

## COMMENT RESPONSE DOCUMENT

EASA PAD No.: 24-021

[Published on 07 February 2024 and officially closed for comments on 06 March 2024]

### Commenter 1: Airbus – Vincent Teuliere – 21/02/2024

#### Comment # 1

Page 2 : "Groups: Group 1 engines are those that have an affected part installed. Group 2 engines are those that do not have an affected part installed. All engines on which Rolls-Royce mod 79-AK684 has been embodied **in production** are Group 2."

As mod can be embodied in shop, "in production" should be removed from Group 2 definition.

#### EASA response:

*Comment noted. The purpose of the Group 2 Definition is to define engine group to which the modification requirement [(paragraph (1))] of the AD is not applicable. Those engines which get (or got before the effective date of the AD) the mod in shop remain Group 1 engines. For these engines the compliance is recognised either through embodiment of the mod in shop within the compliance time as stated in paragraph (1) or through the statement "Required as indicated by this AD, unless the actions required by this AD have been already accomplished" in case the mod was embodied in shop before the effective date of the AD.*

*No change has been made to the Final AD in response to this comment.*

### Commenter 2: Cathay Pacific Airways Limited – Talwinder Singh – 01/03/2024

#### Comment # 2

With regards to Applicability, "Trent XWB-75, Trent XWB-79, Trent XWB-79B, and Trent XWB-84 engines, all serial numbers (s/n), including core engines with an s/n as identified in Section A.(1)(a) of the SB."

The core engine s/n are not available to the operator. CPA has sampled a few engine logbooks but was unable to find the information.



Therefore, CPA would request EASA to consider issuing the EASA AD with the following applicability only: “Trent XWB-75, Trent XWB-79, Trent XWB-79B, and Trent XWB-84 engines, all serial numbers (s/n)”.

**RR response:**

**Comment agreed: The final AD has been amended accordingly.**

**Commenter 3: Singapore Aero Engine Services Pte Ltd – Muhammad Hazmi – 04/03/2024**

**Comment # 3**

- A. The affected part may be accessed and replaced during engine Hospital Shop Visit as this is an external part. Can EASA consider including Hospital Shop Visit in "Qualified engine shop visit" section?
- B. Under “Modification” para 2, for a qualified engine on the effective date where high-pressure module re-assembly has not yet started, the shop has to modify the engine by removing the affected part. However, the affected part is an external component of the intermediate pressure compressor module and is not related to the high-pressure module. Can we understand the rationale for why the high-pressure module re-assembly is being used as a determining factor for the in-shop engine accomplishment?

**RR response:**

- A. **Comment noted: Rolls Royce are updating the EMP to include embodiment in the work-scope for specific hospital shop visits which should enable completion through natural shop visits (including HSV). The AD does not exclude the possibility of the engine modification during Hospital Shop Visit. The AD only specifies that once the engine is in the qualified engine shop the modification shall be done.**

**No change has been made in response to this comment.**

- B. **The choice to align the modification with the HP module maintenance is not technically driven but is used as there is precedent to other Rolls-Royce SBs and is intended to establish the task within the in-shop maintenance where the SB should/should not be introduced.**

**No change has been made in response to this comment.**

**Commenter 4: Delta Air Lines, Inc. – Cecilia Teeuwen and Haiyun Lee – 04/03/2024**



**Comment # 4**

Reference:

(A) EASA Proposed Airworthiness Directive: PAD No. 24-021, dated 07 Feb 24

(B) Rolls-Royce SB 79-AK684, dated 2 Jan 24

**Comment A**Commenter Request

Modify Ref (A) PAD, Definition paragraph, to align the definition of a qualified engine shop visit to Ref (B).

Request justification

Ref (A) defines a qualified engine shop visit as a non-modular rework level of engine refurbishment, or engine check & repair. A non-modular rework level definition is only applicable to a check & repair shop visit per the Rolls-Royce EMP. Paragraph 1.E.

Compliance in Ref (B) also defines the in-shop compliance as engines at Non-Modular rework level of Engine Check & Repair or Engine Refurbishment.

List paragraphs that change; describe (nonobvious) changes

Definitions:

Update Definition for “Qualified engine shop visit” to aligned with RR SB Ref (B), i.e. Non-Modular rework level of Engine Check & Repair or Engine Refurbishment.

**Comment B**Commenter Request

Modify Ref (A) PAD, to add statement exempting operators/overhaul bases from the special build confirmation required by SB Ref (B).

Request justification

Paragraph 3.B and 3.C. of the SB Ref (B) contains instructions for special build confirmation. The special build confirmation requires all relevant details to be recorded on the inspection build record.

There is no definition of what details are considered relevant in the SB Ref (B). There is also no definition of what constitute an inspection build record. The instruction for installing the revised tube already include instructions to verify the part number, part marking and confirmation of the restrictor via a plug gauge.

Therefore, the special build confirmation is redundant.

List paragraphs that change; describe (nonobvious) changes

New Exception paragraph to be added to the Ref (A) PAD.

### **Comment C**

#### Commenter Request

Modify Ref (A) PAD, to waive any on-wing modification requirement.

#### Request justification

Ref (A) PAD requires Group 1 engines to be modified in accordance with the instructions of the SB during the next qualified engine shop visit, or within 75 months, whichever occurs first after the effective date of the AD. The SB Ref (B) includes both on-wing and in-shop modification instructions. However, the MP task required by the SB, A350-A-79-22-64-01001-520A-A and A350-A-79-22-64-01001-720A-A does not exist in the current A350 AMM. Therefore, the operator will not be able to perform the SB as written on-wing.

#### List paragraphs that change; describe (nonobvious) changes

Modification:

- Update the modification requirement to only require the accomplishment of the SB Ref (B) in-shop.

Or

- Coordinate with Rolls-Royce the TC Holder to revise the AMM and/or SB Ref (B) to include the required MP tasks.
- Issue the proposed AD Ref (A) upon confirmation of the AMM/SB Ref (B) revision.

#### ***RR response:***

***A. Comment agreed: The final AD has been amended accordingly.***

***B. Comment agreed: The final AD has been amended accordingly.***

***C. Comment noted. The AD allows modification of the engine either on wing or in-shop. The on-wing modification instructions referenced as Maintenance Procedures A350-A-79-22-64-01001-520A-A and A350-A-79-22-64-01001-720A-A are about to be published and are yet available through RTV 254163.***

***No change has been made in response to this comment.***

