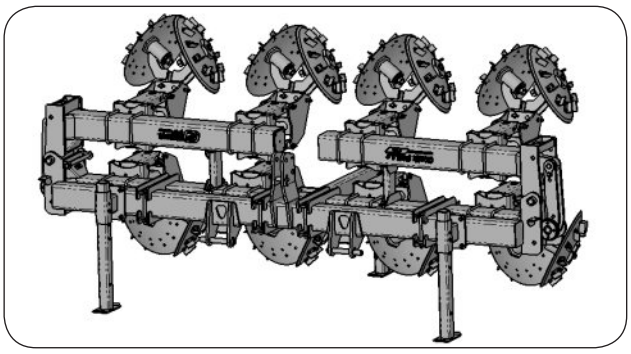


Residue Managment

600 Stalk Pullr

Part No. L125-031

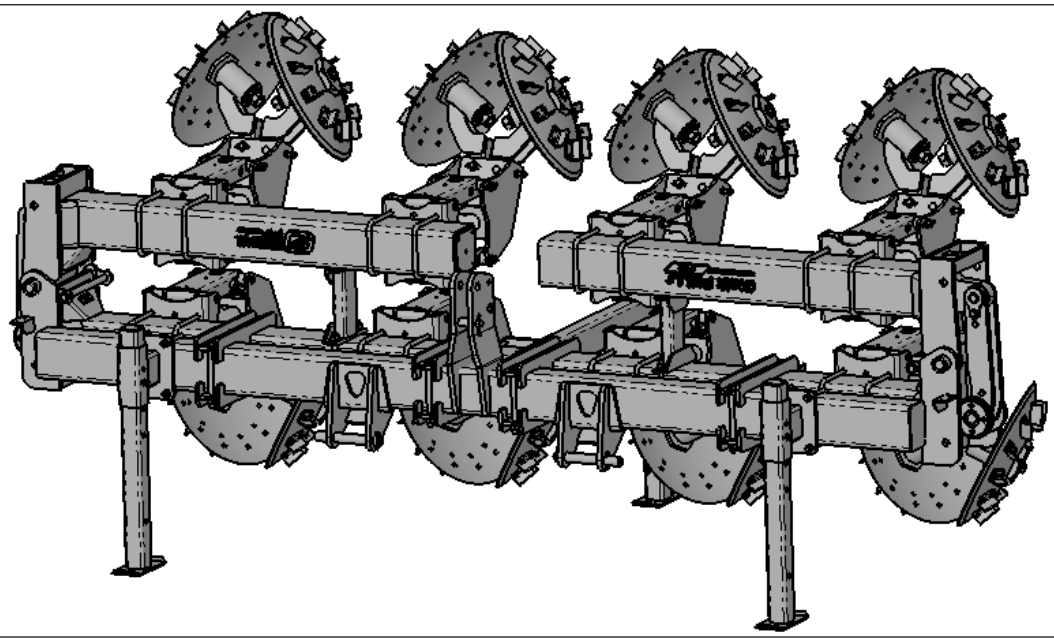
Foreword

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 _____

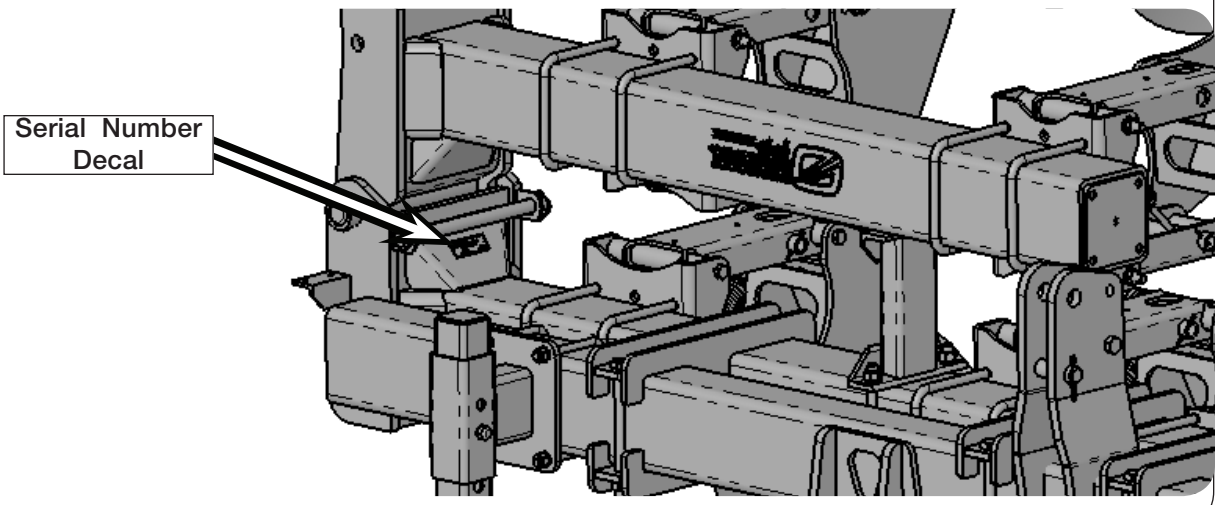
Serial Number _____

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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SECTION I
Safety

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

DANGER

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

WARNING

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

CAUTION

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

IMPORTANT

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

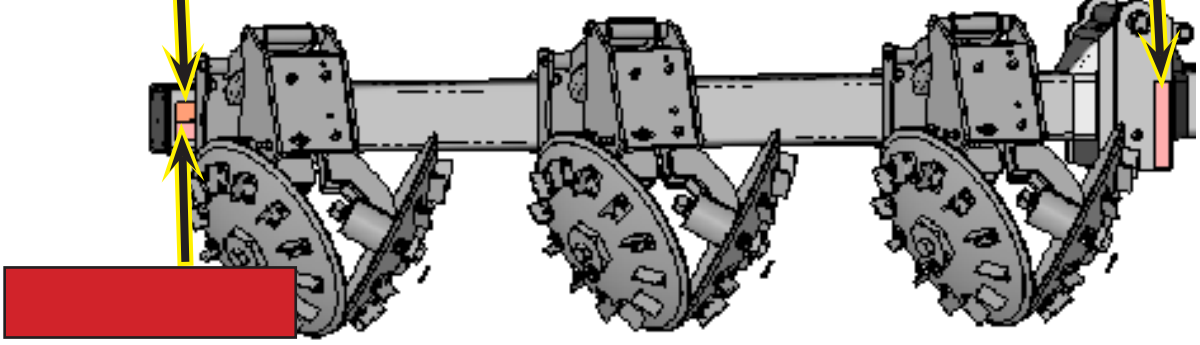
Safety Decals

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.**

PART NO. L153-171

PART NO. L153-173



PART NO. L153-173

WARNING

1. Stay clear of wing sections when raising and lowering.
2. Engage all transport locking devices prior to transport. (see operator's manual)
3. Use extreme caution when in transport. Be aware of overhead power lines and any other obstructions.
4. Reduce speed as raised implement reduces tractor maneuverability.

153-013

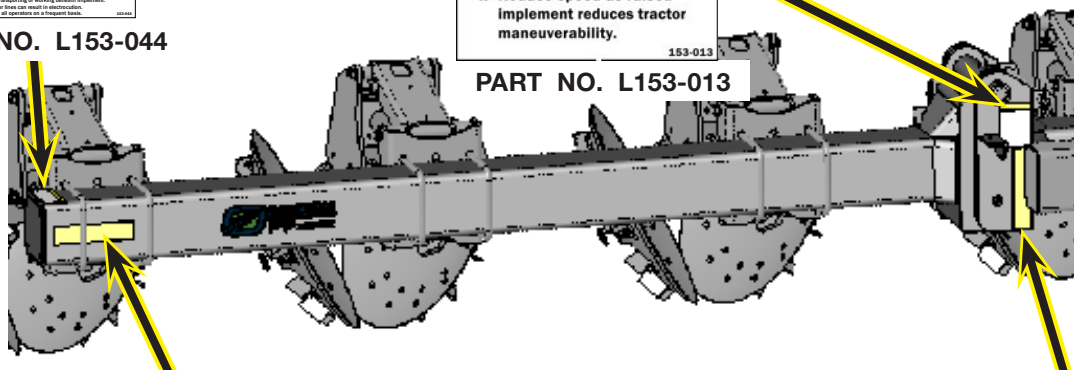
PART NO. L153-013

CAUTION

1. Read and understand all operator manuals before implement use.
2. Follow all tractor or towing device operating procedures and safety guidelines.
3. Do not allow riders on implement.
4. Before dismounting to the ground, place tractor in park, turn off engine, and remove key. Wait for all moving parts to come to a complete stop before working on implement.
5. Be extremely careful working around unshielded sharp edges.
6. Make sure all safety lighting and decals are clean. Use hazard lights when in transport.
7. Engage all safety devices before transporting or working beneath implement.
8. Contact or close proximity to power lines can result in electrocution.
9. Review all safety instructions with all operators on a frequent basis.

153-044

PART NO. L153-044



PART NO. L153-172

PART NO. L153-172

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.

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

SECTION II
Set Up

General Set Up Information

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

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.

IMPORTANT

- *The procedures for assembling this unit are intended for two or more people.*

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 500 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)

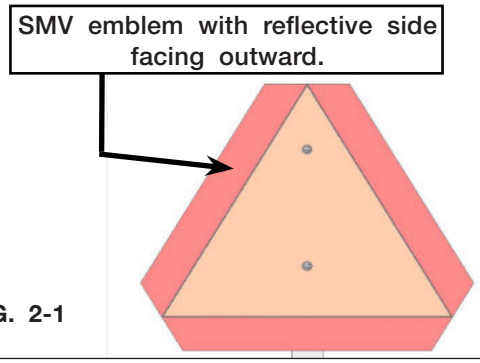


FIG. 2-1

Light and Light Bracket Set Up

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

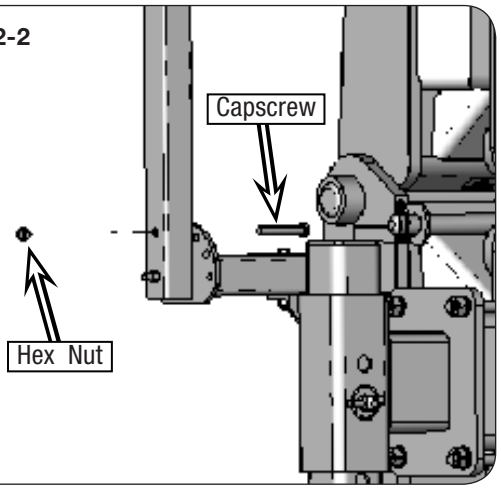


FIG. 2-3

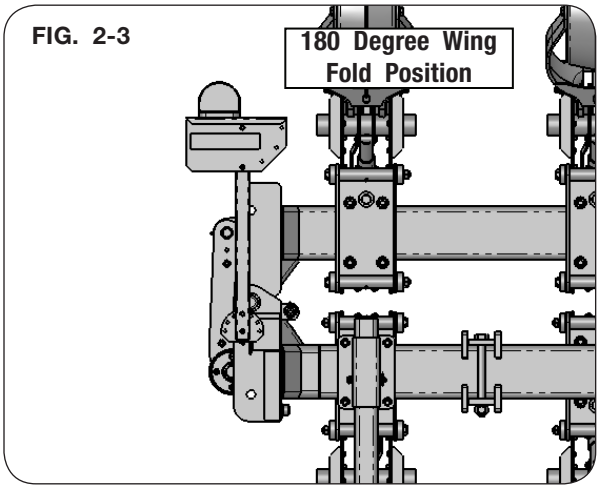


FIG. 2-4

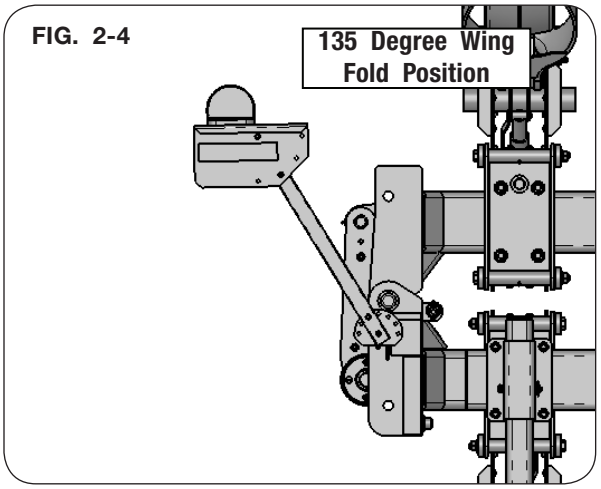


FIG. 2-5

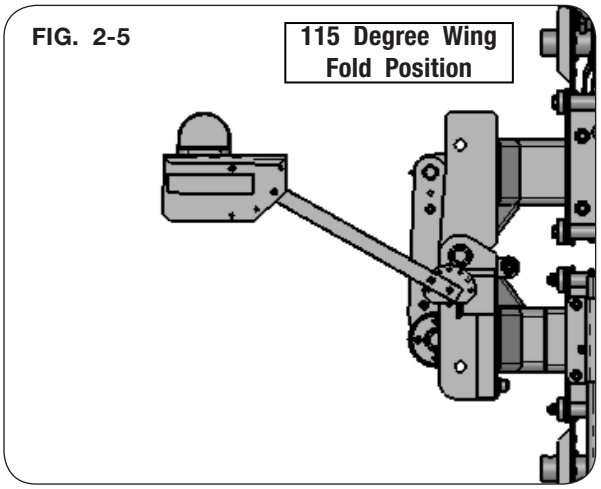
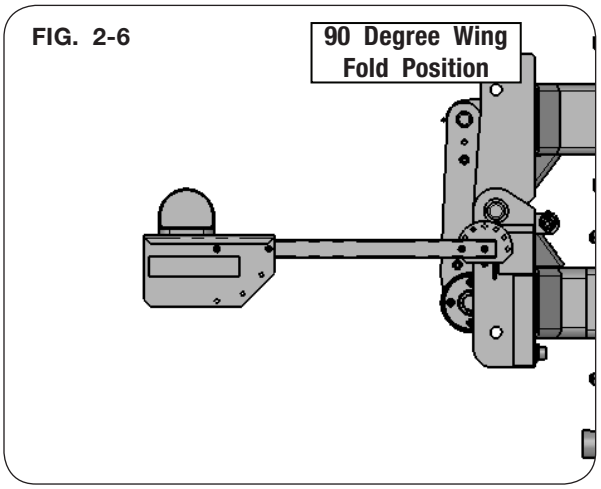


FIG. 2-6

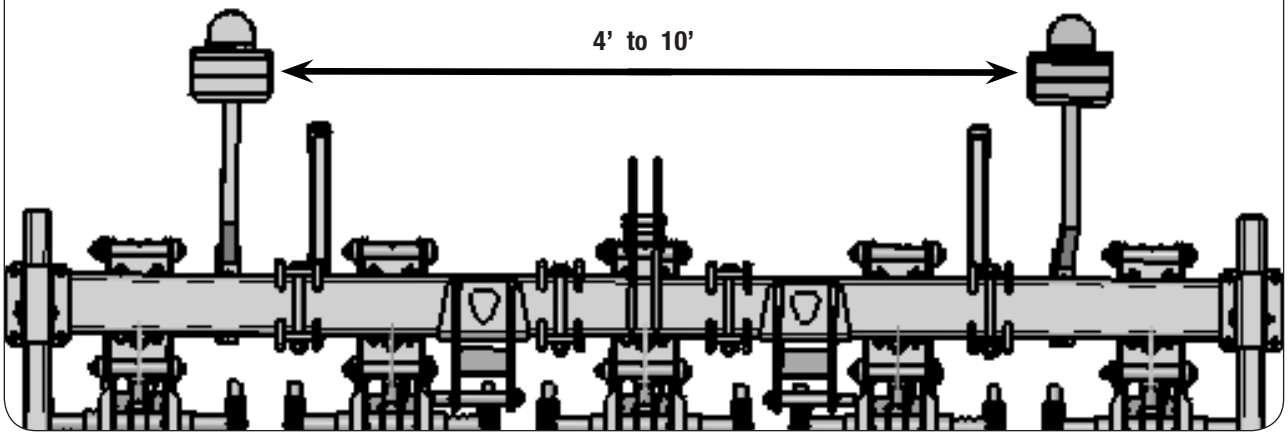


Light and Light Bracket Set Up

For Inner Lights:

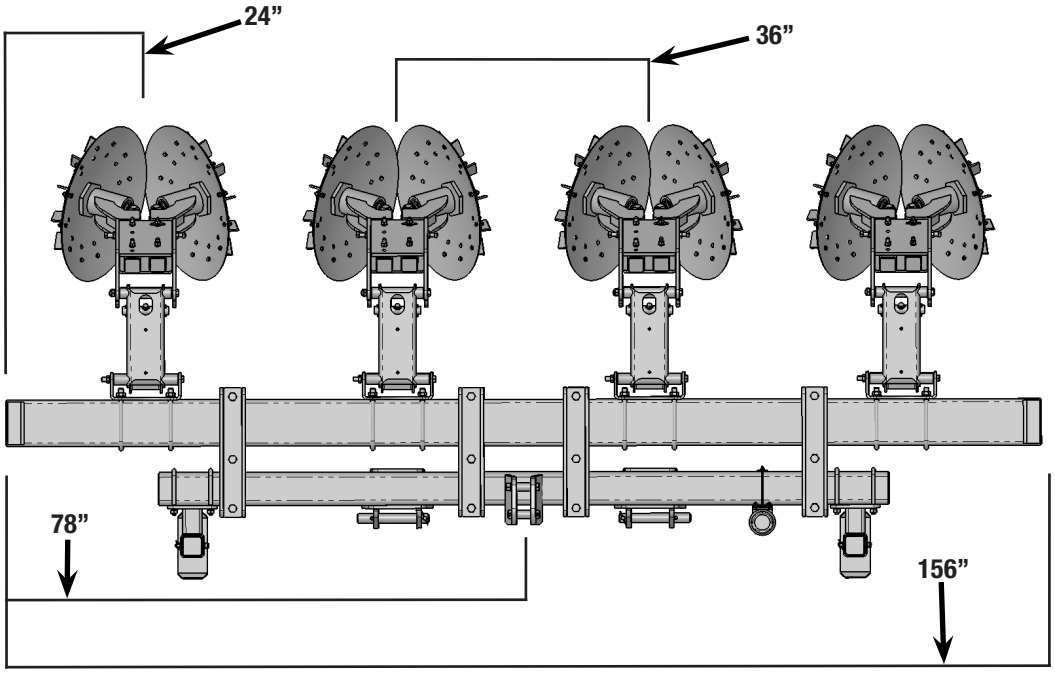
Inner light brackets must each be mounted equaly from the center of the tool bar and be a total distance of between 4' and 10' from each other. The inner red lights will only have a lense on one side of the light and it should be visible from the rear of the toolbar.

