

ALITEC™

VIBRATORY ROLLER

VR48A - SN 71111004 & After

VR66A - SN 144591004 & After

VR73A - SN 153661104 & After

VR84A - SN 330591004 & After

MAN0357

(Rev. 5/16/2008)

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

TO THE OWNER:

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

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

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

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

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

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

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

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



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



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



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



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

IMPORTANT
or **NOTICE**

Is used to address practices not related to personal injury.

NOTE

Indicates helpful information.

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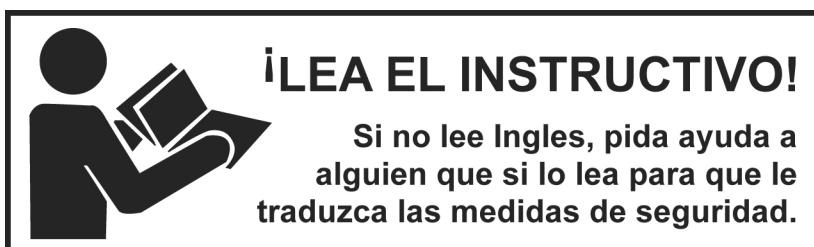
ALITEC™
BMP®
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2 Introduction

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

TABLE OF CONTENTS

INTRODUCTION	2
SPECIFICATIONS	4
SAFETY RULES	5
SAFETY INSTRUCTIONS & DECALS	8
OPERATION	9
OWNER SERVICE	10
TROUBLESHOOTING	15
DEALER SERVICE	15
PARTS LISTS	16
BOLT TORQUE CHART	19
BOLT SIZE CHART & ABBREVIATIONS	20
PRODUCT WARRANTY	21 - 22



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

	VR48A	VR66A	VR73A	VR84A
Drum Width	48 inches (129 cm)	66 inches (168 cm)	73 inches (186 cm)	84 inches (215 cm)
Drum Diameter	23 inches (59 cm)	23 inches (59 cm)	23 inches (59 cm)	23 inches (59 cm)
Drum Oscillation	$\pm 7.5^\circ$	$\pm 7.5^\circ$	$\pm 7.5^\circ$	$\pm 7.5^\circ$
Dynamic Force	3100 lbs.	3100 lbs.	3600 lbs.	3600 lbs.
Vibrations per Minute	2000 @ 21.3 gpm	2000 @ 21.3 gpm	2000 @ 21.3 gpm	2000 @ 21.3 gpm
Maximum Flow	24 gpm (64 lpm)	24 gpm (64 lpm)	24 gpm (64 lpm)	24 gpm (64 lpm)
Lubrication 80-90W Gear Lube	16 oz.	20 oz.	24 oz.	28 oz.
Operating Weight - Smooth	1450 lbs. (659 kg)	1633 lbs. (742 kg)	1762 lbs. (800 kg)	1912 lbs. (867 kg)
Operating Weight - Pad Foot	1600 lbs. (727 kg)	1850 lbs. (840 kg)	2100 lbs. (955 kg)	2350 lbs. (1065 kg)

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.

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

- 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.

(Safety Rules continued on next page)

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

- 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.
- 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

- Only engage power when equipment is at ground operating level. Always disengage power when equipment is raised off the ground.
- 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 in the area when operating, attaching, removing, assembling, or servicing equipment.
- 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 operating 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.
- Stop power unit and implement immediately upon striking an obstruction. Dismount power unit, using proper procedure. Inspect and repair any damage before resuming operation.
- Leak down or failure of mechanical or hydraulic system can cause equipment to drop.
- 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.

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



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.
- **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.
 - Read Operator's Manual for service instructions or have service performed by a qualified dealer.
- Use a suitable lifting device of sufficient capacity. Use adequate personnel to handle heavy components.
- 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.

- 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.
- Do not disconnect hydraulic lines until all system pressure is relieved. Lower unit to ground, stop engine, and operate all hydraulic control levers.
- Removal of isolator bolts will let chassis fall. Make sure you support both front and rear ends of chassis securely before you remove the bolts.
- When you separate roller drum and chassis, never place fingers or hands between roller drum and chassis.

STORAGE

- Follow manual instructions for storage.
- Store on level, solid ground.
- Block equipment securely for storage.
- Keep children and bystanders away from storage area.





SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



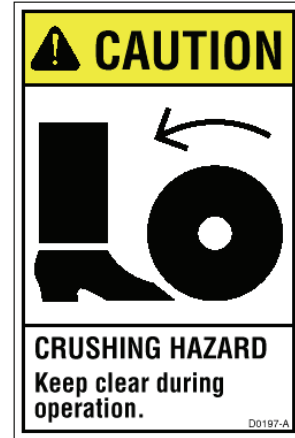
Replace Immediately If Damaged!

See exploded view drawing on page 16 for decal locations.

