

# THE VERMINATOR & JUNIOR



OPERATOR'S & PARTS MANUAL

01/2020



# OPERATIONS MANUAL

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## WARRANTY INFORMATION

### Products Covered

All Products carrying the [] name. (All other products purchased from other manufacturers are limited to that manufacturer's warranty.)

[] warrants to the original purchaser ("Purchaser"), its products to be free from defect under normal use and service, ordinary wear and tear expected, for the warranty period of one year from the date of the original purchase, but subject to the limitations as set forth below.\*

### \*Limitation on Warranty

obligation under the above warranty is limited to repair or replacement of the Product, at its option due to a manufacturing defect of the Product. shall not be liable for the loss of or use of vehicles, loss of damage to personal property, expenses such as telephone, lodging, gasoline, towing, tire damage or any other incidental or consequential damages incurred by the Purchaser, or any other person or entity.

[] will examine the returned Product. If [], in its exclusive discretion, determines that the defect or damaged Product is covered under this limited warranty, [] will repair the Product or replace it at that time.

Alterations to or misuse of the Product will void the warranty. For example, using a tractor larger than specified, or traveling at an improper rate of speed, shall void the warranty on any of the Products. Failure to properly maintain and regularly inspect the Product according to the specific instruction sheet accompanying each Product shall also void the warranty.

Shear limitations. [] does not warranty shear due to rock damage or normal wear and tear. Warranty of the shear is void once shear has been used.

Some states do not allow the exclusion or limitation of incidental or consequential damages. If such exclusions or limitations are prohibited under the applicable law, the above limitation or exclusion may not apply.

This Warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

## Return Policy

### **The Purchaser, when returning a Product, please follow the following steps:**

- 1. The Purchaser must have proof of purchase of any damaged Product. The Purchaser must obtain from [] a Returned Goods Authorization (RGA) will be given along with the correct address where to ship the damaged product.**
- 2. The Purchaser is required all shipping costs to deliver the damaged Products to [] and must send the damaged Product along with the RGA and proof of purchase together.**
- 3. Upon receipt of damaged Product, [] will determine whether the damaged Product is covered under the Limited Warranty. If it is, [] will repair or replace the Product. If the Product is replaced, the Product that is originally returned by the Purchaser shall become the exclusive property of []. If the returned Product is not covered under the Limited Warranty, [] will notify the Purchaser before taking any further action with regard to repair or replacement, which would be at the Purchaser's cost.**
- 4. Customer is responsible to pay shipping charges to [] for product inspection. [] will pay return freight if product is found to be under warranty using UPS Ground or equivalent.**

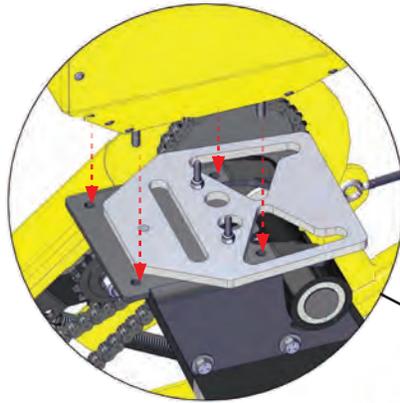
### **Notice to Owner or User**

**Please fill out the Warranty Registration Transfer (see page 40) and mail it to [] within 15 days after purchase. This validates the warranty transfer and is essential for your protection. If [] should ever need to contact you concerning compliance of your [] equipment with any applicable safety standards, the information you have provided on the Warranty Registration Transfer will ensure your immediate notification.**

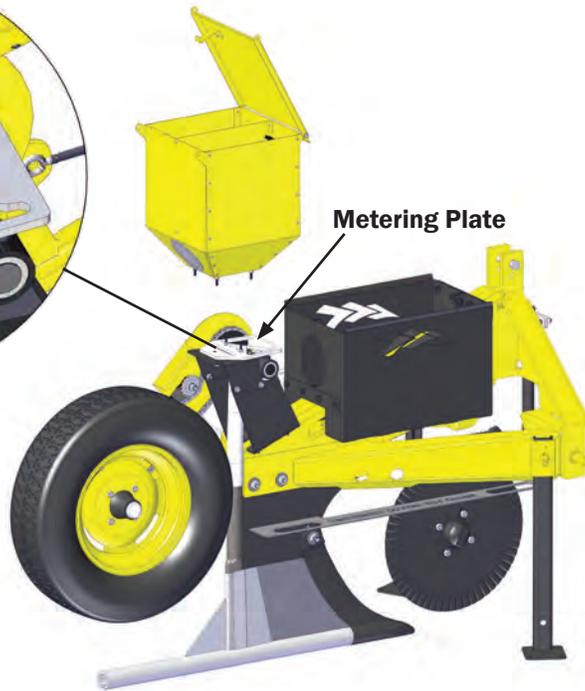
## Verminator Machine Setup

### Verminator & Junior Hopper Installation

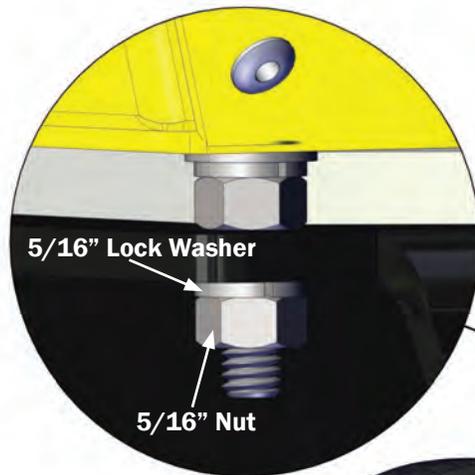
#### Step 1:



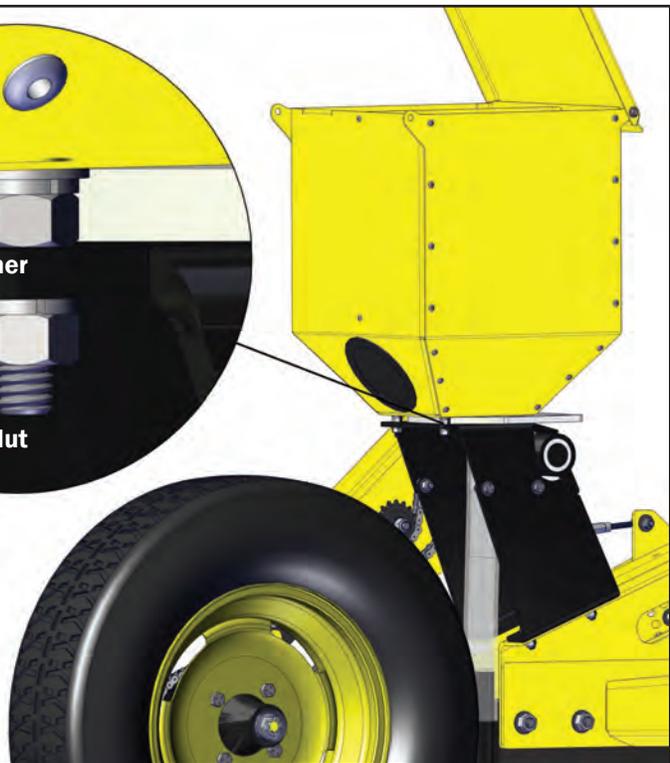
1. Install Hopper in holes (shown above) on Hopper Stand Assembly
2. Metering plate should move with only slight resistance.



#### Step 2:



1. Using the included hardware, install (1) 5/16" Lock Washer, (1) 5/16" Nut on each bolt to secure Hopper to Hopper Stand Assembly



**NEVER BACKUP WHILE THE MACHINE IS IN THE GROUND!  
DOING THIS WILL PLUG THE TUNNEL TUBE AS WELL AS BREAK  
THE METERING PLATE**



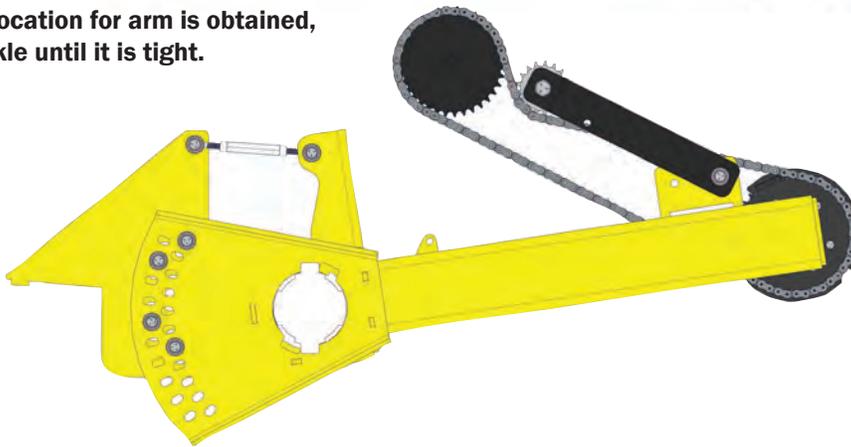
## Verminator & Junior Hopper Chain Adjustment

When arm is required to be adjusted, the user will be required to remove chain links and may have to move tensioning arm to a new hole location. This is necessary so the chain will not bind or collide with other components on the Verminator assembly.

When arm is adjusted make sure to line up bolts holes accordingly.



When desired location for arm is obtained, adjust turnbuckle until it is tight.

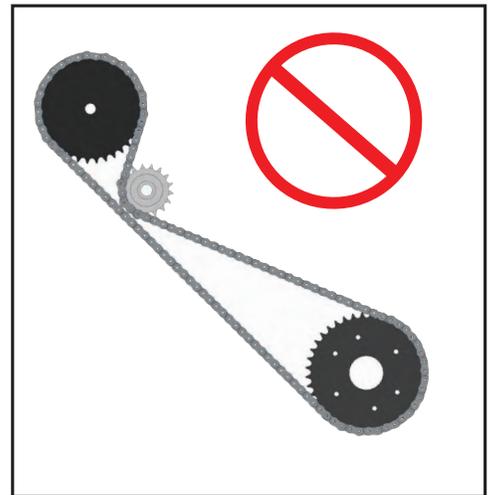
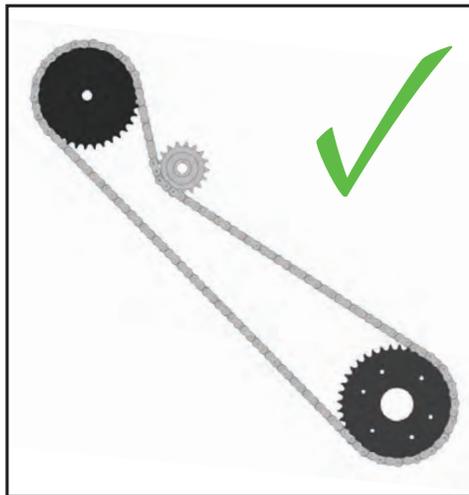


### CAUTION



**FAILURE TO MAINTAIN CHAIN CLEARANCE CAN LEAD TO PERMANENT DAMAGE TO VERMINATOR.**

Remove links as necessary. To maintain proper spacing between chain. We provide 7 quick links already attached to chain. Reduce or add as needed to obtain proper chain clearance.

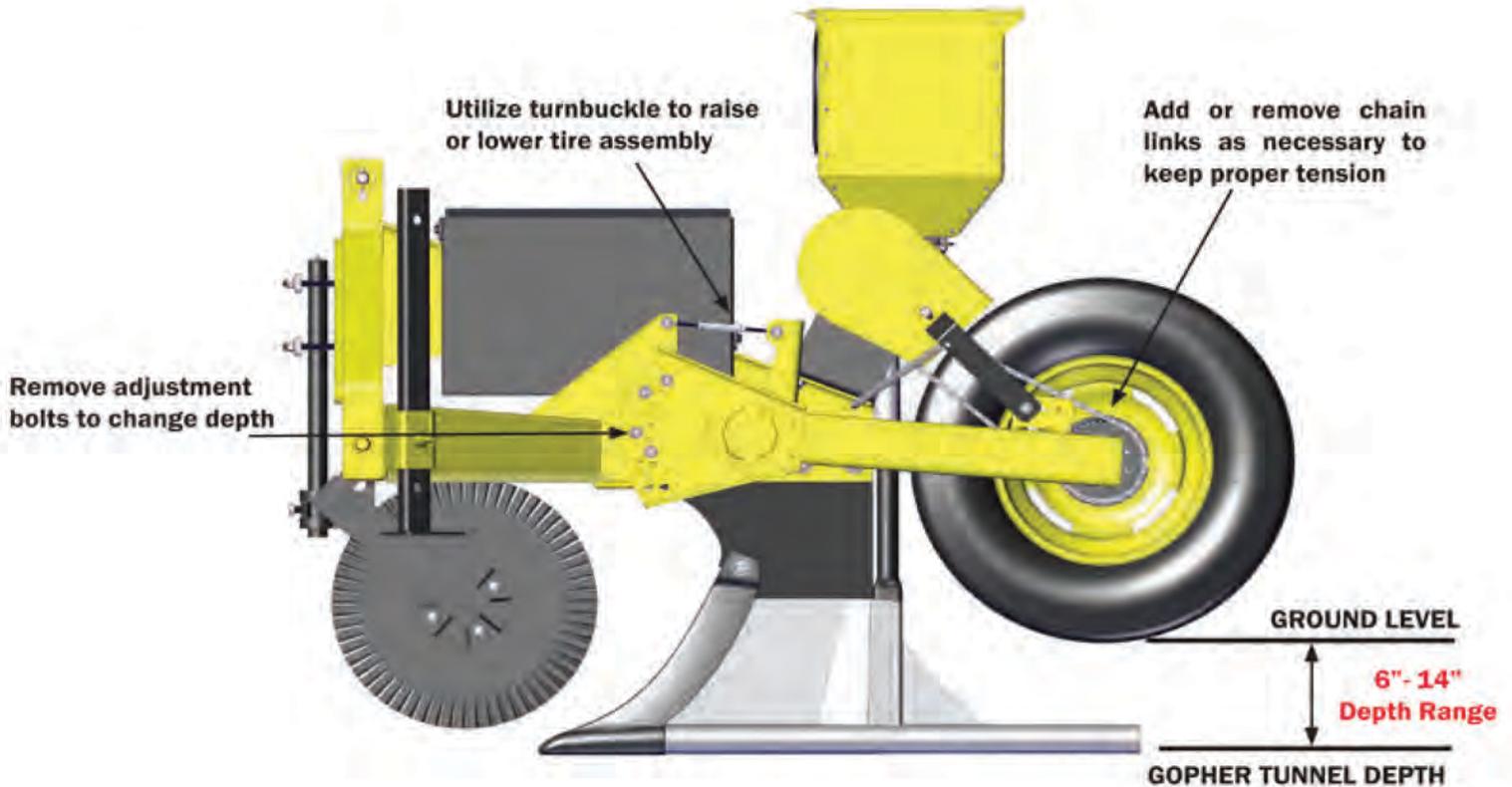


## Verminator Shear Leveling

The next step is to set the depth of the Shear. During this step it is important to make sure to get the tunnel tube as level as possible.

### Set the Drive Wheel Height

Utilizing the depth found in Step 1 on PG 11. Set the drive wheel to the proper depth required. It is better to keep your tunnel slightly higher than the gophers' as it is harder to fix a roof than a floor.



SEE KEYS TO SUCCESS FOR MORE MACHINE SET UP TIPS ON PG.11



### CAUTION



- Make sure the machine is supported so it does not fall when adjusting the chain and setting the depth
- After adjustment reinstall adjustment bolts and torque to 25 ft-lbs.
- Tighten turnbuckle after adjustment

## Coulter Height and Adjustment

When you adjust the coulter make sure when you tighten bolt you tighten them in an alternating sequence. Use a star pattern sequence to tighten bolts. See FIGURE 1

Coulter should be set as deep as possible into the ground, until the bottom of the hub is level to the bottom of the tire. See FIGURE 2

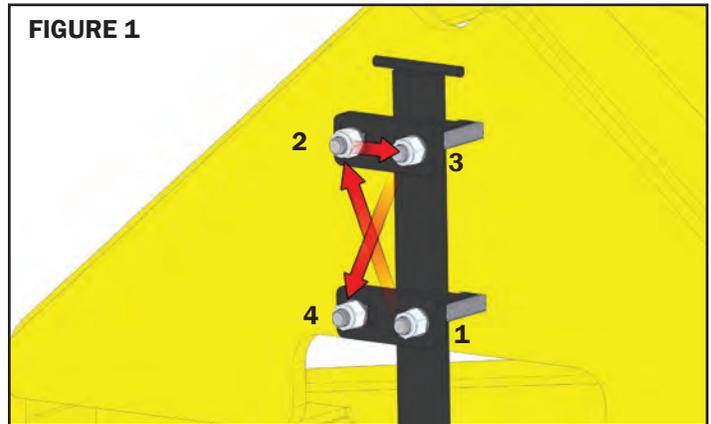


FIGURE 2

The rippled Coulter blade is designed to slice through roots and other vegetation, helping clear a path for the shear.

