



COMMENT RESPONSE DOCUMENT

EASA PAD No. 16-129

[Published on 08 September 2016 and officially closed for comments on 06 October 2016]

Commenter 1: Boeing Company – J.A. Kassebaum – 29/09/2016

Comment # 1

Subject: **Comments, EASA PAD No.16-129: Engine - High Pressure Compressor Shaft and Disc - Life Limit Reduction, Airplane Model 777**

Boeing has reviewed the subject NPRM and concurs with the contents of the proposed rule.

Therefore, no additional comments will be forthcoming.

EASA response:

Comment appreciated.

Commenter 2: Delta Air Lines – Andrew Mahon – 05/10/2016

Comment # 2

References:

- (A) EASA Notification of a proposal to issue an airworthiness directive- PAD No. 16-129
- (B) Rolls-Royce Trent 800 Time Limits Manual, task 05-10-01-800-801, or task 05-10-01-800-802, both dated 15 June 2016.
- (C) EASA AD 2010-0087, corrected 06 May 2010

SUMMARY:

Reference (A) proposed Trent 800 AD would require a life limit reduction for the High Pressure Compressor (HPC) Stage 1 Disk P/N FK32580 and the HPC Stage 1-4 Shaft P/N FK26167. The life limits are being reduced to 5,580 Standard Duty Cycles (SDC) or 5,280 Heavy Duty Cycles (HDC), which are the life limits currently listed in the Reference (B) Trent 800 Time Limits Manual (TLM). The proposed AD would require removal of any installed HPC



Stage 1 Disks or 1-4 Shafts with the affected P/Ns prior to the mandated life limit, or within an allowed timeframe for parts already exceeding 5,530 SDC or 5,230 HDC. It also requires a mandatory update of the operator's Aircraft Maintenance Programme (AMP) to reflect the new life limits for these parts, as well as adherence to these life limits for any subsequently installed parts.

DELTA'S COMMENTS:

1. EASA PAD 16-129 mandates the life limits that are currently published in the Reference (B) Trent 800 TLM. This document has been updated to reflect the life limits of 5,580 Standard Duty Cycles (SDC) or 5,280 Heavy Duty Cycles (HDC) for P/Ns FK32580 and FK26167 since June 2016.

Action (2) of EASA PAD 16-129 requires that the operator to updates the Aircraft Maintenance Program (AMP), with the new life limits described in this PAD. DAL's AMP includes the TLM, which is currently up-to-date, therefore rendering this action previously complied with.

As the TLM is an EASA-mandated document, the life limit reduction is already mandatory and effective. DAL does not see a necessity for this PAD. DAL recommends cancelling the existing AD, Reference (C) AD 2010-0087, rather than superseding it with another AD.

EASA response:

Comment understood, but not agreed. The original TLM is, indeed, part of the engine type design. Operators are expected to implement any later change thereof, but this is a 'design change' which cannot be required by the TCDS. Since not all ICAO Contracting States have regulation in place to require such an update, or are unclear about exactly when, after publication of such TLM revision, the changes must be implemented, these updates may remain unenforceable. The AD makes clear what the changes are and when these must be implemented. For those operators that have already done so, the only action is to record the AD as 'complied with'. No changes have been made to the Final AD in response to this comment.

Commenter 3: American Airlines – Tim Cory – 06/10/2016

Comment # 3

American Airlines (AAL) Power Plant Engineering has reviewed the subject EASA PAD. We find that all active affected components in the AAL system comply with the applicable reduced cyclic lives. Our only comment is of a minor nature and is as follows:

A number of times within the text of the PAD P/N FK32580 is referred to as the 'high pressure compressor stage 1 disc'. P/N FK26167 is referred to as 'HP compressor stage 1-4 shaft'. Both of these P/Ns represent the same part, referred to as 'High Pressure Compressor Stage 1-4 Rotor Disks Shaft (72-41-31, 01-170)' in the Rolls-Royce Time Limits Manual. To avoid any confusion, AAL would suggest consistent nomenclature for these P/Ns.

EASA response:



Comment agreed. After consulting RR, the correct terminology for the affected parts was established as “HP compressor stage 1-4 rotor disks shaft”. The Final AD has been amended accordingly.

