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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	VTC0240A, 版次0/Rev.0, 2010年6月1日	EASA TCDS.R.007,版次1/Issue 2 2008年8月8日/Aug.08,2008
历史 History	N/A	N/A

2. 型号 / 变体或型别/Type/Variant or Model

(a) 型号/Type: PZL W-3A

(b) 变型或机型/Variant or Model: PZL W-3A (基本型/basic model)

3. 类别/Category: 大型旋翼航空器—A类与B类/ Large Rotorcraft – Category A and B

4. 认可当局/Validation Authority: 中国民用航空局/CAAC
审定当局/Certifying Authority: EASA

5. 型号合格证持有人/Type Certificate Holder:

PZL- Swidnik,
Al. Lotnikow Poiskich1
21-045 Swidnik,
Poland

6. 制造人/Manufacturer:

PZL- Swidnik,
Al. Lotnikow Poiskich1
21-045 Swidnik,
Poland

7. 国家审定日期/National Certification Date:

1993 年 7 月 1 日 (民航局许可证, 形成民航局型号合格证数据单, 编号 BC-188, 第 1 版)
July 1, 1993 (CAO Certificate of Approval and incorporation into the CAO TCDS No BC-188, Issue 1)

8. 波兰民航局申请日期/ Civil Aviation Office (Poland)) Application Date:

1989

9. 波兰民航局推荐日期/ Civil Aviation Office (Poland)) Recommendation Date:

无 / N/A

10. EASA型号审定日期/**EASA Type Certification Date:**

2006年6月16日/ 16 June 2006

11. CAAC 专用要求/**CAAC Special Requirements:**

交付到中国的每一AAA 航空器须满足下述特殊要求:

Each of AAA aircraft delivered to China shall meet the following special requirements:

(1) 供乘客和地面营救人员使用的标记和标牌必须至少包含中文。供机组和地面维护人员使用的仪表和标记/标牌必须为英文和/或中文。Marking and placards used by passengers and ground rescue personnel shall be in Chinese at least. Instruments and Marking/placards used by flight crew and maintenance staffs should be in English and/or Chinese.

(2) 燃油符合“中国国标3 号燃油—GB6537-2006”的规范。Fuel conforming to Specification “PRC National Standard No.3 Jet Fuel -- GB6537-2006”

(3) 所有的文件和手册必须为英文和/或中文。All the documents and manuals shall be in English and/or Chinese.

第2部分 审定基础

SECTION 2 CERTIFICATION BASIS

1. 确定适用要求的有效参考日期: 1989 年

Effective Reference Date for determining the applicable requirements: Year 1989

2. (波兰) 民航局审定日期: 1993 年 7 月 1 日, (波兰) 民航局型号合格证编号 BC-188

Civil Aviation Office (Poland) Certification Date: July 1, 1993, CAO(Poland) TC No. BC-188

3. (波兰) 民航局型号合格证数据单编号: BC-188

Civil Aviation Office (Poland) Type Certificate Data Sheet No: BC-188

4. (波兰) 民航局审定基础: 14CFR 29 部更改条款 29-1 至 29-26

Civil Aviation Office (Poland) Certification Basis: 14CFR Part 29 Amendments 29-1 to
29-26

5. 适航要求: FAR 29

Airworthiness Requirements: FAR 29

6. 专用条件: 无

Special Conditions: N/A

7. 追溯和豁免: 无

Reversion and Exemptions: N/A

8. 等效安全: FAR 29.1309(g)

Equivalent Safety Findings: FAR 29.1309(g)

9.环境标准(包括噪声): ICAO Annex 16 第一卷 (第三版) 第 8 章和第二卷 (第二版)

Environmental Standards including Noise: ICAO Annex 16 VOL. 1(3rd edition) Chapter 8 and VOL. 2 (2nd edition)

