

YieldSense™

Grain Property Kit Installation Guide

Precision Planting®

Tools for Install

13 mm socket/ratchet and 13 mm wrench

15 mm wrench

Two 18 mm wrenches (ratcheting preferred)

Philips Screw Driver

Torque Wrench Screw Driver capable of 30 in lbs.

Pliers

Kit Includes

New YS3 attachment with preassembled Grain Property Paddle

Grain Property Bucket with 4 mounting screws

2 Master Links

(20) J Hooks

***Actual part numbers will vary based on make and model of combine**

Note: The information presented in this document are accurate at the time of publishing. The most current revision of this document can be found at <http://cloud.precisionplanting.com>.

Chain Link Service Parts



Chain Type:	Used In:	Master Link	Half Link	Pins (bag of 20)	3 Pitch Attachment
Iwis (Elite) CA550HD YS1 & YS3	8T & 10T JD 9T Case-IH	750699	750772	J-Hooks 750778 (bag of 20)	750705
Allied-Locke CA550HD YS2	8T & 10T JD 9T Case-IH	750737	750773	Cotter Pins 750777 (bag of 20)	750705
CA557 YS3	11T JD (S690)	750810	750811	J-Hooks 750778	750866 (replaces 750804)

Combine Series:	2015 Grain Prop Kit	Crud Brush Kit	Replacement Paddle Kit	Chain Paddle Color	Paddle/Bucket Color
JD 50/60/70/S-8T	750870	750687	750514	Gray	Gray/Green
JD 50/60/70/S-10T	750871	750688	750515	White	White/Green
JD 50/60/70/S-11T	750872	750689	750516	Black	White/Green
Case-IH Flagship 9T	750873	750611	750698	Red	Red/Blue
Case-IH MidRange 9T	750770	750757	750816	Tan	Tan/Tan

Preparing For Installation—Deere Combines

Step 1: Locate the tensioning spring for the clean grain elevator chain behind the clean grain elevator.



Figure 1

Step 2: Using two 18mm wrenches, loosen the bottom nut away from the top nut and spin the nut down the entire length of the bolt. Loosen the top nut down until it touches the bottom nut, and remove the drive belt from the drive pulley.

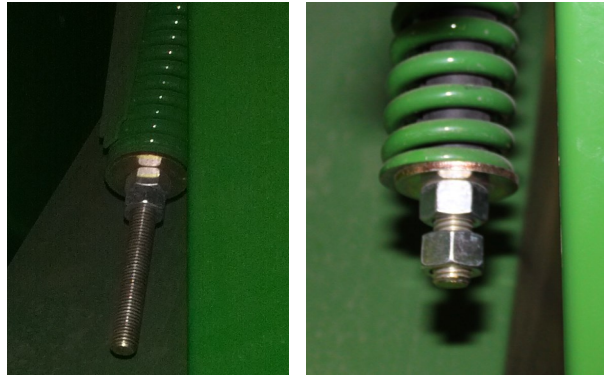


Figure 2

Step 3: Loosen the three nuts on the top bolt of the bearing block with a 15mm wrench. Then loosen the four bolts that hold the plate.

Note: There may be a cover that must be removed to get to the bearing block.

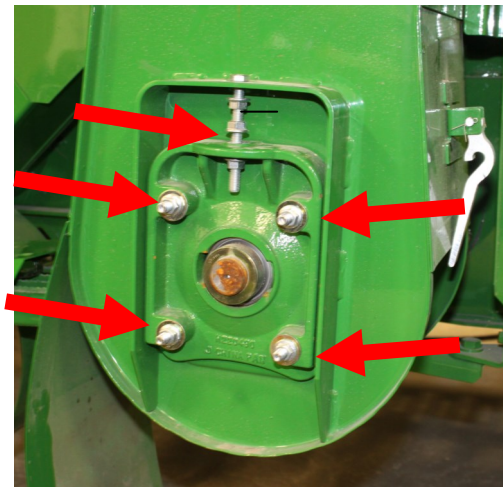


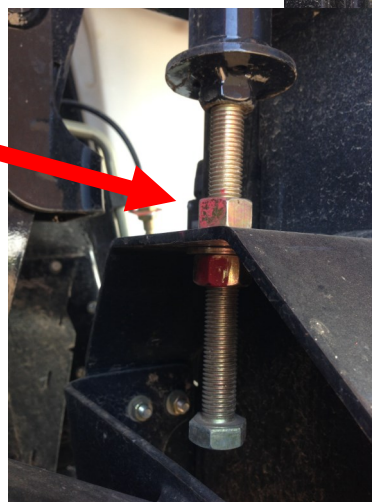
Figure 3

Preparing For Installation—Case Combines

Step 1: Use two 18mm wrenches to remove the tension on the elevator chain. Once the tension is relieved, remove the chain from the tension pulley.



