



**6|DT Subsoil Ripper
Operator's Manual**

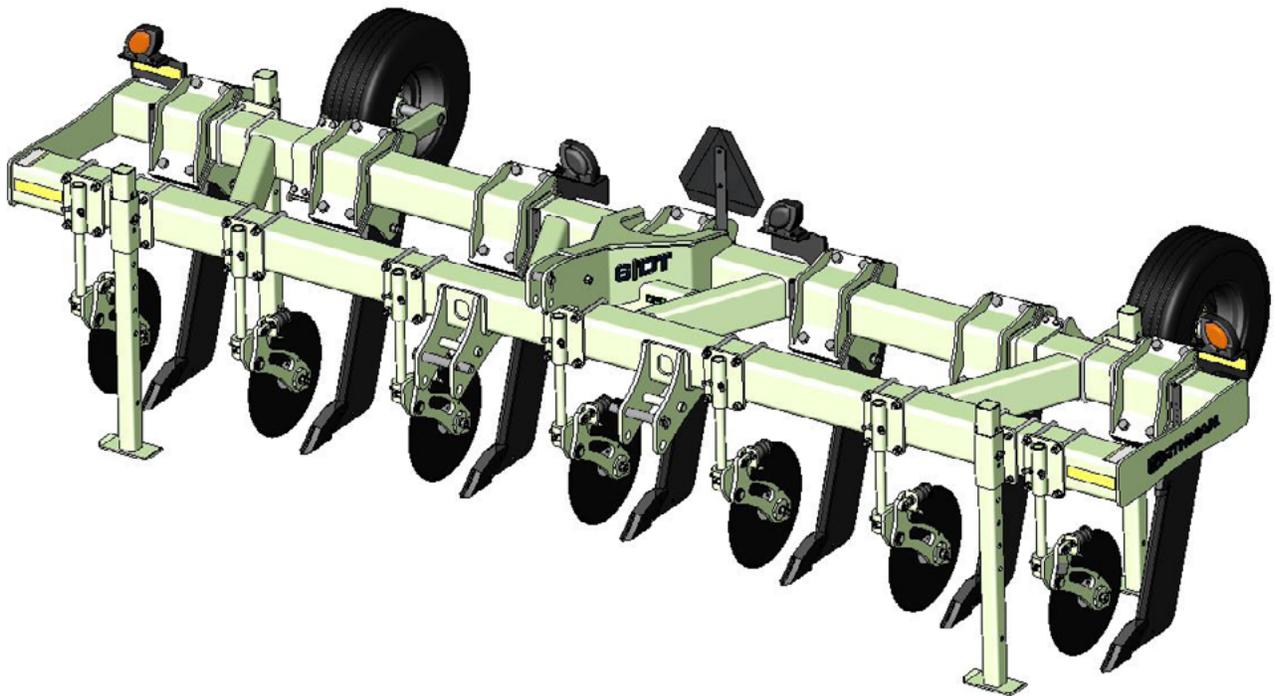
Part #125-027-01



The Orthman 6|DT Subsoil Ripper is designed as a soil conservation tool that destroys deep compaction layers to increase moisture intake, reduce run off and increase yields.

With a working depth ranging from 8" - 20", the 6|DT enables your field to soak up moisture and produce to the best of its ability. The 6|DT provides maximum tillage without the loss of moisture from evaporation and is the most effective tool available to correct yield-robbing and moisture-denying compaction layers.

The all new heavy-duty toolbar is designed from the ground up to withstand the rigors of ripping up to 20" deep. Made from dual 7x7" bars with engineered reinforcements to provide unmatched toolbar strength, the 6|DT is available in row spacings of 30", 36", 38" and 40" with 5 to 9 shanks, and with category 3/3N or 4/4N 3-point hitches.



7 shank 6|DT SUBSOIL RIPPER shown with optional spring coulters and gauge wheels.

This manual is considered to be an integral component of the 6|DT Subsoil Ripper and is designed to educate the owner and/or operator(s) regarding safety, operation, maintenance, troubleshooting, and component identification. All personnel involved in the operation of this implement are responsible for reading and understanding entire manual content. This manual is designed to keep the operator safe and knowledgeable as well as prolong the life of the implement and maximize field efficiency. This manual should accompany the implement if it were ever to be sold.

We would like to thank you for placing your confidence in Orthman Mfg., Inc. Your 6|DT Subsoil Ripper is manufactured to meet the highest standards and is built with precision and strength to increase your agricultural operation's dependability and profitability.

Thank you for choosing Orthman.

To The Dealer:

Inspect the implement thoroughly after assembly to be certain it is functioning properly before delivering it to the customer. The following checklist is a reminder of points to cover. Check off each item as it is found satisfactory or after proper adjustment is made.

Pre-Delivery Checklist

- 1. All Hardware properly tightened.
- 2. Lubrication of grease fittings.
- 3. All decals properly located and readable.
- 4. All implement tools and options are installed and set.
- 5. Check overall condition of implement.
- 6. Make sure Operator's manual is included.

Date Set Up. _____

Signature. _____

Delivery

Review the operator's manual with the customer. Explain the following:

1. Introduce the machine to the customer. Give the customer this manual and encourage them to read it.
2. Make the customer aware of all the safety precautions that must be exercised when using and transporting this machine.
3. Make customer aware of the different tooling options available.
4. This machine does not come set to run in the field from the factory. The Field settings section in this manual is meant to help set the machine for optimal performance. Explain all operating adjustments.
5. Explain to the customer that the life expectancy of this machine depends on regular maintenance as directed in this manual.
6. Tell the customer to use the proper tools for service and make them aware of Orthman parts availability.
7. Write machine model number and serial number in the spaces provided below.

Date delivered. _____

Signature. _____

Model Number. _____

Serial Number. _____

WARRANTY

Orthman warrants each new wholegood product to be free from defects in manufactured components and workmanship. This warranty is applicable only for the normal service life expectancy of the product or components, not to exceed twenty-four (24) consecutive months from date of purchase of the new Orthman product to the original purchaser.

Purchased components installed by Orthman (blades, bearings, controls, hoses, wheels, coulters, cylinders, fittings, etc.) shall be warranted by the respective manufacturer for a period of twelve (12) consecutive months from date of delivery of the new Orthman product to the original purchaser.

A completed online Warranty Registration for the original purchaser must be received by Orthman to activate warranty coverage. Non-receipt of warranty registration may void warranty coverage. The Orthman warranty is non-transferable.

Genuine Orthman replacement parts and components will be warranted for ninety (90) days from date of purchase, or the remainder of the original equipment warranty period, whichever is greater.

All warranty work is to be performed by an authorized Orthman dealer at the repairing dealer's location, unless otherwise approved by Orthman.

Under no circumstances, will this warranty cover any merchandise or component thereof, which, in the opinion of Orthman, has been subjected to misuse, unauthorized modifications or alteration, accident, collision with obstruction/ground, or if repairs have been made with parts other than those obtainable through Orthman.

Orthman warranty policies do not cover travel expenses, after-hours field/service time, overnight expenses, or expenses not related to regular shop labor rates or parts replaced during actual warranty repair. Orthman reserves the right to adjust warranty labor credits to believed normal repair times as directed by state law(s).

This warranty shall be limited to repairing or replacing, free of charge to the purchaser, any part, which Orthman's judgment shows evidence of such defect. Additionally, the defective part(s) shall be returned within thirty (30) days from the date of failure to Orthman through the dealer or distributor from whom the product was purchased or repaired; transportation charges prepaid.

This warranty shall not be interpreted to render Orthman liable for injury or damages of any kind or nature to person or property. This warranty does not extend to the loss of crops, loss of delay in harvesting/planting, or any expense or loss incurred for labor, substitute machinery, rental, or any subsequent reasons thereof.

Except as set forth above, Orthman shall have no obligation or liability of any kind on account of its equipment and shall not be liable for special or consequential damages. **Orthman makes no other warranty, expressed or implied, and, specifically disclaims any implied warranty or merchantability or fitness for a particular purpose.** Some states or provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusion in this warranty may not apply. This warranty is subject to any existing conditions of supply, which may directly affect ability to obtain materials or manufacture replacement parts.

Orthman reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold; to include, but not limit to engineering prototype machines. No one is authorized to alter, modify, or enlarge this warranty nor the exclusions, limitations, and reservations.

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Lexington, Nebraska
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Orthman provides this manual without warranty of any kind, expressed or implied. This manual reflects the product at the time of publication. All information within is based upon current information on the publication date. Orthman assumes no responsibility for damages incurred due to the use of the illustrations, information, and specifications within this publication.

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Farm Safety

Contrary to the popular image of fresh air and peaceful surroundings, a farm is not a hazard-free work setting. Every year, thousands of farm workers are injured and hundreds more die in farming accidents. According to the National Safety Council, agriculture is the most hazardous industry in the nation.

How You Can Improve Farm Safety

You can start by increasing your awareness of farming hazards and making a conscious effort to prepare for emergency situations including fires, vehicle accidents, electrical shocks from equipment and wires, and chemical exposures. Be especially alert to hazards that may affect children and the elderly. Minimize hazards by carefully selecting the products you buy to ensure that you provide good tools and equipment. Always use seat belts when operating tractors, and establish and maintain good housekeeping practices. Here are some other steps you can take to reduce illnesses and injuries on the farm:

- Read and follow instructions in equipment operator’s manuals and on product labels.
- Inspect equipment routinely for problems that may cause accidents.
- Discuss safety hazards and emergency procedures with your workers.
- Install approved rollover protective structures, protective enclosures, or protective frames on tractors.
- Make sure that guards on farm equipment are replaced after maintenance.
- Review and follow instructions in material safety data sheets (MSDSs) and on labels that come with chemical products and communicate information on these hazards to your workers.

Health and Safety Hazards on Farms

Farm workers including farm families and migrant workers are exposed to hazards such as the following:

Danger	Potential Effect or Injury	Prevention
Chemicals/Pesticides	Skin and respiratory injury or death	MSDS and proper Personal Protective Equipment. Review Manufacturers data sheets
Cold	Illness, Frostbite or death	Dress properly for the day.
Dust	Respiratory injury or explosive combinations	Be aware of your surroundings and activity
Electricity	Shock, burns, fire, death	Use a qualified professional for wiring dangerous electrical devices. Never overload a circuit. Replace damaged electrical devices or cords. Electrical tape will not insulate you from injury.
Grain bins, Silos	Entrapment, Suffocation, Explosion from formation of dangerous gases and poisoning.	Make sure the bin is properly ventilated and maintained. Never walk the grain.
Hand tools	Injury including cuts abrasions, electrocution, strains, sprains and death	Make sure you hand tools are in good condition. Never leave a damaged tooling accessible for someone else to use.
Highway traffic	Collisions resulting in injury or death	Follow regulations, stay alert. Avoid alcohol and use of communication devices while driving
Lifting & lifting devices	Back injury, sprains, strains. Falling material resulting in being struck or crushed by heavy material	Use proper lifting technique. Get help when the load is too heavy. Inspect chains, straps or cables routinely to make sure they are in good condition.
Livestock handling	Serious injury or death resulting from being pinned struck or trampled.	Always make sure you have adequate room and an escape route
Machinery/Equipment	Cuts, abrasions, amputations, death.	Thoroughly read and understand your Owners Equipment Manual. Never operate the equipment without guards in place. Make sure the equipment can not be energized or otherwise put into operation while you are working on it.
Manure pits	Explosion from formation of dangerous gases. Suffocation. Poisoning	Proper maintenance.
Mud	Sprains, strains, entrapment and suffocation. Eye injury and skin irritation.	Proper Personal Protective Equipment. In some conditions a "Spotter" may be needed.
Noise	Hearing damage	Personal Protective Equipment.
Ponds	Drowning	Wear a life preserver and make sure help is readily available.
Slips/Trips/Falls	Sprains, strains, back and neck injury, bone breaks or death	Keep work area free from clutter and organized. If working on anything elevated make sure you have appropriate guarding and/or fall protection such as a harness and lanyard.
Sun/Heat	Sunburn, Heat Stroke, shock, death	Use common sense on excessively hot days, use sun screen, wear a hat and stay hydrated.
Toxic gases	Skin and respiratory injury or death. Explosion.	MSDS and proper Personal Protective Equipment. Review Manufacturers data sheets
Tractors	Cuts, abrasions, amputations, death.	Thoroughly read and understand your Owners Equipment Manual. Never operate the equipment without guards in place. Anti-roll over devices.
Wells	Electrocution, amputation, death	Avoid contact with water while working on an electrical device. Always be sure the equipment can/will not be energized during repair or maintenance. Make sure all guarding is in place.
Severe Weather	Electrocution, "struck by" injuries, death	Move to a safe place. Lightening, hail and tornadoes are unpredictable.

Orthman Manufacturing, Inc. does not limit the potential effects or injuries nor prevention measures to those listed above. They are provided solely as a guideline to making your farm life safer. Always consult your Owner/Operators Manual for specific tool and equipment safety requirements.

SAFETY INFORMATION

High Risk Factors on Farms

The following factors may increase risk of injury or illness for farm workers:

- Age – Injury rates are highest among children age 15 and under and adults over 65.
- Equipment and Machinery – Most farm accidents and fatalities involve machinery. Proper machine guarding and doing equipment maintenance according to manufacturers' recommendations can help prevent accidents.
- Protective Equipment – Using protective equipment, such as seat belts on tractors, and personal protective equipment (such as safety gloves, coveralls, boots, hats, aprons, goggles, face shields) could significantly reduce farming injuries.
- Take precautions to prevent entrapment and suffocation caused by unstable surfaces of grain storage bins, silos, or hoppers. Never "walk the grain."
- Be aware that methane gas, carbon dioxide, ammonia, and hydrogen sulfide can form in unventilated grain silos and manure pits and can suffocate or poison workers or explode.
- Take advantage of safety equipment, such as bypass starter covers, power take-off master shields, and slow-moving vehicle emblems.
- Medical Care – Hospitals and emergency medical care are typically not readily accessible in rural areas near farms.

The Benefits of Improved Safety and Health Practices

Orthman Manufacturing Provides this document in the hope that everyone that has a job to do, does it SAFELY. Our goal and yours should be to end each day in the best possible health. Better safety and health practices reduce fatalities, injuries, and illnesses as well as associated costs such as workers' compensation insurance premiums, lost production, and medical expenses. A safer and more healthful workplace improves morale and productivity.

⚠ FOR YOUR PROTECTION

READ AND UNDERSTAND THE ENTIRE CONTENT OF THIS MANUAL BEFORE OPERATING OR SERVICING IMPLEMENT. Read and understand all operator manuals for the machinery used in conjunction with your Orthman equipment.

- Carefully **READ ALL SAFETY DECALS** in this manual as well as on the implement. Keep implement clean so decals are easily visible. Keep all safety decals in good, clean, and legible condition. Immediately replace damaged and/or missing decals. Replacement decals are available from your Orthman dealer.
- Learn to operate the implement and all components properly. Do not let others operate implement without proper instruction. Unauthorized implement modifications may impair function and safety. If you do not understand any content in this manual or need assistance, contact your Orthman dealer.

⚠ EQUIPMENT SAFETY GUIDELINES

Operator safety is the primary concern when designing an Orthman implement. Orthman integrates as many safety features into the implement as possible. You can avoid many hazards and possible accidents by observing precautions in this safety section.

- Insist that yourself and personnel working with and around you follow all safety precautions. Be cautious when working with or around implement to avoid injury.

SAFETY ALERT SYMBOL

The **SAFETY ALERT SYMBOL** warns of potential hazards to personal safety and that extra precautions must be taken. When you see this symbol, carefully read the message(s) that follow. Follow all recommended precautions and safe operating practices in this manual.

