CS690 Cotton Stripper 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 machine combined with routine maintenance procedures listed in the Operator's Manual greatly decreases the risk of fire, reduces downtime, and improves productivity. Perform cleaning procedures listed in the Lubrication and Maintenance Section of the Operators Manual at the recommended 6 and 12 hour intervals or more often as required.* ***Always follow all safety procedures posted on the machine and in the Operator's Manual.***

Table of Contents

Introduction 2
Daily Cleaning 3
Wrap 8
Daily procedures 10
Air System and Cleaner Adjustments 12
Header Adjustments 13
Row Guidance 14
Maintenance Information 16
Helpful Resources 17

Recommended hour interval indicator

Quick Response Code

At the top of many pages is a Quick Response (QR) code that links to a short instructional video or other helpful resource. Access content from the QR code by downloading a QR scanner application to your smart phone. Open the app and aim your phone's camera at the code to connect to the media.

Videos corresponding to the QR codes and pages in this guide are available on the instructional DVD found in the operator's manual package. This DVD, part number N408981, is also available from your John Deere dealer.

Harvest Configuration

Note: *Clean machine from top to bottom*

A. Clean top of baler, accumulator, screens, and finger grates.

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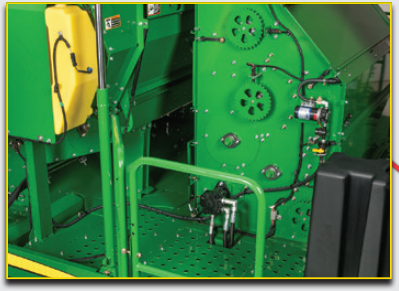
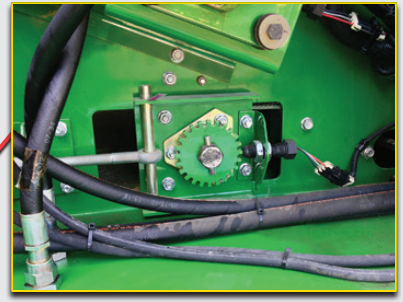
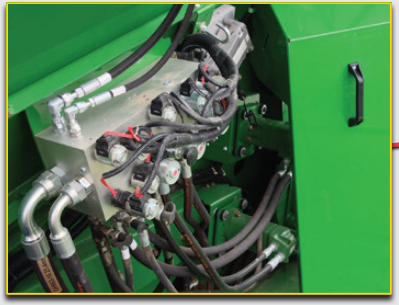


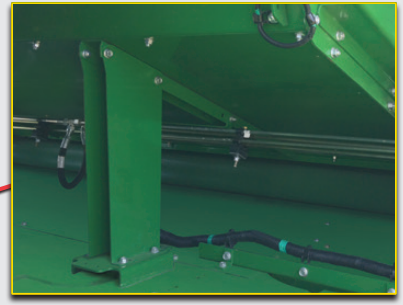
B. Clean behind cab, tanks, ducts, and front of accumulator. Clean and inspect cleaner.



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



C. Remove cover and clean hydraulic valves.



E. Clean under the accumulator and under feeder belt.

Transport Configuration
Accumulator Raised

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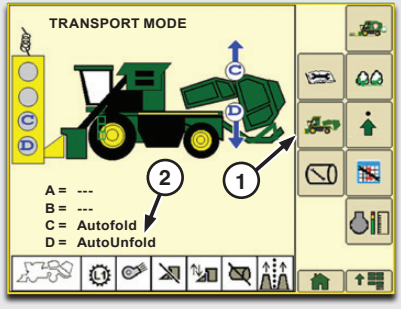
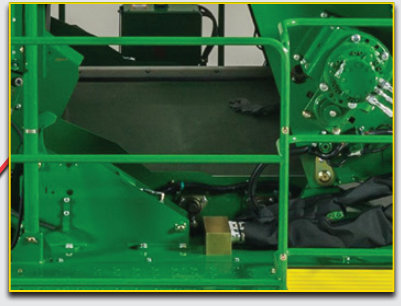
A. Clean front of RMB including brush and guides.



