Type Acceptance Report
TAR 13/21B/17
Pratt & Whitney Canada PW617F-E
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Executive Summary

New Zealand Type Acceptance has been granted to the Pratt & Whitney Canada (P&WC) PW617F-E turbofan engine based on validation of Transport Canada Type Certificate number E-37. There are no special requirements for import.

Applicability is limited to the Models and/or serial numbers detailed in Appendix 1, which are now eligible for installation on a NZ-registered aircraft. 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(b).

1. Introduction

This report details the basis on which Type Acceptance Certificate No. 13/21B/17 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.

2. ICAO Type Certificate Details

Manufacturer: Pratt & Whitney Canada Corp.  (since 1999)

Type Certificate: E-37

Issued by: Transport Canada

Model: PW617F-E

3. Type Acceptance Certificate

The application for New Zealand type acceptance of the PW617F-E was from P&WC dated 17 January 2013 submitted through Transport Canada. The PW617F-E is a high bypass ratio twin spool turbofan engine with a maximum thrust rating of 1820 lbs intended for small business jet applications.

Type Acceptance Certificate No. 13/21B/17 was granted on 1 May 2013 to the Model PW617F-E based on validation of Transport Canada Type Certificate E-37. There are no special requirements for import into New Zealand. As part of the type acceptance, two engineers from the CAA Aircraft Certification Unit visited Pratt & Whitney Canada in Toronto, Canada for a certification validation visit.

The PW617F-E is the third member of the PW600 series to be certificated, following the PW610F-A (950 lbs maximum thrust, type certificate E-35, used on the Eclipse 500 aircraft), and the PW615F-A (1450 lbs maximum thrust, type certificate E-34, used on the
Cessna Citation Mustang. It is certificated for installation on multiple engine installations only and the first application is on the Embraer Phenom 100 aircraft.

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. **ICAO Type certificate:**
   
   Transport Canada Type Certificate Number E-37 dated September 9, 2008
   
   Transport Canada Type Certificate Data Sheet No. E-37 at Issue 3 dated 7.4.09
   – Model PW617F-E approved September 9, 2008

2. **Airworthiness design requirements:**
   
   (i) **Airworthiness Design Standards:**
   
   The certification basis of the PW617F-E is Canadian Airworthiness Manual, Chapter 533 at Change 8. This is equivalent to FAR Part 33 up to and including Amendment 20. This is the basic standard for aircraft engines called up under Part 21 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:**
   
   Service life values for life limited rotor components are defined in the PW617F-E Airworthiness Limitation Manual P/N 3072699 *

3. **Environmental Certification:**
   
   (i) **Certification Standards:**
   
   The PW617F-E complies with Canadian Airworthiness Manual 516 at Change 516-07, "Aircraft Engine Emissions" which refers to ICAO Annex 16 Volume II. (Compliance has been shown with FAR 34 at all amendments up to and including 34-3.)

   (ii) **Compliance Listing:**
   

4. **Certification Compliance Listing:**
   

5. **Flight Manual:** N/A
(6) Operating Data for Engine:

   (i) Maintenance Manual:
       PW617F-E Line Maintenance Manual P/N 3072696 *
       PW617F-E Maintenance Manual P/N 3072162 *
       PW617F-E Overhaul Manual P/N 3072163 *

   (ii) Current service Information:
       PW617F-E Service Bulletins, Spare Part Bulletins, Tool Service Bulletins and
       Service Information Letters *

   (iii) Illustrated Parts Catalogue:
       PW617F-E Illustrated Parts Catalog P/N 3072164

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

       * Access provided to P&WC website Technical Publications

Attachments

The following documents form attachments to this report:

   Copy of Transport Canada Type Certificate Data Sheet Number E-37 dated
   September 9, 2008

Sign off

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Peter Gill                               Checked – Greg Baum
Airworthiness Engineer                  Airworthiness Engineer

Appendix 1

List of Type Accepted Variants:

<table>
<thead>
<tr>
<th>Model:</th>
<th>Applicant:</th>
<th>CAA Work Request:</th>
<th>Date Granted:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PW617F-E</td>
<td>Pratt &amp; Whitney Canada Corporation</td>
<td>13/21B/17</td>
<td>1 May 2013</td>
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</tbody>
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