

**Seedbed Tillage**  
1tRIPr (3 Point)

Part No. L125-082

### Foreword

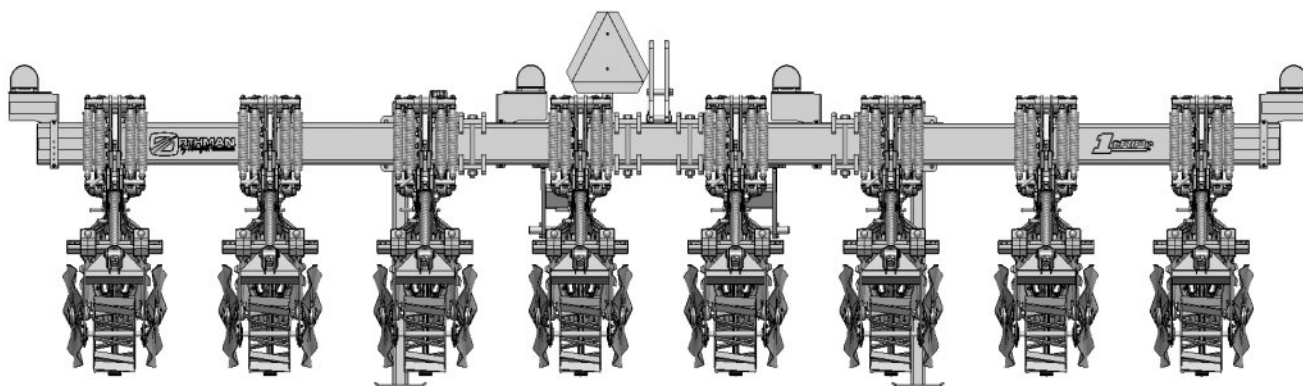


This symbol identifies important safety messages. When you see it, read the message that follows and be alert to the possibility of personal injury.

Remember, safety instructions stated in this manual are for your protection. Read them carefully and follow them closely when working around or using this machine.

Read and study this manual completely before attempting to operate this implement. Take this manual to the field for handy reference when operating, adjusting, or servicing your machine.

When referenced, “Right-Hand” (RH) and “Left-Hand” (LH) side of the machine are determined by standing behind the machine and facing in the direction of travel.



### Product Information

Please fill out and retain this portion for your records. All products manufactured by Unverferth Mfg. Co., Inc. are warranted to be free from material and workmanship defects for one full year from time of consumer delivery. Your local dealer will gladly assist you with any warranty questions.

The serial number plate is located as shown below.

Product \_\_\_\_\_

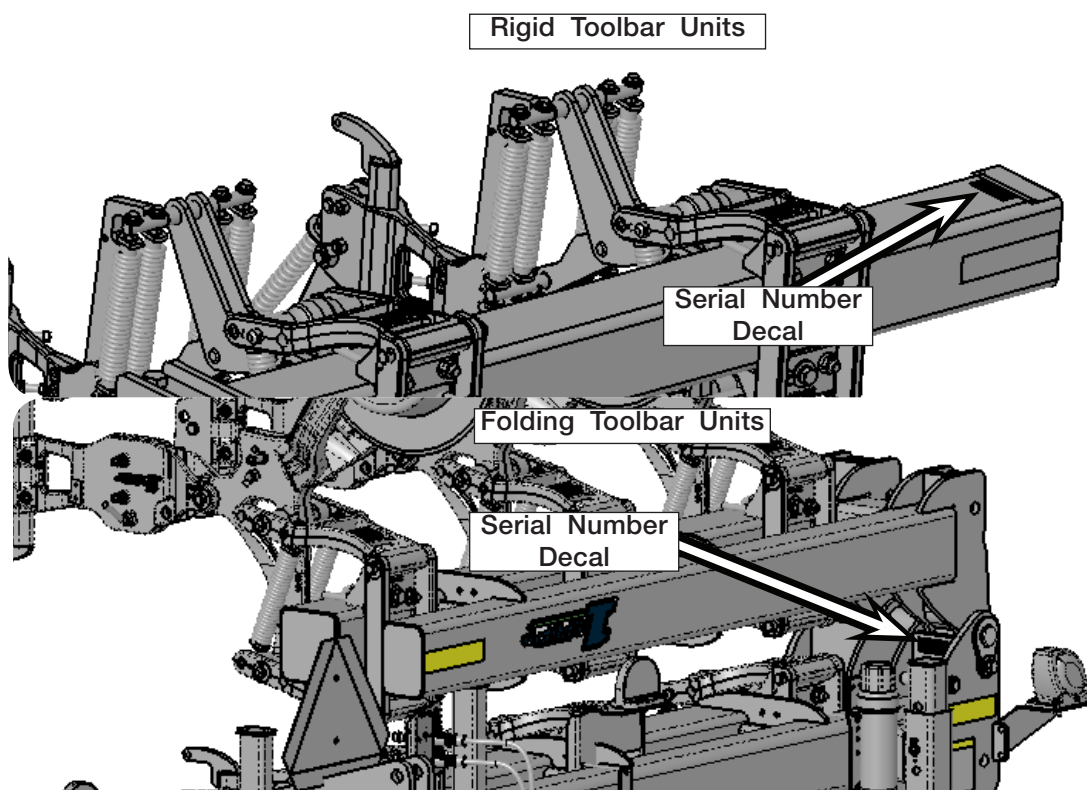
Serial Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Dealer \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please supply this information when you have questions or when ordering repair or replacement parts. Your dealer needs this information to give you prompt, efficient service.



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### General Hazard Information

No accident-prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

A large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it is on the highway, in the field, or in the industrial plant, can be safer than the person who is at the controls. If accidents are to be prevented--and they can be prevented--it will be done by the operators who accept the full measure of their responsibility.

It is true that the designer, the manufacturer, and the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that, "the best kind of a safety device is a careful operator." We, at Unverferth Mfg. Co., Inc. ask that you be that kind of operator.



**REMEMBER:**  
**THINK SAFETY**  
A CAREFUL OPERATOR IS THE  
BEST INSURANCE AGAINST AN  
ACCIDENT!

#### SIGNAL WORDS



INDICATES AN EXTREMELY HAZARDOUS SITUATION OR ACTION THAT WILL RESULT IN SERIOUS INJURY OR DEATH.



INDICATES A HAZARDOUS SITUATION OR ACTION THAT COULD RESULT IN SERIOUS INJURY OR DEATH.



INDICATES AN UNSAFE SITUATION OR ACTION THAT MAY RESULT IN PERSONAL INJURY.

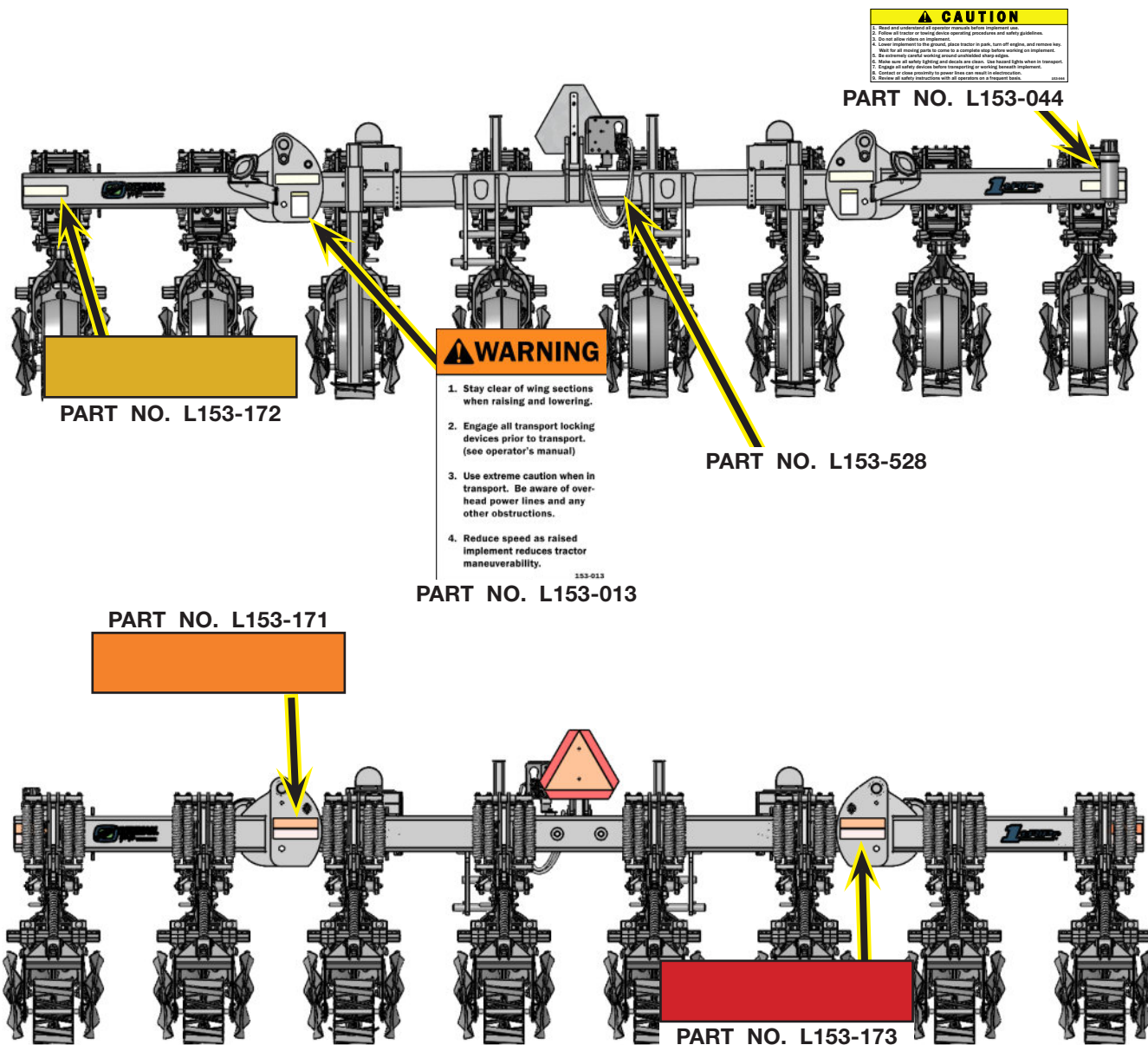
**IMPORTANT**

*Is used for instruction on operating, adjusting, or servicing a machine.*





## Safety Decals

### **WARNING**


- REPLACE LOST, DAMAGED, PAINTED, OR UNREADABLE DECALS IMMEDIATELY. IF PARTS THAT HAVE DECALS ARE REPLACED, ALSO MAKE SURE TO INSTALL NEW DECALS. THESE DECALS INFORM AND REMIND THE OPERATOR WITH OPERATIONAL INFORMATION AND SAFETY MESSAGES.



### Following Safety Instructions

- Read and understand this operator's manual before operating.
- All machinery should be operated only by trained and authorized personnel.
- To prevent machine damage, use only attachments and service parts approved by the manufacturer.
- Always shut tractor engine off and remove key before servicing.
- Avoid personal attire such as loose fitting clothing, shoestrings, drawstrings, pants cuffs, long hair, etc., that may become entangled in moving parts.
- Do not allow anyone to ride on the implement. Make sure everyone is clear before operating machine or towing vehicle.
- Never attempt to operate implement unless you are in driver's seat.

### Before Servicing or Operating

- Avoid working under an implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked.
- Ensure that all applicable safety decals are installed and legible.
- When working around the implement, be careful not to be cut by sharp edges.
- Do not stand between towing vehicle and implement during hitching.
- Always make certain everyone and everything is clear of the machine before beginning operation.
- Add sufficient ballast to tractor to maintain steering and braking control at all times. Do not exceed tractor's lift capacity or ballast capacity.
- Inspect fields for buried utility lines (electric, natural gas, water, etc.). To find buried lines in the US or Canada contact 1-888-258-0808, in the US you may also contact 811.

### During Operation

- Regulate speed to working conditions. Maintain complete control at all times.
- Never service or lubricate equipment when in operation.
- Use extreme care when operating close to ditches, fences, or on hillsides.
- Do not leave towing vehicle unattended with engine running.

### Before Transporting

- Install transport locks before transporting.
- Check for proper function of all available transport lights. Make sure that all reflectors are clean and in place on machine. Make sure that the SMV emblem and SIS decal are visible to approaching traffic.

### During Transport

- Comply with all laws governing highway safety when moving machinery.
- Use transport lights as required by all laws to adequately warn operators of other vehicles.
- Use good judgment when transporting equipment on highways. Regulate speed to road conditions and maintain complete control.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.

### Preparing for Emergencies

- Keep a first aid kit and properly rated fire extinguisher nearby.



- Keep emergency numbers for fire, rescue, and poison control personnel near the phone.



### Wearing Protective Equipment

- Wear clothing and personal protective equipment appropriate for the job.
- Wear steel-toed shoes when operating.
- Wear hearing protection when exposed to loud noises.
- Do not wear additional hearing impairing devices such as radio headphones, etc



### Pressurized Oil

- Relieve the hydraulic system of all pressure before adjusting or servicing. See hydraulic power unit manual for procedure to relieve pressure.
- High-pressure fluids can penetrate the skin and cause serious injury or death. Leaks of high-pressure fluids may not be visible. Use cardboard or wood to detect leaks in the hydraulic system. Seek medical treatment immediately if injured by high-pressure fluids.
- Hydraulic system must be purged of air before operating to prevent serious injury or death.
- Do not bend or strike high-pressure lines. Do not install bent or damaged tubes or hoses.
- Repair all oil leaks. Leaks can cause fires, personal injury, and environmental damage.
- Route hoses and lines carefully to prevent premature failure due to kinking and rubbing against other parts. Make sure that all clamps, guards and shields are installed correctly.
- Check hydraulic hoses and tubes carefully. Replace components as necessary if any of the following conditions are found:
  - End fittings damaged, displaced, or leaking.
  - Outer covering chafed/cut or wire reinforcing exposed.
  - Outer covering ballooning locally.
  - Evidence of kinking or crushing of the flexible part of a hose.



## SECTION II

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### General Set Up Information

This section contains all of the instructions required for the complete assembly of the machine.

For your safety, and the safety of others, use proper tools and equipment and always use safe working procedures. Refer to these instructions before starting any work on your machine.

For ease of assembly, install all hardware loosely until assembly is complete and then tighten according to “Torque Chart” in MAINTENANCE section unless otherwise specified.

### **WARNING**

- **KNOW AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN YOUR MANUAL IF NECESSARY.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 26,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**
- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE THE MACHINE IS SECURELY BLOCKED.**
- **MOVING PARTS CAN CRUSH AND CUT. KEEP AWAY FROM MOVING PARTS.**

### Basic Set Up

Due to shipping requirements and various dealer-installed options, some initial implement set up will be required after it arrives from the factory. Use the following procedures as needed for initial implement set up.

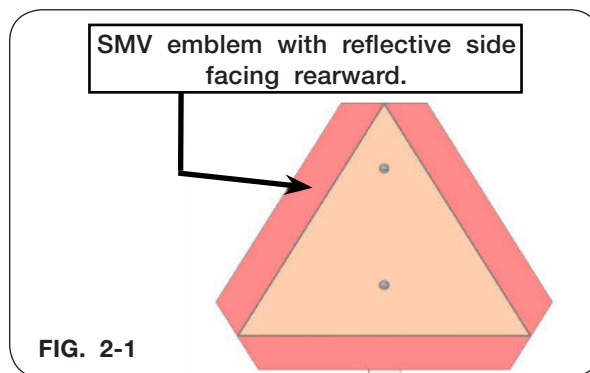
### Hydraulic System

Check all hoses and cylinders for signs of leakage. Hoses should not be kinked, twisted or rubbing against sharp edges. Re-route or repair hoses as necessary. Refer to SAFETY section for additional information on safe repair and inspection of hydraulic components.

### SMV Emblem

Before the implement is used the reflective surface of the SMV must face rearward. This may require removal of film protecting the reflective surface or removing and reinstallation of the SMV.

When reinstalling the SMV make sure that it is mounted with the wide part of the SMV at the bottom. (Fig. 2-1)



## Light and Light Bracket Set Up (Single Toolbar)

### For Outer Lights:

**NOTE:** The left and right light brackets should be adjusted according to the degree at which the wings fold.

1. Remove the hex nut and capscrew from the top of the light bracket mount. (Fig. 2-2)
2. Loosen the capscrew and nut on the bottom of the light bracket mount.
2. Adjust the light bracket to the desired position pictured below.
3. Install the capscrew and hex nut into the light bracket mount, then tighten to the specification listed in the maintenance section. (Fig. 2-2)
5. Tighten the capscrew and hex nut on the bottom of the light bracket mount.

FIG. 2-2

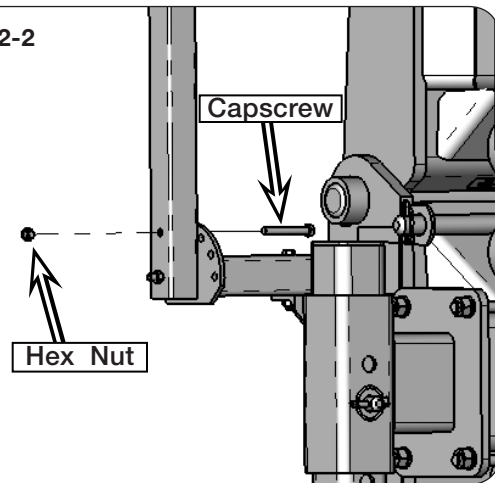


FIG. 2-3

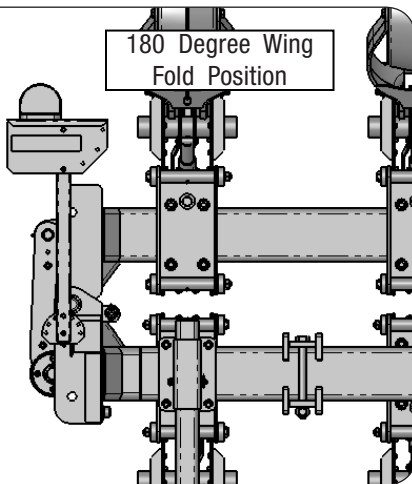


FIG. 2-4

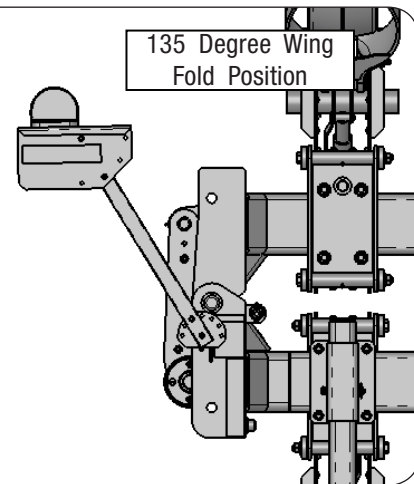


FIG. 2-5

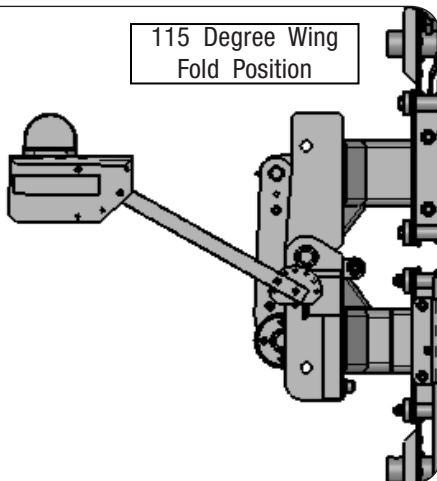
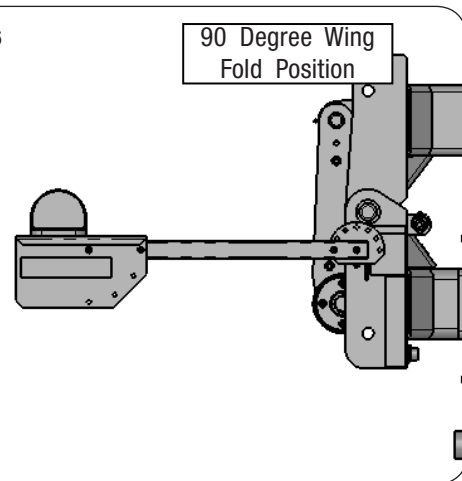


FIG. 2-6

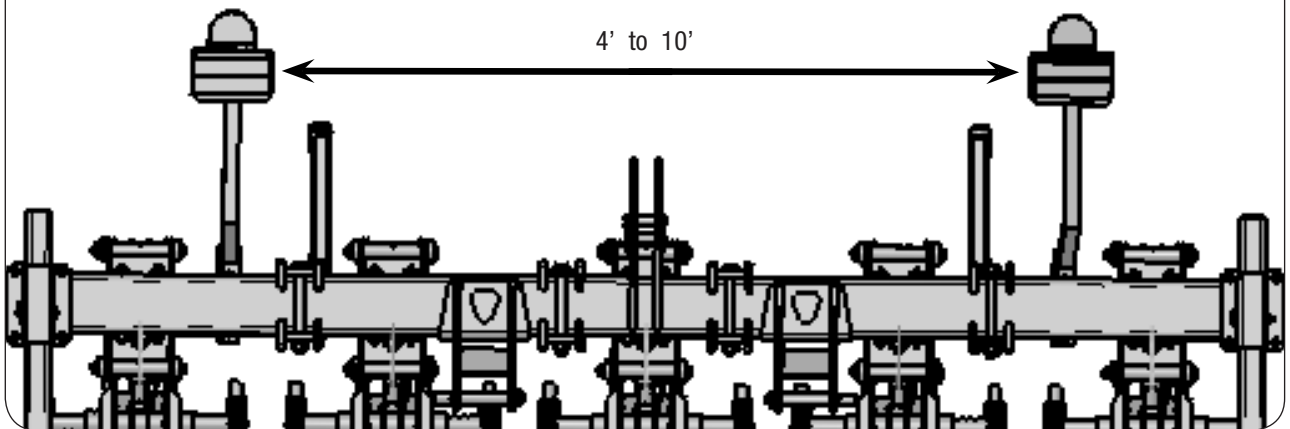


### Light and Light Bracket Set Up (Single Toolbar)

#### For Inner Lights:

Inner light brackets must each be mounted equally from the center of the toolbar and be a total distance of between 4' and 10' from each other. The inner red lights will only have a lens on one side of the light and it should be visible from the rear of the toolbar.

FIG. 2-7



## Row Unit Mounting

### **WARNING**

- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE MACHINE IS SECURELY BLOCKED.**

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.

2. Lower the unit until it is supported by the stands, then set the tractors parking brake and remove the key.



3. Remove the roll pins, flat washers, and pins from the row unit. (Fig. 2-8)

4. Remove the row unit mounting plate from the row unit. (Fig. 2-8)

5. Remove the u-bolts and flange nuts from the mounting plate. (Fig. 2-9)

6. Install the mounting plate onto the toolbar, then install the u-bolts and flange nuts. (Fig. 2-10)

FIG. 2-8

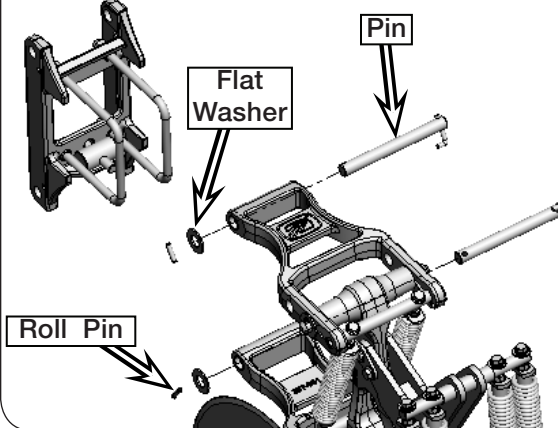


FIG. 2-10

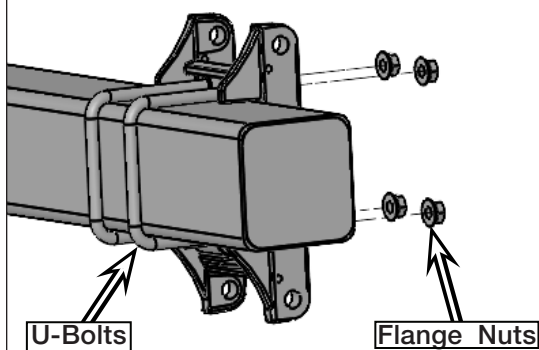
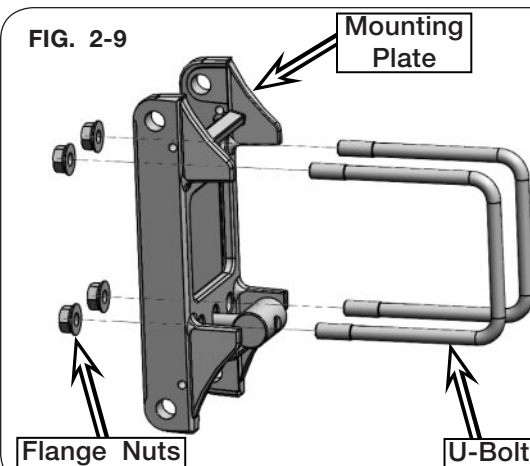


FIG. 2-9



### Row Unit Mounting (Continued)

7. Tighten the wedge capscrew until the wedge is firmly against the bottom of the toolbar. (Fig. 2-11)
8. Install the row unit onto the mounting plate using the pins, flat washers, and roll pins. (Fig. 2-12)
9. Torque all hardware to the specification listed in the maintenance section.

FIG. 2-11

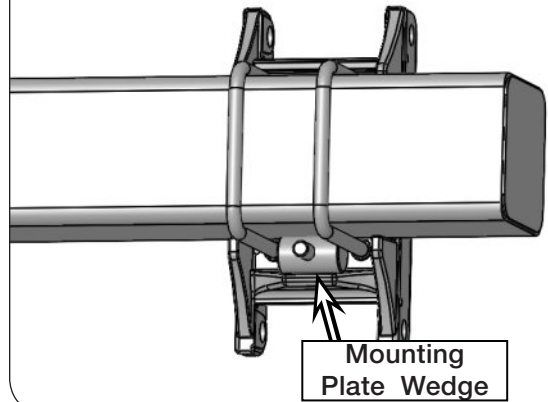
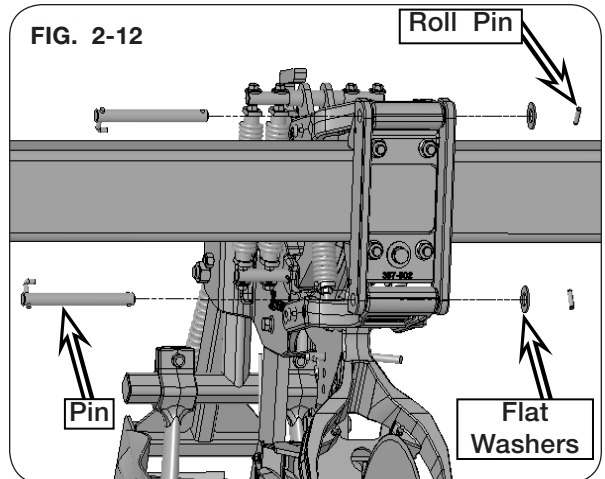


FIG. 2-12



### Setback Clamp Mounting

#### **WARNING**

- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE MACHINE IS SECURELY BLOCKED.**

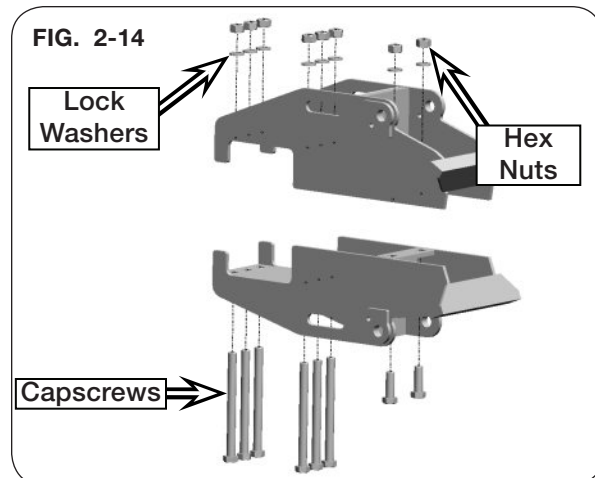
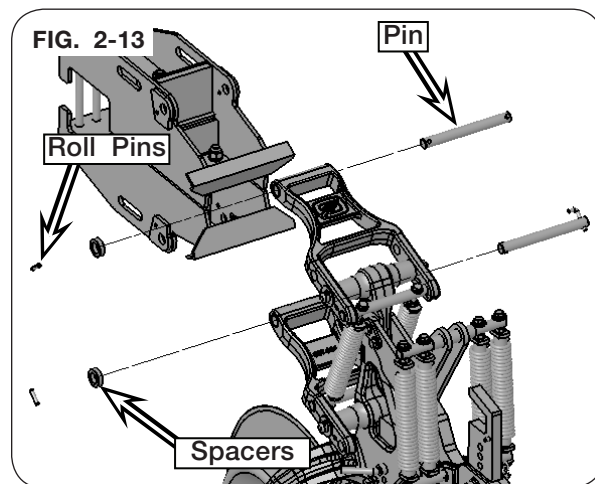
1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.

2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.

3. Remove the roll pins, spacers, and pins from the row unit. (Fig. 2-13)

4. Remove the set back clamp from the row unit. (Fig. 2-13)

5. Remove the hex nuts, lock washers, and capscrews from the set back clamp, then separate the halves of the clamp. (Fig. 2-14)



### Setback Clamp Mounting (Continued)

6. Install the set back clamp halves onto the toolbar, then install the capscrews, lock washers, and hex nuts. (Fig. 2-15)
7. Install the row unit onto the set back clamp using the pins, spacers, and roll pins. (Fig. 2-16)
8. Wedge? (Fig. 2-17)
9. Torque all hardware to the specification listed in the maintenance section.

FIG. 2-15

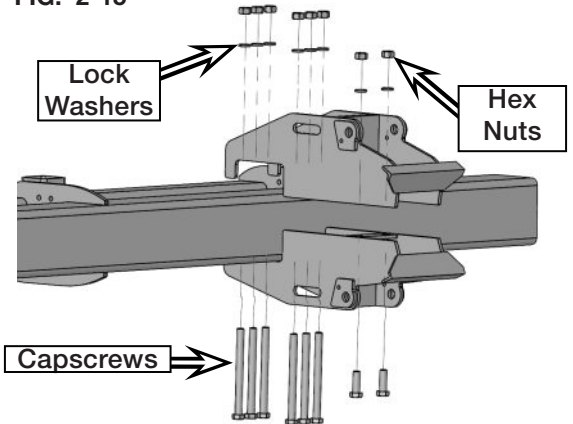
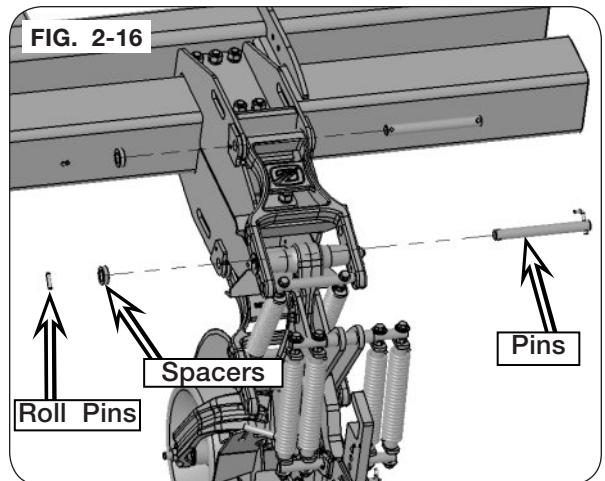
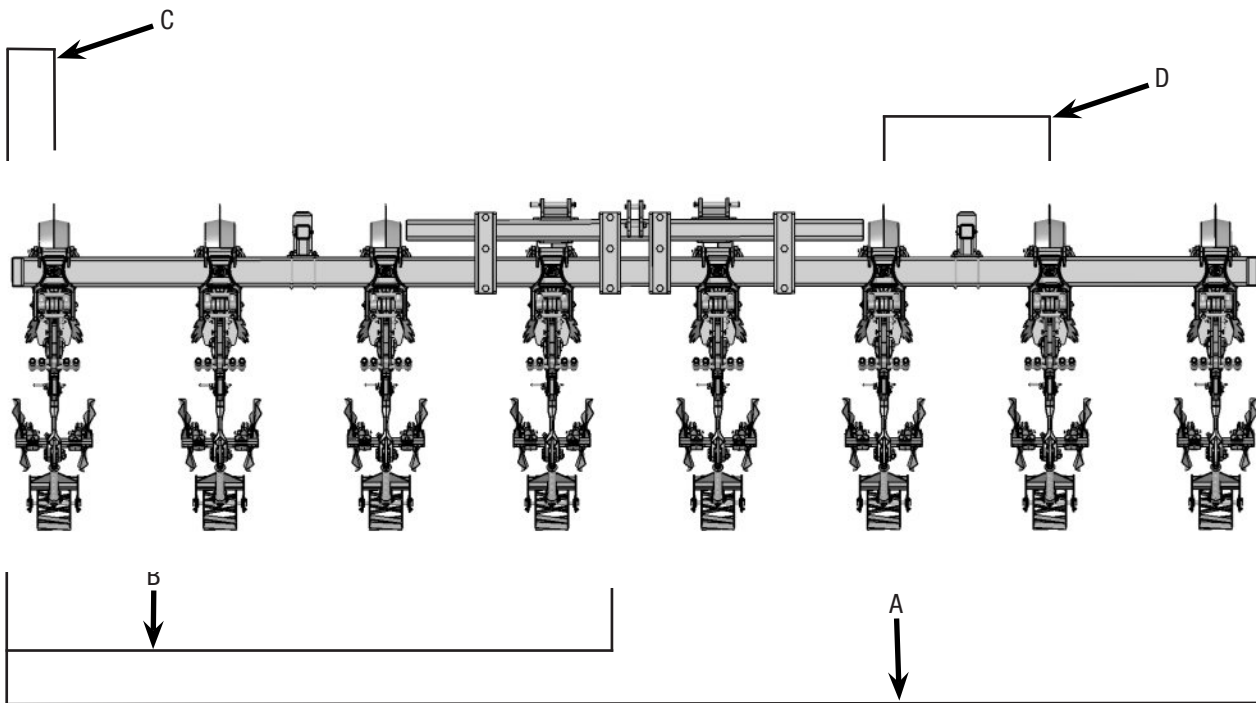


FIG. 2-16



## 1 tRIPr (3 Point) — Set Up

### Overhead Layouts



A= Overall Width

B= Width to the top link of the 3 point hitch

C= Width from the end of the toolbar to the center of the first row unit

D= Width between the centers of the row units

# 1 tRIPr (3 Point) — Set Up

## Overhead Layouts

Model	Measurements (Inches)			
	A	B	C	D
4R22 Rigid	116.24	58.12	25.12	22
4R30 Rigid	116.24	58.12	13.12	30
4R36 Rigid	144.24	72.12	18.12	36
4R38 Rigid	144.24	72.12	15.12	38
4R40 Rigid	144.24	72.12	12.12	40
6R22 Rigid	180.24	90.12	35.12	22
6R30 Rigid	180.24	90.12	15.12	30
6R36 Rigid	228.24	114.12	24.12	36
6R38 Rigid	228.24	114.12	19.12	38
6R40 Rigid	228.24	114.12	14.12	40
8R22 Rigid	180.24	90.12	13.12	22
8R30 Rigid	240.24	120.12	15.12	30
8R30 Folding	225.67	112.84	7.84	30
8R36 Rigid	287.88	143.94	17.94	36
8R36 Folding	278.9	139.45	13.45	36
8R38 Rigid	300.24	150.12	17.12	38
8R38 Folding	295.92	147.96	15.46	38
8R40 Rigid	300.24	150.12	10.12	40
8R40 Folding	295.92	147.96	7.96	40
12R22 Folding	261.92	130.96	9.96	22
12R30 Folding	345.67	172.84	7.84	30
12R36 Folding	411.67	205.84	7.84	36
12R38 Folding	455.67	227.84	18.84	38
12R40 Folding	455.67	227.84	7.84	40
16R20 Folding	312.18	156.09	6.09	20
16R30 Folding	465.67	232.84	7.84	30
16R36 Folding	583.17	291.58	21.58	36
16R38 Folding	583.17	291.58	6.58	38
16R40 Folding	616.2	308.1	8.1	40
18R20 Folding	352.18	176.09	6.09	20
18R30 Folding	529.17	264.58	9.58	30

## **SECTION III**

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### General Operation Information

#### **WARNING**

- **READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW “SAFETY” SECTION IN THIS MANUAL IF NECESSARY.**

Read this operation section thoroughly. Acquaint yourself with the adjustments required to obtain efficient and trouble-free operations.

