



CP770 Cotton Picker Maintenance and Cleaning Guide

Introduction

At John Deere, we understand that every minute in the field is valuable during the harvest season. This guide is intended to provide a quick-reference overview of key adjustments, cleaning, maintenance, and operation of the cotton harvester.

IMPORTANT: Regular and thorough cleaning of the machine combined with other routine maintenance procedures listed in the Operator's Manual greatly reduces the risk of fire, chance of costly downtime, and improves the machine's performance. Crop material and other debris can accumulate in various areas. Direction of wind can impact where and how much crop material and debris can accumulate. Be aware of harvest

conditions and adjust your cleaning schedule to ensure proper machine function and to reduce the risk of fire. The machine may require more frequent cleaning, even multiple times per day, depending on harvest conditions. Inspect and clean these areas as needed throughout the harvest day.



Recommended hour interval indicator

Follow all safety procedures posted on the machine and in the Operator's Manual.

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**Additional information and
videos are available at:**

www.Deere.com

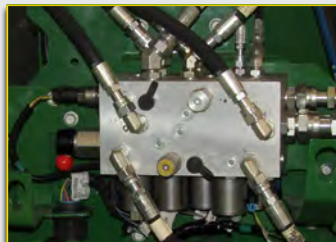
Harvest Configuration

NOTE: Clean the machine from top to bottom.

A. Clean the RMB hydraulic valve block and gate lock valve.

B. Clean the top of the RMB and the accumulator screens and finger grates.

12

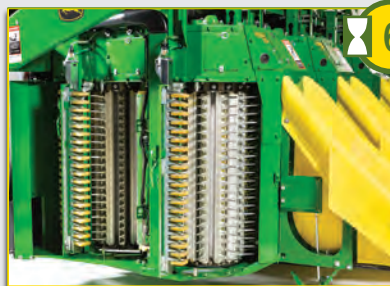


6



C. Clean behind the cab, tanks, ducts, and front of accumulator. Clean the cab roof.

E. Clean the speed and position sensors and tone wheels (6 used).



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D. Clean the doffers, moistener columns, drums, picker bars, inside the suction doors, and the bottom of the cabinets.

F. Clean under the accumulator and under the feeder belt.

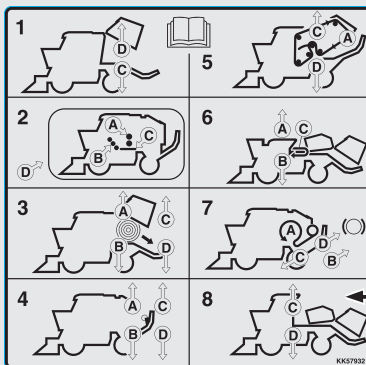
Transport Configuration

Accumulator Raised

- A.** Clean front of RMB, including belt brush and RFID reader.

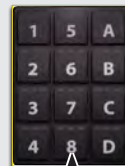


- B.** Check the guard rollers for freedom of movement.



8 TRANSPORT MODE

- A = NOT USED
B = NOT USED
C = HARVEST MODE
D = TRANSPORT MODE



8

- C.** Clean the platform, RMB latches, and module ramp.



- D.** Clean the wrap box, belts, pulleys, and wrap floor.



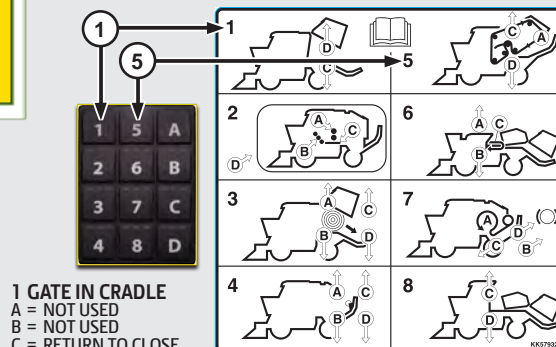
RMB Service Configuration: Gate in Cradle



A. With the rockshaft raised, clean and check the belts and rollers inside RMB.



B. Clean the gate latch sensor area.



C. Clean and check the wrap feed rods.



D. Lower the rockshaft and operate the belts to check the tracking.



Rear Axle and Cooling Package

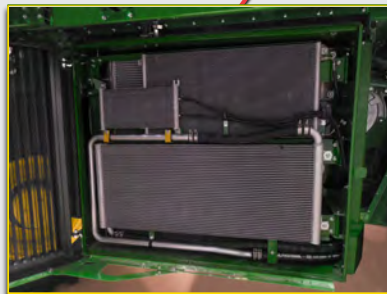
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A. Clean and check the handler position sensor.