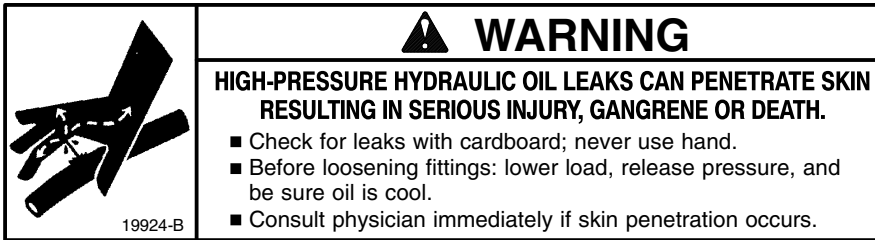
30 - Serial Number Plate



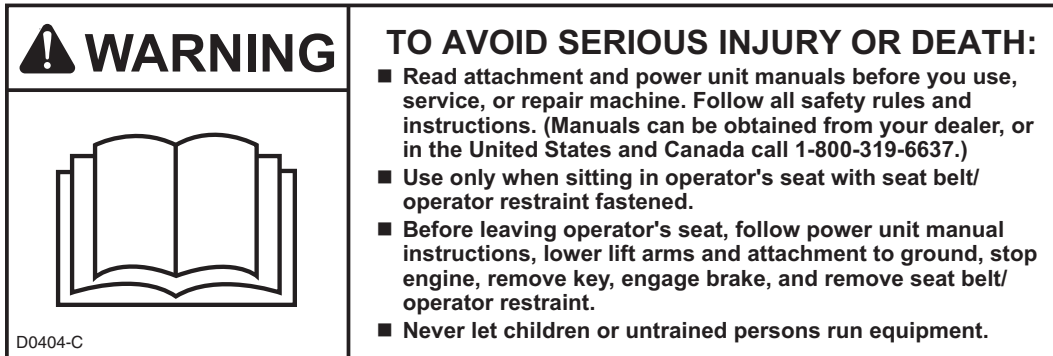
52 - PN D0197



42 - PN 19924



66 - PN D0404



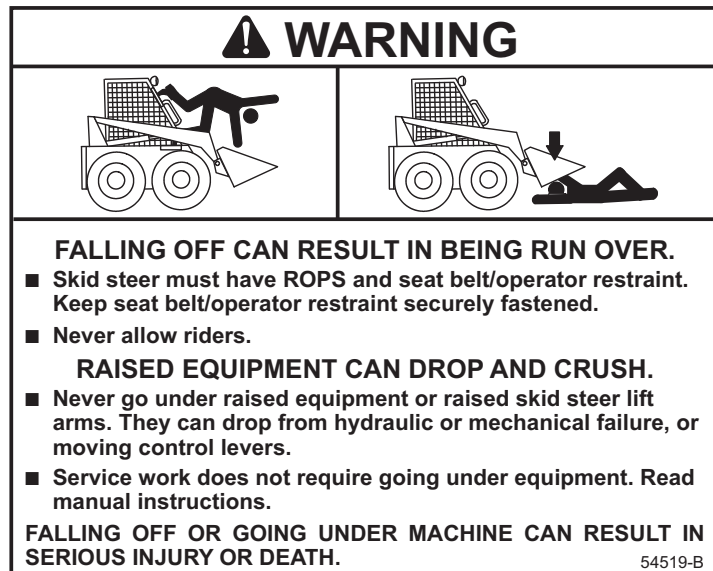
73 - PN 54519

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



OPERATION

The Vibratory Roller is a hydraulically powered attachment intended to compact soil, stone, or fill material. The performance of the attachment can vary greatly depending on how it is used and operated. Therefore, the recommended operating procedures in this manual should be followed at all times for maximum productivity.

When attaching the unit to the skid steer, ensure that all hydraulic hoses are coupled securely to the quick couplers.

Prior to operating the attachment, read this entire manual. Follow all safety rules in this manual and safety decals on the unit. Make sure that all guards, shields, and decals are in place and in good condition before operation.

MANDATORY SAFETY SHUTDOWN PROCEDURE

Before cleaning, adjusting, lubricating, or servicing this unit, ALWAYS follow the MANDATORY SAFETY SHUTDOWN PROCEDURE:

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

WARNING

- **Failure to follow the procedures before cleaning, adjusting, lubrication, or servicing this unit could lead to serious injury or death.**

ATTACHING TO LOADER

See operating instructions in skid steer manual for proper attachment of vibratory roller to skid steer.

Connect hydraulic hoses to auxiliary hydraulic outputs of skid steer.

NOTICE

- **All hoses should be free of kinks, cuts or abrasions for safe operation.**
- **Use auxiliary flow only. High flow use can result in motor failure and will void manufacturer's warranty. See specifications for acceptable flow rates.**

TO COMPACT

1. Position the roller by placing roller drum on the ground.
2. Raise the front wheels of the loader 1 to 3 inches (2.5 to 7.6 cm) by lowering the loader arms and rolling the bucket plate out slightly.
3. Engage the loader auxiliary hydraulic circuit.
4. Drive the loader forward slowly.

NOTICE

- **The drive circuit is bi-directional. For best results, the vibratory axle should spin the direction of the roller axis.**

OWNER SERVICE

⚠ WARNING

■ **Before performing any maintenance or service on the unit, perform the mandatory safety shut-down procedure.**

MAINTENANCE

Proper maintenance of the attachment will result in longer life and more productive and cost effective operation.

LUBRICATION

Vibratory Roller bearing lube must be changed every 500 hours of operation.

1. Raise the left side of the roller (motor side), place a 4 x 4" block (10 cm) under the end and lower the drum.
2. Remove the end cover plate (15) and let the lubricant drain into a suitable container. See Figure 1.
3. Reseal and replace the end cover plate.
4. Refill with appropriate amounts (refer to the Specification section for correct amount).

NOTICE

■ **Type of lubricant should be 80-90W gear lube with an EP (extreme pressure) rating of GL-5 minimum.**

VIBRATION ISOLATOR REPLACEMENT

⚠ WARNING

■ **Removal of isolator bolts will let chassis fall. Make sure you support both front and rear ends of chassis securely before you remove the bolts.**

1. Support the chassis to prevent it from falling when the isolator bolts are removed.
2. Remove the motor guard and the motor bolts to remove the motor.
3. Lift chassis from drum and replace the isolators. Eight of the twelve isolator bolts from both ends can be replaced by removing bolts. Chassis removal is necessary to replace the other four bolts.

DRUM REMOVAL

1. Securely support the roller chassis in the front and rear on both sides with the drum resting firmly on the shop floor.
2. Remove the motor guard and motor, and allow the lubricant to drain from the roller shaft.
3. Remove the isolator attaching bolts on each side of the chassis.
4. Hoist the chassis over the top of the roller drum by lifting the front over and to the rear of the unit.

⚠ WARNING

■ **When you separate roller drum and chassis, never place fingers or hands between roller drum and chassis.**

ISOLATOR REPLACEMENT

Remove the bolts attaching the isolators and install new isolators. Torque 1/2" bolts to 55 lbs-ft.

BEARING REMOVAL

Please refer to "Bearing Installation" instructions on page 12 and 13 as well as figures that follow.

1. Remove the motor and chassis following the above procedure and heed all warnings.
2. On the end opposite the motor, remove the bearing end plate (15), Figure 1.

