

Our associates will ensure the tool works properly before you leave the store. If you experience issues with the tool while completing your project, simply bring it back to the Tool Rental Center to get a replacement. If you purchase Damage Protection at the time of your rental, you are not responsible for repair costs for tools that break due to normal use.



DOSKO

M2961000V.1

MODEL NUMBER: 337-13HC, 357-13HE, 337S-13HC
620-20HE, 620-25KE
SERIAL NUMBER: _____

Owner's Manual

Instructions for Operation, Maintenance

Stump and Root Grinder

337-13HC, 357-13HE, 337S-13HC
620-20HE, 620-25KE

Your Dosko grinder is intended for outdoor-use only and can be used to remove many tree stumps and exposed root systems close to ground level. By moving the blade in sweeping movements laterally over the top and front of the stump, you can gradually grind it away. Make sure you completely read and understand this manual before using the grinder for the first time.

WARNING

READ and UNDERSTAND this manual completely before using the grinder! Failure to properly operate, and maintain this grinder could result in *serious injury or death* to the operator or bystanders.

All machines have hazards associated with their operation. This stump grinder has certain special hazards, which you must be aware of. As an operator or owner you have a duty to be aware of these hazards and know preventive measures to take to avoid them. When reading this manual pay particular attention to avoiding these hazards.

In particular, be aware of the following:

- **Know location of buried electrical and other utility lines.**
- **Do not allow children or untrained adults to operate.**
- **Wear eye protection and other personal protection against flying rocks and debris.**
- **Check that cutter wheel teeth are secured, sharp and not missing.**
- **Do not operate if operator presence bar fails to stop engine upon release.**
- **Make sure no children or bystanders are within 75 feet of stump grinding operation.**
- **Protect cars, windows and other objects within 75 feet from flying debris.**
- **Be prepared for machine “kickback” when initially contacting the stump.**
- **Be aware of potential for carbon monoxide (CO) poisoning.**
- **Prevent fires/explosions from fueling.**
- **Do not attempt to perform adjustments, declog or clean unit while engine is running.**
- **Avoid burns from engine or hot exhaust.**
- **Avoid using in wet or icy conditions where falls may occur.**

Details about these hazards are found throughout the manual and are summarized at the end of the manual under “Important Safety Information.”

STOP!

ADD ENGINE OIL, FUEL & BATTERY: Your stump grinder comes fully assembled and requires only that you add engine oil to crankcase, fuel to tank, and a battery.

INSPECT COMPONENTS: Closely inspect to make sure no components are missing or damaged. See the “Receiving Your Unit” section for instructions on whom to contact to report missing or damaged parts.

Any Questions, Comments, Problems, or Parts Orders
Call your dealer or Dosko Customer Service 1-866-298-3659

Hazard Signal Word Definitions






	<p>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.</p>
	<p>DANGER (red) indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.</p>
	<p>WARNING (orange) indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.</p>
	<p>CAUTION (yellow) indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.</p>
	<p>CAUTION (yellow) used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.</p>

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Table of Contents

Part I. Introduction

About Your Grinder	4
Safety Decal Locations	5
Safety Decals	6
Transporting & Receiving:	
1. Receiving Your Unit	7
2. Towing Instructions	7
Machine Component Identification	8

Part II. Operation

Operation:	
1. Pre-Start Check List & Procedures	9
2. Starting the Grinder	12
3. Stopping Engine	13
4. Grinding Stump	14
5. Refueling	15
6. Storing Machine	16

Part III. Maintenance and Repair

Maintenance (To be done by owner or Rental Dealer)	19
1. Belt Tension Adjustment	21
2. Stop-Switch Adjustment	22
3. Setting Teeth	22
4. Schedule	24
Specifications	25

Part IV: Important Safety Information

Summary of Important Safety Information for Operation	26
Special Safety Information on Static Electricity	29
Parts Explosion	30
Wiring Diagrams	32
Assembly Instructions	35
Warranty	39
California Proposition 65 Information	40

About Your Grinder

Thank you for renting your Dosko grinder!

Rental Companies

All persons to whom you rent/loan this grinder must have access to this manual and read it. Check the tube on the side of the unit to make sure a manual is inside. Advise all persons who will operate the machine to read it. You should also provide personal instruction on how to safely operate the grinder and remain available to answer any questions a renter/borrower might have. If videos are available, have renter watch training video.

Product Suitability

Before using, the user shall determine the suitability of this product for this intended use and assumes liability therein.

Your Dosko grinder can be used to remove many tree stumps and exposed root systems close to ground level. By moving the blade in sweeping movements laterally over the top and front of the stump, you can gradually grind it away. Make sure you completely read and understand this manual before using the grinder for the first time. If you have any questions, contact your retail or rental dealer or Dosko Customer Service at 1-866-298-3659.

▲ WARNING: Never attempt to cut on a slope exceeding 15°.

Exercise caution when cutting stumps on an incline, as the machine may shift or slide unpredictably. Never attempt to cut with the machine uphill or downhill from you as it may slide toward you or you may fall toward the machine. Cut only on a slope from the side.

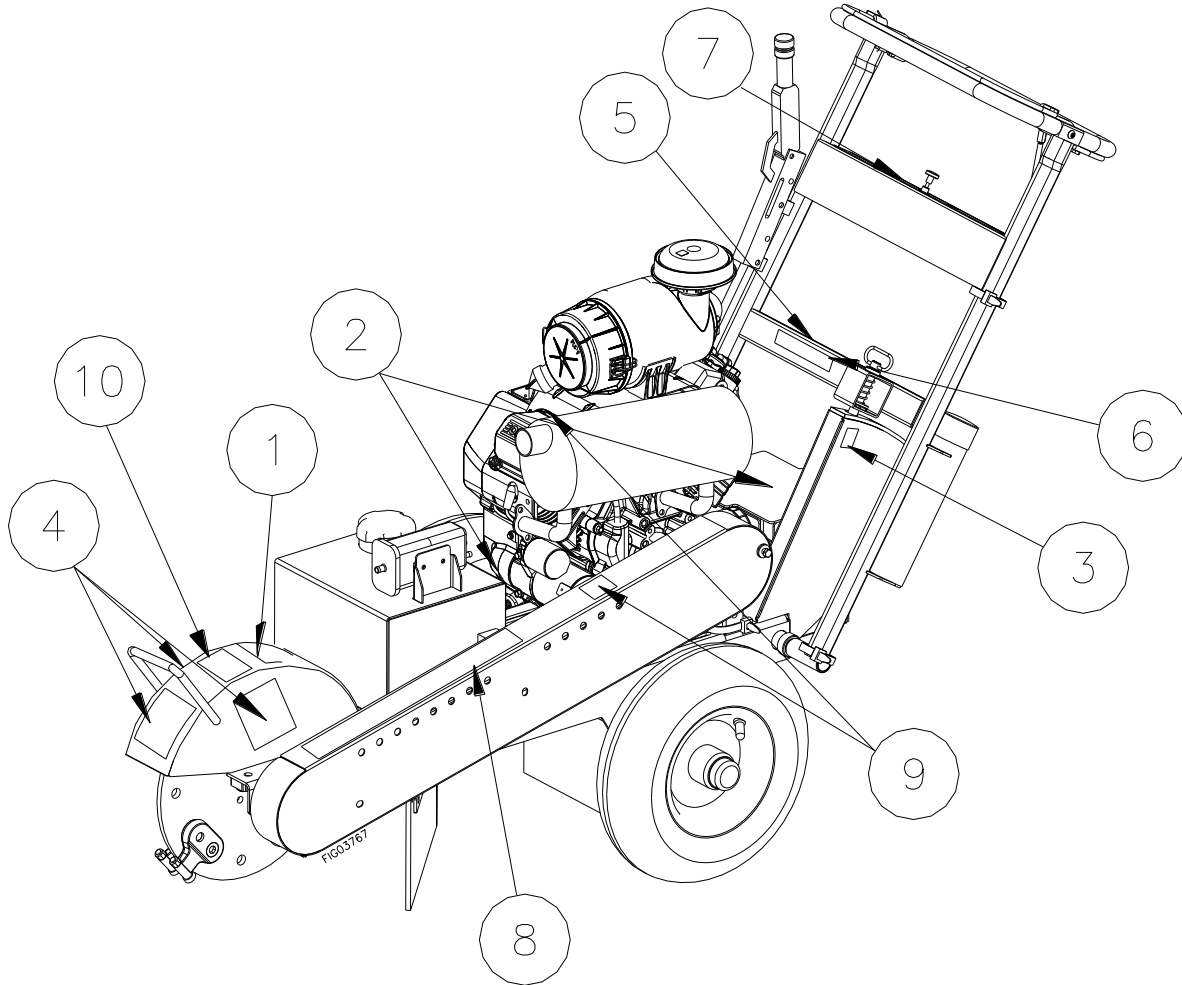
Dosko is constantly improving its products. The specifications outlined herein are subject to change without prior notice or obligation. The purchaser and/or user shall assume liability for any modification and/or alterations of this equipment from original design and manufacture.

