

Row-Trak™ Implement Guidance System



JOHN DEERE

OPERATORS MANUAL Row-Trak™ Implement Guidance System

OMAR115001 D8 English

John Deere Waterloo Works

OMAR115001 D8

(This manual replaces OMAR115001 A5)
North American Edition

LITHO IN U.S.A.
ENGLISH



Introduction

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. (See your John Deere dealer to order.)

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

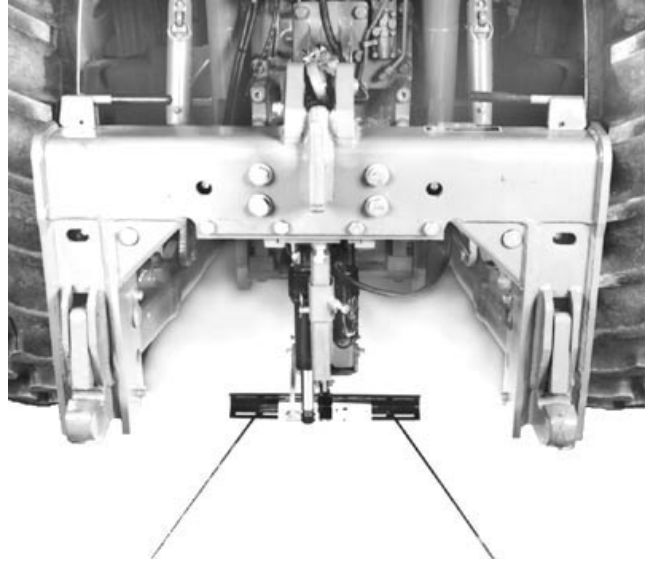
MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the implement will travel when going forward.

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I.N.) in the Specification section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. File the identification numbers in a secure place off the machine.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate which you should have received from your dealer.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.



RW55650 -UN-14DEC94

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Storage

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John Deere Service Literature Available. . . SLIT-1

John Deere Service Keeps You On the Job

John Deere Is At Your Service When
You Need It IBC-1

Safety

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



DX,ALERT -19-03MAR93-1/1

T81389 -JUN-07DEC88

UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

 **DANGER**

 **WARNING**

 **CAUTION**

DX,SIGNAL -19-03MAR93-1/1

TS187 -19-30SEP88

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.



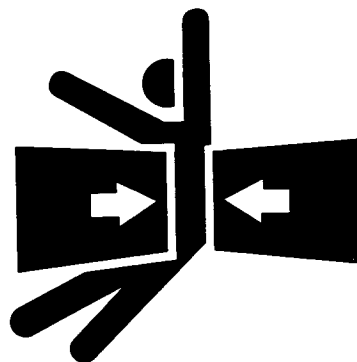
TS201 -UN-23AUG88

DX,READ -19-03MAR93-1/1

STAY CLEAR OF QUICK COUPLER

Avoid crushing injury. Remove implement before using TEST mode.

Pivoting quick coupler will move when probe is moved while row guidance system is in TEST mode; even with vehicle stopped.



RW55601 -UN-06JAN95

RX,RG,CRUSH -19-20DEC94-1/1

PRACTICE SAFE MAINTENANCE

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.



TS218 -UN-23AUG88

DX,SERV -19-03MAR93-1/1

REMOVE PAINT BEFORE WELDING OR HEATING

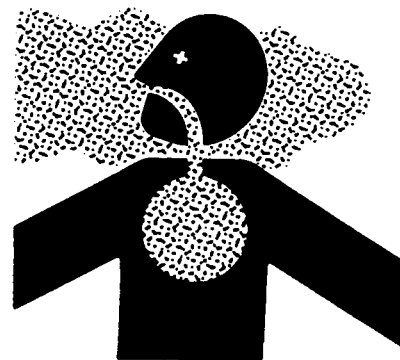
Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Do all work outside or in a well ventilated area. Dispose of paint and solvent properly.

Remove paint before welding or heating:

- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.



TS220 -UN-23AUG88

DX,PAINT -19-03MAR93-1/1

AVOID HEATING NEAR PRESSURIZED FLUID LINES

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials. Pressurized lines can be accidentally cut when heat goes beyond the immediate flame area.



TS953 -UN-15MAY90

DX,TORCH -19-03MAR93-1/1

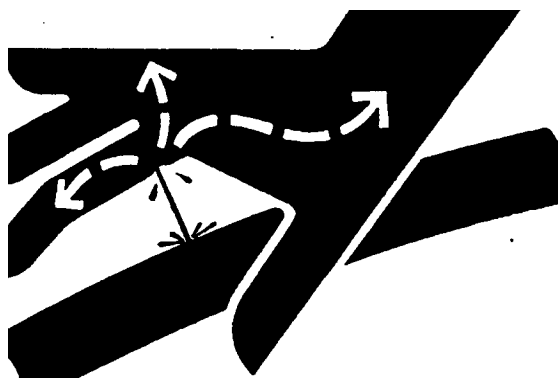
AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.

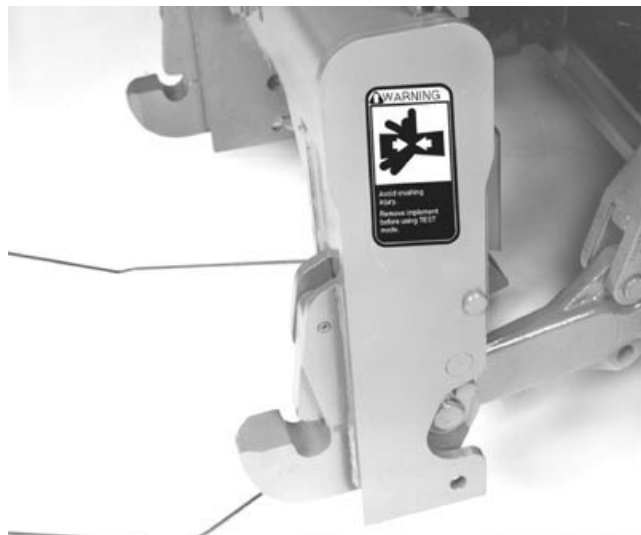


X9811 -UN-23AUG88

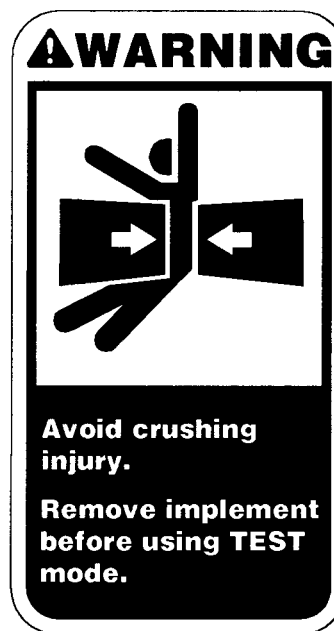
DX,FLUID -19-03MAR93-1/1

Safety Signs

STAY CLEAR OF QUICK COUPLER



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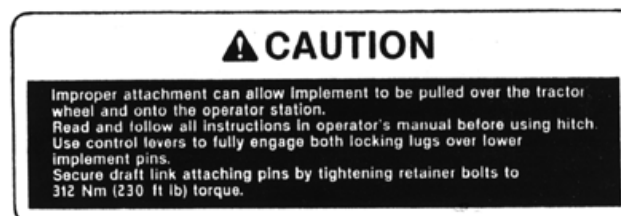
RW55603 -19-06JAN95

RX,RG,10,1 -19-20DEC94-1/1

FASTEN IMPLEMENT SECURELY



RW55626 -UN-06JAN95



RW55651 -UN-19DEC94

RX,RG,10,2 -19-20DEC94-1/1

Quick Reference Guide

CONVERTING TRACTOR FOR ROW-TRAK™ OPERATION

1. Lower hitch and shut off tractor.
2. Remove drawbar.
3. Set PTO shield in short position (8000-series tractors).
4. Move sway blocks to upper storage position.
5. Install probe sensor module and harness.
6. Connect coupler position sensor. Store dust plug on mating half tied to harness.
7. Retain harness to center link with quick lock pin. Secure lower end in clamp on coupler.
8. Insert hoses in SCV IV—left cylinder hose to left coupler port and right hose to right port (8000-series tractors).
9. Remove pivot lock pins and insert in storage holes.

NOTE: For more detailed description of above steps, see Preparing the Tractor, Preparing the Quick Coupler, and Attaching and Detaching Row Guidance sections.

ROW-TRAK™ SYSTEM CHECKOUT

1. Turn MODE switch from OFF to MANUAL. Use POSITION knob to pivot coupler. Coupler angle should follow same direction of knob as it is rotated. Coupler should be centered when knob is at center position. Display also indicates coupler position (one bar when centered, additional bars left or right of center indicate how far coupler is pivoted).
2. Turn MODE switch to TEST (probe lowers). Move probes left and right. Coupler should pivot as probes are moved. "Plants" on monitor display indicate probe module is "enabled" (will appear when moving probes).

NOTE: TEST mode is only functional when tractor is not moving. During field operation, use ACTIVE mode.

3. Return MODE switch to MANUAL before attaching implement (probe raises to avoid damage when backing into implement).

STARTING FIELD OPERATION

1. Turn MODE switch to ACTIVE and start with POSITION and RESPONSE knobs at center position.
2. Lower implement to working depth and check for correct vertical positioning of probe module. Adjust if needed.
3. Use RESPONSE knob to increase or decrease system responsiveness.

NOTE: For more detailed description of above steps, see Operating Row Guidance section.

OTHER OPERATIONAL FEATURES

1. Automatic probe raise/lower and coupler centering (ACTIVE mode):
 - Probe automatically lowers and system is activated when hitch is lowered
 - Probe automatically raises and quick coupler centers when hitch is raised (starts out centered as implement is lowered after turning around)

NOTE: Turn mode switch from MANUAL to TEST to raise/lower probe without moving hitch.

2. "Plant" on display will flash and an audible alarm will sound to alert operator, if system is fully pivoted and still unable to keep implement on the row.

3. Adjust probe module center position with POSITION knob, if probe module is not exactly centered on implement (system may cause implement to be too far left or right of row).

NOTE: Adjust probe module center position to temporarily shift system on steep hillsides, if needed.

4. Turn MODE switch to MANUAL to temporarily deactivate system during operation (may be required when crop missing for probe to follow). Coupler will move to position selected with POSITION knob. Turn MODE switch to ACTIVE to reactivate system when probe is again following crop row.
5. Turn MODE switch to MANUAL while turning at end of field to delay system activation (may be required when working point rows). Coupler will stay centered after lowering until MODE switch is turned to ACTIVE.

NOTE: For more detailed description of above steps, see Operating Row Guidance and Field Operating Tips sections.

CONVERTING FROM ROW-TRAK™ TO REGULAR TRACTOR OPERATION

1. Turn MODE switch to MANUAL to keep probe raised.
2. Disconnect from implement.
3. Lower hitch.
4. Turn POSITION knob to center quick coupler. Install pivot lock out pins.
5. Turn Mode switch to OFF.

