

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

P-914
Revision 5
Hartzell
HA-B3Z
July 30, 2004

TYPE CERTIFICATE DATA SHEET NO. P-914

Propellers of models described herein conforming with this data sheet (which is part of Type Certificate No. P-914) 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	Ground adjustable
Engine shaft	SAE Spline (see NOTE 1)
Hub material	Alloy Steel
Blade material	Aluminum Alloy
Number of blades	Three
Hub models	HA-B3Z30-1 (See NOTE 1)

Blades (See NOTES 2 and 6)	Maximum Continuous		Takeoff		Diameter Limits (see NOTE 2)	Approx. Max. Wt. Complete (For Reference Only) (See NOTES 3 and 7)
	HP	RPM	HP	RPM		
10152-5 1/2 to 10152-11	450	2300	450	2300	95 1/2" to 90" (-5 1/2 to -11)	120 lb.
10160-6 to 10160-11	450	2300	450	2300	95" to 90" (-6 to -11)	121 lb.

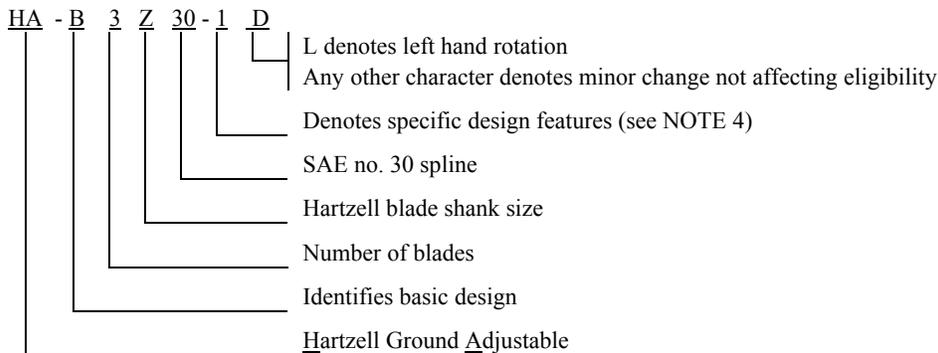
Certification Basis: Civil Air Regulations Part 14 effective December 15, 1956.

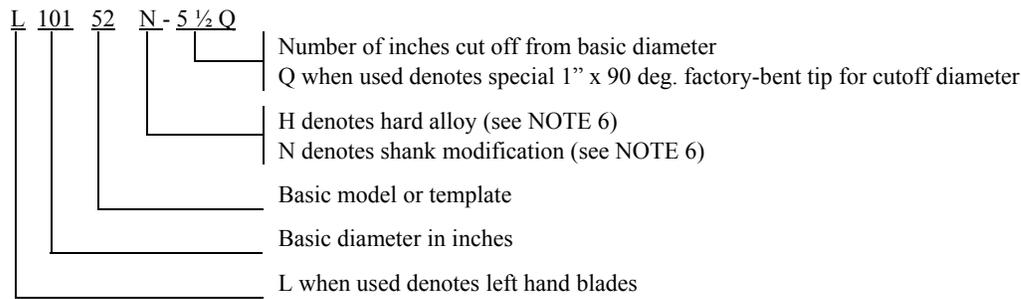
Type Certificate no. P-914 issued July 20, 1960.

Date of application for Type Certificate: June 16, 1960

Production Basis: Production Certificate no. 10

NOTE 1. Hub Model Designation



NOTE 2. Blade Model DesignationNOTE 3. Pitch Control Not applicableNOTE 4. (a) Feathering Not applicable(b) Reversing Not applicableNOTE 5. Left-Hand Models

The left-hand version of an approved model propeller 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 the suffix "N" in the basic model number may replace those without an "N" either individually or as a set. When the aircraft Type Certificate or Supplemental Type Certificate specifies blades with the letter "N" in the basic model number, the "N" character must be retained in all replacement blade models.

For example: Blades without the "N" suffix may be replaced by "N" suffix blades.  
Blades with the "N" suffix may only be replaced by "N" suffix blades.

(2) Hard and soft alloy blades of the same model designation are interchangeable. (See NOTE 2)

(b) Propellers

Propellers listed in this data sheet may be replaced by corresponding propellers listed on TCDS P30EA provided the propeller designations are the same except that "Z" character is replaced by "P" and that the associated blades are prefixed by the letter "P". (See NOTES 1 and 2)

NOTE 7. Accessories Not applicableNOTE 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 turbnormalizer, 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>Blade Model</u>	<u>Engine Model</u>	<u>Max. Dia. (inches)</u>	<u>Min. Dia. (inches)</u>	<u>Placards</u>
10152-5 ½	P&W R-985*	95 ½	95 ½	none
10152-7 ½	P&W R-985*	93 ½	93 ½	Avoid continuous operation between 1600 and 1850 RPM
10160-6	P&W R-985*	95	95	Avoid continuous operation between 1600 and 1800 RPM

\* Must have 4 ½ and one 9<sup>th</sup> order dampers on crankshaft

NOTE 10. The 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.

NOTE 11. Retirement Time

(a) Life Limits and Mandatory Inspections

(1) Airworthiness limitations, if any, are stated in Hartzell Manual 114B or Service Letter 61( ).

NOTE 12. Special Notes

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

END