Contact Dosko Customer Service at 1-866-298-3659 for any questions about the appropriate use of this grinder or about optional accessories.

Warranty Registration

Please fill out and submit the warranty registration card so that we have your contact information for any future product literature or replacement parts you may need.

Safety Decal Locations



Reference #	Part #	Description	Model #
1	784272 decal kit	Flying Debris Hazard (person)	All
2	784291	Flying Debris Hazard (direction) - located on base OR battery box top	All
3	784079	Tow Position	All
4	784272 decal kit	Amputation and Entanglement Hazard	All
5	799546	California Proposition 65 Warning	All
6	784272 decal kit	Poisonous Gas Hazard	All
7	783540 784298 784299	Control Panel	337-13HC, 337S-13HC 620-20HE 357-13HE, 620-25KE
8	784272 decal kit	Personal Injury / Fire, Explosion / Entanglement Hazards	All
9	786635	Burn Hazard - located on belt guard OR engine	All
10	799952	Spark-Strike Warning	337-13HC, 337S-13HC 620-20HE

⚠ WARNING

ALWAYS make sure safety labels are in place and in good condition. If a safety label is missing or not legible, order new labels.

Safety Decals

CAUTION		WARNING	
	Personal Injury Hazard Never attempt to service this machine without proper personal protection. When using this machine, you must wear the following: * Eye protection * Ear and hearing protection * Heavy duty work gloves * Heavy duty, non-slip footwear * Heavy duty, tight fitting clothing		Fire/Explosion Hazard Gasoline fuel is highly flammable and explosive. -KEEP fuel a running or hot engine. -KEEP sources of heat, sparks, and flame away during refueling. -ALWAYS turn engine off and let cool for at least two minutes before refueling. -Clean up fuel spills immediately. -Ensure there are no fuel leaks before starting. -DO NOT pump fuel directly into engine at gas station.
			Fire Hazard Hot exhaust fumes from engine can cause fire. Position muffler at least 7 feet from combustible objects, including vegetation and clothing. Do not change or add to exhaust system; fuel fire can result.
			Entanglement Hazard NEVER remove guards or shields. NEVER operate this machine when wearing loose cuffs or hosiery. ONLY operate with proper guarding of power transmission system, including all rotating shafts, pulleys, belts, & couplings.

8

Precautions Before Starting...

1. Check gas and oil levels.
2. If unfamiliar with operation, training information (an Operator's Manual) can be obtained from your retail farm supply store. Also have a video which demonstrates proper use.
3. Wear eye, face, and hearing protection as well as long pants and non-slip footwear.
4. Call 811 for utility marking 3 days before stump grinding. Trees can grow on top & around stump grinding object, even if not marked. Never begin stump grinding until you are sure you are not operating over an adult who has adequate physical capability.
5. Use proper stump grinding technique. Do not use a tree as a support. It should be operated only by an adult who has adequate physical capability.
6. Keep children away.
7. Replace worn or unreadable labels.

ENGINE SWITCH

PUSH TO STOP

PULL TO RUN

Special Operator Hazards...

1. Read & follow operator's manual before using.
2. Before adding fuel, stop the engine. Allow engine to cool for 3 minutes before refueling. Wipe up fuel spills immediately.
3. Do not use a gas station.
4. Blade rotator can build & ignite fuel.
5. Blade rotator at speeds similar to a rotary lawn mower & will throw stones, chips, & debris up to 75 ft in any direction.
6. Do not use this machine near windows, autos or any object which might be damaged by the rock type projectiles this machine will throw.
7. Never operate without shields and covers in place.

To Start Your Stump Grinder...

1. Pull Engine Switch to RUN position.
2. For good engine move choke lever to full choke position.
3. Grip Operator presence bar & handle together in front of you.
4. Turn the key switch to the START position and hold until the engine starts.
5. Release the key switch for 5 seconds, wait 10 seconds before attempting to start again.
6. Release the key when the engine starts.
7. When engine starts, move choke lever to RUN position.

KEEP BRAKE ENGAGED

KEEP BRAKE ENGAGED

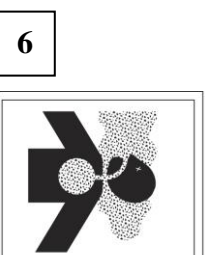
STOP engine & SET brake before leaving operator's position.

BRAKE

OFF

ON

7



WARNING

Poisonous Gas Hazard

This product gives off carbon monoxide, a poisonous gas that can kill you.

You CANNOT smell it, see it, or taste it.

- NEVER use in enclosed spaces, EVEN if you run a fan or open doors and windows.
- Only use OUTSIDE and far away from windows, doors, and vents.

See product manual for more details.

6

WARNING

WARNING: This product can expose you to chemicals including soots, tars, and mineral oils, which are known to the State of California to cause cancer, and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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10

WARNING

FIRE HAZARD

-Sparks can occur if blade/rotor strikes rocks, metal or other hard objects.
-DO NOT use in high/very high the hazard zone.
-Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrester may be required. The operator should refer to the operator's manual for information relating to fire prevention requirements.

5

WARNING

WARNING

Flying Debris Hazard

WARNING

WARNING

Flying Debris Hazard

*Some, chips, and debris can cause serious injury or property damage.
*Primary chip discharge is in the direction of the arrow.
*However, debris can fly 75 ft in any direction out the chute and bounce off objects and hit operator or bystanders.

