

Log 898

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: April 27, 1978

Forwarded to:

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

SAFETY RECOMMENDATION(S)

A-78-33

On August 25, 1977, the left main landing gear retracted on a Cessna 402, N9900F, as the aircraft turned off the runway onto a taxiway at Clovis Municipal Airport, Clovis, New Mexico. The aircraft was owned and operated by Crown Aviation, Inc., Clovis, New Mexico, an air taxi/commercial operator. Although there was no fire and the pilot and passenger were not injured, the aircraft was damaged substantially.

The aircraft was maintained under a 14 CFR 91.171 progressive inspection program. The No. 1 progressive check had been accomplished on August 20, 1977, at a tachometer reading of 2,833 hours. The No. 2 progressive check was due at 2,933 hours. The tachometer reading at the time of the accident was 2,906. Total aircraft time was 7,390 hours.

Examination of the aircraft revealed that the left wing center rib, P/N 0822175-61, had cracked and broken out where the left main gear support, P/N 0822180-5, attaches. Further investigation revealed cracks in the right wing center rib, P/N 0822175-60, where the right main landing gear support, P/N 0822180-6, attaches.

A review of our general aviation accident briefs for 1972 through 1976 revealed two similar accidents caused by cracked wing center rib sections. The first, at Saratoga, Wyoming, on June 30, 1974, involved a Cessna Model 401, N3208Q, and the second, at Gainesville, Florida, on February 16, 1974, involved a Cessna Model 402, N7800Q. In both cases, the left main landing gear retracted while taxiing and

caused substantial damage to the aircraft. Further, there have been 28 or more reported cases of cracked wing center rib sections over the past 5 years. This information was obtained from the FAA Service Difficulty Report computer printout as of February 8, 1978.

As a result of the 400 Series aircraft's sustaining cracks in one of the wing ribs located in the landing gear well, the manufacturer issued multiengine Service Letter ME 71-2 "wing rib inspection," on February 12, 1971, to inspect the main gear upper side brace supports for looseness and the support bolts for proper torque. In addition, the wheel well rib was to be inspected for cracks. If cracks were found, a reinforcement angle was to be installed per Service Letter instructions.

On January 5, 1976, the manufacturer issued multiengine Service Letter ME 76-2, "wing rib improvement main landing gear side rib," for all 300/400 Series aircraft. This letter superseded ME 71-2 and called for reinforcement plates and angles to improve the strength and service life of the main landing gear's mounting structure on the Model 300/400 Series aircraft. This modification has recently been added to the wing ribs in the main landing gear wheel well area on the Model 340 and 400 Series production aircraft.

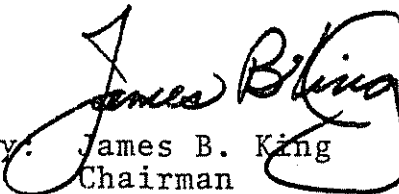
We recognize that the FAA has been active in alerting owners and operators of cracks found in the wing center rib sections. This information, together with Cessna Service Letter ME 71-2, was discussed in the August 1971 issue of your General Aviation Inspection Aids summary. This information has also been discussed in three additional monthly issues of the Inspection Aids which related to Cessna Service Letter ME 76-2. In the November 1977 issue, reference was made to the August accident cited above, which involved N9900F, and stated that Cessna Service Letter ME 76-2 had not been complied with. Your most recent alert to this problem was in the December 1977 issue of the Inspection Aids.

Because of the circumstances of this accident and the potential for future fatal accidents, the National Transportation Safety Board recommends that the Federal Aviation Administration:

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Issue an Airworthiness Directive making the provisions of Cessna Service Letter ME 76-2 mandatory for 300/400 Series aircraft.
(Class I--Urgent Action) (A 78-33)

KING, Chairman, McADAMS, HOGUE, and DRIVER, Members, concurred in the above recommendation.


By: James B. King
Chairman