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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2008-1312; Directorate Identifier 2008-CE-065-AD; Amendment 39-16072; AD 2009-23-01]**

**RIN 2120-AA64**

### **Airworthiness Directives; Hawker Beechcraft Corporation Model 1900, 1900C, and 1900D Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Hawker Beechcraft Corporation Models 1900, 1900C, and 1900D airplanes. This AD requires a one-time visual inspection and repetitive ultrasonic inspections of the left and right main landing gear (MLG) actuators for leaking and/or cracks with replacement of the actuator if leaking and/or cracks are found. This AD results from reports of leaking and cracked actuators. We are issuing this AD to detect and correct leaking and cracks in the MLG actuators, which could result in loss of hydraulic fluid. This condition could lead to an inability to extend or lock down the landing gear, which could result in a gear up landing or a gear collapse on landing.

**DATES:** This AD becomes effective on December 8, 2009.

On December 8, 2009, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

**ADDRESSES:** To get the service information identified in this AD, contact Hawker Beechcraft Corporation, P.O. Box 85, Wichita, Kansas 67201-0085; telephone: (800) 429-5372 or (316) 676-3140; Internet: <http://pubs.hawkerbeechcraft.com>.

To view the AD docket, go to U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, or on the Internet at <http://www.regulations.gov>. The docket number is FAA-2008-1312; Directorate Identifier 2008-CE-065-AD.

**FOR FURTHER INFORMATION CONTACT:** Don Ristow, Aerospace Engineer, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4120; fax: (316) 946-4107.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On August 20, 2009, we issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Hawker Beechcraft Corporation Models 1900, 1900C, and 1900D airplanes. This proposal was published in the Federal Register as a supplemental notice of proposed rulemaking (NPRM) on August 31, 2009 (74 FR 44773). The NPRM proposed to require a one-time visual inspection and repetitive ultrasonic inspections of the left and right main landing gear (MLG) actuators for leaking and/or cracks with replacement of the actuator if leaking and/or cracks are found.

### **Comments**

We provided the public the opportunity to participate in developing this AD. The following presents the comment received on the proposal and FAA's response to the comment:

#### **Comment Issue: Superseding Previous ADs**

Hawker Beechcraft Corporation requests that with this AD action we supersede AD 99-04-08 and AD 97-26-15, which affect earlier configurations of part number 114-380041 MLG actuator. They believe that one AD correcting all of the unsafe conditions concerned with the MLG actuator would eliminate confusion concerning which AD to comply with.

The FAA disagrees. We did consider supersedure of the previous two ADs, AD 99-04-08 and AD 97-26-15. The previous two ADs and this new AD action each address different unsafe conditions on the MLG actuators. AD 99-04-08 concerns lubrication and replacement of the rod end, and AD 97-26-15 concerns replacement of the actuator head end cap. This new AD action concerns replacement of the rod end cap. AD 99-04-08 uses a prorated time of compliance starting with actuators that have accumulated 6,000 hours time-in-service and may still apply to low usage aircraft or aircraft that have been in storage. This current AD action specifies compliance based on actuator cycles. The only common feature in the three ADs is that the actuators were manufactured by Frisby Airborne Hydraulic, Inc.

Based on the differences in the two previous ADs and in this new AD, we determined that combining the three into a single AD would confuse the unsafe conditions, rather than simplify them. If combined into one AD, each unsafe condition would still have different inspections, different replacements, and different compliance times. To incorporate those differences into a single AD would create a complicated AD to understand. By keeping the AD actions separate, the corrective actions for each unsafe condition can be complied with individually. For these reasons, we decided a new AD action would be appropriate.

We will not change the final rule AD action based on this comment.

### **Conclusion**

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for minor editorial corrections. We have determined that these minor corrections:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

## Costs of Compliance

We estimate that this AD affects 300 airplanes in the U.S. registry.

The ultrasonic inspection includes the time allowed for removing and reinstalling the actuator. We estimate the following costs to do the inspections:

<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Total Cost Per Airplane</b>	<b>Total Cost on U.S. Operators</b>
Visual Inspection: .5 work-hour X \$80 per hour = \$40	Not applicable	\$40	\$12,000
Ultrasonic Inspection: 6 work-hours X \$80 per hour = \$480 (If the mechanic does not remove the actuator for the ultrasonic inspection, the labor cost will be less.)	Not applicable	\$480	\$144,000

We estimate the following costs to do any necessary replacements that would be required based on the results of the inspections. We have no way of determining the number of airplanes that may need this replacement:

<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Total Cost Per Airplane</b>
6 work-hours X \$80 per hour = \$480 (If the mechanic removes the actuator for the ultrasonic inspection, then the labor cost will be less.)	\$ 4,600 per actuator	\$5,080

## Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

## Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the 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.

