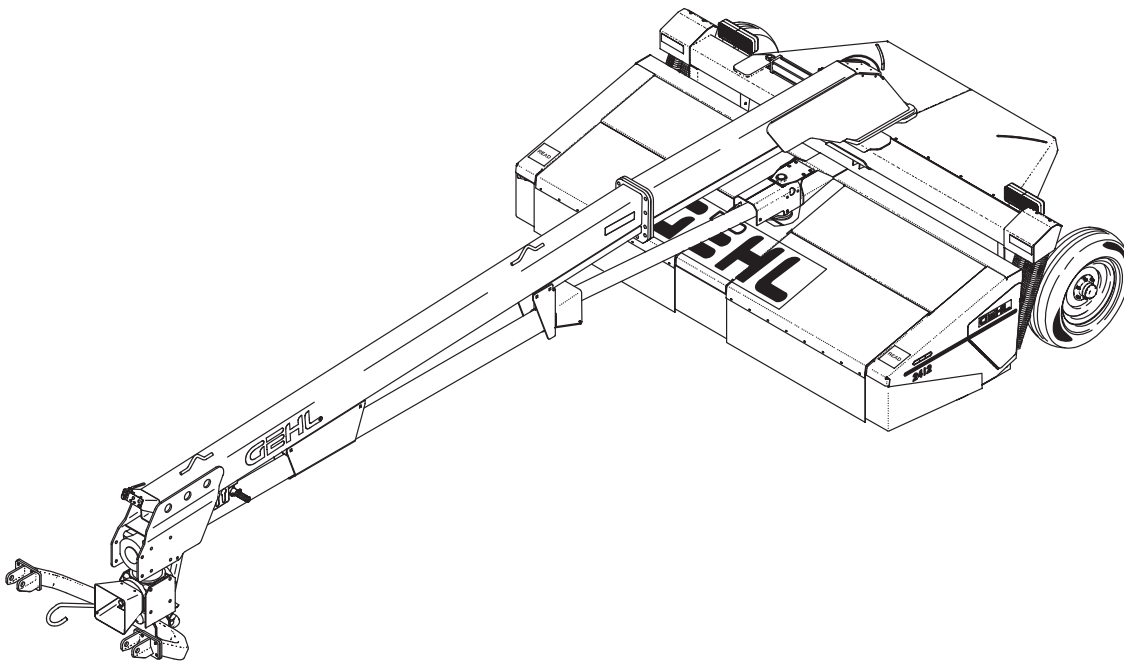


Form No.  
908151

Replaces  
907595

# 2412

## Disc Mower Conditioner



### OPERATOR'S MANUAL

**GEHL® AGRICULTURE**



**GEHL**

**NEW AGRICULTURAL EQUIPMENT**

**DISC MOWER CONDITIONER**

**WARRANTY**

**GEHL AGRICULTURE DIVISION** of the **GEHL COMPANY**, hereinafter referred to as Gehl, warrants new Gehl Disc Mower Conditioners and attachments, to the Original Retail Purchaser to be free from defects in material and workmanship for a period of twelve (12) months {ninety (90) days for commercial/custom use} from the Warranty Start Date, except as set forth below:

The Cutterbar is warranted for a period of two (2) years from the Warranty Start Date for replacement only, labor and freight excluded, unless defect occurs during initial twelve (12) month warranty period.

**GEHL AGRICULTURE WARRANTY INCLUDES:**

Genuine Gehl parts and labor costs required to repair or replace equipment at the selling dealer's business location.

---

**GEHL MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED (INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE), EXCEPT AS EXPRESSLY STATED IN THIS WARRANTY STATEMENT.**

---

**GEHL WARRANTY DOES NOT INCLUDE:**

1. Transportation to selling dealer's business location or, at the option of the Original Retail Purchaser, the cost of a service call.
2. Used equipment.
3. Components covered by their own non-Gehl warranties, such as tires, trade accessories and engines.
4. Normal maintenance service and expendable, high wear items.
5. Repairs or adjustments caused by: improper use; non-intended use; failure to follow recommended maintenance procedures; use of unauthorized attachments; accident or other casualty.
6. Liability for incidental or consequential damages of any type, including, but not limited to lost profits or expenses of acquiring replacement equipment.

No agent, employee or representative of Gehl has any authority to bind Gehl to any warranty except as specifically set forth herein. Any of these limitations excluded by local law shall be deemed deleted from this warranty; all other terms will continue to apply.



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# CHAPTER 1

## INTRODUCTION

Your decision to purchase this piece of GEHL® equipment was a good one. We are sure that your decision was carefully considered and that you are looking forward to many years of work from this machine.

We, as a Company, have invested much time and effort in developing our lines of equipment. The equipment you have purchased is built with a great deal of pride, and designed to give you long life, efficient operation, durability and dependability.

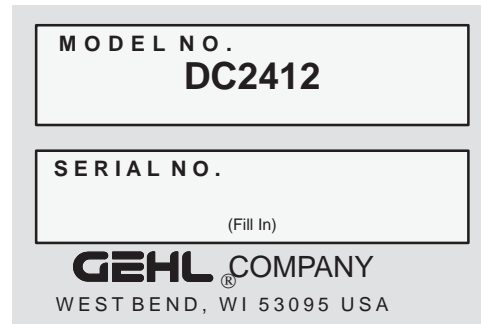
This manual was developed specifically for the machine you have purchased. The information within is for your assistance in preparing, adjusting, maintaining and servicing your machine. More importantly, this manual provides an operating plan for safe and proper use of your machine. Major points of safe operation are detailed in the SAFETY chapter of this manual. Refer to the Table of Contents for an outline (by chapters) of this manual. Use the Index, located at the back of this manual, for specific chapter and topic/page number references.

This GEHL equipment is provided with a Pocket, on the back side of the Tool Box located behind the Shield on the right side of the Header, for storing the Operator's Manual. After using it, please return the Manual to the Pocket and keep it with the unit at all times! Furthermore, we recommend that if this machine is re-sold, this Manual accompany the unit.

**Modern machinery has become more sophisticated and, with that in mind, GEHL Company asks that you read and understand the contents of this manual COMPLETELY and become familiar with your new machine, BEFORE attempting to operate it.**

Our wide Dealership network stands by to provide you with any assistance you may require, including genuine GEHL service parts. All parts should be obtained from or ordered through your GEHL Dealer. Give complete information about the part and include the model and serial numbers of your machine. Record the serial number in the space provided on the pictorial, as a handy record for quick reference.

The Disc Conditioner model and serial numbers are on a plate located on the left side of the Main Frame. "Right" and "Left" are determined from a position standing behind the Disc Conditioner, facing the direction of travel.



**Typical Model & Serial Number Plate**

Standard hardware torques appear in a chart at the end of the manual.

GEHL Company reserves the right to make changes or improvements in the design or construction of any part without incurring the obligation to install such changes on any unit previously delivered.

Throughout this manual, information is provided which is set in *italic* type and introduced by the word NOTE or IMPORTANT. BE SURE to read carefully and comply with the message or directive given. Following this information will improve your operating or maintenance efficiency, help you to avoid costly breakdowns or unnecessary damage and extend your machine's life.

**The GEHL Company, in cooperation with the American Society of Agricultural Engineers and the Society of Automotive Engineers, has adopted this SAFETY ALERT SYMBOL**



**to pinpoint characteristics which, if not properly followed, can create a safety hazard. When you see this symbol in this manual or on the unit itself, you are reminded to BE ALERT! Your personal safety is involved.**

# CHAPTER 2

## SPECIFICATIONS

**All Dimensions are in Inches (Millimeters) Unless Otherwise Noted**

<p>Model and Description . . . . . DC2412 Disc Mower Conditioner</p> <p>Number of Discs . . . . . 9</p> <p>Total Number of Knives . . . . . 18</p> <p>Cutting Width . . . . . 138-1/2 (3518)</p> <p>Overall Length . . . . . Approx. 273 (6934)</p> <p>Operating Height . . . . . Approx. 56 (1422)</p> <p>Transport Width . . . . . 141 (3581)</p> <p>Minimum Power Required . . . . . 85 hp (64 kW)</p> <p>Tires . . . . . Two 31 x 13.5 x 15, inflated to 30 psi (210 kPa)</p> <p>Weight (Approximate) . . . . . 5100 lb (2320 kg)</p> <p>Conditioner Roller Diameter . . . . . 9.5 (241)</p> <p>Conditioner Roller Length . . . . . 111 (2819)</p> <p>Conditioner Roller Speed . . . . . 765 rpm</p> <p>Cutting Height . . . . . 1-1/4 to 3-1/4 (32 to 83) up to 5-1/4 (133) with Optional Tall Skid Shoes</p> <p>Disc Speed . . . . . 3000 rpm</p> <p>Knife Tip Speed . . . . . 181 mph (292 km/h)</p> <p>Disc Angle . . . . . 0° to 6° down</p> <p><b>Volumetric Oil Capacities:</b></p> <p>Main Drive Gearbox . . . . . 43 oz. (1.25 L)</p> <p>Roll Drive Bevel Gearbox . . . . . 12 oz. (0.35 L)</p> <p>Roll Drive Parallel Gearbox . . . . . 12 oz. (0.35 L)</p> <p>Roller Chain Drive Oil Bath . . . . . 2 Qts. (1.92 L)</p>	<p>Cutterbar . . . . . 5 U.S. Pints (2.35 L)</p> <p>Swivel Hitch – Top Gearbox . . . . . 37 oz (1.1 L) (After SN12100)</p> <p>Swivel Hitch – Bottom Gearbox . . . . . 56 oz (1.7 L) (After SN12100)</p> <p><b>Standard Features:</b></p> <p>1000 RPM Drive Line</p> <p>Overrunning Slip Clutch-protected Telescoping PTO Drive Line</p> <p>Reversible Twisted Cutting Knives</p> <p>Replaceable Skid Shoes to Regulate Cutting Height with the Use of Hydraulic Disc Angle Adjustment</p> <p>Dual Hydraulic Cylinder Lift System</p> <p>Hydraulic Swing Cylinder for Tongue Positioning</p> <p>Adjustable Deflectors for Windrow or Swath Forming</p> <p>Transport Lights</p> <p>Intermeshing Rubber Rollers</p> <p>Quick Attach Drawbar Extension (Before SN12101)</p> <p>SMV Emblem &amp; Mounting Bracket (After SN10700)</p> <p><b>Optional Features (Customer Selected):</b></p> <p>2-Point or Drawbar Style Hitch (After SN12100)</p> <p>Safety Chain</p> <p>Tall Skid Shoes</p> <p>V-Blades</p> <p>Crop Lifters</p> <p>Wide Tire Bumper Extension Kit</p>
--	--

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# CHAPTER 3

## CHECKLISTS

Remove Dealer's File Copy at Perforation

### PRE-DELIVERY

After the Disc Mower Conditioner has been completely set-up, the following inspections **MUST** be made before delivering it to the Customer. Check off each item after prescribed action is taken.

**Check that:**

- Disc Mower Conditioner has been completely and properly set-up according to instructions included with the unit.
- All grease fittings have been properly lubricated and that the Gearboxes, Cutterbar and Roller Chain Sump have been filled to their proper operating levels. See the Lubrication chapter.
- All Guards, Shields and Decals are in place and securely attached.
- All fasteners are properly secured.
- All adjustments have been made to comply with settings given in the Adjustments chapter.
- Tires are properly mounted and are inflated to 30 psi (210 kPa).
- Record the Model and Serial Numbers of this unit on this page and page 2.

**Connect the Disc Mower Conditioner to a 1000 RPM PTO and test-run the unit while checking that proper operation is exhibited by all components.**

**Check that:**

- All Blades, Discs and Rollers are turning freely.
- All Mechanisms are operating smoothly.
- The Hydraulic Hose connections are **NOT** leaking under pressure and that lift mechanism is operating smoothly and properly.
- The Transport Lights operate and signal left and right properly.

I acknowledge that pre-delivery service was performed on this unit as outlined above.

\_\_\_\_\_

Dealership's Name

\_\_\_\_\_

Dealer Representative's Name

\_\_\_\_\_

Date Checklist Filled out

\_\_\_\_\_      \_\_\_\_\_

Model Number      Serial Number

### DELIVERY CHECKLIST

The following Checklist is an important reminder of valuable information that **MUST** be passed on to the Customer at the time the unit is delivered. Check off each item as you explain it to this Customer.

- Give the Operator's Manual to the Customer. Instruct them to be sure to read and completely understand its contents **BEFORE** attempting to operate the unit.
- Explain and review all the **SAFETY** information with the Customer.
- Explain that regular lubrication is required for continued proper operation and long life. Review the Lubrication information in this manual with the Customer, emphasizing that the oil in the Cutterbar and the Gearboxes **MUST** be changed after the first 10 hours of operation.
- Explain the function of the Overrunning and Slip Clutch on the Gearbox input to the Customer.
- Explain that unit components may continue to rotate after the tractor PTO is disengaged and the customer **MUST** wait for all movement to stop **BEFORE** approaching the unit.
- Explain the function and use of the Transport Locks for the Header Lift and Hydraulic Drawbar Positioner to the Customer.
- Demonstrate the proper use of the Locking Couplers on both ends of the Telescoping PTO Drive to the Customer.
- Completely fill out Owner's registration, including customer's signature, and return it to the Company.
- Explain when a Tire Bumper Extension Kit is needed.

I acknowledge that the above points were reviewed with me at the time of delivery.

\_\_\_\_\_

Customer's Signature

\_\_\_\_\_

Date Delivered

**(Dealer's File Copy)**

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**(To be removed as Dealer's File Copy)**



# CHAPTER 3

## CHECKLISTS

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\_\_\_\_\_  
Dealership's Name

\_\_\_\_\_  
Dealer Representative's Name

\_\_\_\_\_  
Date Checklist Filled out

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

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I acknowledge that the above points were reviewed with me at the time of delivery.

\_\_\_\_\_  
Customer's Signature

\_\_\_\_\_  
Date Delivered

**(Pages 5 & 6 Have Been Removed at Perforation)**



# CHAPTER 4 SAFETY



The above Safety Alert Symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!** It stresses an attitude of “Heads Up for Safety” and can be found throughout this Operator’s Manual and on the machine itself.

**BEFORE YOU ATTEMPT TO OPERATE THIS EQUIPMENT, READ AND STUDY THE FOLLOWING SAFETY INFORMATION. IN ADDITION, BE SURE THAT EVERYONE WHO OPERATES OR WORKS WITH THIS EQUIPMENT, WHETHER FAMILY MEMBER OR EMPLOYEE, IS FAMILIAR WITH THESE SAFETY PRECAUTIONS.**

Our Company ALWAYS takes the operator and his/her safety into consideration when designing its machinery and guards exposed moving parts for his/her protection. However, some areas cannot be guarded or shielded in order to assure proper operation. Furthermore, this Operator’s Manual, and decals on the machine, warn of additional hazards, and should be read and observed closely.



## DANGER

“**DANGER**” indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



## WARNING

“**WARNING**” indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



## CAUTION

“**CAUTION**” indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also alert against unsafe practices.

---

## MANDATORY SAFETY SHUTDOWN PROCEDURE

**BEFORE unclogging, cleaning, adjusting, lubricating or servicing the unit:**

1. Disengage the tractor PTO.
2. Place the tractor transmission in park and/or lock brake pedals to prevent tractor movement, then shut off the tractor engine.
3. Remove the starter switch key and take it with you.
4. Wait for all movement to stop.
5. Remove the telescoping PTO drive and ALL power connections from the tractor.

**ONLY when you have taken these precautions can you be sure it is safe to proceed. Failure to follow the above procedure, could lead to death or serious bodily injury.**

---

## ADDITIONAL SAFETY REMINDERS

It is recommended that the towing tractor be equipped with an enclosed operator’s cab with safety glass or polycarbonate windows, or with protective mesh screens.

Some photographs used in this manual may show doors, guards and shields open or removed for illustration purposes ONLY. BE SURE that all doors, guards and shields are in their proper operating positions and securely attached BEFORE operating unit.

BE SURE the hitchjack locking pin is completely engaged and that the machine is properly blocked and prevented from rolling BEFORE disconnecting the unit from the tractor!

ALWAYS follow state and local regulations regarding use of a safety chain and transport lighting when towing farm equipment on public highways. Restrict highway towing speeds to 20 mph (32 km/h) maximum. BE SURE to check with local law enforcement agencies for your own particular regulations. Unless otherwise prohibited, use a Slow Moving Vehicle (SMV) emblem.

Only a safety chain (NOT an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machines, in the event of separation of the primary attaching system.



# SAFETY

(Continued)



ALWAYS wear safety glasses with side shields when striking metal against metal. It is further recommended that a softer (non-chipable) material be used to cushion the blow. Failure to heed could lead to serious injury to the eyes or other parts of the body.

Good safety practice dictates that you NEVER tow an implement (without brakes), unless towed implement plus its load does not exceed one-and-one half (1-1/2) times the weight of the towin vehicle. For any public highway travel and to be in compliance with this rule, BE SURE that your tractor is heavy enough to counterbalance the weight of the disc conditioner.

Our Company does NOT sell replacement tires. In addition, tire mounting, service or inflation can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires, following the tire manufacturer’s instructions. If you do not have such instructions, contact your tire dealer or our Company. In any event, to avoid possible fatal or serious injury, follow the specific directives given in the “Preparing for Field Operation” chapter of this manual.

BEFORE using the disc mower conditioner, inspect the cutting knives, discs and attaching hardware. Replace any worn or damaged parts immediately. Knives MUST be replaced in pairs. To ensure continued safe operation, replace damaged or worn-out parts with genuine Gehl service parts, BEFORE operating this equipment.

Regularly inspect the disc mower conditioner’s curtain. Replace curtain if it is worn or damaged. NEVER operate the unit unless the protective curtain is in place and folded down.

Fields to be mowed must be free of foreign objects. Keep people 100 feet (30 m) or more away from unit during operation. Do not engage PTO unless unit is in operating position. If an obstruction is hit during operation, stop the unit immediately – follow the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 8). Check the entire unit before continuing use.

REMEMBER, it is the owner’s responsibility for communicating information on the safe use and proper maintenance of this machine.

NEVER use your hands to search for hydraulic fluid leaks; use a piece of cardboard. Escaping fluid under pressure can be invisible and can penetrate the skin and cause serious injury! If any fluid is injected into your skin, see a doctor at once! Injected fluid MUST be surgically removed by a doctor familiar with this type of injury or gangrene may result.

DO NOT get near the unit until the discs and conditioner rolls have stopped rotating! Both mechanisms can continue to operate after the PTO is disengaged!

DO NOT attempt to hand feed or kick any crop or material into this machine!

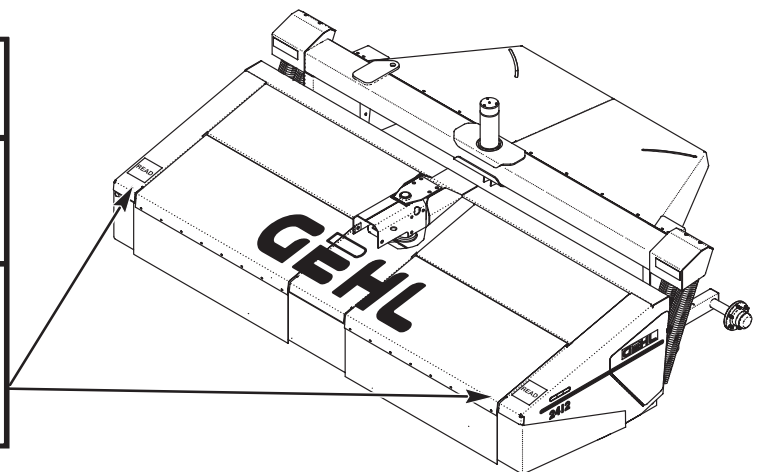
Always lower header to ground when parking.



## WARNING

**DO NOT use the DC2412 mower conditioner for roadside cutting. DO NOT operate near people.**

 <b>DANGER</b>		
		
<p>ROTATING KNIVES BELOW PROTECTIVE COVER MAY CONTINUE TO ROTATE AFTER POWER IS STOPPED AND CAN CUT OR CATCH HANDS OR FEET AND MAY THROW OBJECTS.</p> <p>KEEP OUT WHILE MACHINE IS OPERATING. LOOK AND LISTEN FOR EVIDENCE OF ROTATION.</p> <p>KEEP CUTTERBAR SHIELD IN DOWN POSITION AT ALL TIMES.</p> <p>FAILURE TO HEED WILL RESULT IN DEATH OR SERIOUS INJURY</p>		
<small>125476</small>		





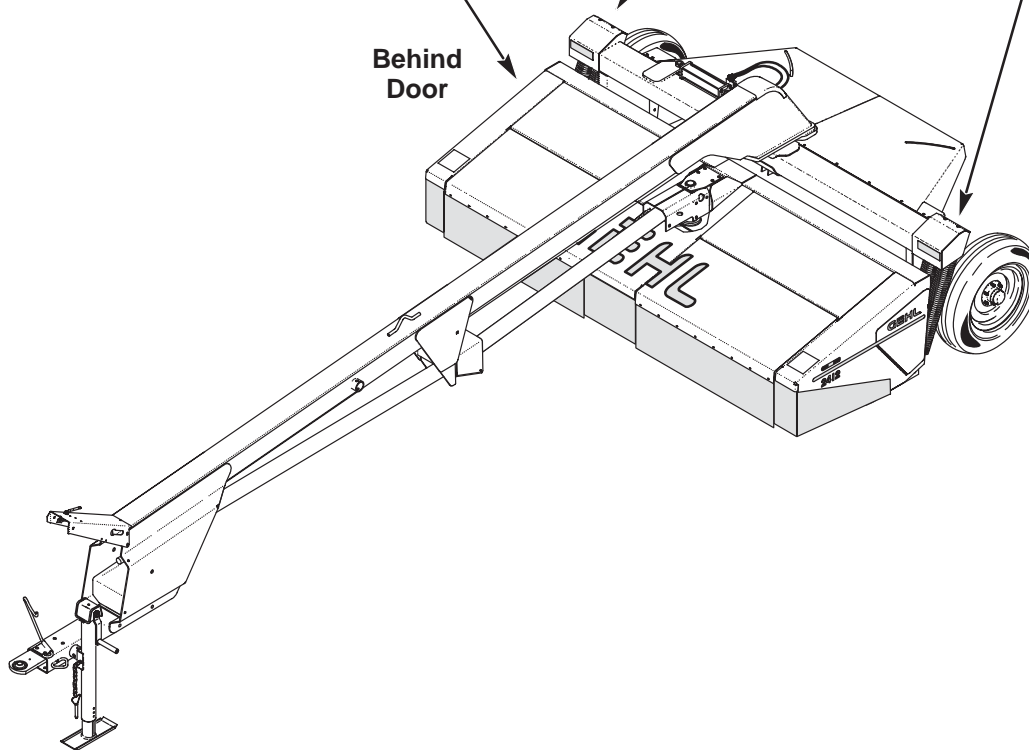
# SAFETY

(Continued)



 <b>WARNING</b>
ROTATING COMPONENTS CAN CATCH/CUT/PINCH HAND. KEEP HANDS OUT. CLOSE OR REPLACE GUARD BEFORE OPERATING MACHINE.
FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.
093365

 <b>WARNING</b>	<b>WARNING</b>
	<ul style="list-style-type: none"><li>• MECHANICAL OR HYDRAULIC FAILURE CAN CAUSE UNIT TO FALL.</li><li>• BEFORE TRANSPORTING INSTALL TRANSPORT LOCKS.</li><li>• BEFORE WORKING ON OR UNDER MACHINE, INSTALL TRANSPORT LOCKS, BLOCK WHEELS, HEADER AND TRAILER FRAME.</li><li>• FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.</li></ul>
	115974



Behind Door



# SAFETY

(Continued)



**! DANGER**



**ROTATING DRIVELINE**  
CONTACT CAN CAUSE DEATH  
*KEEP AWAY!*

**DO NOT OPERATE WITHOUT-**

- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE.
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE

091444

**! WARNING**

THIS IMPLEMENT IS EQUIPPED TO OPERATE WITH 1000 RPM PTO TRACTOR MEETING ASAE STANDARD S203. NEVER ATTEMPT TO CONNECT OR OPERATE WITH 540 RPM PTO TRACTOR.

FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

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**! DANGER**



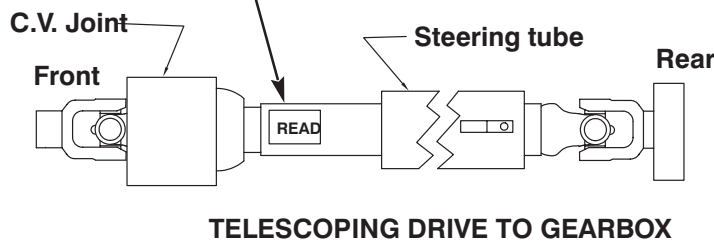
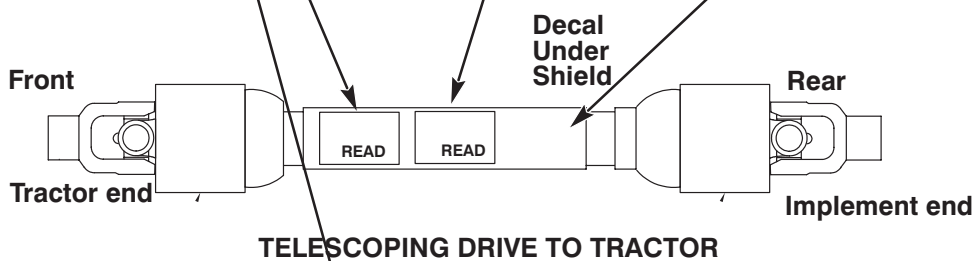
**SHIELD MISSING  
DO NOT OPERATE**

**! DANGER**



**SHIELD MISSING  
DO NOT OPERATE**

**! DANGER**



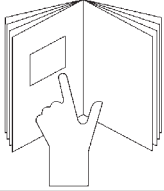


# SAFETY

(Continued)



**! WARNING**



THE OWNER IS RESPONSIBLE FOR MAKING INFORMATION AVAILABLE TO THE OPERATOR ON THE SAFE USE AND PROPER MAINTENANCE OF THIS MACHINE.


