

# SENSENICH PROPELLER MANUFACTURING COMPANY, INC.

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14 CITATION LANE  
LITITZ, PA  
17543

## PROPELLER INSTALLATION INSTRUCTIONS FOR SENSENICH 70CM SERIES PROPELLER

- I) Remove existing spinner, propeller, and spacer assembly.
- II) Before Installation
  - a) Thoroughly clean the surfaces of the crankshaft flange and pilot stub, the rear/mounting face of the propeller, and the pilot bore. Carefully examine each surface and especially examine the end of the crankshaft pilot stub. Even minor nicks or burrs must be smoothed.
  - b) Make sure the propeller attaching bolts, and the threads in the drive bushings or retaining nuts are clean and dry.
  - c) Be certain that magneto switch is off, and that both magnetos are grounded.
- III) **INSTALLATION OF 70CM PROPELLER:** (REFER TO DRAWING #B-1764)
  - a) If using a spinner, the aft spinner bulkhead can be placed between the propeller and spacer or spacer and engine flange, depending on your installation.
  - b) When installing the spacer, make sure at least 3/4 inch but not more than 1-1/4 inch of dowel is protruding from the spacer. 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. Place the propeller on a flat surface with the front hub down and position the aft bulk head (if placing between prop and spacer). Align the pin holes in the hub with the pins in the spacer, and covering the spacer with a block of wood or some other material that will not mar the surface, use a 5 lb. hammer to pound the spacer on until it is tight against the propeller face. Alternate hits between the two sides of the spacer where the pins are installed.  
**NOTE: THE PINS ARE VERY TIGHT (BY DESIGN) AND IT WILL TAKE SEVERAL HITS TO ATTACH THE SPACER.** After the spacer is tight again the back of the propeller hub, check that equal amounts of the dowel pins are in the propeller and spacer. If there are not, use a 7/16 diameter steel rod and hammer to equal the pin lengths in the propeller and spacer. The Dowels are 2 inches in length.
  - c) In the event you need to remove a spacer, support the blades, as close to the hub as possible, so that the spacer is 2 inches above the floor. Use a steel rod, no larger than 7/16 diameter, and a hammer to pound out the

spacer dowel pins. Alternate between the two pin holes so that the spacer does not get cocked and bind. **NOTE: THE PINS ARE VERY TIGHT (BY DESIGN) AND WILL REQUIRE QUITE A FEW HITS.**

- d) Check the propeller and spacer bolt hole alignment by dropping one of the propeller attaching bolts into each hole. The bolt should go freely through the assembly without any binding, if not check that the spacer is properly positioned on the propeller (see step b above).
- e) Install propeller, aft spinner bulkhead (if applicable), and spacer assembly on engine flange as per included drawing #B-1764. Refer to the airframe or engine manufacturers documentation for proper positioning of the propeller on the engine flange.
- f) Position forward spinner bulkhead (if applicable) on the front of the hub. Place a washer on each attaching bolt (furnished) and insert the bolts through propeller holes, engaging the bolts by hand into the threads of the crankshaft flange bushings. If the bolts do not thread in easily something is wrong. Remove the propeller and recheck the bolt threads and flange bushing threads for damage or foreign material.
- g) 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.

ATTACHING BOLT DIAMETER	RECOMMENDED WRENCH TORQUE
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)

