CF34-8E ALERT SERVICE BULLETIN - 72- A0115 R03

Revised: 12/09/2016
Issued: 11/05/2010

SB 72-A0115 R03 ENGINE - FAN ROTOR ASSEMBLY (72-21-00) - INTRODUCTION OF FAN BLADE BUSHING REPAIR

GE PROPRIETARY INFORMATION

TRANSMITTAL INFORMATION

REVISION 3 TO SERVICE BULLETIN 72-0115

Revision 3 is issued to update paragraphs 1.I., References and 3., ACCOMPLISHMENT INSTRUCTIONS.

Revision 2 was issued June 15, 2016. Revision 1 was issued April 09, 2012. The original was issued November 05, 2010. Revision bars in the left margin identify changes.

1. PLANNING INFORMATION

A. Effectivity

* * * CF34-8E2/8E2A1/8E5/8E6/8E5A1/8E5A2/8E6A1

This Service Bulletin is applicable to all CF34-8E engines. There is no production introduction point for this hardware. The fan blades P/N 4114T15P02 are affected by this Service Bulletin.

B. Description

This Service Bulletin introduces a fan blade bushing repair by a controlled cold expansion process, approved by GE Aviation, that extends the allowable fan blade operation by an additional 28,000 engine cycles from the time of the repair.

C. Compliance

Category 2

GE recommends that you do this Service Bulletin before the fan blades accumulate 41,000 cycles since new (CSN).

NOTE: This Service Bulletin can be accomplished on wing or in shop.

NOTE: CF34-8CE S/B 72-0060 is no longer required after completing this Service Bulletin.

D. Concurrent Requirements

Do CF34-8E S/B 72-0118 when you do this Service Bulletin.

E. Reason

(1) Objective:

To introduce a repair procedure for the pin holes of the fan blade bushing. The repair will allow the reuse of the fan blade(s) for an additional 28,000 maximum engine cycles of service limit from the time of the repair. An unbushed fan blade can be repaired anytime up to the service time limit. The fan blade(s) can also be repaired if the pin holes are found to be worn up to the maximum repairable limit and within the allowable service limit of the fan blade(s). After the reworked fan blade(s) accumulates 28,000 cycles, it needs to be removed and discarded.

(2) Condition:

On the issue date of this bulletin, a repair does not exist for fan blades that have reached the maximum service time limit or pin hole wear limits. Once the fan blade(s) allowable service limit is reached, the current requirement is that they be either scrapped or continue service with the ECI program as detailed in CF34-8E S/B 72-0060 and CF34-8E Engine Maintenance Program, Chapter 05-31-00. Similarly, if the pin hole serviceable wear limits are reached, the current requirement is to scrap the fan blade(s).

(3) Cause:

Fan blades that have reached the maximum allowable service limit, per CF34-8E S/B 72-0060 have been required to undergo ECI of pin holes every 1,500 to 3,000 cycles.

(4) Improvement:

The fan blade bushing repair extends the allowable fan blade operating limits by an additional 28,000 engine cycles for the applicable engine models per paragraph 1.A., Effectivity from the time of the bushing repair. ECI of the fan blade pinholes per CF34-8E S/B 72-0060 is no longer required after completing the fan blade bushing repair.

(5) Substantiation:

Substantiation is by analysis and test.

F. Approval

This Service Bulletin has been reviewed by the FAA and the repair(s) and modification(s) herein comply with the applicable Federal Aviation Regulations and are FAA APPROVED for installation in the model(s) listed in this Service Bulletin.

G. Manpower

The approximate time required to remove and install a fan blade set is 4 man-hours.

H. Weight and Balance

Weight and balance are not changed.

