

中国民用航空局
CIVIL AVIATION ADMINISTRATION OF CHINA

型号认可证数据单

THE VALIDATION DATA SHEET

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版次/Revision: 5

型号/Type: AS 350 B1

AS 350 B2

AS 350 B3

EC 130 B4

EC 130 T2

批准人/Approved By:



日期/Date: 2014-5-23

本数据单是型号认可证(编号: VTC0221A)的组成部分, 它规定了符合中国民用航空局适航要求所颁发此型号认可的产品的状态和限制。

This Data Sheet which is part of Type Certificate (No. VTC0221A) prescribes conditions and limitations 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 Helicopters
Aéroport International Marseille – Provence
13725 MARIGNANE cedex - France

2014 年 2 月 27 日前/ Before February 27, 2014 Eurocopter
Aéroport International Marseille – Provence
13725 Marignane cedex ,France

1997 年 6 月 1 日以前 / Before June 1, 1997 Eurocopter France
Aéroport International Marseille – Provence
13725 Marignane cedex ,France

1992 年 1 月 1 日以前/ Before January 1,1992 AEROSPTIALE
37, Boulevard de Montmorency
75781 PARIS Cedex 16

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第 1 部分概述（所有型别）

SECTION 1 GENERAL(ALL MODELS)

1. CAAC 认可数据单和型号合格证数据单 CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空局认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance Date	型号合格证数据单号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance Date
当前/ Current	VTC0221A, R5, 2014- 5-23	EASA R.008, R07, 2014-01-07
历史/ History	VTC0221A, R4, 2014-2-27 VTC0221A, R3, 2012-3-5 VTC0221A, R2, 2010-03-26 VTC0221A, R1, 2009-03-03 VTC001A, R0, 1991-05-23	EASA R.008, R07, 2014-01-07 EASA R.008, R05, 2011-06-17 EASA R.008, R03, 2007-10-12

2. 认可当局/Validation Authority:
审定当局/Certifying Authority:

中国民用航空局/CAAC
欧洲航空安全局/EASA

3. 型号合格证持有人/Type Certificate Holder:

Airbus Helicopters
Aéroport International Marseille – Provence
13725 MARIGNANE cedex – France

2014 年 2 月 27 日前/ Before February 27, 2014 Eurocopter
Aéroport International Marseille – Provence
13725 Marignane cedex ,France

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1992 年 1 月 1 日以前/ Before January 1, 1992 AEROSPTIALE
37, Boulevard de Montmorency
75781 PARIS Cedex 16

4. 进口要求/Import Requirements

为具备在中国运行的资格，按本型号认可证制造的每架飞机必须具有一份出口适航证，其上签注有出口国适航当局的审定声明，即：本架航空器符合 CAAC 所批准的型号设计并处于可安全运行的状态。

To be considered eligible for operation in China, each aircraft manufactured under this *Validation of Type Certificate* must be accompanied by a certificate of airworthiness for export endorsed by the Exporting Authority which states (in English language): This aircraft conforms to its CAAC type design and is in a condition for safe operation.

第 2 部分 AS 350 B1 SECTION 2 AS 350 B1

I. 总则/General

1. 数据单号/Data sheet No: EASA R.008, 替代 DGAC-F n° 157, 第 16 版
(2005 年 3 月颁布)
EASA R.008
Superseding DGAC-F n° 157, issue 16 dated
March 2005
2. 衍生型或型别/Variant or Model: AS 350 B1 (商业指定: ECUREUIL)/
AS 350 B1 (commercial designation: ECUREUIL)
3. 适航类别/Airworthiness Category: 正常类/ Normal Category
4. 型号合格证持有人/Type Certificate Holder:

Airbus Helicopters
Aéroport International Marseille Provence
13725 MARGNANE Cedex-France
5. 制造商/Manufacturer: 如上
As above
6. 法国 DGAC 审查时间/DGAC Certification Date: 1986.01.09/ January 9, 1986
7. 向法国 DGAC 申请时间/DGAC Application Date: 1984.12.13/ December 13, 1984

II. 审定基础/Certification Basis

1. 适航要求/Airworthiness Requirements:
FAR 27, 包括 1 至 10 号修正案
FAR Part 27, Amendments 1 to 10 included
2. 专用条件/Special Conditions:
补充的以及专用技术条件在 DGAC 6518 号文 (1976 年 8 月 17 日颁布)、6437 号文 (1977 年 7 月 28 日颁布) 中说明
Complementary and special conditions defined in DGAC letters 6518 dated August 17, 1976, 6437 dated July 28, 1977 and 53639 dated June 25, 1985

III. 技术特征和使用限制 /Technical Characteristics and Operational Limitations

1. 型号设计定义/ Type Design Definition 文件号 350A.04.4455
Documents 350A.04.4455
2. 描述/Description

小型单发直升机，为早期型号 AS 350 B 的衍生型设计

Small single-engine helicopter designed as a derivative product of the former type certified model AS 350 B

3. 设备/Equipment:

经批准的设备清单列在 Eurocopter DOCUMENT No.350A04.4320 中。

The approved items of equipment are listed in Eurocopter DOCUMENT No.350A04.4320.

适用的适航规章中所要求的基本设备（见审定基础）必须被安装在审定时飞机及审定后的每一架飞机上。

The basic required equipment specified in the applicable airworthiness regulations(see certification bases) must be installed on the aircraft at certification time and at every time after certification.

4. 几何尺寸/Dimensions

机身/Fuselage:	长度/Length	10.93 米	(35.86 英尺)
		10.93 m	(35.86 ft)
	宽度/Width	1.87 米	(6.14 英尺)
		1.87 m	(6.14 ft)
	高度/Height	3.14 米	(10.30 英尺)
		3.14 m	(10.30 ft)
主旋/Main Rotor:	3 叶桨-直径 10.69 米 (35.07 英尺)		
	3 blades - Diameter 10.69m(35.07 ft)		
尾旋/Tail Rotor:	2 叶桨-直径 1.86 米 (6.10 英尺)		
	2 blades – Diameter 1.86 m (6.10 ft)		

5. 发动机/ Engine

TURBOMECA ARRIEL 1D

TCDS EASA E.073, (替代 DGAC-F 发动机数据单号 M5)

EASA Engine TCDS E.073 (Superseding DGAC-F Engine TCDS No M5)

5.1. 发动机限制/Installed Engine Limits:

功率 Power rating	轴的扭矩限制 Limit torque on shaft	最低保障动力* Minimum Guaranteed power*	电机速度 (NG) ** Generator speed (NG)**	T4 温度 T4 temperature
最大瞬态值 (5 秒) Maximum transient (5 sec.)			105.5%	
起飞最大值 (5 分钟) Maximum at takeoff (5 min.)	83 m.daN	510 Kw	100.8 +0.4 % +0	845°C
持续最大值 Maximum continuous	83 m.daN	450 Kw	98%	795°C

* 工业标准结构，海平面标准 ISA, ground level

** 100%=51800 rpm

5.2. 传送扭矩限制/Transmission Torque Limits:

参见飞行手册

Refer to Flight Manual.

6. 液体 (燃油/滑油/添加剂) /Fluids (Fuel/Oil/additives):

6.1. 燃油/Fuel:

参见飞行手册 (包括中国 RP-3 号燃油)

Refer to Flight Manual (include Chinese RP-3) .

6.2. 滑油/Oil:

参见飞行手册

Refer to Flight Manual.

7. 液体容量/Fluid capacities:

7.1. 燃油/Fuel:	总容量/Total:	540 升 (142.7 加仑) 540 l (142.7 US gal)
	可用燃油/Usable fuel:	538.75 升 (142.34 加仑 l) – post AMS 07 0289 538.75 l (142.34 US gal) – post AMS 07 0289
	不可用燃油/Unusable fuel:	1.25 升 (0.33 加仑) – post AMS 07 0289 1.25 l (0.33 US gal) – post AMS 07 0289
7.2. 滑油/Oil:	发动机滑油容量/ Engine reservoir:	5.2 升 (1.37 加仑) 5.2 l (1.37 US gal)
	BTP:	6.51 升 (1.72 加仑) – 包括滑油管路 6.51 l (1.72 US gal) – circuit included
	BTA:	0.33 升 (0.09 加仑)
		0.33 l (0.09 US gal)

8. 空速限制/Airspeed limits:

开车时 VNE/Power-on VNE

- 绝对 VNE: HP=0 时, 287 公里/小时 (155 节)
- Absolute VNE: 287 km/h (155 kt) for HP=0
- 按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺)
- In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft)
- 在寒冷天气下, 当 OAT 低于 -30°C, 从上述 VNE 中减去 19 公里/小时 (10 节)
- In cold weather, when OAT is below -30°C, subtract 19 km/h (10 kt) from the above VNE.

停车时 VNE /Power-off VNE

- 绝对 VNE: HP=0 时, 231 公里/小时 (125 节)
- Absolute VNE: 231 km/h (125 kt) for HP=0
- 按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺)
- In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft).
- 在寒冷天气下, 从上述 VNE 中减去下述数值:
- In cold weather, subtract the following values from the above VNE:
 - 19 公里/小时 (10 节), OAT 在 -20°C 至 -30°C 之间
 - 19 km/h (10 kt), when OAT is between -20°C and -30°C
 - 37 公里/小时 (20 节), 当 OAT 低于 -30°C, 没有 VNE 时将低于 120 公里/小时 (65 节)
 - 37 km/h (20 kt), when OAT is below -30°C, without VNE being less than 120 km/h (65 kt).

9. 转速限制/Rotor Speed Limits:

开车飞行时/Power-on flight:

390	+4	rpm
	-5	

自转时/In autorotation:

- 最大: 430 rpm
- Maximum: 430 rpm
- 最小: 320 rpm (低于 365 rpm 时声音警告)
- Minimum: 320 rpm (audio warning below 365 rpm)

10. 最大运行高度及温度/Maximum Operating Altitude and Temperature:

10.1. 高度/Altitude HP:	起飞及着陆/Take-off and landing:	4267 米 (14000 英尺) 4267 m (14 000 ft)
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在运行中/En route:

6096 米 (2000 英尺)

6096 m (20 000 ft)

10.2 温度/Temperature:

参见飞行手册

Refer to Flight Manual

11. 使用限制/Operating Limitations:

-白天目视飞行

-Day VFR flight

-在按运行规章要求安装了附加设备且可用时, 可夜间目视飞行

-Night VFR flight, when the additional equipment required by operational regulations is installed and serviceable.

(更多信息参见飞行手册 For more information refer to Flight Manual)

12. 最大审定重量/Maximum Certified Weights:

2200 公斤 (4850 磅)

2200 kg (4850 lb)

13. 重心范围/Centre of Gravity Range:

纵向/Longitudinal:

前部限制/Forward limit:

3.17 米 (124.8 英寸) 达到 2000 公斤 (4409 磅)

3.17 m (124.8 in) up to 2000 kg (4409 lb)

线性变化, 从 3.17 米 (124.8 英寸) 到 3.20 米 (126 英寸), 在 2000 公斤 (4409 磅) 到 2200 公斤 (4850 磅) 之间

Linear Variation from 3.17 m (124.8 in) to 3.20 m (126 in) between 2000 kg (4409 lb) and 2200 kg (4850 lb)

3.20 米 (126 英寸), 在 2200 公斤 (4850 磅)

3.20 m (126 in) at 2200 kg (4850 lb)

后部限制/Aft limit:

3.50 米 (137.8 英寸), 达到 1200 公斤 (2645 磅)

3.50 m (137.8 in) up to 1200 kg (2645 lb)

线性变量, 从 3.50 米 (137.8 英寸) 到 3.43 米 (135 英寸), 在 1200 公斤 (2645 磅) 和 2200 公斤 (4850 磅) 之间

Linear variation from 3.50 m (137.8 in) to 3.43 m (135 in) between 1200 kg (2645 lb) and 2200 kg (4850 lb)

3.43 米 (135 英寸), 2200 公斤 (4850 磅)

3.43 m (135 in) at 2200 kg (4850 lb)

横向/Lateral:

左侧限制/L.H. limit:

0.18 米 (7.09 英寸)

0.18 m (7.09 in)

右侧限制/R.H. limit:

0.14 米 (5.51 英寸)

0.14 m (5.51 in)

重量分类及重心限制文件包括审定时空机状态下的设备清单, 同时, 载荷说明在直升要初始审定时即确定, 并建立在从那时起的永久的基础上。

The weight breakdown and C.G. limit document containing the list of equipment included in the

certificated empty weight and the loading instructions shall accompany the helicopter at the time of the initial certification and on a permanent basis from that period on.

为获得最正确的重量和重心数据，直升机应从撑点被顶起，而不是使用刹车。应修正影响重量和重心的位置，并在飞行手册中指出。

In order to obtain the most correct weight and C.G. data, the helicopter shall be jacked up its lifting points rather than using the skids. Should modifications affecting weight and C.G. position to be incorporated, the Flight Manual instructions shall be referred to.

14. 基准/Datum: 纵向/Longitudinal: MRH 中心线前 3.4 米 (134 英寸)
3.4 m (134 in) forward of the MRH centreline

横向/Lateral: 航空器对称平面
Aircraft symmetry plane

15. 测平方式/Levelling Means: Transmission deck

16. 最小飞行机组/Minimum Flight Crew: 右座一名飞行员
1 pilot in R.H. seat

17. 最多乘员座位数/Maximum Passenger Seating Capacity: 5

当航空器安装了前面的两个可选座位，最大成中增加到 6 人（不含飞行中）。该可选项按照相应飞行手册附录被使用。

When the aircraft is fitted with the forward two-place seat optional equipment, the maximum number of passengers is increased to six (pilot not included). This optional is to be used in accordance with the corresponding Flight Manual supplement.

