

attitude to be expected in service of 0.10 percent of the tank capacity or 120 cc, whichever is greater, unless—

(1) The fuel system has a sediment bowl or chamber that is accessible for preflight drainage and has a minimum capacity; and

(2) Each fuel tank drain is located so that in any ground attitude to be expected in service, water will drain from all parts of the tank to the sediment bowl or chamber.

(b) Each sump, sediment bowl, and sediment chamber drain required by this section must comply with the drain provisions of paragraph 27.999(b).

27.973; 27.975; 27.977; 27.991; 27.993; 27.995; 27.997; 27.999;

PCR.1011 Engine Oil System: General.

(a) Each engine must have an independent oil system that can supply it with the appropriate quantity of oil at a temperature not above that safe for continuous operation.

(b) The usable capacity of each oil system may not be less than the product of the endurance of the rotorcraft under critical operating conditions and the maximum oil consumption of the engine under the same conditions.

(c) If an engine depends upon a fuel/oil mixture for lubrication, then a reliable means of providing it with the appropriate mixture must be established. 27.1013; 27.1015; 27.1017; 27.1019(b); 27.1021; 27.1027; 27.1041; 27.1043; 27.1045; 27.1091; 27.1093; 27.1121; 27.1123; 27.1141; 27.1143; 27.1145; 27.1147; 27.1163; 27.1183; 27.1185; 27.1187; 27.1189; 27.1191; 27.1193 (a), (b), (c), (d), and (e); 27.1194; 27.1301; 27.1303; 27.1305 (a), (c) through (m). Paragraph (r) is deleted from this Notice. It was inadvertently included in the request for comments but applies to turbine installations only.

PCR.1305(b) A cylinder head temperature warning device to indicate when the temperature exceeds a safe value. 27.1307; 27.1309 (a) and (c); 27.1321 (a) and (c); 27.1322; 27.1323 (a) and (b); 27.1325 (a), (c), and (d); 27.1327; 27.1337; 27.1351; 27.1353; 27.1357; 27.1361 (a) and (c); 27.1365; 27.1367; 27.1381; 27.1383; 27.1385; 27.1387; 27.1389; 27.1391; 27.1393; 27.1395; 27.1397; 27.1399; 27.1401; 27.1411; 27.1413; 27.1461; 27.1501; 27.1503; 27.1505; 27.1509; 27.1519; 27.1521; 27.1523; 27.1525; 27.1527; 27.1529; 27.1541; 27.1543; 27.1545; 27.1547; 27.1549; 27.1551; 27.1553; 27.1555; 27.1557 (a), (b), and (d);

PCR.1557(c) Fuel and Oil Filler Openings Marking. The following apply:

(1) Fuel filler openings must be marked at or near the filler cover with—

(i) The word "fuel";

(ii) For reciprocating engine powered rotorcraft, the minimum fuel grade; and
(iii) For each two stroke engine without a separate oil system, the fuel/oil mixture.

(2) Oil filler openings must be marked at or near the filler cover with the word "oil."

27.1559; 27.1565; 27.1581; 27.1583; 27.1585; 27.1587; 27.1589; 33.5; 33.7 (a) and (b); 33.8; 33.15; 33.17 (a), (b), (c), and (e);

PCR.33.19 Engine design and construction must minimize the development of an unsafe condition of the engine between overhaul periods.

33.21; 33.23; 33.25; 33.29(a); 33.31; 33.33; 33.35; 33.37; 33.39;

PCR.33.39(d) For engine lubrication depending upon oil premixed with fuel in a declared fixed percentage, it must be demonstrated that this mixture can assure appropriate engine lubrication, throughout the range of conditions in which the rotorcraft is expected to operate, to include reduced fuel consumption conditions. 33.41; 33.42;

PCR.33.43 Vibration test. Each engine must undergo a vibration survey when installed in the airframe to show compliance with 27.907 and 33.33. The survey must be conducted throughout the expected operating range of rotational speed and power of the engine. Each accessory drive and mounting attachment must be loaded with the maximum loads expected in service. 33.45; 33.47;

PCR.33.49 Endurance Test

(a) The engine must be subjected to an endurance test that includes a total of 50 hours of operation and consists of the cycles specified in (b) below.

(b) Each cycle consists of 120 minutes of run time and must be conducted as follows:

(1) A start and idle period of 5 minutes.

(2) Increase to takeoff torque and maximum speed for takeoff torque and maintain the takeoff condition for a period of 5 minutes.

(3) Decrease to idle and maintain the idle condition for 5 minutes.

(4) Increase to takeoff torque and maximum speed for takeoff torque and maintain the takeoff condition for a period of 5 minutes.

(5) Decrease to idle and maintain the idle condition for 5 minutes.

