

# ERASER



**HGW30**

January 2016



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# 1. INTRODUCTION

Thank you for purchasing a Holt Industrial HGW30 Stump Grinder.

You must read, understand, and follow all instructions in this manual before operating, adjusting or servicing this machine.

If you do not understand any part of this manual or you are unsure about any aspect of this machine, contact Holt Industrial. Information provided in this manual was current as of the issue date.

Information furnished in this manual does not include all of the details of design, production, or variations of equipment. It does not cover all the possible contingencies, which may arise during operation or maintenance.

Should special issues arise, or further information be desired, contact your dealer.

This manual covers the Holt Industrial HGW30 Stump Grinder and is provided to assist in the safe operation and maintenance of the equipment.

Equipment modifications from original design and specifications without written permission are strictly prohibited.

Modifications may compromise safe operation of machine, subject users to serious injury or death and may void any remaining warranty.

This operator's manual does not replace, nor does its use discharge the operator from observing all safety codes or operating limitations as well as any applicable federal, state, provincial or local regulations.

There are three different types of labeling on this machine: safety, informative and product labels.

**Safety Labels** are pictorial with a yellow background and generally 2 panel. Top panel indicates the potential hazard and the bottom panel indicates how to avoid the hazard.

**Informative Labels** are generally pictorial, have a white background and can vary to the number of panels. The label will illustrate the function of a feature and is accompanied by detailed instructions in the owners manual, with the label illustrated along side.

**Product Labels** contain product information such as model number or serial number.

## 2. WARRANTY

This product is warranted to be free of defects in materials and workmanship under normal use and service, for a period of one year from the date of purchase, when operated and maintained in accordance with the Operating and Maintenance Instructions supplied with this unit. This warranty does not cover misuse or negligence.

Under no circumstances will the manufacturer be liable for any consequential damage or expense of any kind, including loss of profits.

The manufacturer is not liable for the maintenance of the product. This warranty is extended only to the original purchaser. Warranty is void if repairs are attempted by anyone other than an Authorized Service Center.

If a difficulty develops with the product, you should contact your nearest Authorized Repair Center, or distributor. Only these locations are authorized to make repairs to the product or affect the replacement of defective parts, which will be done at no charge within a reasonable time after the receipt of the product. Units or parts should be returned at the customer's expense to the nearest repair location or Authorized Service Center. Pack in a strong container and pad tightly to avoid damage. Damage in-transit is not covered by warranty. Include original purchase receipt with any claim (keeping a copy for your files).

The Manufacturer's Liability is limited to repair of the product and/or replacement of parts and is given to the purchaser in lieu of all other remedies including incidental and consequential charges. There are no warranties, expressed or implied other than those specified herein. For the nearest Authorized Service Center, call the manufacturer.

Please note the following details and file this information in an appropriate place.

Model Number: \_\_\_\_\_

S/N: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Owner's Name \_\_\_\_\_

### 3. PREDELIVERY

This predelivery procedure must be performed and signed off by a qualified Holt Industrial representative and Holt Industrial trained owner, maintenance supervisor or operator at the time of delivery and before going into service.

\_\_\_\_\_  
Owner / Owner Representative

\_\_\_\_\_  
Address

\_\_\_\_\_  
City, State/Province, Postal Code

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Holt Industrial Representative

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
VIN Number

\_\_\_\_\_  
Delivery Date

The owner or owner representative is thoroughly trained on the Holt Industrial HGW30 Stump Grinder. Predelivery inspection has been performed. Safe operation, care, adjustments, warranty policy and manuals for the HGW30 Stump Grinder have been reviewed.

\_\_\_\_\_  
Owner / Owner Representative Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Holt Industrial Representative Signature

