DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A69EU
Revision 5
EADS-PZL "Warszawa-Okęcie"
PZL-KOLIBER 150A
PZL-KOLIBER 160A
July 30, 2021

TYPE CERTIFICATE DATA SHEET NO. A69EU

This data sheet, which is part of the Type Certificate No. A69EU 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. EADS-PZL "Warszawa-Okęcie" S.A.
Al. Krakowska 110/114
00-971 Warszawa
Poland

Type Certificate Holder. Panstwowe Zaklady Lotnicze transferred TC A69EU to EADS-PZL "Warszawa-Okęcie" S.A. on April 9, 2004.

I. PZL-KOLIBER 150A (Normal and Utility Category), approved February 18, 1994.

Engine. LYCOMING O-320-E2A.

Fuel. 80/87 minimum grade aviation gasoline
AVGAS 100/100 LL

Oil.

over 60ºF (+15ºC)	SAE 50
30º to 90ºF (-1º to +32ºC)	SAE 40
0º to 70ºF (-17º to +21ºC)	SAE 30
below 10ºF (-12ºC)	SAE 20

Engine Limits. For all operations: 2700 r.p.m. (150 HP)

Maximum Cylinder Head Temperature:	500ºF (260ºC)
Minimum Oil Pressure:	25 psi
Maximum Oil Pressure:	100 psi
Maximum Oil Temperature:	245ºF

Propeller and Propeller Limits. 1. SENSENICH 74DM6-0-58

R.P.M. at maximum permissible throttle setting: 2700
Static r.p.m. - 2280.
At idle - 600 r.p.m.
No additional tolerances permitted.
Blade pitch (at 27.75 in.) 18.4º.
Diameter: maximum - 74 in. (1880 mm),
min. allowed for repairs - 72 in. (1829 mm)
No further diameter reduction permitted.

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Spinner: PZL IC-50.210.00-0.

2. SENSENICH 74DM6-0-56
R.P.M. at maximum permissible throttle setting: 2700
Static r.p.m. - 2300.
At idle - 600 r.p.m.
No additional tolerances permitted.
Blade pitch (at 27.75 in.) 17.8º.
Diameter: maximum - 74 in. (1880 mm),
min. allowed for repairs - 72 in. (1829 mm)
No further diameter reduction permitted.
Spinner: PZL IC-50.210.00-0.

3. SENSENICH 74DM6-0-54

R.P.M. at maximum permissible throttle setting: 2700
Static r.p.m. - 2320.
At idle - 600 r.p.m.
No additional tolerances permitted.
Blade pitch (at 27.75 in.) 17.2º.
Diameter: maximum - 74 in. (1880 mm),
min. allowable for repairs - 72 in. (1829 mm)
No further diameter reduction permitted.
Spinner: PZL IC-50.210.00-0.

Airspeed Limits (CAS).

Category	Normal/Utility
Never exceed - V_{NE}	156 m.p.h. (251 km/h)
Max. structural cruising - V_{NO}	124 m.p.h. (200 km/h)
Maneuvering - V_A	102 m.p.h. (164 km/h)
Flap extended - V_{FE}	87 m.p.h. (140 km/h)

Maximum speed with canopy open beyond 4 inches: 100 mph.

C.G. Range.

Normal Category
Forward limit at 1874 lb. (850 kg):
32.7 in. (0.830 m) from the ref. datum (13.3% MAC)

Forward limit at 1433 lb. (650 kg):
31.2 in. (0.792 m) from the ref. datum (10.4% MAC)

Rear limit:
40.2 in. (1.021 m) from the ref. datum (28% MAC)

Utility Category
Forward limit at 1698 lb. (770 kg):
32.2 in. (0.817 m) from the ref. datum (12.3% MAC)

Forward limit at 1433 lb. (650 kg):
31.2 in. (0.792 m) from the ref. datum (10.4% MAC)

Rear limit:
37.7 in. (0.956 m) from the ref. datum (23% MAC)
Straight line variation between points given.
M.A.C. length 51.2 in. (1.3 m)
Distance of M.A.C. leading edge from the reference datum 25.9 in. (0.657 m)

Empty Weight C.G. Range	None
Maximum Weight.	Normal Category - 1874 lb. (850 kg) Utility Category - 1698 lb. (770 kg)
Number of Seats.	4 2 at +36.9 in. (0.937 m); 2 at +70.0 in. (1.777 m) - See NOTE 4
Minimum Crew.	One pilot.
Equipment and Baggage Weight.	See NOTE 4.
Fuel Capacity.	46.7 U.S. gal. (two 23.35 gal. tanks) at 41.6 in. 42.5 U.S. gal. - usable fuel (4.2 U.S. gal. unusable) [two 21.25 gal. tanks at +41.6 in.] (See NOTE 1).
Oil Capacity.	8 qt. at -22.6 in. (See NOTE 1)

Control Surface Movements.

