Seedbed Tillage

RIPPER-BEDDER
MODEL 432

Beginning With Serial Number A62580100

Part Number 69240

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.

Pre-Operation Checklist

- ☐ Wheel bolts tightened
- ☐ Tire pressures checked
- ☐ Hardware tightened
- ☐ Machine lubricated
- ☐ Safety and operating procedures reviewed
- ☐ Field adjustment information reviewed
- ☐ Lubrication procedures reviewed
- ☐ Warranty information reviewed
- ☐ Hydraulic hoses properly routed/fittings tight

Product Information

When ordering parts or when requesting further information or assistance, always give the following information:

- Model Number
- Serial Number

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.

Please fill out and retain this portion for your records. The serial number plate is located on the frame as shown below.

Purchase Date _____ Model Number _____ Serial Number_____

Dealer _____ City _____

Dealer Contact _____ Phone _____

IMPORTANT

The information, specifications, and illustrations in the manual are on the basis of information available at the time it was written. Due to continuing improvements in the design and manufacture of Unverferth products, all specifications and information contained herein are subject to change without notice.

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FOR RIPPER LISTER BEDDING ATTACHMENT INFORMATION, PLEASE REFER TO YOUR RIPPER LISTER BEDDING ATTACHMENT MANUAL.

Notes

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 be 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.

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. 95445

PART NO. 99507

PART NO. 902221

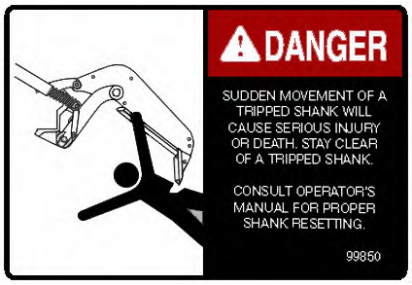
PART NO. 97048

PART NO. 97337

PART NO. 97973

PART NO. 97972

PART NO. 97961



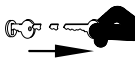
PART NO. 99850

PART NO. 900558

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.

- When working around sweeps and points, be careful not to be cut by sharp edges.
- Never attempt to operate implement unless you are in driver's seat.

Before Servicing or Operating

- Avoid working under 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.
- Add sufficient ballast to tractor to maintain steering and braking control at all times. Do not exceed tractor's lift capacity or ballast capacity.
- Explosive separation of a tire and rim can cause serious injury or death. Only properly trained personnel should attempt to service a tire and wheel assembly.
- Do not stand between towing vehicle and implement during hitching.
- Always make certain everyone and everything is clear of the machine before beginning operation.
- Verify that all safety shields are in place and properly secured.
- Hot parts can cause severe burns. Use caution when working around power system/ground engaging components. Allow parts to cool before servicing.
- 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 field conditions. Maintain complete control at all times.
- Never service or lubricate equipment when in operation.
- Keep away from overhead power lines. Electrical shock can cause serious injury or death.
- 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 judgement when transporting equipment on highways. Regulate speed to road conditions and maintain complete control.
- Maximum speed of implement should never exceed 20 mph. Do not exceed 10 mph during off-highway travel.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.
- It is probable that this implement is taller, wider and longer than the towing vehicle. Become aware of and avoid all obstacles and hazards in the travel path of the equipment, such as power lines, ditches, etc.

Pressurized Oil

- Relieve pressure before disconnecting hydraulic lines from tractor, loosening any hydraulic fittings or servicing hydraulic system. 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.

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.

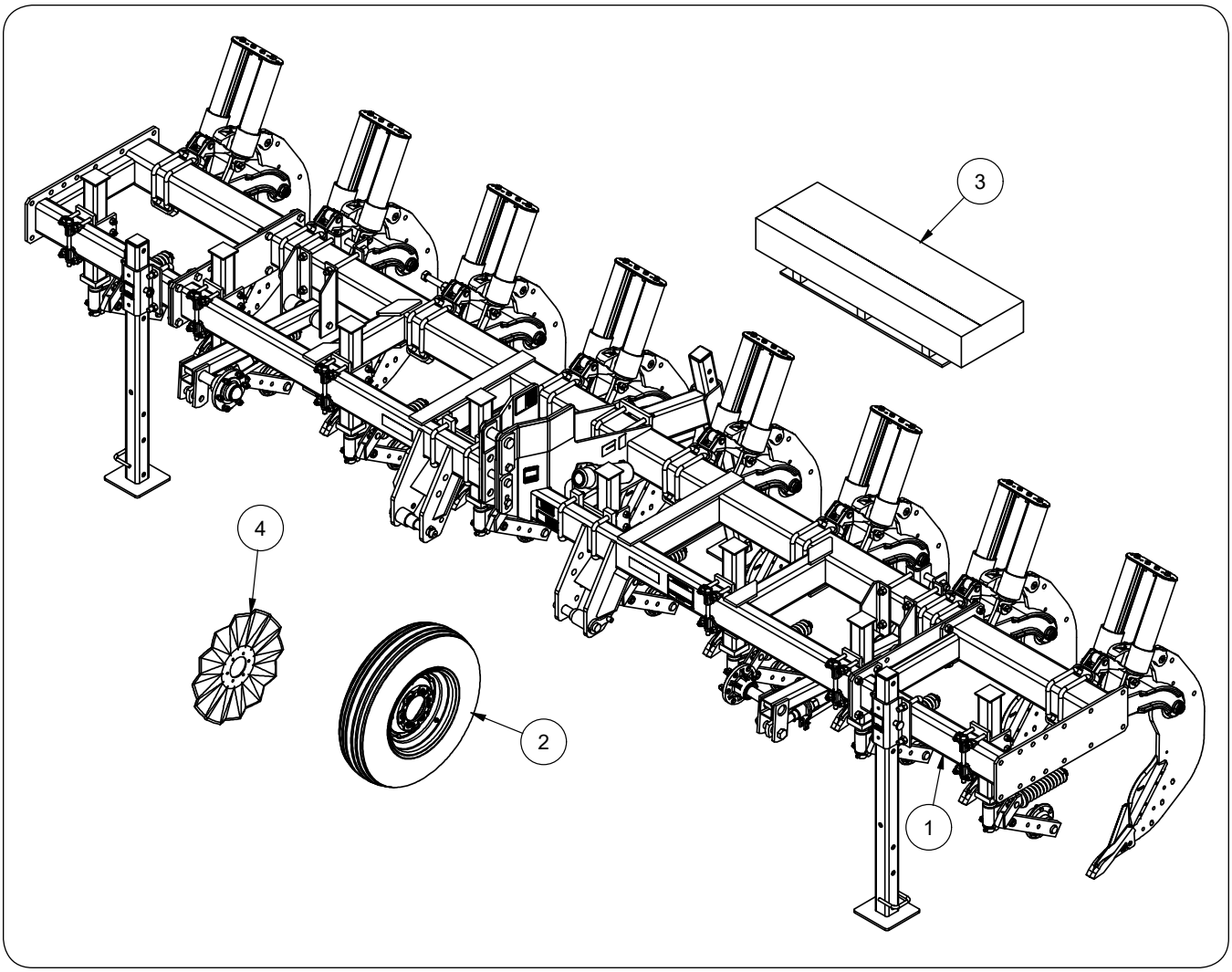
- Wear hearing protection when exposed to loud noises.

- Do not wear additional hearing impairing devices such as radio headphones, etc.

Notes

SECTION II
Set Up

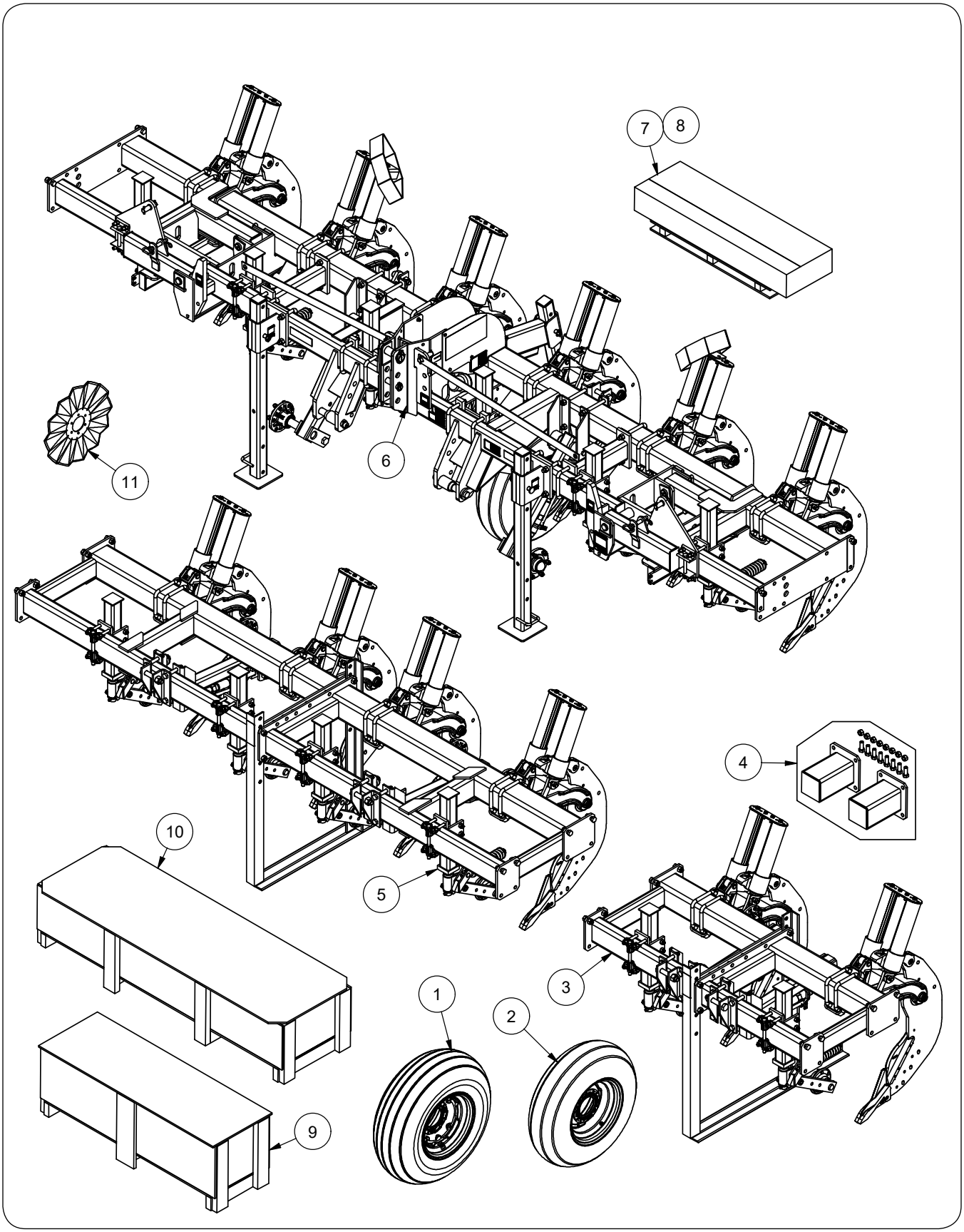
6 & 8 Row Rigid Ripper-Bedder Shipping Bundles



6 & 8 Row Rigid Ripper-Bedder Shipping Bundles

ITEM	PART NUMBER	DESCRIPTION	QTY
1	67839G	6 Shank Auto-Reset Shank, 30" Spacing, with Coulters (Green)	1
	67839R	6 Shank Auto-Reset Shank, 30" Spacing, with Coulters (Red)	
	67840G	6 Shank Auto-Reset Shank, 30" Spacing, without Coulters (Green)	
	67840R	6 Shank Auto-Reset Shank, 30" Spacing, without Coulters (Red)	
	67841G	6 Shank Auto-Reset Shank, 36" Spacing, with Coulters (Green)	
	67841R	6 Shank Auto-Reset Shank, 36" Spacing, with Coulters (Red)	
	67842G	6 Shank Auto-Reset Shank, 36" Spacing, without Coulters (Green)	
	67842R	6 Shank Auto-Reset Shank, 36" Spacing, without Coulters (Red)	
	67843G	6 Shank Auto-Reset Shank, 38" Spacing, with Coulters (Green)	
	67843R	6 Shank Auto-Reset Shank, 38" Spacing, with Coulters (Red)	
	67844G	6 Shank Auto-Reset Shank, 38" Spacing, without Coulters (Green)	
	67844R	6 Shank Auto-Reset Shank, 38" Spacing, without Coulters (Red)	
	67845G	8 Shank Auto-Reset Shank, 30" Spacing, with Coulters (Green) (SHOWN)	
	67845R	8 Shank Auto-Reset Shank, 30" Spacing, with Coulters (Red) (SHOWN)	
	67846G	8 Shank Auto-Reset Shank, 30" Spacing, without Coulters (Green)	
	67846R	8 Shank Auto-Reset Shank, 30" Spacing, without Coulters (Red)	
2	81145	Mounted Tire & Wheel (7.6B15 8 Ply Tire)	2
3	69054B	Reflector Kit	1
4	93938	Coulter Blade 20" Dia. (13 Wave)	0/6/8

8 & 12 Row Folding Ripper-Bedder Shipping Bundles



8 & 12 Row Folding Ripper-Bedder Shipping Bundles

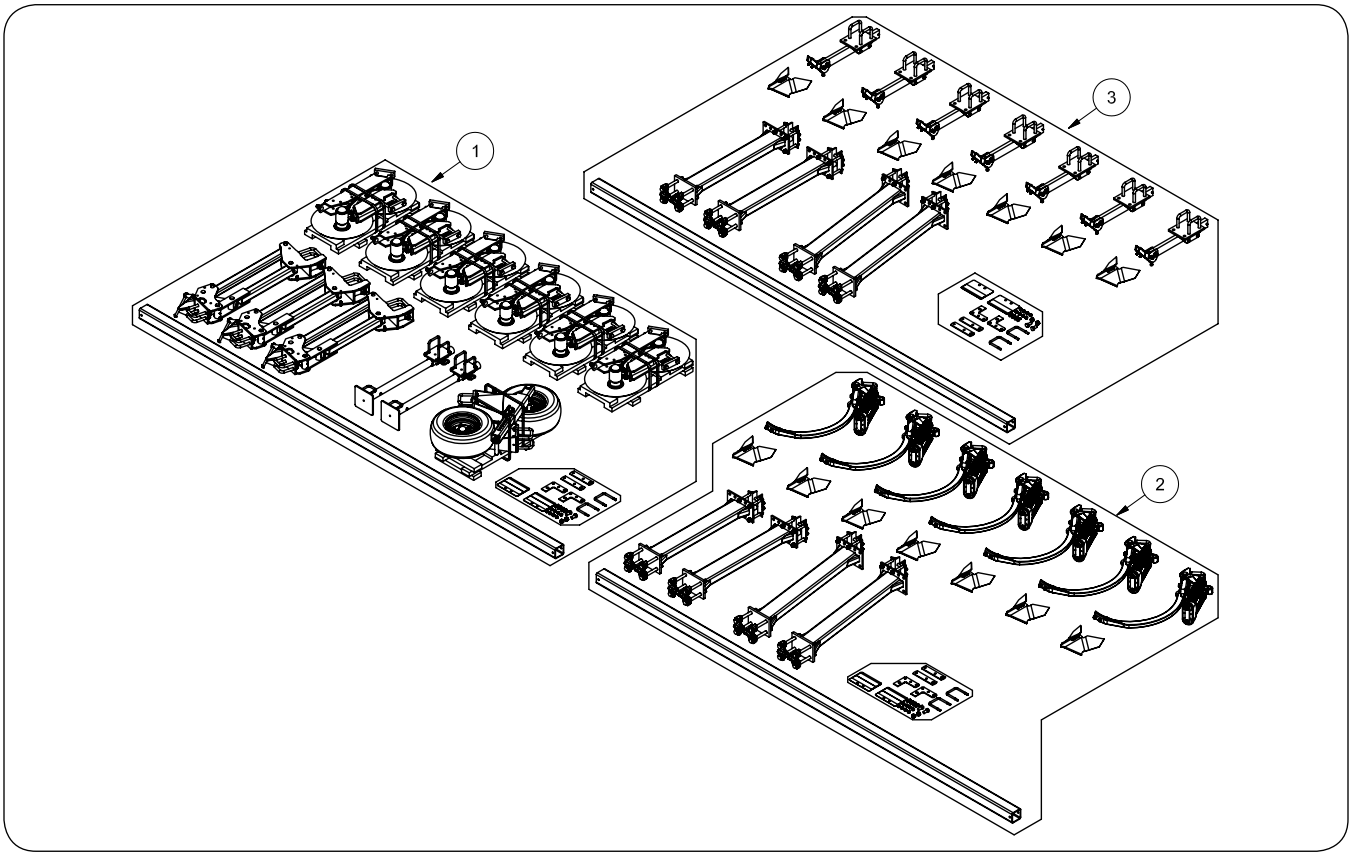
ITEM	PART NUMBER	DESCRIPTION	QTY - 8 ROW/SPG			QTY - 12 ROW/SPG			
			36"	38"	40"	30"	36"	38"	40"
1	11895	Mounted Tire & Wheel (10x15/12.5LB15)	-	-	-	-	2	2	2
2	60911	Mounted Tire & Wheel (9.5LB15 8-Ply Tire)	4	4	4	4	4	4	4
3	67814G	Extension Bundle, 36" Spg, with Coulters (Green)	1	-	-	-	-	-	-
	67814R	Extension Bundle, 36" Spg, with Coulters (Red)							
	67861G	Extension Bundle, 36" Spg, without Coulters (Green)	1	-	-	-	-	-	-
	67861R	Extension Bundle, 36" Spg, without Coulters (Red)							
	67815G	Extension Bundle, 38" Spg, with Coulters (Green)	-	1	-	-	-	-	-
	67815R	Extension Bundle, 38" Spg, with Coulters (Red)							
	67862G	Extension Bundle, 38" Spg, without Coulters (Green)	-	1	-	-	-	-	-
	67862R	Extension Bundle, 38" Spg, without Coulters (Red)							
	67816G	Extension Bundle, 40" Spg, with Coulters (Green)	-	-	1	-	-	-	-
	67816R	Extension Bundle, 40" Spg, with Coulters (Red)							
	67863G	Extension Bundle, 40" Spg, without Coulters (Green)	-	-	1	-	-	-	-
	67863R	Extension Bundle, 40" Spg, without Coulters (Red)							
4	63629G	Extension Tube 11" Bundle, 40" Spg (Green)	-	-	1	-	-	-	-
	63629R	Extension Tube 11" Bundle, 40" Spg (Red)							
5	67820G	Extension Bundle, 30" Spg, with Coulters (Green)	-	-	-	1	-	-	-
	67820R	Extension Bundle, 30" Spg, with Coulters (Red)							
	67864G	Extension Bundle, 30" Spg, without Coulters (Green)	-	-	-	1	-	-	-
	67864R	Extension Bundle, 30" Spg, without Coulters (Red)							
	68159G	Extension Bundle, 36" Spg, with Coulters (Green)	-	-	-	-	1	-	-
	68159R	Extension Bundle, 36" Spg, with Coulters (Red)							
	67865G	Extension Bundle, 36" Spg, without Coulters (Green)	-	-	-	-	1	-	-
	67865R	Extension Bundle, 36" Spg, without Coulters (Red)							
	68160G	Extension Bundle, 38" Spg, with Coulters (Green)	-	-	-	-	-	1	-
	68160R	Extension Bundle, 38" Spg, with Coulters (Red)							
	67866G	Extension Bundle, 38" Spg, without Coulters (Green)	-	-	-	-	-	1	-
	67866R	Extension Bundle, 38" Spg, without Coulters (Red)							
	68161G	Extension Bundle, 40" Spg, with Coulters (Green)	-	-	-	-	-	-	1
	68161R	Extension Bundle, 40" Spg, with Coulters (Red)							
	67867G	Extension Bundle, 40" Spg, without Coulters (Green)	-	-	-	-	-	-	1
	67867R	Extension Bundle, 40" Spg, without Coulters (Red)							

(Continued on next page)

8 & 12 Row Folding Ripper-Bedder Shipping Bundles

ITEM	PART NUMBER	DESCRIPTION	QTY - 8 ROW/SPG			QTY - 12 ROW/SPG			
			36"	38"	40"	30"	36"	38"	40"
6	69249G	6 Shank Auto-Reset Shank, 36" Spg, with Coulters (Green)	1	-	-	-	-	-	-
	69249R	6 Shank Auto-Reset Shank, 36" Spg, with Coulters (Red)							
	69250G	6 Shank Auto-Reset Shank, 36" Spg, without Coulters (Green)	1	-	-	-	-	-	-
	69250R	6 Shank Auto-Reset Shank, 36" Spg, without Coulters (Red)							
	69251G	6 Shank Auto-Reset Shank, 38" Spg, with Coulters (Green)	-	1	-	-	-	-	-
	69251R	6 Shank Auto-Reset Shank, 38" Spg, with Coulters (Red)							
	69252G	6 Shank Auto-Reset Shank, 38" Spg, without Coulters (Green)	-	1	-	-	-	-	-
	69252R	6 Shank Auto-Reset Shank, 38" Spg, without Coulters (Red)							
	69253G	6 Shank Auto-Reset Shank, 40" Spg, with Coulters (Green)	-	-	1	-	-	-	-
	69253R	6 Shank Auto-Reset Shank, 40" Spg, with Coulters (Red)							
	69254G	6 Shank Auto-Reset Shank, 40" Spg, without Coulters (Green)	-	-	1	-	-	-	-
	69254R	6 Shank Auto-Reset Shank, 40" Spg, without Coulters (Red)							
	69247G	8 Shank Auto-Reset Shank, 30" Spg, with Coulters (Green)	-	-	-	1	-	-	-
	69247R	8 Shank Auto-Reset Shank, 30" Spg, with Coulters (Red)							
	69248G	8 Shank Auto-Reset Shank, 30" Spg, without Coulters (Green)	-	-	-	1	-	-	-
	69248R	8 Shank Auto-Reset Shank, 30" Spg, without Coulters (Red)							
	69241G	8 Shank Auto-Reset Shank, 36" Spg, with Coulters (Green)	-	-	-	-	1	-	-
	69241R	8 Shank Auto-Reset Shank, 36" Spg, with Coulters (Red)							
	69242G	8 Shank Auto-Reset Shank, 36" Spg, without Coulters (Green)	-	-	-	-	1	-	-
	69242R	8 Shank Auto-Reset Shank, 36" Spg, without Coulters (Red)							
	69243G	8 Shank Auto-Reset Shank, 38" Spg, with Coulters (Green)	-	-	-	-	-	1	-
	69243R	8 Shank Auto-Reset Shank, 38" Spg, with Coulters (Red)							
	69244G	8 Shank Auto-Reset Shank, 38" Spg, without Coulters (Green)	-	-	-	-	-	1	-
	69244R	8 Shank Auto-Reset Shank, 38" Spg, without Coulters (Red)							
	69245G	8 Shank Auto-Reset Shank, 40" Spg, with Coulters (Green)	-	-	-	-	-	-	1
	69245R	8 Shank Auto-Reset Shank, 40" Spg, with Coulters (Red)							
	69246G	8 Shank Auto-Reset Shank, 40" Spg, without Coulters (Green)	-	-	-	-	-	-	1
	69246R	8 Shank Auto-Reset Shank, 40" Spg, without Coulters (Red)							
7	69054B	**Reflector Set 4-Panel**	1	1	1	1	-	-	-
8	68963B	**Reflector Set 5-Panel**	-	-	-	-	1	1	1
9	69055B	**Hydraulic Rigid Wing Fold Package**	1	1	1	1	-	-	-
	68669B	In-Lieu of Option - Hydraulic Flex Wing Fold Package							
10	68798G	**Hydraulic Rigid Wing Fold Package (Green)**	-	-	-	-	1	1	1
	68798R	**Hydraulic Rigid Wing Fold Package (Red)**							
	68641B	In-Lieu of Option - Hydraulic Flex Wing Fold Package							
11	93938	**Coulter Blade 20" Dia. (13 Wave)**	0/8	0/8	0/8	0/12	0/12	0/12	0/12

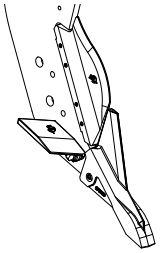
Bedding Attachment Shipping Bundles



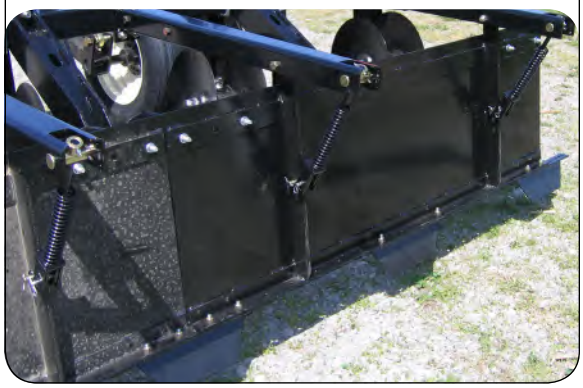
ITEM	PART NUMBER	DESCRIPTION
1	67728B	Disk Gang-Bedding Kit for Ripper-Bedder Conversion - 6 Row 30" Spacing (SHOWN)
	65504B	Disk Gang-Bedding Kit for Ripper-Bedder Conversion - 6 Row 36-38" Spacing
	67729B	Disk Gang-Bedding Kit for Ripper-Bedder Conversion - 8 Row 30" Spacing
	65505B	Disk Gang-Bedding Kit for Ripper-Bedder Conversion - 8 Row 36" Spacing
	65506B	Disk Gang-Bedding Kit for Ripper-Bedder Conversion - 8 Row 38" Spacing
	65507B	Disk Gang-Bedding Kit for Ripper-Bedder Conversion - 8 Row 40" Spacing
	67731B	Disk Gang-Bedding Kit for Ripper-Bedder Conversion - 12 Row 30" Spacing
	65797B	Disk Gang-Bedding Kit for Ripper-Bedder Conversion - 12 Row 36-38-40" Spacing
2	68901B	Lister Point with Spring-Reset Shanks Bedding Kit - 6 Row 30" Spacing (SHOWN)
	68658B	Lister Point with Spring-Reset Shanks Bedding Kit - 6 Row 36-38" Spacing
	68906B	Lister Point with Spring-Reset Shanks Bedding Kit - 8 Row 30" Spacing
	68659B	Lister Point with Spring-Reset Shanks Bedding Kit - 8 Row 36" Spacing
	68660B	Lister Point with Spring-Reset Shanks Bedding Kit - 8 Row 38" Spacing
	68661B	Lister Point with Spring-Reset Shanks Bedding Kit - 8 Row 40" Spacing
	68905B	Lister Point with Spring-Reset Shanks Bedding Kit - 12 Row 30" Spacing
	68662B	Lister Point with Spring-Reset Shanks Bedding Kit - 12 Row 36-38-40" Spacing
3	67875B	Lister Point with Rigid Shanks Bedding Kit - 6 Row 30" Spacing (SHOWN)
	67876B	Lister Point with Rigid Shanks Bedding Kit - 6 Row 36-38" Spacing
	67877B	Lister Point with Rigid Shanks Bedding Kit - 8 Row 30" Spacing
	67879B	Lister Point with Rigid Shanks Bedding Kit - 8 Row 36" Spacing
	67880B	Lister Point with Rigid Shanks Bedding Kit - 8 Row 38" Spacing
	67881B	Lister Point with Rigid Shanks Bedding Kit - 8 Row 40" Spacing
	67882B	Lister Point with Rigid Shanks Bedding Kit - 12 Row 30" Spacing
	67883B	Lister Point with Rigid Shanks Bedding Kit - 12 Row 36-38-40" Spacing

Optional Attachments

Shatter Wings for Points
Set of Left/Right Hand Wings
with Mounting Hardware
Bundle 67691B -7" wide.
67692B -9" wide.

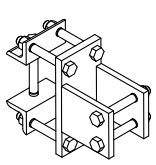


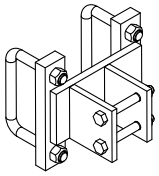
Bed Shaper Attachments
6 Row Narrow Bundle #67525B
6 Row Wide Bundle #65786B
8 Row Narrow Bundle #67415B
8 Row Wide Bundle #65787B
12 Row Narrow Bundle #67414B
12 Row Wide Bundle #65788B

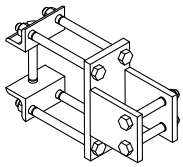


Bedding Disk Scraper Complete Kit for
Bedding Disk Gang
6 Row Wide Bundle #65487B
6 Row Narrow Bundle #67506B
8 Row Wide Bundle #65488B
8 Row Narrow Bundle #67504B
12 Row Wide Bundle #65798B
12 Row Narrow Bundle #67505B

Lead Coulter Package
6 Row Bundle #65489B
8 Row Bundle #65490B
12 Row Bundle #65796B







12 Row
Only

Steel Shank Protector Kit #64077

Plastic Shank Protector Kit #65817

Notes:

Folding Wing Extension Assembly — For 8 Row & 12 Row

For proper positioning, refer to "Overhead Layouts" at the end of this section.

⚠ 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 7,000 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.

- KEEP HANDS CLEAR OF PINCH POINT AREAS.

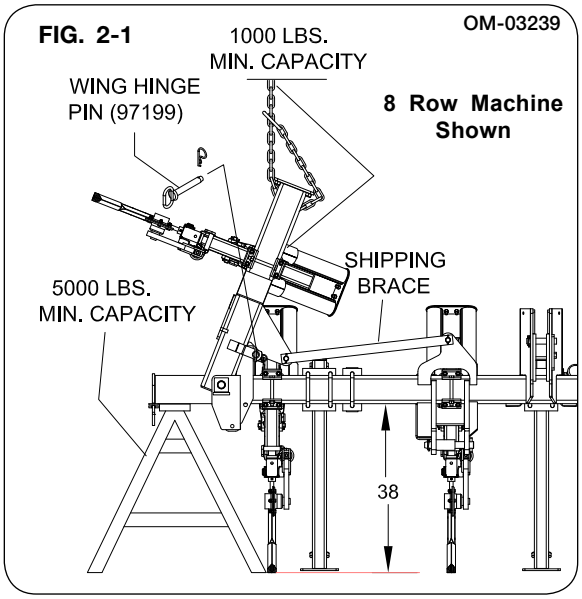


FIG. 2-1

1. Raise the frame approximately 38" from the ground with a hoist or secure lifting device so that the support stands can be positioned under the frame to support the weight (Fig. 2-1).

2. Using a safe lifting device rated at a minimum of 1000 lbs., hoist to the end of the base wing.

3. Remove one 1/4" dia. x 1 7/8" spiral pin from each of the two 1" dia. x 4 pins (85631) that secure the shipping brace and discard the shipping brace as shown in Fig. 1.

4. Remove the wing hitch pins with hair pin (97199) and lower the base wing so it is level with the main frame (Fig. 2-1).

NOTE: Use shim kit #67870 in between the wing and wing extension at the bottom for proper leveling. Also see OPERATION section for frame and wing leveling.

Folding Wing Extension Assembly — For 8 Row & 12 Row

5. Using a safe lifting device rated at a minimum of 7,000 lbs., hoist the wing extensions while they are bolted together. Attach the entire assembly to the right-hand base wing. Secure with seven 3/4”-10UNC x 2” capscrews (9390-145), one 3/4”-10UNC x 2 1/2” capscrew (9390-147) and eight 3/4”-10UNC locknuts (9802) (Fig. 2-2).

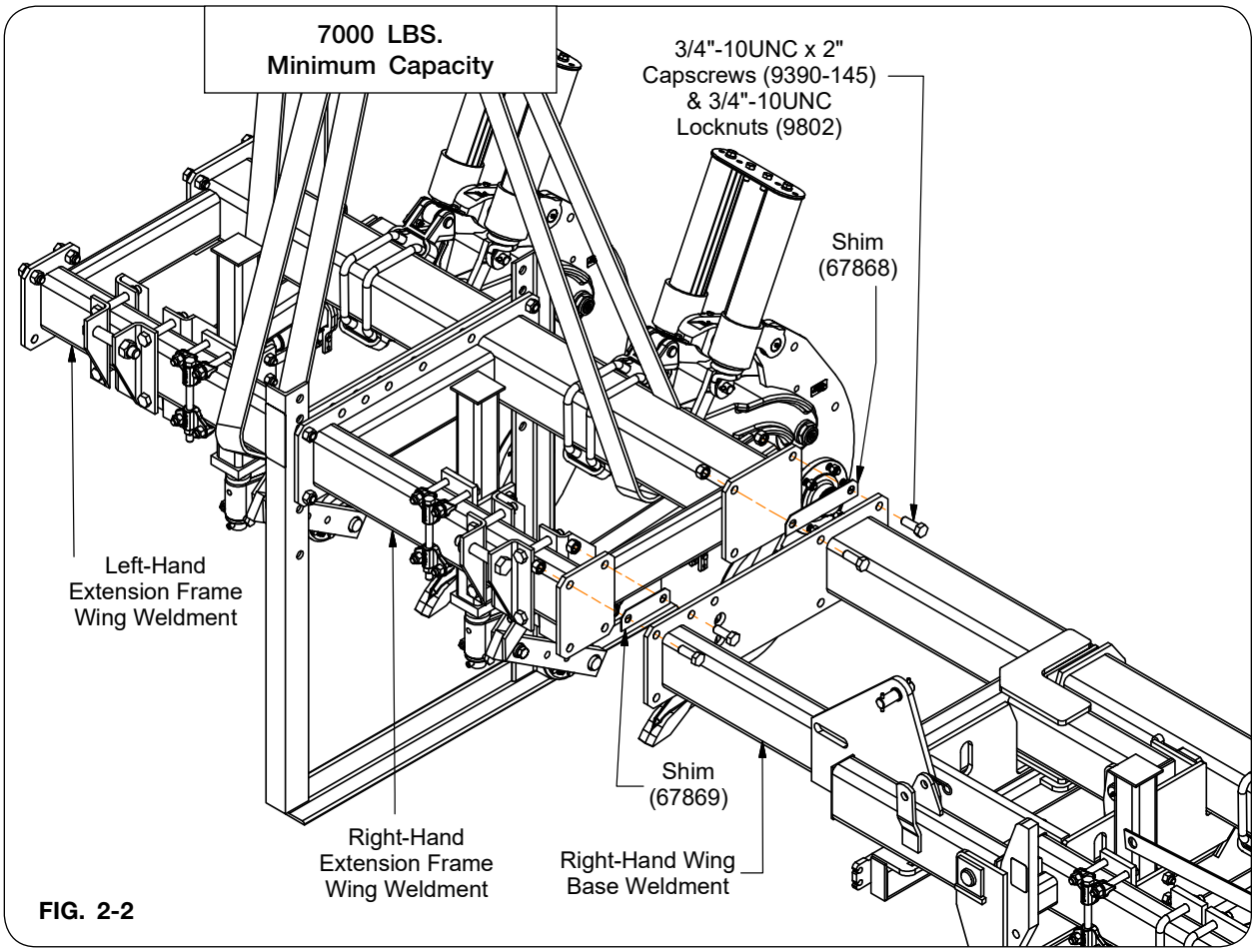


FIG. 2-2

IMPORTANT

- *Make sure the two-piece mounting plate is bolted to the machine. The one-piece mounting plate should be positioned away from the machine.*

6. Reattach the hoist to the left-hand wing.

⚠ WARNING

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

Folding Wing Extension Assembly — For 8 Row & 12 Row

7. Attach the left-hand extension to the left-side using seven 3/4”-10UNC x 2” capscrews (9390-145), one 3/4”-10UNC x 2 1/2” capscrew (9390-147) and eight 3/4”-10UNC locknuts (9802). See Fig. 2-2 on the previous page for reference.

8. Remove the four 3/4”-10UNC hex jam nuts (9395-016) which secures the right-hand extension to the stand and discard nuts and shipping stand (Fig. 2-3).

9. 8 Row - 40” Spacing ONLY: Attach the 11” extension tube bundle (63629G or 63629R) to the rear ends of the wing extensions using the hardware provided as show in Fig. 2-4.

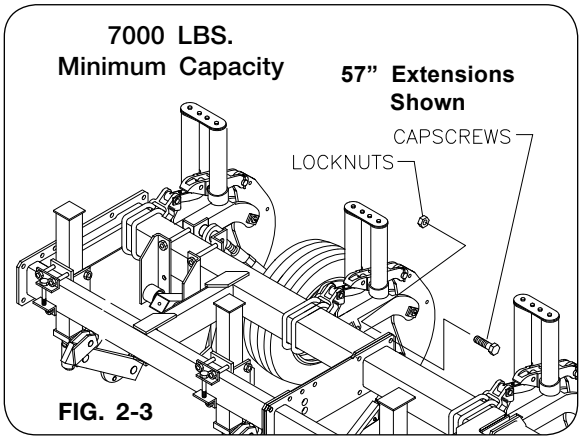


FIG. 2-3

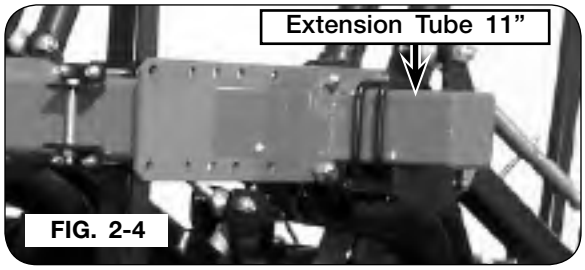


FIG. 2-4

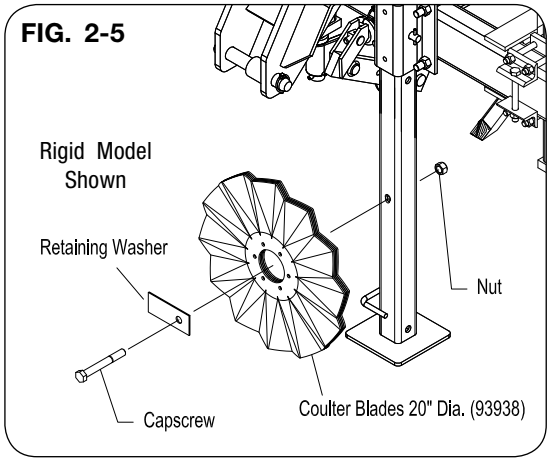
Combo® Coulter Blade

If equipped with coulters, proceed with step 1, otherwise skip to “Support Stands.”

1. Remove the coulter blades from the jackstands and discard the retaining washer(s), capscrew(s) and nut(s) (Fig. 2-5).

2. Remove the six 3/8”-16UNC x 1 1/4” capscrews (9390-056) and 3/8”-16UNC locknuts (9928) from the coulter hub. Attach the coulter blade to the coulter hub using the hardware previously removed

FIG. 2-5



Combo® Coulter Blade (continued)

3. Remove the six 3/8”-16UNC x 1 1/4” capscrews (9390-056) and 3/8”-16UNC locknuts (9928) from the coulter hub. Attach the coulter blade to the coulter hub using the hardware previously removed (Fig. 2-6). Refer to the “Torque Chart” in the Maintenance section for proper torquing.

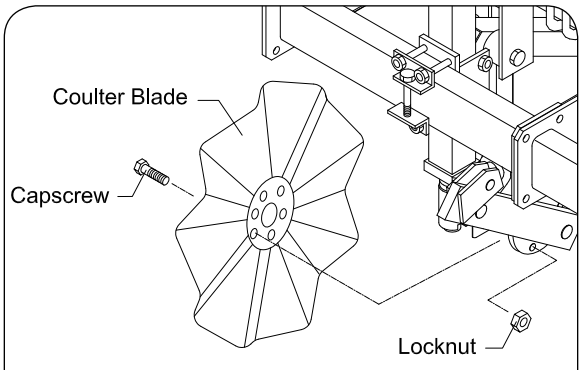


FIG. 2-6

WARNING

- **BE CAREFUL WHEN WORKING AROUND THE COULTER BLADES. FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY DUE TO THE SHARP EDGES.**

Support Stand

1. The rear support stand may be located out of position for shipping purposes, and must be relocated for field use. Refer to Fig. 2-7 for the correct position.

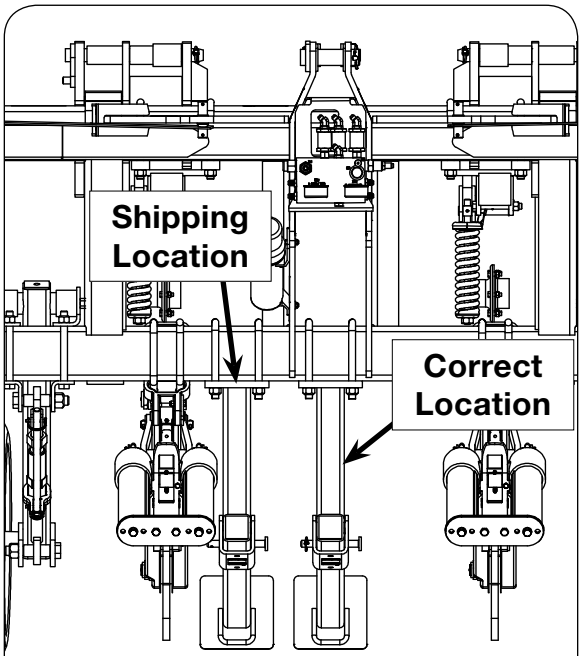


FIG. 2-7

Single & Dual Stabilizer Wheel Assembly

WARNING

- **PINCH POINTS EXIST IN THE LINKAGE OF THE STABILIZER WHEELS. KEEP HANDS AND FEET AWAY FROM THE LINKAGES WHEN INSTALLING.**
- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE THE MACHINE IS SECURELY BLOCKED.**

1. Remove the 1”-8UNC x 5 1/2” capscrew (9390-194) and 1”-8UNC locknut (9663) to release the turnbuckle and shipping strap (Fig. 2-8). Remove the shipping cable ties only.
2. Adjust the turnbuckle from the shipping location to approximately 20 1/2” and adjust each turnbuckle, exposing equal threads on each rod, see Fig. 2-8.
3. Attach the turnbuckle as shown in Fig. 2-8 using the capscrew (9390-194) and locknut (9663) previously removed.
4. Remove the bevel wheel nuts (9348) from the hub as shown in Fig. 2-8.
5. Attach the mounted tire and wheel to the hub using the same bevel wheel nuts (9348) previously removed (Fig. 2-8).
6. Repeat steps 1 through 5 for the opposite stabilizer wheel assembly.

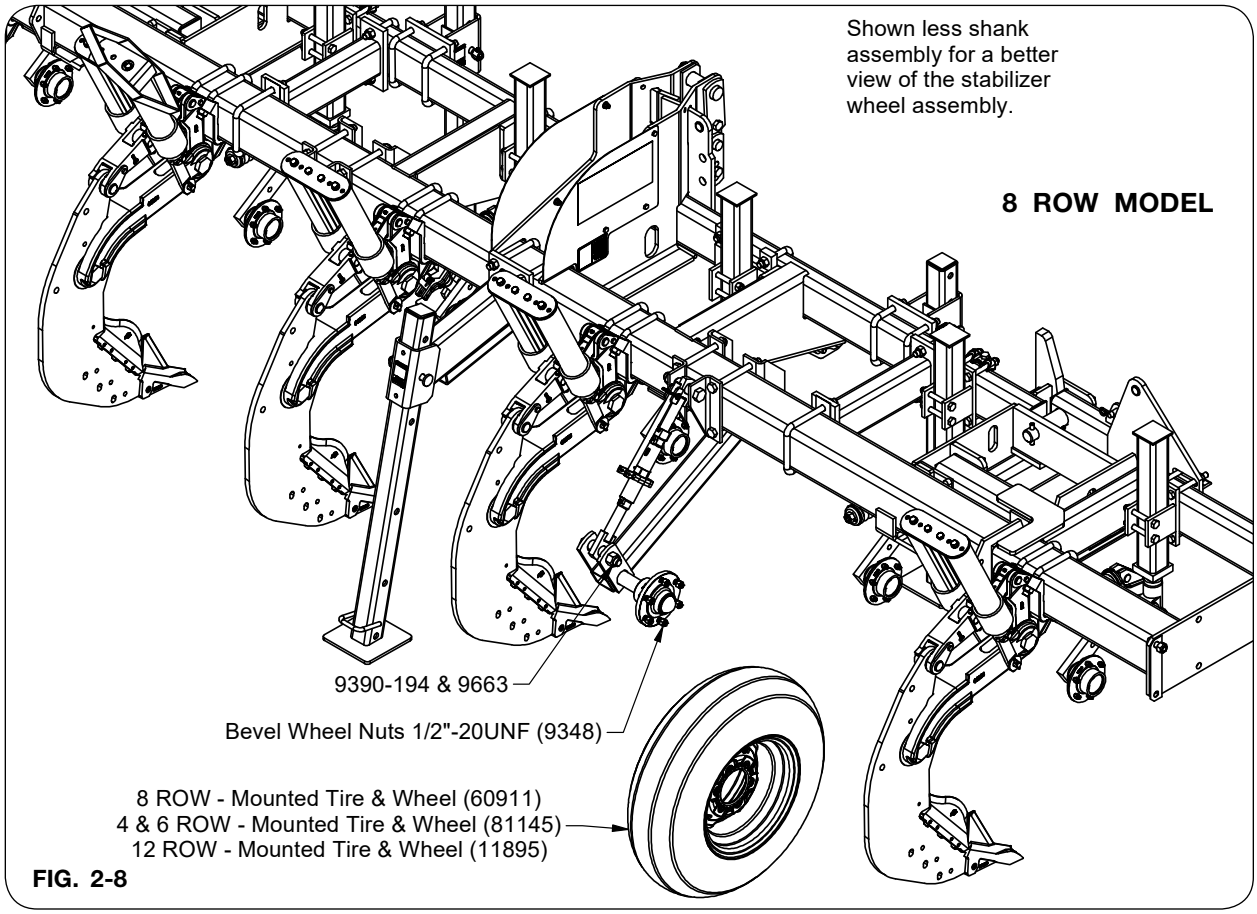


FIG. 2-8

Single & Dual Stabilizer Wheel Assembly (continued)

Dual Stabilizer on 12 Row Units ONLY:

7. **Repeat steps 1 through 6 for the 57” wing extensions (Fig. 2-9).**

FIG. 2-9

Light and Panel Reflector Assembly

Outer Reflector Assemblies For Rigid Units

1. Reattach the reflector brackets (68958B) on the left-hand outer reflector assembly and right-hand outer reflector assembly at the top of the angle bracket with the red reflector farthest from the angle bracket as shown in FIG. 2-16 and FIG. 2-17 with 3/8”-16UNC x 1” capscrews (9390-055) and 3/8”-16UNC locknuts (9928). Secure the amber lights (9003876) to the top of the reflector assemblies.

Left-Hand Outer Reflector Assembly & Amber Light (9003876)

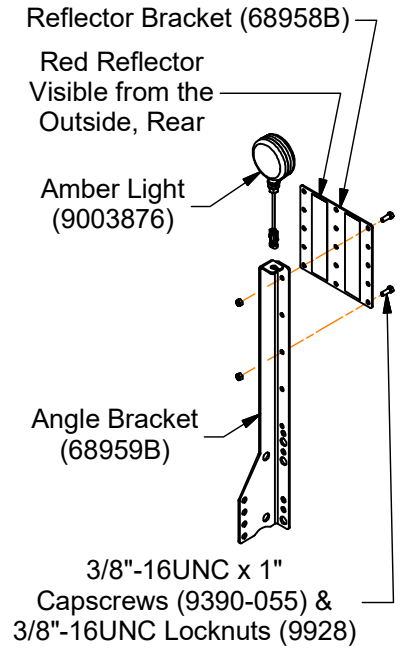


FIG. 2-16

Right-Hand Outer Reflector Assembly & Amber Light (9003876)

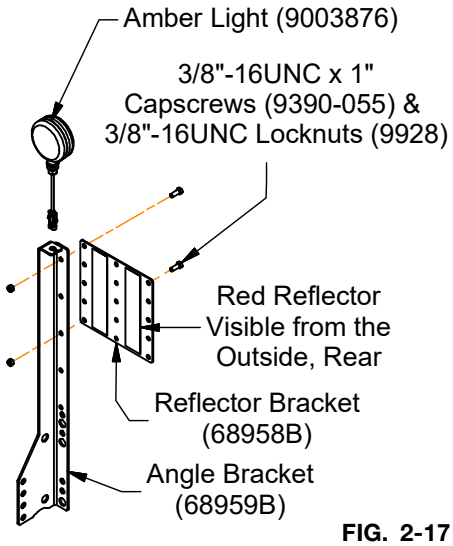


FIG. 2-17

NOTE: Light mounting brackets are height-adjustable to adapt to all applications. Generally install lights and/or reflectors so they are visible from front and rear during transport.

Light and Panel Reflector Assembly (continued)

Attaching Outer Reflector Assemblies For Rigid Units

1. **ALL RIGID UNITS EXCEPT 8 SHANK 30" SPACING (FIG. 2-18A)**
   Attach the angle bracket (68959B) with the reflector bracket (68958B) to the rear of the main frame with 1/2"-13UNC U-bolt (9005460) and 1/2"-13UNC locknuts (9800) (FIG. 2-18). Refer to "OVERHEAD LAYOUTS" for proper positioning.

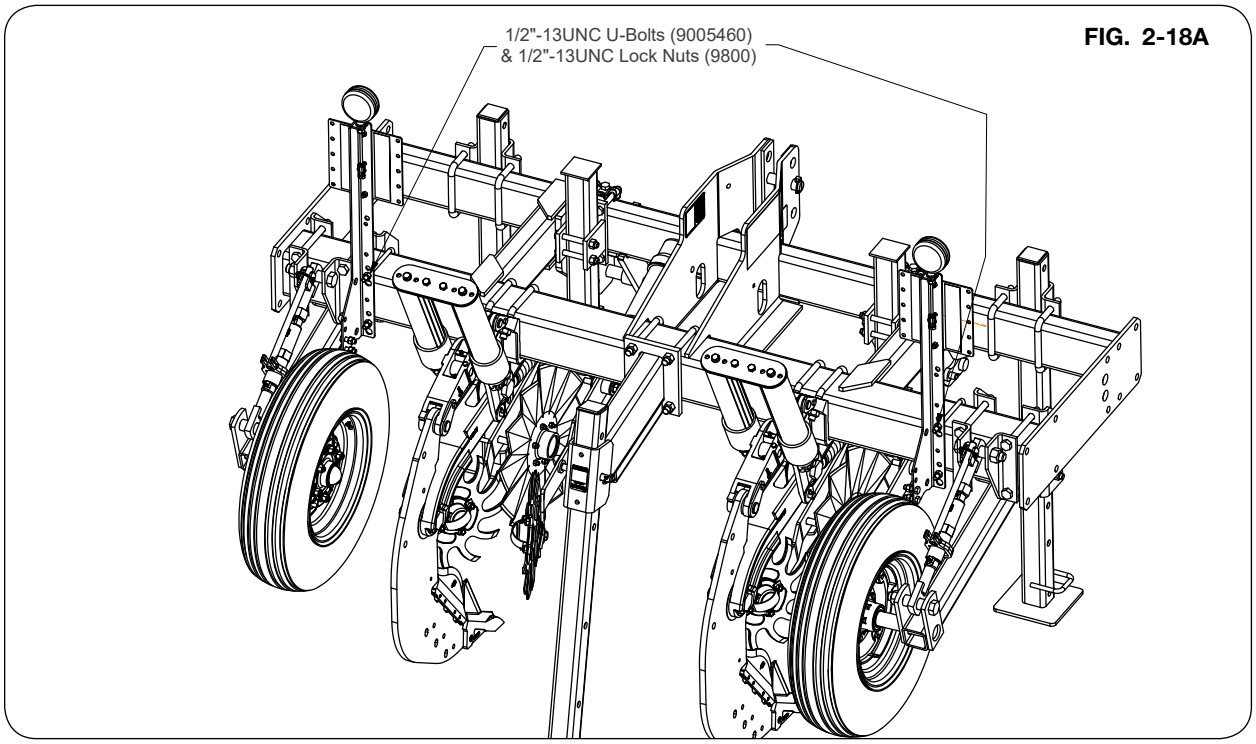


FIG. 2-18A

RIGID 8 SHANK 30" SPACING (FIG. 2-18B)
Attach the angle bracket (68959B) with the reflector bracket (68958B) to the end plate of the extensions with 3/4"-10UNC x 2" capscrews (9390-145) and 3/4"-10UNC locknuts (9802) (FIG. 2-18B). Refer to "OVERHEAD LAYOUTS" for proper positioning.

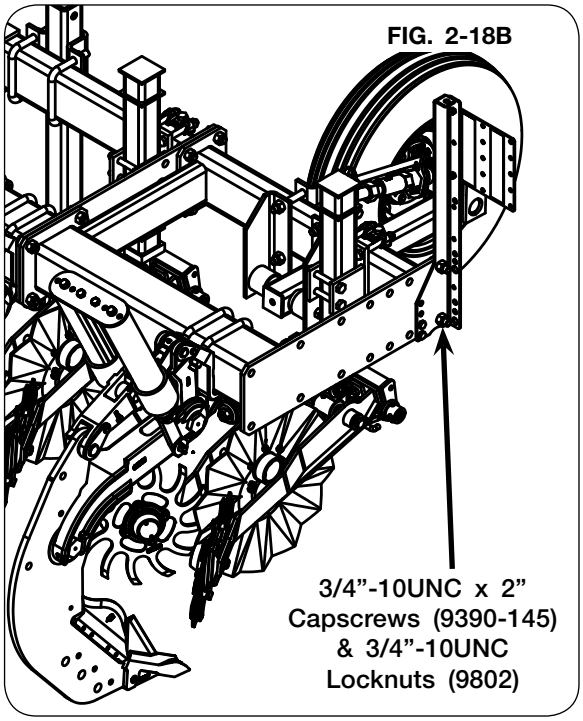


FIG. 2-18B

Light and Panel Reflector Assembly (continued)

Outer Reflector Assemblies For Folding Units

1. Reattach the reflector brackets (68958B) and assemble the light bracket (68960B) on the left-hand outer reflector assembly and right-hand outer reflector assembly at the middle of the angle bracket with the red reflector farthest from the angle bracket as shown in FIG. 2-22 and FIG. 2-23 with 3/8”-16UNC x 1” capscrews (9390-055) and 3/8”-16UNC locknuts (9928). Secure the amber lights (9003876) to the light bracket.

Left-Hand Outer Reflector Assembly, Light Bracket (68960B), & Amber Light (9003876)

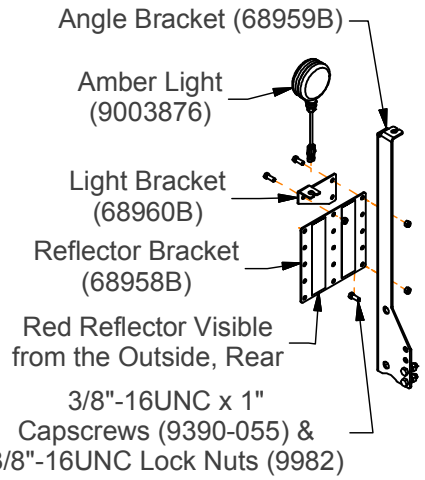


FIG. 2-22

Right-Hand Outer Reflector Assembly, Light Bracket (68960B), & Amber Light (9003876)

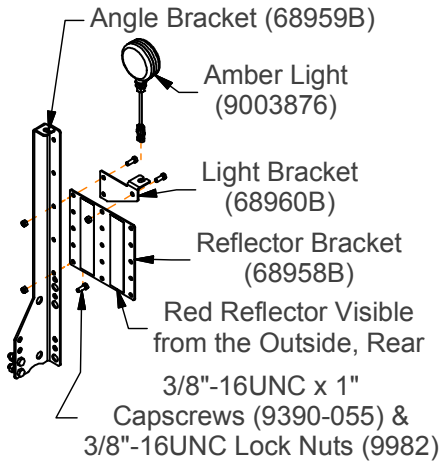


FIG. 2-23

Light and Panel Reflector Assembly (continued)

Attaching Outer Reflector Assemblies For Folding Units

1. Use 1/2”-13UNC x 1 1/2” capscrews (9390-101) and 1/2”-13UNC lock nuts (9800) to secure the outer reflector assemblies to the tabs located on the main frame with the red reflectors farthest away from angle bracket. See FIG. 2-24 through FIG. 2-25 for reference and “OVERHEAD LAYOUTS” for proper positioning.

LEFT-HAND, FRONT SHOWN

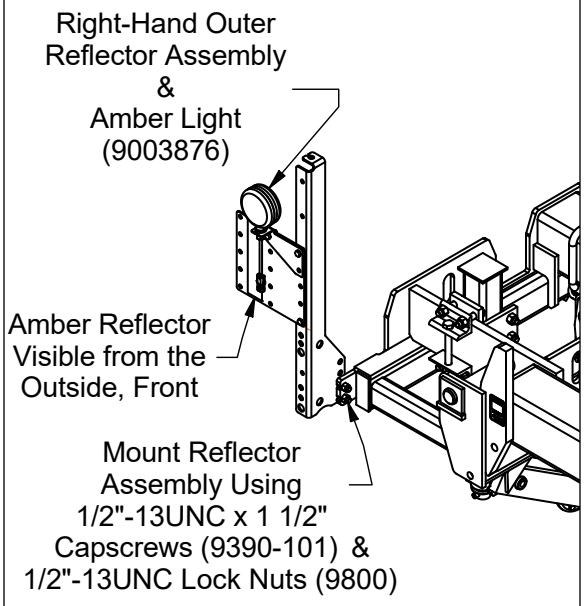


FIG. 2-24

RIGHT-HAND, FRONT SHOWN

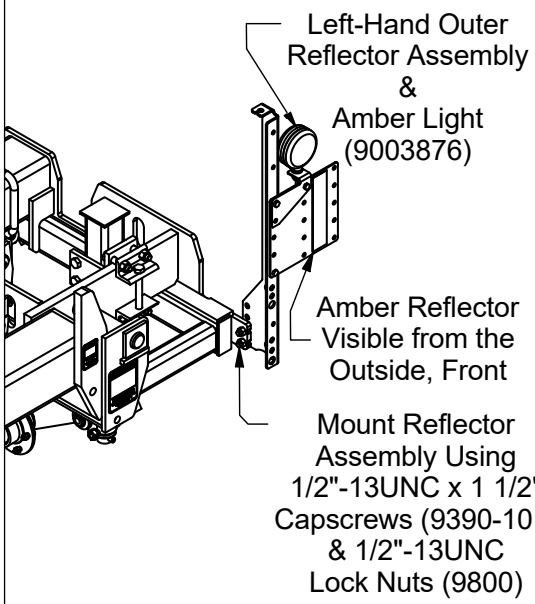


FIG. 2-25

Light and Panel Reflector Assembly (continued)

Center Reflector Assemblies & SMV Emblem All Rigid 8 & 12 Shank 30" Spacing Folding Units

1. Secure the SMV Emblem (9829) to the angle (69664B) with 1/4"-20UNC x 3/4" capscrews (9390-003) and 1/4"-20UNC locknuts (9936) as shown in FIG. 2-26.

2. Attach red light (9003877) to the top of the angle (69664B) with the red lens facing the same direction as the SMV.

NOTE: SMV emblem (9829) and red light (9003877) MUST be visible from the rear of the unit.

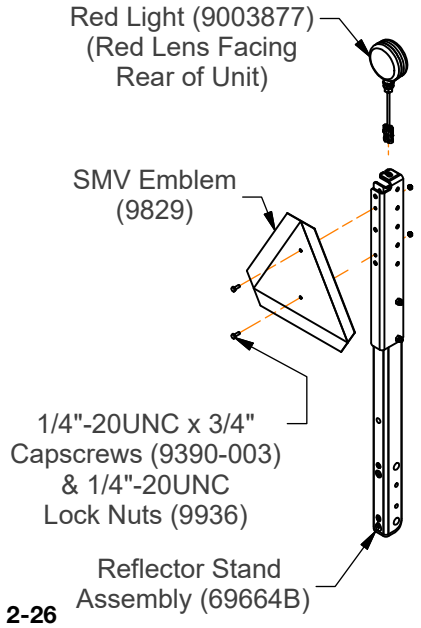


FIG. 2-26

3. Right-hand center reflector assembly is a reflector bracket (68958B) assembled to the angle (69664B). Light bracket (68960B) may be required to secure the red light (9003877) to the assembly. Assemble reflector bracket and red light as shown in FIG. 2-27.

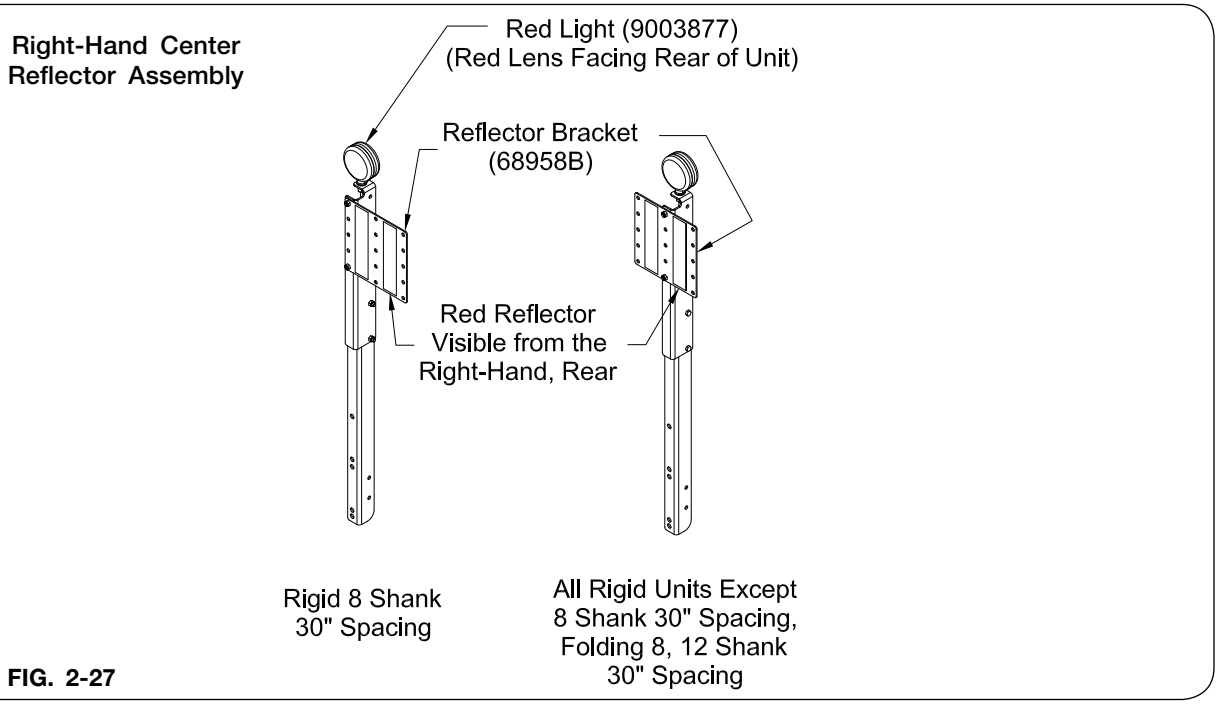


FIG. 2-27

NOTE: The RED reflector MUST be visible from the right-hand, rear side of the unit when installed.

Light and Panel Reflector Assembly (continued)

4. Attach the SMV assembly to the left-hand side of the frame with a 1/2”-13UNC U-bolt (9005460) and 1/2”-13UNC locknuts (9800) (FIG. 2-28). Refer to the OVERHEAD LAYOUTS for proper placement.

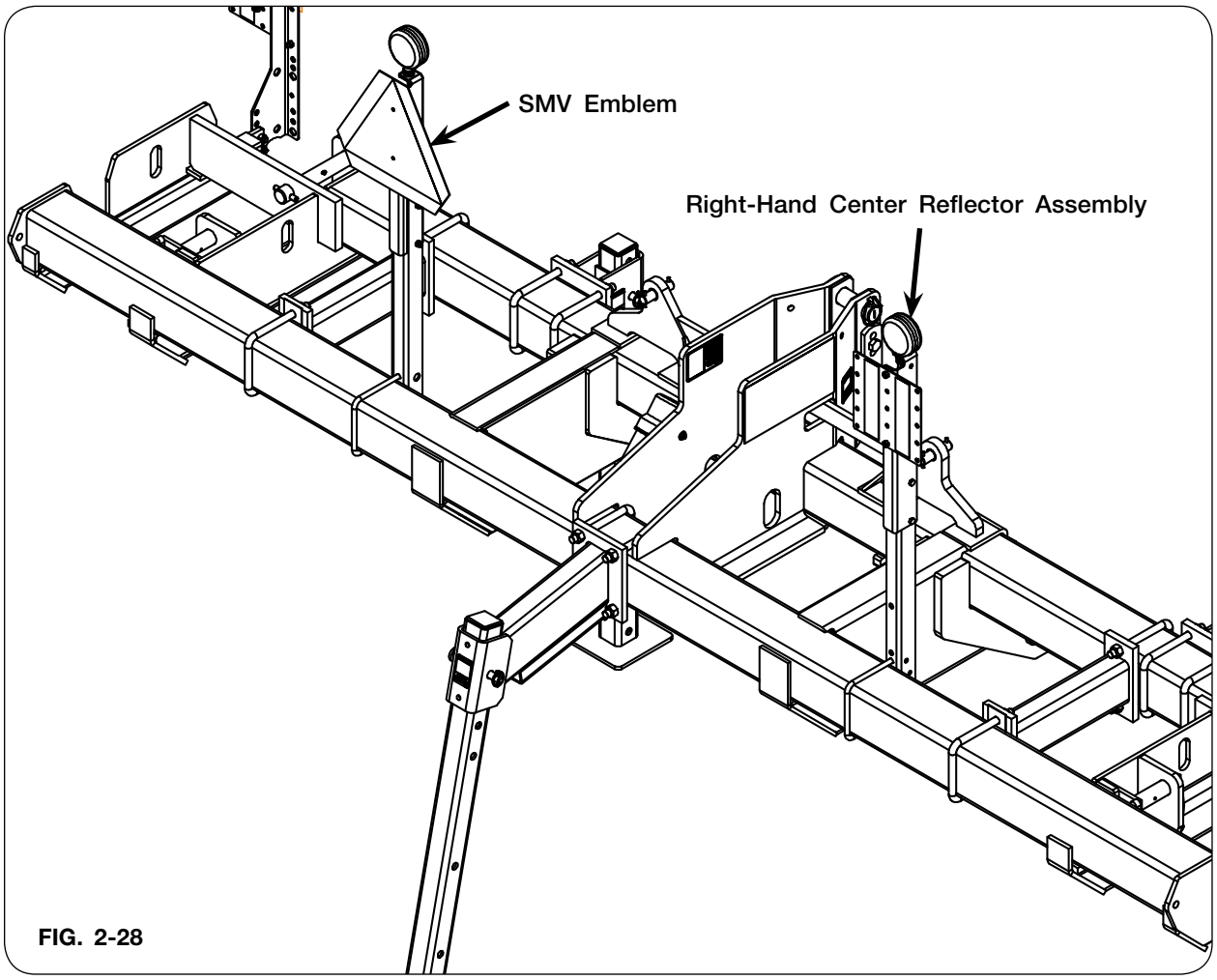


FIG. 2-28

5. Attach the right-hand center reflector assembly to the right-hand side of the frame with a 1/2”-13UNC U-bolt (9005460) and 1/2”-13UNC locknuts (9800) (FIG. 2-28). Refer to the OVERHEAD LAYOUTS for proper placement.

Light and Panel Reflector Assembly (continued)

Center Reflector Assemblies & SMV Emblem Folding 12 Shank 36/38/40" Spacing

1. Secure the SMV Emblem (9829) to the angle (69664B) with 1/4"-20UNC x 3/4" capscrews (9390-003) and 1/4"-20UNC locknuts (9936) as shown in FIG. 2-29.

2. Attach red light (9003877) to the top of the angle (69664B) with the red lens facing the same direction as the SMV.

NOTE: SMV emblem (9829) and red light (9003877) MUST be visible from the rear of the unit.

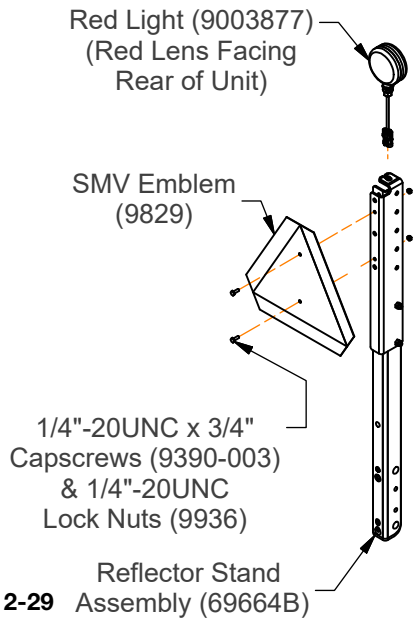


FIG. 2-29

3. Right-hand center reflector assembly is a reflector bracket (68958B) assembled to the angle (69664B). Assemble reflector bracket and red light as shown in FIG. 2-30.

NOTE: The RED reflector MUST be visible from the right-hand, rear side of the unit when installed.

Right-Hand Center Reflector Assembly

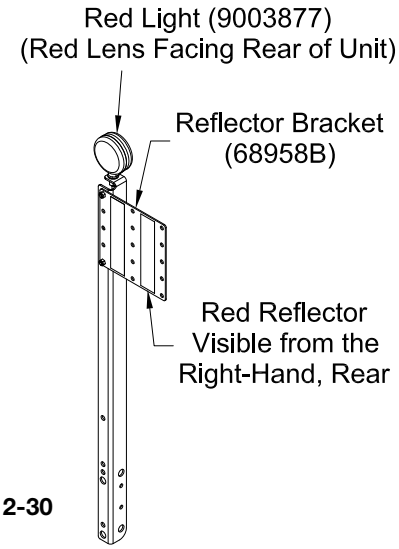


FIG. 2-30

Light and Panel Reflector Assembly (continued)

4. Left-hand center reflector assembly is a reflector bracket (68958B) assembled to the angle (69664B). Assemble reflector bracket and red light as shown in FIG. 2-31.

NOTE: The RED reflector MUST be visible from the right-hand, rear side of the unit when installed.

