

ALITEC™

**SKID STEER
PAVEMENT SAW**

PS9 1.5MD

PS9 2.5MD

PS9 4.5MD

PS9 1.5HD

PS9 2.5HD

PS9 4.5HD

PS9 1.5HD SINGLE CIRCUIT

PS9 2.5HD SINGLE CIRCUIT

Effective Serial Number:

550020201 PS9 2.5HD

MPS9
(Rev. 6/27/2019)

WOODS®

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 online Product Registration form at the Woods Dealer Website which certifies that all Dealer Check List items have been completed. Dealers can register all Woods product at dealer.WoodsEquipment.com under Product Registration.

Failure to register the product does not diminish customer's warranty rights.

TO THE OWNER:

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

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

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

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

Model: _____ **Date of Purchase:** _____

Serial Number: (see Safety Decal section for location) _____

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

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



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



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



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



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

**IMPORTANT
or NOTICE**

Is used to address practices not related to physical injury.

NOTE Indicates helpful information.

ALITEC™
CENTRAL FABRICATORS®
GANNON®
WAIN-ROY®
WOODS®

WOODS®
Woods Equipment Company

2 Introduction

Gen'l (Rev. 2/25/2016)

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¡LEA EL INSTRUCTIVO!

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



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

SPECIFICATIONS

	<u>PS9 1.5</u>	<u>PS9 2.5</u>	<u>PS9 4.5</u>
Cutting Width	1.5"	2.5"	4.5"
Cutting Depth	9"	9"	9"
Sideshift Travel	22"	22"	22"
Recommended Hydraulic Flow	25 - 30 GPM	25 - 30 GPM	25 - 30 GPM
Recommended Hydraulic Pressure	2000 - 3000 PSI	2000 - 3000 PSI	2000 - 3000 PSI
Operating Weight	1700 lbs.	1700 lbs.	1700 lbs.
Drive	Planetary	Planetary	Planetary
Maximum Hydraulic Pressure	3500 PSI	3500 PSI	3500 PSI
Maximum Hydraulic Flow	32 GPM	32 GPM	32 GPM

GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your pavement saw. 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. Wheel rotation is counter-clockwise as viewed from the right side of the pavement saw.

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.
- 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.

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.

CONTACT 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.
- Counterweight ballast may be required for machine stability. Check your power unit manual or contact your dealer.
- 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.
- 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.
- Protective hose sleeves must cover all hydraulic hoses within 20 inches of the operator and be secured onto metal hose fittings. Replace hoses or sleeves if damaged or if protective sleeve cannot be properly positioned or secured.
- 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.
- 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.
- Be sure attachment is properly secured, adjusted, and in good operating condition. Coupler lockpins must be fully extended and properly engaged into attachment retaining slots.

(Safety Rules continued on next page)

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

■ Power unit must be equipped with ROPS and seat belt/operator restraint. Keep seat belt/operator restraint securely fastened/engaged. Falling off power unit can result in death from being run over or crushed. Keep ROPS systems in place at all times.

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

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

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

OPERATION

■ Improper operation can cause the machine to tip or roll over and cause injury or death.

- Keep power unit lift arms and attachment as low as possible.
- Do not travel or turn with power unit lift arms and attachment raised.
- Turn only on level ground.
- Go up and down slopes, not across them.
- Keep the heavy end of the machine uphill.
- Do not overload the machine.

■ Never use attachment to carry loads that exceed the rated operating capacity or other specifications of the power unit. Check your power unit manual or see your dealer for rated operating capacity. Exceeding this capacity can cause machine to tip, roll over, or present other hazards that can cause injury or death.

■ Do not allow bystanders within 25 feet of the area when operating, attaching, removing, assembling, maintaining, or servicing equipment.

■ Consult local utilities before digging. Know location and depth of all underground cables, pipelines, and other hazards in working area and avoid contact.

■ Contact with high voltage, overhead power lines, underground cables, gas lines, and other hazards can cause serious injury or death from electrocution, explosion, or fire.

■ Keep bystanders away from equipment.

■ 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.

■ Do not allow riders. Do not lift or carry anybody on the power unit or attachments.

■ Always sit in power unit seat when operating controls or starting engine. Securely fasten seat belt/operator restraint, place transmission in park or neutral, engage brake and ensure all other controls are disengaged before starting power unit engine.

■ Look down and to the rear and make sure area is clear before traveling in reverse.

■ Use extreme care when working close to fences, ditches, other obstructions, or on hillsides.

■ Do not operate or transport 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.

■ **NEVER GO UNDERNEATH EQUIPMENT.** 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.

- Service work does not require going underneath implement.
- Read Operator's Manual for service instructions or have service performed by a qualified dealer.

■ Before making any adjustments on attachment, stop engine and engage parking brake. Never adjust or work on attachment while the power unit or attachment is running.

■ Before leaving operator's seat, lower lift arms and put attachment on the ground. Engage brake, stop engine, remove key, and remove seat belt.

MAINTENANCE

■ Before leaving operator's seat, lower lift arms and put attachment on the ground. Engage brake, stop engine, remove key, and remove seat belt.

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



■ Before cleaning, adjusting, lubricating, or servicing this unit, always follow this **MANDATORY SAFETY SHUTDOWN PROCEDURE**:

- Move the skid steer loader propulsion control lever to the “neutral” position.
- Shut off the attachment by shutting off the auxiliary hydraulic output.
- Lower the loader lift arms completely and roll the attachment forward so it is securely resting on firm ground or the shop floor.
- Engage the loader park brake.
- Move the loader throttle to the slow idle position, shut the engine off, and remove the ignition key.
- Keep the key with you at all times when working on the unit so no one can start the engine without your knowledge.

■ **NEVER GO UNDERNEATH EQUIPMENT.** 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.

- Service work does not require going underneath implement.
- Read Operator’s Manual for service instructions or have service performed by a qualified dealer.

■ 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.

■ 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.

■ Do not allow bystanders within 25 feet of the area when operating, attaching, removing, assembling, maintaining, or servicing equipment.

■ Be sure attachment is properly secured, adjusted, and in good operating condition. Coupler lockpins must be fully extended and properly engaged into attachment retaining slots.

■ Never perform service or maintenance with engine running.

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

■ 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.

■ Do not disconnect hydraulic lines until all system pressure is relieved. Lower unit to ground, stop engine, and operate all hydraulic control levers.

STORAGE

■ Follow manual instructions for storage.

■ Keep children and bystanders away from storage area.



SAFETY & INSTRUCTIONAL DECALS



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Replace Immediately If Damaged!

2 - D0062

⚠ DANGER

AVOID INJURY OR DEATH

Bystanders must stay 6M (20 ft.) away.

Stop engine before servicing or cleaning this equipment.

7 - D0192

⚠ WARNING

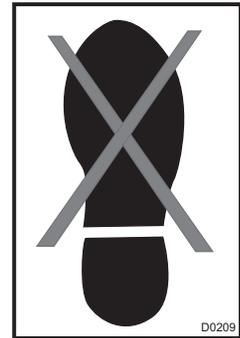
PINCH AREA
Keep clear during operation.

8 - D0195

⚠ WARNING

FLYING OBJECT HAZARD
Keep clear during operation.

9 - D0209

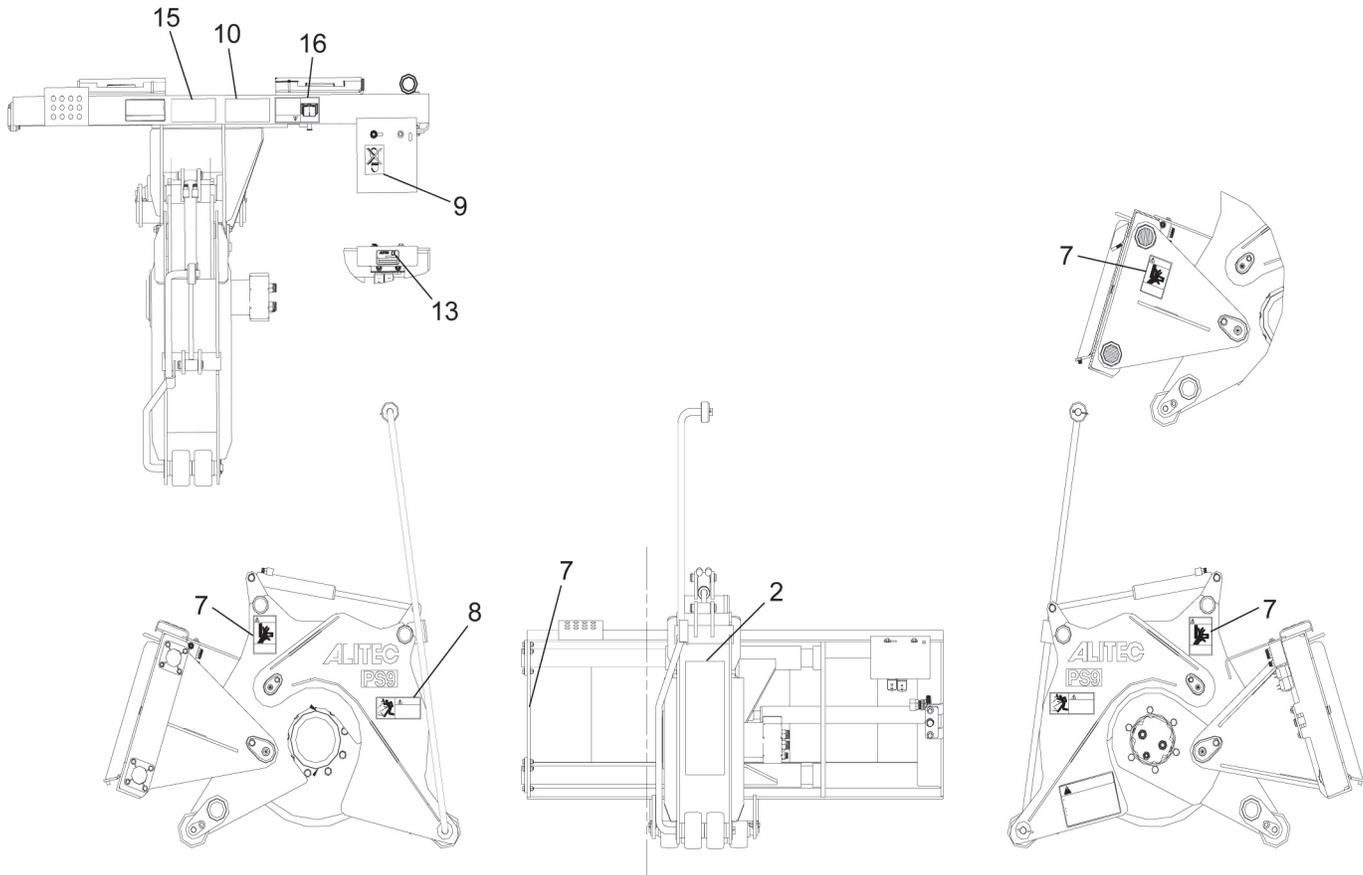


10 - 19924

⚠ 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.





SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!



13 - Serial Number Plate



15 - 54519

WARNING	
<p>FALLING OFF CAN RESULT IN BEING RUN OVER.</p> <ul style="list-style-type: none"> ■ Skid steer must have ROPS and seat belt/operator restraint. Keep seat belt/operator restraint securely fastened. ■ Never allow riders. <p style="text-align: center;">RAISED EQUIPMENT CAN DROP AND CRUSH.</p> <ul style="list-style-type: none"> ■ Never go under raised equipment or raised skid steer lift arms. They can drop from hydraulic or mechanical failure, or moving control levers. ■ Service work does not require going under equipment. Read manual instructions. <p>FALLING OFF OR GOING UNDER MACHINE CAN RESULT IN SERIOUS INJURY OR DEATH.</p> <p style="text-align: right; font-size: small;">54519-B</p>	

16 - D0404

WARNING	<p>TO AVOID SERIOUS INJURY OR DEATH:</p> <ul style="list-style-type: none"> ■ Read attachment and power unit manuals before you use, service, or repair machine. Follow all safety rules and instructions. (Manuals can be obtained from your dealer, or in the United States and Canada call 1-800-319-6637.) ■ Use only when sitting in operator's seat with seat belt/operator restraint fastened. ■ Before leaving operator's seat, follow power unit manual instructions, lower lift arms and attachment to ground, stop engine, remove key, engage brake, and remove seat belt/operator restraint. ■ Never let children or untrained persons run equipment.
D0404-C	

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.

OPERATION

WARNING

■ **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.**

■ **Power unit must be equipped with ROPS and seat belt/operator restraint. Keep seat belt/operator restraint securely fastened/engaged. Falling off power unit can result in death from being run over or crushed. Keep ROPS systems in place at all times.**

■ **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.**

■ **Skid Steers must be equipped with an auxiliary hydraulic system capable of supplying continuous flow for hydraulic motor operation.**

PRE-OPERATION CHECK LIST

(Owner's Responsibility)

- ___ Review and follow all safety rules and safety decal instructions. See "safety rules" on page 5. See "SAFETY & INSTRUCTIONAL DECALS" on page 8.
- ___ Check that all safety decals are installed and in good condition. Replace if damaged.
- ___ Check that all shields and guards are properly installed and in good condition. Replace if damaged.
- ___ Check that equipment is properly and securely attached to skid steer.
- ___ Check that all hardware and cotter pins are properly installed and secured.
- ___ Do not allow riders. Keep all bystanders away from equipment working area.
- ___ Keep all bystanders away from equipment working area.
- ___ Check all lubrication points and grease as instructed. See "lubrication" on page 19.
- ___ Check that all hydraulic hoses and fittings are in good condition and not leaking before starting skid steer.

