

measurement of the electrical bonding resistance between the wing spar connectors of the FQIS and the spar structure, record the measurements, and install bonding jumpers, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-28A0019, dated April 27, 2000.

Operational Check and Corrective Action

(b) Prior to further flight after accomplishment of the installation required by paragraph (a) of this AD: Perform an operational check in accordance with Boeing Alert Service Bulletin 777-28A0019, dated April 27, 2000, and correct any discrepancy detected.

Alternative Methods of Compliance

(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.

Special Flight Permits

(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.

Incorporation by Reference

(e) The actions shall be done in accordance with Boeing Alert Service Bulletin 777-28A0019, dated April 27, 2000. 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 July 28, 2000.

Issued in Renton, Washington, on July 3, 2000.

Vi L. Lipski,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 00-17298 Filed 7-12-00; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99-NM-192-AD; Amendment 39-11815; AD 2000-14-06]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 747 series airplanes, that currently requires a one-time inspection to determine the part number of the fuel shutoff spar valve for the outboard engines. That AD also requires replacement of certain valves with new valves, or modification of the spar valve body assembly, and various follow-on actions. This amendment adds new requirements to accomplish those actions on additional airplanes; and requires a one-time inspection of the maintenance records of certain airplanes to determine if the fuel shutoff spar valve for the outboard engines has ever been replaced, and various follow-on actions. This amendment is prompted by reports indicating that, due to high fuel pressure, certain fuel system components of the outboard engines have failed. The actions specified by this AD are intended to prevent such high fuel pressure, which could result in failure of the fuel system components; this situation could result in fuel leakage, and, consequently, lead to an engine fire.

DATES: Effective August 17, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of August 17, 2000.

The incorporation by reference of certain other publications, as listed in the regulations, was approved previously by the Director of the Federal Register as of November 20, 1998 (63 FR 55517, October 16, 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; or ITT Aerospace Controls, 28150 Industry Drive, Valencia, California 91355. 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:

Dionne M. Krebs, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2250; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 98-21-29, amendment 39-10837 (63 FR 55517, October 16, 1998); which is applicable to Boeing Model 747-100, -200, -300, -400, 747SP, and 747SR series airplanes, having line numbers 629 through 1006 inclusive, and powered by General Electric or Rolls-Royce engines; was published in the **Federal Register** on November 26, 1999 (64 FR 66419). The action proposed to continue to require a one-time inspection to determine the part number of the fuel shutoff spar valve for the outboard engines, replacement of certain valves with new valves or modification of the spar valve body assembly, and various follow-on actions. The action proposed to add new requirements to accomplish those actions on additional airplanes; and require a one-time inspection of the maintenance records of certain airplanes to determine if the fuel shutoff spar valve for the outboard engines has ever been replaced, and various follow-on actions.

Comments

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

Three commenters concur with the intent of the proposed rule.

Request to Clarify Airplanes Subject to Paragraph (e)

Two commenters request that paragraph (e) of the proposed rule be revised to clarify that it applies to all affected airplanes (as identified in Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999). One

commenter points out that paragraph (d) of the proposed rule instructs operators to check maintenance records on airplanes having line numbers 1 through 628 inclusive, to determine if the left- and right-hand outboard fuel shutoff spar valves have been replaced. If either valve has been replaced, paragraph (d)(2) instructs operators to accomplish paragraph (e) for that valve. However, paragraph (e) does not state that it applies to airplanes having line numbers 1 through 628. The commenter states that this has been confusing for several operators. The other commenter points out that paragraph (e) of the proposed rule addresses airplanes having line numbers 1 through 1006 inclusive powered by General Electric (GE) or Rolls-Royce engines, but paragraph (a) also refers to airplanes having line numbers 629 through 1006 inclusive powered by GE or Rolls-Royce engines. Paragraphs (a) and (e) require similar actions. The commenter states that this could result in unnecessary duplicate inspections for some airplanes.

