

2010-10-02 Sikorsky Aircraft Corporation: Amendment 39-16281. Docket No. FAA-2006-24587; Directorate Identifier 2006-SW-05-AD.

Applicability: Model S-76A, B, and C helicopters, with a main rotor servo actuator (servo actuator), Sikorsky Aircraft Corporation (Sikorsky) part number (P/N) 76650-09805-109 or -110 (also marked as HR Textron or Woodward HRT P/N 3006760-109 or -110), installed, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To detect leaking in a servo actuator, which could lead to degraded servo actuator performance and subsequent loss of control of the helicopter, do the following:

- (a) For a servo actuator with 1,500 or less hours time since new (TSN) or time since overhaul (TSO), determine the leakage rate on or before reaching 1,500 hours TSN or TSO. This 1,500 hour TSN or TSO inspection revises the airworthiness limitations section of the applicable maintenance manual.
- (b) For a servo actuator with 2,250 or less hours TSN or TSO, but more than 1,500 hours TSN or TSO, determine the leakage rate on or before reaching 2,250 hours TSN or TSO.
- (c) If the leakage rate in any servo actuator exceeds 700 cc per minute when performing the leakage rate inspection specified in paragraph (a) or (b) of this AD, then:
 - (1) Replace that servo actuator piston, HR Textron or Woodward HRT P/N 41004321 or P/N RW41004321, with a servo actuator piston, P/ N 41012001 or P/N 41012001-001, and re-identify the servo actuator on the servo actuator data plate as Sikorsky P/N "76650-09805-111" and Woodward HRT P/N "3006760-111" using a metal stamp method; or
 - (2) Replace the servo actuator with an airworthy servo actuator, Sikorsky P/N 76650-09805-111, Woodward HRT P/N 3006760-111.
- (d) On or before 3,000 hours TSN or TSO, whichever occurs first, replace each servo actuator piston and re-identify the servo actuator as specified in paragraph (c)(1) of this AD or replace each servo actuator as specified in paragraph (c)(2) of this AD.
- (e) Modifying and re-identifying each servo actuator as specified in paragraph (c)(1) of this AD or replacing each servo actuator as specified in paragraph (c)(2) of this AD is terminating action for the requirements of this AD for the modified and re- identified or replaced servo actuator.
- (f) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Boston Aircraft Certification Office, FAA, ATTN: Terry Fahr, Aviation Safety Engineer, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7155, fax (781) 238- 7170, for information about previously approved alternative methods of compliance.
- (g) The Joint Aircraft System/Component (JASC) Code is 6730: Rotorcraft Servo System.
- (h) This amendment becomes effective on June 17, 2010.