Left-Hand Center Reflector Assembly

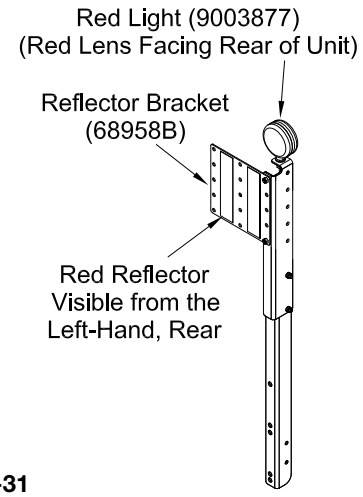


FIG. 2-31

5. Attach the left-hand center reflector assembly to the left-hand side of the frame with a 1/2”-13UNC U-bolt (9005460) and 1/2”-13UNC locknuts (9800) (FIG. 2-32). Refer to the OVERHEAD LAYOUTS for proper placement.

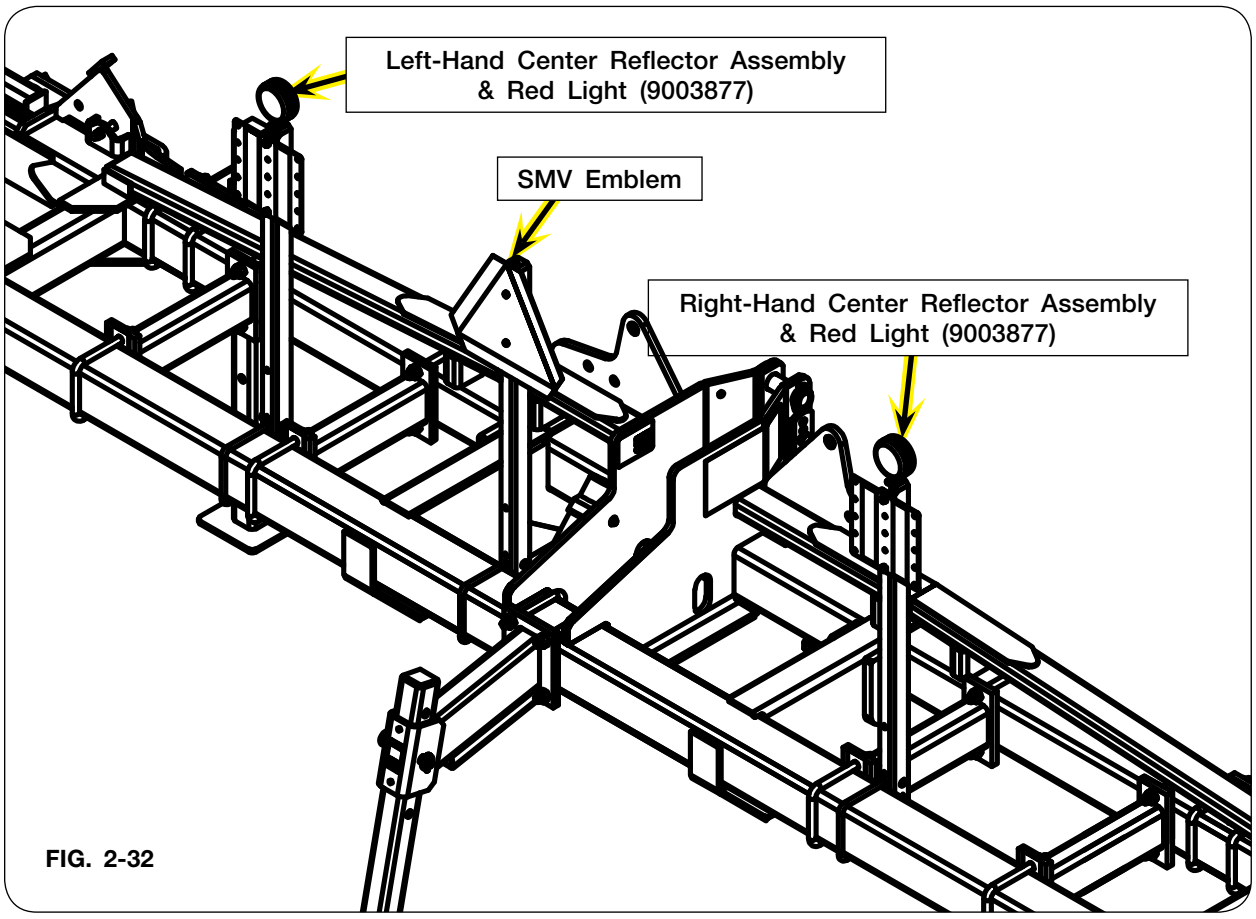
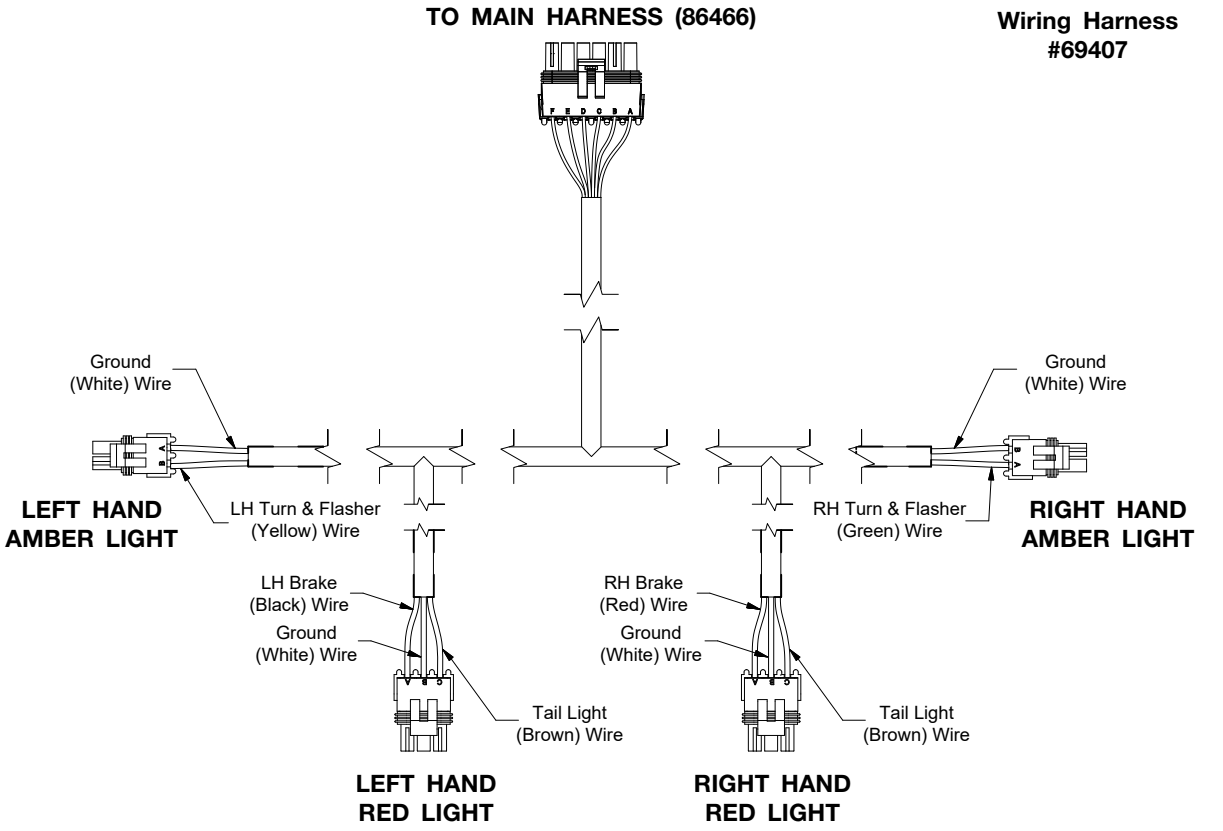


FIG. 2-32

Light and Panel Reflector Assembly (continued)

Wiring

NOTE: "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.

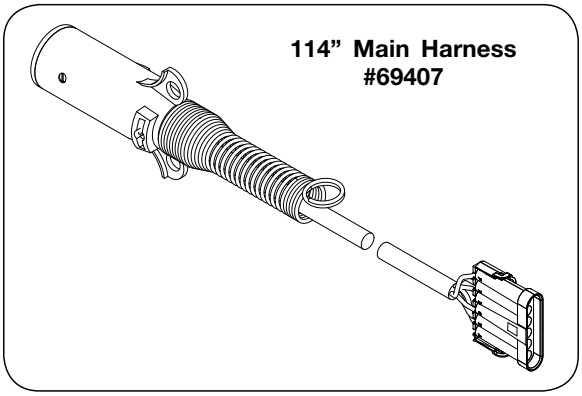


1. Locate wiring harness (69407) and lay it out on the unit frame with each harness connector leading to the appropriate light. Refer to the above layout for wiring direction.

2. Plug the connectors into the lights.

3. Making sure the wires do not interfere with any moving parts, secure the excess wires to the unit frame.

4. Attach the 114" Main Harness (86466) to the connector of the attached light harness (69407), securing the excess to the unit frame.



Bedder Assembly - Main Frame Assembly

For proper positioning, refer the "Overhead Layouts" at the end of this section.

⚠ 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 1,000 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.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**

1. Position the implement on a level surface with the shank tips resting on the ground.

Parallel-Link Arm Sub Assembly

2. Remove the two pins from the parallel-link arm sub assembly (64844B) front bracket.
3. Using a safe lifting device rated at a minimum of 200 lbs., hoist around the rear section of the parallel-link arm sub assembly (64844B) (Fig. 2-33).

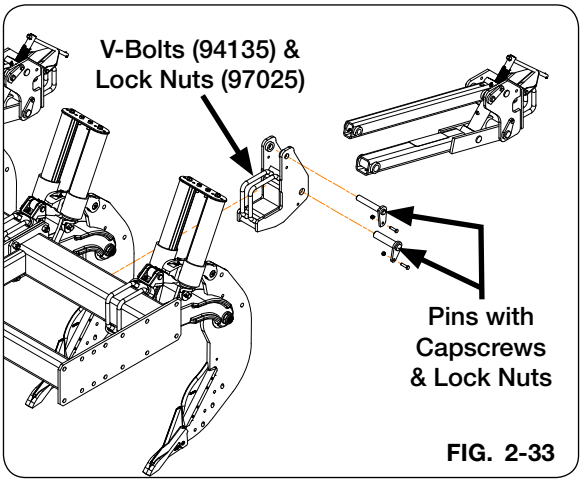


FIG. 2-33

NOTE: For applications with lister points, refer to separate lister manual.

Bedder Assembly - Main Frame Assembly (continued)

4. Attach the front bracket to the main frame using the two 3/4”-10UNC V-bolts (94135) and 3/4”-10UNC locknuts (97025) as shown in Fig. 2-34. Torque V-bolts to 240 ft.-lbs.

5. Attach the rear section of the parallel-link arm sub assembly (64844B) to the front bracket using the pins previously removed.

NOTE: FOLDING UNITS ONLY: Parallel-link arm sub assemblies (64844B) will be attached to the wing extensions after the main frame section has been completely assembled

6. Repeat steps 2 through 5 until all parallel-link arms are attached to the main frame.

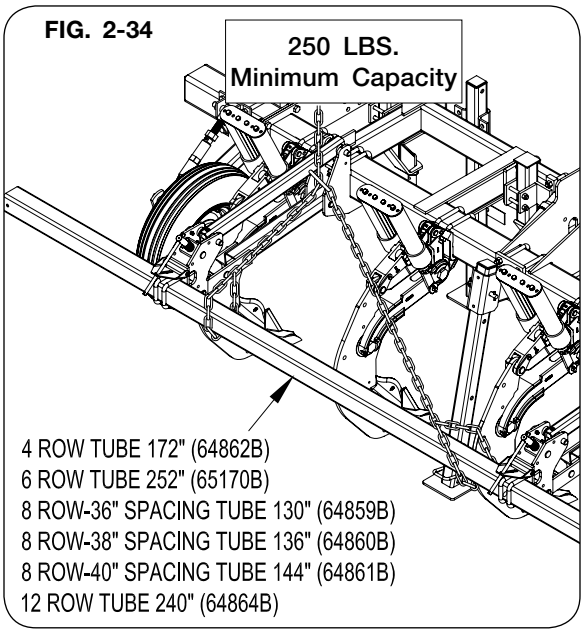
Bedder Bar/Tube Assembly

NOTE: Adjust each parallel-link arm sub assembly equally to make it easier to assemble the bedder bar tube(s).

7. Using a safe lifting device rated at a minimum of 250 lbs., hoist around the bedder bar (Fig. 2-34).

8. Attach the bedder bar tube to the parallel-link arm sub assembly (64844B) using the two 3/4”-10UNC U-bolts (900742) and 3/4”-10UNC locknuts (9802) (Fig. 2-34). Torque U-bolts to 240 ft.-lbs.

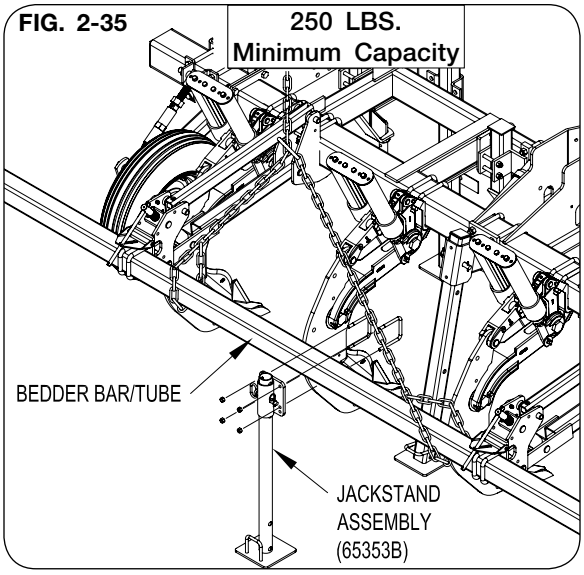
FIG. 2-34



Jackstand Assembly

9. Attach the jackstand assembly (65353B) between the parallel-link arm sub assemblies on the bedder bar/tube as shown in Fig. 2-35. Attach the other jackstand assembly (65353B) between the other parallel-link arm sub assemblies on the other end of the bedder bar/tube.

FIG. 2-35



Bedder Assembly - Main Frame Assembly (continued)

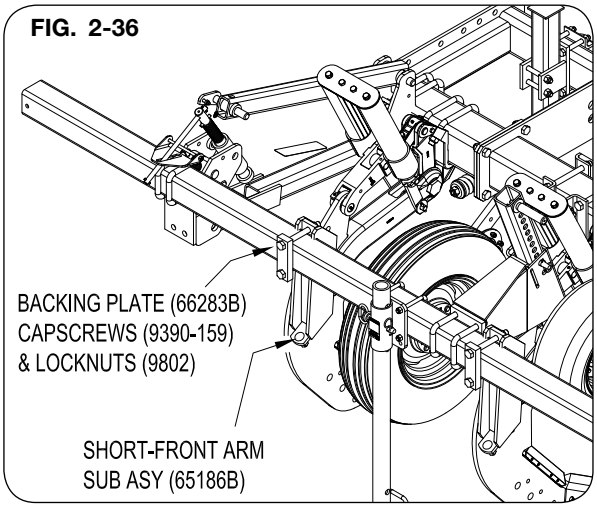
Short-Front Arm Sub Assembly

10. Attach the short-front arm sub assemblies (65186B) to the bedder bar tube, except the last right hand assembly on the main frame, using backing plate (66283B), 3/4"-10UNC x 7" capscrews (9390-159) and 3/4"-10UNC locknuts (9802) (Fig. 2-36).

IMPORTANT

- *These assembly instructions are for bedder arm offset mounting. In-lne mounting requires 3/4"-10UNC x 6 1/2" capscrews (Grade 5) which can be purchased from your local dealer.*

FIG. 2-36



Reflector Assembly

11. Open the reflector kit (69054B) and assemble the bracket reflectors (65192B) to the reflector panels using 1/2"-13UNC x 1" capscrews (9390-099) and 1/2"-13UNC locknuts (Fig. 2-37).

IMPORTANT

- *When assembling the reflector panel and bracket, the red reflector (9003126) and fluorescent strip red/orange (9003125) are facing the rear of the machine.*

12. Attach half of the assembled reflector kit (69054B) to the right, short-front arm sub assembly (65186B) and bedder bar tube using backing plate (66283B), 3/4"-10UNC x 7" capscrews (9390-159) and 3/4"-10UNC locknuts (9802) (Fig. 2-37).

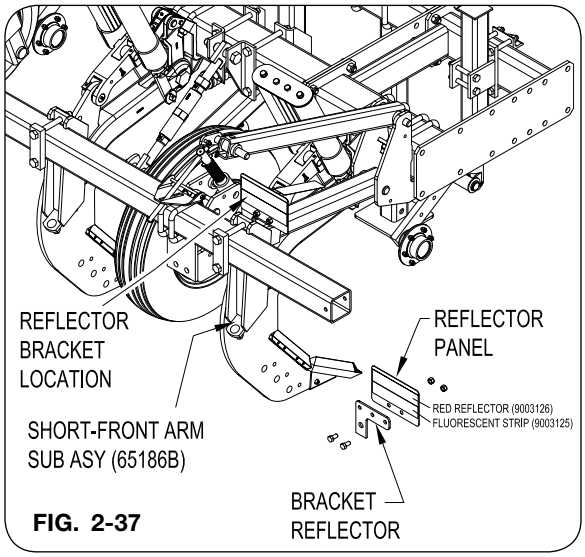


FIG. 2-37

Bedder Assembly - Main Frame Assembly (continued)

13. Attach the disc gang assemblies (65171B) to the short disc gang arms using the carriage bolts (9388-136), lock washer (9404-029), flat washers (9405-098) and locknuts (9802) (Fig. 2-38 & Fig. 2-39).

NOTE: Refer to the "Overhead Layouts" for staggered vs. opposed settings. Staggered disc gang assemblies form rounded beds. Opposing disc gang assemblies form taller peaked beds.

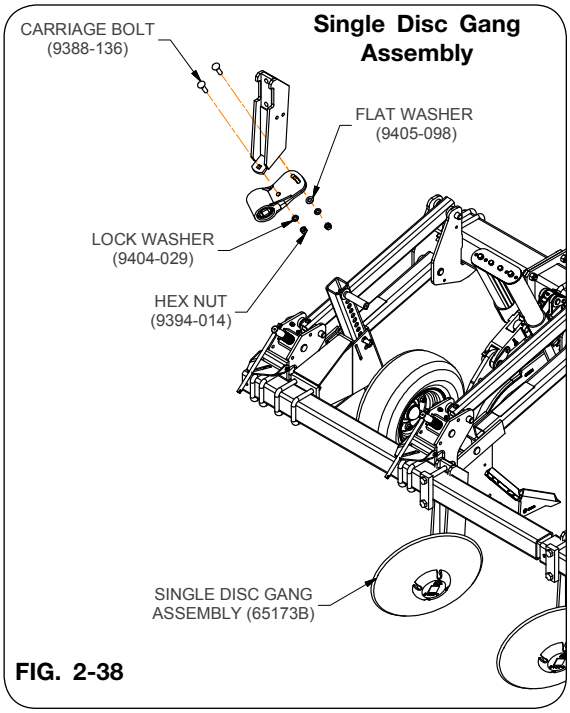


FIG. 2-38

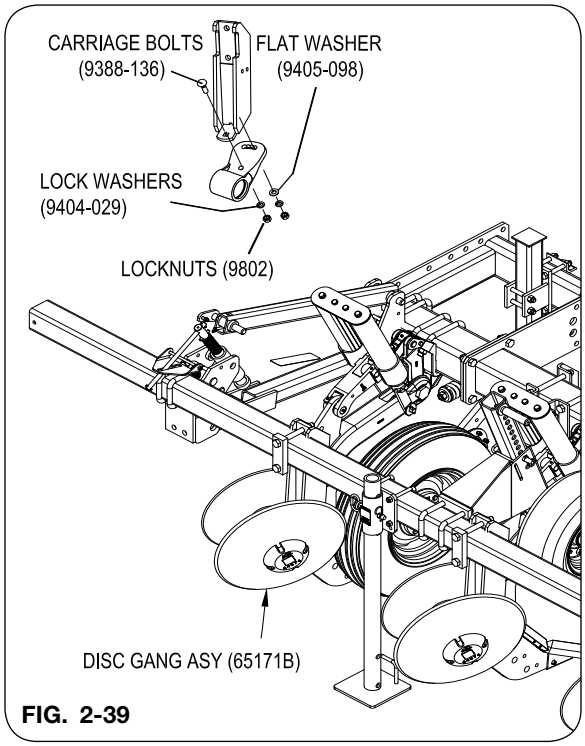


FIG. 2-39

Long-Rear Arm Sub Assembly

14. Attach the long-rear arm sub assemblies (65185B) to the bedder bar tube, except the last left hand assembly, using backing plate (66283B), 3/4"-10UNC x 7" capscrews (9390-159) and 3/4"-10UNC locknuts (9802) (Fig. 2-40).

15. Attach the other assembled reflector kit (69054B) to the left, long-rear arm sub assembly (65185B) and bedder bar tube using backing plate (66283B), 3/4"-10UNC x 7" capscrews (9390-159) and 3/4"-10UNC locknuts (9802) (Fig. 2-40).

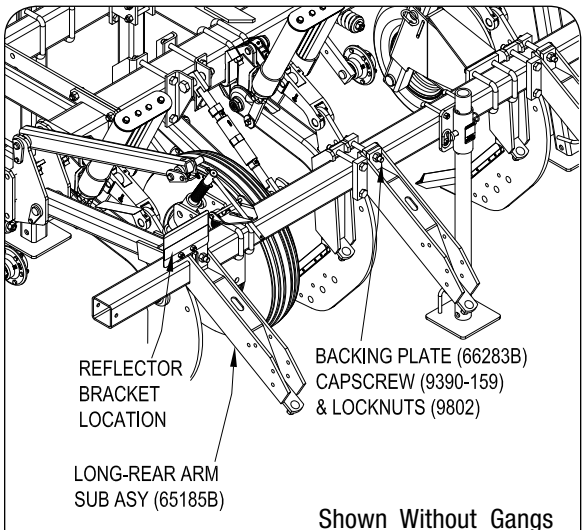


FIG. 2-40

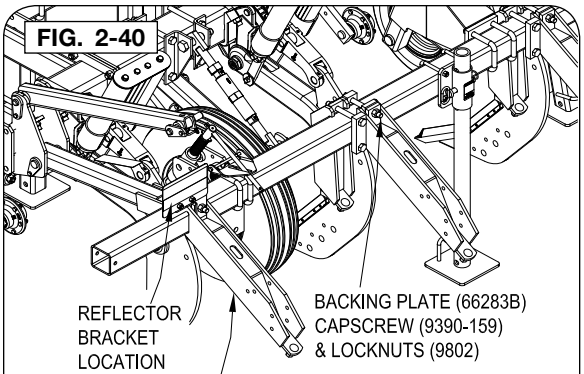
Bedder Assembly - Main Frame Assembly (continued)

Long-Rear Arm Sub Assembly

14. Attach the long-rear arm sub assemblies (65185B) to the bedder bar tube, except the last left assembly, using backing plate (66283B), 3/4"-10UNC x 7" capscrews (9390-159) and 3/4"-10UNC locknuts (9802) (Fig. 2-40).

15. Attach the other assembled reflector kit (69054B) to the left, long-rear arm sub assembly (65185B) and bedder bar tube using backing plate (66283B), 3/4"-10UNC x 7" capscrews (9390-159) and 3/4"-10UNC locknuts (9802) (Fig. 2-40).

FIG. 2-40



16. Attach the disc gang assemblies (65171B) to the long disc gang arms using the carriage bolts (9388-136), lock washer (9404-029), flat washers (9405-098) and locknuts (9802) (Fig. 2-41 & Fig. 2-42).

NOTE: Refer to "Overhead Layouts" for staggered vs. opposed settings. Staggered disc gang assemblies form rounded beds. Opposing disc gang assemblies form taller peaked beds.

NOTE: If optional bedded disk gauge wheel kit (65486) and/or scraper kits are to be installed, proceed to "Bedded Disk Gauge Wheel Kit (65486B)" later in this section before assembling the extension frame wing weldment bedder components, if applicable.

FIG. 2-41

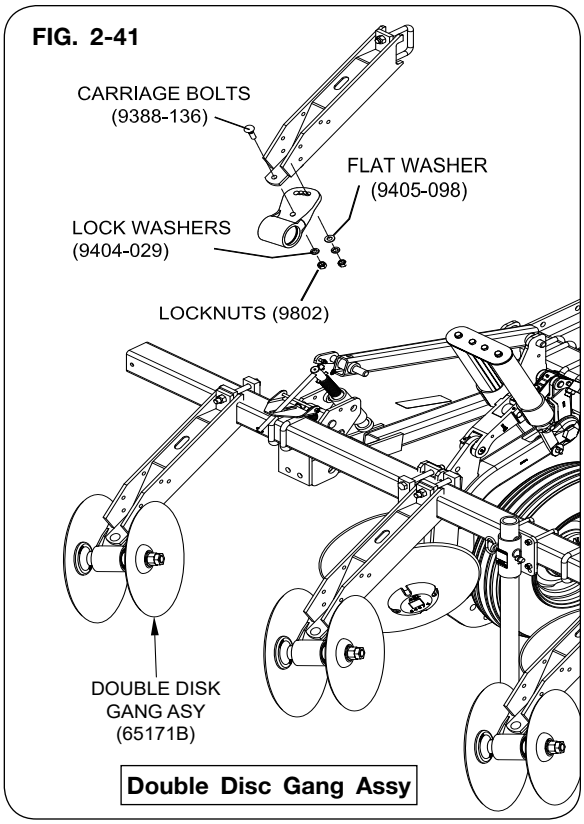
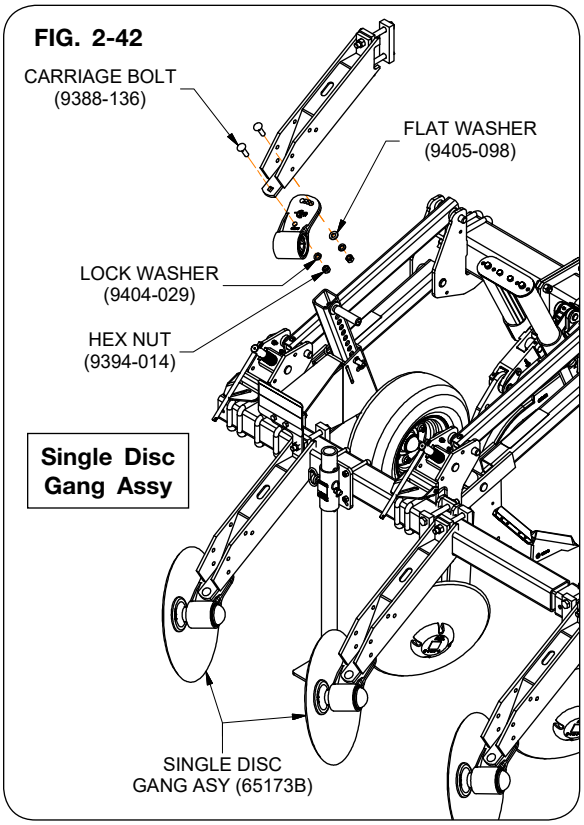


FIG. 2-42



Bedder Assembly - Wing Frame Assembly

Parallel-Link Arm Sub Assembly

17. Remove the two pins from the parallel-link arm sub assembly (64844B) front bracket (Fig. 2-43).

18. Using a safe lifting device rated at a minimum of 1,000 lbs., hoist around the rear section of the parallel-link arm sub assembly (64844B) (Fig. 2-43).

19. Attach the front bracket to the extension frame wing weldments using the two 3/4”-10UNC V-bolts (94135) and 3/4”-10UNC locknuts (97025) as shown in Fig. 2-43. Torque V-bolts to 240 ft.-lbs.

20. Attach the rear section of the parallel-link arm sub assembly (64844B) to the front bracket using the pins previously removed (Fig. 2-43).

21. Repeat steps 17 through 20 until all parallel-link arms are attached to the extension frame wing weldments.

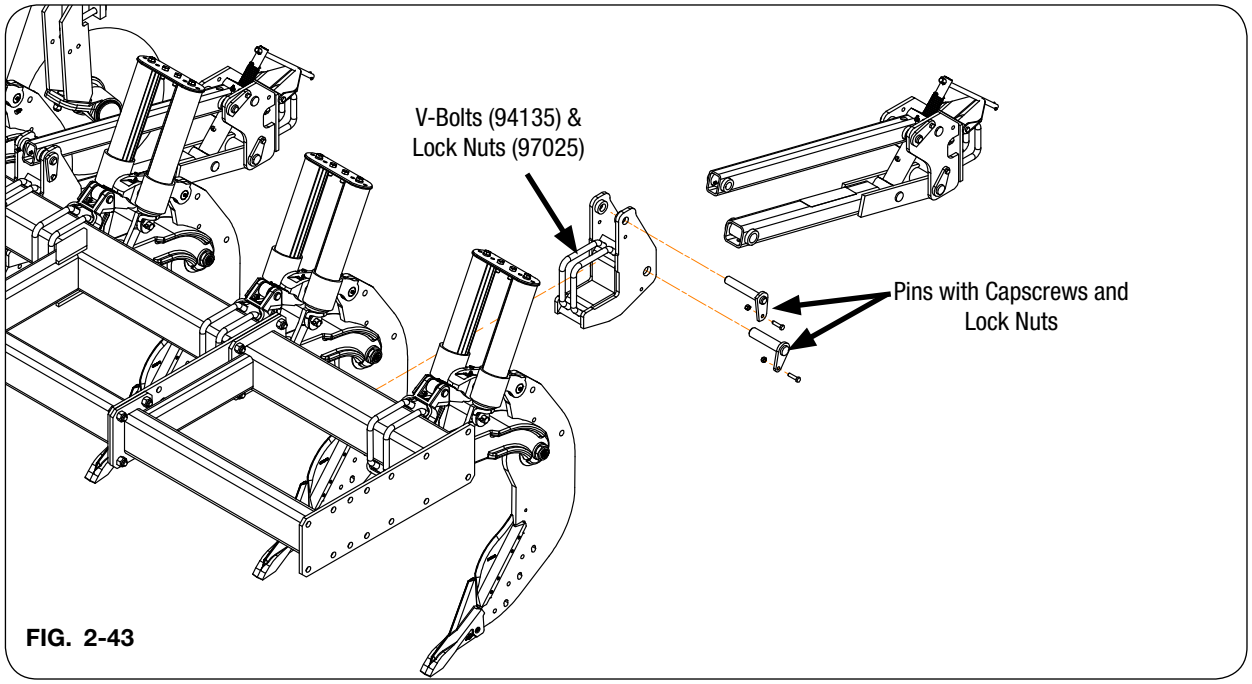


FIG. 2-43

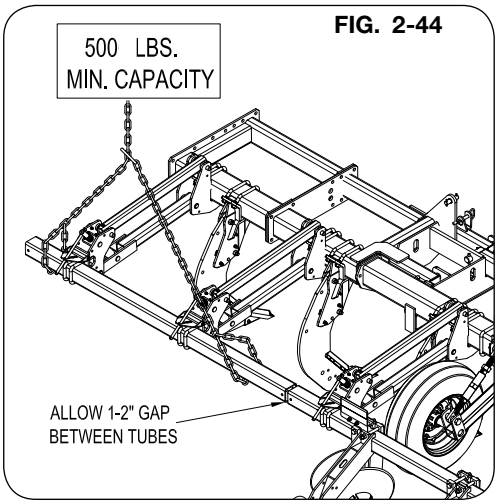
Bedder Bar/Tube Assembly

NOTE: Adjust each parallel-link arm sub assembly equally to make it easier to assemble the bedder bar tube(s).

22. Using a safe lifting device rated at a minimum of 500 lbs., hoist around the bedder bar/tube (Fig. 2-44).

23. Attach the bedder bar/tube to the parallel-link arm sub assembly (64844B) using the two 3/4”-10UNC U-bolts (900742) and 3/4”-10UNC locknuts (9802) (Fig. 2-44) Torque U-bolts to 240 ft.-lbs.

FIG. 2-44



Bedder Assembly - Wing Frame Assembly (continued)

Jackstand Assembly

24. Attach the jackstand assembly (65353B) between the parallel-link arm sub assemblies on the bedder bar/tube as shown in Fig. 2-45. Attach the other jackstand assembly (65353B) between the other parallel-link arm sub assemblies on the right-hand side of the extension frame wing weldment bedder bar/tube.

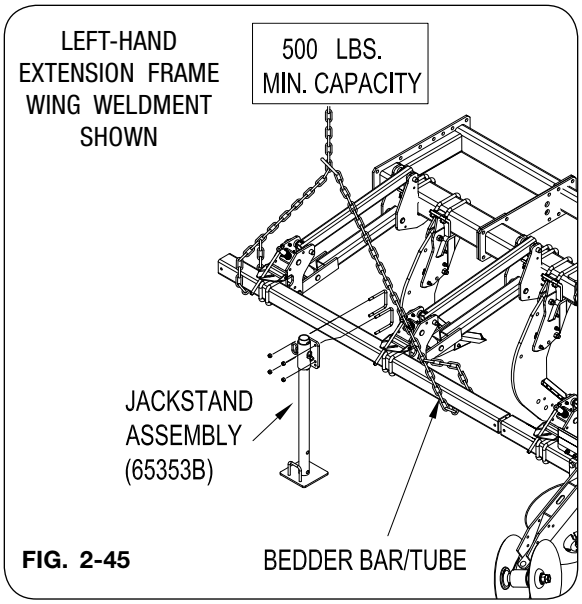


FIG. 2-45

Short-Front Arm Sub Assembly

25. Attach the short-front arm sub assemblies (65186B) to the bedder bar/tube using backing plate (66283B), 3/4”-10UNC x 7” capscrews (9390-159) and 3/4”-10UNC locknuts (9802) (Fig. 2-46).

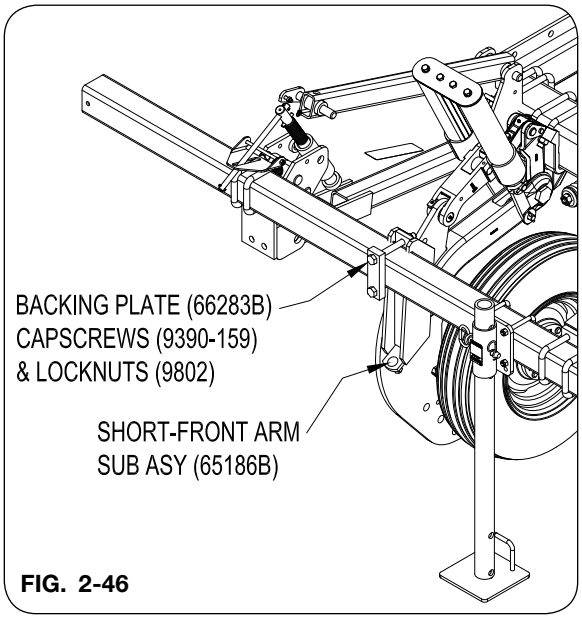


FIG. 2-46

Bedder Assembly - Wing Frame Assembly (continued)

26. Attach the disc gang assemblies (65171B) to the short disc gang arms using the carriage bolts (9388-136), lock washer (9404-029), flat washers (9405-098) and locknuts (9802) (Fig. 2-47).

NOTE: Refer to "Overhead Layouts" for staggered vs. opposed settings. Staggered disc gang assemblies form rounded beds. Opposing disc gang assemblies form taller peaked beds.

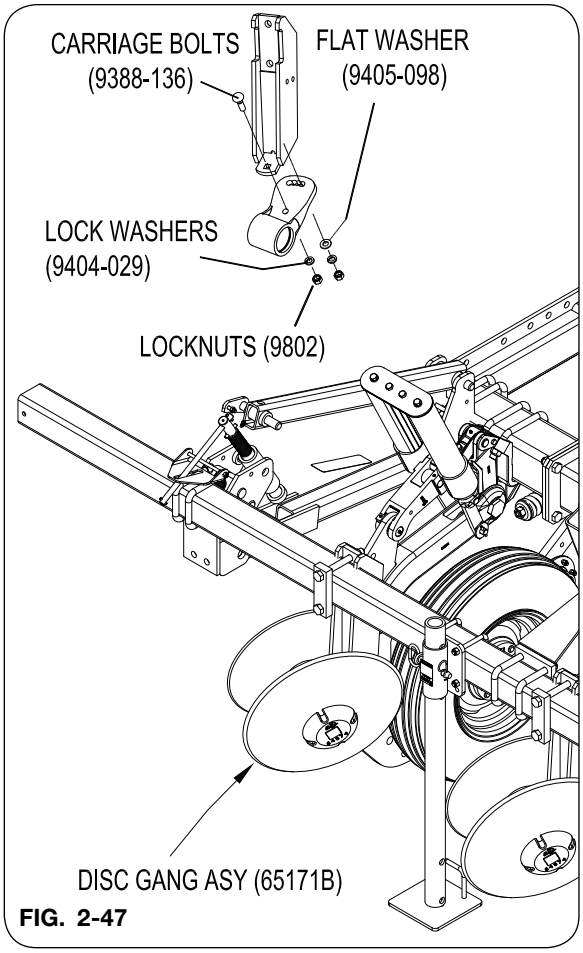


FIG. 2-47

Long-Rear Arm Sub Assembly

27. Attach the long-rear arm sub assemblies (65185B) to the bedder bar/tube using backing plate (66283B), 3/4"-10UNC x 7" capscrews (9390-159) and 3/4"-10UNC locknuts (9802) (Fig. 2-48).

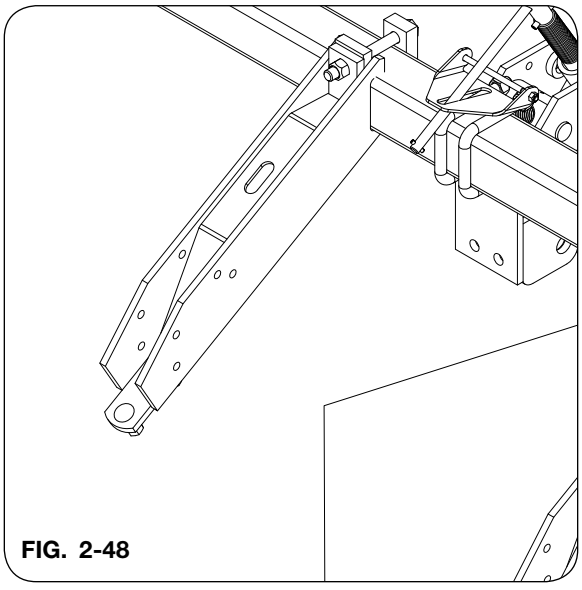


FIG. 2-48

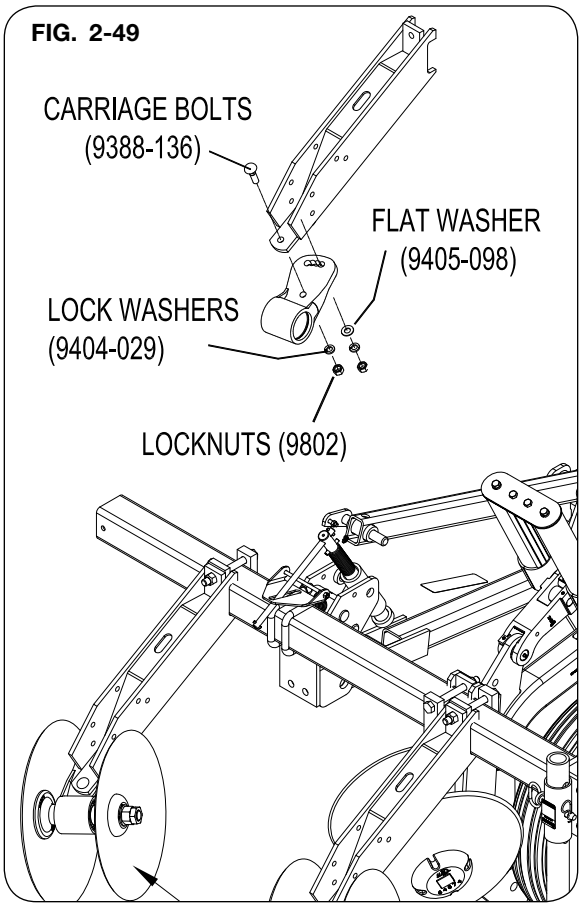
Bedder Assembly - Wing Frame Assembly (continued)

28. Attach the disc gang assemblies (65171B) to the short and long disc gang arms using the carriage bolts (9388-136), lock washer (9404-029), flat washers (9405-098) and locknuts (9802) (Fig. 2-49).

NOTE: Refer to "Overhead Layouts" for staggered vs. opposed settings. Staggered disc gang assemblies form rounded beds. Opposing disc gang assemblies for taller peaked beds.

NOTE: If optional bedded disk gauge wheel kit (65486B) and/or scraper kits are to be installed, proceed to "Bedded Disk Gauge Wheel Kit (65486B)" later in this section.

FIG. 2-49



Hydraulic Set Up — Standard Folding 8 Shank 36”, 38” & 40” Spacing; Folding 12 Shank 30” Spacing

⚠ WARNING

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

1. Attach the cylinder mount assemblies (68410B) to both sides of the main frame with the 1”-8UNC x 3” capscrews and 1”-8UNC locknuts (FIG. 2-50).

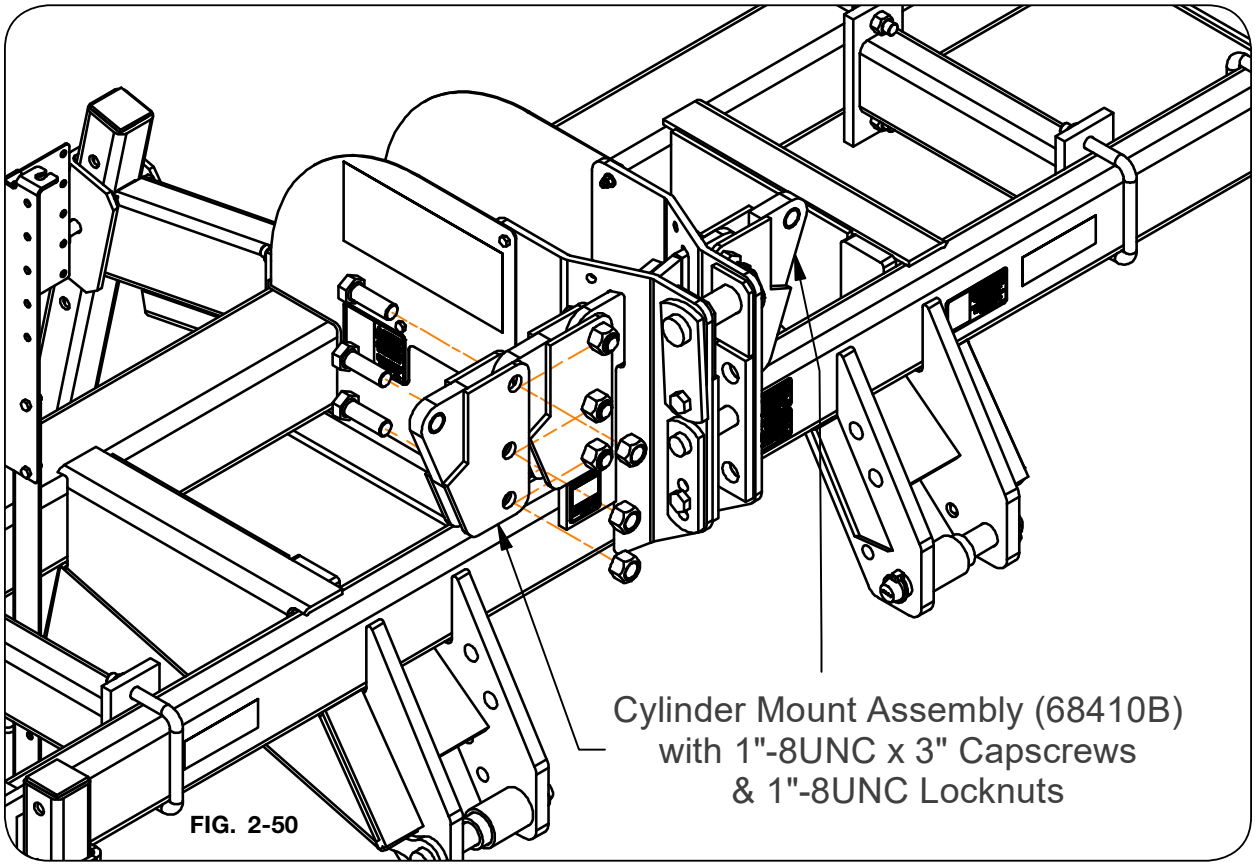


FIG. 2-50

Hydraulic Set Up — Standard (continued)
Folding 8 Shank 36”, 38” & 40” Spacing; Folding 12 Shank 30” Spacing

2. Attach the base end of the hydraulic cylinders (901283) to the cylinder mount assembies (68410B) with 1” Dia. x 4” pins (85631) and 1/4” Dia. x 1 7/8” spiral pins (91144-165) (FIG. 2-51).

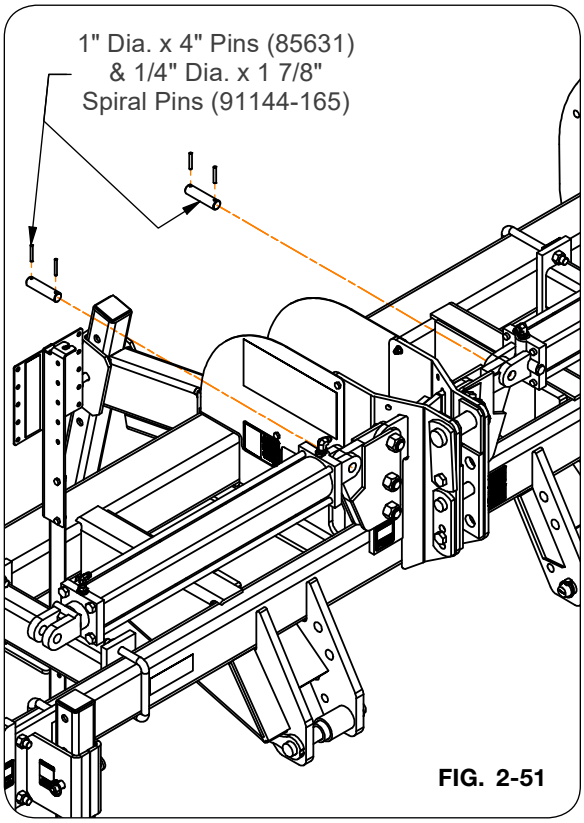


FIG. 2-51

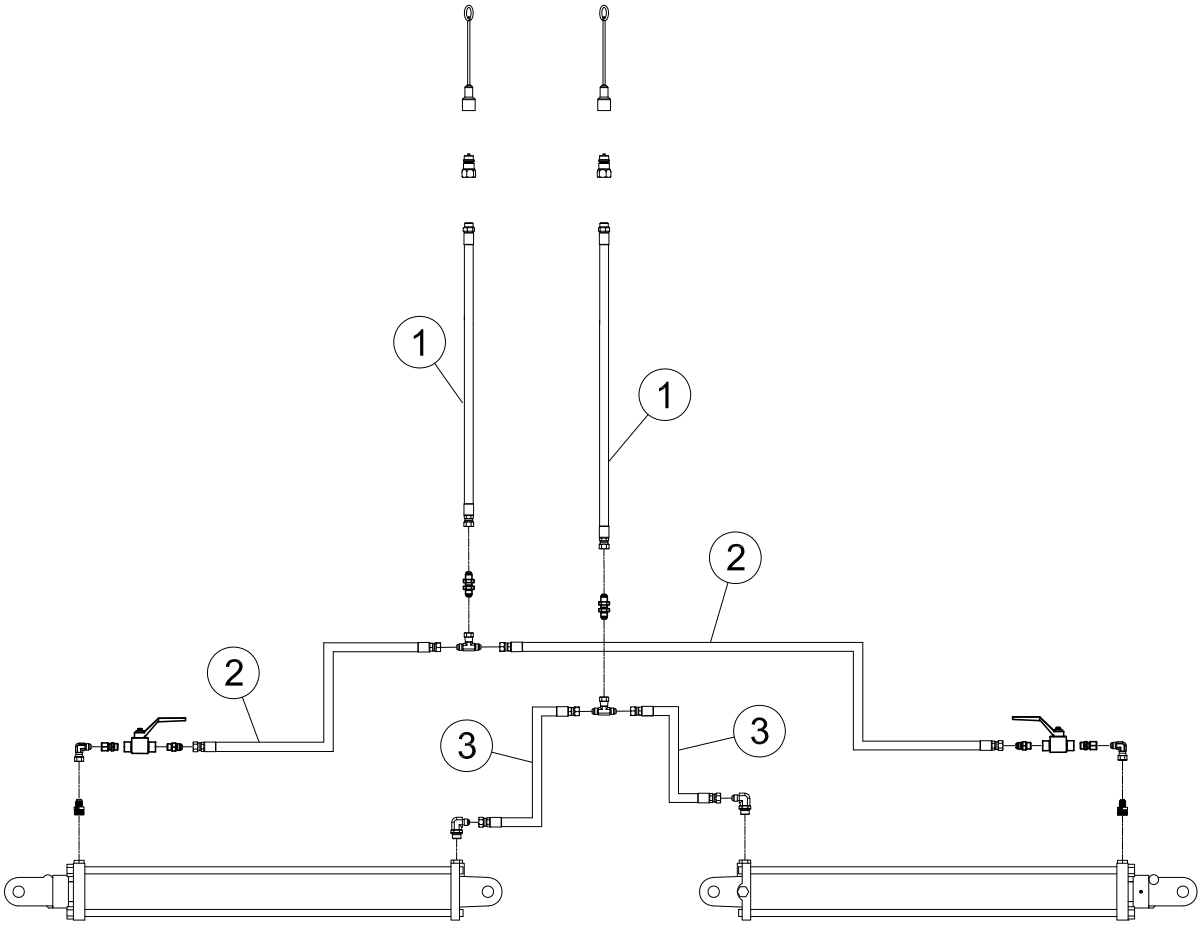
Hydraulic Set Up — Standard (continued)
Folding 8 Shank 36", 38" & 40" Spacing; Folding 12 Shank 30" Spacing

3. Attach all the hydraulic fittings, valve (if applicable), and hoses using the following hydraulic diagram Fig. 2-52.

IMPORTANT

- *Do not use teflon tape or thread sealant as all fittings have mechanical or O-ring seals. This prevents contamination from tape or thread sealants entering the tractor's hydraulic system.*

FIG. 2-52



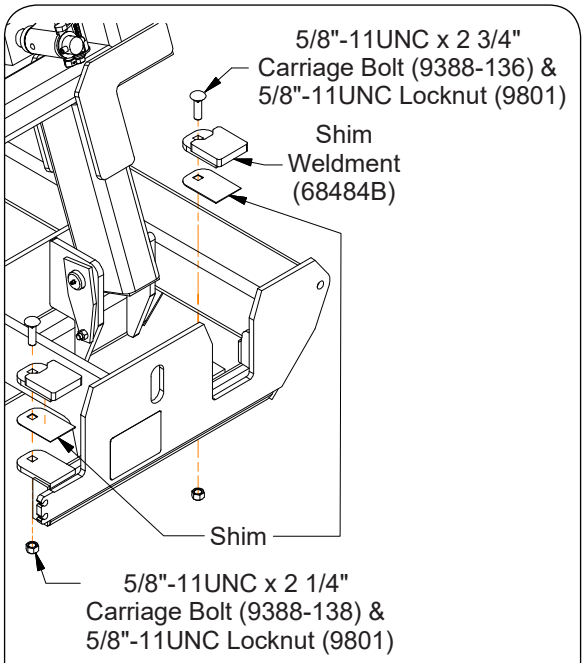
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	96975	Hose 3/8" Dia. x 72"	2	
2	9002976	Hose 3/8" Dia. x 57"	2	
3	91589	Hose 3/8" Dia. x 28"	2	

4. Purge the hydraulic system. Refer to "Purging Hydraulic System" in this section.

Hydraulic Set Up — Standard (continued)
Folding 8 Shank 36”, 38” & 40” Spacing;
Folding 12 Shank 30” Spacing

5. Add shim weldments (68484B) along with the necessary shims to the front and rear wing hinge section on both sides of the main frame with 5/8”-11UNC x 2 1/4” carriage bolts (9388-136) in the rear position, 5/8”-11UNC x 2 1/2” carriage bolts (9388-138) in the front position and 5/8”-11UNC locknuts (9801) to adjust/level the wing height (FIG. 2-53).

NOTE: Additional shims can be stored on bottom side of mounting plate.



Front, Left-Hand Side Shown

FIG. 2-53

Hydraulic Set Up — Standard Hydraulics Folding 12 Shank 36”, 38” & 40” Spacing

WARNING

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

1. Attach the cylinder anti-rotational plates (68276B) to the 4” x 48” cylinders (9501464) with 1/2”-13UNC x 1 1/2” capscrews (9390-101) and 1/2”-13UNC locknuts (9800) (FIG. 2-54).

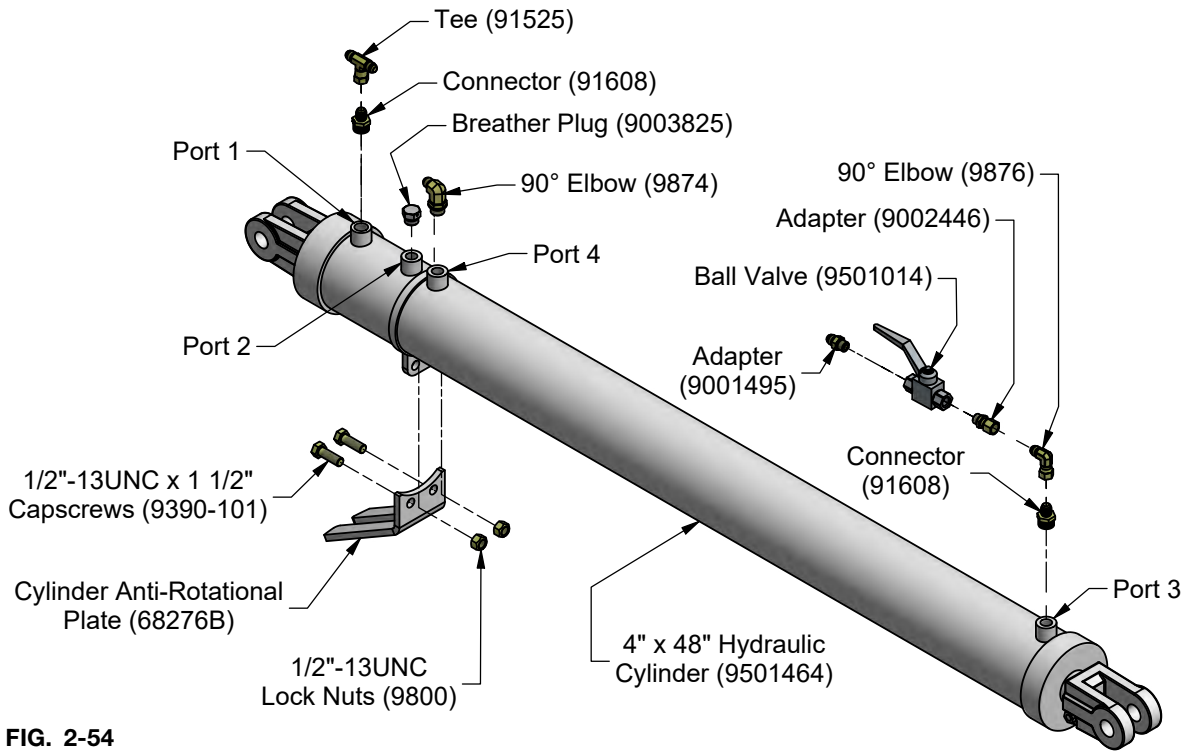


FIG. 2-54

2. Assemble adapter (9001495), ball valve (9501014), adapter (9002446), 90° elbow (9876) and connector (91608) to cylinder port 3. (FIG. 2-54)
3. Assemble tee (91525) and connector (91608) to cylinder port 1. (FIG. 2-54)
4. Assemble 90° elbows (9874) to cylinder port 4. (FIG. 2-54)
5. Assemble breather plug (9003825) to cylinder port 2. (FIG. 2-54)

Hydraulic Set Up — Standard Hydraulics (continued)
Folding 12 Shank 36”, 38” & 40” Spacing

6. Attach the cylinders to the main frame with 1” Dia. x 4” pins (85631) and 1/4” Dia. x 1 7/8” spiral pins (91144-165) as shown in FIG. 2-55.

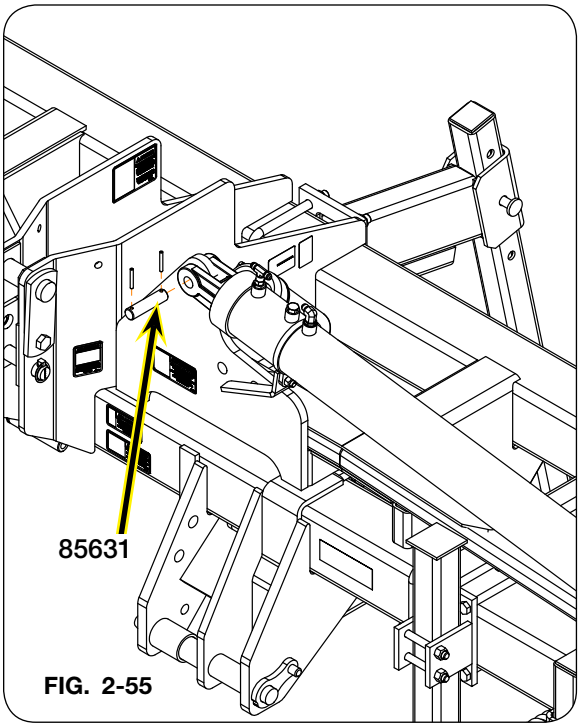


FIG. 2-55

7. Attach the two bulkhead unions with nut (95192) to the mounting plate (68521B) as shown in FIG. 2-56.

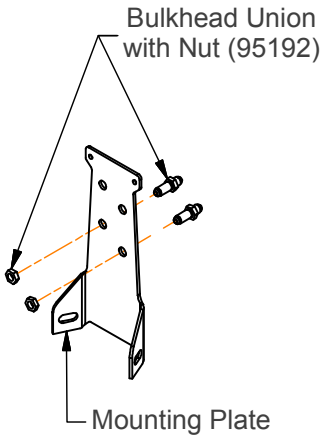
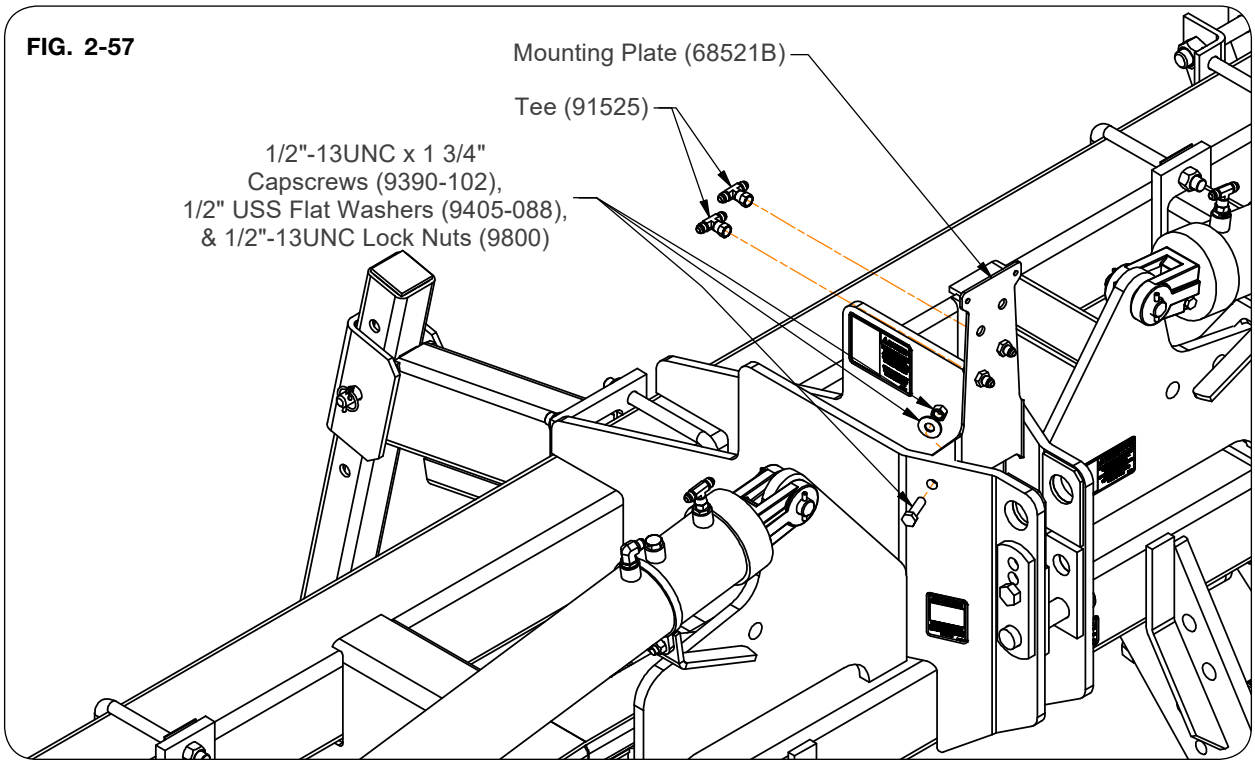


FIG. 2-56

Hydraulic Set Up — Standard Hydraulics (continued)
Folding 12 Shank 36”, 38” & 40” Spacing

8. Assemble the tees (91525) to the mounting plate adapters (FIG. 2-57).

FIG. 2-57

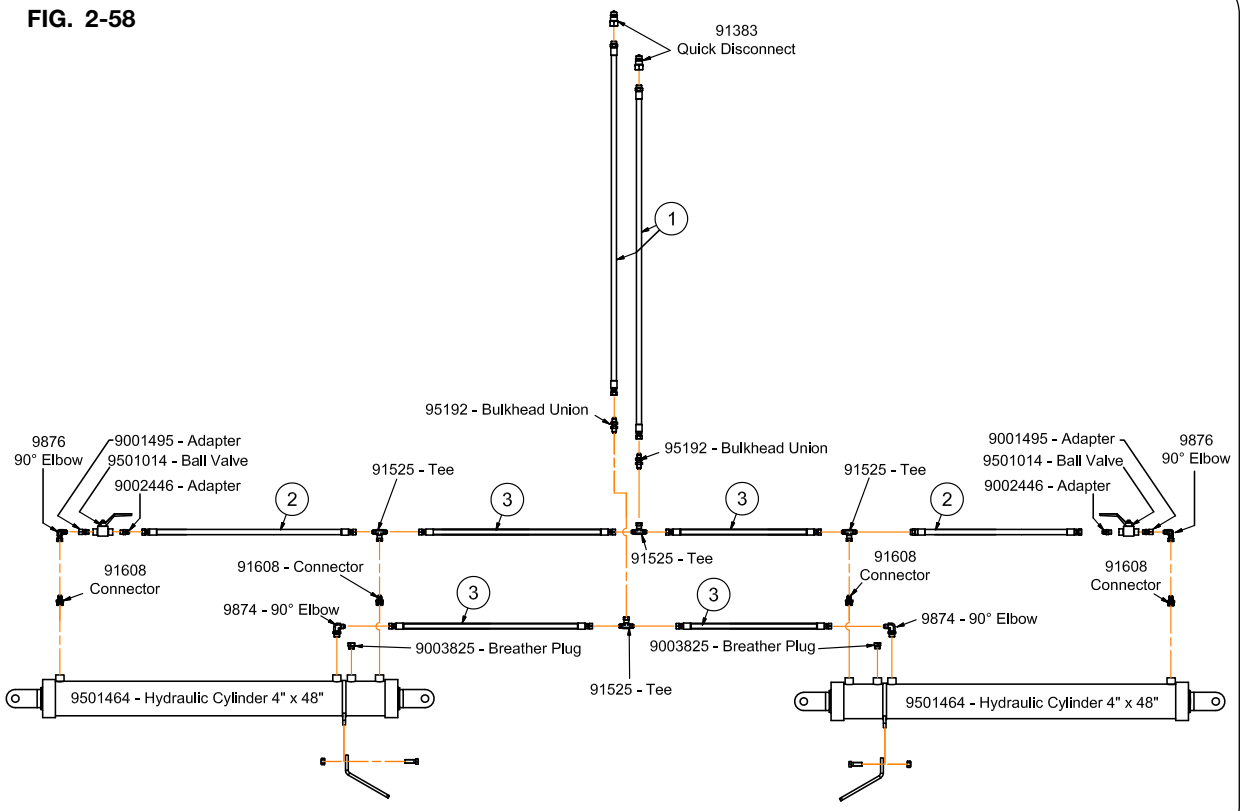


9. Secure the mounting plate (68521B) to the main frame with 1/2”-13UNC x 1 3/4” capscrews (9390-102), 1/2” USS flat washers (9405-088), and 1/2”-13UNC locknuts (9800) as shown in FIG. 2-57.

Hydraulic Set Up — Standard Hydraulics (continued)
Folding 12 Shank 36", 38" & 40" Spacing

10. Route hydraulic hoses as shown in FIG. 2-58.

FIG. 2-58



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9502772	Hose 3/8" Dia. x 72"	2	
2	9501677	Hose 3/8" Dia. x 54"	2	
3	9502793	Hose 3/8" Dia. x 28"	4	

11. Purge the hydraulic system. Refer to "Purging Hydraulic System" in this section.

Hydraulic Set Up — Standard Hydraulics (continued)
Folding 12 Shank 36”, 38” & 40” Spacing

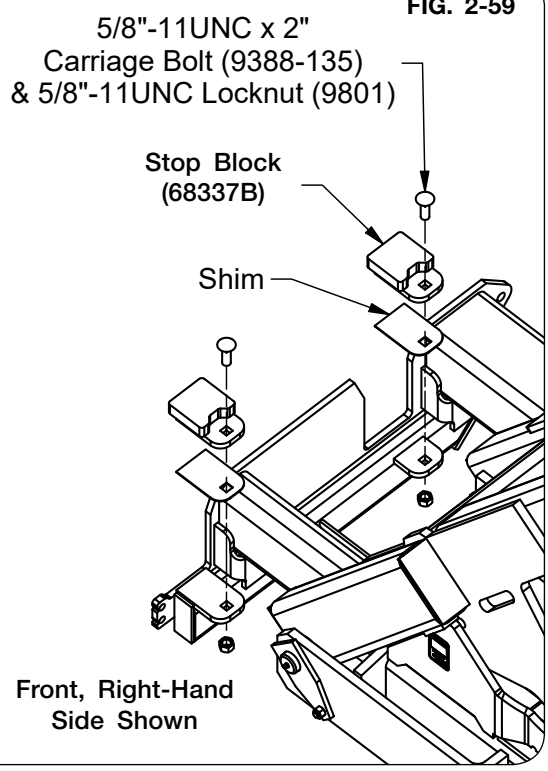
12. Add stop block (68337B) and add the shims if needed to the front and rear wing hinge section on both sides of the main frame with 5/8”-11UNC x 2” carriage bolts (9388-135) and 5/8”-11UNC lock nuts (9801) to adjust/level the wing height (FIG. 2-59).

⚠ CAUTION

- **SHIM KIT MUST NOT BE USED WITH FLEX VALVE.**

NOTE: There are 3 shims for each corner, you need to select the appropriate sizes as needed. (store unused on bottom side of mounting ear).

FIG. 2-59



Front, Right-Hand Side Shown

Hydraulic Set Up — Flex Hydraulics Optional Folding 12 Shank 36", 38" & 40" Spacing

⚠ WARNING

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

1. Attach the fittings to the valve assembly (9503620) as shown in FIG. 2-60.

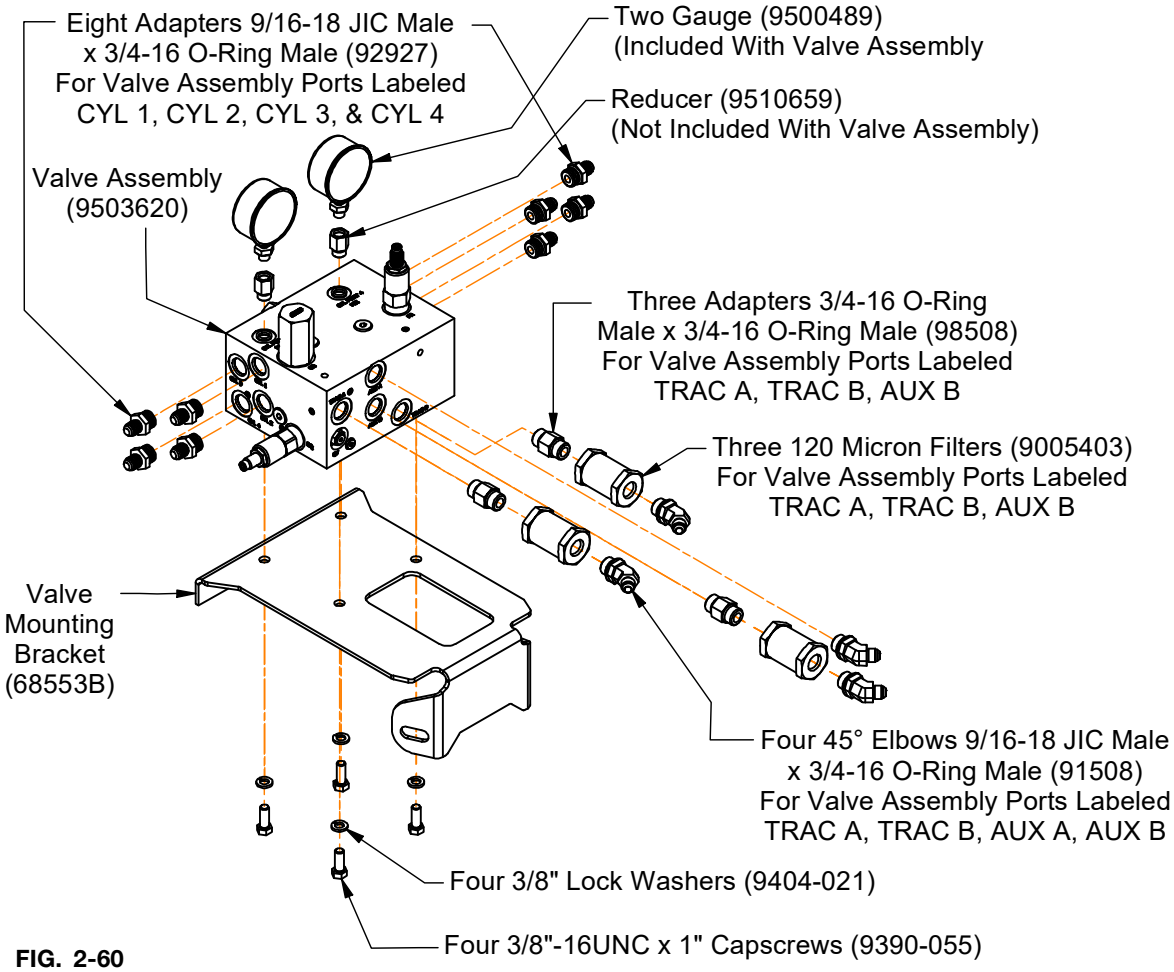


FIG. 2-60

2. Attach the valve assembly with fittings to the valve mounting bracket (68553B) with capscrews (9390-055) and lock washers (9404-021) FIG. 2-60.

