

MANDATORY SERVICE BULLETIN**NUMBER:** SB11-11**REVISION:** 00**DATE:** Oct 20, 2011**SUBJECT:** BATTERY BOX REWORK**EFFECTIVITY:**

KODIAK 100 Series Aircraft Serial Numbers: 100-0001 through 100-0057

SUMMARY:

The accompanying Field Service Instruction provides guidance for modifying the Kodiak 100 battery box to increase fatigue life. Contact Quest Customer Service for Service Kit P/N FSI-023.

COMPLIANCE:

This Mandatory Service Bulletin must be complied with on or before the next 100 Hour Inspection, Annual Inspection, or scheduled maintenance, whichever comes first.

ATTACHED DOCUMENTS:

Document #:	Revision:	Document Title:
FSI-023	00	BATTERY BOX REWORK

FAA APPROVAL STATUS:

The instructions attached to this Service Bulletin have demonstrated compliance with all applicable Federal Aviation Regulations and are approved by the Federal Aviation Administration.

CREDIT AND WARRANTY INFORMATION:

Quest Aircraft Company will reimburse for the cost of this modification up to \$680.00. For reimbursement send Quest Aircraft Company a copy of the modification record, completed KODIAK 100 Warranty Claim Form (available at www.questaircraft.com) and an invoice that does not exceed the amount listed above.

Quest Customer Service**Service Bulletin: SB11-11****Phone: (208)263-1111 Toll Free: 1(866)263-1112****Email: Customercare@questaircraft.com****SPECIAL INSTRUCTIONS:**

N/A

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FIELD SERVICE INSTRUCTION

TITLE: **Battery Box Rework**
SERIAL RANGE: **Refer to Applicability Section, Page 1**
JASC CODE: **5345**

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REPORT NO.: **FSI-023**
REVISION: **00**

SUBJECT

This Field Service Instruction provides guidance for reworking the Kodiak 100 battery box to increase fatigue life.

APPLICABILITY

The instructions contained within are applicable to all aircraft with the vertical firewall stiffener **100-210-1005-D01** and **100-210-1005-D02** installed (Production Serial Numbers 100-001 through 100-0068).

AFFECTED MANUALS AND PUBLICATIONS

- Kodiak 100 Maintenance Log Book

FAA APPROVAL STATUS

The resultant battery box rework described in this Field Service Instruction has demonstrated compliance with all applicable Federal Aviation Regulations and is approved by the Federal Aviation Administration.

INDUSTRY REFERENCES

None.

WEIGHT AND BALANCE

Once installed, the rework will have a negligible effect on aircraft weight and balance.

MANPOWER

The estimated man-hours and minimum number of persons required to perform this Field Service Instruction are listed below. The "Minimum Persons" refers only to maintenance personnel or installers, and unless otherwise specified within this instruction does not include additional personnel that may be needed solely to comply with safety requirements (for example, safety observers that are not performing tasks within this instruction). It is the responsibility of maintenance personnel to comply with safety requirements, including have a safety observer available as needed.

Estimated Manhours: 8 hours

Minimum Persons: 1 persons

If more than the minimum personnel perform this instruction, the actual manhours required may be reduced due to increased efficiencies. As appropriate, Quest encourages the use of additional personnel; manhour estimates are based on the minimum personnel required.

RECORD OF COMPLETION

- Update the Kodiak 100 Maintenance Log Books



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REVISION RECORD

REV	PAGE	CHANGE DESCRIPTION
00	All	Initial Release



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1. Special Safety Instructions

1.1 Warnings

Failure to comply with “Warnings” contained in this instruction may result in financial loss, significant delay in the completion time, and/or serious injury to personnel.

1.2 Cautions

Failure to comply with “Cautions” contained in this instruction may result in the destruction of components, unnecessary complications, the need to reverse completed work, and/or delays in the completion time.

1.3 Notes

“Notes” are provided when additional information may lead to an increase in efficiency.

2. Parts, Tools, and Equipment

The following tables describe the parts, tools, and equipment necessary to successfully complete this instruction. Where applicable, reference to drawings provided with this instruction is provided.

Table 2-1: Parts and Tools Included in the Service Kit

Item #	Part No.	Qty	Description	Drawing No.	Dwg Item #
2-1-1	100-210-1034	2	Backup Plate	N/A	N/A
2-1-2	100-124-2107	4	Backup Plate	N/A	N/A
2-1-3	100-210-1033	2	Aluminum Angle Bracket	N/A	N/A
2-1-4	MS21047L3	6	Nut Plate	N/A	N/A
2-1-5	AN3-4A	12	Bolt	N/A	N/A
2-1-6	MS20426AD3-4	12	Fasteners	N/A	N/A
2-1-7	MS20615-3MP3.5	10	Fasteners	N/A	N/A
2-1-8	MS20426AD3-4.5	8	Fasteners	N/A	N/A



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3. Component Removal

3.1 Fuel Selectors

Turn the overhead fuel selectors to the “OFF” position.