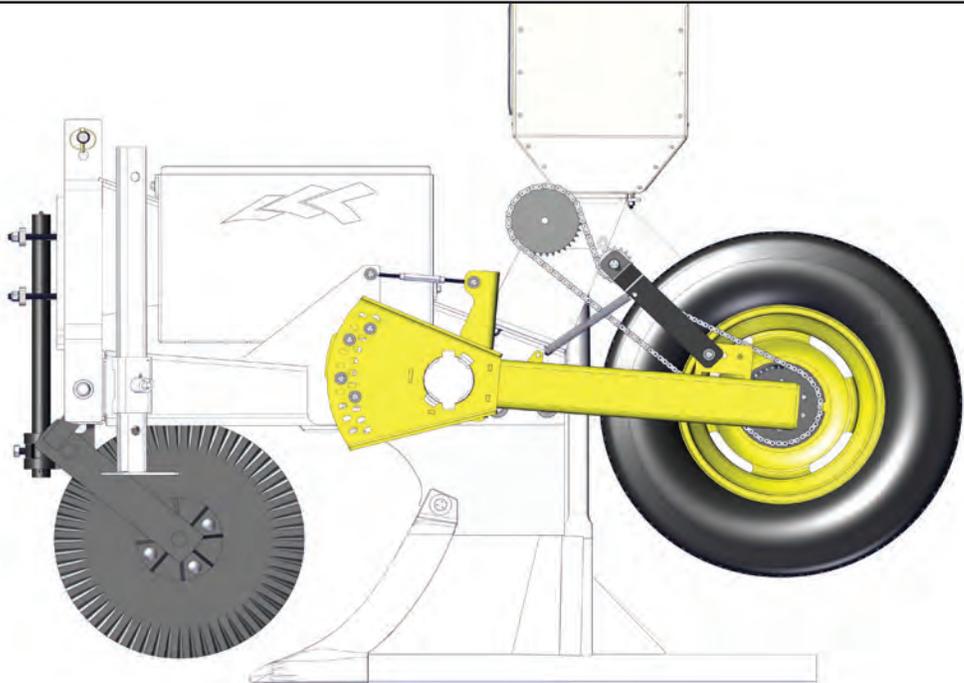
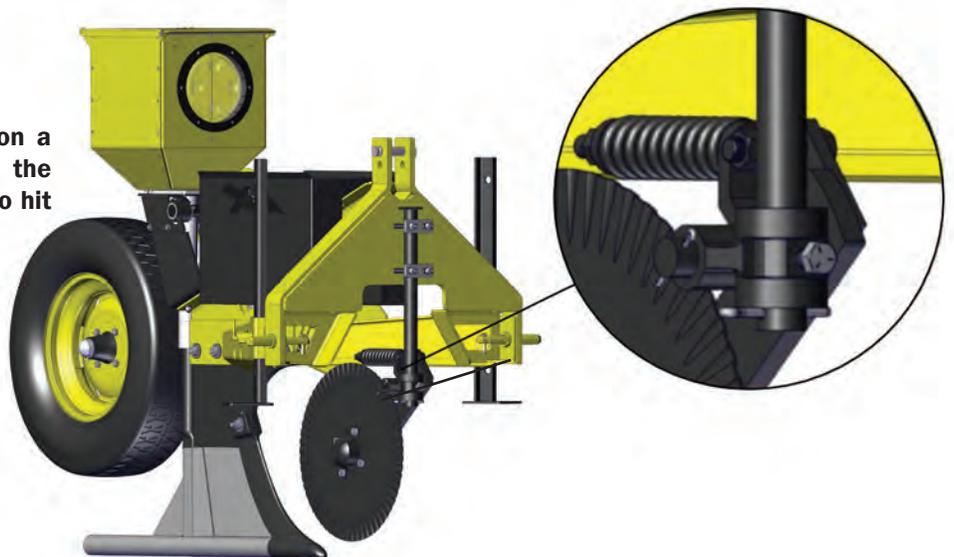
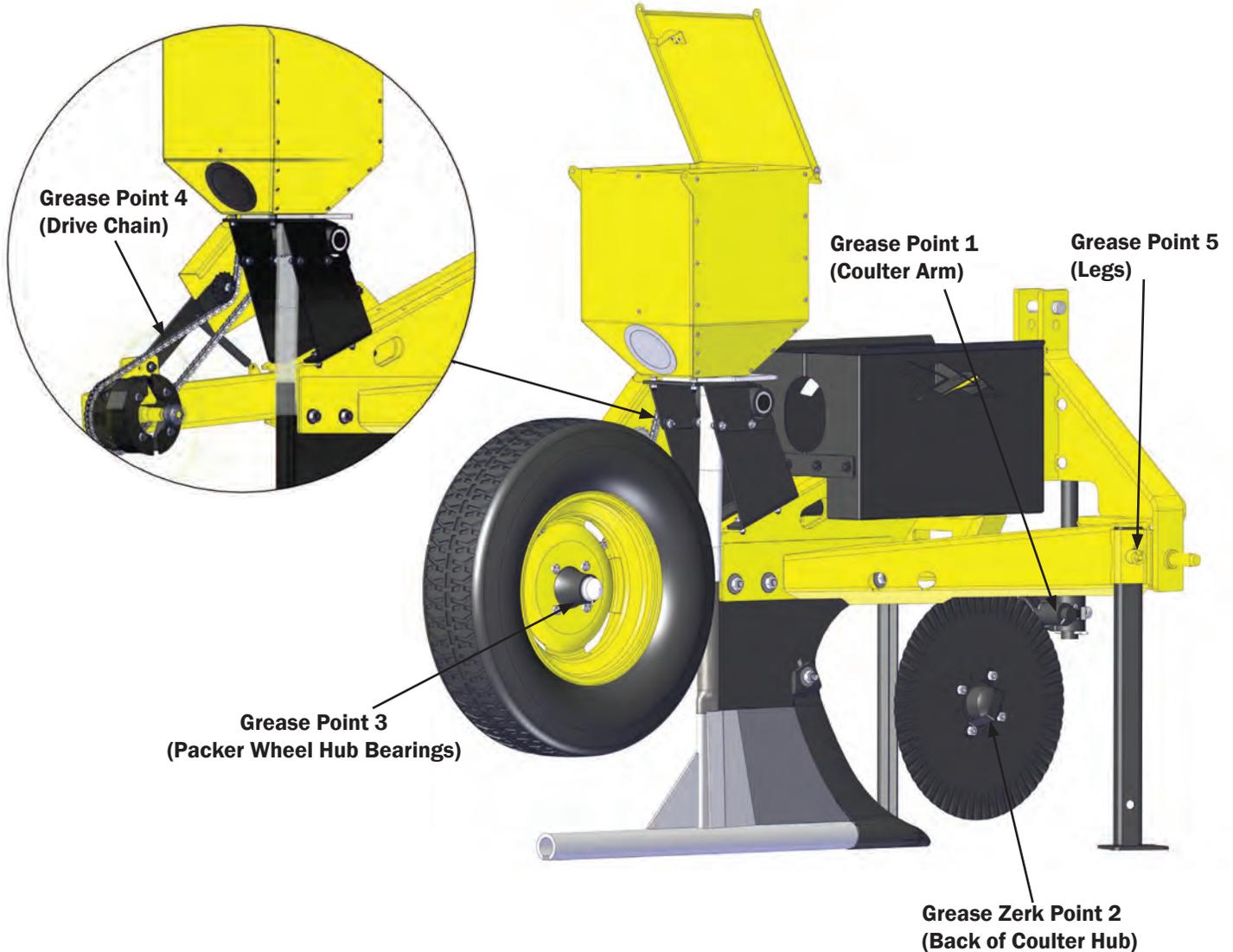


FIGURE 3

The Verminator Coulter is mounted on a spring loaded assembly. This gives the Coulter shock absorption if it were to hit a large rock or any other obstruction.



## Verminator V-3 Grease Points



## Machine Storage

When storing machine after use, follow guidelines below.

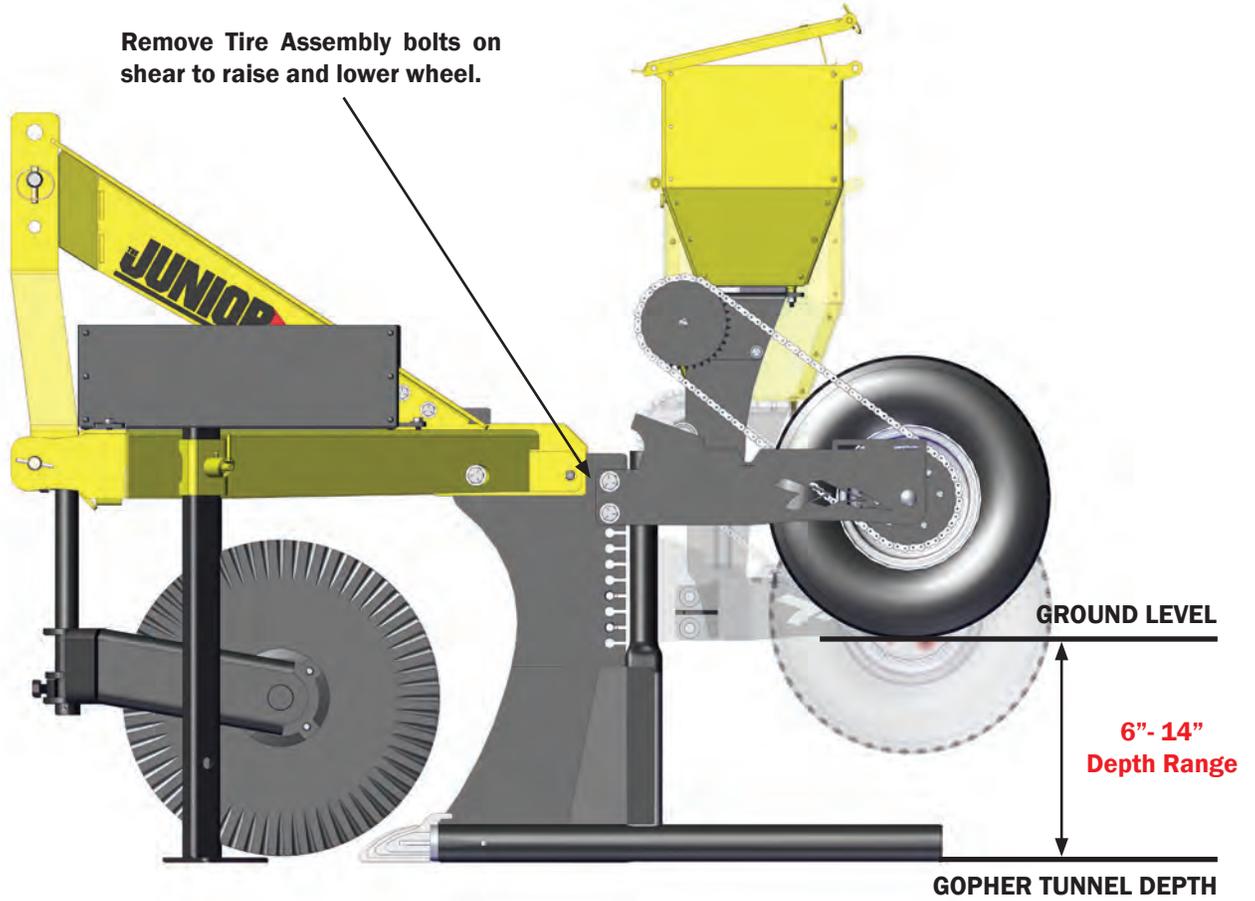
- Remove all bait from hopper, drop tube, tunnel tube (dispose or store per manufacturer's recommendation)
- Make sure no bait has been left exposed above ground
- Store machine on lumber to keep off ground
- Grease, wax, or paint exposed metal on shear to keep from rusting
- Inspect machine and replace any parts if necessary
- The drop tube is made plastic, leaving the drop tube exposed to weather and direct sunlight will make it become brittle and may cause it to break

## Junior Machine Setup

The next step is to set the machine to the depth of the shear and make sure it is level. During this step it is important to make sure to get the tunnel tube as level as possible.

### Set the Drive Wheel Height

Utilizing the depth found in Step 1 (Pg. 11) set the drive wheel to the depth required by doing the following.



### CAUTION

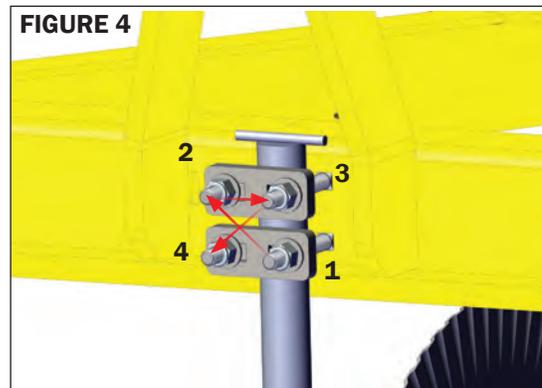


- Make sure the machine is supported so it does not fall when adjusting the chain and setting the depth.
- After adjustment reinstall adjustment bolts and torque to 90 ft-lbs.
- Tighten turnbuckle after adjustment

### Coulter Height and Adjustment

Coulter should be set as deep as possible into the ground, until the bottom of the hub is level to the bottom of the tire.  
See FIGURE 2

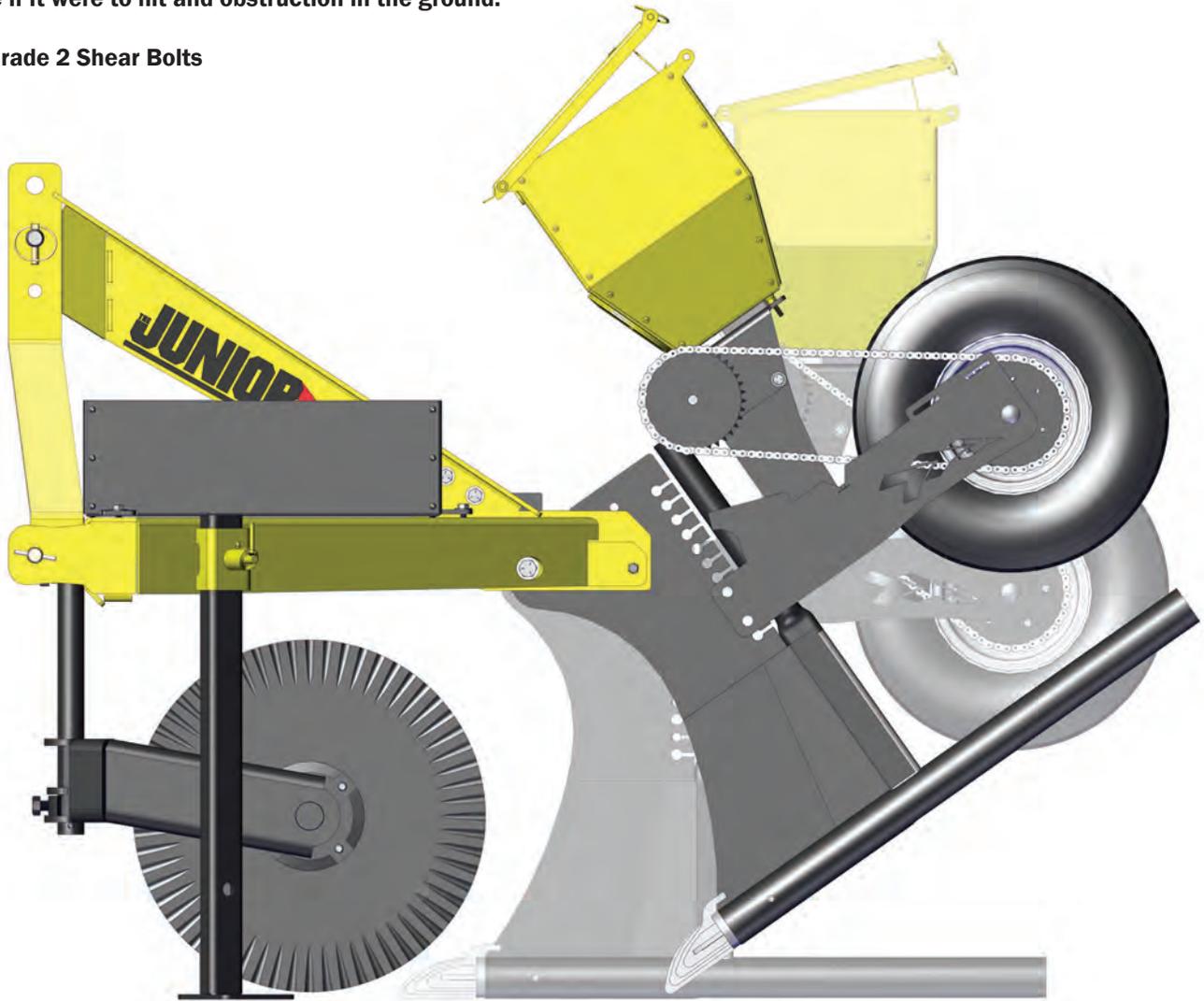
When you adjust the coulter make sure when you tighten bolt you tighten them in an alternating sequence. Use a star pattern sequence to tighten bolts. See FIGURE 4



## Junior Shear Pin

In order to minimize damage to the machine the Junior utilizes a shear pin. The purpose of this shear pin is to protect the machine if it were to hit and obstruction in the ground.

