

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TYPE CERTIFICATE DATA SHEET P-20BO	TCDS NUMBER: P20BO REVISION: 2 MT-PROPELLER COMPANY MODEL: MTV-7(-) March 2, 2007
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Propellers of models described herein confirming with this data sheet (which is part of this Type Certificate No. P20BO) 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
 Airport Straubing-Wallmühle
 D-94348 Atting
 Germany

TYPE Constant speed, Electrical Control (See Notes 3 & 4)

ENGINE SHAFT See Note 1 of this TCDS

HUB MATERIAL Aluminum alloy

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

HUBS: See Note 1 of this TCDS

NUMBER OF BLADES 3 (three)

DESIGN SERIES MTV-7 -A, -C, -D, -F

HUB-TYPE MTV-7 See Note 1	BLADE S See Notes 2 & 6	MAXIMUM CONTINUOUS		<TAKE OFF>		NOMINAL DIAMETER				BLADE TWIST *)		APPROXIMATE WEIGHT	
		HP(kW)	RPM	HP(kW)	RPM	Max	Min	inch	cm	inch	cm	Min	Max
	-03	161 (120) 180 (134) 135 (101)	2800 2700 2500	161 (120) 180 (134) 135 (101)	2800 2700 2500	68.9 63 74.8	175 160 190	55 55 55	140 140 140	5 5 5	50 50 50	32 32 32	(14.5) (14.5) (14.5)
	-04	161 (120) 180 (134) 135 (101)	2800 2700 2500	161 (120) 180 (134) 135 (101)	2800 2700 2500	68.9 63 74.8	175 160 190	55 55 55	140 140 140	5 5 5	50 50 50	32 32 32	(14.5) (14.5) (14.5)
	-05	161 (120) 180 (134) 135 (101)	2800 2700 2500	161 (120) 180 (134) 135 (101)	2800 2700 2500	68.9 63 74.8	175 160 190	55 55 55	140 140 140	5 5 5	50 50 50	32 32 32	(14.5) (14.5) (14.5)
	-06	161 (120) 180 (134) 135 (101)	2800 2700 2500	161 (120) 180 (134) 135 (101)	2800 2700 2500	68.9 63 74.8	175 160 190	55 55 55	140 140 140	5 5 5	50 50 50	32 32 32	(14.5) (14.5) (14.5)
	-07	161 (120) 180 (134) 135 (101)	2800 2700 2500	161 (120) 180 (134) 135 (101)	2800 2700 2500	68.9 63 74.8	175 160 190	55 55 55	140 140 140	5 5 5	50 50 50	32 32 32	(14.5) (14.5) (14.5)
	-08	161 (120) 180 (134) 135 (101)	2800 2700 2500	161 (120) 180 (134) 135 (101)	2800 2700 2500	68.9 63 74.8	175 160 190	55 55 55	140 140 140	5 5 5	50 50 50	32 32 32	(14.5) (14.5) (14.5)
	-09	161 (120) 180 (134) 135 (101)	2800 2700 2500	161 (120) 180 (134) 135 (101)	2800 2700 2500	68.9 63 74.8	175 160 190	55 55 55	140 140 140	5 5 5	50 50 50	32 32 32	(14.5) (14.5) (14.5)

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

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HUB-TYPE MTV-7 See Note 1	BLADE S See Notes 2 & 6	MAXIMUM CONTINUOUS		<TAKE OFF>		NOMINAL DIAMETER				BLADE TWIST *)		APPROXI- MATE WEIGHT	
						Max	Min						
	-12	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-16	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-23	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-28	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-31	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-49	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-51	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-106	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-112	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-122	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-125	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-129	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)
	-312	161 (120)	2800	161 (120)	2800	68.9	175	55	140	5	50	32	(14.5)
		180 (134)	2700	180 (134)	2700	63	160	55	140	5	50	32	(14.5)
		135 (101)	2500	135 (101)	2500	74.8	190	55	140	5	50	32	(14.5)

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

CERTIFICATION BASIS: The U.S. certification basis determined under Section 21.29 of the FAR and Bilateral Airworthiness Agreement between the United States and the Federal Republic of Germany is FAR 35, effective February 1, 1965, Amendments 35-1 to 35-7, inclusive.

Luffahrt-Bundesamt (LBA) originally type certificated this propeller under its type certificate Number 32.130/84. The FAA validated this product under U.S. Type Certificate Number P20BO. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the Federal Republic of Germany.

TC (IMPORT) NO. LBA-Data Sheet No. 32.130/84

TC APPLICATION DATE: November 12, 1999

TC ISSUED May 19, 2000; Revised December 20, 2005

IMPORT REQUIREMENTS:

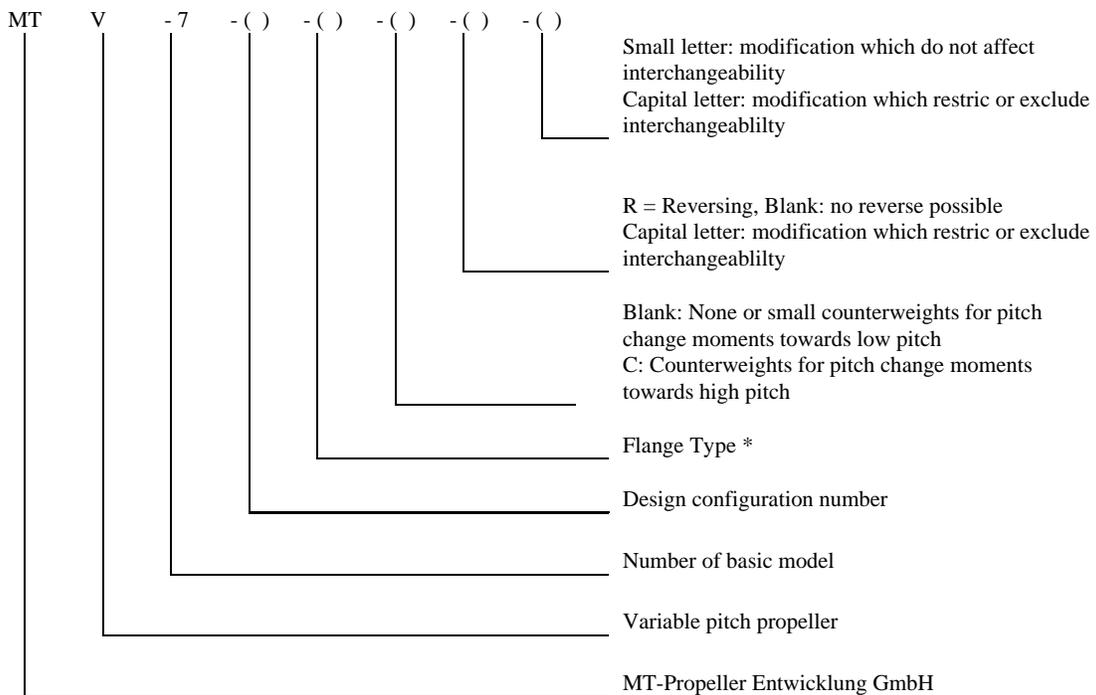
To be considered eligible for installation on U.S. registered aircraft, each propeller to be exported to the United States shall be accompanied by a Certificate of Airworthiness for export endorsed by the LBA on behalf of the European Community which contains the following language:

(1) This propeller conforms to its United States type design (Type Certificate Number P20BO) 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 FAR Section 21.500 which provides for the airworthiness acceptance of aircraft 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

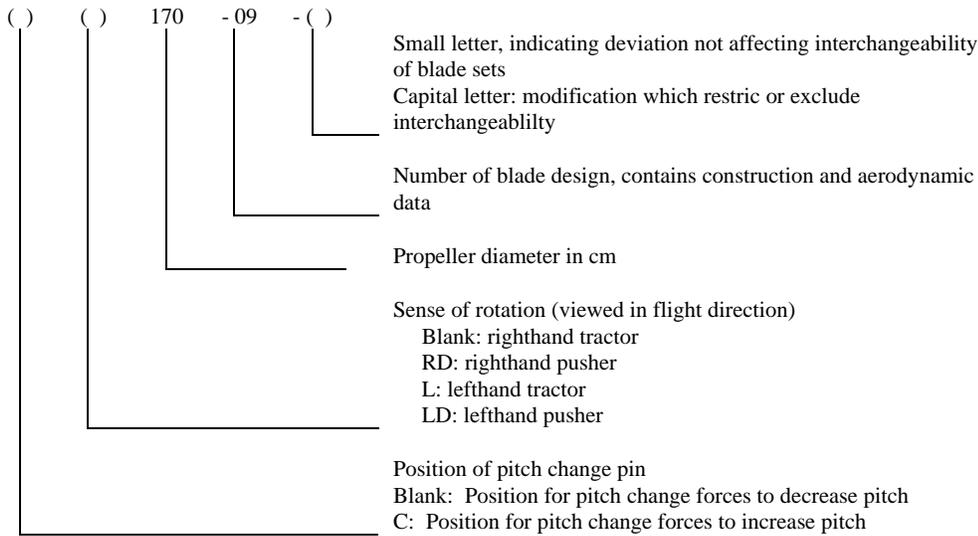
NOTE 1: HUB MODEL DESIGNATION:



* Flange

- A = Motorglider engines 80mm bolt circle dia., 7/16"-20UNF bolts
- C = AS-127-D, SAE No. 2 mod., 7/16" mounting bolts
- D = ARP-502
- F = SAE No.1, 3/8"-24UNF bolts

NOTE 2: BLADE MODEL DESIGNATION:



NOTE 3: Pitch Control: Pitch control is accomplished by Control Unit P-120-M (manual) or Control Unit P-120-U This is universal (selectable automatic, constant speed & manual control) or Control Unit P-120-A (automatic (constant speed))
For the control units no TBO or life limits are specified. Service is on condition.

NOTE 4: (a) Feathering: Electrical control per Control Units P-120-M, P-120-U and P-120-A
(b) Reversing (Airship applications only): Electrical control per Control Units P-120-M

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: Not applicable

NOTE 7: Accessories: (a) Propeller Spinners: According to FAA-approved list published in MT-Propeller Service Bulletin No. 13
(b) 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

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-7 propellers must be operated within the limits of MT-Propeller Operation and Installation Manual No.E-118 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 No. E-250 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.