The FAA concurs with the commenters' request for clarification of the airplanes subject to paragraph (e) of this AD. The intent of this AD is that airplanes having line numbers 1 through 628 inclusive that had or may have had fuel shutoff spar valves replaced are subject to paragraph (e) of this AD, as specified in paragraph (d) of this AD. In addition, airplanes having line numbers 629 through 1006 inclusive powered by Pratt & Whitney engines are also subject to the requirements in paragraph (e). As pointed out by the commenter, the actions described in paragraph (e) are equivalent to those required by paragraph (a); therefore, the FAA has revised this final rule to remove the airplanes having line numbers 629 through 1006 powered by GE or Rolls-Royce engines from the applicability of paragraph (e) of this AD. To address the commenters' request, paragraphs (d)(1) and (d)(2) of this AD have been revised as follows:

- Paragraph (d)(1) reads, "If the maintenance record inspection establishes that neither valve has been replaced, no further action is required by this AD."
- Paragraph (d)(2) reads, "If either valve has been replaced, or if the maintenance record inspection does not clearly establish that neither valve has been replaced, prior to further flight, accomplish paragraph (e)(1), (e)(2), or (e)(3), as applicable."
- Paragraph (e) reads, "For airplanes having line numbers 629 through 1006 inclusive and powered by Pratt & Whitney engines, or for airplanes having line numbers 1 through 628 inclusive on

which a fuel shutoff spar valve has been, or may have been, replaced:

* * *

Request to Refer to Wet Motor Leak Check

One commenter requests that, if the FAA finds it necessary to require a fuel leak check of the engine, the requirement should refer specifically to a wet motor leak check. The commenter points out that paragraphs (b) and (c), including "NOTE 3," of the proposed rule specify accomplishment of a leak check per Aircraft Maintenance Manual (AMM) procedures or per Boeing Service Bulletin 747-28A2199, Revision 2. The applicable AMM procedures describe an idle leak check, while the service bulletin describes a wet motor leak check. The commenter also notes that paragraphs (f) and (g) of the proposed rule specify a leak check in accordance with the service bulletin (that is, a wet motor leak check).

The FAA does not concur with the commenter's request. The FAA recognizes that the idle leak checks identified in "NOTE 3" and the wet motor leak check identified in the service bulletin are not identical. However, because both checks involve the pressurization of the fuel lines and components between the fuel shutoff spar valve and the engine fuel shutoff valve, either check meets the intent of the requirement. Therefore, the FAA finds that paragraphs (b) and (c) of this AD are acceptable as written because they allow either type of check. Also, the FAA has determined that it is appropriate to add a new "NOTE 4" to this final rule, to state that the idle leak checks are acceptable for compliance with the actions specified in paragraphs (f) and (g) of this AD. (All subsequent "NOTES" have been renumbered accordingly.)

Request to Expand Applicability of Proposed AD

One commenter requests that the FAA expand the applicability of the proposed AD to include all Model 747 series airplanes delivered prior to the effective date of the AD. The commenter states that Model 747 series airplanes with line numbers higher than 1006 may have improper fuel shutoff spar valves installed. The commenter's rationale is that, although the proper valves were installed during production, it is possible that, during maintenance, one of the original valves has been replaced with an improper valve.

The FAA does not concur with the commenter's request. The airplane manufacturer has informed the FAA that, at the time the airplane having line number 1007 was delivered, the

engineering drawings (including drawing notes regarding spare parts) limited the fuel shutoff spar valve installed at the outboard engine positions to an acceptable part number (S343T003-40). Therefore, operators have not been allowed to replace a fuel shutoff spar valve installed at the outboard position with an earlier fuel shutoff spar valve since delivery on Model 747 series airplanes with line number 1007 and subsequent. No change to the final rule is necessary in this regard.