1

WARNING

WARNING

Flying Debris Hazard

*Flying debris can travel up to 75 feet.
*Flying debris can also bounce off of this shield and hit nearby objects.
*NEVER allow anyone in DANGER ZONE while grinding.
*ALWAYS position machine to protect property (such as buildings and vehicles) from flying debris.
*Rubber shielding is intended to direct discharge to protect operator's lower extremities.
*Wear long pants and closed shoes, as well as eye and face protection.
*Replace if shielding is worn or damaged.

2

WARNING

WARNING

Towing and Transport Position

3

WARNING

WARNING

Amputation & Entanglement Hazard

Rotating Cutter

Keep hands and feet away.
Contact with rotating teeth will cause serious personal injury.
NEVER operate without guards and covers in place.

4

WARNING

WARNING

Amputation & Entanglement Hazard

Rotating Cutter

Keep hands and feet away.
Contact with rotating teeth will cause serious personal injury.
NEVER operate without guards and covers in place.

9

WARNING

BURN HAZARD

Do not touch hot muffler.

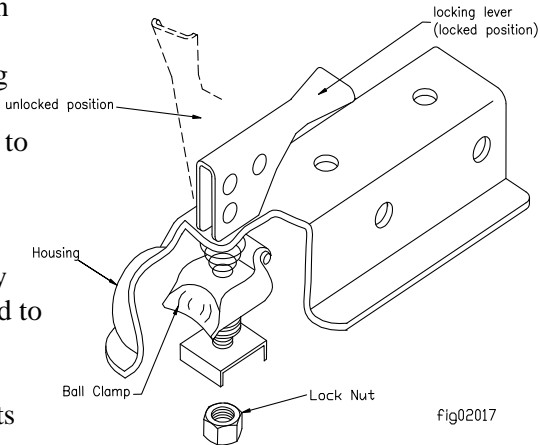
To order replacement safety labels, call Dosko Customer Service at 1-866-298-3659. All grinder units can be transported via trailers or with the purchase of an optional towing kit package can be towed behind the vehicle.

Transporting and Receiving

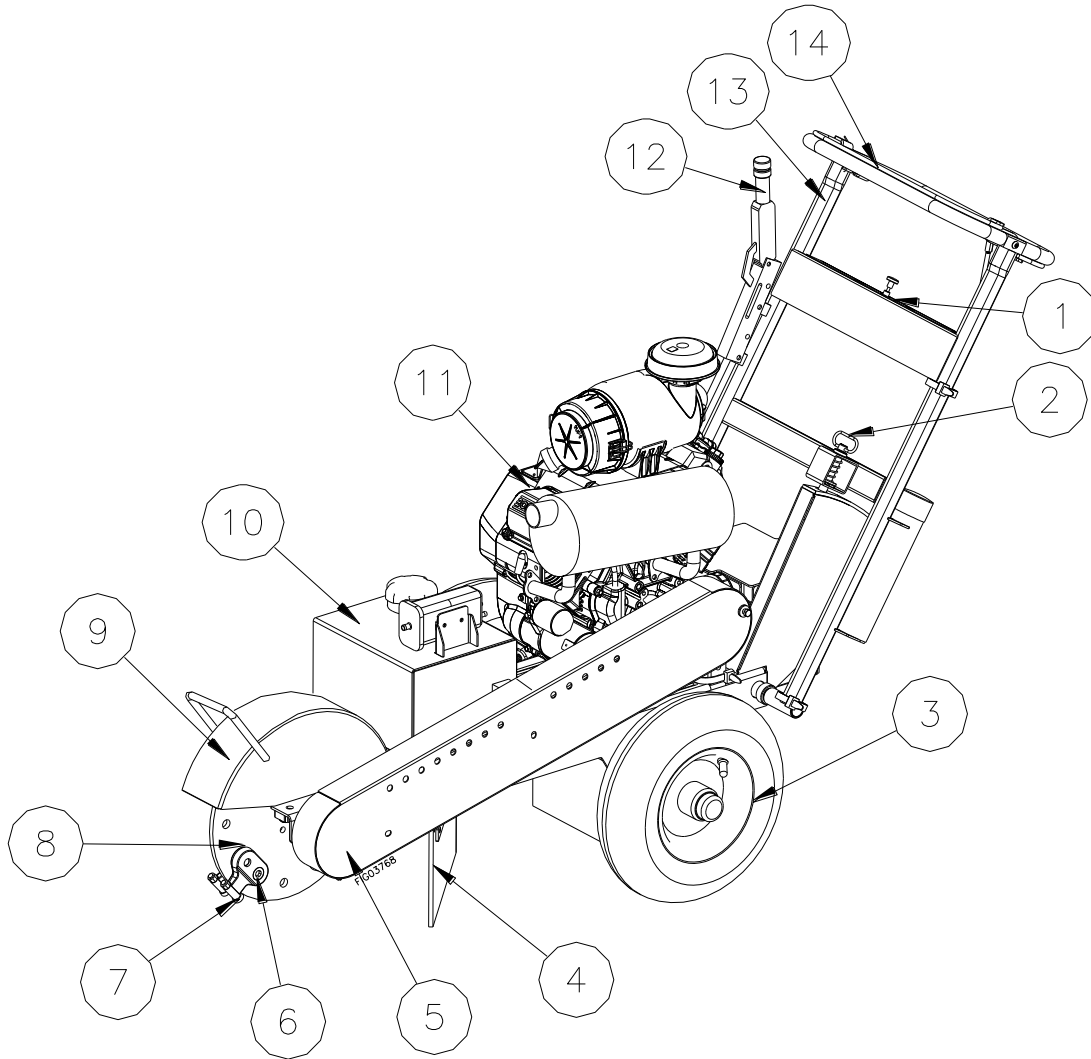
1. Receiving Your Unit

For all Units	<p>You should inspect the grinder immediately after you receive delivery. <i>See the “Machine Component Identification” section of this manual for a diagram of the grinder and its components.</i></p> <ul style="list-style-type: none"> • If you have <i>missing</i> components, contact your rental company or Dosko Customer Service at 1-866-298-3659.
New Unit: Truck Delivery	<p>Depending on your unit and model, it may have been shipped on a wooden skid, cardboard container or other appropriate method.</p> <ul style="list-style-type: none"> ◆ For any shipping damage, make sure the delivery driver acknowledges it and a claim is filed with the freight delivery company. Note: <i>Shipping damage claims are not covered by Dosko warranty. Please contact carrier!</i> ◆ If any assembly is required. Separate assembly instructions will be included.
New Unit: From a Dealer	<p>Your unit may be completely assembled and ready to run depending on the dealer. If not, please refer to “factory delivery” below. Read the “<i>Operation: Preparing for Operation</i>” section (page 9), and verify that the unit has been properly “prepped” before initial use.</p>
Factory Delivery	<p>In these cases, your unit has been tested and pre-run but will require additional assembly. See “Assembly Instructions” section at the end of the manual.</p>

