



ISO9001:2015 certified

Single Bar Double Roller (SBD)



Setup/Owner's Manual

Our Tradition is Quality Driven and Field Proven

Manual # - MAN-SBD-DFC-002

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***PART DIAGRAMS**

Scan the QR Code or visit our website to view our parts book:

<https://www.remlingermfg.com/agricultural-products/downloads/>





Warning



Before using this attachment, make certain that every operator:

- Is instructed in safe and proper use of this attachment.
- Reads and understands the manual pertaining to the attachment.
- Reads and understands ALL (if applicable) Safety Decals on the attachment.
- Clears the area of all other people before operating the implement and attachment.
- Learns and practices safe use of the attachment in a safe clear open area before operating the implement and attachment in the field.



This symbol indicates an important Safety Alert Message in this Manual. Carefully read and understand the message that follows. The potential for series injury or death is possible.



Safety Rules



- Never attempt to operate or adjust the attachment without reading this manual.
- Do not attempt to adjust the attachment while it is in motion.
- The addition of this attachment will make the implement rear-end heavy.
- Caution is required when hooking up or un-hooking the attachment. A rear jack stand is recommended but not provided.
- Always use any transport locks that are provided on the attachment or implement.
- Always place all safety decals and reflectors in their proper locations. Clean and replace as necessary.
- Never allow anyone to ride on the implement or attachment.
- Always slow down when turning and traveling over rough terrain.
- Always support the implement when mounting or working on the attachment.
- Be careful around teeth, tines, sweeps, and blades: they get sharper with wear.

To the Owner

Your new harrow attachment was carefully designed to give years of dependable service. This manual contains important information about the safe assembly, adjustment, operation, and maintenance of your attachment. To keep it operating efficiently, read the instructions in this manual. Parts of the attachment have been partially assembled at the factory. The use of this manual describes how to complete the remaining assembly. This manual should be considered a permanent part of your implement and should remain with the implement when it is sold. Additional diagrams may also be included for specific applications. Please contact the dealer or Remlinger Manufacturing for any questions at **1-800-537-7370**.

Any unauthorized modification to any part of the attachment could cause serious injury and void any warranty consideration. Please refer to the Warranty Policy referenced below. For additional manuals or to replace a lost or damaged manual, please contact your dealer. The manual number is referenced on the lower right-hand corner of each page.

Warranty Policy

Remlinger Mfg. will warrant all products against defects in material and workmanship manufactured and sold by it. Warranty will only be granted after examination by appropriate personnel. This warranty is expressly limited to the replacement of defective products. This warranty does not obligate Remlinger Manufacturing to cover cost of labor to replace these parts.

Remlinger Mfg. reserves the right to change specifications, add improvements or discontinue manufacture of any of its equipment without notice or obligation to purchasers of its equipment. This warranty gives you specific legal rights. You may also have other rights which vary according to state or province.

WARRANTY EXCLUSIONS: Labor, transportation, or any cost related to a service call is not provided by Remlinger Mfg. This Limited Warranty does not apply to damage resulting from misuse, neglect, normal wear, accident or improper installation or maintenance.

BASIC WARRANTY: All Remlinger manufactured products are warranted for one year from date of purchase.

UNAPPROVED PARTS OR MODIFICATION: All obligations of Remlinger Mfg. under this Warranty are terminated if unapproved parts are used or if equipment is modified or altered in any way not approved by Remlinger Mfg.

Mounting the Harrow

1. The harrow sections have been factory assembled and stacked onto a pallet.

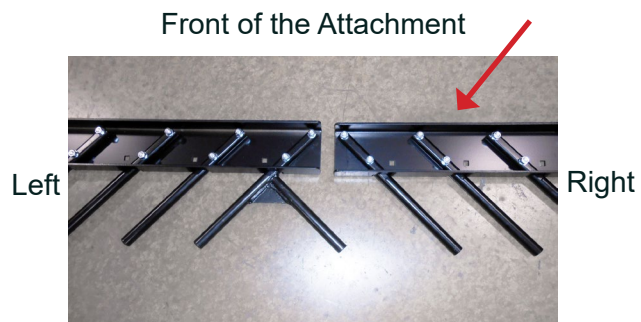
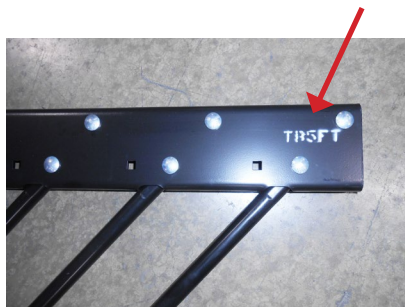
Field Cultivator - Chisel



Disk - Disk Chisel



2. Each harrow bar has the **section size** stenciled on each end. Left hand and right hand sides are determined by standing behind the implement and facing forward. The open part of the “C” shaped bar should face away from the rear of the implement.

