

European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

EASA.A.058

PZL M28

Polskie Zakłady Lotnicze Sp. z o. o.

Wojska Polskiego 3 39-300 Mielec POLAND

For models: PZL M28 00 PZL M28 02 PZL M28 05

Issue 08: 03 Nov 2015

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SECTION A: PZL M28 00

A.I. General

- 1. Data Sheet No.:
- 2. a) Type:
 - b) Model:
 - c) Variant:

- PZL M28 00
- passenger (18 pax) transport

A.058 Issue: 01 Date: October 24, 2005

- cargo transport
- passenger/cargo transport

Sep 14, 2004 (to EASA)

Civil Aviation Office, Poland

Polskie Zakłady Lotnicze Sp. z o. o.

Polskie Zakłady Lotnicze Sp. z o. o.

- paradrop Commuter

PZL M28

- 3. Airworthiness Category:
- 4. Type Certificate Holder:
- 5. Manufacturer:
- 6. Certification Application Date:
- 7. (Reserved) National Certifying Authority
- (Reserved) National Authority Type Certificate Date:

9. Reserved

May 15, 1995 This EASA Type Certificate replaces the Polish CAO Type Certificate No. BB-199/1 none

A.II Certification Basis

1.	Reference Date for determining the applicable requirements:	Oct 11, 1986
2.	Airworthiness Requirements:	FAR Part 23, including Amendment 23 - 34
3.	Special Conditions:	None
3.	Exemptions:	None
4.	Deviations:	None
5.	Equivalent Safety Findings:	None
6.	Requirements elected to comply:	none
7.	Environmental Standards:	FAR Part. 34 Subp. B, FAR Part. 36 App. G.
8.	(Reserved) Additional National Requirements:	none
9.	(Reserved)	none

A.III <u>Technical Characteristics and Operational Limitations</u>

1. Type 2. Descr	Design Definition: iption:	specifica The PZL cantileve structure retractab wheel	tion sheet M28 Mode turboprop , with twin le landing	No. 28.15.0 el 00 is a tw o STOL airp vertical tail gear featur	0000.000.0 vin-engined blane of all s and a tric ing a steer	00 I high-wing -metal cycle non- able nose
3. Equip	ment:					
Stan	dard:	As define	ed in Secti	on 7 of the	Airplane F	light Manual
Optio	onal & Operational:	As define	ed in Secti M28/I TO-3/	27/95 on 9 of the 3/27/95	Airplane F	light Manual
4. Dimer	nsions:			0,21,00		
Leng	lth	13.10 m	(43 ft)	,		
Heig Winc	nt 1 snan	4.90 m	(16 ft 1 in (72 ft 4 in	1) n)		
Wing	j area	39.72 m2	2 (427.5 sq	'' . ft.)		
5. Engi	ne:					
5.1.1	Model:	PT6A-65 of 0.0568	B turbopro 3:1	p with a fre	e turbine, r	eduction ratio
5.1.2	Type Certificate:	E4EA				
5.1.3	Limitations:	For powe PZL M28 M28/LTC	er-plants lin 6 with PT6A 0-3/27/95,	nits refer to A-65B Engir	Airplane F nes ref No.	light Manual,
5.1.4.	Engine Performance:	Shaft Horse Power	Torque	Prop Speed	Turbine Speed	Exhaust Gas Temp.
		SHP	PSIG	rnm	%	ംറ
Takeoff		1100*	43.34	1700	104	820
Max. Co	ntinuous	1100**	43.34	1700	104	810
Max. Cru	lise	1000***	43.34	1700	104 a a b la sura ta	800
		ainable up	10 45.5 °C	, attai	nable up to	42.5 °C
5.1.5	Number of engines:	2				
6. Load	l factors:		4.0			
Flaps	s Up	n=+3.0,	-1.0			
	s Down	n=+2.0 ,	0			
7. Prop	eller: Modol:		0 20/M/100	TEANEK fi	vo blada k	all motol
7.1		constant- (3032082	-speed, wit 2A)	h WOODW	ARD spee	d governor
7.2	Type Certificate:	P44GL				
7.3	Number of blades:	5 (five)				
7.4	Diameter:	2.820 m	(9 ft 3in)			
7.5	Sense of Rotation:	Clockwis	е			

