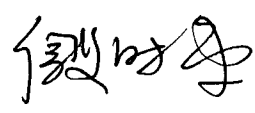


型号认可数据单 THE VALIDATION DATA SHEET

编号/NO:	VTC0259A
版本/Revision:	0
型号/Type:	AS 355 NP
批准人/Approved By:	
日期/Date:	2011-6-24

本数据单是型号认可证（编号：VTC0259A）的组成部分，它规定了符合中国民用航空局的适航要求所颁发此型号认可证的产品的状态和限制。

This data sheet, which is part of Validation of Type Certificate (No: VTC0259A), prescribes condition and limitation under 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: 型号合格证持有人记录/ Type Certification Holder record:

Eurocopter
Aéroport International Marseille – Provence
13725 Marignane cedex
France

有效页清单/List of effective pages:

页数/Pages	1	2	3	4	5	6	7	8	9							
版次/Revision	0	0	0	0	0	0	0	0	0							
页数/Pages																
版次/Revision																

AS355NP

I. 概述/General

1. CAAC 认可数据单和型号合格证数据单 CAAC Validation Data Sheet and Type Certificate Data Sheet		
	中国民用航空局认可数据单号、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	编号/Number: VTC0259A 版次/Revision: 0 日期/Date: 2011-6-24	编号/Number: EASA.R.146 版次/Revision: Issue 01 日期/Date: 15 FEBRRARY 2007
历史 History	编号/Number:	
	版次/Revision:	
	日期/Date:	

2. 类别/Category: 正常类旋翼航空器/Normal Category Helicopter

3. 认可当局/Validation Authority: 中国民用航空局/CAAC

审定当局/Certifying Authority: 欧洲航空局/EASA

4. EASA 合格证

型号合格证 Type Certificate

Number: EASA.R.146

型号合格证持有人/Type Certificate Holder:

Eurocopter

Aéroport International Marseille – Provence

13725 Marignane cedex , France

5. 生产机构批准/Production Organization 同上

Approval As above

6.EASA 申请日期 EASA Application Date February 15, 2007

7.DGAC-F 申请日期 DGAC-F Application Date 11 February 2005

8. 申请 CAAC 认可审定的日期 23 FEB 2009

Date of Application for CAAC Validation

9. CAAC 型号认可日期 2011-6-24

CAAC Validation Date

II. 认可审定基础/Validation Basis

CAAC 的认可审定基础由 EASA 审定基础中的适用要求和 CAAC 的附加技术条件组成

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

1. 审定基础/ Certification basis

1.1 适航要求/ Airworthiness Requirements:

定义在 CRI A1, FAR 27 修正案 20 包括在 CTC27 更改, 加上 FAR 修正案 21 的一部分

§ 21; §45; §71; §79; §143; §151; §161; §173; §175; §177; §672; §673; §729; §735; §779; §807; § 1329; §1413; §1519; §1525; §1555; §1585; §1587

加上 FAR 修正案 23: §923 定义在 CRI A-3, 附加上述要求, 按照 JAR OPS 3.480 要求, 适用 FAR 29 以下相应条款, 支持 “A 类” 运行

§ 45(a) and (b)(2) Amdnt 24; §49(a) Amdnt 39; §51 Amdnt 39; §53 Amdnt 39; §55 Amdnt 39; § 59 Amdnt 44; §60 Amdnt 39; §61 Amdnt 39; §62 Amdnt 44; §64 Amdnt 39; §65(a) Amdnt 39; § 67(a) Amdnt 44; §75 Amdnt 39; §77 Amdnt 44; §79 Amdnt 39; §81 Amdnt 44; §85 Amdnt 44; § 87(a) Amdnt 39; §861(a) Amdnt 30; §901(c) Amdnt 26; §903(b) (c) and (e) Amdnt 36; §908(a) ;Amdnt 26; §917((c)(1)– Rotor drive system: Design. Amdnt 40; §953(a) Amdnt 0; §1027(a) Amdnt 26; §1045(a)(1), (b), (c), (d), and (f) Amdnt 26; §1047(a) Amdnt 26; §1181(a) Amdnt 26; §1187(e) Amdnt 0; §1189(c) Amdnt 26; §1191(a)(1) Amdnt 3; §1193(e) Amdnt 26; § 1195(a) and (d) Amdnt 17; §1197 Amdnt 13; §1199 Amdnt 13; §1201 Amdnt 0; §1305 (b) Amdnt 40; §1309(b)(2) (i) and (d) Amdnt 14; §1323(c)(1) Amdnt 44; §1331(b) Amdnt 24; § 1587(a) Amdnt 44.