- Use Grade 2 Shear Bolts

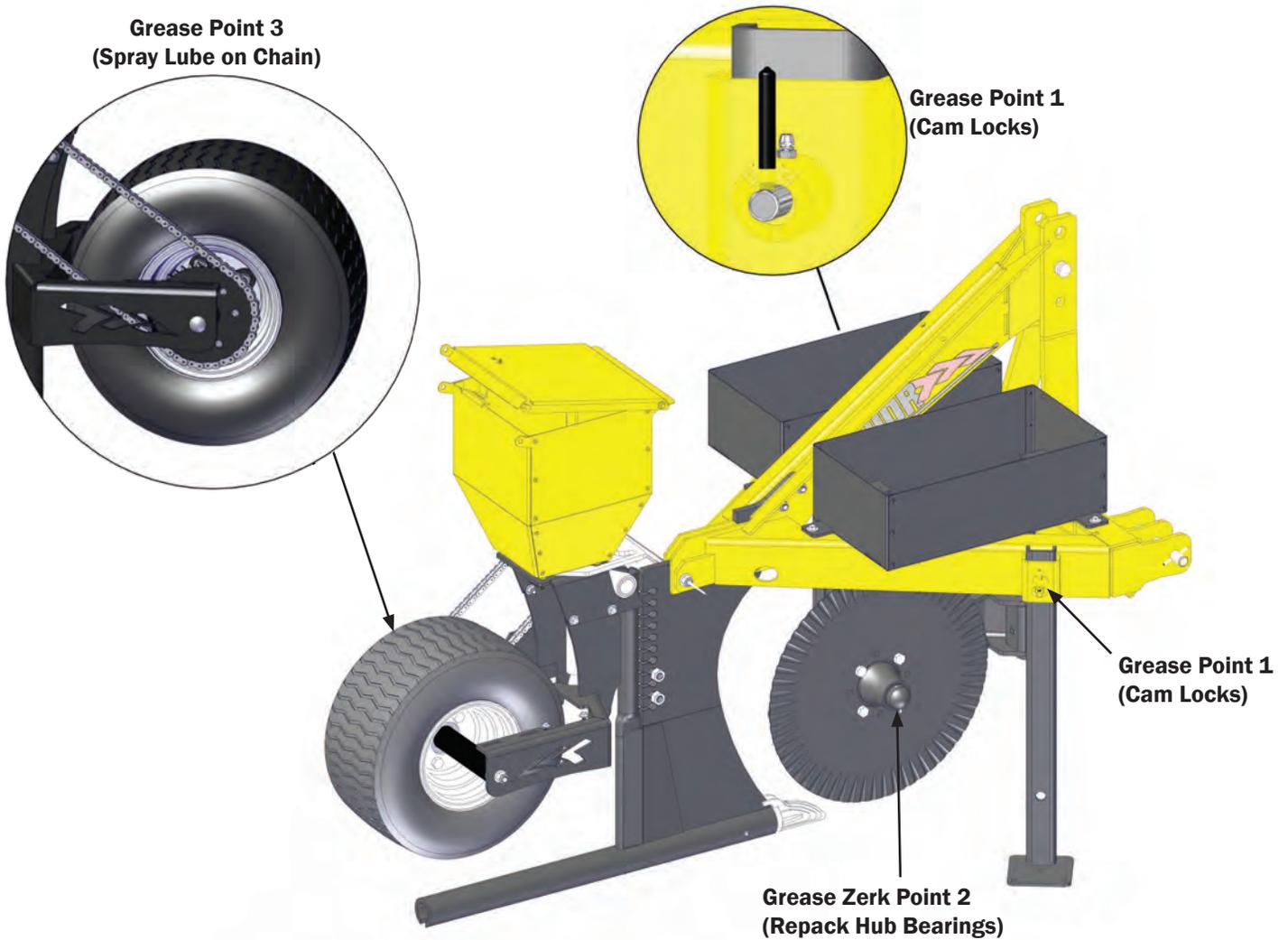


### CAUTION



- Never ride on the machine. If the Shear Pin is tripped the machine can tilt at any time
- Never use machine if the shear bolt is broken. The shear can swing back and cause damage to the machine

## Junior Grease Points



## Machine Storage

When storing machine after use, follow guidelines below.

- Remove all bait from hopper, drop tube, tunnel tube (dispose or store per manufacturer's recommendation)
- Make sure no bait has been left exposed above ground
- Store machine on lumber to keep off ground
- Grease, wax, or paint bare metal on shear to keep from rusting
- Inspect machine and replace any parts if necessary

## KEYS TO SUCCESS

There are 4 simple keys to success to better chances of exterminating gopher populations. Follow each and every step and you will fully utilize the effectiveness of your machine. Create a solid treatment system in which to control gophers.

## VERMINATOR & JUNIOR OPERATIONS

### Step 1: Find the Gopher Burrow

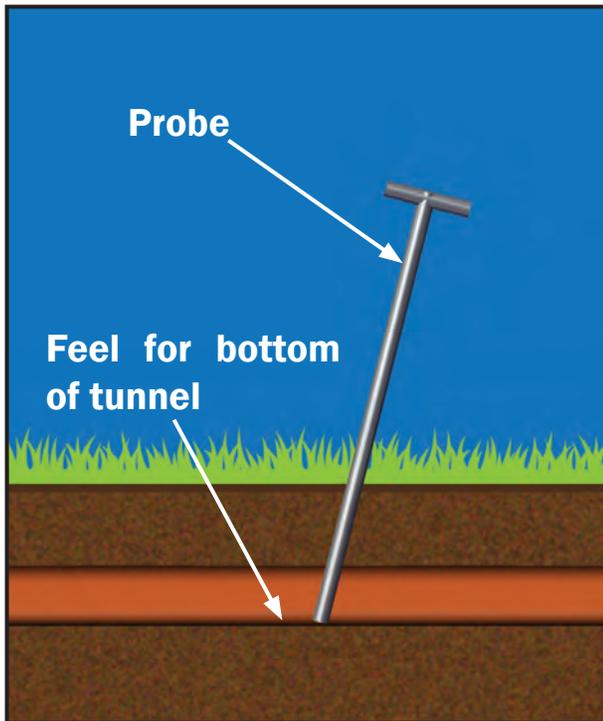
You must find gophers to control gophers. This needs to be done in 5-6 locations throughout the field you are trying to treat. This can be accomplished one of two ways:

#### Find the Gopher Burrow:

- Use a probe rod (1/4" to 3/8" round rod) to locate tunnel
- Dig down to the tunnel using a shovel

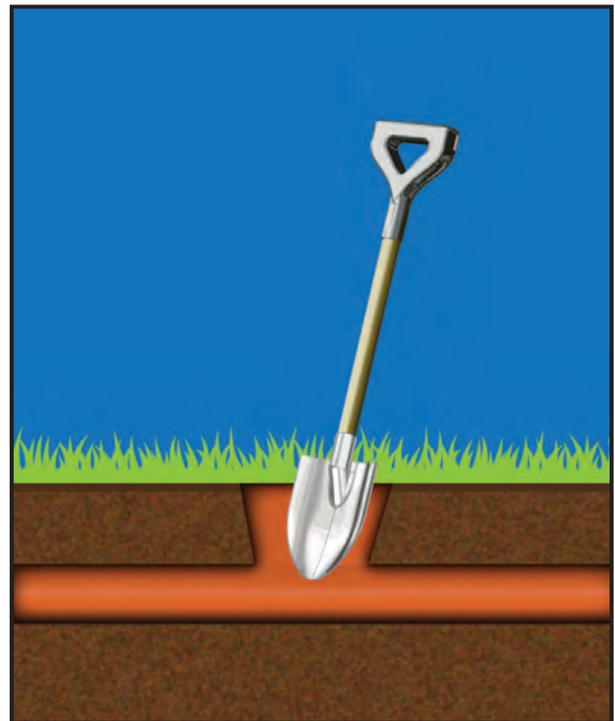
Discovering the depth of the gopher tunnel system is the first critical step to success. If the burrow building machine does not intersect the gopher's tunnel system the gopher may not investigate the new tunnel or find the bait.

### To Discover Tunnel Depth



Use a probe (1/4" to 3/8" point round rod) to "feel" for the tunnel floor

**OR**



Dig several holes with a shovel and measure from ground level to tunnel floor

**NOTE:** Probe field to be baited in 5-6 locations. Depth will be fairly consistent according to crop and amount of time it has been in the ground. Keep your tunnels a bit higher than the gopher's tunnels, as it is harder for him to fix his roof than his floor.

## Step 2: Set/Level the Machine

Next you must set the machine to the depth of the tunnel and make sure it is level. Machine depth is important to verify the tunnel you are creating is at the same level as the tunnels the gophers are creating. Leveling the machine helps produce the best tunnel / burrow possible.

Set and level the machine:

- Set drive wheel height. This will set depth of tunnel
- Level the machine utilizing the 30'-40' Method or the Platform Method

**Note:** Refer to “Level the Tunnel Tube” section in this manual on Pg 5.

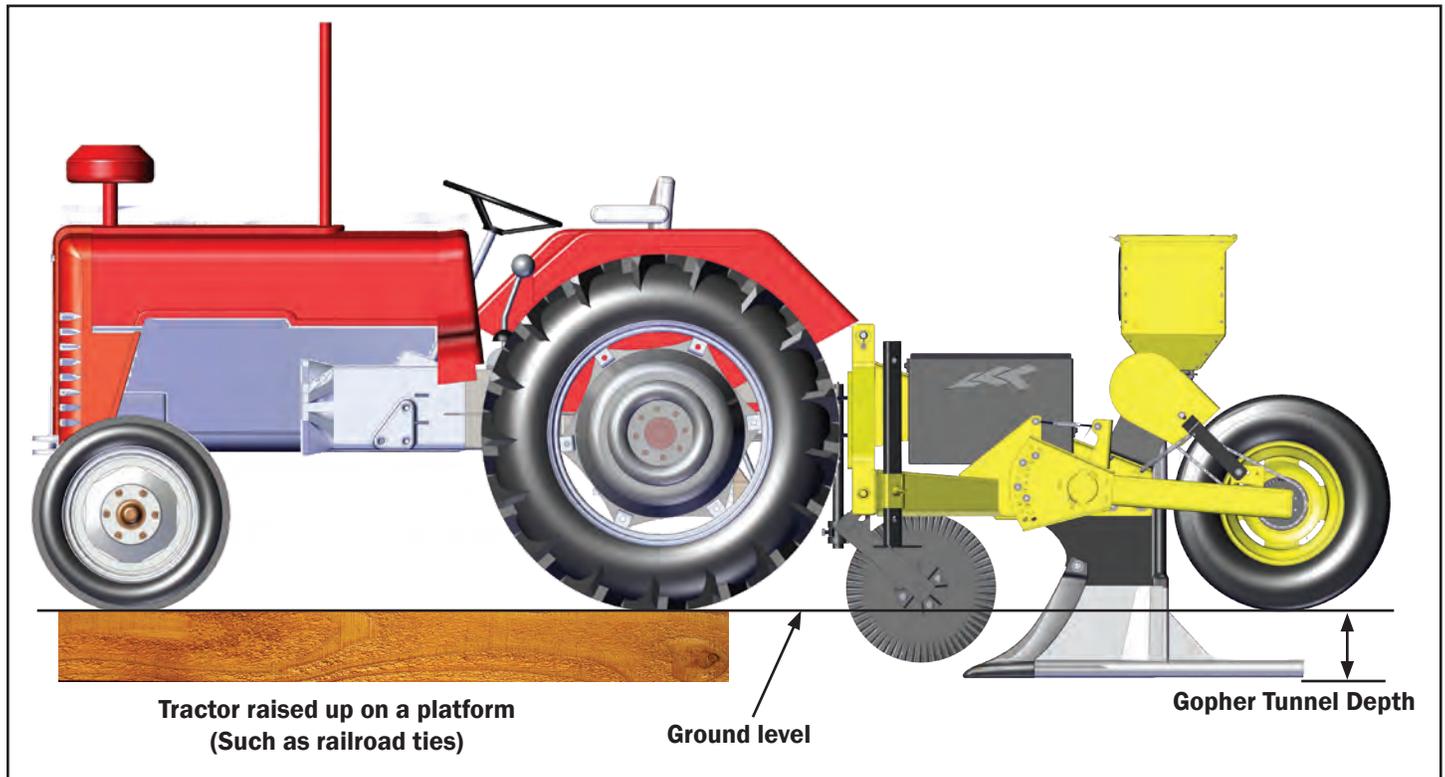
Leveling the tunnel tube is the most critical part of creating a perfect tunnel / burrow. **ALWAYS** re-level the machine if you adjust the drive wheel height or change tractors.

Re-leveling will ensure longer life of the shear and create a better tunnel.

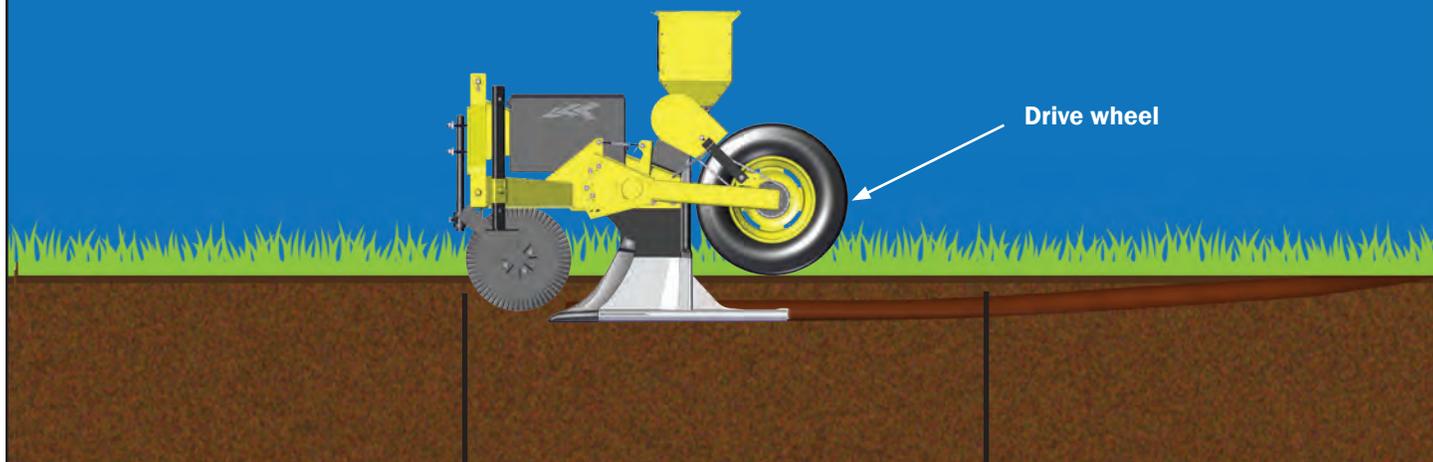
### Method for Leveling the Shear (Platform Method)

Use a flat level platform such as railroad ties, to raise the entire tractor to the same height as the gopher tunnel. This allows for the Verminator to be lowered, simulating operation in the field.

Adjust the shear to be parallel with the ground level, but to the desired depth of the gopher tunnel.



DRIVE WHEEL SHOULD START TO ROLL 20' - 30'  
AFTER LOWERING THE MACHINE INTO THE GROUND



**30' + ←**

**Machine does not go into ground after 30'**



**Symptoms:**

1. Wheel begins to roll AFTER 30'
2. Poor tunnel creation
3. Machine pulls out of ground
4. Machine does not go into ground

**Cause:**

Shear tilted upward

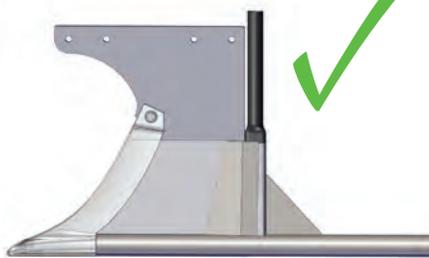
**Solution:**

Shorten top link of 3 point hitch

**←30' +**

**Machine goes into ground between 20' to 30'**

GOOD



**Correct Setting:**

- Wheel begins to roll at 20'-30'
- Smooth tunnel creation
- No excessive tunnel tube wear
- Tunnel tube is parallel to ground

**←20'**

**0**

**Machine goes into ground before 20'**



**Symptoms:**

1. Wheel begins to roll BEFORE 20'
2. Poor tunnel creation
3. Excessive tunnel tube wear

**Cause:**

Shear tilted downward

**Solution:**

Lengthen top link of 3 point hitch



NEVER BACKUP WHILE THE MACHINE IS IN THE GROUND!  
DOING THIS WILL PLUG THE TUNNEL TUBE AS WELL AS BREAK  
THE METERING PLATE





**WE HIGHLY RECOMMEND THE USE OF OPTIONAL WEIGHT BOXES  
TO HELP KEEP MACHINE IN GROUND AND RUNNING TRUE  
SEE PG 27 AND PG 36**



## **Step 3: Check the Tunnel**

Now that gophers have been found and the machine has been set. Checking the tunnel is the next critical step for success. If the moisture content in the soil isn't such that it will support a tunnel, there is no point in continuing. Wait until conditions improve. Optimal soil conditions will allow you to be able to pack a handful of soil into a ball, but break apart into four or five chunks. Using the by feel method, a handful of soil should be able to be packed in a ball and maintain its shape. If soil is too wet it will stick to your hand and can not maintain it's shape. If soil is too dry it will not even hold a shape and fall apart in your hand.

