



TR3

Setup Guide



6.5' TR3 shown

****PLEASE READ AND UNDERSTAND BEFORE OPERATION****

Version 2.1.3

Profiler Attachment Setup located under Attachment Section pg. 10
ABI(Absolute Innovations, Inc.) - 1320 Third Street, Osceola IN 46561 - 855-211-0598
www.abiattachments.com

Please read fully and understand Setup Guide prior to operating the TR3!

Thank You,

On behalf of the ABI family we would like to thank you for your recent purchase of your TR3. Our Company's goal is to provide you, our customer; with innovative, quality tools as well as first rate customer service.

These instructions are designed to help you, the customer; get your new TR3 off the delivery pallet and into use. Once you have put your TR3 to work, if you have any questions, please feel free to call and talk with our friendly and knowledgeable Customer Service Department. To contact our Customer Service Department call 855-211-0598, M- Th 8am-8pm EST and Friday 8am-5pm EST.

To order parts for your TR3 please contact our Customer Support Department by phone at:
855-211-0598 M-TH 8am – 8pm and Friday 8am-5pm EST

Additional Contact Information –

Additional information on the TR3 can be found on the ABI Support site at: www.abisupport.com

To contact ABI's Customer Service Department after hours go to the Help Desk on the ABI Support page at: www.abisupport.com and send our Customer Service Department an email regarding any issue you may be experiencing with the TR3.

To the Operator –

The information presented in this manual will prepare you to operate the TR3 in a safe and knowledgeable manner. Operating the TR3 in a proper manner will provide a safer working environment and create a more efficient result. Read this manual fully and understand the entire manual prior to setup, operation, adjusting, performing maintenance, or storing the TR3. This manual contains information that will allow you the operator to get years of dependable performance from the TR3.

This manual will provide you with information on safely operating and maintaining the TR3. Operating the TR3 outside of the stated safety and operations guidelines may result in injury to operator and equipment, or void the warranty.

The information provided in this manual was current at the time of printing. Variations may be present as Absolute Innovations, Inc. continues to improve and upgrade the TR3 for future use. Absolute Innovations, Inc. reserves the right to implement engineering and design changes to the TR3 as may be necessary without prior notification.

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Operational Safety Rules-

Please exercise caution at all times when setting up, operating, or performing maintenance on the TR3. Remember, any piece of equipment like the TR3 can cause injury/damage if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times with using the TR3.

- Never permit any person to ride or board the TR3 at any time. **NEVER ALLOW RIDERS ON THE TR3!**
- Use care and maintain minimum ground speed when operating the TR3 on a hillside, or when operating close to ditches, fences, or water sources.
- Never place any body part under the while the TR3 is in operation.
- Never allow anyone near the TR3 while in operation.
- Operate the TR3 in the daylight or under good artificial light. Operator should always be able to clearly see where they are going.
- Be alert for hidden hazards. Always operate the TR3 with caution over work environments that may have buried obstacles.
- Stay well and clear of all moving parts. Keep all limbs clear of attachments when making adjustments with all hydraulically operated attachments.
- Use caution when operating the TR3 in icy, wet, or snowy condition.
- Do not use the TR3 on highways or public thoroughfares. The TR3 is designed for off road use only.
- Always follow Tractor Manufacturer's rules for safe Operation of Tractor, and for proper procedures for attaching and disconnecting attachments. Contact your local dealership for an Owner's Manual for any questions related to the safe operation of the Tractor.

Use caution when operating the TR3. Using the TR3 outside of stated safety and operations guidelines may result in injury to operator or others, property damage, or a void in warranty.

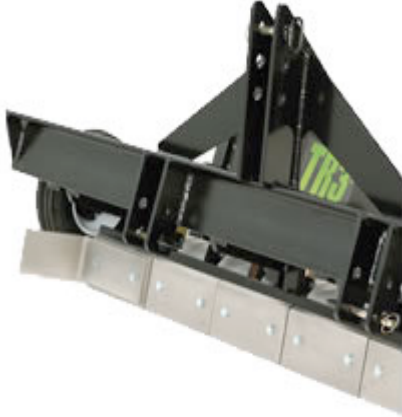
Specifications:

Part #:	TR35.5	TR36.5	TR37.5	TR38.5	TR310
Width:	5.5'	6.5'	7.5'	8.5'	10'
Weight:	616 lbs.	774 lbs.	920 lbs.	1,105 lbs.	1,230 lbs.
# of Scarifiers:	5	6	8	10	12
Profiler Ready:	No	Yes			
Hitch CAT:	0 & 1	1	1	1 or 2	2
Min. H.P.:	23 h.p.	27 h.p.	35 h.p.	48 h.p.	60+ h.p.
Risk Free Trial*	30 Day				
Warranty*	1 Year Limited 4 Year Extended (Optional)				

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Information on your TR3 Rake:

Auto Leveling Blade:



Even though many competitors claim they have a leveling or grading blade, the reality is they don't. Simply smoothing out hoof prints will never bring an arena back to grade. A tool must have the ability to move dirt from one part of the arena to another to claim it can level an arena. Many drags can smooth, few can actually level. Unlike the competition, the TR3 has a significant ground engaging blade capable of moving a significant amount of material if needed. Not only that, it has an industry exclusive patent that enables the TR3's leveling blade to "float", when desired, to auto level the arena. In the floating position this blade will catch high areas and drop that material into lower areas automatically. If the arena is already level it will not dig holes or create high spots. This means, in an undamaged arena, no skill is required to achieve or maintain a level grade. The news gets even better! The leveling blade may also be

locked down to act like a box blade for rough grading and spreading material. This enables the TR3 to not only maintain an already level arena in great condition but also renovate an arena filled with waves and inconsistent footing. The TR3 Rake is the only 3-point tractor tool in the world that can do all this in one tool.

Adjustable Scarifiers:



The scarifying teeth loosen the ground to eliminate hard spots and easily penetrate compacted arena footing. The depth of these teeth is controlled by the gauge wheels to protect the base of the arena. Many equine disciplines require different footing depths and every footing material is different. To account for this the TR3's teeth are adjustable from 0" - 7" to enable the perfect amount of aggressiveness and loosening depth. The TR3 is not only limited to the horse arena. In fact, because the teeth are "fixed", not spring loaded, they make breaking up hard pan soil or gravel a breeze. Many customers use the TR3 on gravel driveways, for landscaping applications and many more jobs around the farm. The tips are replaceable for easy maintenance.

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Bolt On Scarifier Tips:



The scarifying teeth can handle nearly any ground condition from horse arenas to gravel driveways. Unlike many drags, the TR3 has replaceable bolt on tips on the scarifying teeth. This feature not only ensures affordable and easy maintenance, of this wear part, but it also ensures peak ground penetration no matter the ground condition. If the tips wear to the point that performance is diminished simply replace them and restore the performance to like new! Many competitive drags require the owner to grind off the worn parts and weld on new ones.

3/4" Hardened Steel Finish Rake:



The final point of contact with the ground is the finishing rake. This rake is made of 3/4" thick hardened steel for long life and is replaceable in one foot sections. The purpose of the finish rake is to pulverize and break up clumps of material and leave a beautifully smooth signature finish behind. But that is not all, the rake also enables the user to push backwards to move dirt into dug out roping boxes and jumps! Additionally, push backward outside of the arena to slice through the ground, like a knife, to rip out vegetation or move material to fill in washouts and accomplish other light land clearing jobs. When driving forward, the design of the rake effectively grooms the material, but does not over compact it, leaving an ideally prepared surface for horse arenas and landscaping seedbeds

Foam Filled Stabilizing Wheel:



All 3-point tractor implements move in the opposite direction of the front tires of the tractor. If the front tires of the tractor go up the 3-point goes down. This causes most 3-point implements to dig holes and cause waves in horse arenas. This problem is solved with the "never flat" stabilizing wheels. These wheels prevent the TR3 Rake from undulating with the tractors front tires, keeping the scarifying teeth from loosening any deeper than they are set and preventing the leveling blade from digging holes. The wheels control the depth of the loosening action, create consistent level travel to eliminate wash boarding, and eliminate gouging and stalling of the tractor while pushing backward by supporting the frame. Additionally, these wheels support side-to-side "dipping" while cornering. These wheels are the secret to maintaining level grade.