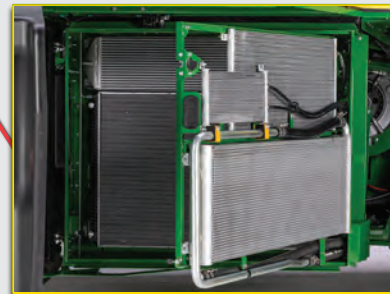
B. Clean the rear axle U-joints, tie rods, motor, and hoses.



C. Open cooling module door. Clean the door and door latch.



E. Clean the alternators and check the engine belts and pulleys.



D. Rotate latch and swing cooler assembly out. Clean coolers and latch. Remove debris from air intake duct and precleaner.

Front Axle, Power Module, and Engine Compartment

IMPORTANT: Open the panels under the machine to allow debris to fall to the ground.

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A. Clean transmission, hydraulic valve block, and front axle area.



B. Clean cotton fan rotors, belt, and pulleys.



C. Clean door latch, auxiliary drive gear case, hydraulic pumps, and exhaust components.



D. Clean rear of engine, turbo-charger, exhaust manifold, starter, and battery area.



E. Clean exhaust system components, including heat shields and hanger brackets.



F. Clean the diesel exhaust fluid (DEF) tank and pump (if equipped). Clean access panel latches.

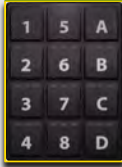


Wrap Load Procedure

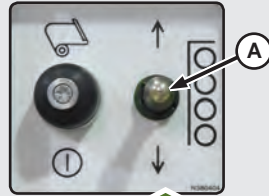
NOTE: Handler does not rise completely until the wrap hoist is all the way up.

Button Sequence

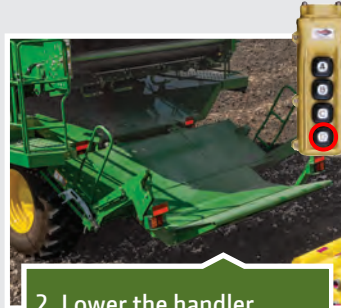
Press the button 4, then A/B or C/D to begin the procedure.



8. Repeat until the magazine (four rolls) is full; place the wrap hoist in the center position.



1. Press up on the wrap hoist switch (A) to raise the hoist.



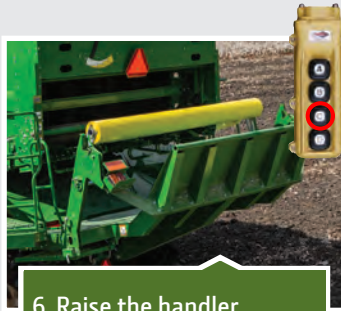
2. Lower the handler.



3. Remove load handles from storage brackets.



7. Lower the wrap hoist.



6. Raise the handler.



5. Place roll in wrap arms with tag to the left side.



4. Place the arms in the load position on handler.

Empty Wrap Roll Replacement

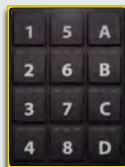
Replacing Empty Wrap Rolls

NOTE: Power module tether is disabled by interlock when ladder is down.

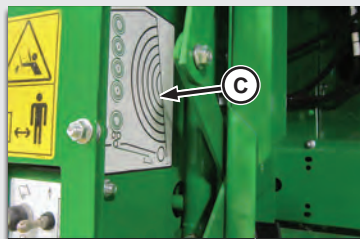
1. Using the keypad, press button 4, then A to fully raise the hoist.
2. Using the keypad, press button 4, then C/D to raise/lower the handler.
3. Release handler ladder from storage position and fold down.
4. Remove empty roll from rollers, place in the storage brackets (F).
5. Press down on the wrap hoist switch (A) to lower the new wrap roll into position on the rubberized wrap rollers.
6. Press up on wrap hoist switch to raise hoist until motion stops.
7. Remove tape retaining leading edge of wrap to roll.
8. Rotate wrap roll to feed out approximately 1–1.2 m (3–4 ft) of wrap.