2. Towing Instructions

<p>On Towable Models</p> <p>Optional towing packages:</p> <p>Part # 296108 (337-13HC & 357-13HE)</p> <p>Part # 296107 (620-20HE & 620-25KE)</p>	<p>Each state has legal requirements for towing equipment and trailers (such as lighting and licensing). Be sure receiver on towing vehicle is bolted tightly. Towing vehicle capability must be matched to trailer weight and type of hitch arrangement.</p> <ol style="list-style-type: none"> 1. Review towing safety instructions in your vehicle manual. 2. Attach grinder to vehicle hitch using only a 2” ball. 3. Be sure the tow bar is bolted tightly to the towing vehicle receiver. 4. Position tow bar into socket, then insert lock pin with safety clip. 5. Be sure that the stump grinder safety chains are hooked, closed and locked to the towing vehicle by using the coupling links. 6. Make sure the grinder wheel lug nuts are fastened tightly, tires are fully inflated and in good repair. <div style="text-align: right; margin-top: 10px;">  <p style="font-size: small;">locking lever (locked position) unlocked position Housing Ball Clamp Lock Nut fig02017</p> </div> <p style="margin-top: 20px;">▲ WARNING: Do not tow over 45 mph unless a higher speed rated trailer is being used.</p>
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Machine Component Identification



Reference #	Description
1	Control Panel
2	Pin Adjustment Handle Bar
3	Tire and Hub
4	Discharge Flap
5	Belt Guard
6	Tooth Pocket
7	Cutting Tooth
8	Cutter Wheel Disc
9	Cutter Guard
10	Gas Tank
11	Engine
12	Adjustable Brake Lever
13	Handle Bar
14	Operator Presence Handle Bar

Operation

1. Pre-start Check List & Procedures

⚠ CAUTION:

Add engine crankcase oil. A new engine is shipped without oil. You must add the correct amount of oil to engine crankcase or engine will be damaged beyond repair.

Before starting the engine you will want to make sure you have completed the following:

1. **Marking Underground Utilities**
2. **Checking Controls**
3. **Checking/Adding Oil**
4. **Filling Stump Grinder Gasoline Tank**
5. **Inspecting Fuel System for Leaks**
6. **Adjusting Handle Bar**
7. **Wearing Personal Protection**
8. **Trimming Stump with Saw**
9. **Clearing Area of People and Objects**
10. **Working During Daylight**
11. **Battery Installation**

Each of these procedures is discussed in detail below.

Marking Underground Utilities	Call 811 or your local utility company to request marking utilities 3 days before stump grinding. Trees can grow on top of and around underground wiring that was installed many years before a tree was planted.
Check Controls.	<p>Check that:</p> <ul style="list-style-type: none"> • All guards are in place and tight • Operator presence bar switch is free moving. • Inspect tires and rims for looseness, damage, and tire inflation.
Check Cutting Teeth	Inspect cutting teeth for tightness and sharpness. Only use factory-approved parts for repair.
Check/Add Oil	<p>Check the oil level using the dipstick and add oil as needed daily.</p> <p>Using a funnel, add oil up to the FULL mark on the dipstick with the recommended oil type for your engine and expected ambient conditions. (See engine Owner’s Manual for oil type and capacity, and more detailed oil check/fill instructions.)</p> <p>⚠ WARNING: Burn hazard Never open oil fill port while engine is running. Hot oil can spray over face and body.</p>

Operation (cont'd)

<p>Fill Stump Grinder Gasoline Tank</p>	<p>Check the gasoline level in the grinder's fuel tank. If needed, fill tank with fresh unleaded gasoline from a portable container, after first reading the warnings and instructions below.</p> <ul style="list-style-type: none"> - Do NOT fill the gas tank to the top. Gasoline may spill when operating on a slope. - Do NOT overfill the gasoline tank. Allow at least 1" of empty space below the fill neck to allow for fuel expansion. <p>⚠ WARNING: Gasoline fire/explosion hazard Gasoline is highly flammable and explosive. Heat, sparks, and flames can ignite gasoline vapors, which can become widespread during fueling. A flash fire ignition and/or explosion could result and cause serious injury or death. The following conditions could result in gasoline ignition/explosion:</p> <ul style="list-style-type: none"> • gas vapor collection inside enclosures • static electric sparks • sparks from electric wiring, batteries, or running engines • sources of heat (such as a hot engine or exhaust) • open flames, including pilot lights
<p>Inspect Fuel System / Check for Leaks</p>	<p>Inspect fuel system & check for leaks BEFORE starting grinder.</p> <p>⚠ WARNING: Fuel leak hazard A leaking fuel line no matter how small can be the source of a fire or explosion when starting or operating the engine.</p> <ul style="list-style-type: none"> • Inspect the entire fuel system. <i>Look for:</i> Signs of leaks or deterioration, chafed or spongy fuel hose, loose connections, loose or missing fuel hose clamps, damaged gasoline tank, or defective gasoline shut-off valve. <p>If grinder is in an enclosed area and you smell gas, DO NOT start engine! DO NOT light a match. DO NOT flip on an electrical switch. Exit area immediately leaving doors open and call fire department.</p>
<p>Adjust Handle Bar</p>	<p>Handle bar may have to be adjusted to accommodate for the height of stump or desired depth. When grinding above or below ground level, adjust handle bar for better control and comfort. <i>Note: Your stump grinder should not be used more than 10 inches maximum below ground</i></p>
<p>Personal Protection</p>	<p>Use approved protective clothing and approved protective equipment when using the machine.</p> <ol style="list-style-type: none"> 1) Always wear ANSI-approved and OSHA-compliant safety glasses with side shields and a full-face shield. 2) The use of ear plugs or other hearing protection device is also recommended for persons working within 15-20 feet of the running grinder for longer than a few minutes. Hearing can be damaged from prolonged, close-range exposure to the type of noise produced by this grinder.

Operation (cont'd)

	<p>3) Wear long pants to protect legs from sparks, hot engine and flying debris.</p> <p>4) Never wear jewelry or loose-fitting clothing when starting or operating the grinder or any mechanical device. Loose or dangling apparel, jewelry or hair can become entangled in moving parts.</p>
Trim Stump with Saw	Cut or trim the stump preferably to ground level using a power saw.
Clear Area	Dig away the earth and remove any stones near the tree stump or roots that may interfere with your work.
Work During Daylight Hours	Only use the machine in daylight or in well-lit conditions. Never operate the grinder after dark.

Operation (cont'd)

2. Starting the Grinder

After you have completed the pre-start checklist and procedures, you are ready to start the grinder.

The following directions detail how to start the engine of your grinder.

▲ WARNING:

Never attempt to use the grinder without proper protective equipment, particularly eye protection and a full-face shield.

To start the grinder:

Note: For additional engine starting instructions see your Honda/Kohler engine manual.

- 1) Before starting you should raise or lower the handle bar to a comfortable position to accommodate the height of the stump you will be grinding.
- 2) Place stump machine into position with cutting blade near the front-top edge of the stump.
- 3) Using lever on handle to lock the one wheel brake.

Note: For tighter brake adjustment, turn knob on top of brake lever.

▲ WARNING:

Stay in the OPERATOR POSITION while actuating controls. Never leave grinder unattended.

- 4) Pull Engine Switch ON. (Some models may have an additional on/off switch located on the engine)
- 5) Pull choke if engine is cold. If engine is hot, do not use choke.
- 6) Grip operator presence bar & grinder handle bar together in left hand.

