
Type Acceptance Report

TAR 15/21B/1

MTV-27 Propeller

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Executive Summary

New Zealand Type Acceptance has been granted to the MTV-27 Series propeller based on validation of EASA Type Certificate number P.104. 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(c).

1. Introduction

This report details the basis on which Type Acceptance Certificate No.15/21B/1 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 product 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: MT-Propeller Entwicklung GmbH

Type Certificate: EASA P.104
Issued by: European Aviation Safety Agency

Model(s): MTV-27-1

3. Type Acceptance Details

The application for New Zealand type acceptance was from the manufacturer, dated 8 July 2014. The MTV-27 is a 5-blade variable pitch propeller with hydraulically operated pitch change mechanism which provides for “Constant Speed”, “Feather” and “Reverse” modes. The hub is aluminium and the blades are laminated wood with composite covering.

Type Acceptance Certificate No. 15/21B/1 was granted on 14 August 2014 to the MTV-27 Series propeller based on validation of EASA Type Certificate number P.104. Specific applicability is limited to the coverage provided by the operating documentation supplied. There are no special requirements for import into New Zealand.

The first application of the propeller on a NZ-registered aircraft was on the Beechcraft B200GT, installed in accordance with FAA STC Number SA03209NY.

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:

EASA Type Certificate Number P.104

EASA Type Certificate Data Sheet number P.104 at Issue 03 dated 21 Dec 2011
– Model MTV-27-1 approved 28 March 2002

(2) Airworthiness design requirements:

(i) *Airworthiness Design Standards:*

The original certification basis of the MTV-27 propeller is JAR-P Change 7 dated October 22, 1987, as modified by Amendment P/96/1 of August 8. Later blade “dash” numbers were approved with some paragraphs of CS-P at Amendment 01 dated 16 November 2006, as noted on the TCDS. This is an acceptable certification basis in accordance with NZCAR Part 21B Paragraph §21.41 and Advisory Circular 21-1A, as CS-P is the successor of JAR-P, the European equivalent of FAR Part 35 which is the basic airworthiness standard for propellers 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:*

Nil

(iii) *Equivalent Level of Safety Findings:*

Nil

(iv) *Airworthiness Limitations:*

See the Airworthiness Limitations Section in the applicable Operation and Installation Manual.

(3) Environmental Certification:

Nil

(4) Certification Compliance Listing:

MT-Propeller Certification Record Document E-1856 – Project 010002883-001
Model MTV-27-1 – Change to Type Certification – Rev.7 Issue Date 13.10.2011

(5) Flight Manual: N/A

(6) Operating Data for Propeller:

(i) *Maintenance Manual:*

E-124 – Operation and Installation Manual – Hydraulically Controlled Variable Pitch Propeller (Constant Speed Propeller)

E-504 – Operation and Installation Manual – Reversible Hydraulically Controlled Variable Pitch Propeller (Constant Speed Propeller) – (M)

E-610 – Operation and Installation Manual – Reversible Hydraulically Controlled Variable Pitch Propeller (Constant Speed Propeller) – (G), (P), (W), (A)

E-809 – Overhaul Manual for Metal Blades

E-1083 – Operation and Installation Manual – Reversible Hydraulically Controlled Variable Pitch Propeller (Constant Speed Propeller) – for PT6A-67A (MTV-16, MTV-27)

E-1290 – Composite Blade Overhaul Manual

E-1922 – Operation and Installation Manual for reversible hydraulically controlled variable pitch propeller MTV-27-1-N-C-F-R(G)-J/CFR285-82

(ii) *Current service Information:*

Service Bulletins

(iii) *Illustrated Parts Catalogue:*

E-220 – Overhaul Manual and Parts List – Hydraulically Controlled Variable Pitch Propeller (Constant Speed Propeller)

E-519 – Overhaul Manual and Parts List – Reversible Hydraulically Controlled Variable Pitch Propeller (Dual-Piston-System) (Constant Speed Propeller) (M)

E-680 – Overhaul Manual and Parts List – Reversible Hydraulically Controlled Variable Pitch Propeller (Constant Speed Propeller) (G), (P), (W), (A)

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

CAA 2171 Form from MT-Propeller Certification Engineering dated 08.07.2014

(8) Other information:

EASA STC Number 10036196

E-2040 – Master Operation Manual List Model MTV-27-1-E-C-F-R(P)/CFR225-55f on Hawker Beechcraft Corporation 200, 200C, 200CT, 200T, A200 (C-12A, C-12C), A200CT (C-12D, FWC-12D, RC-12D), A200CT (C-12F, RC-12G, RC-12H), B200, B200C, B200CT, B200T, B200GT, B200CGT

E-2041 – Airplane Flight Manual Supplement Hawker Beechcraft Corporation 200 (Series) Equipped With MT-Propeller Model MTV-27-1-E-C-F-R(P)/CFR225-55f 5-Blade Constant Speed, Full-Feathering, Reversible Propeller

E-2042 – Installation Instructions Model MTV-27-1-E-C-F-R(P)/CFR225-55f on Hawker Beechcraft Corporation 200 (Series)

E-2043 – Instructions for Continued Airworthiness Model MTV-27-1-E-C-F-R(P)/
CFR225-55f on Hawker Beechcraft Corporation 200 (Series)

Attachments

The following documents form attachments to this report:

Copy of EASA Type Certificate Data Sheet Number EASA P.104

Sign off

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David Gill
Team Leader Airworthiness

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Checked – Greg Baum
Airworthiness Engineer

Appendix 1

List of Type Accepted Variants:

<i>Model:</i>	<i>Applicant:</i>	<i>CAA Work Request:</i>	<i>Date Granted:</i>
MTV-27 Series	MT-Propeller Entwicklung GmbH	15/21B/1	14 August 2014