Hydraulic Set Up — Flex Hydraulics Optional (continued)
Folding 12 Shank 36”, 38” & 40” Spacing

3. Secure the valve mounting bracket to the main frame with capscrews (9390-101), flat washers (9405-088), and locknuts (9800) as shown in FIG. 2-61.

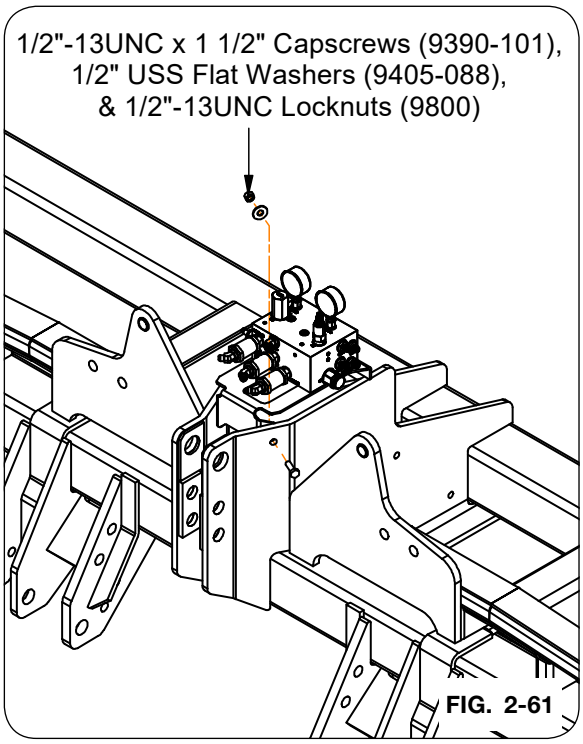


FIG. 2-61

Hydraulic Set Up — Flex Hydraulics Optional (continued) Folding 12 Shank 36", 38" & 40" Spacing

4. Attach the cylinder plates to the cylinders with 1/2"-13UNC x 1 1/2" capscrews (9390-101) and 1/2"-13UNC locknuts (9800). (FIG. 2-62)

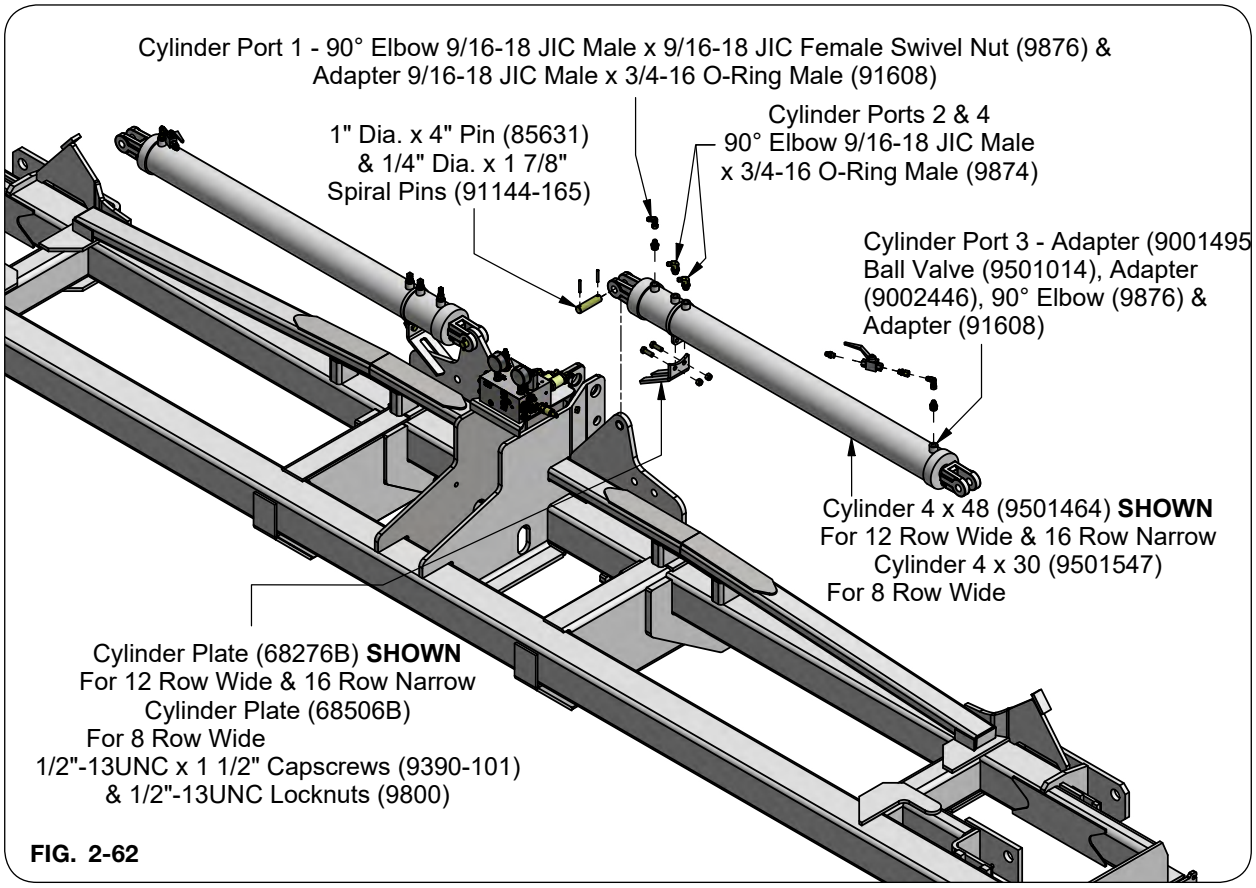


FIG. 2-62

5. Assemble 90° elbows (9876) and adapters (91608) to cylinder ports 1 and 3. (FIG. 2-62)

6. Assemble 90° elbows (9874) to cylinder ports 2 and 4. (FIG. 2-62)

7. Attach the cylinder to the main frame with 1" Dia. x 4" pins (85631) and 1/4" Dia. x 1 7/8" spiral pins (91144-165) as shown in FIG. 2-62.

Hydraulic Set Up — Flex Hydraulics Optional (continued) Folding 12 Shank 36", 38" & 40" Spacing

8. Attach the hoses to the cylinders and valve assembly as shown in FIG. 2-63.

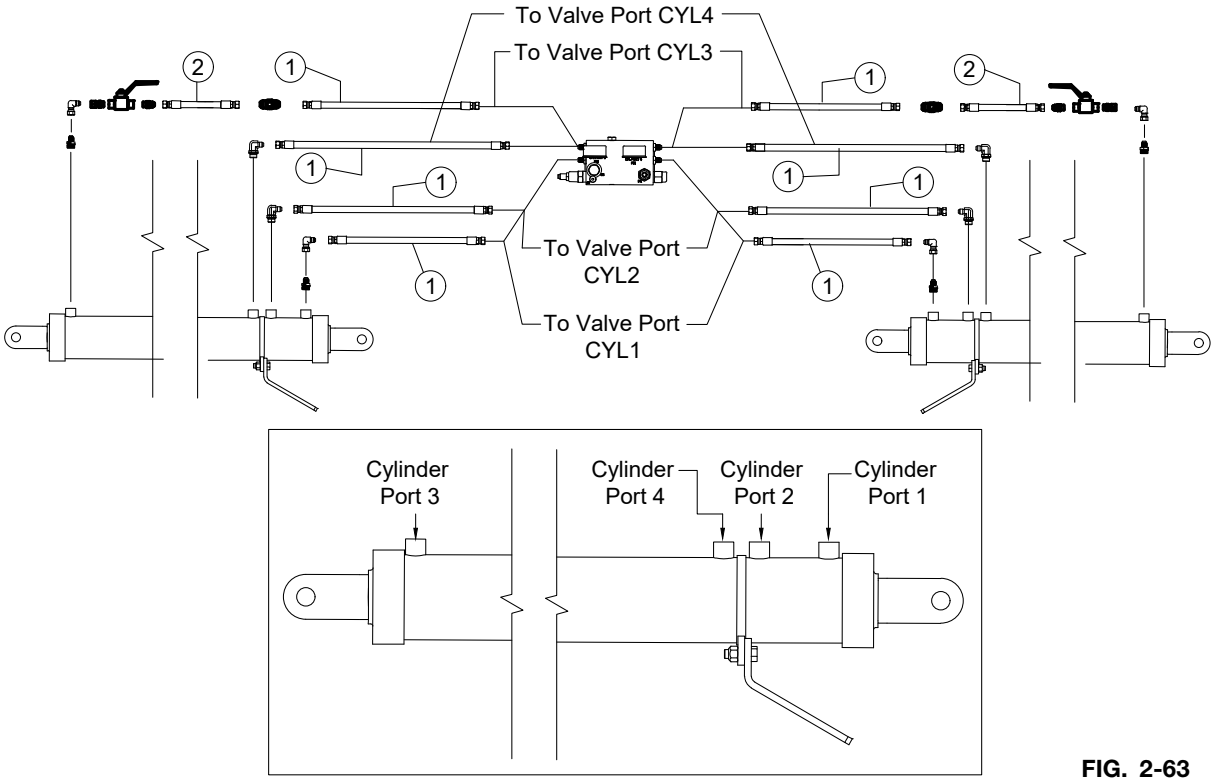
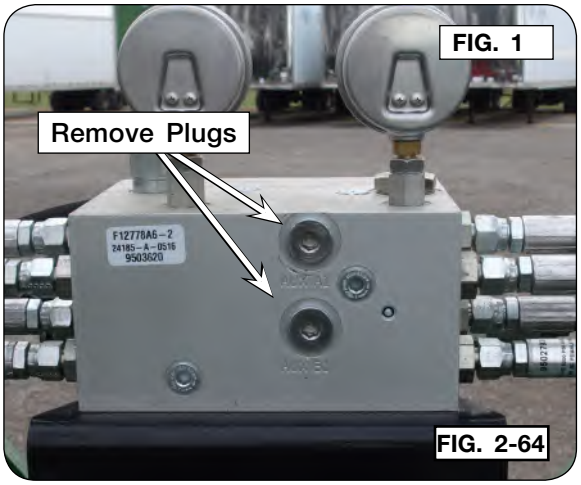


FIG. 2-63

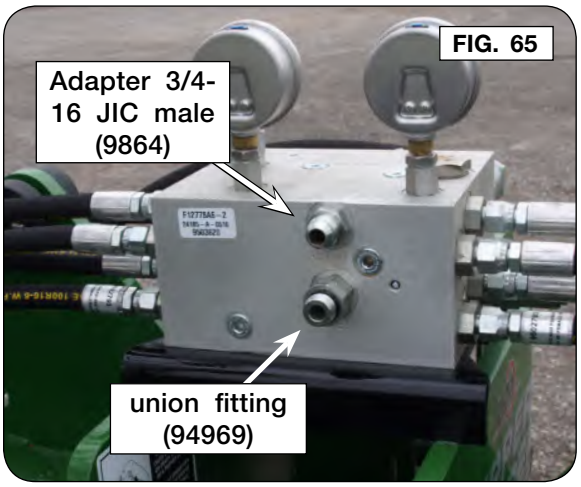
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	9502793	Hose 3/8" Dia. x 28"	8	Cylinder Port 1 to Valve Port CYL1; Cylinder Port 2 to Valve Port CYL2; Cylinder Port 3 to Connector & Hose #2; Cylinder Port 4 to Valve Port CYL4
2	9501677	Hose 3/8" Dia. x 54"	2	Hose #1 & Connector to Valve Port CYL3

Hydraulic Set Up — Flex Hydraulics Optional (continued)
Folding 12 Shank 36", 38" & 40" Spacing

9. Remove and discard the plugs in ports AUX A1 and AUX B1. (FIG. 64)

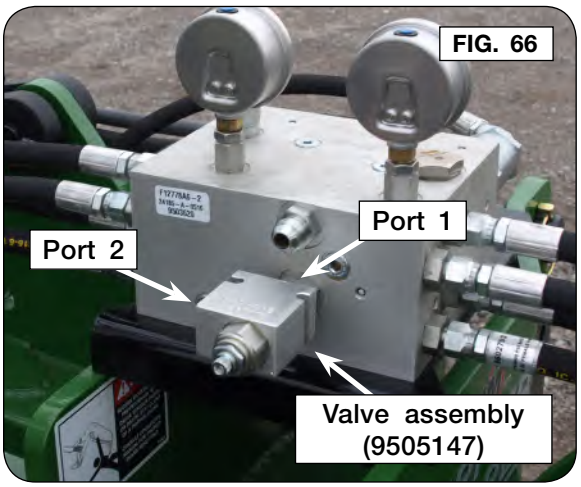


10. Install Adapter 3/4-16 JIC male (9864) into port AUX A1 and the non-adjustable end of union fitting 94969 into port AUX B1 and torque to 12 ft-lbs. (FIG. 65)



11. Thread Port 1 of the pressure relief valve assembly 9505147 onto the adjustable union fitting in port AUX B1 as shown in figure 66. Torque the adjustable fitting nut to 12 ft-lbs.

NOTE: Port 1 of the relief valve assembly will attach to the union fitting and port 2 will face the left-hand side of the machine.



Hydraulic Set Up — Flex Hydraulics Optional (continued)
Folding 12 Shank 36”, 38” & 40” Spacing

12. Install 90-degree fitting 93683 onto the adapter in AUX A1. Point the JIC end toward the left-hand side of the machine as shown in figure 4. Hand tighten the JIC fittings until they are seated, then tighten an additional 1/6 turn.

13. Install 45-degree fitting 93586 into port 2 of the pressure relief valve block. Point the JIC end of the fitting downward and Torque the O-ring nut to 12 ft-lbs. (FIG. 67)

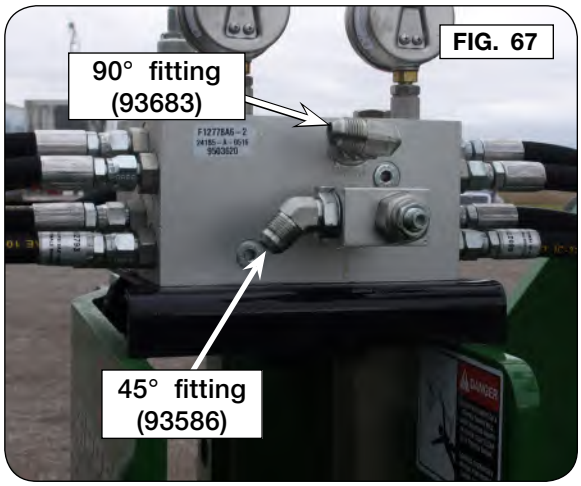


FIG. 67

14. Connect the two new fittings installed in steps 6 & 7 with the new hose 9502790. Hand tighten the JIC fittings until they are seated, then tighten an additional 1/6 turn. Ensure the hose does not twist while tightening the fittings. (FIG. 68)

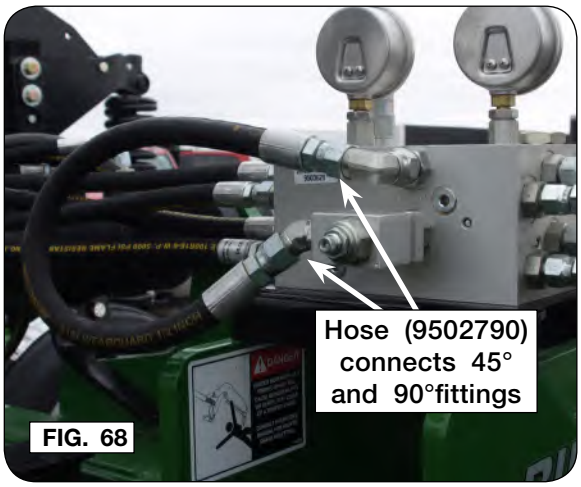


FIG. 68

Purging Hydraulic System

WARNING

- **RELIEVE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE TRACTOR OPERATOR'S MANUAL FOR PROPER PROCEDURES.**

- **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.**

IMPORTANT

- *Flex frame configuration, wings will go below center when BOTH pistons are fully extended on each cylinder. IF Machine is not raised into transport OR system is not properly operated (hyd. valve shifts to pressure reducing mode), damage could occur.*

Purge air from system as follows:

A. Clear all personnel and objects from the area, including where the machine will have full range of motion during the hydraulic movement. Remove transport locks from the machine.
B. Pressurize the system and maintain the system at full pressure for at least 5 seconds after the cylinder rods stop moving, or hydraulic motors have completed the required movement. Check that all movements are fully completed.
C. Check oil reservoir in the hydraulic power source and refill as needed.
D. Pressurize the system again to reverse the motion of step B. Maintain pressure on the system for at least 5 seconds after the cylinder rods stop moving, or hydraulic motors have completed the required movement. Check that all movements are fully completed.
E. Check for hydraulic oil leaks using cardboard or wood. Tighten connections according to directions in the Torque Specifications in the MAINTENANCE section.
F. Repeat steps in B, C, D, and E 10-12 times.

HYDRAULIC SYSTEM CHECKS ON ALL UNITS -- CHECK THE FOLLOWING:
ROUTING OF ALL HYDRAULIC HOSES: Hoses should not be kinked, twisted, or rubbing against sharp edges.

FITTINGS AND CONNECTIONS: Check for leaks. Refer to “Torque Chart” in MAINTENANCE section.

HOSES: Be sure hoses have room to “FLEX” (for folding) in hinge areas. Hoses must be secured with cable ties.

Bedded Disc Gauge Wheel Kit (65486B)

For proper positioning, refer the "Overhead Layouts" later in this section.

⚠ WARNING

- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING 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 1,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

1. Position the implement on a level surface with the shank tips resting on the ground.
2. Using a safe lifting device rated at a minimum of 300 lbs., hoist around the gauge wheel assembly (Fig. 2-65).
3. Attach the bedded disk gauge wheel to the bedder bar/tube(s) using 3/4"-10UNC U-bolts (900742) and 3/4"-10UNC locknuts (9802) (Fig. 2-65). Tighten hardware to 85 ft.-lbs.

⚠ CAUTION

- IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. TORQUE WHEEL NUTS/BOLTS TO VALUES IN TABLE. CHECK THE TORQUE BEFORE INITIAL USE, AFTER ONE HOUR OF USE AND EACH HOUR UNTIL THE WHEEL NUTS/BOLTS MAINTAIN THEIR TORQUE VALUE. CHECK TORQUE EVERY 10 HOURS OF USE THEREAFTER. AFTER EACH WHEEL REMOVAL START TORQUE PROCESS FROM BEGINNING. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.

Bedded Disk Gauge Wheel Kit
20.5/8-10 Gauge Wheels (Pair)
Bundle #65486B

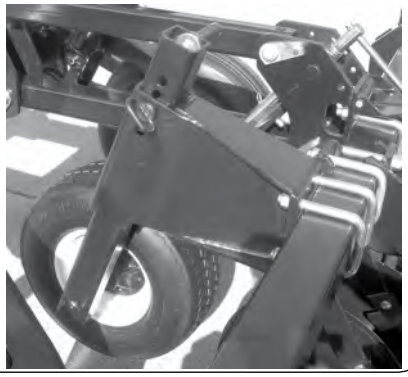


FIG. 2-64

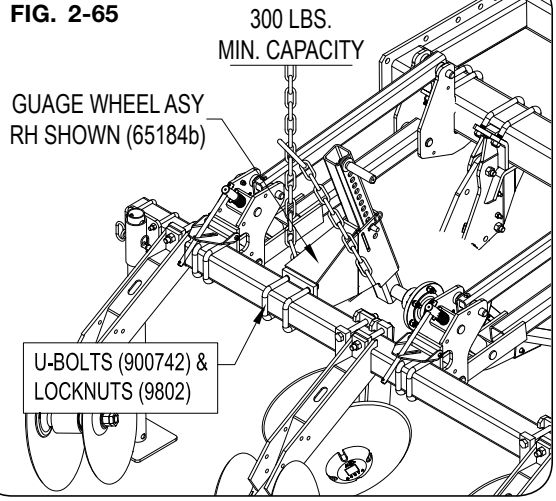


FIG. 2-65

Bedded Disc Gauge Wheel Kit (65486B) (continued)

4. Attach the mounted wheel and tire assembly (9622) to the gauge wheel assemblies (Fig. 2-66). Tighten the wheel 1/2”-20UNF beveled nuts to 95 ft.-lbs.

5. Repeat steps 2 through 4 and attach the other bedded disk gauge wheel(s).

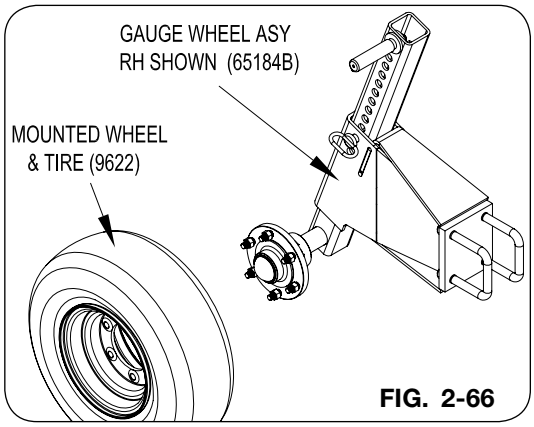


FIG. 2-66

Optional Attachments—Scraper Kits (65487B/65488B/65798B)

For proper positioning, refer to the “Overhead Layouts” later in this section.

⚠ WARNING

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

1. Position the implement on a level surface with the shank tips resting on the ground.

2. Separate the scraper assemblies (Fig. 2-68).

Bedding Disk Scraper Complete Kit
For Bedding Disk Gang
6 Row Bundle #65487B
8 Row Bundle #65488B
12 Row Bundle #65798B

FIG. 2-67

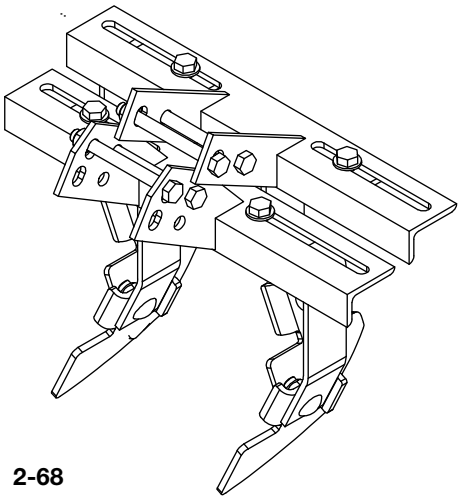


FIG. 2-68

Optional Attachments—Scraper Kits (65501B/65487B/65488B) (continued)

3. Loosen the angle hardware and remove the 1/2”-13UNC x 5” capscrews (9390-113) and 1/2”-13UNC locknuts (9800) (Fig. 2-69).

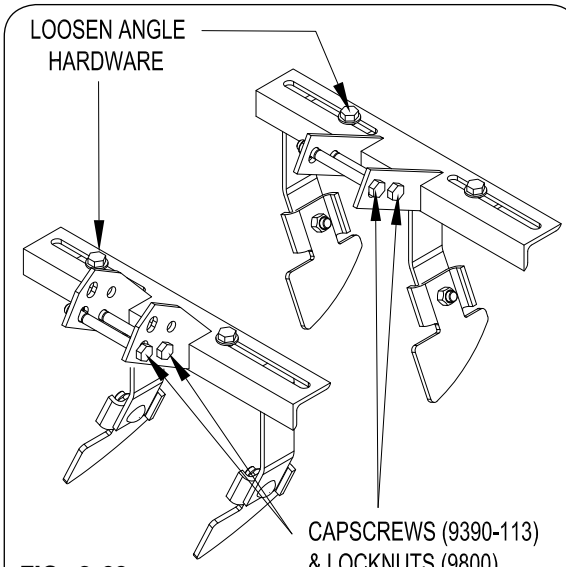
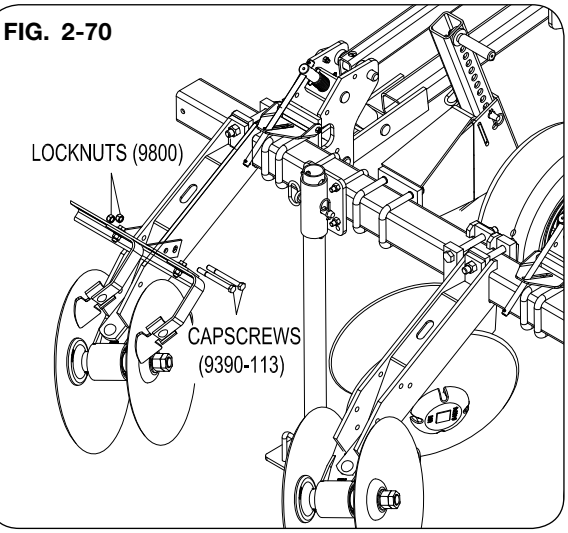


FIG. 2-69

4. Attach the scraper assembly to the gang assembly as shown in Fig. 2-70 with the hardware removed in step 3.

5. Adjust each scraper arm and maintain at least a 1/8” spacing between the disc and the scraper. Tighten all hardware to 85 ft.-lbs.

FIG. 2-70



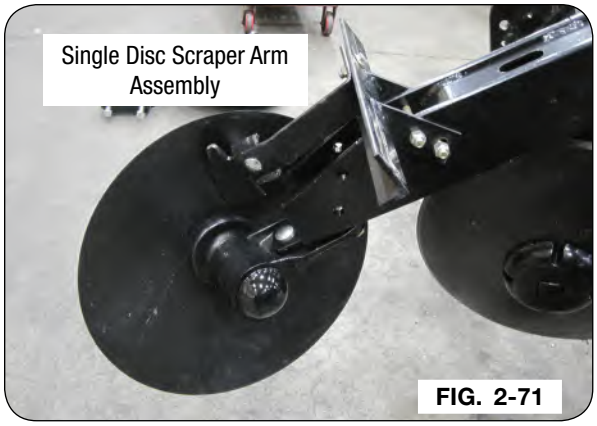


FIG. 2-71

Optional Attachments—Shank Protector (64077 Steel)

To protect and extend the life of your shanks, in highly abrasive soils, shank protectors are available. Simply bolt to the side of the shank using the hardware provided.

NOTE: Shank protectors should always be held in place using a minimum of two bolts.

NOTE: If installing shatter wings on the shanks with the shank protectors installed, the 2 1/4" long capscrews need to be replaced with 2 3/4" capscrews.

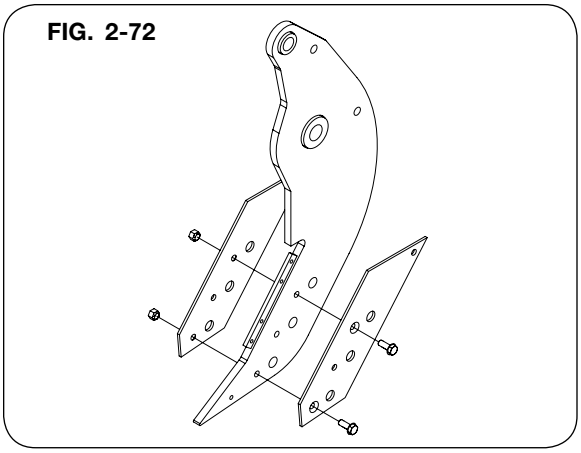


FIG. 2-72

Optional Attachments—Shatter Wings (67691B &67692B)

For initial installation, position the shatter wings in the bottom hole pattern with the rear capscrew positioned on the bottom of the large hole in the shank. This will provide minimal soil disturbance.

Secure the shatter wings to the shank with the beveled edge facing upward. Retain into position using two 1/2" x 2 1/4" large bolts and 1/2" locknuts (Fig. 2-73).

For increased soil disturbance, adjust the angle of the wings by loosening the bolts and pivoting back the wing upward to the desired angle (see adjustments).

If installing the shatter wings on the shanks with the shank protectors installed, the 2 3/4" long capscrews need to be used instead of the 2 1/4" capscrews (furnished with the kit). See Fig. 2-73.

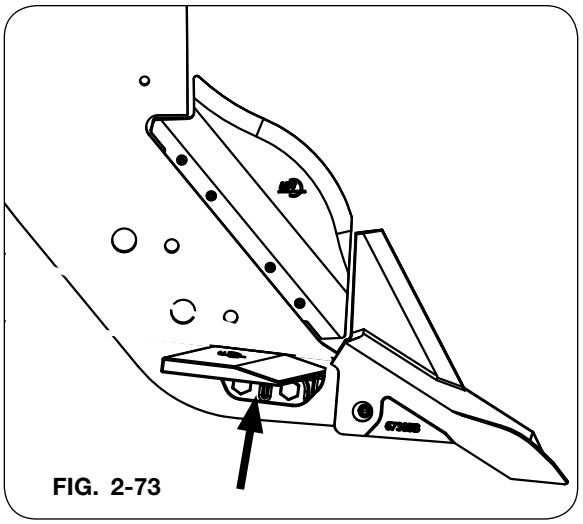


FIG. 2-73

Optional Attachments—Shank Protector (65817)

To protect and extend the life of your shanks, in highly abrasive soils, shank protectors are available. Simply rivet to the sides of the shank using the hardware provided. See Fig. 2-74.

NOTE: Shank protectors use flange bolt (95785) and flange nut (9002717).

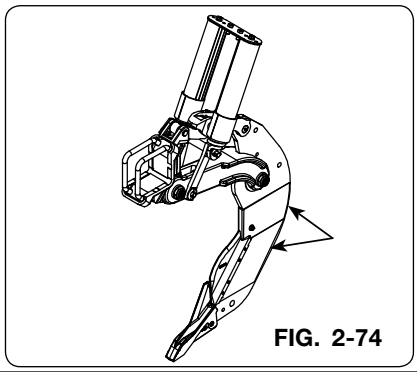


FIG. 2-74

Optional Attachments—Bed Shaper Attachments (6 Row Bundle #65786B; 8 Row Bundle #65787B; 12 Row Bundle #65788B)

NOTE: Refer to the Overhead Bed Shaper layouts later in this section for proper spacing.

Assemble Leveler to Main Frame

1. Attach the bed leveler mounting arm (65789B) to the rear of the bedder arm tubing as shown in Fig. 2-75.

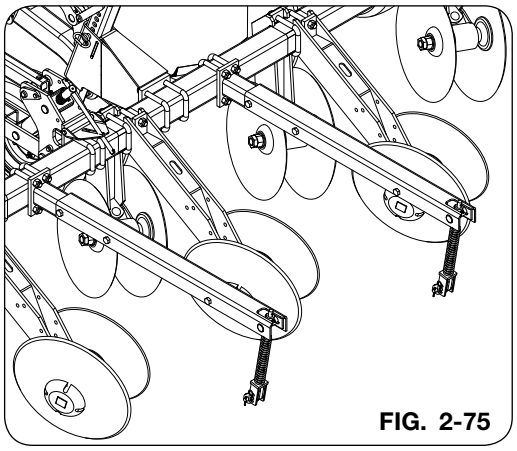


FIG. 2-75

2. Attach the top of the panel weldment to the leveler mounting arm using the tube/ bushings (65770), capscrews 5/8”-11UNC x 4 1/2” (9390-133) and locknuts 5/8”-11UNC (9801) as shown in Fig. 2-76 & 2-77.

3. Attach the spring rod of the leveler mounting arm to the middle of the panel weldment using the clevis pins (900340) and cotter pins (9391-025) as shown in Fig. 2-76 & 2-77.

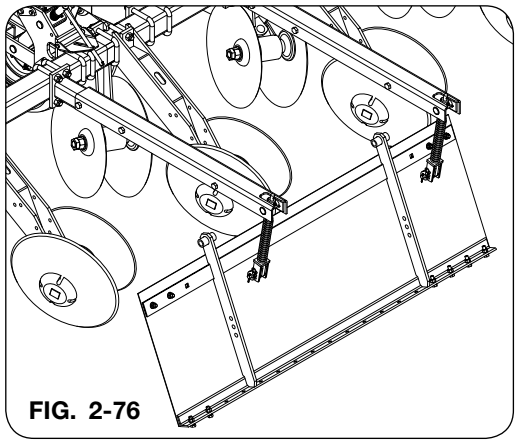


FIG. 2-76

4. Base panel weldments overlap each other and secure the top panel weldments into position using the carriage bolts 1/2”-13UNC x 1 1/4” (9388-103) and nuts/flange 1/2”-13UNC (91267) as shown in Fig. 35. Secure the bottom of the panel weldments using the capscrews 1/2”-13UNC x 1 1/2” (9390-101) and locknuts 1/2”-13UNC (9800) (Fig. 2-77).

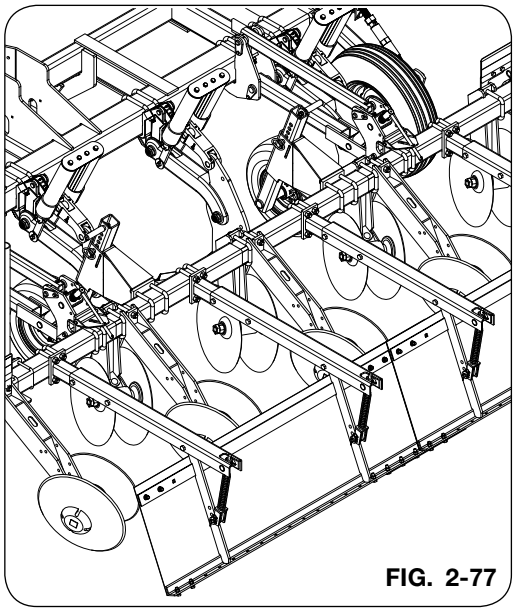


FIG. 2-77

Optional Attachments—Bed Shaper Attachments (6 Row Bundle #65786B; 8 Row Bundle #65787B; 12 Row Bundle #65788B) (continued)

5. Secure the scrapers to the bottom of the panel weldments as shown in Fig. 2-78 and the Overhead Bed Shaper Layouts.

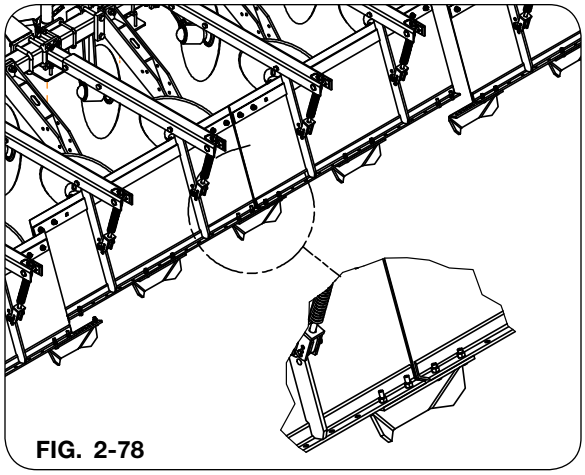


FIG. 2-78

Assemble Leveler to Wings

6. Adjust the length of the bed leveler mounting arm (65789B) and mount to the rear of the wing bedder arm tubing as shown in Fig. 2-78.

7. Attach the top of the panel weldment to the leveler mounting arms using the tube/bushings (65770), capscrews 5/8"-11UNC x 4 1/2" (9390-133) and locknuts 5/8"-11UNC (9801) as shown in Fig. 2-78.

8. Attach the spring rod of the leveler mounting arm to the middle of the panel weldment using the clevis pins (900340) and cotter pins (9391-025) as shown in Fig. 2-78.

9. Secure the scrapers to the bottom of the panel weldments as shown in Fig. 2-78, 2-79 and the Overhead Bed Shaper Layouts.

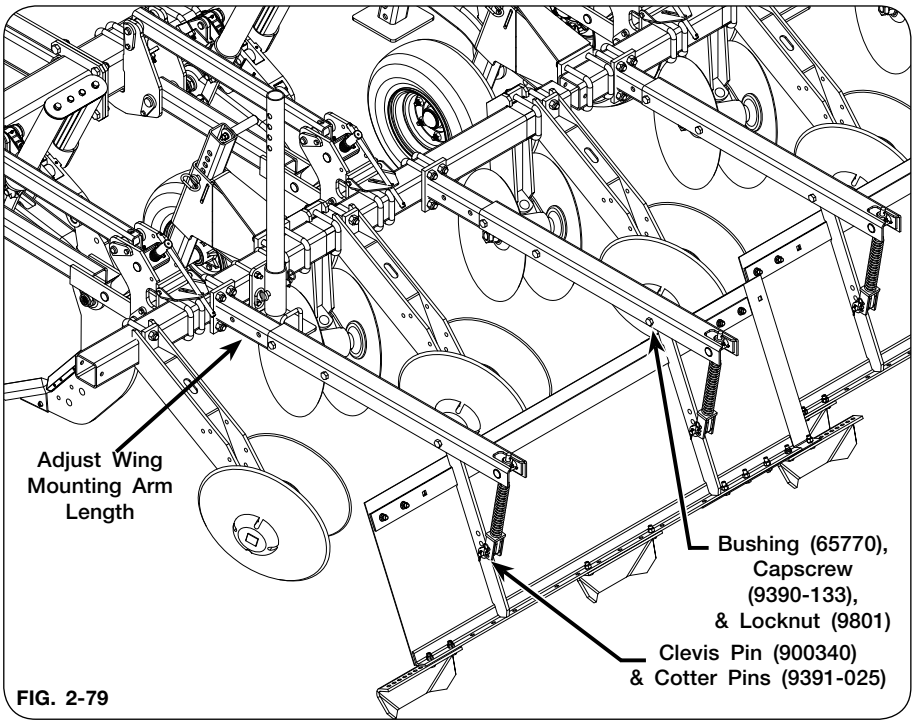
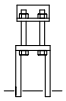


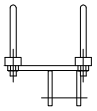
FIG. 2-79

Overhead Layouts

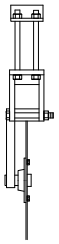
NARROW BRACKET



WIDE BRACKET

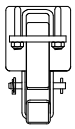


COMBO COULTER

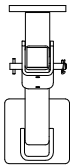


FRONT STORAGE STAND RIGID UNITS

FRONT STORAGE STAND FOR ALL FOLDING UNITS

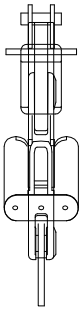


REAR STORAGE STAND



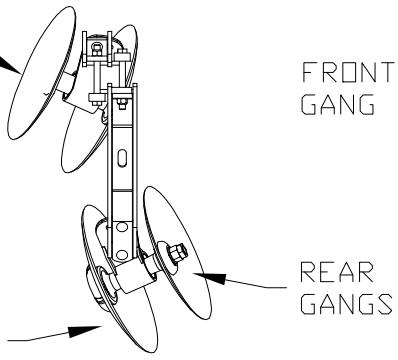
BEDDER BAR JACKSTAND

AUTO-RESET SHANK (SHOWN)

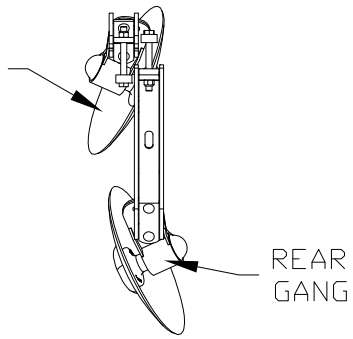


MODEL 432

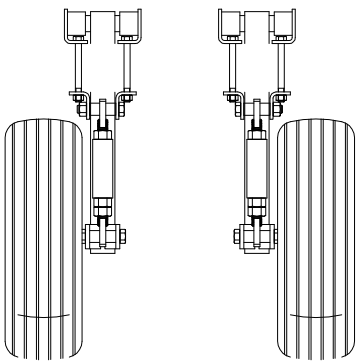
BEDDER FOR 36″, 38″, & 40″ ROW SPACING



BEDDER FOR 30″ ROW SPACING



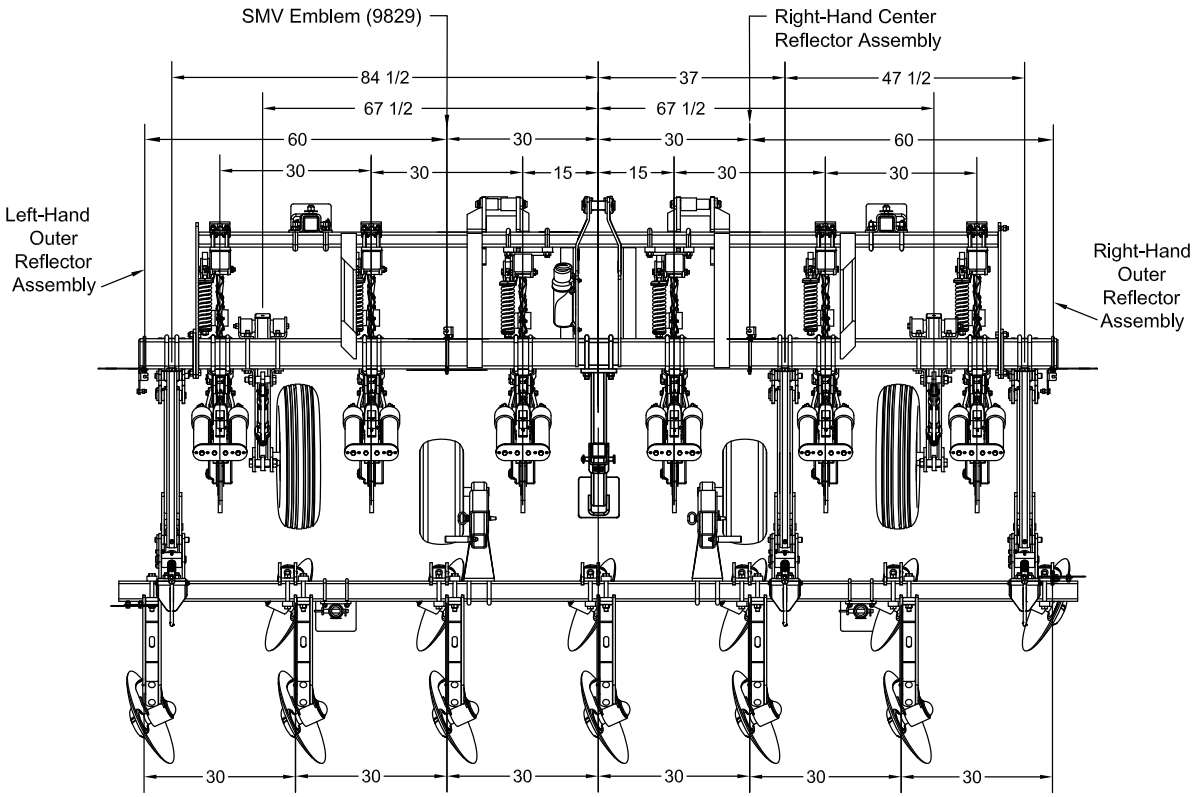
GAUGE WHEELS



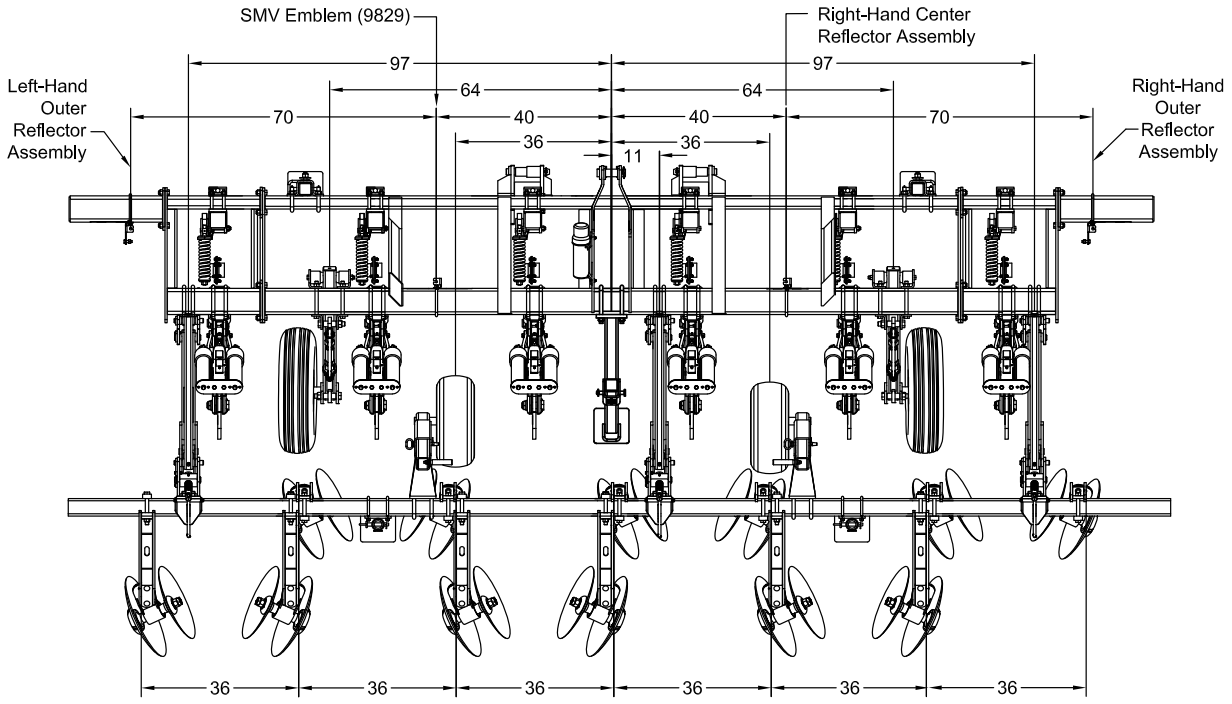
RIPPER BEDDER GAUGE WHEEL PACKAGE NO. 63625

RIPPER BEDDER GAUGE WHEEL PACKAGE NO. 63626

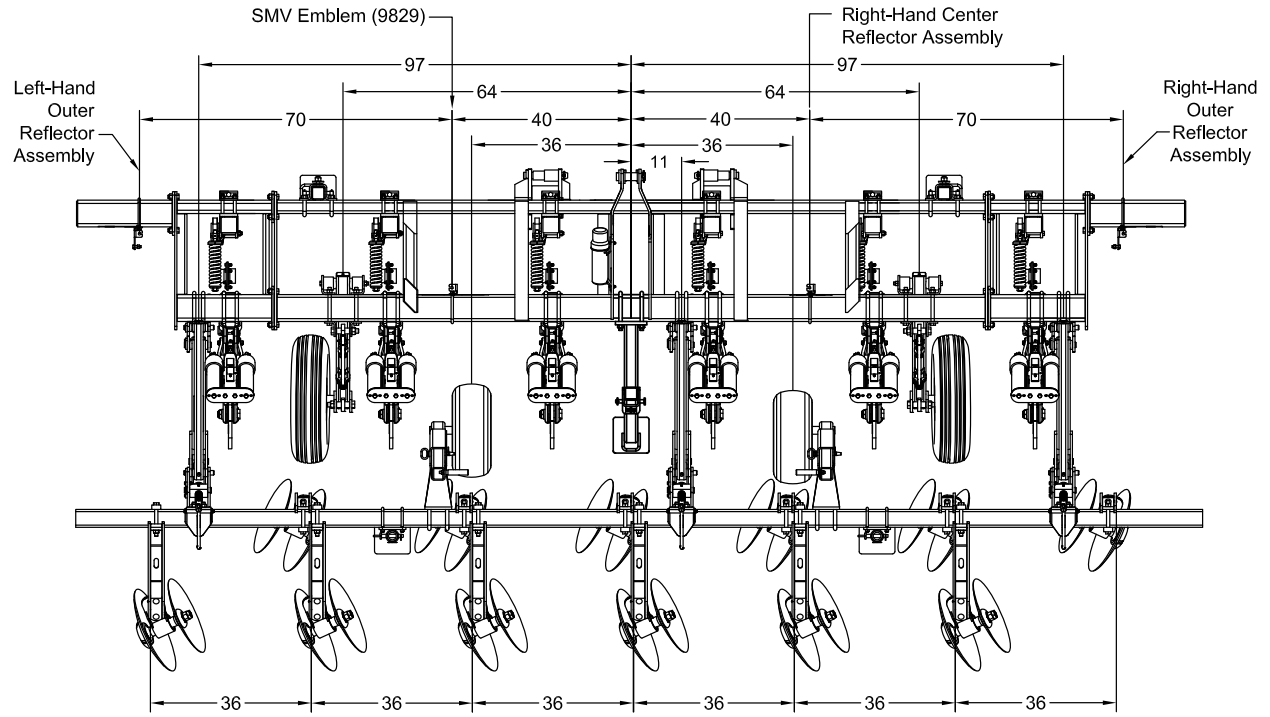
Overhead Layouts—Rigid Units
6 Shank Narrow (30” Spacing); Staggered Disc Gangs



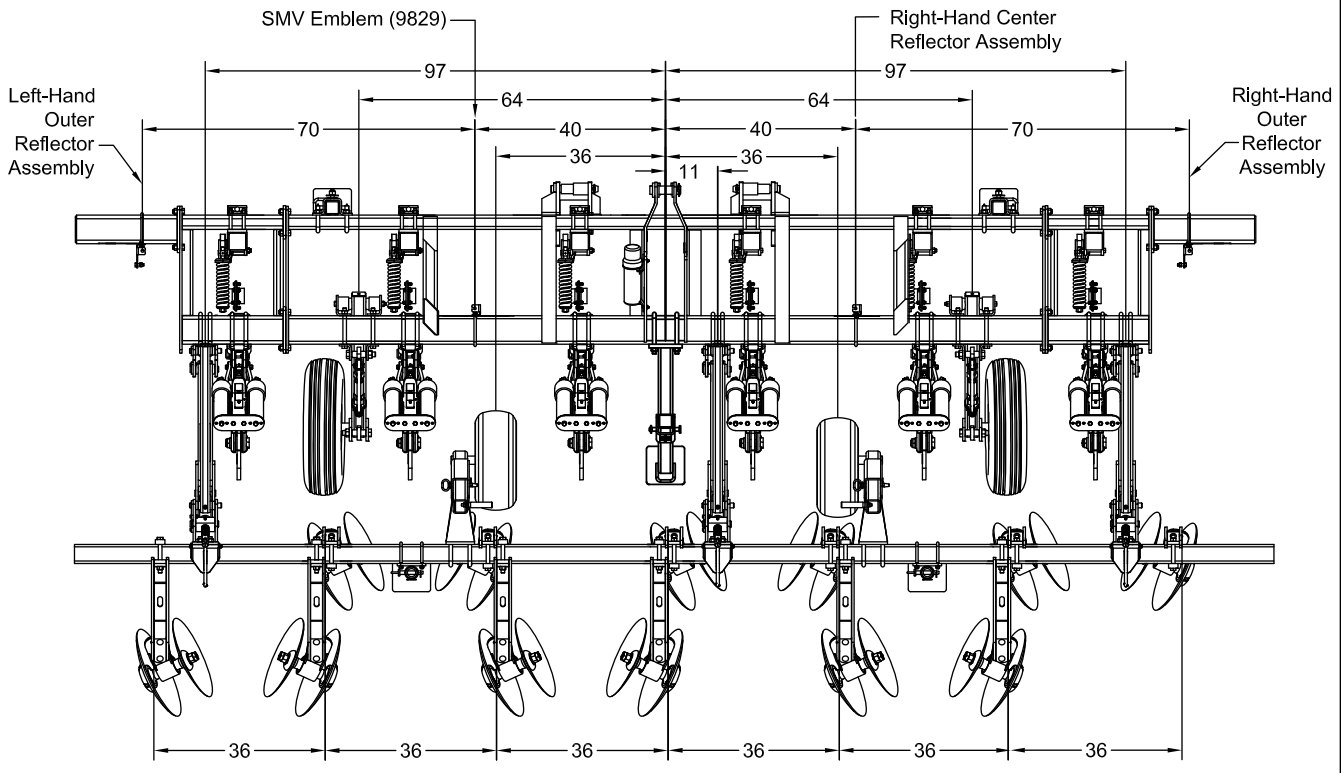
Overhead Layouts—Rigid Units
6 Shank Narrow (30” Spacing); Opposing Disc Gangs



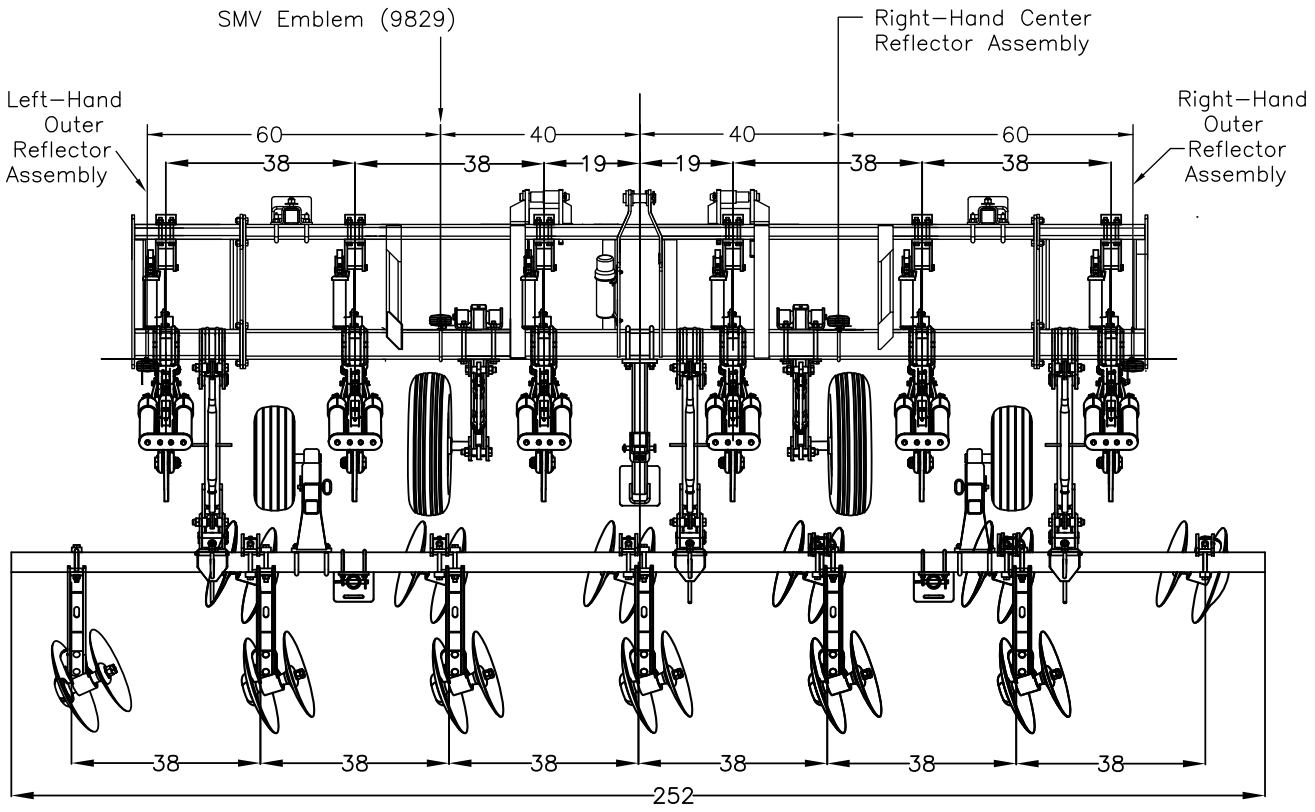
Overhead Layouts—Rigid Units 6 Shank Wide (36" Spacing); Staggered Disc Gangs



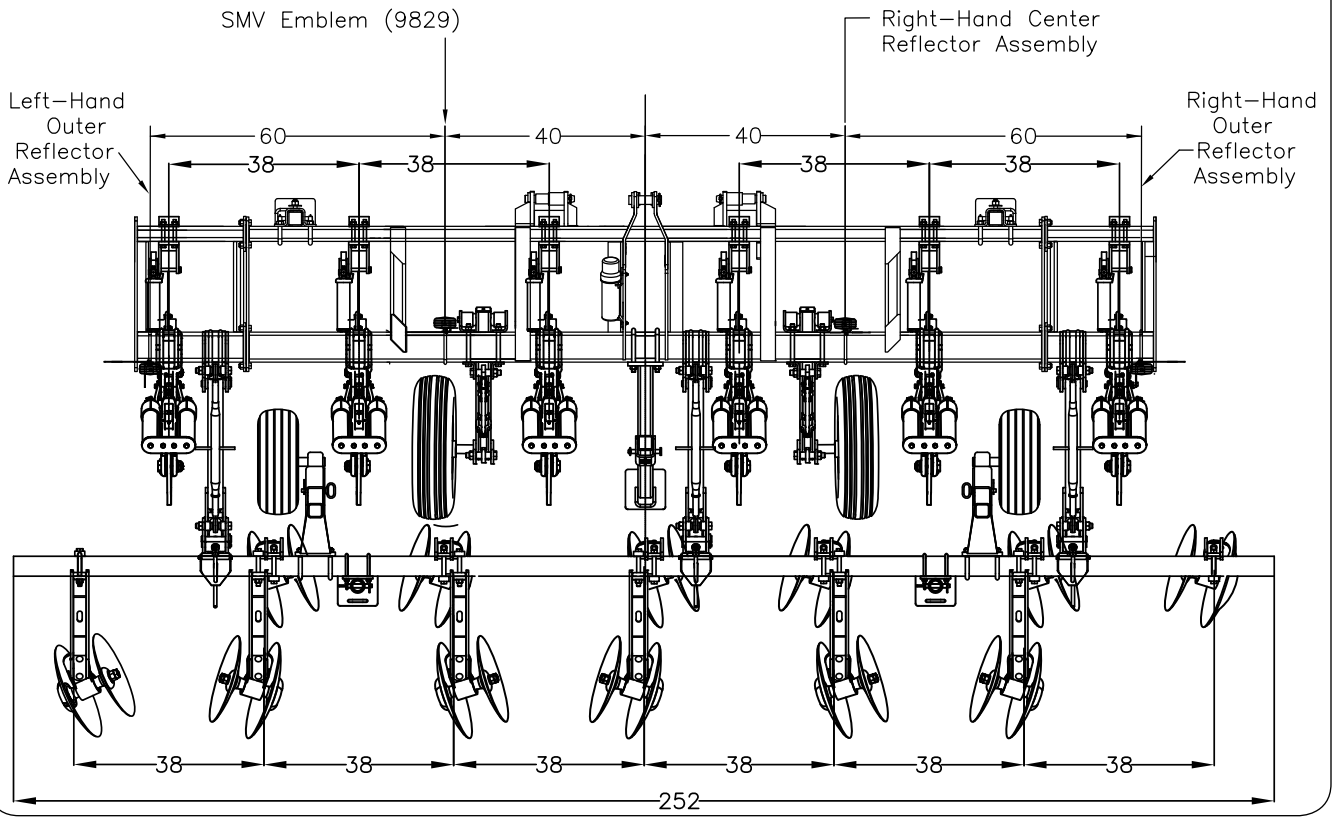
Overhead Layouts—Rigid Units 6 Shank Wide (36" Spacing); Opposing Disc Gangs



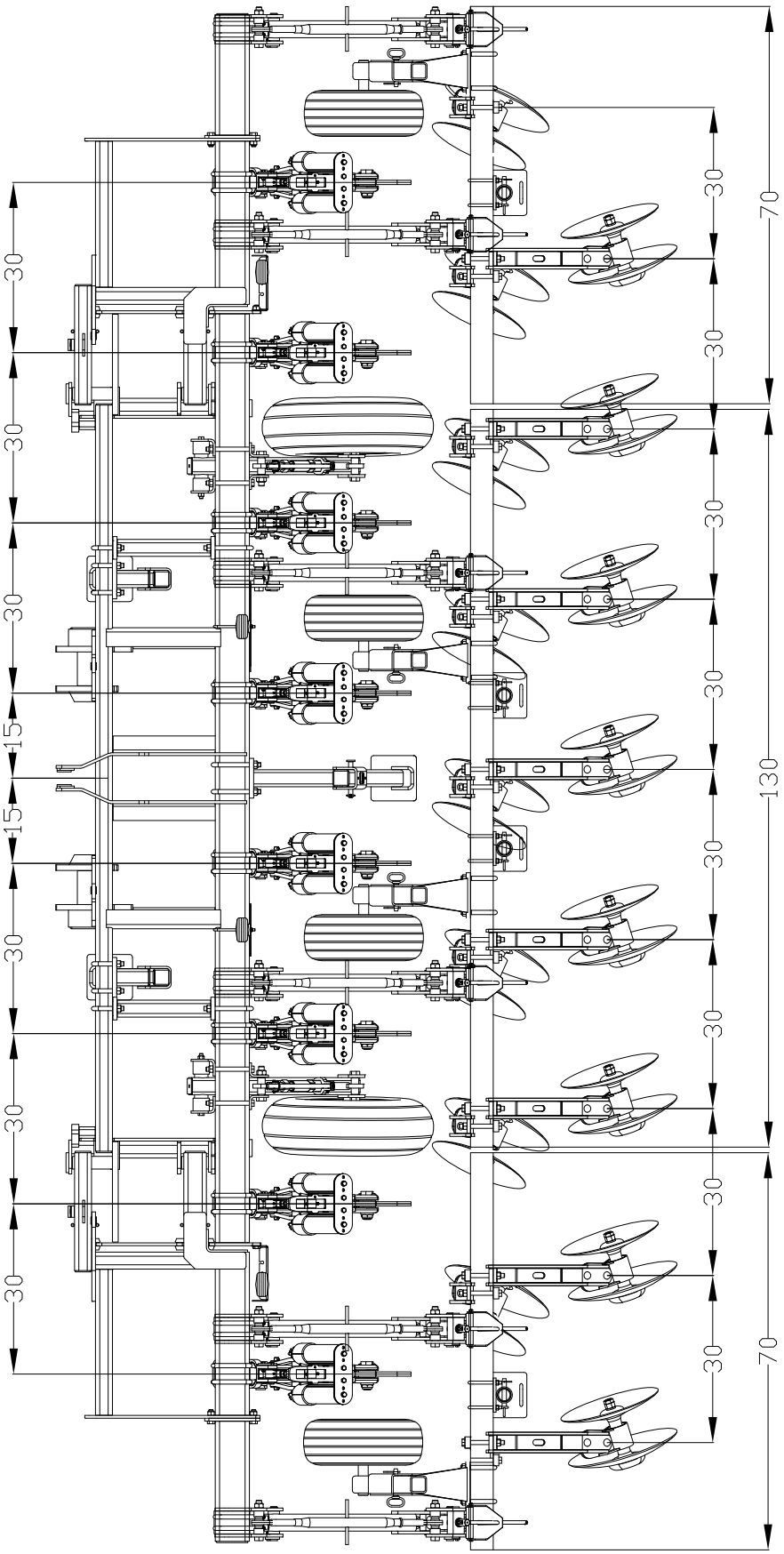
Overhead Layouts—Rigid Units 6 Shank Wide (38" Spacing); Staggered Disc Gangs



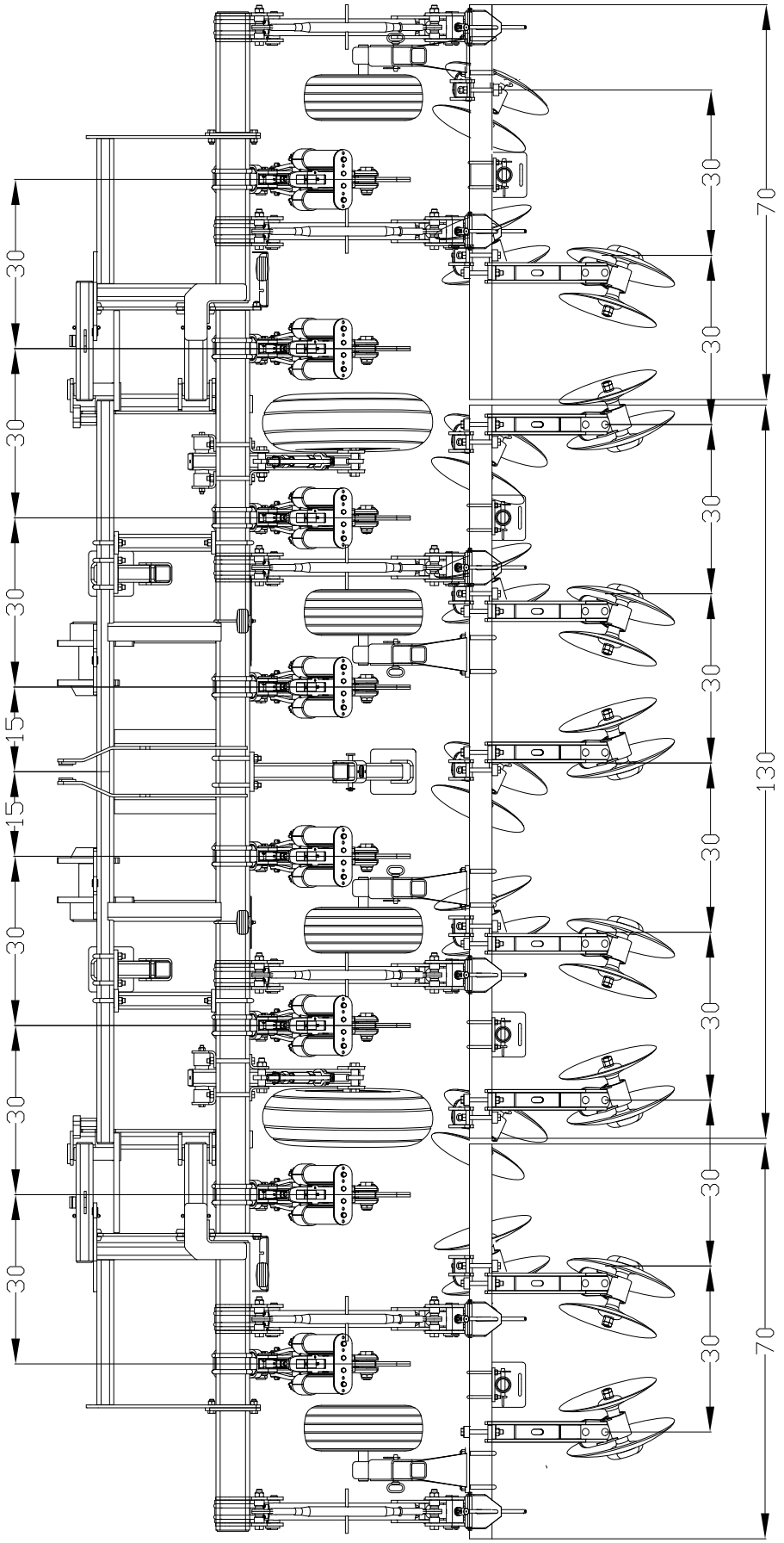
Overhead Layouts—Rigid Units 6 Shank Wide (38" Spacing); Opposing Disc Gangs



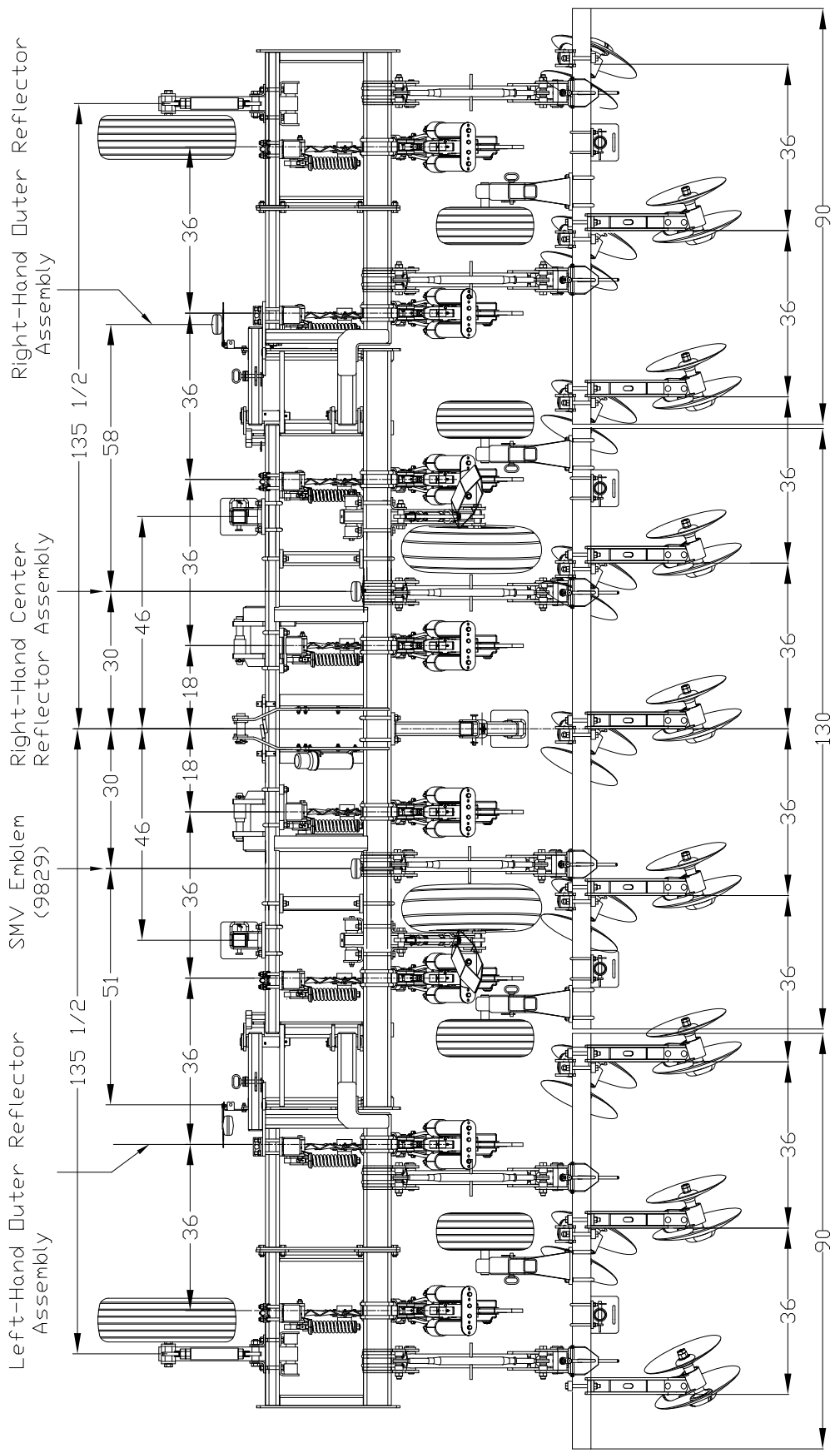
Overhead Layouts—Rigid Units—8 Shank Narrow (30" Spacing); Staggered Disc Gangs



