

型号认可证数据单

TYPE VALIDATION CERTIFICATE DATA SHEET

编号/No: VTC0249E

版次/Revision: 0

型号/Type:

AS907-1-1A

批准人/Approved By:

徐超群

日期/Date: 2010-12-2

本数据单是型号认可证(编号: VTC0249E)的组成部分, 它规定了符合中国民用航空局的适航要求所颁发此型号认可证的产品状态和限制。

This data sheet, which is part of Validation of Type Certificate (No: VTC0249E), 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:

Honeywell International Inc.

111 South 34th Street

Phoenix, AZ 85034

有效页清单/List of effective pages :

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

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第1部分 概述/Section 1 GENERAL

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

	中国民用航空局认可数据单号、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: VTC0249E; 版次: 0; 颁发日期: 2010年12月2日; No. VTC0249E; Revision 0; Date of Issue: 2010-12-2	编号: E00010LA; 版次: 2; 颁发日期: 2004年4月14日 No. E00010LA, Revision 2, Date of Issue: April 14, 2004
历史 History	无/None	无/None

2. 类别/Category: 发动机/ Engine

3. 认可当局/Validation Authority: 中国民用航空局/CAAC
审定当局/Certifying Authority: 美国联邦航空局/FAA

4. 型号合格证持有人/Type Certificate Holder: Honeywell International Inc.
Address: 111 South 34th Street, Phoenix, AZ 85034

5. 制造厂/Manufacturer: Honeywell International Inc.

6. ETOPS: 不适用/NA

7. CAAC专用要求/CAAC Special Requirements: 3号燃油规范/No.3 Jet Fuel (GB 6537-2006, Chinese)

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第2部分/Section 2

A. 审定基础/Certification Basis

1. 适航标准/Airworthiness Standards:

2000年12月13日生效的FAR 33部第20修正案和1999年2月3日生效的FAR 34部第3修正案/Title 14 CFR part 33, effective February 1, 1965, as amended by 33-1 through 33-20, effective December 13, 2000 and Part 34 dated September 10, 1990 as amended by 34-1 through 34-3, effective February 3, 1999.

型别/Model	申请日期/Date of Application	型号合格证颁发日期/Type Certificate Issued
AS907-1-1A	1998年11月4日/November 4, 1998	2002年6月25日/June 25, 2002

2. 专用条件/Special Conditions (SC): 无/none

3. 等效安全项目/Equivalent Safety Findings (ESF): 无/none

4. 偏离/Deviations: 无/none

5. 环境标准/Environmental Standards: 无/none

6. 生产基础/Production Basis: 1965年3月4日颁发的413号生产许可证, 2000年1月25日颁发413NM生产许可证/Production Certificate No. 413, issued March 4, 1965. Reissued Production Certificate No. 413NM to Honeywell International Inc. on January 25, 2000.

B. 技术特性/Technical Characteristics

型别/Model	AS907-1-1A	
型号/Type	涡扇: 一级风扇, 四级轴流高压压气机和一级离心高压压气机, 环形燃烧室, 二级高压涡轮, 三级低压涡轮/Turbofan: One stage fan, four stage axial flow high pressure compressor, one stage centrifugal high pressure compressor, annular combustor, two stage high pressure turbine, and three stage low pressure turbine.	
净推力额定值 (见注4和注12) /Static Thrust Ratings (See NOTE 4 and NOTE 12)	海平面最大连续, 磅/ Max. Continuous at Sea Level, up to ISA+15°C, lbs 6929	海平面最大连续, 磅 (见注10) / Takeoff at Sea Level, up to ISA+20°C, lbs(See NOTE 10) 6944
控制/Controls: 燃油控制和功率管理由全权限数字电子控制系统完成, 该系统带有两个电子控制单元, 双通道控制。系统的硬件、软件和液力单元、整体燃油泵由批准的发动机设备清单控制 (见注13) /Fuel control and power management are controlled by a Full Authority Digital Electronic Control (FADEC) system which features a dual-channel electronic control in the form of two electronic control units (ECUs). The hardware and software configurations of this system and the associated engine hydromechanical unit with integral fuel pump are controlled by an approved engine equipment list. (See NOTE 13).		
主要尺寸/Principal Dimensions: 尺寸和重心位置参见发动机安装图纸/Refer to the engine installation drawing for dimensions and center of gravity location.		
干重量, 磅 (最大) / Weight, Dry, Pounds (maximum): 1534 发动机重量包含所有发动机设备清单批准的基本零件。零件已经14 CFR 25部批准, 并不包含在基本重量中/The engine weight includes all components of the basic engine as defined by the approved Engine Equipment List. Components that are certified as part of the aircraft under Title 14 CFR part 25, which are mounted on the engine, are not included in the basic weight.		
燃油/Fuel: 满足国标GB6537-2006燃油 (3号喷气燃料) 规范的要求, 其余遵从霍尼韦尔公司EMS53111 (A型燃油)、		

