Airworthiness Directive

Rolls-Royce Allison 250 series engines

Issued by the Civil Aviation Authority of New Zealand in accordance with section 72I(3A) of the Civil Aviation Act. An Airworthiness Directive (AD) contains regulatory information which is mandatory. An operator of an aircraft must not operate the aircraft unless the operator complies with every applicable AD issued by the Director in accordance with section 72I(3A) of the Civil Aviation Act. An AD is issued where the Director believes on reasonable grounds that an unsafe condition exists in an aircraft or aeronautical product.

This emergency AD is prompted by recent reports of finding fuel nozzles P/N M250-10603 fitted with old design screen filters, which are prone to collapse when partially contaminated, restricting or completely blocking the fuel flow to the engine. AD DCA/AL250/50 (FAA AD 2006-16-04 refers) mandated the installation of a new design fuel nozzle assembly with an improved screen. This AD does not supersede DCA/AL250/50.

DCA/AL250/59 Fuel Nozzle Assembly Screen Filter – Inspection

Applicability: All Rolls-Royce Allison 250 series engines fitted with a fuel nozzle assembly P/N M250-10603.

Requirement: To prevent reduced fuel flow due to the possible installation of a fuel nozzle with an old design screen filter, which could result in loss of engine power, or engine shutdown, inspect the fuel nozzle screen as follows:

Remove the fuel line from the fuel nozzle assembly and inspect the aft end of the screen filter through the fuel inlet of the nozzle.

If the aft end of the screen filter is constructed of gauze mesh, then replace the fuel nozzle before further flight.

If the aft end of the screen filter has a solid metal disc, then no further action is required.

If the inspection through the fuel inlet of the nozzle assembly cannot determine that the aft end of the screen filter has a solid metal disc, then replace the fuel nozzle before further flight.

Affected fuel nozzles with an old design fuel screen (i.e. the screen completely constructed of gauze mesh, including the aft end of the screen), must not be fitted to any engine.

Report any defects found to the CAA by completing a CA005 Defect Report form. Provide photographs and as much engineering detail as possible. The form can be obtained from http://www.caa.govt.nz/Forms/CA005D_Form.pdf

The completed form can be emailed to the CAA at CA005@caa.govt.nz

Note: New design fuel nozzle assemblies have a screen filter with a solid metal disk at the aft end of the screen filter. New design fuel nozzles have a screen filter with P/N 139968.

Compliance: Within the next 25 hours TIS.

Effective Date: 7 March 2019

The screen filter on the left of the photo is the new design screen filter, which has a solid metal disc at the aft end of the screen filter.

The screen filter on the right of the photo is the old design screen filter, which is completely constructed of gauze mesh, including the aft end of the screen – Replace before further flight.