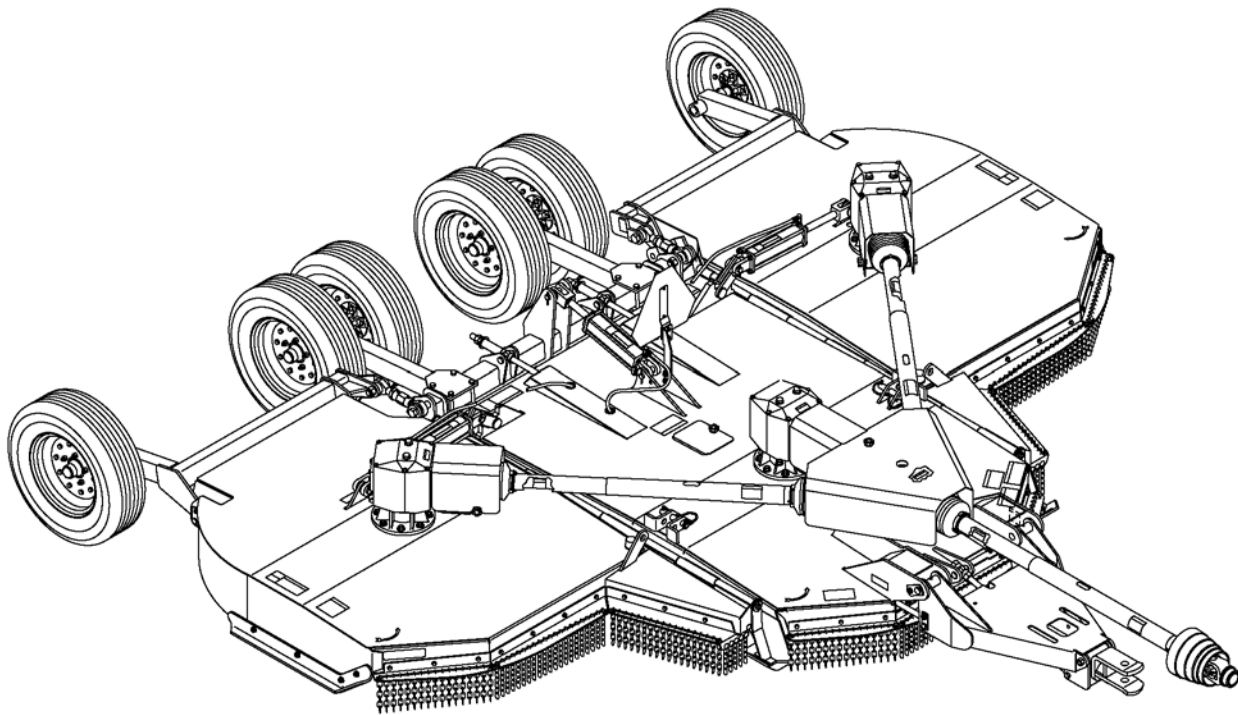


WOODS BATWING

**BW1800, BW1800Q
BW1260, BW1260Q**



MAN0500
(Rev. 10/13/2006)

WOODS®
Tested. Proven. Unbeatable.

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 included with the Operator's Manual. The customer must sign the registration which certifies that all Dealer Check List items have been completed. The dealer is to return the prepaid postage portion to Woods, give one copy to the customer, and retain one copy. **Failure to complete and return this card 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, 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 **IMPORTANT** 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 Safety-Alert Symbol indicates a hazard and means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



DANGER

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.



WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed.



CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

IMPORTANT

Indicates that failure to observe can cause damage to equipment.

NOTE

Indicates helpful information.

WOODS®

ALITEC™

BMP®

CENTRAL FABRICATORS®

GANNON®

GILL®

WAIN-ROY®

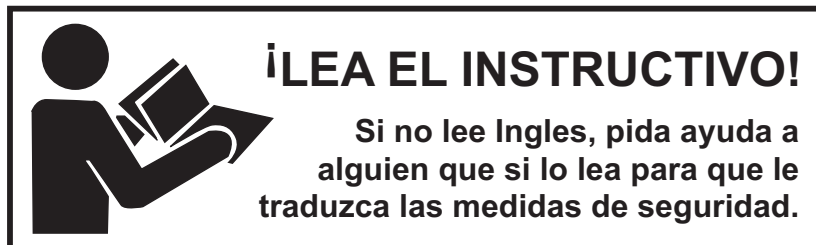
WOODS®

2 Introduction

Gen'l (Rev. 6/6/2005)

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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.

SPECIFICATIONS

	<u>BW1800 / BW1800Q</u>	<u>BW1260 / BW1260Q</u>
Cutting Height (Varies with tire selection)	2" - 15"	2" - 15"
Cutting Width	180" (15')	126" (10.5')
Overall Width	189"	137"
Transport Width	96"	91"
Tractor HP	65 - 250	65 - 250
Blade Spindle	3	2
Blade Overlap	6"	6"
Number of Blades	6	4
Blade Rotation	Left Spindle: CW; Right Spindle & Center: CCW	
Input Driveline	Cat 5 Heavy	Cat 5 Heavy
CV	Cat 6	Cat 6
Side Frame Thickness	1/4"	1/4"
Weight (approximate lbs.)	5288	5280
Wheel Size	15" Rims (BW1800/BW1800Q Only) or 21" OD Solid Tires, Airplane	
Torsion Protection	Slip Clutch	Slip Clutch

	BW1800	BW1800Q
	BW1260	BW1260Q
Tractor PTO rpm	540	1000
Blade Speed (Feet per minute)	16,500	17,000

GENERAL INFORMATION

WARNING

■ **Some illustrations in this manual show the cutter with safety shields removed to provide a better view. The cutter should never be operated with any required safety shielding removed.**

The purpose of this manual is to assist you in operating and maintaining your cutter. 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 machine may vary slightly in detail. We reserve the right to redesign and change the machines as may be necessary without notification

Throughout this manual, references are made to right and left directions. These are determined by standing behind the equipment facing the direction of forward travel. Blade rotation is clockwise (left wing) and counterclockwise (right wing and center section) as viewed from the top of the cutter.

4 Introduction

(Rev. 10/13/2006)
MAN0500 (Rev. 7/10/2006)

BE SAFE!

BE ALERT!

BE ALIVE!

**BE TRAINED
BEFORE OPERATING**



ASSOCIATION OF
EQUIPMENT
MANUFACTURERS

*Safety Training
Does Make a Difference.*

Free Mower Safety Video

Fill out and return the order form and we will send you a FREE VHS or DVD video outlining ***Industrial and Agricultural Mower Safety Practices***. The 22 minute video, developed in cooperation with AEM (Association of Equipment Manufacturers), reinforces the proper procedures to follow while operating your Woods mowing equipment. The video does not replace the information contained in the Operator's Manual, so please review this manual thoroughly before operating your new mowing equipment.

Also, available from the Association of Equipment Manufacturers:

A large variety of training materials (ideal for groups) are available for a nominal charge from AEM. Following is a partial list:

- **Training Package for Rotary Mowers/Cutters--English**
Contains: DVD & VHS (English)
Guidebook for Rotary Mowers/Cutters (English)
AEM Industrial/Agricultural Mower Safety Manual (English)
AEM Agricultural Tractor Safety Manual (English)
- **Training Package for Rotary Mowers/Cutters-English/Spanish**
Contains: DVD & VHS (English/Spanish)
Guidebook for Rotary Mowers/Cutters (English/Spanish)
AEM Indust./Agricultural Mower Safety Manual (English/Spanish)
AEM Agricultural Tractor Safety Manual (English/Spanish)

AEM training packages are available through:

AEM at: www.aem.org

or

Hubbard Publishing

800-369-2310 tel

608-846-3398 fax



Free Mower/Cutter Safety Video Order Form

✓ (Select one)

Please send me

☐ **VHS** Format - VHS01052 Safety Video

☐ **DVD** Format - DVD01052 Safety Video

Name: _____ Phone: _____

Address: _____

Mower/Cutter Model: _____ Serial #: _____

Send to: ATTENTION: DEALER SERVICES
WOODS EQUIPMENT COMPANY
PO BOX 1000
OREGON IL 61061-1000



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.

INSTALLATION

■ Hydraulics must be connected as instructed in this manual. Do not substitute parts, modify, or connect in any other way.

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, 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.

■ Keep hands and body away from pressurized lines. Use paper or cardboard, not hands or other body parts to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death.

■ Make sure that all operating and service personnel know that if hydraulic fluid penetrates skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury, or death will result. CON-

TACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS SKIN OR EYES. DO NOT DELAY.

■ 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.

■ Air in hydraulic systems can cause erratic operation and allows loads or equipment components to drop unexpectedly. When connecting equipment or hoses or performing any hydraulic maintenance, purge any air in hydraulic system by operating all hydraulic functions several times. Do this before putting into service or allowing anyone to approach the equipment.

■ Make sure all hydraulic hoses, fittings, and valves are in good condition and not leaking before starting power unit or using equipment. Check and route hoses carefully to prevent damage. Hoses must not be twisted, bent sharply, kinked, frayed, pinched, or come into contact with any moving parts. Operate moveable components through full operational range to check clearances. Replace any damaged hoses immediately.

■ After connecting hoses, check that all control lever positions function as instructed in the Operator's Manual. Do not put into service until control lever and equipment movements are correct.

■ Set tractor hydraulic relief valve at 2500 psi (170 bars) to prevent injury and equipment damage due to hydraulic system failure.

■ Your dealer can supply original equipment hydraulic accessories and repair parts. Substitute parts may not meet original equipment specifications and may be dangerous.

■ 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.

■ Make sure spring-activated locking pin or collar slides freely and is seated firmly in tractor PTO spline groove.

(Safety Rules continued on next page)



SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

■ Make sure driveline guard tether chains are attached to the tractor and equipment as shown in the pamphlet that accompanies the driveline. Replace if damaged or broken. Check that driveline guards rotate freely on driveline before putting equipment into service.

■ Before starting power unit, check all equipment driveline guards for damage. Replace any damaged guards. Make sure all guards rotate freely on all drivelines. If guards do not rotate freely on drivelines, repair and replace bearings before putting equipment into service.

■ Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in “locked up” position at all times.

■ 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.

■ Do not put this equipment into service unless all side skids are properly installed and in good condition. Replace if damaged.

■ The offset model is unstable without adequate counterweight. Use counterweight box loaded with 1190 lbs. of steel.

■ A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, tractor could tip over, causing personal injury or death. The weight may be attained with a loader, front wheel weights, ballast in tires or front tractor weights. Weigh the tractor and equipment. Do not estimate.

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

TRANSPORTATION

■ Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in “locked up” position at all times.

■ Always raise unit and install transport locks before transporting. Leak down or failure of mechanical or hydraulic system can cause equipment to drop.

■ Always attach safety chain to tractor drawbar when transporting unit.

■ 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.

■ Do not operate or transport on steep slopes.

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

■ The maximum transport speed for towed and semi-mounted machines is 20 mph (32 km/h). Regardless of the maximum speed capability of the towing tractor, do not exceed the implement's maximum transport speed. Doing so could result in:

- Loss of control of the implement and tractor
- Reduced or no ability to stop during braking
- Implement tire failure
- Damage to the implement or its components.

■ Use additional caution and reduce speed when under adverse surface conditions, turning, or on inclines.

■ Never tow this implement with a motor vehicle.

OPERATION

■ Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.

■ Never walk, stand, or place yourself or others under a raised wing or in the path of a lowering wing. Hydraulic system leak-down, hydraulic system failures, mechanical failures, or movement of control levers can cause wings to drop unexpectedly and cause severe injury or death.

■ Full chain or rubber shielding, designed to reduce the possibility of thrown objects, must be installed when operating in populated areas or other areas where thrown objects could injure people or damage property. If this machine is not equipped with full chain or rubber shielding, operation must be stopped when anyone comes within several hundred feet.

■ Never direct discharge toward people, animals, or property.



SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



- Do not operate or transport equipment while under the influence of alcohol or drugs.
- 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.
- Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in “locked up” position at all times.
- Always sit in power unit seat when operating controls or starting engine. Securely fasten seat belt, place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting power unit engine.
- Operate tractor PTO at 540 RPM (1000 RPM on Q Series cutters). Do not exceed.
- Raise or lower wings slowly to prevent personal injury or damage to cutter.
- Look down and to the rear and make sure area is clear before operating in reverse.
- Do not operate or transport on steep slopes.
- Do not stop, start, or change directions suddenly on slopes.
- 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.
- Continuous operation while the clutch is slipping could cause heat build-up resulting in fire. Adjust slip clutch pressure by tightening springs to the dimension shown in the “Owner Service” section. If clutch is set to minimum spring length, replace the friction disks as shown.
- On pull-type or semi-mounted units with optional hydraulic cutting height adjustment, use a single-acting cylinder with a maximum extended length of 28-1/4" (718 mm) from attaching point center to center.

MAINTENANCE

- Before servicing, adjusting, repairing or unplugging, stop tractor engine, place all controls in neutral, set park brake, remove ignition key, and wait for all moving parts to stop.
- 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.
- Before working underneath, disconnect driveline from tractor, lower wings to ground, raise cutter, and pin transport bar in raised position. Attach parking jack and lower to ground. Securely block all four corners of center section and each wing with jackstands. Blocking up prevents the cutter from dropping due to hydraulic leak down, hydraulic system failure, or mechanical component failure.
- Do not modify or alter or permit anyone else to modify or alter the equipment or any of its components in any way.
- Your dealer can supply original equipment hydraulic accessories and repair parts. Substitute parts may not meet original equipment specifications and may be dangerous.
- To prevent contamination during maintenance and storage, clean and then cover hose ends, fittings, and hydraulic ports with tape.
- Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.
- Never go underneath equipment (lowered to the ground or raised) unless it is properly blocked and secured. Never place any part of the body underneath 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.
- Keep all persons away from operator control area while performing adjustments, service, or maintenance.

(Safety Rules continued on next page)



SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

- 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.
- Never perform service or maintenance with engine running.
- Do not disconnect hydraulic lines until machine is securely blocked or placed in lowest position and system pressure is released by operating valve levers.

■ Service and maintenance work not covered in OWNER SERVICE must be done by a qualified dealership. Special skills, tools, and safety procedures may be required. Failure to follow these instructions can result in serious injury or death.

STORAGE

- Before disconnecting and storing, follow these instructions:
 - Store on level, solid ground.
 - Disconnect driveline and secure up off the ground.
 - Lower wings to ground.
 - Raise cutter center section and pin transport bar in raised position.
 - Attach parking jack and raise tongue weight off tractor drawbar.
 - Place wedge blocks at front and rear of wheels on center section and each wing to prevent wheel rotation.
 - Securely block all four corners of center section and each wing with jackstands.
 - Remove hydraulic hoses after tractor is turned off and all system pressure is released by operating valve levers several times.
 - Remove safety tow chain.
 - Remove retainer pin and high strength drawbar pin.
- Keep children and bystanders away from storage area.



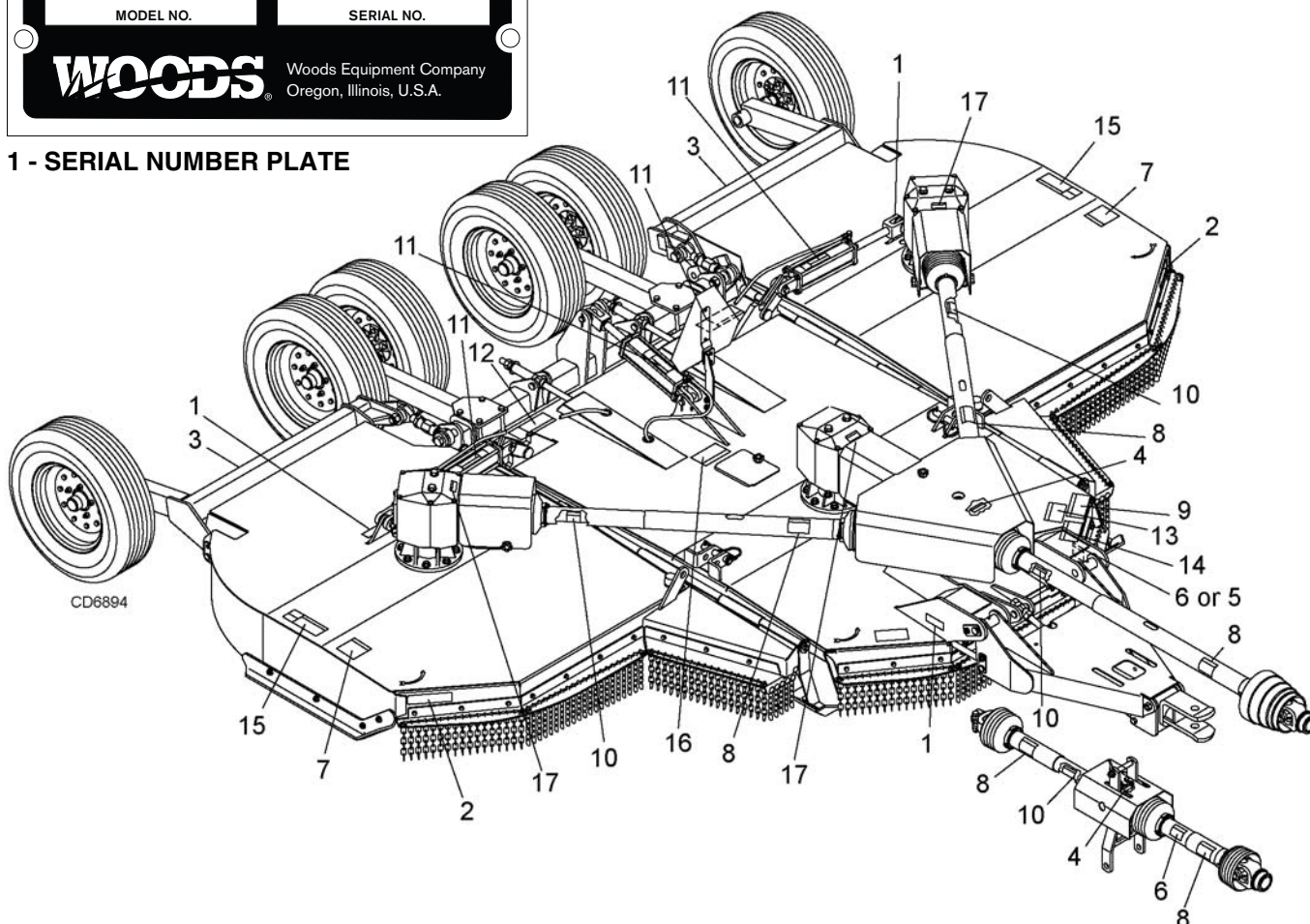


SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!
Replace Immediately If Damaged!



1 - SERIAL NUMBER PLATE



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, or in the United States and Canada call 1-800-319-6637.

2 - FRONT AMBER REFLECTOR
(PN 1002940)

3 - REAR RED REFLECTOR
(PN 57123)

4 - PN 18869



17 - PN 1004114





SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Replace Immediately If Damaged!

! WARNING

DO NOT EXCEED PTO SPEED OF
1000 RPM

PTO speeds higher than 1000 RPM can cause equipment failure and personal injury.

15922-C

5 - PN 15922

OR

! WARNING

DO NOT EXCEED PTO SPEED OF
540 RPM

PTO speeds higher than 540 RPM can cause equipment failure and personal injury.

18866-D

6 - PN 18866

8 - PN 18864

! DANGER



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

DO NOT OPERATE WITHOUT -

- All driveline guards, tractor and equipment shields in place
- Drivelines securely attached at both ends
- Driveline guards that turn freely on driveline

18864-C

7 - PN 15503

! DANGER



**ROTATING BLADES AND
THROWN OBJECTS**

- Do not put hands or feet under or into mower when engine is running.
- Before mowing, clear area of objects that may be thrown by blade.
- Keep bystanders away.
- Keep guards in place and in good condition.

**BLADE CONTACT OR THROWN OBJECTS CAN
CAUSE SERIOUS INJURY OR DEATH.**

15503-C

! WARNING



FALLING OFF CAN RESULT IN BEING RUN OVER.

- Tractor must be equipped with ROPS (or ROPS CAB) and seat belt. Keep foldable ROPS systems in "locked up" position at all times.
- Buckle Up! Keep seat belt securely fastened.
- Allow no riders.

RAISED EQUIPMENT CAN DROP AND CRUSH.


- Before working underneath, follow all instructions and safety rules in operator's manual and securely block up all corners of equipment with jack stands.
- Securely blocking prevents equipment dropping from hydraulic leak-down, hydraulic system failures or mechanical component failures.

