

2230 Floating Hitch Field Cultivator QUICK REFERENCE GUIDE

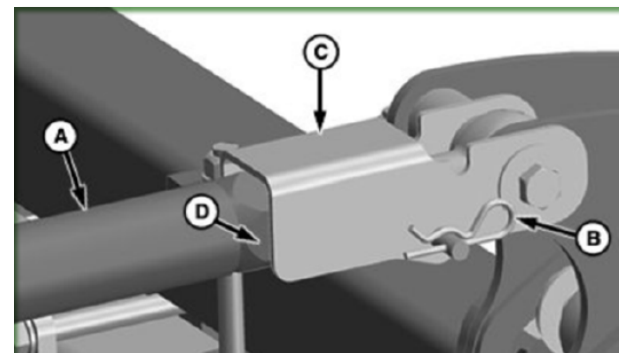
NOTE: Use this as a reference guide. For further details, please see the Operator's Manual provided with the machine.

Preparing Machine — Adjust Front-to-Rear Level

- Place machine on a level surface.
- Place SCV II for wing-fold in FLOAT position.
- Unfold wings to field position, and lower machine until sweeps touch surface.
- From the side of machine, view each row of sweeps relative to ground.

NOTE: Adjustment wrench is provided with machine.

- To adjust fore/aft link (A) length, remove the spring clip (B) and retaining pin, raise eyebolt lock (C), and use the wrench to turn nut (D). Adjust until sweeps are level relative to ground.
 - Lengthening fore/aft link lowers rear of frame relative to front.
 - Shortening fore/aft link raises rear of frame relative to front.
- Lower eyebolt lock over nut and replace retaining pin and spring clip after adjustment.
- Check and adjust other frame section.



NOTE: Level main frame before wing frames. After leveling main frame, pull machine forward a minimum of 7.6 m (25 ft) and verify that main frame is still level with sweeps touching surface. Repeat for each wing frame.

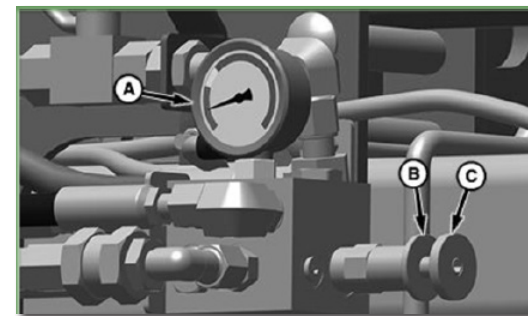
Preparing Machine — Adjust Side-to-Side Level

- Place machine on a level surface.
- Unfold wings to field position, and raise machine.
- From the front of machine, view sweeps of each wing relative to ground.
- Measure from the bottom of the main frame tube to ground. Repeat measurement on both wings to determine how much adjustment the wings need.
- To adjust wing level, loosen nut (A) and rotate turnbuckle (B) using wrench until wing is level with the main frame.
 - Lengthening eyebolt raises wing relative to the main frame.
 - Shortening eyebolt lowers wing relative to the main frame.
- Tighten nut after adjustment.



Set Rolling Basket Down-Pressure

IMPORTANT: Basket pressure can be adjusted 0—900 psi. See pressure gauge (A). Do not use more down-pressure than necessary or excessive wear and damage to machine could result. Too much down pressure can lift rear of machine, causing it to become un-level and result in undesired field finish.



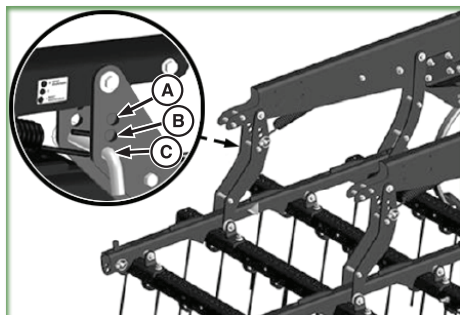
- Adjust down-pressure to initial setting by rotating knob (B).
- Once set, lock knob in position with collar (C).
- Make a trial pass in field. If rolling basket operation is not satisfactory, adjust hydraulic pressure as needed.
- Down-pressure applied - Adjust pressure applied using the manual adjustment and gauge at machine front. Apply only enough pressure to chop and size material to desired finish.
- Float - Allows light fluffing and moderate leveling of the soil profile, and may help reduce plugging when operating across moderately wet soil conditions.
- Fully raised - Allows continued operation in harsh, muddy soil conditions, or if a more pronounced mounding pattern is desired.