___ Check that hoses are not twisted, bent sharply, kinked, frayed or pulled tight. Replace any damaged hoses immediately.

___ Make sure skid steer ROPS and seat belt are in good condition. Keep seat belt securely fastened during operation.

ATTACH PAVEMENT SAW

1. Place the coupler pins in the disengaged position as shown in Figure 1.
2. Rotate the skid steer attach slightly forward.
3. Fully lower the lift arms.



Figure 1.

4. Pull forward to the pavement saw. Make sure the outside of the skid steer attach is aligned with the inside of the hitch plate on the pavement saw.
5. Continue to pull forward until the skid steer attach makes contact with the attachment as shown in Figure 2.
6. Raise skid steer arms until the top of the skid steer attach contacts both the top latch bars (1) on the attachment.

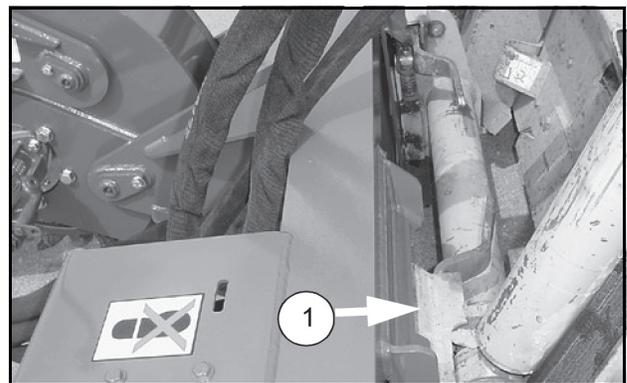


Figure 2.

7. Roll the skid steer arms back slowly and completely. The saw should be off the ground with its weight being supported by the skid steer as shown in Figure 3.
8. Engage the parking brake on the skid steer.
9. Stop the engine.



Figure 3.

10. Relieve the back pressure in the auxiliary hydraulic system.
11. Move the coupler pins to the engaged position.
12. Hook up the auxiliary hydraulic hoses. Make sure they are routed to prevent hose interference as shown in Figure 4.



Figure 4. Manual Depth

ADJUST CUTTING DEPTH (MD ONLY)

1. Raise the pavement saw 6 to 8" off the ground.
2. Engage the parking brake on skid steer
3. Stop the engine.
4. Adjust the depth jack located at the top of the pavement saw (2) counter-clockwise for a deeper cut or clockwise for a shallower depth as shown in Figure 5.

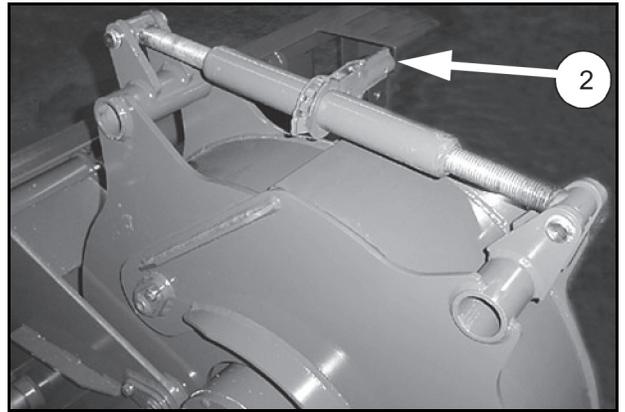


Figure 5. Manual Depth

ADJUST CUTTING DEPTH (HD ONLY)

1. Raise the pavement saw 6 to 8" off the ground.
2. Extend the depth cylinder (3) to control the depth of the desired cut.

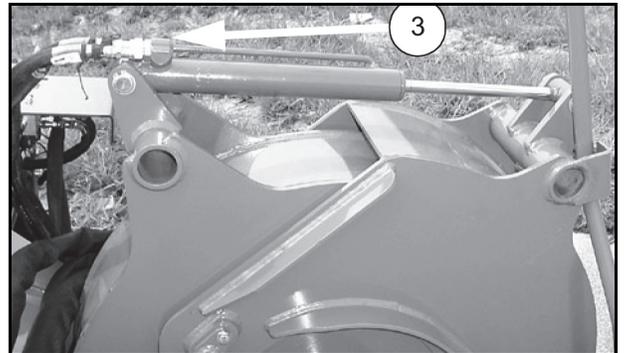


Figure 6. Hydraulic Depth

ADJUST SIDESHIFT

1. Raise the pavement saw 6 to 8" off the ground.
2. Engage the parking brake on the skid steer and stop the engine.
3. **(MD Only)** To operate the sideshift cylinder for shifting the pavement saw from side to side pull the knob (4) on the diverter valve outward as shown in Figure 7.
4. Enter the skid steer and start the engine.
5. **(HD Only)** Activate the auxiliary hydraulics to move the pavement saw to the desired position.
6. **(MD Only)** Once the desired position is achieved, stop the engine and engage the parking brake.
7. Exit the skid steer.
8. Shift the diverter valve back to the cutting position by pushing the knob inward as shown in Figure 7.

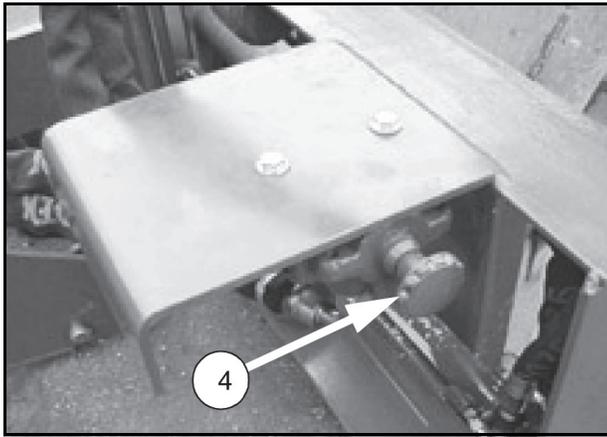


Figure 7.

PAVEMENT SAW OPERATION

1. Adjust the pavement saw to the desired cutting depth. (See “Adjust Cutting Depth (MD Only)” on page 11.)
2. Roll the skid steer arms back and lower the arms completely.
3. Deploy the guide arm (5) as shown in Figure 8.

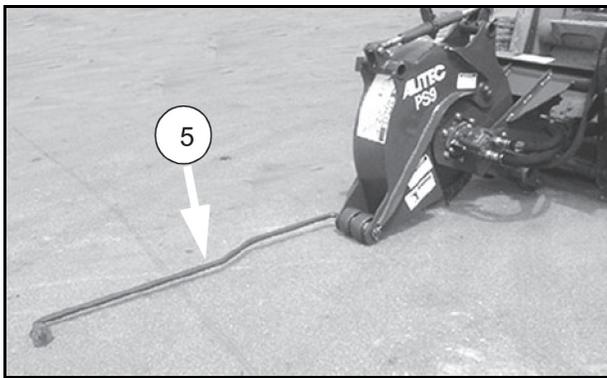


Figure 8.

4. Engage the auxiliary hydraulic power. Be sure the wheel is rotating in a counter-clockwise position if viewed from the right side of the pavement saw.
5. Set the skid steer engine rpm at full power.
6. Slowly roll the skid steer arms forward to engage the pavement saw. (If the cutting wheel stalls, roll skid steer arms back until the wheel begins rotating).
NOTE: Depending on the type of material being cut, the rate at which the saw enters the cut will vary. A proper rate of entry is one that is accompanied by minimum vibration or bucking.
7. Continue to roll the attach bracket forward until the front and rear wheels of pavement saw contact the ground and the front wheels of the skid steer (6) are off the ground as shown in Figure 9.

8. To avoid excessive vibration and to achieve best cutting results the stop (7) should be in the float position during the cutting operation.

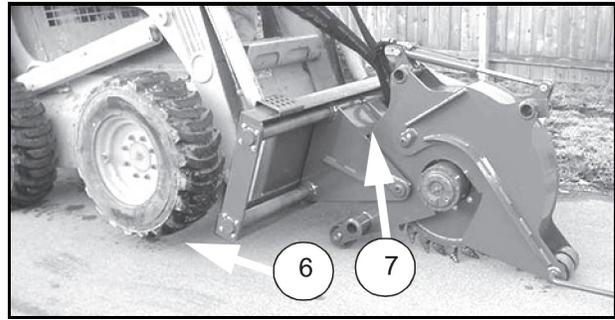


Figure 9.

9. Move the skid steer forward, maintaining a constant speed. If the cutting wheel stalls, stop forward movement. You may be required to reverse direction of the skid steer momentarily to allow cutting wheel to begin rotating again.
NOTE: For the most efficient cut, maintain a forward speed that minimizes stalling. Forward travel speed is dependent on the type of material being cut and the depth of the cut.
10. When the end of the cut is reached, stop forward movement and stop the cutting wheel rotation.
11. Roll the skid steer arms back until the cutting wheel clears the cut.
12. Repeat Steps 1 through 11 as necessary.

TRANSPORTING

Roll the skid steer arms back fully and raise the pavement saw 8 to 10” off the ground. Avoid excessive ground speed and sudden maneuvers.

NOTICE

- **When transporting the attachment make sure the cutting wheel does not contact the ground as this may cause the cutting wheel to turn resulting in damage to the motor.**


WARNING

- **Before making any adjustments on attachment, stop engine and engage parking brake. Never adjust or work on attachment while the power unit or attachment is running.**

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.

NOTES

- Clean up any stuck picks and lubricate with suitable lubrication like diesel fuel.
- 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.

STORAGE

NOTICE

- **The pavement saw is shipped with hoses. Unconnected hose ends should either be capped or have quick disconnect fittings installed to prevent loss of fluids or contamination.**
- **Keep children and bystanders away from storage area.**

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Cutting wheel does not operate.	<p>Auxiliary hoses are not hooked up to skid steer.</p> <p>The diverter valve is in the sideshift position (MD model only).</p> <p>There is an obstruction in one or both of the auxiliary hoses.</p> <p>One or more seals on the motor has failed.</p> <p>Motor shaft key has failed.</p> <p>Skid steer auxiliary hydraulics are not operating properly.</p>	<p>Inspect connections visually (make sure QDs are fully engaged).</p> <p>Make sure diverter valve is pushed inward as far as possible.</p> <p>Remove and inspect hoses visually.</p> <p>Contact dealer.</p> <p>Remove and visually inspect motor.</p> <p>Refer to skid steer owner's manual.</p>
Cutting wheel rotates sluggishly or insufficient cutting power.	<p>The diverter valve is not fully shifted to the saw position (MD only). Insufficient hydraulic flow from the skid steer.</p> <p>The hydraulic oil filter on the skid steer is dirty.</p> <p>Relief valve on the skid steer is not set properly.</p> <p>One or more seals on the motor have failed.</p>	<p>Make sure diverter valve is pushed inward as far as possible.</p> <p>Refer to skid steer owner's manual.</p> <p>Refer to skid steer owner's manual.</p> <p>Contact dealer.</p>
Oil is leaking from the motor area.	<p>One or more seals on the motor have failed.</p> <p>O-rings on fittings are damaged.</p> <p>O-ring between planetary and motor has failed.</p> <p>Fittings are loose or damaged.</p> <p>Hydraulic hoses are loose or damaged.</p>	<p>Contact dealer.</p> <p>Visually inspect O-rings and replace as needed.</p> <p>Verify condition of O-ring and replace as needed.</p> <p>Tighten or replace as needed.</p> <p>Tighten or replace as needed.</p>
Excessive oil temperature (more than 180° F).	<p>Obstruction in one or both auxiliary hydraulic hoses.</p> <p>Hydraulic oil level on skid steer is low.</p> <p>Hydraulic oil in skid steer is dirty.</p> <p>Hydraulic oil filter on skid steer is dirty or clogged.</p> <p>Relief valve on skid steer is not set properly.</p>	<p>Remove and visually inspect hoses. Replace as needed.</p> <p>Refer to skid steer owner's manual.</p>

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Cutting wheel rotates in the wrong direction.	<p>Auxiliary hydraulics are being activated in the wrong direction.</p> <p>Quick disconnects are switched on auxiliary hoses.</p>	<p>Reverse direction of auxiliary flow.</p> <p>Switch male and female auxiliary QDs.</p>
Hydraulic sideshift is not operating.	<p>Diverter valve is set to the cutting position.</p> <p>Hoses to the sideshift cylinder are obstructed.</p> <p>One or more seals in the sideshift cylinder have failed.</p> <p>Obstruction between pivot frame and side frame.</p> <p>Insufficient hydraulic flow from skid steer.</p> <p>Air is trapped in the sideshift cylinder hoses.</p> <p>Cylinder rod is bent.</p>	<p>Make sure the diverter valve knob is pulled outward as far as possible.</p> <p>Remove and visually inspect hoses.</p> <p>Contact dealer.</p> <p>Remove obstruction.</p> <p>Refer to skid steer owner's manual.</p> <p>Remove hoses from cylinder, activate sideshift function to evacuate air and re-attach hoses.</p> <p>Visually inspect cylinder for damage.</p>
Oil leaking from sideshift cylinder.	<p>One or more seals on cylinder have failed.</p> <p>O-rings on fittings are damaged.</p> <p>Fittings are loose or damaged.</p> <p>Hydraulic hoses are loose or damaged.</p>	<p>Contact dealer.</p> <p>Visually inspect O-rings and replace as needed.</p> <p>Tighten or replace as needed.</p> <p>Tighten or replace as needed.</p>
Excessive vibration during cutting operation.	<p>Picks are excessively worn.</p> <p>Insufficient down force due to incorrect operating procedure.</p> <p>Pivot pins excessively worn.</p>	<p>Visually inspect picks and replace as needed.</p> <p>Refer to the "Operation" section.</p> <p>Remove pins and inspect for wear.</p>

SERVICE

MAINTENANCE

The factory installed carbide pick is a general purpose pick of the type used for standard asphalt cutting applications. An alternative pick is available for applications that primarily involve cutting in concrete. Contact your dealer representative for further information concerning proper pick selection.

