial Airworthiness Authority Type Certification Date Sheet No.

原法国 TCDS DGAC no. 180 被 EASA TCDS A.064 替代

Original French TCDS DGAC no. 180 was replaced by the EASA TCDS A.064

3. 最初的适航当局审定基础 / Initial Airworthiness Authority Certification Basis

如下所述 / See below

4. EASA 适航要求 / EASA Airworthiness Requirements

下面列出了不同 A318 型别的合格审定基础。在进一步的 A318 型别的合格审定时，针对每一型别确定特定基础的修正。

Hereafter are listed the certification bases for the different A320 models. The amendments made to a particular basis at the occasion of further A320 model certification are identified per model.

在 2003 年 5 月颁发的 CRI G5001(第 2 版)文件中，定义了适用的联合合格审定基础：
The applicable Joint Certification Basis defined in CRI G5001 Issue 4 dated May 2003 are:

4.1 欧洲联合航空条例 JAR25 部及第 11 次修订/ JAR 25 Change 11

除 BB 分部仍保留为第 10 次修订之外 / except subpart BB which remains at Change 10,
所有各国的变化要求除外 / except all national variants,

JAR 25 X 20 第 14 次修订/Change 14

JAR 25.21 第 14 次修订/Change 14

JAR 25.23 第 14 次修订/Change 14

JAR 25.25 第 14 次修订/Change 14

JAR 25.27 第 14 次修订/Change 14

JAR 25.29 第 14 次修订/Change 14

JAR 25.31 第 14 次修订/Change 14

JAR 25.101 第 14 次修订/Change 14

JAR 25.103 第 14 次修订/Change 14

JAR 25.105 第 14 次修订/Change 14

JAR 25.107 第 14 次修订/Change 14

JAR 25.109 第 14 次修订/Change 14

JAR 25.111 第 14 次修订/Change 14

JAR 25.113 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1

JAR 25.115 第 14 次修订/Change 14

JAR 25.117 第 14 次修订/Change 14

JAR 25.119 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1

JAR 25.121 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1
JAR 25.123 第 14 次修订/Change 14
JAR 25.125 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1
JAR 25.143 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1
JAR 25.145 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1
JAR 25.147 第 14 次修订/Change 14
JAR 25.149 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1
JAR 25.161 第 14 次修订/Change 14
JAR 25.171 第 14 次修订/Change 14
JAR 25.173 第 14 次修订/Change 14
JAR 25.175 第 14 次修订/Change 14
JAR 25.177 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1
JAR 25.181 第 14 次修订/Change 14
JAR 25.201 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1
JAR 25.203 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1
JAR 25.207 第 14 次修订/Change 14
JAR 25.231 第 14 次修订/Change 14
JAR 25.233 第 14 次修订/Change 14
JAR 25.235 第 14 次修订/Change 14
JAR 25.237 第 14 次修订/Change 14
JAR 25.251 第 14 次修订/Change 14
JAR 25.253 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1
JAR 25.255 第 14 次修订/Change 14
JAR 25X261 第 14 次修订/Change 14
JAR 25.305 第 15 次修订/Change 15
JAR 25.321 第 15 次修订/Change 15
JAR 25.331 第 15 次修订/Change 15
JAR 25.333 第 15 次修订/Change 15
JAR 25.335 第 15 次修订/Change 15
JAR 25.341 第 15 次修订/Change 15
JAR 25.343 第 15 次修订/Change 15
JAR 25.345 第 15 次修订/Change 15
JAR 25.349 第 15 次修订/Change 15
JAR 25.351 第 15 次修订/Change 15
JAR 25.361 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.363 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.365 第 13 次修订/Change 13
JAR 25.367 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.371 第 15 次修订/Change 15
JAR 25.373 第 15 次修订/Change 15
JAR 25.391 第 15 次修订/Change 15
JAR 25.415 第 15 次修订/Change 15
JAR 25.427 第 15 次修订/Change 15
JAR 25.445 第 15 次修订/Change 15
JAR 25.473 第 15 次修订/Change 15
JAR 25.479 第 15 次修订/Change 15
JAR 25.481 第 15 次修订/Change 15
JAR 25.483 第 15 次修订/Change 15
JAR 25.485 第 15 次修订/Change 15
JAR 25.491 第 15 次修订/Change 15
JAR 25.493(d) 由 OP 96/1 修正的第 14 次修订/Change 14 amended by OP 96/1