3.2 Master Switch

Turn the master switch to the “OFF” position.

3.3 Engine Cowlings

Remove all engine cowlings in accordance with the *KODIAK 100 Maintenance Manual, Chapter 71 “Power Plant”*.

3.4 Batteries

Remove both batteries in accordance with the *KODIAK 100 Maintenance Manual, Chapter 24 “Electrical Power”*.

3.5 Fuel Pressure Transducer

Remove the fuel pressure transducer from the aircraft by completing the following.

3.5.1 Electrical Connection

Disconnect the electrical connection from the fuel pressure transducer.

3.5.2 Fuel Lines

Disconnect the fuel lines at the firewall fuel filter. Cap both open ends.

3.5.3 Clamps

Loosen the cushioned loop clamps and remove the fuel pressure transducer from the aircraft.

3.6 EPA Lines

Disconnect the EPA can lines as needed in order to remove the left battery box.

3.7 Electrical Relays

Disconnect the electrical relays connected to the right battery box.

3.8 Battery Boxes

Loosen and remove the six (6) bolts and six (6) washers securing each of the battery boxes to the firewall, and remove the two (2) battery boxes from the aircraft.

3.9 Mount Brackets

Drill out the five (5) fasteners securing each of the aluminum battery box mounting brackets (P/N **100-210-1027**) to the firewall; refer to **Figure 3-1**. Remove and discard the mounting brackets.

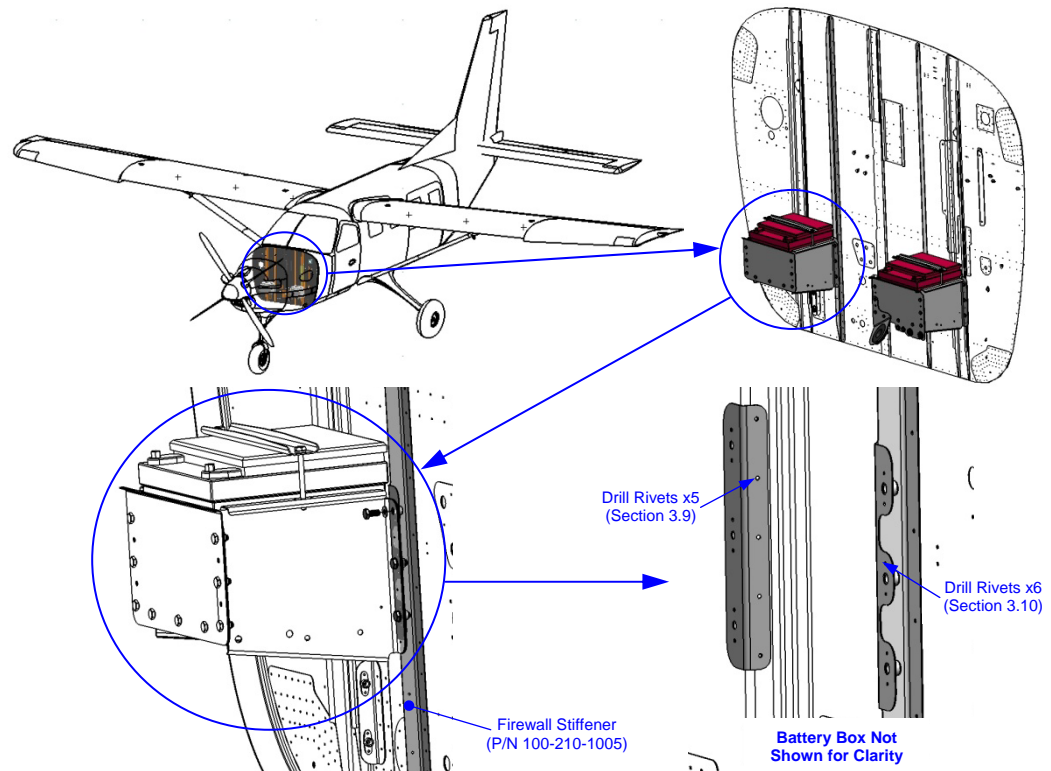


Figure 3-1: Drill-Down for Fastener Removal

3.10 Nut Plates

Drill out the two (2) fasteners securing each nut plate to the stainless steel firewall stiffener; refer to **Figure 3-1**. Remove and discard the nut plates.

