

Service Bulletin

Date 16 Mar 2009 <input type="checkbox"/> original <input checked="" type="checkbox"/> revised	Problem Code 18105	Warranty <input checked="" type="checkbox"/> Parts <input checked="" type="checkbox"/> Labor <input type="checkbox"/> Normal warranty	Pages 4	Author T. Sullivan
Document No.:	S07021501R			
Subject:	SBWBE Excessive Carriage Sway			
Time Required:	<input type="checkbox"/> 15 min <input checked="" type="checkbox"/> 30 min <input type="checkbox"/> 45 min <input type="checkbox"/> 1 hr+			
Distribute To:	<input checked="" type="checkbox"/> Internal <input checked="" type="checkbox"/> Dealer <input checked="" type="checkbox"/> ISO <input checked="" type="checkbox"/> Installer			
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DESCRIPTION

Carriage rocks within mono-column tube.

AFFECTED MODELS

All Signature Body Weight Back Extension (SBWBE) units.

SOLUTION

Order and install bushing service kit- part # 8682501

Kit will help stabilize the carriage by using larger bushings.

Carriage should have a maximum range of motion of ½" once new bushings are installed. Measuring instructions listed below.

KIT CONTENTS

ITEM NO.	DESCRIPTION	QTY.
8681801	BUSHING, TOP, SBWBE, SMALL	1
8681802	BUSHING, TOP, SBWBE, MEDIUM	1
8681803	BUSHING, TOP, SBWBE, LARGE	1
8681901	NUT, M10 X 1.5, SQUARE	2
8682401	BUSHING, BOTTOM, SBWBE	1
3105604	BAG, POLY 10 X 16-4 MIL HEXENE	1
3256204	SCREW, M10 X 1.5 X 1.5 35MM ZN	2
8682001	INSTR., BUSHINGS, SBWBE	1



Three top bushings provided for best possible fit: Two bushings will not be used.

REQUIRED TOOLS

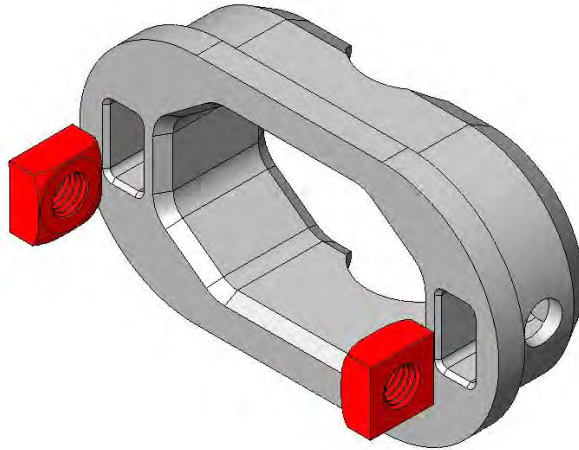
7mm Allen Wrench Rubber Mallet 25LB (11.4Kg) Weight Plate (to measure range)
Torque Wrench Flat Screwdriver Tape Measure (to measure range)

PROCEDURE

Install bushings as directed in the 2-page instruction sheet; pages 3 & 4 of this bulletin.

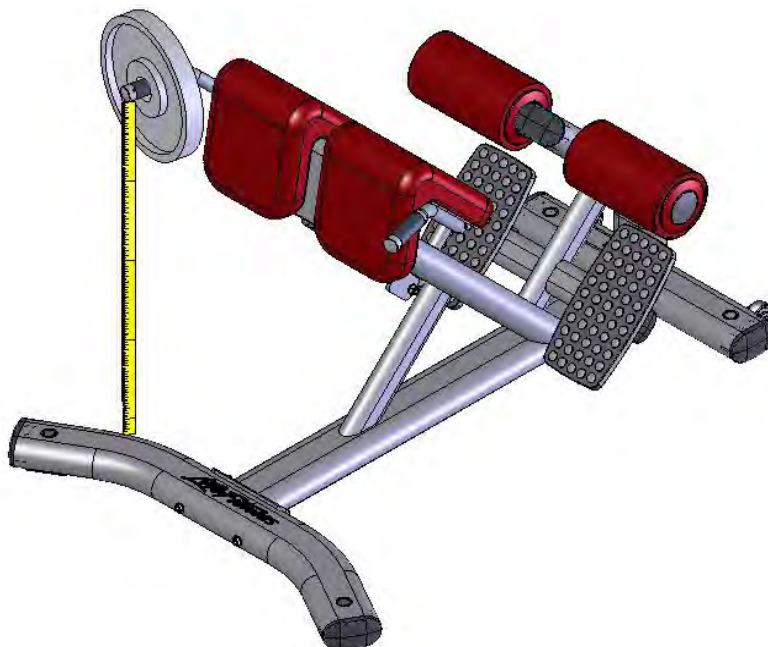
SQUARE NUT POSITIONING

It is vital that the square nuts provided in the kit, highlighted in Red in the below illustration, are positioned correctly. The square edges of the nut must face outward and the rounded edges of the nut need to point inward.



