

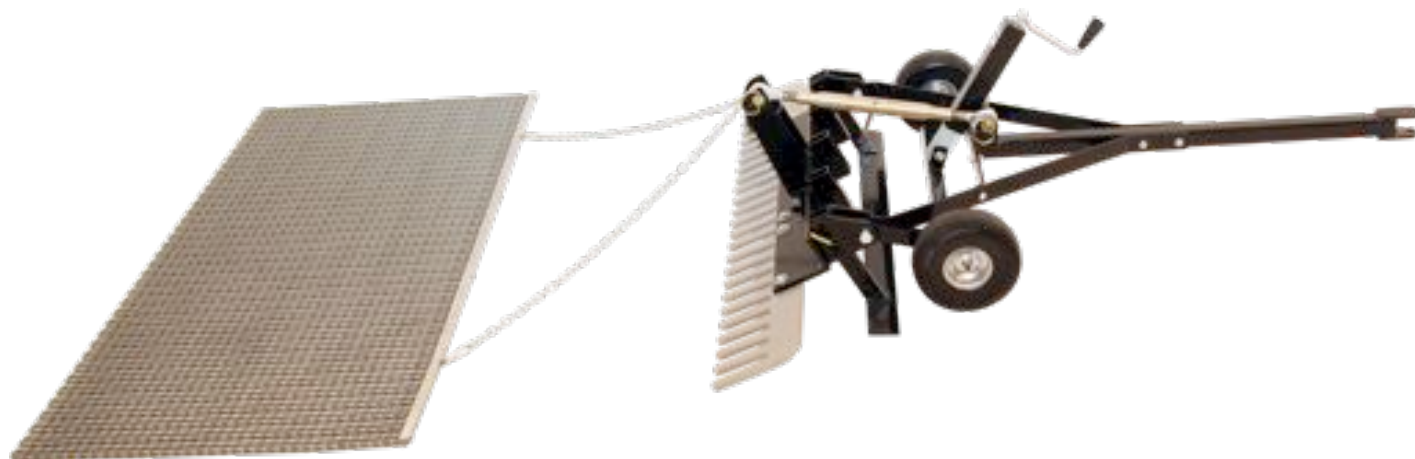
# RASCAL

— LGR —

Loosens • Grades • Rakes

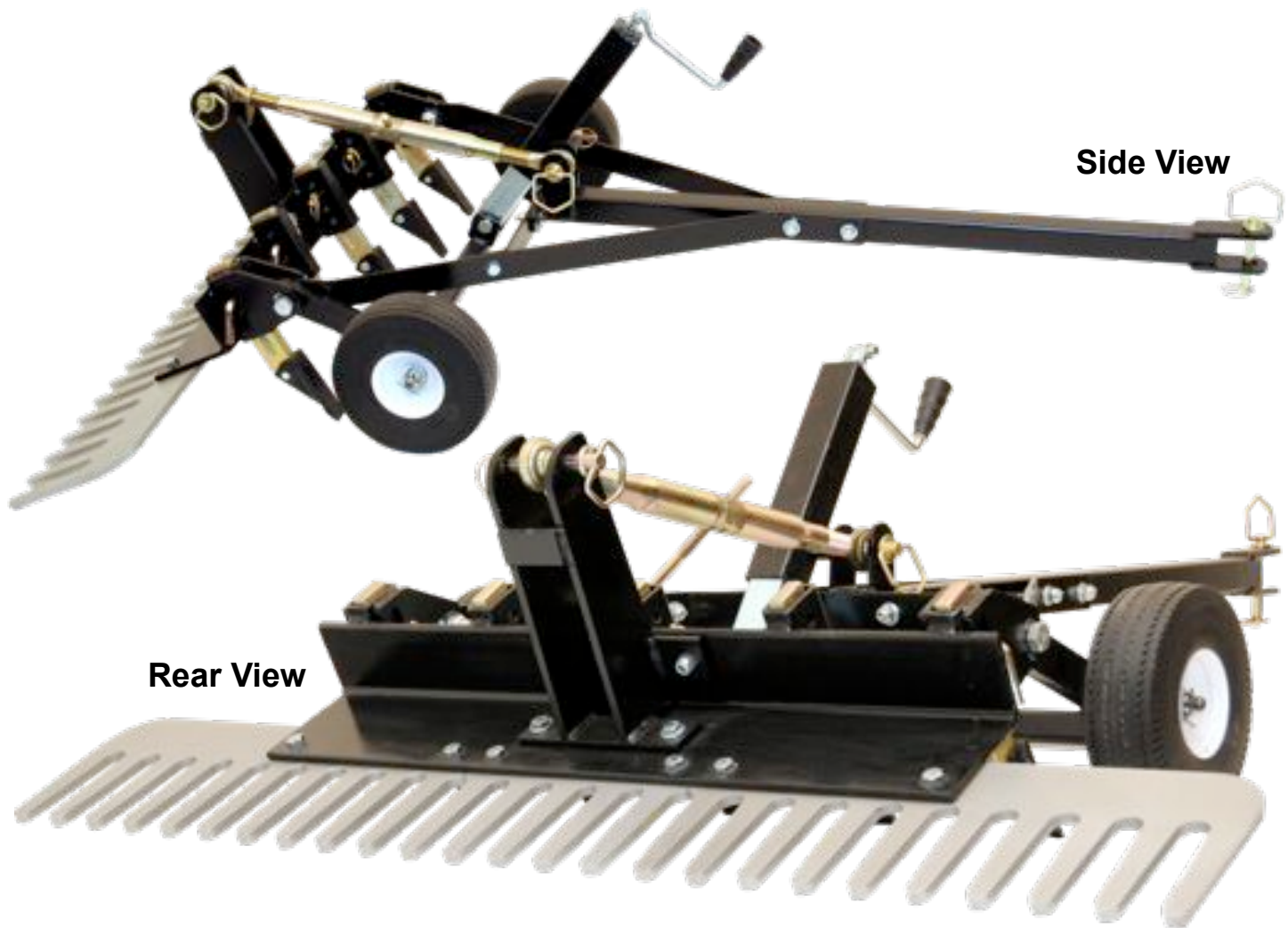


**& Infield Rascal Jr.**



## Assembly Instructions

As Of 9/20/2010



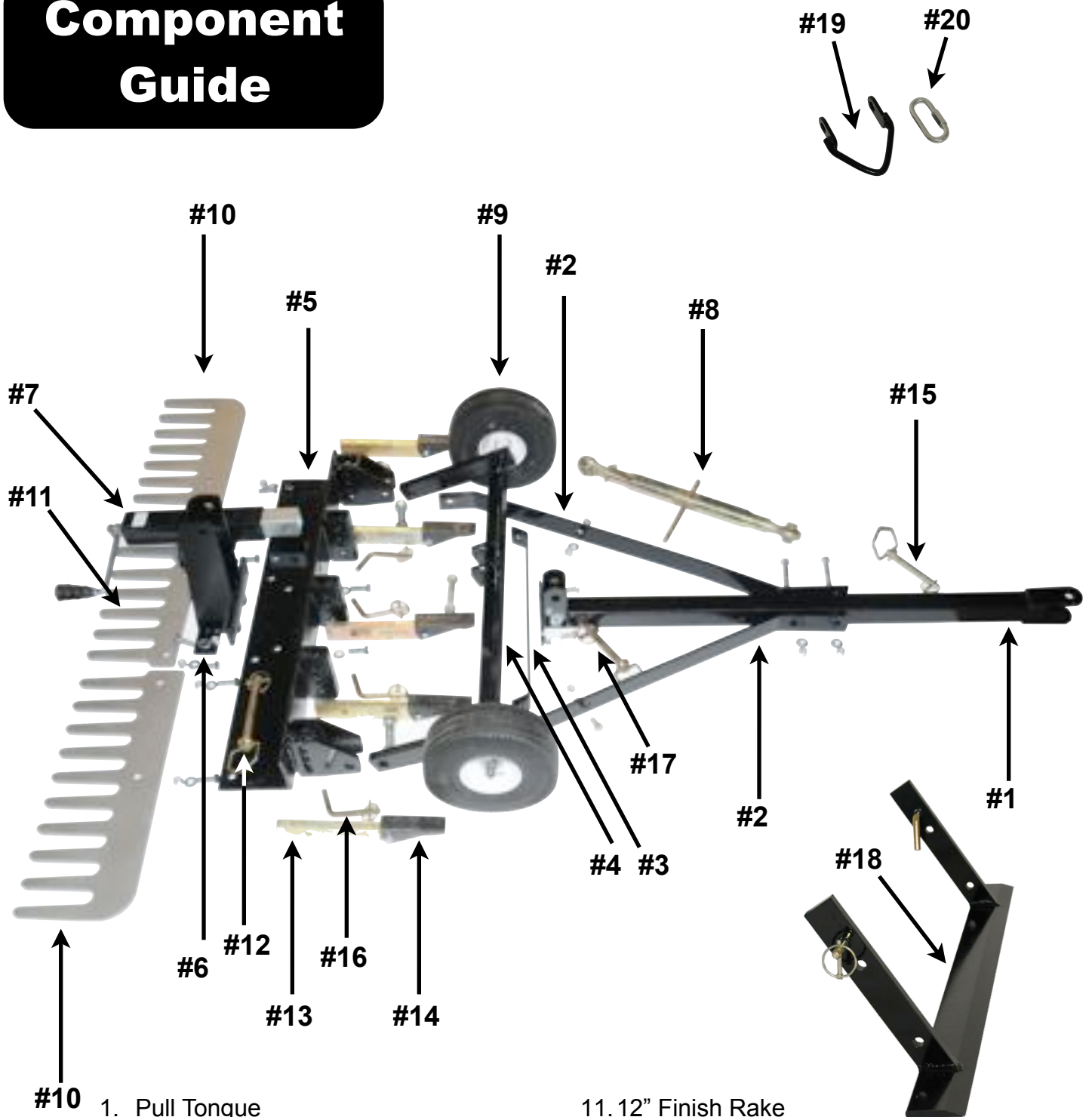
On behalf of Absolute Innovations, Inc (ABI) thank you for your purchase of the Rascal LGR or Infield Rascal Jr.. This document provides comprehensive assembly instructions for both the Rascal LGR & Infield Rascal Jr. as they are similar products. The Infield Rascal Jr. has more components and therefore a slightly different assembly. The assembly differences will be noted throughout this guide. The above images show how the Rascal LGR will look once successful assembly has been achieved. **The next two pages provide two vital guides that one will need to use these instructions.** The “Component Guide” assigns a NUMBER to each component. The “Bolt Set Guide” assigns a LETTER to each type of bolt washer nut set. This manual provides step-by-step

instructions using these numbers and letters to identify the parts needed to complete each step. If you would prefer to watch this product being assembled go to [www.ABIsupport.com](http://www.ABIsupport.com) to watch the online assembly video. If you need further assistance please contact our customer service department at 877-788-7253. This assembly should take about 15 - 30 minutes to complete and may require two people due to the weight of some components. As a general rule all bolts should be inserted from the top-down or the outside-in.