NOTE: Hazard control and accident prevention are dependent upon the safety awareness and proper training of personnel involved in the operation of this implement.

SAFETY INFORMATION

BE AWARE OF SIGNAL WORDS

SIGNAL WORDS designate a degree or level of **HAZARD** seriousness. These signal words include:



DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury. **DANGER** is limited to extreme situations, typically for machine components which for functional purposes, cannot be guarded.



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



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

SHUTDOWN AND STORAGE



AVOID CRUSHING. Make sure all personnel are clear of the implement. Lower implement to the ground, place tractor in park, turn off engine, and remove key.



USE BAR STANDS AND CYLINDER STOPS TO SUPPORT THE IMPLEMENT.

Store implement on a clean, dry, and level surface. An uneven surface could cause implement to shift or fall, resulting in injury or death, as well as implement damage. Securely support all implement components that must be raised. Store implement away from human activity.

SAFE TRANSPORT

- Engage transport locking devices prior to transport.
- Plan your route to avoid traffic. Yield to traffic in all situations.
- Maximum transport speed is 20 mph (32 kph). Various conditions will require reduced speed. Travel at speeds that allow for adequate control of stopping and steering.



AVOID ELECTROCUTION. Be aware of overhead power lines. Contact or close proximity to power lines can result in injury or death. Use extreme care when operating implement near power lines.

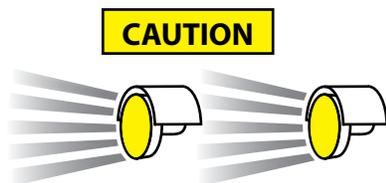


- Know implement transport height and gross weight. Avoid overhead obstructions not allowing your transport height. Do not use bridges rated below combined implement and tractor weight.
- Make sure a slow moving vehicle (SMV) placard is mounted to the implement and is easily visible to other motorists.
- Make allowances for implement size when transporting. Sudden braking can cause a towed load to swerve and/or rollover. Never use independent braking with implement in tow as loss of control and/or rollover can result. Reduce speed if towed implement is not equipped with brakes.
- Do not coast. Always keep tractor or towing device in gear to provide engine braking when traveling downhill.
- Comply with state and local laws governing implement transport.



WARNING AND SAFETY LIGHTS

- Oversized implements and slow moving vehicles create a hazard when transported on public roads.
- Make sure all warning, safety lights, and turning signals are working and clean. Use safety lighting when using public roads day and night. Replace missing or damaged lights immediately. Comply with state and local laws governing implement safety lighting.
- A safety lighting package, conforming to implement lighting standard ANSI/SAE S279.12, if not supplied with, is available for addition to your equipment. Contact your Orthman dealer for safety lighting package information. Refer to toolbar operator's manual for safety lighting package installation and adjustment.



SAFETY INFORMATION

SAFE OPERATION



READ AND UNDERSTAND THE ENTIRE CONTENT OF THIS MANUAL BEFORE OPERATING OR SERVICING IMPLEMENT.

Implement is to be operated by qualified personnel only. Never let children operate implement. A complete understanding of safety precautions, operation, and maintenance is mandatory before implement use.



AVOID ELECTROCUTION. Be aware of overhead power lines. Contact or close proximity to power lines can result in injury or death. Use extreme care when operating implement near power lines.

- Know implement transport height and gross weight. Avoid overhead obstructions not allowing your transport height. Do not use bridges rated below combined implement and tractor weight.



AVOID ROLLOVER. Do not fold or unfold implement and avoid sharp turns when on a hillside, as shift of weight could cause rollover. Operate implement at a safe distance from terrain irregularities and other obstructions that could cause rollover.



AVOID CRUSHING. Make sure all personnel are clear of implement at all times implement is in motion. Be aware of obstructions above, below, and around implement when in operation or transport. Injury or death can result from being struck by the implement.



NO RIDERS

NEVER ALLOW RIDERS ON TRACTOR OR IMPLEMENT. Riders hinder operator visibility and can be thrown from the implement and/or be struck by foreign objects resulting in injury or death.

PRACTICE SAFE MAINTENANCE



Proper maintenance is your responsibility. Maintenance neglect and/or poor maintenance practices can result in injury or death. Always use the proper tools to maintain implement.

AVOID CRUSHING. Make sure all personnel are clear of the implement. Lower implement to the ground, place tractor in park, turn off engine, and remove key.



USE BAR STANDS AND CYLINDER STOPS TO SUPPORT THE IMPLEMENT.

Store implement on a clean, dry, and level surface. An uneven surface could cause implement to shift or fall, resulting in injury or death, as well as implement damage. Securely support all implement components that must be raised. Store implement away from human activity.



AVOID ENTANGLEMENT. Never lubricate or service implement in motion. Keep away from power driven parts when in motion. Disengage power sources prior to maintaining implement. Injury or death can result from contact with power driven parts when in motion.



AVOID CRUSHING. Do not stand between the tractor and implement when connecting or disconnecting implement. Injury or death can result from being trapped between the tractor and implement.



Escaping pressurized hydraulic fluid can penetrate skin, resulting in injury or death. Relieve hydraulic system pressure before connecting or disconnecting tractor. Use cardboard or wood, **NOT BODY PARTS**, to check for suspected hydraulic leaks. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. If an accident occurs, see a doctor immediately for proper treatment.

SAFETY INFORMATION

PRACTICE SAFE MAINTENANCE



- Never operate a combustion engine in an enclosed area. Make sure there is adequate ventilation. Exhaust fumes can cause asphyxiation.



- Service tires safely. Tire and rim separation can result in serious injury or death. Do not over inflate tires. Only mount or dismount tires if you possess the proper equipment, otherwise contact a trained professional. Always maintain correct tire pressure. Inspect tires and wheels daily. Do not operate tires with inadequate pressure, cuts, visible damage, or missing hardware.



- Be extremely careful working around unshielded sharp edges. Injury may result from contact with sharp edges.
- Keep all parts in good condition and properly installed. Replace damaged or missing parts immediately.
- Remove tools and unused parts prior to implement operation.

PREPARE FOR EMERGENCIES



- Be prepared for a fire. Keep a readily accessible fire extinguisher at all times.
- Keep a readily accessible stocked first aid kit and emergency phone numbers for your doctor, hospital, ambulance, and fire department.
- Wear protective clothing and equipment. Wear clothing appropriate for the situation. Protect your eyes, ears, hands, and feet with the use of protective goggles, ear plugs, gloves, boots, etc.

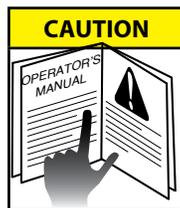
⚠ ANHYDROUS AMMONIA - NH₃ LIQUID FERTILIZER



ANHYDROUS AMMONIA (NH₃) AND LIQUID FERTILIZER APPEARS HARMLESS. DIRECT EXPOSURE TO NH₃ OR LIQUID FERTILIZER IS EXTREMELY DANGEROUS AND CAN RESULT IN INJURY AND/OR DEATH.

- Keep a clean supply of water readily accessible in case of exposure to NH₃ or liquid fertilizer.
- Wear protective goggles and gloves when working with NH₃ or liquid fertilizer. Be sure all persons involved in the operation are properly trained concerning the dangers and precautions involved in the application of NH₃ or liquid fertilizer.
- If you choose to apply NH₃ or liquid fertilizer, it is advisable to consult documented information regarding safe handling and application of NH₃ or liquid fertilizer. Information is available from the following recognized sources:

1. American National Standards Institute - www.ansi.org - (212) 642-4900
2. Material Safety Data Sheets - MSDS - www.msdsonline.com
3. National Safety Council - www.nsc.org/necas
4. The Fertilizer Institute - www.tfi.org
5. United States Department of Transportation - D.O.T. - www.dot.gov
6. Compressed Gas Association - www.cganet.com



⚠ SAFETY NEVER HURTS

READ AND UNDERSTAND THE ENTIRE CONTENT OF THIS MANUAL BEFORE OPERATING OR SERVICING IMPLEMENT.

- Understand all implement functions.
- Never stand between tractor and implement when connecting or disconnecting implement.
- Be aware of all surroundings before moving implement.
- Operate implement from operator's seat only.
- Never mount or dismount a moving tractor.
- Never leave engine running when implement is unattended.
- Keep away from power driven parts when in motion.
- Make sure all personnel are clear before lowering implement to the ground.

SAFETY INFORMATION

DANGER

RED

WARNING

ORANGE

CAUTION

YELLOW

SAFETY DECALS

Safety decals promote awareness and knowledge concerning safe operation and maintenance of the implement.

Carefully **READ ALL SAFETY DECALS** in this manual as well as on the implement. Keep implement clean so decals are easily visible. Keep all decals in good and legible condition. Immediately replace damaged and/or missing decals. Replacement decals are available from your Orthman dealer.

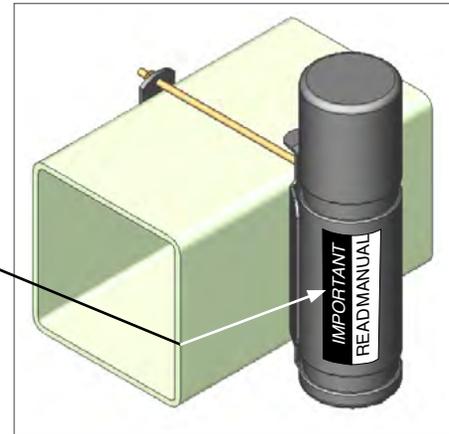
To install decals: Thoroughly clean area where decal is to be placed and attach decal void of bubbles. Refer to this safety information section for proper decal placement.



IMPORTANT

Equipment operators should understand the enclosed manual before operating this equipment. Replacement manual, call 308-324-4654

Orthman Mfg., Inc. - 75765 Rd. 435 - Lexington, NE 68850 153-102

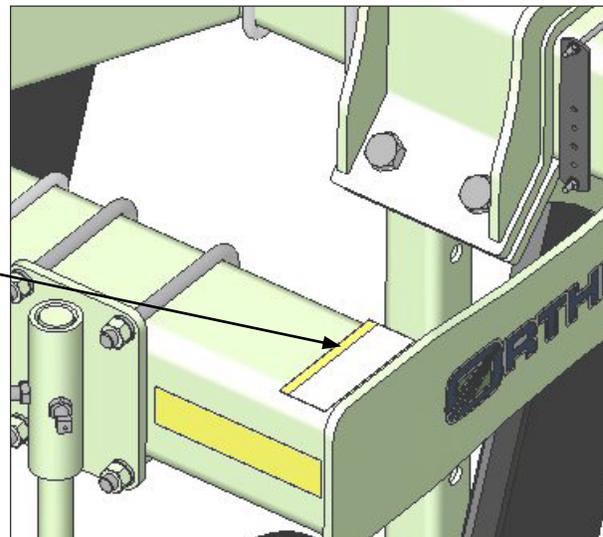


MANUAL ENCLOSURE

CAUTION

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

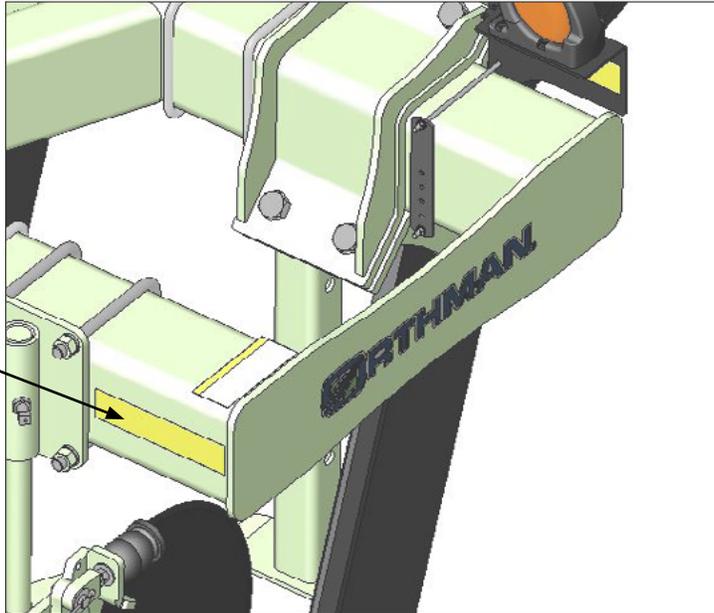
153-044



END OF TOOLBAR

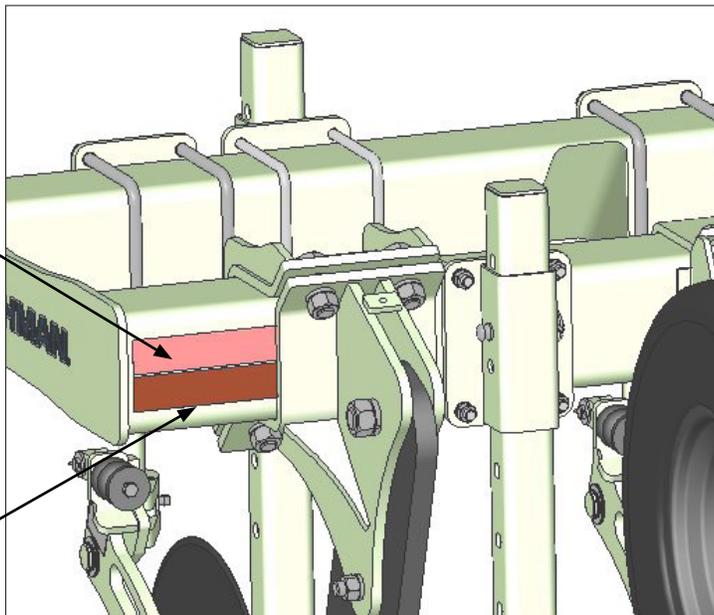
SAFETY DECALS

**153-172
Amber Retro-reflective**



FRONT OF MACHINE, END OF TOOLBAR

**153-171
Orange Florescent**



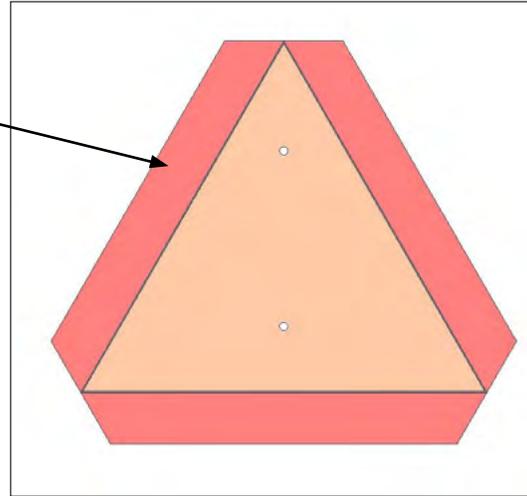
**153-173
Red Retro-reflective**

REAR OF MACHINE, END OF TOOLBAR

SAFETY INFORMATION

SAFETY DECALS

153-109
SMV Sign

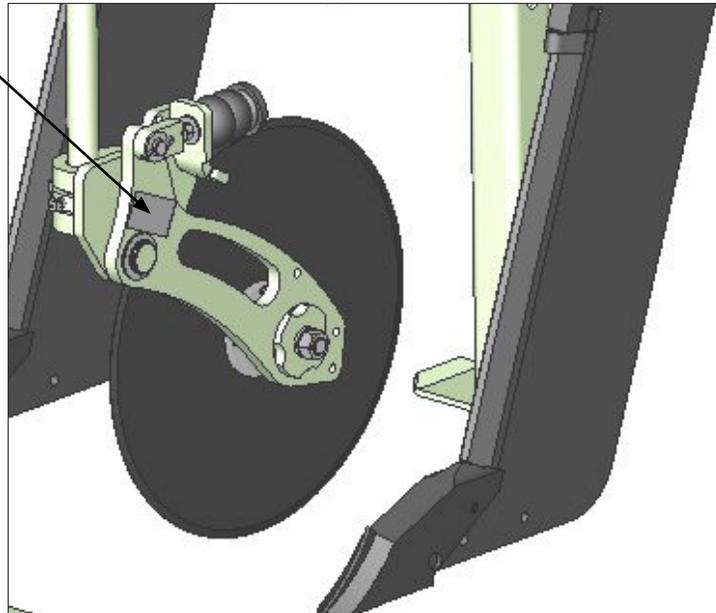


SMV SIGN

⚠ CAUTION

Be extremely careful working around unshielded sharp edges. Injury may result from contact with sharp edges.