C. Clean platform and RMB latches.



B. Check guard rollers for freedom of movement.

D. Clean belts, pulleys, and wrap floor.

RMB Service Configuration:
Gate in Cradle

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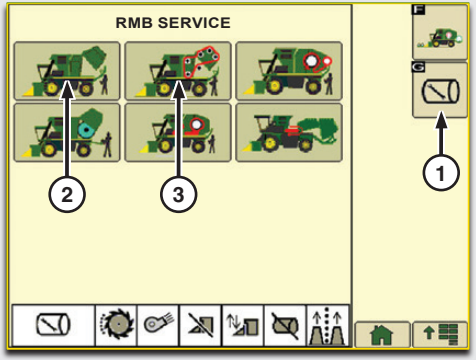
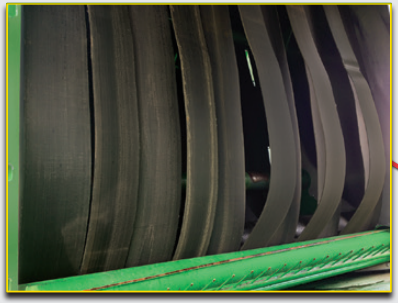
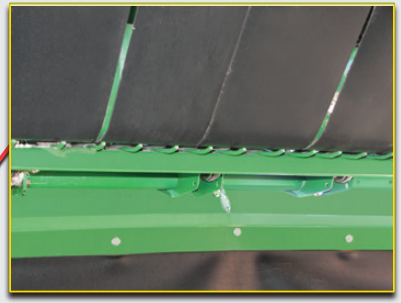




A. With rockshaft raised, clean and check belts and rollers inside RMB.

B. Clean gate latch sensor area.



C. Clean and check wrap feed rods.

D. Lower rockshaft and operate belts to check tracking.

Rear Axle and Cooling Package

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A. Clean and check handler position sensor.

C. Clean diesel exhaust fluid (DEF) tank and pump.

B. Clean rear axle joints, motor, and hoses.

D. Clean cooling module. Open doors to access cooling cores.

Engine Compartment

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

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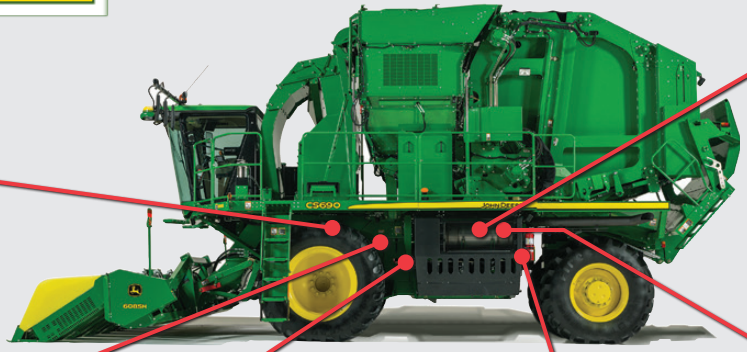
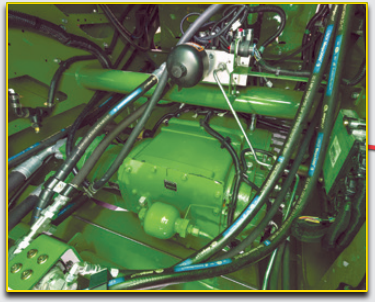
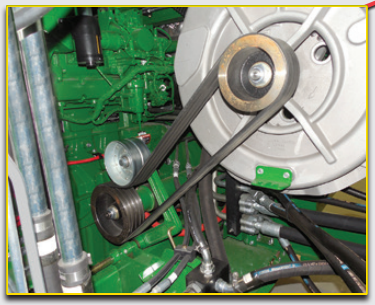


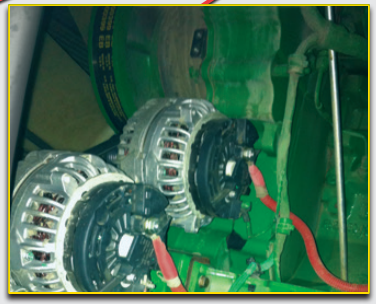


A. Clean transmission, hydraulic valve block, and front axle area.

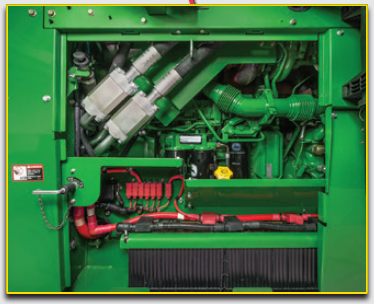
E. Thoroughly clean around hydraulic pumps and exhaust components including turbochargers, bellows, and after-treatment devices.



