



SAIB: NE-12-26

Date: April 16, 2012

SUBJ: Fan Blade – GE90 Updated Inspections

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts registered owners, operators, and certificated repair facilities of all airplanes equipped with General Electric Company (GE) GE90-76, GE90-85, GE90-90, and GE90-94B series turbofan engines of a focused fan blade root inspection specified in the Boeing 777 Aircraft Maintenance Manual (AMM).

These engines are installed on Boeing 777 series airplanes.

The airworthiness concern is not an unsafe condition that would warrant airworthiness directive action under part 39 of Title 14 of the Code of Federal Regulations.

Background

During visual inspection at piece part level, fan blades have been found with delaminations in the root of the dovetail. These delaminations are typically noted as a fine axial line on the bottom face of the dovetail surface and can be difficult to distinguish from the normal appearance of the multiple composite ply layup used in the blade's construction. These delaminations are due to the relief of residual manufacturing stresses and have not shown any effect on the blade's operation or reliability. To ensure the delamination is identified correctly and that appropriate maintenance action is taken, the Fan Blade Inspection (72-21-02-200-801-G00) in the Boeing 777 AMM D633W101 was updated to clearly describe the condition and provide a focused inspection. This update was released by Temporary Revision (TR) in October 2010 and incorporated in AMM Revision 61, issued in January 2011.

On February 20, 2012, a TR to section 72-21-02/601 of the Boeing 777 AMM was issued containing delamination service limits to permit some blades with dovetail bottom surface delaminations to remain in service or to be returned to service. Previously, blades with delaminations in the dovetail were not permitted to return to service. This TR will be incorporated into Revision 65 of the Boeing AMM to be issued on May 5, 2012. The GE90 Engine Manual GEK100700 ESM 72-21-01, INSPECTION 001 FAN BLADES-INSPECTION has been updated by Incremental Change [IC 72-21-01-08-001 ESM 72-21-01 FAN BLADES-INSPECTION], Release Notification Date 03/20/2012, to incorporate these delamination service limits.

Recommendations

We recommend you follow Revision 61 or later of the Boeing 777 AMM D633W101, Task 72-21-02-200-801-G00 to inspect the fan blade root at each piece part exposure. Refer to Subtask 72-21-02-220-002-G00 for blade dovetail inspection limits. If you find a delamination, we recommend you follow the serviceability instructions contained within the AMM and associated TR's.

For Further Information Contact

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For Related Service Information Contact

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