

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

P55GL
Revision 10
Hartzell
()HC-G3Y

December 2, 2002

TYPE CERTIFICATE DATA SHEET NO. P55GL

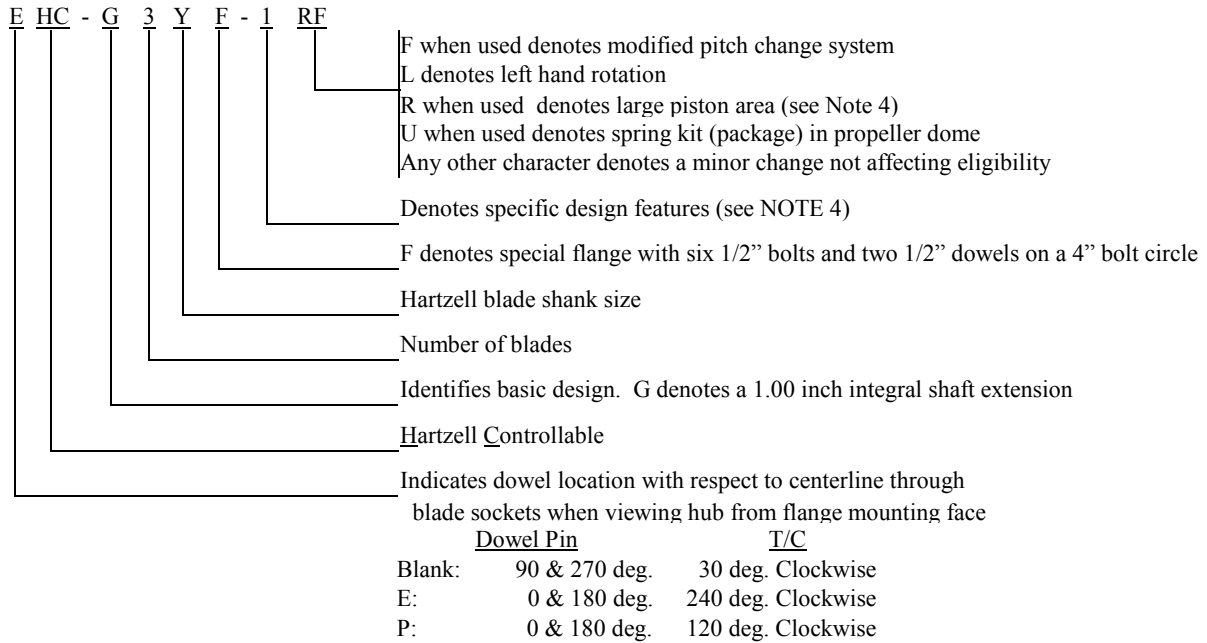
Propellers of models described herein conforming with this data sheet (which is part of Type Certificate No. P55GL) and other approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and 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 Flange	Special flange (see NOTE 1)
Hub material	Aluminum Alloy
Blade material	See below
Number of blades	Three
Hub models	HC-G3YF-1, -2; EHC-G3YF-1, -2; PHC-G3YF-1, -2