第3部分 技术特性和运行限制

SECTION 3 TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS

1. 型号设计定义:
Type Design Definition: 《W-3A 直升机设计组清单》，文件号 WW-37.00.263
“List of design groups determining typical design of W-3A helicopter”
Document No. WW-37.00.263
2. 产品描述:
Description: PZL W-3A 是一款双涡轴发动机、单主旋翼型直升机，可以运载最多十四人（乘客和机组人员）。驾驶舱可装配两名驾驶员使用的座椅、控制装置和仪器。机身为半硬壳式结构，主要由金属制成。部分非结构元件如座舱舱门、整流罩和水平安定面由环氧玻璃复合材料制造而成。
固定式三轮起落架由一个可旋转式前起落架和装有刹车盘的主起落架组成。
The PZL W-3A is a twin turboshaft engine, single main rotor helicopter designed to carry up to 14 persons (passengers and crew members).
The cockpit can be fitted out with seats, controls and instrumentation for two pilots. The airframe is a semi-monocoque construction made primary of metal. Certain non structural elements such as cabin doors, cowlings and the horizontal stabilizer are made of glass-epoxy composite materials.
The fixed tricycle landing gear includes a swiveling nose gear and the main gear fitted out with disc brakes.
3. 设备:
Equipment: 适航性要求(见审定基础)所规定的基本设备必须安装在直升机上，以获得单机适航合格证。关于批准的必装与选装设备清单，请参见《旋翼航空器飞行手册》。
Basic equipment required by airworthiness requirements (see Certification Basis) shall be installed on the helicopter for Airworthiness Certificate release. Refer to Rotorcraft Flight Manual for the approved mandatory and optional equipment list.
4. 尺寸:
机身:
长度 14.210 m (46.62ft)
宽度 1.750 m (5.7 ft)
高度 3.308 m (12.5 ft)
主旋翼: 全铰接式四桨叶、直径 15.760 m (51.5 ft)

尾旋翼：全铰接式三桨叶、直径 3.030 m (9.9 ft)

Dimensions:

Fuselage Length 14.210 m (46.62 ft)
 Width 1.750 m (5.7 ft)
 Height 3.808 m (12.5 ft)
Main Rotor: Fully articulated with four blades Diameter 15.760 m (51.5 ft)
Tail Rotor Fully articulated with three blades Diameter 3.030 m (9.9 ft)

5. 发动机/Engines:

发动机生产厂家： PZL Rzeszow
Engine Manufacturer: PZL Rzeszow
发动机描述： PZL-10W
Engine Designation: PZL-10W
设计国发动机 TCDS 号： CC-190 (JAR-E 修正版 8) 1993 年 9 月 20 日
State of Design Engine TCDS No: CC-190(JAR-E Admt 8) Date 20 September 1993
EASA TCDS 号： LBA TCDS Nr.7001 (JAR-E 修正版 8) 1993 年 12 月 2 日
EASA Engine TCDS No: LBA TCDS Nr. 7001 (JAR-E Admt 8) Date 2 December 1993
CAAC 型号认可证号： VTC0239E
CAAC VTC No.: VTC0239E

5.1 涡轮发动机/Turbine engine:

5.1.1 装机发动机限制/Installed Engine Limits:

注：100%的燃气发生器转速 N1 等于 31486rpm。

100%的动力涡轮转速 N2 等于 22490 rpm。

NOTE: 100% of gas producer speed N1 corresponds to 31486 rpm.

100% of power turbine speed N2 corresponds to 22490 rpm.

燃气发生器转速 (N1) 限制

最大 2.5 分钟 OEI 时转速	102%
最大 30 分钟 OEI 时转速	98%
最大起飞 (5 分钟) 转速	97%
最大连续转速	93%

Gas Producer Speed (N1) Limits

Maximum 2.5-minute OEI 102%

Maximum 30-minute OEI 98%

Maximum takeoff (5 minute) 97%

Maximum continuous 93%

涡轮出口温度 (TOT) 限制

最大 2.5 分钟 OEI 时温度	770°C
最大 30 分钟 OEI 时温度	735°C
最大起飞 (5 分钟) 时温度	725°C

最大持续温度	670°C
Turbine Outlet Temperature (TOT) Limits	
Maximum 2.5-minute OEI	770°C
Maximum 30-minute OEI	735°C
Maximum takeoff (5 minute)	725°C
Maximum continuous	670°C

