



**ROADRUNNER**  
EQUIPMENT LLC.



# CHSS GRADER ACCESSORIES

## OWNER'S MANUAL



Read, Understand, and Follow this manual, which provides information and procedures to operate and maintain your Roadrunner Equipment accessory safely.



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## 1. Bolster Wheel Kit

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# BOLSTER WHEEL KIT

## 1.1 Operation & Function

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The **Bolster Wheel Kit** is engineered to improve the stability of your grader attachment, preventing it from gouging the ground in low areas and effectively spreading new materials evenly.

- When operating the grader in confined spaces, be cautious of the wheels location to prevent them from riding up against curbs or embankments.
- When spreading material, avoid pushing the wheels into piles of stone, dirt, snow, etc..., to prevent potential damage to the wheels or spindles.
- Ensure all grease points are lubricated as needed, or at least once a month.

## 1.2 Installation

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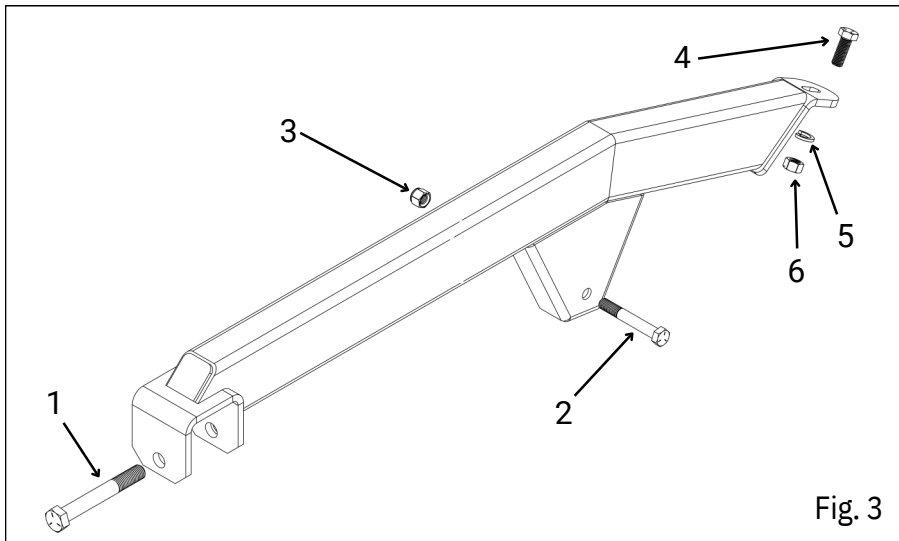
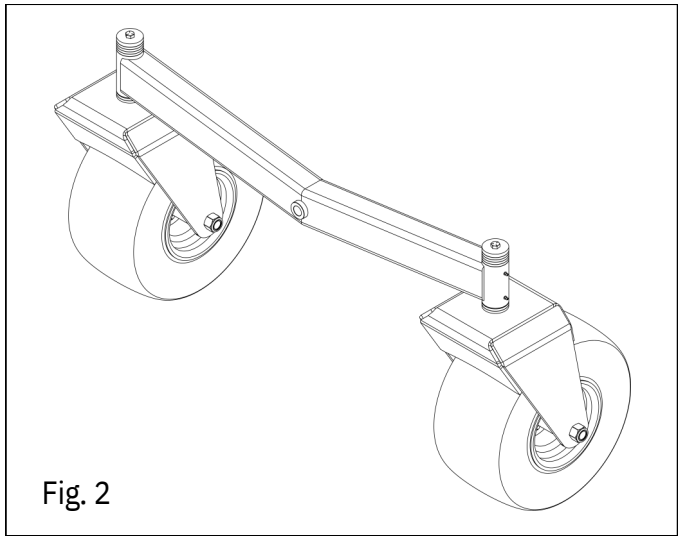
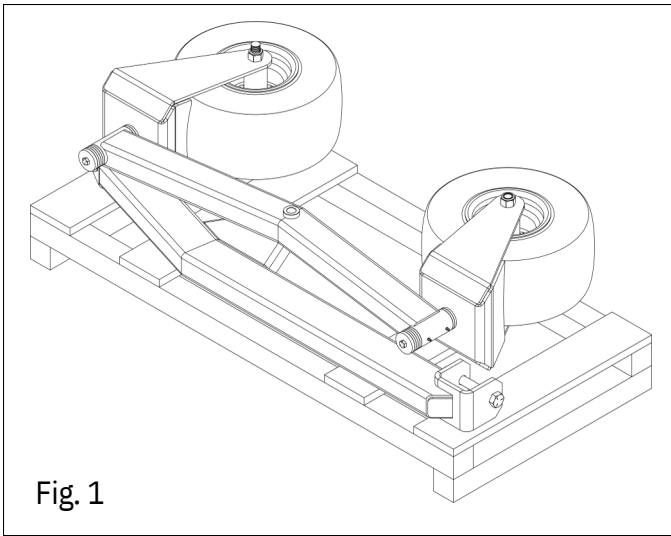
The **Bolster Wheel Kit** will be partially assembled on the pallet (fig.1). The **Wheel Assemblies** will be attached to the **Bridge** weldment (fig.2). The **Tube Frame** is shipped loose. The hardware needed to attach the Bolster Wheel Kit to the grader will need to be removed from the Tube Frame prior to installation (hardware items 2, 3, 4, 5, and 6, (page 6, fig.3)).

Installation should take place on a level surface.

**To attach the Bolster Wheel Kit accessory to the grader, follow the steps below.**

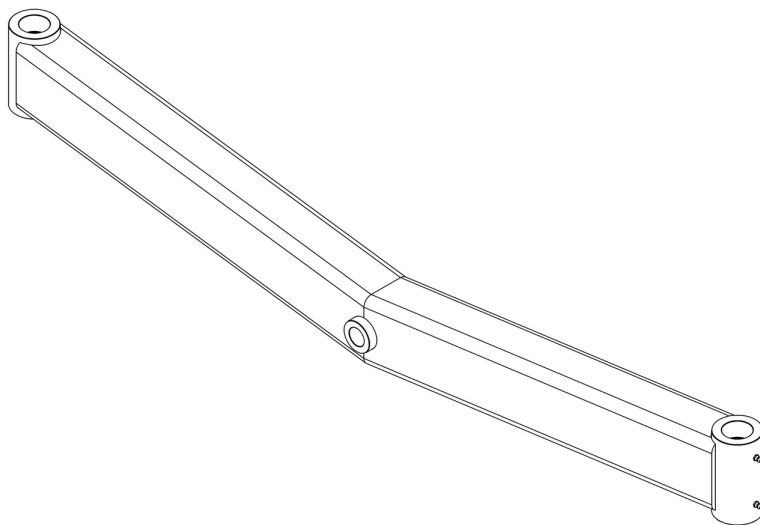
- Attach the grader to the skid steer/
- Lift the Tube Frame into position (fig.4)
- Install hardware items 2, 3, 4, 5, and 6 (page 6, fig.3) and tighten securely.
- Using the skid steer, lift the grader approximately 3", or as needed.
- Slide the Bridge and Wheel Assembly into position, under the front channel of the Tube Frame (fig.6).
- Align the hole in the front channel of the Tube Frame with the bolt tube of the Bridge (fig.7).
- Install hardware item 7 securely.

After the Bolster Wheel Kit is installed, the tires should be resting on the ground, with the front of the grader elevated off the ground approximately 1/2", while the back of the grader is resting on the ground. The washers on the wheel assembly shafts may need to be adjusted to achieve proper clearance (fig.8).



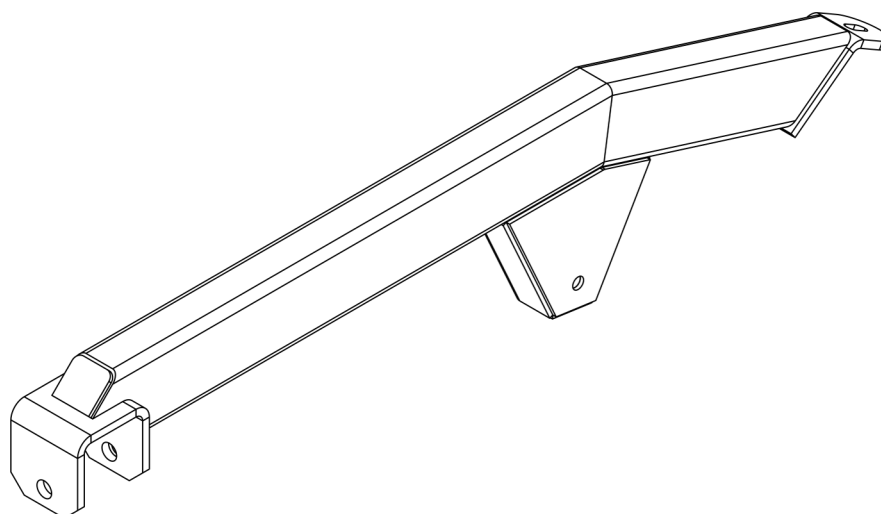
### 1.3 Bridge, Wheel Kit

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### 1.4 Tube Frame, Wheel Kit

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## 1.5 Bolster Wheel Kit Installation Illustration