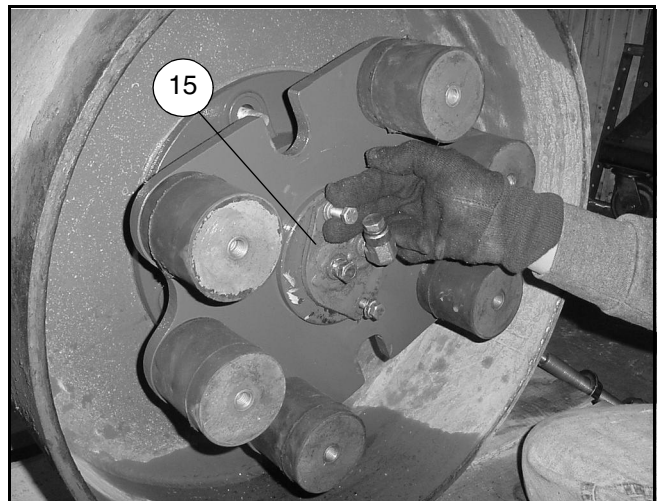


Figure 1

3. Bend back the engaged tab on the shaft lock washer (14), Figure 2.

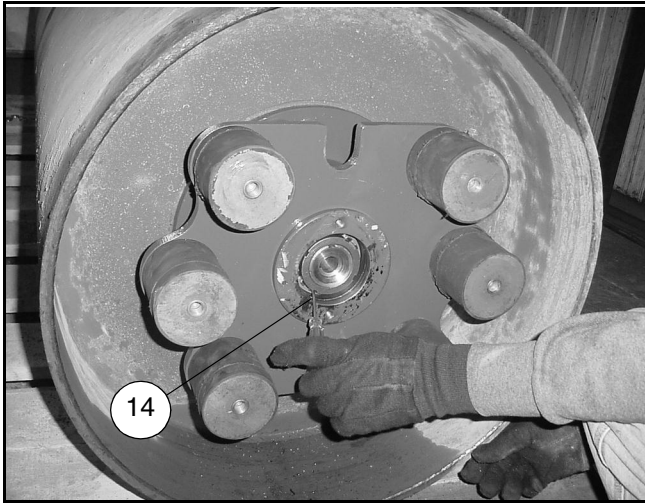


Figure 2

4. Remove the shaft nut (13, using part number 1023106 socket), the shaft washer, and the tongued washer (27), Figure 3.

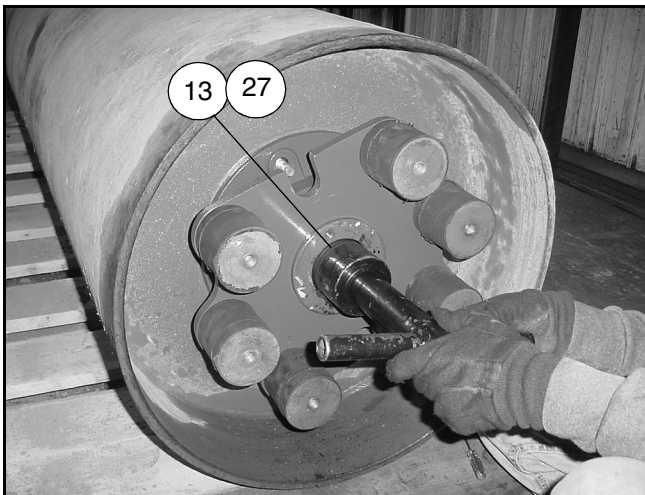


Figure 3

5. Pull the inner bearing housing (9) from the shaft, Figure 4.

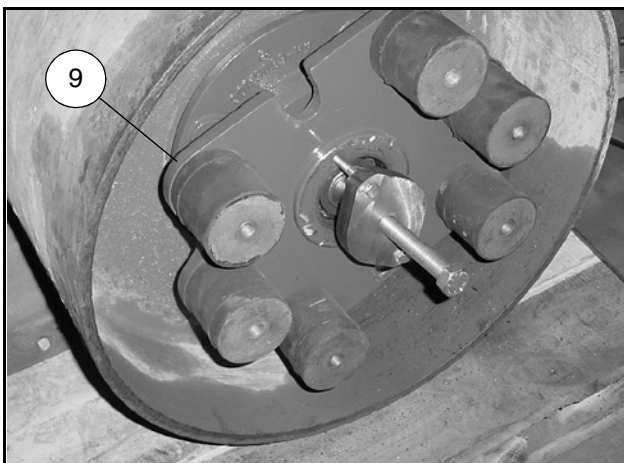


Figure 4

6. Remove the outer bearing housing mounting hardware (55 & 57). See page 16.
7. Slide the outer bearing housing (28) out of the drum. If needed, use threaded holes (1/2" UNC) in the housing to unseat it from the drum weldment, Figure 5.
8. Remove the outer bearing housing mounting hardware on the motor end.
9. Slide the bearing housing assembly and the shaft out of the drum.

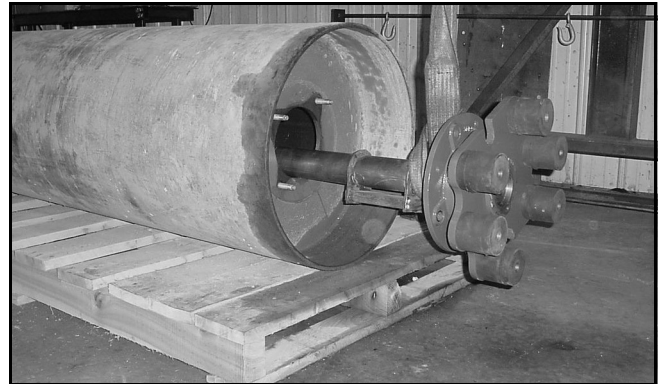


Figure 5

10. Repeat steps 3 through 5 on the motor end.
11. Slide the outer bearing housing off the shaft.

NOTICE

■ **Removal of the bearing housing will cause the shaft to fall. Shaft and bearing housings are heavy. Be careful not to drop one on the other as denting may occur.**

INNER BEARING REPLACEMENT

1. Remove the bearing seal (10) from the end of the inner bearing housing. See page 16.
2. Tilt the housing to allow each bearing cone (12) to fall out.
3. Bearing cups (11) must be removed and replaced using an industrial press.
4. Replace bearing cones.
5. Press a new bearing seal into the end of the housing.

NOTE: The isolators (36) may need to be removed in order to press the seal into the housing properly.

OUTER BEARING REPLACEMENT

1. Press out the ball bearing set (29) from the housing. See page 16.
2. Replace the bearing set and press into housing using an industrial press.

BEARING INSTALLATION

1. Apply a small amount of lubrication (oil or grease) to the outer bearing housing.
2. Assemble the outer bearings to the inner bearings using an industrial press.

