WIL-RICH

Operator’s Manual

483 Chisel Pro

08-19 | 79993

AGCO-Amity JV LLC Limited Warranty Terms And Conditions - United States and Canada
Effective For Equipment Retailed And Delivered After June 1, 2018

WHAT IS WARRANTED: AGCO Amity JV warrants its new equipment to be free of defects in material and workmanship at the time of delivery to the first retail purchaser, renter, or lessee. These terms apply to all Wishek, Wil-Rich, and Amity brands of new equipment originally marketed in the United States and Canada

Warranty Period

12 Months from the date of delivery to the first retail purchaser, renter or lessee
483 Disk Chisel, Field Cultivator, and Disk Cultivators: 3 years on main frames, wing frames, and shank assemblies
Precision Shank Drill: 3 years on main frame, wing frame, and rockshafts.

EXCEPTIONS FROM THIS WARRANTY

Freight Charges - This warranty does not cover freight charges.
Improvements, Changes, or Discontinuance AGCO Amity JV reserves the right to make changes and improvements in design or changes in specifications at any time to any product without incurring any obligations to owners of products previously sold.
Repairs and Maintenance Not Covered Under Warranty - This warranty does not cover conditions resulting from misuse, natural calamities, use of non-AGCO-Amity JV parts, negligence, alteration, accident, use of unapproved attachments, usage which is contrary to the intended purposes, or conditions caused by failure to perform required maintenance. Replacement of Wear or Maintenance items (unless defective) such as but not limited to, filters, hoses, belts, lubricants, light bulbs, wheel alignment, tightening of nuts, belts, bolts, and fittings, service tune-up, computer parameter adjustments and general adjustments which may from time to time be required are not covered.
Rubber Tire Warranty - Rubber tires are warranted directly by the respective manufacturer only and not by AGCO Amity JV.
Satellite Outages - Interruptions in satellite interfaces and satellite communications are outside the control of this product and are not covered by this warranty. The company is not responsible for issues or degradation of system performance resulting from such interruptions in satellite interfaces and satellite communications where the issues are not related to defects in this product.

OWNER'S OBLIGATION

It is the responsibility of the Owner to transport the equipment or parts to the service shop of an authorized AGCO Amity JV Dealer or alternatively to reimburse the Dealer for any travel or transportation expense involved in fulfilling this warranty. This Warranty does NOT cover rental of replacement equipment during the repair period, damage to products which have been declared a total loss and subsequently salvaged, overtime labor charges, freight charges for replacement parts, or special handling requirements (such as, but not limited to, the use of cranes).

EXCLUSIVE EFFECT OF WARRANTY AND LIMITATION OF LIABILITY

THIS WARRANTY IS IN LIEU OF ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PUPROSE OR OTHER REPRESENTATIONS, WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED. The remedies of the Owner set forth herein are exclusive. The Company neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale of covered machines. Correction of defects, in the manner and for applicable period of time provided above, shall constitute fulfillment of all responsibilities of AGCO Amity JV to the Owner, and AGCO Amity JV shall not be liable for negligence under contract or in any manner with respect to such machines. IN NO EVENT SHALL THE OWNER BE ENTITLED TO RECOVER FOR INCIDENTAL, SPECIAL OR CONSQUENTIAL DAMAGES SUCH AS BUT NOT LIMITED TO, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE OR COST OF RENTAL OR REPLACEMENT EUQIPMENT.
Some states or Provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusions in this warranty may not apply.

"AGCO Amity JV" AS REFERRED TO HEREIN WITH RESPECT TO SALES IN: UNITED STATES and CANADA: AGCO Amity JV LLC
PO Box 1030
Wahpeton, ND 58074

AGCO-Amity JV LLC Limited Warranty Terms And Conditions - United States and Canada
Effective For Equipment Retailed And Delivered After June 1, 2018

Additional Warranty Information

New Equipment Warranty: Equipment is eligible for warranty service only if it qualifies under the provisions of the New Equipment Warranty. The selling dealer will deliver this Warranty to the original retail purchaser at the time of sale, and the dealer will register the sale and Warranty with AGCO Amity JV LLC.

Subsequent Owners: This Warranty covers the first retail purchaser and all subsequent owners of the equipment during the specified warranty period. Should the AGCO Amity JV Dealer sell this equipment to a subsequent owner, the Dealer must deliver the warranty document to the subsequent owner so the subsequent owner can register ownership with AGCO Amity JV and obtain the remaining warranty benefits, if available, with no intermission in the Warranty Period. Subsequent Owner Procedure will apply. It is the responsibility of the subsequent owner to transport the equipment to the service shop of an authorized AGCO Amity JV Dealer or alternatively to reimburse the Dealer for any travel or transportation expensed involved in fulfilling this warranty. This Warranty does NOT cover changes for rental or replacement equipment during the repair period, products which have declared a total loss and subsequently salvaged, overtime labor charges, freight charges for replacement parts, or units sold at auction.

Warranty Service - To be covered by Warranty, service must be performed by an authorized AGCO Amity JV Dealer. It is recommended that you obtain warranty service from the Dealer who sold you the equipment because of that Dealer's continued interest in you as a valued customer. In the event this is not possible, warranty service may be performed by any other authorized AGCO Amity JV Dealers in the United States or Canada. It is the responsibility of the Owner to transport the equipment to the service shop of an authorized AGCO Amity JV Dealer or alternatively to reimburse the Dealer for any travel or transportation expense involved in fulfilling this warranty.

Maintenance Service - The Owner's Manual furnished to you with the equipment at the time of delivery contains important maintenance and service information. You must read this manual carefully and follow all the maintenance and service recommendations. Doing so will result in greater satisfaction with your equipment and help avoid service and warranty problems. Please remember that failures due to improper maintenance of your equipment are not covered by warranty.

Maintenance Inspections - To insure the continued best performance from your agricultural equipment, we recommend that you arrange to make your equipment available to your selling Dealer for a maintenance inspection 30 days prior to warranty expiration.

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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 using the machine, is instructed in safe and proper use and reviews and understands the Operator's Manual.

The user is responsible for inspecting the 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 or reference information of supplementary nature.

The word IMPORTANT is used for information that must be read and procedures followed for the safe and proper operation of the machine.

References to the right (RH) or left (LH) on the machine are from the operator sitting in the cab of the tractor.

Serial Number

WR0084

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 above the hitch frame.

Serial Number

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.

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.
6. INSTALL transport safety locks (See page 25).

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 when parts are replaced.
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.

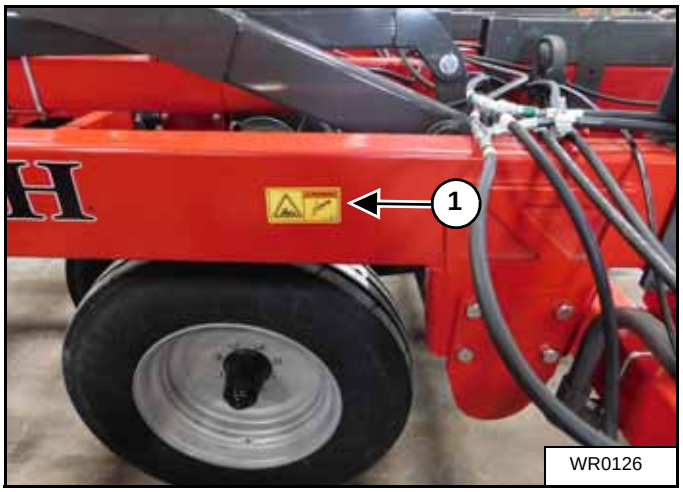
Safety Decal Location

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 AWARNESS.

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. WARNING - CYLINDER LOCKS MUST BE USED - CRUSHING HAZARD - P/N 997864 01



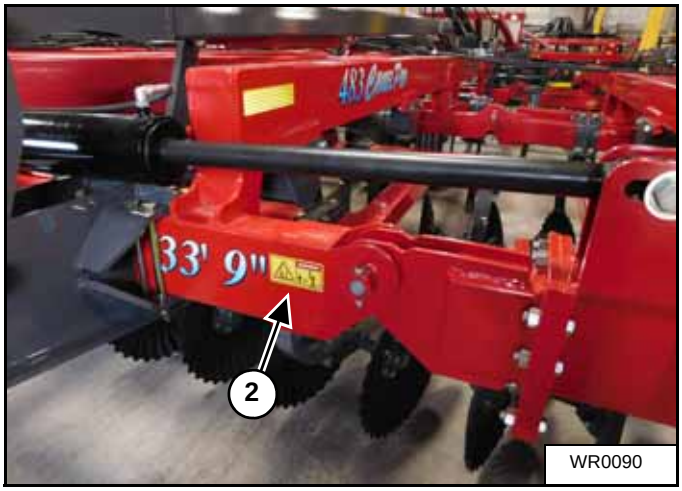
Right and left sides main frame.

Right and left side transport wheel cylinder locks.