To prevent the picks from seizing in the holders, the picks should be sprayed with diesel fuel at the end of each day of operation. This will break down the asphalt accumulated in the holders and prevent premature wear by allowing the picks to rotate in the holders.

If the pick remains in the holder beyond its intended replacement point, it reduces the cutting performance and will not protect the holder. Inspect the cutting wheel every half hour of operation. Check the picks and holders for wear. If the picks are worn enough to indicate slight holder wear, replace the picks.

As regular use takes place, normal wear of the carbide picks will occur with the outer most picks wearing first. The pick tool included with the pavement saw should be used to remove the picks from the cast holders.

WHEEL HARDFACING

As the wheel is used, it will be necessary to hardface the wear points on the wheel and holders. This process is required on a repetitive basis. The warranty policy will not cover damage to the wheel or holders due to negligence.

CUTTING WHEEL & GEARBOX REMOVAL

1. Retract the depth jack (1) (MD, Manual Depth) or the hydraulic cylinder (HD, Hydraulic Depth) so that the cutting wheel is set to its maximum depth of cut.
2. Support the saw chassis with a hoist or other lifting device so the cutting wheel just touches the ground.

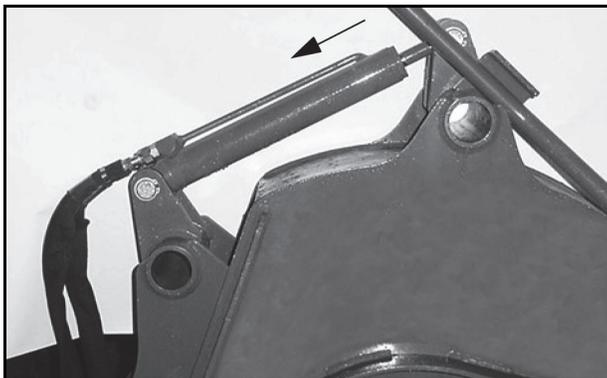


Figure 10.

3. Remove the two motor bolts (2) and the motor as shown in Figure 11.

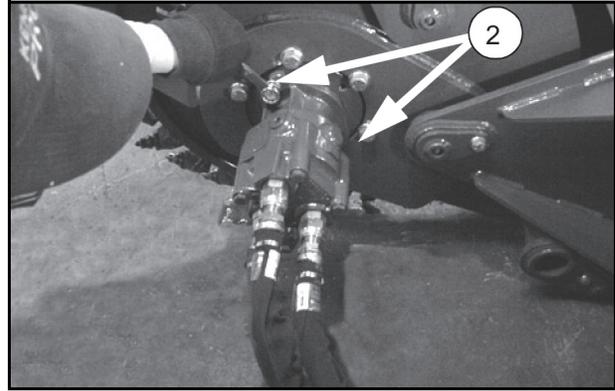


Figure 11.

4. With the saw supported, remove the six gear box bolts (3) and cautiously steady the cutting wheel assembly at the same time as shown in Figure 12.



Figure 12.

5. With cutting wheel anchored, use a hoist to lift the saw chassis (4) from the wheel as shown in Figure 13.

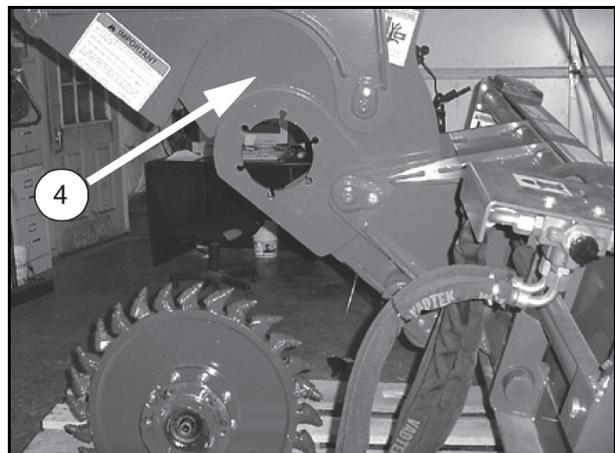


Figure 13.

CUTTING WHEEL & GEARBOX DISASSEMBLY

1. Follow Steps 1 through 5 of Cutting Wheel & Gearbox Removal.
2. Support the cutting wheel and gearbox assembly on a flat surface.
3. Remove the 9 bolts, nuts (5), and their associated washers that attach the cutting wheel to the gearbox as shown in Figure 14.
4. Remove the cutting wheel from the gearbox.

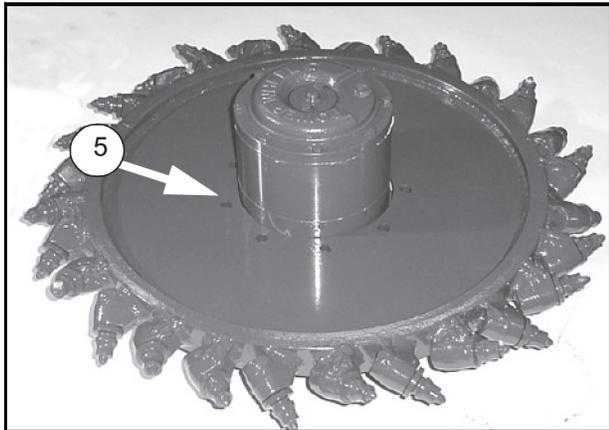


Figure 14.

CUTTING WHEEL & GEARBOX ASSEMBLY

1. Place the gearbox on a flat surface so the motor mount holes are facing down.
2. Carefully place the wheel over the pilot surface of the gearbox so when viewed from above the picks are oriented as shown in Figure 14.
3. Align the holes in the wheel with the corresponding holes in the gearbox mounting flange.
4. Install six bolts and their associated washers.
5. Torque the bolts and nuts to the appropriate values listed on page 36.

CUTTING WHEEL & GEARBOX INSTALLATION

1. Support and anchor the cutting wheel and gearbox (6) vertically.

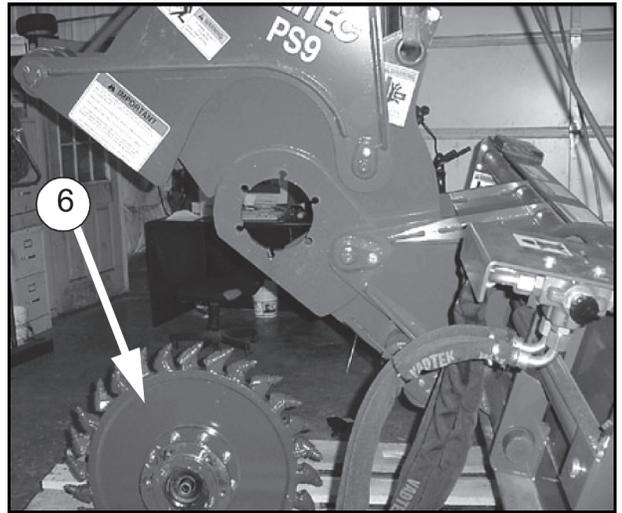


Figure 15.

2. With the depth jack (MD, Manual Depth) or depth cylinder (HD, Hydraulic Depth) fully retracted and the chassis properly supported by a hoist, lower the chassis over the cutting wheel cautiously until the gearbox mounting flange is aligned with the mount on the side of the chassis.
3. Align the holes in the gearbox with the corresponding holes in the mount plate so the motor mount holes are roughly in the 3 o'clock and 9 o'clock positions as shown in Figure 16.
4. Torque the bolts to the values shown on page 36.
5. Install the six gearbox mounting bolts and washers (7) as shown in Figure 16.

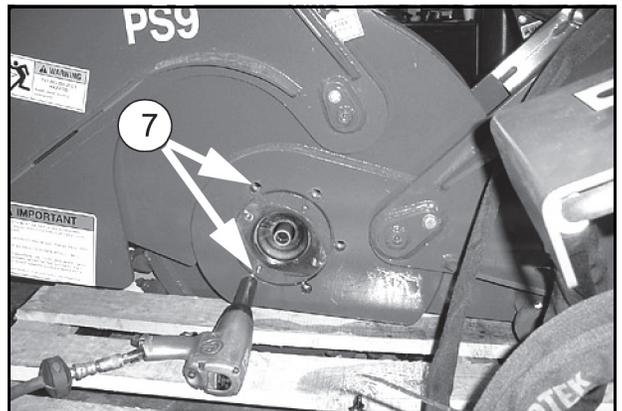


Figure 16.

6. Torque the bolts to the values shown on page 36.
7. Insert the motor in the gearbox motor mount. Install the two bolts, washers and O-ring (8) as shown in Figure 17.
8. Torque the bolts to the values shown on page 36.

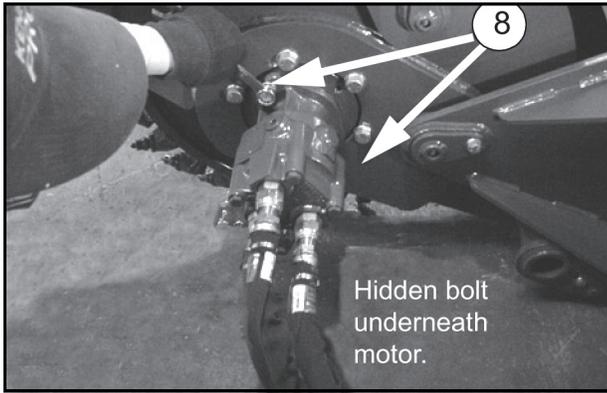


Figure 17.

**DEPTH JACK (MD, MANUAL DEPTH) OR
DEPTH CYLINDER (HD, HYDRAULIC
DEPTH)**

REMOVAL

NOTICE

■ Make sure the front wheels of the pavement saw are not supporting the attachment. The skid steer motor needs to be off with no residual pressure in the hydraulic lines of the cylinder before proceeding any further.

1. **(HD Only)** Remove hoses from the cylinder (9) as shown in Figure 18. Install caps to the fittings of the cylinder and the hoses to prevent contamination and spillage.

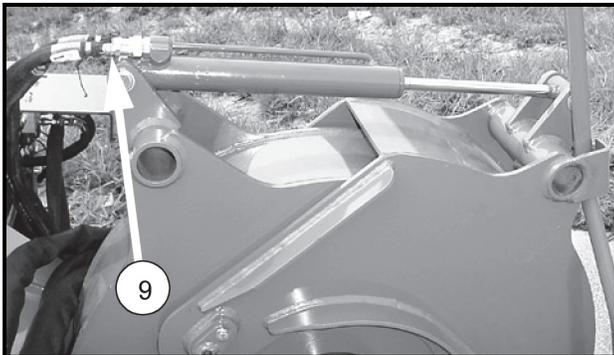


Figure 18.

2. **(MD Only)** Remove the snap rings (10) and pins (11) as shown in Figure 19.
3. Install the depth or hydraulic cylinder using the reverse procedure of Step 1 or Step 2.

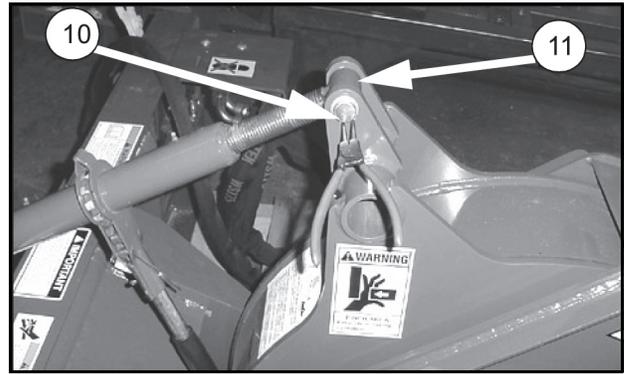


Figure 19.

PICK REMOVAL

⚠ WARNING

■ 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.

1. Insert the pick removal tool (1) into the slot on pick (2) as shown in Figure 20.



Figure 20.

2. Hit the pick removal tool on the round protrusion to drive the pick out as shown in Figure 21.

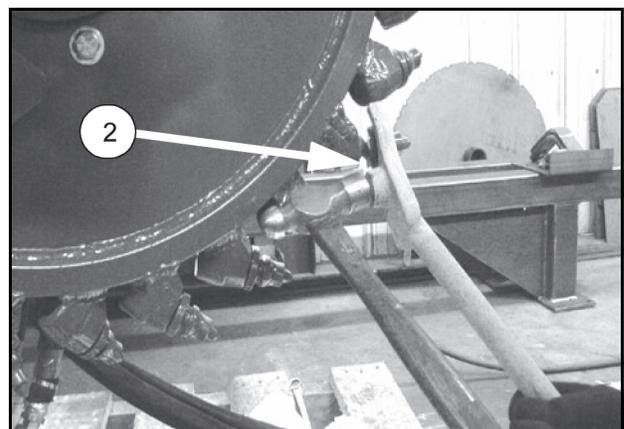


Figure 21.

PICK INSTALLATION

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.

3. Insert the pick tool (1) into the slot on the pick (2) as shown in Figure 22.
4. Drive the pick into holder by striking tool on circular protrusion (3).