### **Tools you will need:**

- $\frac{3}{4}$ ",  $\frac{1}{2}$ " & 1  $\frac{1}{8}$ " Sockets
- Up to 1  $\frac{1}{8}$ " Adjustable Wrench
- Hammer

# Component Guide



#10

1. Pull Tongue
2. Upper Angle Bar Left & Right Sides
3. Lower Angle Bar
4. Main Axle Bar
5. Main Angle Bar Assembly
6. Upper Mast
7. Square Rascal Jack
8. 21" Toplink
9. Solid Tire
10. 24" Finish Rake Left & Right Sides

11. 12" Finish Rake
12. 3/4" x 7" Hitch Pin w/Largest Lynch Pin
13. Scarifier Shank
14. Scarifier Tip
15. 5/8" x 4 1/4" Hitch Pin w/Lynch Pin
16. 1/2" x 3" Bent Pin w/Lynch Pin
17. 3/4" x 4 1/4" Hitch Pin w/Lynch Pin
18. Profile Blade (Infield Rascal Jr. Only)
19. Drag Mat Bracket (Infield Rascal Jr. Only)
20. Drag Mat Linkage (Infield Rascal Jr. Only)

# Bolt Set Guide

**A**  
Qty. 4



- 1/2" x 1 1/2" Bolt
- 1/2" Nut

Used To Connect Part #5 To Part #6.

**B**  
Qty. 6



- 1/2" x 2" Bolt
- 2 - 1/2" Washers
- 1/2" Nut

Used To Connect Parts #10 & #11 to Part # 5

**C**  
Qty. 2



- 1/2" x 3 1/4" Bolt
- 1/2" Nut

Used To Connect right & left side Part #2 to Part #1

**D**  
Qty. 4



- 1/2" x 1" Bolt
- 1/2" Nut

Used To Connect Part #3 To Part #1 & #2.

**E**  
Qty. 2



- 3/4" x 3 1/2" Bolt
- 3/4" Lock Nut

Acts as the hinge to connect part # 2, #3, #9, & # 5

**F** Qty. 1



- 1/2" x 3 1/2" Bolt
- 2 - 1/2" Washers
- 1/2" Nut

Used To Connect Part #7 to Part #4

**G**  
Qty. 5



- 5/16" x 1 3/4" Bolt
- 5/16" Flange Nut

Used To Connect Part #14 To Part #13.