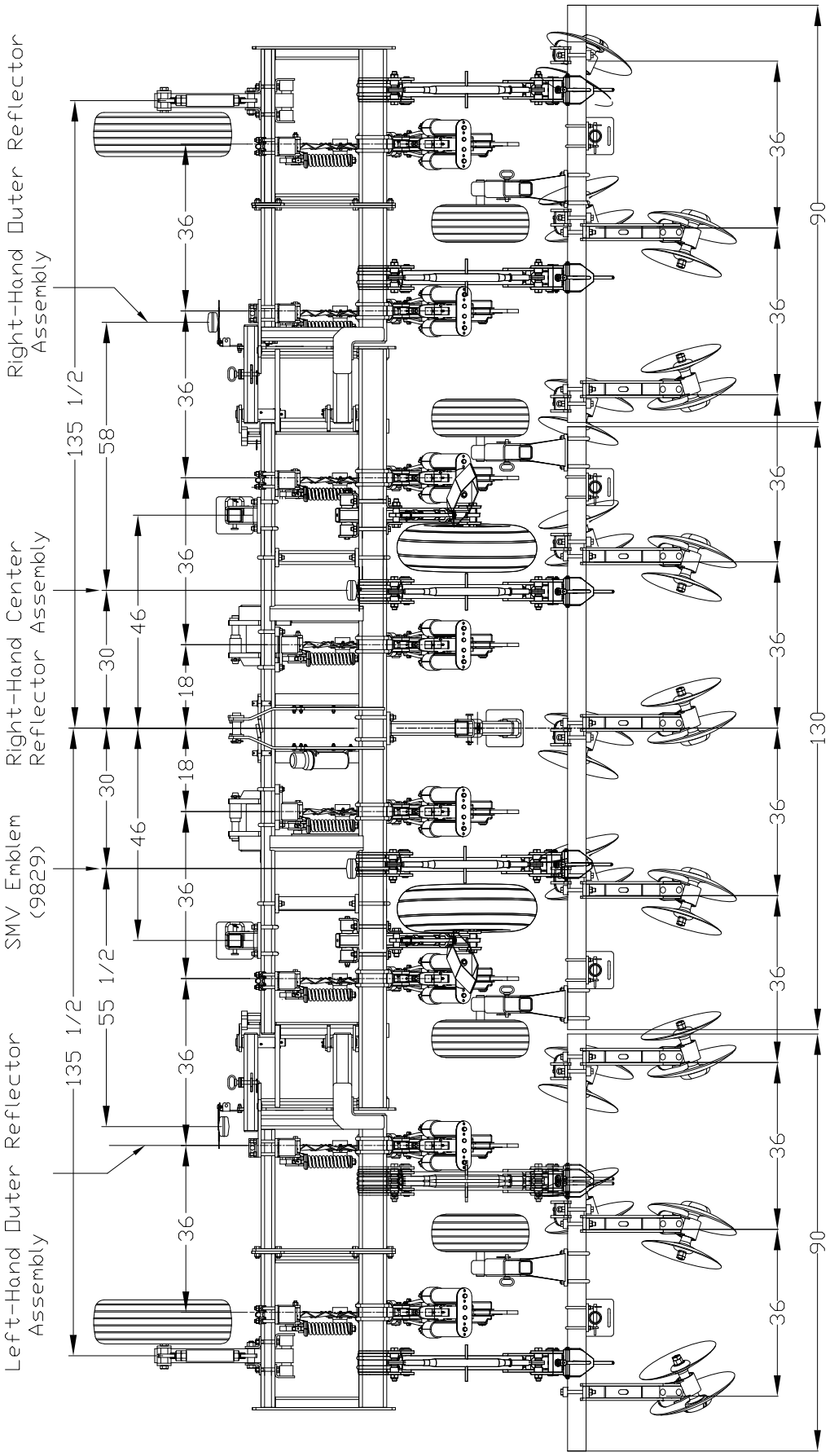
Overhead Layouts—Rigid Units—8 Shank Narrow (30" Spacing); Opposing Disc Gangs



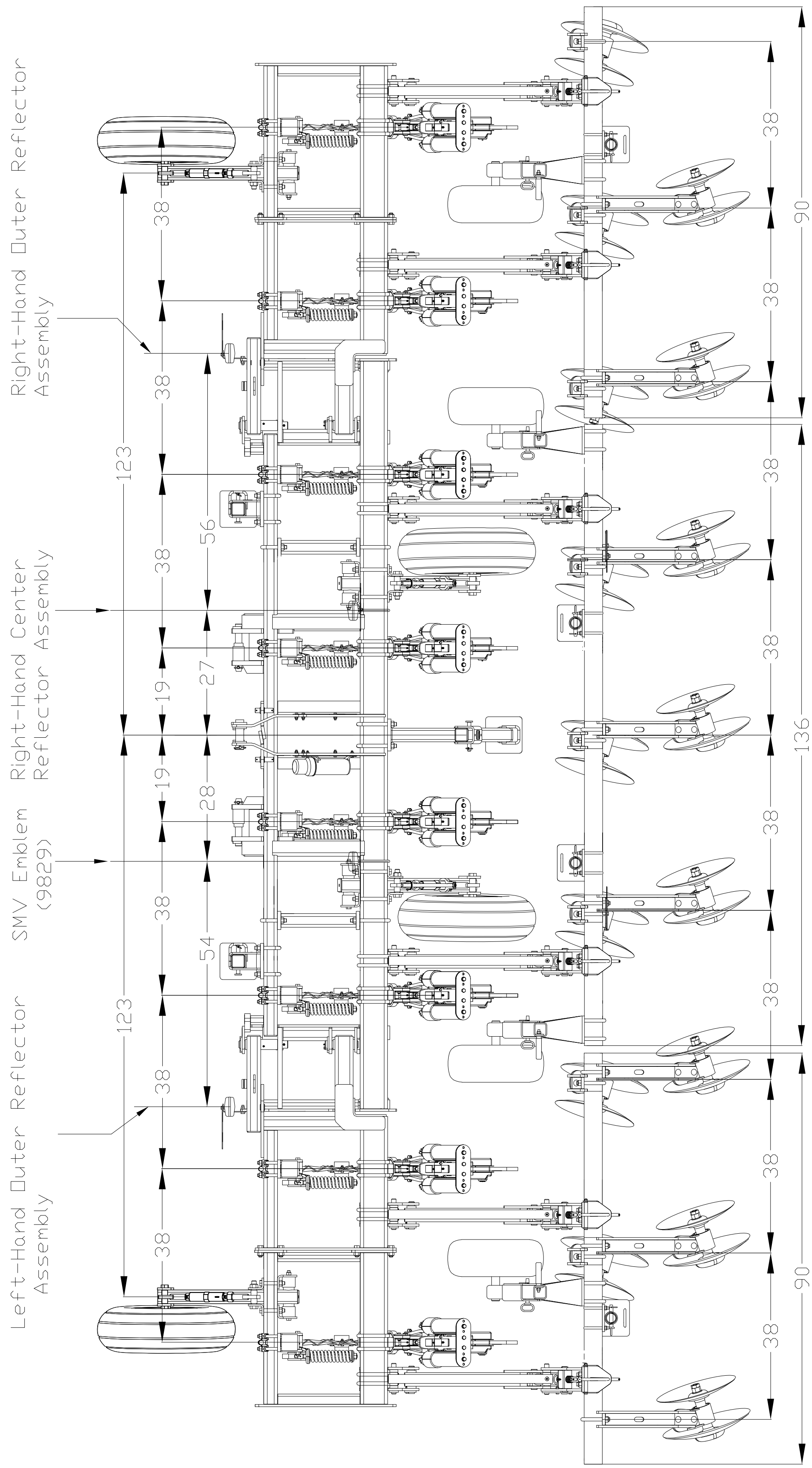
Overhead Layouts—Folding Units—8 Shank Wide 36" Spacing); Staggered Disc Gangs



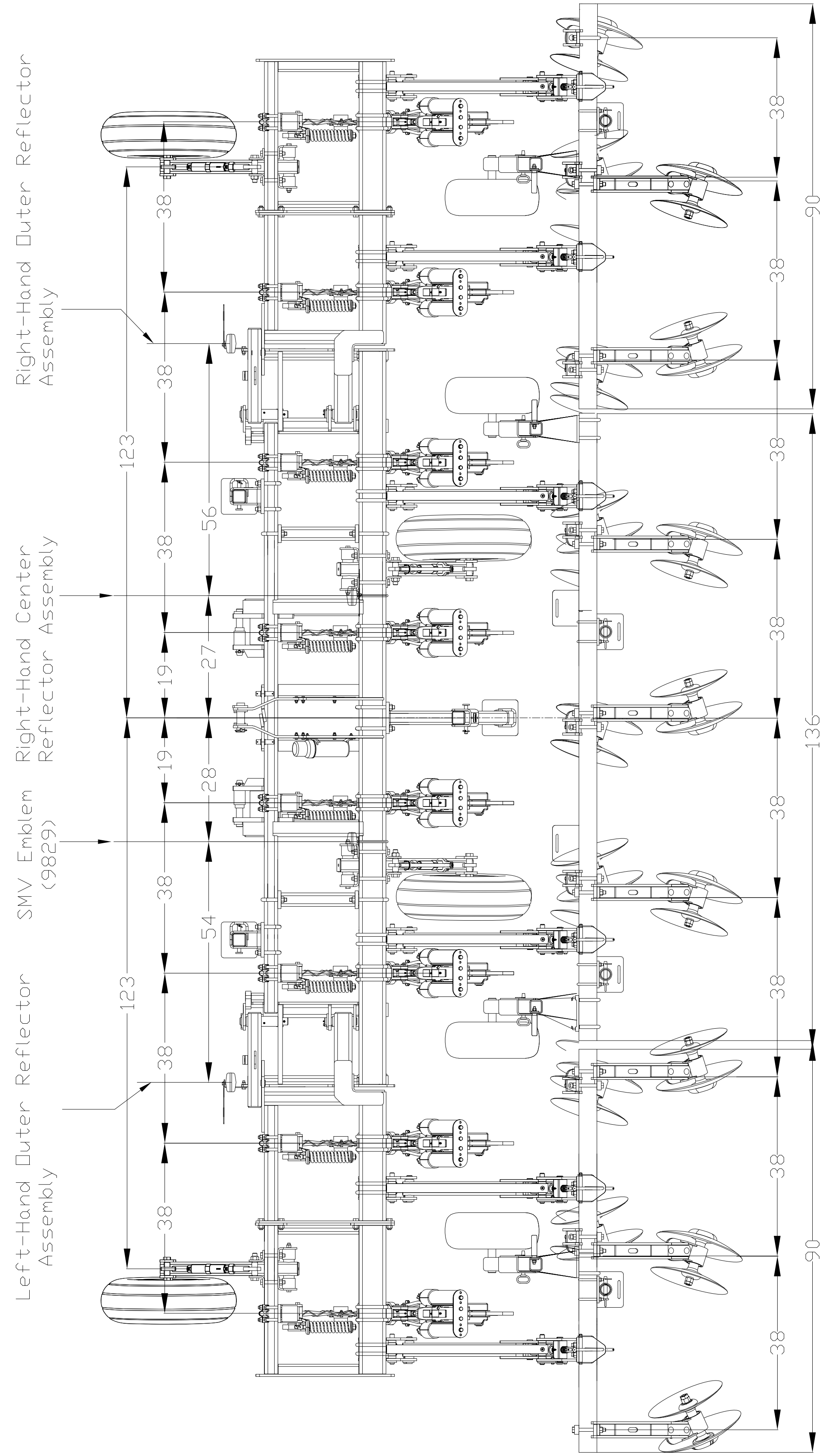
Overhead Layouts—Folding Units—8 Shank Wide (36" Spacing); Opposing Disc Gangs



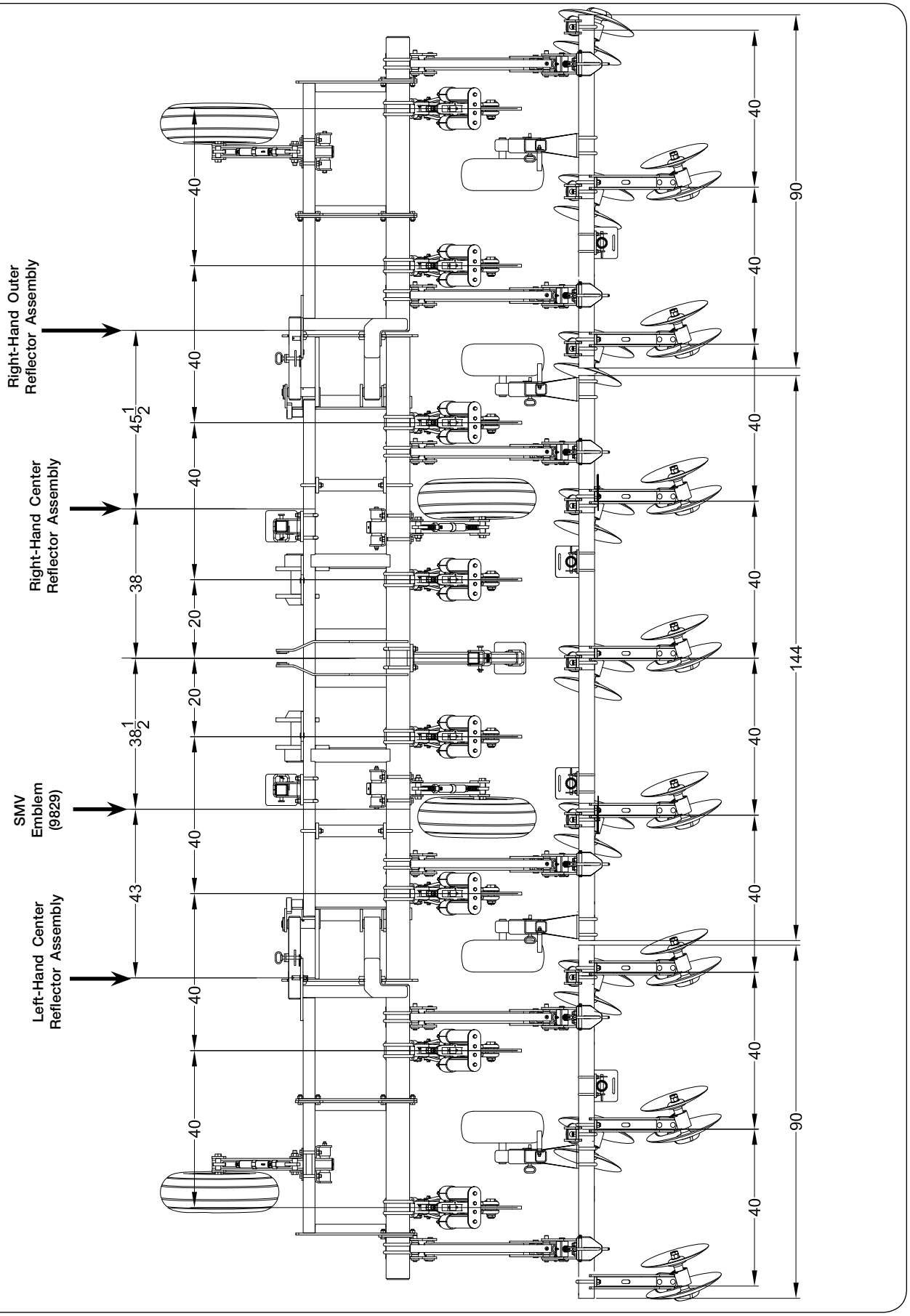
Overhead Layouts—Folding Units—8 Shank Wide (38" Spacing); Staggered Disc Gangs



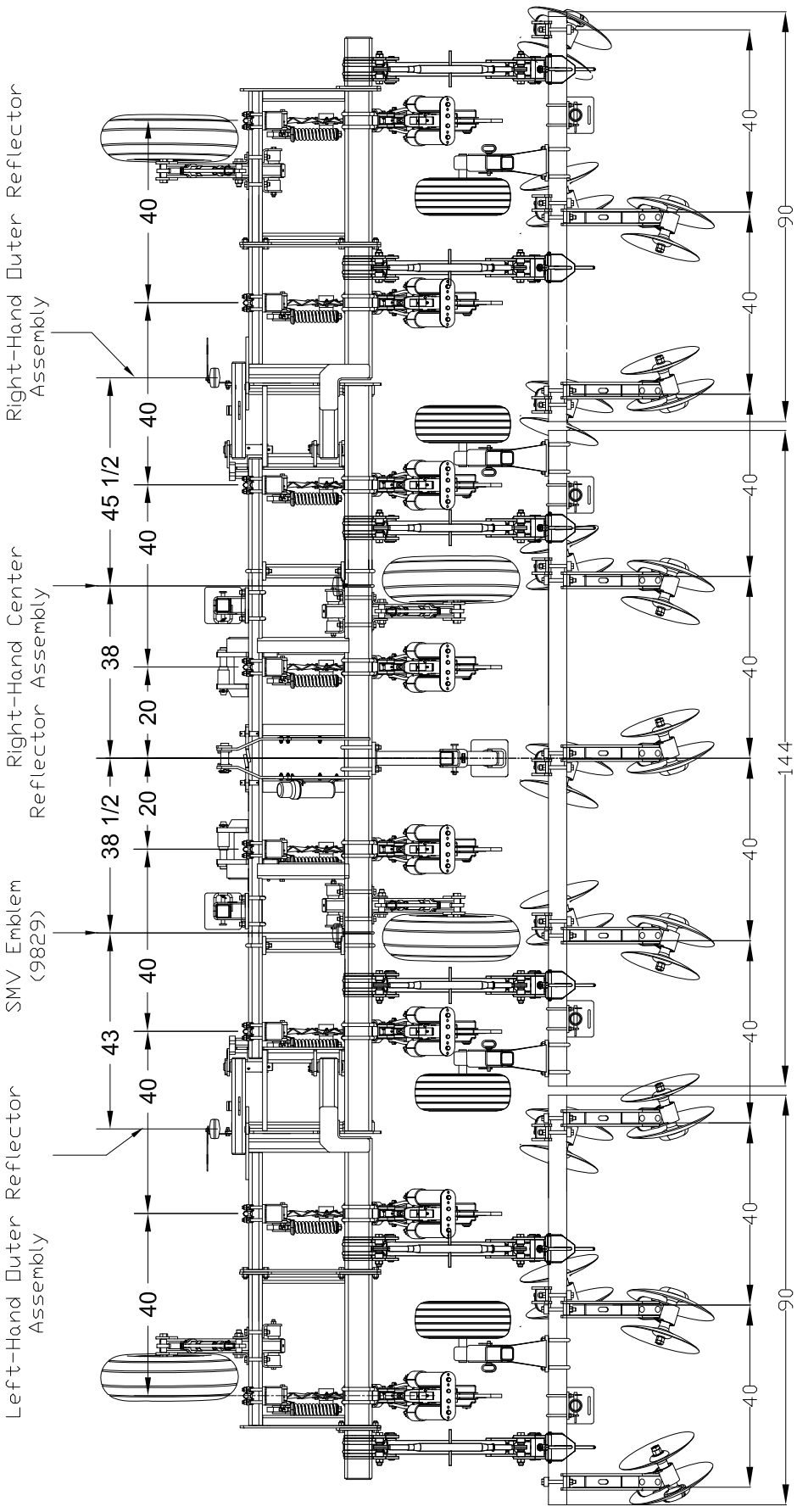
Overhead Layouts—Folding Units—8 Shank Wide (38” Spacing); Opposing Disc Gangs



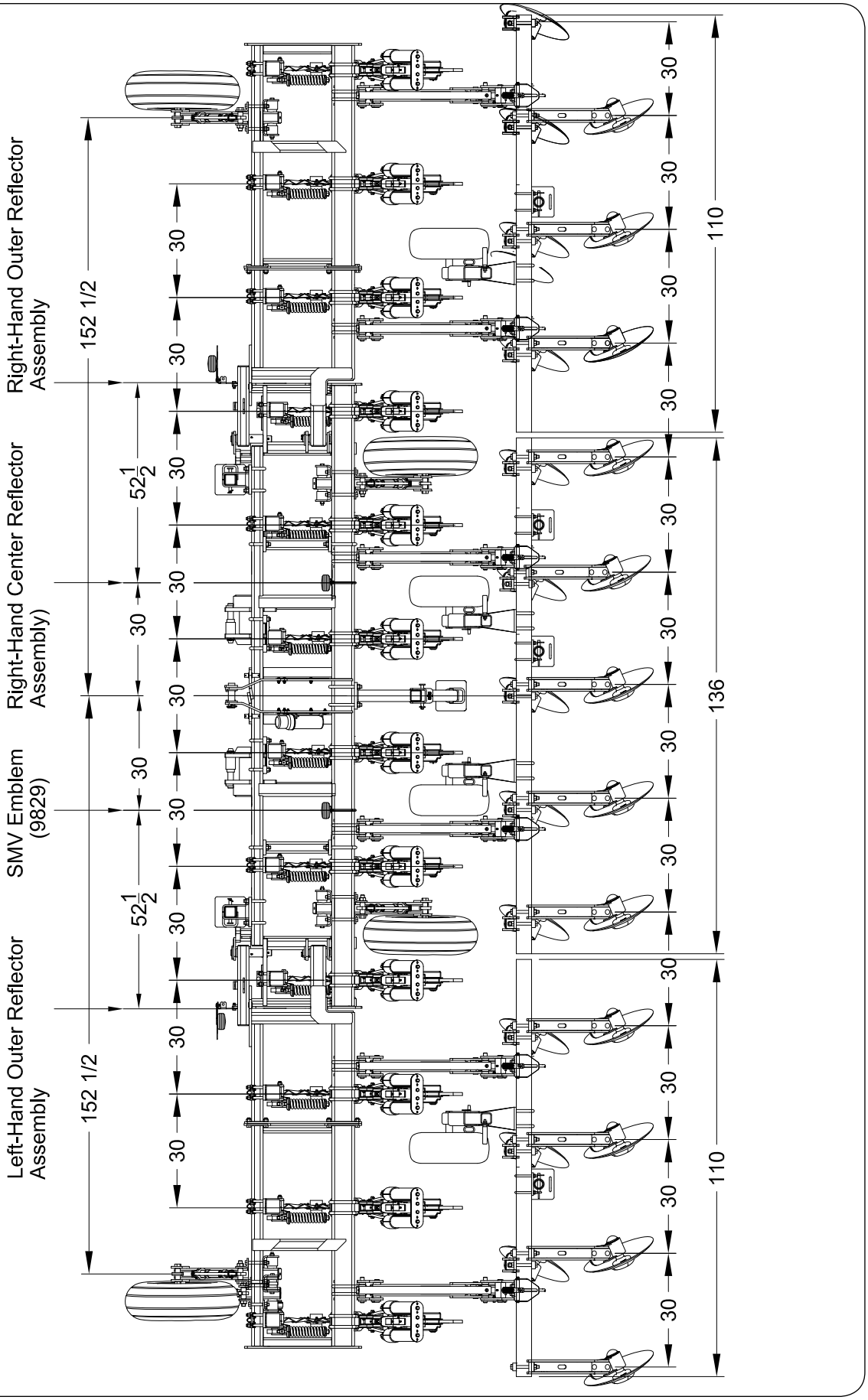
Overhead Layouts—Folding Units—8 Shank Wide (40" Spacing); Staggered Disc Gangs



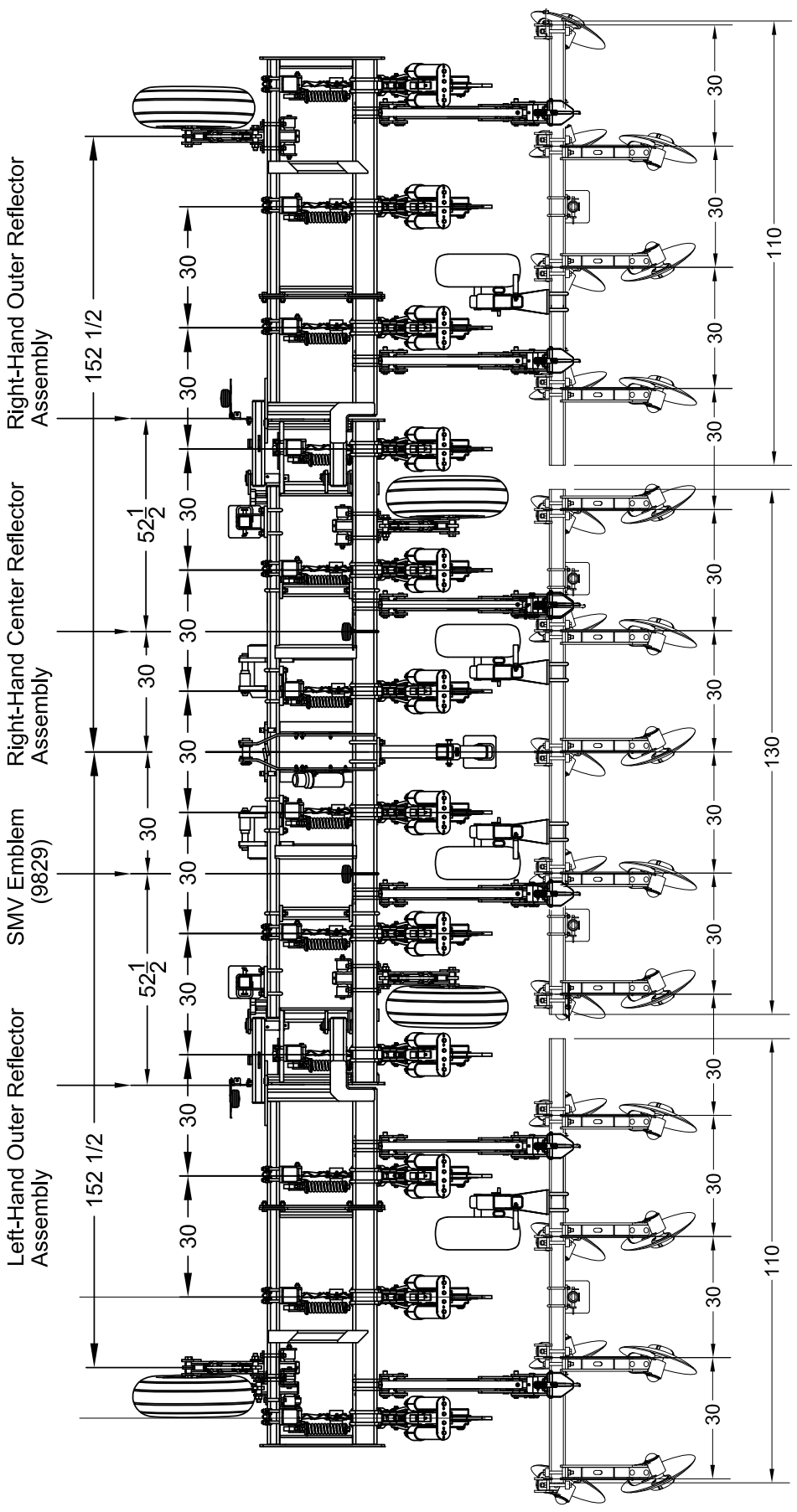
Overhead Layouts—Folding Units—8 Shank Wide (40" Spacing); Opposing Disc Gangs



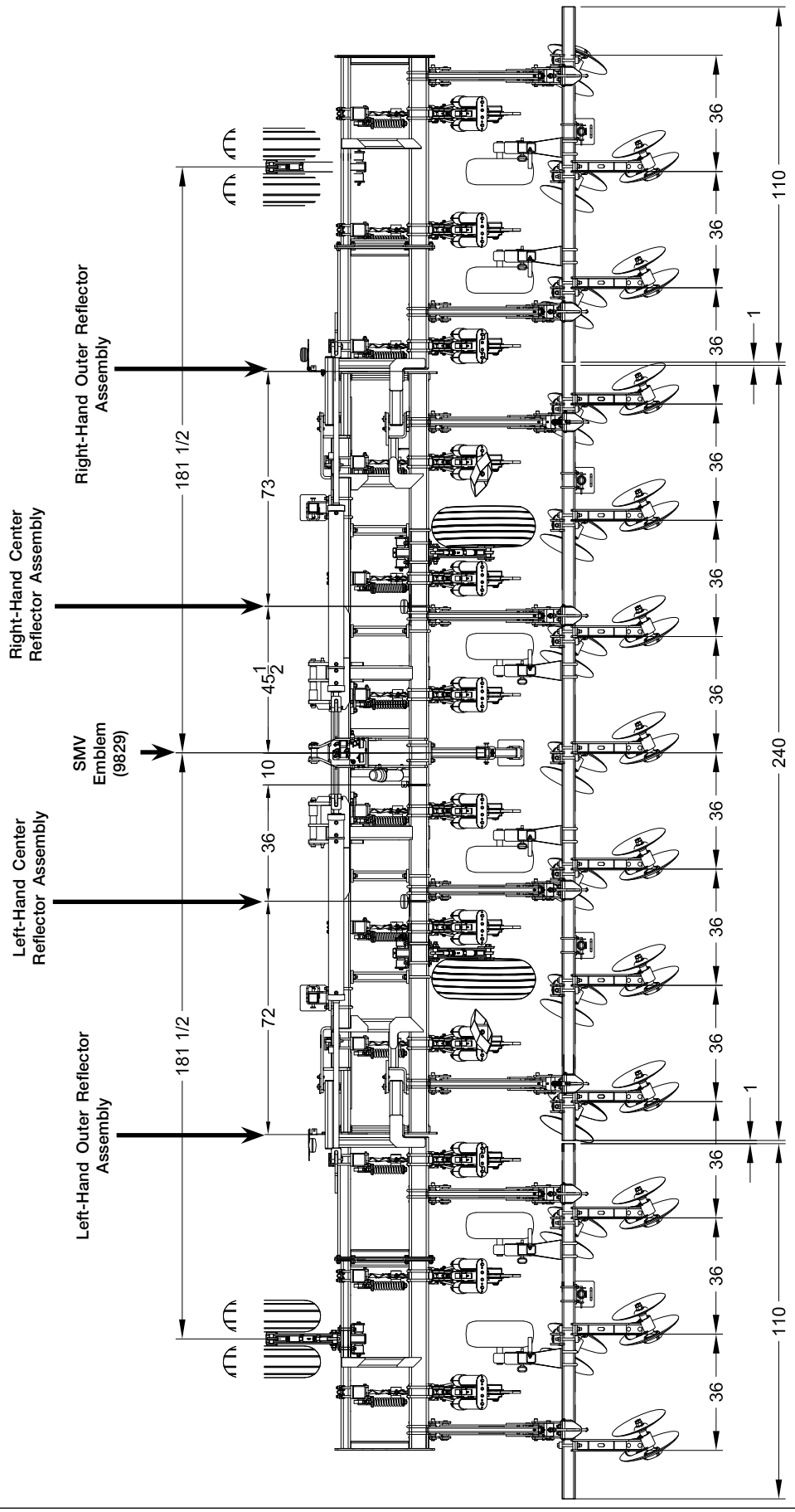
Overhead Layouts—Folding Units—12 Shank Wide (30" Spacing); Staggered Disc Gangs



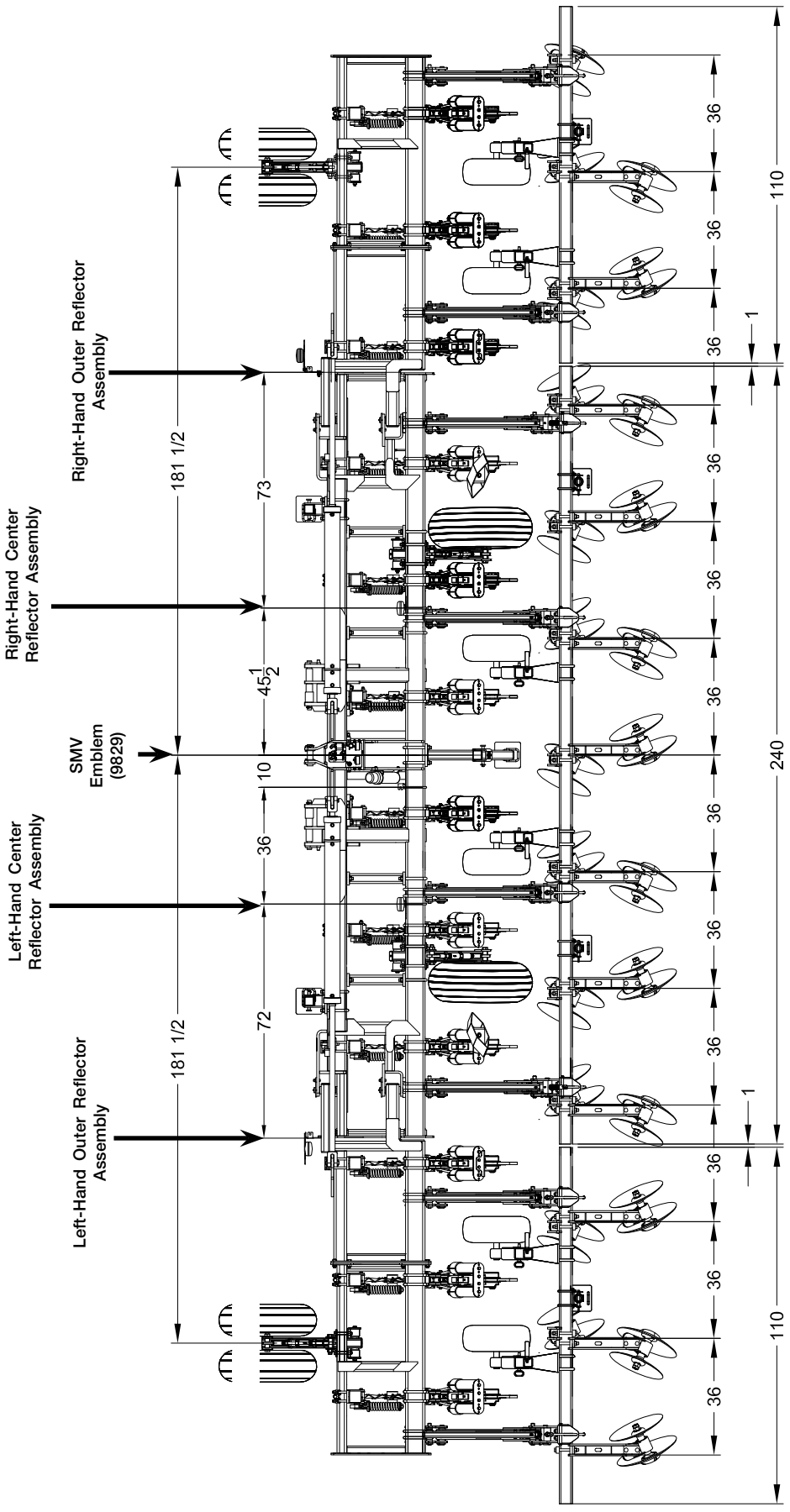
Overhead Layouts—Folding Units—12 Shank Wide (30" Spacing); Opposing Disc Gangs



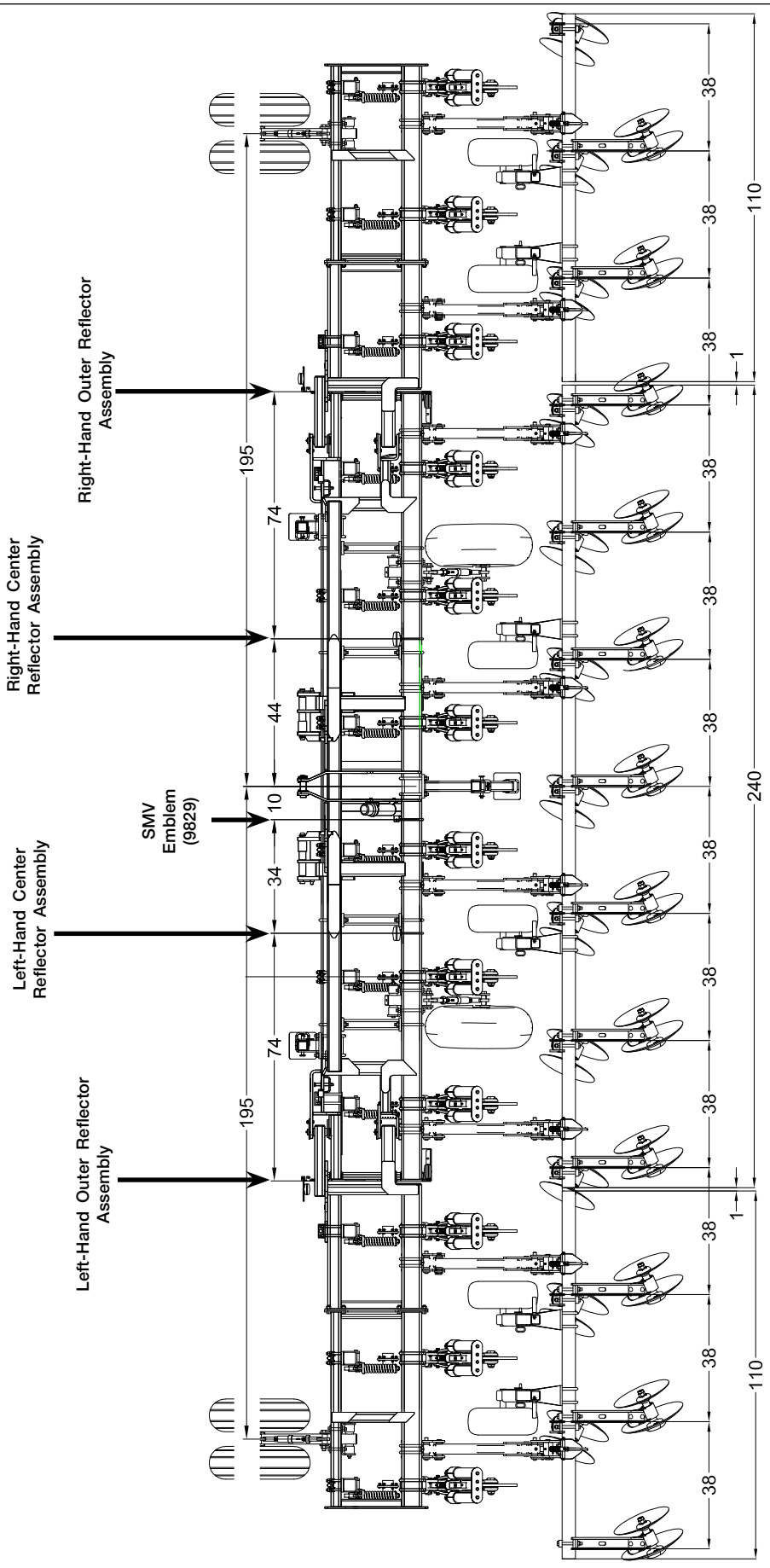
Overhead Layouts—Folding Units—12 Shank Wide (36" Spacing); Staggered Disc Gangs



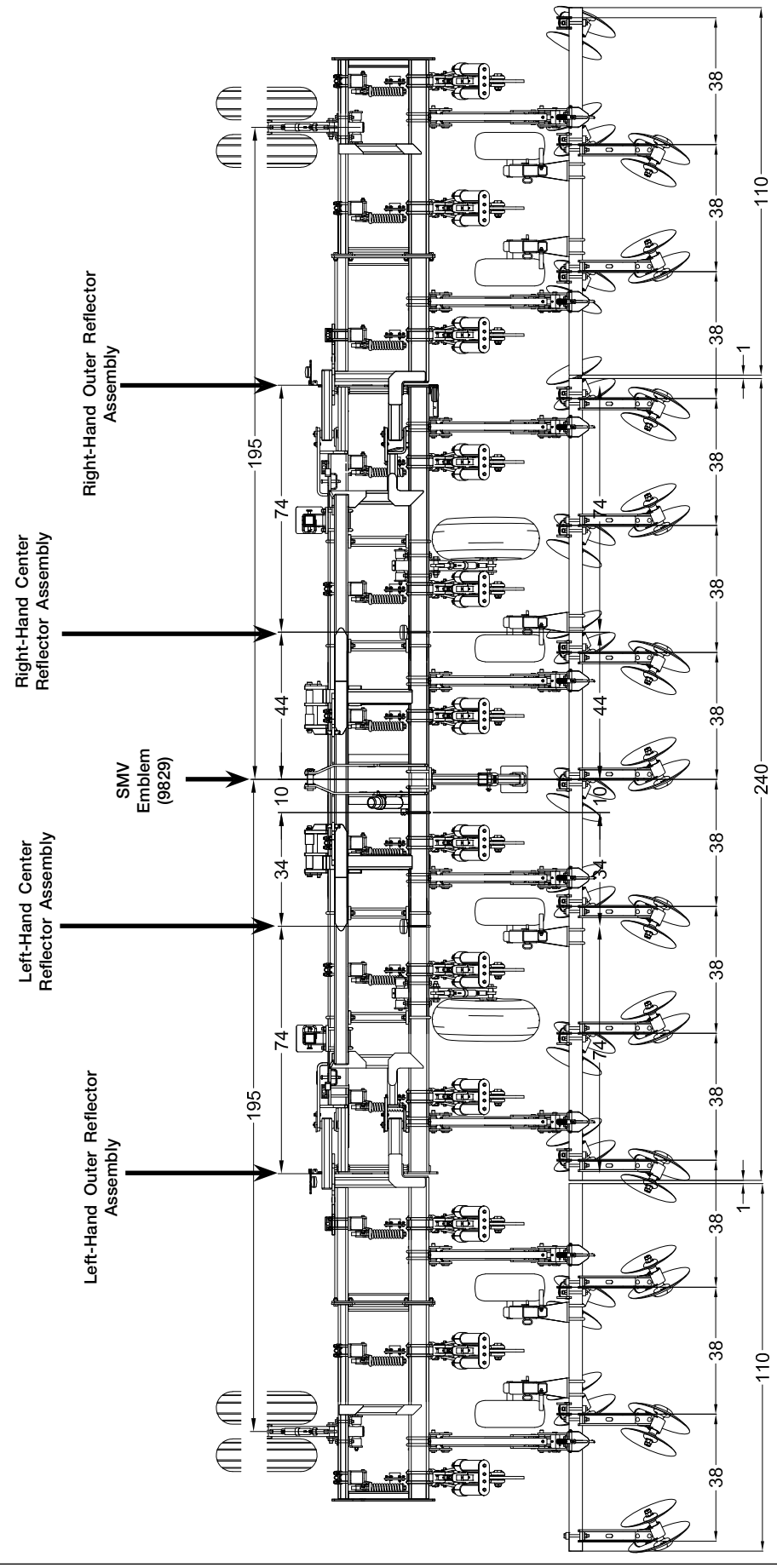
Overhead Layouts—Folding Units—12 Shank Wide (36" Spacing); Opposing Disc Gangs



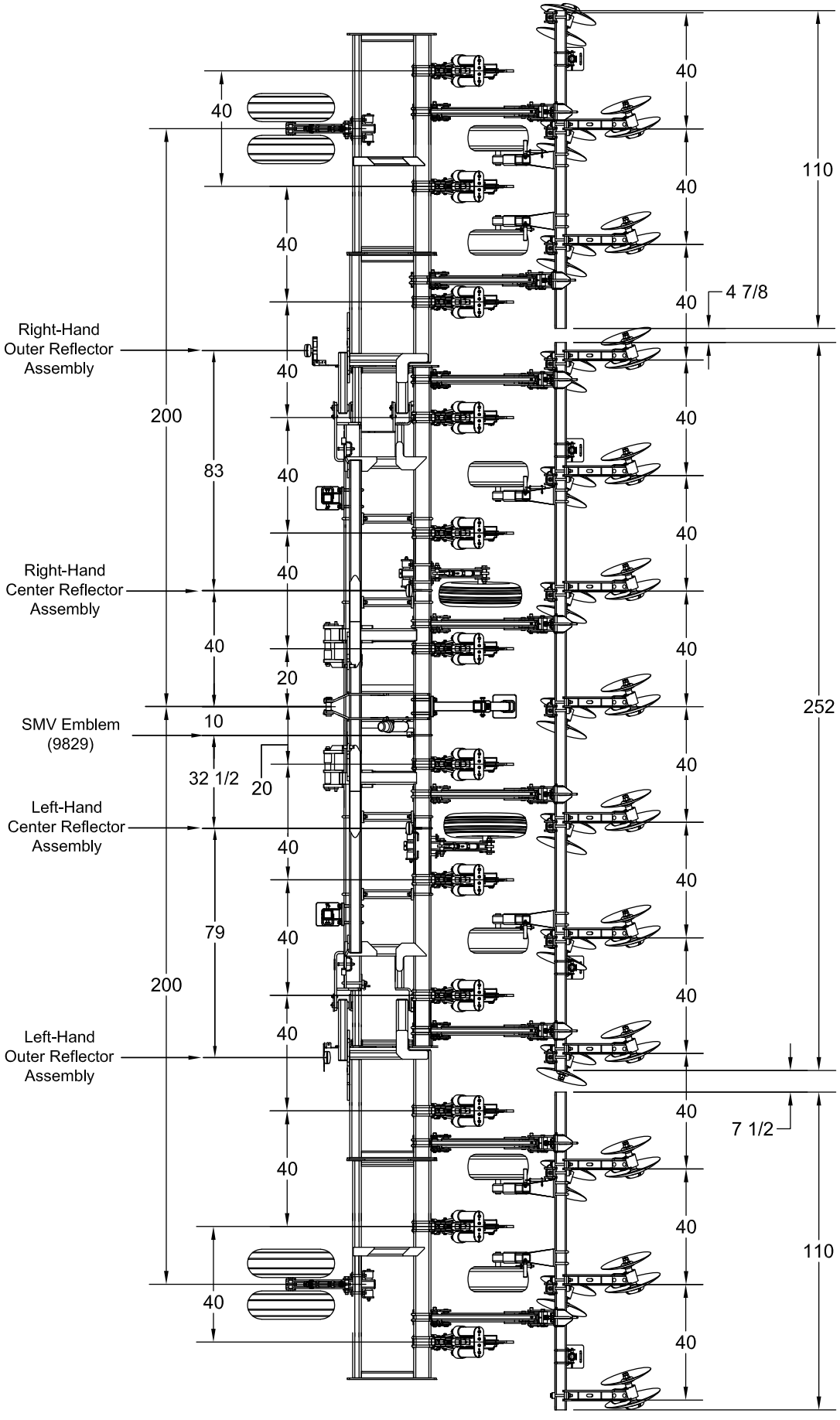
Overhead Layouts—Folding Units—12 Shank Wide (38" Spacing); Staggered Disc Gangs



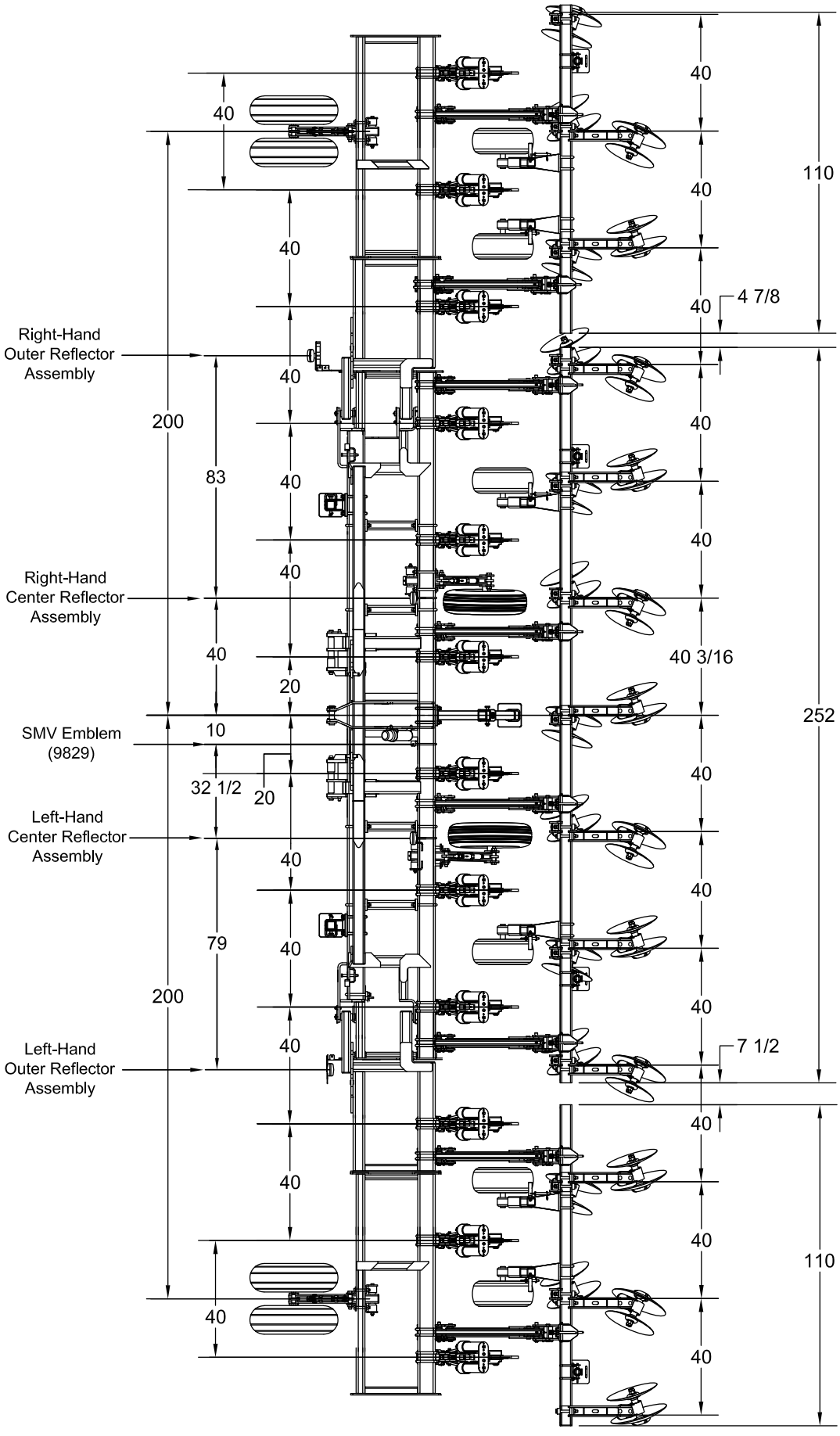
Overhead Layouts—Folding Units—12 Shank Wide (38" Spacing); Opposing Disc Gangs



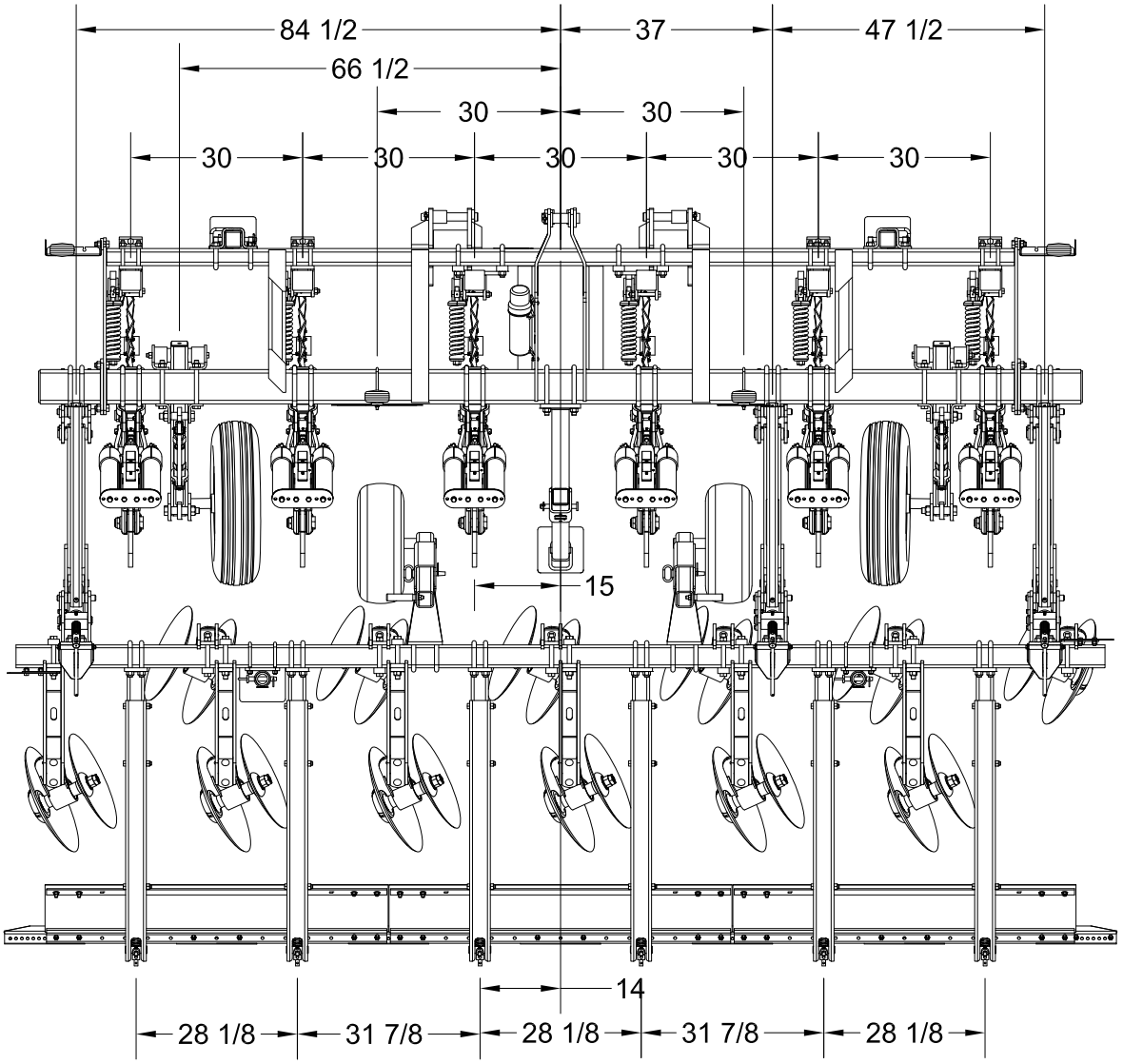
Overhead Layouts—Folding Units—12 Shank Wide (40" Spacing); Staggered Disc Gangs

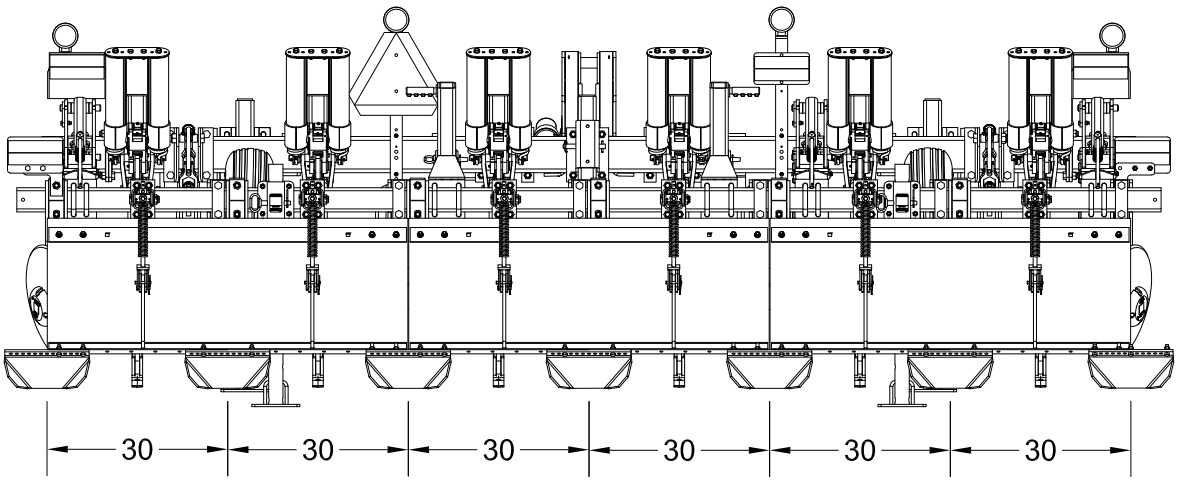


Overhead Layouts—Folding Units—12 Shank Wide (40" Spacing); Opposing Disc Gangs

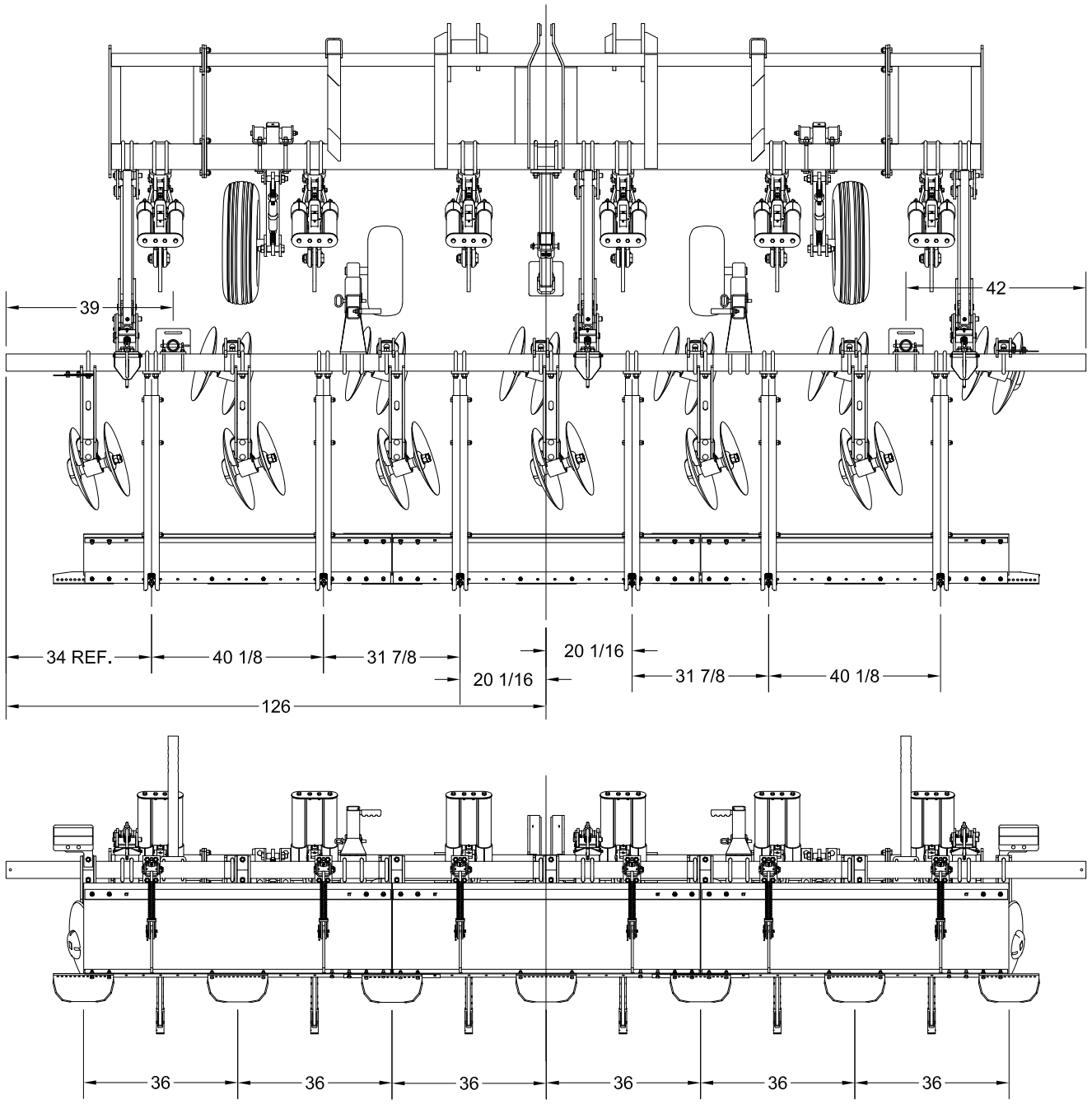


Overhead Bed Shaper Layouts—Rigid Units—6 Row 30” Spacing

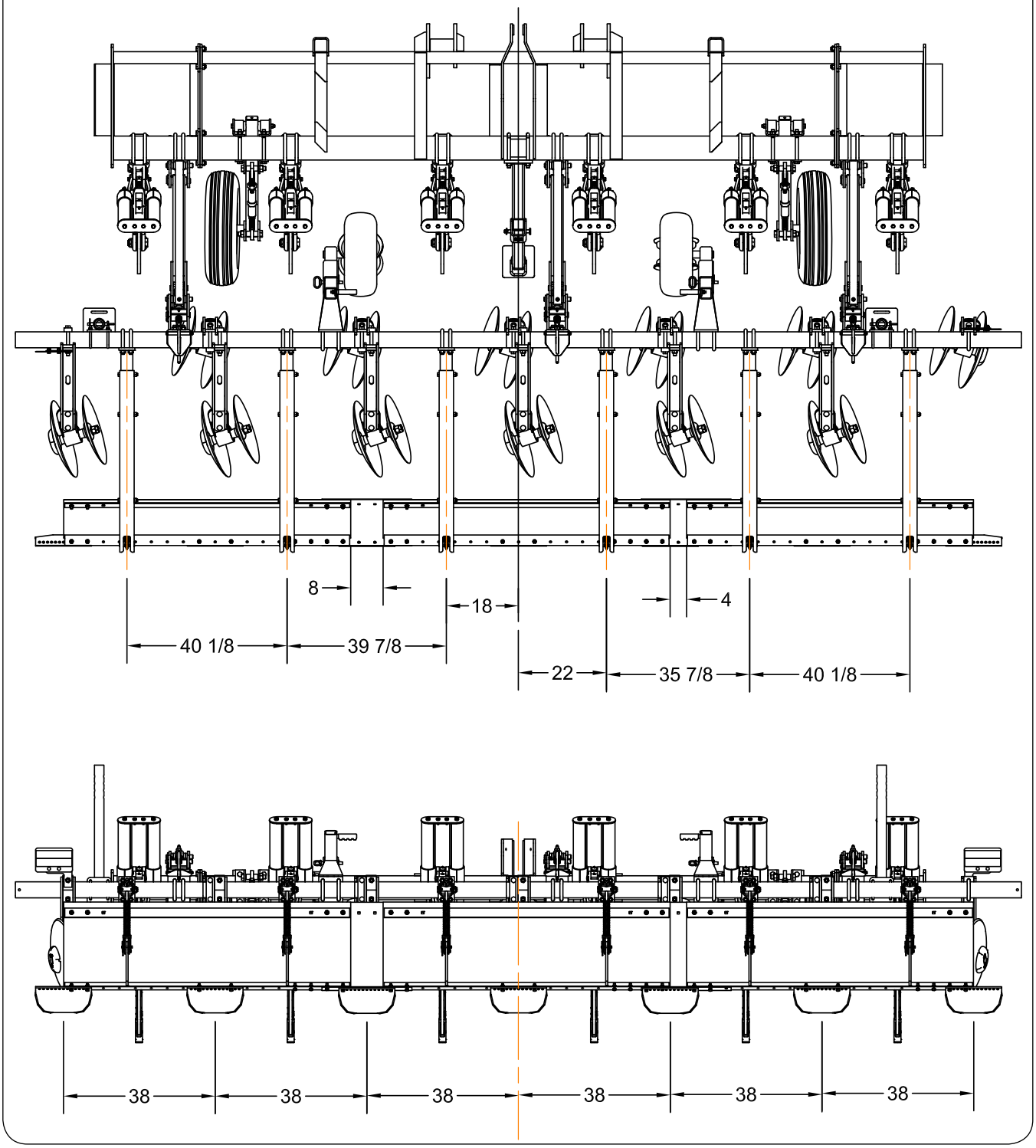




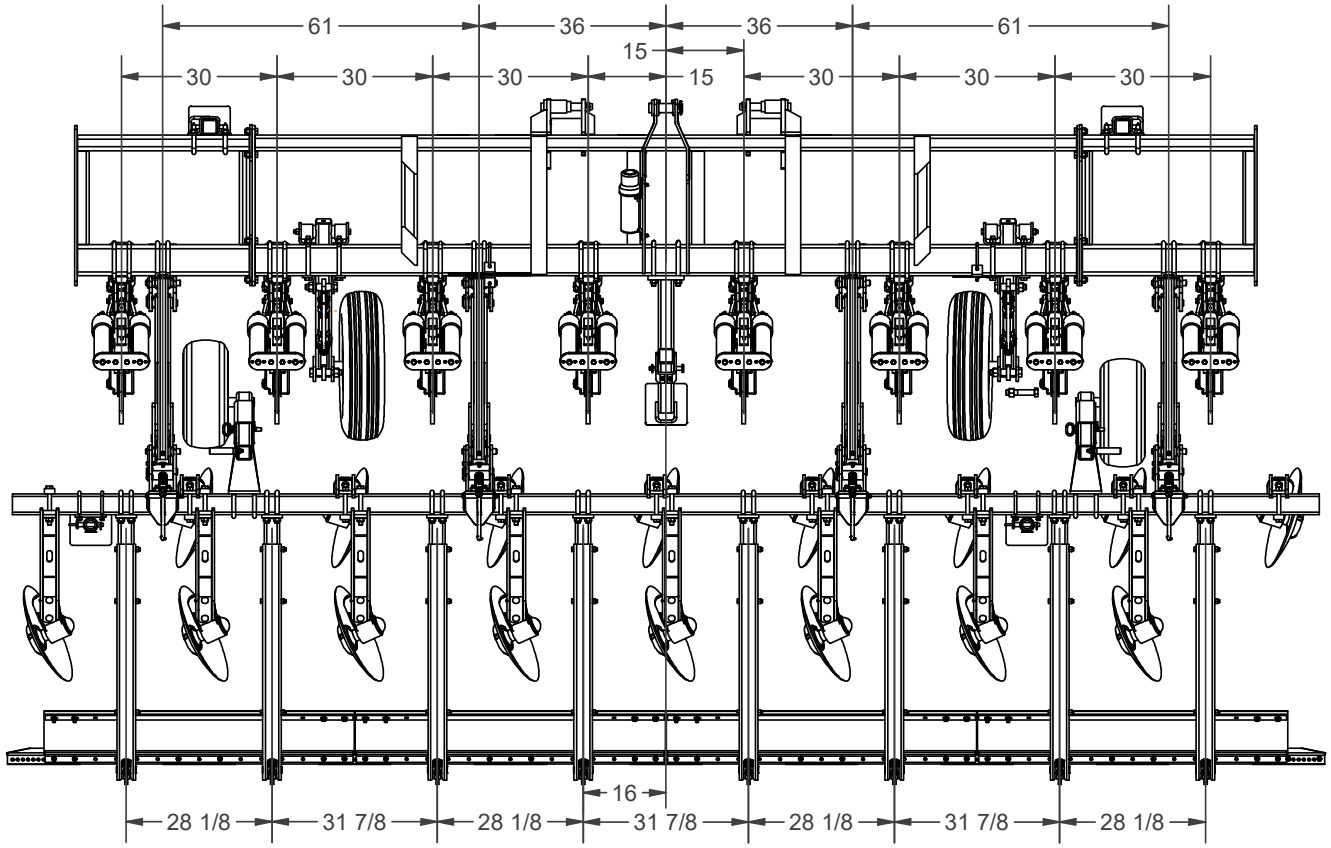
Overhead Bed Shaper Layouts—Rigid Units—6 Row 36" Spacing