6. Shut tractor off.
7. Disconnect coupler position sensor. Insert dust plug in sensor and cap on harness.
8. Disconnect probe harness at tractor and install dust cap.
9. Remove probe module and harness from quick coupler.

NOTE: For more detailed description of above steps, see Preparing the Tractor, Preparing the Quick Coupler, and Attaching and Detaching Row Guidance sections.

COMPONENT INTERCHANGEABILITY

Some components of Row-Trak™ system are interchangeable between tractors. Other components are not interchangeable and require system recalibration. See your John Deere Dealer.

IMPORTANT: Row-Trak™ computer has been calibrated to match the valve and pivoting quick coupler (position sensor) installed on tractor at calibration.

Use valve and quick coupler only on tractor as originally equipped. Should either component need to be replaced or interchanged, have your John Deere Dealer recalibrate the system.

Probe module and monitor with control knobs are fully independent components and can be replaced or interchanged without calibration.

DRAFT LOAD GUIDELINES

IMPORTANT: Draft loads requiring more than 134 kW (180 hp) or implements with a Gross Vehicle Weight (GVW) greater than 4540 kg (10,000 lb) may result in premature wear or failure of row guidance coupler components.

Conventional cultivators and bedders work well with the Row-Trak Implement Guidance System; however, ripper-bedding implements and no-til cultivators with a GVW of 4540 kg (10,000 lb) or more are not recommended.

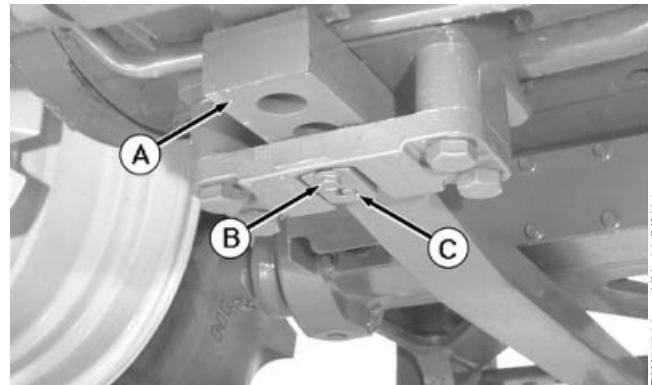
AG,RX18382,5 -19-05MAY98-1/1

Preparing the Tractor

REMOVING DRAWBAR—8000-SERIES TRACTORS

Drawbar (A) must be removed if it interferes with implement guidance system operation. Remove nut (B) and retaining pin (C).

Slide drawbar out from tractor and store for future use.

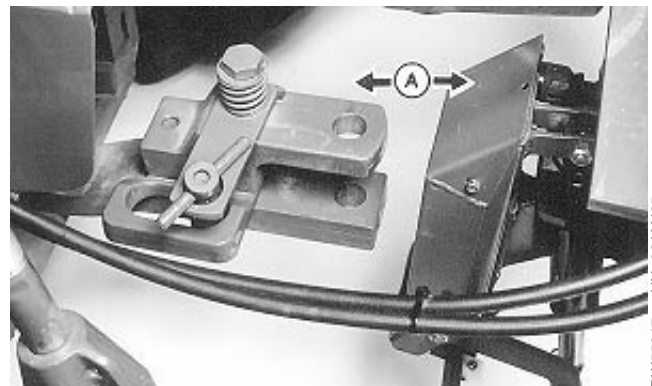


RX,RG,15,1 -19-20DEC94-1/1

RW55309 -UN-28JUN94

ADJUSTING OR REMOVING DRAWBAR—7000-SERIES TRACTORS

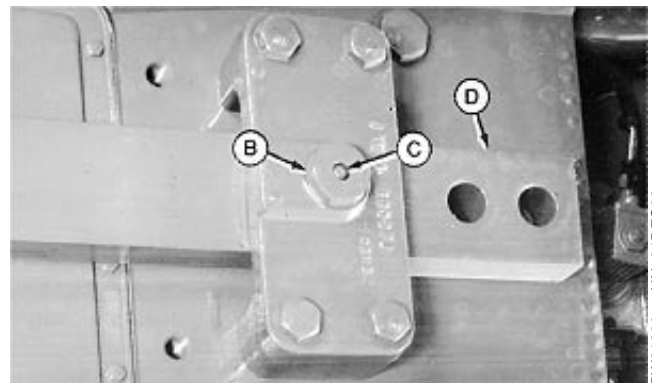
Check clearance (A) between drawbar and implement guidance system.



RX,RG,15,2 -19-20DEC94-1/2

RW55647 -UN-06JAN95

Drawbar (D) must be in short position or must be removed if it interferes with implement guidance system. Remove nut (B) and retaining pin (C) to adjust or remove drawbar.



RX,RG,15,2 -19-20DEC94-2/2

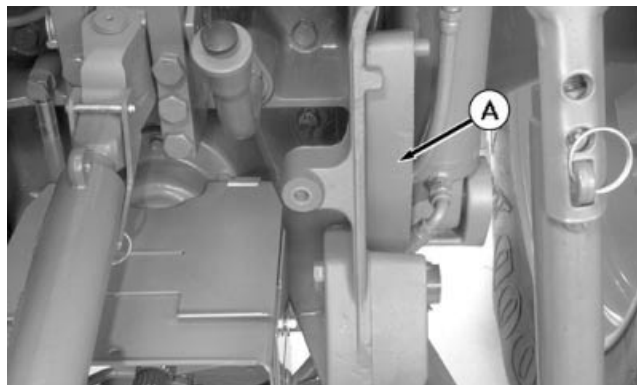
RW21880 -UN-04DEC92

REMOVING SWAY BLOCKS

Mount sway blocks (A) in upper (storage) position to allow side sway when hitch is lowered. Side sway is prevented when hitch is raised.

IMPORTANT: To prevent draft link interference, be sure distance between tires is:

- Category 3N Hitch—1.09 m (43 in.)
- Category 3 Hitch—1.17 m (46 in.)



8000-Series Tractors

RW55282 -UN-28JUN94



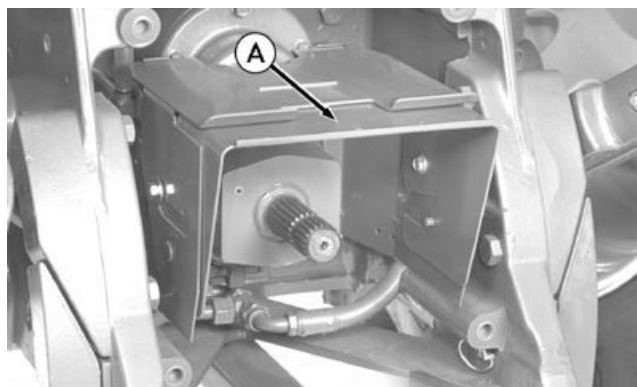
7000-Series Tractors

RW22086 -UN-04DEC92

RX,RG,15,3 -19-20DEC94-1/1

USING PTO SHIELD POSITION—8000-SERIES TRACTORS

Use retracted shield position (A) for row guidance work.



RW55317 -UN-28JUN94

RX,RG,15,4 -19-20DEC94-1/1

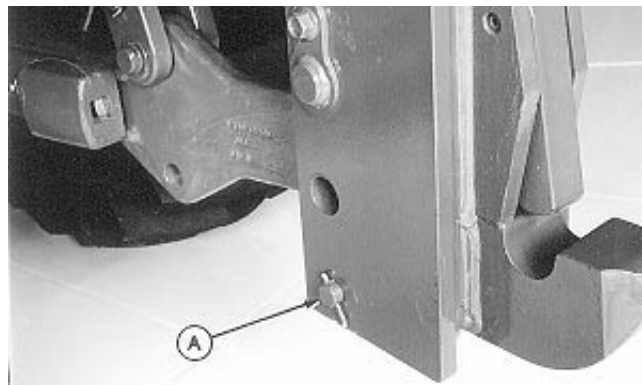
Preparing the Quick Coupler

USING QUICK COUPLER LOCK-OUT PINS



CAUTION: Avoid personal injury. Do NOT use fingers to align holes.

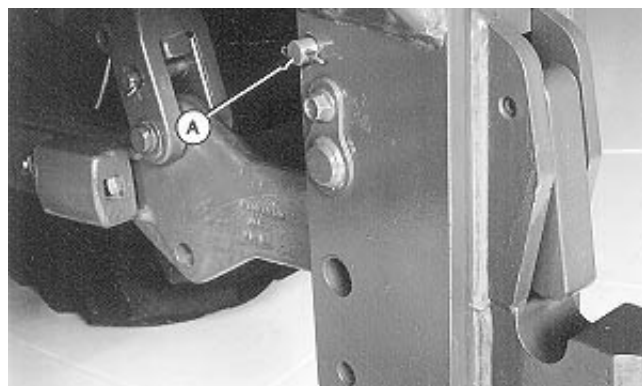
Quick coupler lock-out pins (A) should be installed any time coupler is used in a non-guidance operation, especially heavy draft applications.



RX,RG,20,1 -19-20DEC94-1/1

REMOVING QUICK COUPLER LOCK-OUT PINS

Remove quick coupler lock-out pins and install in upper pin storage location (A) when row guidance operation is required.



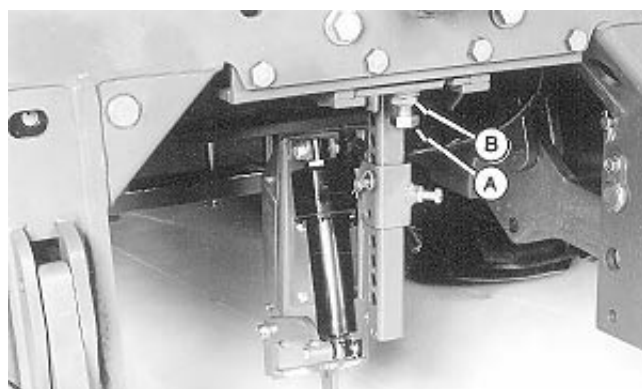
RX,RG,20,2 -19-20DEC94-1/1

INSTALLING AND ADJUSTING PROBE MODULE

Slide probe module onto quick coupler.

NOTE: Primary adjustment of probe module should be completed prior to hooking up implement. Any final adjustments should be made in the field.

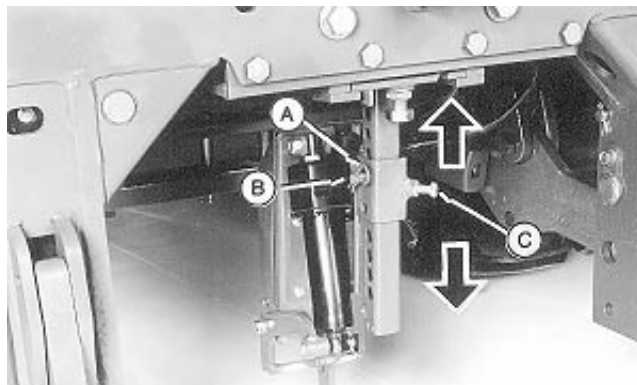
Slide probe module forward to stop or backward to desired location. Tighten bolt (A) and nut (B).