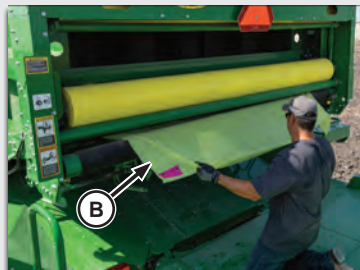
Keypad



Feed Wrap



9. Feed the first portion of wrap (B) around around the feed rollers as shown in the wrap routing diagram (C).
10. Guide the wrap into position between the lower feed roller and the wrap belts.
11. Wrap must be distributed evenly across wrap belts and roller.

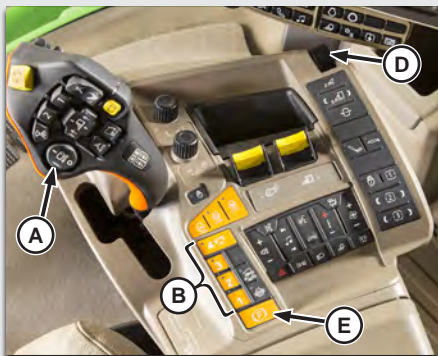


Lower Wrap Hoist

12. Press down on the wrap hoist switch (A) to lower the hoist.
13. Press the wrap feed switch (E) to feed the wrap into position. Leading edge of wrap must be within area indicated on the decal (D) above wrap floor.



Start of Day Procedure



1. Cleaning and Maintenance

- Clean the machine as shown on pages 3—7.
- Complete the maintenance items listed on page 16.
- Inspect the machine for leaks or damage; repair as needed.

2. Start the Engine

- Place the multi-function lever in neutral position and make sure the fan and switches for row units are in the off position.
- Sound the horn to alert others to stay clear of the machine.
- Turn the key to the start position and release once the engine starts. Do not operate starter for more than 30 seconds at a time. If the engine does not start, wait at least 2 minutes before trying again.

3. Warm Up the Machine

- Allow the engine to warm up at low idle for 2—4 minutes.
- Warm up the hydraulic oil and components by engaging the fan and row units. Increase the engine speed to fast speed and press floor switch to operate cotton handling system for 5 minutes.

4. Driving the Machine

- Be sure that all people and objects are safely away from the machine before driving.
- Select the desired speed by pressing one of the transmission range buttons (B). Ranges 1 and 2 are typically used for field operation while ranges 3 and 4 are typically used for road transport.

NOTE: The maximum speed (C) for transmission ranges 1 and 2 may be adjusted. Press and hold the range 1 or 2 buttons on the armrest and use the armrest adjustment dial (D) to adjust the maximum speed.

- Press the park brake button (E) (light starts flashing).
- Move multi-function lever forward for forward travel or rearward for reverse travel.

5. Harvesting

- With the engine at low idle, engage the fan switch followed by the row units switch. Increase the engine speed to high idle.
- Align the machine with rows to be harvested and lower the units to desired position.
- Slowly drive the machine forward into crop and press the top of the auto round module builder switch (A) to engage Auto Mode.
- Engage the row guidance as shown on page 14.
- Once a module has been formed and wrapped, a “ready to eject” notification is displayed. Verify that there are not any overhead power lines or obstructions before pressing and releasing the auto button to eject module.

In Case of Fire



1. Disengage the fan.



2. Immediately point the machine into the wind.



3. STOP the engine.



4. Extinguish all flames and hot spots using appropriate fire extinguisher or auxiliary water hose.



5. Restart the engine.



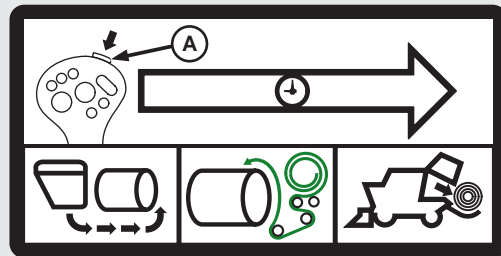
6. Unload cotton from the machine.



