

MK[®] MK SG-2

SCARIFIER OWNER'S MANUAL & OPERATING INSTRUCTIONS



CAUTION:
Read all safety and
operating instructions
before using this
equipment

Enter the Serial Number of your new saw in the
space below. The Serial Number is located on the
Engine Mount Frame.

SERIAL NUMBER:

NOTE:

For your (1) one year warranty to be effective,
complete the warranty card (including the Serial
Number) and mail it in as soon as possible.

INTRODUCTION and TABLE OF CONTENTS

INTRODUCTION:

We at MK Diamond want to congratulate you on selecting the MK SG-2 Scarifier. We are certain that you will be pleased with your purchase. MK Diamond takes pride in producing the finest products in the industry.

Operated correctly, your MK SG-2 should provide you with years of quality service. In order to help you, we have included this manual. This owners manual contains information necessary to operate and maintain your MK SG-2 safely and correctly. Please take a few minutes to familiarize yourself with the MK SG-2 by reading and reviewing this manual.

If you should have questions concerning your MK SG-2, please feel free to call our friendly customer service department at: 800 421-5830

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Manual Part No. 158537

Revision 10/01

SAFETY

Read and follow all safety, operating and maintenance instructions. Failure to read and follow these instructions could result in injury or death to you or others. Failure to read and follow these instructions could also result in damage and/or reduced equipment life.

SAFETY MESSAGES:

Safety messages inform the user about potential hazards that could lead to injury, death and/or equipment damage. Each safety message will be preceded by one of the following (3) three words that identify the severity of the message.

⚠ DANGER

Not following instructions **WILL** lead to **DEATH** or **SERIOUS INJURY**

⚠ WARNING

Not following instructions **COULD** lead to **DEATH** or **SERIOUS INJURY**

⚠ CAUTION

Not following instructions **CAN** lead to injury

DAMAGE PREVENTION AND INFORMATION MESSAGES:

A Damage Prevention Message is to inform the user of important information and/or instructions that could lead to equipment or other property damage if not followed. Information messages convey information that pertains to the equipment being used. Each message will be preceded by the word note, as in the example below.

NOTE: Equipment and/or property damage may result if these instructions are not followed.

GENERAL SAFETY PRECAUTIONS AND HAZARD SYMBOLS:

In order to prevent injury, the following safety precautions and symbols should be followed at all times!

Safety Precautions:

KEEP GUARDS IN PLACE.



In order to prevent injury, keep guards in place and in working order at all times.

EXPLOSIVE FUEL!



Gasoline is extremely flammable, its vapors can explode if ignited; store only in approved containers, in well-ventilated, unoccupied buildings and away from sparks or flames. Do not fill the fuel tank while the engine is running or hot. Spilled fuel could ignite if it contacts hot parts or sparks from ignition. Do not start the engine near spilled fuel. Never use gasoline as a cleaning agent.

LETHAL EXHAUST GASES!



Engine exhaust gasses contain poisonous carbon monoxide, an odorless colorless gas that can cause death if inhaled. Avoid inhaling exhaust fumes, and never run the engine in a closed building or confined area.

ELECTRICAL SHOCK!



Never touch electrical wires or components while the motor is running. Exposed, frayed or worn electrical motor wiring can be sources of electrical shock that could cause severe injury or burns.

ENGINE OVER-SPEED.



Never tamper with the governor components or settings to increase the maximum speed of the machine. Severe personal injury and/or equipment damage could result if the equipment is operated speeds above design maximum.

SAFETY

ACCIDENTAL STARTS!



Before starting the engine, be sure the ON/OFF switch is in the "OFF" position to prevent accidental starting. Place the ON/OFF switch in the OFF position before performing any service operation.

ROTATING OR MOVING PARTS!



Keep hands, feet, hair, and clothing away from all moving parts to prevent injury. Never operate a power tool with shrouds or guards removed.

HOT PARTS!