Request to Extend Compliance Time

Several commenters request extension of the compliance time. Two commenters request that the compliance time be extended from 18 to 36 months; another requests a compliance time of four years for Model 747-100 and -200 series airplanes and six years for Model 747-400 series airplanes. The commenters state that an extension would allow operators to schedule the inspection during airplane checks when internal access to the fuel tanks is available. One commenter states that the 18-month compliance time would force it to perform unscheduled fuel tank entries. Another commenter notes that, due to the reduced interchangeability of valves having part numbers 60B92406-(x), additional spare valves will be required, or all valves will have to be upgraded to the latest configuration on an attrition basis.

The FAA infers that the commenters are referring to the compliance time for the one-time inspection to determine the part number of fuel shutoff spar valve for the left- and right-hand outboard engines. The FAA does not concur with the commenters' requests to extend the compliance time. In the final rule for AD 98-21-29, which this AD supersedes, the FAA agreed to extend the compliance time from 12 to 18 months to allow the inspection to be accomplished during a regularly scheduled maintenance visit for the majority of the affected fleet. This would allow airplanes to be inspected at a location where special equipment and trained personnel would be readily available, if necessary. A compliance time of 18 months corresponds to most operators' scheduled "C"-checks and, therefore, accommodates the majority of operators' maintenance schedules while not adversely affecting flight safety. Because the compliance time has already been extended in this way, the FAA has determined that it is inappropriate to extend it further. No change to the final rule is necessary in this regard.

Request to Make Restatement of Requirements Consistent With New Requirements

One commenter requests that paragraph (a)(1) of the proposed AD be revised to be consistent with paragraph (e)(2) of the proposed AD. The commenter notes that paragraph (a) of the proposed rule instructs operators to inspect the part number of the left- and right-hand outboard fuel shutoff (spar) valves on airplanes having line numbers 629 through 1006 inclusive powered by General Electric (GE) or Rolls-Royce engines, and paragraph (a)(1) identifies the acceptable fuel shutoff spar valve part number as S343T003-43. The commenter also notes that paragraph (e)(2) of the proposed rule lists additional modified valve part numbers that are acceptable for installation. The commenter suggests that paragraph (a)(1) be revised to be consistent with paragraph (e)(2) with regard to acceptable part numbers.

The FAA does not concur with the commenter's request. The FAA infers that the part number in paragraph (a)(1) to which the commenter refers is S343T003-40 (not S343T003-43). The FAA acknowledges that the restatement of requirements of AD 98-21-29 in paragraph (a) of the proposed rule identifies fuel shutoff spar valve part number S343T003-40 only, though paragraph (e)(2) lists other acceptable part numbers. The additional part numbers in paragraph (e)(2) have been included in this AD because the FAA incorporated an existing approved alternative method of compliance (AMOC) to AD 98-21-29 into this AD. Because paragraphs (a), (b), and (c) of this AD are a restatement of the requirements of AD 98-21-29 (and are labeled as such), the FAA finds that it is unnecessary and potentially confusing to operators to incorporate the part numbers referenced in paragraph (e)(2) of this AD into paragraph (a)(1) of this AD. No change to the final rule is necessary in this regard.

Request to Eliminate Requirement for Fuel Leak Check

One commenter requests that the fuel leak check specified in paragraphs (b), (c), (f), and (g) of the proposed rule be eliminated. The commenter states that a fuel leak check of the engine, as identified in these paragraphs, is not necessary. The commenter acknowledges that the leak checks are intended to identify damage to components between the fuel shutoff spar valve and the engine fuel shutoff valve, resulting from a fuel overpressure condition. The commenter states that all

known in-service occurrences of the failure of components associated with this AD have been "ultimate" failures and not "fatigue-type" failures. The commenter asserts that a fuel leak would be evident upon engine installation, when a fuel leak check is required as part of post-installation tests, or during normal in-service operation.

The FAA does not concur with the commenter's request. The FAA acknowledges that a fuel leak may become evident upon engine installation, during a post-installation fuel leak check, or during normal operation. However, because the unsafe condition associated with this AD is fuel leakage that could result in an engine fire, the FAA considers it necessary to verify the integrity of any replaced fuel shutoff spar valves and fuel system components that may have been previously exposed to high-pressure fuel. In the case of design deficiencies that could lead to engine fires, the FAA considers it necessary to prevent such events from occurring on in-service airplanes. Therefore, no change to the final rule is necessary in this regard.