End of Day Procedure

Unloading Cotton from the Machine

Engine at high speed

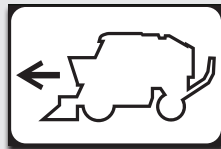


Step 1: Stop the machine, engage the park brake, and raise the row units. Run the row units for 20—30 seconds to clean out excess cotton.

Step 2: To empty the accumulator, press and hold the accumulator unload button (A) on the multi-function lever. An audible alarm occurs and a message appears on the CommandCenter™ display when the accumulator is empty.

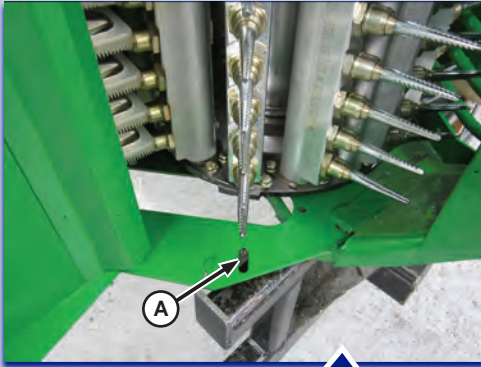
Step 3: Eject the module by pressing and holding the unload button.

Remember to drive forward while dropping module and raising handler.



Doffer Height Adjustment

Doffer Height Adjustment



1. Align one row of spindles with the slot on the bottom of the unit frame (A).
2. Turn the adjuster screw counterclockwise to raise the doffer until it rotates freely.

NOTE: 1 Click = 0.191 mm (0.0075 in)

3. While rotating the doffer column back and forth, turn the adjusting screw clockwise to lower the doffer until a slight drag between the spindles and pads is felt.

Do not allow the doffers to bind against the spindles. Operating with the doffer column adjusted too low results in excessive doffer pad, spindle bushing, and barb wear.



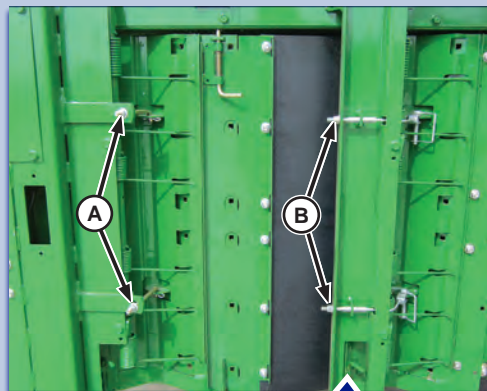
Pressure Plate Clearance Adjustment



1. Check the pressure plate clearance by rotating the units slowly using the remote tether switch.

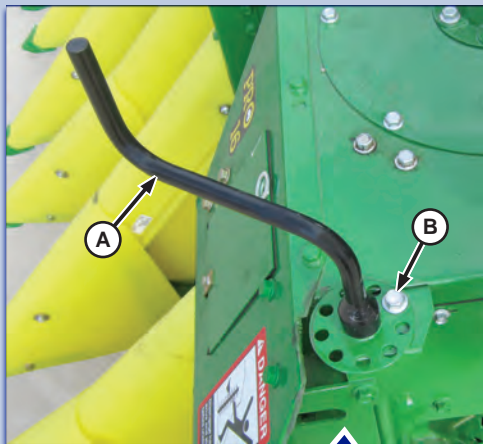
Pressure Plate Spring Tension Adjustment

Pressure Plate Clearance Adjustment (continued)

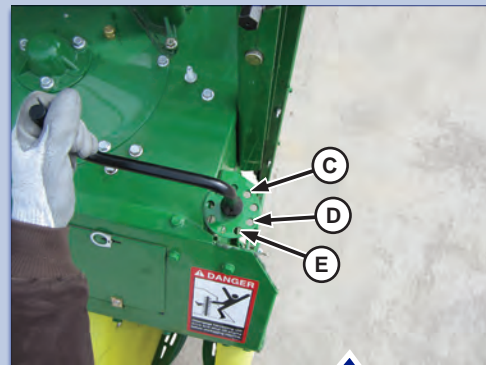


2. Loosen nuts (A or B) until the spindle tips contact the plate. Tighten nuts evenly until the contact between the spindles and plates is eliminated and the clearance is 3—6 mm (1/8—1/4 in).