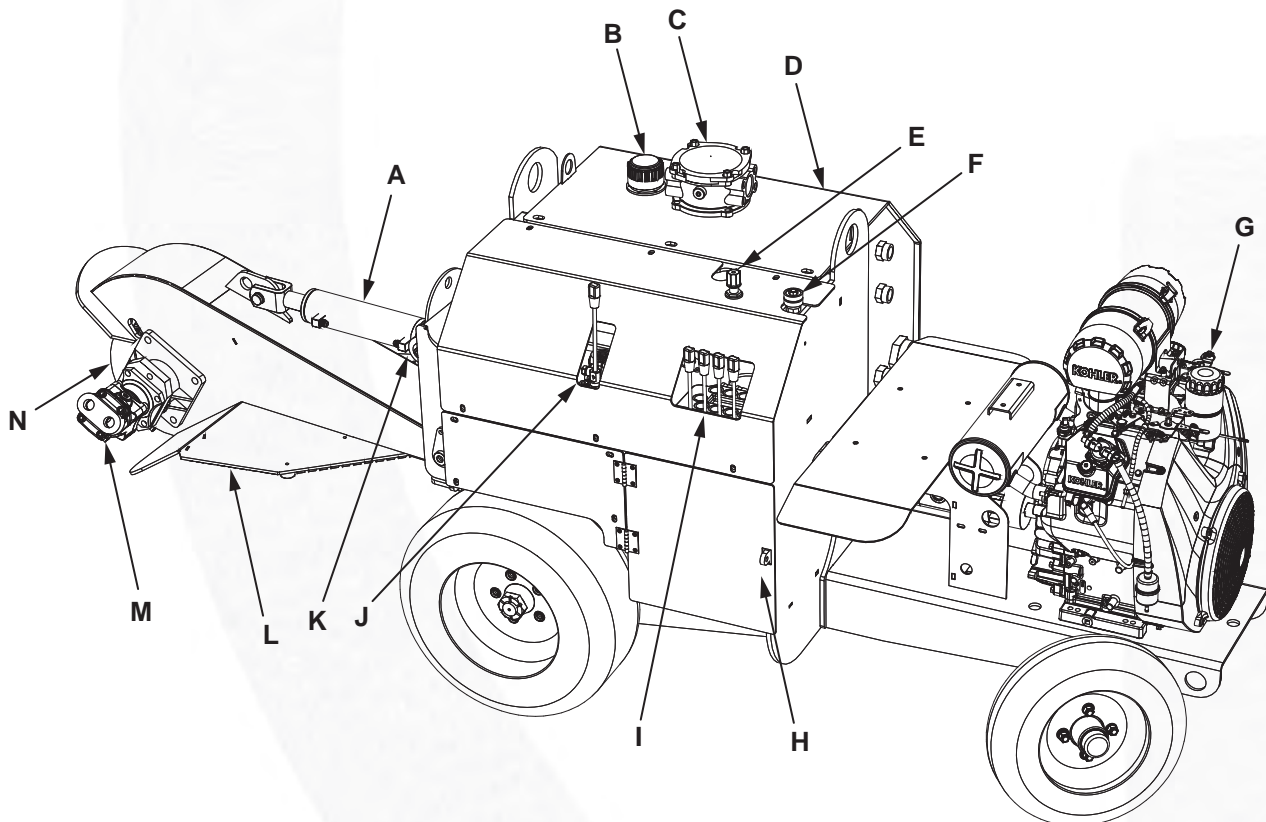
\_\_\_\_\_  
Date

X	Predelivery Inspection
	Verify rotor turns freely.
	Verify all fluids are at proper level.
	Verify tires are properly inflated.
	Verify all wheel lugs are tight.
	Lubricate all grease fittings.
	Verify all fasteners are tight.
	Verify all decals are in installed.
	Start engine and operate all functions to verify operation. Stop engine.
	Check hoses and fittings for leaks.



## 4. COMPONENTS

- A. Rotor Raise/Lower Hydraulic Cylinder
- B. Hydraulic Oil Reservoir Fill
- C. Hydraulic Oil Filter
- D. Hydraulic Oil Reservoir
- E. Traction Control
- F. Swing And Drive Speed Control
- G. Engine
- H. Engine Fuel Tank
- I. Grinding & Driving Controls
- J. Rotor Control
- K. Rotor Swing Hydraulic Cylinder
- L. Debris Guard
- M. Hydraulic Motor
- N. Rotor



## 5. SPECIFICATIONS

Engine .....	30 hp / 999cc
Rotor Size.....	18 in. (457 mm)
Number Of Teeth.....	24
Rotor Speed .....	1800 RPM
Cutting Height Above Ground.....	24 in. (610 mm)
Cutting Depth Below Ground.....	12 in. (305 mm)
Maximum Cutting Depth Per Pass .....	3 in. (76 mm)
Maximum Horizontal Cut .....	46 in. (1168 mm)
Swing Arc .....	85°
Input Speed .....	3300 RPM
Unit Weight.....	1500 lbs (680 kg)
Width .....	35 in. (890 mm)
Length.....	105 in. (2667 mm)
Hydraulic Oil .....	ISO 46 Rated
Maximum Hydraulic Oil Temperature At 100° F (38° C) Ambient Conditions.....	180° F (82° C)

## 6. SAFETY

### 6.1 Safety Alert Symbol And Signal Words

You must read, understand and follow the instructions given by the operating unit manufacturers, as well as the instructions in this manual.

