

**ALERT SERVICE BULLETIN**

**Bell Helicopter** **TEXTRON**

A Subsidiary of Textron Inc.

**NO.** 407-00-37

**DATE** 10-30-00

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**DATE**

**REV**

**MODELS AFFECTED:** 407

**SUBJECT:** **ROLLS-ROYCE 250-C47B ENGINE,  
REPLACEMENT OF COMPRESSOR SCROLL  
23066737 AND 23072848.**

**HELICOPTERS AFFECTED:** All 407 helicopters with Rolls Royce 250-C47B engines configured with compressor scroll 23066737 or 23072848.

**COMPLIANCE:** In accordance with Rolls-Royce ALERT Commercial Engine Bulletin CEB A 72-6033.

**DESCRIPTION:**

Rolls Royce has advised Bell Helicopter Textron that a few compressor scrolls 23066737 and 23072848 have been found with cracks in the turning vanes.

New compressor scrolls 23072862 and remanufactured scrolls 23074076 include improved procedures and additional inspection requirements to reduce the risk of developing cracks in the turning vanes. Earlier scrolls 23053990 and 23064577 are not affected.

Rolls Royce ALERT Commercial Engine Bulletin CEB A 72-6033 provides the procedures for replacement of compressor scroll 23066737 or 23072848.

**APPROVAL:**

Not required.

**MANPOWER:**

Refer to Rolls Royce ALERT Commercial Engine Bulletin CEB A 72-6033 for manpower estimate to replace compressor scroll 23066737 or 23072848.

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**MATERIAL:**

**Required Material:**

Refer to Rolls Royce ALERT Commercial Engine Bulletin CEB A 72-6033.

**SPECIAL TOOLS:**

None required.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

Rolls Royce ALERT Commercial Engine Bulletin CEB A 72-6033.

**PUBLICATIONS AFFECTED:**

None affected.

**ACCOMPLISHMENT INSTRUCTIONS:**

- NOTE -

This Alert Service Bulletin applies ONLY to engines with compressor scroll 23066737 or 23072848.

The part number is vibro-etched on the scroll forward right hand side above the customer bleed air port.

1. Comply with Rolls Royce ALERT Commercial Engine Bulletin CEB A 72-6033.

# ALERT

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# Rolls-Royce

## P U B L I C A T I O N      T R A N S M I T T A L

October 17, 2000

TO:            Recipients of 250-C30, -C40 and -C47 Commercial Engine Bulletins

SUBJECT:    ENGINE, COMPRESSOR ASSEMBLY – NEW COMPRESSOR SCROLL.

This letter transmits Revision 2 to the subject commercial engine bulletins:

<u>Model</u>	<u>Bulletin Number</u>
250-C30 Series	CEB A 72-3247
250-C40 Series	CEB A 72-5028
250-C47 Series	CEB A 72-6033

This is a complete revision. Replace the Revision 1 with this Revision 2.

Revision 2 adds a new scroll P/N and removes the address for parts return and makes editorial changes.

If you have complied with the previous issue of this bulletin, additional work could be required to comply with this revision of the bulletin.

The following list includes the original issue date and all revisions to this bulletin:

Original issue	June 9, 2000
Revision 1	August 31, 2000
Revision 2	October 17, 2000

CUSTOMER SUPPORT  
ROLLS-ROYCE

# ALERT COMMERCIAL ENGINE BULLETIN



## ENGINE, COMPRESSOR ASSEMBLY – NEW COMPRESSOR SCROLL

### 1. PLANNING INFORMATION

#### A. Effectivity

##### (1) Engines

All Rolls–Royce Model 250–C30, –C40 and –C47 Series engines are affected by this bulletin.

##### (2) Spares

(a) All spare scrolls (23066737 and 23072848) are affected.

#### B. Reason

A few compressor scrolls (23066737 and 23072848) have been found with cracks in the turning vanes. The new compressor scrolls (23072862) and remanufactured compressor scrolls (23074076) include procedures and additional inspection requirements to reduce the risk of developing a turning vane crack.