Engine components can become extremely hot from operation. To prevent severe burns, do not touch these areas while the engine is running, or immediately after it is turned off. Never operate the engine with heat shields removed.

ALWAYS USE SAFETY GLASSES!



Safety glasses should always be worn when working around power tools. Everyday eyeglasses only have impact resistant lenses and may not prevent eye injury; they are NOT safety glasses.

ALWAYS USE RESPIRATORY PROTECTION!



Exhaust gases may be harmful if inhaled. Do not operate gas-powered equipment in enclosed spaces. Respiratory protection should be worn when operating gas-powered equipment.

ALWAYS USE HEARING PROTECTION!



To reduce the possibility of hearing loss, always use hearing protection when operating equipment.

REMOVE ADJUSTING KEYS AND WRENCHES.

Form a habit of checking to see that keys and adjusting wrenches are removed from the power tool before it is turned on.

KEEP WORK AREA CLEAN.

Cluttered work areas and benches invite accidents.

DO NOT USE IN DANGEROUS ENVIRONMENTS.

Do not operate equipment in dangerous environments. Always keep the work area well lighted.

KEEP CHILDREN AWAY.

All visitors and children should be kept a safe distance from work area.

MAKE WORKSHOP KID PROOF.

Make the workshops kid proof by using padlocks, master switches or by removing starter keys.

DO NOT FORCE THE TOOL.

A power tool will do a job better and safer operating at the rate for which it was designed.

USE THE RIGHT TOOL.

Do not force a tool or an attachment, to do a job that it was not designed to do.

WEAR PROPER APPAREL.

Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that may be caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.

SECURE WORK.

Clamps or a vise should be used to hold work whenever practical. Keeping your hands free to operate a power tool is safer.

SAFETY

DO NOT OVERREACH.

Keep proper footing and balance at all times by not overreaching.

MAINTAIN TOOLS WITH CARE.

Keep tools sharp and clean for the best and safest performance. Always follow maintenance instructions for lubricating and when changing accessories.

SHUTDOWN TOOL.

The saw should always be shutdown before servicing or when changing accessories such as blades, bits, cutters, and the like.

USE RECOMMENDED ACCESSORIES.

Consult the owner's manual for recommended accessories. Using improper accessories may increase the risk of personal or by-stander injury.

NEVER STAND ON THE TOOL.

Serious injury could occur if a power tool is tipped, or if a cutting tool is unintentionally contacted.

NEVER LEAVE TOOL RUNNING UNATTENDED – TURN POWER OFF.

Do not leave a tool until it comes to a complete stop. Always turn a power tool OFF when leaving the work area, or, when a cut is finished.

CHECK FOR DAMAGED PARTS.

Before using a power tool, check for damaged parts. A guard or any other part that is damaged should be carefully checked to determine it would operate properly and perform its intended function. Always check moving parts for proper alignment or binding. Check for broken parts, mountings and all other conditions that may affect the operation of the power tool. A guard or any damaged part should be properly repaired or replaced.

DIRECTION OF FEED.

Always feed work into a blade or cutter against the direction of rotation. A blade or cutter should always be installed such that rotation is in the direction of the arrow imprinted on the side of the blade or cutter.

⚠WARNING

Sawing and drilling generates dust. Excessive airborne particles may cause irritation to eyes, skin and respiratory tract. To avoid breathing impairment, always employ dust controls and protection suitable to the material being sawed or drilled; See OSHA (29 CFR Part 1910.1200). Diamond Blades improperly used are dangerous. Comply with American National Standards Institute Safety Code, B7.1 and, Occupational Safety and Health Act covering Speed, Safety Guards, Flanges, Mounting Procedures, General Operating Rules, Handling, Storage and General Machine Conditions.

