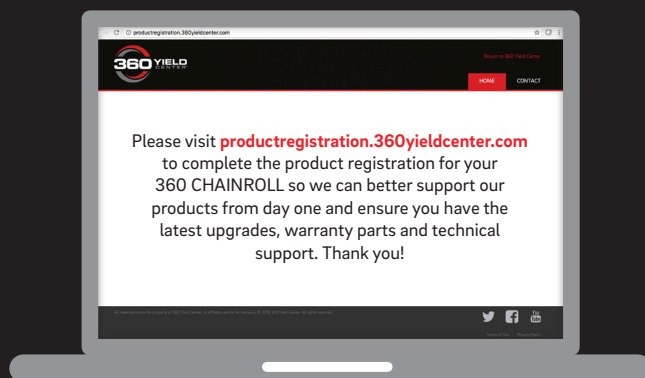




# INSTRUCTIONS 360 CHAINROLL™

JOHN DEERE 40/90 SERIES

## 360 CHAINROLL™ REGISTRATION



360YIELDCENTER.COM

# INSTRUCTIONS

## 360 CHAINROLL

JOHN DEERE 40/90 SERIES

### PARTS OVERVIEW

#### 360 CHAINROLL ROW UNIT KIT - JD 40/90 SERIES (PART NO. 451300)

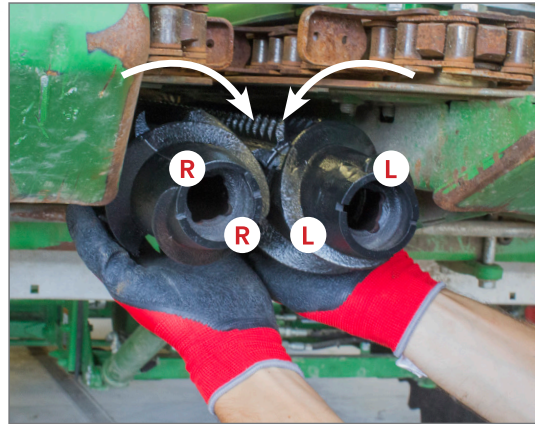
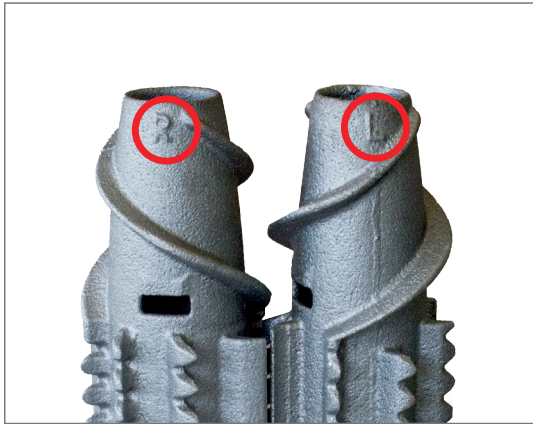
- + Left 360 CHAINROLL (Part No. 450301)
- + Right 360 CHAINROLL (Part No. 450311)
- + (4) 1/2" Roll Pins (Part No. 207032)
- + (4) 5/16" Roll Pins (Part No. 207033)
- + (4) M10 Socket Head Cap Screws (Part No. 207034)

#### 360 CHAINROLL RESIDUE KNIVES (PART NO. 450230)

- + 360 CHAINROLL Residue Knife Left (Part No. 450340)
- + 360 CHAINROLL Residue Knife Right (Part No. 450350)

### ROLL ORIENTATION

**IMPORTANT:** Left ("L") and Right ("R") are defined from the perspective of the operator's seat. Make sure the rolls are properly aligned and intermeshed when installing them onto the drive shafts.



### QUESTIONS

Call our Product Support Team at **888-512-4890**.

I.

## FLUTED (90 SERIES) / TAPERED (40 SERIES) STALK ROLL REMOVAL

### JOHN DEERE 40/90 SERIES

#### PART 1: REMOVE RESIDUE KNIVES

##### TOOLS AND PARTS REQUIRED:

- + 18mm Socket (90 Series)
- + 3/4" (19mm) Socket (40 Series)

FIGURE 1

**STEP 1** Remove the four M12 flange head cap screws.

**STEP 2** Repeat Step 1 for the adjacent roll.

#### PART 2: REMOVE CAP SCREWS AND ROLL PINS

##### TOOLS AND PARTS REQUIRED:

- + 18mm Socket (90 Series)
- + 3/4" (19mm) Socket (40 Series)
- + Hammer / 1/2" Straight Punch
- + Air Hammer / 1/2" Punch Bit Recommended