Safety Decal Location (Cont'd)

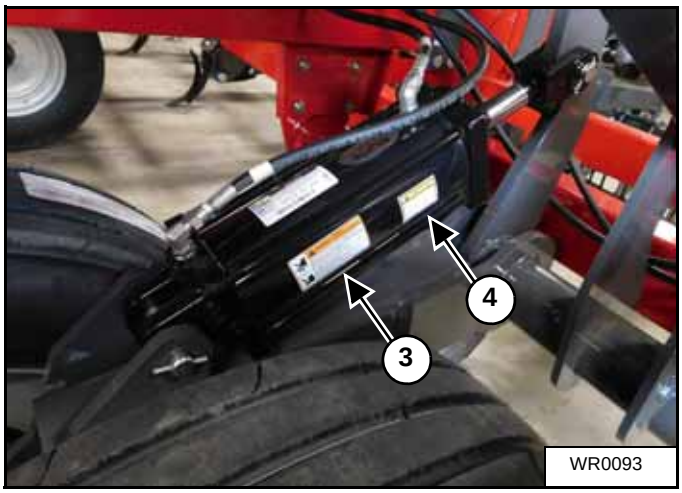
Safety Decals (Cont'd)

2. DANGER - STAND CLEAR - P/N 997854 01



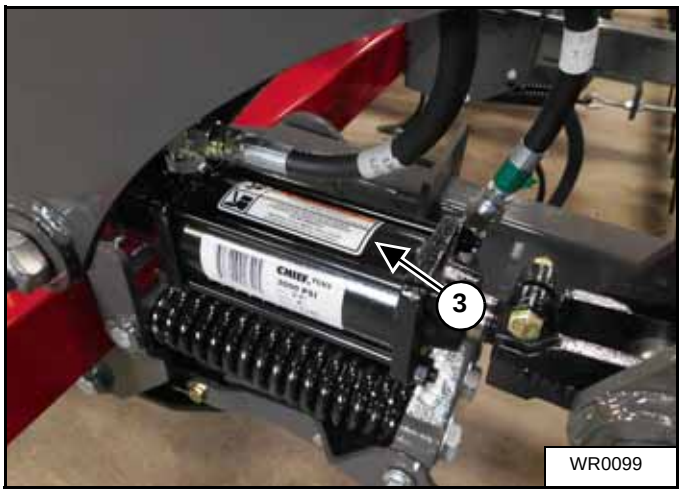
Main frame left and right wing hinge.

3. WARNING - PREVENT SERIOUS INJURY FROM MOVING PARTS.



Left and right wheel lift cylinders.

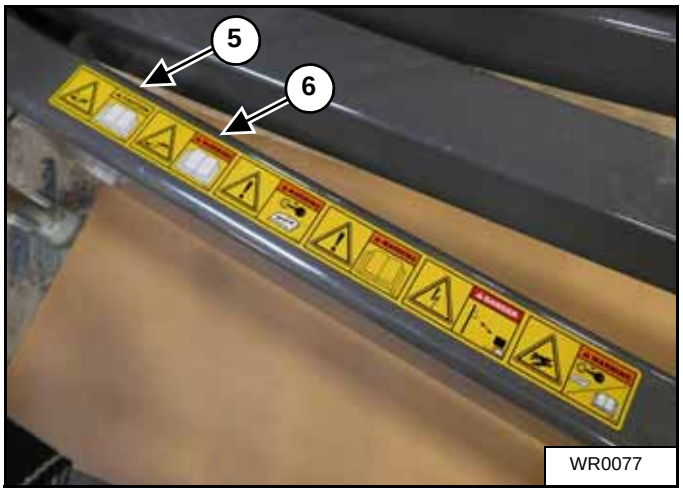
4. CAUTION - BLEED AIR FROM ALL SERIES CYLINDERS



All rolling basket lift cylinders.

Safety Decal Location (Cont'd)

Safety Decals (Cont'd)



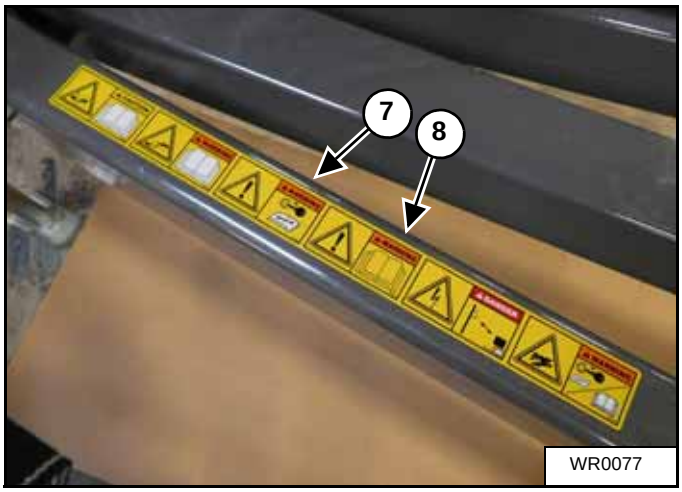
5. CAUTION - Read manual before connecting - P/N 997856

Left front main frame.

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

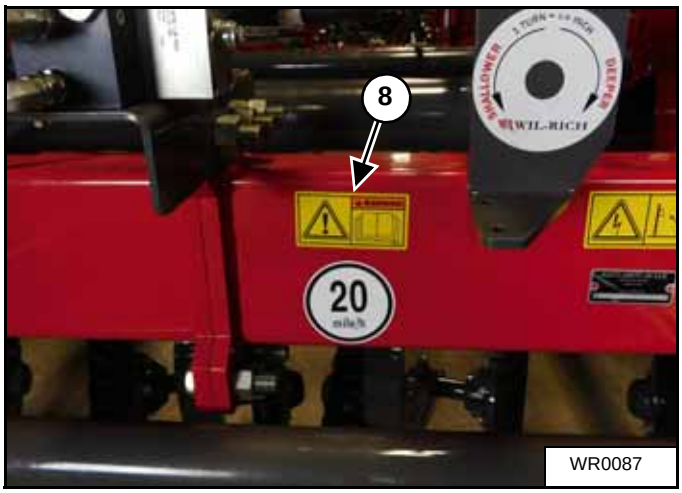
Safety Decal Location (Cont'd)

Safety Decals (Cont'd)



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

Left front main frame.



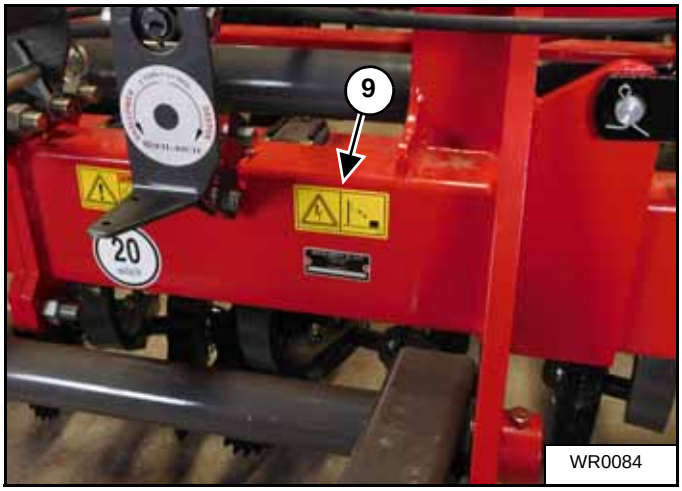
8. WARNING - Read manual - P/N 997860

Left front main frame.

Safety Decal Location (Cont'd)

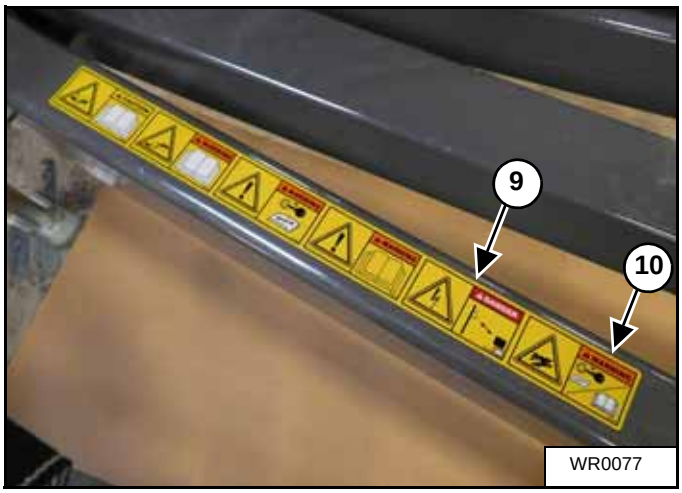
Safety Decals (Cont'd)

9. DANGER - Electrocution hazard - P/N 997862



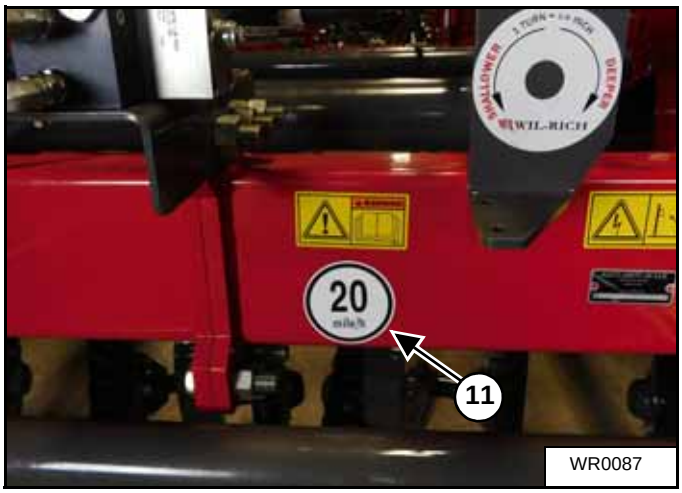
Left front main frame.

