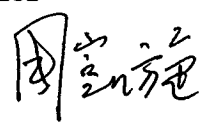


型号认可证数据单

THE VALIDATION DATA SHEET

编号/No: VTC 0099A
 版次/Revision: 1
 型号/Type:
 A318-111 A319-132 A320-233
 A318-112 A319-133
 A318-121 A321-111
 A318-122 A320-111 A321-112
 A320-211 A321-131
 A319-111 A320-212 A321-211
 A319-112 A320-214 A321-212
 A319-113 A320-215 A321-213
 A319-114 A320-216 A321-231
 A319-115 A320-231 A321-232
 A319-131 A320-232

批准人/Approved By: 

日期/Date: 2007. 12. 04

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总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.

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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中国民用航空总局
GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA

1. A320 系列 / A320 SERIES

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

1.1 A320-100 系列 / A320-100 SERIES

1.1.1 型别定义 / MODEL DEFINITION

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 documents

A320-111 : AI/EA-A 414.197/87

1.1.2 发动机 / Engines

2 台 CFMI 涡轮喷气发动机, 型号为: / Two CFMI turbo jet engines, models:

A320-111: CFMI-CFM56-5A1 (MOD20141) or CFM56-5A1/F (MOD23755).

1.1.3 重量限制 / Weight limits (kg)

变量/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

1.2 A320-200 系列 / A320-200 SERIES

1.2.1 型别定义 / Model definition

合格审定型别: / Certificated models : A320-211, A320-212, A320-215, A320-216, A320-231, A320-232, A320-233.

下述文件定义相应飞机 / Definition of reference airplane by documents

A320-211 : AI/EA-A 413.630/88

A320-212 : AI/EA-A 412.1589/90(00D000A0004/C0S)

A320-214 : AI/EA-S 413.0150/95(00D000A0006/C21)

A320-215 : D00D06006382 (00D000A0215/C21)

A320-216 : D00D06011383 (00D000A0216/C21)

A320-231 : AI/EA-A 414.310/88

A320-232 : AI/EA-A 414.0502/93(00D000A0005/C21)

A320-233 : AI/EA-S 413.1984/95(00D000A0007/C21)

1.2.2 发动机 / Engines

2 台 CFMI 涡轮喷气发动机, 型号为: / Two CFMI turbo jet engines, Model:

A320-211 : CFM56-5A1 (MOD20141) or CFM56-5A1/F (MOD23755).

A320-212 : CFM56-5A3 (MOD22093)

A320-214 : CFM56-5B4 (Mod 24251) or CFM56-5B4/2 (MOD24405).

其它动力装置可能性见注释 1.4.11 和 1.4.12./Other power plant possibility :
see also note 1.4.11 and 1.4.12.

A320-215 : CFM56-5B5/P (MOD25800)

A320-216 : CFM56-5B6/P (MOD5800)

2 台 IAE 涡轮喷气发动机, 型号为: / Two IAE turbo jet engines, Model:

A320-231 : V2500-A1 (MOD20165)

A320-232 : V2527-A5 (MOD23008)

A320-233 : V2527-A5 (MOD25068)

1.2.3 重量限制/ Weight limits (kg)

型号/ Model: A320-211, A320-212, A320-214, 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)	/
最大滑行重量/ Max. rampweight	66 400	77 400	73 900	75 900	77 400	/
最大起飞重量/ Max. take-off weight	66 000	77 000	73 500	75 500	77 000	/
最大着陆重量/ Max. landing weight	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	61 000	61 000	61 000	/
最小重量/ Minimum weight	37 230	37 230	37 230	37 230	37 230	/

型号/ Model: A320-215, A320-216.

变化/VARIANT	000 (BASIC) (MOD 20802)	001 (MOD 20966)	002 (MOD 21601)	003 (MOD 22269)	008 (MOD 23900)	009 (MOD 23900 & 22269)
最大滑行重量/ Max. rampweight	73 900	68 400	70 400	75 900	73 900	75 900
最大起飞重量/ Max. take-off weight	73 500	68 000	70 000	75 500	73 500	75 500
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	61 000	61 000
最小重量/ Minimum weight	37 230	37 230	37 230	37 230	37 230	37 230

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

型号/ Model: A320-232, A320-233.

变化/VARIANT	000 (BASIC) (MOD 20802)	001 (MOD 20966)	002 (MOD 21601)	003 (MOD 22269)	007 (MOD 23264)	008 (MOD 23900)
最大滑行重量/Max. rampweight	73 900	68 400	70 400	75 900	77 400	73 900
最大起飞重量/Max. take-off weight	73 500	68 000	70 000	75 500	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
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 (MOD 23900 & 22269)	010 (MOD 23900 & 23264)	011 (MOD 30307)	012 (MOD 30479)	013 (MOD 31132)	014 (MOD 31385)
最大滑行重量/Max. rampweight	75 900	77 400	75 900	77 400	71 900	73 900
最大起飞重量/Max. take-off weight	75 500	77 000	75 500	77 000	71 500	73 500
最大着陆重量/ Max. landing weight	64 500	64 500	66 000	66 000	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
最小重量/Minimum weight	37230	37230	37 230	37 230	37 230	37 230
变化/VARIANT	015 (MOD 34047)	016 (MOD 34094)	/	/	/	/
最大滑行重量/Max. rampweight	78 400	73 900	/	/	/	/
最大起飞重量/Max. take-off weight	78 000	73 500	/	/	/	/
最大着陆重量/ Max. landing weight	64 500	66 000	/	/	/	/
最大零燃油重量/ Max. zero fuel weight	61 000	62 500	/	/	/	/
最小重量/Minimum weight	37 230	37 230	/	/	/	/

1.3 A320 系列飞机相关数据 / DATA PERTINENT TO ALL A320 SERIES**1.3.1. 合格审定 / Certification****1.3.1.1 日期 / Date****a) 合格审定日期 / Certification dates:**

A320-111: 1988年2月26日/February 26, 1988
A320-211: 1988年11月8日/November 08, 1988
A320-231: 1989年4月20日/April 20, 1989
A320-212: 1990年11月20日/November 20, 1990
A320-232: 1993年9月28日/September 28, 1993
A320-214: 1995年3月10日/March 10, 1995
A320-233: 1996年6月12日/June 12, 1996
A320-215: 2006年6月22日/June 22, 2006
A320-216: 2006年6月14日/June 14, 2006

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.

b) 认可审定日期 / Validation dates:

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可证(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.

1.3.1.2 认可审定基础 / Validation Basis

中国民用航空总局接受法国民用航空局的合格审定基础作为认可审定基础: / CAAC accepts the Certification Basis of DGAC as the Validation Basis:

法国民用航空局的合格审定基础 / Certification Basis of DGAC

介绍注释/ Introducing note

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案。/ 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.

a) 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.

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, 记录关于国家变化方面的共同的理解。由于 FAA/JAA 协调条例一致, 这点不应困惑。/ 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)

b1) 第 007 号重量变化及其后变化和所有新型别飞机(包括 A320-232), 前面 a 节定义的联合航空条例 JAR 25 段落修订如下, 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) |

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./ The following A320 Special Conditions and Interpretative Materials are deleted by application of JAR 25 amendment 91/1 :

IM-A3.8 离散阵风载荷/ Discrete gust loads.

SC/AMC-A4.3 调谐阵风载荷/ Tuned gust loads.

HC-A4.4 机动载荷-高升力装置展开/ Manoeuvre loads with high lift devices deployed.

b2) 对于 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 A 320-200 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).

c) 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), 及该要求满足 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).

d) 对于 A320-233 和安装 OCTOPUS 飞机飞行手册 (见 CRI F2013) 的所有 A320-200 飞机, 前面 a) 和 b) 中定义的 JAR 25 段落修订为选取符合专用条件 SC-F11 和 SC-S79。/ For A320-233 and all A320-200 with OCTOPUS AFM (see CRI F2013), the JAR 25 paragraphs defined in 3.1 a) and b) above are modified following the Elect-to-comply with SC-F11 and SC-S79.