The safety information in this manual is denoted by the safety alert symbol:



This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

The level of risk is indicated by the following signal words:

#### **DANGER**

**DANGER** - Indicates a hazardous situation, which, if not avoided, **WILL** result in death or serious injury.

#### **WARNING**

**WARNING** - Indicates a hazardous situation, which, if not avoided, **COULD** result in death or serious injury.

#### **CAUTION**

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

#### **NOTICE**

**NOTICE** - Indicates a situation that could result in damage to the equipment or other property.

### 6.2 Operational Hazards

#### **California Proposition 65 Warning**

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer, birth defects and other reproductive harm. Wash hands after handling.

#### **WARNING**

**Prevent serious injury or death.**

**Read and understand this manual before operating stump grinder.**

**Always stop engine and allow rotor to stop before approaching rotor.**

**Never allow anyone near stump grinder during operation.**

**Travel at a safe speed.**

#### **WARNING**

**Prevent serious injury or death from moving parts.**

**Moving parts can crush and dismember. Do not operate without guards and shields in place.**

**Lockout engine controls before adjusting or performing maintenance.**

#### **WARNING**

**Safely operate equipment.**

**Allow only properly trained and qualified personnel to operate this equipment.**



**! WARNING**

**Use stump grinder only for the designed applications.**

**Any other use may result in personal injury, damage to equipment and may void the warranty.**

**! WARNING**

**Prevent serious injury or death.**

**Engine exhaust contains carbon monoxide. Carbon monoxide is an odorless gas that can cause death.**

**Avoid any areas or actions that expose you or others to carbon monoxide.**

**Never refuel a running engine or refuel near ignition sources.**

Carefully read all safety messages in this manual and on equipment safety signs. Keep safety signs in good condition and replace missing or damaged safety signs.

New equipment components and repair parts must include the current safety decal.

Learn how to properly operate equipment. NEVER operate or work around this equipment without proper instruction, while fatigued or under the influence of alcohol, prescription or non-prescription medication or if feeling ill.

Keep your equipment in proper working condition. Know the regulations and laws that apply to you and your industry. This manual is not to replace any regulations or laws. Additional information may be found at:

[www.asae.org](http://www.asae.org) or [www.osha.gov](http://www.osha.gov).

If you do not understand any part of this manual, contact your dealer.

### 6.2.1 Replace Safety Signs

Replace missing or damaged safety signs.

Safety sign location are identified in Section 5.5 of this manual.

Replacement safety signs are available from your dealer.

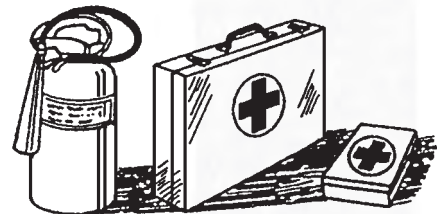
### 6.2.2 Prepare For Emergencies

Be prepared in case of emergencies.

Keep a fire extinguisher and first aid kit close to the machine.

Keep emergency phone numbers close to your phone.

Know your address so emergency services can locate you if an emergency arises.



### 6.2.3 Do Not Allow Riders

NEVER lift or carry anyone on stump grinder.

NEVER use stump grinder as a work platform.

NEVER allow passengers on stump grinder.

### 6.2.4 Lower Operating Speed

Keep rotor low and move at slow speeds on rough or uneven terrain.

### 6.2.5 Prevent Rollover

The equipment may rollover, resulting in death or serious injury. To help prevent rollover:

- Travel at a slow speed.

- Avoid sharp turns & sudden movement on slopes.
- Travel with rotor close to the ground.
- Avoid holes, ditches and other obstructions which may cause equipment to rollover.
  
- Use caution when operating on slopes and do not operate on excessively steep slopes.

### 6.2.6 Avoid Power Lines And Underground Utilities

#### **WARNING**

**Prevent electrocution.**

**Death or serious injury can result if equipment comes near or contacts power lines.**

**Electrocution can occur without direct contact.**

Have local utilities locate and mark under ground wires, cables, pipelines and other hazards before grinding.

### 6.2.7 Avoid Load Noise

#### **WARNING**

**Prolonged exposure to loud noise can cause impairment or loss of hearing.**

**Wear a suitable hearing protective device.**

### 6.2.8 Raised Rotor

#### **WARNING**

**Crushing hazard.**

**Raised, unsupported rotor can fall, resulting in death or serious injury.**

**Never enter the area under a raised rotor.**

A raised rotor can lower unexpectedly, resulting in death or serious injury.

**NEVER** enter area under a raised rotor.

Lower rotor to ground, engage parking brake, shut off engine and lockout engine controls before servicing.