### Preparing Tractor

#### **WARNING**

- **TRANSPORTING THE IMPLEMENT SIGNIFICANTLY CHANGES THE WEIGHT AND BALANCE OF YOUR TRACTOR. MAKE SURE THE TRACTOR IS PROPERLY BALLASTED.**
- **DO NOT EXCEED THE TRACTOR’S LIFT CAPACITY OR BALLAST RECOMMENDATIONS.**

Read this operation section thoroughly. Acquaint yourself with the adjustments required to Before operating implement, refer to tractor operator’s manual for information concerning safe methods of operation, hitch adjustment, tire inflation, wheel adjustments, and tractor weights.

Check tractor brakes and transport lights. Make sure they are in proper working order.

### Hitching to Tractor

#### **WARNING**

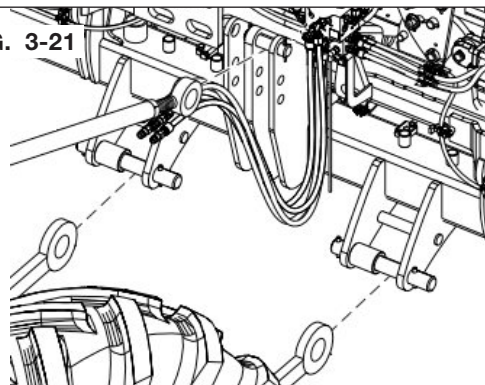
- CRUSHING CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT STAND BETWEEN TOWING VEHICLE AND IMPLEMENT WHEN HITCHING. ALWAYS ENGAGE PARKING BRAKE AND STOP ENGINE BEFORE INSERTING HITCH PINS OR SECURING LATCHES.

### 3 Point Hitch Tractor Connection

1. Back up tractor to the implement hitch. Place the tractor in park, turn off the engine, and remove the key before connecting the implement. Injury or death can result from being trapped between the tractor and implement.
2. Set tractor's three-point hitch lateral float pins. Lateral float pins should be placed in the lower holes to allow machine to "float" and follow the ground surface.
3. Set tractor's three-point hitch lift links. Hitch lift links should be adjusted to the operating depth dimensions indicated in the tractor operator's manual.
4. Connect the tractor's lower three-point hitch points to the lower hitch tug pins on the implement. (Fig. 3-21)
5. Adjust the tractor's upper link as necessary to connect the upper hitch pin on the implement. (Fig. 3-21)



FIG. 3-21



### Hitching to Tractor (Continued)

#### Quick Hitch Tractor Connection

1. Back up tractor to the implement hitch. Place the tractor in park, turn off the engine, and remove the key before connecting the implement. Injury or death can result from being trapped between the tractor and implement.
2. Release the lower locks on the quick hitch. (Fig. 3-22)
3. Lower the tractor's 3-point until the center link hook and quick-hitch hooks are lower than the implement hitch pins.
4. Slowly back the tractor towards the toolbar until the quick-hitch hooks are aligned with the implement hitch pins.
5. Raise the rockshaft until the center link hook and quick-hitch hooks engage with the implement hitch pins. (Fig. 3-23)
6. Engage the lower locks of the quick hitch.

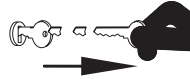


FIG. 3-22

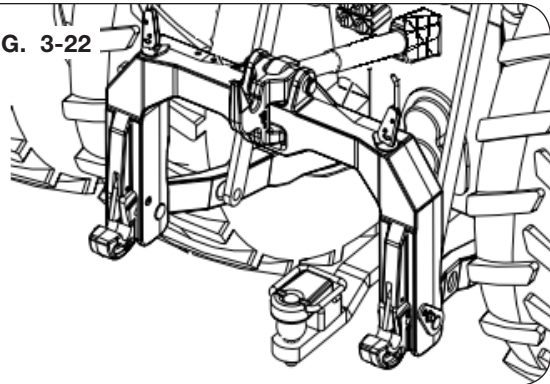
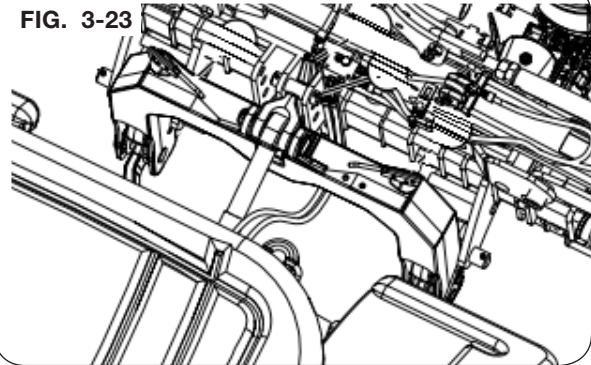


FIG. 3-23



### Wing Folding Degree Adjustment

#### **WARNING**

- **MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.**

**NOTE:** Vertical Folding Toolbars can be folded to either 90°, 115°, 135°, or 180°. Modifications may need to be made to the current fold angle due to transportation, storage, and application issues of the particular operation

**NOTE:** All Vertical Folding Toolbars come standard with cylinders in the 180 degree fold position and with 180 degree fold wing rests. If the internal cylinder is moved to allow the toolbar to fold at 115 or 135 degrees adjustable wing stops (sold separately) are mandatory.

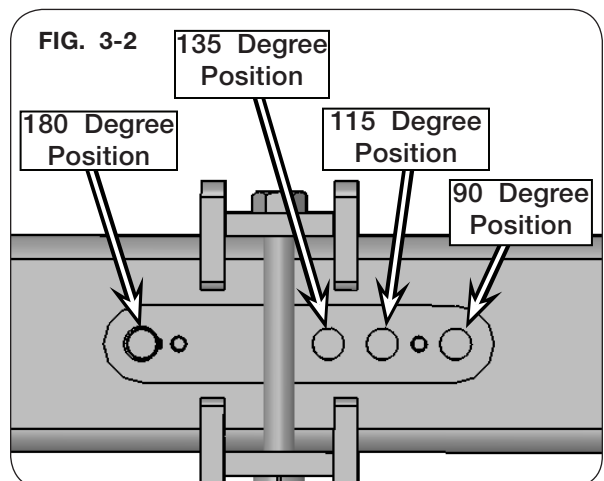
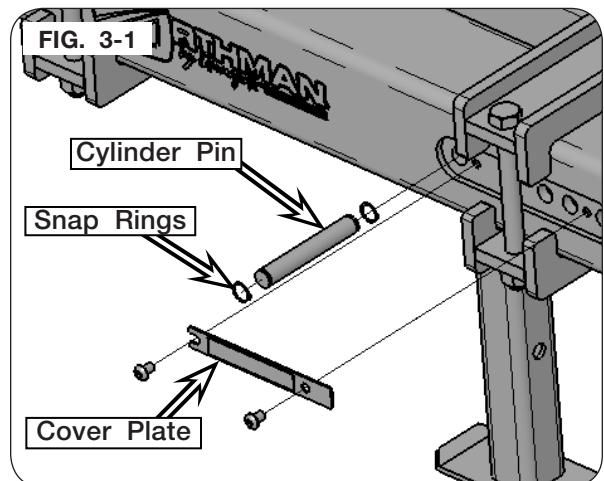
**NOTE:** 16 Row 30" Spacing configurations come standard with the internal cylinder in the 170 degree fold position with 170 degree wing rests.

#### Changing Position of Internal Cylinder

**NOTE:** If 90 degree fold is desired, refer to the 90 degree folding process in this section of the manual after these steps have been followed.

1. Unlock wings from rigid position by removing wing lock pin, but leave the wing in the field position. Then relieve hydraulic fluid pressure by placing the tractor SCV in the float position.
2. Remove the cover plate and snap rings from the cylinder pin, then remove the cylinder pin. (Fig. 3-1)
3. Restore hydraulic pressure and use the tractor SCV to extend or retract the hydraulic cylinder to the desired pin hole. (Extend if reducing the degree of fold; retract of increasing the degree of fold) (Fig. 3-2)
4. Once the cylinder is in the desired position, install the cylinder pin, snap rings, and cover plate. (Fig. 3-1)

**NOTE:** After moving the internal cylinder, refer to Adjustable Wing Rest section to make the necessary adjustment to the wing rest.



### Adjustable Wing Rest

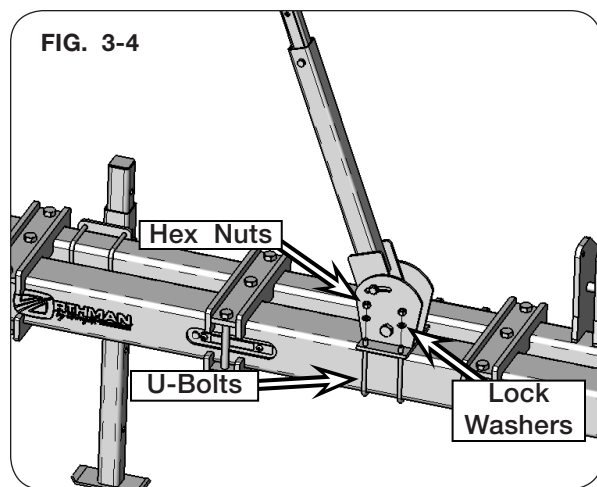
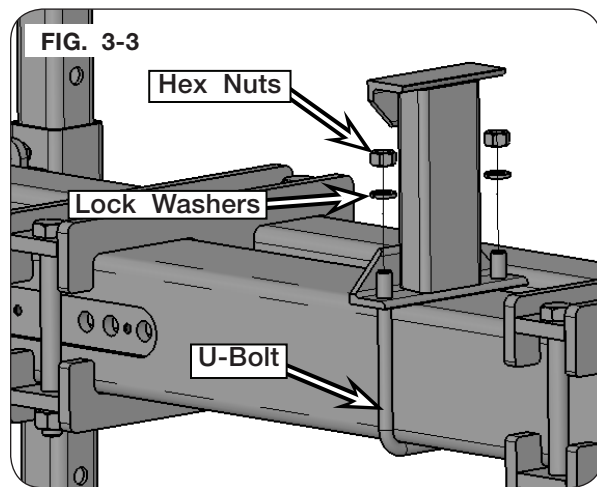
#### **WARNING**

- MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.

**NOTE:** Vertical Folding Tillage Toolbars are standard with 180° fold configuration. If 115° or 135° fold configuration is desired, adjustable wing rests must be ordered separately (see adjustable wing rest parts page).

#### To Mount Adjustable Wing Rest

1. Remove the U-bolt, hex nuts, and lock washers securing the standard 180 degree rest to the tool bar. (Fig. 3-3)
2. Remove the standard 180 degree rest, then mount the wing rest in the same position as the standard 180 degree wing rest.
3. Use the included U-bolts, hex nuts, and lock washers to secure the adjustable wing rest onto the toolbar. (Fig. 3-4)



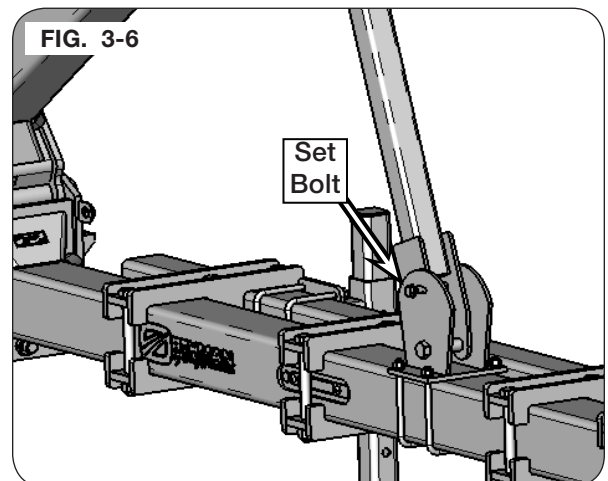
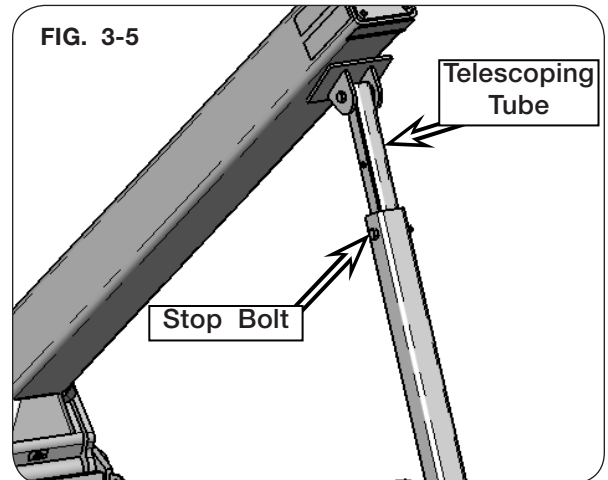
### Adjustable Wing Rest

#### **WARNING**

- MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.

### Adjusting The Wing Rest

1. Before adjusting, be sure the internal hydraulic cylinder is in the correct position for the desired degree of folded wing placement. If internal hydraulic cylinder must be moved, refer to the instructions for “Changing Position of Internal Cylinder” on the previous page.
2. Raise the wing from field position to the desired degree of folded wing placement (fully extend hydraulic cylinder).
3. With the wing in position, extend the telescoping tube of the wing rest to the most extended position setting hole possible and replace the stop bolt and retighten. (Fig. 3-5)
4. Adjust the wing rest arm from the base by loosening the set bolt and rotating the the wing rest arm until the wing rest plate becomes flush with a bare space on the wing and retighten. (Fig. 3-6)
5. Re-loosen the set bolt for the wing rest arm and slightly rotate the wing rest arm outward so that when wing is in the folded position, the weight of the wing will rest upon the wing rest and not on the internal hydraulic cylinder, then tighten the arm set bolt.



### 90 Degree Folding Procedure

#### **WARNING**

- MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.

**NOTE:** The 90 degree fold transport lock (sold separately) is mandatory for the 90 degree fold position.

**NOTE:** Be sure to follow all steps of the “Changing Position of Internal Cylinder” section before proceeding.

1. Raise the wing to the 90 degree position by fully extending the internal hydraulic cylinder.
2. Remove wing lock pin from storage position and install in the wing lock position with the 90 degree transport lock in place as shown. (Fig. 3-7 and 3-8)
3. Adjust outer transport light brackets accordingly.

FIG. 3-7

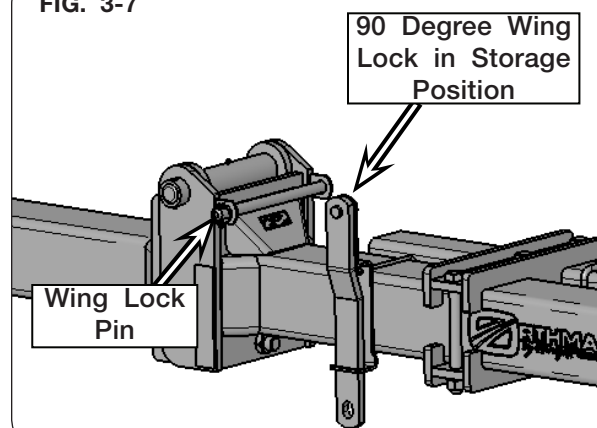
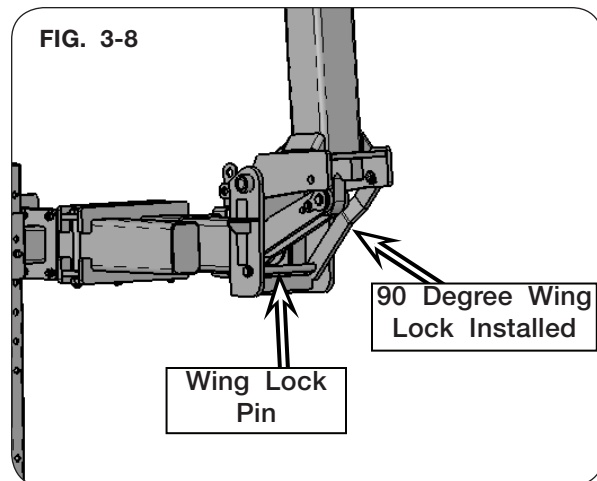


FIG. 3-8



### Implement Field Operation

#### Rigid Operation

### WARNING

- MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.

1. With the wings completely unfolded, move the wing lock pin from the storage position and install it into the wing lock position. (Fig. 3-9 and 3-10)

**NOTE:** This will keep the wings from moving upward and the toolbar will not be able to fold with the wings locked.

FIG. 3-9

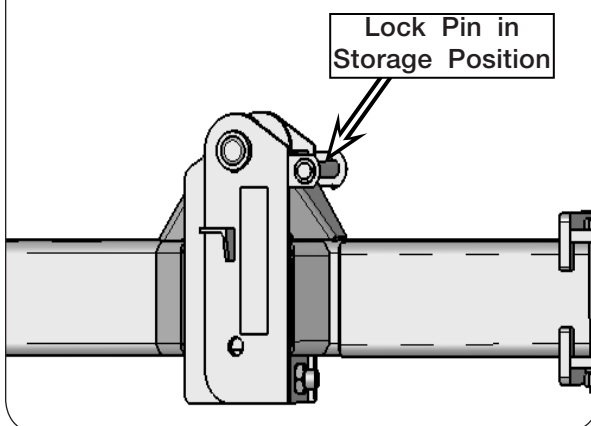
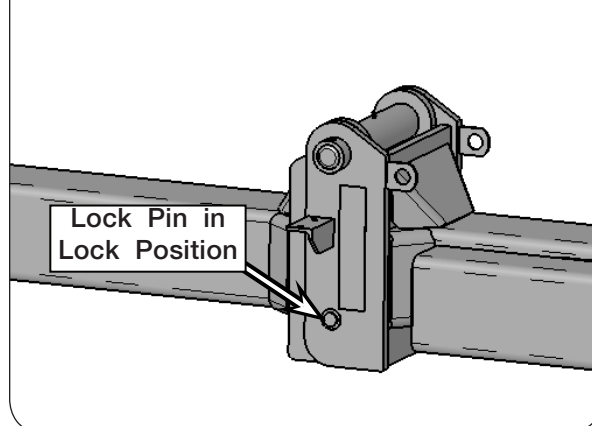


FIG. 3-10

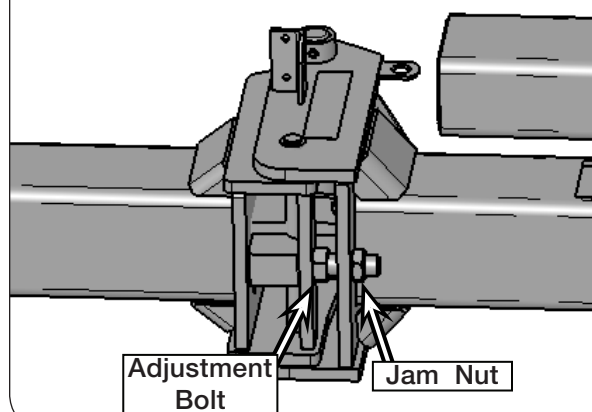


#### Wing Leveling

**NOTE:** Factory setting for wing level bolts allows no downward wing position from level. If wings become out of adjustment, these bolts can be moved. Wing leveling bolts can also be adjusted so that wings will float down below factory setting.

1. Loosen the jam nut and adjust the leveling bolt(s) to the desired position. (Fig. 3-11)
2. Tighten the jam nut to the specification listed in the maintenance section. (Fig. 3-11)

FIG. 3-11



### Implement Field Adjustments

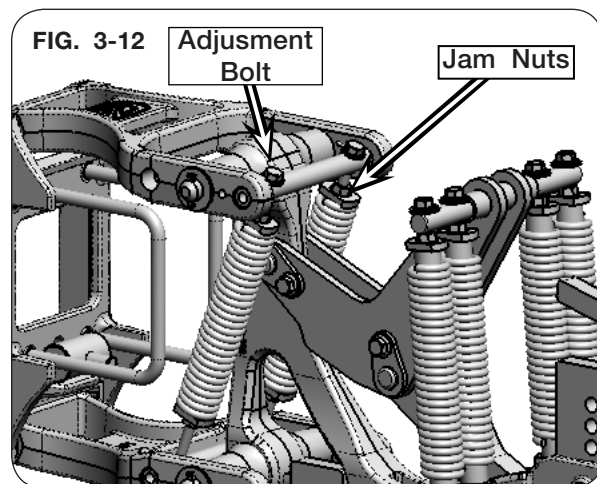
#### Down Pressure Adjustment

**NOTE:** Row unit down pressure springs should be adjusted to arrive at a setting where parallel linkages operate independently from the toolbar and the toolbar serves only as a towing device.

1. With the unit attached to the tractor, raise the unit, then lower the support stands.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.



3. Loosen the jam nut on the spring plug. (Fig. 3-12)
4. Turn the adjustment bolt to adjust the row unit down pressure. Turning the adjustment bolt clockwise will increase down pressure, turning the adjustment bolt counter clockwise will decrease the down pressure. adjust both springs equally. (Fig. 3-12)
5. Tighten the jam nut against the spring plug, and tighten hardware to the specification listed in the maintenance section. (Fig. 3-12)



### Implement Field Adjustments (Continued)

#### Row Cleaner Disc Adjustment

#### **WARNING**

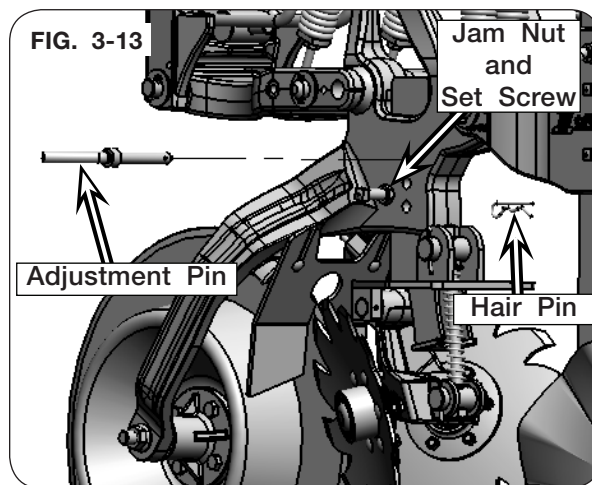
- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE MACHINE IS SECURELY BLOCKED.**

#### **CAUTION**

- **SHARP EDGES ON THE MACHINE CAN CAUSE INJURY. BE CAREFUL WHEN WORKING AROUND THE MACHINE.**

**NOTE:** Row unit down pressure springs should be adjusted to arrive at a setting where parallel linkages operate independent of the toolbar and the toolbar serves only as a towing device.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
2. Lower the unit until it is supported by the stands, then set the tractors parking brake and remove the key.
3. Loosen the set screw and jam nut, then remove the hair pin from the back side of the adjustment pin. (Fig. 3-13)
4. Remove the adjustment pin, then move the row cleaner assembly to the desired position and reinstall the adjustment pin and hair pin. (Fig. 3-13)
5. Tighten the set screw, then tighten the jam nut against the row unit frame. (Fig. 3-13)



### Implement Field Adjustments (Continued)

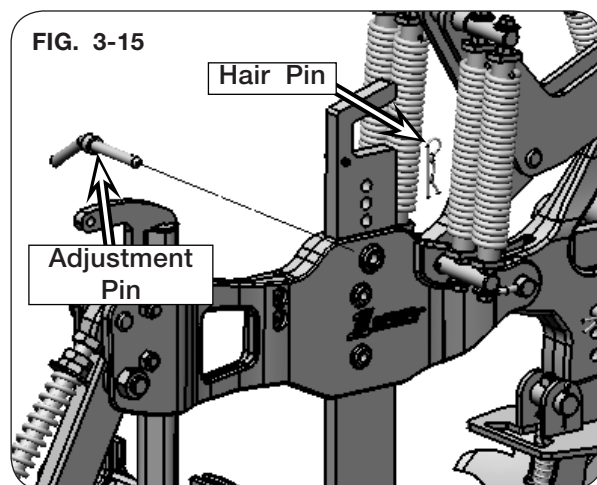
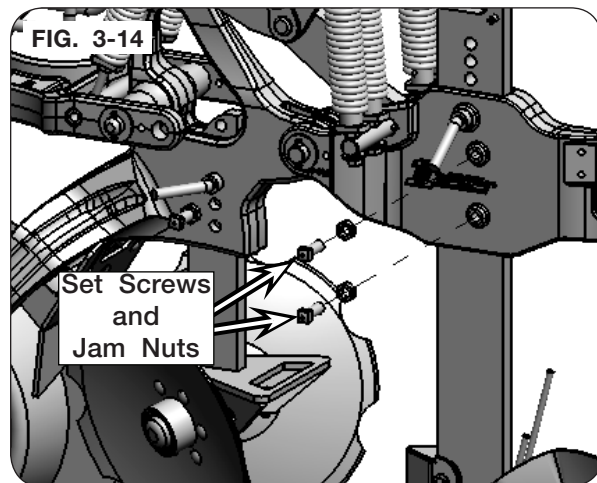
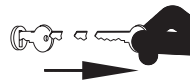
#### Tillage Shank Height Adjustment

#### **CAUTION**

- SHARP EDGES ON THE MACHINE CAN CAUSE INJURY. BE CAREFUL WHEN WORKING AROUND THE MACHINE.

**NOTE:** Row unit down pressure springs should be adjusted to arrive at a setting so the parallel linkages operate independently from the toolbar and the toolbar serves only as a towing device.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
2. Lower the unit until it is supported by the stands, then set the tractors parking brake and remove the key.
3. Loosen the jam nuts and set screws, then remove the capscrews. (Fig. 3-14)
4. Remove the hair pin and adjustment pin. (Fig. 3-15)
5. Using a safe lifting device rated for a minimum of 75 lbs. move the tillage shank to the desired position, then re-install the adjustment pin and hair pin. (Fig. 3-15)
6. Tighten the set screws and jam nuts. (Fig. 3-14)



### Implement Field Adjustments (Continued)

#### Wavy Coulter Width Adjustment

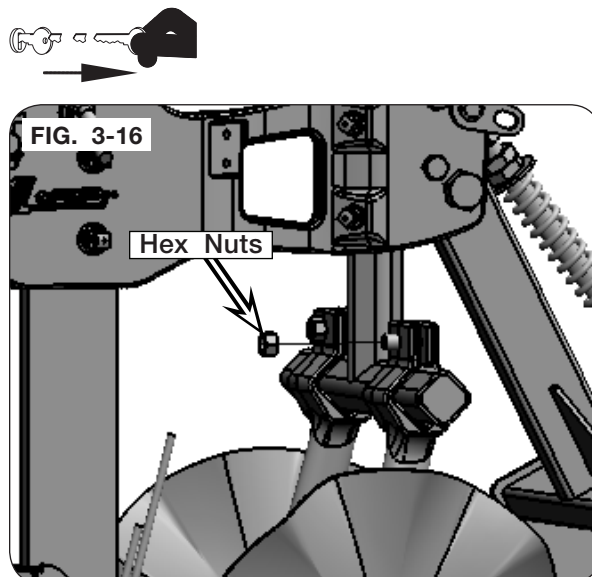
#### **CAUTION**

- **SHARP EDGES ON THE MACHINE CAN CAUSE INJURY. BE CAREFUL WHEN WORKING AROUND THE MACHINE.**

**NOTE:** Row unit down pressure springs should be adjusted to arrive at a setting where parallel linkages operate independently from the toolbar and the toolbar serves only as a towing device.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
3. Loosen the hex nuts on the coulters arms. (Fig. 3-16)
4. Move the coulter assemblies to the desired position, then tighten the hex nuts on the coulter arm. (Fig. 3-16)
5. Torque all hardware to the specification listed in the maintenance section.

**NOTE:** Both wavy coulter assemblies must be adjusted to the same width.



### Implement Field Adjustments (Continued)

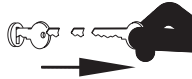
#### Wavy Coulter Depth Adjustment

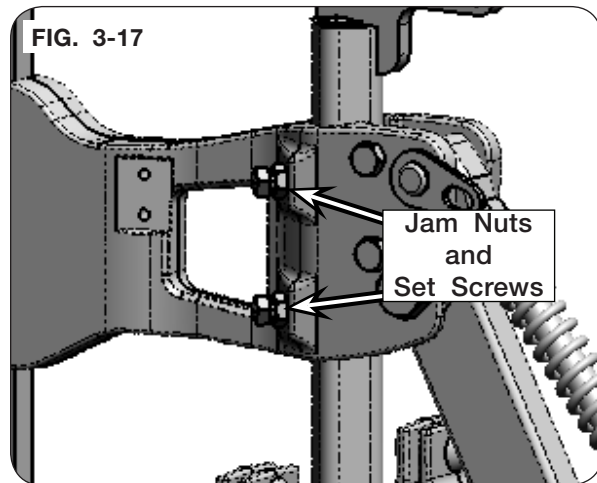


### CAUTION

- SHARP EDGES ON THE MACHINE CAN CAUSE INJURY. BE CAREFUL WHEN WORKING AROUND THE MACHINE.

**NOTE:** Row unit down pressure springs should be adjusted to arrive at a setting where parallel linkages operate independently from the toolbar and the toolbar serves only as a towing device.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key. 
3. Loosen the jam nuts and set screws. (Fig. 3-17)
4. Using a safe lifting device rated for a minimum of 150 lbs. move the wavy coulter assembly to the desired position, then tighten the set screws and jam nuts. (Fig. 3-17)
5. Torque all hardware to the specification listed in the maintenance section.



## Implement Field Adjustments (Continued)

### Wavy Coulter Fore and Aft Adjustment

#### **CAUTION**

- **SHARP EDGES ON THE MACHINE CAN CAUSE INJURY. BE CAREFUL WHEN WORKING AROUND THE MACHINE.**

**NOTE:** Row unit down pressure springs should be adjusted to arrive at a setting so the parallel linkages operate independently from the toolbar and the toolbar serves only as a towing device.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.

2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.



3. Remove the snap ring, dust cover, and o-ring. (Fig. 3-18)

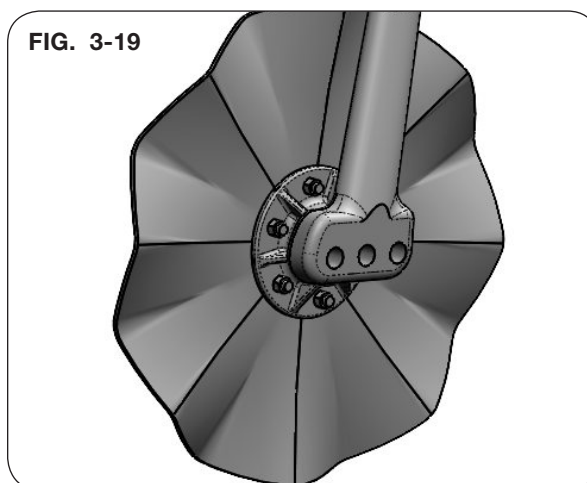
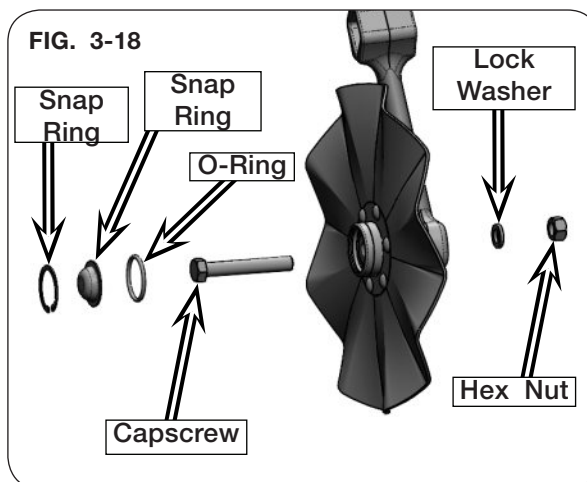
4. Remove the hex nut, lock washer, and capscrew from the wavy coulter hub. (Fig. 3-18)

5. Move the wavy coulter and hub to the desired position. (Fig. 3-19)

6. Install the capscrew, lock washer, and hex nut. (Fig. 3-18)

7. Install the o-ring, dust cover, and snap ring onto the hub. (Fig. 3-18)

8. Torque all hardware to the specification listed in the maintenance section.




### Implement Field Adjustments (Continued)

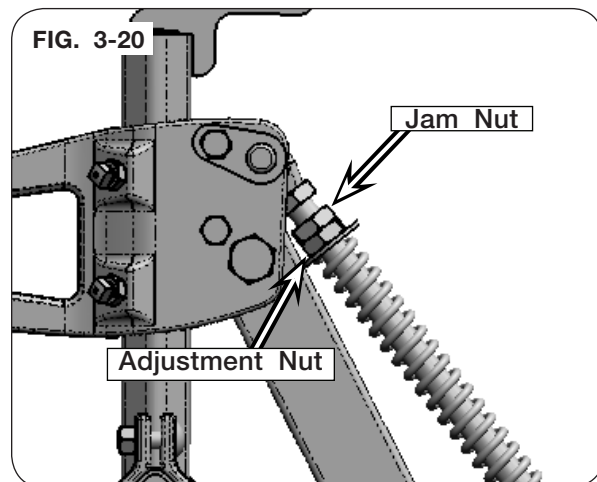
#### Conditioning Basket Down Pressure Adjustment

#### **CAUTION**

- SHARP EDGES ON THE MACHINE CAN CAUSE INJURY. BE CAREFUL WHEN WORKING AROUND THE MACHINE.

**NOTE:** Row unit down pressure springs should be adjusted to arrive at a setting so the parallel linkages operate independently from the toolbar and the toolbar serves only as a towing device.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
3. Loosen the jam nut on the conditioning basket assembly. (Fig. 3-20)
4. Use the adjustment nut to adjust the tension of the down pressure spring. Turning the adjustment nut clockwise will increase down pressure, turning the adjustment nut counter clockwise will decrease the down pressure. (Fig. 3-20)
5. Tighten the jam nut. (Fig. 3-20)
6. Torque all hardware to the specification listed in the maintenance section.



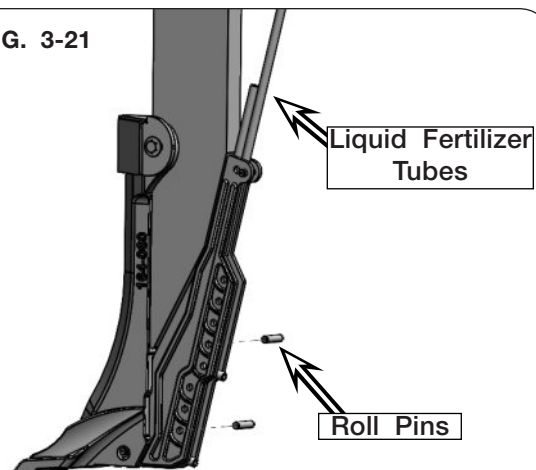
## Implement Field Adjustments (Continued)

### Liquid Fertilizer Tube Adjustment

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
3. Remove the roll pins, then move the fertilizer tubes to the desired position. (Fig. 3-21)
4. Re-Install the roll pins into the tillage shank. (Fig. 3-21)



FIG. 3-21



### Dry Fertilizer Boot Adjustment

1. Remove the socket head screws and wear plates from the tillage shank. (Fig. 3-22)
2. Remove the roll pins from the dry fertilizer tube, then move the tube to the desired position. (Fig. 3-23)
3. Re-install the roll pins, wear plates, and socket head screws. (Fig. 3-22)

FIG. 3-22

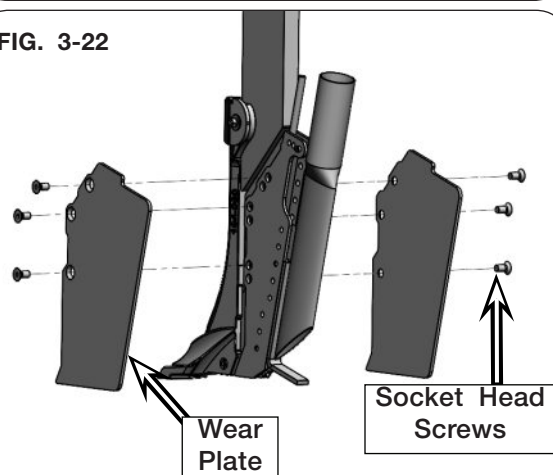
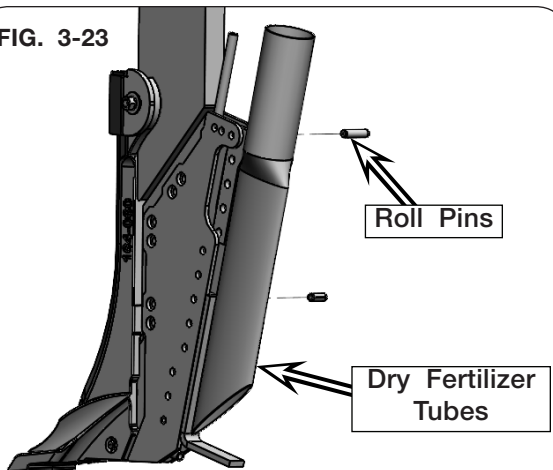


FIG. 3-23

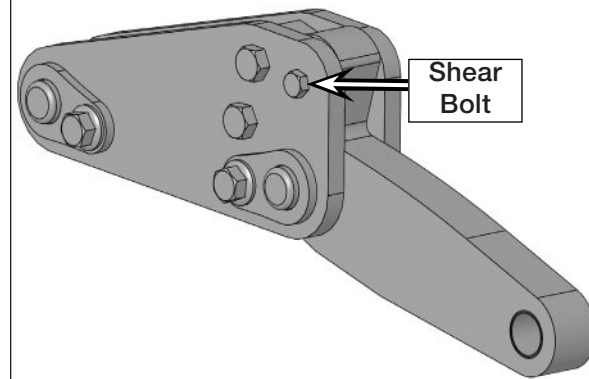


### Shear Bolt Trip Operation

When the shank encounters an immovable object, the resulting force will shear the lower 1/2" bolt, and the tail will rotate upward about the pivot point to clear the obstacle.