10. WARNING - Hydraulic hazard - P/N 997858



Left front main frame.

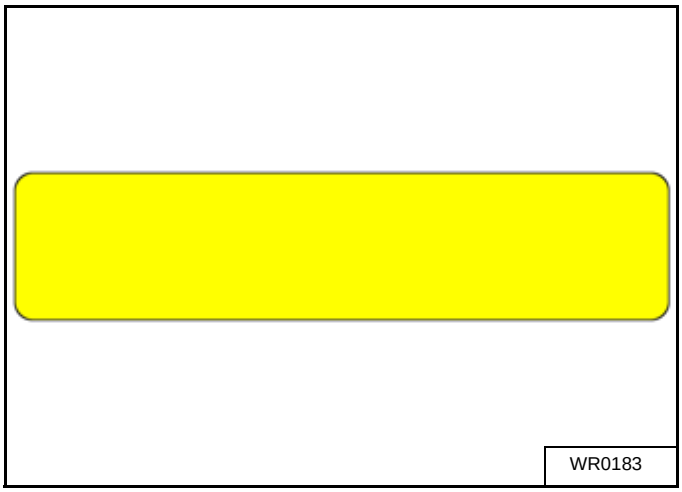
11. MAXIMUM SAFE TRAVEL SPEED - P/N 9971018



Left front main frame.

Safety Decal Location (Cont'd)

Safety Decals (Cont'd)



12. Amber Reflector decal - P/N 22372

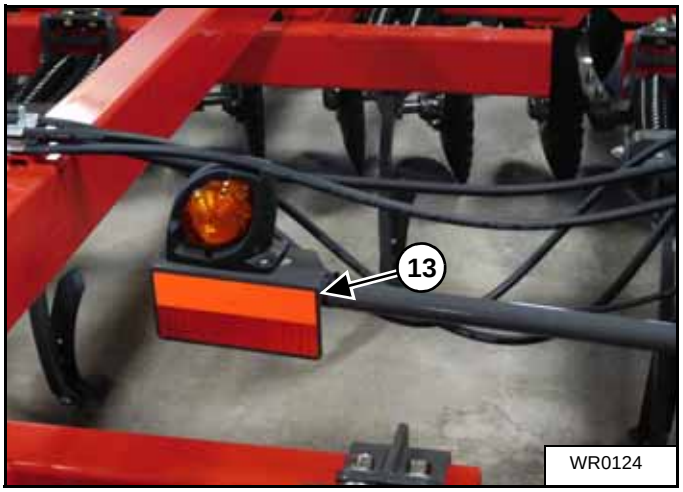
Front side of all safety lights.

Front and side of both wings.

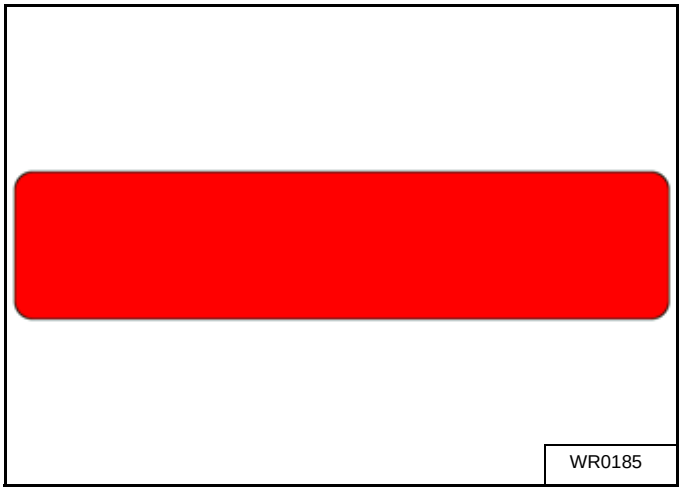
Safety Decal Location (Cont'd)

Safety Decals (Cont'd)

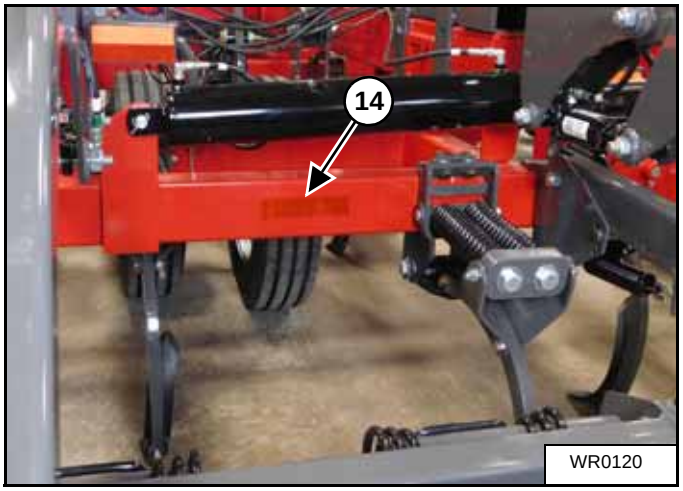
13. Red-Orange Reflector Decal - P/N 223118



Rear side of all safety lights.

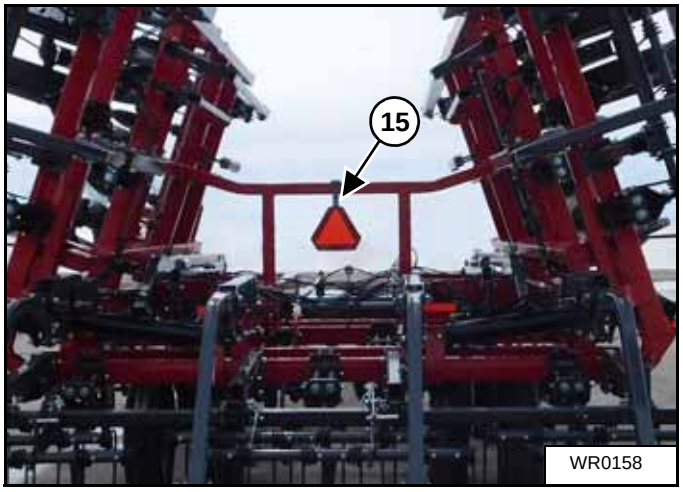


14. Red Reflector decal - P/N 22371



Rear outside corner of both LH and RH wings and main frame.

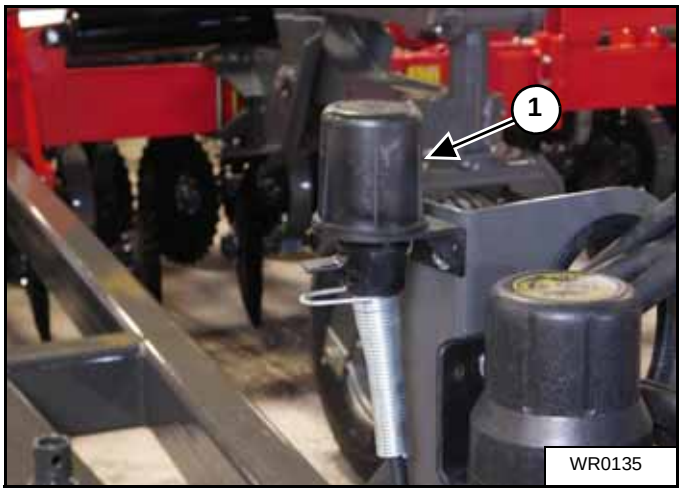
15. SMV - SLOW MOVING VEHICLE - P/N 41345



Center of wing stop bracket.

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 (1) located on the front of the hitch when not attached to towing vehicle.

Operation Safety

- Use extreme care when making adjustments.
- When working under or around the machine always install transport cylinder locks and lower the machine.
- 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 EQUPMENT** 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. **BE SURE** lifting device is rated to handle the 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.
- **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.
- 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.
- 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 and loosen hose fittings.

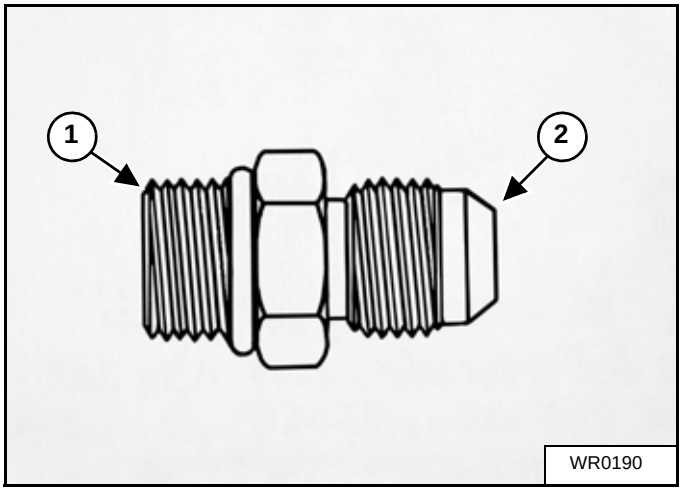
CAUTION: Hydraulic fluid escaping under pressure can have enough force to penetrate the skin. Hydraulic fluid may also infect a minor cut or opening in the skin. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can result if medical treatment is not given immediately. 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) (1)
(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) (2)
(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

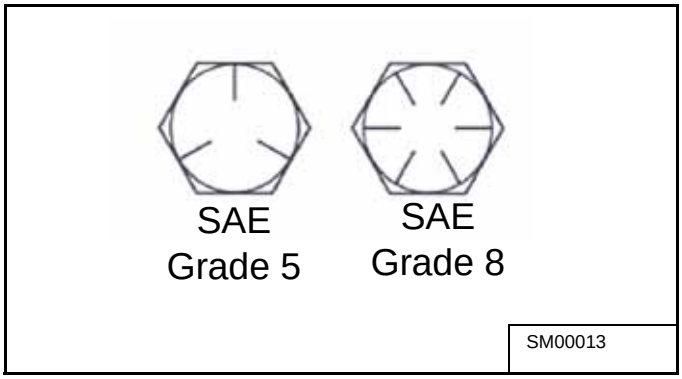
- Always place the machine in the transport position with the wing folded up.
- Install transport cylinder locks (See page 25).
- Comply with your state and local laws governing highway safety when moving machinery on a highway.
- Reduce road speed on corners.
- Drive at a reasonable speed to maintain complete control of the machine at all times. Maximum transport speed is 20 mph.
- 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 be sure 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	-	-

⚠ CAUTION

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY AND/OR EQUIPMENT DAMAGE.