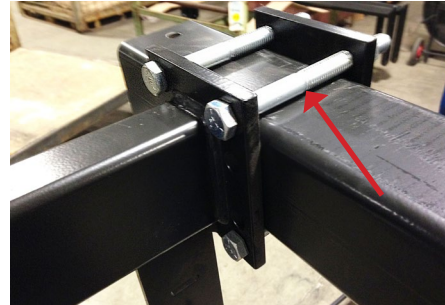
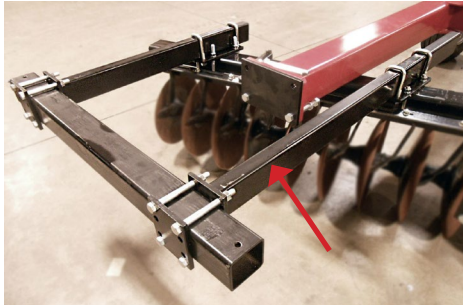


**** Start at center of the implement and work out from there.**



If there are obstacles, mount the lift arm as close to where it needs to be for that particular harrow section. The U-Bolts should ideally be 6"-12" from each end of the harrow section.

3. Lay the harrow sections out behind the implement. Mount the mounting arms to the rear frame tool. The mounting arm must be as evenly spaced as possible when attaching harrow sections.



Note:

Disk / Disk Chisel



Use the 5/8" - 11 x 6 1/2" hex caps bolts to attach the mounting arm to the adapter tube.

Field Cultivator / Chisel Plow

Use the 5/8" - 11 x 6 1/2" hex cap bolts and mounting plates.

4. Periodically check for loose or worn bolts, replace as necessary. Torque all bolts to recommended torque settings.

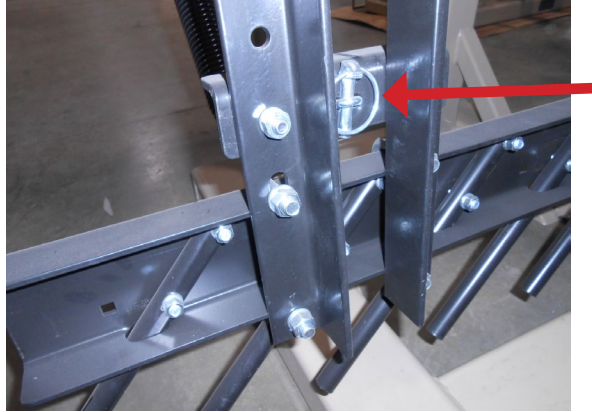
Recommended Torque Specifications

SAE Grade No.	5		8	
Bolt Head Identification				
Bolt Size	Lb - Ft	N - m	Lb - Ft	N - m
1/4"	9 - 11	12 - 15	12 - 15	16 - 20
5/16"	17 - 20.5	23 - 28	24 - 29	33 - 39
3/8"	35 - 42	48 - 57	45 - 54	61 - 73
7/16"	54 - 64	73 - 87	70 - 84	95 - 114
1/2"	80 - 96	109 - 130	110 - 132	149 - 179
5/8"	150 - 180	203 - 244	220 - 264	298 - 358
3/4"	270 - 324	366 - 439	380 - 456	515 - 618
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1"	580 - 696	787 - 944	900 - 1080	1220 - 1464
1-1/8"	800 - 880	1085 - 1193	1280 - 1440	1736 - 1953
1-1/4"	1120 - 1240	1519 - 1681	1820 - 2000	2468 - 2712
1-3/8"	1460 - 1680	1980 - 2278	2380 - 2720	3227 - 3688
1-1/2"	1940 - 2200	2631 - 2983	3160 - 3560	4285 - 4827

Adjusting the Attachment

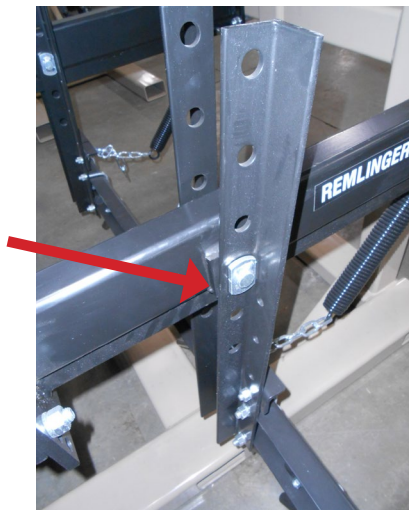
Pull Chain

- Use the 7/16" Lynch Pin to adjust the chain to the desired length.
- Allow the attachment to float back to a minimum of 10" behind closest blade, sweep or shank.
- The freshly turned soil and residue should come to rest on the ground in front of the attachment bars. Landing on top of the bars may result in plugging.
- Do not allow twist in the chain. Always allow an **even number of links to hang free**.



