



# OPERATOR AND PARTS MANUAL

## Offset Disc

8550 Model



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**Manufacturer’s statement:** for technical reasons Buhler Industries Inc. reserves the right to modify machinery design and specifications provided herein without any preliminary notice. Information provided herein is of descriptive nature. Performance quality may depend on soil fertility, applied agricultural techniques, weather conditions and other factors.

## Introduction

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Keep this manual handy for frequent reference. All new operators or owners must review the manual before using the equipment and at least annually thereafter. Contact your Allied Dealer if you need assistance, information, or additional copies of the manual. Visit our website at [www.buhlerindustries.com/](http://www.buhlerindustries.com/) for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as seen facing in the direction of travel of the implement.

# Safety

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## Safety Instructions

Remember, YOU are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that everyone operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

The alert symbol is used throughout this manual. It indicates attention is required and identifies hazards. Follow the recommended precautions.



The safety alert symbol means...  
**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



### CAUTION

The caution symbol indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



### WARNING

The Warning Symbol indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



### DANGER

The Danger Symbol indicates an imminently hazardous situation that, if not avoided will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

## General Safety

- Have a first-aid kit available for use and know how to use it. Have a fire extinguisher available, stored in a highly visible location, and know how to use it.
- Wear appropriate protective gear. This list may include but is not limited to:
  - hard hat
  - protective shoes with slip resistant soles
  - protective glasses or goggles
  - heavy gloves
  - wet weather gear
  - hearing protection
  - respirator or filter mask
- Read and understand the Operator's Manual and all safety signs before operating, servicing, adjusting, repairing, or unplugging the equipment.
- Only trained competent person(s) shall operate the unit. An untrained operator is not qualified to operate the machine.
- Have a first-aid kit available for use should the need arise and know how to use it.
- Do not allow riders.
- Have a fire extinguisher available for use should the need arise and know how to use it.
- Lower machine to the ground, place all tractor controls in neutral, stop engine, turn monitor off, set park brake and remove ignition key, before servicing, adjusting, repairing this implement.
- Review safety related items with all personnel annually.
- Owners must give operating instructions to operators or employees before allowing them to operate the unit.
- The most important safety device on this equipment is a SAFE operator. It is the operator's responsibility to read and understand all safety and operating instructions in the manual and to follow these. All accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think safety and work safe!

## Assembly Safety

- Read and understand the Operator's Manual and all safety signs before operating, maintaining or adjusting the unit.
- Use adequate manpower or hoist to lift the heavy components into place. Attempting to lift heavy components by yourself could cause serious injury.
- Be sure all bolts and hydraulic fittings are tight, and all cotter pins are installed in the slotted nuts and pins.
- Support the main and wing frames securely before assembling the components. Inadequate

support may result in the heavy components falling and causing serious injury to you or person(s) nearby.

- Be sure all wheel bolts are checked for tightness during initial transport or when first discing. Loose wheel bolts may result in the wheel falling off, causing serious damage to the disc and may cause serious injury to the operator or person(s) nearby.
- Hydraulic oil escaping under pressure has sufficient force to cause serious injury. Relieve pressure in all hydraulic components before disconnecting any hydraulic components. Before applying pressure to hydraulic system, be sure all connections are tight and components are not damaged. If injured by escaping hydraulic fluid, see a medical doctor immediately.
- When attaching gang assemblies, wear protective gloves to prevent injury from cutting edges of blades.
- Before applying pressure to the hydraulic system, be sure all connections are tight and the components are not damaged.
- If hydraulic cylinder shaft is unpinned and cycled to fill the cylinder with oil, it can be seriously damaged if clevis of shaft strikes rockshaft arm.
- When assembling gangs be sure adequate support is placed under main frame and wing frames. Do not use lock out valves as safety device to prevent frame from falling. If any hydraulic component failed, disc could drop causing serious injury or death to person(s) nearby.

## Maintenance Safety

- Review the Operator's Manual and all safety items before working with maintaining or operating this disc.
- Lower machine to the ground, place all tractor controls in neutral, stop engine, turn monitor off, set park brake and remove ignition key before servicing, adjusting, or repairing disc.
- If disc must be serviced in raised position, place blocks under frame. If the hydraulic system failed or if the hydraulic lever was accidentally operated, the disc could drop suddenly.
- Follow good shop practices:
  - Keep service area clean and dry.
  - Be sure electrical outlets and tools are properly grounded.
  - Use adequate light for the job at hand.
- Before applying pressure to a hydraulic system, make sure all components are tight and hoses and couplings are in good condition.
- Relieve pressure from hydraulic cylinder before servicing or disconnecting from tractor.
- Always wear safety glasses or goggles and gloves when working on hydraulic system.
- Clear the area of bystanders when carrying out any maintenance and repairs or making any adjustments.
- Place stands or blocks under the frame before working beneath the machine or when changing tires.
- Use only tools, jacks and hoists of sufficient capacity for the job.
- When inflating tires use a clip-on chuck and air hose extension which will allow operator to stand clear of the tire and wheel assembly. Do not stand in front of or over tire when inflating. Exploding tire and wheel parts can cause serious injury or death.



## Hydraulic Safety

- Always place all tractor hydraulic controls in neutral before dismounting.
- Make sure that all components in the hydraulic system are kept in good condition and are clean.
- Replace any worn, cut, exposed, flattened or crimped hoses.
- Do not attempt any makeshift repairs to the hydraulic lines, fittings or hoses by using tape, clamps or cements. The hydraulic system operates under extremely high pressure. Such repairs will fail suddenly and create a hazardous and unsafe condition.
- Wear proper hand and eye protection when searching for a high pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.
- If injured by escaping hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid penetrating the skin surface.
- Before applying pressure to the system, make sure all components are tight and that hoses and couplings are in good condition.

## Transport Safety

- Read and understand all the information in the Operator's Manual regarding procedures and SAFETY before operating this disc in the field and/or on the road.
- Check with local authorities regarding transporting this implement on public roads.
- Always transport at a safe speed. Use caution when turning corners or meeting traffic.
- Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.
- Be sure all amber and red lights are working to safeguard against rear end collisions. Daybreak and dusk are particularly dangerous.
- Be sure that the disc is securely attached to the tractor. Always use a safety chain between the machine and the tractor.
- Do not exceed 20 mph (32 km/h). Reduce speed on rough roads and surfaces.
- Always use hazard warning flashers on tractor when transporting unless prohibited by law.

## Operation Safety

- Read and understand the Operator's Manual and all safety signs before using this disc.
- Lower machine to the ground, place all tractor controls in neutral, stop engine, set park brake and remove ignition key before servicing, adjusting or repairing implement.
- Do not allow riders on the disc or tractor during operation or transporting.
- Clear the area of all bystanders, before moving tractor and disc.
- Clean reflectors, SMV and lights before transporting.
- Attach disc securely to tractor using a hardened pin and a safety chain.
- Do not exceed a safe travel speed.
- Use hazard flasher on tractor and disc when transporting.
- Stay away from overhead power lines when folding or unfolding wings and during transport.
- Before applying pressure to the hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
- Review safety instructions annually.

## Tire Safety

- Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death.
- Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
- Have a qualified tire dealer perform required tire maintenance.

## Safety Decals

- Keep safety decals clean and legible at all time.
- Replace safety decals that are missing or have become illegible.

## Storage Safety

- Store unit in an area away from human activity.
- Do not permit children to play on or around parked implement.

## Installation

- To install safety signs, ensure the installation area is clean and dry. Decide on the exact position before you remove the backing paper. Remove the smallest portion of the split backing paper and align over the specified area. Carefully press in place.
- Slowly peel back the remaining paper and smooth the remaining portion in place. Small air pockets can be pierced with a pin and smoothed out.
- Replace safety signs immediately should they become damaged, torn or illegible. Obtain replacements from your authorized dealer using the part numbers shown.

## Specifications

Model #	Approx. Cutting Width	# of Blades	Spacing	# of Wheels	# of Gang Bearings
8550-17B	9-1/2' (2.9m)	17	14" (356mm)	4	6
8550-19B	10-1/2' (3.2m)	19	14" (356mm)	4	6
8550-21B	11-1/2' (3.5m)	21	14" (356mm)	4	8
8550-23B	12-1/2' (3.8m)	23	14" (356mm)	4	8
8550-25B	14' (4.3m)	25	14" (356mm)	4	10
8550-27B	15-1/2' (4.7m)	27	14" (356mm)	4	10

\*Optional

Tire Size

- 12.5L x 15 fl - Load Range 'F'

Tire Inflation

- 85 psi (586 kpa)



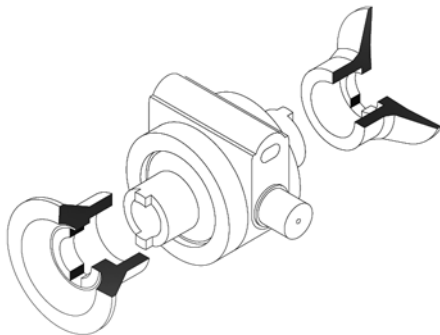
### CAUTION

When inflating tires use a clip-on chuck and hose extension which will allow operator to stand clear of tire and wheel assembly. Do not stand in front of or over tire when inflating. Exploding tire and wheel parts can cause serious injury or death.

Front and rear gang angles - 22 or 25 degrees

Bolt torques (dry)

- Gang bolts - 1-15/16" (49mm) diameter 3800 ft lbs (5152 N.m)
- Gang beam bolts - 1-1/2" (38.1mm) diameter 1940 ft lbs (2630 N.m)
- Wheel bolts - 9/16" (14.2mm) diameter 150 ft lbs (203.0 N.m)
- Bearing hanger u-bolts - 7/8" (22mm) diameter 430 ft lbs (583.0 N.m)



**T2-215 GREASEABLE BEARING**

## Assembly Instructions

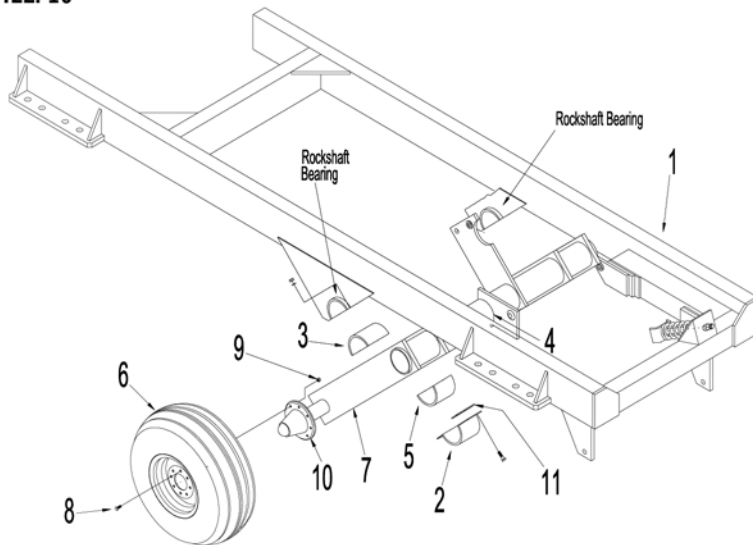
1. See ILL. 16. Raise frame, arrow 1, approximately 30" from ground and block securely.



### **CAUTION**

Support main frame securely before assembling components. Heavy frame could cause serious injury if it fell.

ILL. 16



2. See ILL. 16. Clean and lubricate bearing surface of rockshaft. Then remove rockshaft bearing cap, arrow 2, from each rockshaft bearing. Next, place bearing liner, arrow 3, in each rockshaft bearing and liner with 45 degree grease fitting then install rockshaft, arrow 4, in rockshaft bearings. Place one bearing liner with straight grease fitting, arrow 5, over rockshaft beneath each rockshaft bearing. Then secure each rockshaft to each bearing with one (1) bearing cap, arrow 2. Secure each bearing cap with (2) 3/4" x 2-1/2" (19 x 63mm) hex bolt c/w nuts.

**NOTE:** It will be necessary to install shims between rockshaft bearing caps, arrow 11, and rockshaft bearing to allow rockshaft to turn freely in bearing when bearing cap bolts are tightened. It is important to install the correct number of shims, rockshaft must be snug but free to turn.



### **CAUTION**

Use an aligning punch to line up holes. Keep fingers out of these holes. Any sudden movement of heavy components will severely injure or sever your fingers.

3. See ILL. 16. Install one (1) eight bolt wheel and 12.5L x 15 FI tire assembly, arrow 6, on each of the four (4) hub assemblies, arrow 7. Secure each wheel with eight (8) 9/16" x 1-11/16" (14 x 42mm) wheel bolts, arrow 8. Tighten wheel bolts to 150 ft lbs (203.0 N.m.) Lock each wheel bolt by installing one (1) 9/16" (14mm) N.F. hex nut, arrow 9, on thread that extends past hub. Tighten nuts.

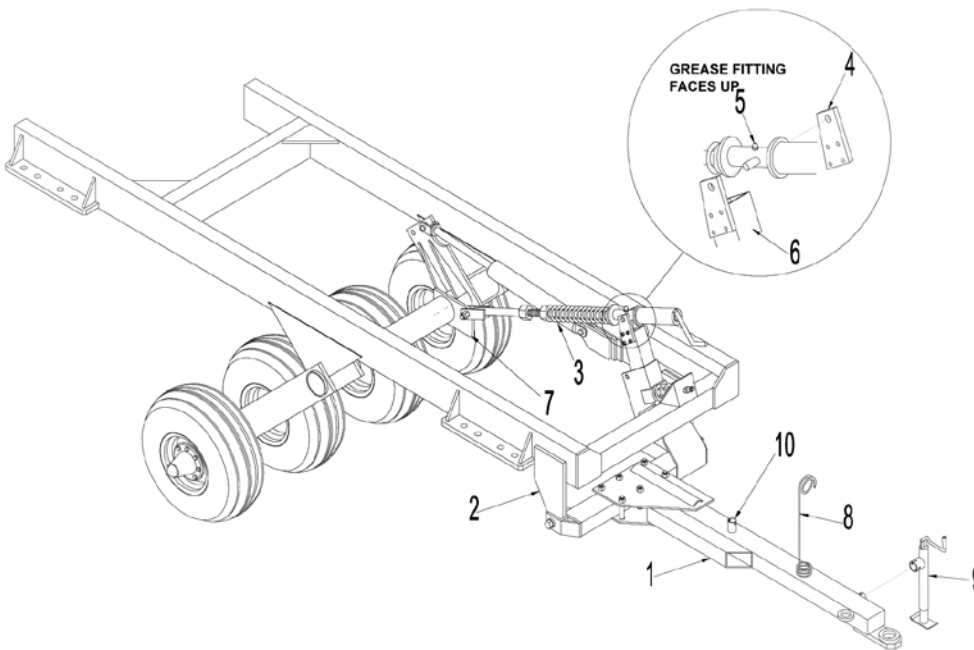
**NOTE:** Wheel bolts must be kept tight. If bolts are not tight, they will loosen causing severe damage to hub, wheel and tire. Check wheel bolts periodically, especially the first few hours of operation either transport or field work.



**CAUTION**

Use a hoist or adequate manpower to lift the heavy components into place. Use adequate jacks or support materials. Attempting to lift heavy components by yourself could cause serious injury.

ILL. 17



4. See ILL. 17. Fasten hitch assembly, arrow 1, to two hitch lugs, arrow 2, on frame. Fasten with two (2) 1-1/4" (31.7mm) diameter hex bolts c/w locknut.
5. See ILL. 17. To attach levelling link, arrow 3, remove bolt on lug, arrow 4, from levelling arm of hitch. Next place bearing tube, arrow 5, of crank assembly between weld-on lug, arrow 6, and bolt-on lug, arrow 4. Position bearing tube so grease fitting is facing up. Install ears of bearing tube, arrow 5, in 1" (25.4mm) holes of lugs, arrow 4 and 5, then fasten bolt-on lug to levelling arm with four 1/2" x 5" (12.7mm x 127mm) bolts.

Next attach clevis end of levelling link, arrow 3, to arm, arrow 7, on rockshaft with one 1-1/4" x 4-3/4" (31.7mm x 120.6mm) bolts c/w nuts and lockwashers.

**NOTE:** The 1-1/4" x 4-3/4" (31.7mm x 120.6mm) bolts must be tightened so that the clevis is drawn up tight against the ball joint in arm, arrow 7. Tighten bolt to 840 ft lbs (1139 N.m). Ball must be free to pivot in socket. Lubricate ball with oil and turn in socket to make sure ball is free to pivot.

6. See ILL. 17. Fasten hose support, arrow 8, to 5/8" (15.7mm) bolt welded to top of hitch. Secure with one (1) 11/16" ID (17.2mm) flatwasher, and one (1) 5/8" (15.7mm) hex nut.

7. See ILL. 17. Mount jack, arrow 9, on round tube at SIDE of hitch when supporting disc hitch. Mount jack on round tube, arrow 10, on top of hitch when transporting or discing. Lock jack in desired position with pin.

**NOTE:** Hitch jack must be mounted to round tube, arrow 10, on top of hitch when disc is in motion. If jack is left on the side of the hitch (in vertical position), the jack may strike ground or obstructions on ground. If jack is left on the side of the hitch (horizontal position), tractor tires may hit the jack, causing severe damage to the hitch jack.

8. Attaching hydraulic lift cylinder

**NOTE:** Seal all hydraulic fittings with a sealant liquid.

**A** - See ILL. 18. Attach barrel end of 4" x 24" (101.6mm x 609.6mm) hydraulic, arrow 1, to cylinder lug, arrow 2. Position cylinder so ports are facing LHS of disc. Secure with (1) 1-1/4" x 4-3/16" (31.7mm x 106.4mm) pin. Secure pin with one (1) 5/16" x 2" (7.9mm x 50.8mm) cotter pins. To complete the assembly of cylinder, place a wooden block across top of frame for cylinder to rest on.

**B** - See ILL. 18. Install 1/2" (12.7mm) x 90 degree street elbows, arrows 3 and 4, in ports on LHS of cylinder. Face elbows towards front of disc.

**C** - See ILL. 18. Install one (1) 1/2" x 216" (12.7mm x 5486mm) hydraulic hose, arrow 5, to rear 1/2" (12.7mm) street elbow, arrow 3.

