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# Operator's Manual



## 12 Row Bedder Finisher



# WARRANTY

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## WARRANTY

The only warranty Wil-Rich gives and the only warranty the dealer is authorized to give is as follows:

We warrant products sold by us to be in accordance with our published specifications or those specifications agreed to by us in writing at time of sale. Our obligation and liability under this warranty is expressly limited to repairing, or replacing, at our option, within 12 months after date of retail delivery, any product not meeting the specifications. **We make no other warranty, express or implied and make no warranty of merchantability or of fitness for any particular purpose.** Our obligation under the warranty shall not include any transportation charges or costs or installation or any liability for direct, indirect or consequential damage or delay. If requested by us, products or parts for which a warranty claim is made are to be returned transportation prepaid to our factory. Any improper use, operation beyond rated capacity, substitution of parts not approved by us, or any alternation or repair by others in such manner as in our judgment affects the product materially and adversely shall void this warranty. **No employee or representative is authorized to change this warranty in anyway or grant any other warranty.**

Wil-Rich reserves the right to make improvement changes on any of our products without notice.

**When warranty limited or not applicable:** Warranty on hoses, cylinders, hubs, spindles, engines, valves, pumps or other trade accessories are limited to the warranties made by the respective manufactures of these components. Rubber tires and tubes are warranted directly by the respective tire manufacturer only, and not by Wil-Rich.

Warranty does not apply to any machine or part which has been repaired or altered in any way so as in our judgment to affect its reliability, or which has been subject to misuse, negligence or accident.

**A Warranty Validation and Delivery Report Form must be filled out and received by Wil-Rich to initiate the warranty coverage.**

## WARRANTY CLAIMS PROCEDURE

1. The warranty form must be returned to Wil-Rich within fifteen (15) working days from the repair date.
2. Parts returned to Wil-Rich without authorization will be refused. The parts must be retained at the dealership for ninety (90) days after the claim has been filed. If the Service Department would like to inspect the parts, a packing slip will be mailed to the dealer. The packing slip must be returned with the parts. The parts must be returned prepaid within thirty (30) days of receiving authorization. After the parts are inspected and warranty is verified, credit for the return freight will be issued to the dealer.
3. Parts that will be scrapped at the dealership will be inspected by a Wil-Rich Sales Representative, District Sales Manager or Service Representative within the ninety (90) day retaining period.



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# FOREWORD

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## To The Owner

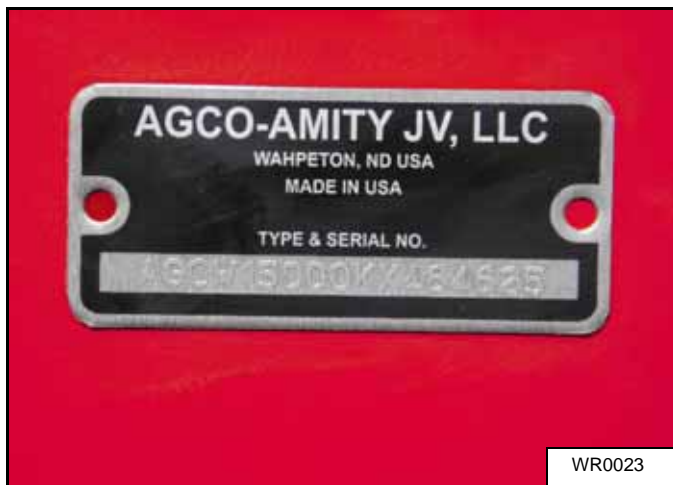
It is the responsibility of the user to read the Operator's Manual and comply with the safe and correct operating procedures as pertains to the operation, lubrication and maintenance of the product according to the information outlined in the Operator's Manual.

If this machine is used by an employee or is loaned or rented, make certain that the operator(s), prior to operating, is instructed in safe and proper use and reviews and understands the Operator's Manual.

The user is responsible for inspecting his / her machine and for having parts repaired or replaced when continued use of this product would cause damage or excessive wear to the other parts. The word NOTE is used for information that is special such as specifications, techniques, reference information of supplementary nature.

## Disclaimer

It is the policy of Wil-Rich to improve its products whenever possible and practical to do so. We reserve the right to make changes, improvements and modifications at any time without incurring obligation to make such changes, improvements on any equipment sold previously.



When in need of parts, always specify the model and serial number. Write this number in the space provided. The serial number plate is located on the main frame on the front left of the 3-point hitch bracket.

### **Serial Number**





# SAFETY

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## Safety Information



This safety alert symbol is used to alert the operator to possible danger and what to do to prevent bodily injury. When you see this symbol it means: ATTENTION! MACHINE DAMAGE and / or YOUR SAFETY IS INVOLVED.

**WARNING: Safe practices must be followed when working on or operating this equipment. All personnel involved must:**



- Read and understand the instructions in this manual.
- Be instructed in the safe use of safety devices and support stands for this machine.
- Clear the area of all personnel when connecting, moving or operating this machine.

## General Safety Practices

1. READ and UNDERSTAND the Operator's Manual before using any equipment. Review at least annually thereafter.
2. VERIFY all safety devices are in place before using any equipment.
3. KEEP all personnel away from moving parts.
4. STOP engine, place all controls in neutral, set parking brake, remove ignition key before servicing, adjusting or maintaining.
5. BE CAREFUL when working around high pressure hydraulic system.
6. DO NOT ALLOW RIDERS.

## Safety During Transportation

1. ONLY TOW at a safe speed. Use caution when making corners and meeting traffic.
2. BE AWARE that the implement is wider than the tractor when transporting.
3. ALWAYS have the wings completely folded when transporting on public roads.
4. COMPLY with local lighting, marking and oversize regulations when transporting on highways.
5. FREQUENTLY check for traffic, especially during turns.

## Safety Decals



Indicates an immediate hazardous situation that will result in serious injury or death. The color for Danger is RED.



Indicates a potentially hazardous situation that could result in death or serious injury. The color for Warning is ORANGE.



Indicates a potentially hazardous situation that may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color for Caution is YELLOW.



The Notice decals and statements in this manual are to inform the operator of the correct fluids, or operational practices for this machine. Failure to follow these notices will result in damage to the machine. The color associated with Notice is BLUE.

1. Keep safety decals clean and legible at all times.
2. Replace safety decals that are missing or have become illegible.
3. Replaced parts that displayed a safety decals should also display the current decals.
4. Safety decals are available from your dealer parts department or the factory.

### *How to install safety signs:*

1. Be sure that the installation area is clean and dry.
2. Be sure the temperature is above 50°F (10°C).
3. Decide on the exact position before removing the backing paper.
4. Remove the smallest portion of the split backing paper.
5. Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
6. Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
7. Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.

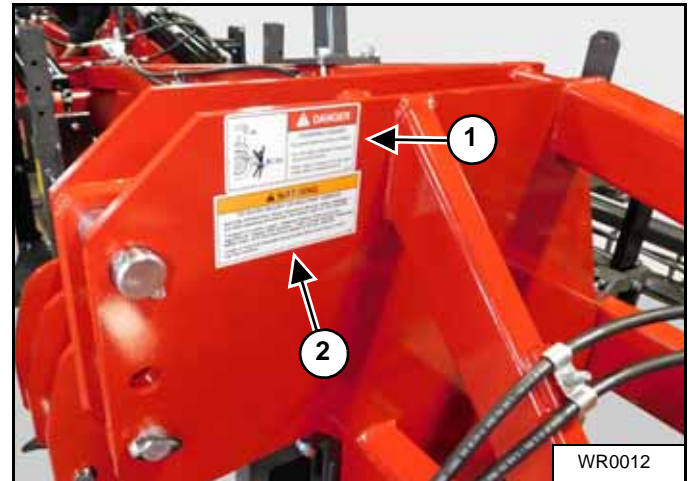
# SAFETY

## Safety Decal Location

The types of safety decals and locations on the equipment are shown below. Safety requires that you familiarize yourself with the various safety decals, the type of WARNING and the area or particular function related to that area, that requires your SAFETY AWARENESS.

