
Type Acceptance Report

TAR 13/21B/12

MTV-14 Propeller

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Executive Summary

New Zealand Type Acceptance has been granted to the MTV-14 propeller series based on validation of EASA Type Certificate number P.017. 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.13/21B/12 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.017
Issued by: European Aviation Safety Agency

Model(s): MTV-14-B, MTV-14-D

3. Type Acceptance Details

The application for New Zealand type acceptance was from Air West Coast Maintenance Ltd, dated 18 December 2012. The MTV-14 series is a 4-blade variable pitch propeller with hydraulically operated pitch change mechanism providing operation modes of “constant-speed”, “feather” and “reverse”. The hub is aluminium and the propeller blades are either laminated wood with epoxy-fibreglass covering, or all composite (either aramid fibre reinforced plastic (AFRP) or carbon fibre reinforced plastic (CFRP)). The –B or –D suffix refers to the propeller attachment flange type.

Type Acceptance Certificate No. 13/21B/12 was granted on 21 December 2012 to the MTV-14 series propeller based on validation of EASA Type Certificate number P.017. 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 a Cessna 210 in accordance with STC Number 10038720, Rev 1. This was validated in New Zealand under CAA Work Request number 13/ACM/49.

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.017

EASA Type Certificate Data Sheet number P.017 at Issue 01 dated 12 December 2006
– Models MTV-14-B, MTV-14-D

(2) Airworthiness design requirements:

(i) *Airworthiness Design Standards:*

The certification basis of the MTV-14 series is FAR-35 at amendment 35-7 effective December 28, 1995 for wood-composite blades. For MTV-14 propellers with full composite blades, the certification basis is FAR-35 at amendment 35-7 effective December 28, 1995 plus CS-P 240, CS-P 360, CS-P 370, CS-P 380 effective October 24, 2003. This is an acceptable certification basis in accordance with NZCAR Part 21B Para §21.41 as FAR Part 35 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 Service Bulletin No.1 for recommended overhaul intervals.

(3) Environmental Certification:

Nil

(4) Certification Compliance Listing:

Compliance Record Document E-1129 – Propeller MTV-14 Type Investigations – Issue No.3 dated 27 November 2006

(5) Flight Manual: N/A

(6) Operating Data for Propeller:

(i) *Maintenance Manual:*

E-124 - Operation and Installation Manual for hydraulically controlled variable pitch propeller

E-504 – Operation and Installation Manual for reversible hydraulically controlled variable pitch propeller - reverse-Systems (M)

E-508 - Operation and Installation Manual for hydraulic reverse propeller governor P-480

E-1046 - Operation and Installation Manual for hydraulic reversible propeller governor P-9()-()

E-519 - Composite Blade Overhaul Manual

(ii) *Current service Information:*

Service Bulletins

(iii) *Illustrated Parts Catalogue:*

E-220 - Overhaul Manual and Parts List for hydraulically controlled variable pitch propeller

E-519 Overhaul Manual and Parts List for reversible hydraulically controlled variable pitch propeller; Reverse-Systems (M)

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

See letter from MT-Propeller Engineering dated 18 December 2012

Attachments

The following documents form attachments to this report:

Copy of EASA Type Certificate Data Sheet Number EASA P.017

Sign off

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Peter Gill
Airworthiness Engineer

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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-14-B, -D	Air West Coast Maintenance Ltd	13/21B/12	21 December 2012