联合航空条例的第 11 次修改删除了下述段落:/ The following JAR Change 11 paragraphs are deleted :

25x131 ; 25x132 ; 25x133 ; 25x135 ; 25x1588.

A320 系列飞机删除了下述协调条件:/ 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

下述联合航空条例已升级至第 13 次修改, 并由专用条件 SC-F11 和 SC-S79 修正/ The following JAR 25 paragraphs are upgraded at Change 13 and amended by SC-F11 and SC-S79 :

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

e) 至止 14,100 英尺高度的高高度机场的起飞和着陆, 创立了新的专用条件:/ For take off and landing operations at high altitude airports up to 14,100 ft pressure altitude, the following new Special Condition has been created :

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).

f) 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).

g) 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).

h) 豁免/Exemptions :

没有豁免/ None exemption.

i) 等效安全纪要/ Equivalent safety findings :

下述条款通过等效安全演示:/ 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 CRI SM 2004 and SM 2007)

- JAR 25.813 (c) 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).

j) 双发延程/ ETOPS

对于双发飞机的延程运行, 适用的技术条件包含在 CAP 513 ETOPS 文件中。/For the Extended Range Twin Engine Airplane Operations the applicable technical conditions are contained in CAP 513 ETOPS.

k) 联合航空条例 AWO 的第 1 次修改中, 关于低能见度情况下的自动着陆和运行要求/ JAR AWO Change 1 for autoland and operations in low visibility.

l) 国际民航组织附件 16:/ ICAO Annex 16 :

- 第 I 卷第 II 部第 3 章噪声要求(见注释 1.4.19)/Vol. I Part II Chapter 3 for Noise Requirements (see also note 1.4.19)
- 第 II 卷第 II 部燃油排放, 第 II 卷第 III 部第 2 章排污/Vol. II Part II for Fuel Venting, Vol. II Part III Chapter 2 for Emissions.

1.3.2 重心范围 / Center of gravity range

见法国民航局批准的飞行手册。/ See DGAC approved Airplane Flight Manual.

1.3.3 限制速度(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 (MMO): 0.82
- 最大使用速度/Maximum Operating Speed (VMO): 350 kt
- 机动速度 V_A : 见法国民航局批准的飞行手册的第 2.0 章/Maneuvering Speed V_A : see Chapter 2.0 of the DGAC approved Flight Manual
- 襟翼/缝翼展态速度(见下表)/Extended Flaps / Slats Speed (VFE): see table below.

构形/ 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)

1.3.4 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.

1.3.5 最小飞行机组 / Minimum Flight Crew

2 位驾驶员/pilots

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

180 .

见注释 1.4.15/ See also note 1.4.15

1.3.7 货舱载荷 / Cargo compartment loading

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.

1.3.8 燃油 / Fuel

1.3.8.1. 燃油规范/Fuel Specification

见安装手册: CFM 公司文件, No. 2026, 或IAE 公司文件, No. 0043。/See installation manual: document CFM 2026 or document IAE - 0043

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)	GOST 10227-86 (RT) (TS1)**	GB 6537-94 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)		

* JP4牌号燃油不适用于双环形燃烧室(DAC)发动机。/JP4 Fuel is not suitable for double annular combustor (DAC) engines.

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

添加剂/Additives: 见CFMI 公司《特殊使用说明书(No.CFM TPOI-13)》, 或IAE公司

《V2500型发动机安装和使用手册(No. IAE 0043)》的第/4.5章。/ See CFMI "Specific Operating Instructions", CFM TPOI-13, or IAE V2500 "Installation and Operating Manual" IAE 0043 Section 4.5.

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.

1.3.8.2. 燃油量 / Fuel Quantity (0.8kg/liter)

1.3.8.2. a) 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 fuelliters (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)	(196)
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)	

见注释 1.4.1. /See note 1.4.1.

1.3.8.2. b) A320-200系列 / A320-200 series

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 fuelliters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuelliters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuelliters (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)
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* 见注释1.4.13/See note 1.4.13

1.3.9 液压油 / Hydraulic fluids

牌号 IV - NSA 30.7110 规范。/Type IV - Specification NSA 30.7110.

1.3.10 辅助动力装置 / Auxiliary Power Unit (APU)

1.3.10.1. 加勒特 APU / APU GARRETT

加勒特公司, 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: 见加勒特报告 No. GT. 7800/Approved oils : see GARRETT REPORT GT. 7800

1.3.10.2. APIC 公司 APU(选装) / APU APIC (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.

1.3.10.3. 爱立信 APU(选装) / APU AlliedSignal (Option)

爱立信公司 APU 的安装由改装包 (MOD 25888) 定义。/The APU AlliedSignal installation is defined by MOD 25888.

爱立信公司文件 (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) 是源于 MSN 2645 的生产标准。/Note: for A320 models, the APU APIC APS 3200 (Mod 35864) is the production standard from MSN 2645

1.3.11 轮胎 / Tyres

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

1.3.12 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.

1.3.13 限制 / Limitations

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

发动机 /Engine	CFMI				
	CFM56-5B5/P	CFM56-5B6	CFM56-5A1 CFM56-5A1/F (**)	CFM56-5A3 CFM56-5A4/F	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 (23 600 lbs)	10 542 daN (23 600 lbs)	10 840 daN (23 370 lbs)
批准的滑油:/Approved Oils: SB CFMI 79-001-0X					

(**):见注释1.4.14常用名称和审定名称。/see note 1.4.14 for usual names and certified names.

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.

其它动力装置可能性: 亦见注释 1.4.11 和 1.4.12。/ Other power plant possibility : see also note 1.4.11 and 1.4.12.

1.3.13.2. 适航性限制 / Airworthiness Limitations

- 欧洲联合航空局批准的《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.

- 欧洲联合航空局批准的《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.

- 欧洲联合航空局批准的《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.

- 欧洲联合航空局批准的《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.

1.3.13.3. 其它限制 / Other limitations

见欧洲联合航空局批准的飞行手册。/ See EASA approved Flight Manual.

1.3.14 生产条件 / Production conditions

- 除了下面开列之外, A320飞机直到并包括制造序号MSN 0925架机, 均在法国民航局给位于法国 Blagnac 的AIRBUS INDUSTRIE 公司颁发的批准的生产许可证(No. 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.

- A320飞机, 生产序号为: MSN 0844, 0861, 0863, 0868, 0870, 0918, 和从并包括生产序号为: MSN 0927起的飞机, 在法国民航局给位于法国 Blagnac 的AIRBUS INDUSTRIE 公司颁发的批准的生产许可证(No. 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公司颁发的批准的生产许可证(No. 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.

1.4 A320 系列飞机相关注释 / NOTES PERTINENT TO ALL A320 SERIES

1.4.1 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.

- 1.4.2 如果实施改装包 20758, 则飞机具有三类 B 级精确进近资质。/If modification 20758 is embodied, the aircraft is qualified to Cat. III B precision approach.
- 1.4.3 纳入改装包 20139 装备四轮起落架的飞机, 最大起飞重量直到 73.5 吨。/Aircraft incorporating modification 20139 are equipped with a four wheel bogie landing gear (up to 73.5 T MTOW).
- 1.4.4 两发延程飞机运行的构形, 维修和程序标准包含在文件 (No. AI/EA 4000) 中。合格审定型号是 A320-111/-211/-212/-214/-231/-232/-233 型具有所有适用发动机的飞机。/The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations, is contained in the document AI/EA 4000. Certificated models are A320-111/-211/-212/-214/-231/-232/-233, with all applicable engines.
经 EASA 批准, 实施改装包 32009 的飞机提供 180 分钟的两发延程能力。/Embodiment of Modification 32009 provides ETOPS 180 mn capability for EASA.
- 1.4.5 A320-212 (CFM 56-5A3 发动机) 和 A320-111/-211 (CFM 56-5A1/F 发动机, 见注释 1.4.14 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 1.4.14 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℃.
- 1.4.6 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℃.
- 1.4.7 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° C.