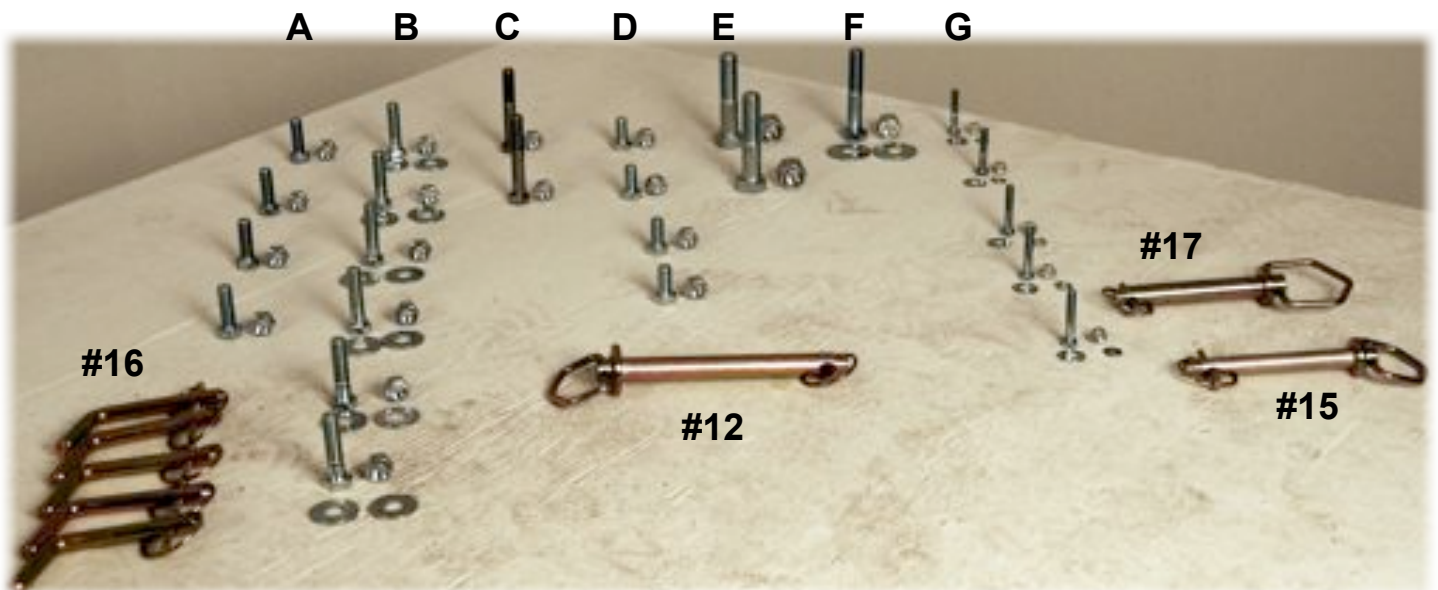
# #1

**Unpacking & Sorting Components & Parts:** Your Rascal LGR will be delivered unassembled via UPS Ground or common carrier in three boxes. The Infield Rascal Jr has 4 boxes and a 5th box if the optional drag mat is bought. These boxes weigh between 40 - 100 pounds each. This is too heavy for some people to safely lift. Please do not attempt to lift these boxes alone. Two adults or the use of a cart or dolly is recommended to move these boxes. Once the product is fully assembled it may be easily transported on it's wheels by connecting it to a tow vehicle.

Before you begin to unpack the boxes find a level location that is at least 10' x 10' and is accessible by your tow vehicle. Relocate the boxes to this location. With a box cutter open the boxes and remove their contents. Place the components around the outside of the area leaving at least an 8' x 8' area in the middle to assemble the product.

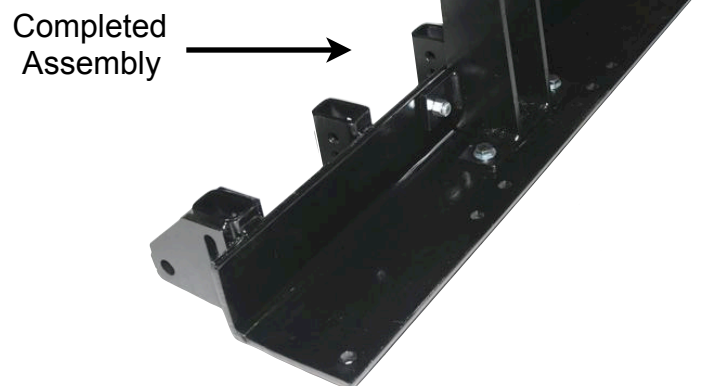
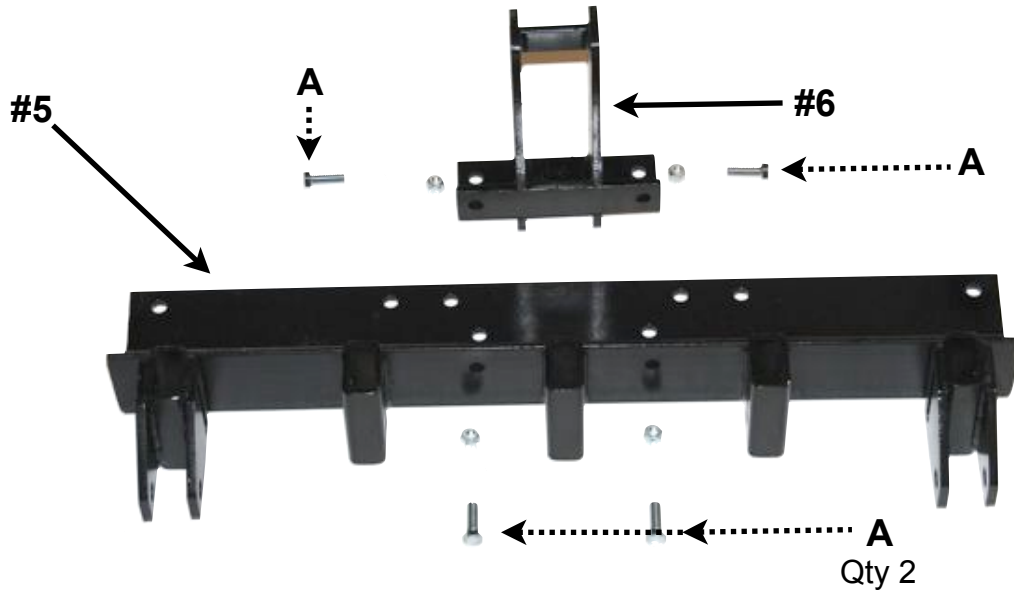


Reference the included "Component Guide" to familiarize yourself with each component NUMBER. Also ensure you received all components. Next reference the included "Bolt Set Guide" to familiarize yourself with each bolt, nut and washer and then organize them into 7 different sets or groups. This manual will refer to these groups as "Bolt Sets." Use the "Bolt Set Guide" to determine which bolts, washers and nuts are included in each bolt set. The image below is an example of how one could organize these bolts sets.