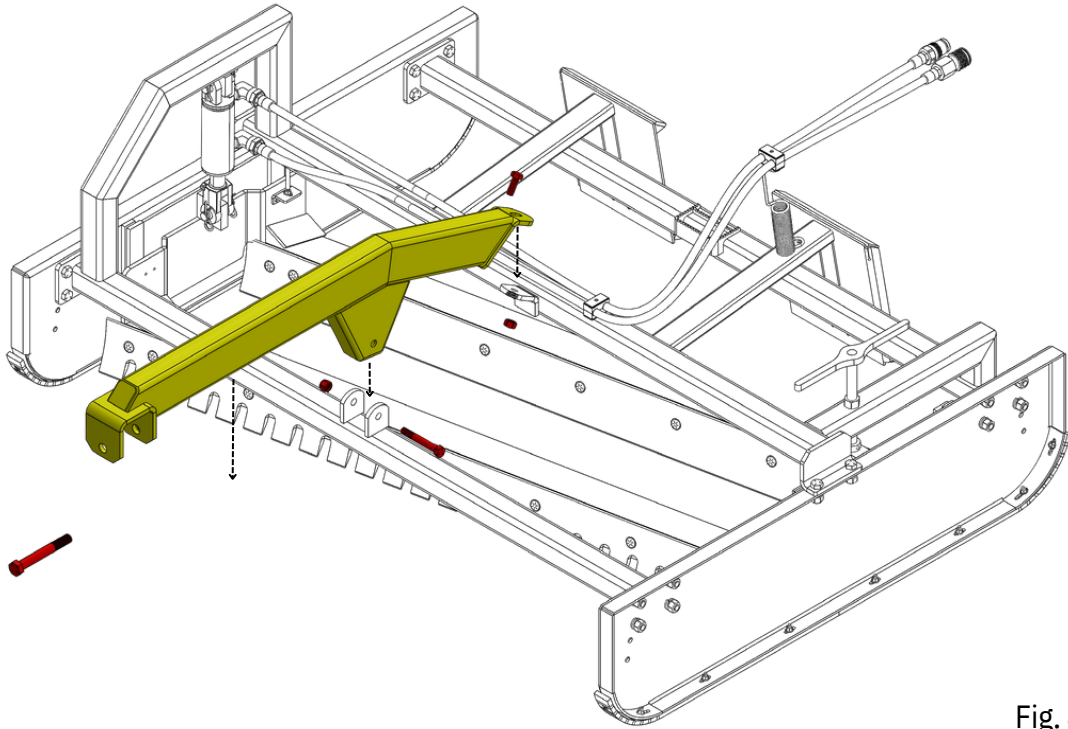


Fig. 4

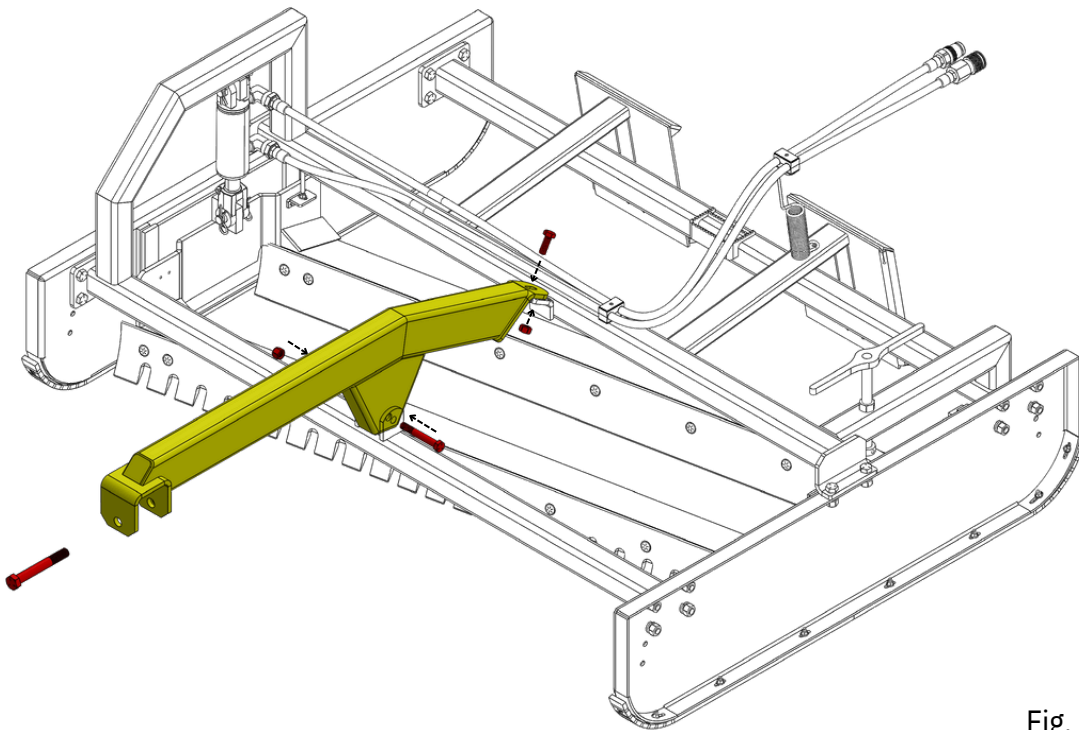


Fig. 5



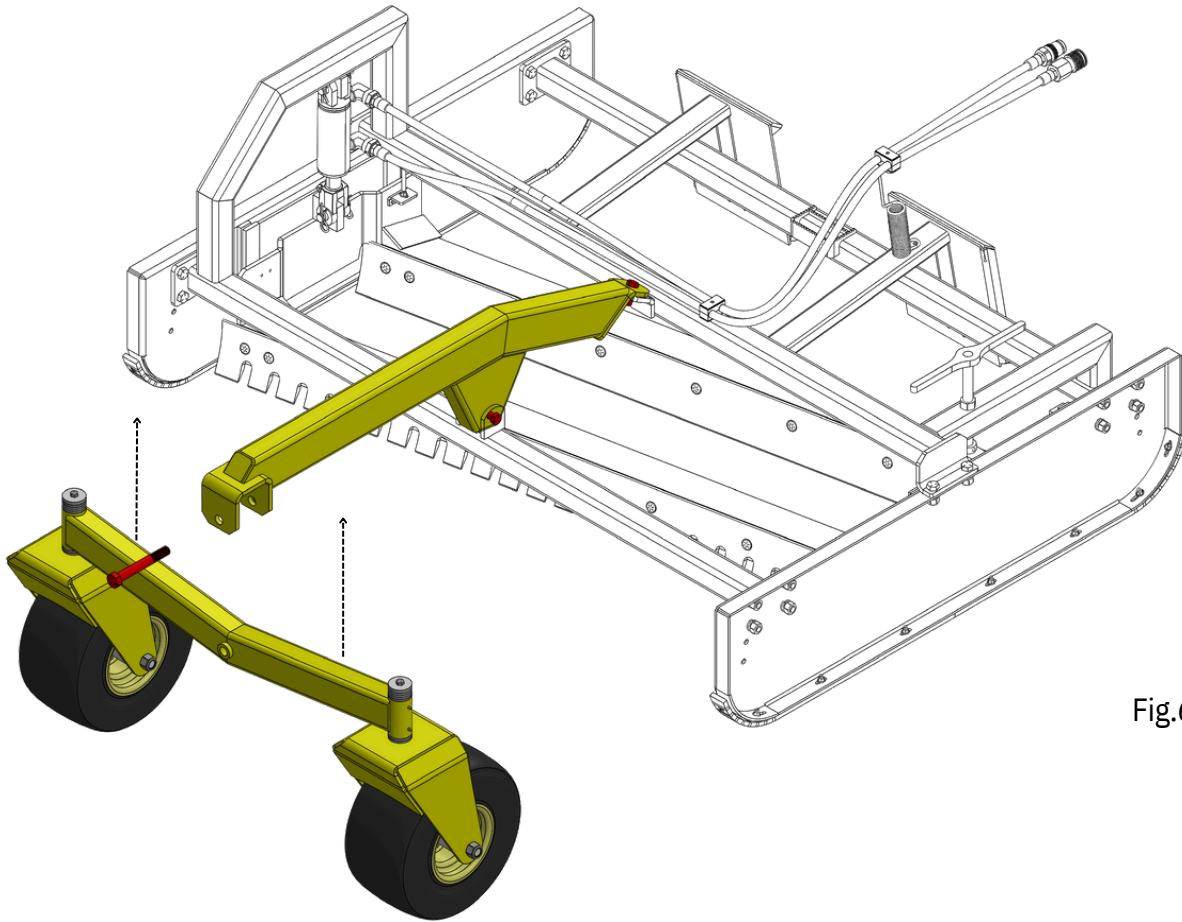


Fig.6

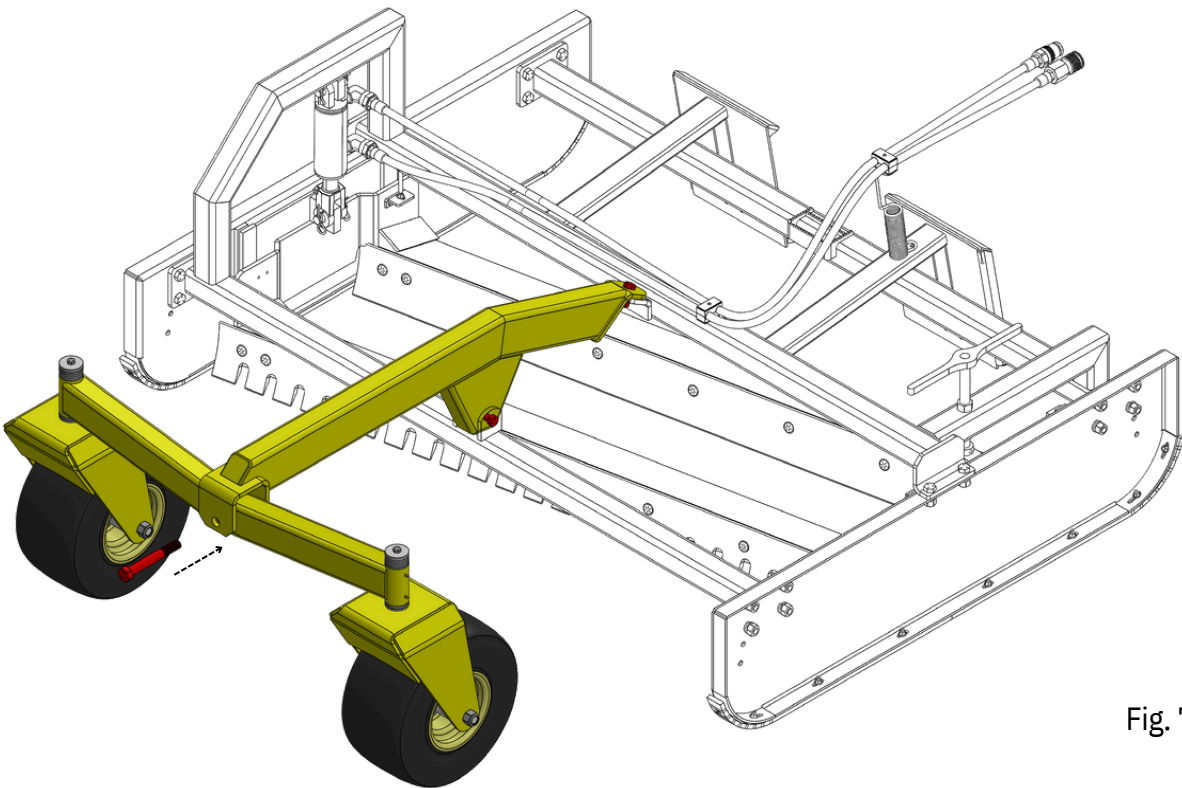


Fig. 7

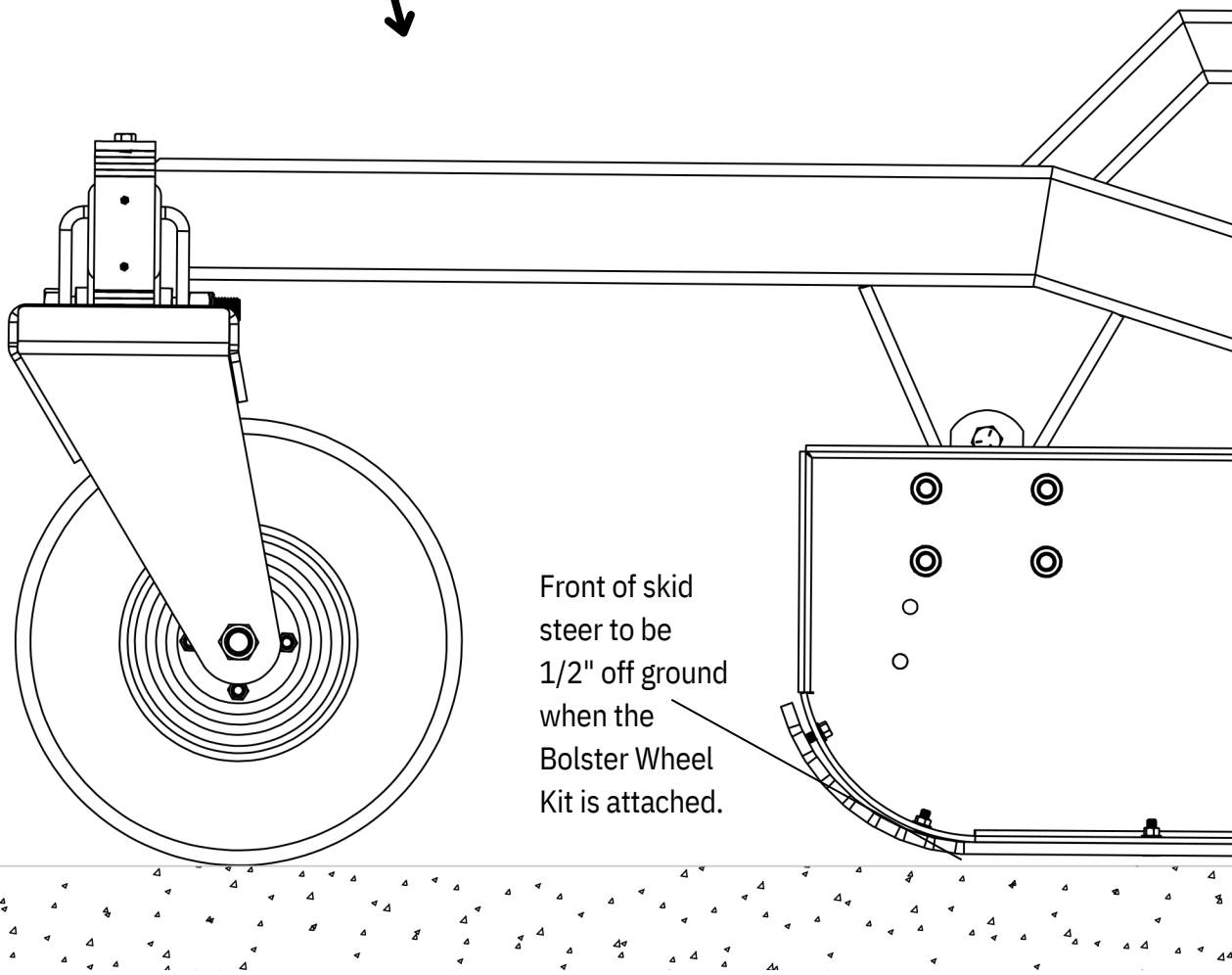
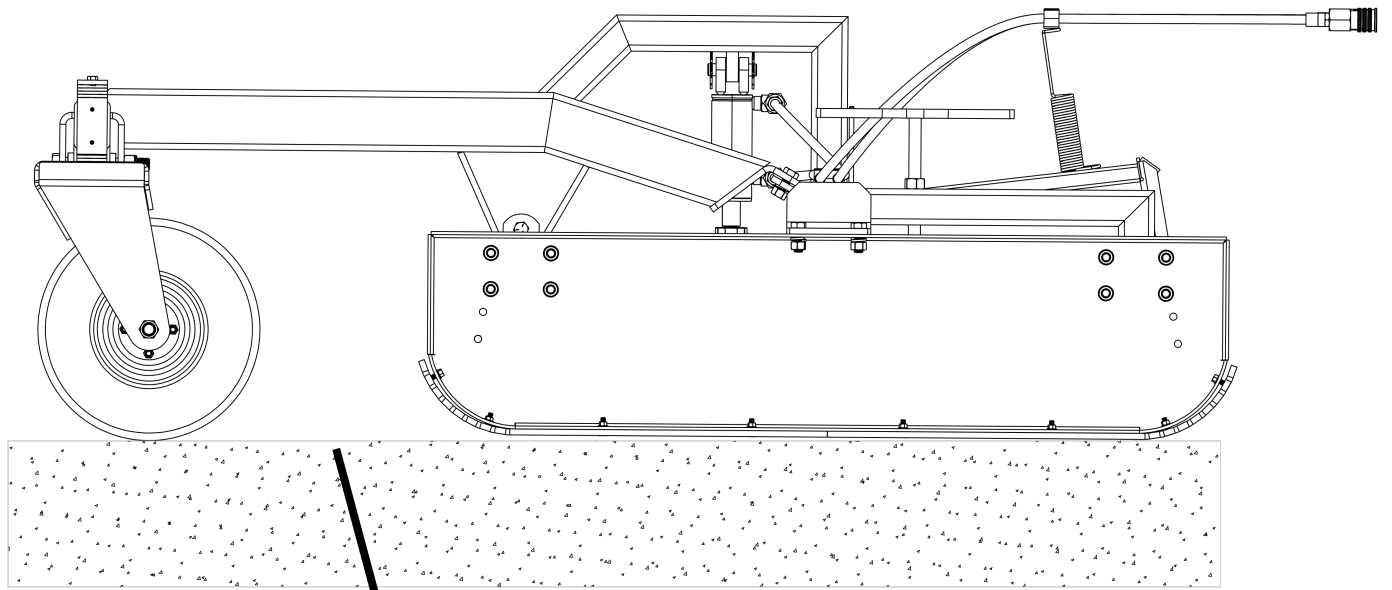
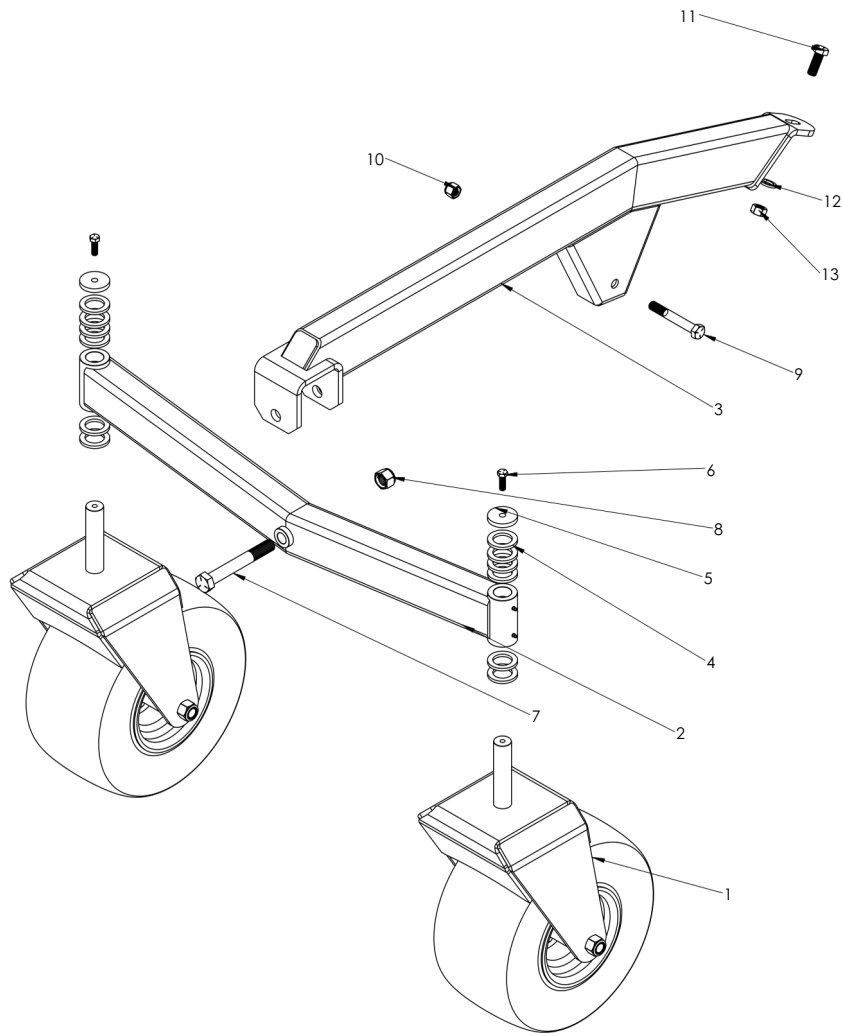


Fig. 8

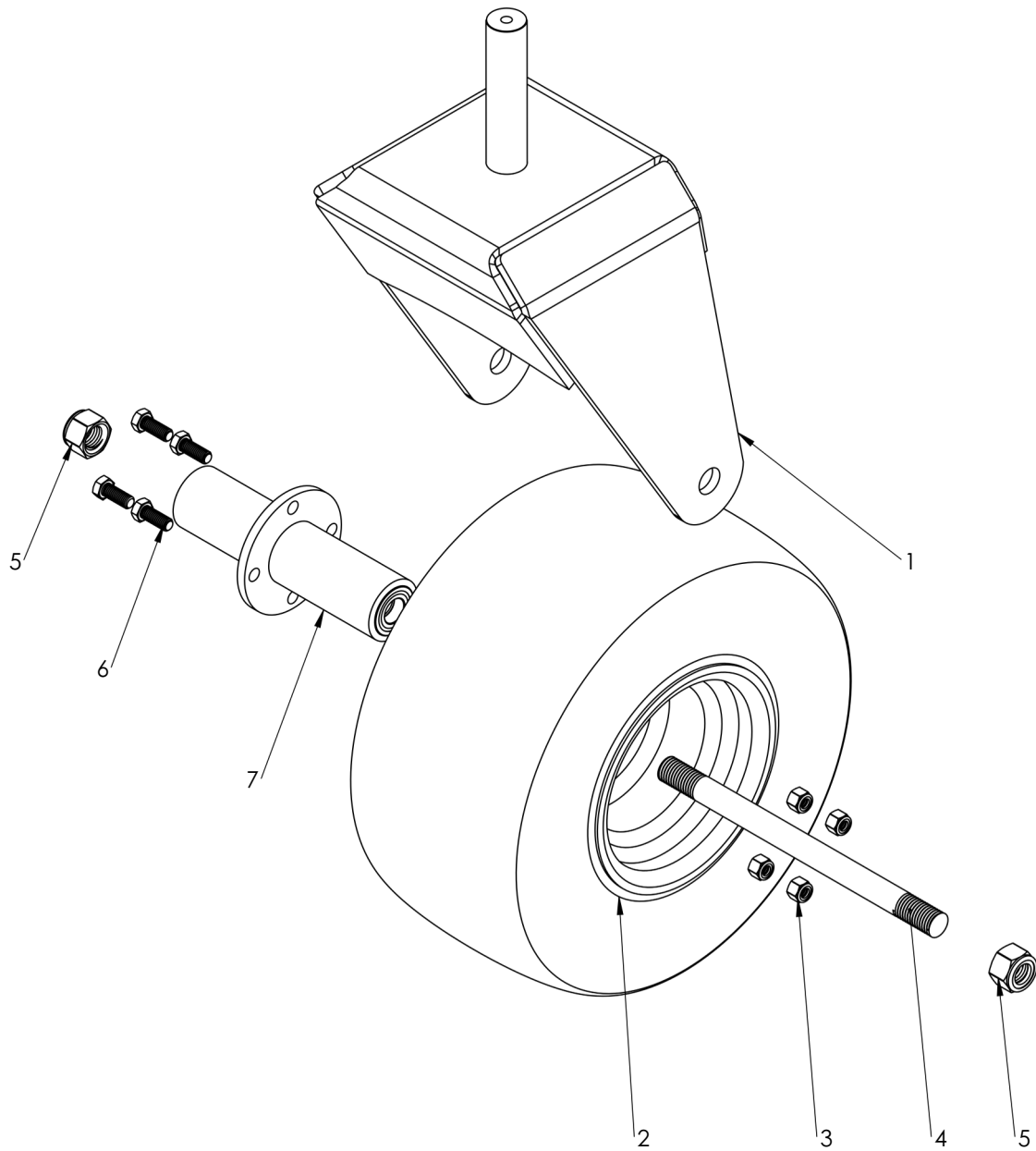
## 1.6 Bolster Wheel Kit Bill of Materials / Parts List



Item	DESCRIPTION
1	Wheel Assembly
2	Bridge, Bolster Wheel Kit
3	Tube Frame, Bolster Wheel Kit
4	Wheel Shaft Spacer
5	Bolt Down Washer
6	Bolt, 1/2"-13 Thread, 1-1/2" Long
7	Bolt, 1"-8 Thread, 7-1/2" Long
8	Locknut, 1"-8 Thread
9	Bolt, 3/4"-10 Thread, 5-1/4" Long
10	Locknut, 3/4"-10 Thread
11	Bolt, 3/4"-10 x 2" Long
12	Split Washer, 3/4"
13	Nut, 3/4"-10

## 1.7 Wheel Assembly

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Item	Description
1	Wheel Caster Weldment
2	18.5 x 8.5-8 4, Wheel
3	Locknut, 1/2"-20 Thread
4	Wheel Bolt
5	Locknut, 1"-8 Thread
6	Bolt, 1/2"-20 Thread, 1-1/4" Long
7	Hub Shaft



## 2. 3-Point Attachment Kit

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# 3-POINT ATTACHMENT

## 2.1 Operation & Function

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The **3-Point Attachment Kit** is designed to be able to attach your Roadrunner grader to a tractor, by connecting to your tractor's 3-point arms.

## 2.2 Installation

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- Place the **3-Point Tower** into position and attach using the hardware provided (fig 9.).
- Determine the width needed for the **side mounting plates**, place into position, and attach using the hardware provided (fig.10).
- Attach 3-Point accessory to the machine.
- Attach lower arms first, followed by the top linkage arm.
- Ensure all pins are securely fastened before lifting the grader with your machine.
- Adjust the top linkage arm to make sure the grader is parallel to the ground when in the grading position.