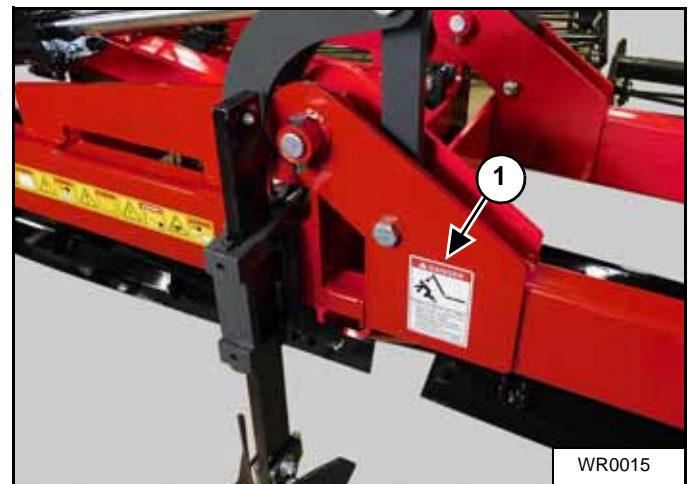
**IMPORTANT:** If Safety Decals have been damaged, removed, become illegible or parts replaced without safety signs, new signs must be applied. New safety signs are available from your authorized dealer.

### Safety Decals



1. DANGER - CRUSHING HAZARD - P/N 222802
2. WARNING - TO AVOID INJURY OR MACHINE DAMAGE - P/N 24227

Right and left sides.



3. DANGER - STAND CLEAR - P/N 22128

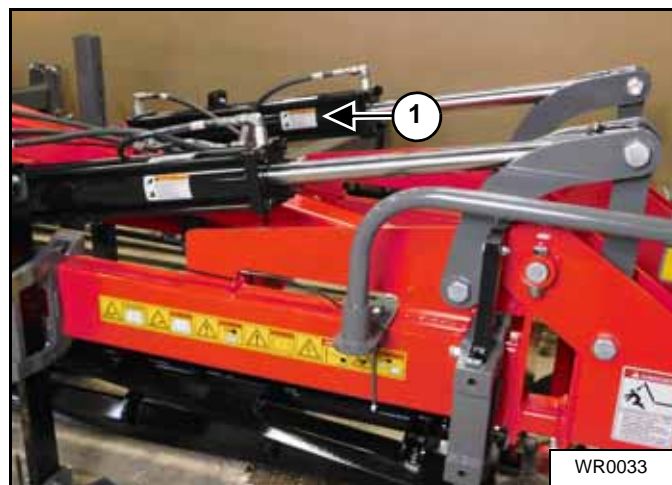
Left and right wings.

**Safety Decal Location (Cont'd)**

*Safety Decals (Cont'd)*



WR0013



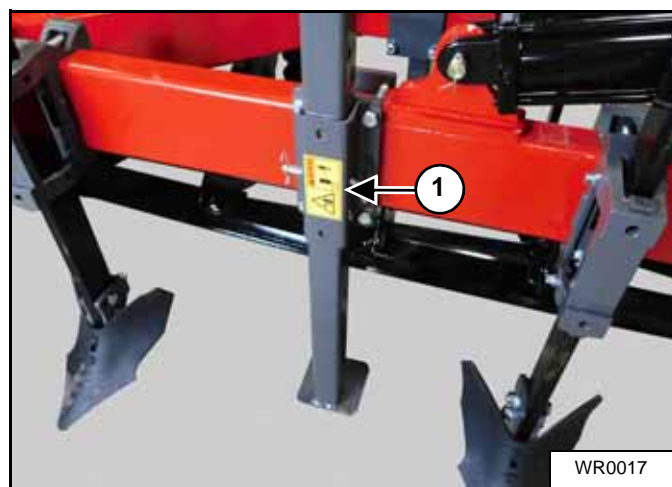
WR0033

- 4. WARNING - PREVENT SERIOUS INJURY FROM MOVING PARTS.

Left and right wing cylinders.



WR0016



WR0017

- 5. WARNING - Crushing Hazard - P/N 700738712

All support stands.

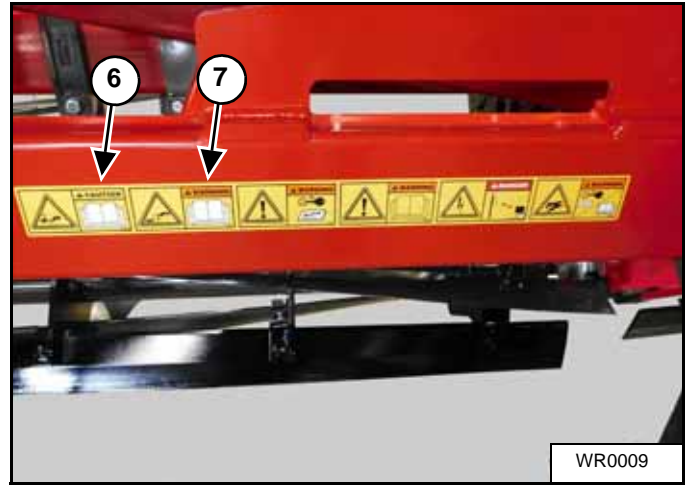
# SAFETY

## Safety Decal Location (Cont'd)

### Safety Decals (Cont'd)



- 6. CAUTION - Read manual before connecting - P/N 997856



Left front main frame.



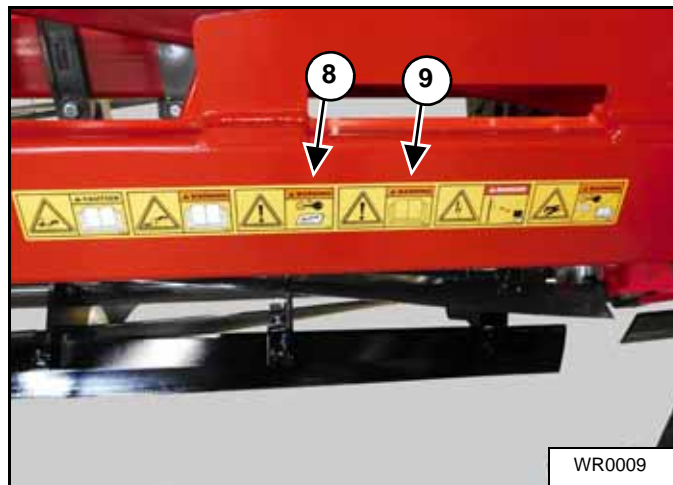
- 7. WARNING - Read manual before disconnecting - P/N 997852.

**Safety Decal Location (Cont'd)**

*Safety Decals (Cont'd)*



- 8. WARNING - Shut engine off, read manual before maintenance - P/N 997858



Left front main frame.



- 9. WARNING - Read manual - P/N 997860

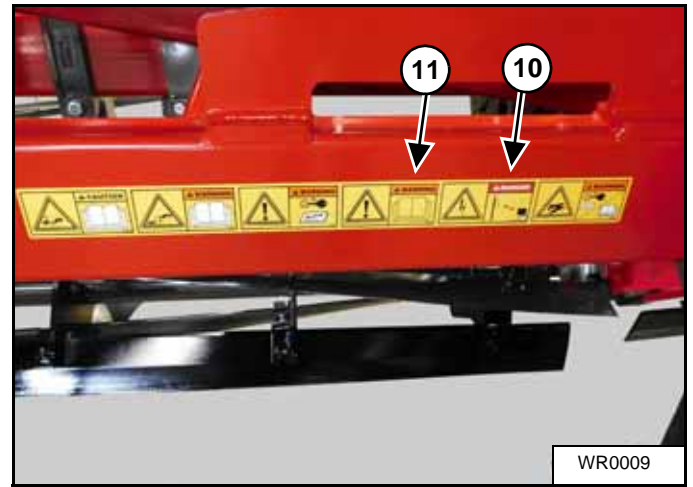
# SAFETY

## Safety Decal Location (Cont'd)

### Safety Decals (Cont'd)



10. DANGER - Electrocution hazard - P/N 997862



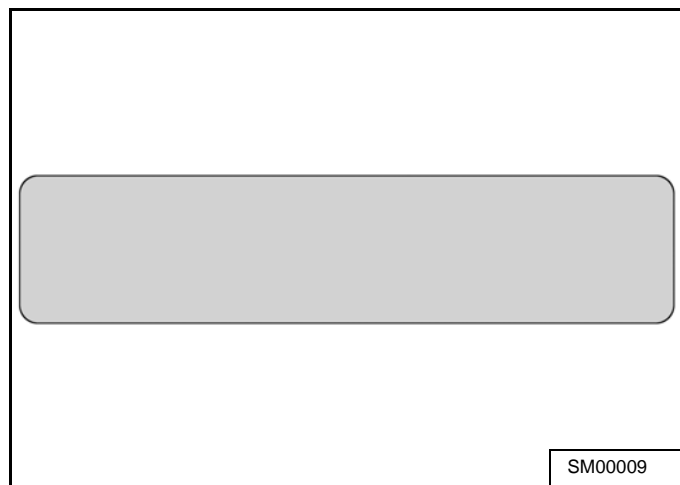
Left front main frame.