I. References (Use the latest version of these documents)

GEK 9250, Commercial Engine Standard Practices Manual (SPM)

GEK 112031, CF34-8E Engine Manual (EM)

GEK 112032, CF34-8E Illustrated Parts Catalog (IPC)

CF34-8E S/B 72-0060, ENGINE - Fan Rotor Assembly (72-00-21) - Inspection of Fan Blades

CF34-8E S/B 72-0118, ENGINE - Fan Rotor Assembly and A-Sump

Components (72-21-00) - Introduction of Redesigned Fan Blade Retaining Pin P/N 4114T06P03

Repair Document (RD) 830-623 (P2 or higher), Fan Rotor Assembly - Fan Blade - Alteration - Tang Pinhold Bushing Installation

NOTE: The reference documents listed below are for the engine manufacturer's internal use only:

CID: 891748

J. Publications Affected

GEK 112032, CF34-8E Illustrated Parts Catalog (IPC)

K. Interchangeability

The repaired fan blades (with bushing) P/N 4114T31G01 are interchangeable with fan blades P/N 4114T15P02, only when the repaired fan blades P/N 4114T31G01 are used with solid fan blade retaining pins P/N 4114T06P03 and when the repaired fan blades are installed in the fan rotor in pairs, 180 degrees apart. The new solid fan retaining pin P/N 4114T06P03 is introduced by CF34-8E S/B 72-0118.

NOTE: Do not install fan blades with bushings P/N 4114T31G01 with hollow pins P/N 4114T06P01 or P/N 4114T06P02.

L. Software Accomplishment Summary

Not applicable.

2. MATERIAL INFORMATION

A. Material - Price and Availability

(1) Parts necessary to do this Service Bulletin:

None.

(2) Other Spare Parts:

Part Number	Qty/ Eng	Part Name	Unit ($) Price	Pkg Qty	Lead Time Days
4114T06P03	(AR)	Pin, Fan Blade Retaining (Solid)	456.00	(1)	5

(3) Consumables:

None.

B. Industry Support Information

None.

C. Configuration Chart

New Part Number (FIELD ONLY)	Qty/ Eng	Part Name	Old Part Number/ IPC Location	Qty/ Eng	Op Code	Chg/ Sprt Code
4129T36G02/ G03	(X)	Rotor Assembly, Fan (SIN 83000)	4129T36G02/ G03	(X)	RM	-/-
.4114T31G01*	(AR)	Blade, Unbushed Fan (SIN 83100) (Old Name) Blade, Bushed Fan (SIN 830A0) (New Name)	.4114T15P02 05-070,72-21-00	(28)	RW/RI	5/-

*Part not provisioned by GE.

Operation Codes

RI=Reidentify

RM=Remains

RW=Rework

Change Codes

5=Qualified interchangeability. Refer to paragraph 1.K., Interchangeability.

Support Codes

None.

D. Parts Disposition

None.

E. Tooling - Price and Availability

None.

3. ACCOMPLISHMENT INSTRUCTIONS

A. General

(1) Remove the affected fan blades (1, Figure 1). Refer to GEK 112031, 72-00-21, REMOVAL.

(2) Send the removed fan blades (1, Figure 1) to an approved repaired source to be reworked per RD 830-623. Refer to the APPROVAL OF REWORK SOURCES NOTICE below for contact information.

NOTICE

APPROVAL OF REWORK SOURCES

The repair referred to above contains complex processes that could affect engine reliability and/or performance. Therefore it is necessary to substantiate the ability and adequacy of a repair source to successfully accomplish the repair. A Technical License Agreement is also required. Information concerning a Technical License Agreement is available from:

ATTN.: Manager, Technical Licensing
GE Aviation
One Neumann Way, M/D RM100
Cincinnati, Ohio 45215-6301
U.S.A.

After the repair source has a Technical License Agreement, the Repair Document and the Repair Source Substantiation requirements may be obtained from:

ATTN.: Repair Substantiation
GE Aviation
One Neumann Way, M/D S171
Cincinnati, Ohio 45215-6301
U.S.A.

OR

Phone: (513) 552-9563

(3) Install the reworked fan blades (1, Figure 1). Refer to GEK 112031, 72-00-21, INSTALLATION.

