

# SEED BOOT STABILIZER KIT

50-11163\_RevA

FOR JOHN DEERE 50, 60, 90, & PRO SERIES AIR SEEDERS

## OVERVIEW:

The Pro-Stitch Seed Boot Stabilizer is a patented solution designed to eliminate the up and down movement of the seed boot and allow for a more consistent furrow and more even seed placement. The simple bolt on design fits between the main opener arm boot pivot flanges and the seed boot.

## FUNCTION:

Removes excess movement/play in the center seed boot pivot hole.

Provides consistent seed depth and prevents seeds from escaping underneath the seed boot while planting.

Patent # 9,485,903

## INSTALLATION INSTRUCTIONS:

**Install Time:** 20 minutes

### Tools Required:

Ratchet or Impact (Optional)

14mm or 9/16" Wrench



**Worn Out Boot Pivot**

## 1 Disassembly

Remove gauge wheel, cutting disc, and seed tube to allow proper access to boot pivots. Remove the seed tube by removing the seed tube bolt. Remove the seed boot bolt and prepare for reinstallation. The boot stabilizer can be installed on a row unit that is either still on the machine or on a workbench.

## 2 Set Up

Thread the jam nuts onto bolts. Then, insert bolts into the two threaded holes on the top of the stabilizer. Do not tighten jam nuts yet. Ensure bolts are not sticking too far past bottom of "T" of stabilizer casting.

## 3 Installation of Stabilizer

### 3.1 60, 90, and PRO Series (Gold Colored)

Place boot stabilizer casting between the opener arm cast ears so that it aligns with desired hole. Ensure the STABILIZER lettering is facing **OUTWARDS**, away from the seed boot, to allow proper clearance between the clevis pin and the seed boot casting. See Figure 1 for greater detail.

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Figure 1

## 3.2 50 Series Only (Silver Colored)

Place boot stabilizer casting between the opener arm cast ears so that it aligns with desired hole. Ensure the STABILIZER lettering is facing **INWARDS**, towards the seed boot, to allow proper clearance between the clevis pin and the seed boot casting. See Figure 1 for greater detail.

**IMPORTANT:** On some 50 series seed boots, the bolt clearance casting relief may not be centered properly with the drilled seed boot bolt holes from the factory, causing the stabilizer and boot to bind when installed. It may be necessary to grind a larger relief in the boots to allow enough clearance for the stabilizer to function properly, grind area shown in Figure 2. Install a stabilizer on a seed boot and observe if there is any interference, binding, or if it prevents the bolt from being installed. Grind away only enough material on the seed boot to allow the stabilizer to operate freely when installed. The boot should be able to spring back easily when properly installed.



Figure 2

## 4 Installation of Seed Boot

Place the long side of boot spring in position on seed boot and hold with one hand while using other hand to install clevis pin (RE5016) or bolt through the seed boot, row unit casting, and stabilizer holes as shown in Figures 3 & 4.

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TIP: Get pin started in front half of casting and then apply leverage against boot while pushing on the pin to get it through the entire casting. With the right amount of hand pressure, angle, leverage, and wiggle this will go smoothly.



Figure 3



Figure 4

NOTE: On 60 series drills that have the original 60 series style seed boots, the long leg of the seed boot spring needs to be trimmed down  $\sim 1/8"$  to allow adequate clearance. This prevents binding of the spring when the stabilizer is installed. Figure 7 shows an example of a spring that was not cut down and used on a 60 series boot. To verify there is enough clearance: Trim 1 boot spring, install on 1 row, and verify seed boot spring back and proper functionality. Adjust as needed for remaining rows. Figures 5 and 6 show greater detail.

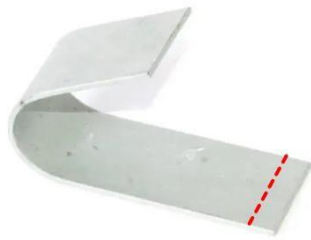


Figure 5



Figure 6



Figure 7

NOTE: Certain drills such as a 1590 require set screws (AG2538) instead of the two stabilizer bolts (RE5048) to prevent the bolts from interfering with the seed tube.

## 5 Installing Clevis Pin (or Bolt)

Once the clevis pin is installed, install the cotter pin to hold the clevis pin in place. Ensure head of clevis pin is flush against seed boot so that the seed tube can be installed later. Note that the clevis pin must be installed from the front, shown in Figure 9 and part manual.

NOTE: If a grade 8 bolt is used for mounting the seed boot instead of the clevis pin, run the lock nut down as desired. The seed boot mounting bolt is purposely longer than needed so the nut cannot be over tightened which would break the seed boot ears.