CALIFORNIA PROPOSITION 65 MESSAGE:

⚠WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contain chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead, from lead-based paints
- Crystalline silica, from bricks and cement and other masonry products
- Arsenic and chromium, from chemically treated lumber

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

For further information, consult the following sources:

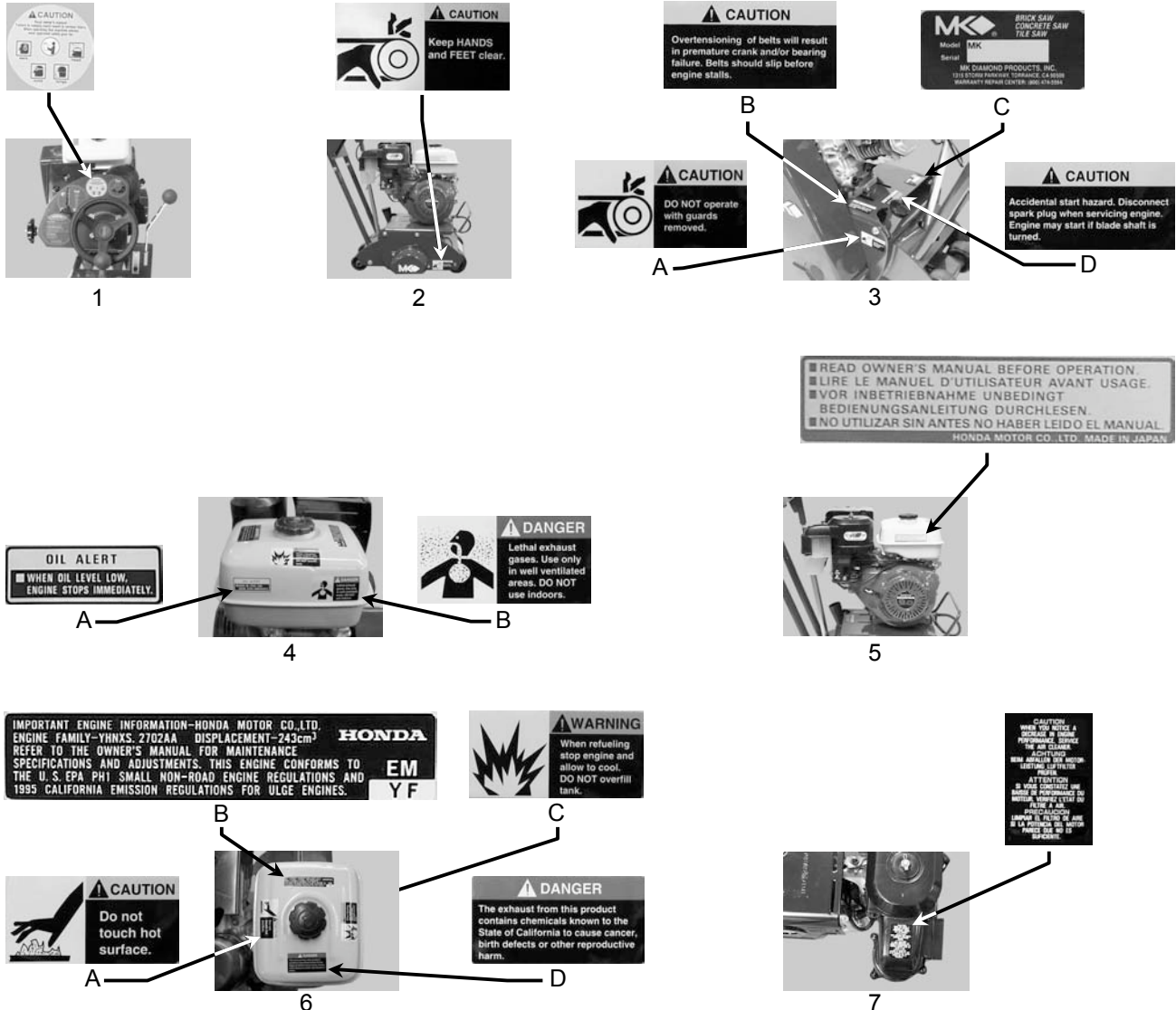
<http://www.osha-slc.gov/sltc/silicacrystalline/index.html>
http://www.oehha.org/prop65/out_of_date/6022kLstA.html

SAFETY

SAFETY LABEL LOCATIONS:

Safety labels are located according to Figures 1 to 7 below. The labels contain important safety information. Please read the information contained on each safety label. These labels are considered a permanent part of your saw. If a label comes off or becomes hard to read, contact MK Diamond or your dealer for a replacement.