JAR 25.499 第 15 次修订/Change 15
JAR 25.511 第 15 次修订/Change 15
JAR 25.X519 第 13 次修订/Change 13
JAR 25.561(c) 第 15 次修订/Change 15
JAR 25.562 第 14 次修订/Change 14 (see CRI E5001)
JAR 25.571 第 15 次修订/Change 15
JAR 25.801 第 14 次修订/Change 14
JAR 25.803 第 14 次修订/Change 14
JAR 25.807 第 14 次修订/Change 14
JAR 25.809 第 14 次修订/Change 14
JAR 25.810 第 14 次修订/Change 14
JAR 25.811 第 14 次修订/Change 14
JAR 25.812 第 14 次修订/Change 14
JAR 25.813 第 14 次修订/Change 14
JAR 25.853 第 14 次修订/Change 14
JAR 25.855 第 14 次修订/Change 14
JAR 25.857 第 14 次修订/Change 14
JAR 25.858 第 14 次修订/Change 14
JAR 25.901 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.903 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.933 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.934 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.939 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.941 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.943 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.945 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1041 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1043 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1045 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1091 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1093 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1103 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1105 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1107 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1121 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1123 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1125 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1127 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1141 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1143 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1163 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1165 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1167 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1181 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1182 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1183 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1185 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1187 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1189 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1191 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122
JAR 25.1193 仅用于 A318-121/-122 的第 15 次修订/Change 15 ONLY for A318-121/-122

JAR 25.1501 第 14 次修订/Change 14
 JAR 25.1517 第 15 次修订/Change 15
 JAR 25.1583 第 14 次修订/Change 14
 JAR 25.1587 第 14 次修订/Change 14
 JAR 25.X1591 第 14 次修订(在第 11 次修订时替代 JAR 25X131, 25X132, 25X133, 25X135, 25X1588)/Change 14 (replacing JAR 25X131, 25X132, 25X133, 25X135, 25X1588 at Change 11)

4.2 联合航空条例 AWO 的第 1 次修改版中包括低能见度情况下的自动着陆和运行要求。
 JAR AWO Change 1 for auto-land and operations in low visibility.

4.3 ETOPS:

对于双发飞机的延程运行, 适用的技术条件包含在 AMC 20-6 (之前发布在 AMJ 120-42/IL 20)以及 A318 ETOPS CRI 中:

For the Extended Twin Engine Airplane Operations the applicable technical conditions are contained in AMC 20-6 (as initially published in AMJ 120-42/IL 20) and A318 ETOPS CRI:

- CRI G-22 ETOPS 批准 / approval

4.4 对于所有型别, 空客自愿满足第 106 号修正案水平的美国联邦航空规章 25.772(a)和(c) 以及 25.795, 参见 CRI E12 增强保安性能的驾驶舱门

For all models Airbus Elect To Comply with 14 CFR Part 25.772(a) and (c) and 25.795 amendment 106 according to CRI E12 – Reinforced Security Cockpit Door

5. 专用条件 / Special Conditions

5.1 下述 A320 型飞机的专用条件, 经验相关条件和协调条件仍对 A318 型飞机保留:
 The following A320 Special conditions, Experience Related Conditions and Harmonization Conditions which are kept for the A318:

提示: 在 A320 联合合格审定基础制定的范围内, 编制了三种类别的专用条件。

Reminder : within the scope of the establishment of the A320 Joint Certification Basis, three types of special conditions were developed:

- 专用条件: 覆盖新颖的或独特的且联合航空条例未有公布的设计特性。/ Special conditions: raised to cover novel or unusual features not addressed by the JAR.
- 经验相关条件: 对于 A320 联合合格审定基础, 按照 NPA 程序, 在欧洲联合航空条例演变进程中, 记录已经同意的原文。/ Experience related conditions: raised to record an agreed text for the A320 Joint Certification Basis when evolution of JAR was in progress under the NPA procedure.
- 协调条件: 对于 A320 联合合格审定基础的意图, 记录关于国家不同要求方面的共同的理解。该协调条件不应与 FAA/JAA 协调规章的活动相混淆。/ Harmonization conditions: to record, for the purpose of the A320 Joint Certification Basis, a common understanding with respect to National variant. This should not be confused with the FAA/JAA harmonised regulations.

(DGAC-F) SC-G17	运行校对飞行/ Operational proving flights
(CAA-UK) SC-G17	合格审定前运行飞行/Operational flight before certification
SC-F3	驾驶舱控制-驾驶舱操纵运动和影响/ Cockpit Control - motion and effect of cockpit control
SC-F4	静态纵向稳定性/ Static Longitudinal Stability

SC-F6	静态航向和横向稳定性/ Static Directional and Lateral Stability
SC-F7	飞行包线保护/ Flight Envelope Protection
SC-F8	正常载荷因子限制/ Normal Load Factor Limiting
SC-F9	双套操纵系统/ Dual Control System
SC-A.2.2.2	设计机动要求/Design manoeuvre requirement
SC-S11	限制操纵力和扭矩 Limit pilot forces and torques
SC-S33	自动推力系统/auto-thrust system
SC-S52	无正常电力运行/operation without normal electrical power
SC-S74	非正常姿态/abnormal attitudes
SC-S75	闪电防护的间接影响/lightning protection indirect effects
SC-S77	控制信号完整性/integrity of control signal
HC-A4.6	速度控制装置/speed control device
HC-S23	备用地平仪/standby gyroscopic horizon
HC-S24	VMO/MMO 告警 (设定)/VMO/MMO warning (setting)
HC-S72	飞行记录器/flight recorder
EC-G11	一般定义/general definition
EC-S30	自动飞行系统/autoflight system
EC-S54	线路保护装置/circuit protective devices