**FALLING OFF OR FAILING TO BLOCK SECURELY CAN
RESULT IN SERIOUS INJURY OR DEATH.**

18865-C

9 - PN 18865

! WARNING



**HIGH-PRESSURE HYDRAULIC OIL LEAKS CAN PENETRATE SKIN
RESULTING IN SERIOUS INJURY, GANGRENE OR DEATH.**

- Check for leaks with cardboard; never use hand.
- Before loosening fittings: lower load, release pressure, and be sure oil is cool.
- Consult physician immediately if skin penetration occurs.

19924-B

11 - PN 19924



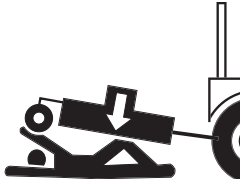

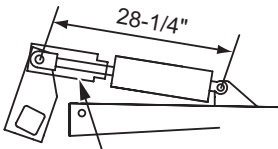
SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!



12 - PN - 1004991

 <p>1004991</p>	 WARNING	TRANSPORT LOCK AND CYLINDER REQUIREMENTS SINGLE-ACTING FULL EXTENSION  <p>TRANSPORT LOCK</p>
	RAISED CUTTER CAN DROP AND CRUSH <ul style="list-style-type: none"> ■ Cutters must be equipped with transport lock. ■ Before working underneath, transport lock must be in the raised position. All corners of cutter must be securely blocked with jack stands. ■ All transport components must be functional, kept in good condition, and stored on equipment. ■ Blocking up prevents cutter dropping from hydraulic leak down, hydraulic system failures, or mechanical component failures. <p>FAILURE TO FOLLOW INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.</p>	

10 - PN 33347

 **DANGER**



GUARD MISSING. DO NOT OPERATE.

 **DANGER**



GUARD MISSING. DO NOT OPERATE.

33347E

 **DANGER**

13 - PN 1003751

 **WARNING**







CRUSHING AND PINCHING HAZARD

- Be extremely careful handling various parts of the machine. They are heavy and hands, fingers, feet, and other body parts could be crushed or pinched between tractor and implement.
- Operate tractor controls from tractor seat only.
- Do not stand between tractor and implement when tractor is in gear.
- Make sure parking brake is engaged before going between tractor and implement.
- Stand clear of machine while in operation or when it is being raised or lowered.

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

1003751-A

14 - PN 18877

 **WARNING**

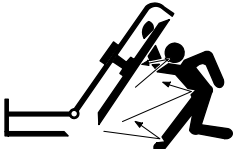
TO AVOID SERIOUS INJURY OR DEATH:


- Read Operator's Manual (available from dealer) and follow all safety precautions.
- Keep all shields in place and in good condition.
- Operate mower from tractor seat only.
- Lower mower, stop engine and remove key before dismounting tractor.
- Allow no children or untrained persons to operate equipment.
- Do not transport towed or semi-mounted units over 20 mph.

FAILURE TO OPERATE SAFELY CAN RESULT IN INJURY OR DEATH.


18877-C

15 - PN 18964





18964-A

 **WARNING**

RAISED WING EXPOSES BLADE AND INCREASES THROWN OBJECT HAZARDS.

- Only raise for transport. Stop cutter and lock wing(s) up.

RAISED WING CAN FALL AND CRUSH.

- Keep away.
- Lock up with wing transport bars.
- Lower wing(s) after transport and for storage.

FAILURE TO FOLLOW INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

16 - PN 15502

 **WARNING**

ROTATING COMPONENTS

Do not operate without cover in place. Look and listen for rotation. Do not open cover until all components have stopped.

CONTACT WITH ROTATING PARTS CAN CAUSE SERIOUS INJURY.

15502-B

OPERATION

The designed and tested safety of this machine depends on it being operated within the limitations as explained in this manual. Be familiar with and follow all safety rules in the manual, on the cutter and on the tractor.

The safe operation of this cutter is the responsibility of the operator, who must be properly trained. The operator should be familiar with the equipment and all safety practices before starting operation. Read the safety information on pages 7 through 13.

Recommended tractor ground speed for most conditions is from 1 to 6 mph.

Always operate tractor PTO at 540 rpm on BW1800 and BW1260 units; operate at 1,000 rpm on BW1800Q and BW1260Q units.

DANGER

■ Full chain or rubber shielding, designed to reduce the possibility of thrown objects, must be installed when operating in populated areas or other areas where thrown objects could injure people or damage property. If this machine is not equipped with full chain or rubber shielding, operation must be stopped when anyone comes within several hundred feet.

WARNING

■ Never allow children or untrained persons to operate equipment.

■ Do not allow bystanders in the area when operating, attaching, removing, assembling, or servicing equipment.

■ Make sure spring-activated locking pin or collar slides freely and is seated firmly in tractor PTO spline groove.

CAUTION

■ Stop power unit and equipment 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, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

CONNECT CUTTER TO TRACTOR

IMPORTANT

■ For tractors with a 1-3/8" diameter PTO shaft, the horizontal distance from the end of the tractor PTO shaft to the center of drawbar pin should be 14" for the 540 rpm cutter and 16" for the 1000 rpm cutter. Tractors with 1-3/4 20-spline PTO shaft should be set to 20". This will minimize joint knock and damage to drive components.

1. Check tongue clevis to make sure it is adjusted to match your tractor PTO speed. See Figure 26, page 35.
2. Attach cutter using a 1-1/8" clevis pin (1) and clip.
3. Attach safety tow chain (2) to drawbar support. Leave enough slack for turning.
4. Connect cutter driveline to tractor PTO shaft, making sure the spring-activated lock pin slides freely and is seated in tractor PTO splined groove.
5. Attach driveline shield tether chain to tractor drawbar to prevent rotation.

NOTE: CV driveline does not require a tether chain.

6. Remove parking jack (3) from the tongue and attach it to the storage post on the front of the left wing.

NOTE: Equal Angle Drive Only: With cutting height established, adjust the 3-joint H-frame bearing height so that the front driveline is parallel to the ground.

7. Adjust nuts (4) so tongue clevis (A) is parallel with the tractor drawbar.
8. Place driveline in storage position on the hose holder (5) when not in use.

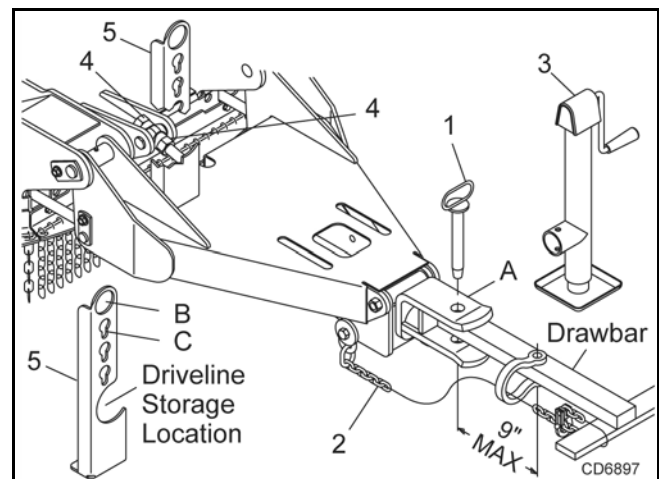


Figure 1. Tongue to Tractor Drawbar Connection

Hydraulic Connection

1. Inspect hydraulic hoses to ensure they are in good condition.
2. Clean the fittings before connecting them to the tractor hydraulic ports.
3. Route the hose through the hose holder opening (B, Figure 1), be sure the hose can slide freely in the holder. Do not allow hose slack to drag on the ground or become caught on tractor protrusions.
4. Attach the hydraulic hose to the tractor.
5. From the operator position, start tractor and raise and lower deck several times to purge trapped air from the hydraulic cylinder.
6. Store hose quick couplers in openings (C, Figure 1) on hose holder (5) when hoses are not in use.

Interference Check

1. Be sure that tractor 3-point lift links do not interfere with hydraulic hoses, cutter driveline, or cutter frame.
2. Check for straight-ahead operation and at full turning angles. If there is any interference, remove the lower lift links.
3. Contact between tractor lift links and cutter parts can cause damage, especially when turning.

CV Driveline Turning Limits

IMPORTANT

■ **You must not exceed a turning angle of 80 degrees at the head of the Constant Velocity driveline or damage will occur.**

1. To check for potential excessive turn angle, disconnect the driveline from tractor.
2. Start engine and turn as far right or left as possible.
3. Shut engine off and try to connect CV driveline to tractor. If it cannot be connected, the turn angle is too severe.
4. Restart engine and straighten angle slightly, shut off engine and try to connect CV driveline to tractor.
5. Repeat the process until the driveline can be connected. The point at which the driveline can be connected is the maximum turn that should be made.

Cutting Height Adjustment



■ **On pull-type or semi-mounted units with optional hydraulic cutting height adjustment, use a**

single-acting cylinder with a maximum extended length of 28-1/4" (718 mm) from attaching point center to center.

Cutting height range is 2" to 15". A hydraulic cylinder is available for cutting height adjustment. When selecting a cutting height, you should consider the area of operation. If the ground is rolling and has mounds the blades could contact, set the cutting height accordingly. The cutting height is approximately the same height as the top of the center skid shoe (C, Figure 2).

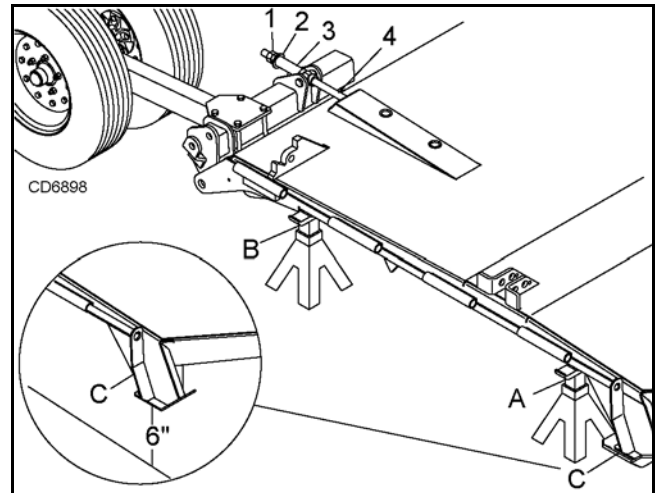


Figure 2. Cutting Height Adjustment

Adjust Cutting Height (Normal Mowing)

1. Position the cutter on a hard level surface and select an approximate cutting height, example 6".
2. Raise wings and lock them in the UP position.
3. Place jackstands (A & B) on each side of center section as show in Figure 2. Set all four jackstands to the same height.
4. Lower center section so it rests on all four jackstands and the rear wheels are on the ground.
5. Loosen the jam nuts (1) on both right and left attitude rods (4).
6. Tighten main nuts (2) hand tight against sleeves (3). Tighten jam nuts (1) against main nuts.
7. Raise the center section and remove the jackstands. The front of the cutter will be approximately 1/2" lower than the rear.

To adjust the cutter for shredding, follow the same procedures for normal mowing, but place a 1" to 1-1/2" block on top of the front jackstands (A). The front of the cutter will be approximately 1/2" to 1" higher than the rear.

To set the wing cutting height, loosen jam nut on the wing adjustment link (turnbuckle). Lengthening the link will raise the wing, shortening the link will lower the

wing. The rear edge of the wing should be parallel to the ground.

NOTE: Equal Angle Drive Only: With cutting height established, adjust the 3-joint H-frame bearing height so that the front driveline is parallel to the ground.

TRACTOR OPERATION

Use care when operating around tree limbs and other low objects. Avoid being knocked off tractor and being injured.

Only use a tractor with a Roll Over Protection Structure (ROPS) and seat belt. Securely fasten seat belt.

The cutter is operated with tractor controls. Engage the PTO at a low rpm to prevent excessive loads on the cutter drive system. Increase throttle to recommended PTO operating rpm.

Be sure operator is familiar with all controls and can stop tractor and cutter quickly in an emergency. The operator should give complete, undivided attention to operating tractor and cutter.

CUTTER OPERATION

When beginning operation of the cutter, make sure that all persons are in a safe location.

Power for operating the cutter is supplied by the tractor PTO. Operate PTO at 540 (1000 rpm for "Q" models).

Know how to stop the tractor and cutter quickly in an emergency.

Engage PTO at a low engine, rpm to minimize stress on the drive system and gearbox.

With PTO engaged, raise PTO speed to 540 or 1000 rpm depending on model and maintain throughout cutting operation.

Gearbox protection is provided by a slip clutch with replacement fiber disc. The slip clutch is designed to slip when excessive torsional loads occur.

Move slowly into material. Adjust tractor ground speed to provide a clean cut without lugging the tractor engine.

Use a slow ground speed for better shredding.

Proper ground speed will depend on the terrain and the material's height, type, and density.

Normally, ground speed will range from 2 to 5 mph. Tall, dense material should be cut at a low speed; thin, medium-height material can be cut at a faster ground speed.

Always operate tractor PTO at proper rpm (540 or 1000 depending on model) to maintain blade speed and to produce a clean cut.

Under certain conditions tractor tires may roll down some grass and prevent cutting at the same height as the surrounding area. When this occurs, reduce your ground speed but maintain PTO at 540 or 1000 rpm. The lower ground speed will permit grass to rebound partially.

MOWING TIPS

WARNING

- **Look down and to the rear and make sure area is clear before operating in reverse.**
- **Do not operate on steep slopes.**
- **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.**

CAUTION

- **Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.**

Maximum recommended ground speed for cutting or shredding is 6 miles per hour. Adjust tractor ground speed by using higher or lower gears to provide a clean cut without lugging tractor engine.

Tall material should be cut twice. Cut material higher the first pass. Cut at desired height at 90 degrees the second pass.

Remember, sharp blades produce cleaner cuts and use less power.

Before entering an area, analyze it to determine the best procedure. Consider the height and type of material to be cut and the terrain type (hilly, level or rough, etc.)

SHREDDING

The cutter may be used to shred various crops including green manure, straw, stubble, asparagus residue, corn stalks and similar crops in preparation for tilling. It may also be used to shred pruning in orchards, groves and vineyards.

Each shredding operation may require a different set-up. Start with front edge of cutter high. Adjust up or down as necessary with attitude rod. Experiment until you obtain the results you want.

When shredding attitude is set, check that the distance from the bottom rear edge of the wing to the ground matches the bottom edge of the rear center section to the ground. With the cutting height and attitude established, adjust the driveline carrier bearing in the H-frame to ensure the front driveline is parallel to the ground.

STORAGE

Follow these steps when storing your cutter:

1. Clean cutter before storing. See page 23 for cleaning instructions. Store on level, solid ground.
2. Disconnect driveline and secure up off the ground.
3. Lower wings to ground.
4. Raise cutter center section and pin transport bar in raised position.
5. Attach parking jack and raise tongue weight off tractor drawbar.
6. Place wedge blocks at front and rear of wheels on center section and each wing to prevent wheel rotation.
7. Securely block all four corners of center section and each wing with jackstands.
8. Remove hydraulic hoses after tractor is turned off and all system pressure is released by operating valve levers several times. Store hoses on hose holder.
9. Remove safety tow chain.
10. Remove retainer pin and high strength drawbar pin.
11. Keep children and bystanders away from storage area.

TRANSPORTING

⚠ WARNING

- Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in "locked up" position at all times.
- Always raise unit and install transport locks before transporting. Leak down or failure of mechanical or hydraulic system can cause equipment to drop.
- Always attach safety chain to tractor drawbar when transporting unit.
- Never exceed 20 mph during transport.

⚠ WARNING

- Never allow riders on power unit or attachment.
- Do not operate PTO during transport.
- Do not operate or transport on steep slopes.
- Do not operate or transport equipment while under the influence of alcohol or drugs.

⚠ CAUTION

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

Lock-Up

Always transport with wings and center frame in the raised, locked position.

Wing Lock-Up

1. Raise wing to the UP position.
2. Remove lock-up pin from storage position.
3. Place lock-up pin in lock position and secure with safety pin.
4. Repeat steps 1 to 3 for opposite wing.
5. Lower cylinder against lock-up bars (Figure 3).



Figure 3. Transport Lock-Up, Left Wing

Center Section Lock-up

1. Raise cutter with hydraulic cylinder to maximum height.
2. Rotate transport lock into position over cylinder rod (Figure 4).
3. Lower cutter against transport lock.

4. To lower cutter for operation, extend hydraulic cylinder to raise cutter. Rotate transport lock back away from cylinder rod (Figure 5).
5. Lower cutter to desired cutting height.

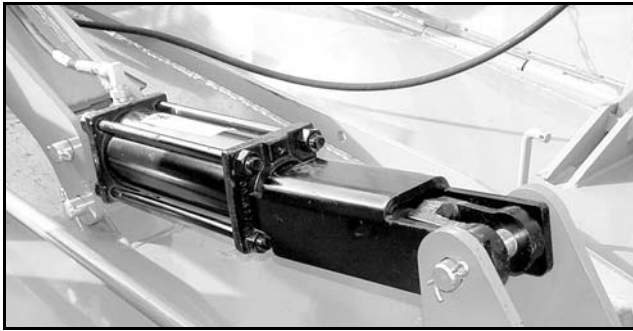


Figure 4. Transport Lock In Transport Position

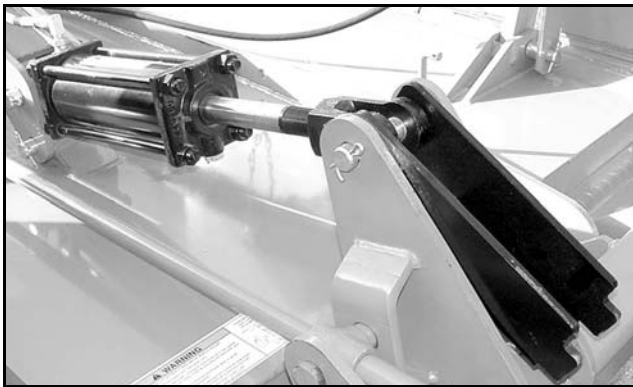


Figure 5. Transport Lock In Operation Position

PRE-OPERATION CHECK LIST (OWNER'S RESPONSIBILITY)

- ___ Review and follow all safety rules and safety decal instructions on pages 7 through 13.
- ___ Check that all safety decals are installed and in good condition. Replace if damaged
- ___ Check that equipment is properly and securely attached to tractor.
- ___ Make sure driveline spring-activated locking pin or collar slides freely and is seated firmly in tractor PTO spline groove.
- ___ Check all lubrication points and grease as instructed in lubrication information. Make sure the PTO slip joint is lubricated and that the gear-box fluid levels are correct.
- ___ Set tractor PTO at correct rpm for your equipment.
- ___ Lubricate all grease fitting locations. Make sure PTO shaft slip joint is lubricated.
- ___ Check that all hydraulic hoses and fittings are in good condition and not leaking before starting tractor. Check that hoses are not twisted, bent sharply, kinked, frayed, or pulled tight. Replace any damaged hoses immediately.
- ___ Check that all hardware is properly installed and secured.
- ___ Check cutting height and attitude adjustment.
- ___ Raise and lower equipment to make sure air is purged from hydraulic cylinders and hoses. Raise and lower equipment to make sure air is purged from hydraulic cylinders and hoses.
- ___ Check that blades are sharp and secure and cutting edge is positioned to lead in a counterclockwise rotation for center section and right wing. For left wing cutting edge should be positioned to lead in a clockwise rotation.
- ___ Make sure tractor ROPS or ROPS cab and seat belt are in good condition. Keep seat belt securely fastened during operation.
- ___ Check that shields and guards are properly installed and in good condition. Replace if damaged.
- ___ Before starting engine, operator must be in tractor seat with seat belt fastened. Place transmission in neutral or park, engage brake and disengage tractor PTO.
- ___ Inspect area to be cut and remove stones, branches, or other hard objects that might be thrown and cause injury or damage.
- ___ Inspect rubber or chain shielding and replace any damaged rubber shield or missing links.
- ___ Make sure tractor 3-point lift links do not interfere with hydraulic hoses or driveline throughout full turning range.



OWNER SERVICE

The information in this section is written for operators who possess basic mechanical skills. If you need help, your dealer has trained service technicians available. For your protection, read and follow the safety information in this manual.

WARNING

- Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- Before working underneath, disconnect drive-line from tractor, lower wings to ground, raise cutter, and pin transport bar in raised position. Attach parking jack and lower to ground. Securely block all four corners of center section and each wing with jack stands. Blocking up prevents the cutter from dropping due to hydraulic leak down, hydraulic system failure, or mechanical component failure.
- Service and maintenance work not covered in **OWNER SERVICE** must be done by a qualified dealership. Special skills, tools, and safety procedures may be required. Failure to follow these instructions can result in serious injury or death.
- Before servicing, adjusting, repairing or unplugging, stop tractor engine, place all controls in neutral, set park brake, remove ignition key, and wait for all moving parts to stop.
- Never perform service or maintenance with engine running.