RX,RG,20,3 -19-20DEC94-1/1

ADJUSTING PROBE MODULE HEIGHT

Loosen support tube set screw (C). Remove lock pin (A) and pull pin (B) from support tube. Slide probe support to desired height, insert pin in hole and secure with lock pin. Tighten support tube set screw.

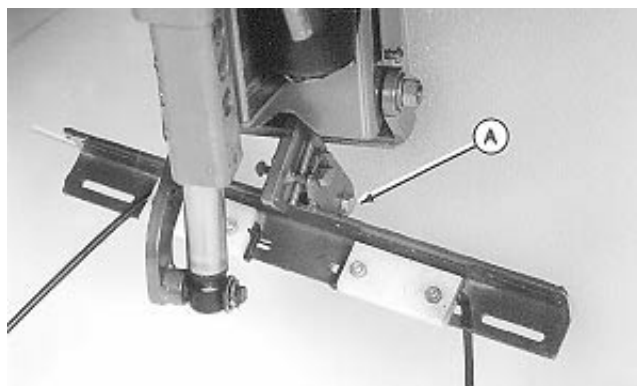


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RX,RG,20,4 -19-20DEC94-1/1

ATTACHING PROBE OR GUIDE RODS

Attach probe or guide rods (A) to probe sensor shaft. Adjust position of probe or guide rods during implement hookup or field operation. See Attachments Section to adjust probe for correct crop/ground contact.



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RX,RG,20,5 -19-20DEC94-1/1

Attaching and Detaching Row Guidance

CONNECTING SCV HOSES

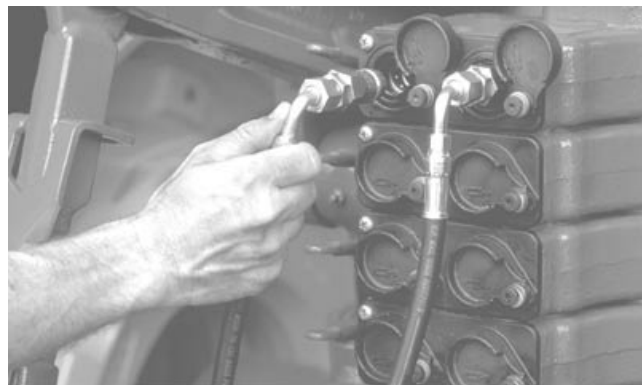
NOTE: Row guidance will not operate if hoses are reversed.

8000-Series Tractors

Connect quick coupler hoses to SCV IV. Connect left quick coupler cylinder hose to left SCV port and right hose to right port.

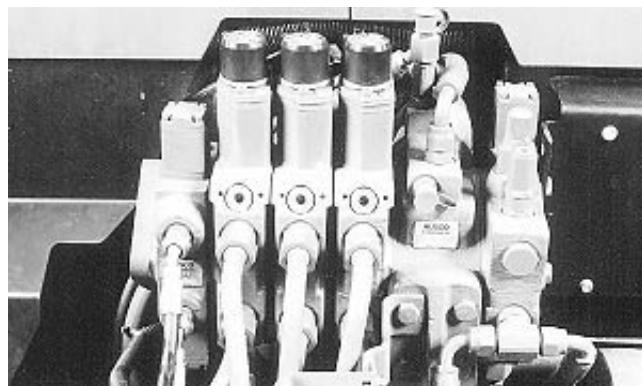
7000-Series Tractors

Connect right quick coupler cylinder hose to top port of row guidance valve and left hose to bottom port, if not installed.



8000-Series Tractors

RW55611 -UN-24OCT94



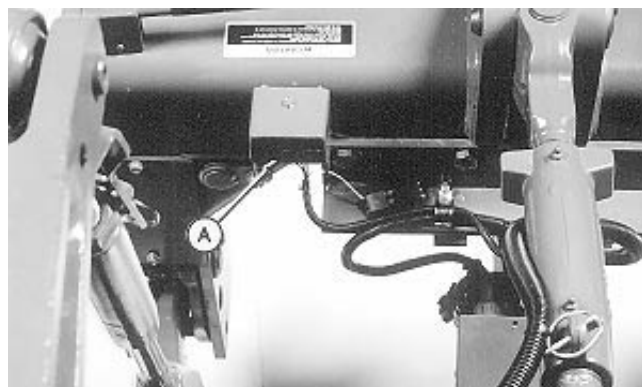
7000-Series Tractors

RW55612 -UN-06JAN95

RX,RG,25,1 -19-20DEC94-1/1

CONNECTING WIRING HARNESS TO QUICK COUPLER

Connect wiring harness to quick coupler position sensor (A).



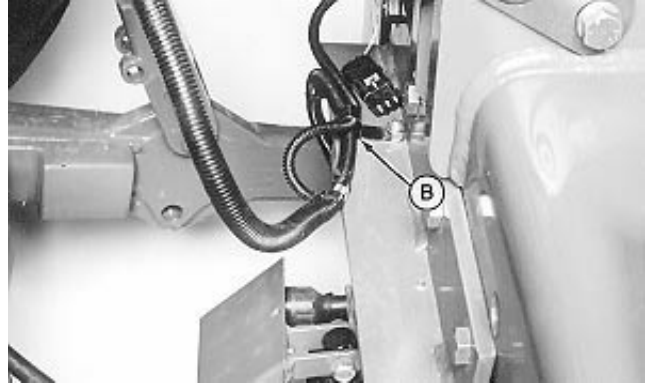
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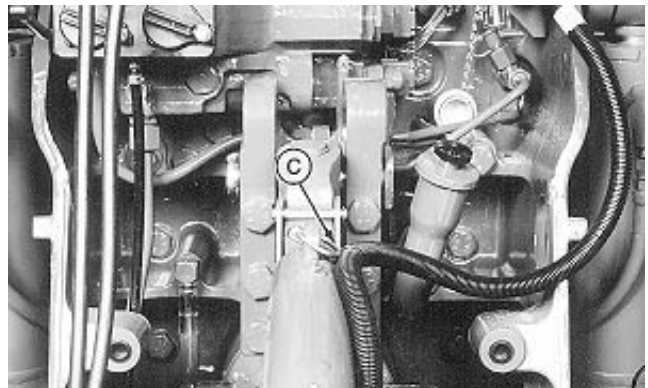
RW55613 -UN-06JAN95

NOTE: Store position sensor dust plug in connector tied to harness.

Route wiring harness to clamp (B) and secure. Attach wiring harness to center link with quick lock pin (C).



RW55614 -UN-06JAN95



RW55615 -UN-06JAN95

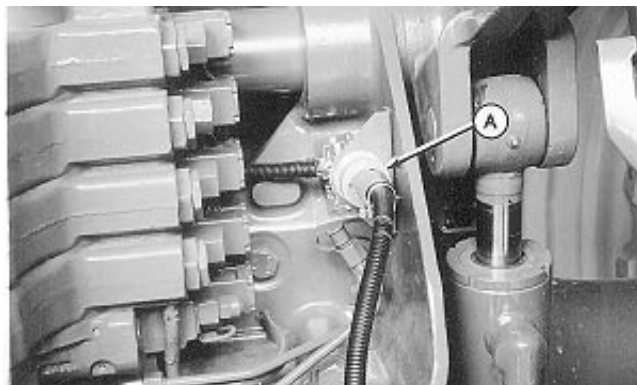
RX,RG,25,2 -19-20DEC94-2/2

CONNECTING PROBE MODULE WIRING HARNESS TO TRACTOR

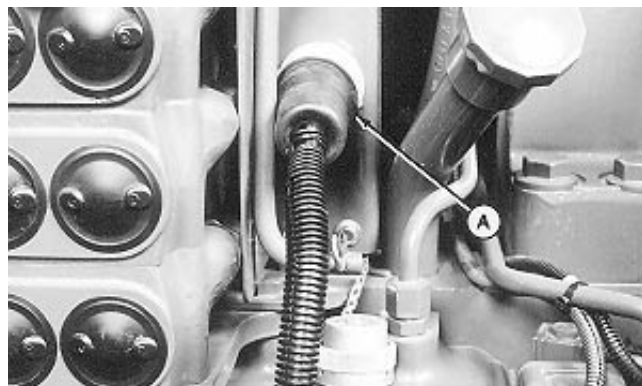
IMPORTANT: Engine and key switch **MUST** be **OFF** when connecting or disconnecting probe module harness. Row-Trak™ system (and SCV IV on 8000-series tractors) will not function properly until engine is shut off and restarted, if harnesses are connected or disconnected with engine running. Connecting or disconnecting harnesses with engine or key **ON** may also cause diagnostic error messages.

Remove cap and connect wiring harness to tractor electrical outlet (A).

NOTE: For 8000-series tractors, remote hydraulic lever (SCV IV) will no longer operate valve after installing wiring harness. Only Row-Trak™ controls will operate valve.



8000-Series Tractors



7000-Series Tractors

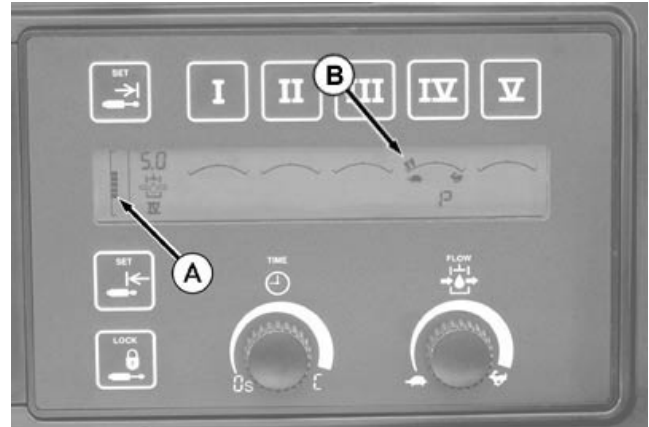
Row-Trak is a trademark of Deere & Company.

RX,RG,25,3 -19-03JAN95-1/1

USING SCV SET-UP PANEL— 8000-SERIES TRACTORS

SCV IV display on SCV set-up panel must show a "P" when row guidance is installed.

NOTE: Flow and detent setting knobs are disabled for SCV IV when row guidance is installed. The previous flow and detent settings for normal SCV operation are retained in memory. When row guidance quick coupler wiring harness is disconnected from tractor, SCV IV setup and display returns to normal.



Setup and display of all SCVs, except SCV IV, is unaffected by row guidance.

Row guidance rate of cylinder operation (flow rate) for SCV IV is shown on bargraph display (A).

