

型号认可证数据单
THE VALIDATION DATA SHEET

编号/No: VTC0188E

版次/Revision: 3

型别/Type:

CT7-2E1 CT7-5A2

CT7-8A CT7-8A5

CT7-8B CT7-8B5

CT7-8E CT7-8E5

CT7-8F CT7-8F5

CT7-9B

批准人/Approved By:

徐峰

职务/Title: Deputy Director General

日期/Date: 2024-01-02

本数据单是型号认可证（编号 VTC0188E）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 a part of Validation Type Certificate (No: VTC0188E), 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: General Electric Company

1000 Western Avenue Lynn, MA 01910 (USA)

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

	中国民用航空总局认可数据单号、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	VTC0188E, 版次3, 2024年01月02日; No. VTC0188E, Revision 3, Jan 02, 2024	FAA TCDS No. E8NE, 第40版, 2022年7月29日 FAA TCDS No. E8NE, Revision 40, July 29, 2022
历史 History	VTC0188E, 版次2, 2022年3月3日; VTC0188E, Revision 2, March 3, 2022	FAA TCDS No. E8NE, 第39版, 2020年7月30日 FAA TCDS No. E8NE, Revision 39, July 30, 2020
	VTC0188E, 版次1, 2018年5月25日 VTC0188E, Revision 1, May 25, 2018	FAA TCDS No. E8NE, 第36版, 2017年12月21日 FAA TCDS No. E8NE, Revision 36, Dec. 21, 2017
	VTC007E, 版次0, 1992年5月10日 VTC007E, Revision 0, May 10, 1992	FAA TCDS No. E8NE, 第12版, 1989年6月30日 FAA TCDS No. E8NE, Revision 12, June 30, 1989
	VTC0188E, 版次0, 2007年5月11日; No. VTC0188E, Revision 0, May. 11, 2008	FAA TCDS No. E8NE, 第23版, 2007年4月18日 FAA TCDS No. E8NE, Revision 23, April 18, 2007

注：上表中出口国局方型号合格证数据单信息仅供参考

Note: Above TCDS information of Certification Authority is only for reference

CAAC 认可数据单修订情况说明 / CAAC VTCDS Change Record

历史 History	VTC0188E,R2,2022-03-03	E8NE
	VTC0188E,03,2024-01-02	E8NE,39,2004-04-08

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:

General Electric Company
GE Aviation
1000 Western Avenue
Lynn, MA 01910 (USA)

5. 双发延程飞行/ETOPS:

不适用/NA

6. CAAC专用要求/CAAC Special Requirements:

中华人民共和国国家标准 “3号喷气燃料” (GB 6537)

National Standard of the People's Republic of China “No.3 Jet Fuel” (GB 6537)

第2部分 数据单

Section 2 DATA SHEET

型号/ TYPE

CT7- 2E1/8A/8A5/8B/8B5/8E/8E5/8 F/8F5.	轴流式,带有自由涡轮的涡轴发动机。5 级轴流/1 级离心压气机,环形燃烧室,2 级燃气发生器涡轮, 2 级动力涡轮。带有全权限数字式发动机控制系统 (FADEC)。 Axial flow, free-turbine turboshaft. Five-stage axial / single-stage centrifugal compressor; annular combustion chamber; two-stage gas generator turbine; two-stage power turbine. Full Authority Digital Engine Control (FADEC).
CT7-5A2/9B	轴流式,带有自由涡轮的涡桨发动机。5 级轴流/单级离心压气机, 环形燃烧室, 2 级燃气发生器涡轮, 2 级动力涡轮。整合螺旋桨齿轮箱。 Axial flow, free-turbine turboprop. Five-stage axial / single-stage centrifugal compressor; annular combustion chamber; two-stage gas generator turbine; two-stage power turbine; integral propeller gearbox.

额定值(见注5和11) / RATINGS (See NOTE 5 and 11) (额定值是AEO, 除非标注OEI/Ratings are AEO unless labeled OEI.)

型号 / MODELS: CT7-	2E1	5A2	9B
最大连续/Maximum Continuous (SL)			
等效轴马力/Equivalent Shaft hp	---	1,660	---
轴马力/Shaft hp	1870	1,600	1,750
推力, 磅/Thrust, lb	---	150	---
输出转速/output, rpm	21,000	1,384 (1)	1,384 (1)
正常起飞 (5 分钟) /Normal Takeoff (5 min) (SL)			
等效轴马力/Equivalent Shaft hp	---	1,800	---
轴马力/Shaft hp	1985	1,735	1,750
推力, 磅/Thrust, lb	---	164	---
输出转速/output, rpm	21,000	1,384 (1)	1,384 (1)
最大起飞 (5 分钟) /Maximum Takeoff (5 min) (SL)			
轴马力/Shaft hp	---	---	1,870
输出转速/output, rpm	---	---	1,384 (1)
30 分钟/ 30 Minute (SL)			
轴马力/ Shaft hp	---	---	---
输出转速/ Output, rpm	---	---	---
连续单发失效 / Continuous OEI (SL)			
轴马力/ Shaft hp	1985	---	---
输出转速/ Output, rpm	21,000	---	---
30 分钟单发失效 / 30-minute OEI (SL)			
轴马力 / Shaft hp	---	---	---
输出转速 / Output, rpm	---	---	---

2.5 分钟单发失效 / 2½-minute OEI (SL)			
轴马力 / Shaft hp	---	---	---
输出转速/ Output, rpm	---	---	---
2 分钟单发失效 / 2-minute OEI (SL)			
轴马力 / Shaft hp	---		
输出转速/ Output, rpm	---		
相同的 30 秒/2 分钟单发失效 Flat 30-sec/2-min OEI (SL)			
轴马力/ Shaft hp	2214		
输出转速/ Output, rpm	21,000		

型号/Models CT7-	8A	8A5	8B	8B5	8E	8E5	8F	8F5
最大连续/Max continuous (SL)								
轴马力/Shaft hp	2,043	2,157	2,041	2,154	2,041	2,154	1,960	2,151
输出转速/Output, rpm	21,945	--	20,900	--	20,872	--	20,841	--
正常起飞（5分钟）/Normal takeoff (5 min) (SL)								
轴马力/Shaft hp	2,520	2,634	2,529	2,609	2,527	2,608	2,474	2,603
输出转速/Output, rpm	21,945	--	20,900	--	20,872	--	20,841	--
30分钟/30 Minute(SL)								
轴马力/Shaft hp	2,336	2,544	2,489	2,529	2,488	2,528	2,383	2,524
输出转速/Output, rpm	21,945	--	20,900	--	20,872	--	20,841	--
连续单发失效/Continuous OEI(SL)								
轴马力/Shaft hp	2,498	2,544	2,489	2,529	2,488	2,528	2,383	2,524
输出转速/Output, rpm	21,945	--	20,900	--	20,872	--	20,841	--
2分钟单发失效/2-minute OEI (SL)								
轴马力/Shaft hp	2,520	2,606	2,523	2,606	2,522	2,604	2,430	2599
输出转速/Output, rpm	20,900	--	--	--	20,872	--	19,800	20841
30秒单发失效/30-second OEI (SL)								
轴马力/Shaft hp	2,740	2,769	2,740	2,769	2,739	2,767	2,624	2762
输出转速/Output, rpm	20,900	--	--	--	20,872	--	19,800	20841

SL: 海平面/Sea level

“- -” 表示与前述型号相同 / INDICATES “SAME AS PRECEDING MODEL”

“---” 表示不适用 / INDICATES “NOT APPLICABLE”

燃油/FUEL:

型号/MODELS: CT7-	2E1	8A/8A5/8B/ 8B5//8F	8E/8E5	8F5	5A2	9B
燃油控制/Fuel Control						
Hamilton Standard P/N 819	---	819700-9	819700-9	819700-9	JFC78-5	JFC78-5 (1)
Woodward Governor	---	---	---	---	---	3470
(Model)						
FADEC (P/N)	5158T32	4110T55	4110T55	4110T55	---	---