11. WARNING - Hydraulic hazard - P/N 997858

**Safety Decal Location (Cont'd)**

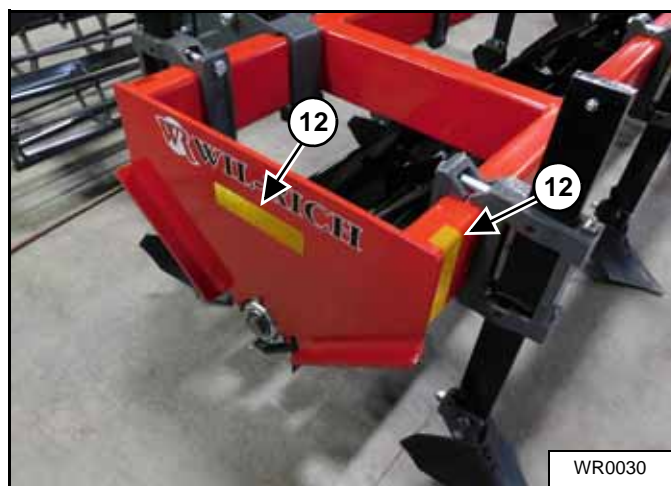
*Safety Decals (Cont'd)*



12. Amber Reflector decal - P/N 22372



Front side of all safety lights.



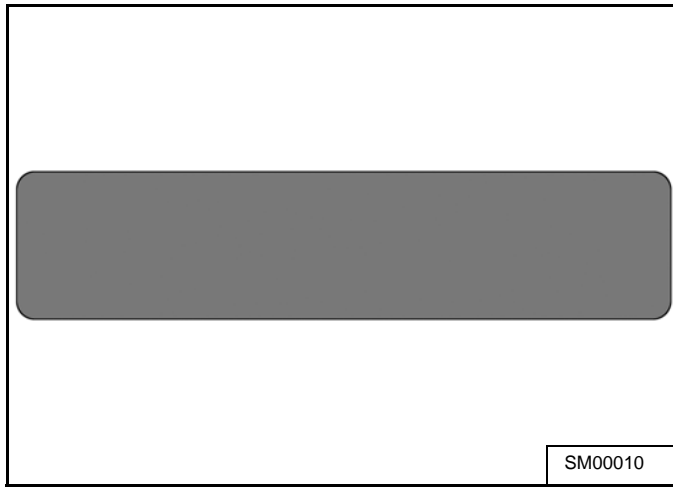
Front and side of both wings.



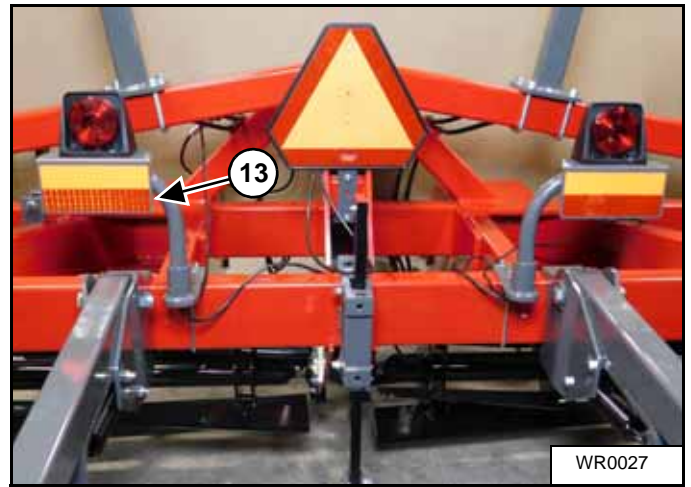
# SAFETY

## Safety Decal Location (Cont'd)

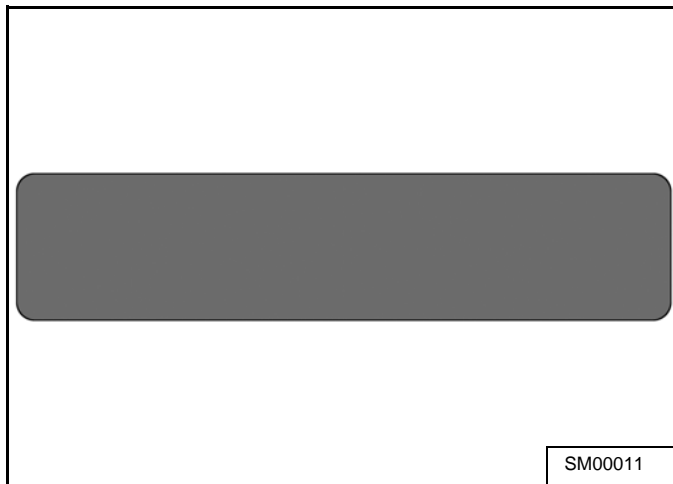
### Safety Decals (Cont'd)



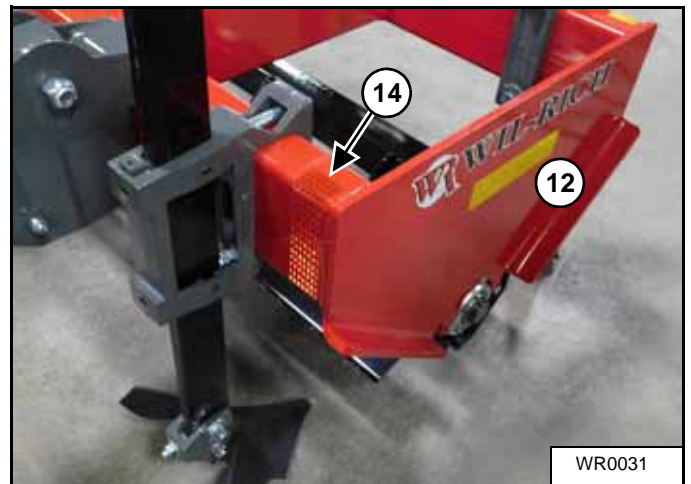
13. Red-Orange Reflector Decal - P/N 223118



Rear side of all safety lights.



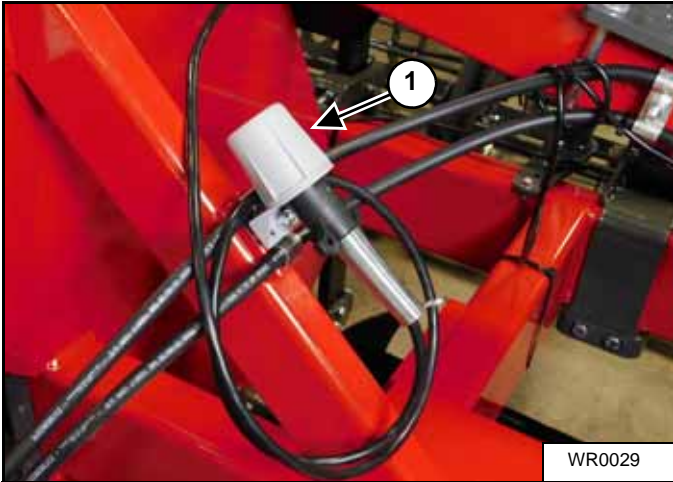
14. Red Reflector decal - P/N 22371



Rear corner of both wings.

## Safety Lighting

### STEP 1



The Safety Light Kit is equipped with a 7-pin connector. To protect the 7-pin connector, store in dust cap when not attached to towing vehicle.

