

Owner's Manual Stump Grinder



MODEL NUMBER: _	
SERIAL NUMBER: _	
DATE PURCHASED	:

Register your Generac product at: WWW.GENERAC.COM 1-888-GENERAC (888-436-3722)



CANCER AND REPRODUCTIVE HARM

www.P65Warnings.ca.gov.

(000393a)

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Section 1: Safety Rules & General Information

Introduction

Thank you for purchasing a Generac Power Systems Inc. product. This unit has been designed to provide high performance, efficient operation, and years of use when maintained properly.

The information in this manual is accurate based on products produced at the time of publication. The manufacturer reserves the right to make technical updates, corrections, and product revisions at any time without notice.

Read This Manual Thoroughly



AWARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

If any section of this manual is not understood, contact Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or **www.generac.com** with any questions or concerns.

This manual must be used in conjunction with the appropriate installation manual.

SAVE THESE INSTRUCTIONS: The manufacturer suggests that this manual and the rules for safe operation be copied and posted near the unit installation site. Safety should be stressed to all operators and potential operators of this equipment.

Safety Rules

The manufacturer cannot anticipate every possible circumstance that might involve a hazard. The alerts in this manual, and on tags and decals affixed to the unit, are not all inclusive. If using a procedure, work method, or operating technique that the manufacturer does not specifically recommend, verify that it is safe for others and does not render the equipment unsafe.

Throughout this publication, and on tags and decals affixed to the unit, DANGER, WARNING, CAUTION, and NOTE blocks are used to alert personnel to special instructions about a particular operation that may be hazardous if performed incorrectly or carelessly. Observe them carefully. Alert definitions are as follows:

▲ DANGER

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

(000001)

AWARNING

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

(000002)

ACAUTION

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

(000003)

NOTE: Notes contain additional information important to a procedure and will be found within the regular text of this manual.

These safety alerts cannot eliminate the hazards that they indicate. Common sense and strict compliance with the special instructions while performing the action or service are essential to preventing accidents.

How to Obtain Service

When the unit requires servicing or repairs, contact Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or **www.generac.com** for assistance.

When contacting Customer Service about parts and service, always supply the complete model and serial number of the unit as given on its data decal located on the unit. Record the model and serial numbers in the spaces provided on the inside front cover of this manual.

General Hazards

▲WARNING

Accidental Start-up. Disconnect the negative battery cable, then the positive battery cable when working on unit. Failure to do so could result in death or serious injury. (000130)

AWARNING

Personal injury. Keep out of reach of children. Failure to do so could result in death or serious injury.

(000128a)



AWARNING

Vision loss. Eye protection is required when servicing unit. Failure to do so could result in vision loss or serious injury.

(000377)

▲WARNING

Personal injury and equipment damage. Do not tamper with engine governed speed. Operating engine too fast or slow increases the risk of injury or permanent engine damage. (000254)



AWARNING

Moving Parts. Do not wear jewelry when starting or operating this product. Wearing jewelry while starting or operating this product could result in death or serious injury.

(000115)



AWARNING

Moving Parts. Keep clothing, hair, and appendages away from moving parts. Failure to do so could result in death or serious injury.

(000111)



AWARNING

Hot Surfaces. When operating machine, do not touch hot surfaces. Keep machine away from combustibles during use. Hot surfaces could result in severe burns or fire.

(000108)



AWARNING

Risk of Fire. Hot surfaces could ignite combustibles, resulting in fire. Fire could result in death or serious injury.

(000110)

AWARNING

Risk of injury. Do not operate or service this machine if not fully alert. Fatigue can impair the ability to service this equipment and could result in death or serious injury.

(000215)

AWARNING

Environmental Hazard. Always recycle batteries at an official recycling center in accordance with all local laws and regulations. Failure to do so could result in environmental damage, death or serious injury.

(000228)



AWARNING

Hearing Loss. Hearing protection is recommended when using this machine. Failure to wear hearing protection could result in permanant hearing loss. (000107)

AWARNING

Personal injury. Wear sturdy shoes with no-slip tread, long pants, and gloves when operating this unit. Failure to do so could result in death or serious injury.

(000492)

Exhaust and Fuel Hazards



ADANGER

Asphyxiation. Running engines produce carbon monoxide, a colorless, odorless, poisonous gas. Carbon monoxide, if not avoided, will result in death or serious injury.

(000103)



ADANGER

Explosion and Fire. Fuel and vapors are extremely flammable and explosive. Store fuel in a well ventilated area. Keep fire and spark away. Failure to do so will result in death or serious injury.

(000143)

(000



ADANGER

Explosion and Fire. Do not overfill fuel tank. Fill to 1/2 inch from top of tank to allow for fuel expansion. Overfilling may cause fuel to spill onto engine causing fire or explosion, which will result in death or serious injury. (000166b)



ADANGER

Risk of fire. Allow fuel spills to completely dry before starting engine. Failure to do so will result in death or serious injury.

(000174)



AWARNING

Fire risk. Fuel and vapors are extremely flammable. Do not operate indoors. Doing so could result in death, serious injury, or property or equipment damage. (000281)



AWARNING

Explosion and fire risk. Do not smoke near unit. Keep fire and spark away. Failure to do so could result in death, serious injury, or property or equipment damage. (000282)



AWARNING

Explosion and Fire. Do not smoke while refueling unit. Failure to do so could result in death, serious injury, or property or equipment damage. (000284a)

Fire Hazards



WARNING

Risk of Fire. Verify machine has properly cooled before installing cover and storing machine. Hot surfaces could result in fire. (000109)



AWARNING

Risk of fire. Never operate engine without the air cleaner installed. Operating engine without the air cleaner could result in death or serious injury. (000249)

Explosion Hazards



DANGER

Explosion and fire. Fuel and vapors are extremely flammable and explosive. No leakage of fuel is permitted. Keep fire and spark away. Failure to do so will result in death or serious injury.

(000192)



▲ DANGER

Risk of fire. Allow fuel spills to completely dry before starting engine. Failure to do so will result in death or serious injury.

(000174)



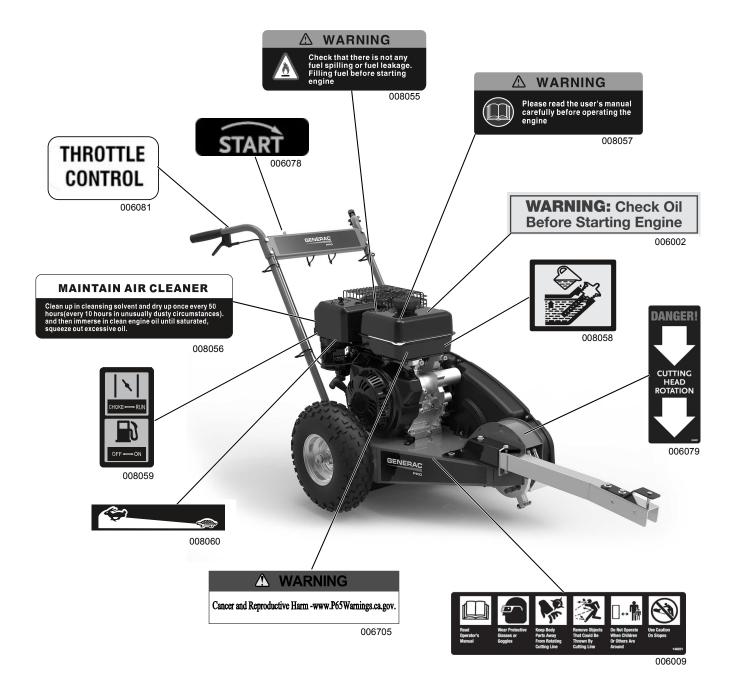
AWARNING

Risk of Fire. Hot surfaces could ignite combustibles, resulting in fire. Fire could result in death or serious injury.

