

SENSENICH PROPELLER MANUFACTURING COMPANY, INC.

AREA CODE 717
PHONE - 569-0435
FAX - 560-3725



14 CITATION LANE
LITITZ, PA
17543

SERVICE BULLETIN #R-14A July 28, 1995

TO: AFFECTED AIRCRAFT OWNERS, AIRFRAME MANUFACTURERS, FAA APPROVED PROPELLER REPAIR STATIONS, AND SENSENICH DISTRIBUTORS.

SUBJECT: METAL FATIGUE IN MODELS M76EMM, M76EMMS, AND 76EM8 SERIES PROPELLERS WITH UP TO A 4 INCH SPACER LENGTH INSTALLED ON LYCOMING 0-360 TYPE ENGINES, UP TO 180 HP @ 2700 RPM.

AIRCRAFT MODELS AFFECTED: ALL AIRCRAFT WITH ABOVE ENGINE MODELS

REFERENCE: [SERVICE BULLETIN NO. R-13](#) DATED 11 APRILL 1969 [AIRWORTHINESS DIRECTIVE NO. 69-09-03](#) DATED 9 MAY 1969

DISCUSSION: [Service Bulletin No. R-13](#) (copy on reverse side) discussed fatigue type failures of this propeller and recommended specific steps to prevent them.

Since it is possible that some of these propellers had already used up a significant portion of their endurance life by the accumulation of fatigue cycles in the placarded rpm range, further precautions are recommended.

Recent research has shown that metal specimens, which have been fatigue cycled to 50% of their endurance life, can be restored to original condition by the removal of a thin layer of surface metal.

This reduction of blade thickness affords a further important benefit by shifting the 2nd order-1st mode resonance peak, now at 2250 rpm, downward in the rpm range.

RECOMMENDED ACTION: Propellers with 500 hours or more of flight time, which have not had the "K" modification, should be returned for factory inspection and reconditioning. This reconditioning will include smoothing out all nicks and cuts and the removal of the layer of fatigued metal from the entire surface of the blades. The propeller will then be alodined and refinished.

DISTRIBUTION:

1. Affected Aircraft Owners
2. Affected Aircraft Manufacturers
3. FAA Regional Offices, Domestic and Foreign
4. Propeller Repair Stations
5. Sensenich Distributors
6. Textron Lycoming, Reciprocating Engine Division