

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

P-785
Revision 8
Hamilton Standard
24E

December 4, 1970

TYPE CERTIFICATE DATA SHEET NO. P-785

Propellers of models described herein conforming with this data sheet (which is part of type certificate no. 785) 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 Civil Air Regulations/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	Hamilton Standard Division United Aircraft Corporation Windsor Locks, Connecticut 06096
Type Engine shaft	Constant speed; hydraulic (see NOTES 3 and 4) SAE No. 60, SAE No. 50 or X (X indicates special shaft sizes for foreign engines are eligible.)
Hub material	Steel
Blade material	Aluminum alloy
Number of blades	4
Hubs eligible	24E60, 24E50 and 24EX (see NOTE 1)

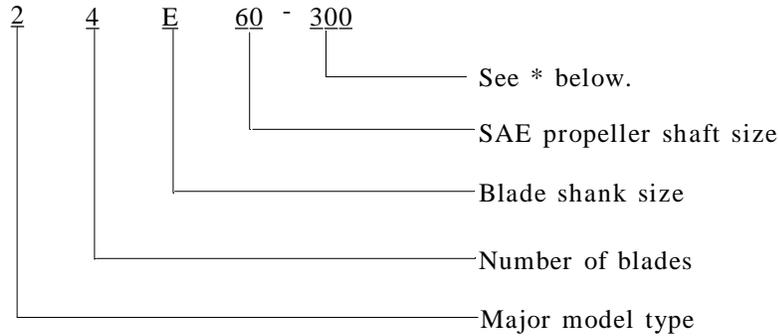
Blade Eligible (See Note 2)	Maximum Continuous		Takeoff		Diameter Limits (See Note 2)	Hub and Blade Weight (Max Diameter)	NOTES
	HP	RPM	HP	RPM			
6353-18 to 6353-24	1625	1435	2000	1520	11' 7-7/8" - 11' 1-7/8" (-18 to -24)	562 lbs.	
6354 is the left-hand version of 6353.							5
6491-12 to 6491-30	2550	1020	3000	1080	14' 1-7/8" - 12' 7-7/8" (-12 to -30)	682 lbs.	
6492 is the left-hand version of 6491.							5
6501-0 to 6501-24	1625	1275	2000	1350	13' 1-7/8" - 11' 1-7/8" (-0 to -36)	657 lbs.	6
6502 is the left-hand version of 6501.							5
6507-0 to 6507-24	1625	1275	2000	1350	13' 1-7/8" - 11' 1-7/8" (-0 to -24)	657 lbs.	
6508 is the left-hand version of 6507.							5
6855-6 to 6855-18	1800	1170	2300	1260	13' 1-7/8" - 12' 1-7/8" (-6 to -18)	687 lbs.	
6881-6 to 6881-18	1800	1170	2300	1260	13' 1-7/8" - 12' 1-7/8" (-6 to -18)	687 lbs.	
7037-50 to 7037-56	1900	1170	2500	1260	10' 11-7/8" - 10' 5-7/8" (-50 to -56)	692 lbs.	
7038 is the left-hand version of 7037.							5
6801-12 to 6801-30	2550	1020	3000	1080	14' 1-7/8" - 12' 7-7/8" (-12 to -30)	690 lbs.	
6802 is the left-hand version of 6801.							5

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Certification basis CAR 14 as amended to November 15, 1940
 Type Certificate No. 785 issued March 12, 1942.
 Date of Application for Type Certificate December 31, 1941.

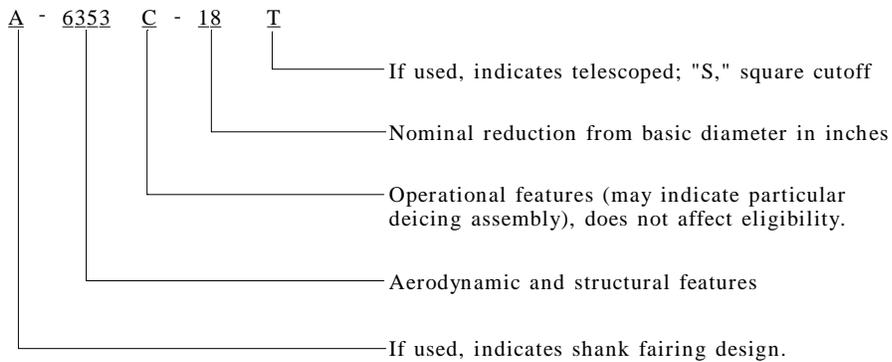
Production basis Production Certificate No. 14

NOTE 1. Hub Model Designation



*A dash number added to the propeller designation indicates minor changes which do not affect eligibility. If number is above 300 it also indicates the complete blade assembly and all of the rotating deicing system components.

NOTE 2. Blade Model Designation



The blade model designation suffixed with "T" indicates a diameter reduction by telescoping. Blade models with square cutoffs in accordance with Hamilton Standard blade drawings are suffixed with "S" except the following blades use square cutoffs not designated by "S" - Blade models 7037. Telescoped blades and blades with a square cutoff are eligible at the same ratings and diameter limits as blades with standard cutoff. Diameter limits shown are nominal diameters of the assembled propeller and do not include the ± 1/8 inch manufacturing tolerance permissible for propellers with basic diameter less than 14 feet or ± 1/4 inch permissible for propellers with basic diameter 14 feet or larger.

NOTE 3. Pitch Control. Eligible with Hamilton Standard constant speed governor only.

NOTE 4. Feathering. Eligible with full feathering control installed in accordance with the propeller manufacturer's instructions.

NOTE 5. Left-Hand Models. The left-hand version of an approved model propeller is eligible at the same rating and diameter limitations as listed for the right-hand model.

NOTE 6. Interchangeable Blades. Blades with an "S" or "T" suffix (see NOTE 2) are not interchangeable aerodynamically or vibrationwise with each other or with blades having normal round cutoffs. Only blades listed in the same group of the following groups are aerodynamically similar. Only blades listed under the same type in any one group are structurally similar. A higher type number implies a higher strength. This is due to differences in alloys and in cold working of the blade surface.

Type 1 includes standard alloy non-surface treated blades; Type 2, hard alloy non-surface treated blades; Type 3, hard alloy blades with cold worked shanks; Type 4, hard alloy blades with cold worked shanks and shot peened surfaces.

The following defines the degree to which these blades may be used interchangeably in the same diameter without a flight performance test and without a vibration survey:

Type 2 blades may replace Type 1 blades in the same group, but not vice-versa.

Type 3 blades may replace either Type 1 or Type 2 blades in the same group, but not vice versa.

Type 4 blades may replace either Type 1, Type 2, or Type 3 blades in the same group, but not vice-versa.

NOTE 7. Accessories.

- (a) Propeller Deicing. Eligible with Hamilton Standard deicing slinger ring assemblies only.
- (b) Propeller Spinner. Eligible with spinner supplied by Hamilton Standard.

NOTE 8. Shank Fairings. Not applicable.

NOTE 9. Special Limits. Not applicable.

NOTE 10. Special Notes. The word "eligible" as used herein does not signify approval. For approval, compliance with the applicable aircraft airworthiness requirements is necessary.

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