FIG. 2-7

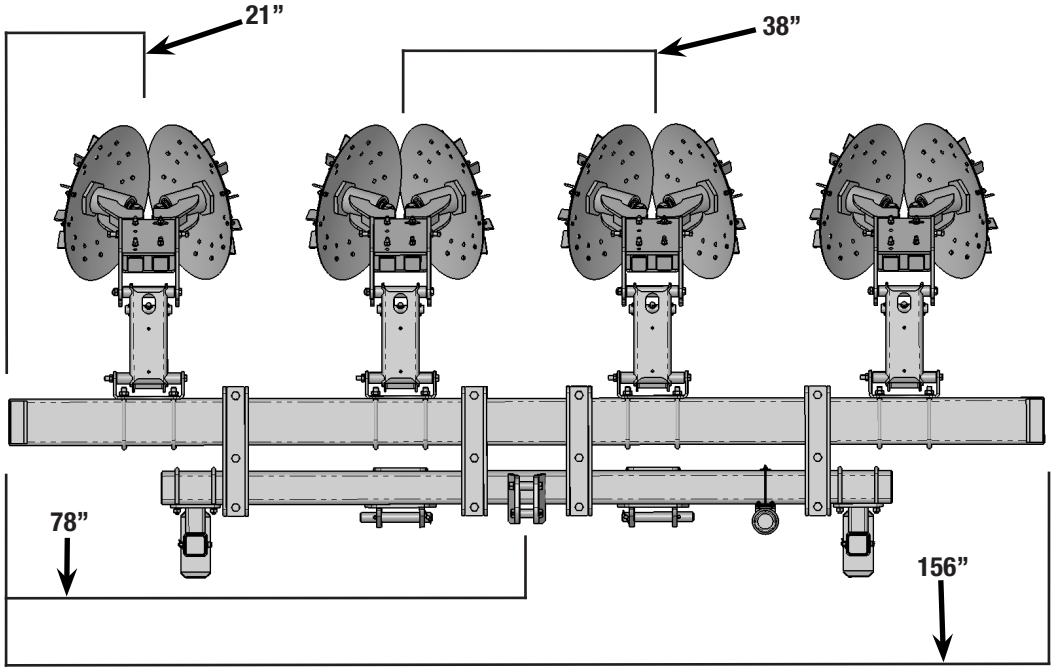


Overhead Layouts

4 Row 36” Spacing Configuration

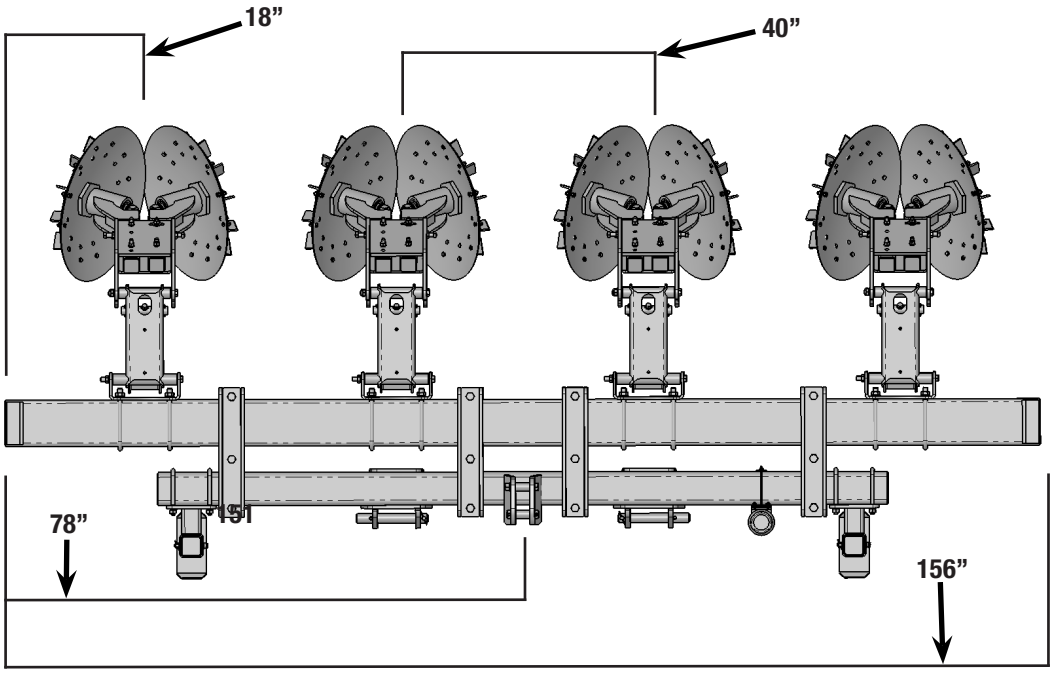


4 Row 38” Spacing Configuration

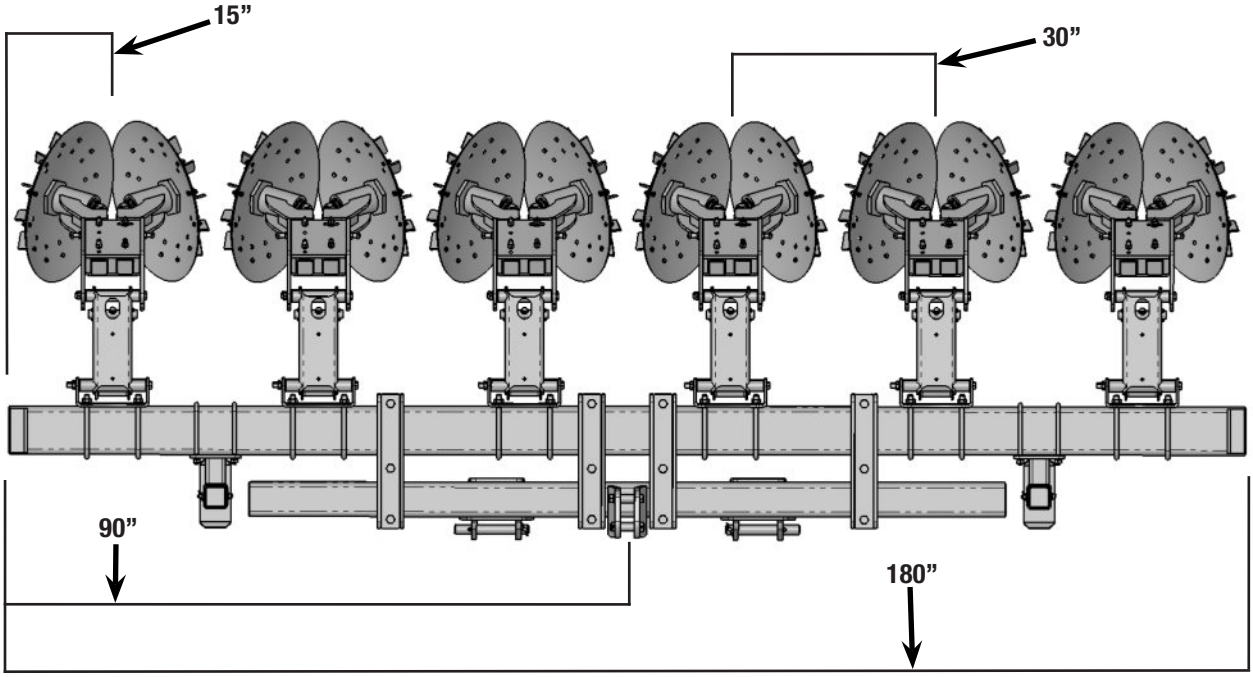


Overhead Layouts

4 Row 40” Spacing Configuration

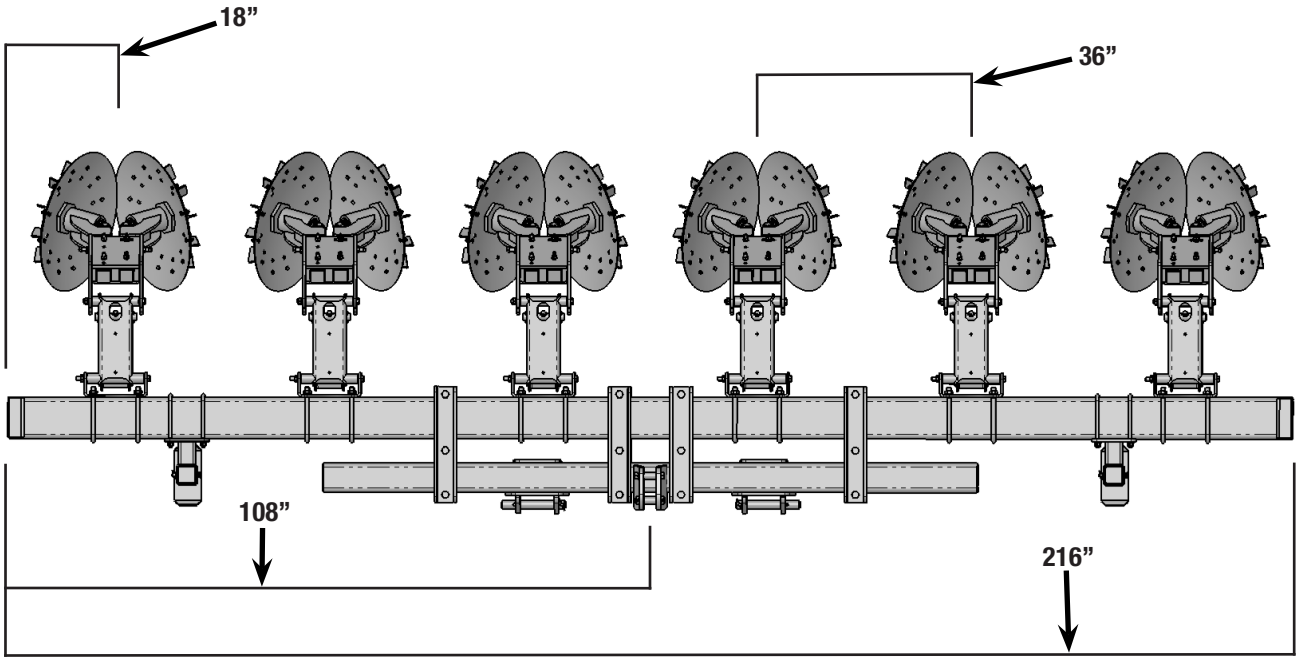


6 Row 30” Spacing Configuration

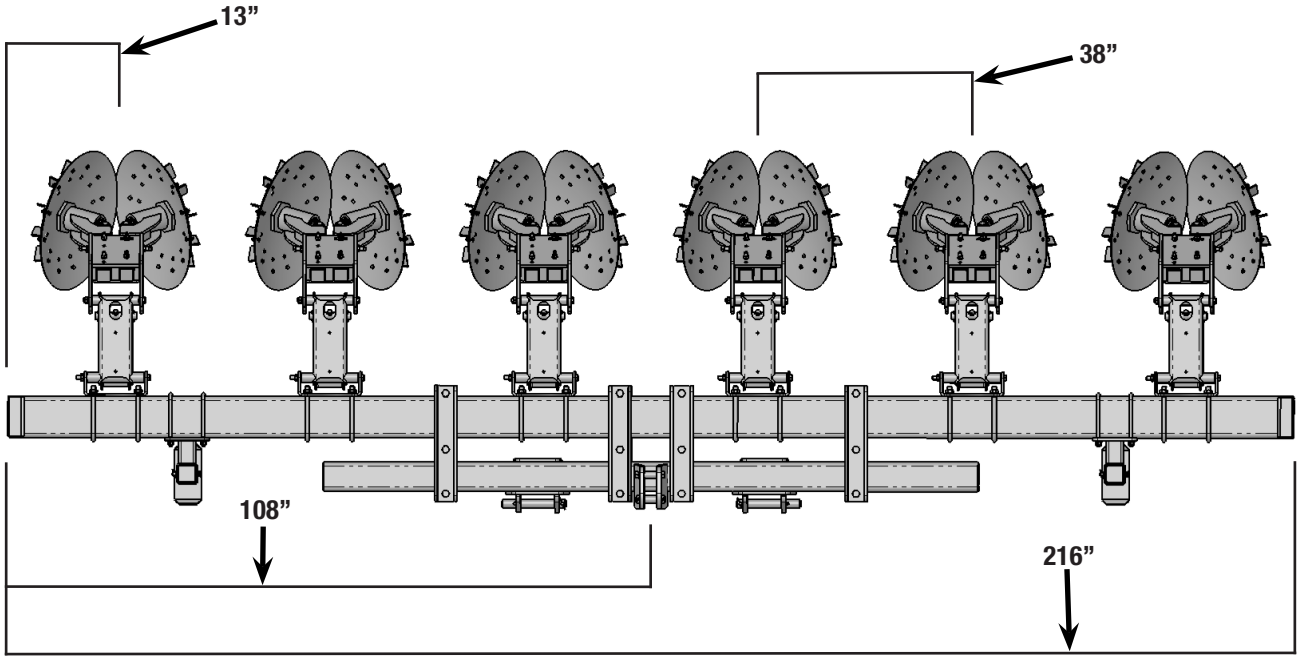


Overhead Layouts

6 Row 36” Spacing Configuration

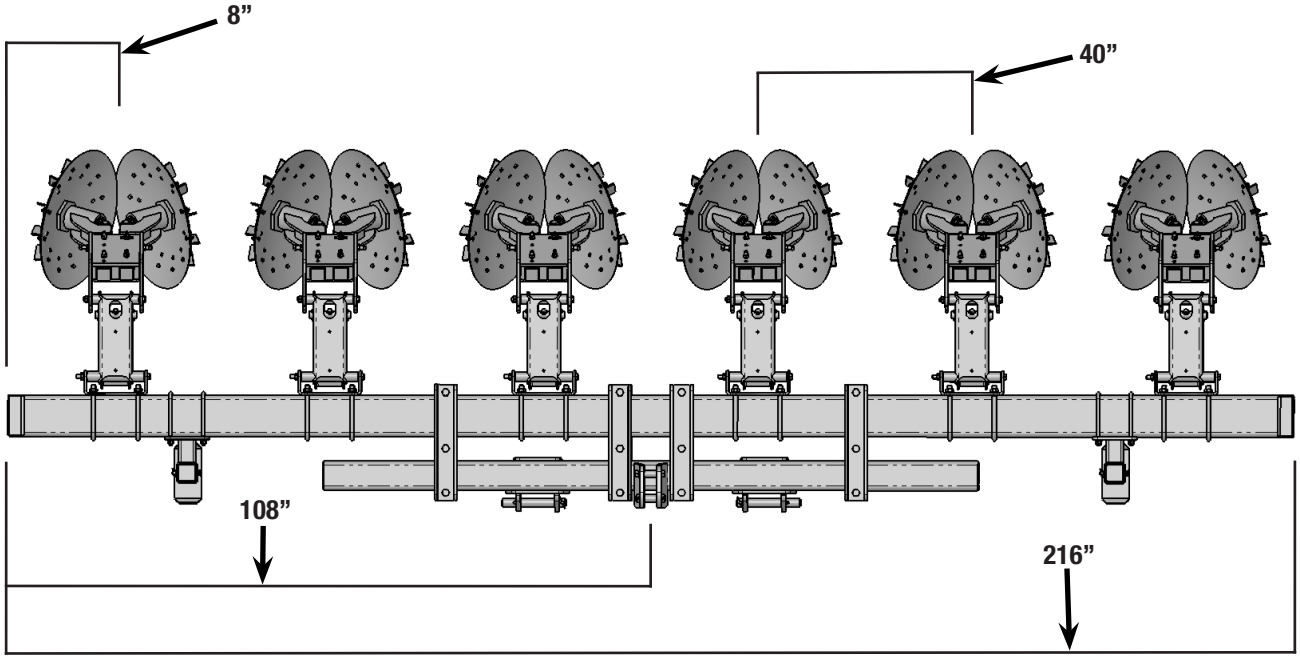


6 Row 38” Spacing Configuration

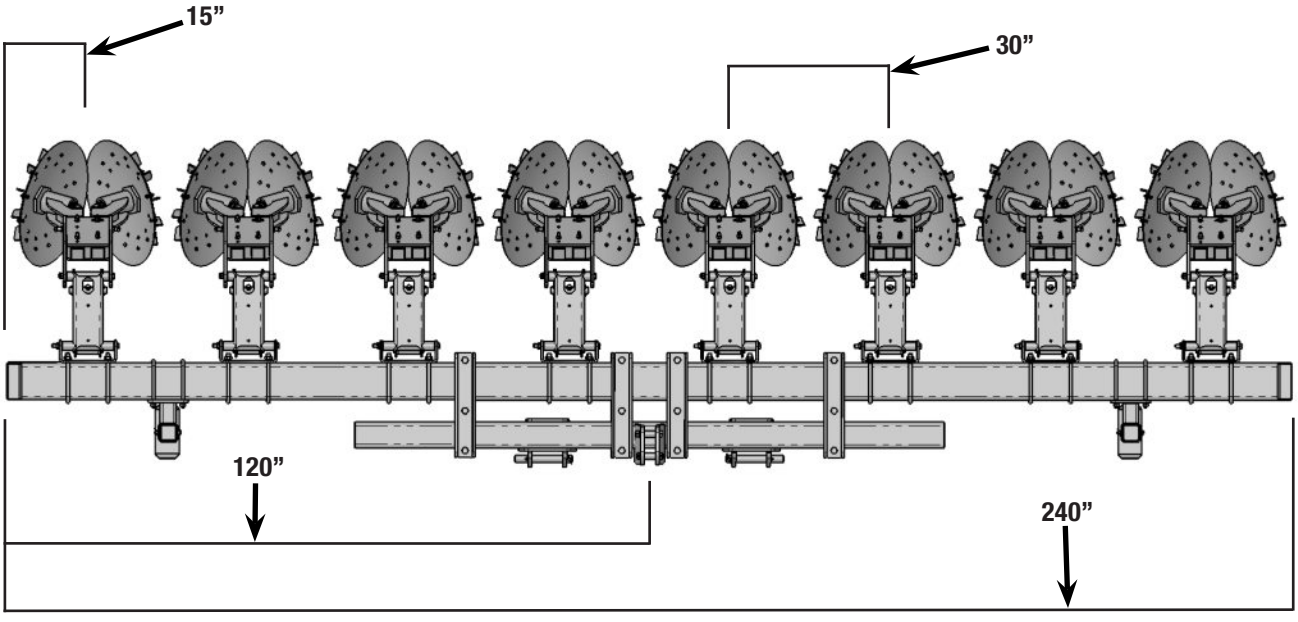


Overhead Layouts

6 Row 40” Spacing Configuration

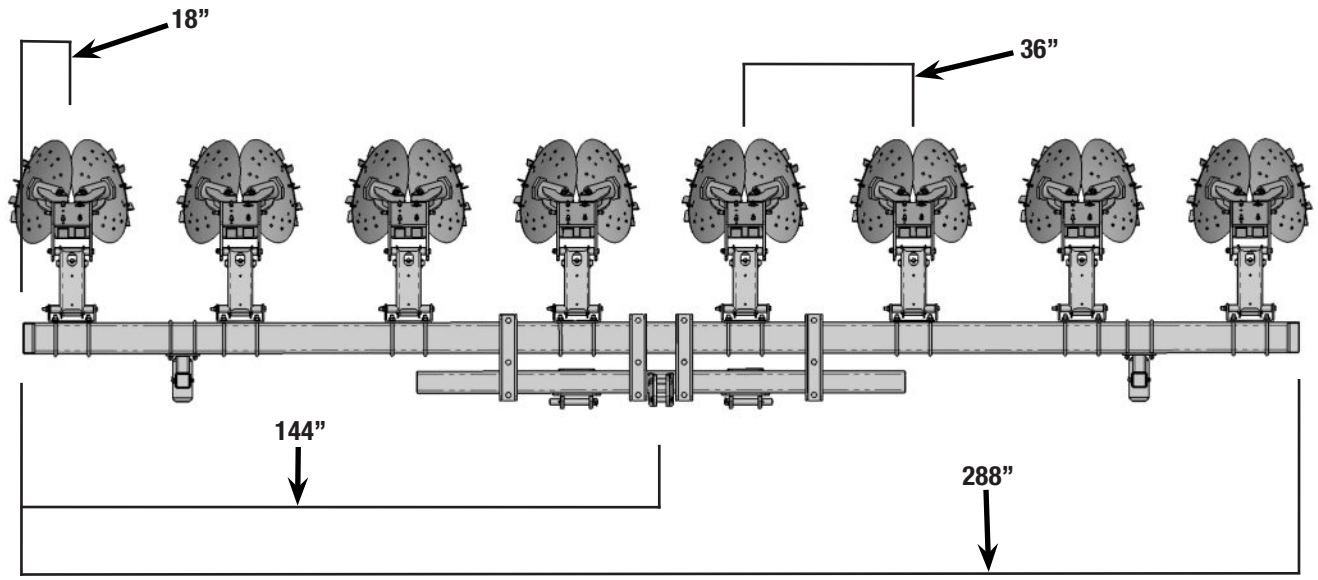


8 Row 30” Spacing Configuration

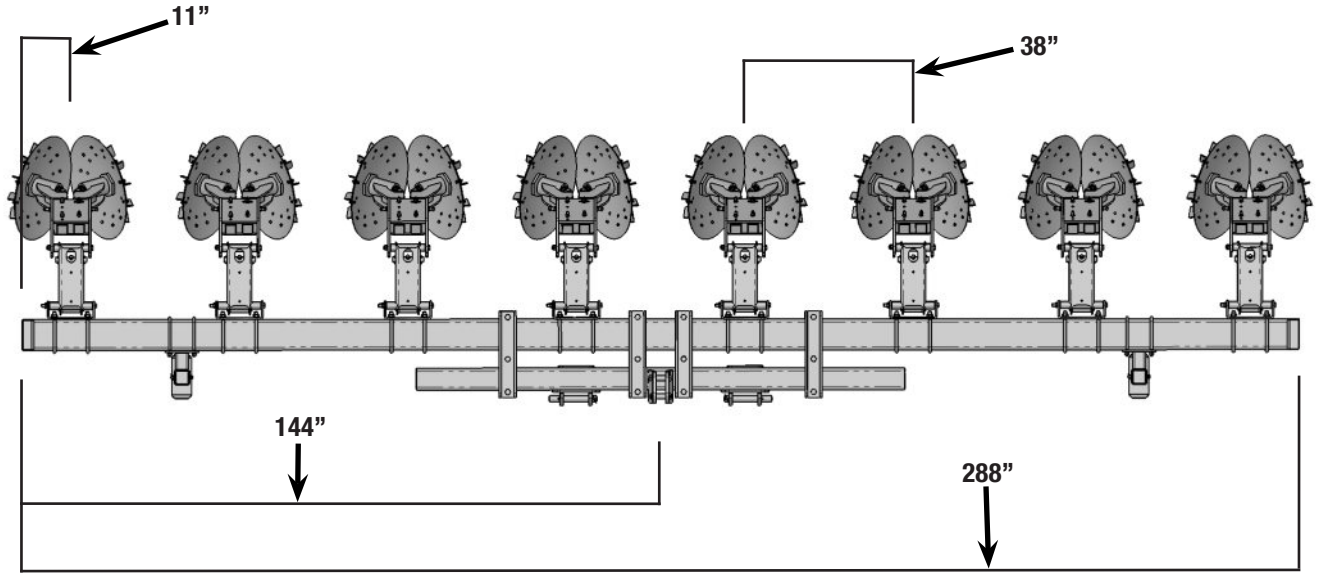


Overhead Layouts

8 Row 36” Spacing Configuration

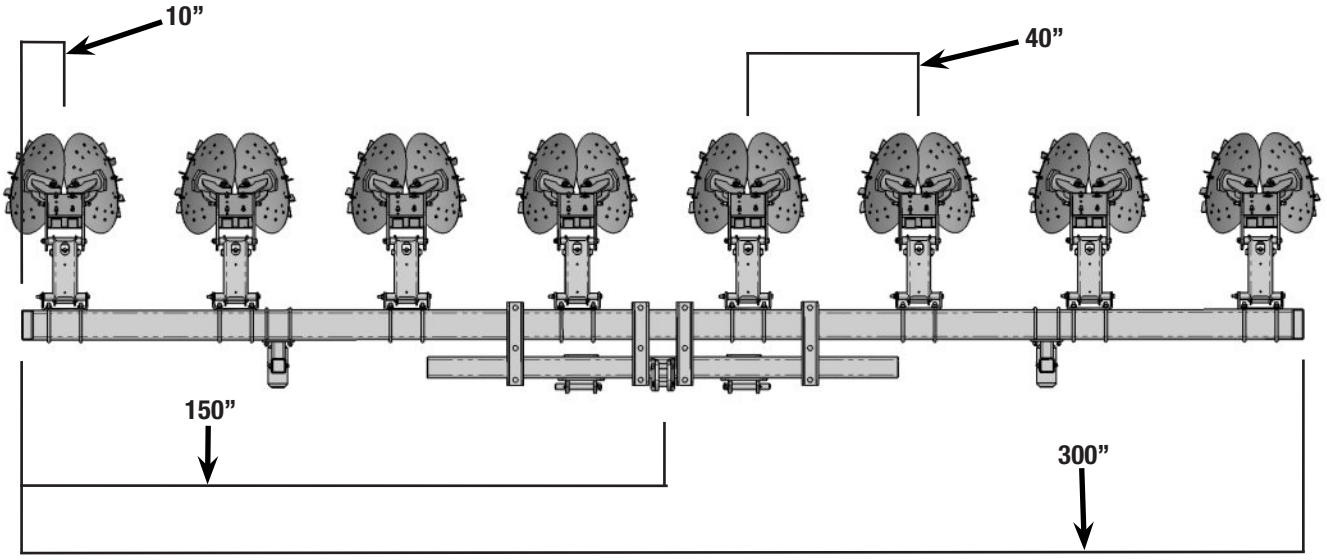


8 Row 38” Spacing Configuration

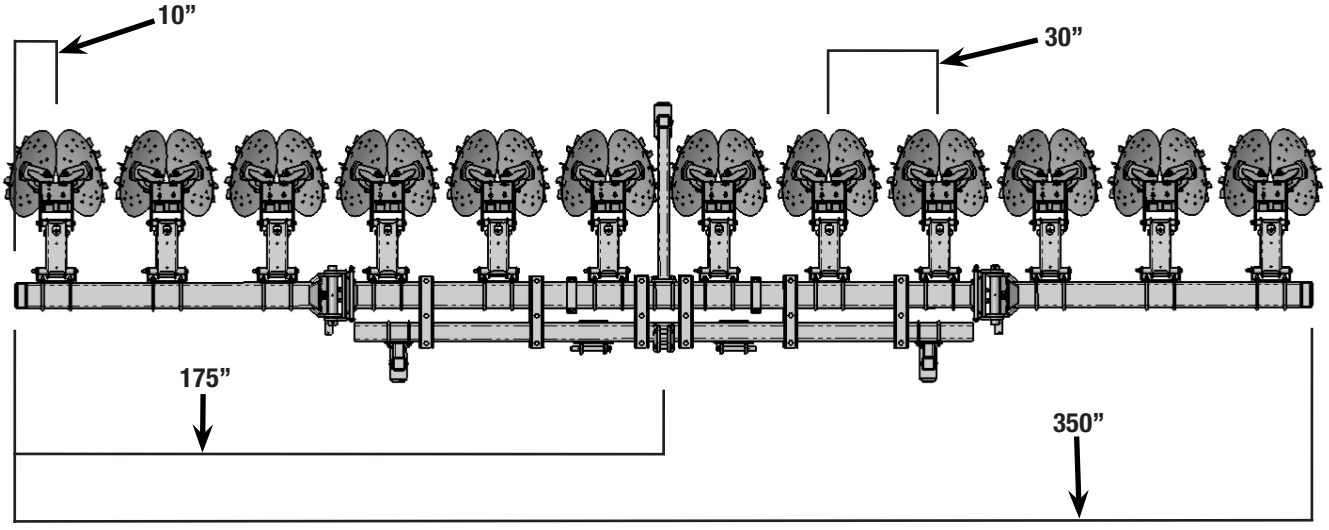


Overhead Layouts

8 Row 40” Spacing Configuration

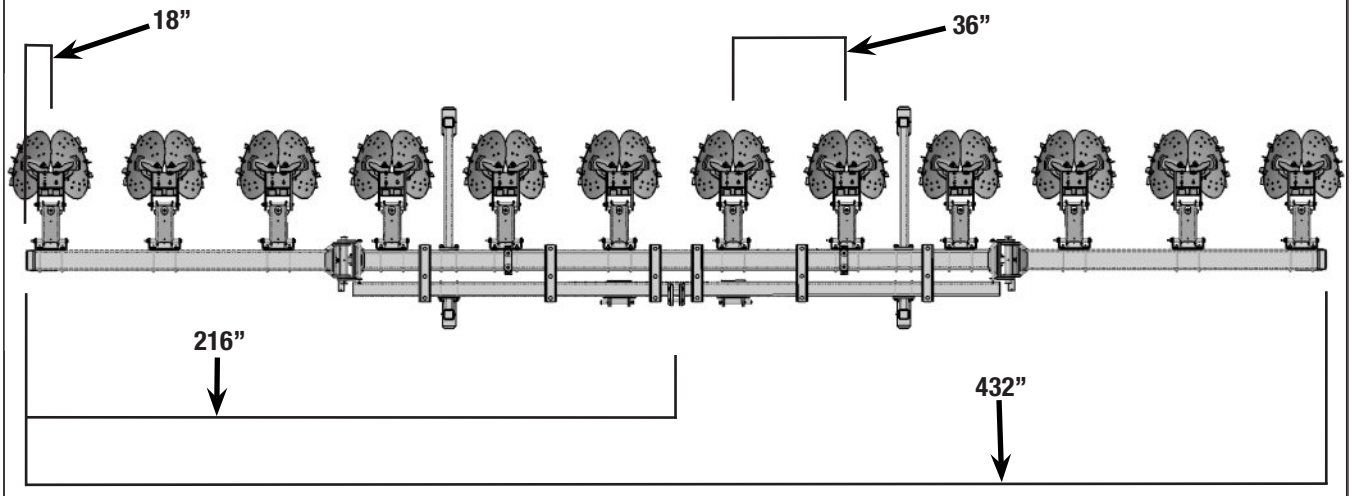


12 Row 30” Spacing Configuration

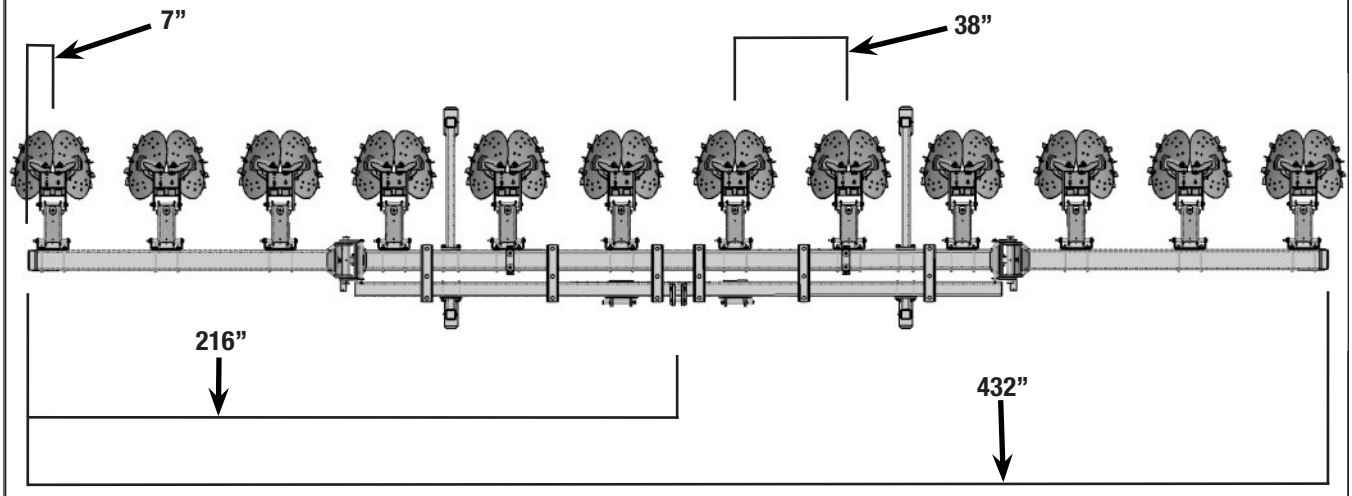


Overhead Layouts

12 Row 36” Spacing Configuration

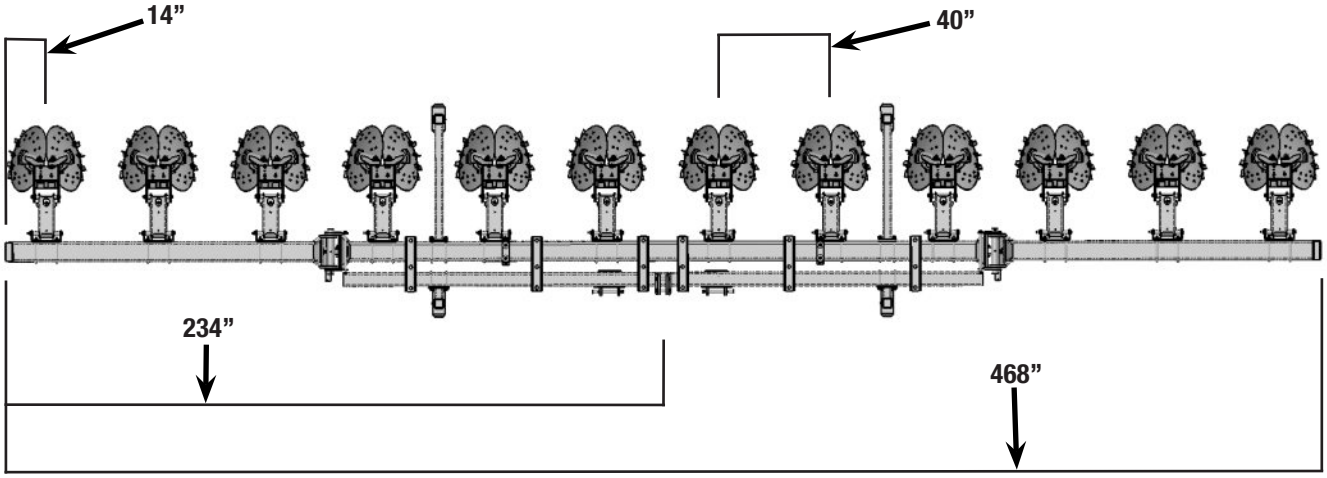


12 Row 38” Spacing Configuration

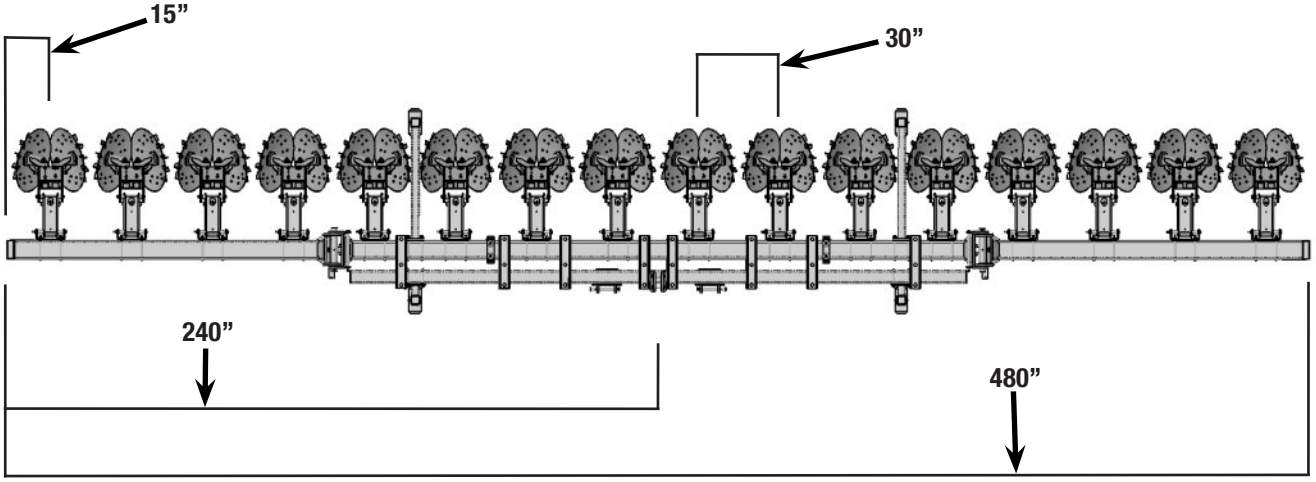


Overhead Layouts

12 Row 40” Spacing Configuration

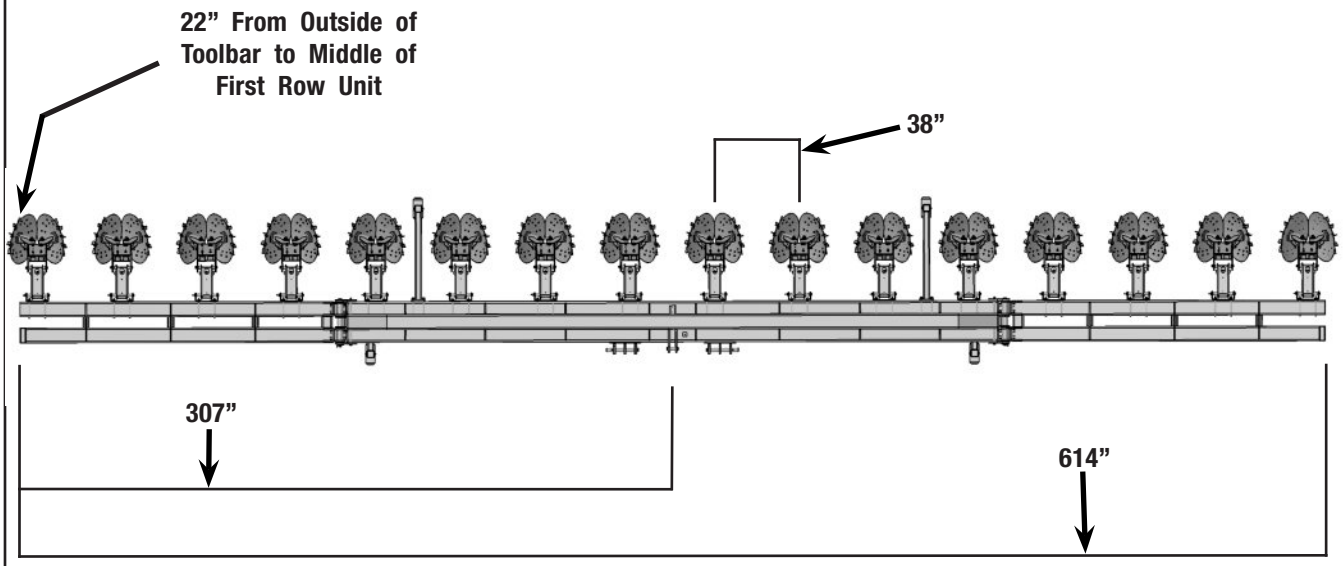


16 Row 30” Spacing Configuration

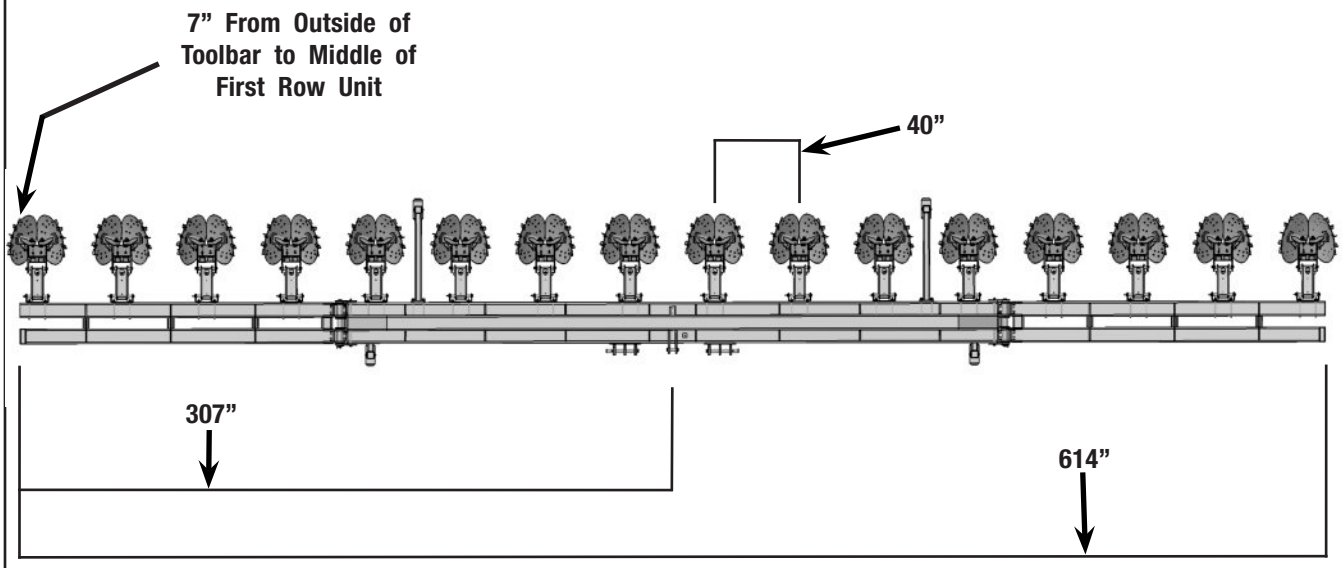


Overhead Layouts

16 Row 38” Spacing Configuration

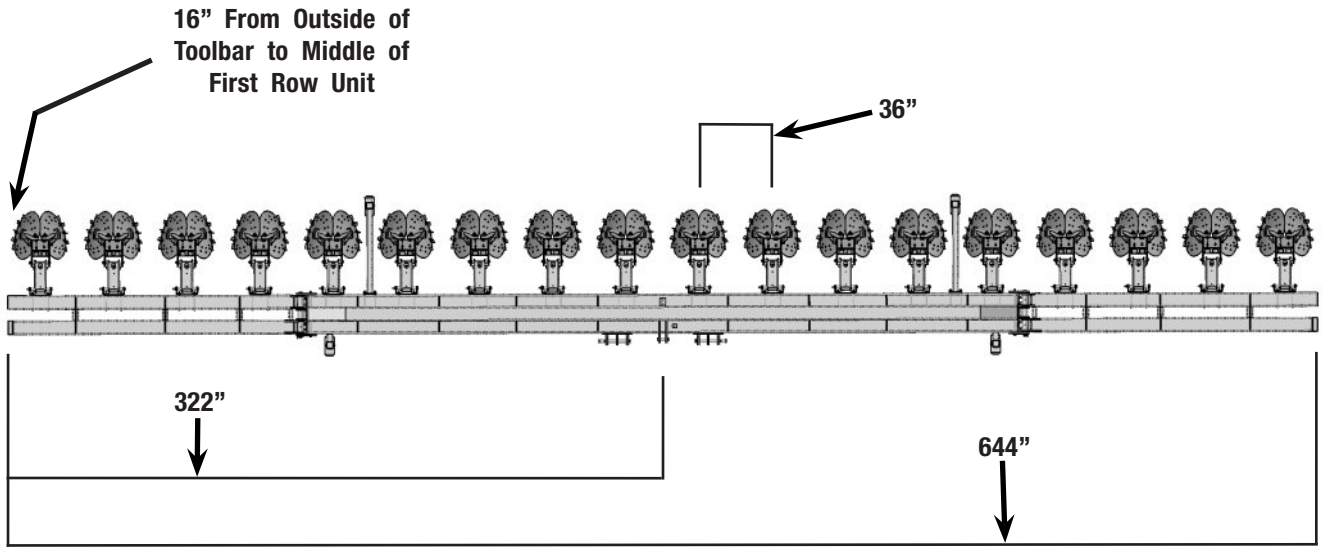


16 Row 40” Spacing Configuration



Overhead Layouts

18 Row 36” Spacing Configuration



SECTION III
Operation

General Operation Information

WARNING

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

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

Preparing Tractor

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.

Preparing Stalk Pullr

Perform the service checks as outlined below. Repair or replace any damaged or worn parts before operating.

Bolts And Nuts

Before going to the field, check all hardware for tightness. Recheck all bolts for tightness, after the unit has been operated for several hours.

Pins

Before going to the field, check that all pins are in place and are in good condition. Replace any worn, damaged, or missing pins.

Check that locking hardware for pins are in place and tight.

Lubrication

Lubricate unit as outlined in MAINTENANCE section.

Wing Folding Degree Adjustment

WARNING

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

NOTE: Most Vertical Fold 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: 12 Row 36”, 38”, 40” and 16 Row 30” Units come standard with 170° folding cylinders and 170° wing stops.

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. 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 tractors parking brake and remove the key.