CAUTION

- If you do not understand any part of this manual and need assistance, see your dealer.
- Always wear relatively tight and belted clothing to avoid entanglement 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.

BLOCKING METHOD

To minimize the potential hazards of working underneath the cutter, follow these procedures.

WARNING

- Before performing any service or maintenance, lower equipment to ground or block securely, turn off engine, remove key, and disconnect driveline from tractor PTO.
- Never go underneath equipment (lowered to the ground or raised) unless it is properly blocked and secured. Never place any part of the body underneath 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.

Do not position jackstands under wheels, axles, or wheel supports. Components can rotate and cause cutter to fall.

1. Jackstands with a load rating of 1000 lbs. or more are the only approved blocking device for this cutter. Install jackstands (shown by Xs in Figure 6) under the cutter before working underneath unit.
2. Consider the overall stability of the blocked unit. Just placing jackstands underneath will not ensure your safety.

The working surface must be level and solid to support the weight on the jackstands. Make sure jackstands are stable, both top and bottom. Make sure cutter is approximately level.

3. With full cutter weight lowered onto jackstands, test blocking stability before working underneath.
4. If cutter is attached to tractor when blocking, set the brakes, remove key, and block cutter before working underneath.
5. Securely block rear tractor wheels, in front and behind.

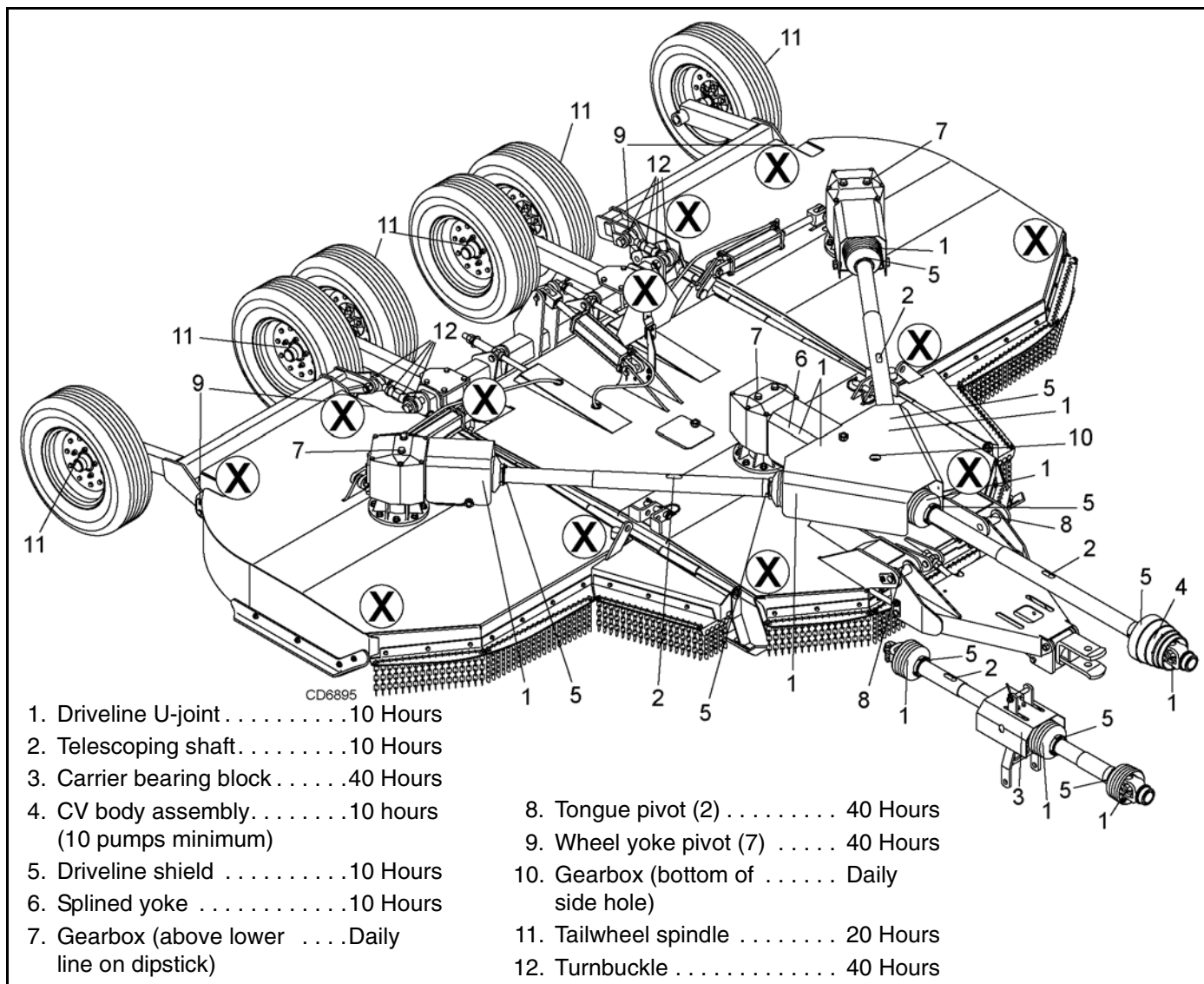


Figure 6. Jackstand Placement and Lubrication Points

LUBRICATION

Do not let excess grease collect on or around parts, particularly when operating in sandy areas.

See Figure 6 for lubrication points and frequency or lubrication based on normal operating conditions. Severe or unusual conditions may require more frequent lubrication.

Use a lithium grease of #2 consistency with a MOLY (molybdenum disulfide) additive for all locations unless otherwise noted. Be sure to clean fittings thoroughly before attaching grease gun. One good pump of most guns is sufficient when the lubrication schedule is followed.

Gearbox Lubrication

For gearbox, use a high quality gear oil with a viscosity index of 80W or 90W and an API service rating of GL-

4 or -5 in gearboxes. Fill gearbox until oil runs out the side plug on gearbox. Check gearbox daily for evidence of leakage, and contact your dealer if leakage occurs.

Driveline Lubrication

1. Lubricate the driveline slip joint every eight operating hours. Failure to maintain proper lubrication could result in damage to U-joints, gearbox, and driveline.
2. Lower cutter to ground, disconnect driveline from tractor PTO shaft, and slide halves apart but do not disconnect from each other.
3. Apply a bead of grease completely around male half where it meets female half. Slide drive halves over each other several times to distribute grease.

Seasonal Lubrication

In addition to the daily recommended lubrication, a more extensive application is recommended seasonally or before a new unit is placed into service.

1. Fill CV double yokes with 20 pumps of grease with the joints in a straight line.
2. Articulate CV body to maximum angle several times to ensure full coverage of joints.
3. Place joints in the straight position and add 10 additional pumps of grease to both joints.
4. Wipe telescoping drive clean of all old grease and contaminants.
5. Add a thin layer of new grease over telescoping drive.

BLADE SERVICE

WARNING

■ Before working underneath, read manual instructions, securely block up, and check stability. Secure blocking prevents equipment from dropping due to hydraulic leak down, hydraulic system failure, or mechanical component failure.

Blade Removal

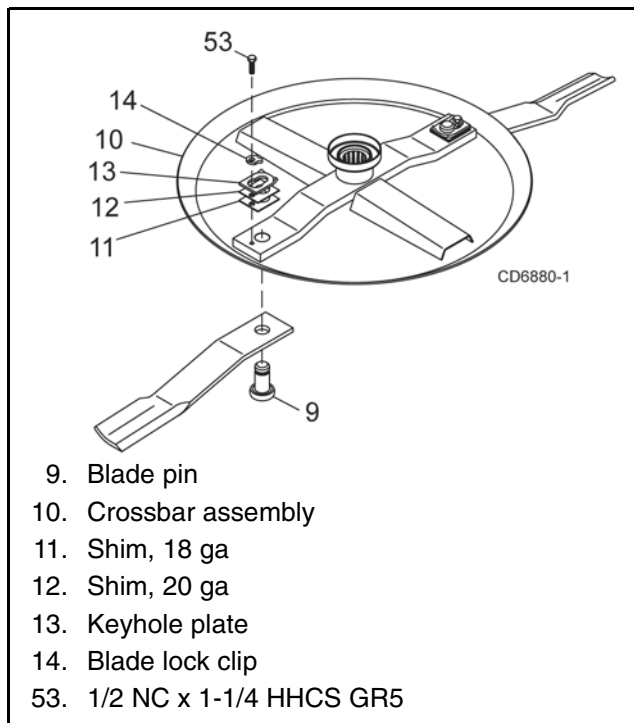


Figure 7. Blade Assembly

IMPORTANT

■ If blade pin is seized in crossbar and extreme force will be needed to remove it, support crossbar from below to prevent gearbox damage.

1. Disconnect driveline from tractor PTO.
2. Raise cutter and block securely (see Figure 6).
3. Open blade access cover and align crossbar assembly (10) with blade access hole in the cutter frame. Remove cap screw (53), blade pin lock clip (14), keyhole plate (13), and shims (11 & 12). Carefully drive blade pin (9) out of crossbar.
4. Rotate crossbar and repeat for opposite blade.

Blade Installation

WARNING

■ Your dealer can supply genuine replacement blades. Substitute blades may not meet original equipment specifications and may be dangerous.

IMPORTANT

■ Crossbar rotation has clockwise rotation on left gearbox and counterclockwise rotation on the right and center gearboxes when looking down on cutter. Be sure to install blade cutting edge to lead in correct rotation.

NOTE: Always replace or sharpen both blades at the same time.

1. Inspect blade pin (9) for nicks or gouges, and if you find any replace the blade pin.
2. Insert blade pin through the blade. Blade should swivel on blade pin; if it doesn't, determine the cause and correct.
3. Align crossbar assembly (10) with blade access hole in cutter frame. Apply a liberal coating of Never-Seez[®] or equivalent to blade pin and crossbar hole. Make sure blade offset is down away from cutter.
4. Insert blade pin through blade. Push blade pin through crossbar.
5. Install shims (11 & 12) over blade pin.
NOTE: Only use enough shims to allow keyhole plate (13) to slide into blade pin groove.
6. Install blade clip (14) over keyhole plate and into blade pin groove.
7. Secure into position with cap screw (53). Torque cap screw to 85 lbs-ft.
8. Repeat steps for opposite side.

NOTE: Blade should be snug but should swivel on pin without having to exert excessive force. Blade should not move more than a 1/4 inch up or down at the tip. Keep any spacers not used in the installation as replacements or for future installation.

Blade Sharpening

IMPORTANT

■ When sharpening blades, grind the same amount on each blade to maintain balance. Replace blades in pairs. Unbalanced blades will cause excessive vibration, which can damage gearbox bearings. Vibration may also cause structural cracks to cutter.

1. Sharpen both blades at the same time to maintain balance. Follow original sharpening pattern.
2. Do not sharpen blade to a razor edge—leave at least a 1/16" blunt edge.
3. Do not sharpen back side of blade.

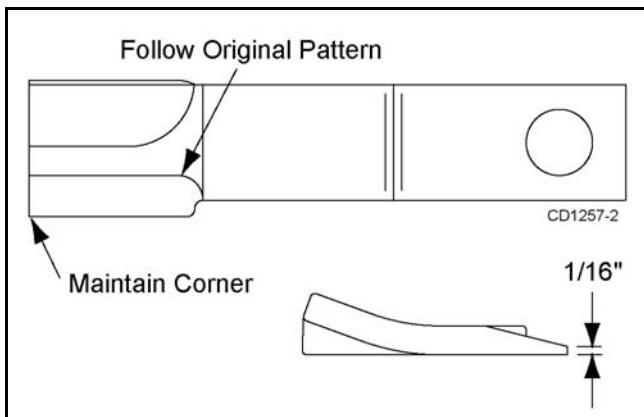


Figure 8. Blade Sharpening

SHIELD REPAIR

⚠ DANGER

■ Full chain or rubber shielding, designed to reduce the possibility of thrown objects, must be installed when operating in populated areas or other areas where thrown objects could injure people or damage property. If this machine is not equipped with full chain or rubber shielding, operation must be stopped when anyone comes within several hundred feet.

Repairing Rubber Shielding

1. Inspect belting and rear bands each day of operation.
2. Replace if bent, cracked, or broken.

Repairing Chain Shielding

Inspect chain shielding each day of operation and replace any broken or missing chains as required.

SLIP CLUTCH ADJUSTMENT

The slip clutch is designed to slip so that the gearbox and driveline are protected if the cutter strikes an obstruction.

A new slip clutch or one that has been in storage over the winter may seize. Before operating the cutter, make sure it will slip by performing the following operation:

1. Turn off tractor engine and remove key.
2. Tighten four nuts (12) to remove pressure from the clutch plates (2). Repeat for all three clutches.
3. Start tractor at low throttle and slowly engage PTO and allow clutches to slip for 5 seconds. Disengage PTO and turn off tractor engine.
4. If clutches slip freely, completely loosen nuts (12).
5. If clutch does not slip freely, disassemble and clean plates (4, 6, & 7), flange yoke (1), and clutch hub (3).
6. Reassemble clutch.
7. Tighten Belleville spring (5) with nuts (11) until it is against the thrust plate (4) of the clutch. Back off each of the four nuts (11) until gap between Belleville spring and thrust plate is 1/8" as shown in Figure 9.
8. If a clutch continues to slip when the spring is compressed to 1/8" gap, check friction discs (2) for excessive wear. Discs are 1/8" when new. Replace discs after 1/16" wear. Minimum disc thickness is 1/16".

NOTE: When storing cutter for long periods of time, relieve the pressure on the clutch discs by tightening the four nuts (12) on each clutch. Completely loosen nuts (12) to return to service.

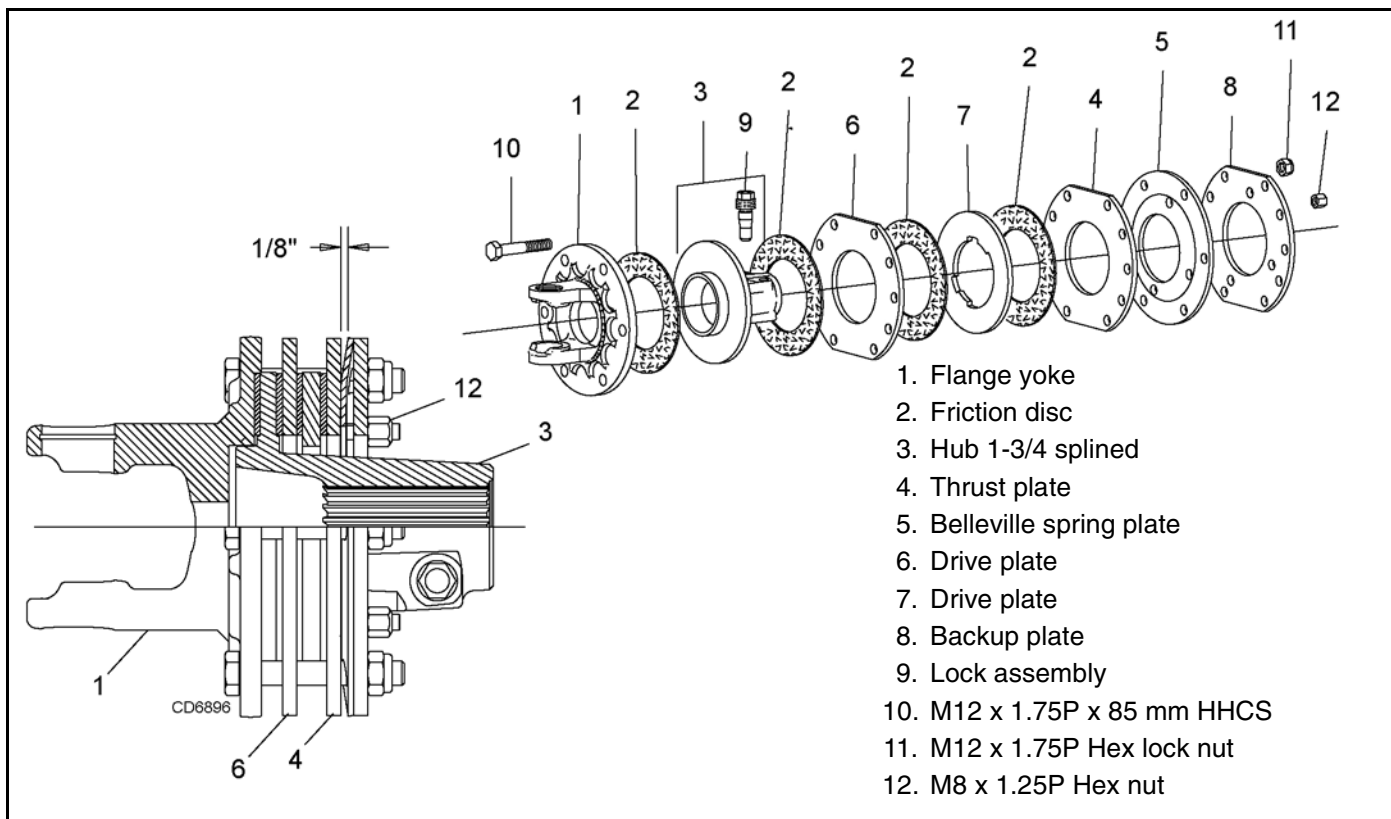


Figure 9. Slip Clutch Assembly

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.

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Does not cut	Dull blades Worn or broken blades Incorrect PTO speed Ground speed too fast Drive not functioning (blades do not turn when PTO is running) Gearbox malfunction Excessive clutch slippage Incorrect blade direction	Sharpen blades. Replace blades. (Replace in pairs only.) Set at rated PTO speed. Reduce ground speed. Check drive shaft connection. Check gearbox. Repair gearbox. Adjust clutch. Check to be sure blade edge is correct for direction of rotation.
Streaks or ragged cut	Broken or worn blades Attitude incorrect Ground speed too fast Excessive cutting height Excessive lush and tall vegetation	Replace or sharpen blades. Level machine. Reduce ground speed. Lower cutting height. (Note: Set height so blades do not frequently hit ground.) Recut at 90° to first pass.
Excessive side skid wear	Running with skids continuously on ground	Raise cutting height or adjust.
Excessive clutch slippage	Clutch out of adjustment Clutch discs worn; wear stops contacting opposite plate Blades hitting ground	Adjust clutch. Replace discs. Raise cutting height.
Vibration	Broken blade Bearing failure Hitch length incorrect Universal drive	Replace blades in pairs. Check gearbox shafts for side play. Reset hitch length. Adjust pedestal bearing height to be parallel to ground.
Blades hitting deck	Bent blades or crossbar	Replace bent blades or crossbar.
Unit will not raise	Low oil	Add hydraulic oil.
Unit doesn't cut level	Wing section cuts lower than center Wing section cuts higher than center	Lengthen turnbuckle connecting center yoke to wing wheel yoke. Shorten turnbuckle connecting center yoke to wing wheel yoke.

DEALER SERVICE

The information in this section is written for dealer service personnel. The repair described here requires special skills and tools. If your shop is not properly equipped or your mechanics are not properly trained in this type of repair, you may be time and money ahead to replace complete assemblies.

WARNING

■ **Before working underneath, read manual instructions, securely block up, and check stability. Secure blocking prevents equipment from dropping due to hydraulic leak down, hydraulic system failure, or mechanical component failure.**

■ **Keep all persons away from operator control area while performing adjustments, service, or maintenance.**

CAUTION

■ **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.**

GEARBOX MAINTENANCE

NOTE: Read this entire section before starting any repair. Many steps are dependent on each other.

1. Fill gearbox with SAE 80W or 90W gear lube. Proper oil level is between lowest ring and end of dipstick.

NOTE: Replacing gears, shafts, and housing may not be cost effective. Purchasing a complete gearbox may be more economical.

2. Inspect gearbox for leakage and bad bearings. Leakage is a very serious problem and must be corrected immediately.

NOTE: Bearing failure is indicated by excessive noise and side-to-side or end-play in gear shafts.

Seal Replacement

Recommended sealant for gearbox repair is Permatex® Aviation 3D Form-A-Gasket or equivalent.

Leakage can occur at the vertical or horizontal gaskets and shaft seals.

Leakage at the horizontal gasket or seal can be repaired without removing the gearbox from the cutter.

Seal Installation

NOTE: Proper seal installation is important. An improperly installed seal will leak.

1. Clean area in housing where seal outer diameter (OD) seats. Apply a thin coat of Permatex.
2. Inspect area of shaft where seal seats. Remove any burrs or nicks with an emery cloth.
3. Lubricate gear shaft and seal lips.
4. Place seal squarely on housing, spring-loaded lip toward housing. Select a piece of pipe or tubing with an OD that will sit on the outside edge of the seal but will clear the housing. Tubing with an OD that is too small will bow seal cage and ruin seal.
5. Carefully press seal into housing, avoiding distortion to the metal seal cage.