NOTE: Row sensor position is shown on bargraph on left side of monitor and is displayed decimally above the SCV number display.

RX,RG,25,4 -19-20DEC94-1/1

ADJUSTING LIFT LINKS AND CENTER LINK

8000-Series Tractors

IMPORTANT: Avoid interference between center link and quick coupler when hitch is fully raised. Damage to center link may occur if center link is longer than 800 mm (31.5 in.) on standard lift capacity tractors or 762 mm (30 in.) on high-lift capacity tractors.

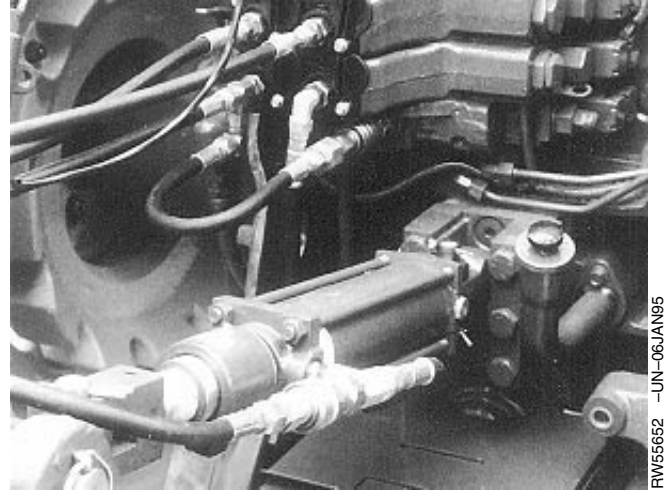
Adjust center link length. Slowly raise hitch to check for interference. Lengthen lift links as needed to prevent interference when hitch is fully raised.

7000 and 8000-Series Tractors with Hydraulic Center Link (used on cultivators with lift assist wheel)

Attach hydraulic center link to *lower* center link attaching point on 8000-series tractors with high-lift hitch option.

Use *upper* center link attaching point on 7000-series tractors (same as for regular center link).

Fully extend cylinder. Slowly raise hitch to check for interference. Lengthen lift links as needed to prevent interference when hitch is fully raised.



Hydraulic Center Link

RW55652 -UN-06JAN95

RX,RG,25,5 -19-03JAN95-1/1

OPERATIONAL SYSTEM CHECKOUT

CAUTION: Avoid crushing injury. Remove implement before using TEST mode.

1. Lower hitch and turn mode switch (A) from OFF to MANUAL.
2. Turn position control knob (B) to pivot coupler with engine running. Coupler angle should follow same direction of knob as it is rotated. Coupler should be centered when knob is at center position.

NOTE: Monitor also displays coupler position; one bar indicates centered, additional bars left or right of center indicate how far coupler has pivoted.

3. Turn mode switch to TEST position with engine running (probe will lower).

NOTE: TEST mode only works if selected after starting tractor. Turn mode switch to ACTIVE, then back to TEST, if tractor is started with mode switch already in TEST position.

4. Turn position control knob and response knob (C) to center position.
5. Manually move probes or guide rods. Coupler should steer left as probes are moved left and steer right as probes are moved right.
 - Move probe left: left side of coupler pushes rearward away from tractor and right side pulls forward closer to tractor
 - Move probe right: right side pushes rearward and left side pulls forward

NOTE: "Plants" on display monitor indicate probes are "enabled".

6. Repeat above procedure at different response rate to confirm changes in response time.



RW55619 -UN-06JAN95

NOTE: *TEST mode is only functional when tractor is not moving. During field operation, use ACTIVE mode.*

7. If system is *not* working correctly, see Troubleshooting section.
8. Return system to MANUAL mode before attaching implement.
 - Probes will raise to avoid damage when backing into implement
 - Quick coupler can be pivoted with position control knob to aid in implement hookup

RX,RG,25,6 -19-03JAN95-2/2

CHECKING FOR INTERFERENCE



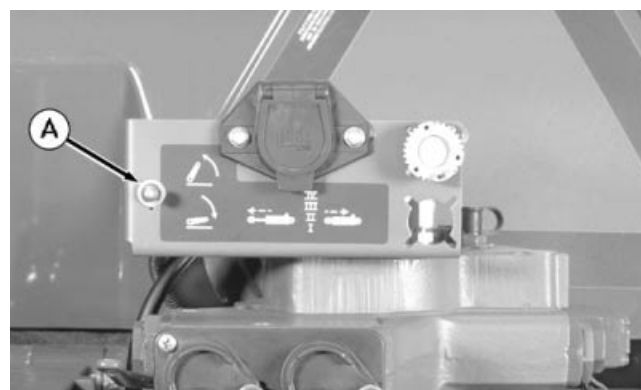
CAUTION: To prevent injury or damage caused by tractor movement, be sure transmission is in **PARK** position before using external raise/lower switch. Stay clear of interference points when using external raise/lower switch.

Pivoting quick coupler centers automatically as hitch approaches its full up position. Stay clear of implement when raising hitch with external switch if coupler is not centered.

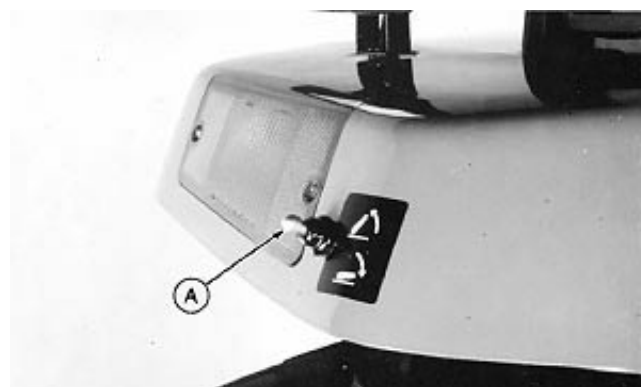
Pull external raise/lower switch (A) outward and hold switch up to raise hitch, or down to lower. Check for wiring interference or hitch interference or binding through full range of hitch travel.

Return to operator's seat and raise implement off ground, but not fully raised. Rotate monitor position knob fully clockwise and counterclockwise to check for interference. Pivoting implement should not interfere with tractor or wheels.

NOTE: *Return position knob to center position, after checking for implement interference.*



8000-Series Tractors



7000-Series Tractors

RX,RG,25,7 -19-04JAN95-1/1

DETACHING ROW GUIDANCE

Perform the following steps to detach row guidance system:



CAUTION: Serious personal injury can result if hydraulic hoses are disconnected under pressure. Turn mode control knob "off" before disconnecting coupler from SCV IV on 8000-series tractors.

1. Move mode control knob to "Manual" to keep probe raised.
2. Detach implement from quick coupler. (See Detaching Implement From Quick Coupler in Operating Row Guidance section.)
3. With tractor running, lower quick coupler.
4. Use Position knob to center coupler. Insert lockout pins.
5. Turn mode control knob to "off".
6. Turn tractor off.
7. Disconnect row guidance wiring harness and replace dust plugs.
8. Disconnect row guidance control hoses on 8000-series tractors.
9. Remove probe and probe module.
10. Move sway blocks to lowered position.
11. Replace drawbar, if removed.

NOTE: Flow and detent setting knobs are enabled for SCV IV, when the row guidance wiring harness is disconnected from the 8000-series tractor. The previous flow and detent settings for normal SCV operation are retained in memory. When row guidance wiring harness is disconnected from the tractor, SCV IV setup and display returns to normal.

RX,RG,25,8 -19-20DEC94-1/1

Operating Row Guidance

USING ROW GUIDANCE MONITOR

Row guidance monitor provides operational display of row guidance function and a means to select the response rate (A), mode (B) and position control (C) for operation.

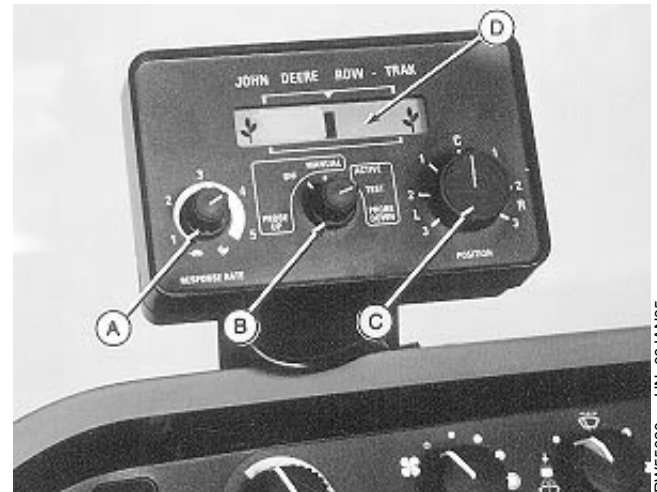
Display (D) has 13 bars with a "plant" symbol on each end. The center bar and "plant" symbols are always shown when row guidance system is in active or test modes when system is running.

As quick coupler pivots left or right of center, additional bars are shown on display, starting from the center position, indicating direction of quick coupler movement. For example, six bars right of center would indicate that quick coupler is fully pivoted to the right position.

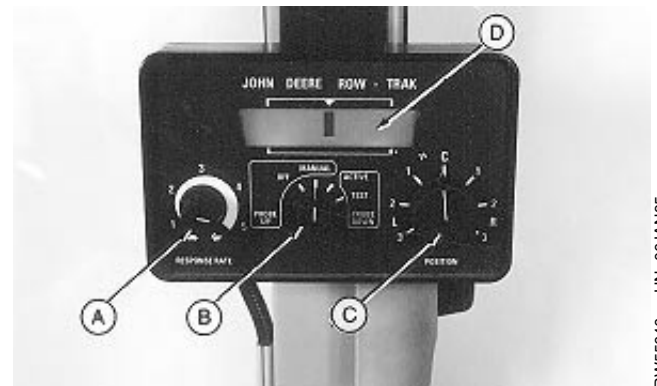
"Plant" symbols are only shown when coupler is being controlled by the probe sensor. Example:

- **ACTIVE** mode—only when tractor is moving and hitch is down
- **TEST** mode—only if mode is selected after starting tractor and then not until probe sensor is first moved

NOTE: *Optional Performance Monitor also displays Row-Trak™ guidance system performance. (See Performance Monitor—Optional in Controls and Instruments section of tractor operator manual.)*



8000-Series Tractors



7000-Series Tractors

- A—Response Rate**
- B—Mode**
- C—Position Control**
- D—Display**

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RX,RG,30,2 -19-03JAN95-1/1

USING RESPONSE CONTROL KNOB

Turn response control knob (A) clockwise (rabbit) to increase response rate of quick coupler. Turn knob counterclockwise (turtle) to slow response rate.

- Higher speed operations require increased response rate while lower speed operations require decreased response rate. System does not need to move as quickly when travel speed is slow as it does at higher travel speeds.
- Use slower response rate for planting or bedding operations. Lower response rate settings will tend to straighten any irregularities.
- Use faster response rate for cultivation. System will closely follow irregularities of row or steering corrections.