Pressure Plate Spring Tension Adjustment



1. Use the wrench (A) to turn the shaft counterclockwise to overcome spring tension and remove the cap screw (B).



2. Relieve the spring tension. Rotate the shaft counterclockwise until the springs touch the pressure plate and one hole (C) is aligned with the bracket. Continue rotating the shaft until the second hole (D) is aligned with the bracket, then install the cap screw. Install screw in the third hole (E) on the rear plate.

NOTE: If too much cotton is left on the plant, tighten the rear pressure plate first. Tighten the front pressure plate only if necessary.

Unit Height Adjustments and Solution Pressure Set Point

Unit Height Adjustments



1. Always raise the row units (A) before going into reverse to avoid damage to the height sensors.
2. Adjust the lift frame turnbuckles so the front drum is 19 mm (3/4 in) (B) lower than the rear (C) in actual field conditions.

Header Height Setup



Initial Height Sensitivity

⌚ ⬆️ ⬆️ ⬆️ (C) → 65

Duration

⌚ (D) → 5 s

↺ Reset to Defaults

Electronic Header Height Control (EHC) controls how quickly the row units raise or lower in response to the ground conditions. The initial EHC rate adjustment allows a different rate for a preset time after the row units are first lowered to begin picking.

1. Press the Header button (A) on the navigation bar.
2. Press the Advanced Settings icon (B).
3. Set the initial height sensitivity (C). A higher value results in a faster response rate.
4. Set the duration (D) in seconds.

Solution Pressure Set Point

Chart compares the solution pressure set point values on CP690 machines (PSI value) with the equivalent values on CP770 machines (percentage value).

CP690 Set Point	Solution Flow Rate	CP770 Set Point
15 PSI	1.54 L/min (0.41 gal/min)	5%
20 PSI	1.74 L/min (0.46 gal/min)	25%
25 PSI	1.91 L/min (0.50 gal/min)	45—50%
30 PSI	2.11 L/min (0.56 gal/min)	70%
35 PSI	2.17 L/min (0.57 gal/min)	75—80%
40 PSI	2.25 L/min (0.59 gal/min)	85%
45 PSI	2.33 L/min (0.62 gal/min)	90—95%
50 PSI	2.44 L/min (0.64 gal/min)	100%



1. To adjust while harvesting, press the solution pressure set point button (A) on the armrest.
2. Use the armrest adjustment dial (B) to select the desired value. Turn the dial clockwise to increase/counter-clockwise to decrease.

Row Guidance Operation

Operating Row Guidance System

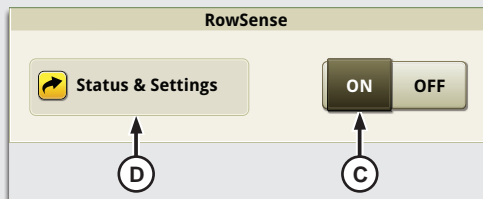
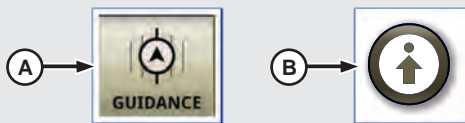


1. Engage the guidance system by pressing the engage button (A) on the multi-function lever while the machine is harvesting. Audible alarm sounds once to confirm that the system is engaged.
2. Offset adjustment dial (B) is used when necessary to make minor adjustments to keep the machine centered in the rows.



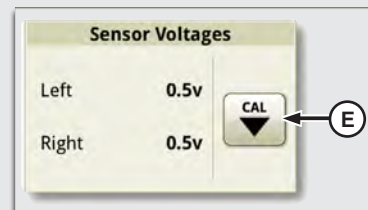
Calibrating Guidance System

1. Position the machine on a level concrete surface.
2. Select the Guidance icon (A).
3. Select the Advanced Settings icon (B).



CommandCenter Screen Colors

Row Guidance Icon Color	
White	System Off
Gray	System Enabled
Yellow	Sensor-Only Guidance
Green	GPS/Crop Sensor Guidance
Orange	GPS-Only Guidance



4. If RowSense™ is turned off, turn on RowSense™ (C).
5. Select Rowsense™ Status & Settings button (D).
6. Select the Calibration icon (E).
7. Follow the on-screen directions.

