

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TYPE CERTIFICATE DATA SHEET P00037BO	TCDS NUMBER: P00037BO REVISION: ORIGINAL MT PROPELLER COMPANY MODEL: MTV-47-1 DATE: June 18, 2020
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Propellers of models described herein confirming with this data sheet (which is part of this Type Certificate No. P00037BO) and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certified aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated and maintained as prescribed by approved manufacturer's manual and other approved instructions.

TYPE CERTIFICATE HOLDER MT-Propeller Entwicklung GmbH
 Flugplatzstrasse 1
 94348 Atting
 Germany

TYPE Hydraulic constant speed propeller, feathering and reversing feature (See Notes 3 & 4)

ENGINE SHAFT See Note 1 of this TCDS

HUB MATERIAL Aluminum alloy

BLADE MATERIAL Laminated wood composite structure, composite fiber cover, leading edge erosion protection

HUBS: See Note 1 of this TCDS

NUMBER OF BLADES 7 (seven)

DESIGN SERIES MTV-47-1

HUB-TYPE MTV-47-1 See Note 1	BLADES See Notes 2 & 6	MAXIMUM CONTINUOUS		<TAKE OFF>		NOMINAL DIAMETER				Pitch Angle *)		APPROXIMATE WEIGHT **, ***)	
		HP(kW)	RPM	HP(kW)	RPM	inch	(cm)	inch	(cm)	Min	Max	lbs.	(kg)
	-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, -111, -116, -120, -121, -133, -134, -135, -136, -142, -150, -151, -360, -361, -362, -363, -364	1700 (1268)	2000	1700 (1268)	2000	91	(230)	63	(160)	-20°	86°	163	(74)
		1700 (1268)	1700	1700 (1268)	1700	106	(270)	63	(160)	-20°	86°	163	(74)

*) The limits of the blade pitch angle defined at 75% blade radius

***) Propellers with the option "Feather" are approx. 24 lbs. (11 kg) heavier, "Reverse" are approx. 33 lbs. (15 kg) heavier.

****) Propellers with the option "Feather and Reverse" are approx. 53 lbs. (24 kg) heavier.

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CERTIFICATION BASIS: Pursuant to 14 CFR 21.29(a)(1)(ii), the Type Certificate was issued in validation of the European Aviation Safety Agency (EASA) Certification Standards CS-P, amendment 1 effective 16 November 2006, which was found to provide a level of safety equivalent to that provided by 14 CFR part 35 effective February 1, 1965, as amended by 35-1 through 35-10. EASA issued Type Certificate P.045 for the MTV-47-1 series propeller.

TC (IMPORT) NO. P00037BO

TC APPLICATION DATE: May 18, 2020

TC ISSUED June 18, 2020

PRODUCTION BASIS: EASA Production Organization Approval: DE.21G.0008

IMPORT REQUIREMENTS: To be considered eligible for installation on U.S. registered aircraft, each propeller to be exported to the United States shall be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting cognizant civil airworthiness authority which contains the following language:

(1) This propeller conforms to its United States type design (Type Certificate Number P00037BO) and is in a condition for safe operation.

(2) This propeller has been subjected by the manufacturer to a final operational check and is in a proper state of airworthiness. Reference 14 CFR 21.500, which provides for the airworthiness acceptance of engines or propellers manufactured outside the U.S. for which a U.S. type certificate has been issued. Additional guidance is contained in FAA Advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products, Imported into the United States.

 NOTES

NOTE 1: HUB MODEL DESIGNATION:

MT V - 47-1 - () () () () () ()
 1 2 3 4 5 6 7 8 9

- 1 MT-Propeller Entwicklung GmbH
- 2 Variable pitch propeller
- 3 Identification of propeller type
- 4 Letter code for flange type:
 - E = ARP 880
 - N = BCD 5.125 inches, twelve 9/16"-18 UNF bolts, 2 index pins
- 5 Letter code for counterweights:
 - blank = no 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 feather position possible
 - F = feather position allowed
- 7 Letter code for reverse provision:
 - blank = no reverse position possible
 - R = reverse position allowed
- 8 Letter code for reversing system:
 - M = System Mühlbauer
 - G = System Garrett
 - P = System Pratt & Whitney
- 9 Letter code for hub design changes:
 - small letter for changes which do not affect interchangeability
 - capital letter for changes which affect interchangeability

NOTE 2: BLADE MODEL DESIGNATION:

() () 270 - 65 ()
 1 2 3 4 5

- 1 Letter code for pin 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
 - CF = pin position to allow feather; pitch change forces to increase pitch
 - CR = pin position to allow reverse; pitch change forces to increase pitch
 - CFR = pin position to feather and reverse; pitch change forces to increase pitch
- 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

NOTES CONTINUED

- NOTE 3: Pitch Control: Pitch control is accomplished by a standard governor or by the MT-Propeller Hydraulic Propeller Governor Installation, P-4() ()- () 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-4() ()- () or P-9() ()- () is a single acting pump governor, but dual pressure system design enables the hydraulically variable pitch MT-propellers to operate with reverse capability. The P-4() ()- () or P-9() ()- () governor also incorporates feathering capability. Time Between Overhauls (TBO) for the P-4() ()- () or P-9() ()- () governor is published in MT-Propeller Service Bulletin No. 1(). Pitch control components are not part of the propeller type design and must be approved as part of the aircraft installation.
- NOTE 4: (a) Feathering: Model incorporates feathering and unfeathering features by means of counterweights and springs with governor operation of P-4() ()- () or P-9() ()- () governor.
(b) Reversing: Model incorporate reversing feature by P-4() ()- () or P-9() ()- () with additional functions.
- 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: Interchangeability: See NOTE 1.
- 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.
- 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.
- NOTE 8: Shank fairings: Not applicable
- NOTE 9: Special limits: Not applicable
- NOTE 10: 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-47-1 propellers must be operated within the limits of MT-Propeller Operation and Installation Manual No. ATA 61-01-24 (E-124) for non reversible propeller, ATA 61-05-04 (E-504) for reversible propeller -R(M), ATA 610-06-10 (E-610) for reversible propeller -R(P), -R(G), and adhere to the TBO-limits shown in Service Bulletin No. 1().
(c) Propeller Maintenance, or overhaul, and airworthiness limitations shall be accomplished in accordance with MT-Propeller Overhaul Manual No. ATA 61-12-20 (E-220) for non reversible propeller, ATA 61-05-19 (E-519) for reversible propeller -R(M), ATA 610-06-80 (E-680) for reversible propeller -R(P), -R(G), latest revision.
- NOTE 11: Service Information: Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003 – by the LBA.
Any such documents are accepted by the FAA and are considered FAA approved.
- Service bulletins,
 - Structural repair manuals,
 - Vendor manuals,
 - Aircraft flight manuals, and
 - Overhaul and maintenance manuals.

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