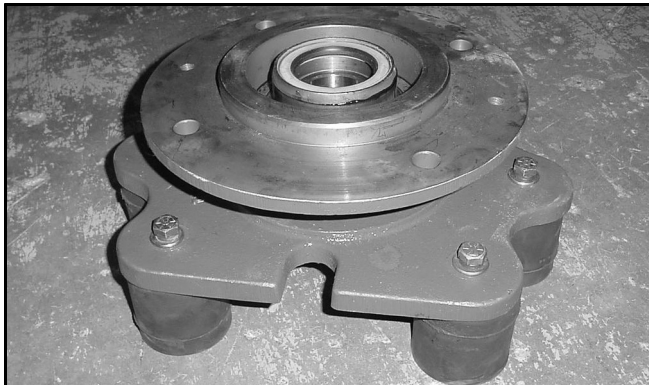


Figure 6

3. Install one of the housing assemblies to the shaft.

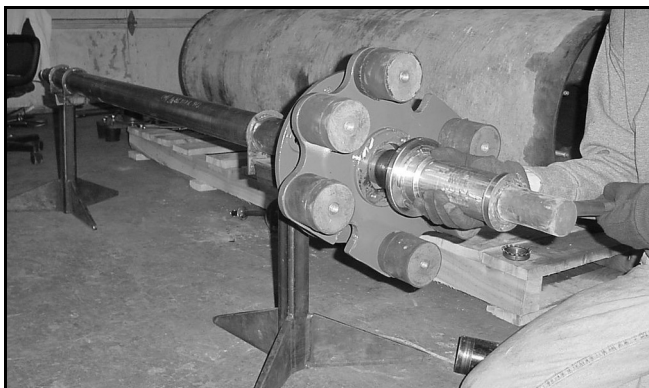


Figure 7

4. Install the outside bearing cone (12).
5. Add the tongued washer, the shaft lock washer, and the shaft nut (27, 14 & 13, using part number 1023106 socket).

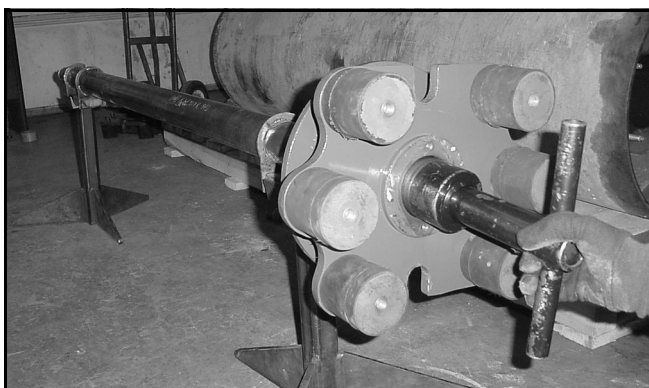


Figure 8

6. Torque the nut to 15 lbs-ft. Be sure to fully engage a tab on the shaft lock washer into a slot on the shaft nut.

7. Insert the shaft into the drum and clamp the outer housing to the drum.

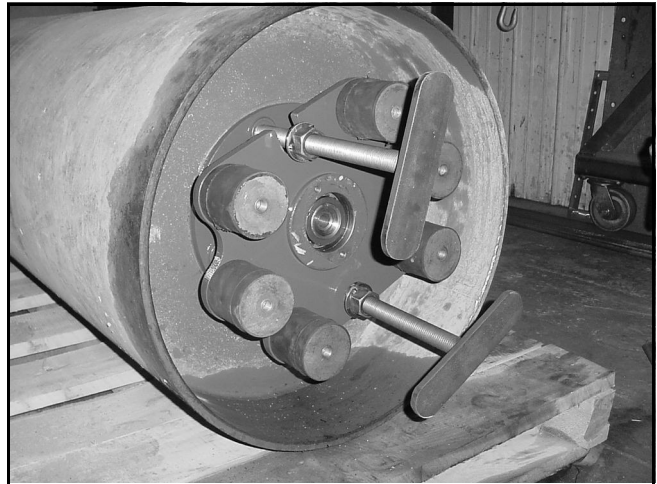


Figure 9

8. Clamp the remaining housing assembly together using washers and bolts in the threaded holes in the outer housing. Be sure bolts do not protrude through the outer housing.
9. Install this assembly onto the shaft.

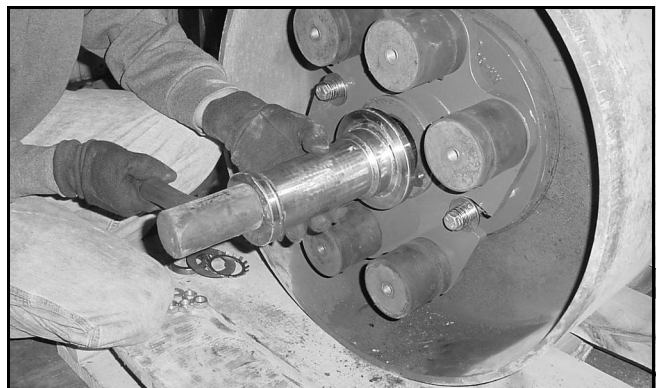


Figure 10

10. Be sure the bearing is fully seated and measure the spacing between the housing and the drum end plate. Spacing over 1/16" must be shimmed.
11. Repeat steps 3 and 4 for this end of the drum.

HYDRAULIC MOTOR SEAL AND BEARING REPLACEMENT

Remove Seal and Bearing

1. Disconnect hydraulic hoses from motor on the side of the roller.
2. Remove the motor guard and the motor bolts to remove the motor. Save hardware for later use.
3. Place motor on a suitable work area and remove spring retaining ring securing shaft and bearing in the motor housing. Save retaining ring for later use.

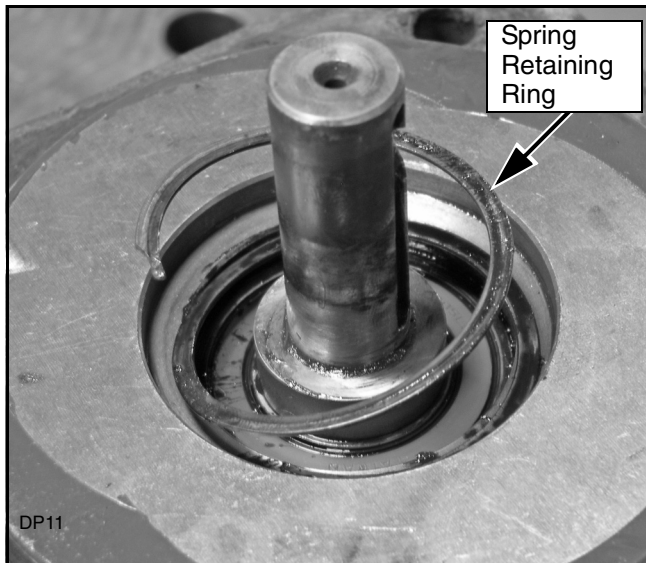


Figure 11. Remove Spring Retaining Ring

4. Firmly grasp the top of the shaft and pull assembly from motor.
5. Remove snap ring (Figure 12) from the shaft and slide spacer and bearing from shaft. Save snap ring and spacer for later use.