18. 乘客紧急出口/Passenger Emergency Exit:

参见飞行手册
Refer to Flight Manual

19. 最大行李/货载 Maximum Baggage/Cargo Loads:

位置/Location	最大载荷/Max Load
右舱最大载荷	100 公斤 (220磅)
Maximum load in R.H. side hold:	100 kg (220 lb)
左舱最大载荷	120公斤(264磅)
Maximum load in L.H. side hold:	120 kg (264 lb)
后舱最大载荷	80公斤(176磅)
Maximum load in rear hold:	80 kg (176 lb)
前部驾驶舱最大载荷	150 公斤(331 磅)
Maximum load in forward cabin floor:	150 kg (331 lb)
后部驾驶舱最大载荷	310 公斤(683 磅)
Maximum load in rear cabin floor:	310 kg (683 lb)

20. 转动桨叶和控制位移/Rotor blade and control movement:

AS 350 维修手册第 5 章“主要推荐服务”中，认为由 DGAC 在 AS 350 直升机上执行满意的维修操作是可信的；5.99 中“适航限制”包括那些强制观察的限制。

The AS 350 Maintenance Manuals Chapter 5 " Master Servicing Recommendations " have been deemed acceptable by the DGAC to carry out satisfactory maintenance operations on the AS 350 helicopter ; part 5.99 " Airworthiness Limitations " contains limitations which are to be mandatory observed.

IV. 操作和服务说明/Operating and Service Instructions

1. 旋翼机飞行手册, 文件号/Rotorcraft Flight Manual, Document No:

AS 350 B1 飞行手册, 由 DGAC-F 于 1986 年 1 月 9 日批准, 及以后批准的版次

AS 350 B1 Flight Manual, approved by DGAC-F on January 9, 1986 or later approved revision (reference in French language).

2. 维修手册, 文件号/Maintenance Manual, Document No:

-AS 350 服务手册	AS 350 Service Manual
-AS 350 检查手册	AS 350 Overhaul Manual
-AS 350 修理手册	AS 350 Repair Manual
-AS 350 图解零件目录	AS 350 Illustrated Parts Catalogue

可选设备之间的兼容性如下所述/Compatibility between optional items of equipment is described:

-从安装方面: 在《主要维修建议》中

From an installation aspect: in the "Master Servicing Recommendations".

-从操作角度: 在飞行手册“附录”部分

From an operational aspect: in "Supplements" chapter of the Flight Manual.

3. 服务信函和服务通告/Service Letters and Service Bulletins:

由 EUROCOPTER 公布, 经 DGAC-F 和 EASA 批准

As published by Eurocopter and approved by DGAC-F and EASA.

V. 备注/Notes

1. 合格的序列号/Eligible serial numbers:

-AS 350 B1 型机 S/N 1822 及以后

AS 350 B1 aircraft S/N 1822 and up.

2. 标牌/Placards:

1-以下标牌必须安装在飞行员清晰可见的位置

The following placard must be fitted in a way that the pilot can see it clearly:

“安装到此直升机上的标记标牌包括运行此旋翼机必须遵守的运行限制—运行限制不同于在飞行手册中所指出。必须遵守此旋翼机维修手册中的适航限制章节”

"THE MARKINGS AND PLACARDS FITTED TO THIS HELICOPTER CONTAIN THE OPERATING LIMITATIONS WHICH MUST BE OBSERVED WHEN OPERATING THIS ROTORCRAFT - THE OPERATING LIMITATIONS OTHER THAN THESE ARE INDICATED IN THE ROTORCRAFT FLIGHT MANUAL. THE AIRWORTHINESS LIMITATION SECTION OF THE ROTORCRAFT MAINTENANCE MANUAL MUST BE OBSERVED".

2-参考飞行手册中提到的其他标牌

Refer to the Flight Manual as regards the other placards.

第 3 部分 AS 350 B2

SECTION 2 AS 350 B2

I. 总则/General

1. 数据单号/Data sheet No: EASA R.008 , 替代 DGAC-F n° 157, 第 16 版
(2005 年 3 月颁布)
EASA R.008
Superseding DGAC-F n° 157, issue 16 dated
March 2005
2. 衍生型或型别/Variant or Model: AS 350 B2 (商业指定: ECUREUIL)/
AS 350 B2
(commercial designation:ECUREUIL)
3. 适航类别/Airworthiness Category: 正常类/ Normal Category
4. 型号合格证持有人/Type Certificate Holder:

Airbus Helicopters
Aéroport International Marseille Provence
13725 MARGNANE Cedex-France
5. 制造商/Manufacturer:
参见上述 TC 持有人和 V.1 节-在许可下生产的合格的直升机序列号
See above for helicopters manufactured by Type Certificate holder and see sub-paragraph
V.1-Eligible serial numbers for helicopters manufactured under license
6. 法国 DGAC 审查时间/DGAC Certification Date: 1989.04.26/ April 26, 1989
7. 向法国 DGAC 申请时间/DGAC Application Date: 1988.10.06/ October 6, 1988

II. 审定基础/Certification Basis

1. 适航要求/Airworthiness Requirements:
FAR 27, 包括 1 至 10 号修正案
FAR Part 27, Amendments 1 to 10 included
2. 专用条件/Special Conditions:
补充的和专用条件在 6518 (1976 年 8 月 17 日颁布)、6437 (1977 年 7 月 28 日颁布), 以及 53639
(1985 年 6 月 25 日颁布) 号文中确定 (参见 53151/SFACT/TC 夹, 1989 年 2 月 9 日颁布)
Complementary and special conditions defined in letters 6518 dated August 17, 1976, 6437 dated
July 28, 1977 and 53639 dated June 25, 1985 (see letter 53151/SFACT/TC dated February 9, 1989)
对安装了 VEMD 主要更改的 a/c, 以上述内容中增加:
• HIRF 及闪电防护的专用技术条件

- 动力装置仪表的等效安全条件

详细内容参见 AS350B2 (VEMD) CRI n. A-1, 第 3 版, 2006 年 11 月 17 日颁布

For a/c equipped with VEMD major modification, as above plus:

- special conditions on protection against the effects of High Intensity Radiated Fields (HIRF) and Lightning
- equivalent safety findings for powerplant instrument markings

See AS350B2 (VEMD) CRI n. A-1 issue 3 dated 17/11/06 for details

III. 技术特征和使用限制/Technical Characteristics and Operational Limitations

1. 型号设计定义/ Type Design Definition

文件号 350A.04.4541

Documents 350A.04.4541

2. 描述/Description

小型单发直升机, 为早期型号 AS 350 B1 的衍生型设计

Small single-engine helicopter designed as a derivative product of the former type certified model AS 350 B1

3. 设备/Equipment:

经批准的设备清单列在 Eurocopter DOCUMENT No.350A04.4320 中。

The approved items of equipment are listed in Eurocopter DOCUMENT No.350A04.4320.

适用的适航规章中所要求的基本设备(见审定基础)必须被安装在审定时飞机及审定后的每一架飞机上。

The basic required equipment specified in the applicable airworthiness regulations(see certification bases) must be installed on the aircraft at certification time and at every time after certification.

4. 几何尺寸/Dimensions

机身/Fuselage:	长度/Length	10.93 米	(35.86 英尺)
		10.93 m	(35.86 ft)
	宽度/Width	1.87 米	(6.14 英尺)
		1.87 m	(6.14 ft)
	高度/Height	3.14 米	(10.30 英尺)
		3.14 m	(10.30 ft)
主旋/Main Rotor:	3 叶桨-直径 10.69 米 (35.07 英尺)		
	3 blades - Diameter 10.69m(35.07 ft)		
尾旋/Tail Rotor:	2 叶桨-直径 1.86 米 (6.10 英尺)		
	2 blades – Diameter 1.86 m (6.10 ft)		

5. 发动机/ Engine

TURBOMECA ARRIEL 1D (EASA 发动机型号合格证编号: E.073)

TURBOMECA ARRIEL 1D (EASA Engine Type Certificate No. E.073),

TCDS EASA E.073(替代 DGAC-F 发动机数据单号 M5)

TCDS EASA E.073(Superseding DGAC-F Engine TCDS No M 5)

5.1. 发动机限制/Installed Engine Limits:

功率 Power rating	轴的扭矩限制 Limit torque on shaft	最低保障动力* Minimum Guaranteed power*	B2 without VEMD Generator speed(NG)** (Δ Ng)	B2 without VEMD Generator speed(NG)** (Δ Ng)	T4 温度 T4 temperature
最大瞬态值 (5 秒) Maximum transient (5 sec.)		107.5%(+6)		103.1%(+1)	
起飞最大值 (5 分钟) Maximum at takeoff (5 min.)	83 m.daN	478 Kw***	Without P2 air bleed (0) With P2 air bleed (-0.6)	Automatic P2 Derating by VEMD	845°C
持续最大值 Maximum continuous	83 m.daN	449 Kw	98%(-3.5)	98%(-4)	795°C

* 工业标准结构，地面标准 ISA,ground level

** 100%=51800 rpm

*** 由于将燃油流量计算在内，机械动力被限制在该值，

The mechanical power has been limited to this value taking the fuel flow limit into account.

5.2. 传送扭矩限制/Transmission Torque Limits: 参见飞行手册
Refer to Flight Manual.

6. 液体（燃油/滑油/添加剂）/Fluids (Fuel/Oil/additives):

6.1. 燃油/Fuel: 参见飞行手册（包括中国 RP-3 号燃油）
Refer to Flight Manual（include Chinese RP-3）

6.2. 滑油/Oil: 参见飞行手册
Refer to Flight Manual.

7. 液体容量/Fluid capacities:

7.1. 燃油/Fuel: 总容量/Total: 540 升（142.7 加仑）
540 l (142.7 US gal)

可用燃油/Usable fuel: 538.75 升 (142.34 加仑 l) – post AMS 07 0289
538.75 l (142.34 US gal) – post AMS 07 0289

不可用燃油/Unusable fuel: 1.25 升 (0.33 加仑) – post AMS 07 0289
1.25 l (0.33 US gal) – post AMS 07 0289

7.2. 滑油/Oil: 发动机滑油容量/Engine reservoir: 5.2 升（1.37 加仑）
5.2 l (1.37 US gal)

BTP: 6.51 升 (1.72 加仑) –包括管路内油量
6.51 l (1.72 US gal) – circuit included

BTA: 0.33 升 (0.09 加仑)
0.33 l (0.09 US gal)

8. 空速限制/Airspeed limits:

开车时 VNE/Power-on VNE

-绝对 VNE: HP=0 时, 287 公里/小时 (155 节)

Absolute VNE: 287 km/h (155 kt) for HP=0

-按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺)

In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft)

-在寒冷天气下, 当 OAT 低于 -30℃, 从上述 V_{NE} 中减去 19 公里/小时 (10 节)

In cold weather, when OAT is below -30℃, subtract 19 km/h (10 kt) from the above VNE.

停车时 VNE /Power-off VNE

-绝对 VNE: HP=0 时, 231 公里/小时 (125 节)

Absolute VNE: 231 km/h (125 kt) for HP=0

-按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺)

In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft).

-在寒冷天气下, 从上述 V_{NE} 中减去下述数值:

In cold weather, subtract the following values from the above VNE:

- 19 公里/小时 (10 节), OAT 在 -20℃ 至 -30℃ 之间
19 km/h (10 kt), when OAT is between -20℃ and -30℃
- 37 公里/小时 (20 节), 当 OAT 低于 -30℃, VNE 不少于 120 公里/小时 (65 节)
37 km/h (20 kt), when OAT is below -30℃, without VNE being less than 120km/h (65 kt).

9. 转速限制/Rotor Speed Limits:

开车飞行时/Power-on flight:

390 +4
 -5 rpm

自转时/In autorotation:

-最大: 430 rpm (高于 410 rpm 时声音警告)

Maximum: 430 rpm (audio warning above 410 rpm)

-最小: 320 rpm (低于 360 rpm 时声音警告)

Minimum: 320 rpm (audio warning below 360 rpm)

10. 最大运行高度及温度/Maximum Operating Altitude and Temperature:

10.1. 高度/Altitude HP:	起飞及着陆/Take-off and landing:	参见飞行手册 Refer to Flight Manual
	在运行中/En route:	6096 米 (2000 英尺) 6096 m (20 000 ft)
10.2 温度/Temperature:	参见飞行手册 Refer to Flight Manual	

11. 使用限制/Operating Limitations:

-白天目视飞行

Day VFR flight

-在按运行规章要求安装了附加设备且可用时, 可夜间目视飞行

Night VFR flight, when the additional equipment required by operational regulations is installed and serviceable.