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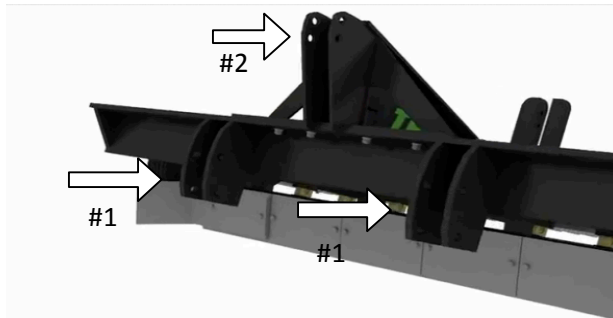
3-Point Hitch Connection:



The TR3® Rake has a variety of sizes to fit most any tractor with a 3-point hitch. For small category 0/1 tractors we recommend the 5.5' TR3. For standard category 1 tractors ABI offers a selection of 5.5', 6.5' 7.5, & 8.5' to fit the tire width and horsepower of the tractor. Large category 2 tractors will need either the 8.5' or 10' TR3 Rake. These larger rakes feature additional reinforcements as well as CAT II 3-point measurements. Speak with one of our product experts to have a TR3 Rake sized to your tractor and needs. The TR3 is compatible with standard quick hitch adapters as well as John Deere iMatch systems.

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Attaching and Setting up your TR3 Rake:



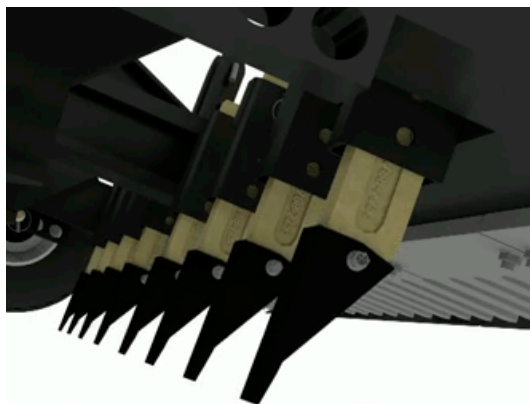
Step 1 – Attach the tractor to the lower arms indicated by arrow #1 in the picture. There are two connecting holes on the TR3 for the bottom arms of the tractor to attach to. If the TR3 is connected to the bottom holes, then make sure to connect the Top Link in the bottom holes on the mast shown by the arrow labeled #2. If the lower arms of the tractor are connected to the TR3 in the top hole, connect the Top Link using the top hole as well. The Top Link is shown in Fig. 1.



Fig. 1 – Top Link

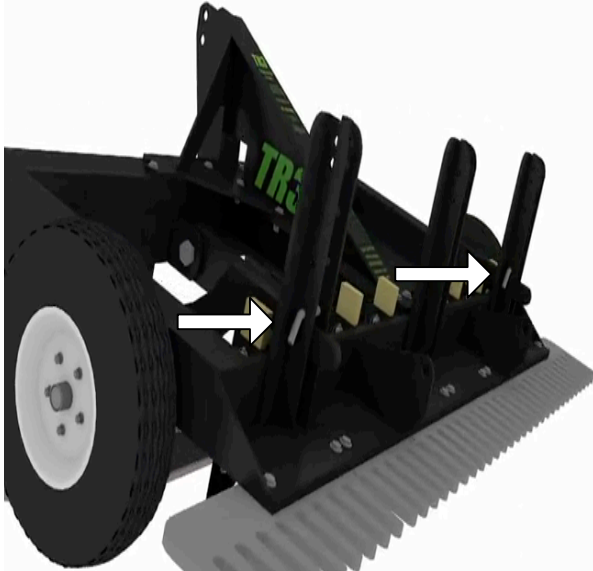
**Some models of Tractors may vary on top link location. The top link should sit as level as possible when the TR3 is operational.

***NOTE: Ensure the Draw Bar on the Tractor is pushed in before hooking up the TR3 to the Tow Vehicle. Make sure the bottom 3 point arms are set to the same length, and that the Tractor sway bars are fully locked on the bottom 3 point arms prior to operation.**