**D** - See ILL. 18. Install one (1) 1/2" x 190" (12.7mm x 4826mm) hydraulic hose, arrow 6, to rear 1/2" (12.7mm) street elbow, arrow 4.

**E** - Run hose along frame and hitch through hose support, arrow 8, shown in ILL. 15.

**F** - See ILL. 18. Install proper male tips to ends of hoses, arrow 5 and 6.

**G** - Connect hose to tractor hydraulic couplers.

**H** - Block cylinder high enough for cylinder shaft to pass over top of rockshaft cylinder arm. Pump hydraulic oil into shaft of cylinder. When shaft side is full of oil, extend and contract cylinder approximately 10" or 12" to work air out of cylinder.



**CAUTION**

Before applying pressure to hydraulic system, be sure all connections are tight and components are not damaged.

**I** - See ILL. 18. After lift cylinder is completely filled with oil, pin shaft end of cylinder to rockshaft cylinder arm, arrow 7, with one (1) 1-1/4" x 4-3/16" (31.7mm x 106.4mm) pin. Secure pin with one (1) 5/16" x 2" (7.9mm x 50.8mm) cotter pins.

**NOTE:** When extending cylinder, be sure end or clevis DOES NOT strike rockshaft cylinder arm. Serious cylinder damage could result.

- See ILL. 18. Fully extend lift cylinder, arrow 1, to raise disc frame. Next install all depth control segments, (17-3/4" Lg) arrow 8, on lift cylinder shaft, to lock frame in raised position.



**CAUTION**

Do not loosen or disassemble hydraulic components when there is pressure within those components. Hydraulic components under pressure may cause parts and hydraulic fluid to escape at a high velocity, which could cause serious injury. Always relieve the pressure in the hydraulic system before making adjustments to the hydraulic system. If injured by escaping hydraulic fluid, see a medical doctor immediately.

- Attaching gang beams - See ILL. 19 and 20.

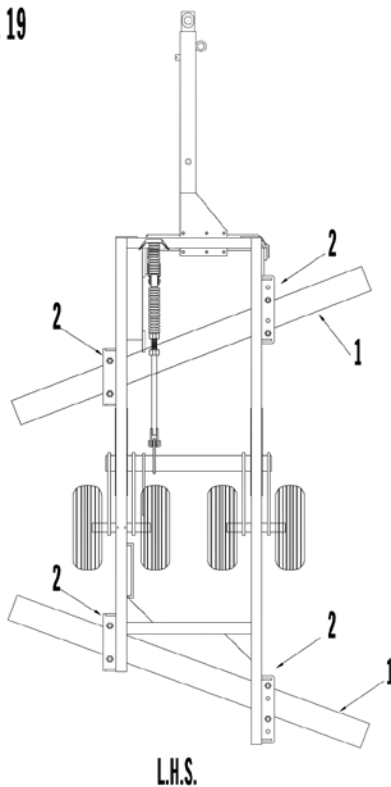
**A** - Use the gang beam chart on page 19 to determine length of front and rear gang beams for your size specific disc.

**B** - Locate gang beams, arrow 1, at bottom of frame.

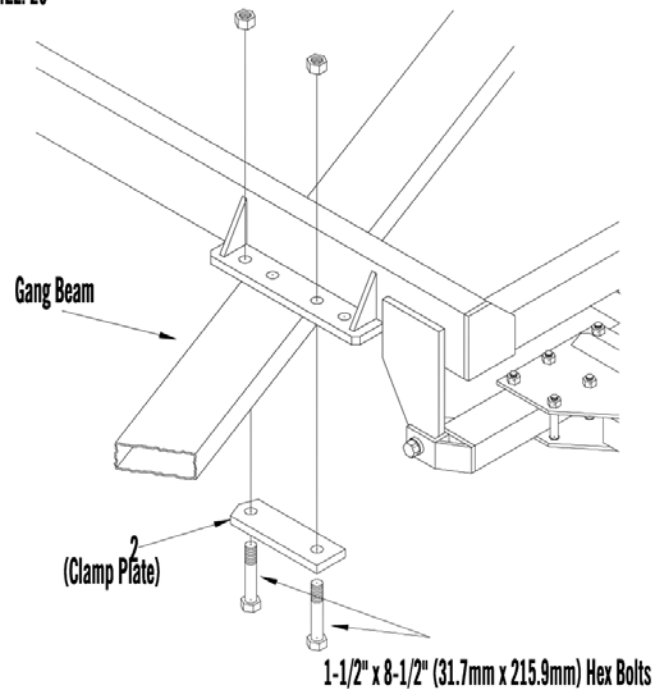
Each gang beam is located between two (2) holes in plate welded to left side of main frame.

A 4 hole plate welded to outside of frame will secure each beam to right side of disc.

ILL. 19




ILL. 20



**C** - Fasten each gang beam with two (2) clamp plates, arrow 2, and two (2) 1-1/2" x 8-1/2" (38 x 216mm) hex bolts. See ILL. 20. Cropped corners of clamp plates must be on rear side of gang beams.

**D** - Initially set gang angle at second hole from maximum. For rear gang, install rear bolt in second hole from rear as shown in ILL. 19. For front gang, install front bolt in second hole from front as shown in ILL. 19.

	<p><b>CAUTION</b></p>	<p>Before attaching gangs to frame be sure frame is locked in raised position by installing all depth stop (17-1/2" Lg) on lift cylinder.</p>
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11. Attaching gang assemblies

**NOTE:** See gang pattern diagrams.

Using gang pattern - Identify the front and rear gangs. Front and rear gangs are determined by the 5/8" x 10" (16 x 254mm) bearing retainer bolt. With the blades are correctly orientated the nut end of 5/8" x 10" (16 x 254mm) bolt will face rear of axle. See Detail "A"

**A - Rear gangs**

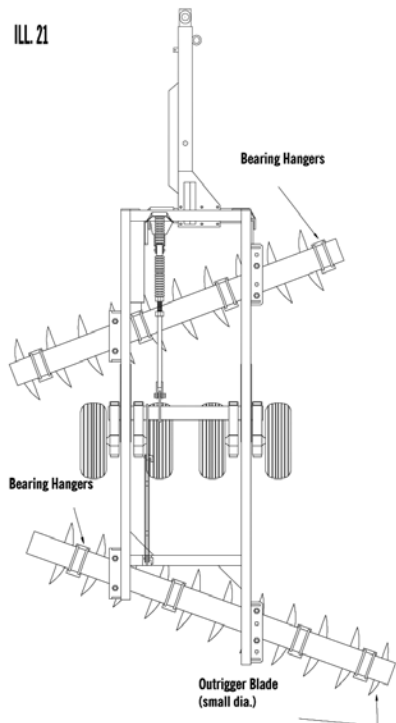
See ILL. 21. The rear gangs have the outrigger blade (small diameter blade) at one end. If your model has more than one gang assembly on rear gang, be sure to place gang with outrigger blades on the right hand side.

Using the gang pattern illustration, select the rear gangs and position them in their proper place under the rear gang beam.

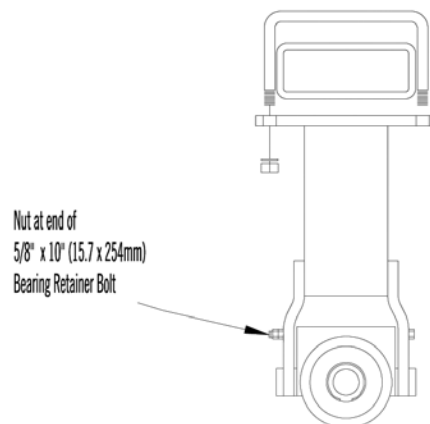
Attach bearing hangers to gang beams with (2) u-bolts per bearing hanger. See Detail "A". Leave u-bolts loose.

**B - Front gangs**

Using the gang pattern illustrations (on pages 32 to 34), select the front gang(s) and position them in their proper place under the front gang beam. Attach bearing hangers to gang beams with (2) U-bolts per bearing hanger. Leave U-bolts loose.



**DETAIL-A**







**CAUTION**

When attaching gang assemblies, wear protective gloves to help prevent injury from cutting edges of blades.

**C** - If front or rear gang has more than one gang assembly, adjust spacing between gang assemblies. This spacing should be same distance as the blade spacing in gang assemblies.

**D** - Before tightening bearing hanger U-bolts, check each bearing hanger to make sure hanger is sitting square under gang beam. Also, be sure hanger is not turned to one side.

**NOTE:** If bearing hangers are not sitting square before tightening U-bolts, side preload will be built into the bearings and the life of the bearings will be shortened.

12. Attaching blade scraper assemblies

**A** - See ILL. 22. Before attaching scraper assemblies, determine which assembly belongs to front and which one belongs to rear. The rear gang has 1 more scraper than the front gang. For example, a 23 blade disc will have 11 scrapers on front gang and 12 scrapers on rear gang.

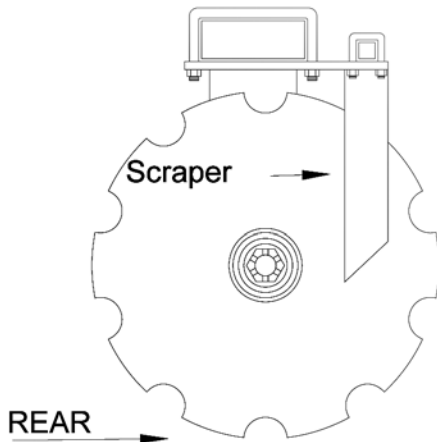
**B** - See ILL. 22 and 23. Attach scraper assemblies to gang beams with 3/4" x 4" x 18" (19 x 102mm x 457mm) scraper support plates, arrow 1. Scrapers are located at rear side of gang beams. See scraper support pattern illustrations. Select correct pattern for your disc and locate scraper support plates as shown. Position scraper supports, arrow 1, at bottom of gang beam, and fasten with (2) 7/8" x 10" (22.3mm x 254mm) u-bolt c/w nuts and lockwashers. Next place scraper bar, arrow 2, assembly on top of support plate. Fasten scraper bar to support plate with (1) 5/8" x 2" u-bolt per support plate.

13. See ILL. 23. Adjust scraper bar, arrow 2, and scrapers, arrow 3, of each gang, so each scraper contacts adjacent disc blade.

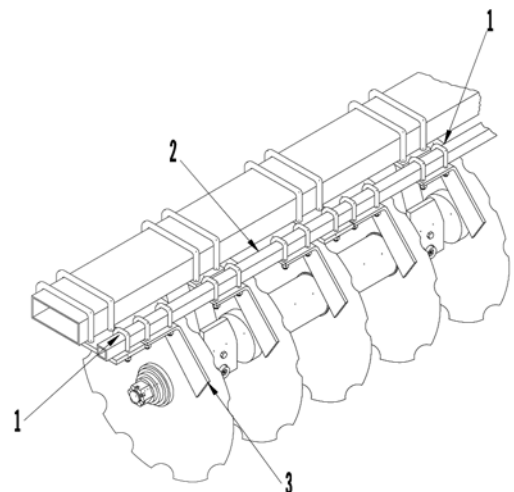
14. Tighten all scraper mount u-bolts.

**NOTE:** Disc will require less horsepower to pull if scrapers are adjusted properly.

ILL. 22



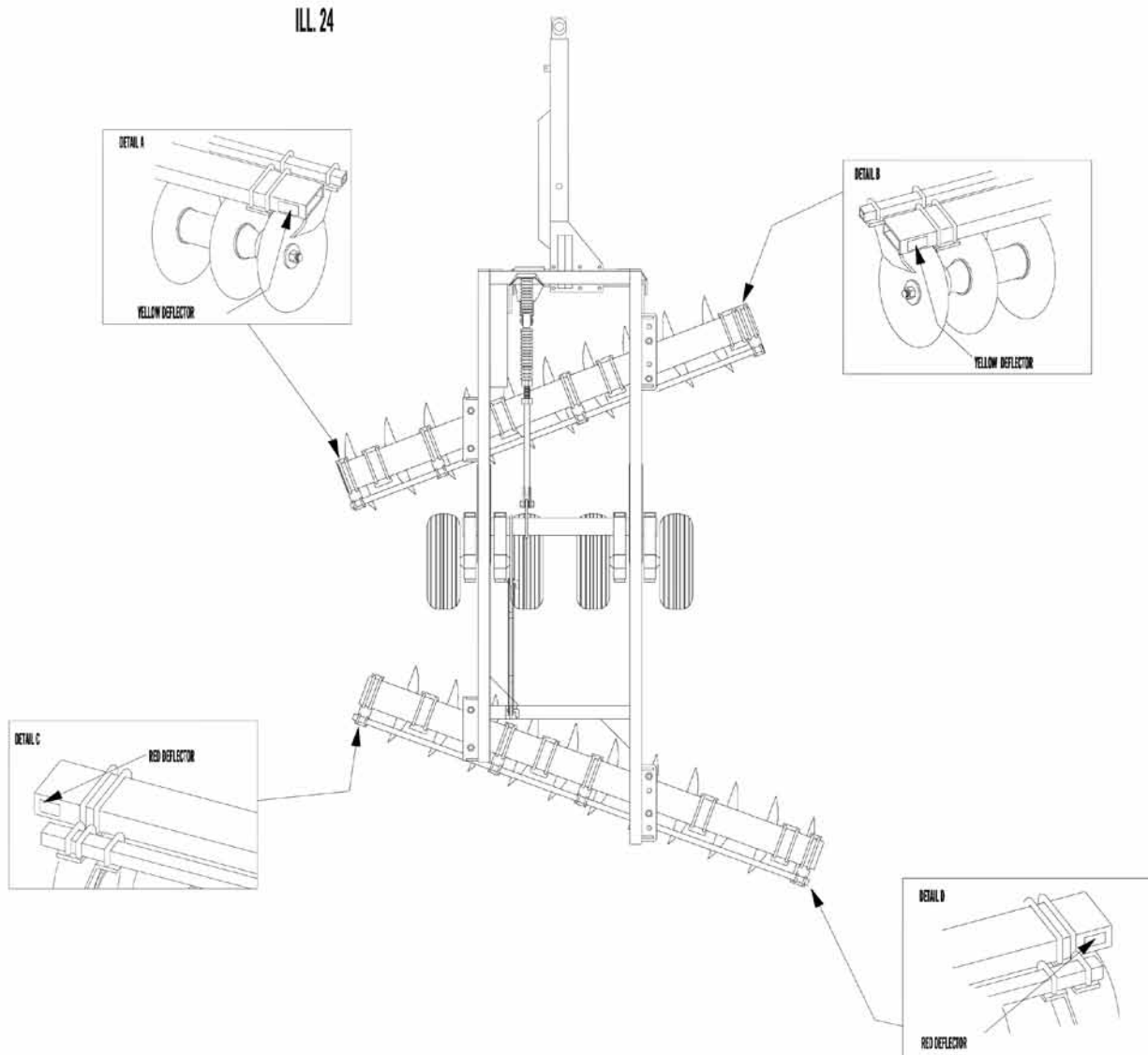
ILL. 23





**CAUTION**

Support the main frame securely before assembling the components. Inadequate support may result in the heavy components falling causing serious injury to operator or person(s) nearby.

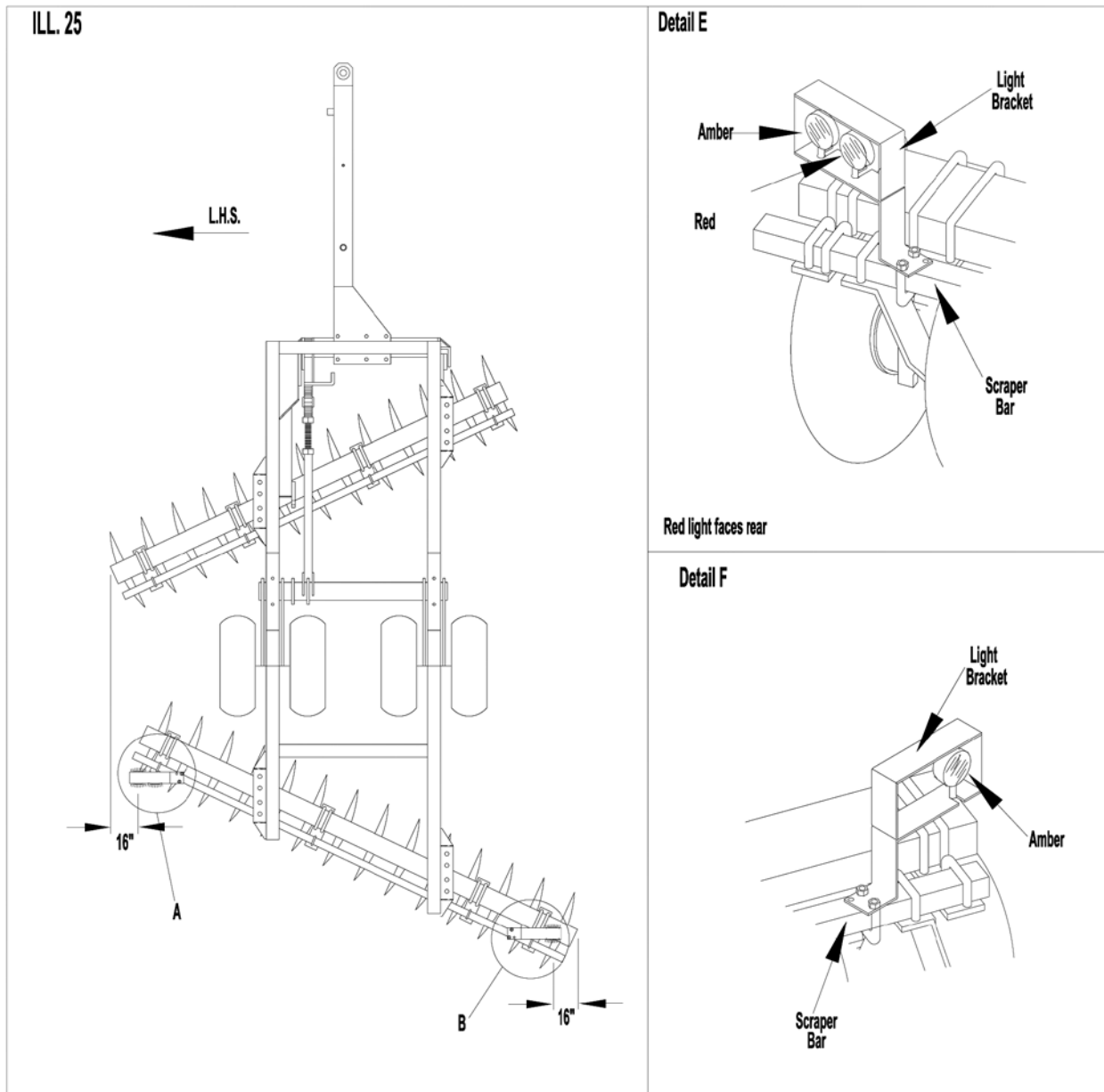


15. Reflector decal installation - See ILL. 24

**NOTE:** Before installing decals, clean the area they will be placed on.

**A** - Place one 2" x 9" (50.8 mm x 228.6 mm) red reflector decal on rear side of each rear gang beam. Locate decals approximately 1" (25.4 mm) from end of gang beam. See detail "C" and "D".