燃油增压泵/Fuel Boost pump Lear Siegler-Romec (P/N)	RR53150	RR53150	RR53150	RR53150	RR53150	RR53150
燃油（见注 12）/Fuel (See NOTE 12) GE 喷气燃油规范 GE Jet Fuel Specification	D50TF2	D50TF2	D50TF2	D50TF2	D50TF2	D50TF2
经批准的燃油规范见操作说明 For specific approved fuels, see Operating Instructions:	GEK 112766	GEK 105157	GEK 112153	GEK 114117	SEI-575	SEI-575

滑油/OIL:

型号/MODELS: CT7-	2E1	8A/8A5/8B/8B5//8F	8E/8E5	8F5	5A2/9B
GE 滑油规范/GE Oil Specification	D50TF1	D50TF1	D50TF1	D50TF1	D50TF1
经批准的滑油规范见 操作说明 For specific approved oils, see Operating Instructions:	GEK 112766	GEK 105157	GEK 112153	GEK 114117	SEI-575

主要尺寸(英寸,见注 34)/PRINCIPAL DIMENSIONS (inches, see NOTE 34):

型号/MODELS: CT7-	2E1	8A/8A5/8B/8B5/8E/8E5/8F	8F5	5A2	9B
长/Length	47	48.8	42.3	96	96
最大直径（英寸）/ Maximum diameter (in)	---	---	---	---	---
宽/Width	26	26	26	26	26
高/Height	26	25	25	29	29
重量，干（磅）/ Weight, dry (lb)	491	542 (1)	542 (1)	783	805

(1) 不包括从发动机到 FADEC 的线缆/Does not include cables from engine to FADEC.

重心位置(英寸)/ CENTER OF GRAVITY LOCATION (Inches):

型号/MODELS: CT7-	2E1	8A/8A5/8B/8B5/8E/8E5/8F	8F5	5A2	9B
前安装点中心线后/ Aft of front mount centerline	13.42	13.58	21.76	31.08	31.45
高于发动机水平中心线/ Above engine horizontal centerline	1.19	1.98	1.10	2.75	2.73
发动机垂直中心线偏左/ Left of vertical centerline	0.64	1.02	0.46	0.28	0.26

点火系统(双重) / IGNITION SYSTEM,DUAL:

包括两套励磁单元和两个点火嘴 / Includes exciter unit and two igniter plugs

型号 CT7- MODELS CT7-	励磁单元 / EXCITER UNIT		点火嘴 / IGNITER PLUG
	供应商件号 Supplier Part Number	GE 件号 GE Part Number	供应商件号 Supplier Part Number
2E1 5A2/9B 8A/8A5/8B/8B5/8E/8E5/8F/8F5	--- 44525 9049950-1	5157T09 4068T11 3060T07	5044T67 5044T67 5044T67

注 / NOTES

型号 / MODELS: CT7-	
2E1	见注 1-17、24、29、34-38 和 48。 / See NOTES 1 through 17, 24, 29, 34 through 38 and 48.
5A2	见注 1-17、21-25、33 和 34/See NOTES 1 through 17, 21 through 25, 33 and 34.
8A	见注 1-17、24、29、34-40。 / See NOTES 1 through 17, 24, 29, 34 through 40.
8A5/8B/8B5/8E5/8F	见注 1-17、24、29、34-38 和 42。 / See NOTES 1 through 17, 24, 29, 34 through 38 and 42.
8E	见注 1-17、24、29、34-38 和 49/See NOTES 1 through 17, 24, 29, 34 through 38 and 49.
8F5	见注 1-17、21、24、29、34-38 和 43/See NOTES 1 through 17, 21, 24, 29, 34 through 38 and 43.
9B	见注 1-17、21-25、29、30、33 和 34/See NOTES 1 through 17, 21 through 25, 29, 30, 33 and 34.

审定基础 / CERTIFICATION BASIS

型号/ MODELS: CT7-	
2E1	1965 年 2 月 1 日生效的 14 CFR 第 33 部, 第 33-1 到 33-20 修正案; 专用条件 33-012-SC; 等效安全备忘录 AT3011EN-E-P-4。 / 14 CFR 33, effective February 1, 1965, as amended by amendments 33-1 through 33-20; Special Condition 33-012-SC; Equivalent Level of Safety memo AT3011EN-E-P-4.
8A/8A5/8B/8B5/8E/8E5/ 8F/8F5	1965 年 2 月 1 日生效的 FAR33,第 1 修正案到第 20 修正案,以及专用条件 33-002-SC 和 33-005-SC。 / FAR 33, effective February 1, 1965, as amended by amendments 33-1 through 33-20; Special Conditions Number 33-002-SC and 33-005-SC.
5A2/9B	1965 年 2 月 1 日生效的 14 CFR 33, 33-1 至 33-5 修正案; 14 CFR 33.17 和 14 CFR 33.77, 33-1 至 33-6 修正案; 专用条件 33-NE-1; 14 CFR 33, effective February 1, 1965, as amended by amendments 33-1 through 33-5; 14 CFR 33.17 and 14 CFR 33.77 as amended by amendments 33-1 through 33-6; Special Condition 33-NE-1.

型号合格证号 E8NE / TYPE CERTIFICATE NUMBER E8NE

型号 / MODEL	申请日期 APPLIED FOR	颁发/修正日期 ISSUED/REVISED
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CT7-5A2	1984 年 12 月 18 日/DEC 18 1984	1985 年 3 月 25 日/MAR 25 1985
CT7-9B	1987 年 3 月 16 日/MAR 16 1987	1988 年 6 月 17 日/JUN 17 1988
CT7- 8A/8A5/8B/8B5/8E/8E5/8F/8F5	2003 年 9 月 15 日/SEP 15 2003	2004 年 4 月 8 日/APR 08 2004
CT7-2E1	2009 年 9 月 10 日/SEP 10, 2009	2013 年 6 月 12 日/JUNE 12, 2013

生产基础 / PRODUCTION BASIS:

FAA 第 108 号生产合格证 / FAA Production Certificate number 108.

注 / NOTES

限制值是 AEO，除非标注 OEI/Limitations are AEO unless labeled OEI.

注 1 / NOTE 1.

燃气发生器最大允许工作转速（转/分钟） / MAXIMUM PERMISSIBLE GAS GENERATOR OPERATING SPEEDS (rpm)

型号/MODELS: CT7-	2E1	8A/8A5/8B/8B5/8E/8E5/8F/8F5
30秒OEI/30-second OEI	---	46,340
2分钟OEI/2-minute OEI	---	46,010
2.5分钟OEI/2½-minute OEI	---	---
平台30秒/2分钟OEI/Flat 30-second/2-minute OEI	46,935	---
30分钟OEI/30-minute OEI	---	---
连续OEI/Continuous OEI	45,907	45,760
正常起飞（5分钟）/Normal takeoff (5 min)	45,907	46,010
30分钟/30-minute	---	45,760
最大连续/Maximum continuous	45,907	44,660
瞬时（12秒）/Transient (12 sec)	46,137	46,120
瞬时单发失效（12秒）/Transient OEI (12 sec)	---	---

型号 / MODELS: CT7	5A2	9B
正常起飞（5分钟）/Normal takeoff (5 min)	45,000	45,288
最大起飞/Maximum takeoff	---	45,600
最大连续/Maximum continuous	44,720	45,600
瞬时（12秒）/Transient (12 sec)	47,000	47,000
APU（螺旋桨刹车/prop brake on）	(2)	(3)
(1) 保留/Reserved		
(2) 参见 SEI-575 的图 6-5/Refer to Figure 6-5, SEI-575		
(3) 参见 SEI-575 的图 6-6/Refer to Figure 6-6, SEI-575		

超速指示，见注 10。 / Overspeed inspection, see NOTE 10.

