



**AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL**

**TYPE CERTIFICATE DATA SHEET Nº EH-2006T05**

Type Certificate Holder:

**HARTZELL PROPELLER INC.**

One Propeller place

Piqua, OH 45356

**USA**

EH-2006T05-00

Sheet 01

HARTZELL

HC-H3Y

March 2007

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Propellers of models described herein conforming with this data sheet, which is part of Type Certificate No. 2006T05, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Brazilian Aeronautical Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other 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>	Aluminum Alloy.
<b>NUMBER OF BLADES</b>	Three (3).

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*Pavot*

**HUB ELIGIBLE**

HC-H3YF-1, -2, -3.

Blade Eligible (See Notes)	Max. Continuous Power		Takeoff power		Diameter Limits m (in)	Approx. Max. Weight Compl.	
	hp	rpm	hp	rpm		kg	lb
<u>Hub Model HC-H3YF-1 (non-Counterweighted)</u>							
7490-0 to 7490-10	350	2 850	350	2 850	1.93 to 1.68 (76 to 66)	32.68	72
7691-0 to 7691-10	350	2 850	350	2 850	1.98 to 1.73 (78 to 68)	34.95	77
7693-0 to 7693-10	350	2 700	350	2 700	1.98 to 1.73 (78 to 68)	37.22	82
8468-0 to 8468-14	400	2 700	400	2 700	2.18 to 1.83 (86 to 72)	35.86	79
<u>Hub model HC-H3YF-2 (Counterweighted)</u>							
C7693-0 to C7693-10	400	2 700	400	2700	1.98 to 1.73 (78 to 68)	38.14	84
<u>Hub model HC-H3YF-2, -3 (Counterweighted)</u>							
C7479-2 to C7479-8	380	2 900	380	2 900	1.88 to 1.73 (74 to 68)	39.95*	88*
C7663-0 to C7663-10	310	2 800	310	2 800	1.98 to 1.73 (78 to 68)	36.77*	81*
C7666-0 to C7666-10	310	2 700	310	2 700	1.98 to 1.73 (78 to 68)	38.59*	85*
C8459-0 to C8459-14	310	2 700	310	2 700	2.18 to 1.83 (86 to 72)	37.68*	83*
C8465-0 to C8465-14	310	2 700	310	2 700	2.18 to 1.83 (86 to 72)	39.04*	86*
C8467-0 to C8467-14	310	2 575	310	2 575	2.18 to 1.83 (86 to 72)	40.86*	90*
C8468-0 to C8468-14	310	2 625	310	2 625	2.18 to 1.83 (86 to 72)	39.49*	87*
C8470-0 to C8470-14	310	2 700	310	2 700	2.18 to 1.83 (86 to 72)	39.04*	86*
C8475+2 to C8475-0	435	2 266	435	2 266	2.24 to 2.18 (88 to 86)	40.86*	90*
C8475-0 to C8475-14	310 or 435	2 575 or 2 266	310 or 435	2 575 or 2 266	2.18 to 1.83 (86 to 72)	40.86*	90*
C8477-0 to C8477-14	310	2 575	310	2 575	2.18 to 1.83 (86 to 72)	42.22*	93*
C9684-12 to C9684-18	320	2 200	320	2 200	2.13 to 1.98 (84 to 78)	42.22*	93*

\* Weight apply to – 2 propellers only. Add 3.17 kg (7 lb) for –3 models.

**CERTIFICATION BASIS**

Brazilian Type Certificate No.2006T05 based on the RBHA 35, which endorses the FAR 35 effective 18 August 1990 with amendments 35-1 and 35-6.

**TYPE CERTIFICATION**

<u>Model</u>	<u>Application</u>	<u>Issued TC</u>
HC-H3Y	13 March 2006	16 March 2007

**PRODUCTION BASIS**

FAA production certificate No. 10.

*Pawol*

**IMPORT REQUIREMENTS**

Each propeller imported separately and/or spare parts must be accompanied by an Airworthiness Certificate for Export and/or an Airworthiness Approval Tag, respectively, 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 HC - H 3 Y E - 1 RF , where:

HC – Hartzell Controllable.

H – Denotes a 4.25 inches integral shaft extension.

3 – Number of blades.

Y – Hartzell blade shank size.

F – F denotes flange with six ½” bolts and two ½” dowels on a 4” bolt circle.

N denotes flange with eight 9/16” bolts and two ½” dowels on a 4.24” bolt circle.

1 – Denotes specific design features (see note 4).

RF – F when used denotes modified pitch change system.