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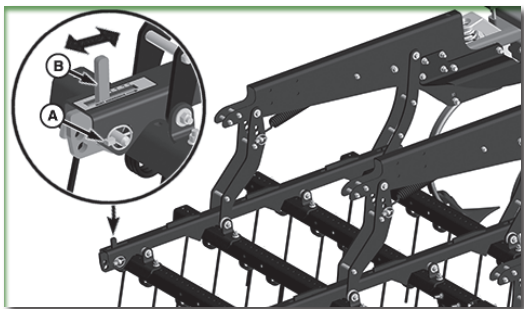
Adjust Coil Tine Spring Tension

There are 3 different settings for coil tine spring tension:

- Remove pin (C), adjust spring tension to desired position, and reinstall pin.
- Light Tension Position (A) is least aggressive.
- Medium Tension Position (B) is medium aggressive.
- High Tension Position Shown With Pin (C) is most aggressive.
- Repeat for other drawbar locations.

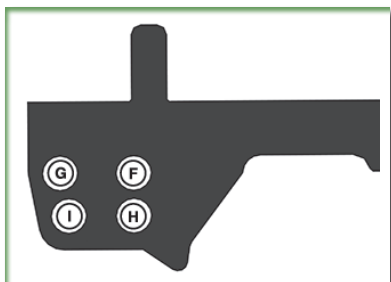
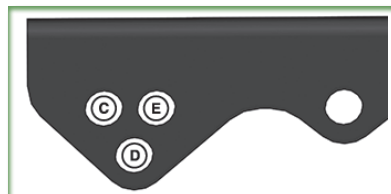


Adjust Coil Tine Angle



IMPORTANT: Make harrow tine angle adjustments with the machine raised.

1. Remove pin (A), slide lever (B) to desired position, and reinstall pin.
2. Repeat for other drawbar locations.



Coil Tine Angle	Attachment Plate Hole Position	Lift Bar Hole Position
1	D	I
2	C	G
3	E	F
4	D	H
5	C	F

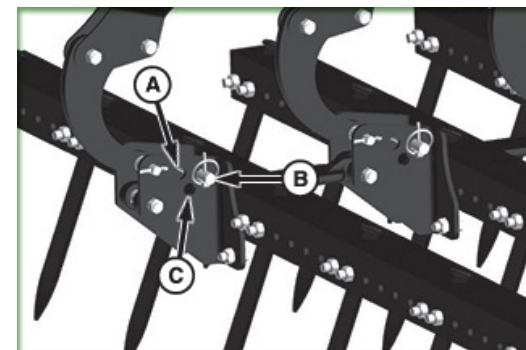
NOTE: Use less aggressive settings for better residue flow. See table for adjusting the harrow angle. Coil tine angle is most aggressive in position 1 and least aggressive in position 5.

Adjust Harrow Spike Angle

IMPORTANT: Adjusting the spike angle controls harrow aggressiveness and residue flow capability. Spike angle should be adjusted per field conditions for the best combined performance of residue flow and field leveling.

NOTE: Use less aggressive settings for better residue flow.

1. Adjust spike angle by raising the machine and moving the pin to the desired position: (A) is least aggressive, (B) medium aggressive, and (C) most aggressive.
2. Repeat for other drawbar locations.

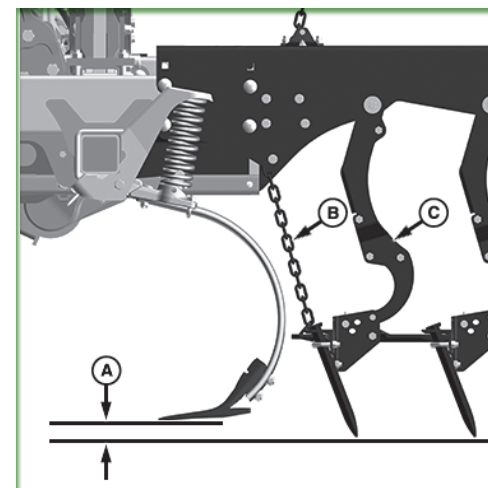


Adjust Harrow Height and Draft

IMPORTANT: Before adjusting any harrow, be sure the fore/aft and side-to-side adjustments on machine have been completed. When making harrow adjustments only change one adjustment at a time. Run machine at desired working depth and speed between adjustments to verify performance. Spike Harrows With Rolling Baskets—Draft chains must be adjusted so spike harrow does NOT contact rolling basket.