## 2.3 3-Point Installation Illustration

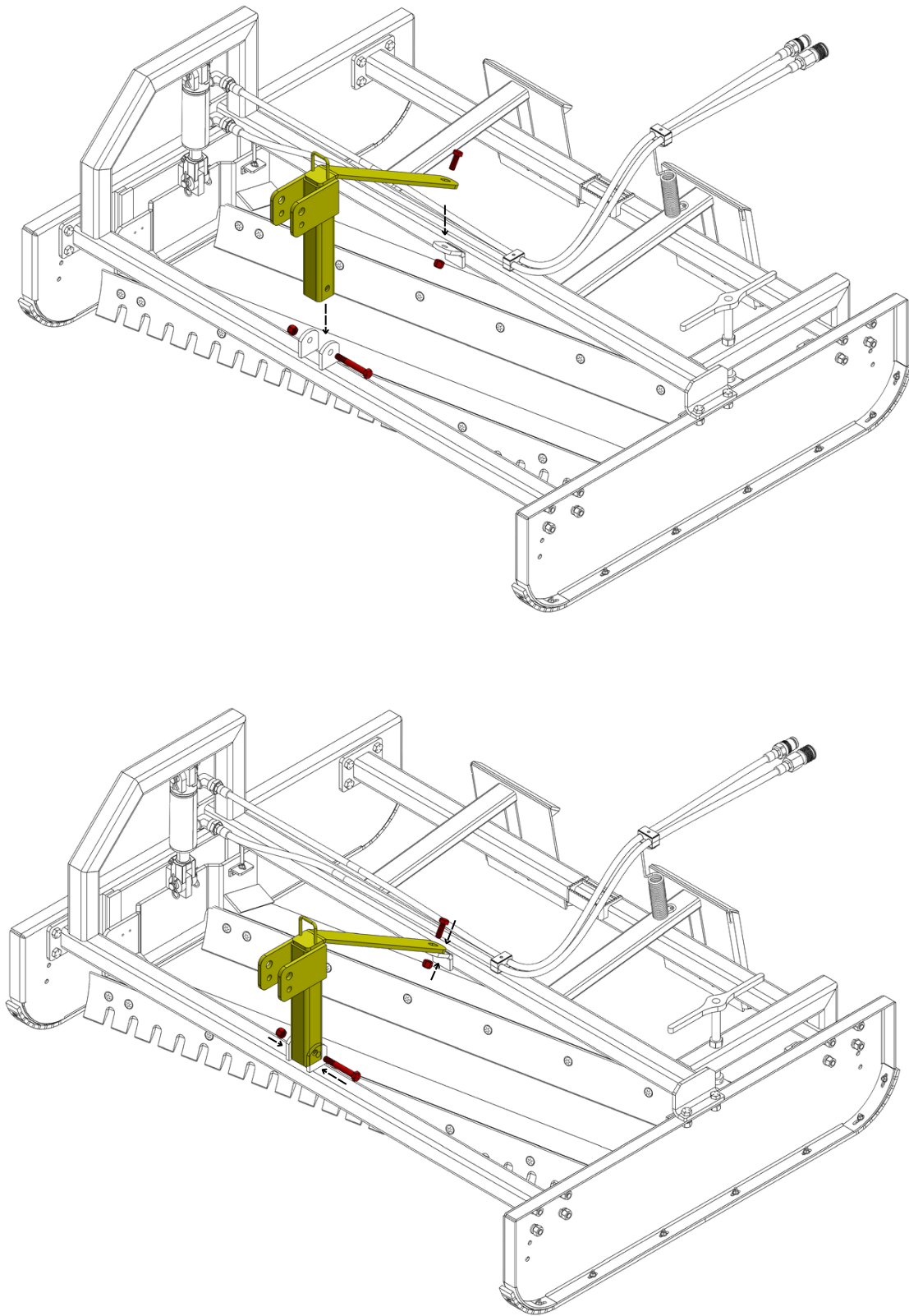


Fig. 9



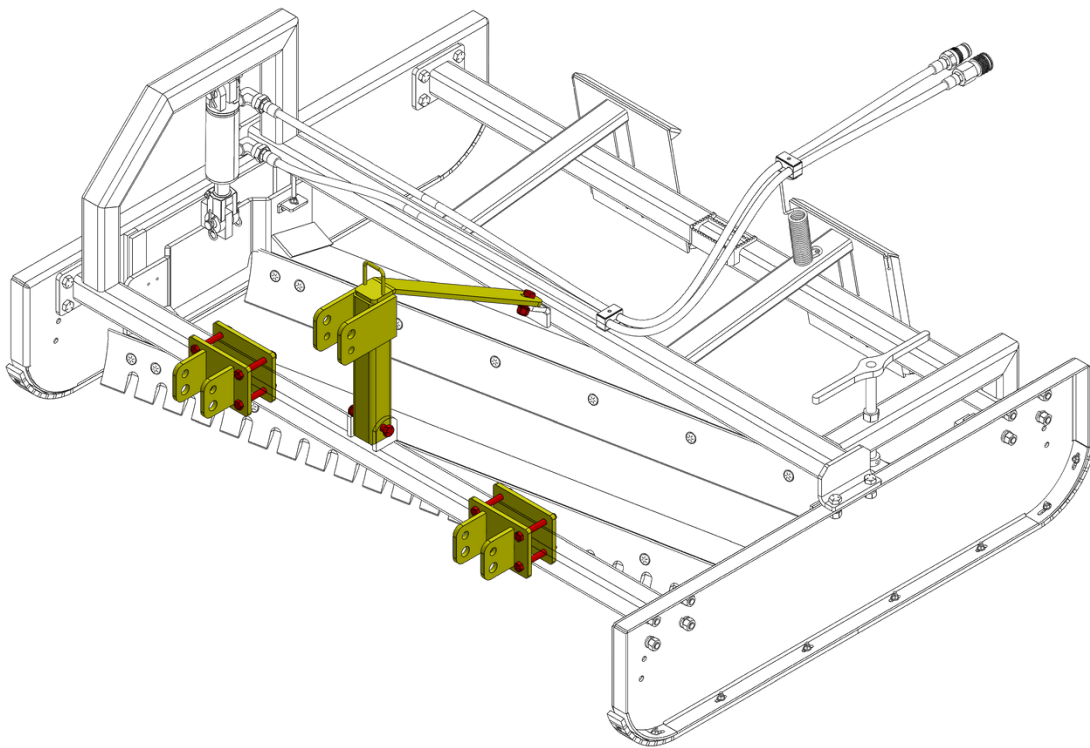
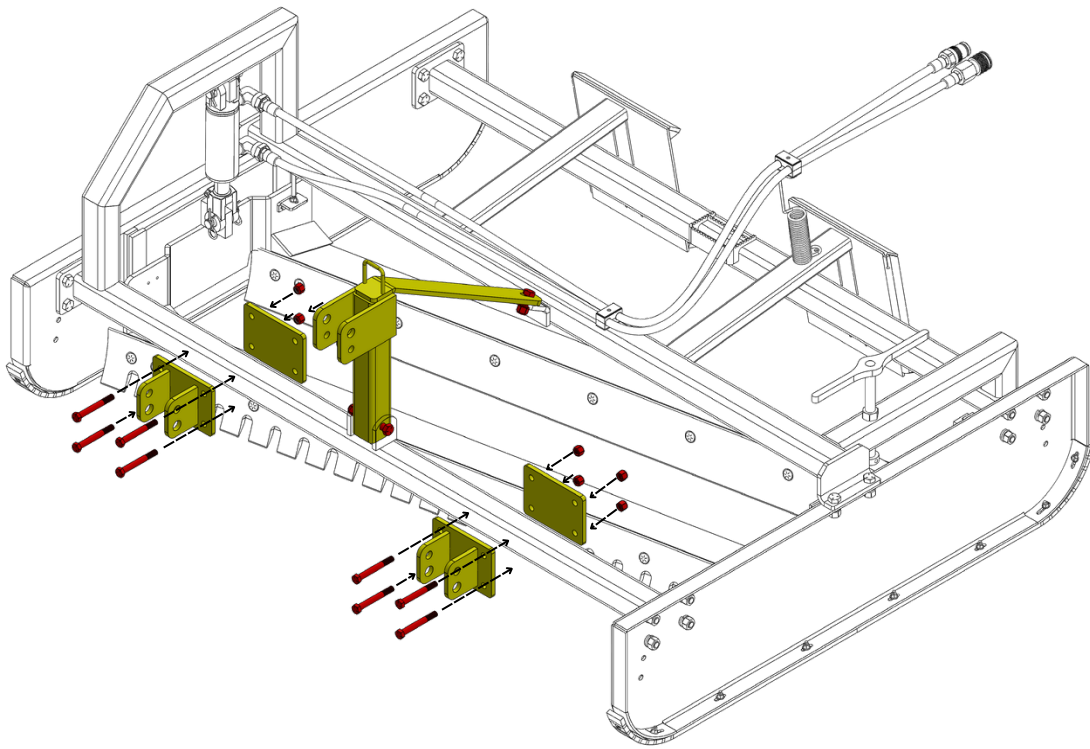
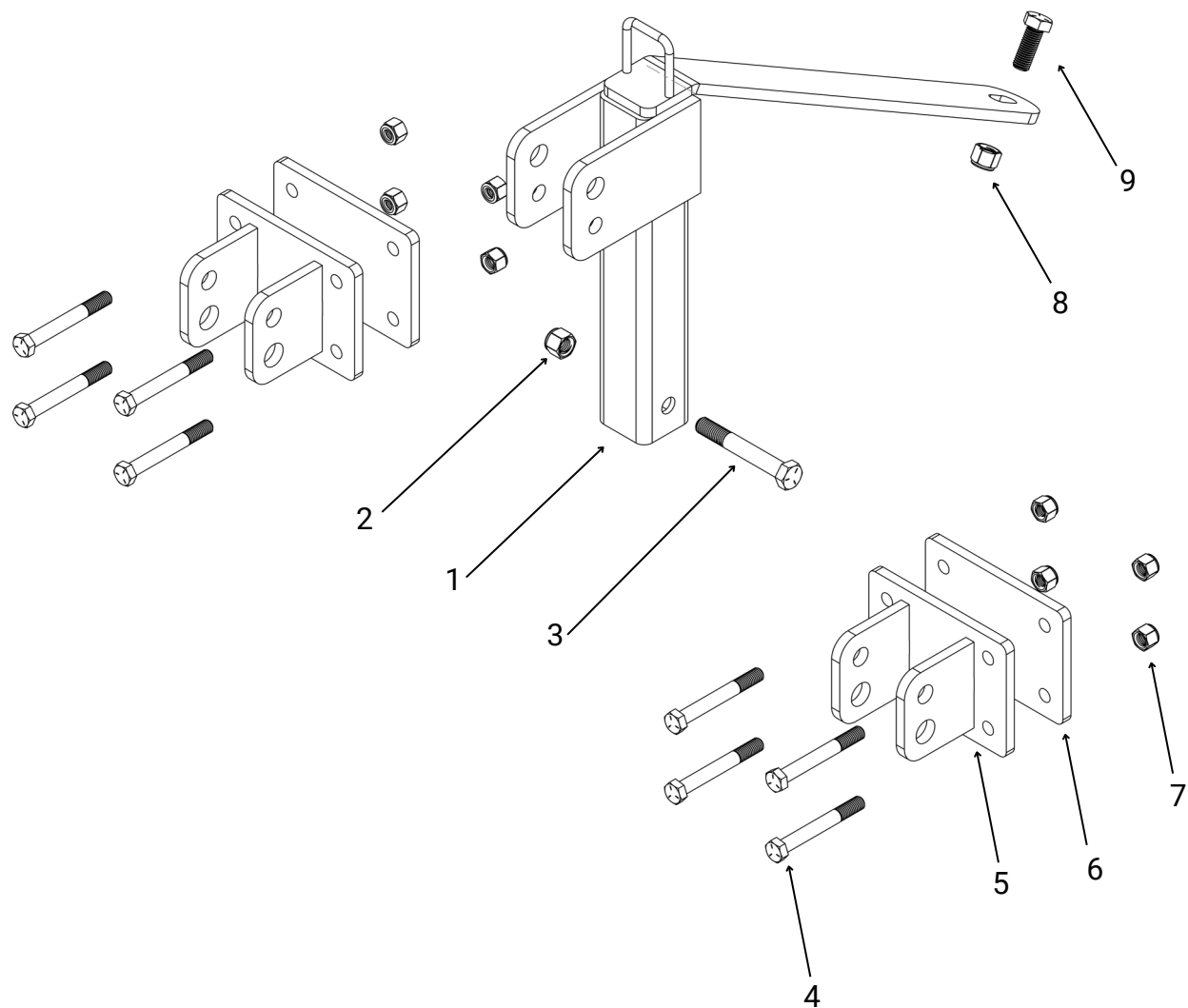