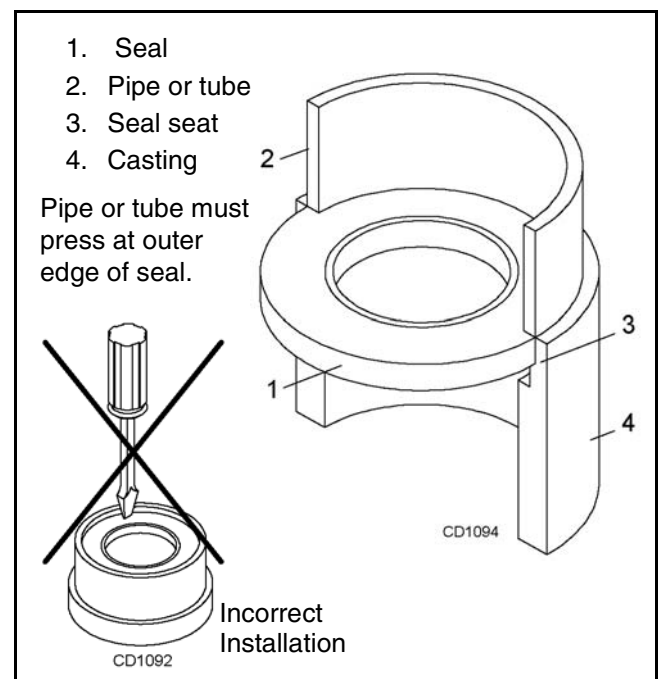


Figure 10. Seal Installation

Vertical Shaft Seal Replacement

Refer to Figure 12, page 28.

1. Disconnect and remove the driveline from the gearbox.
2. Remove vent plug (30) and siphon gear lube from housing through this opening.
3. Remove crossbar (see page 30).
4. Remove snap ring (33) and vertical shaft seal (15). Replace seal (15) with new seal. Install snap ring (33).

NOTE: Distortion to seal cage or damage to seal lip will cause seal to leak.

5. Fill gearbox with SAE 80W or 90W gear lube to the center of the horizontal shaft.
6. Remove and replace any seal damaged in installation.

Horizontal Shaft Seal Replacement

Refer to Figure 12.

1. Disconnect and remove the driveline from the gearbox.
2. Remove vent plug (30) and siphon gear lube from housing through this opening.
3. Remove oil seal (6). Replace with new one.
4. Fill gearbox with SAE 80W or 90W gear lube to the center of the horizontal shaft.

Gearbox Cap Leak Repair

Refer to Figure 12.

1. Disconnect and remove the driveline from the gearbox.
2. Remove vent plug (30) and siphon gear lube from housing through this opening.
3. Remove cap where leak is occurring (4, 21 or 26).
4. Clean mating surfaces with a gasket remover.
5. Replace gaskets (7, 8, 22, 23) as required to meet the following specifications:
 - End float should be less than 0.012".
 - Rotational torque should be less than 2.2 lbs-inch.
 - Gear backlash should be between 0.006" and 0.016".
6. Install cap (4, 21 or 26) using a gasket sealant.
7. Install cap screws (3 or 25) and torque to 29 lbs-ft.
8. Fill gearbox with SAE 80W or 90W gear lube to the center of the horizontal shaft.

SPLITTER GEARBOX REPAIR

Refer to Figure 11.

Splitter Gearbox Removal

1. Disconnect and remove all drivelines from gearbox.
2. Remove the four cap screws and lock washers that secure gearbox to cutter, and remove gearbox.

NOTE: Gearbox is heavy: do not attempt to move it without mechanical assistance.

Splitter Gearbox Disassembly

Refer to Figure 11.

Center Shaft

1. Remove plug from side of gearbox and pour out the gear oil.
2. Remove seal (6, to be replaced) from the front and rear of the center shaft (5).
3. Remove front cap (4) and shims (8, 9, 10) from the front and rear of the center shaft (5).
4. Support gearbox in a hand press and push on the rear of the center shaft.
5. Remove bearing cones (7), and gear (18) from center shaft (5).
6. Remove bearing cups (7) from housing and cap using a punch and hammer

Side Shaft

7. Remove seal (12, to be replaced) from the output shaft (13).
8. Remove 8 cap screws (3) and side shaft assembly.
9. Remove cotter pin (21), castle nut (20), and gear (19).
10. Support side shaft assembly in hand press. Press shaft (13) through the cap (11) from the threaded end of the shaft.
11. Repeat steps 10 through 12 for opposite side shaft.

Inspect Components

12. Inspect gears for broken teeth and wear. Some wear is normal and will show on the loaded side of the teeth. Forged gear surfaces are rough when new. Check that wear pattern is smooth.
13. Inspect shafts for grooves, nicks, or bumps in the areas where seals seat. Resurface any damage with emery cloth or replace shaft.
14. Inspect housing and caps for cracks or other damage.

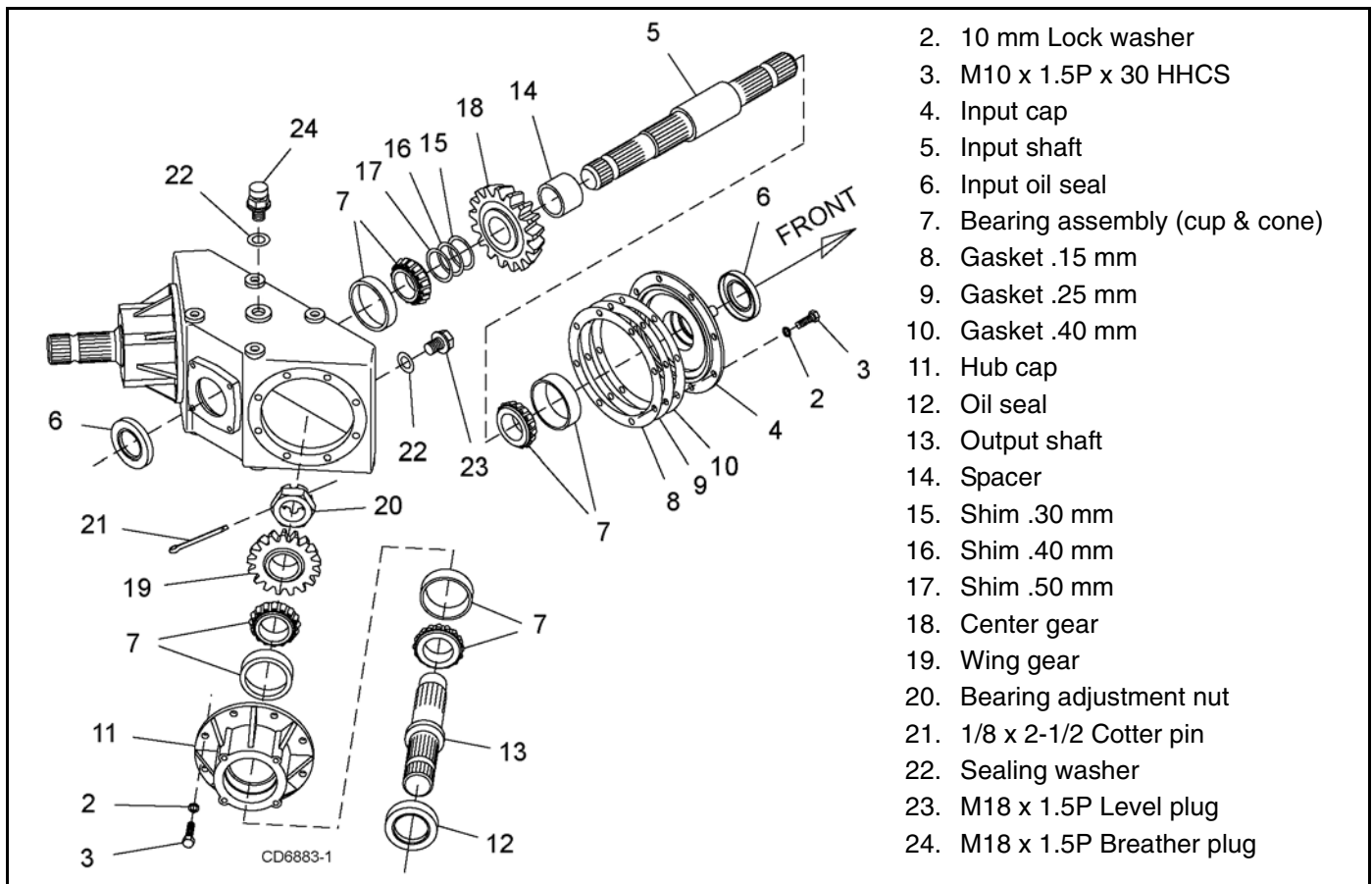


Figure 11. Splitter Gearbox Assembly

Splitter Gearbox Assembly

Refer to Figure 11.

1. Clean housing, pay specific attention to areas where gaskets are installed.
2. Wash housing and all components thoroughly.
3. Select a clean work area to assemble gearbox.
4. Replace all seals, bearings, and gaskets.
5. All parts must be clean and lightly oiled before assembly.

Side Shaft

6. Insert bearing cups (7) in housing (11) using a round tube of the same size diameter and a hand press.
7. Press bearing cone (7) on to output shaft (13), slide output shaft (13) through housing (11) and press bearing cone (7) on to output shaft (13).
8. Slide gear (19) over output shaft (13) and secure with castle nut (20) and cotter pin (21).
9. Check end play of shaft by moving it in and out. If end play is more than 0.012", tighten castle nut (20). Repeat process until end play is less than 0.012".

10. Check rotational torque. Torque should be less than 2.2 lbs-inch gear.

11. Place seal (12) over shaft and press into housing using a tube of the same diameter. Seal should be flush with housing when properly installed.

12. Repeat steps 6 through 10 for opposite side shaft.

Center Shaft

13. Insert bearing cups (7) in housing and front cap (4) using a round tube of the same size diameter and a hand press.

14. Press sleeve (14), gear (18), shims (15, 16, 17) and bearing cones (7) on to output shaft (5).

15. Slide output shaft (5) through housing and install shims (8, 9, 10) and cap (4).

16. Check end play of shaft by moving it in and out. If end play is more than 0.012", remove a shim (8, 9, or 10). Repeat process until end play is less than 0.012".

17. Check rotational torque. Torque should be less than 2.2 lbs-inch gear.

18. Check gear backlash, backlash should be between 0.006" and 0.016". Adjust the backlash by adding

or removing shims (15, 16, 17) from the output shaft (5).

19. Place seal (6) over shaft and press into housing using a tube of the same diameter. Seal should be flush with housing when properly installed. Repeat process for opposite end shaft.

Splitter Gearbox Inspection

1. Check gearbox for leaks by: plugging all holes except one, applying 4 psi of compressed air, and immersing gearbox in water. Verify gearbox does not leak.

NOTE: Excessive air pressure will damage seals.

2. Remove gearbox from water and dry off.

3. Remove upper plug (3) on right side of housing. Add SAE 80W or 90W EP oil until it runs out side level hole. Replace plug.

4. Install breather (18) in top cover.

Splitter Gearbox Installation

NOTE: Gearbox is heavy: do not attempt to move without mechanical assistance.

Set gearbox on cutter and fasten with bolts and nuts. Torque bolts to 170 lbs-ft.

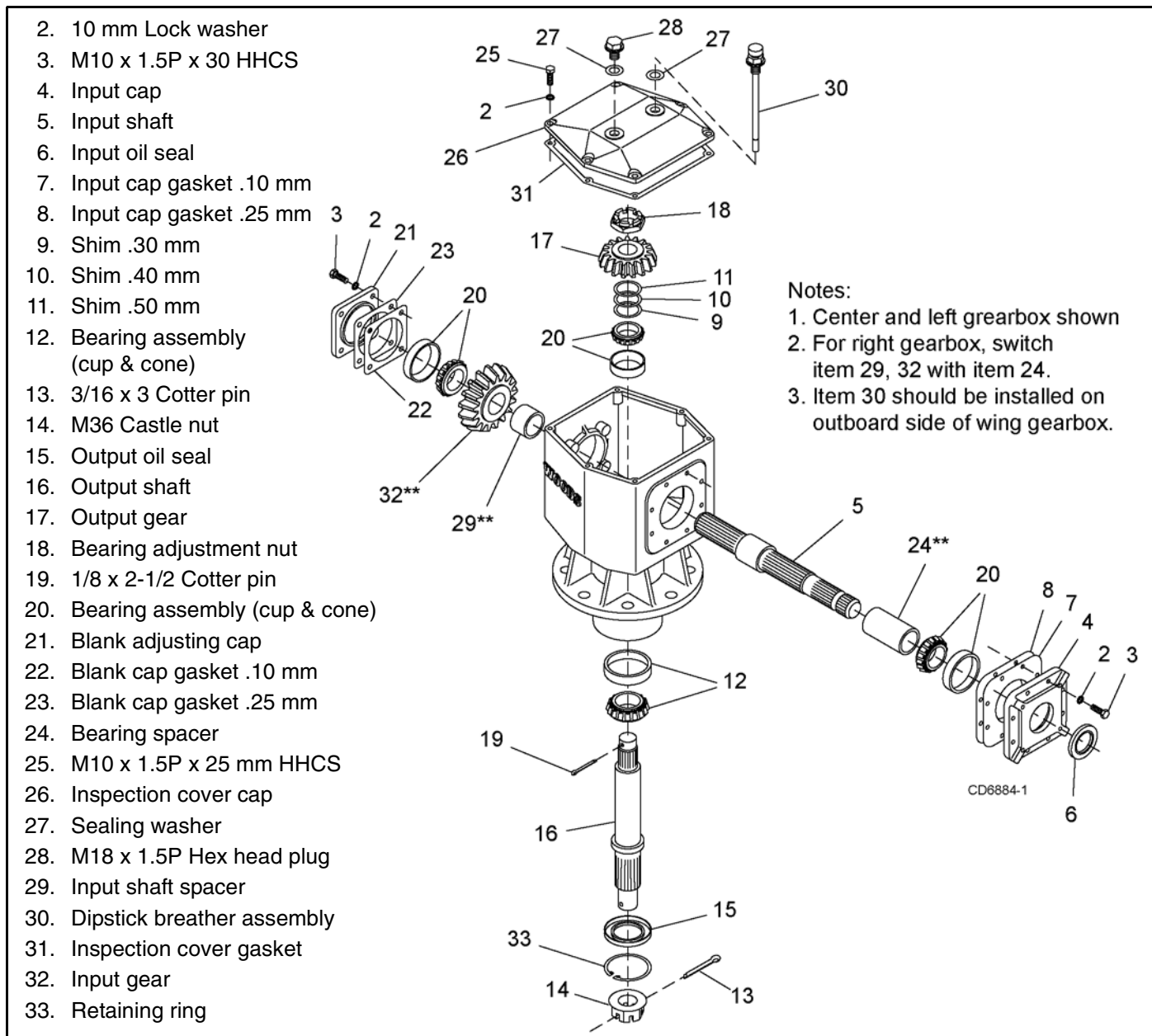


Figure 12. Gearbox

GEARBOX REPAIR

Gearbox Removal

NOTE: Gearbox is heavy: do not attempt to move without mechanical assistance.

1. Disconnect and remove the driveline from the gearbox that is to be removed.
2. Remove cotter pin and nut from vertical shaft and remove crossbar (see page 30).
3. Remove the eight bolts that attach gearbox to cutter and remove gearbox.

Gearbox Disassembly

Refer to Figure 12.

1. Remove six cap screws (25) and top cover (26) from gearbox and pour out gear oil.
2. Remove oil caps (21 and 4).
3. Support gearbox in hand press and push on the gear end of the input shaft (5) to remove bearing (20).
4. Remove gear (32) from inside housing.
5. Remove input bearing (20) by using a punch and hammer from outside of housing.
6. Support housing in vise in a horizontal position.
7. The castle nut (14), cotter pin (13), and hub were already removed with the stump jumper/crossbar. Remove the snap ring (33), and oil seal (15).
8. Remove cotter pin (19), castle nut (18) from output shaft (16).
9. Remove output shaft (16) by using a punch and hammer and tap on top to drive down. Remove gear (17) and shims (9, 10, 11) from inside housing.
10. Remove bottom bearing (12) by using a punch and hammer from the top, outside the housing.
11. Support housing upside down (top cover surface) and remove top bearing (20) by using a punch and hammer from the bottom side of the housing.
12. Inspect gears for broken teeth and wear. Some wear is normal and will show on loaded side. Forged gear surfaces are rough when new. Check that the wear pattern is smooth.
13. Inspect vertical and horizontal shafts for grooves, nicks, or bumps in the areas where the seals seat. Resurface any damage with emery cloth.
14. Inspect housing and caps for cracks or other damage.

Gearbox Assembly

Refer to Figure 12.

1. Clean housing, paying specific attention to areas where gaskets will be installed.
2. Wash housing and all components thoroughly. Select a clean area for gearbox assembly. Replace all seals, bearings, and gaskets. All parts must be clean and lightly oiled before reassembling.
3. Insert both output bearings (12, 20) in the housing, using a round tube of the correct diameter and a hand press.
4. Slide output shaft (16) from the bottom through both bearings (12, 20) until it rests against bottom bearing (12).
5. Slide shims (9, 10, 11) over output shaft (16). Use the same thickness of shims that were removed as a starting point.
6. Place gear (17) onto output shaft (16) and secure with the castle nut (18), and cotter pin (19).
7. Press bearing cup (20) into end of the housing closest to the gear, using a round tube of the correct diameter and a hand press. Install cap (4 or 21) and gaskets (7, 8 or 22, 23).
8. Place gear (32) and spacers (29, 24) through top of housing and align gear (32) and shaft (5) so that gear spline match the shaft spline.
9. While holding gear (32) in place, slide input shaft (5) through gear (32) and press onto bearing cone (20).
10. Press bearing (20) over input shaft (5).
11. Slide shims (7, 8 or 22, 23) over input shaft. Install cap (4 or 21).
12. Check input shaft end float by moving the input shaft (5) by hand. If end float is higher than 0.012", insert shim between housing and cap that is closest to the gear. Repeat until end float is less than 0.012". Check rotational torque by hand. The torque should be less than 2.2 lbs-inch.
13. Check that the gear backlash is between 0.006" and 0.016". Adjust the backlash by adding or removing shims (9, 10, 11) from the output shaft (16).
14. Apply grease to lower seal lips (15) and press seal (15) over output shaft (16), using a tube of the correct diameter. Be sure not to damage the seal lip.
15. Press in housing so that seal is recessed. Install snap ring (33)
16. Press in input oil seal (6), using tube of correct diameter. Be careful not to damage seal lip.

17. Place top cover (26) on top of housing and secure with six cap screws (25).
18. Check gearbox housing for leaks by plugging all holes except one. Apply 4 psi compressed air and immerse the gearbox in water to verify that there are no leaks.
19. Remove gearbox from water and dry off with compressed air. Fill gearbox with SAE 80W or 90W gear lube to the center of the horizontal shaft. Tighten all plugs.

Gearbox Installation

NOTE: Gearbox is heavy: do not attempt to move without mechanical assistance.

1. Set gearbox on cutter and fasten with bolts and nuts. Torque bolts to 300 lbs-ft.
2. Attach crossbar (Crossbar Installation, page 31).

CROSSBAR REMOVAL

1. It is necessary to gain access to bottom side of cutter for crossbar removal. See Blocking Method page 19.

NOTE: You will need to use either the puller screw (Item 6, Figure 14) or a small hydraulic jack to remove the crossbar.

2. Remove blades from crossbar as shown in Figure 13.

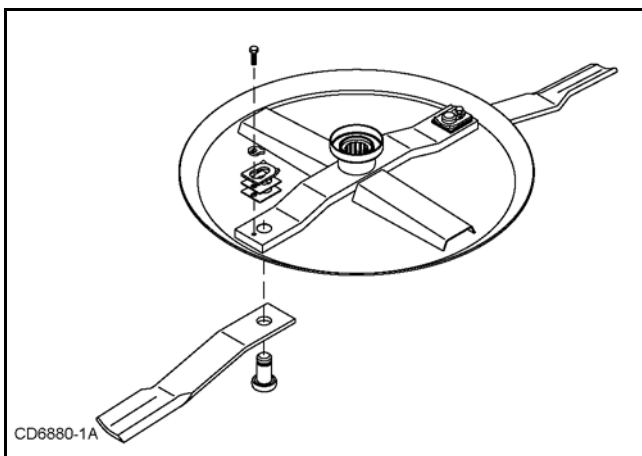


Figure 13. Blade Removal

3. Refer to Figure 14. Remove cotter pin from bottom of crossbar and remove nut and washer.
4. Attach a clevis (1) to each end of crossbar, using blade pins, spacers, keyhole plates, and blade pin clips.
5. Position tube assembly (5) with threaded nut toward crossbar for puller screw removal or down for hydraulic jack removal.