▲ WARNING:

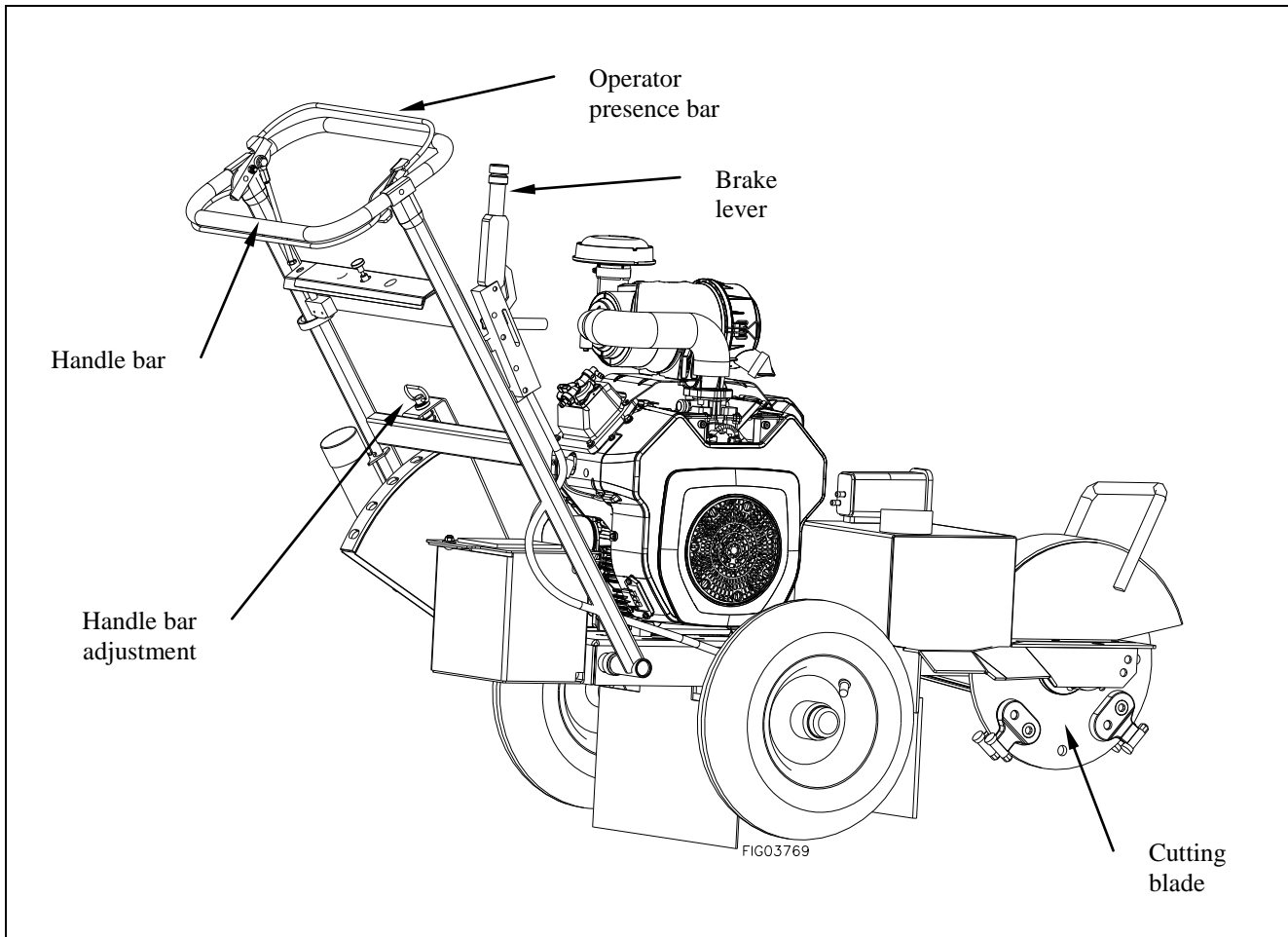
A rotating cutting blade is very dangerous. Stay at the controls and keep others away until you are sure the blade has come to a complete stop.

▲ WARNING:

Cutting wheel immediately begins rotating when starter is pulled. There is no clutch or gear to separately start or stop cutter wheel.

- 7) Since the cutter wheel starts rotating when starter is activated, press down on handle bar to lift cutter wheel off the ground.
- 8) **A) Pull Start:** Rapidly pull “Start” cord (recoil starter) with right hand several times until engine starts. Allow starter cord to return slowly.
B) Electric Start: Turn Key switch to the START position and hold until the engine starts.
- 9) If engine does not start, repeat steps 5-8.

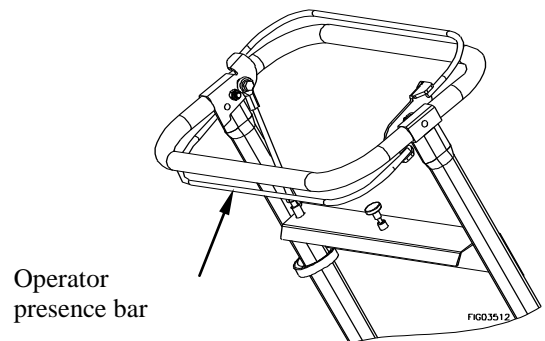
Operation (cont'd)



3. Stopping the Engine

Stop the engine using the following steps:

1. While holding blade off ground, release the operator presence bar. Wait until the blade completely stops. Lower the blade so it is resting against the ground.
2. Make sure brake is set before leaving the controls particularly if you are on an incline.
3. Turn engine switch to OFF position.
4. Allow the engine to cool for at least 5 minutes before releasing brake and moving to storage or transporting. A hot engine can be a fire hazard.



Operation (cont'd)

4. Grinding the Stump

⚠ WARNING: Flying Debris Hazard

Stones, chips, and debris can cause serious injury or property damage. Debris can fly 75 ft in any direction out of the chute. They can bounce off any fixed objects as well and hit operator, bystanders or breakable objects.

1. Set/engage the brake.
2. Pivot the grinder toward the side of the stump, then lower it approximately 1/2" to 1" into the front-top corner of the stump. Slowly pivot the cutting blade back and forth, lowering the cutting blade approximately 1/2" to 1" before each sweep, until you have removed the front portion of the stump to ground level.

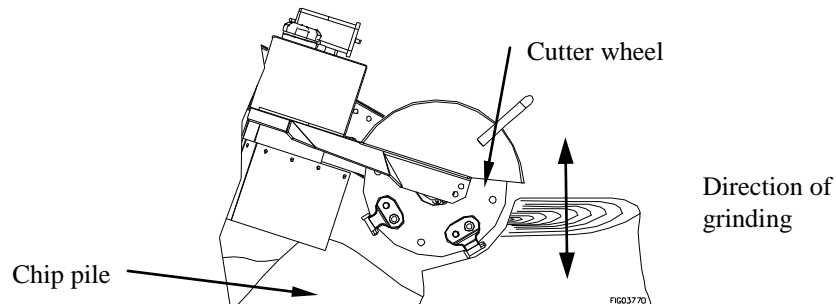
⚠ WARNING: Rotating cutter wheel.

Keep hands and feet away. Contact with wheel rotating teeth will cause serious personal injury.

3. Raise cutting blade until center of cutting blade is just above top of stump.
4. With cutting blade off to one side, advance the machine horizontally by releasing and resetting the brake. Advance the machine forward to engage the cutting blade into the stump so that when swept across the stump it will remove 1/2" to 1" of stump with each sweep.
5. Sweep the cutting blade across the stump, cutting away 1/2" to 1" of stump.
6. Advance cutting blade 1/2" to 1", and sweep again across stump in opposite direction.
7. Continue sweeping cutting blade left and right across stump, advancing it before each sweep, cutting 1/2" to 1" depth of stump with each sweep.
8. Cut complete stump flush with ground, then go back and cut to further depth, if desired.