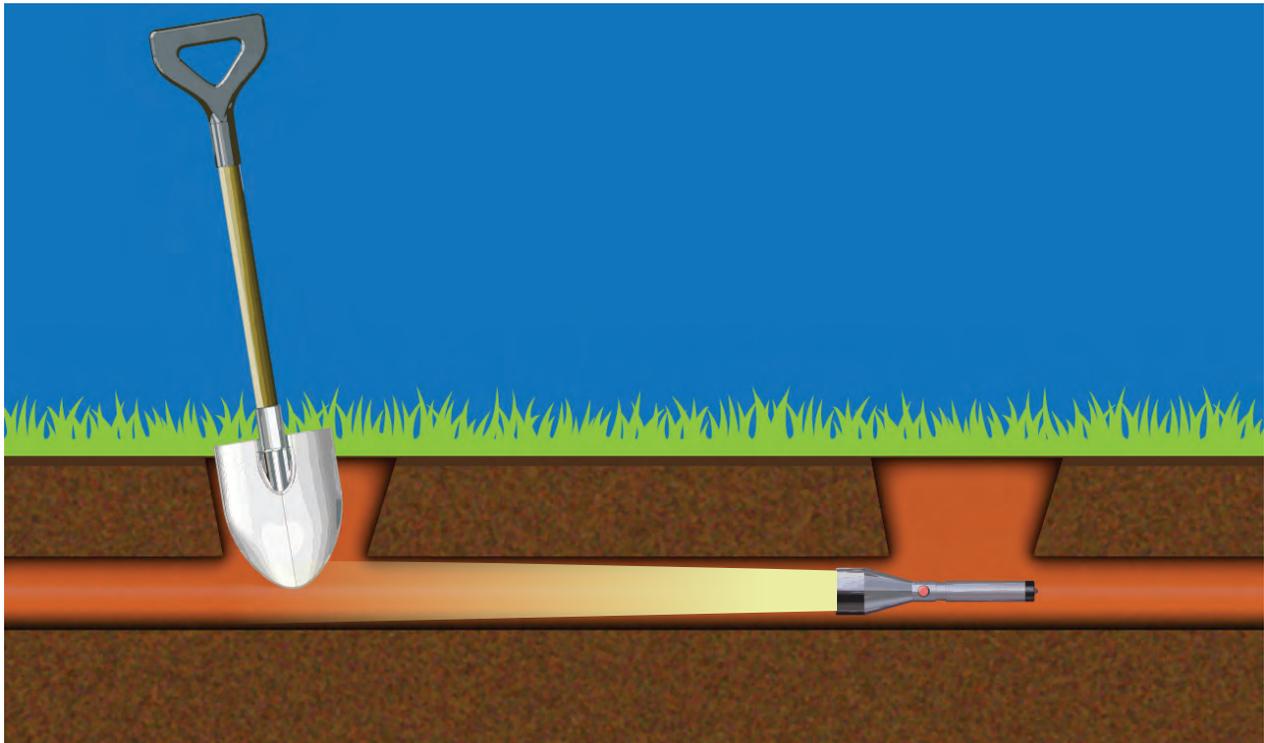
### **Checking the Tunnel:**

After running the machine 30'- 40' stop and check the tunnel. This can be done by digging 2 holes approximately 3' apart along the tunnel. Place a flashlight in one hole and a shovel or mirror in the other, the light should pass cleanly through. This indicates that a sturdy tunnel/burrow has been created.

### **Checking Tunnel Quality**

Creating a quality tunnel/burrow is the goal of the entire process. The machine can be set perfectly but without the proper moisture content in the soil the tunnel might not be properly formed.

The best way to check tunnel quality is to dig down and look. After running the machine fully submerged for 30'-40' stop to check the tunnel. Using a shovel, dig two holes approximately 3' apart so that they intersect the tunnel in two locations. By placing a flashlight in one hole and the back of the shovel (or a small mirror) in the other you can check your tunnel. The amount of light shining through will indicate the quality of the tunnel.



A good tunnel will have a nice round shape, if your tunnel tube is NOT level, the tunnel will be oblong and not hold its shape.



### **Step 4: Apply the Bait**

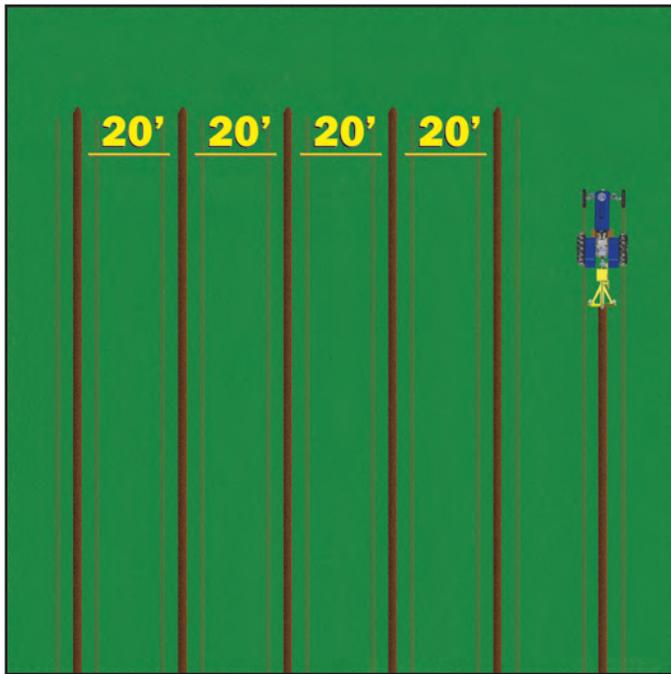
Applying the bait is the last key to success. To achieve the best results applying two aggressive treatments (spring and after first cutting) are required to gain control of the infestation. Then it is simply maintaining the field with spot and perimeter treatments 2-3 times per year.

**\*\*For Bait Information Contact: Commercial Gopher Bait / Poison Suppliers, Local Fertilizer Suppliers, Local Co-Op, or County Extension offices. \*\***

### **Field Grids**

A standard treatment schedule and field preparation guidelines for a field that has not been treated previously. Alfalfa is used as a sample crop for this section; other crops will follow a similar treatment.

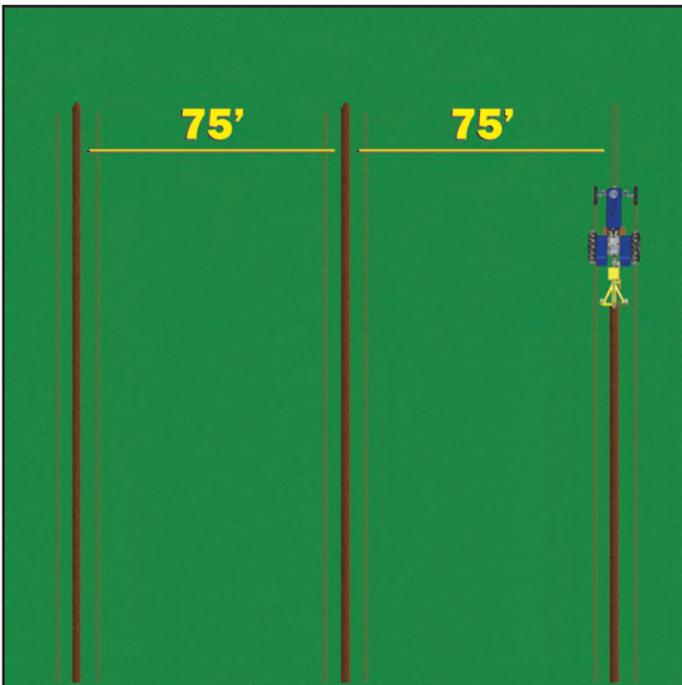
## 1st Treatment (Spring Application)



If the field has not been treated before, it is critical to apply an aggressive 1st treatment to control the gopher population. This treatment is best applied in the Spring. This helps minimize the first breeding cycle of the season and clears the field.

This is accomplished by running 15'-20' apart through the field. (Note: circles at top of figure represent irrigation risers)

## 2nd Treatment (2-4 months or after first cutting)



After the 1st treatment to help clear and control the gopher population, a 2nd treatment is suggested to eliminate gophers from the crop.

This treatment is typically done 2-4 months after the 1st treatment or after the 1st cutting.

Rows should be every 50'-75', or between every other wind row.



**WE HIGHLY RECOMMEND THE USE OF OPTIONAL WEIGHT BOXES  
TO HELP KEEP MACHINE IN GROUND AND RUNNING TRUE  
SEE PG 27 AND PG 36**



## Continuing Maintenance Treatments (Spring And Fall)

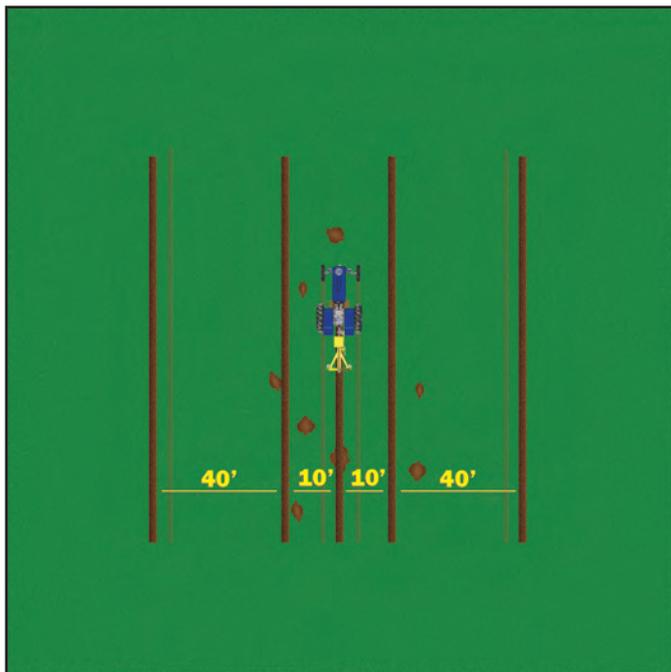


Once the 1st two treatments have been applied, it is typical that maintenance treatments are all that are required to control the gopher population.

Applied in the Spring and Fall, this end row application helps keep gophers from re-entering the field.

Creating 4 boarding rows around the field (applied 15'-20' apart) creates a solid boundary for the crop.  
Continuing Maintenance Treatments (Spring and Fall)

## Spot Treatments (As Needed)



Occasionally gophers will travel over boundary treatments. In this case, spot treatments in the field are required.

This is accomplished by running rows directly through mound locations as well as 10'-15' on either side. Make sure the rows run 30'-40' before and after the mounds for the most effective treatment.



**NEVER BACKUP WHILE THE MACHINE IS IN THE GROUND!  
DOING THIS WILL PLUG THE TUNNEL TUBE AS WELL AS BREAK  
THE METERING PLATE**



## VERMINATOR & JUNIOR MAINTENANCE

### Visual Inspection

Before each use, perform a thorough visual inspection of the unit and all accessories.

Evidence of physical damage may occur such as:

- Cracking
- Bending
- Deformation of plates and welds
- Cracking or flaking of paint
- Loose bolts or fasteners

If any of these conditions exist, remove the equipment from service and contact []. Repair or replace the necessary components with [] certified parts. Parts used outside of the required specs may cause damage to machine.

### Maintenance (Each Use or As Required)

Always perform regular maintenance of The Verminator and The Junior and their parts. Prior to each use:

- Check the tire pressure to assure it is at the recommended pressure listed on the tire side wall
- Check ½" Lug Nuts on Drive Wheel. Tighten to recommended 90'-lbs torque
- Inspect/repack wheel bearings As Required
- Inspect/lube drive chain As Required
- Inspect Shear for cracks or damage. Build up wear locations before there is no base material to weld to
- Grease all points, refer to Pg 7 for Verminator Grease points , Pg 10 for Junior Grease points



**NEVER WELD ON ALLOY SHEAR POINT!**



Never weld to the Alloy Shear Point or "Leading Edge". This material is a cast chrome alloy and if welded, it may crack even if preheated. Follow replacement procedures if maintenance is required on this item.

## SAFETY & PRECAUTIONS

This manual is supplied with the Product to better familiarize the owner/operator with proper operation and maintenance of the machine. The information contained in this manual must be thoroughly understood by all operating and maintenance personnel to insure the protection of the operator of these units and to prolong the unit's working life.

## PRECAUTIONS



This machine utilizes poison laced bait to operate. Follow all Local, State, and Federal Laws and Regulations before applying poison to the field.

## Machine Safety

- Utilize the smallest tractor possible for the soil conditions to minimize possible damage to the machine and equipment
- 5 mph max speed!
- When picking up and moving the machine verify no bait has been left behind on the ground during storage
- Always check for underground obstacles or obstructions before using the machine. If necessary check with Local utility companies before use
- NEVER backup while the machine is in the ground. Damage to the machine will occur
- Do not make sharp turns with the shear in the ground. Damage may occur.

## Bait/Poison Safety



This machine utilizes poison laced bait to operate. Follow all Local, State, and Federal Laws and Regulations regarding to poison.



When done using the machine, bait must be removed and the machine washed in accordance with all Local, State, and Federal Laws and Regulations.



Always lock the machine hopper when loaded with bait.



Follow all Safety Regulations on the bait manufacturers' label.