-雪天飞行: 参见飞行手册

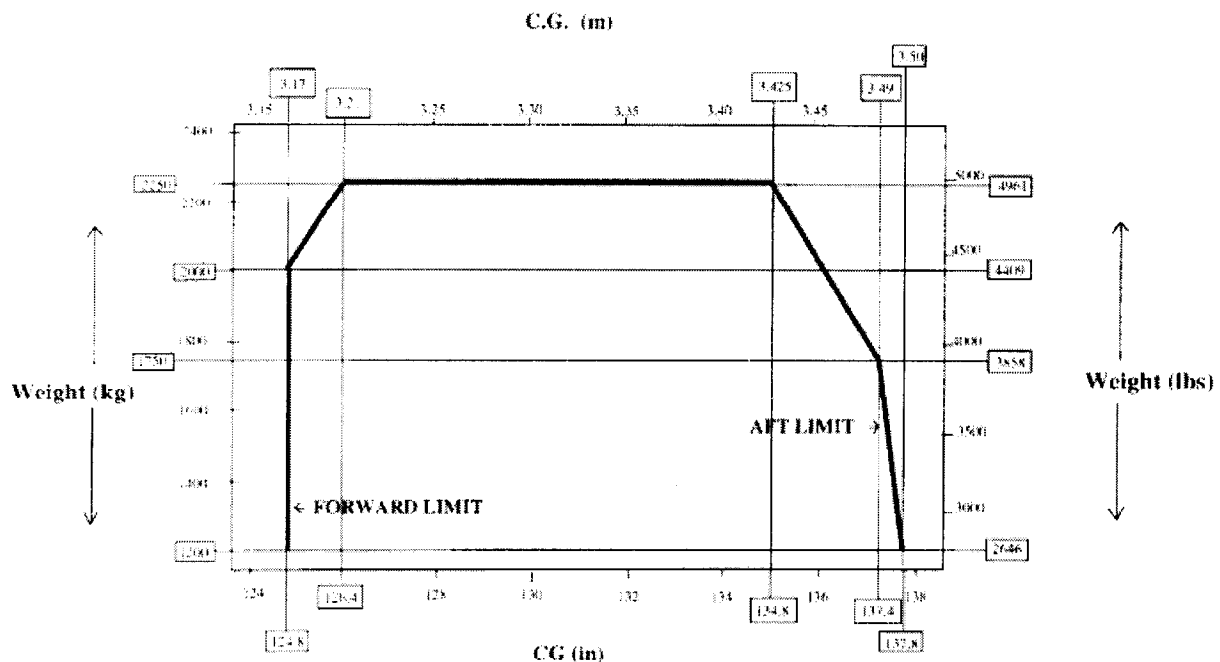
Flight in falling snow: refer to Flight Manual

(更多信息参见飞行手册 For more information refer to Flight Manual)

12. 最大审定重量/Maximum Certified Weights: 2250 公斤 (4960 磅)
2250 kg (4960 lb)

13. 重心范围/Centre of Gravity Range:

纵向/Longitudinal:



横向/Lateral: 左侧限制/L.H. limit: 0.18 米 (7.09 英寸)
0.18 m (7.09 in)
右侧限制/R.H. limit: 0.14 米 (5.51 英寸)
0.14 m (5.51 in)

重量分类及重心限制文件包括审定时空机状态下的设备清单, 同时, 载荷说明在直升要初始审定时即确定, 并建立在从那时起的永久的基础上。

The weight breakdown and C.G. limit document containing the list of equipment included in the certificated empty weight and the loading instructions shall accompany the helicopter at the time of the initial certification and on a permanent basis from that period on.

为获得最正确的重量和重心数据, 直升机应从撑点被顶起, 而不是使用刹车。应修正影响重量和重心的位置, 并在飞行手册中指出。

In order to obtain the most correct weight and C.G. data, the helicopter shall be jacked up its lifting points rather than using the skids. Should modifications affecting weight and C.G. position to be incorporated, the Flight Manual instructions shall be referred to.

14. 基准/Datum: 纵向/Longitudinal: MRH 中心线前 3.4 米 (134 英寸)

横向/Lateral: 3.4 m (134 in) forward of the MRH centreline
航空器对称平面
Aircraft symmetry plane

15. 测平方式/Levelling Means: Transmission deck

16. 最小飞行机组/Minimum Flight Crew: 右座一名飞行员
1 pilot in R.H. seat

17. 最多乘员座位数/Maximum Passenger Seating Capacity: 5

当航空器安装了前面的两个可选座位，最大成中增加到 6 人（不含飞行中）。该可选项按照相应飞行手册附录被使用。

When the aircraft is fitted with the forward two-place seat optional equipment, the maximum number of passengers is increased to six (pilot not included). This optional is to be used in accordance with the corresponding Flight Manual supplement.

18. 乘客紧急出口/Passenger Emergency Exit: 参见飞行手册
Refer to Flight Manual

19. 最大行李/货载 Maximum Baggage/Cargo Loads:

位置/Location	最大载荷/Max Load
右舱最大载荷 Maximum load in R.H. side hold:	100 公斤 (220 磅) 100 kg (220 lb)
左舱最大载荷 Maximum load in L.H. side hold:	120 公斤(264 磅) 120 kg (264 lb)
后舱最大载荷 Maximum load in rear hold:	80 公斤(176 磅) 80 kg (176 lb)
前部驾驶舱最大载荷 Maximum load in forward cabin floor:	150 公斤(331 磅) 150 kg (331 lb)
后部驾驶舱最大载荷 Maximum load in rear cabin floor:	310 公斤(683 磅) 310 kg (683 lb)

20. 转动桨叶和控制位移/Rotor blade and control movement:

参见航空器维护手册
Refer to aircraft Maintenance Manual

21. 时寿件/Life-limited parts:

AS 350 B2 维修手册第 5 章“主要推荐服务”中，认为由 DGAC 在 AS 350 直升机上执行满意的维修操作是可信的；5.99 中“适航限制”包括那些强制观察的限制。

The AS 350 B2 Maintenance Manuals Chapter 5 " Master Servicing Recommendations " have been deemed acceptable by the DGAC to carry out satisfactory maintenance operations on the AS 350 helicopter ; part 5.99 " Airworthiness Limitations " contains limitations which are to be mandatory observed.

IV. 操作和服务说明/Operating and Service Instructions

1. 旋翼机飞行手册, 文件号/Rotorcraft Flight Manual, Document No:

AS 350 B1 飞行手册, 由 DGAC-F 于 1989 年 4 月 26 日批准, 及以后批准的版次

AS 350 B2 Flight Manual, approved by DGAC-F on April 26, 1989 or later approved revision (reference in French language).

对 VEMD 主要更改: AS 350 B2 (VEMD) 飞行手册, 由 EASA.R.C 01396 批准, 2006 年 11 月 22 日或以后批准的版次

For VEMD major modification: AS 350 B2 (VEMD) Flight Manual, approved by EASA.R.C 01396 on 22nd November 2006 or later approved revision (reference in English language)

2. 维修手册, 文件号/Maintenance Manual, Document No:

-AS 350 维修手册

AS 350 B2 Service Manual

-AS 350 检查手册

AS 350 Overhaul Manual

-AS 350 修理手册

AS 350 Repair Manual

-AS 350 图解零件目录

AS 350 B2 Illustrated Parts Catalogue

可选设备之间的兼容性如下所述/Compatibility between optional items of equipment is described:

-从安装方面: 在《主要维修建议》中

From an installation aspect: in the "Master Servicing Recommendations".

-从操作角度: 在飞行手册“附录”部分

From an operational aspect: in "Supplements" chapter of the Flight Manual.

3. 服务信函和服务通告/Service Letters and Service Bulletins:

由 EUROCOPTER 公布, 经 DGAC-F 和 EASA 批准

As published by Eurocopter and approved by DGAC-F and EASA.

V. 备注/Notes**1. 合格的序列号/Eligible serial numbers:**

-AS 350 B2 型机 S/N 2100 及以后

AS 350 B2 aircraft S/N 2100 and up.

-AS 350 B1 型机通过实施服务通告 n° 01.26 或 01.00.26 转成 AS 350 B2

AS 350 B1 aircraft converted into AS 350 B2 by application of Service Bulletin n° 01.26 or 01.00.26

-AS 350 B 型机通过实施服务通告 n° 01.00.51 转成 AS 350 B2

AS 350 B aircraft converted into AS 350 B2 by application of Service Bulletin n° 01.00.51

-AS 350 BA 型机通过实施服务通告 n° 01.00.50 转成 AS 350 B2

AS 350 BA aircraft converted into AS 350 B2 by application of Service Bulletin n° 01.00.50

-安装了 VEMD 主要更改的 AS 350 B2: 机号 S/N 4129 及以后

AS 350 B2 with VEMD major modification: aircraft S/N 4129 and up

列在Eurocopter文件L102-001中的飞机序号在Helibras许可下生产, 文件L 102-002 中列出机号在AE-MS许可下生产

The aircrafts whose s/n is listed in Eurocopter document L102-001 are manufactured under Helibras license and those in L 102-002 under AE-MS license.

2. 标牌/Placards:

1- 以下标牌必须安装在飞行员清晰可见的位置

The following placard must be fitted in a way that the pilot can see it clearly:

“安装到此直升机上的标记标牌包括运行此旋翼机必须遵守的运行限制 –运行限制不同于在飞行手册中所指出。必须遵守此旋翼机维修手册中的适航限制章节”

"THE MARKINGS AND PLACARDS FITTED TO THIS HELICOPTER CONTAIN THE OPERATING LIMITATIONS WHICH MUST BE OBSERVED WHEN OPERATING THIS ROTORCRAFT - THE OPERATING LIMITATIONS OTHER THAN THESE ARE INDICATED IN THE ROTORCRAFT FLIGHT MANUAL. THE AIRWORTHINESS LIMITATION SECTION OF THE ROTORCRAFT MAINTENANCE MANUAL MUST BE OBSERVED".

2- 参考飞行手册中提到的其他标牌

Refer to the Flight Manual as regards the other placards.

第 4 部分 AS 350 B3

SECTION 4 AS 350 B3

I. 总则/General

1. 数据单号/Data sheet No: EASA R.008 , 替代 DGAC-F n° 157, 第 16 版
(2005 年 3 月颁布)
EASA R.008
Superseding DGAC-F n° 157, issue 16 dated
March 2005
2. 衍生型或型别/Variant or Model: AS 350 B3 (商业指定: ECUREUIL)/
AS 350 B3
(commercial designation:ECUREUIL)
3. 适航类别/Airworthiness Category: 正常类/ Normal Category
4. 型号合格证持有人/Type Certificate Holder:
Airbus Helicopters
Aéroport International Marseille Provence
13725 MARIGNANE Cedex-France
5. 制造商/Manufacturer:
参见上述 TC 持有人和 V.1 节-在许可下生产的合格的直升机序列号
See above for helicopters manufactured by Type Certificate holder and see sub-paragraph
V.1-Eligible serial numbers for helicopters manufactured under license
6. 法国 DGAC 审查时间/DGAC Certification Date: 1997.12.24/ December 24, 1997
7. 向法国 DGAC 申请时间/DGAC Application Date: 1996.10.14/ October 14, 1996

II. 审定基础/Certification Basis

1. 适航要求/Airworthiness Requirements:
FAR 27, 包括 1 至 10 号修正案
FAR Part 27, Amendments 1 to 10 included
2. 专用条件/Special Conditions:
补充的和专用条件在 DGAC-F 971726 号文中确定 (1997 年 4 月 3 日颁布)
Complementary and special conditions defined in DGAC-F letters 971726 dated April 3, 1997
3. 对 a/c 集成改装 OP-3369 的适航要求 (2370 公斤重量扩展) /
Airworthiness Requirements for a/c incorporating mod. OP-3369 (2370 kg weight extension)
按 2003 年 11 月 14 日 CS 27 第一版 (ED Decision 2003/15/RM), 替换 FAR 27 相同段落:

as above with the following requirements of CS 27 first issue of 14/11/2003 (ED Decision 2003/15/RM) to replace the same numbered paragraphs of FAR 27:

CS27 §1; §21; §25; §27; §33; §45; §51; §65; §71; §73; §75; §79; §141; §143; §173; §175; §177; §241; §301; §303; §305; §307; §309; §321; §337; §339; §341; §351; §471; §473; §501; §505; §521; §547; §549; §563(b); §571; §602; §661; §663; §695; §723; §725; §727; §737; §751; §753; §801(b)(d); §927(c); §1041; §1043; §1045; §1301; §1501; §1519; §1529; §1581; §1583; §1585; §1587; §1589.

4. 对 a/c 集成改装 OP-4305 的适航要求 (Arriel2D 发动机安装) /
Airworthiness Requirements for a/c incorporating mod. OP-4305 (Arriel2D engine installation)

按 CRI A-01(X1)更改
as above and modified as per CRI A-01(X1)

III. 技术特征和使用限制 /Technical Characteristics and Operational Limitations

1. 型号设计定义/ Type Design Definition

文件号 350A.04.4805
Documents 350A.04.4805

文件号 350A045426 针对 a/c 集成改装 OP-3369 (2370 公斤重量扩展)
Document 350A045426 for a/c incorporating mod. OP-3369 (2370 kg weight extension).

文件号 350A047343 针对 a/c 集成改装 OP-4305 (Arriel2D 发动机安装)
Document 350A047343 for a/c incorporating mod. OP-4305(Arriel 2D engine installation)

2. 描述/Description

小型单发直升机, 为早期型号 AS 350 B2 的衍生型设计
Small single-engine helicopter designed as a derivative product of the former type certified model AS 350 B2.

3. 设备/Equipment:

经批准的设备清单列在 Eurocopter DOCUMENT No.350A04.4320 中。
The approved items of equipment are listed in Eurocopter DOCUMENT No.350A04.4320.

适用的适航规章中所要求的基本设备 (见审定基础) 必须被安装在审定时飞机及审定后的每一架飞机上。
The basic required equipment specified in the applicable airworthiness regulations (see certification bases) must be installed on the aircraft at certification time and at every time after certification.

