## UNITED STATES OF AMERICA NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

**ISSUED:** May 5, 1972

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD at its office in Washington, D. C. on the 29th day of March 1972

FORWARDED TO: Honorable John H. Shaffer Administrator Federal Aviation Administration Washington, D. C. 20591

## SAFETY RECOMMENDATION A-72-46

The National Transportation Safety Board recently received information from the Australian Department of Civil Aviation regarding their investigation of a fatal aircraft accident involving a Beech 65-80. The No. 2 engine was found to have incurred a massive internal failure resulting from stepped dowel failures in the No. 2 bearing and resultant crankshaft oil starvation. The ensuing fire occurred aft of the firewall in the nacelle, which apparently softened the spars and resulted in a catastrophic in-flight failure of the right wing.

Your Maintenance Analysis Center states that they have records of seven stepped dowel failures in 540 series engines over the past 2 years, and Lycoming states that they have records of 66 stepped dowel failures in 540 series engines.

The Safety Board is concerned over this problem and recommends that:

Corrective action, similar to that taken under AD-71-5-2 for all Avco Lycoming IO-360-A-C series engines be taken for applicable Lycoming 540 series engines.

The Board staff has discussed this matter with members of your FS-50 and FS-140 staff.

Honorable John H. Shaffer

This recommendation will be released to the public on the issue date shown above. No public dissemination of the contents of this document should be made prior to that date.

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Reed, Chairman; Laurel, McAdams, Thayer, and Burgess, Members, concurred in the above recommendation.

By: **/** John H. Reed Chairman

NATIONAL TRANSPORTATION SAFETY BOARD DEPARTMENT OF TRANSPORTATION Washington, D.C. 20591

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