



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 (See Note 10)
	HP	RPM	HP	RPM			
<u>Non-Counterweighted Propellers HC-E2YK-1, -2; HC-E2YR-1, -2, BHC-E2YR-1 (cont.)</u>							
8459-0 to 8459-12	260	2700	260	2700	84" to 72" (-0 to -12)	61.0 lb.	Aluminum Alloy
8465-6 to 8465-14	260	2700	260	2700	78" to 70" (-6 to -14)	61.0 lb.	Aluminum Alloy
8467-0 to 8467-12	285	2700	285	2700	84" to 72" (-0 to -12)	65.0 lb.	Aluminum Alloy
8468-0 to 8468-12	260	2700	260	2700	84" to 72" (-0 to -12)	63.4 lb.	Aluminum Alloy
8470-0 to 8470-8	260	2700	260	2700	84" to 76" (-0 to -8)	62.0 lb.	Aluminum Alloy
8475-0 to 8475-4	310	2575	310	2575	84" to 80" (-0 to -4)	62.0 lb.	Aluminum Alloy
	or 260	or 2700	or 260	or 2700			
8475-4 to 8475-6	310	2575	310	2575	80" to 78" (-4 to -6)	61.0 lb.	Aluminum Alloy
	or 300	or 2700	or 300	or 2700			
8475-6 to 8475-14	310	2700	310	2700	78" to 70" (-6 to -14)	60.0 lb.	Aluminum Alloy
			or 300	or 2850			
8477-0 to 8477-12	260	2700	260	2700	84" to 72" (-0 to -12)	62.0 lb.	Aluminum Alloy
8477-4 to 8477-6	350	2700	350	2700	80" to 78" (-4 to -6)	62.0 lb.	Aluminum Alloy
<u>Non-Counterweighted Propellers HC-E2YR-1, BHC-E2YR-1</u>							
N7605-0 to N7605-10	215	2700	215	2700	76" to 66" (-0 to -10)	51.0 lb.	Composite
<u>Non-Counterweighted Propellers HC-E2YR-1, BHC-E2YR-1</u>							
7497-0 to 7497-6	250	2700	250	2700	74" to 68" (-0 to -6)	66.9 lb.	Aluminum Alloy
<u>Counterweighted Propellers HC-E2YL-2</u>							
C7663-0 to C7663-10	160	2700	160	2700	76" to 66" (-0 to -10)	54.0 lb.	Aluminum Alloy
C7692-0 to C7692-8	180	2900	180	2900	76" to 68" (-0 to -8)	54.0 lb.	Aluminum Alloy
	or 250	or 2700	or 250	or 2700			
<u>Counterweighted Propellers DHC-E2YF-2</u>							
C7663-0 to C7663-6	210	2800	210	2800	76" to 70" (-0 to -6)	53.0 lb.	Aluminum Alloy
C7692-0 to C7692-8	180	2900	180	2900	76" to 68" (-0 to -8)	50.0 lb.	Aluminum Alloy
	or 250	or 2700	or 250	or 2700			

