

型号认可证数据单 TYPE VALIDATION DATA SHEET

编号/No: VTC0096A

版次/Revision: 0

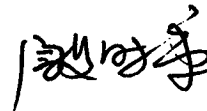
型号/Type:

PZL M18

PZL M18B

PZL M18BS

批准人/Approved By:



日期/Date: 2008-7-4

本数据单是型号认可证（编号：VTC0096A）的组成部分，它规定了符合中国民用航空总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.VTC0096A), 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:

Polskie Zakłady Lotnicze Sp. z o. o.

有效页清单/List of effective pages:

页数/Pages	1	2	3	4	5	6	7	8	9	10	11	12
版次/Revision	0	0	0	0	0	0	0	0	0	0	0	0

页数/Pages	13	14	15	16	17	18	19	20	21	22		
版次/Revision	0	0	0	0	0	0	0	0	0	0		

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- 2.IV. 使用和服务介绍Operating and Service Instructions
- 2.V. 注释Notes

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- 3.II. 审定基础Certification Basis
- 3.III. 技术特性及使用限制Technical Characteristics and Operational Limitations
- 3.IV. 使用和服务介绍Operating and Service Instructions
- 3.V. 注释Notes

第四部分 PZL M18BS SECTION 4 PZL M18BS

- 4.I. 总则General
- 4.II. 审定基础Certification Basis
- 4.III. 技术特性及使用限制Technical Characteristics and Operational Limitations
- 4.IV. 使用和服务介绍Operating and Service Instructions
- 4.V. 注释Notes

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	VTC0096A, R0, 2008-07-04	TCDS EASA.A.056, Issue 02, June 24, 2008
历史 history	TV88004, 无数据单, 1988年2月24日 VTC096A, 无数据单, 2000年7月12日	BD-120, Issue 01, 1978-09-27 (CAO) BD-120/1, Issue 03, 1993-08-20(CAO)

2. 类别/Category: 正常类 Normal Category
3. 认可当局/Validation Authority: CAAC
- 审定当局/Certifying Authority: EASA
4. 型号合格证持有人/Type Certificate Holder: Polskie Zakłady Lotnicze Sp. z o. o.
- Wojska Polskiego 3
39-300 Mielec
POLAND
5. 噪声合格证/Noise Certificate: HL-2/98(Issued by Civil Aviation Office of Poland)

6. CAAC Special Requirements:

交付到中国的每一 PZL M18BS 航空器必须满足以下特殊要求:

Each of PZL M18BS aircraft delivered to China shall meet the following special requirements:

(1) 必须满足中国民用航空总局的运行要求 (例如标记标牌的中文要求) 。

The operational requirements of CAAC must be met (e.g. Chinese language requirements for markings and placards).

(2) 燃油符合中国国标 RH-95/130 号燃油-GB 1787-79 (1988) 规范。

Fuel conforming to Specification "PRC National Standard No. RH-95/130- GB 1787-79 (1988)".

第2部分 PZL M18 SECTION 2 PZL M18

2.I. 总则General

数据单号Data Sheet No.: EASA.A.056

版次Issue: 02 日期Date: 2008-06-24

1. a) 型号Type
b) 型别Model

PZL M18

PZL M18

2. 适航类别Airworthiness Category:

正常类 Normal Category	限制类; 应用 Restricted Category; Versions	
	超载 overload	灭火超载 fire-fighting overload

3. 向波兰民航局The CAO PL Certification Application Date:

1975-04-08
April 8, 1975

1980-05-05
May 5, 1980

1991-01-14
January 14, 1991

4. 波兰民航局颁发日期The CAO PL Certification Date:

1978-09-27
Sept. 27, 1978

1981-07-13
July 13, 1981

1993-08-20
Aug., 20, 1993

5. EASA型号合格证替换波兰民航局型号合格证号 BB-120/1

The EASA Type Certificate replaces the Polish CAO Type Certificate No. BB-120/1

2.II 审定基础Certification Basis

1. 适航要求Airworthiness Requirements:

FAR 23部, 包括
23-16修正案

民用航空手册8, 第二版, 基于FAR 23部修正案 23-16的正常类审定基础

FAR Part 23,
including Amdt.
23-16

Civil Aeronautics Manual 8, second edition,
on the basis of the Type Certificate in
Normal Category under FAR Part 23,
Amdt. 23-16

2. 选择性应用要求Requirements elected to comply:

无None

3. EASA专用条件EASA Special Conditions:

无None

4. EASA豁免EASA Exemptions: 无None
5. EASA等效安全条件EASA Equivalent Safety Findings: 无None
6. EASA环境标准EASA Environmental Standards: FAR Part. 36