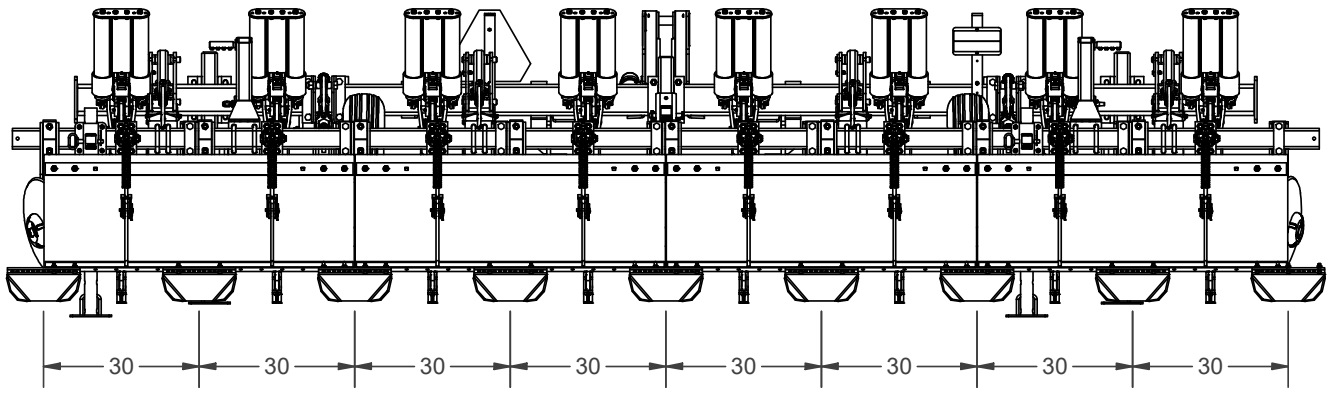


Overhead Bed Shaper Layouts—Rigid Units—6 Row 38” Spacing

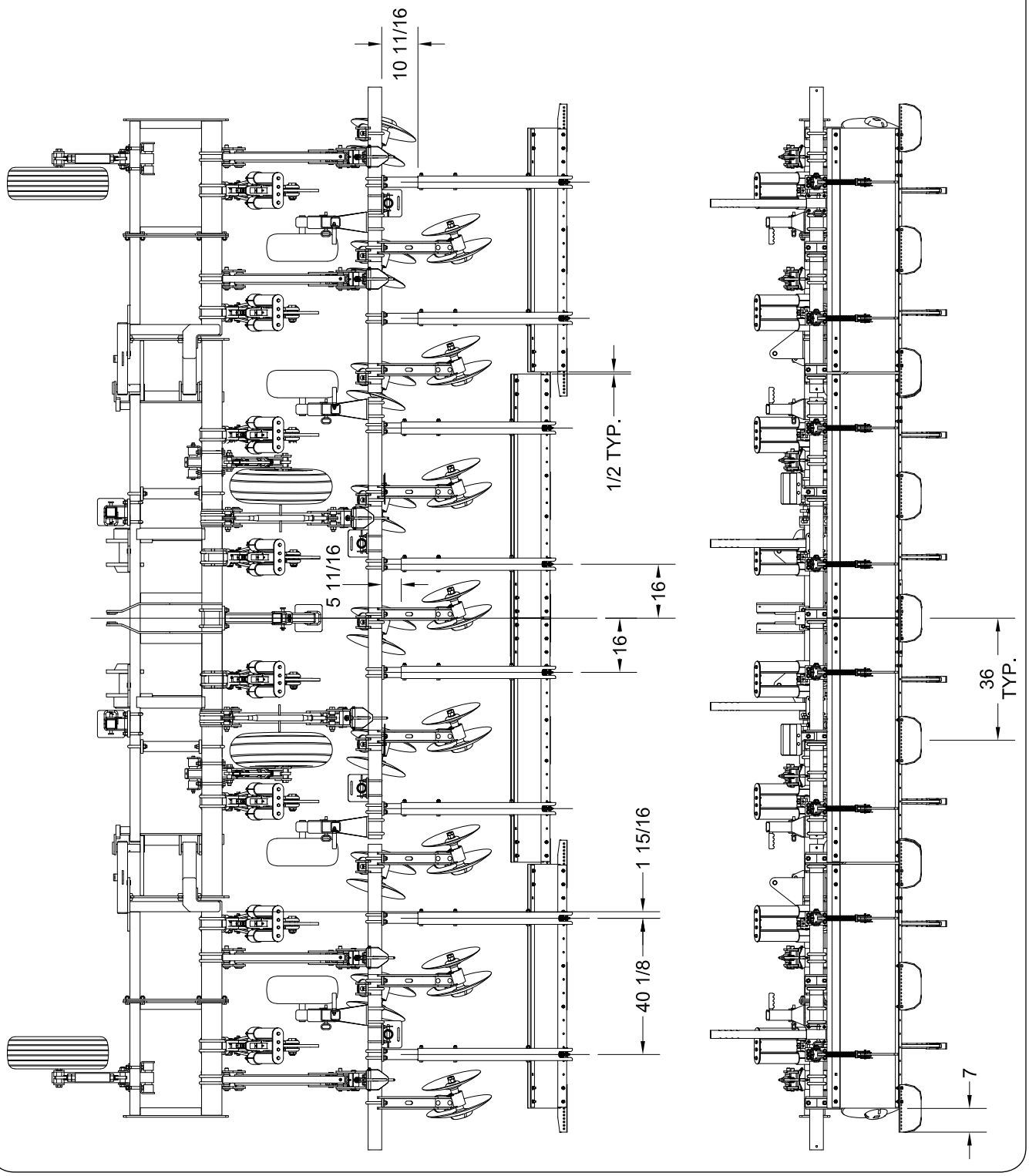


Overhead Bed Shaper Layouts—Rigid Units—8 Row 30” Spacing

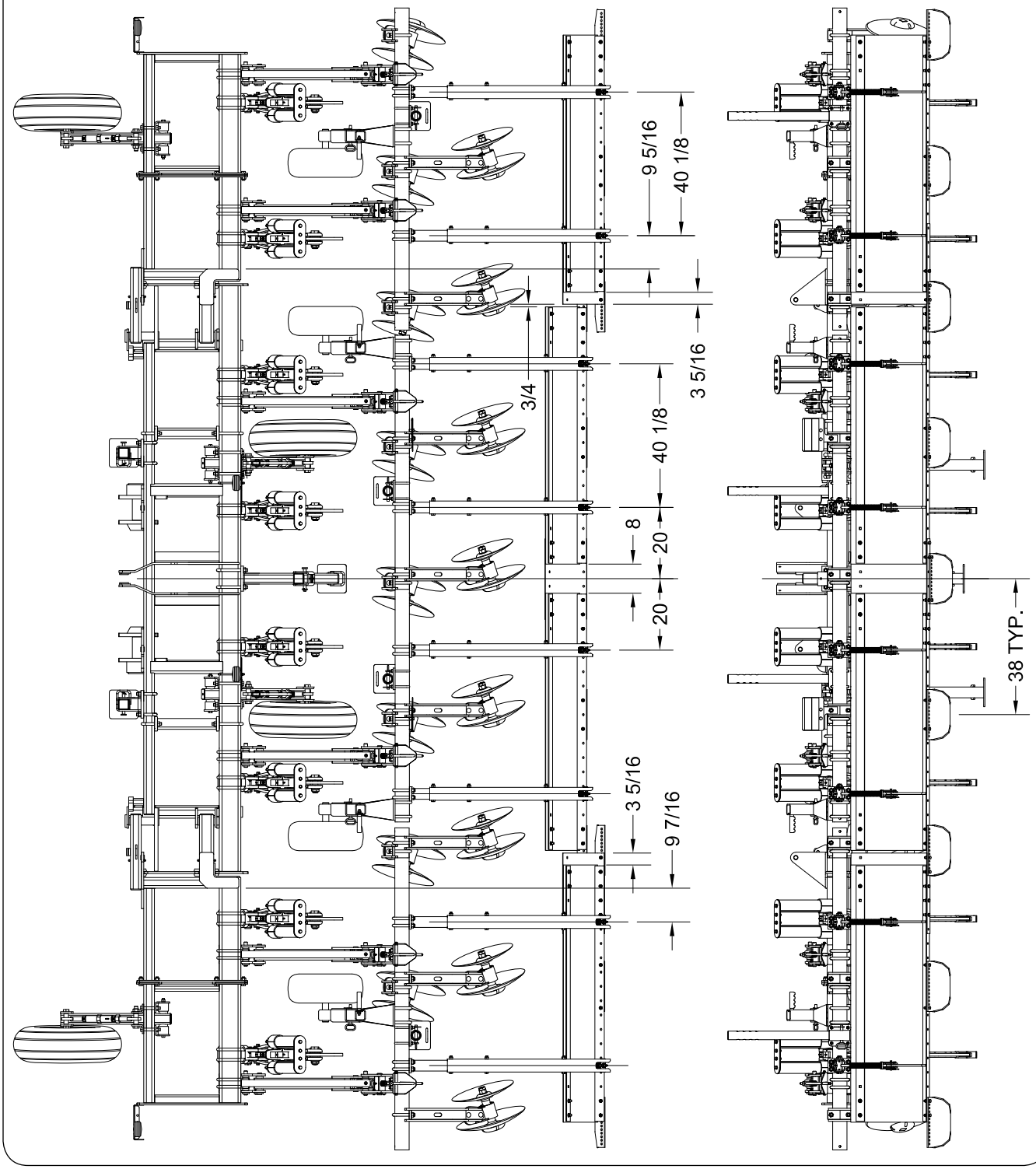




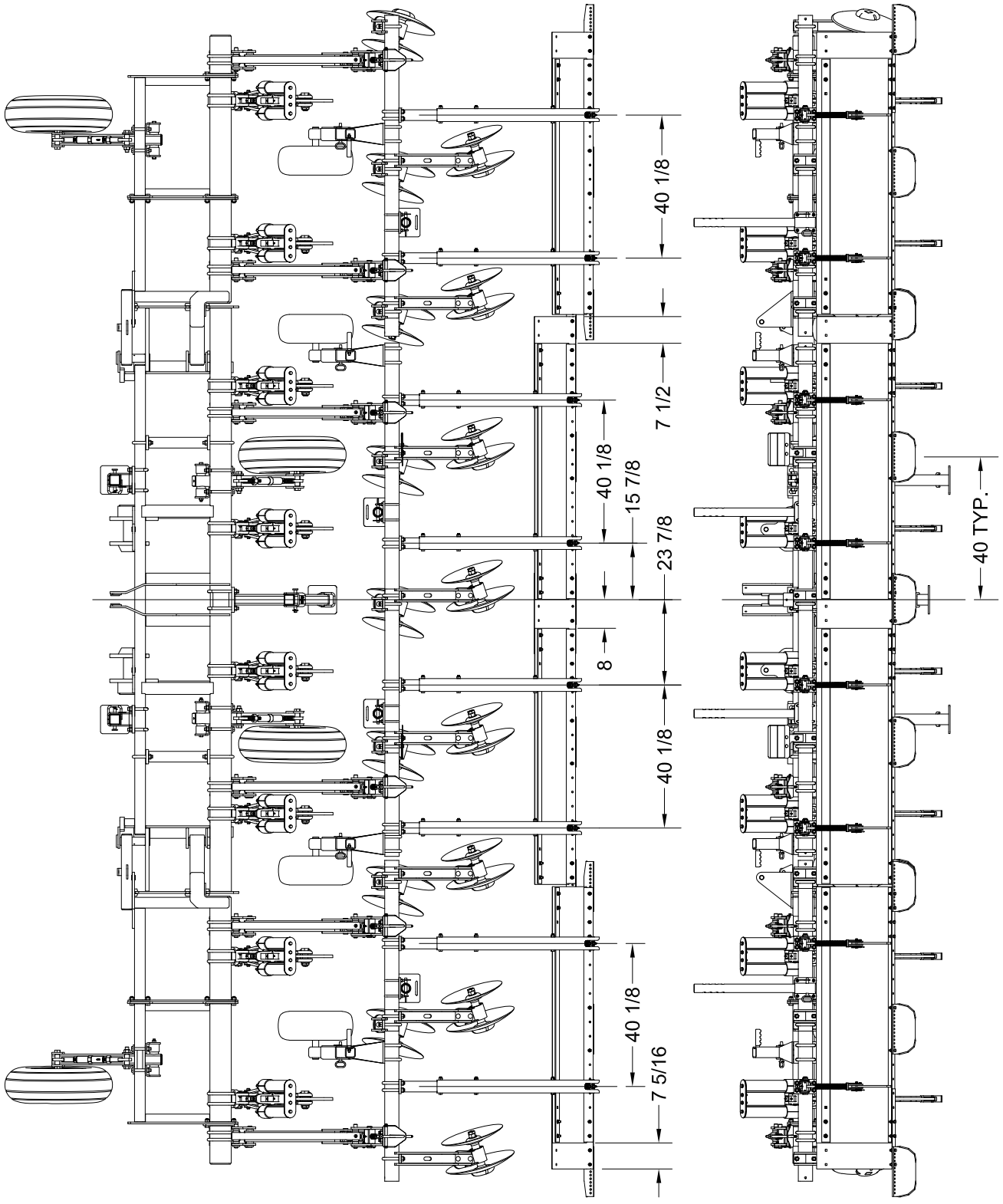
Overhead Bed Shaper Layouts—Folding Units—8 Row 36” Spacing



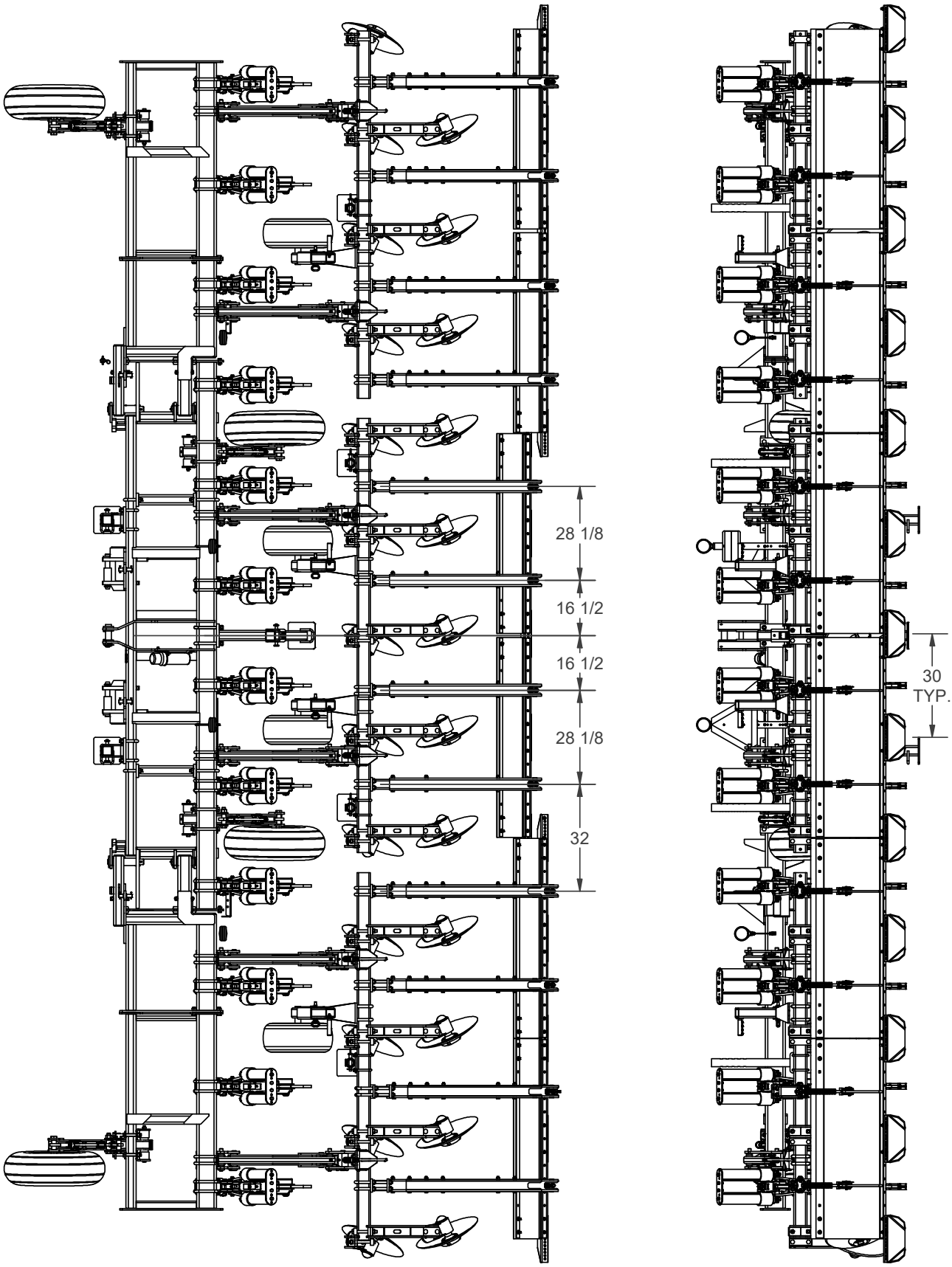
Overhead Bed Shaper Layouts—Folding Units—8 Row 38” Spacing



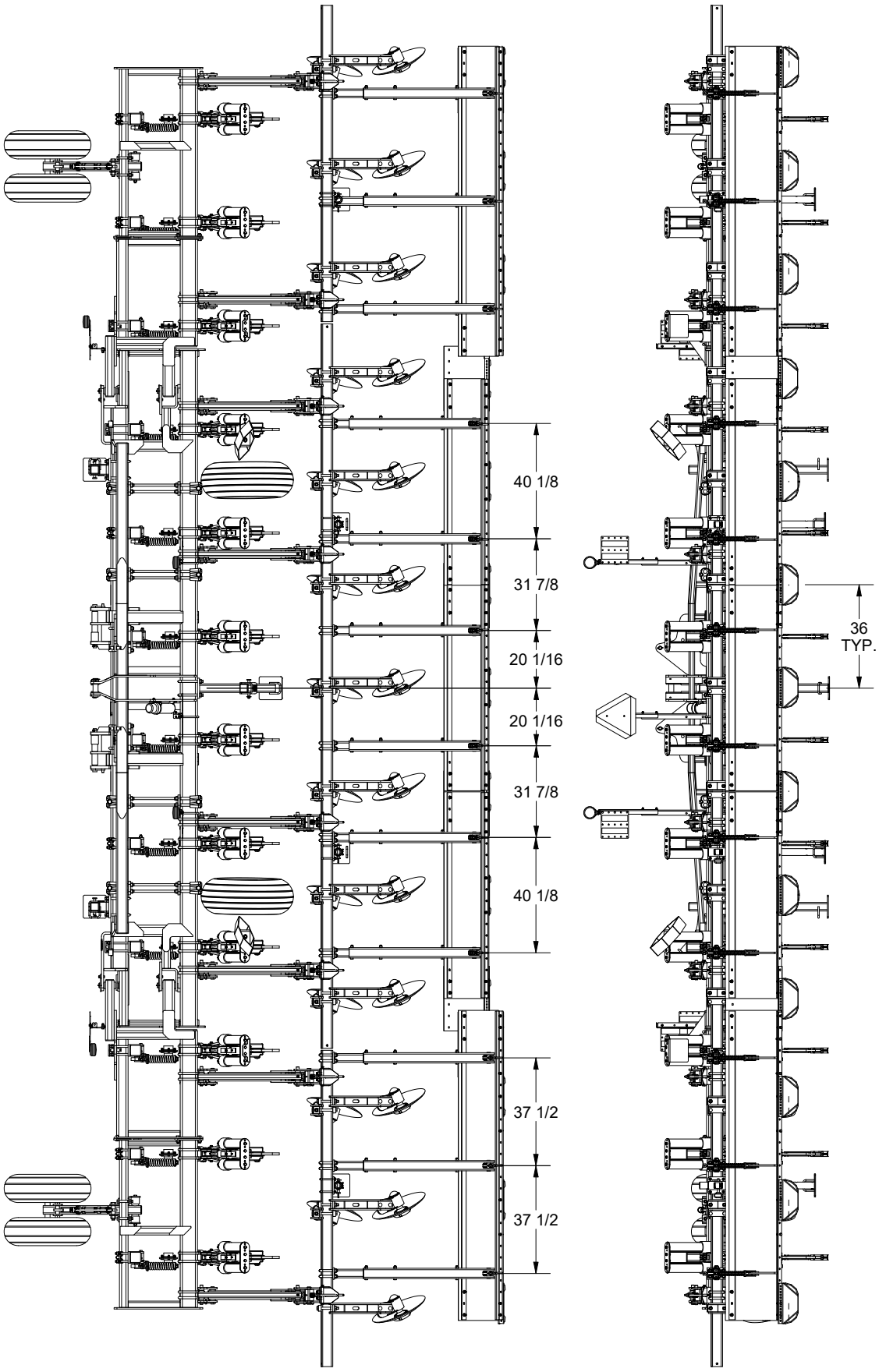
Overhead Bed Shaper Layouts—Folding Units—8 Row 40” Spacing



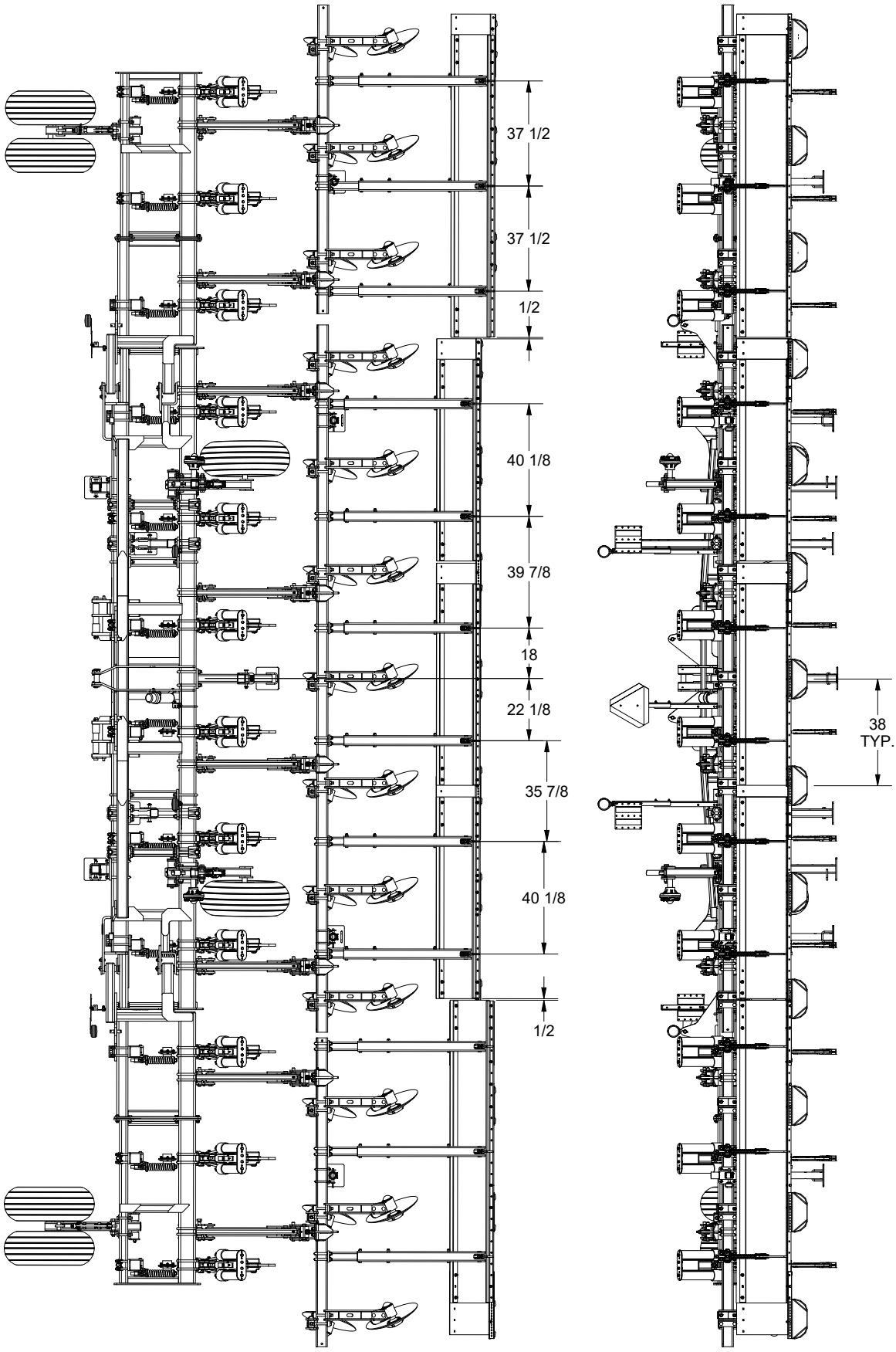
Overhead Bed Shaper Layouts—Folding Units—12 Row 30" Spacing



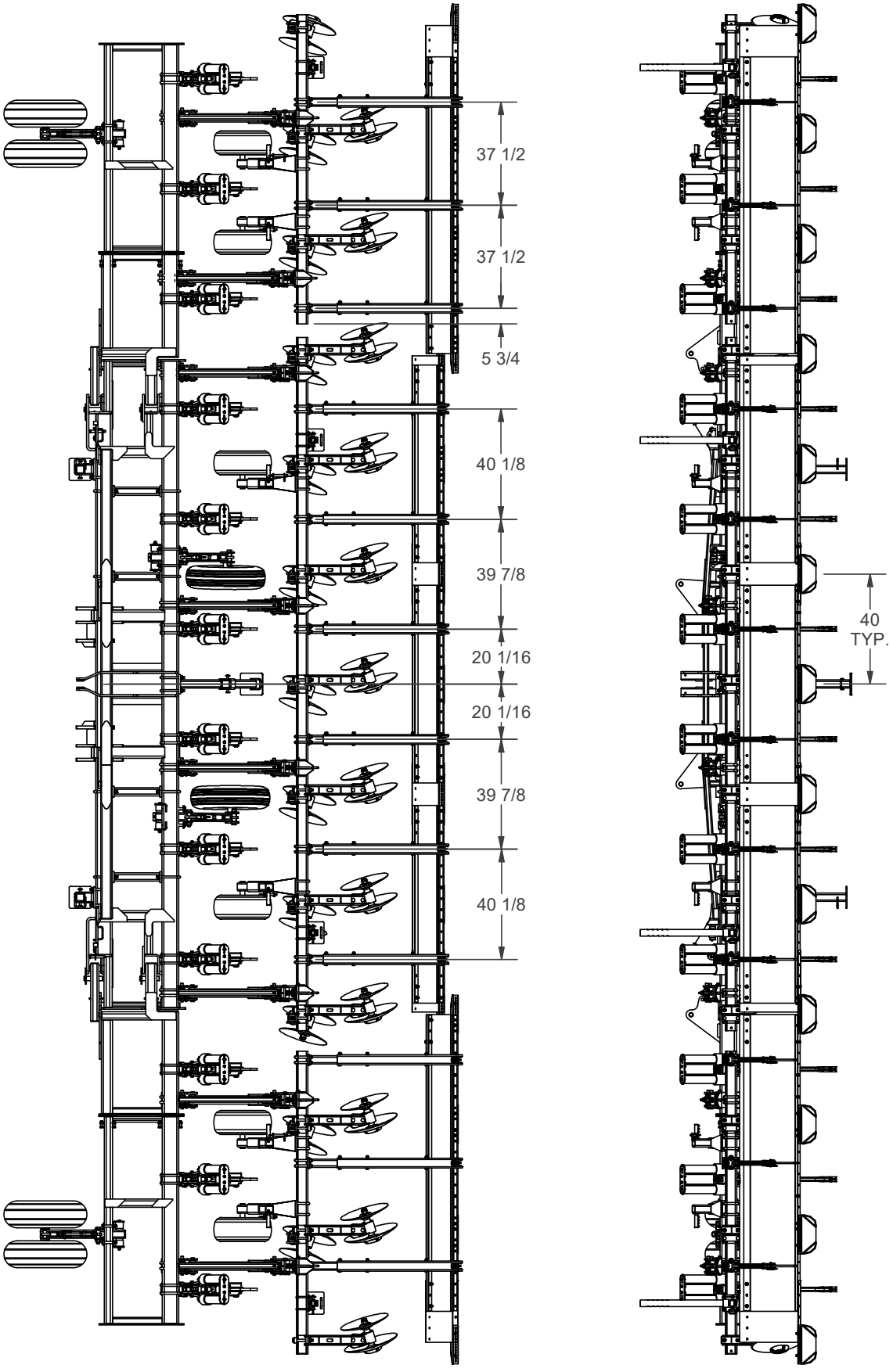
Overhead Bed Shaper Layouts—Folding Units—12 Row 36” Spacing



Overhead Bed Shaper Layouts—Folding Units—12 Row 38” Spacing



Overhead Bed Shaper Layouts—Folding Units—12 Row 40” Spacing



SECTION III
Operation

General Operation Information

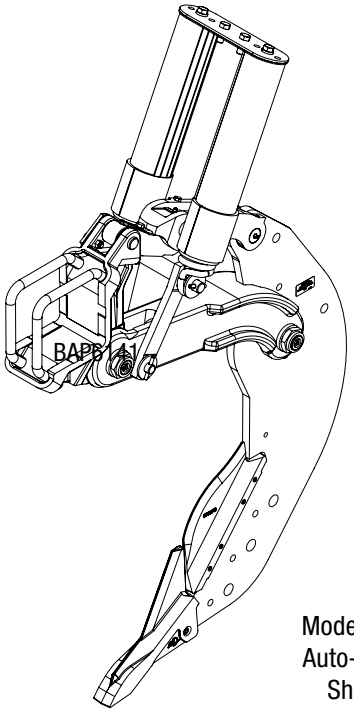
WARNING

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

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

The RIPPER-BEDDER is a heavy-duty, deep-tillage tool with bed shaping disks capable of shattering hardpan up to 18” deep. It can be equipped with a variety of coulters, shanks and finishing attachments for optimum field performance.

The Model 432 is equipped with the auto-reset shank (Fig. 3-1) and is intended for use with moderate levels of rocks and obstructions.



Model 432
Auto-Reset
Shank

FIG. 3-1

Preparing Tractor

Before operating implement refer to tractor operator's manual for information concerning safe methods of operation, hydraulics, hitch adjustment, tire inflation, wheel adjustments, and tractor weights.

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

Check tractor hydraulic oil reservoir and add oil if needed.

⚠ WARNING

- **TRANSPORTING THE IMPLEMENT WILL ADD SIGNIFICANT WEIGHT TO YOUR TRACTOR. MAKE SURE THE TRACTOR IS PROPERLY BALLASTED.**

Front-End Weights

Use front-end weights as needed to provide effective steering control and front-end stability. See your tractor operator's manual for recommendations on ballasting procedures.

⚠ WARNING

- **DO NOT EXCEED THE TRACTOR'S LIFT CAPACITY OR BALLAST RECOMMENDATIONS.**

Note: Warranty consideration will only be given on items manufactured by Unverferth Mfg. Co., Inc.

Horsepower Requirements

The power requirement for this unit is 20-40 hp. per shank, depending on the depth of penetration and ground conditions. Select a tractor with sufficient power to operate this machine.

Sway Blocks

Sway blocks should be used and adjusted to limit movement in operating position. Your implement should be permitted to sway very little while operating and should be held rigid while transporting. See your tractor operator's manual.

Wheel Spacing

Set tractor wheels so they are equally spaced from center of tractor. If using the tool to penetrate in fields of row crops, set tractor wheels so they are centered between the rows.

See your tractor operator's manual for correct tire inflation pressure.

Drawbar Position

Place the drawbar in the short, center position to provide maximum clearance between drawbar and tool.

Attaching Implement To Tractor

IMPORTANT

- *Operating a 3-point implement with an articulated four-wheel drive or track tractor requires the operator to drive straight to prevent damage to the implement. Sudden turns or steering corrections when the implement is in the ground can exert extreme forces through the implement's frame and/or shank components. Improper operation can void the implement's warranty.*

Mast And Hitch

The RIPPER-BEDDER should be used on a tractor with the appropriate hitch connection (see table below).

NOTE: N QC refers to Narrow Quick Attach Coupler. QC refers to Quick Attach Coupler.

Hitch Type	Machine Type		
	Rigid	8-Row Folding	12-Row Folding
CAT II - 3 PT.	X*		
CAT II - QC	X*		
CAT III - 3PT	X	X	X
CAT III - QC	X	X	X
CAT III - N QC	X	X	X
CAT IV - N QC		X	X
CAT IV			X
CAT IV - QC			X

Bolts And Nuts

Before operating, check all hardware for tightness. Re-check all bolts for tightness after the unit has been operated for several hours. See the Maintenance section for proper torque values.

Pins And Retaining Rings

Before operating, check that all pins and retaining rings are in place and in good condition. Replace any worn, damaged, or missing pins, and retaining rings.

Attaching To Tractor (continued)

Pin Assembly (67188B & 67187B)

Pin assembly (67188B) is used for replacement only on 1 1/4" diameter holes and contains a spacer which can be placed on the inside or outside depending on style of unit. Pin assembly (67187B) is used for replacement only on 1 3/4" diameter holes.

The spacer should be placed on the inside when used on all older style folding units and on Rigid units with a 1 1/4" top hole on the main frame, see FIG. 3-3.

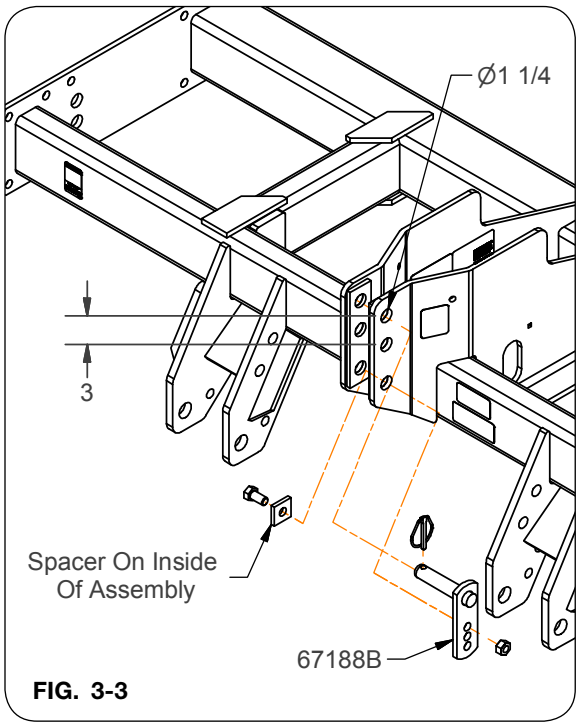


FIG. 3-3

The spacer should be placed on the outside when used on all current style folding units with a 1 3/4" top hole on the main frame. Pin assembly (67187B) is to be used in the 1 3/4" top hole. See FIG. 3-4.

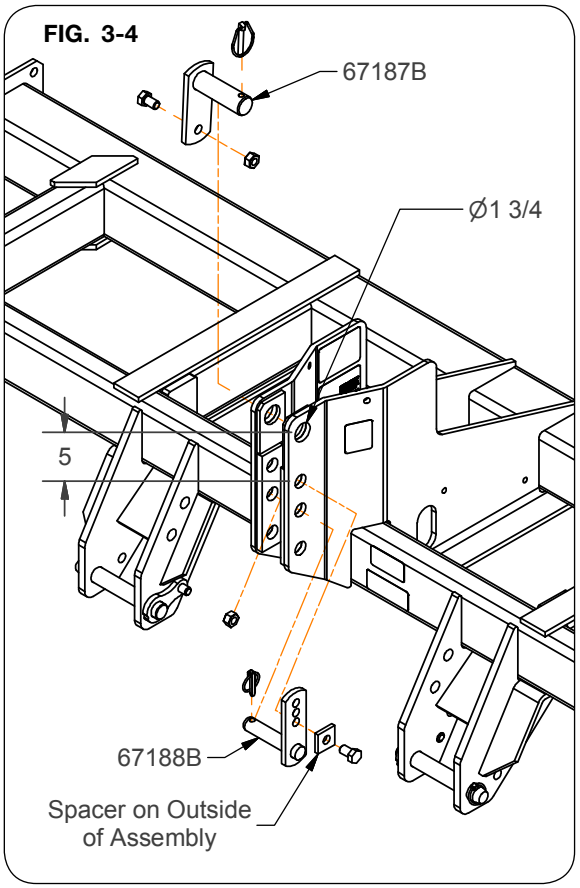


FIG. 3-4

Attaching To Tractor (continued)

Tractor Without Quick Attach Coupler

⚠ WARNING

- **DO NOT STAND BETWEEN TRACTOR AND IMPLEMENT DURING HITCHING.**

CAT 3, CAT 3N, CAT 4N:

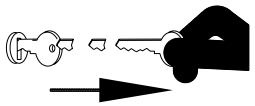
IMPORTANT

- *Before attaching the tractor to the Ripper-Bedder, check the mast pins for any wear or damage. Replace any worn or damaged pins.*

Attach the unit to the tractor as specified in the tractor's operator's manual. Use the appropriate size hitch pins and lock in place.

Back the tractor up to the front of the implement and position the draft links in front of, and in line with, the lower hitch pins (Fig. 3-4).

Set the parking brake, shut-off the engine and remove the key from the ignition before dismounting from the tractor.



Connect the draft links to the front of the machine. Install the pins and secure with klik-pins.

Attaching To Tractor (continued)

Position the hitch bushings to match the tractor's lower link spacing. See Fig. 3-4 & 3-5. Adjust the tractor's sway blocks as required. See the tractor operator's manual.

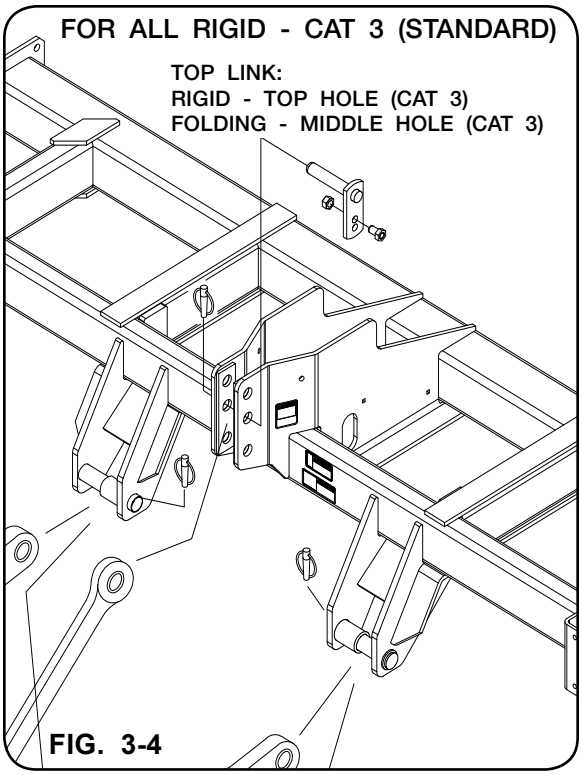


FIG. 3-4

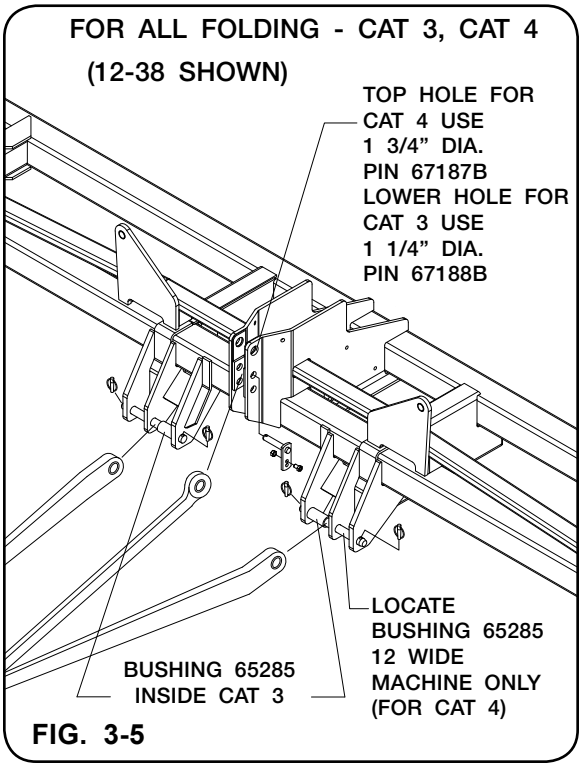


FIG. 3-5

Attaching To Tractor (continued)

Tractor With Quick Attach Coupler

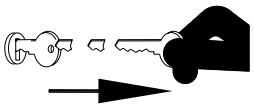
WARNING

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

Lower the coupler to allow jaws to pass under the mast and hitch pins.

Back the tractor to the front of the implement until the jaws are under their respective hitch pins.

Set the parking brake, shut-off the engine and remove the key from the ignition before dismounting from the tractor.



Position the implement's hitch bushing to match the tractor quick attach coupler and raise the coupler to firmly seat the jaws. Lock the jaw latches into place (Fig. 3-6 & 3-7).

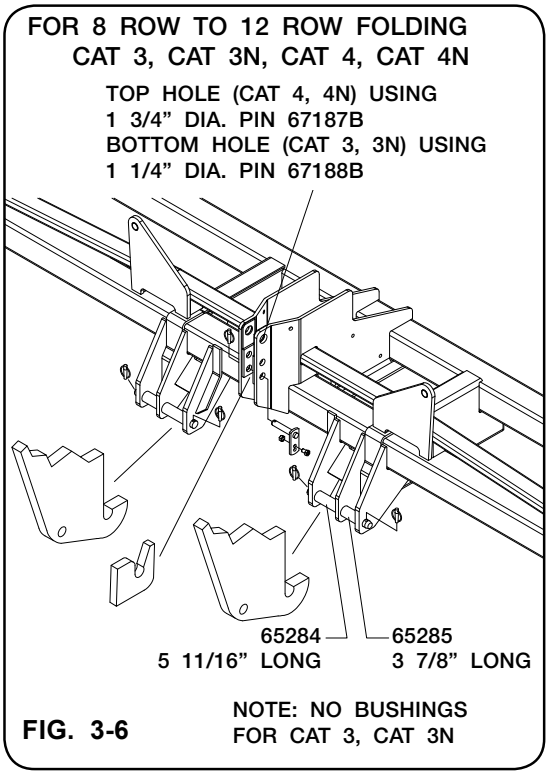


FIG. 3-6

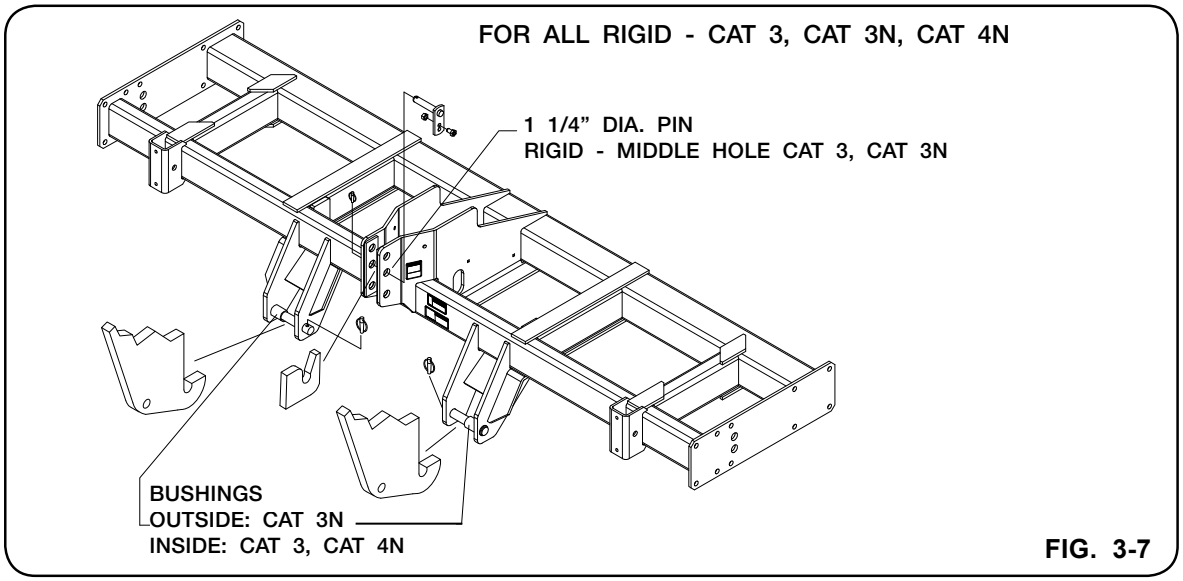


FIG. 3-7

Folding Wings

WARNING

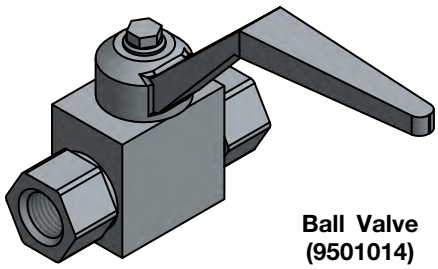
- **MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.**

Before folding wings, be sure markers are fully retracted and locked into transport position. On shear-bolt machines (Model 312) replace any shear-bolts that have sheared on any of the shanks located on the wings before folding wings.

Place the wing ball valves (9501014) in the “OPEN POSITION” FIG. 3-11.

Raise unit to transport position. Fold wings so that the hydraulic cylinders are fully retracted.

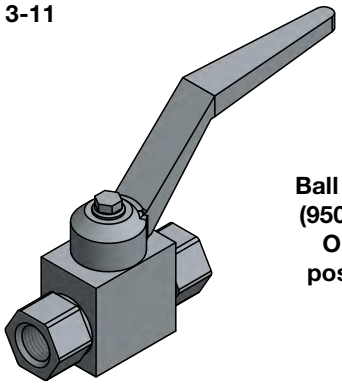
Place the wing ball valves (9501014) in the “CLOSED POSITION” FIG. 3-10.



Ball Valve (9501014) Closed position

FIG. 3-10

FIG. 3-11



Ball Valve (9501014) Open position

Transporting

DANGER

- **ELECTROCUTION WILL CAUSE SERIOUS INJURY OR DEATH. THE IMPLEMENT IS NOT INSULATED. KEEP AWAY FROM ALL ELECTRICAL LINES AND DEVICES. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT.**

WARNING

- **INADVERTENT LOWERING OF THE WINGS CAN CAUSE SERIOUS INJURY OR DEATH. INSTALL WING TRANSPORT LOCKS BEFORE TRANSPORTING.**
- **USE TRANSPORT LIGHTS AS REQUIRED BY LOCAL LAWS TO ADEQUATELY WARN OPERATORS OF OTHER VEHICLES.**
- **ALWAYS TRAVEL AT A SPEED WHICH PERMITS COMPLETE CONTROL OF TRACTOR AND IMPLEMENT.**

For safe transporting of this implement, the transport speed should never exceed 10 m.p.h. in the field or over rough terrain. Reduce the transport speed to maintain full control of the implement and tractor at all times. Do not exceed 20 m.p.h. when transporting the implement on the highway.

The Ripper-Bedder will increase the length and weight of mounted implements. Be careful when turning. Reduce transport speed for safe handling.

Allow additional time and distance for stopping with the Ripper-Bedder.

The Ripper-Bedder greatly increases the tractor 3-point load. Be sure to install adequate ballast to maintain full stability and control during transport.

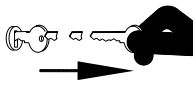
Comply with all state and local laws governing highway safety and regulation when moving machinery on public roads.

Be sure SMV Emblem, lights and reflectors are in place and clearly visible to approaching traffic.

Unhitching from Tractor

Select a firm, level surface for parking the machine. Lower all support stands to the same height. Lower the unit with the tractor's 3-point hitch until the stands and shank points contact the ground. Install the wing lock pins on winged machines. Depressurize the hydraulic system according to the tractor operator's manual.

Set the parking brake and remove the key from the ignition before dismounting from the tractor.



Install wing lock pins on winged machines. Depressurize the hydraulic system according to tractor operator's manual.

⚠ WARNING

- **FALLING OR LOWERING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. KEEP EVERYONE AWAY FROM EQUIPMENT WHEN RAISING OR LOWERING.**

- **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.**

For Tractors with Quick Attach Coupler

1. Disconnect the hoses (if applicable), release the latches and drive away slowly.

For Tractors Less Quick Attach Coupler

2. Disconnect the hoses (if applicable), remove the pins and drive away slowly.

Leveling Frame

For best results, when leveling the implement, position the tractor with the implement on a level floor. Check the tractor tire pressure and inflate equally from side-to-side. See your tractor operator's manual for the correct tire inflation pressure.

Side-to-Side Leveling

With the implement attached to the tractor, raise the unit 1- to 2-inches off the floor. Shut-off the engine and lock the brakes on the tractor. Measure to the bottom edge of the rear frame tube on each side of the machine. The frame will be level when dimension "A" is the same as dimension "B", Fig. 12. Level the frame from side-to-side by adjusting the lift links on the tractor 3-point hitch.

Before adjusting the 3-point links, see your tractor operator's manual for the correct adjustment procedures.

Front-to-Rear Leveling

Before setting the coulter and gauge wheels, it is necessary to level the frame from the front to the rear.

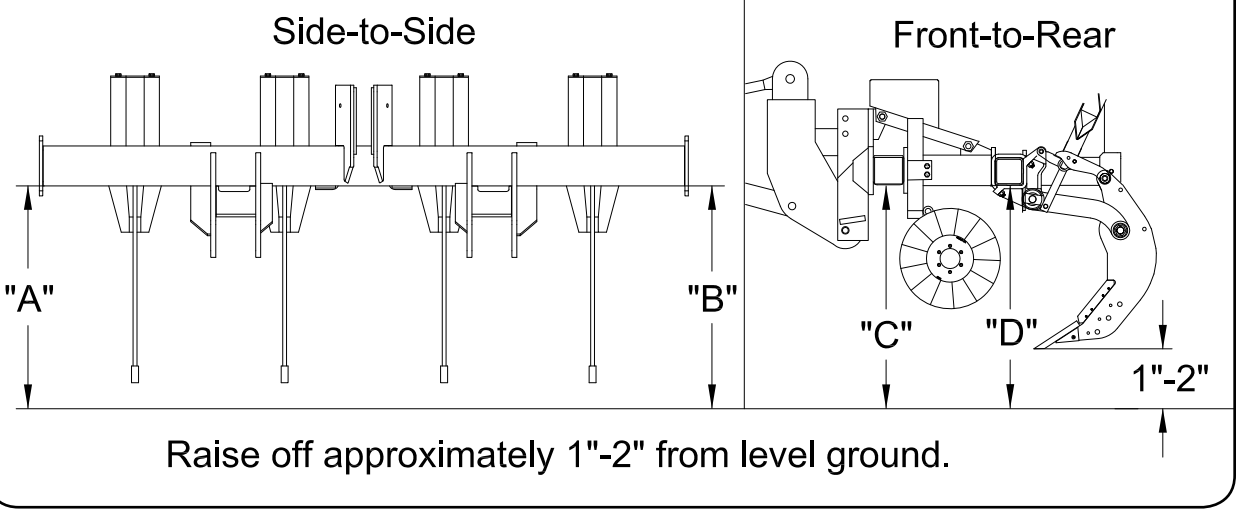
For initial adjustment with the machine still raised off the ground 1- to 2-inches (being sure the bottom of the shanks clear the floor). Measure to the bottom of the front frame tube and the rear frame tube.

If the frame is not level from front to rear with the ground line, extend or retract the tractor top link until the frame is parallel (or level) to the ground line. The frame will be level when dimension "C" is the same as dimension "D" (Fig. 3-10).

Before adjusting the 3-point links, see your tractor operator's manual for correct adjustment procedures and safety requirements.

Further front to back adjustment will be required once the machine is operated in the field. When it is properly leveled, all shanks will enter the ground to a uniform depth.

FIG. 3-10



Leveling Wings (8-36", 38", 40" & 12-30", 36", 38", 40")

Adjustment Procedures

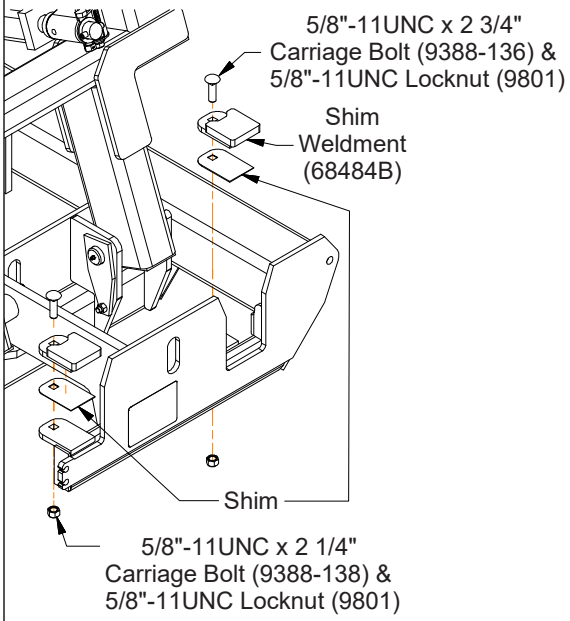
Check for levelness of machine in the field. The wing tips should be operating at the same working depth as the center section of the machine. If the wing tips are running deeper than the center section, shims may be needed. Shims are provided for adjusting/leveling wing height in the field. The cylinder rod end must also be adjusted.

NOTE: There are 3 shims for each corner, you need to select the appropriate sizes as needed. (Store unused shims on bottom side of mounting ear).

Wing Tip Distance Below Level	Approximate Shim Thickness Required
1/2"	1/16"
1"	1/8"
1 1/2"	1/16" & 1/8"
2"	1/4"
2 1/2"	1/16" & 1/4"

Determine shim requirements as follows:

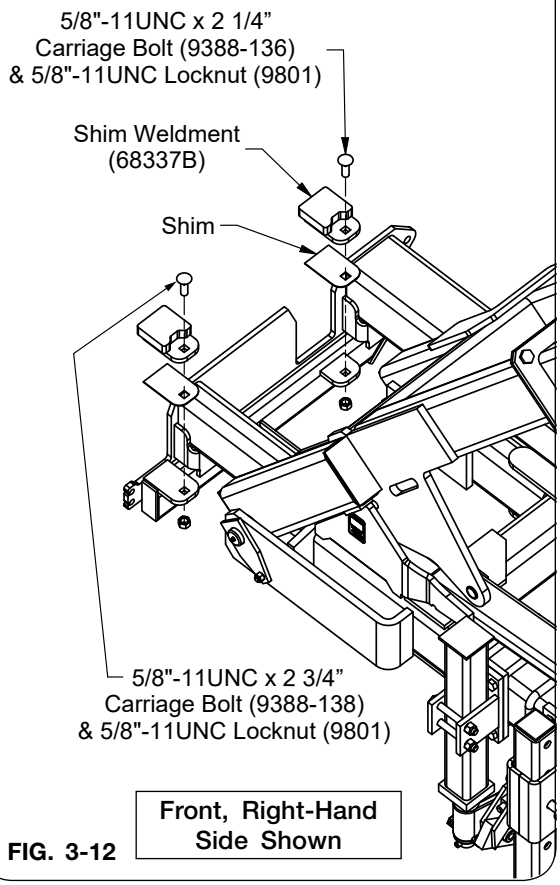
Hydraulic — Standard
8 Shank 36", 38" & 40" Spacing;
12 Shank 30" Spacing



Front, Left-Hand Side Shown

FIG. 3-11

Hydraulic — Standard
12 Shank 36", 38" & 40" Spacing



Front, Right-Hand Side Shown

FIG. 3-12

NOTE: Unused shims can be stored on bottom side of mounting plate.

⚠ CAUTION

- **SHIM KIT MUST NOT BE USED WITH FLEX VALVE.**

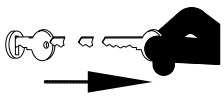
Leveling Wings (continued)

Adjusting Cylinder Clevis End

⚠ WARNING

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

Adjust the cylinder clevis end when installing the shims as follows:



1. Unfold the machine completely. Lower the machine within 1”-2” from the ground. Set parking brake on tractor, release any pressure in hydraulic system, shut tractor engine off, and remove the ignition key.
2. Remove the clevis pin (FIG. 3-16).

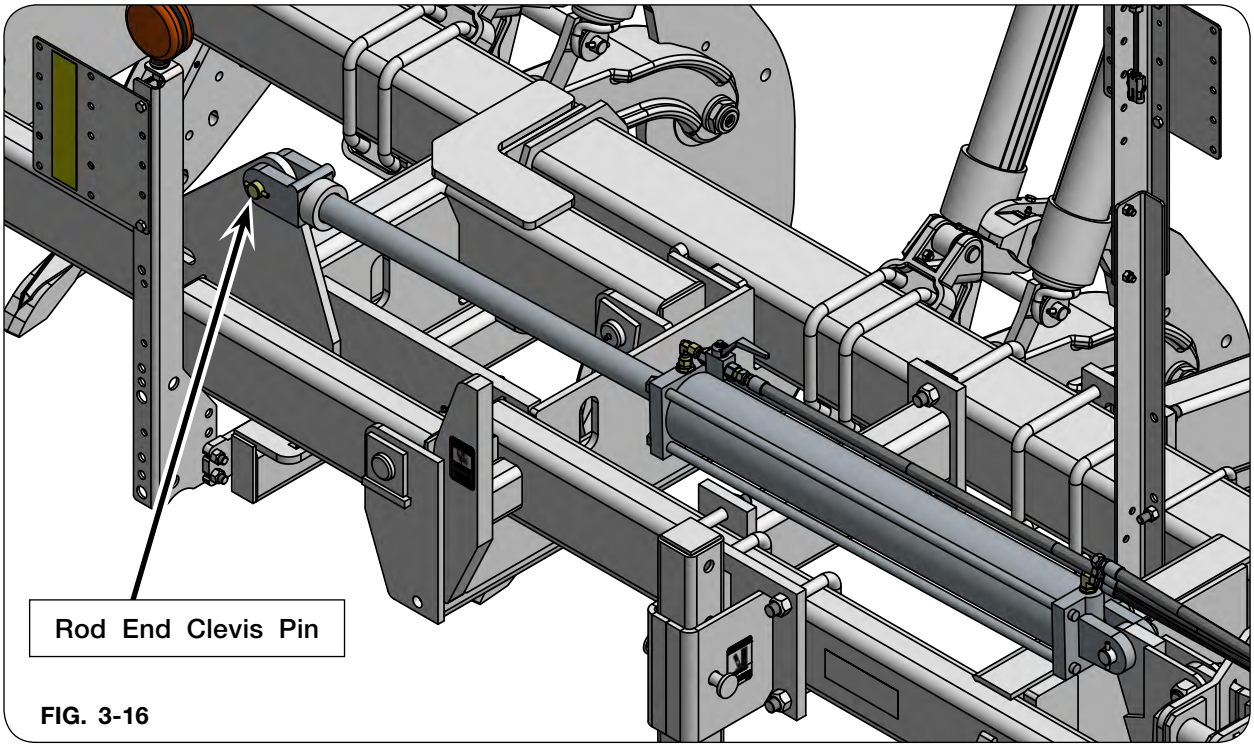


FIG. 3-16

3. Using a safe lifting device rated at a minimum of 50 lbs., swing cylinder up and block.
4. Using the tractor, extend the hydraulic cylinder completely.
5. Turn off tractor and remove ignition key.
6. Loosen the bolt on the cylinder clevis, and adjust cylinder clevis until the length allows the clevis hole to match the fold lug at full hydraulic extension. Adjust the clevis out 1/2-1 full turn to have slight down pressure pushing the wing onto the shims.
7. Install the clevis pin and tighten the clevis bolt.

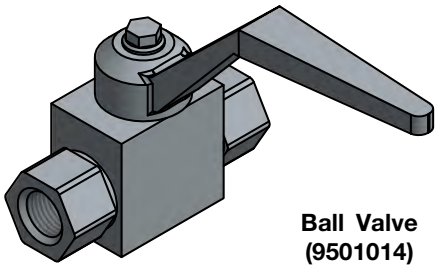
Unfolding Wings

To unfold the wings, place ball valve to OPEN/WORKING (handle in-line) position.

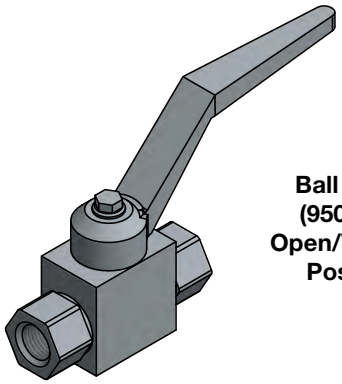
⚠ WARNING

- **FALLING OR LOWERING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. KEEP EVERYONE AWAY FROM EQUIPMENT WHEN SUSPENDED, RAISING, OR LOWERING.**

Raise unit to transport position. Unfold wings so that the hydraulic cylinders are fully extended.



Ball Valve (9501014) Closed/Storage Position



Ball Valve (9501014) Open/Working Position

Flex Hydraulic (Optional) — Field Operation

The flex wing option features dual function cylinders that are designed with two separate chambers in one cylinder body. The longer 48" cylinder end folds the wings and allows wing flex. The shorter cylinder end activates wing tip-up for turning around on the ends.

The flex wing option allows wings to flex 5 degrees below center and 15 degrees above center. Relief valve cartridges inside the valve block assembly work with tractor hydraulics to allow the wings to float up or down in the field. Wing down-pressure can be added in difficult soil conditions where wing shank depth is not consistent.

IMPORTANT

If the Flex Frame Hydraulics are installed on the machine, the hydraulic valve operating the long end of the cylinder must run in FLOAT (no down pressure) or CONTINUOUS (down pressure active) to prevent potential cylinder damage. DO NOT operate the long end of the flex wing cylinder in NEUTRAL.

Tractor SCV Settings

The implement flex frame option requires 2 sets of tractor SCV outlets.

Aux A and B Ports on Valve:

- The short end of the cylinder tilts the wings to level when turning on the ends of the field. This outlet is engaged at the same time as the machine raise to allow the wings to tilt up while the machine is raised and turning on the ends. This outlet also tilts the wings down when the machine is lowered. After the machine is fully lowered, the SCV for this function should be OFF. Set hydraulic flow to 6–10 GPM. Do not plumb this function into the lift/lower hydraulic circuit on the tractor.

Trac A and B Ports on Valve:

- The long end of the cylinder folds and unfolds the wings between transport position to field working position. During field operation, tractor hydraulics must be operated in FLOAT or CONTINUOUS (for down pressure) so the 48" cylinder rod can piston in/out when wings raise/lower with field contours.. Set hydraulic flow to 6–10 GPM.

Flex Hydraulic (Optional) — Field Operation

Unfolding

1. With the machine raised, ensure the wing tip-up end of the cylinders are fully retracted. These are the shorter of the two cylinder ends. If the rods are not retracted, engage the retract function on the SCV. (The hoses are connected to the Aux A / Aux B ports on the flex wing block)

2. Unfold the wings by extending the longer end of the cylinders. (The hoses are connected to the Trac A and Trac B ports on the flex wing block)

3. Put the longer end of the cylinders into either FLOAT or CONTINUOUS (for down pressure) in the extend direction on the tractor SCV.

Folding

1. With the machine raised, fully retract the tip-up end of the cylinders. (The hoses are connected to the Aux A / Aux B ports on the flex wing block)

2. Fold the wings by retracting the longer end of the cylinders. (The hoses are connected to the Trac A and Trac B ports on the flex wing block)

3. Relieve pressure from the hydraulic system. See the tractor operator's manual for the proper procedure.

Lowering Machine

1. Ensure machine is in the working position, with short end of cylinders retracted.

2. Lower the machine to working depth and extend the shorter wing tip-up cylinder end to lower the wings. Shut off the wing tip-up SCV once cylinders are fully extended. (Typical timer setting to disengage wing tip up is 4-5 seconds)

Raising Machine

1. Raise the machine from the soil and retract the shorter wing tip-up cylinder end to raise the wings to level. (Typical timer setting to engage wing tip-up is 4-5 seconds) Set that SCV to CLOSED.

Down Pressure

1. If down pressure is required for the wings to properly follow field contours, place tractor hydraulics for the longer end of the cylinders to 8 GPM.

2. Set the hydraulics for the longer end of the cylinders to CONTINUOUS.

3. Refer to MAINTENANCE section of your owner's manual for adjusting wing down pressure.

NOTE: The lowering and raising procedure will remain the same.

Notes

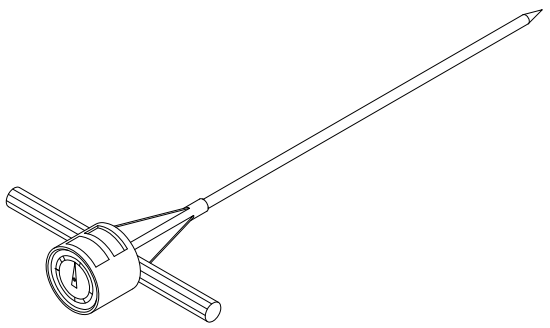
Preparing the Implement

Depth of Penetration

Before adjusting the depth of your coulter and shank, first test your soil for the depth of the hardpan. For optimum performance from your implement, the penetration of the shank should be 2-3 inches below the hardpan. The hardpan is the area in your soil which acts as a barrier preventing crop roots from benefitting from the water and nutrients below this area.

To determine the precise location of the hardpan, a "penetrometer" should be used (FIG. 3-17). For more information on this device, refer to your local Unverferth dealer or contact us, at Unverferth Mfg. Co., Inc.

FIG. 3-17



An alternate method of locating the hardpan is to dig a hole to a depth of 24" or greater. Using a knife, slice the side wall of the hole vertically downward. You will be able to feel an increase in resistance upon entering the hardpan from the top. Repeat the knife slice from the bottom of the hole upward to determine the bottom of the hardpan.

Once the depth of the hardpan is determined, adjust the stabilizer wheels so that the shank will penetrate at least 2-3 inches below this barrier. To adjust the stabilizer wheel, loosen the locking nut and rotate turnbuckle to the proper position (FIG. 3-21). To ensure proper depth, rest shank tips on a level surface.

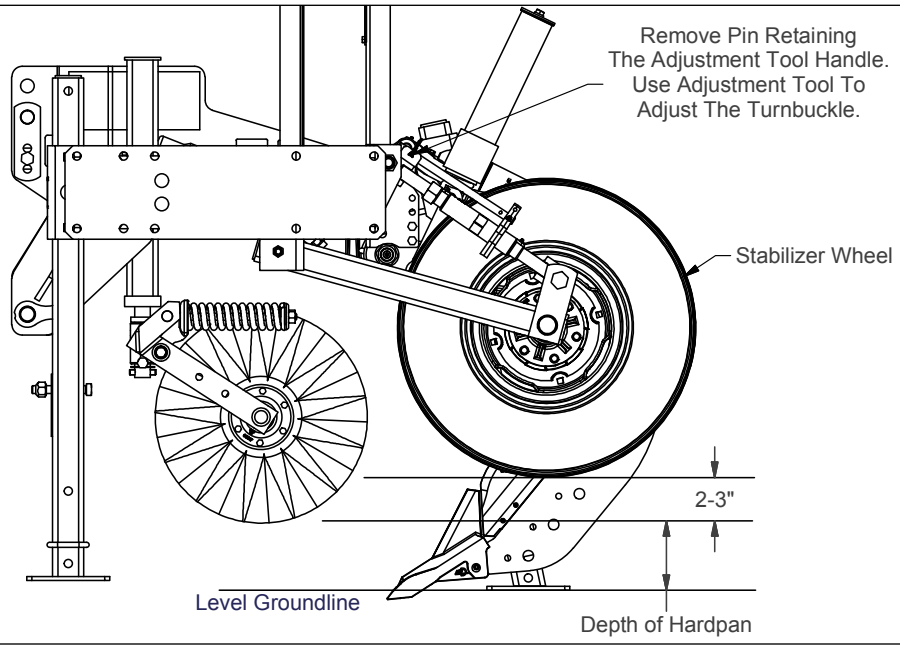


FIG. 3-18

Raise stabilizer wheel so that it is approximately 2-3 inches more than the determined depth of the hardpan, and retighten locking nut.

IMPORTANT

- *It is recommended that the stabilizer wheels are 1/2" to 1" off the ground during operation. This transfers more draft and weight onto the tractor rear tires for maximum traction.*

Preparing the Implement (continued)

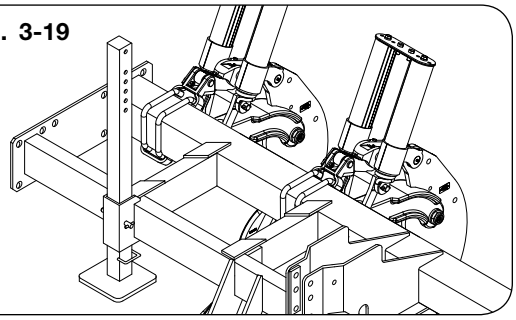
Support Stand

WARNING

- **FALLING OR LOWERING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. KEEP EVERYONE AWAY FROM EQUIPMENT WHEN SUSPENDED, RAISING, OR LOWERING.**

Before field operation can begin, the support stands must be raised and locked into position. Raise the unit into the transport position and raise the support stand by removing the pin, raising the support stand and reinstalling the pin into the bottom hole (Fig. 3-19). Retain into position with the klik pin.

FIG. 3-19



Shanks

Horizontal Adjustment

CAUTION

- **ENSURE SHANKS HAVE BEEN GREASED PRIOR TO INITIAL USE.**

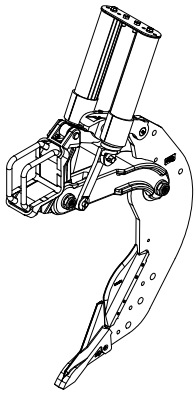
When positioning the shanks from side-to-side, loosen the hardware so that the shank can be moved. When repositioned, be sure to securely tighten the hardware.

NOTE: Proper positioning, refer to the layouts in the Set-Up section.

NOTE: Be sure to align the coulter and shank. Failure to do so may result in plugging and excessive surface ground disturbance.

NOTE: Torque 3/4" shank mounting V-bolts to 240 ft.-lbs. Do not over or under tighten.

FIG. 3-20



Resetting A Tripped Shank

In some cases, an auto-reset shank may not reset after striking a rock or buried obstruction. The shank springs store a tremendous amount of energy; keep all persons away from a tripped shank.

Follow this procedure to reset a tripped auto-reset shank:

DANGER

- **SUDDEN MOVEMENT OF A TRIPPED SHANK WILL CAUSE SERIOUS INJURY OR DEATH. STAY AWAY FROM A TRIPPED SHANK.**

Shanks (continued)

1. Lower the unit into the ground and pull forward until the point of the tripped shank firmly contacts the soil surface.

2. Torque the front and rear pivot bolts to 400 ft. lbs. See Fig. 3-21. Loosen 1/2 turn. Keep all persons away from the shank, pull forward and raise the machine. The shank should automatically reset.

3. If the shank does not reset, re-insert the machine into the ground, as in Step 1. Loosen the pivot bolts another 1/4 turn. Clear all bystanders, pull forward and raise the machine. The shank should automatically reset. If it does not, repeat this procedure until it does.

4. After the shank has reset, inspect trip mechanism and pull arm for wear or damage that would cause the malfunction. Replace the components as needed. Re-torque pivot bolts to 400 ft.-lbs. then loosen the front pivot bolt 1/4 turn. Check the shank for side play and retighten as required to minimize lateral movement.

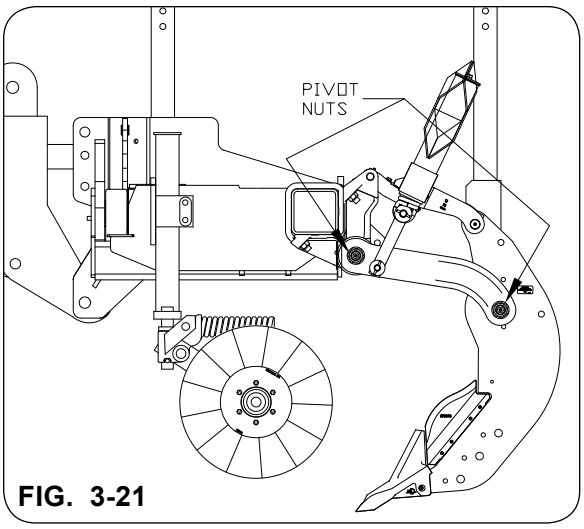


FIG. 3-21

Lower Pull Arm

(After initial break in period)
After an initial break-in period (approximately 20 acres per shank), it may be necessary to retighten the pivot nuts (Fig. 3-21) to eliminate side-to-side movement of the shank.

Proceed as follows:
1. With the machine sitting firmly on the ground, tighten both (front & back) pivot nuts to 400 ft.-lbs.

2. Loosen the front pivot nut 1/4 turn.

3. Check for side play in the shank (by prying on the back of the shank laterally to check for side-to-side movement). When properly adjusted, the shank should have little side-to-side movement.

Toggle Shim—Auto-Reset

In severe conditions where rocks or stumps are present, it may be desirable to reduce your point load to allow the shank to trip easier, or to minimize the number of objects pulled to the surface. Shims (64493, 64494, 64672) are available that can be installed between the inner and outer toggle for this condition.

Shanks (continued)

Lower Pull Arm

The shim is located between the inner and outer toggle on the auto-reset shank. This shim is designed to reduce the initial trip force required to trip the shank without reducing the overall performance.