153 - 045



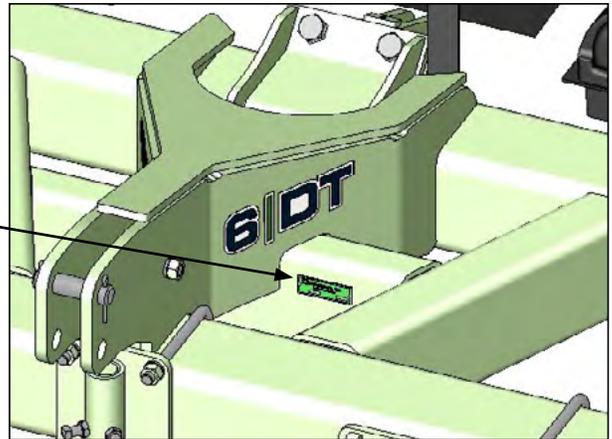
COULTERS ON ENDS OF MACHINE

ORTHMAN SERIAL TAG

The Orthman serial tag contains valuable information. The model and serial numbers provide Orthman dealers and the Orthman Service Department with the exact specifications of your implement if any warranty or service issues need to be addressed.



153-011

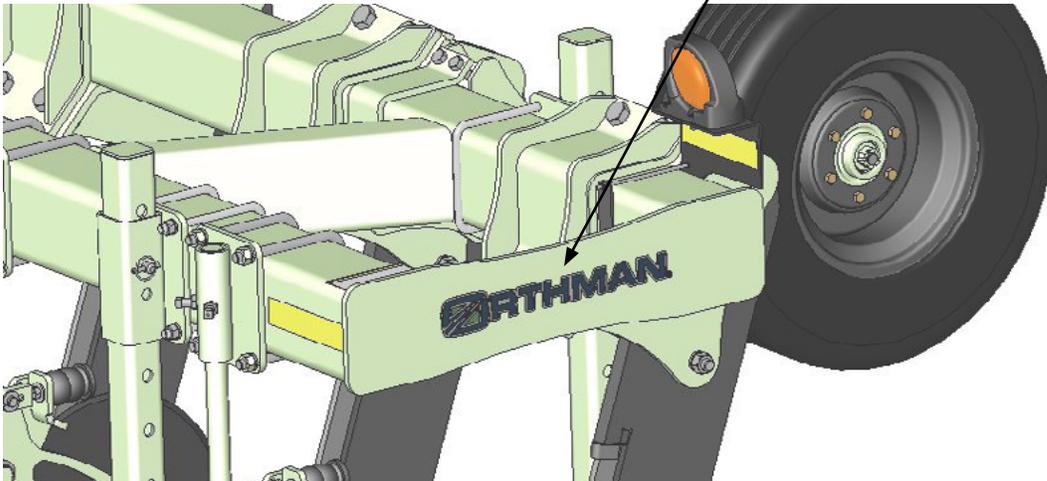


ON TUBE LEFT OF 3-POINT CENTER MAST PLATES

ORTHMAN DECALS



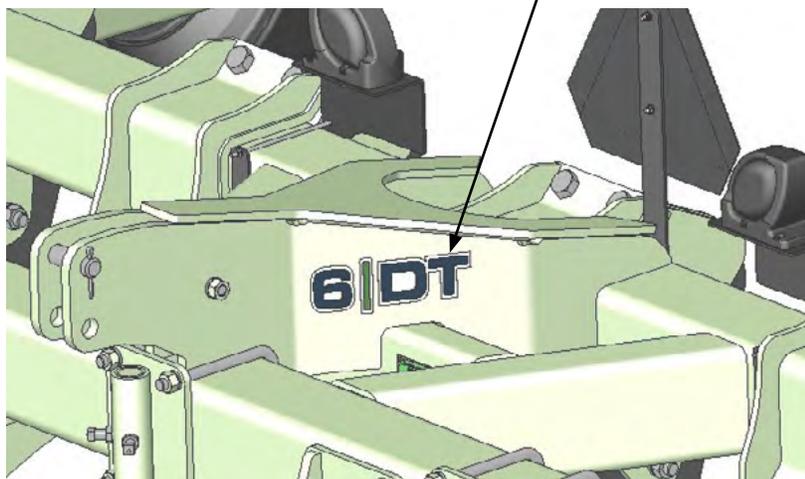
153-430



END CAPS OF TOOLBAR

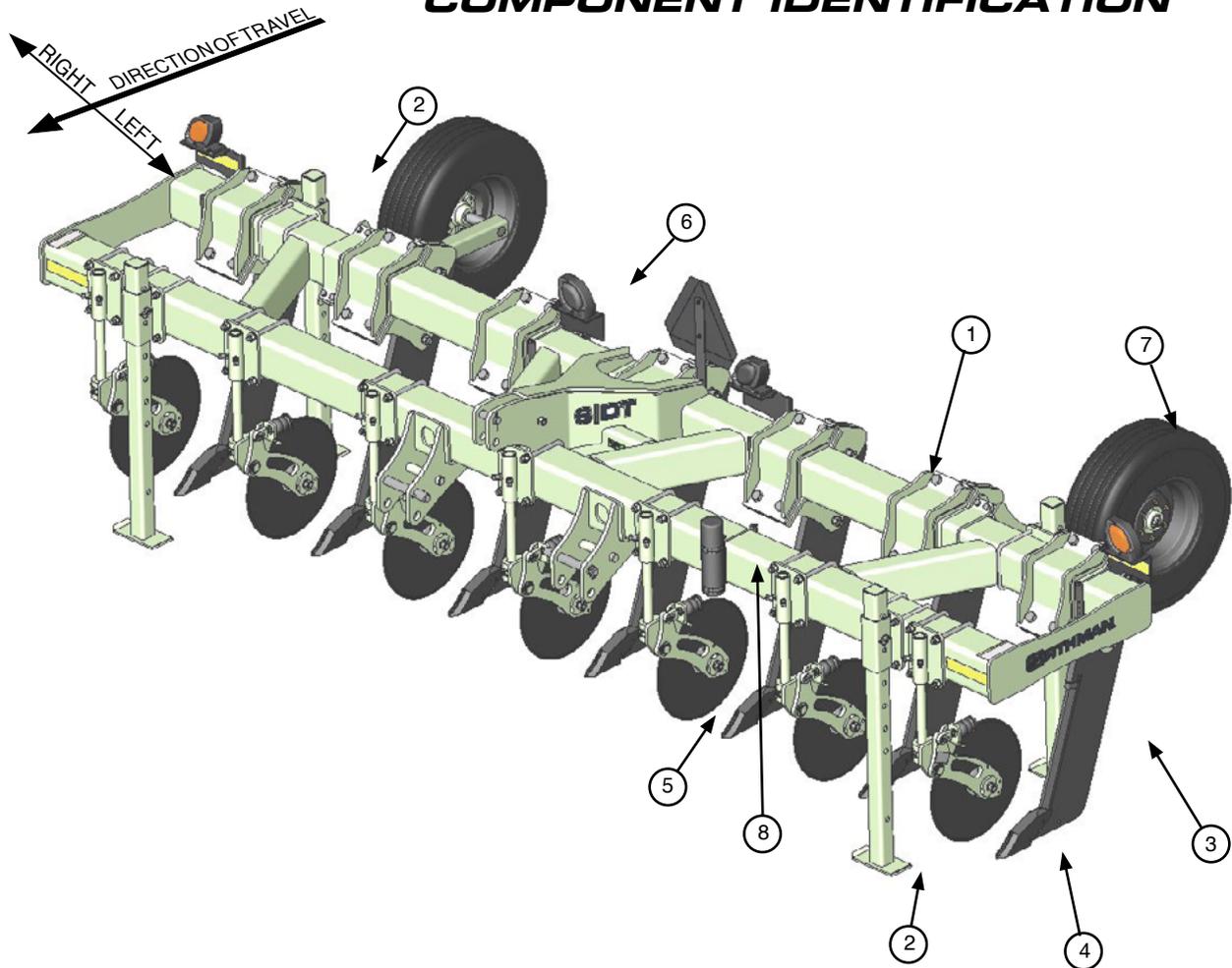


153-476



EACH SIDE OF HITCH CENTER MAST

**IMPLEMENT
COMPONENT IDENTIFICATION**



NOTE: Right and left as illustrated above and referenced from this point on, is determined by facing the same direction the implement will travel while in use.

- 1. RIPPER TOOLBAR.** Heavy dual 7 sq. toolbars available with CAT3/3N or 4/4N welded-on hitch.
- 2. BAR STAND.** Bar stands at the front and rear of the toolbar, support the weight of the machine while in storage position.
- 3. RIPPER SHANK.** 1 1/4" thick ripper shanks come in 5, 7 or 9 shank machines.
- 4. RIPPER POINT.** Multiple ripper point options are available to match your soil conditions.
- 5. COULTERS.** Optional coulters include either the traditional rigid Orthman coulter or zero-maintenance spring loaded cutting coulter.
- 6. SAFETY LIGHTS AND SMV.** The safety light and SMV package are boxed up and will need to be assembled prior to use of the implement.
- 7. GAUGE WHEELS.** Optional gauge wheels are available in crank-adjust or pin adjust models.
- 8. MANUAL ENCLOSURE.** A safe place to store the implement operator's manual. Always keep the operator's manual with the implement.

PREPARING THE IMPLEMENT



Tooling options available for added Subsoil Ripper versatility are illustrated and explained in the tooling options section of this manual. Field adjustments are illustrated and explained in the field settings section of this manual.



Before each use, check hardware for wear and proper torque. Replace damaged or missing hardware with hardware of an identical grade to restore implement to original specifications.

IMPLEMENT TO TRACTOR CONNECTION



AVOID CRUSHING. Do not stand between tractor and implement when connecting or disconnecting implement. Injury or death can result from being trapped between the tractor and implement.

AVOID CRUSHING. Make sure all personnel are clear of the implement. Lower implement to the ground, place tractor in park, turn off engine, and remove key.



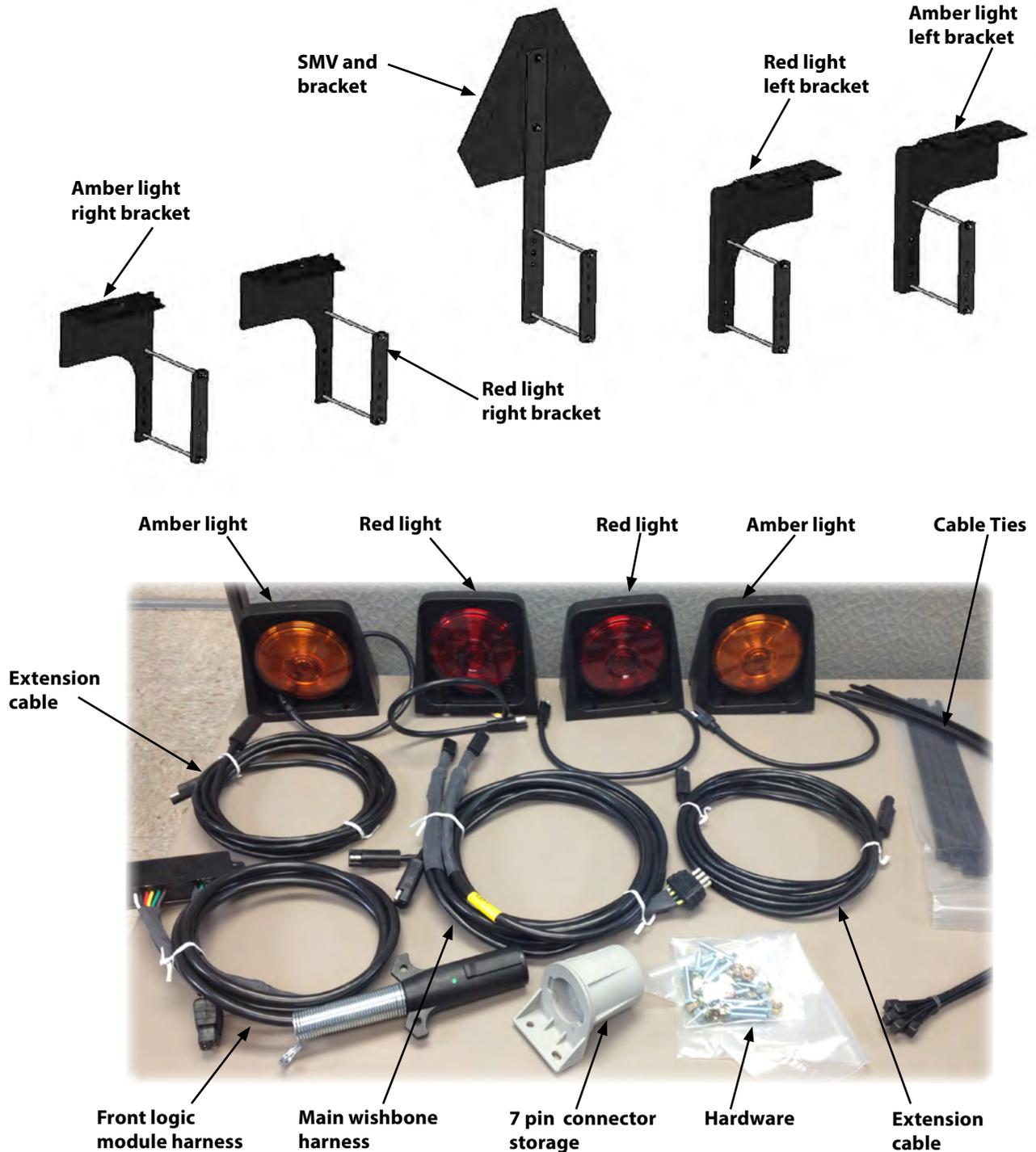
CONNECT TRACTOR 3-POINT HITCH TO IMPLEMENT HITCH POINTS:

1. Position the rear of the tractor in front of the 6|DT Subsoil Ripper.
2. Attach tractor 3-point draft links and center link to the implement hitch points. Refer to your tractor's operator's manual for information on tractor 3-point hitch.

PREPARATION AND SETUP

LIGHT KIT

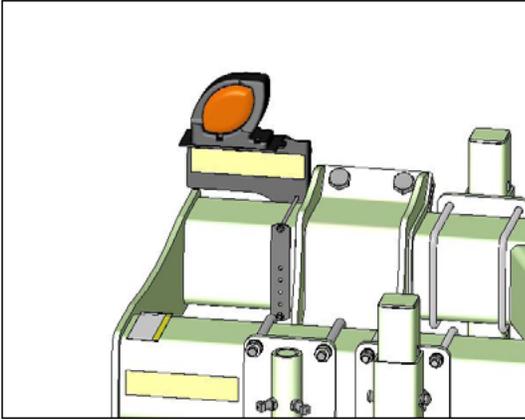
An un-assembled light kit will come with your 6|DT Subsoil Ripper. The light kit will come in a box that has Orthman manufactured components in it, as well as an ag light kit from Wesbar or COBO light companies. Orthman mounting and storage brackets will accommodate either brand, however cable and light components are not interchangeable between the two brands. Below is an example of what will typically be found in a light kit.



