

MANDATORY SERVICE BULLETIN**NUMBER:** SB-021**REVISION:** A**DATE:** 09/11/2009**SUBJECT:** MAIN LANDING GEAR; BRAKE LINE ADJUSTMENT**SUMMARY****RECURRENT REQUIREMENTS**

No recurrent requirements are associated with this Mandatory Service Bulletin.

BACKGROUND

Quest is mandating a one time Brake Line adjustment to the Main Gear. This adjustment is to enhance the clearance of the Brake Line to the Main Landing Gear Leg Fairing screws.

ACTION

Perform the bending of the brake line in accordance to the attached Field Service Instructions (FSI-003).

FAA APPROVED

The resultant alteration to the Brake Line described in the Field Service Instructions (FSI-003) attached to this Service Bulletin has been shown to comply with the applicable Federal Aviation Regulations and is FAA Approved.

EFFECTIVITY

KODIAK 100 Series Aircraft, Serial Numbers 100-0001 through 100-0022.

AFFECTED PARTS

KODIAK PART AFFECTED:

- 100-832-1313 (*Brake Line*)

ADDED PARTS FOR AIRCRAFT RECORDS:

- N/A

COMPLIANCE

This Mandatory Service Bulletin must be completed no later than the next 100 flight hours or next annual inspection, whichever comes first.

INDUSTRY SUPPORT INFORMATION

None

MANPOWER

This procedure will take approximately 1.5 hours to complete. (.75 hours per Gear Leg)

COMPLETION

Update the KODIAK Maintenance Log Books.

WARRANTY INFORMATION

This modification is warranty reimbursable for the manpower listed above after Quest Aircraft has been notified of your completion.

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KODIAK FIELD SERVICE INSTRUCTION

NUMBER: FSI-003

REVISION: A

DATE: 9/04/2009

SUBJECT: Main Landing Gear; Brake Line Adjustment

BACKGROUND

This Field Service Instruction provides guidance on adjusting the Left and Right Main Gear Break Lines.

MANPOWER

This procedure will take approximately 1.5 hours to complete and can be done by one individual.

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1.1 Overview

Estimated Time to Complete: 1.5 Hours

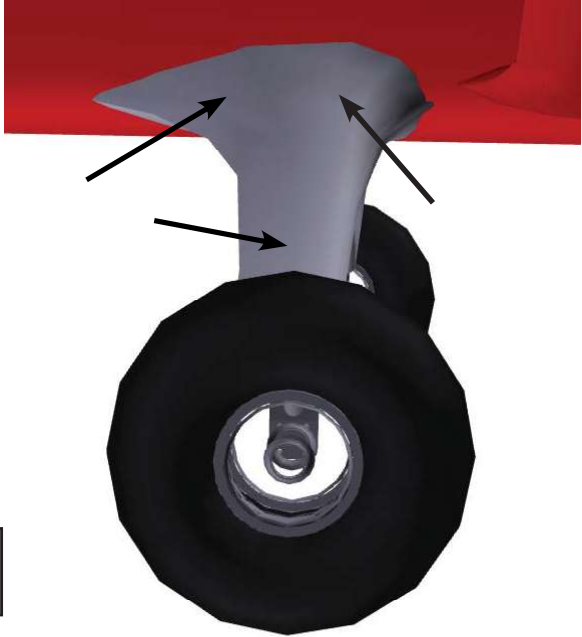

Parts Included in the Service Kit:

Part Number	Description	Quantity
N/A	FIELD SERVICE INSTRUCTIONS	1

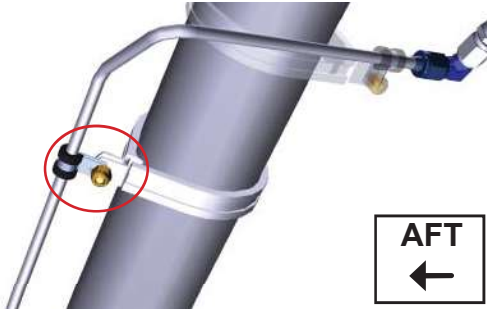


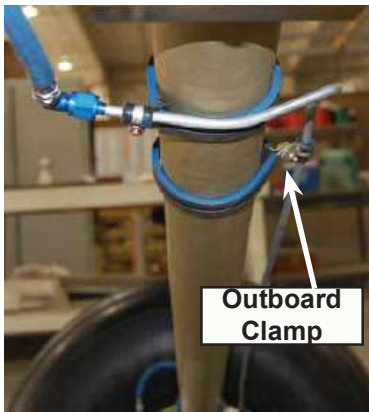
Tools Required that are not Provided in this Service Kit:

Tool Name	Tool Duty
Torque Wrench	Torque fittings to specified in-LBS
9/16" open end wrench	Loosen and tighten fittings
7/16" open end wrench	Loosen and tighten fittings

Main Landing Gear; Brake Line Adjustment

Task	Instruction	Instruction
1	Secure the Aircraft from rolling in accordance with the KODIAK Maintenance Manual.	
2	<p>Remove Main Landing Gear Fairings, and Leg Fairings in accordance with the KODIAK Maintenance Manual. See Figure 1.</p> <p>Note: All Pictures and Illustrations are showing the Right Main Landing gear. Instructions need to be repeated on Left Main Landing gear as well. Both sections of the Main Landing Gear Fairing need to be removed for this Field Service.</p>	 <p>Figure 1</p>
3	Thoroughly inspect Brake Line for any damage. If damage is present replace Brake Line (P/N 100-832-1313) in accordance with the KODIAK Maintenance Manual and follow Field Instructions for reworking Brake Line (P/N 100-832-1313). If no damage is present continue with Field Instructions.	
4	Detach the Brake Line (P/N 100-832-1313) at the location shown in Figure 2 by detaching the cushioned Clamp from the Main Landing Gear Leg.	 <p>Figure 2</p>

Main Landing Gear; Brake Line Adjustment

Task	Instruction	
5	Loosen Cushioned Clamp at the location shown in Figure 3 so that line can move freely along the Main Landing Gear Tube.	<p>Figure 3</p>  <p>AFT ←</p>
6	Position the Brake Line so that it comes into contact with the Gear Leg as shown in Figure 4 .	<p>Figure 4</p>  <p>AFT →</p>
7	Firmly hold the Brake Line (P/N 100-832-1313) with left hand hold against gear leg firmly and with right hand carefully bend the Brake Line so that it has approximately 20 ° up angle as shown in Figure 5 .	<p>Figure 5</p>  <p>AFT →</p>
8	Re-attach/Re-Tighten Cushioned Clamps in their original positions along the length of the Gear Leg. NOTE: The Outboard Clamp (see Figure 6) is allowed to rotate on the Leg to allow the Brake Line to move up due to the re-forming of the line above. Brake Line should now match Figure 6 .	<p>Figure 6</p>  <p>Outboard Clamp</p> <p>AFT →</p>

Main Landing Gear; Brake Line Adjustment

Task	Instruction
<p>9</p>	<p>Replace Leg Fairing. Insure that Brake Line has acceptable clearance when the fairing is held down and resting on the TOP of the Gear Leg as shown in Figure 7.</p> <div data-bbox="727 205 1299 590"> </div> <div data-bbox="1323 367 1437 399"> <p>Figure 7</p> </div> <div data-bbox="1323 493 1437 583"> <p>AFT →</p> </div>
<p>10</p>	<p>Using a 7/16" open end wrench, hold the main line, and a 9/16" open end wrench, loosen the nut on the Brake Line shown in Figure 8.</p> <div data-bbox="763 745 852 777"> <p>Figure 8</p> </div> <div data-bbox="938 636 1437 947"> </div> <div data-bbox="812 850 917 940"> <p>AFT ←</p> </div>
<p>11</p>	<p>Adjust the Brake Line (P/N 100-832-1313) so that line is angled up horizontally into Fuselage as seen in Figure 9. Re-torque the nut in accordance with the KODIAK Maintenance Manual. Torque value is 100-130 in-LBS.</p> <div data-bbox="776 997 1396 1360"> </div> <div data-bbox="1242 1255 1356 1339"> <p>Looking AFT</p> </div> <div data-bbox="1031 1371 1128 1402"> <p>Figure 9</p> </div>
<p>12</p>	<p>Install the Main Landing Gear Fairing in accordance with the KODIAK Maintenance Manual making sure the Brake Line has adequate clearance to lower inside surface of fairing as shown in Figure 10 and Figure 11.</p> <div data-bbox="701 1438 1140 1732"> </div> <div data-bbox="1209 1444 1315 1476"> <p>Figure 10</p> </div> <div data-bbox="1149 1495 1258 1585"> <p>AFT ←</p> </div> <div data-bbox="857 1675 1318 1927"> </div> <div data-bbox="1323 1764 1429 1795"> <p>Figure 11</p> </div> <div data-bbox="1331 1831 1445 1921"> <p>Looking FWD</p> </div>

Main Landing Gear; Brake Line Adjustment

Task	Instruction	
13	Note the work performed in the KODIAK 100 Log Books.	