注 2 / NOTE 2.

最大允许温度 / MAXIMUM PERMISSIBLE TEMPERATURES

型号 / MODELS: CT7-	2E1
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动力涡轮进口 (T4.5/ITT) (1) POWER TURBINE INLET (T4.5/ITT) (1)	°C/°F
30 秒 OEI/30-second OEI	---
2 分钟 OEI/2-minute OEI	---
2.5 分钟 OEI/2½-minute OEI	---
平台 30 秒/2 分钟 OEI/Flat 30-second/2-minute OEI	1101/2013
30 分钟 OEI/30-minute OEI	---
连续 OEI/Continuous OEI	983/1802
正常起飞 (5 分钟) /Normal takeoff (5 min)	983/1802
30 分钟/30-minute	---
最大连续/Maximum continuous	957/1755
瞬时 (12 秒) /Transient (12 sec)	991/1816
瞬时单发失效 (12 秒) /Transient OEI (12 sec)	---
起动/Starting	963/1,766
滑油进口/Oil inlet	150/302
(1) 动力涡轮进口温度由安装在其壳体上的7 个热电偶进行测量。发动机温度超限的检查要求参见维修手册 GEK112043-02。 The power turbine inlet gas temperature is measured by 7 thermocouples mounted in the power turbine casing. For inspection requirements when limits are exceeded, refer to Maintenance Manual GEK112043-02.	

MODELS: CT7-	8A	8A5	8B	8B5/8E/8E5/8F/8F5
动力涡轮进口 (T4.5/ITT) (2) POWER TURBINE INLET (T4.5/ITT) (2)	°C/°F	°C/°F	°C/°F	°C/°F
30 秒 OEI/30-second OEI	1049/1921	1049/1921	1049/1921	1049/1921
2 分钟 OEI/2-minute OEI	1006/1843	1006/1843	1006/1843	1006/1843
连续 OEI/Continuous OEI	988/1811	988/1811	988/1811	988/1811
正常起飞/Normal takeoff	995/1823	1002/1835	995/1823	1002/1835
30 分钟/30-minute	988/1811	988/1811	988/1811	988/1811
最大连续/Maximum continuous	935/1715	935/1715	935/1715	935/1715
瞬时 (12 秒) /Transient (12 sec)	1003/1838	1003/1838	1003/1838	1003/1838
起动/Starting	1000/1832	1000/1832	1000/1832	1000/1832
滑油进口/Oil inlet	149/300	149/300	149/300	149/300
(2) 动力涡轮进口温度由安装在其壳体上的7 个热电偶进行测量。发动机温度超限的检查要求参见维修手册 GEK105159。 The power turbine inlet gas temperature is measured by 7 thermocouples mounted in the power turbine casing. For inspection requirements when limits are exceeded, refer to Maintenance Manual GEK105159.				

MODELS: CT7-	5A2	9B
动力涡轮进口 (T4.5/ITT) POWER TURBINE INLET (T4.5/ITT) (3)	°C/°F	°C/°F

正常起飞 (5 分钟) /Normal takeoff (5 min)	930/1,705	917/1,683
正常起飞 (2 分钟) /Normal takeoff (2 min) (4)	---	927/1,701
最大起飞 (5 分钟) /Maximum takeoff (5 min) (5)	---	940/1,724
最大起飞 (2 分钟) /Maximum takeoff (2 min) (4) (5)	---	950/1,742
最大连续/Maximum continuous	917/1,682	944/1,731
瞬时 (12 秒) /Transient (12 sec)	960/1,760	965/1,769
起动/Starting	960/1,760	965/1,769
滑油进口/Oil inlet		
螺旋桨齿轮箱, 连续/Propeller gearbox, continuous	77/171	77/171
瞬时 (15 分钟) /Transient (15 min)	93/199	93/199
动力组件, 连续/Power unit, continuous	122/252	122/252
瞬时 (15 分钟) /Transient (15 min)	132/270	132/270
(3) 动力涡轮进口温度由安装在其壳体上的7 个热电偶进行测量。CT7-5A2/9B 发动机的超限检查要求参见维修手册SEI-576。 The power turbine inlet gas temperature is measured by 7 thermocouples mounted in the power turbine casing. For inspection requirements when limits are exceeded, refer to Maintenance Manual SEI-576 for CT7-5A2/9B. (4) 5 分钟起飞过程中2 分钟瞬时最大2-minute transient maximum during a 5-minute takeoff. (5) 自动功率储备 (APR), 见注30/Automatic power reserve (APR). See NOTE 30. (6) 保留/Reserved		

注 3 / NOTE 3.

燃油压力限制 / FUEL PRESSURE LIMITS

型号: 所有 CT7 型号 / MODELS: All CT7 Models
发动机增压泵进口: 所有工况下, 包括起动, 最小压力应高于蒸汽压力1.0 psi, 汽液比小于或等于1.0。最大燃油压力应高于周围绝对大气压50psi。另外, 起动过程中最小燃油压力应不低于大气压(或油箱压力,取高者)减去2.8psi。 At engine boost pump inlet: For all operation, including starts, the minimum pressure shall be 1.0 psi above true vapor pressure of the fuel, with a vapor/liquid ratio less than or equal to 1.0. Maximum fuel pressure shall be 50 psi above absolute ambient atmospheric pressure. In addition, minimum fuel pressure during starting shall be no lower than atmospheric pressure (or tank pressure, whichever is higher) minus 2.8 psi.

滑油压力限制 / OIL PRESSURE LIMITS

型号 / MODELS: CT7-	2E1/8A/8A5/8B/8B5/ 8E/8E5/8F/8F5	5A2/9B
地面慢车, 最小/Ground idle, minimum	20 psid	---
工作范围/Operating range	30-100 psid	---
动力单元/Power unit		
地面慢车, 最小/Ground idle, minimum	---	20 psid
工作范围/Operating range	---	30-100 psid
螺旋桨齿轮箱/Propeller gearbox		
地面慢车, 最小/Ground idle, minimum	---	5-25 psig
工作范围/Operating range	---	25-140 psig

注 4 / NOTE 4.

附件驱动规定/ ACCESSORY DRIVE PROVISIONS

驱动 / Drive	型号 Type	转向* Rotation*	速度 Speed	最大扭矩 (磅英寸) / Maximum Torque (in-lb)	
				连续 / Continuous	静态 / Static

型号 / MODELS					
CT7-8A/-8A5/-8B/-8B5/-8E/-8E5/-8F/-8F5					
起动机/Starter	MS3326-2(1)	CW	0.64979(2)	336	900(3)/1000(4)
CT7-8F5					
起动离合器/Starter Clutch	V-Band Pad (13)	CW	0.64979(2)	336	900(3)/1000(4)
CT7-2E1					
起动发电机/Starter-Generator	AS963-1	CCW	0.29736	730 (5)	1320 (3)/1470 (7) /1700 (10)
CT7-5A2/-9B					
起动发电机/Starter-Generator	AS963A-12V (8)	CCW	0.26630 (2)	820(5)/192(6) (8)	1530(3)/1900 (10)/1645 (7)
螺旋桨齿轮箱/Propeller Gearbox					
螺旋桨轴/Propeller shaft	AS1414(8)	CCW	0.06291 (9)	123	(8)
液压泵/Hydraulic pump	MS3326(AS)-2 (8)	CW	0.27932 (9)	370(12)	(11)
交流发电机/AC generator	AS963A-12V (8)	CW	0.54650 (9)		(12)
螺旋桨超转控制器/Propeller overspeed governor	MS3325(AS)-2 (8)	CW	0.38091 (9)		(11)
螺旋桨控制单元/Propeller control unit	(13)	CW	0.06291 (9)		(11)

(1) 更改的/Modified

(2) 与燃气发生器的速比/Ratio to gas generator speed

(3) 3 秒钟最大持续/3 seconds maximum duration

(4) 最大轴向冲击力, 磅/Maximum axial impact force, pounds

(5) 起动机/Starter

(6) 发电机模式在没有客户引气的情况下地面慢车限制 3 分钟。

Generator mode for 3 minutes restricted at ground idle without customer Bleed. Unrestricted maximum is 112 in-lb

(7) 最长持续 0.05 秒/0.05 seconds maximum duration

(8) 更改的/Modified

对于 CT7-5A2 见安装手册 SEI-585/For CT7-5A2 see Installation Manual SEI-585

对于 CT7-9B 见安装手册 SEI-726/For CT7-9B see Installation Manual SEI-726

(9) 与动力涡轮转速的比值/Ratio to power turbine speed

(10) 起动发电机轴剪切部位的剪切扭矩/Shear torque for starter/generator shaft shear section

(11) 超扭的最低限制值为: 108 循环下正常额定最大扭矩的 1.5 倍; 或限制载荷下正常额定最大扭矩的 5 倍。

Overtorque allowance minimum of 1.5 x maximum normal rated torque for 108 cycles and minimum of 5 x maximum normal rated torque as a limit load.