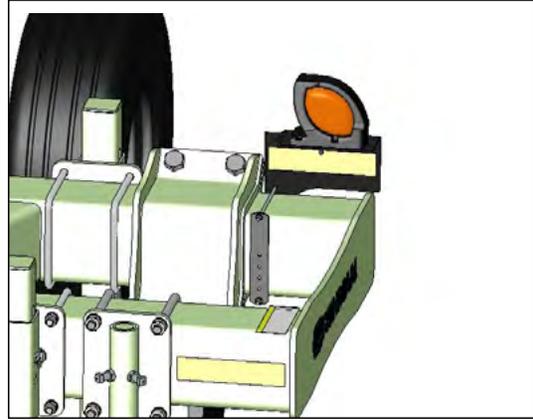
PREPARATION AND SETUP

LIGHT & LIGHT BRACKET ASSEMBLY

Mount left and right light mounting brackets to end of the toolbar (shown below). Use the provided 1/4" x 8" carriage bolts and flange nuts to mount each bracket to the toolbar. Mount Amber (orange) colored lights to the bracket with the hardware provided in the light kit. Light bracket is universal and should work with both brands of lights available. Cable lead on light should be able to be strung thru rectangle hole in light brackets. Amber lights will have lenses in front and back and should be visible from the front and back at all times.



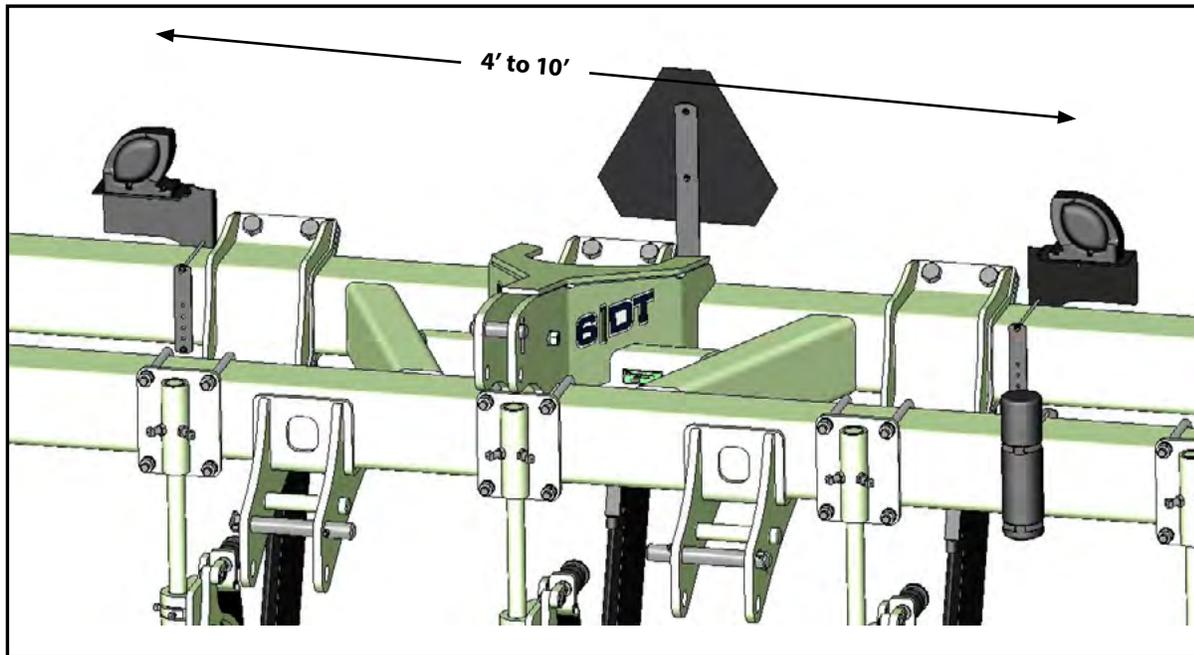
Right amber light



Left amber light

Mount center red light brackets as shown below. [Two different lengths of carriage bolts are provided in the light kit. A 1/4" x 6" carriage bolt for toolbars with 5"x7" front bars and a 1/4" x 8" carriage bolt for 7"x7" front bar toolbars.] Lights must each be mounted equally from the center of the bar and be a total distance between 4 feet and 10 feet from each other.

Mount the red lights and string light cable thru rectangle hole in bracket. If lights are COBO brand, there will be a left and right version of the red light due to the design. Red lights will only have a lense on one side of the light, and it should be visible from the rear of the bar (like tail-lights) and not the front. Use the hardware provided in the ag light kit to mount the lights to the brackets.

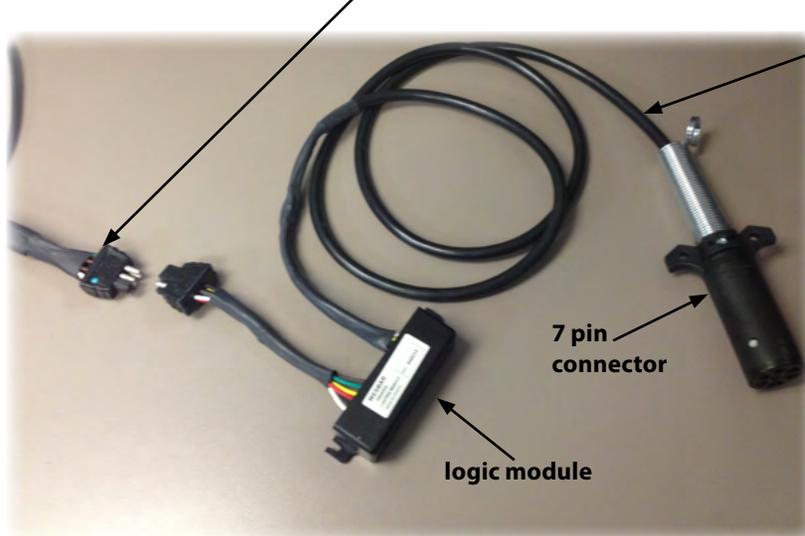
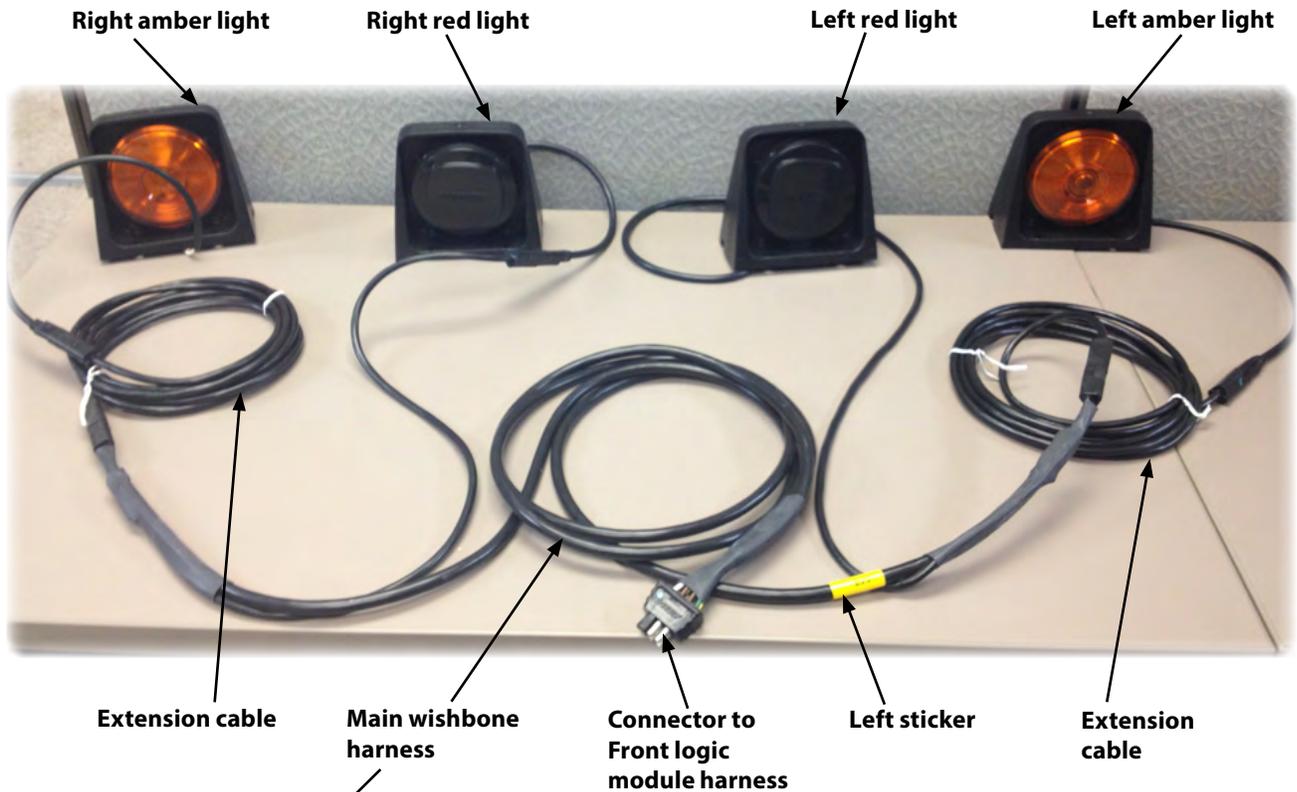


Center red lights

PREPARATION AND SETUP

LIGHT CABLE ASSEMBLY

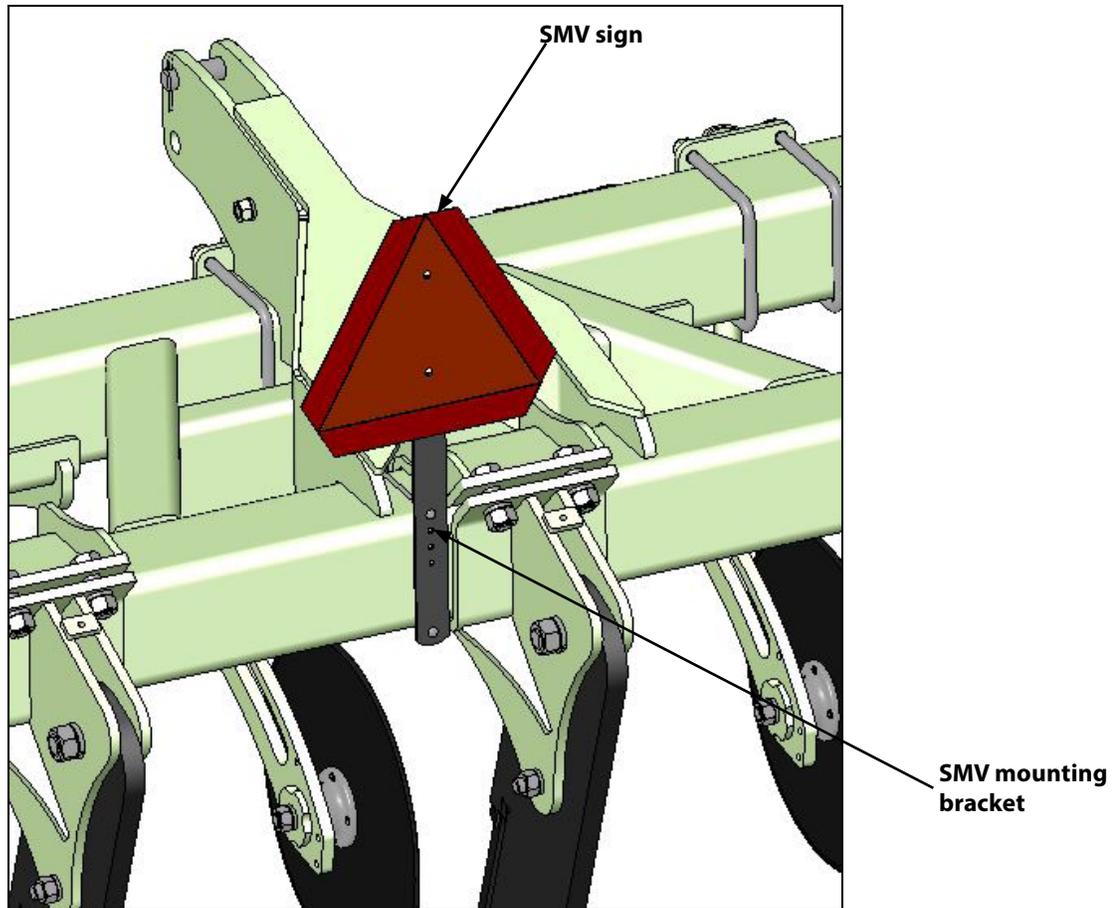
Once lights are mounted, cables can be strung. Start in the center with the main wishbone harness. This cable will have one end that plugs into the front logic module harness, and 4 ends that will lead to the lights. On the Wesbar brand lights the ends with the heat shrink on the main wishbone harness will lead out to the amber lights. Most toolbar configurations will need to utilize the extension cable to be able to reach out to the amber lights. The extension cable will plug into the end of the main wishbone harness and then into the lead at the end of the amber lights. The other 2 leads will go to the left and right red lights. Cable ties (zip ties) are provided to help secure the cables to the toolbar. It is important to neatly organize cables and securely fasten them all down so they do not catch or become entangled with crops or crop residue and pulled from the toolbar.



The main wishbone harness will have a connector that will then plug into the front logic module harness. The front logic module harness is the cable that will go to the tractor. The 7 pin connector will plug into the tractor. The logic module will be able to be mounted to the courtesy palette.

PREPARATION AND SETUP**SMV SIGN ASSEMBLY**

The final item that the light kit contains is the SMV (slow moving vehicle) mount and sign. The SMV is to be mounted as close to the center of the 6|DT Subsoil Ripper as possible with two straps and 2 carriage bolts. Use the two 1/4" x 8" long carriage bolts to mount the brackets to the rear 7 sq. tube (lower image) with the taller strap on the rear. Next attach the SMV sign to the bracket with the machine screws provided in the kit. The SMV should be visible from the rear and be oriented as shown below when finished.



FIELD OPERATION



AVOID CRUSHING. Do not stand between tractor and implement when connecting or disconnecting implement. Injury or death can result from being trapped between the tractor and implement.

AVOID CRUSHING. Be sure the weight of the machine is fully supported by the tractor.

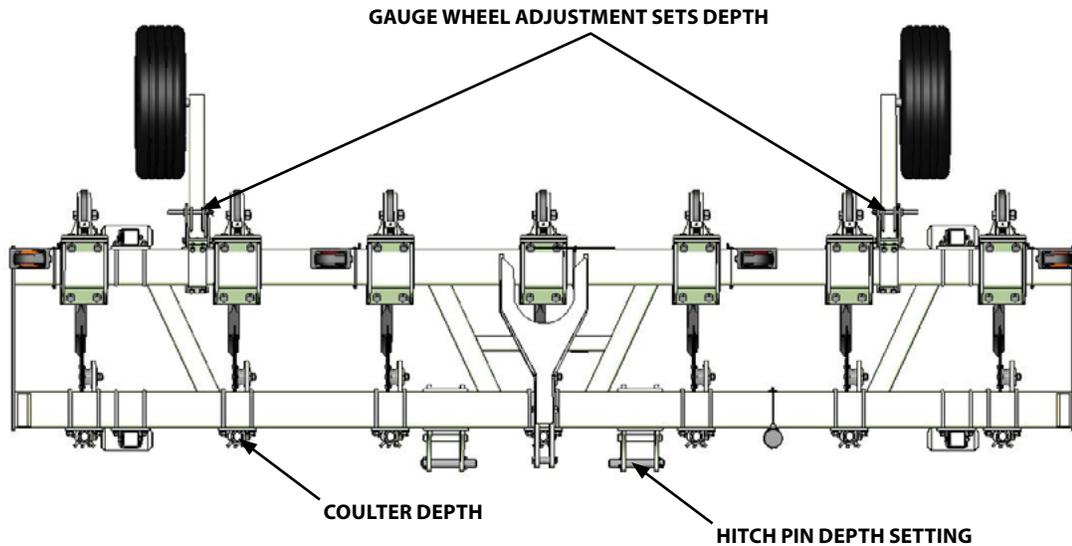


PLACE TRACTOR IN PARK AND REMOVE KEY BEFORE DISMOUNTING TRACTOR TO ADJUST IMPLEMENT.

