

COMMENT RESPONSE DOCUMENT

EASA PAD No. 20-015

[Published on 23 January 2020 and officially closed for comments on 20 February 2020]

Commenter 1: Singapore Airlines – Muzafar Rasheed – 24/01/2020

Comment # 1

The PAD mandates inspection as per Rolls-Royce Alert NMSB RB.211-72-AK493. Rolls Royce has however released SB RB.211-72-AK497 to expedite instruction to engine overhaul shops. The PAD does not state that inspection per RB.211-72-AK497 in shop can be taken as credit to terminate the once-off on-wing inspection requirement of the PAD.

We request to include accomplishment of RB.211-72-AK497 in shop as termination for once-off on-wing inspection.

EASA response:

Comment partially agreed. We have included an 'Alternative Method(s)' paragraph in the Final AD to refer to inspection or modification in accordance with any action (inspection, SB Modification) as identified in the 'Note' of Section 1.D.(1) of NMSB 72-AK493, which includes reference to NMSB 72-K497.

As this affects a one-time action in lieu of the required on-wing inspection, no 'terminating action' statement (which is only applied when repetitive actions can be stopped) is included in that paragraph.

Commenter 2: Singapore Aero Engine Services Private – Abdul Malek – 05/02/2020

Comment # 2

As K497 is mentioned in AK493 as equivalent, can the AD include a paragraph on "credit" in order for the engine shop to take credit from the accomplishment of K497 or AK493 before the AD is live?

EASA response:



Comment agreed. See EASA answer to Comment #1 above.

Commenter 3: Lufthansa Technik – Rene Schinkel – 14/02/2020

Comment # 3

Please find below our comments for EASA PAD 20-015:

A. Reason:

1. Please change „During a subsequent shop inspection of **another** IPC rotor shaft P/N FW20677,” to “During a subsequent shop inspection of **three other** IPC rotor shaft P/N FW20677”.
2. NMSB 72-K497 was issued before 72-AK493 for in-shop inspections. Please add this to the description.
3. Definition of NMSB: please add SB 72-K497 for in-shop inspections.
4. WW11604 already obsolete now – please note down SB 72-AK493 and 72-K497.

B. Actions (1):

1. Please remove (i) from 1.D.(1)(a)(i) as only section 1.D.(1)(a) exists in the NMSB.
2. Please add a paragraph that describes that on-wing BSI inspections iaw 1.D.(1)(b) and 1.D.(1)(c) are not required.
3. Mismatch within NMSB exists which is transferred to AD: please add a paragraph that for engines with a IPC drum life above 3000 FC on the 6th January 2020 but leaving the shop after 6th January 2020 the requirements from the NMSB (72-AH561, 72-H453, 72-G571, 72-K497, focus inspection, rotor inspection) are in compliance with this AD and can be used as a credit for the on-wing inspections (e.g. engine leaving a shop on 1.2.2020 and having 72-AH561 or 72-K497 performed an on-wing BSI iaw (1) of AD is no longer required).
4. For the avoidance of doubt please add the following sentence: on-wing inspections iaw 72-AK493 that have been performed prior to the effective of the AD are in compliance with the on-wing inspections requirements of this AD.

C. Actions (2): Please add a note clearly stating which shop visit type is meant, e.g. per workscope level definition iaw RR Generic EMP (define e.g. if Hospital Shop visits are affected or only when major engine flange is separated).

D. Actions (3): If, during the inspection as required by paragraph (1) of this AD, **it is difficult to determine whether a crack is present or if** any crack is detected, before next flight, remove the engine from service and, before release to service of the engine, contact Rolls-Royce for approved corrective instructions and accomplish those instructions accordingly.

E. Actions (7):

1. Please remove (i) from 1.D.(1)(a)(i) as only section 1.D.(1)(a) exists in the NMSB.



2. Please add a note that an engine that is neither installed on an aircraft nor inducted in a shop can optionally be inspected off-wing iaw section 3.A. or 3.B. of the NMSB prior to installation to fulfil requirements of this AD.

F. Ref. Publications: Please add SB 72-K497 and update details of SB 72-AK493.

EASA response:

A. Comments partially agreed.

1. A change has been made to the 'Reason' section of the AD.

2./3. Credit for action per NMSB 72-K497 is for the one-time inspection (§ 1 of the AD) only. See also EASA answer to Comment #1 above.

4. Regarding reference to the WW, this was not 'obsolete' at the time of PAD issuance. When PAD and NMSB (ballot) are consulted in parallel, the normal changes will be applied in the Final AD – there is no need to provide comments to EASA for these kinds of 'updates'.

B. Comments partially agreed.

1. References to Section 1.D.(1)(a) have been corrected in the Final AD. See also EASA answer to Point A.4. above.

2. Since Sections 1.D.(1)(b) and 1.D.(1)(c) of the NMSB do not contain any requirements, only 'credit', there is no need to add this into the AD. An EASA AD does not need to specify what is not required. For the one-time inspection, reference is clearly made in the Final AD to engines 'in the condition as specified in Section 1.D.(1)(a) of the NMSB' only.

3. Comment agreed. See EASA answer to Comment #1 above.

4. Credit for such action is already in the AD: "Required as indicated, unless accomplished previously". To avoid doubt, please note that no repetitive on-wing inspections are required by this AD.

C. Comment not agreed. The AD clearly states that action is required "during each engine shop visit".

D. Comment not agreed. It is common safety sense that, in case of uncertainty about crack finding, the engine would be removed from service for further (more detailed, e.g. in-shop) inspection. In EASA view, there is no need to add this into the AD.

E. 1. Comment noted. See EASA answer to Point B.1. above.

2. Comment agreed. Engines not in service (not installed, nor in-shop) do not need to comply with paragraph (1) of the AD until they are returned to service, i.e. before operation on an aeroplane, unless they are not 'in the condition as specified in Section 1.D.(1)(a) of the NMSB', in which case, following re-entry into service, the in-shop inspections of §(2) of the AD are required for such engine. Paragraph (8) [was §(7) in the PAD] already addresses installation of engines 'in the condition as specified in Section 1.D.(1)(a) of the NMSB'. A paragraph has been added to the Final AD for all other engines accordingly.

F. Comment noted. See EASA answer to Point A.4. above.

No changes have been made to the Final AD in response to Points C and D of this comment.



Commenter 4: All Nippon Airways – Takuma Koga – 20/02/2020**Comment # 4**

- A. In paragraph (1) and (7) Section, shouldn't 1.D.(1)(a)(i) be 1.D.(1)(a)?
- B. Regarding "Engine Installation:", will we be able to install serviceable spare engines in the condition as specified in Section 1.D.(1)(b) and (c) of the NMSB without any on-wing inspection, before any shop visit? If so, could EASA clarify it in the AD?

EASA response:

A. Comment agreed. See EASA answer to Point B.1. of Comment #3 above.

B. Comment agreed. See EASA answer to Point E.2. of Comment #3 above.