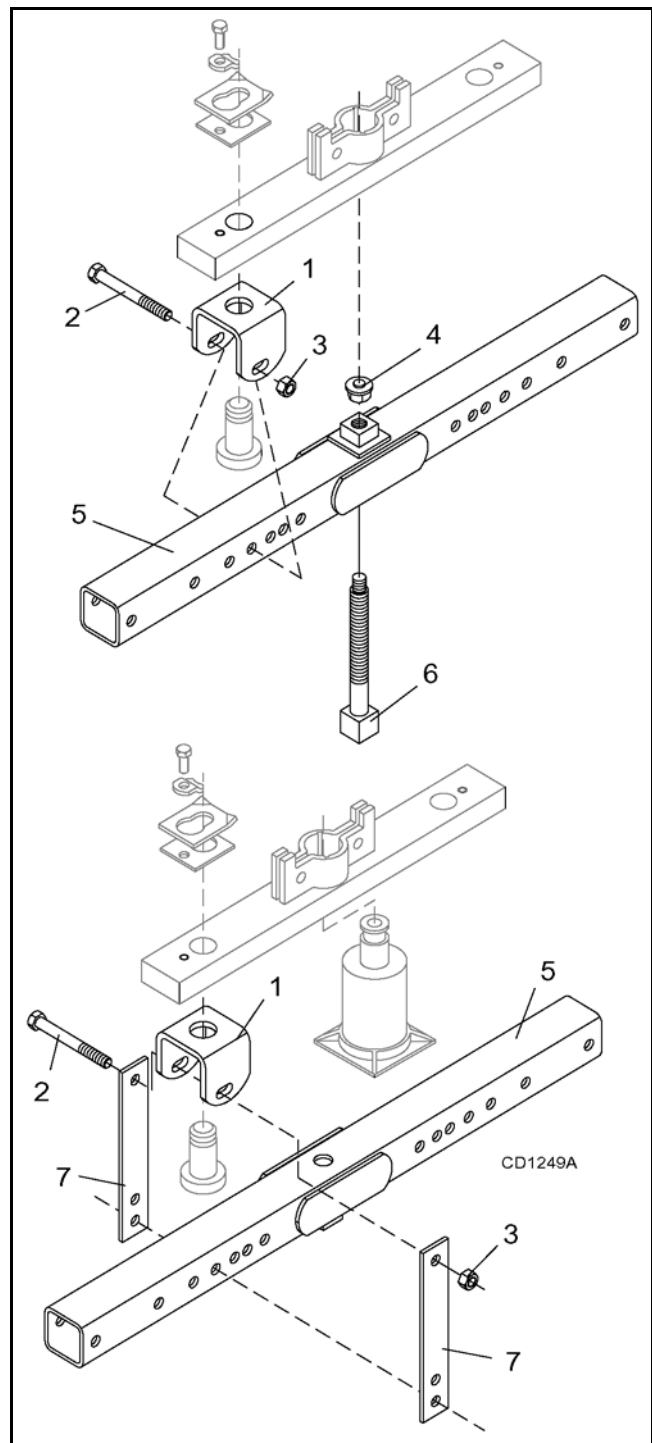


Figure 14. Crossbar Removal

6. For removal with puller screw, attach tube (5) to each clevis with bolts (2) and nuts (3). Place pad (4) in nut and thread puller screw (6) into nut from bottom. Tighten until pad is solid against gearbox shaft. For best results, strike head of puller screw with a hammer while tightening with a wrench.
7. For removal with a jack, attach tube to each clevis with puller links (7), bolts (2), and nuts (3). Place jack on tube with end of jack pressing against gearbox shaft. Slowly apply force with jack.

NOTE: Hydraulic jack will not operate if tipped more than 90°. Use care to prevent bending crossbar during removal.

Crossbar Installation

1. Using emery cloth (220 or finer), remove surface rust, Loctite® and foreign material from hub, splined gearbox vertical shaft, and crossbar.

Refer to Figure 15.

2. Install crossbar assembly (10) on splined shaft. Install nut (54) and align a slot with hole in splined shaft. Torque nut to 450 lbs-ft.
3. Install cotter pin (55) through slot in nut and bend ends over.

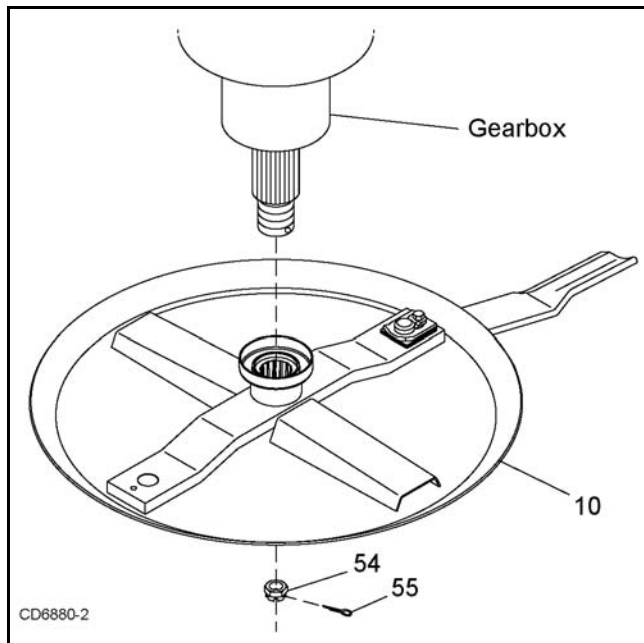


Figure 15. Crossbar Assembly Installation

UNIVERSAL JOINT REPAIR

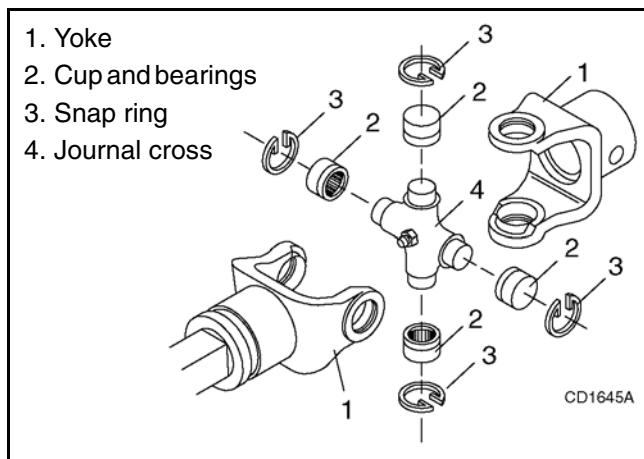


Figure 16. U-Joint Exploded View

U-Joint Disassembly

1. Remove external snap rings from yokes in four locations as shown in Figure 17.

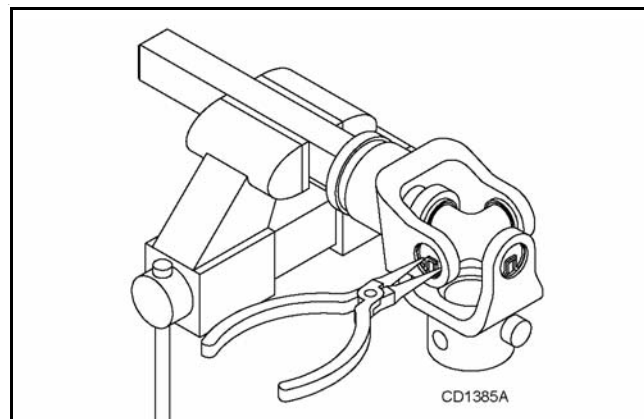


Figure 17.

2. With snap rings removed, support drive in vise, hold yoke in hand and tap on yoke to drive cup out of yoke. See Figure 18.

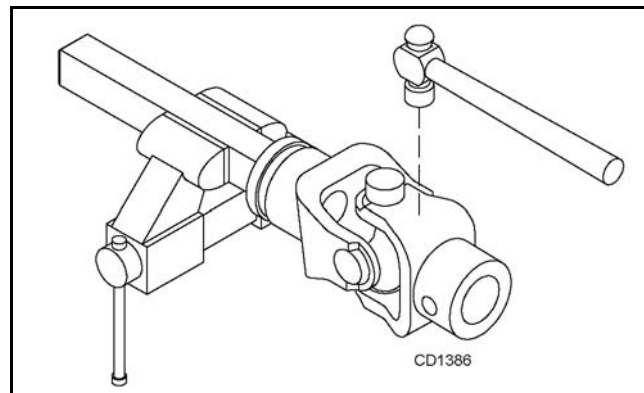


Figure 18.

3. Clamp cup in vise as shown in Figure 19 and tap on yoke to completely remove cup from yoke. Repeat Step 2 and Step 3 for opposite cup.

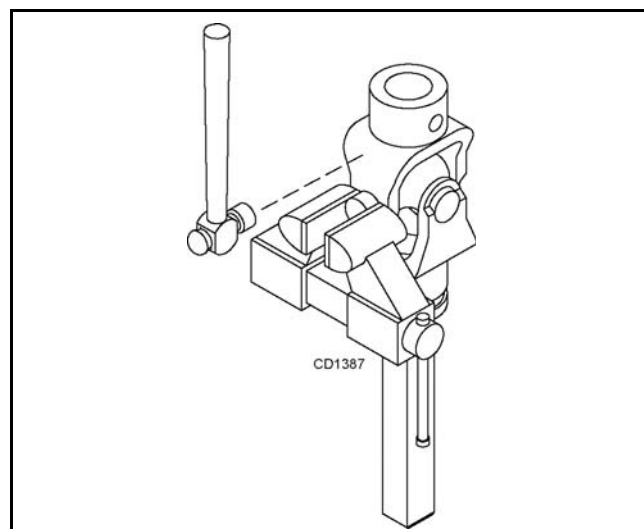


Figure 19.

4. Place universal cross in vise as shown in Figure 20 and tap on yoke to remove cup. Repeat Step 3 for final removal. Drive remaining cup out with a drift and hammer.

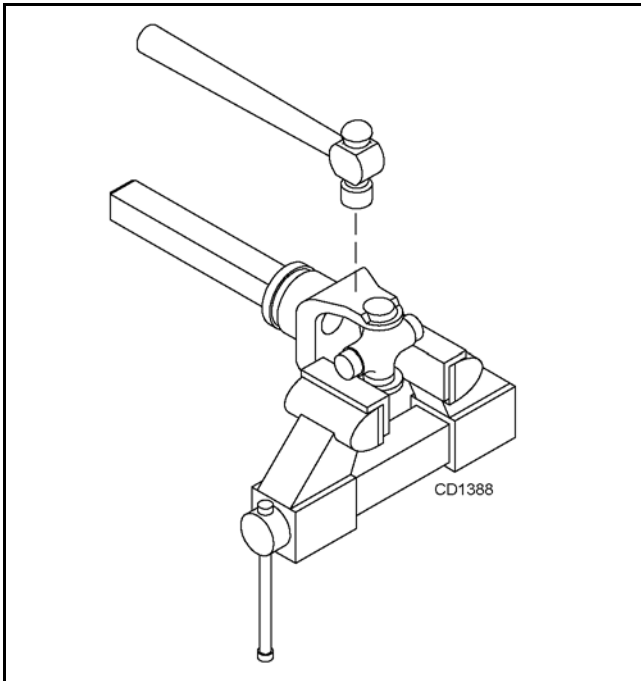


Figure 20.

U-Joint Assembly

1. Place seals securely on bearing cups. Insert cup into yoke from outside and press in with hand pressure as far as possible. Insert journal cross into bearing cup with grease fitting away from shaft. Be careful not to disturb needle bearings. Insert another bearing cup directly across from first cup and press in as far as possible with hand pressure.

2. Trap cups in vise and apply pressure. Be sure journal cross is started into bearings and continue pressure with vise, squeezing in as far as possible. Tapping the yoke will help.
3. Seat cups by placing a drift or socket (slightly smaller than the cup) on cup and rap with a hammer. See Figure 21. Install snap ring and repeat on opposite cup
4. Repeat Step 1 and Step 2 to install remaining cups in remaining yoke.
5. Move both yokes in all directions to check for free movement. If movement is restricted, rap on yokes sharply with a hammer to relieve any tension. Repeat until both yokes move in all directions without restriction.

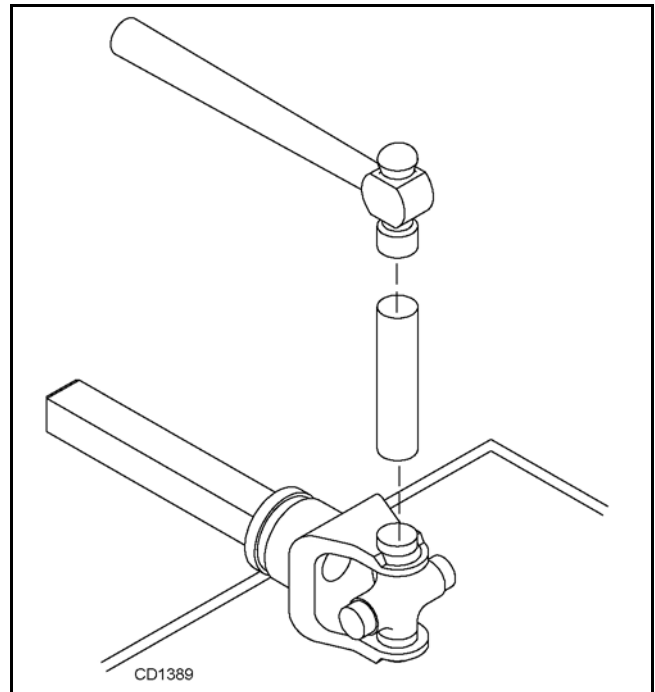


Figure 21.



ASSEMBLY INSTRUCTIONS

DEALER SET-UP INSTRUCTIONS

Assembly of this cutter is the responsibility of the WOODS dealer. It should be delivered to the owner completely assembled, lubricated and adjusted for normal cutting conditions.

The cutter is shipped partially assembled. Assembly will be easier if components are aligned and loosely assembled before tightening hardware. Recommended torque values for hardware are located on page 76.

Select a suitable working area. A smooth hard surface, such as concrete, will make assembly much quicker. Open parts boxes and lay out parts and hardware to make location easy. Refer to illustrations, accompanying text, parts lists and exploded view drawings.

Complete the check list on page 45 when assembly is complete and cutter is delivered to the customer.

WARNING

■ Before working underneath, carefully read Operator's Manual instructions, disconnect driveline, raise mower, securely block up all corners with jackstands, and check stability. Secure blocking prevents equipment from dropping due to hydraulic leak down, hydraulic system failures, or mechanical component failures.

■ Do not disconnect hydraulic lines until machine is securely blocked or placed in lowest position and system pressure is released by operating valve levers.

CAUTION

■ 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.

Install Center Wheel Yoke Arm

NOTE: Install center rear chain shield or rubber belting before installing wheel yoke arm. This will make installation of shielding much easier.

Attach wheel yoke arm (7) to center section using three 1-1/4 pivot pins (4), carriage bolts (58), and flange lock nuts (50).

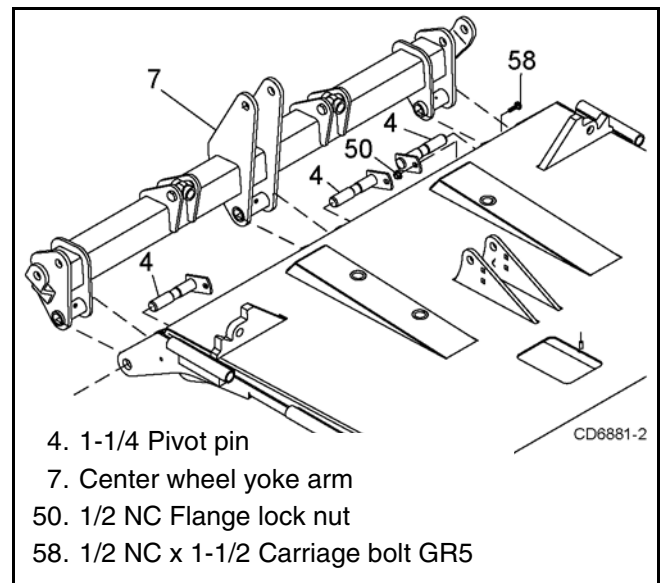


Figure 22. Center Wheel Yoke Arm Installation

Install Attitude Rod

1. Insert each attitude rod (6) through center deck channels and through pivot castings in wheel yoke arm assembly. The rod is a very tight fit; use care to prevent thread damage during installation.
2. Loosely install spacer (43), washer (56) and two nuts (57) on end of each attitude rod.

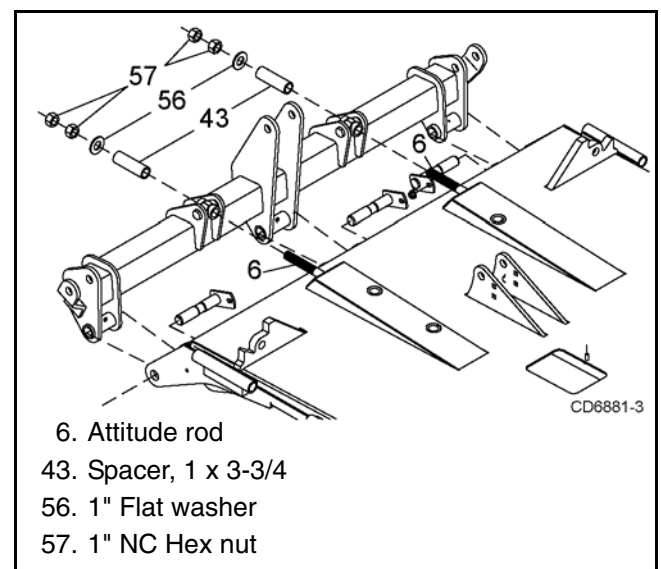


Figure 23. Attitude Rod Installation

Install Height Adjustment Cylinder

1. Attach base end of cylinder (3) to the deck using clevis pin (40) and two cotter pins (42).
2. Extend cylinder rod and place transport lock bracket (9) over cylinder rod clevis.
3. Position cylinder rod and transport lock bracket between lugs on the wheel yoke tube and align holes.
4. Secure cylinder rod and transport lock bracket to the wheel yoke tube using clevis pin (41) and two cotter pins (42).

NOTE: An optional ratchet (12) is available, and replaces the hydraulic cylinder.

5. Install ratchet jack using the same procedure and hardware used for the installation of the hydraulic cylinder.

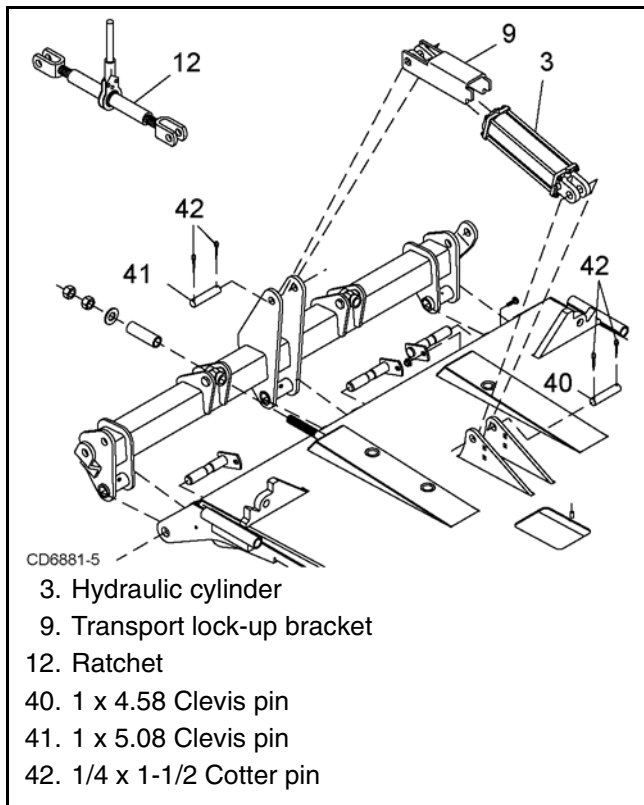


Figure 24. Height Adjustment Cylinder Installation

Install Wheel Yoke Arm and Wheels

1. Attach wheel yoke arms (2) to rear of wheel yoke tube (7) as shown in Figure 25 using four bolts (45) and nuts (55).
2. Insert wheel hubs into each wheel yoke arm (2) and align holes.
3. Secure into position using cap screw (49) and flanged lock nut (50). Repeat for additional hubs.

4. Attach wheel to hub using five lug nuts (61). Install the chamfered side of the lug nut toward the inside for steel rim for pneumatic tires and rims (shown).

NOTE: Install the flat side of the nut toward the inside for solid tires and aircraft tires.

NOTE: See page 40 for optional walking beam yoke installation.