NOTE: Harrow height is preset.

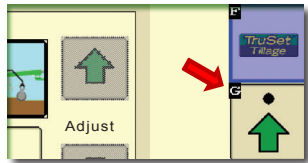
- Once desired working depth is set, spikes are 51—101 mm (2—4 in) (A) lower than sweeps when swept to working spike angle position.
- Set chain (B) for the desired harrow draft and adjust so that hang chains or linkages (C) are not under load at operating depth and speed.
- Repeat for other drawbar locations.



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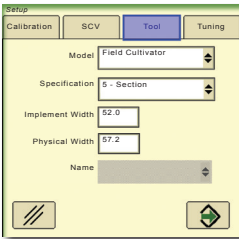
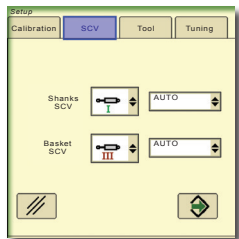
Settings

Press Settings Softkey.

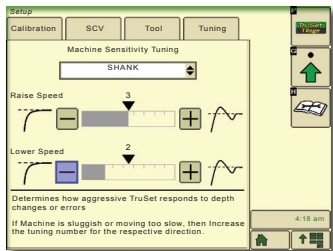


Tool and SCV Settings

Verify that machine is set up properly and SCV functions are assigned correctly.



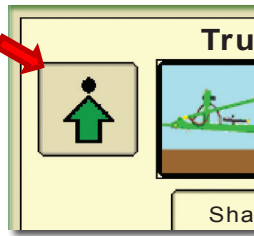
Adjust TruSet™ Tuning



- Raise and lower speed are independently adjustable.
- Using a higher number causes the machine to respond more quickly.
- Using a lower number causes the machine to respond more slowly.

Operation Setup

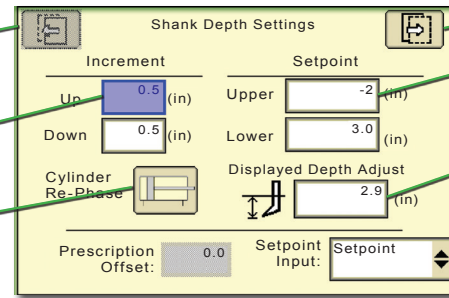
Press Operational Settings Softkey



Previous Page – Softkey

Increment Step Size – Softkey

Cylinder Re-phase – Softkey



Next Page – Softkey

Upper setpoint on shank limits raise height on headlands (Up-detent).

Field Calibration: Adjust the "actual depth" to zero the machine.

Input type: Setpoint or Prescription.

General Operation

- Detenting equipment depth SCV lever downward will put all sections into AUTO mode.
- Rolling basket down pressure is enabled using the power button.
- Tractor must be moving >1 mph to activate TruSet™.
- Verify that hoses are connected correctly. Pressure and return hoses cannot be reversed.

Using Presets:

- Adjust the Setpoint fields to desired values.
- Press Save softkey.
- Press desired Preset softkey.
- Accept changes.

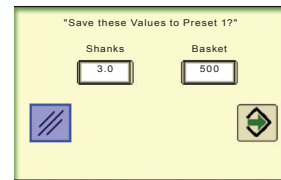
NOTE: Presets can be named.

Operational Settings –

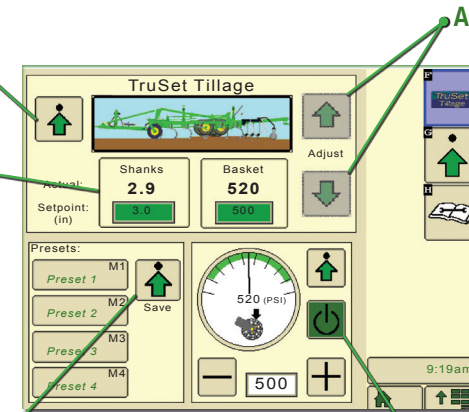
Access a Setup Page for each of the operations.

Incremental Adjustment –

Select an operation to make incremental adjustments using the arrow softkeys.