2.III 技术特性和使用限制Technical Characteristics and Operational Limitations

型号设计定义
Type Design Definition:

图号M18, Sheet No. 8
Drawing No. M18, Sheet No. 8

描述
Description:

全金属, 下单翼, 不可收放起落架, 单发农业及灭火用航空器
All metal, low wing, with non retractable tailwheel landing gear, single piston agricultural and fire-fighting airplane

飞机应用
Airplane Versions:

-农业 agricultural
-灭火 fire fighting

发动机**Engine:**

ASz-62IR-M18

发动机数量**Number of Engines:**

1 (one)

发动机制造商
Engine Manufacturer:

PZL Kalisz, Poland

燃油**Fuel:**

按以下标准, 最低91号航空燃油 每1KG燃油中最多3.3克四乙基:

- GOST 1012-72
- D.Eng. RD 2485
- ASTM - D910-75
- MIL-G-5572F
- RH-95/130

PZL AKM-62IRA汽化器, 带有自动高度校正浮子。
PZL BNK-12BK燃油泵, 滑片类型。

Minimum grade 91 aviation fuel with tetraethyl lead content of max. 3.3 g per 1 kg of fuel, in accordance to:

- GOST 1012-72
- D.Eng. RD 2485
- ASTM - D910-75
- MIL-G-5572F
- RH-95/130

PZL AKM-62IRA carburettor, float type with automatic altitude correction.
PZL BNK-12BK fuel pump, sliding vane type.

发动机限制 Engine Limits:	高压 HP	转速 RPM	多类压力 Manifold Pressure (mm Hg)	高度 Altitude
起飞动力（5分钟），最小值 T-O Power(5 minutes), minimum	980	2200	1050	海平面 S.L.
最大持续动力，最小值 Max. Continuous Power, minimum	823	2100	900	1500 m
最大持续动力，最小值 Max. Continuous Power, minimum	804	2100	900	海平面 S.L.
螺旋桨 Propeller:	AW-2-30恒速螺旋桨，全合金桨叶，直径3.3米 AW-2-30 constant-speed propeller, All-alloy blades, diameter 3.3 m			

空速限制
Airspeed limits (CAS):

	正常类 Normal Category	限制类；应用 Restricted Category; Versions	
		超载 overload	灭火超载 fire-fighting overload
V _{NE}	280 km/h	230 km/h	230 km/h
V _A		228 km/h	
V _{NO}	230 km/h	200 km/h	200 km/h
V _{FE}		200 km/h	

正常类 Normal Category	限制类；应用 Restricted Category; Versions	
	超载 overload	灭火超载 fire-fighting overload

载荷系数Load Factor:

+3.4	+3.0	+2.8
-1.4	-1.2	-1.1

重心范围C.G. Range: from 22% to 31 % MAC

4700千克及5300千克起飞时的重心范围 C.G. Range, T-O Weight of 4700 kg and 5300 kg	from 28% to 31% MAC	from 29.2% to 31%
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最大重量Maximum Weight:

起飞Takeoff	4200 kg	4700 kg	5300 kg
着陆Landing		4200 kg	

座位数

Number of Seats:1 (驾驶员)
1 (pilot)

最大药箱加载量

Max. Hopper Load:

1500 kg | 2000 kg | 2200 kg

燃油箱容量

Fuel Tank Capacity:-414升 (可用燃油400升) 外翼段安装按图纸No.
D22.000.00.1K L/R- 414 l (usable fuel 400 l) with outer wings installed in
accordance with Dwg. No. D22.000.00.1K L/R- 726升 (可用燃油712升) 外翼段安装按图纸No.
D22.000.00.5K L/R-726 l (usable fuel 712 l) with outer wings installed in
accordance with Dwg. No. D22.000.00.5K L/R

滑油箱容量

Oil Tank Capacity:70升 (可用滑油35升)
70 l (usable oil 35 l)

控制表面位移

Control Surface Movements:

副翼Aileron:	向上Up	21° ±1°
	向下Down	17° ±1°
方向舵Rudder:	向左Left	23° ±1°
	向右Right	23° ±1°
升降舵Elevator:	向上Up	27° ±1°
	向下Down	17° ±1°
副翼调整片 Aileron Trim Tab:	向上Up	7°30' ±2°
	向下Down	7°30' ±2°
方向舵调整片 Rudder Trim Tab:	向左Left	13° ±2°
	向右Right	13° ±2°
升降舵调整片 Elevator Trim Tab:	向上Up	10° ±1°
	向下Down	17° ±1°

正常类 Normal Category	限制类; 应用 Restricted Category; Versions	
	超载 overload	灭火超载 fire-fighting overload

