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SERVICE INFORMATION LETTER

APPLICABLE:



MAINTENANCE
& ENGINEERING



FLIGHT
OPERATIONS

FOR ALL AIRFRAME MANUFACTURERS USING
GENERAL AVIATION, GENERAL PRODUCTS
AND/OR AUXILIARY POWER UNITS,
OWNER/OPERATORS, DISTRIBUTORS, SALES
AND SERVICE ORGANIZATIONS, AND FIELD
SERVICE REPRESENTATIVES.

AIRBORNE AUXILIARY POWER - GAS TURBINE ENGINE – Introduction of a field cleaning procedure for the RE220 APU starter PN: 2704554

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Transmittal Information

This sheet transmits Revision Number 1 to Service Information Letter (SIL) No. APU-137

Revision History

Service Information Letter (SIL) No. APU-137 has had one (1) revision as summarized in Table 1.

Table 1. Service Information Letter Revisions

Revision	Date of Release
Initial Release	7 September 2006
1	8 August 2007

Revision 1 to Service Information Letter (SIL) No. APU-137 contains these changes:

<u>Section/Page</u>	<u>Description of Change</u>
Page 1	Revised format, header and Proprietary Information. Revised Purpose, Background, Discussion and Actions. Added Figures 1 and 2.
Page 2	Added page at Revision 1.
Page 3	Added page at Revision 1.
Page 4	Added page at Revision 1.
Page 5	Added page at Revision 1.
Page 6	Added page at Revision 1.
Page 7	Added page at Revision 1.
Page 8	Added page at Revision 1.
Page 9	Added page at Revision 1.

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List of Effective Pages

Page Number	Date
1	8 August 2007
2	8 August 2007
3	8 August 2007
4	8 August 2007
5	8 August 2007
6	8 August 2007
7	8 August 2007
8	8 August 2007
9	8 August 2007

1. General Information:

Subject:

Introduction of a field cleaning procedure for the RE220 APU starter PN: 2704554.

Applicability:

Auxiliary Power Unit, RE220[GV], RE220[RJ], RE220[GX] and RE220[SJ] APU Models using Starter Motor, Part No. 2704554-2.

References:

Honeywell Component Maintenance Manual with Illustrated Parts List (CMM with IPL) 49-41-18 for APU Starter Motor In-Field Clean Procedure located in Chapter 4, Paragraph E, Procedure 6.

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2. **Background:**

In-service experience with the RE220 APU starter has revealed that starter motor brushes are wearing unevenly at an accelerated rate. Starter Brush dust material that collects inside the starter has been identified as one of the causes of the accelerated and uneven starter brush wear and also contributes to accelerated armature wear. Excessive cycling of the APU starter leads to increased heat during operation which speeds up the degradation of the starter brushes. This can result in degraded starter motor operation or failure before the position of the starter brush wear indicator would reveal that a starter brush replacement is required (See Figures 1 and 2). Experience on similar starter motors has shown that periodically removing the starter brush dust reduces the resistance between the starter brush and armature assemblies. This decreased resistance reduces starter heating, starter brush wear, and pitting, thus extending starter motor life.

3. **Summary:**

A procedure to clean the starter brush dust material from an assembled starter motor, removed from the APU, and cleaned in the line shop, has been released by Honeywell. It is recommended that this task be performed on starter motors which have accumulated 2000 APU start cycles, as read from the ECU, or applicable Aircraft Flight Data Computer.

Operators may want to adapt the frequency of the cleaning to a schedule which best supports their individual needs and results they are experiencing with the starter motor.

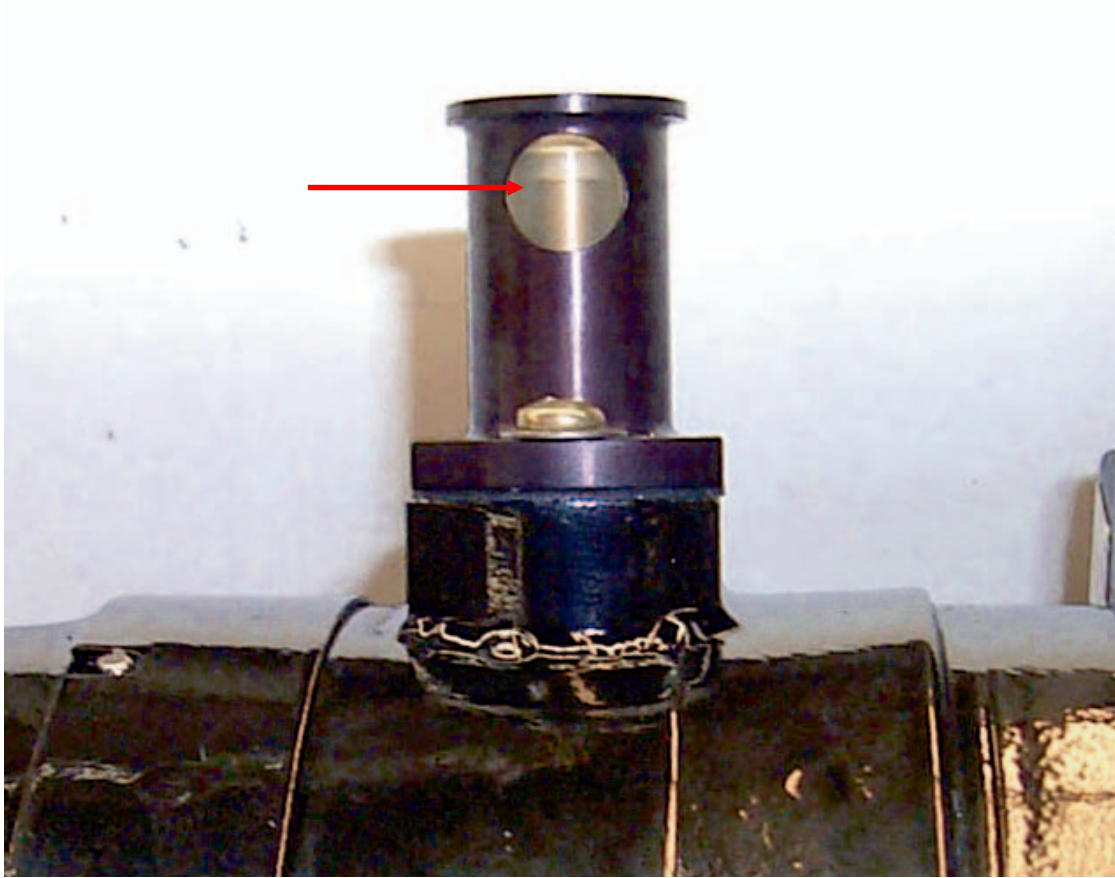
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Starter Brush Wear Indicator Extended (Good)
Figure 1

