## SENSENICH TECHNOLOGIES INC.

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## SERVICE BULLETIN SB 17-08-09

**EFFECTIVE DATE:** 8/17/2017

**SUBJECT:** Inspection of shank plugs for looseness.

**AFFECTED PROPELLER MODELS:** L56F, R62H, L62P, C63PAL, R64E, R64Z,

L69E, R70D, R70E, C72TAL, R75D

**AFFECTED SERIAL NUMBERS:** All serial numbers between 42998 and 54372 for the blade models listed above.

**REASON:** 

Sensenich has received three reports of shank plugs loosening from the root end of aircraft blades. This was due to two reasons: atypical bonding preparation that did not comply with Sensenich's manufacturing processes, and heavy balance weights bonded inside the shank plug.

Only a small number of blades incorporate heavy balance weights, while the remainder have little to no added weight inside the shank plugs.

If the shank plug debonds and lodges inside the hollow blade, significant propeller imbalance and vibration can occur.

## **COMPLIANCE:**

- No immediate action is required.
- At next annual or 100 hour inspection, remove blades from the hub assembly. Measure the shank plug depth, from the top of the metal data tag to the end of the blade shank. Examine the shank plug for cracks and/or looseness, particularly the area surrounding the circular plug and inside the plug for any cracks or loose areas. See Figures 1. & 2.
- If a loose plug is discovered or cracks in the epoxy are present, remove the blades from service and contact Sensenich.

- If the metal data tag appears bonded directly to the shank plug base, or there is 3/8" depth or greater measured from end of the blade shank to the top of the metal data tag, the blade can be returned to service. See Figure 1.
- If the metal data tag depth inside the shank plug is *less than* 3/8" from the end of the blade shank to the top of the metal data tag, contact Sensenich. See Figure 2.

NOTE: A loose metal data tag does not require blade return to Sensenich. The metal tag can be sanded on the inside face and re-bonded to the shank plug with any good quality epoxy.

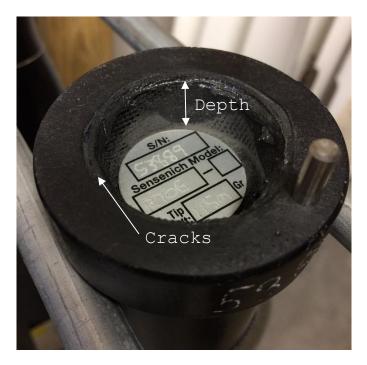


Figure 1: Shank plug without added shank weights. (Note: Plug appears to be relatively deep, with metal data tag approximately 1/2" or deeper, with metal data tag clearly bonded directly to the inside of the shank plug.)



Figure 2: Shank plug with added shank weights. (Note: Plug appears to be relatively shallow, approximately 1/4" or less with thickened resin underneath the metal data tag.)

Upon request, Sensenich can inspect affected blades after return by the customer.