### 6.2.9 Avoid High Pressure Fluids

#### **WARNING**

**Pressurized fluids can penetrate the skin.**

**Hydraulic hoses can fail from age, damage and exposure.**

**Use body and face protection while searching for leaks. A tiny, almost invisible leak can penetrate the skin, thereby requiring immediate medical attention.**

**Use wood or cardboard to detect hydraulic leaks, never use your hands.**

Escaping fluid under pressure can penetrate the skin causing serious injury.

Prevent the hazard by relieving pressure before connecting or disconnecting hydraulic lines. Verify all connections are tight before applying pressure.

Search for leaks with a piece of cardboard or wood.

Protect hands and body from high pressure fluids. If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or serious infection may result.

Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.

## 6.3 Maintenance Hazards

Before servicing, park machine on a firm and level surface, set parking brake, chock wheels, and place a “Do Not Operate” tag on engine controls. Read and understand this manual. If you do not understand any part of this manual, contact your dealer.

Always wear face and/or eye protection, safety shoes, and other protective equipment appropriate for the job.

Always use Holt Industrial replacement parts.

### **WARNING**

**Moving parts can crush and cut.**

**Keep clear of moving components.**

### **WARNING**

**Crushing and severing hazard.**

**Before performing inspections, service or maintenance:**

- **Park machine on firm, level surface.**
- **Engage parking brake.**
- **Turn engine off and lockout engine controls.**

### **WARNING**

**Entanglement hazard.**

**Keep clear of moving components.**

### **WARNING**

**Burn hazard.**

**Hot and high pressure hydraulic oil.**

**Allow oil to cool before servicing.**

### **WARNING**

**Prevent serious injury or death.**

**Wear proper protective equipment appropriate for the job.**

## 6.4 Hazards From Modifying Equipment

Do not make any alterations to the stump grinder. Altering may cause equipment to be unsafe and may void the manufacturers' warranty.

