



U.S. Department
of Transportation

Federal Aviation
Administration

Airworthiness Concern Sheet

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Reply to:

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Make: Viking Air Limited (Type Certificate No. A-815 formerly held by Bombardier Inc. and de Havilland, Inc.)

Model / Series: DHC-3 Otter

Serial Numbers: All serial numbers, certified in any category

Reason for Airworthiness Concern: Cracking in the left hand elevator rear spar adjacent to the elevator trim tab balance weight

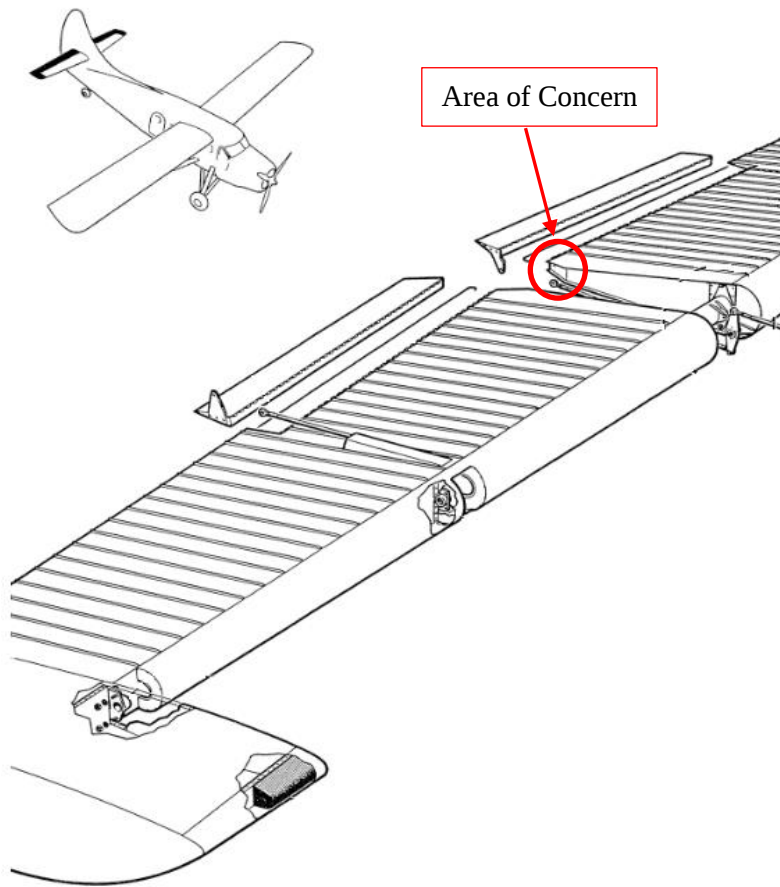
Federal Aviation Administration (FAA) Description of Airworthiness Concern

The FAA is publishing this Airworthiness Concern Sheet (ACS) to notify owners, operators, and maintenance personnel of an area of concern in the Viking Air Limited DHC-3 Otter left hand elevator rear spar adjacent to the elevator trim tab balance weight.

An operator recently notified the FAA of cracks in the elevator rear spar. The operator identified the cracks in two airplanes through visual inspection during routine maintenance. The cracks were located at the inboard end of the elevator rear spar adjacent to the elevator trim tab balance weight. These cracks may be difficult to detect with the elevator installed on the airplane and without removing the elevator trim tab from the elevator.

The affected airplanes were in compliance with Airworthiness Directive AD 2011-18-11 and the elevator control tabs on the airplanes with cracked elevator rear spars did not demonstrate excessive free-play.