5.2 以下 A319 的专用条件也用于 A318 / The following A319 Special Conditions, are kept for the A318

SC-A2	结构设计失速速度/stalling speeds for structural design
SC-F11	加速停止距离和相关性能,磨损刹车/accelerate-stop distances and relates performances, worn brakes
SC-A1	系统和结构和交互作用/interaction of systems and structure
SC-P1	全权数字式电子控制/FADEC for CFM56 and AMJ20X-1 change 14 for PW6000
SC-S79	刹车要求, 资质和试验/brakes requirements, qualification and testing

5.3 以下 A319/A320/A321 的专用条件也用于 A318 / The following A319/A320/A321 Special Conditions, are kept for the A318

SC-S76-1	外部辐射对飞机系统的影响 (被 CRI SE 14 修改) / Effect of external radiations upon aircraft systems (modified by CRI SE14)
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5.4 为 A318 制定的专用条件 / The following Special Conditions are developed for the A318:

SC-F5001	失速和预期使用速度/Stalling and scheduled operation speed
SC-F5004	静态纵向稳定性和低能告警/Static longitudinal stability and low energy awareness
SC-A5001	发动机故障载荷(仅 PW 发动机)/Engine Failure Loads (PW engine only)
SC-A5003	设计俯冲速度/Design Dive Speed
SC-P5004	发动机持续不平衡(仅 PW 发动机)/Engine Sustained Imbalance (PW engine only)
SC-SE5002	飞机飞行手册 - RVR 限制/AFM - RVR limits

5.5 在证后型号合格审定过程中, 制定了下述专用条件:

The following special conditions have been developed post Type Certification:

SC H-01	飞机系统的提高适航大纲—关于 EWIS 的 ICA (自 2010 年 5 月起生效) / Enhanced Airworthiness Programme for Aeroplane
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	Systems - ICA on EWIS (applicable from May 2010)
SC E-34	带有充气安全带的座椅 / Seat with inflatable restraints
SC E-13	充气安全带的安装(选装) / Installation of inflatable restraints (optional)
SC D-0306	座椅材料的热释放和烟雾浓度要求(自 2010 年 6 月起生效) / Heat release and smoke density requirements to seat material (applicable from June 2010)
SC P-27	可燃性降低系统/ Flammability Reduction System 如果满足, 则 2012 年 1 月 1 日后首次飞行的航空器的中央油箱必须在生产线上安装油箱可燃性降低系统 (MOD 38062)。带有 MOD 38062 后, 该系统必须保持安装和可用状态, 并且仅能根据 MMEL 改版中的条款在不能工作状态下派遣。如果在 A318、A319、A320 或者 A321 飞机上安装了 MOD 38062 (油箱惰性系统(FTIS)), 则飞机满足 25-102 修正案水平的 25.981(a)和(b)的 FR 段、25-125 修正案水平的 25 部附录 M 和 N、以及 26-3 修正案水平的 26.33 条。 / If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (modification 38062). This system shall remain installed and operative and can only be dispatched inoperative in accordance with the provisions of the MMEL revision associated with modification 38062. If modification 38062 (Fuel Tank Inerting System (FTIS)) is embodied on A318, A319, A320, or A321 airplanes, the airplane is compliant with paragraph FR Section 25.981(a) & (b) at amendment 25-102, Part 25 appendix M & N at amendment 25-125, and Section 26.33 at amendment 26-3.
SC F5011	快速进近 / Steep approach

6. 豁免 / Exemptions

没有豁免 / No exemptions

7. 偏离 / Deviations

无 / None

8. 等效安全 / Equivalent safety findings

8.1 下述条款通过等效安全的方式来满足, 记录在相关 CRI 中:

The following paragraphs have been complied with through equivalent safety demonstrations granted, as documented in relevant CRIs:

JAR 25.783(f)	门(见 A319 CRI SM 4004 “旅客舱门”)/related to "Doors (see A319 CRI SM 4004 "passenger doors")
JAR 25.807(d)	旅客应急出口(见 CRI E 5004 “出口构形”, 类似 A319 CRI E 4001) /related to "Passenger emergency exits" (see CRI E 5004 "Exit configuration" similar to A319 CRI E 4001)
JAR 25.813(c)(1)	应急出口通道(见 CRI E5005 “翼上 III 型出口通道”) /related to "Emergency exit access" (see CRI E 5005 "Type III overwing emergency exit access")
JAR 25.831(a)	通风(见 CRI E5006 “Packs Off 操作”)/related to "Ventilation" (see CRI E 5006 "Packs Off Operation")
JAR 25.933(a)(1)	回复系统(见 A319 CRI P 4008 “反推自动装载”)/related to "Reversing systems" (see A319 CRI P 4008 "Thrust Reverser Auto restow")