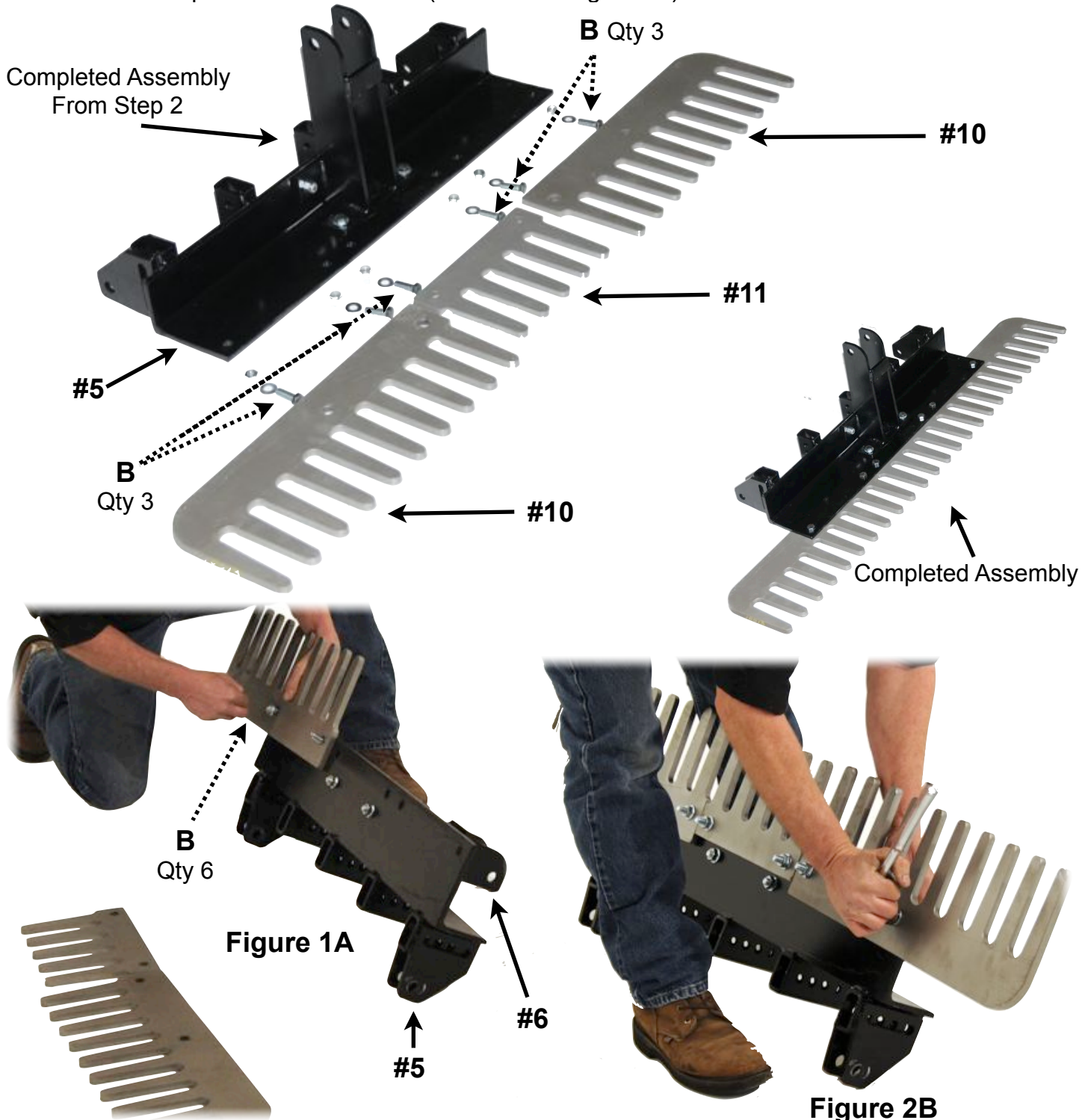
## #2

**Attaching The Mast:** Take component #5 and place it on the floor where you want the silver rake end of the Rascal to be. Please be careful, as this is the heaviest part of the Rascal. Place component #6 in the center of component #5 and align the bolt holes. Now, use bolt set "A" and place the first two bolts through the upright side of the component #5. Finger tighten the two nuts. Next, tip component #5 on its back and insert the next two bolts through the corresponding holes. (as shown in figure 1A) Securely tighten all four nuts holding component #6 to component #5. Finally, tip component #5 back to the upright position.



### #3

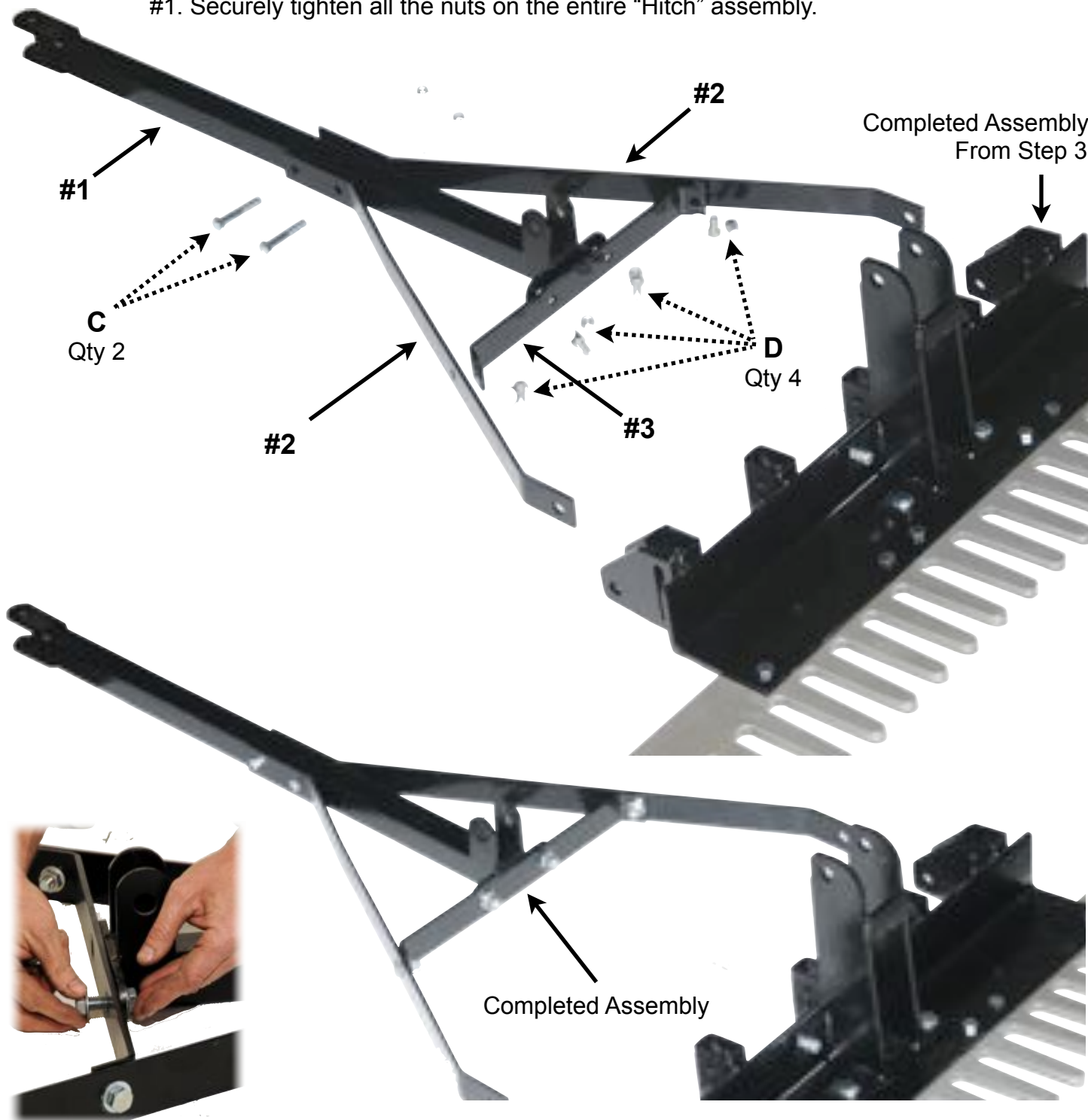
**Attaching The Rake:** Take both the left side and right side components #10 and the center component #11 and position them behind component #5. The left side and right side components #10 are to be positioned on the outsides of component #5 with the rounded sides facing away from the Rascal. Place component #11 in the middle of the left and right side component #10. Now, take component #5 and tip it forward so that it is resting on component #6. (As shown in figure 1A) Begin assembling components #10 and #11 to the under side of component #5, as shown below, using bolt set "B". Use the provided flat washers on both the bolt head side and the nut side of the bolt. Finger tighten to ensure straight alignment of finish rakes. Then securely tighten all the nuts for components #10 and #11. (As Shown in figure 2B)





# #4

**Assembling The Pull Tongue Hitch Harness:** Take components #1, #2 (both the left and right sides), and #3 and place them in front of the completed assembly from step 3. Place component #1 in the middle with the rounded tabs facing up. Place both the left and right sides of component #2 on either side of component #1. Be sure to match the double bolt holes in component #2 with the double bolt holes in component #1. Then place component #3 across the bottom of component #1 with the angle ends pointing away from the tongue. Use bolt set "C" and connect component #2 (both the left and right side) to component #1. Put the bolts through all three components. Attach component #3 to component #2 (both the left and right sides) by inserting bolt set "D" through both sides of components #2 and then through the bottom plate of component #1. Securely tighten all the nuts on the entire "Hitch" assembly.





