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# **Type Acceptance Report**

**TAR 95/08**

**PZL Koliber 150**



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## Introduction

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

Specifically the report aims to:

- (a) Record the airworthiness certification standard used for type acceptance of the applicable model(s) in New Zealand;
- (b) Summarise any outstanding requirements which must be complied with for the issue of a NZ Airworthiness Certificate to any models covered by the Type Acceptance Certificate.

## Foreign Type Certificate Details

Type Certificate:	Swiadectwo Typu Sprzetu Lotniczego Nr BB-136
Issued by:	Polish People's Republic Central Administration of Civil Aviation
Manufacturer:	Panstwowe Zaklady Lotnicze "Warszawa-Okecie" S.A.
Model:	<b>Kolibier 150</b>
Engines:	Lycoming O-320-E2A
Propellers:	Sensenich 74DM6-0-58
MCTOW	850 kg (1874 lb.) - Normal Category
Noise Category:	CAA Noise Certificate issued for Koliber 150 G-BUDO to show compliance against the relevant requirements of BCAR Section N

The certification basis of the PZL Koliber 150 is AIR 2052 issue 1967. For semi-aerobatic flight BCAR Chapter K2-12 was used. Nothing is known of this French airworthiness standard, other than from the compliance table it appears to be quite comprehensive. It was deemed by the UK CAA to be an acceptable basis. (The French standard was also used for the MS 880B series of aircraft which have been previously type accepted in NZ.) This standard is used because the Koliber 150 is a development of the PZL-110, which is a Polish license-built MS880B. The Koliber 150 has 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.

## Type Acceptance Application

The application for New Zealand type acceptance was from the NZ agent, Alternate Aviation (Doug Dallison), by CAA Form 24021/02 dated 31 August 1995. The first example was ZK-PZB, serial number 03930056, later re-registered as ZK-RTB.

The PZL-110 Koliber (Hummingbird) is the Polish license-manufactured version of the Rallye 100ST, and the Koliber 150 (referred to in some documents as the PZL-150) is a variant fitted with a 150hp Lycoming engine. The FAA certificated PZL-Koliber 150A version has already been type accepted in NZ for the same agent. (See TAR 3/95.)

Type Acceptance Certificate No.95/08 was granted on 22 November 1996.

## Type Data

The type data requirements of NZCAR Part 21B Para 21.43 have been satisfied by supply of the following documents:

- (1) Type certificate: Polish TC Nr BB-136 for PZL-110 "Koliber" dated 23.08.82  
Statement of Civil Aircraft Inspection N<sup>o</sup> BB-4/89 - Extension of TC N<sup>o</sup> BB-136 for KOLIBER 150 version - Edition 3 (apr.31.01.1989) of Data Sheet to TC introduced  
Statement of Civil Aircraft Inspection N<sup>o</sup> 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-Koliber 150 airplane - Issue 6 of Data Sheet of the TC dated 93.04.29 introduced.  
Technical Data Sheet to TC N<sup>o</sup> BB-136 - Edition 6 - 29.04.1993
- (2) Airworthiness design requirements: Not supplied.
- (3) Certification compliance listing:  
PZL-Koliber 150 List of Documents Used During Certification  
Compliance Lists with the AIR 2052/A Regulations - Report N<sup>o</sup> 1 - Report on manufactory and state tests of the KOLIBER 150 aircraft N<sup>o</sup> S-110/W22-1/37 issue 1; Warsaw, December 1989 - January 1989  
Koliber 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
- (4) Flight manual: Flight Manual for the Koliber 150 Airplane powered by a Lycoming O-320-E2A - Swedish Version - Dated 11.09.89 revised up to Rev.3 dated 29.04.93 - CAA Accepted as AIR 2550.
- (5) IPC: Catalogue of Spare Parts PZL-110 "Koliber"/PZL-"Koliber 150" - Ed.0 1989
- (6) Maintenance manual and service data for aircraft, engine and propeller:  
Service information already held for the engine and propeller. Repair  
Manual for the Koliber 150 Airplane - 1989 Maintenance  
Manual and Scheduled Inspections for the Koliber 150 - 1989 Information  
Bulletin No 11095044 - Guidance on bulletins issued in 1986-1994 concerning PZL-110  
Koliber, PZL-Koliber 150 and PZL-Koliber 150A airplanes - Plus copies of all bulletins  
applicable to the PZL-150 Koliber (5 - 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!)
- (7) Agreement from manufacturer to supply updates of data in (4), (5) and (6):  
Letter from PZL Warszawa-Okecie 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

## Additional New Zealand Certification requirements

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

### NZCAR Section C4

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
2.1.3(c)	Altimeter barometric scale in millibars or hectopascals	Superseded by DCA/INST/8
2.1.4(a)	Counter/pointer altimeters	Sensitive altimeter fitted as standard (See IPC)
3.3.4	Fire extinguisher operating instructions and types	N/A - MTOW is less than 1500 kg

### NZCAR Volume 2

There is no NZ AD schedule at present for the Koliber 150. 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."

### CASO 4

The Koliber 150 is classified as a Group E aeroplane under CASO4. Performance Group Rating assigned is 4. (Pending the authorisation of Part 91 no "P" charts were prepared.)

### Outstanding Requirements

The following additional NZ requirements are not covered by the original certification requirements or the basic build standard of the aircraft and require compliance with before issue of an airworthiness certificate:

### NZCAR Section C4

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
2.13(a)	ASI shall be marked in knots	* To be determined for individual aircraft
2.1.3(b)	Altimeter main scale to be calibrated in feet	* To be determined for individual aircraft
2.1.6	Magnetic compass residual deviation as per NZCAR F.8	* To be determined for individual aircraft
3.1	Seats, Safety Belts and Harnesses	* To be determined for individual aircraft
3.2	Axe	* To be determined for individual aircraft
3.4	First aid kits as prescribed in Appendix A	* To be determined for individual aircraft
4.1	Independent radio antenna	* To be determined for individual aircraft
4.2	Emergency locator beacon	* To be determined for individual aircraft
6(d)	Red anti-collision light	* To be determined for individual aircraft
7.1	Flight manual container	* To be determined for individual aircraft
8.2	Fireproof ID plate	* To be determined for individual aircraft
8.3	Passenger smoking notices	* To be determined for individual aircraft

8.9 Nationality and registration marks

\* To be determined for individual aircraft

## **Summary**

The PZL Koliber 150 has been issued with Type Acceptance Certificate No.95/08 and is eligible for a NZ Airworthiness Certificate in the Standard Category in accordance with CAR 21.177, subject to the outstanding requirements noted above being met:

## **Attachments**

The following documents form attachments to this report:

Photographs F-o-T Example Serial Number 03930056 ZK-RTB  
Three-view drawing PZL-150 Koliber  
Data Sheet to Type Certificate No. BB-136 of the Koliber 150 Airplane

## **Sign off**

D G Gill  
Airworthiness Engineer

Date: 22 November 1996