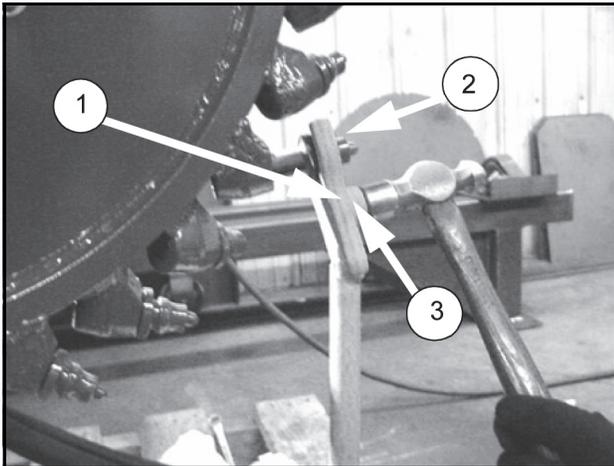


Figure 22.

NOTICE

■ Do not install pick by hitting the point of the pick as this may cause damage to the pick and premature failure.

HOSES

NOTICE

■ Always make sure the hoses are not kinked or pinched. These conditions can and will lead to premature wear and failure of a hydraulic hose. Remove and inspect the hoses for these conditions at regular intervals.

■ Never replace a hose with one that has a lower pressure rating or one that has a smaller diameter. Woods Equipment Company will not be responsible for problems or warranty claims on your pavement saw if the hydraulic system has been altered from its original configuration.

■ Do not modify or alter or permit anyone else to modify or alter the equipment or any of its components in any way.

LUBRICATION POINTS

All grease points should be serviced after 40 hours of operation:

- Depth Jack (MD Only) (4)
- Front and rear wheels (4)
- Depth skid pivot (3)
- Shroud pivot pin (4)
- Pivot frame slider tubes (2)

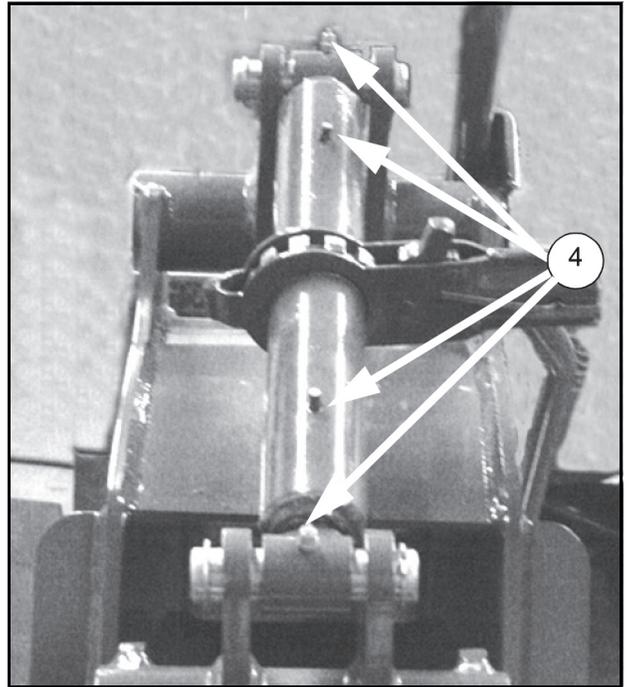


Figure 23. Depth Jack

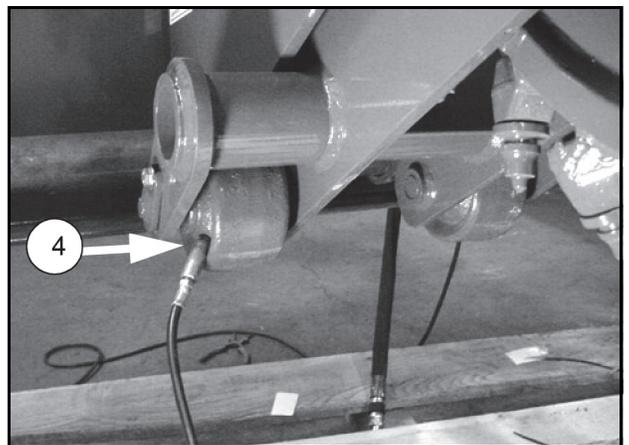


Figure 24. Rear Wheels

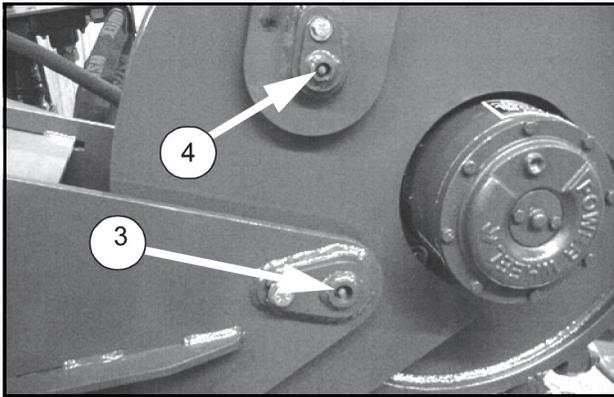


Figure 25. Depth Skid Pivot & Shroud Pivot Pin

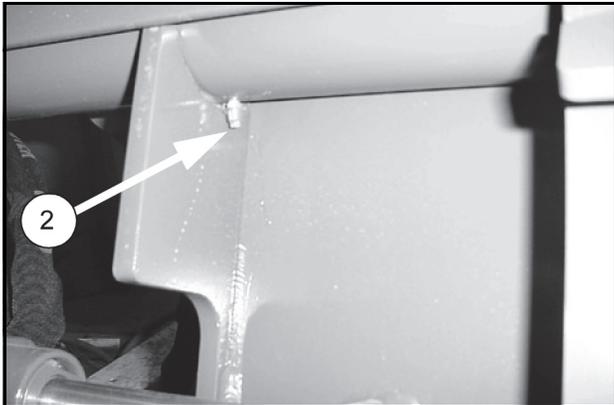


Figure 26. Pivot Frame Slider Tubes

NOTICE

■ The gearbox lubricant should initially be replaced after 50 hours of operation. Subsequently the lubricant should be replaced at 1000-hour intervals or yearly, whichever occurs first.

1. Disconnect all hydraulic quick couplers from the skid steer, relieve any residual back pressure in the hoses and remove the motor from the gearbox by removing two bolts as shown as shown in Figure 27.

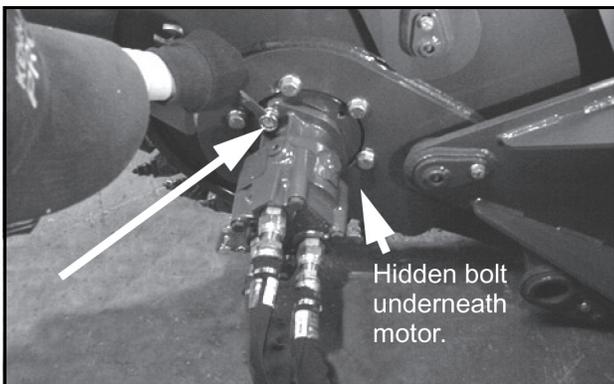


Figure 27. Motor

2. Raise the pavement saw so the cutting wheel is free to rotate and turn the cutting wheel manually until the drain plug of the gearbox is at the 6 o'clock (lowest) position as shown in Figure 28. Remove the plug and drain the lubricant from the gearbox.
3. To refill the gearbox rotate the cutting wheel so the drain hole in at the 12 o'clock (highest) position as shown in Figure 29.

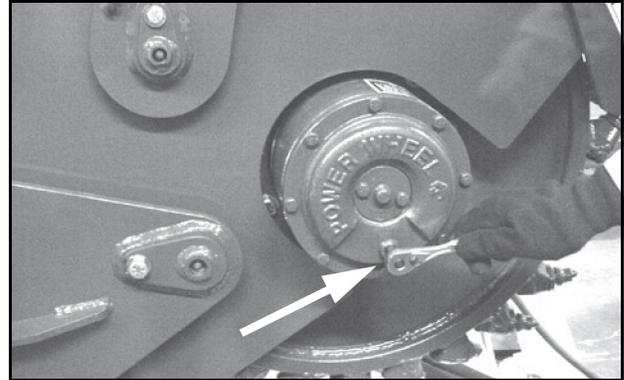


Figure 28. Gearbox

4. Fill the gearbox with a funnel using 80-90W gear oil with a rating of GL-5. The gearbox should contain 32 oz. of lubricant after refilling. To verify the proper amount of lubricant has been filled, rotate the fill hole on the gearbox to the 9 o'clock position. If the lubricant appears at the base of the drain/fill hole, the unit is filled to the proper level.
5. Reinstall the drain plug and lower the pavement saw.

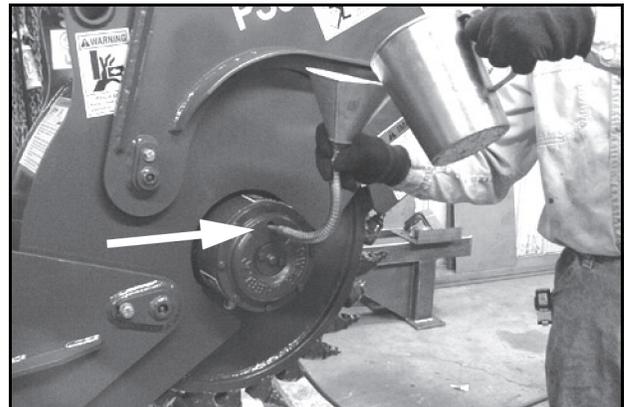


Figure 29.

PARTS INDEX

PAVEMENT SAW

PS9 1.5MD

PS9 1.5HD

PS9 2.5MD

PS9 2.5HD

PS9 4.5MD

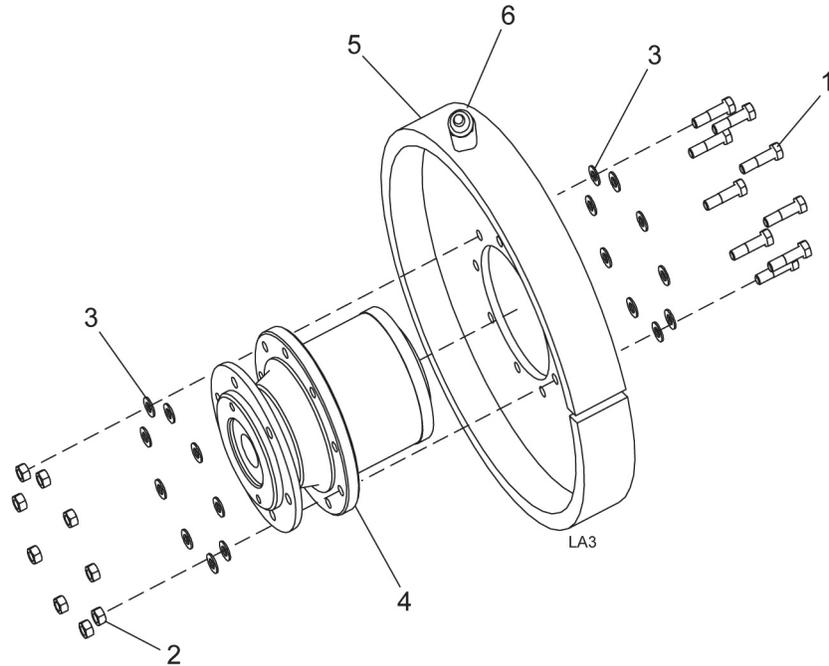
PS9 4.5HD

PS9 1.5HD SINGLE CIRCUIT

PS9 2.5HD SINGLE CIRCUIT

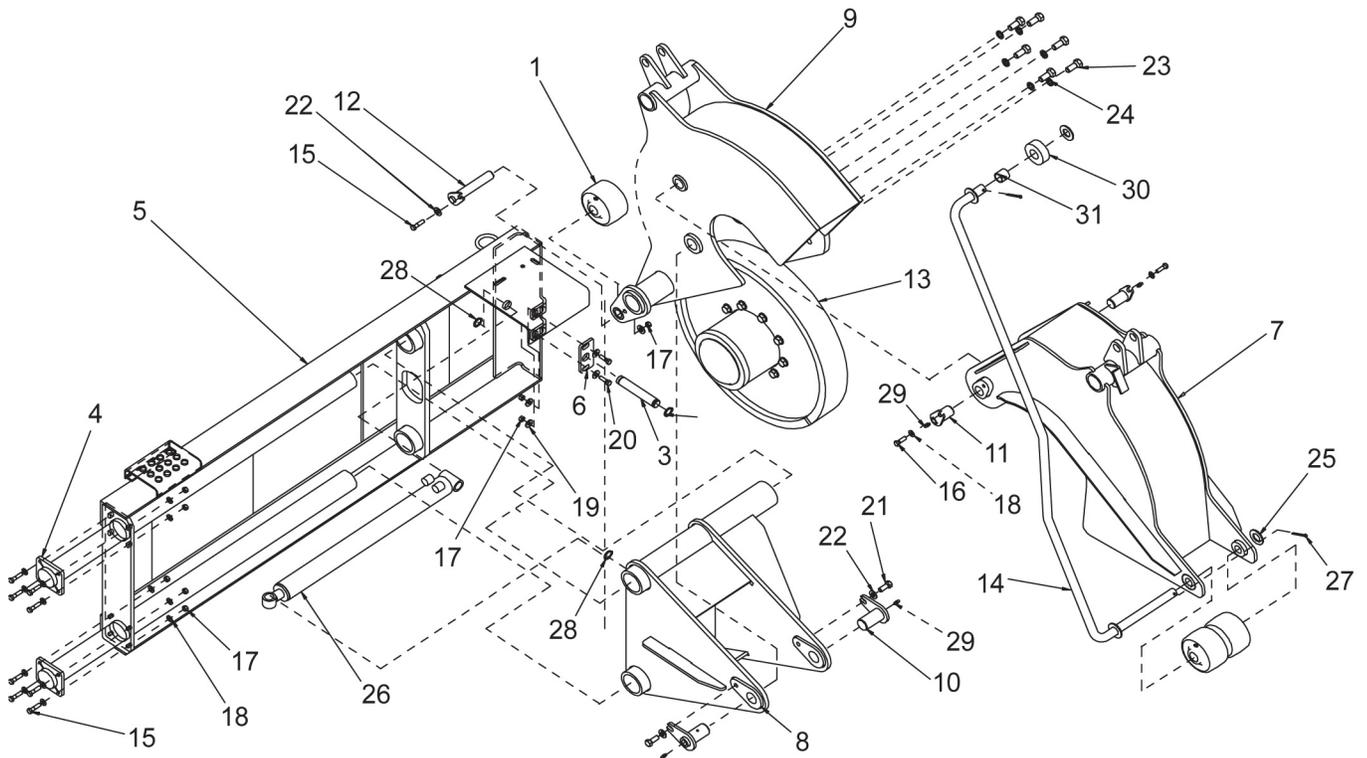
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WHEEL ASSEMBLY