Step 2: Locate the tensioning bolts on the back of the elevator. Use a 24 mm wrench to loosen the two nuts and adjust the elevator downwards. (Continue to Step 4)



Kit Installation—All Combines

Step 4: Rotate the chain around until you locate the old Grain Property Bucket. Then remove the old Grain Property Bucket from the paddle.

NOTE: It is critical to have the Grain Property Bucket in the correct location on the chain. Failure to do so will cause accuracy issues. Follow the steps below to confirm Grain Property Bucket's location.

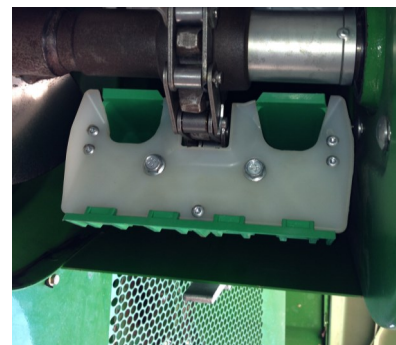


Figure 5

Step 5: Ensure Grain Property Bucket is in the correct location. Rotate the chain and locate the multiple sections of 5 pitch intervals. To find 5 link intervals, look for half links (Point "A" at right) and also count the number of pins between paddles. Mark or remove the paddle that separates the 4 pitch to 5 pitch sections, then rotate the chain around one full revolution of the elevator to confirm that you have marked the correct paddle. (Figure 5a and 5b)

Note:

All chains will have a single 5 pitch interval separate from the set of multiple 5 link intervals. For this installation, it is very important that you find the set of multiple 5 pitch intervals in a row, not the single 5 pitch interval by itself. The number of 5 pitch sections in a row may vary based on combine model.

Always maintain a 5 pitch section where the bucket is installed.

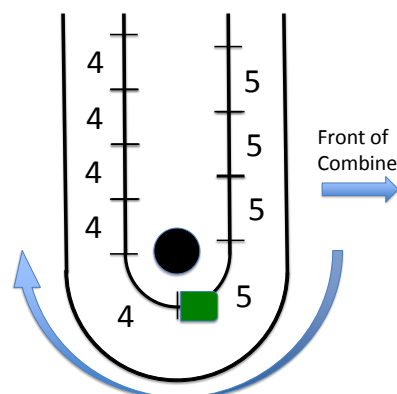


Figure 5a

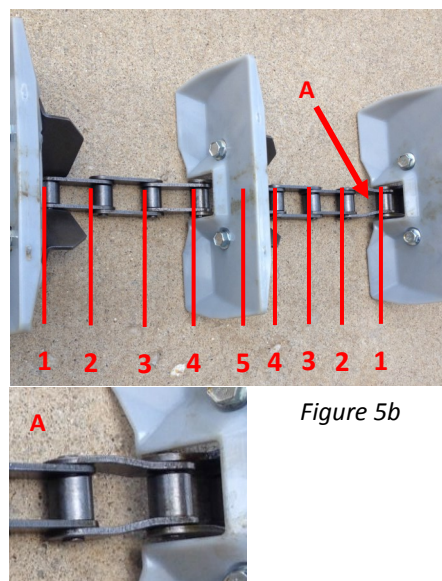


Figure 5b

Kit Installation—All Combines

Step 6: Remove the links circled in the figure 6a. All JD chains should have removable links. For Case combine with a 2014 chain installed use a grinder to remove the ends of the pins holding the link together (Figure 6b). Grind it completely flat with the face of the link. With the pins ground down, use a pry bar or chisel (Figure 6c) and force the side of the link off (Figure 6d). With one face off, pry the other side of the link out, pulling the pins through and completely removing the link. Replace the link you just removed with one of the master links provided in the kit. **DO NOT BEND THE J HOOKS. SIMPLY INSERT IT SO THAT GRAVITY WILL HOLD IT WHILE REMOVING LINK #2.** You will need to remove this master link later.

Rotate the chain so that you can repeat Step 6 on the second link.

After performing these steps on both links, you should have a chain attachment without a paddle and with links replaced with temporarily installed master links on each side.

Step 7: Rotate the chain so that the old attachment is at the bottom of the elevator and both new master links can be accessed simultaneously. Remove the two new master links that were temporarily installed in step 6 and replace the section with the provided YS3 attachment. (Figure 7)

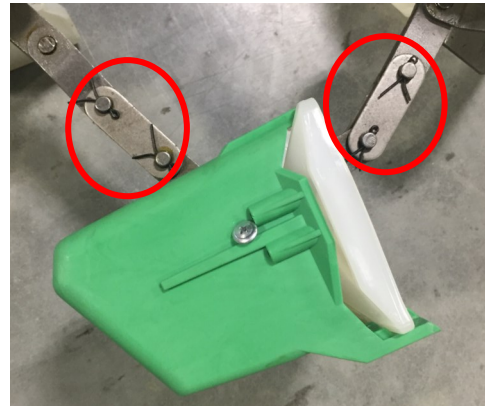


Figure 6a



Figure 6b



Figure 6c



Figure 6d



Figure 7

Kit Installation—All Combines

Step 8: Reinstall the master links and bend the J Hooks for a permanent installation.