MEASURING RANGE OF MOTION

1. With carriage pinned in its highest position, carefully add one 25LB (11.4Kg) weight plate onto either the Left or Right grip handle as shown below.
2. Measure from bottom of the handle to the top of the stabilizer tube.
3. Remove weight plate and place onto opposite handle and retake measurement from original handle that now has no weight plate.
4. Difference in length is the unit's range of motion.



Kit Instructions

Title: Bushing installation for SBWBE

Kit No.: 8682501

Document No.: 8682001 Rev A-3

Date: 03/17/09

Time Required: 20 min

Tools Required:

M7 Allen Wrench, Rubber Mallet,
Torque Wrench, Flat Blade Screw Driver

Kit Contents:

- (1) Bushing, small-pn: 8681801 (#1)
- (1) Bushing, medium-pn: 8681802 (#2)
- (1) Bushing, large-pn: 8681803 (#3)
- (1) Bushing, bottom-pn: 8682401
- (2) Nut, Square-pn: 8681901
- (2) Bolt, M10 x 1.5-pn: 3256204

PROCEDURE

1. There is a gap for a screwdriver on the GAS SPRING (1) to release the steel "spring" that holds the GAS SPRING (1) to the ball. Using a flat bladed screwdriver remove the GAS SPRING (1) by prying the spring off the top PIN (2) located on the WAIST FRAME (3). Be careful not to scratch the paint.
2. Pull POSITIONING PIN (A) upward to allow the WAIST FRAME (3) to slide up freely to expose BOLTS (4) and SPACERS (5) that are located at the top of the CENTER FRAME (6) tube.
3. Using the M10 Allen wrench, remove and save the two BOLTS (4) and SPACERS (5). Remove the WAIST FRAME (3) out of the CENTER FRAME (6) as seen in figure 1.
4. After removing the WAIST FRAME (3) from the CENTER FRAME (6) use the M10 Allen wrench to remove the BOLTS (7) and the WASHERS (8) located at the bottom of the tube, allowing the GLIDE (9) to be removed. Discard the two removed BOLTS (7) and save the two WASHERS (8). Slide the GLIDE CAP (10) off the tube.
5. With the WAIST FRAME (3) assembly removed from the CENTER FRAME (6) locate the three TOP BUSHINGS (8681801 (#1), 8681802 (#2), 8681803 (#3)) (11) included in the service kit. Select the bushing that has the tightest fit into the tube of the CENTER FRAME (6). The tightest

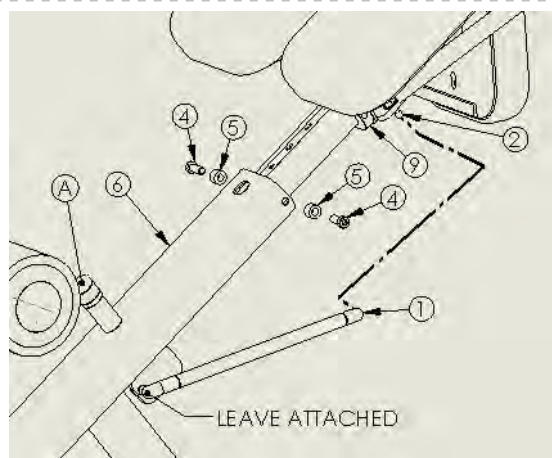


Fig. 1

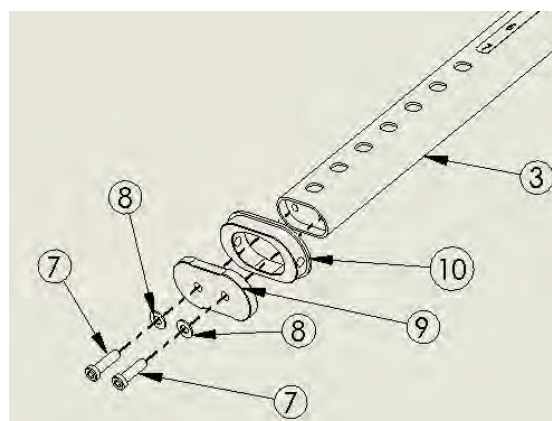


Fig. 2

fit may require slight tapping in with a rubber mallet. Do not apply excessive force. The purpose of this is to minimize the amount of movement allowed between the bushing and the tube of the CENTER FRAME (6) as seen in figure 3.