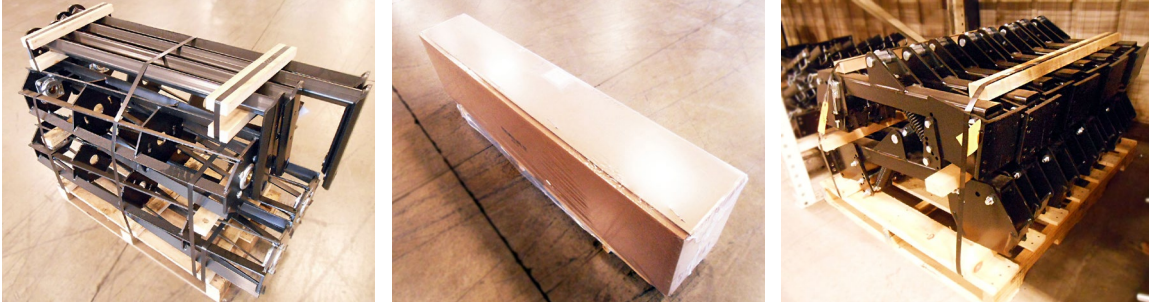
Connecting Arms

- Use the **3/4 x 4"** Headed Pin on the mounting arm to adjust the arms to the desired height.
- The attachment teeth should be just touching the ground when the implement is set down on a level surface.
- The toolbar needs to lay back further to get through residue. Result may cause less leveling. Adjust to get best leveling yet control residue balling.
- In normal conditions, the tool bar should be working at approximately 45° +/-.
- Do not allow twist in the chain. Always allow an **even number of links to hang free**.



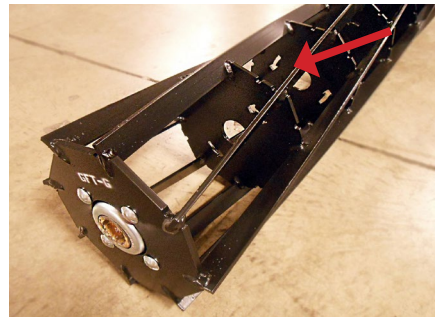
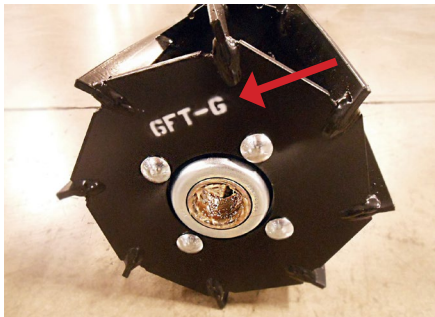
Mounting the Roller Harrow

1. The roller sections with bearings have been factory assembled and palletized. Roller Arms are palletized and required hardware are packed in a sturdy cardboard box.

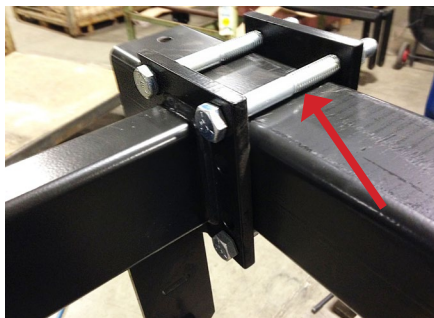


2. Each roller section has the **size** stenciled on the end. There is an arrow cut into each inner plate of each roller size. The **direction** of the arrow indicates the Aggressive Mode. Most mounted **double roller sections** are attached to implement with the front roller in the Aggressive Mode and rear roller in the Passive Mode.

Note: Aggressive Mode - the arrow points forward towards the implement.



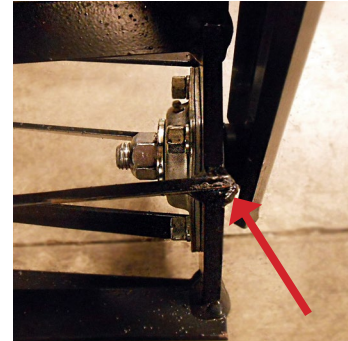
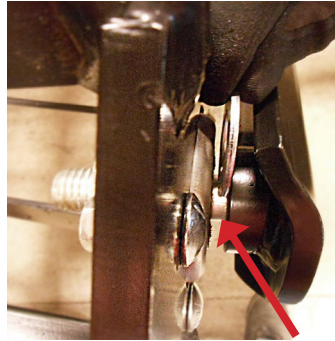
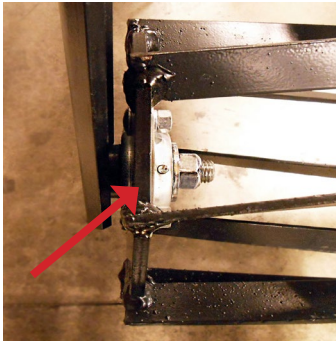
3. Lay the roller sections out behind the implement. Reference additional layout sheet for proper location of each roller section. Mount the extension arms to the rear frame of the tool. Use the **5/8"-11 x 6 1/2" hex cap bolts** and mounting plates. The Roller mounting arm is then attached directly to the extension arm. Use the **5/8"-11 x 2" hex cap bolts**. Recommendation is to leave mounting arms slightly loose, this allows left to right movement for the mounting arm until roller frame is attached to each pair of arms.