We prepared a summary of the costs to comply with this AD (and other information as included in the Regulatory Evaluation) and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "Docket No. FAA-2008-1312; Directorate Identifier 2008-CE-065-AD" in your request.

### **List of Subjects in 14 CFR Part 39**

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

### **Adoption of the Amendment**

Accordingly, under 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. FAA amends § 39.13 by adding a new AD to read as follows:



**2009-23-01 Hawker Beechcraft Corporation:** Amendment 39-16072; Docket No. FAA-2008-1312; Directorate Identifier 2008-CE-065-AD.

**Effective Date**

(a) This AD becomes effective on December 8, 2009.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to the airplane models and serial numbers listed below that are certificated in any category and equipped with a Hawker Beechcraft part number (P/N) 114-380041-11 (or FAA-approved equivalent P/N), 114-380041-13 (or FAA-approved equivalent P/N), 114-380041-15 (or FAA-approved equivalent P/N), or 114-380041-15OVH main landing gear (MLG) actuator. For the purposes of this AD action the phrase "or FAA-approved equivalent part number" in this AD refers to any PMA part that is approved by identity to the referenced part. Frisby Airborne Hydraulic, Inc. (Frisby) P/N 1FA10043-3 has parts manufacturer approval (PMA) by identity to P/N 114-380041-15; therefore, it is considered an FAA-approved equivalent P/N and the AD applies to airplanes with this part installed.

<b>Models</b>	<b>Serial Numbers</b>
(1) 1900	UA-3
(2) 1900C	UB-1 through UB-74, UC-1 through UC-174, and UD-1 through UD-6
(3) 1900D	UE-1 through UE-439

**Unsafe Condition**

(d) This AD results from reports of leaking and cracked actuators. We are issuing this AD to detect and correct leaking and cracks in the MLG actuators, which could result in loss of hydraulic fluid. This condition could lead to an inability to extend or lock down the landing gear, which could result in a gear up landing or a gear collapse on landing.

**Compliance**

(e) To address this problem, you must do the following, unless already done:

Note: The phrase "or FAA-approved equivalent part number" in this AD refers to any PMA part that is approved by identity to the referenced part.

<b>Actions</b>	<b>Compliance</b>	<b>Procedures</b>
(1) Do a one-time visual inspection of the MLG actuator for cracks.	Within the next 50 hours time-in-service after December 8, 2009 (the effective date of this AD) or within the next 30 days after December 8, 2009 (the effective date of this AD), whichever occurs later.	<p>(i) For Hawker Beechcraft parts: Follow Hawker Beechcraft Mandatory Service Bulletin SB 32-3870, dated April 2008.</p> <p>(ii) For PMA by identity: Either contact the aircraft certification office (ACO) using the contact information in paragraph (g)(1) of this AD for FAA-approved procedures provided by the PMA holder; or install Hawker Beechcraft parts and follow Hawker Beechcraft Mandatory Service Bulletin SB 32-3870, dated April 2008, and follow any inspection required by this AD.</p>
(2) Do an initial ultrasonic inspection of the MLG actuator.	<p>Initially within the next 600 cycles after December 8, 2009 (the effective date of this AD) or within the next 3 months after December 8, 2009 (the effective date of this AD), whichever occurs first.</p> <p>(i) For those airplanes with overhauled MLG actuators (with less than 1,200 cycles) that have records that prove an internal fluorescent penetrant inspection has been done, you may do the initial ultrasonic inspection within the next 600 cycles after December 8, 2009 (the effective date of this AD) or within the next 1,200 cycles since the last overhaul, whichever occurs later.</p> <p>(ii) For those airplanes with MLG actuators with less than 8,000 cycles since new or MLG actuators that have records that prove the end caps are new (less than 8,000 cycles), you may do the initial ultrasonic inspection within the next 1,200 cycles after December 8, 2009 (the effective date of this AD) or upon accumulation of 8,000 cycles since the end caps were new, whichever occurs later.</p>	<p>(A) For Hawker Beechcraft parts: Follow Hawker Beechcraft Mandatory Service Bulletin SB 32-3870, dated April 2008.</p> <p>(B) For PMA by identity: Either contact the ACO using the contact information in paragraph (g)(1) of this AD for FAA-approved procedures provided by the PMA holder; or install Hawker Beechcraft parts and follow Hawker Beechcraft Mandatory Service Bulletin SB 32-3870, dated April 2008, and follow any inspection required by this AD.</p>

