

Bell Helicopter **TEXTRON**

A Subsidiary of Textron, Inc.

January 24, 2002

INFORMATION LETTER 205B-02-12

TO: All Owners/Operators of Bell 205B Series Helicopters

SUBJECT: 204-011-121-009/-121 M/R Grip Ultrasonic Inspection Of

Bell Helicopter has evaluated instances of M/R lower grip tang cracks in the area of the blade retention bolt-hole, on the model 212. In two of these instances the cracks resulted in severe M/R imbalance, which required the subject aircraft to land. At normal inspection intervals other grips have also been found with cracks around the lower grip tang blade retention bolt-hole. Most of these instances, were determined to be caused by corrosion or mechanical damage in the blade bolt bore of the grip under the blade bolt bushing.

The origin of these cracks on the grip tang is subsurface, on the inside diameter of the blade bolt bore. This bore however is "bushed" and cannot be visually inspected. Exhaustive research to determine a feasible inspection method has determined that ultrasonic inspection of this area is the only acceptable inspection to determine serviceability.

To insure continued serviceability of the 204-011-121-009 and -121 M/R grips, Bell Helicopter in the near future, will be issuing an Alert Service Bulletin to ultrasonically inspect the grip tangs. Inspection intervals will be every 200 Start/Stop cycles or 200 flight hours, which ever occurs first. This inspection is required on all -009 grips with 4000 or more hours, time in service, and all -121 grips with 500 or more hours, time in service.

Due to the nature of this inspection method, preference is to have NDT qualified level 2 or 3 personnel accomplish this inspection. However due to some operations being in a remote location which may not have access to level 2 or 3 NDT inspectors, an option will be to have operator's maintenance technicians (A&P, AME) specially trained to NDT level 1 special rating. Training will be conducted free of charge at specific locations worldwide by Bell Helicopter NDT technicians. Location of the training, time and date to be determined. Duration of the training will be approximately 2 days. Operators will be required to cover the cost of accommodations and travel to and from the training sites as well as the cost of the inspection equipment.

The ultrasonic inspection can be accomplished, on the aircraft, without disassembly in a relatively short period of time (30 minutes per aircraft) by these qualified individuals. Ultrasonic inspection is not new technology and a relatively common practice in various manufacturing and maintenance industries, including pipeline inspection and the fixed wing industry. Equipment is simple, lightweight and portable.

The purpose of this Information letter is only to advise operators of an impending ASB and allow them the opportunity to examine their requirements. It is recommended that operators research the locations of various NTD inspection facilities in their geographical location to minimize operational inconvenience in the future.