JAR AWO 313	最低进近中止高度(见 A319 CRI SE 4005 “最低进近中止高度”) /related to "Minimum Approach Break-Off Height") (see A319 CRI SE 4005 "Minimum Approach Break-Off Height")
JAR AWO 236	过度偏离告警(见 CRI SE 5005 “三类运行 - 过渡偏离告警”)/related to "Excess Deviation Alerts" (see CRI SE 5005 "Cat III Operation - Excess Deviation Alert")
NPA AWO 10	第 2 号适航协调包(see CRI SE-5002 “飞机飞行手册 - RVR 限制”)/related to “ Airworthiness Harmonization package n° 2” (see CRI SE-5002 “AFM - RVR limits”)

8.2 在证后型号合格审定过程中, 制定了下述等效安全:

The following Equivalent Safety Findings have been developed post Type Certification:

FAR 25.856(b)	舱内区域的机身烧穿保护(参见 CRI E-32), 如果在生产线上 A318、A319、A320 或者 A321 飞机实施了 MOD 150700 和 37270 (仅带有 CLS 选项)、37048 和 36985, 飞机满足机身火焰穿透“烧穿”要求, 即 25-111 修正案水平的 14 CFR Part 25.856(b) (参见 CRI E-18) Fuselage burnthrough protection in bilge area (see CRI E-32), see note below If modifications 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration “Burnthrough” requirements addressed by paragraph 14 CFR Part 25.856(b) Amdt 25-111(See CRI E-28).
14CFR Part 25.856(a)	针对绝缘材料的提高的阻燃性标准 (CRI E18) Improved flammability standards for insulation materials (CRI E18)
JAR 25.812(b)(1)(ii)	光致发光出口标志(可拆除的舱位分离装置) (CRI E14) (可选构型) Photo-luminescent EXIT sign for MCD (Moveable Class Divider) (CRI E14) (optional)
JAR 25.811(f)	应急出口标志反射率(CRI E16) Emergency exit marking reflectance (CRI E16)
JAR 25.812(b)(1)(i)(ii)	对于客运航空器, 图形化出口标志作为红色出口标志的替代(CRI SE-42) (可选构型) Symbolic EXIT signs as an alternative to red EXIT signs for passenger aircraft (CRI SE-42) (optional)

9. 环保标准 / Environmental Protection Standards

国际民航组织附件 16 / ICAO Annex 16

Vol. I Part II	噪声要求 / Noise Requirements
Vol. II Part II	燃油排放 / Fuel Venting
Vol. II Part III Chapter 2	排气排出物 / Emissions

注释: 进一步的细节在 TCDSN EASA.A.064 中定义。

Notes: Further details are defined within TCDSN EASA.A.064

10. ETOPS

当其构型、维护和运行符合当前版次的《ETOPS 构型、维护和程序(CMP)》文件 SA/EASA: AMC 20-6/CMP 的要求时, A318 型别的型号设计、系统可靠性和性能有能力进行延程运行 (ETOPS)。

The Type Design, system reliability and performance of A318 models were found capable for

Extended Range Operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, SA/EASA: AMC 20-6/CMP.

此处不构成进行延程运行（ETOPS）的批准（必须从相关当局获得运行批准）。

This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

下表提供 ETOPS 批准的详细内容

The following table provides details on the ETOPS approvals.

航空器型号 /Aircraft Model	发动机型号/Engine Type	120 分钟批准的日期 /120 Min Approval Date	180 分钟批准的日期 /180 Min Approval Date
A318-111	CFM56-5B8	N/A	06 November 2006
A318-112	CFM56-5B9	N/A	06 November 2006
A318-121	PW6122A	N/A	16 November 2010
A318-122	PW6124A	N/A	16 November 2010

注释 / Note:

双方飞机延程运行的构型、维护和程序标准包含在 ETOPS CMP 文件参考最新版次的 SA/EASA: AMC 20-6/CMP 中。经审定的型别为所有适用发动机的 A318-111/-112/-121/-122

The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in ETOPS CMP document reference SA/EASA: AMC 20-6/CMP at latest applicable revision. Certificated models are A318-111/-112/-121/-122, with all applicable engines.

实施改装 / Embodiment of modification:

36666 提供 EASA 批准的 120 分钟 ETOPS 能力 / 36666 provides ETOPS 120 mn capability for EASA

32009TIGONG EASA 批准的 180 分钟 ETOPS 能力 / 32009 provides ETOPS 180 mn capability for EASA

11. 认可审定基础 / Validation Basis

中国民用航空局接受审定当局的审定基础作为认可审定基础。

CAAC accepts the Certification Basis of Certification Authority as the Validation Basis.

