

**ALERT SERVICE BULLETIN**  
**Bell Helicopter** **TEXTRON**

A Subsidiary of Textron Inc.

**NO.** 214-05-67

**DATE** Oct 10, 2005

**PAGE** 1

**DATE**

**REV**

**MODEL AFFECTED:** 214B/214B-1

**SUBJECT:** HONEYWELL SERVICE BULLETIN T5508D-0046:  
ENGINE-ACCESSORY DRIVE CARRIER  
ASSEMBLY-REMOVAL FROM SERVICE OF  
ACCESSORY DRIVE INNER BEVEL GEAR PART  
NO. 2-070-024-01

**HELICOPTERS AFFECTED:** Model 214B/214B-1 helicopters serial number  
28001 through 28070.

**COMPLIANCE:** See vendor bulletin.

**DESCRIPTION:**

The purpose of this bulletin is to achieve complete distribution of the attached vendor  
bulletin to the current affected model distribution list on record by Bell Helicopter.

**APPROVAL:**

See vendor bulletin approval.

## Category 1: Safety

### ENGINE - ACCESSORY DRIVE CARRIER ASSEMBLY - REMOVAL FROM SERVICE OF ACCESSORY DRIVE INNER BEVEL GEAR PART NO. 2-070-024-01

#### 1. Planning Information

##### A. Effectivity

This service bulletin applies to the following gas turbine engine:

<u>Part No.</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Application</u>
2-000-030-28	T5508D	All	Bell Helicopter 214A, 214B, 214B-1, 214C

##### B. Concurrent Requirements

Does not apply.

##### C. Reason

Five events have occurred with the T5508D and other T55 models that resulted in the fracture of the Accessory Drive Inner Bevel Gear Part No. 2-070-024-01. The fracture of Accessory Drive Inner Bevel Gear Part No. 2-070-024-01 was determined to result from the interaction of a worn gear and reassembly variables which lead to high cycle fatigue of this gear on the concave side. Fracture of Accessory Drive Inner Bevel Gear Part No. 2-070-024-01 results in loss of drive to the engine fuel control and an uncommanded engine shutdown.

##### D. Description

This service bulletin provides a one-time requirement to replace Accessory Drive Inner Bevel Gear Part No. 2-070-024-01 with improved Accessory Drive Inner Bevel Gear Part No. 2-070-024-04.

**WARNING:** FAILURE TO COMPLY WITH THIS SERVICE BULLETIN COULD RESULT IN THE FRACTURE OF THE ACCESSORY DRIVE INNER BEVEL GEAR PART NO. 2-070-024-01. A FRACTURED BEVEL GEAR WILL RESULT IN A LOSS OF DRIVE TO THE ENGINE FUEL CONTROL AND AN UNCOMMANDED ENGINE SHUTDOWN. THE IN-FLIGHT SHUTDOWN OF AN ENGINE IN A SINGLE ENGINE APPLICATION COULD RESULT IN SERIOUS INJURY OR DEATH TO PERSONNEL AND LOSS OF THE AIRCRAFT.

##### E. Compliance

(1) Compliance addresses safety. Compliance is to be accomplished:

- (a) At next shop visit if over 100 hours since last access to the accessory drive carrier area.
- (b) If access to the accessory drive carrier area has been within 100 hours, the Accessory Drive Inner Bevel Gear Part No. 2-070-024-01 must be replaced within 25 operating hours.

F. Approval

The accomplishment instructions section of this service bulletin is FAA approved.

G. Manpower

Approximately eight man-hours are required to perform this service bulletin after access is gained.

H. Weight and Balance

Not affected.

I. Electrical Load Data

Not affected.

J. Software Accomplishment Summary

Does not apply.

K. References

(1) Publications

Maintenance  
Manual No.

T5508D-2

Overhaul  
Manual No.

T5508D-3

Illustrated Parts  
Catalog No.

T5508D-4

(2) Service bulletin references

None.

L. Other Publications Affected

Does not apply.

M. Interchangeability or Intermixability of Parts

Does not apply.

2. Material Information

A. Material - Price and Availability

Does not apply.

