

I. General

1. Type / Models

MTV-33 / MTV-33-1

2. Type Certificate Holder

MT-Propeller Entwicklung GmbH
Flugplatzstraße 1
94348 Atting
Germany

Design Organisation Approval No.: EASA.21J.020

3. Manufacturer

MT-Propeller Entwicklung GmbH

4. Date of Application

MTV-33-1: 30 October 2012

5. Reference Date for Determination of the Applicable Requirements

30 October 2012

6. Certification Date

MTV-33-1: 24 May 2013

II. Certification Basis

1. EASA Certification Basis:

1.1 Airworthiness Standards:

MTV-33-1	Wooden Blades: -200, -201, -202, -203, -204, -205	CS-22 amendment 2 Subpart J, dated 5 March 2009, except CS 22.1939 CS-P 390(b) and CS-P 390(c), dated 16 November 2006
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Refer to note VI. 3.

1.2 Special Conditions:

None

1.3 Equivalent Safety Findings:

None

1.4 Deviations:

None

1.5 EASA environmental protection requirements:

None applicable for propellers

III. Technical Characteristics

1. Type Design Definition

The MTV-33 series propeller models are defined by a main assembly drawing and an associated parts list:

Model MTV-33-1-(*1) "Ground Adjustable or Constant Speed"
Drawing No. P-1250-B dated 16 January (*2)
Parts List No. S-193-B dated 18 January 2013 (*2)

Note:

- (*1) One version of hub flange is available:
-A = 6x 7/16"-20UNF on a 80mm bolt circle diameter
- (*2) Or later approved revision. Following a revision, the Drawing No. or the Parts List No. includes the corresponding revision letter, e.g. from P-1250-B in P-1250-C.

2. Description

2-blade ground-adjustable or variable pitch propeller with a hydraulically operated blade pitch change mechanism providing the operation mode "Constant Speed". The hub is milled out of aluminum alloy. The blades have a laminated wood structure with a composite fiber cover. The leading edge of the blade is protected by a stainless steel erosion protection sheath.
Optional equipment includes the spinner.

3. Equipment

Spinner: according to MT-Propeller Service Bulletin No. 13
Governor: according to MT-Propeller Service Bulletin No. 14

4. Dimensions

Propeller diameter: 150 cm to 178 cm

5. Weight

Maximum: approx. 6.5 kg

6. Hub/Blade-Combinations

Hub	Blades
MTV-33-1	-200, -201, -202, -203, -204, -205

7. Control System

Propeller governors as listed in MT-Propeller Service Bulletin No. 14.

8. Adaptation to Engine

Hub flanges as identified by a letter-code in the propeller designation (refer to note VI.4.)

9. Direction of Rotation

Direction of rotation (viewed in flight direction) as identified by a letter-code in the propeller designation (refer to note VI.4.)

IV. Operational Limits

1. Approved Installations:

This propeller is certified for installation on Powered Sailplanes, Very Light Aeroplanes and aircraft which can accept a propeller certified according to CS-22 Subpart J. Acceptable propeller/engine/aircraft combinations and the corresponding limitations are listed in MT-Propeller Service Bulletin No. 16. (see also note VI.3.)

2. Maximum Take Off Power and Speed

	Max. Take Off Power (kW)	Max. Take Off Speed (propeller rpm)	Diameter (cm)
MTV-33-1	86 (115 hp)	2560	150 to 178

3. Maximum Continuous Power and Speed

	Max. Continuous Power (kW)	Max. Continuous Speed (propeller rpm)	Diameter (cm)
MTV-33-1	86 (115 hp)	2560	150 to 178

4. Propeller Pitch Angle

From +3° up to +55° measured at 75% radius station

V. Operating and Service Instructions

Operation, Installation and Maintenance Manual for Ground Adjustable and Hydraulically Controlled Variable Pitch Propeller (Constant Speed Propeller) MTV-33-() MTV-34-()	No. E-2285
Overhaul Manual and Parts List for Ground Adjustable and Hydraulically Controlled Variable Pitch Propeller (Constant Speed Propeller) MTV-33-() MTV-34-()	No. E-2286
Standard Practice Manual	No. E-808
Service Bulletins, Service Letters, Service Instructions	as published by MT-propeller

VI. Notes

1. The EASA approved Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness is published in the applicable "Operation, Installation and Maintenance Manual" document, chapter 10.0 "Airworthiness Limitations Section". This ALS section is empty because no life limit is necessary for these models.
2. The overhaul intervals recommended by the manufacturer are published in MT-Propeller Service Bulletin No. 1.
3. This propeller is certified for installation on Powered Sailplanes, Very Light Aeroplanes and aircraft which can accept a propeller certified according to CS-22 Subpart J. The suitability of a propeller for a given aircraft/engine combination must be demonstrated within the scope of the type certification of the aircraft.
4. Propeller designation system:

Hub					/	Blade							
MT	V	-	33	-	1	-	()	/	()	175	-	200	()
1	2	3	4	5	/	1	2	3	4				

Hub

- 1 MT-Propeller Entwicklung GmbH
- 2 Variable pitch propeller
- 3 Identification of propeller type
- 4 Identification of propeller model
- 5 Letter code for flange type:
 - A = 6x 7/16"-20UNF on a 80mm bolt circle diameter

Blade

- 1 Letter code for direction of rotation and installation:
 - blank = right-hand tractor
 - RD = right-hand pusher
 - L = left-hand tractor
 - LD = left-hand pusher
- 2 Diameter in cm
- 3 Identification of blade design
- 4 Letter code for blade design changes:
 - small letter for changes which do not affect interchangeability of blade set
 - capital letter for changes which affect interchangeability of blade set