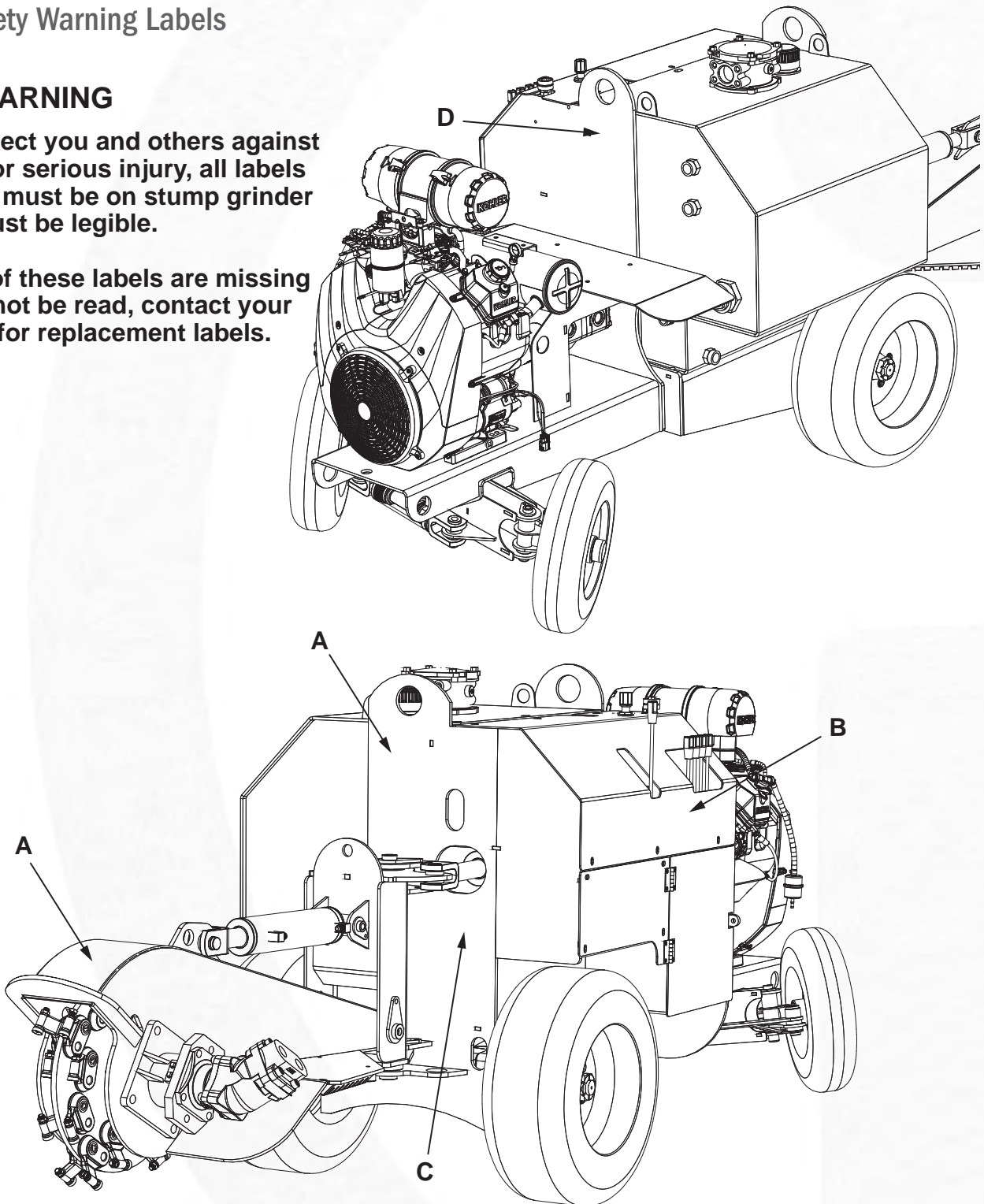


## 6.5 Safety Warning Labels

### WARNING

To protect you and others against death or serious injury, all labels shown must be on stump grinder and must be legible.

If any of these labels are missing or cannot be read, contact your dealer for replacement labels.



Decal A:

Caution: Flying objects. Be aware of and stay clear of material discharge area. Machine can expel wood chips fast enough to cause injury.



Decal C:

Caution: Body crush area. Be aware of and stay clear of this area during operation.



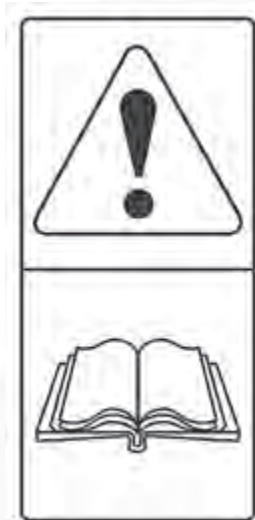
Decal B:

Caution: Hydraulic fluid under pressure, do not check for leaks with your hand or fingers. Serious injury may result.



Decal D:








Caution: Read and understand all safety and operating instructions in the manual. Read and understand all safety labels located on the machine.







## 7. OPERATION

-  Keep bystanders, livestock, pets, etc away from work area.
-  Always wear protective equipment appropriate for the job.
-  Do not operate, work on or around this machine while under the influence of alcohol, drugs or if feeling ill.
-  Keep clear of moving machinery at all times.
-  Stop stump grinder engine before leaving operators area.
-  It is your responsibility to operate this equipment safely. You must be familiar with the equipment and all safety practices before use.
-  Do not allow untrained or unqualified people to operate this equipment.

### 7.1 Pre-Operation Check List

Perform the following checks prior to operation.

- Review and understand this manual and engine operators manual.
- Verify safety decals are installed and legible. Replace if damaged or missing.
- Verify that all hardware is tight.
- Inspect hoses and fittings for wear, damage and leaks. Replace damaged or leaking hoses before use.
- Verify hydraulic oil is at full level on sight glass
- Verify that local utilities have marked all underground utilities.

### 7.2 Carbide Teeth Break In

New carbide teeth are razor sharp and can chip and shatter easily when they hit hard objects. Once the razor sharpness has worn away, tips do not chip as easily. Observing these precautions will extend the life of the carbide teeth and reduce operating expenses.

### 7.3 Operation

#### **WARNING**

**Prevent serious injury or death.**

**Keep clear of moving machinery.**

#### **WARNING**

**Prevent serious injury or death.**

**Engine exhaust contains carbon monoxide. Carbon monoxide is an odorless gas that can cause death.**

**Avoid any areas or actions that expose you or others to carbon monoxide.**

#### **WARNING**

**Wear an approved respirator (N95 Type as a minimum).**

**Follow local, state and federal regulations.**

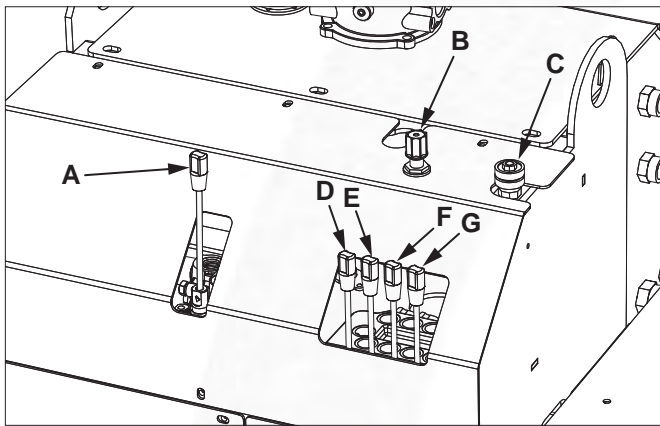
**The health effects from exposure to wood dust are due to chemicals in the wood or chemical substances in the wood created by bacteria, fungi, or molds.**