# #5

**Attaching The Wheels:** Place component #4 on the ground in-between the completed assembly from step 4 and the completed assembly from steps 2 & 3 as shown below. Be sure the bracket welded to the tube-steel crossmember are facing up on component #4. Now take the assembly completed in step 4 and lay it on top of component #4. (as shown in figure 1A) Next align the open bolt holes in component #2 (which is a part of the completed assembly from step 4) and the open bolt holes in the side bars of component #4. The Component #2 arms must be inside the side bars of Component #4. Then slide them into the “Main Angle Bar Assembly” brackets (both sides) on the completed assembly from steps 2 & 3. (as shown in figure 2B) You will need to lift the completed assembly from step 4 such that the tongue is pointing up at about a 45 degree angle to align all the bolt holes. With all three bolt holes aligned insert bolt set “E” on each side. Securely tighten both nuts as shown in figure 3C.

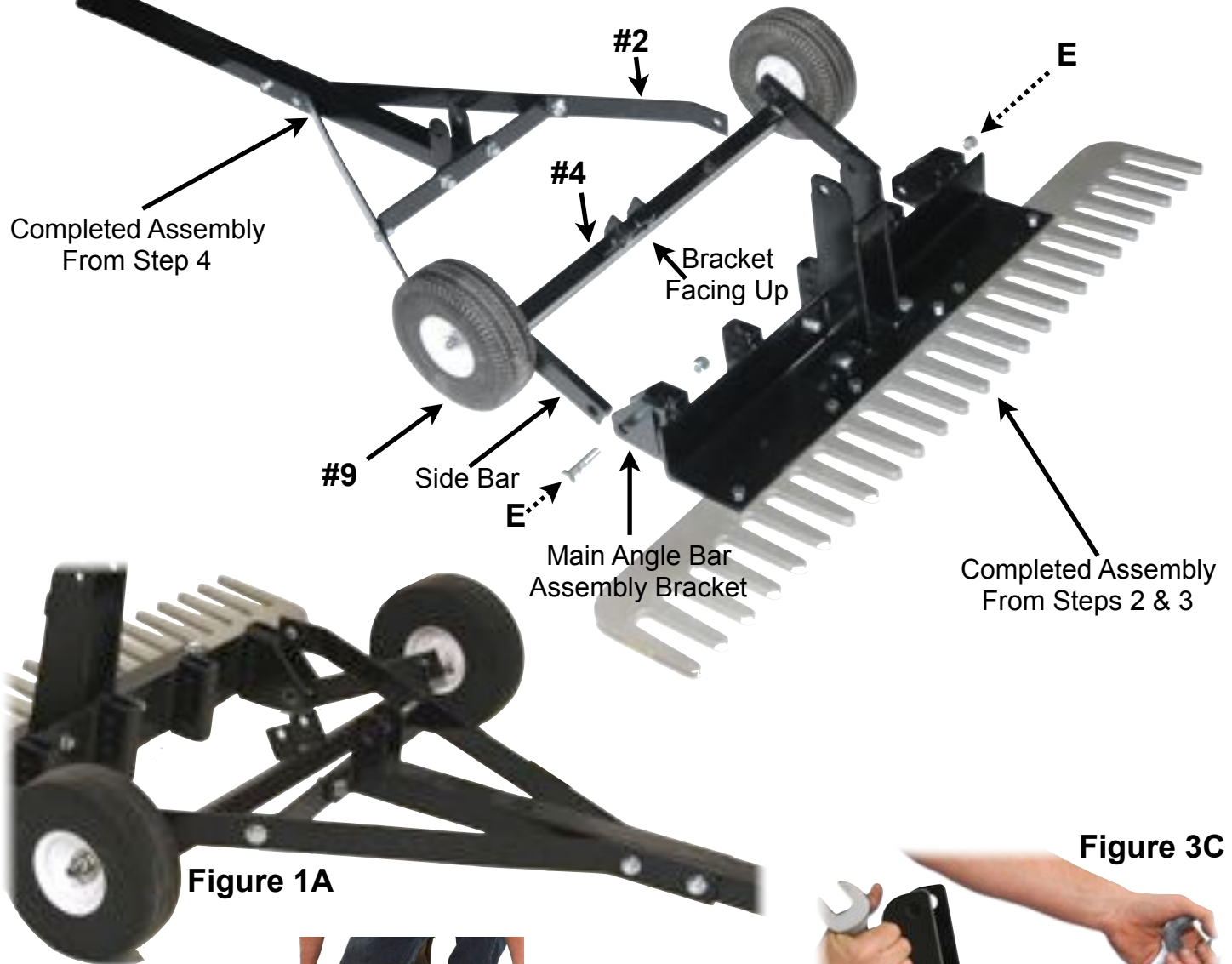


Figure 1A



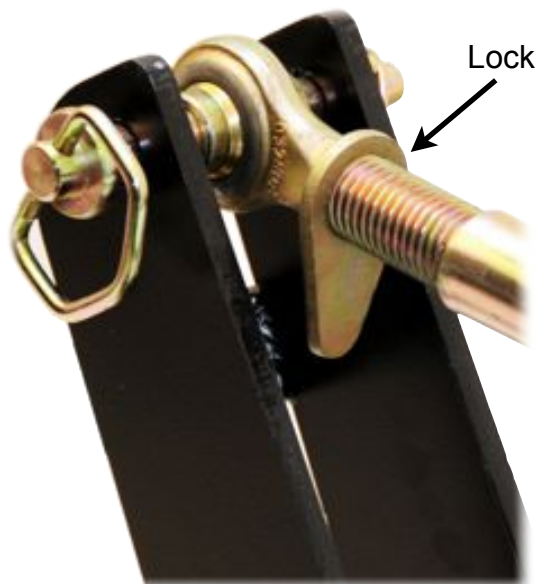
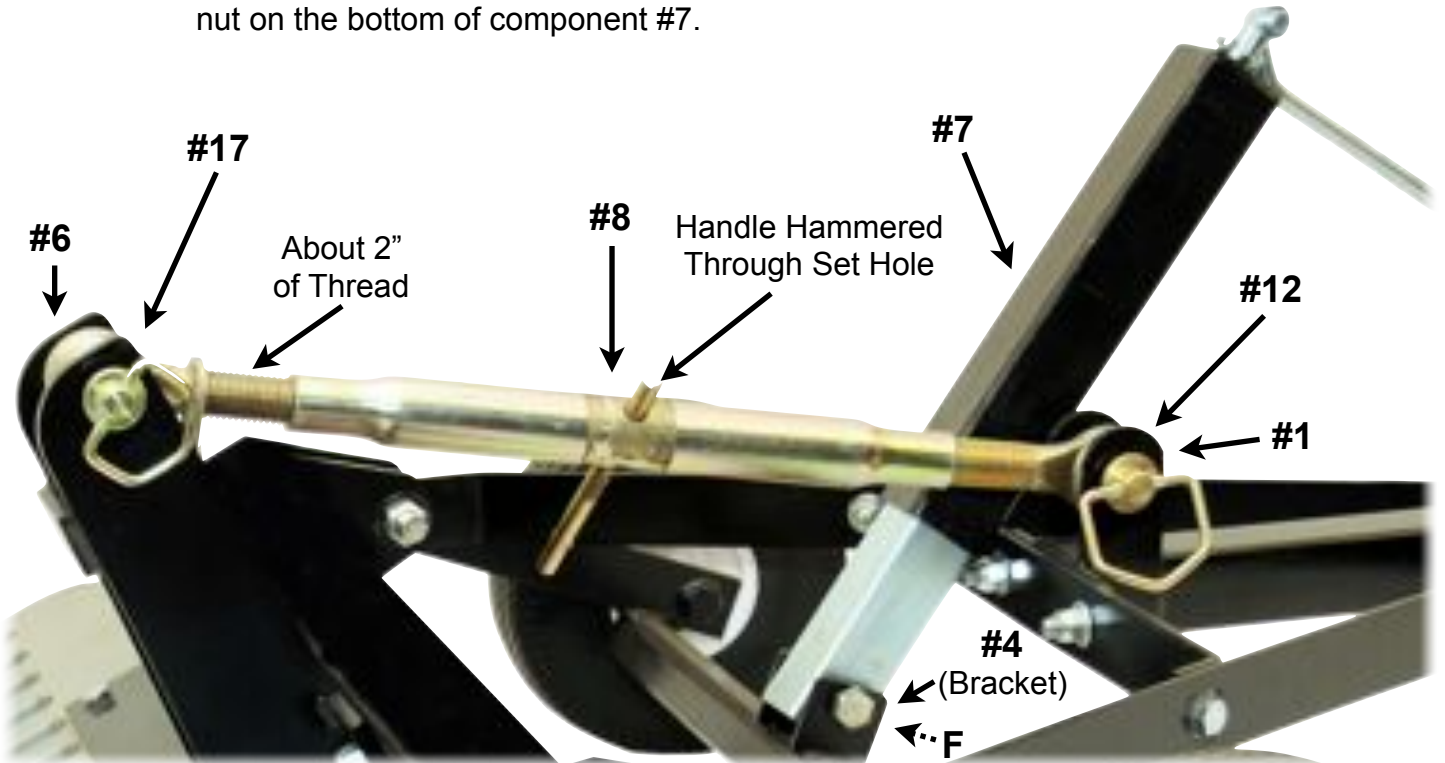
Figure 2B



