

**COMANDO DA AERONÁUTICA  
DEPARTAMENTO DE PESQUISAS E DESENVOLVIMENTO  
CENTRO TÉCNICO AEROESPACIAL**

**TYPE CERTIFICATE DATA SHEET Nº EH-2005T06**

Type Certificate Holder:

**MT-PROPELLER ENTWICKLUNG GmbH**  
Airport Straubing-Wallmühle  
D-94348 Atting  
**GERMANY**

EH-2005T06-01

Sheet 01

MT-PROPELLER

MTV-12-()

May 2005

Propellers of models described herein conforming with this data sheet, which is part of Type Certificate No. 2005T06, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Brazilian Aeronautical Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other instructions.

**TYPE** Hydraulic Constant speed propeller with reversing and feathering pitch features (see Note 3 & 4)

**ENGINE SHAFT** See Note 1

**HUB MATERIAL** Aluminum Alloy

**BLADE MATERIAL** Laminated wood composite structure, epoxy-fiber glass cover, with leading edge and erosion protection

**NUMBER OF BLADES** 3 (three)

**HUB ELIGIBLE** MTV-12-B, -C, -D

Hub Eligible MTV-6 (See Notes1)	Blades See Notes 2 & 6	Max. Continuous Power		Takeoff power		Diameter Limits m (in)	Blade Twist*		Approx. Max. Weight Compl. **, *** kg (lb)
		Hp (Kw)	rpm	Hp (Kw)	rpm		Min	Max.	
(-17, (-)24, (-)30, (-)32, (-36, (-)39, (-)40, (-)53, (-56, (-)57, (-)59, (-100, (-)101, (-)105, (-113, (-)114, (-)115, (-117, (-)118, (-)119, (-301		225 (168)	2800	225 (168)	2800	1.92 to 1.52 (75.6 to 60)	5	50	20 (44)
		300 (224)	2700	300 (224)	2700	2.03 to 1.52 (80 to 60)	5	50	20 (44)

\* - The limits of the blade twist are defined between .20 and 1.00 blade radius.

\*\* - Propellers with the option "Feather" are 5 kg (11 lb) heavier.

\*\*\* - Propellers with the option "Reverse" are 3 kg (6.6 lb) heavier.

**CERTIFICATION BASIS** Brazilian Type Certificate No. 2005T06 based on the RBHA 35 (Brazilian Requirements for Aeronautical Certification), which endorses the FAR 35 effective 01 February 1965, Amendments 35-1 to 35-7, inclusive.

<b>TYPE CERTIFICATION</b>	<u>Model</u>	<u>Application</u>	<u>Issued TC</u>
	MTV-12-()	16 February 2005	15 April 2005

**PRODUCTION BASIS** Not Applicable

**IMPORT REQUIREMENTS** Each propeller imported separately and/or spare parts must be accompanied by an Airworthiness Certificate for Export and/or an Airworthiness Approval Tag, respectively, issued by LBA, attesting that the particular propeller and/or parts were submitted to the governmental quality control before delivery and are in conformity with the CTA approved type design.

**NOTES:**

**NOTE 1** Hub model Designation MT V -12 -B -() -() -() -() -(), where:

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V Variable pitch propeller.

-12 Number of basic model.

-B Flange Type\*.

-() C: Counterweights for oil pressure to decrease pitch.

-() F: Feathering possible. Blank: no feathering possible

-() R: reverse, Blank: no reverse possible.

-() Reversing method.

M: System Mühlbauer.

-() Small letter – Modifications which do not affect interchangeability.

Capital letter - Modifications which restrict or exclude interchangeability

\* Flange

B = AS-127-D, SAE No. 2 mod., 1/2" mounting bolts.

C = AS-127-D, SAE No, 2 mod., 7/16" mounting bolts.

D = ARP 502.

- NOTE 2** Blade Model Designation ( ) ( ) 183 -59 ( ) , where:
- ( ) Position of pitch change pin.
    - Blank: Position for pitch change forces to decrease pitch.
    - C: Position for pitch change forces to increase pitch.
    - CR: Position for reverse (pitch change forces to increase pitch)
    - CF: Position for feather (pitch change forces in direction to increase pitch)
    - CFR: Position for feather and reverse (pitch change forces in direction to increase pitch)
  - ( ) Sense of rotation (viewed in flight direction)
    - Blank: Right hand tractor
    - RD: Right hand pusher
    - L: Left hand tractor
    - LD: Left hand pusher
  - 183 Propeller diameter in cm
  - 59 Number of blade design, contains construction and aerodynamic data.
  - ( ) Small letter: Modification which do not affect interchangeability of blade sets
- NOTE 3** Pitch control: Pitch control is accomplished by a standard governor or by the MT-Propeller Hydraulic Propeller Governor Installation, P-480-( ) or P-9( )( )-( ) for the reversing option -R(M). Applicable standard governors are published in the FAA-approved list MT-Propeller Service Bulletin No. 14. The P-480-( ) or P-9( )( )-( ) is a single acting pump governor, but dual pressure system design enables the hydraulically variable pitch MT-Propeller to operate with reverse capability. P-480-( ) or P-9( )( )-( ) governors also incorporates feathering capability. Time Between Overhauls (TBO) for P-480-( ) or P-9( )( )-( ) governor is published in MT-Propeller Service Bulletin No. 1( ).
- NOTE 4**
- a) Feathering: Model incorporates feathering and unfeathering features by means of counterweights and springs with governor operation.
  - b) Reversing: Model incorporate reversing features by P-480-( ) or P-9( )( )-( ) governors.
- NOTE 5** Right & Left Hand Models: A version of the approved model with opposite hand rotation is approved at the rating and diameter limitations.
- NOTE 6** Interchangeability: Not applicable.
- NOTE 7** Accessories:
- a) Propeller Spinners: According to FAA-approved list published in MT-Propeller Service Bulletin No. 13.
  - b) Propeller Governors: According to FAA-approved list published in MT-Propeller Service Bulletin No. 14.
  - c) Deicing Systems: According to FAA-approved list published in MT-Propeller Service Bulletin No. 15.
- NOTE 8** Shank Fairings: Not applicable.
- NOTE 9** Special Limits: Not applicable
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**NOTE 10** Special Notes:

- a) Aircrafts installations must be approved as part of the aircraft type certificate and demonstrate compliance with the applicable aircraft airworthiness requirements.
- b) All MTV-12 propellers are to be operated within the limits of MT-Propeller Operation and Installation Manual No. E-124 for non reversible propeller and, E-504 for reversible propeller, and adhere to the TBO-limits shown in the MT-Propeller Service Bulletin No.1( ).
- c) Propeller Maintenance, on overhaul, and airworthiness limitations shall be accomplished in accordance with MT-Propeller Overhaul Manual E-220 for non-reversible propeller and E-519 for reversible propeller, latest revision.

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