

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. 97-NM-106-AD; Amendment 39-11071; AD 99-06-07]

RIN 2120-AA64

**Airworthiness Directives; Short Brothers Model SD3-60 and SD3-60 SHERPA Series Airplanes**

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to all Short Brothers Model SD3-60 and SD3-60 SHERPA series airplanes, that requires repetitive inspections to detect corrosion and/or wear of the top and bottom shear decks of the left and right stub wings in the area of the forward pintle pin of the main landing gear (MLG), and repair, if necessary. This amendment is prompted by issuance of mandatory continuing airworthiness information by a foreign civil airworthiness authority. The actions specified by this AD are intended to detect and correct corrosion and/or wear of the top and bottom shear decks of the left and right stub wings in the area of the forward pintle pin of the MLG, which could result in failure of the MLG to extend or retract.

**DATES:** Effective April 16, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the **Federal Register** as of April 16, 1999.

**ADDRESSES:** The service information referenced in this AD may be obtained from Short Brothers, Airworthiness & Engineering Quality, P. O. Box 241, Airport Road, Belfast BT3 9DZ, Northern Ireland. 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) to include an airworthiness directive (AD)

that is applicable to all Short Brothers Model SD3-60 and SD3-60 SHERPA series airplanes was published as a supplemental notice of proposed rulemaking (NPRM) in the **Federal Register** on July 24, 1998 (63 FR 39769). That action proposed to require repetitive inspections to detect corrosion and/or wear of the top and bottom shear decks of the left and right stub wings in the area of the forward pintle pin of the main landing gear (MLG), and repair, if necessary. That action also proposed to expand the applicability to include an additional airplane model.

**Comments Received**

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.

**Remove Repetitive Inspections or Extend Interval**

One commenter, an operator, requests that the repetitive inspections of the proposed AD be removed as a requirement when no corrosion or wear is found during the initial inspection. The commenter states that if no corrosion or wear is found during this initial inspection, this would indicate that all surfaces are being adequately protected and maintained by the present maintenance program. The commenter also notes that repeated removals of parts for the inspections will accelerate the wear of the alodine coating, increasing the risk of corrosion. Additionally, the commenter states that, if a repetitive inspection interval is required, the allowed interval should be longer than for those airplanes on which corrosion is found. The commenter suggests that existing inspection results be used to specify longer intervals for remaining airplanes on which no corrosion is found.

The FAA does not concur with the commenter's request. Corrosion has been found to develop in the top and bottom shear decks of the left and right stub wings in the area of the forward pintle pin of the MLG due to migration of the retaining pin following the loss of the retaining circlip. A single inspection of this area would be inadequate to detect corrosion that could develop if the circlip is lost at a later time. Further, in developing the repetitive inspection interval, the FAA reviewed the available data regarding the existing circlip design and considered the

recommendations of the Civil Aviation Authority (CAA), which is the airworthiness authority of the United Kingdom, and the manufacturer. Therefore, the FAA has determined that repetitive inspections are necessary at the specified intervals in order to adequately address the identified unsafe condition, unless terminating action is accomplished.

However, as provided for in paragraph (b) of this AD, operators may elect to accomplish removal of corrosion and installation of bushings, which would terminate the requirement for repetitive inspections. Additionally, the FAA has reviewed Shorts Service Bulletin SD360-32-35, dated September 1996, which describes procedures for installation of a pin and nut in lieu of the retaining pin and circlip, and determined that, for Model SD3-60 series airplanes, accomplishment of this modification also is acceptable for terminating the repetitive inspection requirements of this AD. Accordingly, this provision has been added as a new paragraph (c) of the final rule.

**Tracking of Inspections for Wear**

The same commenter requests that the proposed inspection of the pin and shear decks for wear be tracked separately from the inspection for corrosion of the shear decks. The commenter notes that wear will occur as a function of gear cycles, not calendar time, and is expected to occur only if the circlip is missing. The commenter points out that the AD requires operators to perform the wear inspection even if an airplane has not flown during the 6-month interval between inspections. The commenter suggests that the inspection for wear should be tracked as a function of flight cycles, and if no wear is found during the initial inspection, the repetitive inspection interval for that inspection should be extended.