8.	Flui	ds:				
	8.1	Fuel:	Aviation approve Equival AVTUR CAN/C 3404, A	n kerosene type JET ed equivalents as per lents: F34, F35, F40, R, AVTAG, AVTAC, C .G.SB.3.22-M86, CAN AIR 3405, AIR 3407, F	A, JET A-1, J P&WC Bulle F43, F44, JP AN/C.G.SB.3 N/C.G.SB.3.0 RT acc. to G0	IET A-2 and etin No. 13044. P-4, JP-5, JP-8, 3.23-M86, SP-24Ma, AIR OST 16564-71.
	8.2	Oil:	Aero SI Mobil J accorda	hell Turbine Oil 500, I et Oil II, Castrol 5000 ance with Pratt & Whi	Royco Turbin , BP Turbo (itney Bulletin	e Oil 500, Dil 2380 - in No. 13001.
	8.3	Coolant:	N/A			
9.	Flui	d capacities:				
	9.1	Fuel:				
	- W	/ing with no auxiliary tanks	5	1960 I (518 US Gal	.)	
	- W	/ing with auxiliary tanks		2440 I (645 US Gal.	.)	
	- Extra long-ferry fuel tank inside fuselage			2090 I (552 US Gal	.)	
	9.2	Oil:	2 x 9.4	5 I (2.5 US gal)		
	9.3	Coolant system capacity:	N/A			
10.	Air / I	Speeds: Airspeed Limitations: Max. Allowable Operating	Speed V	Vмо	IAS (km/h) 355	CAS (km/h) 345
	[Design Maneuvering Spee	ed, V _A		230	225
	I	Max. Allowable Flap-Exter	nded Sp	eed, V _{FE}		
			/	Flaps 15° Flaps 40°	215 200	210 190
	I	viax. Spoller-Extended Sp	eed, V _N	s - outboard spoilers - inboard spoilers	215 215	210 210
	I	Vinimum Control Speed,	Vмс		135	130
11.	Ma	ximum Operating Altitude:				
- W	ithou	t oxygen supply system				3000 m
- W	ith o>	kygen supply system insta	alled			4000 m
- Ca	argo	transport version with crev	w oxyg	en supply system pro	ovided	7620 m
12.	Allv Cap	veather Operations bability:	- VFR f - IFR fli	lights, day and night ghts, day and night		
13.	We	ights:				
	Ma	x. Takeoff		6500 kg		
	Ma	x. Landing		6175 kg		

- Weight [kg] 6500 6000 5500 5500 4500 4.50 4.55 4.60 4.65 4.70 [m] from Reference Datum
- 14. Centre of Gravity Range:

15. Datum:

2.470 m (97.24 in) Frame No. 9, Forward (see fig. 6.1, AFM, Chapter 6)

16. Control Surface Deflections:

Ailerons:	Up Down	22º ± 1º 16 º 20' ± 1 º
Aileron Trim Tab:	Up Down	14°± 1° 14°± 1°
Elevator:	Up Down	27°± 1° 19°± 1°
Elevator Trim Tab: (Elevator Neutral)	Up Down	15°±1° 25°±1°
Rudder LH:	Inboard Outboard	16°±1° 22°+1°
Rudder RH:	Inboard Outboard	16°±1° 22°±1°
Rudder Trim Tab: (Rudder Neutral)	Left Right	15°±1° 15°±1°
Wing Flaps:	Takeoff Landing	15 °± 1° 40°± 1°
Spoilers:	Inboard Outboard	45°± 1° 60°± 1°

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17. Levelling Means:	1LP = LH and RH levelling point	on frame No. 9
	(see fig. 6.1, AFM, Chapter 6)	
18. Minimum Flight Crew:	2 (two) pilots	
19. Maximum Passenger Seating Capacity:	18	
20. Baggage/Cargo Compartments:		
Max. Baggage Compartmen	t Load: 150 kg	
Max. Payload:	1750 kg	
21. Wheels and Tyres:	Main wheel tyre size 720 x 310	mm (28.30 x 12.20 in)
	Nose wheel tyre size (Type 6.50) 561x169 mm (22.10x6.65 in)	x10 – GOOD YEAR)
22. Landing gear:	Fixed, tricycle type, with wheel	a steerable nose
Nose Wheel Controlling Ang	le ± 15 °	
Nose Wheel Controlling Ang with Steering OFF	le \pm 50 °	
23. Max. Service Ceiling:		
- without oxygen-supply syste	m	3000 m
- with oxygen-supply system	with average average for the area	4000 m
24. Operating Ambient Temperat	ure Range:	-50°C to + 50°C
25. (Reserved):		

A.IV Operating and Service Instructions

- 1 Flight Manual: Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,
- 2. Technical Manual: PZL M28 Maintenance Manual Ref No. M28/4/95/LTO-33
- 3. Repair Manual: Repair Manual PZL M28 Airplane ref No. M28/1/2001
- 4. Manual for Operation: see related Flight Manual section 9.
- 5. Spare Parts Catalogue: Illustraded Parts Catalog, ref No. M28/14/97/LTO-3
- 6. Table of Dimensions, Limits and Clearances: see Chapter 6 of appropriate Maintenance Manual
- 7. Instruments and aggregates: see for standard equipment: As defined in Section 7 of the Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95, for optional & operational equipment:

As defined in Section 9 of the Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,

 Airplane Service Life, and Component TBOs : Airplane Service Life, Component TBOs as defined in Sec. 4 of M28 Maintenance Manual (M28/4/95/LTO-33).

<u>A.V</u> <u>Notes</u>

- 1. Flight in known or forecast icing conditions is prohibited
- 2. This Type Certificate applies to aircraft S/N: AJEP1-01 and to AJE001-02 and up
- 3. When the ice protection system is installed, flight with this system operative is allowed but with consideration for note 1. (above).

