



SUBJ: Engine Fuel and Control — Implementing Fuel Tank System
Airworthiness Limitations

SAIB: NM-09-03
Date: December 11, 2008

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) explains how section 91.403(c) of the Federal Aviation Regulations [14 CFR 91.403(c)] and other operational requirements apply to fuel tank system components that are subject to certain airworthiness directives (ADs). Specifically, the FAA has issued numerous ADs, applicable to the airplane models listed in Attachment 1 of this SAIB, that require implementing Critical Design Configuration Control Limitations (CDCCL) for these components. Owners and operators of these airplane models are not required to rework affected components that had been identified as airworthy prior to the required airworthiness limitations section (ALS) or maintenance program revisions. Those owners and operators are also not required to rework components installed on an airplane prior to those required revisions. However, once the CDCCLs are incorporated into the ALS or maintenance program, future maintenance actions on components must be accomplished in accordance with those CDCCLs.

Background

The FAA issued a series of ADs (see Attachment 1) in response to the results from fuel system reviews conducted by manufacturers in accordance with Special Federal Aviation Regulation (SFAR) 88. Those ADs require corrective actions that include revising the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness for certain airplanes, and the maintenance program for certain other airplanes, to incorporate new airworthiness limitations (AWLs) for fuel tank systems. Some of these AWLs require repetitive inspections or other maintenance actions, while others, which are referred to as Critical Design Configuration Control Limitations (CDCCL) define and preserve certain ignition prevention design features. Incorporation of these AWLs into the ALS or maintenance program is required on or before December 16, 2008, as specified in the individual ADs. Any changes to the CDCCLs will require FAA Oversight Office approval.

With respect to incorporating the AWLs, the ADs only require the revision of the ALS or maintenance program to include the new AWLs. We intended that operators follow the new CDCCLs when performing maintenance after the date of their incorporation in accordance with operational requirements, including section 91.403(c). We clarified this relationship between the operational requirements and the ADs in the preambles of some of the final rules.

In the notices of proposed rulemaking for some of these ADs, we included a discussion of our intent regarding the effect of these AWLs on existing spare and on-airplane fuel tank system components. Specifically we stated: “After doing that AWLs revision, operators would need to do any maintenance on the fuel tank system as specified in the CDCCLs. Maintenance done before the AWLs revision ... would not need to be redone in order to comply” ... with the AD.

Section 91.403(c) states that “No person may operate an aircraft for which a manufacturer’s maintenance manual or instructions for continued airworthiness has been issued that contains an airworthiness limitation section unless the mandatory ... procedures ... have been complied with.” Some operators have questioned whether this means that any existing spare or on-airplane fuel tank system components such as fuel pumps, affected by the new CDCCLs, must be reworked. However,

as discussed previously, this was not the FAA's intent. These ADs, as implemented through the operational rules, were intended only to have a prospective effect on future maintenance, and not to have a retroactive effect of requiring rework of components that had been maintained using acceptable methods in the past.

Recommendations

This SAIB does not recommend any specific actions on the part of owners or operators, but explains the relationship between section 91.403(c) and the SFAR 88 ADs. In complying with section 91.403(c), and other operational rules, to implement the CDCCLs required by these ADs, owners and operators are not required to rework affected spare fuel tank system components identified as airworthy prior to the required ALS or maintenance program revisions, or components installed on an airplane prior to those required revisions. However, once the CDCCLs are incorporated into the ALS or maintenance program, future maintenance actions on components must be accomplished in accordance with those CDCCLs.

The Transport Airplane Directorate is considering revising the affected ADs to clarify the legal effect of the limitation changes under the operational rules.

For Further Information Contact

Joe Jacobsen, Aerospace Engineer, Transport Standards Staff, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: (425) 227-2011; fax: (425) 227-1100; e-mail: Joe.Jacobsen@faa.gov.