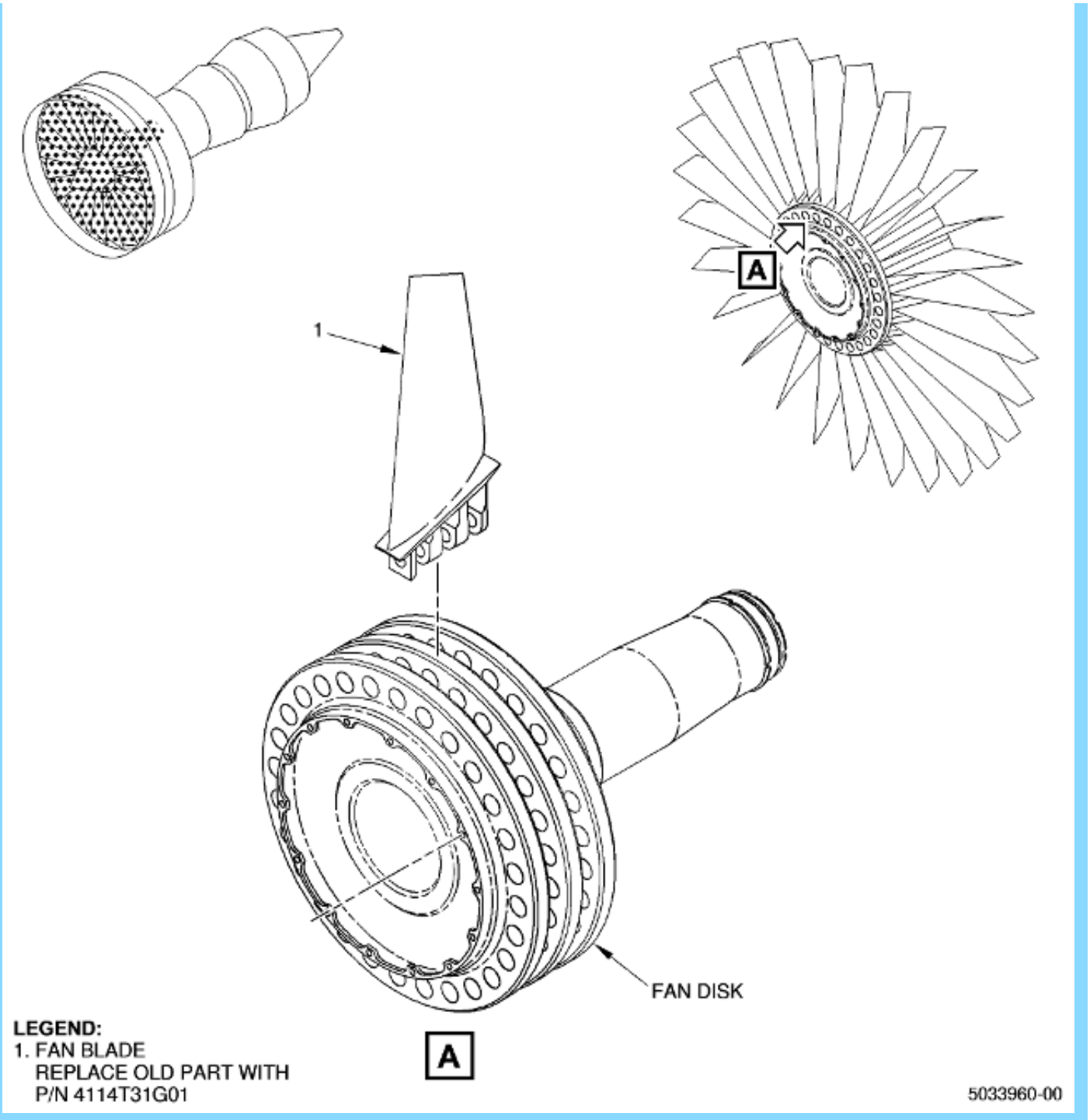
(4) After you comply with this Service Bulletin, do as follows:

(a) Once the reworked fan blades (1, Figure 1) reach 28,000 engine cycles since fan blade bushing repair, replace it as follows:

1 Remove the affected reworked fan blades (1, Figure 1). Refer to GEK 112031, 72-00-21, REMOVAL.

2 Discard the removed reworked fan blades (1, Figure 1).

3 Install new fan blades (1) of the same part number (P/N 4114T15P02). Refer to GEK 112031, 72-00-21, INSTALLATION.



Fan Blade Location
Figure 1