+ 1

SECTION B: PZL M28 02

B.I. General

1. Data Sheet No.:	A.058	Issue: 01	Date: October	24.2005
	/	10000101		,

2. a) Type:

b) Model:

- PZL M28 PZL M28 02
- c) Variant: passenger transport (18 passengers attendant seat)
 - passenger "Executive" (designation M28 02-E),
 8 or 10 passenger seats (depending on seat model) + 2 attendants' seats
 - cargo transport
 - mixed passenger/cargo transport
 - paradrop
 - liquid-cargo transportation
 - long-range ferry

For above listed versions the reinforced PZL M28 02-W variant with 7500 kg MTOW is approved.

Sep 14, 2004 (to EASA)

- Airworthiness Category: Commuter
 Type Certificate Holder: Polskie Zakłady Lotnicze Sp. z o. o.
- 5. Manufacturer: Polskie Zakłady Lotnicze Sp. z o. o.
- 6. Certification Application Date:
- 7. National Certifying Authority Civil Aviation Office, Poland
- 8. National Authority Type Certificate Date:
 9. Reserved
 Feb 23, 1996 *This EASA Type Certificate replaces the Polish* CAO Type Certificate No. BB-199/1 none

B.II Certification Basis

1. Reference Date for determining the applicable Oct 11, 1986 requirements: 2. Airworthiness Requirements: FAR Part 23, including Amendment 23 – 34. For flight in known and forecast icing (FIKI) see certification basis for PZL M2805 model for FIKI. None 3. Special Conditions: None 3. Exemptions: None 4. Deviations: None 5. Equivalent Safety Findings: 6. Requirements elected to none comply: FAR Part. 34 Subp. B, FAR Part. 36 App. G. 7. Environmental Standards: 8. (Reserved) Additional none

National Requirements:

9. (Reserved) none

B.III Technical Characteristics and Operational Limitations

 Type Design Definition: Description: 	specifica The PZL cantileve structure retractab wheel	tion sheet N M28 Model r turboprop , with twin v le landing g	lo. 28.15 l 02 is a t STOL ai rertical ta jear featu	.0000.000.0 win-engine l rplane of all- ils and a tric iring a steera	00 nigh-wing metal ycle non- able nose
3. Equipment: Standard:Optional & Operational:	As define ref No. M As define	ed in Sectic 128/LTO-3/2 ed in Sectic	on 7 of the 27/95 on 9 of the	e Airplane F e Airplane F	light Manual light Manual
 4. Dimensions: Length Height Wing span Wing area 5. Engine: 	13.10 m 4.90 m 22.06 m 39.72 m ²	(43 ft) (16 ft 1 in (72 ft 4 in 2 (427.5 ft2))		
5.1.1 Model:	PT6A-65 of 0.0568	B turboprop ::1	with a fr	ee turbine, r	eduction ratio
5.1.2 Type Certificate:	E4EA				
5.1.3 Limitations:	For powe PZL M28 M28/LTO	r-plants lim with PT6A- -3/27/95,	its refer t 65B Eng	o Airplane F ines ref No.	light Manual,
5.1.4. Engine Performance:	Shaft Horse Power	Torque	Prop Speed	Turbine Speed	Exhaust Gas Temp.
Takeoff Max. Continuous Max. Cruise * attainable up to 50.5 °C; ** atta 5 1 5 Number of engines:	SHP 1100* 1100** 1000*** inable up 2	PSIG 43.34 43.34 43.34 to 45.5 °C;	rpm 1700 1700 1700 *** atta	% 104 104 104 inable up to	°C 820 810 800 42.5 °C
 6. Load factors: Flaps Up Flaps Down 	For mode kg MTOV M28 02-V MTOW) n=+3.0, - n=+2.0,	el M28 02 (7 V) and V (7500 kg -1.0 0	/000 Fo rar MT n= n=	r model M28 nge ferry onl ⁻ OW) +2.8 , -1.0 +2.0 , 0	3 02, for long- y (7500 kg
7. Propeller:7.1 Model:	HC-B5MI constant- (3032082	P-3D/M1087 speed, with A)	76ANSK WOODV	five-blade, a VARD spee	III-metal, d governor
7.2 Type Certificate:7.3 Number of blades:7.4 Diameter:7.5 Sense of Rotation:	P44GL 5 (five) 2.820 m (, (9 ft 3in) e			