III. 技术特性和运行限制 / Technical Characteristics and Operational Limitations

1. 型号设计定义 / Type Design Definition

1.1 合格审定型别: / Certificated models: A318-111

下述文件定义相应飞机 / Definition of reference airplane by doc: D03006056 (00P000A0111/C21)

1.2 合格审定型别 / Certificated models: A318-112

下述文件定义相应飞机 / Definition of reference airplane by doc: D03006716 (00P000A0112/C21)

1.3 合格审定型别 / Certificated models: A318-121

下述文件定义相应飞机 / Definition of reference airplane by doc: D05028326 (00P000A0121/C21)

1.4 合格审定型别 / Certificated models: A318-122

下述文件定义相应飞机 / Definition of reference airplane by doc: D05028327 (00P000A0122/C21)

2. 描述 / Description

两台涡轮风扇发动机、中短程、单通道的运输类飞机。

Twin turbo-fan, short to medium range, single aisle, transport category airplane.

3. 设备 / Equipment

不适用 / Not applicable.

客舱设施、设备及布置符合下述规范:

Cabin furnishings, equipment and arrangement shall be in conformance to the following specifications :

- 00D252K0004/C01 加上 / plus 00D 252 K 0030/C01 客舱座椅/for cabin seats
- 00D252K0019/C01 厨房/for galleys.

4. 尺寸/Dimensions

A318 飞机的主要尺寸/Principal dimensions of A318 Aircraft

- | | |
|---|---------|
| - 机长/Length: | 31,45 m |
| - 翼展/Width: | 34,10 m |
| - 机高/Height: | 11,79 m |
| - 水平安定面宽度/Width at horizontal stabilizer: | 12,45 m |
| - 机身直径/Outside fuselage diameter: | 3,95 m |
| - 发动机轴间距/Distance between engines axis: | 11,51 m |
| - 主起间距/Distance between main landing gear: | 7,59 m |
| - 前/主起间距/Distance between nose and main landing gear: | 11,04 m |

5. 发动机 / Engines

安装在航空器型别上的发动机如下所述。对于常用名称和审定名称以及新发动机的构型变化，参见注释。

The list below lists the basic engines fitted on the aircraft models. The notes describe usual names and certified names as well as new engines variants.

A318-111

2 台 CFMI 发动机 / Two CFMI:
CFM56-5B8/P (MOD32028)

A318-112

2 台 CFMI 发动机 / Two CFMI:
CFM56-5B9/P (MOD32029)

A318-121

2 台 PW 发动机 / Two PW:
PW 6122A (MOD 30034)

A318-122

2 台 PW 发动机 / Two PW:
PW 6124A (MOD 31882)

注释 / Notes:

- 1 通过纳入改装包 37147 可以引入 CFM56-5Bx/3 “Tech Insertion” 发动机。该改装包仅适用于 CFM56-5Bx /P SAC 发动机。 / Introduction of CFM56-5Bx/3 “Tech Insertion”

engine is done through embodiment of modification 37147. This modification is only applicable on CFM56-5Bx /P SAC engines.

如果对 CFM-5B 发动机纳入改装包 37147, 则发动机后缀增加/3。/ If modification 37147 is embodied on models with CFM-5B engines, the engine denomination changes to /3.

本改装包适用于下述型别: / The modification is currently applicable for:

A318-111: CFM 56-5B8 (SAC) 更改为/ which changes to CFM 56-5B8/3

A318-112: CFM 56-5B9 (SAC) 更改为/ which changes to CFM 56-5B9/3

如表 4.2.13.1a)所述的发动机特性没有变化。/ The engine characteristics as per table 4.2.13.1a) remain unchanged.

已经证明改装包 37147 对之前审定的噪声等级没有影响。/ Modification 37147 has been demonstrated as having no impact on previously certified noise levels.

如改装包 38573 所述, CFM56-5Bx/3 发动机可以与 CFM56-5Bx/P 混装。/ CFM56-5Bx/3 engine can be intermixed with CFM56-5Bx/P engine under considerations as prescribes in modification 38573.

6. 辅助动力装置 / Auxiliary Power Unit

1. 基本型 / Basic

A318-111/-112

HONEYWELL AIRESEARCH GTCP 36-300 (A) (规范 / Specification 31-5306 B)

批准的滑油 / Approved oil: 参见 GARRETT 报告 GT. 7800 / See Garrett report GT 7800.

A318-121/-122

APIC 公司 APS 3200 (规范 No. ESR 0802, A 版)。

APIC APS 3200 (Specification ESR 0802, Rev. A).

APIC 公司 APU 的安装由改装包 35864 定义。

The APU APIC installation is defined by MOD 35864.

2. 选装型 / Option

A318-111/-112

APIC 公司 APS 3200 (规范 No. ESR 0802, A 版)。

APIC APS 3200 (Specification ESR 0802, Rev. A).

APIC 公司 APU 的安装由改装包 35864 定义。

The APU APIC installation is defined by MOD 35864.

或者 / or

APU GARRETT

GARRETT 公司, 型号 GTCP 36-300(A)。

GARRETT AIRESEARCH GTCP 36-300 (A).