Fig. 10

## 2.4 3-Point Attachment Bill of Materials / Parts List

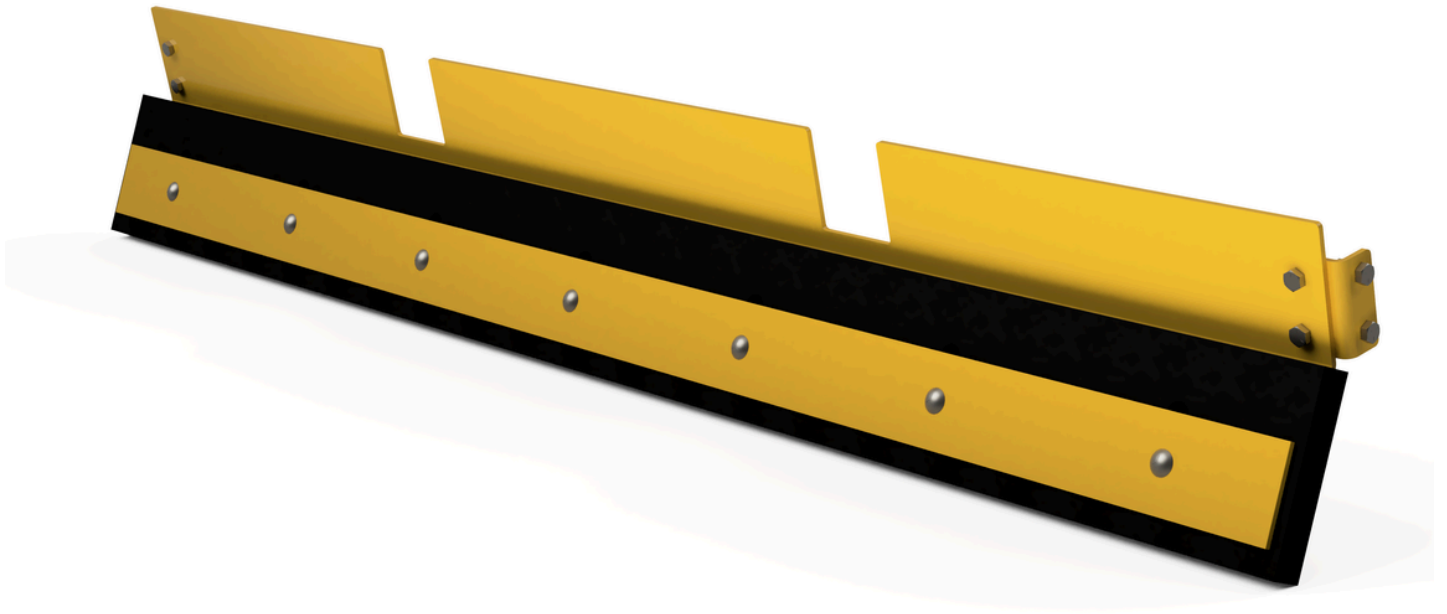


Item	Description
1	3-Point Tower Weldment
2	Locknut, 3/4"-10 Thread
3	Bolt, 3/4"-10 x 5-1/4" Long
4	Bolt, 5/8"-11 x 5" Long
5	Side Mounting Plate w/ Tabs
6	Back Mounting Plate
7	Locknut, 5/8"-11
8	Locknut, 3/4"-10 Thread
9	Bolt, 3/4"-10 x 2" Long



### 3. Snow Pusher

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# SNOW PUSHER

### **3.1 Operation & Function**

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The Roadrunner snow pusher option features a rear-mounted wiper blade with adjustable rubber wear edging. This design enhances your Roadrunner grader's capability to push snow and other light materials effectively.

The slotted rubber edging on a skid steer snow pusher can be adjusted in height. This adjustment helps to compensate for the normal wear and tear of the rubber edging, ensuring it continues to make effective contact with the ground. By doing so, you can prolong the life of the rubber edging and maintain optimal snow clearing performance.

### **3.2 Installation**

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Attach the mounting angles into the side panels of the grader using the hardware provided and secure tightly (fig.11). It may be necessary to remove the hardware and angles from the Snow Pusher, if installed for shipping.

Lift the Snow Pusher into position and attach to the mounting angles using the hardware provided (fig.12).

If the side panels on your grader do not have mounting holes, they will need to be drilled as illustrated in fig.13.