8.	Flui	ds:				
	8.1	Fuel:	Aviation k approved Equivalen AVTUR, A CAN/C.G 3404, AIR	erosene type JET / equivalents as per its: F34, F35, F40, AVTAG, AVTAC, C/ SB.3.22-M86, CAN 3405, AIR 3407, F	A, JET A-1, J P&WC Bulle F43, F44, JP AN/C.G.SB.3 I/C.G.SB.3.C RT acc. to GC	ET A-2 and tin No. 13044. -4, JP-5, JP-8, 3.23-M86, SP-24Ma, AIR OST 16564-71.
	8.2	Oil:	Aero Shel Jet Oil II, accordano	II Turbine Oil 500, F Castrol 5000, BP∃ ce with Pratt & Whi	Royco Turbin Furbo Oil 238 tney Bulletin	e Oil 500, Mobil 30 - in No. 13001.
	8.3	Coolant:	N/A			
9.	Flui	d capacities:				
	9.1	Fuel:	1766 kg (2	2278 I), (3894 lbs; 6	602 US Gal.)	
	9.2	Oil:	2 x 9.45 l	(2.5 US gal)		
10	9.3	Coolant system capacity:	N/A			
10.	Air / I	Speeds: Airspeed Limitations: Max. Allowable Operating	Speed V _M	0	IAS (km/h) 355	CAS (km/h) 345
	I	Design Maneuvering Spee	ed, V _A		230	225
		for	PZL M28 (02-W variant:	244	238
	I	Max. Allowable Flap-Exter	nded Spee	d, Vfe		
	ſ	Max. Spoiler-Extended Sp	eed, V _{NS}	Flaps 15° Flaps 40°	215 200	210 190
	ſ	Minimum Control Speed, V	- Имс	- inboard spoilers	215 215 153	210 210 146
11.	Ma	ximum Operating Altitude:				
- W	ithou	t oxygen supply system			:	3000 m
- W	ith o	kygen supply system insta	lled			4000 m
- Ca	argo	transport version with crev	w oxygen	supply system pro	vided	7620 m
12.	Allv Cap	veather Operations bability:	- VFR flig - IFR fligh	hts, day and night its, day and night		
13.	Wei	ghts:				
	Ma	x. Takeoff		7000 kg		
	Max	x. Landing		6650 kg		
	Max	x. Takeoff for Ferry Flight		7500 kg		
	Ma	x. Takeoff and Landing fo variant	or M28 02-\	W 7500 kg		

14. Centre of Gravity Range:



15. Datum:

2.470 m (97.24 in) Frame No. 9, Forward (see fig. 6.1, AFM, Chapter 6)

16. Control Surface Deflections:

Ailerons:	Up	22° ± 1°
	Down	16^{o} 20' \pm 1 o
Aileron Trim Tab:	Up	14°± 1°
	Down	14°± 1°
Elevator:	Up	27°±1°
	Down	19°± 1°
Elevator Trim Tab: (elevator neutral)	Up	15°± 1°
		(19°± 1°)*
	Down	$25^{\circ} \pm 1^{\circ}$
		(21 ° ± 1 °)*
Rudder LH:	Inboard	16°±1°
	Outboard	$22^{\circ} \pm 1^{\circ}$
Rudder RH:	Inboard	$16^{\circ} \pm 1^{\circ}$
	Outboard	$22^{\circ} \pm 1^{\circ}$

(*) On airplane S/N AJE001-01 only.

Rudder Trim Tab: <i>(rudder ne</i> Wing Flaps [:]			ıtral)	Left Right Takeoff	15°±1° 15°±1° 15°+1°
	Spoilers:			Landing Inboard Outboard	40°±1° 45°±1° 60°±1°
17.	Levelling Means:	1LP = L (see fig	H and RI	H levelling point on Ⅰ, Chapter 6)	frame No. 9
18.	Minimum Flight Crew:	2 (two)	pilots		
19.	Maximum Passenger Seating Capacity:]			
	Passenger Seating Capacity		18 + 1 a	attendant seat	
	Passenger Seating Capacity "Executive" version	in	8 or 10 model)	passenger seats (c + 2 attendants' sea	lepending on seat ts
20.	Baggage/Cargo Compartmer	nts:			
	Max. Baggage in Under Fuse Pod:	elage	300 kg		
	Max. Payload:		2000 kg		
	Max. Baggage on Baggage S	Shelf:	150 kg 1)	
	Max. Hoist Capacity:		700 kg 1)	
	1) not applicable for "Ex	ecutive"	version		
21.	Wheels and Tyres:	Main w Nose w 561x16	heel tyre s /heel tyre 9 mm (22	size 720 x 310 mm size (Type 6.50x10 2.10x6.65 in)	(28.30 x 12.20 in) – GOOD YEAR)
22.	Landing gear:		Fixed, tricycle type, with a steerable nose wheel		
	Nose Wheel Controlling	Angle	± 15 °		
	Nose Wheel Controlling with Steering OFF	Angle	\pm 50 $^{\circ}$		
	for M28 02-W variant: - Main Gear: rocker-type - Nose Gear: rocker-type	e with a s e, with a	single-cha double-c	amber shock absort hamber shock abso	ber, orber,
	Nose Wheel Controllin	ng Angle	•		± 15 °
	Nose Wheel Controllin	ng Angle	e with Stee	ering OFF	± 45 °
23. - - - 24	Max. Service Ceiling: without oxygen-supply system with oxygen-supply system cargo transport configuration	n with c	oxygen sy	stem for the crew	3000 m 4000 m 7620 m
<u>-</u> 25.	(Reserved):		yo.		