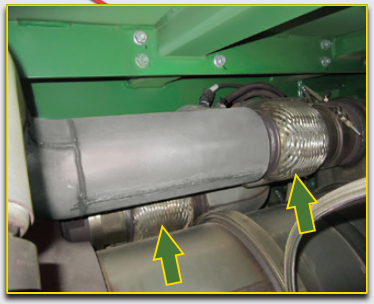
B. Clean front side of engine and cotton fan.



C. Clean alternators and check engine belts and pulleys.



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



Exhaust Bellows

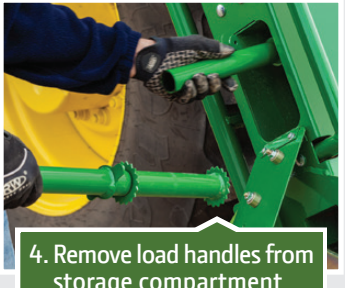
Wrap Load Procedure

Button Sequence

1. Raise wrap hoist

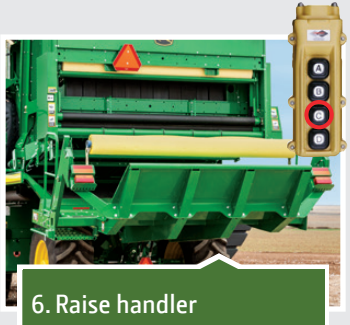
2. Lower handler

3. Place arms in load position on handler



4. Remove load handles from storage compartment

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



6. Raise handler

7. Lower wrap hoist

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

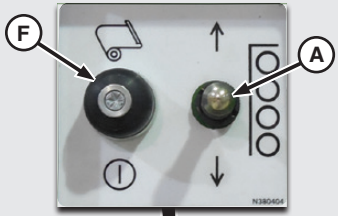
Empty Wrap Roll Replacement

Replacing empty wrap rolls

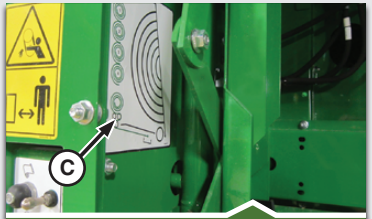
Button Sequence

NOTE: Power Module Tether is disabled by interlock when ladder is down

1. Make sure that hoist is fully raised.
2. Place handler in horizontal position.
3. Release handler ladder from storage position and fold down.
4. Remove empty roll from rollers.
5. Press down on wrap hoist switch (A) to lower new wrap roll into position on 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.



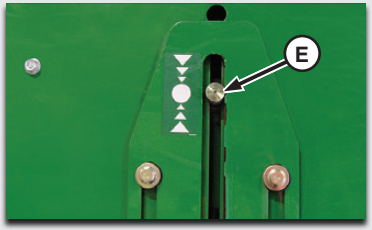
Feed Wrap



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

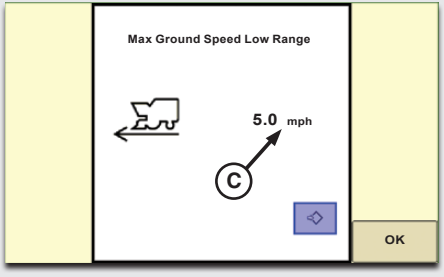
Lower wrap hoist

12. Press down on wrap hoist switch (A) to lower hoist until cylinder pin (E) is aligned with location shown on decal.



13. Press wrap feed switch (F) to feed wrap into position. Leading edge of wrap must be within area indicated on decal (D) above wrap floor.