FIGURE 2

**STEP 1** Rotate the stalk roll to access one of the two clamping cap screws (located near the middle of roll).

**STEP 2** Use an impact wrench and 18mm socket (90 Series) or 3/4" socket (40 Series) to remove the cap screws.

FIGURE 3

**STEP 3** Rotate the stalk roll to access the roll pins (located at the front of the casting).

**STEP 4** Using an air hammer and 1/2" punch bit (or hammer and punch), drive the roll pins out of the casting.

**STEP 5** Repeat Steps 1-4 for the adjacent roll.



FIGURE 1



FIGURE 2

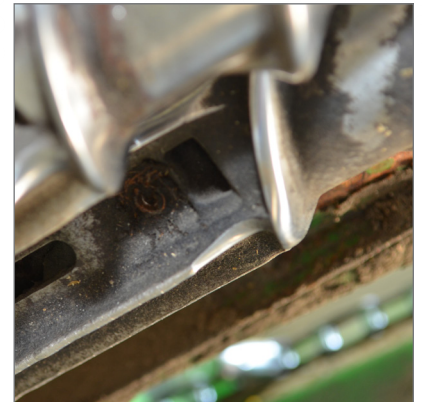


FIGURE 3

I.

## FLUTED (90 SERIES) / TAPERED (40 SERIES) STALK ROLL REMOVAL

### JOHN DEERE 40/90 SERIES

#### PART 3: REMOVE OEM STALK ROLLS

##### TOOLS AND PARTS REQUIRED:

- + 360 CHAINROLL Puller or Equivalent
- + 1-1/2" Socket

**STEP 1** Rotate stalk rolls until pulling features are facing towards stripper plate gap. Improve accessibility by opening up stripper plates, if needed.

FIGURE 4

**STEP 2** Ensure that T-handle is fully retracted, then attach puller arms to pulling features on the rolls, as shown. **Reference Puller Insert, Page 9.**

**STEP 3** Apply initial tension on puller by tightening the 1-1/2" hex feature (puller body).

FIGURE 4

**STEP 4** Extend hydraulic puller by turning T-handle, as shown, to break stalk roll free.

**NOTE:** If necessary use the striking lug for added force after ram is fully extended.

FIGURE 5

**STEP 5** If needed, remove the T-handle and apply torque to the body of the puller utilizing the 1-1/2" socket.

If puller force is required to completely remove the roll, install the longer ram insert and utilize the 1-1/2" socket to completely remove the roll.

**STEP 6** Repeat Steps 1-4 for the adjacent roll.



FIGURE 4



FIGURE 5



II.

## KNIFE ROLLS (3 PIECE) STALK ROLL REMOVAL

### JOHN DEERE 40/90 SERIES

#### PART 1: REMOVE RESIDUE KNIVES

##### TOOLS AND PARTS REQUIRED:

+ 18mm Socket

FIGURE 6

**STEP 1** Remove the four M12 flange head cap screws.

**NOTE:** Retain screws for installation of new residue knives.

**STEP 2** Repeat Step 1 for the adjacent roll.

#### PART 2: REMOVE REAR STALK ROLL BOLTS

##### TOOLS AND PARTS REQUIRED:

+ 13mm (1/2") Socket

+ Socket Extension

FIGURE 7

**STEP 1** Rotate the stalk roll to access one of the rear cap screws.

**STEP 2** Remove cap screws using extension.

**STEP 3** Rotate the stalk roll to access and remove the second rear cap screws.

**STEP 4** Repeat steps 1-3 for the opposite side.

#### PART 3: REMOVE STALK ROLL HALVES

##### TOOLS AND PARTS REQUIRED:

+ 16mm (5/8") Socket

FIGURE 8

**STEP 1** Rotate the stalk rolls to access the four cap screws on one half of the roll.

**STEP 2** Remove all four cap screws and stalk roll half.

FIGURE 8

**STEP 3** Rotate the stalk roll to access the other stalk roll half and cap screws.

**STEP 4** Remove all four cap screws and stalk roll half.

**STEP 5** Repeat Steps 1-4 for the adjacent roll.



FIGURE 6



FIGURE 7



FIGURE 8

II.

## KNIFE ROLLS (3 PIECE) STALK ROLL REMOVAL JOHN DEERE 40/90 SERIES

### PART 4: REMOVE MACHINE SCREWS AND ROLL PINS

#### TOOLS AND PARTS REQUIRED:

- + T45 Torx Bit
- + Hammer / 1/2" Straight Punch
- + Air Hammer / 1/2" Punch Bit Recommended

FIGURE 9

**STEP 1** Rotate stalk roll to access the T45 machine screws.

**STEP 2** Using the T45 torx bit, remove the two screws.

**STEP 3** Rotate the stalk roll to access the roll pins (located at the front of the casting).

**STEP 4** Repeat Steps 1-4 for the adjacent roll.

### PART 5: REMOVE OEM STALK ROLLS

#### TOOLS AND PARTS REQUIRED:

- + 360 CHAINROLL Puller or Equivalent
- + 1-1/2" Socket

**STEP 1** Rotate stalk rolls until pulling features are facing towards stripper plate gap. Improve accessibility by opening up stripper plates, if needed.