B.IV Operating and Service Instructions

- 1 Flight Manual: Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95.
- 2 Technical Manual: PZL M28 Maintenance Manual Ref No. M28/4/95/LTO-33.
- 3. Repair Manual: Repair Manual PZL M28 Airplane ref No. M28/1/2001
- 4. Manual for Operation: see related Flight Manual section 9.
- 5. Spare Parts Catalogue: Illustraded Parts Catalog, ref No. M28/14/97/LTO-3
- 6. Table of Dimensions, Limits and Clearances: see Chapter 6. Of appropriate Maintenance Manual
- 7. Instruments and aggregates: see for standard equipment:

As defined in Section 7 of the Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,

for optional & operational equipment:

As defined in Section 9 of the Airplane Flight Manual, PZL M28 with PT6A-65B Engines ref No. M28/LTO-3/27/95,

- Airplane Service Life, and Component TBOs : Airplane Service Life, Component TBOs as defined in Sec. 4 of M28 Maintenance Manual (M28/4/95/LTO-33)
- 9. OSD (M28 02-W only): OSD FC M28 02-W DTD/108/2015, Initial Issue from 29 Oct 2015, or later approved Revision
- MMEL (M28 02-W only): MMEL PZL M28 02-W M28 05, Original Issue from 20 May 2015, or later approved Revision

B.V Notes

1. [Reserved.]

- 2. PZL M28 02-W variant: is approved for operation on condition of execution of provisions included in Bulletin No. E/12.048/2001 only.
- 3. This Type Certificate applies to aircraft S/N: AJE001-01 and up. For flight in known and forecast icing (FIKI) this certificate applies for AJE001-01 airplane only.
- 4. When the ice protection system is installed, flight with this system operative is allowed but with consideration for note 3. (above).
- 5. Chapter 4. Of the Maintenance Manual Ref No. M28/4/95/LTO-33 related to the FIKI have been approved on the Chapter 4. Of the Maintenance Manual Ref. No.: M28/11/2002,approved for PZL M28 05 model for FIKI basis

SECTION C :PZL M28 05

C.I. General

	 Data Sheet No.: PZL M28 05-SG variant : 	A.058 Issue: 01 Date: October 24, 2005 Issue: 02 Date: April 21, 2006
2.	a) Type: b) Model: c) Variant:	 PZL M28 PZL M28 05 passenger transport, max. 19 passengers; cargo transport; passenger/cargo transport mix, max. 18 passengers; paradrop; liquid-cargo transportation; long-range ferry; version of improved standard, max. 13 passengers with the special equipment transportation/release system (designation PZL M28 05-S) maritime patrol (designation PZL M28 05-MPW) for Border Guard missions (designation PZL M28 05-SG)
3.	Airworthiness Category:	Commuter
4.	Type Certificate Holder:	Polskie Zakłady Lotnicze Sp. z o. o.
5.	Manufacturer:	Polskie Zakłady Lotnicze Sp. z o. o.
6.	Certification Application Date:	Sep 14, 2004 (to EASA)
7.	(Reserved) National Certifying Authority	Civil Aviation Office, Poland
8.	(Reserved) National Authority Type Certificate Date:	Nov. 17, 1999 (acc. to BB-199/1) Apr. 18, 2002 (acc. to BB-216) This EASA Type Certificate replaces the Polish CAO Type Certificates No. BB-199/1 and BB-216
9.	Reserved	none

C.II Certification Basis

1.	Reference Date for determining the applicable requirements: Airworthiness Requirements: for airplanes S/N AJE001-19 up to AJE002-10 (Polish CAO TC No. BB199/1): for airplanes S/N AJE00301 and up : (Polish CAO TC No. BB216) for airplanes S/N AJE00301 and up for service life extension for airplanes with ice protection system installed, certified for FIKI, S/N AJE00301 and up	 Oct 11, 1986 (acc to the BB-199/1) Feb 2, 1991 (acc to the BB-216) FAR Pt. 23, Amendment 34, FAR Pt. 23, Amendment 42: Flight Data Recorder (23.1459), Voice Recorder (23.1457) FAR Pt. 23, Amendment 49: Installations, systems and airplane reliability analysis (23.1309) FAR Pt. 23, Amendment 50: Stall warning (23.207) FAR Pt. 34, Subpart B, FAR Pt. 36, Appendix G. FAR 23, Amendment 42, FAR 23, Amendment 49 : 23.1309, FAR 23, Amendment 50 : 23.49, 23.201, 23.203, 23.205, 23.207 and 23.1545 FAR 23, Amendment 48: 23.572, 23.574, 23.575, 23.629 FAR 23, Amendment 49 : 23.775, 23.1307, 23.1309, 23.1323, 23.1326, 23.1351, 23.1353, and 23.1431 FAR 23, Amendment 50 : 23.49, 23.63, 23.67, 23.69, 23.75, 23.201, 23.203, 23.207, 23.1325, 23.1559, 23.1581, 23.1583 and 23.1585 FAR 23, Amendment 51: 23.929, 23.975 and 23.1093
		FAR 23, Amendment 53: 23.901 FAR 23, Amendment 54: 23.903 FAR 23, Amendment 62: 23.73
3.	Special Conditions:	None
3.	Exemptions:	None
4.	Deviations:	None
5.	Equivalent Safety Findings:	Equivalent Safety Level FAR 23.1361(a) - Master Switch Arrangement
6.	Requirements elected to comply:	None