- **Just before and during operation be sure no one is on or around the implement.**
- **Before activating the hydraulic system, check hoses for proper connections.**
- **Before lowering the wings for the first time, make sure the entire system has been charged with oil.**

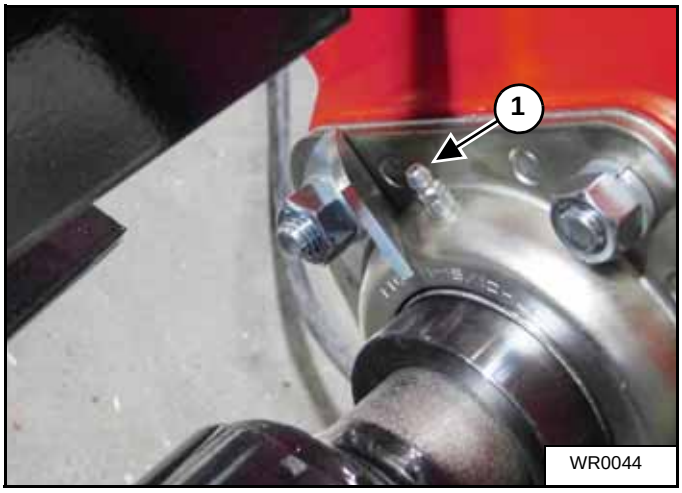
Hydraulics

STEP 1

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

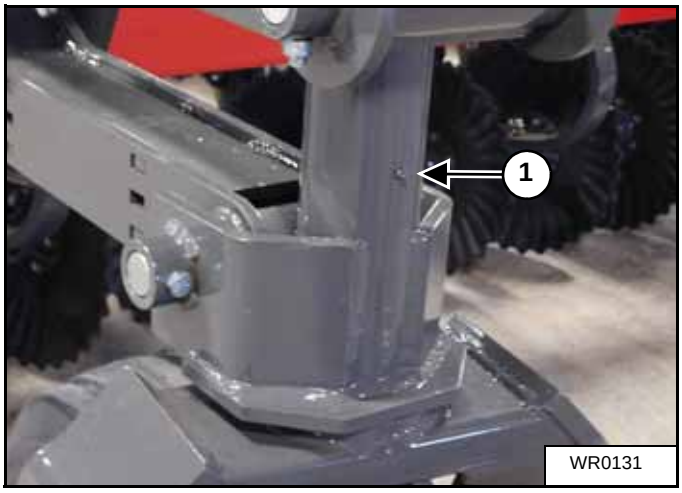
Lubrication

STEP 1



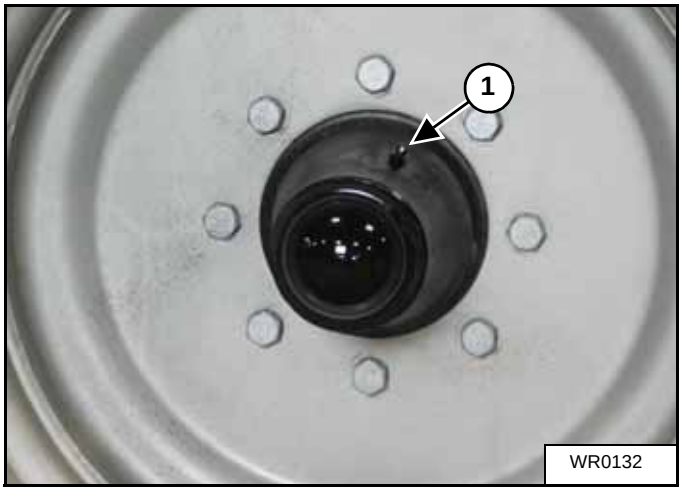
Grease the eight bearings (1) on the rear flat bar roller.

STEP 2



Grease the four front lift wheel pivot spindles (1).

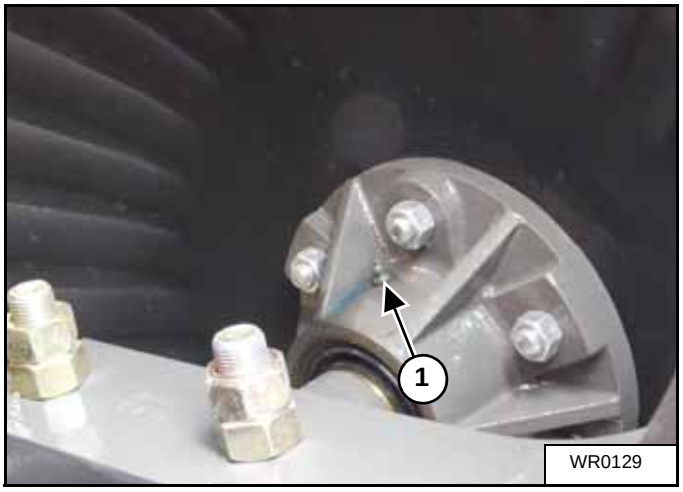
STEP 3



Grease all the lift wheel hubs (1).

Lubrication (Cont'd)

STEP 4



Grease each disk hub (1).

Tractor Preparation

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

Wheels

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.

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.

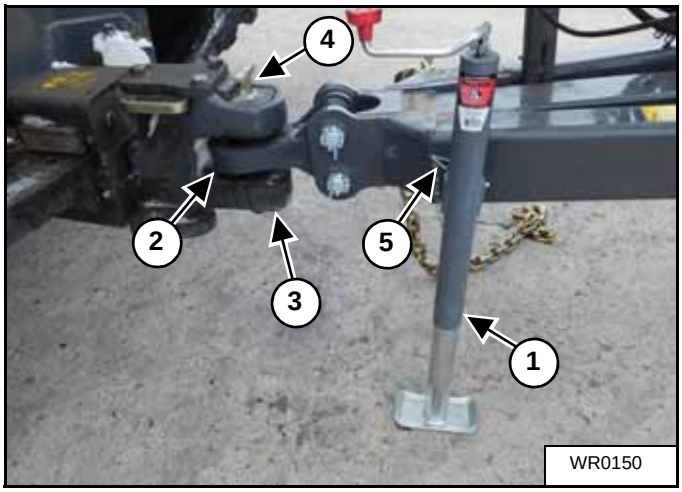
Check the air pressure every two or three weeks and do not allow pressure to drop to a point where buckling or wrinkling of the tire may be possible.

The recommended tire pressure for each front gauge wheel is 55 psi (3.7 bar) and the rear lift wheels is 70 psi (4.8 bar).

It is recommended that all wheel nuts be checked for tightness after first day of use. Wheel nuts are tightened to 90 ft-lbs (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.

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

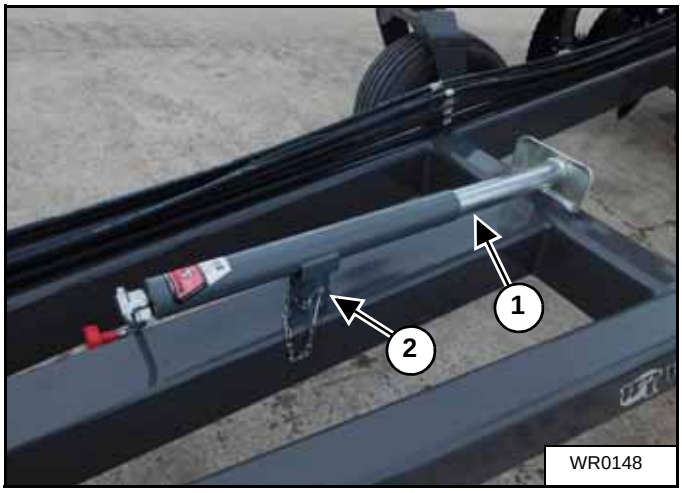


Use the jack (1) to align the implement tongue (2) with the tractor drawbar (3). Slowly back the tractor onto the tongue (2) and install the pin (4).

IMPORTANT: Be sure the pin mechanical lock device is in place. The device may be a pin lock plate as shown or a cross pin on the drop pin.