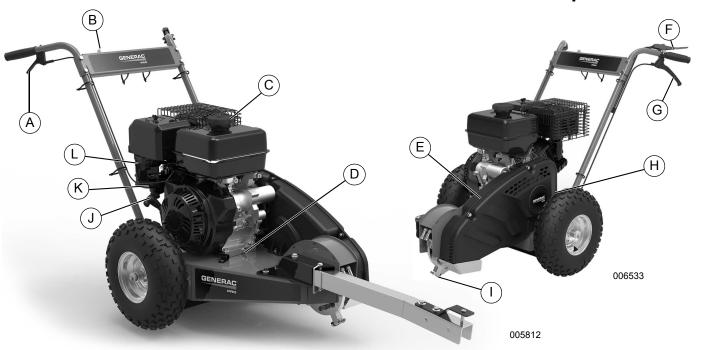
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Safety and Operating Decals

This unit features numerous safety and operating decals. These decals provide important operating instructions and warn of dangers and hazards. Replace damaged or missing safety and operating decals immediately.



Section 2: General Information and Setup



- A Throttle Lever
- **B** Start Key Switch
- C Gas Fill
- D Oil Drain

- E Belt Guard
- **F** Operator Presence Lever
- **G** Brake Lever
- H Oil Fill/Check

- I Carbide Teeth
- J Starter Cord
- K Fuel Shut-Off
- L Choke Lever

Figure 2-1. Features and Controls

Stump Grinder Specifications			
Tire Size	14.5 in (36.83 cm) pneumatic		
Handle Bars (in/cm)	Height adjustable 32 (81.28), 36.5 (92.71), 40 (101.6)		
Brake	Band w/locking feature		
Brake Diameter	4 in (10.6 cm)		
Clutch	Centrifugal		
Clutch Engagement Speed	1900 RPM		
Frame	Welded 12 ga steel construction		
Belt	V-belt		
Belt Size (in/cm)	AP47: 49.8 (126.49) OD, 47.3 (120.14) ID		
Belt Construction	Wrapped for abrasion resistance		
Cutting Head	Rotary 8 tooth		
Cutting Head Size w/ teeth (in/cm)	1.75 (4.44) wide X 10.5 (26.67) diameter		
Cutting Teeth	Replaceable carbide tipped (three position)		
Machine Dimensions W X L X H (in/cm)	28 (72.12) X 51 (129.54) X 36 (91.44) in center handle position		
Weight (lb/kg)	187 (84.82)		

Engine Specifications		
Engine	Generac G-Force	
Fuel Tank Capacity	1.72 gal (6.5 L)	
Oil Capacity	37 oz (1.1 L)	
Oil Type	See chart in Adding Oil.	
Spark Plug	TORCH F6RTC or equivalent	
Spark Plug Gap	.028032 in (0.7-0.8 mm)	

A complete specification sheet is included in the documentation provided with the unit at the time of purchase. For additional copies, contact Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or www.generac.com.

Emissions

The United States Environmental Protection Agency (US EPA) (and California Air Resources Board (CARB), for engines/equipment certified to California standards) requires that this engine/equipment complies with exhaust and evaporative emissions standards. Locate the emissions compliance decal on the engine to determine applicable standards. For emissions warranty information, reference the included emissions warranty. It is important to follow the maintenance specifications in the manual to ensure that the engine complies with the applicable emissions standards for the duration of the product's life.

Remove Contents from Carton

See Figure 2-2, Figure 2-3, Figure 2-4, and Figure 2-5. Remove and verify carton contents prior to assembly. Carton contents should contain the following:

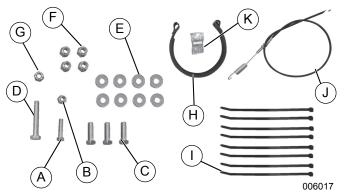


Figure 2-2. Hardware Supplied in Product Package

Item	Description	QTY
Α	Bolt, HHCS, 5/16-18 x 1-1/4", GR5, ZP	1
В	Nut, Nylon Lock, 5/16-18	1
С	Bolt, HHCS, 3/8-16 x 1-1/4", GR5	3
D	Bolt, HCS, 3/8-16 x 2-1/4", Full Thread	1
Е	Washers, Flat, 5/16", USS	8
F	Nut, Nylon Lock, 3/8-16	4
G	Nut, Nylon Lock, 3/8-16, Low Profile	1
Н	Brake, Band	1
I	Cable Tie, 7-1/2"	8
J	Cable, Brake	1
K	Barrel, Cable	1

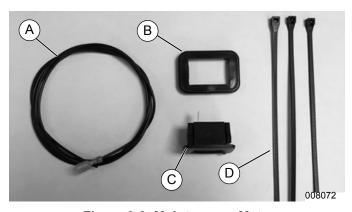


Figure 2-3. Maintenance Meter

Item	Description	QTY
Α	Wire, 66 in	1
В	Meter	1
С	Panel Adapter	1
D	Cable Ties	3

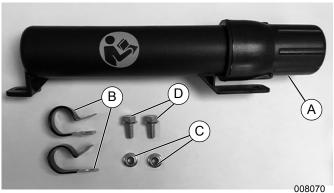


Figure 2-4. Manual Caddy

Item

Α

В

С

D

Manual

Clamp,

Nut, Nylon Lock 5/16"-18 LP

Bolt, HCS, 5/16"-18X3, GR5, ZP

Description	QTY
Caddy	1
Cable	2

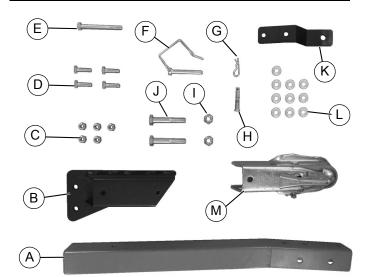


Figure 2-5. Tow Hitch Kit

Item	Description	QTY
Α	Tow Bar, w/Labels	1
В	Adapter, Tow Bar	1
С	Nut, Nylon Lock, 3/8-16, ZP	5
D	Bolt, HCS, 3/8-16 x 1 1/4", GR5	4
Е	Bolt, HCS, 3/8-16 X 3.5", GR5, ZP	1
F	Pin, Linch, 3/8" x 2.5", w/wire lock	1
G	Pin, Hairpin Cotter, .12" Dia. 2-3/8"	1
Н	Pin, Clevis, .375" x 2.00"	1
I	Nut, Nylon Lock, 1/2-13	2
J	Bolt, 1/2-13 X 3.00", GR5, ZP	2
K	Adapter, Hitch	1
L	Washer, Flat 3/8 SAE	10
М	Hitch, Trailer	1

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- Contact Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or www.generac.com with the unit model and serial number for any missing carton contents.
- **3.** Record model, serial number, and date of purchase on front cover of this manual.

Assembly Instructions

1. See *Figure 2-6*. Loosen right wheel bolt (A) using a 1/2" wrench with the wheel on the ground.



Figure 2-6. Wheel Bolt

- Use a suitable lifting device and raise the machine to allow for wheel removal.
- **3.** Remove the bolt, lock washer, large flat washer and right side wheel from the axle.

NOTE: Each wheel contains two bushings. Note how the bushings are installed for reassembly.

4. See *Figure 2-7*. Position the right side of the handlebar (C) with the lower mounting hole aligned with the center hole (D) in the frame.



Figure 2-7. Mounting Configuration

- **5.** Loosely install a 3/8-16 x 1-1/4" bolt, washer and locknut into the lower handlebar hole.
- **6.** Rotate the handlebar up and loosely install a 3/8-16 x 1-1/4" bolt, washer and locknut.
- Replace the right side wheel, including the two bushings, and secure with the bolt, washer and locknut by hand.

- **8.** Lower the machine to the ground and finish tightening the right wheel bolt with a 1/2" wrench.
- **9.** Loosen the left wheel bolt using a 1/2" wrench.
- **10.** Use a suitable lifting device and raise the machine to allow left wheel removal.
- **11.** Remove the bolt, lock washer, large flat washer and left wheel.
- **12.** See *Figure 2-8*. Align the left side of the handlebar (F) with the holes in the frame. At the top hole, pass a 3/8-16 x 2-1/4" bolt with washer through the frame from the inside and through the handle bar and install a locknut with washer against the handlebar (G). Tighten with two 9/16" wrenches.