- 8. (Reserved) Additional none National Requirements:
- 9. (Reserved) none

C.III <u>Technical Characteristics and Operational Limitations</u>

 Type Design Definition: Description: 	specifica The PZL cantileve structure retractat wheel	ation sheet M28 Mode er turboprop e, with twin ple landing	No. 28.15.0 el 05 is a tv o STOL air vertical tail gear featur	0000.000.0 vin-enginec olane of all- s and a tric ing a steer	00 l high-wing -metal cycle non- able nose
3. Equipment: Standard:	For airpl as define (M28/14	anes S/N A ed in Sectio /99).	JE001-19 on 7 of the	up to AJE0 Airplane F	02-10: light Manual
Optional & Operational:	For airpl as define Manual, For airpl as define (M28/14 For airpl as define Manual,	ed in Sectio Ref. No. M anes S/N A ed in Sectio /99 Issue). anes S/N A ed in Sectio Ref. No. M	JE00301 a n 7 of the JE001-19 on 9 of the JE00301 a n 9 of the 128/10/200	PZL M28 A 2 up to AJE0 Airplane F and up: PZL M28 A 2	irplane Flight 02-10: light Manual irplane Flight
4. Dimensions:					
Length	13.10 m	(43 ft)			
Wing span	4.90 m 22 06 m	(1011 11) (72 ft 4 ir	1 <i>)</i> 1)		
Wing area	39.72 m	2 (427.5 ft2)		
5. Engine:					
5.1.1 Model:	PT6A-65 of 0.0568	5B turboproj 8:1	o with a fre	e turbine, r	eduction ratio
5.1.2 Type Certificate:	E4EA				
5.1.3 Limitations:	For powe PZL M28 M28/14/9 M28/10/2	er-plants lim 3 with PT6A 9 - for airpla 002 - for airp	hits refer to -65B Engii nes S/N AJI blanes S/N /	Airplane F nes ref No. E001-19 up AJE00301 a	light Manual, to AJE002-10, nd up.
5.1.4. Engine Performance:	Shaft Horse Power	Torque	Prop Speed	Turbine Speed	Exhaust Gas Temp.
	SHP	PSIG	rpm	%	°C
Takeoff	1100*	43.34	1700	104	820
Max. Continuous	1100**	43.34	1700	104 104	810 800
* attainable up to 50 5 °C ** ** ** attainable up to 50 5	ainable up	43.34 to 45.5 °C	*** attai	nable up to	42 5 °C
5.1.5 Number of engines:	2				
6 Load factors:					
Flans I In	n=+3.0 ,	-1.0			
Flaps Down	n=+2.0 ,	0			
· · · · · · · · · · · · · · · · · · ·					

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7	Pro	peller [.]			
	7.1	Model:	HC-B5MP-3D/M1087 constant-speed, with (3032082A) Hartzell F	6ANSK five-blade, a WOODWARD spee Propeller Inc. (USA)	all-metal, ed governor
	7.2	Type Certificate:	P44GL		
	7.3	Number of blades:	5 (five)		
	7.4	Diameter:	2.820 m (9 ft 3in)		
	7.5	Sense of Rotation:	Clockwise		
8.	Flui	ds:			
	8.1	Fuel:	Aviation kerosene type approved equivalents Equivalents: F34, F35 AVTUR, AVTAG, AVT CAN/C.G.SB.3.22-M8 3404, AIR 3405, AIR 3	e JET A, JET A-1, as per P&WC Bulle 5, F40, F43, F44, JF AC, CAN/C.G.SB.3 6, CAN/C.G.SB.3.0 3407, RT acc. to G	JET A-2 and etin No. 13044. P-4, JP-5, JP-8, 3.23-M86, GP-24Ma, AIR OST 16564-71.
	8.2	Oil	Aero Shell Turbine Oil Mobil Jet Oil II, Castro accordance with Pratt	l 500, Royco Turbin ol 5000, BP Turbo (& Whitney Bulletin	e Oil 500, Oil 2380 - in No. 13001.
	8.3	Coolant:	N/A		
9.	Flui	d capacities:			
	9.1	Fuel:	1766 kg (2278 l), (389	94 lbs; 602 US Gal.))
	9.2	Oil:	2 x 9.45 l (2.5 US gal)	1	
4.0	9.3	Coolant system capacity:	N/A		
10	. Air	Speeds: Airspeed Limitations: Max. Operating (Limit) Sp	eed, V _{mo}	IAS [km/h] 355	CAS [km/h] 345
		Design Maneuvering Spe	ed, V _A	244	238
		Max. Flaps-Extended Spe	ed, V _{FE}		
			Flaps 15º Flaps 40º	215 200	210 190
		Max. Spoiler-Deployed Sp	beed, V _{NS}	215	210
		Minimum Control Speed,	Vмс	153	146
11	. Ma Alti	ximum Operating tude:	7620 m (25000 ft)		
12	. Allv Cap	veather Operations pability:	VFR day and night, IF	R day and night	
13	13. Weights:				
		Max. Takeoff Max. Landing Max. Zero-Fuel Max. Payload		7500 kg 7500 kg 6900 kg 2300 kg	