起落架传动杆的氮压

Nitrogen Pressure in Landing Gear Shock Struts:

主传动 Main Gear:	$20 \pm 0.5 \text{ daN/cm}^2$	22 ± 0.5	22 ± 0.5
尾传动 Tail Gear:	$28 \pm 0.5 \text{ daN/cm}^2$	32 ± 0.5	32 ± 0.5

轮胎压力Tire Pressure:

主轮 Main Wheel:	$2.5_{-0.2} \text{ daN/cm}^2$	$3.5_{-0.5}$	$3.5_{-0.5}$
尾轮 Tail Wheel:		$3.0^{+0.5} \text{ daN/cm}^2$	

周围空气温度使用限制

Ambient Air Temperature Operating Limits:

- (a) +45o C 到 +15o C 无发动机气缸冷滤罩
+45o C to +15o C without engine cylinder winterization shields
- (b) +15o C 到 -10o C 有或者无发动机气缸罩, 任选
+15o C to -10o C with or without engine cylinder shields, optional
- (c) -10o C 到 -30o C 装有发动机气缸罩
-10o C to -30o C with engine cylinder shields installed

运行及选装设备

Operational & Optional Equipment:

- (a) 农业作业及灭火设备构型按图纸No. D98.000.00.0.
Operating agricultural and fire-fighting equipment, selection and configuration in acc. with Dwg. No. D98.000.00.0.
- (b) 选装设备按图纸No. M18, Sheet No. 8及PZL M18 "DROMADER", 飞行手册第9节
Optional equipment in acc. with Dwg. No. M18, Sheet No. 8 and Airplane Flight Manual of PZL M18 "DROMADER", Section 9

2.IV. 使用和服务介绍**Operating and Service Instructions**

每一航空器均应按以下文件装配:

Each airplane is furnished with the following documents:

- a) 安装了ASz-62IR-M18 型发动机的PZL M18 "DROMADER"的飞行手册, 与强制性附录一起作为第9节内容
Aircraft Flight Manual of PZL M18 "DROMADER", Equipped with ASz-62IR-M18 Engine, together with mandatory supplements as contained in Section 9 thereof.
- b) PZL M18 „DROMADER”飞机说明及使用文件
Airplane Description and Service Manual, PZL M18 „DROMADER”
- c) 说明及使用文件, 经由客户同意。
Descriptive and service documents, as agreed with the Customer.

2.V. 注释**Notes**

NOTE 1: 经批准的PZL M18 "DROMADER"航空器飞行手册中所要求的所有标记和标牌, 必须安装在每一架航空器专用构形及适当位置。
标牌上的专用限制必须使用同一单位 (节, MPH, km/h)

All inscriptions and placards as required in the approved Aircraft Flight Manual of PZL M18 "DROMADER" must be installed on each airplane in the specified configuration and at appropriate location.
Limitations specified on the placards must read in the same units (knots, MPH, km/h) as the airspeed indicator.

NOTE 2: 特殊类航空器及装有选装设备 (如: 辅助燃油系统, ARL-1601ADF, KR-85 ADF, 发动机气缸罩, 驾驶舱升温系统等) 的航空器, 应按PZL M18 "DROMADER"飞行手册第9节操作。

The airplane in restricted category and with optional equipment (such as: auxiliary fuel system, ARL-1601 ADF, KR-85 ADF, engine cylinder shields, cockpit heating system, etc.) installed, shall be operated in accordance with Section 9 of the Aircraft Flight Manual of PZL M18 "DROMADER"

NOTE 3: 航空器用于灭火作业时的超载状态的重量为5300千克, 要在药箱中按图纸No. D99.300.00.0 要求加装气作囊分割。

The aircraft may be operated in the fire-fighting overload version with the weight of 5300 kg upon installation of the partition with air containers in the hopper acc.to Dwg. No. D99.300.00.0.

第3部分 PZL M18B SECTION 3 PZL M18B

3.I. 总则General

数据单号Data Sheet No.: EASA.A.056 版次Issue: 02 日期Date: 2008-06-24

1. a) 型号Type PZL M18
b) 型别Model PZL M18B
2. 适航类别Airworthiness Category:

正常类Normal Category	限制类Restricted Category
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3. 向波兰民航局适航申请日期The CAO PL Certification Application Date:

1991-11-07 (对M18B, 申请正常类及限制类)
Nov. 07, 1991 (for M18B, Normal and Restricted category)

2002-09-05 (对M18B, 装有ASz-62IR-M18/K9-BB 或 K9-BB发动机)
Sept. 05, 2002 (for M18B with ASz-62IR-M18/K9-BB or K9-BB engine)

4. 波兰民航局颁发日期The CAO PL Certification Date:

1994-01-27 (对M18B, 申请正常类及限制类)
Jan. 27, 1994 (for M18B, Normal and Restricted category)

2005-03-23 (对M18B, 装有ASz-62IR-M18/K9-BB 或 K9-BB发动机)
March 23, 2005 (for M18B with ASz-62IR-M18/K9-BB or K9-BB engine)

5. EASA型号合格证替换波兰民航局型号合格证号 BB-120/1

The EASA Type Certificate replaces the Polish CAO Type Certificate No. BB-120/1

3.II. 审定基础Certification Basis

1. 适航要求Airworthiness Requirements:

FAR 23部, 包括
23-16修正案

民用航空手册8, 第二版, 基于FAR 23部修正案 23-16的正常类审定基础

FAR Part 23,
including Amdt.
23-16

Civil Aeronautics Manual 8, second edition,
on the basis of the Type Certificate in
Normal Category under FAR Part 23,
Amdt. 23-16

7. 选择性应用要求Requirements elected to comply: 无None
8. EASA专用条件EASA Special Conditions: 无None
9. EASA豁免EASA Exemptions: 无None

- 10.EASA等效安全条件EASA Equivalent Safety Findings: 无None
- 11.EASA环境标准EASA Environmental Standards: FAR Part. 36

3.III 技术特性及使用限制Technical Characteristics and Operational Limitations

型号设计定义 Type Design Definition:	图号M18, Sheet No. 10 Drawing No. M18, Sheet No. 10
描述 Description:	全金属, 下单翼, 不可收放起落架, 单发农业及灭火用航空器, 装有附加机械舱、经改装的水平尾舵, 方向舵, 副翼操纵系统 All metal, low wing, with non retractable tailwheel landing gear, single piston agricultural and fire-fighting airplane, equipped with additional mechanic cabin, with modified horizontal tail elevator, rudder, flap control system
飞机应用 Airplane Versions:	- 农业agricultural - 灭火 fire fighting
发动机 Engine:	ASz-62IR-M18, ASz-62IR-M18/K9-BB 或 K9-BB ASz-62IR-M18, ASz-62IR-M18/K9-BB or K9-BB
发动机数量 Number of Engines:	1 (one)
发动机制造商 Engine Manufacturer:	PZL Kalisz, Poland
燃油 Fuel:	按以下标准, 最低91号航空燃油 每1KG燃油中最多3.3克四乙基: - GOST 1012-72 - D.Eng. RD 2485 - ASTM - D910-75 - MIL-G-5572F - RH-95/130 PZL AKM-62IRA汽化器, 带有自动高度校正浮子。 PZL BNK-12BK燃油泵, 滑片类型。 Minimum grade 91 aviation fuel with tetraethyl load content of max. 3.3 g per 1 kg of fuel, in accordance to: - GOST 1012-72 - D.Eng. RD 2485 - ASTM - D910-75 - MIL-G-5572F - RH-95/130 PZL AKM-62IRA carburettor, float type with automatic altitude correction. PZL BNK-12BK fuel pump, sliding vane type.

ASz-62IR-M18发动机限制
ASz-62IR-M18 Engine Limits:

起飞动力（5分钟），最小值
T-O Power(5 minutes), minimum
最大持续动力，最小值
Max. Continuous Power, minimum
最大持续动力，最小值
Max. Continuous Power, minimum

高压
HP

转速
RPM

多在压力
Manifold
Pressure
(mm Hg)

高度
Altitude

980

2200

1050

海平面S.L.

823

2100

900

1500 m

804

2100

900

S.L.

ASz-62IR-M18/K9-BB 发动机限制
ASz-62IR-M18/K9-BB Engine Limits:

起飞动力（5分钟），最小值
T-O Power(5 minutes), minimum
最大持续动力，最小值
Max. Continuous Power, minimum
最大持续动力，最小值
Max. Continuous Power, minimum

高压
HP

转速
RPM

多在压力
Manifold
Pressure
(mm Hg)

高度
Altitude

1000

2200

1120

S.L.

967

2150

1050

1500 m

930

2150

1050

S.L.

K9-BB发动机限制
K9-BB Engine Limits:

起飞动力（5分钟），最小值
T-O Power(5 minutes), minimum
最大持续动力，最小值
Max. Continuous Power, minimum
最大持续动力，最小值
Max. Continuous Power, minimum

高压
HP

转速
RPM

多类压力
Manifold
Pressure
(mm Hg)

高度
Altitude

1145

2300

1250

海平面
S.L.

967

2150

1050

1500 m

930

2150

1050

海平面
S.L.

