

# WOODS ROTARY MOWER

59C-2

29927

Rev. 3/14/2008

**WOODS**<sup>®</sup>  
Tested. Proven. Unbeatable.

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OPERATOR'S MANUAL

## TO THE DEALER:

Assembly and proper installation of this product is the responsibility of the Woods® dealer. Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Operator's Manual are completed before releasing equipment to the owner.

**The dealer must complete the Product Registration online at the Woods Dealer Website** or complete the mail-in form included with the Operator's Manual. If using the mail-in form, the dealer is to return the prepaid postage portion to Woods, give one copy to the customer, and retain one copy. **Failure to register the product does not diminish customer's warranty rights.**

## TO THE OWNER:

Read this manual before operating your Woods equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer. To locate your nearest dealer, check the Dealer Locator at [www.WoodsEquipment.com](http://www.WoodsEquipment.com), or in the United States and Canada call 1-800-319-6637.

The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment.

For service, your authorized Woods dealer has trained mechanics, genuine Woods service parts, and the necessary tools and equipment to handle all your needs.

Use only genuine Woods service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

**Model:** \_\_\_\_\_ **Date of Purchase:** \_\_\_\_\_

**Serial Number: (see Safety Decal section for location)** \_\_\_\_\_

Provide this information to your dealer to obtain correct repair parts.

Throughout this manual, the term **NOTICE** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION**, **WARNING**, and **DANGER** are used in conjunction with the Safety-Alert Symbol (a triangle with an exclamation mark) to indicate the degree of hazard for items of personal safety.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



Indicates a hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

**IMPORTANT**  
or **NOTICE**

Is used to address practices not related to personal injury.

**NOTE**

Indicates helpful information.

**WOODS®**

**ALITEC™**  
**BMP®**  
**CENTRAL FABRICATORS®**  
**GANNON®**  
**GILL®**  
**WAIN-ROY®**  
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## 2 Introduction

Gen'l (Rev. 2/19/2008)

# TABLE OF CONTENTS


INTRODUCTION . . . . .	2
GENERAL INFORMATION . . . . .	3
SAFETY RULES . . . . .	4
SAFETY DECALS . . . . .	6
OPERATION . . . . .	8
ASSEMBLY . . . . .	11
DEALER CHECK LISTS . . . . .	15
PARTS LISTS . . . . .	16
BOLT TORQUE CHART . . . . .	25
BOLT SIZE CHART . . . . .	26
PRODUCT WARRANTY . . . . .	INSIDE BACK COVER
REPLACEMENT PARTS WARRANTY . . . . .	BACK COVER

## GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your mower. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance. These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to unknown and varying operating conditions. However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation.


The illustrations and data used in this manual were current at the time of printing but, due to possible inline production changes, your mower may vary slightly in detail. We reserve the right to redesign and change the cutters as may be necessary without notification.

Throughout this manual, references are made to right and left directions. These are determined by standing behind the mower facing the direction of forward travel.



**¡LEA EL INSTRUCTIVO!**

Si no lee Ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad.



**This Operator's Manual should be regarded as part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.**

# SAFETY RULES



**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by an operator's single careless act.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgement, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

It has been said, "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

## TRAINING

- **Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals and safety decals are available from your dealer. To locate your nearest dealer, check the Dealer Locator at [www.WoodsEquipment.com](http://www.WoodsEquipment.com), or in the United States and Canada call 1-800-319-6637.) Failure to follow instructions or safety rules can result in serious injury or death.**
- **If you do not understand any part of this manual and need assistance, see your dealer.**
- **Know your controls and how to stop engine and attachment quickly in an emergency.**
- **Operators must be instructed in and be capable of the safe operation of the equipment, its attachments, and all controls. Do not allow anyone to operate this equipment without proper instructions.**
- **Never allow children or untrained persons to operate equipment.**

## PREPARATION

- **Check that all hardware is properly installed. Always tighten to torque chart specifications unless instructed otherwise in this manual.**
- **Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.**
- **Make sure attachment is properly secured, adjusted, and in good operating condition.**
- **Remove accumulated debris from this equipment, power unit, and engine to avoid fire hazard.**

- **Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)**

- **Make sure shields and guards are properly installed and in good condition. Replace if damaged.**

- **Inspect and clear area of stones, branches, or other hard objects that might be thrown, causing injury or damage.**

## OPERATION

- **You may not be able to stop the tractor safely if the clutch or brake pedal mechanisms are improperly adjusted, allowing them to contact mower components.**

- **When the mower lift stops are installed as instructed in this manual, properly adjusted clutch and brake pedal mechanisms will not contact mower components. You should frequently check that the tractor clutch and brake pedal mechanisms are in adjustment.**

- **If the clutch or brake pedal mechanisms can contact mower components, do not put mower into service until properly adjusted.**

- **Do not put mower into service unless discharge chute is installed and in good condition. Replace if damaged.**

- **Keep bystanders away from equipment.**

- **Do not operate or transport equipment while under the influence of alcohol or drugs.**

- **Never direct discharge toward people, animals, or property.**

- **Operate only in daylight or good artificial light.**

- **Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.**

- **Always comply with all state and local lighting and marking requirements.**

- **Never allow riders on power unit or attachment.**

- **Always sit in power unit seat when operating controls or starting engine. Place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting power unit engine.**

- **Look down and to the rear and make sure area is clear before operating in reverse.**

- **Do not operate or transport on steep slopes.**



# SAFETY RULES

**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



- Do not stop, start, or change directions suddenly on slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Watch for hidden hazards on the terrain during operation.
- Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.

## TRANSPORTATION

- Always comply with all state and local lighting and marking requirements.
- Never allow riders on power unit or attachment.
- Do not operate PTO during transport.
- Watch for hidden hazards on the terrain.
- Do not operate or transport on steep slopes.
- Do not operate auxiliary hydraulics during transport.
- Do not operate or transport equipment while under the influence of alcohol or drugs.

## MAINTENANCE

- Before dismounting power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.
- Do not modify or alter or permit anyone else to modify or alter the equipment or any of its components in any way.
- Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.
- Never go underneath equipment (lowered to the ground or raised) unless it is properly blocked and secured. Never place any part of the body under-

neath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death. Follow Operator's Manual instructions for working underneath and blocking requirements or have work done by a qualified dealer.

- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- Make certain all movement of equipment components has stopped before approaching for service.
- Frequently check blades. They should be sharp, free of nicks and cracks, and securely fastened.
- Do not handle blades with bare hands. Careless or improper handling may result in serious injury.
- Your dealer can supply genuine replacement blades. Substitute blades may not meet original equipment specifications and may be dangerous.
- Tighten all bolts, nuts, and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before putting unit into service.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)
- Make sure shields and guards are properly installed and in good condition. Replace if damaged.
- Wear gloves when installing belt. Be careful to prevent fingers from being caught between belt and pulley.

## STORAGE

- Block equipment securely for storage.
- Keep children and bystanders away from storage area.








# SAFETY & INSTRUCTIONAL DECALS

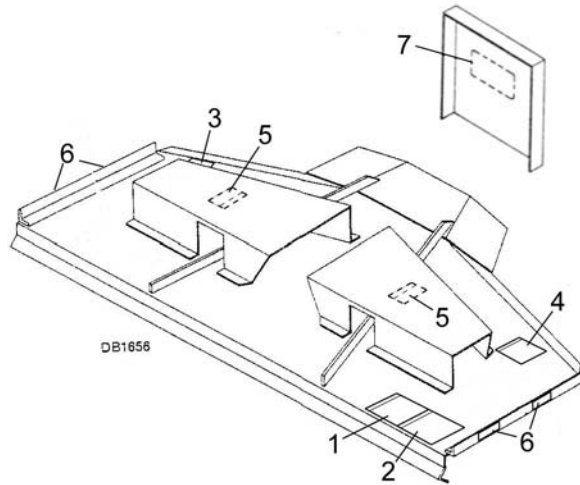
**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



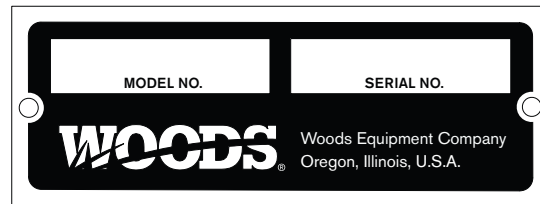
**Replace Immediately If Damaged!**

1 - PN 19007

 <b>WARNING</b>	
	
<p><b>FALLING OFF CAN RESULT IN BEING RUN OVER.</b></p> <ul style="list-style-type: none"> <li>Tractor must be equipped with ROPS (or ROPS CAB) and seat belt. Keep foldable ROPS systems in "locked up" position at all times.</li> <li>Buckle Up! Keep seat belt securely fastened.</li> <li>Allow no riders.</li> </ul> <p><b>RAISED EQUIPMENT CAN DROP AND CRUSH.</b></p> <ul style="list-style-type: none"> <li>Before working underneath, follow all instructions and safety rules in operator's manual and securely block up all corners of equipment with jack stands.</li> <li>Securely blocking prevents equipment dropping from hydraulic leak-down, hydraulic system failures or mechanical component failures.</li> </ul> <p><b>FALLING OFF OR FAILING TO BLOCK SECURELY CAN RESULT IN SERIOUS INJURY OR DEATH.</b></p> <p style="text-align: right;">19007-A</p>	



3 - SERIAL NUMBER PLATE



2 - PN 53425

 <b>DANGER</b>		
		
<p style="text-align: center;"><b>ROTATING BLADES AND THROWN OBJECTS</b></p> <ul style="list-style-type: none"> <li>Do not put hands or feet under or into mower when engine is running.</li> <li>Before mowing, clear area of objects that may be thrown by blade.</li> <li>Keep bystanders away.</li> <li>Keep discharge chute and guards in place and in good condition.</li> </ul> <p style="text-align: center;"><b>BLADE CONTACT OR THROWN OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH.</b></p> <p style="text-align: right;">53425-B</p>		

## BE CAREFUL!

Use a clean, damp cloth to clean safety decals.

Avoid spraying too close to decals when using a pressure washer; high-pressure water can enter through very small scratches or under edges of decals causing them to peel or come off.


Replacement safety decals can be ordered free from your Woods dealer. To locate your nearest dealer, check the Dealer Locator at [www.WoodsEquipment.com](http://www.WoodsEquipment.com), or in the United States and Canada call 1-800-319-6637.