- 1.4.8 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)(见注释 1.4.14 常用名称和审定名称)。/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).
- 1.4.9 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)(飞机飞行手册补充材料)。/A320-214 CFM 56-5B4 engine can be intermixed with CFM 56-5B4/2 engine (mod 24405) on the same aircraft (AFM supplement).
- 1.4.10 A320-111 型飞机制造系列序号限于 MSN 001 直到 MSN 021。/A320 - 111 aircraft serial numbers eligible are restricted from MSN 001 up to MSN 021.
- 1.4.11 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.
- 1.4.12 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).
- 1.4.13 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.
- 1.4.14 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.
- 1.4.15 实施改装包35177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。/The second Type III emergency exit can be de-activated by embodiment of modification 35177. In this case, the maximum number of passengers is 145.
- 1.4.16 A320-215型飞机实施改装包36297后变成了A320-214型飞机。/A320-215 model results of the embodiment of modification 36297 on A320-214 model.
- 1.4.17 A320-216型飞机实施改装包36311后变成了A320-214型飞机。//A320-216 model results of the embodiment of modification 36311 on A320-214 model.
- 1.4.18 机型转化/Model conversion:
- 如果在安装CFM56-5A3发动机的A320-212型飞机实施改装包34647, 则转化成安装CFM56-5A1发动机的A320-211型飞机。/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型飞机实施改装包35962, 则转化成安装CFM56-5A3发动机的A320-212型飞机。/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.
- 1.4.19 关于噪声, A320-215/-216型飞机基本符合ICAO 第4章要求。/ For noise, A320-215/-216 models are basically compliant with ICAO Chapter 4 requirement.
- 1.4.20 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
 - 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
 - 发动机间轴距/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

中国民用航空总局
GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA

2. A321 系列 / A321 SERIES

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

2.1 A321-100 系列 / A321-100 SERIES

2.1.1 型别定义 / MODEL DEFINITION

合格审定型别: / Certificated models: A321-111, A321-112, A321-131.

下述文件定义相应飞机 / Definition of reference airplane by documents

A321-111 : AI/EA-A 413.1063/94(00E000A0008/C21)

A321-112 : AI/EA-A 414.0118/94(00E000A0002/C11)

A321-131 : AI/EA-A 414.0900/93(00E000A0003/C21)

2.1.2 发动机 / Engines

2 台 CFMI 涡轮喷气发动机, 型号为: / Two CFMI turbo jet engines, Model:

A321-111 : CFM56-5B1 (MOD23083) or CFM56-5B1/2 (MOD24404).

其它动力装置可能性见注释 2.4.10 和 2.4.12. / Other power plant possibility, see note 2.4.10 and 2.4.12.

A321-112 : CFM56-5B2 (MOD23152)

其它动力装置可能性见注释 2.4.10. / Other power plant possibility, see note 2.4.10.

2 台 IAE 涡轮喷气发动机, 型号为: / Two IAE turbo jet engines, Model:

A321-131 : V2530-A5 (MOD22989)

2.1.3 设备 / Equipment

批准的装机设备开列: / Equipment approved for installation is listed :

A321-111: 《合格审定标准设备清单 (No. 00E000A0007/C1S)》中。 / in the Certification Standard Equipment List 00E000A0007/C1S.

A321-112: 《合格审定标准设备清单 (No. 00E000A0006/C1S)》中。 / in the Certification Standard Equipment List 00E000A0006/C1S.

A321-131: 《合格审定标准设备清单 (No. 00E000A0004/C0S)》中。 / in the Certification Standard Equipment List 00E000A0004/C0S.

2.1.4 重量限制 / Weight limits (kg)

型别/Model: 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

型别/Model: 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. landing weight	73 500	74 500	74 500	73 500	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	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

* 其它组建可能性见注释2.4.17。/See note 2.4.17 for other build-up possibility.

2.2 A321-200 系列 / A321-200 SERIES

2.2.1 型别定义 / Model definition

合格审定型别: / Certificated models : A321-211, A321-212, A321-213, A321-231, A321-232.

下述文件定义相应飞机 / Definition of reference airplane by documents

A321-211 : 413.0400/97 (00E000A0211/C21)

其它机型转化为A321-211机型见注释2.4.19。/See note 2.4.19 for model conversion into A321-211 model.

A321-212 : AI/EA-S 413.1359/01 (00E000A0212/C21)

其它机型转化为A321-212机型见注释2.4.19。/See note 2.4.19 for model conversion into A321-212 model.

A321-213 : AI/EA-S 413.1360/01 (00E000A0213/C21)

A321-231 : AI/EA-S 413.0388/97 (00E000A0231/C21)

其它机型转化为A321-231机型见注释2.4.19。/See note 2.4.19 for model conversion into A321-231 model.

A321-232 : AI/EA-S 413.1361/01 (00E000A0232/C21)

2.2.2 发动机 / Engines

2 台 CFMI 涡轮喷气发动机, 型号为: / Two CFMI turbo jet engines, Model:

A321-211 : CFM56-5B3/P (MOD26359+25800) or CFM56-5B3/2P (MOD27640).

其它动力装置可能性见注释2.4.10和2.4.12。/Other power plant possibility, see note 2.4.10 and 2.4.12.

A321-212 : CFM56-5B1 (MOD23083) or CFM56-5B1/2 (MOD24404).

其它动力装置可能性见注释2.4.10和2.4.12。/Other power plant possibility, see note 2.4.10 and 2.4.12.

A321-213 : CFM56-5B2 (MOD23152)

2 台 IAE 涡轮喷气发动机, 型号为: / Two IAE turbo jet engines, Model:

A321-231 : V2533-A5 (MOD25643)

A321-232 : V2530-A5 (MOD22989)

2.2.3 设备 / Equipment

批准的装机设备开列: / Equipment approved for installation is listed :

A321-211: 《合格审定标准设备清单 (No. 00E000A0211/COS)》中。/in the Certification Standard Equipment List 00E000A0211/COS.

A321-212: 《合格审定标准设备清单 (No. 00E000A0212/COS)》中。/in the Certification Standard Equipment List 00E000A0212/COS.

A321-213: 《合格审定标准设备清单 (No. 00E000A0213/COS)》中。/in the Certification Standard Equipment List 00E000A0213/COS.

A321-231: 《合格审定标准设备清单 (No. 00E000A0231/COS)》中。/in the Certification Standard Equipment List 00 E 000A0231/COS.

A321-232: 《合格审定标准设备清单 (No. 00E000A0232/COS)》中。/in the Certification Standard Equipment List 00E000A0232/COS.

2.2.4 重量限制/ Weight limits (kg)

型别/ Model: A321-211, A321-231.

变化/VARIANT	000 (BASIC)	001 (MOD 28960)	002 (MOD 28721)	003 (MOD 31613)	005 (MOD 27553)	011 (MOD 32456)
最大起飞重量/ Max. take-off weight	89 000	93 000	89 000	91 000	85 000	93 500
最大着陆重量/ Max. landing weight	75 500	77 800	77 800	77 800	75 500	77 800
最大零燃油重量/ Max. zero fuel weight	71 500	73 800	73 800	73 800	71 500	73 800
最小重量/ Minimum weight	47 500	47 500	47 500	47 500	47 500	47 500

型别/ Model: 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)	007 (MOD 31617)	008 (MOD 31618)	009 (MOD 31619)	010 (MOD 31321)	011 (MOD 32456)
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

2.3 A321 系列飞机相关数据 / DATA PERTINENT TO ALL A321 SERIES

2.3.1. 合格审定 / Certification

2.3.1.1 日期 / Date

a) 合格审定日期 / Certification dates:

A321-131: 1993年12月17日/December 17, 1993

A321-112: 1994年2月15日/February 15, 1994

A321-111: 1994年5月27日/May 27, 1994

A321-211: 1997年3月20日/March 20, 1997

A321-231: 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

A321-232: 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.