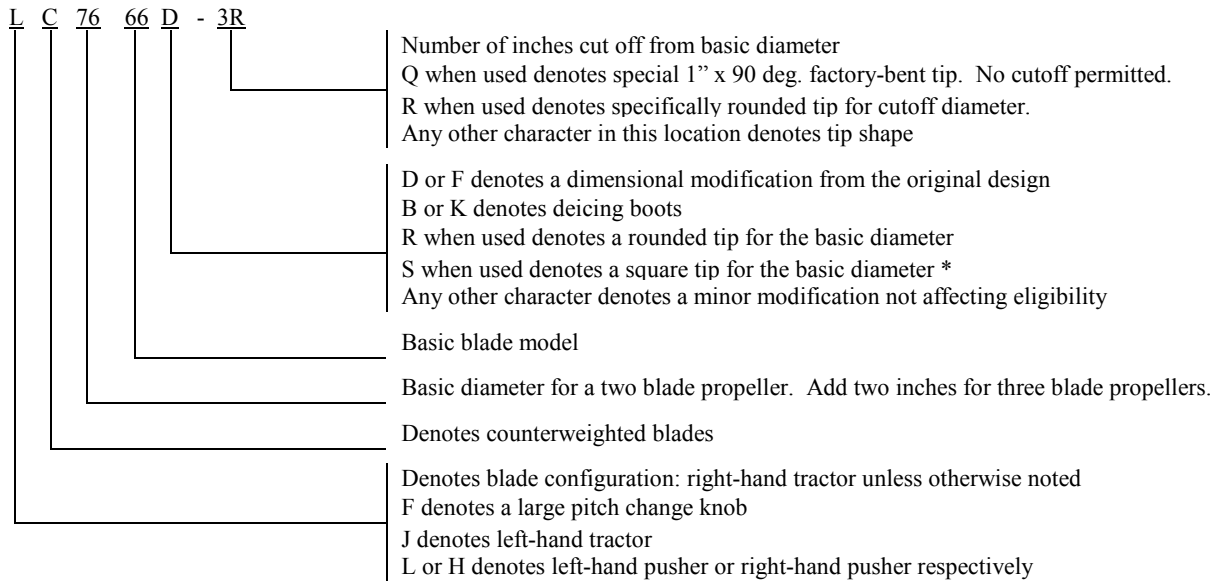
Blades (see NOTE 2)	Maximum Continuous		Takeoff		Diameter Limits (see NOTE 2)	Approx. Max. Wt. Complete (For Reference Only) (See NOTES 3 and 7)	Blade Construction
	HP	RPM	HP	RPM			
<u>Non-Counterweighted Propellers HC-G3YF-1, EHC-G3YF-1, PHC-G3YF-1</u>							
7392-0 to 7392-10	350	2850	350	2850	75" to 65" (-0 to -10)	73.5 lb.	Aluminum Alloy
7663-0 to 7663-10	310	2850	310	2850	78" to 68" (-0 to -10)	70.0 lb.	Aluminum Alloy
7666-0 to 7666-10	310	2700	310	2700	78" to 68" (-0 to -10)	77.0 lb.	Aluminum Alloy
7691-0 to 7691-10	350	2850	350	2850	78" to 68" (-0 to -10)	68.0 lb.	Aluminum Alloy
7693-0 to 7693-10	350	2700	350	2700	78" to 68" (-0 to -10)	74.0 lb.	Aluminum Alloy
8068-0 to 8068-10	350	2700	350	2700	82" to 72" (-0 to -10)	78.5 lb.	Aluminum Alloy
8068-2 to 8068-10	350	2700	310	2850	80" to 72" (-2 to -10)	78.5 lb.	Aluminum Alloy
8459-0 to 8459-14	400	2700	400	2700	86" to 72" (-0 to -14)	73.0 lb.	Aluminum Alloy
8465-0 to 8465-14	400	2700	400	2700	86" to 72" (-0 to -14)	75.0 lb.	Aluminum Alloy
8467-0 to 8467-14	400	2575	400	2575	86" to 72" (-0 to -14)	79.0 lb.	Aluminum Alloy

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			
8468-0 to 8468-14	400	2625	400	2625	86" to 72" (-0 to -14)	76.0 lb.	Aluminum Alloy
8470-0 to 8470-14	400	2700	400	2700	86" to 72" (-0 to -14)	75.0 lb.	Aluminum Alloy
8475-0 to 8475-14	400	2575	400	2575	86" to 72" (-0 to -14)	79.0 lb.	Aluminum Alloy
8477-0 to 8477-14	400	2575	400	2575	86" to 72" (-0 to -14)	82.0 lb.	Aluminum Alloy
<u>Non-Counterweighted Propellers: PHC-G3YF-1</u>							
7890	400	2700	400	2700	80"	66.0 lb.	Aramid Composite
<u>Counterweighted Propellers: HC-G3YF-2, EHC-G3YF-2, PHC-G3YF-2</u>							
C7663-0 to C7663-10	310	2850	310	2850	78" to 68" (-0 to -10)	79.0 lb.	Aluminum Alloy
C7666-0 to C7666-10	310	2700	310	2700	78" to 68" (-0 to -10)	86.0 lb.	Aluminum Alloy
C7691-0 to C7691-10	350	2850	350	2850	78" to 68" (-0 to -10)	77.0 lb.	Aluminum Alloy
C8459-0 to C8459-14	400	2700	400	2700	86" to 72" (-0 to -14)	82.0 lb.	Aluminum Alloy
C8465-0 to C8465-14	400	2700	400	2700	86" to 72" (-0 to -14)	84.0 lb.	Aluminum Alloy
C8467-0 to C8467-14	400	2575	400	2575	86" to 72" (-0 to -14)	88.0 lb.	Aluminum Alloy
C8468-0 to C8468-14	400	2625	400	2625	86" to 72" (-0 to -14)	85.0 lb.	Aluminum Alloy
C8470-0 to C8470-14	400	2700	400	2700	86" to 72" (-0 to -14)	84.0 lb.	Aluminum Alloy
C8475-0 to C8475-14	400	2575	400	2575	86" to 72" (-0 to -14)	88.0 lb.	Aluminum Alloy
C8477-0 to C8477-14	400	2575	400	2575	86" to 72" (-0 to -14)	91.0 lb.	Aluminum Alloy
Certification Basis:		FAR Part 35 effective May 2, 1977 with amendments 35-1 and 35-4 thereto. Type Certificate No. P55GL issued March 31, 1978 under Delegated Option Authorization procedures of FAR Part 21 Subpart J. EHC-G3Y Date of application for Type Certificate: January 12, 1978. PHC-G3Y Date of application for Type Certificate: May 6, 1993.					
Production Basis:		Production Certificate no. 10					