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EMS53112(A-1和JP-8型燃油)、EMS53113 (Jet B和JP-4型燃油)和EMS53116 (JP-5型燃油)规范。参见批准的燃油型号 (见注12) /Fuel: Compliance with requirement of GB6537-2006 (No.3 Jet Fuel) ,the remaining fuels conforming to Honeywell International Inc. Specifications EMS53111 (Jet A Type), EMS53112 (Jet A-1 and JP-8 Types, EMS53113 (Jet B and JP-4 Types) and EMS53116 (JP-5 Types). Refer to approved fuel types (see NOTE 12).
当从主燃油到替换燃油转换时, 不需要燃油控制调节/No fuel control adjustment is required when changing from primary to alternate fuels.
对于批准的燃油添加剂, 参见发动机安装手册 (见注12) /Refer to engine installation manual for approved fuel additives (see NOTE 12).
滑油/Oil: 遵从霍尼韦尔公司EMS53110规范/Oil conforming to Honeywell International Inc. Specification EMS53110.

注1/NOTE 1 发动机高压转子和低压转子的最大允许转速/Maximum permissible operating speeds for the low and high-pressure rotors of the engine are as follows:

	低压转子/Low pressure rotor (N1) rpm	高压转子/High pressure rotor (N2) rpm
最大连续/Maximum Continuous	9723	27319
起飞/Takeoff	9812	27568
最大瞬态 (20秒) /Maximum Transient (20s)	9957	28075

注2/NOTE 2 温度限制/Temperature limits:

最大指示涡轮级间温度/Maximum Indicated Temperature (ITT) Limits: °F (°C)

最大连续/ Maximum Continuous	起飞 (见注10) /Takeoff (See NOTE 10)	启动 (地面/空中) / Starting (Ground/Air)	瞬态 (20秒) / Transient (20s)
1,702 (928)	1,735 (946)	*	1764 (962)

*随N2转速变化, 参见发动机安装手册 (见注12) /Varies with N2 speed, refer to engine installation manual (see NOTE 12).

最大滑油进口温度限制/Maximum Oil Inlet Temperature Limits:

连续/Continuous	瞬态 (两分钟) /Transient, 2 Minutes
280 (138)	310 (154)

外部发动机零件最大温度 (特别零件的温度限制) 已在发动机安装手册中指定 (见注12) /External engine components maximum temperature (limiting temperature of specific components) is as specified in the engine installation manual (see NOTE 12).

启动期间发动机燃油进口温度在185°F (85°C)、蒸汽体积与液体体积比为0.45时到燃油进口温度在-65°F (-54°C)、粘度12厘沱或更低时, 均得到批准/Operation at an engine fuel inlet temperature as high as 185°F (85°C) with a vapor volume to liquid volume ratio (V/L) equal to 0.45, and as low as -65°F (-54°C) with fuel at a viscosity of 12.0 centistokes or less during starting is approved.

注3/NOTE 3 滑油和燃油压力限制/Fuel and Oil Pressure limits:

燃油泵进口压力/Fuel pump inlet pressure: 最小/minimum: 大于真蒸汽压力5 psi/ 5 psi above true vapor pressure
最大/maximum: 35 psig

滑油压力/Oil Pressure: 滑油压力不受调节, 随N2转速变化。参见发动机安装手册 (见注12) / Oil pressure is not regulated and pressure limits vary with N2 speed. Refer to engine installation manual (see NOTE 12).

注4/NOTE 4 额定值基于静态试验, 并在下述条件下得到/The ratings are based on static test stand operation and under the

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following conditions:

- a 没有航空器附件传动载荷/ No loading of aircraft accessory drives.
- b 没有航空器压气机引气提取/ No aircraft compressor bleed air extraction.
- c 风扇排气和涡轮排气喷嘴遵照霍尼韦尔N10780-1和N10781-1图纸/ Fan exhaust and turbine exhaust nozzles conforming to Honeywell International Inc. Drawings N10780-1 and N10781-1.
- d 钟形进口遵照霍尼韦尔5837800-1图纸/Bellmouth inlet conforming to Honeywell International Inc. Drawing 5837800-1.
- e 干进口空气/Dry inlet air.
- f 无排气喷嘴反压/ No exhaust nozzle back pressure.