Request to Revise Cost Estimate

Two commenters request that the FAA revise the cost impact estimate in the proposed rule to reflect the estimate of 75 work hours given in Boeing Service Bulletin 747-28A2199, Revision 2. One of the commenters points out that, for Model 747-100, -200, and -300 series airplanes, a removable rib must be taken out to gain access to the fuel shutoff spar valves. The other commenter states that the estimate in the proposal is considerably too low and does not include the work hours or cost of materials necessary for modification of the valves, which the commenter estimates to be 3 work hours and \$200 per valve.

The FAA does not concur with the commenters' request. The cost impact information in AD rulemaking actions describes only the "direct" costs of the specific actions required by this AD. The cost information typically does not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions. The FAA recognizes that, in accomplishing the requirements of any AD, operators may incur "incidental" costs in addition to the "direct" costs. Because incidental costs may vary significantly from operator to operator, they are almost impossible to calculate.

With regard to the comment that the proposed rule does not account for the

time necessary to modify each valve, the proposed rule only requires installation of a fuel shutoff spar valve with an acceptable part number. Though operators may choose to modify a discrepant fuel shutoff spar valve to create an acceptable part, the AD does not actually require this modification. Therefore, the cost of the modification is not included in the cost impact estimate. No change to the final rule is necessary in this regard.

Request to Confirm AMOC Approval

One commenter requests that the FAA confirm that AMOC's approved for AD 98-21-29 will be acceptable for compliance with the proposed rule. The commenter has previously received FAA approval of an AMOC for AD 98-21-29.

The FAA concurs that AMOC's previously approved in accordance with AD 98-21-29 are approved for compliance with paragraphs (a), (a)(1), (a)(2), (a)(2)(i), (b), and (c) of this AD. Paragraph (h)(2) of the proposed rule, and this final rule, states this approval. No change to the final rule is necessary in this regard.

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 987 Model 747 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 208 airplanes of U.S. registry will be affected by this AD.

The one-time inspection to determine the part number of the valve that is currently required by AD 98-21-29 and retained in this AD affects approximately 59 airplanes of U.S. registry, and takes approximately 4 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this currently required inspection on U.S. operators is estimated to be \$14,160, or \$240 per airplane.

Should an operator be required to accomplish the one-time inspection to detect leaks and cracks (after replacement of the valve or modification of the assembly) that is currently required by AD 98-21-29 and retained in this AD, it will take approximately 16

work hours per airplane, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this inspection is estimated to be \$960 per airplane.

The new one-time inspection of the maintenance records of the airplane that is required by this AD action affects approximately 149 airplanes of U.S. registry, and takes approximately 2 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this required inspection on U.S. operators is estimated to be \$17,880, or \$120 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.

Should an operator elect to modify the valve body assembly of the fuel system rather than replace a discrepant valve, it would take approximately 20 work hours per airplane, at an average labor rate of \$60 per work hour. Required parts would cost approximately \$404 (2 kits) per airplane. Based on these figures, the cost impact of this modification is estimated to be \$1,604 per airplane.

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.

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 removing amendment 39-10837 (63 FR 55517, October 16, 1998), and by adding a new airworthiness directive (AD), amendment 39-11815, to read as follows:

2000-14-06 Boeing: Docket 99-NM-192-AD. Amendment 39-11815. Supersedes AD 98-21-29, Amendment 39-10837.

