

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A68EU Revision 1 WSK "PZL-MIELEC" OBR PZL M20 03 March 1, 2012

TYPE CERTIFICATE DATA SHEET NO. A68EU

This data sheet, which is a part of Type Certificate No. A68EU prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: WSK PZL MIELEC and OBR SK MIELEC
 U1. Wojska Polskiego 3
 39-301 MIELEC
 POLAND

Type Certificate Ownership Record

- (1) **This TC was considered not valid by the state of design on March 27, 2007, and has been replaced by European Aviation Safety Agency (EASA) Specific Airworthiness Specification (SAS) number EASA.SAS.A.064, issued March 27, 2007. Only standard airworthiness certificates issued prior to March 1, 2012 are valid.**
- (2) **Future unsafe conditions existing in the aircraft may result in the revocation of the airworthiness certificates of the aircraft if there is no entity to comply with 14 CFR § 21.99(a), "Required design changes."**
- (3) **Replacement parts may not be available in the future.**

I. Model PZL M20 03 "MEWA" (Normal Category) Approved July 19, 1993

Aircraft manufactured from Polish-made assemblies (fuselage, wings, empennage, landing gear, control systems), from PA 34-200T SENECA II aircraft assemblies (electro-navigation equipment, wing spar, accessories, hydraulic, - pneumatic, heating - and ventilation systems), and powered by L/TSIO 360 KB Continental engines.

Engines Teledyne Continental TSIO-360-KB (left side)
 Teledyne Continental LTSIO-360-KB (right side)
 with fuel injection, turbocharged.

Rotation as viewed from the rear:
TSIO-360-KB CW
L/TSIO-360-KB CCW

Fuel 100/100 LL minimum grade gasoline

Engine Limits Takeoff (5 minutes), 2800 RPM and 40 in.Hg. Manifold Pressure (220 HP)
 Maximum continuous, 2600 RPM and 40 in.Hg. Manifold Pressure (200 HP)

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Propeller and propeller limits	<p>Right Engine Hartzell Hub Model BHC-C2YF-2CLKUF, Blade Model FJC 8459-8R, with Hartzell E-3-7L governor.</p> <p>Left Engine Hartzell Hub Model BHC-C2YF-2CKUF, Blade Model FC 8459 - 8R, Hartzell Governor Model E3-7 (or Model E8-7L with synchrophasing system installed).</p>
	<p><u>Pitch Setting at 30" of Propeller Diameter:</u> Low $12.9^\circ \pm 0.2^\circ$ High 80° to 81.5° Diameter: Two blade (constant speed) not over 76 in., not under 75 in.</p>
Airspeed Limits	<p>V_{NE} - 195 Knots (CS) V_{NO} - 165 Knots (CAS) V_A - 138 Knots (CAS) for 4570 lbs weight - 122 Knots (CAS) for 3068 lbs weight V_{LE} - 130 Knots (CAS) V_{LO} - 130 Knots (CAS) Landing Gear Extended - 109 Knots (CAS) Landing Gear Retracted V_{FE} - 109 Knots (CAS) Flaps Deflected 40° V_{MC} - 69 Knots (CAS) Maneuvering speed (V_a) is reduced as the airplane weight decreased Straight line interpolation is used for intermediate weight.</p>
Center of Gravity (C.G.) Range (in)	<p>(+90.6) to (+94.6) at 4570 lbs (+86.7) to (+94.6) at 4250 lbs (82.0) to (+94.6) at 3400 lbs Straight line variation between points given. Moment due to retracting landing gear (-32 in. lbs)</p>
Empty Weight C.G. Range	None
Datum	78.4 inches forward of wing leading edge at the inboard edge of the inboard fuel tank (outboard of the engine), with the airplane in leveling position and the landing gear extended.
Leveling Means	With airplane on scales, block main gear oleo pistons in the fully extended position. Level airplane by deflating nose wheel tire (level point is a horizontal line between two screws on left side of fuselage below pilot's window).
Maximum Weight	<p>Takeoff 4570 lbs Landing 4342 lbs Zerofuel 4000 lbs All weight over 4000 lbs. must be fuel.</p>
Minimum Crew	One (1) pilot
Number of Seats	<p>7 (2 at + 85.5; 3 at + 118.1; 2 at + 157.6) 6 (2 at + 85.5; 2* at + 119.1; 2 at + 157.6) 5**(2 at + 85.5; 1 at 119.9 (1 patient or 1 incubator on a stretcher at +133.8)</p> <p>* Optional equipment - Club Seats ** Allowable loading condition with the airplane in ambulance version.</p>
Maximum Baggage	200 lb. (100 lb at +22.5, 100 lb at +178.7)
Fuel Capacity	<p>98 gal. (2 wing tanks) at +93.6 (93 gal. usable) Optional Installation: 128 gal. (2 wing tanks) at +93.6 (123 gal. usable) See NOTE 1 on fuel system.</p>
Oil Capacity	<p>8 qts. per engine (5 qts. per engine usable) See NOTE 1 for additional data on oil system.</p>

Maximum Operating Altitude 25,000 feet

Control Surface Movements

Ailerons	Up	35° ± 2°
	Down	20° ± 2
Stabilator	Up	12.5° ± 0° -1°
	Down	7.5° ± 1°
Stabilator Trim Tab (Stabilator Neutral)***	Up	6.5° ± 1°
	Down	10.5° ± 1°
Rudder	Left	35° ± 1°
	Right	35° ± 1°
Rudder Trim Tab (Rudder in Neutrum)	Left	25° ± 1°
	Right	25° ± 1°
Wing Flaps	Cruise	0° ± 2°
	Landing	40° ± 2°
Nose Wheel Travel	Left	27° ± 1°
	Right	27° ± 1°

***Stabilator is in neutral position when its chord is parallel to the front seat track upper position

Serial Numbers Eligible 1AH002-07 and up.

