



ALERT SERVICE BULLETIN

430-13-50  
7 August 2013

**MODEL AFFECTED:** 430

**SUBJECT:** ENGINE, ASSEMBLY - INSPECTION OF MAG PLUGS TO DETECT METAL GENERATION FROM THE NO. 2 BEARING

**HELICOPTERS AFFECTED:** Serial numbers 49001 and subsequent.

**COMPLIANCE:** See attached Rolls-Royce Corporation CEB-72-5062, Revision 1 dated June 10, 2013.

**DESCRIPTION:**

The purpose of this bulletin is to achieve complete distribution of the attached vendor bulletin CEB-72-5062 Revision 1 to the current affected model distribution list on record by Bell Helicopter.

**APPROVAL:**

See attached Rolls-Royce Corporation CEB-72-5062 Revision 1.

**CONTACT INFO:**

For any questions regarding this bulletin, please contact:

Rolls-Royce M250 Customer Support Group  
Email: [helicoptercustsupp@rolls-royce.com](mailto:helicoptercustsupp@rolls-royce.com)  
Phone: +1 (317) 230-2720 or inside North America: 1-888-255-4766

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## ENGINE, ASSEMBLY – INSPECTION OF MAG PLUGS TO DETECT METAL GENERATION FROM THE NO. 2 BEARING

### 1. PLANNING INFORMATION

#### A. Effectivity

##### (1) Engines

All Rolls-Royce M250<sup>®</sup>-C30R/3, -C30R/3M, -C40B, -C47B, and -C47M series engines, with the below part number and/or serial number of the No. 2 bearing (M250-10354) installed, are affected by this bulletin.

CAE/CAC	BEARING S/N	CAE/CAC	BEARING S/N	CAE/CAC	BEARING S/N
CAC44041	FAG121817	CAE410939/ CAC45363	FAG121861	CAE847761/ CAC45561	FAG121854
CAC44042	FAG121826	CAE410947	FAG122850	CAE847787/ CAC45603	FAG122391
CAC44058	FAG121865	CAE410958	FAG121948	CAE847791/ CAC45608	FAG122853
CAC44082	FAG122725	CAE410961/ CAC45457	FAG121848	CAE848070/ CAC45694	FAG121943
CAC44196	FAG121851	CAE410964/ CAC45461	FAG122723	CAE848156/ CAC45807	FAG121934
CAC44205	FAG121920	CAE410965	FAG122847	CAE848221/ CAC45775	FAG121947
CAC44237	FAG121808	CAE410994/ CAC45521	FAG122427	CAE848223/ CAC45878	FAG122369
CAC44241	FAG121906	CAE413007/ CAC45510	FAG122347	CAE848237/ CAC45893	FAG121885
CAC44246	FAG122283	CAE413011/ CAC45544	FAG122405	CAE848252	FAG121835
CAC44256	FAG121871	CAE413040/ CAC45911	FAG122348	CAE848287/ CAC45986	FAG122852
CAC44318	FAG122420	CAE413043/ CAC45914	FAG121858	CAE848305/ CAC46020	FAG121903
CAC44324	FAG121910	CAE413049/ CAC45930	FAG121877	CAE848346	FAG121917
CAC44392	FAG121812	CAE413050	FAG122422	CAE848351/ CAC46092	FAG122408

## Rolls-Royce

### COMMERCIAL ENGINE BULLETIN

CAE/CAC	BEARING S/N	CAE/CAC	BEARING S/N	CAE/CAC	BEARING S/N
CAC44524	FAG121913	CAE413050/ CAC45933	FAG122859	CAE848451/ CAC6232	FAG121918
CAC44775	FAG122418	CAE413067	FAG122721	CAE848456/ CAC46234	FAG122373
CAC44837	FAG122344	CAE413096	FAG122857	CAE848462/ CAC46242	FAG122274
CAC44925	FAG121806	CAE413113/ CAC46062	FAG121799	CAE848463/ CAC46243	FAG122275
CAC44934	FAG122282	CAE413136	FAG122719	CAE848464/ CAC46244	FAG122279
CAC44954	FAG122845	CAE413157/ CAC46252	FAG122412	CAE848467/ CAC46247	FAG122276
CAC45108	FAG122843	CAE413158/ CAC46256	FAG122415	CAE848471/ CAC46250	FAG122417
CAC45111	FAG122353	CAE413159/ CAC46257	FAG122713	CAE848472/ CAC46251	FAG121793
CAC45374	FAG121866	CAE413167/ CAC46286	FAG122389	CAE848473/ CAC46253	FAG122428
CAC45481	FAG122355	CAE413168/ CAC46287	FAG122399	CAE848475/ CAC46258	FAG122431
CAC90069	FAG122277	CAE413172	FAG126236	CAE848476/ CAC46259	FAG122290
CAE410524	FAG121900	CAE844023	FAG122403	CAE848477/ CAC46260	FAG122715
CAE410531/ CAC19578	FAG122423	CAE844063	FAG122411	CAE848481/ CAC46281	FAG122398
CAE410541	FAG122292	CAE844072/ CAC44278	FAG122346	CAE848482/ CAC46271	FAG122390
CAE410553/ CAC45502	FAG122858	CAE844122/ CAC44785	FAG122429	CAE848483/ CAC46272	FAG122386
CAE410562	FAG122862	CAE844172/ CAC44011	FAG121838	CAE848494/ CAC46284	FAG122388
CAE410565/ CAC44492	FAG121921	CAE844194	FAG121821	CAE848496/ CAC46290	FAG121794
CAE410569/ CAC44352	FAG122356	CAE844253	FAG122352	CAE848526	FAG126242
CAE410571/ CAC44364	FAG122392	CAE844259/ CAC44168	FAG122286	CAE848527	FAG126243
CAE410589	FAG121949	CAE844264/ CAC45559	FAG122366	CAE848528	FAG126239
CAE410590	FAG122285	CAE844267	FAG122864	CAE848529	FAG126264