4. 几何尺寸/Dimensions

机身/Fuselage:	长度/Length	10.93 米	(35.86 英尺)
		10.93 m	(35.86 ft)
	宽度/Width	1.87 米	(6.14 英尺)
		1.87 m	(6.14 ft)
	高度/Height	3.14 米	(10.30 英尺)
		3.14 m	(10.30 ft)
主旋/Main Rotor:	3 叶桨-直径 10.69 米 (35.07 英尺)		
	3 blades - Diameter 10.69m(35.07 ft)		

尾旋/Tail Rotor: 2 叶桨-直径 1.86 米 (6.10 英尺)
2 blades – Diameter 1.86 m (6.10 ft)

5. 发动机/ Engine TURBOMECA ARRIEL 2B (EASA 发动机型号合格证编号: E.001, 型号认可证编号 VTC0190E)
TURBOMECA ARRIEL 2B (EASA Engine Type Certificate No. E.001, Validation Type Certificate No.VTC0190E)
EASA Engine TCDS No E.001 (替代 DGAC-F Engine TCDS No M 19)
EASA Engine TCDS No E.001 (Superseding DGAC-F Engine TCDS No M 19)
TURBOMECA ARRIEL 2B1 (EASA 发动机型号合格证编号: E.001, 型号认可证编号 VTC0190E)
TURBOMECA ARRIEL 2B1(EASA Engine Type Certificate No. E.001, Validation Type Certificate No.VTC0190E)
EASA Engine TCDS No E.001 (替代 DGAC-F Engine TCDS No M 19)
EASA Engine TCDS No E.001 (Superseding DGAC-F Engine TCDS No M 19)
TURBOMECA ARRIEL 2D (EASA 发动机型号合格证编号: E.001, 型号认可证编号VTC0190E)
TURBOMECA ARRIEL 2D (EASA Engine Type Certificate No. E.001, Validation Type Certificate No.VTC0190E)
EASE Engine TCDS E.001

5.1. 发动机限制/Inatalled Engine Limits:

- 在 AS 350 B3 ARRIEL 2B (AMS072803 和 072808 改装前)
- On AS 350 B3 ARRIEL 2B (before modifications AMS 072803 and 072808):

功率 Power rating	轴的扭矩限制 Limit torque on shaft	最低保障动力* Mimimum Guaranteed power*	电机速度 (NG) ** Generator speed (NG)** (Δ Ng)	T4 温度 T4 temperature
最大瞬态值 (5 秒) Maximum transient (5 sec.)			102.3% (+1)	
起飞最大值 (5 分钟) Maximum at takeoff (5 min.)	85.3 m.daN	535 Kw	101.1% (0)	915℃
持续最大值 Maximum continuous	71.6 m.daN	450 Kw	94.8% } Vi>70kt (-4) 97.1% } Vi<70kt (-4)	849℃

- 在 AS 350 B3 ARRIEL 2B (进行 AMS 072803 和 072808 改装后), 以及在 AS 350 B3 ARRIEL 2B1
- On AS 350 B3 ARRIEL 2B (after modifications AMS 072803 and 072808) and on AS 350 B3 ARRIEL 2B1

功率 Power rating	轴的扭矩限制 Limit torque on shaft	最低保障动力* Minimum Guaranteed power*	电机速度 (NG) ** (Δ Ng) Generator speed (NG)** (Δ Ng)	T4 温度 T4 temperature
最大瞬态值 (5 秒) Maximum transient (5 sec.)			102.3% (+1)	

起飞最大值 (5 分钟) Maximum at takeoff (5 min.)	85.3 m.daN	535 Kw	101.1% (0)	915℃
持续最大值 Maximum continuous	79.1 m.daN	497 kW	97.1% (-4)	849℃

* ISA, 每秒386转的转速下的地面等级

ISA, ground level at rotor speed 386 rpm

** 100 % = 52 110 rpm – 非放电状态, 也非 P2, ISA, 地面等级

100 % = 52 110 rpm - without electrical bleed, nor P2, ISA, ground level.

-对于AS350 B3 ARRIEL 2D****

-On AS350 B3 ARROEL 2D****

功率 Power rating	轴的扭矩限制 Limit torque on shaft	最低保障动力* Minimum Guaranteed power*	燃气发生器速度 (ΔNg) (Ng) ** Generator speed*** (ΔNg) (Ng)**	T4 温度 T4 temperature
最大瞬态值 (5 秒) Maximum transient (5 sec.)			+1 (101.9%)	
起飞最大值 (5 分钟) Maximum at takeoff (5 min.)	85.3 m.daN	535 Kw	0 (100.9%)	949℃
起飞最大值 (30 分钟)(HIP) ***** Maximum at takeoff (30min)(HIP) *****	85.3 m.daN	535 Kw	0 (100.9%)	949℃
持续最大值 Maximum continuous	79.1 m.daN	497Kw	-4 (98.0%)	905℃

* ISA, 地面状态, 转速为每秒386转

ISA, ground level at rotor speed 386 rpm

** 100 % = 52 110 rpm – 非放电状态, 也非P2, ISA, 地面状态

100 % = 52 110 rpm - without electrical bleed, nor P2, ISA, ground level.

*** 由于实际的 Ng 限制依赖于周围环境, 运行限制是 ΔNg 值。Ng 值相当于整个飞行包线内的能达到的最大 Ng 值。

*** As the actual Ng limitations depend on ambient conditions, the operational limitations are the ΔNg values. Ng values correspond to the maximum Ng reached in the whole flight domain.

**** 注意: 发动机不是本身降低了功率, 而是安装到 AS350B3 上以后性能进行了限制。在 VEMD 中进行了特殊的限制, 允许飞行员在每个飞机功率 (MCP, MTOP 和 MTP) 操纵 Arriel2D 时与安装 Arriel2B1 发动机时具有相同的功率。

**** Note: The engine is not physically derated but its performance is limited when installed in the AS350B3. Specific limitations have been implemented in the VEMD, allowing the pilot to control the installed Arriel2D at the same power limitations as when an Arriel2B1 is installed, for each aircraft rating (MCP, MTOP and MTP).

***** 仅允许当 AS350B3 尾梁上进行了加强热防护改装 (OP-4309) 使用 HIP (增强悬停功率, 最多 30 分钟)。

***** Use of HIP (Hover Increased Power, TOP 30 min) is only allowed when enhanced thermal protection is fitted on the AS350B3 tail boom (modification OP-4309)

5.2. 传送扭矩限制/Transmission Torque Limits: 参见飞行手册
Refer to Flight Manual.

对 AS350 B3 ARRIEL 2D/On AS350 B3 ARRIEL 2D

最大连续扭矩: 92.7%

Max continuous torque: 92.7 %

从0到40kt起飞扭矩范围 92.7-100%

Take-off torque range from 0 to 40kt 92.7 to 100%

最大起飞扭矩: 100%

Max take-off torque: 100 %

最大瞬时扭矩 (5s): 104%

Max transient torque (5s): 104 %

(100%扭矩相当于在功率535kW, 主旋翼386rpm转速时)

(100% torque corresponds to 535 kW at 386 rpm main rotor speed)

6. 液体 (燃油/滑油/添加剂) /Fluids (Fuel/Oil/additives):

6.1. 燃油/Fuel: 参见飞行手册 (包括中国 RP-3 号燃油)
Refer to Flight Manual (include Chinese PR-3)

6.2. 滑油/Oil: 参见飞行手册
Refer to Flight Manual.

7. 液体容量/Fluid capacities:

7.1. 燃油/Fuel:	总容量/Total:	540 升 (142.7 加仑) 540 l (142.7 US gal)
	可用燃油/Usable fuel:	538.75 升 (142.34 加仑 l) – post AMS 07 0289 538.75 l (142.34 US gal) – post AMS 07 0289
	不可用燃油/Unusable fuel:	1.25 升 (0.33 加仑) – post AMS 07 0289 1.25 l (0.33 US gal) – post AMS 07 0289
7.2. 滑油/Oil:	发动机滑油容量/ Engine reservoir:	5.2 升 (1.37 加仑) 5.2 l (1.37 US gal)
	BTP:	6.51 升 (1.72 加仑) – 包括管路内油量 6.51 l (1.72 US gal) – circuit included
	BTA:	0.33 升 (0.09 加仑) 0.33 l (0.09 US gal)

8. 空速限制/Airspeed limits:

8.1. 对 AS 350 B3 ARRIEL 2B (进行 AMS 072803 和 072808 改装前) 和 AS 350 B3 ARRIEL 2B1
For AS 350 B3 ARRIEL 2B (before modifications AMS 072803 and 072808) and for AS 350 B3 ARRIEL 2B1:

开车时 VNE/Power-on VNE

-绝对 VNE: HP=0 时, 287 公里/小时 (155 节)

Absolute VNE: 287 km/h (155 kt) for HP=0

-按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺)

In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft)

-在寒冷天气下, 当 OAT 低于 -30℃, 从上述 VNE 中减去 19 公里/小时 (10 节)

In cold weather, when OAT is below -30℃, subtract 19 km/h (10 kt) from the above VNE.

停车时 VNE /Power-off VNE

-绝对 VNE: HP=0 时, 231 公里/小时 (125 节)

Absolute VNE: 231 km/h (125 kt) for HP = 0.

-按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺), 无 VNE 时将低于 120 公里/小时 (65 节)

In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft), without VNE being less than 120 km/h (65 kt).

-在寒冷天气下, 当 OAT 低于 -20℃, 从上述 VNE 中减去 37 公里/小时 (20 节), 无 VNE 时将低于 120 公里/小时 (65 节)

In cold weather, subtract 37 km/h (20 kt) from the above VNE, when OAT is below - 20°, without VNE being less than 120 km/h (65 kt).

8.2. 对 AS 350 B3 ARRIEL 2B (经过 AMS 072803 和 072808 改装后)

For AS 350 B3 ARRIEL 2B (after modifications AMS 072803 and 072808):

开车时 VNE/Power-on VNE

-绝对 VNE: HP=0 时, 287 公里/小时 (155 节)

Absolute VNE: 287 km/h (155 kt) for HP = 0.

-按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺)

In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft)

-在寒冷天气下, 当 OAT 低于 -30℃, 从上述 VNE 中减去 19 公里/小时 (10 节)

In cold weather, when OAT is below - 30° C, subtract 19 km/h (10 kt) from the above VNE.

-在 G 图 C, 十字开口区域, VNE 限制到 246 公里/小时 (133 节), 或者以上定义的 VNE (最低值)

In the cross-hatched area in the C of G graph, VNE is limited to 246 km/h (133 kt) or the VNE defined above (the lowest value).

停车时 VNE/Power-off VNE

-绝对 VNE: HP=0 时, 231 公里/小时 (125 节)

Absolute VNE: 231 km/h (125 kt) for HP = 0.

-按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺), 无 VNE 时将低于 120 公里/小时 (65 节)

In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft), without VNE being less than 120 km/h (65 kt).

-在寒冷天气下, 当 OAT 低于 -20℃, 从上述 VNE 中减去 37 公里/小时 (20 节), 无 VNE 时将低于 120 公里/小时 (65 节)

In cold weather, subtract 37 km/h (20 kt) from the above VNE, when OAT is below - 20°, without VNE being less than 120 km/h (65 kt).

without VNE being less than 120 km/h (65 kt).

8.3 对 AS 350 B3 ARRIEL 2D:

For As 350 B3 ARRIEL 2D

开车时 VNE/Power-on VNE

-绝对 VNE: HP=0 时, 287 公里/小时 (155 节)

-Absolute VNE: 287 km/h (155 kt) for HP = 0.

-按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺)

-In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft)

-在寒冷天气下, 当 OAT 低于-30℃, 从上述 VNE 中减去 19 公里/小时 (10 节)

-In cold weather, when OAT is below - 30° C, subtract 19 km/h (10 kt) from the above VNE.

停车时 VNE/Power-off VNE

-绝对 VNE: HP=0 时, 231 公里/小时 (125 节)

-Absolute VNE: 231 km/h (125 kt) for HP = 0.

-按高度计算, 每 1000 米, 速度降低 18 公里/小时 (3 节/1000 英尺), 直到 VNE 将低于 120 公里/小时 (65 节)

-In altitude, speed decreases by 18 km/h per 1000 m (3 kt per 1000 ft), without VNE being less than 120 km/h (65 kt).

-在寒冷天气下, 当 OAT 低于-20℃, 从上述 VNE 中减去 37 公里/小时 (20 节), 直到 VNE 将低于 120 公里/小时 (65 节)

-In cold weather, subtract 37 km/h (20 kt) from the above VNE, when OAT is below - 20°, without VNE being less than 120 km/h (65 kt).

9. 转速限制/Rotor Speed Limits:

开车飞行时/Power-on flight:

- 对 AS 350 B3 ARRIEL 2B:
For AS 350 B3 ARRIEL 2B: 390 $\begin{matrix} +4 \\ -5 \end{matrix}$ rpm
- 对 AS 350 B3 ARRIEL 2B1:
For AS 350 B3 ARRIEL 2B1: 375 到 405 转/每分钟
375 to 405 rpm
- 对 AS 350 B3 ARRIEL 2D:
For AS 350 B3 ARRIEL 2D: 375 到 405 转/每分钟
375 to 405 rpm

自转时/In autorotation: - 最大: 430 rpm (高于 410 rpm 时声音警告)
Maximum: 430 rpm (audio warning above 410 rpm)
- 最小: 320 rpm (低于 360 rpm 时声音警告)
Minimum: 320 rpm (audio warning below 360 rpm)

10. 最大运行高度及温度/Maximum Operating Altitude and Temperature:

10.1. 高度/Altitude HP: 起飞及着陆/Take-off and landing: 参见飞行手册
Refer to Flight Manual
在运行中/En route: 7010 米 (23 000 英尺)
7010 m (23 000 ft)

10.2 温度/Temperature: 参见飞行手册/Refer to Flight Manual

11. 使用限制/Operating Limitations:

-白天目视飞行

Day VFR flight

-在按运行规章要求安装了附加设备且可用时，可夜间目视飞行

Night VFR flight, when the additional equipment required by operational regulations is installed and serviceable.