6. Once the proper bushing has been selected slide the bushing onto the WAIST FRAME (3) tube making sure the two square pockets of the TOP BUSHING (11) are facing the PADS (12) as seen in figure 5.

Note: Discard the two bushings that were not chosen as the best fit.

7. Attach the BOTTOM BUSHING (8682401) (13) included in the kit to the bottom of the WAIST FRAME (3) with the two BOLTS (7) also included in the service kit and WASHERS (8) removed in step 4 as seen in figure 4.
8. Insert the WAIST FRAME (3) back into the CENTER FRAME (6) allowing the POSITIONING PIN (A) to engage the WAIST FRAME (3).
9. Slide the TOP BUSHING (11) downward and into the top of the CENTER FRAME (6). Insert the two SQUARE NUTS (8681901) (14) included in the kit in the two pockets located on the top of the TOP BUSHING (11) as seen in figure 5.

Note: Make sure the flat side of the SQUARE NUTS (14) faces outward.

10. Using the M10 Allen wrench attach the TOP BUSHING (11) to the CENTER FRAME (6) with the two BOLTS (4) and SPACERS (5) removed in step 3. Make sure the BOLTS (4) engage the SQUARE NUTS (14) that were inserted into TOP BUSHING (11) in step 9. Torque bolt to 10-12 ft lbs. Do not exceed 15 ft lbs.
11. Position the WAIST FRAME (3) into the CENTER FRAME (6) until it engages in the first slot (position 7). Attach the GAS SPRING (1) to the PIN on the WAIST FRAME (3).
12. Verify the machine is working properly by moving the WAIST FRAME (3) to both the shortest and tallest positions, confirming that the pop pin fully engages in both.

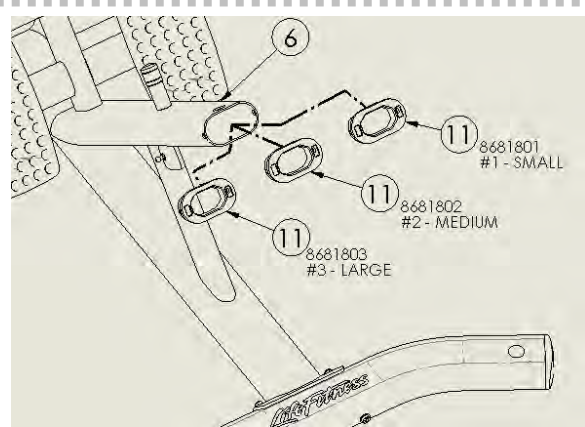


Fig. 3

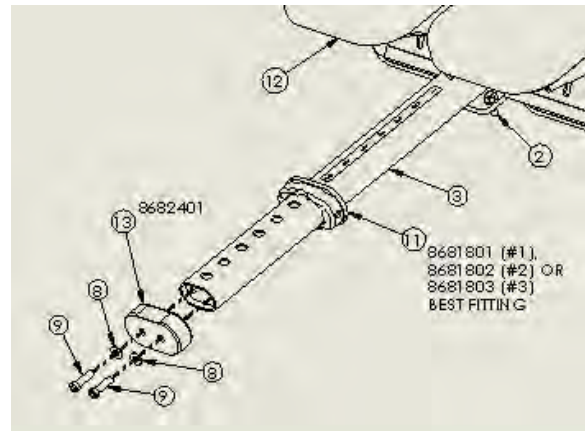


Fig. 4

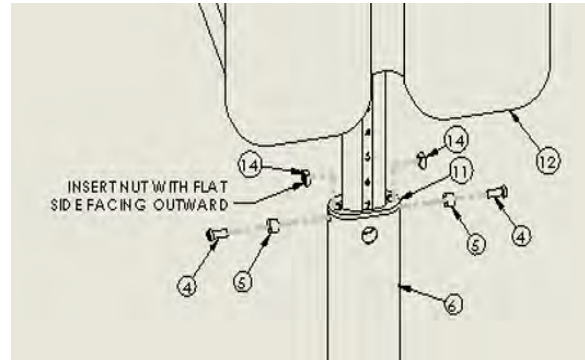


Fig. 5