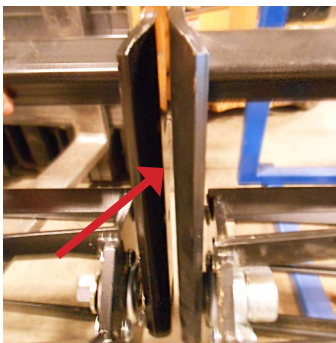


If there are obstacles, place the mounting arm as close to where it needs to be on the roller section. Typically, mounting arms should be 6"-10" from each end of the roller section. Roller sections can be moved around to better fit the implement.

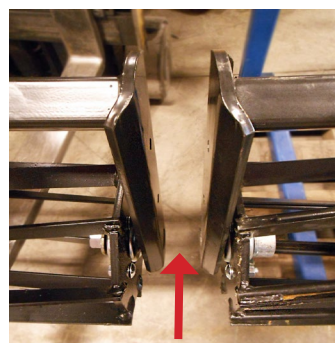
4. Place the proper roller frame around the matching roller section. Tighten one end of the frame to the roller. Use the 1"-8 x 3 3/4" hex cap bolts with spacer bushings, large flat washers & lock nuts. Next, determine if the thin flat washer (one provided for each roller section) will easily slide in between the frame and the end of bearing. **Do not force if gap is narrower than thin flat washer!!!** Not all sections may need this flat washer. Tighten the frame to roller section. Each roller section should spin freely without bearings dragging or squeaking. Repeat this for each roller section provided.



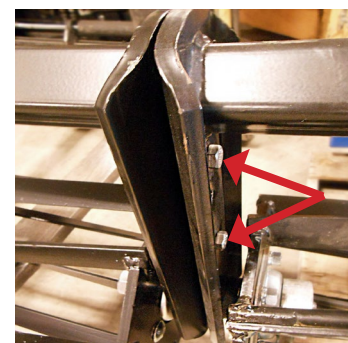
5. Attach a complete roller section to a pair of matching arms. Use the 1/2"-13 x 2" x 3 1/2" U-bolts with lock washers and hex nuts. Repeat this for each section of roller. **Note:** Roller sections need a minimum of 1/4" gap between the frames in the non-wing fold hinge areas. In the wing fold hinge areas of your implement, it is recommended to have a wider gap of 2"-3" for more contoured ground and wings that flex. Certain applications require smaller frame sizes to be bolted together. **Note:** (2) 1/2" x 1 1/4" bolts are used.



1/4" Gap (Non-Hinge)



2"-3" Gap (Hinge Fold)



Bolted Frame (3 arm)

6. Center the base section(s) of the roller(s) and then tighten in desired place. Then move to each wing. Torque all bolts to recommended torque settings. See chart on [page 13](#).



Do not over tighten bolts on one side more than the other, this will leave unlevelled mounting arms and bending of plates. Tighten all fasteners properly and evenly. Improper tightening of bolts may cause plates to deform, which will not be covered under warranty.

Setting the Roller Harrow

Roller Height and Depth

The roller harrow and all its components are tightened to the machine, it is now time to set the roller to the desired working depth for your machine application. Several steps are involved to properly set your roller harrow. Improper settings can cause damage to harrow, which will not be covered under warranty. Read carefully and follow each step to correctly set your Remlinger roller harrow.

1. Determine the operating depth your implement. This is key, mounted roller harrows work best when the depth setting of the roller harrow is approximately 2 inches. Roller harrows that are set less than 2" have a tendency of leaving an unsatisfactory finish. Roller harrows that are set more than 2" deep can cause premature stress on the harrow components and cause failure that will not be covered under warranty.
2. On a hard level surface, lower the implement down onto shovels, blades, shanks, etc. With implement resting on the ground, a formula is used to decide how thick of spacer boards are needed to set the roller height to obtain the recommended 2" roller working depth. For example, implement is going to be working 4" deep in the ground, to obtain a 2" roller working depth, lay 2 spacer boards on the ground underneath each end of one roller section. This spacer board should be approx. 2" in thickness. Double roller harrows have 2 heights to control. It is recommended that the front roller is 1 1/2" higher than the rear. This will be repeated for each roller section mounted.