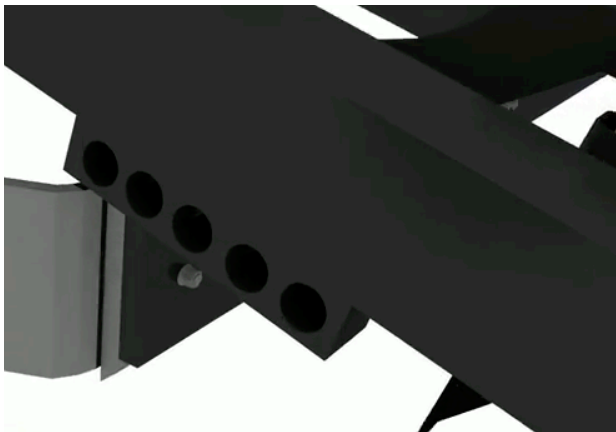


Step 2 – Make sure that the Scarifiers are pinned in the first hole or above on top of the Scarifier Tube for the setup process. The Scarifier tube has 4 holes in it, allowing the Scarifier's to be adjusted to the depth desired for ripping with the TR3. For setup purposes the Scarifier's should be pinned up, so that the TR3 can be properly leveled; without the Scarifier's hindering any adjustments.

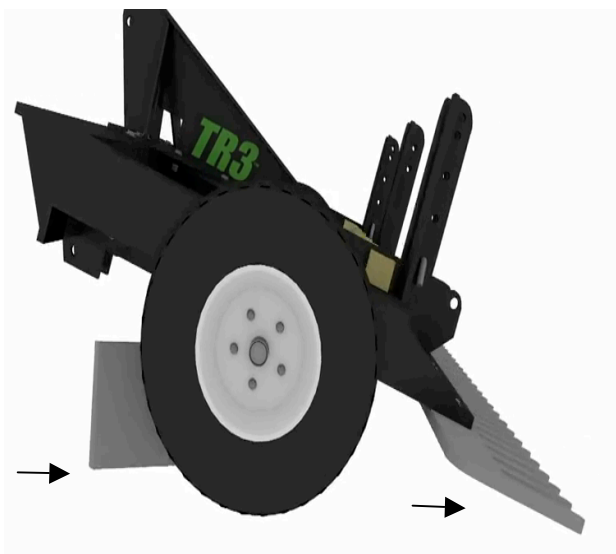
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Step 3 – Remove the ½” bent pins from the upright mast on the back that is locking down the leveling blade. If these pins are already up then skip this step and move on to step 4. If the pins are in place and cannot be removed from the uprights, then the TR3 may need to be lowered to the ground to take the pressure off the pins. Remove the pins and pin each one in the top hole on the uprights.



Step 4 – Make sure the Stabilizing wheels are mounted in the middle hole on the tire mounted bracket. This can be adjusted later if needed. For now make sure the tire is mounted in the center hole.



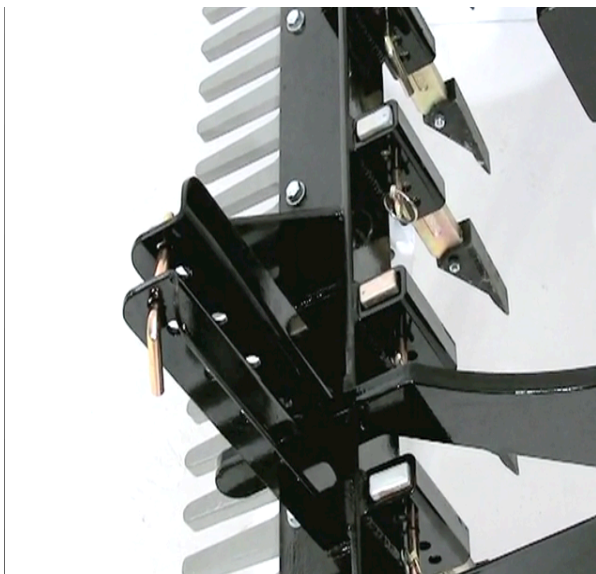
Step 5 – With the TR3 and Tractor on a hard flat surface, and the Scarifiers lifted out of play, adjust the TR3 using the Top Link (shown on page 5 Step 1 Fig 1 above) so that the Leveling Blade and the Finish Rake touch at the same time. Once the Leveling Blade and Finish Rake touch at the same time; lift the TR3 and set it back down. This will ensure that everything is properly adjusted. If Leveling Blade and Finish Rake are not touching at the same time continue to adjust the TR3 using the Top Link until they touch after the TR3 has been lifted and lowered. The TR3 may need to be adjusted multiple times for it to be level. Make sure to raise and lower the TR3 after every adjustment.

