

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

TYPE CERTIFICATE DATA SHEET Nº EH-2003T02

Type Certificate Holder:

MT-PROPELLER ENTWICKLUNG GMBH

Airport Straubing-Wallmühle

D-94348 Atting

GERMANY

EH-2003T02-01
Sheet 01

MT-PROPELLER

MTV-25-()

July 2003

Propellers of models described herein conforming with this data sheet, which is part of Type Certificate No. 2003T02, 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.

I - Model MTV-25-(), approved 13 February 2003.

TYPE	Hydraulic constant speed with reversing and feathering pitch feature (See Notes 3 and 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	5 (five)
HUB ELIGIBLE	MTV-25-1-(), MTV-25-2-()

Hub-type MTV-25 see Note 1	Blades (see Notes 2 & 6)	Maximum continuous		Takeoff		Nominal diameter		Blade twist *		Approx weight **, *** lb (kg)
		hp (kw)	rpm	hp (kw)	rpm	in (cm)	in (cm)	min	max	
()-3, ()-4, ()-5, ()-6, ()-7, ()-8, ()-9, ()- 12, ()-16, ()-23, ()-28, ()-31, ()-49, ()-51, ()-106, ()-112, ()- 122, ()-125, ()-312		185 (138)	2 850	185 (138)	2 850	67.0 (170)	55.0 (140)	5	50	48.5 (22)
		350 (261)	2 700	350 (261)	2 700	67.7 (170)	55.0 (140)	5	50	48.5 (22)

* The limits of blade twist are defined to be between .20 and 1.00 blade radius.

** Propellers with the option "Feather" are 7.7 lb (3.3 kg) heavier.

*** Propellers with the option "Feather and Reverse" are 17.6 lb (8 kg) heavier.

IMPORT REQUIREMENTS Each propeller imported separately and/or spare parts must be accompanied by an Export Certificate of Airworthiness 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.

CERTIFICATION BASIS RBHA 35, which endorses FAR 35, including amendments 35-1 through 35-6, effective on 18 August 1990.
Application for TC dated 10 September 2002.

NOTES:

NOTE 1: Hub Model Designation - MT V - 25 - (*) - D - (C) - (F) - (R) - (M) - (#),
where:

MT..... MT - Propeller Entwicklung GmbH

V..... Variable Pitch Propeller

25 Number of Basic Model

(*)..... Design Configuration Number

D..... Flange Type:

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

(C)..... Letter designating Counterweights:

Blank: none or small counterweights for oil pressure to increase pitch

C: counterweights for oil pressure to decrease pitch

(F)..... Feathering possible; Blank: no feather possible.

(R)..... Reversing; Blank: no reverse possible.

(M) Reversing Method, M = System Muhlbauer, A = System Allison.

(#)..... Minor changes, not affecting interchangeability.

NOTE 2: Blade Model Designation - (C) (L) 170 - 06 - () , where:

(C)..... 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)

(L) Sense of rotation (viewed in flight direction)

Blank: right-hand tractor

RD: right-hand pusher

L: left-hand tractor

LD: left-hand pusher

170..... Propeller diameter in cm

06 Number of blade design, contains construction and aerodynamic data.

()..... Small letter, indicating deviation of blade twist from standard values according to manufacturer's list.

- NOTE 3:** Pitch Control. Pitch control is accomplished by a standard governor or by the MT-Propeller hydraulic propeller governor installation, P-480-() for the reversing option -R(M). The P-480-() is a single acting pump governor, but dual pressure system design enables the hydraulically variable pitch MT propellers to operate with reverse capability. P-480-() also incorporates feathering capability.
- NOTE 4:** (a) Model incorporates feathering and unfeathering features by means of counterweights and springs with governor operation.
(b) Model also incorporates reversing feature: System-R(M) by P-480-(), System-R(A) by standard Allison beta system.
- NOTE 5:** Right & Left-Hand Models. A version of the approved model with opposite hand rotation is approved at the same rating and diameter limitations.
- NOTE 6:** Accessories.
(a) Propeller Spinners: According to MT-Propeller Service Bulletin No. 13 for MTV-25 propeller.
(b) Propeller Governors: According to MT-Propeller Service Bulletin No. 14 for MTV-25 propeller.
(c) Deicing Systems: According to MT-Propeller Service Bulletin No. 15 for MTV-25 propeller.
(d) Adapter flange per MT drawing A-847-A.
- NOTE 7:** Special Notes.
(a) Aircraft installations must be approved as part of the aircraft type certificate and demonstrate compliance with the applicable aircraft airworthiness requirements.
(b) All MTV-25 propellers are to be operated within the limits of MT-Propeller Operation and Installation Manual No. E-124, E-504, E-508 and E-610 and adhere to the TBO-limits shown in Service Bulletin No. 1().
(c) Propeller Maintenance, on overhaul, and airworthiness limitations shall be accomplished in accordance with MT Propeller Overhaul Manual E-220, E-519, E-520 and E-680 latest revision.

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