DO NOT START, OPERATE OR WORK ON THIS MACHINE UNTIL YOU READ AND UNDERSTAND THE CONTENTS OF THE OPERATOR'S MANUAL.

IF YOU HAVE QUESTIONS ON OPERATION, ADJUSTMENT OR MAINTENANCE OF THIS MACHINE OR NEED AN OPERATOR'S MANUAL, OR IF ANY DECALS ARE NOT READABLE, CONTACT YOUR GEHL DEALER OR GEHL COMPANY, WEST BEND, WISCONSIN 53095 MODEL AND SERIAL NUMBERS WILL BE REQUIRED.

FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

093367

**! WARNING**



**ROTATING DRIVE LINE**

DO NOT OPERATE WITHOUT THE FOLLOWING

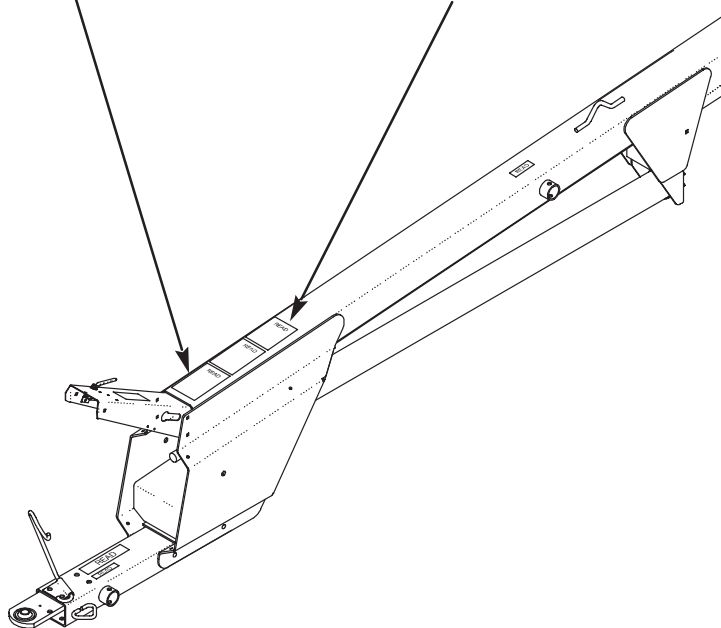
- PROPER DRIVE LINE GUARDS
- INPUT SHAFT GUARDS
- TRACTOR MASTER SHIELD
- U-JOINTS LOCKED TO TRACTOR AND IMPLEMENT SHAFTS

FOR YOUR PROTECTION, THIS DRIVE LINE HAS A GUARD THAT ALLOWS THE INTERNAL DRIVE SHAFT TO ROTATE WHILE THE GUARD IS NOT ROTATING. DO NOT POUND BELL TO REMOVE DRIVE TUBE.

U-JOINTS MUST BE PROPERLY ATTACHED AND MAINTAINED.

FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

093653





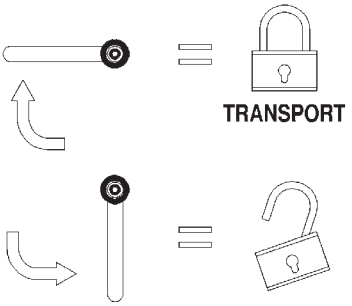
# SAFETY

(Continued)



**! WARNING**

**TONGUE LOCK**



CENTER MACHINE BEHIND TOWING VEHICLE AND ROTATE HANDLE TO THE TRANSPORT POSITION BEFORE TRANSPORTING MACHINE.

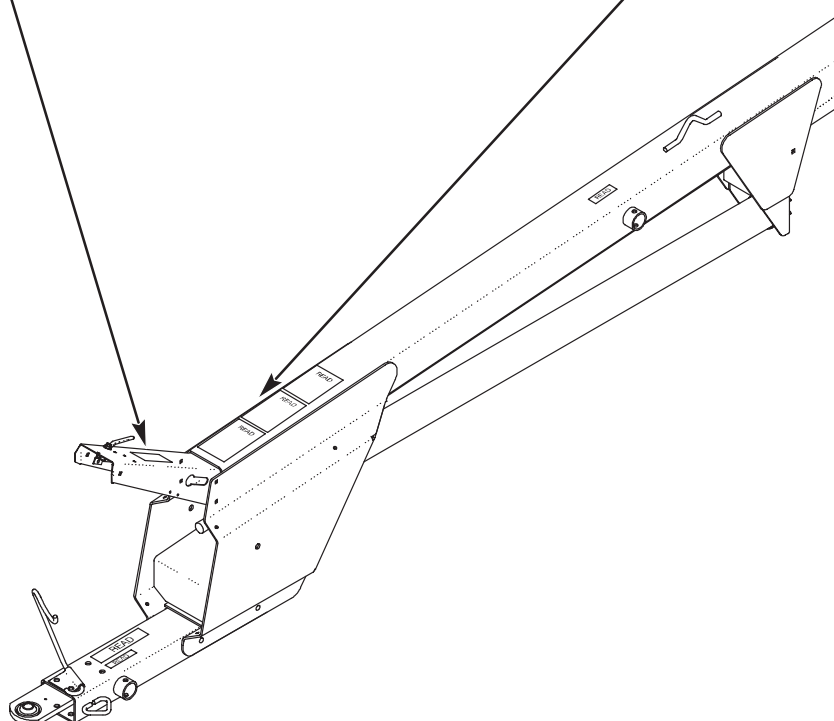
FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

142931

**! WARNING**

- BEFORE UNCLOGGING, CLEANING, ADJUSTING, LUBRICATING OR SERVICING THE UNIT ALWAYS FOLLOW THE MANDATORY SAFETY SHUT DOWN AS SPECIFIED BY THE OPERATOR'S MANUAL.
- KEEP ALL GUARDS AND SHIELDS IN PLACE.
- BE SURE MACHINE IS CLEAR OF PEOPLE, TOOLS, AND OTHER OBJECTS BEFORE STARTING.
- DO NOT WEAR LOOSE OR BAGGY CLOTHING AROUND THIS MACHINE AND KEEP HANDS, FEET AND CLOTHING AWAY FROM MOVING AND POWER DRIVEN PARTS.
- KEEP CHILDREN AND SPECTATORS OFF AND AWAY FROM MACHINE WHILE IT IS OPERATING.
- KEEP OFF UNIT UNLESS A SPECIFIED OPERATOR'S STATION IS PROVIDED.
- FAILURE TO HEED COULD RESULT IN DEATH OR SERIOUS INJURY.

093373



# CHAPTER 5

## CONTROLS & SAFETY EQUIPMENT

The Disc Mower Conditioner is provided with several features for operator safety and convenience.

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### WARNING

**BEFORE** operating this equipment, become familiar with **ALL** safety devices and controls. Know how to **STOP** the disc mower conditioner operation **BEFORE** starting it.

---

### DRAWBAR HITCH POSITIONING

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### WARNING

**BEFORE** transporting the mower conditioner on a public highway, **BE SURE** to lock the positioner cylinder in the “transport” position with the transport lock valve provided.

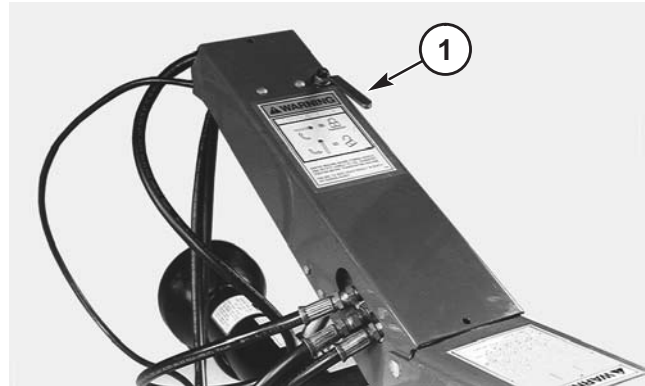
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Repositioning the Disc Mower Conditioner Tongue between the “Transport” and operating positions can be accomplished hydraulically.

### Hydraulic Hitch Positioner (Figs. 1 & 2)

The Disc Mower Conditioner is equipped with a Hydraulic Hitch Positioner for remotely (from the tractor seat) relocating the Drawbar from the centered “Transport” position to the various field operation positions. The Hydraulic Hitch Positioner contains a double-acting hydraulic Cylinder, Hoses and a Transport Lock Valve.

When the Disc Mower Conditioner is in use in the field, the Transport Lock Valve should be in the “open” position. When the Disc Mower Conditioner is centered behind the tractor in the transport position, the Transport Lock Valve **MUST** be in the “closed” position. Keep Transport Lock Valve in the “closed” position only during unit transport.



1 – Transport Lock Valve in “Open” position  
Fig. 1



1 – Transport Lock Valve in “Transport” position  
Fig. 2

### GUARDS & SHIELDS (Figs. 3 & 4)

Whenever and wherever possible and without affecting machine operation, Guards and Shields have been used, on this equipment, to protect potentially hazardous areas. In many places, Decals are also provided to warn of potential dangers as well as to display special operating procedures.

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### WARNING

**Read and observe ALL warnings on the unit, BEFORE operating it. DO NOT operate this equipment unless ALL guards and shields are properly secured in place.**

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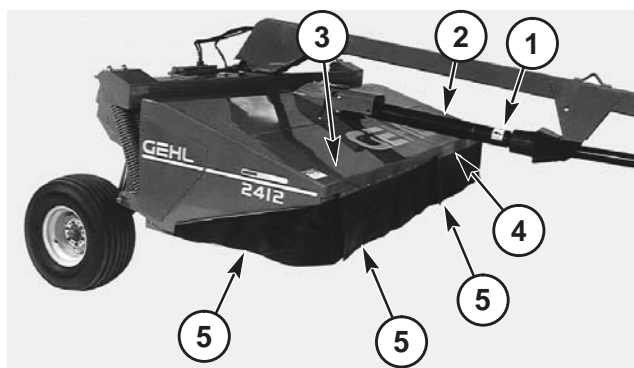


## Implement Drive Line Shields

The Front Telescoping PTO Drive, between the PTO Tower and tractor PTO shaft, and the Rear Telescoping PTO Drive, between the center PTO Tower and Gearbox, are equipped with rotating Shields. The Center Driveline Shield is stationary.

### **WARNING**

**BE SURE** that the rotating shields on the drives turn freely **BEFORE** starting the tractor engine. **BE SURE** any damaged or worn guard, shield, curtain or cover is replaced **BEFORE** operating the disc mower conditioner.

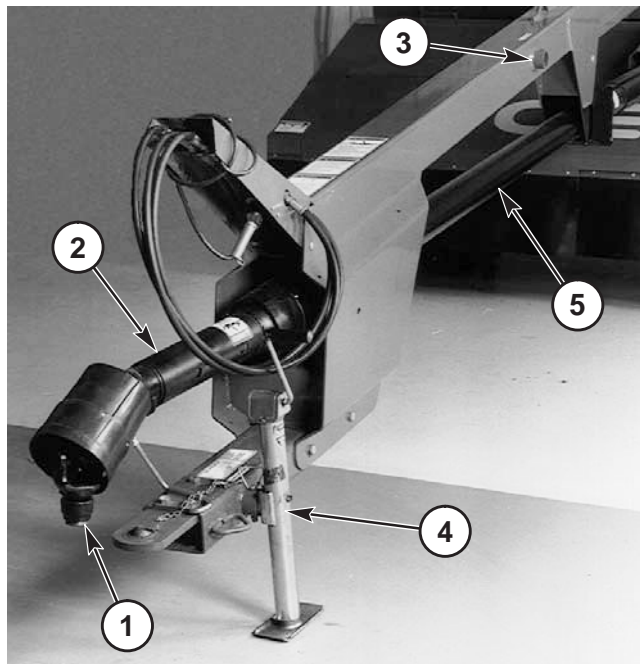


- 1 – Rear Telescoping Drive Rotating Shield
- 2 – Rear Steering Shield
- 3 – Right Cover Assembly
- 4 – Left Cover Assembly
- 5 – Curtains

Fig. 4

### **WARNING**

**BEFORE** performing any work on the disc mower conditioner, and **BEFORE** removing any guards or opening any covers or shields, **BE SURE** to exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE** (page 8). Also, **BE SURE** to replace **ALL** guards, shields and covers **BEFORE** operating the unit.



- 1 – Telescoping Drive Locking Coupler
- 2 – Telescoping PTO Drive Shields
- 3 – Jack Storage Hub (not on 2-Point Hitch units)
- 4 – Hitchjack in “Supporting” Position (not on 2-Point Hitch units)
- 5 – Center Drive Stationary Shield

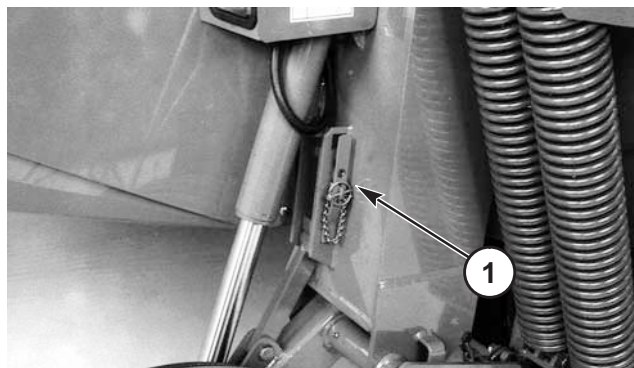
Fig. 3

## Miscellaneous Guards

Various latched and hinged Guards, Shields, Curtains and Covers are provided on the Disc Mower Conditioner to enable access for lubrication, service and adjustment.

## HEADER LIFT SYSTEM (Fig. 5)

The Disc Mower Conditioner uses a remotely controlled (from the tractor seat) single-acting hydraulic Cylinder “master-slave” system, to raise and lower the Header. Before transporting the unit, **BE SURE** to raise the unit as high as possible and activate the Transport Lock on both sides of the unit.



- 1 – Right Header Lift Transport Lock (Engaged)

Fig. 5

---

 **WARNING**

**BEFORE** transporting the disc mower conditioner, raise the unit as high as possible and engage both transport locks.

---

**HITCHJACK (Fig. 4)**

On tractor drawbar attaching models, a Hitchjack is furnished with the Disc Mower Conditioner to support the machine when the tractor is disconnected as well as to facilitate aligning the Hitch with the tractor drawbar for hookup. When the Jack is NOT being used to support the Disc Mower Conditioner, it can be removed and relocated to a “storage” position on the Conditioner Tongue.

---

 **WARNING**

**BE SURE** the locking pin is properly seated into the holes through the jack tube and the “Support Position” hub on the drawbar **BEFORE** disconnecting the mower conditioner from the tractor.

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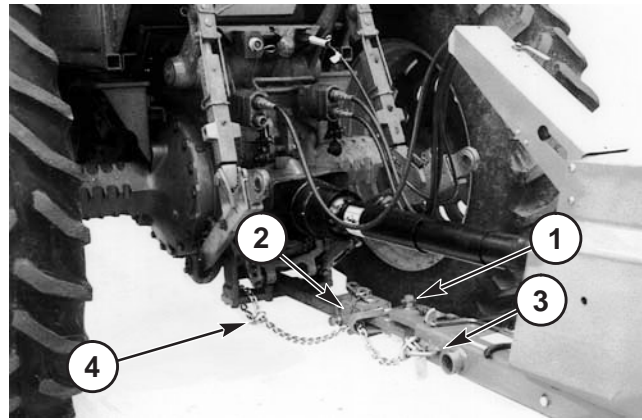
**SAFETY CHAIN (Fig. 6)**

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 **WARNING**

**ALWAYS** follow state and local regulations regarding a safety chain (NOT an elastic or nylon/plastic tow strap) when towing farm equipment on public highways! A safety chain should always be used, to retain the connection between the towing and towed machine, in the event of separation of the primary attaching system. **BE SURE** to check with local law enforcement agencies for your own particular regulations.

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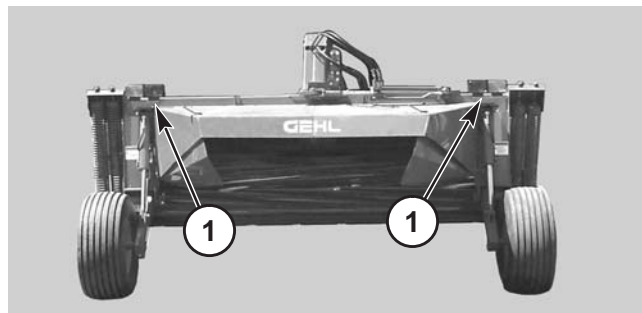
- 1 – Locking Hitch Pin
- 2 – Clevis
- 3 – Drawbar Chain Loop
- 4 – Locking Chain Hook

**Fig. 6: Accessory Safety Chain (Installed)**

As required or when desired, the Disc Mower Conditioner should be equipped with a safety chain for transporting the unit on public highways. A sturdy Chain Loop is welded to the side of the Drawbar to facilitate anchoring the chain. Refer to the Optional Equipment & Accessories chapter for ordering information.

**TRANSPORT LIGHTS (Fig. 7)**

The Disc Mower Conditioner is equipped with transport lights as standard equipment. For your safety and the safety of others, it is recommended that you use the transport lights when traveling on public roadways. If your tractor is not equipped with a seven-prong auxiliary lighting receptacle, see your tractor dealer for installation of the required wiring. For additional information and regulations on transport lighting, check with your local law enforcement agency or your GEHL dealer.



- 1 – Transport Lights

**Fig. 7**

## TELESCOPING DRIVE COUPLER (Fig. 4)

The Front Telescoping Drive is equipped with a Spring-loaded Locking Device to positively lock it onto the tractor PTO shaft. The Locking Device stays depressed against Spring tension when the PTO is not attached to the tractor. Slide the Yoke onto the tractor PTO shaft releasing the Locking Device. Move the Yoke ahead or back until the Lock engages into the groove of the PTO shaft. When towing the Disc Mower Conditioner behind a vehicle that does not have a PTO drive shaft to secure the Front Drive Line to, the Drive Line **MUST** be removed from the Disc Mower Conditioner. **DO NOT** move Disc Mower Conditioner with the Front Drive Line setting on Drive Line Storage Prop.



## WARNING

**BE SURE** that the telescoping PTO coupler is properly secured to the tractor PTO shaft and unit tower shaft **BEFORE** starting the tractor engine.

---

## TRANSPORT LOCKS (Figs. 1, 2 & 5)

When the Disc Mower Conditioner is to be transported on a public highway, **BE SURE** to raise the unit all the way up and engage both Right and Left Header Lift System Transport Locks. **BE SURE** to also swing the Drawbar to the centered Transport position and place the Transport Lock Valve in the “Transport” Position.

# CHAPTER 6

## OPERATION



### CAUTION

**BEFORE starting the tractor engine and running the disc mower conditioner for the first time, review and comply with ALL safety recommendations set forth in the SAFETY chapter of this manual.**

### EMERGENCY SHUTDOWN

In an emergency or in case a foreign object enters the Header area, STOP cutting material IMMEDIATELY by disengaging the tractor PTO. Then, exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 8) BEFORE leaving the tractor seat to remedy the problem.

### START-UP



### WARNING

**BE SURE ALL factory installed guards and shields are properly secured in place BEFORE starting the tractor engine. BE SURE that NO people are within 100 feet (30 m) of the unit when engaging the PTO. Never operate with curtain in raised position. Do NOT engage PTO unless unit is in the working position.**

To avoid unnecessary strain on the Disc Mower Conditioner Drive Line components, ALWAYS engage the tractor PTO slowly with the tractor engine at less than half throttle. Bring the unit to PTO speed BEFORE starting to cut. Always operate at PTO speed! Attempting to operate at higher than PTO speed could cause excessive vibration, wear and early component failure. In addition, operating the unit at slower than PTO speed will cause poor windrow formation and increase the chances of plugging.

### GROUND SPEED

The Disc Mower Conditioner can be operated in a wide range of ground speeds depending on crop conditions and/or terrain. Any change in ground speed should be made by changing tractor gears and NOT by increasing or decreasing tractor engine RPM.

### UNPLUGGING

It is possible for the Disc Mower Conditioner to plug in two different areas. It can become plugged in the Disc area slipping the Drive Line Clutch, or the unit can become plugged in the Conditioning Rolls causing the Bolt to shear.

### Plugged Discs

To clear a plugging condition in the area of the Discs:

1. Shut off the PTO.
2. Raise the Header all the way up.
3. Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 8).
4. Engage both Header Transport Locks.
5. Carefully clear the plug from the Cutterbar area.
6. If the plugging occurs frequently, refer to the Troubleshooting chapter for additional directives.

### Plugged Conditioning Rolls

To clear plugging from the Conditioning Rolls, proceed as follows:

**NOTE:** *If the Conditioner Drive Shear Bolt shears, stop forward travel and disengage the PTO IMMEDIATELY!*

1. Raise the unit fully.
2. Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 8).
3. Engage both Header Transport Locks.
4. Open Front Covers on the Header and remove excess material. Replace Shear Bolt, securing with two Lock Nuts. Turn Cutterbar Disc in a reverse direction to back out the plug from between the Rollers.

**IMPORTANT:** *MAKE SURE to close Covers before resuming cutting. Tongue will damage Covers unless closed.*

5. If the plugging occurs frequently, refer to the Troubleshooting chapter for additional information.

### STARTING THE FIELD

After the field has been checked and is known to be free of obstructions, it can be opened by cutting the first swath in either direction. However, it is recommended to make two or three rounds first to expose any potential hazards around the edge of the field. Then, to cut and condition the backswaths by operating in an opposite direction around the field.

## STEERING

Steering the DC2412 is controlled by the tractor remote hydraulic system and allows the Mower Conditioner to follow directly behind the tractor, or make a full cut to either side, or an infinite number of positions in between.



## WARNING

**Do not activate steering system without being sure no person or object will be hit as frame and header move.**

The hydraulic hoses should be connected to the tractor so that by moving the tractor control lever forward, the Mower Conditioner steers right; by reversing the lever, the Mower Conditioner steers left. The controls are operated momentarily for steering and must be returned to OFF or NEUTRAL position as soon as the Conditioner reaches the desired path of travel. The second control lever, when moved back, lifts the Header from the cutting position and when moved forward, lowers the Header.

The Center Pivot provides the operator the opportunity to move the Mower Conditioner into field position easily, allowing right angle turns in either direction, steering around objects on both sides, and straight line field cutting on either side of tractor, as shown in Fig. 8.