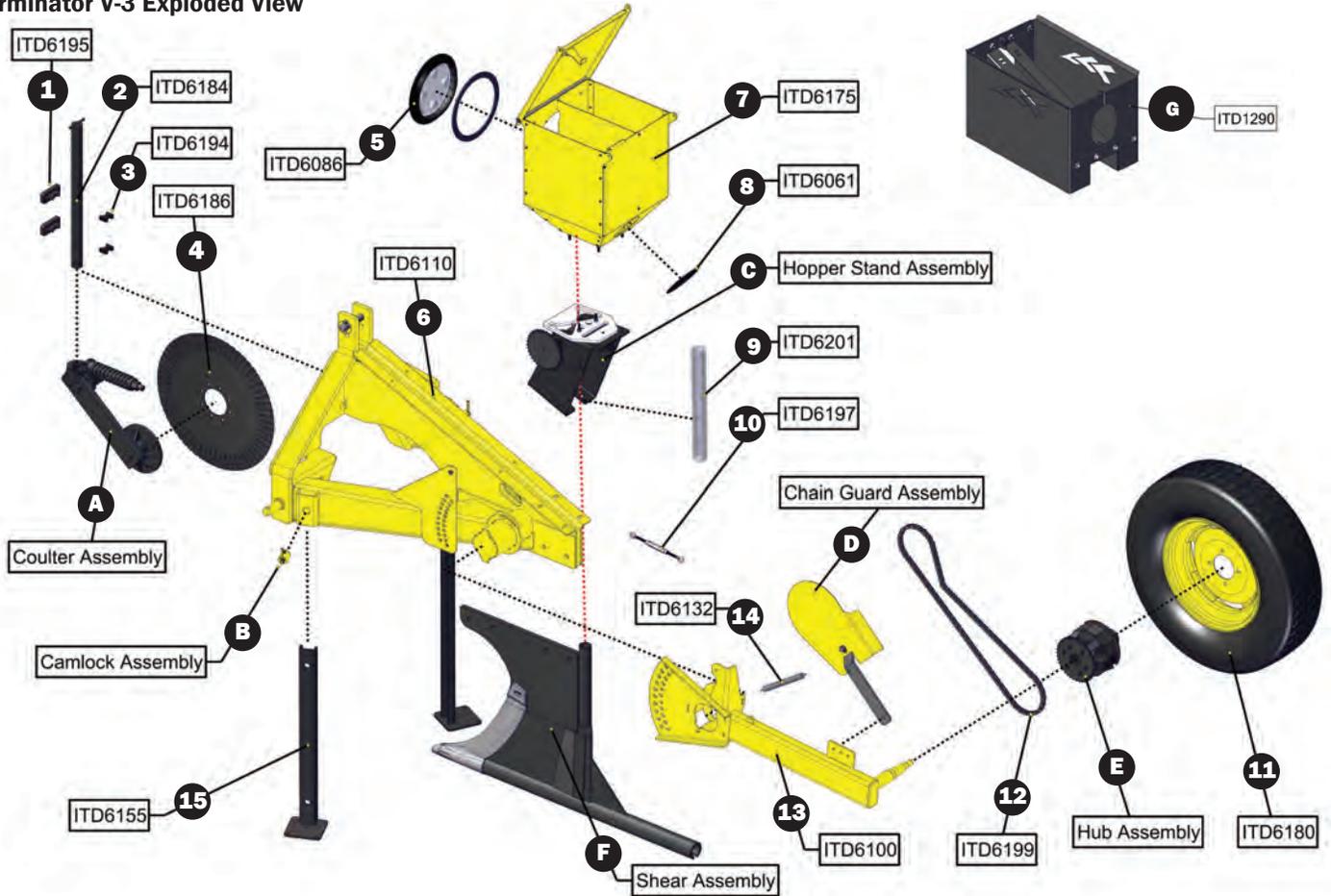
# THE VERMINATOR



# OPERATIONS MANUAL

## VERMINATOR PARTS & ACCESSORIES

### Verminator V-3 Exploded View



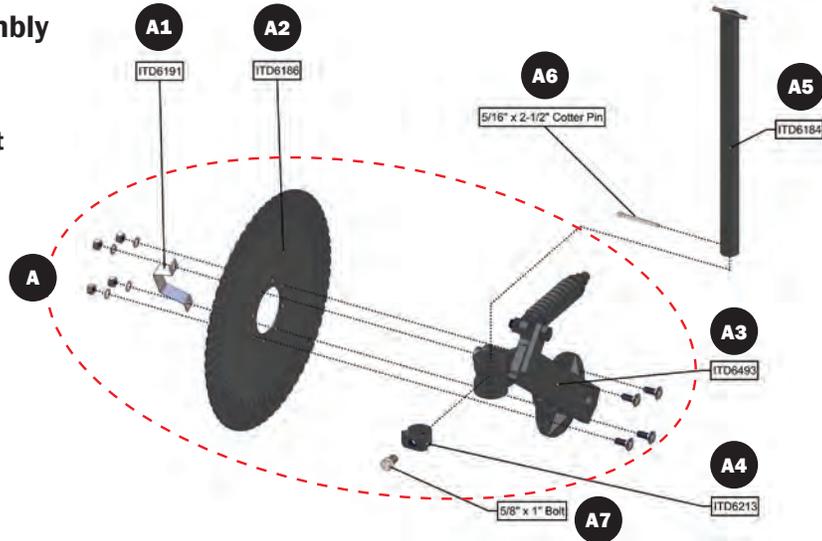
| Item # | Part #  | Description  |
|--------|---------|--|
| 1      | ITD6195 | Coulter Clamp (Each)   |
| 2      | ITD6184 | Coulter Mounting Bar 1 1/2" Round Rod                                    |
| 3      | ITD6194 | Coulter Clamp Insert (Each)  |
| 4      | ITD6186 | Coulter 20" Ripple Blade (14lbs)   |
| 5      | ITD6086 | Clear Window Cover w/Trim Ring   |
| 6      | ITD6110 | Main Frame Weldment  |
| 7      | ITD6175 | Verminator Hooper (Includes Hopper, Decals installed, Washer & Nuts)     |
| 8      | ITD6061 | 4" Hopper Clean Out Cover  |
| 9      | ITD6201 | Clear Sight Tube (1 1/2" X 2" X 15")                                     |
| 10     | ITD6197 | Adjustment Turnbuckle (3/8" X 10 1/2")                                   |
| 11     | ITD6180 | Drive Wheel and Tire Assembly (Filled with bio-ballast)                  |
| 12     | ITD6199 | #40 Nickel Drive Chain (139 Links, Includes 7 offset links and 1 master) |
| 13     | ITD6100 | Axle Arm Weldment  |
| 14     | ITD6132 | Idler Spring   |
| 15     | ITD6155 | Leg (Sold each, specify cam lock or pull pin)                            |
| A      | ITD6183 | Coulter Assembly (See Pg 22 for Exploded View)                           |
| B      | -       | Cam-lock Assembly (See Pg 22 for Exploded View)                          |
| C      | ITD6142 | Hopper Stand Assembly (See Pg 23 for Exploded View)                      |
| D      | ITD6136 | Chain Guard Assembly (See Pg 23 for Exploded View)                       |
| E      | ITD6154 | Hub Assembly (See Pg 24 for Exploded View)                               |
| F      | ITD6158 | Shear Assembly (See Pg 25 for Exploded View)                             |
| G      | ITD1290 | Weight Basket - Sold As Set (See Pg 26 for Exploded View)                |

# OPERATIONS MANUAL

## Verminator V-3 Coultter Assembly

### Hardware

- (4) 1/2" X 1- 1/4" Carriage Bolt
- (4) 1/2" - Nut
- (4) 1/2" - AN Washer



| Part # | Description   |
|--------|---|
| A      | ITD6183 Coultter Assembly ( Includes: Hardware, A1-A4) (DOES NOT INCLUDE A5)  |
| A1     | ITD6191 Retaining Clip  |
| A2     | ITD6186 Coultter 20" Ripple Blade (14lbs)   |
| A3     | ITD6493 Coultter Arm and Hub Assembly (Includes coultter arm, hub, coultter knuckle, spring, eye bolt, and bushing) |
| A4     | ITD6213 Coultter Locking Collar with set screw  |
| A5     | ITD6184 Coultter Mounting Bar 1 1/2" Round Rod (Comes with A6 when sold separately)                                 |
| A6     | - 5/16" X 2-1/2" Cotter Pin   |
| A7     | - 5/8" X 1" BOLT  |

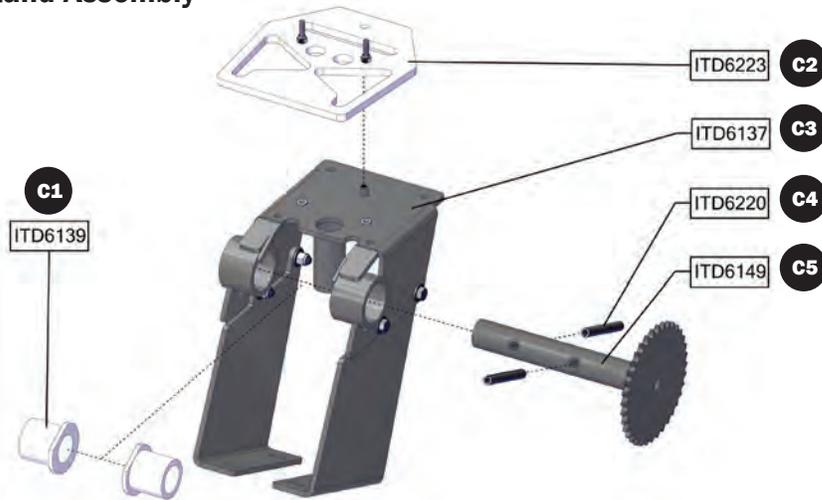
## Verminator V-3 Cam-lock Assembly



| Item # | Part #  | Description                             |
|--------|---------|---|
| B      | ITD7001 | Cam-lock 1 Kit per Leg (Includes B1-B6) |
| B1     | ITD7167 | Cam-lock Plunger                        |
| B2     | ITD7002 | Cam-lock Spring                         |
| B3     | ITD7168 | Cam-lock Outer Body                     |

## Verminator V-3 Hopper Stand Assembly

**C**



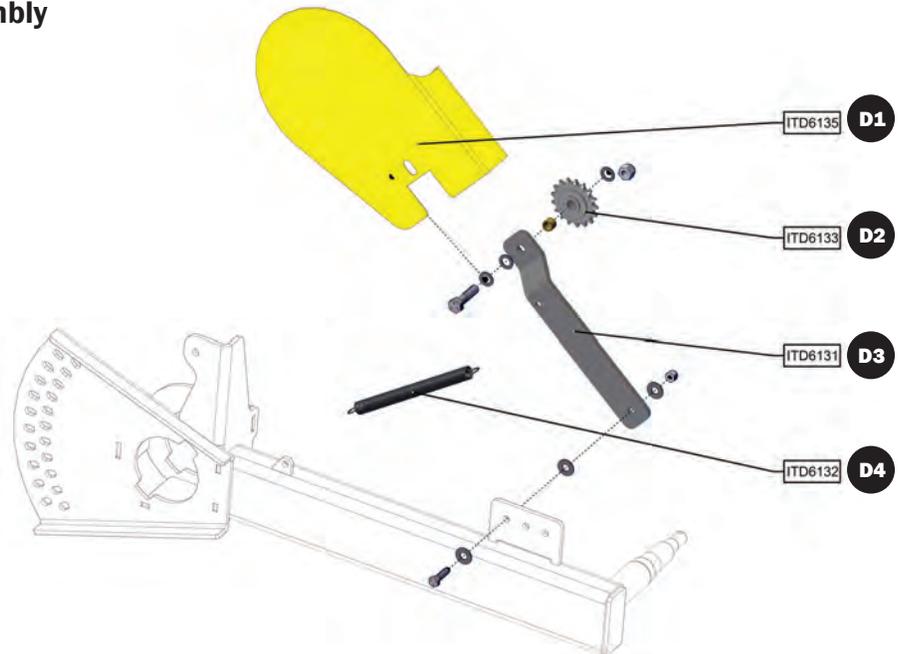
| Item # | Part #  | Description  |
|--------|---------|--|
| C      | ITD6142 | Hopper Stand Assembly  |
| C1     | ITD6139 | Jack Shaft Bushing - UHMW (Sold as a set)                      |
| C2     | ITD6223 | Metering Plate with Agitator bolts installed (UHMW)            |
| C3     | ITD6137 | Hopper Stand Weldment  |
| C4     | ITD6220 | $\frac{7}{16}$ " X 3 $\frac{1}{2}$ " Slotted Roll Pin          |
| C5     | ITD6149 | Jack Shaft Assembly (Each, includes (2) C4, Slotted Poll Pins) |

## Verminator V-3 Chain Guard Assembly

**D**

### Hardware

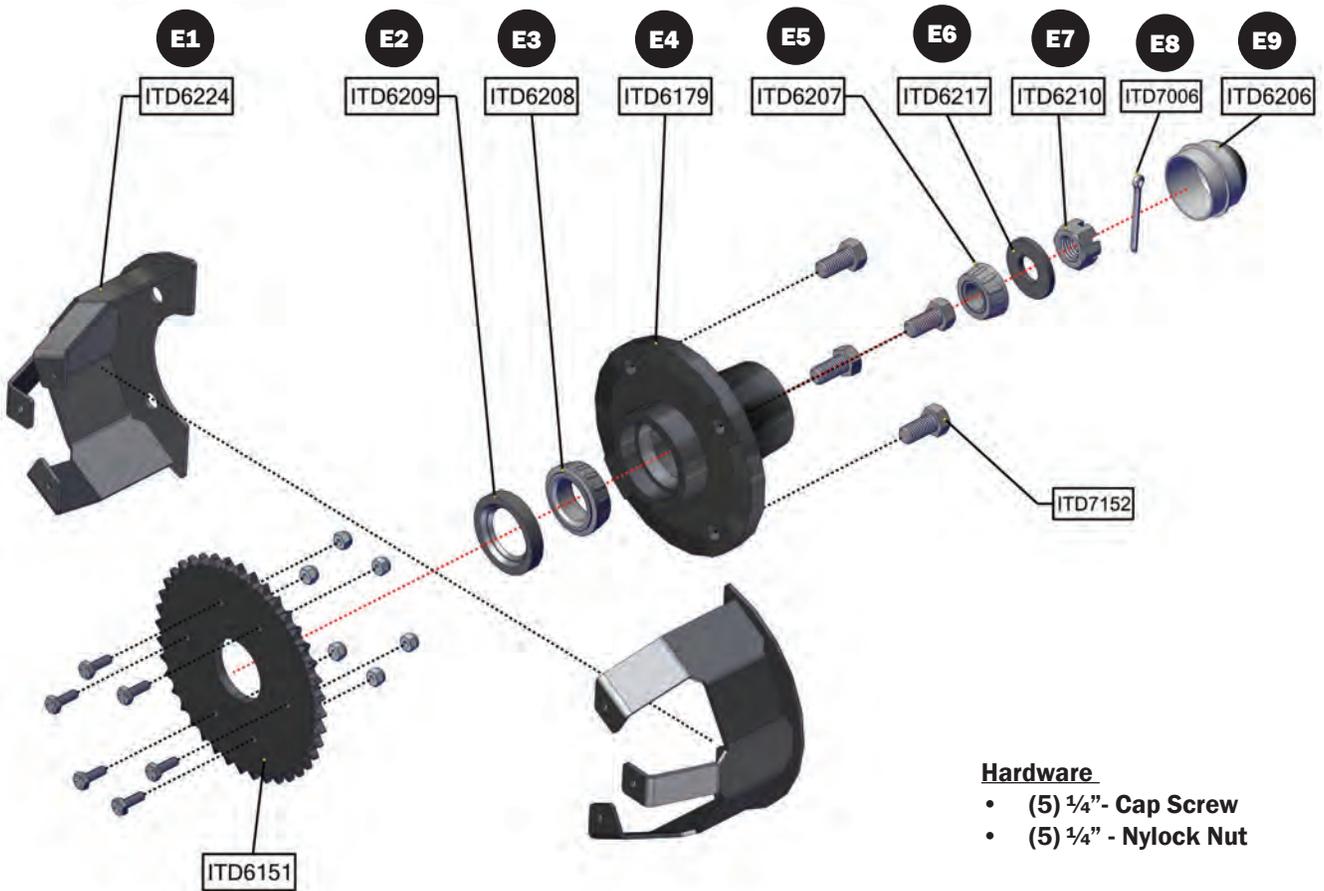
- (1)  $\frac{3}{8}$ " - 18 X 1" Bolt
- (3)  $\frac{3}{8}$ " Flat Washer
- (1)  $\frac{3}{8}$ " Nylock Nut
- (3)  $\frac{1}{2}$ " - AN Washer
- (1)  $\frac{1}{2}$ " - Nylock Nut
- (1)  $\frac{1}{2}$ " - Cap Screw
- (1)  $\frac{1}{2}$ " Sprocket Reducer Bushing



| Item # | Part #  | Description  |
|--------|---------|--|
| D      | ITD6136 | Chain Guard Assembly   |
| D1     | ITD6135 | Safety Chain Cover   |
| D2     | ITD6133 | Idler Puller (17 tooth with $\frac{5}{8}$ " hole in bearing) |
| D3     | ITD6131 | Safety Chain Cover Arm                                       |
| D4     | ITD6132 | Idler Spring   |

# OPERATIONS MANUAL

## Verminator V-3 Hub Assembly

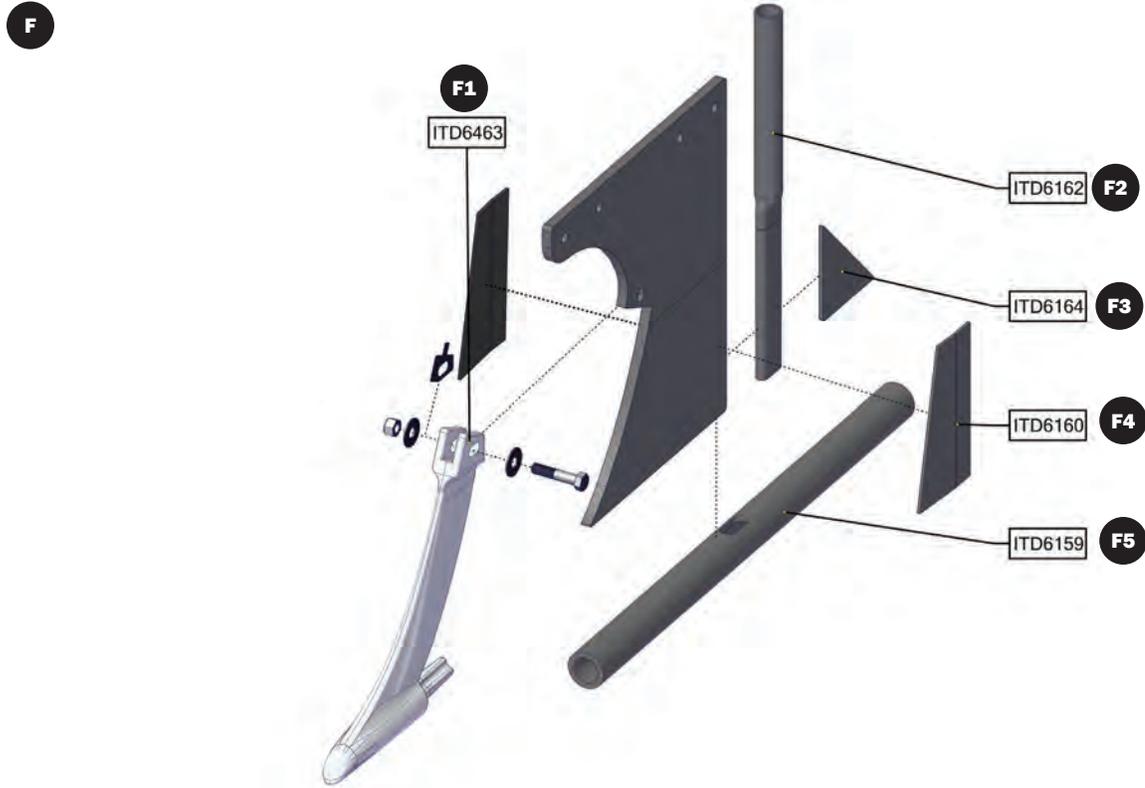


**Hardware**

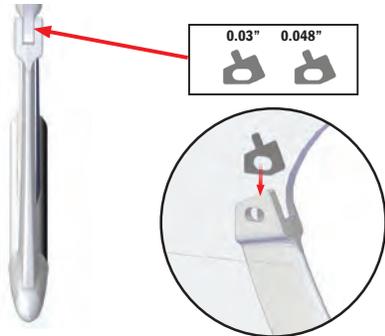
- (5) 1/4" - Cap Screw
- (5) 1/4" - Nylock Nut

| Item # | Part #  | Description                                 |
|--------|---------|---|
| E      | ITD6154 | Hub Assembly                                |
| E1     | ITD6224 | Drive Sprocket Side Cage (2pc)              |
| E2     | ITD6209 | Seal for Drive Hub (2.332" OD X 1.50" ID)   |
| E3     | ITD6208 | Outer Bearing (Small) LM11949 for Drive Hub |
| E4     | ITD6179 | Bare Hub with Races for Drive Wheel         |
| E5     | ITD6207 | Inner Bearing (Large) LM67048               |
| E6     | ITD6217 | Spindle Washer for Drive Spindle            |
| E7     | ITD6210 | Castle Nut for Spindle                      |
| E8     | ITD7006 | 2" Cotter Pin                               |
| E9     | ITD6206 | Dust Cap for Drive Hub                      |
| E10    | ITD7152 | 0.500 Cap Screw                             |
| E11    | ITD6151 | Sprocket (Tire hub Assembly)(#40/40 Tooth)  |

## Verminator V-3 Shear Assembly



### F6 Shim kit# ITD6498



- Kit Includes**  
 0.030" Shim (2)  
 0.048" Shim (1)  
 5/8" x 3" Bolt (1)  
 5/8" Nut (1)  
 5/8" Flat Washer (2)

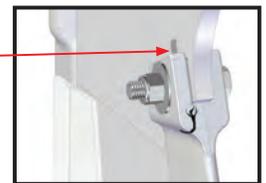
Use the provided shims individually or a combination to obtain the tightest fit between the point and the shear.



