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# **Type Acceptance Report**

**TAR 95/08 – Revision 1**

**PZL-KOLIBER Series**

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## Executive Summary

New Zealand Type Acceptance has been granted to the PZL-Kolibier Series based on validation of Type Certificate number EASA.A.091. There are no special requirements for import.

Applicability is currently limited to the Models and/or serial numbers detailed in Section 2, which are now eligible for the issue of an Airworthiness Certificate in the Standard Category in accordance with NZCAR §21.191, subject to any outstanding New Zealand operational requirements being met. (See Section 5 of this report for a review of compliance of the basic type design with the operating Rules.) Additional variants or serial numbers approved under the foreign type certificate can become type accepted after supply of the applicable documentation, in accordance with the provisions of NZCAR §21.43(c).

NOTE: The information in this report was correct as at the date of issue. The report is generally only updated when an application is received to revise the Type Acceptance Certificate. For details on the current type certificate holder and any specific technical data, refer to the latest revision of the State-of-Design Type Certificate Data Sheet referenced herein.

## 1. Introduction

This report details the basis on which Type Acceptance Certificate No. 95/08 was granted in the Standard Category in accordance with NZCAR Part 21 Subpart B.

Specifically, the report aims to:

- (a) Specify the foreign type certificate and associated airworthiness design standard used for type acceptance of the model(s) in New Zealand; and
- (b) Identify any special conditions for import applicable to any model(s) covered by the Type Acceptance Certificate; and
- (c) Identify any additional requirements which must be complied with prior to the issue of a NZ Airworthiness Certificate or for any subsequent operations.

The report notes the status of all models included under the State-of-Design type certificate which have been granted type acceptance in New Zealand, which are listed in Section 2. The history of the PZL-Kolibier Series type acceptance in New Zealand under type certificate EASA.A.091 is listed in Appendix 1.

## 2. Aircraft Certification Details

### (a) State-of-Design Type and Production Certificates:

Manufacturer: Panstwowe Zaklady Lotnicze "Warszawa-Okecie" S.A.  
Type Certificate: EASA.A.091  
Issued by: European Aviation Safety Agency  
TC Holder: Airbus Poland S.A.  
Supersedes:  
Type Certificate: Swiadectwo Typu Sprzetu Lotniczego Nr BB-136  
Issued by: Polish People's Republic Central Administration of Civil Aviation

### (b) Models Covered by the Part 21B Type Acceptance Certificate:

(i) **Model:** PZL-Kolibier 150, PZL-Kolibier 150A  
MCTOW: 850 kg (1874 lb.) – Normal Category  
Max. No. of Seats: 4  
Noise Standard: ICAO Annex 16/FAR Part 36  
**Engine:** Lycoming O-320-D2A – PZL-Kolibier 150  
Lycoming O-320-E2A – PZL-Kolibier 150/150A  
Type Certificate: E-274  
Issued by: Federal Aviation Administration  
**Propeller:** Sensenich 74DM6-0-5x  
Type Certificate: P-886  
Issued by: Federal Aviation Administration

Notes: 1. Refer to TCDS EASA.A.091 for specific applicability of engine and propeller combinations to individual aircraft models.

2. Refer to Advisory Circular 21-1 Appendix 2 for the New Zealand type acceptance status of any engines and propellers listed above.

### 3. Application Details and Background Information

The first application for New Zealand type acceptance under Part 21B was for the PZL-Kolibier 150, from the NZ agent, Alternate Aviation (Dougal Dallison) by CAA Form 24021/02 dated 31 August 1995. The first-of-type example was ZK-PZB, serial number 03930056, later re-registered as ZK-RTB. The PZL-Kolibier 150 is a four-seat conventional all-metal construction low-wing light aeroplane fitted with a sliding canopy, fixed undercarriage, and leading-edge slats.

Type Acceptance Certificate Number 95/08 was granted on 22 November based on validation of Polish Type Certificate no. BB-136. Specific applicability is limited to the coverage provided by the operating documentation supplied. There are no special requirements for import into New Zealand.

