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Date Nov.26/18

RB211 TRENT 700 SERIES PROPULSION SYSTEMS NON-MODIFICATION SERVICE BULLETIN

ALERT

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This document transmits the Initial Issue of Service Bulletin RB211-72-AK165

Bulletin Initial Issue

Remove	Incorporate	Reason for change
	Pages 1 to 5 of the Service Bulletin	Initial Issue
	Page 1 and 2 of Appendix 1	Initial Issue

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
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LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin are as follows:

Page	Revision Number	Revision Date
Bulletin		
1		Nov.26/18
2		Nov.26/18
3		Nov.26/18
4		Nov.26/18
5		Nov.26/18
Appendix 1		
1		Nov.26/18
2		Nov.26/18

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TRENT 700 MANAGEMENT OF HIGH PRESSURE TURBINE BLADES - ALERT - NON-MODIFICATION SERVICE BULLETIN - NON - MOD.72-AK165

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1. Planning Information

A. Effectivity

Airbus A330

RB211 TRENT768-60, TRENT768-60/15 and TRENT768-60/16 Propulsion Systems.

RB211 TRENT772-60, TRENT772-60/15 and TRENT772-60/16 Propulsion Systems.

RB211 TRENT772B-60, TRENT772B-60/15 and TRENT772B-60/16 Propulsion Systems.

RB211 TRENT772C-60, TRENT772C-60/15 and TRENT772C-60/16 Propulsion Systems.

Engine Serial Numbers listed in Appendix 1.

B. Reason

(1) Problem

High Pressure (HP) turbine blades on a number of TRENT 700 engines have been subject to high levels of corrosion fatigue, which has led to substantial blade cracking and eventual release. This has caused a number of Aborted Take Offs (ABTO) and In-Flight Shut Down (IFSD) events.

Specific Operators have experienced a higher rate of HP turbine blade release and as such are being supported for service management through this Non-Modification Service Bulletin (NMSB).

This NMSB is issued to instruct when to remove the highest risk engines from service to enable replacement of the HP turbine blades.

(2) Safety Intent

The accomplishment of this NMSB is intended to reduce the risk of ABTOs and IFSDs in the event of release of HP turbine blades due to corrosion fatigue. This method will reduce the risk of HP turbine blade release and potential subsequent high energy debris release in the affected fleets.

C. Description

An investigation into the influence of corrosion fatigue cracking is ongoing following the increase in the number of HP turbine blade releases due to corrosion fatigue. Sampling has identified that corrosion fatigue affects HP turbine blades at varying rates which is dependent on environmental, operational and individual blade conditions.

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This NMSB is issued to instruct removal of specific engine serial numbers, by specified dates, to enable the HP turbine blades to be replaced. This list of engine serial numbers may be changed in future revisions of the NMSB and may include removal of specific engine serial numbers when the blades are replaced and the engine is returned to service outside of the identified highest risk operational environment.

D. Compliance

(1) ON-WING

ALERT

This Non-Modification Service Bulletin is anticipated to be the subject of an EASA Airworthiness Directive.

Refer to Appendix 1 for Trent 700 Engine Serial Numbers in Table 1 and Table 2 affected by this NMSB.

Component Life is defined as: HP turbine blade life in flight cycles since new.

If HP turbine blade life is not known; determine the 04 module life in flight cycles since new, flight cycles since refurbishment, or flight cycles since overhaul and use this as Component Life.

(a) Engine Serial Numbers in Table 1:

(i) On the date of publication of this NMSB, any ESNs with component life greater than 4400 flight cycles - Remove the engine from service no later than Jan. 1/19 and before the next flight replace the engine in accordance with 3. Accomplishment Instructions (for removal and replacement of the HP turbine blades).

(ii) On the date of publication of this NMSB, any ESNs with component life less than 4400 flight cycles but greater than 3500 flight cycles - Remove the engine from service no later than May. 1/19 and before the next flight replace the engine in accordance with 3. Accomplishment Instructions (for removal and replacement of the HP turbine blades).

(iii) From May. 1/19 ensure that component life does not exceed 3500 flight cycles.

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(b) Engine Serial Numbers in Table 2:

(i) On the date of publication of this NMSB, any ESNs with component life greater than 5800 flight cycles - Remove the engine from service no later than May. 1/19 and before the next flight replace the engine in accordance with 3. Accomplishment Instructions (for removal and replacement of the HP turbine blades).

(ii) From May. 1/19 ensure that component life does not exceed 5800 flight cycles.

(2) IN-SHOP

Not applicable.

E. Approval

The technical content of this Non-Modification Service Bulletin was approved under the authority of Design Organisation Approval EASA.21J.035 on Nov.23/18.

F. Manpower

(1) On-Wing

(a) Engine Removal and installation:

48 Man-hours

(b) Low Power ground run:

4 Man-hours

(2) In-shop

Not affected.

G. Material Price and Availability

Not applicable.

H. Tooling Price and Availability

No special tooling required.

I. References

Aircraft Maintenance Manual (AMM):

71-00-00, Removal/Installation

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2. Material Information

None.

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3. Accomplishment Instructions

A. Remove the demountable powerplant in accordance with current maintenance procedures (AMM, 71-00-00, Removal).

B. Accomplishment of this NMSB should be recorded in accordance with local Service Bulletin tracking system procedures.

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APPENDIX 1

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TABLE 1: LIST OF AFFECTED ENGINE SERIAL NUMBERS IN GROUP 1

41139	41154	41329	41330	41346	41347	41364
41365	41366	41367	41372	41373	41378	41382
41385	41386	41387	41388	41391	41410	41411
41414	41425	41426	41430	41431	41440	41443
41444	41450	41451	41465	41468	41469	41470
41481	41482	41488	41494	41498	41579	41582
41600	41601	41692	41693	41708	41709	41716
41717	41749	41800	41825	41826	41877	41910
41914	41919	41920	41936	41937	42070	42178
42211	42212	42308	42334	42337	42391	42392
42397	42398	42780	42781			

TABLE 2: LIST OF AFFECTED ENGINE SERIAL NUMBERS IN GROUP 2

41001	41002	41004	41005	41006	41007	41008
41009	41011	41012	41014	41016	41017	41018
41019	41020	41021	41022	41025	41026	41028
41030	41034	41037	41056	41059	41060	41166
41167	41168	41169	41170	41174	41175	41185
41186	41187	41197	41200	41201	41202	41203
41204	41210	41211	41212	41218	41219	41227
41238	41243	41246	41266	41267	41268	41269
41271	41274	41275	41282	41319	41327	41334
41335	41336	41340	41358	41389	41399	41417
41418	41434	41464	41479	41487	41505	41525
41526	41560	41561	41740	41741	41751	41752
41755	41756	41763	41764	41765	41766	41791
41792	41795	41796	41819	41820	41859	41860
41872	41873	41897	41898	41911	41925	41926
41927	41944	41956	41985	41986	41999	42000
42001	42002	42023	42024	42052	42053	42058
42059	42060	42061	42088	42089	42100	42101
42102	42117	42118	42125	42126	42129	42130
42132	42133	42144	42157	42158	42163	42164
42174	42175	42199	42200	42232	42242	42243
42254	42258	42259	42287	42359	42364	42365
42394	42395	42430	42431	42451	42462	42463
42477	42479	42528	42529	42537	42564	42565
42567	42568	42646	42647	42700	42738	

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