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.

2.3.1.2 认可审定基础/ Validation Basis

中国民用航空总局接受法国民用航空局的合格审定基础作为认可审定基础: / CAAC accepts the Certification Basis of DGAC as the Validation Basis:

法国民用航空局的合格审定基础 / Certification Basis of DGAC

介绍注释/ Introducing note

下面列出了不同A321系列飞机的合格审定基础。在进一步的A321每个系列的合格审定时, 针对每一型别确定特定基础的修正案。/ Hereafter are listed the certification bases for the different A321 series. The amendments made to a particular basis at the occasion of further A321 series certification are identified per series.

AIRBUS INDUSTRIE 公司已于1989年11月30日以信函(AI/EA-410.106/89)对A321-100飞机申请了合格审定。/AIRBUS INDUSTRIE has applied for A321-100 certification on November 30, 1989 by letter AI/EA-410.106/89.

在 1993 年 11 月 29 日颁发的 CRI G3001 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 G3001 Issue 4 dated 29/11/93 are :

a) 欧洲联合航空条例JAR25部含第11次修订, 及1989年10月5日生效的第13次修正案中的下列条款: /JAR 25 Change 11 as amended by the following JAR 25 Change 13 paragraphs effective on the reference date November 30, 1989.

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

关联JAR 25 部第13次修订, 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 |

b) 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).

b1) 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) |

b2) 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.

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

c) 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 :

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, 记录关于国家变化方面的共同的理解。由于 FAA/JAA 协调条例一致, 这点不应困惑。/ 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.

c1) 前面(a)和(b)节要求升级的进一步应用:/ Further to application of the updated requirements of above paragraphs (a) and (b) :

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-A43 协调突风载荷/Tuned Gust Loads (UK)

HC-A44 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)

c2) 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

c3) 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 (d) 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

d) 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 Manual

IM-F13 (CRI F3005) 着陆距离外延/ Landing Distance Extrapolation

AMC-F14 (CRI F3006) 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) 发房罩防火/ 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

e) 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

f) Airbus Industrie 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.

除了由Airbus Industrie 公司选择与遵守(1997年1月29日信函: AI/EA-S 413.0278/97)的 b2) 外, (b2)还包含了1996年1月的NPA 25 BDG 244 文件, 及1996年4月24日, 1996年5月22日, 1996年6月7日, 1996年7月4日进行的修正(见CRI F3012)。) 1993年11月29日颁发CRI G3001 文件中定义的适用联合审定基础, 如前面2.3.1.2 a) 至 e) 中所列保留的适用部分。/The applicable Joint Certification Basis defined in CRI G3001 Issue 4 dated 29/11/93 as listed under 2.3.1.2 a) to e) above remains applicable, except b2) which is superseded by the Airbus Industrie elect-to-comply (letter AI/EA-S 413.0278/97 dated January 29, 1997) with NPA 25 BDG 244 dated January 1996, amended 24/04/96, 22/05/96, 07/06/96, 04/07/96) (see CRI F3012).

g) 直到14,100英尺气压高度的高海拔机场的起飞和着陆, 已创立下述新的专用条件:/ For take off and landing operations at high altitude airports up to 14,100 ft pressure altitude, the following new Special Condition has been created :

SC-E10 高海拔机场运行(见CRI E10)/ High altitude airport operations (up to 14,100 ft) (see CRI E10).

h) 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).

i) 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).

j) 豁免/ Exemptions :

没有豁免/ None exemption.

k) 等效安全纪要/ Equivalent safety findings :

下述条款通过等效安全演示:/ The following paragraphs JAR 25 have been complied with through equivalent safety demonstration :

- 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 autorestore function (see CRI P 3008).

l) 联合航空条例 JAR AWO 的第 1 次修改中, 关于低能见度情况下的自动着陆和运行要求/ JAR AWO Change 1 for autoland and operations in low visibility.

m) 国际民航组织附件 16:/ ICAO Annex 16 :

- 第 I 卷第 II 部第 3 章噪声要求(见注释 1.4.19)/Vol. I Part II Chapter 3 for Noise Requirements (see also note 1.4.19).
- 第 II 卷第 II 部燃油排放/Vol. II Part II for Fuel Venting.

n) 对于双发飞机的延程运行, 适用的技术条件包含在 AMJ 120-42/IL 20 和 A321 ETOPS CRI 文件中:/ For the Extended Twin Engine Airplane Operations the applicable technical conditions are contained in AMJ 120-42/IL 20 and the A321 ETOPS CRI :

- CRI G3006 双发飞机的延程运行/ ETOPS
- CRI G3007 双发飞机的延程运行 - 一发不工作巡航速度/ ETOPS - One engine inoperative cruise speed.

2.3.2 重心范围 / Center of gravity range

见法国民航局批准的飞行手册。/ See DGAC approved Airplane Flight Manual.

2.3.3 限制速度(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 (MMO): 0,82
- 最大使用速度/Maximum Operating Speed (VMO): 350 kt
- 机动速度VA : 见法国民航局批准的飞行手册的第2.0章/Maneuvering Speed VA : see Chapter 2.0 of the DGAC approved Flight Manual
- 襟翼/缝翼展态速度(见下表)/Extended Flaps / Slats Speed (VFE): see table below.

构形/ 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	22/14	200 215*	起飞和近场/Take-off and approach
3	22/21	195	起飞、近场、着陆/Take-off, approach, landing
全放/Full	27/25	190	着陆/Landing

* See note 2.4.7 ** See note 2.4.18

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)

2.3.4 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.

2.3.5 最小飞行机组 / Minimum Flight Crew

2 位驾驶员/pilots

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

220 .

2.3.7 货舱载荷 / Cargo compartment loading

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. 00D080A0001/C1S Chapter 1.10.

2.3.8 燃油 / Fuel

2.3.8.1. 燃油规范/Fuel Specification

见安装手册: CFM 公司文件, No.2026, 或IAE 公司文件, No. 0043。/See installation manual: document CFM 2026 or document IAE - 0043

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)	GOST 10227-86 (RT) (TS1)**	GB 6537-94 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)		
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* JP4牌号燃油不适用于双环形燃烧室(DAC)发动机。/JP4 Fuel is not suitable for double annular combustor (DAC) engines.

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

添加剂/Additives: 见CFMI 公司《特殊使用说明书(No.CFM TPOI-13)》, 或IAE公司《V2500型发动机安装和使用手册(No. IAE 0043)》的第4.5章。/ See CFMI "Specific Operating Instructions", CFM TPOI-13, or IAE V2500 "Installation and Operating Manual" IAE 0043 Section 4.5.

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.

2.3.8.2. 燃油量 / Fuel Quantity (0.8kg/liter)

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 fuelliters (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)

* 见注释2.4.11和2.4.16。/See notes 2.4.11 and 2.4.16.

** 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.

2.3.9 液压油 / Hydraulic fluids

牌号 IV - NSA 30.7110 规范。/Type IV - Specification NSA 30.7110.

2.3.10 辅助动力装置 / Auxiliary Power Unit (APU)

2.3.10.1. 加勒特 APU / APU GARRETT

加勒特公司, 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:见加勒特报告 No. GT. 7800/Approved oils : see GARRETT REPORT GT. 7800

2.3.10.2. APIC 公司 APU(选装) / APU APIC (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.

2.3.10.3. 爱立信 APU(选装) / APU AlliedSignal (Option)

爱立信公司 APU 的安装由改装包 (MOD 25888) 定义。/The APU AlliedSignal installation is defined by MOD 25888.

爱立信公司文件 (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) 是源于 MSN 2653 的生产标准。/Note: for A320 models, the APU APIC APS 3200 (Mod 35864) is the production standard from MSN 2653.

2.3.11 轮胎 / Tyres

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

2.3.12 客舱设备 / Cabin Equipment

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.

