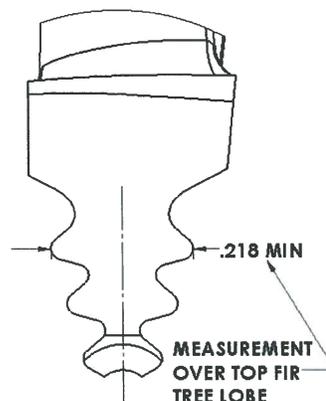


**T-816 Service Bulletin**

<b>Subject:</b>	Compressor Turbine (CT) Blade
<b>EXTEX Part Numbers:</b>	E3045741-01 revision D (or prior)
<b>Installation(s):</b>	Pratt and Whitney Canada PT6A-25C, -34, -34AG, -34B, -36, -38, -41, -114, -114A
<b>Revision History:</b>	IR - Initial Release.
<b>Reason:</b>	To provide Supplemental Instructions for Continued Airworthiness (ICA). EXTEX has identified blades in which the firtree external radii may be undersized. This condition has prompted EXTEX to require inspection and removal of undersized blades.
<b>Description:</b>	This service bulletin provides instructions for inspection and disposition of the subject CT blades.
<b>Applicability:</b>	E3045741-01 Revision D (or prior) CT Blades installed into the CT Disk Balancing Assembly of any of the Pratt and Whitney Canada PT6A model engines listed above.
<b>Accomplishment Instructions:</b>	Perform the inspection at the initial occurrence of the following events: <ul style="list-style-type: none"> <li>• At any time the CT blades are removed from the disk; or</li> <li>• At Hot Section Inspection (HSI). Disassemble sufficient to remove CT blades from the disk</li> </ul> After removal, inspect blades as follows: <ul style="list-style-type: none"> <li>• Measure over the top lobes of each blade as shown in Figure 1. Scrap any blades that measure less than 0.218 inch.</li> </ul> Record compliance with this service bulletin indicating inspection or removal in the applicable section of the engine log book. The entry should include the part number and a reference to EXTEX SB T-816.
<b>Approval:</b>	This document is FAA approved.
<b>Notes:</b>	Please contact EXTEX Engineered Products customer service with any questions. Note: Blades Rev E or later (shipped starting April 2019) are not subject to this service bulletin.



**Figure 1**

**Lawrence Shiembob**  
General Manager

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August 22, 2019

Subject: EXTEX Service Bulletins T-815, T-816 related to CT Blade E3045741-01

There have been reports of fatigue cracks in E3045741-01 blades installed in PT6A-34/-114 engines. All incidents were investigated and it was determined that, based on metallurgical test results and information contained in PWC SB 1768 and PWC SIL 116, the blade cracking was caused by upstream engine conditions. Consequently no field action was considered necessary.

However, the situation became complicated by discovery of a non-conformance in the fir tree area. Once the non-conformance was discovered EXTEX recommended not installing additional E3045741-01 blades until the impact of the non-conformance on blade integrity could be determined.

EXTEX completed a statistical analysis, a finite element analysis and a review of service documents associated with CT blade issues and have coordinated the findings with the FAA.

The investigation did not find evidence of an unsafe condition associated with the blade fir tree non-conformance. Recent blade fatigue cracks appear to be due to an engine system issue and do not appear to be caused by anything related to individual blades; including dimensional or metallurgical properties. However, because some E3045741-01 blades may not meet type design we are requesting installed blades be inspected at next access per SB T-815 and SB T-816.

We identified the root cause of the non-conformance, the manufacturing process was corrected and additional inspection procedures were implemented. Blades produced with new tooling and subject to the increased inspection procedures are identified as E3045741-01 REV E.

If you have any questions please contact your EXTEX customer service representative.

Sincerely,