(规范 No.31-5306B /Specification 31-5306B)

批准的滑油: 参见 GARRETT 报告 GT. 7800

Approved oils: see GARRETT REPORT GT. 7800

AlliedSignal 公司 131-9[A] (规范 No. 4900 M1E 03 19 01)。
 AlliedSignal 131-9[A] (Specification 4900 M1E 03 19 01)。
 AlliedSignal 公司 APU 的安装由改装包(MOD 25888)定义。
 The APU AlliedSignal installation is defined by MOD 25888.
 批准的滑油:依照 31-12048A-3A 规范的型号。
 Approved oils : according to Model Specification 31-12048A-3A.

A318-121/-122

AlliedSignal 公司 131-9[A] (规范 No. 4900 M1E 03 19 01)。
 AlliedSignal 131-9[A] (Specification 4900 M1E 03 19 01)。
 AlliedSignal 公司 APU 的安装由改装包(MOD 25888)定义。
 The APU AlliedSignal installation is defined by MOD 25888.
 批准的滑油:依照 31-12048A-3A 规范的型号。
 Approved oils : according to Model Specification 31-12048A-3A.

注释: A318 型飞机, APIC 公司 APU (APS 3200) (改装包 MOD 35864)是自 MSN 2686 开始的生产标准。

Note: for A318 models, the APU APIC APS 3200 (Mod 35864) is the production standard from MSN 2686

7. 螺旋桨 / Propellers

不适用 / N/A

8. 液体 (燃油、滑油、添加剂、液压油) / Fluids (Fuel, Oil, Additives, Hydraulics)

燃油 / Fuel

燃油规范 / Fuel Specification:

参见安装手册:CFM 2026 或者 PWA-7707。/ See installation manual: document CFM 2026 or PWA-7707.

牌号/ TYPE	规范/SPECIFICATION (NAME)				
	法国/FRANCE	美国/USA	英国/UK	俄国/RUSSIA	中国/ CHINA
煤油/ Kerosene	DCSEA 134	ASTM D 1655 (JET A) (JET A1)	DEF STAN 91/91 (AVTUR) (JET A1)		GB 6537-2006 N°3 JET
		MIL - T -83133 (JP 8)	DEF STAN 91/87 (AVTUR) (JET A1)(AIA)		
宽硫分/ Wide cut *		ASTM D 1655 (JET B)	DEF STAN 91/88 (AVTAG)		
		MIL - T 5624 (JP 4)			
高闪点/ High flash point	DCSEA 144/A (F-44) (XF-43)	MIL - T 5624 (JP 5)	DEF STAN 91/86 (AVCAT)		

* 仅针对CFM发动机审定了宽硫分/ Wide cut is only certified for CFM engines

滑油 / Oil

对于滑油规范: / For oil specification:

发动机 Engine	CFM56-5B5/P CFM56-5B6/P CFM56-5A1 CFM56-5A1/F CFM56-5A3	IAE V2500-A1 IAE V2527-A5 IAE V2527E-A5
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	CFM56-5B4 CFM56-5B4/2	
经批准的滑油 Approved Oils	SB CFMI 79-001	See doc IAE 0043 Sect 4.9 (MIL-L-23699)

添加剂/Additives:

对于 CIS 燃油添加剂, 参见空客公司耗材清单(CML)和 CFM 公司服务通告 SB 73-0122 或者 PW 公司服务通告 SB 2016

Refer to Airbus Consumable Material List (CML) and CFM SB 73-0122 or PW SB 2016 for CIS fuel additives

上述燃油和添加剂也适用于辅助动力装置。

The above-mentioned fuels and additives are also suitable for the APU.

液压油 / Hydraulics

液压油 / Hydraulic fluids: Type IV - Specification NSA 30.7110

9. 燃油量 / Fuel Quantity

燃油量 / Fuel Quantity (0.8kg/liter)

A318-100 series (不带有 / without MOD 160001)

油箱/TANK	3 油箱飞机 / 3 TANK AIRPLANE	
	可用燃油 升 (公斤) / Usable fuelliters (kg)	不可用燃油 升 (公斤) / Unusable fuel liters (kg)
机翼/WING	15 609 (12 487)	58.9 (47.1)
中央/CENTER	8 250 (6 600)	23.2 (18.6)
总计/TOTAL	23 859 (19 087)	82.1 (65.7)

A318-100 series (带有 / with MOD 37331 但不带有 / and without MOD 160001)

油箱/TANK	3 油箱飞机 / 3 TANK AIRPLANE	
	可用燃油 升 (公斤) / Usable fuelliters (kg)	不可用燃油 升 (公斤) / Unusable fuel liters (kg)
机翼/WING	15 959 (12 767)	58.9 (47.1)
中央/CENTER	8 250 (6 600)	23.2 (18.6)
总计/TOTAL	24 209 (19 367)	82.1 (65.7)

A318-100 series (不带有 / without MOD 37331 但带有 / and with MOD 160001)

油箱/TANK	3 油箱飞机 / 3 TANK AIRPLANE	
	可用燃油 升 (公斤) / Usable fuelliters (kg)	不可用燃油 升 (公斤) / Unusable fuel liters (kg)
机翼/WING	15 568 (12 454)	58.9 (47.1)
中央/CENTER	8 248 (6 598)	23.2 (18.6)