# SAFETY

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## Operation Safety

- Use extreme care when making adjustments.
- When working under or around the machine always lower shanks to the ground.
- After servicing, be sure all tools, parts or servicing equipment is removed from the machine.
- Before and during operation be sure no one is on or around the implement. Serious injury can result from improper use.
- Reduce speed when cornering on field ends and when operating on or across dead furrows.
- Do not attempt to remove any obstruction while the machine is in motion.
- Use extreme care when operating close to ditches, fences, or on hillsides.
- No one other than the operator should ride on the tractor.

## General Maintenance Safety Practices

**NOTE: Read the entire section before beginning work.**

*Before you begin*

- **YOU ARE RESPONSIBLE** for the safe maintenance of the implement.
- **DO NOT ALLOW CHILDREN** or other unauthorized persons within the implement operational area.
- **WEAR PERSONAL PROTECTIVE EQUIPMENT** which includes eye protection, work gloves and steel toed boots with slip resistant soles.
- **DO NOT MODIFY** the equipment or substitute parts in any way. Unauthorized modification may impair the function and / or safety of the machine.
- **USE SUITABLE LIFTING DEVICE** for components which could cause personal injury by pinching, crushing or weight.
- **BLOCK UP ANY RAISED PART** of the machine. Be sure machine is stable after blocking.
- **ALWAYS INSPECT LIFTING CHAINS AND SLINGS** for damage or wear.
- **BE SURE LIFTING DEVICE IS RATED TO HANDLE THE WEIGHT.**
- **STOP ENGINE**, place all controls in neutral, set parking brakes, remove ignition key before servicing or adjusting.
- **BE SURE PRESSURE IS RELIEVED** from hydraulic circuits before servicing or disconnecting from tractor.
- **USE EXTREME CARE** when assembling, servicing or adjusting.

## Hydraulic Safety

- Inspect all hydraulic hoses and fittings for cracks and abrasions at least once a year. Tighten or replace as needed.
- When connecting the hoses to the cylinders, tubings or fittings; always use one wrench to prevent the hose from twisting and another wrench to tighten the union. Excessive twisting will shorten hose life.
- Do not over-tighten hydraulic fittings, excessive torque may cause them to crack.
- Care must be taken to prevent twisting when tightening hose connections. Straighten any hose that appears twisted immediately. A twisted hose can burst under pressure.
- Hydraulic fluid escaping under pressure can have enough force to penetrate the skin. Hydraulic fluid may also infect a minor cut or opening in the skin. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can result if medical treatment is not given immediately. Make sure all connections are tight and that hoses and lines are in good condition before applying pressure to the system.
- To find a leak under pressure, NEVER USE YOUR HAND, use a small piece of cardboard or wood.

## Hydraulic Connection Torques

### Straight Thread O-ring Boss (ORB)

(example: 12MB - 12MJ is -12 male ORB to -12 male JIC)

Jam Nut or Straight Fitting Torque		
Dash Size	Ft / Lbs	Newton Meters
-04	13-15	18-20
-05	14-15	19-21
-06	23-24	32-33
-08	40-43	55-57
-10	43-48	59-64
-12	68-75	93-101

### SAE 37°C (JIC)

(example: 8FJ - 8FJ is -08 female JIC)

Jam Nut or Straight Fitting Torque		
Dash Size	Ft / Lbs	Newton Meters
-04	11-12	15-16
-05	15-16	20-22
-06	18-20	24-28
-08	38-42	52-58
-10	57-62	77-85
-12	79-87	108-119

**IMPORTANT:** SAE 37° fittings can be damaged if over torqued.

## Transporting safety

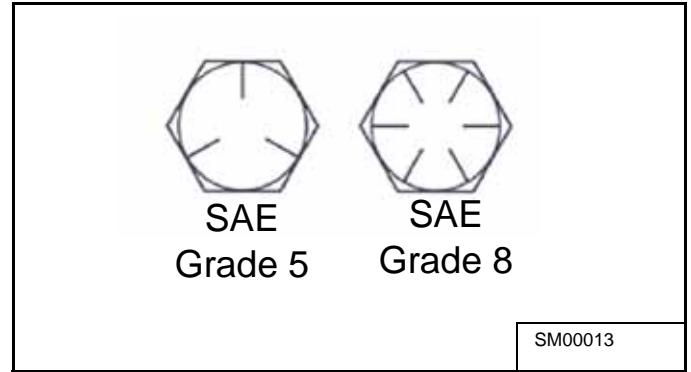
- Always place the machine in the transport position with the wing folded.
- Comply with your state and local laws governing highway safety when moving machinery on a highway.
- Reduce road speed on corners.
- Drive at a reasonable speed to maintain complete control of the machine at all times.
- A S.M.V. emblem must be used at all times while traveling on public roads.
- Be sure the safety lights are working.
- Obey all local, state and federal lighting requirements.

# PREPARATION

Before using the implement a careful inspection must become routine.


Check to insure that all hardware is securely tightened and moving parts properly lubricated.

- Tighten all loose nuts and bolts and replace any bent or broken parts.
- When tightening bolts, they must be torqued to the proper number of foot-pounds as indicated in the table unless specified. It is important that all bolts be kept tight.
- On new machines, all nuts and bolts must be rechecked after a few hours of operation.
- When replacing a bolt, use only a bolt of the same grade or higher. Except in shear bolt applications, where you must use the same grade bolt.



- Bolts with no marking are grade 2.
- Grade 5 bolts furnished with the machine are identified by three radial lines on the head.
- Grade 8 bolts furnished with the machine are identified by six radial lines on the head.
- All U-bolts are grade 5.

BOLT SIZE	WRENCH SIZE	GRADE 5		GRADE 8	
		lb-ft	N•m	lb-ft	N•m
1/4 in.	7/16 in. or 3/8 in.	7	9.5	12	17
5/16 in.	1/2 in.	15	20	25	34
3/8 in.	9/16 in.	30	41	45	61
7/16 in.	5/8 in. or 11/16 in.	45	61	70	95
1/2 in.	3/4 in.	70	95	105	142
9/16 in. wheel bolts	7/8 in.	170	231	-	-
5/8 in.	15/16 in.	170	231	210	285
5/8 in. wheel nuts	1-1/16 in.	240	325	-	-
3/4 in.	1-1/16 in.* or 1-1/8 in.*	250	339	375	509
7/8 in.	1-5/16 in.	350	475	600	814
1 in.	1-1/2 in.	450	610	880	1193
1-1/4 in.	1-7/8 in.	500	678	-	-
1-1/2 in.	2-3/4 in.	570	773	-	-
2 in.	3-1/8 in.	1200	1627	-	-

 <b>CAUTION</b>	<ul style="list-style-type: none"> <li>• Just before and during operation be sure no one is on or around the implement.</li> <li>• Before activating the hydraulic system, check hoses for proper connections.</li> </ul>	<ul style="list-style-type: none"> <li>• Before lowering the wings for the first time, make sure the entire system has been charged with oil.</li> </ul>
<p><b>FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY AND/OR EQUIPMENT DAMAGE.</b></p>		

**Hydraulics**

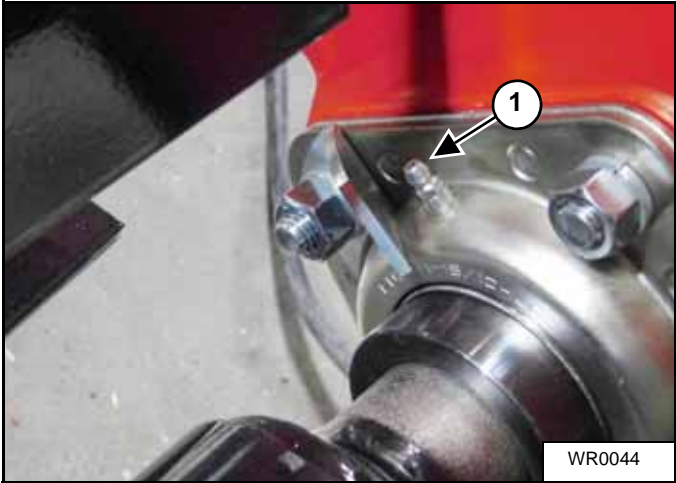
**STEP 1**



On all new machines check the hydraulic system to be sure all fittings are tight.