As defined in CRI A1, FAR 27 amendment 20 included such as modified by CTC 27; Plus the following paragraphs of FAR 27 amendment 21:

§ 21; §45; §71; §79; §143; §151; §161; §173; §175; §177; §672; §673; §729; §735; §779; §807; § 1329; §1413; §1519; §1525; §1555; §1585; §1587

Plus the following paragraphs of FAR 27 amendment 23: §923 As defined in CRI A-3, in addition to the requirements listed above, in support of “Category A” operations as per JAR OPS 3.480 the following FAR 29 paragraphs are applicable:

§ 45(a) and (b)(2) Amdnt 24; §49(a) Amdnt 39; §51 Amdnt 39; §53 Amdnt 39; §55 Amdnt 39; § 59 Amdnt 44; §60 Amdnt 39; §61 Amdnt 39; §62 Amdnt 44; §64 Amdnt 39; §65(a) Amdnt 39; § 67(a) Amdnt 44; §75 Amdnt 39; §77 Amdnt 44; §79 Amdnt 39; §81 Amdnt 44; §85 Amdnt 44; § 87(a) Amdnt 39; §861(a) Amdnt 30; §901(c) Amdnt 26; §903(b) (c) and (e) Amdnt 36; §908(a) ;Amdnt 26; §917((c)(1)– Rotor drive system: Design. Amdnt 40; §953(a) Amdnt 0; §1027(a) Amdnt 26; §1045(a)(1), (b), (c), (d), and (f) Amdnt 26; §1047(a) Amdnt 26; §1181(a) Amdnt 26; §1187(e) Amdnt 0; §1189(c) Amdnt 26; §1191(a)(1) Amdnt 3; §1193(e) Amdnt 26; § 1195(a) and (d) Amdnt 17; §1197 Amdnt 13; §1199 Amdnt 13; §1201 Amdnt 0; §1305 (b) Amdnt 40; §1309(b)(2) (i) and (d) Amdnt 14; §1323(c)(1) Amdnt 44; §1331(b) Amdnt 24; § 1587(a) Amdnt 44.

1.2 专用条件/ Special Conditions:

专用条件明确在 1988 年 10 月 21 日 DGAC-F 信件 54408 上高能辐射场 (HIRF) 影响的保护 (参见 CRI F1)

Special conditions specified in letter DGAC 54408 dated October 21, 1988.

Protection against the effects of High Intensity Radiated Field (HIRF) (refer to CRI F1)

1.3 可追溯及豁免 Reversions and Exemptions Granted: 不适用/ N/A

1.4 等效安全 Equivalent Safety Findings on:

动力装置仪表标记 (见 CRI F-4) / Powerplant instrument markings (refer to CRI F-4)

1.5. 环境标准包括噪声/Environmental Standards

参见 CRI A1/ Refer to CRI A1:

噪声/ Noise: CS-36 (Provisions of Chapter 8 of ICAO Annex 16, volume I, part II)

燃油排放/ Fuel venting: CS-34 (Provisions of Chapter 11 of ICAO Annex 16, volume II, part II)

2. CAAC 附加技术条件/CAAC additional technical conditions

2.1 用于告知乘客或地面救援人员舱门位置和打开方法的标记标牌必须满足中文要求

All literal markings and placards on an airplane used for indicating passengers or outboard rescue personnel of the location of doors and their means of opening must be at least in Chinese language.