Once the shear bolt has been tripped, the operator should stop and replace the shear bolt. Use a 1/2" by 3" grade 5 bolt. (Fig. 3-24)

FIG. 3-24



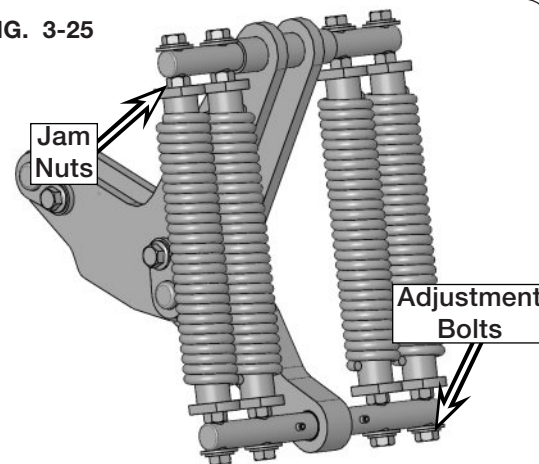
### Auto Reset Trip Operation

When equipped with the auto reset trip assembly, if a rock or other obstacle is hit underground the row unit tail will trip up and out of the ground. When the obstacle is passed over, the reset springs will drive the shank back into the ground. The auto reset trip will help protect tooling from getting damaged or breaking in rough and rocky soil conditions.

To adjust the auto reset trip:

1. Loosen the jam nut on the spring plug. (Fig. 3-25)
2. Turn the adjustment bolt to adjust the row unit down pressure. Turning the adjustment bolt clockwise will increase down pressure, turning the adjustment bolt counter clockwise will decrease the down pressure. Both Springs should be adjusted evenly. (Fig. 3-25)
3. Tighten the jam nut against the spring plug. (Fig. 3-25)

FIG. 3-25



### Transport and Field Positions

#### **WARNING**

- USE TRANSPORT LIGHTS AS REQUIRED BY ALL LAWS TO ADEQUATELY WARN OPERATORS OF OTHER VEHICLES.
- REGULATE SPEED TO ROAD CONDITIONS AND MAINTAIN COMPLETE CONTROL.

#### Transport Position:

Regulate speed to road conditions and maintain complete control.

Be aware of obstructions above, below, and around the implement when in operation or transport.

Connect the implement to the tractor hitch.

Raise the tractor hitch to it's highest point.

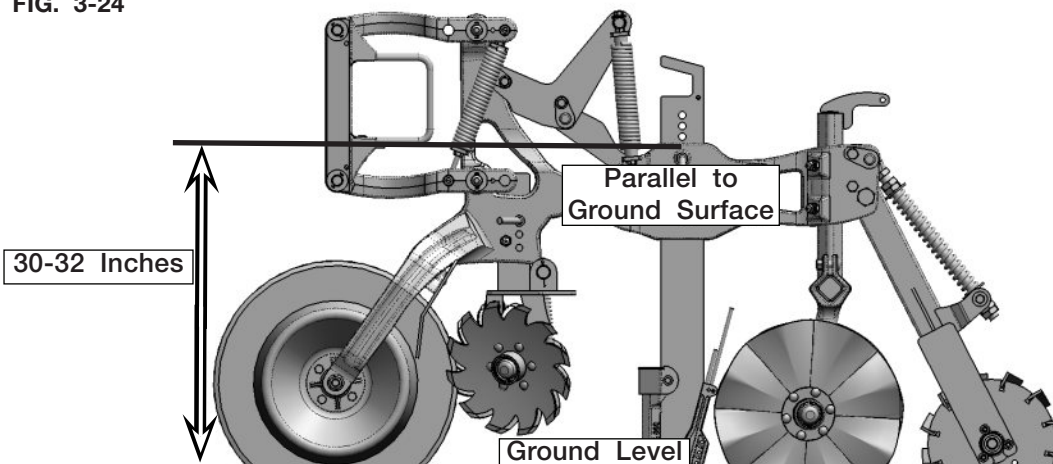
#### Field Position:

**NOTE:** When setting toolbar height, disregard row unit performance. In order for tillage options to be adjusted and work efficiently, toolbar height and orientation must be set first.

The top and bottom of the toolbar must be parallel with the ground. Adjustment of the tractor's third link, lift assist wheels, and/or toolbar gauge wheels (if equipped) will allow the toolbar to run parallel to the ground.

The bottom of the toolbar should be approximately 30 to 32 inches above the ground level. Use the tractor's lower hitch stop, lift assist wheels, and/or toolbar gauge wheels (if equipped) to set desired height.

FIG. 3-24



## 1 tRIPr (3 Point) — Operation

### Notes

## **SECTION IV**

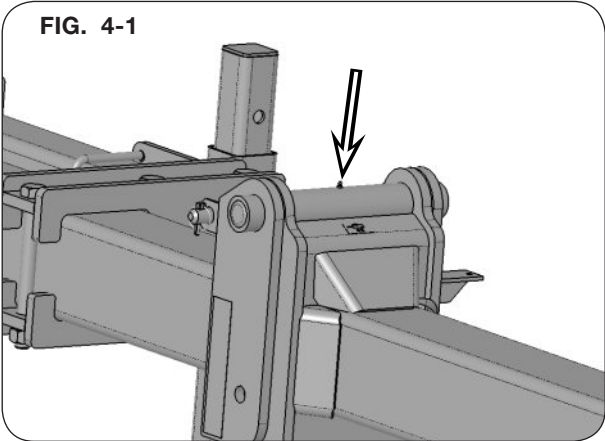
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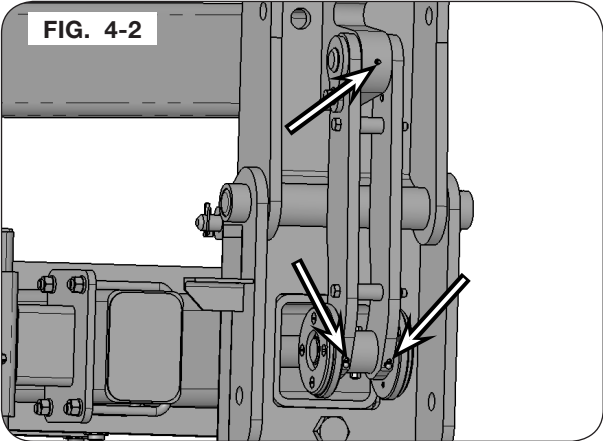
Lubrication

Lubrication Service Intervals		
	# of Grease Points	Interval (Hours)
Wing Hinge	2	50
Wing Cylinder Links	6	50

Wing Hinge



Wing Cylinder Links



### Mount and Parallel Linkage Disassembly and Assembly

#### **WARNING**

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.

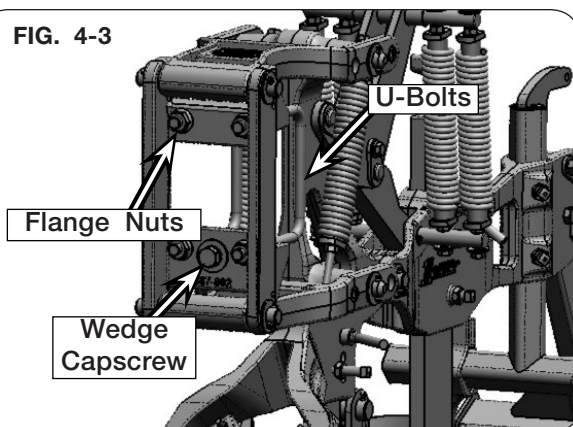
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.



3. Unhitch the implement from the tractor and support the implement with its support stands.

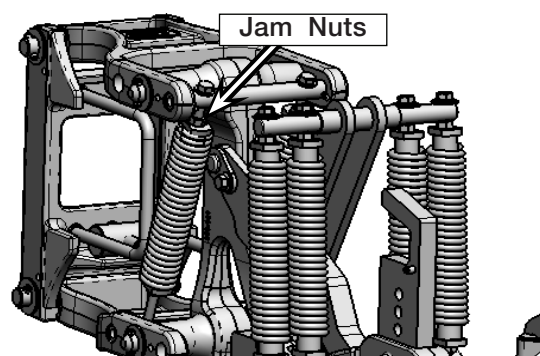
4. Using a safe lifting device rated for a minimum of 1,000 lbs. remove the row unit from the toolbar by loosening the wedge capscrew, then remove the flange nuts and u-bolts from the mounting plate. (Fig. 4-3)

FIG. 4-3



5. Loosen the jam nuts, then remove the capscrews, flat washers, and tension spring assemblies. (Fig. 4-4)

FIG. 4-4



### Mount and Parallel Linkage Disassembly and Assembly

6. Remove the cotter pins and spring trunnions from the top and bottom linkages. (Fig. 4-5)
7. Remove the roll pin, flat washer and pins from the front side of the top and bottom parallel linkages, then remove the roll pin, flat washer, and pins from the back side of the top and bottom linkages. (Fig. 4-6)
8. Remove the parallel linkages from the mounting plate, then remove the bushings from the top and bottom parallel linkages. (Fig. 4-7)
9. Inspect parts for wear or damage and replace if necessary.
10. Install the bushings into the top and bottom linkages. (Fig. 4-7)
11. Install the top and bottom parallel linkages onto the mounting plate, then install the pins, flat washers, and roll pins. (Fig. 4-6)
12. Install the spring trunnions and cotter pins into the top and bottom parallel linkages. (Fig. 4-5)
13. Install the tension spring assemblies, flat washers, and capscrews. (Fig. 4-4)
14. Install the row unit onto the toolbar using the u-bolts, flange screws, then tighten the wedge capscrew. (Fig. 4-3)
15. Torque all hardware to the specification listed in the maintenance section.

FIG. 4-5

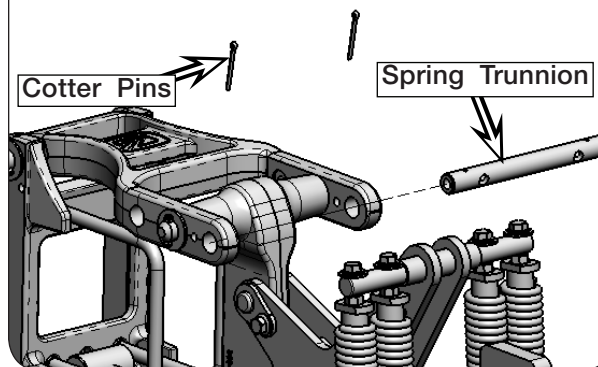


FIG. 4-6

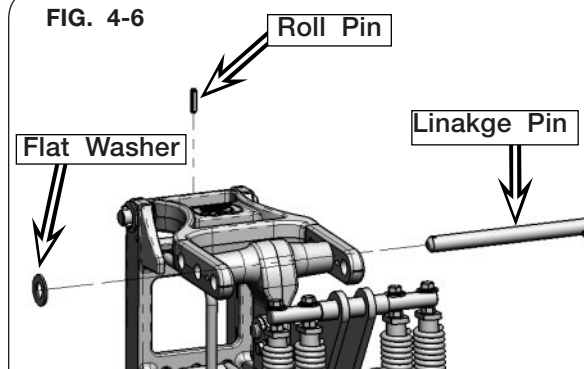
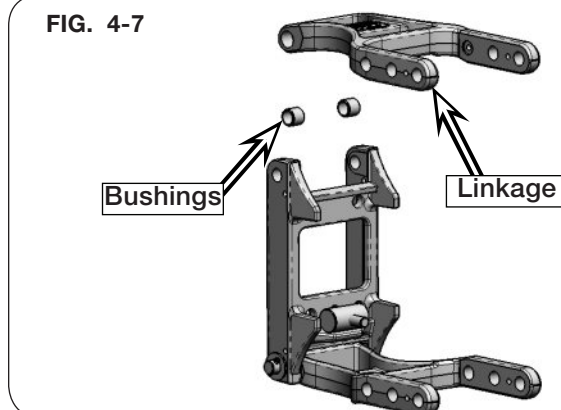


FIG. 4-7



### Front Coulter Disassembly and Assembly

#### **CAUTION**

- SHARP EDGES ON THE MACHINE CAN CAUSE INJURY. BE CAREFUL WHEN WORKING AROUND THE MACHINE.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.



3. Remove the capscrew and flange nut from the coulter assembly, then remove the coulter from the row unit. (Fig. 4-8)
4. Remove the capscrews and flange nut from the coulter hub, then remove the hub flange and hub from the coulter.
5. Inspect parts for wear or damage and replace if necessary.
6. Install the hub and hub flange onto the coulter, then install the capscrews and flange nuts onto the hub assembly.
7. Install the coulter assembly onto row unit using the capscrew and flange nut. (Fig. 4-8)
8. Torque all hardware to the specification listed in the maintenance section.

FIG. 4-8

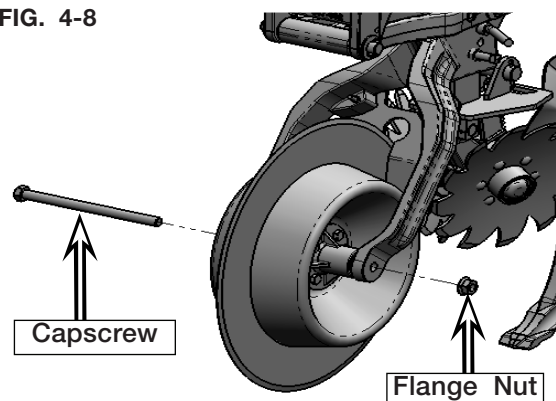
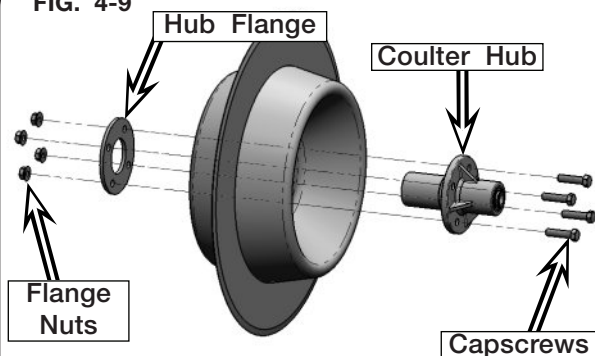


FIG. 4-9



### Row Cleaner Disassembly and Assembly

#### **WARNING**

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.
- SHARP EDGES ON COULTER BLADES CAN CAUSE INJURY. BE CAREFUL WHEN WORKING AROUND COULTER BLADES.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.

2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.

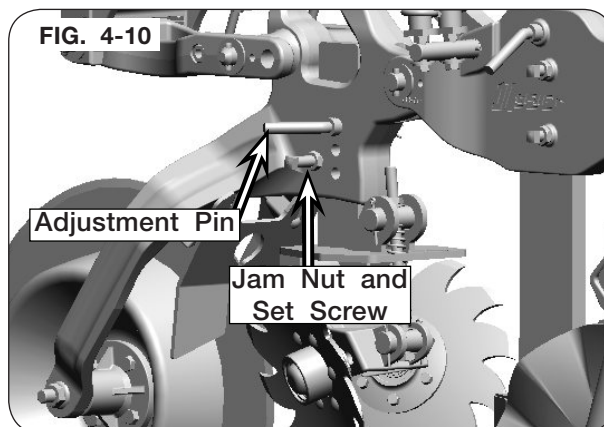
3. Unhitch the implement from the tractor and support the implement with its support stands.

4. Loosen the jam nut and set screw. (Fig. 4-10)

5. Using a safe lifting device rated for a minimum of 100 lbs to support the row cleaner assembly, remove the adjustment pin and row cleaner assembly from the row unit. (Fig. 4-10)



FIG. 4-10



#### For Floating Row Cleaner:

6. Remove the lock nut and flat washer from the spring assembly, then remove the spring and capscrew. (Fig. 4-11)

7. Remove the cotter pins, top and bottom spring trunnions. (Fig. 4-12)

FIG. 4-11

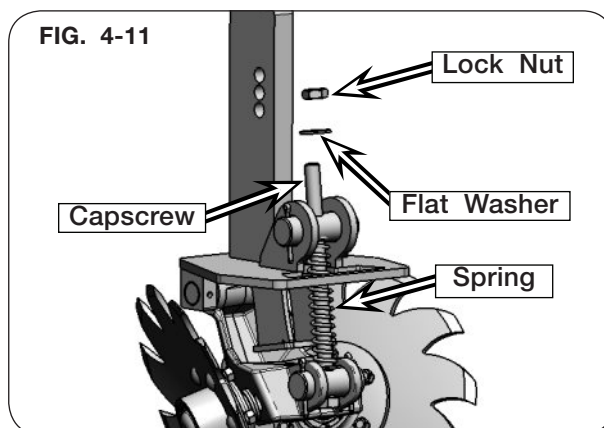
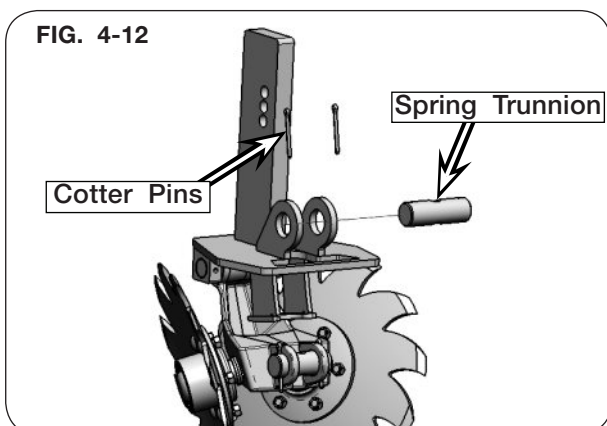


FIG. 4-12



## Row Cleaner Disassembly and Assembly (continued)

8. Remove the capscrew and hex nut, then remove the row cleaner trunnion from the assembly. (Fig. 4-13)
9. Remove the carriage bolts, lock nuts, and disc from the assembly. (Fig. 4-14)
10. Remove the snap ring, dust cover and o-ring, then remove the capscrew, lock nut, and spacers from the hub. (Fig. 4-15)
11. Remove the snap rings and bearings from the hub. (Fig. 4-16)
12. Inspect parts and replace as necessary.
13. Install bearings and snap rings into the hub. (Fig. 4-16)
14. Install the hub onto the row cleaner assembly using the capscrew, spacers, and hex nuts. (Fig. 4-15)
15. Install the disc onto the hub using the carriage bolts and lock nuts. (Fig. 4-14)
16. Install the row cleaner assembly onto the shank with the trunnion, capscrew, and hex nut. (Fig. 4-13)
17. Install the upper and lower trunnions using the cotter pins. (Fig. 4-12)
18. Install the capscrews, spring, flat washers, and lock nuts onto the assembly. (Fig. 4-12)
19. Install the row cleaner assembly into the row unit using the adjustment pin, hair pin, then tighten the set screw and jam nut. (Fig. 4-11)
20. Torque all hardware to the specification listed in the maintenance section.

FIG. 4-13

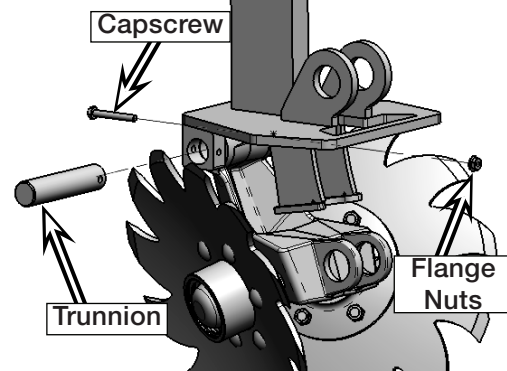


FIG. 4-14

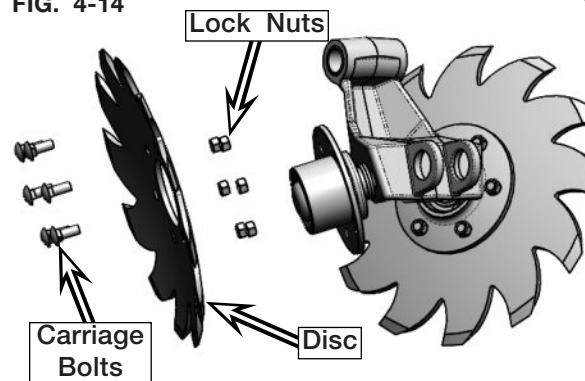


FIG. 4-15

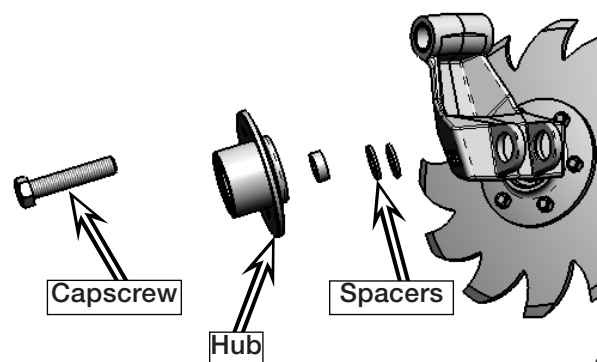
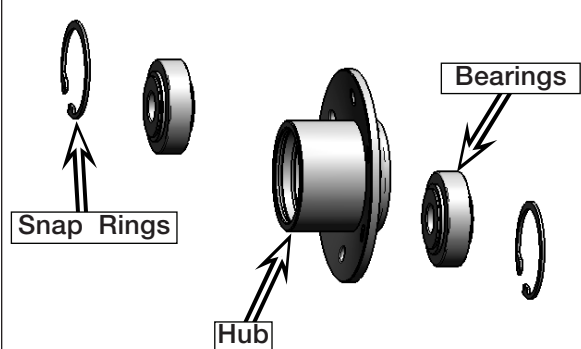


FIG. 4-16



### Row Cleaner Disassembly and Assembly (continued)

#### For Rigid Row Cleaner:

1. Remove the carriage bolts, disc and lock nuts from the row cleaner assembly. (Fig. 4-17)
2. Remove the snap ring, dust cover, and o-ring from the hub. (Fig. 4-18)
3. Remove the hub from the assembly by removing the capscrew, lock nut, and spacers. (Fig. 4-19)
4. Remove the snap rings and bearings from the hub. (Fig. 4-20)
5. Inspect parts and replace as necessary.
6. Install the bearings and snap rings into the hubs. (Fig. 4-20)
7. Install the hub onto the assembly using the capscrew, spacers and lock nut. (Fig. 4-19)
8. Install the o-ring, dust cover, and snap ring onto the hub. (Fig. 4-18)
9. Using the carriage bolts and lock nuts, install the blade onto the hub of the row cleaner assembly. (Fig. 4-17)
10. Torque all hardware to the specification listed in the maintenance section.

FIG. 4-17

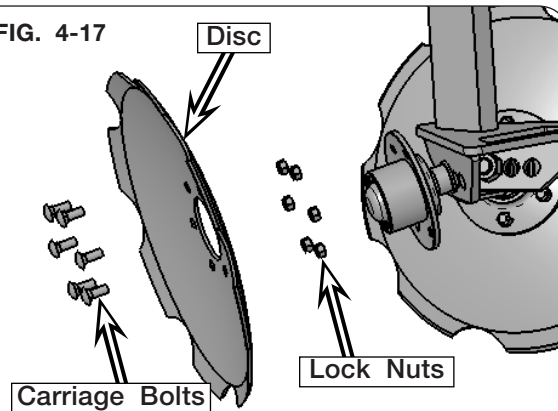


FIG. 4-18

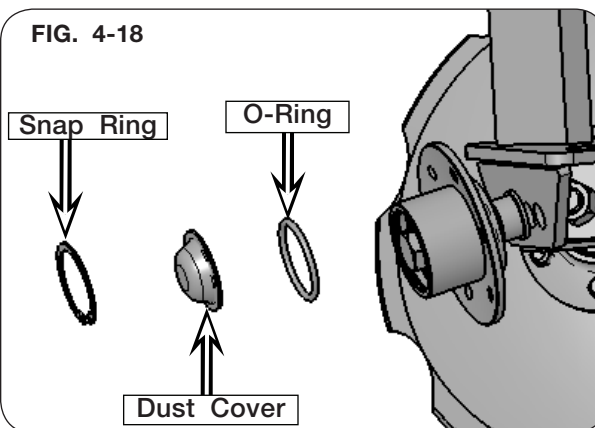


FIG. 4-19

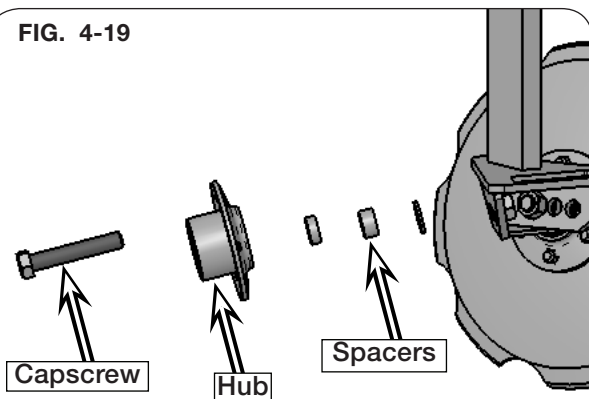
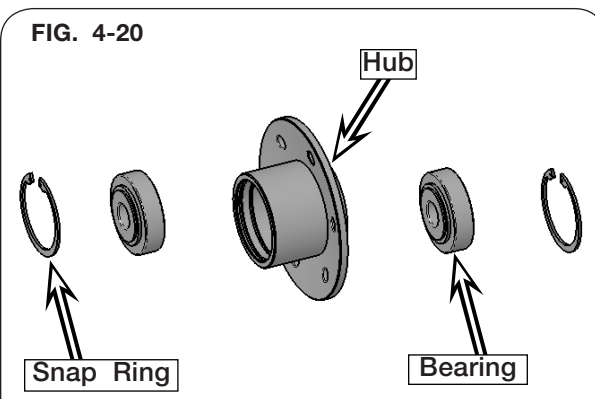


FIG. 4-20



## Auto Reset Disassembly and Assembly

### **WARNING**

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
3. Remove the capscrews, flat washers, and then the spring assemblies from the auto reset. (Fig. 4-21)
4. Remove the upper trunnion, then remove the roll pins and lower trunnion. (Fig. 4-22)
5. Loosen the jam nuts, then remove the capscrews, flat washers, and tension spring assemblies. (Fig. 4-23)
6. Remove the capscrews and pins from the auto reset assembly, then remove the assembly from the row unit. (Fig. 4-24)



FIG. 4-21

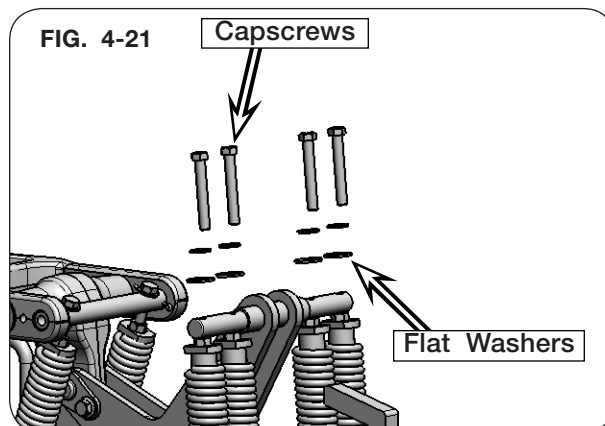


FIG. 4-22

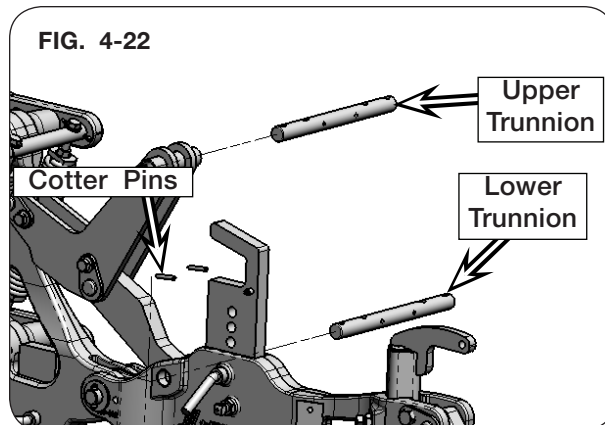


FIG. 4-23

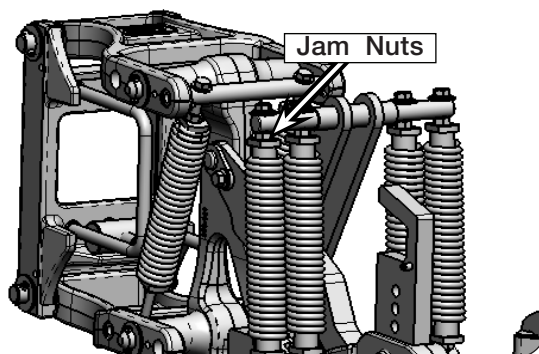
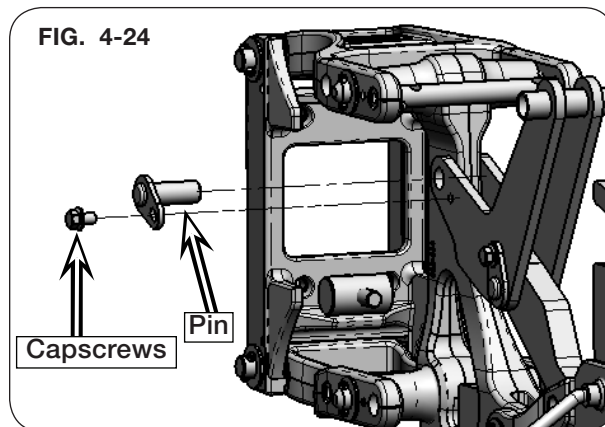


FIG. 4-24



### Auto Reset Disassembly and Assembly (continued)

7. Remove the capscrew and pin from the middle of the assembly, then separate the arms of the auto reset assembly. (Fig. 4-25)
8. Remove the bushings from the lower arm of the auto reset assembly. (Fig. 4-26)
9. Inspect parts and replace as necessary.
10. Install the bushings into the lower arm of the auto reset assembly, then assemble the upper and lower arms with the pin and capscrew. (Figs. 4-25 and 4-26)
11. Install the auto reset arms onto the row unit using the pins and capscrews. (Fig. 4-24)
12. Install the tension spring assemblies, flat washers, and capscrews onto the row unit. (Fig. 4-23)
13. Install the upper and lower spring trunnions and roll pins. (Fig. 4-22)
14. Install the spring assemblies, flat washers, and capscrews onto the auto reset assembly. (Fig. 4-21)
15. Torque all hardware to the specification listed in the maintenance section.

FIG. 4-25

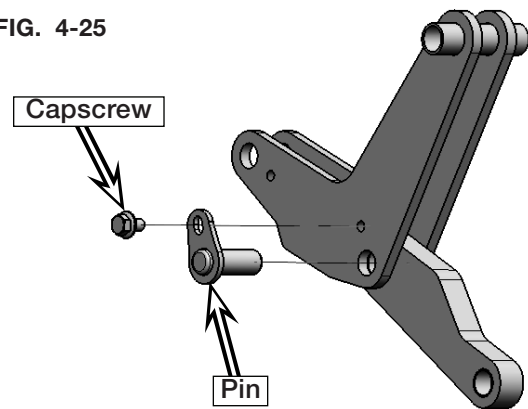
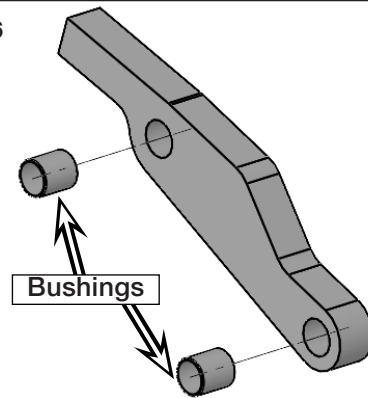



FIG. 4-26

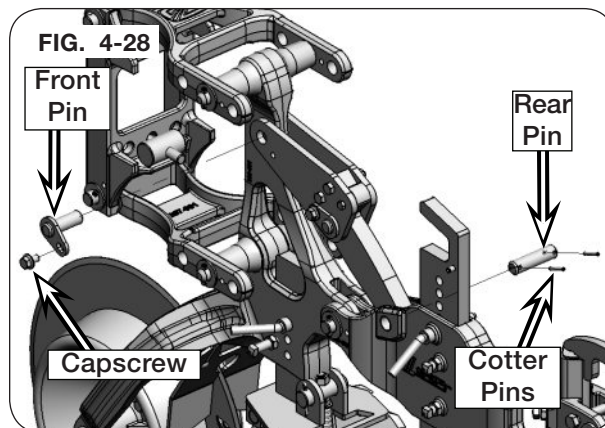
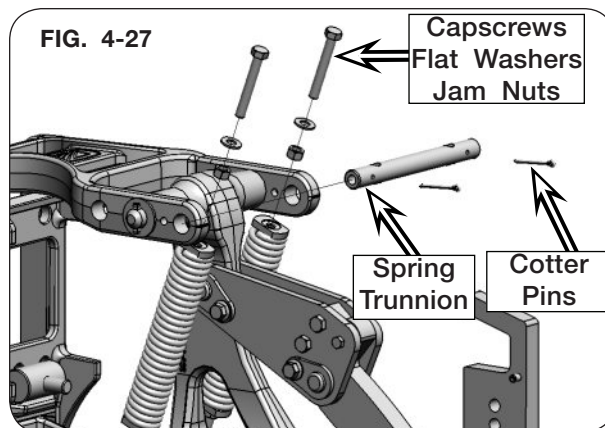


### Shear Bolt Trip Disassembly and Assembly

#### **WARNING**

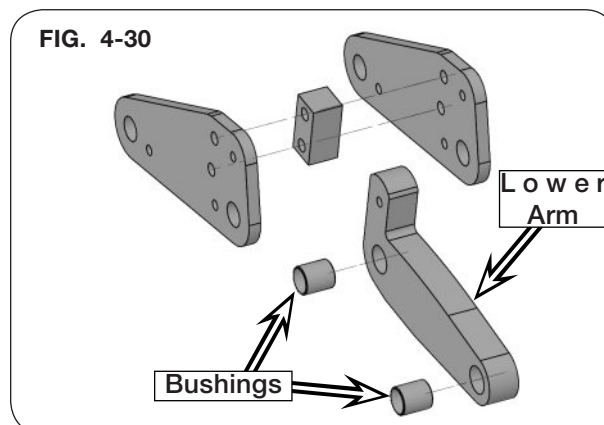
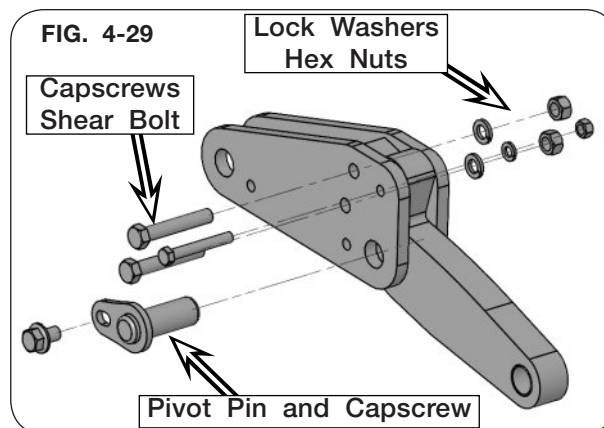
- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key. 
3. Remove the capscrews, washers, and jam nuts from the tops and bottoms of the tension springs. (Fig. 4-27)
4. Remove the cotter pins and spring trunnions from the upper and lower linkages. (Fig. 4-27)
5. Remove the capscrew and pin from the front of the trip assembly, then remove the roll pins and pin from the back of the assembly. (Fig. 4-28)
6. Remove the shear bolt trip assembly from the row unit.