螺旋桨
Propeller:

AW-2-30恒速螺旋桨，全合金桨叶，直径3.3米
AW-2-30 constant-speed propeller, All-alloy blades,
diameter 3.3 m

空速限制
Airspeed limits (CAS):

正常类Normal Category

限制类Restricted Category

V_{NE}

280 km/h

230 km/h

V_A

228 km/h

V_{NO}

230 km/h

200 km/h

V_{FE}

200 km/h

载荷系数Load Factor:

+3.4

+2.8

-1.4

-1.1

重心范围**C.G. Range:**
(参见注释5 see Note 5)

from 22% to 31 % MAC

重心范围, **5300**千克重量起飞时

**C.G. Range, T-O Weight of
5300 kg**
(参见注释5 see Note 5)

from 28% to 31% MAC

最大重量**Maximum Weight:**

起飞 Takeoff (see Note
6)
着陆 Landing

4200 kg

4200 kg

5300 kg

座位数**Number of Seats:**

2 (1名驾驶员和机械舱内1名乘员)
2 (1 pilot and 1 occupant in mechanic's cabin)

最大药箱加载量
Max. Hopper Load :
(see Notes 3, 6)

1500 kg

2000 kg

燃油箱容量
Fuel Tank Capacity:

726升 (可用燃油712升)
726 l (usable fuel 712 l)

滑油箱容量
Oil Tank Capacity:

10升 (可用滑油35升)
70 l (usable oil 35 l)

控制表面位移
Control Surface Movements:

副翼Aileron:

向上Up 21° ±1°
向下Down 17° ±1°

方向舵Rudder:

向左Left 23° ±1°
向右Right 23° ±1°

升降舵Elevator:

向上Up 27° ±1°
向下Down 17° ±1°

副翼调整片
Aileron Trim Tab:

向上Up 7°30' ±2°
向下Down 7°30' ±2°

方向舵调整片
Rudder Trim Tab:

向左Left 13° ±2°
向右Right 13° ±2°

升降舵调整片
Elevator Trim Tab:

向上Up 10° ±1°
向下Down 17° ±1°

起飞时襟翼角度
Flaps for Takeoff
着陆时襟翼角度
Flaps for Landing

15°
30°

正常类Normal Category

限制类Restricted Category

起落架传动杆的氮压

Nitrogen Pressure in Landing Gear Shock Struts:

主传动Main Gear:	$20 \pm 0.5 \text{ daN/cm}^2$	22 ± 0.5
尾传动Tail Gear:	$28 \pm 0.5 \text{ daN/cm}^2$	32 ± 0.5

轮胎压力Tire Pressure:

主轮Main Wheel:	$2.5_{-0.2} \text{ daN/cm}^2$	$3.5_{-0.5}$
尾轮Tail Wheel:	$3.0^{+0.5} \text{ daN/cm}^2$	

周围空气温度使用限制

Ambient Air Temperature Operating Limits:

- (a) +45° C 到 +15° C 无发动机气缸冷滤罩
+45° C to +15° C without engine cylinder winterization shields
- (b) +15° C 到 -10° C 有或者无发动机气缸罩, 任选
+15° C to -10° C with or without engine cylinder shields, optional
- (c) -10° C 到 -30° C 装有发动机气缸罩
-10° C to -30° C with engine cylinder shields installed

运行及选装设备

Operational & Optional Equipment:

- (a) 农业作业及灭火设备构型按图纸No. D98.000.00.0.
Operating agricultural and fire-fighting equipment, selection and configuration in acc. with Dwg. No. D98.000.00.0.
- (b) 选装设备按图纸No. M18, Sheet No. 10及PZL M18B "DROMADER"飞行手册第9节或从S/N 1Z027-01开始按PZL M18B "DROMADER"飞行手册第9节
Optional equipment in acc. with Dwg. No. M18, Sheet No. 10 and Airplane Flight Manual of PZL M18 "DROMADER", Section 9 or starting from S/N 1Z027-01, Airplane Flight Manual for the PZL M18B "DROMADER" Section 9

3.IV. 使用和服务介绍Operating and Service Instructions

每一航空器均应按以下文件装配:

Each airplane is furnished with the following documents:

- (a) PZL M18 "DROMADER"飞行手册, 安装了ASz-62IR-M18型发动机, 与强制性附录一起, 作为附录17第9节的内容, 对PZL M18B "DROMADER"型机有效。
Aircraft Flight Manual of PZL M18 "DROMADER", equipped with ASz-62IR-M18 Engine, together with mandatory supplements as contained in Section 9 thereof including supplement No. 17 effective on the PZL M18B "DROMADER" model.