4. Battery Box Installation

4.1 Backup Plate

Position and secure the backup plate (P/N **100-210-1034**) and three (3) nut plates (P/N **MS21047L3**) using six (6) **MS20426AD3-4** fasteners; refer to **Figure 4-1**. This installation is mirrored on the opposite side of the aircraft.

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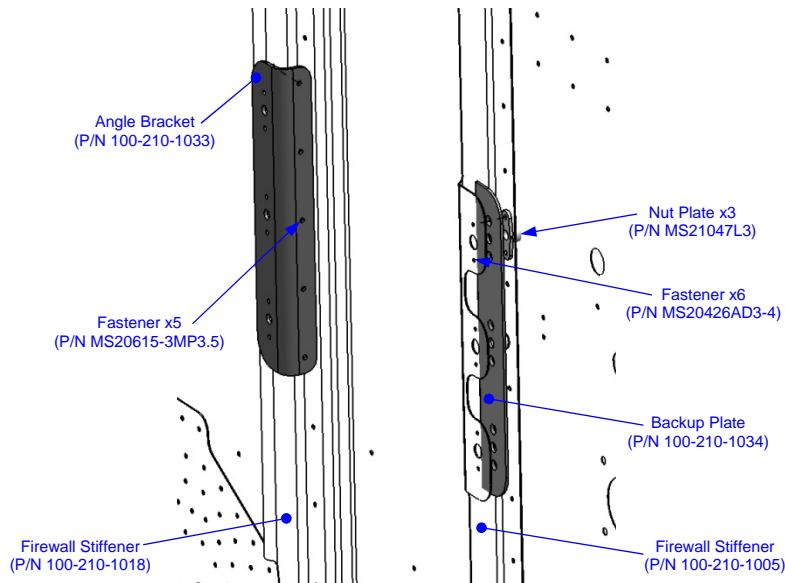


Figure 4-1: Battery Box Bracket Installation

4.2 Angle Bracket

Position and secure the aluminum angle bracket (P/N **100-210-1033**) using five (5) **MS20615-3MP3.5** fasteners; refer to **Figure 4-1**. This installation is mirrored on the opposite side of the aircraft.

4.3 Backplate

Position the backplate (P/N **100-124-2107**), ensuring that the radius on the backplate is facing toward the mating flange. Secure using two (2) **MS20426AD3-4.5** fasteners; refer to **Figure 4-2**. This installation is mirrored on the opposite side of the aircraft.

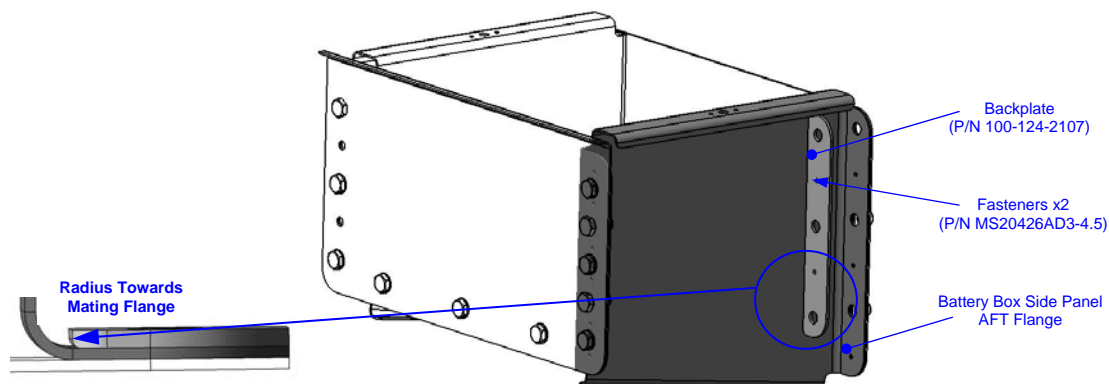


Figure 4-2: Backplate Installation



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5. Component Reinstallation

5.1 Battery Box

Position and secure the battery box using six (6) new bolts (P/N **AN3-4A**) and the six (6) existing washers removed in **Section 3.8**; perform this effort for each side of the aircraft. Torque all bolts to 20-25 in-lb.

5.2 Electrical Relays

Reconnect the electrical relays to the right battery box.

5.3 EPA Lines

Reconnect the EPA can lines to the left battery box.

5.4 Fuel Pressure Transducer

Reinstall the fuel pressure transducer to the right battery box.

5.5 Batteries

Reinstall both batteries in accordance with the *KODIAK 100 Maintenance Manual, Chapter 24 "Electrical Power."*

5.6 Engine Cowlings

Reinstall the engine cowlings in accordance with the *KODIAK 100 Maintenance Manual, Chapter 71 "Power Plant."*

6. Record of Completion

Upon completion, record all work performed in the appropriate *KODIAK 100 Maintenance Log Book*.

---END---