Aileron	Up	17º30' (±1º)	Down	13º30' (±1º)
Elevator	Up	30º (±1º)	Down	25º (+0, -2º)
Elevator Trim Tab	Up	20º (±1º)	Down	28º (±1º)
Rudder	Right	30º (+0, -2º)	Left	30º (+0, -2º)
Wing flaps	Up	0º (±1.5º)	Down	30º (±1.5º)

Reference Datum.	Front face of firewall.
Leveling Means.	Longitudinal fuselage longerons at canopy rails.
Serial Numbers Eligible.	Each individual aircraft manufactured under this type certificate must be accompanied by a Certificate of Airworthiness for Export (or certifying statement endorsed by the Exporting Civil Airworthiness Authority (ECAA) as noted below under "Import Requirements") when an application for U.S. airworthiness is made. PZL-KOLIBER 150A: 04940059 and subsequent.
Import Requirements.	The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Civil Aviation Office (CAO) of Poland on behalf of the European Community. The Export C of A should contain the following statement: 'The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. airworthiness regulations 14 CFR Federal Aviation Regulations Part 23, U.S. Type Certificate No. A69EU and to be in a condition for safe operation.' Model Koliber 150A airplanes (SN: 0 393 0057 and 0 393 0058) modified by PZL Modification Kit No. 1 are eligible for a Standard Airworthiness Certificate under the U.S. Type Certificate.

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, *Airworthiness Certification of Aircraft*, for requirements for issuance of an *airworthiness certificate* for imported aircraft.

Certification Basis. FAR 23 dated February 1, 1965, as amended through Amendment 23-23 effective December 1, 1978; FAR 23.2 and 23.561(b) (2) as amended through Amendment 23-36 effective September 14, 1988; FAR 23 Subpart F amended through Amendment 23-30 effective March 29, 1984; FAR 23 Appendix G amended through Amendment 23-37 effective August 18, 1990; FAR 36 dated December 1,1969, through Amendment 36-20 effective September 16, 1992.

The Civil Aviation Office (CAO) of Poland originally type certificated this aircraft under its type certificate Number BB-193. The FAA validated this product under U.S. Type Certificate Number A69EU. Effective July 4, 2006, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of Poland. The EASA TCDS number is EASA.A.091.

Validation Basis. Type Certificate A69EU was issued pursuant to FAR 21.29 in validation of the General Inspectorate of Civil Aviation certification of compliance with the aforementioned certification basis, and in accordance with the standard airworthiness certificate provisions of FAR 21.183(c).

Equipment. The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification. In addition, the following items of equipment are required:

Model PZL-KOLIBER 150A - CAIB approved (for the FAA); Airplane Flight Manual, Ref. PZL Warszawa-Okecie Document No. LD-153-10/150A, dated January 1994, or later CAIB approved revision.

II. PZL-KOLIBER 160A (Normal and Utility Category), approved February 13, 2001.

Engine. LYCOMING 0-320-D2A

Fuel. 91/96 minimum grade aviation gasoline
AVGAS 100/100 LL

Oil.

over 80ºF (+26ºC)	SAE 60
over 60ºF (+15ºC)	SAE 50
30º to 90ºF (-1º to +32ºC)	SAE 40
0º to 70ºF (-17º to +21ºC)	SAE 30
below 10ºF (-12ºC)	SAE 20

Engine Limits.

For all operations:	2700 r.p.m. (160 HP)
Maximum Cylinder Head Temperature:	500ºF (260ºC)
Minimum Oil Pressure:	25 psi
Maximum Oil Pressure:	100 psi
Maximum Oil Temperature:	245ºF

Propeller and Propeller Limits. 1. SENSENICH 74DM6-0-58

R.P.M. at maximum permissible throttle setting:	2700
Static r.p.m.	2280
Idle r.p.m.	600
(No additional tolerances permitted.)	
Blade pitch (at 27.75 in.)	18.4º.
Diameter: maximum	74 in. (1880 mm)
minimum (allowed for repairs)	72 in. (1829 mm)
(No further diameter reduction permitted.)	
Spinner:	PZL IC-50.210.00-0.