The FAA does not concur that the two inspections should be separately tracked. Although wear of the top and bottom shear decks of the left and right stub wings in the area of the forward pintle pin of the MLG is expected to occur as a function of flight cycles, the inspection for corrosion in this area must be accomplished at intervals not to exceed six months. Since access to the same area is required to accomplish both inspections, it is considered most cost effective for operators to accomplish both inspections at the same time. However, if operators wish to perform these inspections as two separate maintenance actions, requests may be submitted under the provisions of paragraph (d) of the final rule. The

FAA may approve requests for such an adjustment of the compliance time if data are submitted to substantiate that such an adjustment would provide an acceptable level of safety.

#### Manufacturer Repair Approvals

The same commenter requests that the proposed AD be revised to allow repairs to be used if they have been approved by Shorts, rather than requiring operators to request repair approvals through the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, as specified in paragraph (a)(3)(ii)(B) of the AD. The commenter states that, from previous experience, the ANM-116 Branch Manager will require a Shorts-approved repair if such a request is made. The FAA does not concur with the request to allow repair approvals by Short Brothers, as the FAA cannot delegate authority for general approval of repairs on the FAA's behalf to manufacturers. However, in light of the type of repair that would be required to address the identified unsafe condition, and in consonance with existing bilateral airworthiness agreement with the United Kingdom, the FAA has determined that, for this AD, a repair approved by either the FAA or the CAA of the United Kingdom (or its delegated agent) is acceptable for compliance with this AD. Paragraph (a)(3)(ii)(B) of the final rule has been revised accordingly.

#### Replacement of Parts

The same commenter, also in reference to paragraph (a)(3)(ii)(B) of the proposed AD, states that most operators will choose to replace the part rather than repair it, and requests that the proposed AD be revised to allow replacement of the part in accordance with the Illustrated Parts Catalog (IPC), rather than requiring approval through the Manager, ANM-116. The FAA does not concur with the request to allow part replacement in accordance with the IPC, as the IPC is not an FAA-approved document. However, the FAA has determined that replacement of the pintle pin and sleeve with new or serviceable parts is an acceptable method of compliance with paragraph (a)(3)(ii)(B). Paragraph (a)(3)(ii)(B) of the final rule has been revised to also include the replacement as an appropriate corrective action if accomplished in accordance with an FAA-or CAA-approved method.

#### Inspection for Presence of Circlip

One commenter suggests that the proposed AD be revised to include an inspection for the presence of the circlip, since it is the loss of the circlip

that causes the wear and corrosion to occur. The commenter also recommends that this additional inspection be required to be accomplished immediately, prior to the proposed inspection threshold of 90 days, if the presence of the circlip can be easily determined.

The FAA does not concur. Short Brothers Service Bulletins SD360-53-42, dated September 1996, and SD3-60 SHERPA-53-3, dated November 4, 1997 (which are referenced in the AD as the appropriate source of service information for accomplishment of the inspections for wear and corrosion), describe procedures for installation of a circlip if the part is not in position at the time of the inspection. Although an inspection for the presence of the circlip is not specifically described, the inspection procedures will ensure that the circlip is in place following accomplishment of the initial inspection. Additionally, in considering the compliance time of 90 days for the inspection, the FAA cannot conclude that a reduction of the proposed compliance time, without prior notice and opportunity for public comment, is warranted. In developing an appropriate compliance time, the FAA considered the safety implications, the manufacturer's recommendations, the average utilization rate of the affected fleet, and the practical aspects of an orderly inspection of the fleet during regular maintenance periods. 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 described previously. 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

The FAA estimates that 58 Model SD3-60 series airplanes and 28 Model SD3-60 SHERPA series airplanes of U.S. registry will be affected by this AD, that it will take approximately 13 work hours per airplane to accomplish the required actions, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$67,080, or \$780 per airplane, per inspection cycle.

The cost impact figure discussed above is 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:

**99-06-07 Short Brothers PLC:** Amendment 39-11071. Docket 97-NM-106-AD.

**Applicability:** All Model SD3-60 and SD3-60 SHERPA series airplanes, 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 (d) 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 detect and correct corrosion and/or wear of the top and bottom shear decks of the left and right stub wings in the area of the forward pintle pin of the main landing gear (MLG), which could result in failure of the MLG to extend or retract, accomplish the following:

(a) Within 90 days after the effective date of this AD, conduct an inspection for corrosion of the top and bottom shear decks of the left and right stub wings in the area of the forward pintle pin of the MLG, and measure the retaining pin holes of the pintle pin for wear; in accordance with Part A. of the Accomplishment Instructions of Short Brothers Service Bulletin SD360-53-42, dated September 1996 (for Model SD3-60 series airplanes), or Short Brothers Service Bulletin SD3-60 SHERPA-53-3, dated November 4, 1997 (for Model SD3-60 SHERPA series airplanes), as applicable.