### 3.3 Snow Pusher Installation Illustration

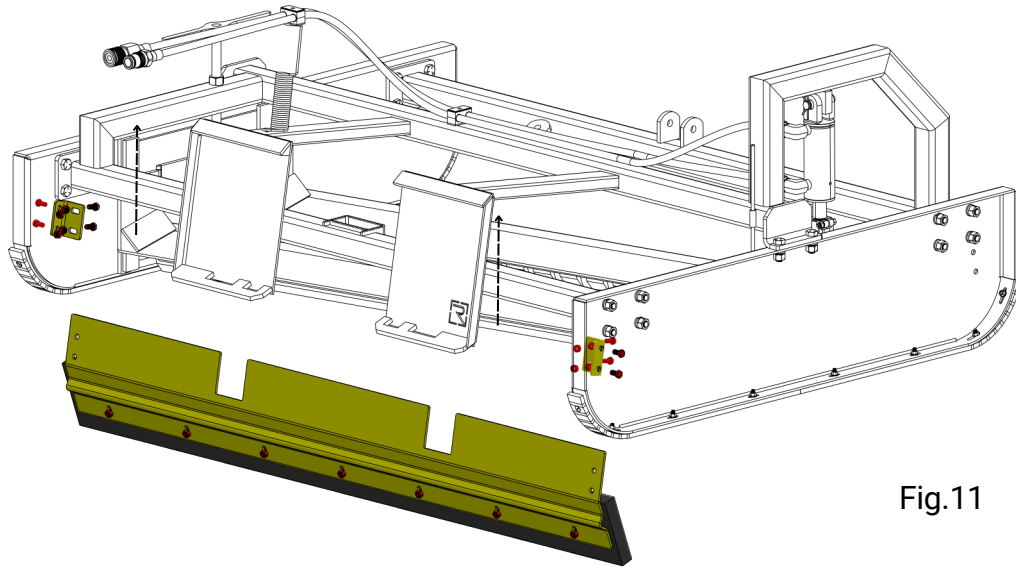


Fig.11

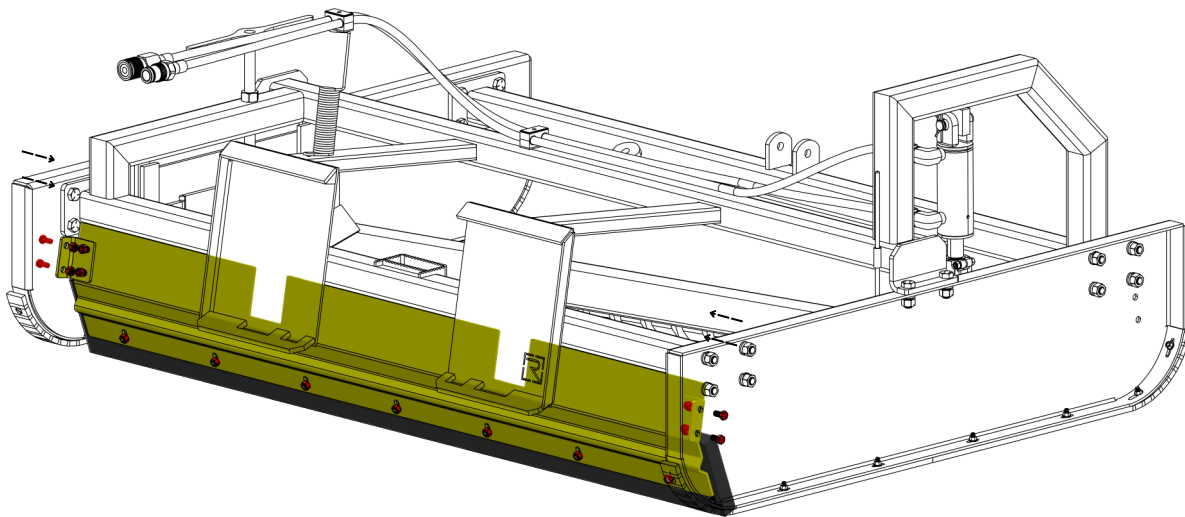


Fig.12

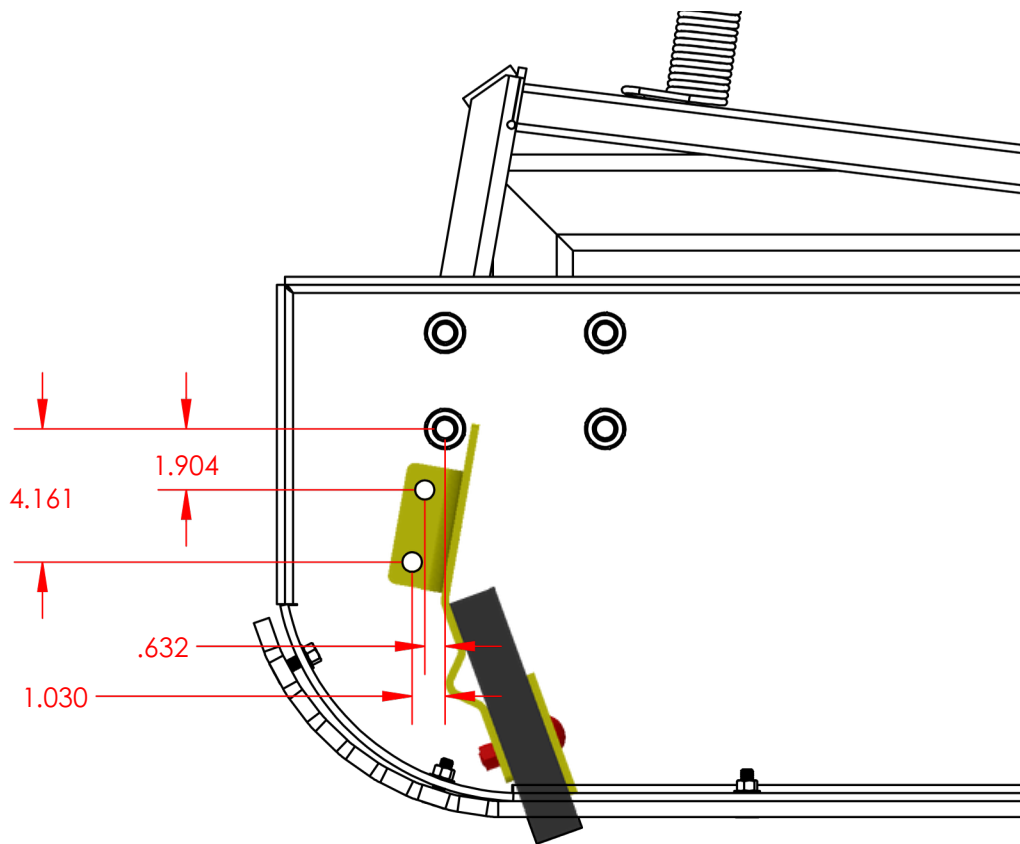
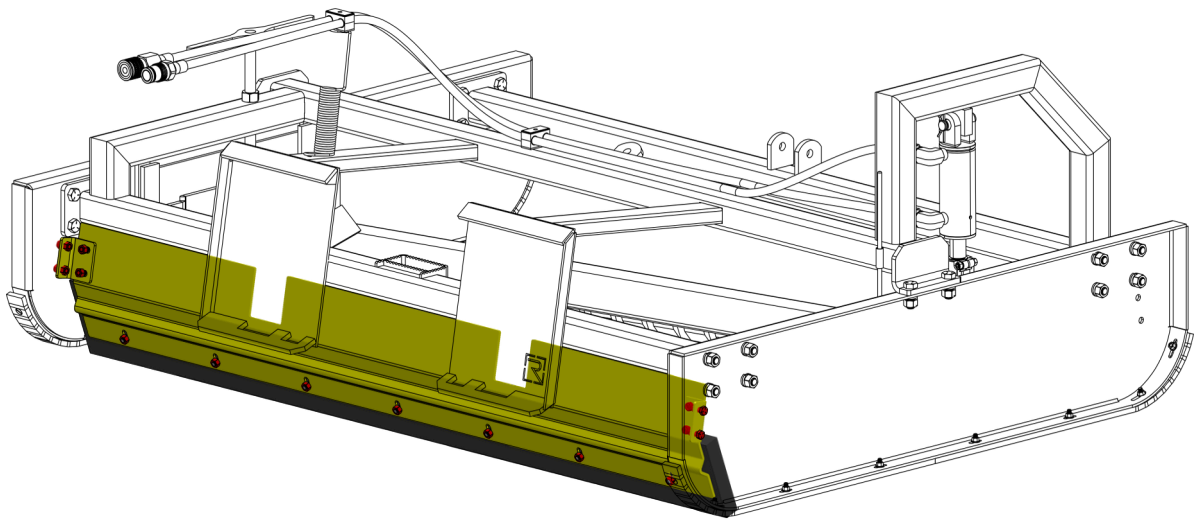
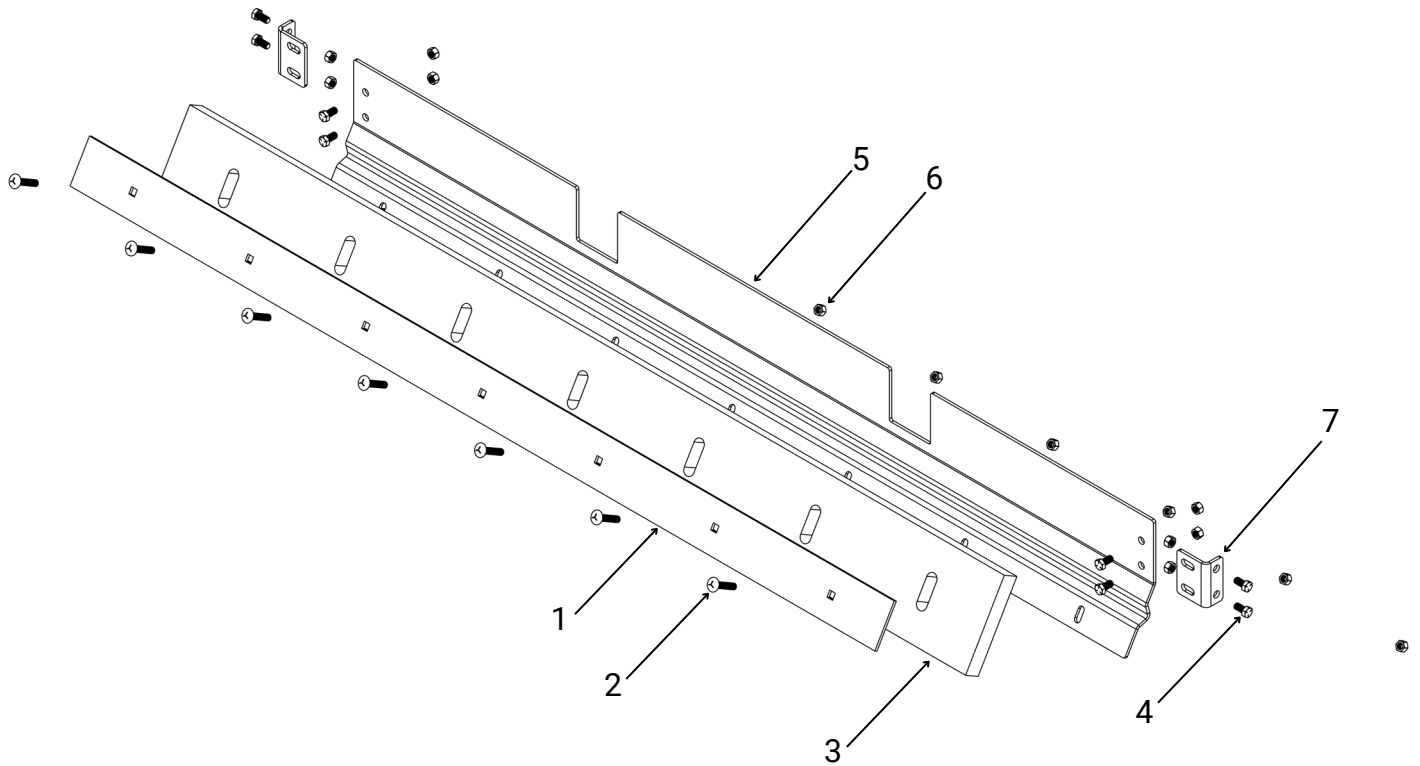


Fig.13

### 3.4 Snow Pusher Bill of Materials / Parts List



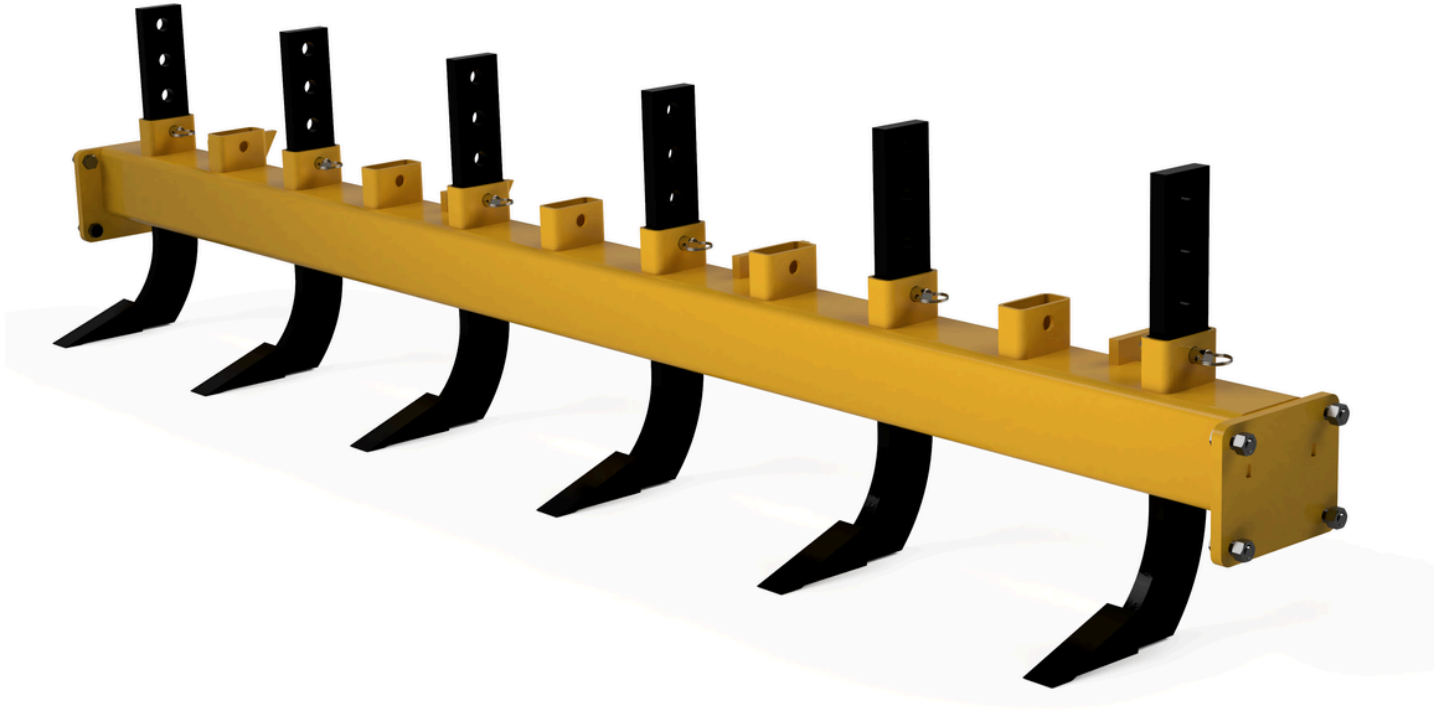
Item	Description	QTY
1	Wiper, Snow Pusher	1
2	Bolt, Carriage, 1/2"-13 x 2-1/2" Long	7
3	Plow Rubber	1
4	Bolt, 1/2"-13 x 1" Long	8
5	Snow Blade, Snow Pusher	1
6	Nut, 1/2"-13	15
7	Mount Angle, Snow Pusher	2





## 4. Scarifier

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# SCARIFIER

## 4.1 Operation & Function

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The scarifier is used to break up hard, compacted surfaces, making them easier to grade or resurface. It can handle various materials, including gravel, asphalt, and soil, making it useful for a range of applications. By loosening compacted materials, the scarifier reduces the time and effort needed for subsequent grading or resurfacing tasks.

Adjust the scarifier blades to the desired height [see figure \*\*:] based on the material you need to break up. When the scarifiers are not in use, either remove them from the crossbar or raise them to the maximum height. Be cautious of embedded rocks while scarifying.

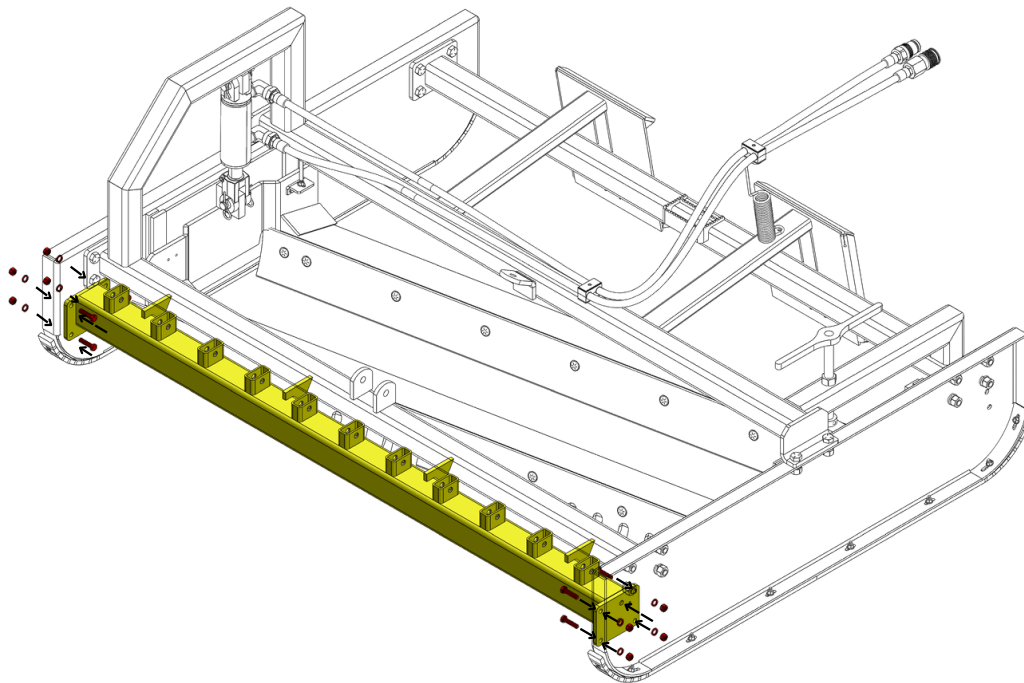
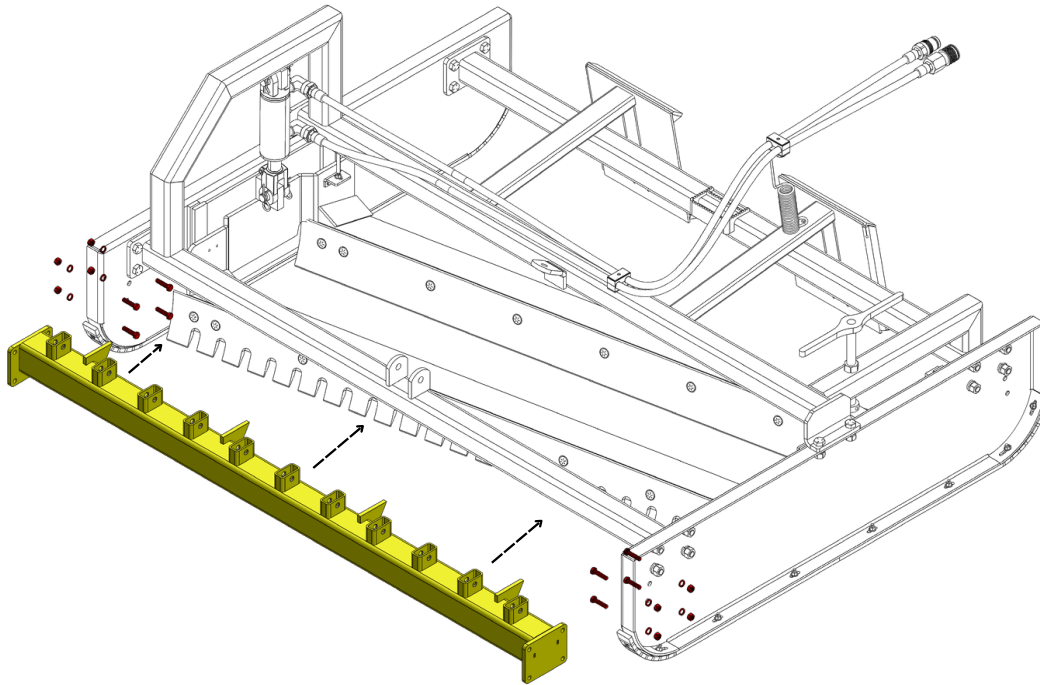
## 4.2 Installation

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- Lift the **Scarifier Tube Weldment** into position.
- Using the supplied hardware, secure the scarifier tube weldment tightly.
- Install and pin the desired quantity of ripper teeth.
- If you are retrofitting the scarifier to a grader without mounting holes, you will need to drill the 17/32" mounting holes, as indicated in fig.14.