动力涡轮转速 (N2) 限制

最大瞬时转速	112% (达到 5 秒)
最大持续转速	105% (常规设置)
最小持续转速	95%
最小瞬时转速	85% (达到 15 秒)
Power Turbine Speed (N2) Limits	
Maximum transient	112% (up to 5 s)
Maximum continuous	105% (normal setting)
Minimum continuous	95%
Minimum transient	85% (up to 15 s)

注: N2 为 120%时, 发动机超速保护将被激活, 使发动机停车。

NOTE: Engine Overspeed Protection will activate to shut down the engine at 120% N2.

转矩 (TQ) 限制:

OEI 操作:

最大 2.5 分钟 OEI.....139%(Nr≤95%)

最大 30 分钟 OEI.....121%(Nr≤95%)

双台发动机操作:

Nr=95%时最大起飞功率.....109%

Nr=100%时最大允许的起飞功率.....103% (达到 5 分钟)

Nr=105%时最大允许的起飞功率.....98% (达到 5 分钟)

Nr=105%时最大连续功率.....85%

Torque (TQ) Limits

OEI operation:

Maximum 2.5-minute OEI.....139% (Nr = 95% or below)

Maximum 30-minute OEI.....121% (Nr = 95% or below)

Twin engine operation:

Maximum takeoff for Nr = 95%.....109%

Maximum allowable takeoff for Nr = 100%.....103% (up to 5 minutes)

Maximum allowable takeoff for Nr = 105%.....98% (up to 5 minutes)

Maximum continuous for Nr = 105% 85%

5.1.2 传动系转矩限制/Transmission Torque Limits::

双台发动机操作:

最小瞬时 Nr=95%时最大起飞功率	2×109%
最小连续 Nr=100%时最大允许的起飞功率	2×103%
最大连续 Nr=105%时最大允许的起飞功率	2×98%
最小瞬时 Nr=95%时最大连续功率	2×95%
最小连续 Nr=100%时最大允许的连续功率	2×90%
最小连续 Nr=105%时最大允许的连续功率	2×85%

Twin engine operation:

Maximum takeoff for minimum transient Nr = 95%	2 x 109%
Maximum allowable takeoff for minimum cont. Nr = 100%	2 x 103%
Maximum allowable takeoff for maximum cont. Nr = 105%	2 x 98%
Maximum continuous for minimum transient Nr = 95%	2 x 95%
Maximum allowable continuous for minimum cont. Nr = 100%	2 x 90%
Maximum allowable continuous for maximum cont. Nr = 105%	2 x 85%

OEI 操作:

最小瞬时 Nr=85% (达到 15 秒) 时最大 2.5 分钟 OEI 功率	139%
最小连续 Nr=95%时最大允许的 2.5 分钟 OEI 功率	139%
最大连续 Nr=105%时最大允许的 2.5 分钟 OEI 功率	127%
最小瞬时 Nr=85% (达到 15 秒) 时最大 30 分钟 OEI 功率	121%
最小连续 Nr=95%时最大允许的 30 分钟 OEI 功率	121%
最大持续 Nr=105%时最大允许的 30 分钟 OEI 功率	110%

OEI operation:

Maximum 2.5-minute OEI for minimum transient Nr = 85% (up to 15 s)	139%
Maximum allowable 2.5-minute OEI for minimum cont. Nr = 95%	139%
Maximum allowable 2.5-minute OEI for maximum cont. Nr = 105%	127%
Maximum 30-minute OEI for minimum transient Nr = 85% (up to 15 s)	121%
Maximum allowable 30-minute OEI for minimum cont. Nr = 95%	121%
Maximum allowable 30-minute OEI for maximum cont. Nr = 105%	110%

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

6.1 燃油/Fuel:

JET A-1	符合 DERD 2494 或 ASTM D 1655-83
TS-1	符合 GOST 10227-86
RT	符合 GOST 10227-86
PSM-2	符合 to PN-86/C-96026
T-1 and T-2	符合 GOST 10227-86 及 PMAM 或 TK 添加剂
No.3 Jet Fuel	符合 GB 6537-2006 (参考: SERVICE BULLETIN No. E-19W141/DOA/2009)

JET A-1	conforming to DERD 2494 or ASTM D 1655-83
TS-1	conforming to GOST 10227-86
RT	conforming to GOST 10227-86
PSM-2	conforming to PN-86/C-96026
T-1 and T-2	conforming to GOST 10227-86 with PMAM or TK additives
No.3 Jet Fuel	conforming to GB 6537-2006

(ref. SERVICE BULLETIN No. E-19W141/DOA/2009)

注：有关防冰添加剂的情况，请参见《旋翼航空器飞行手册》

NOTE : For anti-ice additives – refer to Rotorcraft Flight Manual**6.2 滑油/Oil:****发动机滑油/Engine oils::**

B-3W	符合 TU 38.101295-85 或 GOST 5566-70
嘉实多 5000,	
嘉实多 5050,	
壳牌涡轮滑油 500,	
ELF 涡轮喷气 II	符合 MIL-L-23699C
嘉实多 599	符合 DERD 2497
壳牌涡轮滑油 555	符合 DERD 2497
B-3W	conforming to TU 38.101295-85 or GOST 5566-70
CASTROL 5000,	
CASTROL 5050,	
AEROSHELL TURBINE OIL 500,	
ELF TURBO JET II	conforming to MIL-L-23699C
CASTROL 599	conforming to DERD 2497
AEROSHELL TURBINE OIL 555	conforming to DERD 2497

boxes oils:

B-3W	符合 TU 38.101295-85 或 GOST 5566-70
嘉实多 599	符合 DERD 2497
壳牌涡轮滑油 555	符合 DERD 2497
B-3W	conforming to TU 38.101295-85 or GOST 5566-70
CASTROL 599	conforming to DERD 2497
AEROSHELL TURBINE OIL 555	conforming to DERD 2497

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7、液体容量/Fluid capacities:**7.1 燃油/Fuel:**

- 燃油总容量: 454.4 美制加仑 (1720 升)
Total fuel capacity 454.4 U.S. Gallons (1720 l)
- 每组油箱最大注油量:
发动机 1: 214.0 美制加仑 (810 升)
发动机 2: 240.4 美制加仑 (910 升)
Maximum amount of fuel filled into each group of cells:
Engine 1: 214.0 US gallons (810 l)
Engine 2: 240.4 US gallons (910 l)
- 无用燃油: 1.85 美制加仑 (7 升)
Unusable fuel 1.85 U.S. Gallons (7 l)

7.2 滑油/Oil:

- (每台) 发动机滑油容量: 最大: 2.1 美制加仑 (8 升)
最小: 1.6 美制加仑 (6 升)
- | | |
|---------------------|---------------------------|
| Engine oil capacity | Max: 2.1 US gallons (8 l) |
| | Min: 1.6 US gallons (6 l) |
- 主齿轮箱滑油最大容量: 7.9 美制加仑 (30 升)
- | | |
|---------------------------------|-----------------------|
| Main gearbox oil capacity, Max: | 7.9 US gallons (30 l) |
|---------------------------------|-----------------------|

8、空速限制/Airspeed limits:

发动机运转时的速度上限 $V_{NE} = 140$ KIAS (260 km/h)

Power-on never exceed speed $V_{NE} = 140$ KIAS (260 km/h)

注: 关于 V_{NE} 与实际重量、OAT 和高度的关系, 请参见表格 (位于驾驶舱内风挡框上) 以及《旋翼航空器飞行手册》的“极限值”部分

NOTE: For V_{NE} variations versus actual weight, OAT, and altitude – refer to tables (located in the cockpit on windshield frame) and Limitations Section of Rotorcraft Flight Manual.