(更多信息参见飞行手册 For more information refer to Flight Manual)

12. 最大审定重量/Maximum Certified Weights:

2250 公斤 (4960 磅)

2250 kg (4960 lb)

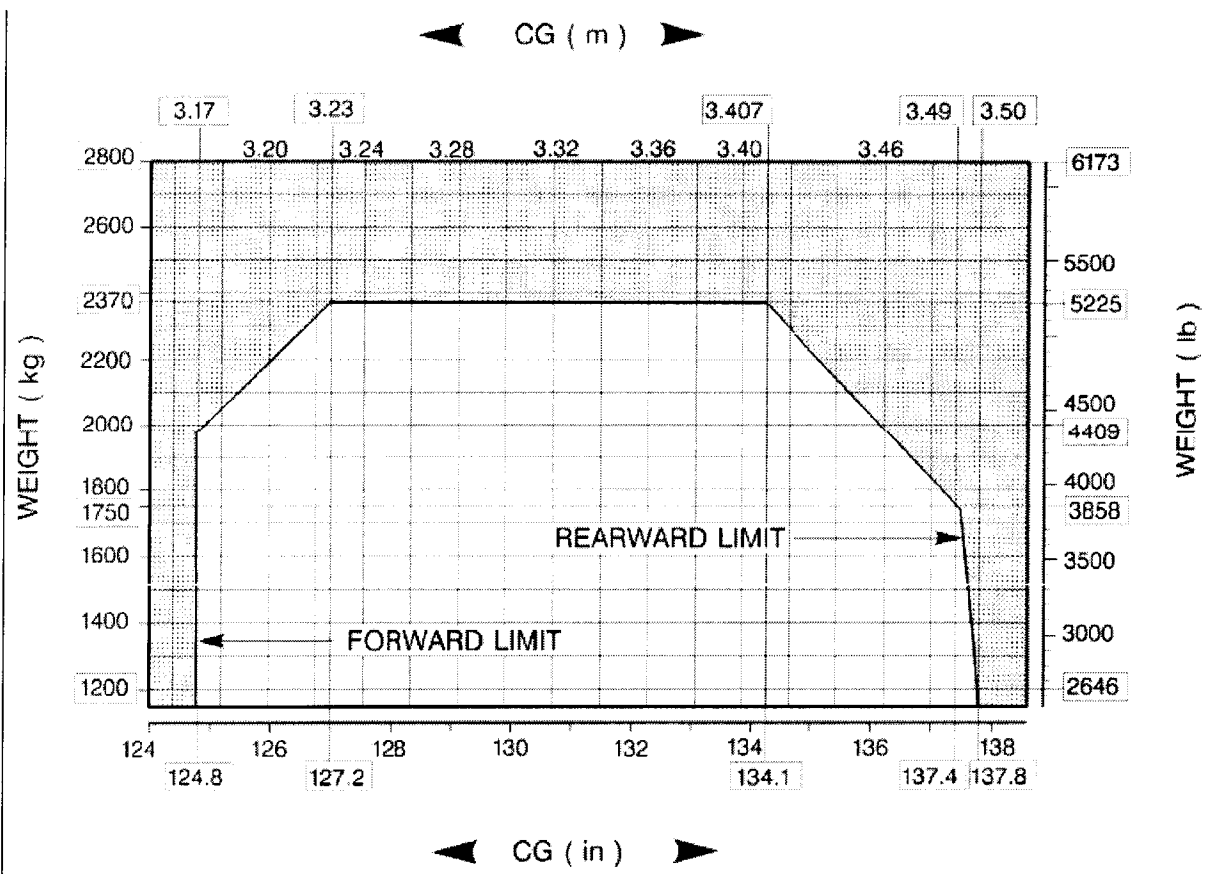
2370 公斤 (5220 磅), 对 a/c 改装 OP-3369

2370 kg (5220 lb) for a/c incorporating mod. OP-3369.

13. 重心范围/Centre of Gravity Range:

纵向/Longitudinal: -350 B3 ARRIEL 2B1 a/c 集成改装 OP-3369

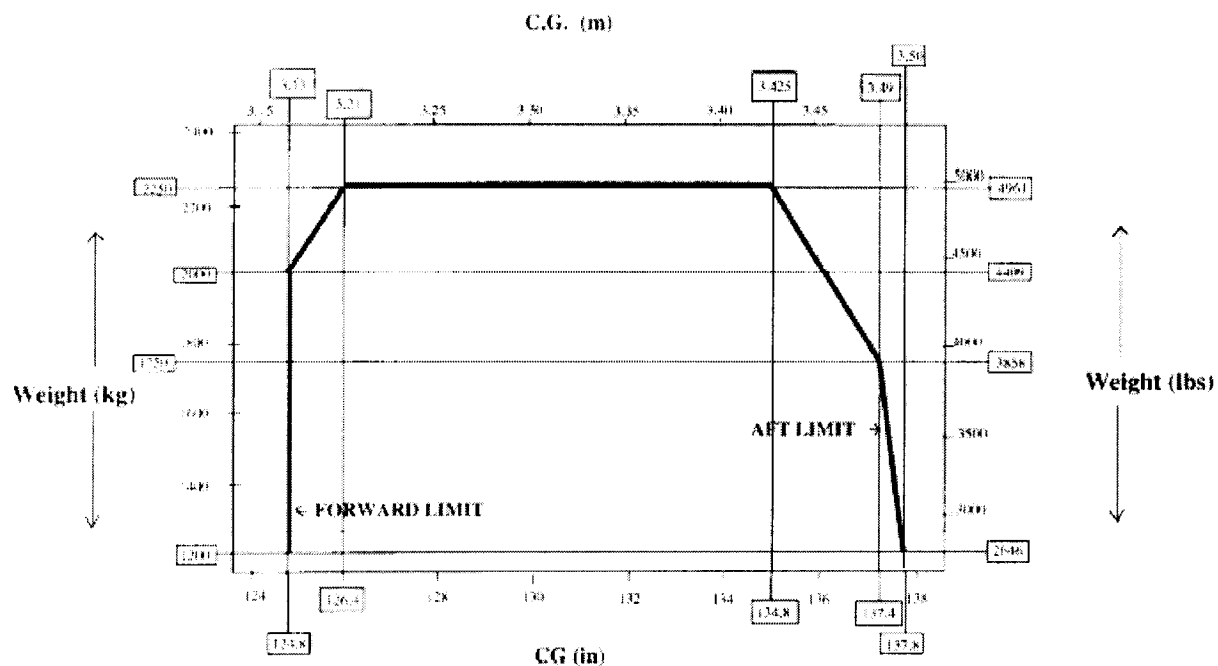
-350 B3 ARRIEL 2B1 a/c incorporating mod. OP-3369



纵向/Longitudinal:

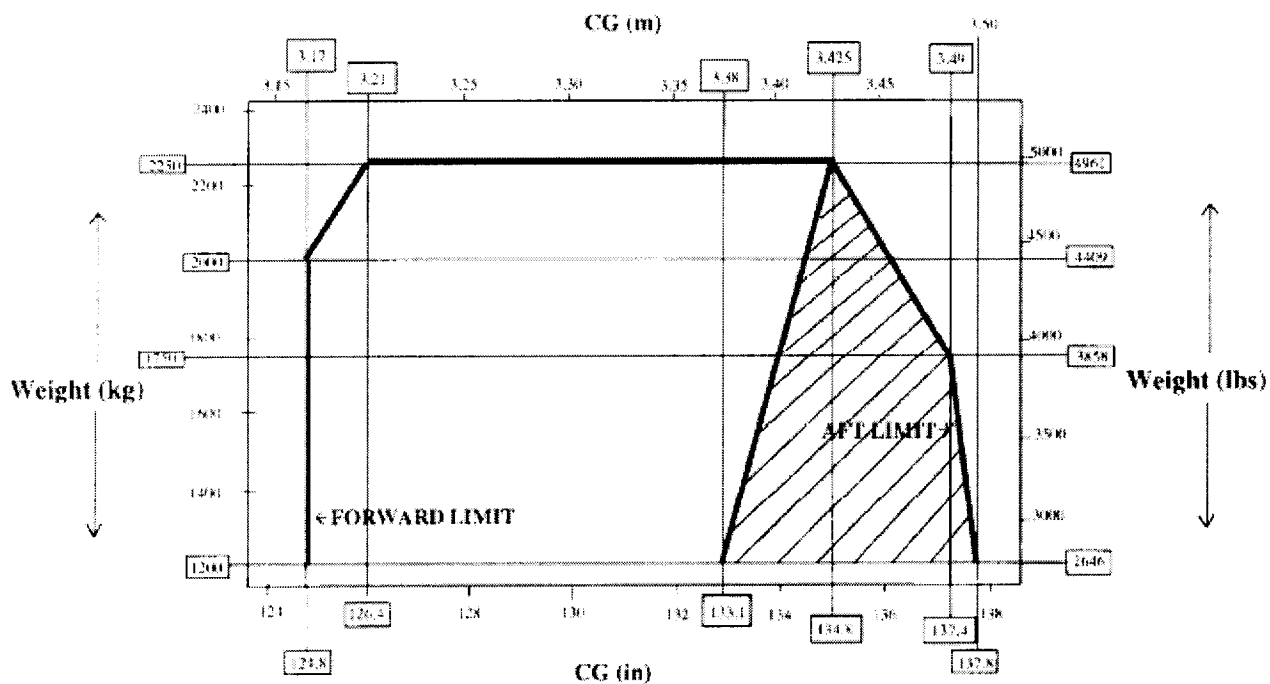
-350 B3 ARRIEL 2B (AMS 072803 和 072808 改装前), 以及 AS 350 B3 ARRIEL 2B1

-350 B3 ARRIEL 2B (before modifications AMS 072803 and 072808) and for AS 350 B3 ARRIEL 2B1:



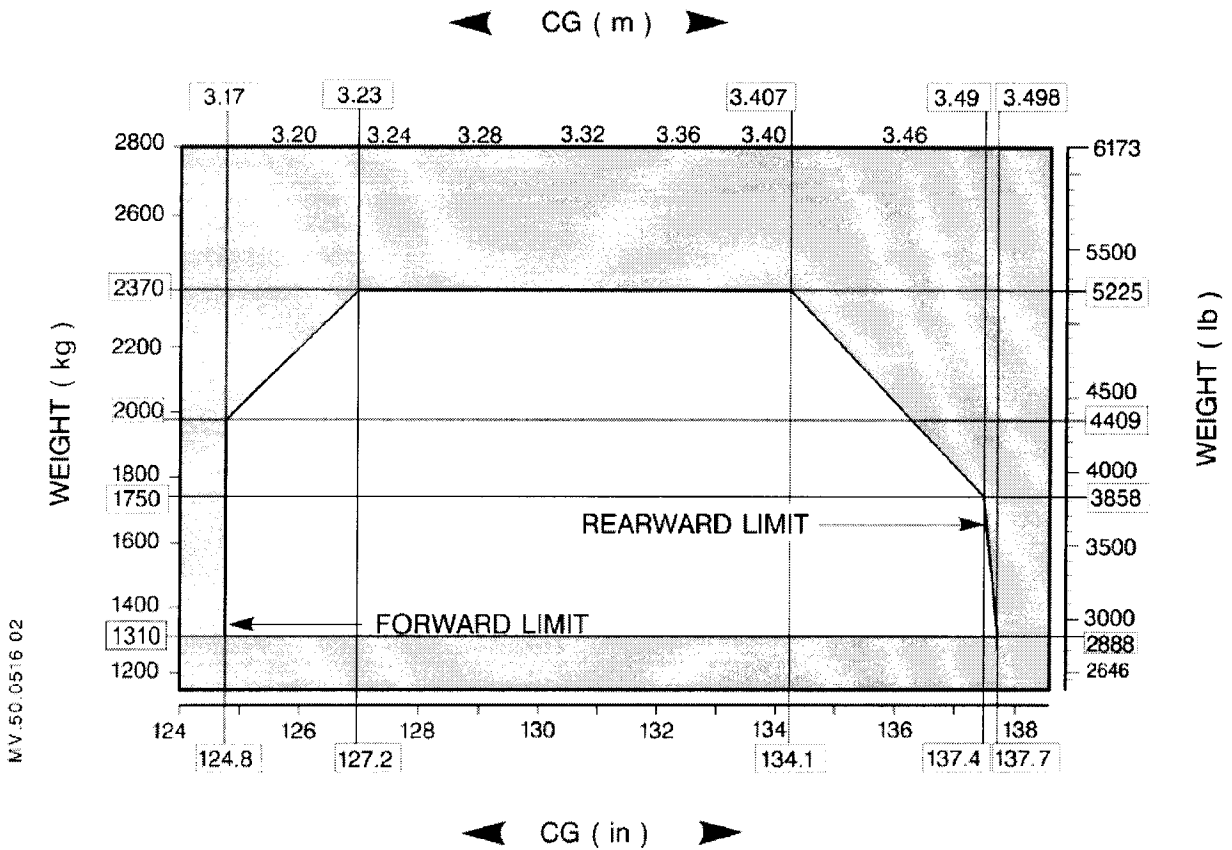
纵向/Longitudinal:

-350 B3 ARRIEL 2B (AMS 072803 和 072808 改装后)
-350 B3 ARRIEL 2B (after modifications AMS 072803 and 072808)



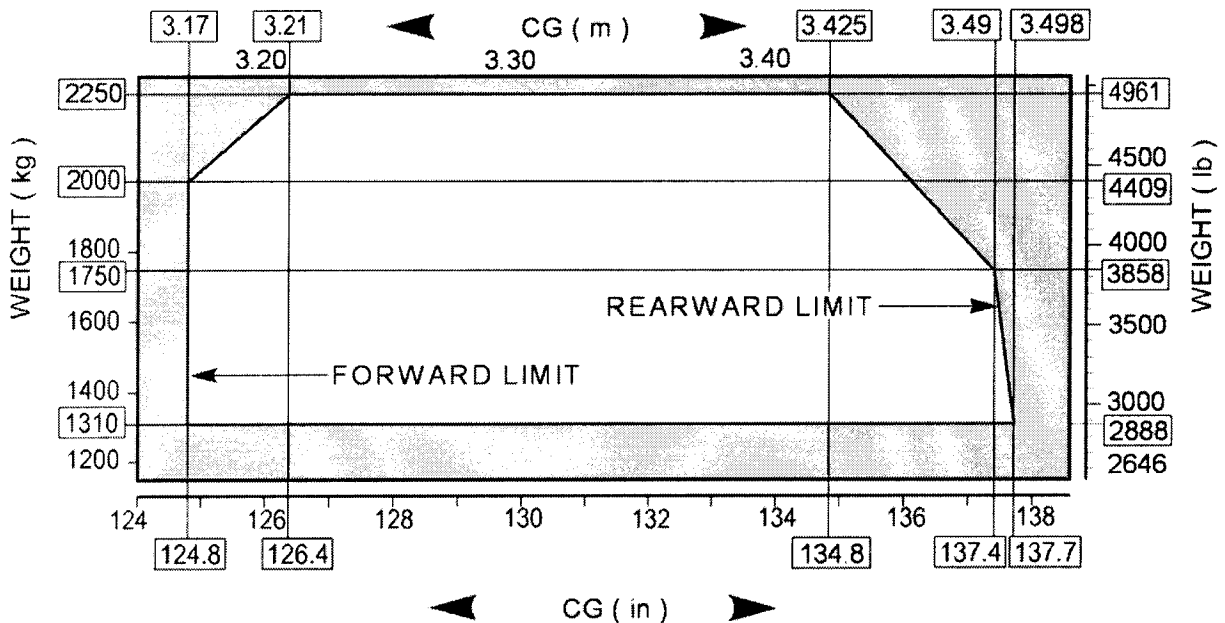
纵向: 经过 mod. OP-3369 改装后的 AS350 B3 ARRIEL 2D 直升机:

Longitudinal: AS350 B3 ARRIEL 2D a/c incorporating mod. OP-3369:



纵向: AS350 B3 ARRIEL 2D:

Longitudinal: AS350 B3 ARRIEL 2D:



横向/Lateral:

左侧限制/L.H. limit:

0.18 米 (7.09 英寸) 直到 2250 公斤, 和对进行过 OP-3369 改装 a/c,
0.08 米 (7.09 英寸) 从 2250 到 2370 公斤

0.18 m (7.09 in) up to 2250 kg and 0.08 m (3.15 in) from 2250 up to
2370 kg for a/c incorporating mod. OP-3369

右侧限制/R.H. limit:

0.14 米 (5.51 英寸) 直到 2250 公斤, 和
对经过OP-3369改装的a/c, 0.08 米 (3.15 英寸) 从2250 到 2370公斤
0.14 m (5.51 in) up to 2250 kg and
0.08 m (3.15 in) from 2250 up to 2370 kg for a/c incorporating
mod. OP-3369

重量分类及重心限制文件包括审定时空机状态下的设备清单, 同时, 载荷说明在直升机要初始审定时即确定, 并建立在从那时起的永久的基础上。

The weight breakdown and C.G. limit document containing the list of equipment included in the certificated empty weight and the loading instructions shall accompany the helicopter at the time of the initial certification and on a permanent basis from that period on.

