

Continuing Airworthiness Notice – 05-005



Cargo Hook System – Inspection Requirements

13 September 2016

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:

Onboard Systems Cargo Hooks P/N 528-023-02, 528-013-03 and 528-023-51.

Purpose:

To advise operators/maintainers of manufacturer provided Instructions for Continuing Airworthiness (ICA) for the installation, maintenance and operation of Onboard Systems Cargo Hooks to ensure the cargo hook system is maintained in an airworthiness condition.

Background:

This Continuing Airworthiness Notice (CAN) is prompted by a recent inadvertent load release during an external load operation. Investigation revealed that the outer conduit of the manual release cable had broken approximately 50mm forward of the cargo hook with the cable free-play taken up by the cable conduit break. With subsequent in-flight motion of the cargo hook suspension system, the release cable moved sufficiently to activate the hook release mechanism, which resulted in inadvertent load release. Further investigation revealed that the outer cable conduit may have broken due to cargo hook movement, age hardening/fatigue. For further detail refer to the enclosed photographs.

Requirements:

Prior to every external load operation the cargo hook manual release cable must be inspected for broken or kinked conduit, inner cable kinks, frays and sticky operation. If any defects are found, accomplish correctives actions before commencing an external load operation. The inspections required prior to every external load operation are specified in Onboard Systems Mechanical Release Cable Warning Sheet 197-162-00.

The following Onboard Systems Cargo Hook ICA pertains to the subject of this CAN:

- Mechanical Release Cable Warning Sheet 197-162-00.
- Trouble Shooting Guide 125-004-00
- Component Maintenance Manual 122-005-00 applicable to cargo hooks P/N 528-023-02, 528-013-03 and 528-023-51.

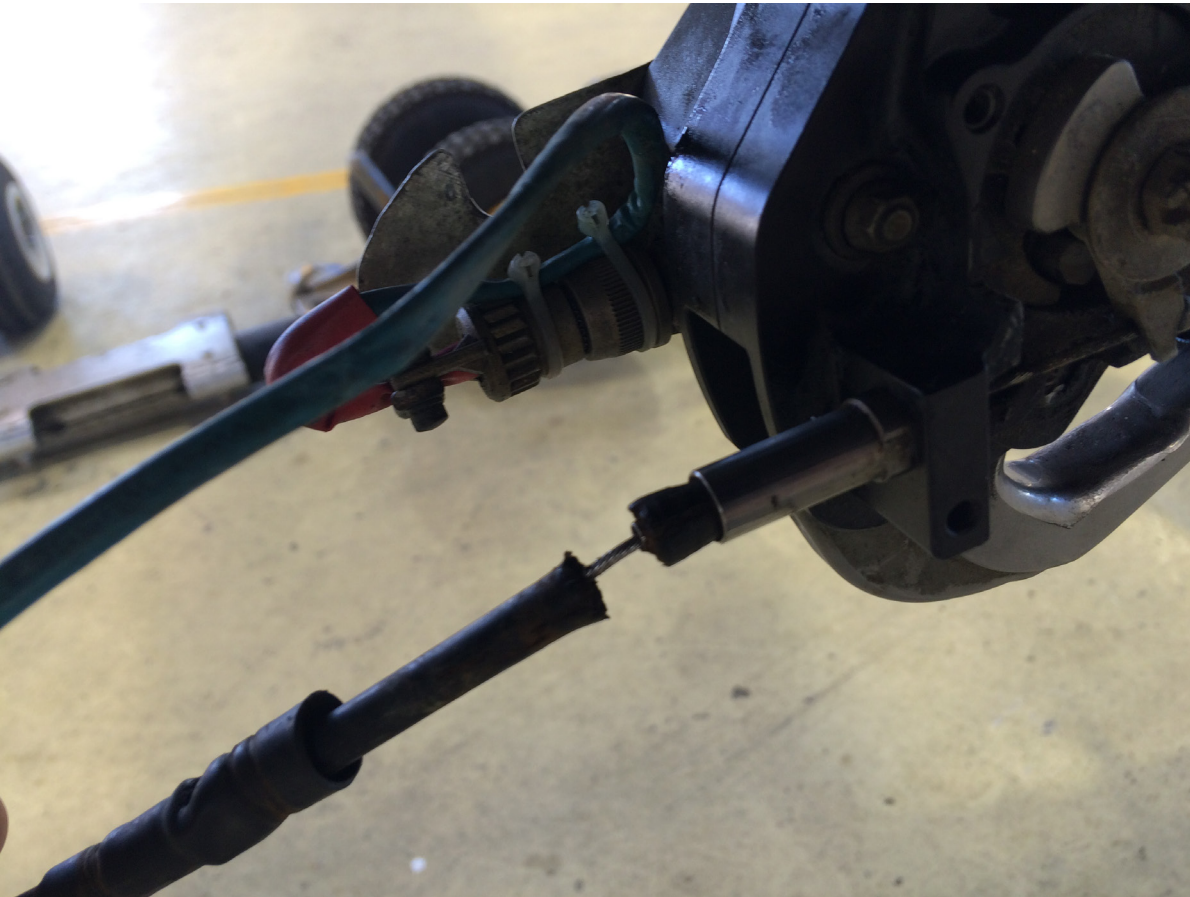
Onboard Systems ICA are available from <http://www.onboardsystems.com/>