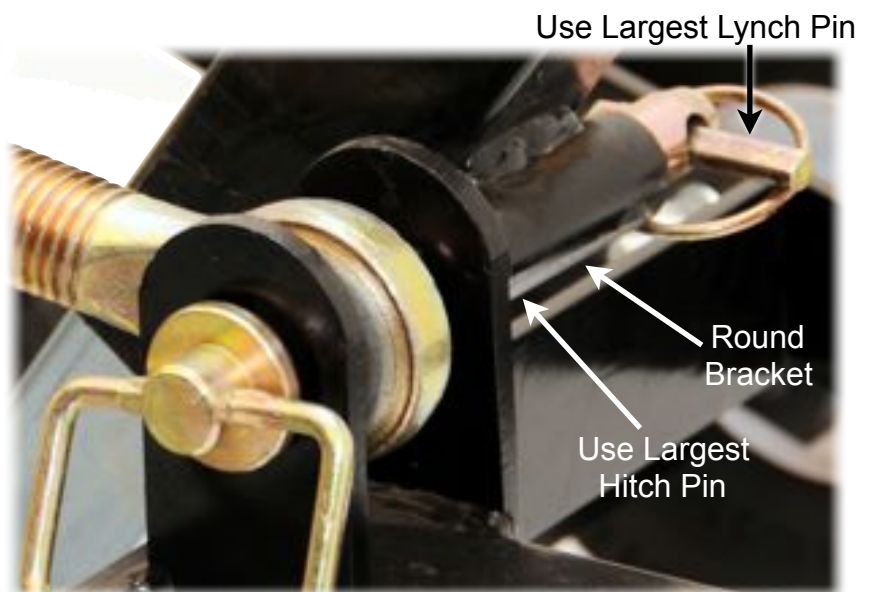
Figure 3C

## #6

**Connecting The Toplink & Lifting Jack:** The “handle” will need to be hammered through the set hole in the center of component #8 as shown below. Take component #8 and expose approximately 2 inches of thread on both ends of the topline. Using the 3/4” x 4 1/4” hitch pin secure the locking end of component #8 into the top hole of component #6 and lock with the lynch pin. (shown in figure 1A) Insert the other end of component #8 into the bracket in component #1 with the longest hitch pin, 3/4” x 7”. (shown in figure 2B) Don’t secure with the lynch pin yet. Take component #7 and using the bolt set “F”, attach the bottom of component #7 to the “Main Axle Bracket” on component #4. Be sure the round bracket that is welded to component #7 is facing the tongue of the unit. Lift the completed assembly from step 4 to align the “Pull Tongue Bracket” and the “Round Bracket” welded to component #7 and slide the hitch pin through. Insert the largest lynch pin to hold the hitch pin in place. (shown in figure 2B) Securely tighten the nut on the bottom of component #7.