为获得最正确的重量和重心数据, 直升机应从撑点被顶起, 而不是使用刹车。应修正影响重量和重心的更改, 并在飞行手册中指出。

In order to obtain the most correct weight and C.G. data, the helicopter shall be jacked up its lifting points rather than using the skids. Should modifications affecting weight and C.G. position to be incorporated, the Flight Manual instructions shall be referred to.

14. 基准/Datum: 纵向/Longitudinal: MRH 中心线前 3.4 米 (134 英寸)
3.4 m (134 in) forward of the MRH centreline

横向/Lateral: 航空器对称平面
Aircraft symmetry plane

15. 测平方式/Levelling Means: Transmission deck

16. 最小飞行机组/Minimum Flight Crew: 右座一名飞行员
1 pilot in R.H. seat

17. 最多乘员座位数/Maximum Passenger Seating Capacity: 5

当航空器安装了前面的两个可选座位, 最大乘员增加到 6 人 (不含飞行员)。该可选项按照相应飞行手册中的附录使用。

When the aircraft is fitted with the forward two-place seat optional equipment, the maximum number of passengers is increased to six (pilot not included). This optional is to be used in accordance with the corresponding Flight Manual supplement.

18. 乘客紧急出口/Passenger Emergency Exit: 参见飞行手册
Refer to Flight Manual

19. 最大行李/货载 Maximum Baggage/Cargo Loads:

位置/Location	最大载荷/Max Load
右舱最大载荷	100 公斤 (220 磅)
Maximum load in R.H. side hold:	100 kg (220 lb)
左舱最大载荷	120 公斤 (264 磅)
Maximum load in L.H. side hold:	120 kg (264 lb)
后舱最大载荷	80 公斤 (176 磅)
Maximum load in rear hold:	80 kg (176 lb)
前部驾驶舱最大载荷	150 公斤 (331 磅)
Maximum load in forward cabin floor:	150 kg (331 lb)
后部驾驶舱最大载荷	310 公斤 (683 磅)
Maximum load in rear cabin floor:	310 kg (683 lb)

20. 转动桨叶和控制位移/Rotor blade and control movement:

参见航空器维护手册

Refer to aircraft Maintenance Manual

21. 时寿件/Life-limited parts:

AS 350 维修手册第 5 章“主要推荐服务”中，已指出能在 AS 350 直升机上执行满意的维修操作的可信单位；MSM 第 4 章“适航限制”，最初由 DGAC 批准，随后由 EASA 批准，包括了强制性限制。
The AS 350 Maintenance Manuals Chapter 5 "Master Servicing Recommendations" have been deemed acceptable to carry out satisfactory maintenance operations on the AS 350 helicopter ; MSM Chapter 04 "Airworthiness Limitations" , originally approved by DGAC and subsequently by EASA, contains limitations which are mandatory.

IV. 操作和服务说明/Operating and Service Instructions**1. 旋翼机飞行手册，文件号/Rotorcraft Flight Manual, Document No:**

- AS 350 B3 ARRIEL 2B 飞行手册（1997 年 12 月 24 日由 DGAC-F 批准），加上更新版次 RR 1A（经过 AMS 072803 和 072808 改装），或者之后（DGAC-F 和后续的 EASA）批准的版次
- AS 350 B3 ARRIEL 2B Flight Manual, approved by DGAC-F on December 24, 1997 plus rapid revision RR 1A (after modifications AMS 072803 and 072808), or later (DGAC-F and subsequently EASA) approved revisions (reference in English language).
- AS 350 B3 ARRIEL 2B1 飞行手册（2004 年 7 月 16 日由 DGAC-F 批准），或以后（DGAC-F 及随后的 EASA）批准的版次
- AS 350 B3 ARRIEL 2B1 Flight Manual, approved by DGAC-F on July 16, 2004 or later (DGAC-F and subsequently EASA) approved revision (reference in English language).
- AS 350 B3e 的英文飞行手册（对进行了 OP-4305-Arriel2D 发动机安装和其它对尾桨操纵系统的改装 a/c - 见第 V 部分注释的第 3 条），由 EASA 在 2011 年 6 月 17 日批准，或后续其它批准版本。
- AS 350 B3e Flight Manual, in English (for a/c incorporating mod. OP-4305 - Arriel2D engine installation – and additional modifications to the tail rotor control system – see point 3 in section V. Notes), approved by EASA on June 17, 2011, or later approved revisions

2. 维修手册，文件号/Maintenance Manual, Document No:

- | | |
|-------------------|---------------------------------------|
| -AS 350 B3 维修手册 | AS 350 B3 Service Manual |
| -AS 350 检查手册 | AS 350 Overhaul Manual |
| -AS 350 修理手册 | AS 350 Repair Manual |
| -AS 350 B3 图解零件目录 | AS 350 B3 Illustrated Parts Catalogue |

可选设备之间的兼容性如下所述/Compatibility between optional items of equipment is described:

- 从安装方面：在《主要维修建议》中
From an installation aspect: in the "Master Servicing Recommendations".
- 从操作角度：在飞行手册“附录”部分
From an operational aspect: in "Supplements" chapter of the Flight Manual.

3. 服务信函和服务通告/Service Letters and Service Bulletins:

由 Eurocopter 发布, 经 DGAC-F (早于 EASA)或 Eurocopter DOA 批准
As published by Eurocopter and approved by DGAC-F (prior to EASA) or under the Eurocopter DOA.

V.备注/Notes

1. 合格的序列号/Eligible serial numbers:

- AS 350 B3 型机 S/N 2968, S/N 3063 及以后
AS 350 B3 aircraft S/N 2968, S/N 3063 and up.
- AS 350 B3 型机 S/N 4201 及以后, 直到 a/c 集成改装 OP-3369 (2370 公斤重量扩展)
AS 350 B3 aircraft S/N 4201 and up for a/c incorporating mod. OP-3369 (2370 kg weight extension)
- AS 350 B3 型机 S/N 4767 及以后, 进行 OP-4305 (带与不带 OP-3369)
AS 350 B3 aircraft S/N 4767 and up for a/c incorporating mod. OP-4305 (without or with mod. OP- 3369)

列在Eurocopter文件L102-001中的飞机序号在Helibras许可下生产, 文件L 102-002 中列出机号在AE-MS许可下生产

The aircrafts whose s/n is listed in Eurocopter document L102-001 are manufactured under Helibras license and those in L 102-002 under AE-MS license.

2. 标牌/Placards:

1- 以下标牌必须安装在飞行员清晰可见的位置

The following placard must be fitted in a way that the pilot can see it clearly:

“安装到此直升机上的标记标牌包括运行此旋翼机必须遵守的运行限制 –运行限制不同于在飞行手册中所指出。必须遵守此旋翼机维修手册中的适航限制章节”

在直升机上安装标识运行限制的标记标牌, 在操作直升机必须满足。其它在操作直升机时必须满足的运行限制包含在直升机的运行手册中。必须遵守此旋翼机维修手册中的适航限制章节”。

"THE MARKINGS AND PLACARDS INSTALLED ON THIS HELICOPTER CONTAIN OPERATING LIMITATIONS WHICH MUST BE OBSERVED (COMPLIED WITH) WHEN OPERATING THIS ROTORCRAFT. OTHER OPERATING LIMITATIONS WHICH MUST BE COMPLIED WHICH WHEN OPERATING THIS ROTORCRAFT ARE CONTAINED IN THE ROTORCRAFT FLIGHT MANUAL. THE AIRWORTHINESS LIMITATION SECTION OF THE ROTORCRAFT MAINTENANCE MANUAL MUST BE COMPLIED WITH".

2- 参考飞行手册中提到的其他标牌

Refer to the Flight Manual as regards the other placards.

3. 特殊更改的商业代号:

Commercial designation related to particular modifications

AS350B3 型直升机, 其型号设计包含如下更改:

The AS350B3 model a/c, which type design incorporates the following modifications:

- o OP-4305 (Arriel 2D 发动机安装), 和其它
- o OP-4305 (Arriel2D engine installation), and additionally
- o 07-5601 (尾桨操纵装置更改)

- o 07-5601 (Tail rotor control mechanism modification)
- o 07-5600 (尾桨叶加强)
- o 07-5600 (Tail rotor blade reinforcement)
- o 07-8551 (尾减操纵臂更改)
- o 07-8551 (Tail Gear Box control lever modification)

带有商业代号<AS350B3e>

has a commercial designation <AS350B3e>

第 5 部分 EC 130 B4

SECTION 5 EC 130 B4

I. 总则/General

1. 数据单号/Data sheet No: EASA R.008 , 替代 DGAC-F n° 157, 第 16 版
(2005 年 3 月颁布)
依据 JAA 数据单 No JAA/27/00/003 第 6 版 2004 年 6 月颁布
EASA R.008
Superseding DGAC-F n° 157, issue 16 dated March 2005
based on the JAA data sheet No JAA/27/00/003, issue 6 dated June 2004.
2. 衍生型或型别/Variant or Model: EC 130 B4
3. 适航类别/Airworthiness Category: 正常类/ Normal Category
4. 型号合格证持有人/Type Certificate Holder:

Airbus Helicopters
Aéroport International Marseille Provence
13725 MARIGNANE Cedex-France
5. 制造商/Manufacturer: 见上 As above
6. JAA 推荐日期/ JAA recommendation date: 2000 年 12 月 14 日
December 14, 2000
7. DGAC 认证时间/ DGAC-F Certification Date: 2000 年 12 月 14 日
December 14, 2000
8. 向 JAA 申请时间/JAA Application Date: 1998 年 3 月 23 日
March 23, 1998

II. 审定基础/Certification Basis

1. JAA 审定基础/JAA certification basis: 按 2000 年 12 月 12 日 CRI A1 issue 12 及 2000 年 12 月 10 日 CRI A6 issue 10 定义。
As defined in CRI A1 issue 12 dated December 12, 2000 and CRI A6 issue 10 dated December 1, 2000.
2. 适航要求/ Airworthiness Requirements: 按 1993 年 9 月 6 日 JAR27 第一版, 及 1998 年 2 月 16 日黄页修订案 27/98/1。

JAR 27 first issue dated September 6, 1993, and orange paper amendment 27/98/1 effective February 16, 1998

3. 专用条件/ Special Conditions:

高能辐射场
High intensity radiated field

4. 豁免/ Exemptions

对: 针对后座椅平台 JAR 27-562 和 JAR 27-785(a), (b), (j)
针对燃油系统 JAR 27.952 (a), (c), (d), (f), (g)

For: - The rear seat bench regarding JAR 27-562 and JAR 27-785 (a), (b), (j)
- Fuel systems regarding JAR 27.952 (a), (c), (d), (f), (g)

5. 等效安全/ Equivalent safety findings:

在: 主减速器滑油滤旁通
动力装置仪表标记

On: - Main gearbox oil filter by pass
- Powerplant instrument markings

III. 技术特征和使用限制/Technical Characteristics and Operational Limitations

**1. 型号设计定义/
Type design definition:**

文件 350A.04.7053
Document 350A.04.7053

2. 种类/ Description:

小型单发直升机依据认证的 AS350B3 设计的延伸型号
Small single-engine helicopter designed as a derivative product of the former types certified model AS 350 B3.

3. 设备/ Equipment:

满足 JAR27 要求及包括原始型号审计标准或在飞行手册第二部分限制章中表明的那样
As per compliance with JAR 27 requirements and included in the original Type Design Standard or indicated on the section 2 - limitations of the Flight Manual.