K when used with –2 models indicates specific flange mounting studs.

L when used denotes left hand rotation.

R when used denotes 21.6 sq in piston area.

U denotes feather assist spring for –2 models.

Any other character denotes a minor change not affecting eligibility.

**NOTE 2**

Blade Model Designation FL C 76 66 D - 3R , where:

FL - Denotes blade configuration: right-hand tractor unless otherwise noted

F denotes a large pitch change knob

J denotes left-hand tractor

L or H denotes left-hand pusher or right-hand pusher respectively

C - Denotes counterweighted blades

76 - Basic diameter for a two blades propeller. Add two inches for three blades propellers. (Note: two inches correction does not apply to C9684 blade design)

66 - Basic blade model

D - D or F denotes a dimensional modification from the original design

B or K denotes deicing boots

R when used denotes a rounded tip for the basic diameter

S when used denotes a square tip for the basic diameter\*

Any other character denotes a minor modification not affecting eligibility

3R - Number of inches cut off from (or added to if +) basic diameter

Q when used denotes special 1” x 90° factory-bent tip for cutoff diameter

R when used denotes specifically rounded tip for cutoff diameter

\*Blades may incorporate either round or square tips, yet may not be marked with “R” or “S” in their model designation. This character is used to distinguish between two or more tip shapes available at the same diameter. Certain blades use “S” to denote shot peening of the exterior surface.

**NOTE 3** Pitch control:

- (a) Approved with Hartzell governors per drawing C-4770 and C-4772.  
Weight 2.04 kg (4.5 lb).

$D - \underline{1} - \underline{4} \underline{Z}$ , where:

- D - Basic body and major parts modification.  
1 - Minor adjustment to obtain engine/propeller/governor compatibility.  
4 - Minor adjustment not affecting eligibility.  
Z - L when used indicates left hand rotation.  
Z when used indicates drive coupling type.  
Any other character denotes a minor change not affecting eligibility.

- (b) The -1 propeller models use oil to increase pitch and do not have counterweighted blades. The -2 and -3 models have counterweighted blades and use oil to decrease pitch. (See note 4).

- (c) Maximum governor output pressure: 350 psi for all propeller models.

- (d) All governors must be approved as part of the aircraft installation regardless of manufacturer. (See note 10).

**NOTE 4**

Feathering: The -1 and -3 models do not feather.

The -2 models incorporate feathering and unfeathering features.

Reversing: The -3 models are eligible 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 right-hand model. See Notes 1 and 2.

**NOTE 6**Interchangeability

## Governors

Hartzell governors with a "Z" suffix in their model designation may be used interchangeably with corresponding governors without the "Z". For example, the F-6-24Z is a replacement for the F-6-24 and F-6-24 is a replacement for the F-6-24Z.

**NOTE 7**Accessories

- (a) Propeller anti-icing (weight of anti-icing equipment extra):

(1) Approved with fluid feed boots listed in Hartzell type design data when installed in accordance with Hartzell specification H-S-2 or Manual 113().

(2) Approved with fluid feed equipment listed in Hartzell type design data on propeller models for which equipment is available.

- (b) Propeller deicing (weight of deicing equipment extra):

(1) Approved with Goodyear Ice guards (electrical propeller deicer) when installed in accordance with instructions outlined in Goodyear report no. AP-147 dated 23 October 1961.

(2) Approved with Goodrich electrical deicing kit 5E-XXXX-X, 7E-XXXX-X, 77-XXX, 67-XXX or 65-XXX when installed in accordance with Goodrich Report no. ATA 30-60-07.

(3) Approved with ice protection equipment when listed on Hartzell type design data.

- (c) Propeller spinner (weight of spinner extra):

Approved with spinners when on Hartzell type data.

**NOTE 8**     Shank Fairings: Not applicable.

**NOTE 9**     Special Limits: Reserved.

**NOTE 10**    Propeller installation must be approved as part of the aircraft Type Certificate and demonstrate compliance with the applicable aircraft airworthiness requirements. Propeller models listed herein consist of basic hub and blade models. Most propeller models include additional character to denote minor changes and specific features as explained in Notes 1 and 2. Refer to the aircraft Type Certificate Data Sheet or STC 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 Manuals 113() or 117().

**NOTE 12**    Special Notes

Refer to Hartzell Manual No. 202() for overspeed and overtorque limits.



**CLÁUDIO PASSOS SIMÃO**  
Gerente Geral, Certificação de Produtos Aeronáuticos  
(Manager, Aeronautical Products Certification)

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