2.2 燃油符合中国航空燃油 3 号喷气燃料 (GB -6537-2006) ;

Fuel conforms to China Aviation No.3 JET FUEL (PRC National Standard GB-6537-2006) ;

III 技术特性及操作限制/Technical Characteristic and Operational Limitations

1. 型号设计定义/Type Design Definition:

355A043975

2. 描述/Description:

从认证的前型号 355N 的延伸来的小型双发直升机。

Small twin-engine helicopter designed as a derivative product of the former types certified model AS 355 N.

3. 设备/Equipment:

满足 AS355NP 审定基础及包括在原始型号设计标准或表明在飞行手册第二限制章节中的设备

As per compliance with AS355 NP 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	10.93 m (35.86 ft)	
	宽/Width	1.87 m (6.14 ft)	
	高/Height	3.14 m (10.30 ft)	
主旋翼/Main Rotor	3 片桨叶/ 3blades	直径/ Diameter	10.69 m (35.07 ft)
尾桨/Tail Rotor type	2 片桨叶/ 2 blades	直径/ Diameter	1.86 m (6.10 ft)

5. 发动机/Engines:

2 台由 TURBOMECA 制造的 ARRIUS 1A1 涡轮发动机, EASA 发动机 TCDS n°E.080

2 turbine engines ARRIUS 1A1 manufactured by TURBOMECA TCDS

EASA Engine TCDS n°E.080

5.1.1. 发动机安装限制 / Installed Engine Limits

Power rating	Torque: mN (%)	T4 temperature
AEO 最大瞬时 (10 秒) AEO max. transient (10 s)	2x468 (2x89.6) (*)	800
最大起飞 (5 分钟) Maximum at takeoff (5 min)	2x450 (2x86.4) (*) Vi < 55 kt	733
最大连续 (AEO) Maximum Continuous Power (AEO)	2x374 (2x71.8) (*)	749
最大应急 (OEI 2.5 分钟) Maximum Contingency Power (OEI 2,5min)	1x683 (1x131)	
最大连续 (OEI) Maximum Continuous Power (OEI)	1x599 (115) (*)	812

(*) 扭矩值符合 MGB 限制

(*) Torque values corresponding to MGB limitations.

参见飞行手册瞬时状态下的限制值

Refer to Flight Manual for limitations in transient conditions.

5.1.2. 瞬间扭矩限制、 Transmission Torque Limits:

最大瞬时/ Max transient : 2x89,6 %

最大起飞/ Max Take off : 2x86,4%

最大连续/ Max Continuous : 2x71,8%

注 Note: 100 % ↔ 328 kW ↔ NR = 394 RPM

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

6.1 燃油/Fuel 参见飞行手册中批准的燃油及添加剂

Refer to RFM for approved fuels and additives

6.2 滑油/Oil 参见飞行手册中批准的发动机及减速器滑油

Refer to RFM for approved engine and gearbox oils

7. 液体容量/Fluid capacities:

7.1 燃油/ Fuel -共/ total: 736.7

-可用/ usable: 730.0 l

- 不可用/ unusable: 6.7 l

7.2 滑油容量/Oil capacities (在最大液面时 at maximum level)

- 发动机/ Engine = 5.7 l (系统容量/ capacity of the system)

- 主减速器/ MGB = 11 l (包括系统/ system included)

- 尾减速器 TGB = 0.33 l

8 空速限制/Airspeed limits:

- 动力状态下 VNE -在 HP=0 条件下的绝对 VNE: 278km/h(150kt)
- Power ON VNE: -在高度上, 高度增加 1000m 速度减 15km/h(2.5kt/1000ft)
 -在低温状态下, 当外界温度低于-35°C 在以上 VNE 中减去 19km/h(10kt)
 - Absolute VNE: 278 km/h (150 kt) for HP=0,
 - In altitude, speed decreases by 15 km/h every 1000 m (2.5 kt per 1000 ft)
 - In cold weather, when OAT is below - 35°C, subtract 19 km/h (10 kt) from the above VNE
- 无动力状态下 VNE -在 HP=0 条件下的绝对 VNE: 222km/h(120kt)
- Power OFF VNE: -在高度上, 高度增加 1000m 速度减 15km/h(2.5kt/1000ft)
 -在低温状态下, 当外界温度低于-35°C 在以上 VNE 中减去 37km/h
 - Absolute VNE: 222 km/h (120 kt) for HP=0,
 - In altitude, speed decreases by 15 km/h every 1000 m (2.5 kt/1000 ft)
 - In cold weather, when OAT is below - 35°C, subtract 37 km/h (20 kt) from
 在上述 VNE 中, VNE 不低于 120km/h(65kt)
 the above VNE, without VNE being less than 120 km/h (65 kt)