4. 尺寸/ Dimensions

机身/Fuselage	长/Length	10.68 m (35.03 ft)
	宽/Width	2.03 m (6.66 ft)
	高/Height	3.34 m (10.96 ft)

主旋翼 Main Rotor:	3 片桨叶-直径	
	3 blades – Diameter	10.69 m (35.07 ft)

尾桨 Tail Rotor:	涵道式 10 片桨叶	
	Fan-in-fan 10 blades – Diameter	1.00 m (3.28 ft)

5. 发动机/ Engine: TURBOMECA ARRIEL 2B1 (EASA 发动机型号合格证编号: E.001, 型号认可证编号 VTC0190E)

TURBOMECA ARRIEL 2B1(EASA Engine Type Certificate No. E.001, Validation Type Certificate No.VTC0190E)

EASA Engine TCDS No E.001 (替代 DGAC-F Engine TCDS No M 19)

EASA Engine TCDS No E.001 (Superseding DGAC-F Engine TCDS No M 19

5.1 发动机安装限制/Installed Engine Limits:

功率 Ratings	燃气涡轮转速 Gas generator Speed (NG)*	喷口燃气温度 Exhaust gas Temperature (T4)**
最大瞬间/Max transient	102.3 %	865°C (10 s)
最大起飞 (5分钟) Max take-off (5 min)	101.1 %	915°C
最大连续/Max Continuous	97.1 %	849°C

* 100%: 52110 rpm

** 起动时最大连续/Max Continuous during starting: 750 °C

5.2. 输出扭矩限制/Transmission Torque Limits:

最大瞬间/Max transient (5s): 104 %

最大起飞/Max Take off: 100 %

最大连续/Max Continuous: 92.7 %

100%: 536 Kw 发动机 6000 rpm = 主旋翼 386 rpm

100%: 536 Kw at 6000 rpm engine = 386 rpm main rotor

6. 液体/Fluids (燃油/Fuel/滑油/Oil/添加剂/Additives):

6.1. 燃油/Fuel: 参见飞行手册 Refer to Flight Manual

6.2. 滑油/Oil: 参见飞行手册 Refer to Flight Manual.

7. 液体容量/Fluid capacities:

7.1. 燃油/Fuel: 总 Total: 540 l (142.7 US gal)
可用燃油 Usable fuel: 538.7 l (142.32 US gal)

7.2. 滑油 /Oil: 参见飞行手册 Refer to Flight Manual

8. 空速限制/Airspeed limits:

有动力状态/VNE power on: 155 kt at sea level less 3 kt/1000 ft

无动力状态 VNE power off: 125 kt at sea level less 3 kt/1000 ft

9. 旋翼转速限制/Rotor Speed Limits:

有动力正常范围/ Normal range power on: 375 to 405 rpm

无动力最大/Maximum power off: 430 rpm (aural warning $\geq$ 410 rpm)

无动力最小/Minimums power off: 320 rpm (aural warning = 360 rpm)

10. 最大使用高度及温度/Maximum Operating Altitude and Temperature:

10.1. 高度/Altitude HP: - 起飞及着陆/Take-off and landing: 参考飞行手册/Refer to Flight Manual
- 航路/En route: 7010 m (23 000 ft)

10.2. 温度/Temperature: - 最小/Minimum: -20° C 或 or -40° C 从 076302 更改之后/
-20° C or -40° C after modification 076302
- 最大/Maximum: ISA +35°C 限制到+50°C/ISA +35°C limited to +50°C

11. 使用限制 Operating Limitations:

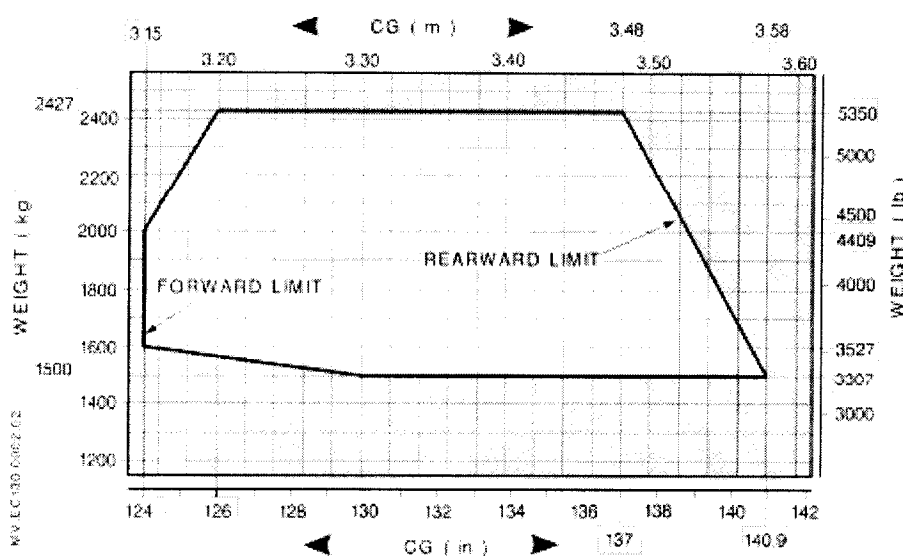
- 白天目视飞行规则
- Day VFR
- 如 07-3664 更改安装, 夜晚目视飞行规则

- Night VFR if modification 07-3664 is installed
- 禁止在结冰及冻雨条件下飞行
- Flights under icing and freezing rain are prohibited
- 禁止特技飞行
- Aerobatic manoeuvres are prohibited
- 禁止在下雪天飞行，除非安装沙尘过滤装置（见飞行手册补充页 9-14）
- Flights under falling snow are prohibited except if sand filter is installed (see Flight Manual Supplement 9-14)

12. 最大审定重量/Maximum Certified Weights: 2427 kg (5350 lb)

13. 重心范围 Centre of Gravity Range:

纵向/Longitudinal:



横向/Lateral: 左极限/L.H. limit: 0.10 m (3.94 in)
右极限/R.H. limit: 0.10 m (3.94 in)

14. 基准/ Datum: 纵向/Longitudinal: 主旋翼轴前 3.4 m (134 in) forward of the MRH centerline
横向/Lateral: 飞机的对称面 Symmetrical plane of the aircraft

15. 水平基准/ Levelling Means: 机械地板/ Mechanical floor

16. 最小机组/ Minimum Flight Crew: 左侧单驾驶/ 1 pilot in left seat

17. 最大座位数(包括飞行机组)/ Maximum number of occupants (including flight crew):

7 人 (3 人在前, 4 人在后) / 7 (3 at front and 4 at rear)

或 8 人 (4 人在前, 4 人在后) 完成 OP-3673 更改后 or 8 (4 at front and 4 at rear) after modification OP-3673

18. 乘客应急出口/ Passenger Emergency Exit:

机身每侧一个/ One door on each side of the fuselage

19. 最大行李、货物装载量/ Maximum Baggage/Cargo Loads:

右侧货舱最大装载量: 130 kg (287 lb) / 300 kg/m² (62.5 lb/ft²)

Maximum load in R.H. cargo compartment:

左侧货舱最大装载量: 155 kg (342 lb) / 300 kg/m² (62.5 lb/ft²)

Maximum load in L.H. cargo compartment:

后部货舱最大装载量: 80 kg (176 lb) / 145 kg/m² (30 lb/ft²)

Maximum load in rear cargo compartment:

后部行李舱最大装载量: 495 kg (1091 lb) / 300 kg/m² (62.5 lb/ft²)

Maximum load in rear cabin floor:

前部客舱地板最大装载量: 405 kg (893 lb) / 300 kg/m² (62.5 lb/ft²)

Maximum load in forward cabin floor:

20. 旋翼桨叶及操纵范围/ Rotor blade and control movement:

参见飞机维护手册/ Refer to aircraft Maintenance Manual

IV. 使用及维护介绍/ Operating and Service Instructions

1. 旋翼机飞行手册, 文件版次/ Rotorcraft Flight Manual, Document No:

- EC130B4 飞行手册 (英文版): DGAC-F 自 2000 年 11 月 29 日批准及以后版次
- EC 130 B4 Flight Manual (in English), approved by DGAC-F on November 29, 2000 or later approved revision
- EC130B4 飞行手册 (英文版): DGAC-F 自 2002 年 5 月 27 日批准及以后版次
- EC 130 B4 Flight Manual (in French), approved by DGAC-F on May 27, 2002 or later approved revision.

2. 维护手册, 文件版次/ Maintenance Manual, Document No:

- EC130B4 主维护手册—04 章 (适航限制), DGAC-F 2000 年 12 月 6 日批准及以后批准的版次 (英文版)
- EC 130 B4 Master Servicing Manual – chapter 04 (Airworthiness Limitations), approved by DGAC-F on December 6, 2000 or later approved revision/edition (in English).
- 维护手册/ Maintenance Manual
- 大修手册/ Overhaul Manual
- 图解零件目录/ Illustrated Parts Catalogue

3. 及服务通报/ Service Letters and Service Bulletins:

Eurocopter 出版经 DGAC-F 和 EASA 批准/ As published by Eurocopter and approved by DGAC-F and EASA.

V. 备注/ Notes

1. 符合系列号/ Eligible serial numbers:

系列号 S/N3358 及以上的 EC 130 B4 aircraft S/N 3358 and up

第 6 部分 EC 130 T2

SECTION 6 EC 130 T2

I. 总则/General

- | | |
|---------------------------------------|---|
| 1. 数据单号/Data sheet No: | EASA. R.008 |
| 2. 型号/型别/衍生型/ Type/ Model/Variant: | EC 130 T2 |
| 3. 适航类别/Airworthiness Category: | 正常类/ Normal Category |
| 4. 型号合格证持有人/Type Certificate Holder: | Airbus Helicopters
Aéroport International Marseille Provence
13725 MARIGNANE Cedex-France |
| 5. 制造商/Manufacturer: | 见上 As above |
| 6. EASA 颁证时间/EASA Certification Date: | 2012 年 5 月 25 日
May 25, 2012 |
| 7. 向 EASA 申请时间/EASA Application Date: | 2010 年 10 月 14 日
October 14, 2010 |

II. 审定基础/Certification Basis

- | | |
|--|--|
| 1. EASA 审定基础/EASA certification basis: | 按 2012 年 5 月 23 日 CRI A-01(X2) issue 6 定义。
As defined in CRI A-01(X2) issue 6 dated 23.05.2012 |
| 2. 适航要求/ Airworthiness Requirements: | 1993 年 9 月 6 日 JAR27 第一版, 及 1998 年 2 月 16 日黄页修订案 27/98/1。
JAR 27 first issue dated September 6, 1993, and orange paper amendment 27/98/1 effective February 16, 1998 |
| 3. 专用条件/ Special Conditions: | 高能辐射场 (CRI F-01(X2))
High intensity radiated field (CRI F-01(X2))
HIP 级的旋翼传动系统耐久试验 (CRI E-02(X2))
Rotor drive system endurance test for HIP rating (CRI E-02(X2)) |
| 4. 豁免/ Exemptions | 无 N/A |
| 5. 等效安全/ Equivalent safety findings: | 主减速器滑油滤旁通(EC130B4 CRI E4, CRI A-01(X2))
动力装置仪表标记(CRI G-01(X2))
Main gearbox oil filter by pass (EC130B4 CRI E4, CRI |

A-01(X2))

Powerplant instrument markings (CRI G-01(X2))

6. CAAC 认可审定基础/CAAC Validation Certification Basis

CAAC 的认可审定基础由 EASA 的审定基础和 CAAC 附加技术条件组成。

The CAAC validation basis consists of the EASA certification basis and the CAAC additional technical conditions.

中国民用航空局附加技术条件/CAAC Additional Technical Conditions

(1) 必须确定符合“GB6537-2006 3 号喷气燃料”规范的燃料是可接受的;

The acceptance of fuel conforming to the Specification GB6537-2006 “No.3 Jet Fuel” must be defined;

(2) 根据 CCAR21.29(5), 机上所有对旅客进行的提示、警告和通知的文字标记和标牌; 机上所有向旅客或机外营救人员指示应急出口和门的位置以及开启方法的文字标记和标牌; 旅客可能使用的机上所有应急设备的操作、使用说明应当至少有简体中文表述。

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

III. 技术特征和使用限制/Technical Characteristics and Operational Limitations**1. 型号设计定义/ Type design definition:**

包括以下三部分组成/ Include the following three components

(1) EC130T2 EASA 初始型号设计文件 350A.04.7422

EC130T2 EASA Initial Type Design Document 350A.04.7422

(2) 型号合格证后主要更改 (EASA) /Major Design changes Post Type Certificate(EASA)

(3) CAAC 的具体说明(350ABN0247 A 版)/CAAC Specificities (350ABN0247 ISSUE A)

2. 描述/ Description:

小型单发直升机, 是已经取证的 EC 130 B4 的衍伸型号
Small single-engine helicopter designed as a derivative product of the former types certified model EC 130 B4.

3. 设备/ Equipment:

满足 EC130 T2 审定基础要求及包含在原始型号设计标准或包含在飞行手册第二部分限制章中表明
As per compliance with EC130 T2 certification basis and included in the original Type Design Standard or indicated on the section 2 - limitations of the Flight Manual.

4. 尺寸/ Dimensions

机身/Fuselage	长/Length	10.68 m (35.03 ft)
	宽/Width	2.03 m (6.66 ft)
	高/Height	3.61 m (11.84 ft)

主旋翼/Main Rotor:	3 片桨叶-直径 10.69 m (35.07 ft)
	3 blades – Diameter 10.69 m (35.07 ft)
尾桨/Tail Rotor:	涵道式 10 片桨叶- 直径 1.00 m (3.28 ft)

Fan-in-fan 10 blades – Diameter 1.00 m (3.28 ft)

5. 发动机/ Engine: TURBOMECA ARRIEL 2D (EASA 发动机型号合格证编号: E.001,
型号认可证编号 VTC0190E)
- TURBOMECA ARRIEL 2D (EASA Engine Type Certificate No. E.001,
Validation Type Certificate No.VTC0190E)
- EASE Engine TCDS E.001

5.1 发动机安装限制/Installed Engine Limits:

功率 Power rating	轴的扭矩限制 Limit torque on shaft	最低保障功率* Minimum Guaranteed power*	燃气发生器速度*** (ΔNG) (Ng) ** Generator speed*** (ΔNg) (Ng)**	T45 温度 T45 temperature
最大瞬态值 (5 秒) Maximum transient (5 sec.)			+1 (102.8%)	
起飞最大值 (5 分钟) Maximum at takeoff (5 min.)****	95.1 m.daN	597.5 KW	0 (101.7%)	949°C
起飞最大值 (30 分钟)(HIP) **** Maximum at takeoff (30min)(HIP) ****	95.1 m.daN	597.5 KW	0 101.7%	949°C
最大连续值 Maximum continuous	77.3 m.daN	485.7KW	-4 99.7%	905°C

* ISA, 地面状态, 旋翼转速为每分钟 386 转

ISA, ground level at rotor speed 386 rpm

** 100%=52110 rpm

*** 由于实际的 Ng 限制依赖于周围环境, 运行限制是 ΔNg 值。Ng 值相当于整个飞行包线内能达到的最大 Ng 值。

As the actual Ng limitations depend on ambient conditions, the operational limitations are the ΔNg values. Ng values correspond to the maximum Ng reached in the whole flight domain.