发动机停车时的速度上限 $V_{NE} = 86$ KIAS (160km/h), 压力高度最高 6500 ft (2000 m)

压力高度大于 6500 ft (2000 m) 时, $V_{NE} = 56$ KIAS (105km/h)

Power-off never exceed speed $V_{NE} = 86$ KIAS (160km/h) up to 6500 ft (2000 m) press. altitude

$V_{NE} = 56$ KIAS (105km/h) above 6500 ft (2000m) press. altitude

9、旋翼转速限制/Rotor Speed Limits:

转速范围	旋翼转速	
	发动机停车	发动机开车
最大瞬时值	112%	112% (达到 5 秒)
最大连续值	108%	105%
最小连续值	90%	100% (两台发动机运行)
		95% (OEI)
最小瞬	85%	95% (两台发动机运行)
		85% (OEI 达到 15 秒)

注: 100% 的旋翼转速等于 255.7 rpm.

Speed range	Rotor speed	
	Power off	Power on
Maximum transient	112%	112%(up to 5 s)
Maximum	108%	105%
Minimum	90%	100%(two engine operation)
		95%(OEI)
Minimum transient	85%	95%(two engines operation)
		85%(OEI, up to 15 s))

NOTE: 100% of main rotor speed corresponds to 255.7 rpm.

10、最大运行高度和温度/Maximum Operating Altitude and Temperature::

飞行时的最大压力高度:	6000 m (19700 ft)
Maximum pressure altitude for flight	6000 m (19700ft)
起飞和着陆时的最大压力高度:	5000 m (16400 ft)
Maximum pressure altitude for take-off and landing	5000 m (16400 ft)
发动机启动所达高度:	4000 m (13120 ft)
Engine starting ensured up to altitude	4000 m (13120 ft)
海平面外部大气温度 (OAT) :	最高+43°C
	最低-40°C
Outside temperature at sea level	Maximum +43°C
	Minimum -40°C

注: 关于高度与 OAT 的关系, 请参见《旋翼航空器飞行手册》的“限制条件”部分。

NOTE: For variation of altitude with OAT refer to Limitations Section of Rotorcraft Flight Manual.

11、运行限制条件/Operating Limitations::

11.1 概述/General::

昼夜目视飞行规则 (VFR), 如装有《旋翼航空器飞行手册》规定的选装设备, 可使用仪表飞行规则 (IFR)。不允许在已知结冰的条件下飞行;

Day and Night VFR, and if fitted out with the additional equipment specified in RFM, under IFR.

Operations in known icing conditions are not allowed.

11.2 起飞和着陆的附件限制条件/Additional limitations for take-off and landing:

起飞、着陆与滑行时的最大地速

Maximum Ground Speed for Takeoff, Landing, and Taxiing

有准备地面: 32 节 (60km/h)

on prepared surface 32 knots (60 km/h)

无准备地面: 16 节 (30km/h)

on unprepared surface 16 knots (30 km/h)

起动和停止旋翼的最大风速

Maximum wind velocity for starting and stopping rotors::

逆风: 48 节 (90 km/h, 25 m/s)

head wind 48 knots (90 km/h, 25 m/s)

侧风: 17 节 (32 km/h, 9 m/s)

side wind 17 knots 32 km/h, 9 m/s)

顺风: 11 节 (22 km/h, 6 m/s)

tail wind 11 knots (22 km/h, 6 m/s)

最大着陆坡度/Maximum landing slope: 5°

12、最大审定重量/Maximum Certified Weights:

最大起飞和着陆重量: 6400 kg (14110 lb)

Maximum take-off and landing weight 6400 kg (14110 lb)

最小起飞和着陆重量: 3850 kg (8488 lb)

Minimum take-off and landing weight 3850 kg (8488 lb)

13、重心范围/Centre of Gravity Range:

纵向重心限制/Longitudinal centre of gravity limitations

后限/aft: -50 mm (-1.97 in)

前限/forward: +185 mm (+7.3 in)

注: 关于总重纵向重心范围的变化, 请参见《旋翼航空器飞行手册》的“限制条件”。

NOTE: For variation of longitudinal centre of gravity with gross weight refer to Limitations Section of Rotorcraft Flight Manual.