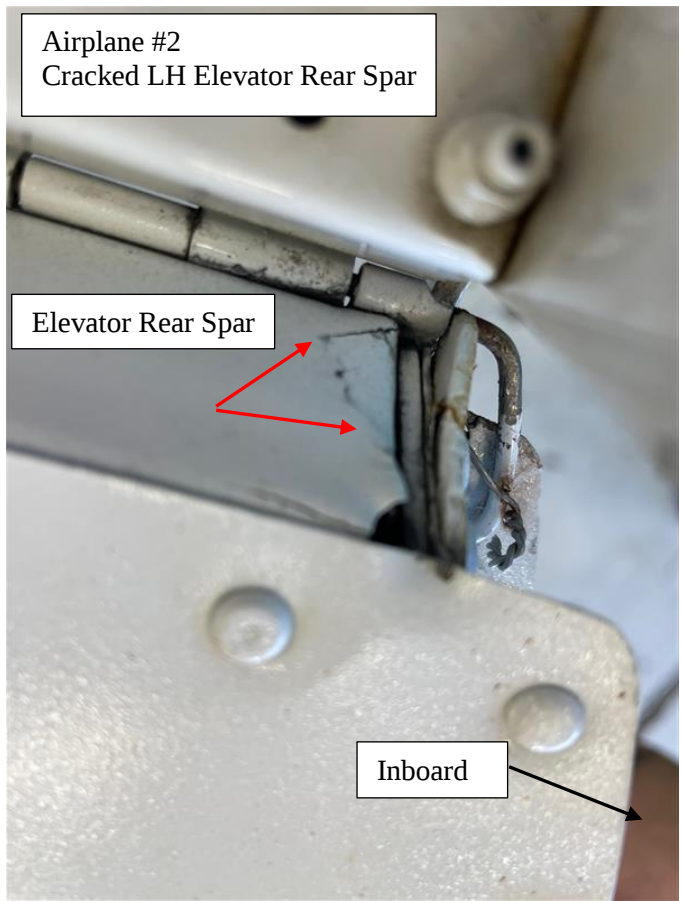




Airplane #1
Cracked LH Elevator Rear Spar



Airplane #2
Cracked LH Elevator Rear Spar



Request for Information

The FAA is interested in receiving any information on cracking of the elevator rear spar on DHC-3 Otter airplanes. This includes any cracking identified previously on the elevator rear spar.

For all airplanes inspected, regardless if cracking or anomalies are identified, please provide:

- Pilot reports of tail vibration.
- Operational environment of the aircraft

Providing information on airplanes that were inspected for which cracking or anomalies are not identified helps the FAA to understand the prevalence of the issue.

For airplanes in which a crack or other anomaly was identified, please provide:

- Photos of the cracking and any other anomalies noted
- Time-in-service on the elevator, if known
- Details of engine and prop installed on the airplane

Please also provide any other information you believe may be helpful to consider during our evaluation.

Additionally: The FAA highly recommends an inspection of this area at the next scheduled inspection. Due to the emergent nature of this situation, we would appreciate your feedback as quickly as possible.

This Airworthiness Concern Sheet (ACS) is intended as a means for FAA Aviation Safety Engineers to coordinate airworthiness concerns with aircraft owners/operators through associations and type clubs. At this time, the FAA has not made a determination on what type of corrective action (if any) should be taken. The resolution of this airworthiness concern could involve Airworthiness Directive (AD) action or a Special Airworthiness Information Bulletin (SAIB), or the FAA could determine that no action is needed at this time. The FAA's final determination will depend in part on the information received in response to this ACS.

The FAA endorses dissemination of this technical information to all manufacturers and requests association and type club comments.

Attachments:

- ☐ Service Difficulty Report
- ☐ Accident/Incident Data System
- ☐ Service Letter / Bulletin
- ☐ Special Airworthiness Information Bulletin
- ☐ Federal Aviation Administration or National Transportation Safety Board Safety Recommendation
- ☐ Airworthiness Directive
- ☐ Alternate Means of Compliance
- ☐ Risk Analysis

Transmittal:

- ☒ Federal Aviation Administration
- ☒ Airplane Owners and Pilots Association
- ☒ Experimental Aircraft Association
- ☒ Type Club
- ☒ Type Certificate Holder
- ☒ Other:

Response Requested By:

- ☐ Emergency (10 days)
- ☒ Alert (30 days)
- ☐ Information (90 days)