The PZL-110 Koliber (Hummingbird) is a Polish license-manufactured version of the Rallye 100ST version of the Morane Saulnier MS880 Rallye family. The PZL-Kolibier 150 (referred to in some documents as the PZL-150) is a variant fitted with a 150hp Lycoming engine. The PZL-Kolibier 150A version had already been accepted in NZ under NZCAR B.8 for the same agent. (See TAR 3/95. The first-of-type example was serial number 04940063 registered ZK-PZA in 1995.) The 150A version is essentially the same aircraft as the 150 but has been type certificated by the FAA, with the small changes that required. At the time the 150 and 150A versions were on separate Polish type certificates. Under EASA they are now both on the same type certificate.

This report was raised to Revision 1 to update the format and note the change of State-of-Design type certificate jurisdiction to EASA.

#### 4. NZCAR §21.43 Data Requirements

The type data requirements of NZCAR Part 21B Para §21.43 have been satisfied by supply of the following documents, or were already held by the CAA:

(1) State-of-Design Type certificate:

EASA Type Certificate Number EASA.A.091

Type Certificate Data Sheet no. EASA.A.091 at Issue 3 dated 23 August 2019

– Model PZL-Kolibier 150 approved January 31, 1989

– Model PZL-Kolibier 150A approved January 26, 1994

Supersedes:

Polish TC Nr BB-193 for PZL-Kolibier 150A dated 26.01.94

Polish TC Nr BB-136 for PZL-110 “Koliber” dated 23.08.82

(Swiadectwo Typu Sprzetu Lotniczego Nr BB-136 – issued by Polish People’s Republic Central Administration of Civil Aviation)

Technical Data Sheet to TC No BB-136 – Edition 6 – dated 29.04.1993

(2) Airworthiness design requirements:

(i) *Airworthiness Design Standards:*

The Polish certification basis of the PZL-Kolibier 150 is AIR 2052 issue 1967. For semi-aerobatic flight BCAR Chapter K2-12 was used. This standard has been accepted previously as being equivalent to FAR 23. It was deemed by the UK CAA to be an acceptable basis, although the EASA TCDS now also lists BCAR (The French standard was also used for the MS 880B series of aircraft which have been previously type accepted in NZ.) This standard was used because the PZL-Kolibier 150 is a development of the PZL-110, which is a Polish license-built MS880B. The PZL-Kolibier 150 had also been approved in Australia on the basis of the UK CAA Airworthiness Note.

This is therefore an acceptable certification basis in accordance with NZCAR Part 21B Para 21.41, as it is accepted to be equivalent to CAR 3 which is the predecessor to FAR 23, the basic standard for normal category airplanes called up under Appendix C. The stated non-compliances are of a minor nature and were accepted by the Polish CACA and no special conditions have been prescribed by the Director under 21.23.

The certification basis of the PZL-Kolibier 150A is FAR 23 dated 1.02.1965, including Amendments through 23-23 effective 1.12.1978. In addition Subpart F was updated to Amendment 23-30, and paragraphs §23.5 and §23.561(b)(2) were updated to Amendment 23-36.

This is an acceptable certification basis in accordance with NZCAR Part 21B Para 21.41, as FAR 23 is the basic standard for normal category airplanes called up under Appendix C. There are no non-compliances and no special conditions have been prescribed by the Director under §21.23.

(ii) *Special Conditions:*

Nil

(iii) *Equivalent Level of Safety Findings:*

Nil

(iv) *Airworthiness Limitations:*

Nil

(3) Aircraft Noise and Engine Emission Standards:

(i) *Environmental Standard:*

PZL-Kolibier 150 was tested for noise to ICAO Annex 16, Chapter 6 (1981).

PZL-Kolibier 150A was tested for noise against FAR Part 36, Appendix G, at Amendment 36-20.

(ii) *Compliance Listing:*

TCDS: PZL\_Kolibier 150 Approved Noise Level – 69.0 dB(A)

PZL-Kolibier 150A – 73.8 dB(A) (Noise Certificate No. HL1/94)

TCDS for Noise number EASA.A.091 at Issue 4 dated 23 A

(4) Certification Compliance Listing:

PZL-Kolibier 150 List of Documents Used During Certification

Compliance Lists with the AIR 2052/A Regulations – Report No 1 – Report on manufactory and state tests of the KOLIBER 150 aircraft No S-110/W22-1/37 issue 1; Warsaw, December 1989 – January 1989

Kolibier 150 Aircraft – List of the Aircraft Deviations to the AIR 2052/A Regulations (These are all of a very minor nature – Slight transverse instability; spinning prohibited; electric wire and lines fire resistance; ASI deviations; engine instrument markings; brake control markings)

S-110/W22-1/37 Flight Test Report for the Koliber 150 Aircraft

Statement of Civil Aircraft Inspection No BB-4/89 – Extension of TC No BB-136 for KOLIBER 150 version – Edition 3 (apr.31.01.1989) of Data Sheet to TC introduced

Statement of Civil Aircraft Inspection No BB-32/90 – Extension of TC to use Sensenich 74DM6 propellers for Koliber 150 – Issue 5/27.11.1990 of TC is introduced.