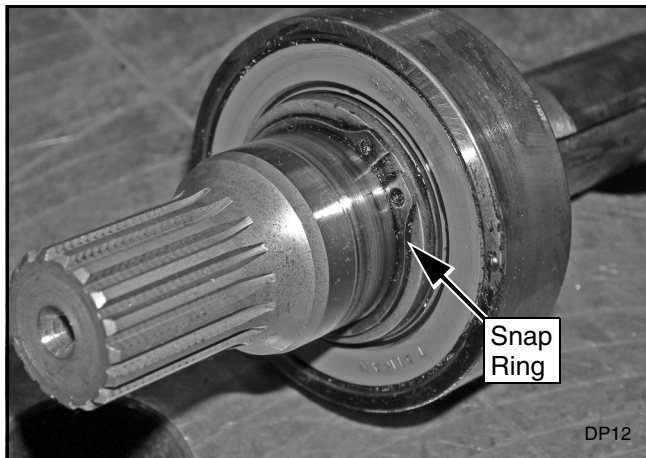


Figure 12. Remove Snap Ring

6. Inspect shaft for cracks, grooves, nicks, or bumps. Resurface any damage with emery cloth or replace shaft.
7. Using a puller (Figure 13) or screwdriver, remove seal from motor housing.

NOTE: Do not scratch or gouge motor surface when removing seal.



Figure 13. Seal Removal

Install Seal and Bearing

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. Place seal squarely on housing, place spring-loaded lip down towards 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.
4. Carefully press seal into housing, avoiding distortion to the metal seal cage.
5. Slide bearing and spacer washer onto shaft and secure with snap ring.
6. Insert shaft into motor housing and align splines.
7. Install spring retaining ring to secure shaft into motor housing.

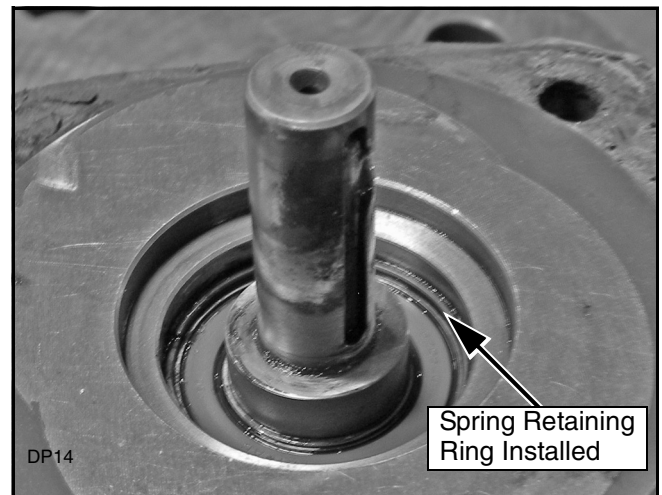


Figure 14. Spring Retaining Ring

8. Attach motor to roller using hardware previously removed. Connect hydraulic hoses.

NOTES

TROUBLESHOOTING

PROBLEM	PROBLEM CAUSE	SOLUTION
Insufficient compaction	Loader “down pressure” insufficient	Increase the “down pressure” by raising the front wheels off the ground (see Operation).
	Vibration circuit pressure insufficient	Adjust the bypass pressure (screw on top of valve) to 1000-1100 psi (69-76 bar). See exploded view, page 16.
Excessive vibration	Vibration circuit pressure excessive	Adjust the bypass pressure (screw on top of valve) to 1000-1100 psi (69-96 bar). See exploded view, page 16.
Does not vibrate	No hydraulic oil flow from loader The roller vibratory drive is broken	Check the loader hydraulics. Check the hydraulic motor and the drive coupler.
	The coupler tack welds broke	Re-tack the weld coupler to the shaft. Caution: Never ground the welder so current passes through the bearings.
Drum tends to skid	Countershaft rotation incorrect	Reverse direction of the auxiliary hydraulics.
Hydraulic oil coming from breather fitting on right side of roller.	Bearing oil galley was over filled or Motor shaft seal has failed	Determine if the fluid leak is gear lube or hydraulic oil. If it's gear lube, drain the roller and refill properly. If it's hydraulic oil, replace the motor shaft seal, drain roller bearing oil galley and refill.

DEALER SERVICE

Although the Alitec attachment is supplied fully assembled, some simple checks should be performed before operation begins.

SAFETY DECALS

The safety decals existing on the attachment should be clearly readable and always followed. The location and description of the decals is shown in the exploded diagram. Copies of the decals are shown in the safety section.

LUBRICATION

Bearing housings should be 1/2 full of lubricant. Two ports are located on the end cap of the idle (right) side

bearing housing. When roller is level, lubricant should be at a level even with the bottom of the straight port.