(6) Increase to takeoff torque and maximum speed for takeoff torque and maintain the takeoff condition for a period of 5 minutes.

(7) Decrease to idle and maintain the idle condition for 5 minutes.

(8) Increase to 75 percent of maximum continuous torque and maximum speed

for 75 percent of maximum continuous torque and maintain this condition for a period of 15 minutes.

(9) Decrease to idle and maintain the idle condition for 5 minutes.

(10) Increase to maximum continuous torque and maximum speed for maximum continuous torque and maintain this condition for a period of 60 minutes.

(11) Decrease to idle and maintain the idle condition for 5 minutes.

(12) Perform an engine shutdown.

(c) During or following the endurance test the fuel and oil consumption must be determined. 33.51; 33.53; 33.55; 33.57.

Noise requirements of FAR Part 36 Noise Standards Appendix J amended by amendments 36-1 through the latest amendment in effect at the time of Type Certification.

Issued in Fort Worth, Texas, on March 10, 1998.

Eric Bries,

Assistant Directorate Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 98-7411 Filed 4-1-98; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 95-NM-207-AD; Amendment 39-10436; AD 98-07-16]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-300, -400, and -500 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 737-300, -400, and -500 series airplanes, that requires interchanging the location of the hydraulic fuse and the flow limiter of the standby hydraulic system of the leading edge. This amendment also requires replacing the existing hydraulic fuses in the standby hydraulic system with new fuses. This amendment is prompted by reports of a performance test of the hydraulic fuses, which revealed that the positioning of the flow limiter in the existing configuration, and excessive fusing volumes of some of the fuses in extreme cold environment, can adversely affect the operation of the fuse. The actions specified by this AD are intended to

prevent such adversely affected operation of the fuse, which could result in the loss of all standby hydraulic system pressure and consequent severely reduced controllability of the airplane during certain flight phases.

DATES: Effective May 7, 1998.

The incorporation by reference of certain publications, as listed in the regulations, is approved by the Director of the Federal Register as of May 7, 1998.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the **Federal Register**, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Kenneth W. Frey, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2673; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 737-300, -400, and -500 series airplanes was published in the **Federal Register** on January 7, 1997 (62 FR 947). That action proposed to require interchanging the location of the hydraulic fuse and the flow limiter of the standby hydraulic system of the leading edge so that the hydraulic fuse is positioned upstream of the flow limiter. That action also proposed to require replacing the existing hydraulic fuses in the standby hydraulic system with new fuses that are not affected by low temperature operation.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Support for the Proposal

One commenter supports the proposed rule.

Requests to Revise the Compliance Times of the Proposed Interchange and Replacement Actions

The Air Transport Association (ATA) of America states that one commenter generally supports the proposed action; however, this commenter requests an amended compliance time of 18 months

in lieu of 4,000 flight hours specified in paragraph (b) of the proposed AD. The commenter states that such an extension is needed because of an expected large demand for these fuses. A second commenter requests changing the compliance time to 6,000 flight hours or 2 years, whichever occurs first, because the hydraulic fuse manufacturer is unable to support a compliance time of 4,000 flight hours. Another commenter also requests a change in the compliance time to 6,000 flight hours.

The FAA concurs partially with these requests and acknowledges that parts availability and scheduling may present problems. The FAA does not concur with the request to extend the compliance time from 4,000 flight hours to 6,000 flight hours, or the request to change it to 6,000 flight hours or 2 years, whichever occurs first. However, the FAA has considered the need to allow additional time to obtain the number of fuses required for the fleet and to avoid scheduling problems for the replacement of discrepant fuses. Therefore, the FAA has revised paragraph (b) of the final rule to read: "Within 18 months or 4,000 flight hours after the effective date of this AD, whichever occurs later. . . ." In addition, for the same reasons, the FAA has revised the compliance time of paragraph (a) of the final rule, which is identical to paragraph (b). The FAA has determined that extending these compliance times will not adversely affect safety.

Requests to Clarify the Summary Section of the Preamble

Two commenters request a number of revisions and additions to clarify the technical content of the "Summary" Section of the NPRM.

In that section, one commenter requests that the third sentence be changed from "* * * and excessive fusing volumes of some of the fuses, can adversely affect * * *" to "* * * and excessive fusing volumes of some of the fuses in extreme cold environment, can adversely affect * * *." The FAA concurs with this request and has changed the final rule accordingly.

Two commenters request that the statement of unsafe condition be changed from "* * * in the loss of all hydraulic system pressure and consequent severely reduced controllability of the airplane" to "* * * in the loss of all standby hydraulic system pressure and may reduce the controllability of the airplane during certain flight phases." The FAA concurs partially with these changes. The FAA has determined that the word "standby" and the phrase "during

certain flight phases" add clarity and has revised the final rule accordingly. However, the FAA does not concur with the proposed addition of "may reduce the controllability" to the sentence, because the FAA considers that "could result in" is more accurate.