**B** - Place one 2" x 9" (50.8 mm x 228.6 mm) yellow reflector decal on front side of each front gang beam. Locate decals approximately 1" (25.4mm) from end of gang beam. See detail "A" and "B".



16. Safety light kit - Mount instructions (See ILL. 25)

**A** - Fasten one (1) lamp bracket on each end of rear scraper bar. Lamp brackets are LH and RH. Fasten each lamp bracket with one (1) 1/2" x 2" u-bolt c/w nuts and lockwashers. Locate as shown in Detail "E" and "F". Leave u-bolts loose.

**B** - Fasten one (1) amber lamp and one (1) red lamp on LH lamp bracket. Position amber and red lamps so they face the rear with the amber lamp on the outside. Install lamps in 3/4" (19.0mm) slots in lamp bracket. Secure with nuts. See Detail "E"

**C** - Fasten one (1) amber lamp on RH lamp bracket. Position so amber lamp faces rear. Install lamp in 3/4" slot in lamp bracket. Secure with nut. See Detail "F"

**D** - Position each lamp bracket so outer lamp is no more than 16" from widest part of disc to centre of lamp. Next, tighten 1/2" x 2" u-bolts.

**NOTE:** Paragraphs "B", "C", "D", and ILL. 25 describes safety light position for North America. For other countries check local laws and regulations for required warning lamp mounting positions.



**CAUTION**

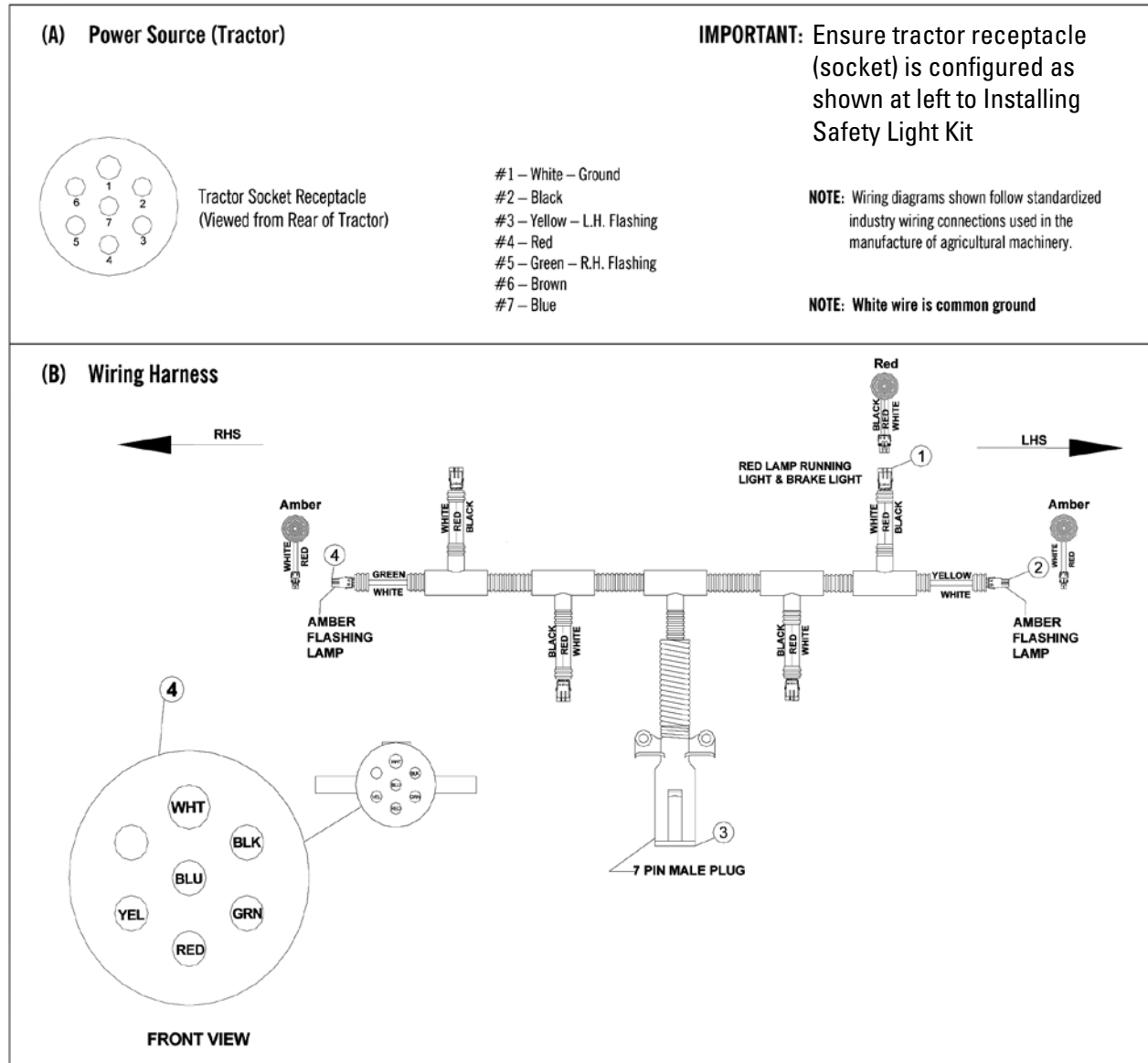
When transporting disc over public roads use a smv emble (not supplied)

**E** - Install electrical wiring as follows:

See ILL. 26 - Lay wiring harness on hitch and along RHS of frame with 7 pin male plug, arrow 3, located at front of hitch. The wiring harness is tagged LHS (left hand side) and RHS (right hand side) at outer plugs, arrow 2. When laying harness on frame ensure LH end of harness is placed on LHS of frame and RH end of harness is placed on RHS of frame. LHS and RHS of disc is determined by viewing disc from rear.

**NOTE:** The RH and LH side of harness must be properly positioned to allow signal lights to work correctly. Run LH and RH ends of harness along rear of frame and rear gangs back up to lamps. Tie harness to frame, gang beam and lamp supports as required with tie straps. Next plug in each amber lamps to two wire plugs, arrow 2. Plug in red lamp to a 3 wire plug, arrow 2.

ILL. 26



Components:

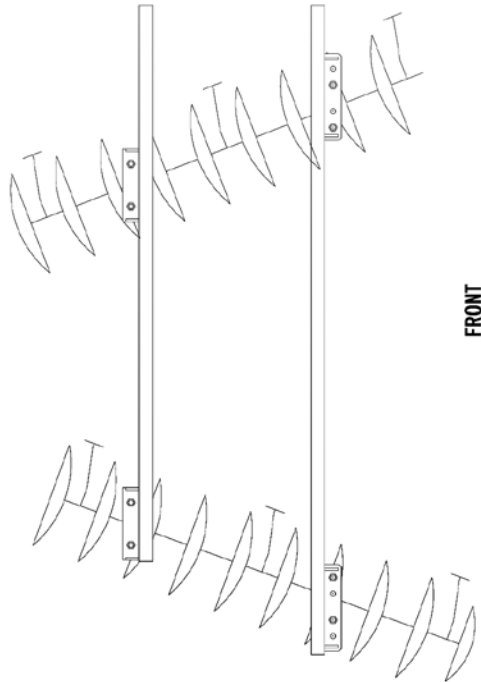
- 2 - Lamps - amber both sides
- 1 - Lamp - red one side
- 1 - Wiring harness
- 10 - Cable ties

## Gang Beam Chart

Disc	# of Blades Front Gang	Front Gang Beam Length	# of Blades Rear Gang	Rear Gang Beam Length
17 Blades - 9-1/2'	8 Blades	121" (3073mm)	9 Blades	136" (3454mm)
19 Blades - 10-1/2'	9 Blades	136" (3454mm)	10 Blades	150" (3810mm)
21 Blades - 11-1/2'	10 Blades	150" (3810mm)	11 Blades	165" (4191mm)
23 Blades - 12-1/2'	11 Blades	165" (4191mm)	12 Blades	179" (4547mm)
25 Blades - 14'	12 Blades	179" (4547mm)	13 Blades	194" (4928mm)
27 Blades - 15-1/2'	13 Blades	194" (4928mm)	14 Blades	209" (5309mm)

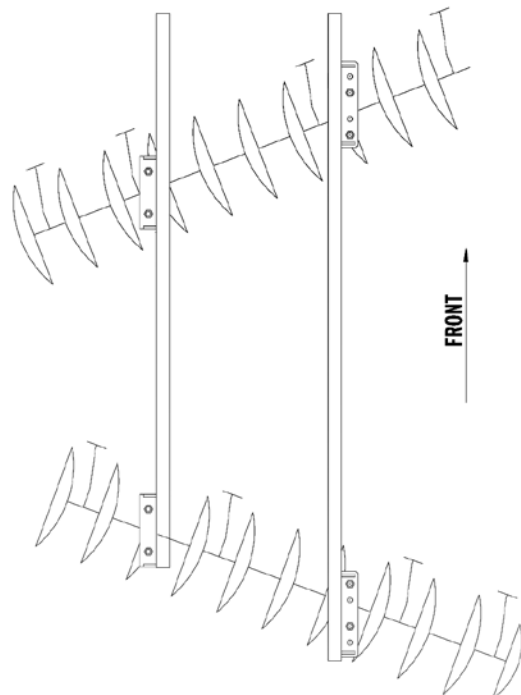
**Gang Pattern - 14" Spacing - 19 Blades/6 Bearings**

**APPROX. WIDTH**  
9-1/2 ft



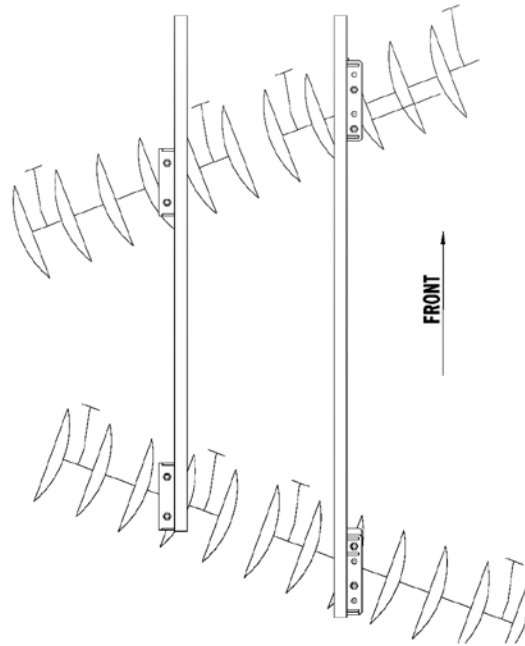
**Gang Pattern - 14" Spacing - 19 Blades/6 Bearings**

**APPROX. WIDTH**  
10-1/2 ft



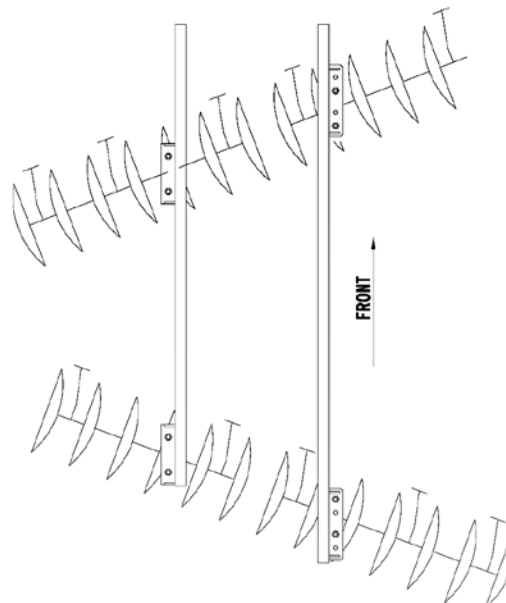
**Gang Pattern - 14" Spacing - 21 Blades/8 Bearings**

**MODEL 8550**  
**APPROX. WIDTH**  
**11-1/2 ft**



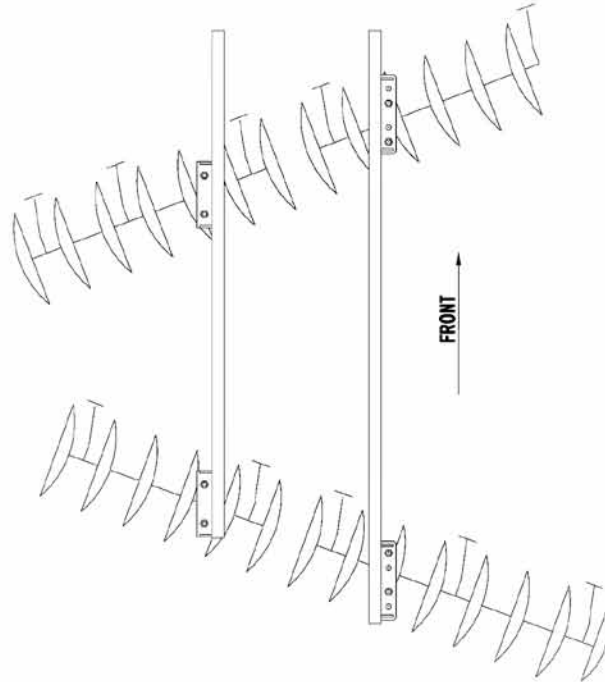
**Gang Pattern - 14" Spacing - 23 Blades/8 Bearings**

**MODEL 8550**  
**APPROX. WIDTH**  
**12-1/2 ft**

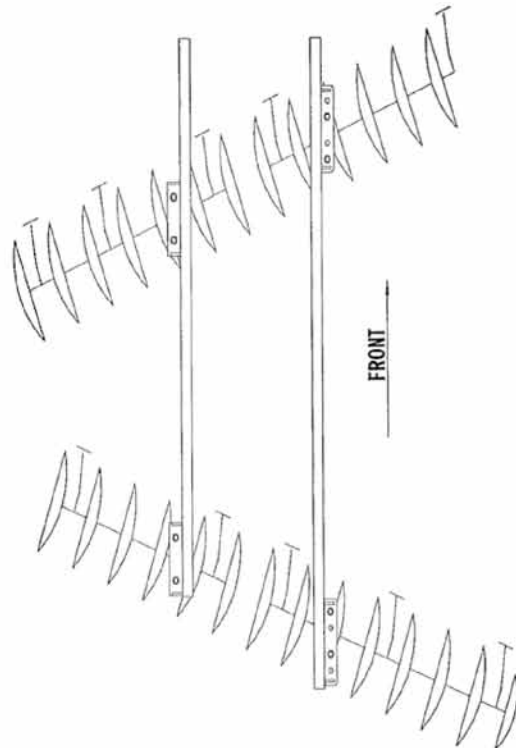




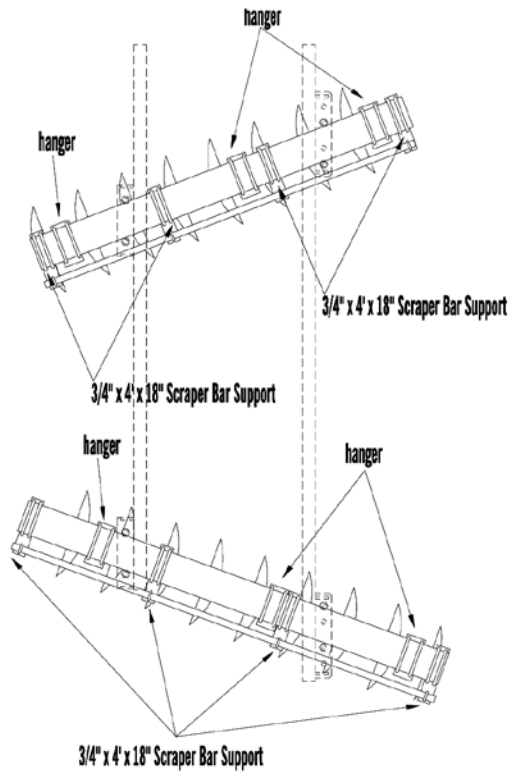
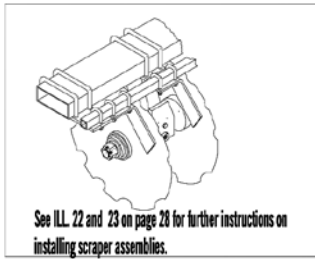
**Gang Pattern - 14" Spacing - 25 Blades/10 Bearings**



