

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

P51GL
Revision 2

Hartzell
HC-D3V
HC-D3MV
November 14, 1997

TYPE CERTIFICATE DATA SHEET NO. P51GL

Propellers of models described herein conforming with this data sheet (which is part of Type Certificate No. P51GL) 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 SAE # 20 Spline

Hub material Alloy steel

Blade material Aluminum alloy

Number of blades Three

Hub models HC-D3V20-(5,6,8), HC-D3MV20-(5,6,8) (see NOTES 1 and 4)

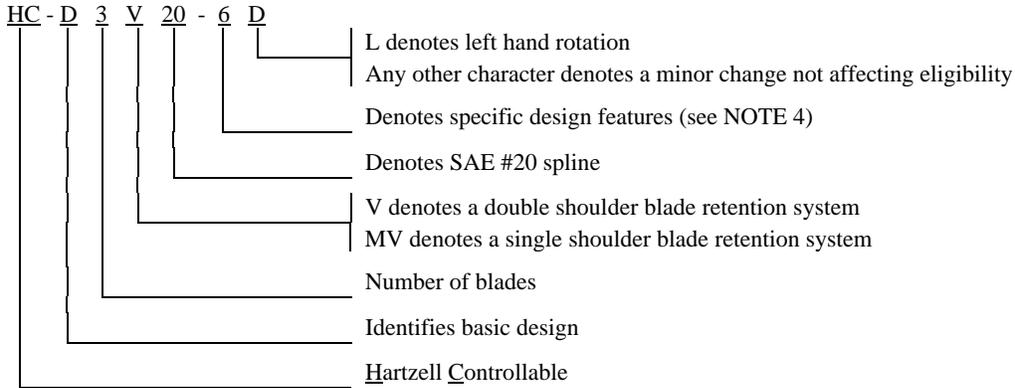
Blades (see NOTE 2)	Maximum Continuous		Takeoff		Diameter Limits	Approx. Max. Wt. Complete (For Reference Only)
	HP	RPM	HP	RPM	(see NOTE 2)	(See NOTES 3 and 7)
V7636(-)0 to V7636(-)8	280	2600	280	2600	76" to 68" (-0 to -8)	94.0 lb.
V8433(-)0 to V8433(-)12	280	2600	280	2600	84" to 72" (-0 to -12)	97.0 lb.

Certification Basis: HC-D3V20 models: FAR Part 35 with amendments 35-1 and 35-2 effective Apr. 3, 1967.
 HC-D3MV20 models: FAR Part 35 with amendments 35-1 through 35-6 effective Aug. 18, 1990.
 Type Certificate No. P51GL issued November 15, 1976.
 Date of application for Type Certificate: November 5, 1976.

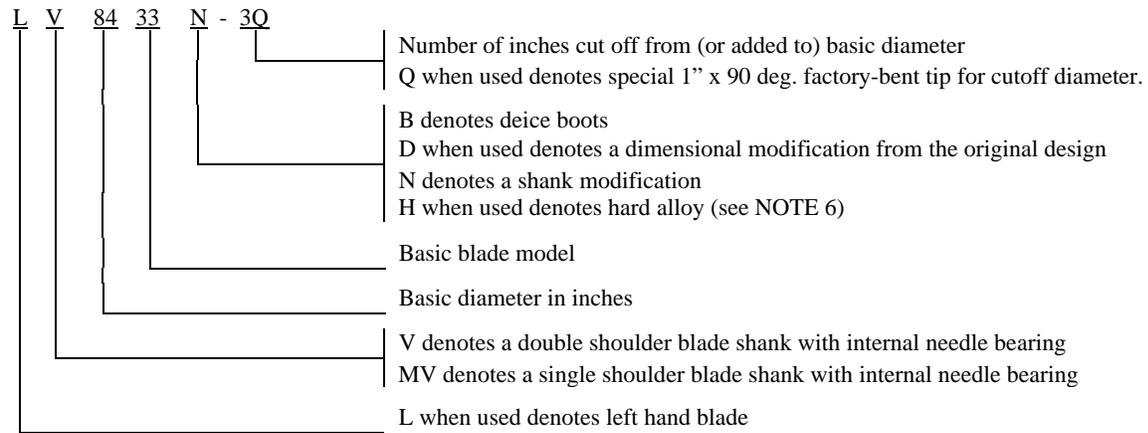
Production Basis: Production Certificate no. 10

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NOTE 1. Hub Model Designation

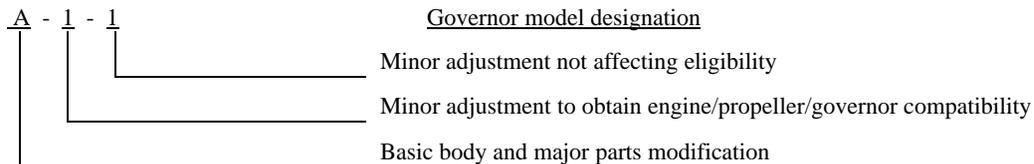


NOTE 2: Blade Model Designation



NOTE 3. Pitch Control

- (a) Approved with Hartzell manual or constant speed controls
- (b) Approved with Hartzell constant speed governors per drawing C-4772. Wt.: 4.5 lb.
- (c) Some installations require a T-drive adapter for the governor. Additional weight of the Hartzell model C-253-2 adapter is 2.7 lbs.



- NOTE 4. (a) Feathering Not Applicable
- (b) Reversing The -5 and -6 models incorporate reversing when used with the appropriate 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) Blades**

- (1) The following blades are interchangeable provided that all blades in the same propeller are identical: V8433, V8433A, V8433N, V8433H *.
* V8433H blades may only be used on seaplanes or amphibious aircraft.
- (2) Blades with an "N" suffix, such as (M)V8433N, are interchangeable with corresponding blades without the "N" suffix, provided that all blades in the same propeller are identical.
- (3) Blades with "M" prefix, such as MV8433N, can be substituted for corresponding blades without the "M" prefix provided that all blades in the same propeller are identical and that the hub model also contains the characters "MV". Blades without the "M" prefix cannot be substituted for those with the "M" prefix.

(b) Propellers

- (1) Propellers listed in this data sheet may replace corresponding propellers listed in Type Certificate Data Sheets P888 and P1EA.
- (2) Propellers listed in T.C.D.S. nos. P-888 and P1EA may not replace propellers listed in this data sheet.
- (3) In the model designation HC-D3(V,MV)(), the "D" may be substituted for propeller models with "1" in the same location and "V" or "MV" may be substituted for propeller models with "X" in the same location.
- (4) In the model designation HC-D3(V,MV)(), the "MV" may be substituted for "V", however "V" may not replace "MV".

NOTE 7. Accessories

Not applicable

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.

<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-D3V20	V8433()	LYC GO-435	84	84	none
HC-D3V20	V8433()	Franklin 6A8-215-B8F, -B9F	84	80	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 100().

END