Start of Day Procedure



1. Cleaning and Maintenance

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

2. Start Engine

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

3. Warm-up Machine

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

4. Driving Machine

- Be sure that all people and objects are safely away from the machine before driving.
- Select desired speed by using road-field button (B) and transmission range 1 or 2 button.

NOTE: *The maximum speed for field range 1 and 2 may be adjusted by pressing and holding the range 1 and 2 buttons on the armrest. Use the selection dial to program desired speed (C).*

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

5. Harvesting

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

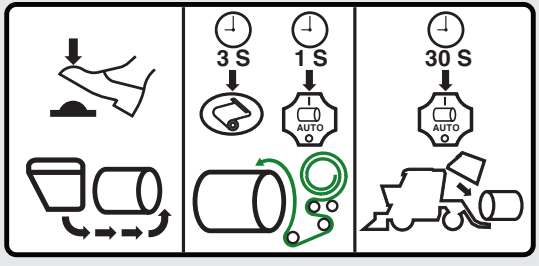
In Case of Fire

1. Disengage fan.
2. Immediately point machine into wind.
3. STOP engine.
4. Extinguish all flames and hot spots using appropriate fire extinguisher or auxiliary water hose.
5. Restart engine.
6. Unload cotton from machine.

End of Day Procedure

Unloading Cotton from Machine

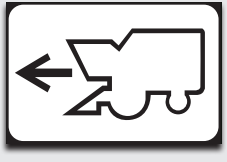
Engine at high speed.



Step 1: Empty the accumulator by pressing floor switch.

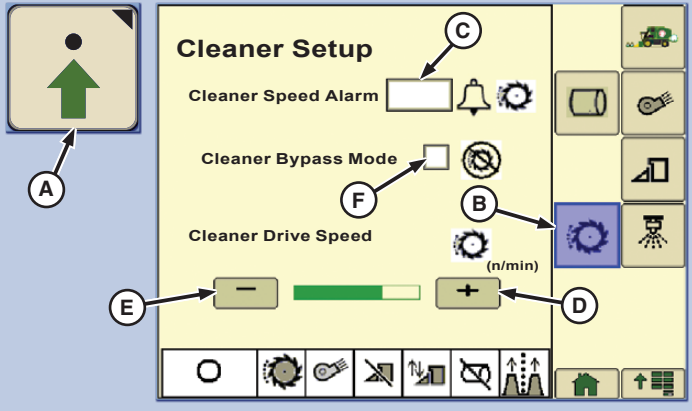
Step 2: Wrap module by pressing wrap request button on armrest for 3 seconds followed by auto button on multi-function lever.

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

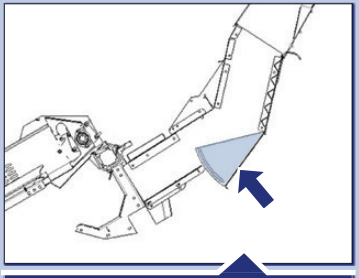


Remember to drive forward while dropping module and raising handler.

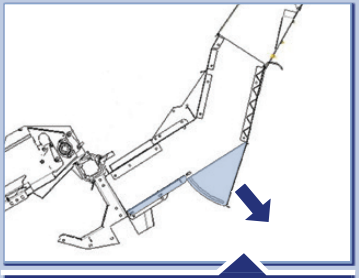
1. Select button (A) to access setup screen.
2. Select cleaner setup icon (B) from menu.
3. Cleaner drive speed can be changed by pressing increase button (D) or decrease button (E) while monitoring speed on corner post display.
4. Cleaner speed alarm setpoint (C) can be set to any value 500 – 700 rpm in 5 rpm increments.
5. Cleaner can be set to the bypass mode by pressing selection box (F) and placing the duct in bypass position.