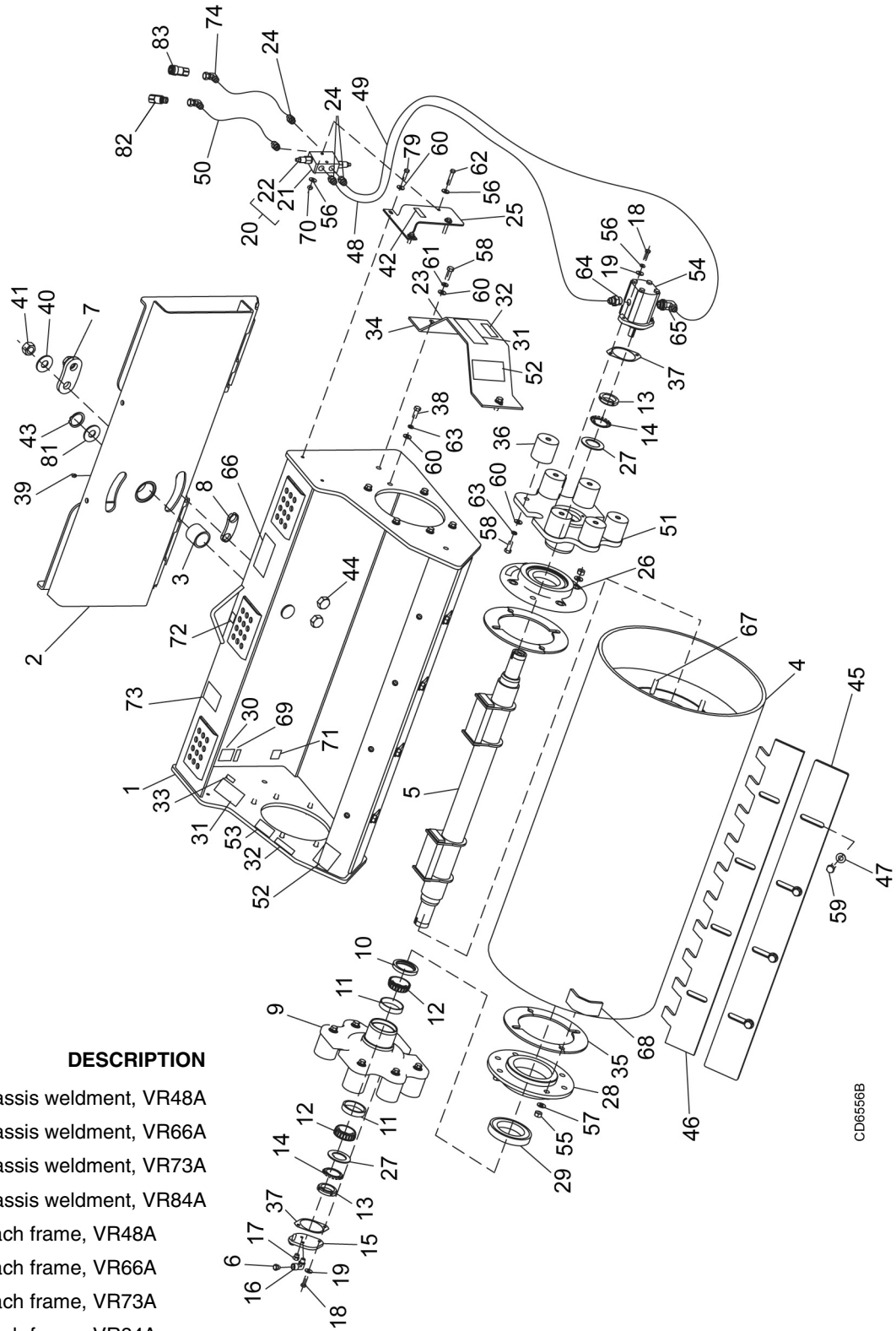
NOTICE

■ Type of lubricant should be 80-90W gear lube with an EP (extreme pressure) rating of GL-5 minimum.

HOSES / FITTINGS

Hydraulic fittings are used to connect all attachment hoses. All fittings should be tight and free of hydraulic leaks. Hoses must be free of crimps or cuts that might result in leakage. Check your attachment before operation to make sure all hose routings are kink-free and allow for maximum movement of all extended, lift/lower, and/or swing motion required during normal operation.

VIBRATORY ROLLER GENERAL ASSEMBLY



REF	PART	QTY	DESCRIPTION
1	105382	1	Chassis weldment, VR48A
1	105373	1	Chassis weldment, VR66A
1	105374	1	Chassis weldment, VR73A
1	105420	1	Chassis weldment, VR84A
2	102089	1	Attach frame, VR48A
2	101528	1	Attach frame, VR66A
2	101528	1	Attach frame, VR73A
2	101528	1	Attach frame, VR84A
3	101423	1	Bushing, 2.562 x 2 x 2.125

CD6556B

16 Parts

(Rev. 4/4/2008)
MAN0357 (Rev.12/10/2007)