<p>(3) For all airplanes, do repetitive ultrasonic inspections of the MLG actuator.</p>	<p>Repetitively at intervals not to exceed every 1,200 cycles since the last ultrasonic inspection.</p>	<p>(i) For Hawker Beechcraft parts: Follow Hawker Beechcraft Mandatory Service Bulletin SB 32-3870, dated April 2008.</p> <p>(ii) For PMA by identity: Either contact the ACO using the contact information in paragraph (g)(1) of this AD for FAA-approved procedures provided by the PMA holder; or install Hawker Beechcraft parts and follow Hawker Beechcraft Mandatory Service Bulletin SB 32-3870, dated April 2008, and follow any inspection required by this AD.</p>
<p>(4) If cracks are found during any inspection required in paragraph (e)(1), (e)(2), and (e)(3) of this AD, replace the MLG actuator with one of the following:</p> <p>(i) MLG actuator P/N 114-380041-15 (or FAA-approved equivalent P/N) or 114-380041-15OVH that is new or has been inspected following paragraphs (e)(1), (e)(2), and (e)(3) of this AD and has been found to not have cracks; or</p> <p>(ii) An FAA-approved actuator. Installation of an MLG actuator P/N other than 114-380041-11 (or FAA-approved equivalent P/N), 114-380041-13 (or FAA-approved equivalent P/N), 114-380041-15 (or FAA-approved equivalent P/N), or 114-380041-15OVH terminates the inspection requirements of paragraphs (e)(1), (e)(2), and (e)(3) of this AD.</p>	<p>Before further flight after the inspection where the cracks are found.</p>	<p>(A) For Hawker Beechcraft parts: Follow Hawker Beechcraft Mandatory Service Bulletin SB 32-3870, dated April 2008.</p> <p>(B) For PMA by identity: Either contact the ACO using the contact information in paragraph (g)(1) of this AD for FAA-approved procedures provided by the PMA holder; or install Hawker Beechcraft parts and follow Hawker Beechcraft Mandatory Service Bulletin SB 32-3870, dated April 2008, and follow any inspection required by this AD.</p>
<p>(5) Do not install any MLG actuator P/N 114-380041-11 (or FAA-approved equivalent P/N) or 114-380041-13 (or FAA-approved equivalent P/N).</p>	<p>As of December 8, 2009 (the effective date of this AD).</p>	<p>Not applicable.</p>

(f) If the number of cycles is unknown, calculate the compliance times of cycles in this AD by using hours time-in-service (TIS). Multiply the number of hours TIS on the MLG actuator by 4 to come up with the number of cycles. For the purposes of this AD:

- (1) 600 cycles equals 150 hours' TIS; and
- (2) 1,200 cycles equals 300 hours' TIS.

(g) If cracks are found during any inspection required in paragraphs (e)(1), (e)(2), or (e)(3) of this AD, report the size and location of the cracks to the FAA within 10 days after the cracks are

found or within 10 days after December 8, 2009 (the effective date of this AD), whichever occurs later.

(1) Send report to Don Ristow, Aerospace Engineer, Wichita ACO, 1801 Airport Road, Room 100, Wichita, Kansas 67209; e-mail: donald.ristow@faa.gov.

(2) The Office of Management and Budget (OMB) approved the information collection requirements contained in this regulation under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and assigned OMB Control Number 2120-0056.

### **Alternative Methods of Compliance (AMOCs)**

(h) The Manager, Wichita Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Don Ristow, Aerospace Engineer, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4120; fax: (316) 946-4107. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

### **Material Incorporated by Reference**

(i) You must use Hawker Beechcraft Mandatory Service Bulletin SB 32-3870, dated April 2008, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Hawker Beechcraft Corporation, P.O. Box 85, Wichita, Kansas 67201-0085; telephone: (800) 429-5372 or (316) 676-3140; Internet: <http://pubs.hawkerbeechcraft.com>.

(3) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri, on October 23, 2009.

Kim Smith,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.