(12) 5 分钟最大过载为 415 英寸-磅/Maximum overload up to 415 in-lb for 5 minutes

(13) 对于 CT7-8F5 参见安装手册 GEK 114116/For CT7-8F5 see Installation Manual GEK 114116

对于 CT7-8F5 参见安装手册 SEI-585/For CT7-5A2 see Installation Manual SEI-585

对于 CT7-9B 参见安装手册 SEI-726/For CT7-9B see Installation Manual SEI-726

* 面向发动机安装座/Facing engine pad, CW=顺时针/CLOCKWISE CCW=逆时针/COUNTERCLOCKWISE

注 5 / NOTE 5.

发动机额定值是在下列条件下, 基于在校准试验台上的性能得到的:

Engine ratings are based on calibrated test stand performance under the following conditions:

CT7-8A/8A5/8B/8B5
/8E/8E5/8F/8F5

静态海平面标准条件: 59°F , 29.92 英寸汞柱。
Static sea level standard conditions of 59°F and 29.92 inches Hg.

GE航空件号P/N 17A132-505进气道和P/N 17A132-506轴保护套。CT7-8F5喇叭口外部适配器P/N 17A210-005和内部适配器P/N 17A210-004。
GE Aviation air inlet, GE Aviation P/N 17A132-505 (CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5), and shaft shield, P/N 17A132-506. CT7-8F5 outer bellmouth adapter, P/N 17A210-005, and inner bellmouth adapter, P/N 17A210-004.

无飞机附件外部引气/No external air bleed for aircraft accessories.

排气装置由GE航空P/N 1076662-524或P/N 1076662-554（CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5）确定。
Exhaust configuration as defined by GE Aviation P/N 1076662-524 or P/N 1076662-554 (CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5).

无防冰气流/No anti-icing airflow.

下列发动机性能平台是整个飞行包线内的发动机性能数据的主要来源：
The following engine performance decks are the prime source of engine performance data throughout the flight envelope:

L0078S (CT7-8A)
L0081I (CT7-8A5)
L0081F (CT7-8B)
L0081J (CT7-8B5)
L0081G (CT7-8E)
L0081K (CT7-8E5)
L0081H (CT7-8F)
L0091W (CT7-8F5)

CT7-8A/8E/8F5 的功率额定值是基于试车台模式（发动机能力），关闭了 EECU 相应旋翼机能力的扭矩限制。在各自安装的旋翼机上，EECU 的扭矩限制分别为：
Power ratings for the CT7-8A/8E/8F5 are based on operating in test cell mode (engine capabilities), which disables the EECU torque limiting corresponding to the rotorcraft capabilities. In their respective rotorcraft installations, the EECU applies torque limits of:

CT7-8A

30秒OEI/30-Second OEI	703.3	英尺-磅/ft-lb
2分钟OEI/2-Minute OEI	598.6	英尺-磅/ft-lb
连续OEI/Continuous OEI	598.6	英尺-磅/ft-lb
正常起飞/Normal Takeoff	548.7	英尺-磅/ft-lb

CT7-8E/8F5

	8E	8F5	
30秒OEI/30-Second OEI	564.0	N/A	英尺-磅/ft-lb
2分钟OEI/2-Minute OEI	564.0	602.0	英尺-磅/ft-lb

	连续OEI/Continuous OEI	564.0	N/A	英尺-磅/ft-lb
	所有发动机都工作/AEO	467.9	602.0	英尺-磅/ft-lb
CT7-5A2	静态海平面标准条件, 59° F, 29.92 英寸汞柱 Static sea level standard conditions of 59°F and 29.92 inches Hg. 无进气系统损失、防冰气流、用户引气或功率提取。 No inlet system loss, no anti-icing, no customer bleed or power extraction. 在安装图纸上排气系统按注 36 的规定。 Exhaust system specified per Note 36 on the installation drawing. 性能数据在发动机性能试车台 85151 获得。起飞平台额定至 93° F, 最大连续平台额定至 95° F。 Engine performance decks 85151 summarize performance data. CT7-5A2 takeoff flat rated to 93°F, maximum continuous flat rated to 95°F.			
CT7-9B	静态海平面标准条件, 59° F, 29.92 英寸汞柱 Static sea level standard conditions of 59°F and 29.92 inches Hg. 无进气系统损失、防冰气流、用户引气或功率提取。 No inlet system loss, no anti-icing, no customer bleed or power extraction. 在安装图纸上排气系统按注 36 的规定。Exhaust system specified per Note 36 on the installation drawing. 发动机性能数据试车台在以下性能试车台上获得: The following engine performance decks summarize the data: CT7-9B 88250A, 88250B (1) (1) 用 88250B 获得的替代性能符合 GE 服务通告 SB 73-0046, 服务通告中 CT7-9B 构型的替代燃油控制能够增加高油门位置的燃油流量。 Alternate performance defined by 88250B applies to CT7-9B engines that comply with GE Service Bulletin 73-0046. The Service Bulletin configures the CT7-9B engine with an alternate fuel control that is capable of increased fuel flow at high throttle positions.			
CT7-2E1	静态海平面标准条件, 59° F, 29.92 英寸汞柱 Static sea level standard conditions of 59°F and 29.92 inches Hg. GE 航空件号 P/N 1076662-542 进气道, 和 GE 航空 P/N 1076662-592 轴保护套。 GE Aviation P/N 1076662-542 air inlet, and GE Aviation P/N 1076662-592 shaft shield. 无进气系统损失、防冰气流、用户引气或功率提取。 No inlet system loss, anti-icing airflow, customer bleed airflow or power extraction. 排气装置由 GE 航空 P/N 1076662-524 或 P/N 1076662-554 确定。			

Exhaust configuration as defined by GE Aviation P/N 1076662-524 or P/N 1076662-554.		
CT7-2E1 的功率额定值是基于试车台模式（发动机能力），关闭了 EECU 相应旋翼机能力的扭矩限制。在其安装的旋翼机上，EECU 的扭矩限制分别为：		
Power ratings for the CT7-2E1 are based on operating in test cell mode (engine capabilities), which disables the EECU torque limiting corresponding to the rotorcraft capabilities. In its rotorcraft installation, the EECU applies torque limits of:		
CT7-2E1		
30分钟/30-minute	355.5	英尺-磅/ft-lb
30秒OEI/30-Second OEI	527.2	英尺-磅/ft-lb
2分钟OEI/2-Minute OEI	499.6	英尺-磅/ft-lb
连续OEI/Continuous OEI	435.2	英尺-磅/ft-lb
发动机性能平台Q20190405是整个飞行包线内发动机性能数据的主要来源。		
Engine performance deck Q20190405 is the prime source of engine performance data throughout the flight envelope.		

注 6 / NOTE 6.

最大允许客户引气提取为 6.5%。/ Maximum permissible customer air bleed extraction is 6.5 percent.