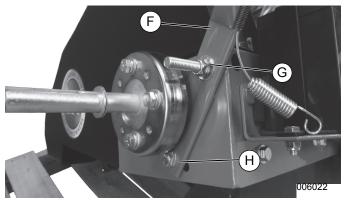


Figure 2-8. Handlebar Installation

- **13.** At the bottom hole, pass a 3/8-16 x 1-1/4" bolt with washer through the hole in the handle bar and into the frame and install a locknut with washer (H). Secure with two 9/16" wrenches.
- **14.** Tighten the right side handlebar hardware using two 9/16" wrenches.
- **15.** See *Figure* **2-9**. Place the brake band (I) over the brake drum (J) with the top loop of the band over the 2-1/4" bolts.

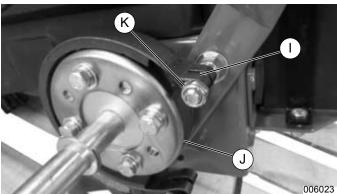


Figure 2-9. Brake Band

16. Install the low profile 3/8" lock nut (J) against the brake band with a 9/16" wrench.

NOTE: The brake band should be able to rotate with no side to side movement.

17. See *Figure 2-10*. Slip the barrel end of the brake cable into brake lever socket (L) then insert brake cable sheath (M) into the end of brake lever bracket (N).

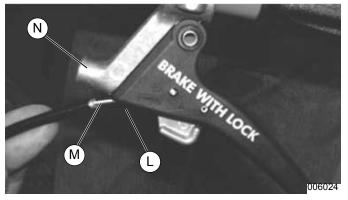


Figure 2-10. Installing Brake Cable

18. See *Figure 2-11*. Turn the top jam nut (O) up the brake cable threads.

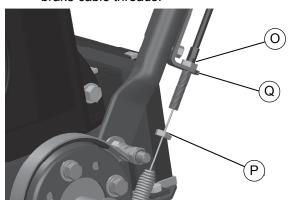


Figure 2-11. Installing Brake Cable to Brake Drum

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- **19.** Turn the bottom jam nut (P) down and off the threaded portion of the cable.
- **20.** Insert the threaded portion of the cable down through the hole in the bracket (Q).
- 21. See *Figure 2-12*. Attach the brake cable spring (R) to the bottom loop of the brake band using a 5/16-18 x 1-1/4" bolt and locknut (S). Tighten with two 1/2" wrenches.

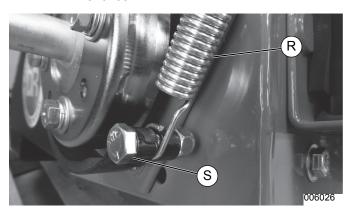


Figure 2-12. Installing Brake Cable Spring

22. See *Figure 2-13*. Pull up on brake cable (T) until resistance is felt and brake band touches brake drum.

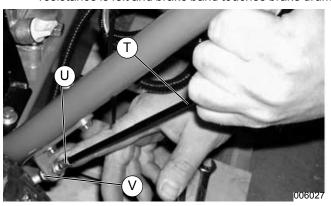


Figure 2-13. Tightening the Jam Nuts

- 23. Turn the top jam nut (U) down against the bracket.
- **24.** Turn the lower nut (V) up against the bracket
- **25.** Tighten both nuts against the bracket using two 1/2" Wrenches.
- See Figure 2-14. Place key (W) into the axle keyway if removed earlier.
- **27.** Align the key slot in the wheel with the key and slide the wheel onto the axle.

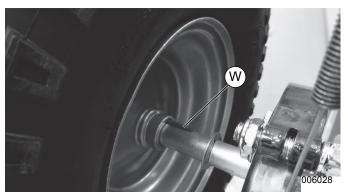


Figure 2-14. Installing Wheel

- **28.** Install the wheel bolt, locknut and flat washer using a 1/2" wrench.
- **29.** Lower the machine to the ground and finish tightening the right wheel bolt with a 1/2" wrench.
- **30.** See *Figure 2-15*. Cut the cable tie securing the wire harness at the rear of the unit using wire cutters.



Figure 2-15. Cable Tie

31. See *Figure 2-16*. Plug the key switch connectors to either key switch terminal (X).



Figure 2-16. Key Switch Connector

- **32.** Plug the black operator presence connector into the harness connector (Y).
- **33.** See *Figure 2-17*. Move the cable tie (Z) securing the throttle cable to the right side handlebar up to the top portion of the handlebar.



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Figure 2-17. Throttle Cable Tie

NOTE: The air filter cover and air filter may need to be removed to allow access to the throttle linkage for the following steps.

34. See *Figure 2-18*. Loosen the Bowden clamp (A) with a Phillips screw driver or 5/16" wrench and position the cable sheath (B) under the clamp.

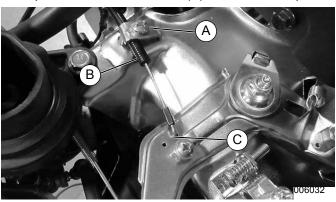


Figure 2-18. Throttle Linkage

35. Hook the "Z" bend end of the throttle cable in the first hole in the throttle linkage (C).

36. See *Figure 2-19*. Tighten cable by holding engine throttle lever (D) in the IDLE position while pulling on cable sheath.

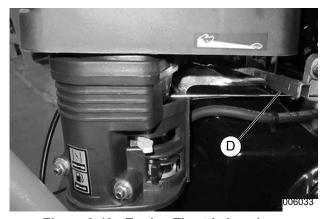


Figure 2-19. Engine Throttle Level

- **37.** While still holding the sheath in position, release the engine throttle lever.
- **38.** Tighten the bowden clamp onto the sheathing with a Phillips head screwdriver. Do not over-tighten.
- **39.** Actuate throttle lever to verify throttle linkage travels smoothly to full throttle and back to IDLE
- **40.** See *Figure 2-20*. Use cable ties to secure cables and wires to the control panel and handlebars (E).

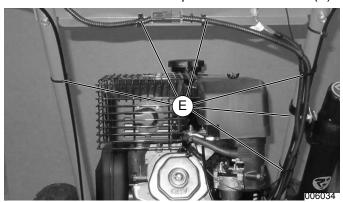


Figure 2-20. Cable Tie Locations

Maintenance Meter Installation

- Gently pry the black factory panel Insert from the control panel
- 2. Insert the panel adapter from the kit into the open hole in the control panel. Verify the adapter flange has engaged the panel completely.
- See Figure 2-21. Insert the meter firmly into the panel adapter until it snaps into place. The meter flange should be flat against the face of the adapter.



Figure 2-21. Maintenance Meter Installation

- **4.** Slide the sensor wire onto the sensor wire connector on the back of the meter.
- Run the sensor wire from the meter to the handlebar and secure the wire to the handlebar with two cable ties.
- 6. Route the balance of the sensor wire forward following the existing wiring harness toward the engine spark plug wire. Trim the excess material from the cable tie.
- 7. See Figure 2-22. At a convenient point along the spark plug wire wrap four or five turns of meter wire (A) tightly around the spark plug wire (B) and secure it to itself with a cable tie (C). Cut and discard the balance of the wire.

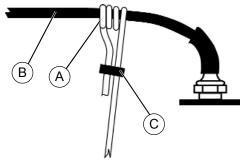


Figure 2-22. Maintenance Meter Installation

NOTE: Avoid placing the wire on, or near hot surfaces.

Attaching Manual Caddy

All product documents should be stored in the manual caddy.

- 1. See *Figure* 2-23. Attach caddy clamps (A) to right handlebar.
- 2. Align top and bottom caddy mounting hole with holes in clamps, and secure caddy to clamps with two 5/16"-18X3 bolts with 5/16" washers and 5/16" locknuts (B).