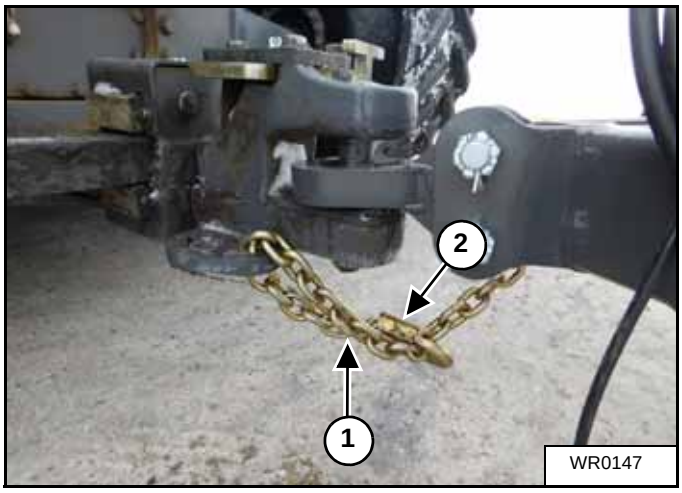
Retract the jack until the implement tongue and hitch are supported by the tractor. Remove the pin (5) and remove the jack.

STEP 2



Install the jack (1) in the storage position on the drawbar as shown. Secure with the pin (2).

STEP 3



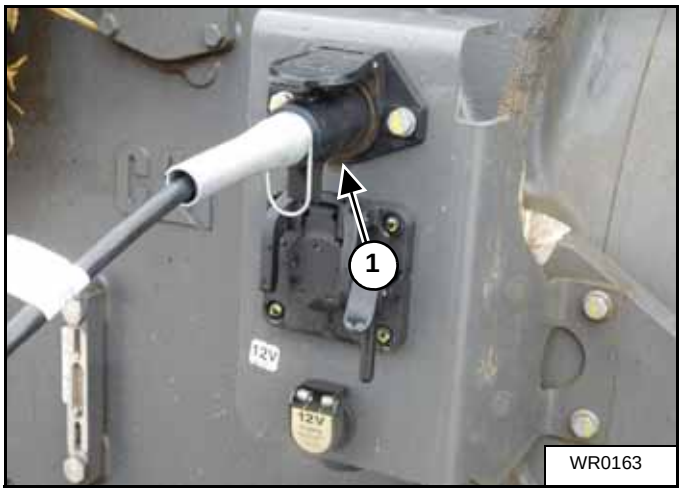
Install the safety chain (1) as shown.

IMPORTANT: Be sure the safety chain lock (2) is secured.

STEP 4

Install the wing lift, shank lift, wheel lift and rolling basket cylinder hoses on the tractor. Be sure the hose couplers are secured in the tractor couplers.

STEP 5



Install the safety light connector (1) on the tractor.

Transporting

STEP 1

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

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

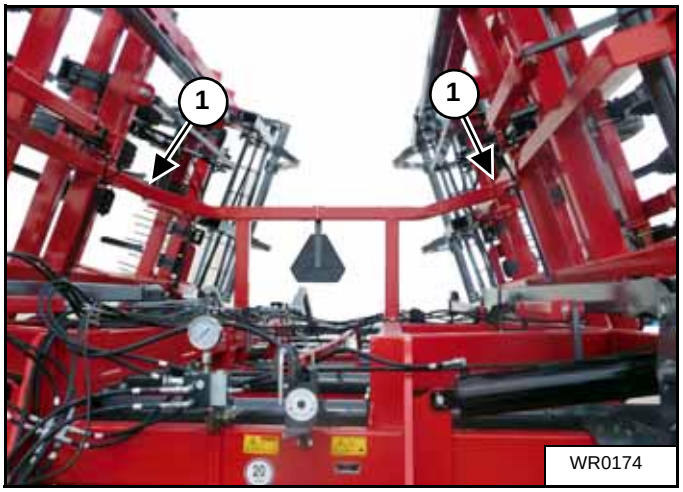
STEP 2

ALWAYS fold the wings up before transporting.

IMPORTANT: If the implement has been stored or out of operation for months or if hydraulic wing cylinders have recently been replaced perform the following procedure.

Fold and unfold the wings several times and hold the hydraulic lever in the extended position for 30 seconds each time to purge air from the system.

STEP 3



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

STEP 4

Raise the implement. Shut off the engine, apply the park brake and remove the key from the tractor. Install the cylinder locks (1) on both main frame wheel lift cylinders. Install the pins (2) in the cylinder locks (1).

Start the engine and lower the main frame onto the cylinder locks (1).

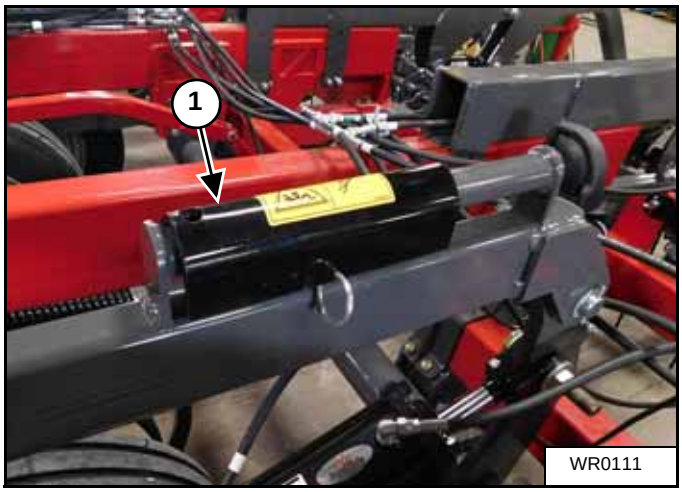
Field Operation Preparation

STEP 1

Park the tractor on level ground.

Raise the main frame to maximum height. Shut off the engine and remove the key from the tractor. Remove the cylinder locks (1) from the main frame wheel lift cylinders.

STEP 2



Install the cylinder locks (1) in the storage position.

STEP 3

Start the tractor and unfold the wings.

DANGER: Be sure all personnel are cleared from the area of implement operation.

Field Operation Leveling Adjustments

The 483 Chisel Pro is leveled at delivery but leveling may be necessary due to soil conditions or extended use.

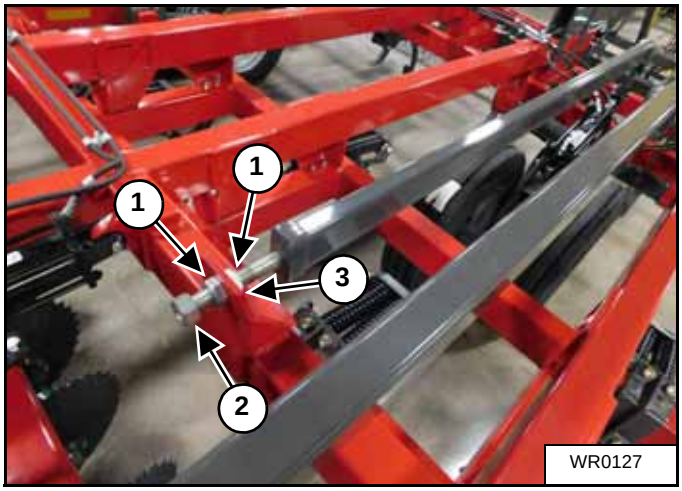
STEP 1

Raise and lower the lift wheels a number of times and hold the hydraulic lever in the RAISE position each time for 30 seconds to purge any air in the system.

NOTE: Be sure the tractor and implement are parked on a level surface.

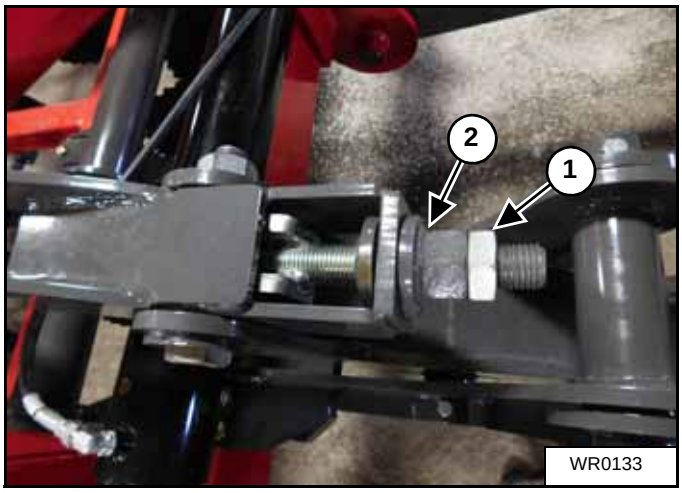
Lower the implement until the disks and chisels are about 1 inch (25 mm) above the ground. Take measurements from the top of the frame to the ground at the front (1) and rear (2) of each frame section. The measurements must be the same for the implement to operate level.

STEP 2



To change the height of the rear lift wheels, loosen the jam nuts (1) and lengthen the adjusting bolt (2) to lower the frame and shorten the adjusting bolt (2) to raise the frame. Tighten the jam nuts (1) against the frame bracket (3).

STEP 3



To change the height of the front lift wheels loosen the jam nut (1) and turn the adjusting nut (2) clockwise to raise the frame and counterclockwise to lower the frame.

Field Operation Leveling Adjustments (Cont'd)

STEP 4

Repeat Steps 2 and 3 until all frame sections are level front to rear and the wings are level with the main frame.