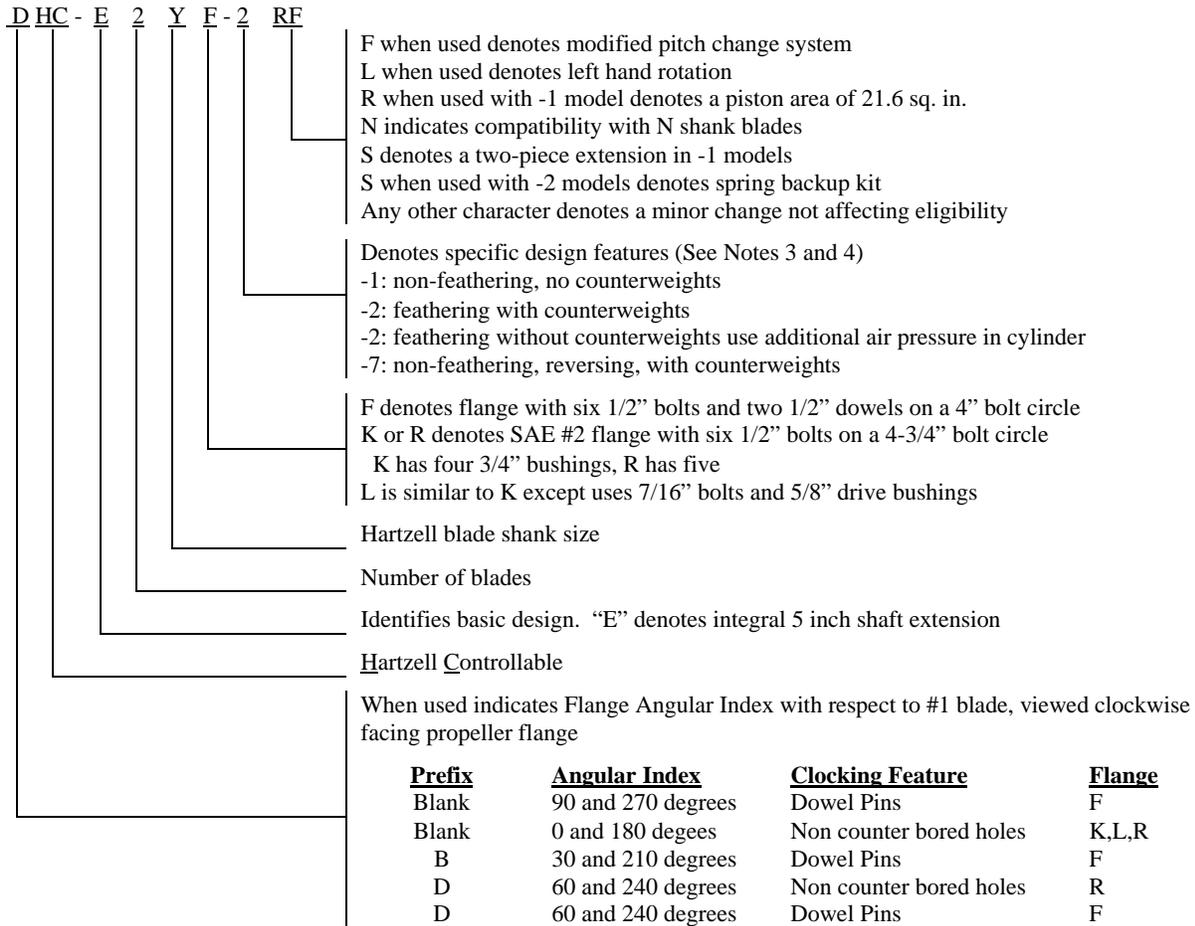
Blades (See Note 2)	Maximum Continuous		Takeoff		Diameter Limits (See Note 2)	Approx. Max. Wt. Complete (For Reference Only) (See Notes 3 and 7)	Blade Construction (See Note 10)
	HP	RPM	HP	RPM			
<u>Counterweighted Propellers HC-E2YK-2; HC-E2YR-2, -7</u>							
C7280+1/2 to C7280-7	250	2700	250	2700	72 1/2" to 65" (+1/2 to -7)	68.5 lb.	Aluminum Alloy
C7663-0 to C7663-8	210	2800	210	2800	76" to 68" (-0 to -8)	60.0 lb.	Aluminum Alloy
C7666-0 to C7666-8	180 or 250	2900 2700	180 or 250	2900 2700	76" to 68" (-0 to -8)	68.5 lb.	Aluminum Alloy
C7681-0 to C7681-8	250	2700	250	2700	76" to 68" (-0 to -8)	69.0 lb.	Aluminum Alloy
C7692-0 to C7692-8	180 or 250	2900 2700	180 or 250	2900 2700	76" to 68" (-0 to -8)	60.0 lb.	Aluminum Alloy
C8459-0 to C8459-12	260	2700	260	2700	84" to 72" (-0 to -12)	65.0 lb.	Aluminum Alloy
C8465-6 to C8465-14	260	2700	260	2700	78" to 70" (-6 to -14)	65.0 lb.	Aluminum Alloy
C8467-0 to C8467-12	285	2700	285	2700	84" to 72" (-0 to -12)	69.0 lb.	Aluminum Alloy
C8468-0 to C8468-12	260	2700	260	2700	84" to 72" (-0 to -12)	67.4 lb.	Aluminum Alloy
C8470-0 to C8470-8	260	2700	260	2700	84" to 76" (-0 to -8)	66.0 lb.	Aluminum Alloy
C8475-0 to C8475-4	310 or 260	2575 2700	310 or 260	2575 2700	84" to 80" (-0 to -4)	66.0 lb.	Aluminum Alloy
C8475-4 to C8475-6	310 or 300	2575 2700	310 or 300	2575 2700	80" to 78" (-4 to -6)	65.0 lb.	Aluminum Alloy
C8475-6 to C8475-14	310	2700	310 or 300	2700 2850	78" to 70" (-6 to -14)	64.0 lb.	Aluminum Alloy
C8477-0 to C8477-12	260	2700	260	2700	84" to 72" (-0 to -12)	66.0 lb.	Aluminum Alloy
C8477-4 to C8477-6	350	2700	350	2700	80" to 78" (-4 to -6)	66.0 lb.	Aluminum Alloy
<u>Counterweighted Propellers HC-E2YR-2</u>							
C7693+1 to C7693-8	250	2700	250	2700	77" to 68" (+1 to -8)	58.5 lb.	Aluminum Alloy