CT7-2E1/8A/8A5/8B/8B5/8E/8E5/8F	最大允许客户引气提取为 6.5 %。 Maximum permissible customer air bleed extraction is 6.5 percent.
CT7-8F5	最大允许客户引气提取为4.0 %。 Maximum permissible customer air bleed extraction is 4.0 percent.
CT7-5A2	客户引气由两部分提供（中间压气机和压气机扩压器）。中间压气机最大引气量（无发动机防冰）为 6.5%，压气机扩压器最大引气量空中大约 8%，APU 模式下为 12%。详见 CT7-5A2 安装手册 SEI-585。 Customer bleed air is provided through two bleed ports (mid-compressor and compressor discharge). At the mid-compressor port, maximum allowable bleed (no engine anti-icing airflow) is 6.5 percent. Maximum allowable bleed airflow at the compressor discharge bleed port is approximately 8 percent in flight and 12 percent while in APU mode. See CT7-5A2 Installation Manual SEI-585.
CT7-9B	客户引气由两部分提供（中间压气机和压气机扩压器）。中间压气机最大引气量（无发动机防冰）为 6.5%，压气机扩压器最大引气量空中大约 8%，APU 模式下为 12%。详见 CT7-9B 安装手册 SEI-726。 Customer bleed air is provided through two bleed ports (mid-compressor and compressor discharge). At the mid-compressor bleed port, maximum allowable bleed (no engine anti-ice airflow) is 6.5 percent. Maximum allowable bleed airflow at the compressor discharge bleed port is approximately 8 percent in flight and 12 percent while in APU mode. See CT7-9B Installation Manual SEI-726.

注 7 / NOTE 7.

动力涡轮运行范围（转/分钟） / POWER TURBINE OPERATING RANGE (rpm).

型号/MODELS: CT7-	2E1	8A/8A5	8B/8B5	8E/8E5	8F/8F5	5A2	9B
瞬时（12 秒）/Transient (12 sec)	23,100	24,350	24,350	24,350	24,350	25,240	25,240
最大许用值/Maximum permissible	22,000	22,200	22,200	22,200	22,200	1,396 (1)	22,200
最大控制值/Maximum governing	22,000	21,945	20,900	20,872	20,841	---	---
正常/Nominal	21,420	21,945	20,900	20,872	20,841	1,384 (1)	22,000
最小控制值/Minimum governing	---	19,855	---	---	---	970	19,855

(1) 这些涡桨型别的输出规定为螺旋桨转速（齿轮减速Np）

Output for these turboprop models is specified as propeller speed (gear reduced Np).

超速检查，参见注 10 / Overspeed inspection, see NOTE 10

注 8 / NOTE 8.

动力涡轮轴扭矩限制值（磅英尺）/ POWER TURBINE SHAFT TORQUE LIMITS (ft-lb)

型号/MODELS: CT7-	2E1	8A/8A5/8B/8B5/8E/8E5/8F	8F5	5A2	9B
30 秒 OEI/30-second OEI	---	702	734	---	---
2 分钟 OEI/2-minute OEI	---	660	660	---	---
平台 30 秒/2 分钟 OEI/Flat 30-second/2-minute OEI	575	---	---	---	---
2½分钟 OEI/2½-minute OEI	---	---	---	---	---
30 分钟 OEI/30-minute OEI	---	---	---	---	---
连续 OEI/Continuous OEI	515	640	640	---	---
正常起飞（5 分钟）/Normal takeoff (5 min)	515	660	660	420	510
最大起飞（5 分钟）/Maximum takeoff (5 min)	---	---	---	---	510
30 分钟/30-minute	---	640	640	---	---
最大连续/Maximum continuous	490	610	610	389	460
瞬时（12 秒）Transient (12 sec)	545	777	777	500	600

注 9 / NOTE 9.

所有型别满足FAA结冰条件下的运行要求。CT7-2E1/5A2/8A/8A5/8B/8B5/8E/8E5/8F/8F5/9B发动机在正常运行范围内无防冰运行限制。

All engine models meet FAA requirements for operation in icing conditions. The CT7-

2E1/5A2/8A/8A5/8B/8B5/8E/8E5/8F/8F5/9B engine models have no anti-icing operational restrictions in their normal operating ranges.

注 10 / NOTE 10.

如果超过了发动机的Ng（注1）、T4.5/ITT（注2）、Np（注7）或者扭矩（注8）的限制值，或者超出了相关时间限制，比如12秒，5分钟等等，发动机必须按照GE航空的维修手册进行检查：

If an Ng (NOTE 1), T4.5/ITT (NOTE 2), Np (NOTE 7), or Torque (NOTE 8) limit for the engine has been exceeded, or if an associated time-limitation has been exceeded, e.g. 12 seconds, 5 minutes, etc., the engine must be inspected per GE Aviation Maintenance Manual:

GEK 112043-02 (CT7-2E1)

SEI-576 (CT7-5A2/9B)

GEK 105159 (CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5).

另外，如果螺旋桨轴转速超过1,588 rpm达12秒以上，CT7-5A2/9B涡桨发动机必须按照SEI-576进行检查。

In addition, if propeller shaft speed has exceeded 1,588 rpm for more than 12 seconds, the CT7-5A2/9B turboprop engine must be inspected per SEI-576.

注 11/ NOTE 11.

59° F以下海平面静态功率限制值/SEA LEVEL STATIC POWER LIMITS BELOW 59° F

这些额定值和它们的使用限制在适用的联邦航空条例（14 CFR）中定义。

These ratings and the limitations on the usage of them are defined in Title 14, Code of Federal Regulations (14 CFR).

型号 / MODELS: CT7-	2E1	5A2/9B
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平台 30 秒/2 分钟 OEI/Flat 30-second/2-minute OEI	在-58° F 时, 线性减少到 2033 轴马力 Decreases linearly to 2033 shp at -58°F	---
2½分钟 OEI/2½-minute OEI	---	---
正常起飞, 最大起飞, 30 分钟 OEI 和连续 OEI/Normal takeoff, Maximum takeoff, 30-minute OEI and Continuous OEI (1)	平台额定值至-58° F/Flat rated to -58° F	平台额定值至-65° F/Flat rated to -65° F
最大连续 / Maximum continuous	平台额定值至-58° F/Flat rated to -58° F	平台额定值至-65° F/Flat rated to -65° F
(1) CT7-2E1 仅有正常起飞和连续 OEI 功率/CT7-2E1 has normal takeoff and continuous OEI ratings only.		

型 号 /MODELS CT7-	8A	8A5	8B	8B5/8E5
30秒单发失效/ 30-second OEI	在51° F 时线性增至2750 轴马力, 之后保持平直至 -36° F, 到-65° F 时线性降至2645轴马力 Increase linearly to 2750shp at 51°F, then flat to -36°F, decreasing linearly to 2645 shp at -65°F.	保持平直至-56° F, 之后在-65° F 时降至2662轴马力 Flat to -56°F, then decreasing to 2662 shp at -65°F.	保持平直至 -39° F, 之后在-65° F 时降至2645轴马力 Flat to -39°F, then decreasing to 2645 shp at -65°F.	保持平直至-36° F 之后在 -65° F 时降至 2662 轴马力 Flat to -36°F, then decreasing to 2662 shp at -65°F.
2 分钟OEI 2-minute OEI	平台功率至-65° F Flat rated to -65°F.	平台功率至-65° F Flat rated to -65°F.	平台功率至-65° F Flat rated to -65°F.	平台功率至-65° F Flat rated to -65°F.
连续OEI Continuous OEI	平台功率至-65° F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.
30 分钟OEI 30-minute OEI	---	---	---	---
正常起飞 Normal takeoff	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.
30 分钟 30-minute	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.
最大连续 Max continuous	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.

