

LUFTVÄRDIGHETSDIREKTIV (LVD)

A. Flygplan Mooney LVD Nr 2663

Sektion 2. Utlandstillverkad flygmateriel

TITEL: Kontroll av "Alternate Air Door" enheten

GÄLLER: M20J S/N 24-0001 t o m 24-3250 och 24-3252 t o m 24-3374.

ATGÄRD: Utför åtgärder i enlighet med appendix och angivna service

bulletiner i bifogad kopia av FAA AD 95-26-16 R1.

TID FÖR

Före flygning om ei tidigare utfört därefter i intervall om 10

flygtimmar tills att modifiering enligt (b)(2) i FAA AD 95-26-16 R1

har införts.

FAA AD 95-26-16 R1. **UNDERLAG:**

Mooney Service Bulletin (SB) M20-250B eller SB M20-253C, båda

daterade december 1995.

FAA AD 95-26-16 R1. **REFERENS:**

LFV skrivelser L 1995-2152-101202 daterade den 28 december

1995 och den 8 januari 1995 sända till kända ägare /brukare.

BESLUTS

DATUM: 1996-02-09.

LFS: 1996:14

Åtgärd enligt LVD utgör nödvändig förutsättning för ifrågavarende flygmateriels luftvärdighet. Referens BCL M 1.11. Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senaste gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

REVISED

PRIORITY LETTER AIRWORTHINESS DIRECTIVE

REGULATORY SUPPORT DIVISION P.O. BOX 26460

OKLAHOMA CITY, OKLAHOMA 73125-0460

96_-01-_1_2



U.S. Department of Transportation Federal Aviation Administration

DATE: January 5, 1996 95-26-16 R1

Priority letter AD 95-26-16 currently requires repetitively inspecting to ensure the alternate air door assembly cotter pin exists and is secure on certain Mooney Model M20J airplanes, and replacing the cotter pin with a part number MS 24665-132 if it does not exist or is not secure. A fatal accident involving a Mooney Model M20J airplane with reported engine failure in flight at 6,000 feet prompted the FAA to issue priority letter AD 95-26-16.

After the reported engine failure, the pilot attempted to vector the airplane to the nearest airport and crashed into a wooded lot. Investigation of the accident revealed that the alternate air door bolt separated from its fastener, which allowed the alternate air door to lodge in the air intake of the fuel injector, resulting in restricted air flow to the engine.

An FAA review of service history on Mooney Model M20J airplanes revealed four other incidents involving the alternate air door separating and becoming lodged in the intake of the fuel injector. These include two reports of rough engine operation while in flight with emergency landing, an aborted take-off because of engine power loss, and a service difficulty report found during a 100-hour time-in-service (TIS) inspection.

Since issuance of priority letter AD 95-26-16, Mooney has developed an alternate air door plate assembly of improved design that, when incorporated on Mooney Model M20J airplanes, will prevent the alternate air door assembly from separating from the airplane and restricting air flow to the engine. Mooney Service Bulletin (SB) M20-250B and SB M20-253A, both dated December 1995, specify procedures for modifying the alternate air door assembly on Mooney Model M20J airplanes. This modification consists of incorporating the following parts of improved design:

- plate assembly, part number (P/N) 600355-507;
- four rivets, P/N MS20426AD3;
- a cotter pin, P/N MS24665-132;
- a self-locking castellated nut, P/N MS17825-4; and
- a washer, P/N AN960-416.

After examining all information related to the subject accident and incidents, including the referenced service information, the FAA has determined that (1) priority letter AD 95-26-16 should allow the option of incorporating an alternate air door plate assembly of improved design as terminating action for the repetitive inspections; and (2) AD action should be taken to prevent the alternate air door on certain Mooney Model M20J airplanes from separating and restricting air flow to the engine.

Since an unsafe condition has been identified that is likely to exist or develop on other Mooney Model M20J airplanes of the same type design, this priority letter AD revises AD 95-26-16 to provide the option of incorporating the above-referenced modification as terminating action for the requirement of repetitively inspecting the alternate air door assembly.

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958), pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this priority letter.

95-26-16 R1 MOONEY AIRCRAFT CORPORATION: Priority Letter issued on January 5, 1996. Docket No. 95-CE-102-AD. Revises priority letter AD 95-26-16.

Applicability: Model M20J airplanes (serial numbers 24-0001 through 24-3250 and 24-3252 through 24-3374), certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required initially prior to further flight after receipt of this priority letter AD, unless already accomplished, and thereafter as indicated in the body of this AD.