Figure 2-23. Manual Caddy

Installing Tow Hitch Kit

Installing Tow Bar Adapter

- 1. See *Figure 2-24*. Align holes in tow bar adapter with holes in frame.
- 2. Secure the flat section of bar adapter to the frame with two 3/8-16 x 1 1/4" bolts with 3/8" washer and two 3/8" locknuts with 3/8 washers (B) using two 9/16" wrenches.
- 3. Secure the square tube section of the tow bar adapter with a 3/8-16 X 3.5" bolt with 3/8" washer and a 3/8" locknut with 3/8" washer (C) using two 9/16" wrenches.

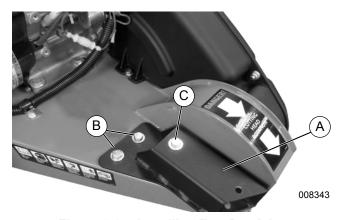


Figure 2-24. Installing Tow Bar Adapter

Assembling Hitch Adapter

1. See *Figure 2-25*. Secure hitch adapter (A) to tow bar (B) with two 3/8-16 x 1-1/4" bolts with 3/8" washers and two 3/8" locknuts with 3/8" washers (C) using two 9/16" wrenches.

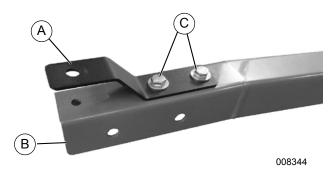


Figure 2-25. Assembling Hitch Adapter

Assembling Trailer Hitch

 See Figure 2-26. Secure trailer hitch (A) to tow bar (B) with two 1/2-13 X 3" bolts and two 1/2" locknuts using two 3/4" wrenches.

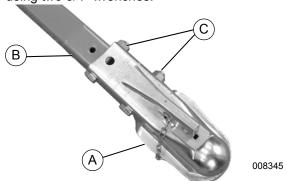


Figure 2-26. Assembling Trailer Hitch

Adding Oil

ACAUTION

Engine damage. Verify proper type and quantity of engine oil prior to starting engine. Failure to do so could result in engine damage.

(000135)

AWARNING

Skin irritation. Avoid prolonged or repeated contact with used motor oil. Used motor oil has been shown to cause skin cancer in laboratory animals. Thoroughly wash exposed areas with soap and water.

(000210)

IMPORTANT NOTE: The unit is shipped without oil in the engine. Oil must be added prior to operation.

1. Move machine to a level surface and place blocks under the front of the machine to level the engine.

NOTE: The frame and engine must be level to ensure an accurate oil reading.

2. See *Figure* 2-27. Remove oil dipstick/fill cap (A) and wipe dipstick clean.

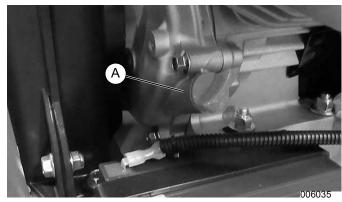
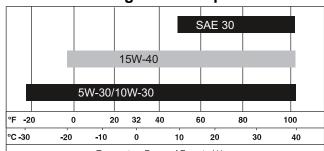


Figure 2-27. Oil Dipstick

Add 16 oz (473 mL) of engine oil. Climate determines proper engine oil viscosity. See *Table 1: Engine Oil Requirements* to select correct viscosity. SAE 10W-30 is recommended for general use.

NOTE: Use 4-stroke engine oil, API service classification SJ class or equivalent.

Table 1 - Engine Oil Requirements



- 4. Wait one minute for oil to settle.
- See Figure 2-28. Reinsert dipstick into oil filling hole without screwing it in. Pull the dipstick out, and verify oil level is in crosshatched section (A).

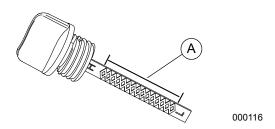


Figure 2-28. Oil Range

6. If the oil level is low, add a few ounces of oil at a time, rechecking the dipstick until the oil reaches the full mark. Do not overfill.

AWARNING

Personal injury. Remove leveling device before operating the unit. Failure to do so could result in serious injury or equipment damage.

(000471)

Adding Fuel



ADANGER

Explosion and Fire. Fuel and vapors are extremely flammable and explosive. Add fuel in a well ventilated area. Keep fire and spark away. Failure to do so will result in death or serious injury. (000105)



ADANGER

Explosion and Fire. Do not fill fuel tank past full line. Allow for fuel expansion. Overfilling may cause fuel to spill onto engine causing fire or explosion, which will result in death or serious injury.

(000214)



AWARNING

Explosion and Fire. Do not smoke while refueling unit. Failure to do so could result in death, serious injury, or property or equipment damage. (000284a)

NOTE: Never use contaminated gasoline or mixed gasoline with oil. Never allow dust, foreign matter or water to enter fuel tank.

- Place unit on a firm, level surface in a well ventilated area.
- Verify unit is OFF and cooled for a minimum of two minutes.
- See Figure 2-29. Remove the gas fill cap (B).

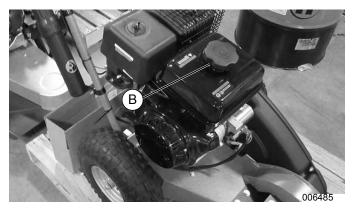


Figure 2-29. Fuel Cap

- **4.** Fill tank with fresh, unleaded gas (with a minimum 85 octane rating) to 0.25 in (6.4 mm) from the bottom of the fill neck to allow for fuel expansion.
- 5. Install fuel fill cap.

NOTE: Allow spilled fuel to evaporate before starting unit.

Connecting Battery Cable

All units are shipped with the negative terminal battery cable disconnected. Before using the unit, connect the battery cable.

1. See *Figure 2-30*. Connect the negative (A) cable to the negative (-) terminal on the battery (B).

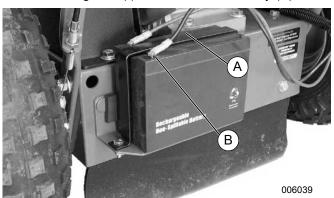


Figure 2-30. Connecting Battery Cable

Checking Tire Pressure

AWARNING

Personal injury. Inflate tires to manufacturer's recommended pressure indicated on tire. Failure to do so could result in death, serious injury, and equipment damage. (000462)

See Figure 2-31. Remove the valve stem protective cap (A) and check the tire pressure with a tire pressure gauge.

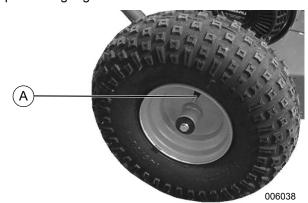


Figure 2-31. Valve Stem

- 2. Compare the tire pressure reading with the manufacturer's recommended tire pressure stamped on the side of the tire.
- If the pressure is too low, add air through the valve stem with an air hose.
- **4.** Replace the valve stem protective cap.

Hitching Unit to Tow Vehicle

AWARNING

Personal injury. Never tow on roads. Towing on roads could result in death, serious injury, unit, or property damage.

(000504)

AWARNING

Personal Injury. Remove tow bar from stump grinder before grinding stumps. Grinding stumps with tow bar installed could result in death, serious injury, or damage to property or the unit. (000581)

WARNING

Loss of control. Do no drive over 5 mph (8 km/h) on flat terrain or over 4 mph (6 km/h) on rough terrain. Doing so could resulting in loss of control of the equipment and serious injury. (000455)

Hitch Adapter

1. See *Figure 2-32*. Slide tow into tow bar adapter, align holes, and secure with linchpin (A).

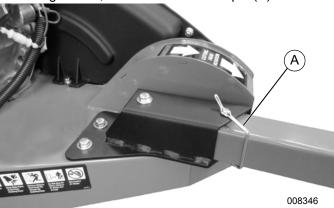


Figure 2-32. Installing Tow Bar to Stump Grinder

- 2. See *Figure 2-33*. Position hitch adapter (B) on tow vehicle with tow vehicle hitch plate (C) between hitch adapter and tow bar (D).
- **3.** Secure hitch adapter to tow vehicle with clevis pin and hairpin cotter pin (E).