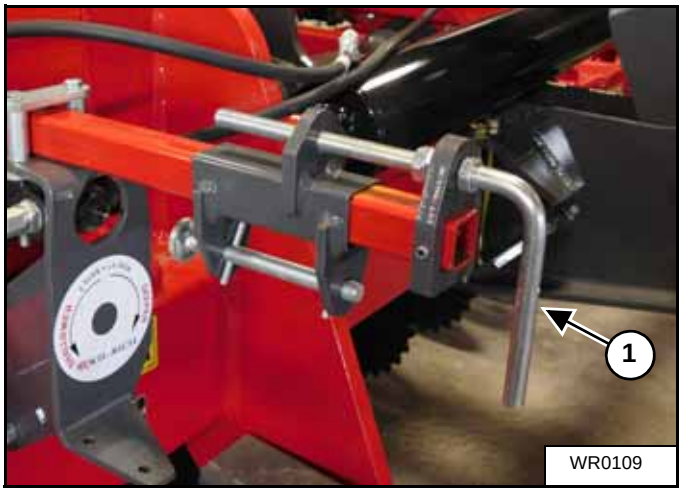
Field Operation Settings

Shank Depth Setting

STEP 1

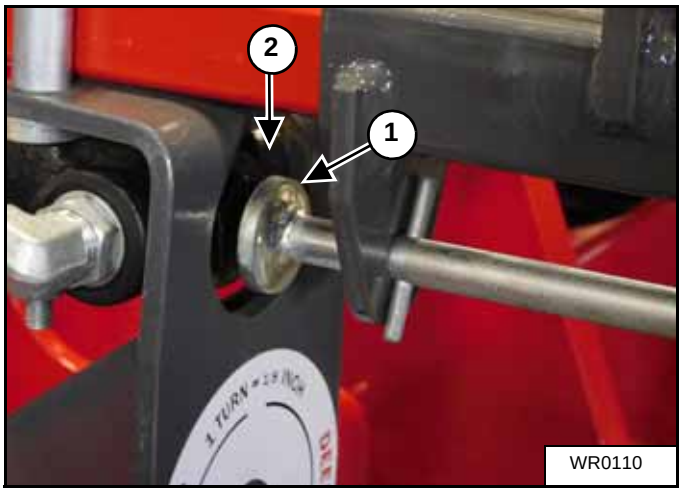
In the field lower the implement to the ground and run a test strip. Use the lift wheels to change soil penetration depth until desired depth is achieved.

STEP 2



Stop the tractor and check the soil penetration depth. Use the shank depth control adjuster (1) to fine tune the depth setting.

STEP 3



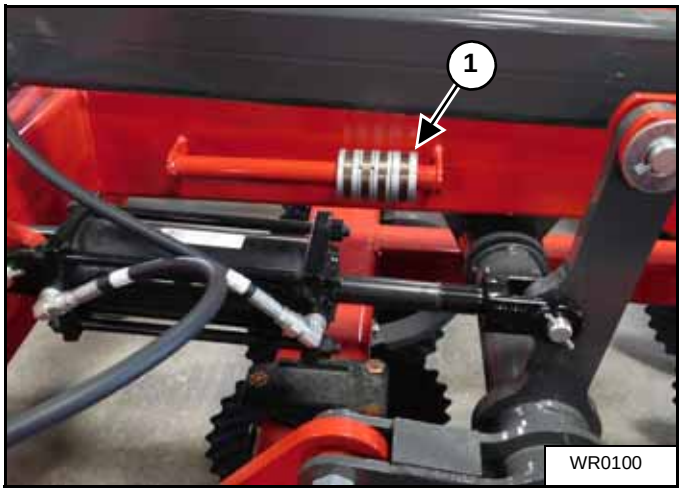
Turn the shank depth control adjuster clockwise until the adjuster stop (1) contacts the lift wheel depth control valve (2). Turning the depth control adjuster clockwise will increase depth and counterclockwise will decrease the depth of the implement. The depth can be fine tuned 1/8 inch (3.2 mm) with one full turn of the adjuster handle.

Run a test strip and check the setting. Repeat this step until correct depth is achieved.

Field Operation Settings (Cont'd)

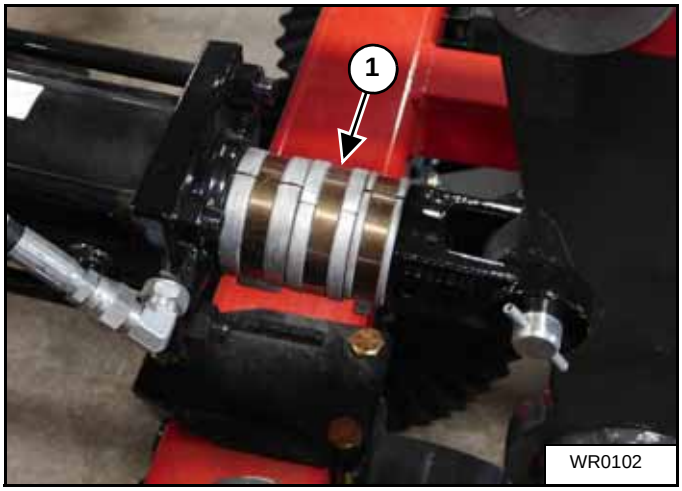
Disk Depth Setting

STEP 1



The disk depth can be set with the cylinder stops (1) located by the disk lift cylinders.

STEP 2

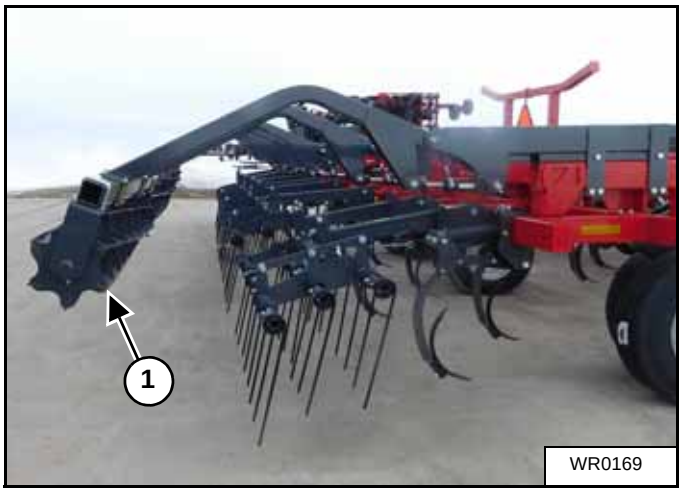


Install one to four cylinder stops (1) on the main frame disk lift cylinders. Each stop will restrict the depth of penetration of the disks.

NOTE: The cylinder stops (1) must only be used on the main frame disk lift cylinders.

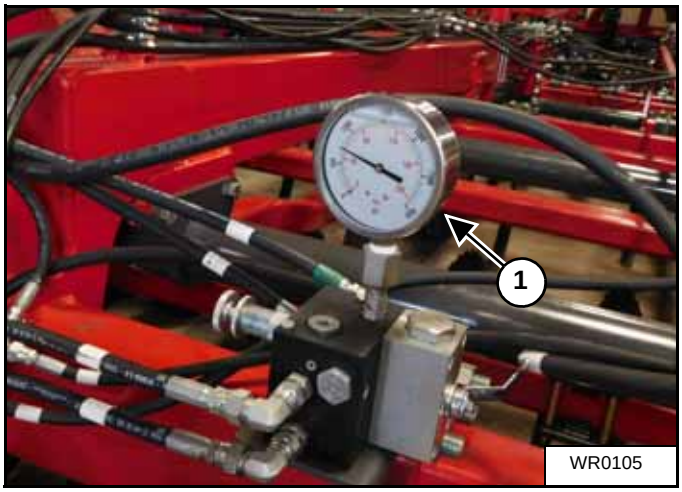
Flat Bar Rolling Basket Setting

STEP 1



Lower the rolling baskets (1) to the ground.

STEP 2

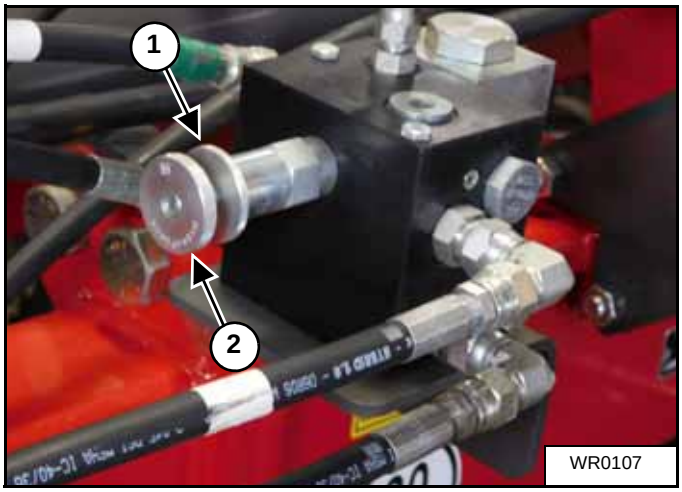


Hold the hydraulic lever in the down position and read the rolling basket system pressure gauge (1).