Note: Spacer boards from roller pallets are ideal to use for both front and rear height settings.

Formula: $\text{Implement Work Depth} - 2" \text{ Roller Work Depth} = \text{Spacer Thickness}$

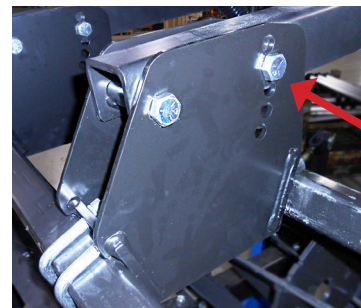
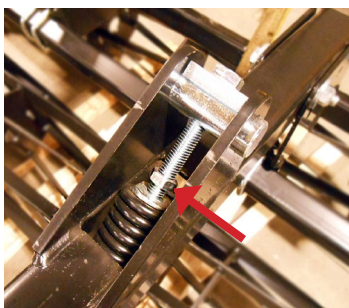
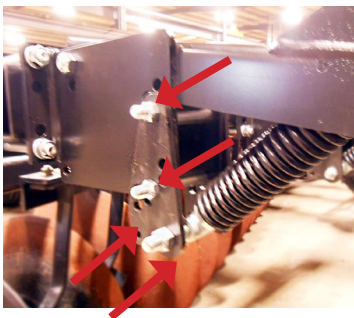


Decrease spring tension to allow easier movement of roller arm if height needs raised or lowered. If spring is set too extreme, attempting to raise and lower arm height may cause injury.



Steps 3, 4 and 5 will be done simultaneously before moving onto the next roller section.

3. To set the height on your roller harrow, it is important to loosen all the fasteners and springs that control the height of the arm. Loosen the 5/8" lock nut and 1/2" lock nut to allow arm to move up and down freely. To decrease any spring tension from factory assembly, loosen the 5/8" jamb nut on and turn threaded bolt counter clock-wise until spring is released of any tension.



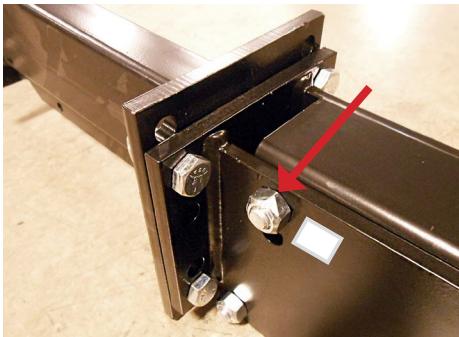
4. There are 2 ways to adjust the arm up and down, **Major** or **Minor** adjustments. The **Major** adjustment on field cultivators and chisel plows will vary from that of disks and disk rippers. The minor adjustment is done by removing the ½" bolt and arm stop spacer, locating to a higher or lower set of holes. Set each roller section down onto the spacer boards, insert arm stop spacer and ½" bolt back into hole setting so that a gap is underneath the arm. Then adjust the rear pivot bracket. Both may need adjusted so that both rollers sit down on the spacer boards.

Note: The front roller should be higher than the rear roller. Tighten down the ½" bolt with roller still on the spacer boards. This will be repeated for each roller section.

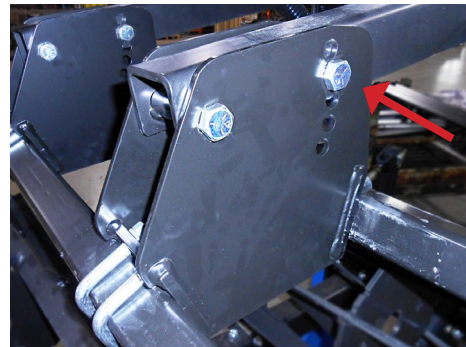
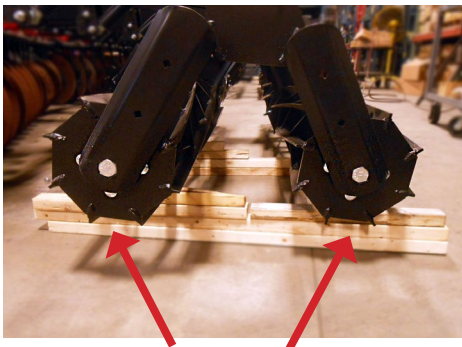
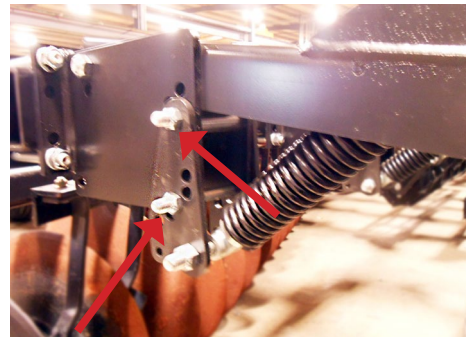
Note: A combination of both major and minor adjustments may be needed to get ideal roller height setting.