3. 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.
4. Remove the cover plate and snap rings from the cylinder pin, then remove the cylinder pin. (Fig. 3-1)
5. 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)
6. 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.

FIG. 3-1

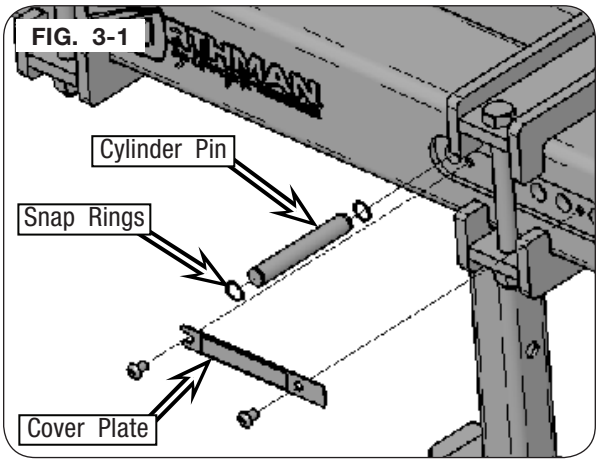
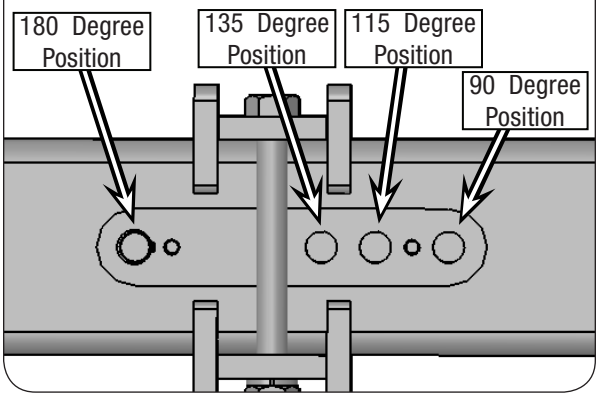


FIG. 3-2



Adjustable Wing Rest

WARNING

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

NOTE: Vertical Fold 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. 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 tractors parking brake and remove the key.

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

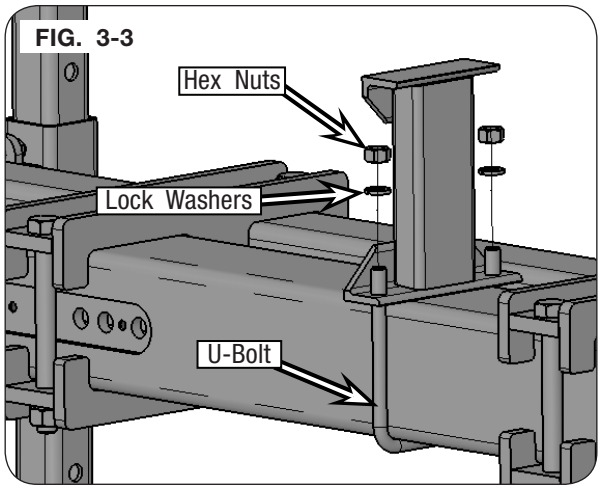


FIG. 3-3

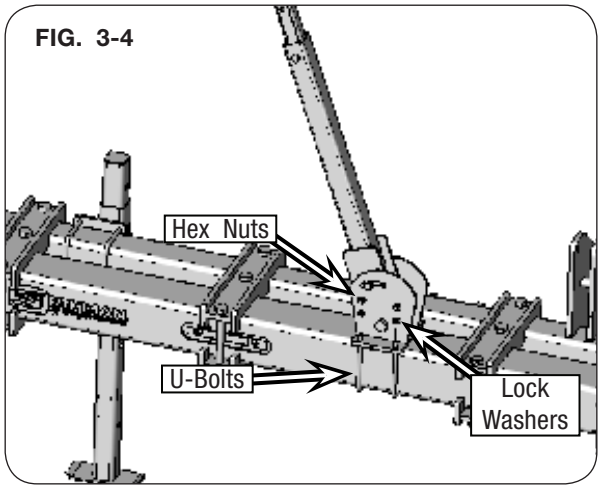


FIG. 3-4

Adjustable Wing Rest

WARNING

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

Adjusting The Wing Rest

1. 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 tractors parking brake and remove the key.

3. 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.

4. Raise the wing from field position to the desired degree of folded wing placement (fully extend hydraulic cylinder).

5. 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)

6. Adjust the wing rest arm from the base by loosening the set bolt and rotating thethe wing rest arm until the wing rest plate becomes flush with a bare space on the wing and retighten.

7. 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. (Fig. 3-6)

FIG. 3-5

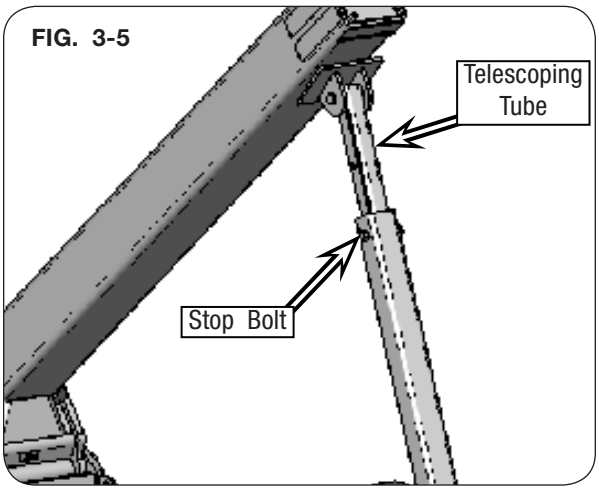
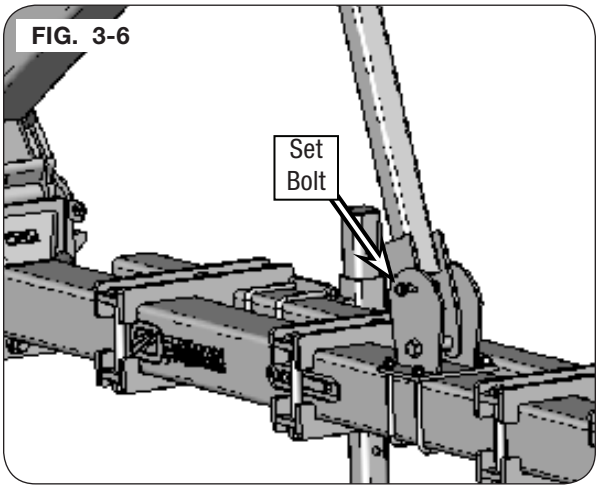


FIG. 3-6



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 seperately) 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 (fully extend 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 safety light brackets accordingly.

FIG. 3-7

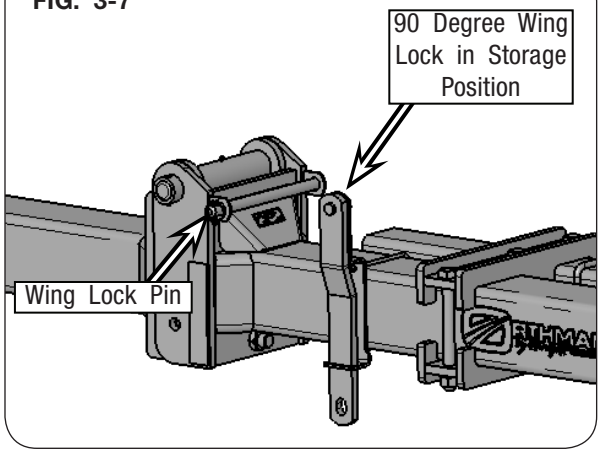
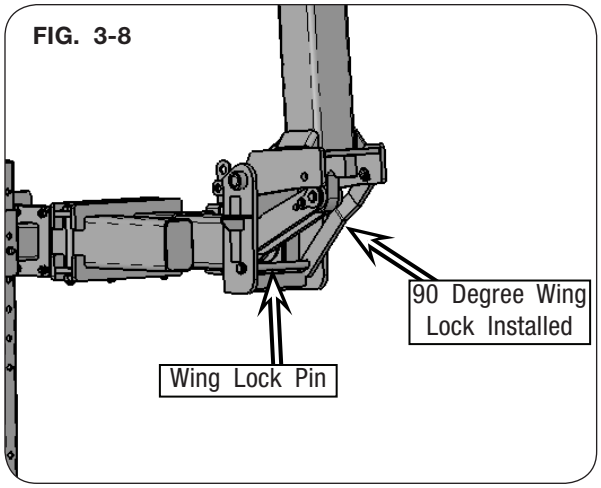


FIG. 3-8



Stalk Pullr Field Operation

Rigid Operation

WARNING

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

1. With the wings completly 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 tool bar wil not be able to fold with the wings locked.

FIG. 3-9

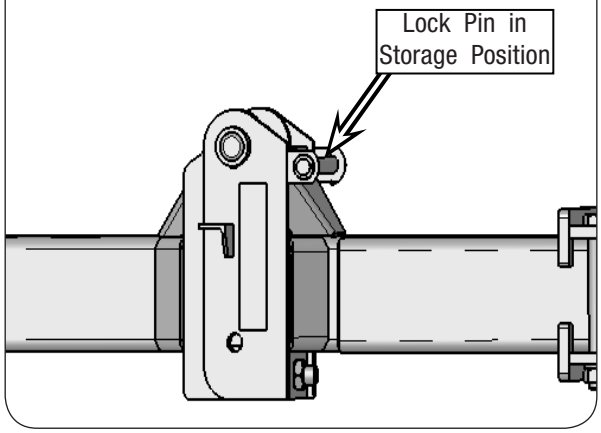
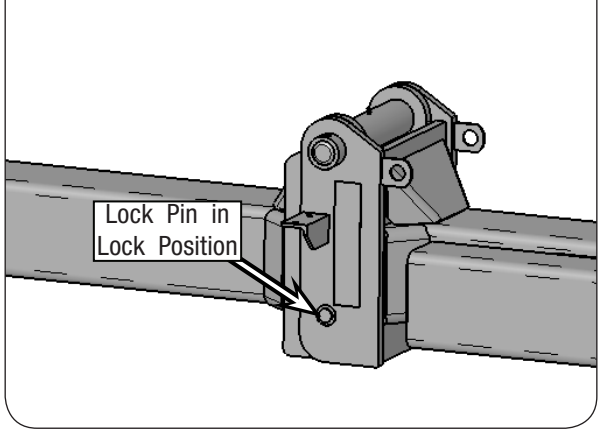


FIG. 3-10



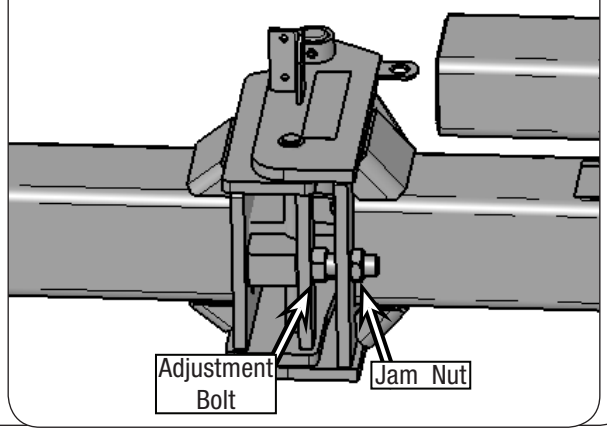
Wing Leveling

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



Stalk Pullr Field Adjustments

⚠ WARNING

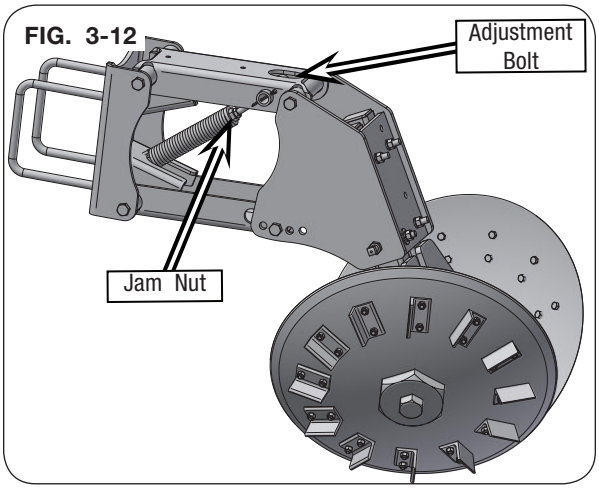
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 500 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**

Row Unit Down Pressure

NOTE: Compacted soil conditions may require an increase in down pressure and softer soil conditions may require a decrease in down pressure to provide adequate soil penetration across the implement.