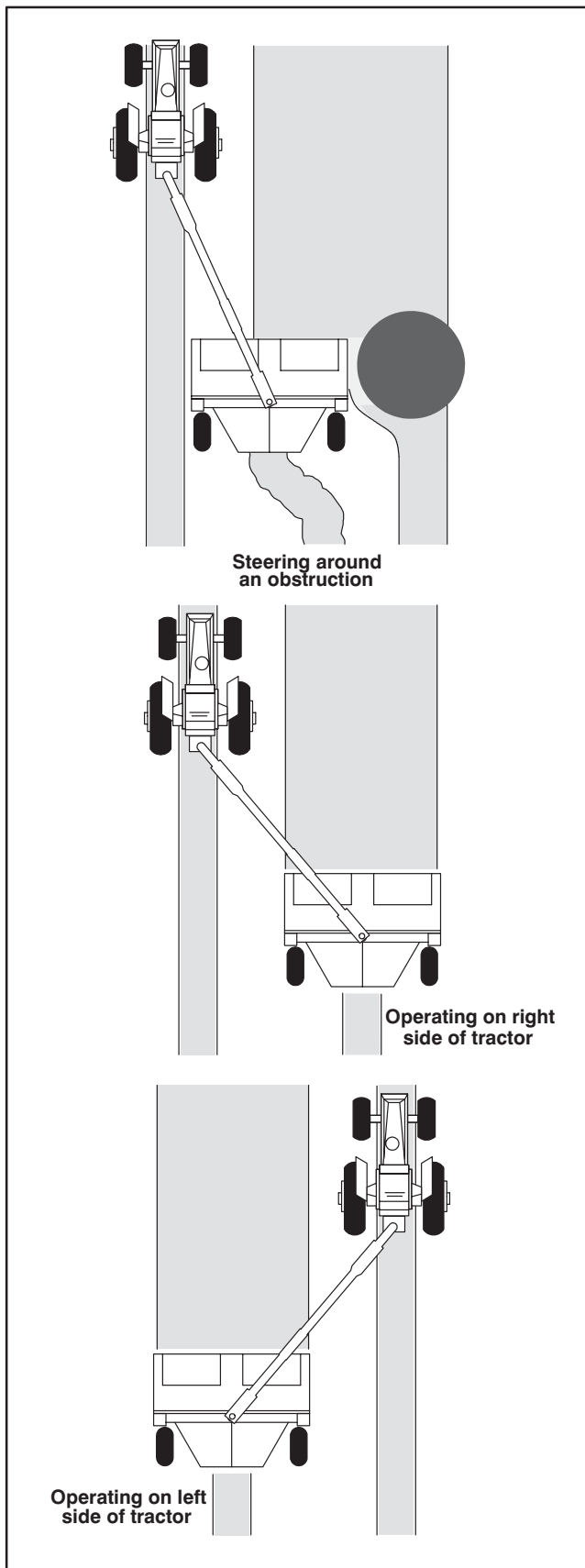


Fig. 8

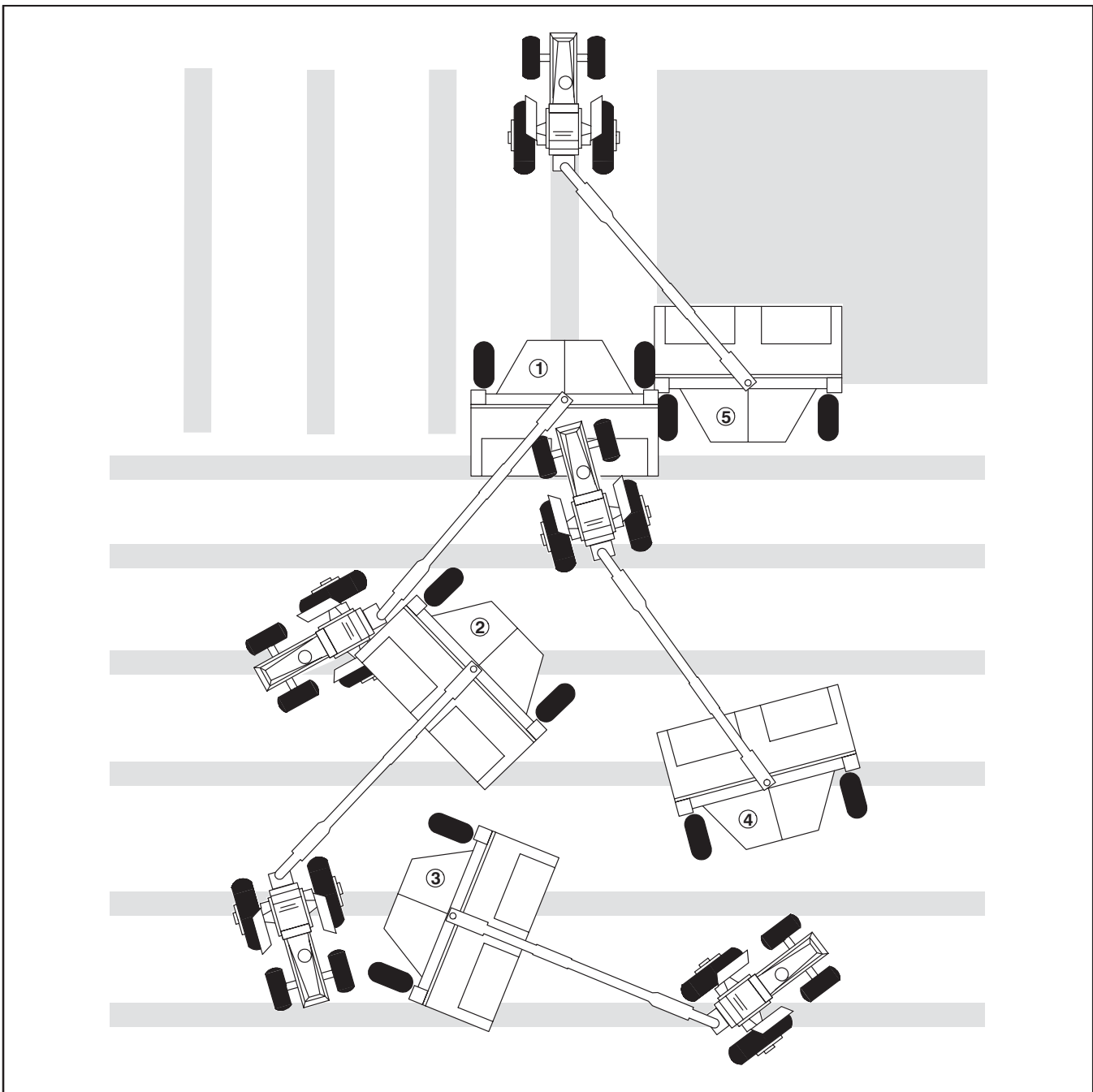


Fig. 9: 180 Degree Turnaround

## 180 Degree Turnaround

When it is desired to cut back and forth on one side of the field, approximately 4 to 6 cutting widths are required on each end of the field to make a 180 degree turnaround. The turn is accomplished as follows: Beginning at Position 1 in Fig. 9, the tractor is guided away from the uncut crop while the Disc Mower Conditioner is guided straight ahead until cutting through the end. As soon as the discs cut through, raise the Header to lift the Skid Shoes clear of the cut crop and then begin to steer the Conditioner to the direction away

from the uncut crop. At Position 2, the tractor is guided back towards the uncut crop. In turning, **MAKE SURE** that the inside tractor tire does not contact the Tongue of the Conditioner. In Positions 3 and 4, continue the turn towards the uncut crop with the Conditioner steered towards the outside of the circle, being aware of the Tongue and tire caution, At Position 5, the tractor has completed the circle and the front wheels are turned to line up with the last cut windrow to straddle it. At this point, the Conditioner direction should be changed to line up with the edge of the uncut crop. Also, be prepared to lower the Header to cutting height.

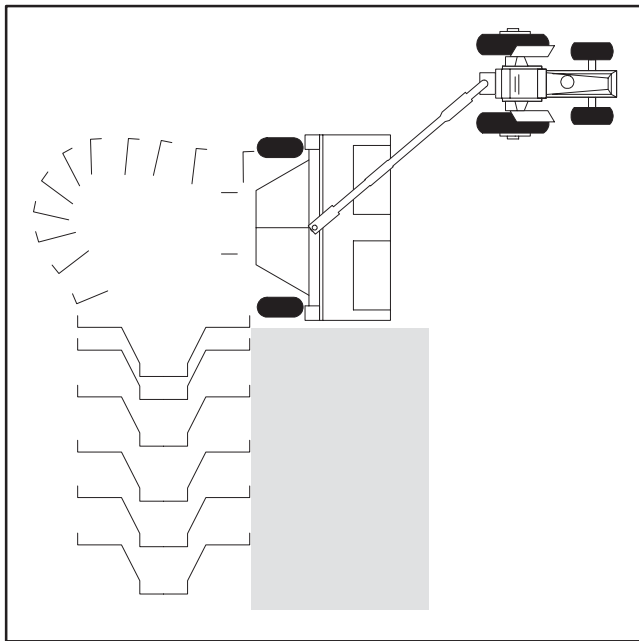


Fig. 10: Turning Square Corner

## Turning Square Corners

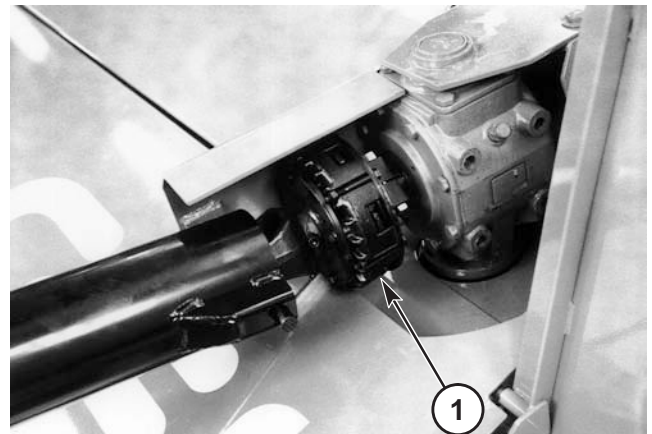
The following procedure and diagram shown in Fig. 10 are intended only as a guide to aid the operator in setting up a turning procedure for the particular tractor being used. Distances are not specified due to the variances of tractor maneuverability. As the tractor approaches the corner, guide the tractor sharply away from the crop. The Header is steered to maintain a straight cut ahead as the tractor moves away from the crop. As soon as the Header cuts past where the new corner will be, steer the Disc Mower Conditioner to the extreme direction away from the uncut crop. As the tractor passes the corner, steer it sharply back towards the corner, but **MAKE SURE** that the inside tractor tire does not contact the Tongue. Guide the tractor to straddle the last cut windrow. As the Conditioner completes its turning, be ready to steer it towards the uncut crop and align the Header with edge of the uncut crop.

## OVERLOAD PROTECTION (Figs. 11 & 12)

The Disc Conditioner is protected with a Slip Clutch on

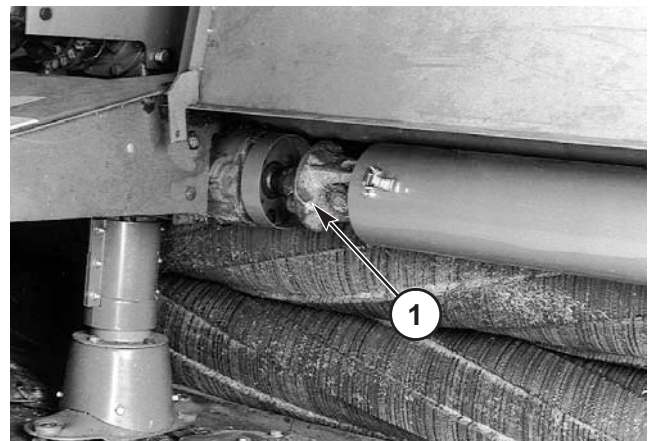
the Main Driveline to protect the Cutterbar and with a Shear Bolt device on the Conditioner Roll Driveline to protect the Conditioning Rolls.

A Shear Bolt Kit is available consisting of eight 1/4 x 2" Grade 5 Shear Bolts and 16 1/4" Lock Nuts. Order the Kit by part number 143886.



1 – Main Driveline Slip Clutch (Steering Plate Removed)

Fig. 11



1 – Conditioner Roll Driveline Shear Bolt

Fig. 12

# CHAPTER 7

## ADJUSTMENTS

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### WARNING

**BEFORE performing any adjustments on this unit, exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 8).**

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The DC2412 Disc Mower Conditioner has been designed and factory adjusted to function properly under most field operating conditions. However, due to the wide range of operating conditions encountered, some additional adjustments may be required.

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### WARNING

**BEFORE adjusting the cutting height, exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 8).**

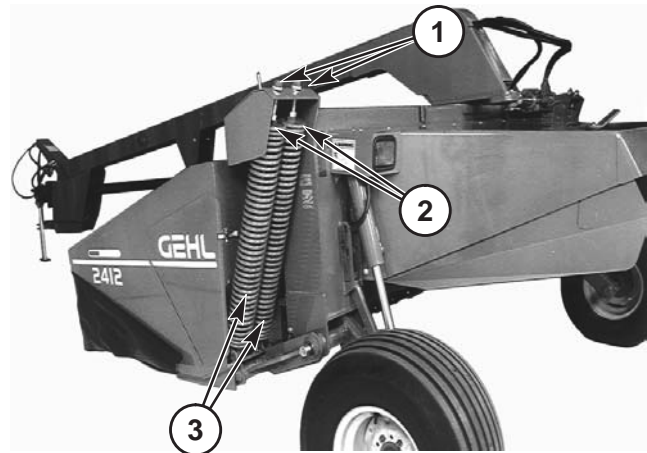
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## HEADER FLOTATION (Figs. 13 & 14)

**NOTE:** *BE SURE to place the Header in the operating position before adjusting the flotation.*

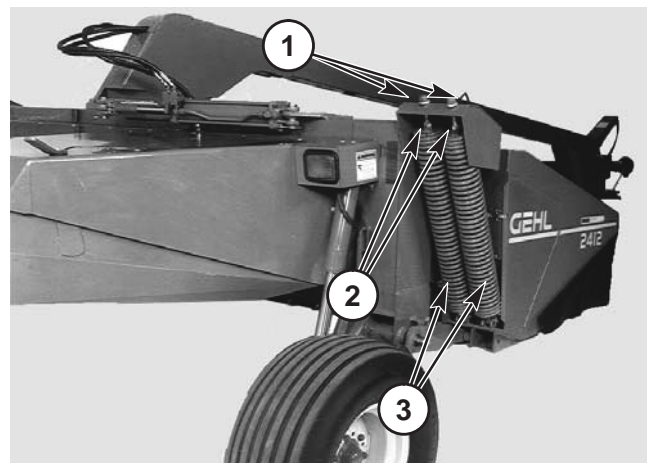
The Header flotation is adjusted by varying the setting of the Flotation Springs on each end of the Header. Lower the Header to the operating position, loosen the Jam Nuts and tighten or loosen the Spring Bolts to achieve the desired flotation. In rocky or rough conditions, the flotation should be set lighter to protect the Cutterbar. At higher mowing speeds, heavier settings follow terrain better. The flotation should be set as light as possible but heavy enough to follow the ground.

**IMPORTANT:** *Any change of cutting height or Drawbar height will change the Header flotation. BE SURE to readjust the flotation, if necessary, to avoid damage. Also, when making a flotation adjustment to the Header, BE SURE to adjust both Springs evenly to avoid damaging the Springs.*



- 1 – Spring Adjustment Bolts
- 2 – Jam Nuts
- 3 – Left Flotation Springs

Fig. 13



- 1 – Spring Adjustment Bolts
- 2 – Jam Nuts
- 3 – Right Flotation Springs

Fig. 14

## CUTTING HEIGHT (Fig. 15)

The cutting height can be adjusted from 1-1/4" (32 mm) to 3-1/4" (83 mm) using the Disc Angle Adjustment and up to 5-1/4" (133 mm) with optional Tall Skid Shoes.

**NOTE:** *Any change to the cutting height requires that the flotation be checked and readjusted, as necessary.*



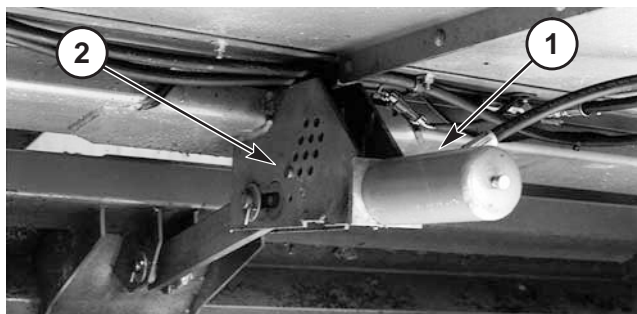
## DISC ANGLE (Figs. 15 & 16) (After SN10299)

The Disc angle is adjustable from 0° (3-1/4", 83 mm cutting height) to 6° down (1-1/4", 32 mm cutting height). In rocky or rough conditions, use a flatter or 0° Disc angle to protect the Disc Blades. In down, tangled and lodged crops, use a steeper or 6° Disc angle to obtain a clean cut.

To change the Disc angle, it is necessary to move the rear pivot of the third Link rearward (0°) or forward (6°). To prepare to adjust the Disc angle, raise the unit to the transport height, engage the Transport Locks but do NOT remove hydraulic pressure from the system.

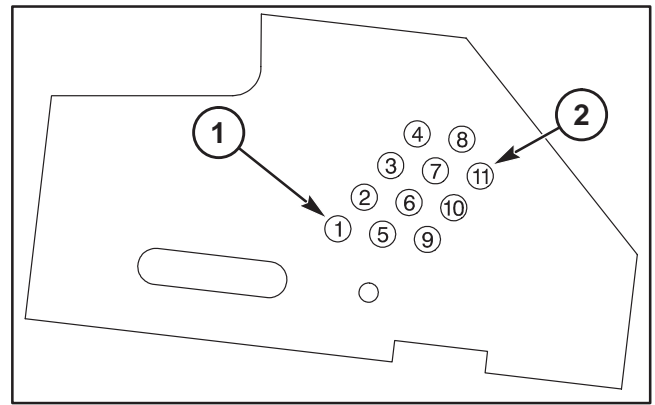
### **WARNING**

Exercise the **MANDATORY SAFETY SHUT-DOWN PROCEDURE** (page 8) **BEFORE** adjusting the disc angle.



1 – Cutterbar Lift Cylinder  
2 – Adjusting Clevis Pin

Fig. 15



1 – Position 1 for 1-1/4" (32 mm) Cutting Height  
2 – Position 11 for 3-1/4" (83 mm) Cutting Height

Fig. 16: Each number represents approximately 0.2" (5 mm) of cutting height adjustment. Plate Viewed from Left Side.

To change the Disc angle, place the Clevis Pin in the desired height location shown in Figure 16. The Pin acts as a downstop when hydraulic pressure is removed from the unit to change from transport to operating position. Applying Lift System pressure will raise the Cutterbar to the highest position before raising the conditioner.

**IMPORTANT:** A Disc angle change will change the Header flotation. To avoid damage, **BE SURE** to readjust the Header flotation after changing the Disc angle.

## DISC ANGLE (Fig. 17) (Before SN10299)

The Disc angle is adjustable from 0° (3-1/4", 83 mm cutting height) to 6° down (1-1/4", 32 mm cutting height). In rocky or rough conditions, use a flatter or 0° Disc angle to protect the Disc Blades. In down, tangled and lodged crops, use a steeper or 6° Disc angle to obtain a clean cut.

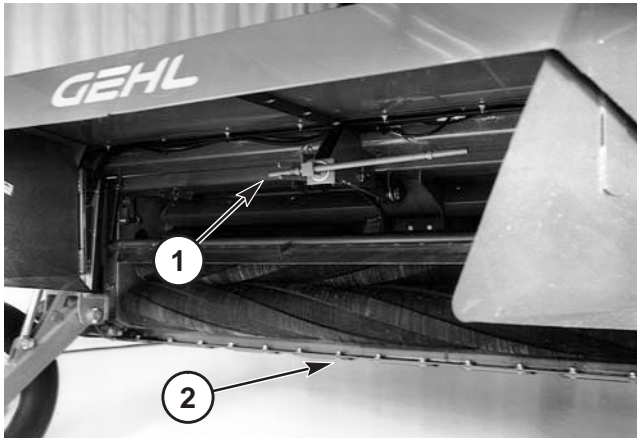
### **WARNING**

Exercise the **MANDATORY SAFETY SHUT-DOWN PROCEDURE** (page 8) **BEFORE** adjusting the disc angle.

## Chapter 7 – Adjustments

To change the Disc angle, it is necessary to move the rear pivot of the third Link rearward (0°) or forward (6°). To adjust the Disc angle, turn the T-handle clockwise or counterclockwise to make the desired change.

**IMPORTANT:** A Disc angle change will change the Header flotation. To avoid damage, BE SURE to readjust the Header flotation after changing the Disc angle.



1 – T-handle  
2 – Skid Shoes

Fig. 17

## SKID SHOES

The Skid Shoes are located on the underside of the Cutterbar Frame and are NOT adjustable. (See the Optional Equipment & Accessories chapter for details on Tall Skid Shoes).

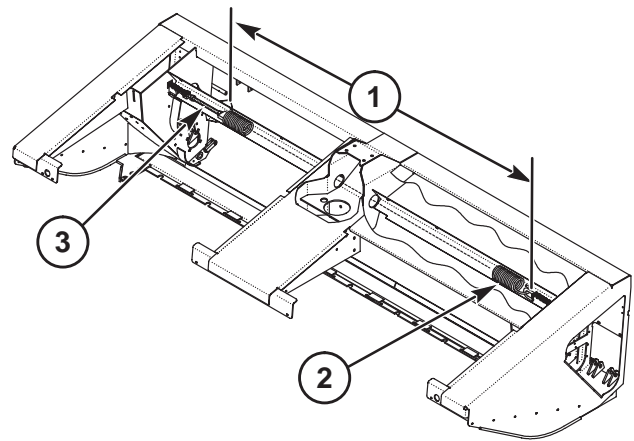
## CONDITIONER ROLL PRESSURE (Fig. 18)

The Conditioner Roll pressure determines the amount of conditioning done to the crop (assuming the Roll gap is properly adjusted) and should be used accordingly.

For crops like alfalfa and clover (legumes), use only enough Roll pressure to crack and kink the stems. If the leaves show dark spots and/or the tops of the plants are being clipped off, too much Roll pressure is being used.

In grass-type crops, more Roll pressure is required than for legume-type crops.

**NOTE:** If the Conditioner Rolls are separated too far, there is NO amount of Roll pressure that will do a satisfactory job in most crop conditions.



1 – 67" (1700 mm)(Overall Spring Length Including Hook)  
2 – Conditioner Roll Pressure Spring  
3 – Conditioner Roll Pressure Bolt

Fig. 18

Adjust Conditioner Roll Pressure Spring by adjusting the threaded Rod system. Screw Bolt in to increase Roll pressure. DO NOT overtighten! Prevent Spring from rotating as Bolt is tightened. Lock adjustment with Jam Nut. Clean and lubricate threads to ease adjustment.

Once Spring pressure is set, change amount of crop conditioning by varying Roll spacing. Greater Roll spacing results in less crop conditioning while less Roll spacing results in greater crop conditioning.

**IMPORTANT:** Do NOT reduce the Roll pressure to the point where there is NO Spring force on the Rolls. Damage can occur to the Roll Pressure Chain if the Roll pressure is too low, allowing the Rolls to open and close freely.

## CONDITIONER ROLL GAP (Fig. 20)

The Conditioner Roll gap is the distance between the top of the lug on one Roll and the root of the lug of the mating Roll. The Roll gap should be set from 1/16 to 1/8" (1.6 to 3.2 mm), for most crops. However, it may be desirable to increase the Roll gap, when cutting thick-stemmed cane-type crops.

**NOTE:** Always check the Roll gap at several points along the entire length of the Rolls and at every 90° of rotation. The gap must always be maintained at a minimum of 1/16" (1.6 mm). Operating at closer than this minimum gap or with Rolls touching will result in damage to the Conditioner Rolls, Bearings and Frame.

The Conditioner Roll gap can be changed by adjusting the Stop Bolt at each end of the Header. First loosen the Locking Nut. Turning the Stop Bolt into the Header will open the Rolls increasing the gap. Turning the Stop Bolt

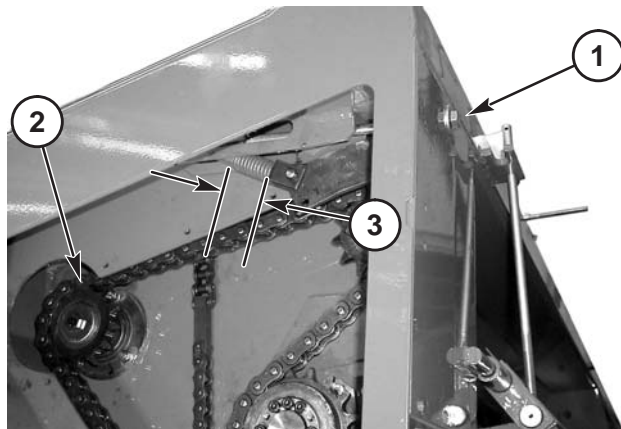
out will close the Rolls decreasing the gap. BE SURE to retighten the Locking Nuts after the desired gap has been set.

**NOTE:** If the Conditioner Rolls are separated too far, there is NO amount of Roll pressure that will do a satisfactory job of conditioning in most crops.

### ROLL CHAIN DRIVE TENSION (After SN 11500)(Fig. 19)

The Roll Drive Chain is tensioned by a Spring on the Roll Chain Idler. This Spring tension is adjustable. Adjust the Spring to a length of 1-7/8 to 2" (48 to 51 mm).

**NOTE:** When the Chain Idler Arm can no longer be adjusted, an offset Link can be removed from the Chain. If the offset Link has been removed and the Chain Idler Arm can no longer be adjusted, replace the Roll Drive Chain.



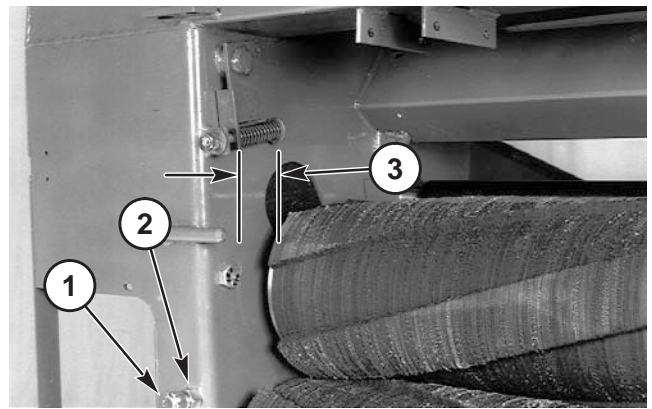
- 1 – Adjustment Bolt (Back of Header)
- 2 – Roll Drive Chain (Behind Oil Bath Cover)
- 3 – Roll Chain Idler Spring Adjustment  
1-7/8 to 2" (48 to 51 mm)

Fig. 19

### ROLL CHAIN DRIVE TENSION (Before SN11501)(Fig. 20)

The Roll Drive Chain is tensioned by a Spring on the Roll Chain Idler. This Spring tension is adjustable. Adjust the Spring to a length of 2-5/8" (67 mm).

**NOTE:** When the Chain Idler Arm can no longer be adjusted, an offset Link can be removed from the Chain. If the offset Link has been removed and the Chain Idler Arm can no longer be adjusted, replace the Roll Drive Chain.

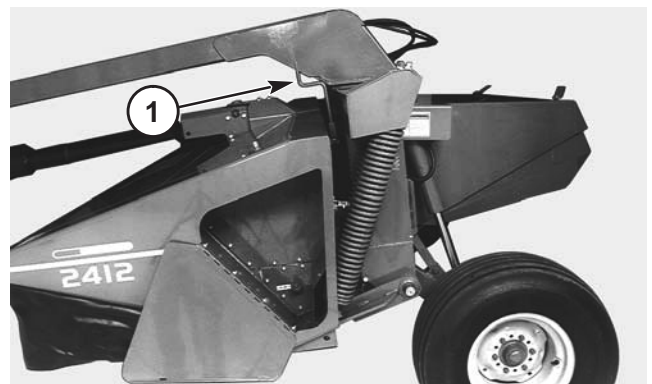


- 1 – Stop Bolt
- 2 – Locking Nut
- 3 – Roll Chain Idler Spring Adjustment 2-5/8" (67 mm)

Fig. 20

### WINDROW TO SWATH ADJUSTMENT (Fig. 21)

The Disc Mower Conditioner will make anything from a narrow windrow to a wide swath, by moving the adjustable Deflector up or down. The Deflector can be adjusted using the Deflector Adjustment Hand Crank. In order to raise the Deflector for a narrow windrow, turn the crank clockwise. In order to lower the Deflector for a wide swath, turn the crank counterclockwise. Maximum swath width achievable is 86" (2180 mm). Fine tune windrow width setting by adjusting Forming Chamber Sides. Narrow windrow width is 30" (760 mm).



