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# **Type Acceptance Report**

**TAR 5/21B/21 – Revision 1**

**Robin R1000 Series**

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## Executive Summary

New Zealand Type Acceptance has been granted to the Robin R1000 Series based on validation of Type Certificate number EASA.A.368. 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. 5/21B/21 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 Model R1000 Series type acceptance in New Zealand under type certificate EASA.A.368 is listed in Appendix 1.

## 2. Aircraft Certification Details

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

Type Certificate Holder: C.E.A.P.R. (Centre Est Aeronautique Pierre Robin)  
– since 10 May 2013

Type Certificate: EASA.A.368  
Issued by: European Aviation Safety Agency

Manufacturer: Société Avions Pierre Robin

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

(i) **Model:** R 1180 TD

MCTOW: 1150 kg (2535 lb.)

Max. No. of Seats: 4

Noise Standard: ICAO Annex 16

**Engine:** Lycoming O-360-A  
Type Certificate: E-286  
Issued by: Federal Aviation Administration

**Propeller:** Sensenich 76 EM 8S5-058 or -064  
Type Certificate: P4EA  
Issued by: Federal Aviation Administration

Hoffmann HO27 HM 180/160  
Type Certificate: LBA 32.110/001  
Issued by: Luftfahrt Bundesamt

EVRA 94.79-26  
Type Certificate: None \*

\* DGAC advises that this propeller was originally certified on the Jodel D140 under code AIR 2052 and their law "*circulaire n°10777 SFACT/D*" which did not require a type certificate. This approval was grandfathered for the R1180T.

Notes: 1. Refer to the TCDS EASA.A. 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 application for New Zealand type acceptance of the Robin R1180TD was from the importer, Izard Pacific Aviation Ltd dated 25 November 2004. The first-of-type example was serial number 263, registered ZK-TZW. The HR100/R1180T Series is an all-metal four-seat low wing single-engined touring aircraft with fixed tricycle undercarriage and the typical Robin forward sliding canopy.

Type Acceptance Certificate No. 5/21B/21 was granted on 23 November 2005 to the R1180TD based on validation of DGAC Type Certificate 61. Specific applicability is limited to the coverage provided by the operating documentation supplied. There are no special requirements for import into New Zealand.

The HR100 is essentially a four-seat version of the HR200 trainer, with some changes for its touring role. The HR100 was developed in a number of versions with different engines. The R1180T is similar to the HR200-210, but uses the new wing section introduced on the R2000. The R1180TD is identical except that engine RPM is limited to 2600 to reduce noise.

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.368

Type Certificate Data Sheet number EASA.A.368 at Issue 1 dated 10 May 2013  
– Model R1180TD approved March 27, 1979

Supersedes:

Fiche de Navigabilite No.131 Associee au Certificat de Navigabilite de Type No.61  
The manufacturer advised that although the type is approved in the UK (there is no AAN on the UK CAA database), there is no known English language translation.

(2) Airworthiness design requirements:

(i) *Airworthiness Design Standards:*

The certification basis of the HR100/R1180 Series is FAR 23 including Amendments 1 through 6. The standard special condition that it must be jettisonable was applied to the forward-sliding canopy. This is an acceptable certification basis in accordance with CAR Part 21B Para §21.41, as FAR 23 is the basic standard for Normal Category Airplanes called up under Part 21 Appendix C. There are no non-compliances and no additional special conditions have been prescribed by the Director under §21.23.

(ii) *Special Conditions:*

Canopy emergency release system. (The canopy must be jettisonable.)

(iii) *Equivalent Level of Safety Findings:*

Nil

(iv) *Airworthiness Limitations:*

Nil

(3) Aircraft Noise and Engine Emission Standards:

(i) *Environmental Standard:*

The Model R1180TD has been certificated for noise under ICAO Annex 16, Volume 1, Chapter 6.

(ii) *Compliance Listing:*

TCDS for Noise EASA.A.368 at Issue 1 dated 23 October 2013

Note: There is no data for the R1180T/R1180TD Models.

The Flight Manual for the R1180TD states the aircraft was granted the Type Certificate of Noise Limitation No.61 on December 12, 1979.

The Noise Level is 73.9 dB(A) at 1150 kg at Maximum Continuous Power.