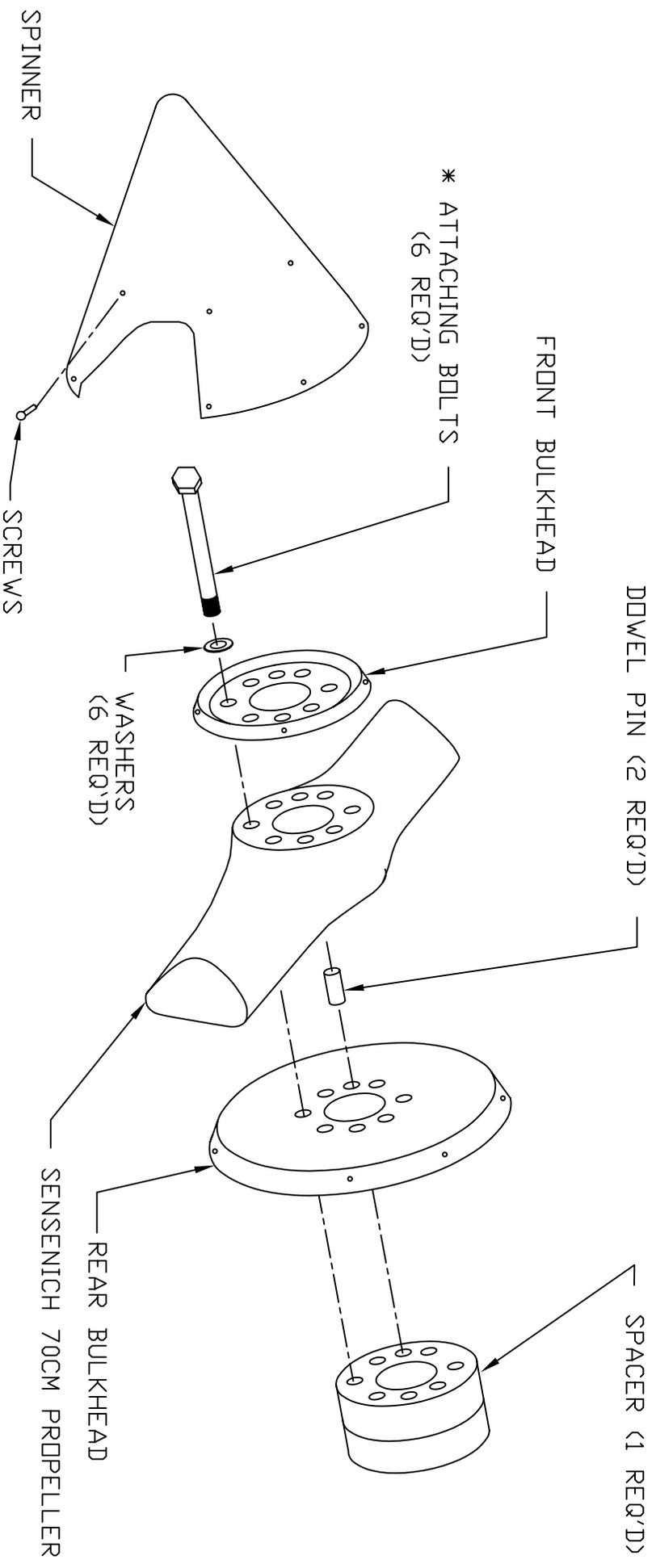
- h) Install 0.040 inch diameter stainless steel lock wire in propeller bolt heads locking bolt heads together. It is recommended that bolts be wired in pairs, twisting the wire between the bolt heads.
- i) Install spinner cap (if applicable).

**IIV) WEIGHT AND BALANCE:**

- a) Revise the aircraft weight and balance. The Sensenich Propeller assembly (propeller, spacer, and attaching bolts) weight 41.04 lbs.

**V) OPERATIONAL NOTE:**

- a) **AVOID ALL OPERATION ABOVE 2600 RPM**
- b) Aircraft's tachometer is to be calibrated to insure operation does not occur in restricted area.



\* SAFETY WIRE IN PAIRS WITH .040 DIA. STAINLESS WIRE

**WARNING!**

AVOID ALL OPERATION ABOVE 2600 RPM

**NOTES:**

- 1) SEE 70CM INSTALLATION INSTRUCTIONS FOR CORRECT ATTACHING BOLTS
- 2) OTHER SPACER LENGTHS ARE AVAILABLE
- 3) REAR BULKHEAD MAY BE INSTALLED BETWEEN PROP AND SPACER OR BETWEEN SPACER AND ENGINE FLANGE

TOLERANCES UNLESS OTHERWISE NOTED 1 DEC. ±0.020, 2 DEC. ±0.010, 3 DEC. ±0.005, 4 DEC. ±0.001, ANGLES ±1 DEG.

MATERIAL:	
STOCK:	
HEAT TREAT:	
FINISH:	
SCALE:	NONE
DATE:	3-16-92
DRAWN:	D. ROWELL
ENG. APP'D:	
TR. DATE	CHANGE
A 2/25/97	REMOVED SPECIFIC PART NOS
	BY KCD

TITLE	SENSENICH PROPELLER COMPANY
	70CM
	INSTALLATION
ASSEMBLY:	
NO. REQ'D:	
IN PLACE OF:	
SUPERCEDES:	
DRAWING NUMBER	B-1764