

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 28648 5/24/2001]

[Docket No. 2001-NM-81-AD; Amendment 39-12240; AD 2001-10-14]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737, 747, 757, 767, and 777 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Boeing Model 737, 747, 757, 767, and 777 series airplanes. This action requires repetitive inspections of any chemical oxygen generators and/or passenger, attendant, or lavatory service unit assemblies of the passenger oxygen system that have been replaced, to verify correct installation of the release pin in the generator firing mechanism of the oxygen generator; and corrective action, if necessary. This action is necessary to find and fix incorrect installation of the release pin in the generator firing mechanism, which could result in the unavailability of supplemental oxygen and possible incapacitation of passengers and cabin crew during an in-flight decompression. This action is intended to address the identified unsafe condition.

DATES: Effective June 8, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of June 8, 2001.

Comments for inclusion in the Rules Docket must be received on or before July 23, 2001.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2001-NM-81-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2001-NM-81-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

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 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. **FOR FURTHER INFORMATION CONTACT:** Susan Letcher, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2670; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: The FAA has received reports indicating the incorrect installation of the release pin in the generator firing mechanism of the chemical oxygen generator of the passenger, attendant, and lavatory service unit assemblies. One report on a Model 757 series airplane revealed that 11 oxygen generators failed to activate following a decompression event, due

to incorrect installation of the release pins in the generator firing mechanism. Investigation of certain other Model 757 series airplanes revealed additional generators with incorrectly installed release pins. Another report on a Model 737 series airplane revealed incorrectly installed release pins on half the generators on that airplane. The incorrect installation is attributed to inadequate operator maintenance. Such incorrect installation can prevent activation of the chemical oxygen generator, which releases the flow of supplemental oxygen through the oxygen masks, and could result in incapacitation of passengers and cabin crew during an in-flight decompression.

Model 737 and 757 series airplanes are equipped with chemical oxygen generators that have an in-line firing mechanism. This type of firing mechanism is also found on Model 747, 767, and 777 series airplanes equipped with chemical oxygen generators. The in-line firing mechanism contains a safety pin and a release pin, and a generator with this type of firing mechanism will only activate if both pins are removed. The safety pin is installed in the generator for shipment and is removed when the generator is installed on the airplane. The release pin is attached by lanyards to oxygen masks located in the passenger service unit, and flight attendant and lavatory oxygen boxes. If the passenger supplemental oxygen system is deployed in flight, the action of an individual donning the oxygen mask will cause the release pin to pull out of the generator firing mechanism. Such action will activate the oxygen generator and subsequently release the oxygen flow.

Explanation of Relevant Service Information

The FAA has reviewed and approved the following Boeing Special Attention Service Bulletins:

| Service Bulletin | Date | Model |
|-------------------------|---------------|--------------|
| 737-35-1076 | March 1, 2001 | 737 |
| 737-35-1077 | March 1, 2001 | 737 |
| 747-35-2111 | March 1, 2001 | 747 |
| 757-35-0021 | March 1, 2001 | 757 |
| 757-35-0022 | March 1, 2001 | 757 |
| 767-35-0043 | March 1, 2001 | 767 |
| 767-35-0044 | March 1, 2001 | 767 |
| 777-35-0008 | March 1, 2001 | 777 |

These service bulletins describe procedures for a detailed visual inspection of any chemical oxygen generators, and passenger, attendant, or lavatory service unit assemblies of the passenger oxygen system that have been replaced, to verify correct installation of the release pin in the generator firing mechanism; and corrective action, if necessary. The corrective action includes relocation of any release pin incorrectly installed in the safety pin hole to the release pin hole. Accomplishment of the action specified in the service bulletins is intended to adequately address the identified unsafe condition.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design, this AD is being issued to find and fix incorrect installation of the release pin in the generator firing mechanism of the oxygen generator, which could result in the unavailability of supplemental oxygen and possible incapacitation of passengers and cabin crew during an in-flight decompression. This AD requires accomplishment of the actions specified in the service bulletins described previously, except as discussed below.

Difference Between This AD and the Service Bulletins

The service bulletins specify a one-time inspection of any chemical oxygen generators and passenger, attendant, or lavatory service unit assemblies of the passenger oxygen system that have been replaced, to verify correct installation of the release pin in the generator firing mechanism; and corrective action, if necessary; which would eliminate the need for any further action. However, this AD requires repetitive inspections and corrective action following the replacement of any existing

generators done after the initial inspection and corrective action required by this AD. The FAA has determined that these additional inspections and corrective action are necessary because expended or expiring chemical oxygen generators are routinely removed and replaced by operators. The manufacturer provides instructions for the removal and replacement of the oxygen generators in the applicable airplane maintenance manuals, and per these procedures, the safety pin is removed AFTER the release pin is installed. But the reports of erroneous release pin installation have been attributed to inadequate operator maintenance practices, and certain contributing factors include incorrect or misleading diagrams in certain maintenance manuals and the installation of rings/pins in the generator release pin hole as a means of preventing activation during shipment.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2001-NM-81-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect 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, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, 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:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-10-14 BOEING: Amendment 39-12240. Docket 2001-NM-81-AD.