型号/MODELS CT7-	8E	8F	8F5
30秒单发失效/ 30-second OEI	保持平直至-44° F, 之后在-65° F时降至2656轴马力 Flat to -44°F, then decreasing to 2656 shp at -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-40°F Flat rated to -40°F.

2 分钟OEI 2-minute OEI	平台功率至-65° F Flat rated to -65°F.	平台功率至-65° F Flat rated to -65°F.	平台功率至-40°F Flat rated to -40°F.
连续OEI Continuous OEI	平台功率至-65° F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-40°F Flat rated to -40°F.
30 分钟OEI 30-minute OEI	---	---	---
正常起飞 Normal takeoff	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-40°F Flat rated to -40°F.
30 分钟 30-minute	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-40°F Flat rated to -40°F.
最大连续 Max continuous	平台功率至-65°F Flat rated to -65°F.	平台功率至-65°F Flat rated to -65°F.	平台功率至-40°F Flat rated to -40°F.

注 12 / NOTE 12.

在D50TF2规范的21版或后续版本中规定了批准的燃油和添加剂。

Approved fuels and additives are specified in GE Specification D50TF2 revision 21 or later.

注 13 / NOTE 13.

关键转动件的寿命限制在以下GE航空维修手册第5章给出：

Life limits, established for critical rotating components, are published in the following GE Aviation Maintenance Manuals Chapter 5:

GEK 112043-02 (CT7-2E1)

GEK 105159 (CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5).

SEI-576 (CT7-5A2/9B)

注 14 / NOTE 14.

建议的维修检查间隔在以下GE航空出版物中给出：

Recommended maintenance inspection intervals are published in the following GE Aviation publications:

服务通告/Service Bulletin No. (CT7-TP) 72-02 (CT7-5A2/9B)

GEK 105159(CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5).

GEK112043-02 (CT7-2E1).

注 15 / NOTE 15.

以下发动机部件满足所示14 CFR规章的要求。

The following engine components provide means to satisfy the indicated requirements of the 14 CFR Part shown.

型号/MODELS CT7-	2E1/8A/8A5/8B/8B5/8E/8E5/8F/8F5, (29部第46修正案/Part 29 Amendment 46)	2A2/9B, (25部第43修正案/Part 25 Amendment 43)
(1) 燃油滤/Fuel filter	29.997(a),(b),(c),(d) 29.1305 (a)(18) *	25.997(a)(b)(c)(d) 25.1305(c)(6) *

(2) 滑油箱/Oil tank	29.1011(a) 29.1013(a) 29.1013(b)(1)(3) 29.1013(c)(1)(2)(3) 29.1013(d)(1)(2) 29.1013(e) 29.1015(a)(b) 29.1189(a)(2) 29.1305(a)(8) *	25.1011(a) 25.1013(a) 25.1013(b)(1)(3) 25.1013(c)(1)(2) 25.1013(d)(1)(2) 25.1013(e) 25.1015(a)(b) 25.1189(a)(2) 25.1305(a)(3) *
(3) 滑油滤/Oil filter	29.1019(a)(1)(2)(4) 29.1019(a)(3)(5) * 29.1305(a)(19) *	25.1019(a)(1)(2)(4) 25.1019(a)(3) * 25.1305(c)(7) *
(4) 进口杂质分离装置/ Inlet particle separator blower	29.1461(c)	---
(5) 通气/Ventilation	29.831(b)	25.831(b)

* 意味着发动机提供的零件满足要求/Means to satisfy the requirement are provided by the engine.

注 16 / NOTE 16.

a. 安装发动机时，温度值及短舱气流必须满足安装手册段A-8和A-9或者表B-7（CT7-2E1）规定的要求。

The temperature value and/or nacelle airflow requirements specified in Paragraph A-8 and A-9, or Table B-7 (CT7-2E1), of the Installation Manual must be met when installing the engine:

GEK 112765 (CT7-2E1)

SEI-866 (CT7-8A/8A5/8B/8B5/8E/8E5/8F)

GEK 114116 (CT7-8F5)

b. 安装涡桨发动机时，安装手册规定的要求必须满足：

The requirements specified in the Installation Manual must be met when installing the turboprop engine:

SEI-585 Paragraph A-9 (CT7-5A2).

SEI-726 Paragraph A-7 (CT7-9B)

只有满足以上要求时，才符合14 CFR 33.17第6修正案关于渗漏滑油的点燃的要求。

Compliance with 14 CFR 33.17 Amendment 6 concerning ignition of leaking oil is obtained only when the above requirements are met.

注 17 / NOTE 17.

下列型别包含以下一般特征/The following models incorporate the following general characteristics:

CT7-2A:	基本型/Basic Model.
CT7-2D:	与 CT7-2A 相似，采用了更高流量的压气机和提高耐磨、耐腐蚀性的表面涂层 similar to CT7-2A but incorporates higher flow compressor and surface coatings to improve resistance to wear and corrosion.
CT7-2D1:	与 CT7-2D 相似，采用了 CT7-6/6A 的热端部分。 Similar to CT7-2D but incorporates CT7-6/6A hot section.
CT7-2E1:	与 CT7-2D1 相似，采用了 CT7-8 系列更好耐久性的热端部分，CT7-9 的附件齿轮箱和燃烧室，以及 FADEC 控制系统。 Similar to CT7-2D1 but incorporates CT7-8 growth models improved durability hot section, CT7-9 AGB and combustor, and FADEC control system
CT7-6/6A:	与 CT7-9B/9C 相似，除了 CT7-2 系列涡轴发动机的进气和排气部分。

	Similar to CT7-9B/9C except for turboshaft CT7-2 family inlet and exhaust frames.
CT7-8:	与 CT7-6 相似，除了更高流量的压气机、改进耐久性的涡轮和 FADEC 控制。 Similar to CT7-6 except for increased airflow compressor, improved durability turbine and FADEC based control.
CT7-8A/8A1/8A5/8A6/8A7/8B/8B5/8E/8E5/8F/8F5:	与 CT7-8 相似，除了更好耐久性的涡轮。 Similar to CT7-8 except for increased durability turbine.
CT7-5A2/9B:	涡桨动力组件与涡轴发动机相似，增加了气流，动力涡轮转子长度增加 1 英寸及相关硬件改变。涡桨发动机整合了螺旋桨齿轮箱，通过驱动轴壳体 and 两个连杆与动力组件联接。 Turboprop power units are similar to turboshaft engines with slightly increased airflows, a one-inch increase in power turbine rotor shaft length and associated hardware changes. Turboprop engines incorporate a propeller gearbox coupled to the power unit by a drive shaft housing and two interconnecting struts.

涡桨型别的螺旋桨齿轮箱能够装配可选的螺旋桨刹车组件。当螺旋桨刹车停止螺旋桨转动时，发动机燃气发生器部分作为辅助动力装置继续运转（APU模式）。

The turboprop models' propeller gearbox has the capability of being equipped with an optional propeller brake assembly. The propeller brake when engaged stops propeller rotation while allowing the gas generator portion of the engine to remain in operation as an auxiliary power unit (APU mode).

注 18~注 20/NOTE 18~NOTE 20 不适用/Not applicable

注21 / NOTE 21.

外来物吸入保护/FOREIGN OBJECT INGESTION PROTECTION

CT7的涡桨发动机型别（CT7-5A2/9B）安装以下GE航空进气道（参考图纸）表明符合14 CFR 33.77外物吸入的要求：

The CT7 turboprop engine models (CT7-5A2/9B) have substantiated the ingestion requirements of 14 CFR 33.77 fitted with the following GE Aviation inlet duct reference drawings:

17A133-912 和/and SK585500-121 Sheets 1, 2 and 3 (CT7-5A2)

17A151-828 和/and 17A151-837 (CT7-9B)

这一特征的气动和结构要去可咨询GE航空。

GE Aviation should be consulted regarding the aerodynamics and structural requirements of this feature.