### Shear Bolt Reset Disassembly and Assembly (continued)

7. Remove the capscrews, shear bolt, lock washers, and hex nuts from the assembly. (Fig. 4-29)
8. Remove the capscrew and pivot pin. (Fig. 4-29)
9. Remove the bushings from the lower arm of the trip assembly. (Fig. 4-30)
10. Inspect parts and replace as necessary.
11. Install the bushings into the lower arm of the trip assembly (Fig. 4-30)
12. Install the pivot pin and capscrew. (Fig. 4-29)
13. Install the shear bolt, capscrews, lock washers, and hex nuts. (Fig. 4-29)
14. Install the trip assembly onto the row unit using the front pin and capscrew along with the rear pin and roll pins. (Fig. 4-28)
15. Install the spring trunnions and cotter pins into the upper and lower linkages. (Fig. 4-27)
16. Install the springs, jam nuts, washers, and capscrews. (Fig. 4-27)
17. Torque all hardware to the specification listed in the maintenance section.



### Tillage Shank Disassembly and Assembly

#### **WARNING**

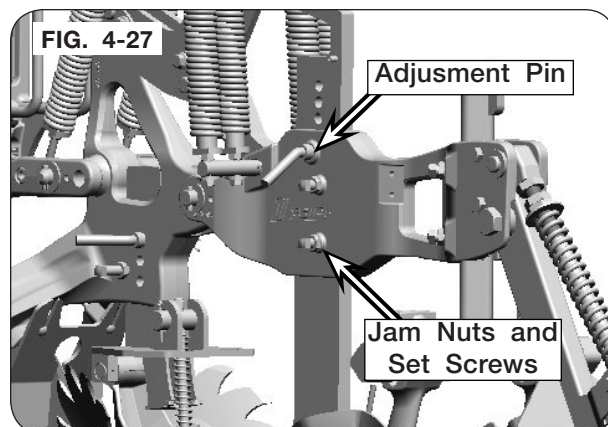
- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground.

2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.

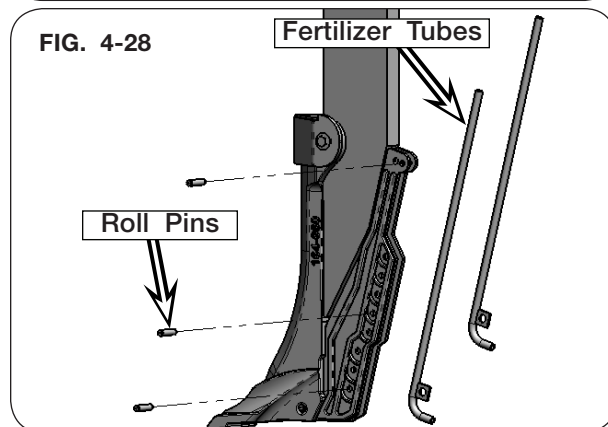


3. Using a safe lifting device rated for a minimum of 100 lbs. to support the shank assembly. Loosen the jam nuts and set screws, then remove the roll pin, adjustment pin, and shank assembly from the row unit. (Fig. 4-27)

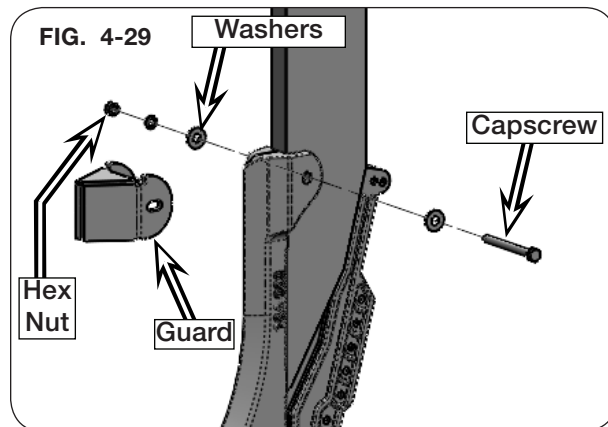


#### For Liquid Fertilizer Units:

4. Remove the roll pins and fertilizer tubes from the shank. (Fig. 4-28)



5. Remove the capscrew, flat washers, lock washer, hex nut, and guard from the shank. (Fig. 4-29)



### Tillage Shank Disassembly and Assembly (continued)

6. Remove the roll pin and mole shank from the shank. (Fig. 4-30)
7. Inspect parts and replace as necessary.
8. Install the mole shank and roll pin onto the shank. (Fig. 4-30)
9. Install the guard onto the mole shank using the capscrew, flat washers, lock washer, and hex nut. (Fig. 4-29)
10. Install the fertilizer tubes and roll pins onto the shank. (Fig. 4-28)
11. Install the shank onto the row unit, then install the roll pin, adjustment pin, and hair pin. Tighten the the set screws and jam nuts. (Fig. 4-27)
12. Torque all hardware to the specification listed in the maintenance section.

#### For Dry Fertilizer Units:

1. Remove the allen head bolts and side plates. (Fig. 4-31)
2. Remove the roll pins and dry fertilizer tube. (Fig. 4-32)

FIG. 4-30

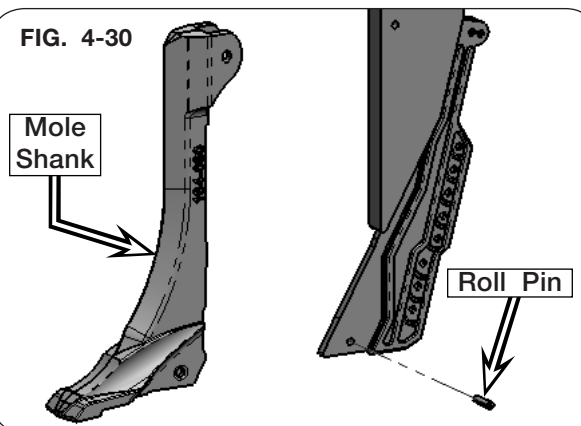


FIG. 4-31

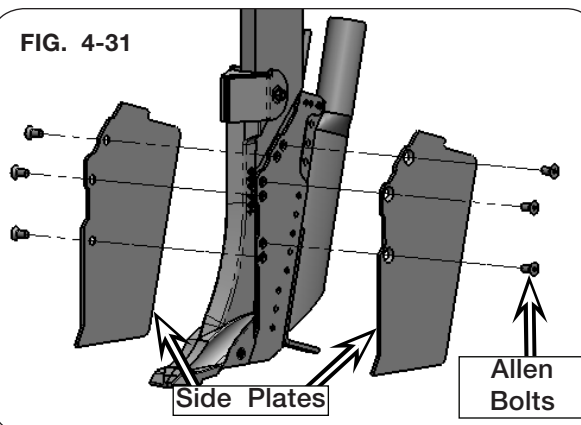
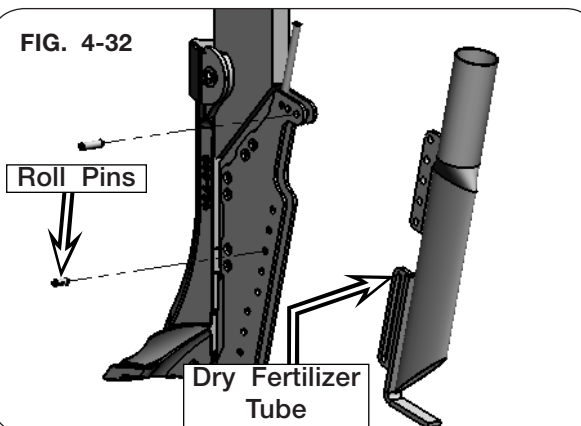
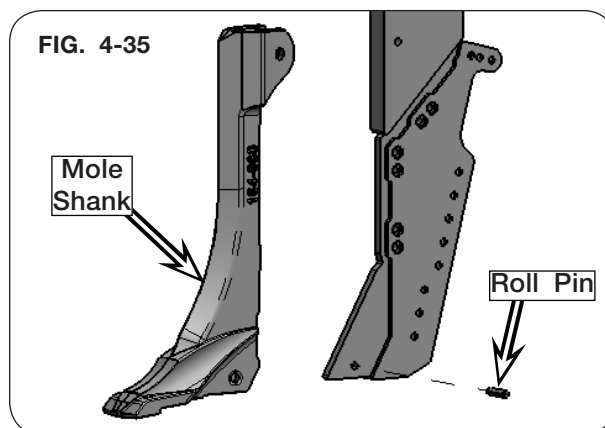
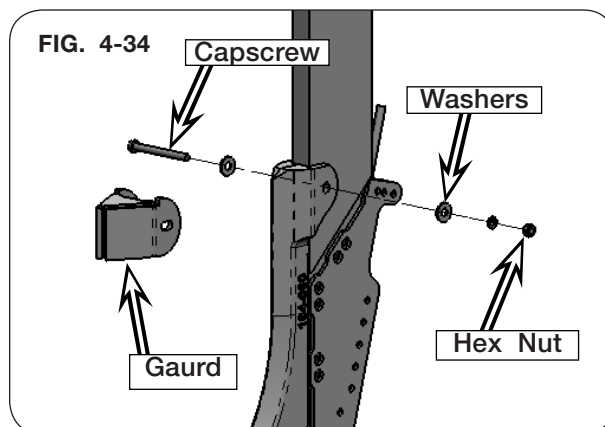
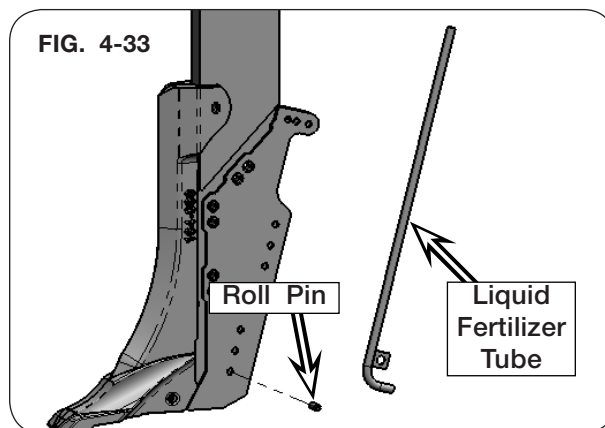


FIG. 4-32



### Tillage Shank Disassembly and Assembly (continued)

3. Remove the roll pin and liquid fertilizer tube. (Fig. 4-33)
4. Remove the capscrew, flat washers, lock washer and hex nut, then remove the guard from the mole shank. (Fig. 4-34)
5. Remove the roll pin and mole shank. (Fig. 4-35)
6. Inspect parts and replace as necessary.
7. Install the mole shank using the roll pin. (Fig. 4-35)
8. Install the guard onto the mole shank using the capscrew, flat washers, lock washer, and hex nut. (Fig. 4-34)
9. Install the liquid and dry fertilizer tubes using the roll pins. (Figs. 4-33 and 4-32)
10. Install the side plates and allen bolts. (Fig. 4-31)
11. Torque all hardware to the specification listed in the maintenance section.

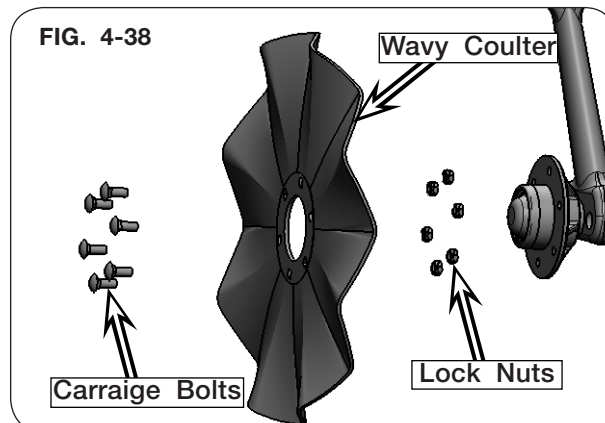
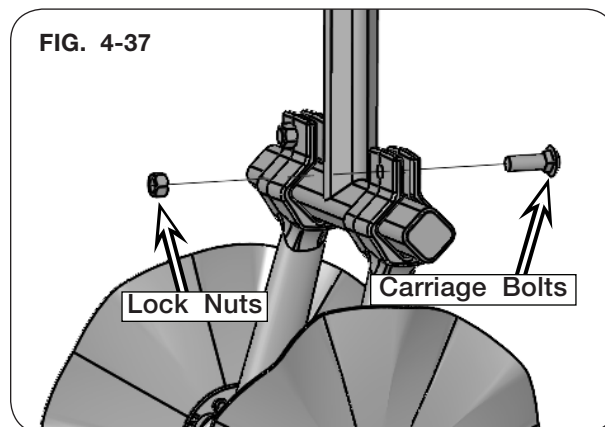
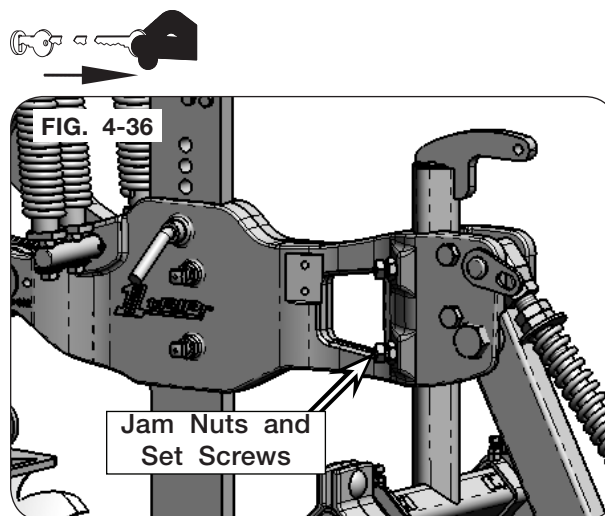


### Wavy Coulter Disassembly and Assembly

#### **WARNING**

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
3. Using a safe lifting device rated for a minimum of 100 lbs. to support the wavy coulter assembly. Loosen the jam nuts and set screws, then remove the wavy coulter assembly from the row unit. (Fig. 4-36)
4. Remove the lock nuts and carriage bolts on the wavy coulter assembly remove the wavy coulter assembly from the shank. (Fig. 4-37)
5. Remove the carriage bolts, lock nuts, and coulters from the hubs. (Fig. 4-38)



## Wavy Coulter Disassembly and Assembly (continued)

6. Remove the snap ring, dust cover, and o-ring from the hub. (Fig. 4-38)
7. Remove the cap screw, hex nut, lock washer, and spacer. Then remove the hub from the assembly. (Fig. 4-39)
8. Remove the snap rings and bearings from the hub. (Fig. 4-40)
9. Inspect parts and replace as necessary, then install the bearings and snap rings into the hubs. (Fig. 4-40)
10. Install the hub onto the assembly using the capscrew, spacer, lock washer, and hex nut. (Fig. 4-39)
11. Install the o-ring, dust cover, and snap ring. (Fig. 4-38)
12. Install the coulter, carriage bolts and lock nuts onto the hub. (Fig. 4-38)
13. Install the wavy coulter assembly onto the shank using the carriage bolts and lock nuts. (Fig. 4-37)
14. Install the assembly onto the row unit, then tighten the set screws and jam nuts. (Fig. 4-36)
15. Torque all hardware to the specification listed in the maintenance section.

FIG. 4-38

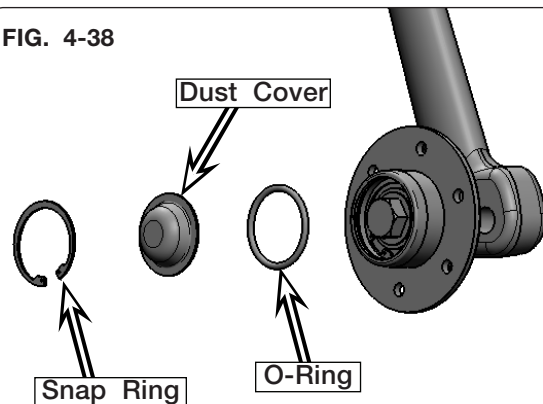


FIG. 4-39

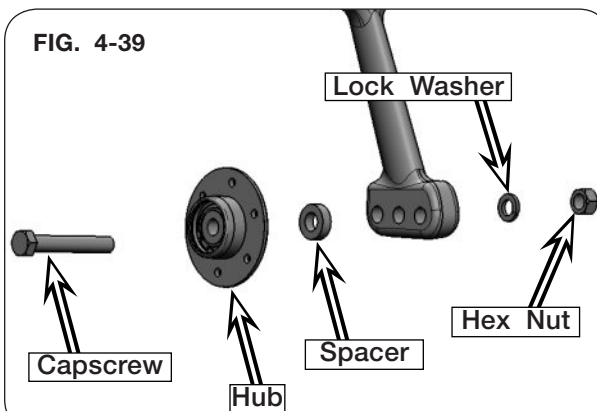
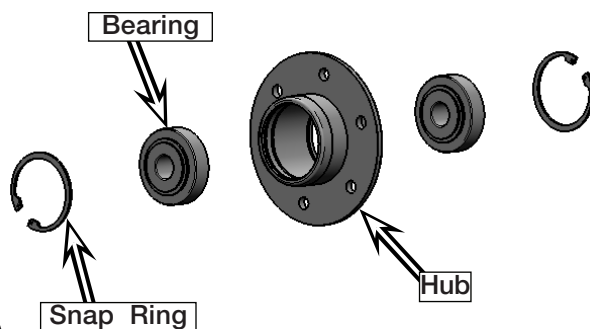


FIG. 4-40



### Conditioning Basket Disassembly and Assembly

#### **WARNING**

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
3. Using a safe lifting device rated for a minimum of 100 lbs. to support the conditioning basket assembly, then remove the capscREW, hex nut and pin. (Fig. 4-41)
4. Remove the capscREWS, flat washers, and bushings, then remove the spring assembly from the conditioning basket. (Fig. 4-42)
5. Remove the capscREW and lock nut, then remove the conditioning basket assembly from the row unit. (Fig. 4-43)



FIG. 4-41

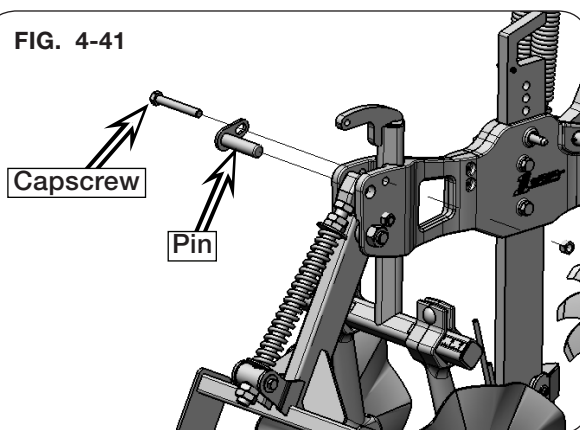


FIG. 4-42

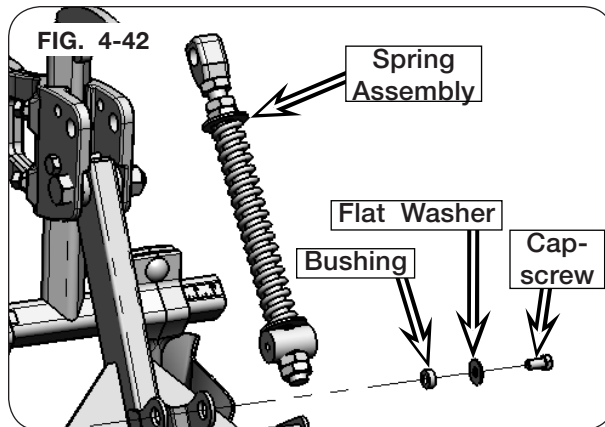
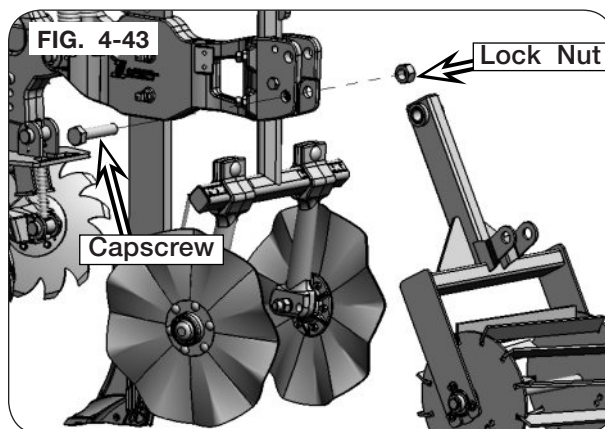
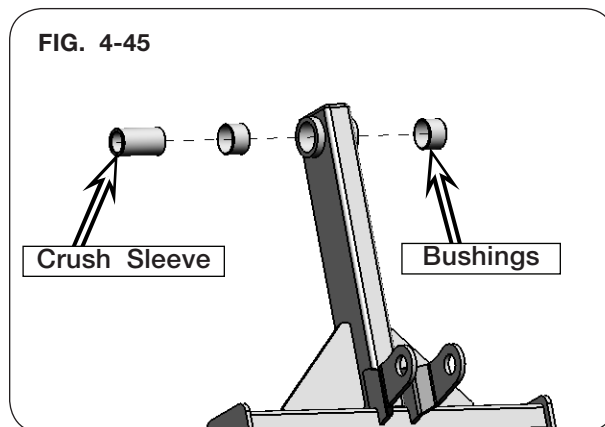
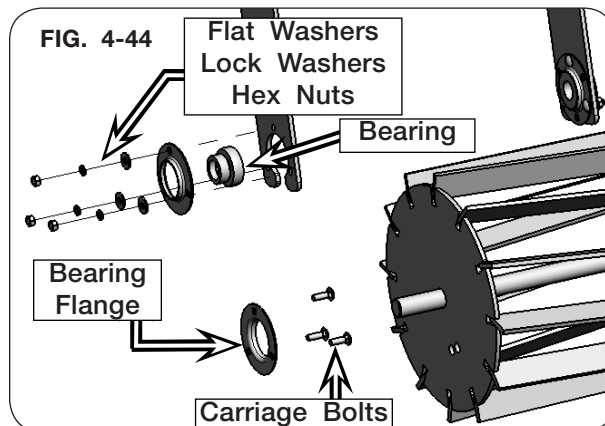


FIG. 4-43



### Conditioning Basket Disassembly and Assembly (continued)


6. Remove the hex nuts, lock washers, and flat washers. Remove the outer bearing flange and bearing from the assembly. (Fig. 4-44)
7. Remove the basket from the assembly along with the inner bearing flange and carriage bolts. (Fig. 4-44)
8. Remove the crush sleeve and bushings from the conditioning basket arm. (Fig. 4-45)
9. Inspect parts and replace as necessary, then install the crush sleeve and bushings into the conditioning basket arm. (Fig. 4-45)
10. Install the basket, carriage bolts, and inner bearing flange into the arm. (Fig. 4-44)
11. Install the outer bearing and bearing flange, then install the flat washers, lock washers, and hex nuts. (Fig. 4-44)
12. Install the basket assembly onto the row unit using the capscrew and lock nut. (Fig. 4-43)
13. Install the spring assembly along with the bushings, flat washers and capscrews. (Fig. 4-42)
14. Install the pin, capscrew and lock nut. (Fig. 4-41)
15. Torque all hardware to the specification listed in the maintenance section.



### Toolbar Internal Cylinder Removal

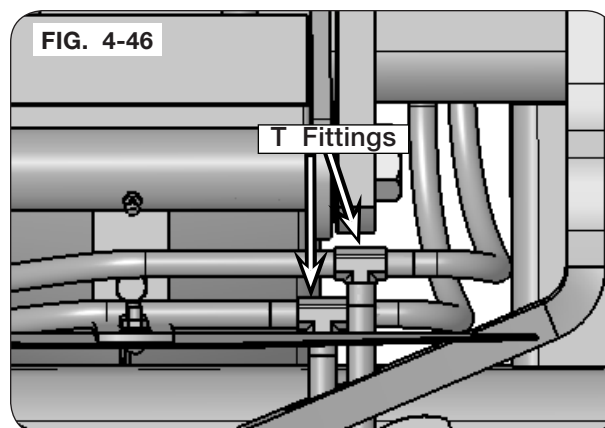
#### **WARNING**

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.
- HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARD-BOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.

1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground.
2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key. 
3. Ensure that the cylinder locking pins are in the storage position, then fold the wings until they are fully resting on the wing stops.
4. Relieve hydraulic pressure from the lines, then store the hydraulic lines on the courtesy plaque.

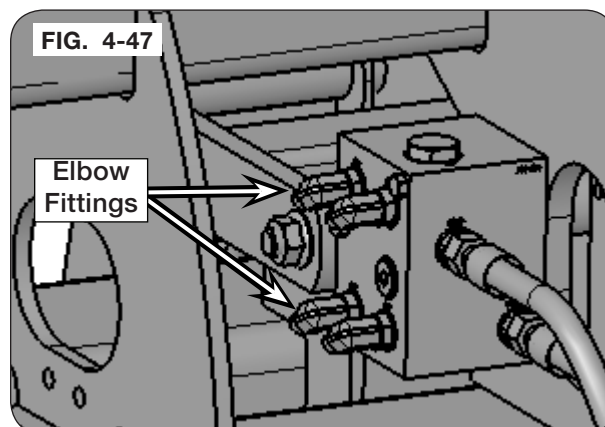
#### For Single Cylinder Wings:

5. Locate the T fittings near the center of the toolbar. Mark the ends of the hoses and fitting for easy re-installation. (Fig. 4-46)
6. Remove the cylinder hoses from the fittings and cover the ends of the hoses and fitting to protect from debris.



#### For Dual Cylinder Wings:

7. Locate the hydraulic manifold elbows, then mark the hoses and elbows for easy re-installation. (Fig. 4-47)
8. Remove the hoses from the elbow fittings, then cover the ends of the hoses and fittings to protect from debris.

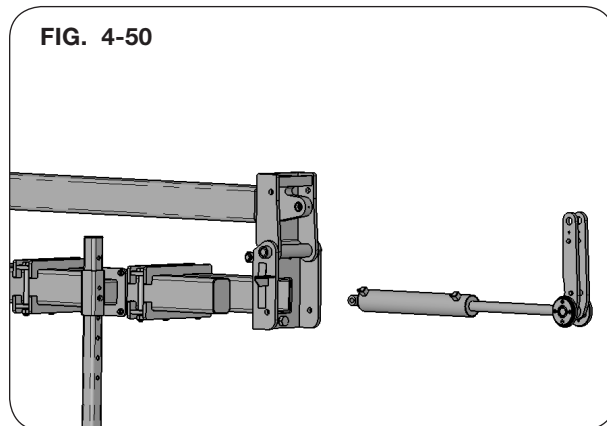
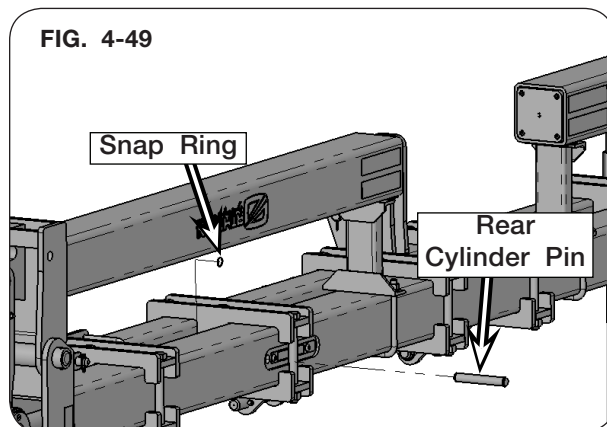
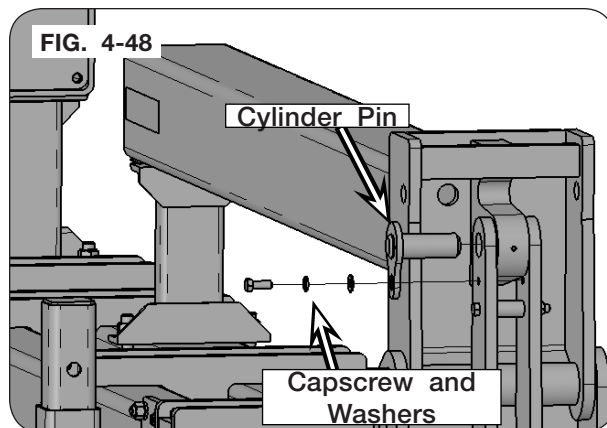


### Toolbar Internal Cylinder Removal (continued)

9. Remove the locking capscrew, lock washer and flat washer that hold the cylinder pin in place, then remove the cylinder pin from the assembly. (Fig. 4-48)
10. Remove the snap ring and rear cylinder pin, then remove the cylinder from the toolbar. (Fig. 4-49 and 4-50)

**NOTE:** Depending on configuration the rear cylinder pin may be hidden behind a row unit.

11. Inspect parts for wear or damage and replace if necessary.
12. Route the hydraulic lines and install the wing cylinder into the tool bar, then install the rear cylinder pin and snap ring. (Fig. 4-50 and 4-49)
13. Install the cylinder pin and the capscrew that holds it in place. (Fig. 4-48)
14. Install the hydraulic lines onto the T fittings or elbow fittings depending on what the unit is equipped with, then torque all hardware to the specification listed in the maintenance section. Purge the hydraulic system and test for proper function. (Fig. 4-47 and 4-46)



## 1 tRIPr (3 Point) — Maintenance

### Storage

Do the following before placing the implement in storage:

1. Remove dirt and trash which could cause rusting.
2. Repaint any chipped or scraped areas.
3. Coat all earth moving surfaces with grease or suitable rust preventative.
4. Inspect for damage or worn parts, replace before next season.
5. Store implement inside, away from livestock.
6. Block up implement to keep tires and ground tools off ground.
7. Replace all worn, torn or faded decals and reflectors.

### Troubleshooting

Problem	Corrective Action
Row unit does not penetrate soil	Ensure that correct toolbar height and orientation is achieved. Refer to the operation section for more information.
	Adjust row unit down pressure springs to arrive at a setting where the parallel linkages operate independant of the toolbar.
	Raise Wavy Coulter assemblies
	Lower the Tillage Shank.
Row unit plugs with field residue between coulter and row cleaner	Make sure the depth band coulter is penetrating the soil in order that the depth band governs soil penetration.
	Alter ground speed to change rate at which field residue passes through the the row unit tooling.
	Slightly raise the row cleaner assembly to reduce the amount of residue in contact with the assembly.
Row unit plugs with field residue between row cleaner and tillage shank	Slightly lower the row cleaner assembly to reduce the amount of field residue in contact with the tillage shank.
	Alter ground speed to change the rate at which field residue passes through the row unit tooling.
Row unit plugs with field residue between tillage shank and wavy coulters	Slightly increase wavy coulter tillage width.
	Increase distance between tillage shank and wavy coulter assembly by adjusting wavy coulters fore and aft.
	Alter ground speed to change the rate at which field residue passes through the row unit tooling.
Field residue plugs between row units	Slightly raise the row cleaner assembly to reduce the amount of residue in contact with the assembly.
	Alter ground speed to change the rate at which field residue passes through the row unit tooling.
	Decrease wavy coulter tillage width. Decreaseing wavy coulter tillage width will allow more space between row units.
	Increase distance between tillage shank and wavy coulter assembly by adjusting wavy coulters fore and aft.
Row unit does not trip or trips too easily	Refer to the operations section to make sure that the trip assembly is installed and set correctly.

## Complete Torque Chart

### Capscrews - Grade 5

**NOTE:**

- Grade 5 capscrews can be identified by three radial dashes on the head.
- For wheel torque requirements, refer to Wheels and Tires.
- Tighten U-bolts evenly and equally to have the same number of threads exposed on each end.



SIZE	FOOT POUNDS	NEWTON METERS
1/4-20	8-10	11-13
1/4-28	9-11	12-15
5/16-18	15-17	20-23
5/16-24	17-19	23-26
3/8-16	25-28	34-38
3/8-24	28-31	38-42
7/16-14	40-45	54-61
7/16-20	45-50	61-68
1/2-13	62-68	84-92
1/2-20	68-75	92-102
9/16-12	90-98	122-133
9/16-18	100-110	134-148
5/8-11	120-135	162-183
5/8-18	124-137	168-186
3/4-10	200-220	270-300
3/4-16	210-230	285-310
7/8-9	330-350	425-475
7/8-14	360-380	460-515
1-8	500-525	675-710
1-14	540-560	730-760
1 1/8-7	600-635	815-860
1 1/8-12	665-700	920-950
1 1/4-7	850-895	1150-1215
1 1/4-12	940-990	1275-1340
1 3/8-6	1125-1175	1525-1590
1 3/8-12	1280-1335	1735-1810
1 1/2-6	1500-1560	2035-2115
1 1/2-12	1685-1755	2285-2380

### IMPORTANT

- Follow these torque recommendations except when specified in text.

## Complete Torque Chart (continued)

### Capscrews - Grade 8

**NOTE:**

- Grade 8 capscrews can be identified by six radial dashes on the head.
- For wheel torque requirements, refer to Wheels and Tires.
- Tighten U-bolts evenly and equally to have the same number of threads exposed on each end.



SIZE	FOOT POUNDS	NEWTON METERS
5/16-18	20-22	27-30
5/16-24	21-23	28-31
3/8-16	35-39	47-53
3/8-24	36-41	49-55
7/16-14	54-58	73-78
7/16-20	55-60	75-80
1/2-13	82-88	110-120
1/2-20	94-99	125-135
9/16-12	127-134	170-180
9/16-18	147-155	199-210
5/8-11	160-170	215-230
5/8-18	165-175	225-235
3/4-10	280-295	380-400
3/4-16	330-365	445-495
7/8-9	410-430	555-580
7/8-14	420-440	570-595
1-8	630-650	850-880
1-14	680-700	920-950
1 1/8-7	900-930	1220-1260
1 1/8-12	930-950	1260-1290
1 1/4-7	1250-1300	1695-1760
1 1/4-12	1280-1320	1735-1790

### IMPORTANT

- Follow these torque recommendations except when specified in text.

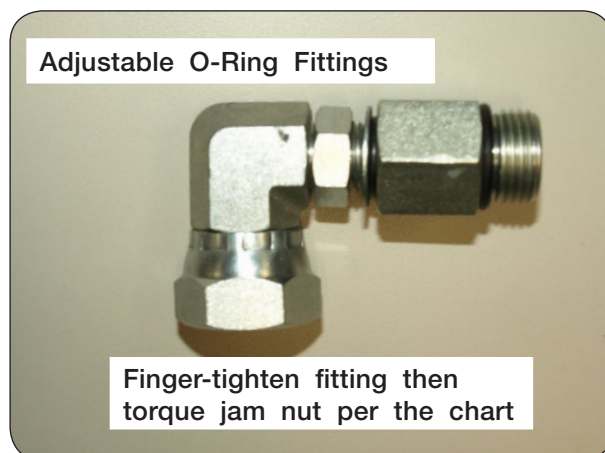
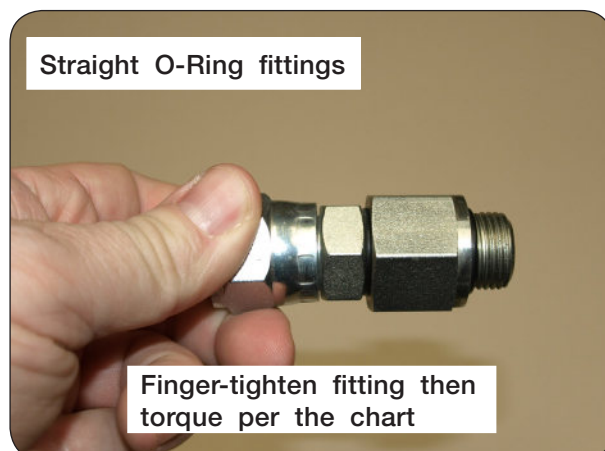
## Hydraulic Fittings - Torque and Installation

### Tightening O-Ring Fittings

1. Inspect components for damage or contamination. Do not connect any other type of fitting to an O-ring fitting.
2. For adjustable fittings, insure the jam nut and washer are fully backed up.
3. Lubricate the O-ring and threads on the fitting.
4. Turn the fitting into the port until it is finger tight.
5. For adjustable fittings, set in the desired position.
6. Using a wrench, torque the fitting to the value in the below table. For adjustable fittings the jam nut will be tightened.