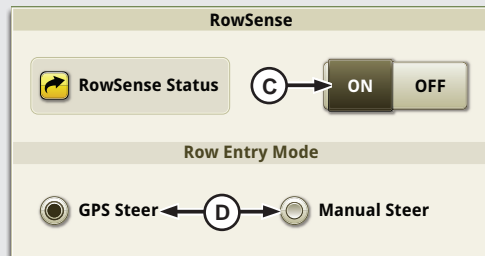
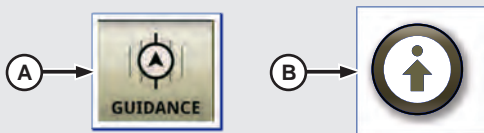
AutoTrac™ RowSense™ Settings

AutoTrac™ RowSense™ Requirements

1. StarFire™ Receiver with SF1, SF2, or RTK activation.
2. Generation 4 Display with AutoTrac™ SF1 or SF2 activation and AutoTrac™ RowSense™ activation.

Setting Guidance Mode

1. Select the RowSense™ Guidance application (A).
2. Select the Advanced Settings icon (B).
3. Use the toggle button (C) to turn RowSense™ on or off.
4. Press the corresponding button (D) to enable the desired row entry mode.

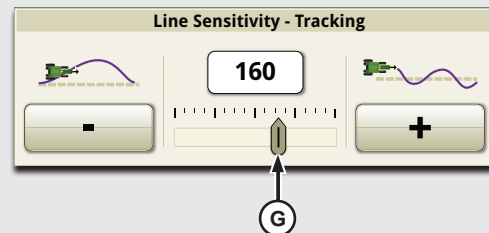
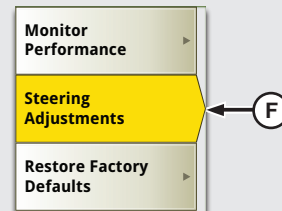
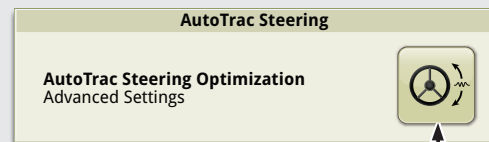


AutoTrac™ RowSense™ Operation

1. Before engaging AutoTrac™ RowSense™, select a tracking mode appropriate for the field configuration.
2. Set a guidance line.
3. Toggle between manual control and AutoTrac™ RowSense™ by pressing the engage button on the multi-function lever.

AutoTrac™ Steering Optimization

1. Select the Guidance icon (A).
2. Select the Advanced Settings icon (B).
3. Press the AutoTrac™ Steering Optimization button (E).



4. Select the Steering Adjustments tab (F).
5. Fine-tune the system by making small adjustments to one value at a time (G).

Maintenance Chart

 6

Every 6 Hours

- Lubricate the row unit picker bars, sun gears, upper gear train, and cam tracks using the onboard lubrication system.
- Inspect the solution nozzle on each row unit for the presence of dirt. Clean as needed.
- Check for wrapped, broken, or non-functional spindles.

 12

Every 12 Hours

- Check the fluid level in the solution tank.
- Check the solution tank level.
- Check the auxiliary water system operation.
- Check the fire extinguishers.
- Check the engine oil level.
- Check the coolant level.
- Check the hydraulic oil level.
- Check the grease tank level.
- Check the row unit gear case oil level.
- Check the fuel filler neck screen.

- Lubricate the unit lift rockshaft bearings.
- Lubricate the unit driveshaft covers.
- Lubricate the guide axle kingpins.
- Check the solution strainer and nozzles.
- Check the feeder belt tracking.
- Inspect the tires and check tire pressure.

 50

Every 50 Hours

- Lubricate the RMB rockshaft pivots.
- Inspect cab fresh air filter for cleanliness.
- Lubricate the row unit doffer column bearings.
- Lubricate the unit lift pivot pins and cylinders.
- Check the fuel strainer and water separator.
- Check cotton fan drive belt tension.

 100

Every 100 Hours

- Lubricate final drive axle couplers and bearings.
- Lubricate the guide axle pivot and guide axle tie rod ends.
- Check the torque on the drive and guide wheel bolts.
- Check the laydown roller chain tension and lubricate.
- Lubricate the row unit driveshafts, U-joints, and frame rollers.