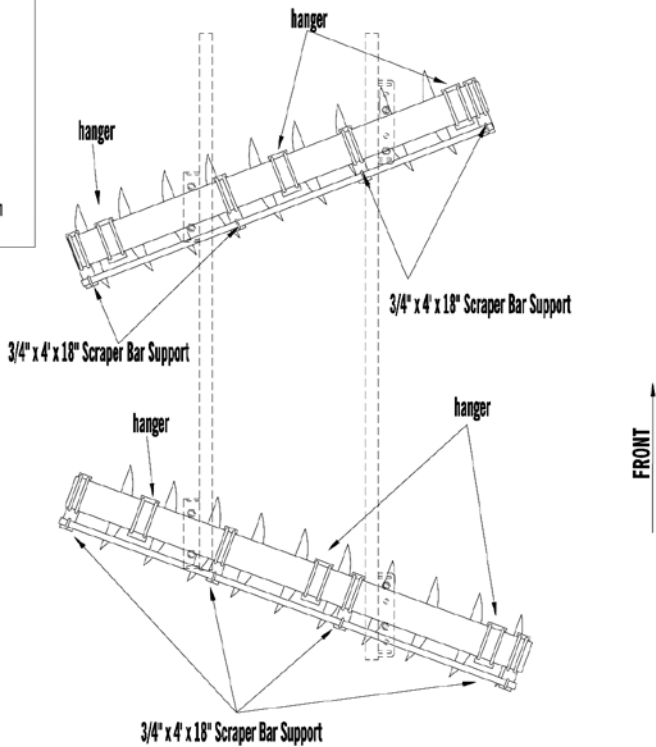
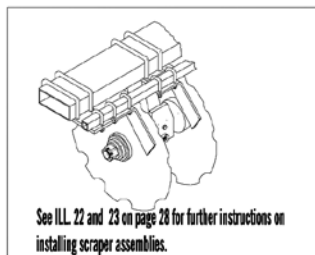
**Gang Pattern - 14" Spacing - 27 Blades/10 Bearings**



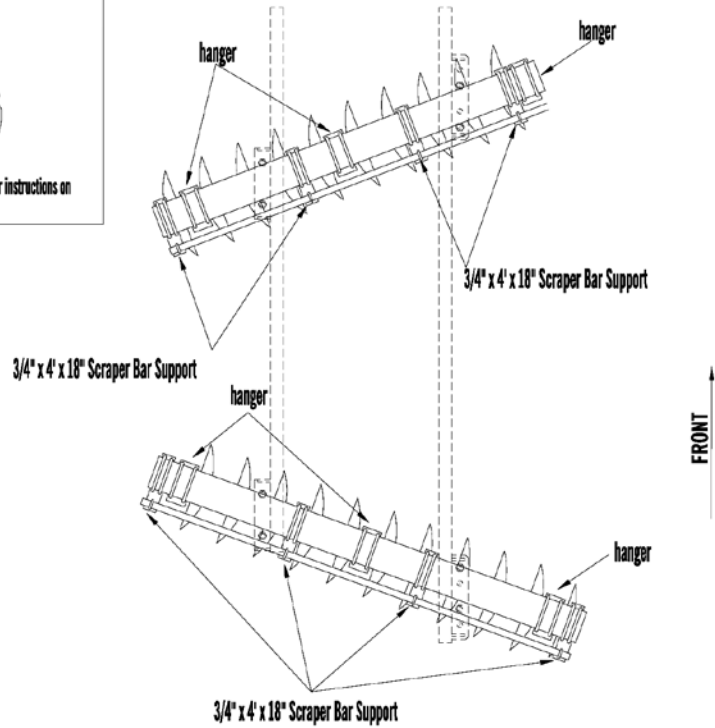
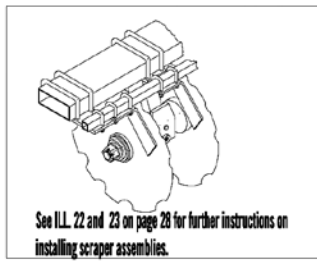
### Scraper Bar Support Pattern - 14" Spacing - 17 Blades



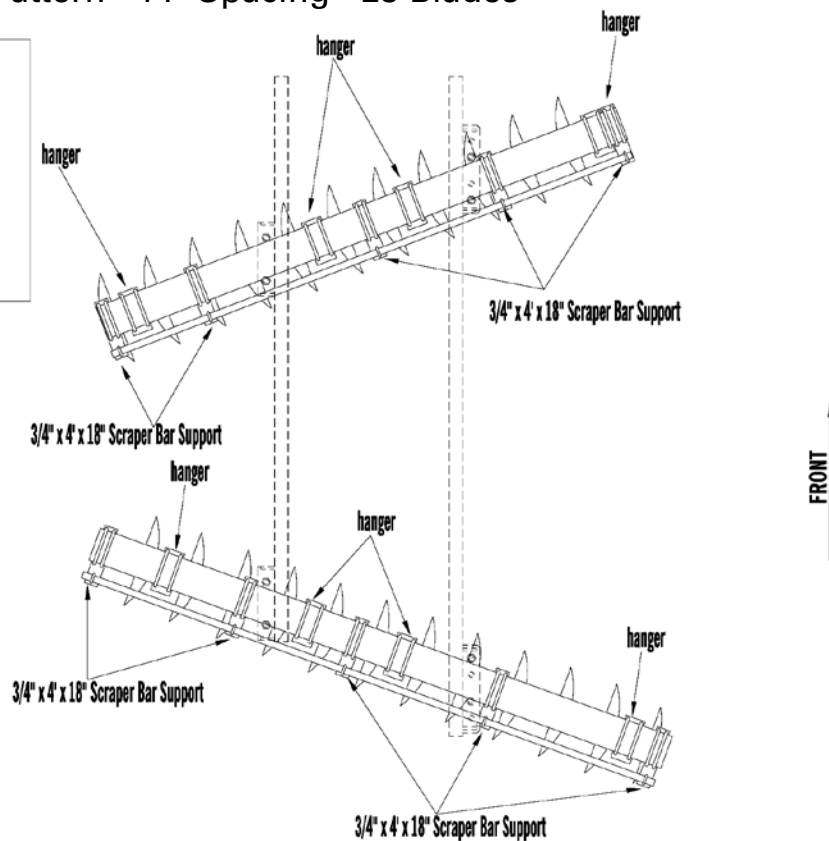
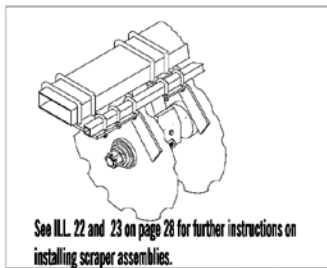
### Scraper Bar Support Pattern - 14" Spacing - 19 Blades



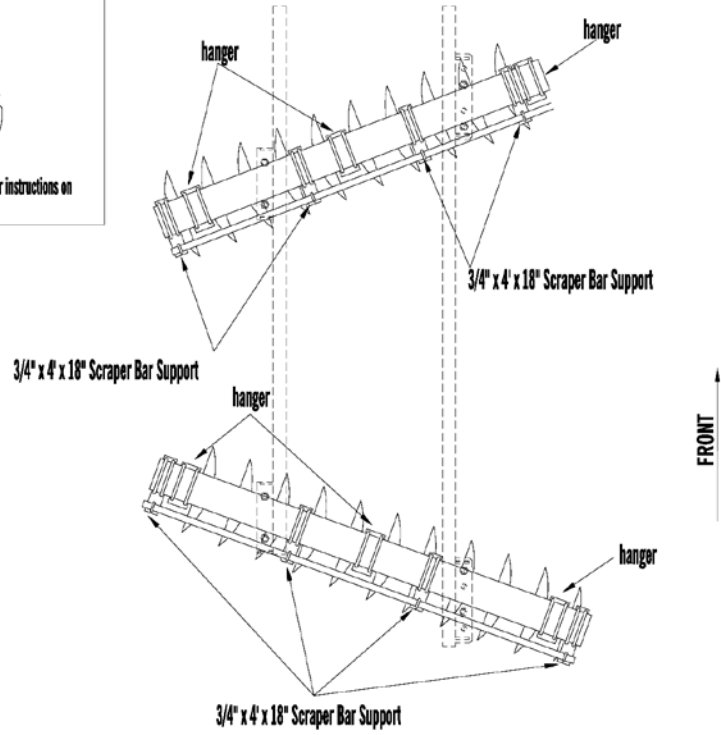
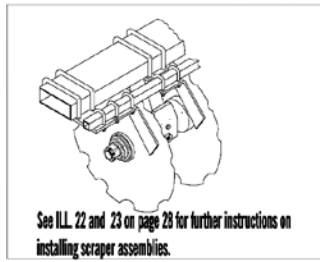
### Scraper Bar Support Pattern - 14" Spacing - 21 Blades



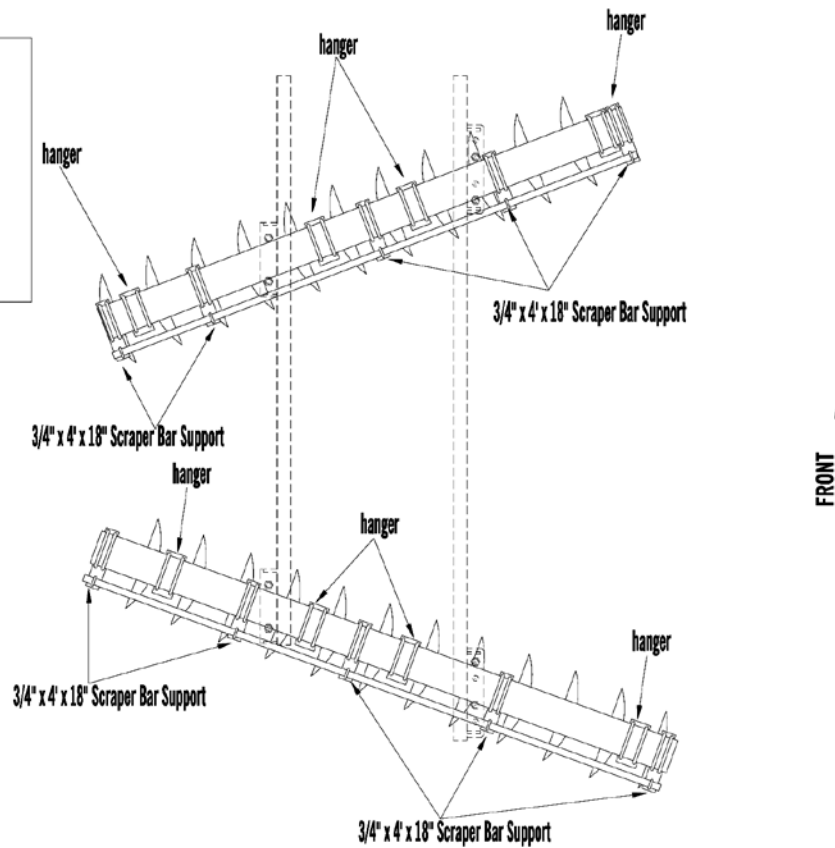
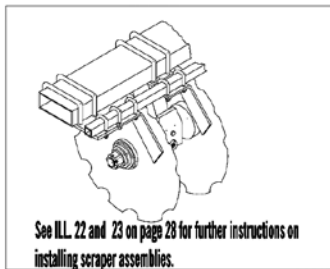
### Scraper Bar Support Pattern - 14" Spacing - 23 Blades



### Scraper Bar Support Pattern - 14" Spacing - 25 Blades

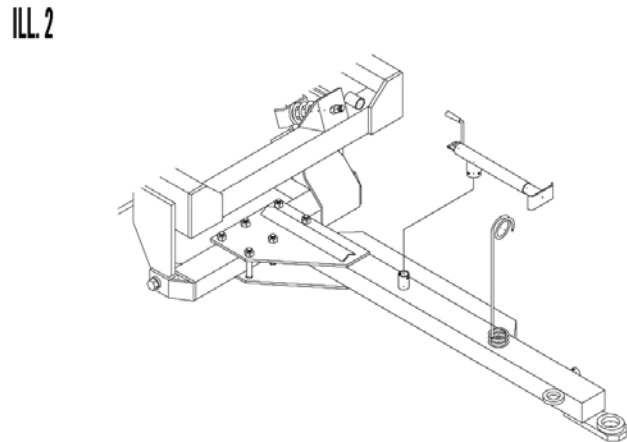
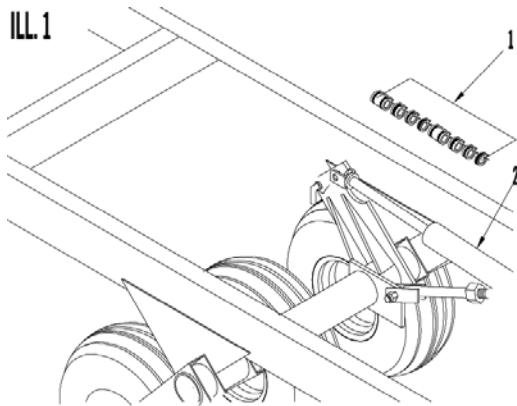


### Scraper Bar Support Pattern - 14" Spacing - 27 Blades



## Operation Instructions

1. Before operating disc, refer to safety precautions. Review disc safety item applicable to road transport and field operation of disc.
2. Do not make sharp turns with the disc in ground. Sharp turns put excess pressure on the gangs. It is advisable to always lift machine out of ground for making sharp turns. Excessive side thrust is applied to bearings and machine if disc is turned while it is in the ground.
3. For best performance, the tractor drawbar should be pinned at centre of tractor.
4. Ensure that disc is level and cutting depth is properly adjusted.
5. See ILL. 1. Before transporting disc, lock wheels in down position by installing all the depth control segments (17-1/2" Lg) arrow 1, on lift cylinder, arrow 2.



### CAUTION

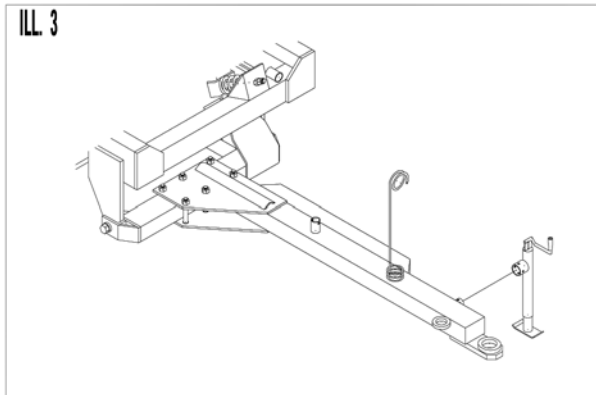
Never stand between the tractor and the disc when hitching disc to the tractor unless all tractor controls are in neutral and the brake is set. The tractor could roll backwards which could result in serious injury or death to you or person(s) nearby.



### CAUTION

When transporting the disc, always lock the rockshaft by installing all depth control segments (17-1/2" Lg) on the lift cylinder. If the hydraulic system failed, or if the hydraulic lever was accidentally operated, the disc could drop, resulting in serious damage to the disc and serious injury or death to operator and person(s) nearby.

6. **NOTE:** When transporting disc, DO NOT exceed speed of 20 mph (32 km/h). Reduce speed on rough roads or surfaces.
7. **NOTE:** See ILL. 4. Do not disc with front gangs cutting deeper than rear gangs. Disc must be level. If front gangs are lower, excessive strain will be placed on blades, gang bearings frame, and hitch, which could lead to premature parts failure, especially outside blades of front gangs. To level disc adjust levelling crank, arrow 1. To lower front gangs turn crank in. To raise front gangs turn crank out.



8. **NOTE:** Hitch jack must be placed as shown in ILL. 2 when disc is in motion, and as shown in ILL. 2 when jack supports hitch.

**NOTE:** If hitch jack is placed in horizontal position on side mount tube (ILL. 3) when operating disc, jack could be severely damaged by tractor tire when turning.



**CAUTION**

Do not exceed 20 mph (32 km/h) when transporting disc on smooth roads. Reduce speed when transporting on rough roads. Excessive speed could cause loss of tractor control and damage to disc and tractor. Do not transport disc with any other vehicle except tractor.



**CAUTION**

Always use hazard warning flashers on tractor when transporting unless prohibited by law.

9. **NOTE:** When disc is parked with blades resting on frozen ground, do not attempt to lift disc out of frozen ground by lowering transport wheels. Lifting disc out of frozen ground with transport wheels may cause serious damage to disc components. Damage will most likely occur to lift cylinder and rockshaft cylinder arm.



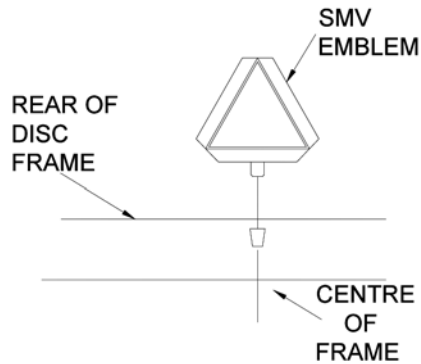
**CAUTION**

Always put all tractor controls in neutral, set the park brake and shut the engine off before servicing the disc. If the tractor and disc were to roll, you could be seriously or fatally injured.



**CAUTION**

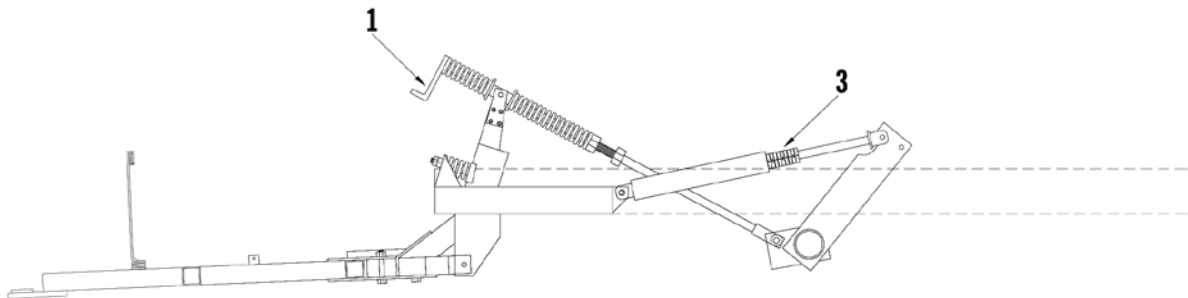
When trailing the disc over public roads, use the SMV emblem and warning lights for protection of tractor and other motor vehicle operators. Check local laws for width and weight maximums.