**Figure 1A**



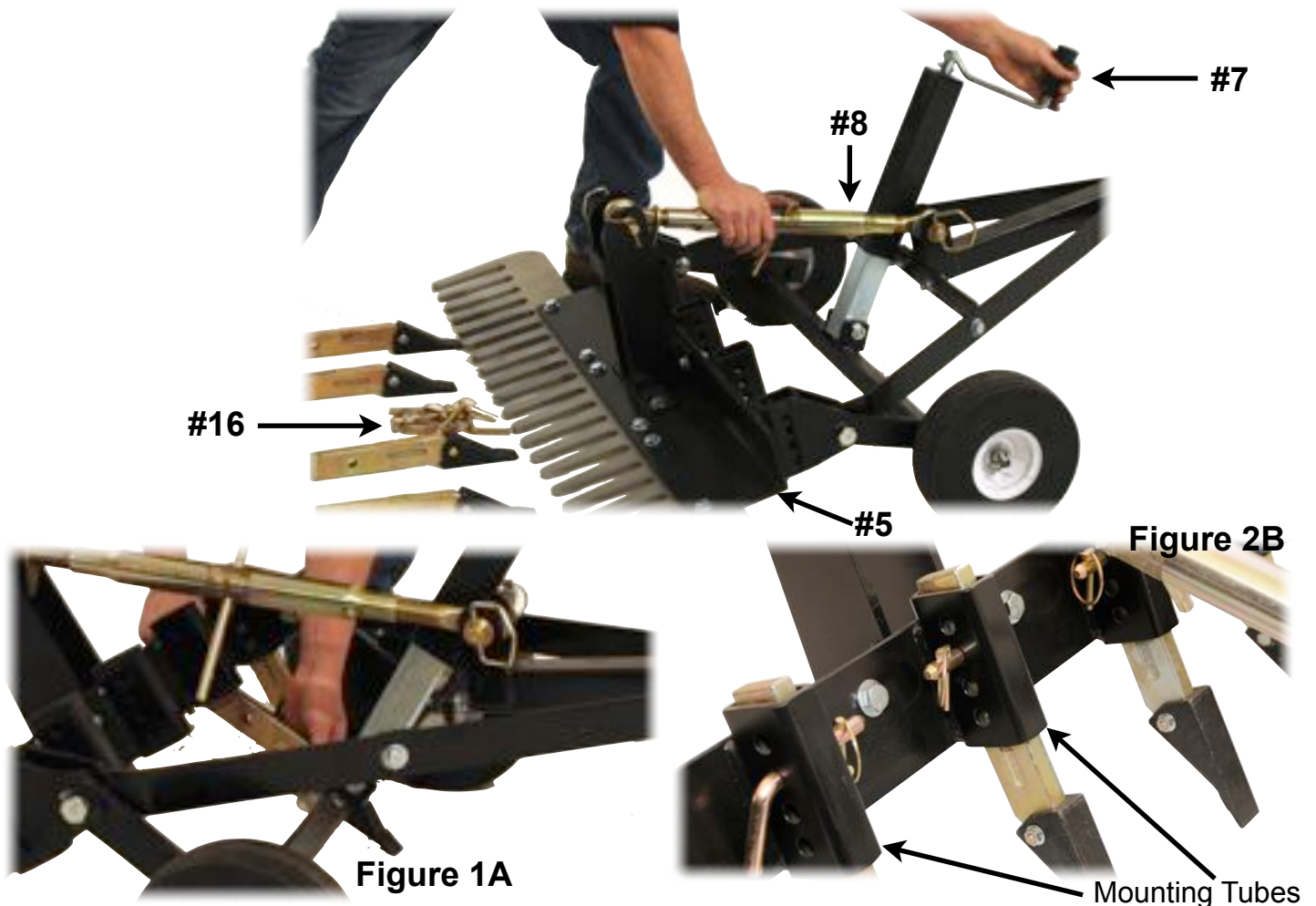
**Figure 2B**

**#7**

**Assembling The Scarifiers:** Gather all components #13 and #14 and bolt set "G". Once assembled there will be five (5) complete scarifiers with tips. First, take the angled end of component #13 and insert it inside of component #14. The inside of component #14 is angled. Be sure to match the angles such that the bolt holes align. Use bolt set "G" to secure the component #14 to component #13. Due to potential steel burrs in part #14 you may need to use a hammer to force the bolts through the holes.

**#8**

**Connecting The Scarifiers:** (Infield Rascal Jr. Skip To Step 10) Now that all 5 scarifiers are assembled it is time to connect them. Gather all components #16 along with the corresponding lynch pins. Turn the handle on component #7 to lower the wheels as far as is needed. Then extend component #8 out; exposing more thread. This will lift the frame off the ground and angle component #5 so there is room to insert the scarifiers into the under side of the "Mounting Tubes" on component #5. (shown is figure 1A & 2B) The scarifiers should be inserted such that the flat side of each tip faces the tongue of the tow vehicle. When inserting the completed scarifiers into the mounting tubes align the hole in component #13 with the second hole down from the top in the "Mounting Tube." Insert component #16 and secure with the lynch pin. (shown is figure 2B) Repeat for all 5 scarifiers.





# #9

**Rascal LGR Owners You're Done!...Time To Adjust For Transport:** (Infield Rascal Jr. Skip To Step 10) You have now completed the assembly of the Rascal LGR. It is now time to adjust the unit in preparation for attaching to a tow vehicle. First, adjust component #8 inward so that only about 2" of thread show on either side. Second, turn the handle of component #7 to lower component #1 (tongue) to the tow vehicles hitch height. Third, align component #1 with the hitch of the tow vehicle. Fourth, insert component #15 through component #1 and through the hitch of the tow vehicle. Insert the lynch pin to secure. The Rascal should now look like the images below. To transport turn the handle of component #7 until the wheels have fully lifted the Rascal off the ground. The tool is now ready for transport.

**If you need further assembly assistance refer to the assembly and instructional DVD. You may also find these videos online at [www.ABIsupport.com](http://www.ABIsupport.com).  
Feel free to call us at 877.788.7253.**



# #10

**Installing The “Profile Blades”:** (Does Not Apply To Rascal LGR Owners) Now that all 5 scarifiers are assembled set them aside for later use. Next attached the tongue of the Infield Rascal Jr. to the tow vehicle. Back the tow vehicle near the hitch of the Rascal. Turn off tow vehicle. Then ensure everyone is clear of the Rascal and maneuver the Rascal tongue and mount to the hitch and insert component #15 (hitch pin) through component #1 and through the hitch of the tow vehicle. Insert the lynch pin to secure. Gather 2 components #16 along with the corresponding lynch pins. It is now time to install the component #18 “Profile Blade”. Turn the handle on component #7 to lower the wheels as far as is needed. Then extend component #8 out; exposing more thread. This will lift the frame off the ground and angle component #5 so there is room to insert component #18 into the under side of the “Mounting Tubes” on component #5. (shown in figure 1A & 2B) Component #18 “Profile Blades” should be inserted such that the beveled blade faces toward the tongue of the tow vehicle. When inserting the Profile Blade into the mounting tubes align the hole in the shank of the Profile Blade with one of the holes in the “Mounting Tube.” Insert component #16 and secure with the lynch pin. Set the pin in a higher hole for less ground penetration and in a lower hole for more.