Decision of CAIB No BB-25/93 – Approval of enlarged fuel tanks for PZL-Kolibier 150 airplane – Issue 6 of Data Sheet of the TC dated 93.04.29 introduced.

(5) Flight Manual: CAIB Approved PZL-Kolibier 150A Airplane Flight Manual – Document No. LD-153-10/150A issued 26 January 1994 – CAA Approved as AIR 2511

Flight Manual for the Koliber 150 Airplane powered by a Lycoming O-320-E2A – Swedish Version – Dated 11.09.89  
CAA Accepted as AIR 2550

(6) Operating Data for Aircraft:

(i) *Maintenance Manual:*

Maintenance Manual and Scheduled Inspections for the Koliber 150 – 1989

Repair Manual for the Koliber 150 Airplane – 1989

PZL KOLIBER 150A Airplane Maintenance Manual

(ii) *Current service Information:*

Information Bulletin No 11095044 – Guidance on bulletins issued in 1986-94 concerning PZL-110 Koliber, PZL-Kolibier 150 and PZL-Kolibier 150A airplanes

Plus copies of all five bulletins applicable to the PZL-150 Koliber (three announcing Flight Manual revisions, one mandatory undercarriage inspection and one specifying the life of the fuselage. (2000 hours plus a further 800 after a general inspection. Note acrobatics incurs a factor of 34!)

During the original type acceptance the Polish GICA was contacted about the issue of Polish ADs. They replied that such functions were “*covered by Service Bulletins, classed as Mandatory. These are issued by the manufacturers of aviation equipment and approved by the Authority.*”

(iii) *Illustrated Parts Catalogue:*

Catalogue of Spare Parts PZL-Kolibier 150/PZL-Kolibier 150A/160A

(7) Agreement from manufacturer to supply updates of data in (5), and (6):

Letter from PZL Warszawa-Okęcie Commercial Director dated Oct 19, 1994 agreeing to supply updates to SBs and operator’s/maintenance manuals for PZL-Kolibier 150/150A

(8) Other information:

UK CAA AAN 22451 – Approval for the issue of a C of A in the Transport Category (Passenger) for PZL Koliber 150 dated 25 Sept 1990

Australian CAA Certificate of Type Approval No.A65 and CTA Data Sheet dated 18 August 1993



## 5. New Zealand Operational Rule Compliance

Compliance with the retrospective airworthiness requirements of NZCAR Part 26 has been assessed as they are a prerequisite for the grant of an airworthiness certificate.

### Civil Aviation Rules Part 26

#### Subpart B – Additional Airworthiness Requirements

##### Appendix B – All Aircraft

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
B.1	Marking of Doors and Emergency Exits	<i>To be determined on an individual aircraft basis</i>
B.2	Crew Protection Requirements – CAM 8 Appdx. B # .35	Not Applicable – Agricultural Aircraft only

Compliance with the following additional NZ operating requirements has been reviewed and were found to be covered by either the original certification requirements or the basic build standard of the aircraft, except as noted:

### Civil Aviation Rules Part 91

#### Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
91.505	Seating and Restraints – Safety belt/Shoulder Harness	FAR §23.785
91.507	Pax Information Signs – Smoking, safety belts fastened	Not Applicable – Less than 10 passenger seats
91.509	Minimum Instruments and Equipment for VFR	
	(1) ASI	FAR §23.1303(a)
	(2) Machmeter	N/A – No Mach limitations
	(3) Altimeter	FAR §23.1303(b)
	(4) Magnetic Compass	FAR §23.1303(c)
	(5) Fuel Contents	FAR §23.1305(a)
	(6) Engine RPM	FAR §23.1305(d)
	(7) Oil Pressure	FAR §23.1305(b)
	(8) Coolant Temp	N/A – Air-cooled engines
	(9) Oil Temperature	FAR §23.1305(c)
	(10) Manifold Pressure	FAR §23.1305(h)
	(11) Cylinder Head Temp.	FAR §23.1305(f)
	(12) Flap Position	FAR §23.699(a)(2)
	(13) U/c Position	FAR §23.729(e)
	(14) Ammeter/Voltmeter	FAR §23.1351(d)
91.511	Night VFR Instruments and Equipment	<i>Operational requirement – Compliance as applicable</i>
91.513	VFR Communication Equipment	<i>Operational requirement – Compliance as applicable</i>
91.517	IFR Instruments and Equipment	<i>Operational requirement – Compliance as applicable</i>
91.519	IFR Communication and Navigation Equipment	<i>Operational requirement – Compliance as applicable</i>
91.523	Emergency Equipment: (a) More Than 9 pax – First Aid Kits per Table 7 – Fire Extinguishers per Table 8 (b) More than 20 pax – Axe readily accessible to crew (c) More than 61 pax – Portable Megaphones per Table 9	Not Applicable – Less than 10 passenger seats Not Applicable – Less than 10 passenger seats Not Applicable – Less than 20 passenger seats Not Applicable – Less than 61 passenger seats
91.529	ELT – TSO C126 406 MHz after 22/11/2007	<i>Operational requirement – Compliance as applicable</i>
91.531	Oxygen Indicators – Volume/Pressure/Delivery	<i>Operational requirement – Compliance as applicable</i>
91.533	Oxygen for non-Pressurised Aircraft:	<i>Operational requirement – Compliance as applicable</i>
91.541	SSR Transponder and Altitude Reporting Equipment	<i>Operational requirement – Compliance as applicable</i>
91.543	Altitude Alerting Device – Turbojet or Turbofan	Not Applicable – Not turbojet or turbofan powered
91.545	Assigned Altitude Indicator	Not Applicable – Only approved for Day and Night VFR
A.15	ELT Installation Requirements	<i>To be determined on an individual aircraft basis</i>

### Civil Aviation Rules Part 135

#### Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
135.355	Seating/Restraints – Shoulder harness flight-crew seats	FAR §23.785
135.357	Additional Instruments (Powerplant and Propeller)	FAR §23.1305
135.359	Night Flight	<i>Operational requirement – Compliance as applicable</i>
135.361	IFR Operations	<i>Operational requirement – Compliance as applicable</i>
135.363	Emergency Equipment (Part 91.523 (a) and (b))	<i>Operational requirement – Compliance as applicable</i>
135.367	Cockpit Voice Recorder	N/A – Only for 2-crew helicopters with more than 10 pax
135.369	Flight Data Recorder	Not Applicable – Less than 10 passenger seats
135.371	Additional Attitude Indicator	Not Applicable – Not turbo jet or turbofan powered

NOTES: 1. A Design Rule reference in the Means of Compliance column indicates the Design Rule was directly equivalent to the CAR requirement, and compliance is achieved for the basic aircraft type design by certification against the original Design Rule.

2. The CAR Compliance Tables above were correct at the time of issue of the Type Acceptance Report. The Rules may have changed since that date and should be checked individually.

3. Some means of compliance above are specific to a particular model/configuration. Compliance with Part 91/119 operating requirements should be checked in each case, particularly oxygen system capacity and emergency equipment.

## Attachments

The following documents form attachments to this report:

Copy of Type Certificate Data Sheet Number EASA.A.091

## Sign off

A blue ink signature of David Gill is written over a circular blue stamp of the Civil Aviation Authority of New Zealand. The stamp contains the text 'CIVIL AVIATION AUTHORITY OF NEW ZEALAND' and the number '0853'.

.....  
David Gill  
Team Leader Aircraft Inspection

A blue ink signature of Rens Molenaar is written over a circular blue stamp of the Civil Aviation Authority of New Zealand. The stamp contains the text 'CIVIL AVIATION AUTHORITY OF NEW ZEALAND' and the number '5619'.

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Checked – Rens Molenaar  
Certification Engineer

## Appendix 1

### List of Type Accepted Variants:

<i>Model:</i>	<i>Applicant:</i>	<i>CAA Work Request:</i>	<i>Date Granted:</i>
PZL-Kolibier 150A	AC 21-1.2/NZCAR Part 21 Appendix A(c)		
PZL-Kolibier 150	Alternate Aviation Limited	96/21B/8	31 August 1995

## Appendix 2

### 3-view Drawing PZL-Kolibier 150

