

# SENENICH PROPELLER MANUFACTURING COMPANY, INC.

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## Detailed Installation Instructions For Sensenich Metal Propellers (Experimental Aircraft Installations)

### Aircraft Preparation:

- a) Be certain that magneto switch is off, and that both magnetos are grounded.
- b) Rotate the crankshaft by hand, until the engines number 1 cylinder is at TDC (Top Dead Center). For a Lycoming engine, this is determined by aligning the TC mark on the starter ring gear with the punch mark on the starter housing . Another way in which to verify number 1 is at TDC is to remove the top plug from cylinder 1 and while rotating the crankshaft check for the compression stroke. Once the compression stroke is found, continue to rotate the crank until the piston is at the top of the cylinder. Replace the plug and lead, torque both to the appropriate values.
- c) Thoroughly clean the surfaces of the crankshaft flange, pilot stub, and flange bushings. Carefully examine each surface and especially examine the end of the crankshaft pilot stub. Even minor nicks or burrs must be smoothed. The flange bushing threads must be clean and dry.

### Propeller Preparation:

**Note:** These instructions assume that a spinner will be installed and that the rear bulkhead is sandwiched between the rear propeller mounting face and the spacer.

- a) Assembly the propeller, spacers, and rear spinner bulkhead. The #1 stamped on the spacer must be aligned with the #1 blade of the propeller. The #1 blade is indicated on the front side of the hub by a small "1" which is stamped into the aluminum just outside the hub circle.

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- b) Thoroughly clean the rear/mounting face of the propeller, pilot bore, and flange bushing counter bores. Carefully examine each surface. Even minor nicks or burrs must be smoothed.

**Propeller Installation:**

- a) Locate the propeller on the engine flange with the number one blade at 11 o'clock.
- b) Mount the front spinner bulkhead onto the front of the propeller hub.
- c) Place a washer on each attaching bolt and insert the bolts through front spinner bulkhead, propeller hub, rear spinner bulkhead and spacer assembly. Engage the bolts by hand into the threads of the crankshaft flange bushings.
- d) Torque the attaching bolts according to the torque decal on the side of the propeller hub. If the decal is not present refer to the chart below. Apply torque in small increments, working diagonally across the bolt circle until reaching the recommended torque.
- e) Prior to installation of lock wire it is a good idea to check the propeller tip tracking and the run-out of the spinner dome. The propeller tip track should be within 1/8 inches (0.125"). The spinner dome should be made to run as true as possible. It may be necessary to loosen the attaching bolts and shift the front spinner bulkhead slightly to correct any run-out problems. If the attaching bolts are loosened repeat step (d) above.
- f) Install 0.032 to 0.040 inch diameter stainless steel lock wire in propeller bolt heads locking bolt heads together. Wire the bolt heads in pairs, twisting the wire between the bolt head.

**ATTACHING BOLT  
DIAMETER**

**RECOMMENDED  
WRENCH TORQUE**

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3/8 inch	23 to 25 lb-ft (280 to 300 lb-in) (31.6 to 33.9 newton-meters)
7/16 inch	40 to 45 lb-ft (480 to 540 lb-in) (54.2 to 61.0 newton-meters)
1/2 inch	60 to 65 lb-ft (720 to 780 lb-in) (81.3 to 88.1 newton-meters)

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