- 1 – Deflector Adjustment Hand Crank (Adjusting Position)

Fig. 21

# CHAPTER 8

## LUBRICATION

### GENERAL INFORMATION



## WARNING

**NEVER** lubricate the machine when any part of the unit is in motion. **ALWAYS BE SURE** to exercise the **MANDATORY SAFETY SHUT-DOWN PROCEDURE** (page 8), **BEFORE** lubricating the machine.

It is well to remember that a sufficient amount of oil or grease will prevent excessive part wear and early failure.

**IMPORTANT:** Whenever service is performed on hydraulic components (valves, cylinders, hoses, etc.) or Transmissions, **care must be taken to prevent discharging fluid onto the ground.** Catch and dispose of fluid per local waste disposal regulations.

### CUTTERBAR (Fig. 22)

**IMPORTANT:** The oil in the Cutterbar **MUST** be changed after the first 10 hours of operation.

It is difficult to accurately check the oil in the Cutterbar. If in doubt as to the amount of oil contained in Cutterbar, do **NOT** add oil. Instead, drain and refill the Cutterbar. The oil should be changed every 200 hours or at least annually (more often if operated under heavy loads). The Cutterbar **MUST** be drained completely so that the exact volume of oil required can be put back into the Cutterbar. The following procedure **MUST** be followed:

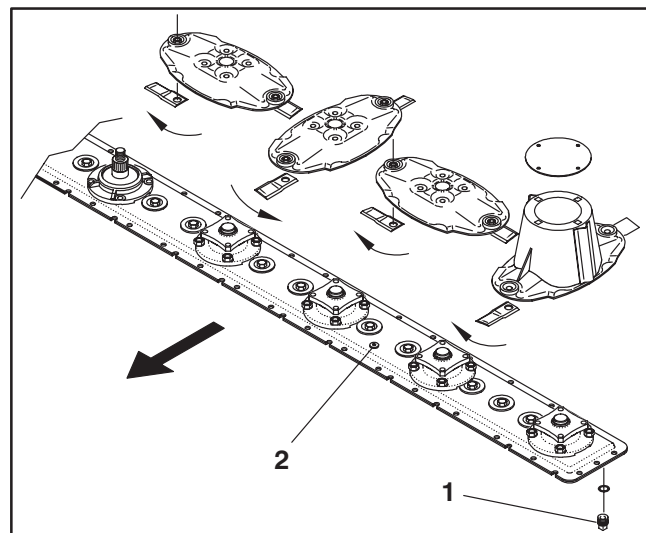
1. Operate the Disc Conditioner for 10 minutes so that the Cutterbar reaches operating temperature.
2. Raise the Disc Conditioner to the transport position and engage the Transport Locks.
3. Park the Disc Conditioner so that the left rear corner of the Cutterbar is the lowest point on the Cutterbar.
4. Exercise the **MANDATORY SAFETY SHUT-DOWN PROCEDURE** (page 8).

5. Remove the Skid Shoe from the left end of the Cutterbar. Remove the Drain Plug from the bottom of the Cutterbar and the Filler Plug located on top of the Cutterbar. Allow the oil to drain completely. Wait for the dripping to stop.
6. Reinstall the Drain Plug and the Skid Shoe. Refill Cutterbar with 5 pt (2.35 L) of SAE 80 GL 4 oil.

**NOTE:** In some areas SAE 80 GL 4 oil may not be available. A GL 4 or GL 5 grade SAE #80W90EP Gear Lube is an acceptable substitute.

The Cutterbar should be checked daily for oil drips and dust accumulation around the Seals. Oil drips or dust accumulation indicate that the Seals are leaking. Oil which is tan in color and foams excessively indicates that it has water present.

**NOTE:** There will be signs of oil at the Overflow Plug. A small amount of oil in this location is normal.



1 - Cutterbar Drain Plug  
2 - Cutterbar Fill Plug

Fig. 22

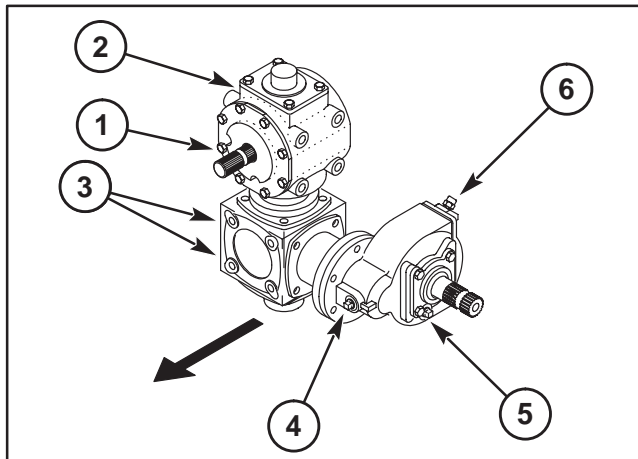
### 3 GEARBOXES (5 with 2-Point Swivel Hitch option)(Check Daily, Figs. 23, 24 & 25)

The Disc Conditioner must be down (in a cutting position) before oil levels are checked. Level Plugs are provided for checking the oil level in the Gearboxes. The correct oil level range is when the oil is up to the Level Plug with the Header down and rotated level (all the way back). The oil should be changed every 200

hours of operation or annually (more often if operated under heavy loads).

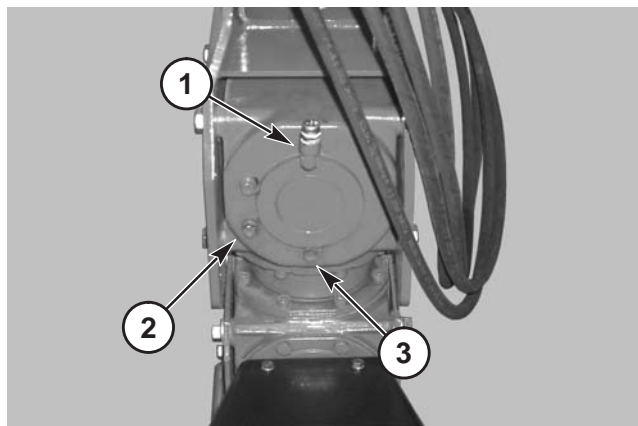
**NOTE:** Every 200 hours (or annually) apply *Shaeffer's Silver Streak Lube* (or equivalent) to the splined connection between the Upper and Lower Gearboxes. This requires lifting the Upper Gearbox about 6-8 inches (155-205 mm).

The gearboxes use SAE #80W90EP Gear Lube. The Main Drive Gearbox holds 43 oz. (1.3 L), the Roll Drive Bevel Gearbox holds 12 oz. (0.35 L), the Roll Drive Parallel Gearbox holds 12 oz. (0.35 L), the Swivel Hitch Top Gearbox holds 37 oz. (1.1 L) and the Swivel Hitch Bottom Gearbox holds 56 oz. (1.7 L).



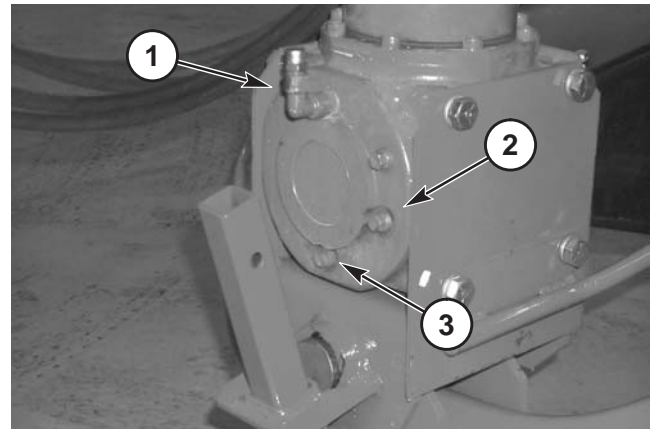
- 1 – Main Drive Drain
- 2 – Main Drive Breather/Fill
- 3 – Roll Drive Bevel Fill Level and Drain
- 4 – Roll Drive Parallel Level/Fill
- 5 – Roll Drive Parallel Drain
- 6 – Roll Drive Parallel Breather/Optional Fill

Fig. 23



- 1 – Breather/Fill
- 2 – Fill Level
- 3 – Drain

Fig. 24: Hitch Top Gearbox



- 1 – Breather/Fill
- 2 – Fill Level
- 3 – Drain

Fig. 25: Hitch Bottom Gearbox

The Gearboxes should be checked occasionally for oil drips and dust accumulation around the Seals. Oil drips or dust accumulation indicate that the Seals are leaking. Oil which is tan in color and foams excessively indicates that it has water present.

**NOTE:** The oil in the Gearboxes **MUST** be changed after the first 10 hours of operation.

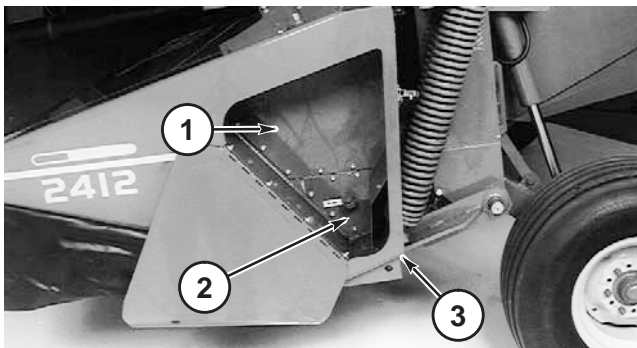
### OILING (Check Daily) (Fig. 26)

The Roller Chain is enclosed and oiled in a sealed Oil Bath on the left side of the Disc Conditioner. The oil should be changed every 100 hours of operation or annually (more often if operated under heavy loads). The Oil Bath holds 2 qts. (1.9 L) of SAE #80W90EP Gear Lube. Check oil level as shown in Figure 26.

The Oil Bath should be checked occasionally for oil drips and dust accumulation around the Seals. Oil drips or dust accumulation indicate that the Seals are leaking. Oil which is tan in color and foams excessively indicates that it has water present. To change the oil, observe the following steps:

1. Remove the Top Left Cover for inspection of Chain Drive.
2. Remove Drain Plug to allow oil to drain.
3. Refill Oil Bath with 2 qts. (1.9 L) of SAE #80W90EP Gear Lube.
4. Clean Top Cover and mating surface of Frame and install Top Cover. Top and bottom Covers are sealed with silicone sealant.

Apply a good grade of foaming aerosol lubricant, such as NAPA Chain and Cable Lubricant, to the Front and Rear Telescoping PTO Drive Shields.



- 1 – Roller Chain Top Cover
- 2 – Check & Fill Roller Chain Oil Bath Fill Level here by removing Fill Plug
- 3 – Drain Plug (Hidden, on under side of Bath)

Fig. 26

## SEALED BEARINGS

Sealed Bearings are used throughout the machine to provide trouble-free operation, with a minimum of maintenance and lubrication. These Sealed Bearings are lubricated for life and re-lubrication is NOT required, NOR should it be attempted.

## GREASING

**IMPORTANT:** Grease all fittings at the intervals of operation listed, before and after storing the unit, and as otherwise listed. Use a good grade of lithium base grease.

Wipe dirt from the fittings before greasing to prevent any dirt from being forced into the Bearings or pivots. Replace any missing fittings, when noted. To minimize dirt build-up, avoid excessive greasing.

**NOTE:** In addition to the fittings, inspect and repack the Wheel Bearings at least once a season.

## Grease Fitting Locations

### Grease Every 10 hours (or Daily)

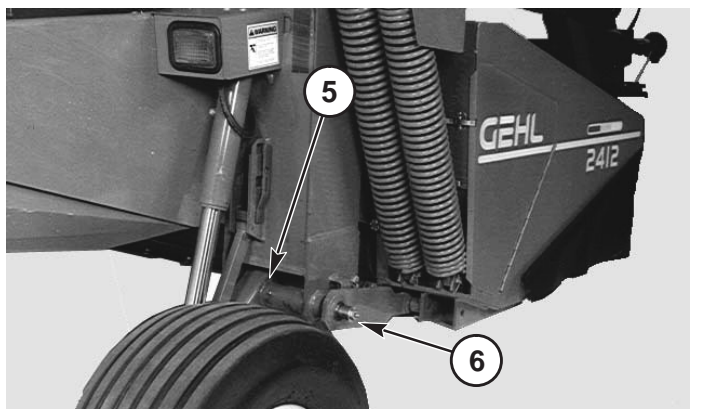
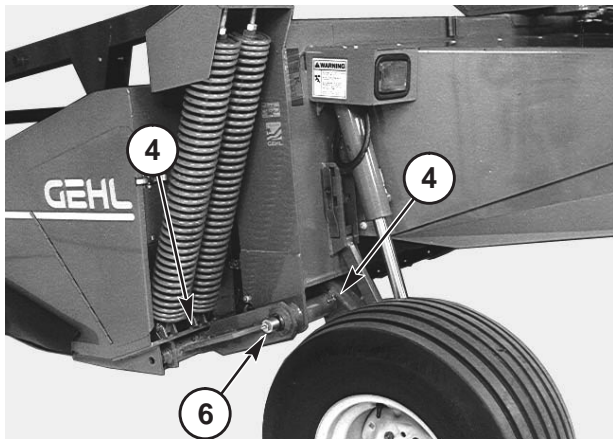
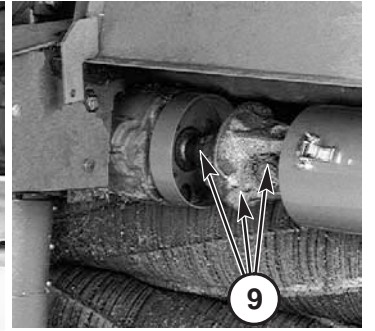
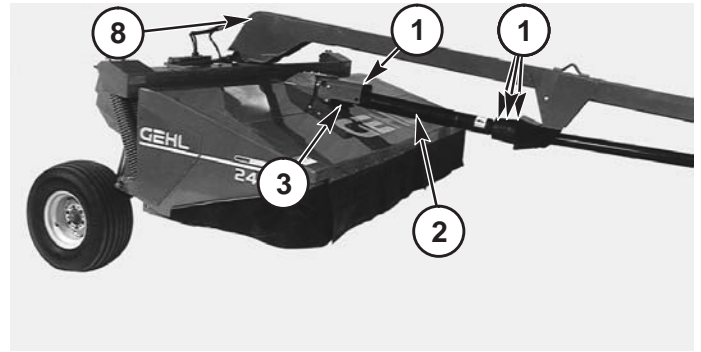
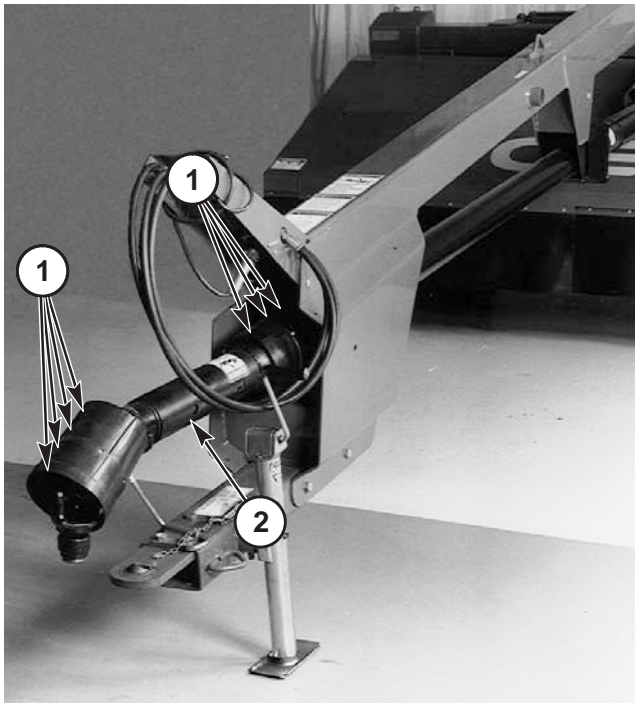
1. Telescoping PTO Drive Crosses (as many as 11 Places)
2. Telescoping PTO Drive Tube (2 Places)
3. Overrunning Clutch (1 Place)
4. Inner Left Pusharm (2 Places)
5. Inner Right Pusharm (1 Place)
6. Right and Left Wheel Leg Pivots (2 Places)
7. Nylon Bushings on Non-rotating Driveline Shields (export models, Non-rotating Driveline Shield PTOs ONLY)
8. Hitch Center Pivot (Under Cover)
9. Cross Shaft Spline and Cross (3 Places)

### Grease Every 200 hours (or Annually)

10. Cutterbar Drive Shaft Spline & Cross (3 Places) (Shield removed for clarity)

**NOTE:** To grease the rear Telescoping Drive Tube (Step 2.), swing the Header fully left or right and locate the hole in the Inner Shield Tube. Align the hole with the slot in the Outer Tube and swing the Header until the slot and hole are aligned. Rotate the Driveline by hand until the Grease Fitting lines up with the hole.

**NOTE:** On units built before Serial Number 12101, to grease the front Telescoping Drive Tube (Step 2.), remove the front Joint from the tractor and fully extend the telescoping section. Line up the hole in the Center Guard with the hole in the Outer Guard. Collapse the assembly and rotate the Driveline by hand until the Grease Fitting lines up with the hole.



# CHAPTER 9

## SERVICE

### GENERAL INFORMATION



## WARNING

**BEFORE** servicing this unit, exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE** (page 8).

**NOTE:** The following information is also referred to in the Troubleshooting chapter of this manual. It should be understood that all services detailed in this chapter are Owner-Operator responsibilities. Certain service routines, where indicated, should only be performed by (or under the direction of) an authorized GEHL equipment dealer.

### SEALED BALL BEARING REPLACEMENT (Fig. 27)

Sealed Ball Bearings are used on various Shafts, around the unit. This type of Bearing is generally retained, in place, with a Self-locking Eccentric Collar. The Lock Collar has a counter bored recess, which is eccentric with the Collar bore. This eccentric recess engages or mates with an eccentric end of the Bearing inner ring, when the Bearing is assembled on the Shaft. The Bearing is engaged, on the inner ring cam, by the Collar. This assembly grips the Shaft tightly with a positive binding action that increases with use. The Collar Set Screw provides supplementary locking.

A Bearing can be removed from the Shaft by unscrewing the Set Screw, placing a punch in the drift pin hole in the direction opposite shaft rotation, and tapping on the punch in order to loosen the self-locking Collar.

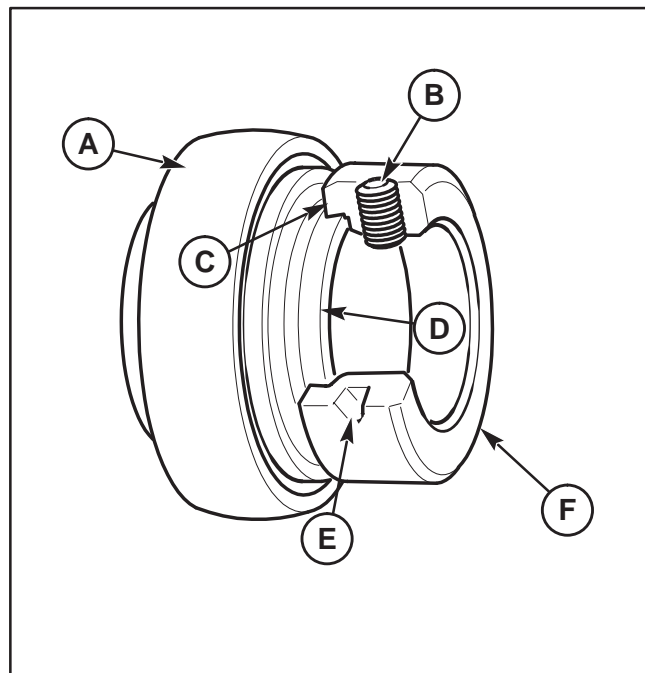
Install Bearings with self-locking Collars in the following manner:

1. Place the Bearing and Collar on the Shaft with the cam surfaces next to each other. Tighten the bolts on the Bearing Retainers.
2. Mate the cam of the Lock Collar with the cam of the Bearing inner ring.

3. Press the Locking Collar against the Bearing wide inner ring and turn it, in the direction of Shaft rotation, until it tightly engages. Tighten the Collar further by tapping on a punch inserted in the drift pin hole.

**IMPORTANT:** Overtightening the Collar may result in damage.

4. Last, tighten the Set Screw in the Locking Collar.



A – Bearing  
B – Set Screw  
C – Collar Cam  
D – Wide Inner Cam Ring  
E – Drift Pin Hole  
F – Eccentric Self Locking Collar

Fig. 27

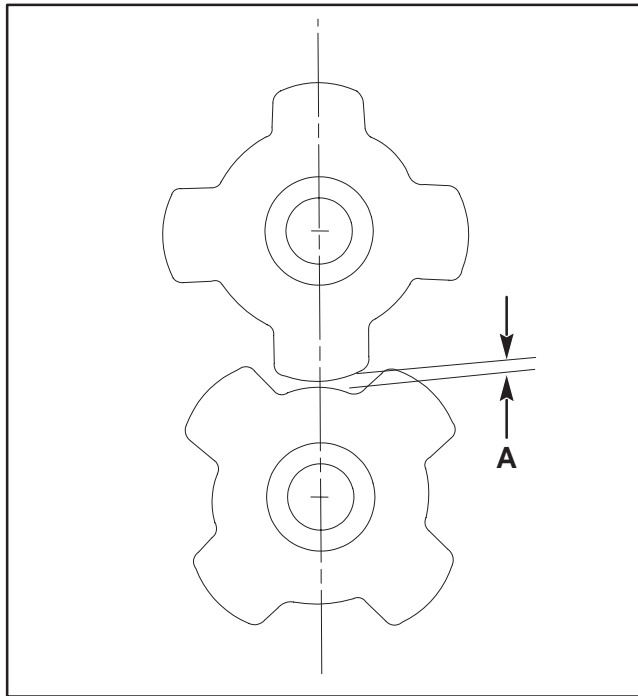
### CONDITIONER

#### Conditioner Roll Gap (Figs. 28 & 31)

The Conditioner Rolls **MUST** have a minimum of 1/16" (2 mm) gap during operation. At **NO** time, should the lugs of the Conditioner Rolls touch each other during operation, because damage to the Conditioner Rolls, Bearings and Frame will result.



Adjust the Conditioner Roll Gap by unlocking the 3/4" Nut on the back of either End Panel. Hold the Nut and adjust the Screw to obtain the proper roll gap. Lock the Nut once roll gap is set.



A – 1/16" (2 mm) Minimum Clearance (Upper Roll Lug centered between Lugs of Lower Roll)

Fig. 28

## Conditioner Roll Timing (Figs. 28, 29 & 31)

The Conditioner Rolls are properly timed when the lug of one Roll is centered in the groove of the mating Roll. BE SURE the Roll Drive Chain is properly tensioned, before adjusting or checking the Roll timing.

The Mower Conditioners are built with either 9-bolt or 12-bolt Timing Sprockets. To time the Conditioner Rolls, loosen the M8 Socket Head Screws on the Timing Sprocket. Go behind the Conditioner Rolls and center the lug of one Roll in the groove of the mating Roll. Torque the screws on the Timing Sprocket to half-torque (15 ft-lbs, 20 N·m) using the proper cross-point star sequence pattern as shown in Figure 29. Finish torquing bolts to full torque setting (30 ft-lbs, 40 N·m) using the proper above described star pattern. Double-check each bolt to verify 30 ft-lbs. (40 N·m). Again, check the timing as the Rolls are rotated by hand.

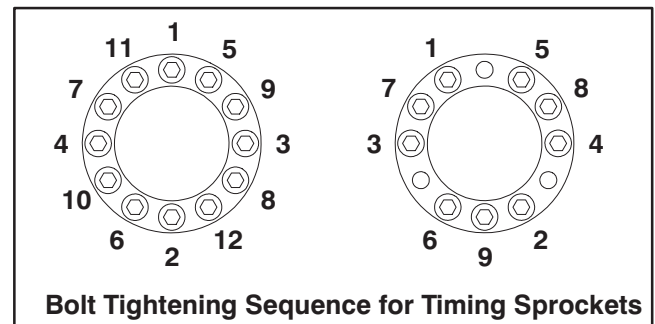


Fig. 29

## Conditioner Roll Drive Chain Tension (Fig. 31)

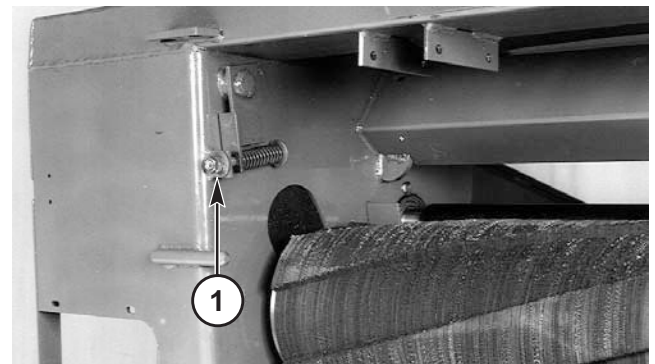
The Conditioner Roll Drive Chain Idler tension is controlled by an adjustable Idler Spring.

**NOTE:** When the Chain Idler Arm can no longer be adjusted, an offset Link can be removed from the Chain. If the offset Link has been removed and the Chain Idler Arm can no longer be adjusted, replace the Roll Drive Chain.

