

Continuing Airworthiness Notice – 71-002 issue 1



Eurocopter EC 120 B Harness, Generator Box Master P/N C243A2901101 – Inspection

19 December 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:

All Airbus/Eurocopter EC 120 B helicopters.

Note:

Continuing Airworthiness Notice (CAN) 71-002, issue 1 revised to introduce Eurocopter Service Letter (SL) 1706-24-05 dated 8 June 2005, which pertains to the subject of this CAN.

Purpose:

The purpose of this CAN is to advise operators and maintainers of an incident which occurred on an EC 120 B helicopter and the importance to inspect Harness, Generator Master Box P/N C243A2901101 and the engine oil sump for chafing damage.

Background:

During a ground run following the illumination of a “GEN” warning light in flight, the engineer noticed vapour coming from the engine bay area with the cowls closed. The engine was immediately shut down and on opening the engine cowl the engineer noticed oil on the engine deck, damage to the starter/generator harness and damage to the engine oil sump. On removal of the engine, an arcing hole was found in the oil sump and substantial damage found to the starter/generator harness.

Upon further investigation the starter harness was found with significant internal and external arcing damage with sufficient separation from surrounding components in the area. The wear noted within the harness indicates the defect could not be seen without physical separation of the harness and an internal inspection. The damaged area of the harness is in an area obscured by the engine, the gearbox and the starter/generator. With reference to the two photographs provided in this CAN, the harness was generally in a good condition. The heat shrink deformation and conductor exposure on the outside was as a result of the incident.

The engine was subsequently removed from the airframe, sent for repair and the module 1 replaced. The damaged starter/generator harness was also replaced. Other affected helicopters in the operator’s fleet were inspected for similar wear in this concealed area.

Requirements:

The CAA strongly recommends that operators/maintainers of affected helicopters inspect Harness, Generator Master Box P/N C243A2901101 and the engine oil sump for chafing damage in the concealed area identified in this CAN and in accordance with Eurocopter SL 1706-24-05. Inspect the starter generator harness clamps for condition and security. If any defects are found, accomplish corrective actions, before further flight.

Eurocopter Service Letter 1706-24-05 dated 8 June 2005, or later approved revision, pertains to the subject of this CAN.

Complete a CA005 Defect Report form for every inspection if any anomalies are found. Please include findings and any other relevant technical information. A CA005D Defect Report form can be obtained from http://www.caa.govt.nz/assets/legacy/Forms/CA005D_Form.pdf The completed form can be emailed to the CAA at CA005@caa.govt.nz

Enquiries regarding this Continuing Airworthiness Notice should be made to:

Owen Olls
Airworthiness Specialist
Email: owen.ollis@caa.govt.nz
Phone: 04 560 9569



Photo 1: Plan view of the area where the generator harness is located (i.e. view from above)

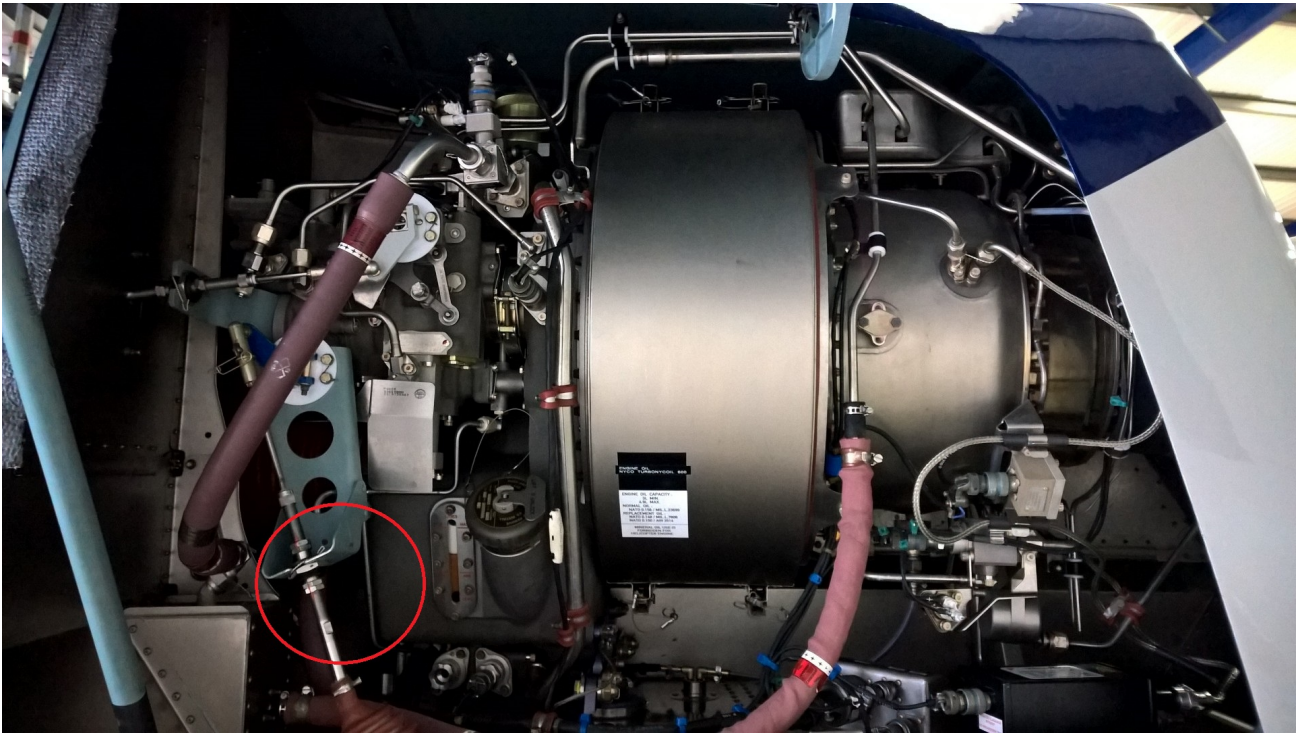


Photo 2: Side view of the engine and the area where the generator harness is located.