Note: Never use a power tool to install a fitting.

Dash Size	Thread Size	Straight Stud Torque (Ft-Lbs)	Adjustable Stud Torque (Ft-Lbs)
-5	1/2-20	14-19	10-14
-6	9/16-18	18-24	12-16
-8	3/4-16	27-43	20-30
-10	7/8-14	36-48	30-36
-12	1-1/16-12	65-75	44-54
-14	1-3/16-12	75-99	53-70
-16	1-5/16-12	85-123	59-80
-20	1-5/8"-12	115-161	75-100
-24	1-7/8"-12	125-170	105-125

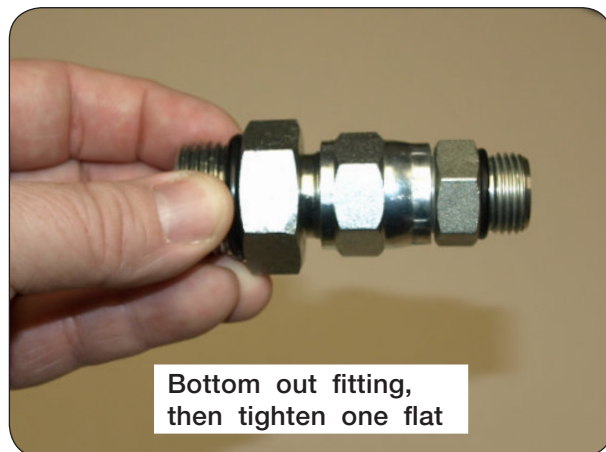


### Hydraulic Fittings - Torque and Installation

#### Tightening JIC Fittings

1. Inspect all components for damage or contamination. Do not connect any other type of fitting to a JIC fitting.
2. Lubricate the threads.
3. Turn the fitting into the port until it bottoms out.
4. Use one wrench on the fixed hex on the hose to prevent twisting and a second on the swivel. Tighten the fitting another 60 degrees (or one flat).

Note: Never use a power tool to install a fitting.



## 1 tRIPr (3 Point) — Maintenance

### Notes

## **SECTION V**

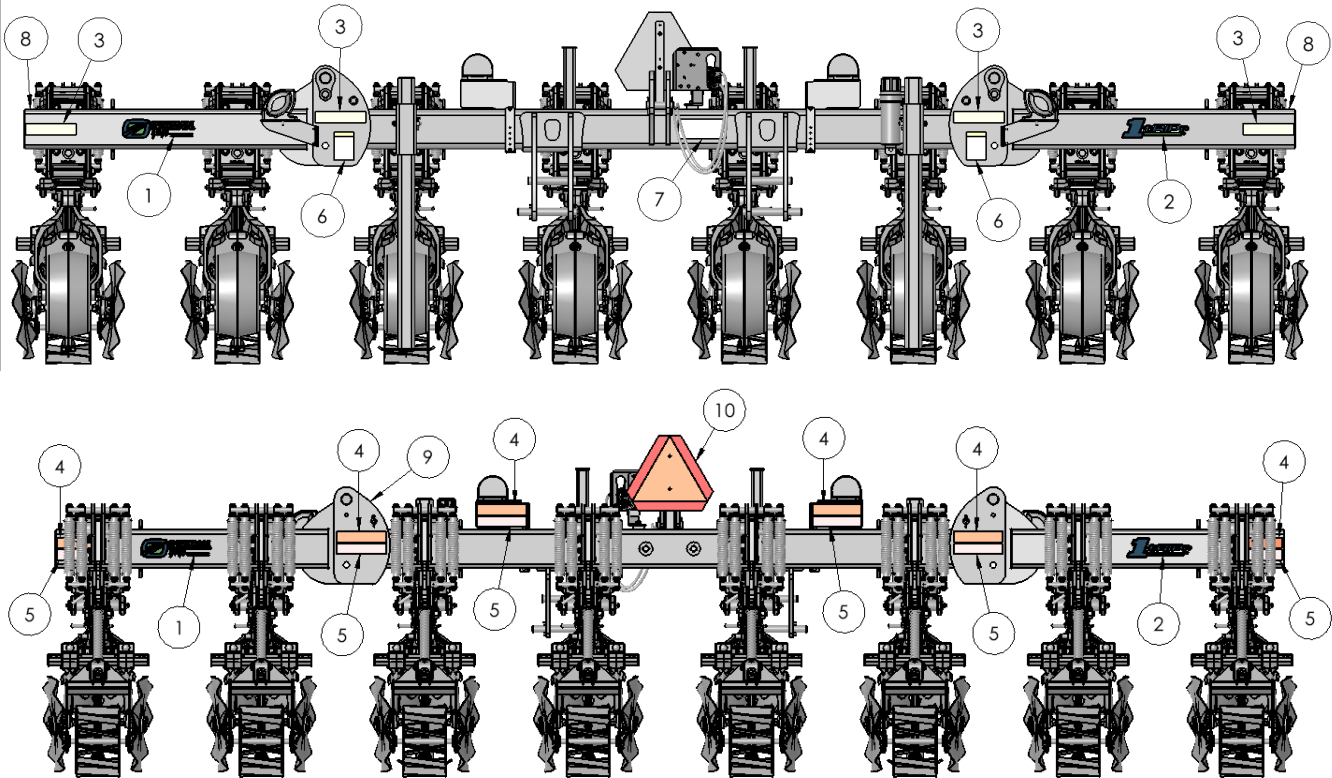
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## 1 tRIPr (3 Point) — Parts

### Decals

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

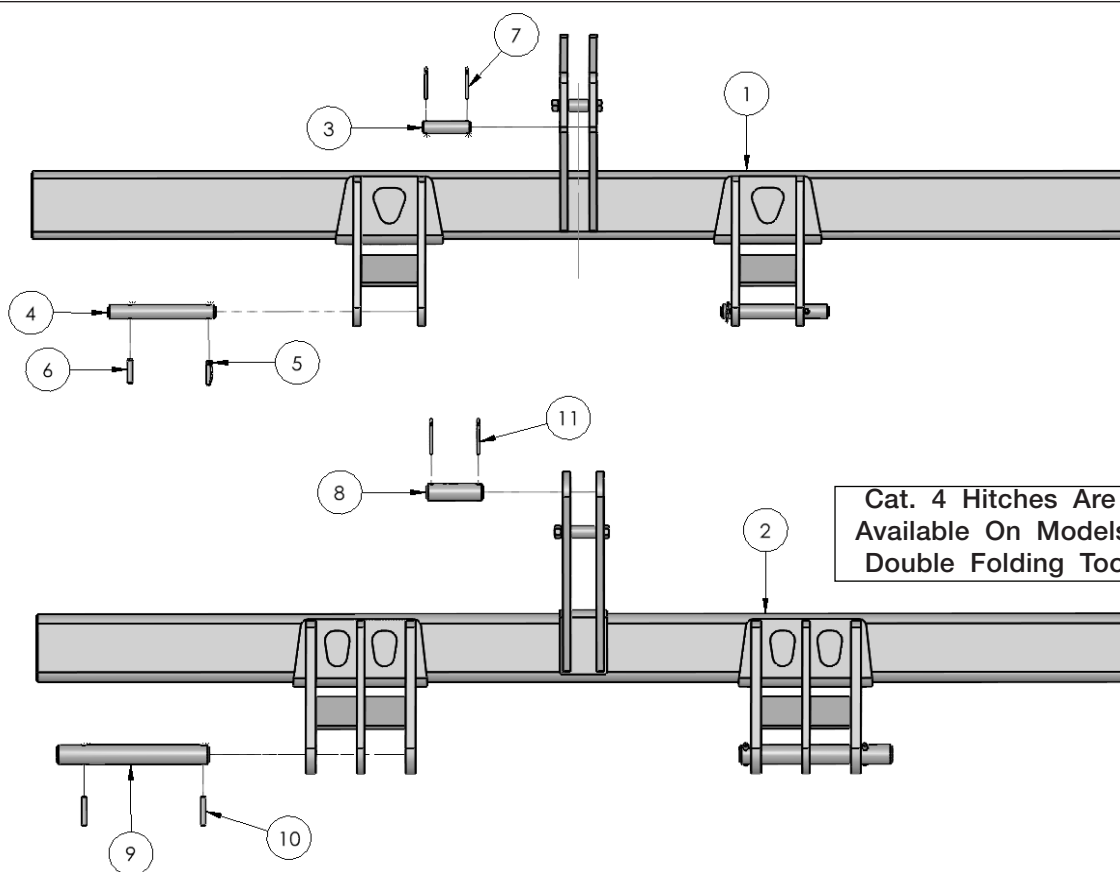


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L153-1012	Orthman by Unverferth Decal	2	
2	L153-432	1tRIPr Model Decal	2	
3	L153-172	Yellow Reflective Decal	8	
4	L153-173	Orange Reflective Decal	6	
5	L153-171	Red Reflective Decal	9	
6	L153-013	Wing Hinge Warning Decal	2	
7	L153-528	Hydraulic Pressure Warning Decal	1	
8	L153-044	Operation Checklist Decal	2	
9	95737	Serial Number Tag	1	*Not Shown*
10	L153-109	SMV Sign	1	
11	L153-256	Read Operator Manual Decal	1	
12	L153-180	Cylinder Pin Caution Decal	2	*Not Shown*

# 1 tRIPr (3 Point) — Parts

## Hitch Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

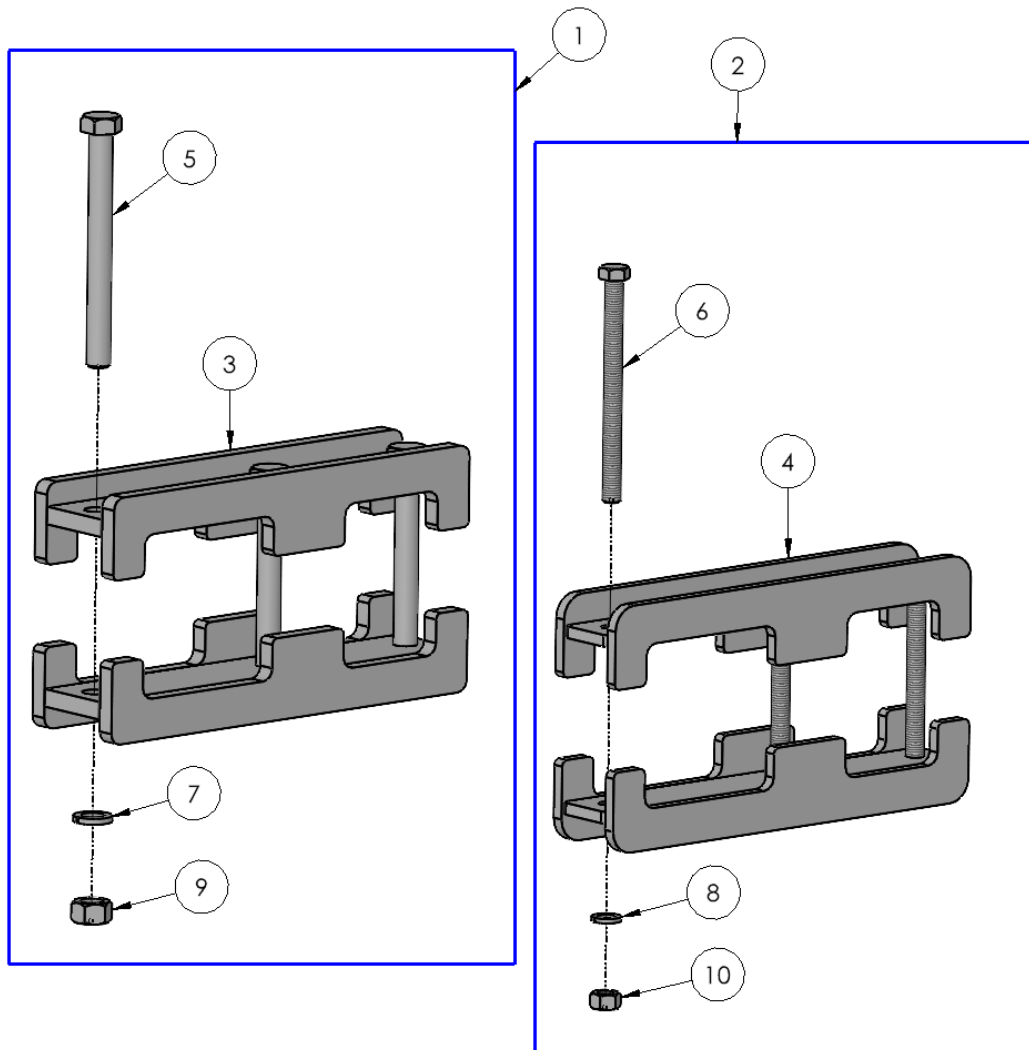


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L601-971	Medium Lift Hitch Package, 110" Category 3/3N	1	Includes Items 3-7
	L601-972	Medium Lift Hitch Package, 144" Category 3/3N		
	L601-973	Medium Lift Hitch Package, 168" Category 3/3N		
	L601-974	Medium Lift Hitch Package, 192" Category 3/3N		
	L601-976	Medium Lift Hitch Package, 240" Category 3/3N		
2	L601-420	Medium Lift Hitch Package, 110" Category 4/4N	1	Includes Items 8-11
	L601-421	Medium Lift Hitch Package, 144" Category 4/4N		
	L601-422	Medium Lift Hitch Package, 168" Category 4/4N		
	L601-423	Medium Lift Hitch Package, 192" Category 4/4N		
	L601-425	Medium Lift Hitch Package, 240" Category 4/4N		
3	L302-591	Upper Hitch Tug Pin	1	Cat. 3/3N Hitches Only
4	L302-592	Lower Hitch Tug Pin	2	Cat. 3/3N Hitches Only
5	L104-036	Lynch Pin	2	Cat. 3/3N Hitches Only
6	L104-102	Roll Pin, 1/2" x 2 1/2"	2	Cat. 3/3N Hitches Only
7	L104-102	Roll Pin, 1/2" x 2 1/2"	2	Cat. 3/3N Hitches Only
8	L321-514	Upper Hitch Tug Pin	1	Cat. 4/4N Hitches Only
9	L321-513	Lower Hitch Tug Pin	2	Cat. 4/4N Hitches Only
10	L104-091	Roll Pin, 1/2" x 3"	4	Cat. 4/4N Hitches Only
11	L104-022	Cotter Pin	2	Cat. 4/4N Hitches Only

# 1 tRIPr (3 Point) — Parts

## Hitch Clamp Components

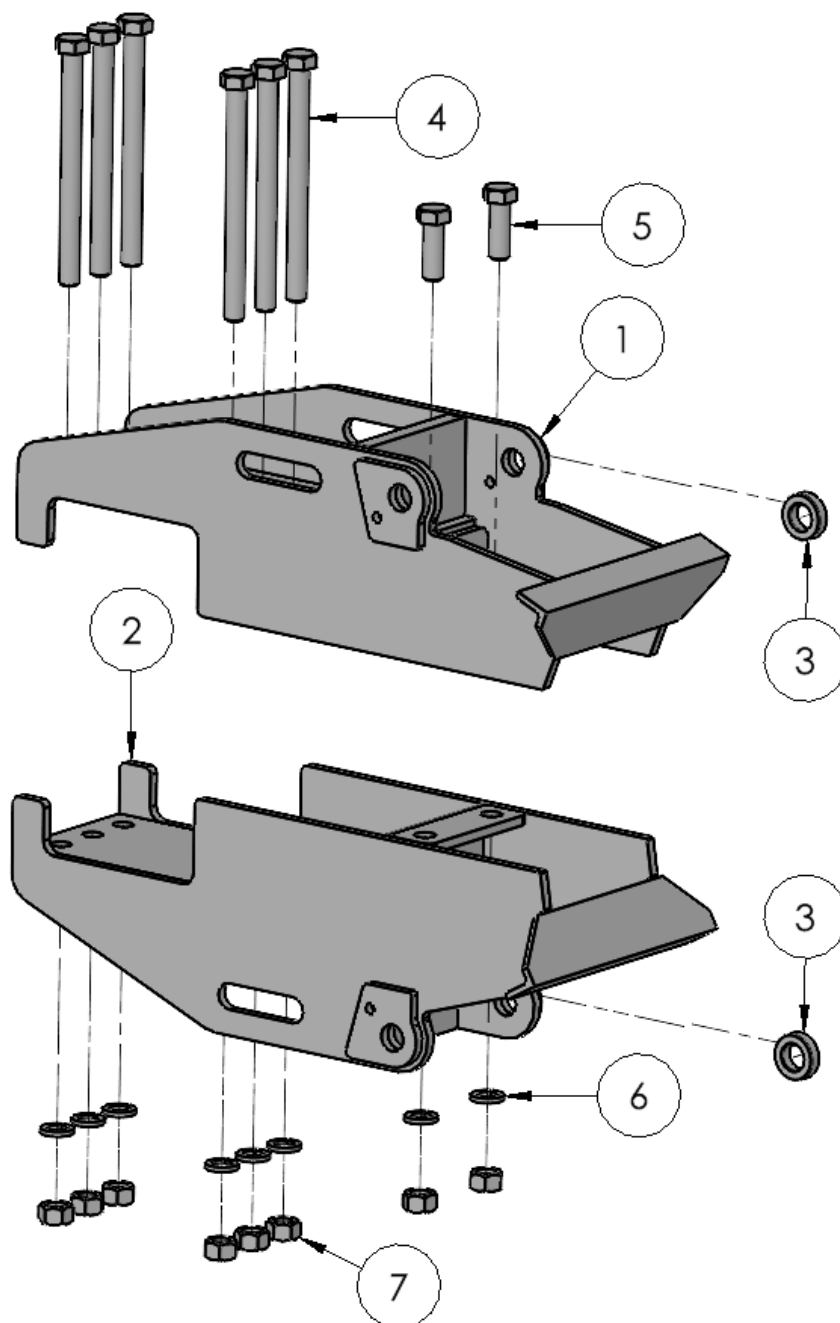
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L601-380	Clamp Assembly, Heavy Duty - Medium	1	
2	L601-360	Clamp Assembly, Regular Duty - Medium	1	
3	L302-571	Clamp, Heavy Duty	2	
4	L302-595	Clamp, Regular Duty	2	
5	L100-199	Capscrew, 1"-8UNC x 10" Grade 8	3	
6	L100-274	Capscrew, 3/4"-10UNC x 9 1/2" Grade 8	3	
7	L108-025	Lock Washer, 1"	3	
8	L108-022	Lock Washer, 3/4"	3	
9	L102-111	Hex Nut, 1"-8UNC Grade 5	3	
10	L102-009	Hex Nut, 3/4"-10UNC Grade 5	3	

## Set Back Clamp Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

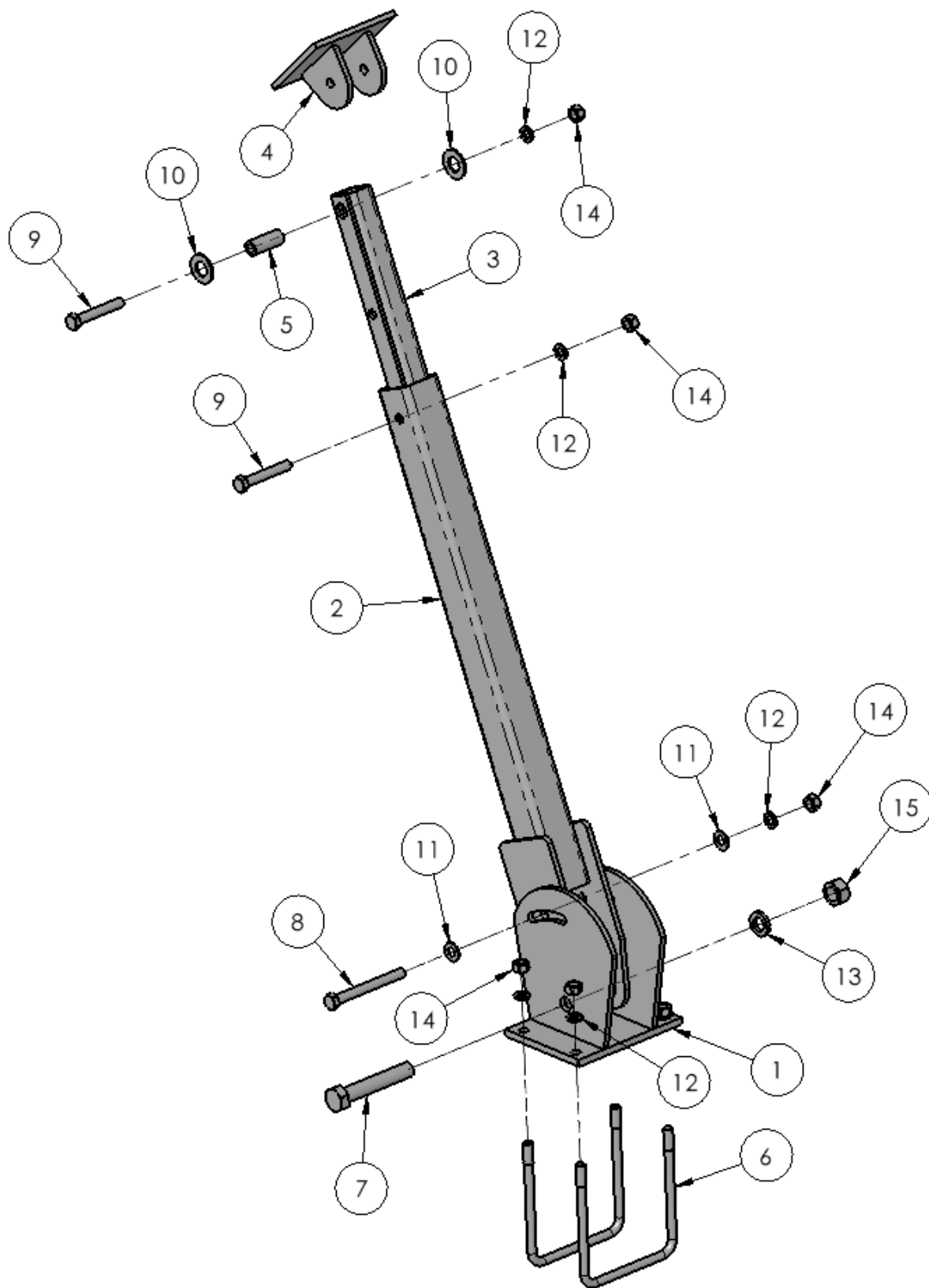


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L388-470	Top Arm Weldment	1	
2	L388-737	Bottom Arm Weldment	1	
3	L388-530	Spacer, 1 3/4" OD x 1 1/16" ID x 1/2"	2	
4	L100-174	Capscrew, 3/4"-10UNC x 9" Grade 5	6	
5	L100-157	Capscrew, 3/4"-10UNC x 2 1/4" Grade 5	2	
6	L108-022	Lock Washer, 3/4"	8	
7	L102-009	Hex Nut, 3/4"10UNC Grade 5	8	

## 1 tRIPr (3 Point) — Parts

### Adjustable Wing Rest Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

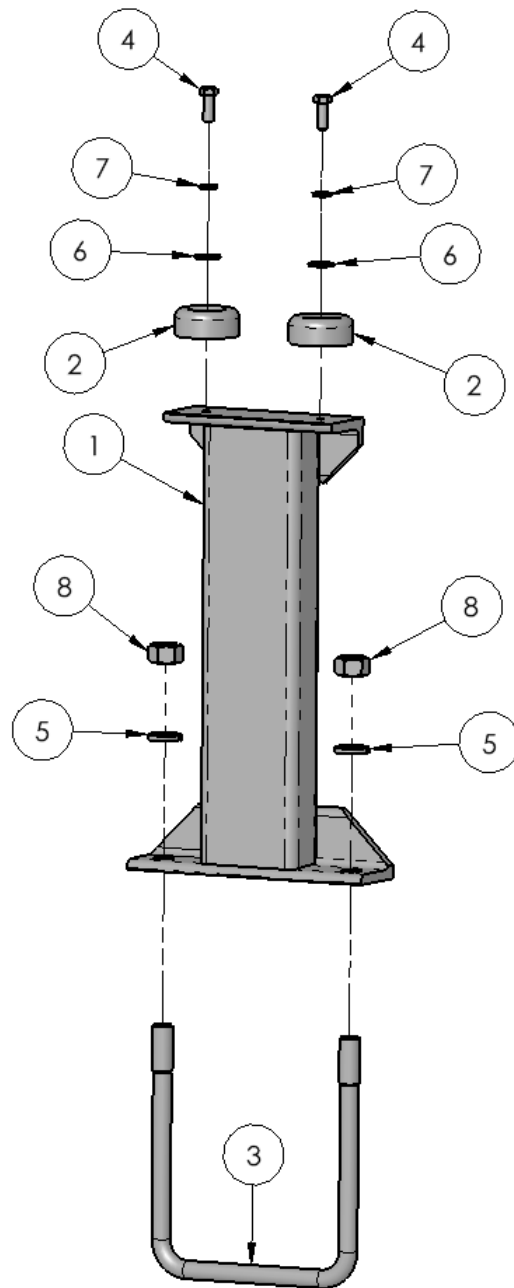
### Adjustable Wing Rest Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L600-074	Adjustable Wing Rest Kit	1	
	L600-101	Adjustable Wing Rest Kit (Short)		
1	L300-065	Mount Bracket	1	
2	L300-071	Receiver Tube	1	
3	L300-067	Extension Tube	1	
4	L300-068	Rest Plate	1	
5	L300-066	Pivot Rest Bushing	1	
6	L315-030	U-Bolt, 5/8"-11UNC x 7" x 7"	2	
7	L100-290	Capscrew, 1"-8UNC x 6" Grade 5	1	
8	L100-154	Capscrew, 5/8"-11UNC x 6" Grade 5	1	
9	L100-219	Capscrew, 5/8"-11UNC x 4" Grade 5	2	
10	L108-004	Flat Washer, 1"	2	
11	L108-002	Flat Washer, 5/8"	2	
12	L108-021	Lock Washer, 5/8"	3	
13	L108-025	Lock Washer, 1"	1	
14	L102-008	Hex Nut, 5/8"-11UNC	7	
15	L102-111	Hex Nut, 1"-8UNC	1	

## 170 Degree Wing Fold Assembly Components

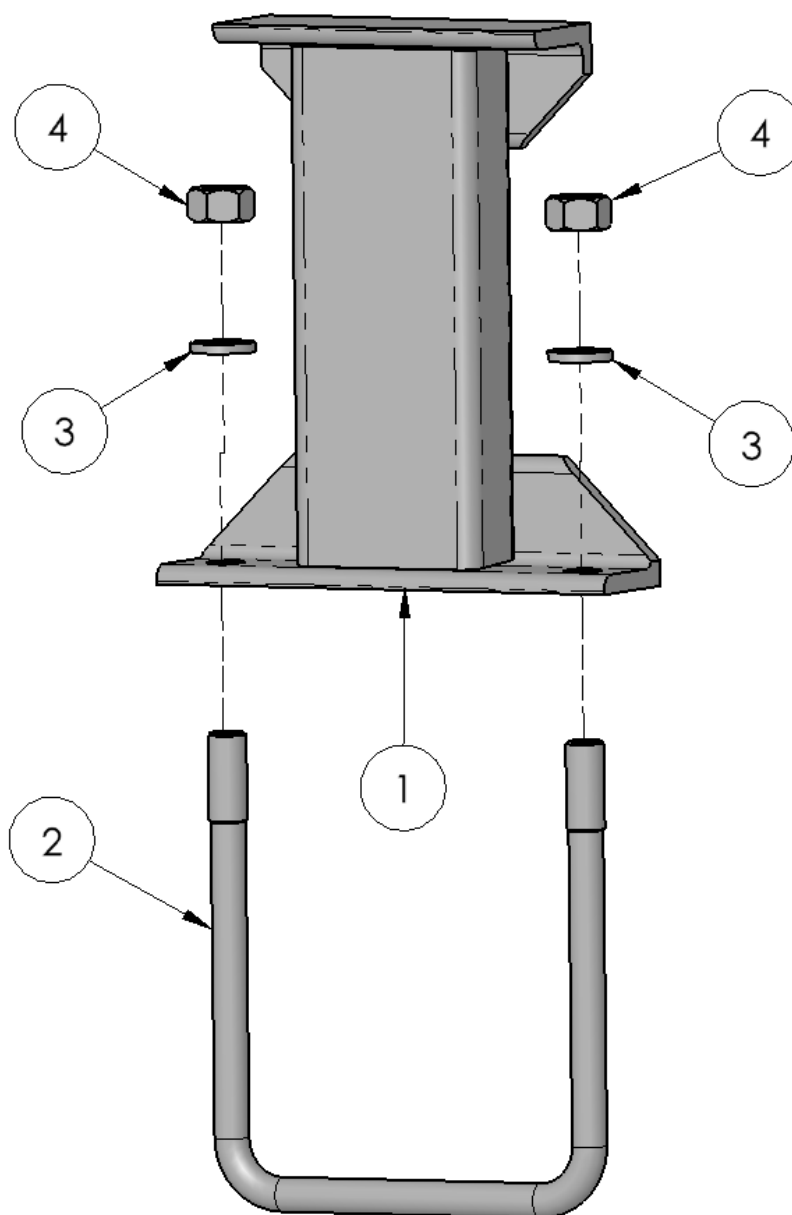
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L301-524	170 Degree Wing Rest	1	
2	L146-008	Rubber Bumper	2	
3	L315-031	U-Bolt, 3/4"-10UNC x 7" x 7"	1	
4	L100-107	Capscrew, 3/8"-16UNC x 1"	2	
5	L108-022	Lock Washer, 3/4"	2	
6	L108-007	Flat Washer, 3/8"	2	
7	L108-018	Lock Washer, 3/8"	2	
8	L102-009	Hex Nut, 3/4"-10UNC	2	

## 180 Degree Wing Rest Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

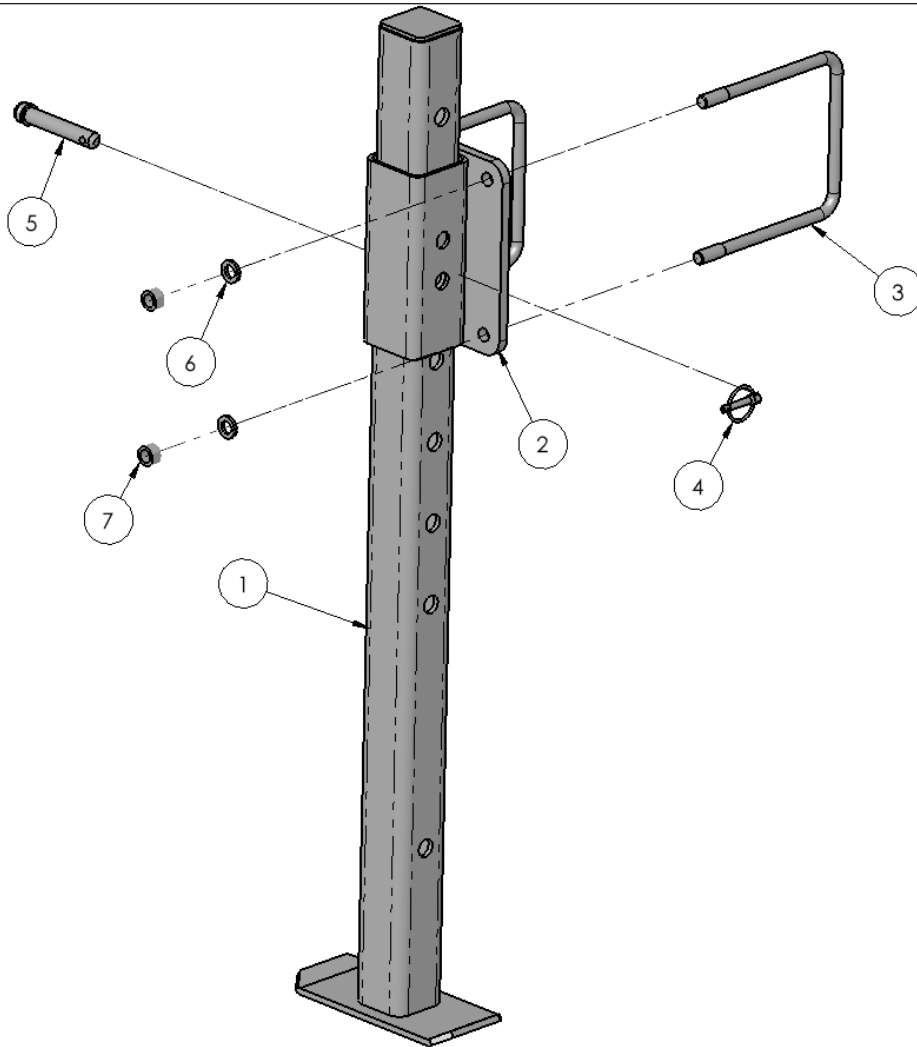


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L301-545	180 Degree Wing Rest	1	
2	L315-031	U-Bolt, 3/4"-10UNC x 7" x 7"	1	
3	L108-022	Lock Washer, 3/4"	2	
4	L102-009	Hex Nut, 3/4"-10UNC	2	

## 1 tRIPr (3 Point) — Parts

### Support Stand Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

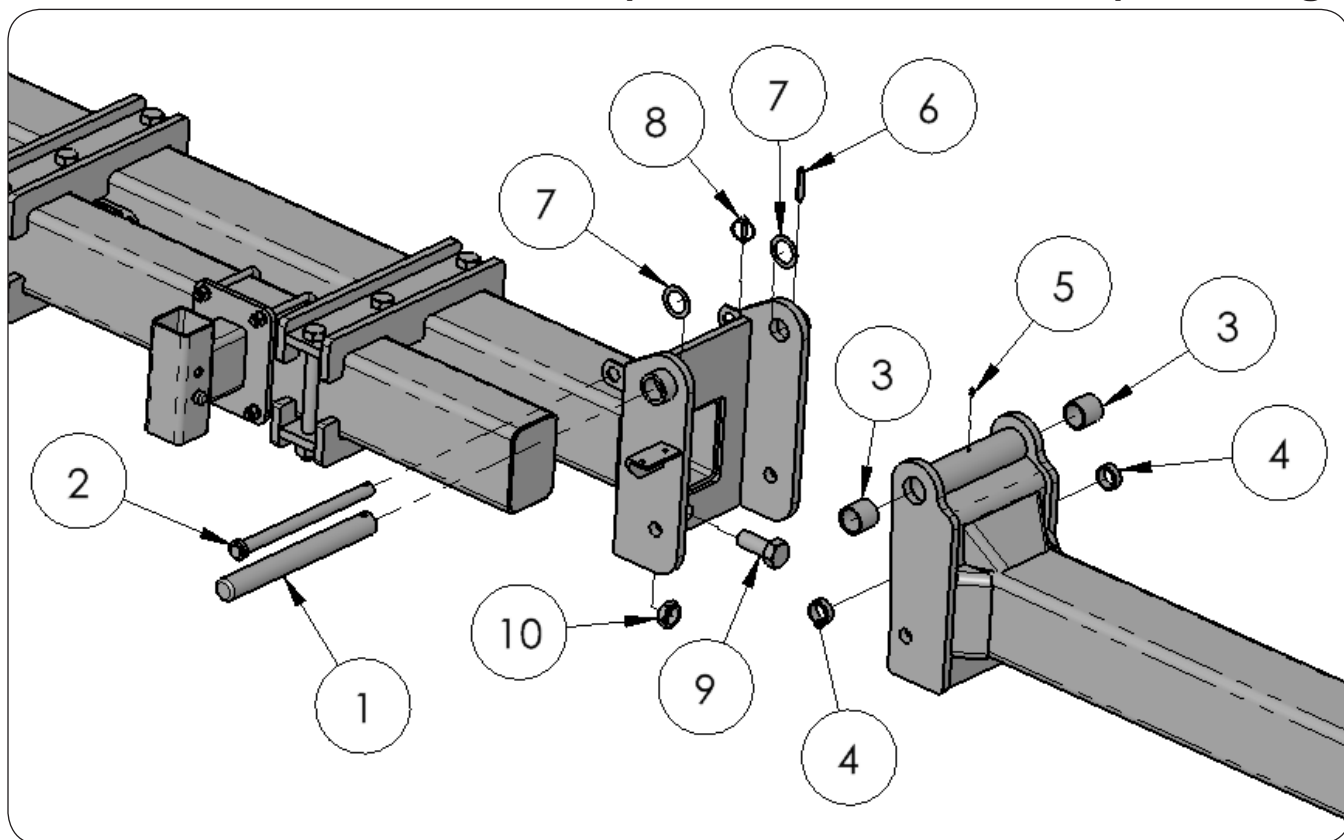


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L600-354	Support Stand Kit	2	48"
1	L303-744	Stand Tube, 48"	1	
2	L301-098	Stand Mount	1	
3	L315-027	U-Bolt, 5/8"-11UNC x 5" x 7"	2	
4	L104-065	Lynch Pin	1	
5	L303-846	Pin	1	
6	L108-021	Lock Washer, 5/8"	4	
7	L102-008	Hex Nut, 5/8"-11UNC	4	