Field Operation Settings (Cont'd)

Flat Bar Rolling Basket Setting (Cont'd)

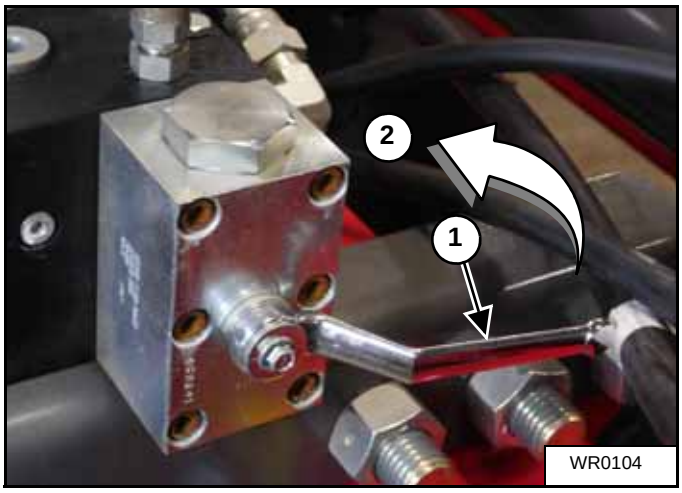
STEP 3



To change the down pressure on the baskets, loosen the lock disk (1) and turn the control knob (2) clockwise to increase and counterclockwise to decrease the down pressure.

NOTE: The down pressure is factory set at 1000 psi.

STEP 4



To put the baskets in FLOAT mode move the control valve lever (1) from the horizontal position shown to the vertical (2) position. In FLOAT mode the only down pressure is the weight of the basket assemblies.

Hydraulic Basket Operation

With the hydraulic rolling basket, there are several adjustments to achieve the best residue management. Depending on field conditions, adjustments can be made to create an even, level surface finish.

Dry Conditions - During dry field conditions, the active down pressure can be used. The factory setting is at 1000 psi. If more basket crumbling action and residue pinning is required, increase the down pressure applied to the baskets (raise gauge pressure). Be careful not to set the pressure too high, or the basket will lift the coil tines harrows and rear chisels out of the ground.

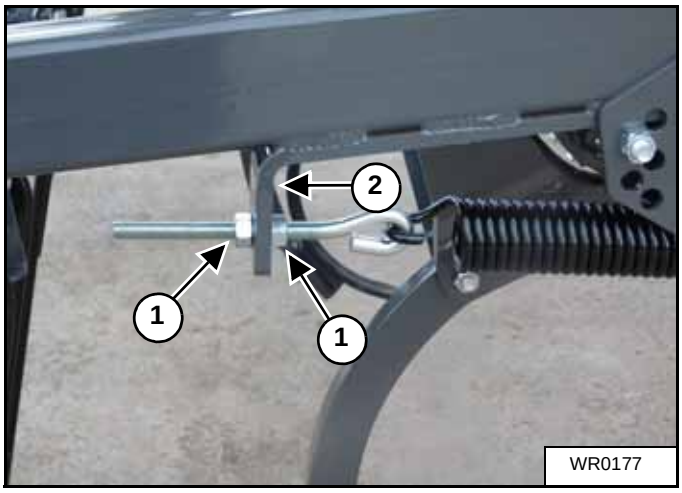
Normal Field Conditions - During normal field conditions the active down pressure can be used. The factory setting (1000 psi) is a good place to start. Depending on residue and soil surface finish, pressure can either be lowered or raised to achieve optimal soil finish. If less soil crumbling and residue pinning is desired the psi can be reduced.

Wet Field Conditions - During wet field conditions the float condition may be used. This operation may be useful when the basket begins to acquire soil. Float will allow basket to lightly float over the soil while still pinning residue and breaking up soil clumps without acquiring soil on the baskets. If the baskets begin to acquire too much soil, they can be raised to just allow the coil tine harrow to level the soil and residue.

Coil Tine Harrow Settings

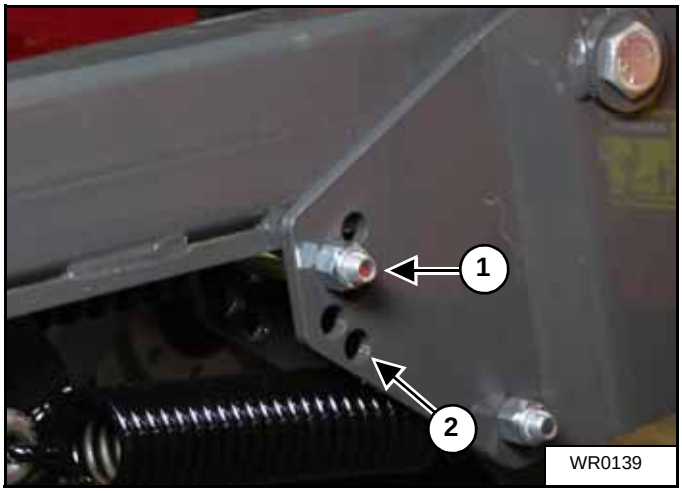
The harrows are set at Wil-Rich but due to soil conditions or wear of the coil tines they may need to be adjusted for the desired effect.

STEP 1



To increase or decrease the down pressure on the tines loosen the jam nuts (1). Turn both nuts (1) clockwise to increase down pressure or counterclockwise to decrease down pressure. Tighten the two jam nuts (1) on the bracket (2).

STEP 2

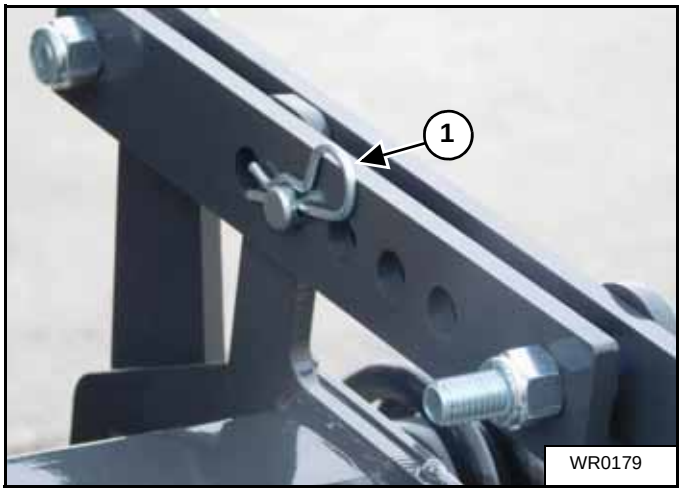


The maximum depth of the harrow assembly is controlled by the position of the stop bolt (1) in the harrow arm bracket. The lower the position (2) of the bolt (1) the deeper the harrow penetration.

Field Operation Settings (Cont'd)

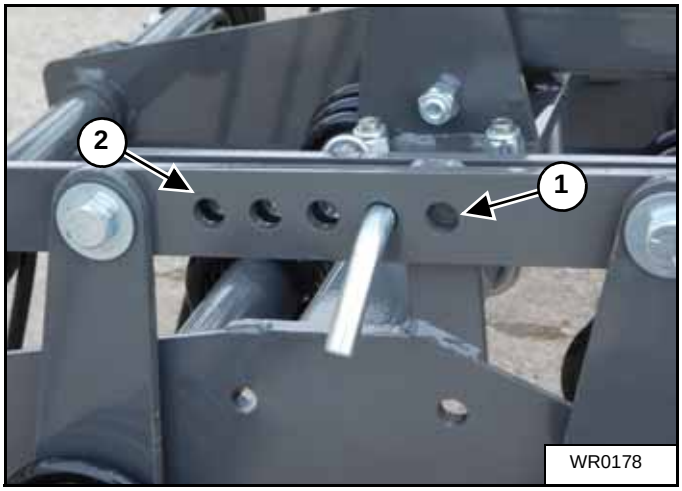
Harrow Settings (Cont'd)

STEP 3



To change the pitch of the harrow tines remove the retaining pin (1).

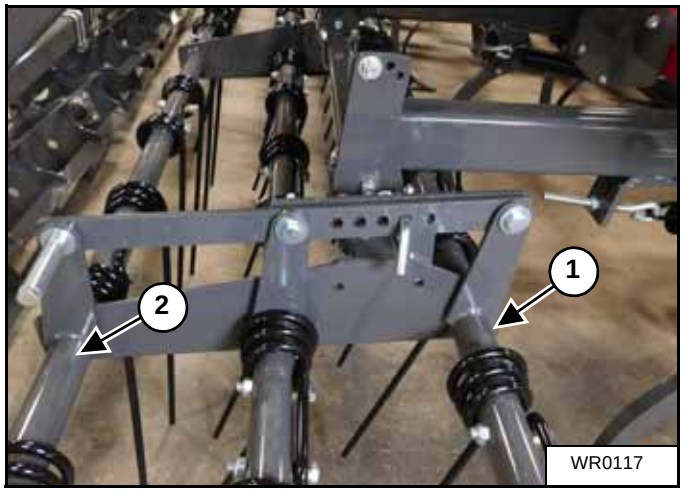
STEP 4



Remove the pin. Move the pin forward (1) to decrease the pitch and back (2) to increase. Install the retaining pin from Step 3.

