



**TYPE CERTIFICATE DATA SHEET Nº EH-2016T01**

Type Certificate Holder:

**HARTZELL PROPELLER INC.**  
One Propeller Place  
Piqua, Ohio - OH 45356-2634  
**USA**

EH-2016T01

Sheet 01

HARTZELL

5D3

29 February 2016

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Propellers of models described herein conforming with this data sheet, which is part of Type Certificate No. 2016T01, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Brazilian Civil Aviation Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

<b>TYPE</b>	Constant speed, hydraulic (See Notes 3 and 4)
<b>ENGINE SHAFT</b>	Special flange (See Note 1)
<b>HUB MATERIAL</b>	Aluminum alloy
<b>BLADE MATERIAL</b>	See below
<b>NUMBER OF BLADES</b>	Five

**HUB ELIGIBLE** 5D3-N338

Blade Eligible (See Note 2)	Maximum Continuous  hp (rpm)	Takeoff  hp (rpm)	Diameter Limits (See Note 2)  m (in)	Approx. Max. Wt. Complete (For reference only) (See Notes 3 and 7) kg (lb)	Blade Construction (See Note 10)
<u>5D3-N338</u>					
78D01-0 to 78D01-6	850 (2000)	850 (2000)	2.10 (82.5) to 1.94 (76.5) (-0 to -6)	59.87 (132)	Carbon Composite

**CERTIFICATION BASIS** RBAC 35 (Brazilian Civil Aviation Regulation) in accordance with RBAC 21.17 which endorses the 14 CFR Part 35 amendments 35-1 through 35-9 effective on 19 March 2013. Model: 5D3-N338.

**TYPE CERTIFICATION**

<u>Model</u> 5D3N338	<u>Application</u> 25 January 2016	<u>Issued TC</u> 29 February 2016
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**PRODUCTION BASIS** Not Applicable.

**IMPORT REQUIREMENTS** Each propeller imported separately and/or spare parts must be accompanied by an Export Airworthiness Approval, issued by FAA, 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 - 5 D 3 -N 338 A1, where:  
(See Notes 4 and 5) [1] [2] [3] [4] [5] [6]

[1] 5 Number of Blades

[2] D Preload type:  
Basic hub series (D)

[3] 3 Operating Mode:  
3 – Constant Speed, feathering, reversing, external beta ring

[4]-N Mounting flange:  
N denotes flange with eight 9/16" bolts and two 1/2" dowels on a 4,25" bolt circle

[5] 338 Extension:  
Distance in inches between engine flange and blade centerline (implied decimal after first digit). Example: 338 = 3.38 inches

[6] A1 One or more alphanumeric hub descriptor (first character must be alpha)  
Any alpha character indicates a minor change not affecting eligibility  
Any numeric character indicates a minor configuration change not affecting eligibility  
L when used indicates left hand rotation

**NOTE 2** Blade Model Designation - H 78 D 01 B -2, where

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(See Notes 5 and 6) [1] [2] [3] [4] [5] [6]

- [1] Denotes Blade Configuration:  
Blank denotes right-hand tractor  
H denotes right-hand pusher  
J denotes left-hand tractor  
L denotes left-hand pusher
- [2] Basic diameter rounded to the nearest inch. Add four inch correction for all blade models
- [3] First character: Basic blade series for hub model (must match hub series)  
Second character when used: Major blade characteristic
- [4] Basic blade model (two character numeric)
- [5] B or K denotes deicing boots
- [6] Number when used indicates inches cut off from (or added to if +) basic diameter

- NOTE 3** Pitch Control (weight of pitch control extra) (See Notes 4 and 10)  
(a) Maximum output pressure: 500 psig  
(b) All propellers models have counterweighted blades and use governor oil to decrease pitch.  
(c) All governors and propeller control systems must be approved as part of the aircraft installation regardless of manufacturer.

- NOTE 4** Feathering  
(a) The 5D3 models incorporate feathering and unfeathering features.
- Reversing  
(a) The 5D3 models are approved for installation as reversing propellers with appropriate 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 right-hand model.

- NOTE 6** Interchangeability:  
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) 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)

- NOTE 8** Shank Fairings: Not applicable.

- NOTE 9** Special Limits: Not applicable.
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**NOTE 9**     Special Limits: Not applicable.

**NOTE 10**    Propeller installation must be approved as part of the aircraft Type Certificate and demonstrate compliance with the applicable aircraft airworthiness requirements. Propellers 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 or "Especificação de Aeronave" (EA) 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 impact.

**NOTE 11**    Retirement time  
(a) Life limits and Mandatory inspections  
      (1) Airworthiness limitations, if any, are specified in Hartzell Manual 486.

**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.



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