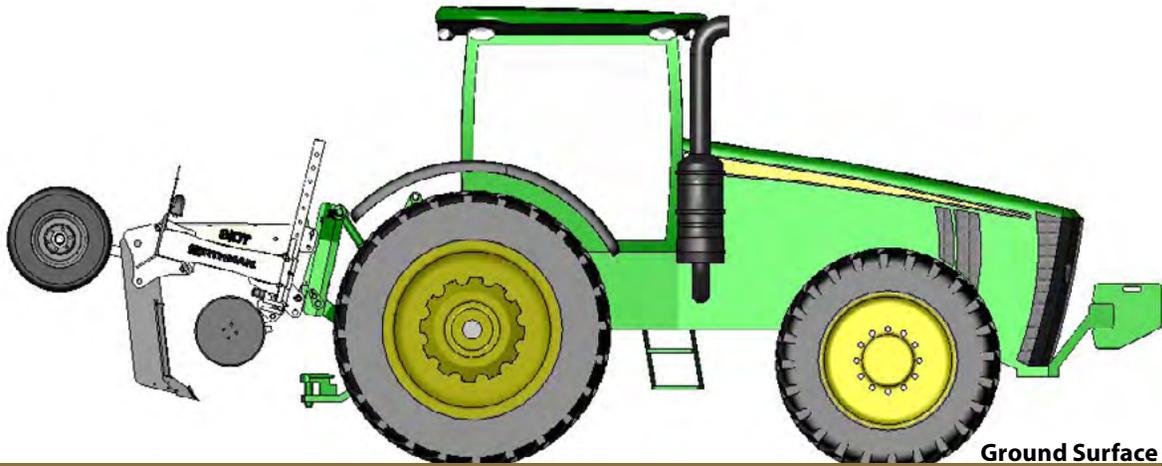


NEVER ALLOW RIDERS ON TRACTOR OR IMPLEMENT. Riders hinder operator visibility and can be thrown from the implement and/or be struck by foreign objects resulting in injury or death.

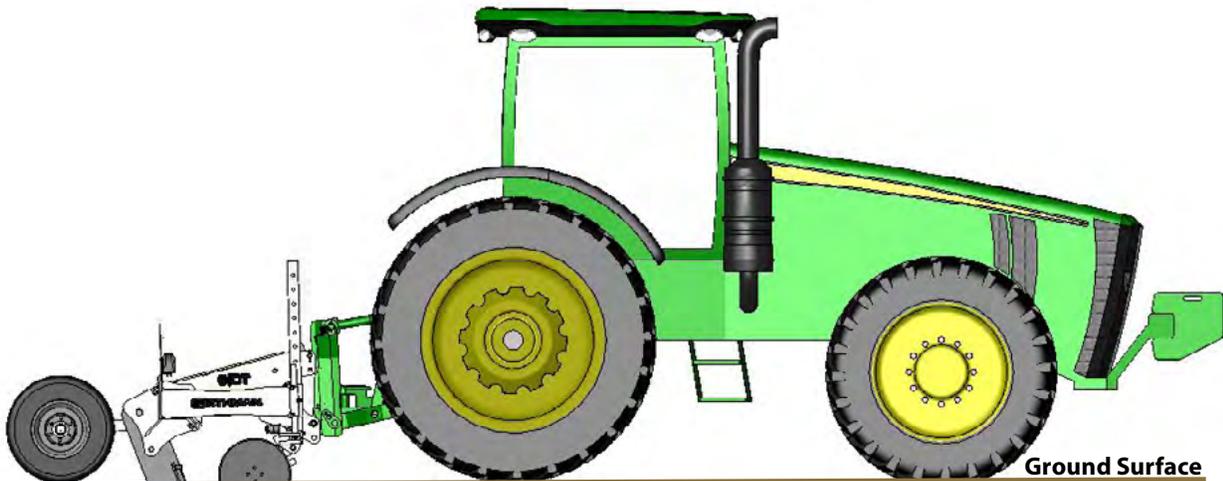
PLACE IMPLEMENT IN "FIELD READY" POSITION. MAKE NECESSARY ADJUSTMENT TO IMPLEMENT BY FOLLOWING ADJUSTMENT PROCEDURES IN THIS MANUAL. BELOW ARE ADJUSTABLE COMPONENTS OF THE IMPLEMENT.



FIELD OPERATION (CONTINUED)



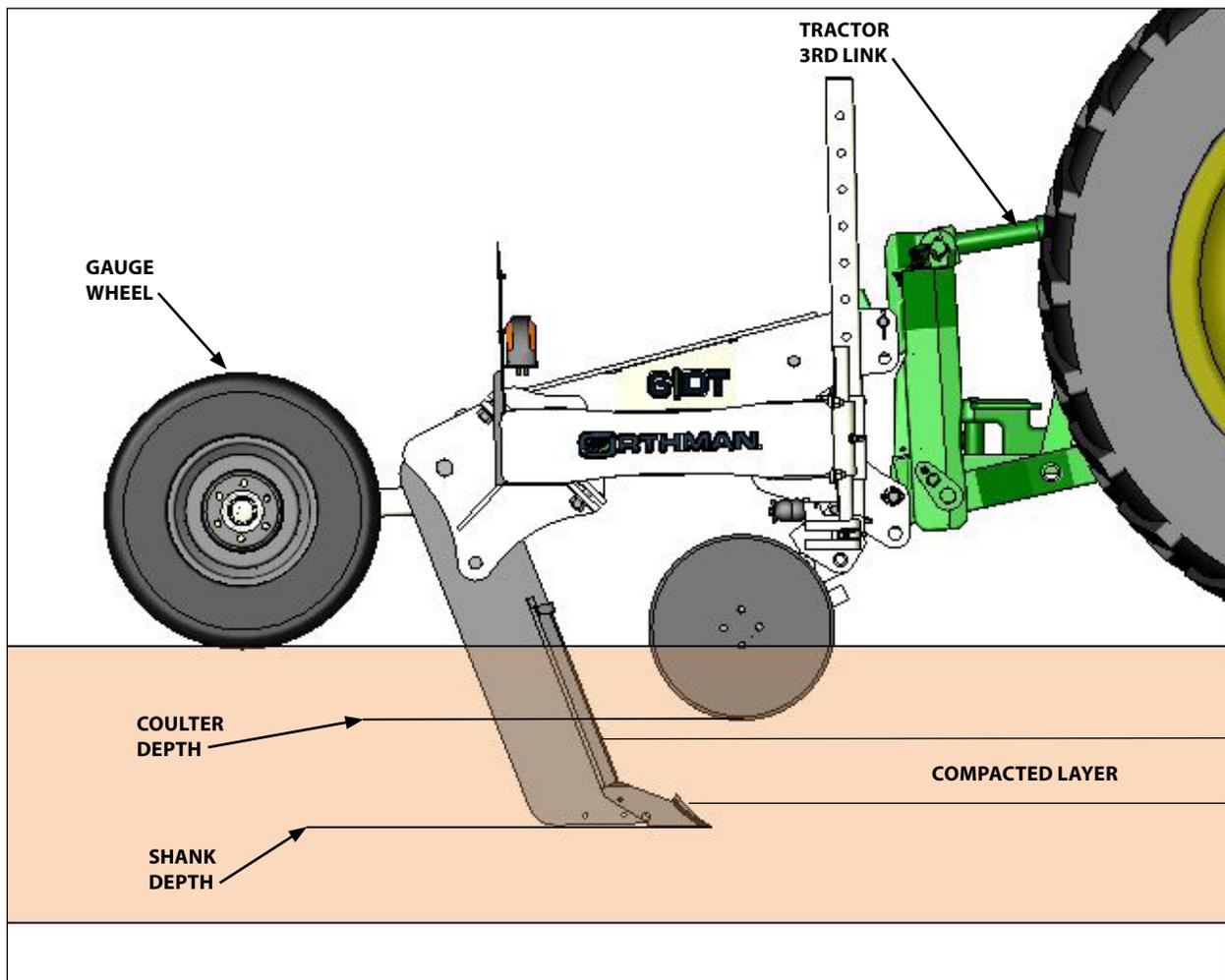
TRANSPORT POSITION. During transport, the tractor 3-point hitch should be in the fully raised position



FIELD POSITION. Tractor 3-point hitch should be lowered to allow all implement tooling to operate as desired. Implement should run parallel with the ground surface. Make adjustments to tractor 3-point hitch accordingly. Refer to tractor operator's manual for more information.

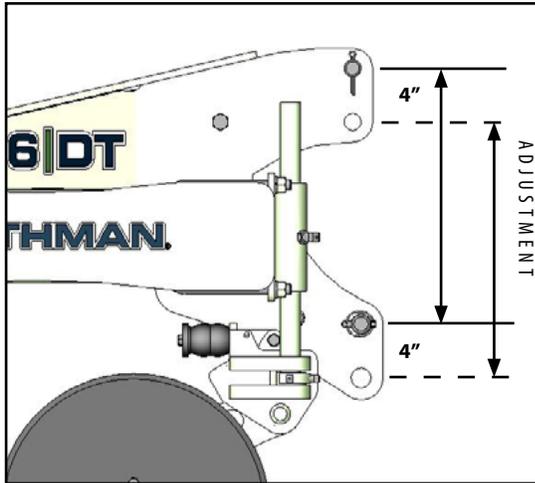
**FIELD OPERATION
(CONTINUED)**

OPERATING DEPTH. The 6|DT Subsoil Ripper should be set so the ripper toolbar runs parallel with the ground. To achieve this, set the gauge wheels to the desired ripper depth and adjust tractor 3rd link to level the toolbar. The cutting coulter should be set to a depth to cut all residue that may hairpin on ripper shank. Consult an agronomist for determining the correct ripper depth setting for your field. In most cases the ripper point should be operated just below the compacted layer. Operating the ripper shank too deep can result in wasted horsepower and a slicing effect through the compacted layer rather than the desired lifting and shattering effect. A probe can be used to find the compacted layer. Ideal conditions for operating the 6|DT Subsoil Ripper are when the soil is dry.

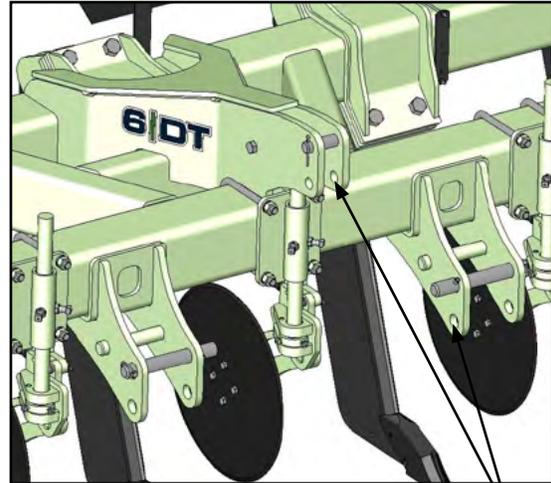


FIELD ADJUSTMENTS

HITCH PIN ADJUSTMENT. The 6|DT Subsoil Ripper has an alternate hitch pin location for a different range of depth settings. With the hitch pins located in the upper most setting (shown below) the maximum depth the ripper can achieve is 20" underground. By simply moving all three hitch pins from the upper setting to the lower setting, the maximum depth is changed to 16".



HITCH PIN ADJUSTMENT

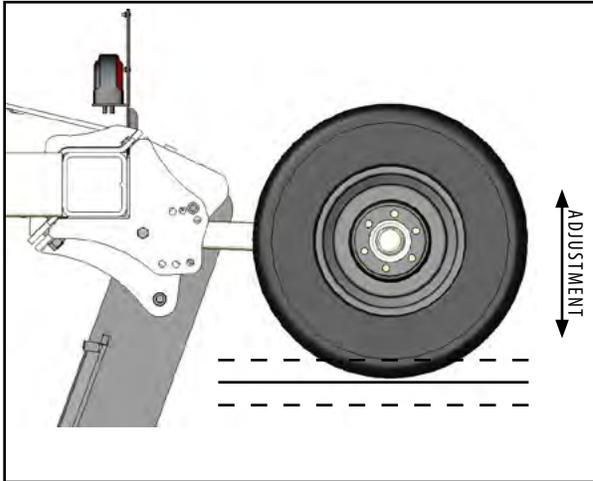


TO ADJUST HITCH PINS

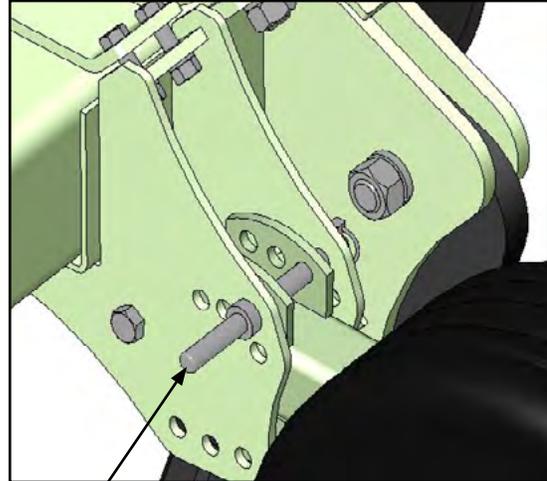
ALTERNATE
HITCH PIN
LOCATIONS

FIELD ADJUSTMENTS (CONTINUED)

GAUGE WHEEL ADJUSTMENT FOR SHANK DEPTH. Shank Depth is controlled by setting the stop on the gauge wheels. Pin adjustment gauge wheels are shown below. Screw adjustment gauge wheels will be the same premise. To adjust shank depth to a different depth setting, change pin location. Maximum depth for shank tillage should be 20" underground.

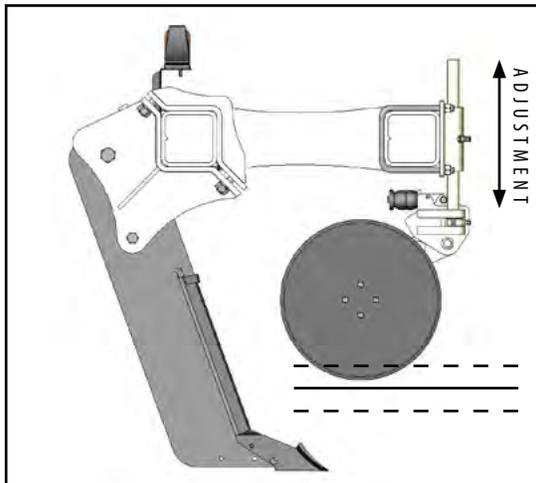


SHANK DEPTH ADJUSTMENT

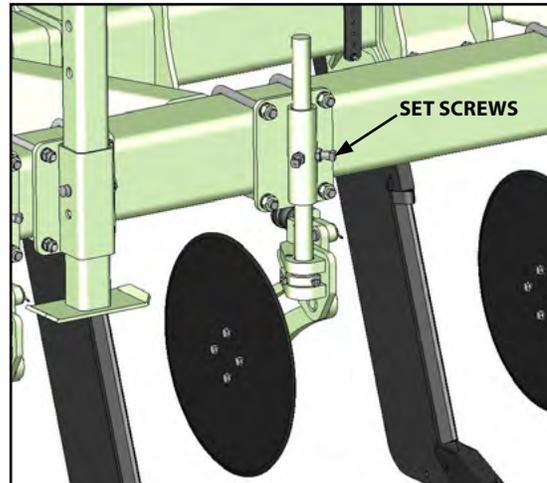


PIN ADJUST FOR DEPTH

CUTTING COULTER DEPTH ADJUSTMENT. The depth of the cutting coulters (rigid or spring loaded) can be set by loosening the set screw jam nuts and then loosening the set screws that hold the 1 1/2" round shank in place. Once loose, slide the 1 1/2" shank to the desired location and re-tighten set screws and jam nuts. If shank depth is set deeper, coulters may have to be raised up.