March 4, 2013  
Revision 1  
June 10, 2013

M250-C30 Series  
M250-C40B Series  
M250-C47 Series

CEB-72-3292  
CEB-72-5062  
CEB-72-6075

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CAE/CAC	BEARING S/N	CAE/CAC	BEARING S/N	CAE/CAC	BEARING S/N
CAE410598	FAG121881	CAE847016	FAG121839	CAE848530	FAG126263
CAE410626/ CAC44481	FAG122354	CAE847021/ CAC44037	FAG122432	CAE848532	FAG131100
CAE410639/ CAC44504	FAG122421	CAE847037/ CAC44057	FAG121860	CAE848534	FAG131098
CAE410646	FAG122284	CAE847097/ CAC44137	FAG121919	CAE848536	FAG126244
CAE410647/ CAC44939	FAG122404	CAE847099	FAG121916	CAE848537	FAG126240
CAE410648/ CAC44531	FAG123133	CAE847111	FAG122364	CAE848538	FAG126245
CAE410684/ CAC44601	FAG122867	CAE847118/ CAC44164	FAG122349	CAE848540	FAG126234
CAE410687	FAG122281	CAE847146	FAG122849	CAE848542	FAG126238
CAE410721	FAG122860	CAE847160	FAG121928	CAE848543	FAG126237
CAE410732	FAG122844	CAE847175	FAG121894	Unknown*	FAG121827
CAE410749/ CAC44731	FAG122343	CAE847217/ CAC44286	FAG123134	Unknown*	FAG121859
CAE410750/ CAC44732	FAG122371	CAE847218/ CAC45236	FAG122424	Unknown*	FAG121922
CAE410761/ CAC44747	FAG121945	CAE847252	FAG121898	Unknown*	FAG121924
CAE410763/ CAC44827	FAG122400	CAE847269	FAG121857	Unknown*	FAG122293
CAE410765/ CAC44829	FAG122394	CAE847294/ CAC44056	FAG122871	Unknown*	FAG122409
CAE410772/ CAC44843	FAG122357	CAE847307	FAG121923	Unknown*	FAG122716
CAE410784/ CAC44865	FAG122720	CAE847311	FAG122848	Unknown*	FAG122718
CAE410794/ CAC44879	FAG122351	CAE847316/ CAC44565	FAG121933	Unknown*	FAG122722
CAE410810	FAG122393	CAE847393/ CAC44754	FAG121915		
CAE410818/ CAC44988	FAG122345	CAE847440/ CAC44934	FAG122280		
CAE410832/ CAC45013	FAG122358	CAE847472/ CAC44917	FAG122288		
CAE410839/ CAC45020	FAG122724	CAE847487/ CAC44937	FAG122383		

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CAE/CAC	BEARING S/N	CAE/CAC	BEARING S/N	CAE/CAC	BEARING S/N
CAE410842	FAG121829	CAE847492/ CAC44960	FAG122851		
CAE410848	FAG122856	CAE847519	FAG122846		
CAE410859	FAG121828	CAE847554/ CAC45088	FAG122416		
CAE410866/ CAC45145	FAG122374	CAE847573/ CAC45139	FAG122380		
CAE410873/ CAC45185	FAG122370	CAE847582	FAG122854		
CAE410874	FAG122861	CAE847588/ CAC45204	FAG122872		
CAE410882/ CAC45185	FAG121895	CAE847626	FAG122855		
CAE410884/ CAC45187	FAG122350	CAE847656	FAG122868		
CAE410895/ CAC45200	FAG122410	CAE847679/ CAC45360	FAG122869		
CAE410900/ CAC44925	FAG121802	CAE847720	FAG121888		

**NOTE:** \* Contact your maintenance provider.

(2) Spares – Affected

**B. Reason**

(1) There have been some events in the field where Series IV engines have experienced metal generation that has been attributed to spalling of the No. 2 bearing.