1. Loosen the down pressure spring jam nut. (Fig. 3-12)
2. Adjust the down pressure adjustment bolt clockwise to increase to increase down pressure or counter clockwise to decrease down pressure. (Fig. 3-12)
3. Tighten the down pressure spring jam nut. (Fig. 3-12)

FIG. 3-12



Stalk Pullr Field Adjustments (continued)

V-Disc Pinch Point Pressure

NOTE: Pressure applied to the pinch point of the V-discs increases the 'slicing' effect of the two disks, however, too much pressure will decrease the rolling performance of the V-Disk.

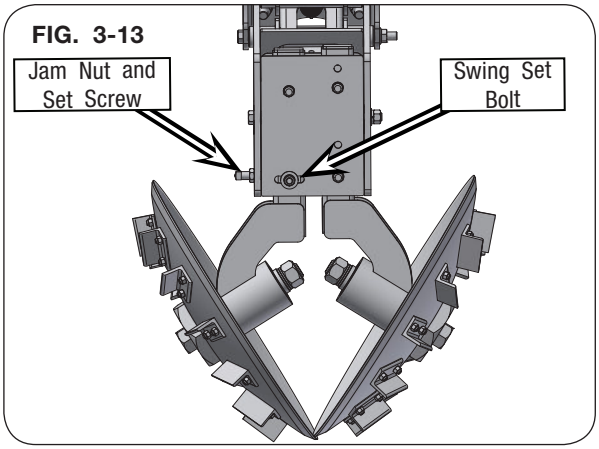
NOTE: The amount of pressure to be applied to the pinch point should only be enough to spin both disks when one disk is spun. The pinch point pressure should be checked periodically throughout the operating season, as the edge of the disk will wear down.

1. Loosen the swing set bolt on the LH side of the V-Disc mounting leg, then loosen the jam nut on the pinch point set screw. (Fig. 3-13)

2. Tighten the set screw for more pinch point pressure or loosen the set screw for less pinch point pressure. (Fig. 3-13)

3. Tighten the set screw jam nut and the swing set bolt. (Fig. 3-13)

FIG. 3-13



V-Disc Pinch Point Angle

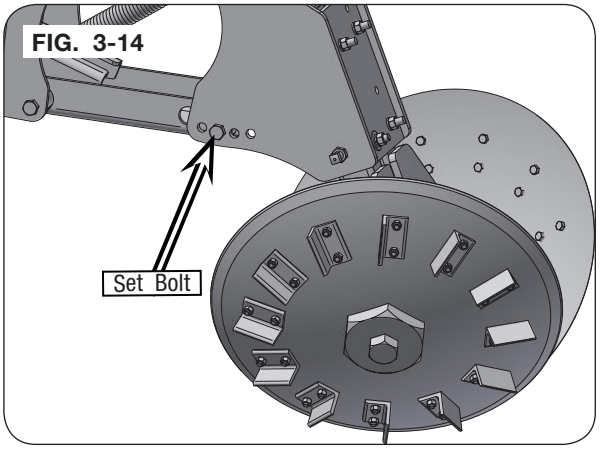
NOTE: The pinch point angle is the angle of the pinch point of the V-Disks in relation to the ground surface. A larger angle allows the V-Disks to run deeper, thus causing more soil disturbance and root ball removal. A smaller angle will cause less soil disturbance and root ball removal.

1. Use a safe lifting device to hold the row unit up when removing hardware.

2. Loosen the set bolt nut and remove the set bolt. (Fig. 3-14)

3. Adjust the row unit to desired setting, then replace the set bolt and tighten the set bolt nut. (Fig. 3-14)

FIG. 3-14



Stalk Pullr Field Adjustments (continued)

V-Disc Orientation

NOTE: Standard orientation of the V-Disks is left overlaps right. Over the life of the V-Disks a groove will appear in the LH V-Disk and the RH V-Disk will become dull. When this happens, the V-Disk orientation must be changed.

1. Loosen the swing set bolt on the LH disk mounting leg. (Fig. 3-15)
2. Loosen the set screw jam nut and set screw. Allow the LH mount leg to swing out. (Fig. 3-15)
3. Remove the RH leg mount carriage bolts. (Fig. 3-15)
4. Slide the RH disk leg down and align with the new bolt holes. Replace the mouting carriage bolts and tighten. (Fig. 3-15)
5. Reset the pinch point by tightening the set screw and jam nut, then tighten the swing set bolt and jam nut. (Fig. 3-16)

FIG. 3-15

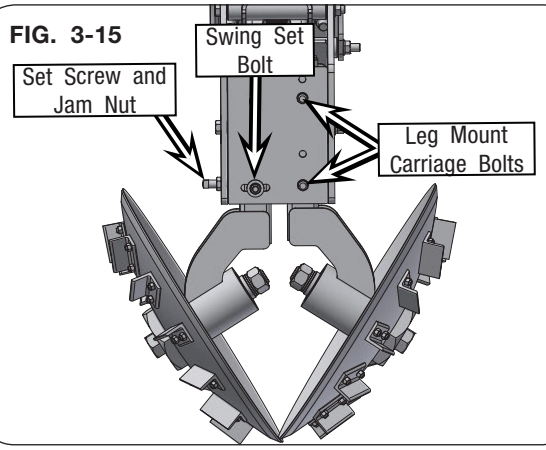
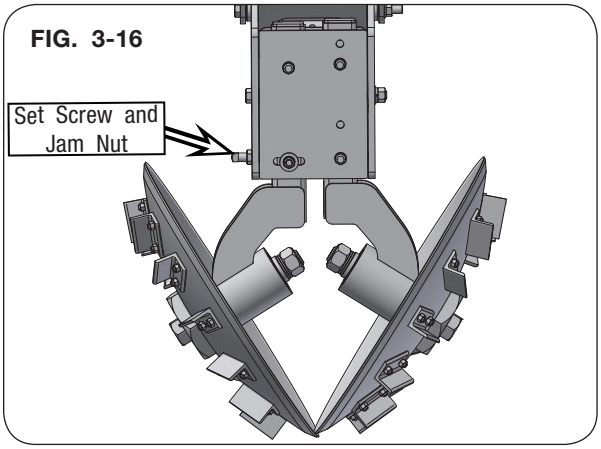


FIG. 3-16



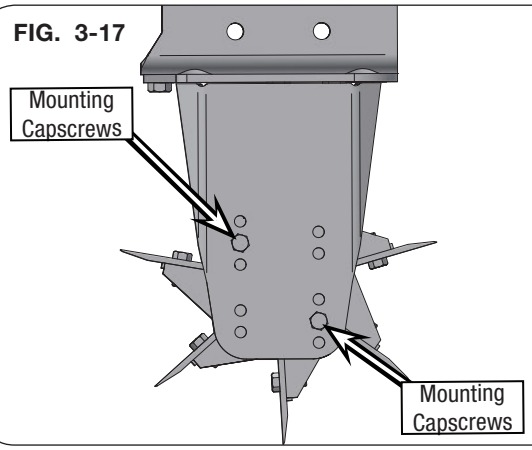
Stalk Pullr Field Adjustments (continued)

Chopper Height Adjustment

NOTE: For implements equipped with the optional chopper units, the chopper unit height may be adjusted to fine-tune desirable performance.

1. Use a safe lifting device to hold the chopper assembly up while adjusting.
2. Remove the chopper mounting capscrews. (Fig. 3-17)
3. Raise or lower the chopper basket to the desired height, then replace the chopper basket mounting capscrews. (Fig. 3-17)

FIG. 3-17

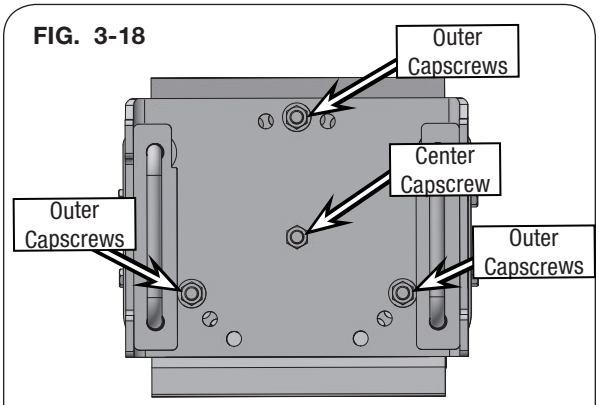


Chopper Yaw Angle

NOTE: The chopper yaw angle may be adjusted to fine-tune desirable tillage performance.

1. Loosen and remove the three outer capscrews. (Fig. 3-18)
2. Loosen, but do not remove, the center capscrew. (Fig. 3-18)
3. Rotate the chopper basket to the desired setting, then replace and tighten all hardware.

FIG. 3-18



Hitching to Tractor

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 deathcan result from being trapped between the tractor and implement.

2. 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.

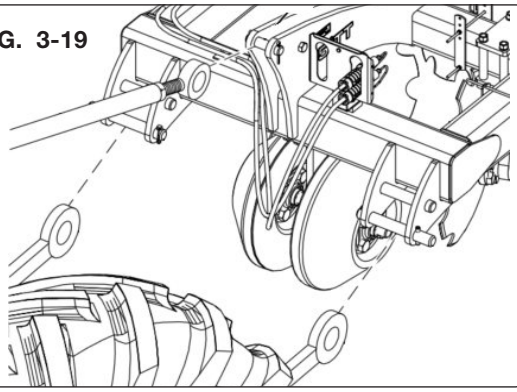
3. Set tractor's three-point hitch lateral float pins. Lateral float pins should be placed in the lower holes to allow machine to "float" and follow the ground surface.

4. Set tractor's three-point hitch sway blocks. Sway blocks and bumpers should be installed if no implement guidance is being utilized with machine.

5. Connect the tractor's lower three-point hitch points to the lower hitch tug pins on the implement. (Fig. 3-19)

6. Adjust the tractor's upper three-point hitch point as necessary to connect the hitch point to the upper hitch pin on the implement. (Fig. 3-19)

FIG. 3-19



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. Raise quick hitch latch handles. (Fig. 3-20)

3. Lower the rockshaft 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. 3-21)

6. Push latch handles down to lock the quick-hitch to the implement.

FIG. 3-20

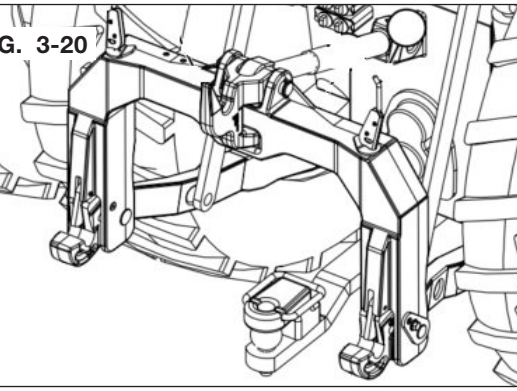
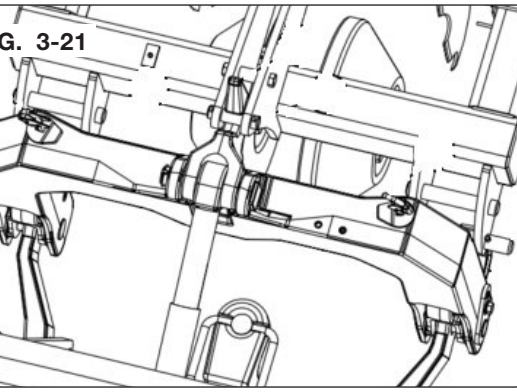


FIG. 3-21



Transport and Field Positions

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:

The top and bottom of the toolbar must operate parallel with the ground surface to allow the toolbar to act as a towing device. Adjustment of tractor three point third link, lift assist wheels, and/or toolbar gauge wheels, if equipped, will allow the toolbar to operate parallel with the ground surface.

Row unit linkages should also be set to run parrelel to the ground to provide even adjustments to the row unit. (Fig. 3-22)

The bottom of the toolbar should operate approximately 16 - 20 inches above the ground surface. Use tractor lower hitch stop, lift assist wheels, and/or toolbar gauge wheels, if equipped, to set desired toolbar height. (Fig. 3-23)

FIG. 3-22

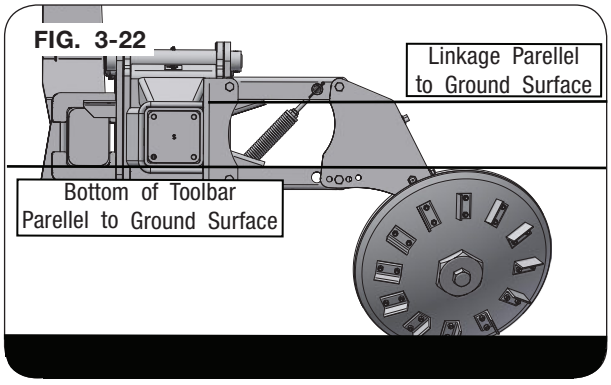
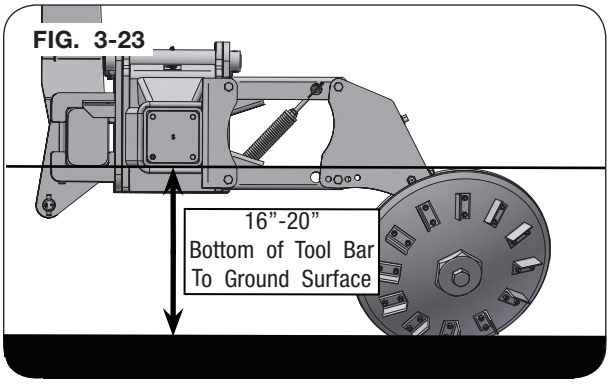


FIG. 3-23



SECTION IV
Maintenance

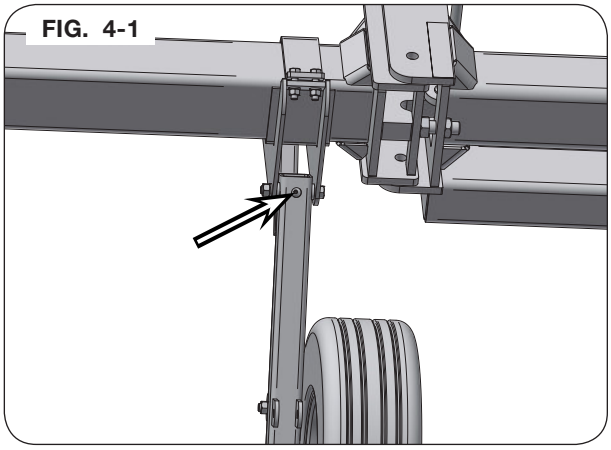
Lubrication

Grease all zerks on the 5|TT TRACK TILLr® using a high-quality, multi-purpose grease. Follow the recommended hourly service intervals illustrated below.

Lubrication Service Intervals		
	# of Grease Points	Interval (Hours)
Gauge Wheel Pivot	4	50
Adjustment Crank	2	50
Wheel Hub Bearing	2	50
Wing Pivot	2	50
Wing Fold Linkage	6 (Single Folding Toolbar)	50
	12 (Double Folding Toolbar)	
Chopper Units Bearings	2 Per Chopper Unit	50

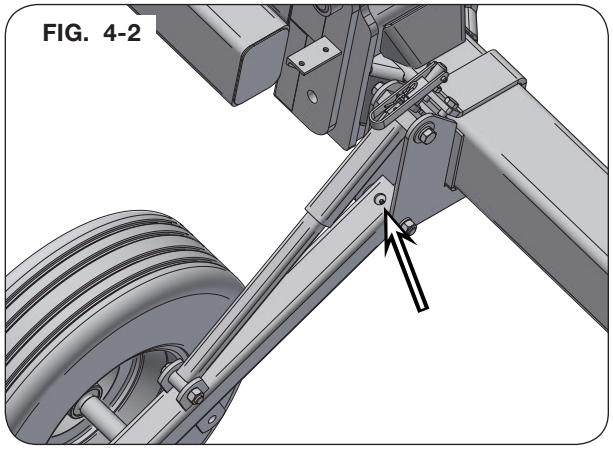
Gauge Wheel Pivot (Bottom)

FIG. 4-1



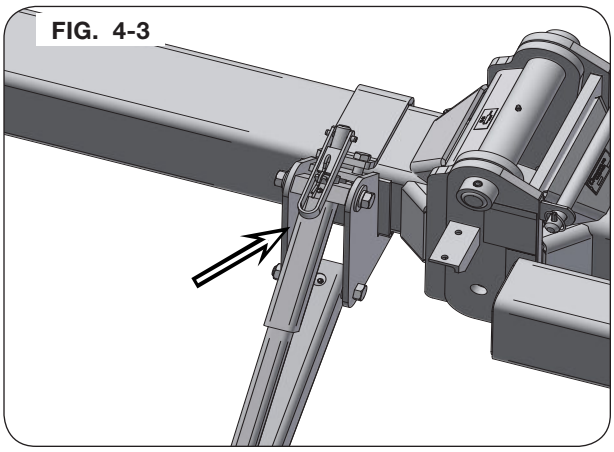
Gauge Wheel Pivot (Top)

FIG. 4-2



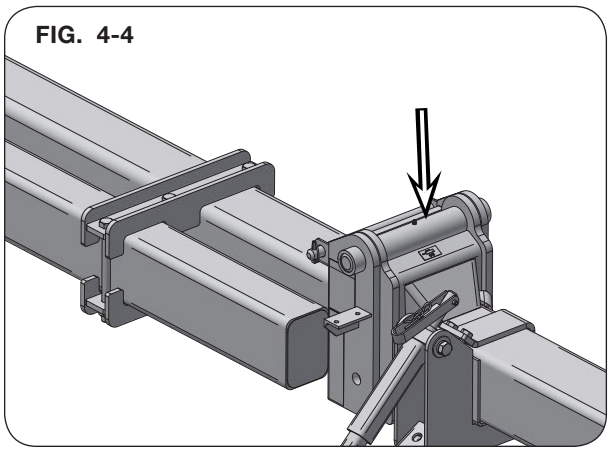
Adjustment Crank

FIG. 4-3



Wing Pivot

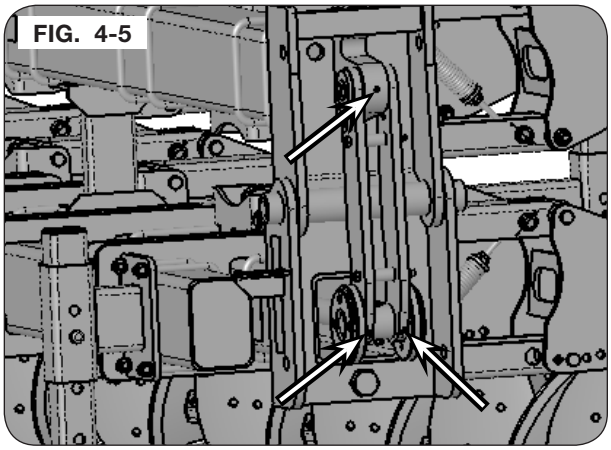
FIG. 4-4



Lubrication

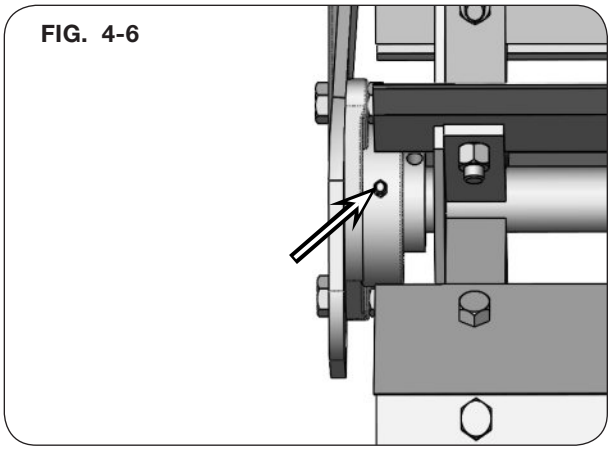
Wing Fold Linkage

FIG. 4-5



Chopper Unit Bearings

FIG. 4-6



Mount and Parrellel Linkage Disassembly and Assembly

⚠ WARNING

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

- **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 500 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

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 tractors parking brake and remove the key.

3. Remove the U-bolts and flange nuts from the the row unit mount, then remove the row unit from the tool bar using a safe lifting device rated for a minimum of 500 lbs.

4. Remove the front capscrews, flange nuts, and bushings from the parellel linkages. (Fig. 4-7)

5. Remove the capscrews, trunnion, flat washer and hex nut from the spring tension assembly. (Fig. 4-8)

6. Remove the tension spring from the lower parellel linkage. (Fig. 4-8)

FIG. 4-7

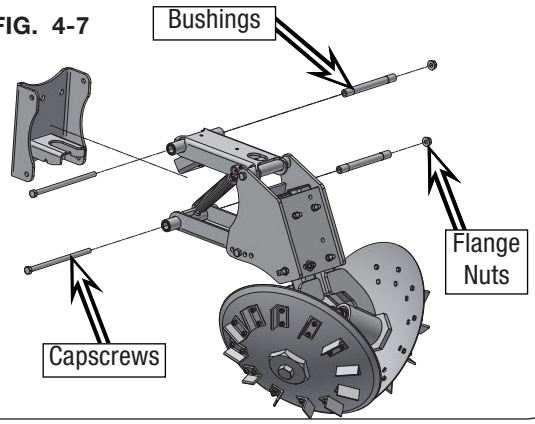
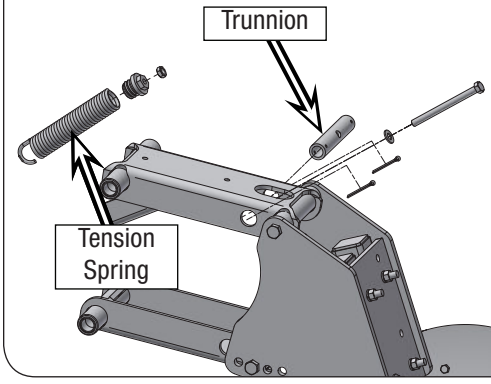


FIG. 4-8



Mount and Parrellel Linkage Disassembly and Assembly
(Continued)

7. Remove the rear capscrews, flange nuts, and bushings from the parellel linkages, then remove the parellel linkages from the row unit. (Fig. 4-9)

8. Inspect parts for wear or damage and replace if neccesary.

9. Install the rear bushings, capscrews, and flange nuts into the parellel linkages. (Fig. 4-9)

10. Install the tension spring into the lower parellel linkage. (Fig. 4-8)

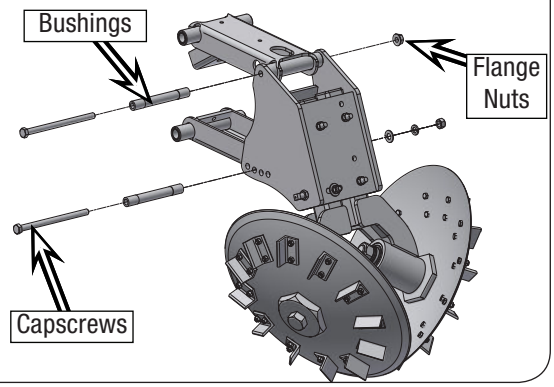
11. Install the capscrew, flat washer, hex nut, and trunnion onto the spring tensoin assembly. (Fig. 4-8)

12. Install the front bushings, capscrews, and flange nuts into the parellel linkages. (Fig. 4-7)

13. Using a safe lifting device rated for a minimum of 500 lbs, install the row unit onto the tool bar with the U-bolts and flange nuts. (Fig. 4-7)

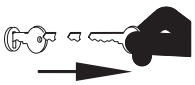
14. Tighten all hardware to the specification listed in the maintenance section.

FIG. 4-9



V-Disc Disassembly and Assembly

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 tractors parking brake and remove the key.



3. Remove the v-disc capscrew, outer washer, v-disc, and inner washer. from the row unit assembly. (Fig. 4-10)
4. Remove the capscrews, nuts, and cleats from the v-disc. (Fig. 4-11)
5. Inspect parts for wear or damage and replace if neccesary.
6. Install the cleats, capscrews, and nuts onto the v-disc. (Fig. 4-11)
7. Install the inner washer, v-disc, outer washer and capscrew onto the row unit assmebly. (Fig. 4-10)
8. Tighten all hardware to the specification listed in the maintenance section.

FIG. 4-10

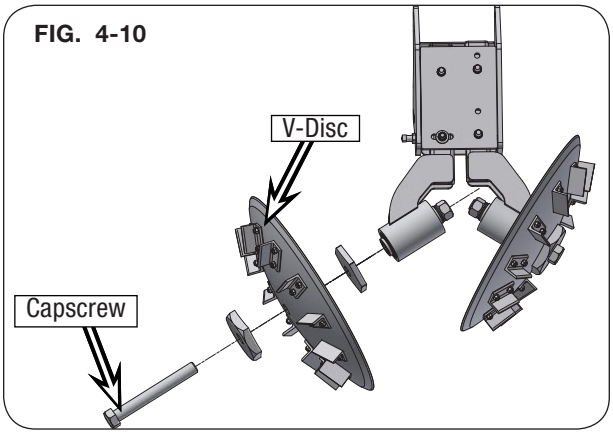
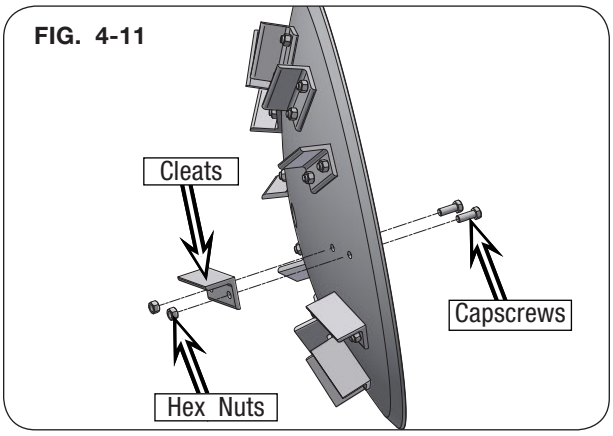


FIG. 4-11



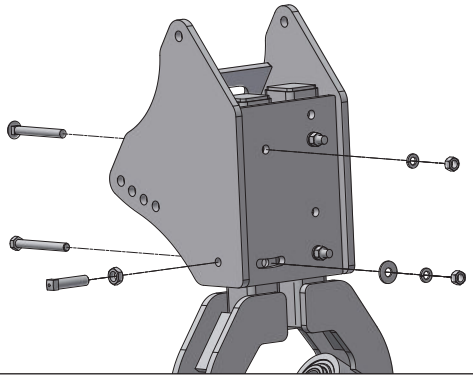
V-Disc Mount Leg Disassembly and Assembly

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 tractors parking brake and remove the key.