Note:

max. 2000 kg in Cargo/Passenger Cabin (inclusive of max. 40 kg on
baggage shelf in fuselage rear part)
max. 300 kg in under fuselage baggage podMinimum Weight for Flight4700 kgMax. Baggage in Underfuselage Pod300 kgMax. Baggage on Baggage Shelf40 kgHoist Lifting Capacity Max:700 kg

14. Centre of Gravity Range:





15. Datum:

2.470 m (97.24 in) Frame No. 9, Forward (see AFM, Chapter 6, fig. 6.1)

16. Control Surface Deflections:

Ailerons:	Up Down	22° ± 1° 16 ° 20'± 1 °
Aileron Trim Tab:	Up Down	14°± 1° 14°± 1°
Elevator:	Up Down	27°± 1° 19°± 1°
Elevator Trim Tab: (Elevator Neutral)	Up Down	15°±1° (19°±1°)* 25°±1° (21°±1°)*
Rudder LH:	Inboard	16°±1°
Rudder RH:	Inboard Outboard	22°±1° 16°±1° 22°±1°

(*) On airplanes S/N AJE00339 and subsequent and S/N AJE00338 and prior post Bulletin E/12.117/2013.

Rudder Trim Tab: (Rudder Neutral)	Left	15°+ 1°
(Right	15°±1°
Wing Flaps:	Takeoff	15°± 1°
	Landing	40°± 1°
Spoilers:	Inboard	$45^{\circ} \pm 1^{\circ}$
	Outboard	$60^{\circ} \pm 1^{\circ}$

17. Levelling Means:	1LP = LH and RH levelling point on frame No. 9 (see AFM, Chapter 6, fig. 6.1)
18. Minimum Flight Crew:	2 (two) pilots
19. Maximum Passenger Seating Capacity:	 passenger transport, max. 19 passengers; passenger/cargo transport mix, max 18 passengers; version of improved standard, max 13 passengers
20. Baggage/Cargo Compartments:	Max. payload.2300 kg (5070 lbs) i.e: - in cargo/passenger cabin max 2000 kg (4408 lbs) (on baggage shelf in fuselage rear part max 40 kg (88 lbs)
21. Wheels and Tyres:	- in underfuselage baggage pod - max. 300 kg (662 lbs) Main wheel tyre size 720 x 310 mm (28.30 x 12.20 in) Nose wheel tyre size (Type 6.50x10 – GOOD YEAR) 561x169 mm (22.10x6.65 in)

22. Landing gear: Fixed, tricycle type, with a steerable nose wheel - Main Gear: rocker-type with a single-chamber shock absorber,

- Nose Gear: rocker-type, with a double-chamber shock absorber,

Nose Wheel Controlling Angle	± 15 °
Nose Wheel Controlling Angle with Steering OFF	\pm 45 $^{\circ}$

23. Max. Service Ceiling:
- without oxygen-supply system
- with oxygen-supply system
- cargo transport configuration
24. Operating Ambient Temperature Range:3000 m
4000 m
7620 m24. Operating Ambient Temperature Range:-50°C to + 50°C

25. (Reserved):

C.IV Operating and Service Instructions

1. Flight Manual:

For airplanes S/N AJE001-19* up to AJE002-10* :PZL M28 with PT6A-65B Engines: Airplane Flight Manual (P/N M28/14/99), Issue Dec. 1999.

For airplanes S/N AJE00301* and up : PZL M28 Airplane Flight Manual, Ref. No.: M28/10/2002, Issue April 2002.

*The serial number system of the M28 05 airplane is as follows: AJE001-XZ, AJE002-XZ, AJE003XZ and up. The XZ is the number of airplane in series.

2. Technical Manual:

For airplanes S/N AJE001-19 up to AJE002-10 PZL M28 Maintenance Manual (P/N M28/4/95/PBD), Issue Dec. 1999, including Sec. 4: "AIRWORTHINESS LIMITATIONS" and Sec. 5: "MAINTENANCE SCHEDULE",
For airplanes S/N AJE00301 and up : PZL M28 Maintenance Manual, Ref. No.: M28/11/2002, Issue April 2002, including Sec. 4: "Airworthiness Limitations" and Sec. 5: "Maintenance Schedule".