REF	PART	QTY	DESCRIPTION
1	B0903	9	Bolt, 9/16 -18 x 2-1/4 GR8 PLT
2	B0915	9	Nut, 9/16 - 18 GR5 Stover PLT
3	B0920	18	Washer, 9/16 Flat SAE PLT HRD
4	HC422	1	Planetary, Auburn 24.85:1
5	106846	1	Wheel, 1.5" PS9 -or-
5	105562	1	Wheel, 2.5" PS9 -or-
5	105535	1	Wheel, 4.5" PS9
6	1024801	28	Pick, Asphalt Kennametal -or-
6	B1050C	28	Pick, Concrete (Optional)
6	S0100988	36	Pick, Asphalt Kennametal (used on PS915 models only)

PS9 MAIN ASSEMBLY



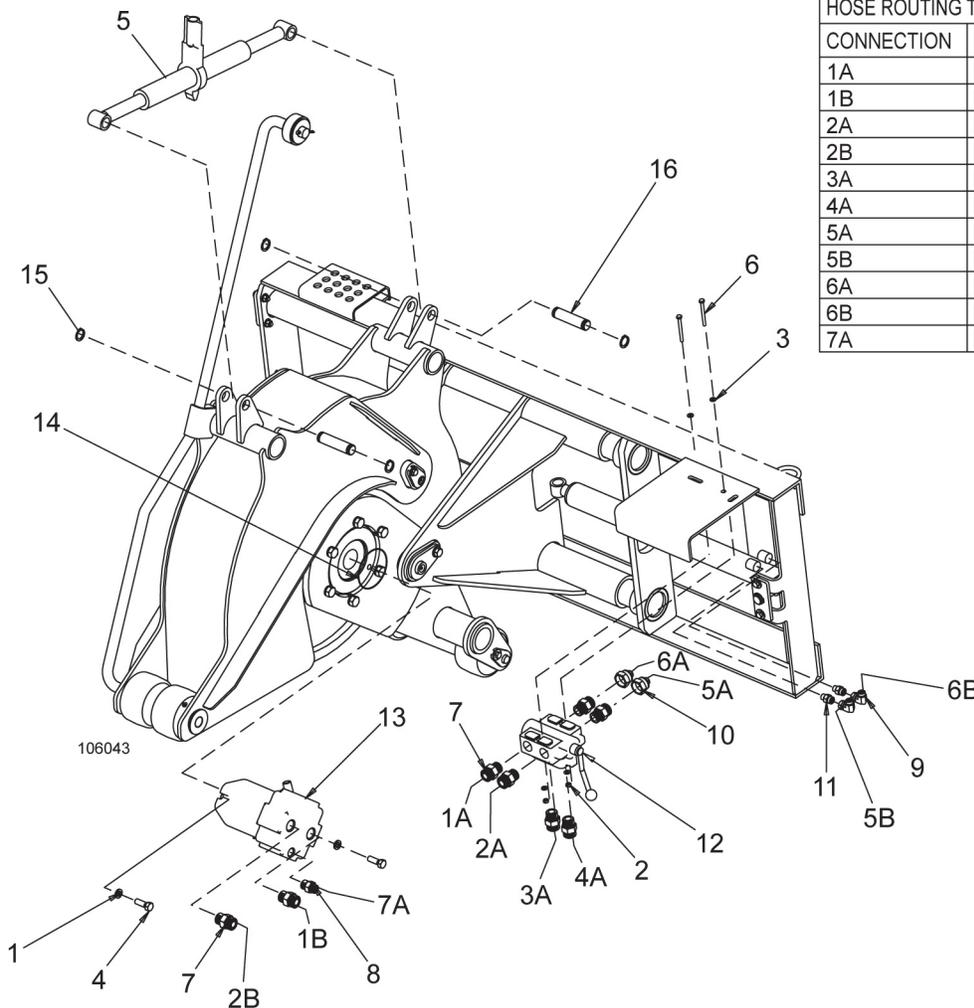
REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	100594	4	Wheel	16	12169 *	2	Bolt, 3/8 -16 x 1-1/4 GR5 UNC
3	104027	1	Pin, 1 x 6 x 5.25 S.R.	17	B0618	12	Nut, 3/8 - 16 GR8 Stover lock
4	105303	2	Slider bar	18	21757	18	Washer, 3/8 flat SAE PLT
5	105500	1	Attach frame	19	B0624	4	Washer, 3/8 flat SAE HRD
6	105697	1	Plate, side shift cyl adaptor	20	31982	2	Bolt, 3/8 x 1-1/4 - 16 GR8 UNC PLT
7	106000	1	Shroud	21	21660	2	Bolt, 1/2 -13 x 1-1/4 GR8
8	106010	1	Pivot frame	22	57816	6	Washer, 1/2 flat SAE HRD
9	106018	1	Chassis	23	59019	6	Bolt, 5/8 -11 x 1-1/2 GR8 PLT
10	106029-1	2	Flag pin	24	303350 *	6	Washer, 5/8 lock GR5 PLT
11	106030-1	2	Flag pin	25	B1620	2	Washer, 1 flat SAE PLT HRD
12	106033	2	Flag pin	26	C2201	1	Cylinder, HYD 2 x 22
13	----	1	Wheel & planetary asy (see page 22)	27	DT40059 *	2	Pin, cotter 3/16 x 2
14	06531	1	Guide arm (includes items 25, 27, 30, 31)	28	M0003	3	Retaining ring 1" EXT HD
15	976 *	10	Bolt, 3/8 -16 x 1-1/2 GR5 hex	29	M0114 *	4	Zerk, grease 14 - 28 ST
				30	T1005	1	Wheel, guide 1/4 x 3 x 1
				31	T1006	1	Bushing, wheel guide

* Standard hardware, obtain locally

PS9 MD HYDRAULICS

NOTES:
SEE HM115 (HOSE MODULE) FOR DETAILS
DESCRIPTION OF HOSE LENGTHS AND TYPES.

ALL FITTINGS SHOULD BE TORQUED TO SAE SPECIFICATIONS.



HOSE ROUTING TABLE		
CONNECTION	HOSE NO.	END
1A	H1660	90°
1B	H1660	ST
2A	H1660	90°
2B	H1660	ST
3A	H1464	90°
4A	H1464	90°
5A	H1519	90°
5B	H1519	ST
6A	H1519	90°
6B	H1519	ST
7A	H1635	ST

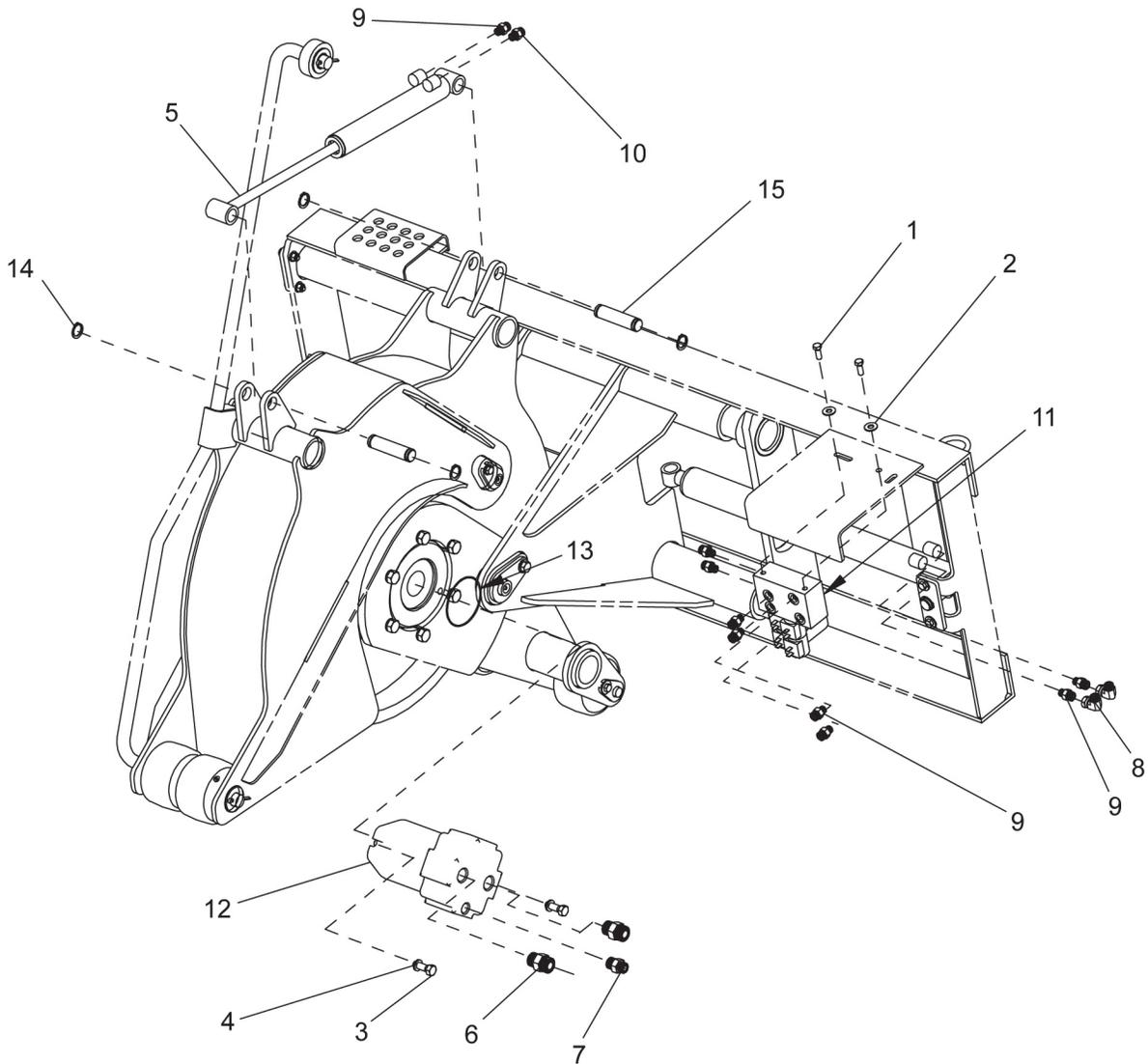
REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	855 *	2	Washer, lock 1/2 ZP	9	F1327	2	Fitting, 6 OM x 6 SLM 90°
2	5288 *	2	Nut, 1/4 -20 GR2 PLT	10	F1395	2	Fitting, 12 SLF x 6 SLM
3	5336 *	4	Washer, 1/4 flat PLT	11	F1407	2	Fitting, 6 OM x 6 SLM
4	21666	2	HHCS 1/2 -13 x 1-1/2 GR8 ZP	12	1004261	1	Valve, DBL selector
5	105033	1	Jack, ratchet	13	HC321	1	Motor, Sundstrand M35-3004
6	300064 *	2	Bolt, 1/4 -20 x 2-3/4 GR5	14	HC536	1	O-ring, 2-155 SAE 4" OD
7	F1289	8	Fitting, 12 OM x 12 SLM ST	15	M0003	4	Retaining ring, 1" EXT HD
8	F1297	1	Fitting, 10 OM x 8 SLM ST	16	T1033	2	Pin, 1" x 4.11 SR 3.44

* Standard hardware, obtain locally

24 Parts

MPS9 (Rev. 4/20/2007)