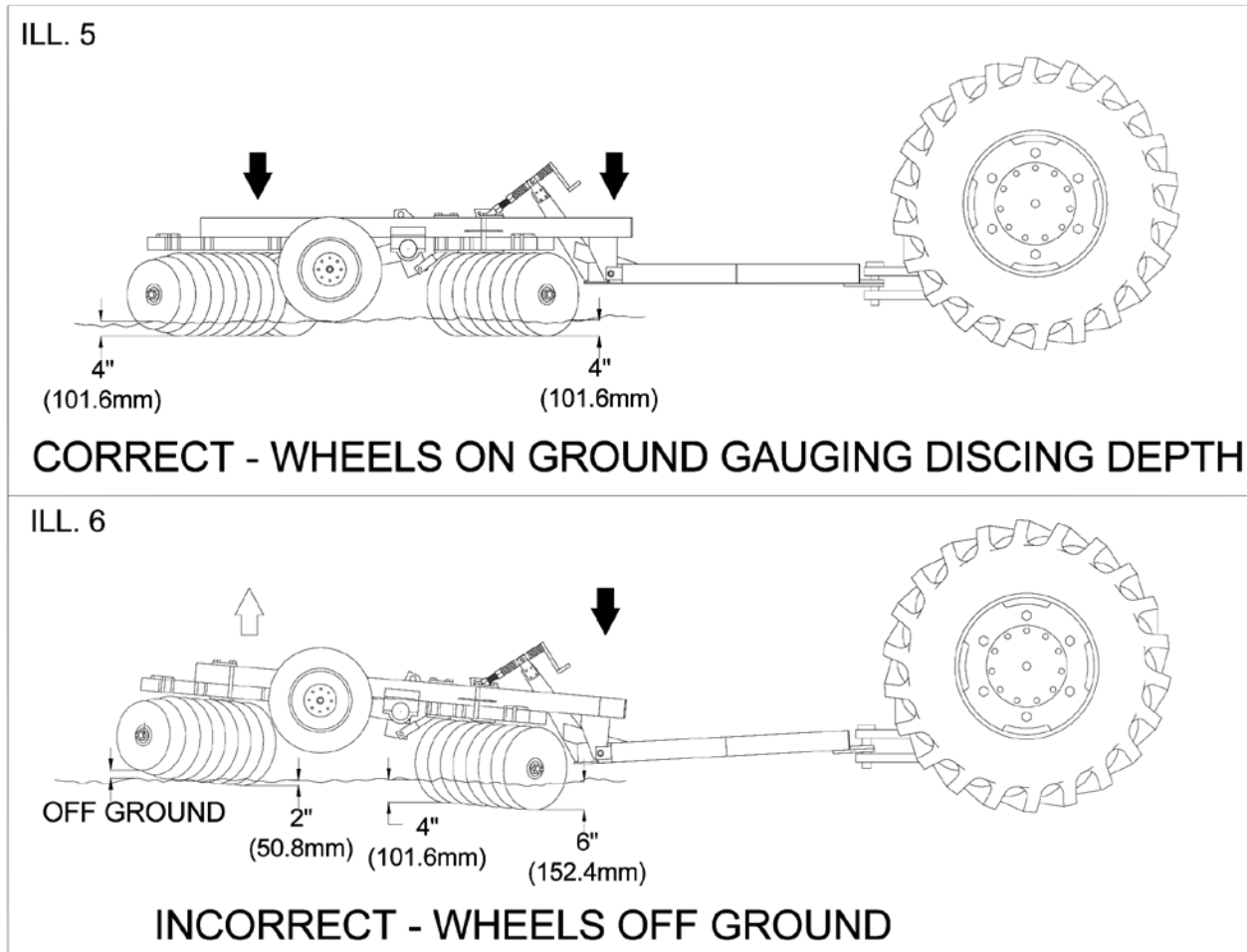
**CAUTION**

When operating on hillsides, use extreme care. Tractor may help tip sideways, if it strikes holes, ditch or other irregularities.

ILL. 4



10. Setting discing depth - See ILL. 4. To set discing depth lower disc into the ground while moving forward until disc reaches desired discing depth. Install the necessary depth control stops, arrow 3, on lift cylinder shaft to maintain the desired cutting depth.
11. **NOTE:** Before disconnecting hydraulic hoses from tractor, release pressure in hydraulic cylinders. Serious damage could occur to hydraulic cylinder if oil expansion takes place due to warm weather or if disc is stored in heated building.



12. To keep disc level, transport wheels must be in contact with ground, to gauge desired discing depth, as shown in ILL. 5.

If conditions are such that disc can not penetrate to maximum depth, do not raise transport wheels off ground as shown, in ILL. 6. Raised transport wheel will cause front of disc to drop causing front gangs to cut deeper than rear gangs.

Front of disc will drop because rockshaft and hitch are linked. Hitch rises when wheels are raised off ground. Since hitch is fixed to tractor drawbar, front end of disc is forced down, transferring weight of rear gangs to front gangs.

With front of disc lower than the rear, the front outside blades will cut much deeper than the front inside blades. This means most of the disc's weight is placed on the front outside blade, forcing them deep into the ground.

Uneven and deep front gang penetration in tough conditions will place excessive strain on blades, gang bearings, frame and hitch will probably lead to a premature failure of parts, especially outside blade of front gangs.

**NOTE:** Operating disc with transport wheels off ground will cause uneven discing job, and place undue strain on machine, which could lead to parts failure. Always operate disc with transport wheels on ground even if conditions will not allow disc to penetrate to maximum depth.



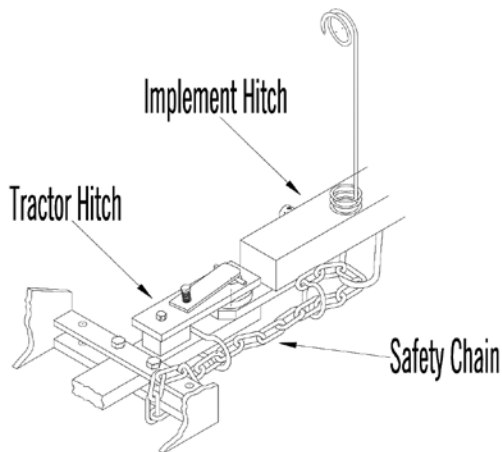


**CAUTION**

Never allow anyone to ride on drawbar of the tractor or on the disc. The person riding may fall and be seriously injured.

- See ILL. 7. Attach a safety chain to the tractor drawbar (or transport vehicle's hitch) and to the disc's hitch before transporting the disc. Use a chain with strength rating greater than the gross weight of disc (safety chain available as an option).

ILL. 7



**CAUTION**

When transporting disc, be sure to attach safety chain to tractor drawbar and disc hitch. The safety chain will help control disc should it accidentally separate from the tractor drawbar. Use chain with a strength rating greater than the gross weight of the implement. Serious damage, injury or death could result from the disc separating from the transport vehicle's hitch.



**CAUTION**

When transporting the disc over public roads or highways, always check local laws regarding width, height and weight restrictions.



**CAUTION**

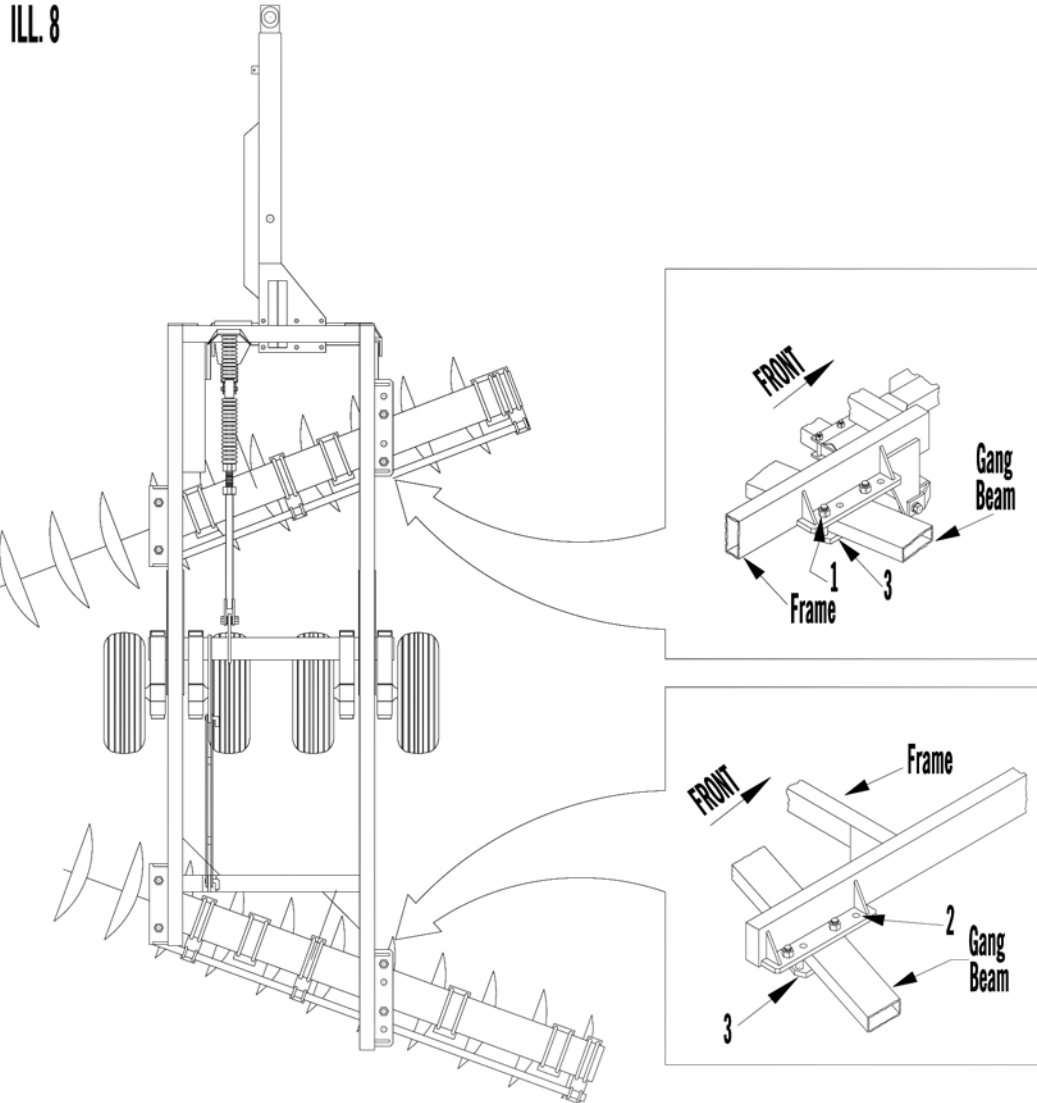
Never allow anyone to ride on drawbar of the tractor or on the disc. The person riding may fall and be seriously injured.



**CAUTION**

Always lower the disc to the ground when servicing or making adjustments. If the disc must be serviced or adjusted in the raised position, make sure frame is adequately blocked. Do not rely on hydraulic lock-up valves as a safety device. If any component of the hydraulic system failed, or if the hydraulic lever was accidentally operated, the disc could drop suddenly.

14. When parking or storing disc, always relieve pressure in hydraulic cylinders. Hydraulic cylinder or other components could fail if thermal expansion of hydraulic oil takes place due to warm weather or if disc is stored in heated building.



## Adjustments

1. Setting angle of front and rear gangs. See ILL. 8.

**NOTE:** Gang angle adjustments are made on right hand side of frame.

The gangs can be set at 2 different angles. The angles the gangs are set at is determined by soil conditions. A field with hard soil will require more cutting angle to penetrate soil than a field with soft soil. If disc pushes dirt instead of cutting through, less cutting angle is required.

Initially, a medium angle setting is recommended. Front gang should be set at the same angle as the rear gang. For example, if rear bolt, arrow 1, of front gang is installed in the rear hole, then the rear bolt, arrow 2, of rear gang must be installed in second hole from rear as shown in ILL. 8.

**NOTE:** Excessive gang angle add pressure to the gangs and will decrease the life of the bearings, blades, etc. When gangs are set at an extreme angle, more horsepower is required to pull disc.

2. Lateral adjustment of the front gangs - See ILL. 8.

**A** - Position front gang so that there is 1 more blade extended beyond the left side of frame than the right side of frame.

3. Lateral adjustment of the rear gangs - See ILL. 8.

The proper position of rear gang will result in level discing job. The discing speed, discing depth, gang angle, soil conditions will have a bearing on this setting. If the rear gang is set too far to the left hand side rear gangs will leave a ridge on left hand side. If rear gang is set too far to the right hand side, rear gangs will leave a furrow on left hand side.

An increase in discing speed may require the rear gang to be moved farther to the right hand side. A decrease in discing speed may require rear gangs to be moved farther to the left hand side.

If gang angle is increased for deeper discing depth, the rear gang usually must be moved farther to the right hand side. If gang angle is decreased for a shallower discing depth, the rear gang usually must be moved farther to the left hand side.

To start with, set rear gangs so the leading edge of the outside blade on the left side lines up with the centre of the second blade of the front gang, as shown in ILL. 8, then adjust to suit your discing depth, speed and soil conditions.

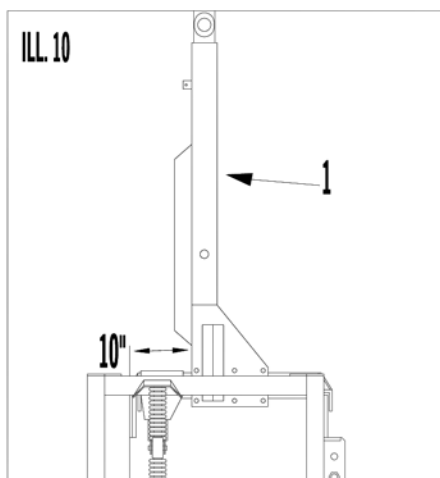
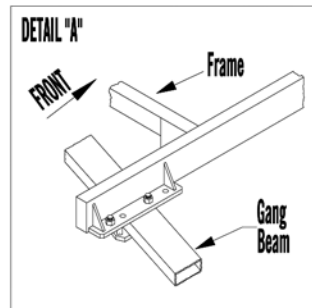
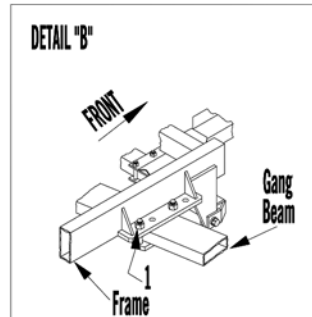
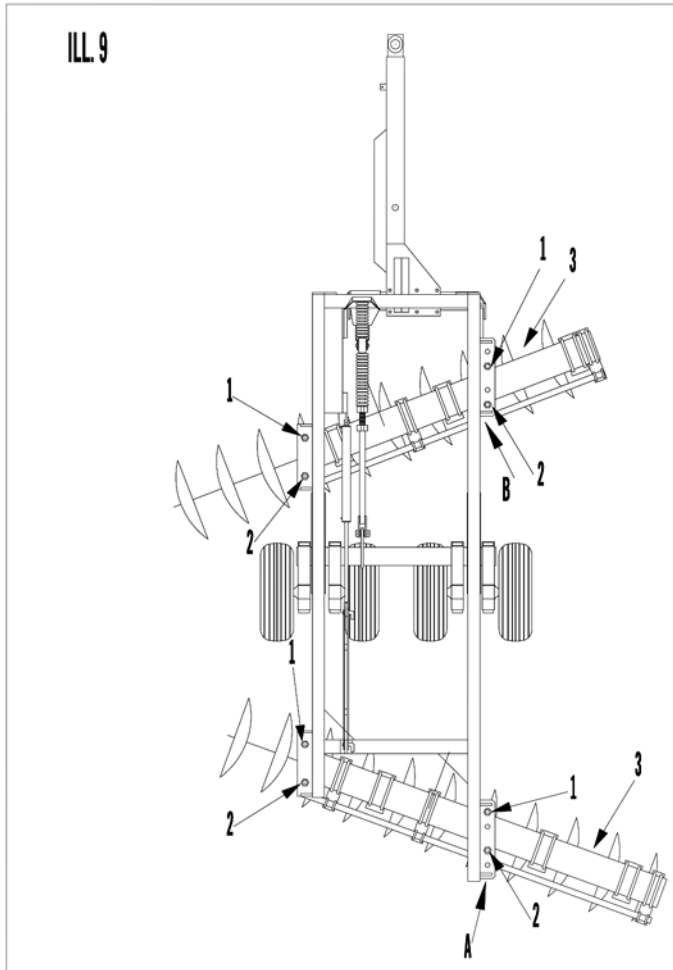
**NOTE:** If bearing hanger restricts movement of rear gangs, make desired adjustment by moving the front gang.

4. See ILL. 9. When gang adjustments are complete, tighten gang beam clamp plate bolts, arrows 1 and 2. Before tightening clamp plate bolts, be sure gang beams, arrow 3, are placed against rear clamp plate bolts, arrow 2.

**NOTE:** The clamp bolts must be kept tight at all times. If clamp bolts are loose, serious damage will occur to frame gang beam, clamp plate and 1-1/2" bolts.

5. See ILL. 10. Hitch tongue, arrow 1, should be fastened 10" from left side of drawbar.

If disc side drafts, further hitch adjustments may be required.



## Maintenance

1. Lubrication - All lubrication points on disc are marked with arrow "G" or "O" in ILL. 12.

**A** - T2-215 Gang Bearing - lubricate every 20 hours of operation. Lubricate until grease comes out around seal. Excessive lubrication will not damage seals. Use high quality SAE multi-purpose grease (marked arrow G1).

**B** - Lubricate levelling crank every 100 hours of operation. (Marked arrow "G2")

**C** - Lubricate the wheel hub every 50 hours of operation. (Marked arrow "G3")

**D** - Lubricate top and bottom half of each rockshaft bearing every 20 hours of operation. (Marked arrow "G4")

**E** - Lubricate levelling crank ball joint welded to rockshaft levelling arm with oil or grease (marked arrow "O1"), ball joint should be free to turn in ball joint. Lubricate at the end and beginning of each season.

Lubricate rockshaft cylinder pins (with oil) every 50 hours or operation (marked arrow "O2").

**NOTE:** When you receive your new disc, grease all lubricating points before starting to disc.



**CAUTION**

Lower machine to the ground, place all tractor controls in neutral, stop engine, set park brake and remove ignition key before servicing, adjusting or repairing disc.



