



Airworthiness Directive

D-2004-494

Luffahrt-Bundesamt

Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
G E R M A N Y

Rolls-Royce Deutschland

Effective Date: 10 January 2005

Affected:

Kind of aeronautical product: Aircraft Engine
Manufacturer: Rolls-Royce Deutschland Ltd & Co KG, Dahlewitz, Germany
Type: BR700-710
Models affected: BR700-710A1-10
Serial Numbers affected: Engine Serial Number 11141
German Type Certificate No.: 6305

Subject:

Reduction of life limitation for the high pressure compressor (HPC) front drum due to an inadvertent heat treatment.

Reason:

During rework, an HPC front drum was inadvertently heat treated after cold expansion of the stage 6 bolt holes. It therefore lost some of the protective compressive stresses from the cold expansion.

As a result of this, it is necessary to reduce the life of the affected HPC front drum, P/N BRR20378 with S/N 119 to 7800 flight cycles instead of the previously declared 10000 flight cycles. The affected HP compressor front drum is currently installed to the engine with S/N 11141.

The actions specified by this Airworthiness Directive are intended to prevent HPC front drum cracking which could lead to an uncontained engine failure.

Action:

The following actions are required by this Airworthiness Directive:

1. Reduction of the life of the affected HPC front drum, P/N BRR20378 with S/N 119 to 7800 flight cycles.
2. Make an additional engine log book entry due to the reduction of the flight cycles of the affected HPC front drum, P/N BRR20378 with S/N 119.
3. Remove the affected HPC front drum, P/N BRR20378 with S/N 119, from service before 7800 flight cycles are reached.

All necessary actions must be performed on the basis of the referenced manufacturer Service Bulletin.

Note: The life limit of the affected HPC front drum, P/N BRR20378 with S/N 119 is lower than the life limit for all other HPC front drums with P/N BRR20378 as declared in the Time Limits Manual, Chapter 05-10-01. This reduced life limit of the affected HPC front drum will not be incorporated in the Time Limits Manual.

Compliance:

All necessary actions must be performed with immediate effect.

Technical publication of the manufacturer:

Rolls-Royce Service Bulletin SB-BR700-72-900347, initial issue, of 03 November 2004. This Service Bulletin becomes herewith part of this AD and can be obtained from:

Rolls-Royce Deutschland Ltd & Co KG
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15827 Dahlewitz
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EASA-Approval

Approved by EASA under Approval-No. 2004-12661 on 31 December 2004.