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Latest News

Tarver Propellers, LLC is currently looking for someone that wants to manufacture spinners. If interested, please [contact me](#).
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What is an Aeromatic Propeller?

The Aeromatic propeller is a fully variable pitch propeller that is virtually equivalent to a constant speed propeller. But it is not quite the same thing. The typical constant speed (CS) propeller for a Lyc 0-320 will weigh about 54 pounds, add to that the weight of a governor and the cockpit control, you are pushing 60#. In addition to that, the engine has to have a hollow shaft in order to feed the oil to the hub.

The Aeromatic prop needs no governor, cockpit control nor a hollow crankshaft. It is entirely controlled by dynamic forces, centrifugal forces, air loads etc. The typical weight of the Aeromatic is about 34#. That weight varies somewhat depending on which configuration of the propeller you have. It will allow your engine to develop 100% horse power for takeoff, climb and cruise. Typically when you apply full throttle for takeoff you engine will rev up to about 50 rpm less than red line. After you have reached flying and or climb speed your engine will be turning red line rpm. After you reach cruise altitude and level off and gain speed, the propeller will increase pitch as you gain airspeed. Consequently you are now in cruise mode with more pitch much like a constant speed prop. This is not a two speed prop, it modulates itself based on the speed of the airplane and other dynamic forces. And it is not going to cost as much as a constant speed prop. These propellers were certified on most of the production airplanes during the big airplane boom right after WW II. Pipers, Stinsons, Ercoups, T-crafts, Bellancas, Swifts, Aeroncas, Cessnas, Meyers, Monocoups, Fairchild's, Grumman Widgeon, Johnson Rocket, Ryan Navions and more plus some foreign airplanes.



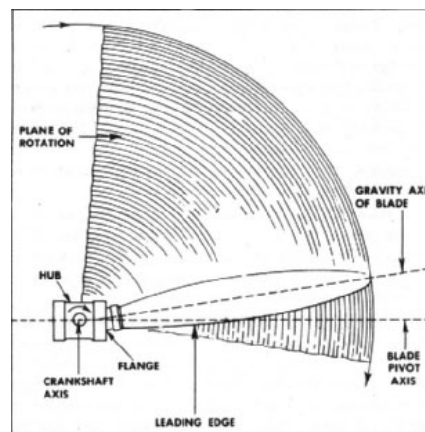
These props will be especially useful on many home built airplanes in the range of 40 HP or less up through some 260 HP engines. There are two basic designs, one for flange shaft engines and one for 20 spline shaft engines. It is a potential propeller for some 30,000 C-172 airplanes. After reading a pilot report on Van's RV-9 with a Lycoming O-235, where the test pilot almost begged for a constant speed prop, it occurs to me that the Aeromatic would be an ideal propeller for that airplane/engine combination.

OPERATION IN FLIGHT.

1. The stability of the Aeromatic propeller is obtained by balancing the pitch decreasing effect of the aerodynamic force with the pitch increasing effect of the net centrifugal force acting on the masses of the blade and counterweight.
2. At take-off, the pitch decreasing forces are greatest and will, therefore, move the blade forward to low pitch to permit the engine to develop full take-off power.
3. During the climb, maximum power is made available due to the fact that the blade pitch increases as the velocity of the airplane increases.
4. By maintaining given cruising rpm, constant horsepower of the engine is available at altitude up to cruise critical (open throttle) altitude.

INSTALLATION.

The Aeromatic propeller is a self-contained unit requiring no controls from the propeller to the cockpit. The propeller is mounted on the engine crankshaft in the conventional fashion using standard attaching parts for standard mountings.



THE AEROMATIC IS ELIGIBLE FOR USE ON THE FOLLOWING AIRPLANES

Aeronca 7ac, 11ac, 11cc, s7ac, s11ac ---- Bellanca 14-13, 14-19 ---- Cessna 120/140, 170 ---- Commonwealth 185 ---- Ercoupe 415C, CD, E, g ---- Goodyear GA-2, -2B

Jamieson J-1 ---- Meyers MAC-125C ---- Monocoupe 90AF-100 ---- Piper J-3C, J-5C, PA-11, 12, 14, 16, 18, 19, 20, 22 ---- Swift GC-1A, 1B ---- Stinson 108, -1, -2, -3

Temco TE-1A ---- Aero Design L-3805 ---- Cessna Airmaster 145, 165 ---- Fairchild 24W, 24R ---- Grumman G-44, A ---- Johnson 185 ---- Monocoupe CW ---- Navion 185, 205, 260

Stinson L-5 ---- Aeronautica Macchi MB-308, 320 ---- Auster Autocrat J5 ---- Auster MK V ---- Desford Trainer -- -- Fokker F-25, S-11 ---- Karhu 48 ---- L'Aronautique S-90

Lark KZ-VII ---- Nord 1200 ---- Piaggio P-136 ---- Pilatus P-4 ---- SAAB 91 ---- Iberavia I-11 ---- Culver LCA, LFA and others.

Comments

TARVER PROPELLERS, LLC owns the rights, engineering, tooling and Type Certificates for the above propeller and propeller blades. We are located on the Fallon Municipal Airport (FLX). You are welcome to stop by for a visit. Our facility is located on the NW side of the runway just a few yards from the crop duster Frey Sprey.

If you want to look up the TC's, here they are: For Aeromatic, [TC 820](#) and [833](#)."

Unfortunately there was one blade failure in the past, almost certain caused by a prop strike that lead the FAA to issue a SAIB regarding Aeromatic propellers. Initially issued in 2001, the final wording can be found here [NE-01-23R1.pdf](#)

For those that can't load that file , read throught the [SAIB here](#).

[And finally a message from Kent to his fellow pilots](#). Why sugar makes you not only fat but also sick.