Note: J Hooks are a one-time use only component.



Figure 8

Step 9: Next attach the bucket to the Paddle Attachment on the chain. Hook the bucket into the paddle first, as shown to the right, then rotate the bucket to the paddle.



Figure 9

Step 10: Install the 4 plastic screws provided, and torque to 30 in-lbs.



Figure 10

System Overview Check

Step 1: Confirm that all paddle's are torqued to 20 ft-lbs from the nut side. If torqued from the bolt side the proper torque to retain a properly bolted joint will not be achieved. On YS1 chain, if paddle is not centered properly it may be difficult to get two sockets on both sides. It may be necessary to loosen the bolts and re-center the paddle to gain enough clearance to install a socket on both nuts.

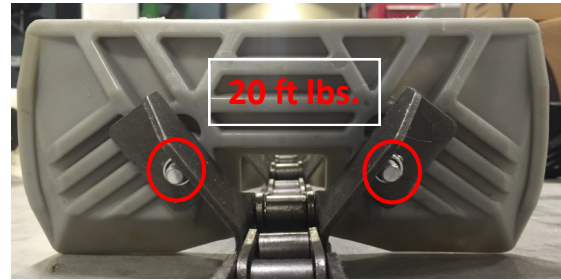


Figure 1

Step 2:

- A. **For YS and YS3 Chains**– Rotate chain and replace all cotter pins with J Hooks. (Figure 2a)
- B. **For YS2 Chains**– Ensure that all semi hardened cotter pins are fully wrapped as shown. (Figure 2b)

Identify which chain you have by looking at standard paddle attachment. YS, YS2, or YS3 will be stamped on the side of the link as shown below



Figure 2a-YS, YS3

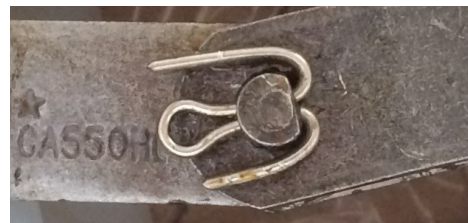


Figure 2b-YS2

YS1 requires J Hooks

YS2 retains semi hardened (fully wrapped) Cotter Pin

YS3 requires J Hooks



Figure 2c



Figure 2d



Figure 2e

Completing Installation—JD Combines

Step 1: Adjust the tension bolt on top of the bearing block to add tension to the chain. Adjust until the chain can slide side to side on the sprocket but cannot be pulled away. Tighten the four carriage bolts, verifying that the tension on the sprocket is still correct. (15 mm wrench)

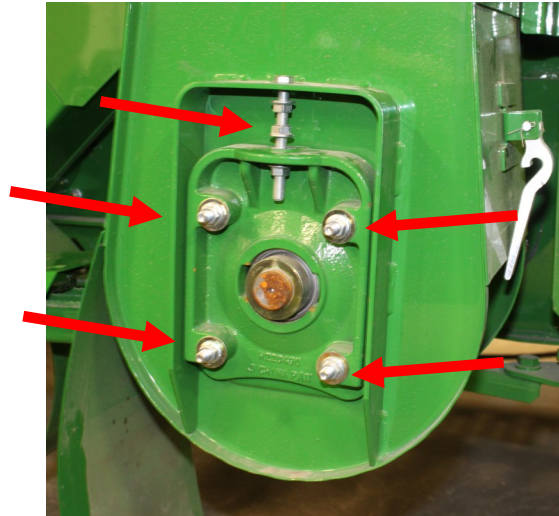


Figure 1

Step 2: Next mark the location you are at on the sprocket. Rotate to 90°, 180°, and 270° making sure at each point you are still able to slide the chain side to side and not be pulled away from the sprocket at any point. (Figure 2)

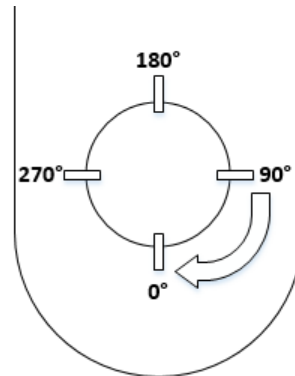


Figure 2

Step 3: Check clearance between the auger and the bottom of the tube. If clearance between transfer auger and auger tube is less than 1/4", remove a half link and adjust the bearing up. Check to make sure you have at least 1/4" of clearance to the top of the tube as well. (Figure 3)

