

型号合格证数据单
TYPE CERTIFICATE DATA SHEET

编号/No: TC0005E

版次/Revision: 3

型别/Model:

WJ6

批准人/Approved By:

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职务/Title: 副司长

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本数据单是型号合格证（编号：TC0005E）的组成部分，它规定了获得该型号合格证的产品满足中国民用航空规章相关适航要求的条件和限制。

This data sheet, which is part of Type Certificate (No: TC0005E), 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.

型号合格证持有人 / Type Certificate Holder:

中国航发南方工业有限公司

湖南省株洲市芦淞区董家段

AECC South Industry Company Limited

Dongjia Duan, Lusong District, Zhuzhou City

第一部分: WJ6 型别技术数据/SECTION A: Model WJ6 TECHNICAL DATA

A I. 产品型别概述/Model General

产品型别 Model	类别 Category	型号合格证申请日期 Application Date	型号合格证批准日期 Approval Date
WJ6	航空发动机/Aeroengine	1990 年 8 月 25 日/ 25 August 1990	1994 年 2 月 24 日/ 24 February 1994

A II. 生产依据/ Production Basis

型别/Model	生产依据/Production Basis
WJ6	生产许可证: PC011E 1996 年 3 月 6 日批准 Production Certificate: PC011E Approval Date 6 March 1996

A III. 审定基础/ Certification Basis

型别/Model	审定基础/Certification Basis
WJ6	适航标准 Airworthiness Standards CCAR-33 航空发动机适航标准 1988 年 2 月 9 日实施。 CCAR-33 Airworthiness Regulation for Aeroengine, Implemented on 9 February 1988.

A IV. 技术特性和使用限制/Technical Characteristics and Operational Limitations

型别/Model	WJ6
型号设计定义 Type Design Definition	WJ6 型涡轮螺旋桨发动机, 10 级轴流式压气机、环形燃烧室, 3 级轴流式涡轮。单转子前输出, 装在前端的减速器为封闭差动游星式。 The WJ6 engine is a turboprop engine, with 10-stage axial flow compressor, annular combustion chamber, and 3-stage axial flow turbine. Single rotor front output, the reduction installed in the front end is closed planetary differential type.
额定值/Ratings	
起飞功率 (15 分钟) Take-off Power (15 min)	2810 kW
最大连续功率 (额定状态) Maximum Continuous Power (Rated)	2331 kW
非标准状态的功率 Non-standard state power	详见安装使用手册第 4 章图 1~图 5 Refer to Installation and Operating Manual Figure 1~Figure 5, chapter 4 for details.
注/Note:	
上述各状态的功率为最低值, 功率是在试验台安装条件下得到。不考虑发动机进口漩涡、压降、加温, 不考虑温度畸变、压力畸变和气流角畸变, 不考虑排气管背压的影响。发动机最低非安装功率按以下条件确定: All ratings above are the lowest power and obtained under test bench installation conditions without considerations of the swirl, pressure drop, heating, temperature distortion, pressure distortion, airflow angle distortion at the engine inlet and the back pressure at exhaust assemblies. The minimum uninstalled power ratings of the engine are determined under the following conditions: - 海平面标准大气条件; /ISA at Sea Level; - 无电机和液压功率提取 (除发动机运行所需之外); With no mechanical and hydraulic off-take (other than those required for engine operation); - 燃油低热值为 42.800MJ/kg 并符合安装使用手册中的相关要求; Fuel Low Heat Value: 42.800MJ/kg and meeting the relevant requirements in the Installation and Operating Manual; - 输出转速 12300r/min; Output shaft rotational speed 12300r/min; - 滑油符合安装使用手册的要求; The oil should meet the requirements of Installation and Operating Manual; - 无安装损失; No installation losses;	