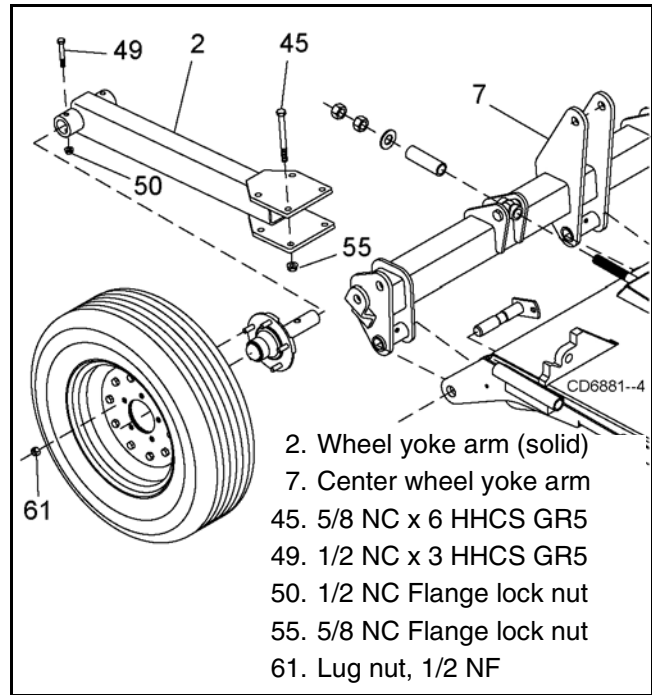


Figure 25. Wheel Yoke Arm & Tire Installation
Right Side Shown

Install Tongue (Figure 26)

NOTE: Route center and wing cylinder hoses before proceeding. See Install Hose Kit (Figure 34), page 39 for hose routing instructions.

NOTE: Use a suitable lifting device of sufficient capacity. Use adequate personnel to handle heavy components.

1. Attach tongue (28) to the center section using two 1-1/4 pivot pins (4), carriage screws (75), and hex nuts (50).
2. Thread hex nut (73) onto tongue level link (26). Raise tongue and insert level link through center pivot casting.
3. Attach each attitude rod (6) between the lugs on tongue and secure with spacer (83), clevis pin (5), carriage screw (75), and hex nut (50).
4. Attach parking jack (29) to the side of the tongue.
5. Attach second hex nut (73) to tongue level link (26) on the back side of center pivot casting.
6. Attach hose holder (31) to the top of the tongue using two cap screws (53) and hex nuts (50).

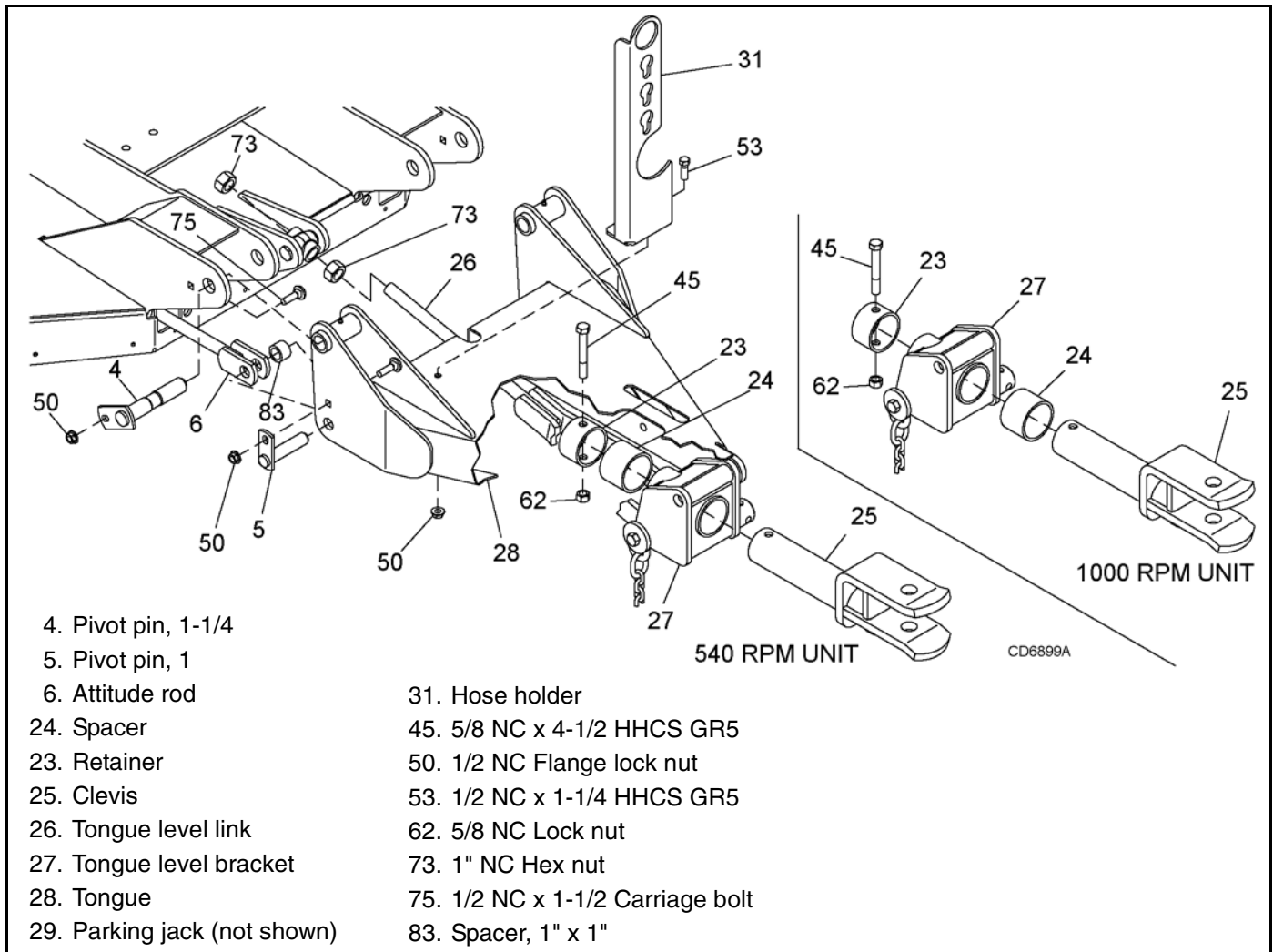


Figure 26. Tongue Installation

Adjust Hitch

NOTE: Tongue clevis (25) comes shipped from the factory configured for 540 RPM units. It is necessary to adjust the hitch for use on 1000 RPM units.

1. Remove cap screw (45) and hex nut (62) from end of clevis (25) and slide clevis out of tongue.
2. Place spacer (24) over shaft of clevis. Insert clevis back into tongue level bracket (27).
3. Secure into position with retainer (23), cap screw (45), and hex nut (62).

Install Three Joint Drive (540 rpm Only)

Refer to Figure 27 on page 36.

Before installing cutter input driveline to gearbox, check the tag wired to the driveline and the tag wired to the input shaft of gearbox. Ensure the tag rpm speeds match the rpm speed decal on front of cutter. After confirming all speeds match, remove and discard tags and then complete driveline assembly.

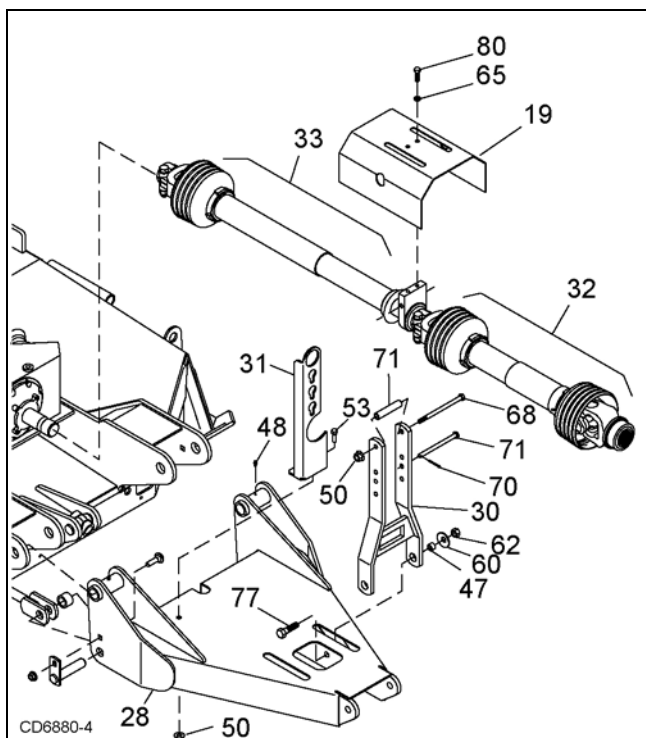
1. Attach H-frame (30) to tongue with two bolts (77), sleeves (47), cup washers (60), and nuts (62).
2. Coat splined end of gearbox input shaft with grease.
3. Slide drive (33) onto shaft and align hole in drive yoke with groove on gearbox input shaft.
4. Secure with bolt and nut supplied with drive.
5. Secure driveline carrier bearing to H-frame with pin (69) and safety pin (70).
6. Attach front driveline (32) to rear driveline (33) and tighten clamp bolt and nut supplied with drive.

NOTE: With cutting height established, adjust the 3-joint H-frame bearing height so that front driveline is parallel to the ground.

7. Attach shield (19) to driveline carrier bearing with two cap screws (80) and lock washers (65).
8. Attach spacer (71) to the top of the H-frame using cap screw (68) and flange lock nut (50).

9. Attach hydraulic hose holder (31) to the top of the tongue using two cap screws (53), and flange lock nuts (50).

NOTE: See page 38 for optional CV drive installation.



- 19. Carrier bearing shield
- 30. H-frame
- 31. Hose holder
- 32. Front 2/3 of 3-joint drive
- 33. Telescoping drive shaft
- 47. 5/8 x 1 x 9/16 Sleeve
- 50. 1/2 NC Flange lock nut
- 53. 1/2 NC x 1-1/4 HHCS GR5
- 60. 5/8 x 1-3/4 x 14 ga Cup washer
- 62. 5/8 NC Lock nut
- 65. 3/8 Lock washer
- 68. 1/2 NC x 5-1/2 HHCS GR5
- 69. 1/2 x 5-3/4 Clevis pin
- 70. 3/16 x 1 Cotter pin
- 71. Spacer, 1/2 x 3.56
- 77. 5/8 NC x 2 HHCS GR5
- 80. 3/8 NC x 1 HHCS GR5

Figure 27. Three Joint Drive Installation

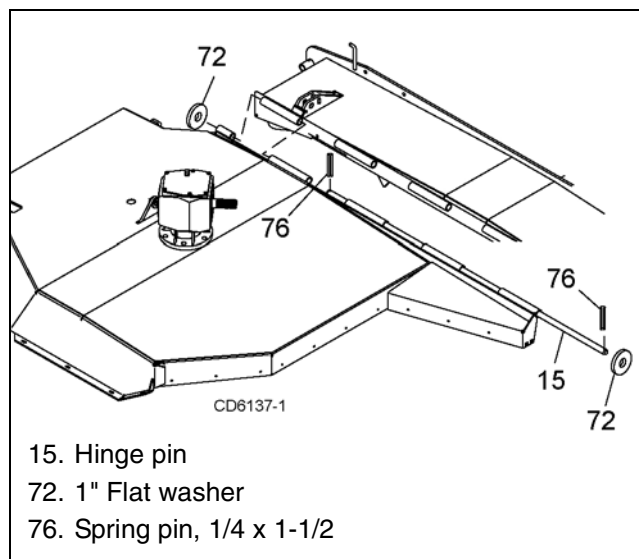
Install Wings

NOTE: Use a suitable lifting device of sufficient capacity. Use adequate personnel to handle heavy components.

Check rpm tags on wing and center sections to make sure they match before proceeding.

The wing must be installed in the following sequence and will require at least two people. A floor jack or a suitable lifting device will be helpful to align decks when installing the hinge pin.

1. Remove hinge pin (15) from center section.
2. Place wing assembly adjacent to the center section and align hinge sections.
3. Insert hinge pin through the hinge sections and secure with spring pin (76) and washer (72) on both ends.
4. Repeat procedure for opposite wing. (**Note:** BW1260 has only the right wing installed. BW1260L has only the left wing installed.)



- 15. Hinge pin
- 72. 1" Flat washer
- 76. Spring pin, 1/4 x 1-1/2

Figure 28. Right Wing Installation

Install Wing Lift Cylinder (Figure 29)

1. Place two cylinder links (16 and 17) on either side of cylinder lug on center section as shown, align holes, and insert clevis pin (31). Secure with washer (52) and cotter pin (36).
2. Attach base end of wing cylinder (4) to cylinder links (16 and 17) using clevis pin (32). Secure with two cotter pins (36).
3. Extend cylinder and attach rod end to cylinder lug on the wing using clevis pin (32). Secure with two cotter pins (36).
4. Repeat procedure for opposite wing. (**Note:** BW1260 has only the right wing installed. BW1260L has only the left wing installed.)

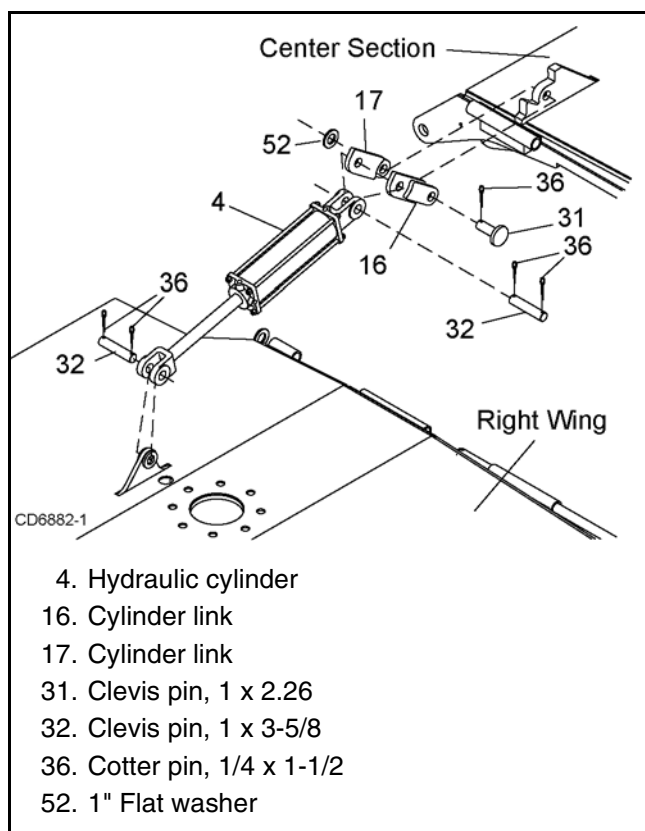


Figure 29. Wing Cylinder Installation

Install Wing Wheel Yoke Arm (Figure 30)

1. Attach wheel yoke arm (6) to wing section using two pivot pins (30), carriage screws (37), and hex nuts (40).
2. Repeat procedure for opposite wing. (**Note:** BW1260 has only the right wing installed. BW1260L has only the left wing installed.)

NOTE: See page 40 for optional walking beam wheel yoke.

Install Wing Wheel and Hub (Figure 30)

1. Insert wheel hub into outside of wheel yoke arm (6) and align holes.
2. Secure into position using cap screw (39) and flanged lock nut (40).
3. Attach wheel to hub using five lug nuts (61). Install the chamfered side of the lug nut toward the inside for steel rim for pneumatic tires and rims (shown).

NOTE: Install the flat side of the nut toward the inside for solid tires and aircraft tires.

4. Install optional dual wheel and hub to inside of wheel yoke arm.

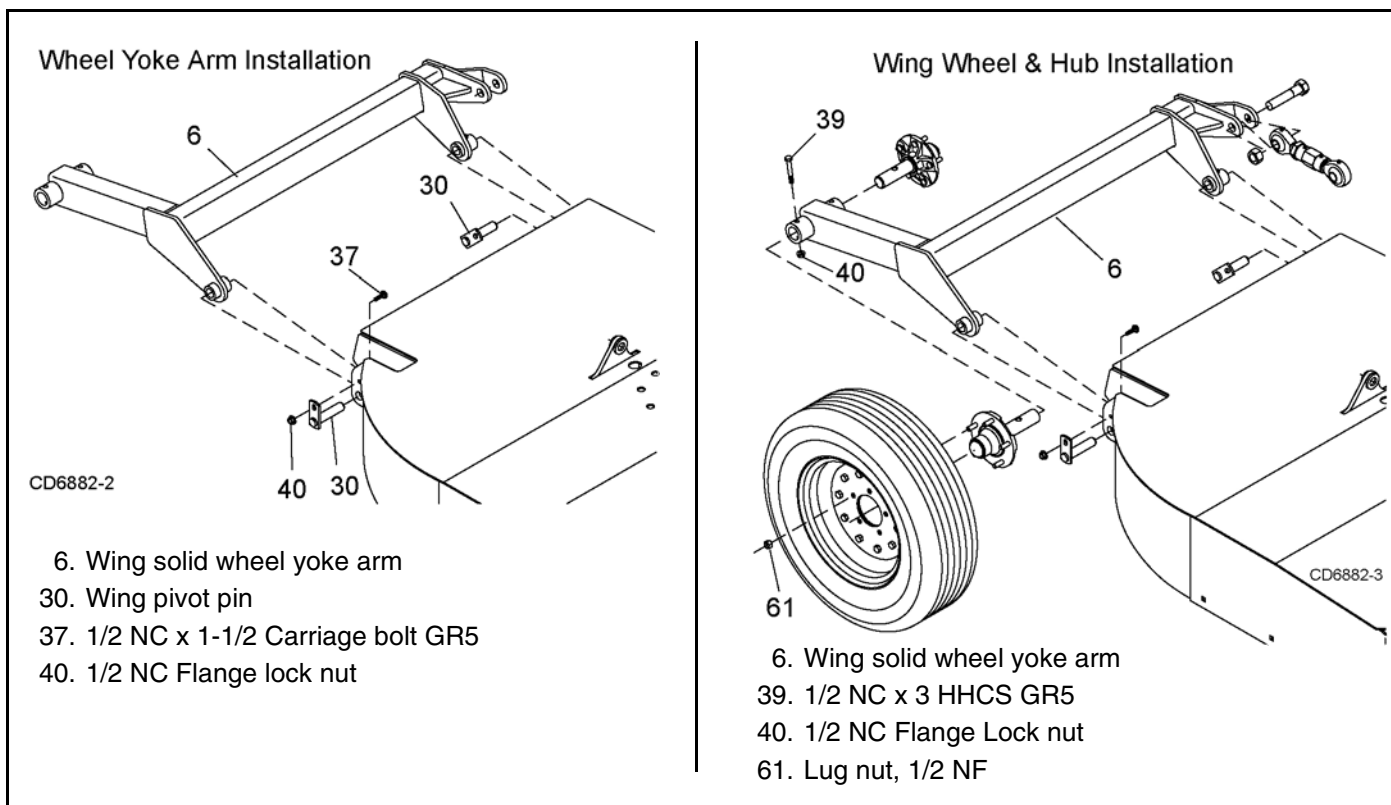


Figure 30. Wing Wheel Yoke Arm & Hub Installation

Install Wing Wheel Yoke Adjustment Link

NOTE: Use a suitable lifting device of sufficient capacity. Use adequate personnel to handle heavy components.

1. With a lifting device raise wing and lock in the UP position using the wing lock-up pin. Leave lifting device attached for added support.
2. Attach adjustable link (turnbuckle, 8) to right side of center wheel yoke arm with bolt (46), spacer (60) and secure with lock nut (47). Place spacer on inside of adjustment link.
3. Attach opposite end of adjustable link (8) to wing wheel yoke arm with bolt (34) and secure with lock nut (35).
4. Remove lock-up pin and carefully lower wing using lifting device.
5. Repeat procedure for opposite wing. (**Note:** BW1260 has only the right wing installed. BW1260L has only the left wing installed.)

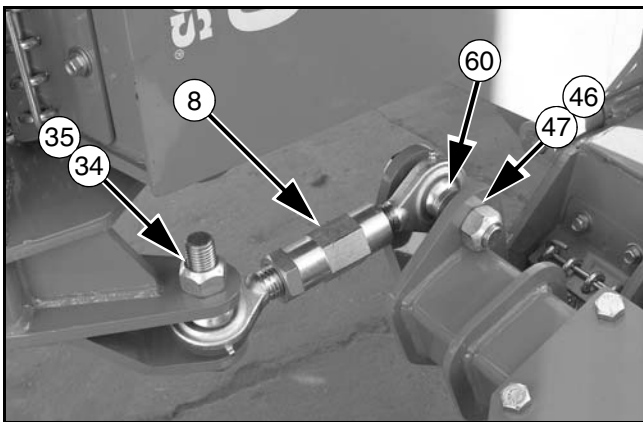


Figure 31. Left Wing Adjustment Link Installed

Install Wing Driveline

1. Remove shipping nuts from gearbox shield (18) and discard.
2. Raise wing shield and center to gain access to the gearbox shafts.
3. Loosen and remove locking assembly from slip clutch end of driveline (3). Slide clutch over wing gearbox shaft and align holes with groove.
4. Secure driveline to shaft using the lock assembly supplied with driveline.
5. Remove nut and bolt from opposite end of driveline. Slide end over splitter gearbox shaft and secure using cap screw and lock nut previously removed.