Airspeed Limits (CAS).

Category	Normal (850 kg.)	Utility (770 kg)
Never exceed - V_{NE}	156 mph (251 km/h)	168 mph (270 km/h)
Max. structural cruising – V_{NO}	124 mph (200 km/h)	124 mph (200 km/h)
Maneuvering - V_A	102 mph (164 km/h)	104 mph (168 km/h)
Flap extended - V_{FE}	87 mph (140 km/h)	87 mph (140 km/h)

Maximum speed with canopy open beyond 4 inches: 100 mph.
See NOTE 5

Category	Normal (950 kg.)	Utility (770 kg)
Never exceed - V_{NE}	143 mph (230 km/h)	143 mph (230 km/h)
Max. structural cruising – V_{NO}	114 mph (183 km/h)	114 mph (183 km/h)
Maneuvering - V_A	103 mph (165 km/h)	100 mph (161 km/h)
Flap extended - V_{FE}	89 mph (143 km/h)	89 mph (143 km/h)

Maximum speed with canopy open beyond 4 inches: 100 mph.
See NOTES 5, 6

C.G. Range.

Normal Category (See NOTE 6)

Forward limit at 2094 lb. (950 kg):
33.4 in. (0.849 m) from the ref. datum (14.8% MAC)

Forward limit at 1874 lb. (850 kg):
32.7 in. (0.830 m) from the ref. datum (13.3% MAC)

Forward limit at 1433 lb. (650 kg):
31.2 in. (0.792 m) from the ref. datum (10.4% MAC)

Rear limit: 2094 lb. (950 kg)
40.2 in. (1.021 m) from the ref. datum (28% MAC)

Rear limit: 1874 lb. (850 kg)
40.2 in. (1.021 m) from the ref. datum (28% MAC)

Utility Category

Forward limit at 1698 lb. (770 kg):
32.2 in. (0.817 m) from the ref. datum (12.3% MAC)

Forward limit at 1433 lb. (650 kg):
31.2 in. (0.792 m) from the ref. datum (10.4% MAC)

Rear limit: 1698 lb. (770 kg)
37.7 in. (0.956 m) from the ref. datum (23% MAC)

Straight line variation between points given.

M.A.C. length 51.2 in. (1.3 m)
Distance of M.A.C. leading edge from the reference datum 25.9 in. (0.657 m).

Empty Weight C.G. Range None

Maximum Weight.
Normal Category 2094 lb. (950 kg) See NOTE 6
Normal Category 1874 lb. (850 kg)
Utility Category 1698 lb. (770 kg)

Number of Seats.
4
2 at +36.9 in. (0.937 m);
2 at +70.0 in. (1.777 m) See NOTE 4

Minimum Crew.
One pilot.

Equipment and Baggage Weight.
See NOTE 4.

Fuel Capacity.
46.7 U.S. gal. (two 23.35 gal. tanks) at 41.6 in.
42.5 U.S. gal. usable fuel (4.2 U.S. gal. unusable)
[two 21.25 gal. tanks at +41.6 in.]
(See NOTE 1).

Oil Capacity.
8 qt. at -22.6 in.
(See NOTE 1)

Control Surface Movements. (See NOTE 6)

(Maximum Weight)		1874 lb.(850 kg)	2094 lb. (950 kg)
Aileron	Up	17º30' (±1º)	14˚30' (±1º)
	Down	13º30' (±1º)	11º30' (±1º)
Elevator	Up	30º (±1º)	30º (±1º)
	Down	25º (+0, -2º)	25º (+0, -2º)
Elevator Trim Tab	Up	20º (±1º)	20º (±1º)
	Down	28º (±1º)	28º (±1º)
Rudder	Right	30º (+0, -2º)	30º (+0, -2º)
	Left	30º (+0, -2º)	30º (+0, -2º)
Wing flaps	Up	0º (±1.5º)	6º (-1º)
	Down	30º (±1.5º)	30º (±1.5º)

Reference Datum.
Front face of firewall.

Leveling Means.
Longitudinal fuselage longerons at canopy rails.

Serial Numbers Eligible.
Each individual aircraft manufactured under this type certificate must be accompanied by a Certificate of Airworthiness for Export (or certifying statement endorsed by the Exporting Civil Airworthiness Authority (ECAA) as noted below under "Import Requirements") when an application for U.S. airworthiness is made.

PZL-KOLIBER 160A: 04980077 and subsequent.