NOTE 1. Hub Model Designation



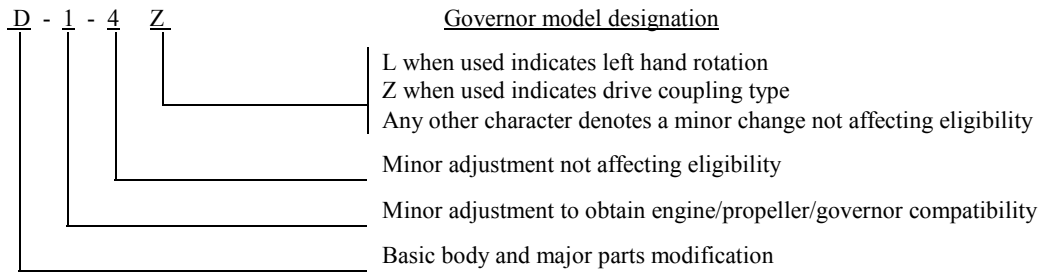
NOTE 2: Blade Model Designation



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.

NOTE 3. Pitch Control (see Note 10)

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



- (b) Approved with Woodward model X210XXX or X210X-XXX. Wt.: 3.5 lb
- (c) Approved with McCauley model C290-D3-X/TXX. Wt.: 2.8 lb (for non-counterweighted models only)

NOTE 4. Feathering The -1 models do not feather. The -2 models incorporate feathering and unfeathering provisions.
Reversing Not Applicable.

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

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.

NOTE 7. Accessories

- (a) Propeller spinner
- (1) Approved with Hartzell spinners. (weight of spinner extra)
- (b) Propeller deicing
- (1) Approved with Goodrich electrical deicing kit 5E-XXXX-X, 7E-XXXX-X, 65-XXX, 67-XXX, or 77-XXX when installed in accordance with Goodrich Report no. ATA 30-60-07.
- (2) Approved with Goodyear Ice Guards (electrical propeller deicer) when installed in accordance with instructions outlined in Goodyear Report no. AP-147 dated October 23, 1961.
- (c) Propeller anti-icing
- (1) Approved with fluid feed shoes or Ices boots installed in accordance with H-S-2 or Hartzell Manual no. 133().
- (2) Approved with Hartzell fluid feed equipment on propeller models for which equipment is available.

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.

Hub	Blade	Engine Model	Max. Dia. (inches)	Min. Dia. (inches)	Placards
EHC-G3YF	7663	TCM IO-520-E	77	74	none
PHC-G3YF	F7691()	TCM IO-520-D TCM IO-550-D	78	77	Do not exceed 20 in. manifold pressure below 2200 RPM
PHC-G3YF	F7691	TCM IO-520-A, -B, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -MB TCM IO-550-A, -B, -C, -D, -F, -G, -L, -N, -P, -R	78	77	Do not exceed 20 in. manifold pressure below 2200 RPM
PHC-G3YF	F7691()	TCM O-470-A, -J, -K, -L, -R, -S, -U	78	77	none
PHC-G3YF	F8468A()	TCM O-470-K, -L TCM IO-470-F	80	77	none
PHC-G3YF	F8468A-()R	TCM O-470-A (S/N 41000 & up), -J, -K, -L, -R, -S, -U	80	77	none
PHC-G3YF	F8468A()	TCM IO-520-D TCM IO-550-D	80	77	none

NOTE 10. Special Notes

Propeller installation must be approved as part of the aircraft Type Certificate and demonstrate compliance with the applicable aircraft airworthiness requirements.

NOTE 11. Retirement Time

(a) Life Limits and Mandatory Inspections

(1) Airworthiness limitations, if any, are specified in Hartzell Manuals 113() or 117().

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