CT7-8F5发动机仅限表明发动机不会受到鸟击、吸入发动机或做成不利气流影响的航空器安装。

The CT7-8F5 Engine shall be limited to aircraft installation in which it is shown that a bird cannot strike the engine, be ingested into the engine, or adversely restrict airflow into the engine.

注 22 / NOTE 22.

CT7-5A2/9B螺旋桨稳态避免范围375-500 rpm和625-950 rpm

CT7-5A2/9B propeller steady state avoidance ranges are 375-500 rpm and 625-950 rpm

注 23 / NOTE 23.

CT7-5A2/9B发动机可以合并螺旋桨刹车组件作为可选设备。飞机安装需求可以参考CT7-5A2的安装手册SEI-585或CT7-9B的安装手册SEI-726。飞机螺旋桨刹车系统必须防止刹车误动作。

CT7-5A2/9B engines can incorporate a propeller brake assembly as optional equipment. Refer to CT7-5A2 Installation Manual SEI-585 or CT7-9B Installation Manual SEI-726 for aircraft installation considerations. The aircraft propeller brake system must preclude inadvertent brake applications.

注 24 / NOTE 24.

所有型别均满足14 CFR 34部第34-4修正案中的燃油排泄和烟雾的要求。

All models meet the fuel venting emissions and smoke requirements of 14 CFR Part 34, as amended by amendment 34-4.

注 25 / NOTE 25

涡桨型别（CT7-5A2/9B）整合一套恒定扭矩控制系统，包括超扭和超温限制。

Turboprop models (CT7-5A2/9B) incorporate a constant torque governing system including overtorque and overtemperature limiting features.

注 26~注28/NOTE 26~NOTE 28 不适用/Not applicable**注 29 / NOTE 29.**

某些型别制定了有关电磁干扰（EMI）和闪电的限制值。关于抗EMI和闪电能力和限制值的详细描述参见安装手册：

Limits have been established for certain models with regard to Electromagnetic Interference (EMI) and lightning. Refer to the Installation Manual for more detailed descriptions of EMI and lightning capabilities and limits:

SEI-726 (CT7-9B)

SEI-866 (CT7-8A/8A5/8B/8B5/8E/8E5/8F)

GEK 114116 (CT7-8F5)

GEK112765 (CT7-2E1)

注 30 / NOTE 30

对于CT7-9B，正常起飞功率，T4.5/ITT和Ng限制值是为了设定起飞功率定义最大T4.5/ITT和Ng，以确保：
For the CT7-9B, the Normal Takeoff power, T4.5/ITT and Ng limits are presented for the purpose of defining the maximum T4.5/ITT and Ng at which Normal Takeoff power can be set to ensure that:

1. 如果自动功率储备（APR）机制请求，能够达到最大起飞功率，和

Maximum takeoff power will be achieved if demanded by the automatic power reserve (APR) mechanism, and

2. 不会超过最大限制值。

No maximum limits will be exceeded.

注 31 / NOTE 31 本条注释被删除/This note has been deleted.**注 32/NOTE 32** 不适用/Not applicable**注 33/NOTE 33**

CT7-5A2/9B发动机可能会按GE航空CT7运行工程通告1和11最新版列出的衍生发动机起飞额定值运行。该程序把注5中最大起飞、正常起飞和最大连续的平台额定温度降低了5°C。

The CT7-5A2/9B engines, may be operated under the Derivative Engine Takeoff Rating program as outlined in GE Aviation CT7 Operations Engineering Bulletins 1 and 11, latest Revisions. The Derivative Engine Takeoff Rating program reduces the NOTE 5 flat rated temperatures for maximum takeoff, normal takeoff and maximum continuous by 5°C.

注 34 / NOTE 34.

主要尺寸都是名义值，仅供参考。更详细的尺寸可以在安装图纸中找到：

The Principal Dimensions are nominal values for reference only. More exact dimensions are defined in the Installation Drawing found in:

GEK 112765 (CT7-2E1)

SEI-585 (CT7-5A2)

SEI-726 (CT7-9B/9)

SEI-866 (CT7-8A/8A5/8B/8B5/8E/8E5/8F)

GEK 114116 (CT7-8F5)

注 35 / NOTE 35.

对于 CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5, FADEC 系统同步控制发动机输出轴转速 (N_p), 即航空器主旋翼转速 (N_r), 和发动机之间的扭矩匹配。对于扭矩、转速和动力涡轮进口温度 ($T_{4.5/ITT}$) 都有自动运行限制器。

For the CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5 models, the FADEC system isochronously governs engine output shaft speed (N_p) and therefore aircraft main rotor speed (N_r), and incorporates torque matching between engines. Automatic operational limiters are provided for torque, speed and power turbine inlet temperature ($T_{4.5/ITT}$).

对于 CT7-2E1, FADEC 系统同步控制发动机输出轴转速 (N_p), 即航空器主旋翼转速 (N_r), 和匹配发动机之间的扭矩或动力涡轮进口温度 (飞行员选择)。FADEC 也针对扭矩、旋翼转速和动力涡轮进口温度 ($T_{4.5/ITT}$) 设有自动运行限制器, 详见安装手册 GEK 112765。

For the CT7-2E1 the FADEC system isochronously governs engine output shaft speed (N_p) and therefore aircraft main rotor speed (N_r), and incorporates either torque or power turbine inlet temperature matching between engines (pilot selectable). The FADEC also provides automatic operational limiters for torque, rotor speeds and power turbine inlet temperature ($T_{4.5/ITT}$) as defined in the Installation Manual GEK 112765.

注 36 / NOTE 36.

对于 CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5, 发动机处在 30 秒 OEI、2 分钟 OEI 额定值时, 动力涡轮进口温度 ($T_{4.5/ITT}$) 和扭矩数据对于飞机系统警示飞行员来讲是必需的, 并且要跟踪时间。详见安装手册 SEI-866 (CT7-8A/8A5/8B/8B5/8E/8E5/8F) 或 GEK 114116 (CT7-8F5)。FADEC 系统将 $T_{4.5/ITT}$ 和扭矩信号传递给飞机系统跟踪处在那些额定值的时间。

For the CT7-8A/8A5/8B/8B5/8E/8E5/8F/8F5 models, the power turbine inlet gas temperature ($T_{4.5/ITT}$) and torque data are required for the aircraft system to alert the pilot and track the time when the engine is at the 30-second and 2-minute OEI ratings; see Installation Manual SEI-866 (CT7-8A/8A5/8B/8B5/8E/8E5/8F) or GEK 114116 (CT7-8F5). The FADEC system provides the $T_{4.5/ITT}$ and Torque signals to the aircraft system to track the time at those ratings.

对于 CT7-2E1, 发动机处在 30 秒/2 分钟 OEI 额定值时, 动力涡轮进口温度 ($T_{4.5/ITT}$)、燃气发生器转速 (N_g) 和扭矩数据对于飞机系统警示飞行员来讲是必需的, 并且要跟踪时间。详见安装手册 GEK 112766。

FADEC 系统将 $T_{4.5/ITT}$ 、 N_g 和扭矩信号传递给飞机系统跟踪处在那些额定值的时间。
For the CT7-2E1 model, the power turbine inlet gas temperature ($T_{4.5/ITT}$), gas generator speed (N_g) and torque data are required for the aircraft system to alert the pilot and track the time when the engine is at the flat rated 30-second/2-minute OEI rating; see Operating Instructions GEK 112766. The FADEC system provides the $T_{4.5/ITT}$, N_g , and Torque signals to the aircraft system to track the time at those ratings.

注 37 / NOTE 37.

对于 CT7-2E1/8A/8A5/8B/8B5/8E/8E5/8F/8F5, 发动机维修逻辑由 FADEC 提供, 通过 ARINC 数据总线传递

发动机维修信息。信息包括系统故障事件指示和功率保障计算结果。

For the CT7-2E1/8A/8A5/8B/8B5/8E/8E5/8F/8F5 models, engine maintenance logic is provided by the FADEC system, which transmits maintenance information over an ARINC data bus. This information includes system fault event indications and power assurance calculation results.