**C. Description**

This Commercial Engine Bulletin (CEB) requires that all (per the above effected bearing list) effected Rolls-Royce M250-C30R/3, -C30R/3M, -C40B, -C47B and -C47M operators perform a mag plug inspection within the next 25 hours of flight time and at each 25 hours of flight time thereafter until Paragraph E. Compliance (2) has been accomplished. All other engines which do not have an effected bearing are exempt from the 25 hour mag plug inspection and revert to the appropriate schedule contained in the Ops and Maintenance Manual.

**D. Approval**

Technical aspects are FAA approved.

**E. Compliance**

- (1) Compliance Code 2. To be complied with within the next 25 hours of flight and at every 25 hours of flight thereafter, until step 1.E.(2) is accomplished.
- (2) Compliance Code 6. Effected bearing to be replaced the next time the compressor and/or engine is in the shop for any reason, or no later than 300 flight hours after receipt of this bulletin; whichever occurs first.

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- F. Interchangeability – Not affected
- G. Material Availability – Not affected
- H. Tooling – Not affected
- I. Weight and Balance – Not affected
- J. Electrical Load Data – Not affected
- K. References
  - (1) CSP21000 Operation and Maintenance Manual, Turboshaft M250–C40B (OMM).
  - (2) CSP21001 Operation and Maintenance Manual, Turboshaft M250–C47B (OMM).
  - (3) CSP21003 Operation and Maintenance Manual, Turboshaft M250–C30R/3 (OMM).
  - (4) CSP21004 Operation and Maintenance Manual, Turboshaft M250–C47M (OMM).
  - (5) CSP21006 Operation and Maintenance Manual, Turboshaft M250–C30R/3M (OMM).
- L. Other Publications Affected – None
- M. Prerequisites – None

2. ACCOMPLISHMENT INSTRUCTIONS

- A. Remove the magnetic chip detectors at intervals specified in the Compliance Section of this CEB. (Ref. OMM).
  - (1) Inspect the magnetic chip detectors for metallic debris. (Ref. 72–00–00, Para 8.E., OMM).
  - (2) If metal particles exceeding the OMM limits are found, photograph the plug and metal and contact the Rolls-Royce M250 Customer Support Group:
    - (a) Email: [helicoptercustsupp@rolls-royce.com](mailto:helicoptercustsupp@rolls-royce.com)
    - (b) Phone: +1 (317) 230–2720 or inside North America: 1–888–255–4766

**CAUTION:** FAILURE TO PROPERLY RE-INSTALL THE MAGNETIC CHIP DETECTORS CAN LEAD TO LOSS OF OIL AND SUBSEQUENTLY CAUSE LOSS OF POWER.

- (3) Make sure that the magnetic chip detectors have been properly re-installed. (Ref. OMM).
- (4) Record compliance in the Engine Log Book, Engine Assembly, and Compressor Assembly pages, as applicable with the following:

M250–C30R/3	CEB–A–72–3292
M250–C30R/3M	CEB–A–72–3292
M250–C40B	CEB–A–72–5062
M250–C47B	CEB–A–72–6075
M250–C47M	CEB–A–72–6075

As an alternate location for log book entries, compliance to this CEB can be recorded on a table similar to below and maintained with the engine log book:

# Rolls-Royce

## COMMERCIAL ENGINE BULLETIN

Compliance Record for CEB-A-72-3292/5062/6075

Engine Serial Number: CAExxxxxx

Date	TSN/TSO	Notes	Date	TSN/TSO	Notes

### 3. MATERIAL INFORMATION

When compliance of removing bearings according to step 1.E.(2) is complete, please email the following to:

Rolls-Royce at: [helicoptercustsupp@rolls-royce.com](mailto:helicoptercustsupp@rolls-royce.com)

Operator: \_\_\_\_\_  
 Engine S/N: \_\_\_\_\_  
 Compressor S/N: \_\_\_\_\_  
 Bearing P/N **Removed**: \_\_\_\_\_  
 Bearing S/N **Removed**: \_\_\_\_\_  
 Bearing P/N **Installed**: \_\_\_\_\_  
 Bearing S/N **Installed**: \_\_\_\_\_  
 Date of Compliance: \_\_\_\_\_

- A. Basis for quantities is per engine assembly.
- B. Bill of Material – Not applicable

CUSTOMER SUPPORT  
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