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Mccauley propeller application guide

Valuable technical information for aircraft propeller owners The following links represent often requested technical information; however, do not hesitate to contact us to discuss any technical doubts. When ordering a fixed field propeller, it is important to know the difference between a loaned handle shaft and a handle shaft with radar. Be sure to alert your sales person as to what you may have. The pern kit for each is different and non-interchangeable. A cedar shaft may require shrubs at the back of the propeller. A loaned handle axis is displayed at the top right and a handle axis with length is the image below on the right. Loaned handle shaft or handle shaft with length? Sensenich Wood Propeller Aircraft Designation Model W C 58 S K L 62 G W - Wooden Propeller C - Composite Fabric should be applied 58 - Basic propeller diameter in inches S - Blade Design K - Hub Drilling L - Propeller Rotation if left hand (if right hand, without designation) 62 - Geometric patch in inches G - Denotes options: G: glass fabric covering U: synthetic front edge Sensenich Aluminum Propeller Models Designation Model 74D M 6 S6 0 56 74 - Basic propeller diameter in inches D - Blade Design M - Hub Drilling 6 - Assembly bolt diameter in 1/1 6th's one inch S6 - Spacer length at 1/4's one inch 0 - Diameter reduction in 56 inches - Geometric patch in inches Sensenich Composite Aircraft Propeller Designation Model 3 B 0 R5 R 68 C 0 3 - Blade Count B - Shank design and size 0 - Configuration hub R5 - Hub Perforation and assembly of bolt size R - Blade rotation 68 - Basic propeller diameter in C inches - Blade Design 0 - Reduction of propeller diameter in inches (typical) Hartzell Aircraft Propeller Model Designations HC-B 3 T N-3 DY HC - Hartzell Controllable B - Basic Design Feature 3 - Blade Shank N Blade Number - Mounting Clamp 3 - DY Design Specific Features - Identifies Small Modifications McCauley Aircraft Propeller Model Designations McCauley Constant Speed Propeller Model Numbers Have Two Important Constants - one at first designating the number of and one at the end that specifically identifies the propeller model. A numeric value at the beginning of the model number in the first or second position (i.e. B2 or 2A) indicates the number of sheets. (This first constant will be followed by a double-digit numerical value between 31 and 37 that reflects a particular McCauley design.) The most important designator in a McCauley Constant Speed Propeller model will be the two or three digits following the C at the end of the model number. If there are only two digits following the C the propeller will be a threaded propeller and an outdated design. If there are three digits following the C the propeller will be a wireless blade design and it is the current production. A propeller technician can refer to a McCauley Propeller as a C66 (threaded) or a C203 (wireless) - names that in propeller speak accurately identify a McCauley Constant Speed Propeller Model. The C200 series - two-bladed constant speed wireless propellers The C300 series - two-bladed constant speed feather propellers The C400 series - three-bladed constant speed propellers C500 series - propellers Three-bladed constant speed feathers The C Series 600 - Garrett Turbine Engine propellers - either three or four blades The C700 series - Pratt Whitney Turbine Engine Propellers - either three or four blades The C1000 series - Pratt and Whitney Turbine Engine Propellers - five blades The C1100 series - Garrett engine propellers - five blades In addition to the propeller model number there is a blade model number for all McCauley Propellers. The propeller diameter is the result of the difference between the first two digits and the board number at the end of the blade model number. For example, in the 90DA-2 blade model the propeller will have a diameter of 88 inches (90 inches minus 2 equals 88 inches). The DA indicates the design of the blade. The choice between a fixed wood or a fixed-plot metal aircraft propeller While wooden propellers are not certified for many aircraft, for those for which they are certified there are some advantages: Wooden fittings are lighter and give rise to increased payload. Wooden propellers cause less vibration. While metal fittings accumulate invisible vibration and bending defects, wooden fittings are not affected. In the event of a close strike, the wooden propeller will be destroyed, but in most cases not damage the stork. After a metal attack nearby, the engine must be dismantled and inspected. Wooden fittings must be sent back to the factory for review. Wooden fittings are generally the least expensive choice. Most newer aircraft designs require metal aircraft propellers: Metal propellers are more efficient due to thinner air design. A closely certified store can change the of a metal propeller. (This change of pitch must meet manufacturer's specifications.) Metal propellers can be checked at any FAA certified propeller facility. The metal propellers retain their value better than wood as a trade for reshage. Type A certificates are awarded by aviation regulatory bodies to aerospace manufacturers after it has been established that the particular design of a civilian aircraft, engine or propeller has met the current aeronavigability requirements in force of regulatory bodies for the safe conduct of flights under all normally conceivable conditions (military types are usually exempt). Aircraft produced under a certified type design are issued a standard certificate of aeronavigability. If the manufacturer or any other organization or person wants to make a major change in the design or use of the product, it must obtain faa approval. In these cases, the FAA issues a complementary or modified certificate. To search for a specific type certificate for your aircraft, they are available on the FAA website at the following address: Hold down the control key to access all links: What Federal Regulations govern my aircraft? Part 91? Part 135? FAR -- Federal Aviation Regulations -- federal laws and statutes govern all U.S. aviation operations. Part 91 -- the FAR section that governs the operation of any general aviation flight. Many corporate flight departments and all non-professional pilots operate under these rules. 95 percent of planes in the United States operate under part 91. Part 121 -- the FAR section that governs major air operations. Part 135 -- the FAR section that governs any charter flight. These rules are actually federal laws and specify in great detail the requirements for equipment on the aircraft, minimum training and operational limits for pilots, flight attendants and maintenance personnel. PART 61, 141, 142 - the FAR section that covers pilot certification and flight school operations: pilot certification and standard flight school (Part 61), integrated curriculum school (Part 141) that requires just under a little less flight hours, and a new part 142 program that allows the replacement of more flight time with advanced flight simulators. To determine the type of Governor needed, you will need to answer the following questions before calling your propeller technician: What is your aircraft do and model? What is your engine to make and model? What is your propeller to make and model? If synchronization is necessary, be sure to mention it in your commercial. Has another governor been used for this application? If so, what model? Valuable technical information aircraft propeller owners The following links often represent however, do not hesitate to contact us to discuss any technical doubts. 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