Applicability: Model 747 series airplanes, line numbers 1 through 1006 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 (h)(1) 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 high fuel pressure in components between the fuel shutoff spar valve and the engine fuel shutoff valve, which could result in failure of the fuel system components, lead to fuel leakage, and, consequently, lead to a possible engine fire, accomplish the following:

Restatement of Actions Required By AD 98-21-29, Amendment 39-10837:

One-Time Inspection

(a) For airplanes having line numbers 629 through 1006 inclusive and powered by

General Electric or Rolls-Royce engines: Within 18 months after November 20, 1998 (the effective date of AD 98-21-29, amendment 39-10837), perform a one-time inspection to determine the part number of the fuel shutoff spar valve for the left-and right-hand outboard engines, in accordance with Boeing Alert Service Bulletin 747-28A2199, dated August 1, 1996; Boeing Service Bulletin 747-28A2199, Revision 1, dated October 1, 1998; or Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999.

Replacement

(1) If a valve having part number (P/N) S343T003-40 (ITT P/N 125334D-1) is installed, no further action is required by this AD.

(2) If a valve having P/N S343T003-40 (ITT P/N 125334D-1) is not installed, prior to further flight, accomplish either paragraph (a)(2)(i) or (a)(2)(ii) of this AD.

(i) Replace the valve with a new valve, in accordance with the service bulletin.

Prior to further flight following accomplishment of the replacement, align the valve(s), perform a check to detect leaks, and correct any discrepancy, in accordance with the service bulletin. Or

(ii) Modify the valve body assembly of the fuel system in accordance with ITT

Service Bulletin SB125120-28-01, ITT Service Bulletin SB107970-28-01, and ITT Service Bulletin SB125334-28-01; all dated July 15, 1996.

Inspection

(b) For airplanes having line numbers 629 through 1006 inclusive and powered by General Electric or Rolls-Royce engines: Except as provided in paragraph (c) of this AD, prior to further flight following accomplishment of paragraph (a)(2) of this AD, perform a one-time general visual inspection to detect fuel leaks of the components between the fuel shutoff spar valve and the engine fuel shutoff valve on all four engines, in accordance with the applicable section that pertains to Rolls-Royce RB211 series engines or General Electric CF6-80C and CF6-45/50 series engines in Chapter 71 of the Boeing 747 Airplane Maintenance Manual (AMM), or Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999. If any leak is detected, prior to further flight, replace the part with a serviceable part. No further action is required by this AD.

Note 2: For the purposes of this AD, a general visual inspection is defined as:

"A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or

opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked.”

(c) For airplanes having line numbers 629 through 1006 inclusive, powered by General Electric or Rolls-Royce engines, and having maintenance records that positively demonstrate that the inboard engines have never been located in the outboard position:

Prior to further flight following accomplishment of paragraph (a)(2) of this AD, perform a one-time general visual inspection to detect fuel leaks of the components between the fuel shutoff spar valve and the engine fuel shutoff valve on the outboard engines only, in accordance with the applicable section that pertains to Rolls-Royce RB211 series engines or General Electric CF6-80C and CF6-45/50 series engines in Chapter 71 of the Boeing 747 AMM, or Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999. If any leak is detected, prior to further flight, replace the part with a serviceable part. No further action is required by this AD.

Note 3: Accomplishment of the actions specified in AMM 71-00-00/501, Test No. 2, “Fuel and Oil Leak Check,” for Rolls-Royce RB211 series engines, and AMM 71-00-00/501, Test No. 3, “Ground Test—Idle Leak Check (or Idle Power),” for General Electric CF6-80C and CF6-45/50 series engines, is acceptable for compliance with the actions specified by paragraphs (b) and (c) of this AD.

New Actions Required By This AD:

Inspection

(d) For airplanes having line numbers 1 through 628 inclusive: Within 18 months after the effective date of this AD, perform a one-time inspection of the maintenance records of the airplane to determine if the fuel shutoff spar valve for the left-and right-hand outboard engines has ever been replaced, in accordance with Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999.

(1) If the maintenance record inspection establishes that neither valve has been replaced, no further action is required by this AD.

(2) If either valve has been replaced, or if the maintenance record inspection does not clearly establish that neither valve has been replaced, prior to further flight, accomplish paragraph (e)(1), (e)(2), or (e)(3), as applicable.