#### **WARNING**

**Never operate stump grinder when other people are in the vicinity. Debris can be thrown several feet from cutting area.**

**Keep all shields in place.**

### 7.3.1 Operator Controls



- A. Rotor Engage/Disengage
- B. Traction Control
- C. Swing & Drive Speed Control
- D. Rotor Swing Control
- E. Rotor Lift Control
- F. Steering Control
- G. Drive Control

### 7.3.2 Grinding A Stump

#### **WARNING**

**Prevent serious injury or death.**

**Keep clear of moving machinery.**

1. Start stump grinder engine. See OEM engine manual for safety, prestart and operational information.
2. Set engine speed at high idle.
3. Adjust stump grinder swing speed. Rotate swing & drive speed control (C) counter clockwise to slow setting. It is recommended to start at the slow setting and adjust speed up as desired.
4. Rotate traction control (B) fully clockwise to lock drive wheels together. Rotate control counter clockwise to allow steering.
5. If the stump is on a grade, position stump grinder lower on the grade with the cutting wheel on the stump grinder higher up the grade.
6. Position stump grinder up to the front edge of the stump using levers (F) and (G).
7. Check position of the stump grinder to the stump. Verify stump grinder is positioned at the edge of the stump that is closest to the stump grinder.
8. Verify rotor is close to, but not touching stump. Adjust rotor height with lift control lever (E).
9. Engage rotor with lever (A).
10. Use lift lever (E) and swing lever (D) to direct the rotor. Make the first pass across front edge of stump, moving the cutting wheel from side to side in 3-6 inch passes.
11. Continue to take passes across the front edge of the stump, taking 3-6 inches on each pass.
12. When ground level is reached, continue to grind up to 12 in. (305 mm) below the surface to the bottom of the stump where the roots branch out.
13. Lift rotor and swing it to right or left side. Back the stump grinder up slightly to position the stump grinder beside the new front edge of the stump.
14. Make multiple passes over the front edge of the stump, taking 3-6 inches on each pass.
15. Reposition stump grinder as needed until the entire stump has been removed to below ground level.
16. Follow the roots, taking as much of the larger surface roots as possible. If these are not removed they can, over time, protrude from the ground in areas where there is a heavy freeze/thaw cycle.
17. Move stump grinder away from stump to a flat surface.
18. Set engine speed at low idle.
19. Stop stump grinder engine.

## 8. ROUTINE MAINTENANCE

### 8.1 Maintenance Intervals

ITEM	DAILY BEFORE USE	EVERY 4 HOURS	EVERY 30 HOURS	WEEKLY	EVERY 100 HOURS	EVERY 200 HOURS	EVERY 500 HOURS	EVERY 2000 HOURS
Check hoses and fittings for leaks.	•							
Check cutting teeth for wear. Rotate or replace cutting teeth as necessary.		•						
Lubricate pivot point grease fittings.			•					
Check rotor bearings for side-to-side and up/down movement. Replace bearing if movement is found.				•				
Change engine oil filter.					•			
Change engine air filter.					•			
Change engine oil and filter.						•		
Change hydraulic oil filter.							•	
Change hydraulic oil and filter.								•

#### WARNING

**Moving parts can crush and cut.**

**Keep clear of moving components.**

**Lockout operating engine controls before performing inspections or maintenance.**

#### WARNING

**Prevent serious injury or death.**

**Wear proper protective equipment appropriate for the job.**

### 8.2 Inspections

Check hydraulic hoses and fittings daily for leaks. Replace worn or damaged parts.

Inspect the unit for any damage. Repair or replace parts as needed.

### 8.3 Rotate Cutting Teeth

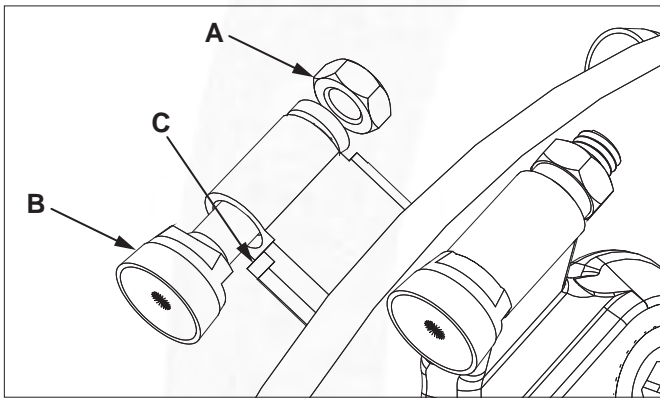
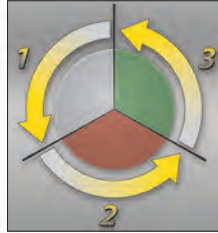
Check cutting teeth every 4 hours of use. Keep cutting teeth in good condition. Unit will cut faster and remaining teeth will last longer if broken or worn teeth are replaced.