⚠ WARNING

- **REWORK ONLY ONE SHANK AT A TIME. IF SPRING PRESSURE IS REMOVED FROM ALL SHANKS AT THE SAME TIME, THE MACHINE COULD TIP OVER BACKWARDS CAUSING INJURY OR DEATH.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**

Several shims are available if you wish to reduce point load. The thicker the shim, the more load will be reduced.
64493 (.0598” or 16GA.)
64494 (3/16”)
64672 (1/4”)

1. Remove the spring pressure by turning the top spring bolts counterclockwise until the springs are loose inside the canisters (do not remove the bolt completely).
2. Using a pry bar or similar tool, lift upward on the front of the outer toggle and secure (to prevent accidental release) by placing a 1/2” key between the inner and outer toggle.
3. Remove the shim and replace with new and retain into position using a capscrew and lock washer.
4. Using caution, release the shank to the working position and reverse the procedure in step one.

IMPORTANT

- *Tighten the spring pressure equally and evenly from side-to-side when tightening the spring bolts.*

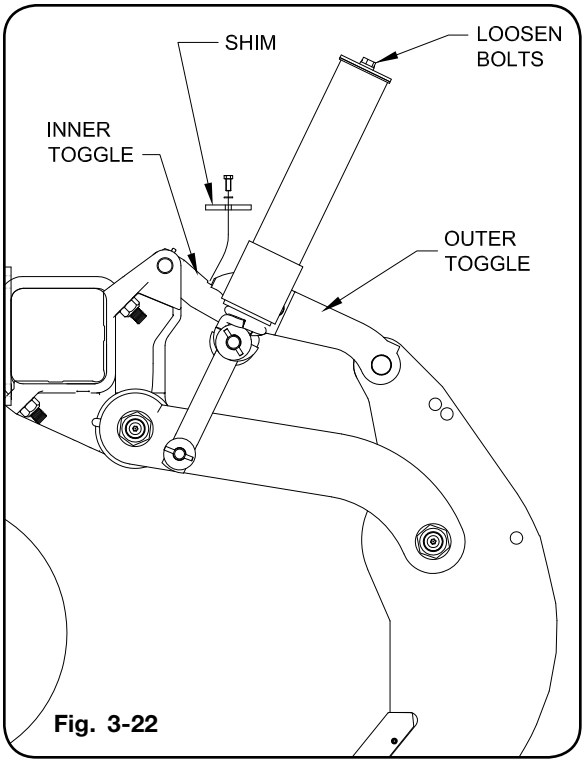


Fig. 3-22

Optional Coulters

Combo® Coulter

Your heavy-duty Combo Coulter is designed to cut residue and trash and to start an initial cut for the shank and create less soil disturbance. The Combo Coulter can be adjusted vertically for depth.

Vertical Position

WARNING

- **BEFORE ADJUSTING THE MACHINE BE SURE IT IS SECURELY BLOCKED TO PREVENT TIPPING OR MOVEMENT OF THE MACHINE. DO NOT WORK UNDER AN UNSUPPORTED MACHINE.**

To adjust the vertical positioning refer to the following steps:

1. Position the implement on a level surface with the shank tips resting approximately three to four inches from the ground.

2. Loosen the hardware on the mounting arm so that the Combo Coulter tube can be easily positioned.

3. Position the Combo Coulter so that the bottom of the blade is the same distance from the ground as the depth of the hardpan (Fig. 3-23). this will allow the Combo Coulter blade to run at a depth of five to seven inches.

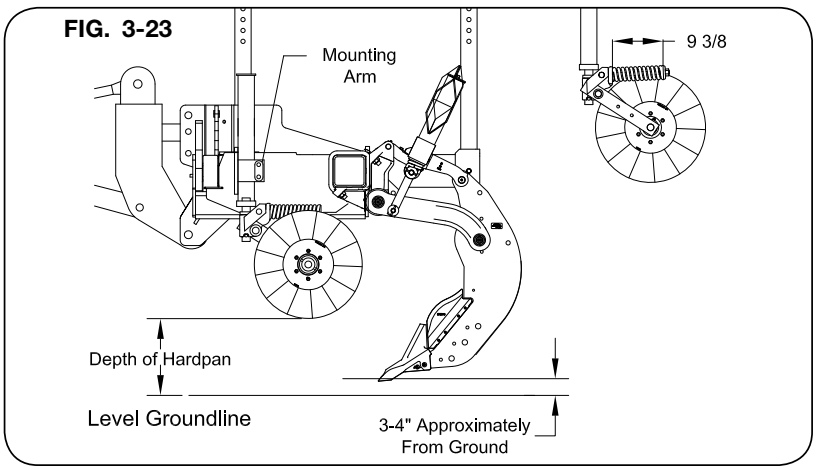
4. After positioning, retighten the hardware and be sure the depths of all Combo Coulters are the same.

The recommended Combo Coulter depth is between three to six inches. If rocks are present in fields, shallower depths should be used.

The coulter springs are preset at the factory at 9 3/8-inches. This measurement is the total amount of exposed spring.

Adjusting the spring below 9 3/8-inches could cause premature part failure and void any warranty considerations.

FIG. 3-23



Bedder Disc Gangs

Dual bedding disc gangs are fitted with 20-inches outer- and 18-inches inner-concave disc gang blades. Single blade disc gangs have a 20" blade.

Gang positioning can be staggered to create round beds that capture and retain more moisture or opposed for a taller, peaked bed.

Gang Positioning

⚠ WARNING

- BEFORE ADJUSTING THE MACHINE BE SURE IT IS SECURELY BLOCKED TO PREVENT TIPPING OR MOVEMENT OF THE MACHINE. DO NOT WORK UNDER AN UNSUPPORTED MACHINE.

The disc gangs can be adjusted in four positions ranging from seven degrees to 24 degrees. To adjust the gang positioning, refer to the following steps:

1. Position the implement on a level surface with the shank tips resting on the ground.
2. Remove the carriage bolt shown in Fig. 3-24. Loosen the other carriage bolt to make it easier to adjust.
3. Adjust the gangs to raise and shape the seed bed.
4. After positioning, retighten the hardware.
5. Repeat steps two through four to adjust all the disc gangs equally, front-to-rear and side-to-side.

The disc gangs can also be mounted offset (as shown in Fig. 3-25) or in-line (back-to-back) for a cleaner furrow.

6. Remove the gang mounting hardware and plate. Reposition the gangs so they are in-line (back-to-back) as shown in Fig. 3-26. Retain in position with the existing hardware.

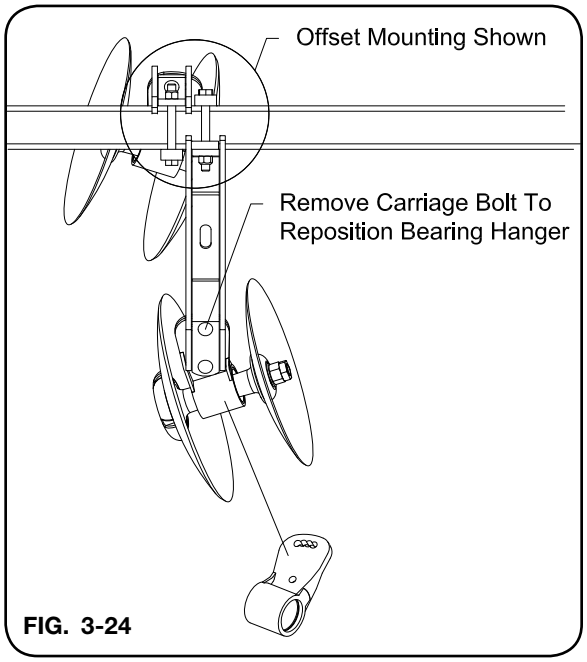
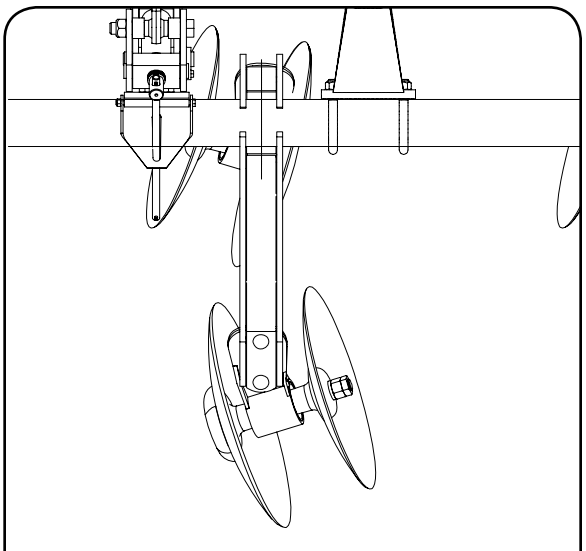


FIG. 3-24



In-Line Mounting Shown

FIG. 3-25

Bedded Parallel-Link Arms

The Ripper-Bedder parallel-link arms feature a parallel-link design and are tool-free adjustable. The arms can be adjusted to allow the Bedder to float, or operate in a rigid or semi-rigid setting during field operation.

⚠ WARNING

- **BEFORE ADJUSTING THE MACHINE BE SURE IT IS SECURELY BLOCKED TO PREVENT TIPPING OR MOVEMENT OF THE MACHINE. DO NOT WORK UNDER AN UNSUPPORTED MACHINE.**

To adjust the bedder arm positioning, refer to the following steps:

1. Set the stabilizer gauge wheel working depth to match the desired shank working depth. If furnished, set the approximate gauge wheel working depth on the bedder bar frame.

NOTE: Adjustment settings for the rigid and limited float are made easiest with the Ripper-Bedder machine setting in the field in the working position.

Full Float Setting

The arms float up and down to follow the ground contour. This setting works best in rolling contours and previously tilled soils.

NOTE: In order to better maintain the bedder unit working depth, the bedder bar gauge wheels are required when the bedder unit is operated in the full float position.

NOTE: Adjustments may be made before the machine is in the field.

2. With the lock pin removed, turn the screw crank handle, located on the back of the bedder arm sub assembly, CLOCKWISE until the screw thread bottoms onto the top of the trunnion bracket of the upper bedder mounting arm. Place the lock pin in the storage position.

3. Adjust the height of all arms equally and evenly on the unit.

4. Lock the handle into the lock plate on the arm to maintain height adjustment (Fig. 3-26).

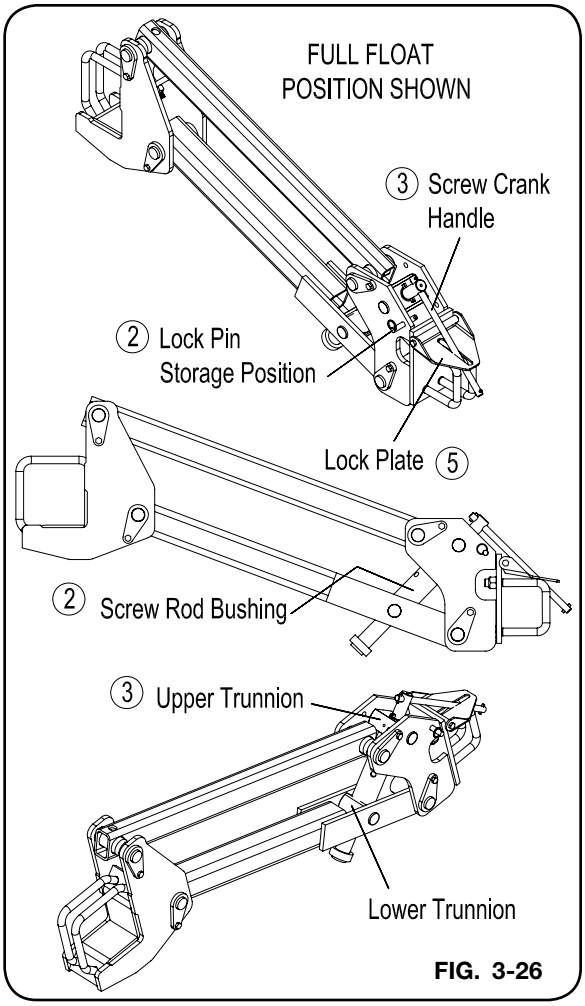


FIG. 3-26

Bedded Parallel-Link Arms (continued)

Limited Float Setting (Limited Up Travel)

The arms will have an adjustable stop to limit the upward travel. This works well when extra down pressure is needed, but the arms may still float freely downward to follow uneven soils.

NOTE: In order to better maintain the bedder unit working depth, the bedder bar gauge wheels are required when the bedder unit is operated in the limited float position.

2. With the machine setting in the field at the desired working depth, turn the screw crank handle, located on the back of the bedder arm sub assembly, COUNTER-CLOCKWISE until the screw rod collar bottoms onto the bottom of the trunnion bracket of the lower bedder mounting arm. Place the lock pin in storage position.

3. Adjust the height of all of the arms equally and evenly on the unit.

4. Lock the handle into the lock plate on the arm to maintain the height adjustment (Fig. 3-27).

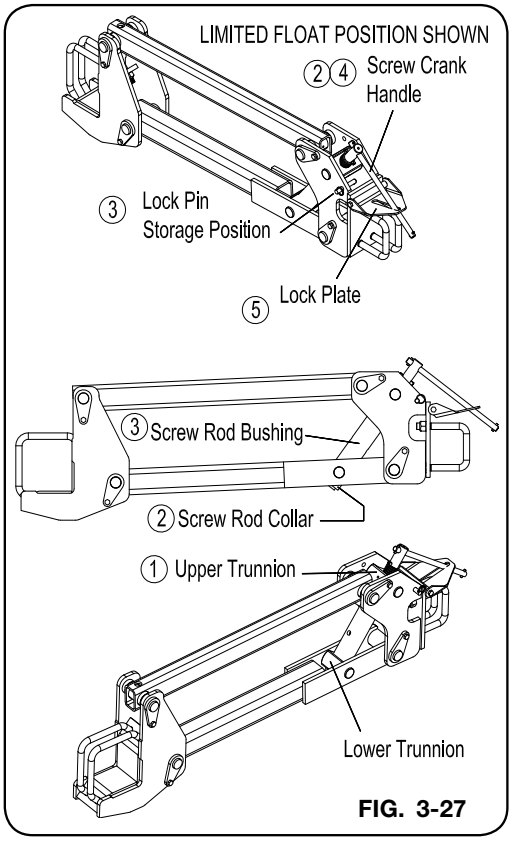


FIG. 3-27

Rigid Setting

The arms have no up or down movement during field operation. This setting works best in untilled conditions and standing beds from the previous crop where soil penetration is important in level conditions.

2. With the machine setting in the field at the desired working depth, turn the screw crank handle, located on the back of the bedder arm sub assembly, COUNTER-CLOCKWISE until the screw rod bottoms onto the bottom of the trunnion bracket of the lower bedder mounting arm. Install the lock pin into the screw rod bushing as shown in Fig. 3-28.

3. Adjust the height of all of the arms equally and evenly on the unit by turning the screw crank handle.

4. Lock the handle into the lock plate on the arm to maintain the height adjustment (Fig. 3-28).

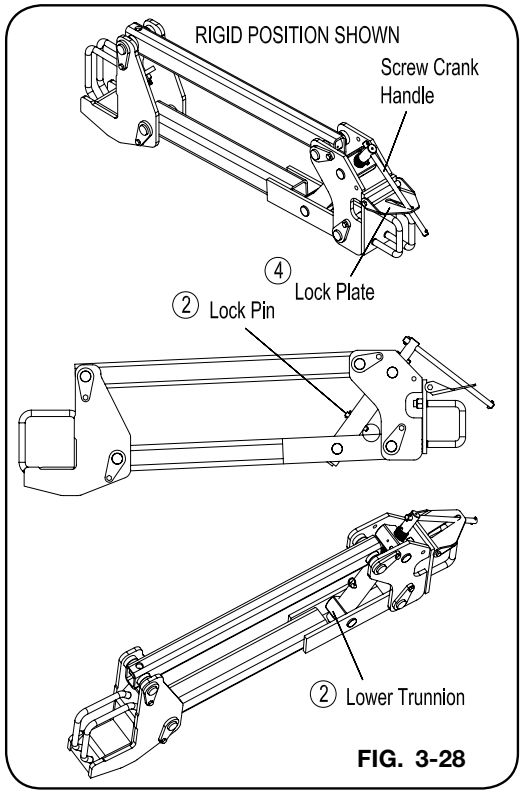


FIG. 3-28

Bedding Disc Gauge Wheel Kit 20.5/8-10 Gauge Wheels (Pair) Bundle #65486B

⚠ WARNING

- **BEFORE ADJUSTING THE MACHINE BE SURE IT IS SECURELY BLOCKED TO PREVENT TIPPING OR MOVEMENT OF THE MACHINE. DO NOT WORK UNDER AN UNSUPPORTED MACHINE.**

The tool-free adjustability provides flotation in tilled soils when bedding disc gangs are in the floating position.

To adjust the bedder arm positioning, refer to the following steps:

1. Position the implement on a level surface with the shank tips resting on the ground.
2. Remove the hitch pin (97199), adjust the height and replace the hitch pin.
3. Adjust the height of all bedded disk gang wheels equally on the unit.

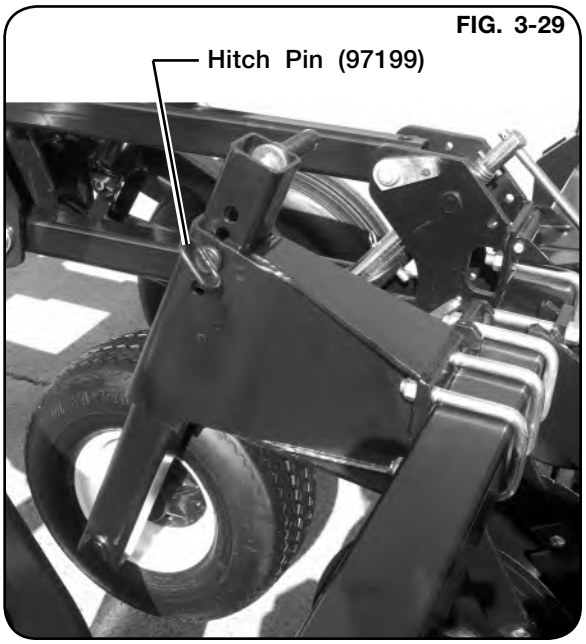


FIG. 3-29

Optional Attachments—Shatter Wings (67691B)

This option can be set to operate in either of the three locations provided.

For minimal disturbance of top soil:
Position the shatter wings in the lower location with the wings set in the flat position.

For maximum disturbance of top soil:
Position the shatter wings in the upper location with the wings set in the maximum up position.

For increased soil disturbance:
Adjust the angle of the wings by loosening the 1/2”-13 x 2 1/4” lg. capscrews and pivoting the wings to the desired angle. Retighten the capscrews to the proper settings on the torque chart in the Maintenance section.

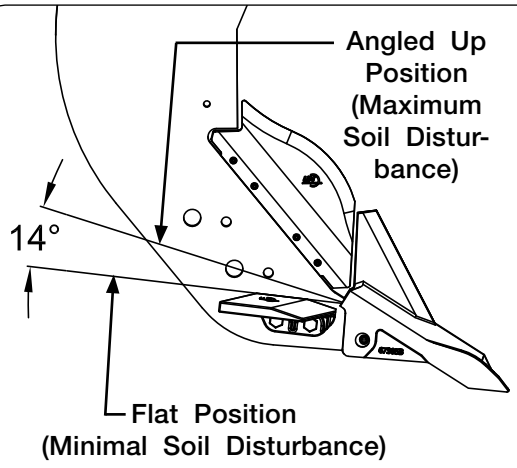


FIG. 3-30

Optional Attachments—Bed Shaper Kits

6 Narrow Bundle 67525B, 6 Wide Bundle 65786B,
8 Narrow Bundle 67415B, 8 Wide Bundle 65787B,
12 Narrow Bundle 67414B, 12 Wide Bundle 65788B

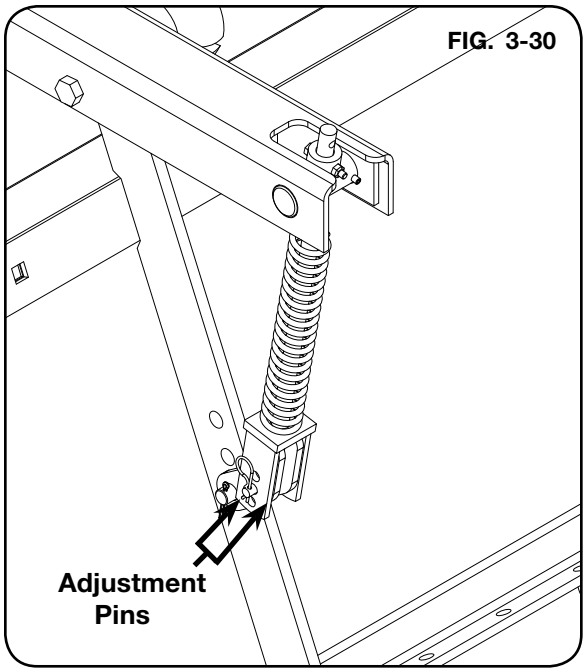


FIG. 3-30

FIG. 3-31

Ripper-Bedder Tracking Adjustments

Ripper-Bedders, especially the wider units, are more susceptible to tracking errors because of their width and distance of the Bedder disc from the tractor. Sometimes the smallest adjustment will make a big change in the implement tracking.

For the Ripper-Bedder to track true with the tractor, the following adjustment guidelines are recommended:

1. Check the tractor 3-point lower arms lift links and sway blocks to make sure they are adjusted equally from side-to-side (refer to the tractor operator's manual for the proper procedure).

2. Follow the adjustment procedures as previously outlined for leveling the implement frame from side-to-side and front-to-back.

3. On wing units - level wings.

4. Check the Ripper-Bedder frame gauge wheels to make sure they are adjusted equally across the entire machine.

5. If present, adjust (optional) the front coulter on the machine to run all the same depth.

6. Check the Bedder disc gang to make sure all are set to the same angle.

7. Check the Bedder parallel-link arms to make sure they are all set equally across the entire machine.

8. Check the Bedder (optional) gauge wheels to make sure they are adjusted equally across the entire machine.

9. Adjust the tractor top link in (or out) to level the Ripper-Bedder front-to-rear.

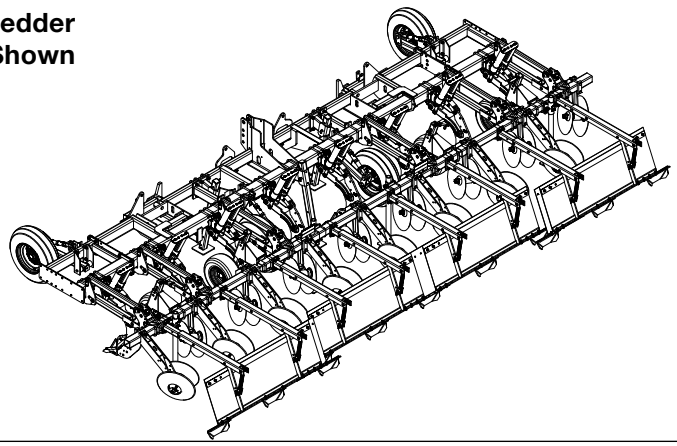
A Ripper-Bedder set up with a staggered disc gang angle is more susceptible to tracking issues due to the fact that all the disc on the back row are trying to pull the machine in one direction. In some conditions, it may be beneficial to mount the bedding disks in the "Opposed" configuration rather than the "Staggered" arrangement.

-If the Ripper-Bedder is pulling to the left, shorten the tractor top link.

-If the Ripper-Bedder is pulling to the right, lengthen the tractor top link.

Ripper-Bedder
8 Row Shown

FIG. 3-32



Notes

SECTION IV
Maintenance

Daily Service

Beginning of Day

NOTE: Before initial use, ensure all lubrication points have been greased.

Check all U-bolts and bolts for tightness. This is especially important during the first days of operation. See "Torque Chart" in this section.

IMPORTANT

- *Inspect mast pins for any wear or damage. Replace any worn or damaged pins.*

Perform any daily lubrication outlined in "Lubrication" in this section.

Check stabilizer tire air pressure and inflate to correct pressure, if necessary.

IMPORTANT

- *To assure level penetration of shanks, both tires must be inflated to the same pressure.*

Tighten deep till pivot bolts to 225-275 ft.-lbs. after the initial 50 acres to remove side play (Point A Fig 4-1).

Tighten until side-to-side play in shank is eliminated. Do not over-tighten. Over-tightening will prevent shank from freely resetting after tripping.

Before adjusting see OPERATION section for procedures.

NOTE: Re-check torque of pivot nuts on shank assembly daily during the first week of operation due to initial wear in casting. After first week, check annually.

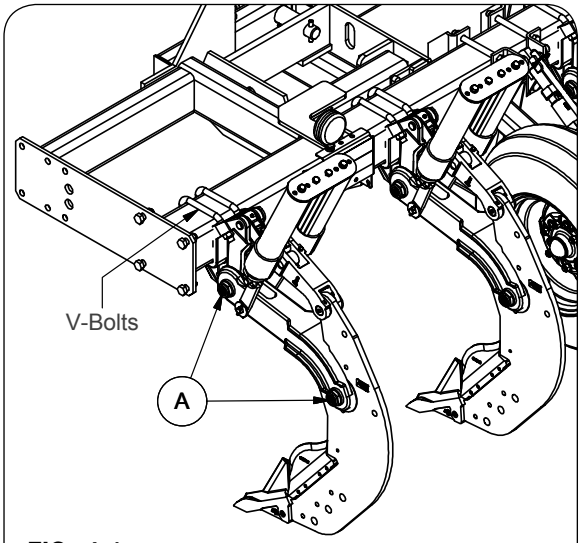


FIG. 4-1

End of Day

Clean off dirt and residue which may have accumulated on implement during operation.

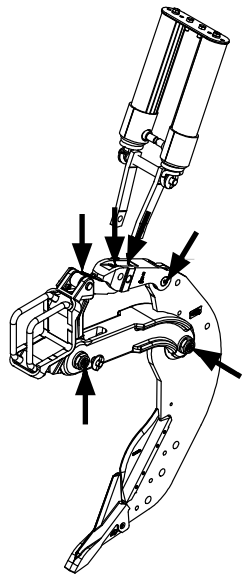
Check implement for damage which could have occurred during operation, and repair.

Lubrication Points

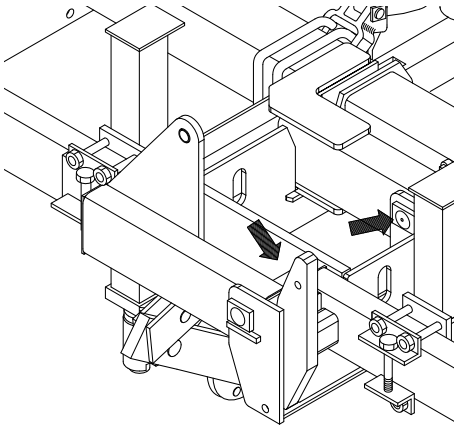
Be sure to lubricate the indicated points of the Ripper-Bedder as outlined.

LOCATION	SEASON		HOURS
	BEGINNING	END	
AUTO-RESET SHANK - 6 lube fittings - grease gun	✓	✓	8 *
BASE WING HINGE PTS - 4 lube fitting - grease gun	✓		
STABILIZER WHEEL HUB - repack bearings	✓		
COMBO® COULTER ARM - 1 lube fitting - grease gun	✓	✓	8
COULTER HUB - 1 lube fitting - repack bearings	✓		50
PARALLEL ARM SUB ASY - 5 lube fitting - grease gun	✓		8**

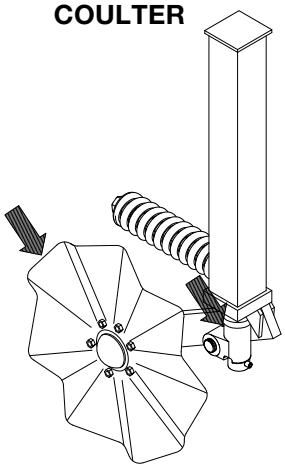
AUTO-RESET SHANK

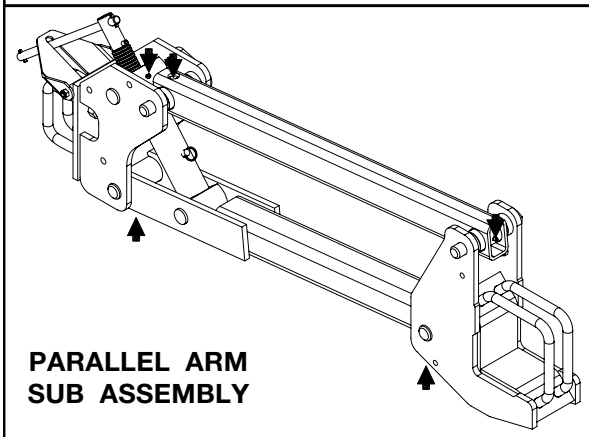


BASE WING HINGE POINTS



COULTER





PARALLEL ARM SUB ASSEMBLY

* This figure can vary depending on the frequency of shanks tripping. The figure shown is based on normal conditions.

** Based on disks operating in the free floating setting. Lubrication needs are significantly less in the limited float or rigid settings.

Annual Service

Beginning of Season

⚠ WARNING

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

Check all bolts, U-bolts, and wheel bolts for tightness. Refer to “Torque Chart” in this section.

Lubricate implement (see “Lubrication” in this section).

Check air pressure in tires and inflate to correct pressure if necessary (see “Daily Service” in this section).

End of Season

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.

Perform the following before placing the implement in storage:

1. Remove dirt and residue which could cause rusting.
2. Repaint any chipped or scraped areas.
3. Lubricate implement (see “Lubrication” in this section).
4. Coat all earth moving surfaces with grease or suitable rust preventatives.
5. Inspect for damaged parts. Replace before next season.
6. Store implement inside, away from livestock.
7. Use blocking to keep implement tires and points up off bare ground.
8. Replace all worn, torn or faded decals and reflectors.

Shank Parts Replacement

⚠ WARNING

- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE MACHINE IS SECURELY BLOCKED.**
- **CHANGE ONLY ONE SHANK AT A TIME. IF PRESSURE IS RELIEVED ON ALL SHANKS, THE UNIT COULD TIP OVER BACKWARDS.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **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 100 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

⚠ CAUTION

- **WEAR BAR IS RETAINED TO THE SHANK BY THE POINT. KEEP A HOLD OF THE WEAR BAR AS THE POINT IS REMOVED TO PREVENT PERSONAL INJURY.**

The auto-reset shank has a replaceable wear bar, point point and tip which, after a period of time, will need to be replaced (Fig 2-2). To replace these components on your machine, refer to the following guidelines:

Wear Bar Replacement

1. With the implement attached to a tractor, find a firm, level surface and unfold the wings, if applicable. Lower the unit's jack stands until they are 1-2 inches below the points, and lower the machine to the ground so that the stands support the entire unit and all points are off the ground. Shut off the tractor engine, set the parking brake, and remove the ignition key.
2. Remove spiral pins which secure the wear bar to the shank.
3. Replace with new wear bar (67907B) and secure with new spiral pins.

Point Replacement

1. Use pin punch to remove spiral pin which secures point (37385B).
2. Replace worn point with new point (67021B or 67951B) and reinstall new spiral pin. (Be sure to install new spiral pin (91144-205 or 91144-234) to securely hold point in place.)

NOTE: Periodically check the lower half of the shank for wear - excessive shank wear will occur if point and wear bar are not replaced (or reversed).

Shank Tip Replacement

If the attachments are on the back of the shanks, remove them before proceeding. See the Attachment section of this operator's manual.

Shank Parts Replacement (continued)

Shank Spring

⚠ WARNING

- **BE SURE THAT THE IMPLEMENT IS SECURELY BLOCKED TO PREVENT FALLING. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **STORED ENERGY HAZARD. WHEN THE SPRING PRESSURE IS RELEASED, THE SPRING TUBES WILL PIVOT AND MAY CAUSE INJURY. ALLOW THE SPRING CANS TO ROTATE BACKWARDS AND REST INTO POSITION.**

1. With the Ripper-Bedder attached to a tractor, find a firm, level surface and unfold the wings if applicable. Lower the unit's jack stands until they are one to two inches below the points, and lower the machine to the ground so that the stands support the entire Ripper-Bedder and all points are off the ground. Shut off the tractor engine, set the parking brake, and remove the ignition key.

2. Remove all tension from the springs by removing the capscrews.

IMPORTANT

- *To prevent binding and possible damage, remove the spring pressure equally and evenly from side-to-side.*

3. Remove the capscrews holding the top plate. Remove the top plate and set aside.

4. Remove the pin holding the lower end of the spring into position (use caution, springs may fall to the ground). Observe the position and location of the parts along with the direction the spring guide tubes are positioned inside the springs before removing the pin.

5. Remove the springs.

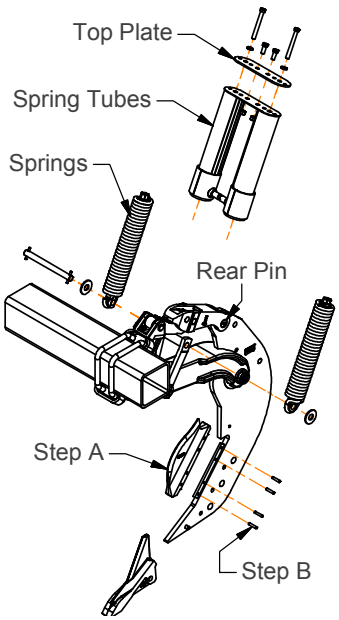


FIG. 4-4

6. Install the washers to the new spring assemblies into the spring tubes and fasten the spring tube brace removed in step 4. Install the pin holding the lower end of the spring. Be sure to install all components in the same position and direction as removed in step 5.

7. Finally, when adding tension to the spring, tighten the capscrew so that the top of the spring is secure against the top of the spring tube.

Auto-Reset Shank Toggle Replacement

WARNING

- BE SURE THAT THE IMPLEMENT IS SECURELY BLOCKED TO PREVENT FALLING. FAILURE TO DO SO COULD RESULT IN INJURY OR DEATH.
- CHANGE ONLY ONE SHANK AT A TIME. IF PRESSURE IS RELIEVED ON ALL SHANKS, UNIT COULD TIP OVER BACKWARDS.
- STORED ENERGY HAZARD WHEN SPRING PRESSURE IS RELEASED, THE SPRING TUBES WILL PIVOT AND MAY CAUSE INJURY. ALLOW SPRING CANS TO ROTATE BACKWARDS AND REST INTO POSITION.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.
- KEEP HANDS CLEAR OF PINCH POINT AREAS.

If the attachments are on the back of the shanks, remove them before proceeding. See the Attachment Section of this operator's manual.

1. With the implement attached to a tractor, find a firm, level surface and unfold the wings, if applicable. Lower the unit's jack stands until they are 1-2 inches below the points, and lower the machine to the ground so that the stands support the entire implement and all points are off the ground. Shut off the tractor engine, set the parking brake, and remove the ignition key.

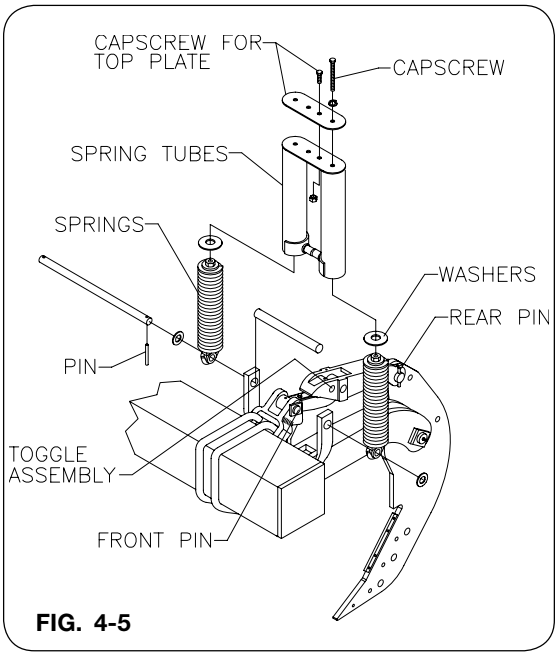


FIG. 4-5

Auto-Reset Shank Toggle Replacement (continued)

Spring Mechanism Components

WARNING

- **STORED ENERGY HAZARD. WHEN THE SPRING PRESSURE IS RELEASED, THE SPRING TUBES WILL PIVOT AND MAY CAUSE INJURY. ALLOW THE SPRING CANS TO ROTATE BACKWARDS AND REST INTO POSITION.**

2. Remove all tension from springs by removing the capscrews.

IMPORTANT

- *To prevent binding and possible damage, remove the spring pressure equally and evenly from side-to-side.*

3. Remove the capscrew holding top plate. Remove the top plate and set aside.

4. Remove the pin holding the lower end of the spring (use caution, springs may fall to the ground). Observe the position and location of the parts along with the direction the spring guide tubes are positioned inside the springs before removing the pin. See Fig. 5.

5. Remove the springs. See Fig. 4-6.

6. Remove the spring cans from the toggles by spreading the cans. See Fig. 4-7.

7. Using punch and hammer, remove roll-pin holding rear pin into position and remove rear pin.

8. Remove toggle assembly by removing front pin.

9. Replace toggle assembly.

10. Reverse procedures for reassembly. Tighten springs equally and evenly to prevent damage. Capscrew should draw the spring completely to the top of the canister.

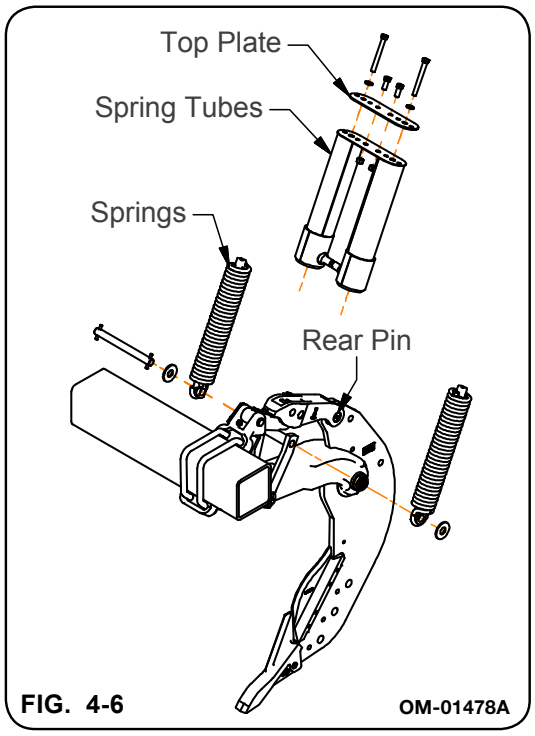


FIG. 4-6 OM-01478A

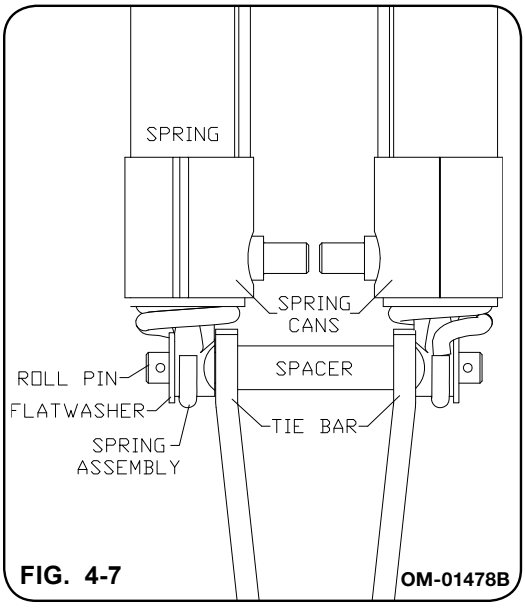


FIG. 4-7 OM-01478B

Bedder Disc Gang Blade & Bearing Replacement

The following instructions are for the blade and bearings.

After the first 100 acres, the gangs should be checked for tightness and wear.

⚠ WARNING

- **BE SURE THAT THE IMPLEMENT IS SECURELY BLOCKED TO PREVENT FALLING. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**

⚠ CAUTION

- **BE CAREFUL WHEN WORKING AROUND THE BEDDER GANG BLADES. FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY DUE TO SHARP EDGES.**

IMPORTANT

- *Do not allow dirt and debris to contaminate the gang bearing hanger and its internal components. Neglecting to do so could result in failure of the gang and its components due to excessive wear.*

1. Rotate the gang in the housing to verify bearing rotation. The bearing must rotate smoothly in the housing.

2. Check the gangs and bearing for looseness or wobble by gripping the ends of the blade. Rotate the laterally push and pull on the blade. A tight gang will have no wobble and will rotate smoothly with a slight resistance.

3. If there is wobble in the gang, the gang must be tightened to the bearing hanger. To do this, remove the outer 1 1/8”-7UNC hex jam nut (9395-022) and then torque the 1 1/8”-7UNC inner hex nut (9394-022) to 250-275 ft.-lbs. Reinstall the 1 1/8”-7UNC outer hex jam nut (9395-022) and torque to 250-275 ft.-lbs. (Fig. 4-9).

IMPORTANT

- *Rotate the blade when torquing nuts. Doing this will prevent flats from forming on the bearings.*

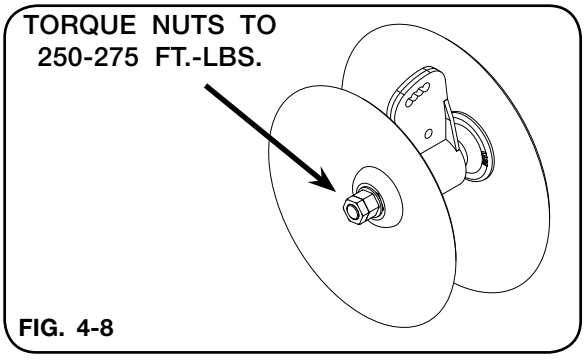


FIG. 4-8

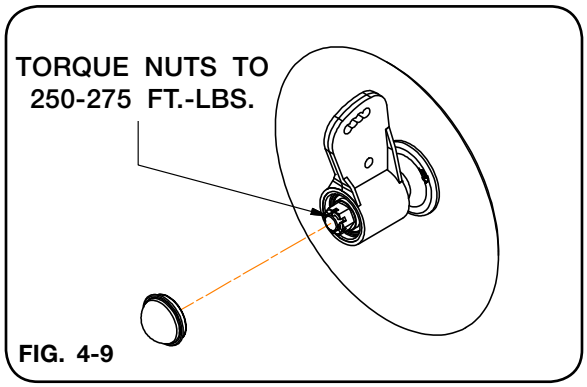


FIG. 4-9

Bedder Disc Gang Blade & Bearing Replacement (cont.)

4. After tightening, retest the gang for wobble by repeating step 1. If wobble still exists, continue with the following guidelines.

5. Turn the blade and feel for any roughness in the rotation. If the problem exists, the gang must be dismantled, cleaned and inspected for damage and replaced with new bearings. Refer to the following guidelines for this procedure (Fig. 4-10 & Fig. 4-11).

   A. Remove the outer 1 1/8"-7UNC hex jam nut (9395-022), inner 1 1/8"-7UNC hex nut (9394-022), flat washer 1 1/8" (9405-122), disc washer (convex - 65169B), 18" dia. disc blade (900733), spool/half (concave - 64872B), and bearing hanger assembly.

IMPORTANT

- *When removing the bearing housing/hanger assembly and its components, be sure to keep them free of debris and dirt. Failure to do so will result in contamination of the bearing hanger assembly and bearing failure.*

   B. Remove the retaining rings (900445) and ball bearings with triple lip seals (900587) from each side. Then remove the spacer tube (64870) from the center of the bearing hanger assembly. Clean and inspect for any damage or wear. If even the lightest imperfection exists, replace the component(s).

   C. Replace any damaged parts before reassembling the components. Clean the housing and lube with light oil before assembling the bearings into the housing/hanger.

   D. Install the retaining ring (900445) into one side of the bearing housing/hanger.

   E. Press the first bearing (900587) into position against the retaining ring. Install the bearing into position using an arbor and pressing on the outer diameter only.

IMPORTANT

- *Pressing on the inner diameter will damage the bearing and cause bearing failure.*

   F. Install the center spacer tube (64870) into the bearing housing/hanger. Be sure that the spacer tube is centered before installing the second bearing.

   G. Press the second bearing (900587) into position against the spacer tube using an arbor and pressing on the outer diameter only.

   H. Install the second retaining ring (900445) into position.

   I. Slide the bearing housing/hanger assembly back onto the gang bolt and install the spool/half (concave - 64872B), 18" dia. disc blade (900733), disc washer (convex - 65169B), flat washer 1 1/8" (9405-122) and inner hex nut 1 1/8"-7UNC (9394-022). Torque the inner hex nut 1 1/8"-7UNC (9394-022) to 250-275 ft.-lbs. Install the out hex jam nut 1 1/8"-7UNC (9395-022) and torque to 250-275 ft.-lbs.

IMPORTANT

- *Rotate the blade when torquing nuts. Doing this will prevent flats from forming on the bearings.*

Bedder Disc Gang Blade & Bearing Replacement (cont.)

Double Disc Gang

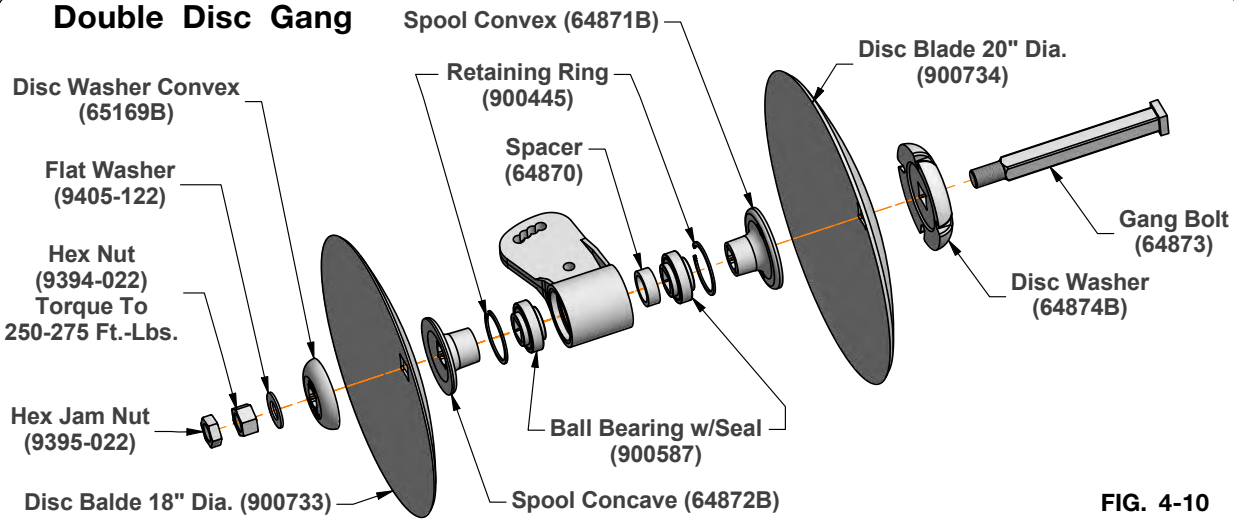


FIG. 4-10

Single Disc Gang

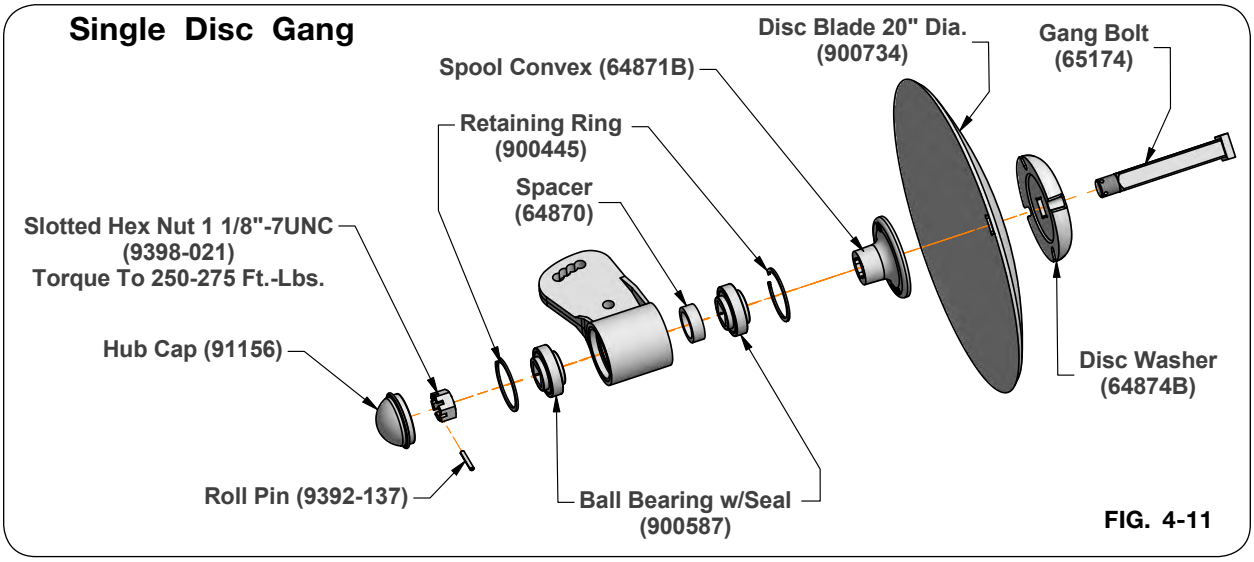


FIG. 4-11

Optional Combo® Coulter Spring Replacement

The following guidelines are for replacing the spring on the coulters.

WARNING

- **BE SURE THAT THE IMPLEMENT IS SECURELY BLOCKED TO PREVENT FALLING. FAILURE TO DO SO COULD RESULT IN INJURY OR DEATH.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- KEEP HANDS CLEAR OF PINCH POINT AREAS.

CAUTION

- **SHARP EDGES ON COULTER BLADES CAN CAUSE INJURY. BE CAREFUL WHEN WORKING AROUND COULTER BLADES.**

IMPORTANT

- *The spring should only be adjusted when repairs are being made. The springs have been preset before leaving the factory.*

1. Loosen the set screw retaining the spring bolt on the coulter arm (FIG. 4-7).
2. Slowly unscrew the spring bolt which will relieve spring pressure (FIG. 4-7).
3. Once the bolt is removed, replace with new spring and re-insert bolt.

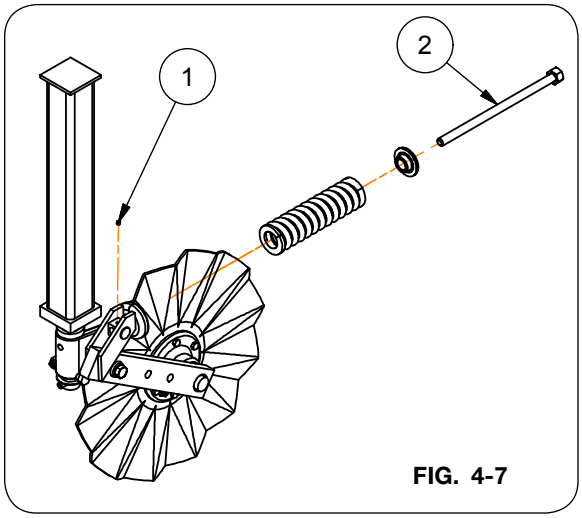


FIG. 4-7

4. Tighten bolt until a deflection of 1” is obtained on spring (FIG. 4-8).

The coulter springs are preset at the factory to 9 3/8”. This measurement is the total amount of exposed spring.

NOTE: Adjusting the spring below 9 3/8” could cause premature part failure and void any warranty considerations.

5. Tighten set screw to secure bolt.

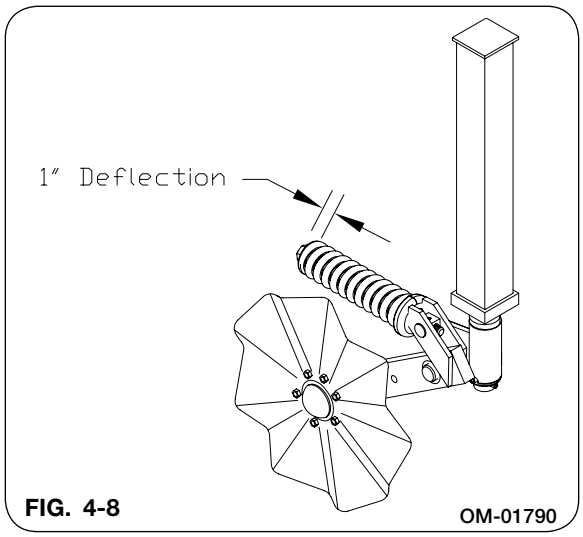


FIG. 4-8 OM-01790

Hub Adjustment and Replacement for Combo® Coulters

Park the unit on a firm, level surface. Block the wheels on the machine to keep it from moving. Set the vehicle parking brake, shut-off the engine, and remove the ignition key.

After the first 100 acres, the hubs should be checked for tightness and wear.

⚠ WARNING

- **BE SURE THAT THE IMPLEMENT IS SECURELY BLOCKED TO PREVENT FALLING. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**

⚠ CAUTION

- **BE CAREFUL WHEN WORKING AROUND THE COULTER BLADES. FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY DUE TO SHARP EDGES.**

IMPORTANT

- *Do not allow dirt and debris to contaminate the hub and its internal components. Neglecting to do so could result in failure of the hub and its components due to excessive wear.*

1. Remove the blade.

Hub Adjustment and Replacement for Combo® Coulters

2. Attach a C-clamp and apply pressure to both sides of the coulter hub (Fig. 4-14).

NOTE: Early production coulters with domed hub caps are not equipped with a snap ring. Use a pry bar or screwdriver to remove the hub cap and proceed to step 4.

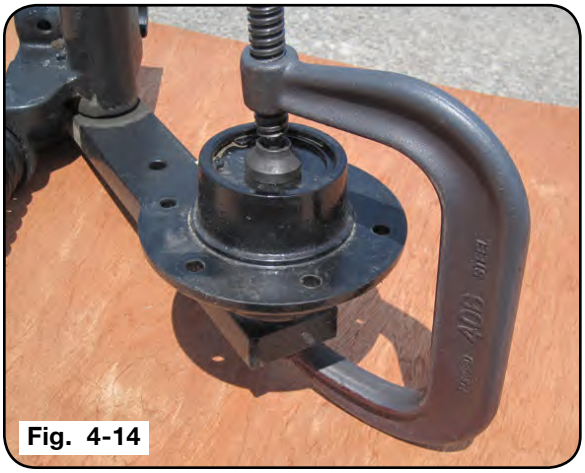


Fig. 4-14

3. Remove the retaining ring and hub cap. Refer to Fig. 15.

Fig. 4-15

4. Remove the C-ring or roll pin securing the slotted nut.

IMPORTANT

- *Removal of the C-ring is best accomplished by using two screwdrivers or similar tools and prying on the outside ends to spread the ring. If the ring is damaged discard and replace.*
- *When removing the hub and its components, be sure to keep them free of debris and dirt. Failure to do so will result in contamination of the hub and bearing failure.*

5. Unscrew the nut and carefully remove the hub from the spindle.

6. Remove the components, clean and inspect for any damage or wear. If even the slightest imperfection exists, replace the component(s). Once the hub is dismantled, always replace the bearing and seal assembly, O-ring, and triple lip seal.

NOTE: Hubs equipped with domed hub caps will not accept the secondary triple lip seal 93987 and should only use the combination bearing with seal 901145.

Hub Adjustment and Replacement for Combo® Coulters

IMPORTANT

- *Always replace the O-rings and seals if dismantling the hub. Failure to do so could result in premature failure of the hub and its components.*

7. Replace any damaged parts before reassembling the components. Be sure to remove any debris or dirt and repack the bearings with an SAE approved hub grease.

8. Assemble the O-ring to spindle. Lubricate seal with grease.

IMPORTANT

- *Rotate the coulter hub when torquing the slotted nut. Doing this will prevent flats from forming on the bearings.*

- *Assembly of the C-ring is best accomplished by the use of a hog ring type pliers or similar tool. After the installation be sure the C-ring will lay flat against the spindle retaining the nut to allow for proper installation of the hub cap.*

9. While rotating hub, slide the hub, seal, and bearing onto spindle. Make sure not to damage seal. Be sure outer bearing and washer slide on the spindle and bearing seats in the cup.

NOTE: Press seal into hub with metal side of seal facing out on hub.

10. Assemble nut to spindle. While rotating hub, tighten nut to 40 Ft.-Lbs. DO NOT rotate hub again until step 14.

11. Back off nut until it becomes loose without rotating the hub.

12. Finger tighten nut without rotating the hub.

13. Tighten nut to align the next notch with hole in the spindle.

14. Check for looseness in the hub. It should not wiggle. If it does, tighten the nut one more slot and repeat this step.

16. Check hub rotation for excessive drag. There should be slight resistance. if there is cexcessive drag, repeat procedures start with step 10.

17. Install C-ring and verify it has clearance to the hub cap. Ring should be tight to nut/spindle.

18. Add moly scent 2 grease through hub zerk until grease extends above the washer all around the cavity. Also add grease to pivot arm zerk.

19. install O-ring. Reinstall the hub cap, retaining ring and blade.

Hub Adjustment and Replacement for Combo® Coulters

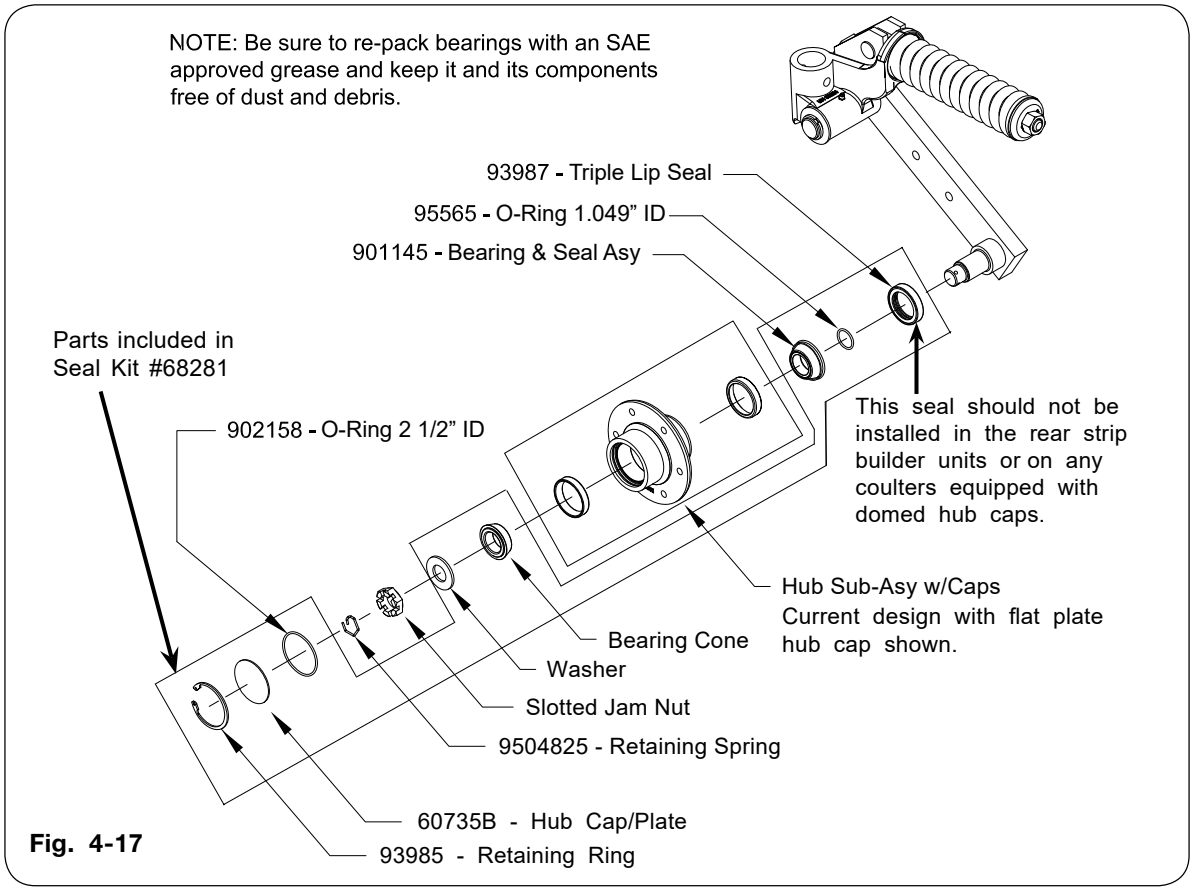


Fig. 4-17

Adjusting Wing Down Pressure In The Field

⚠ WARNING

- **RELIEVE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE TRACTOR OPERATOR'S MANUAL FOR PROPER PROCEDURES.**
- **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.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**

Due to many field factors, it may be necessary to adjust wing down pressure.

The adjustment Allen screw is located on top of pressure cartridge in [1]valve PR port, can increase or decrease pressure as needed (Fig. 4-18):

IF WINGS DO NOT MAINTAIN SHANK DEPTH-INCREASE HYDRAULIC OPERATING PRESSURE. (tighten screw 1/4 turn clockwise).

IF RIPPER-BEDDER CENTER SECTION RAISES OUT OF THE GROUND, OR WINGS DO NOT FLOAT IN FIELD, DECREASE HYDRAULIC OPERATING PRESSURE. (loosen screw 1/4 turn counter-clockwise).

Pressure setting can be increased (screw turned in) or decreased (screw turned out) at a rate of 125 PSI –PER QUARTER TURN. Only adjust the screw ¼ turn each time. Check machine in field performance after each adjustment/repeat if necessary.

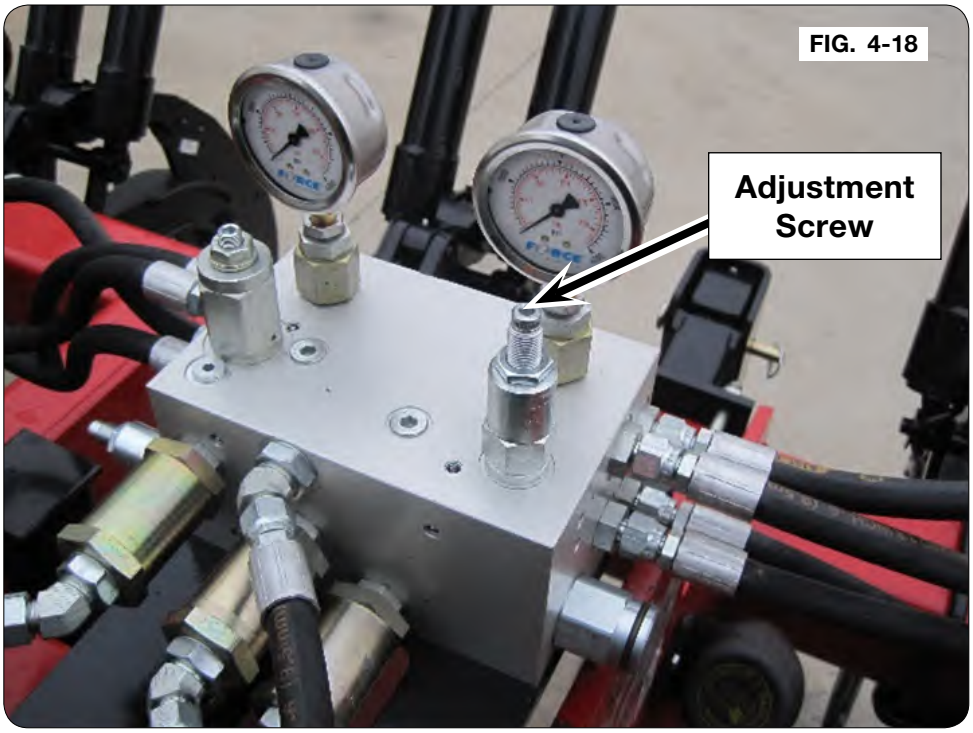


FIG. 4-18

Wheels and Tires

Wheel Nut Torque

⚠ CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. TORQUE WHEEL NUTS/BOLTS TO VALUES IN TABLE. CHECK TORQUE BEFORE USE, AFTER ONE HOUR OF USE, AND EACH HOUR UNTIL WHEEL NUTS/BOLTS MAINTAIN TORQUE VALUE. CHECK TORQUE EVERY 10 HOURS OF USE THERE-AFTER. AFTER EACH WHEEL REMOVAL START TORQUE PROCESS FROM BEGINNING. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

Failure to check torque before first use may damage wheel nut/bolt seats. Once seats are damaged, it will become impossible to keep nuts/bolts tight. Tighten nuts/bolts to applicable torque value shown in table. Start all nuts/bolts by hand to prevent cross threading. Torque nuts/bolts in the recommended sequence as shown in Diagram 1.

WHEEL HARDWARE	
SIZE	FOOT-POUNDS
1/2-20 (UNF)	75 Ft.-Lbs.

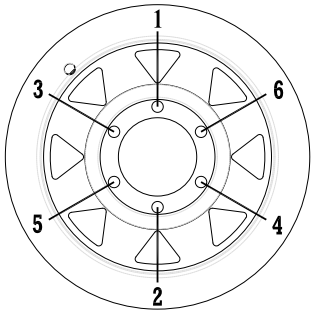


Diagram 1 - 6 bolt

Tire Pressure

- The following is to be used as a general guide for tire inflation and figures can vary depending on specific brand of tire used. **It is important that tires are inspected after unit is loaded.** Start with minimum pressure indicated. The tire should stand up with no side-wall buckling or distress as tire rolls. Record the pressure needed to support the full load and maintain this pressure to achieve proper tire life. **Do not exceed maximum recommended tire pressure.**

TIRE	INFLATION
7.60 x 15 - 8 Ply	max. 52 PSI
9.5 x 15 - 6 Ply	max. 32 PSI
12.5 x 15 - 10 Ply	max. 44 PSI

(All tire pressures in psi)

Wheels and Tires

Tire Warranty

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty. Following are phone numbers and Websites for your convenience:

Firestone	www.firestoneag.com Phone 800-847-3364
Titan or Goodyear	www.titan-intl.com Phone 800-USA-BEAR Fax 515-265-9301
Carlisle	www.carlisletire.com Phone 800-260-7959 Fax 800-352-0075

Troubleshooting

PROBABLE CAUSE	CORRECTION
Poor Penetration	
Frame is not level	See the OPERATION section "Leveling Frame" for instructions
Ground is too hard for hitch control setting	Adjust the hitch control position. See the OPERATION section "Load and Depth control"
Worn or dull tool points	Replace with new tool points
Plugging	
Coulters are not spaced correctly	See "Overhead Layouts" for correct spacing of shanks in SET UP section
Poor field conditions	Wait until the field is dry enough to till properly without excessive slippage
Machine not level	Level Machine
Coulters are not penetrating deep enough	Lower the coulters
Coulter blades not cutting residue	Wait until the field is dry enough to allow blades to cut through residue
Implement Running Crooked In Field	
Shanks are not spaced correctly	See "Overhead Layouts" for correct spacing of the shanks
Stabilizer wheels are not adjusted equally from side-to-side	Check the side-to-side adjustment and correct
Tractor tires are not properly spaced or equally inflated	Find the cause and correct. See OPERATION section "Wheel Spacing"
Tractor 3-point lift linkage is not adjusted for level operation	Re-level Ripper-Roller frame. See OPERATION section "Leveling Frame"
Tractor 3-point lift linkage lateral float pins are not set properly	Check the position of the lateral float pins. See OPERATION section "Left Link Lateral Float"

Troubleshooting (continued)

PROBABLE CAUSE	CORRECTION
Shanks Not Resetting Into Ground After Tripping	
Ground conditions hard or the unit is being operated very deep	While moving, raise Ripper-Roller slightly to reset, then lower and resume operation
Pivot nuts on front and rear of pull arm are overtightened	Refer to OPERATION section for adjustment procedure
Shank Leading Off Row Center	
Main pivots not properly tightened	Tighten until side-to-side play in shank is eliminated. Take care not to over-tighten, not allowing shank to freely reset after tripping.
Bedder Disc Plugging	
Sticky soil conditions	Soil too wet for tillage - allow soil to dry
Disc scrapers not set properly	Install/adjust scrapers on bedder disc gangs
Excessive residue	Chop/till residue before bedding operation
Bedder Disc Cutting Too Deep	
Bedder gauge wheels not set properly	Install/adjust bedder gauge wheels to limit soil penetration
Bedder disc angle not set properly	Adjust bedder disc blade angle to limit soil penetration
Bedder mounting arm set in float position	Lock bedder mounting arm for rigid operation and limit penetration
Bedder Disc Not Cutting Deep Enough	
Hard soil conditions	Till soil before performing bedding operation Increase down pressure to bedder mounting arms
Bedder gauge wheel not set properly	Adjust the bedder gauge wheels to increase soil penetration
Bedder disc gang angle not set properly	Adjust the bedder disc blade angle for better penetration
Bedder mounting arm not set properly	Apply down pressure to bedder mounting arms
Soil not properly tilled	Till soil before bedding
Running implement too fast	Reduce speed

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.*

U-BOLTS - GRADE 7

Torque 3/4-10 U-Bolts to 240 Ft.-Lbs.
Torque 3/4-10 Shank Mount Capscrews to 375-400 Ft.-Lbs.
Torque 3/4-10 Shank Mount V-bolts to 240 Ft.-Lbs.

Torque 1 1/2" Dia. Pull Arm Pins to 225-275 ft.-lbs.