Import Requirements.
The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Civil Aviation Office (CAO) of Poland on behalf of the European Community. The Export C of A should contain the following statement: ‘The aircraft covered

by this certificate has been examined, tested, and found to comply with U.S. airworthiness regulations 14 CFR Federal Aviation Regulations Part 23, U.S. Type Certificate No. A69EU and to be in a condition for safe operation.'

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, *Airworthiness Certification of Aircraft*, for requirements for issuance of an *airworthiness certificate* for imported aircraft.

Certification Basis.

FAR 23 dated February 1, 1965, as amended through Amendment 23-23 effective December 1, 1978; FAR 23.2 and 23.561(b) (2) as amended through Amendment 23-36 effective September 14, 1988; FAR 23 Subpart F amended through Amendment 23-30 effective March 29, 1984; FAR 23 Appendix G amended through Amendment 23-37 effective August 18, 1990; FAR 36 dated December 1, 1969, through Amendment 36-22 effective October 13, 1999.

The Civil Aviation Office (CAO) of Poland originally type certificated this aircraft under its type certificate Number BB-193. The FAA validated this product under U.S. Type Certificate Number A69EU. Effective July 4, 2006, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of Poland. The EASA TCDS number is EASA.A.091.

Validation Basis.

Type Certificate A69EU was amended pursuant to FAR 21.29 in validation of the General Inspectorate of Civil Aviation certification of compliance with the aforementioned certification basis, and in accordance with the standard airworthiness certificate provisions of FAR 21.183(c).

Equipment.

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification. In addition, the following items of equipment are required:

Model PZL-KOLIBER 160A - CAIB approved (for the FAA); Airplane Flight Manual, Ref. PZL Warszawa-Okecie Document No. LD-153-10(USA)/160A, dated April, 1998, or later CAIB approved revision.

Service Information for Both Models

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before July 4, 2006 – by the Civil Aviation Office (CAO) of Poland. (See Note 7)

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

The FAA accepts such documents and considers them FAA-approved for type design data only unless one of the following conditions exists:

• The documents change the limitations, performance, or procedures of the FAA approved manuals; or

•The documents make an acoustical or emissions changes to this product's U.S. type certificate as defined in 14 CFR § 21.93.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

NOTES. Applicable to both models unless otherwise stated

NOTE 1. A current weight and balance report including list of equipment, certificated empty weight, and loading instructions, must be provided with each aircraft at the time of original airworthiness certification, and carried in the airplane at all times thereafter.

The certificated empty weight and the corresponding center of gravity location must include full oil (15.4 lbs. at -22.6 inches), and unusable fuel (25.4 lbs. at +41.6 inches).

NOTE 2. Placards (Refer to Manufacturer's Specifications for a complete listing): All required placards as listed in the approved Airplane Flight Manual must be installed in the appropriate locations.

(1) The following placard must be displayed for PZL-KOLIBER 150A airplane in clear view of the pilot:

KOLIBER 150A

THIS AIRPLANE IN THE UTILITY CATEGORY MUST BE OPERATED IN COMPLIANCE WITH PLACARDS, MARKINGS AND FLIGHT MANUAL.

LIMITATIONS IN CATEGORY "U"

GROSS WEIGHT _____1698 LBS
REAR C.G. POSITION LIMIT _____ 37.7 in. (23.0% MAC)
NEVER EXCEED SPEED Vne _____160 MPH (139 KTS)
LOAD FACTOR (FLAPS RETRACTED) _____+4.4 : -1.8
ABRUPT USE OF CONTROLS PROHIBITED
ABOVE VA _____106 MPH (92 KTS)
MAX AIRSPEED IN ROUGH AIR VNO _____128 MPH (111 KTS)
MAX SPEED WITH FLAPS EXTENDED VFE _____91 MPH (79 KTS)

ACROBATIC MANOEUVERS ARE LIMITED TO THE FOLLOWING:

MANOEUVER	ENTRY SPEED	MANOEUVER	ENTRY SPEED
CHANDELLES	130MPH (113 KTS)	STEEP TURNS	103MPH (89 KTS)
LAZY EIGHTS	130MPH (113 KTS)		

INVERTED ACROBATIC AND SPINS PROHIBITED

REFER TO AFM FOR THE OPERATION IN NORMAL CATEGORY

(2) Refer to the Airplane Flight Manual of PZL-KOLIBER 150A airplane, Section 2, Limitations for a listing of other required placards.

(3) The appropriate following placard must be displayed for PZL-KOLIBER 160A (1874 lb gross weight) airplane in clear view of the pilot:

KOLIBER 160A

THIS AIRPLANE IN THE UTILITY CATEGORY MUST BE OPERATED IN COMPLIANCE WITH PLACARDS, MARKINGS AND FLIGHT MANUAL.