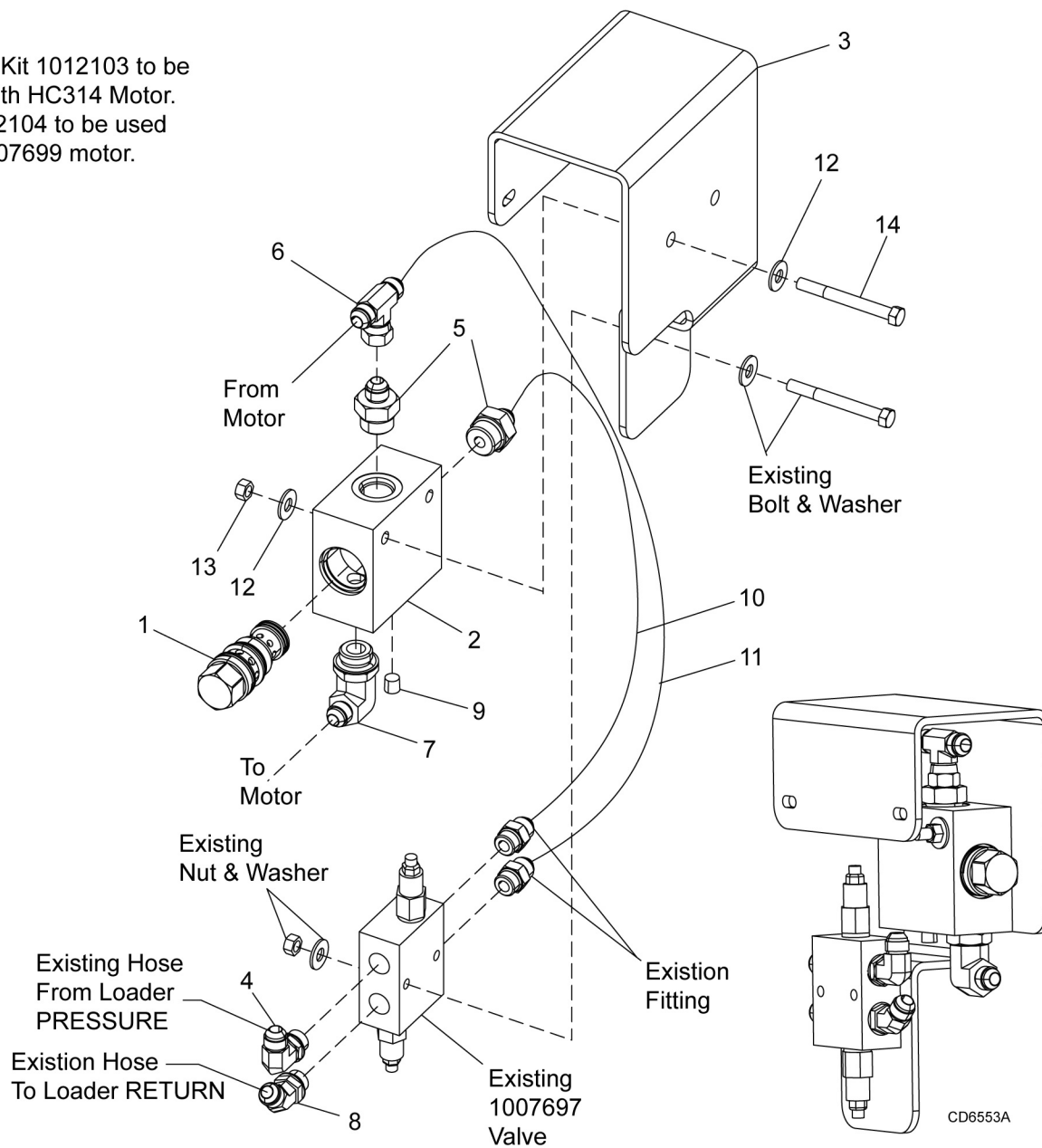
VIBRATORY ROLLER GENERAL ASSEMBLY

REF	PART	QTY	DESCRIPTION	REF	PART	QTY	DESCRIPTION
4	101711	1	Drum weldment, 48" VRA Smooth	44	B1636UP	4	Bolt, 1 x 3.5 -8 unplated
4	101434	1	Drum weldment, 66" VRA Smooth	45	105381	2	Scraper, VR48A Smooth
4	101444	1	Drum weldment, 73" VRA Smooth	45	105359	2	Scraper, VR66A Smooth
4	102832	1	Drum weldment, 84" VRA Smooth	45	105376	2	Scraper, VR73A Smooth
4	101712	1	Drum weldment, 48" VRA Padfoot	45	105422	2	Scraper, VR84A Smooth
4	101713	1	Drum weldment, 66" VRA Padfoot	46	105380	2	Scraper, VR48A Padfoot
4	101714	1	Drum weldment, 73" VRA Padfoot	46	105356	2	Scraper, VR66A Padfoot
4	104047-1	1	Drum weldment, 84" VRA Padfoot	46	105377	2	Scraper, VR73A Padfoot
5	102629048	1	Shaft weld, VR48A	46	105423	2	Scraper, VR84A Padfoot
5	102629066	1	Shaft weld, VR66A	47	B1021	8	Washer, 5/8 Flat SAE plt hrd
5	102629073	1	Shaft weld, VR73A	48	H1256	1	Hose #8 x 24" 8FLF x 8FLF 45 R1
5	102629084	1	Shaft weld, VR84A	49	H1252	1	Hose #8 x 16" 8FLF x 8FLF R1
6	102574	1	Cap, vent VRA w/O-ring	50	H1253	2	Hose #8 x Hose 62" 8FLF x 8FLF R1
7	101234	2	Plate, retaining VRA	50	H1403	2	Hose #8 x Hose 70" 8FLF x 8FLF R1
8	101233	2	Plate, spacer VRA	51	105670	2	Hsg asy, VRA inner brg (incl. 9-12)
9	105801	2	Housing, VRA inner bearing	52	D0197	2	Decal, rotating drum US
10	101210	2	Seal, shaft 2.563 ID x 3.505 OD	53	D0154	1	Decal, bearing lube
11	101217	4	Cup, bearing Timken 3.22 OD	54	1007699	1	Motor, Parker PGM 030 - 2.46 CID
12	101213	4	Cone, bearing Timken 1.96 OD	N/S	1009285	1	Seal kit for 1007699
13	101208	2	Nut, shaft N-10	N/S	1022539	1	Key, motor shaft, PGM 30
14	106655	2	Washer, shaft lock VRA	N/S	1022545	1	Motor output shaft, PGM030
15	106730	1	End plate, VRA	N/S	1022546	1	Bearing, motor output shaft, PGM030
16	313017	1	Fitting, 6PF x 6PM 90°	55	B0915	8	Nut, 9/16-18 GR5 Stover plt
17	F1210	1	Plug, 6PM fitting	56	4378 *	4	Washer, 5/16 standard flat ZP
18	31982	4	HHCS 3/8 NC x 1-1/4 GR8 ZP	57	B0920	8	Washer, 9/16 flat SAE plt hrd
19	B0624	4	Washer, 3/8 flat SAE hardened	58	21666	2	HHCS 1/2 NC x 1-1/2 GR8 ZP
20	1007697	1	Valve assembly	59	59019	8	HHCS 5/8 NC x 1-1/2 GR8 ZP
21	1007698	1	Cross port block	60	57816	28	Washer, 1/2 SAE plt hrd
22	1007696	2	Relief valve - 1100 psi	61	855 *	2	Washer, lock 1/2 ZP
23	1012105	1	Decal, instructions, auxiliary flow	62	7164 *	2	HHCS 5/16 NC x 2-1/4 GR5
24	61	4	Fitting, 80M x 8 FLM St.	63	B0822	24	Washer, 1/2 lock high collar
25	102886	1	Guard, valve VRA	64	316017	3	Fitting, 12 OM x 8 JICM
26	105671	2	Hsg asy, VRA outer brg (incl. 28, 29)	65	37501	1	Fitting, 12 OM x 8FLM 90
27	106656	2	Washer, tongued 2" VRA	66	D0404	1	Decal, read manual Woods
28	105800	2	Housing, VRA outer bearing	67	M0005	8	Stud, 9/16-18 x 2-9/16
29	105664	2	Bearing, large 5.90 VRA	68	07030	-	Pad, 3/8 x 2 HR 8" VR drum
30	-----	1	Decal, serial # plate	70	14139	2	Lock nut, 5/16 NC flng hd ZP
31	-----	-	Decal, brand name	71	D0157	1	Decal, tie down
32	-----	-	Decal, model number	72	D0158	1	Decal, lift point
33	-----	-	Decal, Alitec	73	54519	1	Decal, wrng skid steer crush
34	101232	1	Guard, motor VRA	74	F1020	2	Fitting, 8 FLF x 8 FLM 90°
35	106668	A/S	Shim, half VRA 14 GA	75	1006129	2	Plug 8FLM fitting (not shown)
35	106669	A/S	Shim, half VRA 1/4"	79	6100 *	2	HHCS 1/2 x 1-1/4 GR5 ZP
36	M0036	12	Isolator pad, VRA soft	81	BB090	1	Bushing, pivot 2"
37	101437	2	Gasket, 2 bolt "A" flange SAE	82	HC414	1	Quick disconnect 1/2" male flush face
38	21660	12	HHCS 1/2 NC x 1-1/4 GR8 ZP	83	HC415	1	Quick disconnect 1/2" female flush face
39	M0008 *	1	Zerk, grease 1/4 - 28 45°	N/S	1023106	1	Socket, VR shaft nut (for shaft nut installation)
40	B1620	4	Washer, 1 flat SAE plt hrd				
41	34279	4	Nut lock 1 NC				
42	19924	1	Decal, warning high pressure hydr	A/S	As required		
43	M0042 *	1	Retaining ring, 2" ext. plt.	N/S	Not shown		

* Standard Hardware - Obtain Locally

OPTIONAL FLOW CONTROL KITS

NOTE: Kit 1012103 to be used with HC314 Motor.
Kit 1042104 to be used with 1007699 motor.