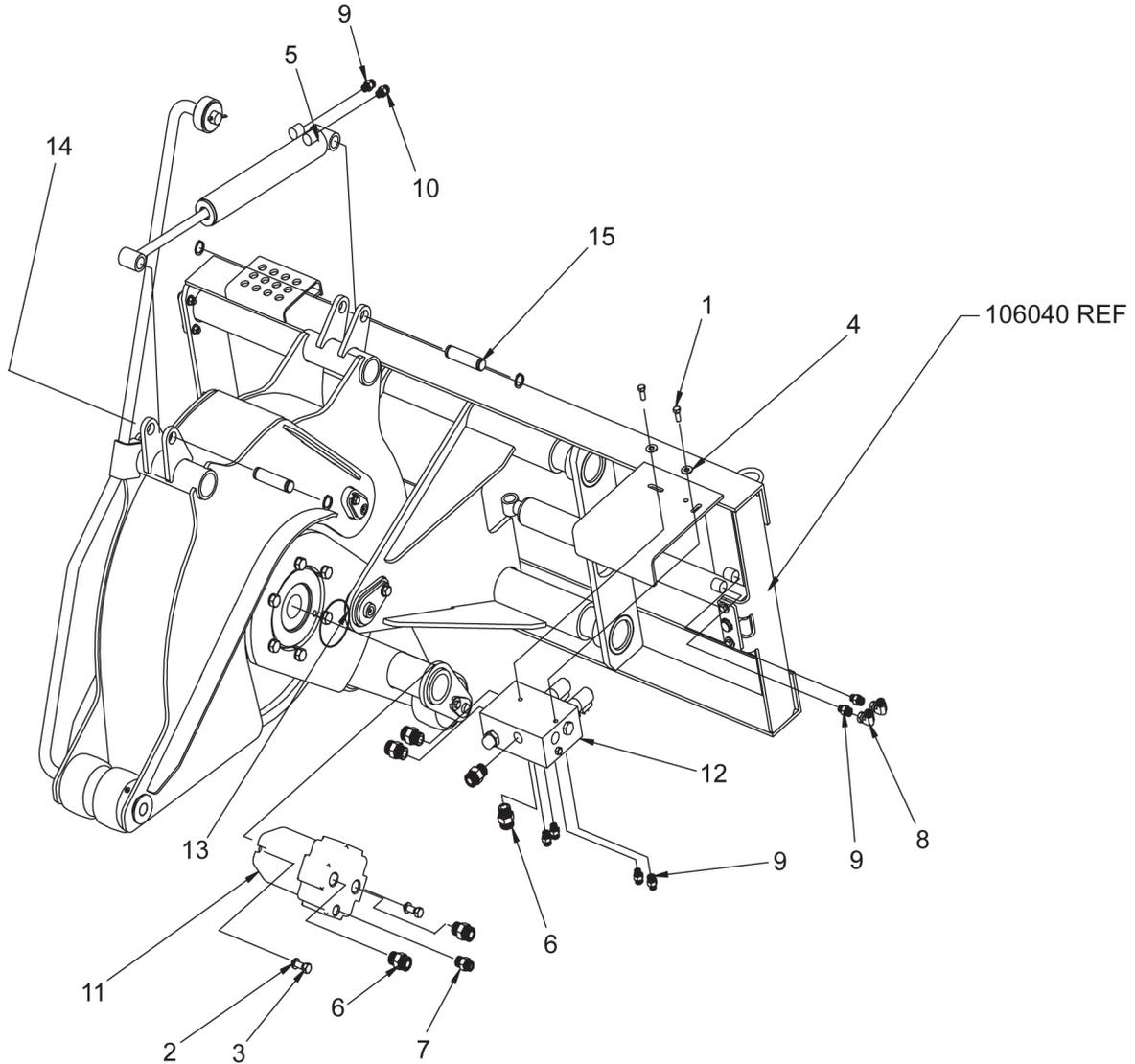
PS9 HD HYDRAULICS



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	839 *	2	Bolt, 3/8 -16 x 1 GR5 hex	9	F1407	9	Fitting, 6 OM x 6 SLM
2	B0624	2	Washer, 3/8 flat SAE HRD	10	F1439	1	Fitting, 6 OM x 6 SLM ST orifice
3	21666	2	Bolt, 1/2 -13 x 1-1/2 GR8 PLT	11	1012113	1	Valve assembly, 2-stage
4	855 *	2	Washer, 1/2 lock PLT	12	HC321	1	Motor, Sundstrand M35-3004
5	C1003	1	Cylinder, Hyd 1-1/2 x 10 depth	13	HC536	1	O-Ring, 2-155 SAE 4" OD
6	F1289	1	Fitting 12 OM x 12 SLM ST	14	M0003	4	Retaining ring, 1" EXT HD
7	F1297	1	Fitting 10 OM x 8 SLM ST	15	T1033	2	Pin, 1 x 4.11 SR 3.44
8	F1327	2	Fitting, 6 OM x 6 SLM 90°				

* Standard hardware, obtain locally

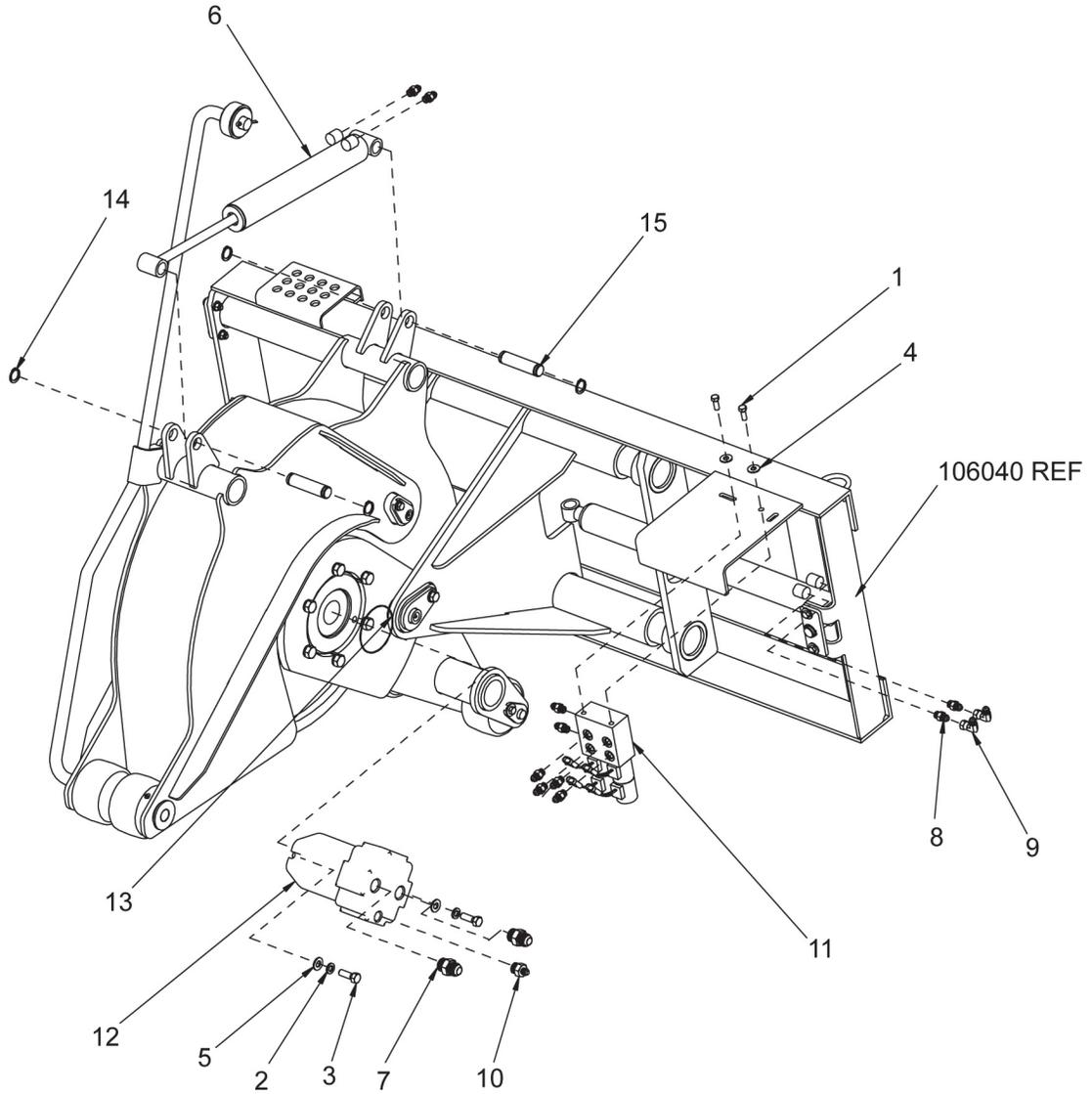
PS9 HD HYDRAULICS SINGLE CIRCUIT



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	839 *	2	Bolt, 3/8 -16 x 1 GR5 hex	9	F1407	7	Fitting, 6 OM x 6 SLM
2	855 *	2	Washer, 1/2 lock PLT	10	F1439	1	Fitting, 6 OM x 6 SLM ST orifice
3	21666	2	Bolt, 1/2 -13 x 1-1/2 GR8 PLT	11	HC321	1	Motor, Sundstrand M35-3004
4	B0624	2	Washer, 3/8 Flat SAE HRD	12	HC530	1	Valve assembly, S/C 2-stage
5	C1003	1	Cylinder, HYD 1-1/2 x 10 depth	13	HC536	1	O-ring, 2-155 SAE 4" OD
6	F1289	6	Fitting, 12 OM x 12 SLM ST	14	M0003	4	Retaining ring, 1" EXT HD
7	F1297	1	Fitting, 10 OM x 8 SLM ST	15	T1033	2	Pin, 1 x 4.11 SR 3.44
8	F1327	2	Fitting, 6 OM x 6 SLM 90°				

* Standard hardware, obtain locally

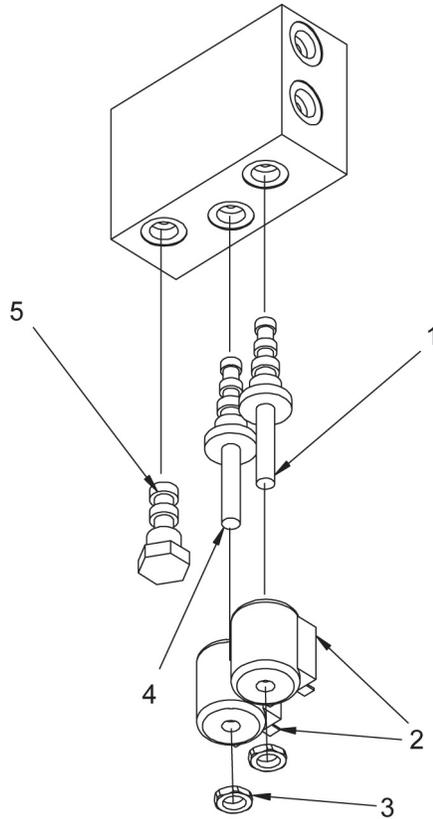
PS9 HYDRAULICS (BOBCAT)



REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	839 *	2	Bolt, 3/8 -16 x 1 GR5 hex	9	F1057	2	Fitting, 6 FLF x 6 FLM 90°
2	855 *	2	Washer, 1/2 lock PLT	10	F1137	1	Fitting, 10 OM x 6 FLM ST
3	21666	2	Bolt, 1/2 -13 x 1-1/2 GR8 PLT	11	HC175	1	Valve assembly, 2-stage 4-way
4	B0624	2	Washer, 3/8 flat SAE HRD	12	HC321	1	Motor, Sundstrand M35-3004
5	57816	2	Washer, 1/2 flat SAE HRD	13	HC536	1	O-ring, 2-155 SAE 4" OD
6	C1003	1	Cylinder, hyd 1-1/2 x 10 depth	14	M0003	4	Retaining ring, 1" external HD
7	F1039	2	Fitting, 12 OM x 12 FLF ST	15	T1033	2	Pin, 1 x 4.11 SR 3.44
8	F1044	10	Fitting, 6 OM x 6 FLM ST				

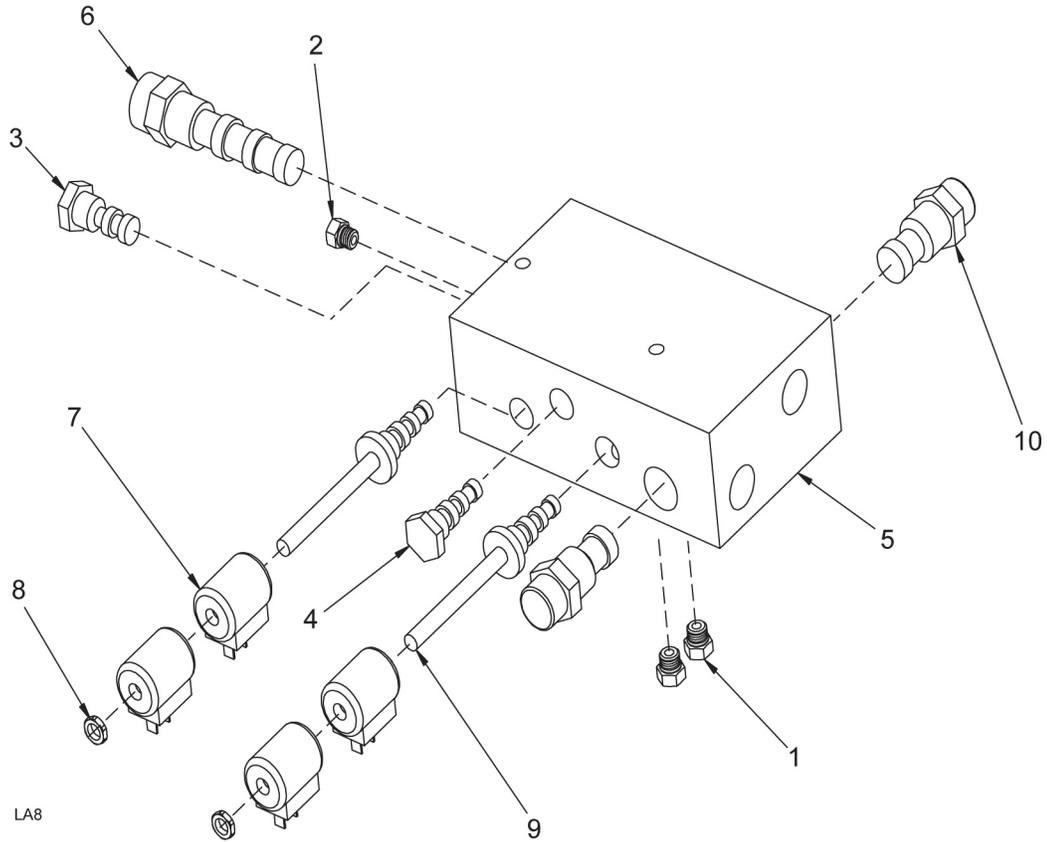
* Standard hardware, obtain locally

VALVE ASSEMBLY 1012113



REF	PART	QTY	DESCRIPTION
1	1012117	1	Valve cartridge
2	1012115	1	Coil, solenoid
3	1012116	2	Nut, solenoid
4	1012118	1	Valve cartridge
5	1012114	1	Valve cartridge pilot check