**SAFETY & INSTRUCTIONAL DECALS**  
**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**  
**Replace Immediately If Damaged!**



4 - PN 18877

 <b>WARNING</b>
<b>TO AVOID SERIOUS INJURY OR DEATH:</b>
<ul style="list-style-type: none"> <li>■ Read Operator's Manual (available from dealer) and follow all safety precautions.</li> <li>■ Keep all shields in place and in good condition.</li> <li>■ Operate mower from tractor seat only.</li> <li>■ Lower mower, stop engine and remove key before dismounting tractor.</li> <li>■ Allow no children or untrained persons to operate equipment.</li> <li>■ Do not transport towed or semi-mounted units over 20 mph.</li> </ul>
<p align="center"><b>FAILURE TO OPERATE SAFELY CAN RESULT IN INJURY OR DEATH.</b></p>
<small>18877-C</small>

5 - PN 18868

 <b>DANGER</b>
<b>SHIELD MISSING</b> Do not operate. Put shield on.
<small>18868-B</small>

6 - PN 18869

 <b>DANGER</b>
<b>SHIELD MISSING</b> <b>DO NOT OPERATE - PUT SHIELD ON</b>
<small>18869-B</small>

7 - PN 23376

 <b>CAUTION</b>
<b>ALWAYS USE 1000 RPM PTO SPEED.</b>
<small>23376</small>

# OPERATION

## WARNING

- Do not allow children or unqualified persons to operate equipment.
- Keep bystanders away from equipment while it is in operation.

## CAUTION

- Stop mower and tractor immediately upon striking an obstruction. Turn off engine, remove key, inspect and repair any damage before resuming operation.
- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hands, hearing and head.

## MOWING GRASS

Woods model **59**, **L59**, and **L306** series mowers are equipped with suction-type blades which make them ideal for finish mowing large areas of lawn. The machine should be run level when mowing, and the uncut area should be kept to the left side (right side on left-handed machine). This prevents a small windrow that might otherwise occur.

## Streaking

With certain types of grass and under certain seasonal conditions, the front caster wheels may roll the grass down enough that it will not come all the way back up and will not be cut as short as the surrounding area. This may appear to be a streak left by the spindle, but it is not. The only solution, under these conditions, is to carry the weight of the machine on the lift chains with the caster wheels adjusted up so they carry the weight when riding a high ridge or high spot.

## TRACTOR OPERATING INSTRUCTIONS

Operate the tractor at full governed rpm when doing normal mowing. If the forward speed is too high, a lower gear can be used.

## Height Adjustment (Without Casters)

The mower is raised or lowered and the mowing height is maintained by the tractor hydraulic system.

Set the hydraulic control lever stop for the desired mowing level. Adjust the side skids so that they just

clear the ground. The side skids will minimize scalping by lifting the mower over bumps.

## Height Adjustment (With Casters)

The mower may be raised off the casters at any time by the tractor lift system, but regulate mowing height with caster height. On **59** and **L59** mowers, adjust mowing height by transferring spacers from below the caster mounting bracket to above it or vice versa and by moving wheel up or down in holes in wheel yoke.

On **59CL**, etc., raise mower before backing up (because of lack of clearance between mower casters and front wheels of tractor).

## Attitude Adjustment (Figure 1)

The Woods rotary mower can be adjusted to ride level at various cutting heights by adjusting the rear of the machine up or down in the mounting bracket holes. After changing the height of the rear of the mower, always check the alignment of the belt from the idlers forward. If the belt is out of line, move the entire mower forward or back in the side adjustment holes or adjust idlers as necessary to make the belt run true. The side adjustment holes are also for additional belt take up in case belt adjustment is used on the idlers. It is very important to run the belt as much in line as possible at all times.

## Lubrication

Lubricate the blade spindle shafts with SAE 80 or 90EP gear lube every 24 hours of operation until some oil is forced out around the top of the shaft. If machine is equipped with casters, grease occasionally to keep the powdered metal bearing well lubricated. The V-belt idlers have sealed ball bearings and do not need lubricating. On mowers using chain drive and jackshaft, keep chain well oiled and grease jackshaft every 24 hours of operation.

## V-Belts

Belts should be adjusted so that they are tight enough to hold the power of the tractor when mowing. The mowers for IH Cub tractors are designed so that as the mower is raised above the mowing position, the belt slackens. This is to prevent excessive load on the tractor PTO pilot bearings when the tractor motor is operated with PTO disengaged. Thus, on Cub tractors, the operator should avoid adjusting the drive belt so tight that the slackening off effect is eliminated. On other tractors, to prevent belt from jumping off, the belt



should be adjusted so that it is snug but not tight when mower is raised.

When belt replacement is necessary, use only belts recommended by Woods dealers. These are of special construction for shock loading and severe use.

## **SIDE DISCHARGE & DISCHARGE CHUTE**

Both side shield and a discharge chute are provided for discharge end of mower (left end on white mower frames and right end on yellow frames). The side cover shield should be used on light mowing and when mowing areas where other persons may be present. The discharge chute is used in heavy mowing to allow easier escape of cut material. Always use either side shield or discharge chute.

## **OPTIONAL EQUIPMENT**

Two caster wheels are available for mounting on the front of the mower. These will gauge the mowing height very accurately. The leaf mulcher disposes of leaves quickly and economically. It returns valuable organic material to the soil.

**NOTE:** To do a satisfactory job of leaf mulching, the mower should be adjusted so blades are about 1-1/2" above ground and the back of the mower slightly lower than the front. The mower should be run at full RPM with tractor in first or second gear.

## **MOWER SPINDLE ASSEMBLIES**

Mower spindles are equipped with two tapered roller bearings. The proper adjustment is held by a spring pin. It is not intended that these bearings be adjusted during their useful life. When difficulty is experienced with the mower spindle assembly, time and trouble will be saved by buying a completely new spindle assembly.

However, if bearings must be adjusted, the spring pin can be driven out, the sleeve pulled loose, and a washer shim placed under the sleeve to tighten the bearings.

## **SERVICING CUTTING BLADES**

Blades are made of heat-treated alloy steel and are designed to produce the most satisfactory results. For a good mowing job, always keep blades sharp.

**NOTE:** On left hand models (L - White Frame) the blade bolts have left-hand threads.

### **Model 59 Mower**

(This mower does not have friction blade clutch.) The bolt which is used to fasten the blade to the mower spindle shaft has a nylon insert to prevent it from back-

ing out too easily. Do not substitute an ordinary bolt. When replacing the blade, tighten the bolt tight enough so that the blade will not slip.

## **HOW TO SOLVE BELT PROBLEMS**

Assemble as shown on mower decal. If not installed correctly, more twist will result than is allowable.

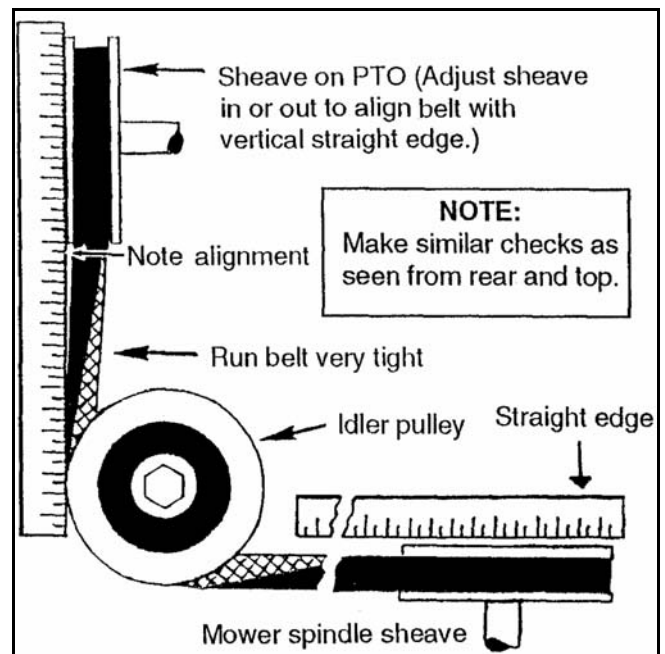
Belt whip is caused by belt misalignment unless mower is driven by a rough-running or 2-cylinder engine.

**Proper position:** Adjust mower forward and back to such a position that the rear take-up idlers are near the bottom of their slots when the belt lines up with the proper groove in the center pulley and is tight. Never run the idlers high in the slots as this will cause misalignment.

It is assumed that the mower is adjusted to run approximately level. If the front of the mower is down, the idlers will have to be raised. If the back of the mower is down, the idlers will have to be down further. Belts must be in proper alignment with sheave grooves as shown in Figure 2 and Figure 3.

PTO pulleys must be moved in or out to cause the belt to be in alignment with the idlers.

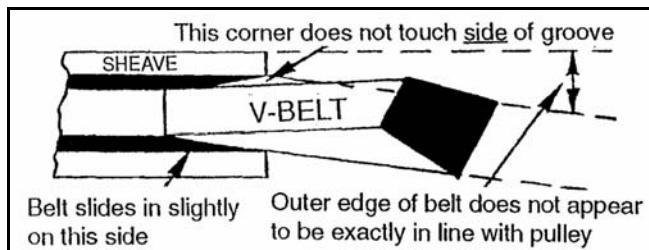
**Belt Tension:** Run belts very tight. Present belt designs are much stronger than we are accustomed to and will stand more tension. Slipping will heat and ruin a belt but tension is not harmful. You can minimize the amount of change in belt length as mower is raised and lowered by keeping the rear idlers adjusted to a low position.



**Figure 1.** Use of Straight Edge (Side View)

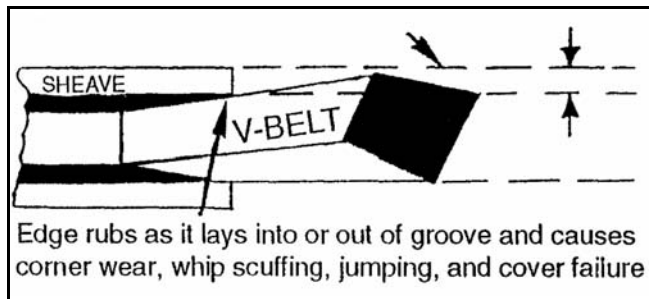
## How to Align a Twisted Belt

**Right:** Inside edge of belt are approximately lined up with the sheave.



**Figure 2.**

**Wrong:** Outer edge of belt appears to be in line.



**Figure 3.**

## CLEANING

### After Each Use

- Remove large debris such as clumps of dirt, grass, crop residue, etc. from machine.

- Inspect machine and replace worn or damaged parts.
- Replace any safety decals that are missing or not readable.

### Periodically or Before Extended Storage

- Clean large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Remove the remainder using a low-pressure water spray.
  1. Be careful when spraying near scratched or torn safety decals or near edges of decals as water spray can peel decal off surface.
  2. Be careful when spraying near chipped or scratched paint as water spray can lift paint.
  3. If a pressure washer is used, follow the advice of the pressure washer manufacturer.
- Inspect machine and replace worn or damaged parts.
- Sand down scratches and the edges of areas of missing paint and coat with Woods spray paint of matching color (purchase from your Woods dealer).
- Replace any safety decals that are missing or not readable (supplied free by your Woods dealer). See Safety Decals section for location drawing.