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*Note for Step 5 – Due to 3 point hook ups on some models of tractors, it may be necessary to move the tires on the TR3 forward or back a hole to properly adjust the TR3. If you are not able to adjust the TR3 so that the Leveling Blade and Finish Rake touch at the same time try moving the wheel forward one hole and then repeat Step 5. For further assistance on setup of the TR3 contact our Customer Service Department at 855-211-0598.

SETTING SCARIFIERS FOR USE:

Before setting the Scarifier's for use in an Arena, check the level of footing throughout the Arena. If the footing height varies throughout the Arena, it may need to be leveled, using the TR3; before using the Scarifier's. For assistance with leveling the Arena, read section "Leveling an Arena" below.



To move the Scarifiers up and down, raise the TR3 off the Ground. Then remove the ¼" Lynch pin from the ½" Bent pin, remove the ½" Bent pin. Next, move the Scarifier up or down until the holes realign at the depth desired, and reinsert the ½" Bent pin. Secure the ½" Bent pin by putting back in the ¼" Lynch pin.

When the Scarifiers are pinned in the 2nd hole from the top on the Scarifier tube, the Scarifier's will be set to rip at about 2 ½"-3". Adjust the Scarifiers up or down for more or less depth, as needed for use.

IF THE LEVELING BLADE IS CARRYING TOO MUCH MATERIAL:

1. Adjust Top Link out to lift the Leveling Blade up more. This will put more downward pressure on the Finish Rake if this adjustment is made. If the problem continues please contact the ABI Customer Service Department for additional setup advice.

TO CARRY MORE MATERIAL:

1. Draw in the Top Link on the TR3. This puts more weight on the Leveling Blade allowing the Leveling Blade to move more material. Doing this will lift the Finish rake up so it will not be touching ground while grooming.

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PUSHING MATERIAL BACKWARDS:

Make sure the material is loose before attempting to push material with the TR3!

1. Raise the TR3 off the Ground 2-3” and extend out the Top Link until the Finish Rake is pressing on the ground firmly.
2. Make sure the scarifiers are inserted in the ground and not touching the ground. The scarifiers may need to be moved up to prevent them from contacting the ground while pushing backward with the TR3.
3. Push back slowly. If you are pushing back on a hard pack surface, or area with large rocks; and you go too fast you could damage the TR3 or Tractor. Use caution to not hit large rocks, trees, or other objects that may not be movable.

Use caution when backing the TR3 into areas with embedded objects. Always use caution when pushing material backwards with the TR3

GRADING A DRIVEWAY:

1. Make sure the TR3 is set up in the base position, or normal drag position. Next, make several passes with the Scarifiers in play to ensure the gravel is loose. The TR3 may need to the depth of the Scarifier’s adjusted as passes are made to remove potholes or washouts in the driveway.
2. After loosening the gravel, remove the Scarifier’s from play by pinning them above the receiver. Now make a couple of passes using just the Leveling Blade and the Finish Rake. This will grade and compact the driveway, and remove all potholes and washouts.

MAINTENANCE ON THE STABILIZING WHEELS:

The stabilizing wheels on the TR3 should be greased every 3 months. The stabilizing wheels should also be greased before and after any period of storage.

LEVELING AN ARENA:

If the Arena needs to be leveled before the use of the TR3 for the first time, or as Maintenance on the Arena over time; Go to the ABI support page (<http://www.abisupport.com>) and watch the video listed under the TR3 called “Video- How to Drag Arena”. In this video there are helpful patterns to use in an Arena for leveling and maintaining the Arena. For leveling out an arena with Waves and differences in footing heights check out the Spinning Drag Pattern located at the 7:38 mark of the video. Please use caution if the Arena has a Crown in it. For further assistance on leveling your Arena contact our Customer Service department at 855-211-0598.

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ATTACHING AND USING OPTIONAL PARTS –

RAIL BLADE ATTACHMENT:



1. The Rail Blade attaches to the right side or left side of the Leveling Blade. To attach the Rail Blade remove the 2 bolts from the 45 degree wing and remove the wing from the Leveling Blade. Then align the Rail blade to the Leveling Blade over the Leveling Blade section on the outside. Using the same 2 bolts removed from the wing, and attach and secure the Rail Blade.
2. The Rail blade will not come directly in contact with the ground when the TR3 is in the normal drag position. The Rail Blade was designed this way so that it could be attached to the TR3 while dragging the rest of the Arena, without disturbing the footing as it is groomed.