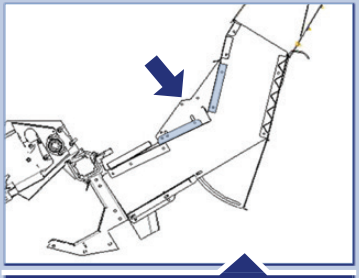
Air System Adjustments



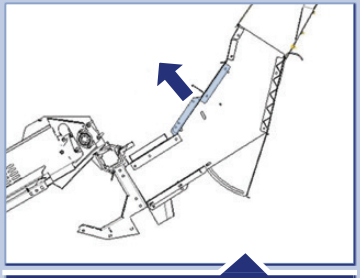
Maximum Vacuum Pressure Configuration



Increased Green Boll Separation Configuration



Maximum Green Boll Separation Configuration



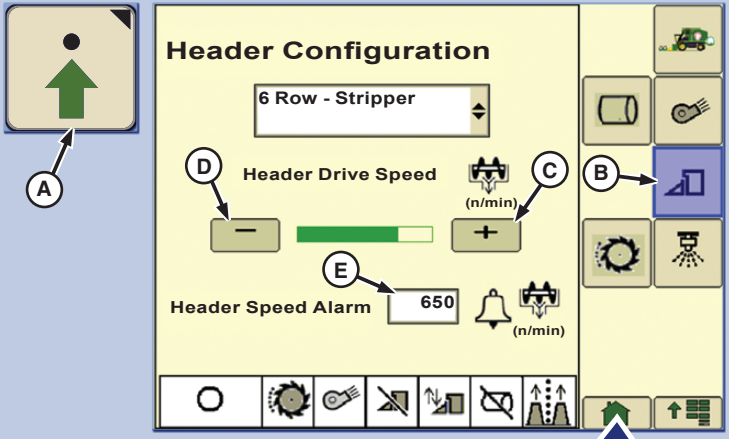
Maximum Capacity Configuration

Header Adjustments

Multi-function Lever Buttons

1. Press and hold button (A) to change setpoint.
   NOTE: *One button is used for header raise setpoint, the other for lower setpoint.*
2. Press and release button (A) to move header to preset position.
3. Response rate dial (B) allows the operator to control how fast the row units react (raise or lower) to changing ground conditions.
4. Unit offset-Press button (C) and use selection dial to set height of all row units.
5. Press and release numbered unit buttons to raise associated unit. Press again to lower. Press and hold to change individual unit height offset.

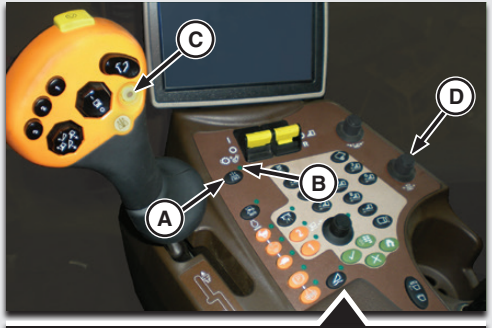
Header Configuration Setup



1. Select button (A) to access setup screen.
2. Select header setup icon (B) from menu.
3. Header drive speed can be changed by pressing increase button (C) or decrease button (D) while monitoring speed on corner post display.
4. Header speed alarm setpoint (E) can be set to any value 500 – 700 rpm in 5 rpm increments.

Row Guidance Operation

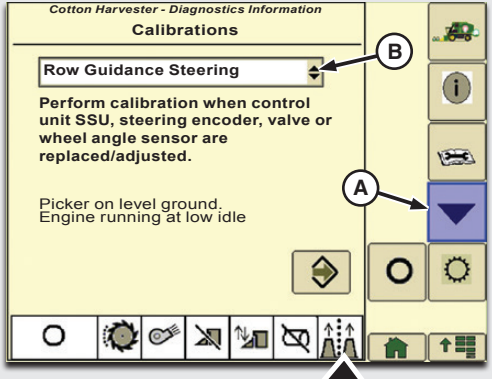
Operating Row Guidance System



1. Press guidance system enable button (A) on control console. Indicator light (B) illuminates to indicate that system is enabled.
2. Engage guidance system by pressing engage button (C) on multi-function lever while machine is harvesting. Audible alarm sounds once to confirm that system is engaged.
3. Offset adjustment dial (D) is used when necessary to make minor adjustments to keep the machine centered in the rows.