# ASSEMBLY

## Side Shield (See page 16)

Attach side shields (39 & 48) to mower with 3/8 x 1" bolts and lock nuts. A side discharge chute (48) may be installed on right end of mower in place of side shield (30).

## Center Belt Shield Bracket & Pivot Pipe (See page 16)

Attach rear pivot pipe (17) and center belt shield bracket (10) to mower using 3/8 x 1-1/4 bolt, nut, and lock washer. Remove rear bolt from bracket (47). Secure center of pipe (17) and bracket (47) with 3/8 U-bolt (67), nut and lock washer.

## Center Belt Shield (See page 16)

Attach center belt shield (9) to bolts welded in mower and belt shield bracket (10) using 3/8 nuts and lock washers.

## Side Skids (See page 16)

Bolt skids in such a position that they will be carried close to the ground, but not ride continuously on the ground when mower is operated at desired mowing height. Use 3/8 x 1" heat treated bolts (torqued to 35 lbs-ft), lock washers, and nuts.

## Front Toe Guards (See page 16)

Front toe guards (49) are furnished for some mowers. When provided, bolt them to front of mower using 3/8 NC x 3/4" carriage bolts and 3/8" flange lock nuts.

## Idler Frame (See page 16)

Assemble idler sheaves to inside of adjustment slots as shown using 5/8 x 3-1/2 carriage bolts, flat washers, lock washers and nuts. Move tractor drawbar adjustment to bottom adjustment hole on the tractor.

Slide idler channel frame assembly (20) between the drawbar and the drawbar plate attachment bolts of the tractor. Attach with the clamp plates that are furnished using 1/2 x 2" bolts, lock washers and nuts.

## Attachment Arms (See page 16)

Bolt attachment arms (18) to tractor with three 5/8 x 1-1/4 bolts and lock washers in each.

## PTO Sheave (See page 16)

Remove paint from bore of sheave (32). Put 1" splined tapered bushing (31) in sheave (32), and insert screws to hold bushing in place, but do not tighten.

## Mounting Mower (See page 16)

Slide mower under tractor. At this point, the belt must be looped over the pivot pipe. Screw guide rod (22) into rear of pipe (17). Do not tighten. Insert guide rod into second hole from bottom of idler bracket plate (for average mowing conditions).

Attach two adjustment arms (16) with single hole end to mower, other end to bottom of attachment arms using 5/8 x 1-1/2 clevis pins, washers, and safety pins. Place rear clevis pin in the most forward adjustment hole from rear of initial setting. This may need to be changed after belt is installed and lined up.

## Belt Assembly and Adjustment

Position and pin push arms to the mounting brackets using 5/8 x 1-1/2 clevis pin and safety pins.

First put belt on the bottom groove, right hand side of the center sheave. Then thread it to the left, around the left hand sheave.

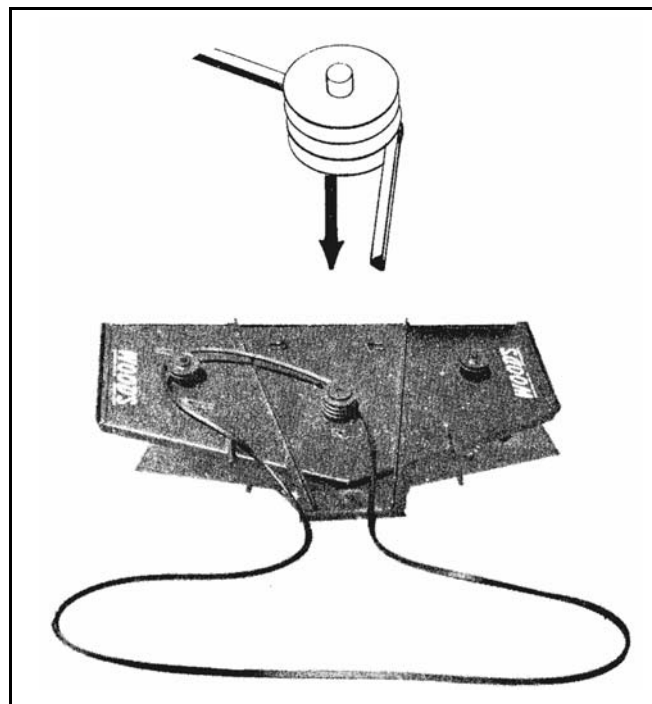
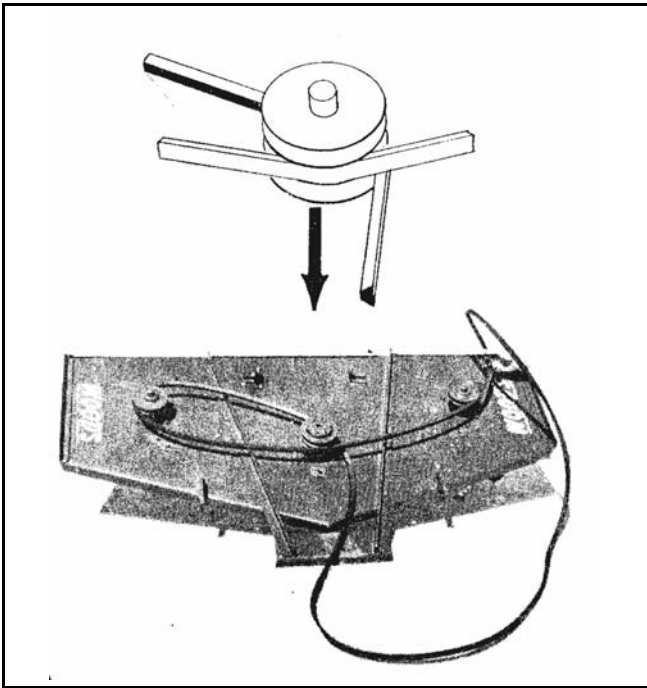


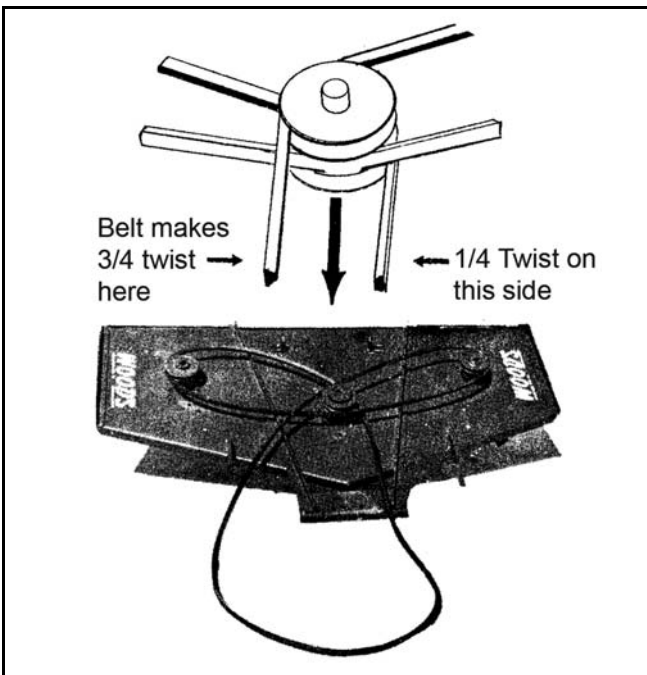
Figure 4.

Bring the belt back across the center sheave in the center groove over to the right outside sheave.



**Figure 5.**

Then thread it back across the front of the center sheave in the top groove.



**Figure 6.**

**Proper Twist:** The belt then follows with a 3/4 twist back under the left V-idler, up over the drive sheave and back down under the right idler pulley. This will leave a 1/4 twist in the section of the belt extending from the right V-idler to lower groove of the center mower sheave.

Adjust the mower to proper cutting height. The front of the mower should be slightly lower than the rear for the best cutting and least power requirement.

**Idler Adjustment:** Make minor belt adjustment with idlers but keep left idler about 1" above being in line with the groove in which the belt runs on the center sheave of the mower and right idler about 1" below. Move mower fore and aft for major adjustments. On L306K210, K260, S & F10, use belt takeup idlers on mower deck for major adjustment.

After belts are properly aligned, lock sheave (32) and bushing (31) in place. Torque bolt to 12 lbs-ft alternating back and forth at least six times.

**NOTE:** Make major belt adjustment by sliding mower fore and aft, using the five holes in arms as required. Make minor adjustments with idlers, but keep left V-idler about 1" above being in line with groove in which belt runs in center mower sheave and right V-idler about 1" below.

After mower is completely assembled and at the proper cutting height, tighten the center rear pivot pin securely.

### Lift Attachment (See page 14)

Bolt lift assembly (14, 15, 83, and 85) to right hydraulic arm of tractor with two 5/8 x 1-3/4 bolts, nuts, and lock washers.

Attach one 33 link chain (11) through keyhole of each rear lift lug on mower frame. Install a plastic caplug (8) into keyhole below chain. Attach upper end of 33 link chain (11) to eye bolts (85). Raise mower slightly and adjust chains so mower will raise level and will not hit tires, etc., when fully raised.

### Shielding

Bolt V-belt shield attachment bracket (26, page 16) to the tractor transmission housing with two 1/2 x 1" bolts and lock washers.

Place the V-belt shield (27, page 16) over the rear drive and secure with flat washers and wing nuts.

### Casters

If casters are used, see page 18 through page 19 for parts drawings.

