
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Cessna 180, 182 and Wren 460 Series Aeroplanes**AD/CESSNA 180/90****Fuel Line Chafing****6/2007
DM**

Applicability: Models 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q and 182R aeroplanes, all serial numbers, that:

- a. Have Air Plains Services Corporation United States Federal Aviation Administration (FAA) Supplemental Type Certificate (STC) SA00152WI installed, and
- b. Have a ground power receptacle mounted on the firewall (forward ground power receptacle).

Requirement:

1. Remove power to the ground power electrical cable by accomplishing either of the following in accordance with Air Plains Services Corporation Mandatory Service Bulletin (SB) APS-07-01-01, dated 5 March 2007:
 - a. Disconnect the electrical cable at the forward ground power relay and the starter relay, or
 - b. Remove the electrical cable between the forward ground power relay and the starter relay.
2. Fabricate and install a placard as close as possible to the forward ground power receptacle that incorporates the following words (using at least 3mm [0.125 inch] red letters on a white background and a red border):

“Ground Power Receptacle is Inoperative”
3. Reposition the fuel strainer cable in accordance with SB APS-07-01-01.
4. Visually inspect the fuel line from the auxiliary electric fuel pump to the engine-driven fuel pump for chafing.
5. If chafing at or beyond the limits defined in the SB APS-07-01-01, is found in the Requirement 4 inspection, replace the fuel line between the auxiliary electric fuel pump and the engine-driven fuel pump with a new hose part number AE3663161G0190 (or FAA-approved equivalent) and remove the ground power electrical cable per Requirement 1.b.
6. Adjust the position of the fuel line fitting at the engine-driven fuel pump in accordance with SB APS-07-01-01.

Cessna 180, 182 and Wren 460 Series Aeroplanes

AD/CESSNA 180/90 (continued)

Later revisions of the above SB, approved by the FAA as an Alternate Method of Compliance (AMOC) to FAA AD 2007-09-01, are considered acceptable for compliance with the equivalent Requirements of this Directive.

Note: FAA AD 2007-09-01 Amdt 39-15031 refers.

Compliance: For Requirement 1 - Before 12 May 2007.

For Requirement 2 - Before further flight after the power to the ground power receptacle is removed in accordance with Requirement 1.

For Requirements 3 and 4 - Before 12 May 2007.

For Requirement 5 - Before further flight if any chafing is found during the Requirement 4 inspection.

For Requirement 6 - Before 12 May 2007.

This Airworthiness Directive becomes effective on 27 April 2007.

Background: The FAA has received a report of a Cessna Model 182Q aeroplane with Air Plains Services Corporation STC SA00152WI installed that had an in-flight and post-landing fire. The preliminary finding, per the United States National Transportation Safety Board (NTSB), is that the electrical cable between the forward ground power relay and the starter relay chafed on either the fuel strainer control or on the fuel line between the auxiliary electric fuel pump and the engine-driven fuel pump. The cable shorted, welded the fuel strainer control cable to the firewall, and burned the fuel line between the auxiliary electric fuel pump and the engine-driven fuel pump.

This Directive requires the disconnection or removal of the electrical cable between the forward ground power relay and the starter relay, the installation of a placard, the inspection of the fuel line between the auxiliary electric fuel pump and the engine-driven fuel pump for chafing and, if necessary, the replacement of the fuel line if chafing is found. The Directive is issued to detect and correct interference between the ground power electrical cable, the fuel strainer cable and the fuel line between the auxiliary electric fuel pump and the engine-driven fuel pump. This condition could lead to a fire in the engine compartment.



David Punshon
Delegate of the Civil Aviation Safety Authority

23 April 2007