

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

ISSUED: July 13, 1972

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD
at its office in Washington, D. C.
on the 21st day of June 1972.

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

SAFETY RECOMMENDATION A-72-108

The National Transportation Safety Board's investigation of a recent fatal aircraft accident involving a Piper Model PA-22-135 aircraft at Evansville, Indiana, disclosed a condition which should be corrected.

The aircraft involved, N8641C, crashed during an attempted emergency landing after the pilot had advised the control tower that he had a fire in the cabin.

Investigation revealed that the fire originated in the engine compartment and that the source of fuel was a rupture in the main fuel supply line (P/N 70322-32). The rupture occurred in an area of the flexible line which was chafed, apparently as a result of rubbing against an adjacent cabin heater air inlet duct.

In 1962 a new, longer line (P/N 17766-66), which has a braided steel shield underneath its exterior covering, was specified by Piper Aircraft Corporation as a replacement part for this fuel line. However, replacement of the line was never made mandatory; the original fuel line was considered acceptable as long as it remained in a serviceable condition.

We believe this accident would not have occurred if the aircraft had been retrofitted with the new fuel line. The added length of the new line permits it to be installed with ample clearance from the heater duct, and the steel reinforcement offers increased resistance to chafing.

During our investigation, Safety Board investigators examined seven other PA-22 aircraft, three of which were equipped with the same fuel line as the accident aircraft and evidence of chafing was observed on each. Your Maintenance Data Analysis Center has had several reports of similar chafing.

Honorable John H. Shaffer

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In view of the findings in this accident investigation and of the apparent extent of the problem, the National Transportation Safety Board recommends that:

The Federal Aviation Administration issue an Airworthiness Directive requiring the replacement of the main fuel line P/N 70322-32 by fuel hose assembly P/N 17766-66 on Piper Aircraft Corporation aircraft models PA-22-108, -125, -135, -150, -160, and PA-20-115, -125, -135.

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

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


By: John H. Reed
Chairman