RX,RG,30,3 -19-20DEC94-1/1

USING MODE CONTROL KNOB

Turn mode control knob (A) to one of the following positions:

OFF

Row guidance is disabled in the off position. Quick coupler should previously been centered and locking pins installed for non-guidance work. (See Remove Pivot Lockout Pin in Preparing the Quick Coupler section.)

Manual

- Row guidance crop sensor is disabled in manual mode. Position control knob is used to control hitch position. Bars on display will show direction of quick coupler movement.

NOTE: Use manual mode and position control knob to move hitch during implement attaching/detaching and to check valve operation.

- Implement will be locked in position at startup or when entering manual mode from any other mode. Turn position control knob slowly until hitch begins to move.
- Implement will *not* be locked in position, if travel speed is greater than 1 km/h (0.6 mph) when entering manual mode from active mode. Control system will move actuator to position set by position knob. (See Using Position Control Knob in this section.)

NOTE: Use manual mode above 1 km/h (0.6 mph) to temporarily deactivate system during short stretches of missing crop or to delay system activation while turning at end of field.

Active

Use active mode for normal row guidance work. Coupler pivots in response to probe sensor when tractor is moving. Display shows position of quick coupler. Actuator will center when hitch is raised (actuator will *not* center if active mode is selected after hitch is already up).



RW55622 -UN-06JAN95

NOTE: Row guidance will become disabled and current actuator position held if travel speed drops below 1 km/h (0.6 mph). "Plants" on monitor will not be displayed.

See Troubleshooting section if active mode does not operate as expected.

Test

Use test mode to check Row-Trak™ system with tractor stationary. Key must be turned on.

NOTE: Test mode is similar to active mode except in test mode row guidance system will only function at speeds below 1 km/h (0.6 mph) or if tractor is stopped.

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RX,RG,30,4 -19-03JAN95-2/2

USING POSITION CONTROL KNOB

Use position control knob (A) to center or offset implement. Position control knob allows operator to offset crop sensor position signal during row guidance operation. This feature is useful during hillside operation to compensate for side slip and to compensate for any error in crop sensor alignment.

Active Mode

Turning position control knob fully clockwise or counterclockwise moves actuator 50 percent of travel distance from center position to full left or right position (adjusts probe sensors center position).

Manual Mode

Turning position control knob fully clockwise or counterclockwise moves actuator 100 percent of travel distance from center position to full left or right position. Position control knob becomes an actuator position control knob.

NOTE: Use manual mode to control hitch position during attaching/detaching implement.



RW55623 -UN-06JAN95

RX,RG,30,5 -19-20DEC94-1/1

SYNCHRONIZING UP/DOWN SENSOR

Crop row sensor contains an actuator to raise and lower sensor probe. Sensor is raised when row guidance system is switched to Off or Manual positions and is lowered when system is in Active or Test modes.

Row guidance system does not store in memory probe location when tractor is turned off. Operator may need

to synchronize up/down sensor after starting tractor. Switch between manual and test modes to move sensor up/down or raise/lower the hitch to synchronize sensor position.

RX,RG,30,6 -19-03JAN95-1/1

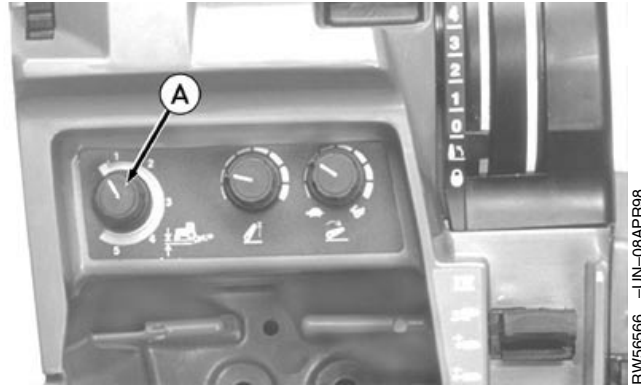
ATTACHING IMPLEMENT TO QUICK COUPLER



CAUTION: To avoid bodily injury or machine damage, put transmission in PARK position and check the full range of hitch motion for interference, binding, or PTO separation whenever an implement is attached.

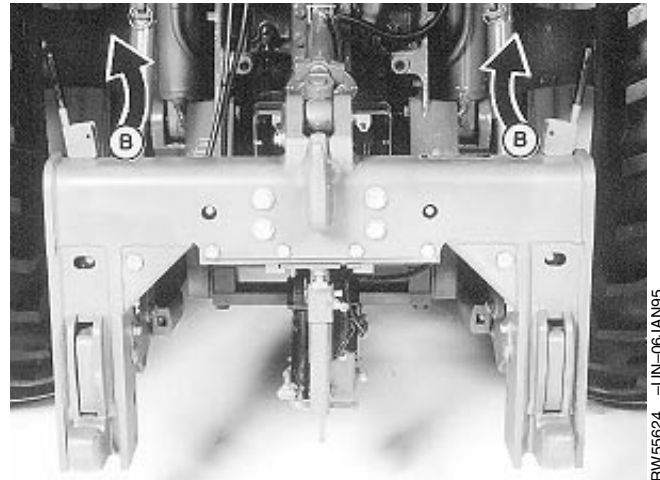
Do not stand between tractor and implement.

1. Turn load/depth control (A) fully counter clockwise (Position Control) before attaching or detaching implements.



RX,RG,30,7 -19-20DEC94-1/5

2. Pull up on coupler latch handles (B).
3. Lower hitch until quick coupler hooks are lower than implement hitch pins.
4. Back up tractor to implement.
5. Raise hitch enough to engage implement pins in hooks.



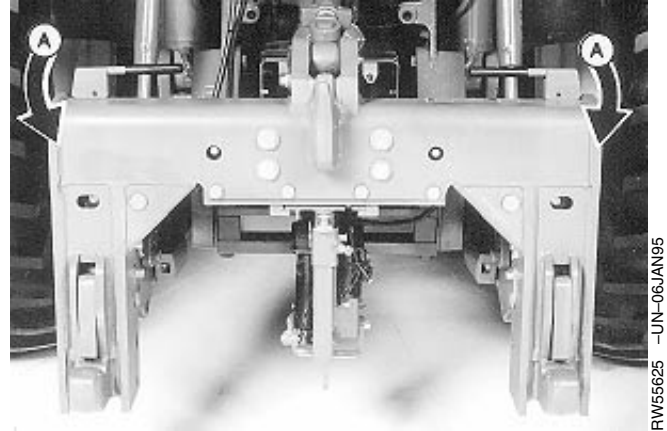
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RX,RG,30,7 -19-20DEC94-2/5



CAUTION: To avoid bodily injury or machine damage make sure implement is attached correctly. Incorrect attachment can allow implement to be pulled over the tractor wheel and onto the operator station.

6. Push coupler latch handles (A) down to lock implement to quick coupler.
7. Connect implement hydraulic hoses and electrical connections.



RW55625 -UN-06JAN95

RX,RG,30,7 -19-20DEC94-3/5

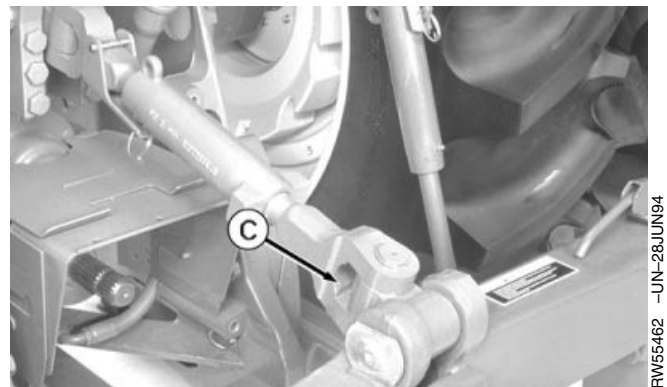
8. Slowly pull hitch control lever (A) to raise implement. Check for interference. Lower implement to ground and adjust upper height limit control if necessary.
9. Turn load/depth control (B) to desired setting.



RW55286 -UN-07JUL94

RX,RG,30,7 -19-20DEC94-4/5

IMPORTANT: Check for interference or binding of center link end and quick coupler (C).



RW55462 -UN-28JUN94

RX,RG,30,7 -19-20DEC94-5/5

ATTACHING CULTIVATORS WITH LIFT ASSIST WHEEL—7000-SERIES TRACTORS



CAUTION: Avoid personal injury. Never disconnect hitch valve connector with engine running. Hitch may move unexpectedly.

Band connector cap and plug to upper hitch solenoid coil harness near its connector. Disconnect upper hitch solenoid coil connector and insert protective cap and plug.

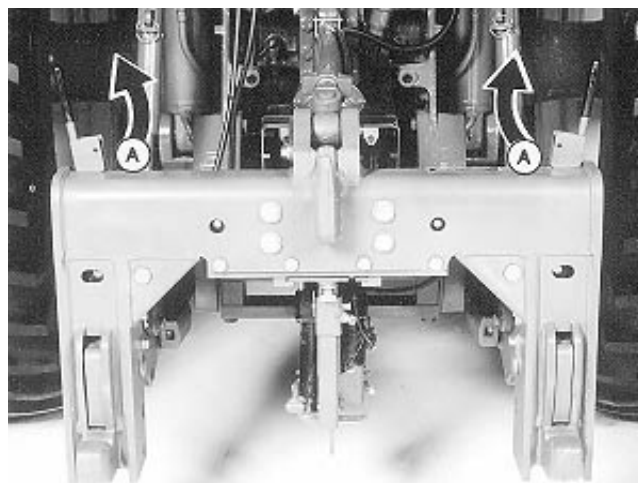
Guidance system uses signal from hitch system position sensor. Row-Trak™ system requires hitch valve be disabled by using a hitch valve connector cap and plug. See your John Deere Dealer.

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RX, RG, 30, 9A -19-06JAN95-1/1

DETACHING IMPLEMENT FROM QUICK COUPLER

1. Disconnect implement hydraulic hoses and electrical connections.
2. Raise both latch levers (A) with implement raised.
3. Lower implement to ground. Continue lowering quick coupler until hook clears implement hitch pins.
4. Carefully drive tractor away from implement.



RW55645 -UN-06JAN95

RX, RG, 30, 10 -19-20DEC94-1/1

USING STABILIZING COULTERS

IMPORTANT: Some implements require stabilizing coulters to give implement stability and directionality to hold implement on the row and enable implement to move left or right when row guidance quick coupler pivots.

Stabilizing coulters are needed to hold non-directional implements on the row. Stabilizers must be mounted perpendicular to the main beam and run at sufficient depth for implement to follow row.

NOTE: Most no-till cultivators have built-in directionality, by using a trash coulter, and should not require any additional coulters.

Conventional cultivators require additional stabilizing coulters (the typical front frame mounted coulter is not sufficient by itself).

