

## Kelly Fuel Pump Diaphragm Assembly

24 June 2011

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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 and a serial number for the next CAN in that ATA Chapter.

**The contents of this notice are ADVISORY ONLY and are NOT MANDATORY.**

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### Applicability:

Since this CAN was issued on 7 September 2007 the CAA has received further reports of fuel pump leaks due to defective diaphragm and plunger assembly P/N CFRB15985. These leaks occurred on plunger assemblies manufactured outside the September 2005 to July 2007 date range specified in KAPS SB 028A.

Subsequently, the applicability of this CAN revised to include all diaphragm and plunger assembly P/N CFRB15985. These fuel pump diaphragm-plunger assemblies are installed in KAPS fuel pump models RG15980, RG17980 (Lear/Romec), 201F (Kelly Aerospace), and TCM series 638156, 638155, 630751 and 636898.

### Purpose:

This CAN supersedes CAN 28-002 dated 7 September 2007 which alerted operators of the possibility of fuel pump leaks due to manufacturing defects in diaphragm and plunger assemblies P/N CFRB15985 manufactured by KAPS between September 2005 and July 2007. This CAN revised to alert operators of possible defective fuel plunger assemblies manufactured outside the September 2005 to July 2007 date range.

### Background:

This CAN is prompted by numerous reports of fuel leaks occurring on KAPS engine driven fuel pumps. The leaks are due to the nut securing the plunger to the diaphragm becoming loose. The manufacturer inspected the failed diaphragm-plunger assemblies and subsequently released Mandatory Service Bulletin No. 028A, dated 28 August 2007. This SB lists the affected fuel pump S/N overhauled by KAPS, but does not include fuel pump S/N overhauled by other facilities using affected diaphragm and plunger assemblies P/N CFRB15985.

### Recommendation:

Review the aircraft log books and determine whether an affected fuel pump is fitted to the aircraft. If the fuel pump is fitted with a diaphragm and plunger assembly P/N CFRB15985, then the CAA recommends that operators inspect the fuel pump for leaks at every pre-flight inspection. If any fuel leaks are found the diaphragm-plunger assembly must be replaced before further flight.

If affected diaphragm-plunger assemblies remain in service, fuel leaks may occur and reduce the available onboard fuel and be a fire hazard due to the uncontained fuel leak.

### Enquiries:

Enquiries with regard to the content of this Continued Airworthiness Notice should be sent to:

Owen Olls  
Airworthiness Specialist  
Email: [ollso@caa.govt.nz](mailto:ollso@caa.govt.nz)  
Phone: 04 560 9569