Note:

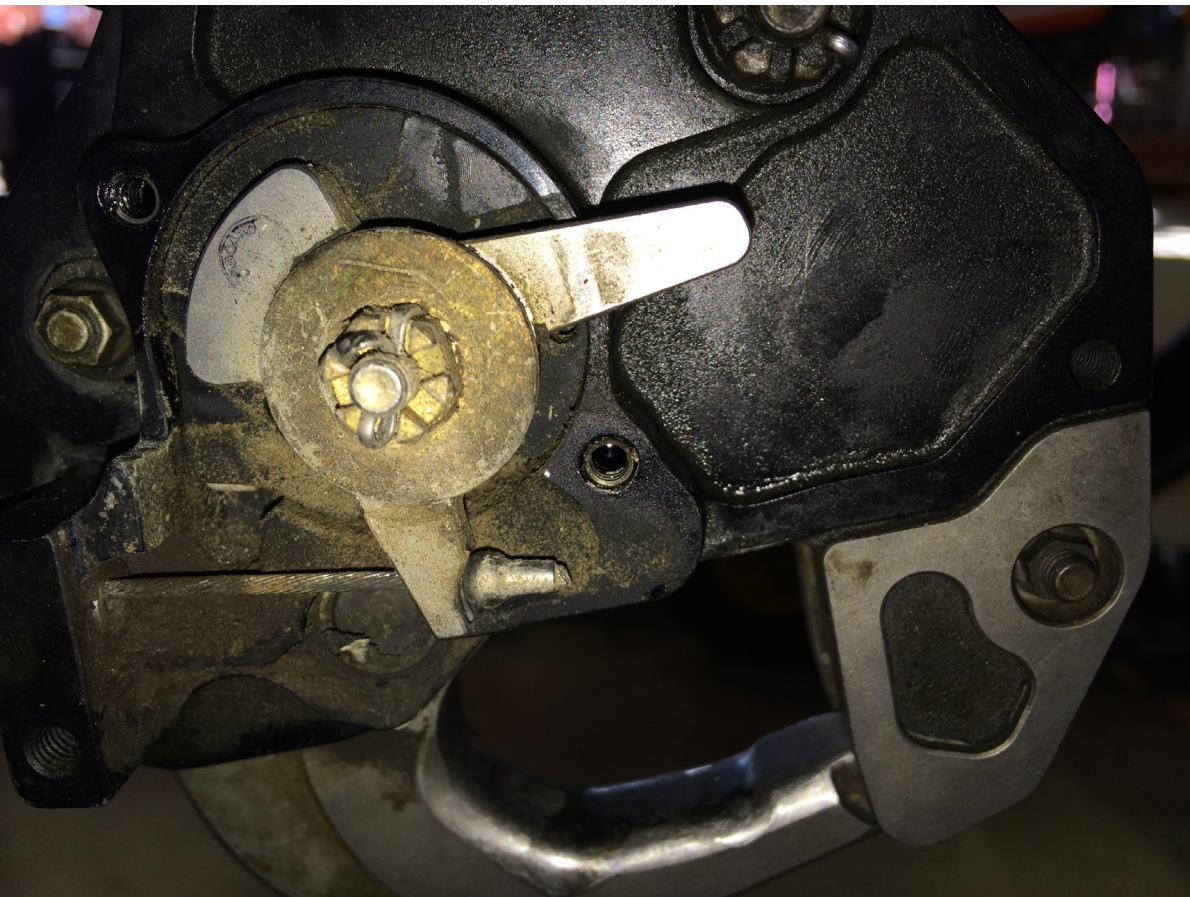
Incorrect rigging adjustment of the mechanical release cable can lead to an inadvertent load release. This can be caused during external load operations where the motion of the cargo hook and suspension system can move the cable sufficiently to activate the hook release mechanism. It is critical that the manual release cable rigging be set each time the hook is installed on the aircraft. As each cargo hook installation has unique requirements for the rigging setup, the appropriate manual should be referenced for proper instructions. The manufacturer ICA requires careful adjustment of the cable free play, the need to check that the release cable is not a stop which prevents the cargo hook from swinging freely in all directions, and also requires a check for condition of release cables prior to every external load operation. Mechanical release cables are wearable items and must be replaced as condition requires.

Enquiries regarding this Continuing Airworthiness Notice should be sent to:

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Cable conduit fractured approximately 50mm forward of the cargo hook.



Due to fractured cable conduit, no cable free-play present.