## 1 tRIPr (3 Point) — Parts

### Single Toolbar Hinge Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

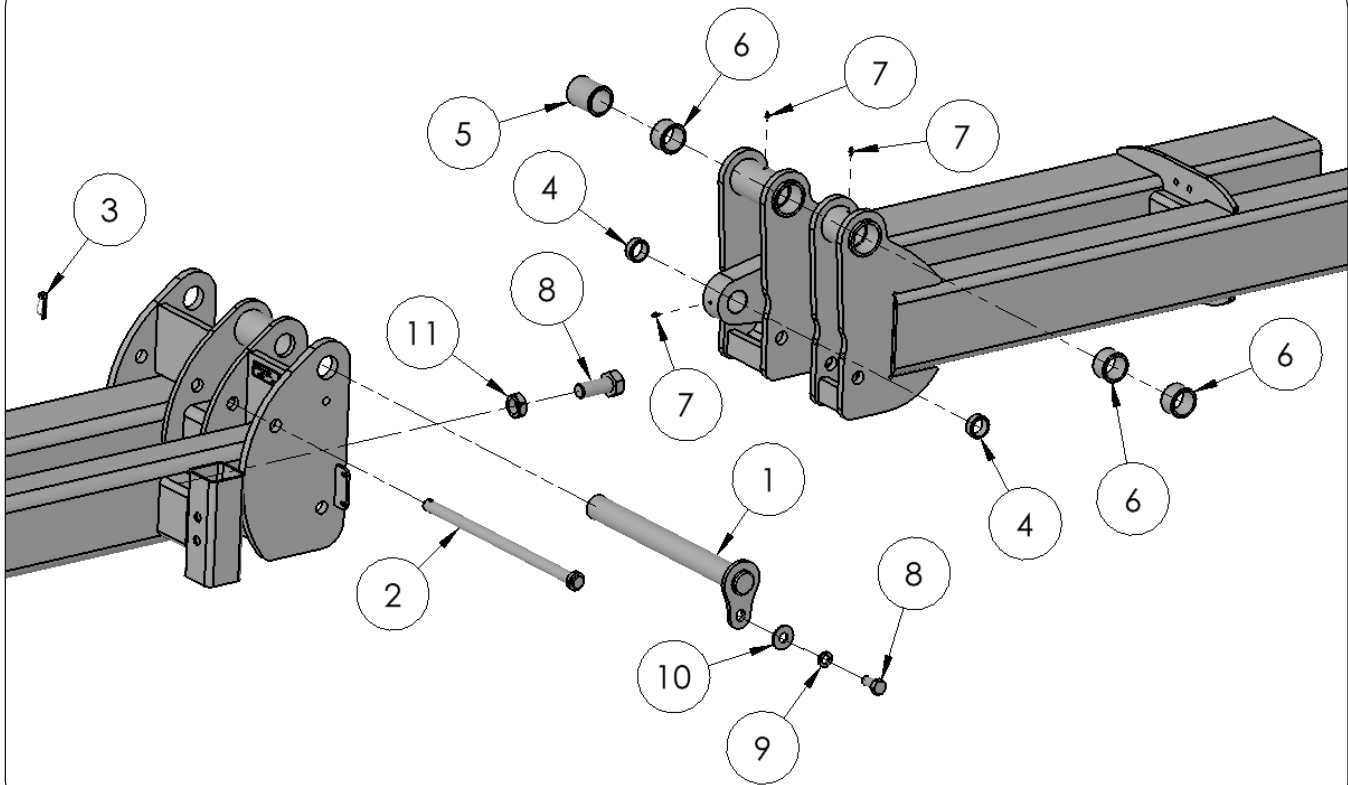


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L301-146	Toolbar Pivot Pin	1	
2	L301-156	Toolbar Locking Pin	1	
3	L134-005	Toolbar Pivot Bushing	2	
4	L134-040	Toolbar Cylindser Bushing	2	
5	L110-001	Grease Fitting	2	
6	L104-080	Roll Pin	1	
7	L134-023	Spacer Washer	2	
8	L104-065	Lynch Pin	1	
9	L100-471	Wing Level Adjustment Bolt	1	
10	L102-077	Jam Nut, 1 1/4"-7UNC	1	

## 1 tRIPr (3 Point) — Parts

### Double Toolbar Hinge Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

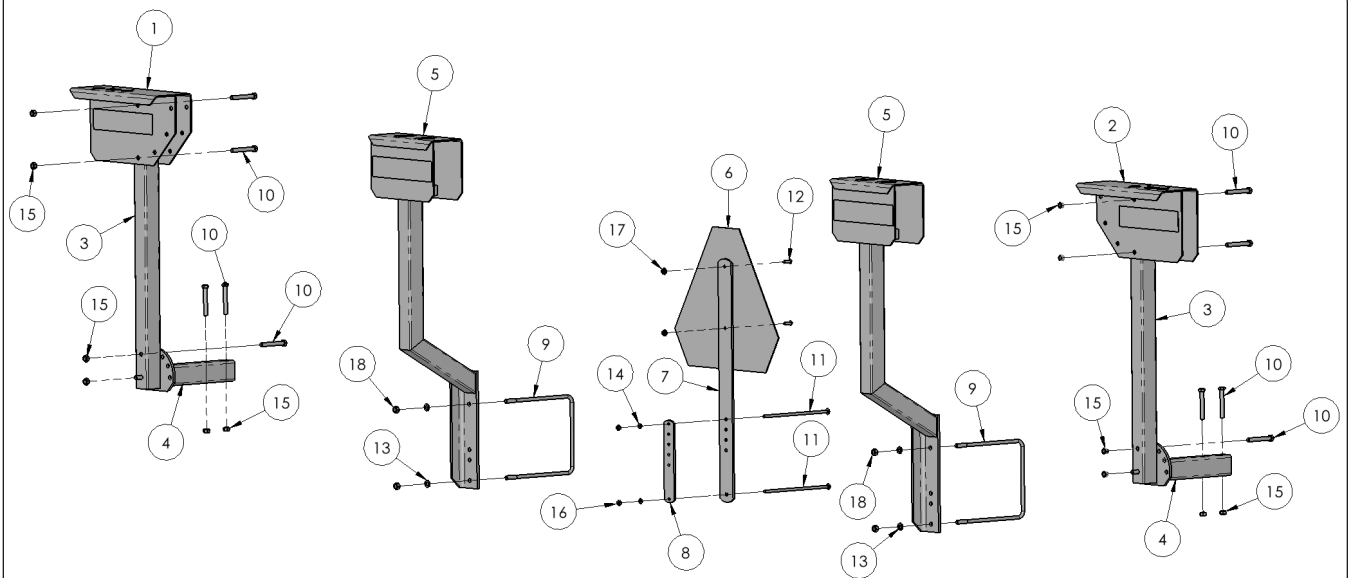


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L321-624	Hinge Pin	2	
2	L321-319	Wing Lock Pin	2	
3	L104-065	Linch Pin, 5-16" x 1 11/16"	2	
4	L134-040	Bushing, 1 7/8" x 1 1/2" x 3/4"	4	
5	L134-094	Bushing, 2 1/2" x 2" x 3"	2	
6	L134-097	Bushing, 2 1/2" x 2" x 1 1/2"	6	
7	L110-001	Grease Fitting	6	
8	L100-471	Capscrew, 1 1/4"-12SAE x 3" Grade 8	2	
9	L100-206	Capscrew, 3/4"-10UNC x 1 1/2" Grade 5	2	
10	L108-022	Lock Washer, 3/4"	2	
11	L108-011	Flat Washer, 3/4"	2	
12	L102-077	Jam Nut, 1 1/4"-12SAE Grade 2	2	

## 1 tRIPr (3 Point) — Parts

### Single Folding Toolbar Light Mounts and SMV Sign Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

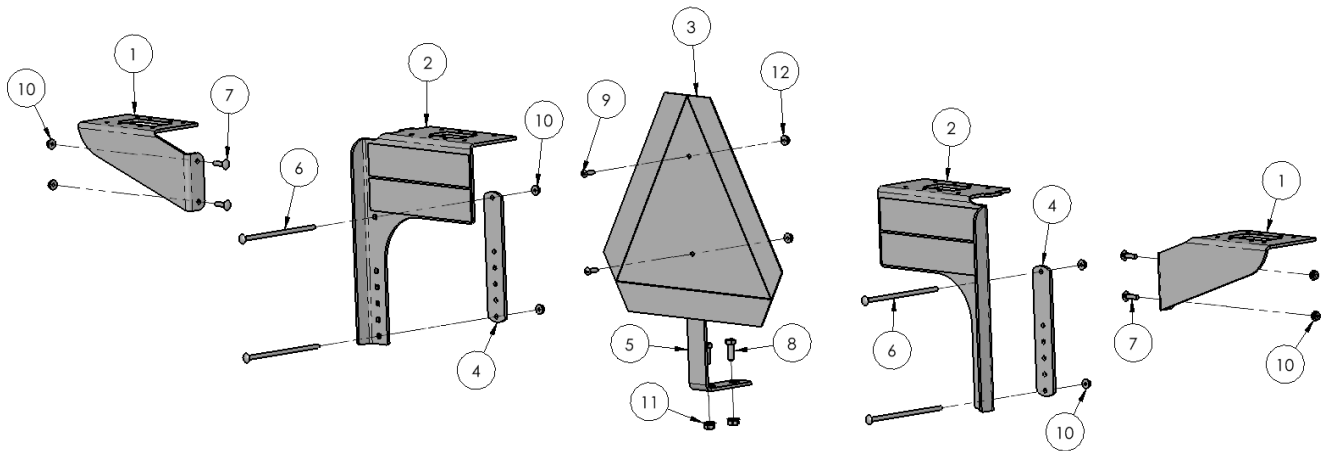


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L301-567	Adjustable Light Bracket, Right	1	
2	L301-568	Adjustable Light Bracket, Left	1	
3	L301-563	Adjustable Light Bracket Arm	2	
4	L301-562	Adjustable Light Bracket Mount	2	
5	L301-574	Inner Light Mount	2	
6	L153-109	SMV Sign	1	
7	L385-183	SMV Sign Mount	1	
8	L333-499	SMV Mount Strap	1	
9	L315-026	U-Bolt, 3/8"-16UNC x 7' x 7"	2	
10	L100-113	Capscrew, 3/8"-16UNC x 2 3/4" Grade 5	10	
11	L100-575	Carriage Bolt, 1/4"-20UNC x 8"	2	
12	L106-077	Capscrew, 1/4"-20UNC x 1"	2	
13	L108-018	Lock Washer, 3/8"	4	
14	L108-027	Lock Washer, 1/4"	2	
15	L102-056	Lock Nut, 3/8"-16UNC	8	
16	L102-002	Hex Nut, 1/4"-20UNC	2	
17	L102-085	Flange Nut, 1/4"-20UNC	2	
18	L102-005	Hex Nut, 3/8"-16UNC	4	

## 1 tRIPr (3 Point) — Parts

### Double Folding Toolbar Light Mounts and SMV Sign Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

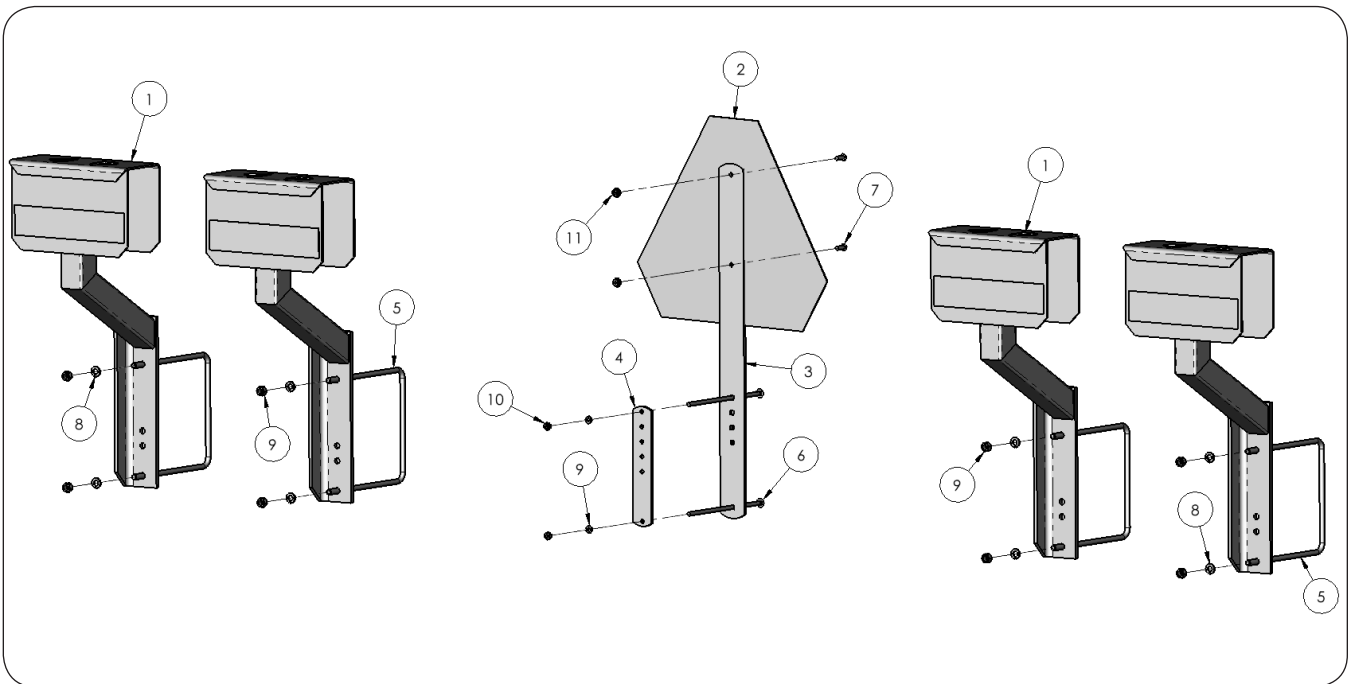


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L341-822	Outer Light Mount (Left)	1	
	L341-821	Outer Light Mount (Right)	1	
2	L341-825	Inner Light Mount (Left)	1	
	L341-824	Inner Light Mount (Right)	1	
3	L153-109	SMV Sign	1	
4	L333-499	Inner Light Mount Strap	2	
5	L341-828	SMV Sign Mount	1	
6	L100-582	Carriage Bolt, 1/4"-20UNC x 6" Grade 2	4	
7	L100-001	Carriage Bolt, 1/4-20UNC x 1" Grade 8	4	
8	L100-107	Capscrew, 3/8"-16UNC x 1" Grade 5	2	
9	L106-077	Capscrew, 1/4"-20 x 1"	2	
10	L102-227	Flange Nut, 1/4"-20UNC Grade 5	4	
11	L102-060	Flange Nut, 3/8"-16UNC Grade 5	2	
12	L102-085	Flange Nut, 1/4"-20UNC Grade 2	2	

## 1 tRIPr (3 Point) — Parts

### Rigid Toolbar Light Mounts and SMV Sign Components

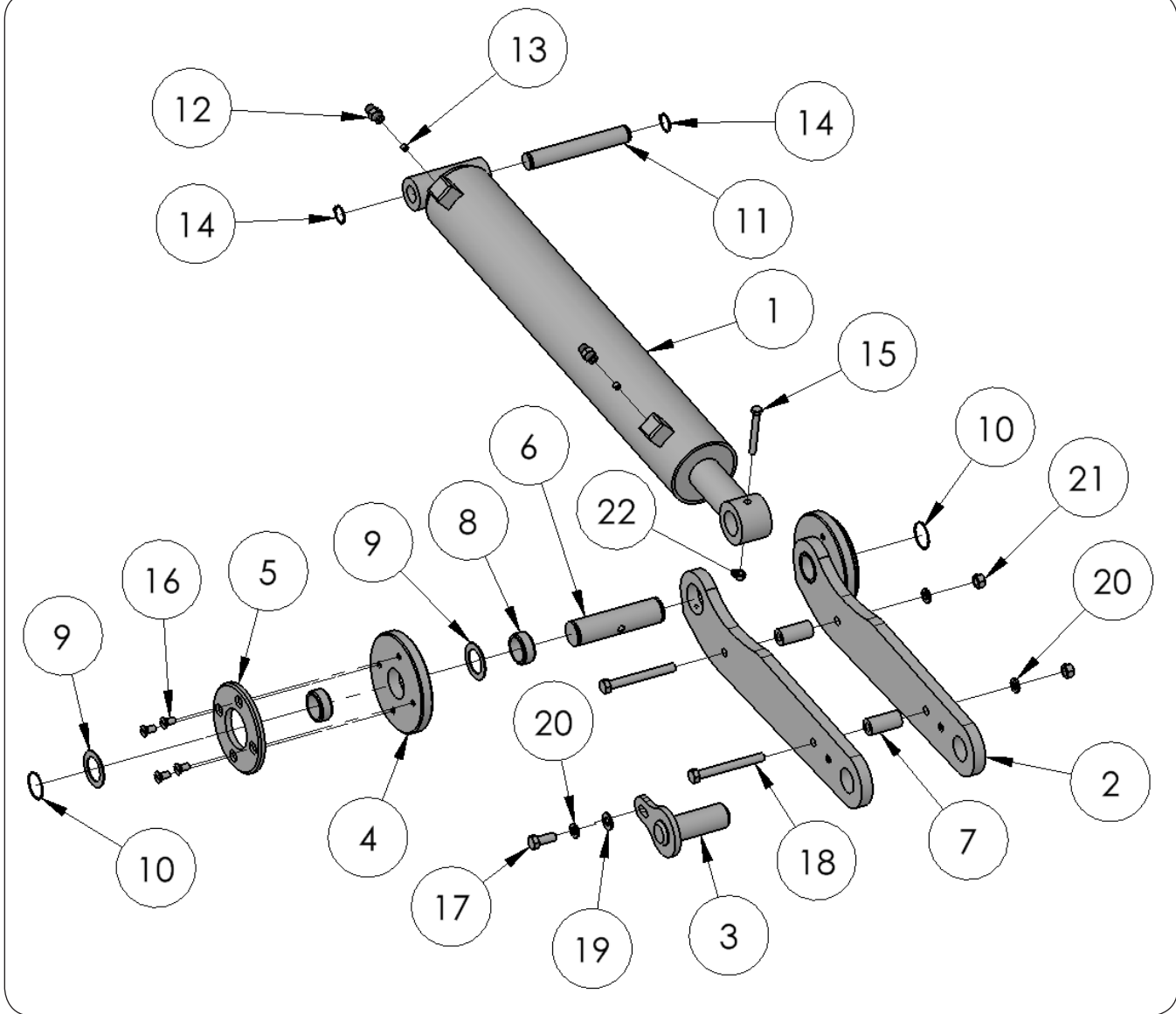
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L301-573	Light Mount		
2	L153-109	SMV Sign		
3	L385-183	SMV Sign Mount		
4	L333-499	SMV Sign Mounting Strap		
5	L315-026	U-Bolt, 3/8"-16UNC x 7' x 7"		
6	L100-575	Carriage Bolt, 1/4"-20UNC x 8" Grade 8		
7	L106-077	Capscrew, 1/4"-20UNC x 1"		
8	L108-018	Lock Washer, 3/8"		
9	L108-027	Lock Washer, 1/4"		
10	L102-005	Hex Nut, 3/8"-16UNC Grade 2		
11	L102-002	Hex Nut, 1/4"-20UNC Grade 5		
12	L102-085	Flange Nut, 1/4"-20UNC Grade 2		

**180 Degree Wing Fold Assembly Components**

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

### 180 Degree Wing Fold Assembly Components

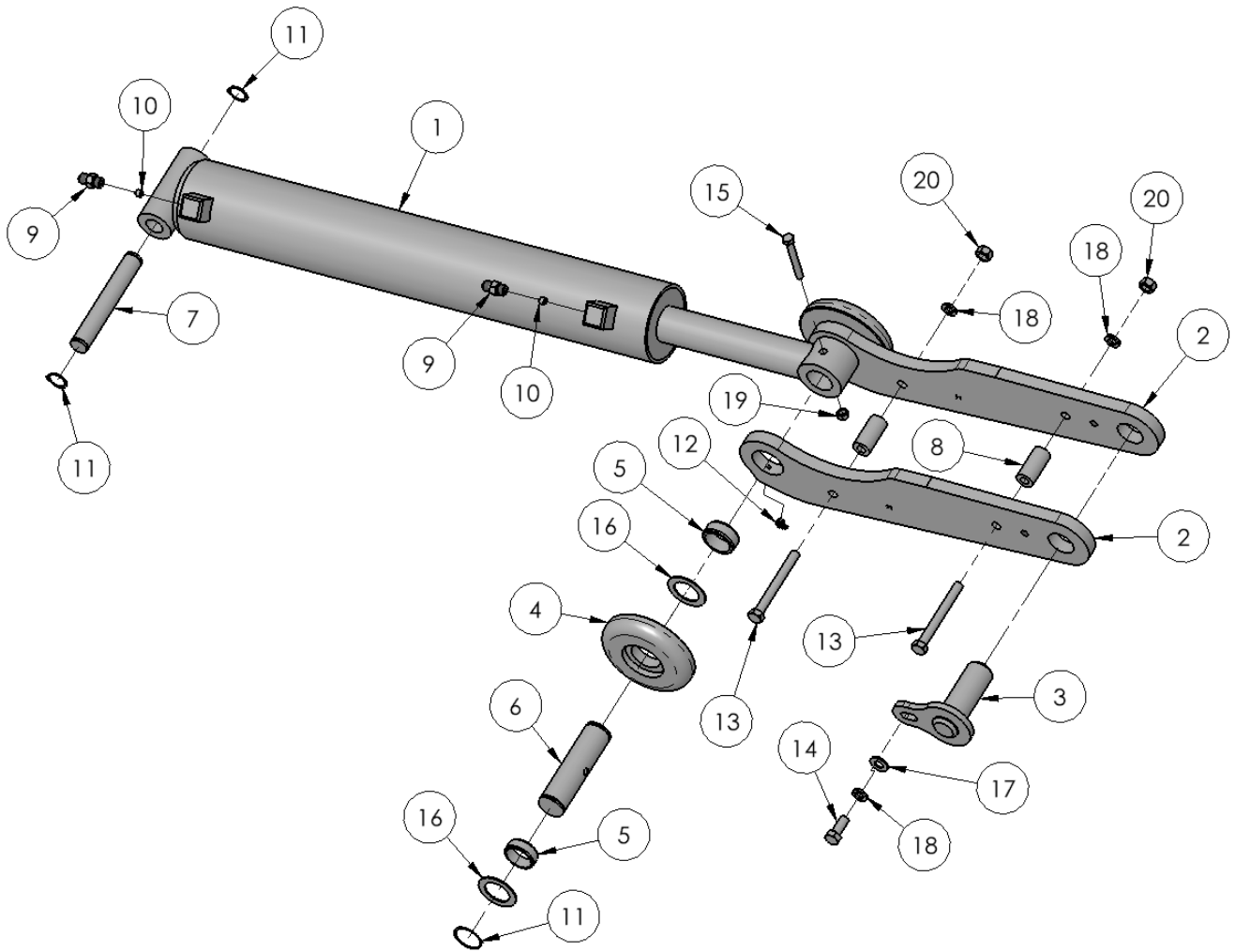
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L194-499	Cylinder, 4" x 24"	1	
2	L301-980	Connecting Strap	2	
3	L301-548	Linkage Pin	1	
4	L301-982	Guide Wheel	2	
5	L301-512	Friction Plate	2	
6	L301-948	Cylinder Pin	1	
7	L312-082	Spacer	2	
8	L134-040	Split Bushing	4	
9	L134-041	Flat Washer, 2 1/4" x 1 1/2"	4	
10	L104-052	Snap Ring, 1 1/2" External	2	
11	L301-500	Cylinder Pin	1	
12	L340-078	Adapter, 9/16" MB x 9/16" MJ	2	
13	L340-057	Restrictor, 3/8" x 3/8" x .055	2	
14	L104-053	Snap Ring, 1" External	2	
15	L100-098	Capscrew, 3/8"-16UNC x 3" Grade 5	1	
16	L106-107	Flat Head Screw, 3/8" x 3/4"	8	
17	L100-115	Capscrew, 1/2"-13UNC x 1 1/4" Grade 5	1	
18	L100-125	Capscrew, 1/2"-13UNC x 4 1/4" Grade 5	2	
19	L108-001	Flat Washer, 1/2"	1	
20	L108-020	Lock Washer, 1/2"	1	
21	L102-007	Hex Nut, 1/2"-13UNC	2	
22	L102-027	Lock Nut, 3/8"-16UNC	1	

## 1 tRIPr (3 Point) — Parts

### 170 Degree Wing Fold Assembly Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

### 170 Degree Wing Fold Assembly Components

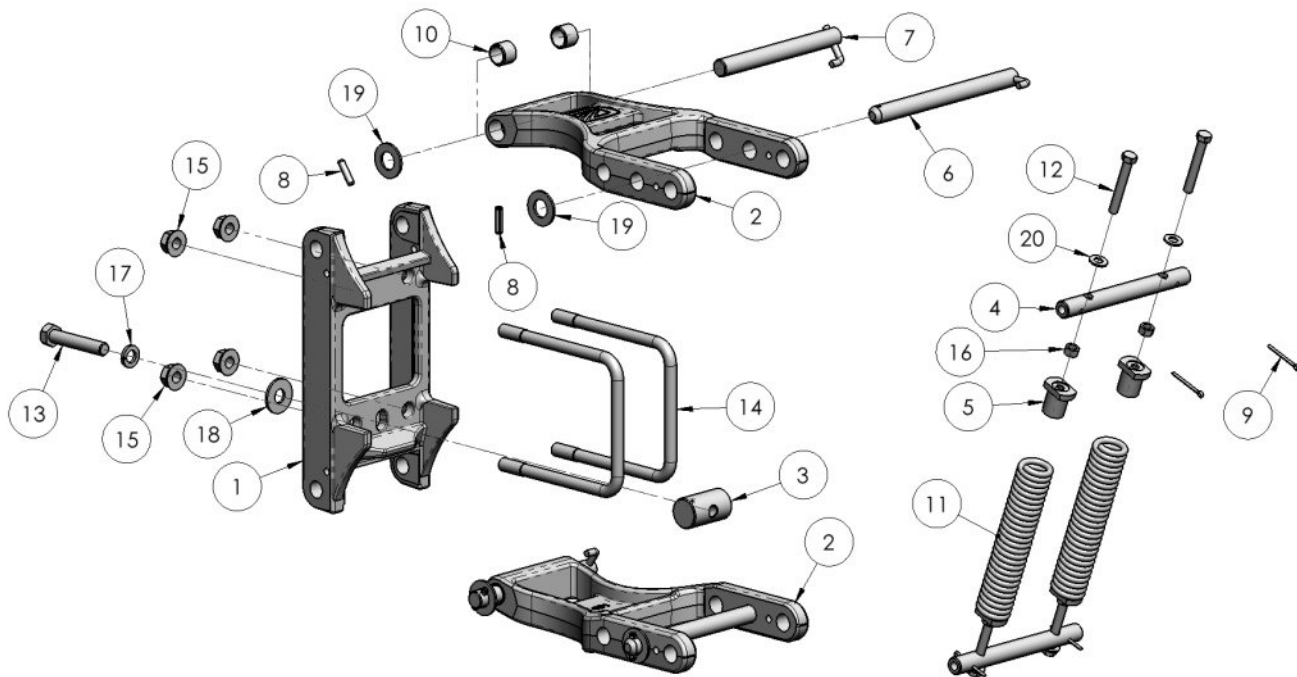
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L194-499	Hydraulic Cylinder, 4" x 24"	1	
2	L301-502	Connecting Strap	2	
3	L301-548	Linkage Pin	1	
4	L301-802	Guide Wheel	2	
5	L134-047	Split Bushing	2	
6	L321-151	Cylinder Pin	1	
7	L301-800	Cylinder Pin	1	
8	L317-714	Spacer	2	
9	L340-078	Adapter, 9/16" MB x 9/16" MJ	2	
10	L340-057	Restrictor, 3/8" x 3/8" x .055"	2	
11	L104-052	Snap Ring, 1" Extrernal	2	
12	L110-008	Grease Fitting, 1/4" x 90 Degrees	2	
13	L100-125	Capscrew, 1/2"-13UNC x 4 414" Grade 5	2	
14	L100-115	Capscrew, 1/2"-13UNC x 1 1/4" Grade 5	1	
15	L100-098	Capscrew, 3/8"-16UNC x 3" Grade 5	1	
16	L134-041	Flat Washer, 2 1/4" x 1 1/2"	2	
17	L108-001	Flat Washer, 1/2"	1	
18	L108-020	Lock Washer, 1/2"	1	
19	L102-027	Lock Nut, 3/8"-16UNC	1	
20	L102-007	Hex Nut, 1/2"-13UNC		

## 1 tRIPr (3 Point) — Parts

### Mount and Parallel Linkage Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

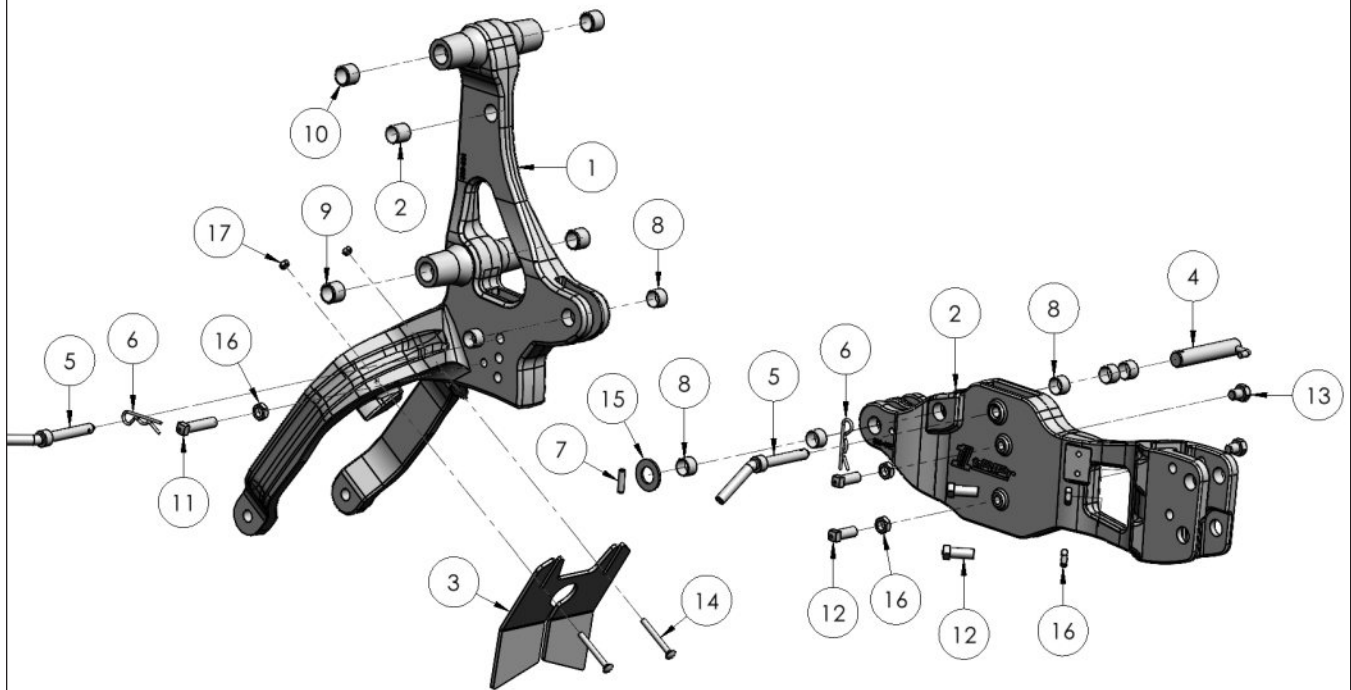


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L387-902	Mounting Bracket	1	
2	L387-901	Row Unit Linkage	2	
3	L387-521	Wedge	1	
4	L387-905	Spring Trunnion	2	
5	L340-029	Spring Plug	4	
6	L388-399	Rear Linkage Pin	1	
7	L388-276	Front Linkage Pin	1	
8	L104-009	Roll Pin, 3/8" x 1 1/2"	2	
9	L104-030	Cotter Pin, 3/16" x 2"	4	
10	L388-056	Bushing, 1" ID x 1.25" OD	2	
11	L148-027	Tension Spring	2	
12	L100-288	Capscrew, 1/2-13UNC x 3 1/2" Grade 5	4	
13	L100-490	Capscrew, 3/4"-10UNC x 4" Grade 5	1	
14	L315-031	U-Bolt, 3/4" x 7" x 7"	2	
15	L102-121	Locking Flange Nut, 3/4"-10UNC	4	
16	L102-007	Hex Nut, 1/2"-13UNC Grade 5	4	
17	L108-022	Lock Washer, 3/4"	1	
18	L108-011	Flat Washer, 1/2"	1	
19	L108-004	Flat Washer, 1" SAE	2	
20	L108-001	Flat Washer, 1/2" SAE	4	

