



SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation

**Federal Aviation
Administration**

SW-05-79
August 8, 2005

<http://www.faa.gov/aircraft/safety/alerts/>

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin alerts you, owners and operators of **Bell Helicopter Textron, Inc. (Bell) Model 212 helicopters**, of cracked main rotor drag brace assemblies. The drag brace part numbers are 204-011-140-003 and 204-011-140-005.

Background

Bell issued Information Letters (I/L) 204-05-21, 205-05-37, 205B-05-20, and 212-05-59, dated March 29, 2005. The I/Ls pertain to two incidents involving Bell 212 helicopters where a drag brace assembly failed during flight.

One report noted a high vibration and loud noise. The pilot made an emergency landing and found a broken drag brace. The drag braces failed in the fitting that attaches to the main rotor grip. Both had cracks which originated from the inside diameter. There were no fatalities. **The drag braces assemblies were the -5 configuration.**

Laboratory investigations found that the cracks came from corrosion pits. One of the fittings had 1,352 hours time-in-service (TIS) since the main rotor hub overhaul and 156 hours TIS since the last inspection. The brace had a calendar time of 22 months at failure since the last inspection. Significant amounts of corrosion were present on the inside surface of both fittings. There was no evidence of an epoxy-zinc coating in the corroded areas.

The repair and overhaul manual calls for a fill and drain with primer of the barrel and fitting after any corrosion removal on the inside surface of the fitting. This helps prevent corrosion.

The drag brace is disassembled, inspected for corrosion and mechanical damage, and magnetic particle inspected every 1,200 hours TIS or 24 calendar months, whichever occurs first. There is also a magnetic particle inspection of the assembly components during the main rotor hub overhaul required every 2,400 hours TIS. The part doesn't have a life limit.

Recommendation

We recommend you review Chapter 62, Volume 3, Component Repair and Overhaul Manual BHT-212-CR&O; Chapter 5, Volume 1, Maintenance Manual BHT-212-MM; and Alert Service Bulletin 212-90-59, Revision Basic, dated February 5, 1990, and do the following:

- Remove any internal corrosion from the fitting with cleanser, abrasive pad, or steel wool.
- If you can't remove any corrosion by either method, replace the fitting.
- Prior to assembling the fitting to the barrel, apply corrosion preventative compound on the threads.
- Fill and drain the inside of the barrel and fitting with the specified primer.
- Don't allow primer on threads.

For Further Information Contact

Michael Kohner, Aviation Safety Engineer,
FAA Rotorcraft Certification Office, Fort
Worth, TX, 76193-0170; phone: (817) 222-
5447; email: mike.kohner@faa.gov.

**For Copies of the Information Letters
Contact**

Bell Helicopter Textron, Inc., P.O. Box 482,
Fort Worth, TX 76101; phone:
(817) 280-3391; fax: (817) 280-6466.