- **Major** – Adjust the Roller Mounting Arm up or down on the rear plate of extension.
- **Minor** – Move the Arm stop in the Roller Mounting Arm in the proper position.

Major



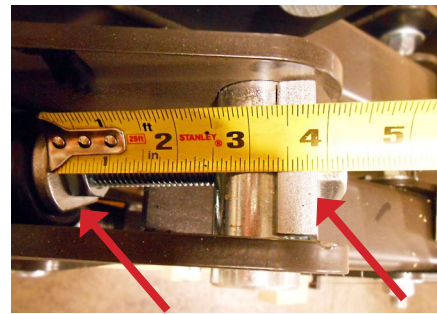
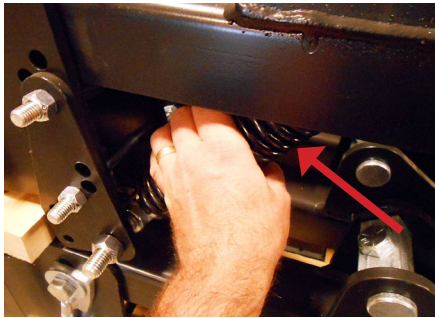
Minor



The roller arm assembly is factory assembled and will need some kind of adjustment. Settings will vary depending the implement that the roller harrow is attaching to.

5. Spring tension is a key element to having the roller harrow work properly. To accomplish this, the following is recommended. To apply spring tension on your roller harrow, the roller section must be still resting on the spacer boards and the tension bolt will look similar to the pictures above. Tighten the spring by turning threaded bolt into the spring plug. When spring assembly is snug (movement free in the arm) measure from the face of the spring plug to the flat face of the pivot pin retainer (see arrows), this is the starting point to apply tension to the arm. **Note:** Starting point is where the spring is snug after the roller height has been determined (this dimension may vary than picture shows). Each arm will have tension applied to it. Each roller size will be set differently depending the particular sizes attached onto the implement.

- To increase spring length, decrease space between the arrows shown in lower picture.
- To decrease spring length, increase space between the arrows shown in lower picture.



Tension Settings for Remlinger Roller Harrow Sizes

6ft-6in Roller Section.....increase spring length by.....3/8"

5ft-9in Roller Section.....increase spring length by.....1/4"

5ft-0in Roller Section.....increase spring length by.....1/16"

4ft-3in Roller Section.....increase spring length by.....0"

3ft-6in Roller Section.....length remains the same.....0"

Note: Both springs on the roller section should be changed equally.





We recommend setting the down pressure at approximately 135lb/ft. To increase or decrease pressure, turn bolt one complete revolution to change tension approximately 10lbs. (not 10 lbs./ft)

6. After spring tension has been set on all the arms, tighten the 5/8" jamb nut against the face of the spring plug to lock down tension settings. See above picture. Check for any other loose bolts and tighten before conducting any field work. Torque all bolts to recommended torque settings. See chart on [page 13](#).

7. Place Remlinger Decal on harrow either on top of the arm, rear of the roller cross frame or anywhere the decal can fit (optional). See picture on Page 11 for Serial # Location. A silver decal designates the 9 digit number assigned to your harrow. **Note: Serial # Decal is usually on the one side of a main mounting arm.**

Recommended Torque Specifications

SAE Grade No.	5		8	
Bolt Head Identification				
Bolt Size	Lb - Ft	N - m	Lb - Ft	N - m
1/4"	9 - 11	12 - 15	12 - 15	16 - 20
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1-3/8"	1460 - 1680	1980 - 2278	2380 - 2720	3227 - 3688
1-1/2"	1940 - 2200	2631 - 2983	3160 - 3560	4285 - 4827

Roller Bearing

Roller Harrows with Greasable Bearings

- Use a #2 multipurpose lithium grease on the bearings at least once a season or every 150 hours. Pump grease in **SLOWLY** until old grease and dirt are forced out around seals.

Roller Harrows with Sealed Bearings

- Inspect seals and concentricity on the bearings at least once a season or on an as needed basis. Spin **SLOWLY** to ensure bearing is working properly. Disassemble from roller assembly if necessary for closer inspection.



It is best to lubricate bearings just prior to prolonged storage. The grease fitting is a press-in style not a threaded spin-in. Worn fittings may prevent bearings from taking grease.