(e) For airplanes having line numbers 629 through 1006 inclusive and powered by Pratt & Whitney engines, or for airplanes having line numbers 1 through 628 inclusive on

which a fuel shutoff spar valve has been, or may have been, replaced: Within 18 months after the effective date of this AD, perform a one-time inspection to determine the part number of the fuel shutoff spar valve for the left-and right-hand outboard engines, as applicable, in accordance with Boeing Alert Service Bulletin 747-28A2199, dated August 1, 1996; Boeing Service Bulletin 747-28A2199, Revision 1, dated October 1, 1998; or Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999.

Replacement

(1) If a valve having P/N S343T003-40 (ITT P/N 125334D-1) is installed, no further action is required by this AD.

(2) If a valve having P/N 60B92406-161 (ITT P/N 125334-1), P/N 60B92406-81 (ITT P/N 125120-1), or P/N 60B92406-201 (ITT P/N 107970-1) is installed, accomplish either paragraph (f) or (g) of this AD, as applicable.

(3) If a valve having P/N S343T003-40 (ITT P/N 125334D-1), P/N 60B92406-161 (ITT P/N 125334-1), P/N 60B92406-81 (ITT P/N 125120-1), or P/N 60B92406-201 (ITT P/N 107970-1) is not installed, prior to further flight, accomplish either paragraph (e)(3)(i) or (e)(3)(ii), and either paragraph (f) or (g) of this AD, as applicable.

(i) Replace the valve with a new valve, in accordance with the service bulletin. Prior to further flight following accomplishment of the replacement, align the valve(s), perform a check to detect leaks, and correct any discrepancy, in accordance with the service bulletin. Or

(ii) Modify the valve body assembly of the fuel system in accordance with ITT

Service Bulletin SB125120-28-01, ITT Service Bulletin SB107970-28-01, and ITT Service Bulletin SB125334-28-01; all dated July 15, 1996.

Inspection

(f) Expect as provided in paragraph (g) of this AD, prior to further flight following accomplishment of paragraph (e) of this AD, perform a one-time general visual inspection to detect fuel leaks of the components between the fuel shutoff spar valve and the engine fuel shutoff valve on all four engines, in accordance with Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999. If any leak is detected, prior to further flight, replace the part with a serviceable part.

(g) For airplanes having maintenance records that positively demonstrate that the inboard engines have never been located in the outboard position: Prior to further flight following accomplishment of paragraph (e) of this AD, perform a one-time general visual inspection to detect fuel leaks of the

components between the fuel shutoff spar valve and the engine fuel shutoff valve on the outboard engines only, in accordance with Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999. If any leak is detected, prior to further flight, replace the part with a serviceable part.

Note 4: Accomplishment of the actions specified in AMM 71-00-00/501, Test No. 2, “Fuel and Oil Leak Check,” for Rolls-Royce RB211 series engines, and AMM 71-00-00/501, Test No. 3, “Ground Test—Idle Leak Check (or Idle Power),” for General Electric CF6-80C and CF6-45/50 series engines, is acceptable for compliance with the actions specified by paragraphs (f) and (g) of this AD.

Alternative Methods of Compliance

(h)(1) 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.

(2) Alternative methods of compliance, approved previously in accordance with AD 98-21-29, amendment 39-10837, are approved as alternative methods of compliance with paragraph (a), (a)(1), (a)(2), (a)(2)(i), (b), and (c) of this AD.

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

(i) 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

(j) Except as provided by paragraphs (b) and (c) of this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 747-28A2199, dated August 1, 1996; Boeing Service Bulletin 747-28A2199, Revision 1, dated October 1, 1998; Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999; ITT Service Bulletin SB125120-28-01, dated July 15, 1996; ITT Service Bulletin SB107970-28-01, dated July 15, 1996; or ITT Service Bulletin SB125334-28-01, dated July 15, 1996; as applicable.