Chip Build-up

9. When grinding larger stumps, chips may begin to build up under the wheels.
 - Release brake and pull machine towards you so that the "chip pile" is directly under the cutting wheel.
 - Drop cutter wheel down on "chip pile", material will be discharged from machine area.

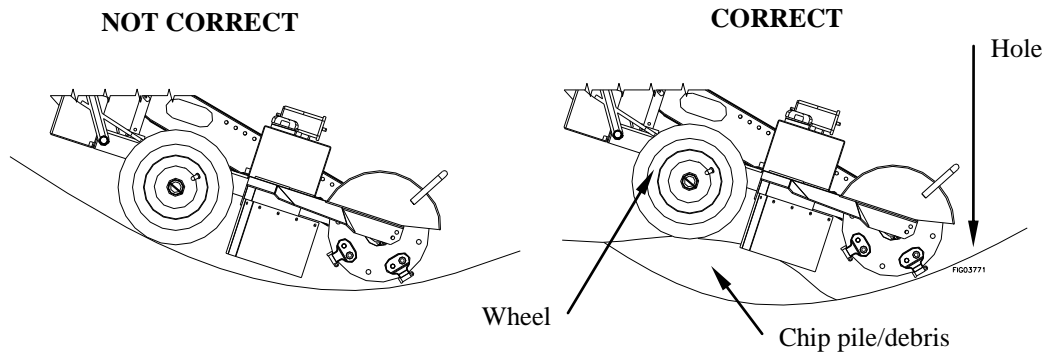


⚠ WARNING: Flying Debris Hazard

Stones, chips, and debris can cause serious injury or property damage. Debris can fly 75 ft in any direction out of the chute and bounce off objects and hit operator, bystanders or breakable objects.

Operation (cont'd)

- On these larger stumps, DO NOT allow grinder wheels to drop into stump hole. If a hole is in the way of your progress, fill it with chips or change position.



⚠ WARNING:

Stop engine and set brake before leaving operator's position. KEEP BRAKE ENGAGED except when changing locations.

10. When finished, stop the machine.
11. Pull machine away from stump, and rake chips away from stump.

5. Refueling

- 1) Before removing gas cap, turn engine off and allow to cool for at least two minutes.

Note: A running or hot engine can ignite fuel.

- 2) Remove grinder gasoline cap.
- 3) Add gasoline through the fill opening:
 - Use only an UL-approved portable gasoline container to transfer the gasoline to the grinder's tank.
 - Be aware of safety warning and instructions below for avoiding static electric caused fires.

⚠ WARNING:

Static electric spark hazard

A static electric spark can explosively ignite gasoline vapor, resulting in a flash fire that could cause serious injury or death. See "Special Safety Information on Static Electricity" at end of this manual.

- 4) Clean up gasoline spills /splashes immediately.
 - If possible, move the grinder away from spilled gasoline on the ground.
 - Wipe up spilled gasoline, and wait 5 minutes for excess gasoline to evaporate before starting engine.
 - Gasoline soaked rags are flammable and should be disposed of properly.
 - If gasoline is spilled on your skin or clothes, change clothes



Operation (cont'd)

and wash skin immediately.

- 5) Replace gasoline cap securely before starting engine.
- 6) Store extra gasoline in a cool, dry place in an UL-approved, tightly sealed container.
- 7) Filling towable units or portable containers at service stations:

Even if you have a towable unit, avoid static electric sparking while filling the gasoline tank:

- Never fill the grinder's gas tank directly from the fuel pump. The grinder's tank is not grounded and high velocity flow from the pump can cause static electricity build-up. Use an approved portable container to transfer gas to the grinder's tank.
- Use a portable container made of metal or conductive plastic. This is preferred because it dissipates static charge to ground more readily.
- Never fill a portable gas container while it is sitting inside a vehicle, trailer, trunk, or pick-up truck bed. ALWAYS place container on the ground to be filled.
- Keep nozzle in contact with container while filling. Do not use a nozzle lock-open device.

6. Storing the Grinder

When you are finished using the grinder and it has cooled, you must:

- Cool engine before storage.
- Clean the grinder.
- Inspect for worn or damaged parts.
- Choose covered storage location.
- Prevent accidental starting.
- Plan on exercising the engine at least monthly unless the grinder is prepared for long-term storage.

Detailed instructions are provided below.

Cool engine	Let engine cool for at least five minutes before storing. A hot engine can be a fire hazard.
Clean grinder	Clean all grease, dirt, mud and other foreign matter from the machine. Touch up paint damage to prevent rust.
Inspect grinder	Inspect the machine for worn or damaged parts and tighten any nuts or screws that may have become loose. Pay particular attention to the cutting teeth.
Choose a storage location	Store the grinder in a location that is: <ul style="list-style-type: none"> ○ Clean and dry

Operation (cont'd)

	<ul style="list-style-type: none">○ Away from sources of heat, open flames, sparks, or pilot lights, even if the grinder's gas tank is empty. Residual gasoline could ignite.○ Away from extreme high or low temperatures.○ Cover it for extra protection
Remove key	Remove key from starter and secure key in a safe location, or remove spark plug, in order to ensure the grinder cannot be started in a storage location or by untrained persons or children.
Start grinder every 4 weeks	The grinder should be started regularly. At least every four weeks, start the engine and let it run for 10 to 15 minutes. Monthly exercising of the grinder will dry out any moisture that has accumulated, lubricate cylinders, and clean out old gas in the carburetor. Moisture, old gas, and dry mechanical parts cause deterioration in stored engines.