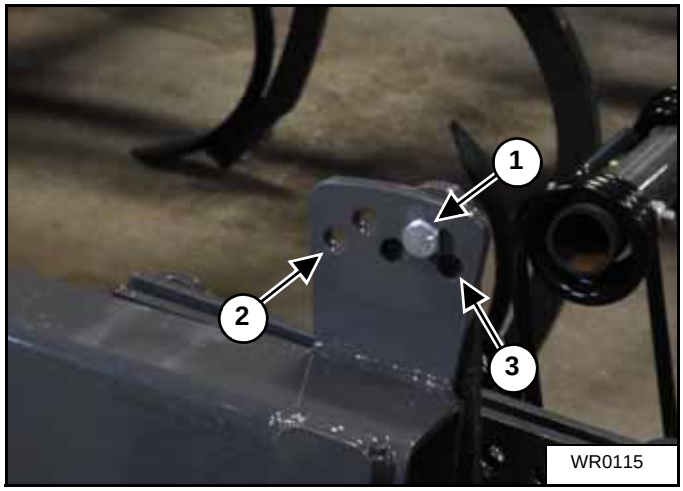
NOTE: The more vertical the pitch of the tines the more aggressively the harrow will penetrate the soil. The increased pitch will allow more debris to pass through the harrow.

STEP 5



The front (1) to back (2) leveling of the harrow assembly can be changed to keep the harrow level when the depth of the disks and shanks are changed or to change the penetration from the front to the rear tines.

STEP 6



Remove the bolts (1), lock nuts and washers. Position the harrow assembly arm forward (2) for shallow disk / shank settings and rearward (3) for deeper settings. Install the bolt, washer and lock nut (1) when set.

IMPORTANT: The same setting must be used on all harrow sections.

Daily

STEP 1

Inspect all bolts and fasteners for tightness and damage.

Replace any damaged fasteners immediately.

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

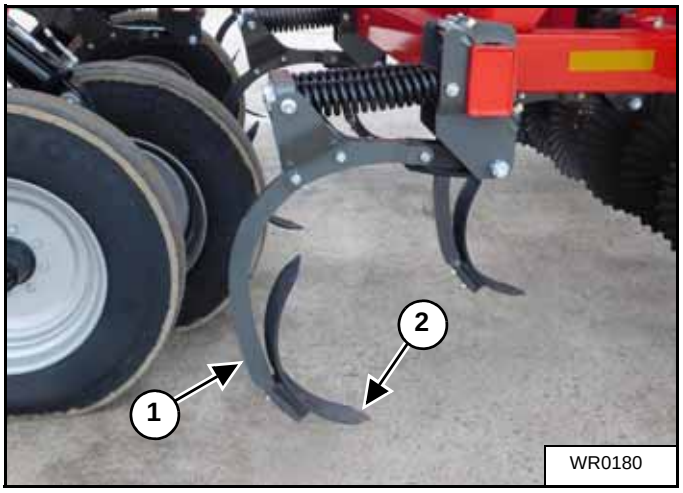
STEP 2

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.

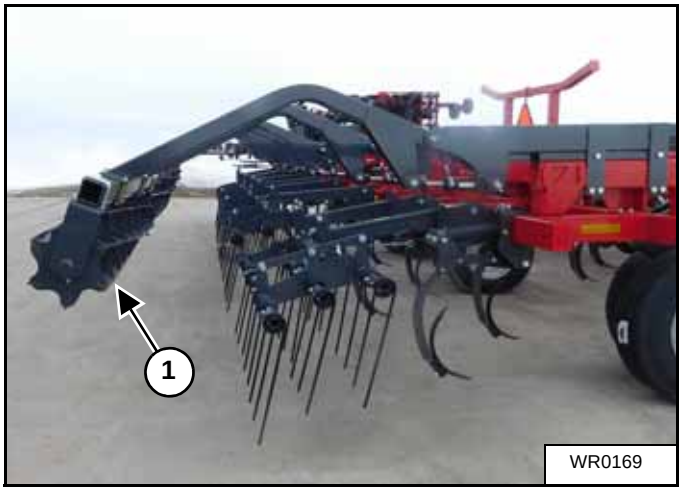
STEP 4



Check the shanks (1) for excessive wear, damage or broken parts on shovels (2).

NOTE: A bent or worn shank can effect the efficiency of the Chisel Pro.

STEP 5



Check the rolling basket (1) for excessive wear or damage.

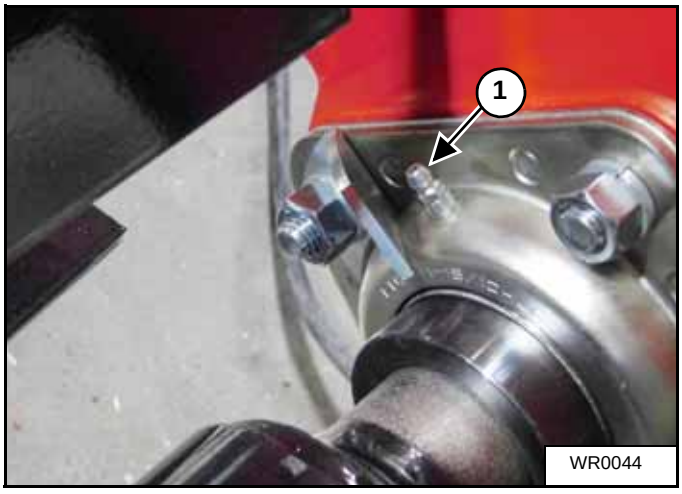
Daily (Cont'd)

STEP 6

Lubricate the pivots (1) on the front gauge wheels.

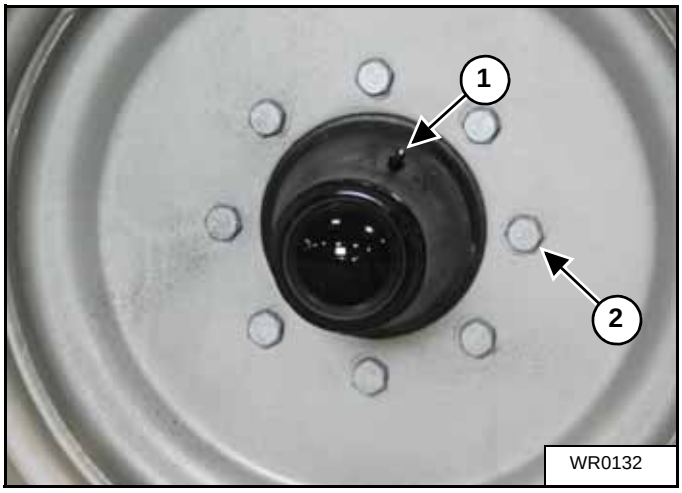
50 Hours

STEP 1



After the initial pre-operation lubrication, the rear rolling baskets (1) must be lubricated with clean multipurpose heavy duty lithium grease every 50 hours of operation.

STEP 2



Lubricate the wheel hubs (1). Check the wheel lug bolts (2) for correct torque. Tighten lug bolts (2) to 90 ft-lbs (122 N•m).

STEP 3

Check the air pressure in all tires. The front gauge wheels must be at 55 psi (3.7 bar). The rear main frame lift wheels must be at 70 psi (4.8 bar).

50 Hours (Cont'd)

STEP 4

Clean dirt, debris or grease from all moving parts.

1000 Hours Or 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 the rolling basket bearings as in the 50 hours maintenance.

Storage

Preparing The Machine For Storage

Prepare the machine for storage at the end of each season. When possible, store the machine in a covered location with the wings lowered. Preventing rust will lengthen the life and assist in performance.

Procedure

1. Park the implement on a solid, level surface, away from other machines.
2. Use the tractor hydraulics to lower the wings of the implement.
3. Clean the implement of any dirt, grease or other materials.
4. Put a protective layer of heavy oil or grease on all earth engaging parts to prevent rust.
5. Paint any damaged surfaces, surfaces with paint removed, or surfaces with rust.
6. Inspect the implement for any loose parts or hardware.
   a) Replace any worn parts.
   b) Tighten any loose hardware.
7. Lubricate all components of the implement.
8. Raise the implement and transport to the area where it is to be kept. The area must be level.
9. Stop the engine, apply the park brake, and take the key with you.
10. Place boards under the disks and shanks.

    IMPORTANT: If boards cannot be placed under the disks and shanks, place the cylinder stops on the main frame lift cylinders. Lower the implement onto the cylinder stops. This will prevent the disks and shanks from penetrating the ground.
11. Start the engine and lower the implement on the boards under the shanks.
12. Completely retract the wheel lift cylinders.
13. Use the front hitch jack to support the front hitch of the implement.
14. Remove the tractor from the implement.
15. Apply grease to the surfaces of the cylinder rods that are still showing.

Troubleshooting Chart

PROBLEM	POSSIBLE CAUSE	SOLUTION
Lift cylinders are not in phase.	There is air in the system.	Bleed the system by extending the cylinders and hold the hydraulic lever for 1 to 5 minutes.
Wings are lowering with hydraulic lever in neutral.	Hydraulic fluid is flowing past the cylinder pistons.	Install new seals in the cylinder or replace the cylinder.
Wheel lift cylinders are allowing the implement to lower.	Hydraulic fluid is flowing past the lift cylinder pistons.	Install new seals in the cylinders or replace the cylinders.
The implement is not pulling evenly.	Depth is not even.	Level the wings and center frame.
	Shanks or disks are worn or broken.	Replace worn or damaged shanks or disks.
The depth is not even.	The implement is not level when under power.	Level the implement front to rear and the wings with the center frame.
Wings are bouncing.	The implement is operating too fast.	Reduce speed.
	The outside edge of the wings is too deep.	Level the wings with the center frame.