6. Repeat procedure for opposite wing. (**Note:** BW1260 has only the right wing installed. BW1260L has only the left wing installed.)
7. Lower all shields and secure with plastic knobs (53) supplied in hardware package.

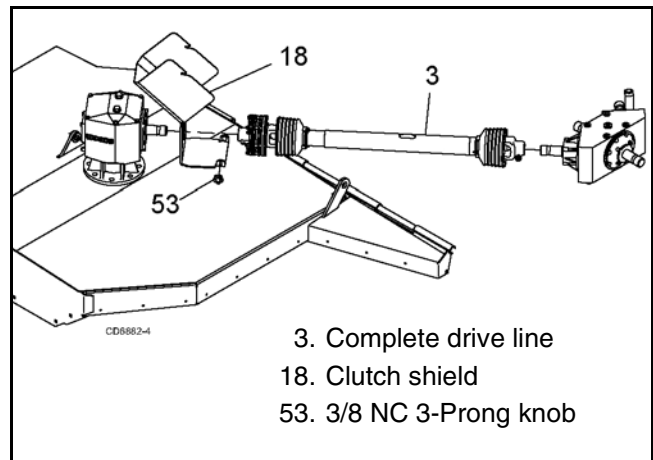


Figure 32. Wing Driveline Installation

CV Drive Installation

Before installing cutter input driveline to gearbox, check the tag wired to the driveline and the tag wired to the input shaft of gearbox. Ensure the tag rpm speeds match the rpm speed decal on front of cutter. After confirming all speeds match, remove and discard tags and then complete driveline assembly.

1. Slide drive (34) onto shaft and align hole in drive yoke with groove on gearbox input shaft.
2. Secure with bolt and nut supplied with drive.

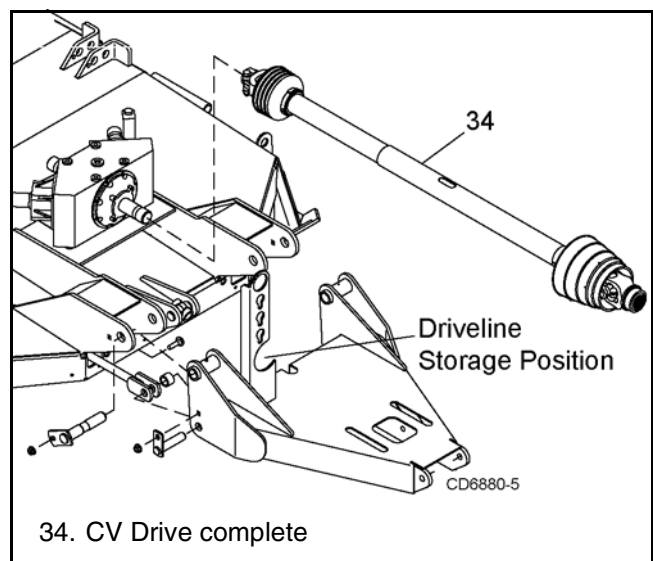


Figure 33. CV Drive Installation

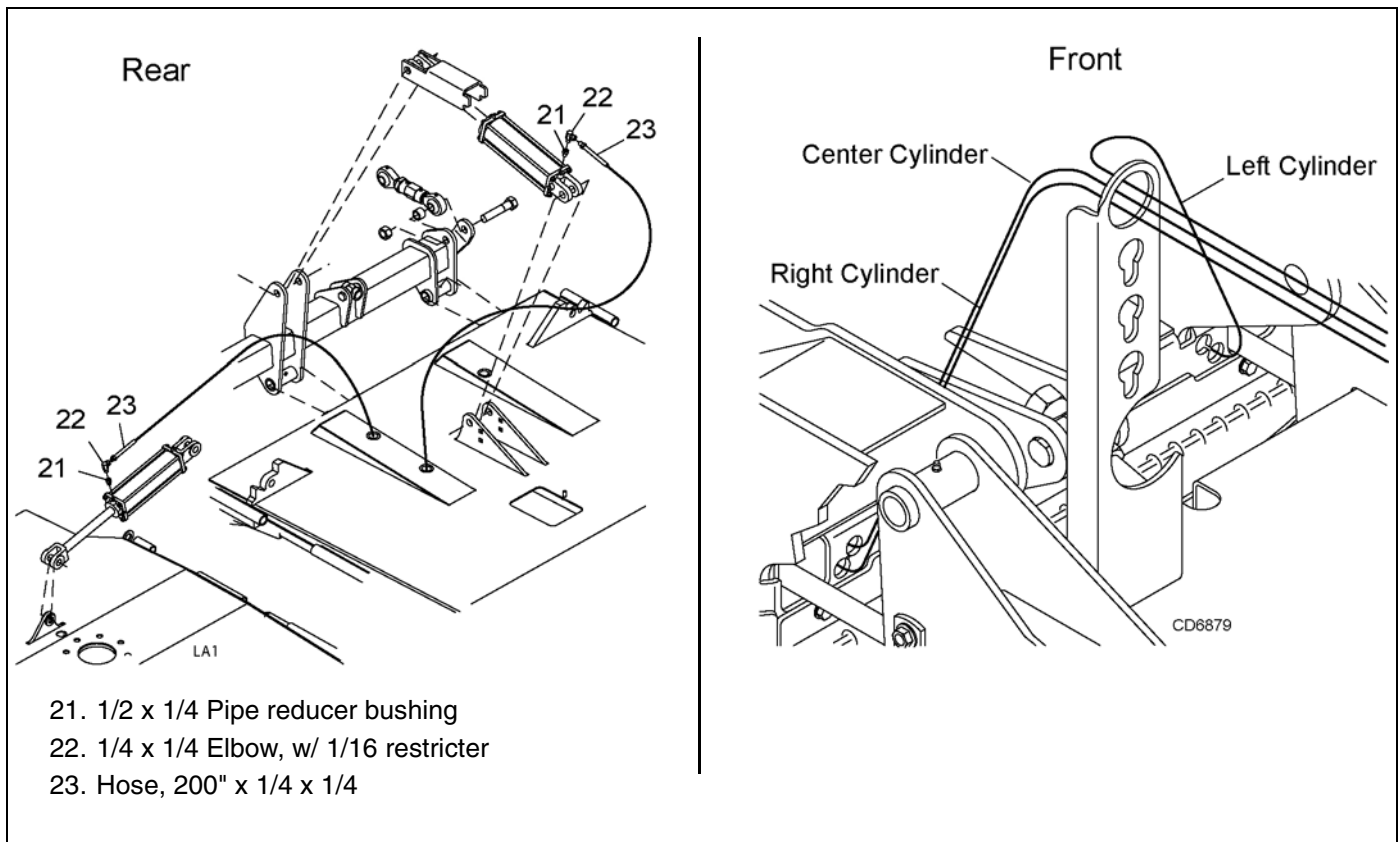


Figure 34. Cylinder Hose Installation, Rear

Install Hose Kit (Figure 34)

1. Remove plug from base end of center cylinder.
2. Remove plug from rod end of each wheel yoke cylinder.
3. Install reducer bushing (21) and restricter elbow (22) into each cylinder. Position elbow on center cylinder toward the front. Position elbows on wing cylinders toward the center.
4. With the wings in the down position and cylinder extended, remove and reinstall the plugs from the base of the wing cylinders. This will trap air behind the piston and help when lowering the wings.
5. Attach hose (23) to each elbow.
6. **Hose Routing:** Feed the wing cylinder hoses through the rear holes in the center deck, through the deck channels and out the front frame.
7. Feed the center cylinder hose through the remaining hole, through the deck channels and out the front frame. Insert the hoses through the hose holder opening, be sure the hose can slide freely in

the holder. Do not allow hose slack to drag on the ground or become caught on tractor protrusions.

8. Attach male quick coupler to the end of each hose.

NOTE: Quick couplers are not supplied with this unit.

Install Chain or Rubber Shielding

⚠ DANGER

■ Full chain or rubber shielding, designed to reduce the possibility of thrown objects, must be installed when operating in populated areas or other areas where thrown objects could injure people or damage property. If this machine is not equipped with full chain or rubber shielding, operation must be stopped when anyone comes within several hundred feet.

Install chain or rubber shields with hardware provided. Note that flat washers are used over all slots. See parts pages 66 and 68 for diagrams.

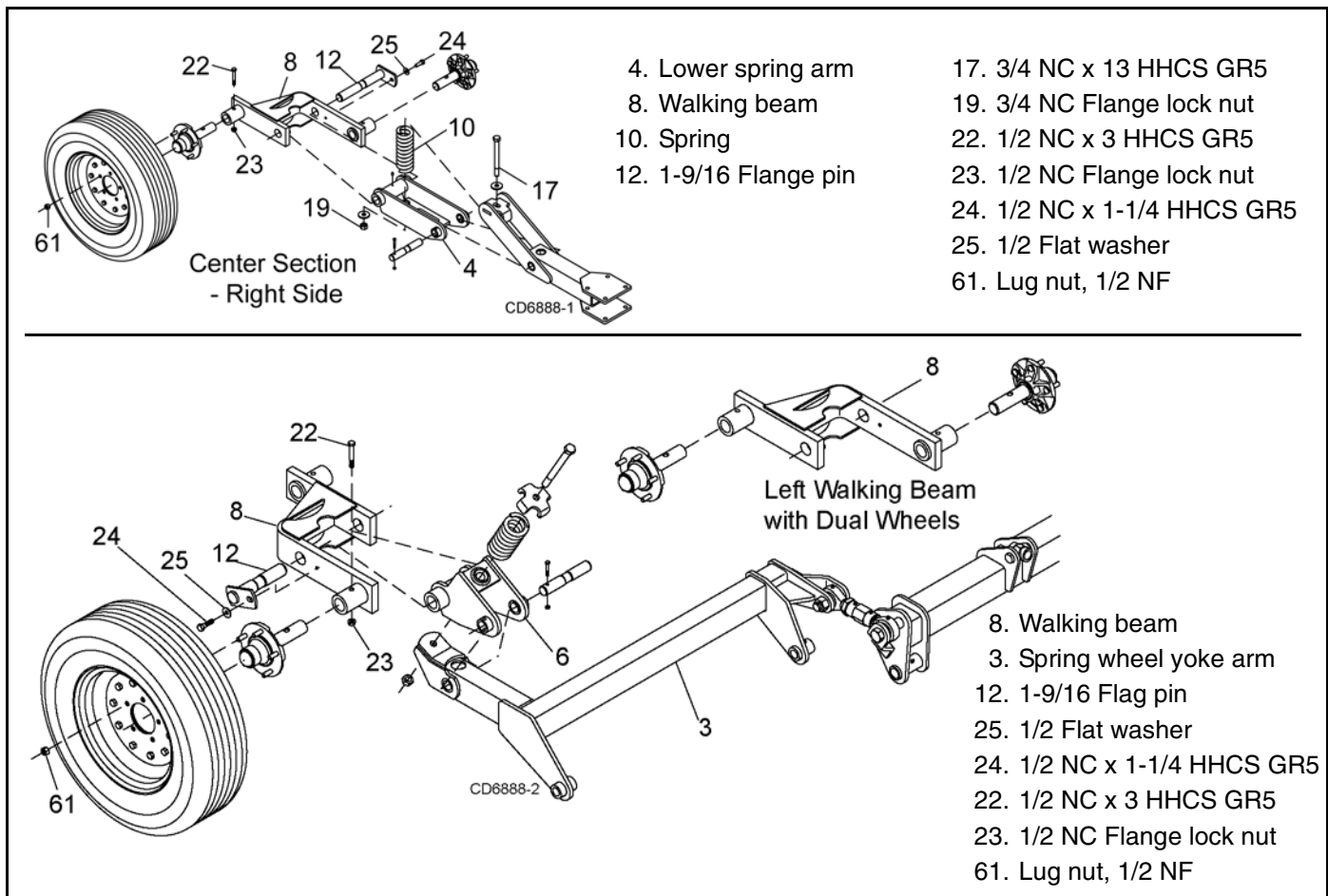


Figure 35. Walking Beam Installation

Walking Beam, Hub and Wheel Installation, Center Section (Optional) (Figure 35)

NOTE: Tighten bolt (17) and nut (19) to achieve a spring length of 8-5/16".

1. Attach walking beam (8) to lower spring arm (4) using 1-9/16 pivot pin (12), washers (25), and hex screws (24). Position the walking beams on the center section with the outside tires to the rear.
2. Insert two wheel hubs into each walking beam (8) and align holes.
3. Secure into position using cap screw (22) and flanged lock nut (23).
4. Attach wheel to hub using five lug nuts (61). Install the chamfered side of the lug nut toward the inside for steel rim for pneumatic tires and rims (shown).

NOTE: Install the flat side of the nut toward the inside for solid tires and aircraft tires.

Walking Beam, Hub and Wheel Installation, Wings (Optional)

1. Attach walking beam (8) to lower spring arm (3) using 1-9/16 pivot pin (12), washers (25), and hex

screws (24). Position the walking beams on the center section with the outside tires to the front.

2. Insert two wheel hubs into each walking beam (8) and align holes.
3. Secure into position using cap screw (22) and flanged lock nut (23).

HYDRAULIC VALVE INFORMATION

⚠ WARNING

■ Keep hands and body away from pressurized lines. Use paper or cardboard, not hands or other body parts to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death.

■ Make sure that all operating and service personnel know that if hydraulic fluid penetrates skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury, or death will result. **CONTACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS SKIN OR EYES. DO NOT DELAY.**

WARNING

■ Keep all persons away from operator control area while performing adjustments, service, or maintenance.

IMPORTANT

■ Check with your tractor dealer or manual to determine if your tractor is equipped with an "OPEN-CENTER" or a "CLOSED-CENTER" hydraulic system.

■ Tractor hydraulic system can be seriously damaged if the incorrect optional valve is installed.

■ Use care to prevent foreign material from entering and damaging the hydraulic system.

In some cases, when installing the three optional cutter hydraulic cylinders, it will be necessary to install the optional 3-spool valve available from Woods.

This installation should be performed by dealer service personnel. It requires special skills and tools.

In preparation to install these hydraulic components, shut off tractor, remove key and make sure that all system hydraulic pressure is relieved before connecting or disconnecting any lines. Make sure system oil is cool and that you clean the work area of anything that could contaminate the hydraulic system.

There are three possible plumbing configurations for the optional Woods valve. Determine the proper configuration for your tractor hydraulic system. In all cases, the low-pressure RETURN hose must be connected directly to the tractor RETURN port to prevent valve damage from back pressure.

The open-center valve without the power-beyond port should only be used on tractors with an OPEN-CENTER system when the pressure hose is connected to a tractor remote valve coupler or a diverter valve.

An open-center valve with the power-beyond port is required for tractors with an OPEN-CENTER system when the pressure hose must be connected directly to a tractor port or hydraulic line and pressurized RETURN oil is required to operate the tractor 3-point hitch or another accessory valve.

The closed-center valve should only be used on tractors with a CLOSED-CENTER system when the pressure hose is connected to a tractor remote valve coupler or another tractor port.

One valve kit is available and can be converted to your requirement.

Open-Center Valve Assembly

Work Ports

1. Remove plugs from the three work ports on opposite side of control handles.
2. Install 1/2 x 3/8" reducer bushings and 3/8" male x 1/4" female swivel elbows. Point elbows rearward toward cutter to prevent hose interference with handles.

Supply Ports

3. Place valve on work area with control levers on the left. Remove plastic plug from left port and install reducer bushing (3) and swivel elbow (2). Attach low-pressure tank hose (6) and couplers (5) to this elbow.
4. Install reducer bushing (3) and swivel elbow (2) into port in opposite end of valve. Attach pressure hose (4) to this elbow.

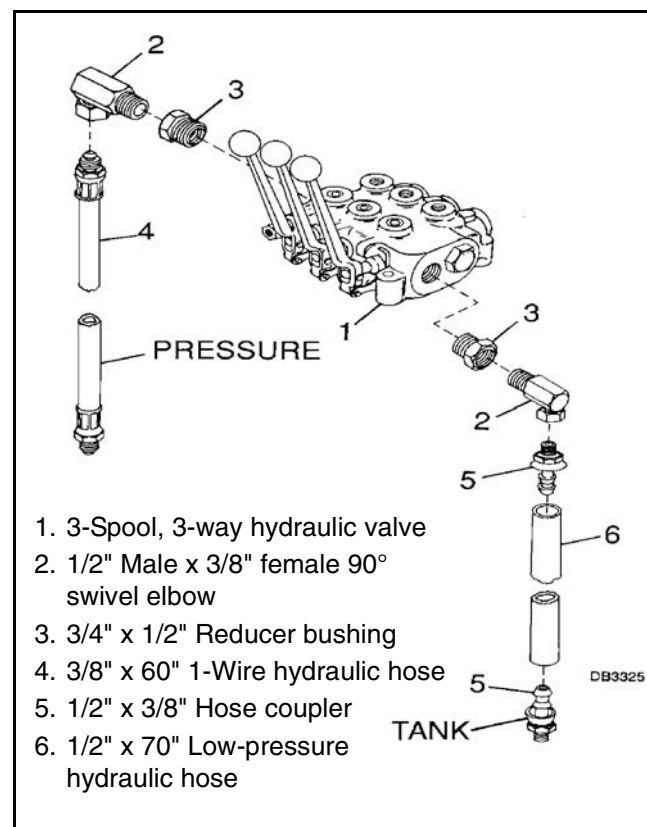


Figure 36. Open-Center Valve without Power-Beyond

Open-Center Valve to Open-Center with Power-Beyond Conversion

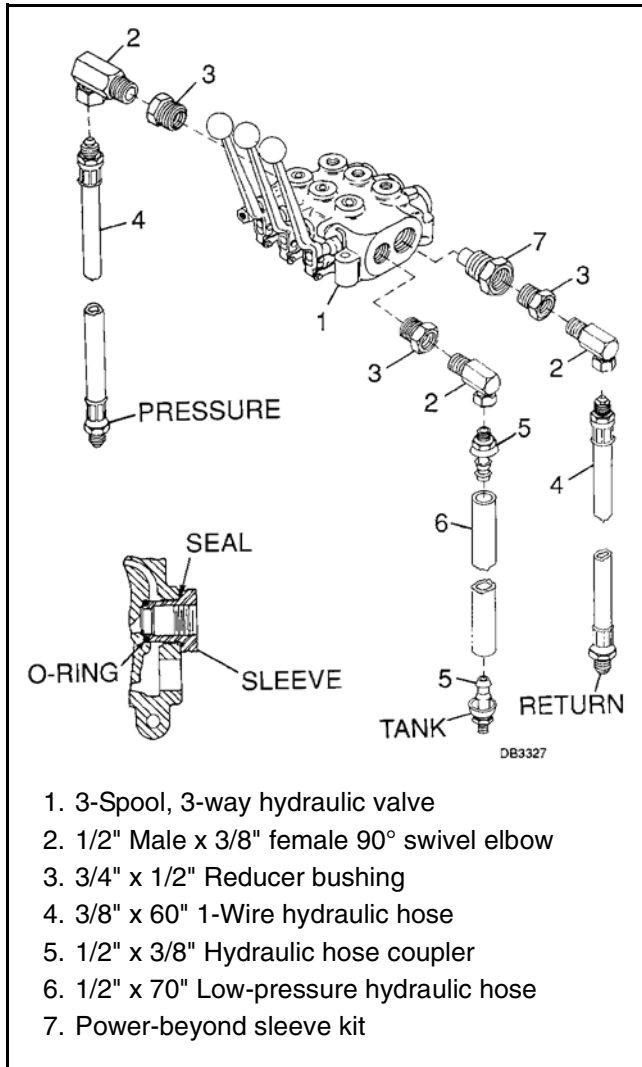


Figure 37. Open-Center Valve with Power-Beyond

NOTE: Install hoses after mounting valve on tractor.

1. Place the valve on work area with the control levers on the left. Remove plastic plug from left port and steel plug from right port.
2. Install power-beyond sleeve (7) in right port. Make sure power-beyond sleeve, O-ring and seal seat properly (see cross section).
3. Install reducer bushing (3) and swivel elbow (2) into power-beyond sleeve. Connect return hose (4) to this elbow.
4. Install reducer bushing (3) and swivel elbow (2) into left port. Attach low-pressure tank hose (6) and couplers (5) to this elbow.
5. Install reducer bushing (3) and swivel elbow (2) into port in opposite end of valve. Attach pressure hose (4) to this elbow.