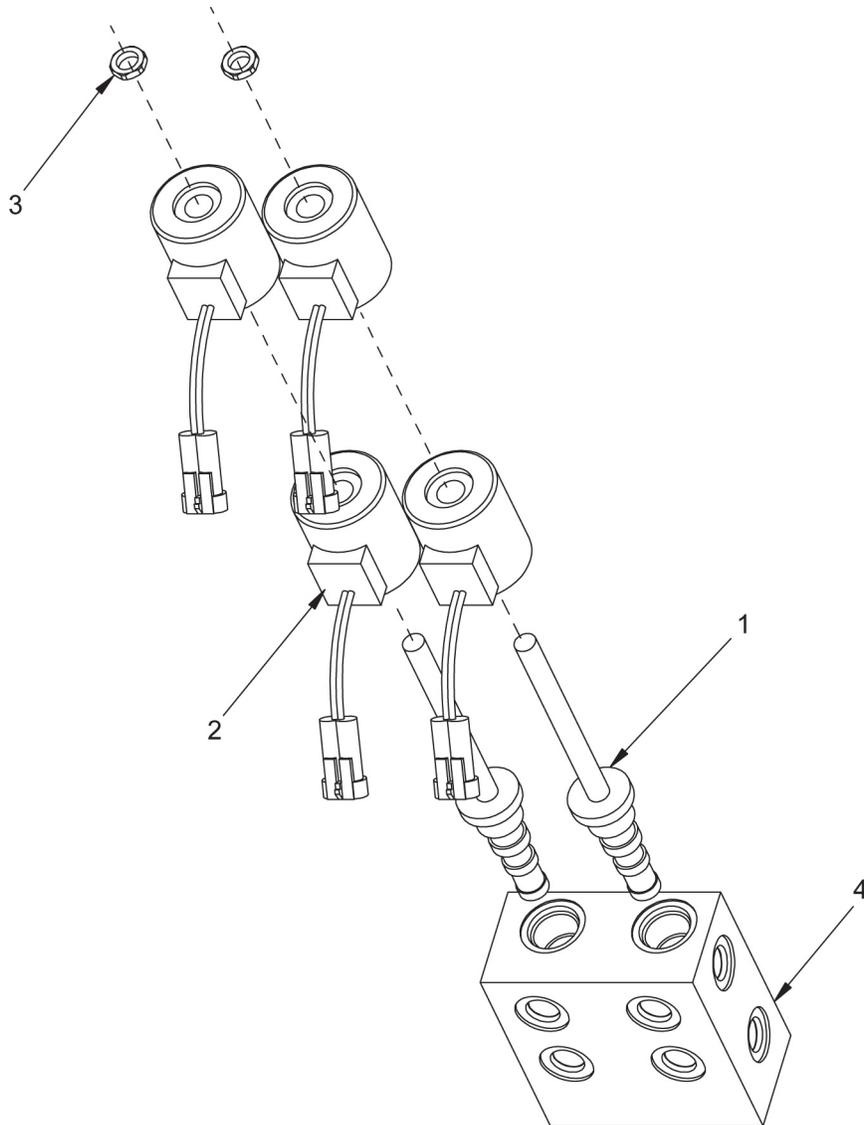
VALVE ASSEMBLY - SINGLE CIRCUIT - HC530



REF	PART	QTY	DESCRIPTION
1	F1139	2	Plug, #6 SAE
2	----- *	1	Plug, #4 SAE
3	HC254	1	Piloted check valve
4	HC336	1	Plug, cavity #8 SAE
5	HC508	1	Manifold, single circuit
6	S0100087	1	Valve cartridge EC12-40
7	S0100089	4	Coil, 12V
8	S0100136	2	Nut, 1 - 18 Stover
9	S0100163	2	Valve cartridge SV08-47A
10	S0100845	2	Check valve

* Standard hardware, obtain locally

VALVE ASSEMBLY - 2-STAGE 4-WAY HC175

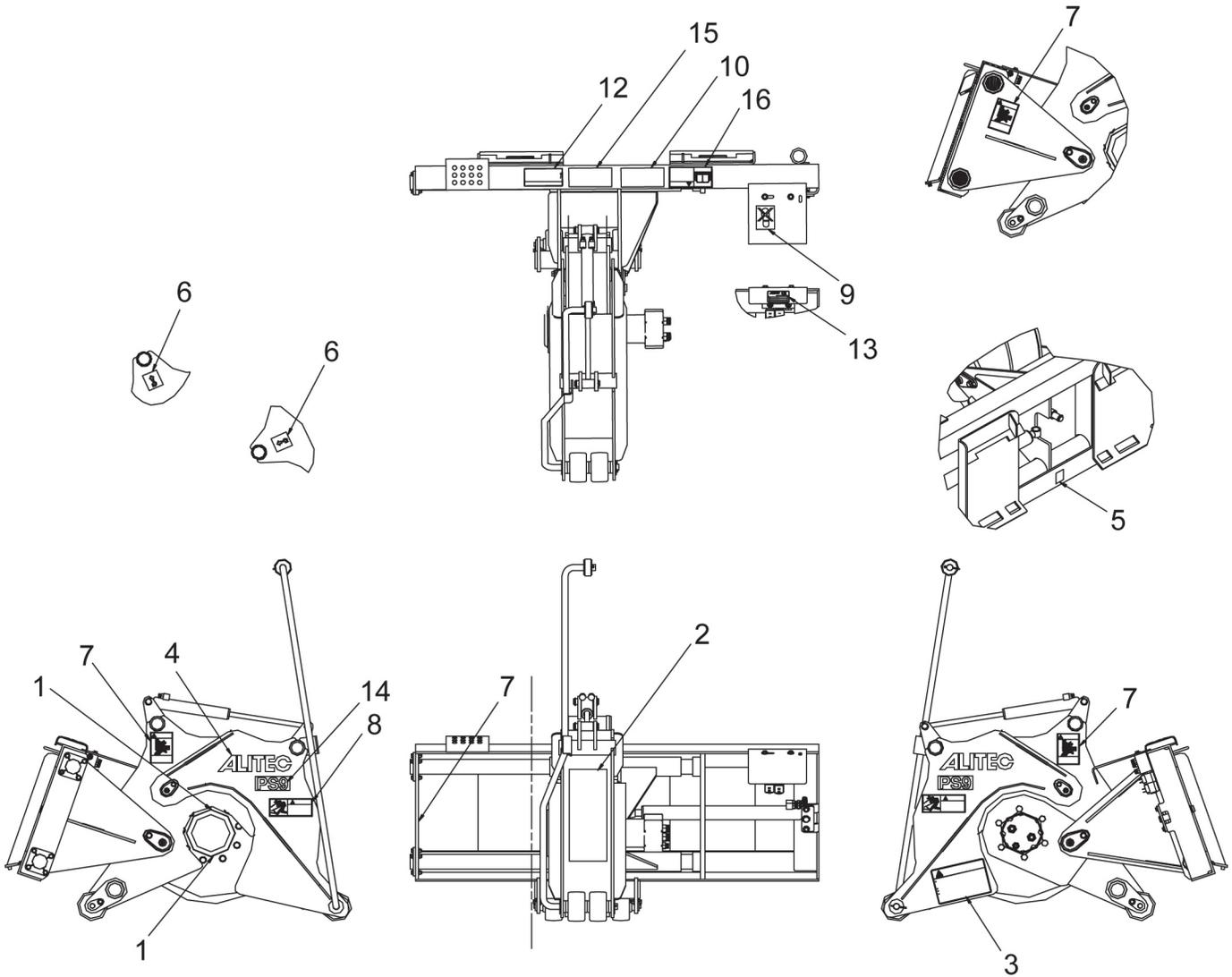


REF	PART	QTY	DESCRIPTION
1	HC174	2	Valve cartridge SV10-47A
2	S0100025	4	Coil, solenoid 6359412 #10 plug
3	S0100136	2	Nut, hydraforce SV08-2 1-2/3 TN
4	----	1	Valve block, Bobcat

30 Parts

MPS9 (Rev. 4/20/2007)

DECAL PLACEMENT



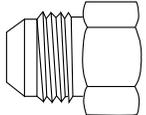
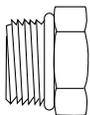
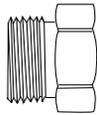
REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
1	D0042	2	Decal, planetary oil	9	D0209	1	Decal, no step
2	D0062	1	Danger, wheel saw	10	19924	1	Decal, warning high pressure hyd
3	D0099	1	Decal, pick maintenance	12	D0323	1	Decal, important avoid motor
4	D0119	2	Decal, Alitec	13	----	1	Serial number plate
5	D0157	1	Decal, tie down	14	D0402	2	Decal, PS9
6	D0158	2	Decal, lift point	15	54519	1	Decal, warning skid steer warnings
7	D0192	4	Decal, pinch point	16	D0404	1	Decal, read manual
8	D0195	2	Decal, flying objects				

FITTING TORQUE CHART

Always tighten fittings to these values unless a different torque value is listed for a specific service procedure.

Make sure fastener threads are clean and threads are engaged properly.

All torque values are adopted from SAE J514 and SAE J1453.

			
Size	SAE (JIC) 37° Flare Thread Size	O-Ring Style Straight Thread Size	Seal-Lok Thread
2	5/16 - 24	5/16 - 24	---
3	3/8 - 24	3/8 - 24	---
4	7/16 - 20	7/16 - 20	9/16 - 18
5	1/2 - 20	1/2 - 20	---
6	9/16 - 18	9/16 - 18	11/16 - 16
8	3/4 - 16	3/4 - 16	13/16 - 16
10	7/8 - 14	7/8 - 14	1 - 14
12	1-1/16 - 12	1-1/16 - 12	1-3/16 - 12
14	1-3/16 - 12	1-3/16 - 12	---
16	1-5/16 - 12	1-5/16 - 12	1-7/16 - 12
20	1-5/8 - 12	1-5/8 - 12	1-11/16 - 12
24	1-7/8 - 12	1-7/8 - 12	2 - 12
32	2-1/2 - 12	2-1/2 - 12	---

SAE Dash Size	TORQUE					
	SAE 37° Flare		O-Ring Straight Thread		Seal-Lok	
	Lbs-Ft	N-m	Lbs-Ft	N-m	Lbs-Ft	N-m
2	4	5	4	5	---	---
3	8	11	9	12	---	---
4	12	16	16	22	18	25
5	15	20	22	30	---	---
6	18	25	35	48	27	37
8	37	50	60	82	40	54
10	48	65	105	143	63	86
12	74	100	140	190	92	125
14	88	120	184	250	---	---
16	100	135	221	300	122	165
20	133	180	258	350	147	200
24	166	225	317	430	166	225
32	236	320	---	---	---	---

QUICK COUPLER KITS

Make		High-Flow with Auxiliary		High-Flow with No Auxiliary		Low-Flow	
		QC Kit	Description	QC Kit	Description	QC Kit	Description
Bobcat		HC356	Flush Face	HC355	Flush Face	HC357	Flush Face
	Vintage					HC243	Poppet
						HC211	Ag Ball Valve
Case		1013825	Flush Face	HC212	Flush Face	HC279	Flush Face
	Vintage	HC278	Flush Face			HC211	Ag Ball Valve
		HC209	Flush Face & Ag Ball Valve				
Cat		HC538	Flush Face	1014196	Flush Face	1014197	Flush Face
Daewoo		HC209	Flush Face	HC212	Flush Face	HC211	Ag Ball Valve
Gehl		HC398	Flush Face	1014195	Flush Face	HC400	Flush Face
	Vintage			HC305	Poppet & Ag Ball		
John Deere		1014198	Flush Face	1013826	Flush Face	HC310	Flush Face
Komatsu		1013834	Flush Face	1013833	Flush Face	1013835	Flush Face
New Holland		1014199	Flush Face	HC308	Flush Face	HC310	Flush Face
Scat Trak		HC537	Flush Face			HC243	Poppet

QUICK COUPLER KIT COMPONENTS

QC KIT	Includes	Style	Male/Female	Body Size	Hose End
HC209	HC193	Flush Face	Male	3/4	SAE #12 O-ring
	HC194	Flush Face	Female	3/4	SAE #12 O-ring
	HC195	Ag Ball	Female	1/2	1/2-14 NPT
	HC196	Ag Ball	Male	1/2	1/2-14 NPT
	HC197	Flush Face	Female	1/2	SAE #10 O-ring
HC211	HC195	Ag Ball	Female	1/2	1/2-14 NPT
	HC196	Ag Ball	Male	1/2	1/2-14 NPT
HC212	HC193	Flush Face	Male	3/4	SAE #12 O-ring
	HC194	Flush Face	Female	3/4	SAE #12 O-ring
	HC197	Flush Face	Female	1/2	SAE #10 O-ring
HC278	HC193	Flush Face	Male	3/4	SAE #12 O-ring
	HC194	Flush Face	Female	3/4	SAE #12 O-ring
	HC197	Flush Face	Female	1/2	SAE #10 O-ring
	HC201	Flush Face	Male	1/2	SAE #10 O-ring
HC279	HC197	Flush Face	Female	1/2	SAE #10 O-ring
	HC201	Flush Face	Male	1/2	SAE #10 O-ring