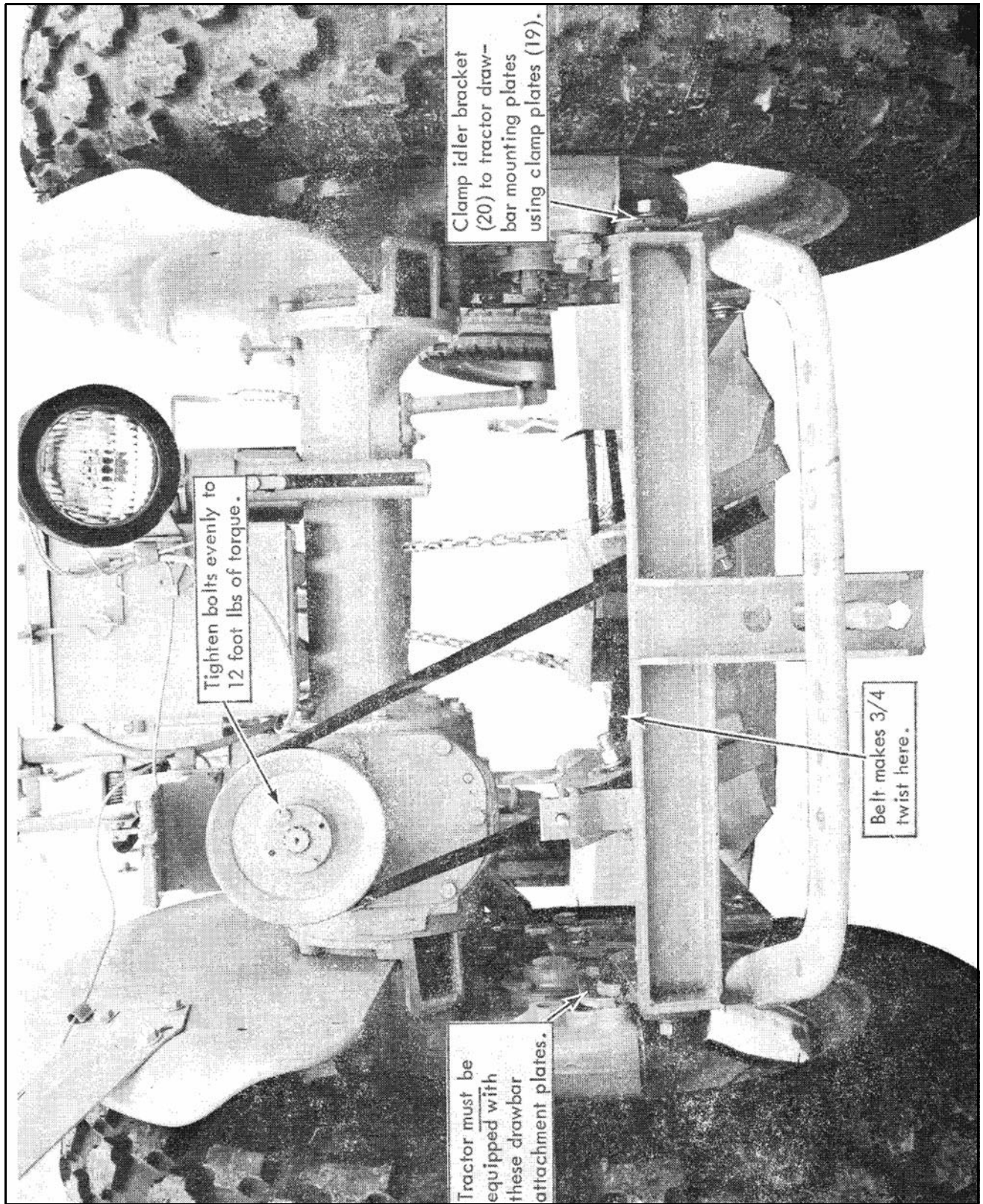


Figure 7. 59-C-2 Idler Bracket

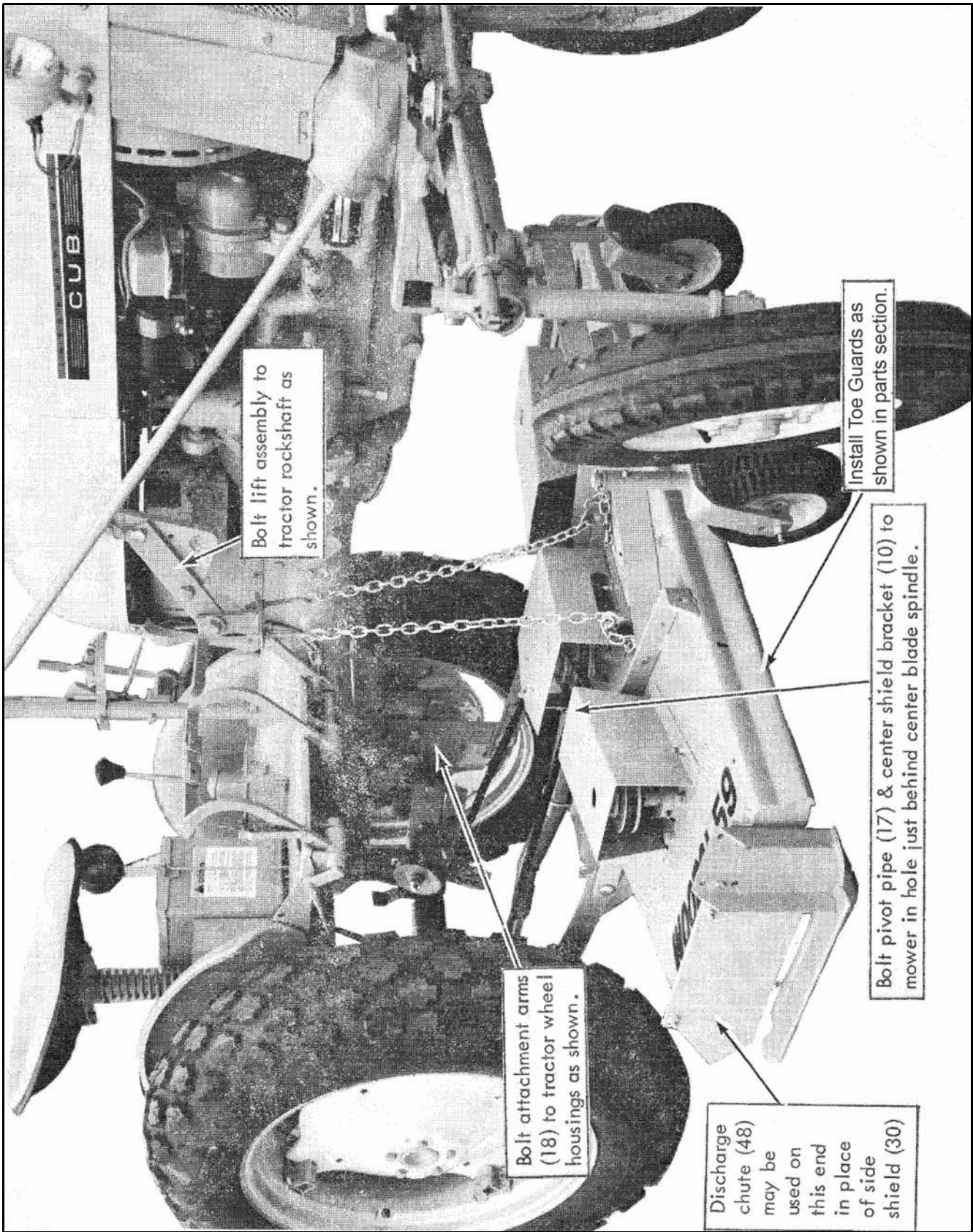


Figure 8. 59-C-2 Lift & Mounting Assembly Photo

## **LEAF MULCHER (OPTIONAL)**

Turn mower upside down on saw horses. If mower has a bolt-on front shield, adjust shield all the way down in long slots. Remove side shields. Leave side skids on. If optional front roller has been installed, it must be removed.

On mowers with bent-down front frame, remove center baffle and drill three 7/16 diameter holes (two on 59's) in front of mower at the dimensions shown on drawing on page 20.

Attach slotted angles (2) or (3 & 4) to leaf mulcher.

Place leaf mulcher over blades on mower. Attach angles (2) or (3 & 4) and mower side shields to side frame angle on mower. All 59 mowers with bolt-on front shield will use front shield hole to attach angles (2) or (3 & 4).

On mowers with bolt-on front shield, bolt front of leaf mulcher to bottom of slots in front shield with 3/8 x 1" bolts and flat washers. On mowers with bent-down front frame, bolt leaf mulcher to inside of mower in holes drilled in front frame using 3/8 x 1-1/2 bolts and 5/8 long pipe spacers between leaf mulcher and mower. On some mowers where 5/8" pipe may be too long, substitute 3/8 flat washers.

Drill 7/16 holes in rear of mower deck through holes in leaf mulcher rear plates and bolt rear of leaf mulcher to deck using 3/8 x 1" bolts.

Tighten all bolts securely. Turn each blade individually inside the leaf mulcher to see that it clears the leaf mulcher rings. If necessary, the rings may be re-shaped with a hammer to clear the leaf mulcher rings.

## **DEALER CHECK LISTS**

### **PRE-DELIVERY CHECK LIST**

(DEALER'S RESPONSIBILITY)

Inspect the equipment thoroughly after assembly to ensure it is set up properly before delivering it to the customer.

The following check lists are a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.

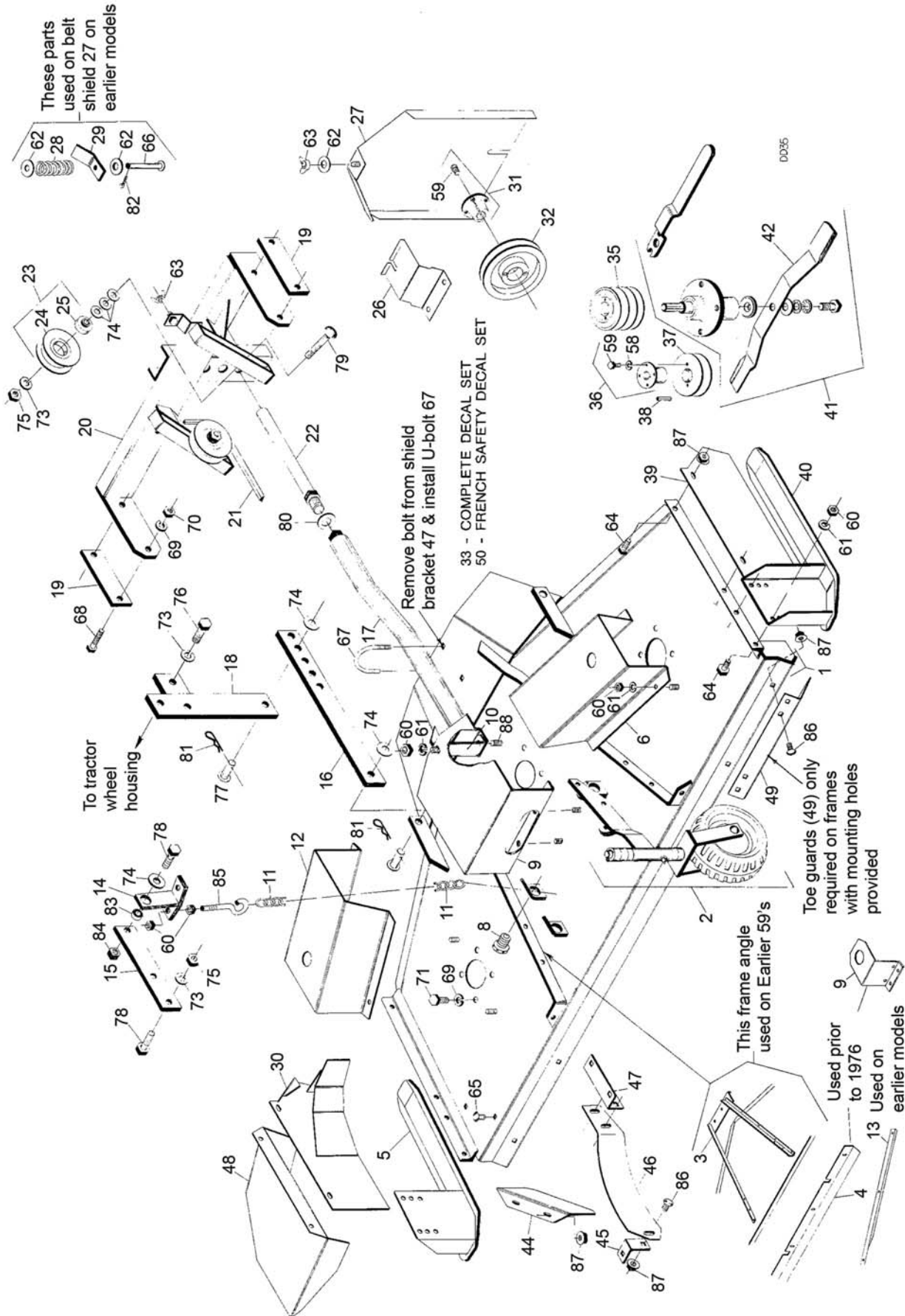
- \_\_\_ Check that all safety decals are installed and in good condition. Replace if damaged.
- \_\_\_ Check that shields and guards are properly installed and in good condition. Replace if damaged.
- \_\_\_ Properly attach implement to tractor and make all necessary adjustments.
- \_\_\_ Check all bolts to be sure they are tight.
- \_\_\_ Check and grease all lubrication points as identified in "Service".
- \_\_\_ Check that blades have been properly installed.