2.3.13 限制 / Limitations

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

2.3.13.1. a) 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 79-001-0X	See SB CFMI 79-001-0X	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”.

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.

其它动力装置可能性: 亦见注释2.4.10和2.4.12。/Other power plant possibility : see also note 2.4.10 and 2.4.12.

2.3.13.1. b) 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 79-001-0X	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”.

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.

2.3.13.2. 适航性限制 / Airworthiness Limitations

• 欧洲联合航空局批准的《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 .

• 欧洲联合航空局批准的《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.

• 欧洲联合航空局批准的《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.

• 欧洲联合航空局批准的《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.

2.3.13.3. 其它限制 / Other limitations

见欧洲联合航空局批准的飞行手册。/ See EASA approved Flight Manual.

2.3.14 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公司颁发的生产许可证(No. I-A9), 或自1999年4月起, 生产许可证(No. 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公司颁发的生产许可证(No. 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.

2.4 A321 系列飞机相关注释 / NOTES PERTINENT TO ALL A321 SERIES

- 2.4.1 如果在装有IAE发动机的飞机上实施改装包24173和22853, 则飞机具有二类精确进近资质。/If modifications 24173 and 22853 are embodied on models with IAE engines, the aircraft is qualified for Cat. II precision approach.
- 2.4.2 如果在装有CFM发动机的飞机上实施改装包24064, 则飞机具有三类精确进近资质。/If modification 24064 is embodied on models with CFM engines, the aircraft is qualified for Cat. III precision approach.
- 2.4.3 如果在装有IAE发动机的飞机上实施改装包24066, 则飞机具有三类精确进近资质。/If modification 24066 is embodied on models with IAE engines, the aircraft is qualified for Cat. III precision approach.
- 2.4.4 如果在装有CFM发动机的飞机上实施改装包25199, 则飞机具有三类B级精确进近资质。/If modification 25199 is embodied on models with CFM engines, the aircraft is qualified for Cat. III B precision approach.
- 2.4.5 如果在装有IAE发动机的飞机上实施改装包25200, 则飞机具有三类B级精确进近资质。/If modification 25200 is embodied on models with IAE engines, the aircraft is qualified for Cat. III B precision approach.
- 2.4.6 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.

- 2.4.7 如果A321收音机装上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).
- 2.4.8 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)。/A321-111 CFM 56-5B1 engine can be intermixed with CFM 56-5B1/2 engine (mod. 24404) on the same aircraft (AFM supplement).
- 2.4.9 两发延程飞机运行的构形, 维修和程序标准包含在文件(No. AI/EA 4000)中。合格审定型号是A321-111/-112/-131/-211/-231型具有所有适用发动机的飞机。//The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in the document AI/EA 4000. Certificated models are A321-111/-112/-131/-211/-231, with all applicable engines.
经EASA批准, 实施改装包32009的飞机提供180分钟的两发延程能力。/Embodiment of Modification 32009 provides ETOPS 180 mn capability for EASA.
- 2.4.10 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
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.
- 2.4.11 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).
- 2.4.12 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) 发动机混装在同一架飞机上(飞机飞行手册补充材料)。/ 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).

- 2.4.13 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.

- 2.4.14 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/COS)》的第6段。/ The type design definitions and certification standard equipment lists as referenced in para. 6 are complemented by doc. 00D000A0546/COS “ A319-100/A321-200 FMGC Type Std Evolution ”.

- 2.4.15 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).

- 2.4.16 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).

- 2.4.17 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.

- 2.4.18 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).

- 2.4.19 型别转化/Models conversion:

- 如果在装备 CFM56-5B1/2P 发动机 A321-111 机型实施改装包 33368, 则该机型转化为装备 CFM56-5B3/2P 发动机 A321-211 机型。/ If modification 33368 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34811, 则该机型转化为装备 CFM56-5B1/P 发动机A321-212机型。/If modification 34811 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.

2.4.20 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
- 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
- 发动机间轴距/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

3. A319 系列 / A319 SERIES

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

3.1 A319-100 系列 / A319-100 SERIES

3.1.1 型别定义 / MODEL DEFINITION

合格审定型别: / Certificated models: A319-111, A319-112, A319-113 A319-114, A319-115, A319-131, A319-132, A319-133.

下述文件定义相应飞机 / Definition of reference airplane by documents

A319-111 : AI/EA-A 413.0700/96 (00J000A0011/C21)

A319-112 : AI/EA-A 413.0505/96 (00J000A0003/C21)

机型转化为A319-112见注释3.3.11。 /See note 3.3.11 for model conversion into A319-112 model.

A319-113 : AI/EA-A 413.1377/96 (00J000A0113/C21)

A319-114 : AI/EA-A 413.1400/96 (00J000A0114/C21).

机型转化为A319-114见注释3.3.11。 /See note 3.3.11 for model conversion into A319-114 model.

A319-115 : AI/EA-A 413.1204/99 (00J000A0115/C21)

A319-131 : AI/EA-A 413.3250/96 (00J000A0131/C21)

A319-132 : AI/EA-A 413.3300/96 (00J000A0132/C21)

A319-133 : AI/EA-A 413.1205/99 (00J000A0133/C21)

机型转化为A319-133见注释3.3.11。 /See note 3.3.11 for model conversion into A319-133 model.

3.1.2 发动机 / Engines

2 台 CFMI 涡轮喷气发动机, 型号为: / Two CFMI turbo jet engines, Model:

A319-111 : CFM56-5B5 (MOD24932).

其它动力装置可能性见注释 3.3.2。 /Other power plant possibility, see note 3.3.2.

A319-112 : CFM56-5B6 (MOD25287) or CFM56-5B6/2 (MOD25530)

其它动力装置可能性见注释 3.3.5 和 3.3.6。 /Other power plant possibility, see note 3.3.5 and 3.3.6.

A319-113 : CFM56-5A4 (MOD25238) or CFM56-5A4/F (MOD23755)

A319-114 : CFM56-5A5 (MOD25286) or CFM56-5A5/F (MOD23755)

A319-115 : CFM56-5B7 (MOD25567)

其它动力装置可能性见注释 3.3.2。 /Other power plant possibility, see note 3.3.2.

2 台 IAE 涡轮喷气发动机, 型号为: / Two IAE turbo jet engines, Model:

A319-131 : V2522-A5 (MOD26152)

A319-132 : V2524-A5 (MOD26298)

A319-133 : V2527M-A5 (MOD27568)

3.1.3 设备 / Equipment

批准的装机设备开列: / Equipment approved for installation is listed :

A319-111: 《合格审定标准设备清单 (No. 00J000A0012/COS) 》中。 /in the Certification Standard Equipment List 00J000A0012/COS.

A319-112: 《合格审定标准设备清单 (No. 00J000A0004/COS) 》中。 /in the Certification Standard Equipment List 00J000A0004/COS .

A319-113: 《合格审定标准设备清单 (No. 00J000A0113/COS)》中。/in the Certification Standard Equipment List 00J000A0113/COS .

A319-114: 《合格审定标准设备清单 (No. 00J000A0114/COS)》中。/in the Certification Standard Equipment List 00J000A0114/COS.

A319-115: 《合格审定标准设备清单 (No. 00J000A0115/COS)》中。/in the Certification Standard Equipment List 00J000A0115/COS.

A319-131: 《合格审定标准设备清单 (No. 00J000A0131/COS)》中。/in the Certification Standard Equipment List 00J000A0131/COS.

A319-132: 《合格审定标准设备清单 (No. 00J000A0132/COS)》中。/in the Certification Standard Equipment List 00J000A0132/COS.

A319-133: 《合格审定标准设备清单 (No. 00J000A0133/COS)》中。/in the Certification Standard Equipment List 00J000A0133/COS.

3.2 A319 系列飞机相关数据 / DATA PERTINENT TO ALL A319 SERIES

3.2.1. 合格审定 / Certification

3.2.1.1 日期 / Date

a) 合格审定日期 / Certification dates:

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

b) 认可审定日期 / Validation dates:

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.