#### C. Description

This bulletin gives you the procedure to remove engine or compressor assemblies that contain the old compressor scroll (23066737 or 23072848). Return all removed engine or compressor assemblies to a Rolls-Royce Authorized Maintenance Center where the current scroll will be replaced with a new scroll (23072862) or a remanufactured scroll (23074076). A pool of assets to support this action is being established and additional assets are being added to the pool over the next several months.

**NOTE:** Compressor scroll P/N is located next to the customer bleed port and anti-ice valve port on the right hand side of the scroll looking forward.

#### D. Approval

Technical aspects are FAA approved.

#### E. Compliance

To be complied with within 500 hours of Revision 2 publication date or no later than December 31, 2001, whichever comes first.

#### F. Interchangeability – Not affected

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October 17, 2000

250–C30 Series  
250–C40 Series  
250–C47 Series

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# ALERT

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G. Material Availability

NEW P/N	NAME	QTY/ENG
23072862	Scroll Assembly, Compressor	1
23074076	Scroll Assembly, Compressor	1

H. Tooling – Not applicable

I. Weight and Balance – Not affected

J. Electrical Load Data – Not affected

K. References

- (1) Advance Engineering Memorandum (AEM), CW107797.

NOTE: The document above is referenced for the internal use of Rolls-Royce only.

- (2) 14W2LRU Operation and Maintenance Manual, Turboshift Models 250–C30R, C30U (OMM).
- (3) 14W4RU Illustrated Parts Catalog, Turboshift Model 250–C30R-U (IPC).
- (4) 14W2 Operation and Maintenance Manual, Turboshift Model 250–C30 (OMM).
- (5) 14W3 Overhaul Manual, Turboshift Model 250–C30 (O/M)
- (6) 14W4 Illustrated Parts Catalog, Turboshift Model 250–C30 (IPC).
- (7) CSP 21000 Operation and Maintenance Manual, Turboshift Model 250–C40B (OMM).
- (8) CSP 22000 Overhaul Manual, Turboshift Model 250–C40B (O/M).
- (9) CSP 21001 Operation and Maintenance Manual, Turboshift Model 250–C47B (OMM).
- (10) CSP 22001 Overhaul Manual, Turboshift Model 250–C47B, –C47M, –C30R/3 (O/M).
- (11) CSP 23001 Illustrated Parts Catalog, Turboshift Model 250–C40B, –C47B, –C47M (IPC).
- (12) CSP 21004 Operation and Maintenance Manual, Turboshift Model 250–C47M (OMM).
- (13) CSP 21003 Operation and Maintenance Manual, Turboshift Model 250–30R/3 (OMM).
- (14) CSP 23003 Illustrated Parts Catalog, Turboshift Model 250–C30R/3 (IPC).

L. Other Publications Affected – None

M. Prerequisites – None

2. ACCOMPLISHMENT INSTRUCTIONS

NOTE: When performing the following procedures obey the warnings and cautions identified in the latest revision of the applicable Operation and Maintenance Manual to make sure of your safety and health and to prevent damage to the engine.

A. Replace the compressor scroll.

- (1) Remove engine or compressor assembly (Ref. OMM)
- (2) Send the engine or compressor assembly to an Authorized Maintenance Center for rework or replacement of the compressor scroll.

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(a) The customer can get a new compressor scroll (23072862) or a remanufactured scroll (23074076) at no charge.

(3) Install engine or compressor assembly (Ref OMM).

B.

C. Record compliance with this bulletin in the applicable section of the engine logbook, Compressor Assembly (blue pages), Modification Record, Part III, as applicable with the following:

C30 Series	CEB A 72-3247
C40 Series	CEB A 72-5028
C47 Series	CEB A 72-6033

### 3. MATERIAL INFORMATION

#### A. Configuration Chart

NEW P/N	QTY/ ENG	NAME	OLD P/N	QTY/ ENG	INSTRUCTIONS/ DISPOSITION	ROLLS- ROYCE IN-HOUSE DISPOSITION
23072862	1	Scroll Assembly, Compressor	23066737 or 23072848	1	1,2	-
23074076	1	Scroll Assembly, Compressor	23066737 or 23072848	1	1,2	-

#### INSTRUCTIONS/DISPOSITION NOTES

1. New item.

2. Remove and return to Standard Aero Limited.

B. Consumable Materials – None

C. Expendable Parts – None

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