FIGURE 10

**STEP 2** Ensure that T-handle is fully retracted, then attach puller arms to pulling features on the rolls, as shown. **Reference Puller Insert, Page 9.**

**STEP 3** Apply initial tension on puller by tightening the 1-1/2" hex feature (puller body).

FIGURE 10

**STEP 4** Extend hydraulic puller by turning T-handle, as shown, to break stalk roll free.

**NOTE:** If necessary use the striking lug for added force after ram is fully extended.

FIGURE 11

**STEP 5** If needed, remove the T-handle and apply torque to the body of the puller utilizing the 1-1/2" socket.

If puller force is required to completely remove the roll, install the longer ram insert and utilize the 1-1/2" socket to completely remove the roll.

**STEP 6** Repeat Steps 1-4 for the adjacent roll.



FIGURE 9



FIGURE 10



FIGURE 11

III.

## 360 CHAINROLL INSTALLATION

### JOHN DEERE 40/90 SERIES

#### PART 1: INSTALL 360 CHAINROLL

##### TOOLS AND PARTS REQUIRED:

- + Anti-Seize (Not Included)
- + Emery Cloth (Not Included)
- + Left 360 CHAINROLL
- + Right 360 CHAINROLL
- + 1/2" Roll Pins / Punch
- + 5/16" Roll Pins / Punch
- + Air Hammer Recommended and 360 Punch Bits

FIGURE 12

**STEP 1** Rotate the drive shafts so the roll pin holes face upwards diagonally from right to left as you look at the row unit, as shown.

**STEP 2** Apply anti-seize around the outer surface of the first and third sections of the steel shafts.

FIGURE 13

**STEP 3** Position 360 CHAINROLL such that the opposed facing flutes [cutting and retaining] are contained within the adjacent facing flutes [cutting and chaining].

**Reference cutaway in Figure 13.**

**STEP 4** Slide the stalk rolls simultaneously onto the drive shafts making sure the roll pin holes on the drive shafts align with roll pin holes on stalk rolls.

**NOTE:** 40 Series shafts only have 1 roll pin hole. Install roll pin in forward most roll pin hole on 360 CHAINROLL.

**STEP 5** Insert one of the 1/2" roll pins into the pin hole and tap in until it won't fall out. In the hole that is open, insert a long punch or straight tool (approximately 1/2" dia.) through the hole to ensure the roll pin holes on the shaft stay aligned with the stalk roll.

FIGURE 14

**STEP 6** Using an air hammer (or hammer and 1/2" punch bit), drive the first roll pin in until it is inset slightly on both sides of the stalk roll.

**STEP 7** Insert one of the 5/16" roll pins into the 1/2" roll pin already in the stalk roll and tap in slightly until it doesn't fall out.

FIGURE 15

**STEP 8** Using an air hammer and 5/16" punch bit (or hammer and punch), drive the 5/16" roll pin through 1/2" pin until it is inset slightly on both sides.



FIGURE 12

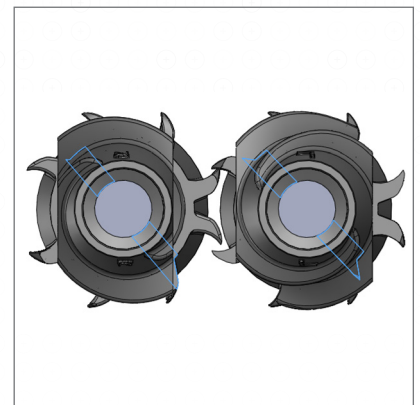


FIGURE 13



FIGURE 14



FIGURE 15



III.

## 360 CHAINROLL INSTALLATION

### JOHN DEERE 40/90 SERIES

**STEP 9** Repeat steps 5-8 for roll pin on the opposite roll.

**STEP 10** Manually turn stalk rolls a full revolution to ensure no interferences exist.

**STEP 11** Repeat Steps 5-8 for any remaining roll pin holes.

### PART 2: CLAMP THE 360 CHAINROLL

#### TOOLS AND PARTS REQUIRED:

- + M10 Socket Head Cap Screw
- + M8 Hex Drive
- + Torque Wrench

FIGURE 16

**STEP 1** Rotate the stalk rolls to access the bolt holes near the center of the stalk roll.

FIGURE 17

**STEP 2** Insert the first cap screw and torque it to 100 ft-lbs. (135 Nm), as shown.

**STEP 3** Repeat steps 2-3 for the second cap screw.

**STEP 4** Repeat Steps 1-4 for the other stalk roll.

### PART 3: REINSTALL RESIDUE KNIVES

#### TOOLS AND PARTS REQUIRED:

- + 18mm Socket

FIGURE 18

**STEP 1** Install new 360 CHAINROLL Residue Knives or reworked OEM knives using the four M12 flange head cap screws. Start from the rear and do not fully tighten.

**NOTE:** Call your 360 Yield Center Dealer or 360 Yield Center Product Support Team for the Residue Knife Template.

**STEP 2** Adjust spacing of the residue knife to approximately 1/8" clearance from the 360 CHAINROLL knife edge. Tighten the first and third bolts.

**STEP 3** Tighten the remaining bolts.

**STEP 4** Repeat Steps 1 - 3 for the opposite side.

**⊕ INSTALLATION COMPLETE**



FIGURE 16



FIGURE 17



FIGURE 18



**PULLER INSERT**  
JOHN DEERE 40/90 SERIES