总计/TOTAL	24 209 (19 367)	82.1 (65.7)
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A318-100 series (带有 / with MOD 37331 并且带有 / and with MOD 160001)

油箱/TANK	3 油箱飞机 / 3 TANK AIRPLANE	
	可用燃油 升 (公斤) / Usable fuelliters (kg)	不可用燃油 升 (公斤) / Unusable fuel liters (kg)
机翼/WING	15 918 (12 734)	58.9 (47.1)
中央/CENTER	8 248 (6 598)	23.2 (18.6)
总计/TOTAL	24 166 (19 332)	82.1 (65.7)

10. 速度限制 (除非另有声明, 指示空速-IAS) / Limit speeds(Indicated Airspeed - IAS - unless otherwise stated)

最大使用马赫数 / Maximum Operating Mach 0.82
(MMO):

最大使用速度 / Maximum Operating Speed (VMO): 350 kt

机动速度 / Maneuvering Speed VA VA:

参见EASA批准的飞行手册的限制章节
see Limitations Section of the EASA
approved Flight Manual

襟翼/缝翼展态速度 / Extended Flaps/ Slats Speed
(VFE)

见下表 / see table below

构型 / Configuration	缝翼/襟翼/ Slats/Flaps (°)	VFE (kt)	
1	18/0	230	中间进场/Intermediate approach
	18/10 *	215	起飞/Take-off
2	22/15	200	起飞和近场/Take-off and approach
3	22/20	185	起飞、近场、着陆/Take-off, approach, landing
全放/Full	27/35	177	着陆/Landing

* 起飞构形中, 210 节襟翼自动收回

Auto flap retraction at 210 kt in take-off configuration

起落架/ Landing gear :

VLE – 展开/Extended:

280 kt/ Mach 0.67

VLO – 展开/Extension:

250 kt

收回/Retraction:

220 kt

轮胎限制速度(地面速度) / Tyres limit speed (ground speed)

195.5 kt (225 mph)

11. 飞行包线 / Flight Envelope

最大使用高度/ Maximum operating altitude

39 100 (英尺/ft) (压力高度/pressure altitude)

41 100 (英尺/ft) (压力高度/pressure altitude)

如果实施改装包 39195 (仅适用于
A318-111/-112 型别)if modification 39195 is
embodied (models A318-111/-112 only)

12. 运行限制 / Operating Limitations

参见适用的 EASA 批准的飞机飞行手册
See the appropriate EASA approved Airplane Flight Manual

动力装置 (2.2482 磅/daN) / Powerplant (2.2482 lb/daN)

CFMI 发动机 / Engines

发动机/Engine	CFMI	
	CFM56-5B8/P	CFM56-5B9/P
数据单/ Data sheets	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)	E37NE (FAA) E38NE (FAA) M-17 (DGAC) M-IM28 (DGAC)
海平面静止推力/Static thrust at sea level		
起飞(5分钟)(统一额定30℃)/ Take-off (5 min)* (Flat rated 30℃)	9 608 daN (21 600 lbs)	10 364 daN (23 300 lbs)
最大连续(统一额定25℃)/ Maximum continuous (Flat rated 25℃)	8478 daN (19060 lbs)	9 008 daN (20 250 lbs)
批准的滑油:/Approved Oils: SB CFMI 79-001-OX		

* 假如在起飞和地面滑行期间发动机故障，依据法国民航局颁发的“发动机型号合格证数据单”，仅允许起飞推力状态工作 10 分钟。
10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around) in accordance with DGAC "Fiche de Caractéristiques Moteur".

PW 发动机 / Engines

发动机/Engine	PW 6000	
	PW6122A	PW6124A
数据单/ Data sheets	IM.E.020 (EASA) E00064EN (FAA)	IM.E.020 (EASA) E00064EN (FAA)
海平面静止推力/Static thrust at sea level		
起飞(5分钟)(统一额定30℃)/ Take-off (5 min)* (Flat rated 30℃)	9 830 daN (22 100 lbs)	10 587 daN (23 800 lbs)

最大连续(统一额定 25℃)/ Maximum continuous (Flat rated 25℃)	9 030 daN (20 300 lbs)	9 297 daN (20 900 lbs)
批准的滑油:/Approved Oils: PW SB 238		

一发不工作,5 分钟可延至 10 分钟。/ 5 min TO time limit can be extended to 10 min for one engine inoperative.

其它发动机限制: 见相应发动机型号合格证数据单。

Other engine limitations : see the relevant Engine Type Certificate Data Sheet.