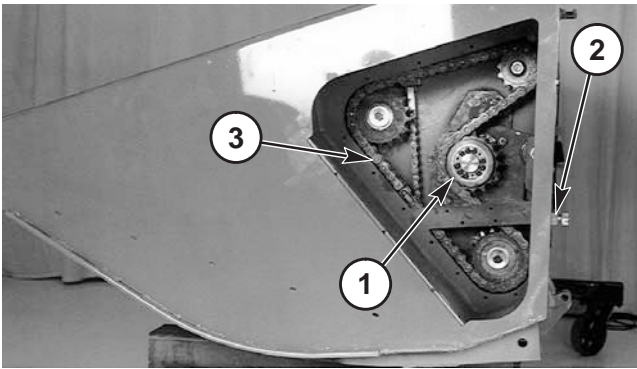
## Roll Drive Chain Replacement (Figs. 19, 30 & 31)

1. Loosen Idler Spring tension. See Figure 19 for units after Serial Number 11500 and Figure 30 for units before Serial Number 11501.
2. Remove the Spring Clip and Side Bar from the Chain Master Link.
3. Disassemble Chain by removing Connector Link from slack Chain. Remove Chain from machine.

For Chain installation, follow above steps in reverse.



1 – Loosen Idler Spring Tension Here  
Fig. 30



- 1 – Loosen Socket Head Screws and Rotate Upper Roll to adjust Timing (retorque to 30 ft lbs, 41 N·m)
- 2 – 1/16" (2 mm) Minimum Clearance Adjustment
- 3 – Roll Drive Chain

Fig. 31

## SPROCKET ALIGNMENT

The Sprockets are aligned at the factory and should NOT need adjustment. If the upper Conditioner Roll is ever replaced, Sprocket alignment and Conditioner Roll Timing MUST be checked. If Sprockets are not properly aligned, contact your Gehl dealer for proper instructions.

## CUTTERBAR

All service to the internal parts of the Cutterbar MUST be performed by (or under the direction of) an authorized GEHL equipment dealer.

The disc bearing housing assemblies are serviceable as complete units. Should this be required, contact your Gehl dealer.

## DISCS, KNIVES AND HARDWARE

Discs, Knives, Bolts and Nuts are fabricated from high quality steel and undergo a special heat treatment process to ensure a tough wear resistance and hence a longer life. To avoid creating hazardous out-of-balance forces, ALWAYS replace missing, damaged or worn Knives and Hardware in pairs!

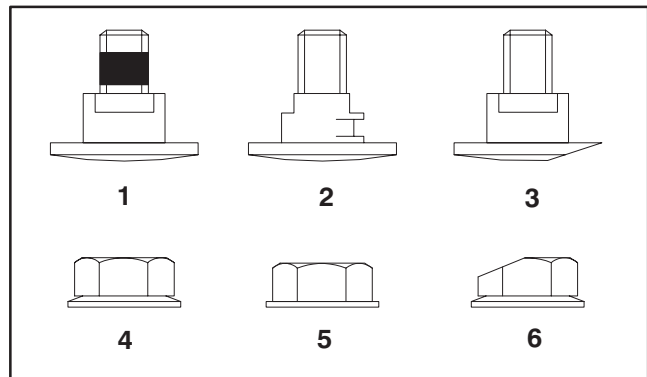
**IMPORTANT:** *Worn or damaged items MUST be replaced immediately with genuine GEHL Service Parts, otherwise the warranty is void.*

### Knife Hardware (Fig. 32)

If any of the following conditions exist, the Knife retaining hardware MUST be replaced. See Fig. 32 for details.

1. When a visible deformation is found.

2. When the locking compound on the Bolt threads has worn away or if the locking compound has become inoperative due to contamination by water, oil or dirt.
3. When wear on the Bolt Head reaches the contact area of the Knife.
4. When a wear groove deeper than 1/8" (3 mm) has formed on the bearing shoulder of the Knife Bolt.
5. When the Contact Washer of the Knife Retaining Nut has lost its elasticity or the Washer becomes loose from the Nut.
6. When wear on the Nut reaches a depth equal to half the height of the Nut.
7. When the retaining hardware has been removed five times.



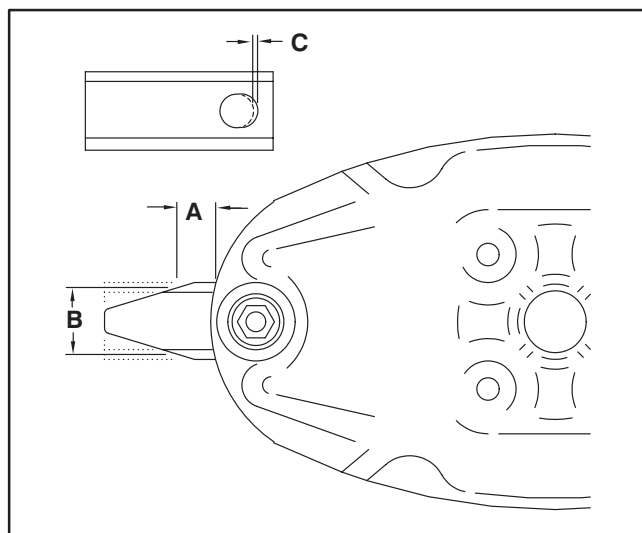
- 1 – Acceptable Bolt with Locking Compound Intact
- 2 – Unacceptable Bolt with Wear Groove
- 3 – Unacceptable Bolt with Edge Wear
- 4 – Acceptable Nut with Contact Washer
- 5 – Unacceptable Nut with Contact Washer Crushed
- 6 – Unacceptable Nut with Edge Wear

Fig. 32

## Removal & Replacement of Blades (Fig. 33)

Knives should be inspected systematically each time before the Disc Mower Conditioner is operated. Failure to replace Knives as required will result in an increase in the risk of accidents, a deterioration in the quality of cut and a risk of damage to the Cutterbar. Both Knives on each Disc MUST be replaced in pairs to maintain balance if any of the following conditions exist (Fig. 33):

1. If any sign of cracking is found.
2. The width of a Knife, measured at a distance of 3/8" (10 mm) away from the edge of the Disc, MUST be greater than 3/4 of the original width of the Knife. (Fig. 33)
3. The hole in Knife for retaining Bolt MUST NOT become worn oval by more than 1/16" (2 mm).



- A – 3/8" (10 mm)**  
**B – MUST Be Greater Than 3/4 Width of Knife Here**  
**C – Maximum Out-of-round 1/16" (2 mm)**

Fig. 33

When replacing Knives on the Disc Mower Conditioner, the following steps **MUST** be followed:

1. Clean around each self-locking Nut to be removed.
2. Place a block of wood between the Discs so the Discs will **NOT** rotate when removing the Bolts.
3. Remove self-locking Nuts with an 18 mm socket. Position Disc to allow Blade Bolt to drop through access hole in front center of Skid Shoe.
4. Clean the hole before installing new blade.
5. Fit new Knives or turn Knives to use second cutting edge. **BE SURE** that each Knife is positioned with the small arrow pointing in the direction of rotation of the Disc that the Knife is to be fitted to.
6. **MAKE SURE** the Bolt is in good condition **BEFORE** reusing.
7. Torque Locknuts to 90 ft-lbs. (122 N·m).



# WARNING

Use **ONLY** genuine GEHL service parts.

**NOTE:** To ensure proper Knife retention, the retaining hardware **MUST** be replaced after having been removed five times.

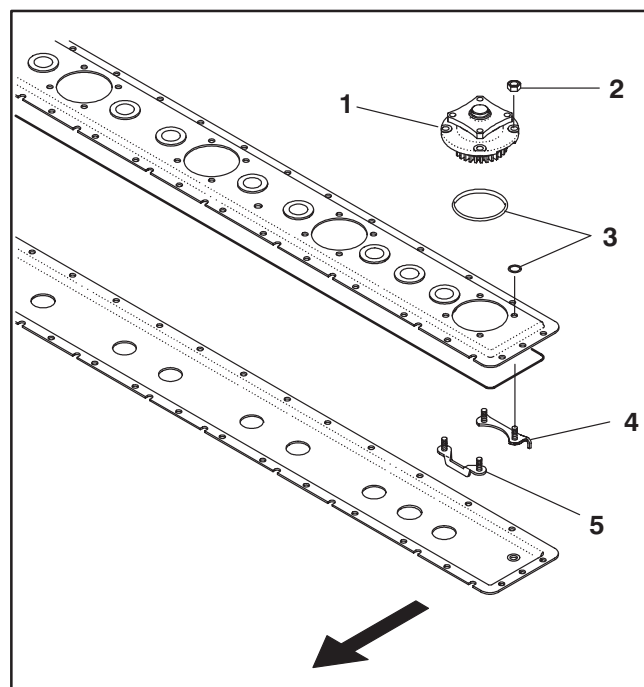


# WARNING

**ALWAYS** replaces damaged knives in pairs.  
**NEVER** attempt to straighten a bent knife.

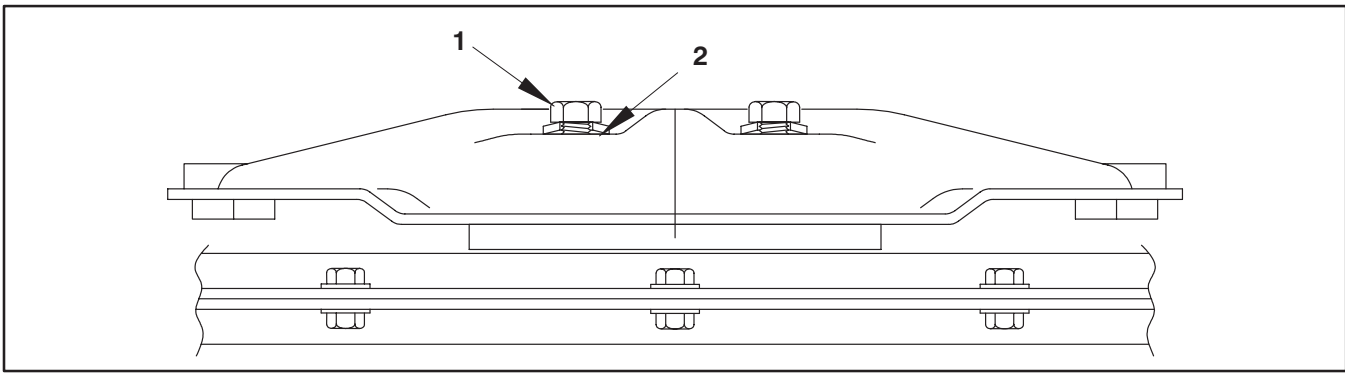
## Disc Bearing Housing Removal and Replacement (Fig. 34)

The Gear, Shaft, Bearing, Housing and Hub that drive the Discs is a complete assembly. When replacing this assembly, make sure to time the Hub 90° from its adjacent Hubs and to torque Locknuts to 90 ft-lbs. (122 N·m) in a cross-corner pattern.



- 1 – Complete Disc Bearing Housing Assembly  
 2 – Self-locking Nut, Torque 90 ft-lbs. (122 N·m)  
 3 – O-Ring Seals  
 4 – Rear Bracket  
 5 – Front Bracket

Fig. 34



1 – Bolt

2 – Conical Spring Washer (Crown Up)

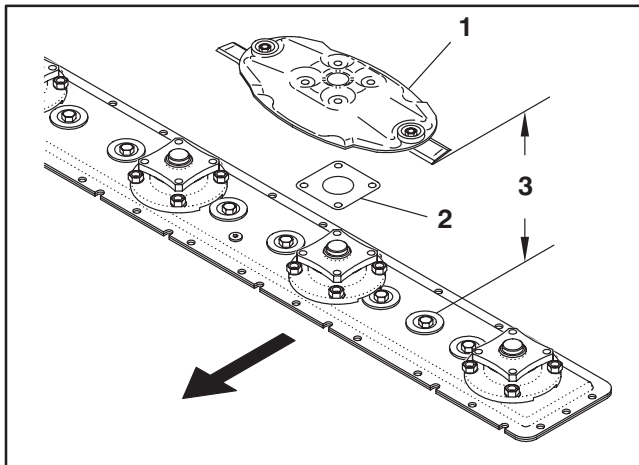
Fig. 35

## Disc Removal & Replacement (Figs. 35 & 36)

1. Place a block of wood between the Discs so the Discs will NOT rotate when removing the Bolts.
2. Remove the Bolts and Conical Spring Washers.

To remove the cone-shaped outer Right Disc, remove the top cover and remove the Bolts and Conical Spring Washers using a socket and extension.

3. Remove the Disc. If the Disc is tight, pry up with two levers at opposite sides of the Disc.



1 – Disc Assembly

2 – Disc Shim

3 – 0.040" (1 mm) Clearance

Fig. 36

4. Replace the Disc **MAKING SURE** that it is rotated 90° from the next Disc and that each Blade is positioned with the small arrow pointing in the direction of rotation of the Disc. Refer to the Service Parts Manual for the proper positioning of Discs. Secure with the Bolts and Conical Spring Washers **MAKING SURE** the Conical Spring

Washers are positioned with the crown up. Torque to 90 ft-lbs. (122 N·m).

**NOTE:** *Disc Assemblies must be shimmed so that there is a minimum clearance of .040" (1 mm) between the bottom of the Disc Knife and the top of the small Cutterbar Boss that the Knife passes over. See Figure 36 for details.*

**IMPORTANT:** *BE SURE to replace the Cover on the cone-shaped outer Discs or dirt will build up inside the cone and cause an out-of-balance condition and potential Cutterbar damage.*

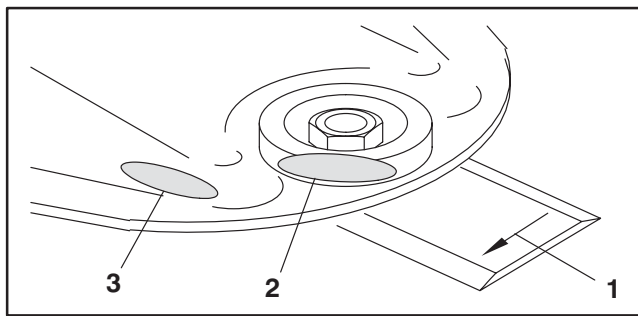
**NOTE:** *If a Disc shows signs of wear after a considerable amount of acreage has been cut, it is advisable to replace it. When the Left-most Disc needs replacement, contact your dealer's Service Department for assistance.*

## Extending Disc Life (Fig. 37)

Under certain conditions, when mowing in abrasive soils, the Disc can wear to the point of perforation. If unusual wear is detected prior to perforation as shown in Figure 37, Discs may be moved to a cutting station that rotates in an opposite direction. Proceed as follows:

1. Remove Disc according to Disc Removal & Replacement topic of this chapter. Remove Knives from Disc.
2. Locate cutting station that rotates in opposite direction.
3. Install Disc according to Disc Removal & Replacement topic of this chapter. Install new Knives **BEING SURE** that each Knife is positioned with the small arrow pointing in the direction of rotation.

**IMPORTANT:** *If the Disc is worn to the point of perforation, the Disc **MUST** be replaced.*



- 1 – Direction of rotation
- 2 – Wear shows up here
- 3 – Perforation can occur here

Fig. 37

## HYDRAULIC TONGUE CYLINDER



**Do NOT remove hydraulic tongue control cylinder with conditioner header off the ground. The tongue can rotate and cause crush injury.**

## HYDRAULIC LIFT CYLINDERS (Fig. 38)

**IMPORTANT:** *Whenever service is performed on hydraulic components (valves, cylinders, hoses, etc.), care must be taken to prevent discharging fluid onto the ground. Catch and dispose of fluid per local waste disposal regulations.*

The Disc Mower Conditioner Lift System consists of a “master-slave” cylinder arrangement, as shown. With a “master-slave” set-up, the hydraulic oil, from the rod end of the master cylinder, goes into the base end of the slave cylinder. Because of this arrangement, both cylinders will extend equally, under any load.

With a “master-slave” arrangement, the cylinders can become un-phased such that the machine will raise unevenly (left end higher or lower than the right end). Use the following steps to re-phase the lift cylinders:

1. Completely raise and lower the unit several times, keeping the tractor hydraulic lever engaged, until NO cylinder movement is observed.

**NOTE:** *The cylinders will move very slowly while equalizing.*

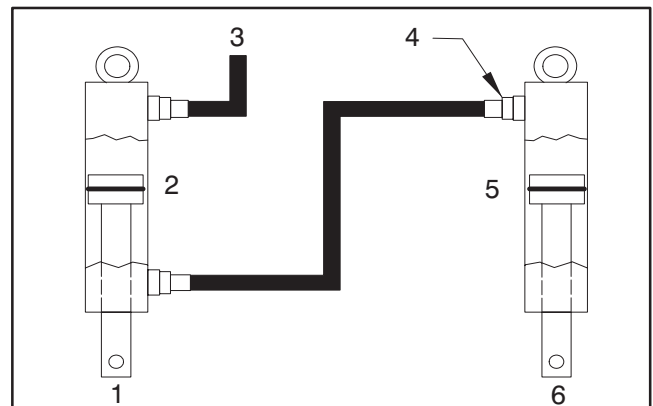
2. If the unit is still unequal, proceed to step 3 or 4, depending on the problem.



## WARNING

**BE SURE there is NO pressure in the lines when loosening the fittings. Hydraulic fluid, under pressure, can penetrate the skin. If injured by escaping fluid, see a doctor at once. Injected fluid MUST BE surgically removed by a doctor familiar with this type of injury or gangrene may result.**

3. If the slave cylinder (right) will NOT raise fully, when the master cylinder (left) is fully raised, loosen the fitting into the slave cylinder (bleed point as shown). With the fitting loose, slowly raise the unit, until oil appears at the fitting. Then, re-tighten the fitting and repeat step 1.
4. If the master cylinder (left) will NOT raise fully, when the slave cylinder (right) is fully raised, loosen the fitting into the slave cylinder (bleed point as shown). With the fitting loose, remove approximately 4 oz (120 cc) of oil for every one inch (25 mm) of cylinder length difference. Then, re-tighten the fitting and repeat step 1.



- 1 – Left Side
- 2 – Master Cylinder
- 3 – To Tractor
- 4 – Bleed Point
- 5 – Slave Cylinder
- 6 – Right Side

Fig. 38

If the hydraulic cylinders become un-phased frequently during use, it will be necessary to replace the piston seals in the master cylinder. Only replace the slave gland seals if it is leaking externally.

**NOTE:** *A leaking tractor valve may cause one or both hydraulic cylinders to raise slowly while cutting.*

## TELESCOPING DRIVES

**IMPORTANT:** For safety reasons, service on the Telescoping PTO Drives should **ONLY** be performed by (or under the direction of) an authorized GEHL equipment dealer.

Over time, the Telescoping Drive Universal Joints may become worn and noisy and require service. As necessary, remove the Drive(s) from the Disc Conditioner and take them to your dealer.

## TIRES & WHEELS

The Tires should be inflated to 30 PSI (210 kPa). The Wheel lug nuts should be torqued to 90 ft-lbs. (124 N·m). The Wheel Bearings should be torqued to 8 ft-lbs. (11 N·m), while oscillating the Wheel 90°. Then, back off and retorqued to 4 ft-lbs. (5 N·m). The slotted nuts should be backed off one cotter pin slot.

Check the Conditioner tire pressures after every 50 hours of operation. Tires should be inflated to 30 PSI (210 kPa). Wheel Lug torque should be checked after every 50 hours of operation and tightened to 90 ft lb (124 N·m) torque.



## CAUTION

Our Company does not sell replacement Tires. In addition, tire mounting, repair and replacements should **ONLY** be attempted by a qualified tire manufacturer's representative or by properly trained personnel following the tire manufacturer's instruction. If you do not have such instructions, contact your tire dealer or our Company.

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## WARNING

Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires. In any event, to avoid possible death or serious injury, follow the safety precautions below:

- **BE SURE** the rim is clean and free of rust.
  - Lubricate both the tire beads and rim flanges with a soap solution. Do **NOT** use oil or grease.
  - Use a clip-on tire chuck with a remote hose and gauge which allows you to stand clear of the tire while inflating it.
  - **DO NOT** place your fingers on the tire bead or rim during inflation.
  - **NEVER** inflate beyond 35 PSI (240 kPa) to seat the beads. If the beads have **NOT** seated by the time the pressure reaches 35 PSI, deflate the assembly, reposition the tire on the rim, relubricate both parts and re-inflate it. Inflation pressure beyond 35 PSI with unseated beads may break the bead or rim with explosive force sufficient to cause death or serious injury.
  - After seating the beads, adjust the inflation pressure to the recommended operating pressure listed.
  - Do **NOT** weld, braze, or otherwise attempt to repair or use a damaged rim.
-

# CHAPTER 10

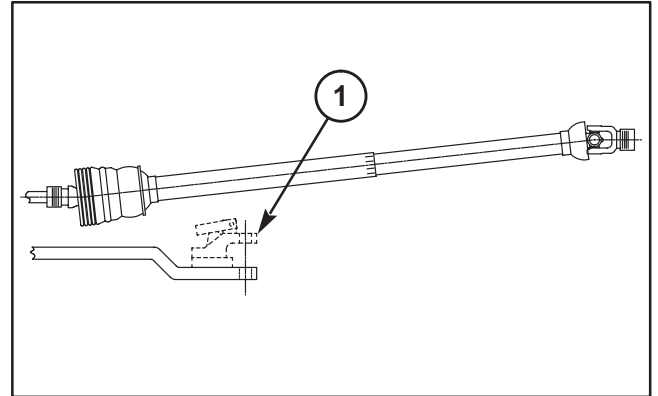
## PREPARING FOR FIELD OPERATION

### TRACTOR REQUIREMENTS

The tractor, to be used to operate a Disc Conditioner, **MUST** have:

1. A minimum of 85 hp (64 kW)
2. A 1000 RPM PTO matching the operating speed of the Disc Conditioner.
3. PTO and hitch dimensions as shown.
4. Two remote hydraulic outputs capable of powering a double-acting cylinder. A minimum operating pressure of 1800 PSI (12400 kPa) is required to lift the Disc Conditioner.
5. It is recommended that the towing tractor be equipped with an enclosed operator's cab with safety glass or polycarbonate windows, or with protective mesh screens.

**IMPORTANT:** *If this unit is connected to a tractor equipped with a clevis style drawbar, the clevis parts shown in dashed lines **MUST** be removed to prevent damage to the unit Driveline. See Fig. 39.*



**1 – Clevis Parts to be Removed**  
**Fig. 39**

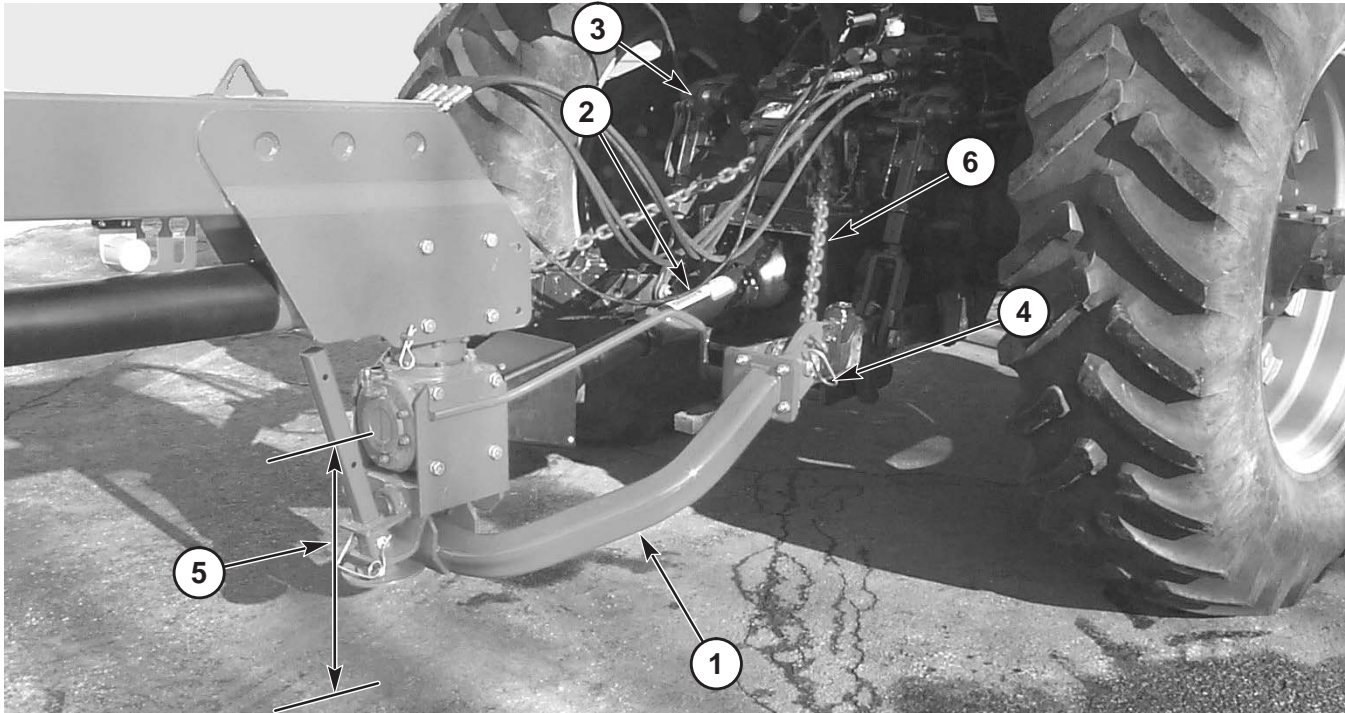
## ATTACHMENT TO TRACTOR

**IMPORTANT:** *Whenever the Conditioner is operated on a tractor other than the original tractor the Conditioner was set up for, the Drawbar Height and Header Flotation must be checked and adjusted accordingly.*

### Tractor Drawbar Requirements, 3-Point Hitch (After Serial Number 12100)(Fig. 40)

Adjust the tractor hitch to meet Dimension 5 in Figure 40. Position the drawbar left or right of center. Also adjust the tractor hitch turnbuckles so that the distance between universal cross centers on the tractor to implement PTO is between 23 to 33 inches (585 to 838 mm) throughout the full range of tractor hitch motion.