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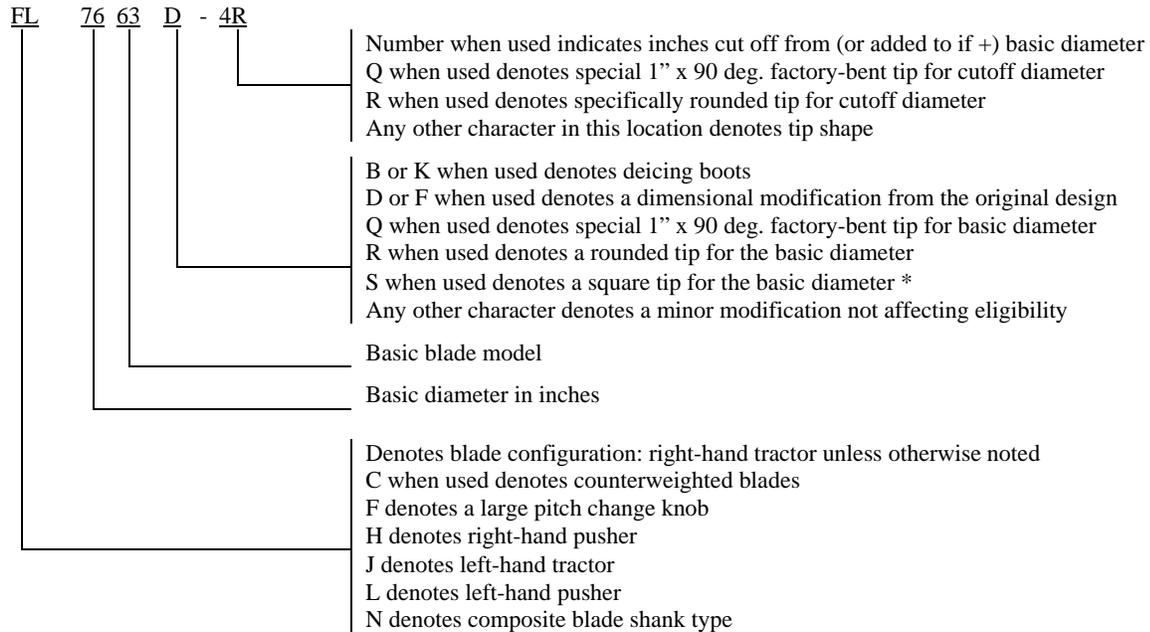
Certification Basis:	<p>Civil Air Regulations Part 14 effective December 15, 1956 with amendment 14-1 thereto. Type Certificate no. P9EA issued January 24, 1963. Date of application for Type Certificate: January 8, 1963</p> <p>Models approved under the original certification basis include the following: DHC-E2YF-2, HC-E2YL-2, HC-E2YK-2</p> <p>Propellers listed in the following section were approved under the Delegation Option Authorization provisions of 14 CFR Part 21 Subpart J</p> <p>HC-E2YR-2, HC-E2YK-1, HC-E2YL-1, HC-E2YR-7</p> <p>The following models were added, updated or revised in accordance with 14 CFR Part 35 with amendment 35-1 effective February 1, 1965: HC-E2YR-2</p> <p>The following models were added, updated or revised in accordance with 14 CFR Part 35 with amendments 35-1 and 35-2 effective April 3, 1967: HC-E2YL-1,2; HC-E2YK-1,2; HC-E2YR-1,2</p> <p>The following models were added, updated or revised in accordance with 14 CFR Part 35 with amendments 35-1 through 35-5 effective October 14, 1980: HC-E2YR-1; HC-E2YR-7</p> <p>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-E2YR-2</p> <p>Models added after August 31, 2009 are approved in accordance with Organization Designation Authorization procedures of 14 CFR Part 183 Subpart D</p> <p>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-E2YR-1, BHC-E2YR-1</p>
Production Basis:	<p>Production Certificate no. 10</p>

