

Van: [redacted]
Verzonden: woensdag 16 september 2009 15:27
Aan: [redacted]
CC: [redacted]
Onderwerp: RE: Fokker 70, msn 11547, TCDS and 16-G seats (MAGE project 1838, EASA project P-EASA.A.S.03763)

Dear [redacted]

Based on input from our specialists I can provide the following clarification: when demonstrating compliance with JAR 25.561 and 25. 785 at Change 13, the reference in 25.785 to JAR 25.652 should be disregarded.

The background to this is as follows:
 It was the intent of Fokker Aircraft to certify for 25.562, without fulfilling all requirements (eg. HIC requirement) in this paragraph. Seats were designed to 16gFWD and 14gDWN dynamic requirements in FAR25.562. All seats installed by Fokker Aircraft into the Fokker 70 were always fulfilling the 16g/14g requirements.

The Certifying Authority of the Fokker 70 (RLD) decided however that 25.562 could only be added to the TCDS if Fokker could comply to all requirements of this paragraph. Fokker was not in compliance with all subparagraphs and therefore the TCDS of the Fokker 70 does not contain the dynamic seating requirement of JAR25.562 change 13. The indirect reference in JAR25.785(a)ch13 to inertia factors specified in 25.561 and 25.562 conflicts with this. This reference to 25.562 should however be discarded for the Fokker 70 product.

Based on the Certification Basis in EASA TCDS A.037 9g seats have been installed afterwards during modifications/changes. To install new 9g TSO C39() seats the installer shall show structural compliance for the seats as well as for the floorstructure to all relevant paragraphs in the Fokker 70 TCDS: 25.561ch13 and 25.785ch13.

Be aware that the FAA validated some subparagraphs of FAR25.562 in FAA TCDS A20EU: Am 25-64 effective June 16, 1988 - 25.562(b),(c)(4), (c)(7) and (c)(8). So if no compliance has been demonstrated to these requirements this would be a problem if the aircraft needed to be registered in the US. For msn 11547 this is however not likely ever to be required.

Note 4c in the EASA TCDS expresses the need to still show compliance to the certification basis (25.561/785 at change 13), even when the new installed seats have already a TSO. This is however already a general EASA part 21 requirement, which makes this note 4c in the TCDS superfluous.

I hope that this is the information you need. Please feel free to contact me again if you have further questions.

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 | Kind Regards,
 | [redacted]
 | CAA-NL (Airworthiness) [redacted]
 =====

-----Oorspronkelijk bericht-----
Van: [redacted]
Verzonden: dinsdag 15 september 2009 18:38
Aan: [redacted]

CC: # [REDACTED]

Onderwerp: Fokker 70, msn 11547, TCDS and 16-G seats (MAGE project 1838, EASA project P-EASA.A.S.03763)

Dear [REDACTED]

Further to our telephone conversation Mann Aviation Group (Engineering) Limited (MAGE) is seeking clarification of the following paragraph (Note 4c) of the Fokker 70 TCDS:

All replacement seats (crew, passenger, lounge), although they may comply with TSO C39(), must also be demonstrated to comply with JAR 25.561 and 25.785. Other installations such as berths, buffets, stowage compartments, or items of mass which could create a hazard to the safety of the passengers and/or crew, must also be demonstrated to meet the same requirements.

MAGE is upgrading the cabin of PH-registered Fokker 70 msn 11547 and replacing the existing VIP seats with DeCrane Model 6004 and Model 6005 16-g seats. In order to demonstrate compliance with 25.561 MAGE have used the interface loads derived from DeCrane reports S-406 and S-521. Our stress report SR1838-031 shows that the aircraft structure can withstand the interface loads with ample margin. However, MAGE have not demonstrated that the existing floor structure and seat track can withstand the dynamic peak loads as derived from the DeCrane Dynamic Test Reports (T-556 and T-558) as per 25.562(b). MAGE understand that the original type certification of the Fokker 70 did not include compliance with the dynamic seat requirements of 25.562. However, the reference to 25.785 in the TCDS indirectly refers us back to 25.562 and seems to imply that 16-g dynamically tested seats need to be installed. We are uncertain that the existing floor structure and seat track will withstand the dynamic peak loads resulting from the 25.562(b) load cases.

To confuse matters further the subject aircraft was delivered by Fokker Aircraft in 1996 with 9-g VIP seats. Fokker Specification FAS-TS-70-25-11-017 dated 30th June 1995 and Fokker Specification FAS-TS-70-25-11-022 dated 2nd May 1996 state that Dynamic Strength requirement of paragraph 25.562(b) is not applicable.

The aircraft was subsequently refurbished in 1997 by Jet Aviation and the 9-g VIP seats were replaced with Dettmers Industries' 9-g VIP seats as detailed in Jet Aviation Certification Compliance report 97SC1-102. This report also states that JAR Part 25.562 Change 13 is not applicable.

We would be grateful if you could confirm that our STC on msn 11547 does not need to comply

with the dynamic seat requirements of 25.562(b). In addition we would be grateful if you could explain us the intent of the above note 4c of the TCDS.

Best regards


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