

# PROPELLER BULLETIN

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Lancaster, Pa. 17604  
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SERVICE LETTER NO. 80-1

TO: FAA APPROVED PROPELLER REPAIR STATIONS, SENSENICH CORPORATION DISTRIBUTORS  
SUBJECT: METAL PROPELLER INSTALLATION, ATTACHING BOLT WRENCH TORQUE

## DISCUSSION:

During recent months, several instances of attaching bolt failure have been reported. Investigation has shown that these bolts had been stretched and broken by application of wrench-torque greatly exceeding the recommendations published by Sensenich Corporation.

There are several ways in which this could have happened.

For example:

- (1) The wrench-torques recommended by Sensenich have traditionally been given in units of inch-pounds. It is possible that the torque may have been applied in foot-pounds without converting the torque units (1 ft-lb = 12 inch-pounds).
- (2) The threads of the bolts may have been oiled, which decreases the friction force produced during the torquing operation and therefore increases the amount of pre-load in the bolt at a certain wrench torque.

## RECOMMENDED ACTION:

When installing a metal propeller, be certain that the threads of the bolt and of the bushings or nuts, are clean and dry (free of any lubricant). Always be certain that the wrench-torque applied is correct for the bolt being installed and in the proper units.

Blank information decals can now be ordered from Sensenich Corporation for propellers using 3/8" dia. or 1/2" dia. attaching bolts. It is recommended that propeller information decals be applied to the inboard blade section (approx. 6-1/2" from hub center) after repair of any Sensenich Fixed-Pitch Metal Propeller

These decals are available in packages of at least 20 decals at 60¢ each, F.O.B., Lancaster, Pa., (price subject to change without notice). Please specify 3/8" and/or 1/2" dia. attaching bolts when ordering. Enclosed is a sample of the identification decal for a propeller using 3/8" attaching bolts.