

# FAA Airworthiness Directive

**89-02-01 R1 MCDONNELL DOUGLAS HELICOPTER COMPANY (HUGHES HELICOPTER, INC.):**  
Amendment 39-6051 as revised by Amendment 39-6341. Docket No. 88-ASW-43.

**Applicability:** Model 369D, E, F, and FF helicopters, certificated in any category, with main rotor hub retention straps having part number (P/N) 369D21210-BSC or -501 installed.

**Compliance:** Required as indicated, unless already accomplished.

(a) Within the next 100 hours' time in service and thereafter at intervals not to exceed 100 hours' time in service from the last inspection, conduct inspections of the main rotor blade retention strap assemblies (P/N) 369D21210-BSC, or -501, in accordance with paragraphs a, b, c, d, e, g, i, j, and l of Part I, Inspection Procedures, in McDonnell Douglas Helicopter Company Service Information Notice (SIN) DN-154 (369D), EN-44 (369E) or FN-33 (369F and 369FF), dated January 15, 1988.

(b) If, as a result of an inspection in paragraph (a) above, two strap pack laminates are determined to have failed in any one leg or tongue area of any strap assembly (failure being defined in the applicable SIN under CAUTION following paragraph e of Part I, Inspection Procedures), conduct the repetitive inspections of all strap packs required in paragraph (a) above and thereafter at intervals not to exceed 25 hours' time in service.

(c) For Model 369D hub assemblies (P/N 369D21200) which were subject to inspections under AD 77-15-09 R1 at intervals of 25 hours because of two strap pack laminate failures, conduct the inspections required by this AD within 25 hours' time in service from the last inspection made in accordance with AD 77-15-09 R1, and thereafter at intervals not to exceed 25 hours' time in service.

(d) For Model 369D hub assemblies (P/N 369D21200) which were subject to inspections under AD 77-19-04 (retention straps with P/N 369D21210-BSC) at intervals of 25 hours, conduct the inspections required by this AD within 25 hours' time in service from the last inspection made in accordance with AD 77-19-04, and thereafter at intervals not to exceed 25 hours' time in service.

(e) For Model 369D hub assemblies, P/N 369D21200, which were subject to inspections under AD 81-10-08 (retention straps with P/N 369D21210-501, S/N 8531 through 9135) at intervals of 25 hours' time in service, conduct the inspections required by this AD within 25 hours' time in service from the last inspection made in accordance with AD 81-10-08, and thereafter at intervals not to exceed 25 hours' time in service.

(f) Replace the hub assembly, P/N 369D21200, with a serviceable assembly prior to further flight if, as a result of the inspection of paragraph (a), (b), (c), (d), or (e) above, a strap pack, P/N 369D21210-BSC or -501, is rejected (using the rejection criteria in the applicable SIN under CAUTION following paragraph e of Part I - Inspection Procedures).

(g) For strap packs which contain observed damage but are not rejected by the criteria of paragraph (f)--

(1) Record in the maintenance record (Ref. Section 43.9) the locations of observed cracks, fractures, or corrosion in each strap laminate in a manner which includes--

(i) Blade color;

(ii) Strap part numbers and serial number;

(iii) Laminate number (top being number one);

(iv) Leg location (lead or lag); and

(v) Tongue location (The tongue location is not the same as the outboard end).

NOTE: Strap packs containing cracks in outboard end locations are rejected by the criteria of paragraph (f).

(2) Record for each strap pack--

(i) The number of laminate failures;

(ii) The number of laminates cracked in the same leg; and

(iii) The number of gaps.

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Airworthiness Directive 89-02-01 superseded the following:

AD 77-15-09, Amendment 39-2978 (42 FR 37806; July 25, 1977) as amended by AD 77-15-09 R1, Amendment 39-3952 (45 FR 70848; October 27, 1980) which was effective October 30, 1980.

AD 77-19-04, Amendment 39-3039 (42 FR 46923; September 19, 1977), as amended by AD 77-19-04 R1, Amendment 39-3597 (44 FR 61936; October 26, 1979) which was effective November 1, 1979.

AD 81-10-08, Amendment 39-4144 (46 FR 33225; June 29, 1981) which was effective June 30, 1981, to all persons except to those to whom it was made immediately effective by priority letter AD 81-10-08 issued May 5, 1981.

Amendment 39-6341 revises Amendment 39-6051 (54 FR 105; January 4, 1989), AD 89-02-01, which became effective on February 2, 1989.

Amendment 39-6341, AD 89-02-01 R1, became effective on October 27, 1989.

A correction to reflect a change to paragraph (d) became effective on July 19, 1990.

This correction is issued to reflect AD's previously superseded by AD 89-02-01, which were inadvertently omitted from AD 89-02-01 R1.