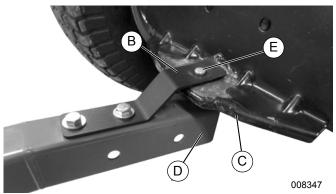


Figure 2-33. Hitch Adapter

Trailer Hitch

1. See *Figure* **2-34.** Slide tow bar into tow bar adapter, align holes, and secure with linchpin (A).

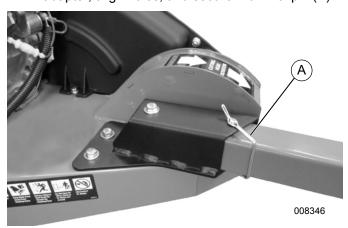


Figure 2-34. Installing Tow Bar to Stump Grinder

- 1. See *Figure 2-35*. Lift latch assembly (B) and place the tow hitch assembly onto the ball.
- **2.** Close the latch assembly to lock tow hitch assembly onto tow ball.
- **3.** Verify hitch coupler (C) is properly and securely attached to tow ball.

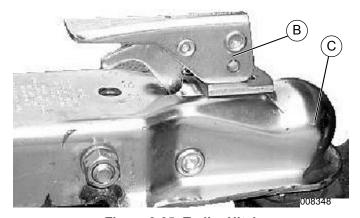


Figure 2-35. Trailer Hitch

4. See *Figure 2-36.* Insert locking pin (E) into the hole in the latch assembly to lock the assembly in the closed position.

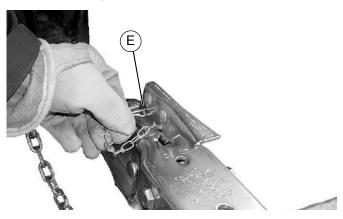


Figure 2-36. Locking Pin

High Altitude Replacement Kit

At high altitude, a standard carburetor air-fuel mixture will be too rich. A rich mixture decreases performance, increases fuel consumption, fouls the spark plug and causes hard starting. Operation at high altitude, for extended periods of time, may increase emissions.

Proper operation at higher altitudes can be improved by installing an altitude kit when required. See *Table 2: High Altitude Replacement Kit* to determine when an altitude kit is required.

Table 2 – High Altitude Replacement Kit

Altitude Range	Part Number	
0-3000 ft	Not required	
3000-8000 ft	100000359431	

At elevations above 8000 feet, the engine may experience decreased performance even with a high altitude kit Kits can be obtained by contacting Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or www.generac.com. Kits must be installed by a qualified individual.

NOTE: If a carburetor is replaced, the proper high altitude kit jet will need to be installed into the replacement carburetor.

NOTE: The warranty may be void if necessary installation of a high altitude kit is not made for high altitude use.

Section 3: Operation



AWARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

AWARNING

Personal injury. Never operate unit on slippery, wet, muddy, or icy surfaces. Doing so could result in death, serious injury, equipment or property damage.

(000466)

AWARNING

Personal injury. Always verify all guards and shields are in place prior to use. Removal or modification of guards and shields could result in serious injury or equipment damage.

(000467)

AWARNING

Personal injury. Before performing service, turn unit OFF, release throttle and operator presence levers, remove spark plug wire and secure away from plug. Failure to do so could result in death or serious injury.

(000468)

AWARNING

Personal injury. Allow only one person to operate the unit at any time. Failure to do so could result in death, serious injury or equipment damage.

(000469)

▲WARNING

Personal injury. Use caution when operating unit over uneven terrain or slopes. Failure to do so could result in death, serious injury, equipment or property damage. (000460)

Operation and Use Questions

Contact Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or www.generac.com with questions or concerns about unit operation and maintenance.

Controls and Symbols

See *Figure 3-1*. The throttle control lever and choke control uses icons to represent settings. Be familiar with icon meanings prior to unit operation.





Figure 3-1. Control Symbols

Starting Engine

IMPORTANT NOTE: Oil must be added before starting the engine for the first time. Units are shipped without oil. Do not overfill.

NOTE: The operator presence lever must be held down for the engine to start and continue running. If the machine needs to be stopped quickly for any reason, release the operator presence lever.

AWARNING

Personal injury. Do not modify the operator presence lever in any way. Doing so could result in death or serious injury.

(000507)

Manual Starting

- **1.** See *Figure 3-2*. Verify the fuel shut-off (A) is in the open position.
- Move the choke control lever (B) to the CLOSED position. If the engine is warm leave the choke control lever in the OPEN position.

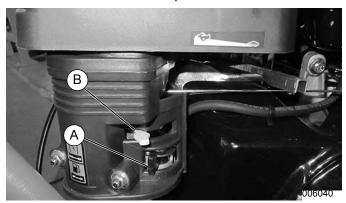


Figure 3-2. Fuel Shut-Off and Choke Control Lever

See Figure 3-3. While holding down operator presence lever (C), slowly pull the recoil starter handle until resistance is felt. Let the cord retract slightly and then pull the cord rapidly to start the engine.

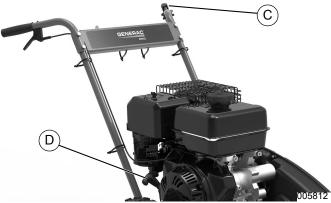


Figure 3-3. Operator Presence Lever and Recoil

- **4.** As the engine warms up, slowly adjust the choke toward the OPEN position. Wait until the engine runs smoothly before each choke adjustment.
- **5.** When the engine is warmed up and running smoothly, move the choke to the OPEN position.

Electric Starting

- See Figure 3-4. Verify the fuel shut-off (A) is in the OPEN position.
- 2. Move the choke control lever (B) to the CLOSED choke position. If the engine is warm leave the choke control lever in the OPEN position.

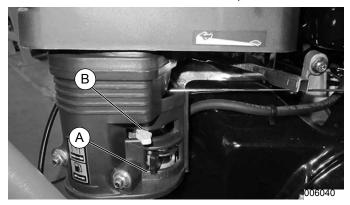


Figure 3-4. Fuel Shut-Off and Choke Control Lever

 See Figure 3-5. Hold down the operator presence lever (C) and turn the key switch (D) fully to the start position until the engine starts. The key will move back to the center position when released.

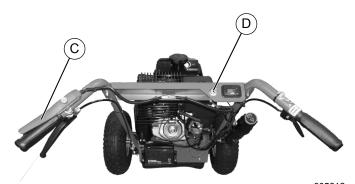


Figure 3-5. Operator Presence Lever and Key

- **4.** As the engine warms up, slowly adjust the choke to the OPEN position. Wait until the engine runs smoothly before each choke adjustment.
- When the engine is warmed up and running smoothly, verify the choke is fully in the OPEN position.

Stopping Engine

- 1. Move the throttle control lever to the IDLE position.
- 2. Release the operator presence lever.
- **3.** After the engine has stopped, remove the key for safety.

Grinding the Stump

AWARNING

Personal injury. Verify work area is free of electrical cables, barbed wire, and other foreign objects before operating the unit. Failure to do so could result in death, serious injury, unit, or property damage. (000523)

AWARNING

Personal injury. Cut stump as close to ground as possible before grinding. Failure to do so could result in death, serious injury, unit, or property damage.

(000521)

AWARNING

Projectile risk. Remove all debris from work area before operating unit. Failure to do so could result in death, serious injury, or property or equipment damage. (000410)

NOTE: If the engine ever bogs down during cutting, lift the cutting head from the stump and allow the cutting head to return to speed before further cutting.

- **1.** See **Starting Engine**. Start the engine and allow it to warm up at idle for a few minutes.
- 2. See *Figure 3-6*. Move the unit into position with the cutter head to the right of the stump (A). The cutter head should be near the top edge of the stump but not touching.



Figure 3-6. Starting Position

3. See *Figure 3-7*. Lock the hand brake (B) by engaging the brake lever (B), sliding the lock forward (C) and releasing the lever.