### **DELIVERY CHECK**

(DEALER'S RESPONSIBILITY)

- \_\_\_ Instruct customer how to lubricate and explain importance of lubrication.
- \_\_\_ Point out the safety decals. Explain their meaning and the need to keep them in place and in good condition. Emphasize the increased safety hazards when instructions are not followed.
- \_\_\_ Present Operator's Manual and request that customer and all operators read it before operating equipment. Point out the manual safety rules, explain their meanings and emphasize the increased safety hazards that exist when safety rules are not followed.
- \_\_\_ Show customer the safe, proper procedures to be used when mounting, dismounting, and storing equipment.
- \_\_\_ Point out all guards and shields. Explain their importance and the safety hazards that exist when not kept in place and in good condition.

# 59C-2 Main Assembly



**16 Parts**



## 59C-2 Main Assembly

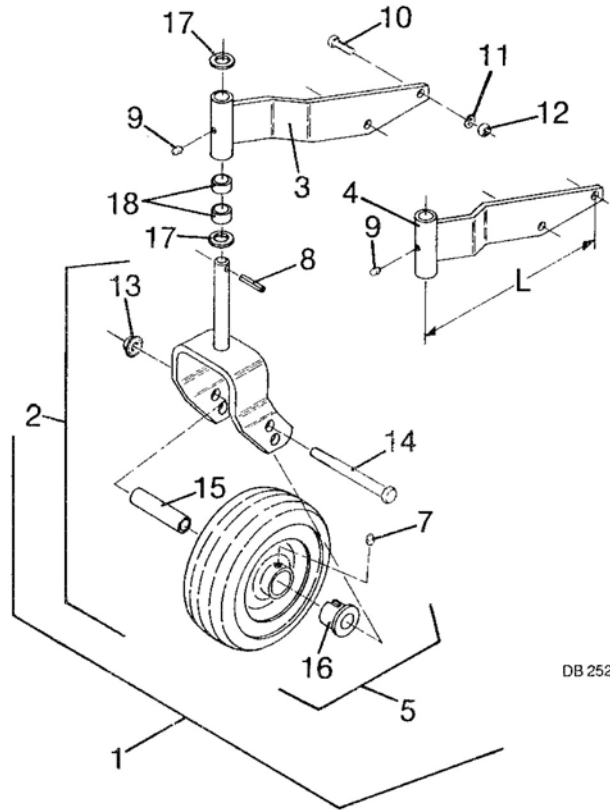
NOTE: Mower frames sold after 1976 have the front side of mower formed down. Before this time, mowers had a bolt-on front shield, ref #4. Serial Numbers 101 thru 1488 (59C-1) & Serial Numbers 1489 and Up (59C-2).

REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	9700	1	Frame shipping unit	42	6950KT	1	Blade, CW 20-1/2" medium suction (optional) <b>-or-</b>
2	----- ‡	1	Casters, pair (see pg 18)	42	26559KT	1	Blade, CW 20-1/4" low suction (optional)
3	-----	1	Frame angle (for earlier models, no longer available)	43	-----	NS	Manual lift (see pg 22)
4	5818	1	Front shield (used prior to 1976)	44	25508 †	1	Front corner baffle
5	4141	1	Right side skid	45	25531 †	1	Center baffle front mounting lug
6	25507	1	Left belt shield	46	25509 †	1	Center baffle
7	4155	2	1/4 Cold shut repair link (for earlier machines, not shown)	47	25532 †	1	Center baffle rear mounting angle
8	18336	2	Caplug, 1-1/16 - 121D SAE thread	48	26520	1	Side discharge chute
9	25555	1	Center belt shield	49	26516	2	Front toe guard with safety
10	25557	1	Center belt shield bracket	50	52310	1	French safety decal set
11	4154	1	4/0 Passing link chain, 33-link	58	1985 *		1/4 Lock washer
12	25506	1	Right belt shield	59	2457 *		1/4 NC x 3/4 HHCS GR5
13	4145	2	Rear shield (for earlier models)	60	835 *		3/8 NC Hex nut
14	4174	1	Chain attachment bracket (used on earlier models)	61	838 *		3/8 Lock washer
15	4176	1	Upper attachment arm	62	565 *		3/8 Flat washer
16	4160	2	Adjustment arm	63	1287 *		3/8 NC Wing nut
17	4165	1	Offset pipe frame	64	839 *		3/8 NC x 1 HHCS, GR5
18	4121	2	Attachment arm	65	6697 *		3/8 NC x 1 Carriage bolt
19	1513	2	Clamp plate	66	2583		3/8 x 3-1/2 Clevis pin
20	4190	1	Idler bracket	67	4156		3/8 NC U-bolt
21	4152	1	W180 V-Belt (special)	68	3699 *		1/2 NC x 2 HHCS GR5
22	4159	1	Guide rod	69	855 *		1/2 Lock washer
23	4336	2	V-Groove idler with bearing	70	1093 *		1/2 NC Hex nut
24	4335	2	4.50 OD V-Groove idler sheave without bearing	71	4119		1/2 NF x 1 HHCS GR5
25	6095	2	.635 ID x 1.85 OD Ball bearing	73	1286 *		5/8 Lock washer
26	1489	1	Rear V-belt shield attachment bracket	74	692 *		5/8 Flat washer
27	4193	1	Rear V-belt shield	75	230 *		5/8 NC Hex nut
28	-----	1	2-3/4" Compression spring	76	6268 *		5/8 NC x 1-1/4 HHCS GR5
29	-----	1	Shield clip	77	4097		5/8 x 1-1/2 Clevis pin
30	25512	1	Right side shield with baffle	78	4548 *		5/8 NC x 1-3/4 HHCS GR5
31	1506	1	10-Splined bushing with bolts	79	5655 *		5/8 NC x 3-1/2 Carriage bolt
32	3493	1	1 BK 6.1H Sheave only (used on PTO)	80	3627		1" Shake proof washer
33	5753	1	Complete decal set	81	2688 *		Cotter hair pin, 5/32
34	-----	NS	Leaf mulcher (optional) (see pg 20)	82	1256 *		3/16 x 1 Cotter pin
35	6126	1	3 BK, 3.9 PD H Sheave	83	484		Sleeve 5/8 ID x 1" OD x 7/16 long
36	4227	3	H 3/4 Straight bushing with bolts	84	6239 *		5/8 NC Lock nut
37	4226	2	1 BK, 3.9H Sheave	85	4153		3/8 NC x 5 Eye bolt
38	3885 *	3	3/16 x 3/16 x 1-1/4 Key	86	24597 *		3/8 NC x 3/4 Carriage bolt
39	25513	1	Left side shield	87	14350 *		3/8 NC Flange lock nut
40	4142	1	Left side skid	88	12169 *		3/8 NC x 1-1/4 HHCS, GR5
41	-----	3	Spindle, blade & wrench kit (see pg 24)				

\* Standard hardware, obtain locally  
† For mowers sold after 1976  
NS Not shown

## 59 & L59 Casters

REF	PART	QTY	DESCRIPTION
1	29750	1	59 & L59 Right and left caster bundle
2	12243	1	Caster yoke (includes bolt, nut & 2 sleeves)
3	29746 a	1	Right caster arm asy, 13-5/32" long <b>-or-</b>
3	6761 a	1	Right caster arm, 16-5/32" long
4	29747 a	1	Left caster arm asy, 13-5/32" long <b>-or-</b>
4	18424 a	1	Left caster arm, 16-5/32" long
5	19703	1	8" Caster wheel with sleeve
7	-----	*	1 Straight 1/4 self-tapping grease fitting (for steel wheel) <b>-or-</b>
7	195	*	1 Straight 1/8P thread grease fitting (for polyethylene wheel)
8	21020	1	1/4 x 1-1/4 Spirol pin <b>-or-</b>
8	1285	*	1 1/4 x 1-1/2 Cotter pin
9	12296	*	1 1/4 - 28 Straight grease fitting, 15/32" long
10	12169	*	2 3/8 NC x 1-1/4 HHCS GR5
11	838	*	2 3/8 Standard lock washer
12	835	*	2 3/8 NC Hex nut, plated
13	765	*	1 1/2 NC Lock nut
14	23479	1	1/2 NC x 5 HHCS GR5
15	29368 c	1	1/2 x 3/4 OD x 3-3/8 Sleeve <b>-or-</b>
15	12242 c	1	17 GA Wall x 5/8 OD x 3-3/8 tube
16	29375 b	2	3/4 Bore flanged bearing for 1-1/8 hole <b>-or-</b>
16	4228 b	2	5/8 Bore flanged bearing for 1-3/8 hole <b>-or-</b>
16	2905 b	2	5/8 Bore flanged bearing for 1-1/8 <b>-or-</b>
16	65578 b	2	3/4 Bore x 1.385 flanged wheel bearing with groove
17	22240	2	3/4 x 1-3/16 x 10 GA Washer
18	4181	2	25/32 x 1 x 1/2 Heat-treated sleeve