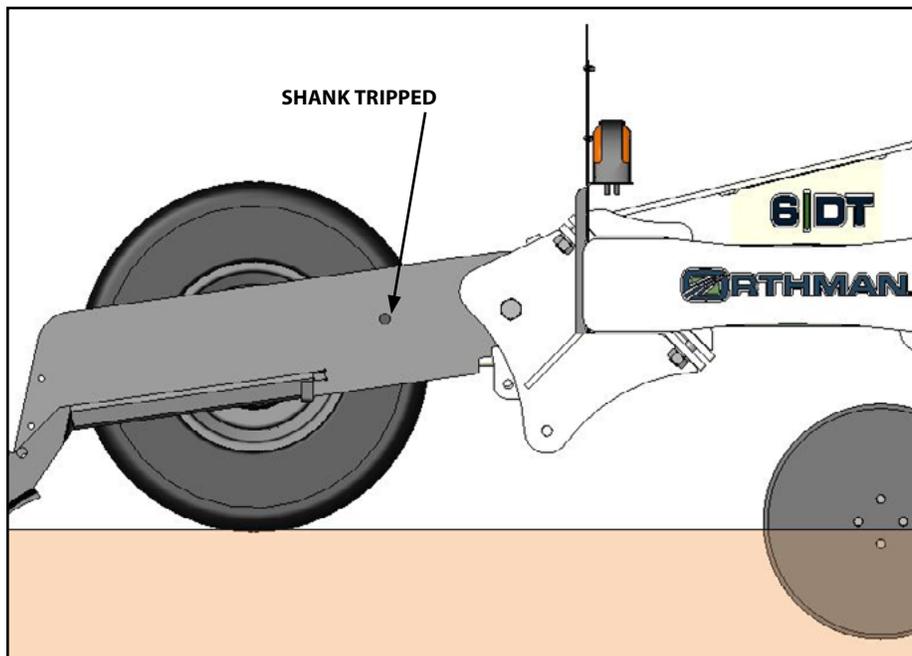
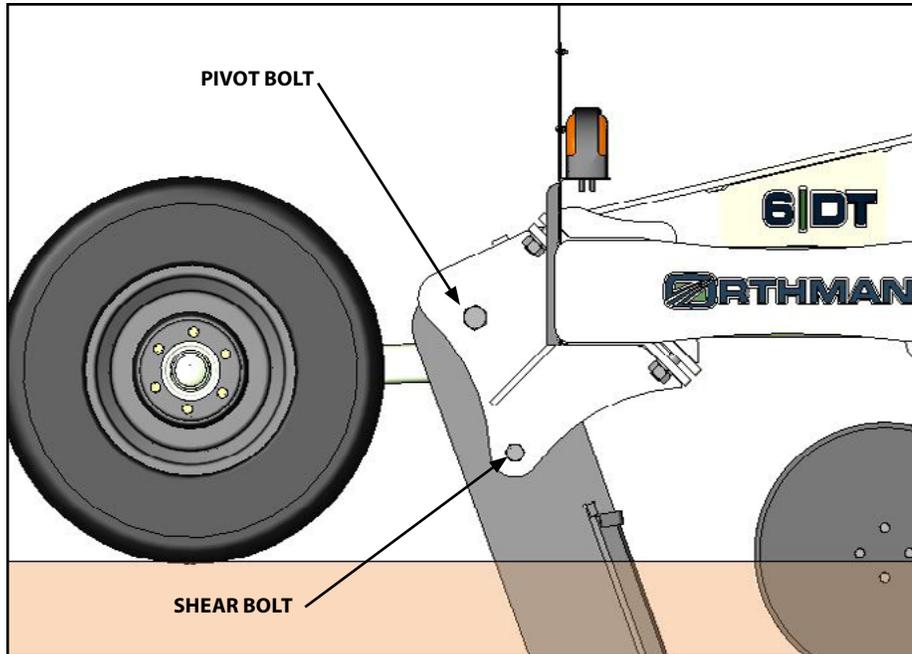
DEPTH ADJUSTMENT



TO ADJUST COULTER DEPTH

FIELD ADJUSTMENTS (CONTINUED)

RIPPER SHANK SHEAR BOLT. The 6|DT Subsoil Ripper shanks are protected against damage caused by unseen underground objects by way of a shear bolt. The Shear Bolt is a 7/8" x 4" long, course thread, grade 2 bolt, along with a 7/8" lock washer and 7/8" nut. (1-5/16" wrench size) When the shear bolt breaks due to striking an underground object, the shank will rotate about the larger pivot bolt up and out of the ground and harms way. To replace the shear bolt, raise and support implement safely, push shank back to align shear bolt hole and replace with hardware noted above. Replacing shear bolt with anything other than grade 2, 7/8" hardware could lead to damage to the implement.





⚠ AVOID CRUSHING. Make sure all personnel are clear of the implement. Lower implement to the ground, place tractor in park, turn off engine, and remove key.

USE BAR STANDS TO SUPPORT THE IMPLEMENT. Park implement on a clean, dry, and level surface. An uneven surface could cause implement to shift or fall, resulting in injury or death, as well as implement damage. Securely support all implement components that must be raised. Remove buildup of grease, oil, or debris prior to adjusting implement.

PROBLEM:
Ripper not operating at uniform depth

SOLUTION OPTIONS:

1. Gauge wheels not set at correct depth.

- Adjust gauge wheels - Page 4-5.

2. Tire Pressure is not equal

- Inflate gauge wheel tires to be the same pressure.

3. Coulters set too deep.

- Adjust coulter depth - Page 4-5.

4. Toolbar hitch pins are in lower setting.

- Adjust hitch pins to upper setting - Page 4-4.



TROUBLESHOOTING



⚠ AVOID CRUSHING. Make sure all personnel are clear of the implement. Lower implement to the ground, place tractor in park, turn off engine, and remove key.

USE BAR STANDS TO SUPPORT THE IMPLEMENT. Park implement on a clean, dry, and level surface. An uneven surface could cause implement to shift or fall, resulting in injury or death, as well as implement damage. Securely support all implement components that must be raised. Remove buildup of grease, oil, or debris prior to adjusting implement.

PROBLEM: Ripper will not penetrate soil

SOLUTION OPTIONS:

1. Implement not level.
 - Adjust top 3-point link.
2. Coulters set too deep.
 - Adjust coulter depth - Page 4-5.
3. Toolbar hitch pins are in lower setting.
 - Adjust hitch pins to upper setting - Page 4-4.
4. Ripper points are worn back.
 - Replace points.





⚠ AVOID CRUSHING. Make sure all personnel are clear of the implement. Lower implement to the ground, place tractor in park, turn off engine, and remove key.

USE BAR STANDS TO SUPPORT THE IMPLEMENT. Park implement on a clean, dry, and level surface. An uneven surface could cause implement to shift or fall, resulting in injury or death, as well as implement damage. Securely support all implement components that must be raised. Remove buildup of grease, oil, or debris prior to adjusting implement.

PROBLEM:
Residue collecting on ripper shanks

SOLUTION OPTIONS:

1. Coulters set too shallow.
 - Adjust coulter depth - Page 4-5.
2. Residue too wet for coulter to cut.
 - Let dry.



TROUBLESHOOTING



⚠ AVOID CRUSHING. Make sure all personnel are clear of the implement. Lower implement to the ground, place tractor in park, turn off engine, and remove key.

USE BAR STANDS TO SUPPORT THE IMPLEMENT. Park implement on a clean, dry, and level surface. An uneven surface could cause implement to shift or fall, resulting in injury or death, as well as implement damage. Securely support all implement components that must be raised. Remove buildup of grease, oil, or debris prior to adjusting implement.

PROBLEM: Excessive blowout

SOLUTION OPTIONS:

1. Operating too fast

- Slow down.

2. Ripper too shallow.

- Adjust gauge wheel depth - Page 4-5.

3. Coulters set too shallow.

- Adjust coulter depth - Page 4-5.

4. Shank not aligned with coulter.

- Check alignment.



⚠ PRACTICE SAFE MAINTENANCE

Proper maintenance is your responsibility. Maintenance neglect and/or poor maintenance practices can result in injury or death. Always use the proper tools to maintain implement.

**AVOID CRUSHING.**

Make sure all personnel are clear of the implement.

Lower implement to the ground, place tractor in park, turn off engine, and remove key.



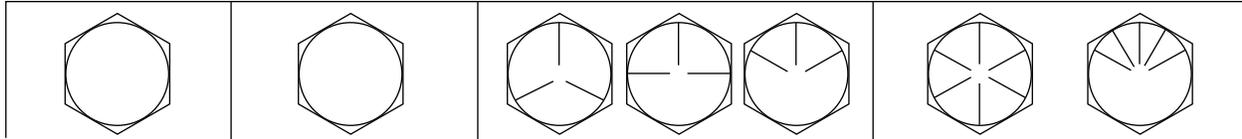
AVOID CRUSHING. Do not stand between the tractor and implement when connecting or disconnecting implement. Injury or death can result from being trapped between the tractor and implement.



CAUTION. Escaping pressurized hydraulic fluid can penetrate skin, resulting in injury or death. Relieve hydraulic system pressure before connecting or disconnecting tractor. Use cardboard or wood, NOT BODY PARTS, to check for suspected hydraulic leaks. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. If an accident occurs, see a doctor immediately for proper treatment.

TORQUE SPECIFICATIONS

Unified Inch Bolt and Screw Torque Values



Bolt or Screw Size	SAE Grade 1				SAE Grade 2 ^a				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c	
	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in	N•m	lb-in
1/4	3.7	33	4.7	42	6	53	7.5	66	9.5	84	12	106	13.5	120	17	150
													N•m	lb-ft	N•m	lb-ft
5/16	7.7	68	9.8	86	12	106	15.5	137	19.5	172	25	221	28	20.5	35	26
									N•m	lb-ft	N•m	lb-ft				
3/8	13.5	120	17.5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
			N•m	lb-ft	N•m	lb-ft	N•m	lb-ft								
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
	N•m	lb-ft														
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	308	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

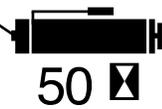
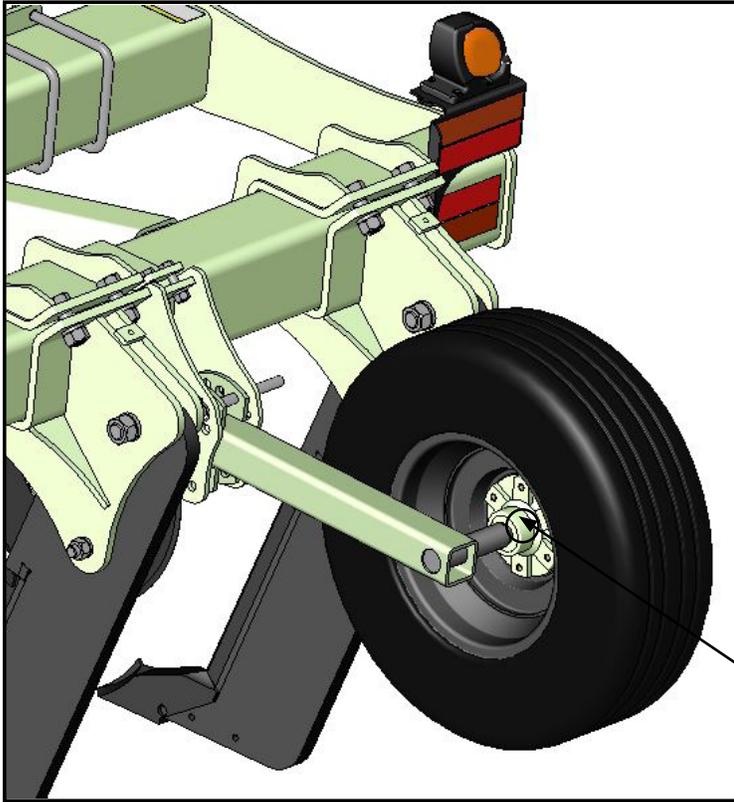
^a Grade 2 applies for hex cap screws (not hex bolts) up to 6 in. (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

^b "Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C zinc flake coating.

^c "Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B zinc flake coating.

LUBRICATION**50** A square icon containing a diagonal line from the top-left to the bottom-right, representing a 50-hour interval.**GAUGE WHEEL HUB**
(GREASE BOTH HUBS)

- Grease - use high quality multi-purpose grease.
- Follow recommended 50 hour service interval illustrated below.

**50** A square icon containing a diagonal line from the top-left to the bottom-right, representing a 50-hour interval.

IMPLEMENT INSPECTION



- When replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore implement to original specifications. Replace broken or worn parts immediately. Contact your Orthman dealer for replacement parts.

- During break-in (40 hours), check hardware for proper torque every 10 to 20 hours.



- Before each use, check hardware for wear and proper torque. Replace damaged or missing hardware with hardware of an identical grade to restore implement to original specifications.

- Do not allow debris to buildup on any surface of the implement.

- Replace all shields and guards. Be sure all tools, parts, and service equipment are removed prior to transporting equipment.

IMPLEMENT STORAGE



- Clean and touch up paint seasonally to avoid corrosion and rust. Contact your Orthman dealer for touch up paint.

- Inspect all safety and Orthman decals and replace if missing or damaged. Contact your Orthman dealer for replacement decals.

- Grease all zerks regardless of hourly interval prior to storage.

- Check all hardware according to torque specifications prior to storage.

- Replace all worn or damaged parts prior to storage.