- (b) 从S/N 1Z027-01开始, PZL M18B "DROMADER"飞行手册, 装配ASz-62IR-M18型发动机, 1995年MIELEC颁发。
Starting from S/N 1Z027-01, the Airplane Flight Manual for the PZL M18B "DROMADER" with ASz-62IR-M18 Engine, issue MIELEC 1995,
- (c) 对装有ASz-62IR-M18/K9-BB的发动机——飞行手册, 1979年版或1995年附录31, 对装有K9-BB型发动机——飞行手册附录30。
For airplane with ASz-62IR-M18/K9-BB Engine - Airplane Flight Manual, Issue 1979 or 1995 with Appendix No 31, and for airplane with K9-BB Engine - Airplane Flight Manual with Appendix No. 30.
- (d) PZL M18 „DROMADER”的飞机说明及使用文件
Airplane Description and Service Manual, PZL M18 „DROMADER”
- (e) 从S/N 1Z028-01开始, 飞机说明及使用文件, PZL M18B „DROMADER”,第2版
Starting from S/N 1Z028-01 Airplane Description and Service Manual, PZL M18B „DROMADER”, Edition 2
- (f) 说明及使用文件, 经由客户同意。
Descriptive and service documents, as agreed with the Customer.

3.V. 注释Notes

NOTE 1: 经批准的所有PZL M18 "DROMADER"航空器飞行手册中所要求的标记和标牌 (包括附录17, 对PZL M18B "DROMADER"型机有效), 必须安装在每一架航空器专用构形及适当位置。标牌上的专用限制必须使用同一单位 (节, MPH, km/h)如空速表。

All inscriptions and placards as required in the approved Aircraft Flight Manual of PZL M18 "DROMADER" (including Supplement No. 17, effective on PZL M18B "DROMADER" model) must be installed on each airplane in the specified configuration and at appropriate location. Limitations specified on the placards must read in the same units (knots, MPH, km/h) as the airspeed indicator.

NOTE 2: 限制类航空器及装有选装设备 (如: 辅助燃油系统, ARL-1601 ADF, KR-85 ADF, 发动机气缸罩, 驾驶舱升温系统等) 的航空器, 应按PZL M18 "DROMADER"飞行手册第9节操作。

The airplane in restricted category and with optional equipment (such as: auxiliary fuel system, ARL-1601 ADF, KR-85 ADF, engine cylinder shields, cockpit heating system, etc.) installed, shall be operated in accordance with Section 9 of the Aircraft Flight Manual of PZL M18 "DROMADER".

NOTE 3: 为保护带有机舱的飞机的重心范围, 药箱载荷应按以下限制:
灭火时:

——使用最大燃油载荷712升 -50千克
——使用燃油400升 -200千克

To prevent exceeding the airplane C.G. range limits with in occupant in mechanic's cabin, hopper load shall be limited, as follows:

Fire fighting version:

- With max. fuel load, 712 l - 50 kg

- With 400 l of fuel

- 200 kg

NOTE 4: 机械舱有乘员时禁止飞行。

It is prohibited to perform operational flight with an occupant in mechanic's cabin.

NOTE 5: 用AU-3000和AU-5000 自动喷洒作业时，最后的重心位置允许在全部重心范围的32%。

For the spraying version with AU-3000 and AU-5000 atomizers, the rearmost C.G. position in 32% MAC is permitted within the whole range of weights.

NOTE 6: 保持安全爬升率不小于1.5米/秒的额定动力，在使用最大设备（图号No. D98.670.00.1)喷洒时最大起飞重量限制在4800千克。最大起飞重量包含药箱最大载荷。

To maintain safe rate of climb not less than 1.5 m/s at the rated power, the maximum takeoff weight is limited to 4800 kg in dusting version with big spreader (Dwg. No. D98.670.00.1). Maximum hopper load results from calculations of the airplane takeoff weight.

第4部分 PZL M18BS
SECTION 4 PZL M18BS

4.I 总则General

数据单号Data Sheet No.: EASA.A.056 版次Issue: 02 日期Date: 2008-06-24

1. a) 型号Type
b) 型别Model

PZL M18
PZL M18BS

2. 适航类别Airworthiness Category: 正常类 Normal Category

3. 向波兰民航局适航申请日期The CAO PL Certification Application Date: 1997-03-15

4. 波兰民航局颁发日期The CAO PL Certification Date: 1998-02-05

5. EASA型号合格证替换波兰民航局型号合格证号 BB-120/1

The EASA Type Certificate replaces the Polish CAO Type Certificate No. BB-120/1

4.II 审定基础Certification Basis

1. 适航要求Airworthiness Requirements: FAR Part 23, including Amdt. 23-16

2. 选择性应用要求Requirements elected to comply: 无 None

3. EASA专用条件EASA Special Conditions: 无 None

4. EASA豁免EASA Exemptions: 无 None

5. EASA等效安全条件EASA Equivalent Safety Findings: 无 None

6. EASA环境标准EASA Environmental Standards: FAR Part. 36

4.III. 技术特性及使用限制 Technical Characteristics and Operational Limitations

型号设计定义
Type Design Definition:

图号M18BS, Sheet No. 3
Drawing No. M18BS, Sheet No. 3

描述**Description:**

教练机-用于培训农业及灭火的双操纵飞机。全金属，下单翼，不可收放起落架，单发活塞式飞机。
Trainer - dual control airplane for training in agricultural and fire-fighting flight. All metal, low wing, with non retractable tailwheel landing gear, single piston airplane.