- 3. Repair Manual: Repair Manual PZL M28 Airplane ref No. M28/1/2001
- 4. Manual for Operation: see related Flight Manual section 9.
- Spare Parts Catalogue: For airplanes S/N AJE001-19 up to AJE002-10: Illustrated Parts Catalog, ref No. M28/14/97/LTO-3 For airplanes S/N AJE00301 up to AJE00309: Illustrated Parts Catalog, ref No. M28/10/2004 For airplanes S/N AJE00310 and up: Illustrated Parts Catalog, ref No. M28/04/2010
- 6. Table of Dimensions, Limits and Clearances: see Chapter 6. Of appropriate Maintenance Manual

7.	Instruments and aggregates: see for standard equipment: for airplanes S/N AJE001-19 up to AJE002-10	As defined in Section 7 of the Airplane Flight Manual (M28/14/99)
	for airplanes S/N AJE00301 and up	As defined in Section 7 of the PZL M28 Airplane Flight Manual, Ref. No. M28/10/2002
	for optional & operational equipment	
	for airplanes S/N AJE001-19 up to AJE002-10 for airplanes S/N AJE00301 and	As defined in Section 9 of the Airplane Flight Manual (M28/14/99 Issue) As defined in Section 9 of the PZL M28 Airplane
~	up Aimlana Camiaa Lifa, and Camaaaa	

- 8. Airplane Service Life, and Component TBOs :
 - a) For airplanes S/N AJE001-19 up to AJE002-10 as defined in Sec. 4 of M28 Maintenance Manual Ref. No. M28/4/95/PBD, Issue Dec. 1999.
 - b) For airplanes S/N AJE00301 and up as defined in Sec. 4 of M28 Maintenance Manual Ref. No. M28/11/2002, Issue April 2002.

9. OSD:

OSD FC M28 DTD/108/2015, Initial Issue from 29 Oct 2015, or later approved Revision

10. MMEL:

MMEL PZL M28 05, Original Issue from 20 May 2015, or later approved Revision

C.<u>V</u><u>Notes</u>

- 1. Flight in known icing condition is permitted, when certified IPS (ice protection system) is installed and is operational. This applies to S/N AJE00339 and up.
- 2. Flight in known icing condition is permitted, when certified IPS (ice protection system) is installed and is operational.. This applies to prior airplanes with Bulletin no. E/12.115/2013 "Installation of ice protection system certified for flight in known and forecast icing conditions" incorporated. From S/N AJE00339 and up the IPS is an option
 - 3. Flight in known or forecast icing conditions is prohibited when certified IPS (ice protection system) is not installed. This applies to S/N from AJE001-19 up to AJE002-10 airplanes.
 - 4. This Type Certificate applies to aircraft S/N: AJE001-19 up to AJE002-10, and to aircraft S/N AJE00301 and up.
 - 5. For airplanes in service, if operators are going to extend the airframe service life, they must incorporate SB E/12.101R3/2014 and use chap 4 of rev 52 of MM M28/11/2002 dated May 11, 2015 or later EASA approved revisions. Any repairs/modifications done to airplanes with this modification must comply with the certification basis listed above on this TCDS. This modification must be accomplished after the airplane reaches 7800-8000 flight hours or 11300-11500 landings (whichever is first).

ADMINISTRATIVE SECTION

I. Acronyms

- AMM Aircraft Maintenance Manual
- CRI Certification Review Item
- FAR Federal Aviation Regulations
- EASA European Aviation Safety Agency
- IAS Indicated Airspeed
- KIAS Indicated Airspeed [knots]
- MAC Mean Aerodynamic Chord
- POH Pilot's Operating Handbook
- RPM Rotations per Minute
- FIKI Flight Into Known Icing
- SLD Supercooled Large Droplets
- TCDS Type Certificate Data Sheet

II. Type Certificate Holder Record

Zakład Lotniczy "PZL Mielec" Sp. z o.o. UI. Wojska Polskiego 3, 39-300 Mielec, POLAND

Polskie Zakłady Lotnicze Sp. z o.o. UI. Wojska Polskiego 3, 39-300 Mielec, POLAND

III. Change Record

Issue	Date	Changes	TC Issue No. & Date
1	24 October 2005	Initial	01- 24 Oct 2005
2	21 April, 2006	Introduction of maritime patrol (designation PZL M2805-MPW) and Border Guard missions (designation PZL M28 05-SG) in Section3. Installation of ice protection system, approved on a non-hazard basis only. Flight in known or forecast icing conditions is prohibited	02- 21 Apr 2006
3	21,December, 2006	Corrections to Vmo 335 to 355 km/hr on Pages 11 and 18 Correction to propeller designation from HC-BP5MP- 3D/M10876ANSK to HC-B5MP-3D/M10876ANSK on pages 11 and 18	03- 21,Dec 2006
4.	14 June 2013	Transition to new TCDS layout and editorial changes. Introduction of airplane operation in icing conditions for model PZL M28 05 and PZL M28 02-W	04-14, Jun 2013

5.	03 July 2013	Information on entry of earlier approved Major Change with respect to the service life extension of earlier approved Major Change with respect to the Approval No 10036658. Editorial changes and misprint corrections.	05-03 Jul 2013
6.	07 April 2014	Introduction of elevator trim tabs new angular movements and editorial changes.	06-07 Apr 2014
7.	04 Dec 2014	Editorial changes and misprint corrections related to approved Major Change Approval No 1004755 with respect to the service life extension	07-04 Dec 2014
8	03 Nov 2015	OSD FC and MMEL to include, editorial changes to list the SB related to the approved service life extension	08-03 Nov 2015

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