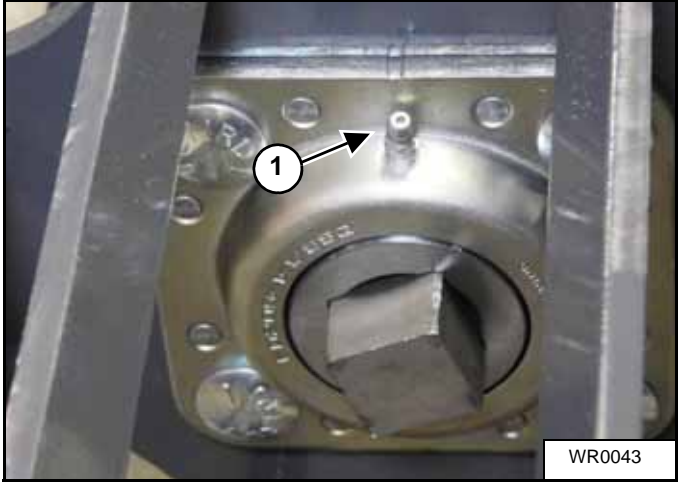
**Lubrication**

**STEP 1**



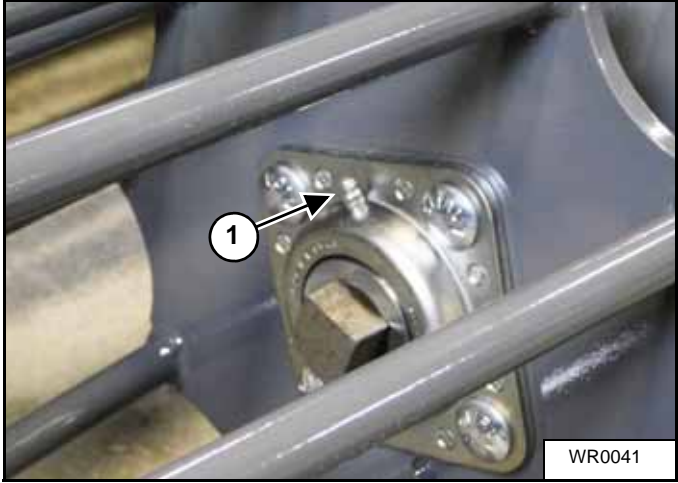
Grease the eight bearings (1) on the front flat bar roller.

**STEP 2**



Grease the eight bearings (1) on the rear flat bar rollers.

**STEP 3**



Grease the eight bearings (1) on the rolling basket.

# PREPARATION

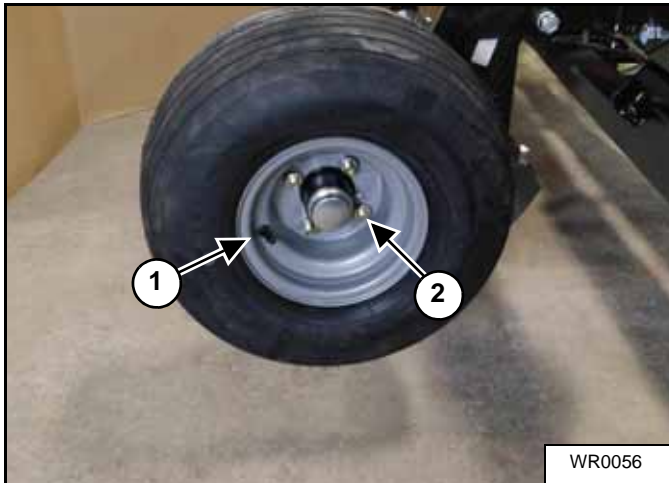
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## *Tractor Preparation*

Refer to the operator's manual furnished with your tractor for recommended adjustments and weight distribution.

### *Optional Gauge Wheel*

#### STEP 1



The use of the proper air pressure is the most important factor in satisfactory performance and maintenance of implement tires. Underinflation will damage the cord body of the tire and cause a series of diagonal breaks in the fabric in the sidewall area.

Initial tire pressure should be set at 30 PSI for the 18 x 9.50 - 8 gauge wheels.

If the tire buckles or wrinkles, the air pressure must be increased to the point where the sidewalls remain smooth while operating.

#### **NOTE: DO NOT OVERINFLATE TIRES.**

Change the air pressure (1) every two or three weeks and do not allow pressure to drop to a point where buckling or wrinkling of the tire may be possible.

It is recommended that all wheel nuts (2) be checked for tightness after first day of use. Wheel nuts are tightened to 90 psi (122 N•m). Check periodically to be sure the wheel nuts are tight. Paint or rust can work out causing the wheel to become loose.



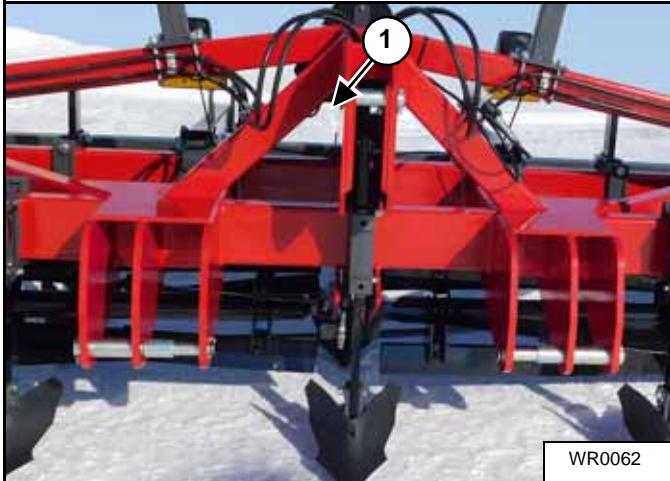


# CONNECTING THE IMPLEMENT



**WARNING:** Never allow anyone between the tractor and implement when connecting or disconnecting the implement until the implement is completely supported on the 3-point hitch, the engine is stopped and the park brake is applied.

## Step 1



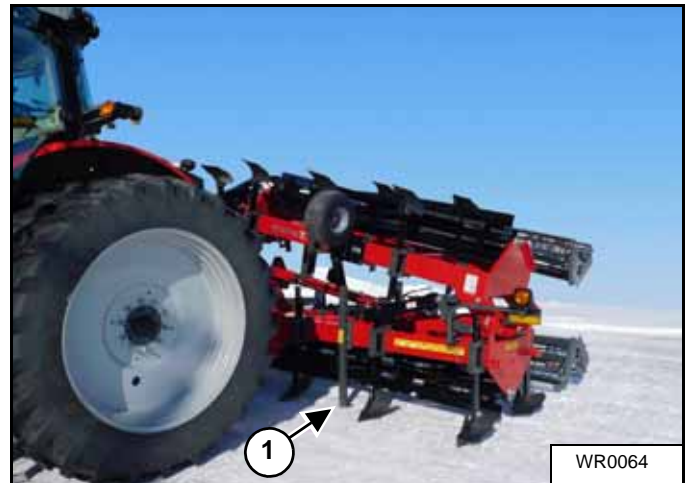
The bedder is equipped to accept multiple 3-point hitch categories from CAT 3 to CAT 4.

## Step 2



- Be sure the 3-point hitch is at implement height. Slowly inch the tractor under the implement 3-point hitch pins.
- Lift the 3-point hitch until it completely supports the implement.
- Set the park brake and stop the engine.
- Lock the 3-point hitch on the lower pins of the implement.