Replacement Parts

- Before and after each use of the roller attachment thoroughly look over your attachment for any worn, loose, stressed parts. Preventative maintenance can save time and expense to the attachment if issues are found before heading to the field.
- Periodically check for loose or worn bolts. Replace, as necessary.

Troubleshooting

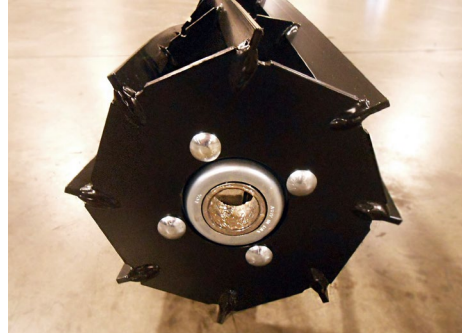
Roller Harrow is leaving unsatisfactory finishing.

Roller Rotation

- **Position A** – Aggressive Mode produces maximum soil shattering.
- **Position B** – Passive Mode maintains maximum soil leveling.



Position A



Position B

← Direction of Pull

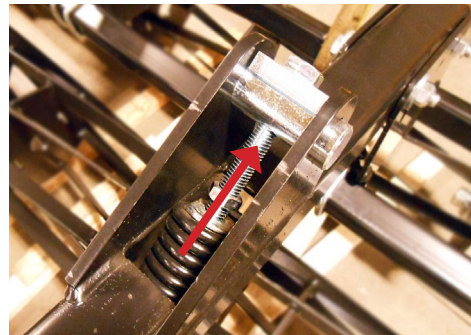
Roller harrow is not shattering or leveling dirt. Incorrect soil movement.

Spring Tension

- Positive Tension – Turn the bolt into the cast end of spring, this will increase tension.
- Negative Tension – Turn the bolt out of cast end of spring, this will decrease tension.



Increase Tension



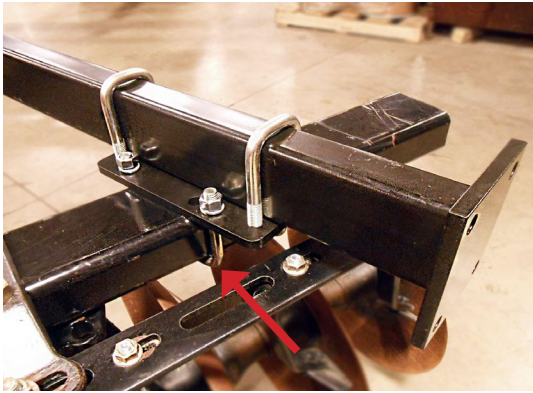
Decrease Tension

Note: If added spring tension does not give satisfactory finish, refer to Pg. 10-12 & Steps 3-5.

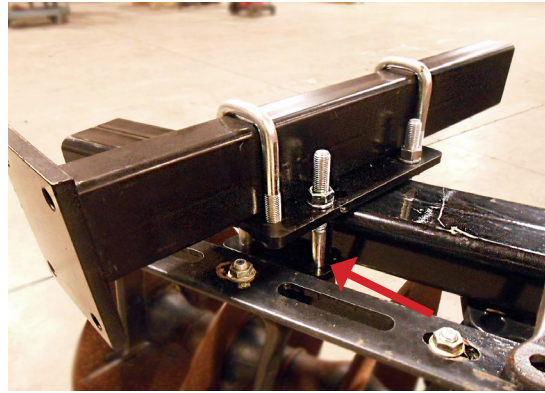


When applying more tension to spring only turn bolt head in ¼" turns at a time. **Caution**, extreme spring tension will cause spring to wear prematurely and may cause other damage to roller attachment and is not covered under warranty.

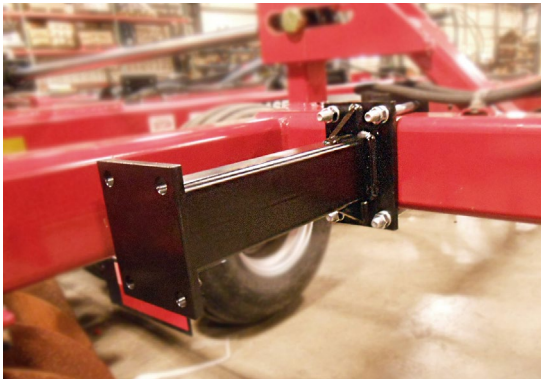
Common Adapter Mounts



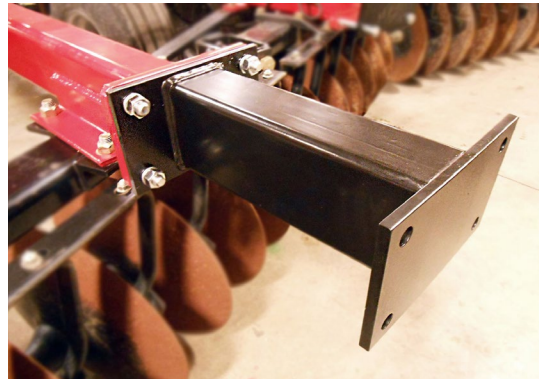
Universal Adapter - Disk Gang (U-Bolt)