Several factors, including implement weight and field terrain, influence the amount of additional stabilization required:

- Heavy machines require more stabilization than a lighter machine of the same size and row spacing
- More stabilization is required to hold implements on hillsides than is required for operation on level ground

NOTE: Additional stabilization does not always mean more coulters are required. Coulter location also influences operation.

General Guidelines for Optimum Stabilizing Coulter Use

1. Mount coulters as far back behind the tool bar as practical.
2. Mount coulters in same row as tractor tires when possible.



JOHN DEERE IMPLEMENTS REQUIRING STABILIZING COULTERS

The following is a list of John Deere implements requiring stabilizing coulters and the number of

coulters required to make non-directional implements work with the pivoting coupler system.

STABILIZING COULTER REQUIREMENTS						
IMPLEMENT	4 Rows	6 Rows	8 Rows	10 Rows	12 Rows	16 Rows
CULTIVATORS:						
400 Rotary Hoe - Narrow	NA	1	1	NA	1	2
400 Rotary Hoe - Wide	1	1	1	NA	2	NA
825 Cultivator - Narrow	NA	1	1	NA	NA	NA
825 Cultivator - Wide	1	1	1	NA	NA	NA
845 Cultivator - Narrow	NA	NA	NA	1	1	2
845 Cultivator - Wide	NA	NA	1	1	2	NA
875 Cultivator - Narrow	NA	NA	NA	1	1	2
875 Cultivator - Wide	NA	NA	1	1	2	NA
PLANTER WITHOUT TRASH COULTERS:						
7300 Planter - Narrow	NA	2	2	2	2	NA
7300 Planter - Wide	2	2	2	2	2	NA
PLANTER WITH TRASH COULTERS:						
7300 Planter - Narrow	NA	0	0	0	2	NA
7300 Planter - Wide	0	0	0	2	2	NA

RX,RG,30,12 -19-20DEC94-1/1

Field Operating Tips

FIELD OPERATING TIPS

IMPORTANT: Remove sway blocks prior to operating Row-Trak™ system to allow quick coupler to move freely.

Trial Run

Use manual mode with position knob in center position and drive tractor through field to ensure implement trails straight when coupler is centered.

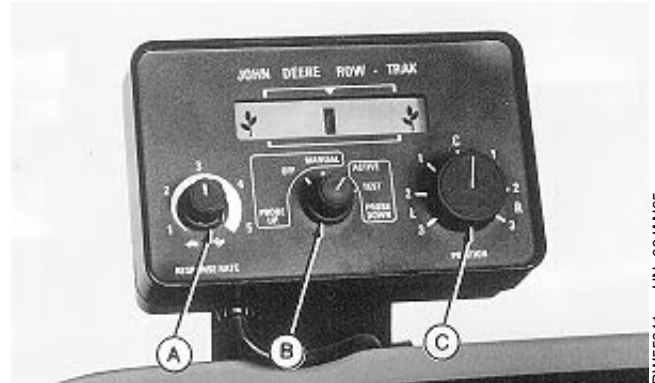
Initial Field Settings

- Turn Response Rate knob (A) to "3"
- Turn Mode switch (B) to "Active"
- Turn Position knob (C) to center position "C"

Operational Adjustments

- Lower implement to working depth and check crop sensor for correct adjustment:
 - In-Line Furrow Probes* should be adjusted to allow probes to move independently of each other and roll freely on the rods; rods should be installed to allow probes to move directly behind each other
 - Ridge Probes* should be adjusted to form a triangular pattern; the two side probes should be an equal distance from center probe
 - Guide Rods* should be adjusted for correct row spacing and run parallel to the ground (slightly higher at front)
- Turn Position knob to center implement, if implement is not centered correctly on the row; turn knob clockwise to move implement to the right and turn knob counterclockwise to move implement to the left

NOTE: Position knob can also be used to temporarily shift the implement on steep hillsides, if needed.



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Continued on next page

RX,RG,35,1 -19-03JAN95-1/2

Field Operating Tips

- Turn Response knob clockwise to increase response rate and counterclockwise to decrease response rate

NOTE: Bedding and planting operations usually require less response rate; cultivating may require a higher response rate.

- Probes or guide rods will automatically raise and lower when implement is raised and lowered during turnaround
- Select Manual mode to allow operator to control implement position

RX,RG,35,1 -19-03JAN95-2/2

Attachments

USING GUIDE RODS

Use guide rods to sense the position of standing crop during cultivation.

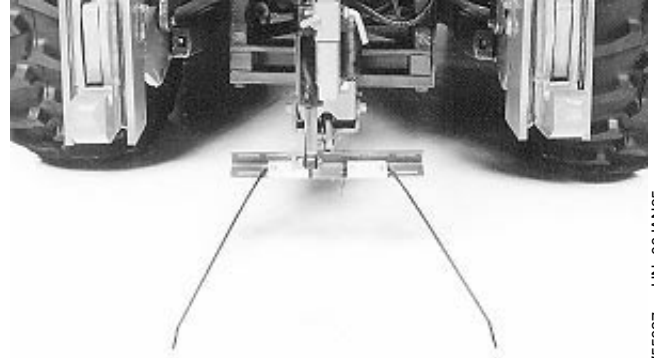
NOTE: Crops should be over 100 mm (4 in.) high in order for guide rods to work correctly.

Guide rods can be installed at 760 mm (30 in.), 914 mm (36 in.) or 965 mm (38 in.) row spacings. Width of guide rods should be adjusted so tips (A) are 25 mm (1 in.) wider than the row width (C) for corn and the same width as the row for milo and beans. Guide rods should taper inward 13 mm (0.5 in.) to ground contact point (B). By adjusting guide rods in this manner, a "wedging effect" is created resulting in a reliable position signal.

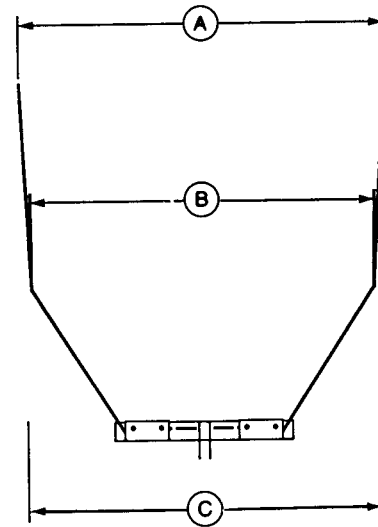
Adjust each guide rod an equal space from centerline of bracket and tighten.

NOTE: If guide rods cannot be centered with slotted mounting holes, bend guide rods to correct position.

Adjust probe module height to allow guide rods to just contact ground in field operation. (See Installing Probe Module in the Preparing the Quick Coupler section.)



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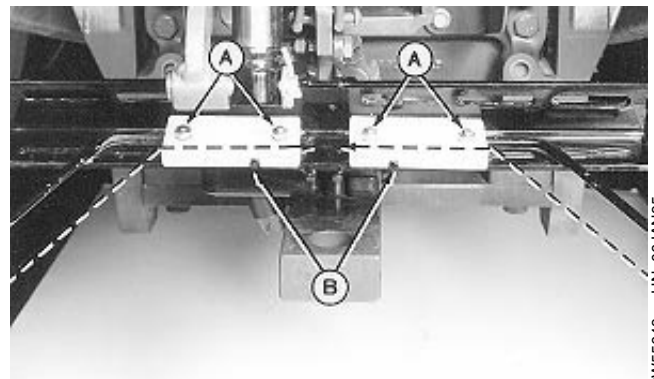


RW55636 -UN-06JAN95

RX,RG,40,1 -19-20DEC94-1/1

CHANGING GUIDE ROD POSITION

Guide rods may be used in rigid-mount position or float-mount position by changing guide rod position in mounting blocks. Loosen mounting block nuts (A) to move guide rods to/from rigid-mount notch (B). Use rigid-mount position to hold guide rods stationary and float-mount position to allow guide rods to follow ground contour.



RW55649 -UN-06JAN95

Rigid Mount

RX,RG,40,2 -19-20DEC94-1/1

USING IN-LINE FURROW PROBES

Use in-line furrow probes (probe balls) to follow a groove made by a row marker during planting or bedding operations.

NOTE: Set row markers exactly in middle of next set of rows for correct operation.

Tighten pivot bolt of probe enough to remove side-to-side motion and still allow free vertical movement.

Adjust probe module height to place probe balls in middle of working range. (See Installing Probe Module in the Preparing the Quick Coupler section.)



RW55628 -UN-24OCT94

RX,RG,40,3 -19-04JAN95-1/1

USING RIDGE PROBES

Use ridge probes (probe balls) to follow the valley of beds/ridges during planting operations.

Tighten pivot bolt of probe enough to remove side-to-side motion and still allow free vertical movement.

Adjust probe module height to place probe balls in middle of working range. (See Installing Probe Module in the Preparing the Quick Coupler section.)

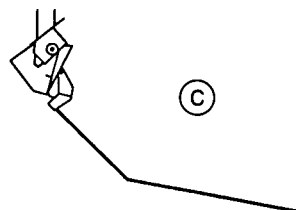
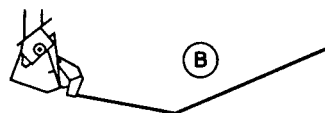
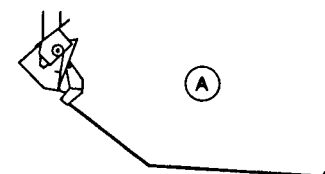


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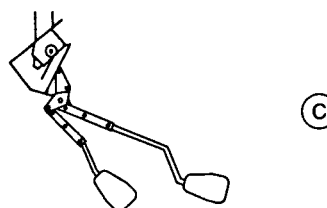
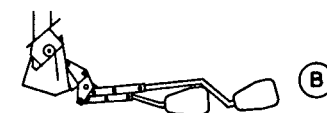
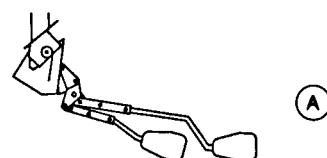
RX,RG,40,4 -19-04JAN95-1/1

USING CORRECT GUIDE ROD OR PROBE POSITION

Adjust probe module height to place guide rods or probes in middle of working range.



Guide Rods



In-Line Furrow or Ridge Probes

A—Correct
B—Not Correct
C—Not Correct

RW55635 -UN-06JAN95

RW55634 -UN-06JAN95

RX,RG,40.5 -19-20DEC94-1/1

USING IMPLEMENT ATTACHMENTS

Implements may require additional attachments in conjunction with row guidance system:

Furrow Remarkers:

Furrow remarker is a rolling "v" shaped cylinder mounted on center of implement to reshape groove sensed by guidance probes. Remarkers are most often used on planters when operator wants to cultivate crop too small for guide rods. See your John Deere Dealer.