(1) If no corrosion, wear, or discrepancy of the measurement of the holes for the retaining pin of the pintle pin is found, repeat the inspection required by paragraph (a) of this AD thereafter at intervals not to exceed 6 months.

(2) If any corrosion, wear, or measurement of the holes for the retaining pin of the pintle pin is found that is within the limits specified in Part A. of the Accomplishment Instructions of the applicable service bulletin, prior to further flight, repair the discrepancy in accordance with the applicable service bulletin. Thereafter, repeat the inspection required by paragraph (a) of this AD at intervals not to exceed 6 months.

(3) If any corrosion, wear, or measurement of the holes for the retaining pin of the pintle pin is found that is beyond the limits specified in Part A. of the Accomplishment Instructions of the applicable service bulletin, prior to further flight, perform the actions required by paragraph (a)(3)(i) and (a)(3)(ii) of this AD.

(i) Remove the corrosion and install bushings on the upper and lower shear webs in the retaining pin holes for the pintle pin in accordance with Part B. (left MLG) and/or Part C. (right MLG), as applicable, of the Accomplishment Instructions of the applicable service bulletin.

(ii) Perform a visual inspection of the pintle pin and the sleeve for any discrepancy, in accordance with Part B. and/or Part C., as applicable, of the Accomplishment Instructions of the applicable service bulletin.

(A) If no discrepancy is detected, the pintle pin and the sleeve of the pintle pin may be returned to service.

(B) If any discrepancy of the pintle pin and sleeve is detected, prior to further flight,

repair the pintle pin and sleeve or replace the pintle pin and sleeve with new or serviceable parts, in accordance with a method approved by either the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, or the Civil Aviation Authority (CAA) (or its delegated agent).

(b) Removal of corrosion and installation of bushings in accordance with Part B. and/or Part C., as applicable, of the Accomplishment Instructions of Short Brothers Service Bulletin SD360-53-42, dated September 1996 (for Model SD3-60 series airplanes), or Short Brothers Service Bulletin SD3-60 HERPA-53-3, dated November 4, 1997 (for Model SD3-60 SHERPA series airplanes), as applicable, constitutes terminating action for the repetitive inspection requirements of this AD.

(c) For Model SD3-60 series airplanes: Replacement of the pin and circlip with a new pin and nut in accordance with Short Brothers Service Bulletin SD360-32-35, dated September 1996, constitutes terminating action for the repetitive inspection requirements of this AD.

(d) 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, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

(e) 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.

(f) Except as provided by paragraphs (a)(3)(ii)(B) and (c) of this AD, the actions shall be done in accordance with Short Brothers Service Bulletin SD360-53-42, dated September 1996, and Short Brothers Service Bulletin SD3-60 SHERPA-53-3, dated November 4, 1997. 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 Short Brothers, Airworthiness & Engineering Quality, P. O. Box 241, Airport Road, Belfast BT3 9DZ, Northern Ireland. 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.

**Note 3:** The subject of this AD is addressed in British airworthiness directives 005-09-96 and 005-11-97.

(g) This amendment becomes effective on April 16, 1999.

Issued in Renton, Washington, on March 4, 1999.

**Darrell M. Pederson,**

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 99-5991 Filed 3-11-99; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 98-NM-55-AD; Amendment 39-11072; AD 99-06-08]

RIN 2120-AA64

#### **Airworthiness Directives; McDonnell Douglas Model DC-10 and MD-11 Series Airplanes, and KC-10 (Military) Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to certain McDonnell Douglas Model DC-10 and MD-11 series airplanes, and KC-10 (military) series airplanes, that requires a one-time inspection for blockage of the lubrication holes on the forward trunnion spacer assembly, and a one-time inspection of the forward trunnion bolt on the left and right main landing gear (MLG) to detect discrepancies; and repair, if necessary. This amendment is prompted by reports of blockage by opposing bushings of the lubrication holes on the forward trunnion spacer assembly, and reports of flaking, galling, and corrosion of the forward trunnion bolt. The actions specified by this AD are intended to detect and correct such flaking, galling, and corrosion of the forward trunnion bolt, which could result in premature failure of the forward trunnion bolt and could lead to separation of the MLG from the wing during takeoff and landing.

**DATES:** Effective April 16, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 16, 1999.

**ADDRESSES:** The service information referenced in this AD may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1-L51 (2-60). This information may be examined at the Federal