RAIL BUSTER ATTACHMENT AND USE:



1. To attach the Rail Buster to the TR3 remove one of the stabilizing wheels on the TR3 and insert the Rail Buster in place of the stabilizing wheel.
2. The Rail Buster depth can be adjusted by adjusting where the scarifier is pinned on the Scarifier tube. Adjust the scarifier to the same depth as the scarifiers on the TR3.
3. The Rail Buster can be used in conjunction with the Rail Blade or separately.

Hydraulic Top Link Option:

Some Tractors may need an extender with the optional Hydraulic Top Link to get maximum range of movement with the Hydraulic Top Link.



1. Attach the hydraulic top link to the Tractor replacing the manual top link. For tractors with enclosed mounting areas the hydraulic top link may need to be mounted with the body of the hydraulic top link attached to the TR3 with the shaft attached to the Tractor. If the hydraulic top link must be mounted with the body of the hydraulic top link on the TR3, ensure the hoses will be long enough to reach the tractor when the hydraulic top link is fully extended before operating the TR3.
2. Hook the hydraulic hoses of the hydraulic top link to the hydraulic fittings on the tractor.
3. Extend out the hydraulic top link shaft so that it can be attached to the TR3/Tractor and attach using a hitch pin to the TR3/Tractor. The hydraulic top link is now ready for use.

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ATTACHING AND USING THE TR3 PROFILER ATTACHMENT:



**Before using the TR3 and “Profiler” it is imperative to know the depth of the footing in the Arena. Find the shallowest spot in the Arena and set the depth of the Scarifier’s and Profile Blades to that level. This will prevent any damage to the base in the Arena.

HOW TO ATTACH THE PROFILER:



Step 1 - The profiler has three points that it attaches to the TR3 (similar to the 3 point setup on your tractor). Simply put the two hitch pins through both the outside brackets on the TR3, as well as through the outside brackets on your Profiler attachment. Then attach the 11” Top Link to the center tower on the TR3, and the center tower on the Profiler attachment as well.

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Step 2 - With the TR3 in base position (covered above in TR3 setup, with Scarifiers lifted out of play) and the Profile blade lifted up so that is out of play; adjust the TR3 so that the Finish Rake attached to the TR3 is roughly $\frac{3}{4}$ " to 1" off the ground. This will allow material to properly flow through the TR3, and back to the Profiler attachment.



Step 3 – Lower the Profile blades back down so they touch the ground and insert the pins back in to the Profile blade to secure it. Next, adjust the Profiler attachment using the 11" Top Link so the Profile blade sits level to the ground, or the base in the Arena. You may need to make an adjustment later to ensure that the Profile Blade is sitting level to the base.



Step 4 – Place the pins on the Leveling Blade under the Leveling Blade arms. This will prevent excess material from building up on the Leveling blade due to raising the Finish Rake off the ground

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CHECKING THE PROFILE BLADE FOR LEVELNESS AND DEPTH:

Once the Profiler attachment is set up you will want to set the depth of the Profile Blades. Below are instructions on setting the depth:

1. Raise the TR3 off the ground until the wheels are lifted up to match (roughly) the depth desired to use the profile blades at. If the desired grooming depth for the profile blades is about 2", then raise the TR3 until the wheels are roughly 2" off the surface. **As footing becomes loosened the TR3 may rest lower in the footing.
2. Remove the pins from each arm of the Profile Blade allowing it to rest on the ground. Do this for both sides of the Profile blade(s)
3. Insert the pins back into the Profile Blade arms to secure the Profile Blades. There are two holes in the arms of the Profiler attachment Profile Blades. Choose the closes hole to where the desired depth of the Profile blades is, and insert the pins.

Next, take the TR3 out into the Arena and being dragging the Arena with the TR3 and Profiler attachment. Once the Scarifiers and Profile Blade(s) have entered the footing stop and check to make sure everything is at the depth desired to drag the Arena at, and that the Profile Blade is setting level to base. To check the levelness and depth of the Profile Blade, pull the footing back from the edge of one side of the Profile Blade. Continue to remove the footing until the base can be seen under the Profile Blade. Ensure that the Profile Blade is setting level to the base of the Arena and at the proper depth. If the Profile Blade is not sitting level, adjust the levelness using the 11" Top Link used to secure the Profiler attachment to the TR3. Continue dragging a few more feet, and recheck the profile blade again. You may need to make multiple adjustments to get the profile blade to sit level to the base. If you need to adjust the depth up or down repeat the above steps to set the depth of the Profile Blade.