3.2.1.2 认可审定基础/ Validation Basis

中国民用航空总局接受法国民用航空局的合格审定基础作为认可审定基础: / CAAC accepts the Certification Basis of DGAC as the Validation Basis:

法国民用航空局的合格审定基础 / Certification Basis of DGAC

AIRBUS INDUSTRIE 公司已于 1992 年 2 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.

在 1996 年 3 月 21 日颁发的 CRI G4001 文件 (第 4 版) 中, 定义了适用的联合合格审定基础: /The applicable Joint Certification Basis defined in CRI G4001 Issue 4 dated 21/03/96 are :

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

- 除 BB 分部外/ except Subpart BB,
- 除所属国的变化外/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 次修订并最终在桔黄页 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 桔黄页修正/amended by OP 91/1
25.121	25.807(c) 桔黄页修正/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	25.343 (b) (i) (ii)	25.373
25.321	25.345 (a) and (c)	25.391
25.331	25.349 (b)	25.427
25.333	25.351	25.571 (b) (2)
25.335 (d)	25.365 (e)	
25.341	25.371	

- 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	

b) 欧洲联合航空条例 JAR AWO 部及第 1 次修订// JAR AWO at Change 1.

c) 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: 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, 记录关于国家变化方面的共同的理解。由于 FAA/JAA 协调条例一致, 这点不应困惑。/ 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-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

d) 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)

e) 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)

f) 直到14,100英尺压力高度高海拔机场的起飞着陆, 创立了新的专用条件: / For take off and landing operations at high altitude airports up to 14,100 ft pressure altitude, the following new Special Condition has been created :

SC-E10 高海拔机场运行 (直到 14,100 英尺) (见 CRI E10) / "High altitude airport operations (up to 14,100 ft) " (see CRI E10).

g) 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).

h) A319的第002号重量变化及1998年8月10日后的重量变化审定, 专用条件HC-A.4.5 (刹车滚动条件) 被JAR25部的第14次修订的 JAR25.493(d) (CRI A7) 取代。 / 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).

i) 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) 25.145(b) (c)

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

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).

j) 豁免/ Exemptions :

没有豁免/ None exemption.

k) 等效安全纪要/ Equivalent Safety findings :

同意对于下述要求的等效安全纪要作为相关CRI的文件: / 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”).

1) 型号合格证和环境要求的国家要求:/ National requirements for TC and Environmental requirements :

每一 JAA 国家适用的环境要求开列在 CRI G4002, G4004 文件中。/ The environmental requirements applicable in each JAA country are listed in CRI G4002, G4004

m) 对于双发飞机延程运行, 适用的技术条件包含在 AMJ 120-42/IL 20 和 A319 ETOPS CRI 文件中:/ For the Extended Twin Engine Airplane Operations the applicable technical conditions are contained in AMJ 120-42/IL 20 and the A319 ETOPS CRI :

- CRI G4006 双发飞机的延程运行/ ETOPS
- CRI G4007 双发飞机的延程运行 - 一发不工作巡航速度/ ETOPS - One engine inoperative cruise speed.

3.2.2 重量限制 / Weight limits (kg)

变化/VARIANT	000 BASIC	001 MOD 25328	002 MOD 27112	003 MOD 26457	004 MOD 28053
最大起飞重量/ Max. take-off weight	64 000	70 000	75 500	68 000	68 000
最大着陆重量/ Max. landing weight	61 000	61 000	62 500	61 000	62 500
最大零燃油重量/ Max. zero fuel weight	57 000	57 000	58 500	57 000	58 500
最小重量/Minimum weight	35 400	35 400	35 400	35 400	35 400
变化/VARIANT	005 MOD 28136	006 MOD 33418	007 MOD 35197	008 MOD 36291	009 MOD 36292
最大起飞重量/ Max. take-off weight	70 000	73 500	75 500	64 000	66 000
最大着陆重量/ Max. landing weight	62 500	62 500	61 000	62 500	62 500
最大零燃油重量/ Max. zero fuel weight	58 500	58 500	57 000	58 500	58 500
最小重量/Minimum weight	35 400	35 400	35 400	35 400	35 400

3.2.3 重心范围 / Center of gravity range

见法国民航局批准的飞行手册。/ See DGAC approved Airplane Flight Manual.

3.2.4 限制速度(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 (MMO): 0,82
- 最大使用速度/Maximum Operating Speed (VMO): 350 kt
- 机动速度VA : 见法国民航局批准的飞行手册的第2.0章/Maneuvering Speed VA : see Chapter 2.0 of the DGAC approved Flight Manual
- 襟翼/缝翼展态速度(见下表)/Extended Flaps / Slats Speed (VFE): see table below.

构形/ 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	27/40	177	着陆/Landing

* 在起飞构形, 在210节自动襟翼收回/Auto flap retraction at 210 kt in Take-off configuration

起落架/ Landing gear :

- VLE - 展态/Extended: 280 kt/ Mach 0.67
- VLO - 展态/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)

3.2.5 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) 如果贯彻28162号改装包(仅适用于 A319-112/-115/-132/-133)。/if modification 28162 is embodied (A319-112/-115/-132/-133 only).

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

3.2.6 最小飞行机组 / Minimum Flight Crew

2 位驾驶员/pilots

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

145 (160 贯彻32208号改装包/with modification 32208 is embodied).

3.2.8 货舱载荷 / Cargo compartment loading

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.

3.2.9 燃油 / Fuel

3.2.9.1. 燃油规范/Fuel Specification

见安装手册: CFM 公司文件, No. 2026, 或IAE 公司文件, No. 0043。/See installation manual: document CFM 2026 or document IAE - 0043

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)	GOST 10227-86 (RT) (TS1)**	GB 6537-94 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)		

* JP4牌号燃油不适用于双环形燃烧室(DAC)发动机。/JP4 Fuel is not suitable for double annular combustor (DAC) engines.

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

添加剂/Additives: 见CFMI 公司《特殊使用说明书(No. CFM TPOI-13)》, 或IAE公司《V2500型发动机安装和使用手册(No. IAE 0043)》的第/4.5章。/ See CFMI "Specific Operating Instructions", CFM TPOI-13, or IAE V2500 "Installation and Operating Manual" IAE 0043 Section 4.5.

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.

3.2.9.2. 燃油量 / Fuel Quantity (0.8kg/liter)

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 fuelliters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuelliters (kg)	可用燃油 升 (公斤) /Usable fuel liters (kg)	不可用燃油 升 (公斤) /Unusable fuelliters (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)

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)

* 见注释3.3.9。/see note 3.3.9

** 见注释3.3.10。/see note 3.3.10

3.2.10 液压油 / Hydraulic fluids

牌号 IV - NSA 30.7110 规范。/Type IV - Specification NSA 30.7110.

3.2.11 辅助动力装置 / Auxiliary Power Unit (APU)

3.2.11.1. 加勒特 APU / APU GARRETT

加勒特公司, 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:见加勒特报告 No. GT. 7800/Approved oils : see GARRETT REPORT GT. 7800

3.2.11.2. APIC 公司 APU(选装) / APU APIC (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.

3.2.11.3. 爱立信 APU(选装) / APU AlliedSignal (Option)

爱立信公司 APU 的安装由改装包 (MOD 25888) 定义。/The APU AlliedSignal installation is defined by MOD 25888.

爱立信公司文件 (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) 是源于制造序号 (MSN 2643) 的生产标准。/Note: for A320 models, the APU APIC APS 3200 (Mod 35864) is the production standard from MSN 2643.

3.2.12 轮胎 / Tyres

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

3.2.13 客舱设备 / Cabin Equipment

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.

3.2.14 限制 / Limitations

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

3.2.14.1. a) 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 79-001-0X					

* 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”.

其它动力装置可能性: 亦见注释3.3.2和3.3.6。/Other power plant possibility : see also note 3.3.2 and 3.3.6.