## 1 tRIPr (3 Point) — Parts

### Row Unit Frame Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

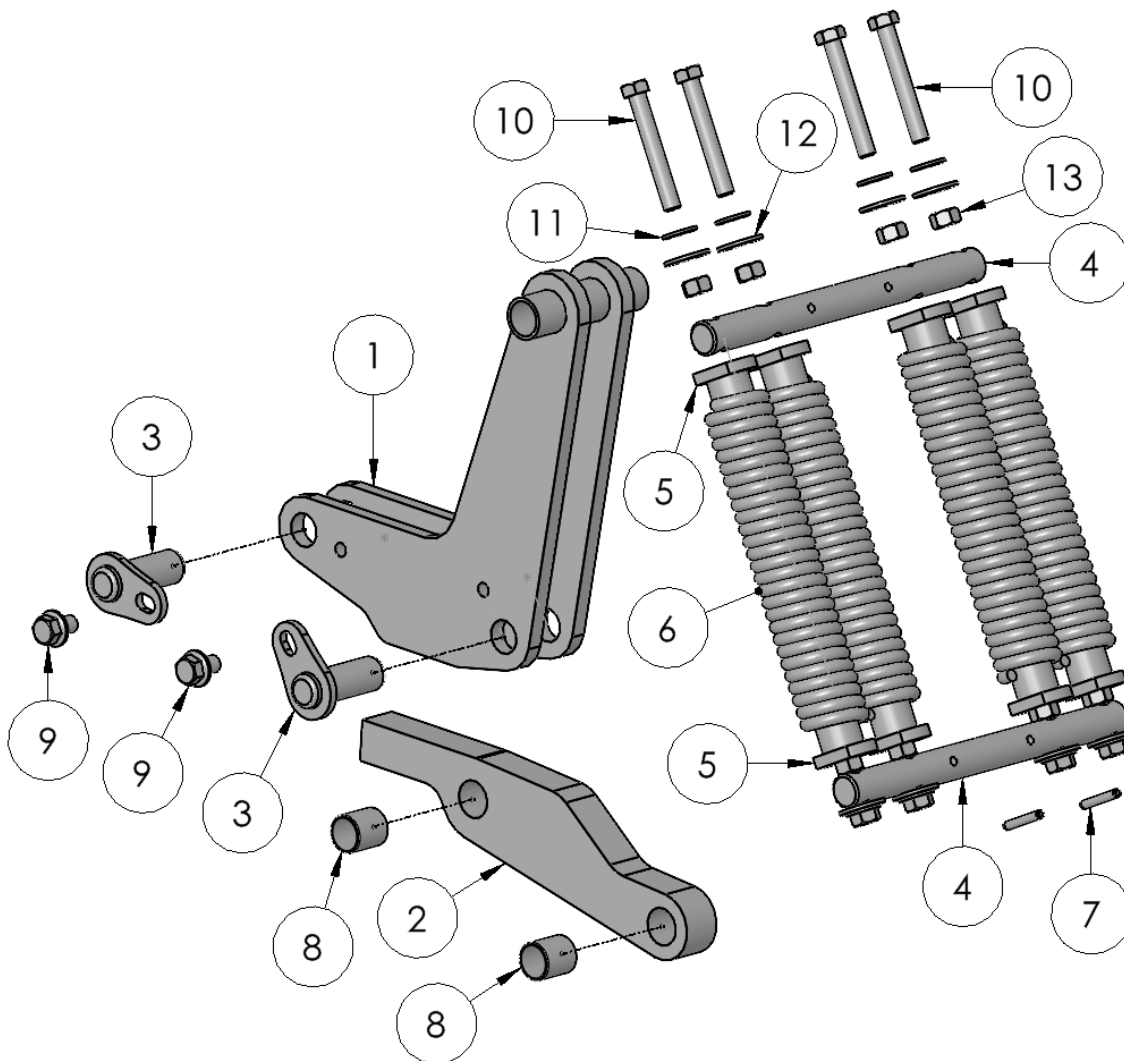


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L388-001	Row Unit Main Frame Casting	1	
2	L388-002	Row Unit Tail Casting	1	
3	L388-221	Scraper	1	
4	L388-390	Main Frame Pivot Pin	1	
5	L313-469	Tillage Shank Mounting Pin	2	
6	L104-094	Hair Pin, 5/32" x 3 1/4"	2	
7	L104-009	Roll Pin, 3/8"-1 1/2"	1	
8	L388-051	Bushing, 1" x 1 1/8" x 3/4"	6	
9	L388-052	Bushing, 1" x 1.13"	2	
10	L388-056	Bushing, 1" x 1 1/4" x 1"	2	
11	L106-160	Set Screw, 5/8"-11UNC x 2 1/2"	1	
12	L106-149	Set Screw, 5/8"-11UNC x 1 1/2"	4	
13	L100-494	Capscrew, 5/8"-11UNC x 3/4" Grade 5	2	
14	L100-049	Carriage Bolt, 5/16"-18UNC x 3" Grade 5	2	
15	L108-004	Flat Washer, 1" SAE	1	
16	L102-016	Jam Nut, 5/8"-11 Grade 2	5	
17	L102-094	Lock Nut, 5/16"-18UNC Grade 5	2	

## 1 tRIPr (3 Point) — Parts

### Auto Reset Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

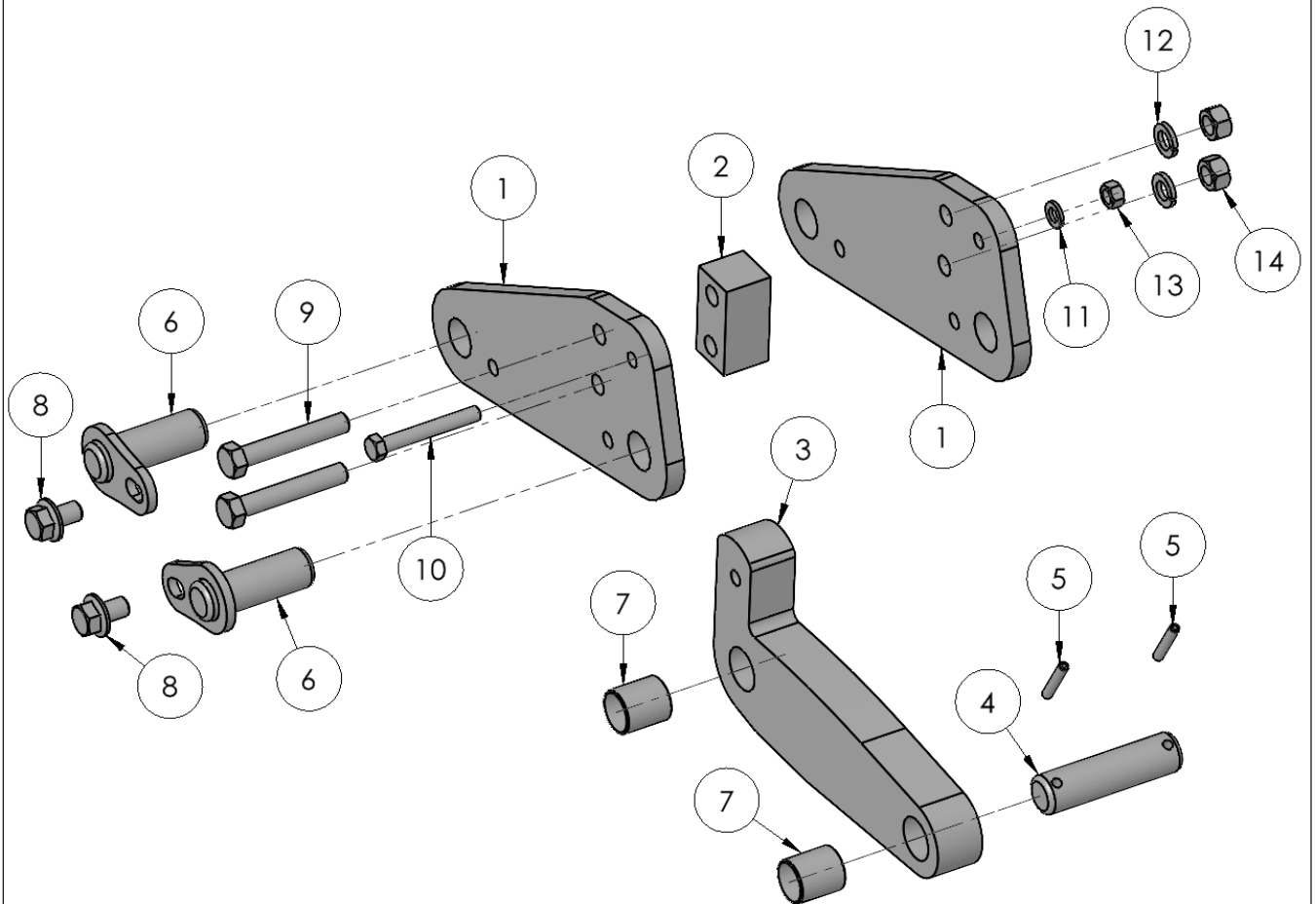


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L388-743	Upper Arm	1	
2	L388-741	Lower Arm	1	
3	L388-408	Pin	2	
4	L388-363	Spring Trunnion	2	
5	L340-029	Spring Plug	8	
6	L148-027	Spring	4	
7	L104-007	Roll Pin, 1/4" x 1 1/2"	2	
8	L388-053	Bushing	2	
9	L100-698	Flange Bolt, 1/2"-13UNC x 3/4" Grade 5	2	
10	L100-288	Capscrew, 1/2"-13UNC x 3 1/2" Grade 5	8	
11	L108-001	Flat Washer, 1/2" SAE	8	
12	L108-009	Flat Washer, 1/2"	8	
13	L102-096	Hex Nut, 1/2"-13UNC Grade 2	8	

## 1 tRIPr (3 Point) — Parts

### Shear Bolt Reset Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

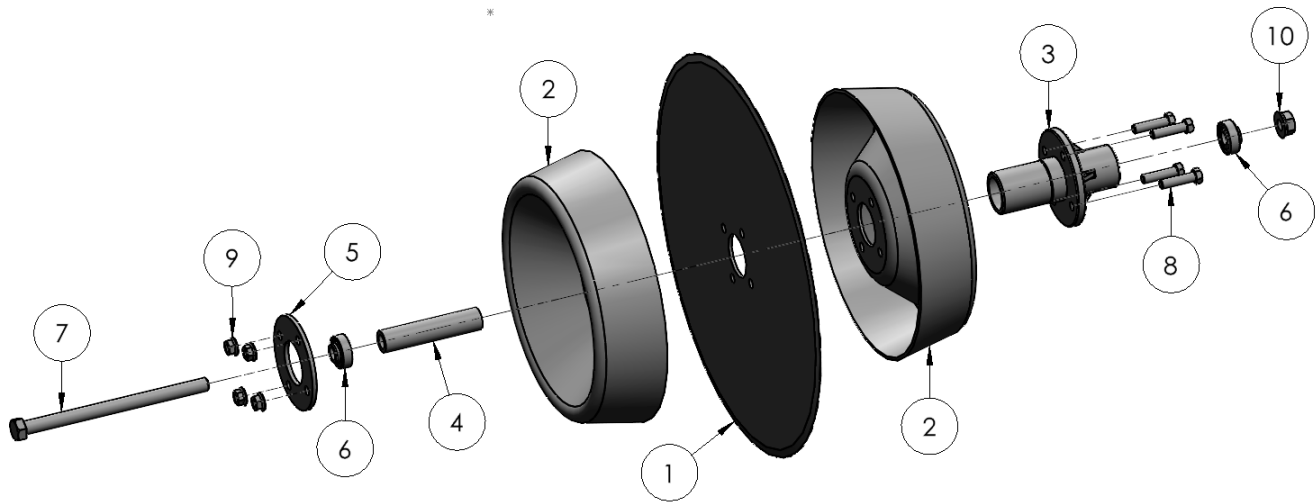


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L388-430	Reset Side Plate	2	
2	L388-367	Reset Stop Block	1	
3	L388-431	Reset Center Link	1	
4	L388-410	Reset Rear Pin	1	
5	L104-007	Roll Pin, 1/4" x 1 1/2"	2	
6	L388-408	Pin	2	
7	L388-053	Bushing	2	
8	L100-698	Flange Bolt, 1/2"-13UNC x 3/4" Grade 5	2	
9	L100-122	Capscrew, 1/2"-13UNC x 3" Grade 5	2	
10	L100-113	Capscrew, 3/8"-16UNC x 2 3/4" Grade 5	1	
11	L108-018	Lock Washer, 3/8"	1	
12	L108-020	Lock Washer, 1/2"	2	
13	L102-005	Hex Nut, 3/8"-16UNC Grade 2	1	
14	L102-007	Hex Nut, 1/2"-13UNC Grade 5	2	

## 1 tRIPr (3 Point) — Parts

### Depth Band Coulter Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

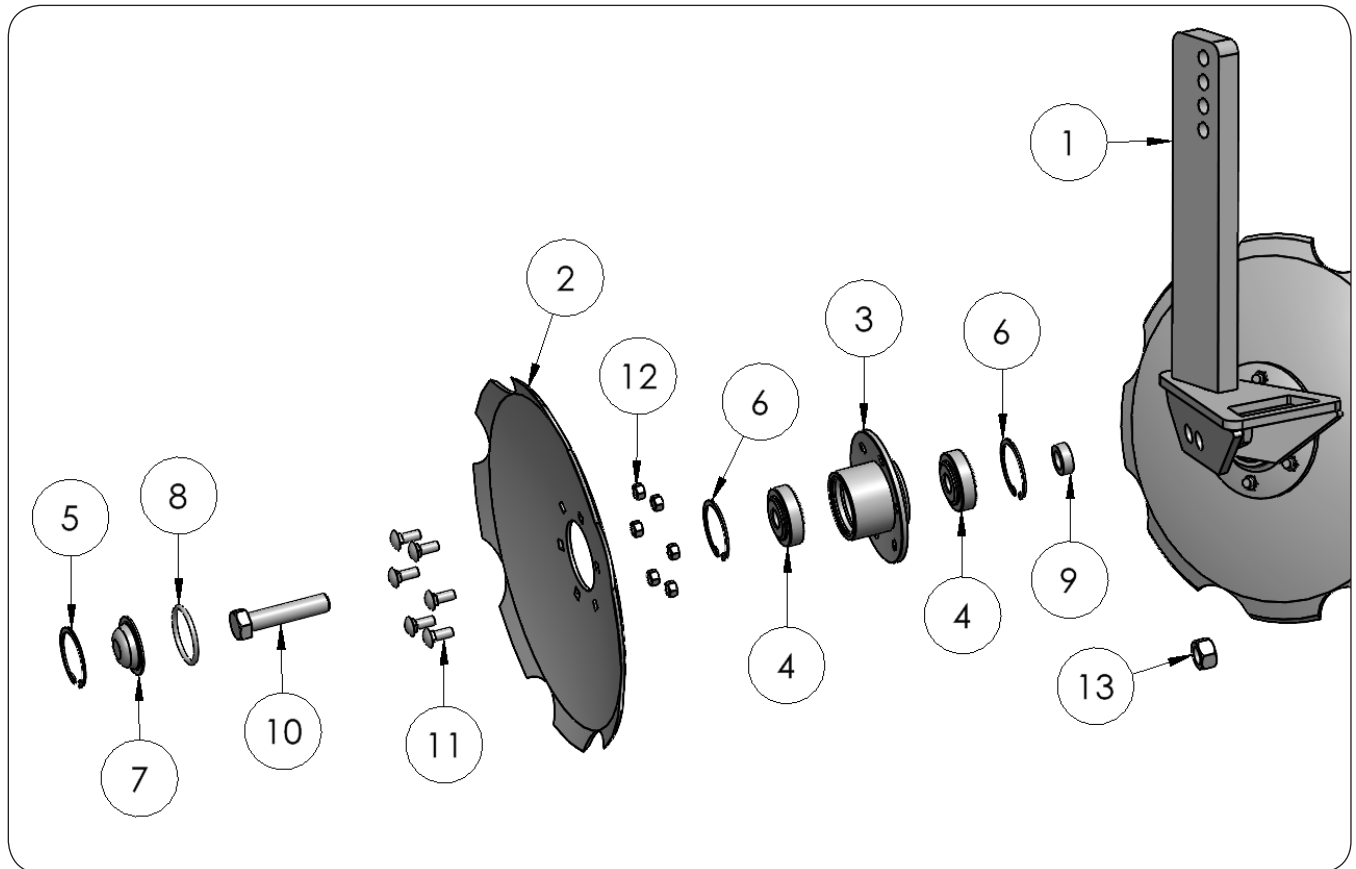


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L166-033	Smooth Disc, 22"	1	
2	L385-167	Depth Band	2	
3	L385-950	Hub Assembly	1	Includes Items 4 and 6
4	L385-945	Bearing Spacer	1	
5	L312-131	Depth Band Washer	1	
6	L120-041	Bearing, 3/4" ID x 1 7/8" OD	2	
7	L100-389	Capscrew, 3/4"-10UNC x 11" Grade 8	1	
8	L100-118	Caspcrew, 1/2"-13UNC x 2" Grade 5	4	
9	L100-119	Locking Flange Nut, 1/2"-13UNC Grade 2	4	
10	L102-121	Locking Flange Nut, 3/4"-10UNC Grade 5	1	

## 1 tRIPr (3 Point) — Parts

### Rigid Row Cleaner (Narrow Row) Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

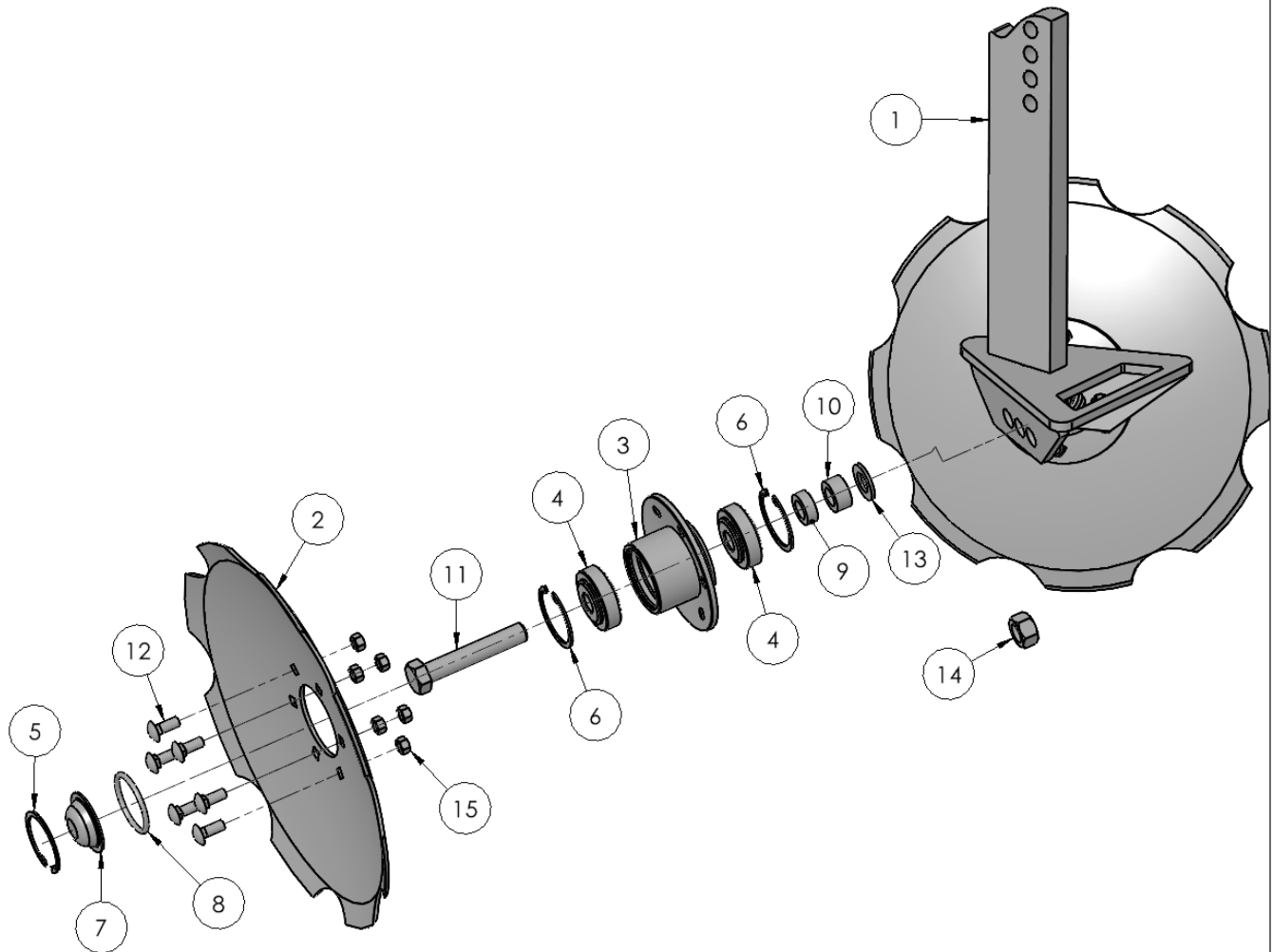


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-615	Narrow Row Cleaner Assembly	1	
1	L387-054	Narrow Row Cleaner Shank	1	
2	L166-042	Notched Disc, 16"	2	
3	L312-338	Hub Assembly	2	Includes Items 4 and 6
4	L120-070	Bearing, 3/4" Bore	4	
5	L104-105	Snap Ring	2	
6	L104-061	Snap Ring	4	
7	L319-126	Dust Cover	2	
8	L150-018	O-Ring, 2 1/2" OD x 2 1/8" ID x 3/16"	2	
9	L385-523	Spacer	2	
10	L100-162	Capscrew, 3/4"-10UNC x 3 1/2" Grade 5	2	
11	L100-004	Carriage Bolt, 3/8"-16UNC x 1" Grade 5	12	
12	L102-027	Lock Nut, 3/8"-16UNC Grade 2	12	
13	L102-031	Lock Nut, 3/4"-10UNC Grade 2	2	

## 1 tRIPr (3 Point) — Parts

### Rigid Row Cleaner Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

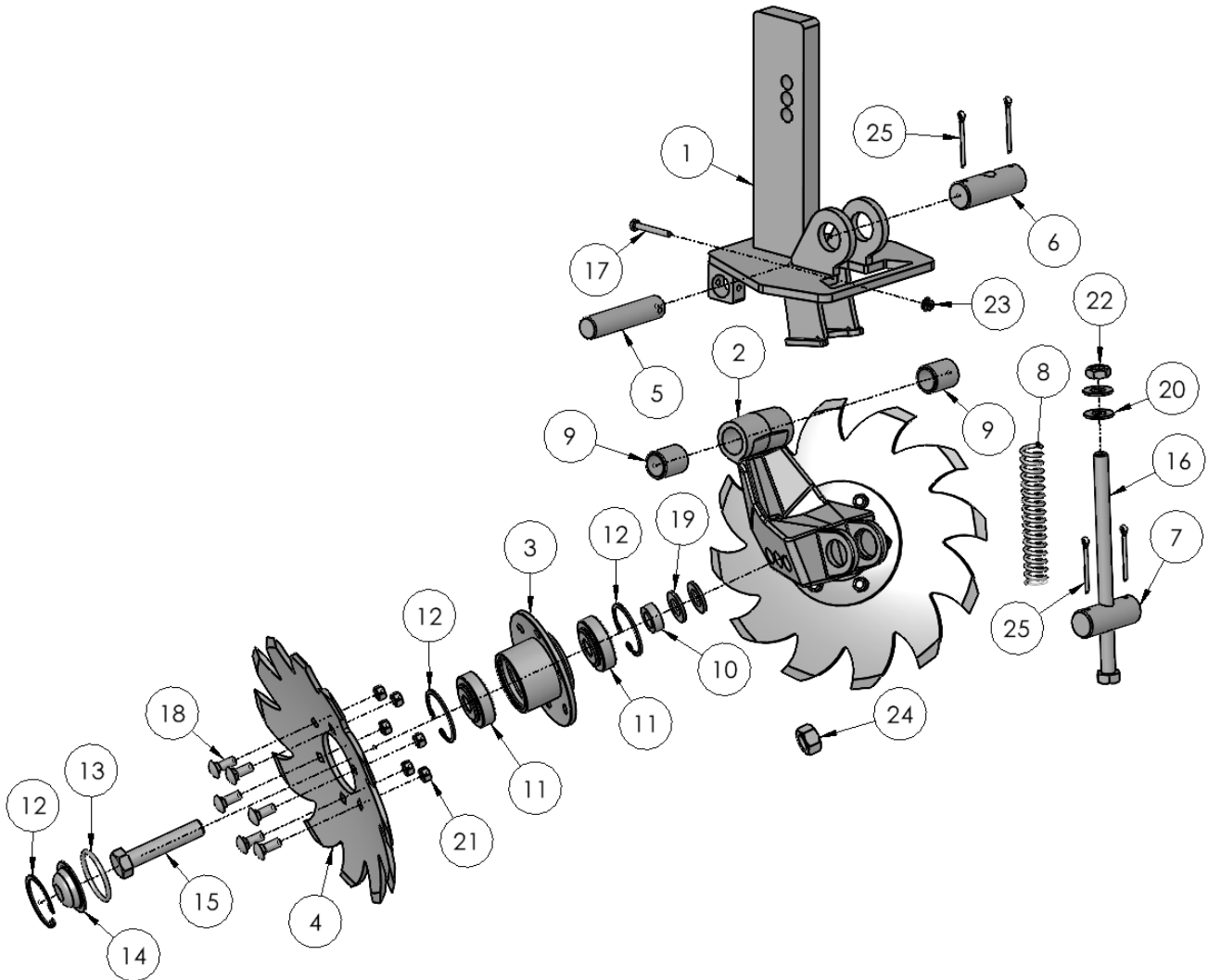
### Rigid Row Cleaner Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-415	Rigid Row Cleaner Assembly	1	
1	L388-416	Rigid Row Cleaner Shank	1	
2	L166-042	Notched Disc, 13"	2	
3	L312-338	Hub Assmebly	2	Includes Items 4 and 6
4	L120-070	Bearing, 3/4" Bore	4	
5	L104-105	Snap Ring	2	
6	L104-061	Snap Ring	4	
7	L319-126	Dust Cover	2	
8	L150-018	O-Ring	2	
9	L387-128	Spacer	2	
10	L387-127	Spacer	2	
11	L100-472	Caspcrew, 3/4"-10UNC x 4 1/4" Grade 5	1	
12	L100-004	Carriage Bolt, 3/8"-16UNC x 1" Grade 5	6	
13	L108-003	Flat Washer, 3/4" SAE	1	
14	L102-031	Lock Nut, 3/4"-10UNC Grade 2	1	
15	L102-027	Lock Nut, 3/8"-16UNC Grade 2	6	

### Floating Row Cleaner Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

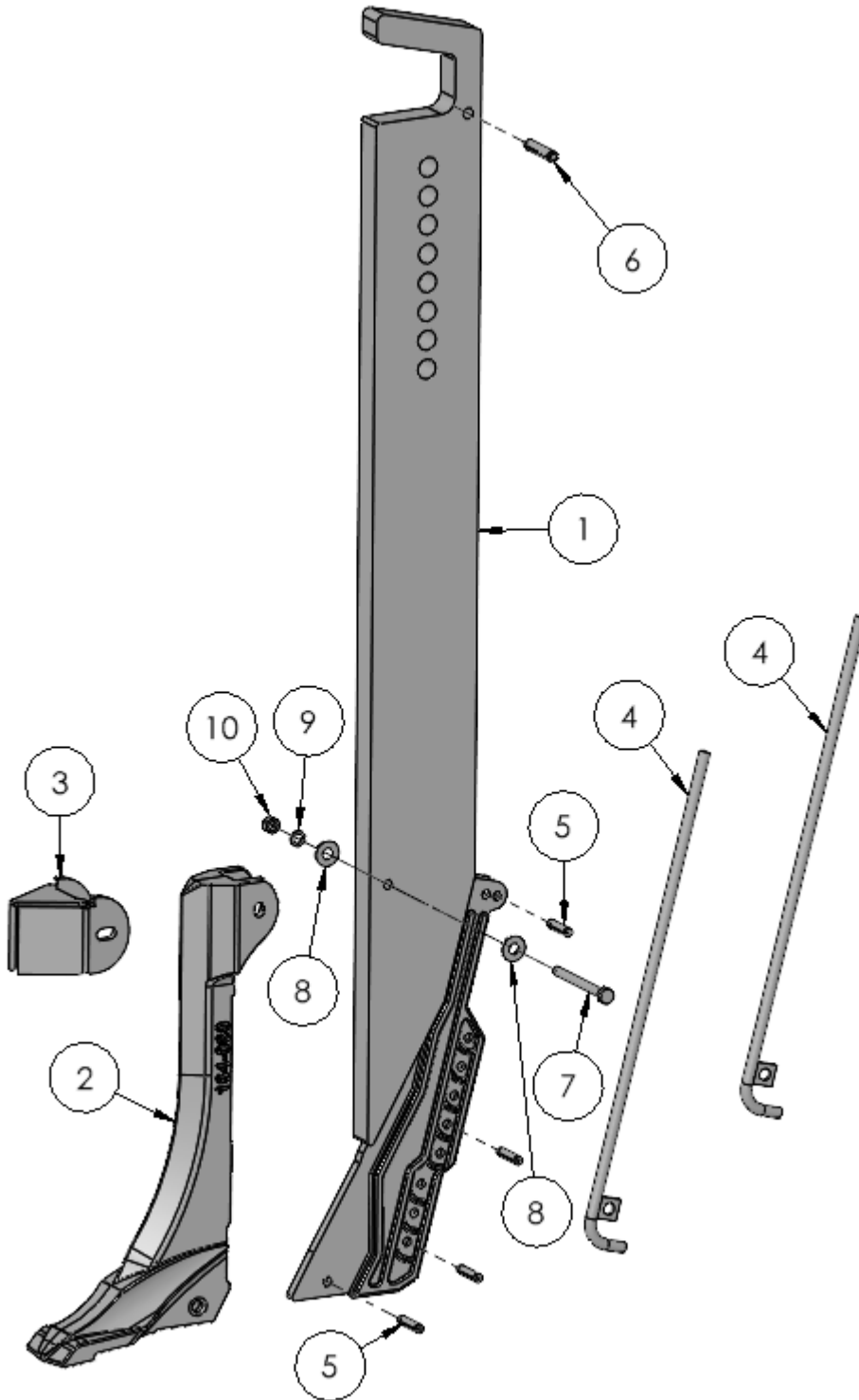
### Floating Row Cleaner Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-725	Floating Row Cleaner Assembly	1	
1	L388-724	Upper Row Cleaner Mount	1	
2	L388-087	Lower Row Cleaner Mount	1	
3	L312-338	Hub Assembly	2	Includes Items 11 and 12
4	L166-082	Notched Disc, 13" LH	1	
	L166-081	Notched Disc, 13" RH	1	
5	L387-1036	Trunnion	1	
6	L388-401	Upper Spring Trunnion	1	
7	L388-400	Lower Spring Trunnion	1	
8	L148-220	Tension Spring	1	
9	L388-727	Bushing 1" x 1 1/4"	2	
10	L387-128	Spacer	2	
11	L120-070	Bearing, 3/4" Bore	4	
12	L104-105	Snap Ring	6	
13	L150-018	O-Ring	2	
14	L319-126	Dust Cover	2	
15	L100-202	Capscrew, 3/4"-10UNC x 3 3/4" Grade 5	1	
16	L100-152	Capscrew, 5/8"-11UNC x 10" Grade 8	1	
17	L100-213	Capscrew, 1/4"-20UNC x 2" Grade 5	1	
18	L100-004	Carriage Bolt, 3/8"-16UNC x 1" Grade 5	6	
19	L108-003	Flat Washer, 3/4" SAE	2	
20	L108-002	Flat Washer, 5/8" SAE	2	
21	L102-027	Lock Nut, 3/8"-16UNC Grade 2	6	
22	L102-016	Jam Nut, 5/8"-11UNC Grade 2	1	
23	L102-085	Locking Flange Nut, 1/4"-20UNC Grade 2	1	
24	L102-031	Lock Nut, 3/4"-10UNC Grade 2	1	
25	L104-030	Cotter Pin, 3/16" x 2"	4	

**Tillage Shank Components (Liquid)**

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

### Tillage Shank Components (Liquid)

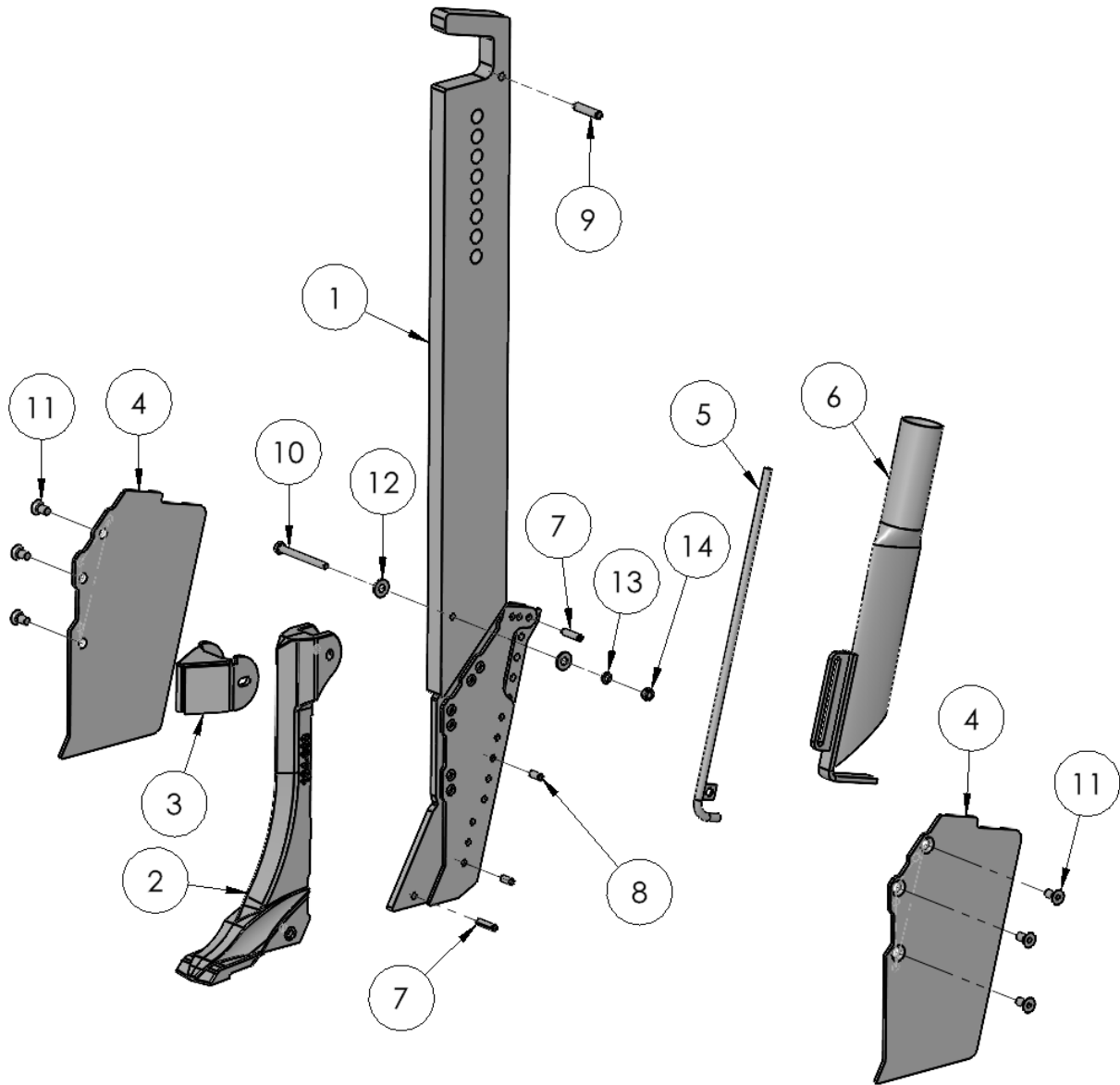
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-442	Tillage Shank Assembly (Liquid)	1	
1	L388-440	Shank	1	
2	L164-060	Mole Shank	1	
3	L387-091	Mole Shank Guard	1	
4	L385-552	Liquid Fertilizer Tube	2	
5	L104-039	Slotted Spring Pin, 5-16" x 1 1/4"	3	
6	L104-003	Roll Pin, 3/8" x 1 3/4"	1	
7	L100-523	Capscrew, 5/16"-18UNC x 3 1/4" Grade 5	1	
8	L108-006	Flat Washer, 5/16"	2	
9	L108-017	Lock Washer, 5/16"	1	
10	L102-004	Hex Nut, 5/16"-18UNC Grade 5	1	