当舱门打开或拆下状态下的空速参见批准的飞行手册

Refer to RFM for approved airspeed with doors open or removed

9. 旋翼转速限制/Rotor Speed Limits:

有动力状态下飞行/Power-on flight:

- 双发: 指示空速大于 55kt 时 390 (+ 4, - 5) rpm
 指示空速小于 55kt 时 390 (+ 10, - 5) rpm
- 单发: 从 375 到 394rpm
- AEO: 390 (+ 4, - 5) rpm for IAS above 55 kt
 390 (+ 10, - 5) rpm for IAS below 55 kt
- OEI: 375 to 394 rpm

自转条件下/In autorotation:

- 最大 425rpm(410rpm 时音响报警)
- 最小 330rpm (360rpm 时音响报警)
- Max. 425 rpm (aural warning at 410 rpm)
- Min. 330 rpm (aural warning at 360 rpm)

10. 最大使用升限及温度 Maximum Operating Altitude and Temperature:

10.1. HP 高度/Altitude HP:

最大使用压力高度/Maximum operating pressure altitude: 6090 m (20 000 ft)

最大起飞和着陆压力高度/Maximum take off and landing pressure altitude: 6090 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:

B 类或等效于 A 类使用 Cat B or Equivalent Cat A operations and:

- 昼夜目视飞行规则 VFR day and night
- 昼夜仪表飞行规则 IFR day and night

限制在结冰条件下及特技机动飞行

Flights under icing conditions and aerobatic manoeuvres are prohibited

附加信息参见飞行手册

For additional information refer to Flight Manual.

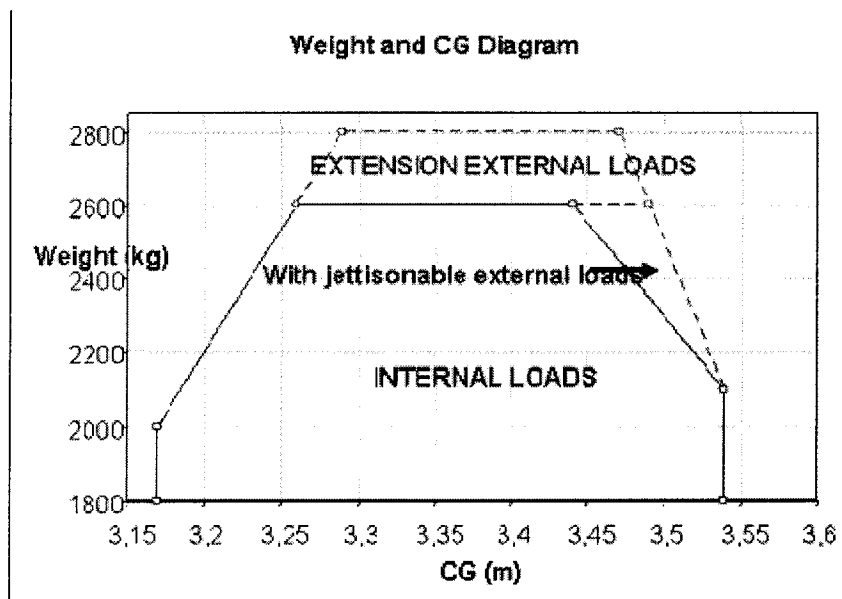
12. 最大重量 /Maximum Certified Weights:

最大起飞重量/ Maximum take off weight 2600 kg (5732 lb)

13. 重心范围/Centre of Gravity Range:

-纵向: 重心限制案如下

- longitudinal: the C.G. limits are given below :



-横向: 左极限: 0.16m 右极限: 0.09

- lateral: L.H. limit: 0.16 m R.H. limit: 0.09 m

重量分布及重心限制文件包含取证状态下的空机重量内的设备列表, 装载说明将伴随取证初期及后期直升机基础部分。

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.