Specifications

	337-13HC	337S-13HC	357-13HE	620-20HE	620-25KE
ENGINE OPTIONS					
Make	Honda	Honda	Honda	Honda	Kohler
Model	GX390UT2QXC9	GX390UT2QXC9	GX390UT1QAE2	GX630RTXF2	CH730-0002
CC Rating	390 cc	390 cc	390 cc	630 cc	721 cc
GENERAL					
Weight	300 lbs. (136kg)	380 lbs. (136kg)	350 lbs. (169kg)	400 lbs (181kg)	400 lbs (181kg)
Length	58" (147cm)	58" (147cm)	58" (147cm)	58" (147cm)	58" (147cm)
Height	51" (130cm)	51" (130cm)	51" (130cm)	51" (130cm)	51" (130cm)
Width	32" (81 cm)	32" (81 cm)	32" (81 cm)	32" (81 cm)	32" (81 cm)
RPM Operating	3600 RPM	3600 RPM	3600 RPM	3600 RPM	3600 RPM
Type of Fuel	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline
Starting	Recoil	Recoil	Electric	Electric	Electric
Oil Sensor	Yes	Yes	Yes	Yes	Yes
CUTTER WHEEL					
Diameter	14" (36cm)	14" (36cm)	14" (36cm)	14" (36cm)	14" (36cm)
Thickness	3/8" (.95cm)	3/8" (.95cm)	3/8" (.95cm)	3/8" (.95cm)	3/8" (.95cm)
Bearings (Dia.) (2)	1-3/16" (3cm)	1-3/16" (3cm)	1-3/16" (3cm)	1-3/16" (3cm)	1-3/16" (3cm)
Teeth Pockets	Reversible	Reversible	Reversible	Reversible	Reversible
Teeth (8) (Carbide Tips)	Greenteeth®	Greenteeth®	Greenteeth®	Greenteeth®	Greenteeth®
	1/2" dia. (1.27cm)	1/2" dia. (1.27cm)	1/2" dia. (1.27cm)	3/4" dia. (1.9cm)	3/4" dia. (1.9cm)
	1/4" thick (.635cm)	1/4" thick (.635cm)	1/4" thick (.635cm)	1/4" thick (.635cm)	1/4" thick (.635cm)
Disc RPM	2200 RPM	2200 RPM	2200 RPM	2500 RPM	2500 RPM
Drive	Direct Belt Drive	Direct Belt Drive	Direct Belt Drive	Direct Belt Drive	Direct Belt Drive
	1 banded Gates belt	1 banded Gates belt	1 banded Gates belt	1 banded Gates belt	1 banded Gates belt
	3 groove power band with idler bearing belt tensioners	3 groove power band with idler bearing belt tensioners	3 groove power band with idler bearing belt tensioners	4 groove power band with idler bearing belt tensioners	4 groove power band with idler bearing belt tensioners
CUTTING CAPACITY					
Above Grade	20" (51 cm)				
Below Grade	10" (41 cm)				
Stump Diameter	No Limit				
GROUND TRAVEL					
Speed	Towable - Never Exceed 45 mph				
Drive	Wheel Hub				
	480 x 8" (480 x 20 cm)				
Brake	Wheel Hub with Adjustable Brake Band				
Optional tow package	337-357TP	N/A	337-357TP	620-TP	620-TP

Summary of Important Safety Information

This section provides a summary of the various safety procedures and measures that have been presented throughout the manual. Keep this summary handy and refer to it to refresh your memory about how to safely use your grinder.

⚠ WARNING

Carefully read and make sure you understand the following safety information before using the grinder. Improper use or maintenance of the grinder can result in *serious injury or death* from *fire/explosion, carbon monoxide poisoning, lacerations, entanglement or burns*. Damage can also occur to windows, siding, vehicles, and bystanders from chips and debris which can become projectiles.

General

- **Read manual.** Read this Owner's Manual and the engine Owner's Manual completely before attempting to use and service the grinder. Serious injury or death can result if safety instructions are not followed.
- **Instruct operators.** The grinder owner or rental company must instruct all operators in safe grinder set-up and operation. Do not allow anyone to operate the grinder who has not read the Owner's Manual and been instructed on its safe use. Make sure Owner's manual is within the attached storage tube on the grinder.
- **Adults only.** Only trained adults should operate and service the grinder. Do not let children operate.
- **Under the influence.** Never operate, or let anyone else operate, the grinder while under the influence of alcohol, drugs, or medication.
- **Intended use.** Carefully read about and understand the intended use of this grinder. Do not use for other purposes, as unforeseen hazards or equipment damage may result.
- **Controls and safety labels.** Learn how to use the machine and its controls safely. Understand and follow all safety labels.
- **Weather.** Never use in foul, bad or questionable weather, which causes a slippery ground condition.

Prohibition Against Modifications

Never modify or alter the grinder in any way. Modifications can create serious safety hazards and will also void the warranty.

- **Fuel/exhaust system.** Never modify the exhaust system, fuel tanks, or fuel lines. Carbon monoxide poisoning, fire, or explosion could result.
- **Guards.** Do not operate grinder unless all guards and cover shields, which prevent access to moving parts and pinch points, are in place. Failure to guard the power transmission mechanisms *may result in serious injury or death*.

Safety – Before Use

Know how to operate

- **Review safety rules.** Before use of this grinder, review the "Rules for Safe Operation."
- **Know how to operate.** Be thoroughly familiar with all controls and with the proper use of the equipment. Know how to stop the grinder quickly if needed.
- **Utility marking.** Call 811 for utility marking 3 days before stump grinding. Trees can grow on top of and around underground wiring that was installed many years before a tree was planted.

Getting Ready

- **Flying debris.** Clear area of objects such as stones, toys, steel wire, etc. that could become caught in moving machine parts and ejected as a projectile.
- **Operate OUTSIDE only – dangerous carbon monoxide exhaust!** Grinders give off carbon monoxide exhaust, a poisonous gas that can kill. You CANNOT smell it, see it, or taste it. ONLY run grinder OUTDOORS and at least 20 feet from the home, away from windows, vents and air intakes, to allow proper ventilation. If you start to feel sick, dizzy, or weak while using the grinder, shut off the engine and get to fresh air RIGHT AWAY. NEVER run grinder engine inside homes, garages, sheds, or other semi-enclosed spaces. These spaces can trap poisonous gases.

Summary of Important Safety Information (cont'd)

- **Cooling ventilation.** The grinder needs adequate, unobstructed flow of air to allow for proper cooling of engine and grinder head. Do not allow debris to accumulate and block airflow.
- **Transporting.** During transporting, take precautions to make sure stump grinder will not tip over and cause a fuel leak hazard.
- **Hot exhaust - fires.** Exhaust from engine can be extremely hot and cause fire. Position muffler at least 7 feet from combustible objects during operation.
- **Fire extinguisher.** Keep a fire extinguisher rated “ABC” by the National Fire Protection Association nearby is always recommended when using gasoline operated machinery. Keep it properly charged and be familiar with its use.

Personal protective equipment

- **Hearing protection.** The use of ear plugs or other hearing protection device is recommended for those in close proximity to the grinder while it is operating.
- **Eye protection.** Wear ANSI approved eye protection when operating the grinder.
- **Face protection.** A helmet with a full face visor or mesh visor with protective glasses is recommended.
- **Loose / dangling.** Loose or dangling apparel, jewelry or hair can become entangled in moving parts. Never wear jewelry or loose-fitting clothing when operating the grinder.
- **Long pants.** Wear long, heavy-duty pants to protect legs from ejected materials.

Gasoline Safety

Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel. Use extreme care when handling gasoline:

- **Fuel outdoors.** Fill fuel tank outdoors – never indoors. Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.
- **Use approved container.** Never pump fuel directly into engine at gas station. Static charge can build and ignite fuel. Use an UL approved fuel container to transfer gas to the engine.
- **Running / hot engine.** A running engine is hot enough to ignite fuel. Never add fuel or remove gas cap if engine is running or still hot. Stop the engine and allow to cool at least two minutes before adding fuel.
- **Heat / flames / sparks.** Keep sources of heat, flame, or sparks away while adding fuel.
- **Don't fill to the top** DO NOT overfill the gas tank. Allow at least 1” of empty space below the fill neck to allow for fuel expansion and operation on slopes.
- **Don't fill to the top.** Do not fill the gas tank to the top. Gasoline may spill when operating on a slope.
- **Replace cap.** Replace gas cap securely before starting engine.
- **Spills.** Clean up fuel spills immediately. Move grinder away from spilled fuel on the ground. Wipe fuel off engine and wait 5 minutes for excess fuel to evaporate before starting engine. Gas soaked rags should be disposed of properly.
- **On skin / clothes.** If gasoline is spilled on your skin or clothes, change clothes and wash skin immediately.
- **Inspect fuel system.** Check fuel system on a regular basis. Look for signs of leaks, deterioration, chafed or spongy fuel hose, loose or missing fuel hose clamps, damaged fuel tank, or a defective fuel shut-off valve. Do not start grinder until needed repairs have been completed.
- **Gasoline storage.** Store gasoline in a cool, dry place in an UL-approved, tightly sealed container away from children.

