TYPE-CERTIFICATE DATA SHEET

No. P.099

for Propeller
MTV-18

Type Certificate Holder
MT-Propeller Entwicklung GmbH

Flugplatzstraße 1
94348 Atting
Germany

For Models:
MTV-18-B
MTV-18-C
MTV-18-D

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I. General

1. Type / Models

MTV-18 / MTV-18-B, MTV-18-C, MTV-18-D

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-18-B: 09 February 1990
MTV-18-C: 09 February 1990
MTV-18-D: 13 September 1994

5. EASA Type Certification Date

MTV-18-B: 12 April 1990
MTV-18-C: 12 April 1990
MTV-18-D: 21 February 1995

II. Certification Basis

1. Reference Date for determining the applicable airworthiness requirements:

09 February 1990

2. EASA Certification Basis

2.1. Airworthiness Standards

14 CFR Part 35, as amended by 35-1 through 35-7, effective 28 December 1995

Note:
First application was made to LBA-Germany before EASA was established. The applicable airworthiness standards were established in accordance with the rule in Germany at the time of application. Initial airworthiness standard was 14 CFR Part 35 Amendment 35-5, effective 14 October 1980. Update to 14 CFR Part 35 Amendment 35-7, effective 28 December 1995, was made on 25 August 2004 (LBA-Germany Type Certificate Data Sheet No. 32.130/75 issue 4).

2.2. Special Conditions (SC)
None

2.3. Equivalent Safety Findings (ESF)
None

2.4. Deviations
None

III. Technical Characteristics

1. Type Design Definition

The MTV-18 propeller model consists of one design configuration, with different versions of the hub flange. The design configuration consists of a main assembly drawing and associated parts list as per the following table:

Design Configuration	Assembly Drawing	Parts List
MTV-18-(*)-( ) Constant Speed, optional Feather	P-195-(x)	S-022-(x)

Notes:

1. Three versions of hub flanges are available:
*:
-B = AS-127-D, SAE No. 2 mod., 1/2'' - 20 UNF bolts
-C = AS-127-D, SAE No. 2 mod., 7/16'' - 20 UNF bolts
-D = ARP-502, 1/2" - 20 UNF studs

2. In the assembly drawing number and the part list number, the suffix (x) indicates the revision status.

2. Description

3-blade variable pitch propeller with an electrically operated blade pitch change mechanism providing the operation mode "Constant Speed" and "Feather". The hub is milled out of aluminium alloy. The blades have a laminated wood structure with a composite fibre cover. The leading edge of the blade is equipped with an erosion protection device. Optional equipment includes spinner and ice protection.

3. Equipment

Spinner: refer to MT-Propeller Service Bulletin No. 13 (see also VI.5)
Control unit: refer to MT-Propeller Service Bulletin No. 14 (see also VI.5)
Ice Protection: refer to MT-Propeller Service Bulletin No. 15 (see also VI.5)

4. Dimensions

Blade diameter: 152 cm to 210 cm

5. Weight

Depending on Propeller-Design Configuration

"Constant Speed":	approx. 21 kg
"Constant Speed, Feather":	approx. 22 kg

6. Hub / Blade Combinations

For all design configurations listed under III.1 the following wooden blades are applicable:

-17, -24, -30, -32, -36, -39, -40, -53, -54, -56, -57, -59, -86, -100, -101, -105, -113, -114, -115, -117, -118, -119, -130, -131, -301, -302

7. Control System

Propeller control units 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 (see VI.4.)

9. Direction of Rotation

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

IV. Operating Limitations

1. Approved Installations

The suitability of a propeller for a given aircraft/engine combination must be demonstrated within the scope of the type certification of the aircraft.

2. Maximum Take Off Power and Speed

Diameter (cm)	Maximum Take Off Power (kW)	Maximum Take Off Speed (rpm)
152 to 192 cm	168	2800
152 to 203 cm	224	2700
152 to 210 cm	221	2340

3. Maximum Continuous Power and Speed

Diameter (cm)	Maximum Continuous Power (kW)	Maximum Continuous Speed (rpm)
152 to 192 cm	168	2800
152 to 203 cm	224	2700
152 to 210 cm	221	2340

4. Propeller Pitch Angle

From +2° up to +86° measured at 75% radius station

V. Operating and Service Instructions

Manuals	
Operation and Installation Manual for electrically controlled variable pitch propeller MTV-18-( )	No. E-118 (*)

Instructions for Continued Airworthiness (ICA)	
Operation and Installation Manual for electrically controlled variable pitch propeller MTV-18-( )	No. E-118 (*)
Overhaul Manual and Parts List for electrically controlled variable pitch propeller MTV-18-( )	No. E-250 (*)
Overhaul Manual for Composite Blades (also applicable to wooden blades)	No. E-1290 (*)
Standard Practice Manual	No. E-808 (*)
Service Bulletins, Service Letters, Service Instructions	As published by MT-Propeller

(*) latest revision of

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 listed in MT-Propeller Service Bulletin No. 1.

3. EASA Type Certificate and Type Certificate Data Sheet No. P.099 replace LBA-Germany Type Certificate and Type Certificate Data Sheet No. 32.130/75.

4. Propeller designation system:

			Hub					/	Blade				
MT	V	-	18	- ( )	- ( )	- ( )	/ ( )	( )	210	-	59	( )	
1	2		3	4	5	6	/ 1	2	3		4	5	

Hub

1 MT-Propeller Entwicklung GmbH

2 Variable pitch propeller

3 Identification of propeller type

4 Letter code for flange type:
- B = AS-127-D, SAE No. 2 mod., 1/2'' - 20 UNF bolts
- C = AS-127-D, SAE No. 2 mod., 7/16'' - 20 UNF bolts
- D = ARP-502, 1/2" - 20 UNF studs

5 Letter code for feather position:
- blank = no feather position possible
- F = feather position possible

6 Letter code for hub design changes:
- small letter for changes which do not affect interchangeability
- capital letter for changes which affect interchangeability

Blade

1 Letter code for position of pitch change pin:
- blank = pin position for pitch change forces to decrease pitch
- F = pin position to allow feather

2 Letter code for direction of rotation and installation:
- blank = right-hand tractor
- RD = right-hand pusher
- L = left-hand tractor
- LD = left-hand pusher

3 Propeller diameter in cm

4 Identification of blade design

5 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

5. The equipment listed in SBs No.13, 14 and 15 is not included in the certified Type Design. Related propeller equipment must be approved as part of the aircraft installation regardless of manufacture.

SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

CFR Code of Federal Regulations
LBA Luftfahrt Bundesamt

II. Type Certificate Holder Record

As per I.2

III. Change Record

TCDS Issue	Date	Changes	TC Issue Date
Issue 01	22 January 2025	Initial issue. The type was previously covered by LBA TCDS No. 32.130/75. Extension of LBA TCDS with additional power rating, additional blade types.	Initial Issue, 22 January 2025

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