Figure 1A

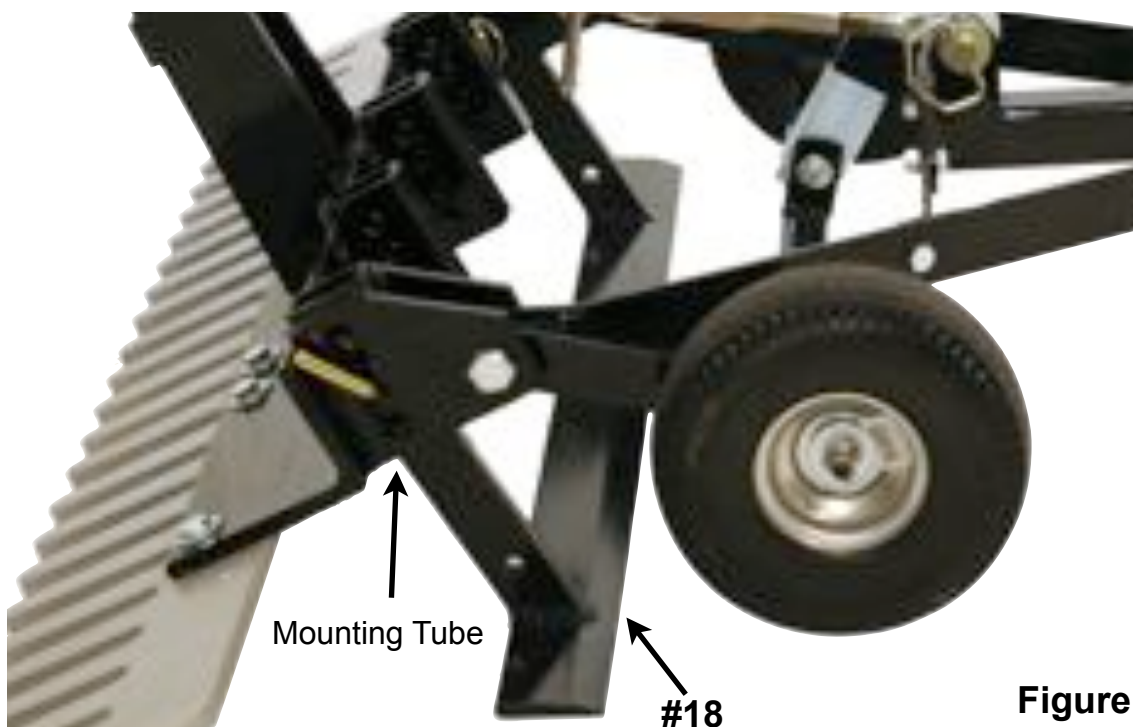
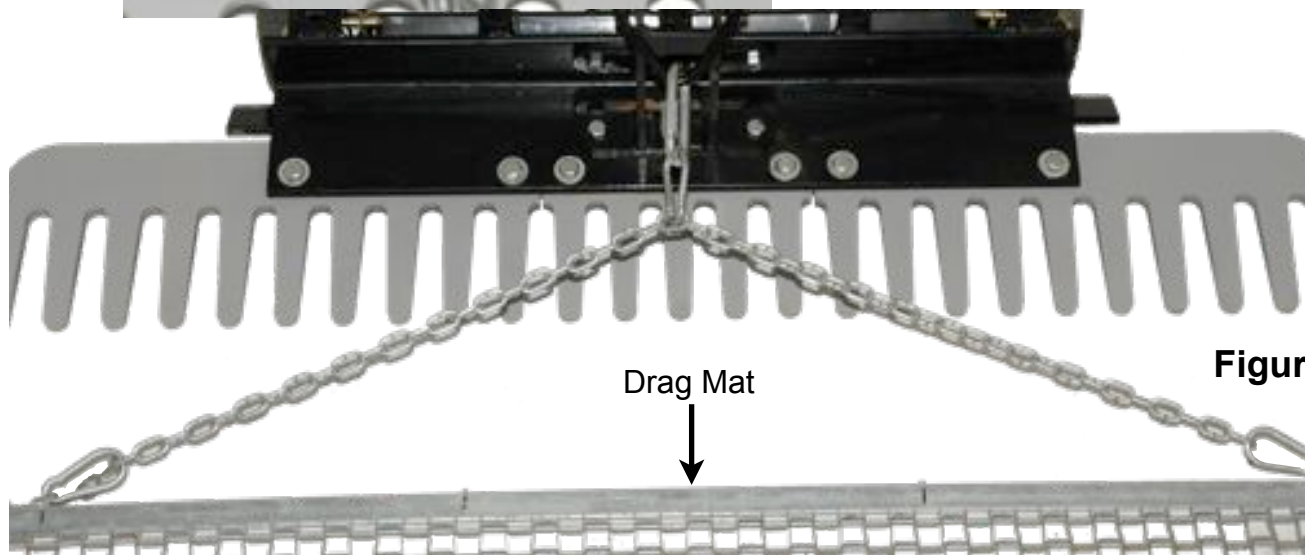
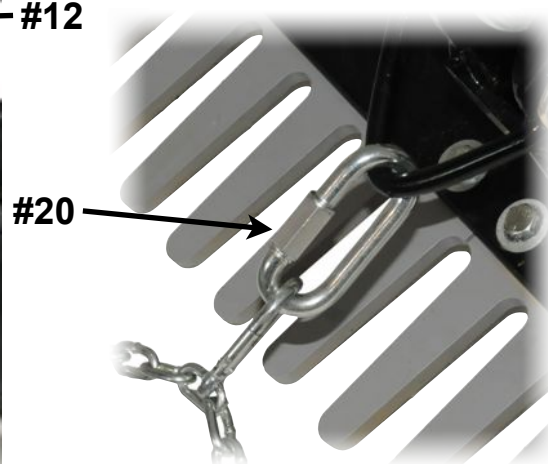
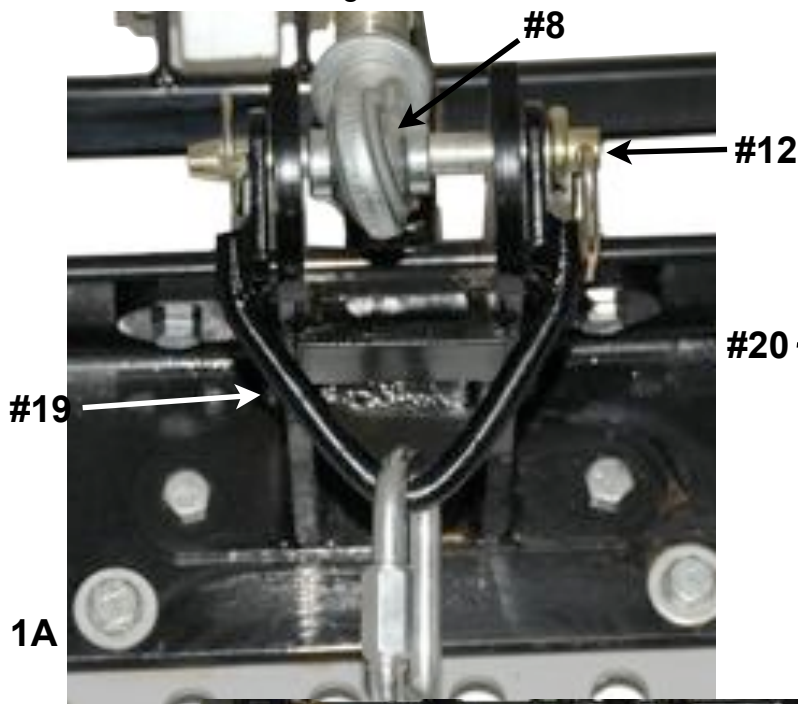


Figure 2B

# #11

**Installing The Optional Drag Mat: (First Time Only)** **BEWARE: Keep toes and fingers clear! STOP! Ensure the rake, blade & tires are resting on the ground before continuing!** While the Rascal is still connected to the tow vehicle use component #7 (jack) to lower the Rascal frame to the ground. Ensure the silver finish rake, profile blade and tires are all touching the ground (Component #s 9, 10, 11 & 18). Grab component #19 (Drag Mat Bracket) walk to the back of the Rascal and stand over component #6. **Keep Toes & Fingers Clear Rascal May Shift!** Slowly remove component #12 from the top of the tower. Component #8 will fall. Next align component #19 to the holes where you just removed the pin on the outside of the tower. Then reinsert component #12 through the drag mat bracket and the tower on one side. Push the pin halfway through. Then grab component #8 and align the hole with the pin. (You may need to shorten component #8) Push the pin all the way through the other side of the tower and drag mat bracket and secure with the lynch pin. (As shown in figure 1A) This bracket should remain on the Rascal regardless of use or non-use of the drag mat. Secure component #20 (linkage) to component #19. (As shown in figure 2B) Adjust drag mat chain to desired length and secure to component #20. (As shown in figure 3C) Use component #20 to connect and disconnect the drag mat as needed.





**#12**

**Inserting & Using The Scarifiers:** This is not a step in the assembly process. It is however important to understand how to insert the scarifiers and when to use them. Scarifiers are needed anytime you need to breakup hardpan surfaces or you need to loosen material with heavy vegetation. Use the scarifiers when working on gravel driveways, parking lots or seedbed preparation. Scarifiers may also be needed on some infield mixes if they become too hard for the Profile Blade to penetrate. The scarifiers are also used while renovating the infield to help loosen extreme hardpan or heavy vegetation. To insert the scarifiers attach the Infield Rascal Jr to the tow vehicle and secure. Then raise the frame off the ground as described in step #10. Then remove component #18. (Profile Blade) Then **refer to step #8** to learn how to install the scarifiers. When finished using the scarifiers reinstall the Profile Blade.

**#13**

**Infield Rascal Jr. Owners You're Done!...** You have now completed the assembly of the Infield Rascal Jr.. For assistance adjusting for desired uses please call us at 877.788.7253.

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