Open-Center Valve to Closed-Center Valve Conversion

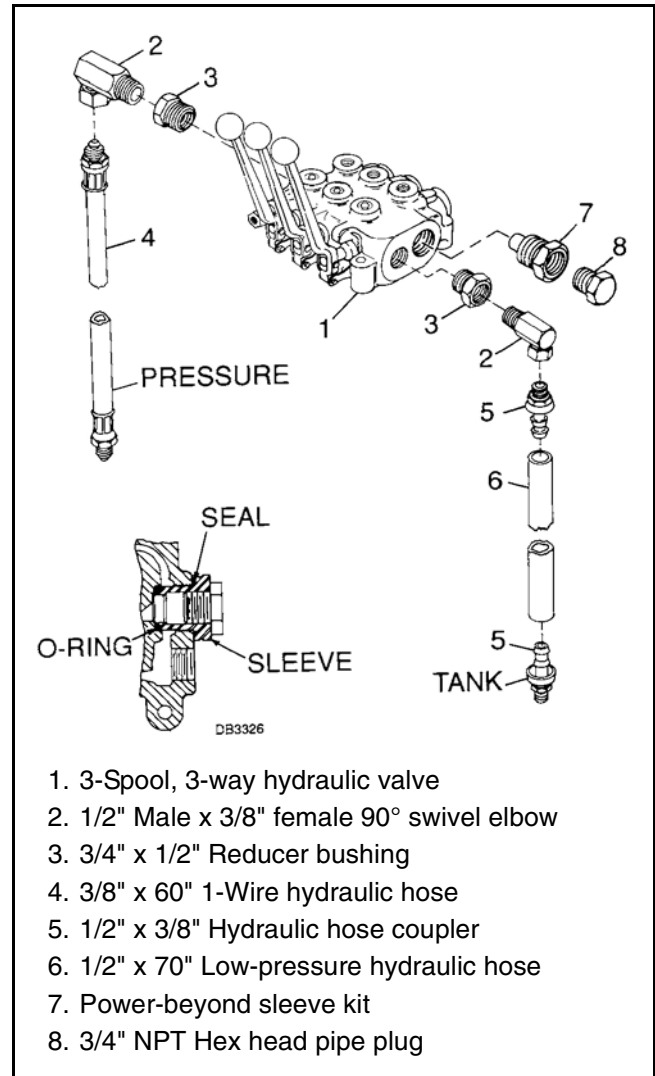


Figure 38. Closed-Center Valve

NOTE: Install hoses after mounting valve on tractor.

6. Place valve on work area with control levers on left. Remove plastic plug from left port and steel plug from right port.
7. Install POWER-BEYOND sleeve (7) and plug (8) in right port. Make sure POWER-BEYOND sleeve, O-ring and seal seat properly (see cross section).
8. Install reducer bushing (3) and swivel elbow (2) into left port. Attach low-pressure tank hose (6) and couplers (5) to this elbow.
9. Install reducer bushing (3) and swivel elbow (2) into port in opposite end of valve. Attach PRESSURE hose (4) to this elbow.

Fender Bracket and 3-Spool Valve Installation

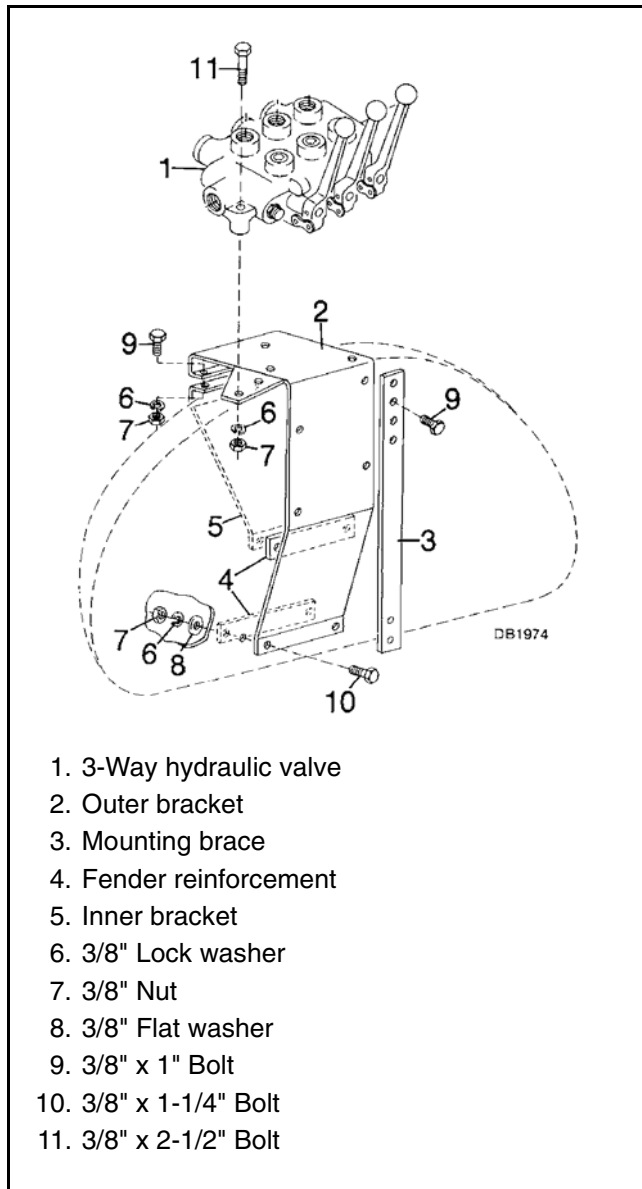


Figure 39. Fender Bracket & Woods 3-Spool Valve Installation

1. Locate outer valve bracket (2) on fender in a position that will place valve control handles convenient to the operator.
2. On a fender with a narrow top, install inner bracket (5) using bolts (9), lock washers (6) and nuts (7).
3. On a fender with a flat top, discard bracket (5) and mount bracket (2) directly on top of fender.
4. Mark and drill the four holes in fender. Install fender reinforcements (4) on underside of fender with bolts (10), washers (8), lock washers (6) and nuts (7).

5. Attach brace (3) if necessary to make bracket rigid. Use any hole in the bracket and any convenient hole on the tractor.
6. Position valve on top of bracket and attach with bolts (11), lock washers (6) and nuts (7). Just snug these bolts; do not over-tighten.
7. Attach control handles with chain connector links and pins. The ports next to control handles are plugged and will not be used.

3-Spool Valve to Tractor Connection

Refer to your tractor manual to determine where to connect the valve hoses to the tractor system.

The hoses and fittings supplied in the kit may not fit all tractors. If you are required to substitute any parts, make sure all fittings are of an approved type for the application. Only substitute high-pressure hoses for the high-pressure applications and low-pressure hoses for the low-pressure applications.

For open-center and closed-center systems, connect tank and pressure hoses to tractor tank and pressure fittings.

For open-center with power-beyond systems, connect the tank and pressure hoses to tractor tank and pressure fittings and the return hose to rockshaft or loader valve inlet.

BW1260 and BW1260L Counterweight Installation (Figure 40)

WARNING

■ **The offset model is unstable without adequate counterweight. Use counterweight box loaded with 1190 lbs. of steel.**

■ **Use a suitable lifting device of sufficient capacity. Use adequate personnel to handle heavy components.**

This unit may be operated with only one wing - either right or left. With only one wing, the unit is unshielded and unstable. When electing to operate with one wing, you must install a counterweight box, available from your dealer. This box has a dual purpose: it substitutes for the shielding and for the weight of the removed wing.

The counterweight must be installed in the following sequence and will require at least two people. A floor jack or a suitable lifting device will be helpful to align the hinges when installing the hinge pin.

1. Remove hinge pin (2) from center section.
2. Place brace (3) inside the front corner of the weight box (1) and secure with two cap screws (12), two flat washers (13), and two lock nuts (4).
3. Align mounting plate (5) with top two slots at rear of weight box. Secure with two cap screws (12), two flat washers (13), and two lock nuts (14). Do not tighten hardware at this point.
4. Align skid shoe (4) with holes on bottom and inside of weight box. Secure bottom with the hardware provided with skid shoe. Secure top with two cap screws (12), two flat washers (13) and two lock nuts (14).
5. Place weight box assembly adjacent to the center section and align hinge sections.
6. Insert hinge pin through the hinge sections. Install sleeve (6) on hinge pin behind deck hinge section

to prevent weight box from sliding rearward. Secure hinge pin with two washers (10) and two spring pins (9).

7. Insert clevis pin (7) through lock-up lug on center section and lug on center of weight box. Secure with two cotter pins (8).
8. Insert self-tapping screw (16), lock washer (15), and flat washer (13) through upper rear hole in mounting plate and hole in side of center section. Tighten hardware from step 3.
9. Attach chain shield (17) to mounting plate with two cap screws (12), two flat washers (13), and two lock nuts (14).

Winch Kit Installation (Optional)

See page 75 for installation and operation instructions.

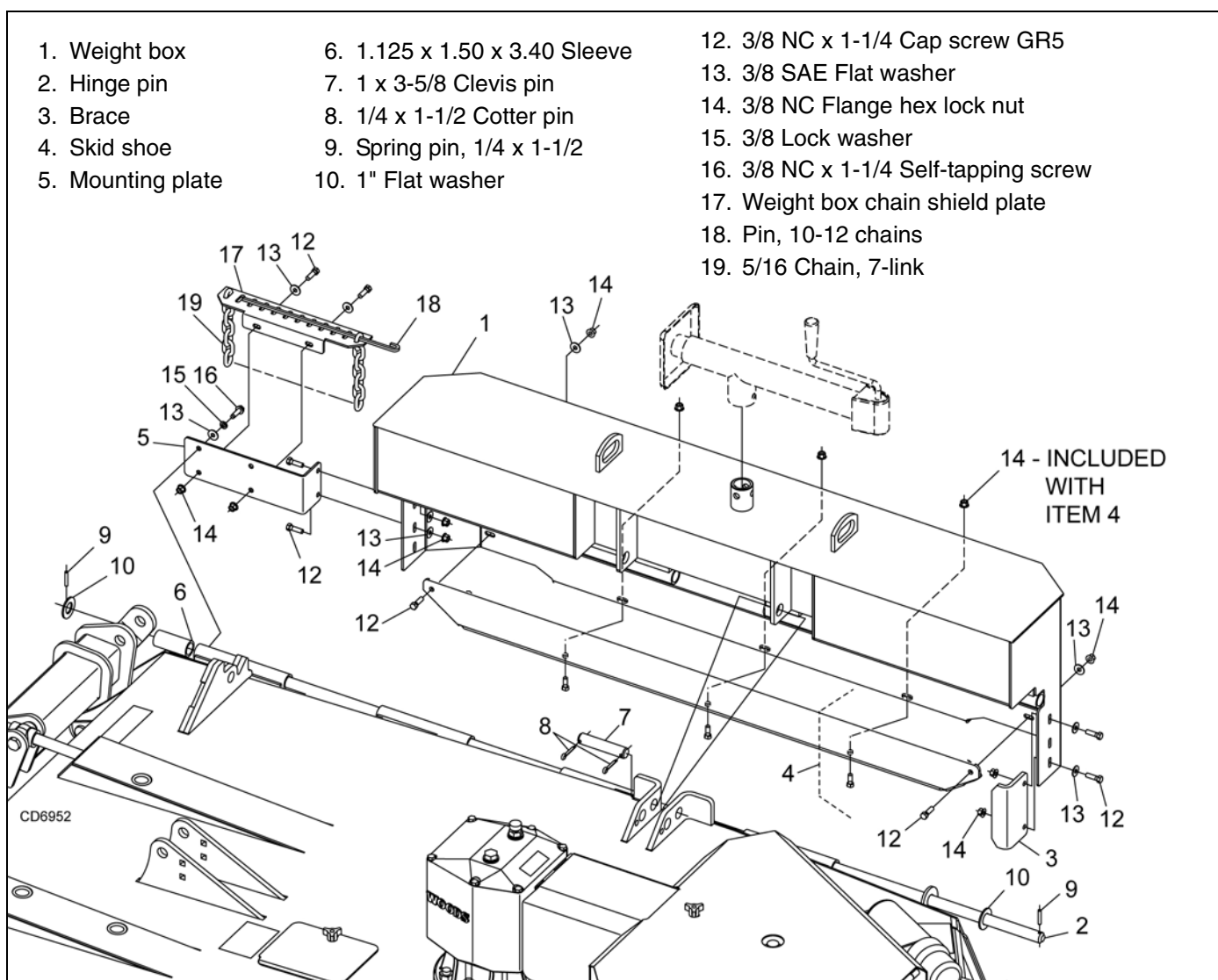


Figure 40. Counterweight Installation

DEALER CHECK LISTS

PRE-DELIVERY CHECK LIST

(DEALER'S RESPONSIBILITY)

IMPORTANT

■ **Gearbox was not filled at the factory. It must be serviced before operating cutter. (See Fill Gearbox, page 32). Failure to service will result in damage to gearbox.**

Inspect cutter thoroughly after assembly to make sure it is set up properly before delivering it to the customer. The following check list is a reminder of points to inspect. Check off each item as it is found satisfactory, corrections are made, or services are performed.

- ___ 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.
- ___ Check all bolts to be sure they are properly torqued.
- ___ Check wheel bolts for proper torque.
- ___ Check that all cotter pins are properly installed and secured.
- ___ Check that blades have been properly installed.
- ___ Check the level of gearbox fluids before delivery. Service, if required.
- ___ Check and grease all lubrication points as identified in **LUBRICATION, page 20**.

DELIVERY CHECK LIST

(DEALER'S RESPONSIBILITY)

- ___ Show customer how to make adjustments and select proper PTO speed.
- ___ Show customer how to make sure driveline is properly installed and that spring-activated locking pin or collar slides freely and is seated in groove on tractor PTO shaft.

- ___ Show customer how to determine the turning limits of the CV PTO driveline.
- ___ Show customer the safe, proper procedures to be used when mounting, dismounting, and storing equipment.
- ___ Make customer aware of optional equipment available so that customer can make proper choices as required.
- ___ 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.
- ___ Explain to customer that when transporting the cutter, the wing and center sections should be raised and their respective transport bars installed and pinned in place.
- ___ 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.
- ___ Explain to customer the potential crushing hazards of going underneath raised equipment. Instruct that before going underneath to disconnect the driveline, securely block up all corners with jackstands and to follow all instructions in the BLOCKING METHOD, page 19 of the operator's manual. Explain that blocking up prevents equipment dropping from hydraulic leak down, hydraulic system failures or mechanical component failures.
- ___ Point out all guards and shields. Explain their importance and the safety hazards that exist when not kept in place and in good condition.
- ___ Explain to customer that when towing on a public road to comply with all state and local lighting/marking laws and to use a safety tow chain.

NOTES

PARTS

CONTACT YOUR WOODS DEALER TO ORDER PARTS

To locate your nearest dealer:

- Check the Dealer Locator at www.WoodsEquipment.com, or
- In the United States and Canada, phone 1-800-319-6637
- Outside the United States, phone 1-815-732-9509 plus the appropriate international dialing code for the USA

To order correct parts, provide this information to your dealer:

- Model Number: _____
- Serial Number: _____

BOLT TORQUE CHART

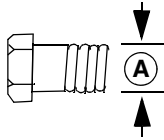
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

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

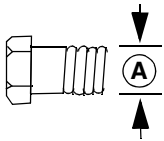


SAE Grade 5
(3 Radial Dashes)



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



Metric
Grade 8.8

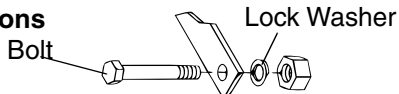
Metric Bolt Head
Identification



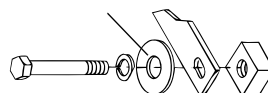
Metric
Grade 10.9

Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	COARSE THREAD				FINE THREAD				Ⓐ Diameter & Thread Pitch (Millimeters)
		MARKING ON HEAD				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



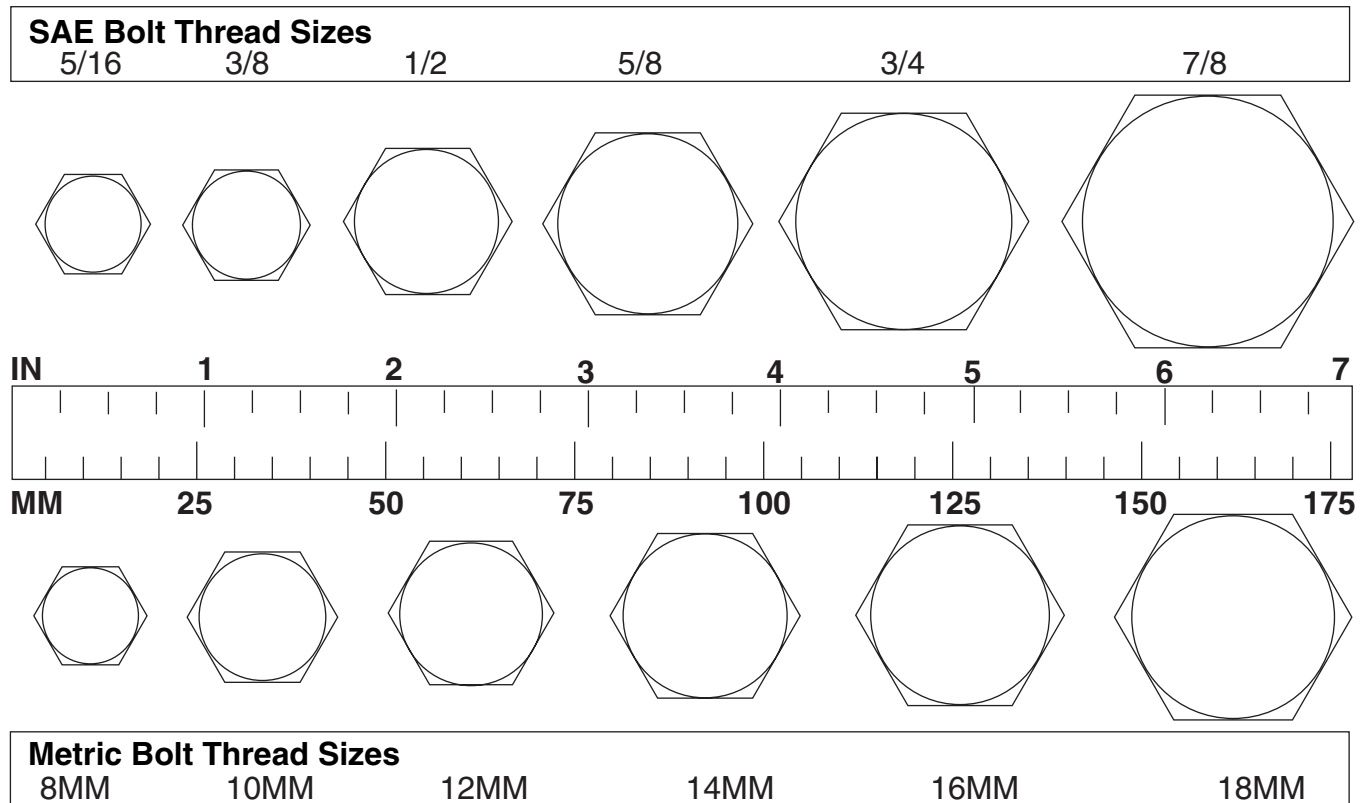
Flat Washer



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
 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
 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

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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.

The warranty periods for certain gearboxes and blade spindles are listed below:

Model No.	Part Warranted	Duration
PHD25, PHD35, PHD65, PHD95, 1260, 2162, 3240, BB48, BB60, BB72, BB84, BB600, BB720, BB840, BB6000, BB7200, BB8400, BW180-2, BW1800, DS96, DS120, RCC42, RM550-2, RM660-2, RM990-3, PRD6000, PRD7200, PRD8400, 7144RD-2, 9180RD-2, 9204RD-2, S15CD, S20CD, S22CD, S25CD, S27CD	Gearbox components	5 years from the date of delivery to the original purchaser.
RDC54, RD60, RD72	Gearbox components	3 years from the date of delivery to the original purchaser.
RDC54, RD60, RD72	Gearbox components	1 year from the date of delivery to the original purchaser if used in rental or commercial applications.
RM550-2, RM660-2, RM990-3, PRD6000, PRD7200, PRD8400, 7144RD-2, 9180RD-2, 9204RD-2	Blade spindles	3 years from the date of delivery to the original purchaser.

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, Illinois 61061

800-319-6637 tel
800-399-6637 fax
www.WoodsEquipment.com

WOODS®

ALITEC™

BMP®

CENTRAL FABRICATORS®

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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