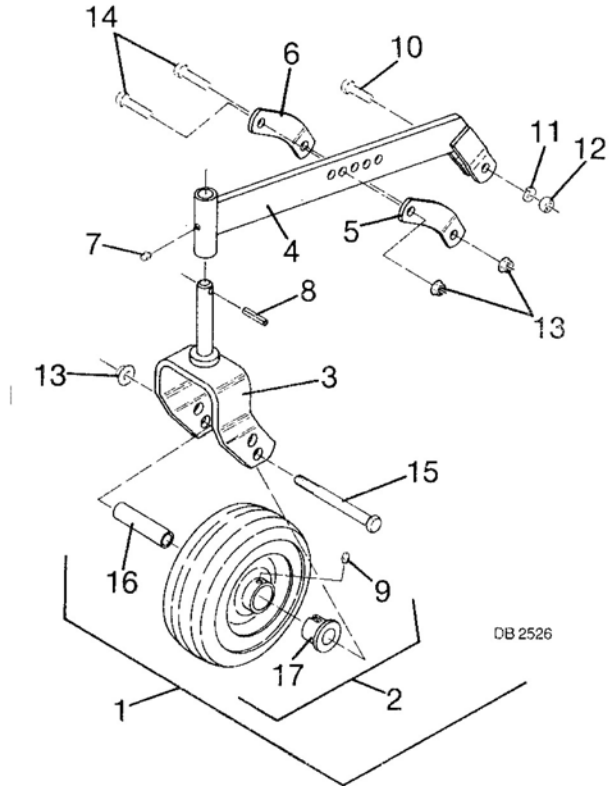
**18 Parts**

29927 (Rev. 6/22/2007)

## L306 Casters

REF	PART	QTY	DESCRIPTION
A	24095	-	L306 Caster assembly bundle
1	13400	1	Caster assembly
2	15638	1	10-1/4" Caster wheel with sleeve
3	23857	1	Caster wheel yoke assembly
4	13435	1	Caster arm assembly
5	13444	1	Left caster adjustment bracket
6	13444	1	Right caster adjustment bracket
7	1972	* 1	1/4 - 28 Straight thread grease fitting, 15/32" L
8	21020	1	1/4 x 1-1/4 Spirol pin <b>-or-</b>
8	1285	* 1	1/4 x 1-1/2 Cotter pin
9	-----	* 1	Straight 1/4 self-tapping grease fitting (for steel wheel) <b>-or-</b>
9	195	* 1	Straight 1/8P thread grease fitting (for polyethylene wheel)
10	976	* 1	3/8 NC x 1-1/2 HHCS GR5
11	838	* 1	3/8 Standard lock washer
12	835	* 1	3/8 NC Hex nut, plated
13	11900	* 3	1/2 NC Flanged hex lock nut
14	24576	* 2	1/2 NC x 1-3/4 HHCS GR5
15	23479	1	1/2 NC x 5 HHCS GR5
16	29368	c 1	1/2 x 3/4 OD x 3-3/8 Sleeve, HT <b>-or-</b>
16	12242	c 1	17 GA Wall x 5/8 OD x 3-3/8 tube
17	29375	b 2	3/4 Bore flanged bearing for 1-1/8 hole <b>-or-</b>
17	4228	b 2	5/8 Bore flanged bearing for 1-3/8 hole <b>-or-</b>
17	2905	b 2	5/8 Bore flanged bearing for 1-1/8 hole <b>-or-</b>
17	65578	b 2	3/4 Bore x 1.385 flanged wheel bearing with groove

- \* Standard hardware, obtain locally
- a For proper caster arm identification, refer to dimension "L" as shown on drawing. The caster arms may be used on either side to obtain best fit.
- b Measure old bearing.
- c Measure outside diameter of old sleeve.

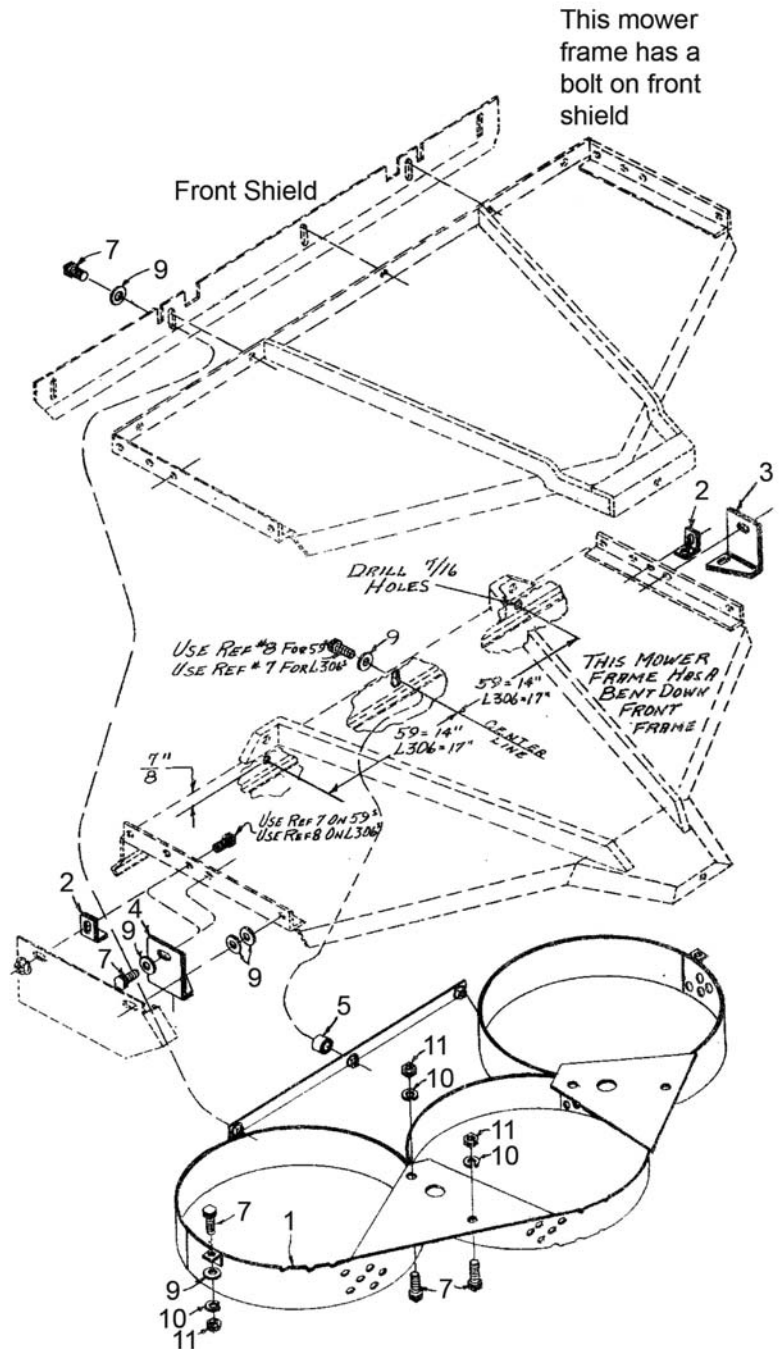


**A - CASTER BUNDLE**

## 59 & L306 Leaf Mulcher

REF	PART	DESCRIPTION
A	7080	Model 59 leaf mulcher
A	13482	Model L306 leaf mulcher
1	----	Leaf mulcher weldment (if this part is worn out, order a completely new leaf mulcher)
2	7076	Angle lug (for model 59)
3	13224	Right attachment bracket (for model L306)
4	13225	Left attachment bracket (for model L306)
5	23218	3/8 Schdl 40 pipe 5/8 long (for use only on 59 w/bent down front frame)
7	839	* 3/8 NC x 1 HCHS GR5
8	25475	* 3/8 NC x 1-1/2 HHCS GR5
9	565	* 3/8 Flat washer
10	838	* 3/8 Lock washer
11	835	* 3/8 NC Hex nut

