ANAC
AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL

TYPE CERTIFICATE DATA SHEET Nº EH-2013T04

Type Certificate Holder:

MT-Propeller Entwicklung GmbH
Flugplatzstrasse 1
94348 Atting
GERMANY

EH-2013T04-00
Sheet 01

MT-PROPELLER

MTV-15-B
MTV-15-C
MTV-15-D

16 September 2013

Propellers of models described herein conforming with this data sheet, which is part of Type Certificate No. 2013T04, 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 feathering and reversing feature (see Notes 3 and 4)
ENGINE SHAFT	See Note 1
HUB MATERIAL	Aluminum Alloy (Milled)
BLADE MATERIAL	a) Wood Blade: Laminated wood structure with composite fiber cover. The leading edge is equipped with a stainless steel erosion protection shield device. b) Aluminum Blade.
NUMBER OF BLADES	2 (two).
HUB	See Note 1.

Hub Eligible (See Note 1)	Blades See Notes 2 & 6	Max. Continuous Power hp (rpm)	Takeoff power hp (rpm)	Diameter Limits m (in)	Pitch Angle* [°]	Approx. Max. Weight kg (lb) **, ***	Blade Material
MTV –15 – B MTV – 15 – C MTV – 15 – D	-02, -11, -14, -15, -18, -20, -21, -22, -25, -26, -27, -29, -33, -34, -35, -37, -42, -43, -45, -46, -50, -52, -55, -58, -61, -62, -63, -65, -66, -67, 102, -103, -104, -109, -121	300 (2 700)	300 (2 700)	1.75 to2.10 (68.9 to 82.7)	Min. Max. -20° 86°	21 (46.3)	Wood
	-402	300 (2 700)	300 (2 700)	1.75 to 2.04 (68.9 to 80.3)	-20° 86°	26 (57.3)	Aluminum

* - The limits for the pitch angle are defined at 75% blade radius.
** - Propellers with the option "Feather" or "Reverse" are 4 kg (8.8 lb) heavier.
*** - Propellers with both option "Feather and Reverse" are 6 kg (13.2 lb) heavier.

CERTIFICATION BASIS

Brazilian Type Certificate No. 2013T04 based on the Brazilian Regulation on Aeronautical Certification – RBHA 35, which endorses the FAR 35 effective 01 February 1965, Amendments 35-1 to 35-6, inclusive.

TYPE CERTIFICATION

Model	Application	Issued TC
MTV-15-B	15 July 2013	16 September 2013
MTV-15-C	15 July 2013	16 September 2013
MTV-15-D	15 July 2013	16 September 2013

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 the primary authority, attesting that the particular propeller and/or parts were submitted to the governmental quality control before delivery and are in conformity with the ANAC approved type design.

NOTES:

NOTE 1 Hub model Designation MT V –15 –( ) –( ) –( ) –( ) ( ) ( ) , where
[1] [2] [3] [4] [5] [6] [7] [8] [9]

[1] MT: Propeller Entwicklung GmbH
[2] V: Variable pitch propeller.
[3] –15: Number of basic model.
[4] Letter code for Engine shaft (flange type).
– B = AS-127-D, SAE No. 2 mod., ½ inch bolts.
– C = AS-127-D, SAE No. 2 mod., 7/16 inch bolts.
– D = ARP 502, Type 1.
[5] Letter code designating counterweights:
Blank: None or small counterweights for pitch change forces to decrease pitch.
– C= Counterweights for pitch change forces to increase pitch.
[6] Letter code for feather provision.
Blank: no feathering possible.
– F= Feathering position allowed.
[7] Letter code for reverse provision.
Blank: no reverse possible.
– R= reverse position allowed.
[8] Letter code for information about reverse system.
– M = System Mühlbauer
[9] Letter code for hub design changes.
Small letter: modifications which do not affecting interchangeability.
Capital letter: modifications which affect interchangeability.

NOTE 2 Blade Model Designation ( ) ( ) 210 – 58 ( ) , where:
[1] [2] [3] [4] [5]

[1] Letter code for position of pitch change pin.
Blank: Pin position for pitch change forces to decrease pitch.
C: Pin position for pitch change forces to increase pitch.
CR: Pin position to allow reverse (pitch change forces to increase pitch)
CF: Pin position to allow feather (pitch change forces to increase pitch)
CFR: Pin position to feather and reverse (pitch change forces to increase pitch)

NOTE 2 (CONT.)

[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: modifications which do not affect interchangeability of blade set.
Capital letter: modifications which affect interchangeability of blade set.

NOTE 3

Pitch control:
a) Pitch control is provided by hydraulic system.
b) The propellers are approved for flight operations with propeller speed governors which are listed in MT Service Bulletin No. 14( ).
c) Time Between Overhauls (TBO) for governor is published in MT-Propeller Service Bulletin No. 1( ).

NOTE 4

Feathering and Reversing:
a) Feathering. The propellers may incorporate feathering and unfeathering features.
b) Reversing. The propellers may incorporate reversing feature. Maximum reverse angle is minus 20°.

NOTE 5

Left hand rotation model:
Left hand models are identified by a letter-code in the blade designation. Version of the approved model with opposite hand rotation is approved at the same rating and diameter limitations. See Note 2.

NOTE 6

Interchangeability:
See NOTE 1 and NOTE 2.

NOTE 7

Accessories:
a) Propeller Spinners: Refer to published list in MT-Propeller Service Bulletin No. 13.
b) Propeller Governors: Refer to published list in MT-Propeller Service Bulletin No. 14.
c) Deicing Systems: Refer to published list in MT-Propeller Service Bulletin No. 15.

NOTE 8

Shank Fairings: Not included or predicted in the design.

NOTE 9

Special Limits: Not applicable.

NOTE 10 **The propeller installation must be approved as part of the aircraft type certificate to demonstrate compliance with the applicable aircraft airworthiness standards.**

NOTE 11 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–15–( ) propellers are to be operated within the limits of MT-Propeller Operation and Installation Manual No:

E-124 For hydraulically controlled variable pitch propeller (latest revision)

E-504 For reversible hydraulically controlled variable pitch propeller, system Mülhbauer (latest revision)

c) All MTV–15–( ) propellers are to adhere to the TBO limits shown in the MT-Propeller Service Bulletin No.1( ). Propeller maintenance, on overhaul, and airworthiness limitations shall be accomplished in accordance with MT-Propeller Overhaul Manual No:

E-220 For hydraulically controlled variable pitch propeller (latest revision)

E-519 For reversible hydraulically controlled variable pitch propeller, system Mülhbauer (latest revision)

E-809 For Metal Blades (latest revision)

HÉLIO TARQUINIO JUNIOR
Gerente-Geral de Certificação de Produto Aeronáutico
(General Manager, Aeronautical Product Certification)