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.

3.2.14.1. b) 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”.

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.

3.2.14.2. 适航性限制 / Airworthiness Limitations

• 欧洲联合航空局批准的《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.

• 欧洲联合航空局批准的《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.

• 欧洲联合航空局批准的《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.

• 欧洲联合航空局批准的《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.

3.2.14.3. 其它限制 / Other limitations

见欧洲联合航空局批准的飞行手册。/ See EASA approved Flight Manual.

3.2.15 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公司颁发的生产许可证(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公司颁发的生产许可证(No. 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.

3.3 A319 系列飞机相关注释 / NOTES PERTINENT TO ALL A319 SERIES

3.3.1 如果在装有CFM发动机的飞机上实施改装包25469或26968, 则飞机具有三类B级精确进近资质。/If modification 25469 or 26968 is embodied on models with CFM engines, the aircraft is qualified for Cat. III B precision approach.

3.3.2 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

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- 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.
- 3.3.3 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.
- 3.3.4 两发延程飞机运行的构形, 维修和程序标准包含在文件 (No. AI/EA 4000) 中。合格审定型号是A319-111/-112/-113/-114/-115/-131/-132/-133型具有所有适用发动机的飞机。//The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in the document AI/EA 4000. Certificated models are A319-111/-112/-113/-114/-115/-131/-132/-133, with all applicable engines.
经EASA批准, 实施改装包32009的飞机提供180分钟的两发延程能力。/Embodiment of Modification 32009 provides ETOPS 180 mn capability for EASA.
- 3.3.5 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(飞机飞行手册补充材料)。/A319-112 CFM 56-5B6 engine can be intermixed with CFM 56-5B6/2 engine (mod. 25532) on the same aircraft (AFM supplement).
- 3.3.6 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) 发动机混装在同一架飞机上(飞机飞行手册补充材料)。/ 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).
- 3.3.7 如果在装有IAE发动机的飞机上实施改装包26717和26716, 则飞机具有三类B级精确进近资质。/ If modification 26717 or 26716 is embodied on models with IAE engines,

the aircraft is qualified for cat. III B precision approach.

- 3.3.8 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/COS)》的第9段和《A319-111/112 空中交通管制雷达收发机型号标准演变(No. 00J000A0067/COS)》。/ The type design definitions and certification standard equipment lists as referenced in para. 9 are complemented by doc. 00D000A0546/COS “ A319-100/A321-200 FMGC Type Std Evolution ” and doc. 00J000A0067/COS “ A319-111/112 ATC Transponder Type Std Evolution ”.

- 3.3.9 社团使用的A319飞机上, 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《主要修改(No. 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社团使用的A319飞机:/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.
- 3.3.10 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《主要修改(No. 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).
- 3.3.11 型别转化/Models conversion:
- 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.
- 3.3.12 A321 飞机的主要尺寸/Principal dimensions of A321 Aircraft
- 机长/Length: 33.84 m
 - 翼展/Width: 34,10 m

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- 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
 - 发动机间轴距/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

4. A318 系列 / A318 SERIES

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

4.1 A318-100 系列 / A318-100 SERIES

4.1.1 型别定义 / MODEL DEFINITION

合格审定型别: / Certificated models: A318-111, A318-112, A318-121, A318-122.

下述文件定义相应飞机 / Definition of reference airplane by documents

A318-111 : D03006056 (00P000A0111/C21).

A318-112 : D03006716 (00P000A0112/C21).

A318-121 : D05028326 (00P000A0121/C21).

A318-122 : D05028327 (00P000A0122/C21).

4.1.2 发动机 / Engines

2 台 CFMI 涡轮喷气发动机, 型号为: / Two CFMI turbo jet engines, Model:

A318-111 : CFM56-5B8/P (MOD32028).

A318-112 : CFM56-5B9/P (MOD32029).

2 台 PW 涡轮喷气发动机, 型号为: / Two PW turbo jet engines, Model:

A318-121 : PW 6122A (MOD 30034)

A318-122 : PW 6124A (MOD 31882)

4.2 A318 系列飞机相关数据 / DATA PERTINENT TO ALL A318 SERIES

4.2.1. 合格审定 / Certification

4.2.1.1 日期 / Date

a) 合格审定日期 / Certification dates:

A318-111: 2003年5月23日 / May 23, 2003

A318-112: 2003年5月23日 / May 23, 2003

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.

b) 认可审定日期 / Validation dates:

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

4.2.1.2 认可审定基础 / Validation Basis

中国民用航空总局接受法国民用航空局的合格审定基础作为认可审定基础: / CAAC accepts the Certification Basis of DGAC as the Validation Basis:

法国民用航空局的合格审定基础 / Certification Basis of DGAC

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.

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 :

- a) 欧洲联合航空条例JAR25部及第11次修订/ JAR 25 Change 11
- b) 除外/except :
- b.1) BB分部仍保留为第10次修订/subpart BB which remains at Change 10,
- b.2) 各属国变化/all national variants,
- b.3) 第11次修订后JAR 25部的升级条款/ The following JAR 25 paragraphs which are upgraded after Change 11:
- 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)

c) 欧洲联合航空条例JAR AWO部及第1次修订/ JAR AWO at Change 1

d) 专用条件, 经验相关条件和协调条件/ Special Conditions, Experience related Conditions, Harmonised Conditions :

d.1) A320的专用条件, 经验相关条件和协调条件/ A320 SC, EC and HC :

. A320 (DGAC-F) SC-G17 运行校对飞行/ Operational proving flights

. A320 (CAA-UK) SC-G17 合格审定前运行飞行/Operational flight before certification

. A320 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

- . A320 SC-F4 静态纵向稳定性/ Static Longitudinal Stability
- . A320 SC-F6 静态航向和横向稳定性/ Static Directional and Lateral Stability
- . A320 SC-F7 飞行包线保护/ Flight Envelope Protection
- . A320 SC-F8 正常载荷因子限制/ Normal Load Factor Limiting
- . A320 SC-F9 双套操纵系统/ Dual Control System
- . A320 SC-A.2.2.2. 设计机动要求/Design manoeuvre requirement
- . A320 SC-S11 限制操纵力和扭矩 Limit pilot forces and torques
- . A320 SC-S33 自动推力系统/auto-thrust system
- . A320 SC-S52 无正常电力运行/operation without normal electrical power
- . A320 SC-S74 非正常姿态/abnormal attitudes
- . A320 SC-S75 闪电防护的间接影响/lightning protection indirect effects
- . A320 SC-S77 控制信号完整性/integrity of control signal
- . A320 HC-A4.6 速度控制装置/speed control device
- . A320 HC-S23 备用地平仪/standby gyroscopic horizon
- . A320 HC-S24 VMO/MMO 告警 (设定)/VMO/MMO warning (setting)
- . A320 HC-S72 飞行记录器/flight recorder
- . A320 EC-G11 一般定义/general definition
- . A320 EC-S30 自动飞行系统/autoflight system
- . A320 EC-S54 线路保护装置/circuit protective devices

d.2) A319的专用条件/ A319 SC:

- . A319 SC-A2 结构设计失速速度/stalling speeds for structural design
- . A319 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
- . A319 SC-A1 系统和结构和交互作用/interaction of systems and structure
- . A319 SC-P1 全权数字式电子控制/FADEC for CFM56 and AMJ20X-1 change 14 for PW6000
- . A319 SC-S79 刹车要求, 资质和试验/brakes requirements, qualification and testing

d.3) A319/A320/A321的专用条件/ A319/A320/A321 SC :

- . A319/320/321 SC-IM76 [...]

d.4) A318的专用条件/ A318 SC :

- . A318 SC-F5001 失速和预期使用速度/Stalling and scheduled operation speed
- . A318 SC-F5004 静态纵向稳定性和低能告警/Static longitudinal stability and low energy awareness
- . A318 SC-A5001 发动机故障载荷 (仅 PW 发动机)/Engine Failure Loads (PW engine only)
- . A318 SC-A5003 设计俯冲速度/Design Dive Speed
- . A318 SC-P5004 发动机持续不平衡 (仅 PW 发动机)/Engine Sustained Imbalance (PW engine only)
- . A318 SC-SE5002 飞机飞行手册 - RVR 限制/AFM - RVR limits

e) 豁免/ Exemptions

没有豁免/ None exemption.

f) 等效安全纪要/ Equivalent Safety Findings

- 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 过渡偏离告警(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”)

g) 环境要求 / Environmental requirements :

国际民航附件 16 第 1 卷(第 3 版), 含第 5 号修正案, 第二部第 3 章: 噪声要求(见注释 4.3.3)。/ ICAO Annex 16, Volume 1, Third Edition, Amendment 5, Part II, Chapter 3 : Noise Requirements. (see also note 4.3.3).