\* Standard hardware, obtain locally



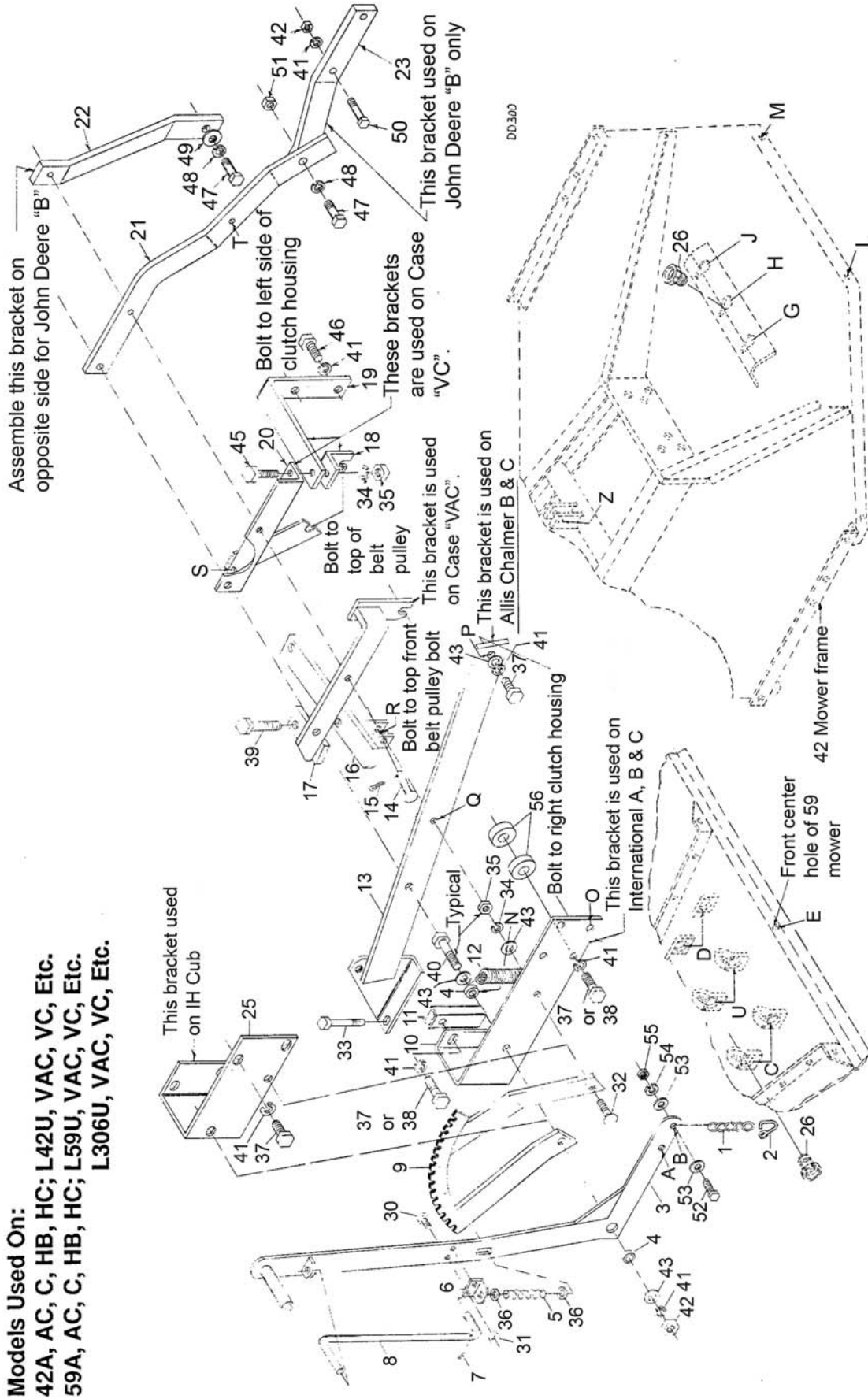
## Lift Chain Hook-Up Table

Mower Model Number	Chains Used			Lift Chain Attach Pt		Holes Used for Spring		Special Notes
	Part No	No Used	Description	To Lift Lever Hole	To Holes in Mower	Upper End to Hole Lettered:	Lower End to Hole Lettered:	
42A, HB	4154	1	33 Link Chain	B	H&G	O	See note 4	(10)
L42AC, B&C	4154	1	33 Link Chain	B	G	P	H	(5)
42C	4154	1	33 Link Chain	B	L&M	See note (8)	Z	(8)
L42U	17477	1	84" Twisted cut off excess	B	H	T	H	
L42VAC	6673	1	78" Twisted	B	H	R	J	
L42VC	4154	1	33 Link Chain	B	G	S	J	
L59A, 59HB, & L306A	4154 18264	1 1	33 Link Chain 13 Link Chain	A or B Opt	E E	N N	C&D C&D	(1, 3, 8, 10) (1, 3, 8, 10)
59HC	18264	3	13 Link Chain	A or B Opt	E	N	C&D	(1, 3, 8, 9)
L59AC, B&C	4154	1	33 Link Chain	A	C&D	Q	E	(5)
L306AC, B&C	18264	1	13 Link Chain	A	C&D	Q	E	(5)
59C	4154	2	33 Link Chain	A	C&D	See note (8)	See note (1,3)	(8)
L59U, L306U	17477 18264	1 1	84" Twisted 13 Link Chain	B B	C&D C&D	T T	See note (3) See note (3)	(1) (7)
L59VAC, L306VAC	17477	1	84" Twisted	B B	E U	R R	E E	(7)
L59VC, L306VC	4154 18264	1 1	33 Link Chain 13 Link Chain	B B	E U	S S	C&D C&D	(1, 3, 8) (7)

### Special Notes (Refer to numbers in parentheses in above table)

1. Hook one 13-link chain between holes "C" & "D".
2. Fasten one 10-link and one 7-link chain together.
3. Hook lower end of spring in crotch chain.
4. Hook spring into chain just above hole "H".
5. Clamp offset end spring under flat washer on out-of-way side of bracket, where indicated.
6. Fasten two 10-link chains together for lift chain.
7. On L306 models, use heavy spring furnished with mower rather than lighter spring furnished with manual lift kit. Hook to a point on tractor so most of mower weight is held by spring which will allow lift to work easier.
8. Hook upper end of spring over bushing (4). Bolt lift chain to lift lever with 3/8 x 2 bolt and nut.
9. Bolt two 13-link chains together for lift chain.
10. On IH "A" lift lever (3) goes inside steering rod. On IH "B" it goes outside steering rod. For IH "B" shim attachment plate (10) out away from tractor using spacer (11), four washers (56) and bolts (38). Lift lever may have to be bent out slightly to clear steering rod.

# Manual Height Adjustment



**Models Used On:**  
 42A, AC, C, HB, HC; L42U, VAC, VC, Etc.  
 59A, AC, C, HB, HC; L59U, VAC, VC, Etc.  
 L306U, VAC, VC, Etc.

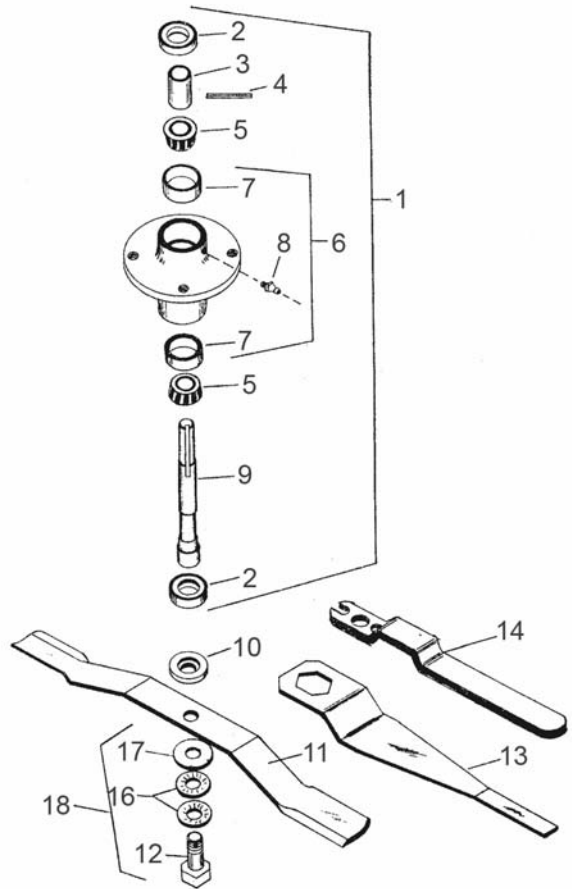
## Manual Height Adjustment

REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	-----	-	Chain (see chart for chain used on your mounting)	24	13450	1	1/4 Keystone connecting link
2	4155	2-3	1/4 Cold shut repair link	25	17410	1	IH Cub manual lift mounting plate
3	10693	1	Manual height adjustment lever assembly	26	18336	2+	Caplug, 1-1/16 - 121D SAE thread
4	484	1-2	5/8 x 1 x 7/16 HT Sleeve	30	2457	*	1/4 NC x 3/4 HHCS GR5
5	10706	1	3-3/8 Long compression spring	31	6128	*	1/4 NC Hex lock nut
6	10701	1	Manual height adjustment clip	32	12735		1/2 NC x 1-3/4 Carriage bolt <b>-or-</b>
7	3597	* 1	1/8 x 1 Cotter pin	32	10284	*	1/2 NC x 2 Carriage bolt
8	10699	1	Manual height adjustment rod	33	3489	*	1/2 NC x 3 HHCS GR5
9	10702	1	Manual lift sector assembly	34	855	*	1/2 Extra heavy lock washer
10	9045	1	IHC Manual lift attachment plate (includes hardware & spacer) (not sold separately)	35	1093	*	1/2 NC Heavy hex nut
11	10708	1	IHC Manual height adjustment spacer (used on IHC "B" & "C")	36	3598	*	1/2 SAE Flat washer
12	10707	1	8-1/8 Long extension spring (used on 42's & 59's) <b>-or-</b>	37	6268	*	5/8 NC x 1-1/4 HHCS GR5
12	13006	1	13-1/4 Long extension spring (used on L306's)	38	12274	*	5/8 NC x 2-1/4 HHCS GR5
13	10750	1	Allis Chalmers "B" & "C" lift mounting frame assembly	39	11854	*	5/8 NC x 2-1/2 HHCS GR8
14	409	1	1/2 x 2 Clevis pin	40	986	*	5/8 NC x 2-3/4 HHCS GR5
15	1256	* 1	3/16 x 1 Cotter pin	41	1286	*	5/8 Heavy lock washer
16	10735	1	Lift attachment assembly	42	230	*	5/8 NC Hex nut
17	9046	1	Case VAC manual lift mounting	43	692	*	5/8 Standard flat washer
18	-----	1	Case VC lift mounting lug (no longer available)	45	24576	*	1/2 NC x 1-3/4 HHCS GR5
19	-----	1	Case VC manual lift bracket (no longer available)	46	7832	*	5/8 NC x 1-1/2 HHCS GR5
20	-----	1	Case VC manual lift weldment (no longer available)	47	4616		3/4 NC x 1-1/2 HHCS GR5
21	11445	1	Manual lift radius bracket	48	2522	*	3/4 Standard lock washer
22	11446	1	Manual lift bar	49	1257	*	3/4 Standard flat washer
23	11489	1	John Deere "B" offset manual lift brace	50	902	*	5/8 NC x 2 HHCS GR5
				51	1450	*	3/4 NC Hex nut
				52	3231	*	3/8 NC x 2 HHCS GR5
				53	565	*	3/8 Standard flat washer
				54	838	*	3/8 Standard lock washer
				55	835	*	3/8 NC Hex nut, plated
				56	25728		5/8 x 2 x 1/2 Flat washer (for IH "B" only)

\* Standard hardware, obtain locally

# Spindle Assembly

REF	PART	QTY	DESCRIPTION
1	4116	1	Spindle
2	5089	2	Seal
3	4114	1	Sleeve
4	4115	1	Pin
5	4107	2	Bearing cone
6	4117	1	Housing with cups
7	4106	2	Bearing cup
8	1972	1	Grease fitting
9	4105	1	Spindle shaft
10	4110	1	Shoulder washer
11	12170KT	1	16-13/16 Medium suction blade (std for RM48) <b>-or-</b>
11	26548KT	1	16-13/16 Low suction blade (optional on RM48) <b>-or-</b>
11	6950KT	1	20-1/4 Medium suction blade (optional on 59) <b>-or-</b>
11	26559KT	1	20-1/4 Low suction blade (optional on 59)
12	10658	1	5/8 NC x 1-1/2 Nylok bolt
13	3490	1	Blade bolt wrench (used prior to 1964)
14	2974	1	Spindle lock wrench
16	10635	2	5/8 Cup washer
17	692	1	5/8 Flat washer
18	1015825	1	Blade bolt & washer complete



**NOTE:** Repair shaft #9 and repair sleeve #3 do not have a hole drilled in them for pin #4. After new parts have been assembled and proper bearing adjustment obtained, drill a 3/16 diameter hole through sleeve and shaft. Drive in Sel-lock pin to hold proper bearing adjustment.



# BOLT TORQUE CHART

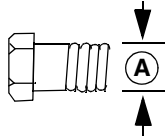
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

Make sure fastener threads are clean and you start thread engagement properly.

All torque values are given to specifications used on hardware defined by SAE J1701 MAR 99 & J1701M JUL 96.



