

COMMENT RESPONSE DOCUMENT

EASA PAD No. 24-131

[Published on 31 October 2024 and officially closed for comments on 28 November 2024]

Commenter 1: All Nippon Airways Co., Ltd. – Satoshi Ishibashi – 27/11/2024

Comment # 1

- A. In paragraph of Definitions, is an affected part that has been rejected by CIR and then changed to As Is Accepted by RR TV included in the "Serviceable part"?
- B. Paragraph of Reason states "This AD is considered to be an interim action and further AD action is expected." What further AD action is being considered?
- C. In Table 1, compliance time doesn't include "whichever occurs later / first" for IPC modules 20,000 EFH or more. I believe that this is because engines 20,000 EFH or more which have never been inspected per SB 72-K841 must be inspected within 60 days after the effective date of this AD. Is this correct?
- D. Is it acceptable as credit for engines below 18,000 EFH to be inspected on wing in accordance with K841 or AK841 before reaching 18,000EFH?
- E. Paragraph (3) Note 2 states "replacement of the full set of affected parts". Paragraph (4) states "replace the cracked affected part(s)". I think these wordings should be the same. What is the intention behind not using the same wording?
- F. In paragraph (3) Note 2, does "intervals as defined in paragraph (1) of this AD" mean "within 2,000EFH / 500EFC whichever occurs first"?
- G. ANA request to add FPI inspection and corrective action in accordance with SB 72-K713 to credit.
- H. NMSB 72-AK841 instructs NMSB 72-AJ814 3.A.(3)(a)(ii)(2) as an alternative method to move VIGVs. So, does EASA add the NMSB 72-AJ814 to paragraph "Ref. Publications" of the AD? If not, I would appreciate it if you could let us know the reason for not adding it.

EASA response:

A: *Comment disagreed. Each TV would need to be assessed per relevant number on case-by-case basis when it comes to adherence to Serviceable Part definition in this AD. It is not EASAs intention to publish all TVs allowed for compliance with this AD. Each TV if deemed acceptable to satisfy Serviceable Part definition will need to be discussed with the Agency (with support of the Rolls-Royce, if necessary) in a form of AMOC.*



No changes have been made to the Final AD in response to this comment.

B: *Comment noted. As communicated to operators, RR is working on a VIGV modification that will prevent the cracking issue.*

No changes have been made to the Final AD in response to this comment.

C: *Comment noted. The engine which was never inspected in accordance with the instructions of the Rolls-Royce NMSB TRENT1000-72-K841 shall be inspected within 60 days after the effective day of the final AD.*

No changes have been made to the Final AD in response to this comment.

D: *Inspections accomplished before the effective date of the AD in accordance with the original issue, Revision 1, or Revision 2 of Rolls-Royce NMSB TRENT1000-72-K841 is/are acceptable to comply with the requirements of paragraphs (1) and (2) of the AD. The next inspection shall be accomplished within 2 000 EFH or 500 EFC, whichever occurs first.*

No changes have been made to the Final AD in response to this comment.

E: *Comment noted:*

The wording of the final AD is updated accordingly.

F: *Comment noted: the intervals referenced in the Note 2 are those as defined in paragraph (1) of the AD, i.e. 2 000 EFH or 500 EFC.*

No changes have been made to the Final AD in response to this comment.

G: *Comment disagreed. NMSB 72-K713 is an in-shop FPI inspection which would need to be further assessed by RR to include it as means of compliance to this AD. NMSB 72-K713 is recommended as an additional inspection to the visual inspection required by NMSB 72-AK841.*

No changes have been made to the Final AD in response to this comment.

H: *Comment noted: NMSB 72-AK841 references NMSB 72-AJ814 3.A.(3)(a)(ii)(2) as an optional step to move the VIGV to fully open position. Since this step is optional and, additionally it is part of the NMSB 72-AK841 fully referenced in the "Refr. Publications" section, there is no need to refer NMSB 72-AJ814 specifically.*

No changes have been made to the Final AD in response to this comment.



Commenter 2: SAESL Quality – Muhammad Hazmi – 26/11/2024

Comment # 2

A.

- i. The serviceable part definition paragraph states that an affected part is only a serviceable after it has passed both the NMSB inspection and the CIR inspection.
SAESL would like to request that the highlighted word “and” be changed to “or”. The inspection area in the CIR encompasses the inspection area in the NMSB. The CIR inspection includes crack test & visual inspection.
- ii. SB K713 instructs crack test to be carried out. The inspection area in SB K713 is the same as the inspection area in the NMSB.
SAESL would like to clarify if the affected part is considered serviceable once it has passed inspection in accordance with SB K713, and to include this SB into the serviceable part definition.