****使用<起飞(30 分钟)>功率仅限于 30 分钟。连续使用。累积使用每飞行<起飞(5 分钟)>和<起飞(30 分钟)>功率仅限于 60 分钟。

Use of <takeoff(30 min)> power is limited to 30 min .continuous use.Cumulated use per flight of <takeoff(5 min)>and <takeoff(30 min)>powers is limited to 60 min

5.2. 传动扭矩限制/Transmission Torque Limits:

最大瞬间(5s)/Max transient (5s): 104 %

最大起飞/Max Take off: 100 %

最大连续/Max Continuous: 81.3 %

在主旋翼 386 rpm 时 100%转矩相当于 598KW

(100% torque corresponds to 598 KW at 386 rpm main rotor speed)

6. 液体/Fluids (燃油/Fuel/滑油/Oil/添加剂/Additives):

6.1. 燃油/Fuel: 参见飞行手册（包括中国 RP-3 号燃油）

Refer to Flight Manual (include Chinese RP-3)

6.2. 滑油/Oil: 参见飞行手册/Refer to Flight Manual.

7. 液体容量/Fluid capacities:

7.1. 燃油/Fuel: 总量/ Total: 540 l (142.7 US gal)

可用燃油/Usable fuel: 538 l (142.32 US gal)

7.2. 滑油 /Oil: 参见飞行手册/Refer to Flight Manual

8. 空速限制/Airspeed limits:

有动力状态 VNE /VNE power on: 155 kt at sea level less 3 kt/1000 ft
136 kt at sea level less 3 kt/2000 ft below Hp 12750 ft for
reduced VNE area (Refer to Flight Manual)

无动力状态 VNE /VNE power off: 125 kt at sea level less 3 kt/1000 ft

9. 旋翼转速限制/Rotor Speed Limits:

有动力正常范围/ Normal range power on: 375 to 405 rpm

无动力最大/Maximum power off: 430 rpm (aural warning $\geq$ 410 rpm)

无动力最小/Minimums power off: 320 rpm (aural warning $\leq$ 360 rpm)

10. 最大使用高度及温度/Maximum Operating Altitude and Temperature:

10.1. 高度/Altitude HP: - 起飞及着陆/Take-off and landing: 参考飞行手册/Refer to Flight Manual

- 航路/En route: 7010 m (23 000 ft)

10.2. 温度/Temperature: - 最小/Minimum: -40°C

- 最大/Maximum: ISA +35°C 限制到+50°C/ISA +35°C limited to +50°C

11. 使用限制 Operating Limitations:

- 白天目视飞行规则/ Day VFR

- 在按运行规章要求安装了附加设备且可用时，可夜间目视飞行/

- Night VFR, when additional equipment required by operational regulations is installed and serviceable

- 禁止特技飞行/ Aerobatic manoeuvres are prohibited

- 禁止在冻雨及结冰条件下飞行/ Flights in freezing rain or under icing conditions forbidden

- 禁止在下雪天飞行，除非安装沙尘过滤装置（见飞行手册增补 14）

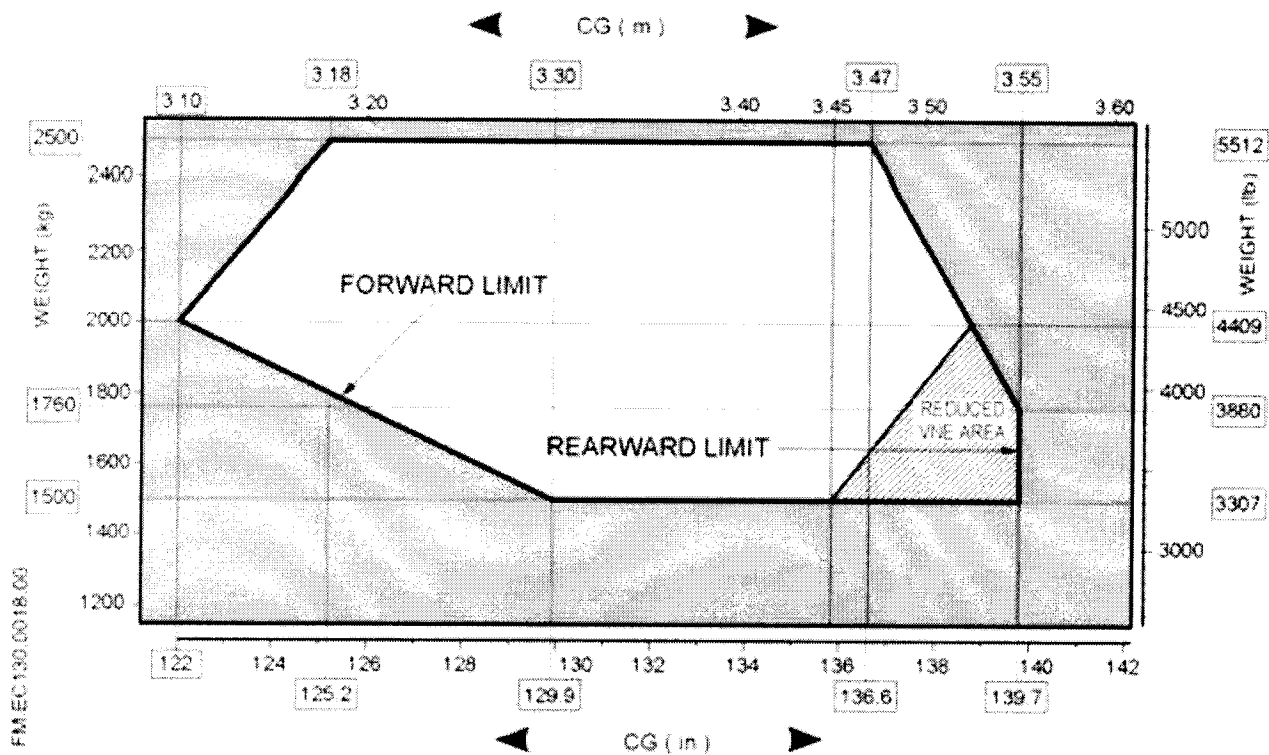
- Flights in falling snow are prohibited except if sand filter is installed (see Flight Manual Supplement SUP.14)

(更多信息参见飞行手册)/(For more information refer to Flight Manual)

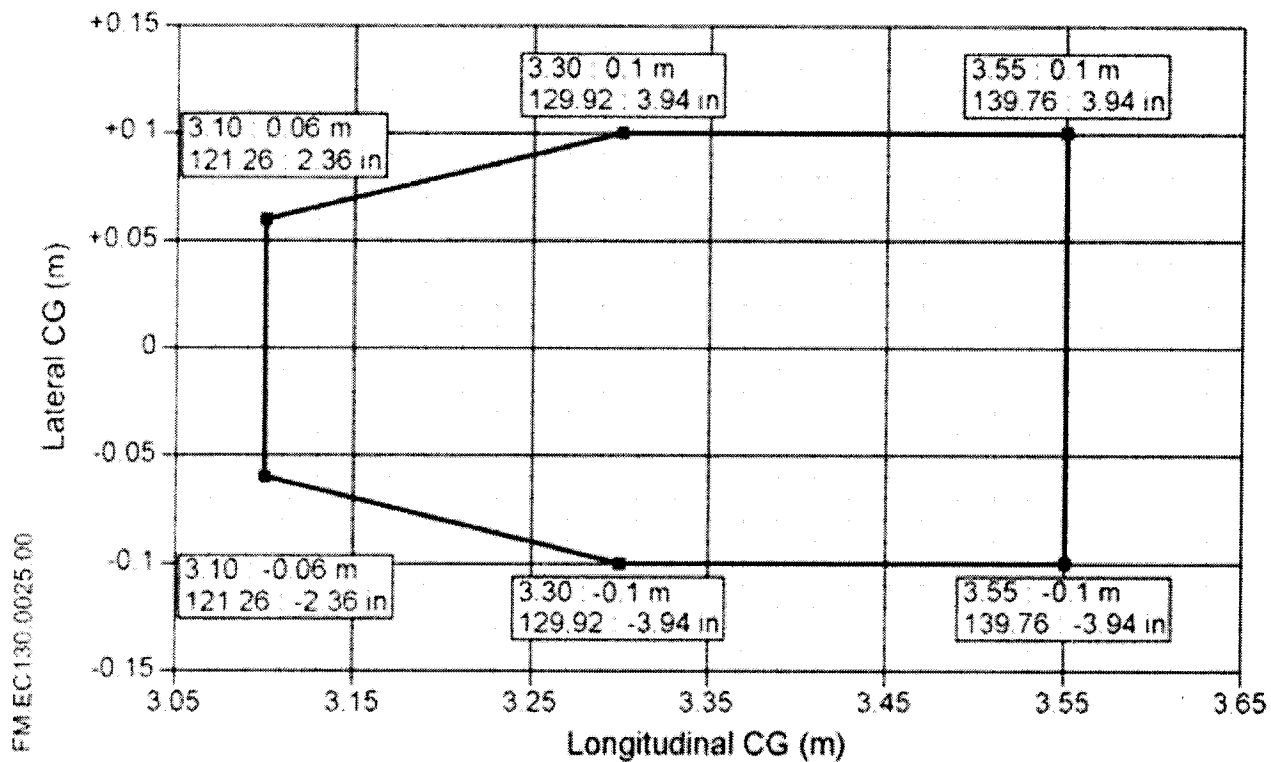
12. 最大审定重量/Maximum Certified Weights: 2500 公斤（5512 磅）/2500 kg (5512 lb)

13. 重心范围/Centre of Gravity Range:

纵向/Longitudinal:



横向/Lateral:



- | | | |
|---|---|---|
| 14. 基准/Datum: | 纵向/Longitudinal: | 主旋翼桨毂中心线前 3.4 米 (134 英寸)
3.4 m (134 in) forward of the MRH centreline |
| | 横向/Lateral: | 航空器对称平面
Symmetrical plane of the aircraft |
| 15. 测平方式/Levelling Means: | | 机械地板/Mechanical floor |
| 16. 最小飞行机组/Minimum Flight Crew: | | 左座一名飞行员
1 pilot in left seat |
| 17. 最大座位数 (包括机组成员) /Maximum number of occupants(including flight crew): | | |
| | | 7 人 (3 人在前, 4 人在后) / 7 (3 at front and 4 at rear) |
| | | 或 8 人 (4 人在前, 4 人在后), 如果实施了更改 OP-3673 更改后/or 8 (4 at front and 4 at rear) if
modification OP-3673 is installed |
| 18. 乘客应急出口/ Passenger Emergency Exit: | | 机身每侧一个/ One door on each side of the fuselage |
| 19. 最大行李、货物装载量/ Maximum Baggage/Cargo Loads: | | |
| | 右侧货舱最大装载量 | 130 kg (287 lb) / 300 kg/m ² (62.5 lb/ft ²) |
| | Maximum load in R.H. cargo compartment: | |
| | 左侧货舱最大装载量 | 155 kg (342 lb) / 300 kg/m ² (62.5 lb/ft ²) |
| | Maximum load in L.H. cargo compartment: | |
| | 后部货舱最大装载量 | 80 kg (176 lb) / 145 kg/m ² (30 lb/ft ²) |
| | Maximum load in rear cargo compartment: | |
| | 后部客舱地板最大装载量 | 495 kg (1091 lb) / 300 kg/m ² (62.5 lb/ft ²) |
| | Maximum load in rear cabin floor: | |
| | 前部客舱地板最大装载量 | 405 kg (893 lb) / 300 kg/m ² (62.5 lb/ft ²) |
| | Maximum load in forward cabin floor: | |
| 20. 旋翼桨叶及操纵范围/ Rotor blade and control movement: | | |
| | 参见航空器维护手册/ Refer to aircraft Maintenance Manual | |

IV. 使用及维护介绍/ Operating and Service Instructions

- 1. 旋翼机飞行手册, 文件版次/ Rotorcraft Flight Manual, Document No:**
 - EC 130 T2 飞行手册 (英文版): EASA 2012年5月25日批准或以后版次
 - EC 130 T2 Flight Manual (in English), approved by EASA on 25.05, 2012 or later approved revision
- 2. 维护手册, 文件版次/ Maintenance Manual, Document No:**
 - EC 130 T2主维护手册—04章 (适航限制章节), EASA 2012年5月25日批准或以后批准的修订/版次 (英文版)
 - EC 130 T2 Master Servicing Manual – chapter 04 (Airworthiness Limitations Section), approved by EASA on 25.05, 2012 or later approved revision/edition (in English).
 - EC 130 T2维护手册/EC 130 T2 Maintenance Manual
 - EC 130 T2大修手册/EC 130 T2 Overhaul Manual
 - EC 130 T2图解零件目录/ EC 130 T2 Illustrated Parts Catalogue
- 3. 服务信件及服务通报/ Service Letters and Service Bulletins:**

Eurocopter出版经EASA 批准/ As published by Eurocopter and approved by EASA.

V. 备注/ Notes

- 1. 适用的系列号/ Eligible serial numbers:**

系列号 S/N7355 及以上的 EC 130 T2/EC 130 T2 aircraft S/N 7355 and up.

2. 中文标牌和标识包含在文件（350ABN0247 A 版）或后续 **CAAC** 认可的版本中。

Chinese Placards and markings are included in (350ABN0247 ISSUE A) or later revisions CAAC validated.

- 完/END -