国际民航附件 16 第 2 卷, 含第 3 号修正案, 第二部: 燃油排放, 和第三部第 2 章: 排污。/ ICAO Annex 16, Volume II amendment 3, Part 2 for Fuel venting and Part III, Chapter 2 for Emissions.

4.2.2 重量限制 / Weight limits (kg)

变化/VARIANT	000 BASIC	001 MOD 31672	002 MOD 31673	003 MOD 31674	004 MOD 31675
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	/

4.2.3 重心范围 / Center of gravity range

见法国民航局批准的飞行手册。/ See DGAC approved Airplane Flight Manual.

4.2.4 限制速度(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 (MMO): 0,82
- 最大使用速度/Maximum Operating Speed (VMO): 350 kt
- 机动速度VA : 见法国民航局批准的飞行手册的第2.0章/Maneuvering Speed VA : see Chapter 2.0 of the DGAC approved Flight Manual
- 襟翼/缝翼展态速度(见下表)/Extended Flaps / Slats Speed (VFE): see table below.

构形/ Configuration	缝翼/襟翼/ Slats/Flaps (°)	VFE (kt)	
1	18/0 18/10 *	230 215	中间进场/Intermediate approach 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	27/40	177	着陆/Landing

* 在起飞构形, 在210节自动襟翼收回/Auto flap retraction at 210 kt in Take-off configuration

起落架/ Landing gear :

- VLE - 展态/Extended: 280 kt/ Mach 0.67
- VLO - 展态/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)

4.2.5 最大使用高度/ Maximum operating altitude

39 800 (英尺/ft) (压力高度/pressure altitude).

4.2.6 最小飞行机组 / Minimum Flight Crew

2 位驾驶员/pilots

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

136.

4.2.8 货舱载荷 / Cargo compartment loading

货舱/	最大载荷/
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CARGO COMPARTMENT	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: 00P080A0001/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. 00P080A0001/C1S Chapter 1.10.

4.2.9 燃油 / Fuel

4.2.9.1. 燃油规范/Fuel Specification

见安装手册: CFM 公司文件, No.2026, 或PW 公司文件《PW 6100型发动机安装和使用手册》。/See installation manual: document CFM 2026 or PW document.

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 6537-94 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)		

* JP4牌号燃油不适用于双环形燃烧室(DAC)发动机。/JP4 Fuel is not suitable for double annular combustor (DAC) engines.

添加剂/Additives: 见CFMI 公司《特殊使用说明书(No. CFM TPOI-13)》, 或PW公司《PW 6100型发动机安装和使用手册》。/ See CFMI "Specific Operating Instructions", CFM TPOI-13, or "PW 6100 Installation and Operating Manual".

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.

4.2.9.2. 燃油量 / Fuel Quantity (0.8kg/liter)

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)
附加中央油箱/ACT	/	/

总计/TOTAL	23 859 (19 087)	82.1 (65.7)
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4.2.10 液压油 / Hydraulic fluids

牌号 IV - NSA 30.7110 规范。/Type IV - Specification NSA 30.7110.

4.2.11 辅助动力装置 / Auxiliary Power Unit (APU)

4.2.11.1 基本 / Basic

4.2.11.1 a) A318-111/-112

HONEYWELL AIRESEARCH 公司, 型号: GTCP 36-300 (A) (规范 No. 31-5306 B)。/HONEYWELL AIRESEARCH GTCP 36-300 (A) (Specification 31-5306 B).

批准滑油: 见 Garrett 公司报告 (GT 7800)。/Approved oil: see Garrett report GT 7800.

4.2.11.1 b) A318-121/-122

APIC 公司, 型号: APS 3200 (规范 No. ESR 0802, A 版)。/APIC APS 3200 (Specification ESR 0802, Rev. A).

APIC 公司 APU 安装定义在改装包 35864。/APU APIC installation defined by MOD 35864.

批准滑油: 符合 MIL-L-7808, MIL-L-23699 或 DERD 2487 规范。/Approved oils: in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487.

4.2.11.2 选择 / Option

4.2.11.2 a) A318-111/-112

APIC 公司, 型号: APS 3200 (规范 No. ESR 0802, A 版)。/APIC APS 3200 (Specification ESR 0802, Rev. A).

APIC 公司 APU 安装定义在改装包 35864。/APU APIC installation defined by MOD 35864.

批准滑油: 符合 MIL-L-7808, MIL-L-23699 或 DERD 2487 规范。/Approved oils: in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487.

或/or

AlliedSignal 公司, 型号: 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 安装定义在改装包 25888。/The APU AlliedSignal installation is defined by MOD 25888.

批准滑油: 依据型号规范 31-12048A-3A。/Approved oils: according to Model Specification 31-12048A-3A.

4.2.11.2 b) A318-121/-122

AlliedSignal 公司, 型号: 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 安装定义在改装包 25888。/The APU AlliedSignal installation is defined by MOD 25888.

批准滑油: 依据型号规范 31-12048A-3A。/Approved oils: according to Model Specification 31-12048A-3A.

注释: A318 飞机, APIC 公司 APU (APS 3200) (改装包 MOD 35864) 是源于制造序号 (MSN 2686) 的生产标准。/Note: for A318 models, the APU APIC APS 3200 (Mod 35864) is the production standard from MSN 2686

4.2.12 轮胎 / Tyres

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

4.2.13 客舱设备 / Cabin Equipment

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.

4.2.14 限制 / Limitations

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

4.2.14.1. a) CFMI发动机 /CFMI 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”.

4.2.14.1. b) PW发动机 / PW 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.

4.2.14.2. 适航性限制 / Airworthiness Limitations

- 欧洲联合航空局批准的《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 .

- 欧洲联合航空局批准的《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.

- 欧洲联合航空局批准的《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.

- 欧洲联合航空局批准的《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.

4.2.14.3. 其它限制 / Other limitations

见欧洲联合航空局批准的飞行手册。/ See EASA approved Flight Manual.

4.2.15 生产条件 / Production conditions

- 依据德国民航局给位于德国汉堡AIRBUS公司颁发的生产许可证 (No. 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公司颁发的生产许可证 (No. 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.

4.3 A318 系列飞机相关注释 / NOTES PERTINENT TO ALL A318 SERIES

4.3.1 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: 12.79 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
 - 发动机间轴距/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
- 4.3.2 如果在装有CFM发动机的飞机上实施改装包32997, 33310和33299, 则飞机具有三类B级精确进近资质。这不构成运行批准。/ If modifications 32997, 33310 & 33299 are embodied on models with CFM engines, the airplane is qualified for CAT III B precision approach. This does not constitute an operational approval.
- 4.3.3 对于噪声, A318-121/-122型飞机是基本符合ICAO 第4章要求。/For noise, A318-121/-122 models are basically compliant with ICAO Chapter 4 requirement.
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总局的使用要求(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
法国民用航空局将颁发声明飞机符合中国民用航空总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。/ DGAC 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
每架飞机配有法国民用航空局以中国民用航空总局批准的《飞行手册》。/ The Flight Manual for each aircraft will be approved by DGAC on behalf of CAAC.

- END -