横向重心限制/Lateral centre of gravity limitations:

指示空速达到 48 KIAS (90 km/h)时: ± 120 mm (± 4.7 in)

指示空速超过 48 KIAS (90 km/h)时: ± 90 mm (± 3.54 in)

14、基准/ Datum:

重心位置是由 XYZ 坐标系决定的, 其原点即主旋翼轴与主桨毂旋转平面的交叉点。

X 轴指向前方, 为旋翼的旋转平面在直升机对称平面上的交叉部分。

Y 轴指向上方, 与旋翼轴线一致。

Z 轴后视指向右方。

The Center of Gravity position is determined in the XYZ coordinate system whose origin is in the intersection point of the main rotor axis and the main rotor hub rotation plane.

The X axis is sensed forward and is defined as an intersection of the rotor plane of rotation on the helicopter plane of symmetry.

The Y axis is sensed upward and aligns with rotor axis.

The Z axis is sensed to the right as viewed from rear.

15、调平方式/Levelling Means:

从顶部基准点悬挂铅垂线至客舱地板上的刻度牌。

Plumb line from ceiling reference point to the index plate located on the passenger compartment floor.

16、最低机组人员/ Minimum Flight Crew:

VFR 一名驾驶员在左侧座椅操作

VFR One pilot operating from the left hand seat.

IFR 两名驾驶员

IFR two pilots

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

13 (十三位)

13 (thirteen)

18、乘客紧急出口/ Passenger Emergency Exit:

2 扇舱门, 位于客舱两侧

2 (two) located on each side of the passengers cabin

19、最大行李/货物载重/Maximum Baggage/Cargo Loads:

客/货舱: 2100 kg (4620 lb) / In passenger / cargo cabin 2100 kg (4620 lb)

注: 关于地板允许的最大载重, 请参见《旋翼航空器飞行手册》的“限制条件”。

NOTE: For maximum allowable floor load refer to Limitations Section of Rotorcraft Flight Manual.

行李舱: 180 kg (396 lb) /In baggage compartment 180 kg (396 lb)

注: 关于行李舱架载重限制, 请参见《旋翼航空器飞行手册》的“限制条件”。

NOTE: For baggage compartment shelf load limits refer to Limitations Section of Rotorcraft Flight Manual.

20、旋翼桨叶和控制机构

周期变距杆纵向运动是从中央位置移动最小 $\pm 138\text{mm}$ ($\pm 5.43\text{in}$)

Cyclic stick longitudinal travel from neutral position minimum $\pm 138\text{ mm}$ ($\pm 5.43\text{ in}$)

周期变距杆横向运动是从中央位置移动最小 $\pm 111\text{mm}$ ($\pm 4.37\text{in}$)

Cyclic stick lateral travel from neutral position – minimum $\pm 111\text{ mm}$ ($\pm 4.37\text{ in}$)

倾斜盘角度:

Swash plate angles for:

周期变距杆在中央位置时 $(-)\ 1^\circ \pm 12'$ (向前俯仰)

$0^\circ \pm 12'$ (倾斜)

Cyclic stick in neutral position $(-)\ 1^\circ \pm 12'$ (pitch forward)

$0^\circ \pm 12'$ (bank)

周期变距杆在最前位置时 $(-)\ 8^\circ \pm 18'$ (向前俯仰)

Cyclic stick in extreme fwd position $(-)\ 8^\circ \pm 18'$ (pitch forward)

周期变距杆在最后位置时 $(+)\ 6^\circ \pm 18'$ (向后俯仰)

Cyclic stick in extreme back position $(+)\ 6^\circ \pm 18'$ (pitch backward)

周期变距杆在最左位置时 $(+)\ 5^\circ \pm 18'$ (向左倾斜)