## CAUTION



**Do not over tighten point or it could result in cracking.  
 Recommended Torque Value 45 FT-LBS**

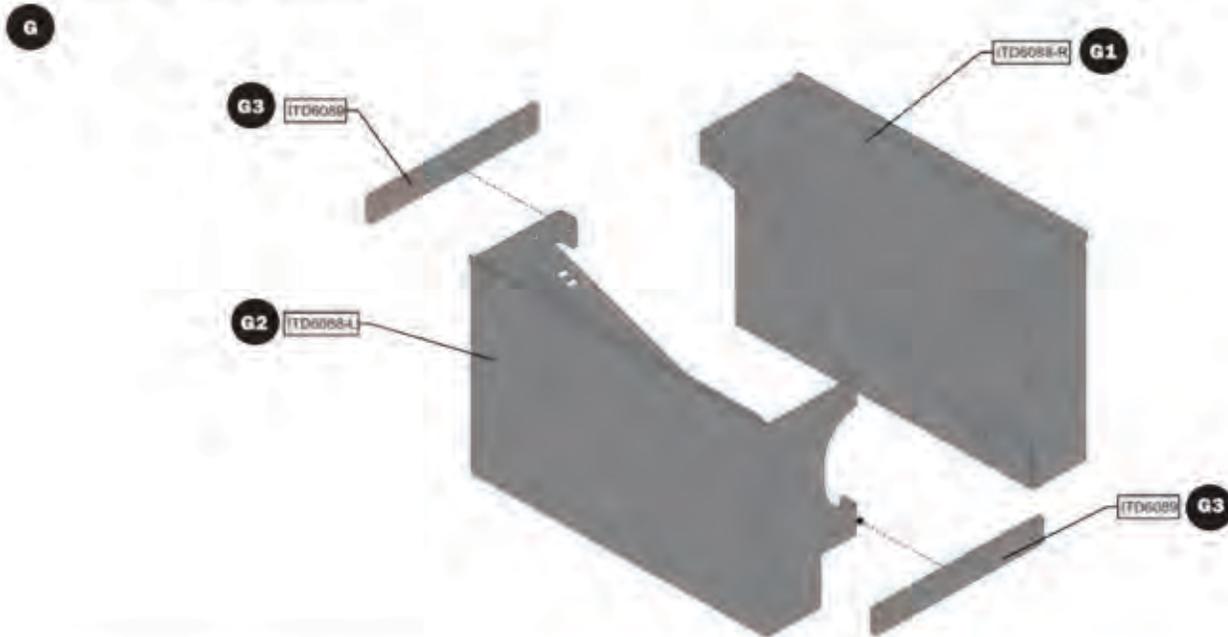


TIGHTENED  
CORRECTLY

OVER TIGHTENED

| Item # | Part #  | Description  |
|--------|---------|--|
| F      | ITD6158 | Shear Assembly   |
| F1     | ITD6463 | Verminator Bolt-On Cast Point (Comes with F6, ITD6498 when sold by itself) |
| F2     | ITD6162 | Drop Tube  |
| F3     | ITD6164 | Angled Gusset (For Complete Shear)   |
| F4     | ITD6160 | Alloy Wear Plate (Sold As Set)   |
| F5     | ITD6159 | Verminator Tunnel Tube   |
| F6     | ITD6498 | Shim Kit   |

## Verminator Weight Basket

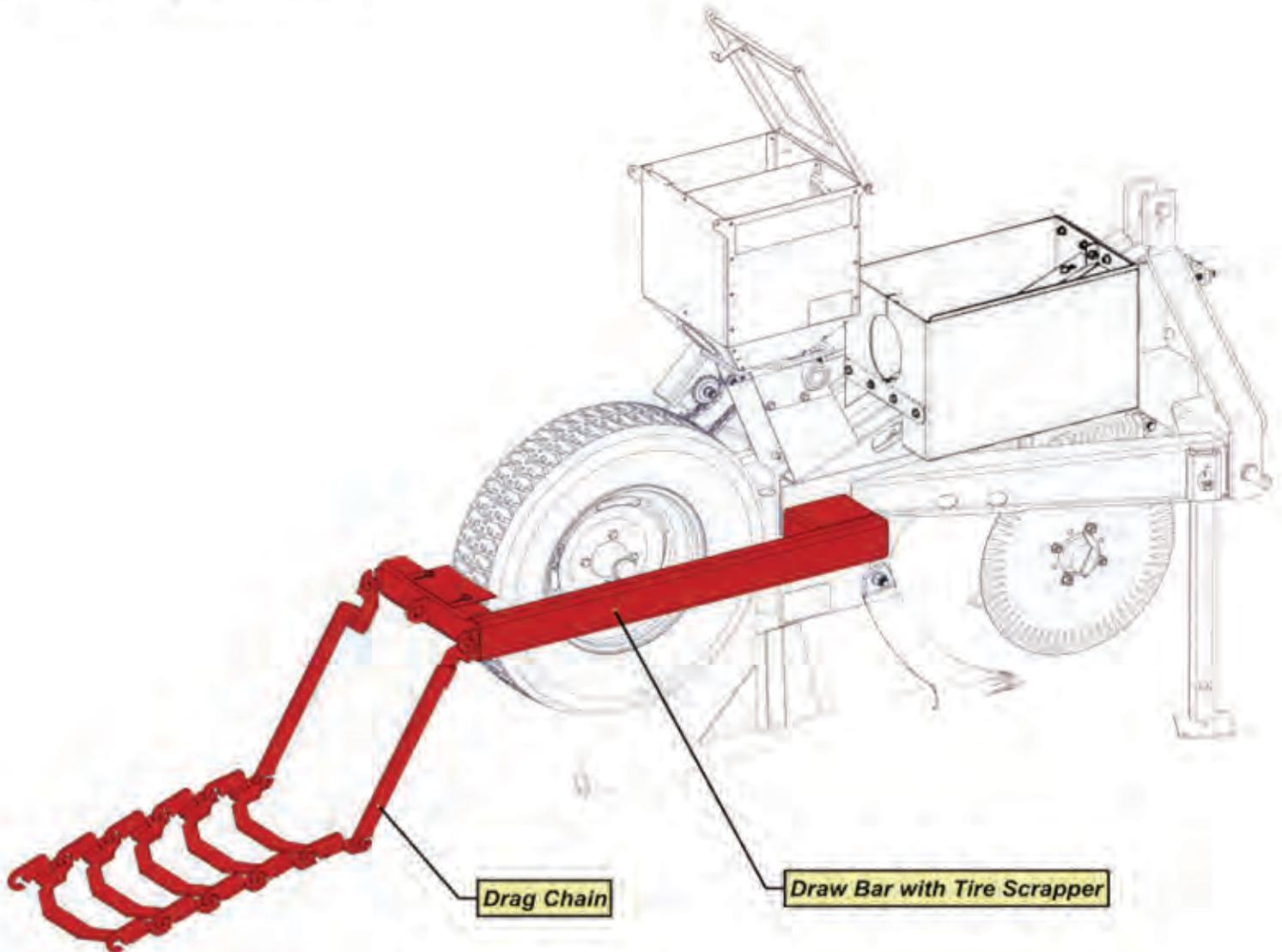


| Item # | Part #    | Description  |
|--------|-----------|--|
| G      | ITD1290   | Weight Basket - Sold As Set (Hardware Included)            |
| G1     | ITD6088-R | Weight Basket - Outer (Right) (Hardware Not Included)      |
| G2     | ITD6088-L | Weight Basket - Outer (Left) (Hardware Not Included)       |
| G3     | ITD6089   | Weight Basket - (2) Support Straps (Hardware Not Included) |

## Weight Box

The Verminator Weight Box sits on the frame of the Verminator and will easily bolt to existing machines. Simply fill the Weight Box with tractor weights or other heavy objects to give The Verminator extra weight to ensure it stays at the desired tunnel depth. This attachment is especially useful in regions with hard soil and/or adverse conditions.

## VERMINATOR ACCESSORIES



### **Draw Bar with Tire Scraper**

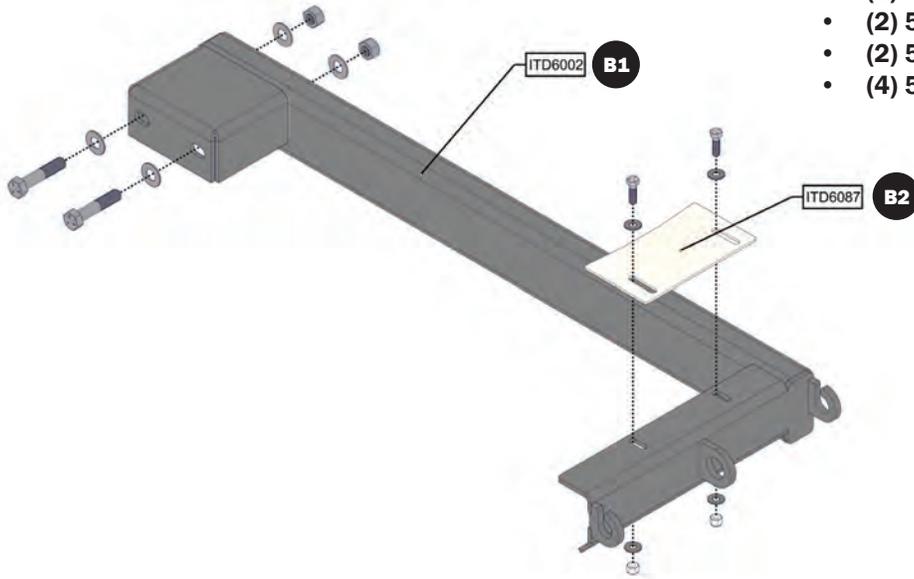
The Draw Bar Attachment with Tire Scraper allows you to drag a harrow behind The Verminator to smooth the track left behind. The Tire Scraper removes any mud and/or debris left on The Verminator's tire during burrow building to keep the tire on The Verminator free of buildup. This attachment easily bolts on to existing machines.

### **Drag Chain**

The Verminator Drag Chain is a custom designed drag chain that works exclusively with The Verminator to smooth the track left behind the machine. The Verminator Drag Chain easily attaches to the new Draw Bar Attachment with Tire Scraper to leave a smooth surface after burrow building.

## Verminator Draw Bar

**B**

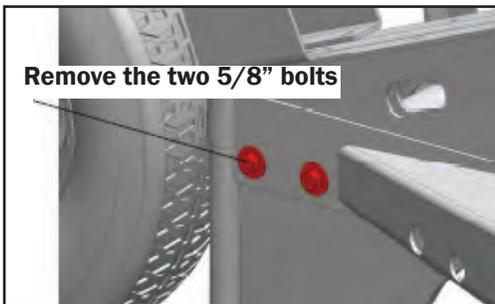


### Hardware Included

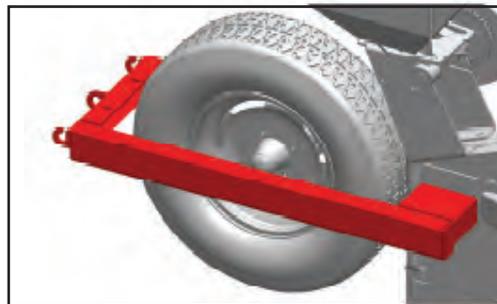
- (2) 3/8" x 1-1/4" Course Thread Hex Bolt
- (2) 3/8" Course Thread Hex Nut
- (4) 3/8" Flat Washer
- (2) 5/8" x 3" Course Thread Hex Bolt
- (2) 5/8" Course Thread Hex Nut
- (4) 5/8" Flat Washer

| Item # | Part #  | Description                           |
|--------|---------|---------------------------------------|
| B      | ITD1291 | Draw Bar Assembly (Hardware Included) |
| B2     | ITD6087 | Tire Scrapper (Hardware Not Included) |

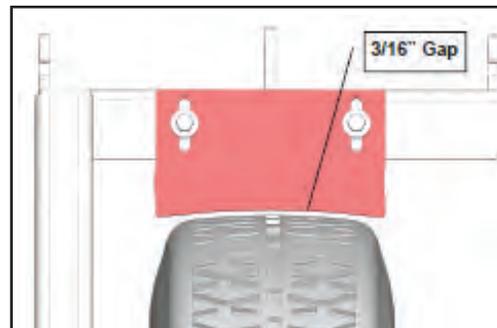
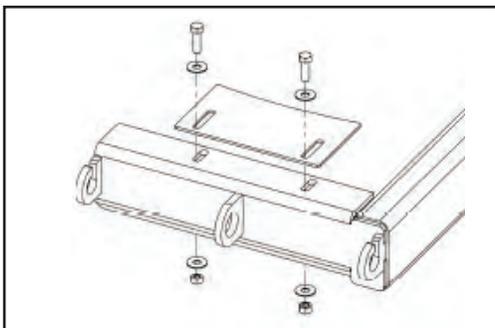
**1. Remove rear two 5/8" shear bolts**



**2. Install drag arm with new longer 5/8" x 3" bolts**

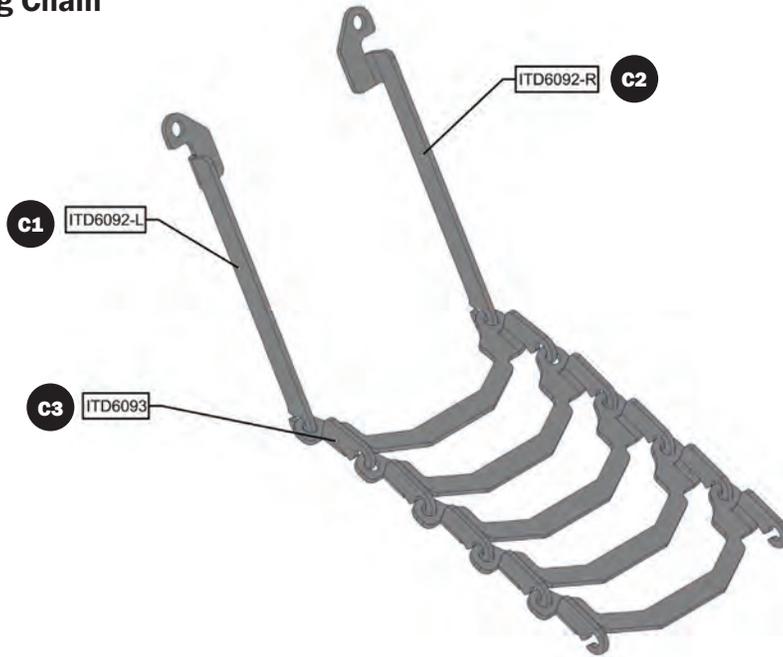


**3. Bolt on tire scrapper such that there is no more than 3/16" clearance between tire and scraper**



## Verminator Drag Chain

**C**



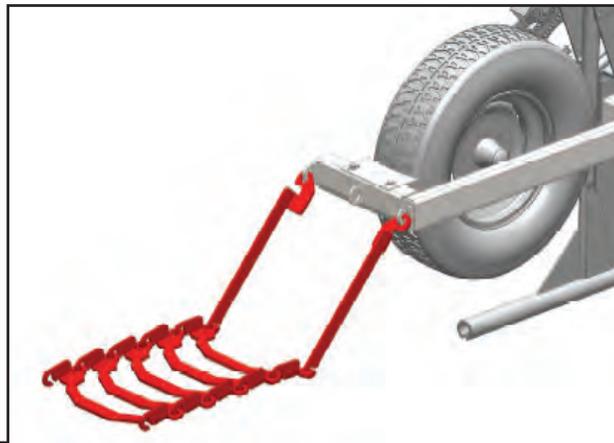
| Item # | Part #    | Description         |
|--------|-----------|---------------------|
| C      | ITD1292   | Drag Chain Assembly |
| C1     | ITD6092-L | Link Bar - Left     |
| C2     | ITD6092-R | Link Bar - Right    |
| C3     | ITD6093   | Drag Link           |