## 4.3 Scarifier Installation Illustration



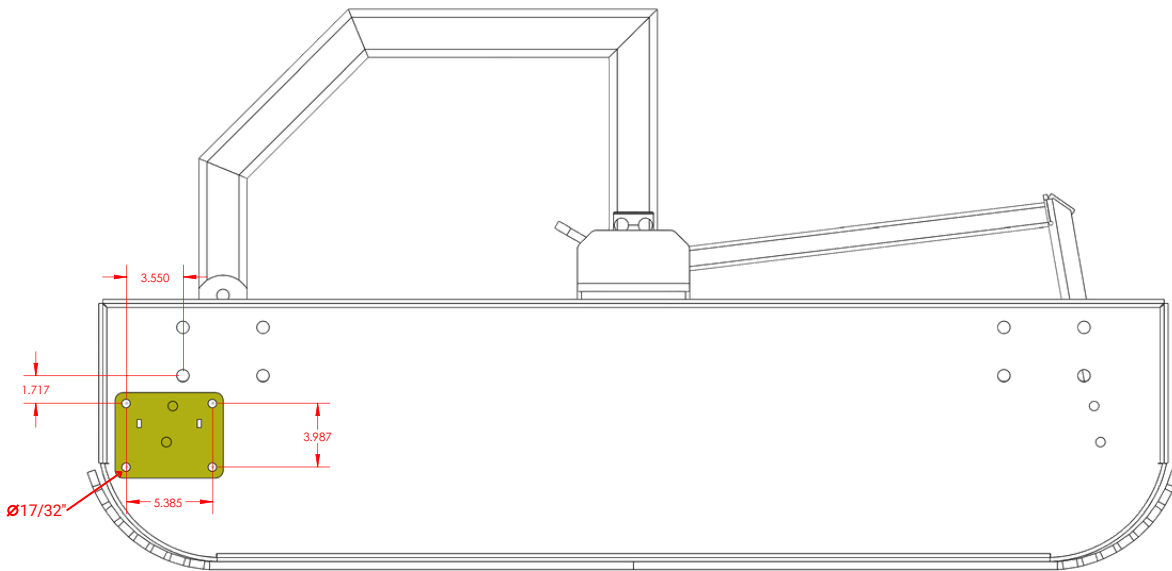
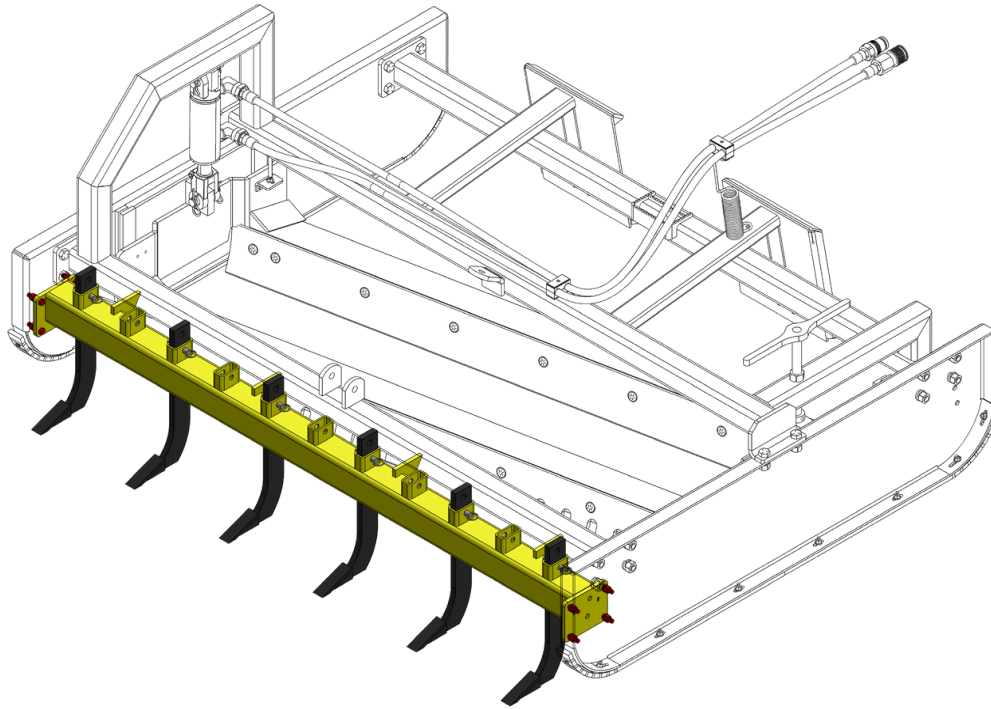
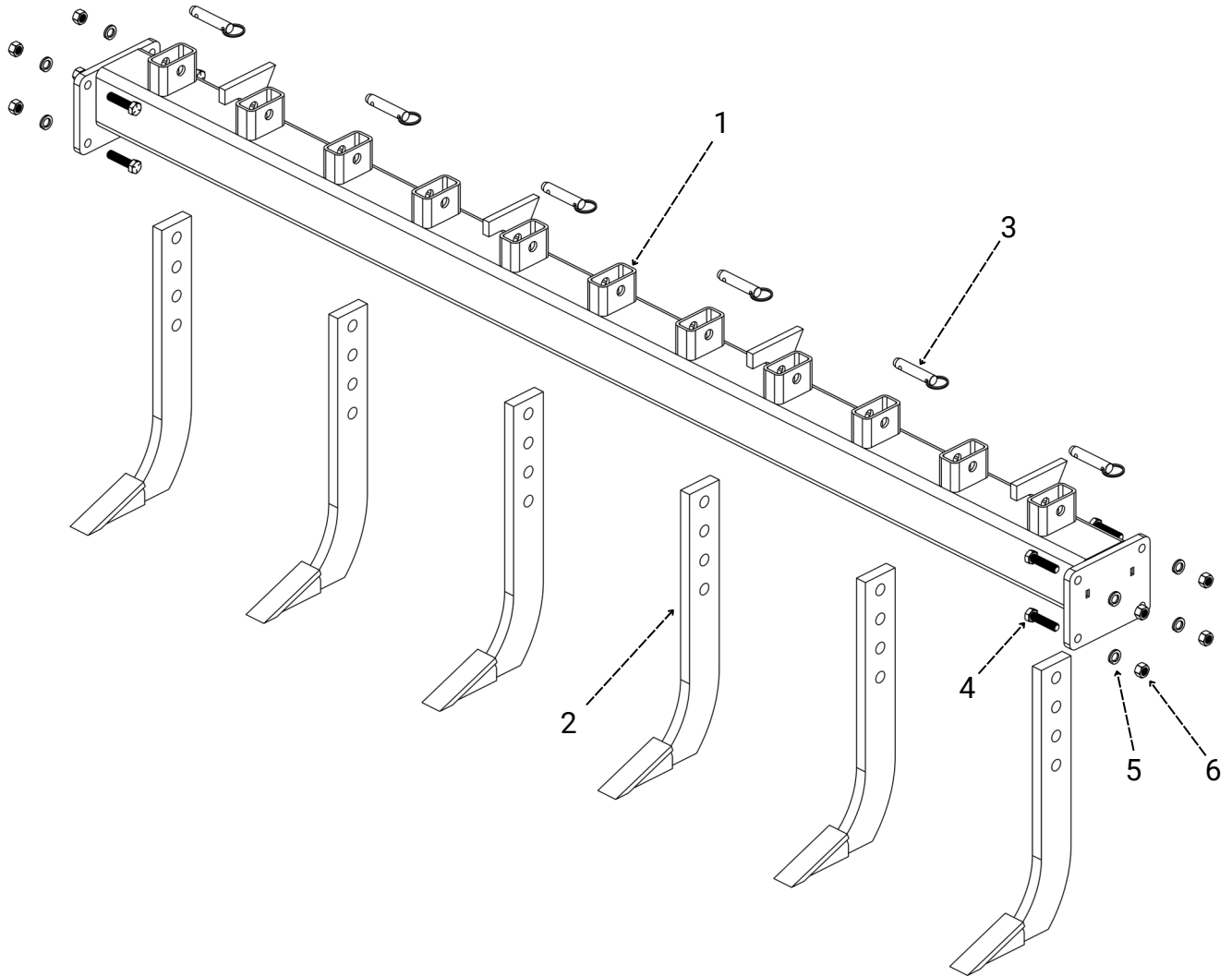


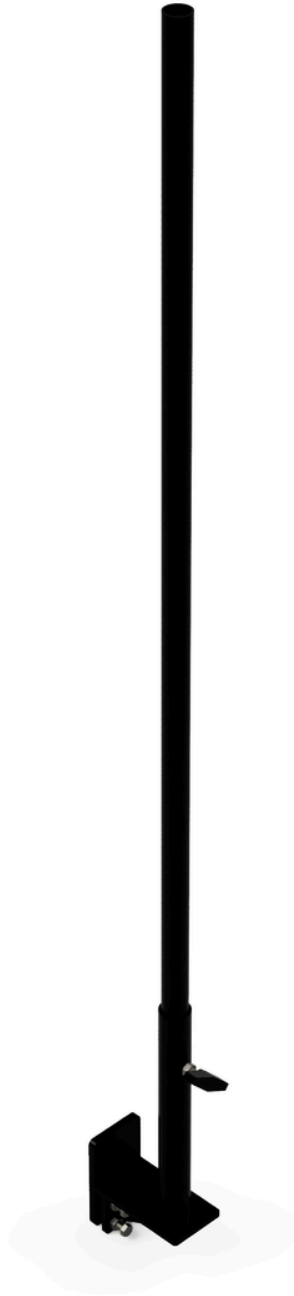
Fig.14

## 4.4 Scarifier Bill of Materials / Parts List



Item	Description	QTY
1	Tube Weldment, Scarifier	1
2	Ripper Tooth, Scarifier	
3	Ripper Tooth Pin	
4	Bolt, 1/2"-13 x 2" Long	8
5	Split Lock Washer, 1/2"	8
6	Nut, 1/2"-13	8





# LASER MOUNT



## 5.1 Operation & Function

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The Laser mount used to mount laser receivers onto your grader to enhance fine grading of site pads and parking areas.

A laser receiver is mounted onto the mast and adjusted to desired operator height.

## 5.2 Installation

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The **Laser Mount** will attach onto the blade side plate.

- Place the laser mount into position, as shown in fig15.
- Using the supplied hardware, secure the laser mount tightly.
- Insert the laser mount pipe to desired height and secure tightly with handle.