Twin Disc Markers:

Twin disc marker sharply defines furrow for probes to follow and is required for bedders and planters when not used on ridges. See your John Deere Dealer.

Remote-Mounted Probe Module:

Probe module mounted on implement tool bar, rather than quick coupler, may be desired. See your John Deere Dealer.

NOTE: Mount probe module on implement (not tractor) if remotely mounting probe module. Row guidance system needs to know implement position (not the tractor) to function correctly.

RX,RG,40,6 -19-03JAN95-1/1

Lubricants

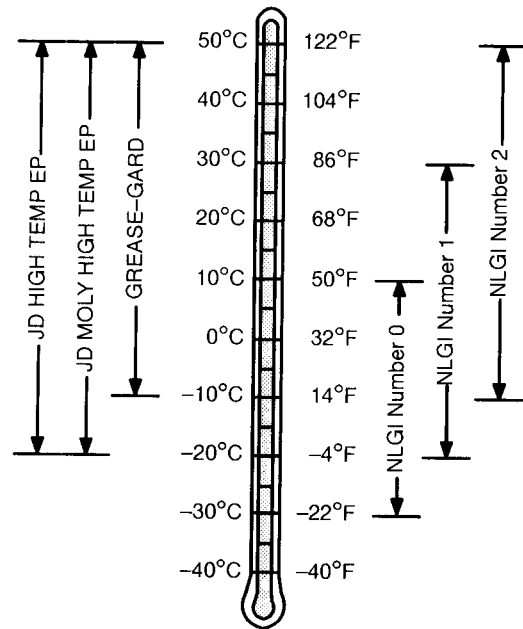
GREASE

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

The following greases are preferred:

- John Deere HIGH TEMPERATURE EP GREASE
- John Deere MOLY HIGH TEMPERATURE EP GREASE
- John Deere GREASE-GARD™

Other greases may be used if they meet NLGI Performance Classification GC-LB.



GREASE-GARD is a trademark of Deere & Company.

DX,GREA1 -19-18MAR96-1/1

TS1654 -UN-14MAR96

ALTERNATIVE AND SYNTHETIC LUBRICANTS

Conditions in certain geographical areas may require lubricant recommendations different from those printed in this manual.

Some John Deere brand coolants and lubricants may not be available in your location.

Consult your John Deere dealer to obtain information and recommendations.

Synthetic lubricants may be used if they meet the performance requirements as shown in this manual.

The temperature limits and service intervals shown in this manual apply to both conventional and synthetic oils.

Re-refined base stock products may be used if the finished lubricant meets the performance requirements.

DX,ALTER -19-18MAR96-1/1

LUBRICANT STORAGE

Your equipment can operate at top efficiency only when clean lubricants are used.

Use clean containers to handle all lubricants.

Whenever possible, store lubricants and containers in an area protected from dust, moisture, and other contamination. Store containers on their side to avoid water and dirt accumulation.

Make certain that all containers are properly marked to identify their contents.

Properly dispose of all old containers and any residual lubricant they may contain.

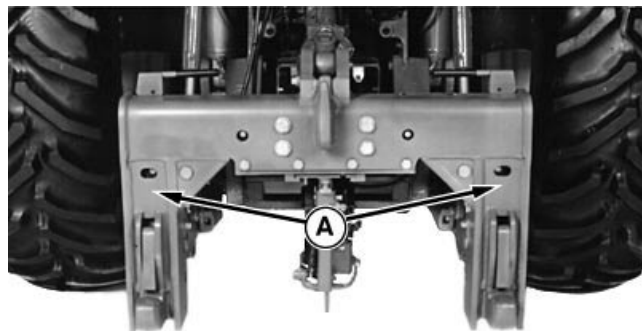
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Service

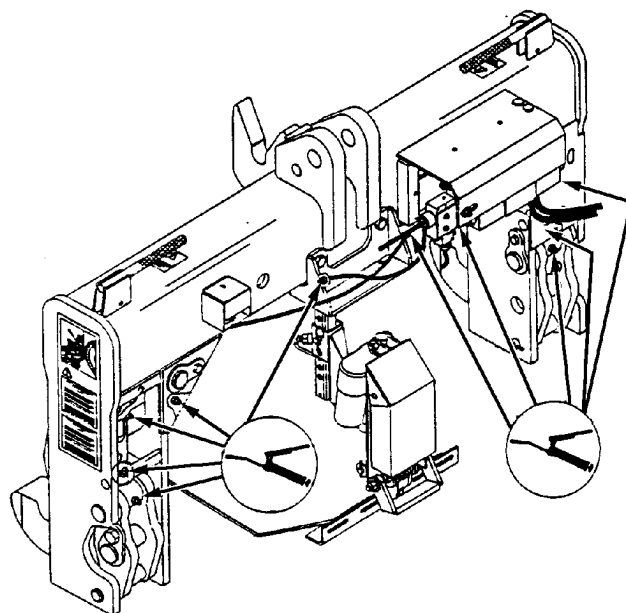
LUBRICATE QUICK COUPLER— EVERY 10 HOURS OF GUIDANCE OPERATION

Remove access panels (A) and apply several shots of grease to quick coupler fittings until new grease is visible; there are 10 grease fittings on the quick coupler (5 on each side).

Use John Deere High-Temperature/Extreme-Pressure grease or other grease as specified in Lubricants section.



RW56579 -UN-13MAY98



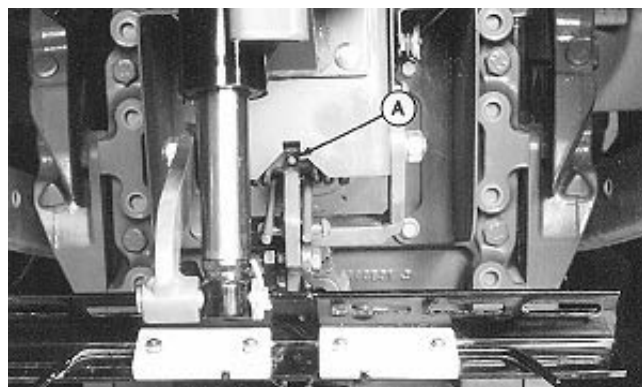
RW56580 -UN-13MAY98

RX,RG,50,1 -19-20DEC94-1/1

LUBRICATE PROBE SUPPORT TUBE— EVERY 50 HOURS OF GUIDANCE OPERATION

Use TEST mode to lower probes. Apply several shots of grease to probe support tube fitting (A).

Use John Deere High-Temperature/Extreme-Pressure grease or other grease as specified in Lubricants section.



RW55633 -UN-06JAN95

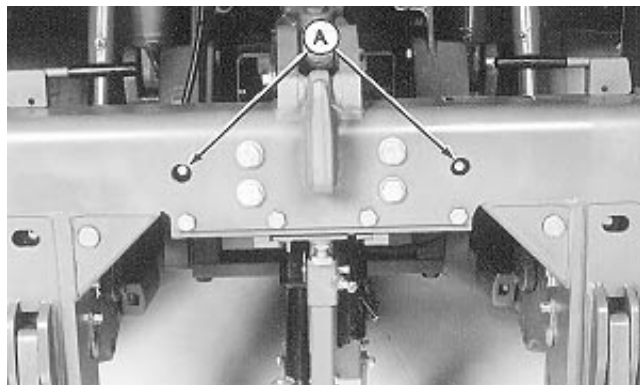
RX,RG,50,2 -19-20DEC94-1/1

REPLACE SHEAR BOLTS— AS REQUIRED

Quick coupler linkage is protected by shear bolts. Shear bolts may fail if lock-out pins are not installed during non-guidance high draft loads or if an unusually high draft load occurs during guidance operation.

Remove implement to replace shear bolts (A). Drive broken bolt out of the linkage. Install new shear bolts with bolt head facing implement. (Spare shear bolts are stored on front side of quick coupler.)

NOTE: *Install lock-out pins to prevent further shear bolt failures, if operating in a non-guidance operation.*



RW55632 -UN-06JAN95

RX,RG,50,3 -19-06JAN95-1/1

Troubleshooting

TROUBLESHOOTING

Symptom	Problem	Solution
Fails to guide implement or will not center when raised	Shear pin broken	Replace shear pin
	Cylinder leaks	See your John Deere Dealer
Monitor not working or not working correctly	Loose connection	Check wiring
	Pinched cable	Check cable routing
	Supply voltage less than 11 volts	Check battery condition
	Supply voltage greater than 15 volts	Turn controller off to prevent damage; check charging system
Center bar on monitor flashing	Error in system	See Diagnostic Codes section
Coupler does not respond to position knob in MANUAL mode or probe sensor in TEST mode	Hitch too high	Lower hitch a little
	Hydraulic hoses reversed	Check hose installation
	High pressure trapped in quick coupler cylinder (8000-series tractor only)	Disconnect probe module harness and use SCV IV lever to release pressure
Probe sensor does not raise or lower	Blown Accessory fuse: F39—8000-series tractors; F32—7000-series tractors	Replace fuse
Probe does not raise and coupler does not center when hitch is raised in ACTIVE mode	Hitch not being raised high enough to "trigger" probe lift/coupler centering	Adjust hitch upper height limit
Probe does not lower and system does not reactivate when hitch is lowered in ACTIVE mode	Hitch not being lowered far enough to "trigger" probe lower and reactivation	Shorten lift links; hitch lift arms are further down when at working depth

Diagnostic Codes

USING COME-HOME MODE

Row guidance self-diagnostic system checks for errors that affect system operation, stores error codes related to failures and takes appropriate action. See Using Diagnostic Codes in this section. Center bar on monitor flashes when system has detected an error. Controller provides a reduced function level or "come-home" mode of operation for some errors by disabling the malfunctioning component. If malfunction is intermittent, full function can sometimes be restored by turning tractor key Off and back On.



8000-Series Tractors

Disconnect quick coupler wiring harness to tractor and use SCV IV lever to control valve, if actuator feedback sensor has failed or has been disconnected.

7000-Series Tractors

Use position knob (A) to control valve, if actuator feedback sensor has failed or has been disconnected. Turn knob to center position for "neutral", counterclockwise for "left" and clockwise for "right". When actuator is at desired position, shut off valve by turning knob to center.

RX,RG,60,1 -19-20DEC94-1/1

USING DIAGNOSTIC CODES

Center bar (A) of guidance monitor will flash, if any error has been detected by row guidance self-diagnostic system check. System will store error code.

7000-Series Tractors

See your John Deere Dealer to determine cause of error.