Cyclic stick in extreme left position $(+)\ 5^\circ \pm 18'$ (bank left)

周期变距杆在最右位置时 $(-)\ 5^\circ \pm 18'$ (向右倾斜)

Cyclic stick in extreme right position $(-)\ 5^\circ \pm 18'$ (bank right)

总距杆从中央位置运动 – 最小 $\pm 144\text{mm}$ ($\pm 5.67\text{in}$)

Collective lever travel from neutral position – minimum $\pm 144\text{ mm}$ ($\pm 5.67\text{ in}$)

倾斜盘滑块运动:

Swash plate slider travels for:

总距杆在中央位置时 0mm (0in)

Collective lever in neutral position 0 mm (0 in)

总矩杆在下端时 $23.5 \pm 0.3\text{mm}$ ($0.93 \pm 0.012\text{in}$) 向下

Collective lever at lower extreme $23.5 \pm 0.3\text{ mm}$ ($0.93 \pm 0.012\text{ in}$) downward

总矩杆在上端时 $23.5 \pm 0.3\text{mm}$ ($0.93 \pm 0.012\text{in}$) 向上

Collective lever at upper extreme $23.5 \pm 0.3\text{ mm}$ ($0.93 \pm 0.012\text{ in}$) upward

尾桨脚踏从中央位置运动 – 最小 $\pm 75\text{mm}$ ($\pm 2.95\text{in}$)

Tail rotor pedals travel from neutral position – minimum $\pm 75\text{ mm}$ ($\pm 2.95\text{ in}$)

尾桨俯仰角度:

Tail rotor pitch angles for:

尾桨脚踏在中央位置时 $(+2^{\circ}30' \pm 1^{\circ})$

tail rotor pedals in neutral position $(+2^{\circ}30' \pm 1^{\circ})$

右侧脚踏向最前方移动时 $(+23^{\circ} \pm 1^{\circ})$

RH pedal moved forward home $(+23^{\circ} \pm 1^{\circ})$

右侧脚踏向最后方移动时 $(-9^{\circ} \pm 1^{\circ})$

RH pedal moved backward home $(-9^{\circ} \pm 1^{\circ})$

21、辅助电源装置 (APU) : 无

Auxiliary Power Unit (APU): N/A

22、时限件: 参见文件号 AE 30.04.20.1 MM/AE 30.04.20.1 IOT 第一卷第四章第 4.00.00 节: 适航限制

Life-limited parts: Refer to document AE 31.03.05.0 MM/ AE 30.04.20.1 IOT Volume 1, Chapter 4, Subchapter 4.00.00 Airworthiness Limitations

23、机轮和轮胎: 主轮尺寸 700×250、型号 6A, 内胎 700×250

前轮尺寸 400×140, 无内胎

Wheels and Tyres : Main wheels 700 x 250 size model 6A tube type tire and 700 x 250 tube

Nose wheel 400 x 140 size tubeless

第4部分 运行和使用说明

SECTION 4 OPERATING AND SERVICE INSTRUCTIONS

1. 《旋翼航空器飞行手册》、文件号/**Rotorcraft Flight Manual, Document No:**
AE-30.04.20.1 ERFM
2. 《维护手册》、文件号/**Maintenance Manual, Document No:**
英文版, AE-30.04.20.1 MM (波兰文版, AE-30.04.20.1 IOT)
In English AE-30.04.20.1 MM (In Polish AE-30.04.20.1 IOT)
3. 服务函和服务通报/**Service Letters and Service Bulletins:**
见 PZL 出版物
As published by PZL
4. 所需设备/**Required Equipment:**
参见《旋翼航空器飞行手册》中有关批准的必装和选装设备
Refer to RFM for the approved mandatory and optional equipment

第5部分 注释

SECTION 5 NOTES

5. 合格的序列号: 3X.04.20 以及此后编号(非连贯)

Eligible serial numbers: 3X.04.20 and subsequent (not consecutive)

----- 完/ END -----