### 5.3 Laser Mount Illustration

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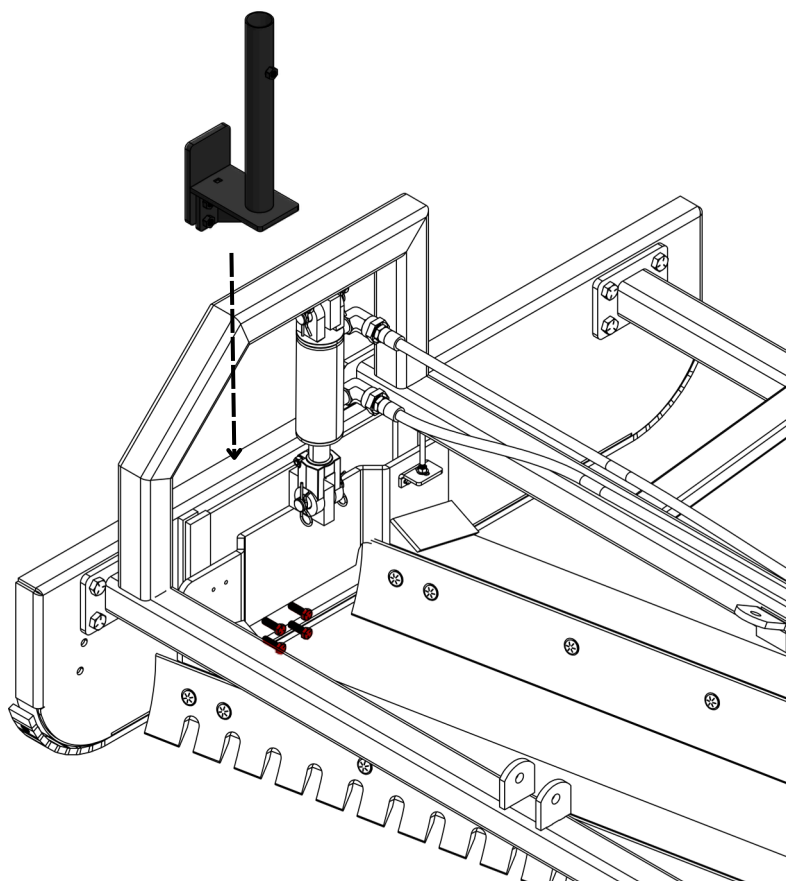
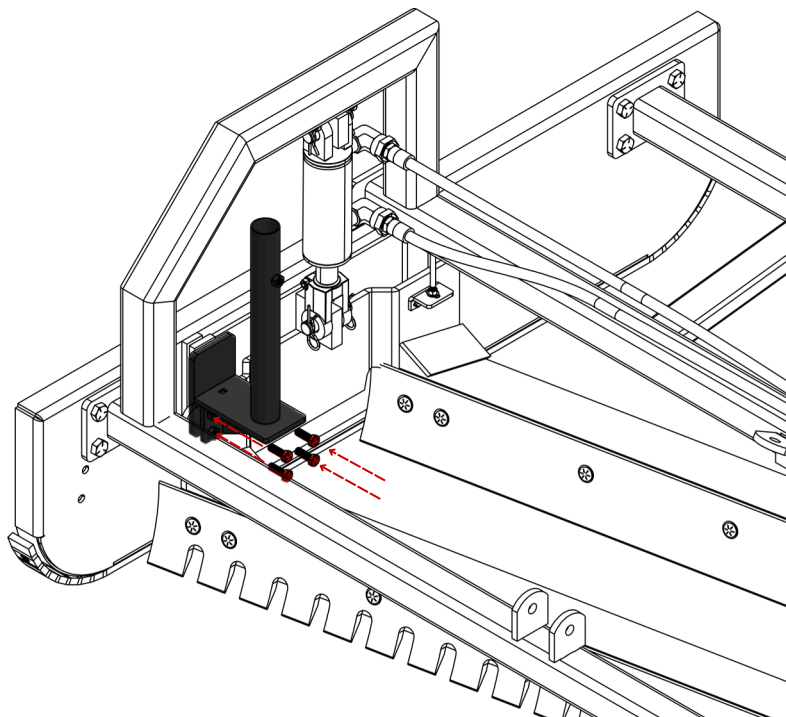
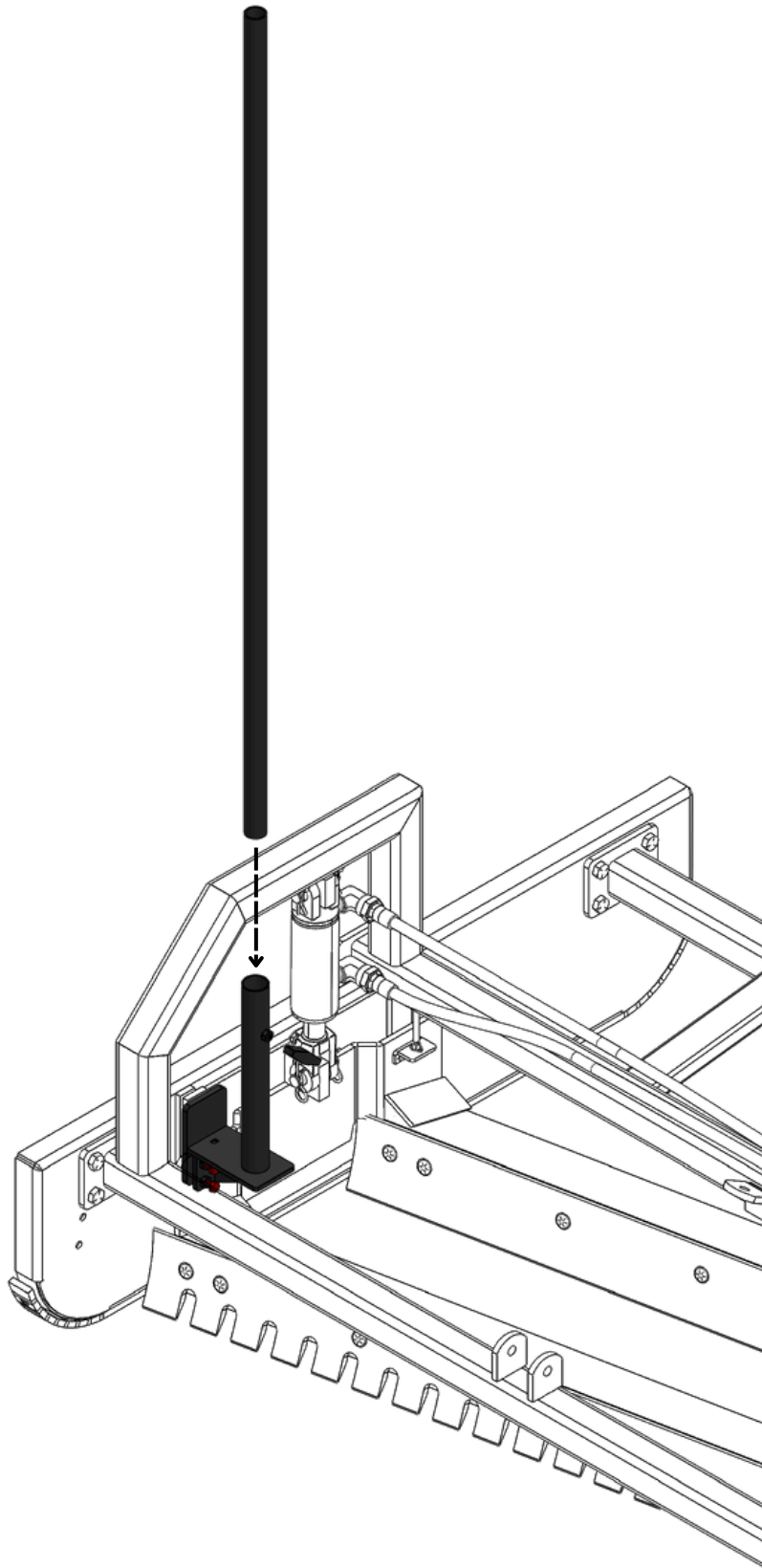


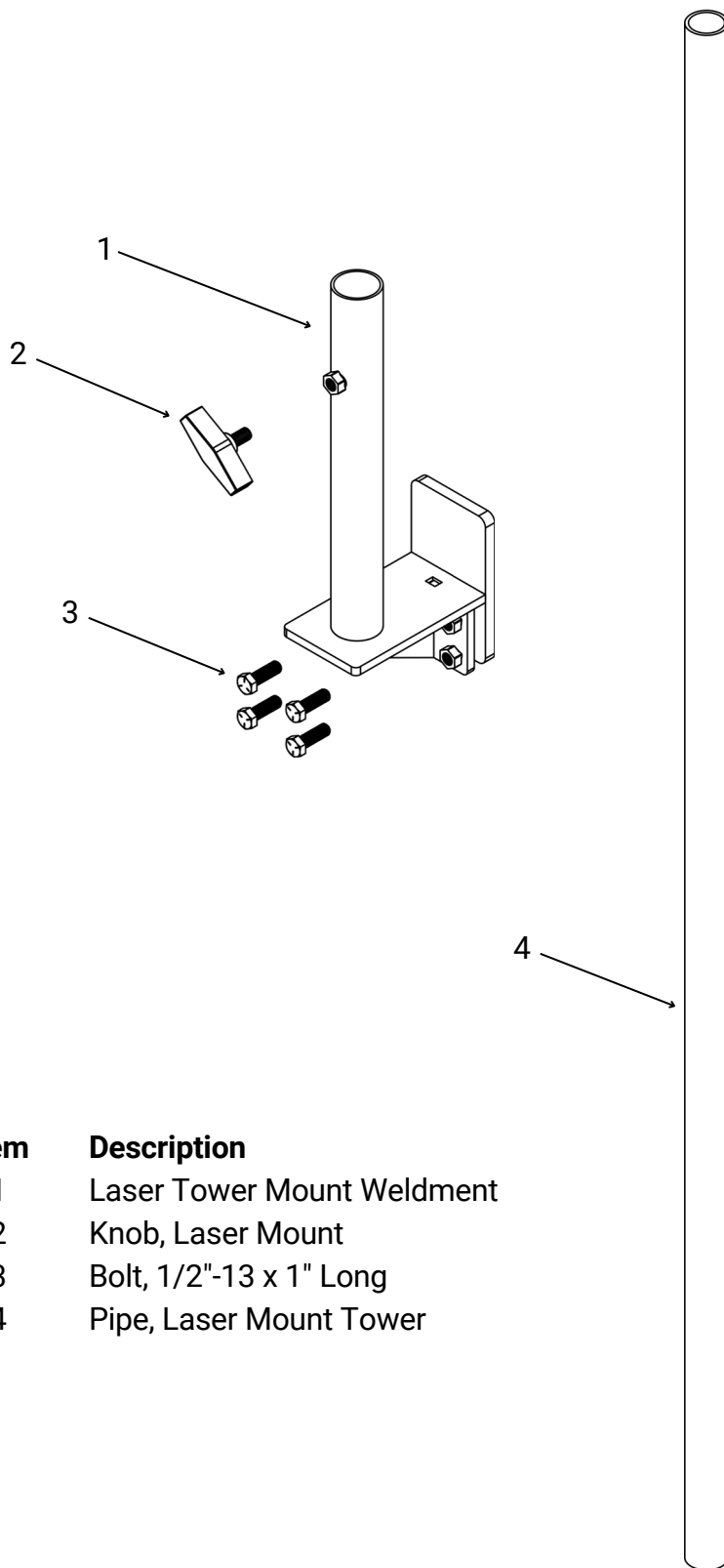
Fig.15





## 5.4 Laser Mount Parts / Bill of Materials

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Item	Description
1	Laser Tower Mount Weldment
2	Knob, Laser Mount
3	Bolt, 1/2"-13 x 1" Long
4	Pipe, Laser Mount Tower



***ROADRUNNER***  
***EQUIPMENT LLC.***

Roadrunner Equipment LLC  
155 Jalyn Drive  
New Holland, PA 17557

717.405.7785  
[www.RoadRunnerBlade.com](http://www.RoadRunnerBlade.com)  
[contact@roadrunnerblade.com](mailto:contact@roadrunnerblade.com)