注 38 / NOTE 38.

对于 CT7-2E1, 在全发工作条件下, 当发动机传感器探测到 PT 转速 (Np) 降至基准转速的 95%, 或者以超过 3% 的速率降至基准的 99.5% 时, T4.5 限制值会自动设定在平台 30 秒/2 分钟 OEI 限制值上。当 Np 大于基准的 99.5%, 并且 T4.5 至少低于 AEO T4.5 基准温度 5.5° C 超过 3 秒时, T4.5 将恢复至起飞 (AEO) 限制值。

For the CT7-2E1 model, in an all engines operating (AEO) condition, the T4.5 limit will be automatically set to the flat 30-second/2-minute OEI limit when the engine senses a PT rotor speed (Np) droop to 95% of the reference speed, or to 99.5% of the reference speed with a rate of decrease faster than 3% per second. The T4.5 limit will reset to the Takeoff (AEO) limit when Np is greater than 99.5% of the reference speed and T4.5 is at least 5.5°C below the AEO T4.5 reference temperature for 3seconds.

对于 CT7-8A、8A5、8E、8E5、8F 和 8F5, 在 AEO 状态下, FADEC 将扭矩、转速和 T4.5 限制在起飞功率上。具体为:

For the CT7-8A, 8A5, 8E, 8E5, 8F and 8F5 models, in an AEO condition, the FADEC provides torque, speed and T4.5 Limiting at takeoff power. For specific models,

CT7-8A/8A5:

当发动机传感器探测到 Np 下降超过 5% 时, T4.5 限制值自动设置为 30 秒 OEI 限制值。当 Np 处于基准转速的 99% 或以上时, T4.5 限制值会恢复到起飞 (全发工作) 限制值。

The T4.5 limit will be automatically set to 30-second OEI limit when the engine senses an Np droop of more than 5%. The T4.5 limit will reset to the Takeoff (AEO) limit when Np is at or above 99% of the reference Np speed.

CT7-8E/8E5:

当发动机传感器探测到 Np 下降至 96% 或更低时, T4.5 自动设置为 30 秒 OEI 限制值。当 Np 处于基准转速的 99% 或以上时, T4.5 限制值会恢复到起飞 (全发) 限制值。

The T4.5 limit will be automatically set to 30-second OEI limit when the engine senses an Np droop to 96% or less. The T4.5 limit will reset to the Takeoff (AEO) limit when Np is at or above 99% of the reference Np speed.

CT7-8F/8F5:

当发动机传感器探测到 Np 下降至 93% 或更低时, T4.5 自动设置为 30 秒 OEI 限制值。当 Np 处于基准转速的 99% 或以上时, T4.5 限制值会恢复到起飞 (全发) 限制值。

The T4.5 limit will be automatically set to 30-second OEI limits when the engine senses an Np droop to 93% or less. The T4.5 limit will reset to the Takeoff (AEO) limit when Np is at or above 99% of the reference Np speed.

这些事件会触发 30 秒 OEI 的驾驶舱警示以及按照维修手册进行的航后维修行动。

Any such event will trigger a 30-second OEI rating cockpit annunciation and post-flight maintenance action in accordance with the Maintenance Manual.

注 39 / NOTE 39

删除。

Deleted.

注 40 / NOTE 40

CT7-8A 被批准在控制系统存在某些故障情况下运行。这基于满足 14 CFR 33 部的要求和发动机控制系统可靠性的要求。有关发动机控制系统限时派遣和维修的标准包含在发动机维修手册 GEK 105159 的第 5 章里。故障代码、不同构型和最大运行间隔的详细信息在 GE 报告 GEK 112652, Sikorsky S92 直升机控制系统限时派遣综述中给出。

The CT7-8A are approved to operate with certain faults present in the control system. This is based on satisfaction of 14 CFR Part 33 requirements and appropriate engine control system reliability requirements. Criteria pertaining to the time limited dispatch and maintenance requirements for engine control systems are contained in Chapter 5 of the Engine Maintenance Manual GEK 105159. Details of the fault codes, various configurations and maximum operating intervals are in GE Report No. GEK 112652, Control System Time Limited Dispatch Summary for the Sikorsky S92 Helicopter.

CT7-2E1 被批准在控制系统存在某些故障情况下运行。这基于满足 14 CFR 33 部的要求和发动机控制系统可靠性的要求。有关发动机控制系统限时派遣和维修的标准包含在发动机维修手册 GEK 112043-02 的第 5 章里。故障代码、不同构型和最大运行间隔的详细信息在 GE 报告 GEK 112055, AW189 直升机控制系统限时派遣综述中给出。

The CT7-2E1 model is approved to operate with certain faults present in the control system. This is based on satisfaction of 14 CFR Part 33 requirements and appropriate engine control system reliability requirements. Criteria pertaining to the time limited dispatch and maintenance requirements for engine control systems are contained in Chapter 5 of the Engine Maintenance Manual GEK 112043-02. Details of the fault codes, various configurations and maximum operating intervals are in GEK 112055, Control System Time Limited Dispatch Summary for the AW189 Helicopter.

注 41 / NOTE 41. 本条注释被删除/This note has been deleted.

注 42 / NOTE 42.

CT7-8A5/8B/-8B5/-8E5/-8F FADEC 部件维修手册 (CMM) 没有发布。任何从 CT7-8A5/8B/-8B5/-8E5/-8F 发动机上拆下的 FADEC 都不能修理, 直到 CMM 发布。

The Component Maintenance Manual (CMM) for the CT7-8A5/8B/-8B5/-8E5/-8F FADEC has not been issued. Any FADEC removed from service on a CT7-8A5/8B/-8B5/-8E5/-8F engine may not be repaired until the CMM is issued.

注 43 / NOTE 43.

按照 79.0056 号权利转让协议, 由 Industria de Turbo Propulsores S. A. (ITP)/Industria de Turbinas Helicoptero S.A. (ITH) Edificio 300, Parque Tecnológico, 48170 Zamudio, Vizcaya, Spain 生产的 CT7-8F5 发动机和零件由发动机, 其序列号为 731004 至 731099 和 733001 至 733100。

CT7-8F5 engines and parts thereof manufactured by Industria de Turbo Propulsores S. A. (ITP)/Industria de Turbinas Helicoptero S.A. (ITH) Edificio 300, Parque Tecnológico, 48170 Zamudio, Vizcaya, Spain under Appendix of Business Agreement Number 79.0056 with GE Aviation are identified by engine Serial Numbers 731004 to 731099 and 733001 to 733100.

注 44 / NOTE 44. 不适用/Not applicable

注 45 / NOTE 45. 本条注释被删除/This note has been deleted.

注 46 / NOTE 46. 本条注释被删除/This note has been deleted.

注 47 / NOTE 47. 本条注释被删除/This note has been deleted.

注 48 / NOTE 48.

对于 CT7-2E1, GE 自愿选择电子发动机控制、燃油计量组件和防冰/起动引气活门, 满足 14 CFR 33.28, 第 28 修正案。

For the CT7-2E1, GE voluntarily elected to show compliance to 14 CFR 33.28, Amendment 28 for the Electronic Engine Control, Fuel Metering Unit, and Anti-Icing/Start Bleed Valve.

注 49 / NOTE 49.

按照 42.0174 号权利转让协议, 由位于意大利 Rivalta di Torino Via I Maggio 99 号的 AVIO S.r.l.公司制造的 CT7-8E 发动机, 其序列号为 087001 至 087050。

CT7-8E engines and parts thereof manufactured by AVIO S.r.l., Via I Maggio 99, Rivalta di Torino, Italy, under Business Agreement Number 42.0174 with the General Electric Company, are identified by engine Serial Numbers 087001 to 087050.

注 50 / NOTE 50. 不适用/Not applicable

--结束--

-- END--