3. Remove the mount arm set crew and jam nut, along with the mounting capscrews, lock washers, flat washers and nuts. (Fig. 4-12)

FIG. 4-12



4. Remove the inner and outer bearings along with the mounting leg hub spacer. (Fig. 4-13)

5. Inspect parts for wear or damage and replace if neccesary.

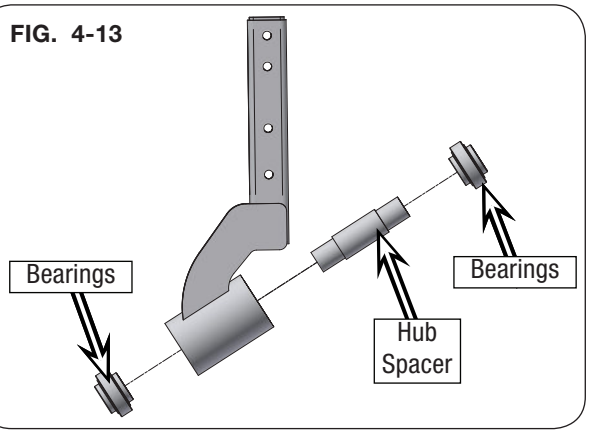
6. Install the mounting leg hub spacer, align with the inner and outer bearings. (Fig. 4-13)

7. Install the mount leg into the row unit with the capscrews, lock washers, flat washer, and nuts. (Fig. 4-12)

8. Install the pinch point set screw and jam nut and set the v-disc pinch point pressure. (Fig. 4-12)

9. Tighten all hardware to the specification listed in the maintenance section.

FIG. 4-13



Chopper Unit Disassembly and Assembly

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 tractors parking brake and remove the key.

3. Remove the nuts, lock washers, and capscrews from the chopper unit mounting plate, then remove the upper mounting plate from the chopper unit. (Fig. 4-14)
4. Remove the capscrews and nuts from the lower mounting plate, then remove the lower mounting plate from the chopper unit. (Fig. 4-15)
5. Loosen the bearing set screws and remove the beaings from the chopper unit. (Fig. 4-16)
6. Remove the capscrews and lock nuts from the chopper blades, then remove the blades from the chopper unit assembly. (Fig. 4-16)
7. Inspect parts for wear or damage and replace if neccesary.
8. Install the blades onto the chopper assmebly using the capscrews and lock nuts, then install the bearings onto the assembly and tighten the bearing set screws. (Fig. 4-16)
9. Install the lower mounting plate using the capscrews and lock washers. (Fig. 4-15)
10. Install the upper mounting plate onto the chopper unit using the capscrews, lockwashers, and nuts. (Fig. 4-14)
11. Tighten all hardware to the specification listed in the maintenance section.

FIG. 4-14

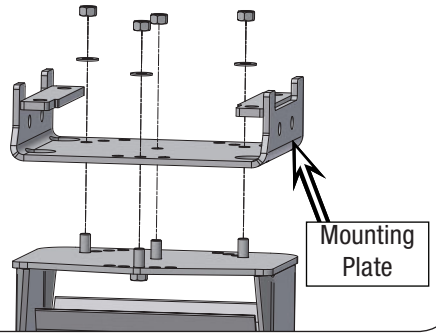


FIG. 4-15

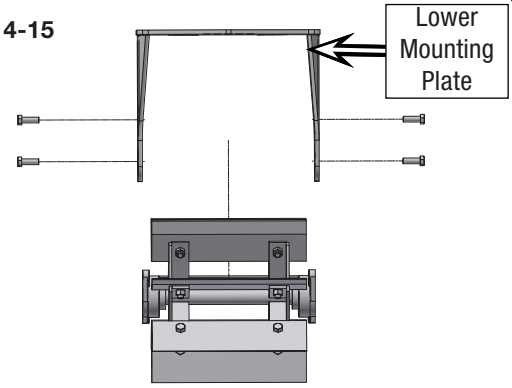
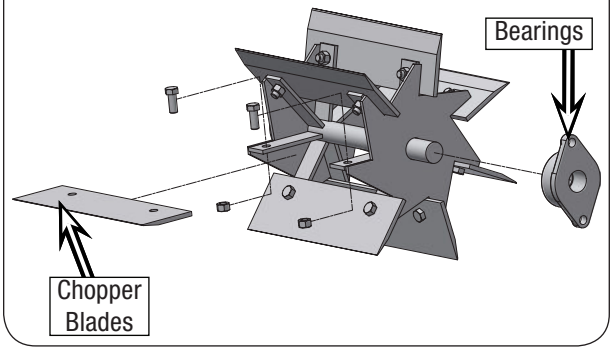


FIG. 4-16



Gauge Wheel Disassembly and Assembly

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 tractors parking brake and remove the key.

3. Remove the capscrews and tire from the gauge wheel assembly. (Fig. 4-17)
4. Remove the capscrews, lock washers, and nuts, then remove the mounting strap from the gauge wheel assembly and the gauge wheel assmebly from the tool bar. (Fig. 4-18)
5. Remove the capscrews, flat washers, and lock washers from the lower gauge wheel arm and gauge wheel adjuster assmebly. (Fig. 4-19)
6. Inspect parts for wear or damage and replace if neccesary.
7. Install the lower gauge wheel arm and adjuster with the capscrews, lock washers and flat washers. (Fig. 4-19)
8. Install the gauge wheel assmebly onto the toolbar using the nuts, lock washers, mouting strap, and capscrews. (Fig. 4-18)
9. Install the guage wheel tire onto the assmebly using the capscrews. (Fig. 4-17)
10. Tighten all hardware to the specification listed in the maintenance section.

FIG. 4-17

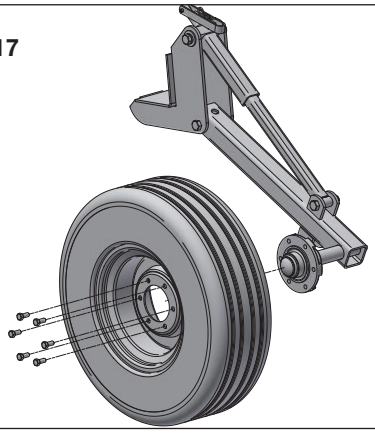


FIG. 4-18

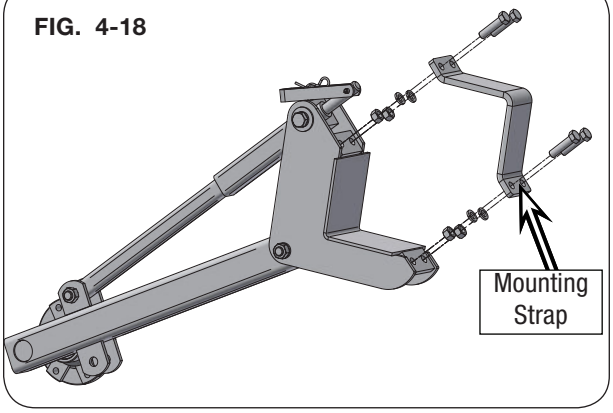
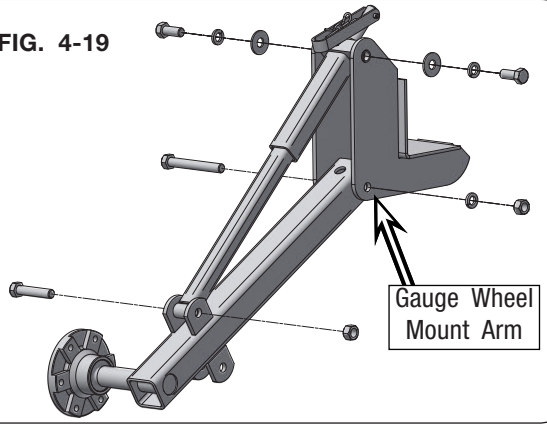


FIG. 4-19



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 CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.**

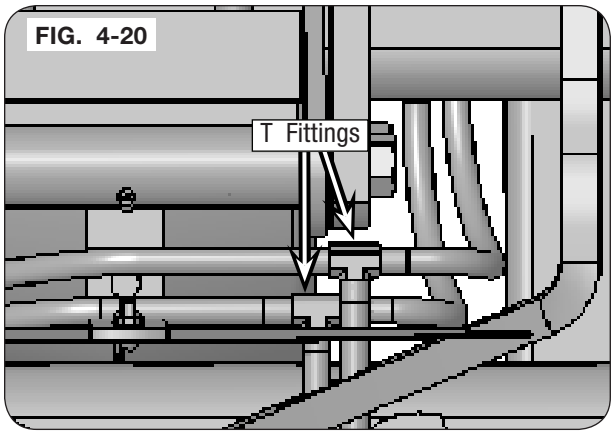
1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground.
2. Lower the unit until it is supported by the stands, then set the tractors parking brake and remove the key.

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. Releve 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. 4-20)
6. Remove the cylinder hoses from the fittings and cover the ends of the hoses and fitting to protect from debris.

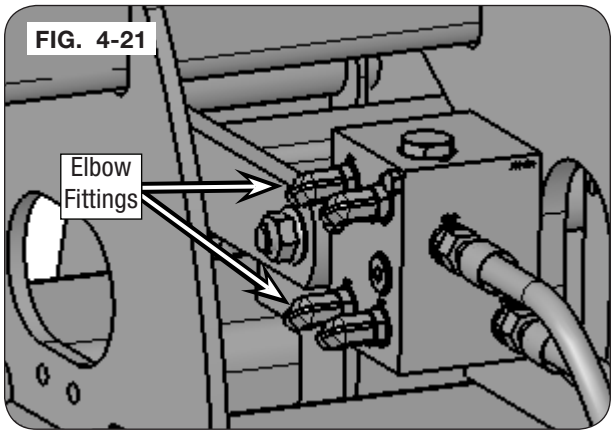
FIG. 4-20



For Dual Cylinder Wings:

7. Locate the hydraulic manifold elbow fittings, then mark the hoses and elbows for easy re-installation. (Fig. 4-21)
8. Remove the hoses from the elbow fittings, then cover the ends of the hoses and fittings to protect from debris.

FIG. 4-21



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. 4-22)

10. Remove the snap ring and rear cylinder pin, then remove the cylinder from the toolbar. (Fig. 4-23 and 4-24)

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 neccesary.

12. Route the hydraulic lines and install the wing cylinder into the tool bar, then install the rear cylinder pin and snap ring. (Fig. 4-24 and 4-23)

13. Install the wing pin and the capscrew that holds it in place. (Fig. 4-22)

14. Install the hydraulic lines onto the T fittings or 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. 4-21 and 4-20)

FIG. 4-22

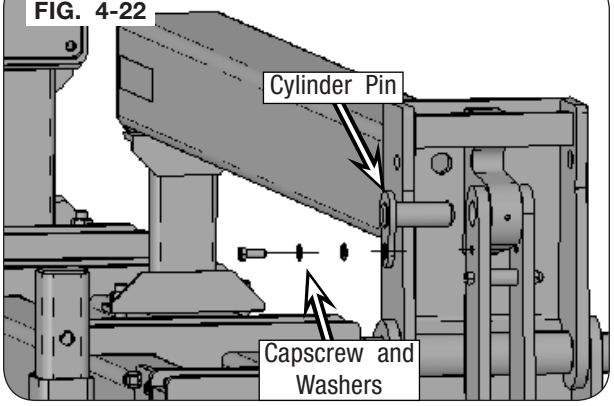


FIG. 4-23

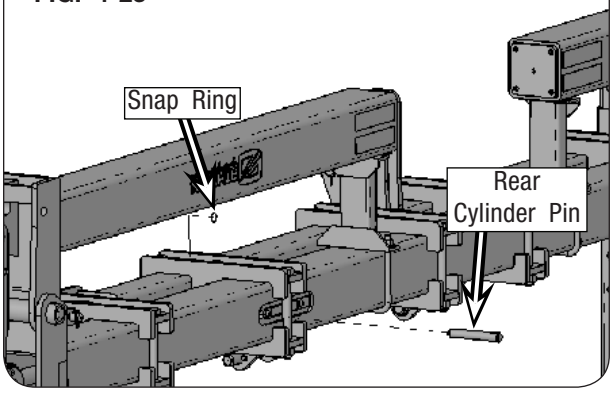
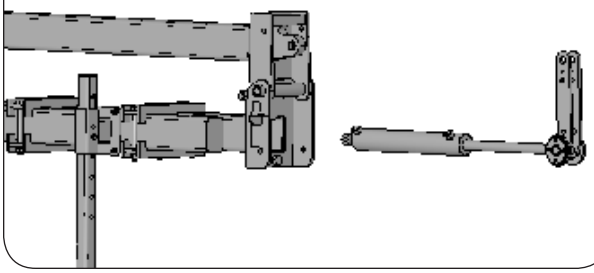


FIG. 4-24



Storage

Your implement is an important investment. Spend a little time to protect it from destructive rust and corrosion. You will be repaid in longer service life and better performance.

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	Possible Cause	Corrective Action
Disks Are Plugging With Debris	Speed is too low	Increase speed to between 10 and 12 MPH
	Conditions are too wet	Let field dry
	Too much down pressure	Reduce disk down pressure
	Pinch point angle is too aggresive	Reduce pinch point angle
	Failed hub bearing	Replace the hub bearing
Stalks Not Being Cut	Speed is too low	Increase speed to between 10 and 12 MPH
	Pinch point pressure is too low	Increase pinch point pressure
Disks Won't Stay In The Ground	Pinch point angle is too low	Increase pinch point angle
	Row unit down pressure too low	Tighten row unit down pressure spring
Disks Are Skipping Stalks	Row unit down pressure too low	Increase row unit down pressure
	Pinch point pressure too low	Increase pinch point pressure
Voids In The Soil After Operation	V-Disks are operating too deep	Decrease pinch point angle

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 1/4-28	8-10 9-11	11-13 12-15
5/16-18 5/16-24	15-17 17-19	20-23 23-26
3/8-16 3/8-24	25-28 28-31	34-38 38-42
7/16-14 7/16-20	40-45 45-50	54-61 61-68
1/2-13 1/2-20	62-68 68-75	84-92 92-102
9/16-12 9/16-18	90-98 100-110	122-133 134-148
5/8-11 5/8-18	120-135 124-137	162-183 168-186
3/4-10 3/4-16	200-220 210-230	270-300 285-310
7/8-9 7/8-14	330-350 360-380	425-475 460-515
1-8 1-14	500-525 540-560	675-710 730-760
1 1/8-7 1 1/8-12	600-635 665-700	815-860 920-950
1 1/4-7 1 1/4-12	850-895 940-990	1150-1215 1275-1340
1 3/8-6 1 3/8-12	1125-1175 1280-1335	1525-1590 1735-1810
1 1/2-6 1 1/2-12	1500-1560 1685-1755	2035-2115 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 5/16-24	20-22 21-23	27-30 28-31
3/8-16 3/8-24	35-39 36-41	47-53 49-55
7/16-14 7/16-20	54-58 55-60	73-78 75-80
1/2-13 1/2-20	82-88 94-99	110-120 125-135
9/16-12 9/16-18	127-134 147-155	170-180 199-210
5/8-11 5/8-18	160-170 165-175	215-230 225-235
3/4-10 3/4-16	280-295 330-365	380-400 445-495
7/8-9 7/8-14	410-430 420-440	555-580 570-595
1-8 1-14	630-650 680-700	850-880 920-950
1 1/8-7 1 1/8-12	900-930 930-950	1220-1260 1260-1290
1 1/4-7 1 1/4-12	1250-1300 1280-1320	1695-1760 1735-1790

IMPORTANT

- *Follow these torque recommendations except when specified in text.*

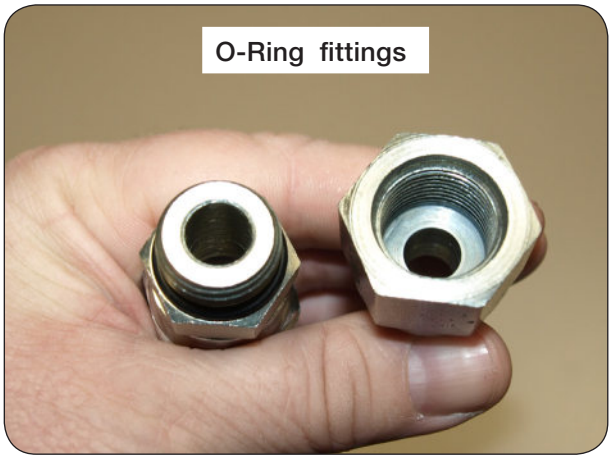
Hydraulic Fittings - Torque and Installation

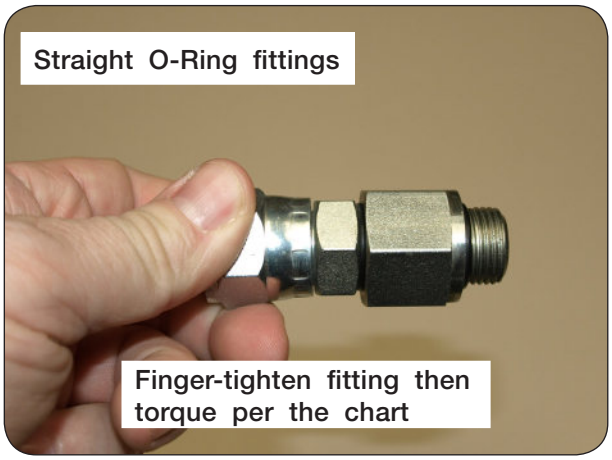
Tightening O-Ring Fittings

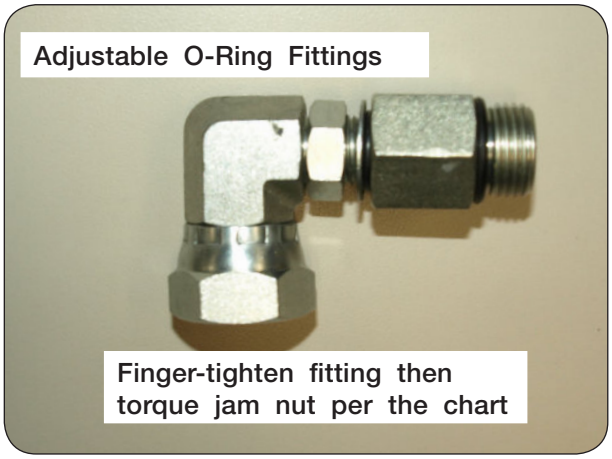
1. Inspect components for damage or contamination. Do not connect any other type of fitting to an O-ring fitting.
2. For adjustable fittings, insure the jam nut and washer are fully backed up.
3. Lubricate the O-ring and threads on the fitting.
4. Turn the fitting into the port until it is finger tight.
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.

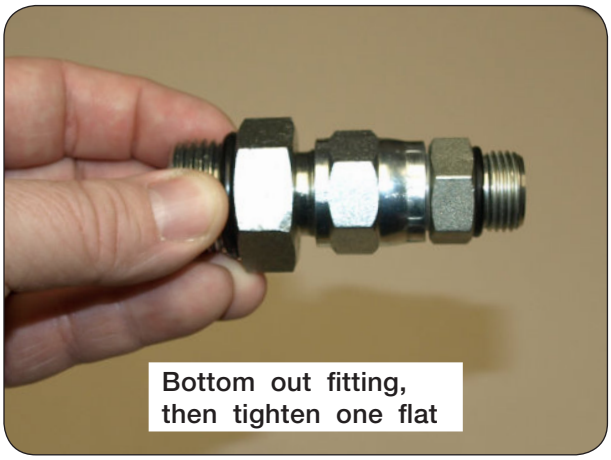
2. Lubricate the threads.

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

JIC fittings



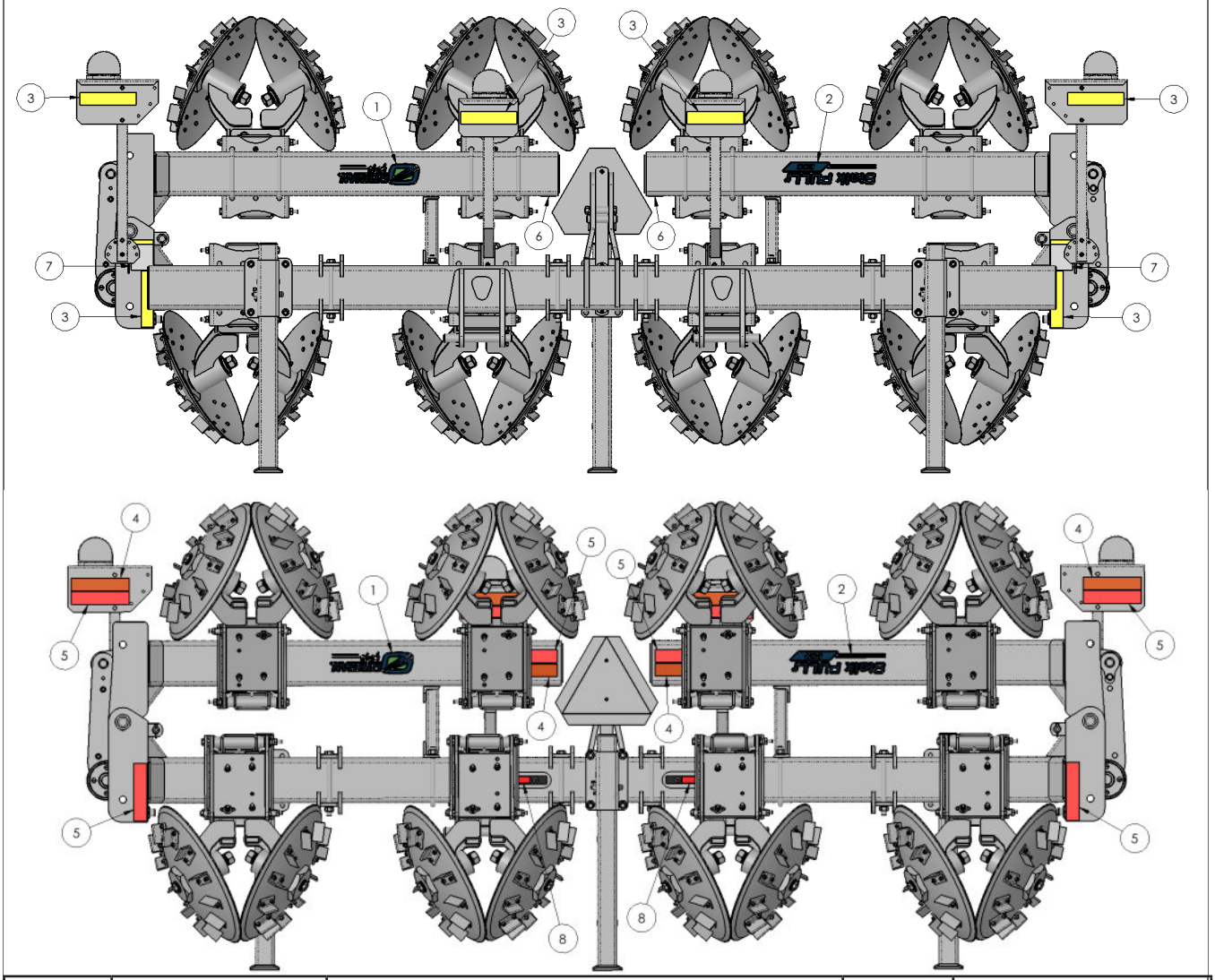
Bottom out fitting, then tighten one flat

