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**AIRWORTHINESS DIRECTIVE**

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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.

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**Cessna 180, 182 and Wren 460 Series Aeroplanes****AD/CESSNA 180/95****Intercooler and Associated Hoses****4/2009  
DM**

**Applicability:** Cessna Models 182Q and 182R aeroplanes equipped with:

Société de Motorisations Aéronautiques (SMA) aircraft diesel engine (ADE) Model SR305-230-1 installed under Supplemental Type Certificate (STC) SA03302AT; or

SMA ADE Model SR305-230 converted to Model SR305-230-1 (by incorporation of SMA Service Bulletin SB-01-76-002) installed under STC SA03302AT.

- Requirement:**
1. Remove intercooler part number (P/N) SF01170004-0 and install reworked intercooler P/N SF01170004-1 and remove intercooler inlet and outlet hoses and install new intercooler inlet hose P/N SF01170083-0 and intercooler outlet hose P/N SF01170048-0.
  2. Inspect intercooler inlet and outlet hoses and clamps for displacement and re-torque clamps. If you find any displacement do the displacement recovery.
  3. Inspect the installation of the intercooler outlet hose and intercooler inlet hose assembly for any displacement or damage of clamps or hoses.
  4. If, any displacement or damage of clamps or hoses is found during the inspection detailed in Requirement 3 of this AD, replace any damaged clamps and hoses.
  5. Do not install any intercooler P/N SF01170004-0.

SMA SAFRAN Group Service Bulletin SB-C182-75-004, Revision No. Basic Issue, dated 8 July 2008 provides the instructions for compliance with Requirements 1 through 4 of this AD.

Later revisions of the above SB, approved by the United States Federal Aviation Administration (FAA) as an Alternate Method of Compliance (AMOC) to FAA AD 2009-04-05 are considered acceptable for compliance with the equivalent Requirements of this Directive.

*Note: FAA AD 2009-04-05 Amdt 39-15811 dated 6 February 2009 refers.*

**Cessna 180, 182 and Wren 460 Series Aeroplanes**

AD/CESSNA 180/95 (continued)

Compliance: For Requirement 1 - Before further flight after the effective date of this AD.

For Requirement 2 - Within the next 25 hours time-in service (TIS) following installation detailed in Requirement 1 of this AD.

For Requirement 3 - Initially inspect within the next 100 hours TIS or within 12 months after the action detailed in Requirement 1 of this AD is carried out, whichever occurs first.

Thereafter repeat the inspection at intervals not to exceed 100 hours TIS or 12 months, whichever occurs first.

For Requirement 4 - Before further flight, after the inspection detailed in Requirement 3 of this AD is carried out and any displacement or damage of clamps or hoses is found.

For Requirement 5 - From the effective date of this AD.

This Airworthiness Directive becomes effective on 27 March 2009.

Background: This FAA has advised of two instances of induction hose disconnection occurring while in service on the air inlet manifold circuit, resulting in a loss of turbo boost and a significant loss of engine power. The issuing this AD is intended to detect and correct improper intercooler hose assembly installation, which could result in loss of turbo boost and a significant loss of engine power.

This failure could lead to an inability to maintain constant altitude in flight.



James Coyne  
Delegate of the Civil Aviation Safety Authority

26 February 2009