

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

P9NE
Revision 2
Hartzell
HC-B3M
November 12, 2009

TYPE CERTIFICATE DATA SHEET NO. P9NE

Propellers of models described herein conforming with this data sheet (which is part of Type Certificate No. P9NE) and other approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificated 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 the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder	Hartzell Propeller Inc. Piqua, OH 45356
Type	Constant speed; hydraulic (see Notes 3 and 4)
Engine shaft	Special flange: (see Note 1)
Hub material	Alloy Steel
Blade material	See below
Number of blades	Three
Hub models	HC-B3MN-3, HC-B3MN-5 (see Notes 1 and 4)

Blades (see Note 2)	Maximum Continuous		Takeoff		Diameter Limits (see Note 2)	Approx. Max. Wt. Complete (For Reference Only) (see Notes 3 and 7)	Blade Construction
	HP	RPM	HP	RPM			
<u>HC-B3MN-3</u>							
M10083	675	2200	675	2200	100"	134 lb.	Aramid Composite
<u>HC-B3MN-5</u>							
M11693-0 to M11693-10	940	1591	940	1591	116" to 106" (-0 to -10)	162.5 lb.	Aluminum Alloy

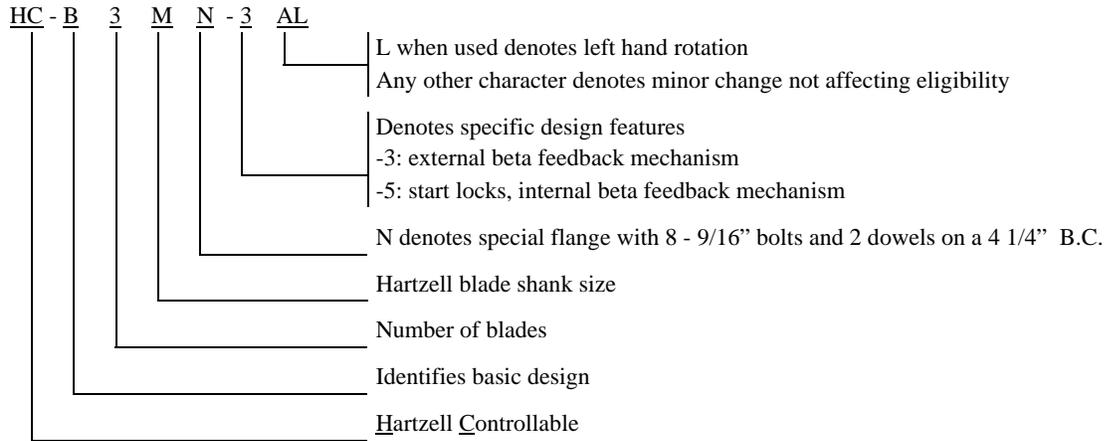
Certification Basis: 14 CFR Part 35 effective October 14, 1980 with amendments 35-1 through 35-5.
Type Certificate no. P9NE issued August 29, 1984.
Date of application for Type Certificate: February 13, 1984

The following models were included under the original certification basis:
HC-B3MN-3

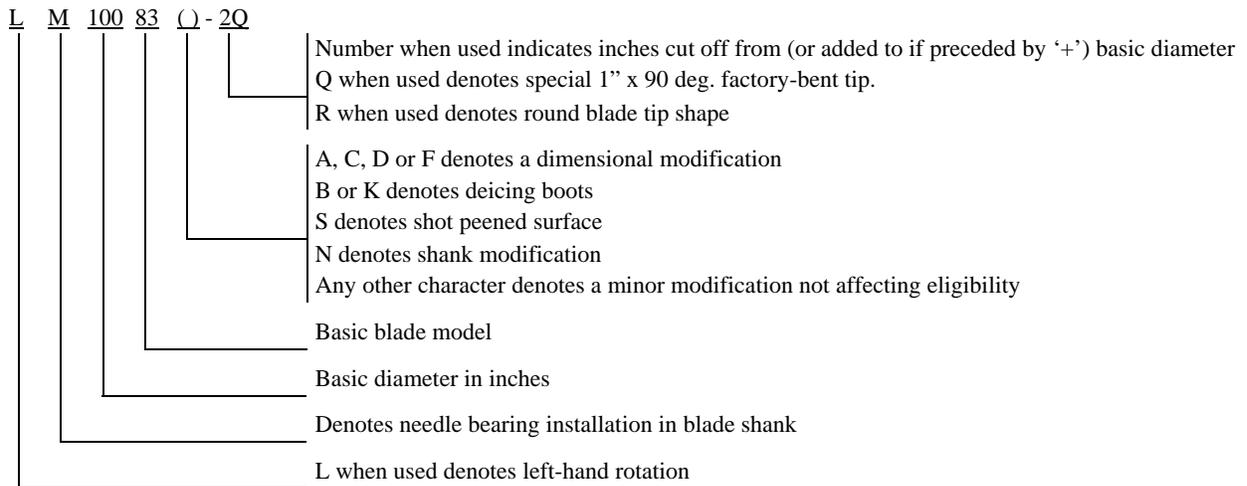
The following models were added, updated or revised in accordance with 14 CFR Part 35 with amendments 35-1 through 35-8 effective December 23, 2008 using 14 CFR Part 21.101 for paragraphs 35.15, 35.35(c), 35.36, 35.38, 35.41 and 35.43:
HC-B3MN-5