LIMITATIONS IN CATEGORY "U"
GROSS WEIGHT _____1698 LBS
REAR C.G. POSITION LIMIT _____ 37.7 in. (23.0% MAC)
NEVER EXCEED SPEED Vne _____160 MPH (139 KTS)
LOAD FACTOR (FLAPS RETRACTED) _____+4.4 : -1.8
ABRUPT USE OF CONTROLS PROHIBITED
ABOVE VA _____106 MPH (92 KTS)
MAX AIRSPEED IN ROUGH AIR VNO _____128 MPH (111 KTS)
MAX SPEED WITH FLAPS EXTENDED VFE _____91 MPH (79 KTS)

ACROBATIC MANOEUVERS ARE LIMITED TO THE FOLLOWING:

MANOEUVER	ENTRY SPEED	MANOEUVER	ENTRY SPEED
CHANDELLES	130MPH (113 KTS)	STEEP TURNS	103MPH (89 KTS)
LAZY EIGHTS	130MPH (113 KTS)		

INVERTED ACROBATIC AND SPINS PROHIBITED

REFER TO AFM FOR THE OPERATION IN NORMAL CATEGORY

(4) Refer to the Airplane Flight Manual of PZL-KOLIBER 160A airplane, Section 2, Limitations for a listing of other required placards.

NOTE 3. Instructions for Continued Airworthiness and Service Life Limits of components are contained in the Koliber 150A or 160A Maintenance Manual. Revisions to Airworthiness Limitations must be FAA approved.

All service bulletins classified as mandatory by the General Inspectorate of Civil Aviation are identified to that effect and are mandatory for U.S. registered aircraft only if made the subject of an Airworthiness Directive issued by the FAA.

NOTE 4. Total weight on the rear seats at station +70 inches aft of datum must not exceed 340 lbs. (154.2 kg).

NOTE 5 To achieve uniformity, the Airplane Flight Manual assumes the same airspeed limits for the Utility Category as those determined for the Normal Category for the PZL-Koliber 150A and PZL-Koliber 160A (1874 lb. Gross weight) airplanes.

NOTE 6 Operation of the Koliber 160A airplane at 2094 lbs. in the Normal Category is approved, providing Service Bulletin No. 11099048 and Mandatory Bulletin No. 11099050 or Service Bulletin No. 11000053 have been implemented. Operation will be in accordance with Supplement 3 of Model PZL-KOLIBER 160A - CAIB

approved (for the FAA); Airplane Flight Manual, Ref. PZL Warszawa-Okecie Document No. LD-153-10(USA)/160A, dated April, 1998, or later CAIB approved revision.

The following placard must be displayed for the PZL-Koliber 160A (2094 lb. gross weight) airplane in clear view of the pilot:

KOLIBER 160A

THIS AIRPLANE IN THE UTILITY CATEGORY MUST BE OPERATED IN COMPLIANCE WITH PLACARDS, MARKINGS AND FLIGHT MANUAL.

LIMITATIONS IN CATEGORY "U"

GROSS WEIGHT _____1698 LBS
REAR C.G. POSITION LIMIT _____ 37.7 in. (23.0% MAC)
NEVER EXCEED SPEED Vne _____147 MPH (127 KTS)
LOAD FACTOR (FLAPS RETRACTED) _____+4.4 : -1.8
ABRUPT USE OF CONTROLS PROHIBITED
ABOVE VA _____106 MPH (92 KTS)
MAX AIRSPEED IN ROUGH AIR VNO _____119 MPH (103 KTS)
MAX SPEED WITH FLAPS EXTENDED VFE _____91 MPH (79 KTS)

ACROBATIC MANOEUVERS ARE LIMITED TO THE FOLLOWING:

MANOEUVER	ENTRY SPEED	MANOEUVER	ENTRY SPEED
CHANDELLES	119 MPH (103 KTS)	STEEP TURNS	106 MPH (92 KTS)
LAZY EIGHTS	119 MPH (103 KTS)		

INVERTED ACROBATIC AND SPINS PROHIBITED

REFER TO AFM FOR THE OPERATION IN NORMAL CATEGORY

NOTE 7

The national airworthiness authority (NAA) for this airplane is the Civil Aviation Office (CAO) of Poland. The CAO was previously known as CAIB, CACA and General Inspectorate of Civil Aviation (GICA).

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