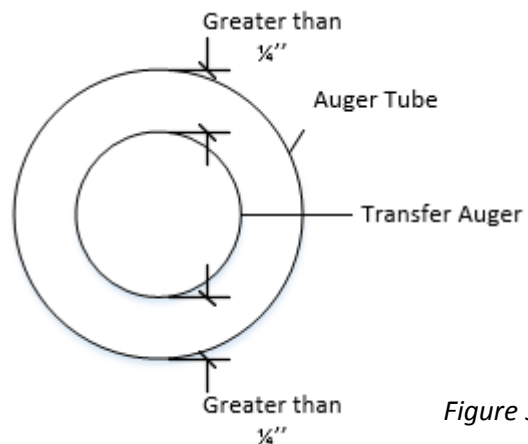


Figure 3

Completing Installation—JD Combines

Step 4: Place the belt back on the pulleys and verify that the routing of the belt is correct. Then tighten the nuts below the spring, returning the washer to the correct location on the Spring Tensioning Gauge. (18 mm Wrench)

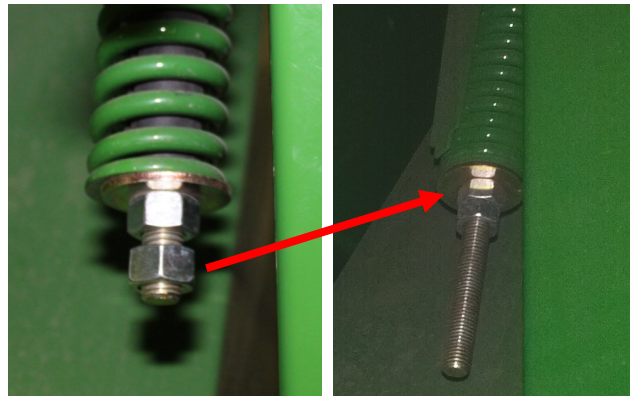


Figure 4

Step 5: After 10 hours of operation, check the chain tension. Adjust the tension if needed.

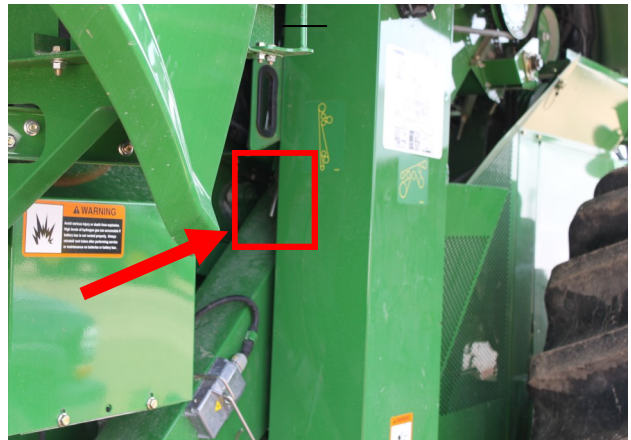


Figure 5

Completing Installation—Case IH Combines

Step 1: Tighten the clean grain elevator chain using the 24 mm adjustment nuts on the back of the elevator.

Note: The chain is properly tightened when it cannot be pulled away from the bottom sprocket but can still be slid back and forth across the sprocket. Leave the drive chain off until the flow sensor is installed.

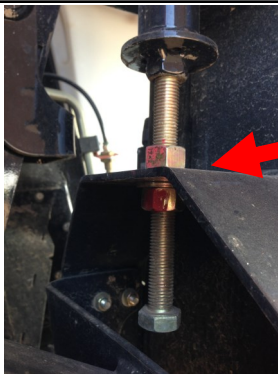


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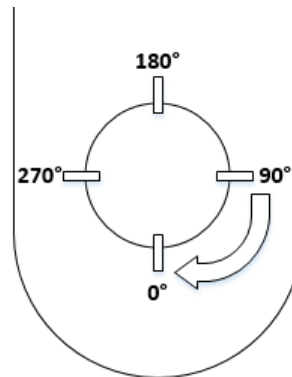


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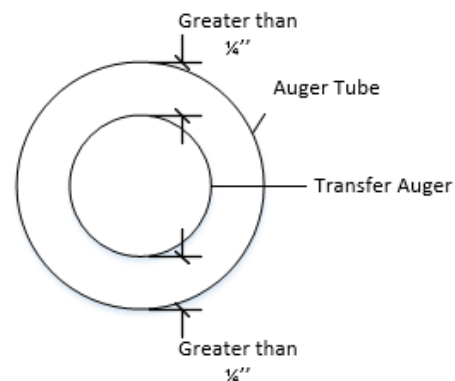


Figure 3

Completing Installation—Case IH Combines

Step 4: Confirm that the drive chain is properly installed and then adjust the tensioning spring until the washer reaches the spring tension gauge.



Figure 4