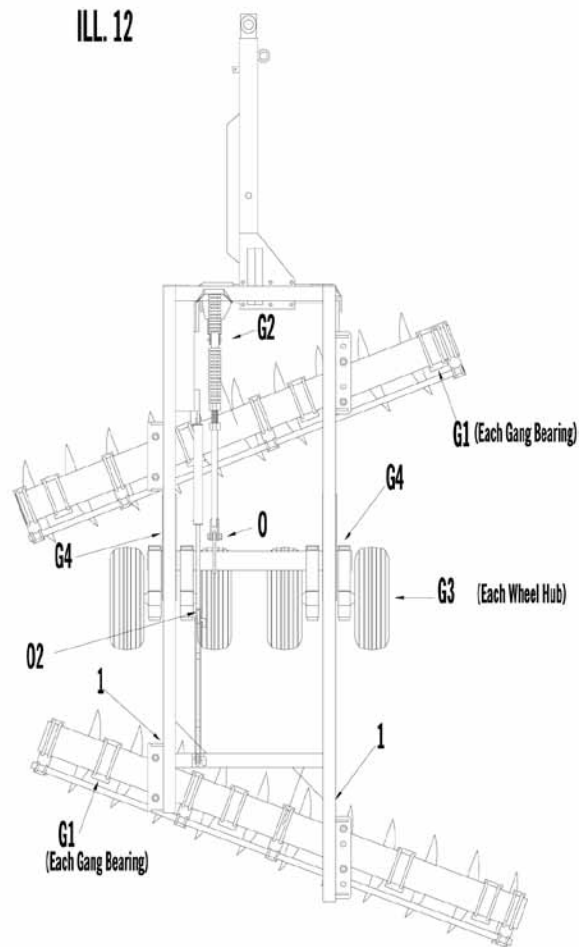
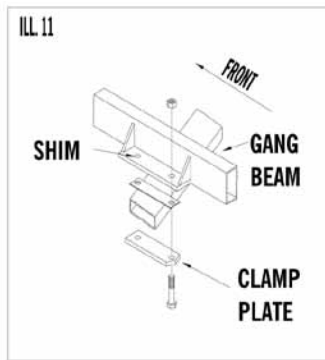
**CAUTION**

If the disc must be serviced in the raised position, place blocks under frame. If the hydraulic system failed, or if the hydraulic lever was accidentally operated, the disc could drop suddenly.



**CAUTION**

Do not lubricate the disc when it is in motion. You may fall and be seriously or fatally injured.



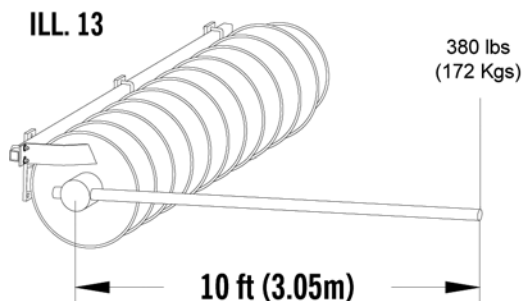
- All bolts and nuts should be checked periodically to make sure they are tight. Special attention should be given to gang bolts, bearing bolts and bearing hanger u-bolts, and wheel bolts.

They should be tightened as follows:

Gang bolts bolts 1-15/16" (49 mm) diameter - tighten to 3800 ft lbs torque (5152 N.m)

See ILL. 13. To tighten gang bolt to 3800 ft lbs (5152 N.m) install a 10ft (3.05m) bar in socket wrench and apply 380 lbs (172Kgs) of force to end of bar.

**NOTE:** After repairing a gang, the gang bolt should be retightened after approximately 2 hours of operation.



**NOTE:** Severe damage will occur if gang bolts are loose.

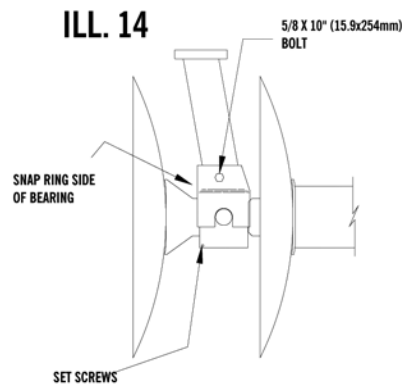
Gang beam bolts 1-1/2" (38.1 mm) diameter - 1940 ft lbs (2630 N.m)

Levelling crank bolt 1-1/4" (31.7 mm) diameter - 840 ft lbs (1139 N.m)

Wheel bolts 9/16" (14.2 mm) diameter - 50 ft lbs (203.0 N.m)

Bearing hanger U-bolts 7/8" (22 mm) diameter - 430 ft lbs (583.0 N.m)

3. When storing disc for a long period of time, grease all lubricating points.
4. Keep the pressure equal on all wheels. The amount of the pressure will depend on size of tires, weight of disc and field conditions.
5. **NOTE:** See ILL. 14. If T2-215 bearing must be dismantled, double set screws must be removed from bottom of housing to remove seal cap.
6. See ILL. 14. When reinstalling bearing hanger on T2-215 Bearing (if gang is dismantled) do not over tighten the 5/8" x 10" (15.7 mm x 254 mm) bolts, which fasten hanger to bearing. Turn lock nut until it is snug against bearing hanger. The bolt may fail prematurely if it is over tightened.
7. See ILL. 14. If T2-215 series bearings must be dismantled, double set screws must be removed (at bottom of casting) to remove seal cap.



**CAUTION**

When inflating tires use a clip-on chuck and air hose extension which will allow operator to stand clear of tire and wheel assembly. Do not stand clear of tire and wheel assembly. Do not stand in front of or over tire when inflating. Exploding tire and wheel parts can cause serious injury or death.



**CAUTION**

Do not loosen or disassemble hydraulic components when there is pressure within those components. Escaping hydraulic fluid under pressure has sufficient force to penetrate skin. Always relieve the pressure in the hydraulic system before making adjustments to the hydraulic system.



**CAUTION**

Check all hydraulic hoses periodically for signs of ruptures and leaks. Always use wood or cardboard as a backstop, and wear gloves and eye protection when searching the hydraulic system for leaks. Spurting hydraulic fluid can cause injury if it penetrates the skin or the eyes. If injured by escaping hydraulic fluid, see a medical doctor immediately.



**CAUTION**

Always relieve the pressure in the hydraulic system when the disc is not being operated.



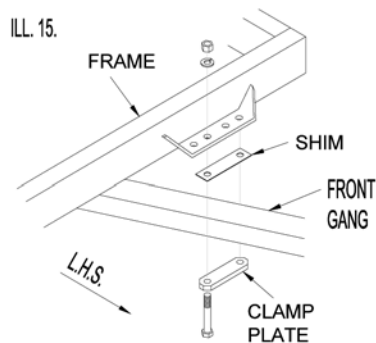
**CAUTION**

Always permit parts which contain hot fluid to cool to a safe temperature before handling or disconnecting these parts.



## Troubleshooting

1. If front outside blade on right hand side is cutting too deep, causing disc to ridge at outside, the following adjustments can be made:
  - A** - Check if transport wheels are on ground, gauging discing depth. If wheels are raised off ground, front end of disc will drop, causing disc to ridge on right hand side.
  - B** - Check tire pressure. If tire pressure is lower on right hand side disc will cut deeper on the right hand side.
  - C** - Using the leveling crank, raise front of disc.
  - D** - If above adjustments don't cure problem, place shims between front gang beam and left hand side of disc frame. Locate shim as shown in ILL. 15.
2. If left hand gangs are leaving ridges at the outside of disc, move rear gang towards right hand side or decrease discing speed.

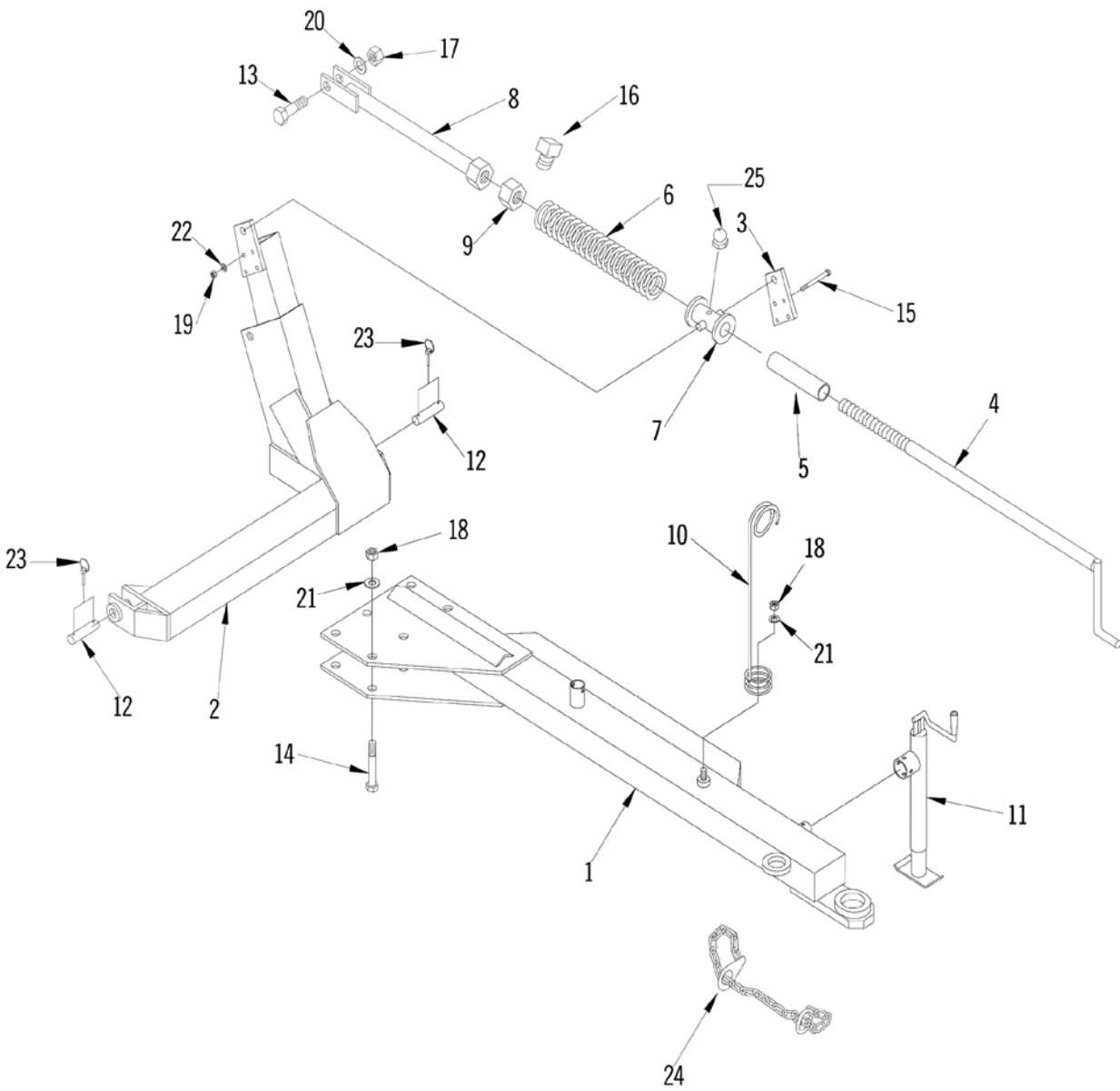


3. If left hand gangs are leaving a furrow at outside of disc, move rear gang toward left hand side or increase discing speed.
4. If left hand side of disc cuts deeper than the right hand side or opposite check tire pressure.
5. If disc is not penetrating soil, increase angle of front and rear gangs. If increased gang angle does not give desired penetration, disc may be too light.
6. If disc is pushing dirt and leaving ridge at the outside, decrease cutting angle of front and rear gangs.
7. If rear of disc side drafts towards right hand side, the following adjustments can be made:
  - A** - Reduce pressure on rear gangs by raising rear gangs with leveling crank. Be sure front gangs are not cutting deeper than rear gangs.
  - B** - If above adjustment does not cure problems, move hitch towards left hand side. If hitch can not be moved enough, loosen gang clamp plates, arrow 1, and move both front and rear gangs approximately 4" towards the right hand side.

8. If rear disc side drafts towards left hand side, the following adjustments can be made:
  - A** - Increase pressure on rear gang by lowering rear gangs with leveling crank.
  - B** - If above adjustments does not cure the problem, move hitch towards right hand side. If hitch can not be made enough, loosen gang clamp plates, arrow 1, and move both front and rear gangs approximately 4" towards left hand side. See ILL. 11 on page 15. (Move gangs more if required).
  
9. If disc is plugged - adjust scrapers so they are fully in contact with blades or reduce angle.



### Hitch and Crank Assembly

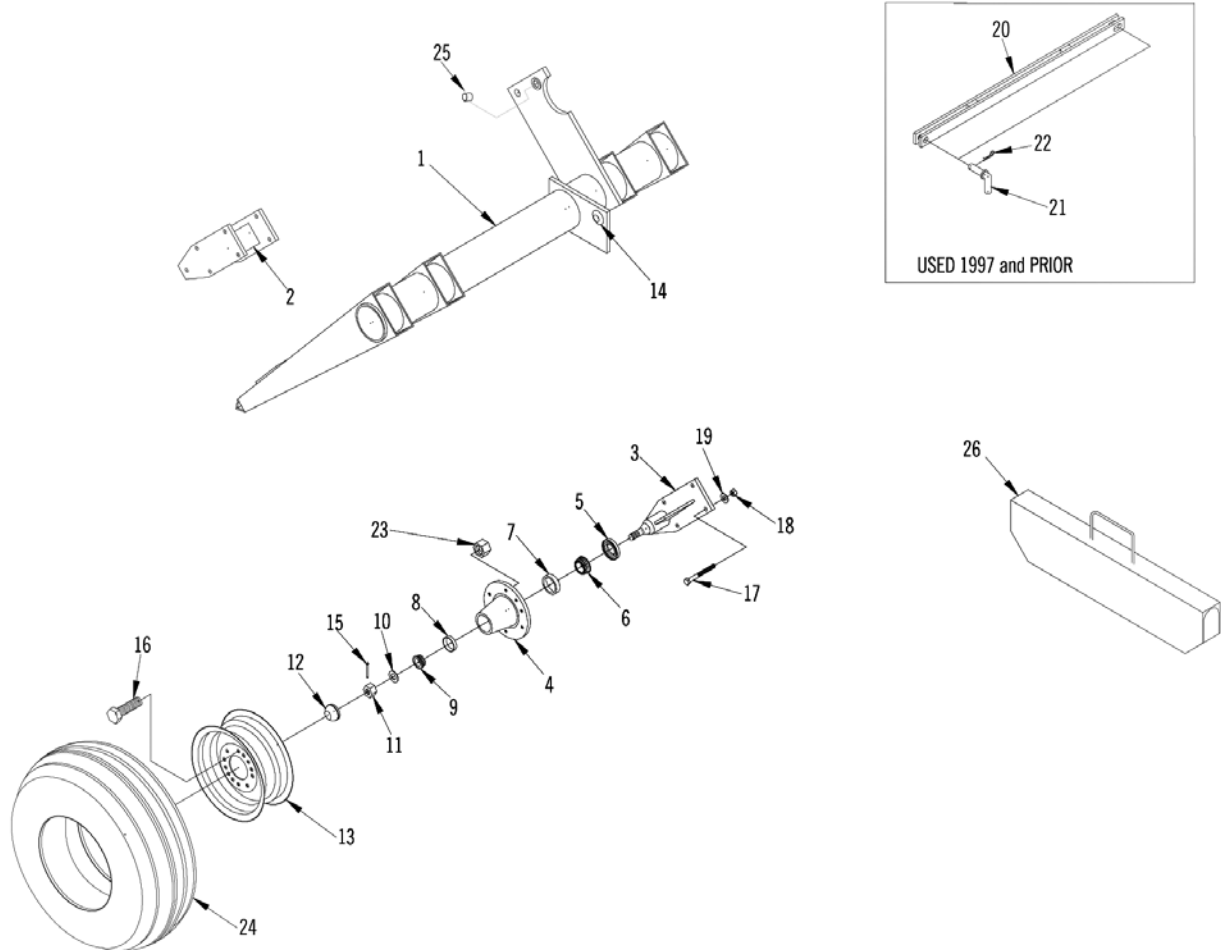


## When Ordering Parts

Always give your dealer the Model, Color and Serial Number of your machine to assist him in ordering and obtaining the correct parts. Use the exploded view and tabular listing of the area of interest to exactly identify the required part.