Figure 3-7. Brake Lock

AWARNING

Personal injury. Verify cutting teeth do not touch any object before engaging the throttle lever. Engaging the throttle lever while cutting teeth are touching an object could result in serious injury, unit, or property damage. (000522)

- **4.** Fully squeeze the throttle lever and allow cutter head come up to speed.
- See Figure 3-8. Lower the cutter head 1/2-1 in (1.27-2.54 cm) into the front top corner of the stump.



Figure 3-8. Grinding the Stump

6. See *Figure 3-9*. Slowly move the cutter head to the left and through the front of the stump by pushing on the right hand handlebar



Figure 3-9. Grinding the Stump

- 7. When the cut is complete, swing the cutter head back to the starting position to the right of the stump, lower the cutter head 1/2-1 in (1.27-2.54 cm) into the material and make another cut.
- **8.** Continue removing 1/2-1 in (1.27-2.54 cm) sections of stump until the front of the stump has been removed to ground level.
- 9. Swing the cutter head to the right of the stump.
- 10. Unlock the hand brake.
- **11.** Advance the unit forward. The machine should be advanced only far enough to allow the cutting head to remove 1/2-1 in (1.27-2.54 cm) of material.
- 12. Reset the hand brake.
- **13.** Repeat steps 4-12 on this section of stump, removing the material through a series of 1/2-1 in (1.27-2.54 cm) cuts.
- **14.** Continue cutting and advancing the unit until the stump had been cut to the desired depth.
- **15.** When finished, release the throttle lever and the operator presence lever to stop the engine.
- **16.** Wait ten seconds for the cutter head to stop rotating.
- **17.** Unlock the hand brake, release the brake, and move the machine away from the stump.

Operation

Section 4: Maintenance and Troubleshooting

Maintenance

Regular maintenance will improve performance and extend engine/equipment life. Regular maintenance, replacement, or repair of the emissions control devices and systems may be performed by any repair shop or person of the owner's choosing. To obtain emissions control warranty service free of charge, contact Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or www.generac.com. See the emissions warranty.

AWARNING

Accidental start-up. Before servicing or detangling, shut down unit, allow to cool, remove keys, and disconnect spark plug wire(s). Failure to do so could result in death, serious injury, or equipment damage.



AWARNING

Hot Surfaces. When operating machine, do not touch hot surfaces. Keep machine away from combustibles during use. Hot surfaces could result in severe burns or fire. (000108)

Table 3 - Maintenance Schedule

Procedure	Before Each Use	Every 25 Hours	Every 60 Hours	Every 100 Hours
Check engine oil level	•			
Check general equipment condition	•			
Check cutting Teeth for damage or wear	•			
Clean engine exterior and cooling fins	•			
Remove debris wrapped around cutter head for bearing protection	•			
Check tire pressure		•		
Replace belt if stretched or worn		•		
Clean air filter		•		
Lubricate cables		•		
Change engine oil	1st time 5 hours	•		
Replace cutting teeth		•		
Check cutter head for damage or wear		•		
Replace cutter head			•	
Replace spark plug				•
Replace air filter				•

Operating Maintenance Meter

See *Figure 4-1*. The maintenance meter monitors accumulated running time, time until engine oil needs to be changed, and time until lubrication is recommended. Function button (A) cycles through the meter functions.



Figure 4-1. Operating Maintenance Meter

After 25 hours of use, the meter will blink to signal an oil change is required, and will continue to blink for two hours of accumulated running time. The next alert will automatically appear in 25 hours. No reset is required.

NOTE: If the RPM indication is not responding to changes in engine speed, check the connections at the meter and verify the meter wire is wrapped tightly around the spark plug wire.

Air Filter Maintenance

 See Figure 4-2. Remove the wing nut (A) from filter cover (B) and remove cover.

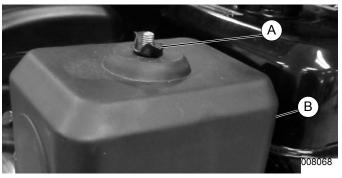


Figure 4-2. Air Filter Replacement

2. See Figure 4-3. Remove wing nut (C) and pull the air filter with pre-cleaner (D) from the threaded stud.

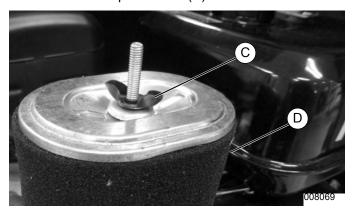


Figure 4-3. Air Filter Replacement

- Pull the pre-cleaner off the paper filter assembly and shake the dirt from the foam pre cleaner and paper filter.
- **4.** If the pre-cleaner or paper filter is too dirty to clean, clogged, or damaged, replace the parts.

NOTE: To order a replacement pre-cleaner or air filter, contact Generac Customer Service at 1-888-436-3722 (1-888-GENERAC), or **www.generac.com**.

- **5.** Clean the air filter cover and inner surface with a wet cloth.
- **6.** Reinstall the air filter with pre-cleaner and secure with the wing nut.
- Reinstall the filter cover and secure the cover with the wing nut

Changing Engine Oil

ACAUTION

Engine damage. Verify proper type and quantity of engine oil prior to starting engine. Failure to do so could result in engine damage.

(000135)

AWARNING

Skin irritation. Avoid prolonged or repeated contact with used motor oil. Used motor oil has been shown to cause skin cancer in laboratory animals. Thoroughly wash exposed areas with soap and water.

(000210)

IMPORTANT NOTE: The unit is shipped without oil in the engine. Oil must be added prior to operation.

NOTE: The frame and engine must be level to get an accurate oil reading. Use blocks under the front of the unit to level engine.

NOTE: Drain the oil when the engine is warm. Warm oil drains quickly and completely.

1. See *Figure 4-4*. Disconnect battery terminals (A) and remove battery bracket (B) by removing the two lock nuts from the bracket studs with a 1/2" wrench.

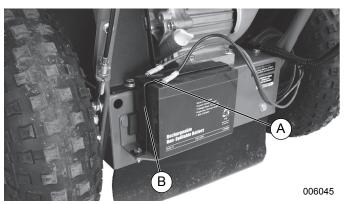


Figure 4-4. Disconnecting Battery

 See Figure 4-5. Place a waste oil container under oil drain plug (C).



Figure 4-5. Oil Drain

- Remove oil drain plug and let oil drain into the container.
- 3. Replace oil drain plug and remove oil dipstick (D).
- Add 16 oz (473 ml) of oil into the oil fill and wait one minute for the oil to settle. See *Adding Oil* for information on engine oil requirements.
- Check the dipstick and continue adding a few ounces of oil at a time, rechecking the dipstick until the oil reaches the fill mark. Do not overfill
- **6.** Replace battery bracket and reconnect battery.

Servicing Spark Plug

- 1. Clean area around spark plug.
- 2. Remove and inspect spark plug. See *Figure 4-6*. Inspect electrode gap with wire feel gauge and reset spark plug gap to .028-.032 in (0.7-0.8 mm).

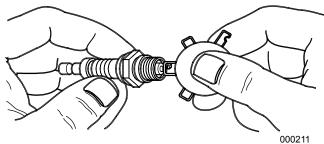


Figure 4-6. Spark Plug

- Replace spark plug if electrodes are pitted, burned or porcelain is cracked. Use only a TORCH F6RTC or equivalent.
- 4. Install spark plug. If a new spark plug is used, turn it 1/2 turn after compressing the gasket. If reinstalling a used spark plug, turn it 1/8-1/4 turns after compressing the gasket.

Lubricating Cables

- 1. Lubricate the upper ends of the throttle and brake cables with SAE 30 oil where the cable enters the sheathing.
- 2. Shift the cable levers to work the oil in between the cable and sheathing.

Replacing Belt

1

AWARNING

Personal injury. Use appropriate personal protective equipment when working on unit. Failure to do so could result in death or serious injury. (000472)

 See Figure 4-7. Remove the three bolts and locknuts (A) from the belt guards with two 1/2" wrenches and remove the outer belt guard (B).