(4) Certification Compliance Listing:

The original Compliance Checklist Ref X 1005 with last revision dated 13/7/78, Apex Folder 5 (yellow case) Shelf DT12, is only available in French. A summary translation was provided by the manufacturer.

(5) Flight Manual: DGAC-Approved Flight Manual R 1180 TD  
CAA Accepted as AIR 2908

(6) Operating Data for Aircraft and propeller:

(i) *Maintenance Manual:*

Service Manual R1000 – Volumes 1 and 2 – Issue 1 January 79

Service data for EVRA propellers is available at [www.helice-evra.fr.st](http://www.helice-evra.fr.st)

(ii) *Current service Information:*

Service Bulletins

(iii) *Illustrated Parts Catalogue:*

Serie R1000 Spare Parts Catalog – Edition 2

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

CAA 2171 from Guy Pellissier, Head Design Office dated 17 November 2005

## 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	Shoulder Harness if Aerobatic; >10 pax; Flight Training	FAR §23.785
91.507	Pax Information Signs – Smoking, safety belts fastened	Not Applicable – Less than 10 passenger seats
91.509 Min. VFR	(1) ASI (2) Machmeter (3) Altimeter (4) Magnetic Compass (5) Fuel Contents (6) Engine RPM (7) Oil Pressure	FAR §23.1303(a) – Std.Eqpt.* N/A – No Mach limitations FAR §23.1303(b) – Std.Eqpt.* FAR §23.1303(c) – Std.Eqpt.* FAR §23.1305(a) – Std.Eqpt.* FAR §23.1305(d) – Std.Eqpt.* FAR §23.1305(b) – Std.Eqpt.* (8) Coolant Temp (9) Oil Temperature (10) Manifold Pressure (11) Cylinder Head Temp. (12) Flap Position (13) U/c Position (14) Ammeter/Voltmeter N/A – Air-cooled engines FAR §23.1305(c) – Std.Eqpt.* FAR §23.1305(h) – Std.Eqpt.* FAR §23.1305(f) – Std.Eqpt.* FAR §23.699(a)(2) – Std.Eqpt.* FAR §23.729(e) – Std.Eqpt.* FAR §23.1351(d) – Both Std.*
	* For Standard Equipment see the Flight Manual Section 1 General Description	
91.511 Night	(1) Turn and Slip (2) Position Lights	Fitted as Standard* FAR §23.1385 – Std. Eqpt.* (3) Anti-collision Lights (4) Instrument Lighting FAR §23.1401 – Std. Eqpt.* FAR §23.1381 – Std. Eqpt.*
	Compulsory Night VFR Equipment is listed in the Flight Manual Section 7 sub-section H	
91.517	IFR Instruments and Equipment	Not Applicable – Only approved for Day and Night VFR
91.519	IFR Communication and Navigation Equipment	Not Applicable – Only approved for Day and Night VFR
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 C91a after 1/4/97 (or replacement)	<i>To be determined on an individual aircraft basis</i>
91.531	Oxygen Indicators – Volume/Pressure/Delivery	Not fitted as Standard
91.533	Oxygen for Non-pressurised Aircraft	<i>Operating Requirement – Compliance as applicable</i>
91.541	SSR Transponder and Altitude Reporting Equipment	<i>Operating 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	<i>Operating Requirement – Compliance as applicable</i>
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 Amendment 7
135.357	Additional Instruments (Powerplant and Propeller)	Certificated to FAR Part 23, including §23.1305
135.359	Night Flight	<i>Operating Requirement – Compliance as applicable</i>
135.361	IFR Operations	Speed, Alt, spare bulbs/fuses <i>Operating Requirement – Compliance as applicable</i>
135.363	Emergency Equipment (Part 91.523 (a) and (b))	<i>Operating 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.368

## Sign off



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David Gill  
Team Leader Aircraft Inspection



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Checked – Lino Miguel  
Certification Engineer

## Appendix 1

### List of Type Accepted Variants:

<i>Model:</i>	<i>Applicant:</i>	<i>CAA Work Request:</i>	<i>Date Granted:</i>
R 1180 TD	Izard Pacific Aviation Ltd	5/21B/21	23 November 2005

## Appendix 2

### 3-view Drawing Robin Model R 1180 TD