Requests to Clarify Additional Sections of the Preamble

1. "Discussion" Section. In the first paragraph of this section, one commenter requests that the second sentence be changed from "Results of that performance test * * *" to "In the existing configuration, the standby leading edge flow limiter is upstream of the standby leading edge fuse. The results of the performance test revealed that this configuration of the flow limiter and fuse assembly adversely affects the operation of the fuse."

In the second paragraph of this section, one commenter requests deleting the second sentence and changing the third sentence from "* * * are not affected by this condition * * *" to "* * * are not affected by this condition because steady state temperatures keep the fluid warm."

In the third paragraph of this section, two commenters request changing the second sentence from "The hydraulic fuse is designed to prevent total loss of the hydraulics systems after a certain volume of fluid passes through the fuse within a specified time following the development of a leak downstream of the fuse * * *" to "Hydraulic fuses are designed to prevent total loss of the hydraulics system after a certain volume of fluid (continually/continuously) passes through the fuse following the development of a leak downstream of the fuse."

2. Explanation of Relevant Service Information. In the second paragraph of this section, two commenters request changing the first sentence from "* * * new fuses that are not affected by low temperature operation" to "* * * new fuses that function in low temperatures." These commenters also request changing the second sentence from "* * * as a result of fluid depletion if a leak occurs downstream of the fuses" to "* * * as a result of a fuse failing to set following a leak downstream of the fuses."

3. Explanation of Requirements of Proposed Rule. In the first paragraph of this section, two commenters request changing the second sentence from "* * * new fuses that are not affected by low temperature operation" to "* * * new fuses that function at/in low temperatures."

Although the FAA acknowledges that the commenters' suggested wording in these sections of the preamble adds technical clarity, the FAA has determined that these changes are not relevant because these sections do not appear in the final rule.

Requests to Clarify the Body of the AD

One commenter requests changing paragraph (b) to read: "For airplanes listed in Boeing Service Bulletin 737-29-1071 (line numbers 2001 through 2791). * * *" The FAA does not concur with this request for two reasons. First, the line number "2001" is incorrect, and the correct number (1001) is shown in the applicability of the proposed AD. Second, because the line numbers are included in the applicability of the AD, it is unnecessary to include them elsewhere in the AD.

Two commenters request changing paragraph (b) to read " * * * with new fuses that are not adversely affected during low temperature operation. * * *" The FAA has determined that this change adds clarity and has changed the wording of the final rule accordingly.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 1,791 Boeing Model 737-300, -400, and -500 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 596 airplanes of U.S. registry will be affected by this AD.

The FAA estimates that it will take approximately 2 work hours per airplane to accomplish the required interchange of the hydraulic fuse and the flow limiter, and that the average labor rate is \$60 per work hour. The cost for required parts will be minimal. Based on these figures, the cost impact of the required interchange on U.S. operators is estimated to be \$71,520, or \$120 per airplane.

The FAA also estimates that it will take approximately 4 work hours per airplane to accomplish the required replacement, at an average labor rate of \$60 per work hour. Required parts will be provided by the manufacturer at no cost to operators. Based on these figures, the cost impact of the required

replacement on U.S. operators is estimated to be \$143,040, or \$240 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

98-07-16 Boeing: Amendment 39-10436. Docket 95-NM-207-AD.

Applicability: Model 737-300, -400, and -500 series airplanes having line numbers

1001 through 2791 inclusive; 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 (c) 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 as indicated, unless accomplished previously.

To prevent adversely affected operation of the fuse, which could result in the loss of all standby hydraulic system pressure and consequent severely reduced controllability of the airplane during certain flight phases, accomplish the following:

(a) For airplanes listed in Boeing Service Bulletin 737-29-1070, dated June 8, 1995: Within 18 months or 4,000 flight hours after the effective date of this AD, whichever occurs later, interchange the location of the hydraulic fuse and the flow limiter of the standby hydraulic system of the leading edge so that the hydraulic fuse is positioned upstream of the flow limiter, in accordance with Boeing Service Bulletin 737-29-1070, dated June 8, 1995.

(b) For airplanes listed in Boeing Service Bulletin 737-29-1071, dated May 16, 1996: Within 18 months or 4,000 flight hours after the effective date of this AD, whichever occurs later, replace the existing hydraulic fuses in the standby hydraulic system with new fuses that are not adversely affected during low temperature operation, in accordance with Boeing Service Bulletin 737-29-1071, dated May 16, 1996.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(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) The actions shall be done in accordance with Boeing Service Bulletin 737-29-1070, dated June 8, 1995, and Boeing Service Bulletin 737-29-1071, dated May 16, 1996. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a)

and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on May 7, 1998.