## SAE SERIES TORQUE CHART



SAE Grade 2  
(No Dashes)

SAE Bolt Head Identification

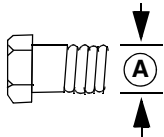


SAE Grade 5  
(3 Radial Dashes)



SAE Grade 8  
(6 Radial Dashes)

Ⓐ Diameter (Inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m
1/4"	7/16"	6	8	10	13	14	18
5/16"	1/2"	12	17	19	26	27	37
3/8"	9/16"	23	31	35	47	49	67
7/16"	5/8"	36	48	55	75	78	106
1/2"	3/4"	55	75	85	115	120	163
9/16"	13/16"	78	106	121	164	171	232
5/8"	15/16"	110	149	170	230	240	325
3/4"	1-1/8"	192	261	297	403	420	569
7/8"	1-5/16"	306	416	474	642	669	907
1"	1-1/2"	467	634	722	979	1020	1383



## METRIC SERIES TORQUE CHART



8.8  
Metric  
Grade 8.8

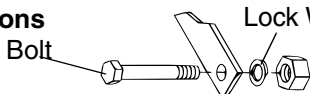
Metric Bolt Head Identification



10.9  
Metric  
Grade 10.9

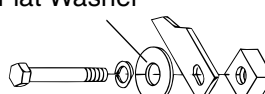
Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	COARSE THREAD				FINE THREAD				Ⓐ Diameter & Thread Pitch (Millimeters)
		MARKING ON HEAD								
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
		N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 mm	20	15	27	20	21	16	29	22	8 x 1.0
10 x 1.5	16 mm	39	29	54	40	41	30	57	42	10 x 1.25
12 x 1.75	18 mm	68	50	94	70	75	55	103	76	12 x 1.25
14 x 2.0	21 mm	109	80	151	111	118	87	163	120	14 x 1.5
16 x 2.0	24 mm	169	125	234	173	181	133	250	184	16 x 1.5
18 x 2.5	27 mm	234	172	323	239	263	194	363	268	18 x 1.5
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20 x 1.5
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0

### Typical Washer Installations



Lock Washer

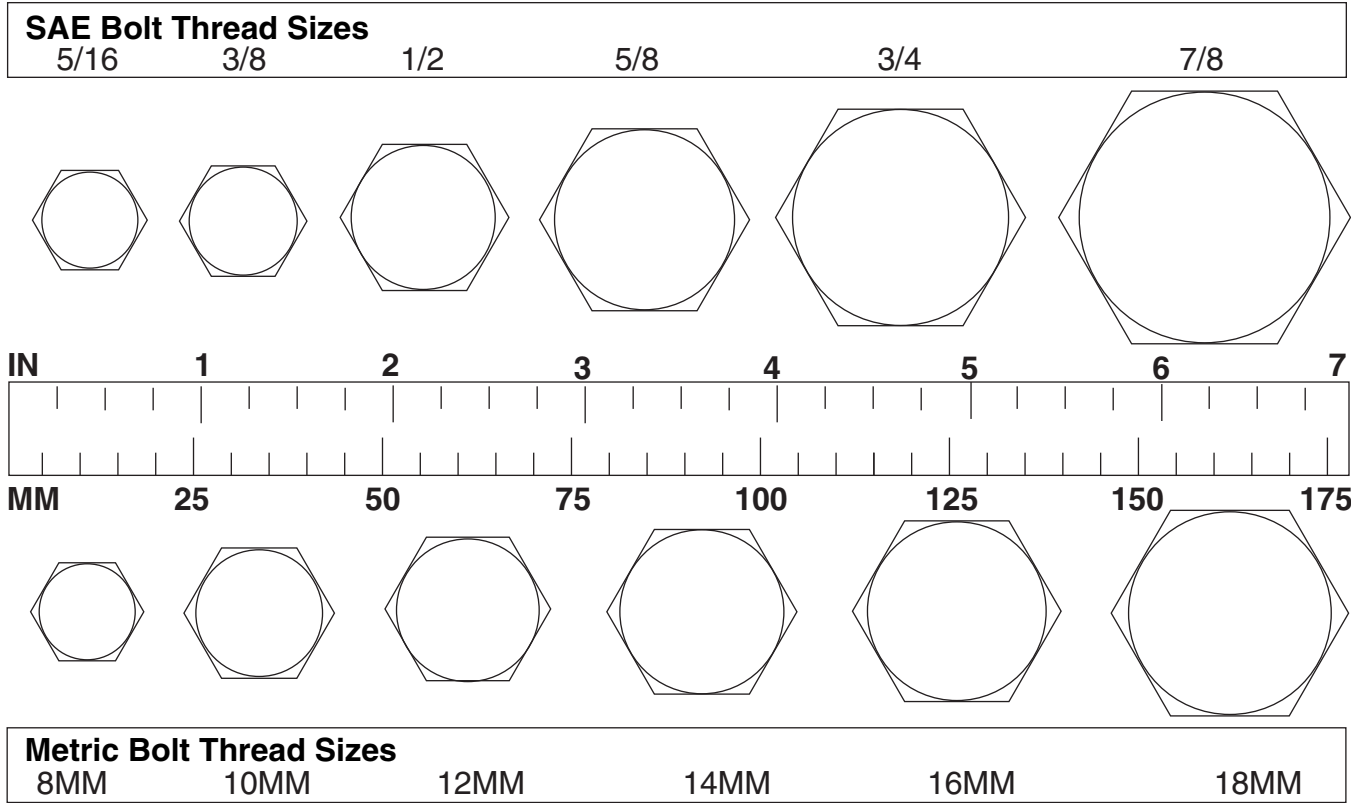
Flat Washer



8/9/00

# BOLT SIZE CHART

**NOTE:** Chart shows bolt thread sizes and corresponding head (wrench) sizes for standard SAE and metric bolts.



## ABBREVIATIONS

AG ..... Agriculture  
 ASABE ..... American Society of Agricultural & Biological Engineers (formerly ASAE)  
 ASAE..... American Society of Agricultural Engineers  
 ATF.....Automatic Transmission Fluid  
 BSPP..... British Standard Pipe Parallel  
 BSPTM..... British Standard Pipe Tapered Male  
 CV ..... Constant Velocity  
 CCW..... Counter-Clockwise  
 CW ..... Clockwise  
 F ..... Female  
 FT..... Full Thread  
 GA ..... Gauge  
 GR (5, etc.)..... Grade (5, etc.)  
 HHCS ..... Hex Head Cap Screw  
 HT ..... Heat-Treated  
 JIC..... Joint Industry Council 37° Degree Flare  
 LH..... Left Hand  
 LT ..... Left  
 m ..... Meter  
 mm ..... Millimeter  
 M ..... Male

MPa ..... Mega Pascal  
 N ..... Newton  
 NC..... National Coarse  
 NF ..... National Fine  
 NPSM ..... National Pipe Straight Mechanical  
 NPT.....National Pipe Tapered  
 NPT SWF..... National Pipe Tapered Swivel Female  
 ORBM ..... O-Ring Boss - Male  
 P ..... Pitch  
 PBY.....Power-Beyond  
 psi ..... Pounds per Square Inch  
 PTO.....Power Take Off  
 QD ..... Quick Disconnect  
 RH..... Right Hand  
 ROPS..... Roll-Over Protective Structure  
 RPM.....Revolutions Per Minute  
 RT ..... Right  
 SAE..... Society of Automotive Engineers  
 UNC ..... Unified Coarse  
 UNF ..... Unified Fine  
 UNS ..... Unified Special

# WARRANTY

(All Models Except Mow'n Machine™ Zero-Turn Mowers and Woods Boundary™ Utility Vehicles)

Please Enter Information Below and Save for Future Reference.

Date Purchased: \_\_\_\_\_ From (Dealer): \_\_\_\_\_  
 Model Number: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Woods Equipment Company ("WOODS") warrants this product to be free from defect in material and workmanship. Except as otherwise set forth below, the duration of this Warranty shall be for TWELVE (12) MONTHS COMMENCING ON THE DATE OF DELIVERY OF THE PRODUCT TO THE ORIGINAL PURCHASER.

Woods backhoe models BH70-X, BH80-X, and BH90-X are warranted for two (2) years from the date of delivery to the original purchaser.

The warranty periods for specific parts or conditions are listed below:

Part or Condition Warranted	Model Number	Duration (from date of delivery to the original purchaser)
Gearbox components	BW1260, BW1800	8 years
	BB48X, BB60X, BB72X, BB84X, BB600X, BB720X, BB840X, BB6000X, BB7200X, BB8400X, DS1260, DSO1260, DS1440, TS1680, BW126-2, BW180-2	6 years
	PHD25, PHD35, PHD65, PHD95, 2162, 3240, DS96, DS120, RCC42, RM550-2, RM660-2, RM990-3, PRD6000, PRD7200, PRD8400, 7144RD-2, 9180RD-2, 9204RD-2, S15CD, S20CD, S22CD, S25CD, S27CD	5 years
	RDC54, RD60, RD72	3 years (1 year if used in rental or commercial applications)
Blade spindles	RM550-2, RM660-2, RM990-3, PRD6000, PRD7200, PRD8400, 7144RD-2, 9180RD-2, 9204RD-2	3 years
Rust-through	BB600, BB720, BB840, BB6000, BB7200, BB8400, BW126-2, BW180-2, BW1260, BW1800, 2162, 3240, DS1260, DSO1260, DS1440, TS1680	10 years

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of WOODS, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not apply in the event that the product has been materially modified or repaired by someone other than WOODS, a WOODS authorized dealer or distributor, and/or a WOODS authorized service center. This Warranty does not cover normal wear or tear, or normal maintenance items. This Warranty also does not cover repairs made with parts other than those obtainable through WOODS.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

WOODS makes no warranty, express or implied, with respect to engines, batteries, tires or other parts or accessories not manufactured by WOODS. Warranties for these items, if any, are provided separately by their respective manufacturers.

WOODS' obligation under this Warranty is limited to, at WOODS' option, the repair or replacement, free of charge, of the product if WOODS, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. **The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid.** WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product. **THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.**

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. WOODS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND WOODS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

**WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory.** Without limiting the generality of the foregoing, Woods specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply which may directly affect WOODS' ability to obtain materials or manufacture replacement parts.

No agent, representative, dealer, distributor, serviceperson, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or enlarge this Warranty.

Answers to any questions regarding warranty service and locations may be obtained by contacting:

**Woods Equipment Company**  
 2606 South Illinois Route 2  
 Post Office Box 1000  
 Oregon IL 61061  
 800-319-6637 tel  
 800-399-6637 fax  
 www.WoodsEquipment.com



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**GANNON®**  
**GILL®**  
**WAIN-ROY®**  
**WOODS®**



## WARRANTY

(Replacement Parts For All Models Except Mow'n Machine™  
Zero-Turn Mowers and Woods Boundary™ Utility Vehicles)

Woods Equipment Company ("WOODS") warrants this product to be free from defect in material and workmanship for a period of ninety (90) days from the date of delivery of the product to the original purchaser with the exception of V-belts, which will be free of defect in material and workmanship for a period of 12 months.

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of WOODS, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not cover normal wear or tear, or normal maintenance items.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

WOODS' obligation under this Warranty is limited to, at WOODS' option, the repair or replacement, free of charge, of the product if WOODS, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. **The product must be returned to WOODS with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid.** WOODS shall complete such repair or replacement within a reasonable time after WOODS receives the product. THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. WOODS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND WOODS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

**WOODS shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory.** Without limiting the generality of the foregoing, Woods specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

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