Figure 4-7. Belt Guard Bolts and Locknuts

- 2. See *Figure 4-8*. Place a 9/16" wrench onto idler pulley bolt (A) and rotate belt tensioner away from belt.
- **3.** Rotate the cutting head to roll the belt over the top of the pulley (B) and remove the belt.



Figure 4-8. Belt Guard Bolts and Locknuts

- **4.** Route the replacement belt around the clutch pulley (C) and into the idler pulley.
- **5.** Place a 9/16" wrench onto the idler pulley bolt (A) and rotate the belt tensioner away from the belt.
- **6.** Start the belt over the top of cutting head pulley then rotate the cutting head to roll the belt onto the pulley.
- **7.** Replace the outer blade guard and secure with the three bolts and locknuts using two 1/2" wrenches

Replacing Clutch



AWARNING

Personal injury. Use appropriate personal protective equipment when working on unit. Failure to do so could result in death or serious injury. (000472)

- 1. Remove belt guard and belt. See Replacing Belt.
- See Figure 4-9. Place a 5/8" wrench onto clutch bolt (A). Rotate wrench counterclockwise until resistance is felt.



Figure 4-9. Replacing Clutch

- **3.** Hit the wrench sharply with a dead blow hammer to start the bolt turning on the engine shaft.
- 4. Remove bolt, flat washer, spacer, clutch and key.

NOTE: Do not remove second spacer on inside of clutch.

- **5.** Apply never seize grease to the engine shaft.
- Install the new clutch and key.
- 7. Install the spacer.
- 8. Install bolt with flat washer and secure with a 5/8" wrench.

Rotating Cutting Teeth



AWARNING

Personal injury. Use appropriate personal protective equipment when working on unit. Failure to do so could result in death or serious injury. (000472)

- Use a suitable lifting device and raise the front end of the stump grinder off the ground to allow access to the cutter head.
- 2. Mark the dull cutting edge prior to rotating the teeth to help identify unused cutting teeth.

3. See *Figure 4-10*. Loosen locknut (A) on tooth (B) until the top of the locknut is flush with the top of tooth threads (C).

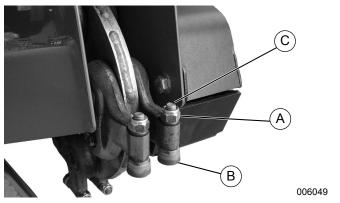


Figure 4-10. Rotating Cutting Teeth

4. See *Figure 4-11*. Lightly tap on the top of the locknut (D) with a dead-blow hammer until the tooth drops away from the tooth mount (E).

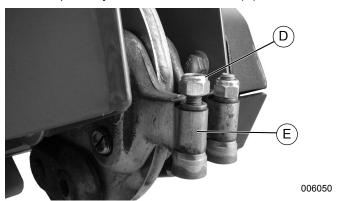


Figure 4-11. Rotating Cutting Teeth

See Figure 4-12. Rotate the tooth to a sharp cutting edge and align the flat area on the side of the tooth (F) with the flat area of the mount (G).



Figure 4-12. Rotating Cutting Teeth

- **6.** Push the tooth up and into the mount and firmly tighten the locknut.
- **7.** Repeat steps 2-6 for the remaining teeth as needed.

Replacing Cutting Teeth



AWARNING

Personal injury. Use appropriate personal protective equipment when working on unit. Failure to do so could result in death or serious injury. (000472)

ACAUTION

Equipment damage. Replace head assembly when damaged or worn. Verify all parts are tightened to specification. Failure to do so could result in cutting teeth coming loose, and could result in equipment damage. (000473)

1. See Figure 4-13. Remove locknut (A).

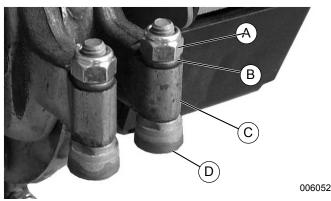


Figure 4-13. Replacing Cutting Teeth

- 2. Lightly tap on the top of the tooth threads with a dead-blow hammer to remove the tooth (D) from the tooth mount (C).
- **3.** Insert a new tooth into the mount.
- **4.** See *Figure 4-14*. Align the flat area on the side of the tooth (E) with the flat area of the mount (F).



Figure 4-14. Replacing Cutting Teeth

NOTE: Verify spacer (B) remains in position when installing the new tooth.

- **5.** Install the new locknut provided with the replacement teeth and torque to 20 ft-lb (27.12 nm)
- Repeat steps 1-5 for the remaining teeth as needed.

Adjusting Handlebars

- 1. Remove the left wheel. See Replacing Clutch.
- 2. See *Figure 4-15*. Remove four bolts, lock washers and flat washers (A) from the brake drum with a 1/2" wrench and pull drum (B) from the axle.

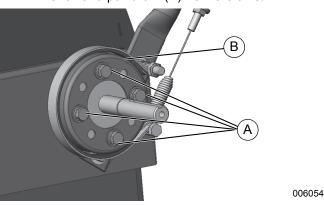


Figure 4-15. Brake Drum Bolts

 See Figure 4-16. Remove bottom bolt, flat washers and locknuts (C) from both handlebars with two 9/16" wrenches and loosen upper hardware (D).

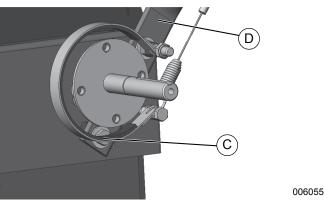


Figure 4-16. Handlebar Adjustment

- **4.** Rotate the handlebars forward to lift the handlebars higher or back to lower the handlebars
- **5.** Align holes in the handlebars with holes in the frame.

NOTE: When the handlebars are at the highest setting, the exhaust deflector must be oriented 45° downward to prevent it from pointing directly at the handlebar.

- **6.** Reinstall the bottom bolt, flat washers and locknuts into both handlebars and tighten all handlebar hardware with two 9/16" wrenches.
- Reinstall the brake drum and secure with four bolts, lock washers and flat washers.
- **8.** Reinstall the wheel. See *Replacing Clutch*.

Replacing Wheels

1. See *Figure 4-17*. With the stump grinder on level ground remove the bolt, lock washer and flat washer from axle (A) with a 1/2" wrench.



Figure 4-17. Replacing the Wheels

- Use a suitable lifting device and raise the machine to allow wheel removal.
- 3. Remove the wheel.
- 4. Install the replacement wheel onto the axle.

NOTE: Verify right side wheel has bushings in each end of the axle housing before installing the right wheel.

NOTE: The left hand wheel has a keyway. Verify the key is in the keyway slot when installing the left wheel.

Adjusting Brake

NOTE: When the cable is adjusted correctly and the brake lever is locked, the left-side wheel might still rotate in reverse with some effort but should not rotate forward.

Tightening Brake Cable

If applying the brake does not hold the wheel in place when the brake is applied, tighten the brake cable with the following procedure.

- 1. Use a suitable lifting device and raise the left-side of the machine off the ground so the left-side wheel rotates freely.
- 2. See *Figure 4-18*. Loosen the lower nut (A) a few turns away from the bracket (B).

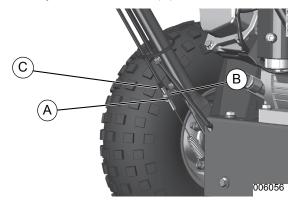


Figure 4-18. Tightening Brake Cable

- **3.** Rotate the wheel forward and tighten the upper nut (C) until resistance is felt at the wheel.
- **4.** Tighten the lower nut to the bracket.
- **5.** Lower the unit to the ground and verify the left side wheel brakes when the brake lever is engaged.

Loosening Brake Cable

If pushing the machine with the brake disengaged is difficult, loosen the brake cable with the following procedure.

- Use a suitable lifting device and raise the left-side of the machine off the ground so the left-side wheel rotates freely.
- See Figure 4-19. Loosen the lower nut (A) a few turns away from the bracket (B).