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## 6 Torquing Bolts

Tighten top bolts to lock the clevis pin up. Then tighten jam nuts to keep the bolts in place thus securing the stabilizer in place. See Figure 8 for the tightening sequence of this hardware.

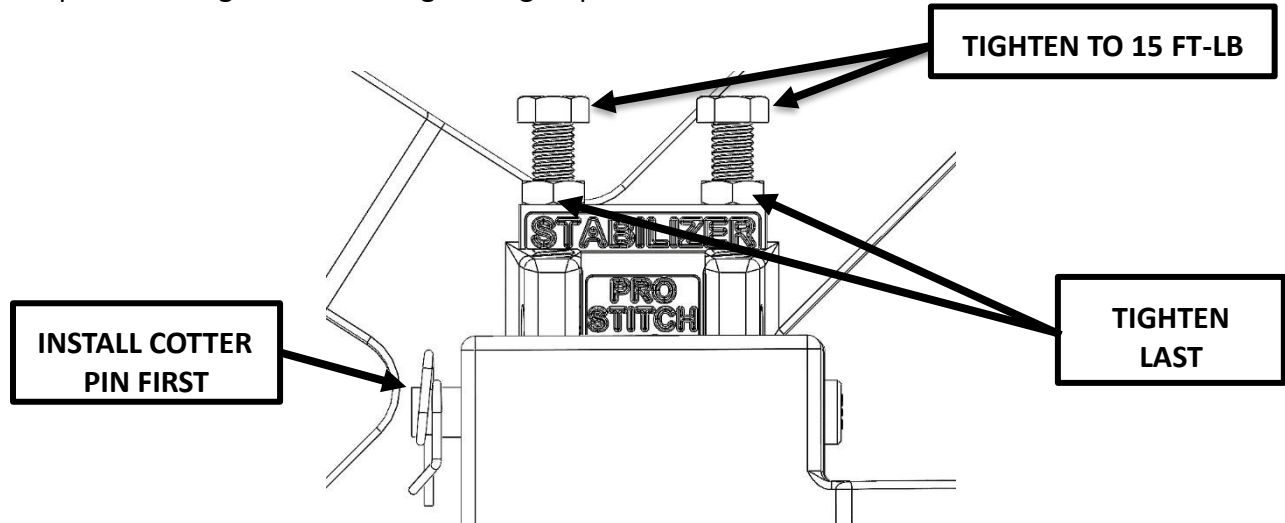


Figure 8

NOTE: Top bolts need to be tightened to 15 ft-lb. Any more than 25 ft-lb may cause clevis pin to excessively bend and not work properly.

## 7 Ensuring Proper Function

Ensure seed boot pivots, springs back, functions properly, and all components are properly tightened. Ensure there is no binding and that the boot has good spring tension against the cutting disc. Usually binding is caused by over torquing top bolts or by boot spring not being installed correctly. See Figure 9 for completed install of stabilizer. Seed tube and other remaining components can now be re-installed on row unit.