Calibrating Guidance System

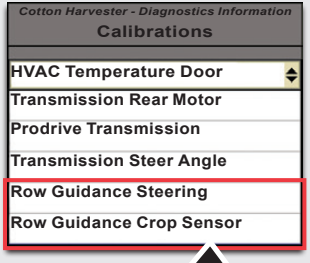
1. Position machine on a level concrete surface.
2. Select diagnostics and calibration tab on home screen.



3. From Active Alarms screen, select calibration icon (A).

CommandCenter Screen Colors

Row Guidance Icon Color	
Yellow	System Enabled
Green	Manual Row Sense™
Orange	AutoTrac™ RowSense™ (if equipped)
Gray	System Not Enabled



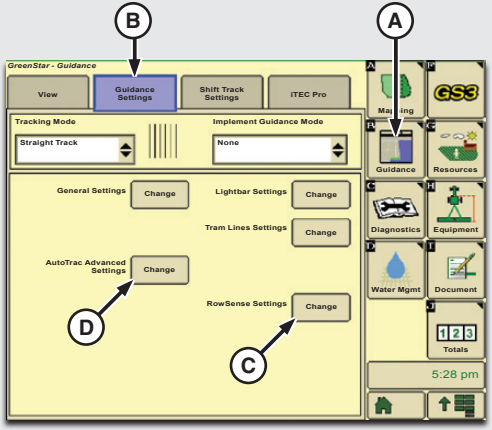
4. Select drop-down box (B).
5. Use down arrow to scroll through listed items until Row Guidance Steering is visible.
6. Select Row Guidance Steering.
7. Follow on screen directions.
8. Repeat steps for Row Guidance Crop Sensor calibration.

AutoTrac™ RowSense™ Settings

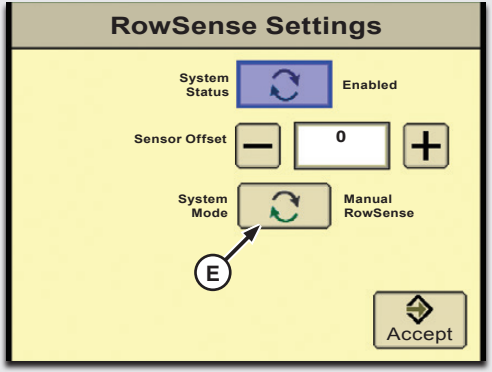
AutoTrac™ RowSense™ Requirements

1. StarFire™ Receiver with SF1, SF2, or RTK Activation.
2. Greenstar™ 3 Display (GS) with AutoTrac™ SF1 or SF2 activation and AutoTrac™ RowSense™ activation.

Setting Guidance Mode



1. To access RowSense™ settings: Menu>GS3>Guidance(A)>Guidance Settings(B)>RowSense™Settings(C).
2. Use button (E) to toggle between manual and AutoTrac™ RowSense™.



AutoTrac™ RowSense™ Operation

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

Advanced AutoTrac™ Settings

1. Access advanced AutoTrac™ (D) settings through the Guidance Settings tab (B).
2. Fine-tune system by making small adjustments to one value at a time.
3. See Row Guidance System section of the Operator's Manual for additional details regarding settings.

Maintenance Chart

12 Every 12 Hours

- Check solution level.
- Check auxiliary water system operation.
- Check fire extinguishers.
- Inspect tire and check pressures.
- Lubricate guide axle king pins.
- Check engine oil level.
- Check coolant level.
- Check hydraulic oil level.
- Check pump drive gearbox oil level.
- Check transmission oil level.

50 Every 50 Hours

- Lubricate RMB gate link pivot bushings.
- Lubricate RMB rockshaft pivots.
- Check feeder belt tracking.
- Clean cab air filter and inlet screens.
- Check cleaner drive belt tension.
- Check header drive belt tension.
- Check fuel strainer and water separator.

100 Every 100 Hours

- Lubricate header rockshaft bearings.
- Lubricate cleaner bearings.
- Lubricate final drive axle couplers.
- Lubricate final drive axle bearings.
- Lubricate guide axle pivot and guide axle tie rod ends.
- Check torque of drive and guide wheel bolts.
- Check wrap floor belt tension.
- Check laydown roller chain tension and lubricate.