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



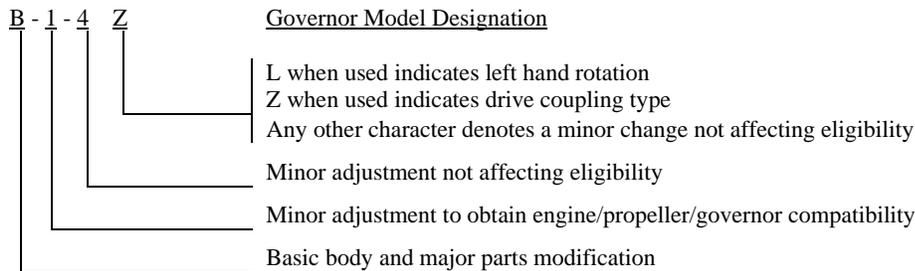
Note 2: Blade Model Designation (See Notes 5 and 6)



\* Blades may incorporate either round or square tips, yet may not be marked with an "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. (See Note 6)

Note 3: Pitch Control (See Notes 4 and 10)

(a) Approved with Hartzell governors per drawings C-4770 and C-4772. Wt.: 4.5 lb. (See Note 10)



(b) The -1 propeller models use oil to increase pitch. The -2 and -7 models 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 -7 models do not feather.  
The -2 models incorporate feathering and unfeathering features.

Reversing The -7 model is eligible for installation as a reversing propeller when used with appropriate reversing controls; Pressure control unit P/N B-4270.

Piston size Piston area for -1 models is 19.2 sq. in. and for -2 and -7 models is 17.3 sq. in. except as stated in Note 1.

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. (See Notes 1 and 2)

Note 6: Interchangeability

(a) Blades

- (1) Blades with counterweights (having "C" prefix) can replace non-counterweighted blades on feathering propellers (hub model suffix -2) only, providing the air charge is reduced to between 60 and 70 psi at 70 deg. F. Attached decal specifying the air charge must be changed accordingly.
- (2) Shot-peened blades may replace non shot-peened blades either individually or as a set (See Note 2)

(b) Propellers

- (1) "F" type propellers with the modified pitch change system are interchangeable with corresponding propellers with the standard pitch change system. (See Notes 1 and 2)
- (2) "R" flange propellers may replace "K" flange propellers when marked in accordance with Manual 202( ).

(c) Governors

- (1) 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 the F-6-24 is a replacement for the F-6-24Z.

(d) Ice Protection Systems

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

Note 7: Accessories (See Note 10)

(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)

(c) Pressure control valve (weight of pressure control valve extra)

Required for operation of -7 model propellers

Note 8: Shank Fairings Not applicable.