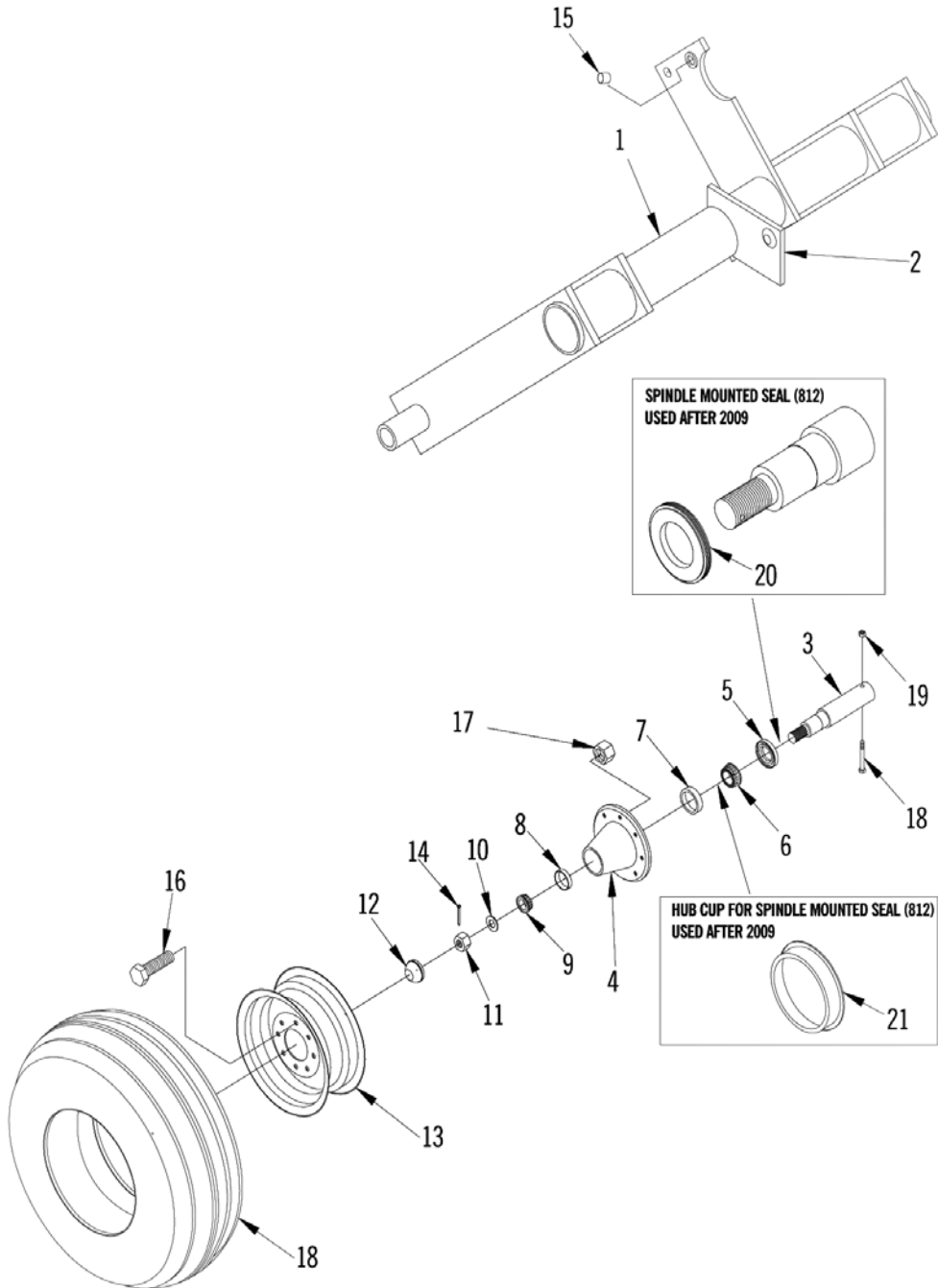
Item	Part Number	Description	Qty
1	DHA12015	Hitch Tongue Assembly	1
2	DHA12016	Hitch Draw Bar - (used on S/N 51789 and prior)	1
	DHA12321	Hitch Draw Bar - (used on S/N after 51789 )	1
3	DH5146	Levelling Arm Lug	1
4	DCA9970	Crank - 50" Long (1270mm)	1
5	DC13098	Spacer Tube - 11" (279mm) Lg	1
6	DC9618	22" (559mm) Spring	1
7	DCA12310	Bearing Tube - Levelling Crank	1
8	DCA8577	Levelling Link - 21" (533mm)	1
9	DH5	2" NC (50.8mm) Heavy Hex Nut - Drilled for Set Screw	1
10	DHA5161	Hose Support	1
11	DHB5170	Hitch Jack	1
12	DH12299	1-1/4" Dia x 6" (31.7 x 152mm) Pin	1
13	DR5215	1-1/4" x 4-3/4" (31.7 x 121mm) Hex Bolt (Special)	1
14	B100065	1" x 6-1/2" NC (25.4 x 165mm) Hex Bolt	6
15	BO50050	1/2" x 5" NC (12.7 x 127mm) Hex Bolt	4
16	BO50010S	1/2" x 1" NC (12.7 x 25.4mm) Square Head Set Screw	1
17	BN125	1-1/4" NC (31.7mm) Hex Nut	1
18	BN100SL	1" NC (25.4mm) Hex Steel Lock Nut	6
19	BN050	1/2" NC (12.7mm) Hex Nut	4
20	BW125L	1-1/4" (31.7mm) Lockwasher	1
21	L2264	2" OD x 1-1/32 x 1/2" ID (50.8 x 26.2 x 12.7mm) Washer	6
22	BW050L	1/2" (12.7mm) Lockwasher	4
23	DH12517	7/16" x 1-7/16" (11.1 x 36.5mm) Lynch Pin	2
24	D13090	Safety Chain 20200 lbs (9165kg) (Option)	1
25	10GN1	1/4" - 28 Grease Fitting	1

### Rockshaft and Wheel Assembly - Clamp-on Spindle Type (Used 2003 and prior)



Item	Part Number	Description	Qty
1	DRA12035	Rockshaft	1
2	DRA9645	Wheel Leg Spacer - 7-1/2" (190mm) Long	2
3	DRA5571	Spindle - 812 - 5 Bolt Type	4
4	DRA9679	812 Hub - c/w cups	4
5	DR9680	Grease Seal - #SE17	4
6	DR9684	Inner Cone Bearing - 3780	4
7	DR9682	Inner Cup - 3720	4
8	DR9683	Outer Cup - 2720	4
9	DR9685	Outer Cone Bearing - 2790	4
10	BW20010318F	2" OD x 1-1/37" ID x .187" (50.8mm x 26.2mm x 4.75mm) Flatwasher	4
11	DR110	1" NF (25.4mm) Hex Slotted Nut	4
12	DR9681	Hub Cap	4
13	S81509	15" x 10" (381mm x 254mm) 8 Hole rim	4
14	DR5227	1-1/4" (31.7mm) Ball Joint (Weld-on)	1
15	BP15125	5/32" x 1-1/4" (3.8mm x 31.7mm) Cotter Pin	4
16	DR9671	9/16" x 1-11/16" NF (14.2mm x 42.6mm) Wheel Stud	32
17	BO62060	5/8" x 6" NC (15.7mm x 152mm) Hex Bolt	20
18	BN062	5/8" NC (15.7mm) Hex Nut	20
19	BN062L	5/8" (15.7mm) Lockwasher	20
20	DRA12036	Lock-up Strap - (used 1997 and prior)	1
21	DRA5248	Lock-up Pin - (used 1997 and prior)	2
22	DW25	Hair Pin - (used 1997 and prior)	2
23	DR9670	9/16" NF (14.2mm) Hex Nut	32
24	125L15F	12.5L x 15 FI L/R AF	4
25	DR13120	1/4" x 1-1/4" (31.8 x 31.8mm) Long Steel Insert	1
26	DRA12037	Transport Lockup Bracket	1

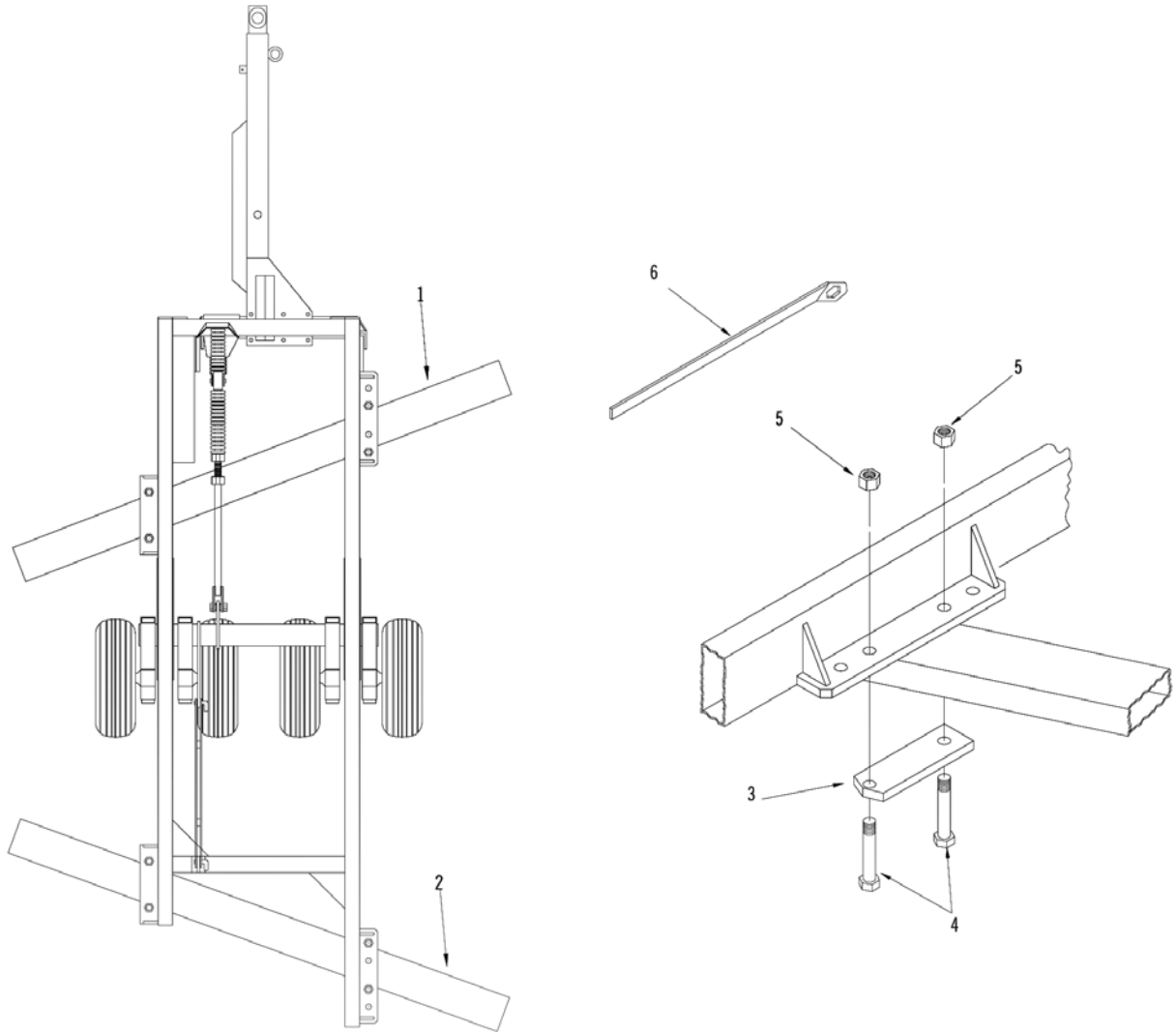
Rockshaft and Wheel Assembly - Bolt-in Spindle Type  
(Used after 2003)





Item	Part Number	Description	Qty
1	DRA12269	Rockshaft	1
2	DR5227	1-1/4" (31.7mm) Ball Joint - Weld-On	1
3	DR13004	Spindle - 812 - 13-3/4" (348mm)	4
4	DRA9679	812 Hub - c/w Cups	4
5	DR9680	Grease Seal - #SE17 (Used Prior To 2009)	4
6	DR9684	Inner Cone Bearing - 3780	4
7	DR9682	Inner Cup - 3720	4
8	DR9683	Outer Cup - 2720	4
9	DR9685	Outer Cone Bearing - 2790	4
10	BW20010318F	2" OD x 1-1/32" ID x .187" (50.8mm x 26.1mm x 4.75mm) Flatwasher	4
11	DR110	1" NF (25.4mm) Hex Slotted Nut	4
12	DR9681	Hub Cap	4
13	S81509	15" x 10" (381 x 254mm) 8 Hole Rim	4
14	BP15125	5/32" x 1-1/4" (3.8 x 31.7mm) Cotter Pin	4
15	DR13120	1-1/4" x 1-1/4" (31.7 x 31.7mm) Long Steel Insert	1
16	DR9671	9/16" x 1-11/16" NF (14.2 x 42.6mm) Wheel Stud	32
17	DR9670	9/16" NF (14.2mm) Hex Nut	32
18	BO50040	1/2" x 4" NC (12.7 x 101.6mm) Hex Bolt	4
19	BN050L	1/2" NC (12.7mm) Hex Nylon Lock Nut	4
20	DR13200	Seal - Spindle Mount Type (Used 2009 and Later)	4
21	DR13201	Seal Cup - Spindle Mount Type (Used 2009 and Later)	4

## Gang Beams



Item	Part Number	Description	Qty
<b>Front Gang Beam - 14" (356mm) spacing - (10" x 4" x 1/2" tube)</b>			
1	DBS 121-10	122" (3099mm) Beam - 17 Blade Disc	1
	DBS 136-10	136" (3454mm) Beam - 19 Blade Disc	1
	DBS 150-10	150" (3810mm) Beam - 21 Blade Disc	1
	DBS 165-10	165" (4191mm) Beam - 23 Blade Disc	1
	DBS 179-10	179" (4547mm) Beam - 25 Blade Disc	1
	DBS 194-10	194" (4928mm) Beam - 27 Blade Disc	1
<b>Rear Gang Beam - 14" (356mm) - (10" x 4" x 1/2" tube)</b>			
2	DBS 136-10	136" (3454mm) Beam - 17 Blade Disc	1
	DBS 150-10	150" (3810mm) Beam - 19 Blade Disc	1
	DBS 165-10	165" (4191mm) Beam - 21 Blade Disc	1
	DBS 179-10	179" (4547mm) Beam - 23 Blade Disc	1
	DBS 194-10	194" (4928mm) Beam - 25 Blade Disc	1
	DBS 209-10	209" (5309mm) Beam - 27 Blade Disc	1
3	DG12251	Gang Beam Clamp - 2 Hole	4
4	DG12254	1-1/2" x 8-1/2" NC (38.1mm x 216mm) Gr. 5 Hex Bolt	8
5	BN150	1-1/2" NC (38.1mm) Hex Nut	8
6	DGA12260	Wrench for 1-1/2" (38.1mm) Bolts	2

Disc Gang Assembly



Item	Part Number	Description	Qty
1	DG20118	32" x 12.7mm (1/2") Notched Disc Blade	*
2	DG20051	28" x 10mm (.393") Notched Disc Blade - Rear Outrigger	*
3	DG12252	2" NC (50.8mm) Heavy Hex Slotted Nut (Heat Treated)	4
4	DG89	1/4" (6.35mm) Shim Washer	*
5	DG88	1/2" (12.7mm) Shim Washer	*
6	DGA12257	Head Washer - Rear Gang - 7" OD x 2" long (178mm x 50.8mm) c/w Key Way - Machined	*
7	DGA12261	Std. Trunion Mounted Bearing Hanger	*
8	DGB9940	T2-215 Housing c/w Bearings, Seals, 9" (229mm) Steel Sleeve, Snap Rings and Cap - Less 1/2 Spools	*
9	DG9901	T2-215 Bearing Housing	*
10	DG9905	215 Bearing Seal - (National #200322)	*
11	DG9904	#6215 Ball Bearing Notched for Lubrication	*
12	DG9922	9" (229mm) Steel Sleeve w/ Drive Lugs	*
	DG9924	7-1/2" (191mm) Steel Sleeve w/ Drive Lugs (Outboard Bearing Only)	*
13	DG9902	Bearing Housing Cap	*
14	DG9911	External Snap Ring (Philip French #D1400-75)	*
15	DG9910	Internal Snap Ring (Philip French #D1300-130)	*
16	DG9913	Short Half Spool - 8-1/2" (216mm) OD (Press-On Type) - 14" (356mm) Spacing	*
17	DG9914	Long Half Spool - 7" (178mm) OD (Press-on Type) - 14" (356mm) Spacing	*
18	DGA10560	14" (356mm) Spacing Full Spool - 8-1/2" (216mm) Diameter Washer One End	*

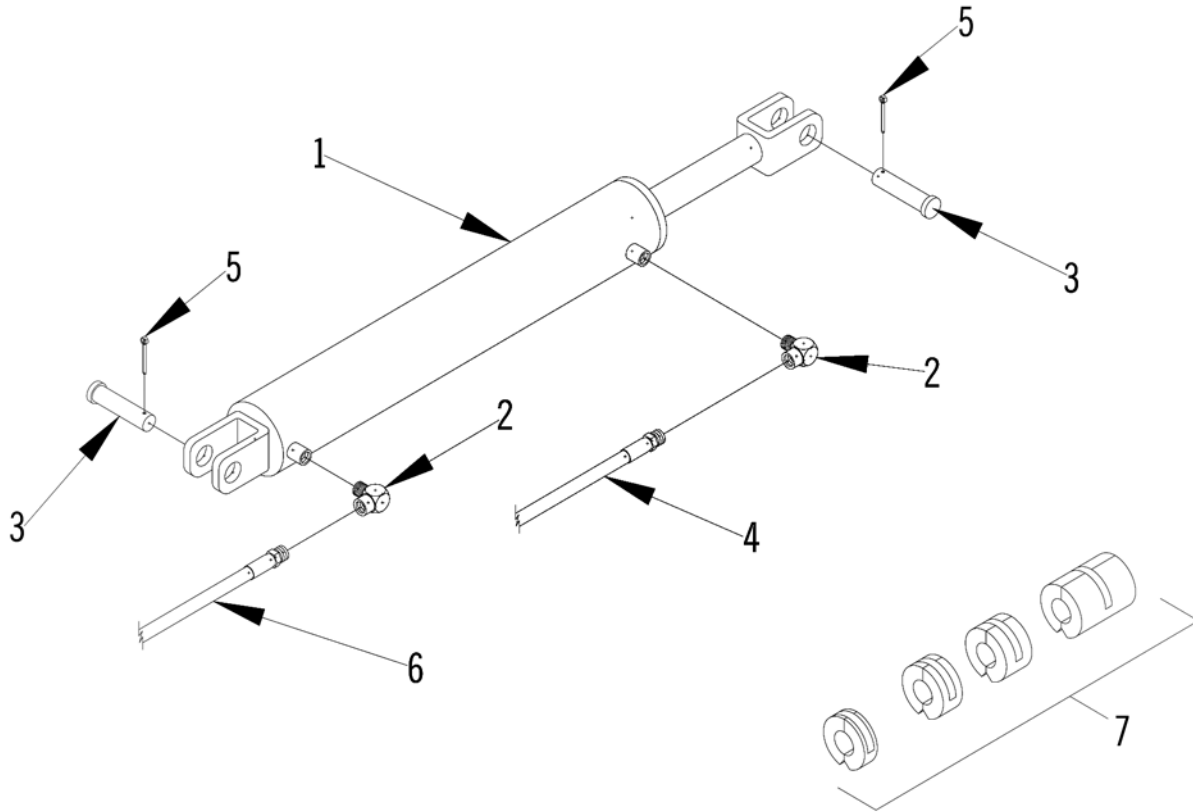
Gang Bolts - 14" Spacing			
19	DGA206	5 Blade - w /Outrigger Brg. - 77-5/8" (1972mm) Long	*
	DGA207	6 Blade - 81-3/4" (2076mm) Long	*
	DGA208	7 Blade - 96-3/8" (2448mm) Long	*
	DGA213	8 Blade - 111" (2819mm) Long	*
	DGA209	9 Blade - w/ Outrigger Brg. - 136-5/8" (3470mm) Long	*
	DGA167	10 Blades - w/ Outrigger Brg. - 149-5/8" (3800mm) Long	*
	DGA187	10 Blade - 140-1/4" (3562mm) Long	*
	DGA188	11 Blades - 154" (3912mm) Long	*
20	DGA35	Socket Wrench	1
21	DG10310	7/16" x 3" (10.9mm x 76.2mm) Lock Pin	4
22	DG12250	7/8" x 10" (22.0mm x 254mm) U-Bolt	*
23	BO62100	5/8" x 10" NC (15.7mm x 254mm) Hex Bolt - Used by Machines Less Bearing Guards	*
	BO62110	5/8" x 11 NC (15.7mm x 279mm) Hex Bolt - Used by Machines w/ bearing guards	*
24	BN087	7/8" NC (22.0mm) Hex Nut	*