Break-In Service

Break in Service

1 After 1 Hour

- Torque Wheel Hardware

5 After 5 Hours Check Belts for Alignment and Tension

- Feeder Belt
- Wrap Floor Belts
- Header Drive Belt
- Cleaner Drive Belts
- Cotton Fan Drive Belt
- Rotary Screen Drive Belts

10 After 10 Hours

- Torque Wheel Hardware
- Check Header Drive Belts

20 After 20 Hours

- Check laydown roller drive chain tension

Clearing an Air System Plug

In the event the air system becomes plugged, it can be necessary to remove cotton from the duct manually. The most common air system plug occurs in the throat area, where cotton transitions from the header to the upper air duct.

The operator presence system is designed to allow the operator to leave the seat and unplug the air system while the cleaner remains engaged. Carefully perform the following procedure to unplug the air system while fan and cleaner remain engaged.

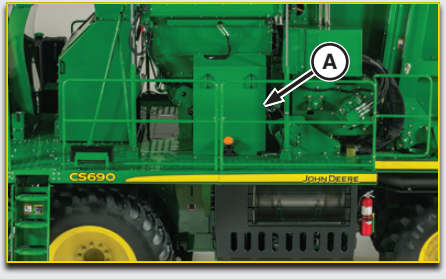
1. Raise header and lower safety stops over cylinder rods.
2. With engine running at high speed and cleaner engaged, move multi-function lever to neutral, set parking brake, and turn off header switch.
3. Cleaner engaged message appears on the display and an audible alarm sounds when the operator leaves the seat. The fan and cleaner remain engaged when conditions listed in Step 1 are met. Do not open cleaner shields during clearing procedure.

NOTE: *The fan and cleaner can be disengaged during this process, if desired.*

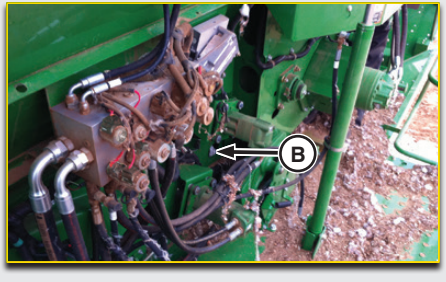
4. Locate plugged area of air duct and dislodge cotton into air stream.
5. Sit squarely in the operator seat, release park brake, and engage row units switch to resume harvesting.

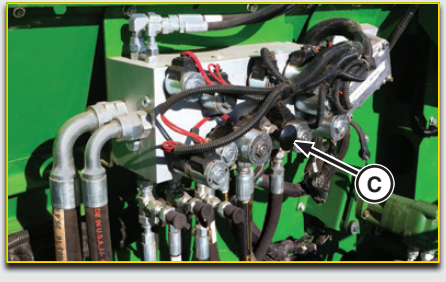
Clearing a Cotton Handling System Plug

A cotton handling system plug can occur when the meter rollers, beater rollers, or feeder belt speed is too low or if hydraulic motor stalls. If this condition exits, 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 machine and disengage auto mode.
2. Disengage fan, cleaner, and header switch.
3. Set park brake and inspect machine for plug. Remove shield (A) and check for cotton on top of feeder belt through inspection window (B).
4. Place machine in Feeder Cleanout Service Mode accessed through the RMB Service Modes Icon in the CommandCenter™ Display. Engine must be at high speed.





5. Press “B” button on the tether to operate the metering rollers while pulling outward on meter roller reversing valve (C) located on the platform hydraulic valve block. Operate meter rollers in reverse for 15 seconds and release tether button and valve.
6. Press “D” button on tether to operate cotton handling system. Watch meter rolls, beater rolls, and feeder belt for rotation. If components operate normally and cotton is feeding into RMB, continue to press “D” until accumulator is empty.
7. If system is still plugged, repeat steps 5 and 6.
8. If plug cannot be cleared by reversing meter rollers, it can be necessary to place machine in transport configuration and manually clear cotton plug from feeding system. Shut off engine and remove key before manually unplugging machine.

Reference Information

Module Staging Guide

CommandCenter™ Videos

Cotton Harvesting Website

Parts Catalog

Operator's Manual

Tama RMW™

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Access links and content at www.JohnDeere.com

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