The General Inspectorate of Civil Aviation (GICA) Certificate of Airworthiness endorsed as noted below under "Import Requirements" must be submitted for each individual aircraft, for which application for airworthiness certification is made.

Only those aircraft serials holding a standard airworthiness certificate issued prior to March 1, 2012 are eligible.

Import Requirements None eligible after March 1, 2012.

Previous to this date:

A Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of General Inspectorate of Civil Aviation (GICA) containing the following statement: "The airplane covered by this certificate has been examined, tested and found to conform to the type design approved under Type Certificate No. A68EU and is in condition for safe operation."

Certification Basis FAR Part 23 effective 2-1-65, amended as follows:

- Subparts A, B through Amendment 23-18 effective May 2, 1977;
- Subpart C through Amendment 23-18 (except 23.507 and 23.509 amended through Amendment 23-6 effective August 1, 1967);
- Subpart D through Amendment 23-18 (except 23.785 amended through Amendment 23-32 effective December 12, 1985);
- Subpart E through Amendment 23-6 (except 23.901, 23.909, 23.959, 23.1041, 23.1043, 23.1047, and 23.1143, amended through Amendment 23-7 effective September 14, 1969);
- Subpart F through Amendment 23-6 (except 23.1305 amended through Amendment 23-7 effective September 14, 1969, 23.1323 amended through Amendment 23-18 effective May 2, 1977, 23.1419 amended through Amendment 23-14 effective December 20, 1973, and 23.1441 amended through Amendment 23-9 effective June 17, 1970);
- Subpart G through Amendment 23-18 (except 23.1545 (a) amended through Amendment 23-23 effective December 1, 1978, and 23.1529 amended through Amendment 23-26 effective October 14, 1980).

FAR Part 36 effective December 1, 1969, through Amendment 36-20 effective September 16, 1992.

Validation Basis	Type Certificate A68EU was issued pursuant to FAR 21.29(a) in validation of General Inspectorate of Civil Aviation (GICA) certification of compliance when aforementioned Certification Basis.
Equipment	<p>The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for standard airworthiness certification. In addition, the following items of equipment are required.</p> <ol style="list-style-type: none"> 1. Icing protection equipment as specified by manufacturer's Dwg. No. 37700. 2. Model PZL M20 "MEWA" - GICA approved Airplane Flight Manual Ref. PZL Report M2003/OLP-5/002/88/FAA, dated May 20, 1993, or later GICA approved revision.

NOTE 1. Current weight and balance report including list of equipment is certificated empty weight, and loading instructions, must be provided for each aircraft at the time of original airworthiness certification.

The certificated empty weight and corresponding center-of-gravity positions must include undrainable oil and unusable fuel as noted below:

Fuel	30.0 lbs at (+103.0)
Oil	12.0 lbs at (+ 43.7)

NOTE 2. Required Placards (Refer to Manufacturer's Specifications for contents):

- (1) The following placard must be located in clear view of the pilot:
 On side to left of pilot:
 Limitations

This airplane must be operated as a normal category airplane in compliance with the operating limitations stated in the form of placards, markings, and manuals. No acrobatic maneuvers (including spins) approved.

This aircraft approved for VFR, IFR, day, night and icing flight when equipped in accordance with FAR 91 or FAR 135. Minimum single engine control speed 66 KIAS.
 Single engine stalls not permitted.
 Can cause 500 ft. loss of altitude and 15° pitch angle.

In addition, all placards required in the approved airplane flight manual must be installed in the appropriate location.

Each individual airplane will be supplied with a placard that specifies the kinds of operation such as VFR, or IFR, DAY or NIGHT, to which the operation of the airplane is limited by the equipment installed.

- (2) Maximum Weight
- (3) Maneuver Speed
- (4) Demonstrated Crosswind Component
- (5) Information
- (6) Flight with Doors Removed
- (7) Emergency Gear Extension
- (8) Door Latch
- (9) Door Release
- (10) Maximum Baggage (2)
- (11) Takeoff Checklist
- (12) Landing Checklist
- (13) Smoking
- (14) Storm Window Airspeed
- (15) Icing Conditions (if applicable)
- (16) Windshield Heat
- (17) Pitot Heat
- (18) Oil Cooler (2)
- (19) Prop Sync.
- (20) Table
- (21) RPM Limits (2)
- (22) Fire Extinguisher

- (23) Heating/Ventilation Controls
- (24) Fuel
- (25) Flap Step

NOTE 3. Instructions for continued airworthiness are contained in Section 3, PZL M-20 MEWA Maintenance Manual (dated December 15, 1992). Revisions to Airworthiness Limitations must be FAA approved.

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