Item	Part Number	Description	Qty
25	BN062L	5/8" NC (15.7mm) Hex Nylon Lock Nut	*
26	BW087L	7/8" (22.0mm) Lockwasher	*
27	10GN1	1/4" x 28 (6.35mm) Grease Fitting	*
28	DG9912	Set Screw	*
29	DGA12051	Bearing Guard - Front Gang	*
	DGA12052	Bearing Guard - Rear Gang	*
30	DGB9937	T2-215 Housing c/w Bearings, Seals, 7-1/2" (191mm) Steel Sleeve, Snap Ring & Cap - Outboard Bearing	*
31	DGA10588	4" OD x 1-3/4" (101.6mm x 44.4mm) Long End Plate w/ Keyway & Drive Slots - Front Gang Outboard Bearing	1
32	DGA10589	8-1/2" OD x 2-1/8" (216mm x 53.8mm) Long End Plate w/ Keyway	4
33	DG10597	1/2" Sq x 1-3/4" (12.7mm x 44.4mm) Key	4
34	DGA12053	Bearing Guard for Outboard Bearing	1
35	DG12268	1/2" Sq x 1" (12.7mm x 25.4mm) Key	*

\*As Required



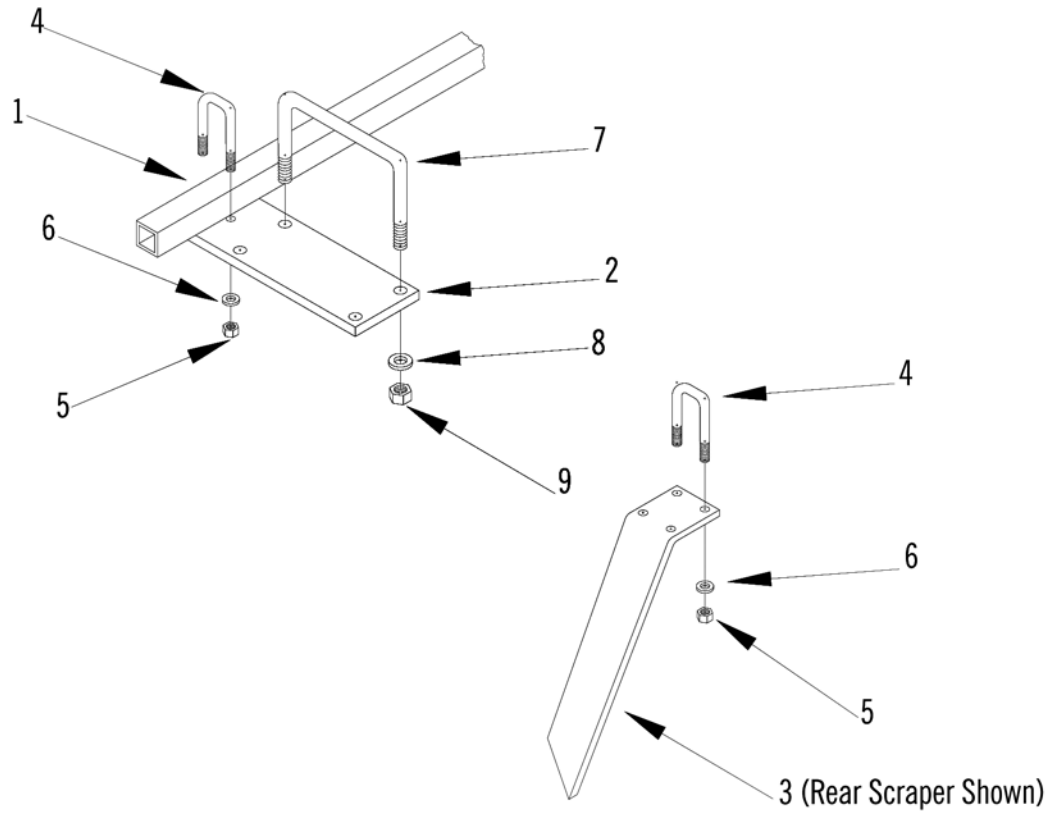
### Hydraulic System





Item	Part Number	Description	Qty
1	241	4" x 24" (101.6mm x 609.6mm) Rockshaft Cylinder	1
2	DL9777	1/2" (12.7mm) Street Elbow (Steel)	2
3	DR5252	Clevis Pin - 1-1/4" x 4-3/16" (31.7mm x 106.4mm)	2
4	DL2966	1/2" x 216" (12.7mm x 5486mm) Hose	1
5	BP25150	1/4" x 1-1/2" (6.35mm x 38.1mm) Cotter Pin	2
6	DL2963	1/2" x 190" (12.7mm x 4826mm) Hose	1
7	C50716	WHOA Stop Depth Control Package 8-3/4 (222mm)	2

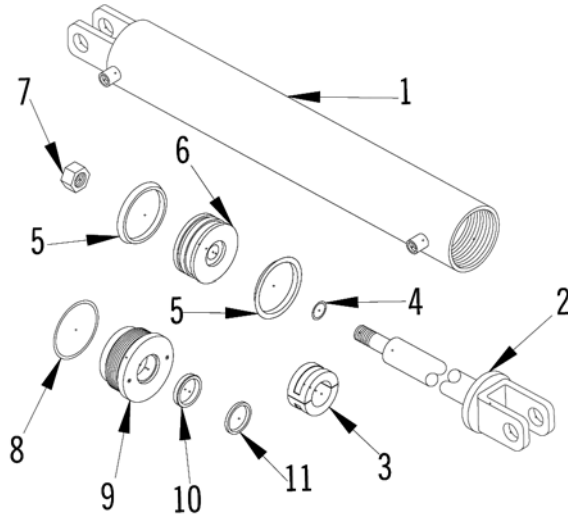
### Scraper Assembly



Item	Part Number	Description	Qty
<b>Scrapper Bars for 14" (356mm) Spacing - Front Gang</b>			
1	DS121-2-4	8 Blade - 121" (3073mm) Long	*
	DS136-2-4	9 Blade - 136" (3454mm) Long	*
	DS150-2-4	10 Blade - 150" (3810mm) Long	*
	DS165-2-4	11 Blade - 165" (4191mm) Long	*
	DS179-2-4	12 Blade - 179" (4547mm) Long	*
<b>Scrapper Bars for 14" (356mm) Spacing - Rear Gang</b>			
	DS136-2-4	9 Blade - 136" (3454mm) Long	*
	DS150-2-4	10 Blade - 150" (3810mm) Long	*
	DS165-2-4	11 Blade - 165" (4191mm) Long	*
	DS179-2-4	12 Blade - 179" (4547mm) Long	*
	DS194-2-4	13 Blade - 194" (4928mm) Long	*
2	DG12253	Scrapper Bar Support - 18" (457mm) Long	*
3	DGA12255	Scrapper - 3/4" x 4" - (19.0mm x 102mm) Front Gang	*
	DGA12256	Scrapper - 3/4" x 4" - (19.0mm x 102mm) Rear Gang	*
4	DG5309	5/8" x 2" (15.7mm x 50.8) U-Bolt	*
5	BN062	5/8" (15.7mm) Hex Nut	*
6	BW062L	5/8" (15.7mm) Lockwasher	*
7	DG12250	7/8" x 10" (22.0mm x 254mm) U-Bolt	*
8	BW087L	7/8" (22.0mm) Lockwasher	*
9	BN087	7/8" (22.0mm) NC Hex Nut	*

\*As Required

### Rockshaft Cylinder - N4 Type



Item	Part Number	Description	Qty
1	40TU9	Tube Assembly - 4" x 24" (102mm x 610mm)	1
	10SH46	Shaft - 1-3/4" x 24" (44.4mm x 610mm)	1
	C50711	Depth Control Stop Ring - 1" (25.4mm) Long	2
	C50712	Depth Control Stop Ring - 1-1/2" (38.1mm) Long	2
	C50713	Depth Control Stop Ring - 1-3/4" (44.4mm) Long	2
	C50717	Depth Control Stop Ring - 4-1/4" (108mm) Long	2
	10OR13	1/8" x 1-1/4" OD (3.0mm x 31.7mm) O'ring	1
	40CU3	3-1/2" x 4" x 3/8" (88.9mm x 102mm x 9.4mm) U-Cup	2
	40PB5	4" OD x 2-1/2" (102mm x 63.5mm) Long Piston	1
	10NU4	1" (25.4mm) Lock Nut	1
	10OR17	3/16" x 4" OD (4.6mm x 102mm) O'Ring	1
	40HP7	4" OD x 1-3/4" ID (102mm x 44.4mm) Head Plate	1
	10RS3	1-3/4" x 2-1/8" x 3/8" (44.4mm x 53.8mm x 9.4mm) Rod Seal	1
	10WS3	1-3/4" x 2-1/8" x 3/16" (44.4mm x 53.8mm x 4.6mm) Wiper Seal	1

Cylinder Seal Kit - Part No. 4017N4			
	40CU3	4" x 24" (102mm x 610mm) Rockshaft Cylinder	2
	10OR13	1/8" x 1-1/4" OD (3.0mm x 31.7mm) O'Ring	1
	10OR17	3/16" x 4" (4.6mm x 102mm) OD O'Ring	1
	10RS3	Rod Seal 1-3/4" (44.4mm) ID	1
	10WS3	Wiper Seal 1-3/4" (44.4mm) ID	1
	10OR19	1-1/8" ID x 1-1/4" OD (28.4mm x 31.7mm) O-Ring	1

\*As Required

## Delivery Checklist

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### Pre-delivery

- Torque all wheel bolts/lug nuts to specifications.
- Check tire pressures are correct. (Affects leveling process)
- Level machine. Refer to Operator's Manual for detailed instructions.
- Lubricate the entire machine as recommended in the Operator's Manual.
- Check tightness of all bolts.
- Check the correct # of depth stops are installed on mounting bar. (5)  
\*Model 8550 Offset takes (8) depth stops.
- Set front and rear gangs at medium angle.
- Adjust scrapers so they come into contact with blades.
- Check Operator's Manual to ensure all decals are correctly installed.
- Connect disc to tractor with a suitable pin and then lift the hitch jack.
- Check hydraulic hoses are leak free and hydraulic cylinders are filled with oil.
- Adjust mounted harrows as required (if equipped).
- Check lateral (side-to-side) settings of front and rear gangs and hitch tongue.
- Check all electrical components and connections.
- Check operation of safety lights to ensure they function properly.
- Ensure hydraulic lockout valves function properly.

Dealer Representative:

Date:

### Customer Delivery

- Give the Operator's Manual to your customer.
- Inform your customer of all safety precautions, maintenance procedures, and proper operation of the disc.
- Verify correct serial number.
- Attach disc to tractor.
- Ensure hitch jack is in transport position.
- Connect hydraulics, wiring harness, safety chain, etc.
- Ensure machine functions properly. (Fold/unfold, no leaks, lights work, etc)
- Take the disc to a field (preferably where the ground is level, if possible) and perform all required leveling adjustments. Follow the Operator's Manual.
- Explain warranty and fill out registration
- Start tractor and run all controls so your customer understands the correct operation of the disc and ensure all functions of the disc are working properly.

Dealer Representative:

Date:



## Allied by Farm King Limited Warranty

This document limits your warranty rights.

### **Base Limited Warranty**

Buhler Industries Inc. provides this warranty only to original retail purchasers of its product. Buhler Industries Inc. warrants to such purchasers that all Buhler Industries Inc. manufactured parts and components used and serviced as provided for in the Operator's Manual shall be free from defects in materials and workmanship for a period following delivery to the original retail purchaser of 12 months (80 days for commercial applications). This limited warranty applies only to those parts and components manufactured by Buhler Industries Inc. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Buhler Industries Inc. will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Buhler Industries Inc. within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Buhler Industries Inc. reserves the right to either inspect the product at the buyer's location or have it returned to the factory for inspection. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Buhler Industries Inc. will not be responsible for repairs or replacements that are necessitated, in whole or part, by the use of parts not manufactured by or obtained from Buhler Industries Inc. Under no circumstances are component parts warranted against normal wear and tear. There is no warranty on product pump seals, product pump bearings, rubber product hoses, pressure gauges, or other components that require replacement as part of normal maintenance. Also: Buckets and Bucket Tines carry no warranty, Bent Spears carry no warranty, Snowblower Fan Shafts carry no warranty, Mower Blades carry no warranty, Portable Auger Parts Have Two (2) Year Warranty, Loader Parts Have Two (2) Year Warranty. The purchaser is solely responsible for determining suitability of goods sold. This warranty is expressly in lieu of all other warranties expressed or implied. Buhler Industries Inc. will in no event be liable for any incidental or consequential damages whatsoever. Nor for any sum in excess of the price received for the goods for which liability is claimed.

### **Repair Parts Limited Warranty**

Buhler Industries Inc. warrants Farm King replacement parts purchased after the expiration of the Buhler Industries Inc. Limited Warranty, and used and serviced as provided for in the Operator's Manual, to be free from defects in materials or workmanship for a period of thirty (30) days from the invoice date for the parts. Buhler Industries Inc. will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Buhler Industries Inc. within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Such parts must be shipped to Buhler Industries Inc. at the purchaser's expense.

### **What is Not Covered**

Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Buhler Industries Inc.; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Buhler Industries Inc.



**Authorized Dealer and Labor Costs**

Repairs eligible for labor under this limited warranty must be made by Buhler Industries Inc. or an authorized Farm King dealer. Buhler Industries Inc. retains the exclusive discretion to determine whether it will pay labor costs for warranty repairs or replacements, and the amount of such costs that it will pay and the time in which the repairs will be made. If Buhler Industries Inc. determines that it will pay labor costs for warranty work, it will do so by issuing a credit to the dealer's or distributor's account. Buhler Industries Inc. will not approve or pay invoices sent for repairs that Buhler Industries Inc. has not previously approved. Warranty service does not extend the original term of this limited warranty.

**Warranty Requirements**

To be covered by warranty, each Farm King new product must be registered with Buhler Industries Inc. within thirty (30) days of delivery to original retail purchaser. If the customer decides to purchase replacement components before the warranty disposition of such components is determined, Buhler Industries Inc. will bill the customer for such components and then credit the replacement invoice for those components later determined to be covered by this limited warranty. Any such replacement components that are determined not be covered by this limited warranty will be subject to the terms of the invoice and shall be paid for by the purchaser.

**Warranty Claims:**

Warranty requests must be prepared on Buhler Industries Inc. Warranty Claim Forms with all requested information properly completed. Warranty Claims must be submitted within a thirty (30) day period from date of failure repair.

**Warranty Labor:**

Any labor subject to warranty must be authorized by Buhler Industries Inc. The labor rate for replacing defective parts, where applicable, will be credited at 100% of the dealer's posted shop rate.

**Exclusive Effect of Warranty and Limitation of Liability**

TO THE EXTENT PERMITTED BY LAW, BUHLER INDUSTRIES INC. DISCLAIMS ANY WARRANTIES, REPRESENTATIONS, OR PROMISES, EXPRESS OR IMPLIED, AS TO THE QUALITY, PERFORMANCE, OR FREEDOM FROM DEFECT OF THE COMPONENTS AND PARTS COVERED BY THIS WARRANTY AND NOT SPECIFICALLY PROVIDED FOR HEREIN.

TO THE EXTENT PERMITTED BY LAW, BUHLER INDUSTRIES INC. DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ON ITS PRODUCTS COVERED HEREIN, AND DISCLAIMS ANY RELIANCE BY THE PURCHASER ON BUHLER INDUSTRIES INC.'S SKILL OR JUDGMENT TO SELECT OR FURNISH GOODS FOR ANY PARTICULAR PURPOSE. THE PURCHASER'S ONLY AND EXCLUSIVE REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON PRODUCTS MANUFACTURED BY BUHLER INDUSTRIES INC. ARE THOSE SET FORTH HEREIN. IN NO EVENT SHALL BUHLER INDUSTRIES INC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BY WAY OF EXAMPLE ONLY AND NOT LIMITATION, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE, OR COST OF REPLACEMENT OF RENTAL EQUIPMENT). IN NO EVENT SHALL FARM KING'S CONTRACT OR WARRANTY LIABILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT.

(Note that some provinces or states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusion may not apply to you.) This warranty gives you specific legal rights and you may also have other rights, which vary from province to province or state to state.

Buhler Industries Inc. neither assumes nor authorizes any person or entity, including its selling representatives, to assume any other obligations or liability in connections with the sale of covered equipment, or to make any other warranties, representations, or promises, express or implied, as to the quality, performance, or freedom from defect of the components and parts covered herein. No one is authorized to alter, modify, or enlarge this limited warranty, or its exclusions, limitations and reservations.

Corrections of defects and improper workmanship in the manner, and for the applicable time periods, provided for herein shall constitute fulfillment of all responsibilities of Buhler Industries Inc. to the purchaser, and Buhler Industries Inc. shall not be liable in negligence, contract, or on any other basis with respect to the subject equipment.

This limited warranty is subject to any existing conditions of supply which may directly affect Buhler Industries Inc.'s ability to obtain materials or manufacture replacement parts.

Buhler Industries Inc. reserves the right to make improvements in design or changes in specifications to its products at anytime, without incurring any obligation to owners of units previously sold.

**Government Legislation:**

Warranty terms and conditions are subject to provincial or state legislation.

**Important Note:** This warranty does not apply to rentals.



[www.farm-king.com](http://www.farm-king.com)



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