**IMPORTANT:** *DO NOT exceed the listed dimensions, or damage to the tractor and Disc Mower Conditioner will occur.*



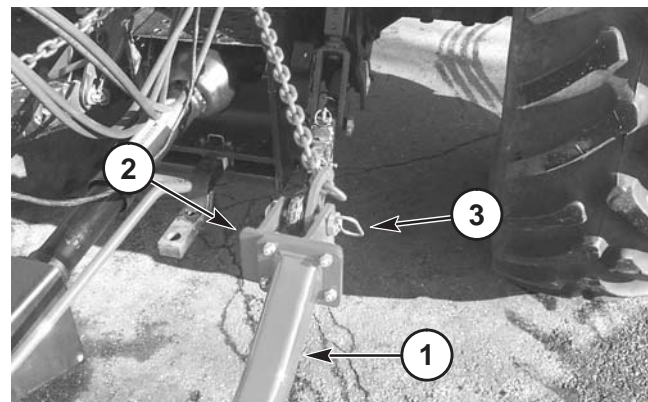
- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1 – Mower Mounting Yoke</li> <li>2 – 1000 RPM PTO</li> <li>3 – Tractor with Category II or Category III, 3-point style hitch or quick hitch</li> <li>4 – Locking Hitch Pin (one each side, supplied)</li> </ul> | <ul style="list-style-type: none"> <li>5 – 24 to 29" (610 to 737 mm) ground to center of PTO Input Shaft (or rear center of lower Transmission) height</li> <li>6 – Stabilizing Chain (one each side, optional)</li> </ul> |
|--|--|

Fig. 40: Tractor with Category II 3-point Hitch after Serial Number 12100

### Hitch Positions (Fig. 41)

The Disc Mower Conditioner Hitch can be set up to fit category II and category III 3-point and quick hitches. The Disc Mower Conditioner Hitch mounting width is changed by exchanging the Hitch Brackets mounting positions. Hitch Pin diameters are changed by adding or removing Hitch Bushings. Hitch Bushings are stored in the Toolbox when not in use.

**NOTE:** *The bolt pattern in the Hitch and Hitch Brackets is such that the Hitch Brackets MUST be switched side-to-side, and not turned over. The Hitch Bracket is properly installed when the flared flanges face downwards.*



- 1 – Right Hitch Arm
- 2 – Hitch Bracket
- 3 – Locking Hitch Pin

Fig. 41

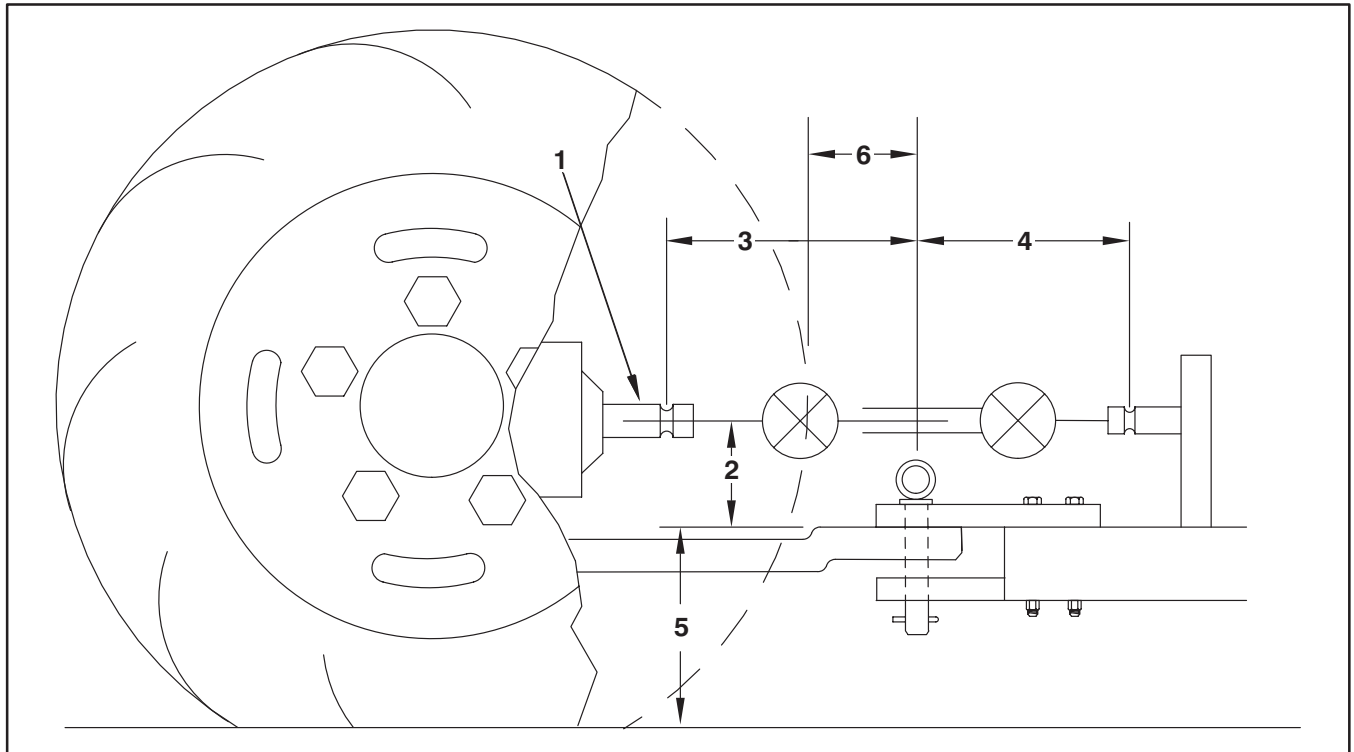


## Tractor Drawbar Requirements, Clevis Hitch (After Serial Number 12100) (Fig. 42)

Adjust the tractor drawbar to meet Dimension 3 in Figure 42 to avoid damage to the front Telescoping PTO

Drive. Adjust the drawbar left or right to place the hitch pin hole directly in line with the PTO Shaft.

**IMPORTANT:** To prevent damage to the Disc Conditioner Telescoping Drive, PTO Tower and Tractor PTO Shaft, avoid making sharp turns.



- 1 – Tractor PTO Shaft (Tractor MUST comply with ASAE Standard S203).
- 2 – 6" to 12" (152 to 305 mm) [8" (203 mm) preferred] This is measured from the center of the tractor PTO shaft to the top of the tractor drawbar at the hitch pin hole.
- 3 – 17" (432 mm) for 1000 RPM operation. This is measured from the retaining groove in the Tractor PTO Shaft to the center of the Hitch Pin.
- 4 – 34-1/2" (845 mm) for 1000 RPM operation. This is measured from the retaining groove in the Implement Input Drive Shaft to the center of the Implement Hitch Hole.

- 5 – 13" to 22" (330 to 560 mm) [18" to 20" (457 to 508 mm) preferred] This is measured from the top of the tractor drawbar at the hitch pin hole to level ground.
- 6 – 0" to 3" (0 to 76 mm) Tire Bumper Extension Kit NOT required; 3" to 6" (76 to 152 mm) optional Tire Bumper Extension Kit required (see Optional Equipment and Accessories chapter of this manual), 6" and above, DO NOT use tractor with this hitch as driveline damage will occur.

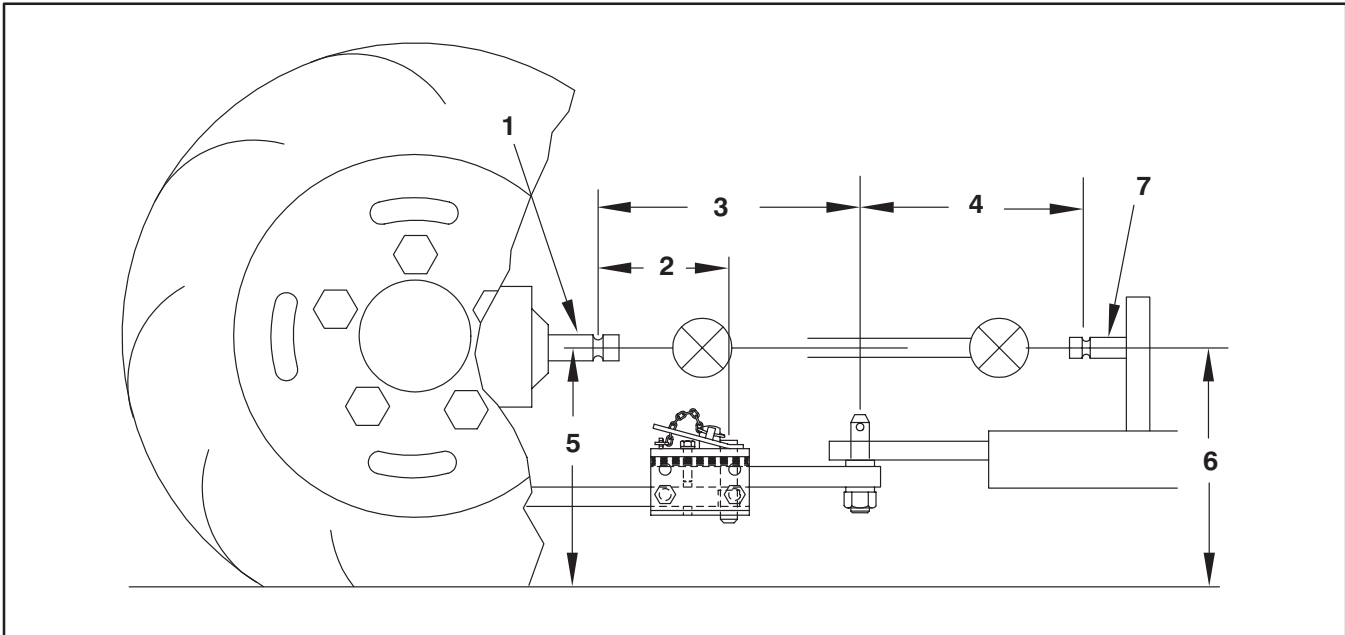
Fig. 42: Clevis Hitch After Serial Number 12100

## Tractor Drawbar Requirements (Before Serial Number 12101) (Fig. 43)

Adjust the tractor drawbar to meet Dimension 2 in Figure 43 to avoid damage to the front Telescoping PTO

Drive. Adjust the drawbar left or right to place the hitch pin hole directly in line with the PTO Shaft.

**IMPORTANT:** To prevent damage to the Disc Conditioner Telescoping Drive, PTO Tower and Tractor PTO Shaft, avoid making sharp turns.



- 1 – Tractor PTO Shaft (Tractor MUST comply with ASAE Standard S203).
- 2 – 17" (432 mm) for 1000 RPM operation.  
This is measured from the retaining groove in the Tractor PTO Shaft to the center of the Tractor Hitch Pin Hole.
- 3 – 25" (635 mm) for 1000 RPM operation.  
This is measured from the retaining groove in the Tractor PTO Shaft to the center of the Hitch Extension Pin.

- 4 – 34-1/2" (845 mm) for 1000 RPM operation.  
This is measured from the retaining groove in the Implement Input Drive Shaft to the center of the Implement Hitch Hole.
- 5 – Measure distance from the center of the Tractor PTO Shaft to level ground.
- 6 – Measure distance from the center of Implement Input Drive Shaft to level ground. (Disc Mower must be attached to Tractor and be lowered to mowing position). Dimension 6 should be within 2" (51 mm) of Dimension 5.
- 7 – Implement Input Drive Shaft.

Fig. 43: Before Serial Number 12101

## Quick Attach Drawbar Extension (Before serial Number 12101)

The Quick Attach Hitch Extension can be adjusted to fit tractor drawbars 1-1/8 to 1-3/4" (29 to 44 mm) thick and 2 to 3-7/16" (51 to 88 mm) wide. Spacers of 1-1/4", 1-3/8", 1-1/2" and 1-5/8" are also provided to reduce the hitch pin hole. The Hitch Extension MUST be adjusted to fit the tractor drawbar before use and MUST be readjusted when connecting to a tractor with a different size drawbar. Unless otherwise directed, refer to Fig. 44 for the following steps:

1. Set the tractor drawbar to specifications shown in Fig. 43.
2. Select the largest Spacer that fits inside the tractor drawbar hitch pin hole.

**NOTE:** The Spacer is stored on the Drawbar Extension Hitch Pin when the Drawbar Extension is removed from the tractor.

3. Unlock and pull out the Hitch Pin.
4. Remove and retain the 1/2" Cap Screw and Lock Washer.

5. Adjust 3/4" Cap Screws to clear tractor drawbar.
6. With the Hitch Extension placed loosely on the tractor drawbar, determine the maximum amount of Shims that can be placed in the Hitch Box. Remove the Hitch Extension from the tractor drawbar. Align the Shims with the Hitch Pin and secure with the retained 1/2" Cap Screw and Lock Washer.
7. Install the Quick Attach Hitch Extension Assembly by placing the Spacer inside the tractor drawbar hitch pin hole, sliding the Assembly on the tractor drawbar. Secure by inserting the Hitch Pin through the Hitch Box, the Spacer and tractor drawbar, and lock with the Hitch Pin Lock provided.
8. Adjust all 3/4" Cap Screws against the tractor drawbar to center the Hitch Box on the drawbar within 1/16" (2 mm). Tighten the 3/4" Jam Nuts on one side. Loosen the two Cap Screws on the opposite side just enough (less than 1/2 turn) to allow the Hitch to slide on the tractor drawbar, then tighten the two Jam Nuts.
9. Store extra Shims, Spacers and Instruction Card in the plastic Box provided. Proceed to the Conditioner Tongue Hitch Plate installation topic.

**IMPORTANT:** *If the available mounting positions do NOT permit the Driveline to be level, position the Drive to be as level as possible with the Header in mowing position.*

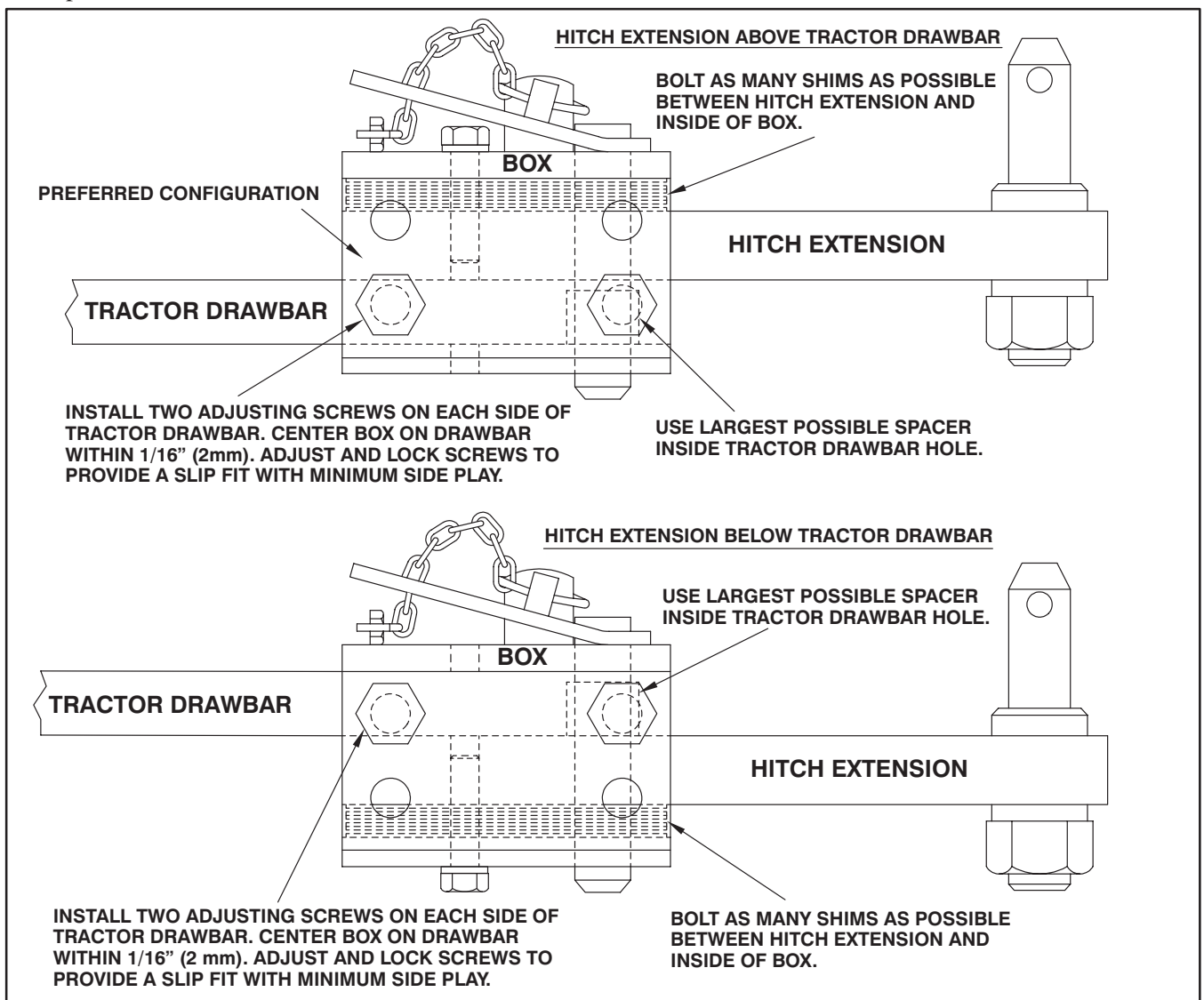


Fig. 44: Before Serial Number 12101

## Conditioner Tongue Hitch Plate (Before serial Number 12101) (Fig. 45)

**IMPORTANT:** If the tractor is equipped with a 3-point hitch, raise the lower arms to their maximum height (or remove them) to avoid interference with the Telescoping Drive and PTO Tower on the Disc Conditioner. Failure to do so will result in significant damage to the unit.

The Drawbar Extension and Hitch Plate should be attached to the tractor drawbar and end of the Disc Conditioner Drawbar (Tongue) in such a manner as to make the front Telescoping Drive Shaft as level as possible, when Header is resting on the ground. **MAKE SURE** to follow the measurement information as shown in Figure 43.

1. Raise Disc Conditioner tongue to clear the Hitch Pin and back tractor to align Hitch Pin with hole in Hitch Ball on Tongue. Lower Tongue to rest on Hitch Pin. Install Hitch Pin Lock in Hitch Pin to secure.

After the connection is made, remove the Hitchjack and secure it to the “Storage Hub” on the left side of the Tongue.

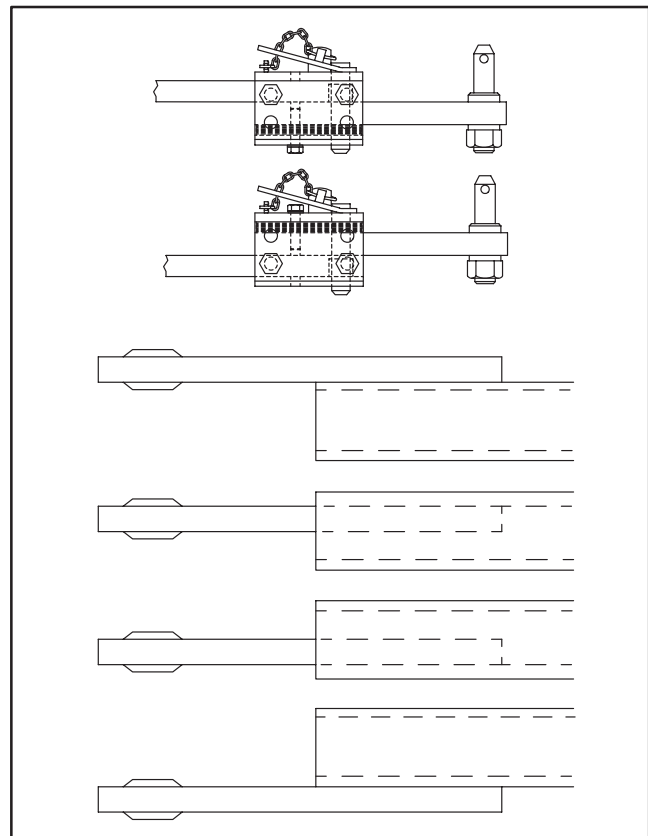
## PTO

Clean and lightly grease the splines on the tractor PTO shaft and the Yoke of the Telescoping Drive. Depress the Safety Lock Ring and slide the Yoke onto the tractor PTO shaft. Move the Yoke back and forth until the Safety Lock Ring pops forward and locks into the groove in the PTO shaft.



## WARNING

**BE SURE** that the PTO safety lock ring is positively engaged and that the tongue is securely connected to the tractor 3-point hitch with the supplied locking pins, to the tractor drawbar with a locking clip pin, or to the tractor drawbar hitch extension with a locking clip pin **BEFORE** starting the tractor engine. Also, **BE SURE** that the tractor PTO shield is in place and properly secured and that the telescoping drive shields rotate freely **BEFORE** starting the tractor engine.



**Fig. 45: Possible Positions of Hitch Extensions on Tractor Drawbar & Hitch Plate on Tongue (before Serial Number 12101)**

## HYDRAULIC LIFT

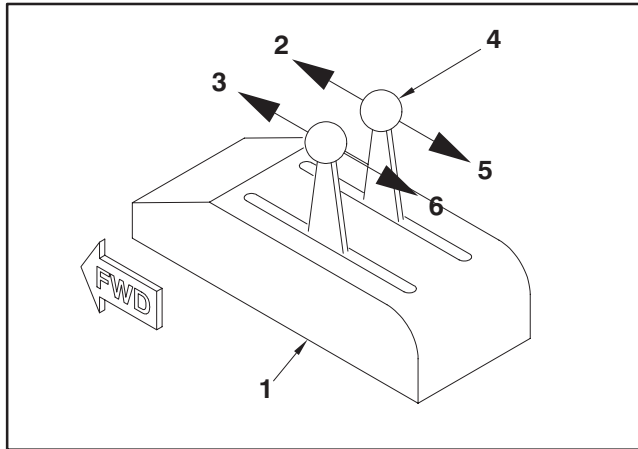
Install the supplied quick-disconnect fitting (to match your tractor connection) onto the Lift Cylinder Hose (left Hose). Make the Lift Cylinder Hose attachment to the tractor, start the tractor and operate the valve to raise and lower the Disc Conditioner several times to purge the air out of the system.

**IMPORTANT:** If the Disc Mower Conditioner is **NOT** horizontal when it is being raised and lowered, refer to the Service chapter for corrective measures.

## STEERING AND LIFT CYLINDER HOOKUP (Fig. 46)

The two hoses (2 right Hoses) from the Steering cylinder should be hooked up so that when the tractor Control Handle is moved to the forward position the Header will move to the right. (Pressure from this line will retract the Steering Cylinder). Moving the Control Handle to the rearward position will move the Header to the left. (Pressure on this line will extend the Steering Cylinder.) The Lift Cylinder Hose should be connected to another valve so when the Control Handle is pulled to rear position the entire machine will raise. The

operator may prefer to position the Cylinder connections differently for more efficient use of the Control Handles during field operation.



- 1 – Remote Hydraulic Levers – Typical Arrangement
- 2 – Steer Right
- 3 – Lower Entire Machine and Tilt Header Down
- 4 – Right Hydraulic Lever
- 5 – Steer Left
- 6 – Tilt Header Up and Raise Entire Machine

Fig. 46

## WARNING

**Do NOT remove hydraulic tongue control cylinder with conditioner header off the ground. Failure to heed can result in death or serious injury.**

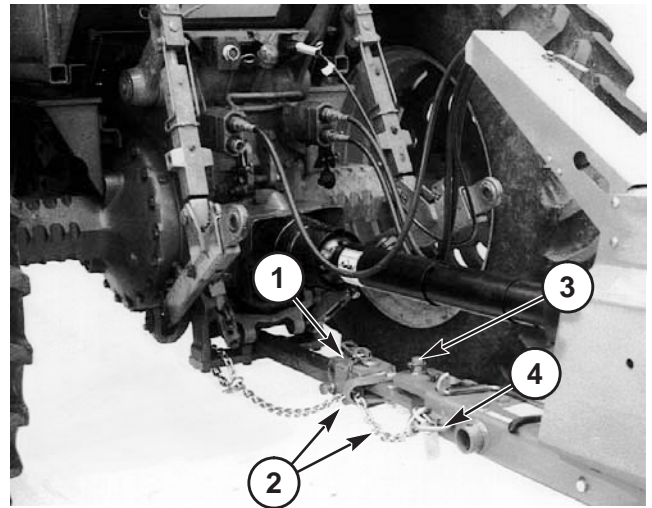
**NOTE:** Operation of the Tongue Control Cylinder requires a tractor with two remote hydraulic outputs, one for the Tongue Control and another for the Lift Control.

## CUTTING HEIGHT & HEADER FLOTATION

Adjust the Cutting Height and Header Flotation following information in the Adjustments chapter of this Manual.

## SAFETY CHAIN (Fig. 47)

Only a Safety Chain (NOT an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machines, in the event of separation of the primary attaching system. Refer to Optional Equipment & Accessories chapter for part number information.



- 1 – Extension Hitch
- 2 – Safety Chain & Clevis
- 3 – Locking Hitch Pin
- 4 – Welded-on Ring

Fig. 47: Safety Chain (Installed)

## BREAK-IN

Before starting to cut and condition, it is recommended that the Disc Mower Conditioner be broken-in by running it empty for approximately 20 minutes. This initial run-in should be done with the Header on the ground. Before running the unit however, perform the daily (10 hour) maintenance routines listed in the beginning of the Operation chapter.

The Break-in should consist of a five minute and a fifteen minute running period. First, run the unit for five minutes with the tractor engine close to idle RPM. Next, stop the unit and exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 8). Reinspect the unit. After inspection is complete, connect the PTO, start the tractor, engage the PTO near engine idle speed and gradually increase the speed to proper operating RPM and continue running the machine for 15 minutes. Stop the unit and exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 8) again. After another inspection, the Disc Mower Conditioner is ready for the field.