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

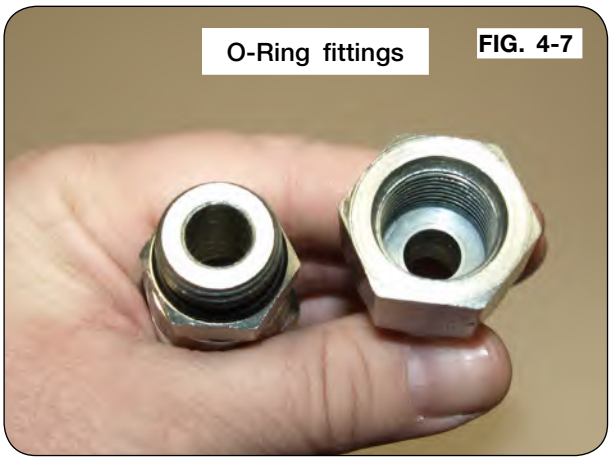


FIG. 4-7

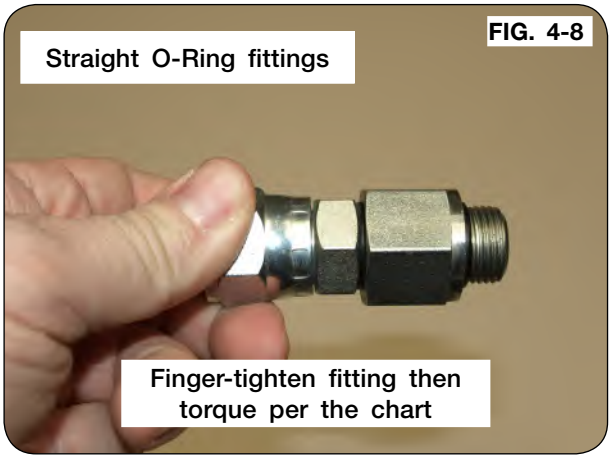


FIG. 4-8

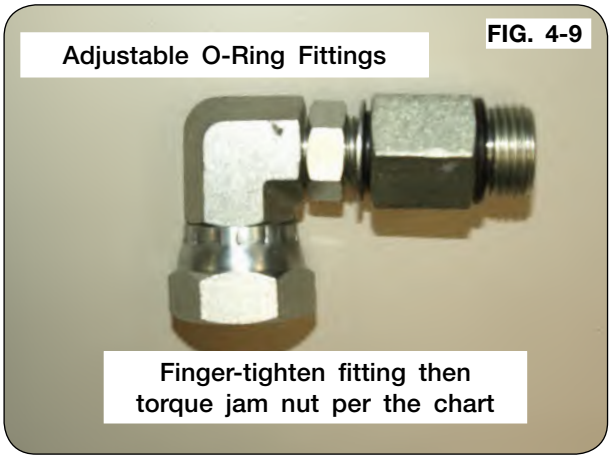


FIG. 4-9

Hydraulic Fittings - Torque and Installation (continued)

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.

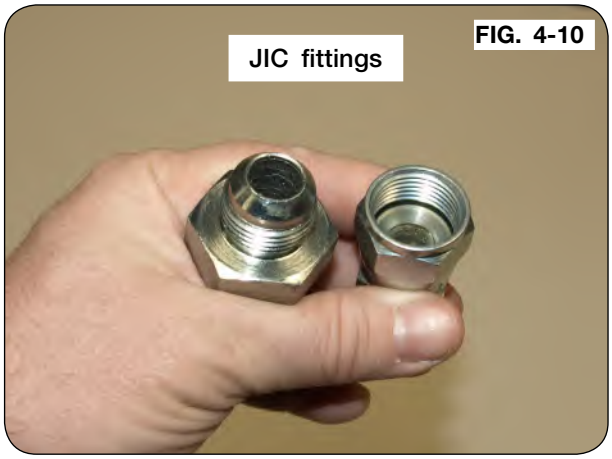


FIG. 4-10

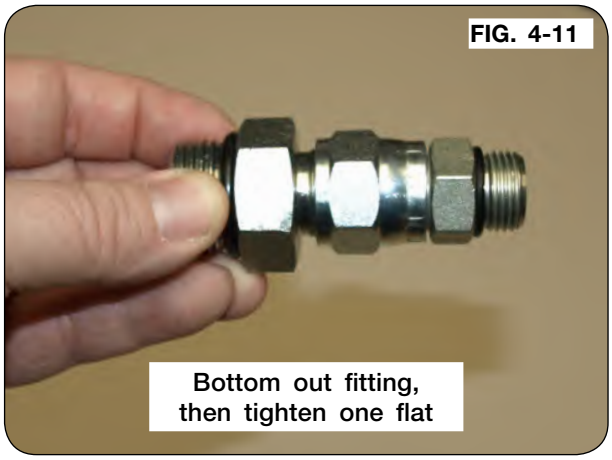


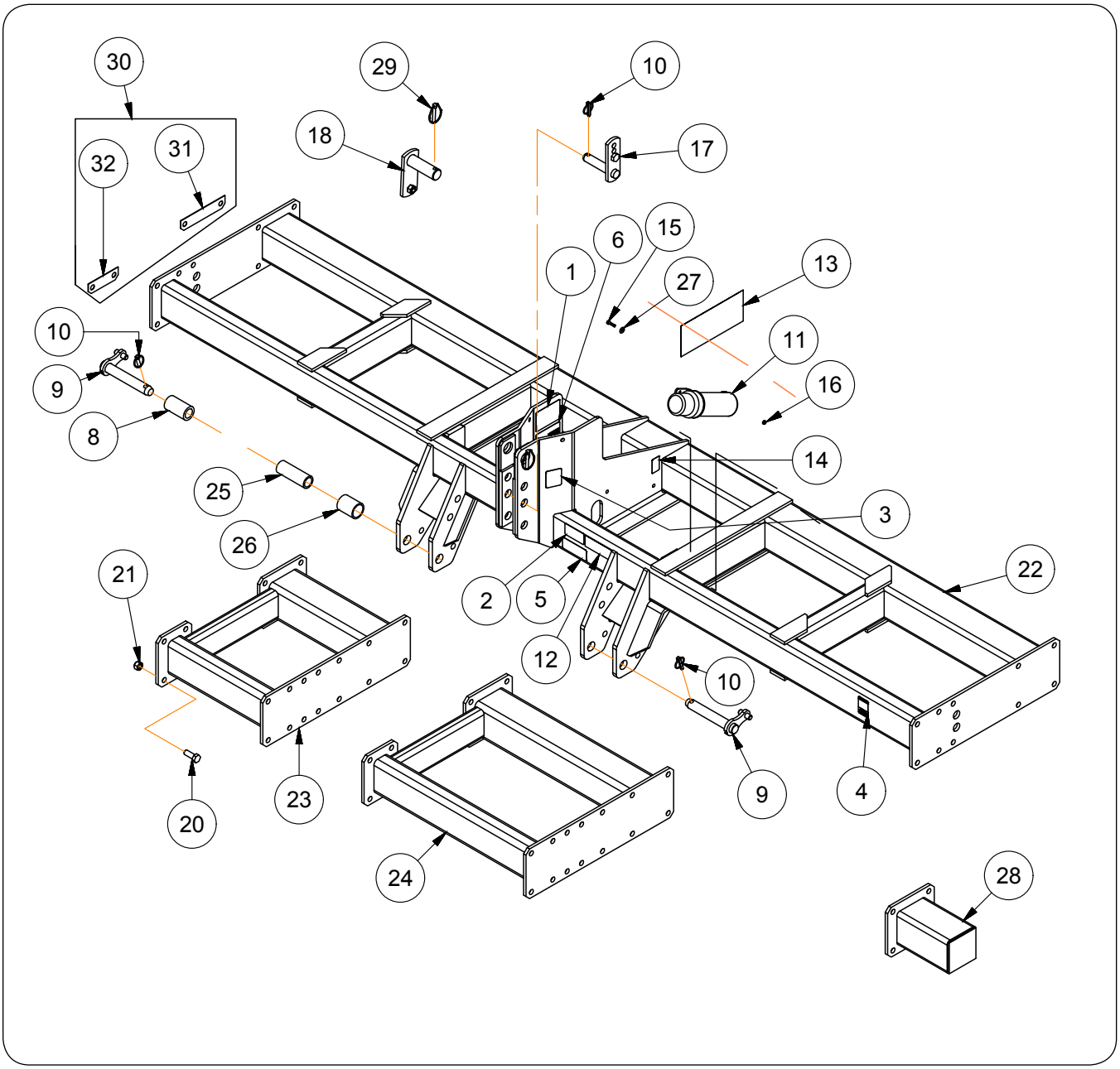
FIG. 4-11

SECTION V
Parts

FOR RIPPER LISTER BEDDING ATTACHMENT INFORMATION, PLEASE REFER TO YOUR RIPPER LISTER BEDDING ATTACHMENT MANUAL.

Rigid Main Frame

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



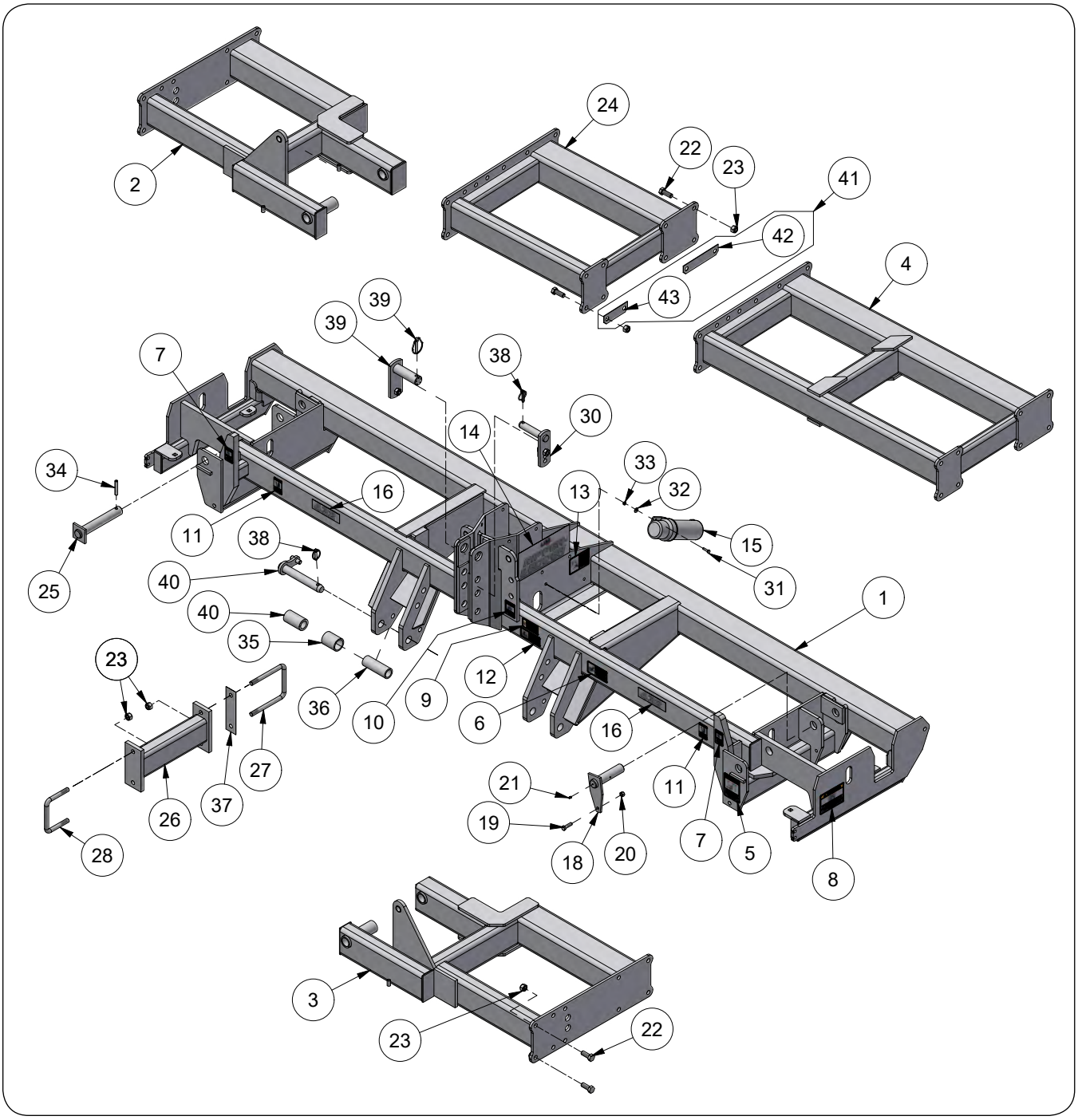
Rigid Main Frame

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

ITEM	PART NO.	DESCRIPTION	6 SHANK			8 SHANK
			30"	36"	38"	30"
1	9003164	Decal, DANGER (Compressed Spring)	2	2	2	2
2	97961	Decal, WARNING (Read & Understand)	1	1	1	1
3	97972	Decal, WARNING (Crush Hazard)	2	2	2	2
4	97973	Decal, WARNING (Crush Hazard)	2	2	2	2
5	99507	Decal, WARNING (Falling Equipment)	1	1	1	1
6	99850	Decal, DANGER (Tripped Shanks)	2	2	2	2
8	65285	Bushing 2 1/2" Dia. x 4/Lower Spacer CAT III	2	2	2	2
9	69695	Pin Weldment/Anti-Rotational Pin	2	2	2	2
10	95031	Klik-Pin 7/16" Dia. x 2"	3	3	3	3
11	900552	Manual Holder	1	1	1	1
12	9500668	Decal, MODEL 432	2	2	2	2
13	9500669	Decal, RIPPER-BEDDER	2	2	2	2
14	91605	Decal, FEMA	1	1	1	1
15	9390-031	Capscrew 5/16-18UNC x 1 1/4	2	2	2	2
16	9397-008	Elastic Jam Nut 5/16-18UNC	2	2	2	2
17	67188B	Mast Pin Asy 1 1/4" Dia.	1	1	1	1
18	67187B	Pin Sub Assembly/Mast Pin Asy 1 3/4" Dia.	1	1	1	1
20	9390-145	Capscrew 3/4-10UNC x 2" (Grade 5)	-	16	16	16
21	9802	Locknut 3/4-10UNC	-	16	16	16
22	67437G	Main Frame (w/Decals & Mast Pins) =Green=	1	1	1	1
	67437R	Main Frame (w/Decals & Mast Pins) =Red=				
23	63186G	Extension Frame 19" Weldment =Green=	-	2	2	-
	63186R	Extension Frame 19" Weldment =Red=				
24	63184G	Extension Frame 31" Weldment =Green=	-	-	-	2
	63184R	Extension Frame 31" Weldment =Red=				
25	65284	Bushing 2" Dia. x 5 11/16/Lower Spacer CAT IV	2	2	2	2
26	64428	Bushing 2 1/2" Dia. x 3 1/8/Lower Spacer CAT IV	2	2	2	2
27	9405-070	Flat Washer 5/16" USS	2	2	2	2
28	62567G	Extension Tube 11" Weldment =Green=	2	2	2	2
	62567R	Extension Tube 11" Weldment =Red=				
29	9501028	Lynch Pin	1	1	1	1
30	67870	Shim Kit (Includes items 31 & 32)	1	1	1	1
31	67868	Shim 2 x 9 1/4	1	1	1	1
32	67869	Shim 2 x 6 1/4	1	1	1	1
	97301	12 oz. Crimson Red Spray Touch-Up Paint	-	-	-	-
	97015	12 oz. Implement Green Spray Touch-Up Paint				

Folding Main Frame — 8 Shank (36, 38, 40")/ 12 Shank (30")

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



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	69222G	Main Frame, Flex w/Decals =Green=	1	
	69222R	Main Frame, Flex w/Decals =Red=		
2	68404G	Wing Base 45" (Right-Hand) =Green=	1	
	68404R	Wing Base 45" (Right-Hand) =Red=		
3	68405G	Wing Base 45" (Left-Hand) =Green=	1	
	68405R	Wing Base 45" (Left-Hand) =Red=		

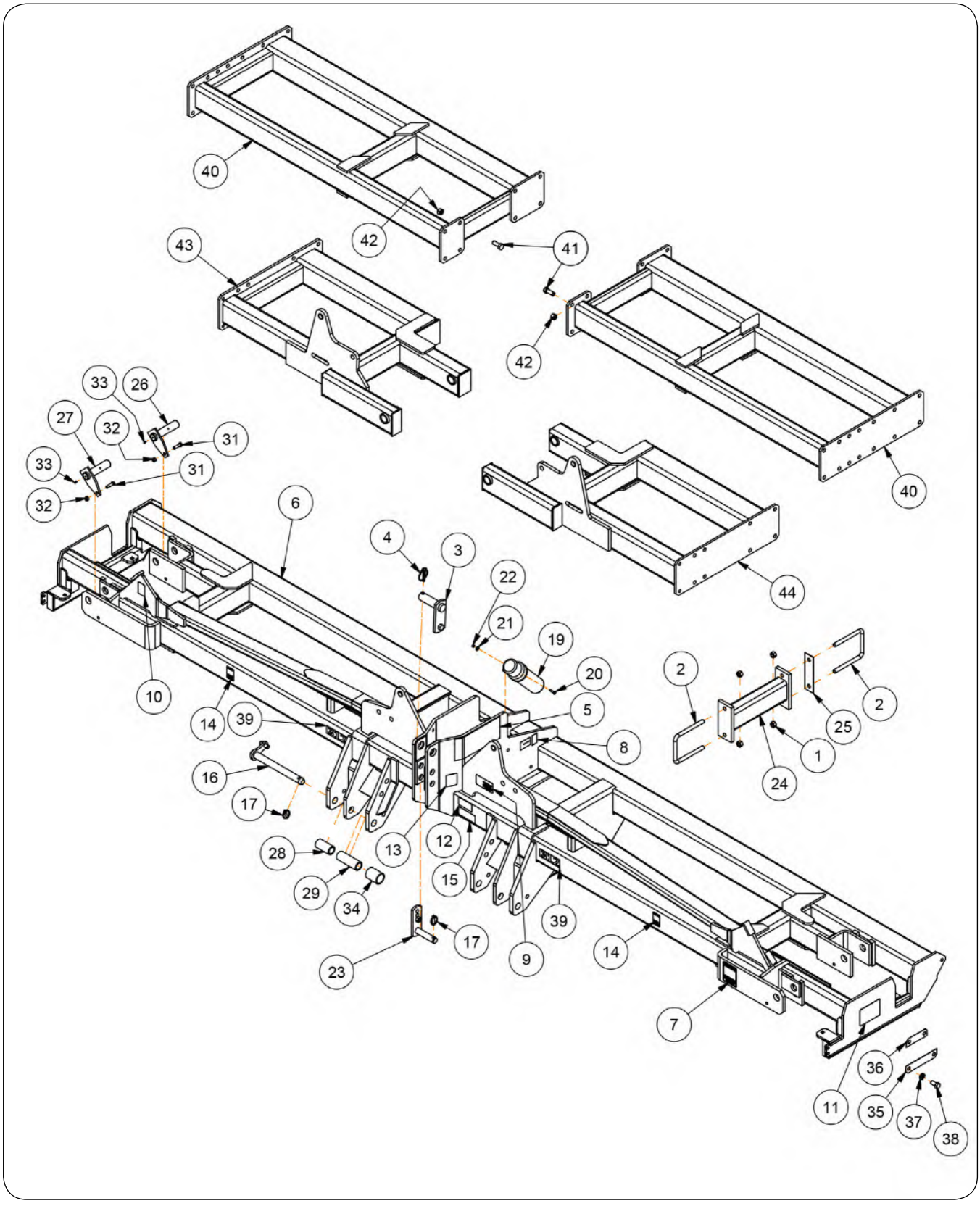
Folding Main Frame — 8 Shank (36, 38, 40")/ 12 Shank (30")

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

ITEM	PART NO.	DESCRIPTION	QTY	
4	63245G	Extension Frame 57" Weldment =Green=	2	For 12 Shank 30"
	63245R	Extension Frame 57" Weldment =Red=		
5	902221	Decal, DANGER "Electrocution Hazard"	1	
6	95445	Decal, WARNING! "Do not use hands..."	1	
7	97048	Decal, WARNING! "Pinch Points..."	2	
8	97337	Decal, WARNING! "Never Stand..."	2	
9	97961	Decal, WARNING! "Read & Understand..."	1	
10	97972	Decal, WARNING! "Crushing Hazard..."	2	
11	97973	Decal, WARNING! "Crushing..."	2	
12	99507	Decal, WARNING! "Falling Equipment..."	1	
13	99850	Decal, DANGER! A tripped...	2	
14	9500669	Decal, RIPPER-BEDDER	2	
15	900552	Manual Holder	1	
16	9500668	Decal, MODEL 432	2	
17	91605	Decal, FEMA	1	
18	63223	Pin Weldment 1 5/8" Dia. x 7 1/4	2	
19	9390-102	Capscrew 1/2-13UNC x 1 3/4"	2	Grade 5
20	9800	Locknut 1/2-13UNC	2	
21	91160	Grease Zerk	4	
22	9390-145	Capscrew 3/4-10UNC x 2"	16	Grade 5
23	9802	Locknut 3/4-10UNC	48	
24	63184G	Extension Frame 31" =Green=	2	For 8 Shank 36, 38, 40"
	63184R	Extension Frame 31" =Red=		
25	63220	Pin Weldment 1 5/8" Dia. x 10 3/4	2	
26	61303G	Support Tube 18" =Green=	2	
	61303R	Support Tube 18" =Red=		
27	94090	U-Bolt 3/4-10UNC x 8"	2	
28	94012	U-Bolt 3/4-10UNC x 5"	2	
29	68108	Pin Weldment 1 7/16" Dia. x 10 3/8"	2	
30	67188B	Mast Pin Assembly 1 1/4" Dia. x 7 1/2	1	
31	9390-031	Capscrew 5/16-18UNC x 1 1/4"	2	Grade 5
32	9405-070	Flat Washer 5/16	2	
33	9397-008	Elastic Nut 5/16-18UNC	2	
34	91144-239	Spiral Pin 1/2 x 3"	2	
35	64428	Bushing 2 1/2" OD x 3 1/8"	2	
36	65284	Bushing 2" OD x 5 11/16" (Lower CAT IV)	2	
37	62643	Shim	2	
38	95031	Lynch/Klik Pin 7/16 x 2"	2	
39	67187B	Mast Pin 1 3/4" Dia. w/Lynch Pin	1	
	9501028	Lynch Pin	1	
40	65285	Lower Bushing 2" OD x 3 7/8"	2	
41	67870	Shim Kit (Includes items 59 & 60)	2	
42	67868	Shim 2 x 9 1/4	1	
43	67869	Shim 2 x 6 1/4	1	
	97301	12oz. Crimson Red Spray Touch-Up Paint	-	
	97015	12oz. Implement Green Spray Touch-Up Paint	-	

Folding Main Frame — 12 Shank (36, 38, & 40")

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



Folding Main Frame — 12 Shank (36, 38, & 40")

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9802	Locknut 3/4-10UNC	32	
2	94090	U-Bolt 3/4-10UNC x 8"	4	
3	67187B	Mast Pin 1 3/4" Dia. w/Lynch Pin	1	
4	9501028	Lynch Pin	1	
5	9500669	Decal, RIPPER-BEDDER	2	
6	68532G	Main Frame w/Decals =Green=	1	
	68532R	Main Frame w/Decals =Red=		
7	902221	Decal, DANGER! "Electrocution Hazard..."	2	
8	91605	Decal, FEMA	1	
9	95445	Decal, WARNING! "Do not use hands..."	2	
10	97048	Decal, WARNING! "Pinch Points..."	2	
11	97337	Decal, WARNING! "Never Stand..."	2	
12	97961	Decal, WARNING! "Read & Understand..."	1	
13	97972	Decal, WARNING! "Crushing Hazard..."	2	
14	97973	Decal, WARNING! "Crushing..."	2	
15	99507	Decal, WARNING! "Falling Equipment..."	1	
16	69657	Pin 1 7/16" Dia. x 15 1/8	2	
17	95031	Lynch/Klik Pin 7/16 x 2"	3	
19	900552	Manual Holder	1	
20	9390-031	Capscrew 5/16-18UNC x 1 1/4"	2	Grade 5
21	9405-070	Flat Washer 5/16	2	
22	9397-008	Elastic Nut 5/16-18UNC	2	
23	67188B	Mast Pin Assembly 1 1/4" Dia. x 7 1/2	1	
24	61303G	Support Tube 18" =Green=	2	
	61303R	Support Tube 18" =Red=		
25	62643	Shim	2	
26	64277	Pin Lock Weldment (Rear)	2	
27	64279	Pin Lock Weldment (Front)	2	
28	65285	Bushing 2" OD x 3 7/8"	2	
29	65284	Bushing 2" OD x 5 11/16" (Lower CAT IV)	2	
30	N/A		-	
31	9390-102	Capscrew 1/2-13UNC x 1 3/4"	4	Grade 5
32	9800	Locknut 1/2-13UNC	4	
33	91160	Grease Zerk	4	
34	64428	Bushing 2 1/2" OD x 3 1/8"	2	

(Continued on next page)

Folding Main Frame — 12 Shank (36, 38, & 40")

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

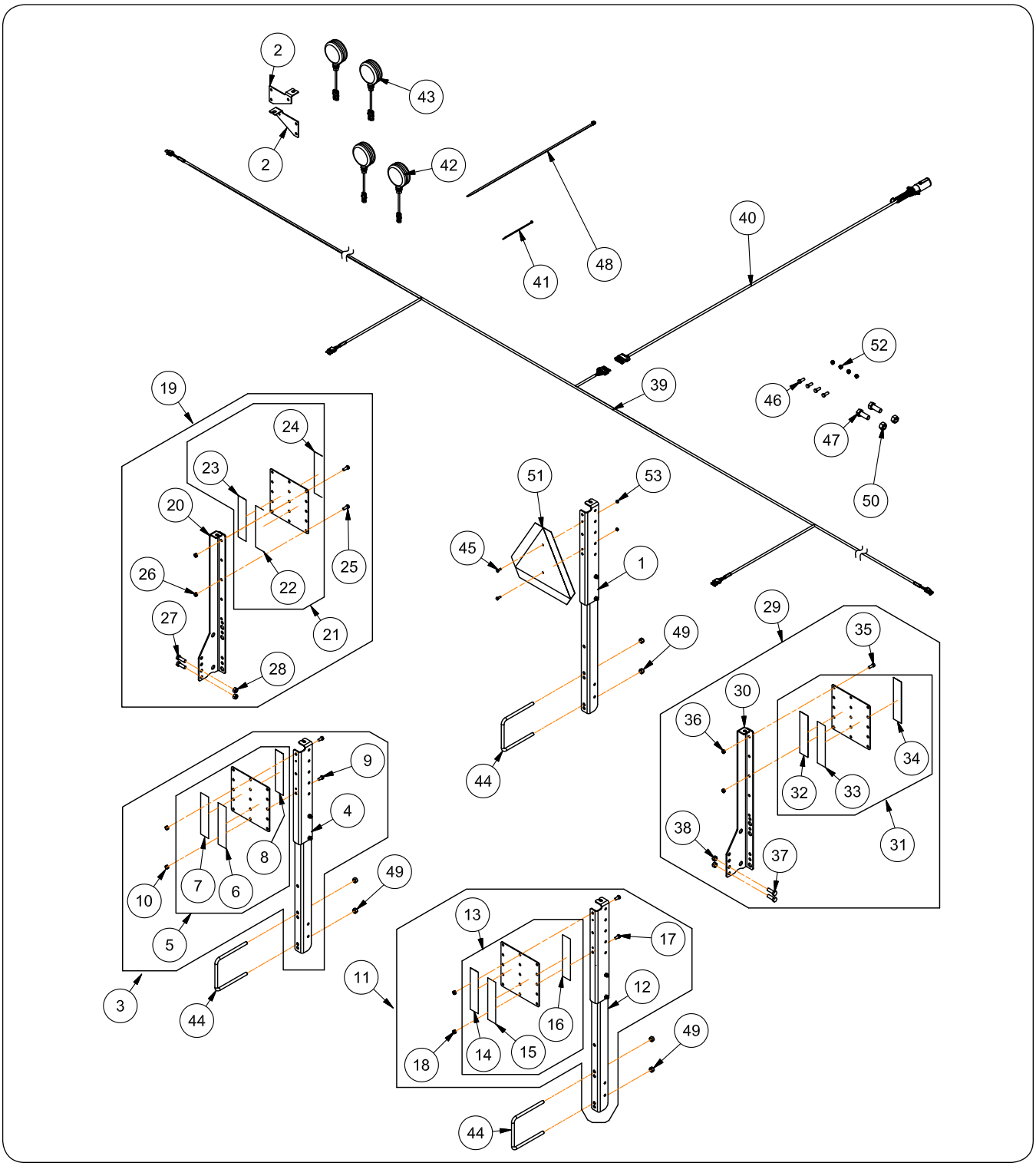
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
35	67868	Shim 2 x 9 1/4	4	
36	67869	Shim 2 x 6 1/4	4	
37	9404-034	Lock Washer 3/4"	4	
38	9390-143	Capscrew 3/4"-10UNC x 1 1/2" Gr5	4	
39	9500668	Decal, MODEL 432	2	
40	64388G	Extension Frame 74"=Green=	2	For 12 Shank 40"
	64388R	Extension Frame 74" =Red=		
	63245G	Extension Frame 57" =Green=		For 12 Shank 36 & 38"
	63245R	Extension Frame 57" =Red=		
41	9390-145	Capscrew 3/4-10UNC x 2"	16	Grade 5
42	9802	Locknut 3/4-10UNC	16	
43	68389G	Wing Base (Right-Hand) =Green=	1	
	68389R	Wing Base (Right-Hand) =Red=		
44	68390G	Wing Base (Left-Hand) =Green=	1	
	68390R	Wing Base (Left-Hand) =Red=		
	97301	12oz. Crimson Red Spray Touch-Up Paint	-	
	97015	12oz. Implement Green Spray Touch-Up Paint	-	

Notes

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

Reflector & Lighting Components

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



ITEM	PART NO.	DESCRIPTION	QTY - 12W Shank Bundle 68963B	QTY - 6/8/12N Shank Bundle 69054B
1	69664B	Formed Angle	1	1
2	68960B	Light Bracket	2	2

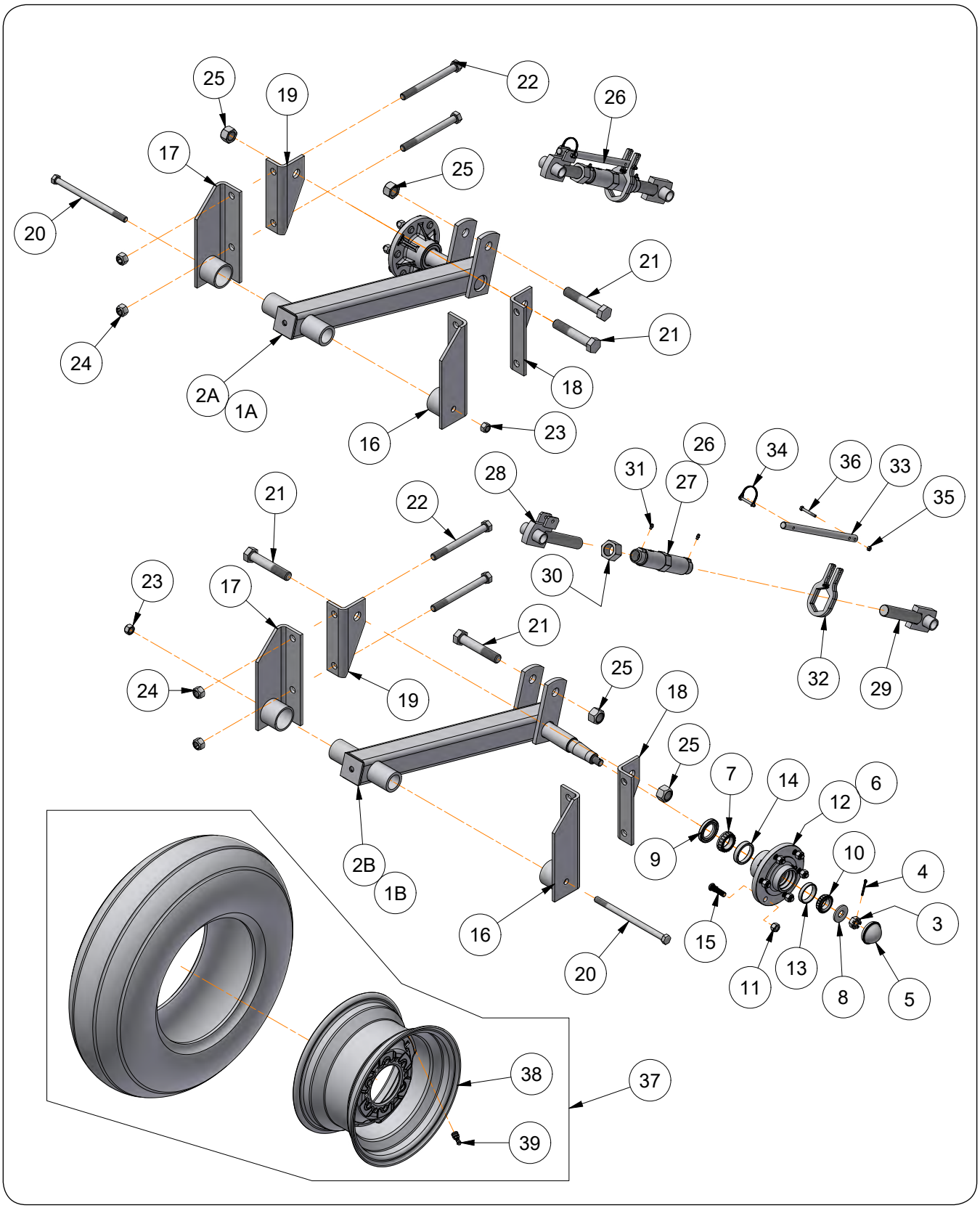
Reflector & Lighting Components

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

ITEM	PART NO.	DESCRIPTION	QTY - 12W Shank Bundle 68963B	QTY - 6/8/12N Shank Bundle 69054B
3	N/A	Left-Hand Center Reflector Assembly	1	-
4	69664B	Formed Angle	1	-
5	68958B	Reflector Bracket	1	-
6	9003125	Decal, Fluorescent Orange	1	-
7	9003126	Red Reflector	1	-
8	9003127	Amber Reflector	1	-
9	9390-053	Capscrew, 3/8"-16UNC x 3/4" G5	2	-
10	9928	Lock Nut, 3/8"-16UNC	2	-
11	N/A	Right-Hand Center Reflector Assembly	1	1
12	69664B	Formed Angle	1	1
13	68958B	Reflector Bracket	1	1
14	9003125	Decal, Fluorescent Orange	1	1
15	9003126	Red Reflector	1	1
16	9003127	Amber Reflector	1	1
17	9390-053	Capscrew, 3/8"-16UNC x 3/4" G5	2	2
18	9928	Lock Nut, 3/8"-16UNC	2	2
19	N/A	Left-Hand Outer Reflector Assembly	1	1
20	68959B	Formed Angle	1	1
21	68958B	Reflector Bracket	1	1
22	9003125	Decal, Fluorescent Orange	1	1
23	9003126	Red Reflector	1	1
24	9003127	Amber Reflector	1	1
25	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2	2
26	9928	Lock Nut, 3/8"-16UNC	2	2
27	9390-101	Capscrew, 1/2"-13UNC x 1-1/2" G5	2	2
28	9800	Lock Nut, 1/2"-13UNC	2	2
29	N/A	Right-Hand Outer Reflector Assembly	1	1
30	68959B	Formed Angle	1	1
31	68958B	Reflector Bracket	1	1
32	9003125	Decal, Fluorescent Orange	1	1
33	9003126	Red Reflector	1	1
34	9003127	Amber Reflector	1	1
35	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2	2
36	9928	Lock Nut, 3/8"-16UNC	2	2
37	9390-101	Capscrew, 1/2"-13UNC x 1-1/2" G5	2	2
38	9800	Lock Nut, 1/2"-13UNC	2	2
39	69407	Wiring Harness	1	1
40	86466	Main Wiring Harness	1	1
41	9000106	Cable Tie 7 1/2"	8	8
42	9003876	Amber Round Light	2	2
43	9003877	Red Round Light	2	2
44	9005460	U-Bolt	3	4
45	9390-003	Capscrew, 1/4"-20UNC x 3/4" G5	2	2
46	9390-055	Capscrew, 3/8"-16UNC x 1" G5	4	4
47	9390-145	Capscrew, 3/4"-10UNC x 2" G5	4	4
48	94038	Cable Tie 32"	12	12
49	9800	Lock Nut, 1/2"-13UNC	6	8
50	9802	Lock Nut, 3/4"-10UNC	4	4
51	9829	SMV Emblem	1	1
52	9928	Lock Nut, 3/8"-16UNC	4	4
53	9936	Lock Nut, 1/4"-20UNC	2	2

Stabilizer Wheel

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



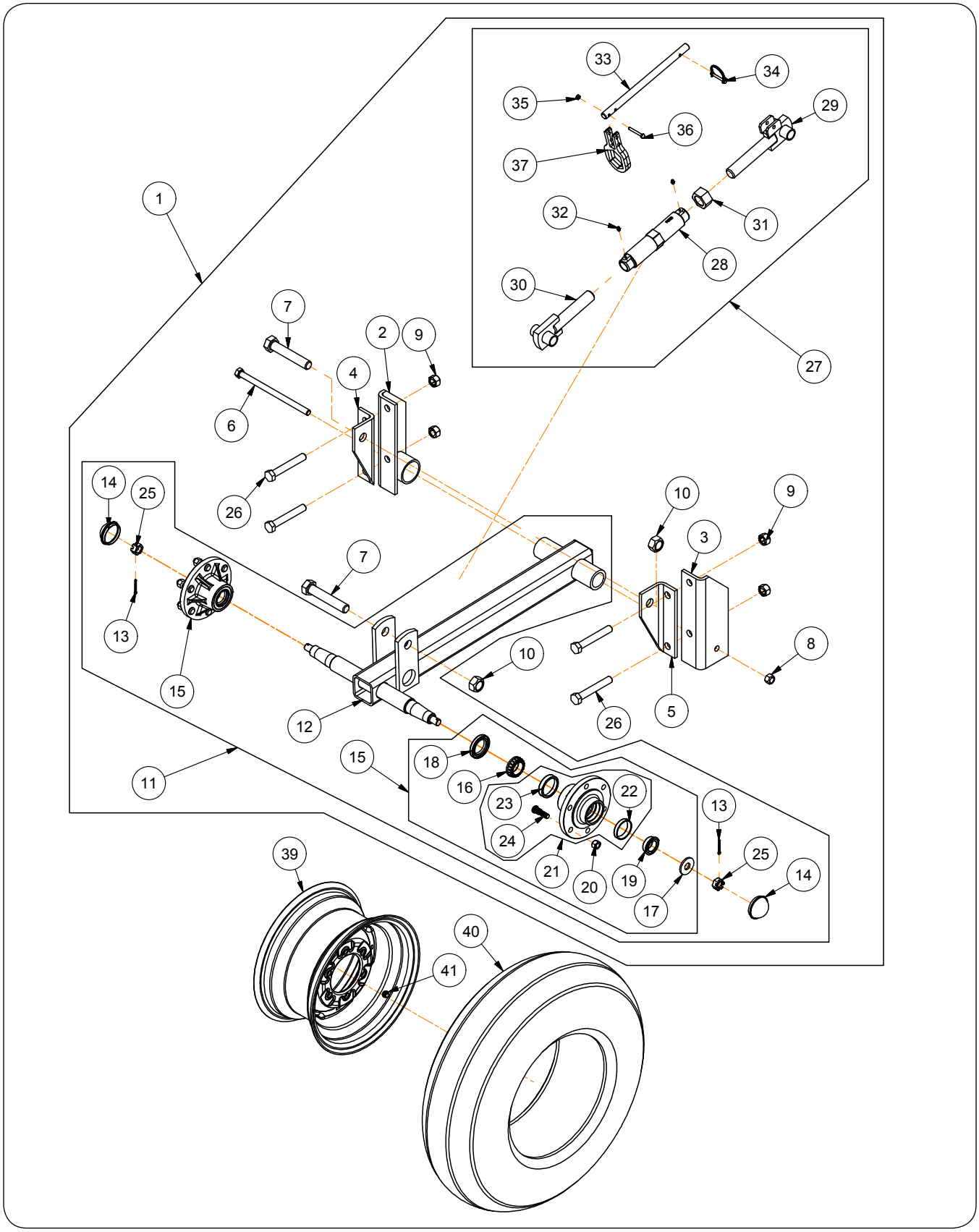
Stabilizer Wheel

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

ITEM	PART NUMBER	DESCRIPTION
1A	67311B	Stabilizer Wheel Right-Hand Assembly less Wheel & Tire
1B	67312B	Stabilizer Wheel Left-Hand Assembly less Wheel & Tire
2A	63624	Arm Hub Assembly Right-Hand (Includes Items 3 through 15)
2B	63623	Arm Hub Assembly Left-Hand (Includes Items 3 through 15)
3	9393-016	Slotted Nut 3/4-16UNF
4	9391-035	Cotter Pin 5/32" Dia. x 1 1/2
5	9162	Hub Cap
6	9768B	Hub Assembly (Includes Items 7 through 15)
7	9166	Inner Cone
8	9234	Washer
9	9168	Seal
10	9165	Outer Cone
11	9348	Tapered Nut 1/2-20UNF
12	9768B	Hub Subassembly (Includes Items 13-15)
13	9345	Outer Cup
14	9346	Inner Cup
15	9347	Drive-In Stud 1/2-20UNF x 1 7/8
16	60909	Pivot Bracket Right-Hand
17	60910	Pivot Bracket Left-Hand
18	60890	Plate Right-Hand
19	60891	Plate Left-Hand
20	9390-444	Hex Capscrew 5/8-11UNC x 10 1/2
21	9390-194	Hex Capscrew 1"-8UNC x 5 1/2
22	9390-161	Hex Capscrew 3/4-10UNC x 8 (For Rear Bar Mounting)
	9390-155	Hex Capscrew 3/4-10UNC x 5 (For Front Bar Mounting)
23	9801	Locknut 5/8-11UNC
24	9802	Locknut 3/4-10UNC
25	9663	Locknut 1"-8UNC
26	66833	Turnbuckle Assembly (Includes Items 27-36)
27	62324	Turnbuckle
28	66832	Adjusting Rod Weldment Right-Hand
29	60907	Adjusting Rod Weldment Left-Hand
30	9394-024	Hex Nut 1 1/4-7UNC
31	91160	Grease Zerk
32	67957	Wrench Body
33	66830	Rod Handle
34	9000936	Lynch Pin
35	9936	Locknut 1/4-20UNC
36	9390-009	Capscrew 1/4-20UNC x 2
37	11895	Tire & Wheel Assembly (Tire 12.5LB15)
38	W1015-6-98RG	10 x 15 Wheel
37	60911	Tire & Wheel Assembly (Tire 9.5LB15)
38	W815-6-08	8 x 15 Wheel
37	81145	Tire & Wheel Assembly (Tire 7.6B15)
38	W615-6	6 x 15 Wheel
39	9002500	Valve Stem With Cap

Dual Stabilizer Wheel

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



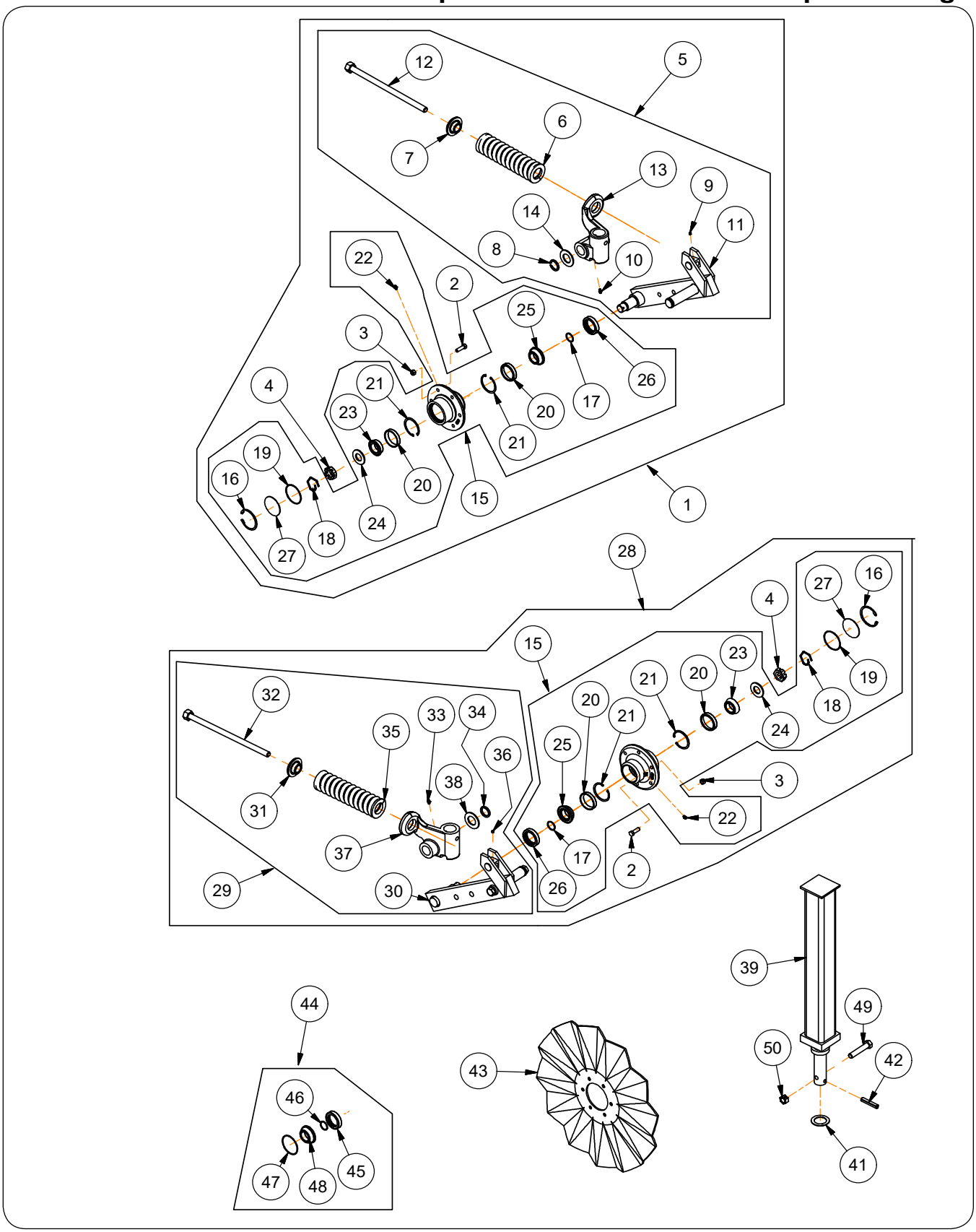
Dual Stabilizer Wheel

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

ITEM	PART NUMBER	DESCRIPTION
1	68188B	Dual Stabilizer Wheel Assembly less Wheel & Tire
2	60909	Pivot Bracket Right-Hand
3	60910	Pivot Bracket Left-Hand
4	60890	Plate Right-Hand
5	60891	Plate Left-Hand
6	9390-444	Hex Capscrew 5/8-11UNC x 10 1/2
7	9390-194	Hex Capscrew 1"-8UNC x 5 1/2
8	9801	Locknut 5/8-11UNC
9	9802	Locknut 3/4-10UNC
10	9663	Locknut 1"-8UNC
11	68187B	Arm & Dual Hub Assembly (NOT SHOWN)
12	68186B	Spindle Arm Weldment
13	9391-035	Cotter Pin 5/32" Dia. x 1 1/2
14	9162B	Hub Cap
15	9500002B	Hub Assembly Complete
16	9166	Inner Cone
17	9234	Washer
18	9168	Seal
19	9165	Outer Cone
20	9348	Tapered Nut 1/2-20UNF
21	9768B	Hub Sub Assembly
22	9345	Outer Cup
23	9346	Inner Cup
24	9347	Drive in Stud 1/2-20UNF x 1 7/8
25	9393-016	Slotted Nut 3/4-16UNF Gr.2
26	9390-155	Hex Capscrew 3/4-10UNC x 5
27	66833	Turnbuckle Assembly
28	62324	Center Turnbuckle
29	66832	Adjusting Rod (Right-Hand Thread)
30	60907	Adjusting Rod (Left-Hand Thread)
31	9394-024	Hex Nut 1 1/4-7UNC
32	91160	Zerk
33	66830	Rod/Handle
34	9000936	Lynch Pin
35	9936	Locknut 1/4-20UNC
36	9390-009	Capscrew 1/4-20UNC x 2
37	67957	Wrench Body
38	60911	Tire & Wheel Assembly (Tire 9.5LB15)
39	W815-6-08	8 x 15 Wheel
40	96182	Tire 9.5LB15 8 Ply
41	9002500	Valve Stem With Cap

Combo® Coulter

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



Combo® Coulter

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

ITEM	PART NO.	DESCRIPTION	QTY
1	65854B	Coulter Left-Hand Subassembly (Includes Items 2 through 27)	1
2	9390-056	Capscrew 3/8-16 x 1 1/4" Lg.	6
3	9928	Locknut 3/8-16	6
4	94795	Slotted Jam Nut 1-14	1
5	65853B	Coulter Arm Left-Hand Assembly (Includes Items 6 through 14)	1
6	94756B	Spring	1
7	82826B	Spring Washer	1
8	94144	Retaining Ring 1 1/4"	1
9	9399-057	Set Screw 1/4-20 x 1/4" Lg.	1
10	91160	Grease Zerk	1
11	65852B	Coulter Arm LH Weldment	1
12	83371B	Spring Rod Weldment	1
13	82823B	Coulter LH Swivel Bracket	1
14	92528B	Bushing	1
15	64533	Hub 6 Bolt Assembly (Includes Items 16 through 27)	2
16	93985	Retaining Ring (Beginning with Serial #A39230100)	1
17	95565	O-ring 1.049 I.D.	1
18	9504825	Retaining Spring 1/8"D x 1 3/4"	1
19	902158	O-Ring	1
20	9345	Bearing Cup	2
21	94796	Retaining Ring 2 1/2" (Beginning with Serial #A39230100)	2
22	91160	Grease Zerk	1
23	9165	Bearing Cone #LM67048	1
24	94800	Washer (1.01" ID)	1
25	901145	Seal & Bearing Kit	1
26	93987	Triple Lip Seal	1
27	60735B	Hub Cap (Beginning with Serial #A39230100)	1
28	64055	Coulter Right-Hand Subassembly (Includes Items 2 through 4, 15, & 29)	1
29	64056	Coulter Arm Right-Hand Assembly (Includes items 30-38)	1
30	83305B	Coulter Arm RH Weldment	1
31	82826B	Spring Washer	1
32	83371B	Spring Rod Weldment	1
33	91160	Grease Zerk	1
34	94144	Retaining Ring 1 1/4"	1
35	94756B	Spring	1
36	9399-057	Set Screw 1/4-20 x 1/4" Lg.	1
37	82824B	Coulter RH Swivel Bracket	1
38	92528B	Bushing	1

(Continued on next page)

Combo® Coulter

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

ITEM	PART NO.	DESCRIPTION	QTY
39	68730B	Straight Post (Auto-Reset Shanks)	1
41	96581	Machinery Washer	2
42	9392-210	Roll Pin 1/2" Dia. x 2 1/2"	2
43	93932	Coulter Blade (8 Wave) 1.81" Wide x 17" Dia.	1
	93930	Coulter Blade (8 Wave) 1" Wide x 18" Dia.	
	93931	Coulter Blade (13 Wave) .83" Wide x 18" Dia.	
	93938	Coulter Blade (13 Wave) 1" Wide x 20" Dia.	
	93934	Coulter Blade (Ripple) .83" Wide x 20" Dia.	
44	68281	Seal Kit (Includes Items 16, 18, 23, 27, 45-48)	-
45	93987	Triple Lip Seal	1
46	95565	O-Ring 1.049 I.D.	1
47	902158	O-Ring	1
48	901145	Seal & Bearing Kit	1
49	9390-129	Capscrew 5/8-11UNC x 3 1/4	2
50	95905	Locknut 5/8-11UNC	2
	65855B	Complete Coulter Assembly (Straight Post)	-
	68184B	Complete Coulter Assembly (Offset Post)	-

Notes

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

Auto-Reset Shank - Model 432

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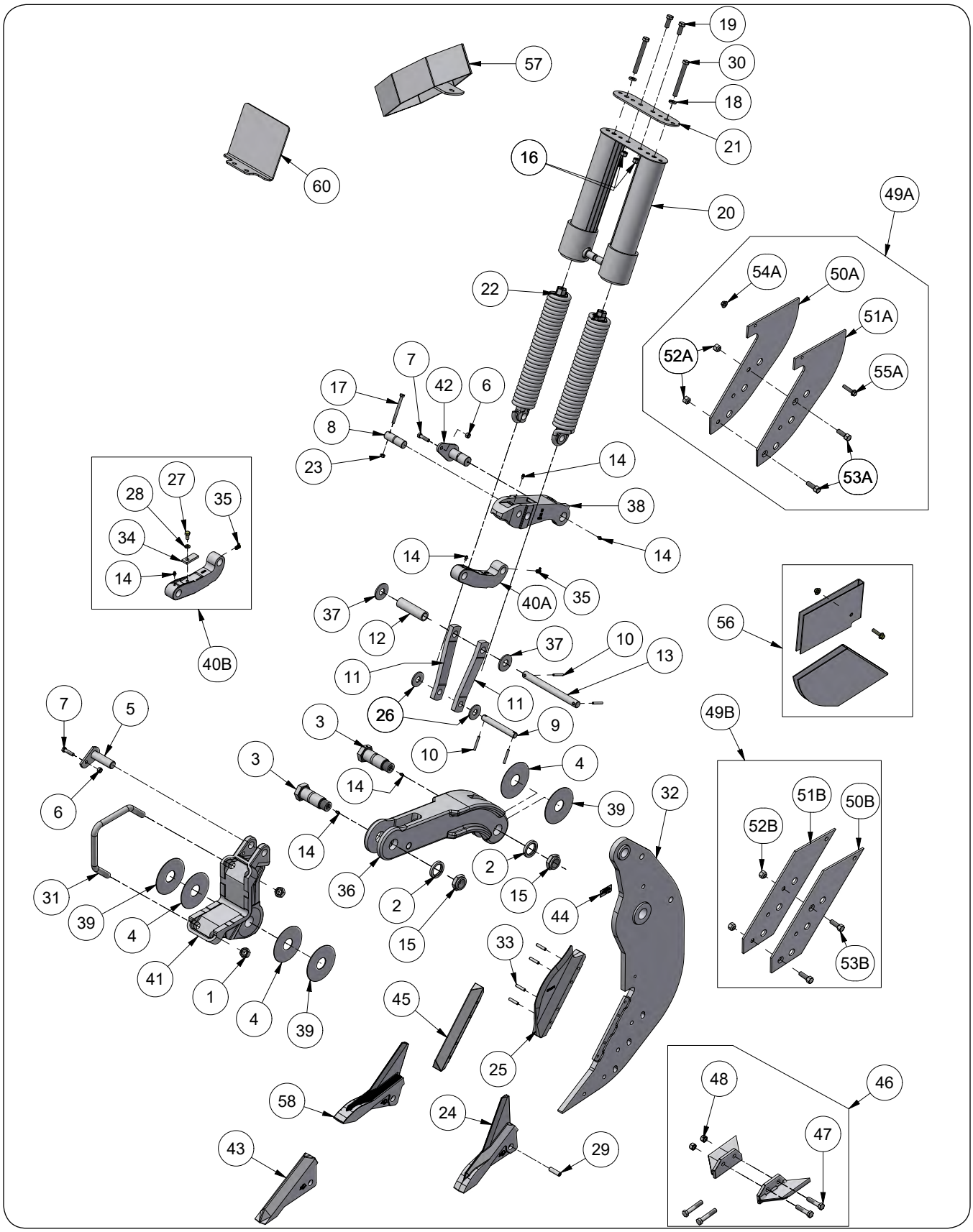

Auto-Reset Shank - Model 432

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	67748B	Angled Shank Assembly Complete	-	Includes Items 1 through 42
1	97025	Locknut 3/4"-10UNC	4	
2	85791	Beveled Flat Washer	2	
3	86749B	Pull Pin 1 1/2" Dia.	2	
4	63098B	Washer 5" O.D. (Hardened)	3	
5	63157B	Front Pivot Pin	1	
6	9928	Locknut 3/8"-16UNC	2	
7	9390-057	Capscrew 3/8"-16UNC x 1 1/2"	2	
8	801310B	Middle Toggle Pin	1	
9	63144B	Bottom Spring Pin 3/4" Dia. x 5 3/4"	1	
10	91144-165	Spiral Pin 1/4" Dia. x 1 7/8"	2	
11	63145B	Spring Strap	2	
12	63313PL	Roller	1	
13	63091B	Top Spring Pin 7/8" Dia. x 9 9/16"	1	
14	91160	Zerk (1/4-28)	5	
15	96976-048	Thin Collar Locknut 1 1/4-12	2	
16	9800	Locknut 1/2"-13UNC	2	
17	9390-041	Capscrew 5/16"-18UNC x 3 3/4"	1	Grade 5
18	9404-026	Lock Washer 1/2"	2	
19	9390-100	Capscrew 1/2"-13UNC x 1 1/4"	2	
20	801302B	Outer Spring Can	1	
21	801318B	Spring Canister Cap	1	
22	67896B	Extension Spring Assembly	2	
23	9807	Locknut 5/16"-18UNC	1	
24	67385B	Point (Shark Fin)	1	
25	67907B	Wear Bar	1	
26	9405-105	Flat Washer 3/4" Dia.	2	
27	9390-053	Capscrew 3/8"-16UNC x 3/4"	1	
28	9404-021	Lock Washer 3/8"	1	
29	91144-234	Spiral Pin 1/2" Dia. x 1 3/4"	1	
30	93400	Capscrew 1/2"-13UNC x 4 1/2"	2	Full Threaded Grade 5
31	94135B	V-Bolt 3/4-10UNC	2	
32	69845B	Angled Shank	1	
33	91144-182	Spiral Pin 5/16" Dia. x 1 1/2"	4	
34	64672B	Shim	1	
35	93415	90° Zerk 1/4-28	1	
36	68393B	Pull Arm Service Kit	1	Includes Items 4 & 39
37	9405-112	Flat Washer 7/8" Dia.	2	

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Auto-Reset Shank - Model 432

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
38	64784B	Outer Toggle	1	Includes Items 6, 7, 17, 23, 34, & 42
39	66834B	Washer 5" O.D. (Hardened)	2	
40A	64357B	Inner Toggle	1	
40B	64353B	Inner Toggle Assembly		Includes Items 14, 27, 28, 34, & 35
41	83291B	Shank Mount =Black=	1	
42	66926B	Pin Weldment 1 1/4" Dia. x 2 3/4"	1	
43	67021B	Point/Point (Raised Center)	-	
44	67669	Decal, IMPORTANT "Grease All Points"	1	
45	65947B	Wear Bar	-	
	903192	Poly Wear Bar		
46	67691B	Shatter Wing 7" Bundle (Optional)	1	
	67692B	Shatter Wing 9" Bundle (Optional)	1	
47	9390-104	Capscrew 1/2"-13UNC x 2 1/4"	2	Grade 5
	9390-106	Capscrew 1/2"-13UNC x 2 3/4"	2	Grade 5
48	9800	Locknut 1/2"-13UNC	2	
49A	601515B	Wear Guard Assembly Heavy-Duty	1	Beginning With Serial #A665700166 & Up Includes Items 50A - 55A
49B	64077	Wear Guard Assembly (Steel)		Prior to Serial #A665700166 Includes Items 50B-53B
50A	601514B	Plate, Right-Hand		
50B	64047B	Plate, Right-Hand	1	
51A	600615B	Plate,Left-Hand		
51B	64048B	Plate, Left-Hand	1	
52A	9348	Beveled Nut 1/2"-20UNF	2	
52B				
53A	9500736	Bolt 1/2"-20UNF x 1 3/8" G5	2	
53B				
54A	9002717	Locknut/Flange, 3/8-16UNC	1	
55A	9503319	Flange Screw, 3/8"-16UNC x 1 3/4" G5	1	
56	78589	Shank Protector Kit	1	
	601598	Upper Shank Protector		
	601516	Lower Shank Protector		
57	63525	Bracket for Auto-Reset Shank	1	8 Shank 36"Spg,12 Shank 38"Spacing
58	67951B	Point (Shark Fin) w/Hard Weld	-	
59	65117	Shank Tip Weld-On Replacement Package	-	Prior to Serial Number A665700166 (NOT SHOWN)
	602402	Shank Tip Replacement Package	-	Beginning with Serial Number A665700166 (NOT SHOWN)
60	v	Plate	2	

Notes

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

Flush Clamps

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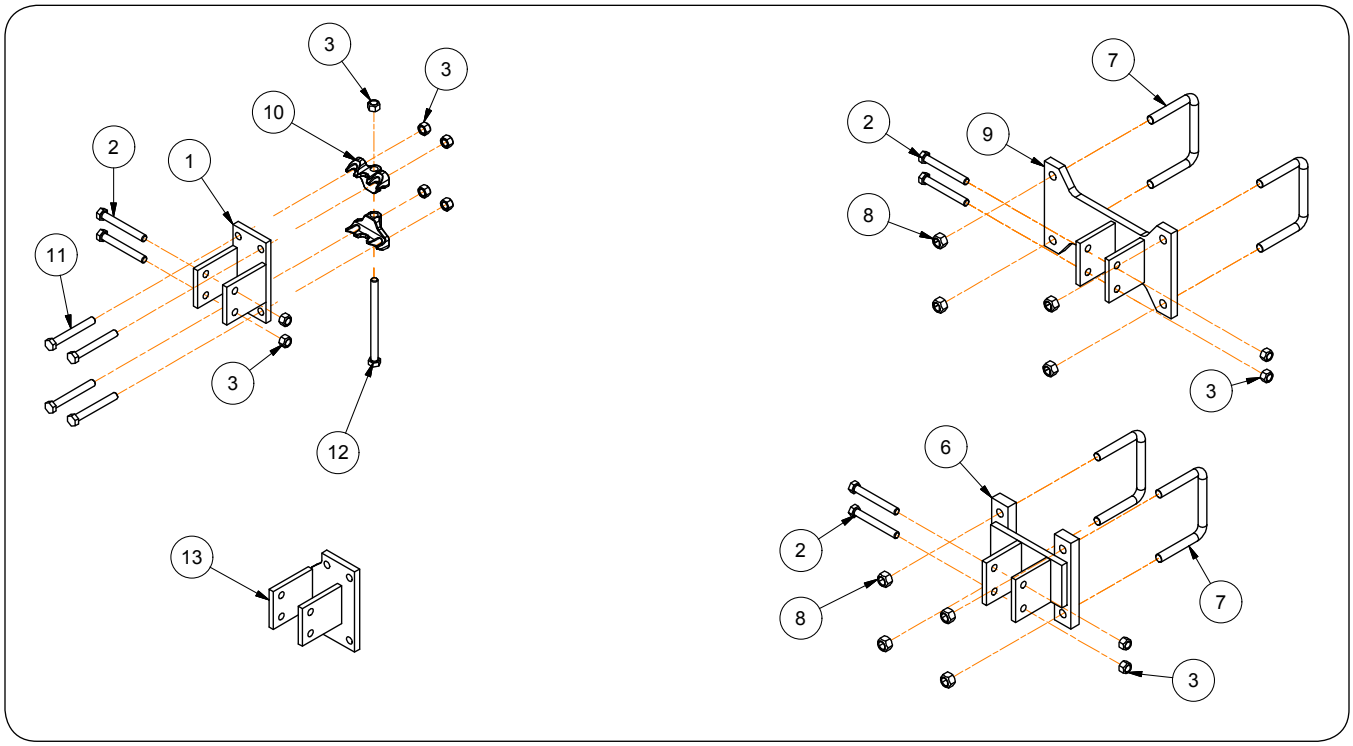

Flush Clamps

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

ITEM	PART NO.	DESCRIPTION	6 SHANK			8 SHANK				12 SHANK			
		Spacing	30"	36"	38"	30"	36"	38"	40"	30"	36"	38"	40"
1	60245	6" Flush Clamp Weldment	4	4	6	6	6	8	8	12	12	12	12
2	9390-134	Capscrew 5/8-11 x 5"	2	2	2	2	2	2	2	2	2	2	2
3	9801	Locknut 5/8-11	32	32	42	46	46	56	56	74	66	70	68
5	9390-136	Capscrew 5/8-11 x 6"	4	4	6	6	6	8	8	10	10	14	12
6	62546	Offset Bracket Weldment	2	2	-	2	2	-	-	2	2	-	-
7	94012	U-Bolt 3/4-10 x 5"	4	4	-	4	4	-	-	4	-	-	2
	94090	U-Bolt 3/4-10 x 8"	-	-	-	-	-	-	-	-	4	-	2
8	9802	Locknut 3/4-10	8	8	-	8	8	-	-	8	8	-	16
9	64425B	Mounting Bracket	-	-	-	-	-	-	-	-	-	-	2
10	67922B	Extension Clamp	8	8	12	12	12	16	16	24	24	28	24
11	9390-134	Capscrew 5/8-11 x 5"	28	28	36	32	32	48	48	64	40	40	40
	9390-128	Capscrew 5/8-11 x 3"	-	-	-	-	-	-	-	8	-	-	-
	9390-135	Capscrew 5/8-11 x 5 1/2"	-	-	-	8	8	-	-	-	-	-	-
	9390-137	Capscrew 5/8-11 x 6 1/2"	-	-	-	-	-	-	-	-	8	8	-
	9390-140	Capscrew 5/8-11 x 8"	-	-	-	-	-	-	-	-	8	8	16
12	9390-441	Capscrew 5/8-11 x 8 1/2"	4	4	6	6	6	8	8	10	10	14	12
13	68520B	6" Offset Flush Clamp Weldment	-	-	-	-	-	-	-	-	-	2	-
	45580B	UM Coulter Mount Assembly/Bundle For 6" x 6" Toolbar Includes Items: 60245, 67922B, 9390-134, 9390-140, 9390-441, 9801											
	63063	Offset Bracket Assembly/Bundle For 6" x 3" Toolbar Includes Items: 62546, 9390-134, 94012, 9801, 9802											

Flush Clamps

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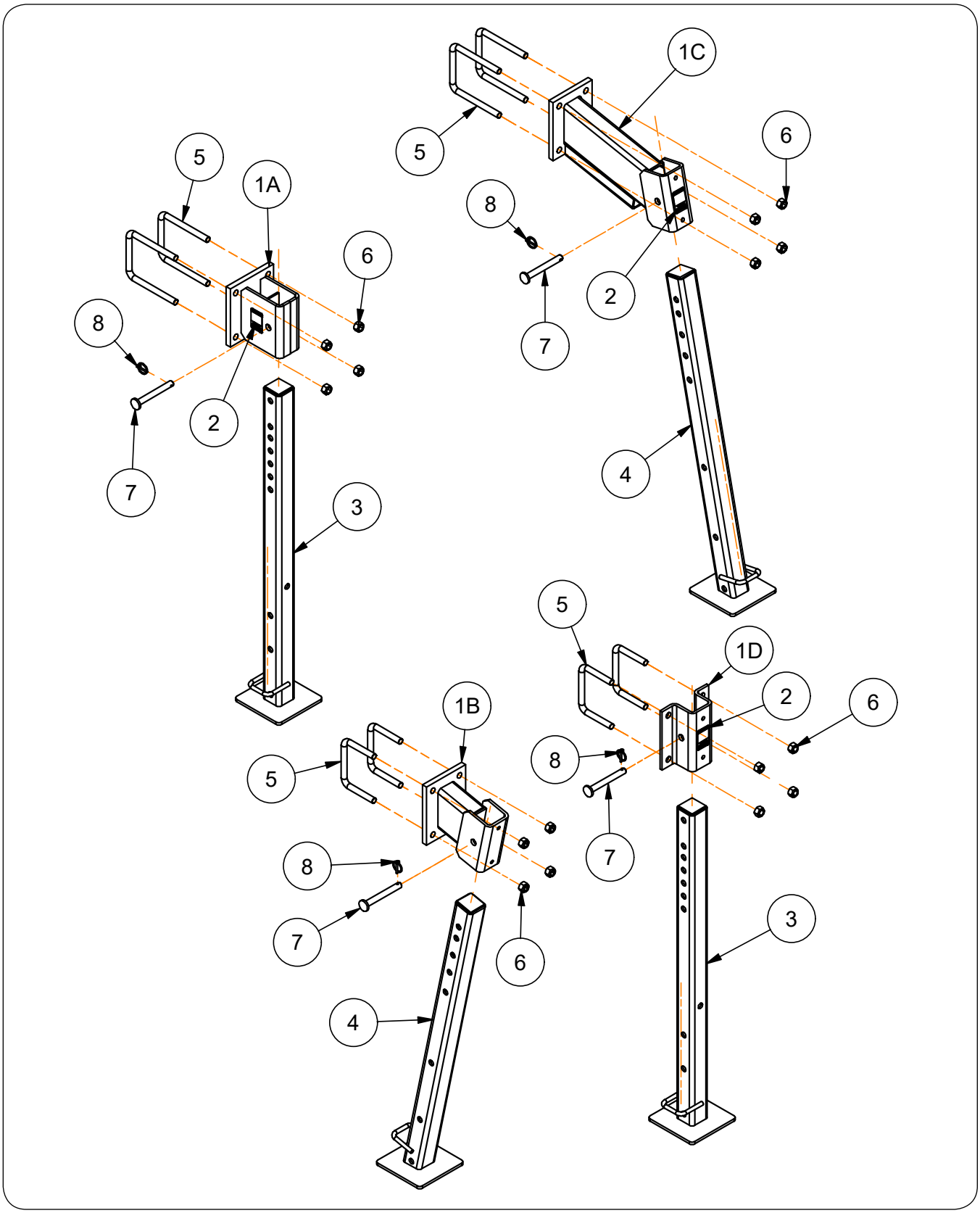

Flush Clamps

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1A	77341B	Storage Stand Mounting Bracket Weldment =Black=	1	Includes Item 2
1B	63573	Storage Stand Mounting Bracket Weldment =Black=	1	
1C	601996B	Storage Stand Mounting Bracket Weldment =Black=	1	
1D	60850	Mounting U-Bracket =Black=	1	
2	97973	Decal, WARNING “Crush Hazard”	1	
3	63529	Storage Stand 48” Weldment =Black=	1	
4	63571	Angled Storage Stand Weldment =Black=	1	
5	94090	U-Bolt 3/4”-10UNC x 8”	2	
	94012	U-Bolt 3/4”-10UNC x 5”	2	
6	9802	Locknut 3/4”-10UNC	4	
7	9500153	Clevis Pin, 3/4” Dia. x 6 3/8”	1	
8	9093	Klik-Pin, 3/16” Dia. x 1 9/16”	1	