## Step 3



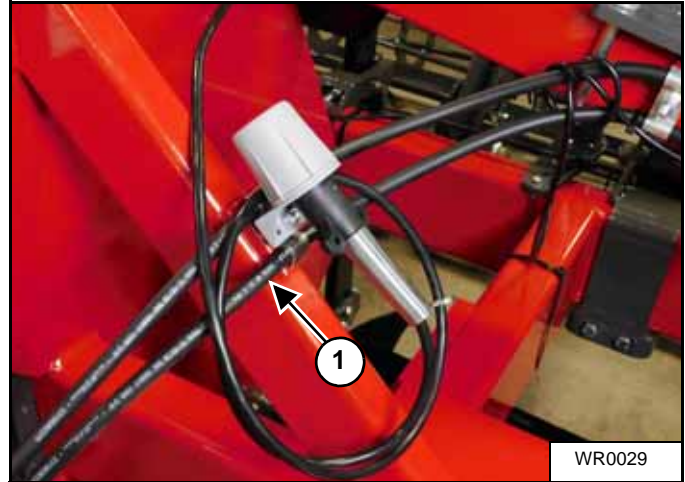
Raise the implement until the support stands (1) are off the ground. Raise the support stands. Lower the implement to the ground.

# CONNECTING THE IMPLEMENT

## STEP 4



Install the safety light connector on the tractor.



**NOTE:** The bottom hose (1) is the cylinder **EXTEND** or **LOWER** hose.

## STEP 5



Install the wing raise / lower hoses on the tractor couplers.

## STEP 6



Set the tractor throttle to IDLE. Carefully lower and raise both wings to test the system and purge any air in the lines or cylinders.



**DANGER:** Always fold the wings in the stored position and raise the support stands before transporting the implement.

# OPERATION

## Transporting

### STEP 1



A S.M.V. (Slow Moving Vehicle) emblem must be used at all times while traveling on public roads.

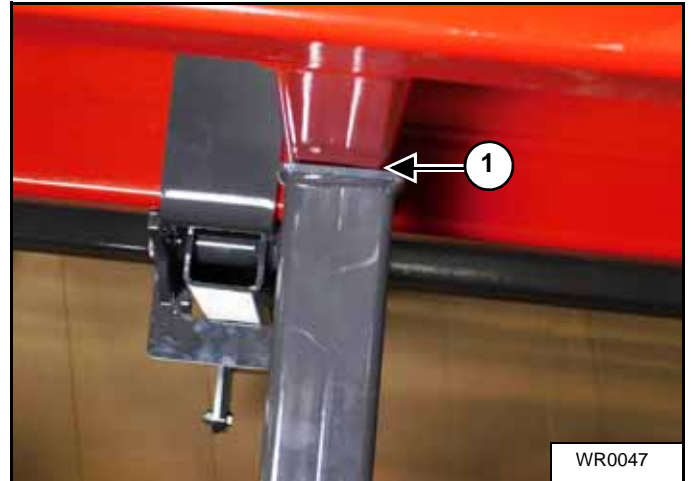
Be sure safety lights are working. Obey all local, state and federal laws for lighting requirements.

### STEP 2



Always fold the wings before transporting.

### STEP 3



Be sure the wings are resting securely on the wing supports (1).

### STEP 4



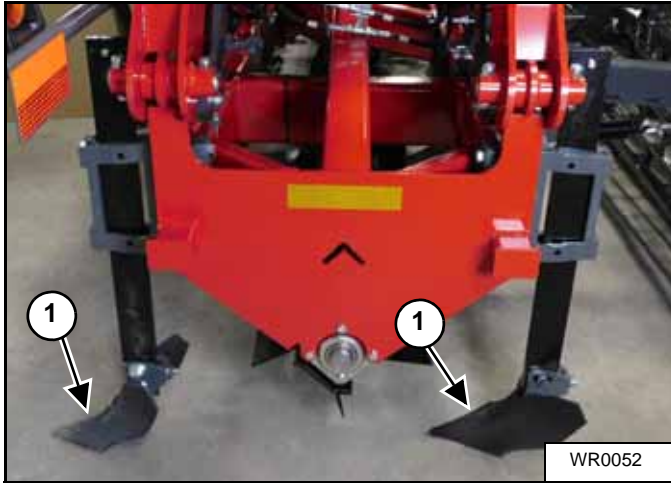
Raise the implement and raise the support stands (1).

**Field Operation Adjustments**

The implement is set at the factory for immediate use. After running a test strip the bedder can be adjusted for optimal seed preparation in different soil conditions.

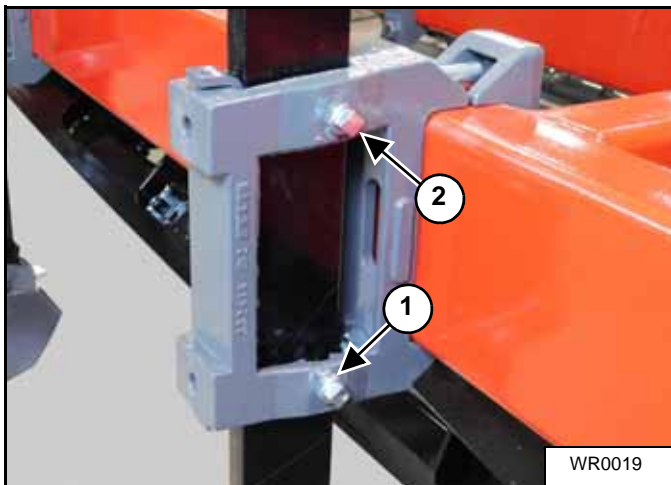
**Sweeps**

**STEP 1**



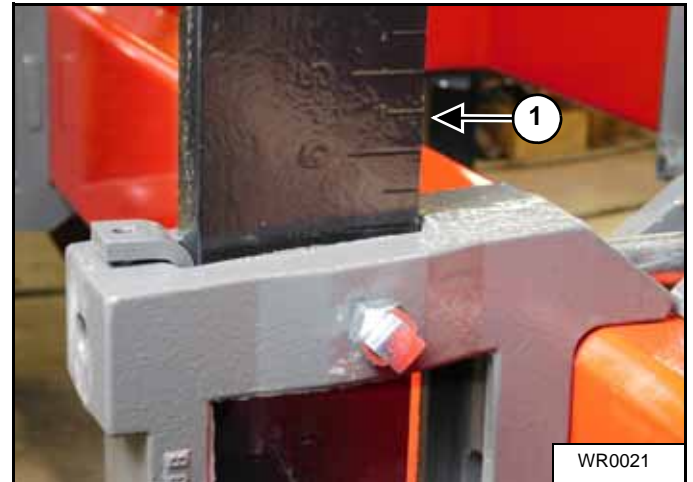
If necessary the sweeps (1) can be raised or lowered to increase or decrease the mound height.

**STEP 2**



To change the depth, loosen the lock nuts (1) and set screws (2).

**STEP 3**



Each shank is marked in 1/2 inch increments (1). Be sure to set all sweeps at the same depth.

Tighten both set screws (2) and lock nuts (3) on each shank.

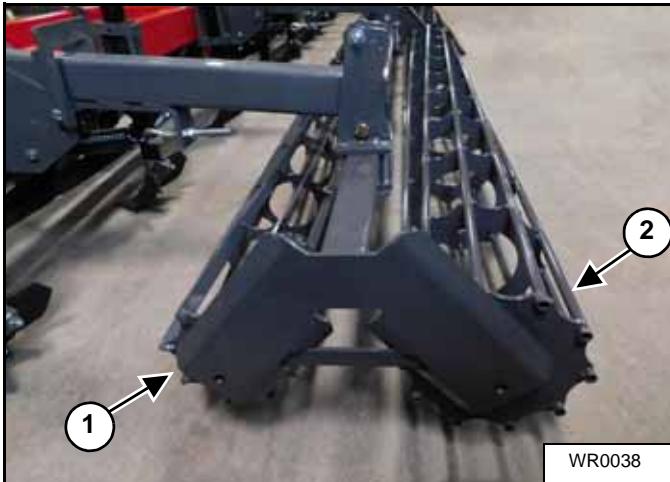
Run another test strip and check the results.