Preset and Save – Softkey



Arrow – Softkeys

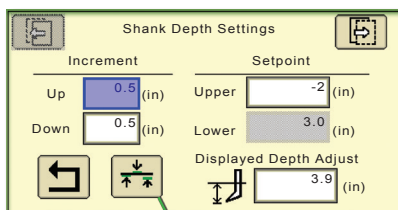
Settings – Softkey

Diagnostics – Softkey

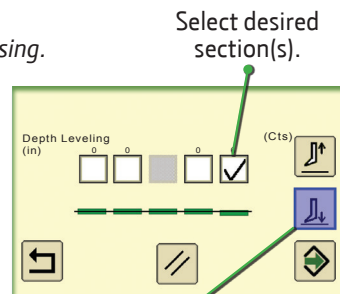
Power Button – Basket Pressure

Adjust Section Level — Machines with Side-to-Side Option Only

NOTE: This replaces Auto Cylinder re-phasing.



Press Leveling softkey.



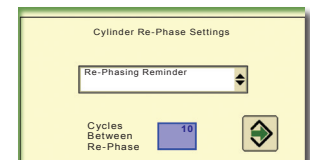
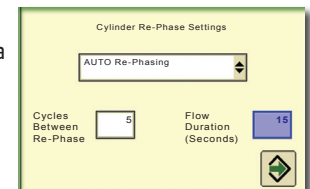
Select desired section(s).

Adjust depth using adjustment softkeys.

Cylinder Re-phasing

To keep cylinders and machine level throughout the day, select a re-phasing option.

- Auto re-phase will automatically fully raise machine on an up-detent when the number of cycles is reached.
- Re-phase reminder will display a reminder to re-phase cylinders once the number of cycles is reached.



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Creating Prescription

- Use John Deere Operations Center to create the Prescription.
- Use Soil Survey Data, Previous Operations, or Freehand Drawing Tools to create management zones in areas that may require different levels of tillage.

Some examples are:

- Side hills and hill tops (HEL)
- Grain cart traffic areas
- Bottom ground
- Headlands/end rows
- Areas of high yield
- Certain soil types
- Use your farms "typical operating depths and pressure" as a baseline. Increase or decrease the values in appropriate areas.
- For Operations not being controlled by a prescription, those areas can be run in constant and can be adjusted utilizing the "Setpoint Input" or "Presets".

Operation:	Shank	Basket
	4.0	400
Minimum	0"	0 psi
Maximum	5-6"	900 psi
Additional Constraints	6" maximum for Perma-Loc™ sweeps. 5" for bolt-on sweeps.	

A prescription offset changes the prescribed value by the amount entered. Arrow softkeys will also increment the offsets accordingly. This offset applies to all zones within a field for the respective operation. A negative value will shallow the operation.

- If you have a "Section Control Activation" for your display, Section Control can be used to automatically raise the machine, when crossing boundaries.

Input Box grayed out, when the input is Prescription

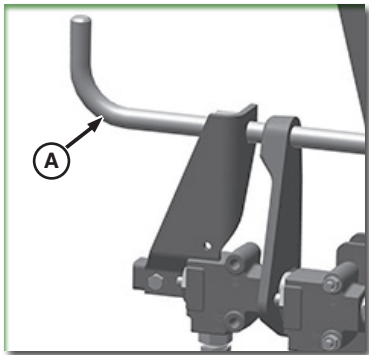
Shank Depth Settings

Increment		Setpoint	
Up	0.5 (in)	Upper	-6 (in)
Down	0.5 (in)	Lower	2.5 (in)
		Displayed Depth Adjust	-2.5 (in)
Prescription Offset: 0.0		Setpoint Input: Display Rx	
Section Control Enable: <input type="checkbox"/>			

Prescription Offset Field

Section Control Enable checkbox

Disengage Single-Point Depth Control-TruSet™ Machines



Verify single-point depth control is disengaged to allow TruSet™ depth control system to function properly. Rotate the crank (A) fully clockwise.

Set Up Tractor Hydraulics-All Machines



CAUTION: Do not operate SCV I in continuous. Operating SCV I in continuous can cause machine to unfold unexpectedly during transport causing serious injury or death to you or others.

Check hydraulic oil level. Fill if necessary. Set SCV flow rates and detent times as shown in table.

IMPORTANT: 5-Section only—In order for wings to be folded and unfolded, the warning light connector must be connected to tractor. If left unconnected, wings will not fold or unfold. In order for wings to be folded and unfolded, set SCV II flow control knob to 10 and verify that tractor is running at 1800 rpm.

IMPORTANT: Maintain SCV II power during folding and unfolding to fully extend or retract wing wheels. Never allow wings to float down with gravity.

SCV	Function	Flow	Detent Time
I	Depth Control	10	5 s
II	Wing Fold/Unfold	10	90 s
III	-	-	-
IV	-	-	-
V	Rolling Basket Down-Pressure	2	Continuous