# Honeywell SERVICE BULLETIN

Engines, Systems & Services

B. Industry Support Information

Address any questions on this service bulletin to:

Honeywell Engines, Systems & Services  
Product Support Program Manager  
Mail Stop 404-252  
P.O. Box 52181  
Phoenix, AZ 85072-2181  
Fax: 602-231-3800

C. Material Necessary for Each Engine/Component

(1) Material to be purchased

The parts necessary to do this service bulletin are as follows:

<u>New Part No.*</u>	<u>Key Word</u>	<u>Old Part No.</u>	<u>Qty.</u>	<u>Unit Price**</u>	<u>Special Instructions/ Disposition</u>
2-070-024-04	Accessory Drive Inner Bevel Gear	2-070-024-01	1		A, F

\*Acquire new parts from:

Honeywell Aerospace Services  
P.O. Box 52170  
Phoenix, AZ 85072-2170

\*\*Contact Honeywell Engines, Systems & Services for unit price and availability.

Disposition Code A. Superseded part.

Disposition Code F. Discard the removed part and replace with a new part.

(2) Material to be supplied by the operator

Does not apply.

D. Material Necessary for Each Spare

Same as paragraph C.

E. Reidentified Parts

Does not apply.

F. Tooling - Price and Availability

The special tools necessary to do this service bulletin are in the manuals listed in paragraph 1.K.(1).

Jul 12/05

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# Honeywell SERVICE BULLETIN

Engines, Systems & Services

**NOTE:** To obtain satisfactory results, procedures in this service bulletin must be accomplished in accordance with accepted industry maintenance practices and prevailing government regulations. Honeywell Engines, Systems & Services is not responsible for the quality of work performed in complying with this service bulletin unless Honeywell Engines, Systems & Services performs such work. Such responsibility rests with the entity performing the work and the owner or operator. Refer to the instructions found in the applicable manuals in paragraph 1.K.

### 3. Accomplishment Instructions

**NOTE:** Refer to the manuals listed in paragraph 1.K. when performing these procedures.

- A. Sufficiently disassemble engine to gain access to the Accessory Drive Carrier Assembly Part No. 2-070-000-11.

**NOTE:** Prior to removal of the accessory drive carrier assembly, take a SOAP sample for analysis. Inspect chip detector and record results.

- (1) Remove Accessory Drive Carrier Assembly Part No. 2-070-000-11.
  - (2) Disassemble Accessory Drive Carrier Assembly Part No. 2-070-000-11 as necessary to remove Accessory Drive Inner Bevel Gear Part No. 2-070-024-01.
  - (3) Assemble Accessory Drive Carrier Assembly Part No. 2-070-000-11 using Accessory Drive Inner Bevel Gear Part No. 2-070-024-04.
- B. Reassemble the gas turbine engine.
- C. Test the gas turbine engine.
- D. Compliance with this service bulletin must be recorded in the Engine Logbook and the service bulletin Compliance Records. Complete and return the Notice of Service Bulletin Compliance (attached) to Honeywell Engines, Systems & Services.

### 4. Appendix

Does not apply.

NOTICE OF SERVICE BULLETIN COMPLIANCE

Customer Support Engineering  
Honeywell Engines, Systems & Services  
111 South 34th Street  
P.O. Box 52181  
Phoenix, Arizona 85072-2181, USA

Attention: Customer Support Engineering (T55)  
Mail Stop 404-250

Dear Sir:

This is to inform you that the Service Bulletin has been complied with as indicated below:

FOLD  
HERE

FOLD  
HERE

SERVICE BULLETIN \_\_\_\_\_ REVISION \_\_\_\_\_ DATE \_\_\_\_\_  
Engine Model \_\_\_\_\_ Serial # \_\_\_\_\_ Hours \_\_\_\_\_ Cycles \_\_\_\_\_  
Module \_\_\_\_\_ Serial # \_\_\_\_\_ Hours \_\_\_\_\_ Cycles \_\_\_\_\_

Components Removed:

Part Number \_\_\_\_\_ Serial # \_\_\_\_\_ Hours \_\_\_\_\_ Cycles \_\_\_\_\_  
\_\_\_\_\_

FOLD  
HERE

FOLD  
HERE

Very truly yours,

Signed : \_\_\_\_\_

Organization : \_\_\_\_\_

Location : \_\_\_\_\_

Date : \_\_\_\_\_

**PLACE  
STAMP  
HERE**

**Customer Support Engineering  
Honeywell Engines, Systems & Services  
111 South 34<sup>th</sup> Street  
P.O. Box 52181  
Phoenix, AZ 85072-2181  
USA**

**Attention: Customer Support Engineering (T55)  
Mail Stop 404-250**