Notes

SECTION V
Parts

Decals

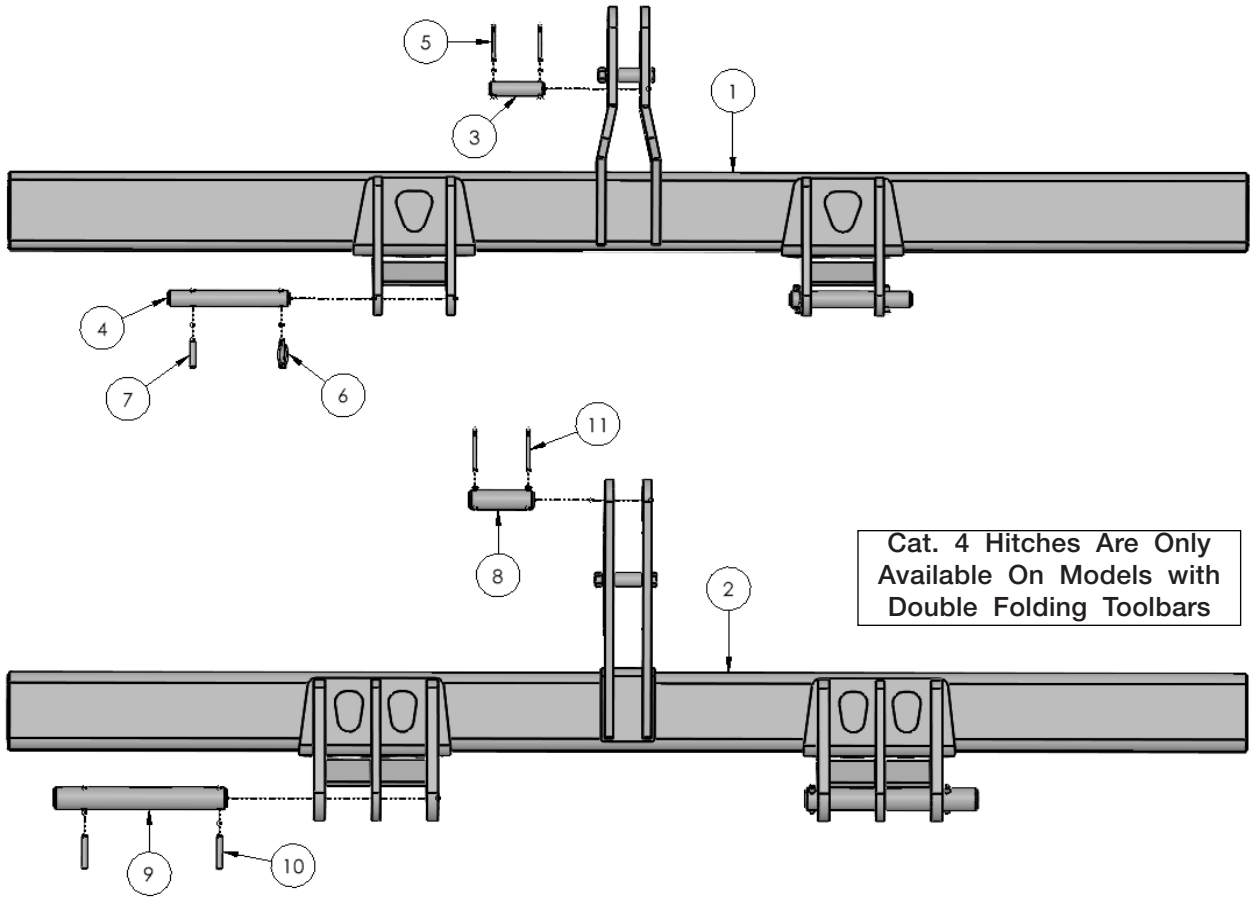
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L153-1012	Decal, Orthman by Unverferth	2	
2	L153-1008	Decal, 600 Stalk Pullr	2	
3	L153-172	Decal, Reflective Yellow	8	
4	L153-171	Decal, Reflective Orange	6	
5	L153-173	Decal, Reflective Red	8	
6	L153-044	Warning Decal, Operation Checklist	2	
7	L153-013	Warning Decal, Folding Wings	2	
8	L153-180	Decal, Wing Cylinder Pin Position	2	

Hitch Components

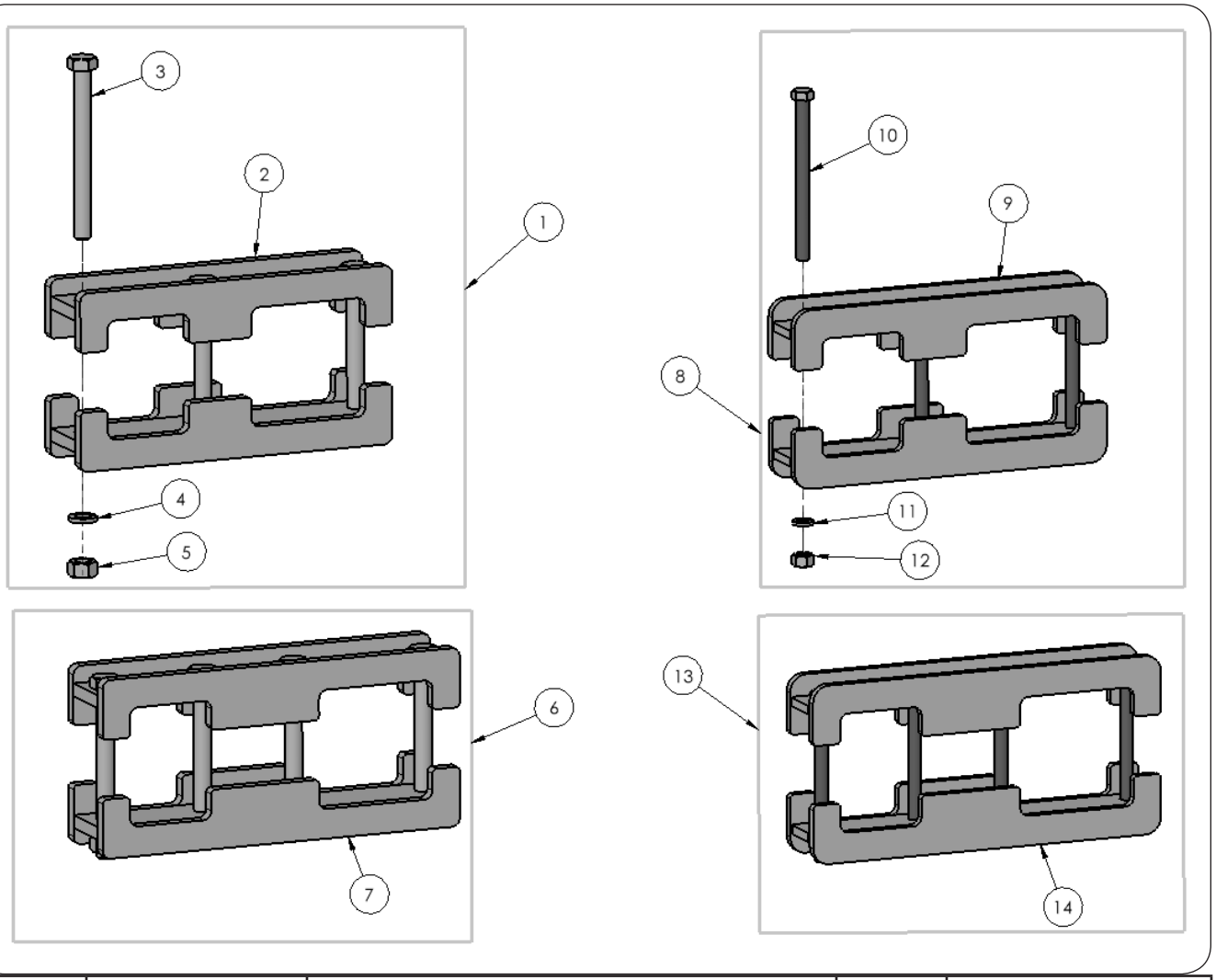
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L601-140	Low Lift Hitch Package, 90" Category 3/3N	1	Includes Items 3-7
	L601-151	Low Lift Hitch Package, 110" Category 3/3N		
	L601-152	Low Lift Hitch Package, 144" Category 3/3N		
	L601-154	Low Lift Hitch Package, 168" Category 3/3N		
	L601-179	Low Lift Hitch Package, 192" Category 3/3N		
2	L601-412	Low Lift Hitch Package, 110" Category 4/4N	1	Includes Items 8-11
	L601-413	Low Lift Hitch Package, 144" Category 4/4N		
	L601-414	Low Lift Hitch Package, 168" Category 4/4N		
	L601-415	Low Lift Hitch Package, 192" 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	L104-022	Cotter Pin, 1/4" x 2 1/2"	2	Cat. 3/3N Hitches Only
6	L104-036	Lynch Pin, 7/16" x 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	L104-184	Cotter Pin, 1/4" x 3"	2	Cat. 4/4N Hitches Only

Hitch Clamp Components

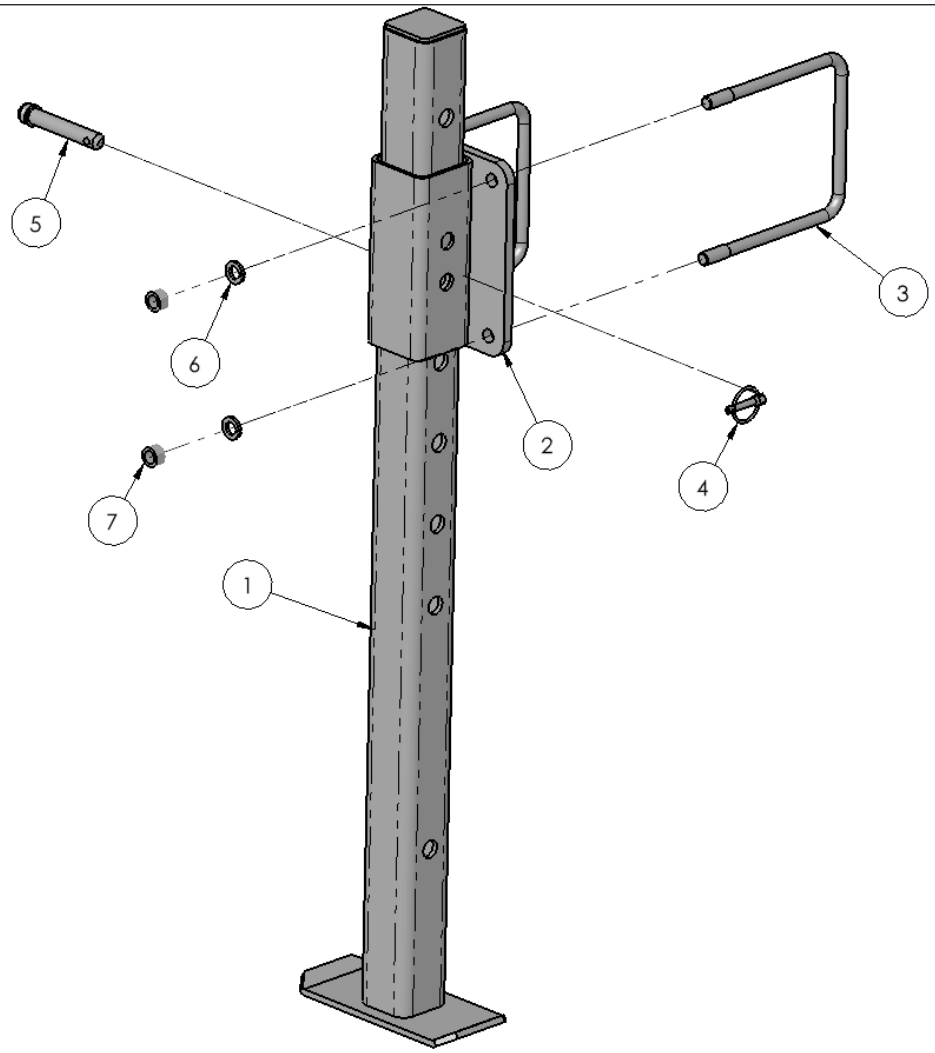
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L601-360	Clamp Assembly, Heavy Duty - Medium	1	4" Spacing
2	L302-571	Clamp	2	
3	L100-199	Capcsrew, 1"-8UNC x 10" Grade 8	3	QTY 4 on Long Models
4	L108-025	Lock Washer, 1"	3	QTY 4 on Long Models
5	L102-111	Hex Nut, 1"-8UNC	3	QTY 4 on Long Models
6	L601-362	Clamp Asssembly, Heavy Duty - Long	1	6 3/4" Spacing
7	L302-572	Clamp	2	
8	L601-380	Clamp Assembly, Regular Duty - Medium	1	4" Spacing
9	L302-595	Clamp	2	
10	L100-274	Capscrew, 3/4"-10UNC x 9 1/2" Grade 8	3	QTY 4 on Long Models
11	L108-022	Lock Washer, 3/4"	3	QTY 4 on Long Models
12	L102-009	Hex Nut, 3/4"-10UNC	3	QTY 4 on Long Models
13	L301-378	Clamp Assmebly, Regular Duty - Long	1	6 3/4" Spacing
14	L302-601	Clamp	2	

Bar Stand Components

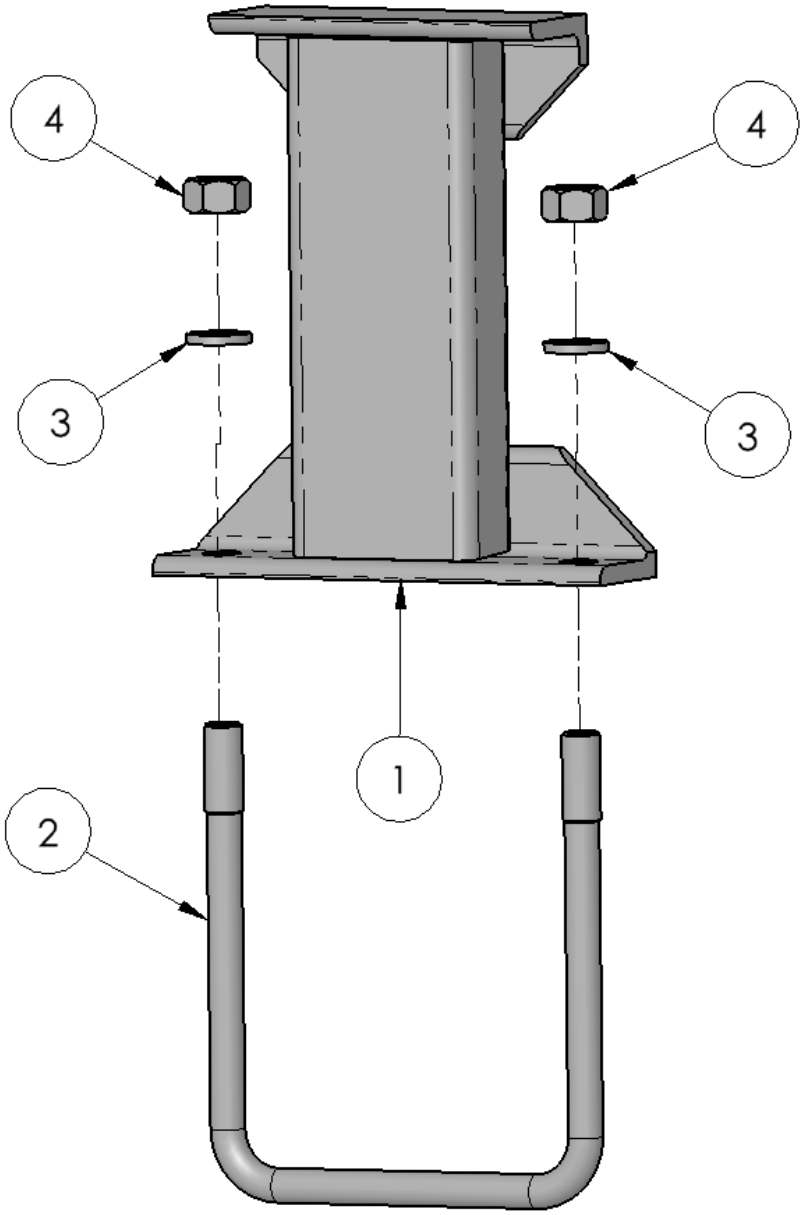
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L600-354	Bar Stand Kit	2	48”
	L600-356			36”
1	L303-744	Stand Tube, 48”	1	
	L303-840	Stand Tube, 36”	1	
2	L301-030	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	

180 Degree Wing Rest Components

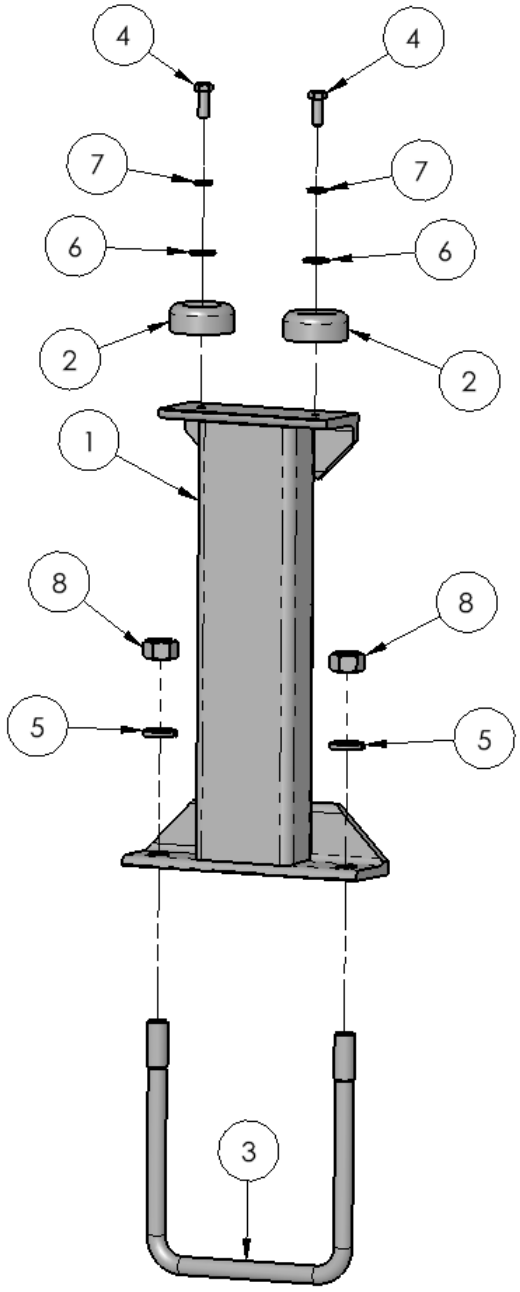
Please visit www.unverferth.com/parts/ for the most current parts listing.



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	

170 Degree Wing Fold Assembly Components

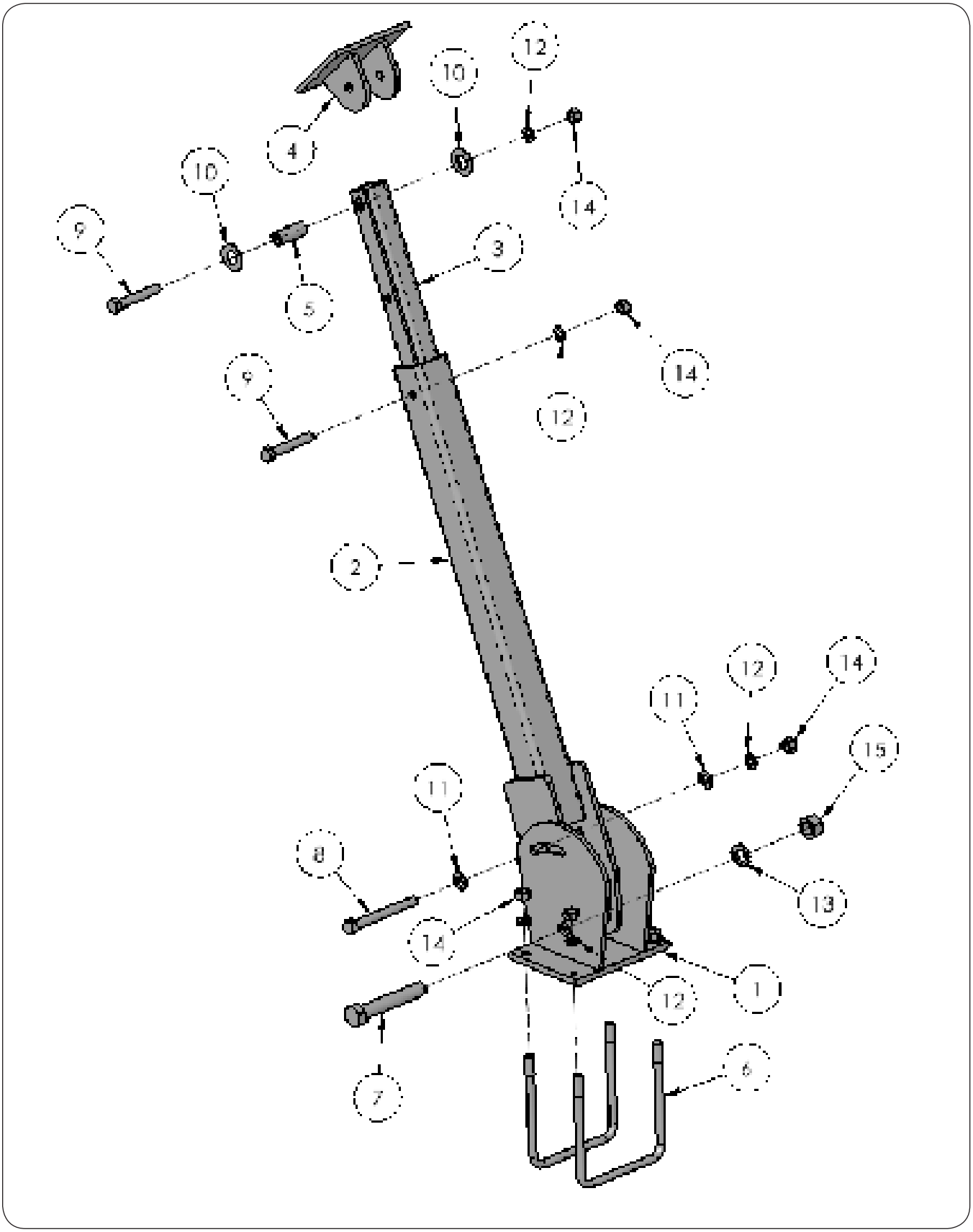
Please visit www.unverferth.com/parts/ for the most current parts listing.



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	

Adjustable Wing Rest Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



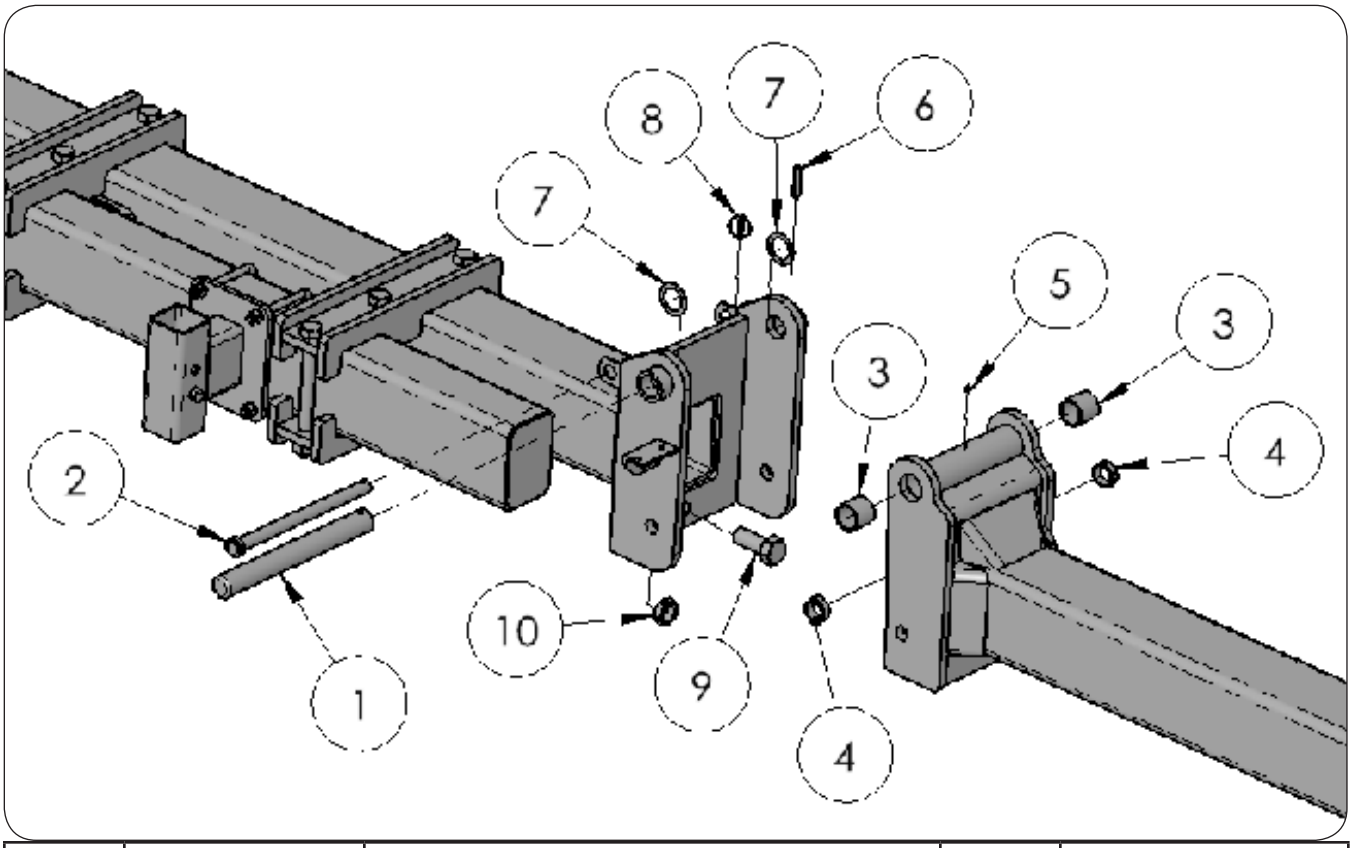
Adjustable Wing Rest Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L600-074	Adjustbale Wing Rest Kit	1	
	L600-101	Adjustable Wing Rest Kit (Short)		
1	L300-065	Mount Bracket	1	
2	L300-071	Reciever 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	Capcsrew, 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	