**NOTE: TO INSTALL THE DRAG CHAIN , AN ITD1291 DRAW BAR MUST BE INSTALLED FIRST**

### 1. Assemble Drag Chain



### 2. Hang Drag Chain on Draw Bar

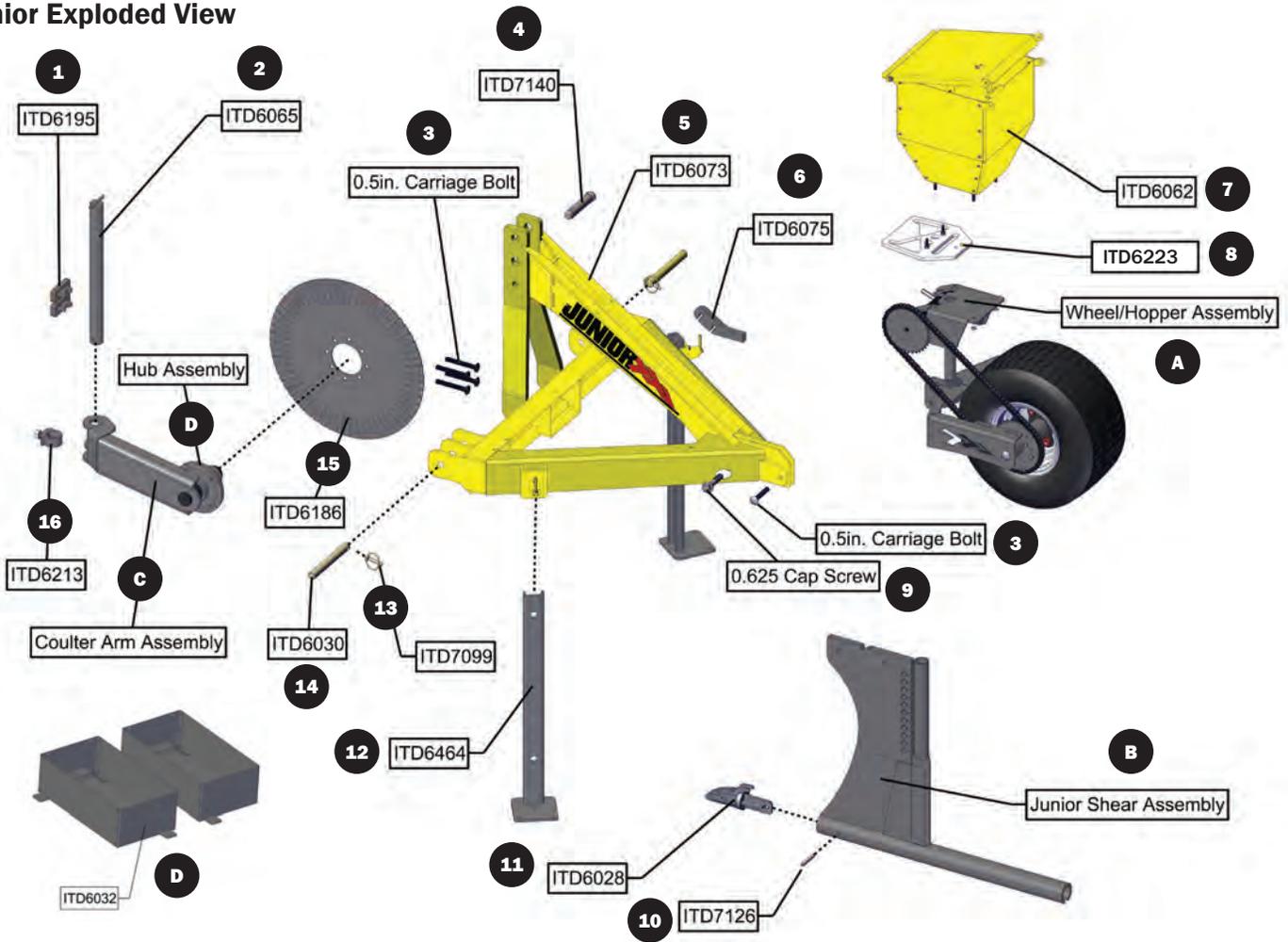


# THE JUNIOR



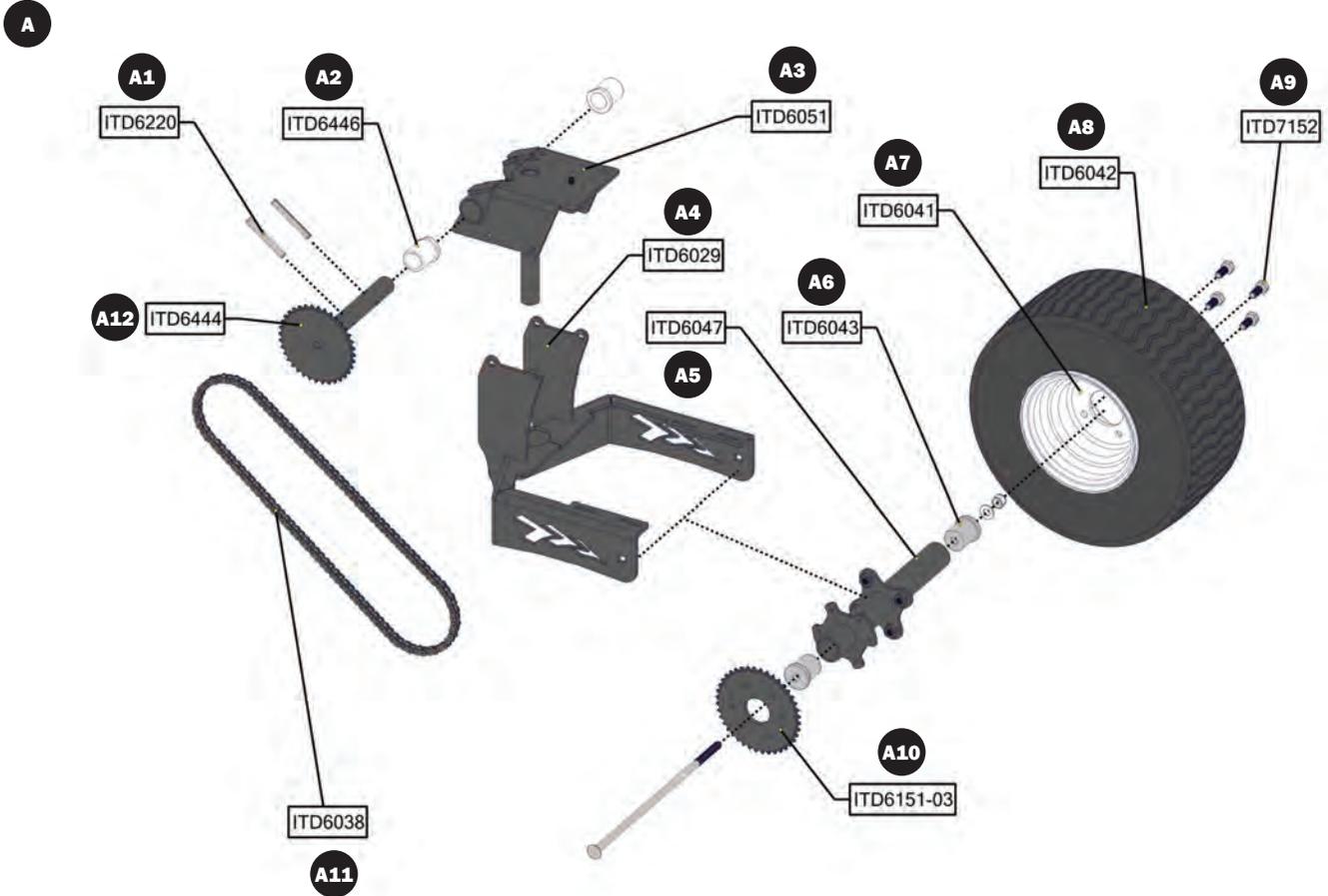
# OPERATIONS MANUAL

## Junior Exploded View



| Item # | Part #  | Description   |
|--------|---------|---|
| 1      | ITD6195 | Coulter Clamp Assembly (each)   |
| 2      | ITD6065 | Coulter Mount Bar   |
| 3      | -       | 0.5" Carriage Bolt  |
| 4      | ITD7140 | Category II Top Hitch Pin (Each, includes (#13) ITD7099 Lynch Pin when sold separately) |
| 5      | ITD6073 | Complete Frame Assembly (Painted)   |
| 6      | ITD6075 | Frame Shear Spacer  |
| 7      | ITD6062 | J.V.-Hopper Assembly  |
| 8      | ITD6223 | Metering Plate with Agitator bolts installed (UHMW)                                     |
| 9      | -       | 0.625" Cap Screw  |
| 10     | ITD7126 | 3/8" x 2-1/2" Roll Pin  |
| 11     | ITD6028 | Alloy Point for Junior (each)   |
| 12     | ITD6464 | Junior Leg (each)   |
| 13     | ITD7099 | 7/16" Lynch Pin (each)  |
| 14     | ITD6030 | Lower Hitch Pin (each, includes (#13) ITD7099 Lynch Pin)                                |
| 15     | ITD6186 | Coulter 20" Ripple Blade  |
| 16     | ITD6213 | Locking Collar  |
| A      | -       | Wheel/Hopper Assembly (See Pg 32 for Exploded View)                                     |
| B      | -       | Junior Shear Assembly (See Pg 33 for Exploded View)                                     |
| C      | -       | Fixed Coulter Assembly (See Pg 34 for Exploded View)                                    |
| D      |         |   |

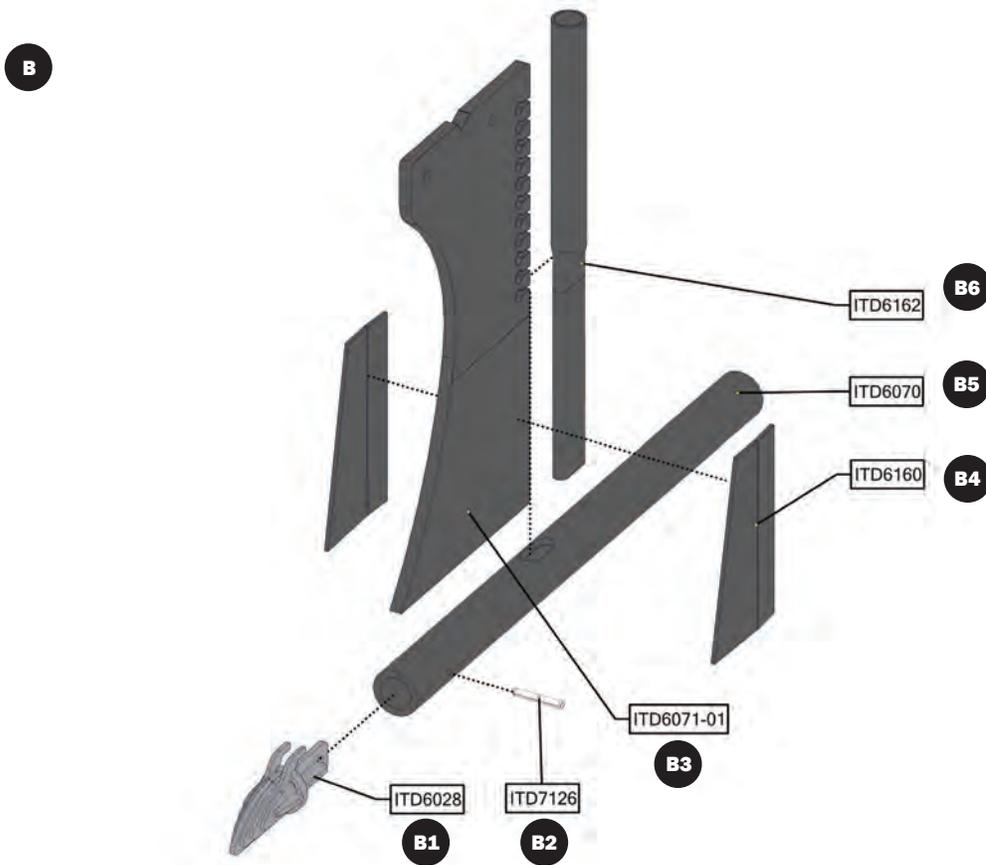
## Junior Wheel/Hopper Assembly



| Item # | Part #  | Description   |
|--------|---------|---|
| A      | -       | Wheel/Hopper Assembly   |
| A1     | ITD6220 | 7/16" x 3 1/2" Slotted Roll Pin (each)                            |
| A2     | ITD6446 | Jack shaft Bushing-UHMW (each)                                    |
| A3     | ITD6051 | Junior Hopper Stand Weldment                                      |
| A4     | ITD6029 | Wheel/Hopper Mount Arm  |
| A5     | ITD6047 | Drive Shaft   |
| A6     | ITD6043 | Drive Shaft Bushing (Sold as each)                                |
| A7     | ITD6041 | White Wheel ( 4 on 4" Bolt) (8" X 7" size)                        |
| A8     | ITD6042 | Turf Tire (18 X 8.5 -8)   |
| A9     | ITD7152 | 1/2" x 7/8" Fine Thread Lug Bolt                                  |
| A10    | ITD6151 | Drive Shaft Sprocket (#40/40)                                     |
| A11    | ITD6038 | #40 nickel Chain 110 links (Includes 4 offset links and 1 master) |
| A12    | ITD6444 | Jack Shaft Sprocket (#40/36) Tooth                                |

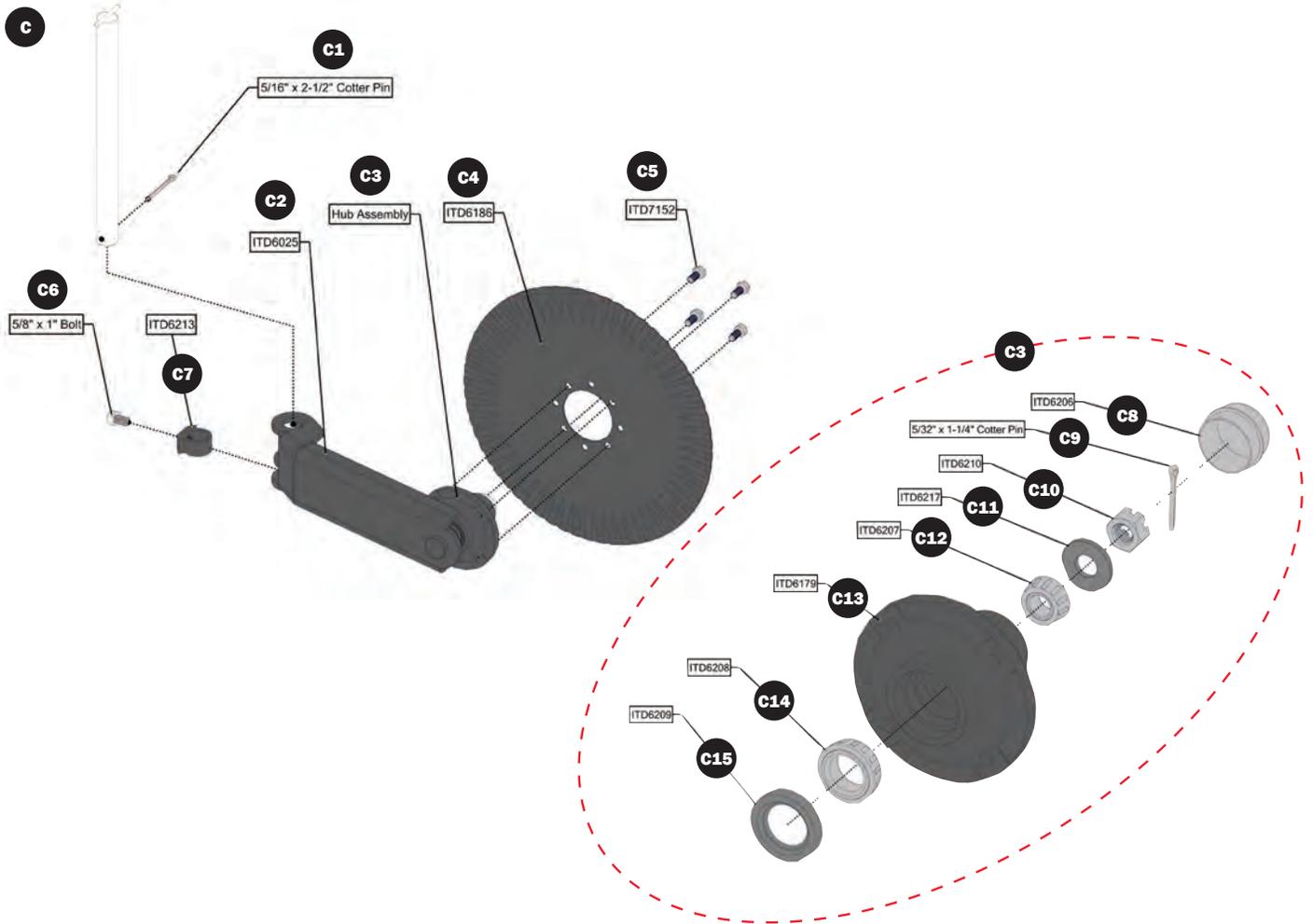
# OPERATIONS MANUAL

## Junior Shear Assembly



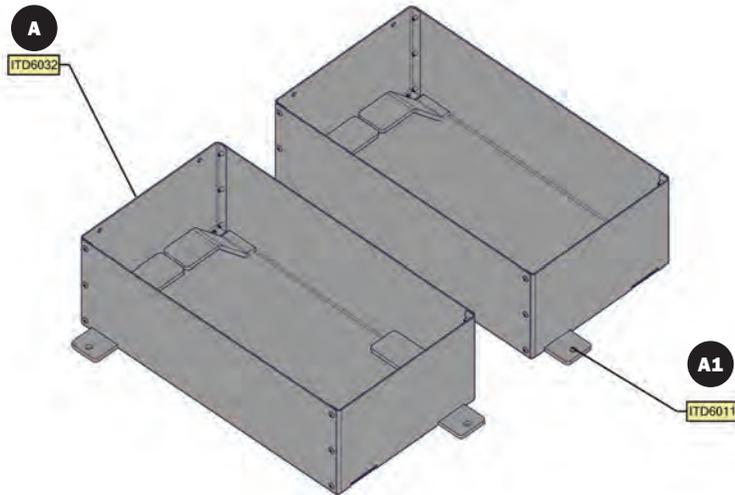
| Item # | Part #  | Description  |
|--------|---------|--|
| B      | ITD6069 | Junior Shear Assembly  |
| B1     | ITD6028 | Alloy Point for Junior (Each, Includes (B2) ITD7126 Roll Pin when sold separately) |
| B2     | ITD7126 | 3/8" x 2 1/2" Roll Pin   |
| B3     | ITD6071 | Shear Assembly (Point Not Included)  |
| B4     | ITD6160 | Alloy Wear Plate (each) (2 required)   |
| B5     | ITD6070 | Junior Tunnel Tube   |
| B6     | ITD6162 | Drop Tube  |