Issued in Renton, Washington, on March 25, 1998.

Darrell M. Pederson,

Acting Manager,

Transport Airplane Directorate,

Aircraft Certification Service.

[FR Doc. 98-8352 Filed 4-1-98; 8:45 am]

BILLING CODE 4910-13-U

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 96-NM-119-AD; Amendment 39-10432; AD 98-07-12]

RIN 2120-AA64

Airworthiness Directives; Dornier Model 328-100 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to all Dornier Model 328-100 series airplanes, that currently requires repetitive tightening of the screws and quick-release fasteners on the wing/body fairing panels. This action will continue to require the repetitive tightening of these parts on certain airplanes. This amendment requires the installation of new fastener systems for those panels on certain airplanes and the application of new torque values. Accomplishment of these actions will terminate the requirement for repetitive tightening of the screws and fasteners of those airplanes. In addition, the AD will limit the applicability of the existing AD by removing certain airplanes. This amendment is prompted by the manufacturer's development of new fastener systems that will not vibrate and loosen. The actions specified by this AD are intended to prevent separation of loosened wing/body fairing panels from the airplane, which, if not corrected, could lead to structural damage to the horizontal or vertical stabilizer, and potential injury to persons on the ground.

DATES: Effective May 7, 1998.

The incorporation by reference of Dornier Service Bulletin SB-328-53-144, revision 2, dated September 18, 1996, as listed in the regulations, is approved by the Director of the Federal Register as of May 7, 1998.

The incorporation by reference of Dornier Alert Service Bulletin ASB-328-53-004, dated August 2, 1994, including Figures 1 and 2 of Annex 1, as listed in the regulations, was approved previously by the Director of the Federal Register as of October 26, 1994 (59 FR 51361, October 11, 1994).

ADDRESSES: The service information referenced in this AD may be obtained from FAIRCHILD DORNIER, DORNIER Luftfahrt GmbH, P.O. Box 1103, D-82230 Wessling, Germany. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT:

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 94-21-02, amendment 39-9043 (59 FR 51361, October 11, 1994), which is applicable to all Dornier Model 328-100 series airplanes, was published in the **Federal Register** on June 17, 1997 (62 FR 32699). The action proposed to supersede AD 94-21-02 to continue to require repetitive tightening of the screws and quick-release fasteners on the wing/body fairing panels. For certain airplanes, the proposed AD also would require the installation of new fastener systems for those panels, and the application of new torque values. Accomplishment of these actions would terminate the requirement for repetitive tightening of the screws and fasteners of those airplanes. In addition, the proposed AD would limit the applicability of the existing AD by removing certain airplanes.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. One commenter, an organization representing regional airlines, responded to the invitation for comments extended in the proposal to amend part 39. Due consideration has

been given to the comments received from that commenter.

As noted above, the proposed AD would require, for certain airplanes, the installation of new fastener systems and application of new torque values for the affected panels. Upon completion of those modifications, the requirement presently contained in AD 94-21-02 for repetitive tightening of the screws and fasteners would be terminated. Instead of this required terminating action, the commenter requests that those modifications be approved as an optional terminating action. Operators could then choose to complete those modifications or continue performing the inspections presently required by AD 94-21-02. The commenter contends that the inspections currently mandated by AD 94-21-02 have been shown to be highly effective in responding to the airworthiness concern addressed in this AD. The commenter adds that the subject fasteners are highly visible. In addition, the mandated inspection also is supplemented by general daily inspection of the panels. Although the commenter indicates that accomplishment of the modification is critical for continued airworthiness, the ability to accomplish the required inspections, as well as a lack of in-service findings, support the contention that inspections should be allowed to continue.

The FAA does not concur with the commenter's request. The FAA has determined that long term continued operational safety will be better assured by modifications or design changes to remove the source of the problem rather than by repetitive inspections. Long term inspections may not be providing the degree of safety assurance necessary for the transport airplane fleet. This, coupled with a better understanding of the human factors associated with numerous repetitive inspections has led the FAA to consider placing less emphasis on special procedures and more emphasis on design considerations. The FAA, therefore, does not concur that continued reliance on the inspections presently required by AD 94-21-02, as suggested by the commenter, would provide an adequate level of safety.

The commenter also requests that if continued reliance on the inspections presently required by AD 94-21-02 is not permitted, the compliance period for the required modifications should be extended to 24 months after the effective date of the AD. In that regard, the commenter presents economic data provided by an operator of affected aircraft.