Figure 9

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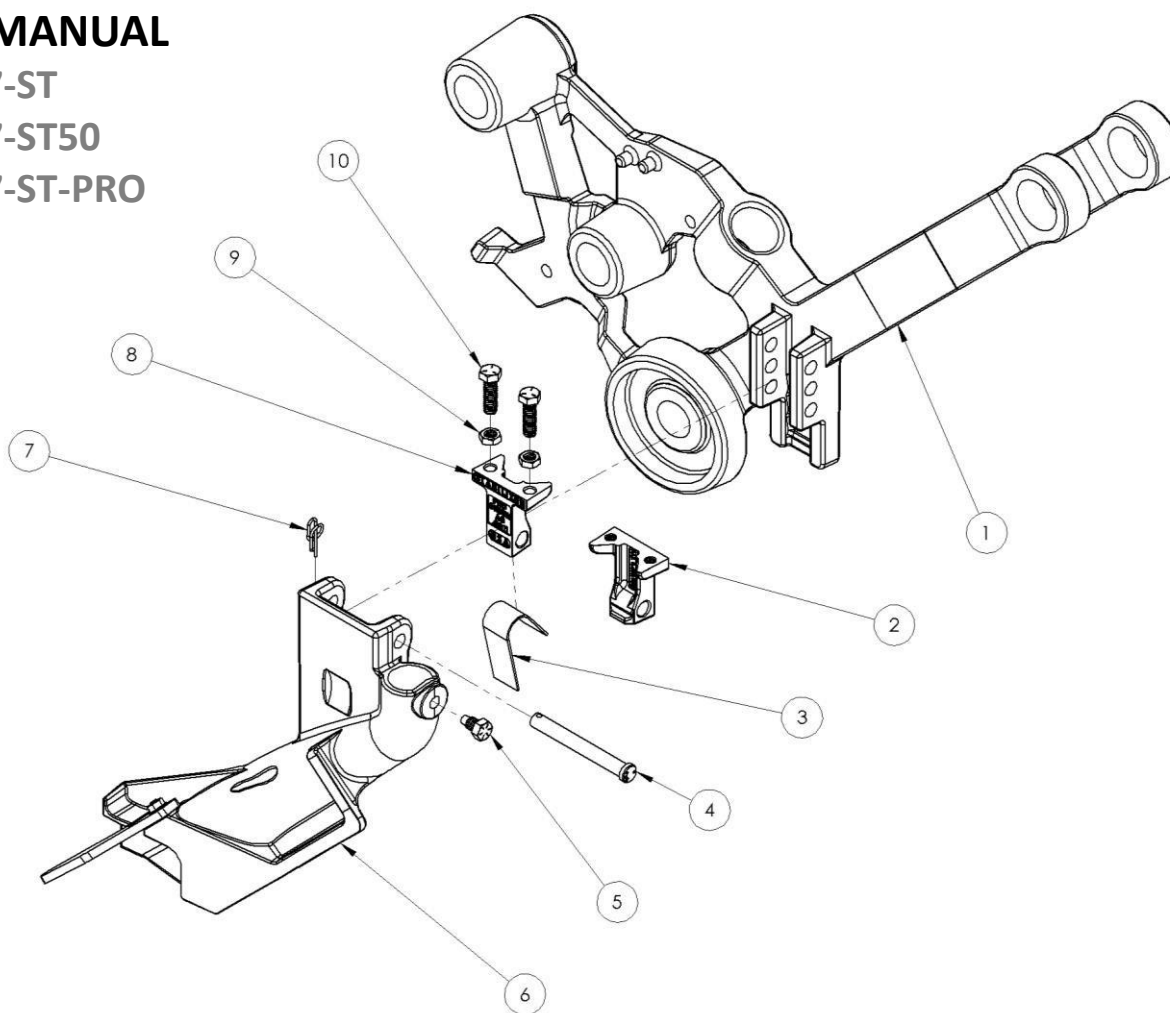
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## PART MANUAL

AG-K07-ST

AG-K07-ST50

AG-K07-ST-PRO



| ITEM # | PART #  | JD PART # | DESCRIPTION                                 | QTY. | AG-K07-ST<br>KIT QTY. | AG-K07-ST50<br>KIT QTY. | AG-K07-ST-PRO<br>KIT QTY. |
|--------|---------|-----------|---|------|-----------------------|-------------------------|---------------------------|
| 1      | AG101R  | AA71196   | ROW UNIT ARM, RH                            | 1    |                       |                         |                           |
| 2      | AG2561  |           | STABILIZER, PRO STITCH SEED BOOT, 50 SERIES | 1    |                       | 1                       |                           |
| 3      | AG2631  |           | HD EXTENDED WEAR BOOT SPRING                | 1    |                       |                         |                           |
|        |         | N284055   | BOOT SPRING                                 | 1    |                       |                         |                           |
| 4      | RE5016  |           | CLEVIS PIN, 7/16 X 3-1/2 GR8                | 1    | 1                     |                         | 1                         |
|        | RE5019  |           | CLEVIS PIN, M10 X 90MM GR8                  | 1    |                       | 1                       |                           |
| 5      | AG2042  |           | HD GRADE 8 SEED TUBE BOLT                   | 1    | 1                     | 1                       | 1                         |
| 6      | AG1058R | N284044   | STANDARD WEAR SEED BOOT, RH                 | 1    |                       |                         |                           |
|        | AG1058L | N284045   | STANDARD WEAR SEED BOOT, LH                 | 1    |                       |                         |                           |
|        | AG2628R | N284024   | EXTENDED WEAR SEED BOOT, RH                 | 1    |                       |                         |                           |
|        | AG2628L | N284025   | EXTENDED WEAR SEED BOOT, LH                 | 1    |                       |                         |                           |

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|    |        |  |   |   |   |   |
|----|--------|--|---|---|---|---|
| 7  | RE5022 | COTTER PIN, 7/16 X 1-3/8 X 5/64 WIRE LOCKING | 1 | 1 | 1 | 1 |
| 8  | AG2553 | STABILIZER, PRO STITCH SEED BOOT             | 1 | 1 |   | 1 |
| 9  | AG2551 | NUT, 3/8-16 JAM                              | 2 | 2 | 2 | 2 |
| 10 | RE5048 | BOLT, 3/8-16 X 1                             | 2 | 2 | 2 |   |
|    | RE5094 | BOLT, 3/8-16 X 1-3/4                         | 2 |   |   | 2 |