注5/NOTE 5 附件传动/Accessory Drive Provisions:

附件传动 /Accessory Drive	传动类型/Drive Type	内花键构造/ Internal Spline Configuration	转速和面 对驱动端 的转向 /RPM and Rotation Facing Drive End	注 (b) /Note (b) 附件最大扭矩 (磅-英寸) /Accessory Max. Torque (lb-in)			最大重量 (磅) /Maximum Weight (pounds)	悬挂力矩 (磅-英 寸) /Overhang Moment (lb-in)
				Tc	To	Ts		
发电机/交流发电机 Generator/Alternator D30*	经修改的 AS468B-AV1: 转速、扭矩、附 件重量和扭矩 AS468B-AV1 modified as follows: RPM, torques, accessory weight and moment as shown	AS468B	13665 注 (a) /Note (a) CW	242	363	1600	34.7	128.5
液压泵/Hydraulic Pump D10*	经修改的 AS468B-AV1: 转速、扭矩、附 件重量和扭矩 AS468B-AV1 modified as follows: RPM, torques, accessory weight and moment as shown	AS468B	5974 注 (a) /Note (a) CW	250	375	1544	22.3	103.9

CW=顺时针/Clockwise To=扭矩过载 (5分钟每4小时) / Torque Overload (5 min. per 4 hr. period)

Tc=连续扭矩/Continuous Torque Ts=静止扭矩/Static Torque

*安装图纸上附件衬垫相同/Accessory pads are identified by these symbols on the installation drawing.

注 (a) /Note (a): 驱动转速基于100%设计高压转子转速, 28100 rpm /Drive speeds are based on a 100% design HP rotor speed of 28,100 rpm.

注 (b) /Note (b): 总的附件功率提取限制在发动机安装手册中规定 (见注12) /Total combined accessory power extraction limits are specified in the engine installation manual (see NOTE 12).

注6/NOTE 6 用于航空器的压气机引气流量限制, 参见发动机安装手册 (见注12) /For aircraft compressor bleed airflow

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limits, refer to the engine installation manual (see NOTE 12).

注7/NOTE 7 来自发动机泵的燃油被提取，用来航空器燃油系统的涡轮泵。参见发动机安装手册（见注12）/ Fuel from the engine pump is extracted to drive jet or turbine pumps in the aircraft fuel system (motive flow). Refer to the engine installation manual (see NOTE 12).

注8/NOTE 8 发动机满足在FAR 25部附件C结冰条件下的运行要求/ The engine meets FAA requirements for operation in icing conditions within the envelope defined in Title 14 CFR part 25, Appendix C.

注9/NOTE 9 某些发动机零件具有有限寿命。这些限制在发动机小修手册中的适航限制部分规定/Certain engine parts are life-limited. These limits are included in the engine Light Maintenance Manual, Airworthiness Limitations Section.

注10/NOTE 10 当出现发动机意外事故时，5分钟起飞时间限制可以延长至10分钟/ The normal 5-minute takeoff time limit may be extended to 10 minutes for engine out contingency.

注11/NOTE 11 功率设定、功率检查和发动机推力输出控制基于低压转子转速（N₁）。因此，在发动机组件中，包含转速传感器/Power setting, power checks and control of engine thrust output in all operations are based on low-pressure rotor speed (N₁). Speed sensors are included in the engine assembly for this purpose.

注12/NOTE 12 对于额外的性能，批准的运行和安装信息，参见FAA批准的发动机安装手册/For additional performance, authorized operation and installation detailed information, refer to FAA approved sections of the engine installation manual as follows: Model AS907-1-1A: IM-8014

注13/NOTE 13 限时放行（TLD）：发动机控制系统可以批准限时放行。关于最大批准放行间隔和发动机控制系统维修要求的适航限制在发动机小修手册中规定/Time Limited Dispatch (TLD): The engine control system has been approved for TLD operations. Airworthiness limitations pertaining to the maximum approved dispatch intervals and maintenance requirements of the engine control system are specified in the engine Light Maintenance Manual, Airworthiness Limitations Section.

注14/NOTE 14 推荐的发动机检查间隔包含在发动机小修手册第5章中/Recommended engine inspection intervals are included in the engine Light Maintenance Manual, Chapter 5.

注15/NOTE 15 发动机型号设计不包含反推。关于发动机反推安装的考虑包含在发动机安装手册中（见注12）。发动机与下面的反推兼容/The engine type design does not include a thrust reverser. Considerations for the installation of a thrust reverser are contained in the engine installation manual (see NOTE 12). The engine has demonstrated compatibility with the following thrust reversers:

制造商/Manufacture	零件号/Part Numbers	
	左手/Left hand	右手/Right hand
Hurel-Hispano	13A025-03-OG	13A026-02-OG
Hurel-Hispano	13A012-00-OG with installation kit 13A016-00-OG	13A013-00-OG with installation kit 13A017-00-OG

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