**IMPORTANT:** The oil in the Cutterbar and the Gearboxes **MUST** be changed after the first 10 hours of operation. For details, see the Lubrication chapter of this manual.

## TRANSPORTING

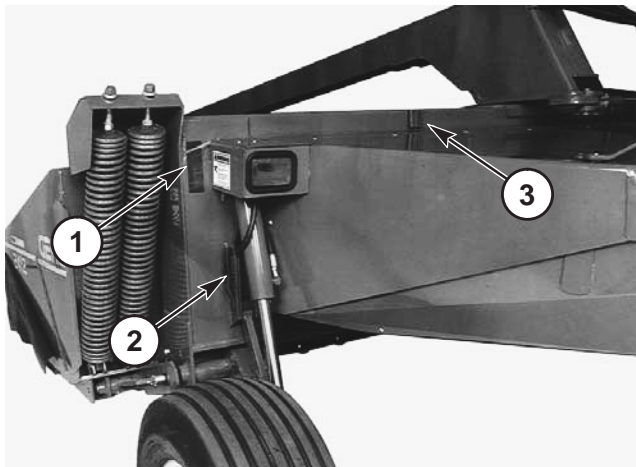
BEFORE transporting the Disc Mower Conditioner, refer to the Transporting chapter of this manual for additional transporting information.

# CHAPTER 11

## TRANSPORTING

### TRANSPORT LOCKS (Figs. 48, 49 & 50)

When the Disc Mower Conditioner is going to be transported on a public highway, BE SURE to raise the unit all the way up and install both Lift system Transport Locks. Also, BE SURE to swing the Drawbar to the centered Transport position with the Hydraulic Hitch Positioner and position the Transport Lock Valve on the Drawbar in the Transport (“closed”) position.



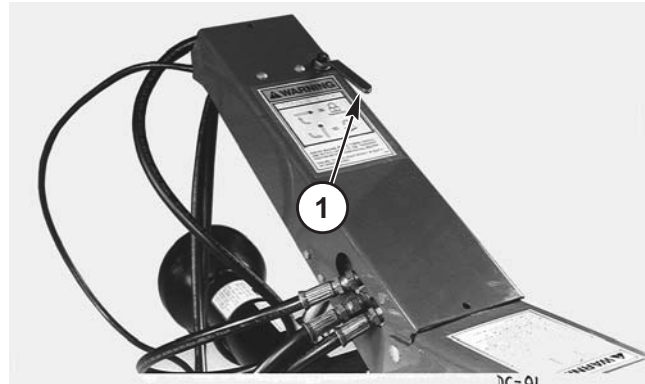
- 1 – Red Reflector
- 2 – Left Header Lift Cylinder Lock “Engaged”
- 3 – SMV Emblem Mounting Bracket  
(Shown with SMV Emblem Removed)

Fig. 48



- 1 – Hydraulic Hitch Positioner Transport Lock Valve (“Closed”)

Fig. 49



- 1 – Transport Lock Valve in “Open” position

Fig. 50

### SAFETY CHAIN (Fig. 51)

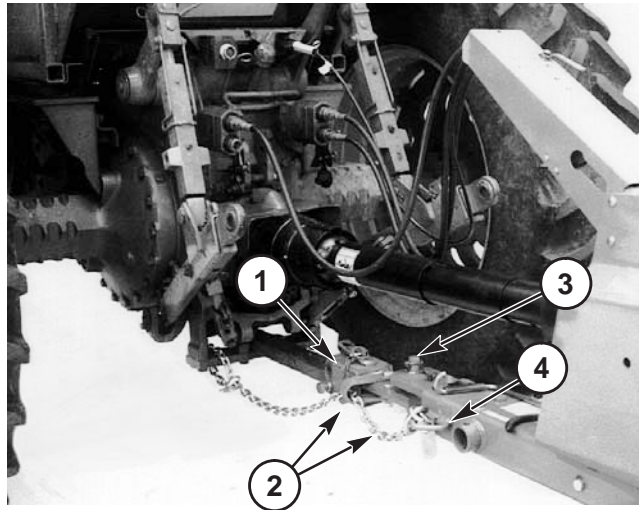
## WARNING

**ALWAYS** follow state and local regulations, regarding a safety chain (NOT an elastic or nylon/plastic tow strap) when towing farm equipment on public highways! A safety chain should always be used to retain the connection between the towing and towed machine, in the event of separation of the primary attaching system. **BE SURE** to check with local law enforcement agencies for the particular regulations. **NEVER** transport the disc mower conditioner at speeds greater than 20 mph (32 km/h).

On units not equipped with the 2-Point Hitch, the Disc Mower Conditioner can be equipped with a safety chain for operation on public highways. A sturdy Chain Loop is welded to the side of the Drawbar to facilitate anchoring the Chain. The safety chain, when attached in this manner, has the following characteristics:

1. Chain is sufficiently slack to allow turns and movements of either the tractor or the farm implement, without placing tension on the Chain.
2. Chain is of sufficient strength to hold the decoupled implement (and its load) and tow it to the shoulder.

A GEHL Safety Chain, part number 142965, is available through your GEHL Dealer.

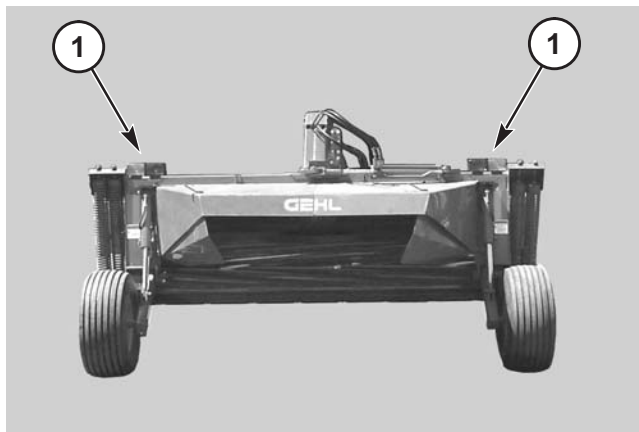


- 1 – Extension Hitch
- 2 – Safety Chain and Clevis
- 3 – Locking Hitch Pin
- 4 – Welded-on Ring

**Fig. 51: Accessory Safety Chain (Installed)**

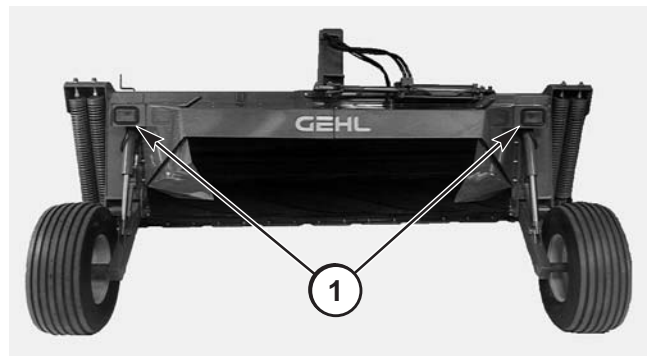
### TRANSPORT LIGHTS (Fig. 53)

Transport Lights are provided as standard equipment on the Disc Mower Conditioner. The Lights use a standard 7-pin connector to connect to the tractor. If your tractor is not equipped with the proper receptacle, see your tractor dealer for details.



- 1 – Transport Lights

**Fig. 52: After Serial Number 12100**



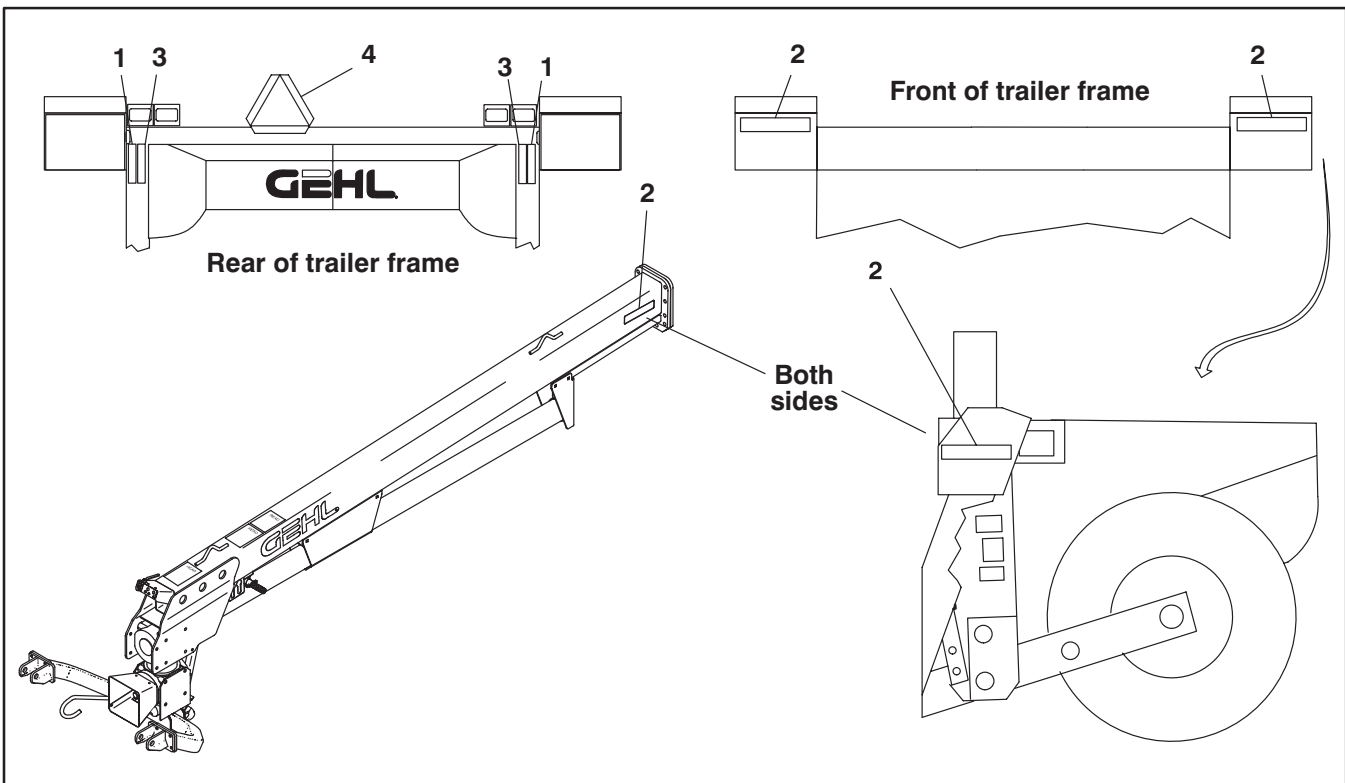
- 1 – Transport Lights

**Fig. 53: Before Serial Number 12101**

### SMV EMBLEM AND REFLECTORS (Figs. 54 & 55)

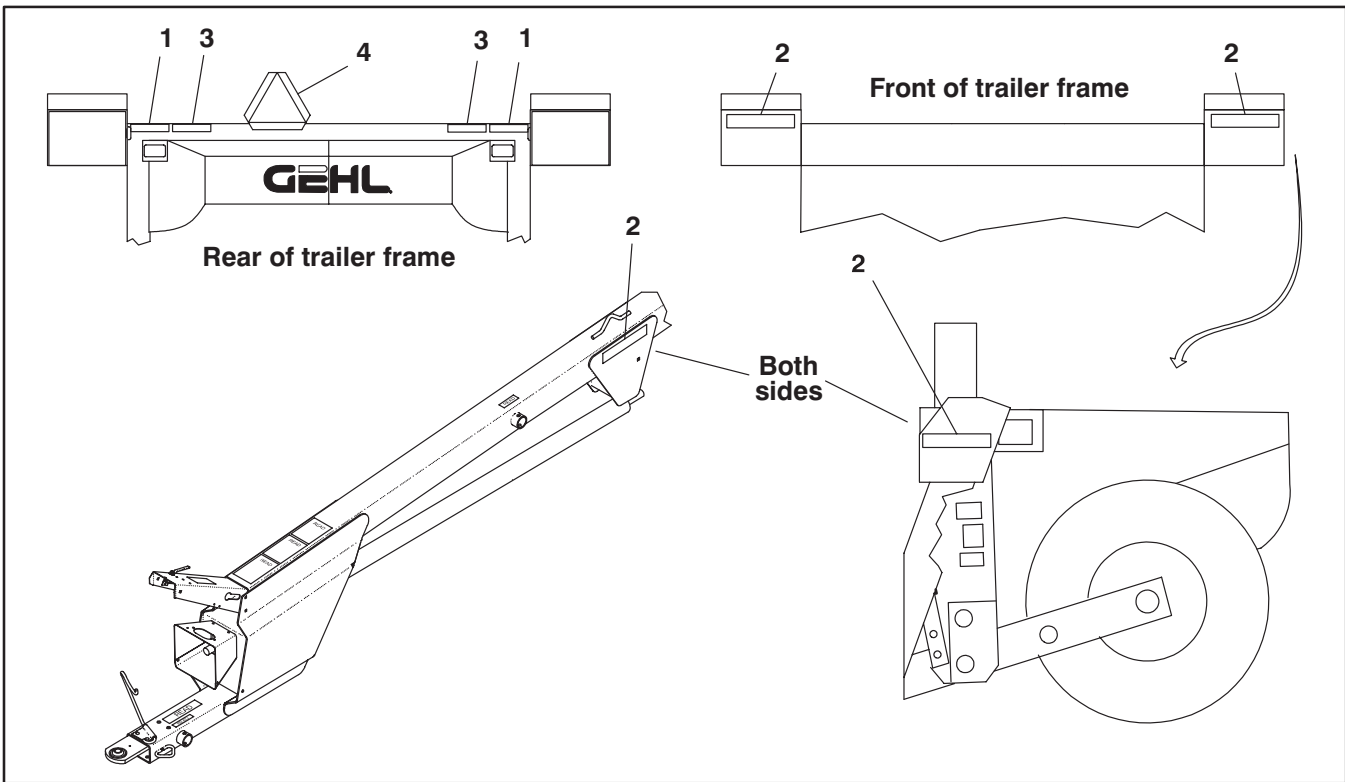
The Disc Mower Conditioner is provided with a Slow Moving Vehicle Emblem Mounting Bracket on the upper left back end of the Conditioner Frame. A Slow-moving Vehicle Emblem, is standard after Serial Number 10700.

Red, Orange and Amber Reflector Strips are also provided at the rear corners of the Conditioner Frame.



1 – Red Reflectors (2 Places)  
 2 – Amber Reflectors (6 Places)  
 3 – Orange Reflectors (2 Places)  
 4 – SMV Emblem & Bracket (Standard Equipment)

**Fig. 54: SMV & Reflectors (After Serial Number 12100)**



1 – Red Reflectors (2 Places)  
 2 – Amber Reflectors (6 Places)  
 3 – Orange Reflectors (2 Places)  
 4 – SMV Emblem & Bracket (Standard Equipment)

**Fig. 55: SMV & Reflectors (Before Serial Number 12101 and After Serial Number 10700)**



# Notes

# CHAPTER 12

## STORAGE

After the harvesting season, store the Disc Mower Conditioner in a dry place where it is not exposed to weather or livestock.

### BEFORE STORING

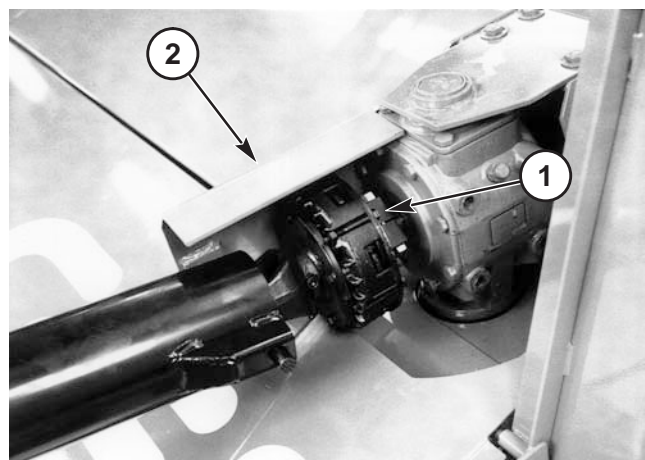
Perform the following preparations on the Disc Mower Conditioner, before placing the unit into off-season storage:

1. Conditioner in transport position and Transport Locks properly installed.
2. Wash off the entire machine. Take special care to remove gum and accumulated dirt from the Cutterbar.
3. Remove trash and debris which may be wrapped around Shafts and/or lodged against Bearings.
4. Repaint any areas where the paint has been worn off or brush motor oil on these areas.
5. Lubricate the entire machine following the information in the Lubrication chapter of this manual. BE SURE to change the Chain Drive, Gearboxes and Cutterbar oils. Apply motor oil to adjusting bolt threads.
6. Apply Shaeffer's Silver Streak Lube or equivalent to the splined connection between the Upper and Lower Gearboxes. This requires lifting the Upper Gearbox about 6-8 inches (155-205 mm).
7. Apply grease to any exposed Cylinder Rods.
8. Take note of any damaged or missing parts or attaching hardware; order and replace them during the off-season. Replace any damaged Curtains.
9. Check all hydraulic components, hoses and fittings for damage or leaks; make repairs or corrections, as required.
2. Remove any trash or debris which may have accumulated on the unit during storage.
3. Check and re-inflate the Tires and re-torque the Wheel lugs.
4. Readjust the Flotation Springs tension.
5. Inspect Cutterbar Knives.
6. Lubricate the entire machine following the information in the Lubrication chapter of this manual.
7. Check Drive Chain tension following the information in the Service chapter of this manual.
8. Perform the Clutch run in procedure as outlined in the Steps below.
  - a. Remove one of the Gearbox Steering Side Plates.
  - b. Loosen (but do NOT remove) the six Clutch Bolts (see Fig. 56).
  - c. Place a block of wood between two Cutterbar Discs to prevent rotation.
  - d. Rotate the Driveline by hand until the Clutch slips.
  - e. Tighten the six Clutch Bolts.
  - f. Install the removed Gearbox Steering Side Plate.

### AFTER STORING

After taking the Disc Mower Conditioner out of storage and before the start of the harvesting season, carefully check the unit over and make the following inspections and preparations:

1. Replace all Guards, Shields and Covers. Review and re-familiarize yourself with all safety precautions outlined in the Safety chapter of this manual.



1 – Clutch Bolt (1 of 6)  
2 – Gearbox Steering Side Plate

Fig. 56

# CHAPTER 13

## TROUBLESHOOTING

**NOTE:** *This Troubleshooting guide presents problems, causes and suggested remedies beyond the extent of loose, worn or missing parts. It was developed with the expectation that the machine is in otherwise good operating condition. Refer to the index at the back of this manual for Chapter and Topic page references. BE SURE to exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 8), BEFORE making any adjustments or repairs.*

### MISCELLANEOUS PROBLEMS

PROBLEM	CAUSE	REMEDY
Ragged Stubble, uneven mowing or Mower leaving streaks.	<p>Knives dull or bent.</p> <p>PTO speed too low or too high.</p> <p>Ground travel speed too high or too low.</p> <p>Slip Clutch frequently slipping.</p> <p>Machine flotation too light for high ground speed.</p> <p>Cutterbar angle incorrect.</p> <p>Header flotation set incorrectly.</p> <p>Area below or between Shoes at front and behind Discs has dirt or crop build-up.</p> <p>Heavy crop stalk.</p>	<p>Replace Knives.</p> <p>Use second cutting edge if Knives are NOT cracked or bent.</p> <p>Operate PTO closer to rated 1000 RPM.</p> <p>Change ground travel speed.</p> <p>Clutch worn. Check with your GEHL dealer's Service Department.</p> <p>Increase weight on Skid Shoes by adjusting Flotation Springs or by reducing ground speed.</p> <p>Adjust Cutterbar angle.</p> <p>Set Header flotation.</p> <p>Clean Discs and Cutterbar.</p> <p>Add optional Crop Lifters.</p>
Excessive vibration.	<p>Incorrect attachment to the tractor.</p> <p>Loose hardware.</p> <p>Conditioner Rollers are touching each other.</p>	<p>Detach and correctly reattach the machine to the tractor. MAKE SURE the Drive Line between the tractor and Drawbar Tower is level and in phase. See Preparing for Field Operations chapter of this manual.</p> <p>Tighten.</p> <p>STOP operation immediately and re-time Rollers and adjust clearance between Rollers.</p>
Improperly formed windrows or Irregular windrows being formed and a banging noise in the machine.	<p>Deflectors are closed too much in heavy crops.</p>	<p>Open Deflectors.</p>

MISCELLANEOUS PROBLEMS (Cont.)

PROBLEM	CAUSE	REMEDY
Improperly formed windrows or Irregular windrows being formed and a banging noise in the machine. (Cont.)	<p>Ground speed too slow.</p> <p>Ground speed erratic.</p> <p>Excessive Conditioner Roll gap.</p> <p>Crop accumulation in front of the Rollers. Roll pressure too high.</p> <p>Top Roller out of time.</p>	<p>Increase ground speed.</p> <p>Mow at a constant ground speed.</p> <p>Check Roll gap.</p> <p>Set Roll tension to proper setting as described in the Service chapter in this manual.</p> <p>Check Roll timing and Chain tension.</p>
Mower unstable in raised cutting position.	Driving speed too high.	Avoid sharp turns. Do NOT exceed 20 MPH (32 km/h) when towing
Conditioner Rolls plugging.	<p>Foreign objects between Rolls.</p> <p>PTO RPM not at rated speed.</p>	<p>Unplug the Roll following procedure listed in "Unplugging".</p> <p>Maintain 1000 RPM PTO speed.</p>
Slow crop drying.	<p>Excessive Conditioner Roll gap.</p> <p>Low Conditioner Roll pressure.</p> <p>Insufficient air circulation through windrow.</p> <p>Tractor tire running down windrow.</p>	<p>Check Roll gap.</p> <p>Check Roll pressure.</p> <p>Consider making a wider windrow or swath.</p> <p>Do not drive on windrow.</p>
Leaves damaged or stripped off of stems.	<p>Excessive Conditioner Roll Pressure.</p> <p>Not enough Roll gap.</p>	<p>Reduce Roll Pressure.</p> <p>Increase Roll gap.</p>
Slip Clutch slipping frequently.	Slip Clutch worn.	Check with your GEHL dealer's Service Department.
Excessive play in Quick Attach Hitch assembly	<p>Insufficient amount of Shims and/or 3/4" side-play Bolts incorrectly adjusted</p> <p>Drawbar Spacer is too small or not installed</p>	<p>Add Correct amount of Shims and/or adjust Bolts referring to Preparation for Field Operation chapter</p> <p>Install largest Spacer that fits in Drawbar hole</p>

# CHAPTER 14

## OPTIONAL EQUIPMENT & ACCESSORIES

### SAFETY CHAIN

A 5-ton Safety Chain is available. Order the Safety Chain by part number 142965.

### SHEAR BOLT KIT

A Shear Bolt Kit is available consisting of eight Shear Bolts and sixteen Lock Nuts. Order the Kit by part number 143886.

### TALL SKID SHOES

Tall Skid Shoes are available. Order (four) each of 120664 shoes for the DC2412. These shoes are installed under the 2nd, 4th, 7th and 9th discs on the DC2412.

### CROP LIFTER KIT

A Crop Lifter Kit is available for better cutting in certain crop conditions. Order a Crop Lifter Kit for every cutting station to be modified by ordering part number 157224.

### V-TYPE KNIVES

V-Type Knives are available for better cutting in certain crop conditions. Order part number P156027 for a pack of 12 knives.

### SWAY CHAIN KIT

A Sway Chain Kit is available to stabilize the connection between the Disc Conditioner and tractors not equipped with a quick attachment style hitch. Order the Sway Chain Kit by part number 156850.

### TIRE BUMPER EXTENSION KIT

A Tire Bumper Extension Kit is available to protect the Disc Conditioner Driveline from damage in tight turns when the tractor drawbar hole is between 3" and 6" (76 and 152 mm) behind the tire. Order the Tire Bumper Extension Kit by part number 158040.

### TRUCK TOWING HITCH

A Truck Towing Hitch is available to enable transport towing behind a truck or tractor with a drawbar. Order the Truck Towing Hitch by part number 807819.

# CHAPTER 15

## DECAL LOCATIONS

### GENERAL INFORMATION

Decal Locations information is provided to assist in the proper selection and application of new decals, in the event the original decal(s) become(s) damaged or the machine is repainted. Refer to the listing for the illustration reference number, part number, description and quantity of each decal provided in the Kit. Refer to the appropriate illustration(s) for replacement location(s).

**NOTE:** Refer to the SAFETY Chapter of the Operator's Manual for the specific information provided on all of the various Safety Decals furnished in the Decal Kit(s).

To insure proper selection for correct replacement decal(s), compare all of the various close-up location illustrations to your machine BEFORE starting to refinish the unit. Then, circle each pictured decal (applicable to your machine) while checking off its part number in the listing. After you have verified all the decals needed for replacement, set aside unneeded decals for disposal.

### NEW DECAL APPLICATION

Surfaces MUST be free from dirt, dust, grease and other foreign material before applying the new decal. To apply a solid-formed decal, remove the smaller portion of the decal backing paper and apply this part of the exposed adhesive backing to the clean surface while maintaining proper position and alignment. Slowly peel off the other portion of the backing paper while applying hand pressure to smooth out the decal surface.



## CAUTION

**ALWAYS** observe safety rules shown on decals. If decals become damaged, or if the unit is repainted, replace the decals. If repainting, **BE SURE** that ALL decals from the Kit(s) that apply to your machine are affixed to your unit.