Safety – During Use

- **Safety equipment / controls.** Always operate the grinder with all safety covers, guards, and barriers in place and in good working order, and all controls properly adjusted for safe operation.
- **Controls.** Stay in the OPERATOR POSITION while actuating controls.
- **Know how to stop.** Know how to stop the grinder quickly if needed by releasing the operator presence bar. If this does not work, do the following in order until unit is stopped. 1. Push the stop button on the control panel. 2. Use on/off switch on engine (or ignition switch on electric start models). 3. Engage full choke by flooding the engine.
- **“Kickback”.** Machine can experience significant “kickback” when operating or first coming into contact with the stump.
- **Slipping/Falling.** Operating in wet or icy conditions could lead to losing your footing and slipping or falling.
- **Damaged.** Do not operate the grinder with damaged, missing, incorrectly adjusted, or broken parts.
- **Check for gas leak before starting.** After opening gasoline valve, smell for gas before starting engine. If you smell gas, DO NOT start engine. DO NOT light a match. DO NOT flip on an electrical switch. Exit area immediately and call fire department.

Summary of Important Safety Information (cont'd)

- **Carbon monoxide exhaust.** The running engine gives off carbon monoxide, a poisonous gas that can kill you. You CANNOT smell it, see it, or taste it. If you start to feel sick, dizzy, or weak while using the grinder, shut off the engine and get to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.
- **Other exhaust dangers.** This product contains or emits chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Avoid inhalation of exhaust.
- **Smoking/sparks.** Never smoke near the running grinder, and never operate near sources of sparks or flames.
- **Hot muffler.** Never touch hot muffler or hot exhaust manifold. Exhaust and engine parts can be very hot and will burn you.
- **Machine's moving parts.** Keep hands, feet, and apparel away from drive belts, cutter wheel, and other moving parts. Never remove any drive belt or guard while the unit is operating. Contact with belt or rotating teeth will cause personal injury.
- **Refueling.** DO NOT refuel the engine until it has cooled at least two minutes.
- **Malfunction during operation.** Always shut the machine off if any unusual noise or vibration occurs.
- **Vibration.** Overexposure to machine vibration on a daily basis may lead to circulatory or nerve damage.
- **Adjusting / repairing.** Always turn off grinder and remove spark plug or spark plug wire before working on the grinder to prevent accidental starting. Disconnect battery (on electric models only).

Safety – After use

- **Cool engine before storing.** Let engine cool for at least five minutes before storing. A hot engine can be a fire hazard.
- **Shut off fuel supply.** Make sure gasoline shut-off valve is in the OFF position.
- **Prevent accidental starting.** When grinder is not in use, remove key from starter (electric start engines) and secure in a safe location, or remove spark plug and disconnect positive battery terminal from battery in order to ensure that grinder cannot be started in a storage location or by untrained persons.
- **Storage location.** Store the grinder in a dry location away from sources of heat, open flames, sparks or pilot lights – such as water heaters, space heaters, furnaces, clothes dryers, or other gas appliances – EVEN IF the grinder's gas tank is empty. Residual gasoline could ignite.
- **Exercise regularly.** Exercise grinder every four weeks to dry out moisture that accumulates in the windings. If grinder cannot be exercised on a regular basis, prepare grinder for long term storage.

Safety - Inspection/Maintenance

Inspect and maintain your grinder on a regular basis and repair as needed to keep it in safe working condition:

- **Turn off grinder.** Always turn off grinder and remove spark plug or spark plug wire before working on the engine or grinder to prevent accidental starting. Disconnect battery (on electric models only).
- **Replace guards / shields.** Make sure all guards and shields are replaced after servicing the grinder.
- **Burns.** Do not touch hot muffler. Muffler will be hot even if unit is stopped. Allow unit to cool before servicing.
- **Replacement parts.** If a part needs replacement, only use parts that meet the manufacturer's specifications. Replacement parts that do not meet specifications may result in a safety hazard or poor operation of the grinder and will void the warranty.

Special Safety Information on Static Electricity

Static electricity and filling gasoline:

Static electricity can initiate from ungrounded gasoline tanks or containers, from flowing gasoline, and from persons carrying a static electric charge

Static electricity on numerous occasions has explosively ignited gasoline vapors that were present during fueling processes, resulting in serious burns to nearby persons. To avoid static electricity while fueling, certain steps must be followed before and during the fueling process in order to minimize and safely dissipate static charge build-up.

Filling Portable Containers at Service Stations:

Use a portable container to fill grinder tank. Never fill the grinder's gas tank directly from the service station's fuel dispenser pump – the grinder's tank is not grounded and the high velocity flow of gasoline from a fuel pump can cause static electric build-up. Use an approved portable container to transfer gasoline to the grinder's tank.

- ***Use a portable container made of metal or conductive plastic.*** It will dissipate charge to ground more readily.
- ***Fill container on the ground.*** Never fill the portable gas container while it is sitting inside a vehicle, trailer, trunk, or pick-up truck bed. ALWAYS place container on the ground to be filled.
- ***Touch a grounded metal object before starting.*** Always dissipate static charge from your body before beginning the fueling process by touching a grounded metal object at a safe distance away from fuel sources.
- ***Keep nozzle in contact with container.*** Keep fuel dispenser nozzle in contact with the portable container at all times while filling at a service station. Do not use the nozzle lock-open device on the dispenser hose.

About static electricity and fueling

Many common objects can accumulate and retain a static electric charge. Objects made of non-conductive materials (e.g. plastics) easily accumulate and retain static electric charge, as can objects made of conductive material (e.g. metal, water) if they are not electrically grounded. The static electric charge on an object, such as a human body or plastic fuel tank/container, can reach as high as several thousand volts!

A static electric spark can be generated if the static electric charge stored on an object “jumps” to another, less charged object. Such a spark can ignite invisible gasoline vapors that are present during fueling situations.

Typical sources of static electric hazards during fueling

The following objects can accumulate a static electric charge and cause an ignition spark in typical fueling situations:

- Ungrounded tanks/containers. Any ungrounded fuel tank or container can accumulate a static electric charge as a result of contact with other objects or friction during transportation. This static electricity can discharge as a spark to the grounded gasoline dispenser nozzle, as the nozzle is first brought close to the tank/container at the beginning of the fueling process.
- Flowing gasoline. Most people are not aware that gasoline accumulates static electric charge while flowing through a hose or pipe. This charge then transfers to and accumulates in the gas tank or container that is being filled. The total amount of charge accumulation depends on the amount of gas pumped into the container, the speed with which it is pumped, and whether or not the tank/container is grounded. If sufficient static electric charge accumulates in the fuel tank or container during the fueling process, the tank/container may discharge a spark to the grounded gasoline dispenser nozzle.
- Persons. A person dispensing the gasoline can carry a static electric charge on their body, typically resulting from contact with their car seat or electronics. The static electricity can discharge as a spark between that person's hand and either the grounded dispenser nozzle or the fuel tank opening.