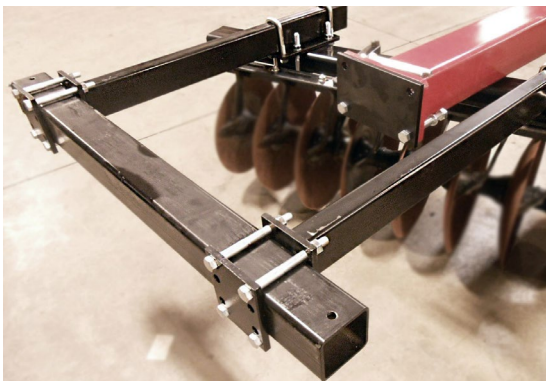
Universal Adapter - Disk Gang (U-Plate)



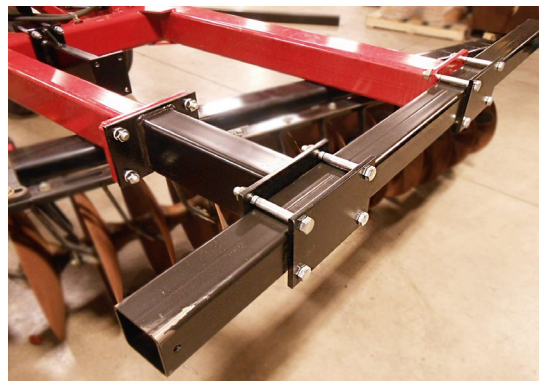
Butt-up Adapter - Straight Rear Frame



Butt-up Adapter - Welded Rear Plate

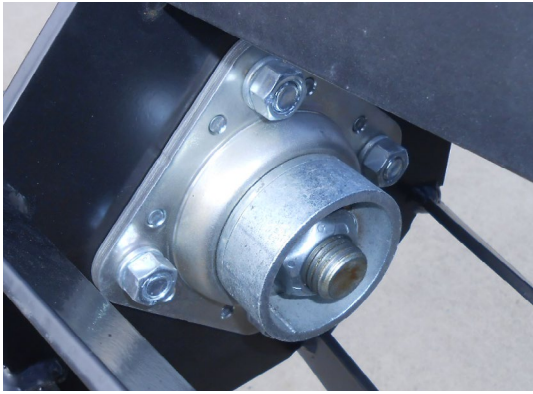


Universal Adapter - Rear Mount Frame

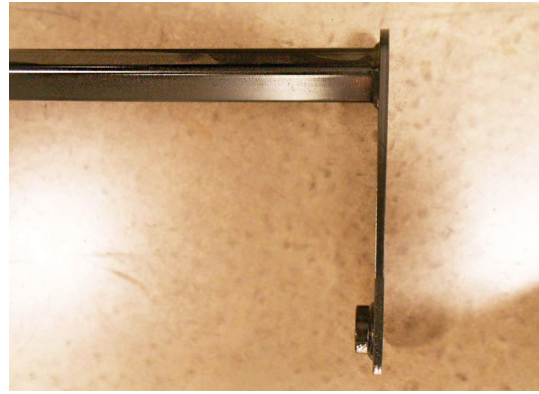


Butt-up Adapter - Rear Mount Frame

Optional Roller Harrow Accessories



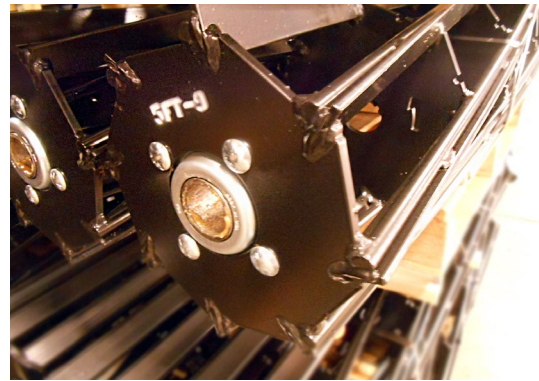
Nut Protector Cup



Straight Side Roller Frame



14" Diameter Round Bar Roller Option



12" HD Flat/Round Bar Roller Option

Notes



ISO9001:2015 certified

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Parts Book



Email Tech Support