# OPERATION

## Field Operation Adjustments (Cont'd)

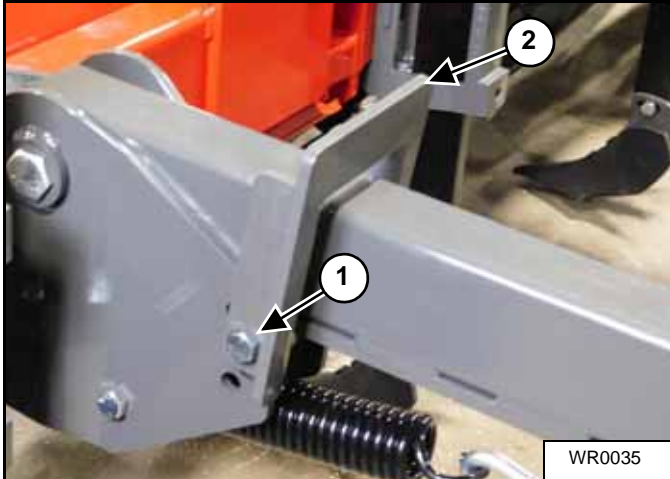
### Flat Bar Rollers and Rolling Baskets

#### STEP 1



The Flat Bar Roller / Rolling Basket assembly can be adjusted for height, down pressure and balance between the rollers (1) and the baskets (2).

#### STEP 2

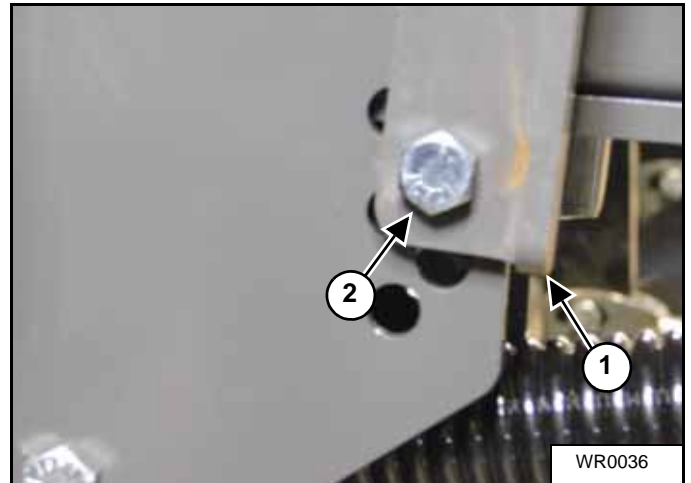


To set a minimum or maximum height for the assembly, remove the bolts (1), lock nuts and brackets (2) from the assembly.

**NOTE:** Make a note of the original setting for reference when adjusting.

**NOTE:** The drop stop brackets (2) are only on the wing rolling basket frames to prevent the assembly from dropping on the main frame when the wings are folded.

#### STEP 3



Install the brackets (1), bolts (2) and lock nuts at the new setting.

#### STEP 4

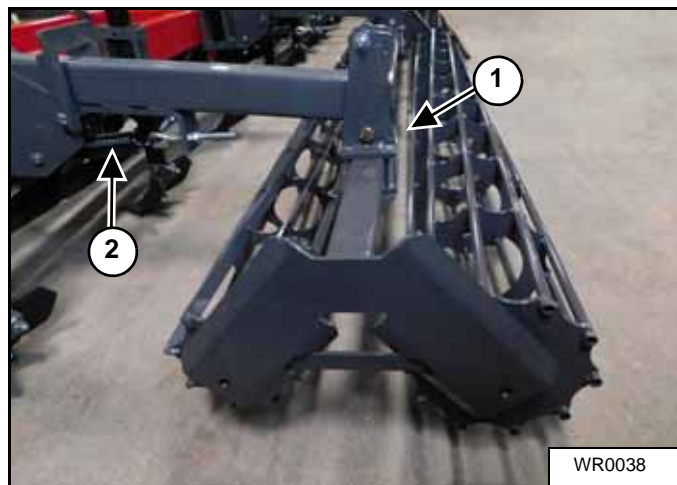


Be sure all assemblies are at the same height. Run a test strip and check the results.

Field Operation Adjustments (Cont'd)

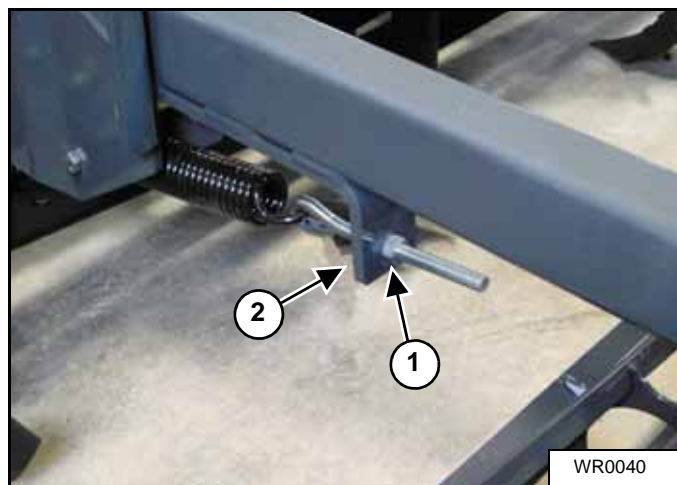
Flat Bar Rollers and Rolling Baskets (Cont'd)

STEP 5



The down pressure of the bar roller / basket assembly (1) can be adjusted with the spring (2) tension. If the assembly (1) is bouncing too much the spring (2) pressure can be increased. If a lighter touch is required the pressure can be decreased.

STEP 6



To increase pressure turn the front nut and rear nut (1) clockwise.

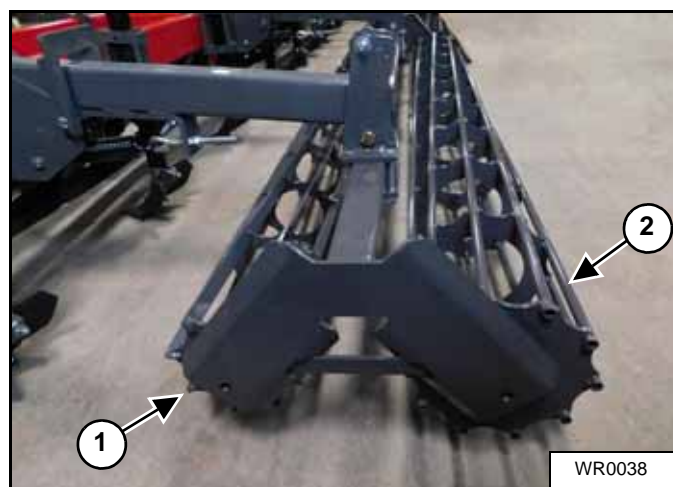
To decrease pressure turn the rear nut (1) and front nut counterclockwise.

Tighten both nuts against the bracket (2).

Be sure all springs are adjusted the same.

**NOTE:** Never relieve all down pressure on the roller assemblies. A minimum pressure is required for the implement to function correctly.

STEP 7



The balance between the flat bar rollers (1) and rolling baskets (2) can be adjusted for better seed bed results. If the soil clumps need to be broken down more, increase the pressure on the flat bar roller. If the soil is loose, the flat bar roller pressure can be decreased and the rolling basket increased.

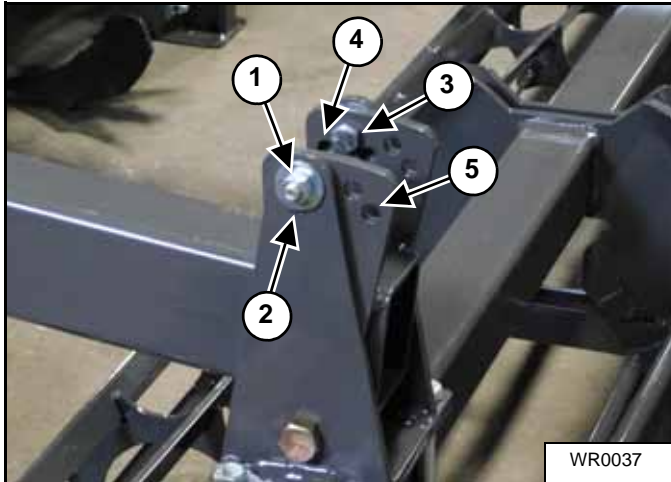
# OPERATION

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## Field Operation Adjustments (Cont'd)

### *Flat Bar Rollers and Rolling Baskets (Cont'd)*

#### STEP 8



- To change the balance between the flat bar rollers and the rolling baskets, remove the four nuts (1), washers (2) and bolts (3) from the two arms on each assembly.
- The front holes (4) will increase the down pressure on the rolling basket. The rear holes (5) will increase the pressure on the flat bar roller.
- Install and tighten the bolts (3), washers (2) and nuts. Be sure to make the same adjustments in all the assemblies.