REF	PART	QTY	DESCRIPTION
1	1007693	1	Priority flow 17 gpm (used in kit 1012103)
1	1007694	1	Priority flow 23 gpm (used in 1012104)
2	1007695	1	Priority flow block
3	1012100	1	Guard, valve VRA
4	F1025	1	Fitting, 8 OM x 8 FLM 90°
5	316017	2	Fitting, 12 OM x 8 FLM ST

REF	PART	QTY	DESCRIPTION
6	F1231	1	Fitting, 8 FLM x 8 FLF x 8 FLM
7	37501	1	Fitting 12 OM x 8 FLM 90°
8	1004288	1	Elbow 3/4 JICM 3/4 ORB 45°
9	62176 *	1	1/4 NPT Plug socket head
10	H1252	1	Hose #8 x 16" 8 FLF x 8 FLF R1
11	H1256	1	Hose #8 x 24" 8 FLF x 8 FLF 45 R1
12	565 *	4	Washer, 3/8 flat ZP
13	835 *	2	Hex nut, 3/8 NC pltd
14	31138 *	2	3/8 NC x 3-1/2 HHCS GR5

* Standard Hardware - Obtain Locally

18 Parts

MAN0357 (Rev.12/10/2007)

BOLT TORQUE CHART

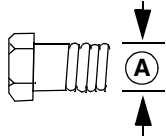
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

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

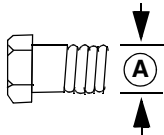


SAE Grade 5
(3 Radial Dashes)



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

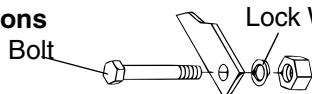
Metric Bolt Head Identification



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



Lock Washer

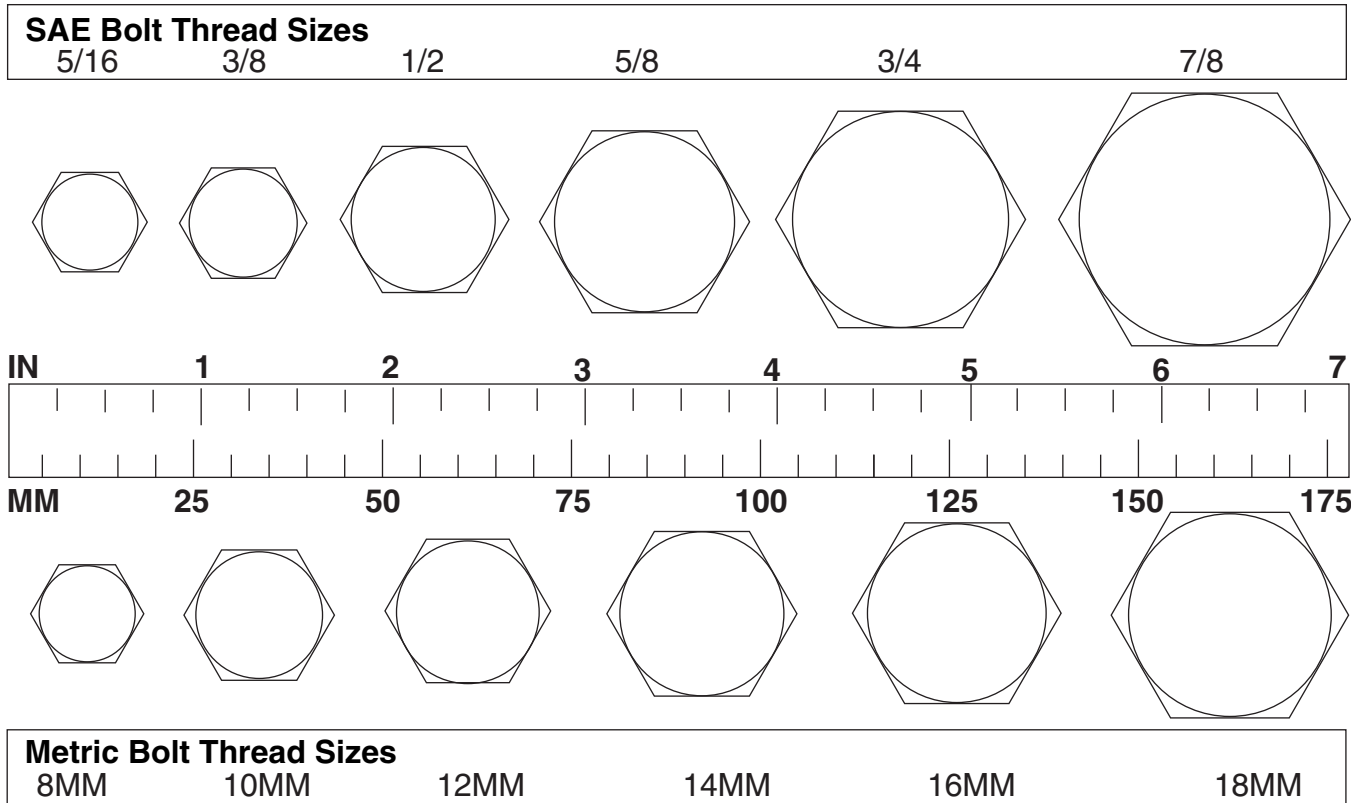
Flat Washer



8/9/00

BOLT SIZE CHART

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



ABBREVIATIONS

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

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

WARRANTY

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

Please Enter Information Below and Save for Future Reference.

Date Purchased: _____ From (Dealer): _____
 Model Number: _____ Serial Number: _____

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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.

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