(1) The incorporation by reference of Boeing Service Bulletin 747-28A2199,

Revision 1, dated October 1, 1998; and Boeing Service Bulletin 747-28A2199, Revision 2, dated July 8, 1999; is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Boeing Alert Service Bulletin 747-28A2199, dated August 1, 1996; ITT Service Bulletin SB125120-28-01, dated July 15, 1996; ITT Service Bulletin SB107970-28-01, dated July 15, 1996; and ITT Service Bulletin SB125334-28-01, dated July 15, 1996; was approved previously by the Director of the Federal Register as of November 20, 1998 (63 FR 55517, October 16, 1998).

(3) Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207; or ITT Aerospace Controls, 28150 Industry Drive, Valencia, California 91355. 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

(k) This amendment becomes effective on August 17, 2000.

Issued in Renton, Washington, on July 3, 2000.

Vi L. Lipki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 00-17297 Filed 7-12-00; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99-NM-75-AD; Amendment 39-11816; AD 2000-14-07]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 727 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 727 series airplanes, that currently requires repetitive inspections to detect cracking of the rear spar web or fuel leakage of the wing center section, and repair, if necessary. That action also provides for an optional modification of the rear spar web that constitutes terminating action for the repetitive inspections. This amendment requires accomplishment of the previously optional terminating action. The actions specified by this AD are intended to prevent cracking of the rear spar web, which could permit fuel

leakage into the airflow multiplier, and could result in an electrical short that could cause a fire.

DATES: Effective August 17, 2000.

The incorporation by reference of Boeing Service Bulletin 727-57A0182, Revision 1, dated February 25, 1999, as listed in the regulations, is approved by the Director of the Federal Register as of August 17, 2000.

The incorporation by reference of Boeing Alert Service Bulletin 727-57A0182, dated September 18, 1997, as listed in the regulations, was approved previously by the Director of the Federal Register as of December 29, 1997 (62 FR 65355, December 12, 1997).

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:

Walter Sippel, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2774; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION:

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 97-25-15, amendment 39-10239 (62 FR 65355, December 12, 1997), which is applicable to certain Boeing Model 727 series airplanes, was published in the **Federal Register** on October 6, 1999 (64 FR 54246). The action proposed to require repetitive inspections to detect cracking of the rear spar web or fuel leakage of the wing center section; repair, if necessary; and modification of the rear spar web, which would constitute terminating action for the repetitive inspections.

Comments

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.

Request To State Grace Period in Calendar Time

One commenter requests that the FAA revise the grace period in the proposed rule from 3,000 flight cycles to 4 years after the effective date of this AD. The commenter notes that Boeing Alert Service Bulletin 727-57A0182 is listed in Boeing Document D6-54860, dated March 31, 1989, which is currently required by AD 90-06-09, amendment 39-6488 (55 FR 8370, March 7, 1990) and AD 94-05-04, amendment 39-8842 (59 FR 13442, March 22, 1994). The commenter states that these AD's currently state a compliance threshold of 60,000 total flight cycles, with a grace period of 4 years after the effective date of the AD. The commenter requests that the proposed rule allow the same grace period allowed by the existing AD's for the actions specified in Boeing Alert Service Bulletin 727-57A0182.

The FAA does not concur with the commenter's request. Boeing Document D6-54860 addresses service problems related to both corrosion (which is a function of time) and fatigue (which is a function of flight cycles). Although Boeing Alert Service Bulletin 727-57A0182 is listed in that document, this AD is a standalone AD concerned with fatigue cracking of the rear spar web, which is related to flight cycles. As a result, the FAA has determined that a grace period stated in flight cycles is more appropriate than one stated in calendar time. No change to the final rule is necessary in this regard.

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 as proposed.

Cost Impact

There are approximately 970 Model 727 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 659 airplanes of U.S. registry will be affected by this AD: 641 "Group 1" airplanes and 18 "Group 2" airplanes, as listed in the service bulletin.

The inspection that is currently required by AD 97-25-15 takes approximately 2 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the currently required actions on U.S. operators is estimated to be \$79,080, or \$120 per airplane, per inspection cycle.