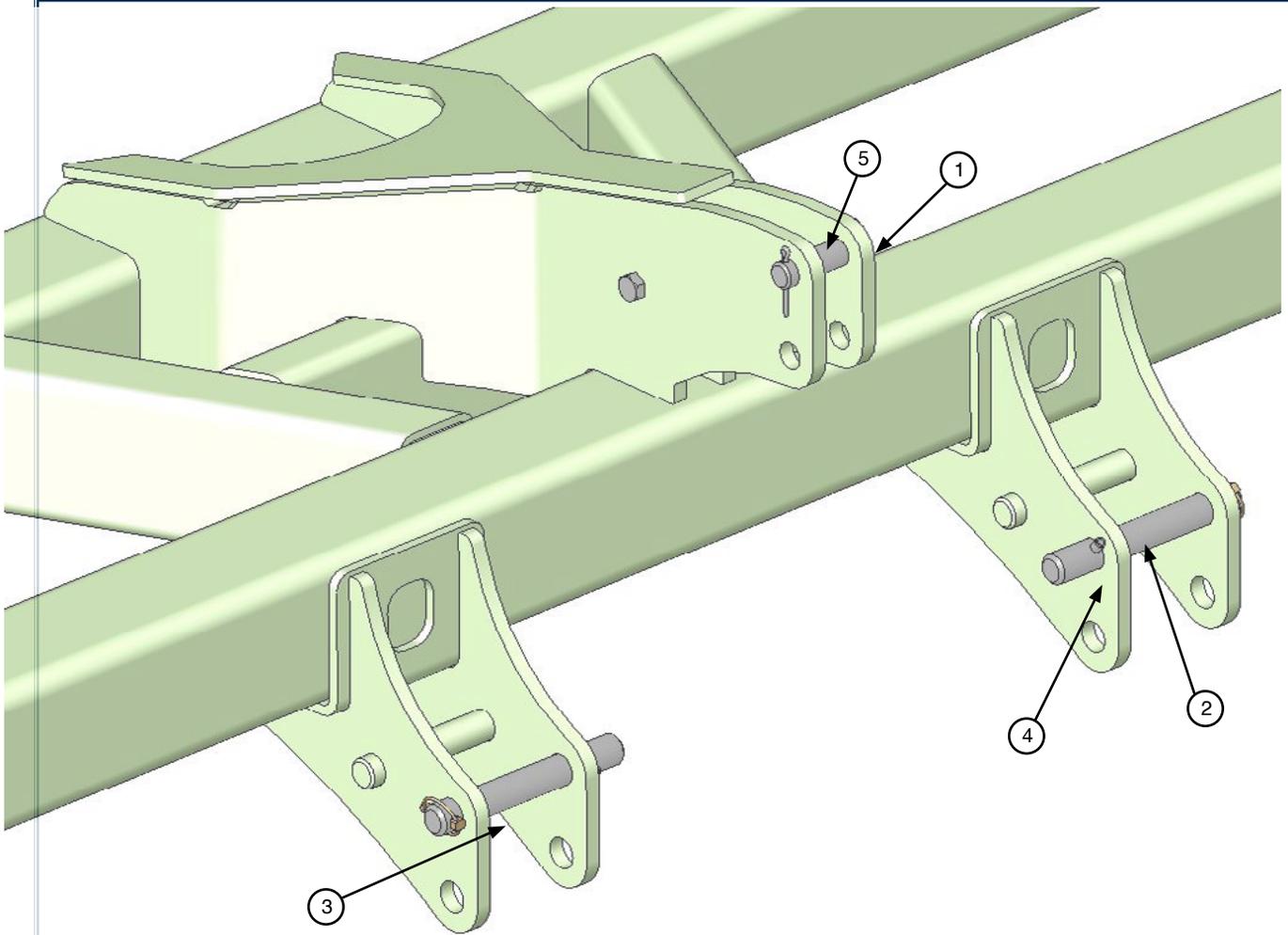
- Store inside if possible. Storing implement inside will prolong the life of the components.



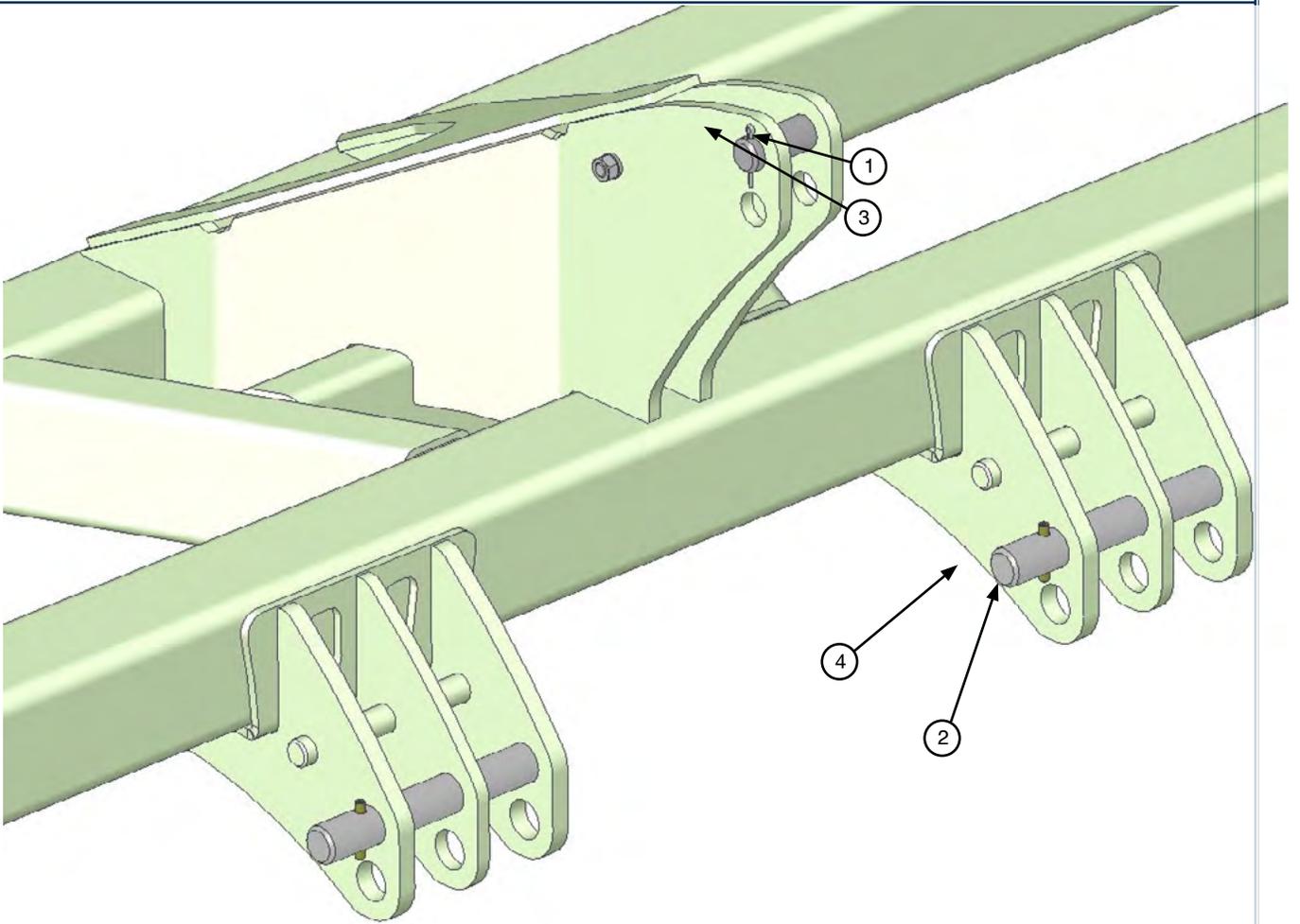
AVOID CRUSHING. Make sure all personnel are clear of the implement.

Lower implement to the ground, place tractor in park, turn off engine, and remove key.

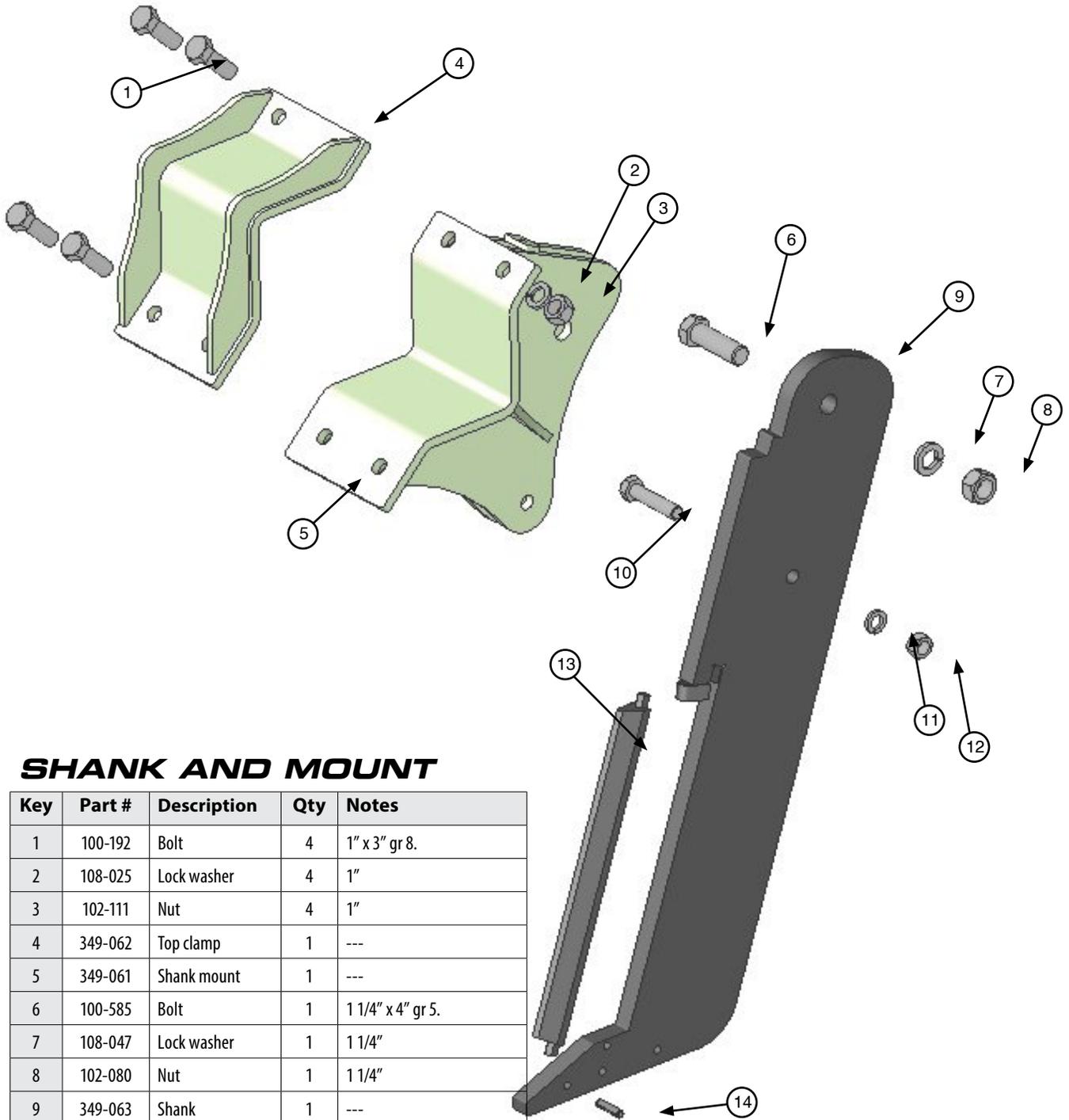
Storing implement on the ground will relieve the tractor three point hitch of hydraulic pressure.


TOOLBAR CAT3/3N HITCH ASSEMBLY

Key	Part #	Description	Qty	Notes
1	302-591	Pin	1	Upper link
2	104-102	Roll pin	2	----
3	104-036	Linch pin	2	----
4	302-591	Pin	2	Lower link
5	104-022	Cotter pin	2	----

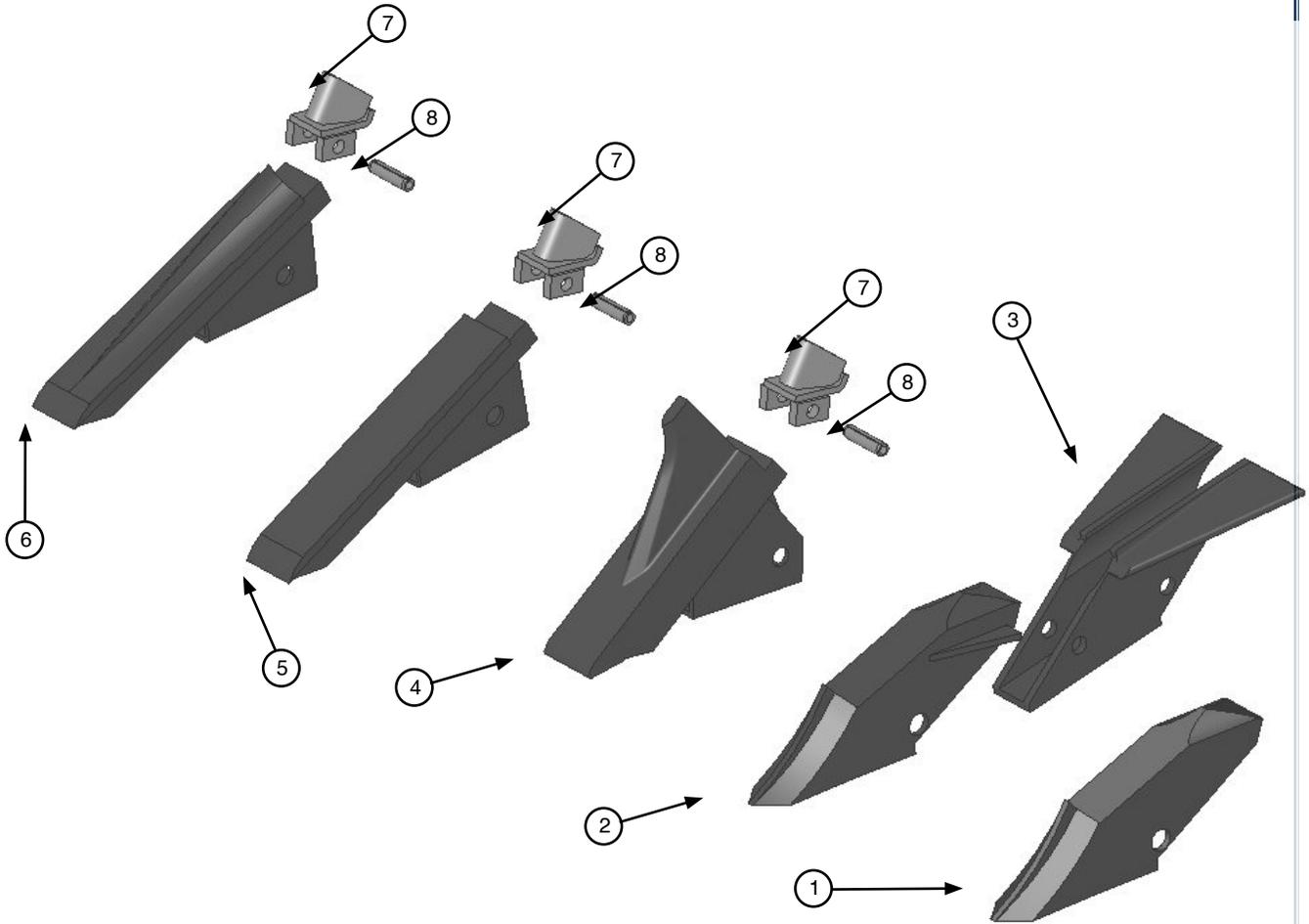
PARTS IDENTIFICATION

TOOLBAR CAT4/4N HITCH ASSEMBLY

Key	Part #	Description	Qty	Notes
1	321-512	Pin	1	Upper link
2	104-102	Roll pin	4	----
3	104-022	Cotter pin	4	----
4	321-513	Pin	2	Lower link