Toolbar Hinge Components

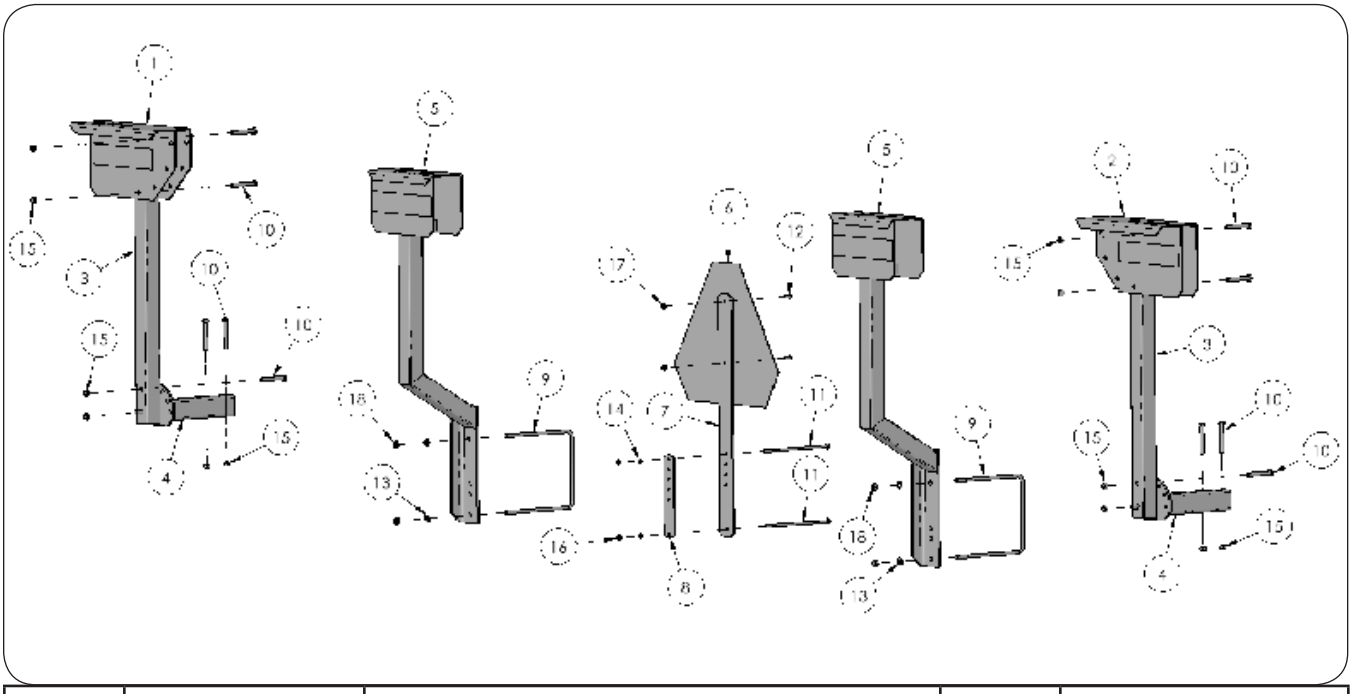
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L301-146	Toolbar Pivot Pin	1	
2	L301-157	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	

Single Folding Toolbar Light Mounts and SMV Sign Components

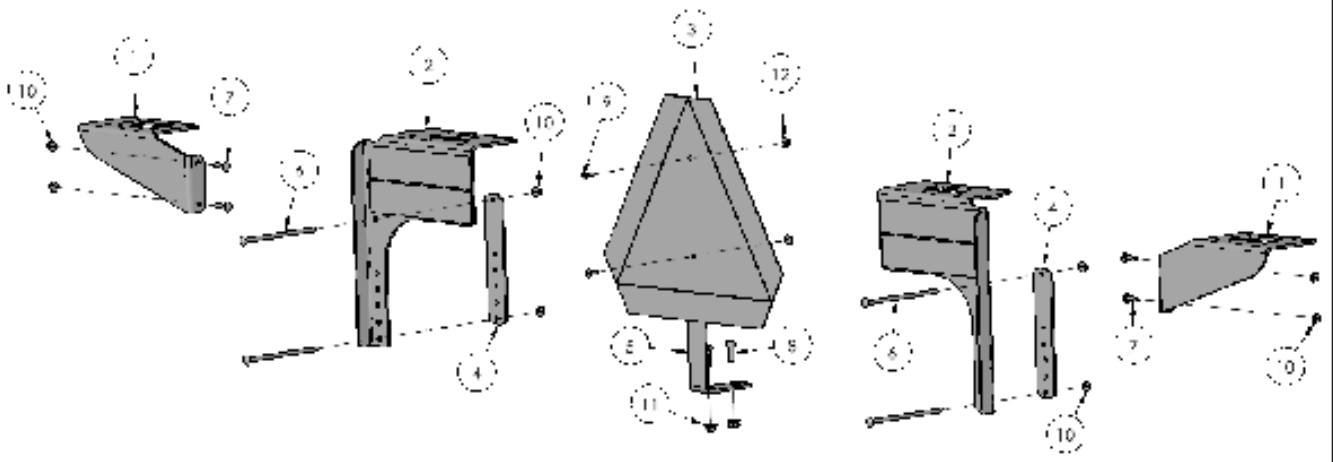
Please visit www.unverferth.com/parts/ for the most current parts listing.



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	

Double Folding Toolbar Light Mounts and SMV Sign Components

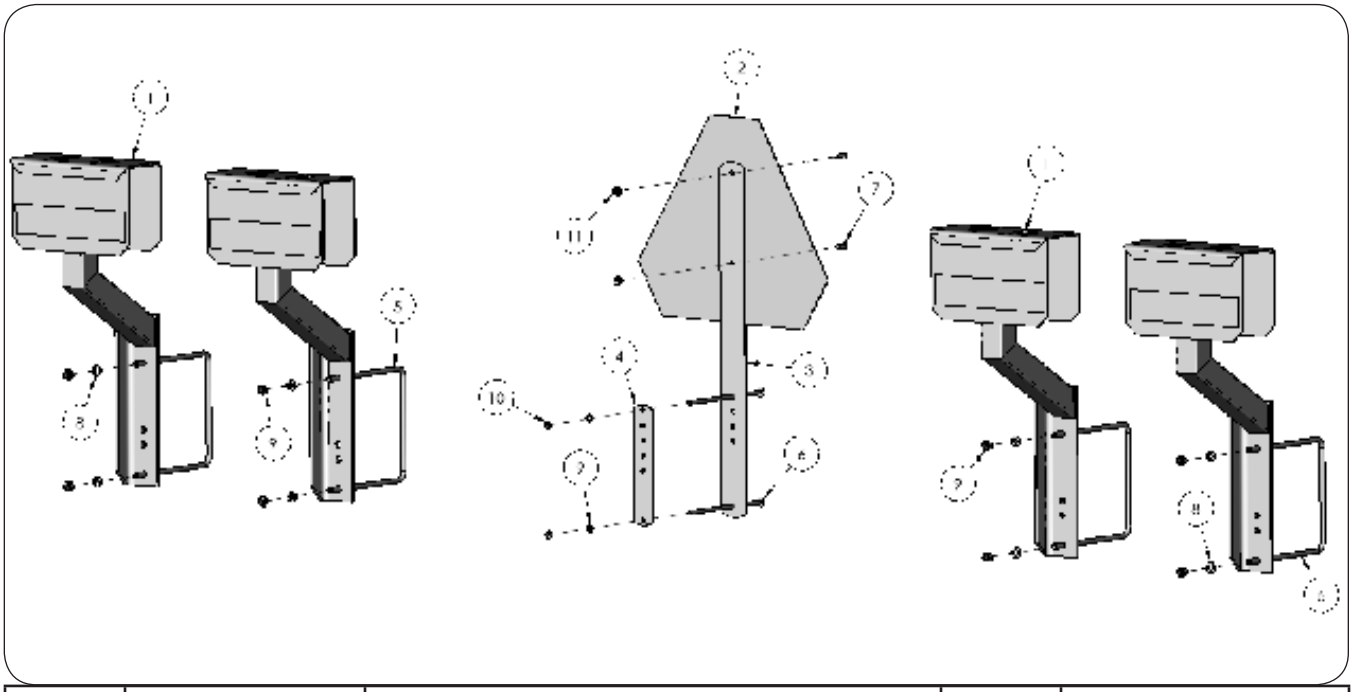
Please visit www.unverferth.com/parts/ for the most current parts listing.



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	

Rigid Toolbar Light Mounts and SMV Sign Components

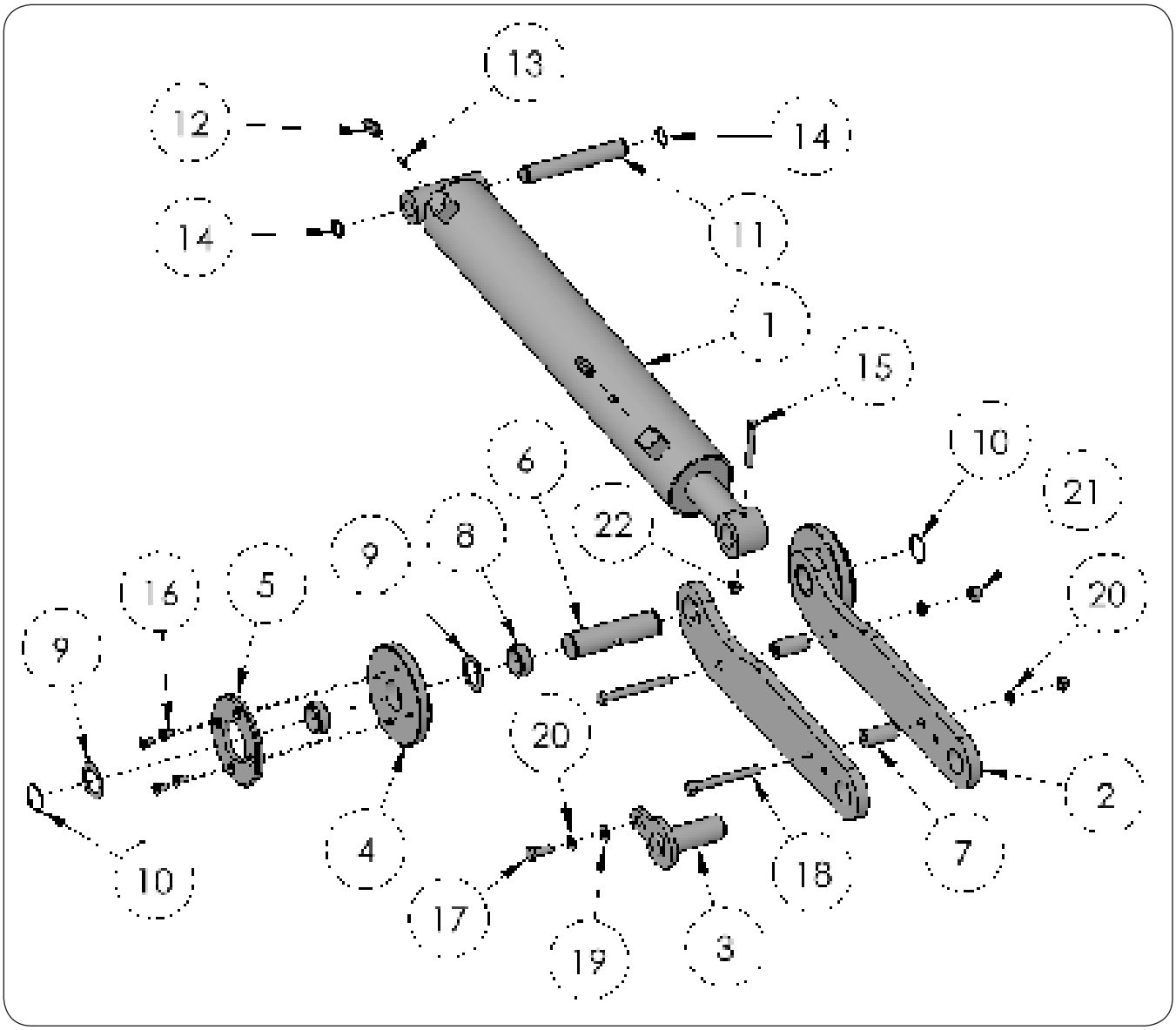
Please visit www.unverferth.com/parts/ for the most current parts listing.



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/ for the most current parts listing.



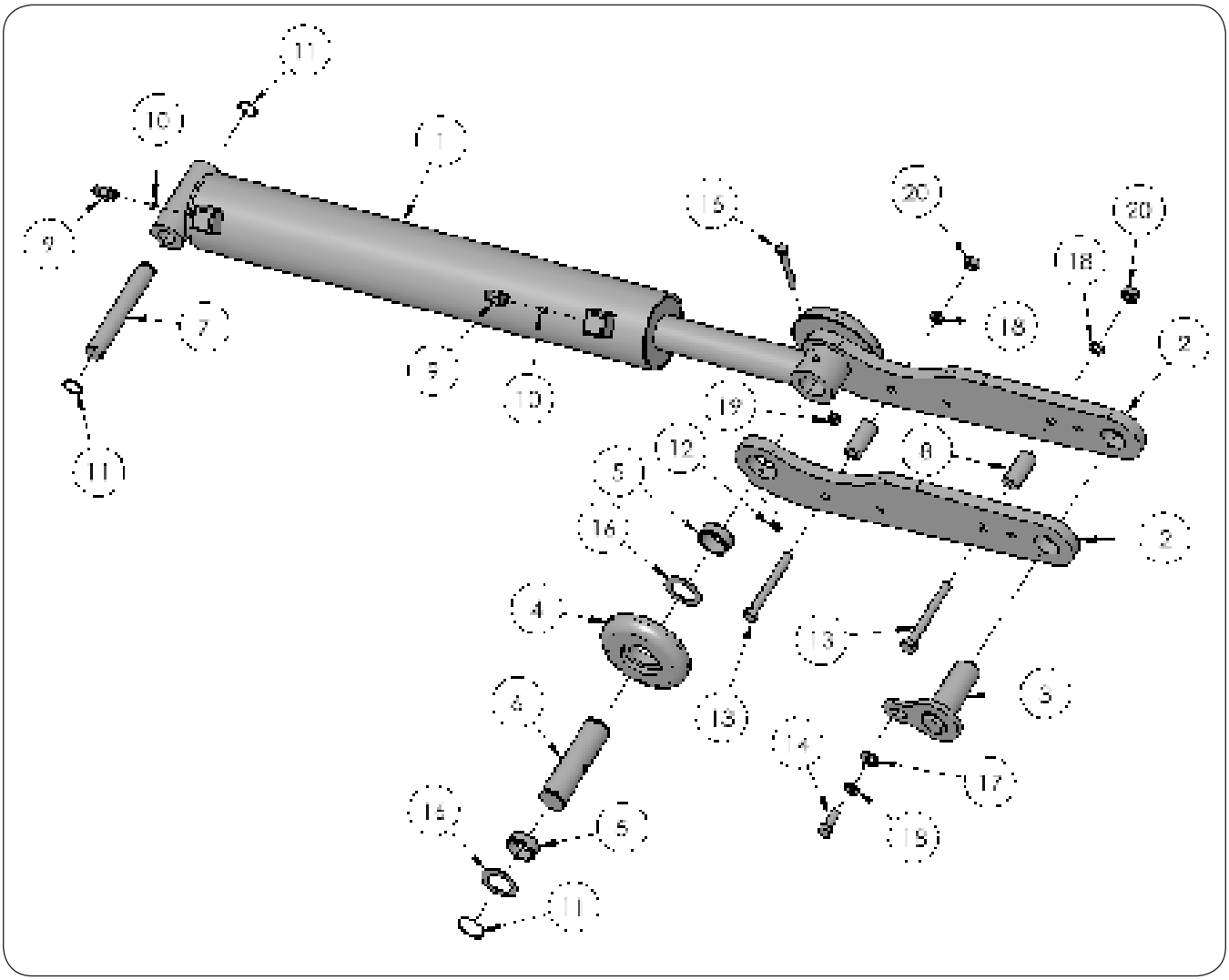
180 Degree Wing Fold Assembly Components

Please visit 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	

170 Degree Wing Fold Assembly Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



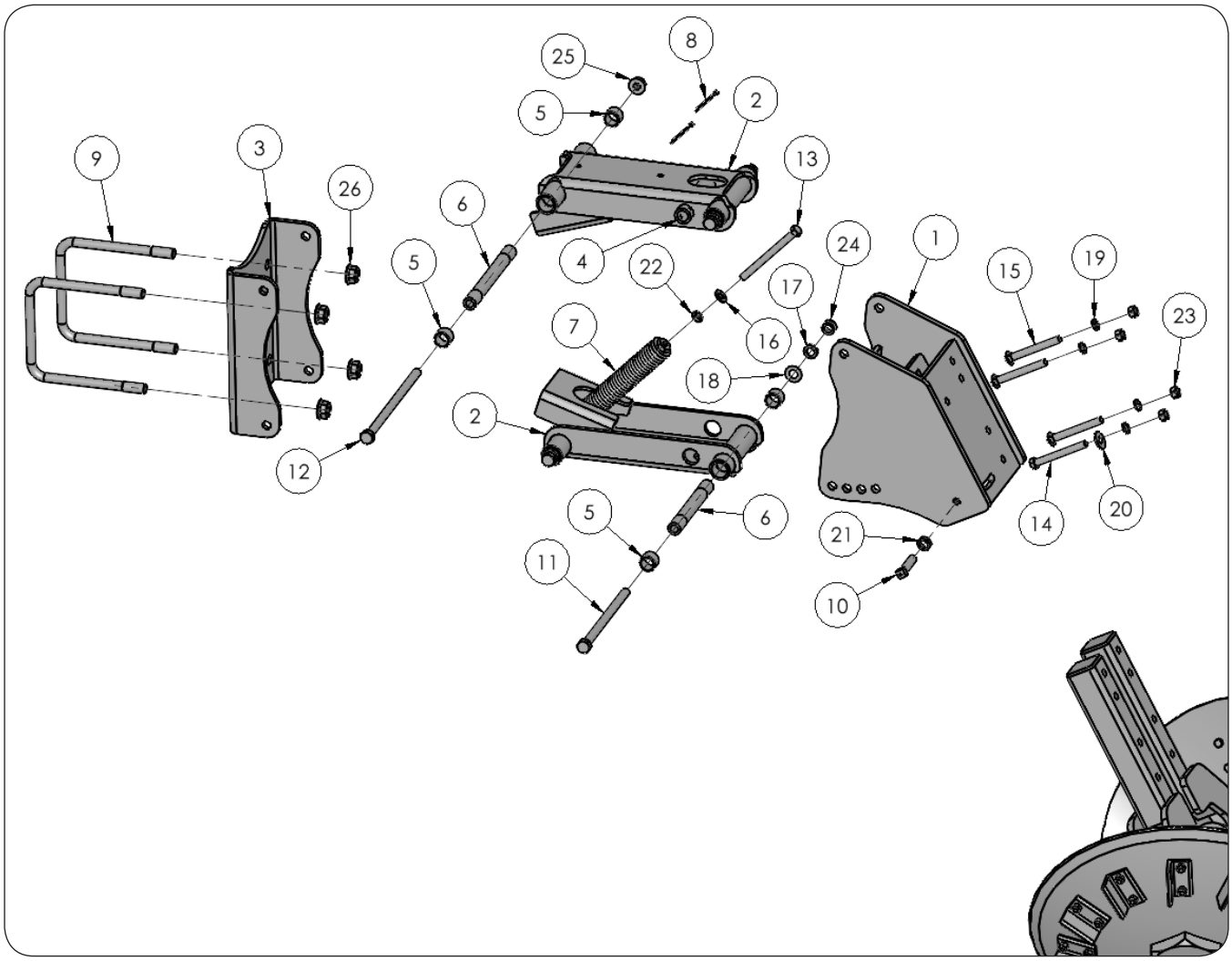
170 Degree Wing Fold Assembly Components

Please visit 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		

Row Unit Mounting and Linkage Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



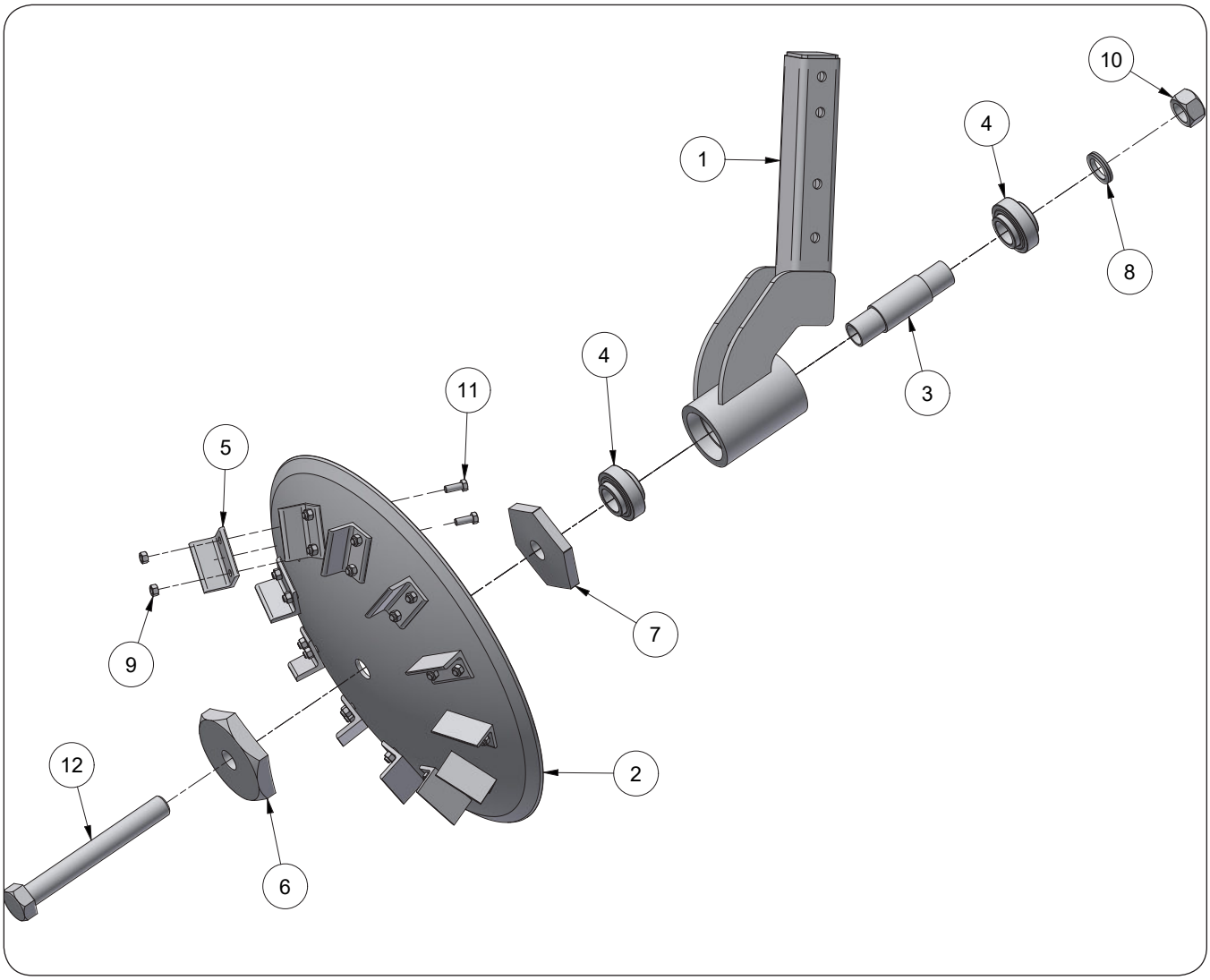
Row Unit Mounting and Linkage Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L386-166	Row Unit Body	1	
2	L386-260	Parellel Linkage	2	
3	L386-189	Row Unit Mount Plate	1	
4	L386-193	Down Pressure Spring Trunnion	1	
5	L388-056	Linkage Bushing (Long)	4	
6	L386-192	Linkage Bushing (Short)	2	
7	L319-493	Down Pressure Spring Assembly	1	
8	L104-030	Cotter Pin, 3/16" x 2 1/2"	2	
9	L315-031	U-Bolt, 3/4" x 7" x 7"	2	
10	L106-160	Set Screw, 5/8"-11UNC x 2 1/2 Square Head	2	
11	L100-152	Capscrew, 5/8"-11UNC x 10" Grade 8	1	
12	L100-470	Capscrew, 5/8"-11UNC x 12 Grade 8	2	
13	L100-281	Capscrew, 1/2"-13UNC x 6" Grade 5	1	
14	L100-125	Capscrew, 1/2"-13UNC x 4 1/2" Grade 5	1	
15	L100-028	Carriage Bolt, 1/2"-13UNC x 4 1/2" Grade 5	3	
16	L108-001	Flat Washer, 1/2" SAE	1	
17	L102-021	Lock Washer, 5/8"	1	
18	L108-002	Flat Washer, 5/8" SAE	1	
19	L108-020	Lock Washer, 1/2"	4	
20	L108-009	Flat Washer, 1/2"	1	
21	L102-016	Jam Nut, 5/8"-11UNC Grade 2	2	
22	L102-015	Jam Nut, 1/2"-13UNC Grade 2	1	
23	L102-007	Hex Nut, 1/2"-13UNC Grade 5	4	
24	L102-017	Hex Nut, 5/8"-11UNC Grade 8	1	
25	L102-122	Flange Nut, 5/8"-11UNC Grade 2	2	
26	L102-121	Flange Nut, 3/4"-10UNC Grade 5	4	