Production Basis: Production Certificate no. 10

Note 1: Hub Model Designation (See Notes 4, 5 and 6)



Note 2: Blade Model Designation (See Notes 5 and 6)



Note 3: Pitch Control (weight of pitch control extra) (See Notes 4 and 10)

- (a) All models have counterweighted blades and use governor oil to decrease pitch.
- (b) All governors and propeller control systems must be approved as part of the aircraft installation regardless of manufacturer.
- (c) Maximum control pressure for all models: 500 psig

Note 4: Feathering

- (a) The -3 and -5 models incorporate feathering and unfeathering features.

Reversing

- (a) The -3 and -5 models are approved for installation as reversing propellers with reversing controls.

Note 5: Left-Hand Models (See Notes 1 and 2)

The left-hand version of an approved propeller model is approved at the same rating and diameter as listed for the right-hand model.

Note 6: Interchangeability (See Notes 1 and 2)

- (a) Blades with the suffix “N” in the basic model number may replace those without an “N” either individually or as a set. Likewise, blades with the suffix “S” in the basic model number may replace those without an “S” either individually or as a set. When the aircraft Type Certificate or Supplemental Type Certificate specifies blades with the letters “N” or “S” in the basic model number, those characters must be retained in all replacement blade models.

For example: Blades with neither “N” nor “S” may be replaced by “N”, “S” or “NS” blades,
“N” blades may be replaced by “NS” blades,
“S” blades may be replaced by “NS” blades.

- (b) Refer to Hartzell Service Letter HC-SL-30-260 for ice protection system component interchangeability.

Note 7: Accessories

- (a) Propeller ice protection system (weight of ice protection equipment extra)
 - (1) Propeller models listed in this data sheet are approved for use with propeller ice protection equipment listed in Hartzell Manual 159() or in other Hartzell type design data.
 - (2) All propeller ice protection equipment must be approved as part of the aircraft installation regardless of manufacturer. (See Note 10)
- (b) Propeller spinner (weight of spinner extra)
 - (1) Approved with Hartzell and other manufacturers’ spinners when listed on Hartzell type design data.
 - (2) All propeller spinners must be approved as part of the aircraft installation regardless of manufacturer. (See Note 10)

Note 8: Shank Fairings Not applicable.

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.

Propeller models listed herein consist of basic hub and blade models. Most propeller models include additional characters to denote minor changes and specific features as explained in Notes 1 and 2. Refer to the aircraft Type Certificate Data Sheet for the specific propeller model applicable to the installation.

Propellers with composite blades must be evaluated for bird impact resistance prior to approval on any type aircraft. Hartzell Propeller must perform tests and/or analyses based on aircraft configuration and operating conditions to determine the potential hazard as a result of a bird strike.

Note 11: Retirement Time

- (a) Life limits and mandatory inspections. Airworthiness limitations, if any, are specified in Hartzell Manuals 118(), 139() or 146().

Note 12: Special Notes

- (a) Refer to Hartzell Manual no. 202() for overspeed and overtorque limits.
- (b) Refer to Hartzell Service Letter HC-SL-61-61() for overhaul periods.

END