ATTACHMENT 1

AD Number	AD Applicability
2007-14-01	All Airbus Model A330-201, A330-202, A330-203, A330-223, A330-243, A330-301, A330-321, A330-322, A330-323, A330-341, A330-342, and A330-343 airplanes; and Model A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, and A340-642 airplanes; certificated in any category
2007-22-03	All Airbus Model A300 series airplanes, certificated in any category, except Airbus Model A300-600 series airplanes
2007-21-14	All Airbus Model A310 series airplanes, certificated in any category
2007-10-10	All Airbus Model A300-600 series airplanes, certificated in any category
2007-15-06	All Airbus Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes; certificated in any category
2008-04-19	All ATR Model ATR42-200, -300, -320, and -500 airplanes; and all ATR Model ATR72-101, -201, -102, -202, -211, -212, and -212A airplanes; certificated in any category
2008-10-11	All Boeing Model 757-200, -200PF, -200CB, and -300 series airplanes, certificated in any category
2008-10-06	Boeing Model 747-400, -400D, and -400F series airplanes, certificated in any category; with an original standard airworthiness certificate or original export certificate of airworthiness issued before April 12, 2006
2008-11-01	Boeing Model 767-200, -300, -300F, and -400ER series airplanes, certificated in any category; with an original standard airworthiness certificate or original export certificate of airworthiness issued before April 22, 2006
2008-04-11	All Boeing Model 707-100 long body, -200, -100B long body, and -100B short body series airplanes; Model 707-300, -300B, -300C, and -400 series airplanes; and Model 720 and 720B series airplanes; certificated in any category
2008-10-10	Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes, certificated in any category, with an original standard airworthiness certificate or original export certificate of airworthiness issued before March 31, 2006
2008-11-13	Boeing Model 777-200, -200LR, -300, and -300ER series airplanes; certificated in any category; with an original standard airworthiness certificate or original export certificate of airworthiness issued before December 5, 2007
2008-04-10	All Boeing Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F series airplanes, certificated in any category
2008-10-09	All Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category
2008-10-07	All Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP series airplanes, certificated in any category
2008-09-25	All Bombardier Model DHC-8-102, DHC-8-103, DHC-8-106, DHC-8-201, DHC-8-202, DHC-8-301, DHC-8-311, and DHC-8-315 airplanes, certificated in any category, all serial numbers
2008-09-12	All Bombardier Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category, all serial numbers
2008-09-24	All Bombardier Model DHC-8-400, DHC-8-401, and DHC-8-402 airplanes, certificated in any category, all serial numbers
2008-09-23	All Bombardier Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900) airplanes, certificated in any category, all serial numbers
2008-09-22	All CASA Model CN-235, CN-235-100, CN-235-200, CN-235-300, and C-295 airplanes; certificated in any category
2005-13-24	All AvCraft Dornier Model 328-100 airplanes, certificated in any category
2005-15-16	AvCraft Dornier Model 328-300 airplanes, certificated in any category, serial numbers 3105 through 3223 inclusive
2008-04-18	All EMBRAER Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes; certificated in any category

2008-13-14	EMBRAER Model EMB-135ER, -135KE, -135KL, and -135LR airplanes, and Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes; certificated in any category; except for Model EMB-145LR airplanes modified according to Brazilian Supplemental Type Certificate 2002S06-09, 2002S06-10, or 2003S08-01
2008-13-15	All EMBRAER Model EMB-135BJ airplanes, certificated in any category
2008-06-20	Fokker Model F.28 Mark 0070 and 0100 airplanes, all serial numbers, certificated in any category; and Model F.28 Mark 1000, 2000, 3000, and 4000 airplanes, serial numbers 11003 through 11241, 11991 and 11992, certificated in any category
2008-05-18	Fokker Model F27 Mark 050 airplanes, all serial numbers; and Fokker F27 Mark 200, 300, 400, 500, 600, and 700 airplanes, serial numbers 10102 through 10692; certificated in any category
2008-11-02	All Lockheed Model L-1011 series airplanes, certificated in any category
2008-20-01	All Lockheed Model 382, 382B, 382E, 382F, and 382G series airplanes, certificated in any category
2008-06-21	All McDonnell Douglas Model DC-10-10 and DC-10-10F airplanes, Model DC-10-15 airplanes, Model DC-10-30 and DC-10-30F (KC-10A and KDC-10) airplanes, Model DC-10-40 and DC-10-40F airplanes, Model MD-10-10F and MD-10-30F airplanes, and Model MD-11 and MD-11F airplanes, certificated in any category
2008-09-04	All McDonnell Douglas Model DC-8-31, DC-8-32, DC-8-33, DC-8-41, DC-8-42, and DC-8-43 airplanes; Model DC-8-51, DC-8-52, DC-8-53, and DC-8-55 airplanes; Model DC-8F-54 and DC-8F-55 airplanes; Model DC-8-61, DC-8-62, and DC-8-63 airplanes; Model DC-8-61F, DC-8-62F, and DC-8-63F airplanes; Model DC-8-71, DC-8-72, and DC-8-73 airplanes; and Model DC-8-71F, DC-8-72F, and DC-8-73F airplanes; certificated in any category
2008-11-15	All McDonnell Douglas Model 717-200 airplanes; Model DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F airplanes; Model DC-9-21 airplanes; Model DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, and DC-9-32F (C-9A, C-9B) airplanes; Model DC-9-41 airplanes; Model DC-9-51 airplanes; Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) airplanes; Model MD-88 airplanes; and Model MD-90-30 airplanes; certificated in any category
2007-23-05	All Saab Model SAAB 2000 airplanes, certificated in any category, all serial numbers
2008-09-06	All Saab Model SAAB-Fairchild SF340A (SAAB/SF340A) and SAAB 340B airplanes, certificated in any category, all serial numbers
2006-12-18	All Shorts Model SD3-60 SHERPA, SD3-SHERPA, SD3-30, and SD3-60 airplanes, certificated in any category