Continuing Airworthiness Notice – 05-009



Breeze Eastern Hoist Systems – Wire Rope Cable Failure

27 April 2018

Issued by the Civil Aviation Authority of New Zealand in the interests of aviation safety. A Continuing Airworthiness Notice (CAN) is intended to alert, educate, and make recommendations to the aviation community. A CAN contains non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD). The inspections and practices described in this CAN must still be carried out in accordance with the applicable NZCAR Parts 21, 43 and 91. CAN numbering is by ATA Chapter followed by a sequential number for the next CAN in that ATA Chapter.

Applicability:

Breeze Eastern Hoists.

Purpose:

To remind operators and maintainers of hoist systems that compliance with manufacturer operating instructions is essential to ensure the hoist system components are not damaged in operation. This Continuing Airworthiness Notice (CAN) focusses on wear and damage found on a Breeze Eastern hoist P/N BL-20200-431.

Hoist systems from other manufacturers (e.g. Onboard Systems) with similar cable hook retention systems could suffer the same wear and damage as identified in this CAN. All hoist systems must be operated in accordance with the applicable manufacturer operating instructions.

Background:

This CAN is prompted by a report of finding the wire rope core and two outer strands of the cable broken near the ball end termination on a Breeze Eastern hoist P/N BL-20200-431. For further detail refer to the photograph in this CAN.

An inspection revealed flattened outer wires, and significant nicking and notching on the core wires where they contact the outer strands. The hoist manufacturer examined the broken cable and determined that the damage was likely due to vibration fatigue caused by the hook not being homed securely and the bumper spring not sufficiently compressed while in flight.

(Occurrence #17/6284 refers).

Requirements:

Maintainers of Breeze Eastern hoists with P/N BL-20200 and P/N HS-20200 should inspect all cables on their hoists for damage near the ball end. If any damage is found the cable should be replaced before the next hoist mission.

Operators of Breeze Eastern hoists with P/N BL-20200 and P/N HS-20200 should review manual TD-08-002 for applicable instructions on how to correctly home the hook to prevent cable damage.

To prevent inadvertent damage to cargo hoist system components, all hoists should be operated strictly in accordance with the manufacturer operating instructions.

Enquiries regarding this Continuing Airworthiness Notice should be made to:

Owen Olls

Airworthiness Specialist Email: owen.olls@caa.govt.nz

Phone: 04 560 9569



Inner wire and two outer strands found broken.