为获得准确的重量及重心数据, 直升机应采取用千斤顶在支点支起的方法测量而不是用在滑撬上测量方法; 相

应的更改影响重量及重心，应参考飞行手册说明。

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: 主旋翼轴前 3.40 m forward of the main rotor head centre
- 横向/lateral: 飞机的对称面 aircraft symmetry plane

15. 水平方法/Levelling Means:

传动平台/transmission deck

16. 最小飞行机组/Minimum Flight Crew:

右侧单驾驶员/ 1 pilot on R.H. seat

17. 最大乘客座位数 Maximum Passenger Seating Capacity:

5 人

6 人,

当飞机装有选装的双座座椅，相应的选装项目应依据相应的飞行手册补充页

when the aircraft is equipped with the optional two-place seat. This optional item is to be used in accordance with the associated Flight Manual supplement

18. 乘客应急出口 Passenger Emergency Exit:

参见飞行手册 Refer to Flight Manual

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

位置/Location	最大载荷/装载 Max Load/
-右侧横向最大装载	100 kg (220 lb)
- Maximum load for R.H. lateral hold	
-左侧横向最大装载	120 kg (264 lb)
- Maximum load for L.H. lateral hold	
后部最大装载	80 kg (176 lb)
- Maximum load for rear hold	
客舱地板最大装载	forward 150 kg (331 lb)
- Maximum load on cabin floor	rearward 310 kg (683 lb)

20. 桨叶控制移动范围/Rotor blade and control movement:

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

21. 寿命件/Life-limited parts:

见以下§ IV-2./ See below in § IV-2.

IV. 使用和操作规范 Operating and Service Instructions

1. 飞行手册文件号/ Rotorcraft Flight Manual, Document No:

2007 年 2 月 15 日, EASA 批准的及以后批准版次 (见英文版) 的 AS355NP 飞行手册 RN0

AS 355 NP Flight Manual RN0 code date DECEMBER 06, approved by EASA on February 15, 2007

or later EASA approved revision (reference in English language)

2. 维护手册文件号/ Maintenance Manual, Document No:

-AS 355 NP PRE—05-99 章 (适航限制) 2007.01.19 Rev 000 版, 经 EASA 2007 年 2 月 15 日批准及以后经 EASA 批准的版次 (参考英文版)

- AS 355 NP PRE – chapter 05-99 (Airworthiness Limitations) edition 2007.01.19 Rev 000, approved by EASA on February 15, 2007 or later EASA approved revision/edition (reference in English language).

- 维护手册/ Maintenance Manual

- 大修手册/ Overhaul Manual

- 图解零件目录/ Illustrated Parts Catalogue

两个选装设备的兼容性见/ Compatibility between optional items of equipment is described:

- 安装上见 “主维护建议” From an installation aspect: in the "Master Servicing Recommendations".

- 使用上见 飞行手册补充章节 From an operational aspect: in "Supplements" chapter of the Flight Manual.

3. 服务信件和服务通告/Service Letters and Service Bulletins:

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

V. 注/ Notes

1. 适用系列号/ **Eligible serial numbers:** 型号 AS355NP 飞机系列号 S/N5747 及以后飞机/ Aircraft S/N 5747 and subsequent of AS 355 NP version.

2. 标牌/ **Placards:**

2.1 – 以下标牌应安装方式应适合飞行员直接看到 The following placard must be fitted in a way that the pilot can see it clearly:

《安装直升机上含有使用限制内容的标记及标牌应与该旋翼机相符, 其它使用限制应与该旋翼机飞行手册相符, 该旋翼机维护手册适航限制章节必须相符》

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

2.2 – 其它标牌参见飞行手册/ Refer to the Flight Manual as regards the other placards.

3. 商用名称/ **Commercial designations:** 小松鼠 II/ 双星/ ECUREUIL II / TWINSTAR.