Applicability: Model 737, 747, 757, 767, and 777 series airplanes equipped with chemical oxygen generators, certificated in any category; as listed in the following Boeing Special Attention Service Bulletins, as applicable:

Table 1. Service Bulletins

| Service Bulletin | Date | Model |
|------------------|---------------|-------|
| 737-35-1076 | March 1, 2001 | 737 |
| 737-35-1077 | March 1, 2001 | 737 |
| 747-35-2111 | March 1, 2001 | 747 |
| 757-35-0021 | March 1, 2001 | 757 |
| 757-35-0022 | March 1, 2001 | 757 |
| 767-35-0043 | March 1, 2001 | 767 |
| 767-35-0044 | March 1, 2001 | 767 |
| 777-35-0008 | March 1, 2001 | 777 |

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 (b) 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 find and fix incorrect installation of the release pin in the generator firing mechanism of the chemical oxygen generator, which could result in the unavailability of supplemental oxygen and possible incapacitation of passengers and cabin crew during an in-flight decompression; accomplish the following:

Detailed Visual Inspections

Note 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(a) For airplanes having any chemical oxygen generator and/or passenger, attendant, or lavatory service unit assembly that contains a chemical oxygen generator that has been replaced: Within 90 days after the effective date of this AD, do a detailed visual inspection of the chemical oxygen generator of the applicable assembly to verify correct installation of the release pin in the generator firing mechanism per the Accomplishment Instructions of the applicable service bulletin listed in Table 2., below. Before further flight, after replacement of any chemical oxygen generator and/or passenger, attendant, or lavatory service unit assembly that contains a chemical oxygen generator, repeat the detailed visual inspection.

Table 2. Service Bulletins

| Service Bulletin | Date | Model |
|-------------------------|---------------|--------------|
| 737-35-1076 | March 1, 2001 | 737 |
| 737-35-1077 | March 1, 2001 | 737 |
| 747-35-2111 | March 1, 2001 | 747 |
| 757-35-0021 | March 1, 2001 | 757 |
| 757-35-0022 | March 1, 2001 | 757 |
| 767-35-0043 | March 1, 2001 | 767 |
| 767-35-0044 | March 1, 2001 | 767 |
| 777-35-0008 | March 1, 2001 | 777 |

Corrective Action

(1) If no discrepancy (release pin in safety pin hole) is found after doing the inspection required by paragraph (a) of this AD, no further action is required until replacement of any existing chemical oxygen generator and/or passenger, attendant, or lavatory service unit assembly that contains a chemical oxygen generator.

(2) If any discrepancy is found after doing the inspection required by paragraph (a) of this AD, before further flight, do the corrective action per the applicable service bulletin listed in Table 2., above.

Note 3: The release pin and safety pin are located in the generator firing mechanism. The safety pin hole is the hole in the generator firing mechanism that is closest to the main body of the generator. The release pin hole is the hole in the generator firing mechanism located furthest from the main body of the generator. The center axis of the release pin hole is perpendicular to the center axis of the safety pin hole.

Note 4: Inspections and corrective action done before the effective date of this AD, per Boeing Telex M-7200-00-02474, dated October 9, 13, 19, or 31, 2000; or Boeing Telex M-7200-00-03040, dated December 18, 2000; are considered acceptable for compliance with the initial inspection and corrective action specified in paragraph (a) of this AD. However, prior accomplishment of the inspections and corrective action specified in the telexes does not eliminate the need for the repetitive inspections required by paragraph (a) of this AD.

Alternative Methods of Compliance

(b) 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. 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 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(c) 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.

Incorporation by Reference

(d) The actions shall be done in accordance with the following Boeing Special Attention Service Bulletins, as applicable:

Table 3. Service Bulletins

| Service Bulletin | Date | Model |
|-------------------------|---------------|--------------|
| 737-35-1076 | March 1, 2001 | 737 |
| 737-35-1077 | March 1, 2001 | 737 |
| 747-35-2111 | March 1, 2001 | 747 |
| 757-35-0021 | March 1, 2001 | 757 |
| 757-35-0022 | March 1, 2001 | 757 |
| 767-35-0043 | March 1, 2001 | 767 |
| 767-35-0044 | March 1, 2001 | 767 |
| 777-35-0008 | March 1, 2001 | 777 |

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.

Effective Date

(e) This amendment becomes effective on June 8, 2001.

FOR FURTHER INFORMATION CONTACT: Susan Letcher, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2670; fax (425) 227-1181.

Issued in Renton, Washington, on May 17, 2001.

Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.