ADJUSTING THE FINISH RAKE ON THE PROFILER ATTACHMENT:

1. To adjust the Finish rake on the Profiler attachment, raise or lower the Finish Rake depending on the desired effect on the footing.
2. There are 3 holes on the outside mast of the Profiler attachment where the Finish Rake is attached. Remove the pins holding each arm of the Finish rake in place, and raise or lower the Finish Rake depending on the effect desired for the footing. Put the Finish Rake in the top hole for the least contact with the footing. Put the Finish Rake in the bottom hole for maximum contact with the footing.

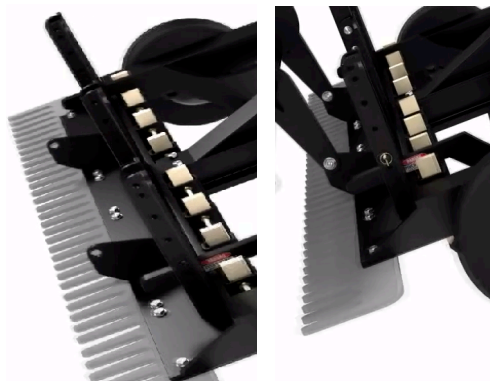
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Attaching and Using the TR3 Rolling Basket:



How to attach the TR3 Rolling Basket:

1. Make sure the TR3 is setup for normal operation and is located in an area with a flat hard surface for making adjustments, refer to section "Attaching and Setting up the TR3" above for information on setting up the TR3.
2. Next you will attach the Rolling basket starting with the bottom arms of the Rolling Basket. The bottom arms of the Rolling basket will connect to the TR3 using the pre-welded ears located on the back of the TR3 above the Finish Rake. Secure the Rolling Basket to the TR3 using the provided hardware.



3. Now attach the ratcheting top link bracket on the Rolling Basket to the TR3. The ratcheting top link bracket will attach to the TR3 using the center mast on the back of the TR3. Use the provided hardware to secure the ratcheting top link to the center mast.



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The ratcheting top link bracket may need to be extended to allow the bracket to be secured to the TR3. Use the center handle on the ratcheting top link to extend out the top link until the bracket is able to be secured to the center top mast on the TR3.

4. Adjust the Rolling basket using the center handle for the ratcheting top link until the rolling basket is sitting off the ground and is ready for transport. The operational depth of the rolling basket will need to be setup with the TR3 with the Rolling Basket in the arena.

Adjusting the Rolling Basket for use:

1. With the TR3 in the arena, and the Rolling Basket raised to clear the ground; lower the TR3 down until the wheels are resting on the surface of the arena.

2. Using the tractor pull the TR3 forward about 3-5' to allow the TR3 contact points to fully rest against the surface. This will allow the leveling blade, scarifiers, and finish rake to all make contact with the surface.

3. Using the ratcheting top link between the TR3 and the Rolling Basket, adjust the Rolling Basket until it rests firmly against the surface of the Arena. **Note to Operator – Adjust the Rolling Basket so it makes firm contact to the arena surface, but does not lift the TR3 off the surface of the arena.

4. With the Rolling Basket adjusted to sit firmly on the surface of the arena, use the tractor to pull the TR3 with the Rolling Basket adjusted forward 3-5'.

5. Check the arena surface behind the TR3 to ensure the desired results are achieved. The Rolling Basket may need to be adjusted further to allow for more cushion/compaction as desired. Use the ratcheting top link to adjust the Rolling Basket until the desired results are achieved.

**Note to Operator – Always adjust the Rolling Basket after making any changes to the setup of the TR3 to ensure the Rolling Basket is setup for the desired results after every adjustment.

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If you have any other questions about your TR3 Rake please feel free to contact our Customer Support staff at 855-211-0598 M-Th 8am -8pm and Friday 8am-5pm EST. You can also check out our support page at www.abisupport.com for more information and videos on your TR3 Rake or any of our other quality products.

For TR3, TR3 Profiler, TR3 Rolling Basket Replacement Parts: Contact ABI Customer Support at: 855-211-0598 M-Th 8am-8pm EST and Friday 8am-5pm EST



abiATTACHMENTS