Flush Clamps

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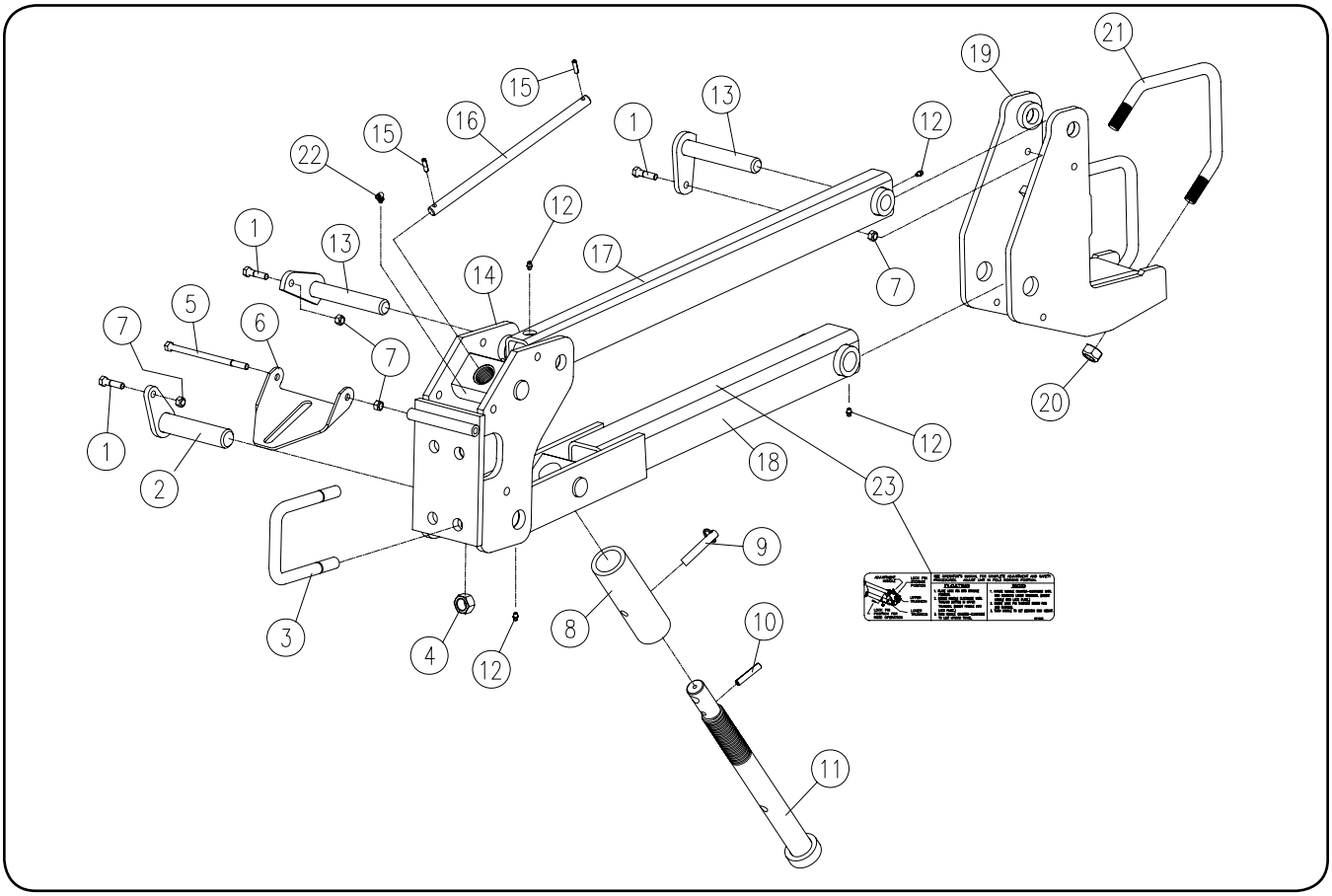


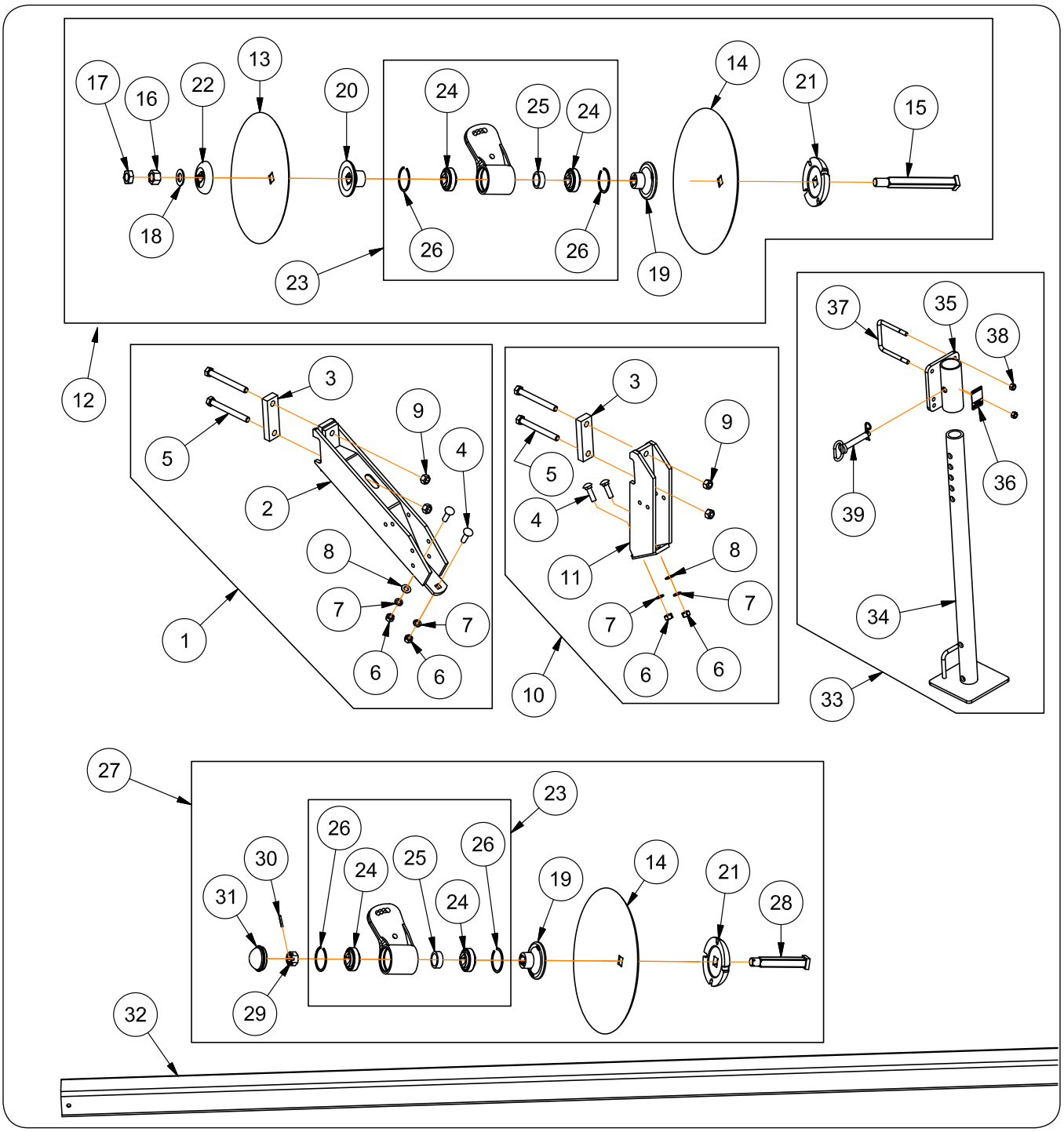
Flush Clamps

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

ITEM	PART NUMBER	DESCRIPTION	NOTES
	64844B	Arm Sub Assembly / Parallel-Link Arm	
1	9390-057	Capscrew 3/8-16UNC x 1 1/2	Grade 5
2	64846	Pin Weldment 1 1/4" Dia.	
3	900742	U-Bolt 3/4-10UNC x 5.62	Grade 5
4	9802	Locknut 3/4-10UNC	
5	9390-072	Capscrew 3/8-16UNC x 6 1/2	Grade 5
6	64869B	Plate w/ Slot	
7	9928	Locknut 3/8-16UNC	
8	64867	Tube 2 3/8 OD x 1.560 ID x 7 1/4 - Screw Rod Bushing	
9	900715	Hitch Pin 1/2" Dia. (Cotterless)	
10	9392-180	Roll Pin 3/8" Dia. x 2	
11	64866	Rod Weldment	
12	91160	Grease Zerk	
13	64451	Pin-Link Weldment 1" Dia. x 6 3/4	
14	64843B	Bracket Weldment - Rear	
15	9392-132	Roll Pin 1/4" Dia. x 1	
16	64868	Rod 5/8" Dia. x 13 1/2	
17	65513B	Tube Weldment 36"	
18	64833B	Arm Weldment - Lower	
19	64838B	Bracket Weldment - Front	
20	97025	Locknut 3/4-10UNC	
21	94135B	V-Bolt 3/4-10UNC x 7.25	
22	93415	Zerk 90°	
23	901262	Decal - Parallel Link Arm Instructions	

Bedder Bar/Arms/Disc Gang Components

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



ITEM	PART NUMBER	DESCRIPTION	NOTES
1	65185B	Arm Sub Assembly Long	Includes items 2 through 9
2	64853B	Arm Weldment Long	
3	66283B	Back Plate	
4	9388-136	Carriage Bolt 5/8-11UNC x 2 1/4	
5	9390-159	Capscrew 3/4-10UNC x 7	

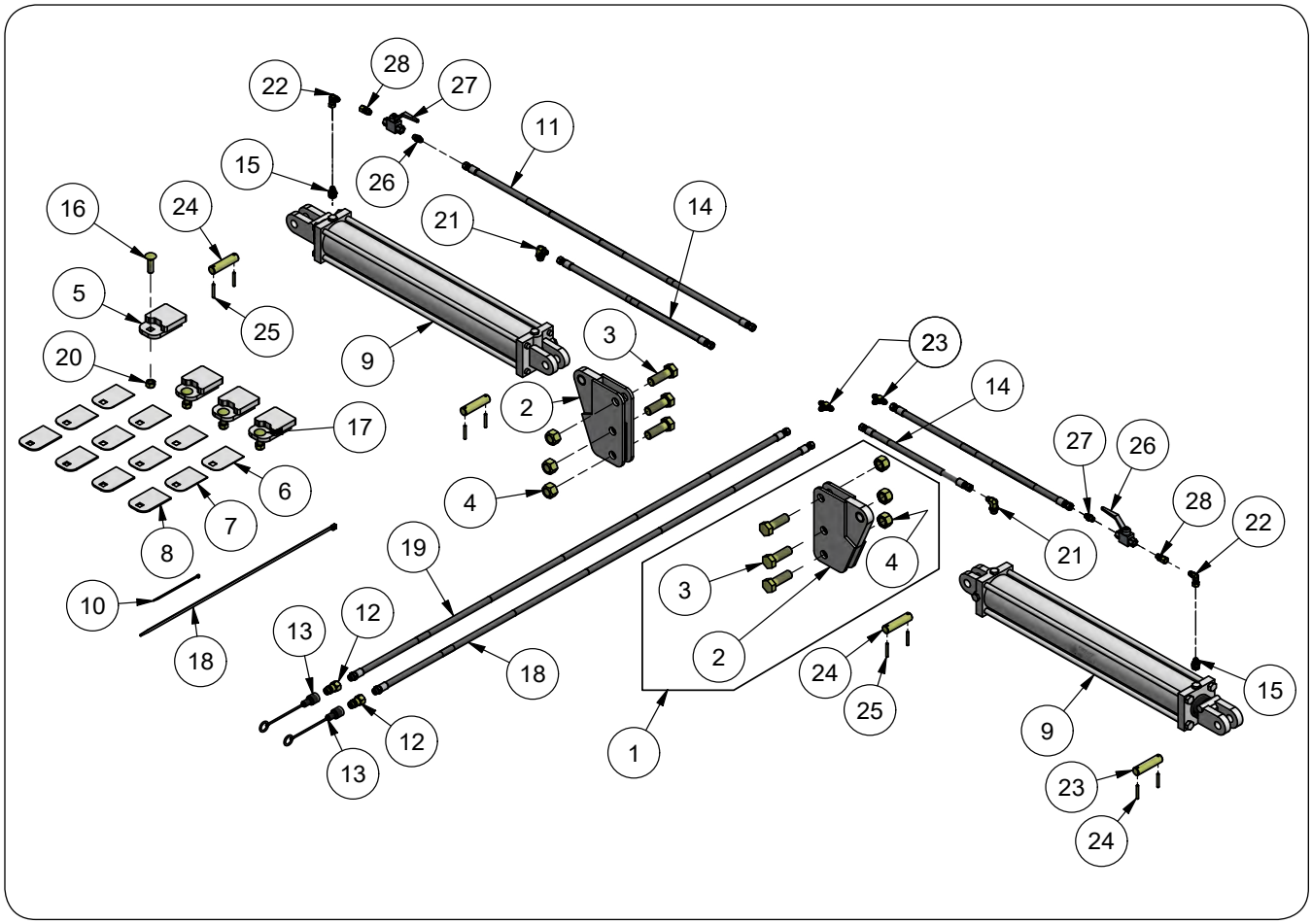
Bedder Bar/Arms/Disc Gang Components

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

ITEM	PART NUMBER	DESCRIPTION	NOTES
6	9394-014	Hex Nut 5/8-11UNC	
7	9404-029	Lock Washer 5/8"	
8	9405-098	Flat Washer 5/8" SAE	
9	9802	Locknut 3/4-10UNC	
10	65186B	Arm Sub Assembly Short	Includes Items 3 through 9 & 11
11	64848B	Arm Weldment Short	
12	65171B	Disc Gang Assembly (2 Blades)	Includes Items 13 through 26
13	900733	Disc Blade 18" Dia. Smooth Concave	
14	900734	Disc Blade 20" Dia. Smooth Concave	
15	64873	Gang Bolt 1 1/8" Sq. x 12	
16	9394-022	Hex Nut 1 1/8-7UNC	
17	9395-022	Hex Jam Nut 1 1/8-7UNC	
18	9405-122	Flat Washer 1 1/8" SAE	
19	64871B	Spool Convex	
20	64872B	Spool Concave	
21	64874B	Disc Washer Concave	
22	65169B	Disc Washer Convex	
23	67698B	Housing Assembly	Includes Items 24 through 26
24	900587	Ball Bearing w/Triple Lip Seals	
25	64870	Spacer	
26	900445	Retaining Ring	
27	65173B	Disc Gang Assembly (1 Blade)	Includes Items 14, 19, 21, 23, 28 through 31
28	65174	Gang Bolt 1 1/8" Sq. x 8 1/16	
29	9393-021	Slotted nut 1 1/8-7UNC	
30	9392-137	Roll Pin 1/4" Dia. x 1 5/8	
31	91156	Hub Cap	
32	64863B	Tube 4 x 4 x 190"	For 6 Row - 30" Spacing
	65170B	Tube 4 x 4 x 252	For 6 Row - 36" & 38" Spg & For 12 Row - 40" Spg
	64859B	Tube 4 x 4 x 130"	For 8 Row - 30" & 36" Spg & For 12 Row - 30" Spg
	64860B	Tube 4 x 4 x 136"	For 8 Row - 38" Spacing
	64861B	Tube 4 x 4 x 144	For 8 Row - 40" Spacing
	64864B	Tube 4 x 4 x 240	For 12 Row - 36" & 38" Spacing
	67423B	Tube 4 x 4 x 70	For 8 Row - 30" Spacing
	64857B	Tube 4 x 4 x 90	For 8 Row - 36", 38", & 40" Spacing
	64858B	Tube 4 x 4 x 110	For 12 Row - 30", 36", 38", & 40" Spacing
33	65353B	Jackstand Assembly	Includes Items 34 through 39
34	86410B	Stand Weldment	
35	86409B	Holder Weldment w/Decal	Includes Item #36
36	97973	Decal, WARNING (Crush Hazard)	
37	96568	U-Bolt 1/2-13UNC	
38	9800	Locknut 1/2-13UNC	
39	97035	Hitch Pin 3/4" Dia. x 4 1/4	

Standard Folding Hydraulic Components - 8 Wide/12 Narrow

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



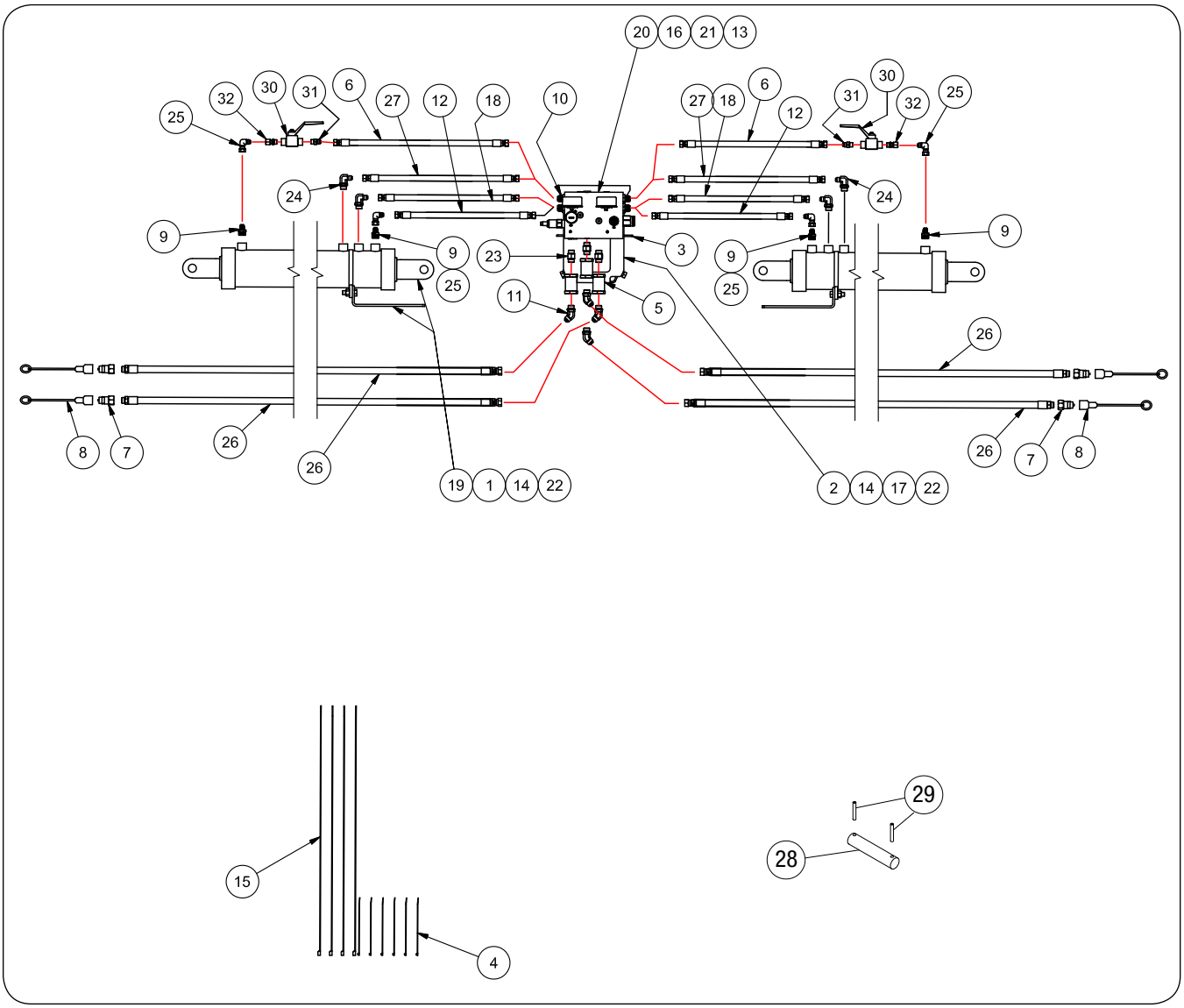
Standard Folding Hydraulic Components - 8 Wide/12 Narrow

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	69055B	Hydraulic Rigid Wing Fold Package	-	
1	68410B	Cylinder Mount Assembly (Includes items 2, 3, & 4)	2	
2	68408B	Cylinder Mount Weldment	1	
3	9390-187	Capscrew 1"-8UNC x 3" GR5	3	
4	9663	Top/Locknut 1"-8UNC	3	
5	68484B	Shim Weldment =Black=	4	
6	68815B	Shim 14Ga. x 3 x 4 1/2	4	
7	68816B	Shim 12Ga. x 3 x 4 1/2	4	
8	68817B	Shim 7Ga. x 3 x 4 1/2	4	
9	69056B	Cylinder Assembly (4 x 30) includes Cylinder Stop & Set Screw	2	
	73759B	Cylinder Stop	-	
	9399-057	Set Screw 1/4"-20UNC x 1/4" Cup Point	-	
10	9000106	Cable Tie 7 1/2"	4	
11	9002976	Hose 3/8" x 57 (9/16-18 JIC Female Swivel x 9/16-18 JIC Female Swivel)	2	
12	91383	Male Tip Coupling 3/4-16	2	
13	91511	Dust Cap/ISO Coupler	2	
14	9502793	Hose 3/8" x 28" (9/16-18 JIC Female Swivel x 9/16-18 JIC Female Swivel)	2	
15	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male (w/.060 Restrictor)	2	
16	9388-136	Carriage Bolt 5/8"-11UNC x 2 1/4" GR5	2	
17	9388-138	Carriage Bolt 5/8"-11UNC x 2 3/4" GR5	2	
18	94038	Cable Tie 32"	4	
19	9502772	Hose 3/8" x 72" (9/16-18 JIC Female Swivel x 3/4-16 O-Ring Male)	2	
20	9801	Top Locknut 5/8"-11UNC	4	
21	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	2	
22	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female Swivel Nut	2	
23	9875	Tee 9/16-18 JIC Male x 9/16-18 JIC Male x 9/16-18 JIC Male	2	
24	85631	Pin 1" Dia. x 4"	4	
25	91144-165	Spiral Pin 1/4" Dia. x 1 7/8"	8	
26	9501014	Ball Valve	2	
27	9001495	Adapter, 9/16-18 JIC Male x 9/16-18 O-Ring Male	2	
28	9002446	Adapter, 9/16-18 O-Ring Male x 9/16-18 JIC Female	2	

Flex Folding Hydraulic (Optional) - 8 Wide/12 Narrow

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



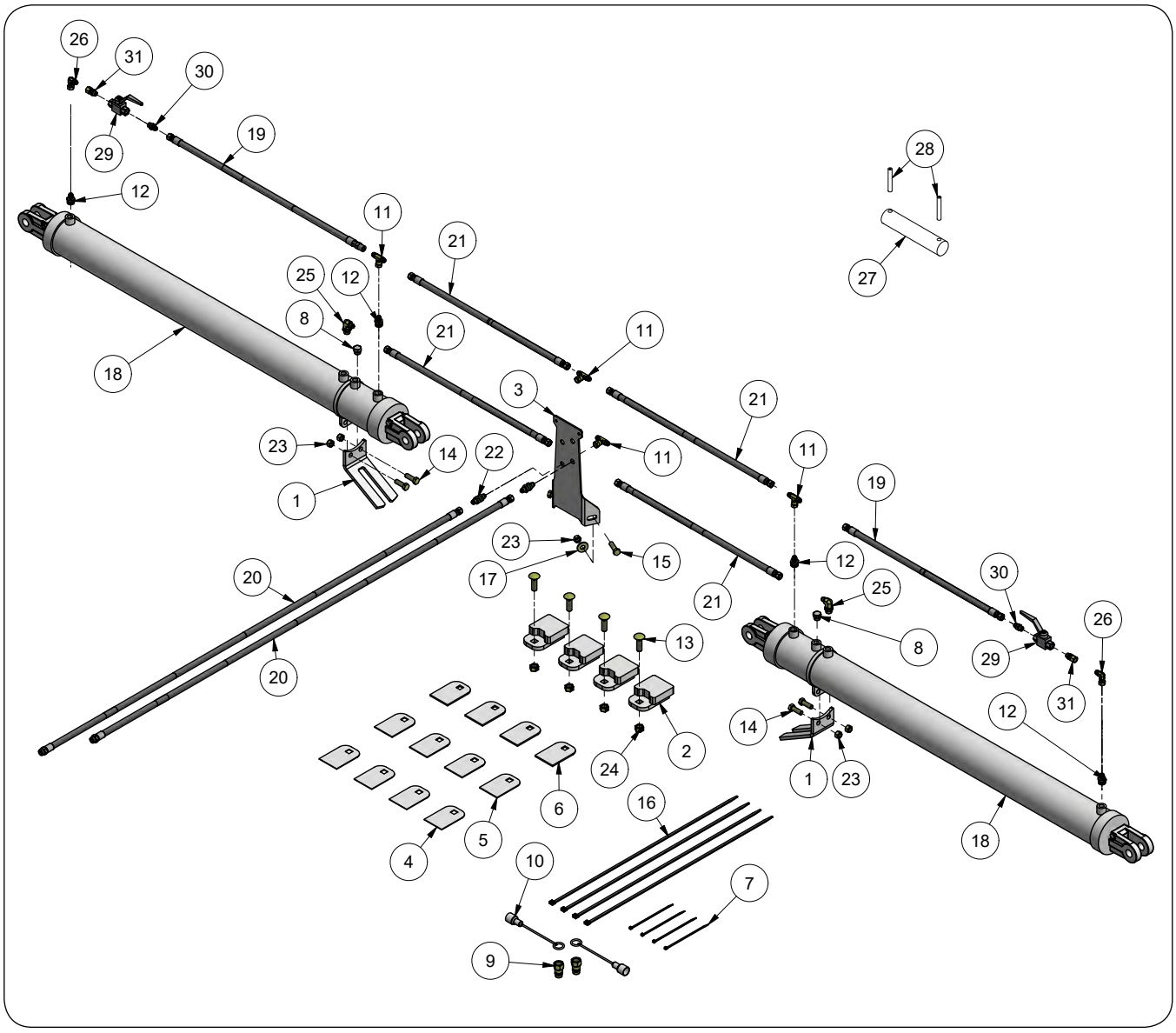
Flex Folding Hydraulic (Optional) - 8 Wide/12 Narrow

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	68669B	Hydraulic Flex Wing Fold Package	-	
1	68506B	Cylinder Anti-Rotational Plate	2	
2	68553B	Valve Mount Plate	1	
3	68693B	Support Bracket	1	
4	9000106	Cable Tie 7 1/2"	6	
5	9005403	120 Micron Hydraulic Filter	3	
6	9501700	Hydraulic Hose 3/8" Dia. x 48”	2	
7	91383	Male Tip Coupling	4	
8	91511	Dust Cap	4	
9	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male w/ .060 Restrictor	4	
10	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	8	
11	93586	45° Elbow 3/4-16 JIC Male x 3/4-16 O-Ring Male	4	
12	9501699	Hose 3/8" Dia. x 18”	2	
13	9390-055	Capscrew 3/8"-16UNC x 1" Gr5	4	
14	9390-101	Capscrew 1/2"-13UNC x 1 1/2" Gr5	6	
15	94038	Cable Tie 32"	4	
16	9404-021	Lock Washer 3/8"	4	
17	9405-088	Flat Washer 1/2" USS	2	
18	9503721	Hydraulic Hose 3/8" Dia. x 18”	2	
19	9501547	Hydraulic Cylinder 4 x 30 (Twin)	2	
20	9503620	Valve Assembly	1	
21	9501659	Hydraulic Reducer	2	
22	9800	Top Locknut 1/2"-13UNC	6	
23	98508	Adapter/Union	3	
24	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	4	
25	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female Swivel Nut	4	
26	98852	Hydraulic Hose 1/2” Dia. x 72” (3/4-16 JIC Female x 3/4-16 O-Ring Male)	4	
27	9503641	Hydraulic Hose 3/8" Dia. x 20” (9/16-18 JIC Female x 9/16-18 JIC Female)	2	
28	85631	Pin 1” Dia. x 4”	4	
29	91144-165	Spiral Pin 1/4” Dia. x 1 7/8”	8	
30	9501014	Ball Valve	2	
31	9001495	Adapter, 9/16-18 JIC Male x 9/16-18 O-Ring Male	2	
32	9002446	Adapter, 9/16-18 O-Ring Male x 9/16-18 JIC Female	2	

Hydraulics - Standard
12 Wide - Beginning with Serial #A65700217

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



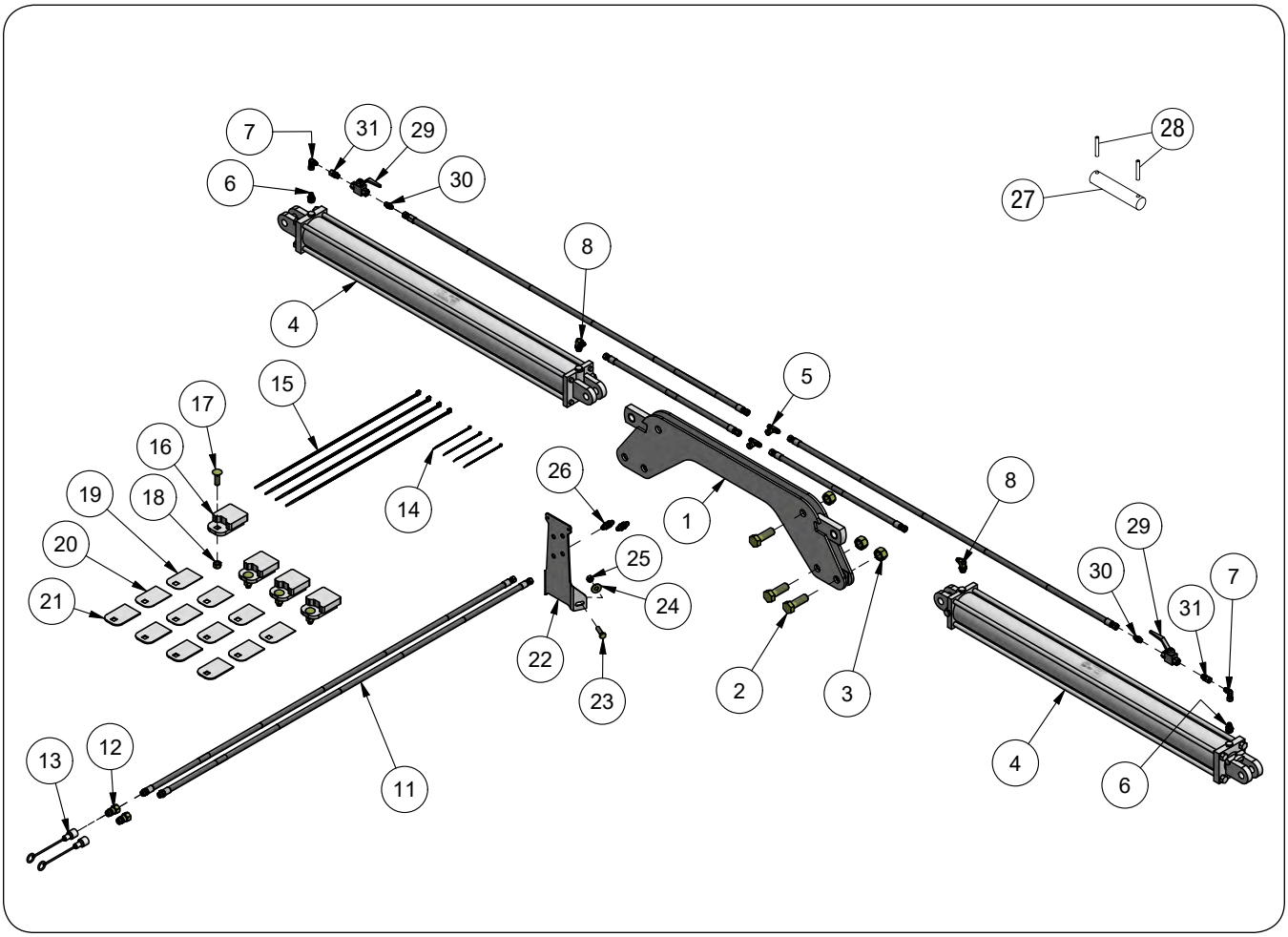
Hydraulics - Standard
12 Wide - Beginning with Serial #A65700217

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	68276B	Cylinder Anti-Rotational Plate	2	
2	68337B	Stop Block =BLACK=	4	
3	68521B	Mounting Plate =BLACK=	1	
4	68815B	Shim 14 GA.	4	
5	68816B	Shim 12 GA.	4	
6	68817B	Shim 7 GA.	4	
7	9000106	Cable Tie 6" Long	AR	
8	9003825	Breather Plug	2	
9	91383	Quick Disconnect	2	
10	91511	Dust Cap	2	
11	91525	Tee	4	
12	91608	Orifice Connector	2	
13	9388-135	Carriage Bolt 5/8"-11UNC x 2" Gr5	4	
14	9390-101	Capscrew 1/2"-13UNC x 1 1/2" Gr5	4	
15	9390-102	Capscrew 1/2"-13UNC x 1 3/4" Long	2	
16	94038	Cable Tie 32" Long	AR	
17	9405-088	Flat Washer 1/2"	2	
18	9501464	Hydraulic Cylinder 4 x 48 (Twin)	2	
19	9501677	Hydraulic Hose 3/8" Dia. x 54" (9/16-18 JIC Female x 9/16-18 JIC Female)	2	
20	9502772	Hydraulic Hose 3/8" Dia. x 72" (9/16-18 JIC Female x 3/4-16 O-Ring Male)	2	
21	9502793	Hydraulic Hose 3/8" Dia. x 28" (9/16-18 JIC Female x 9/16-18 JIC Female)	4	
22	95192	Bulkhead Union 9/16-18 JIC Male x 9/16-18 JIC Male (Threaded with Nut)	2	
23	9800	Locknut 1/2"-13UNC	6	
24	95905	Locknut/Center 5/8"-11UNC	4	
25	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Adj. Male	2	
26	9876	90° Swivel Elbow	2	
27	85631	Pin 1" Dia. x 4"	4	
28	91144-165	Spiral Pin 1/4" Dia. x 1 7/8"	8	
29	9501014	Ball Valve	2	
30	9001495	Adapter, 9/16-18 JIC Male x 9/16-18 O-Ring Male	2	
31	9002446	Adapter, 9/16-18 O-Ring Male x 9/16-18 JIC Female	2	

Hydraulics - Standard
12 Wide/16 Narrow - Prior to Serial #A65700217

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



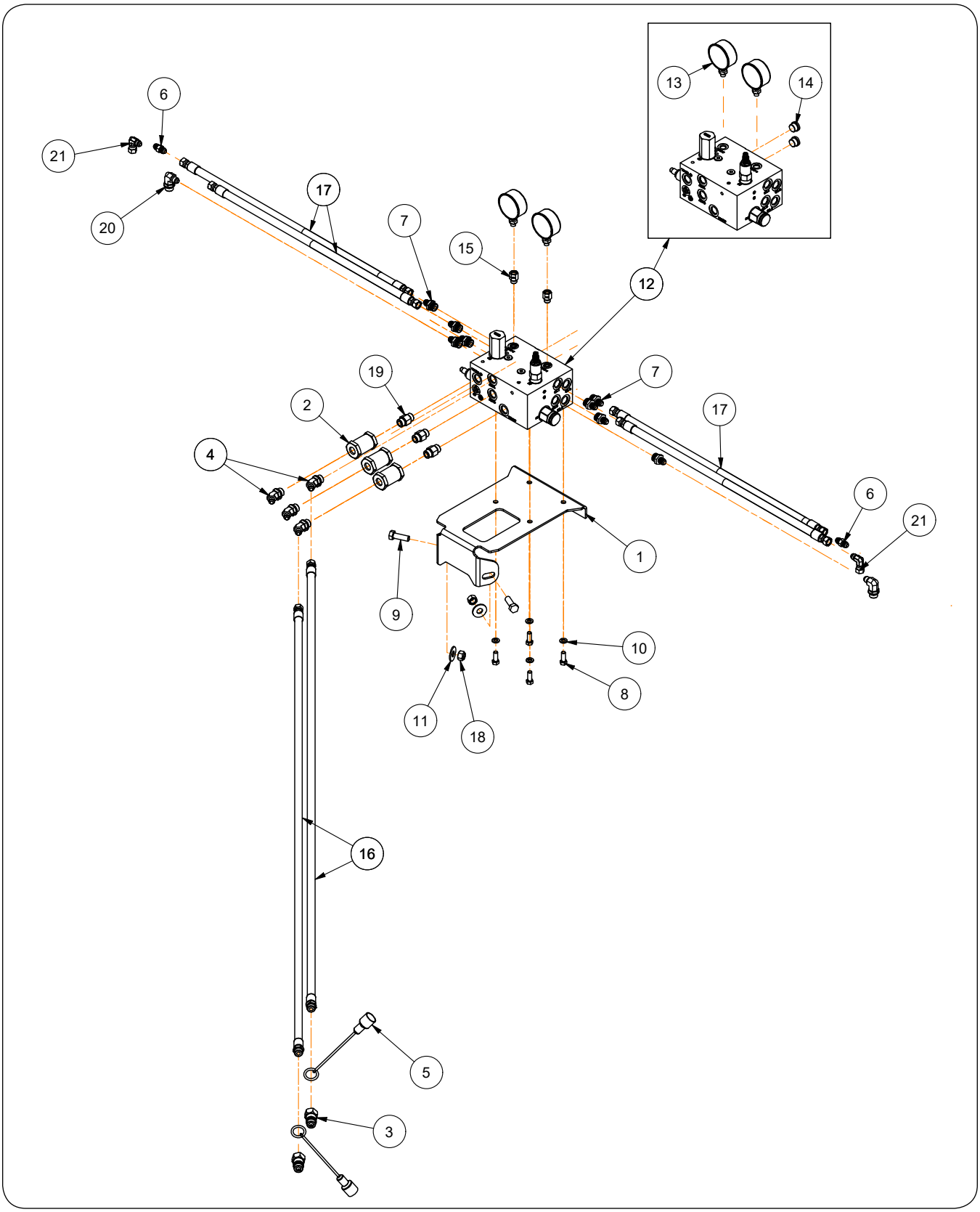
Hydraulics - Standard
12 Wide/16 Narrow - Prior to Serial #A65700217

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

ITEM	PART NO.	DESCRIPTION	QTY
	68798G	Hydraulic Rigid Wing Fold Package =GREEN=	-
	68798R	Hydraulic Rigid Wing Fold Package =RED=	
1	68399G	Cylinder Mount Weldment =GREEN=	1
	68399R	Cylinder Mount Weldment =RED=	
2	9390-187	Capscrew 1"-8UNC x 3" Gr5	6
3	9663	Locknut/Top 1"-8UNC	6
4	68533B	Hydraulic Cylinder 4 x 48	2
	9399-057	Set Screw 1/4"-20UNC x 1/4"	-
	95407	Seal Kit for 4 x 48 Cylinder	-
5	91525	Tee	2
6	91608	Orifice Connector	2
7	9876	90° Swivel Elbow	2
8	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Adj. Male	2
9	9501680	Hydraulic Hose 3/8" x 26"	2
10	9501685	Hydraulic Hose 3/8" x 80"	2
11	96975	Hydraulic Hose 3/8" x 72"	2
12	91383	Quick Disconnect	2
13	91511	Dust Cap	2
14	9000106	Cable Tie 6" Long	A/R
15	94038	Cable Tie 32" Long	A/R
16	68337B	Shim Weldment =BLACK=	4
17	9388-135	Carriage Bolt 5/8"-11UNC x 2" Gr5	4
18	9801	Locknut/Top 5/8"-11UNC	4
19	68815B	Shim 14 GA.	4
20	68816B	Shim 12 GA.	4
21	68817B	Shim 7 GA.	4
22	68521B	Mounting Plate =BLACK=	1
23	9390-102	Capscrew 1/2-13 x 1 3/4" Long	2
24	9405-088	Flat Washer 1/2"	2
25	9800	Locknut 1/2-13	2
26	95192	Bulkhead Union 9/16-18 JIC Male x 9/16-18 JIC Male (Threaded with Nut)	2
27	85631	Pin 1" Dia. x 4"	4
28	91144-165	Spiral Pin 1/4" Dia. x 1 7/8"	8
29	9501014	Ball Valve	2
30	9001495	Adapter, 9/16-18 JIC Male x 9/16-18 O-Ring Male	2
31	9002446	Adapter, 9/16-18 O-Ring Male x 9/16-18 JIC Female	2

Flex Folding Hydraulic Kit (Optional)
12 Wide Beginning with Serial Number A65700217

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



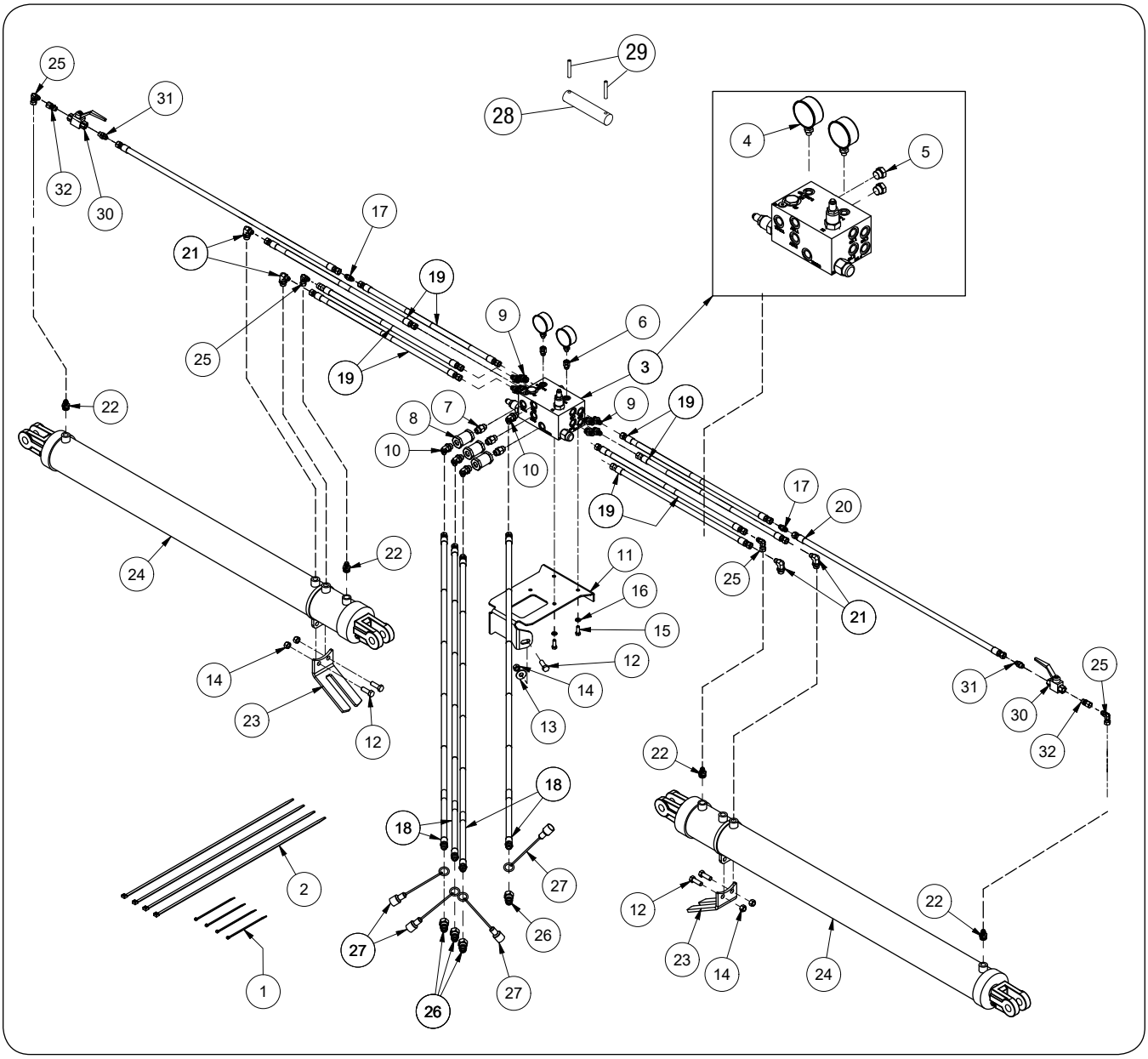
Flex Folding Hydraulic Kit (Optional)
12 Wide Beginning with Serial Number A65700217

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	68553B	Valve Mount Plate	1	
2	9005403	120 Micron Hydraulic Filter	3	
3	91383	Male Tip Coupling	2	
4	91508	45° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	4	
5	91511	Dust Cap	2	
6	92295	Adpater 9/16-18 JIC Male x 9/16-18 JIC Male	2	
7	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	8	
8	9390-055	Capscrew 3/8"-16UNC x 1" Gr5	4	
9	9390-101	Capscrew 1/2"-13UNC x 1 1/2" Gr5	2	
10	9404-021	Lock Washer 3/8"	4	
11	9405-088	Flat Washer 1/2" USS	2	
12	9503620	Valve Assembly	1	
13	9500489	Pressure Gauge	2	
14	98048	Plug	2	
15	9501659	Hydraulic Reducer	2	
16	9502772	Hydraulic Hose 3/8" Dia. x 72"	2	
17	9502793	Hydraulic Hose 3/8" Dia. x 28"	4	
18	9800	Top Locknut 1/2"-13UNC	2	
19	98508	Adapter/Union 3/4"-16 O-Ring Male x 3/4"-16 O-Ring Male	3	
20	9874	90° Elbow 9/16"-18 JIC Male x 3/4"-16 O-Ring Male	2	
21	9876	90° Elbow 9/16"-18 JIC Male x 9/16"-18 JIC Female	2	

Flex Folding Hydraulic Kit (Optional)
12 Wide Prior to Serial Number A65700217

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



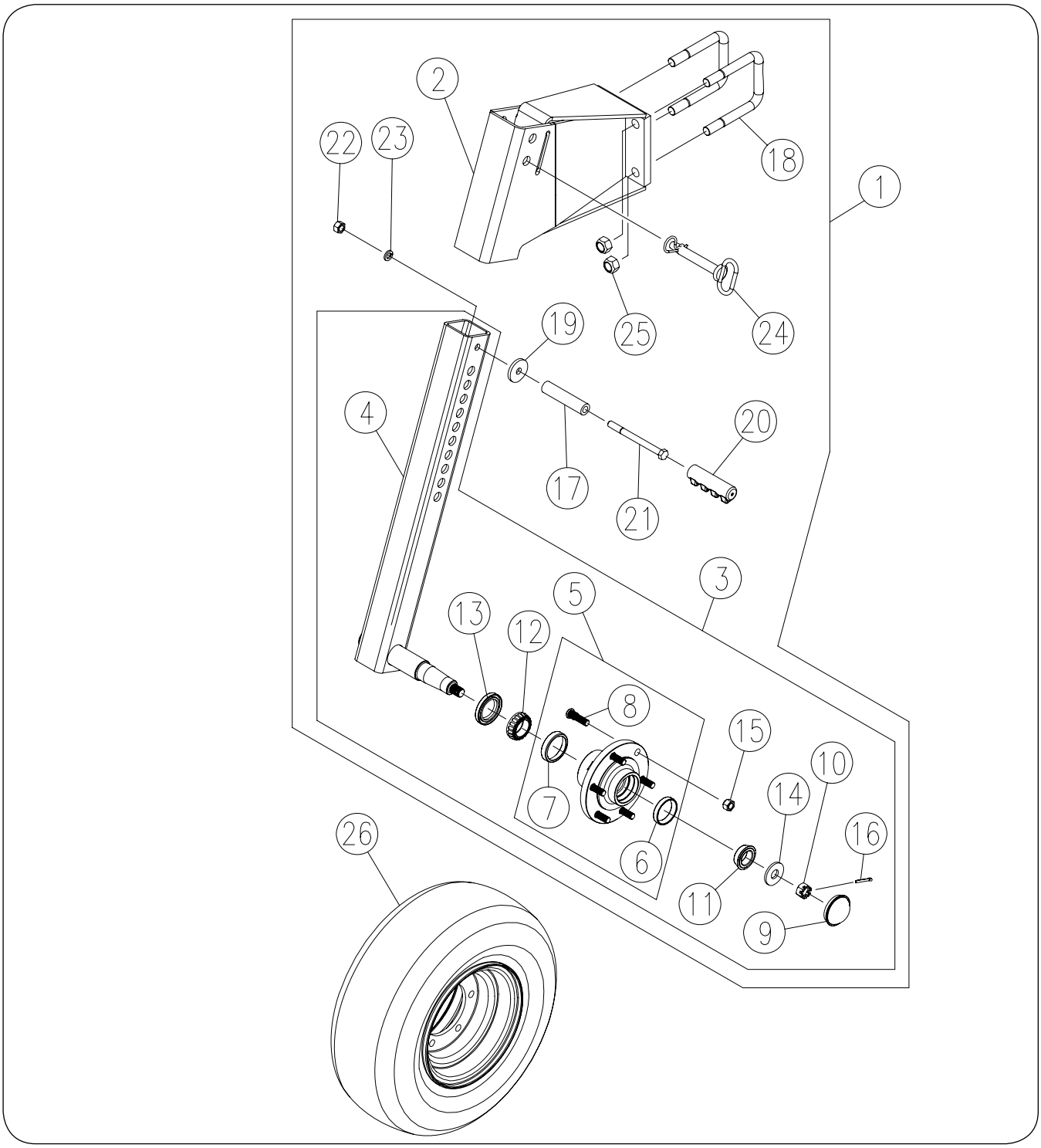
Flex Folding Hydraulic Kit (Optional)
12 Wide Prior to Serial Number A65700217

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9000106	Cable Tie 7 1/2"	4	
2	94038	Cable Tie 32"	4	
3	9503620	Valve Assembly	1	
4	9500489	Pressure Gauge	2	
5	98048	Plug	2	
6	9501659	Hydraulic Reducer	2	
7	98508	Adapter/Union	3	
8	9005403	120 Micron Hydraulic Filter	3	
9	92927	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male	8	
10	91508	45° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	4	
11	68553B	Valve Mount Plate	1	
12	9390-101	Capscrew 1/2"-13UNC x 1 1/2" Gr5	6	
13	9405-088	Flat Washer 1/2" USS	2	
14	9800	Top Locknut 1/2"-13UNC	6	
15	9390-055	Capscrew 3/8"-16UNC x 1" Gr5	4	
16	9404-021	Lock Washer 3/8"	4	
17	92295	Adpater 9/16-18 JIC Male x 9/16-18 JIC Male	2	
18	9502772	Hydraulic Hose 3/8" Dia. x 72”	4	
19	9502793	Hydraulic Hose 3/8" Dia. x 28”	8	
20	9501677	Hydraulic Hose 3/8" Dia. x 54”	2	
21	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring Male	4	
22	91608	Adapter 9/16-18 JIC Male x 3/4-16 O-Ring Male w/ .060 Restrictor	4	
23	68276B	Cylinder Anti-Rotational Plate	2	
24	9501464	Hydraulic Cylinder 4 x 48 (Twin)	2	
25	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female Swivel Nut	4	
26	91383	Male Tip Coupling	4	
27	91511	Dust Cap	4	
28	85631	Pin 1” Dia. x 4”	4	
29	91144-165	Spiral Pin 1/4” Dia. x 1 7/8”	8	
30	9501014	Ball Valve	2	
31	9001495	Adapter, 9/16-18 JIC Male x 9/16-18 O-Ring Male	2	
32	9002446	Adapter, 9/16-18 O-Ring Male x 9/16-18 JIC Female	2	

Bedded Disc Gauge Wheel Kit (Pair) #65486B

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



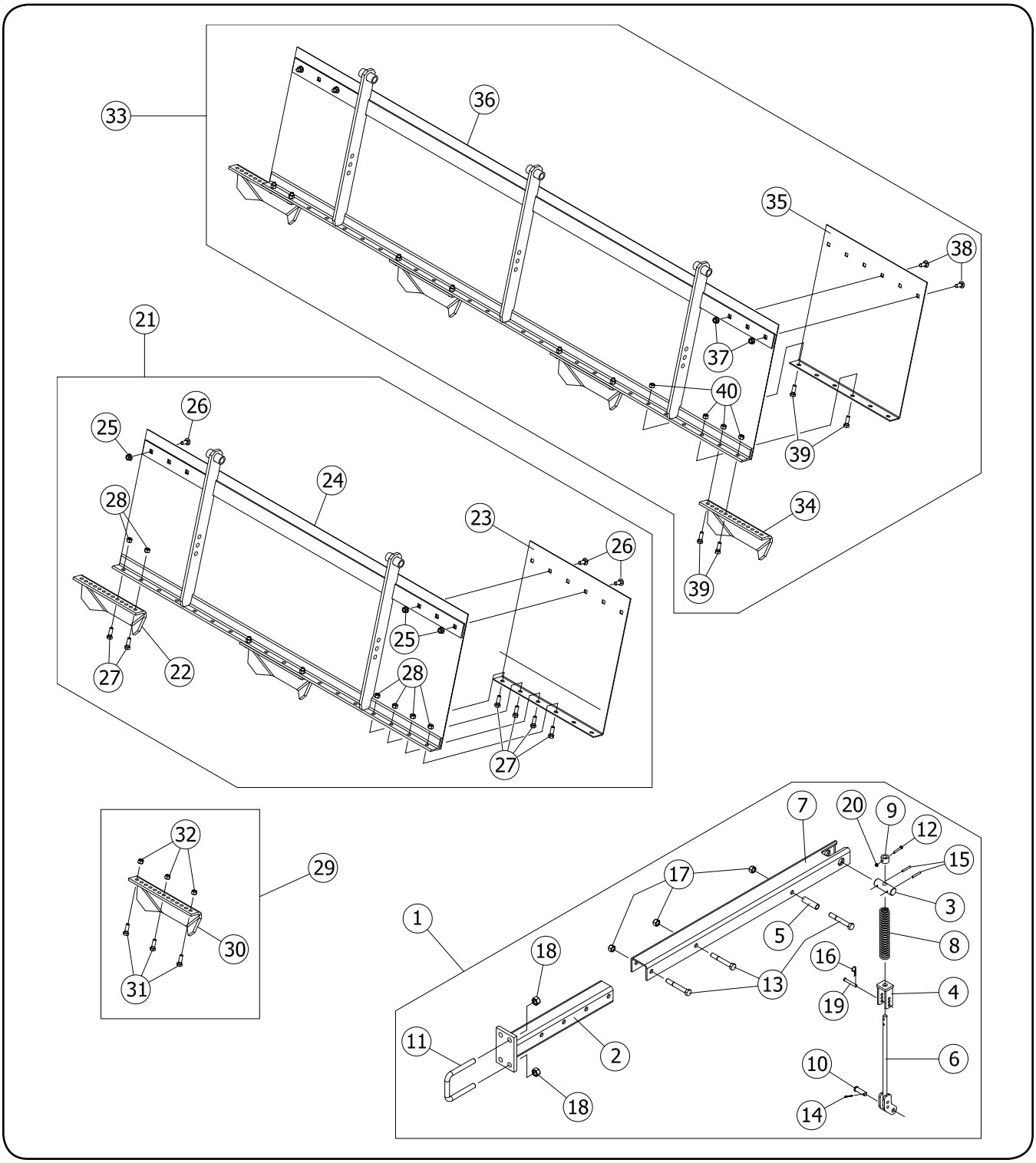
Bedded Disc Gauge Wheel Kit (Pair) #65486B

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

ITEM	PART NUMBER	DESCRIPTION
	65486B	Bedded Disc Gauge Wheel Kit (PAIR)
1	65184B	Gauge Wheel RH Assembly
1	65559B	Gauge Wheel LH Assembly
2	65177B	Bracket Weldment
3	65183B	Arm Sub Assembly
4	65182B	Tube Weldment
5	9768B	Hub 6 Bolt Sub Assembly w/Cups & Studs
6	9345	Bearing Outer Cup #LM67010
7	9346	Bearing Inner Cup #LM29710
8	9347	Stud Bolt 1/2-20UNF x 1 7/8
9	9162B	Hub Cap
10	9163	Slotted Nut 3/4-16UNF
11	9165	Bearing Outer Cone #LM67048
12	9166	Bearing Inner Cone #LM29749
13	9168	Seal
14	9234	Flat Washer 13/16
15	9348	Beveled Nut 1/2-20UNF
16	9391-044	Cotter Pin 3/16" Dia. x 1 1/2
17	65359B	Tube 1 OD x .562 ID x 4 1/2
18	900742	U-Bolt 3/4-10UNC (Grade 5)
19	91069PL	Flat Washer 9/16
20	93475	Handle Grip 1" Dia. x 4 1/2
21	9390-115	Capscrew 1/2-13UNC x 6 (Grade 5)
22	9394-010	Hex Nut 1/2-13UNC (Grade 5)
23	9404-025	Lock Washer 1/2
24	97199	Hitch Pin Asy 3/4" Dia. w/ Hairpin
25	9802	Locknut 3/4-10UNC (Grade 5)
26	95567	Mounted Tire & Wheel W6-610 20.5/8-10 (F-Range)

Bed Shaper Attachment (Optional)

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



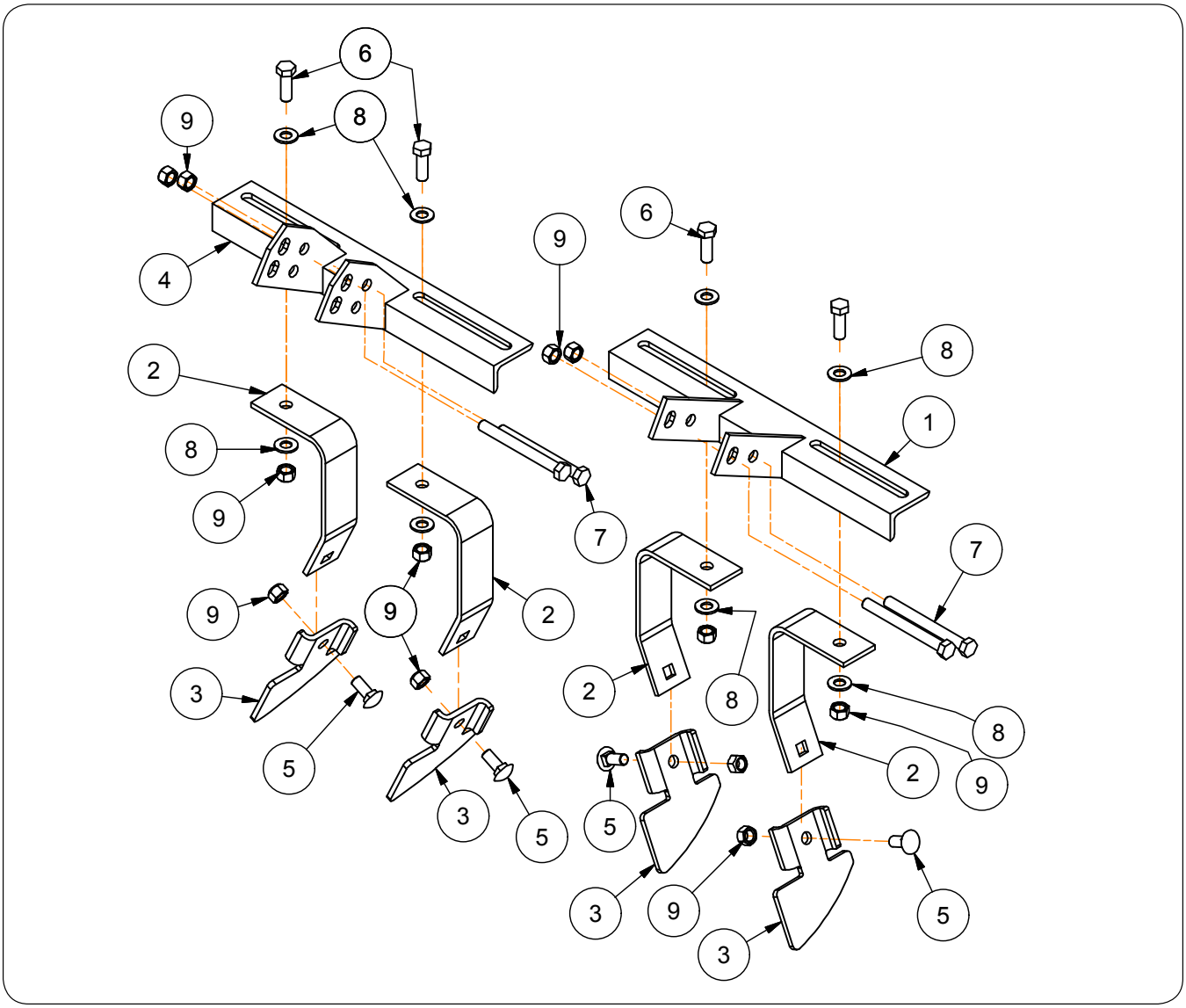
Bed Shaper Attachment (Optional)

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

ITEM	PART NO.	DESCRIPTION	NOTES
	67525B	Bed Shaper Attachment Kit	6 Shank 30" Spacing (includes items 1, 29, 41)
	65786B	Bed Shaper Attachment Kit	6 Shank 36/38" Spacing (includes items 1,21,29)
	67415B	Bed Shaper Attachment Kit	8 Shank 30" Spacing (includes items 1, 29, 41)
	65787B	Bed Shaper Attachment Kit	8 Shank 36/38/40" Spacing (includes items 1,21,29)
	67414B	Bed Shaper Attachment Kit	12 Shank 30" Spacing (Includes items 1, 29, 41)
	65788B	Bed Shaper Attachment Kit	12 Shank 36/38/40" Spacing (includes items 1, 21, 29, 33)
1	65789B	Mounting Arm Bundle	
2	65757B	Arm Weldment	
3	65760	Trunnion 1 1/4" Dia. x 3 3/4	
4	65766B	Adjuster Plate Weldment	
5	65770	Tube/Bushing	
6	65772B	Spring Rod Weldment	
7	65773B	Arm Weldment	
8	65780B	Spring/Compression 9 1/4" Long	
9	65781	Stop Collar 1 1/4" Dia.	
10	900340	Clevis Pin 5/8" Dia. x 2 1/2	
11	900742	U-Bolt 3/4-10UNC	Grade 5
12	9390-008	Capscrew 1/4-20UNC x 1 3/4	Grade 5
13	9390-133	Capscrew 5/8-11UNC x 4 1/2	Grade 5
14	9391-025	Cotter Pin 1/8" Dia. x 1 1/2	
15	9392-138	Roll Pin 1/4" Dia. x 1 3/4	
16	9514	Hairpin Cotter .092" Dia. x 1 7/8	
17	9801	Locknut 5/8-11UNC	
18	9802	Locknut 3/4-10UNC	
19	9828	Clevis Pin 3/8" Dia. x 2 1/2	
20	9936	Locknut 1/4-20UNC	
21	65782B	Bedder Panel Assembly 72"	
22	65759B	Scraper	
23	65761B	Panel 22 1/2 x 26 1/8	
24	65774B	Panel Weldment 72"	
25	91267	Nut/Flange 1/2-13UNC	
26	9388-103	Carriage Bolt 1/2-13UNC x 1 1/4	Grade 5
27	9390-101	Capscrew 1/2-13UNC x 1 1/2	Grade 5
28	9800	Locknut 1/2-13UNC	
29	65783B	Scraper Assembly	
30	65759B	Scraper	
31	9390-101	Capscrew 1/2-13UNC x 1 1/2	Grade 5
32	9800	Locknut 1/2-13UNC	
33	65784B	Bedder Panel Assembly 108"	
34	65759B	Scraper	
35	65761B	Panel 22 1/2 x 26 1/8	
36	65779B	Panel Weldment 108"	
37	91267	Nut/Flange 1/2-13UNC	
38	9388-103	Carriage Bolt 1/2-13UNC x 1 1/4	Grade 5
39	9390-101	Capscrew 1/2-13UNC x 1 1/2	Grade 5
40	9800	Locknut 1/2-13UNC	
41	67267B	Bedder Panel Assembly 60"	
42	65759B	Scraper	
43	67272B	Plate 2 1/2 x 14 1/4	
44	67266	Panel Weldment 60"	
45	91267	Nut/Flange 1/2-13UNC	
46	9388-103	Carriage Bolt 1/2-13UNC x 1 1/4	Grade 5
47	9390-101	Capscrew 1/2-13UNC x 1 1/2	Grade 5
48	9800	Locknut 1/2-13UNC	

Scraper Kit Components (Optional)

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



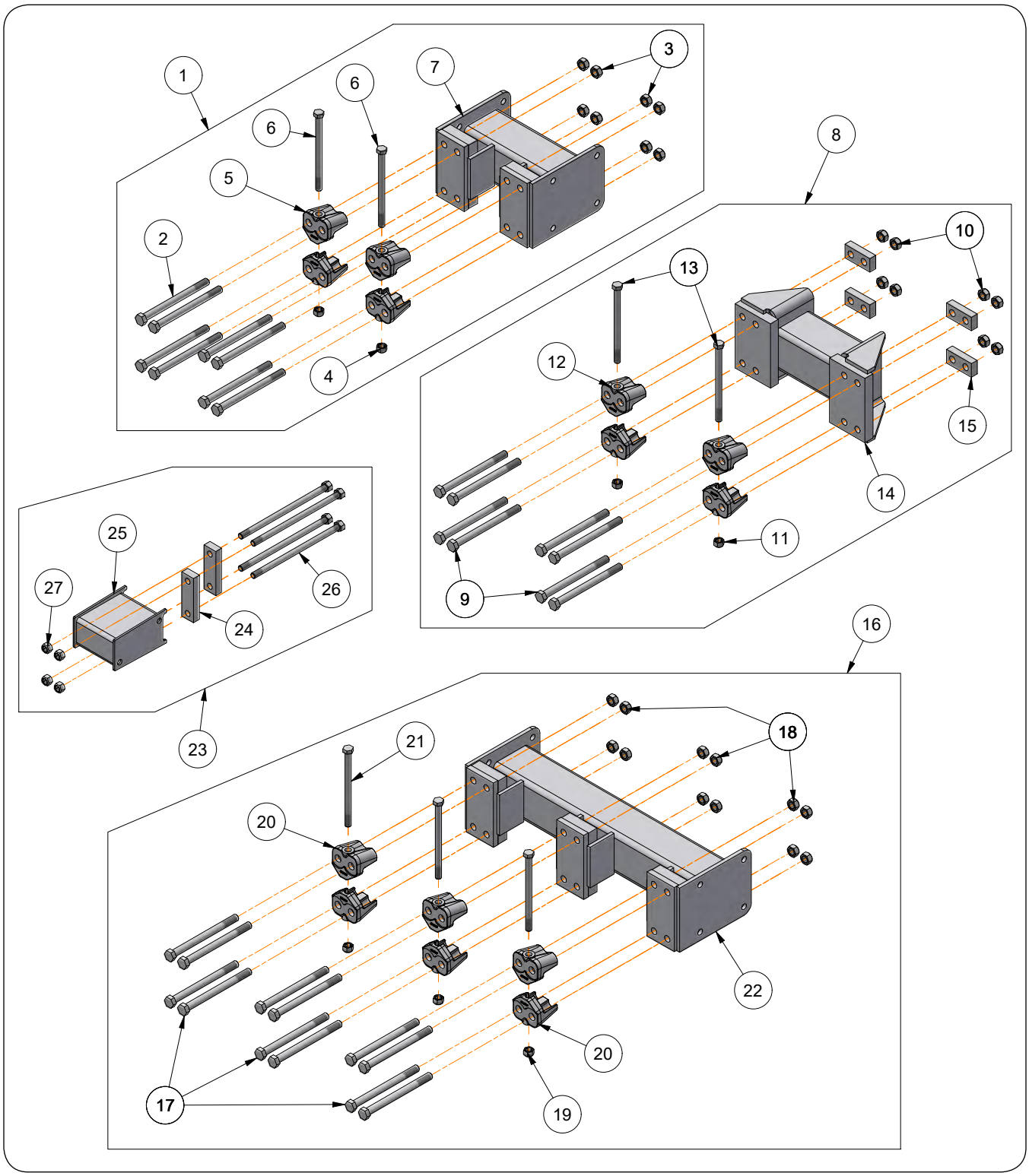
Scraper Kit Components (Optional)

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

ITEM	PART NUMBER	DESCRIPTION	NOTES
	67506B	Scraper Kit (6 Shank; 30")	
	65487B	Scraper Kit (6 Shank; 36" & 38")	
	67504B	Scraper Kit (8 Shank; 30")	
	65488B	Scraper Kit (8 Shank; 36", 38", & 40")	
	67505B	Scraper Kit (12 Shank; 30")	
	65798B	Scraper Kit (12 Row; 36", 38", & 40")	
1	66911B	Scraper Mount Weldment	
2	65193B	Scraper Arm	
3	65473B	Scraper	
4	66911B	Scraper Mount Weldment	
5	9388-103	Carriage Bolt 1/2-13UNC x 1 1/4 (Grade 5)	
6	9390-101	Capscrew 1/2-13UNC x 1 1/2 (Grade 5)	
7	9390-113	Capscrew 1/2-13UNC x 5 (Grade 5)	
8	9405-086	Flat Washer 1/2	
9	9800	Locknut 1/2-13UNC	

Specialty Shank Mounting Brackets

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



Specialty Shank Mounting Brackets

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

ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
1	68271B	Shank Extension 10 5/8" x 16 1/2" Assembly	1	Attach Near Bolted Frame Splice Includes Items 2-7
2	9390-459	Capscrew, 7/8"-9UNC x 11" G5	8	
3	98420	Lock Nut/Top, 7/8"-9UNC	8	
4	9802	Lock Nut/Top, 3/4"-10UNC	2	
5	67072B	Clamp-Top	4	
6	9390-452	Capscrew, 3/4"-10UNC x 11" G5	2	
7	68268B	Shank Extension Weldment	1	
8	68275B	Shank Extension 7 3/8" x 22 1/8" Assembly	1	Attach Near Welded Frame Splice Includes Items 9-15
9	9390-459	Capscrew, 7/8"-9UNC x 11" G5	8	
10	98420	Lock Nut/Top, 7/8"-9UNC	8	
11	9802	Lock Nut/Top, 3/4"-10UNC	2	
12	67072B	Clamp-Top	4	
13	9390-452	Capscrew, 3/4"-10UNC x 11" G5	2	
14	68273B	Shank Extension Weldment	1	
15	67076B	Bar/Block 1" x 2" x 4 1/4"	4	
16	68359B	Shank Extension 10 5/8" x 36 5/8" Assembly	1	Includes Items 17-22
17	9390-459	Capscrew, 7/8"-9UNC x 11" G5	12	
18	98420	Lock Nut/Top, 7/8"-9UNC	12	
19	9802	Lock Nut/Top, 3/4"-10UNC	3	
20	67072B	Clamp-Top	6	
21	9390-452	Capscrew, 3/4"-10UNC x 11" G5	3	
22	68360B	Shank Extension Weldment	1	
23	69671B	Bedding Disk 8" Setback Kit	1	Includes Items 24-27
24	66283B	Back Plate	2	
25	69573B	Tube Weldment	1	
26	69718	Rod Weldment	4	
27	9802	Lock Nut/Top, 3/4"-10UNC	4	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