Serviceable part: An IP compressor VIGV eligible for installation in accordance with Rolls-Royce maintenance instructions which is new (never installed); or an affected part which passed an inspection in accordance with the instructions of the NMSB and complies with the airworthiness and serviceability criteria for that part specified in Rolls-Royce Cleaning, Inspection and Repair Manual CIR-TRENT-10RRC.

B.

- i. There may be instances where replacement of the full set of affected parts is carried out. SAESL would like to request that Note 2 be referenced in para (4) & (5) for better clarity on Note 2’s applicability.
- ii. SAESL would like to request that “parts which are not cracked” be changed to “serviceable parts” in Note 2 for alignment.
- iii. After the replacement of the full set of affected parts is carried out (due to Corrective Action or other workscope requirement), will the next inspection compliance time be referring to Table 1 (as initial inspection) and subsequently at 2000 EFH or 500 EFC intervals?

Note 2: Following the replacement of the full set of affected parts of an engine with parts which are not cracked, the follow-on inspections of the affected parts of that engine can be accomplished at intervals as defined in paragraph (1) of this AD.

EASA response:

A(i): Comment agreed.



The wording of the final AD is updated accordingly.

A(ii): *Comment noted. NMSB 72-K713 is an in-shop FPI inspection, which is applicable to Trent 1000 Package B, Trent 1000 Package C, Trent 1000 TEN and Trent7000. Further review would be needed and an update of the NMSB to include 72-K713 as means of compliance, if recognised as applicable (see also reply to Comment #1G above).*

No changes have been made to the Final AD in response to this comment.

B(i): *Comment partially agreed. Note 2 was relocated under paragraph (4) of the AD but was found not necessary to repeat it under paragraph (5) which recognises the in-shop inspection in accordance with the instructions of the NMSB as acceptable method but do not require explicitly the replacement of the cracked parts. Replacement of the cracked parts after in-shop inspection is not subject of this AD and shall be accomplished in accordance with Part 145 requirements and instructions of the Rolls-Royce applicable to release to service of the affected engine.*

The wording of the final AD is updated accordingly.

B(ii): *Comment agreed.*

The wording of the final AD is updated accordingly.

B(iii): *Comment noted. After replacement of all cracked affected parts the inspection interval is defined by paragraph (1) of the AD and is 2 000 EFH or 500 EFC, whichever occurs first.*

No changes have been made to the Final AD in response to this comment.



Commenter 3: LOT S.A. – Dorota Łęgowska – 22/11/2024
Comment # 3

- A. „Assymetric Power Conditions” wording in PAD should be revised to wording similar to Alert SB.
Our suggestion is to replace above statement with: Following execution of any engine non-normal checklist procedure that results in an asymmetric power condition at an altitude of less than 28,000 feet (IFSD, single engine take-off, engine fault).
 Comment: In our opinion "Following execution of any engine non-normal checklist procedure" is important and without this addition wording, in case of IFSD during demo flight, the inspection will be required to be accomplished on the sister engine.
- B. In-shop inspection:
 Currently PAD does not require to perform the in-shop inspection, which NMSB 72-AK841 Rev. 3 does.
Our suggestion is to add the requirement to perform the inspection of the affected parts in accordance with section 3.B of the “Accomplishment Instructions” of the NMSB at any engine shop visit including those engines currently in-shop at time of issue of this AD.

EASA response:

- A:** *Comment noted. Based on demonstration provided by Rolls-Royce, the asymmetric thrust inspection is no longer required to manage the safety as it does not represent any higher risk than the risk during a cruise operation.
 The wording of the final AD is updated accordingly.*
- B:** *Comment noted. EASA ADs in general address unsafe conditions at aircraft level and do not mandate, expect of few exceptions, actions to be accomplished during shop visits. Instead, ADs mandates actions which have to be accomplished on engine when the engine is installed on aeroplanes and can be source of an unsafe condition at aircraft level. The VIGV inspection is included at shop-visit for compliance with the NMSB as it is ALERT. The AD recognizes this as a means of compliance, but the interval of the on-wing inspections has been established per the risk analysis to ensure safety.
 No changes have been made to the Final AD in response to this comment.*