## 1 tRIPr (3 Point) — Parts

### Tillage Shank Components (Dry)

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

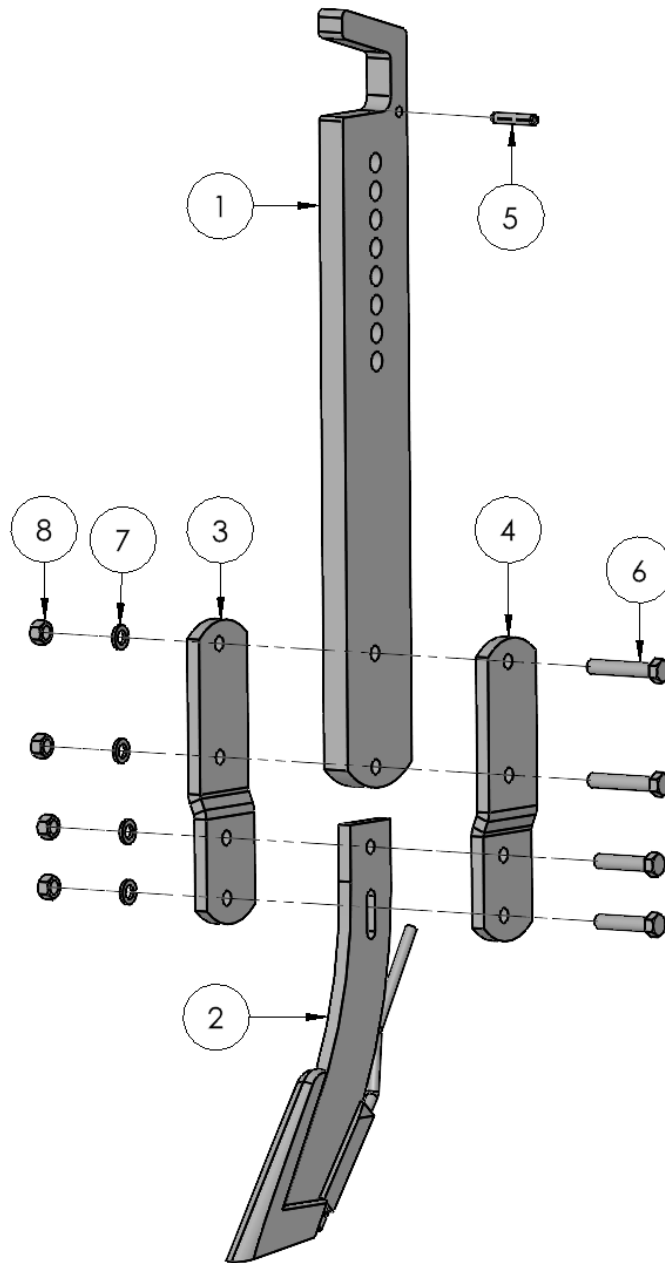
### Tillage Shank Components (Dry)

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-451	Tillage Shank Assembly (Dry)	1	
1	L388-433	Shank	1	
2	L164-060	Mole Shank	1	
3	L388-464	Mole Shank Guard	1	
4	L387-204	Side Plates	2	
5	L385-552	Liquid Fertilizer Tube	1	
6	L387-292	2" Dry Fertilizer Tube	1	
	L387-290	1 1/2" Dry Fertilizer Tube	1	
7	L104-039	Slotted Spring Pin, 5/16" x 1 1/4"	2	
8	L104-246	Slotted Spring Pin, 5/16" x 3/4"	2	
9	L104-003	Roll Pin, 3/8" x 1 1/4"	1	
10	L100-523	Capscrew, 5/16"-18UNC x 3 1/4"	1	
11	L106-190	Socket Cap Screw, 3/8"-16UNC x 3/4"	6	
12	L108-006	Flat Washer, 5/16"	1	
13	L108-017	Lock Washer, 5/16"	1	
14	L102-004	Hex Nut, 5/16"-18UNC	1	

## Tillage Shank Components (NH3)

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

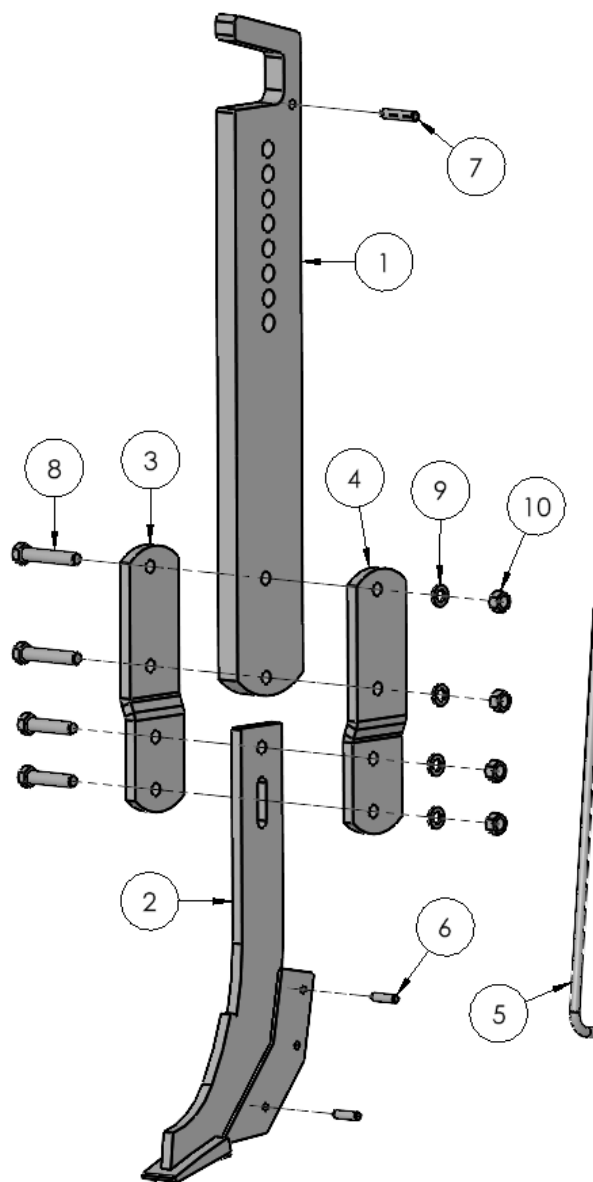


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-501	NH3 Knife Tillage Shank Assembly		
1	L388-500	Shank	1	
2	L176-003	NH3 Knife	1	
3	L317-301	Shank Adapter (RH)	1	
4	L317-212	Shank Adapter (LH)	1	
5	L104-003	Roll Pin, 3/8" x 1 1/4"	1	
6	L100-119	Capcsrew, 1/2"-13UNC x 2 1/4" Grade 5	4	
7	L108-020	Lock Washer, 1/2"	4	
8	L102-007	Hex Nut, 1/2"-13UNC	4	

# 1 tRIPr (3 Point) — Parts

## Tillage Shank Components (Mole Knife)

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

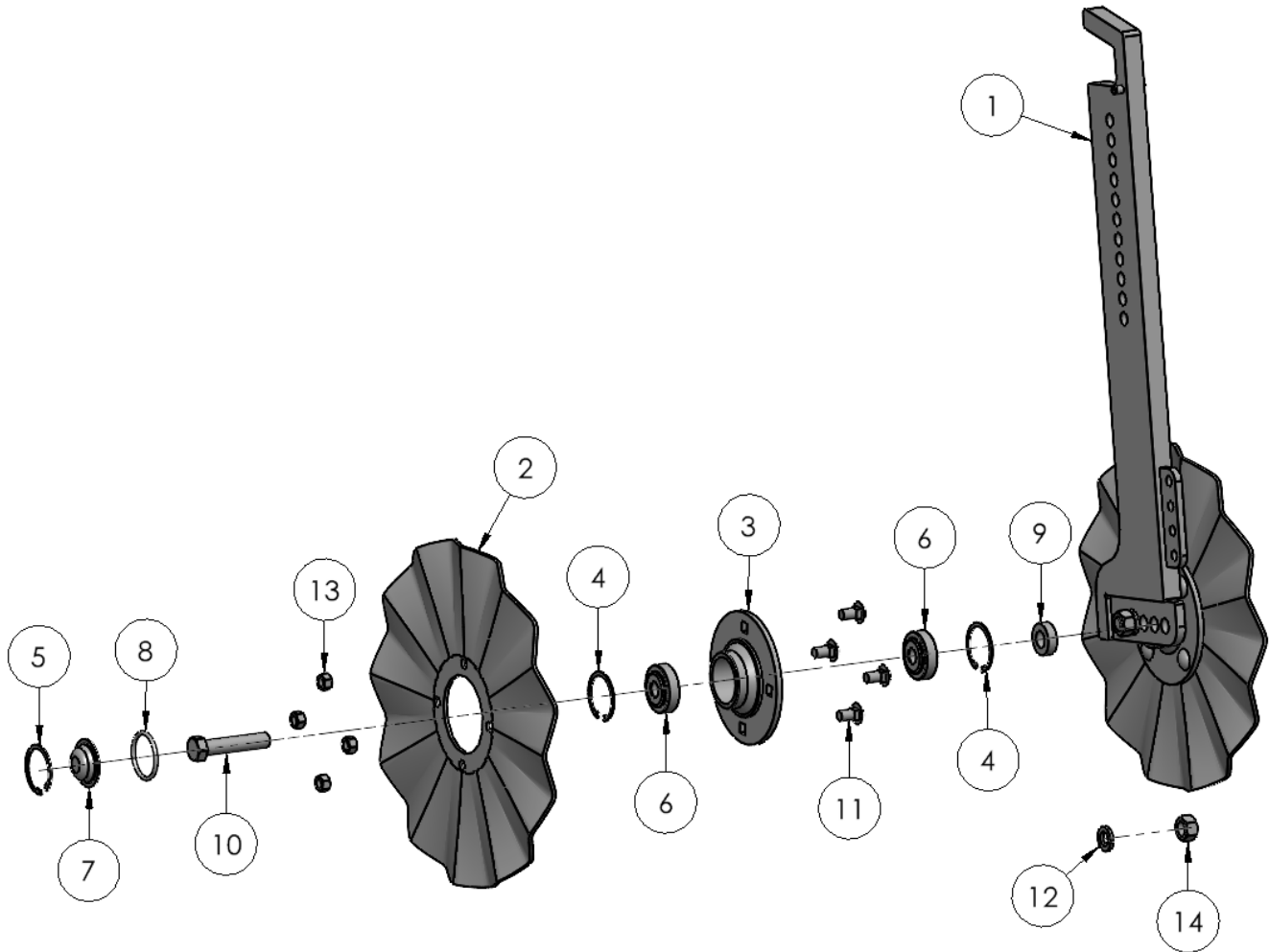


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-502	Mole Knife Tillage Shank Assembly		
1	L388-500	Shank	1	
2	L385-577	Mole Knife	1	
3	L317-301	Shank Adapter (RH)	1	
4	L317-212	Shank Adapter (LH)	1	
5	L385-552	Mole Shank Fertilizer Tube	1	
6	L104-039	Slotted Spring Pin, 5/16" x 1 1/4"	2	
7	L104-003	Roll Pin, 3/8" x 1 1/4"	1	
8	L100-121	Capscrew, 1/2"-13UNC x 2 3/4" Grade 5	4	
9	L108-020	Lock Washer, 1/2"	4	
10	L102-007	Hex Nut, 1/2"-13UNC	4	

## 1 tRIPr (3 Point) — Parts

### Tillage Shank Components (Shallow Tilage)

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

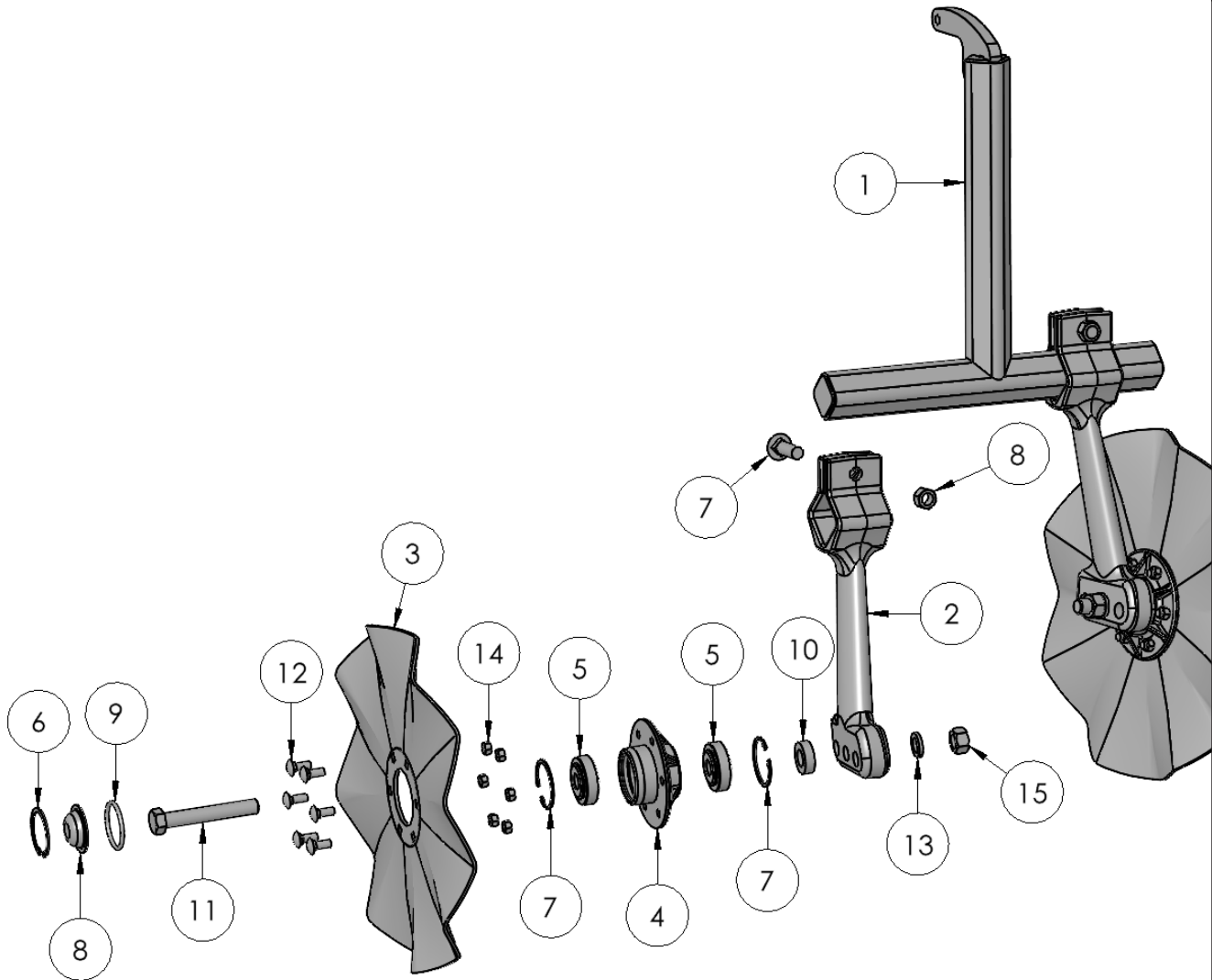
### Tillage Shank Components (Shallow Tillage)

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-457	Shallow Tillage Shank Assembly		
1	L388-456	Shallow Tillage Shank	1	
2	L320766	Wavy Coulter, 18"	2	
3	L387-036	Hub Assmebly	2	Includes Items 4 and 6
4	L104-105	Snap Ring	2	
5	L104-061	Snap Ring	4	
6	L120-070	Bearing, 3/4" Bore	4	
7	L319-126	Dust Cover	2	
8	L150-018	O-Ring, 2 1/2" OD x 2 1/8" ID x 3/16"	2	
9	L312-057	Sapcer, 1/2"	2	
10	L100-202	Capscrew, 3/4"-10UNC x 3 3/4" Grade 5	8	
11	L100-043	Carriage Bolt, 1/2"-13UNC x 1" Grade 5	8	
12	L108-022	Lock Washer, 3/4"	2	
13	L102-028	Lock Nut, 1/2"-13UNC Grade 2	8	
14	L102-009	Hex Nut, 3/4"-10UNC Grade 5	2	

### Wavy Coulter Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

### Wavy Coulter Components

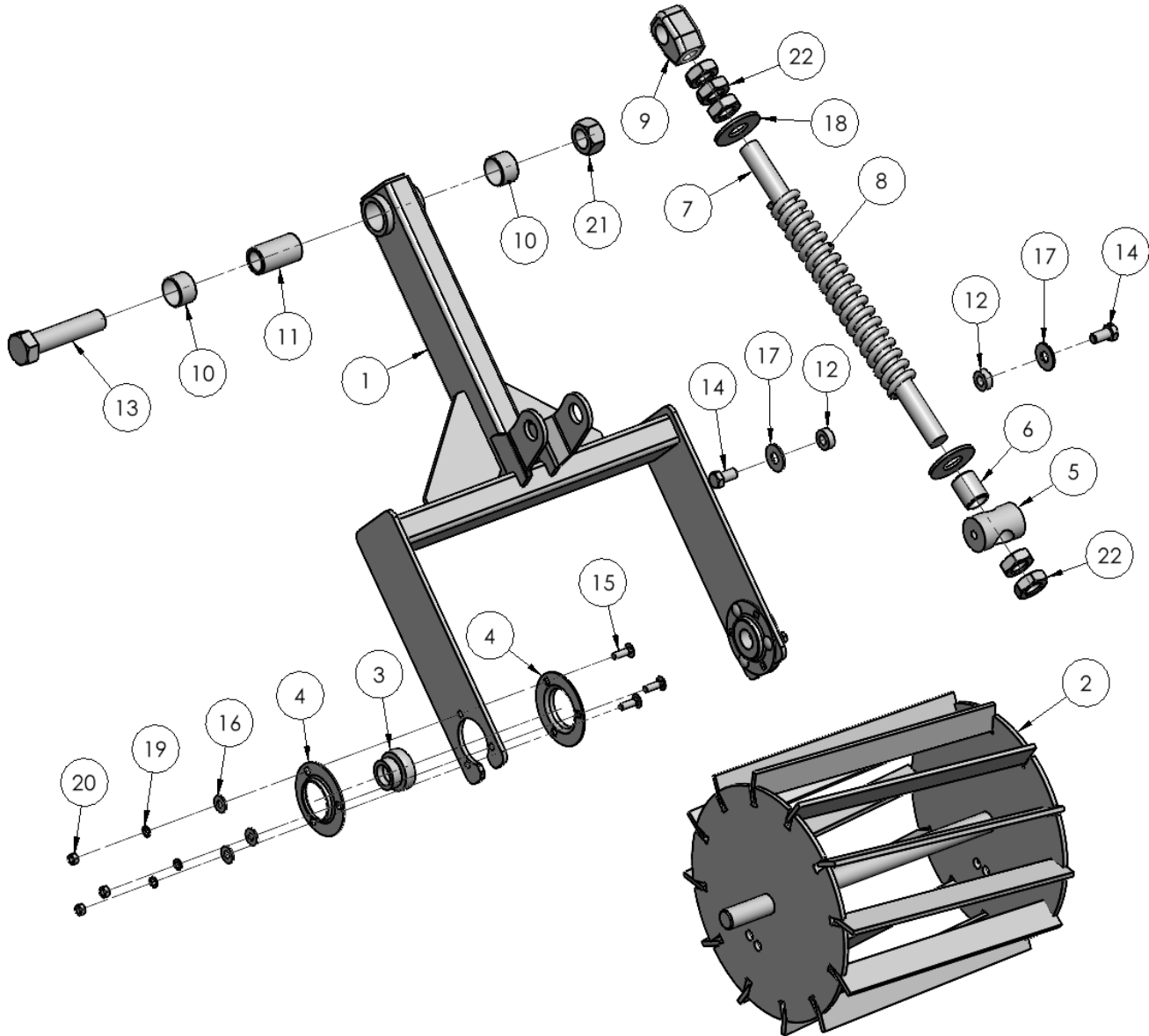
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-101	Wavy Coulter Assembly		
1	L388-616	Mounting Shank	1	
2	L388-005	Coulter Arm, Left	2	
	L388-006	Coulter Arm, Right		
3	L166-040	Wavy Coulter	2	
4	L312-1004	Hub Assmebly	2	Includes Items 5 and 7
5	L120-070	Bearing, 3/4" Bore	4	
6	L104-105	Snap Ring	2	
7	L104-061	Snap Ring	4	
8	L319-126	Dust Cover	2	
9	L150-018	O-Ring, 2 1/2" OD x 2 1/8" ID x 3 /16"	2	
10	L312-057	Sapcer, 1/2"	2	
11	L100-165	Capscrew, 3/4"-10UNC x 5" Grade 5	2	
12	L100-004	Carriage Bolt, 3/8"-16UNC x 1" Grade 5	12	
13	L108-022	Lock Washer, 3/4"	2	
14	L102-027	Lock Nut, 3/8-16UNC Grade 2	2	
15	L102-009	Hex Nut, 3/4"-10UNC Grade 5	2	

## 1 tRIPr (3 Point) — Parts

### Conditioning Basket Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

### Conditioning Basket Components

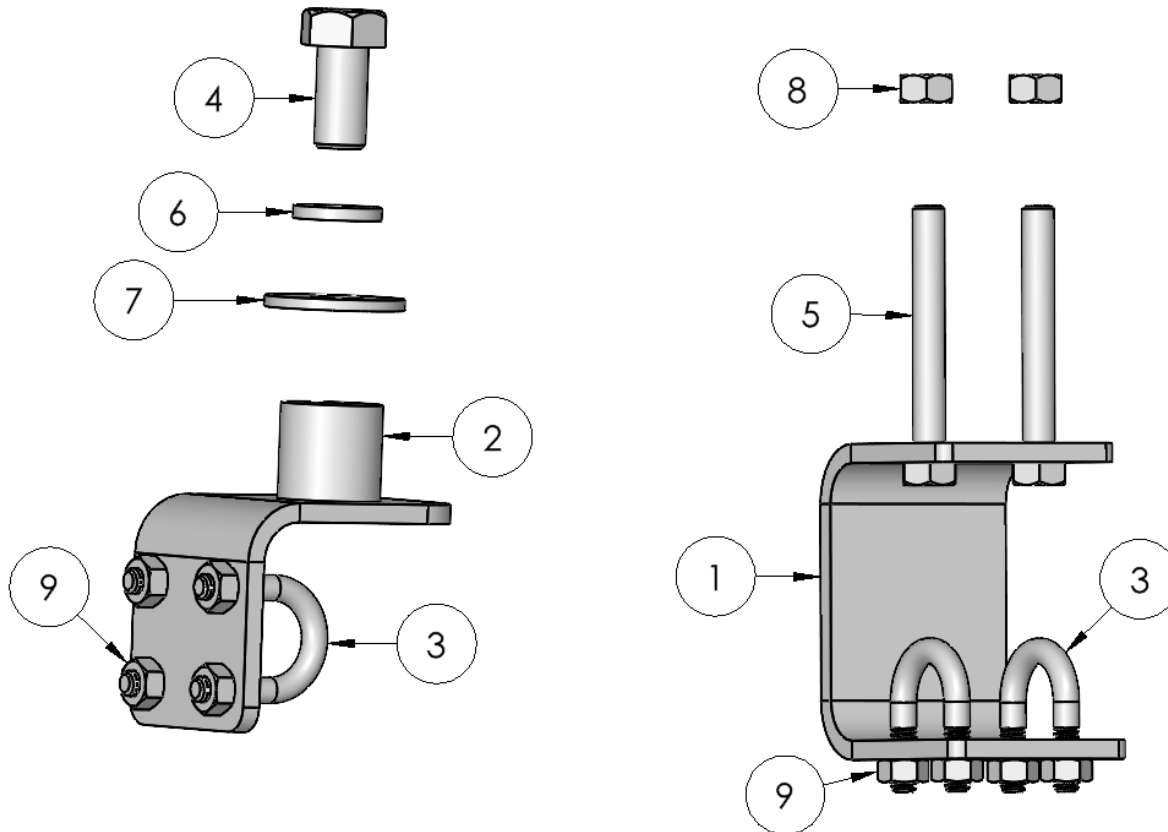
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L388-091	Conditioning Basket Assembly, 14"	1	
	L388-310	Conditioning Basket Assembly, 8"		
1	L388-094	Conditioning Basket Frame, 14" Basket	1	
	L388-421	Conditioning Basket Frame, 8" Basket	1	
2	L327-050	Basket, 14"	1	
	L327-178	Basket, 8"		
	L387-270	Basket, 14" Concave		
	L388-588	Basket, Crow Foot		
	L388-510	Rubber Press Wheel, 12 1/2"		
	L388-507	Press Wheel, 20"		
3	L120-010	Bearing, 1" Bore	2	
4	L120-012	Bearing Flange	4	
5	L388-355	Basket Spring Lower Pin	1	
6	L388-054	Bushing, 1" x 1 1/4" x 1 1/2"	1	
7	L388-356	Basket Spring Rod	1	
8	L361003	Basket Spring	1	
9	L388-525	Basket Spring Rod Mount	1	
10	L388-263	Bushing	2	
11	L388-398	Crush Sleeve	1	
12	L388-354	Spring Assembly Bushing	2	
13	L100-216	Capscrew, 1"-8UNC x 4 1/2" Grade 5	1	
14	L100-271	Capscrew, 1/2"-13UNC x 2 1/2" Grade 8	2	
15	L100-003	Carriage Bolt, 5/16"-18UNC x 1" Grade 5	6	
16	L108-006	Flat Washer, 5/16"	6	
17	L108-009	Flat Washer, 1/2"	2	
18	L108-004	Flat Washer, 1" SAE	2	
19	L108-017	Lock Washer, 5/16"	6	
20	L102-004	Hex Nut, 5/16"-18 Grade 2	6	
21	L102-162	Lock Nut, 1"-8UNC Grade 2	1	
22	L102-021	Jam Nut, 1"-8UNC Grade 2	5	

## 1 tRIPr (3 Point) — Parts

### Liquid Fertilizer Routing Components

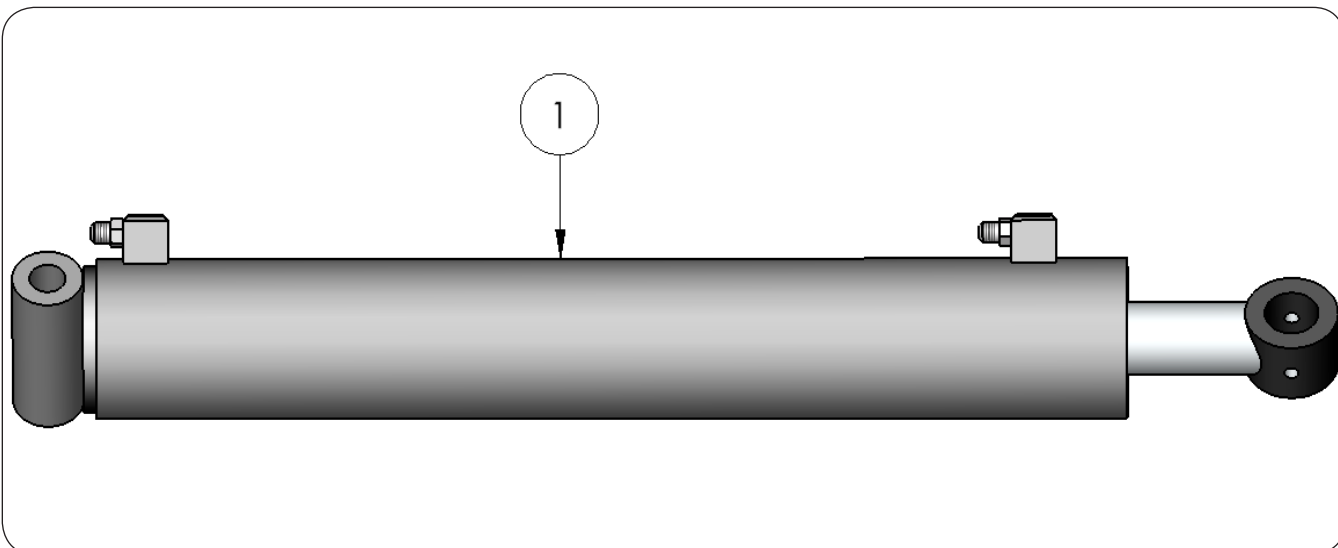
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L388-481	Bracket	1	
2	L388-484	Bracket	1	
3	L100-746	U-Bolt, 1/4"-20UNC x 1 1/4"	4	
4	L100-114	Capscrew, 1/2"-13UNC x 1" Grade 5	1	
5	L100-097	Capscrew, 5/16"-18UNC x 2 1/2" Grade 5	2	
6	L108-020	Lock Washer, 1/2"	1	
7	L108-009	Flat Washer, 1/2"	1	
8	L102-094	Lock Nut, 5/16"-18UNC Grade 2	2	
9	L102-023	Lock Nut, 1/4"-20UNC Grade 2	8	

Hydraulic Cylinder

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

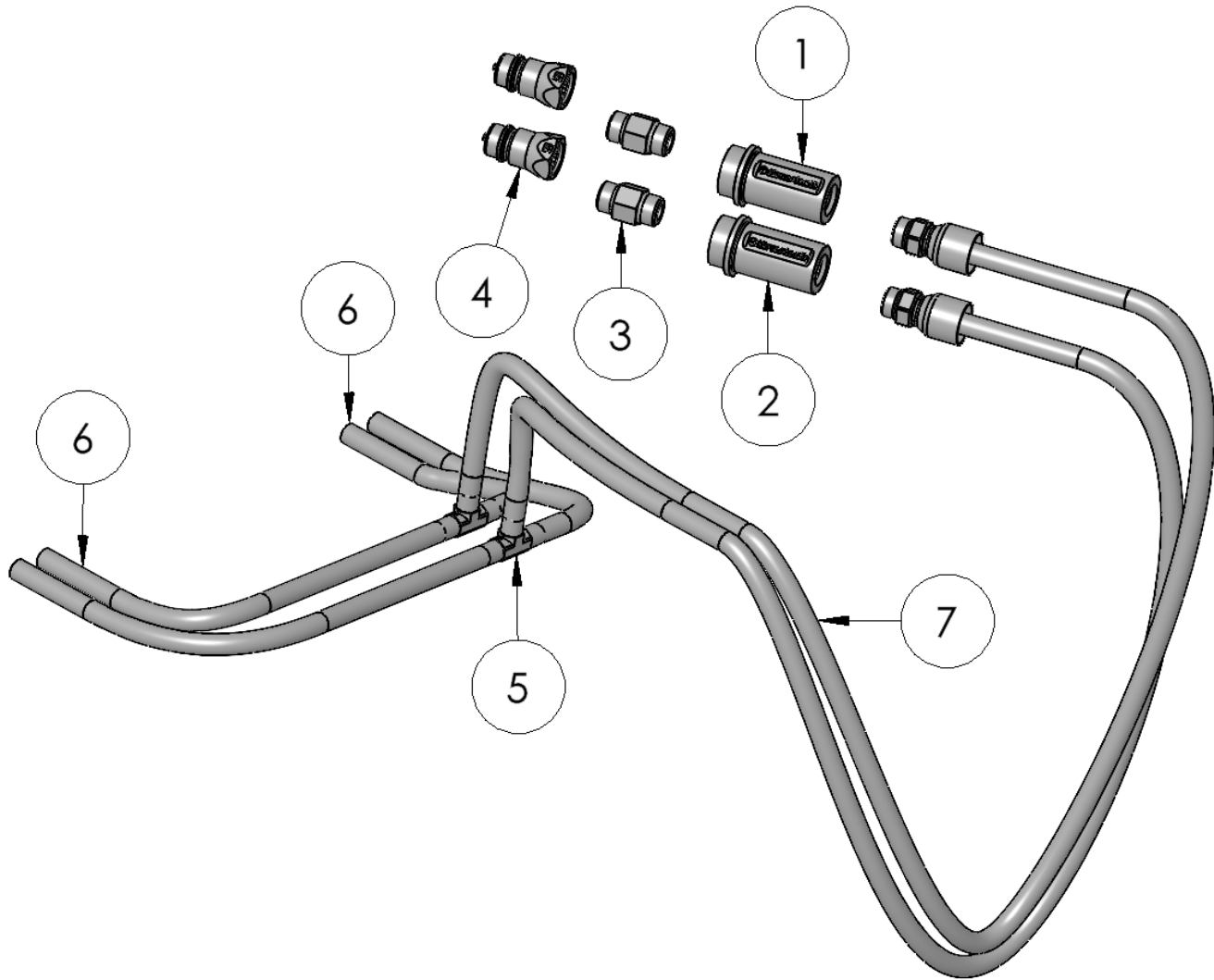


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L194-499	Hydraulic Cylinder, 4" x 24"	2	
1A	L194-440	Hydraulic Cylinder Seal Kit	1	

## 1 tRIPr (3 Point) — Parts

### Hydraulic Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 1 tRIPr (3 Point) — Parts

### Hydraulic Components

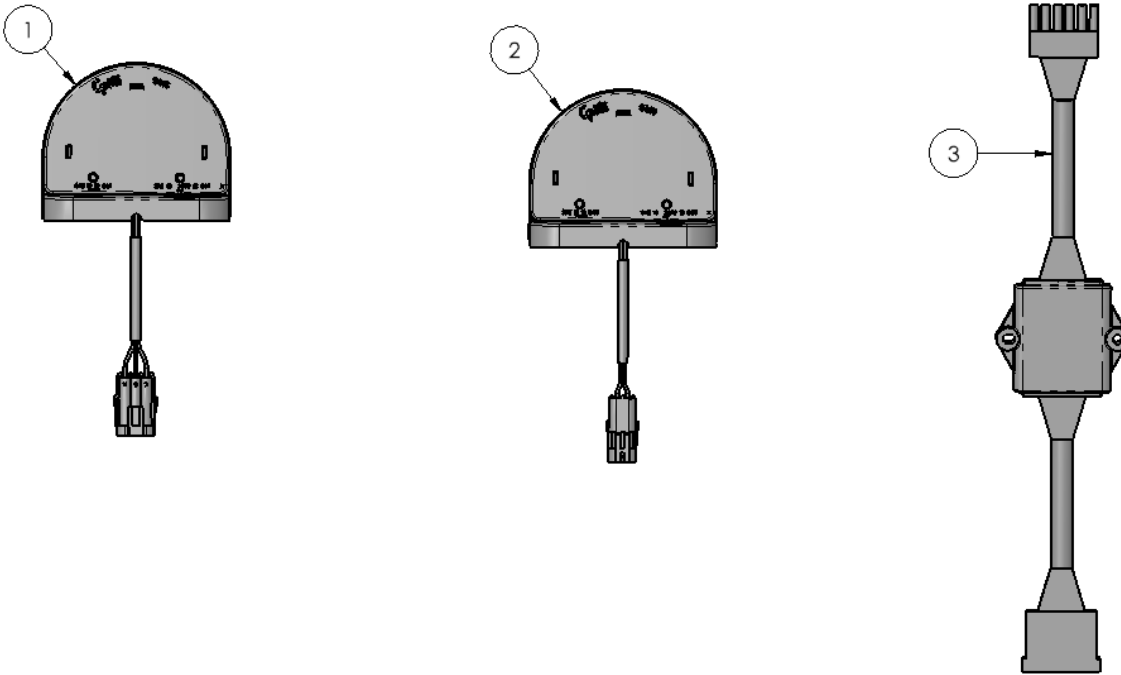
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9009751	Hose Grip, Green (+)		
2	9009752	Hose Grip, Green (-)		
3	98508	Hydraulic Hose, 3/8" x 80" 9-16" JIC Female x 3/4"-16 OR Male		
4	L140-092	Hydraulic Hose Tip, ISO 3/4"-16 Female		
5	L198-203	Tee Fitting, 9/16"-18 MJ x 9/16"-18 MJ x 9/16" MJ		
6	L196-020	Hydraulic Hose, 1/4" x 12' 6" 9/16" FJX x 9/16" FJX		
	L196-111	Hydraulic Hose, 1/4" x 5' 9/16" FJX x 9/16" FJX		
	L196-112	Hydraulic Hose, 1/4" x 6' 9/16" FJX x 9/16" FJX		
	L196-113	Hydraulic Hose, 1/4" x 8' 9/16" FJX x 9/16" FJX		
	L196-114	Hydraulic Hose, 1/4" x 10' 9/16" FJX x 9/16" FJX		
	L196-118	Hydraulic Hose, 1/4" x 11' 9/16" FJX x 9/16" FJX		
	L196-119	Hydraulic Hose, 1/4" x 12' 9/16" FJX x 9/16" FJX		
	L196-140	Hydraulic Hose, 1/4" x 7' 9/16" FJX x 9/16" FJX		
	L196-141	Hydraulic Hose, 1/4" x 9' 9/16" FJX x 9/16" FJX		
	L196-165	Hydraulic Hose, 1/4" x 14' 9/16" FJX x 9/16" FJX		
	L301-464	Hydraulic Hose, 1/4" x 4' 9/16" FJX x 9/16" FJX		
7	L196-023	Hydraulic Hose, 3/8" x 5' 9/16" FJX x 9/16" FJX		
8	L341-623	Valve Body		For Stack Fold Units Only

## 1 tRIPr (3 Point) — Parts

### Light Kit Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L154-1001	Red Light	2	
2	L154-1000	Yellow Light	2	
3	L154-1007	Flasher Module	1	
4	L154-1020	Light Harness, 13'	2	Not Shown
5	L154-1005	Light Harness, 7 Pin to Tractor	1	Not Shown
6	L154-1010	Light Harness, Center Harness	1	Not Shown

