

Log 847

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: July 26, 1977

Forwarded to:

Honorable Langhorne M. Bond
Administrator
Federal Aviation Administration
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-77-54 and 55

Within the past 14 months, three Bell Model 206B helicopter accidents have been caused by the failure of the main rotor hub tension/torsion strap assembly, P/N 206-010-105-3, which resulted in immediate separations of the main rotor hub and blade installation from the rotorcraft.

On April 17, 1976, a Bell Model 206B, N14856, crashed into the Gulf of Mexico; the pilot was killed. The strap assembly had accumulated a total time of 1,811:40 hours when it failed.

On December 11, 1976, a Bell Model 206B, N49669, was involved in an accident when the main rotor hub and blade installation separated from the rotorcraft during rotor runup before takeoff from an oil rig platform. The main rotor hub and blade installation was hurtled into the Gulf of Mexico. Total time on the failed strap assembly was 2,000 hours.

On March 17, 1977, a Bell Model 206B, N90071, crashed into the Gulf of Mexico when its main rotor hub and blade installation separated about 1 minute after takeoff from an oil rig platform; the pilot died in the crash. Total time on the failed strap assembly was 799:50 hours.

The Safety Board is aware of the three Airworthiness Directives that have been issued as a result of these accidents. However, in view of the catastrophic consequences that result from such failures and since metallurgical examination of the failed strap wires from these three accidents has disclosed several types of fractures, stretches, and rolls, and evidence of corrosion, the Safety Board believes that further corrective action is necessary.

Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue an Airworthiness Directive to reduce the service life of the tension/torsion strap assembly, P/N 206-010-105-3 and -5, from 1,200 hours to 600 hours until the cause of these failures can be determined and eliminated. (Class I--Urgent Followup) (A-77-54)

Expedite the development of a tension/torsion strap fabricated from a material less susceptible to fatigue and corrosion than that currently used and require retrofit as soon as the replacement strap is available. (Class I--Urgent Followup) (A-77-55)

TODD, Chairman, BAILEY, Vice Chairman, McADAMS, HOGUE and HALEY, Members, concurred in the above recommendations.

By:


Webster B. Todd, Jr.
Chairman