## Junior Coulter Assembly



| Item # | Part #  | Description  |
|--------|---------|--|
| C      | -       | Coulter Assembly (Mounting Rod Not Included)       |
| C1     | -       | Coulter Mounting Bar 1.5" Round Rod (Not Included) |
| C2     | ITD6025 | Coulter Arm  |
| C3     | -       | Hub Assembly (Includes C8-C15)                     |
| C4     | ITD6186 | Coulter 20" Ripple Blade                           |
| C5     | ITD7152 | 1/2"-20 Coned Wheel Bolt                           |
| C6     | -       | 5/8" X 1" Bolt                                     |
| C7     | ITD6213 | Coulter Mounting Locking Collar                    |
| C8     | ITD6206 | Dust Cap (each)                                    |
| C9     | -       | 5/32" X 1 1/4" Cotter Pin                          |
| C10    | ITD6210 | Castle Nut for Spindle (each)                      |
| C11    | ITD6217 | Spindle Washer for Drive Spindle                   |
| C12    | ITD6207 | Inner Bearing (Large) LM67048 For Coulter          |
| C13    | ITD6179 | 5" Hub   |
| C14    | ITD6207 | Inner Bearing (Large) LM67048 For Coulter          |
| C15    | ITD6208 | Outer Bearing (Small) LM11949 for Coulter          |
| C16    | ITD6209 | Seal (2.332" OD, 1.50" IN ) for Coulter Hub (each) |

## Junior Weight Basket

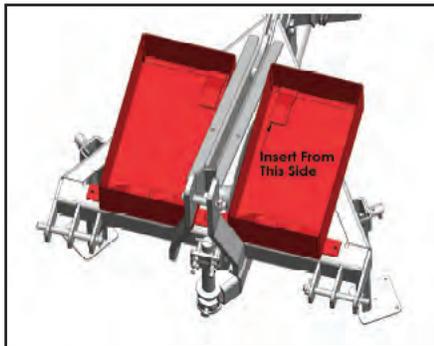


### Hardware Included

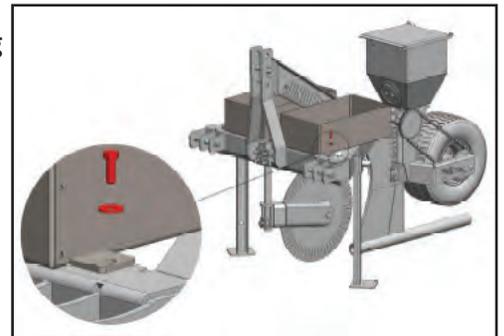
- (6) - 3/8" x 1" Course Thread Hex Bolt
- (6) - 3/8" Course Thread Hex Nut
- (12) - 3/8" Flat Washer

| Item # | Part #  | Description   |
|--------|---------|---|
| A      | ITD6032 | Weight Basket (Universal Right,Left. Includes (6) A1 support straps and hardware) |
| A1     | ITD6011 | Weight Basket - Support Straps (Universal Right,Left. Includes hardware)          |

**1. Place weight box on Junior frame and slide anchor brackets through the slots from the inside.**

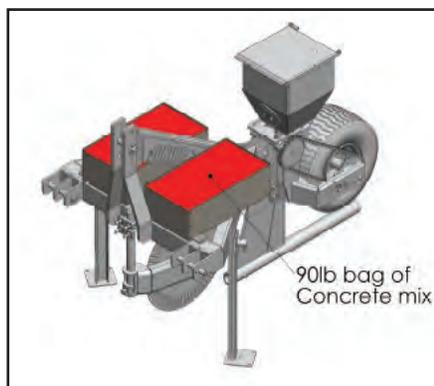


**2. Bolt weight boxes down using bolts, washers, & nuts.**

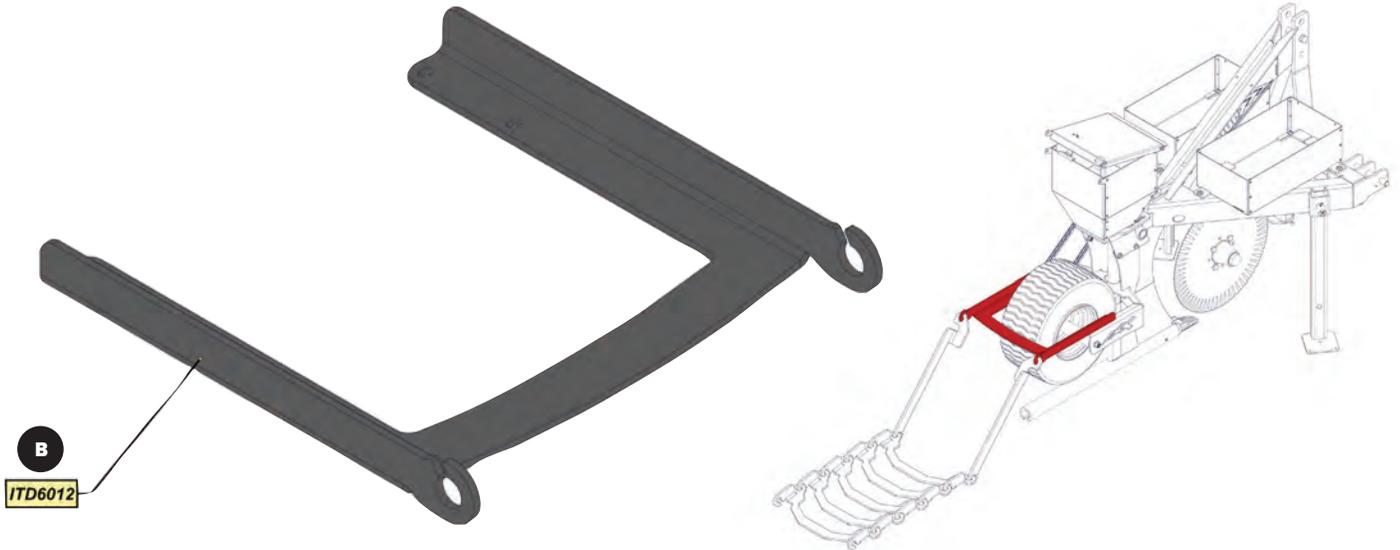


**Note** Weight box is held on by the brackets pinching against the frame. Once concrete is added, the box will be solidified.

**3. Pour concrete into the weight basket and stir. Make sure to get concrete under the anchor brackets.**



## Draw Bar with Tire Scraper

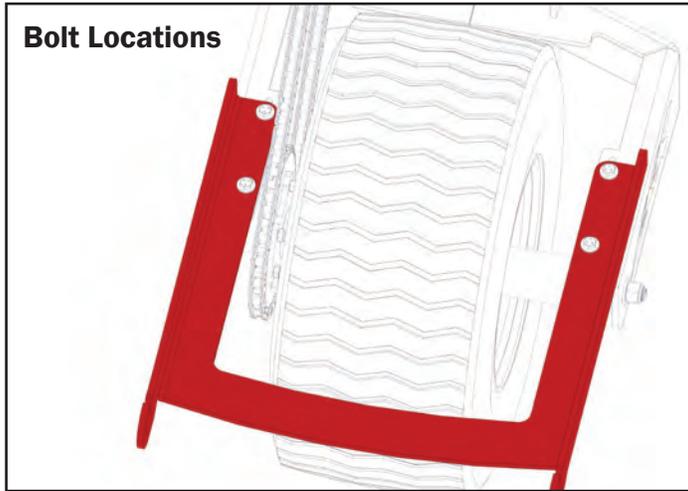


| Item # | Part #  | Description                           |
|--------|---------|---------------------------------------|
| B      | ITD6012 | Draw Bar Assembly (Includes Hardware) |

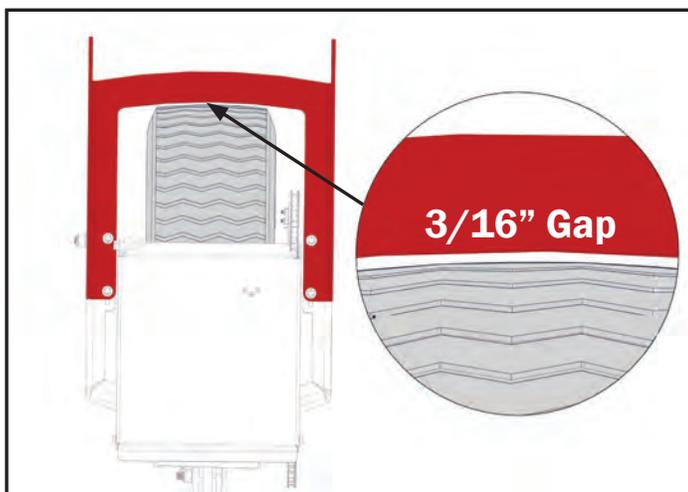
### 1. Bolt Draw Bar to Junior tire arm

- (4) - 1/4"-18 x 1" Bolt
- (4) - 1/4"-18 Nylock Nut
- (8) - 1/4" Flat Washer

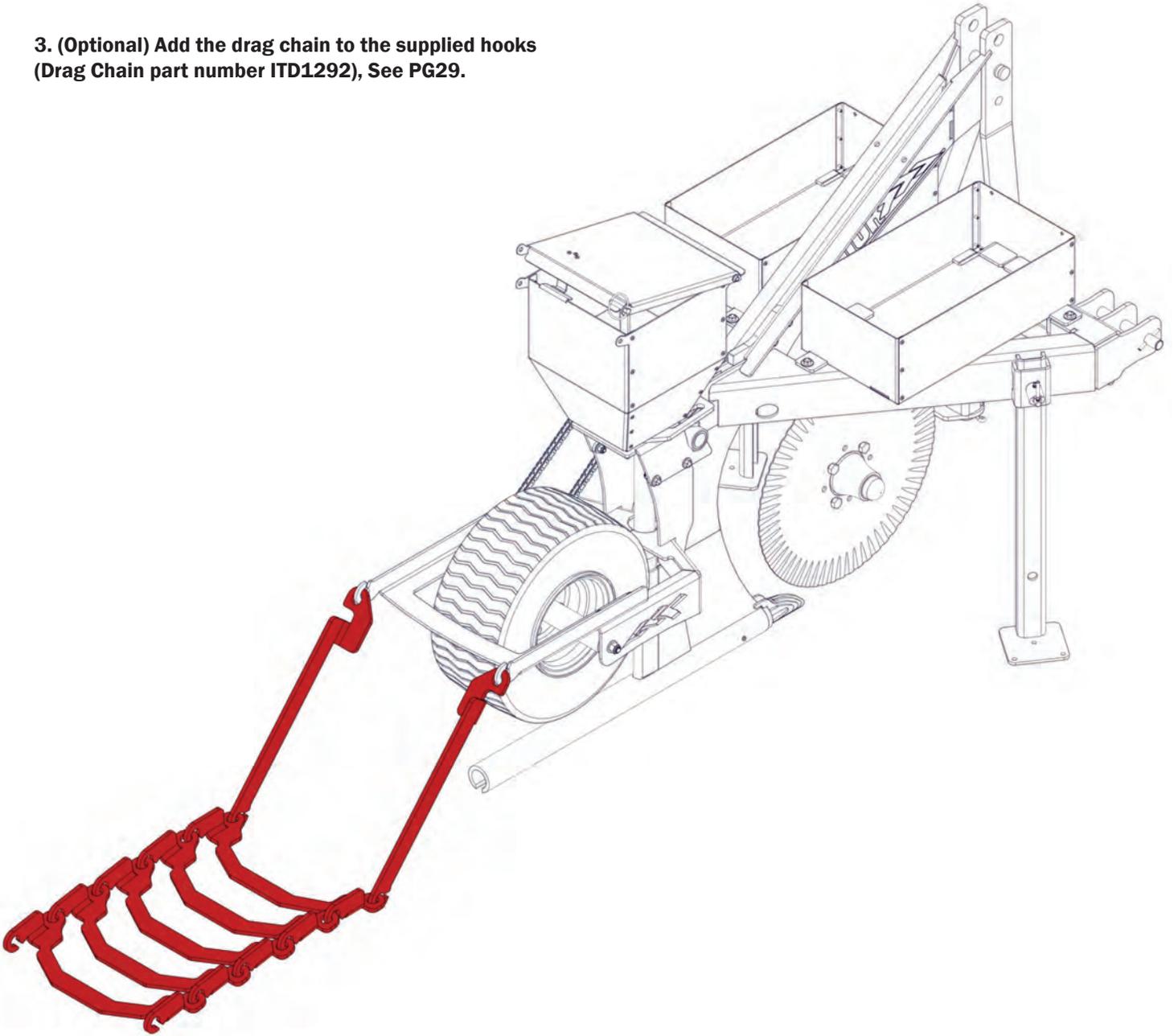
#### Bolt Locations



### 2. Adjust draw bar such that there is no more than 3/16" clearance between tire and scraper



**3. (Optional) Add the drag chain to the supplied hooks  
(Drag Chain part number ITD1292), See PG29.**



VERMINATOR DECALS



**1 THE VERMINATOR** V-0004

(2) The Verminator Decals 12" x 3"  
(V-0004) Placement: Right & Left

**2**

**3**

**4**



(2) Danger Danger Decals 4.5" x 2.5"  
(V-0007) Placement: Right & Left

**5**



(1) Keep Hands Clear Decal 4" x 4"  
(V-0003) Placement: Left

**6**



(1) Bio-Tire Decal 1.75" x 1.75"  
(V-0006) Placement: Left

**7**

(1) Danger Poison Decal  
7.3" x 8.75" (V-0001)  
Placement: Inside Hopper Lid



**8**



(1) Do Not Back Up Decal 5" x 1"  
(V-0008) Placement: Front

JUNIOR DECALS



THE **JUNIOR**

1

(2) Junior Decals 18" x 3.145" (V-0010)  
Placement: Right & Left

2

THE **JUNIOR**  
*Gopher Season Is Now Open*

(1) Junior Gopher Season Decal  
7.5" x 1.95" (V-0011)  
Placement: Back

3

(1) Danger Poison Decal  
7.3" x 8.75" (V-0001)  
Placement: Inside Hopper Lid



4

5



(2) Danger Danger Decals 4.5" x 2.5"  
(V-0007) Placement: Right & Left

6



(1) Keep Hands Clear Decal 4" x 4"  
(V-0003) Placement: Left

7



(1) Do Not Back Up Decal 5" x 1"  
(V-0008) Placement: Front

# OPERATIONS MANUAL

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## WARRANTY REGISTRATION TRANSFER

Mall To:

Attn: Warranty Dept

Name of Owner or Operator \_\_\_\_\_  
Street Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone ( ) \_\_\_\_\_  
Date of Purchase \_\_\_\_/\_\_\_\_/\_\_\_\_  
Date put into Service \_\_\_\_/\_\_\_\_/\_\_\_\_  
Purchased from (Dealer) \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Type and Model of Equipment Purchased \_\_\_\_\_  
Serial Number \_\_\_\_\_



---

## OWNER RECORDS

Name of Owner or Operator \_\_\_\_\_  
Street Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone ( ) \_\_\_\_\_  
Date of Purchase \_\_\_\_/\_\_\_\_/\_\_\_\_  
Date put into Service \_\_\_\_/\_\_\_\_/\_\_\_\_  
Purchased from (Dealer) \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Type and Model of Equipment Purchased \_\_\_\_\_  
Serial Number \_\_\_\_\_



P.O. Box 168  
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Phone: 509.453.8271  
Fax: 509.457.2456

[www.rankinequipment.com](http://www.rankinequipment.com)

P.O. Box 1937  
Yakima, WA 98907-1937

Phone: 509.452.1651  
Fax: 509.457-6601

[www.northstarattachments.com](http://www.northstarattachments.com)

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