航空器应用**Airplane Versions:**

- 农业 agricultural
- 灭火 fire fighting

发动机**Engine:**

ASz-62IR-M18

发动机数量**Number of Engines:** 1 (one)

发动机制造商
Engine Manufacturer:

PZL Kalisz, Poland

燃油**Fuel:**

按以下标准，最低91号航空燃油 每1KG燃油中最多3.3克四乙基：

- GOST 1012-72
- D.Eng. RD 2485
- ASTM - D910-75
- MIL-G-5572F
- RH-95/130

PZL AKM-62IRA汽化器，带有自动高度校正浮子。
PZL BNK-12BK燃油泵，滑片类型。

Minimum grade 91 aviation fuel with tetraethyl load content of max. 3.3 g per 1 kg of fuel, in accordance to:

- GOST 1012-72
- D.Eng. RD 2485
- ASTM - D910-75
- MIL-G-5572F
- RH-95/130

PZL AKM-62IRA carburettor, float type with automatic altitude correction.

PZL BNK-12BK fuel pump, sliding vane type.

发动机限制 Engine Limits:	高压 HP	转速 RPM	多类压力 (mmHG) Manifold Pressure (mm Hg)	高度 Altitude
起飞动力（5分钟），最小值 T-O Power(5 minutes), minimum	980	2200	1050	海平面S.L.
最大持续动力，最小值 Max. Continuous Power, minimum	823	2100	900	1500 m
最大持续动力，最小值 Max. Continuous Power, minimum	804	2100	900	海平面S.L.
螺旋桨 Propeller:	AW-2-30恒速螺旋桨，全合金桨叶，直径3.3米。 AW-2-30 constant-speed propeller, All-alloy blades, diameter 3.3 m			
空速限制 Airspeed limits (CAS):				
	V _{NE}	280 km/h		
	V _A	228 km/h		
	V _{NO}	230 km/h		
	V _{FE}	200 km/h		
载荷系数Load Factor:	+3.4 -1.4			
重心范围C.G. Range:	from 22% to 31 % MAC			
最大重量Maximum Weight:				
	起飞Takeoff	4200 kg		
	着陆Landing	4200 kg		
座位数Number of Seats:	2 (驾驶员-教练员在教练舱，学员在主驾驶舱) 2(pilot - instructor in instructor's cockpit and student - pilot in main cockpit)			
最大药箱加载量Max. Hopper Load:	800 kg（药箱底部填满） (bottom part of hopper filled)			

燃油箱容量Fuel Tank Capacity: 726升 (可用燃油712升)
726 l (usable fuel 712 l)

滑油箱容量Oil Tank Capacity: 70升 (可用滑油35升)
70 l (usable oil 35 l)

控制表面位移

Control Surface Movements:

副翼Aileron:	向上Up	21° ±1°
	向下Down	17° ±1°
方向舵Rudder:	向左Left	23° ±1°
	向右Right	23° ±1°
升降舵Elevator:	向上Up	27° ±1°
	向下Down	17° ±1°
副翼调整片Aileron Trim Tab:	向上Up	7°30' ±2°
	向下Down	7°30' ±2°
方向舵调整片Rudder Trim Tab:	向左Left	13° ±2°
	向右Right	13° ±2°
升降舵调整片Elevator Trim Tab:	向上Up	10° ±1°
	向下Down	17° ±1°
起飞时襟翼角度 Flaps for Takeoff		15°
着陆时襟翼角度 Flaps for Landing		30°

起落架传动杆的氮压

Nitrogen Pressure in Landing

Gear Shock Struts:

主传动Main Gear:	20 ± 0.5 daN/cm ²
尾传动Tail Gear:	28 ± 0.5 daN/cm ²

轮胎压力Tire Pressure:

主轮Main Wheel:	2.5 _{-0.2} daN/cm ²
尾轮Tail Wheel:	3.0 ^{+0.5} daN/cm ²

周围空气温度使用限制

Ambient Air Temperature Operating Limits:

- (a) +45° C 到 +15° C 无发动机气缸冷滤罩
+45° C to +15° C without engine cylinder winterization shields

- (b) +15° C 到 -10° C 有或者无发动机气缸罩, 任选
+15° C to -10° C with or without engine cylinder shields, optional
- (c) -10° C 到 -30° C 装有发动机气缸罩
-10° C to -30° C with engine cylinder shields installed

运行及选装设备

Operational & Optional Equipment:

- (a) 农业作业及灭火设备构型按图纸No. D98.000/01.0, D.98.000/11.0, D98.000/07.0,
Operating agricultural and fire fighting equipment configuration in acc. with Dwg. No.
D98.000/01.0, D.98.000/11.0, D98.000/07.0,
(equipment without anti-slosh baffles and liquid level indicators).
- (b) 可选设备按图纸No. M18BS, Sheet No. 3及PZL M18B "DROMADER"飞行手册第9节
Optional equipment in acc. with Dwg. No. M18BS, Sheet No. 3 and Airplane Flight
Manual for the PZL M18B "DROMADER" Section 9

4.IV. 使用和服务介绍 Operating and Service Instructions

每一航空器均应按以下文件装配:

Each airplane is furnished with the following documents:

- (a) PZL M18B "DROMADER"的飞行手册, 安装了ASz-62IR-M18 发动机, 1995年12月12
日颁发, 与强制性附录一起, 作为附录8第9节的内容, 对PZL M18BS "DROMADER"教
练型机有效。
Aircraft Flight Manual of PZL M18B "DROMADER", equipped with ASz-62IR-M18
Engine, issued December 12, 1995, together with mandatory supplements as
contained in Section 9 thereof including Supplement No. 8 effective on the PZL
M18BS "DROMADER" Trainer model.
- (b) PZL M18BS "DROMADER"的飞机说明和使用手册中的附录7.11, 对PZL M18BS
"DROMADER"教练型机有效。
Airplane Description and Service Manual of PZL M18 "DROMADER" with Supplement
7.11 effective on the PZL M18BS "DROMADER" Trainer model.
- (c) 说明及使用文件, 经由客户同意。
Descriptive and service documents, as agreed with the Customer.

4.V. 注释Notes

注释1: 在经批准的PZL M18B "DROMADER"航空器飞行手册中所要求的所有标记和
NOTE 1: 标牌, 包括附录8, 对PZL M18BS "DROMADER"教练机有效, 必须安装在每
一架航空器专用构形及适当位置。标牌上的专用限制必须使用同一单位
(节, MPH, km/h)如空速表。

All inscriptions and placards as required in the approved Aircraft Flight Manual of PZL M18B "DROMADER", including Supplement No. 8, effective on PZL M18BS "DROMADER" Trainer model, must be installed on each airplane in the specified configuration and at appropriate location. Limitations specified on the placards must read in the same units (knots, MPH, km/h) as the airspeed indicator.

注释2: 安装了选装设备的飞机（如：发动机气缸罩，KR-85 ADF等），应按照PZL
NOTE 2: M18B "DROMADER"的AFM第9节使用。

The airplane with operational-optional equipment (such as: engine cylinder shields, KR-85 ADF, etc.) installed, shall be operated in accordance with Section 9 of the Aircraft Flight Manual of PZL M18B "DROMADER".

注释3: 为了避免装有喷洒设备和特殊长喷嘴飞机的重心限制可能超出范围，特将喷洒
NOTE 3: 构型飞机的起飞重量限制在4100千克。

To eliminate possible exceedance of the aft center-of-gravity position limit for the airplane fitted with spraying equipment, and in particular with long spray booms installed, the airplane takeoff weight is hereby limited to 4100 kg for the spraying configuration.

注释4: 禁止在飞行中有人占用机械舱以及在行李舱中放置行李。机械舱的设备（座椅
NOTE 4: 及灭火瓶）及行李舱应被移走。
It is prohibited to perform flights with an occupant in mechanic's cabin and with luggage in the baggage compartment. Mechanic's cabin equipment (seat and fire extinguisher) and baggage compartment should be removed.

注释5: 学员的单独飞行应在PZL M18B上执行。
NOTE 5: Solo flights of student-pilot shall be performed on the PZL M18B model.

注释6: 禁止只有一个飞行员在教练舱（前部）进行单独飞行。
NOTE 6: It is prohibited to perform solo flights with a pilot only in the instructor's (front) cockpit.

注释7: M18BS "DROMADER"教练机仅批准用于灭火及装有喷洒构形设备的农业作业
NOTE 7: 的培训飞行。
M18BS "DROMADER" Trainer model is approved for training flights with fire-fighting and agricultural equipment in spraying configuration only.