SHANK AND MOUNT

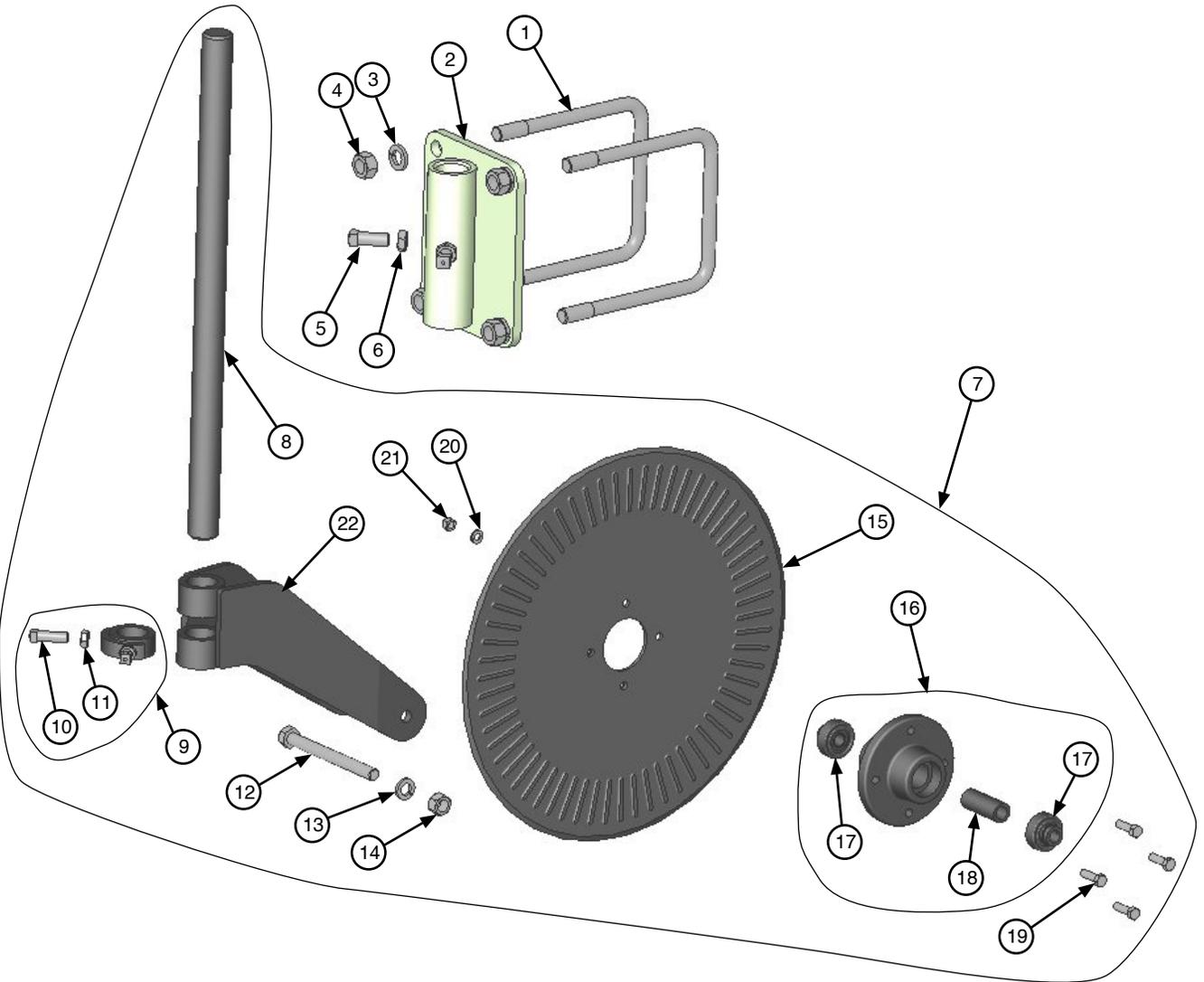
Key	Part #	Description	Qty	Notes
1	100-192	Bolt	4	1" x 3" gr 8.
2	108-025	Lock washer	4	1"
3	102-111	Nut	4	1"
4	349-062	Top clamp	1	---
5	349-061	Shank mount	1	---
6	100-585	Bolt	1	1 1/4" x 4" gr 5.
7	108-047	Lock washer	1	1 1/4"
8	102-080	Nut	1	1 1/4"
9	349-063	Shank	1	---
10	100-583	Shear bolt	1	7/8" x 4" gr 2.
11	108-024	Lock washer	1	7/8"
12	102-010	Nut	1	7/8"
13	300106	Shin guard	1	---
14	104-011	Roll pin	1	1/2" x 2" spiral

PARTS IDENTIFICATION



RIPPER POINTS

Key	Part #	Description	Qty	Notes
1	300182	Stealth Point	1	---
2	300189	Stealth Point with wings	1	---
3	300190	Stealth wing extension	1	for use in combination with number 2
4	320720	Shark Fin point	1	requires number 7 and 8 to mount shin guard
5	320710	Flat Point	1	requires number 7 and 8 to mount shin guard
6	320712	V-Fin Point	1	requires number 7 and 8 to mount shin guard
7	703441	Shin guard mount	1	---
8	104-011	Roll pin	1	1/2" x 2" spiral

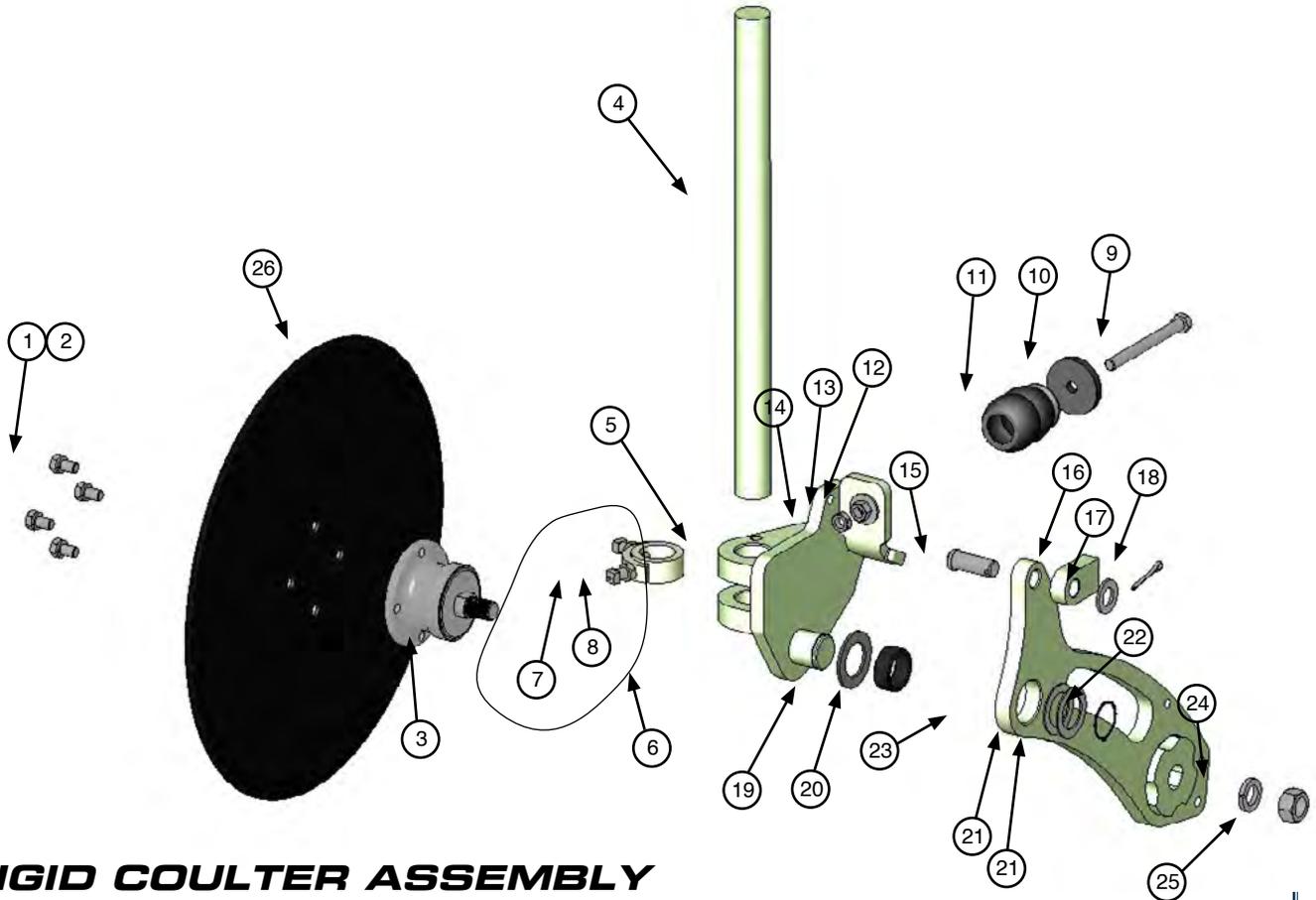

RIGID COULTER ASSEMBLY

Key	Part #	Description	Qty	Notes
1	315-031	U-bolt	2	3/4" for 7 sq.
2	349-068	Mount	1	---
3	108-022	Lock washer	4	3/4"
4	102-009	Nut	4	3/4"
5	106-149	Set screw	2	5/8" x 1 1/2"
6	102-016	Jam nut	2	5/8"
7	349-070	Assembly	1	Includes 8 - 22
8	349-071	Shank	1	1 1/2" x 26" straight
9	317-090	Collar assembly	1	Includes 10 & 11
10	106-010	Set screw	2	1/2"
11	102-015	Jam nut	2	1/2"

Key	Part #	Description	Qty	Notes
12	100-145	Bolt	1	5/8" x 6 1/2" Grade 5
13	108-021	Lock washer	1	5/8"
14	102-008	Nut	1	5/8"
15	166-032	Coultter	1	20" fluted
16	340-056	Hub Assembly	1	Includes 17 & 18
17	315-261	Bearing	2	5/8" bore
18	317-099	Spacer	1	1"OD x 11/16" ID x 2.57"
19	100-108	Bolt	4	3/8" x 1 1/4" Grade 5
20	108-018	Lock washer	4	3/8"
21	102-005	Nut	4	3/8"
22	317-091	Coultter fork	1	---

PARTS IDENTIFICATION

FOR MOUNT INFORMATION SEE
PAGE 6-5.



RIGID COULTER ASSEMBLY

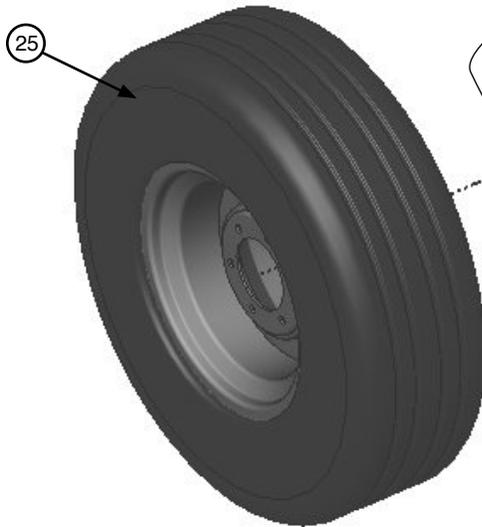
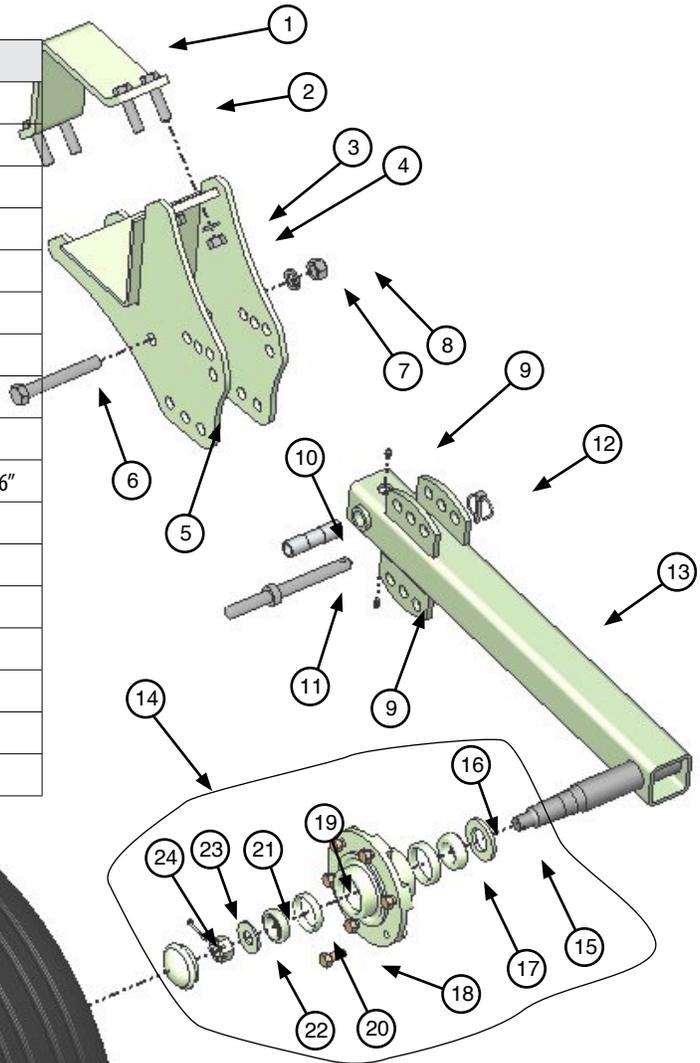
Key	Part #	Description	Qty	Notes
1	100-631	Bolt	4	12mm x 20mm
2	108-102	Lock washer	4	12mm
3	170-076	Hub assembly	1	---
4	387-191	Shank	1	1 1/2" x 22"
5	317-304	Base	1	---
6	317-090	Collar assembly	1	Includes 10 & 11
7	106-010	Set screw	2	1/2"
8	102-015	Jam nut	2	1/2"
9	100-127	Bolt	1	1/2" x 5 1/2" Grade 5
10	317-087	Spring plate	1	---
11	148-201	Spring	1	---
12	108-009	Flat washer	1	1/2"
13	102-028	Lock nut	1	1/2"
14	102-015	Jam nut	1	1/2"

Key	Part #	Description	Qty	Notes
15	104-193	Clevis pin	1	3/4" x 2"
16	317-088	Plunger	1	---
17	108-003	Flat washer	1	3/4" SAE
18	104-129	Cotter pin	1	5/32" x 1 3/4"
19	317-121	Washer	1	UHMW
20	134-136	Bushing	1	Composite
21	134-153	Bushing	2	2.25" x 1.5" x 14 ga.
22	104-052	Snap ring	1	1 1/2" external
23	317-307	Arm	1	---
24	108-024	Lock washer	1	7/8"
25	102-325	Nut	1	22mm
26	166-051	Coultter	1	20" smooth

PARTS IDENTIFICATION

PIN ADJUST GAUGE WHEEL

Key	Part #	Description	Qty	Notes
1	315-150	Mounting strap	1	for 7x7 bar
2	100-135	Bolt	4	5/8" x 2 1/2" gr 5.
3	108-021	Lock washer	4	5/8"
4	102-008	Nut	4	5/8"
5	349-074	Mount	1	---
6	100-166	Bolt	1	3/4" x 5 1/2" gr 5.
7	108-022	Lock washer	1	3/4"
8	102-009	Nut	1	3/4"
9	110-001	Grease fitting	2	1/4" straight
10	315-154	Bushing	1	1" OD x .755" ID x 3 11/16"
11	302-495	Pin	1	---
12	104-065	Linch pin	1	5/16" x 1 11/16"
13	349-058	Standard	1	Universal, Right or Left
14	302-202	Hub assembly	1	Includes 15 thru 24
15	150-006	Seal	1	2.62 OD x 1.5 ID x .25
16	120-017	Bearing	1	1 3/8"
17	120-044	Race	1	---



Key	Part #	Description	Qty	Notes
18	100-332	Wheel bolt	6	1/2" x 1 1/4" UNF
19	120-015	Race	1	---
20	120-018	Bearing	1	1.25 Bore
21	108-031	Flat washer	1	7/8"

Key	Part #	Description	Qty	Notes
22	102-036	Castle nut	1	7/8" UNF
23	104-024	Cotter pin	1	5/32" x 1 1/4"
24	302-206	Dust Cap	1	---
25	190-089	Wheel & Tire	1	9.5L-15SL 12 ply