**NOTE: When changing the pressure of the flat bar roller or rolling basket it may be necessary to change the height and spring tension settings to produce the required seed bed.**





# MAINTENANCE

## Daily

### STEP 1

Inspect all bolts and fasteners for tightness and damage.

Replace any damaged fasteners immediately.

Loose bolts or fasteners can result in damage to the implement.

### STEP 2



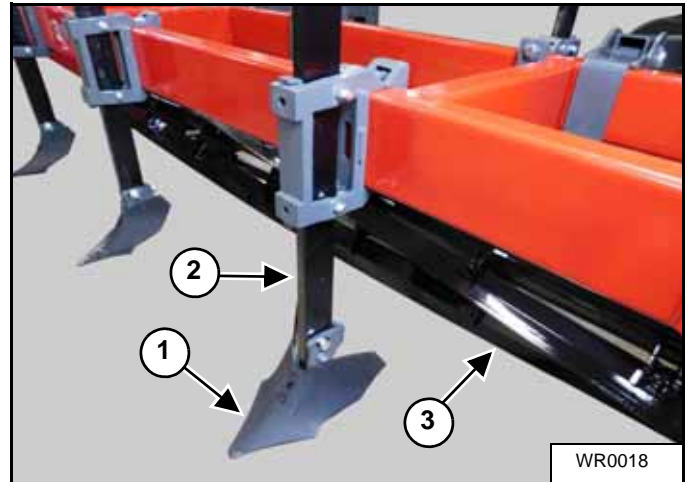
Check hydraulic hoses and fittings for leaks or damage. Tighten or replace immediately.

### STEP 3



Check the wing hinges for excessive wear, damaged or bent parts or links.

### STEP 4



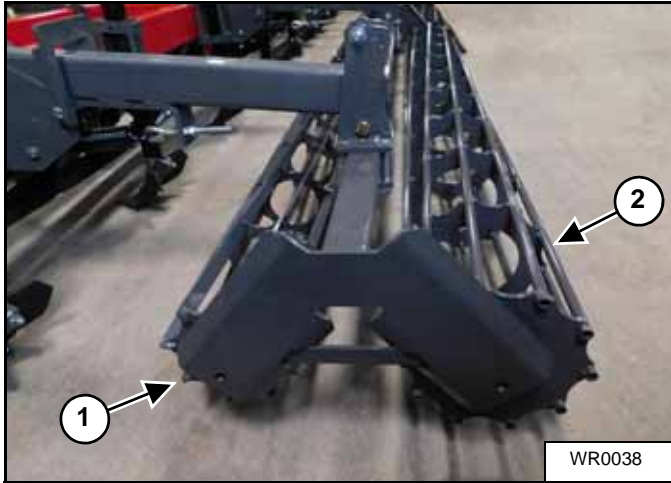
Check the sweeps (1) and shanks (2) for excessive wear or damage.

**NOTE: A bent shank or worn sweep can effect the accuracy of the bedder.**

Check the front flat bar roller (3) for excessive wear or damage.

Daily (Cont'd)

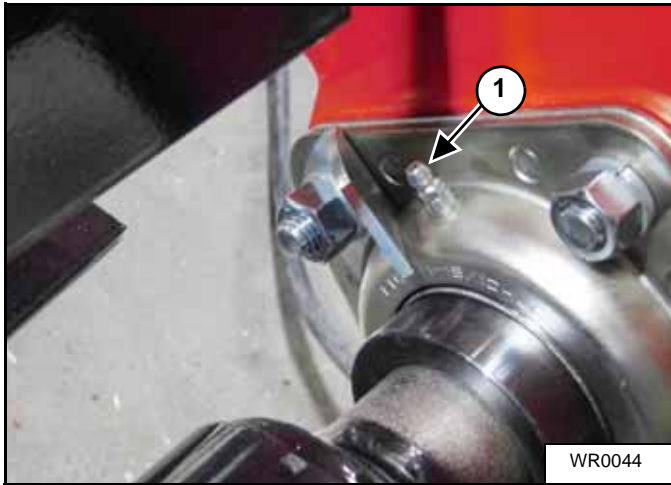
STEP 5



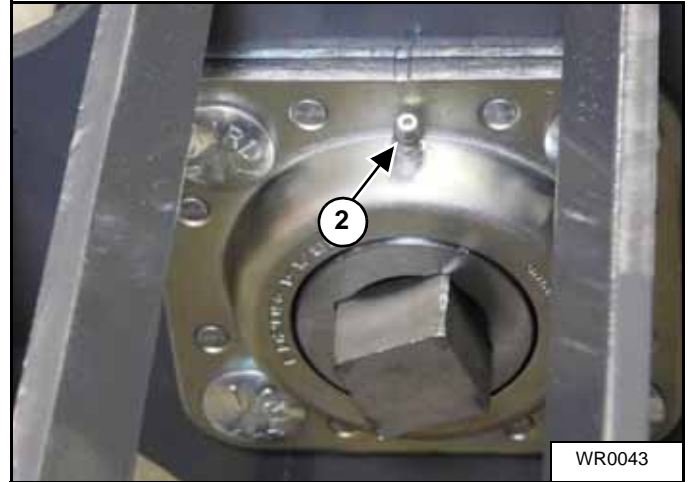
Check the rear flat bar roller (1) and rolling basket (2) assembly, mounts (3) and tension spring (4) for excessive wear or damage.

100 Hours

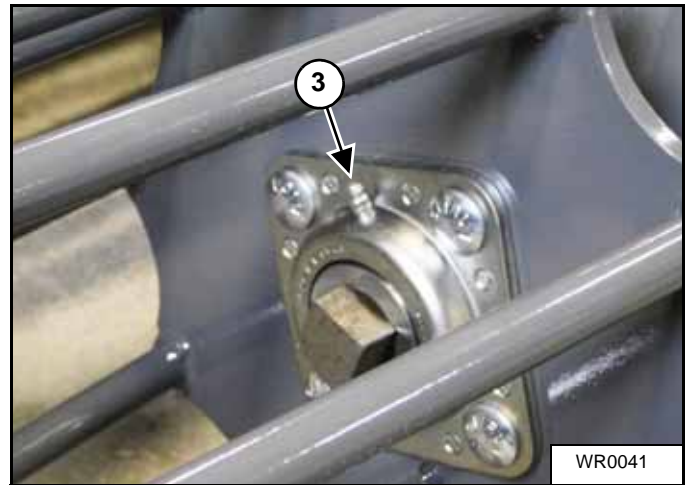
STEP 1



STEP 2



STEP 3



After the initial pre-operation lubrication, the front flat bars (1), rear flat bars (2) and rolling baskets (3) must be lubricated with clean multipurpose heavy duty lithium grease every 100 hours of operation.

# MAINTENANCE

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## Yearly

### STEP 1

Remove all dirt and debris from the implement that could hold moisture and cause rusting.

### STEP 2

Repaint any chipped areas or clean and paint rusted areas.

### STEP 3

Inspect the machine for any worn or damaged parts and replace immediately.

### STEP 4

Grease all 24 of the flat blade rollers and rolling baskets' bearings as in the 100 hours maintenance.

### STEP 5



If equipped with the optional gauge wheels, repack the wheel bearings with clean heavy duty lithium base wheel bearing grease.



# TROUBLESHOOTING

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## Troubleshooting Chart

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Poor or uneven mounding.	Not all sections at the same settings.	See OPERATION "Field Operation Adjustments"
Mounds not high enough.	Sweeps are too shallow.	See OPERATION "Field Operation Adjustments"
	Rear flat bar roller / rolling basket assembly set too high.	See OPERATION "Field Operation Adjustments"
Mounds too high.	Sweeps are too low.	See OPERATION "Field Operation Adjustments"
	Rear flat bar roller / rolling basket assembly too high.	See OPERATION "Field Operation Adjustments"
Too many large soil clumps in seed bed.	Not enough down pressure on the rear flat bar roller.	See OPERATION "Field Operation Adjustments"  Adjust the balance between the rear flat bar roller and the rolling basket.