#### PAINT NOTICE

Use this list to order paint for refinishing:

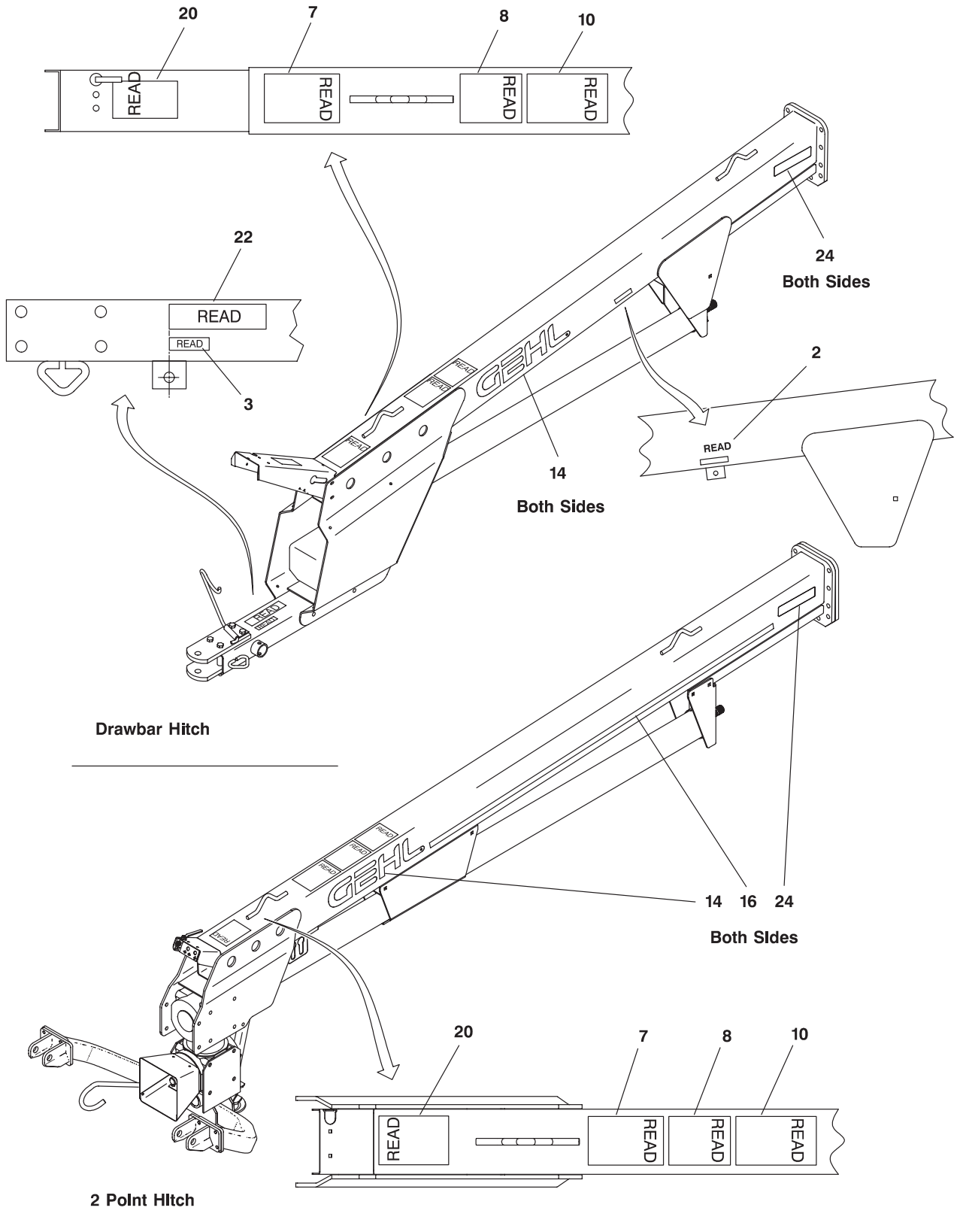
<b>906315</b>	<b>One Gal. AG Red</b>
<b>906324</b>	<b>One Qt. Light Grey</b>
<b>906316</b>	<b>6 (12 oz. Spray Cans) AG Red</b>
<b>906325</b>	<b>6 (12 oz. Spray Cans) Light Grey</b>

The Decal Set Number for the DC2412 is 142892. The Set includes the following:

Ref. No.	Part No.	Description & Quantity
1.	060138	Oil Level
2.	060510+	Jack Storage Position
3.	060511+	Jack Lifting Position
4.	091444	DANGER – Rotating Drive Line (2 Places)
5.	093365	WARNING – Rotating Components
6.	093366	Store Manual Here
7.	093367	WARNING – Owner's Responsibility & Read Manual
8.	093373	WARNING – General Safety
9.	093465	WARNING – 1000 RPM Operation ONLY
10.	093653	WARNING – Rotating Drive Line
11.	094913	GEHL 3-1/4" (3 Places)
12.	094951	Made In USA
13.	115974	WARNING – Block (2 Places)
14.	122736	GEHL (2 Places)
15.	125476	DANGER – Rotating Knives (2 Places)
16.	126757	Striping (10 feet)
17.	126456	GE
18.	126457	HL
19.	142773	2412 & 12" Colorbar (2 Places)
20.	142931	WARNING – Tongue Lock
21.	143007*	DANGER - Shield Missing
22.	158158+	Hitch Adjustment (After SN12100)
	143039+	Hitch Adjustment (Before SN12101)
23.	145216	Red Reflector Strip (2 Places)
24.	145217	Amber Reflector Strip (6 Places After SN10700)
25.	145218	Orange Reflector Strip (2 Places) (After SN10700)
26.	145235	SMV – Mounted (After SN10700)
27.	145237	SMV Mounting Spade (After SN10700)

+ Drawbar Hitch ONLY

\* Not included in Decal Kit



## DECAL LOCATIONS (CONTINUED)

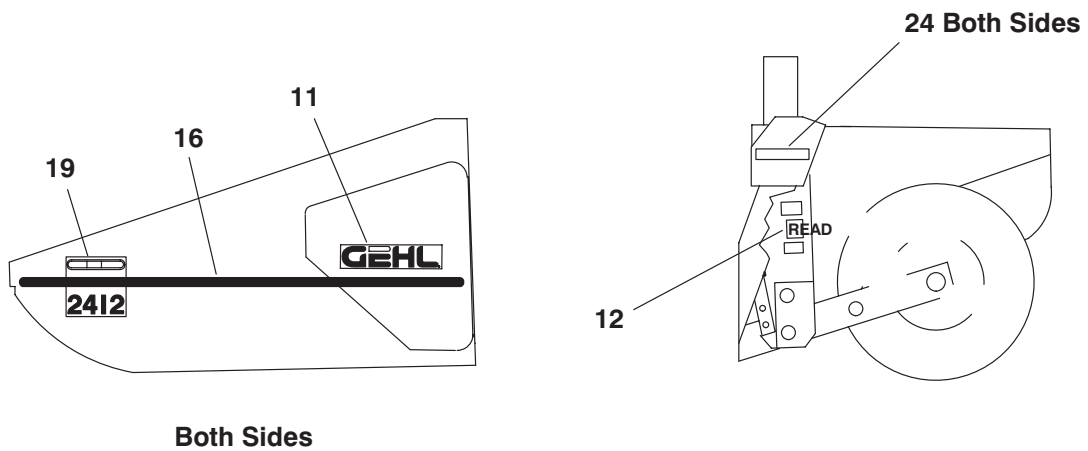
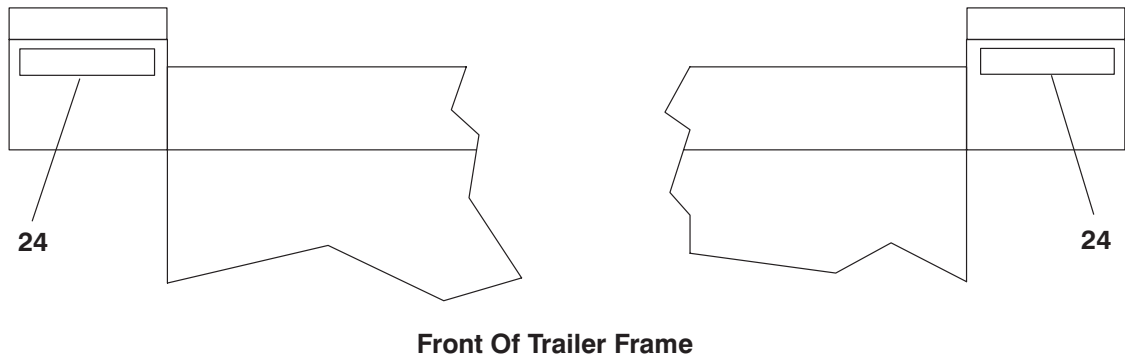
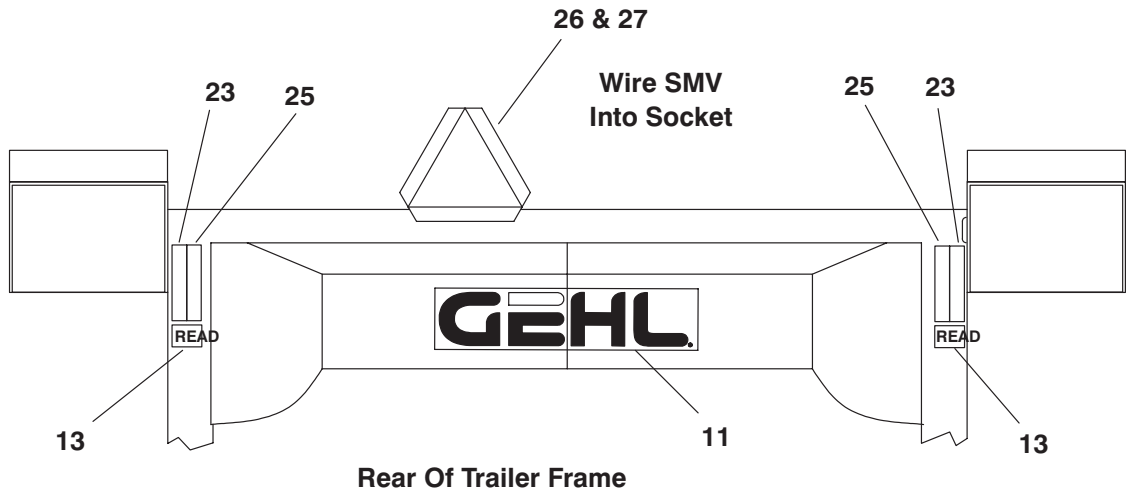
**NOTE:** *The following is a duplicated listing of the Decals from a previous page. It is provided for your convenience when selecting Decals from the following illustrations.*

The Decal Set Number for the DC2412 is 142892. The Set includes the following:

Ref. No.	Part No.	Description & Quantity
1.	060138	Oil Level
2.	060510+	Jack Storage Position
3.	060511+	Jack Lifting Position
4.	091444	DANGER – Rotating Drive Line (2 Places)
5.	093365	WARNING – Rotating Components
6.	093366	Store Manual Here
7.	093367	WARNING – Owner’s Responsibility & Read Manual
8.	093373	WARNING – General Safety
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+ Drawbar Hitch ONLY  
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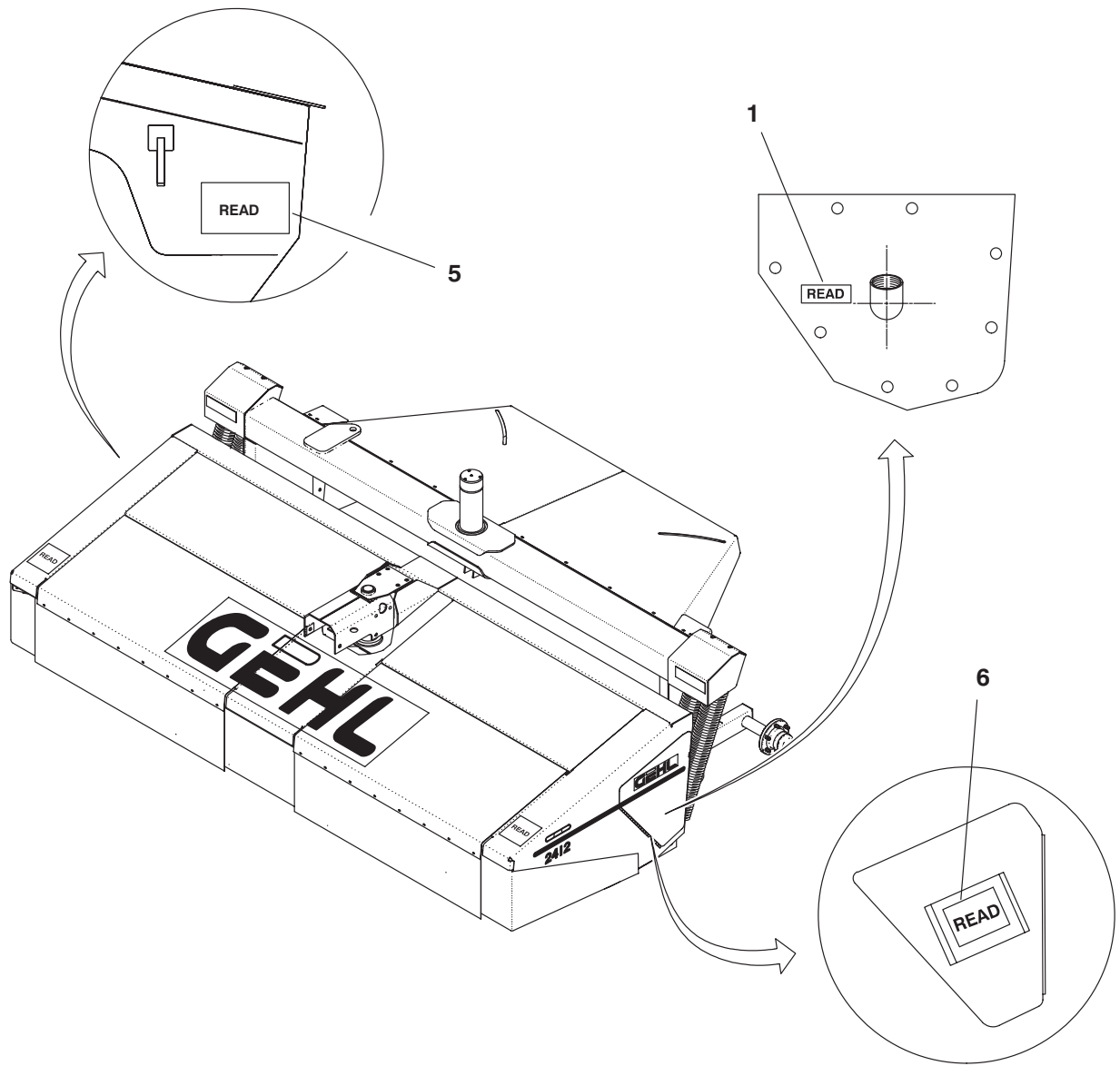
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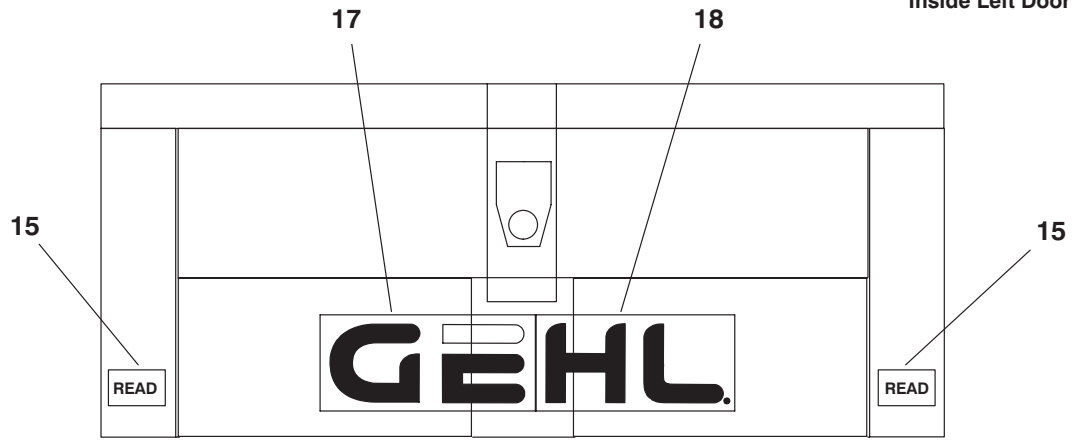
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+ Drawbar Hitch ONLY  
\* Not included in Decal Kit



Inside Left Door



Top View Of Header

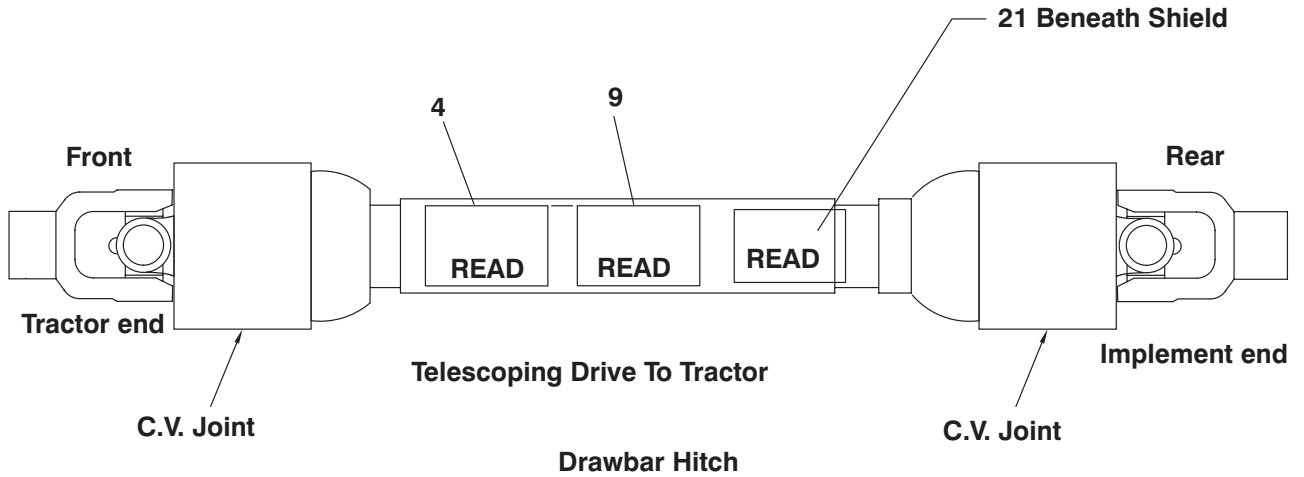
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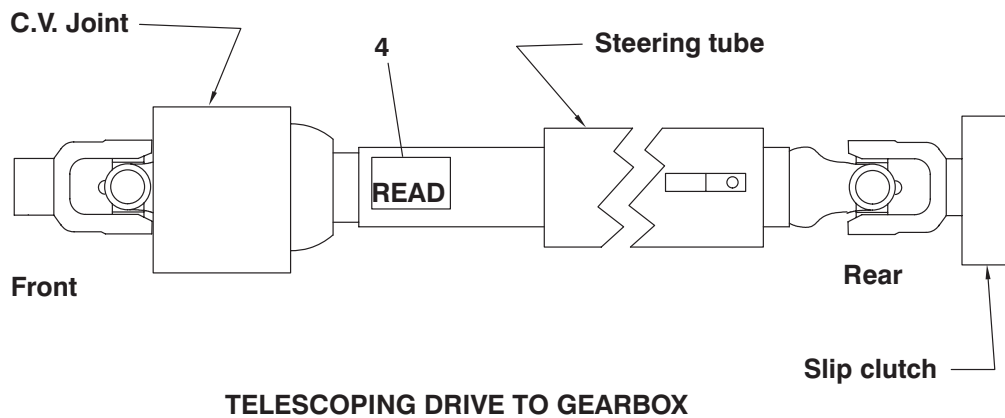
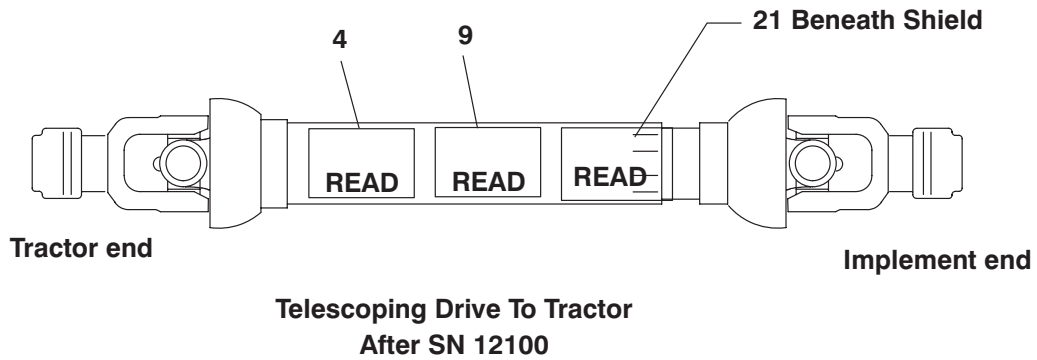
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+ Drawbar Hitch ONLY  
\* Not included in Decal Kit



2-Point Hitch



# CHAPTER 16

## MAINTENANCE LOG

**NOTE:** Under extreme operating conditions more frequent service than the recommended intervals may be required. You must decide if your actual operation requires more frequent service based on your use.

SERVICE EVERY 10 HOURS							
COMPONENT and SERVICE REQUIRED				PROCEDURE and/or CHAPTER TOPIC REFERENCE (Check Page No. in Index)			
Lubricate appropriate grease fittings.				Refer to <b>Lubrication</b> chapter.			
Check Roller Chain Oil Bath Level				Refer to <b>Lubrication</b> chapter.			
Lubricate PTO Drive Guard				Refer to <b>Lubrication</b> chapter.			
Date Service is Completed							
SERVICE EVERY 100 HOURS (BI-ANNUALLY)							
Check Tire pressures and retorque Wheel Lugs.				Refer to <b>Service</b> chapter.			
Lubricate appropriate grease fittings.				Refer to <b>Lubrication</b> chapter.			
Date Service is Completed							
SERVICE EVERY 200 HOURS (ANNUALLY)							
COMPONENT and SERVICE REQUIRED				PROCEDURE and/or CHAPTER TOPIC REFERENCE (Check Page No. in Index)			
Repack Wheel Bearings.				Refer to <b>Lubrication</b> chapter.			
Lubricate Cutterbar Driveline U-Joints.				Refer to <b>Lubrication</b> chapter.			
Lubricate Conditioner Roll Tension Turnbuckle.				Refer to <b>Lubrication</b> chapter.			
Lubricate Cutterbar & Gearboxes.				Refer to <b>Lubrication</b> chapter.			
Change Roller Chain Oil Bath Oil Level				Refer to <b>Lubrication</b> chapter.			
Lubricate Spline between Upper & Lower Gearboxes				Refer to <b>Lubrication</b> chapter.			
Date After Service is Completed							

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# Notes

# Notes

# TORQUE SPECIFICATIONS

**NOTE:** Use these torque values when tightening **GEHL** hardware (excluding: Locknuts and Self-tapping, Thread Forming and Sheet Metal Screws) unless specified otherwise.

All torque values are in Lb-Ft except those marked with an \* which are Lb-In  
(For metric torque value Nm, multiply Lb-Ft value by 1.355 or Lb-In value by 0.113)

Unified National Thread	Grade 2 		Grade 5 		Grade 8 	
	Dry	Lubed	Dry	Lubed	Dry	Lubed
8-32 8-36	19* 20*	14* 15*	30* 31*	22* 23*	41* 43*	31* 32*
10-24 10-32	27* 31*	21* 23*	43* 49*	32* 36*	60* 68*	45* 51*
1/4-20 1/4-28	66* 76*	50* 56*	9 10	75* 86*	12 14	9 10
5/16-18 5/16-24	11 12	9	17 19	13 14	25	18 20
3/8-16 3/8-24	20 23	15 17	30 35	23 25	45 50	35
7/16-14 7/16-20	32 36	24 27	50 55	35 40	70 80	55 60
1/2-13 1/2-20	50 55	35 40	75 90	55 65	110 120	80 90
9/16-12 9/16-18	70 80	55 60	110 120	80 90	150 170	110 130
5/8-11 5/8-18	100 110	75 85	150 180	110 130	220 240	170 180
3/4-10 3/4-16	175 200	130 150	260 300	200 220	380 420	280 320
7/8-9 7/8-14	170 180	125 140	430 470	320 360	600 660	460 500
1-8 1-14	250 270	190 210	640 710	480 530	900 1000	680 740
Metric Course Thread	Grade 8.8 		Grade 10.9 		Grade 12.9 	
	Dry	Lubed	Dry	Lubed	Dry	Lubed
M6-1	8	6	11	8	13.5	10
M8-1.25	19	14	27	20	32.5	24
M10-1.5	37.5	28	53	39	64	47
M12-1.75	65	48	91.5	67.5	111.5	82
M14-2	103.5	76.5	145.5	108	176.5	131
M16-2	158.5	117.5	223.5	165.5	271	200



# **WARNING**



**THIS OPERATOR'S MANUAL IS  
PROVIDED FOR OPERATOR USE**

**DO NOT REMOVE  
FROM THIS MACHINE**

**THANK YOU**

**DO NOT START, OPERATE OR WORK ON THIS MACHINE UNTIL  
YOU HAVE CAREFULLY READ AND THOROUGHLY  
UNDERSTAND THE CONTENTS OF THE OPERATOR'S MANUAL.**

**FAILURE TO FOLLOW SAFETY, OPERATING AND  
MAINTENANCE INSTRUCTIONS COULD RESULT IN SERIOUS  
INJURY TO THE OPERATOR OR BYSTANDERS, POOR  
OPERATION, AND COSTLY BREAKDOWN.**

**IF YOU HAVE ANY QUESTIONS ON PROPER OPERATION,  
ADJUSTMENT OR MAINTENANCE OF THIS MACHINE,  
CONTACT YOUR DEALER OR THE SERVICE DEPARTMENT OF  
GEHL COMPANY BEFORE STARTING OR CONTINUING  
OPERATION.**

# **GEHL**®

**Gehl Company 143 Water Street, P.O. Box 179, West Bend, WI 53095-0179 U.S.A.**