- 无防冰引气; No anti-icing; - 试验台进气装置符合安装使用手册的要求。The intake used at test bench should meet the requirements of Installation and Operating Manual.							
工作高度/Operating Altitude							
最大高度/Maximum Altitude		10000m					
控制系统/Control System							
控制系统/ Control System Description		控制系统包括燃油调节器 RT-11, 调速器 TS-14A 等附件, 能在使用范围内完成起动、停车、调节功率, 实现恒转速等功能。能保证发动机安全可靠的工作, 维护使用方便。 The control system includes accessories such as fuel control unit(RT-11), speed governor (TS-14A) , which can perform functions like start, shut off, rating control, maintain constant speed, etc. It ensures the engine operating safely and reliable, and easy maintenance.					
液体 (燃油/滑油) Fluids(Fuel, Oil)		详见安装使用手册第 3 章 Refer to Installation and Operating Manual chapter 3 for details.					
物理特性/Physical Characteristics							
主要尺寸 Principal Dimensions		长度/Length	3558 mm				
		宽度/Width	892 mm				
		高度/Height	1174 mm				
		注: 含排气组件/Note: include exhaust assembly					
干重/Dry Weight		1200kg					
重心 Barycenter		主安装节中心线后方 420mm 420mm after Main mounting section center line 发动机中心线上方 47.4mm Above the engine centerline 47.4mm					
温度限制/ Temperature Limits							
涡轮后最大温度 Maximum Permissive Turbine Outlet Gas Temperature		地面/On ground		起飞/Take-off	T ₀ ≤15°C 510°C		
				T ₀ >15°C 560°C			
		在飞行中 In flight		额定/Rated		475°C	
				在 8000m 以下 Up to 8000m		起飞/Take-off	510°C
						额定/Rated	475°C
						0.85 额定/0.85 rated	450°C
				在 8000m 以上 Above 8000m		起飞/Take-off	540°C
						额定/Rated	495°C
		0.85 额定/0.85 rated	470°C				
		注/Note: 1.T ₀ 是指大气温度 T ₀ refers to the atmospheric temperature 2.飞行中涡轮后最大允许温度系指标准气温下的规定, 当外界气温比标准气温差±1°C, 燃气温度也相应变化±1°C。 The turbine outlet gas temperature in flight refers to the value specified at standard atmospheric temperature. When ambient temperature differs from ISA temperature for ±1°C, the gas temperature correspondingly changes ±1°C. 3.起动时涡轮后最大允许温度 750°C。 The maximum permissive turbine outlet gas temperature at start is 750°C.					
最低滑油温度 Minimum Oil Temperature		40°C					
最高滑油温度 Maximum Oil Temperature		详见安装使用手册第 3 章 Refer to Installation and Operating Manual chapter 3 for details.					

最佳滑油温度 Optimum Oil Temperature		70℃～80℃	
压力限制/Pressure Limits			
燃油压力 Fuel Pressure	辅助燃油泵进口压力 Auxiliary fuel pump inlet Pressure	0.023MPa（绝对）～0.083 ₀ ^{+0.02} MPa	
	辅助燃油泵出口压力 Auxiliary fuel pump outlet Pressure	0.245MPa～0.294MPa	
	起飞状态工作喷嘴前压力 Fuel nozzle inlet pressure during operation at take-off power	≤6.37MPa	
滑油压力 Oil Pressure	地面各飞行状态 On ground	0.490MPa～0.539MPa	
	飞行中各工作状态 In flight	0.392MPa～0.539MPa	
	慢车状态 At idle	≥0.392MPa	
转速限制/Speed Limits			
标准状态转速 Standard State Rotational Speed		12300r/min	95.5%
		注/Note: 发动机在稳定工作状态下允许转速摆动±1%。 The engine is allowed to have a speed swing of 1% under steady.	
引气/Bleed	详见安装使用手册第3章 Refer to Installation and Operating Manual chapter 3 for details.		
部件寿命 Component Life	详见使用维护说明书（第5章）J6.SM.1080 Refer to Maintenance Manual（Chapter 5）J6.SM.1080 for details.		
燃油和滑油过滤 Fuel and Oil Filtration	详见安装使用手册第3章。 Refer to Installation and Operating Manual chapter 3 for details.		
限时派遣 （TLD） Time Limited Dispatch	该发动机未批准限时派遣。在飞机起飞前，所有发动机系统和设备必须正常工作。任何检测到的发动机系统或设备故障必须在飞行前纠正。特殊说明请参见使用维护说明书。 The engine is not approved for Time Limited Dispatch. All engine systems and equipment must be functional prior to plane take-off. Any detected engine system or equipment failure must be corrected before flight. For special instructions, refer to maintenance Manual.		

A V.批准的技术资料/Approved Technical Documents

型别/Model	技术资料名称 Technical Documents name	技术资料编号和版本 Technical Documents number and version	状态 Status
WJ6	安装使用手册 Installation and Operating Manual	1995 年版或后续批准的版本 1995 or later approved revisions	批准 Approved
	大修手册 Overhaul Manual	J6.SM.1020, B 版或后续认可的版本 J6.SM.1020, B or later accepted revisions	认可 Accepted
	使用维护说明书 Maintenance Manual	J6.SM.1080, 2015 年版或后续认可的版本 J6.SM.1080, 2015 or later accepted revisions	认可 Accepted
	使用维护说明书适航限制章节 Airworthiness Limitations Section of the Maintenance Manual.	J6.SM.1080, 2015 年版或后续批准的版本 J6.SM.1080, 2015 or later approved revisions	批准 Approved
	服务通告及服务信函 Service Bulletins and Service Letters	参见所颁发的相关文件 As issued	/