V-Disc and Mount Leg Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



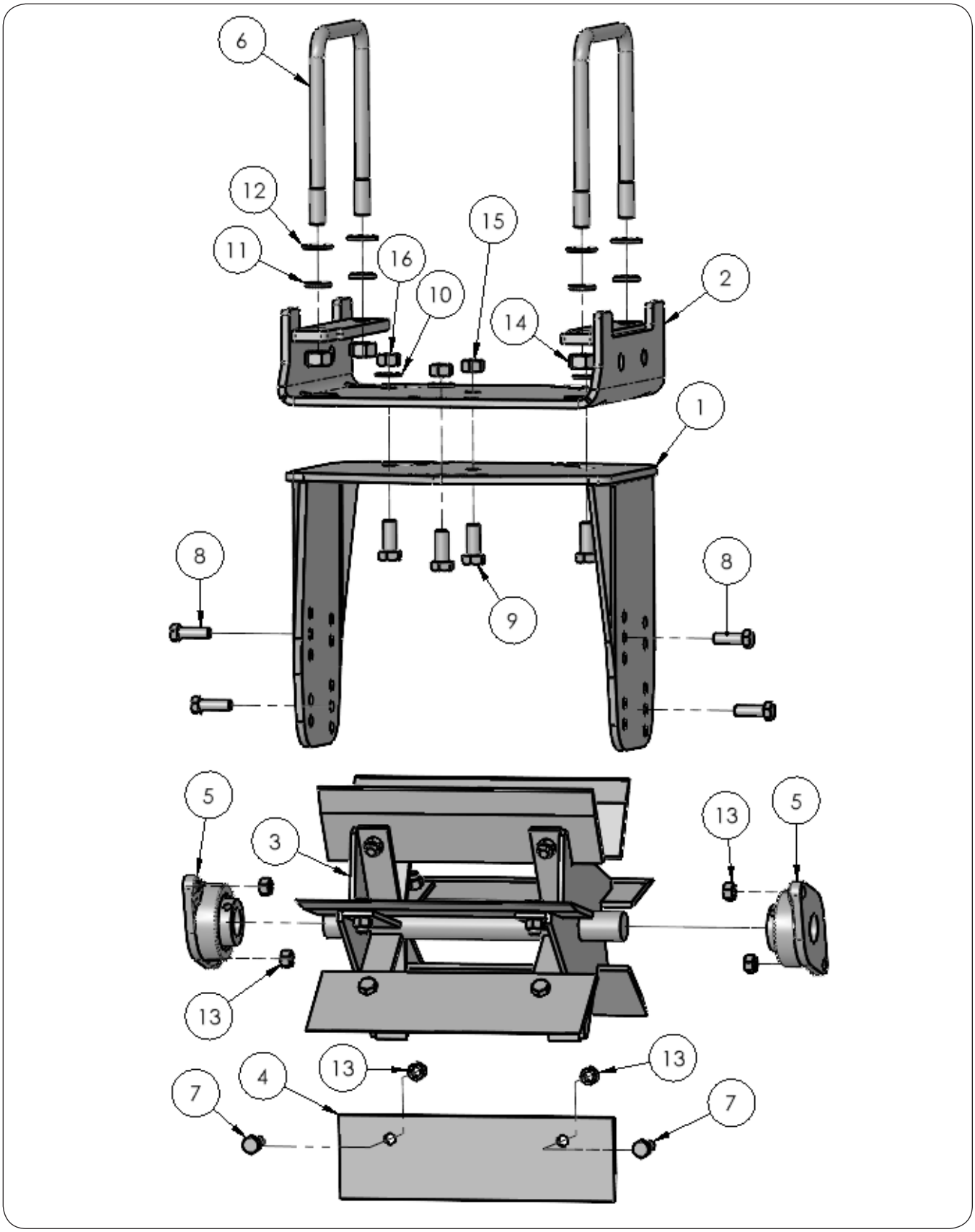
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L386-195	V-Disc Mount Leg	2	Includes Items 3 and 4
2	L386-141	Disc, 24" (With Cleats)	2	Includes Items 2, 5, 9, and 11
	L386-122	Disc, 24" (Without Cleats)		
3	L386-171	Hub Spacer Tube	2	
4	L120-180	Bearing, 1 1/2" Tri Ply Seal	4	
5	L386-178	Disc Cleat	24	
6	L386-173	Outer Washer	2	
7	L386-176	Inner Washer	2	
8	L152-758	Washer 1 1/4"	2	
9	L102-027	Lock Nut 3/8"-16UNC	48	
10	L102-135	Lock Nut 1 1/4"	2	
11	L100-107	Capscrew 3/8"-16UNC x 1" Grade 5	48	
12	L100-518	Capscrew 1 1/4" x 10" Grade 5	2	

Notes

Please visit www.unverferth.com/parts/ for the most current parts listing.

Chopper Unit Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



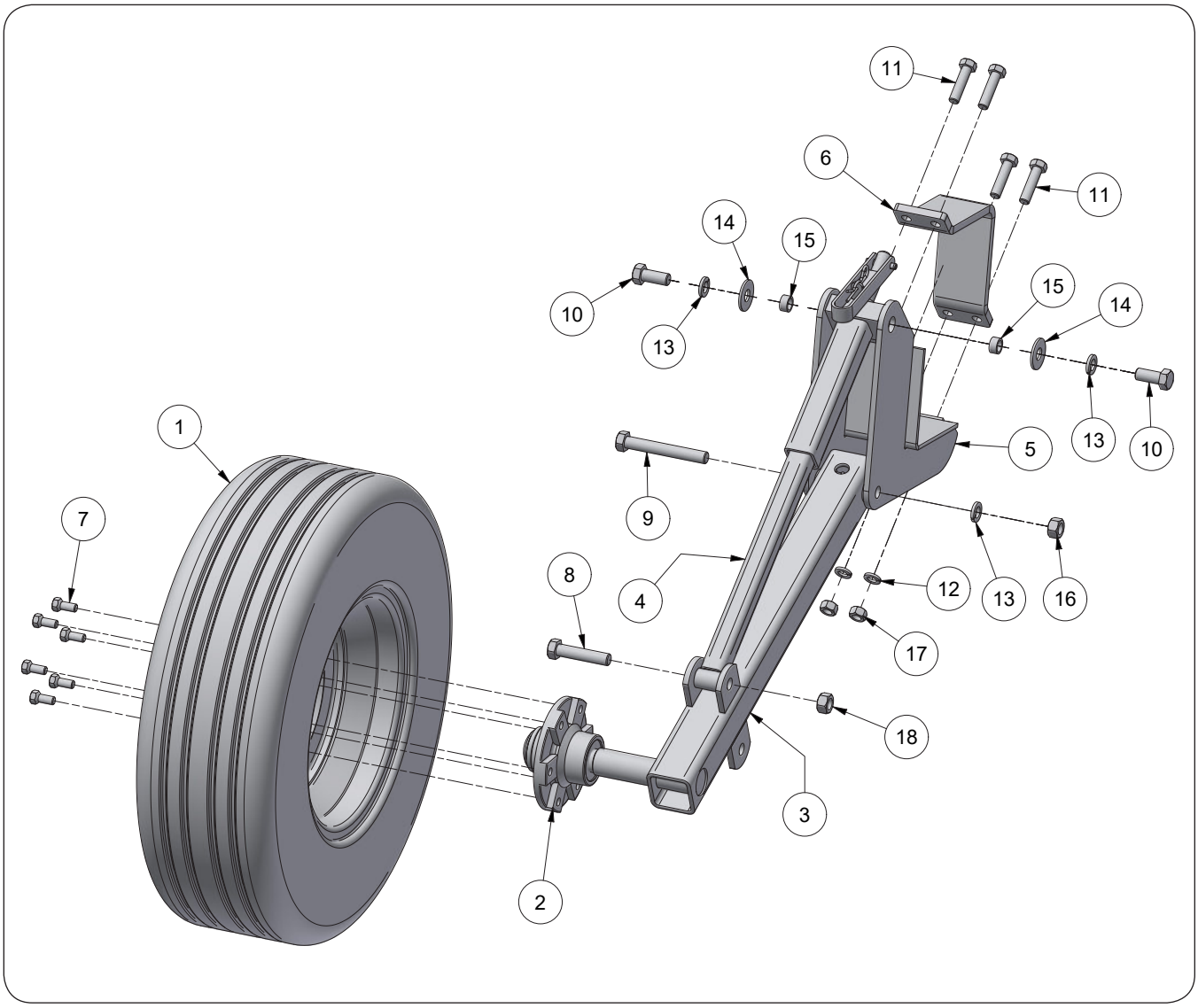
Chopper Unit Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L386-154	Chopper Unit Mounting Yoke	1	
2	L386-157	Chopper Unit Mounting Plate	1	
3	L386-150	Chopper Unit Reel	1	
4	L152-628	Chopper Unit Blade	7	
5	L120-178	Bearing Assembly	2	
6	L315-031	U-Bolt 3/4" x 7" x 7"	2	
7	L100-115	Capscrew 1/2"-13UNC x 1 1/4" Grade 5	14	
8	L100-116	Capscrew 1/2"-13UNC x 1 1/2" Grade 5	4	
9	L100-131	Capscrew 5/8"-11UNC x 1 1/2" Grade 5	4	
10	L108-002	Flat Washer 5/8" SAE	3	
11	L108-022	Lock Washer 3/4"	4	
12	L108-003	Flat Washer 3/4" SAE	4	
13	L102-028	Lock Nut 1/2"-13UNC Grade 5	4	
14	L102-009	Hex Nut 3/4"-10UNC	4	
15	L102-029	Lock Nut 5/8-11UNC	1	
16	L102-008	Hex Nut 5/8-11UNC	3	

Gauge Wheel Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



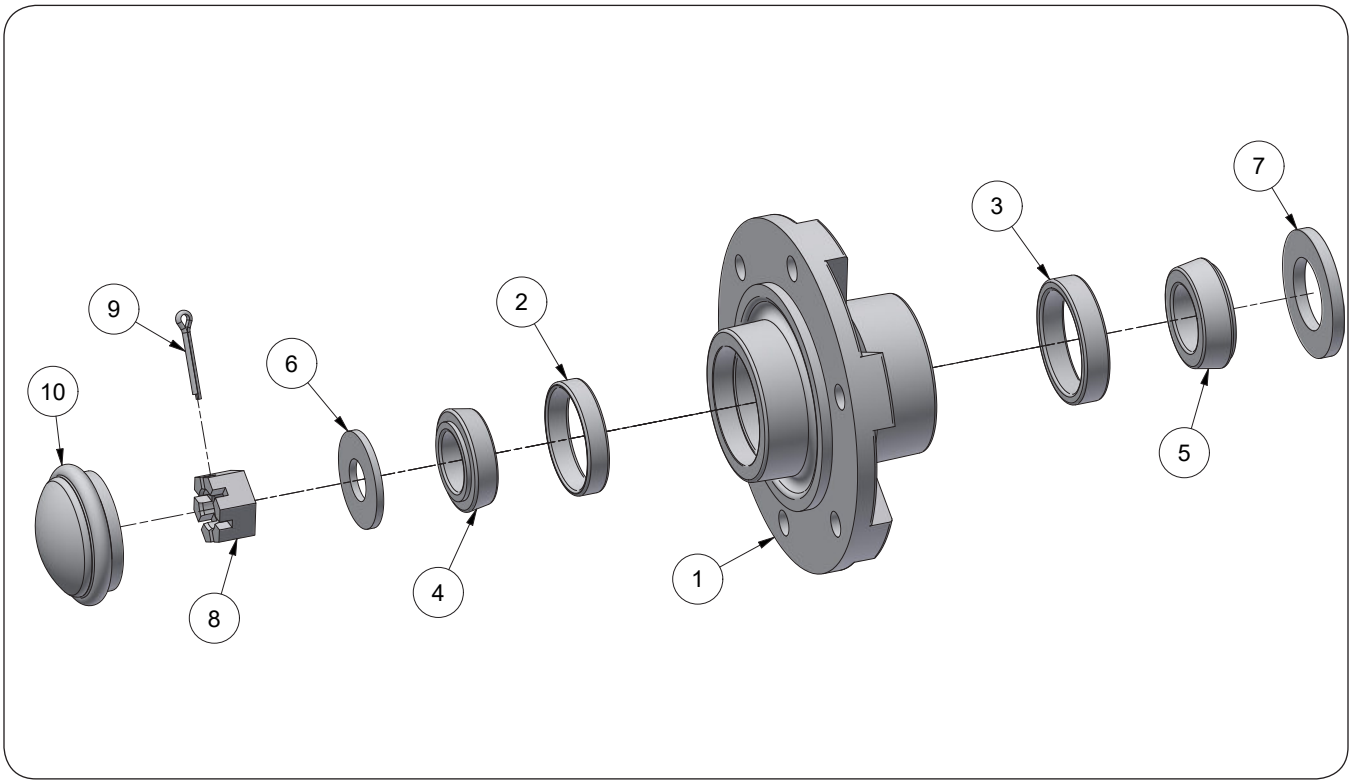
Gauge Wheel Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	111522W	Gauge Wheel Tire Assembly	1	
2	L600-576	Gauge Wheel Hub Assembly	1	See Gauge Wheel Hub Parts Page
3	L302-035	Gauge Wheel Lower Arm	1	
4	L600-628	Gauge Wheel Adjustment Arm	1	
5	L302-005	Gauge Wheel Mount	1	
6	L315-150	Gauge Wheel Mounting Strap	1	
7	L100-332	Capscrew 1/2"-13UNC x 1 1/4"	6	
8	L100-162	Capscrew 3/4"-10UNC x 3 1/2" Grade 5	1	
9	L100-166	Capscrew 3/4"-10UNC x 5 1/2" Grade 5	1	
10	L100-155	Capscrew 3/4"-10UNC x 1 3/4" Grade 5	2	
11	L100-135	Capscrew 5/8"-11UNC x 2 1/2" Grade 5	4	
12	L108-021	Lock Washer 5/8"	4	
13	L108-022	Lock Washer 3/4"	3	
14	L108-011	Flat Washer 3/4"	2	
15	L302-096	Adjustment Screw Bushing, 1/2"	2	
16	L102-009	Hex Nut 3/4"-10UNC Grade 5	1	
17	L102-008	Hex Nut 5/8"-11UNC Grade 5	4	
18	L102-031	Lock Nut 3/4"-10UNC Grade 5	1	

Gauge Wheel Hub Components

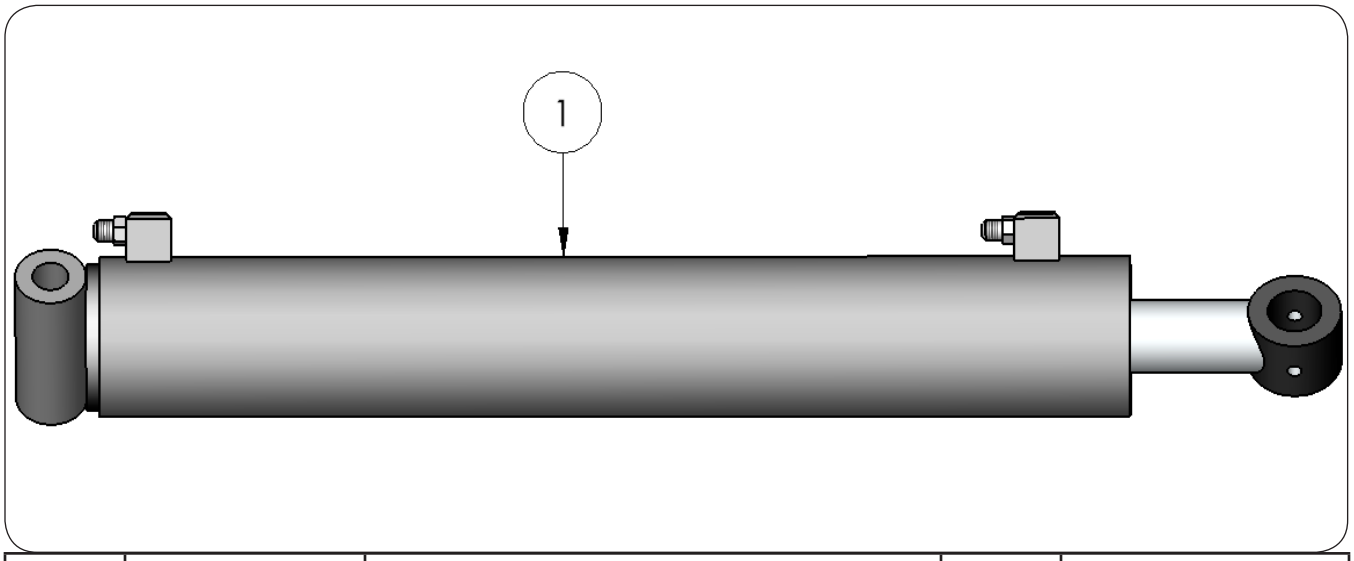
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L303-202	Gauge Wheel Hub Assembly	1	Includes Items 2-10
2	L120-015	Bearing Race	1	
3	L120-044	Bearing Race	1	
4	L120-018	Bearing 1 1/4" Bore	1	
5	L120-017	Bearing 1 3/8" Bore	1	
6	L108-031	Flat Washer 7/8"	1	
7	L150-006	Bearing Seal	1	
8	L102-036	Castle Nut 7/8"-14 UNF	1	
9	L104-024	Cotter Pin 5/32" x 1 1/4"	1	
10	L302-206	Dust Cap	1	

Hydraulic Cylinder

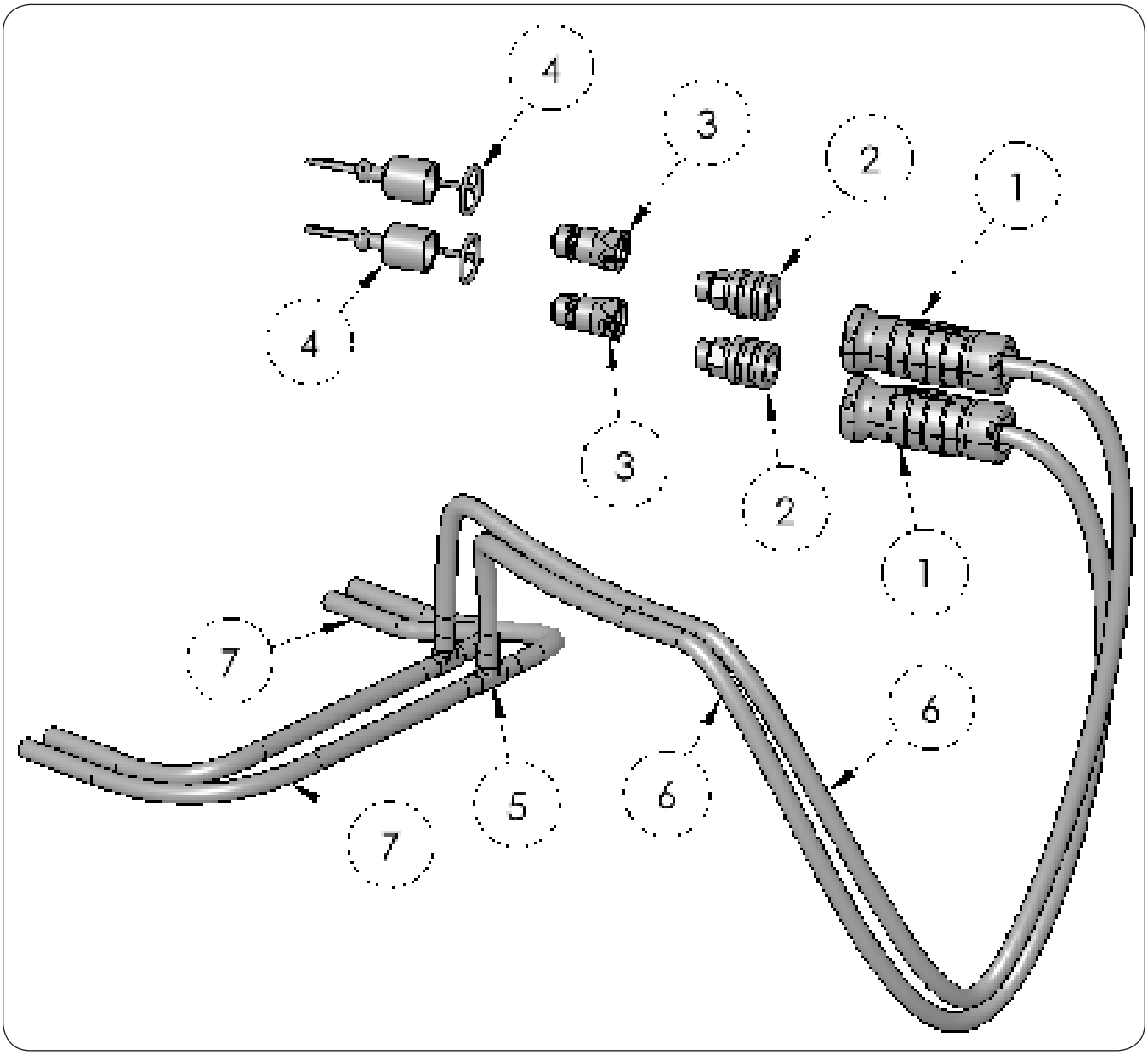
Please visit www.unverferth.com/parts/ for the most current parts listing.



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

Hydraulic Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



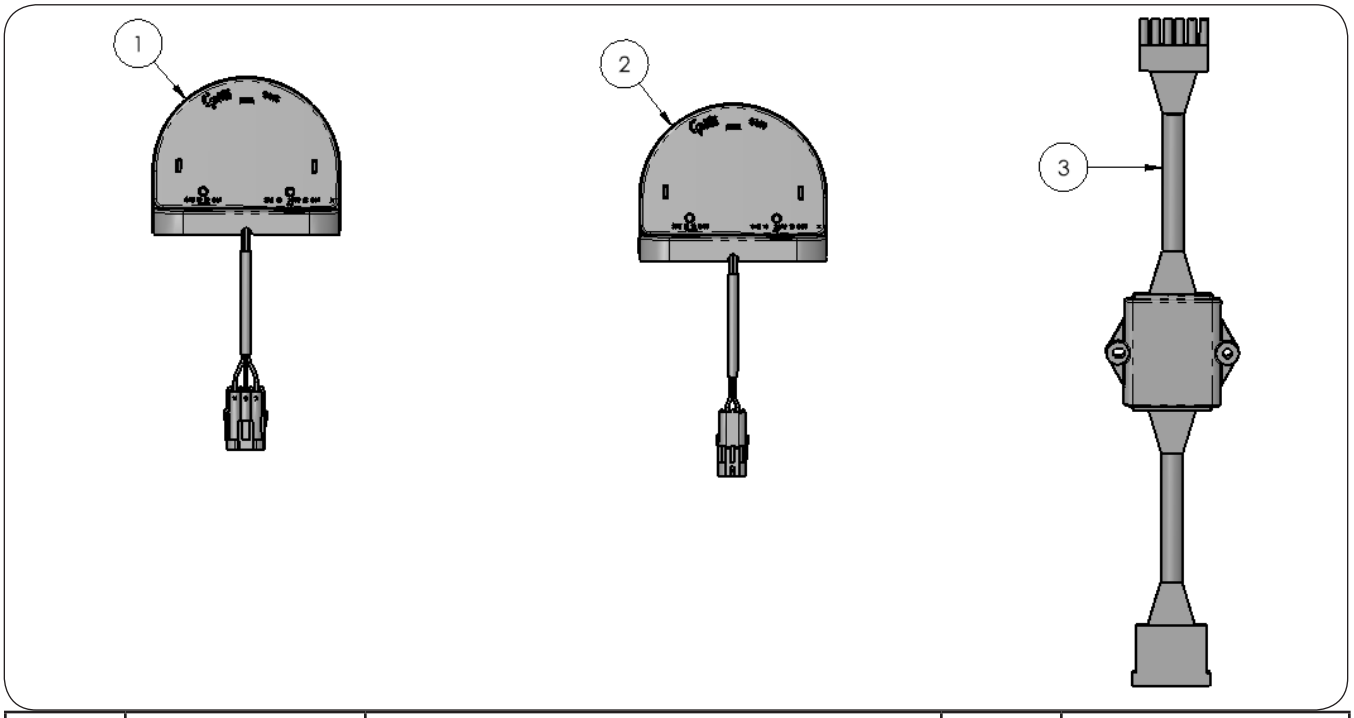
Hydraulic Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L198-221	Hydrraulic Hose Grip	2	
2	L198-313	Hydraulic Hose Tip Adapter	2	
3	L140-029	Hydraulic Hose Tip, 3/4" O-Ring	2	
4	L152-710	hydraulic Hose Tip Cover	2	
5	L198-203	T Fitting, 9/16" x 9/16" x 9/16"	2	
6	L196-563	Hydraulic Hose, 60"	4	1/4" - 9/16" FJX x 9/16" FJX
7	L302-897	Hydrauliuc Hose, 36"	4	1/4" - 9/16" FJX x 9/16" FJX
	L301-464	Hydrauliuc Hose, 48"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-111	Hydrauliuc Hose, 60"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-112	Hydrauliuc Hose, 72"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-140	Hydrauliuc Hose, 84"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-113	Hydrauliuc Hose, 96"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-141	Hydrauliuc Hose, 108"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-114	Hydrauliuc Hose, 120"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-118	Hydrauliuc Hose, 132"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-119	Hydrauliuc Hose, 144"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-454	Hydrauliuc Hose, 156"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-165	Hydrauliuc Hose, 168"	4	1/4" - 9/16" FJX x 9/16" FJX

Light Kit Components

Please visit 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	Light Harness	1	
4	L154-1020	Light Harness, 13'	2	Not Shown
5	L154-1005	Light Harness	1	Not Shown
6	L154-1010	Light Harness	1	Not Shown

Notes

Please visit www.unverferth.com/parts/ for the most current parts listing.

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