

Continuing Airworthiness Notice – 25-004



Helicopter Lifting Equipment – Load cell failures in service

11 September 2024

Issued by the Civil Aviation Authority of New Zealand (CAA) 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 information and guidance about an airworthiness concern 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:

All helicopter operators carrying out underslung load operations and their maintenance providers.

Purpose:

The purpose of this CAN is to notify helicopter operators of a number of recent occurrences recently reported to CAA of failures of lifting equipment, specifically load cells.

Background:

CAA have received reports of two recent events of load cell failure.

In one reported incident the failure of the load cell was identified during a routine inspection. CAA are advised that the load cell had cracked through the complete thickness of the attachment lug, but the link had not completely failed. Refer Figure 1 below.

In the other reported incident the load cell link suffered a complete failure resulting in the loss of the underslung load. Refer Figure 2 below.

Recommendation:

Operators are advised that helicopter external load equipment should be inspected in accordance with CAR 133.307. Equipment which is subject to heavy use over a reduced time period, such as lifting equipment in an ag operation, should also be inspected at the start of each day of operations to ensure it has not suffered damage or deterioration beyond the manufacturer's limits. Operators are advised to pay particular attention to areas of lifting equipment subject to torsional loads, or wear and deformation in service, as these tend to be areas where cracks can initiate.

CAA requests that operators and maintenance providers report any findings of cracking or unexpected deterioration of lifting equipment to CAA. Please report findings to CAA by completing a CA005 Defect Report form.

The form can be obtained from: https://www.aviation.govt.nz/assets/forms/CA005D_Form.pdf

The completed form can be emailed to the CAA at: ca005@caa.govt.nz

Any questions can be directed to: warren.hadfield@caa.govt.nz

Conclusion:

CAA will continue to monitor failures of lifting equipment and will update this CAN accordingly.

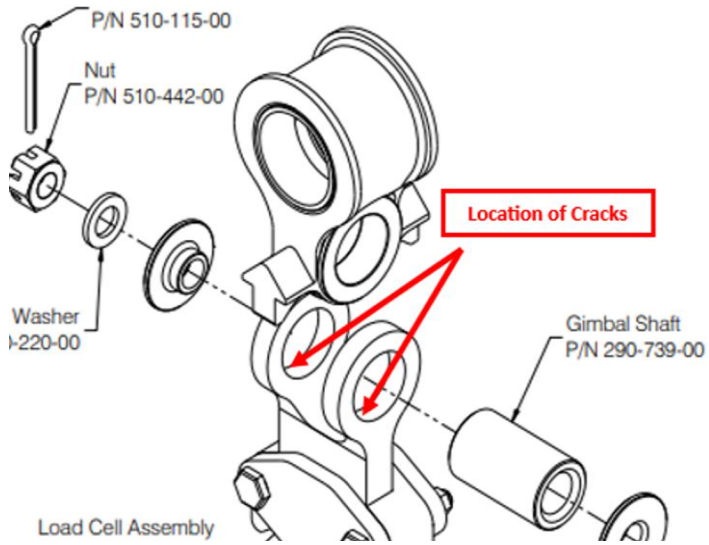


Figure 1 – Cracked load cell attachment lugs.



Figure 2 – Failed load cell link.