
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Sikorsky S- 76 Series Helicopters

AD/S-76/71

Rotor Brake Disc

**4/2003
TX**

Applicability: Model S - 76A, B, and C helicopters.

- Requirement:
1. Determine the manufacturer of each rotor brake disc (RBD) by examining the part number (P/N) markings and accomplish the following requirements based on the identification of the RBD.
 - a. If the P/N is 76363-09101-102, the manufacturer is Goodyear. No further action is required by this directive.
 - b. If the P/N 76363-09103-102 is pressure stamped on the RBD, the manufacturer is BF Goodrich. No further action is required by this directive.
 - c. If the P/N 76363-09103-102 is electrolytically etched on the RBD, the manufacturer is Parker Hannifin Corporation (PHC).
 - i. For each PHC RBD with a P/N 76363-0913-102 and serial number (S/N) other than 38 through 379, remark the P/N as 76363-090103-105 using the vibropeen method. After remarking no further action is required.
 - ii. If the RBD serial number or the manufacturer cannot be determined and for RBD's with P/N 76363-09103-102 and S/N's 38 through 379, reidentify or mark the P/N as 76363-09103-104, or replace the RBD in accordance with requirement 3 of this directive.
 2. For RBD's with P/N 76363-0103-104, inspect the RBD for cracks as detailed in Figure 1.
 - a. If a crack is found extending through the entire RBD thickness as detailed in Figure 1, View A, replace the RBD with a serviceable RBD other than P/N 76363-09103-104.
 - b. If 2 or more surface cracks are found located between adjacent boltholes as shown in Figure 1, View B, replace the RBD with a serviceable RBD other than P/N 76363-09103-104.

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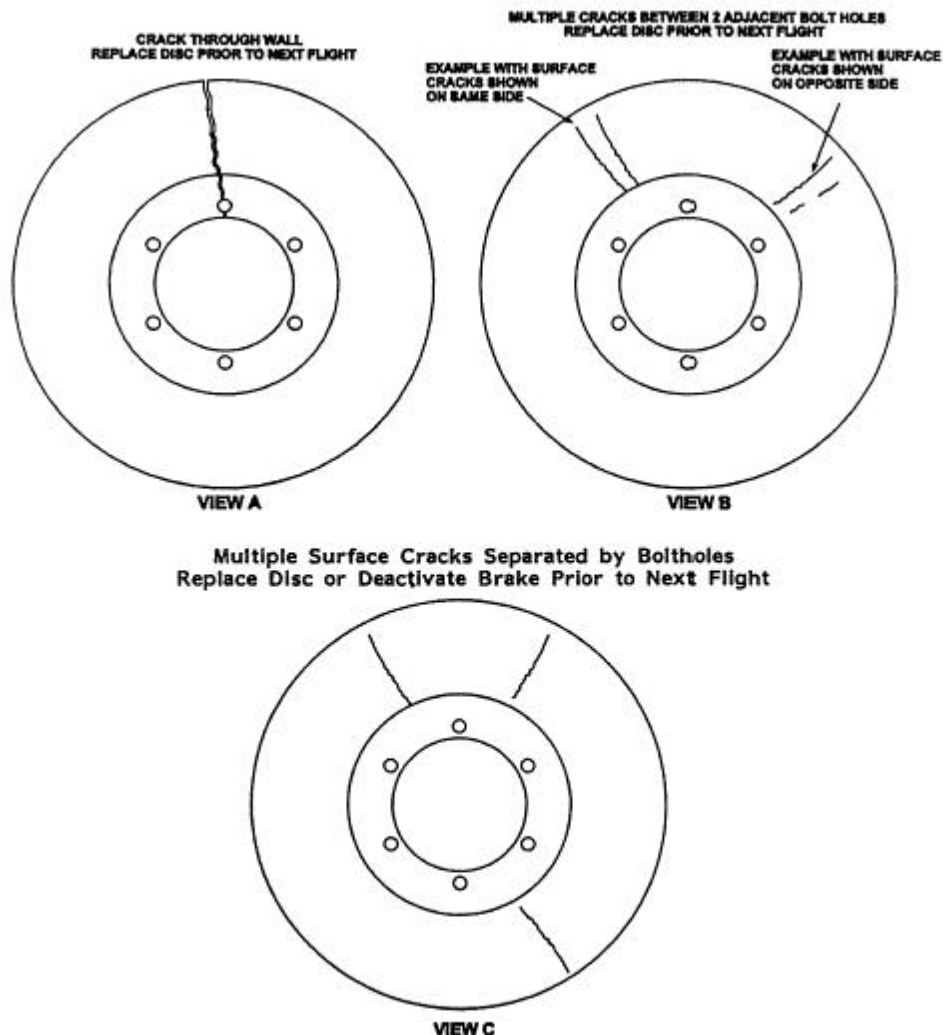
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- c. If a surface crack, or surface cracks are found separated by boltholes as shown in Figure 1, View C, replace the RBD with a serviceable RBD other than P/N 76363-09103-104, or deactivate the RBD before further flight.

Note 1: Short "glazing" cracks are not a cause for rejection.

- 3. Replace the PHC RBD, P/N 76363-09103-104 with a serviceable RBD other than P/N 76363-09103-104.

Figure 1 RBD Inspection Limits.



Note 2: FAA AD 2003-04-15 Amdt 39-13064 refers.

Sikorsky S-76 Series Helicopters

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- Compliance:
1. Before further flight.
 2. Before the first flight of the next day following any day in which the RBD was used.
 3. Within 60 days from the effective date of this directive.

This Airworthiness Directive becomes effective on 4 March 2003.

Background: Certain rotor brake discs were found to be manufactured using an incorrect heat treatment process of the disc. This can lead to premature cracking and subsequent failure of the discs. This directive requires identifying certain discs, inspection of these discs and eventual replacement of these discs. Failure of the disc could cause damage to the rotor blades, nearby hydraulic and fuel lines, and subsequent loss of control of the helicopter.



James Coyne
Delegate of the Civil Aviation Safety Authority

28 February 2003