



Federal Aviation Administration

Memorandum

Date: August 26, 2014

To: Manager, Aircraft Accident and Incident Notification, Investigation and Reporting, AVP-400

From: Ronald E. Hughes, Manager, Farmingdale FSDO, AEA-11

Prepared by: Scott Perry, Aviation Safety Inspector, Farmingdale FSDO, AEA-11

Subject: ACTION: Safety Recommendation for Fuel Line Nipple

During a personal flight, the pilot of a 1979 Cessna R182 had to declare an emergency due to smoke and flames entering the cabin. The pilot was able to land and both occupants exited the aircraft. Fire rescue extinguished the fire but the aircraft sustained substantial damage.

Investigation revealed that the AN911-2D nipple fitting that connects the fuel line Tee, AN917-2D, to the carburetor had sheared, allowing fuel to be pumped into the engine bay. A log book review determined the nipple fitting was likely original to the airframe with approximately 4010 total hours. This failure was likely due to the stresses imposed by the Tee fitting, connecting fuel lines, vibration and normal maintenance. Due to the design and location of this fuel system assembly, this failure could occur again on this model aircraft and possibly others with a similar design.

Because of a potential safety issue, it is recommended that an Airworthiness Directive be issued to change this AN911-2D aluminum nipple fitting to an MS fitting made of steel.

Attachments:

R182 & TR182 Parts Catalog figure 111, page 321 and Part Number listing, page 323
Photographs of sheared fitting

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