12.1 经批准的运行 / Approved Operations

运输商业运行 / Transport commercial operations

12.2 其它限制 / Other limitations

完整的适用限制参见适用的 EASA 批准的飞机飞行手册。

For a complete list of applicable limitations see the appropriate EASA approved Airplane Flight Manual

13. 最大审定质量 / Maximum Certified Masses

变化/VARIANT	000 BASIC	001 MOD 31672	002 MOD 31673	003 MOD 31674	004 MOD 31675
最大滑行重量/ Max. Ramp Weight	59 400	61 900	63 400	64 900	66 400
最大起飞重量/ Max. take-off weight	59 000	61 500	63 000	64 500	66 000
最大着陆重量/ Max. landing weight	56 000	56 000	57 500	57 500	57 500
最大零燃油重量/ Max. zero fuel weight	53 000	53 000	54 500	54 500	54 500
最小重量/Minimum weight	34 500	34 500	34 500	34 500	34 500

变化/VARIANT	005 MOD 31676	006 MOD 33235	007 MOD 33126	008 MOD 33128
最大滑行重量/ Max. Ramp Weight	68 400	56 400	61 400	64 400
最大起飞重量/ Max. take-off weight	68 000	56 000	61 000	64 000
最大着陆重量/ Max. landing weight	57 500	56 000	56 000	56 000
最大零燃油重量/ Max. zero fuel weight	54 500	53 000	53 000	53 000
最小重量/Minimum weight	34 500	34 500	34 500	34 500

14. 重心范围 / Center of gravity range

见经批准的飞机飞行手册。/ See approved Airplane Flight Manual.

15. 基准 / Datum

0.0 站位, 位于飞机机头前方 2.540 米
Station 0.0, located 2.540 meters forward of airplane nose

16. 平均气动弦 / Mean Aerodynamic Chord (MAC)

4.1935 米 / meters

17. 水平方法 / Levelling Means

飞机可从 3 个主顶起点顶起。 / The A/C can be jacked on three primary jacking points.
参见适用的 EASA 批准的重量和平衡手册
See the appropriate EASA approved Weight and Balance Manual

18. 最小飞行机组 / Minimum Flight Crew

2 位驾驶员/pilots

19. 最大乘员座位数 / Maximum number of passengers seats

136

注释 / Note:

1. 通过实施改装包 37807 可以去除左侧和右侧后登机门功能。在该情况下, 最大乘客数为 80。 / The LH & RH rear passenger doors can be de-activated by embodiment of modification 37807. In this case, the maximum number of passengers is 80.

2. III 型应急出口可以通过实施改装包 39673 来去除。在该情况下, 陆上运行时的最大乘客数为 110 人, 水上运行时的最大乘员数为 32 人。 / The Type III emergency exit can be de-activated by embodiment of modification 39673. In this case, the maximum number of passengers is 110 when operating overland and 32 when operating overwater.

20. 行李舱/货舱 / Baggage / Cargo compartment

货舱/ CARGO COMPARTMENT	最大载荷/ MAXIMUM LOAD (kg)
前/Forward	1 614
后/Aft	2 131
尾/Rear (散装/bulk)	1 372

对于位置和条件, 每一批准位置(容量、货盘和关联重量)见重量平衡手册(文件编号: 00D080A0001/C1S) 1.10 章节。 / For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights) see Weight and Balance Manual, ref. 00D080A0001/C1S Chapter 1.10.

21. 机轮和轮胎 / Wheels and Tyres

见服务通告 SB A320-32-1007。 / See SB A320-32-1007.

IV. 运行和服务指令 / Operating and Service Instructions

1. 飞机飞行手册 / Airplane Flight Manual (AFM)

EASA 批准的 A318 飞机飞行手册
EASA Approved Airplane Flight Manual for A318.

2. 持续适航文件和适航性限制**Instructions for Continued Airworthiness and Airworthiness Limitations**

适航性限制 / Airworthiness Limitations

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的子分部 1-2 和 1-3 章节中, 提供了适用的安全寿命适航性限制项目。/ Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3 approved by the EASA .

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 2 分部中, 提供了适用的损伤容限限制项目。
Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Items document (ALS Part 2) approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 3 分部中, 提供了合格审定维修要求项目。
Certification Maintenance Requirements are provided in A318/A319/A320/A321 ALS Part 3 - CMR (Certification Maintenance Requirements) approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 4 分部中, 提供了老龄系统维修 (ASM) 限制。
Ageing Systems Maintenance (ASM) limitations are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 4 approved by the EASA.

- 欧洲航空安全局批准的《A318/A319/A320/A321 型飞机适航性限制(ALS)》的第 5 分部中, 提供了燃油适航性限制。
Fuel Airworthiness Limitations are provided in A318/A319/A320/A321 Fuel Airworthiness Limitations document (ALS Part 5) approved by the EASA.

其他限制 / Other limitations

参见 EASA 批准的飞行手册。 / See EASA approved Flight Manual.

3. 重量和平衡手册 / Weight and Balance Manual (WBM)

空客符合性文件 / Airbus Compliance Document 00D80A0001/C1S

V. 注释 / Notes

所有型别本身就具有三类 B 级精确进近资质。
All models are basically qualified for Cat IIIB precision approach.

- 结束 / END -