QUICK COUPLER KIT COMPONENTS

QC KIT	Includes	Style	Male/Female	Body Size	Hose End
HC308	HC416	Flush Face	Female	5/8	SAE #12 O-ring
	HC417	Flush Face	Male	5/8	SAE #12 O-ring
	HC418	Flush Face	Male	3/8	SAE #8 O-ring
HC310	HC414	Flush Face	Male	1/2	SAE #12 O-ring
	HC415	Flush Face	Female	1/2	SAE #12 O-ring
HC355	HC344	Flush Face	Male	12 mm	SAE #12 O-ring
	HC345	Flush Face	Female	12 mm	SAE #12 O-ring
	HC346	Flush Face	Female	9 mm	SAE #8 O-ring
HC356	HC342	Flush Face	Female	7 mm	SAE #6 O-ring
	HC343	Flush Face	Male	7 mm	SAE #6 O-ring
	HC344	Flush Face	Male	12 mm	SAE #12 O-ring
	HC345	Flush Face	Female	12 mm	SAE #12 O-ring
	HC346	Flush Face	Female	9 mm	SAE #8 O-ring
HC357	HC344	Flush Face	Male	12 mm	SAE #12 O-ring
	HC345	Flush Face	Female	12 mm	SAE #12 O-ring
HC398	HC344	Flush Face	Male	12 mm	SAE #12 O-ring
	HC345	Flush Face	Female	12 mm	SAE #12 O-ring
	HC346	Flush Face	Female	9 mm	SAE #8 O-ring
HC400	HC344	Flush Face	Male	12 mm	SAE #12 O-ring
	HC345	Flush Face	Female	12 mm	SAE #12 O-ring
HC537	HC415	Flush Face	Female	1/2	SAE #12 O-ring
	HC416	Flush Face	Female	5/8	SAE #12 O-ring
	HC417	Flush Face	Male	5/8	SAE #12 O-ring
	HC418	Flush Face	Male	3/8	SAE #8 O-ring
HC538	HC521	Flush Face	Female	16 mm	SAE #12 O-ring
	HC522	Flush Face	Male	16 mm	SAE #12 O-ring
	1532994	Flush Face	Female	3/4	SAE #12 O-ring
	1532995	Flush Face	Male	3/4	SAE #12 O-ring
	1532997	Flush Face	Female	1/2	SAE #8 O-ring
1013825	HC417	Flush Face	Male	5/8	SAE #12 O-ring
	HC418	Flush Face	Male	3/8	SAE #8 O-ring
	HC545	Flush Face	Female	5/8	SAE #12 O-ring
	HC546	Flush Face	Female	1/2	SAE #10 O-ring
	HC547	Flush Face	Male	1/2	SAE #10 O-ring
1013826	HC343	Flush Face	Male	7 mm	SAE #6 O-ring
	HC521	Flush Face	Female	16 mm	SAE #12 O-ring
	HC522	Flush Face	Male	16 mm	SAE #12 O-ring
1013833	HC415	Flush Face	Female	1/2	SAE #12 O-ring
	HC521	Flush Face	Female	16 mm	SAE #12 O-ring
	HC522	Flush Face	Male	16 mm	SAE #12 O-ring

QUICK COUPLER KIT COMPONENTS

QC KIT	Includes	Style	Male/Female	Body Size	Hose End
1013834	HC414	Flush Face	Male	1/2	SAE #12 O-ring
	HC415	Flush Face	Female	1/2	SAE #12 O-ring
	HC521	Flush Face	Female	16 mm	SAE #12 O-ring
	HC522	Flush Face	Male	16 mm	SAE #12 O-ring
1013835	46058	Flush Face	M/F Set	3/4	SAE #12 O-ring
1014195	HC344	Flush Face	Male	12 mm	SAE #12 O-ring
	HC345	Flush Face	Female	12 mm	SAE #12 O-ring
	HC346	Flush Face	Female	9 mm	SAE #8 O-ring
1014196	HC521	Flush Face	Female	16 mm	SAE #12 O-ring
	HC522	Flush Face	Male	16 mm	SAE #12 O-ring
	1532997	Flush Face	Female	1/2	SAE #8 O-ring
1014197	1532994	Flush Face	Female	3/4	SAE #10 O-ring
	1532995	Flush Face	Male	3/4	SAE #10 O-ring
1014198	HC343	Flush Face	Male	7 mm	SAE #6 O-ring
	HC414	Flush Face	Male	1/2	SAE #12 O-ring
	HC415	Flush Face	Female	1/2	SAE #12 O-ring
	HC521	Flush Face	Female	16 mm	SAE #12 O-ring
	HC522	Flush Face	Male	16 mm	SAE #12 O-ring
1014199	HC414	Flush Face	Male	1/2	SAE #12 O-ring
	HC415	Flush Face	Female	1/2	SAE #12 O-ring
	HC416	Flush Face	Female	5/8	SAE #12 O-ring
	HC417	Flush Face	Male	5/8	SAE #12 O-ring
	HC418	Flush Face	Male	3/8	SAE #8 O-ring

BOLT TORQUE CHART

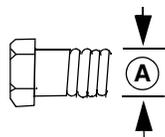
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

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

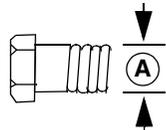


SAE Grade 5
(3 Radial Dashes)



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

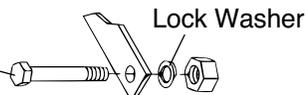


Metric
Grade 10.9

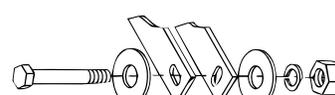
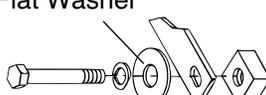
Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	COARSE THREAD				FINE THREAD				Ⓐ Diameter & Thread Pitch (Millimeters)
		MARKING ON HEAD								
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
		N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 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

Bolt



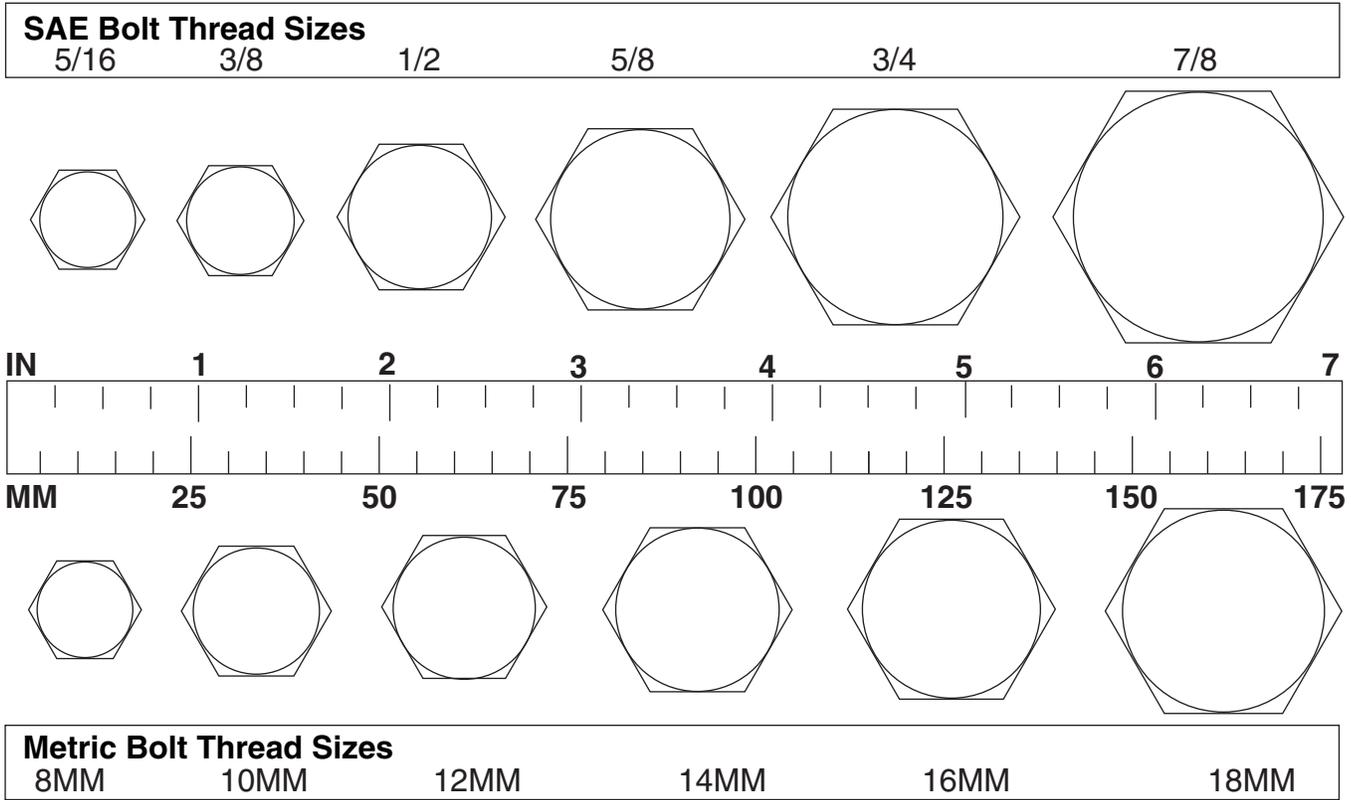
Flat Washer



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	MPa.....	Mega Pascal
ASABE.....	American Society of Agricultural & Biological Engineers (formerly ASAE)	N.....	Newton
ASAE	American Society of Agricultural Engineers	NC	National Coarse
ATF	Automatic Transmission Fluid	NF	National Fine
BSPP	British Standard Pipe Parallel	NPSM.....	National Pipe Straight Mechanical
BSPTM	British Standard Pipe Tapered Male	NPT	National Pipe Tapered
CV.....	Constant Velocity	NPT SWF	National Pipe Tapered Swivel Female
CCW	Counter-Clockwise	ORBM	O-Ring Boss - Male
CW.....	Clockwise	P.....	Pitch
F	Female	PBY	Power-Beyond
FT	Full Thread	psi.....	Pounds per Square Inch
GA.....	Gauge	PTO.....	Power Take Off
GR (5, etc.)	Grade (5, etc.)	QD.....	Quick Disconnect
HHCS	Hex Head Cap Screw	RH.....	Right Hand
HT.....	Heat-Treated	ROPS	Roll-Over Protective Structure
JIC	Joint Industry Council 37° Degree Flare	RPM	Revolutions Per Minute
LH.....	Left Hand	RT.....	Right
LT.....	Left	SAE	Society of Automotive Engineers
m.....	Meter	UNC	Unified Coarse
mm.....	Millimeter	UNF	Unified Fine
M.....	Male	UNS.....	Unified Special

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WARRANTY

All Models Except Zero-Turn Mowers

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.

All current model backhoes, loaders and mounts (except 3-pt. SAF-T-LOK® mounts) are warranted for two (2) years from the date of delivery to the original purchaser. The limited warranty covers any defects in the material and/or workmanship. Following the proper, recommended installation by an authorized Woods Dealer and normal use of a Woods mounting and backhoe or loader, if a tractor incurs damage resulting from the attachment, Woods will cover the existing tractor warranty in the event the manufacturer voids its tractor warranty because of the attachment. Warranty does not cover any misuse or abusive conditions that could cause premature wear or damage to attachment or tractor.

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

Part or Condition Warranted	Model Number	Duration (from date of delivery to the original purchaser)
	All units invoiced after 4/30/2012	
Gearbox components	BB48X, BB60X, BB72X, BB84X, BB600X, BB720X, BB840X, BB6000X, BB7200X, BB8400X, DS12.50, TS14.60, DS1440, TS1680, DS8.30, DS10.40, DS8.50, DSO8.50, DS10.50, DSO10.50, DBH5.30, DBH6.30	6 years
	BW12, BW15, BW126X, BW180X, BW126XHD, BW180XHD, BW1260X, BW1800X, BW10.50, BW10.50Q, BW15.50, BW15.50Q, BW10.60, BW10.60Q, BW15.60, BW15.60Q, BW10.70, BW10.70Q, BW15.70, BW15.70Q	
	BW240X, BW240XHD, BW1620X, BW2400X	
	RD990X, PRD6000, PRD7200, PRD8400, S15CD, S20CD, S22CD, S25CD, S27CD, S30CD, TC/R74, TC/R68, TC/R60, TBW144, TBW180, TBW204, TSG50, S12ED, S15ED, S18ED, S20ED, TPD25, TPD35, TPD65, TPD95	
	RDC54, RD60, RD72, TBW150C, TS/R60, TS/R52, TS/R44, RC3.5, RC4, RC5, RC6	3 years (1 year if used in rental or commercial applications)
Blade spindles	RD990X, PRD6000, PRD7200, PRD8400, TBW144, TBW180, TBW204	3 years

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

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

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

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

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

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

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

No agent, representative, dealer, distributor, serviceperson, salesperson, or employee of any company, including without limitation, WOODS, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or enlarge this Warranty. Answers to any questions regarding warranty service and locations may be obtained by contacting:

WOODS® | A Blount International Brand

2606 South Illinois Route 2
Post Office Box 1000
Oregon, Illinois 61061 USA

800-319-6637 tel
800-399-6637 fax
woodsequipment.com



ALITEC™
CENTRAL FABRICATORS®
GANNON®
WAIN-ROY®
WOODS®

WARRANTY

(Replacement Parts For All Models Except Zero-Turn Mowers)

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.

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