Each tooth can be rotated up to two times from its original position before replacement is necessary.

1. Park stump grinder on a level surface.
2. Lower rotor to the ground.
3. Shut off engine and lockout engine controls.
4. Inspect teeth for wear on top edge. Once top edge is worn, rotate tooth so a new edge is on top (cutting) edge.

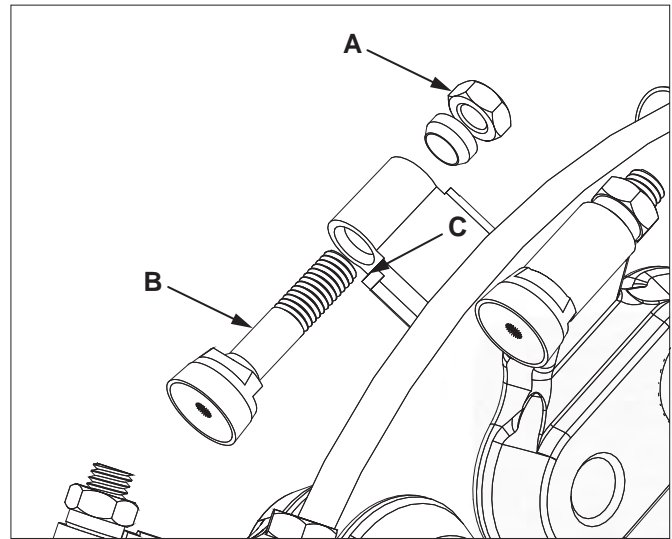


5. Loosen locknut (A) on tooth (B) and rotate tooth 1/3 turn. Flat shoulder on tooth will fit against shoulder (C) on tooth holder.
6. Tighten locknut (A).



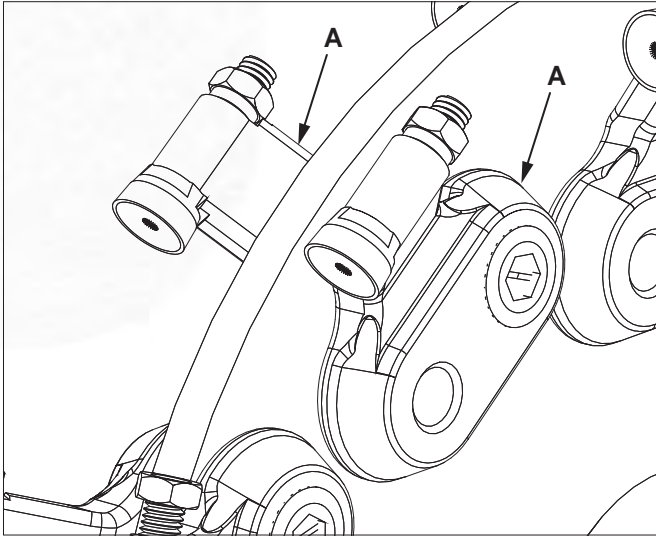
## 8.4 Replace Cutting Teeth

1. Park stump grinder on a level surface.
2. Lower rotor to the ground.
3. Shut off engine and remove key.
4. Inspect cutting teeth (B) for damage and wear. Replace individual teeth as needed.
5. Remove locknut (A) and spacer from tooth (B). Install new tooth. Flat shoulder on tooth will fit against shoulder (C) on tooth holder.
6. Install spacer and locknut. Tighten locknut (A).