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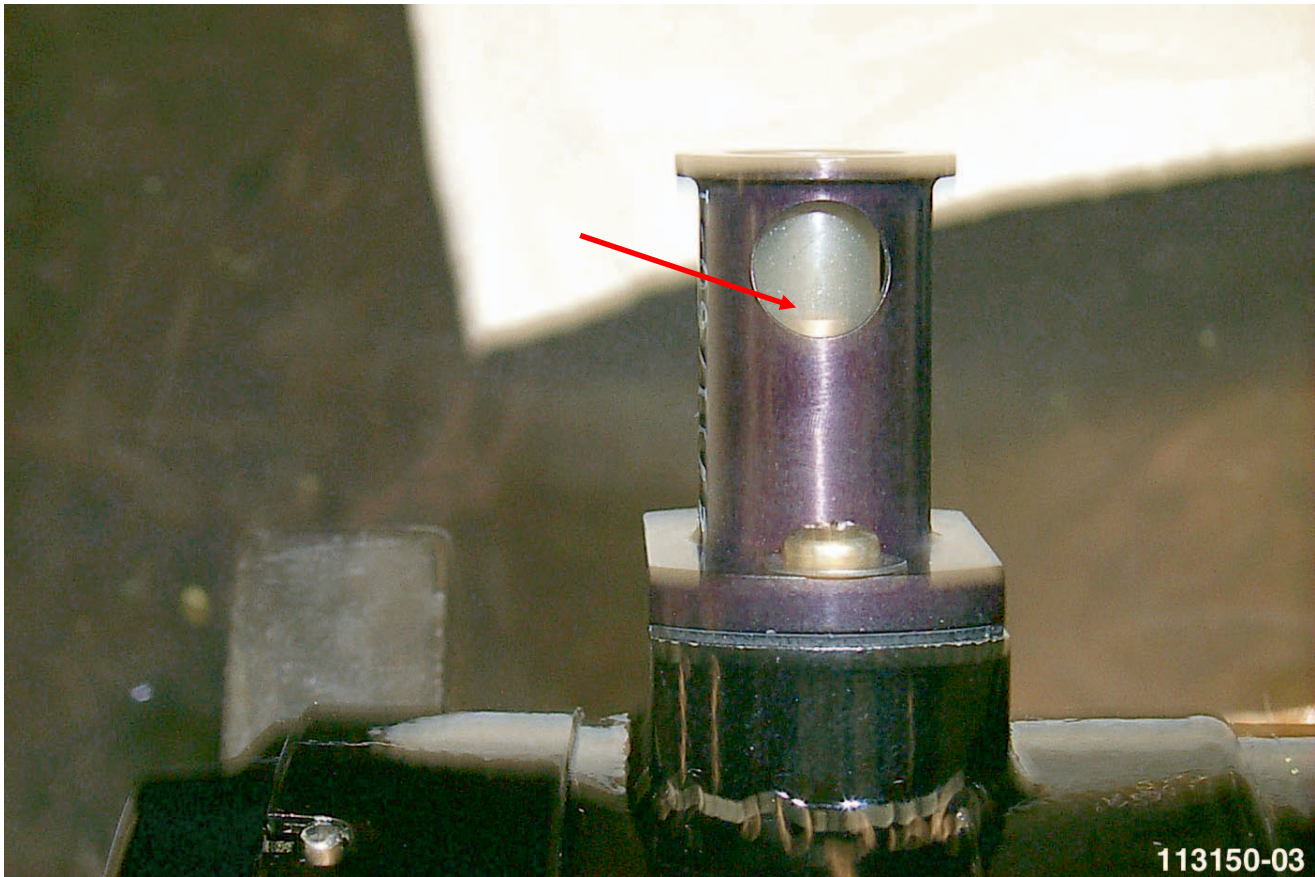
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Starter Brush Wear Indicator Retracted (Bad)
Remove APU Starter for Brush Replacement
Figure 2

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4. **Action:**

Always adhere to the APU Starter Duty Cycle:

Three (3) starts or start attempts per hour maximum.

Post and distribute this Service Information Letter (SIL), with references, for review of applicable personnel.

Add information in this SIL to applicable training materials.

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