AVI.注释/Notes

- 注释 1/NOTE1. 在海平面标准条件/ISA at Sea Level:
1) 最大连续状态 (额定状态)
Maximum Continuous Power (Rated)
转速 12300r/min, 当量轴功率 2567kW, 喷气推力 3.3kN
Rotational speed 12300r/min, Equivalent Power 2567kW, Exhaust thrust 3.3kN
2) 起飞状态 (15min)
Take-off Power (15 min)
转速 12300r/min, 当量轴功率 3064kW, 喷气推力 3.78kN
Rotational speed 12300r/min, Equivalent Power 3064kW, Exhaust thrust 3.78kN
- 注释 2/NOTE2. 当发动机转速超过 13260r/min (103%) 时, 必须进行人工顺桨。
If rotational speed exceeds 13260 r/min (103%), it is necessary to manual feathering.
- 注释 3/NOTE3. 防冰及要求/Anti-icing and requirements
压气机进气导向叶片采用 10 级压气机后热空气防冰。
The 10-stage compressor hot air is used for anti-icing of the compressor IGV.
进气机匣整流支板用热滑油防冰。
The hot oil is used for anti-icing of the intake casing rectifier support plate.
- 注释 4/NOTE4. 发动机安装系统/ Engine Installation System
按涡桨 6 发动机外廓图 J600998。
According WJ6 engine external view J600998.
- 注释 5/NOTE5. 螺旋桨牌号/Propeller Model
J17-G13。
- 注释 6/NOTE6. CAAC 批准的持续适航文件的适航限制章节详见发动机使用维护说明书 (第 5 章) (J6.SM.1080) “适航限制”。
The CAAC approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness is published in the applicable Engine Maintenance Manual, chapter 5 (J6.SM.1080) “Airworthiness Limitations”.
- 注释 7/NOTE7. 附件传动/Accessory drive

传动附件 Accessories	附件牌号 Model	转向 Rotation direction	传动比 Gear ratio	最大扭矩(连续) (N m) Maximum Torque in overload condition (N m)	最大悬臂力矩 (N m) Maximum cantilever moment (N m)	静态 (N m) Static state(N m)
起动发电机 Starter-generator	QF12-1	C	0.5396	24.46	122.48	
油雾分离器 Oil mist extractor	FLQ-3	CC	0.9204	2.48	3.52	
调速器 Speed governor	TS-14A	C	0.4602	22.28	59.41	

传动附件 Accessories	附件牌号 Model	转向 Rotation direction	传动比 Gear ratio	最大扭矩(连续) (N m) Maximum Torque in overload condition (N m)	最大悬臂力矩 (N m) Maximum cantilever moment (N m)	静态 (N m) Static state(N m)
主滑油泵 Main oil pump	CB-56	C	0.4821	34.14	25.81	
辅助滑油泵 Auxiliary oil pump	CB-57	CC	0.5509	5.18	4.83	
中、后轴承抽油泵 Mid and rear bearings scavenge pump	CB-58B	C	0.5509	3.11	1.82	
空气分离器 Air separator	QL-14	C	0.5509	9.32	6.13	
主燃油泵 Main fuel pump	CB-55	CC	0.3937	13.34	15.95	
辅助燃油泵 Auxiliary fuel pump	XB-36H	CC	0.1854	3.08	8.38	
燃油调节器 Fuel control unit	RT-11	C	0.4256	7.64	95.37	
交流发电机* Alternator	JF-12	CC	0.3305	34.53	135.22	170
液压泵* Hydraulic pump	CB40 或 ZB-16A	CC	0.1673	51.15	6.24	205
转速表传感器* Engine tachometer sensor	GZT-2	CC	0.1940			

注/Note:

1.旋转方向是基于从发动机后向前看确定的。

The rotation direction is based on the engine view from the rear to front.

2.“C”顺时针/ Clockwise

“CC”逆时针/Counter Clockwise

3.*指飞机附件/Aircraft Accessory

第二部分：管理信息/SECTIONB: ADMINISTRATIVE INFORMATION**BI. 型号持有人记录/Type Certificate Holder Record**

中国航发南方工业有限公司株洲市芦淞区董家墩

AECC South Industry Company Limited

Dongjia Duan, Lusong District, Zhuzhou City

BII. 修订记录/Change Records**数据单版次信息/Revision of the Type Certificate Data Sheet**

	数据单编号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date
当前 Current	编号 TC0005E, 版次 3。2025 年 11 月 7 日 No.TC0005E, Revision 3. 7 November 2025
历史 History	编号 TC0005E, 版次 2。2017 年 05 月 26 日 No.TC0005E, Revision 2. 26 May 2017 编号 TC0005E, 版次 1。2009 年 05 月 18 日 No.TC0005E, Revision 1. 18 May 2009 编号 TC005E, 版次 0。1994 年 2 月 24 日 No.TC005E, Revision 0. 24 February 1994

数据单修订记录/Change Record of the Type Certificate Data Sheet

版次/Revision	相对上一版的修订记录/Change Record	备注 Remark
3	1.格式调整/Format adjustment 参照最新型号合格证数据单的格式对 WJ6 型号合格数据单进行修订完善。 According to the format of the latest model certificate data sheet, the WJ6 model certificate data sheet is revised and improved. 2.更正辅助燃油泵进口压力值/Correct Auxiliary fuel pump inlet Pressure 依据辅助燃油泵技术协议等文件，对辅助燃油泵进口压力值更正。 According to the auxiliary fuel pump technical agreement and other documents, the auxiliary fuel inlet pressure value is corrected.	

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