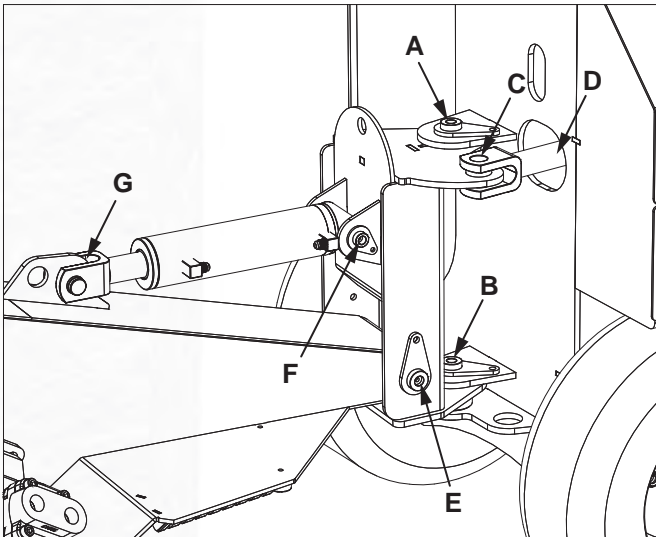
## 8.5 Replace Tooth Holder

1. Park stump grinder on a level surface.
2. Lower rotor to the ground.
3. Shut off engine and remove key.
4. Inspect tooth holders (A) for damage and wear. Replace individual tooth holders as needed.
5. Remove tooth from tooth holder.
6. Remove mounting hardware on tooth holders. Install new tooth holder and tighten mounting hardware.
7. Install tooth into new tooth holder.

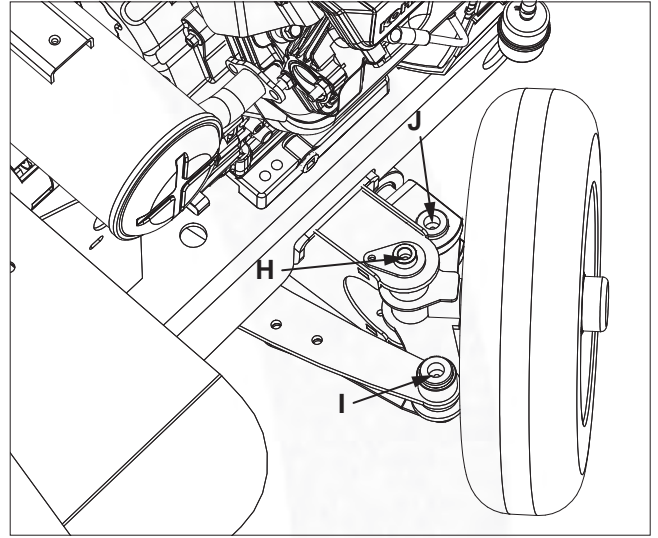


### 8.6 Lubrication

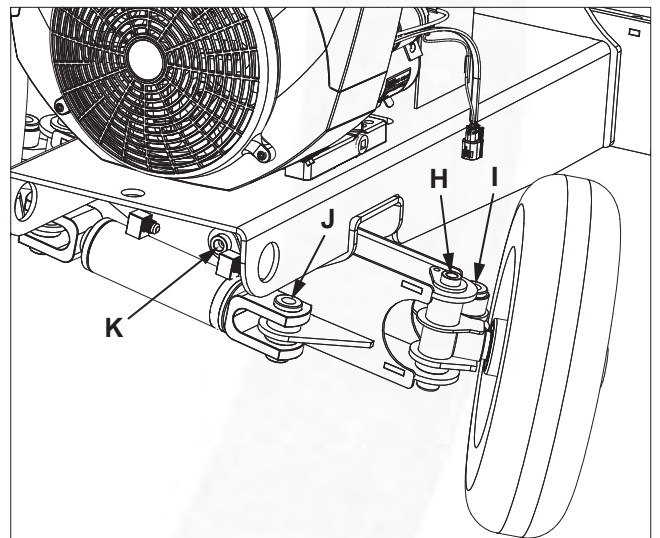
1. Lubricate swing pivot pins (A), (B), (C) and base end pin of cylinder (D) every 30 hours.
2. Lubricate raise/lower pivot pin (E) and cylinder pins (F) and (G) every 30 hours.



3. Lubricate axle king pins (H), tie rod pins (I) and steering cylinder pins (J) every 30 hours.



4. Lubricate axle pivot pin (K) every 30 hours.



## 9. TROUBLESHOOTING

Problem	Probable Cause	Solution
Rotor does not spin.	Rotor jammed.	Lock out power and clear debris from rotor.
	Low hydraulic oil level.	Check hydraulic oil level. Add if necessary.
	Low hydraulic oil flow.	Have a qualified hydraulic technician check hydraulic oil flow.
Rotor rotates slow or sluggish.	Low hydraulic oil level.	Check hydraulic oil level. Add if necessary.
	Oil hydraulic filter plugged.	Replace hydraulic oil filter.
	Relief valve not set properly.	Have a qualified hydraulic technician set relief valve.
	Low hydraulic oil flow.	Have a qualified hydraulic technician check hydraulic oil flow.
Excessive vibration.	Insufficient hydraulic pressure.	Check hydraulic oil level. Add as needed.
	Debris lodged in rotor.	Lock out power and clear debris from rotor.
Smoke emitting from engine exhaust pipe.	Dirty or clogged engine air filter.	Change engine air filter.

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