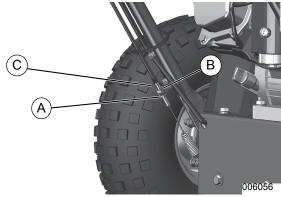


Figure 4-19. Loosening Brake Cable

- Rotate the wheel forward and loosen upper nut (C) until the wheel turns freely but a slight resistance is felt at the wheel.
- **4.** Tighten the lower nut to the bracket.
- Lower the unit to the ground and verify the left side wheel brakes when the brake lever is locked.

Ball Hitch Receiver Adjustment

Ball Hitch Receiver Adjustment Check

 See Figure 4-20. Place 2" ball in receiver socket and close latch assembly. Verify locking trigger is properly engaged in detent.

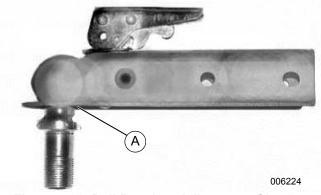


Figure 4-20. Ball Receiver Adjustment Check

2. Try moving the ball in the socket. If ball moves more than 1/16 in, the clamp requires adjustment.

Ball Hitch Receiver Adjustment

 See Figure 4-21. With 2" ball in receiver socket, close receiver latch completely. Verify locking trigger is engaged in detent.

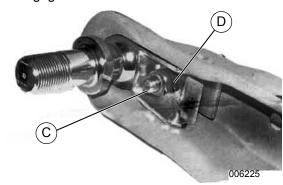


Figure 4-21. Ball Receiver Adjustment Check

2. Tighten lock nut (C) until spring (D) is fully compressed, then back off lock nut 1/2 turn or enough that the latch can clamp and unclamp from the ball.

Battery Care

AWARNING

Explosion. Batteries emit explosive gases while charging. Keep fire and spark away. Wear protective gear when working with batteries. Failure to do so could result in death or serious injury.

(000137a)

AWARNING

Explosion. Do not dispose of batteries in a fire. Batteries are explosive. Electrolyte solution can cause burns and blindness. If electrolyte contacts skin or eyes, flush with water and seek immediate medical attention.

(000162)

AWARNING

Accidental Start-up. Disconnect the negative battery cable, then the positive battery cable when working on unit. Failure to do so could result in death or serious injury. (000130)



▲WARNING

Risk of burn. Do not open or mutilate batteries. Batteries contain electrolyte solution which can cause burns and blindness. If electrolyte contacts skin or eyes, flush with water and seek immediate medical attention. (000163a)

AWARNING

Environmental Hazard. Always recycle batteries at an official recycling center in accordance with all local laws and regulations. Failure to do so could result in environmental damage, death or serious injury.

(000228)

Always recycle batteries in accordance with local laws and regulations. Contact your local solid waste collection site or recycling facility to obtain information on local recycling processes. For more information on battery recycling, visit the Battery Council International website at: http://batterycouncil.org

Proper care can extend battery life. Follow the recommendations below for best performance and long battery life.

- Do not allow the battery to fully discharge. Charge the battery every 4–6 weeks if the unit is not being used. Operate the engine for at least 45 minutes to maintain proper charge.
- Do not charge a fully charged battery. Heat from the trickle charger could damage the battery. The battery will read 12–13.2 volts when fully charged.
- Do not crank engine when battery charge is low.
- Before charging the battery, examine its external appearance. Never charge or use a battery that shows cracks, changes shape, leaks, or is otherwise damaged.
- Store an unused battery in a dry environment with temperatures between +40°F (5°C) and +95°F (+35°C).

Charging Battery

If the battery loses charge, use a trickle charger to charge it. The charger must have an output of 14.4-15 volts at no more than 0.69 amps.

NOTE: The charging system of a running engine is designed to maintain a battery's present charge. Starting a machine that has been significantly discharged, or is dead, using the recoil starter or jumper cables will not recharge the battery.

Proceed as follows to connect the battery to a charger.

- 1. Disconnect battery cables.
- 2. Connect the negative (black) battery charger cable to the battery negative (-) terminal, and connect the positive (red) battery charger cable to the battery positive (+) terminal.
- **3.** Plug the battery charger into an outlet.
- 4. Charge until battery charger indicates battery is fully charged. Typical battery charge times range from six to eight hours depending on level of discharge. Do not charge battery for more than 24 hours.
- **5.** Disconnect charger from outlet once battery has charged.
- **6.** Disconnect battery from charger and remove the cables, removing the negative cable first.

Replacing Battery

1. See Figure 4-22. Disconnect battery cables (A).

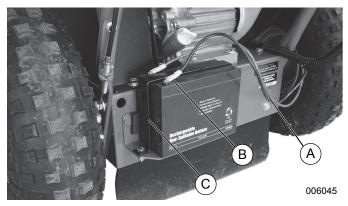


Figure 4-22. Replacing Battery

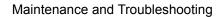
- **2.** Remove the bolts and locknuts (C) securing the battery clamp (B) using two 7/16" wrenches.
- **3.** Remove the clamp and the dead battery.
- 4. Install the new battery.
- **5.** Install the battery clamp and secure clamp bolts and locknuts using two 7/16" wrenches.
- **6.** Attach the black cable to the negative black terminal and the red cable to positive red terminal.

Troubleshooting

Symptom	Possible Cause		
	Check engine oil level.		
Recoil will not pull out or is difficult to pull	Check for an oil compression lock. Remove the spark plug, hold a rag over the spark plug hole, and pull the recoil cord several times to blow out any oil in the cylinder.		
	Try to turn the engine pulley by hand and with the spark plug removed. If the engine pulley turns the recoil is broken or jammed.		
	Verify the operator presence lever is held down and the key is inserted into the key switch and rotated to the right.		
	Check oil and gas level.		
	Verify fuel shut-off valve is OPEN.		
	Check spark plug wire is attached.		
Engine will not start manually.	Air filter may be dirty. Change as necessary.		
Refer to the engine owner's manual for engine-specific	Gas may be old. Change as necessary.		
procedures.	Verify throttle and choke settings are correct.		
	Spark plug may be dirty or cracked. Change as necessary. If it's oily, leave it out, hold a rag over the plug hole and pull the recoil cord several times to blow out any oil in the cylinder. Wipe off the plug and install.		
	Verify wire connections, especially the ground connections to the engine and the starter connections. Verify all connections are clean and tight.		
	Verify battery charge level. If low, charge it with a 12-volt, 1 to 2 amp trickle charger. See <i>Battery Care</i> .		
	Contact Generac Customer Service at 1-888-436-3722, or www.generac.com		

Symptom	Possible Cause
Engine smokes	Inspect oil level and adjust as needed.
	Clean engine cooling fans and carburetor.
	Inspect air filter and replace if dirty or damaged.
	Contact Generac Customer Service at 1-888-436-3722, or www.generac.com
Engine lacks power or is not running smoothly. Refer to the engine owner's manual	Verify the choke lever is OPEN.
	Air filter may be dirty. Change as necessary.
	Spark plug may be dirty or cracked. Change as necessary.
	Gas may be old. Change as necessary.
	Engine oil may be dirty. Change if necessary.
	Verify cooling fins are clean and free of debris. Clean as needed.
	Contact Generac Customer Service at 1-888-436-3722, or www.generac.com
Engine runs but the cutting head won't move	Throttle should be fully pressed to engage the clutch.
	Cutter head drive belt is off the pulleys or broken. Reinstall or charge the belt. See <i>Replacing Belt</i> .
	Verify nothing is wedged or wrapped around the cutter head or pulleys.
	Verify the belt has not stretched to the point that it is slipping off the pulleys
	Clutch is not working. See <i>Replacing Clutch</i> .
	Verify the throttle is moving on the engine.
The engine does not fully return to low idle when the throttle is released.	Throttle linkage is sticking. Adjust throttle linkage.
The cutting head is rotating but the cutting action is extremely slow and the stump is showing signs of excessive heat.	The teeth are dull or damaged. Replace teeth. See Replacing Cutting Teeth
Left-side wheel turns forward when brake lever is locked or machine is difficult to push when brake lever is released.	Brake cable needs adjusting. Adjust cable as needed. See <i>Adjusting Brake</i> .





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