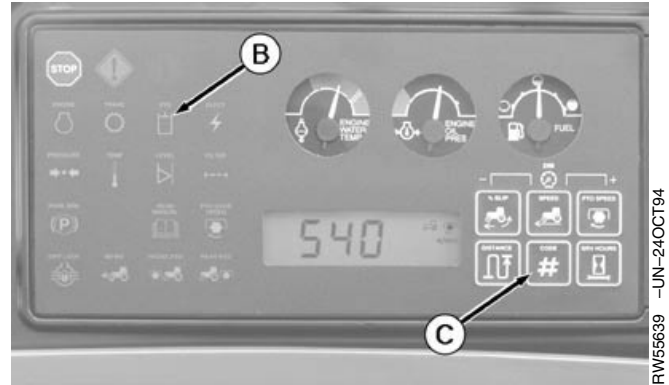
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RX,RG,60,2 -19-20DEC94-1/2

8000-Series Tractors

Hydraulic information indicator (B) on vehicle monitor will flash and highest priority error code can be displayed by pushing code switch (C). Check code displayed with codes listed in Diagnostic Codes section to find possible solution for problem listed beside diagnostic code. If code displayed requires a service technician, identifying the possible problem by using the code number will help arrive at a quicker solution.

NOTE: "Informative" alarms can be suppressed, for the duration of the operation, by pressing the Code switch for 7 seconds. The alarm will reappear the next time the tractor is started, if the problem still exists.



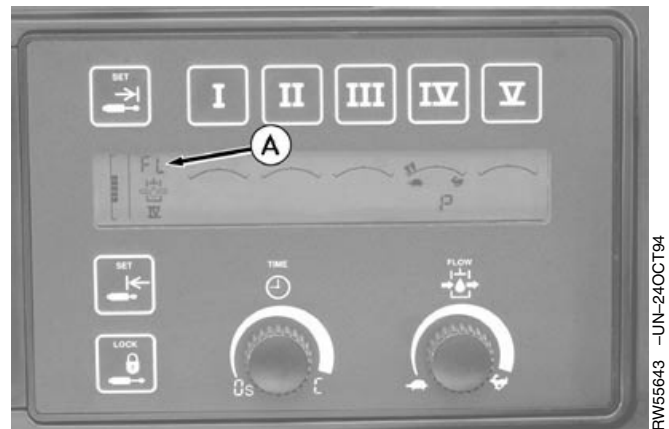
RW55639 -UN-24OCT94

RX,RG,60,2 -19-20DEC94-2/2

USING DIAGNOSTIC SYMBOL—8000-SERIES TRACTORS

SCV TouchSet control panel displays an "FL" symbol (A) when system detects a short or open row sensor circuit.

NOTE: A diagnostic code (Code 57) will be displayed on vehicle monitor in conjunction with SCV panel symbol.



RW55643 -UN-24OCT94

RX,RG,60,3 -19-20DEC94-1/1

LATERAL HITCH POSITIONING (LHP) DIAGNOSTIC CODES

Symptom	Problem	Solution
CODE LHP 054	Position knob	Have your John Deere Dealer repair as soon as possible
CODE LHP 055	Pivot angle sensor	Have your John Deere Dealer repair as soon as possible
CODE LHP 056	Response rate knob	Have your John Deere Dealer repair as soon as possible
CODE LHP 057	Short or open row sensor circuit	Have your John Deere Dealer repair as soon as possible
CODE LHP 060	Controller does not receive message within 4 second interval	Have your John Deere Dealer repair as soon as possible
CODE LHP 141	Valve circuit	Have your John Deere Dealer repair as soon as possible
CODE LHP 142	Valve circuit	Have your John Deere Dealer repair as soon as possible

RX,RG,60,4 -19-20DEC94-1/1

Storage

STORING PROBES AND PROBE MODULE

IMPORTANT: If probes and probe module will not be used for several months, the following recommendations for storage will minimize corrosion and deterioration.

- Thoroughly clean probes and probe module touching

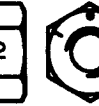
up any scratched or chipped painted surfaces

- Coat all exposed metal surfaces with corrosion inhibitor
- Store in a dry, clean area
- Install dust cap on coupler position sensor connector

RX,RG,65,1 -19-20DEC94-1/1

Specifications

METRIC BOLT AND CAP SCREW TORQUE VALUES

Property Class and Head Markings	4.8		8.8		9.8		10.9		12.9	
										
Property Class and Nut Markings	5		10		10		10		12	
										

	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b	
Size	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft
M6	4.8	3.5	6	4.5	9	6.5	11	8.5	13	9.5	17	12	15	11.5	19	14.5
M8	12	8.5	15	11	22	16	28	20	32	24	40	30	37	28	47	35
M10	23	17	29	21	43	32	55	40	63	47	80	60	75	55	95	70
M12	40	29	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	47	80	60	120	88	150	110	175	130	225	165	205	150	260	190
M16	100	73	125	92	190	140	240	175	275	200	350	255	320	240	400	300
M18	135	100	175	125	260	195	330	250	375	275	475	350	440	325	560	410
M20	190	140	240	180	375	275	475	350	530	400	675	500	625	460	800	580
M22	260	190	330	250	510	375	650	475	725	540	925	675	850	625	1075	800
M24	330	250	425	310	650	475	825	600	925	675	1150	850	1075	800	1350	1000
M27	490	360	625	450	950	700	1200	875	1350	1000	1700	1250	1600	1150	2000	1500
M30	675	490	850	625	1300	950	1650	1200	1850	1350	2300	1700	2150	1600	2700	2000
M33	900	675	1150	850	1750	1300	2200	1650	2500	1850	3150	2350	2900	2150	3700	2750
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2750	4750	3500

^a{para}"Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. {/para}

^b{para}"Dry" means plain or zinc plated without any lubrication.{/para}

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class.

Fasteners should be replaced with the same or higher property class. If higher property class fasteners are used, these should only be tightened to the strength of the original.

Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

Specifications

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head.

Tighten toothed or serrated-type lock nuts to the full torque value.

DX,TORQ2 -19-20JUL94-2/2

Specifications

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John Deere Service Literature Available

TECHNICAL INFORMATION

Technical information is available from John Deere. Some of this information is available in electronic as well as printed form. Order from your John Deere dealer or call **1-800-522-7448**. Please have available the model number, serial number, and name of the product.

Available information includes:

- **PARTS CATALOGS** list service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.
- **OPERATOR'S MANUALS** providing safety, operating, maintenance, and service information. These manuals and safety signs on your machine may also be available in other languages.
- **OPERATOR'S VIDEO TAPES** showing highlights of safety, operating, maintenance, and service information. These tapes may be available in multiple languages and formats.
- **TECHNICAL MANUALS** outlining service information for your machine. Included are specifications, illustrated assembly and disassembly procedures, hydraulic oil flow diagrams, and wiring diagrams. Some products have separate manuals for repair and diagnostic information. Some components, such as engines, are available in separate component technical manuals
- **FUNDAMENTAL MANUALS** detailing basic information regardless of manufacturer:
 - Agricultural Primer series covers technology in farming and ranching, featuring subjects like computers, the Internet, and precision farming.
 - Farm Business Management series examines "real-world" problems and offers practical solutions in the areas of marketing, financing, equipment selection, and compliance.
 - Fundamentals of Services manuals show you how to repair and maintain off-road equipment.
 - Fundamentals of Machine Operation manuals explain machine capacities and adjustments, how to improve machine performance, and how to eliminate unnecessary field operations.



TS189 -UN-17JAN89



TS191 -UN-02DEC88



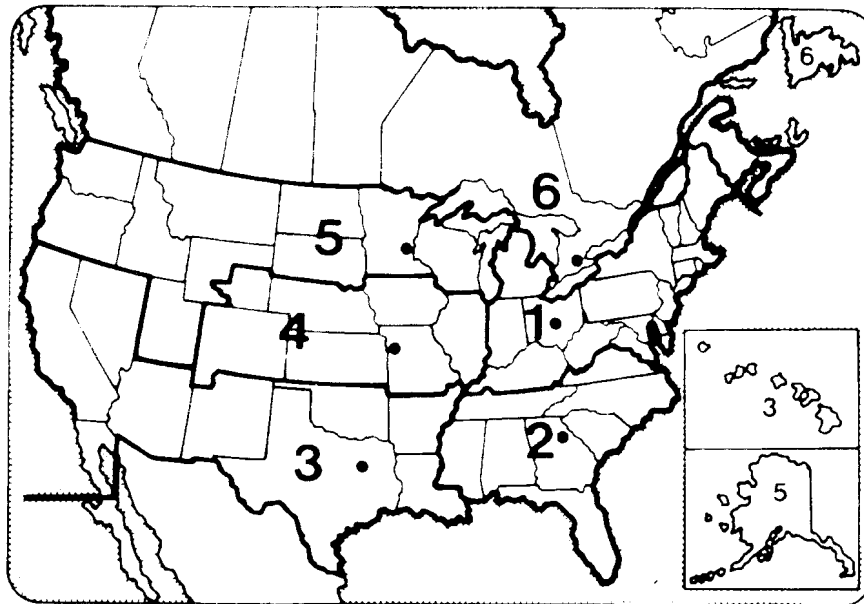
TS224 -UN-17JAN89



TS1663 -UN-10OCT97

John Deere Service Keeps You On the Job

JOHN DEERE IS AT YOUR SERVICE WHEN YOU NEED IT



1. JOHN DEERE COMPANY
701 Georgesville Road
Columbus, OH 43228-2499
614-275-1500 (Fax: 614-275-1450)

3. JOHN DEERE COMPANY
P.O. Box 540598
Dallas, TX 75354-0598
214-385-1701 (Fax: 214-663-2390)

5. JOHN DEERE COMPANY
2001 West 94th Street
Bloomington, MN 55431-3211
612-887-6200 (Fax: 612-887-6385)

2. JOHN DEERE COMPANY
2001 Deere Dr.
Conyers, GA 30208
404-922-7040 (Fax: 404-388-2138)

4. JOHN DEERE COMPANY
3210 East 85th Street
Southeast Station
Kansas City, MO 64132-2586
816-361-4000 (Fax: 816-995-9381)

6. JOHN DEERE LIMITED
South Service Road at Hunter
Grimsby, Ontario, Canada L3M 4H5
905-945-9281 (Fax: 905-945-0341)

CUSTOMER SATISFACTION is important to John Deere. We take pride in providing superior service. We'll be around when you need us:

- We maintain a large and varied parts inventory to help minimize downtime
- Precision tools and testing equipment enable technicians to locate and correct troubles.
- We hold regular training schools for service technicians so they know your equipment and how to maintain it
- Our goal is to provide prompt, efficient service through competent dealerships.

COMPLAINT-RESOLUTION PROCEDURE

Your dealer is the best and fastest source to solving any problems you may experience with your product.

1. Be prepared with the following information:
 - Machine model and product identification number
 - Date of purchase
 - Nature of problem
2. Discuss problem with dealer service manager.
3. If unable to resolve, see the dealership manager. Explain the problem and request assistance.
4. If you have a persistent problem your dealership is unable to satisfy, ask your dealer to contact the John Deere territory aftermarket manager for resolution.
5. If a problem is not resolved to your satisfaction, contact the appropriate John Deere sales branch for your area and ask to speak with the division aftermarket manager. (See map.)

TS1658 -19-09MAY97

