

209 1405 ME-4

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: February 2, 1982

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Forwarded to:

Honorable J. Lynn Helms  
Administrator  
Federal Aviation Administration  
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-82-4 and 5

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On October 20, 1981, an Aerospatiale Lama 315B helicopter, N9531, experienced an in-flight power loss near Springville, Utah. The aircraft was substantially damaged during an attempted autorotation landing. The pilot and two of the four passengers sustained minor injuries.

The National Transportation Safety Board's investigation revealed that a failure had occurred in the helicopter's powertrain between the engine and the input to the main transmission in the area of the clutch coupling. Further investigation revealed that the failure had been caused by an engine-to-transmission misalignment, which occurred during maintenance just prior to the accident. An Aerospatiale Alouette 316B aft engine support frame had been installed instead of the correct frame for the Aerospatiale Lama 315B. Although the Alouette frame is seven-eighths of an inch shorter in height than the Lama frame, it is otherwise identical to the Lama frame at the engine and airframe attachment points.

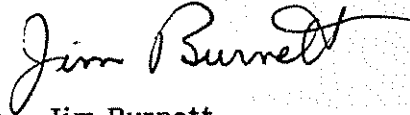
Discussions with Aerospatiale personnel revealed that the part numbers for the two frames are different and that they are painted on the frames during manufacture rather than being permanently affixed. Subsequent customer painting operations and an 800-hour periodic inspection, which requires paint stripping of the frame, soon destroy the part number identification.

Because operators of the Lama 315B and Alouette 316B/C and 319 helicopters could inadvertently interchange the aft engine support frames, a safety hazard exists that should be eliminated. Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue a Telert Maintenance Bulletin to notify operators and inspection personnel of the possibility of interchanging aft engine support frames of the Lama 315B and Alouette 316B/C and 319 helicopters and to recommend a dimensional check of the frame prior to installation even though the part number may be legible.  
(Class II, Priority Action) (A-82-4)

Require the manufacturer to develop and implement a permanent method of affixing part numbers to the aft engine support frames on the Lama 315B and Alouette 316B/C and 319 helicopters. (Class III, Long Range) (A-82-5)

KING, Chairman, and McADAMS, GOLDMAN, BURSLEY, and BURNETT, Members, concurred in these recommendations.

A handwritten signature in cursive script that reads "Jim Burnett". The signature is written in dark ink and is positioned above the typed name.

By: Jim Burnett  
Acting Chairman