Break-In Service

Break-in Service



1

After 1 Hour

- Tighten Wheel Hardware



5

After 5 Hours Check Belts for Alignment and Tension

- Feeder Belt
- Cotton Fan Belt
- Engine Accessory Drive Belt



10

After 10 Hours

- Tighten Wheel Hardware
- Check Feeder Belt Tracking
- Check Air System Hose Clamps



20

After 20 Hours

- Check Laydown Roller Drive Chain Tension
- Check Cotton Fan Belt Tension



50

After 50 Hours

- Change Row Unit Gear Case Oil

Reacting to a Plugged Row Unit

Reacting to a Plugged Row Unit

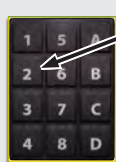
Use the following procedure to clear a plugged row unit, which is indicated by the sound of a drum clutch slipping or a message on the display. To avoid damage to the row unit, do not attempt to resolve a plug by reversing the row units without first inspecting and clearing the unit.

1. Stop the machine by moving the multi-function lever to the neutral position.
2. Raise the row units and turn off the fan and row unit switches.
3. Make sure that the path is clear of modules and obstructions and back up the machine approximately 2 m (6 ft 6 in).
4. Shut off engine and remove the ignition key.
5. Lower the unit lift cylinder safety stops.
6. Make sure to check for debris between the doffer flaps and the doffer column. Inspect the units and remove obstruction. If necessary, relieve the tension on the pressure plate. Reinstall and adjust any parts removed during this process.
7. Restart the engine and turn on the fan and row unit switches. Slowly operate the units with the park brake engaged to verify that the plug is resolved. If the clutch continues to slip, check for obstruction, bent picker bars, or misaligned doffer.

Clearing a Cotton Handling System Plug

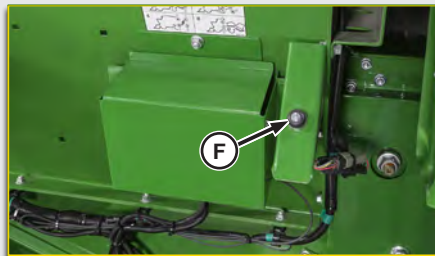
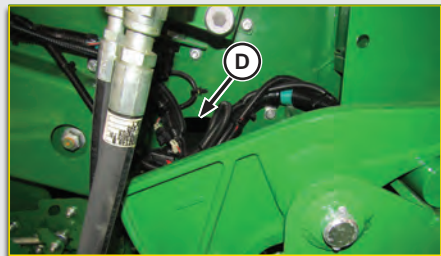
A cotton handling system plug can occur when the metering rollers, beater rollers, or feeder belt speed is too low or if the hydraulic motor stalls. If this condition exists, a low speed alarm is typically shown on the display. Use the following procedure to verify and resolve a plug in the cotton handling system:

1. Stop the machine and place the multi-function lever into neutral.
2. Disengage the fan and row unit switches (A and B).
3. Turn off Auto mode by pressing the bottom of the auto round module builder (RMB) switch (C) on the multi-function lever.
4. Inspect the machine for plugs. Check for cotton on top of the feeder belt through the inspection window (D).
5. Using the keypad, press the 2 button (E) to place the machine in the Feeder Cleanout Service Mode. Engine must be at high idle.
6. Press the B button on the keypad or tether while pushing the metering roller reversing switch (F) to operate the metering rollers. Operate the metering rollers in reverse for 15 seconds and release the tether button and switch.
7. Press the D button on the tether to operate the cotton handling system. Watch the metering rollers, beater rollers, and feeder belt for rotation. If the components operate normally and cotton is feeding into the RMB, continue to press D until the accumulator is empty.
8. If the system is still plugged, repeat steps 5 and 6.
9. If the plug cannot be cleared by reversing the metering rollers, it may be necessary to place the machine into transport configuration and manually clear the cotton plug from the feeding system. Shut off the engine and remove the key before manually unplugging the machine.



2 FEEDER CLEANOUT

A = BEATER ROLLERS
B = METERING ROLLERS
C = FEEDER AND BALER
D = ALL COMPONENTS





Additional information and
videos are available at:

www.Deere.com

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JOHN DEERE