Note 9: Special Limits

Table of Propeller - Engine Combinations  
Approved Vibrationwise for Use on Normal Category Single Engine Tractor Aircraft

The maximum and minimum propeller diameters that can be used from a vibration standpoint are shown below. No reduction below the minimum diameter listed is permissible, since this figure includes the diameter reduction allowable for repair purposes.

The engine models listed below are the configurations on the engine type certificate unless specifically stated otherwise. Modifications to the engine or airframe that alter the power of the engine models listed below during any phase of operation have the potential to increase propeller stresses and are not approved by this list. Such modifications include, but are not limited to, the addition of a turbocharger or turbonormalizer, increased boost pressure, increased compression ratio, increased RPM, altered ignition timing, electronic ignition, full authority digital engine controls (FADEC), or tuned induction or exhaust. Also, any change to the mass or stiffness of the crankshaft/counterweight assembly is not approved by this list.

<u>Hub Model</u>	<u>Blade Model</u>	<u>Engine Model</u>	<u>Max. Dia. (inches)</u>	<u>Min. Dia. (inches)</u>	<u>Placards</u>
HC-E2YL	7663	LYC IO-320 series, 8.5:1 compression ratio or less, 160 HP at 2700 RPM or less, centerline of blades 60 and 240 degrees clockwise from no. 1 crankthrow facing engine from propeller end	72	70	none
HC-E2YK HC-E2YR	7666A	LYC O-360-A1G6	76	72	none
HC-E2YK HC-E2YR	7666A	LYC IO-360-C1D6, C1E6	76	74	Do not exceed 24" manifold pressure below 2400 RPM
HC-E2YK HC-E2YR	7666A	LYC IO-360-C1C6, C1D6	76	74	Do not exceed 24" manifold pressure below 2400 RPM
HC-E2YK HC-E2YR	8465-( )R	LYC IO-540-C4B5	77	76	Do not exceed 27" manifold pressure below 2300 RPM
HC-E2YK HC-E2YR	8465-( )R	LYC O-540-( )4( )5 with one heavier 5 <sup>th</sup> and one heavier 6 <sup>th</sup> order dampers, 8.5:1 compression ratio or less, 250 HP at 2575 RPM or less	77	76	Do not exceed 27" manifold pressure below 2300 RPM
HC-E2YK HC-E2YR	8465-( )R	LYC IO-540 series with one 5 <sup>th</sup> and one 6 <sup>th</sup> order dampers, 8.5:1 compression ratio or less, 250 HP at 2575 RPM or less	77	76	Do not exceed 27" manifold pressure below 2300 RPM
HC-E2YR	8465-( )R	LYC TIO-540 series with 75040 crankshaft and counterweight assembly, one 5 <sup>th</sup> and one 6 <sup>th</sup> order dampers, 7.3:1 compression ratio or less, 250 HP at 2575 RPM or less	77	76	none
HC-E2YK HC-E2YR	8467-( )R F8467-( )R	LYC IO-360-A1B6, C1D6, J1A6D	77	76.5	For continuous operation, do not exceed 24" manifold pressure below 2350 RPM

<u>Hub Model</u>	<u>Blade Model</u>	<u>Engine Model</u>	<u>Max. Dia. (inches)</u>	<u>Min. Dia. (inches)</u>	<u>Placards</u>
HC-E2YR	8467-()R	LYC IO-540-N1A5	77	75	none
HC-E2YK HC-E2YR	F8467-()R	LYC TO-360-C1A6D, F1A6D	77	76.5	Not more than 34" manifold pressure below 2350 RPM  Not less than 20" manifold pressure between 2250 and 2450 RPM
HC-E2YK HC-E2YR	8475-()	LYC IO-540-U1A5D	80	78	Do not exceed 23" manifold pressure below 2250 RPM
HC-E2YR	F8477()-() F8477()-()R	LYCT IO-540-S1AD	80	78	none

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 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
  - (1) Airworthiness limitations, if any, are specified in Hartzell Manuals 113(), 115N or 117() or 145()

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