

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

P18NE Revision 1 Hartzell HC-D3F May 10, 2013

TYPE CERTIFICATE DATA SHEET NO. P18NE

Propellers of models described herein conforming with this data sheet (which is part of Type Certificate No. P18NE) 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	Aluminum Alloy
Blade material	See below
Number of blades	Three
Hub models	HC-D3F-7

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-D3F-7</u>							
D7023-0 to D7023-10	450	2030	450	2030	70" to 60" (-0 to -10)	99 lb.	Aluminum Alloy
D9511F-4 to D9511F-14	450	2030	450	2030	91" to 81" (-4 to -14)	99 lb.	Aluminum Alloy

Certification Basis: 14 CFR Part 35 effective October 14, 1980 with amendments 1 through 5 thereto. Type Certificate No. P18NE issued August 21, 1989 under Delegated Option Authorization procedures of 14 CFR Part 21 Subpart J.

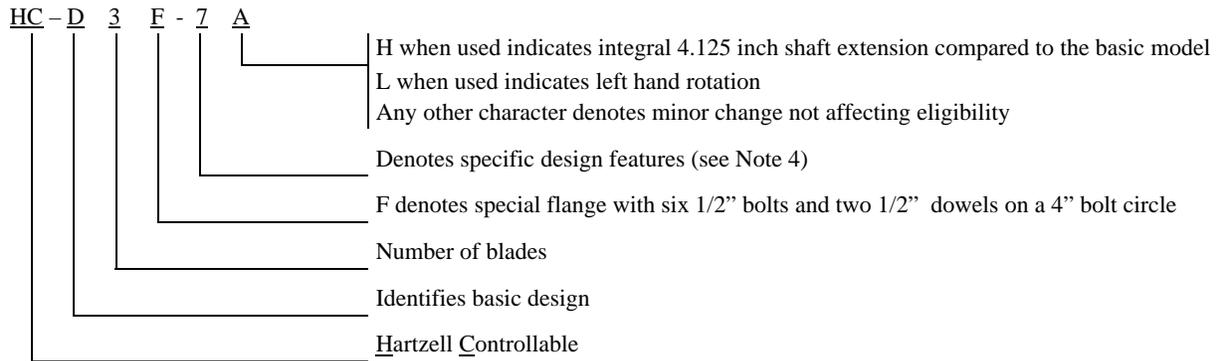
Date of application for Type Certificate: April 13, 1989

Models approved to the original certification basis include the following:
HC-D3F-7

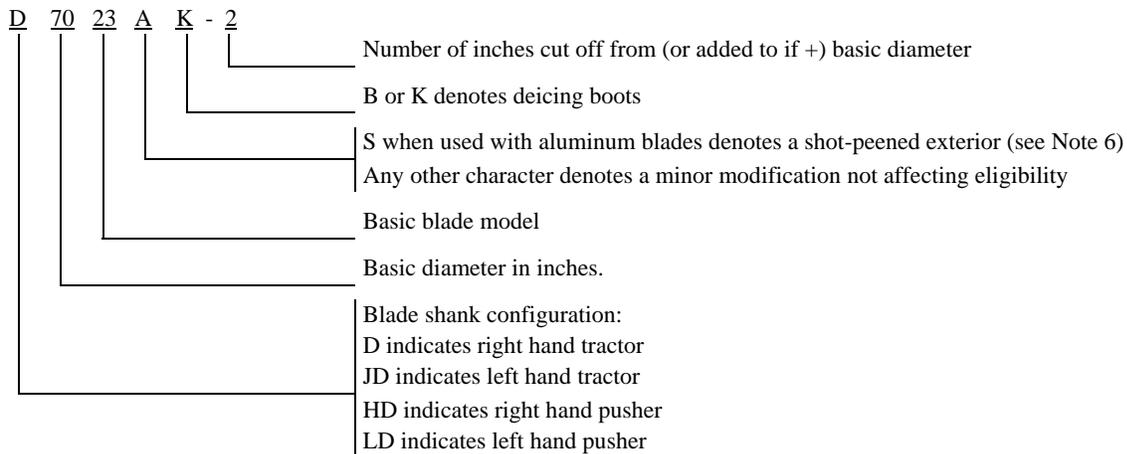
The following models were added, updated or revised in accordance with 14 CFR Part 35 with amendments 35-1 through 35-9 effective March 19, 2013:
HC-D3F-7

Production Basis: Production Certificate no. 10

Note 1: Hub Model Designation



Note 2: Blade Model Designation



Note 3: Pitch Control (weight of pitch control extra)

Maximum output pressure: HC-D3F-7 models: 700 psig

- (a) All propeller models have counterweighted blades and use governor oil to decrease pitch. (See Note 4)
- (b) All governors and propeller control systems must be approved as part of the aircraft installation regardless of manufacturer. (See Note 10)

Note 4: Feathering The -7 models incorporate feathering and unfeathering features.

Reversing The -7 models are approved for installation as reversing propellers with appropriate reversing controls.

Note 5: Left-Hand Models

The left-hand version of an approved propeller model is approved at the same rating and diameter as listed for the right-hand model. (see Notes 1 and 2)

Note 6: Interchangeability

- (a) Shot-peened blades may replace non shot-peened blades either individually or as a set. (see Note 2)
- (b) Refer to Hartzell Service Letter HC-SL-30-260 for ice protection system component interchangeability.

Note 7: Accessories

- (a) 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)
- (b) Propeller deicing (weight of deicing equipment extra)
 - (1) Approved with Goodrich electrical deicing kit 5EXXXX-X, 7EXXXX-X, 65-XXX, 67-XXX, or 77-XXX when the specific kit number is listed on Hartzell type design data and installed in accordance with Goodrich Report no. ATA 30-60-07.
 - (2) Approved with Safeway deice equipment when installed in accordance with Safeway Installation Manual no. 6927 or E-5735-14 and Hartzell Manual 133() for aluminum blades or Manual 135() for composite blades, and associated STC or PMA documents.
 - (3) 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.
 - (4) All propeller ice protection equipment must be approved as part of the aircraft installation regardless of manufacturer. (See NOTE 10)

Note 8: Shank Fairings Blade D7023 incorporates a shank fairing.

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.

Note 11: Retirement Time

- (a) Life Limits and Mandatory Inspections
 - (1) Airworthiness limitations, if any, are specified in Hartzell Manual 149().

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 recommended overhaul periods.

END