To prevent the alternate air door from separating and restricting air flow to the engine, accomplish the following:

NOTE 2: The paragraph structure of this AD is as follows:

Level 1: (a), (b), (c), etc. Level 2: (1), (2), (3), etc. Level 3: (i), (ii), (iii), etc.

Level 2 and Level 3 structures are designations of the Level 1 paragraph they immediately follow.

- (a) Inspect the alternate air door assembly in accordance with the procedures contained in the Appendix to this AD to ensure that the cotter pin exists and is secure. If the cotter pin exists and is secure, reinspect the alternate air door assembly in accordance with the procedures contained in the Appendix to this AD at intervals not to exceed 10 hours time-in-service (TIS) until the modification specified in paragraph (b)(2) of this AD is accomplished.
- (b) If, during any of the inspections required by the this AD, the cotter pin is found missing or is not secure, prior to further flight, accomplish one of the following:
- (1) Replace the cotter pin with a part number MS 24665-132 cotter pin, and reinspect the alternate air door assembly at intervals not to exceed 10 hours TIS; or
- (2) Modify the alternate air door assembly. Accomplish these actions in accordance with the INSTRUCTIONS section of Mooney Service Bulletin (SB) M20-250B or SB M20-253A, both dated December 1995, as applicable. This modification consists of incorporating the following parts of improved design:
 - (i) plate assembly, part number (P/N) 600355-507;
 - (ii) four rivets, P/N MS20426AD3;
 - (iii) a cotter pin, P/N MS24665-132;
 - (iv) a self-locking castellated nut, P/N MS17825-4; and
 - (v) a washer, P/N AN960-416.

NOTE 3: If the alternate air door assembly has been modified in accordance with Mooney SB M20-250A or SB M20-253, both dated May 10, 1992, then the only actions required in accordance with Mooney SB M20-250B or SB M20-253A, both dated December 1995, are incorporating the following:

- a cotter pin, P/N MS24665-132;
- a self-locking castellated nut, P/N MS17825-4; and
- a washer, P/N AN960-416.
- (c) Incorporating the modification specified in paragraph (b)(2) of this AD eliminates the requirement for the repetitive inspection requirement of this AD and may be incorporated at any time.
- (d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.
- (e) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Airplane Certification Office (ACO), FAA, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Fort Worth ACO.
- NOTE 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Fort Worth ACO.
- (f) All persons affected by this directive may obtain the documents referenced in this priority letter from the Mooney Aircraft Corporation, Box 72, Kerrville, Texas 78028; or may examine this information at the FAA, Central Region, Office of the Assistant Chief Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.
 - (g) Priority Letter AD 95-26-16 R1, issued January 4, 1996, becomes effective immediately upon receipt.

FOR FURTHER INFORMATION CONTACT: Alma Ramirez-Hodge, Aerospace Engineer, FAA, Fort Worth ACO, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone (817) 222-5147; facsimile (817) 222-5959.

APPENDIX TO AD 95-26-16

I. INSPECTION PROCEDURES FOR AIRCRAFT PRIOR TO RETROFIT ACTION OF SERVICE BULLETINS M20-250, ORIGINAL ISSUE; M20-250, REVISION A; OR M20-253, ORIGINAL ISSUE.

- 1. Remove top cowling from aircraft per M20J Service and Maintenance manual, reference Section 71-11-00.
- 2. Remove the induction air filter from upper induction housing.
- 3. Use mirror and flashlight to inspect cotter pin security through threaded portion of bolt of the alternate air door.
- 4. Check security and condition of seal to alternate air door assembly, and replace the seal if cracked.
- 5. If cotter pin is in place and secure, replace cowling per Section 71-11-00 of Service and Maintenance manual.
- 6. If cotter pin is missing or not secure, replace with a part number MS 24665-132 cotter pin.

II. INSPECTION PROCEDURES FOR AIRCRAFT AFTER RETROFIT ACTION OF SERVICE BULLETINS M20-250, REVISION A; OR M20-253, ORIGINAL ISSUE.

- 1. Remove top cowling from aircraft per M20J Service and Maintenance manual, reference Section 71-11-00.
- 2. Looking up from bottom of engine compartment, use mirror and flashlight to inspect cotter pin security through castellated nut and threaded portion of bolt of the alternate air door spring-loaded assembly.
- 3. Check security and condition of seal to alternate air door assembly, and replace the seal if cracked.
- 4. If cotter pin is in place and secure, replace cowling per Section 71-11-00 of Service and Maintenance manual.
- 5. If cotter pin is missing or is not secure, replace with a part number MS 24665-132 cotter pin.