Item	Location	Description	Part No.
1.	Scarifier – Operators Console	Caution – Specific Operating Requirements	158287
2.	Scarifier – Frame, Left Side	Caution – Keep Hands and Feet Clear	155585
3A.	Scarifier – Engine Mount	Caution – Do Not Operate with Guards Removed	155587
3B.	Scarifier – Engine Mount	Caution – Belt Overtensioning	155583
3C.	Scarifier – Engine Mount	Scarifier Serial Number	158098
3D.	Scarifier – Engine Mount	Caution – Accidental Start Hazard	155579
4A.	Engine – Tank, Front	Oil Alert	N/A
4B.	Engine – Tank, Front	Danger – Lethal Exhaust Gases	155582
5.	Engine – Tank, Left Side	Read Owners Manual	N/A
6A.	Engine – Tank, Top	Caution – Do Not Touch Hot Surface	155578
6B.	Engine – Tank, Top	Important Honda Engine Information	N/A
6C.	Engine – Tank, Top	Warning – Stop Engine When Refueling	155580
6D.	Engine – Tank, Top	Danger – Exhaust Gases	155581
7.	Air Filter Cover	Air Filter Service Information	N/A



SAFETY

SG-2 SPECIFIC WARNINGS:

⚠ CAUTION

- Read Owners Manual
- Wear Protective Gear for –

Head

Lungs

Ear

Eye

PRODUCT SPECIFICATIONS:

The MK SG-2 is a versatile Scarifier. Operated and used according to this manual, the MK SG-2 will provide years of dependable service.

General Description:

The MK-SG-2, is engineered with an 8" Cutting Drum and reliable 8 horsepower Honda engine. The SG-2 scarifier is designed with fine depth control allowing the operator to make depth adjustments in 1/16-inch increments.

Motor and Weight Specifications:

Motor and Weight specifications for the MK SG-2 are listed in Table 2 below.

Motor Type	4-stroke, Overhead valve, single cylinder
Max Power Output	9 Hp
Max RPM	3600 RPM
Cutting Drum Speed	2300 RPM
Fuel Tank Capacity	1.59 Gallons (6.0 Liters)
Engine Oil Capacity	1.16 Quarts (1.1 Liters)
Weight	185 lbs.*

Table 2

Drum Capacity:

The MK SG-2 uses a 6-inch diameter 8-inch long cutting drum with 6 hardened steel shafts that will accommodate the most common cutting discs.

Scarifier Usage:

The MK-SG-2 is designed to grind surfaces, remove old coatings, prepare surfaces before applying new coatings, roughen surfaces, groove surfaces and slot surfaces.

Features:

- Conveniently placed engine controls for ease of usage
- Engage/Disengage Lever allowing the operator to raise or lower the cutting drum without changing the cutting depth setting
- Ergonomically designed handlebar to reduce operator fatigue
- Poly micro V-belt to ensure maximum power transfer from the engine to the cutting drum

* Without the Cutting Drum installed.

UNPACKING, TRANSPORT and ASSEMBLY


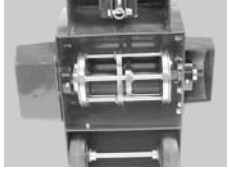



UNPACKING:

Your MK SG-2 has been shipped from the factory thoroughly inspected. Only minimal assembly is required.

If not already done, remove the MK SG-2 from the pallet and place it on a flat surface (lift the scarifier using the lifting points shown below).

CONTENTS:

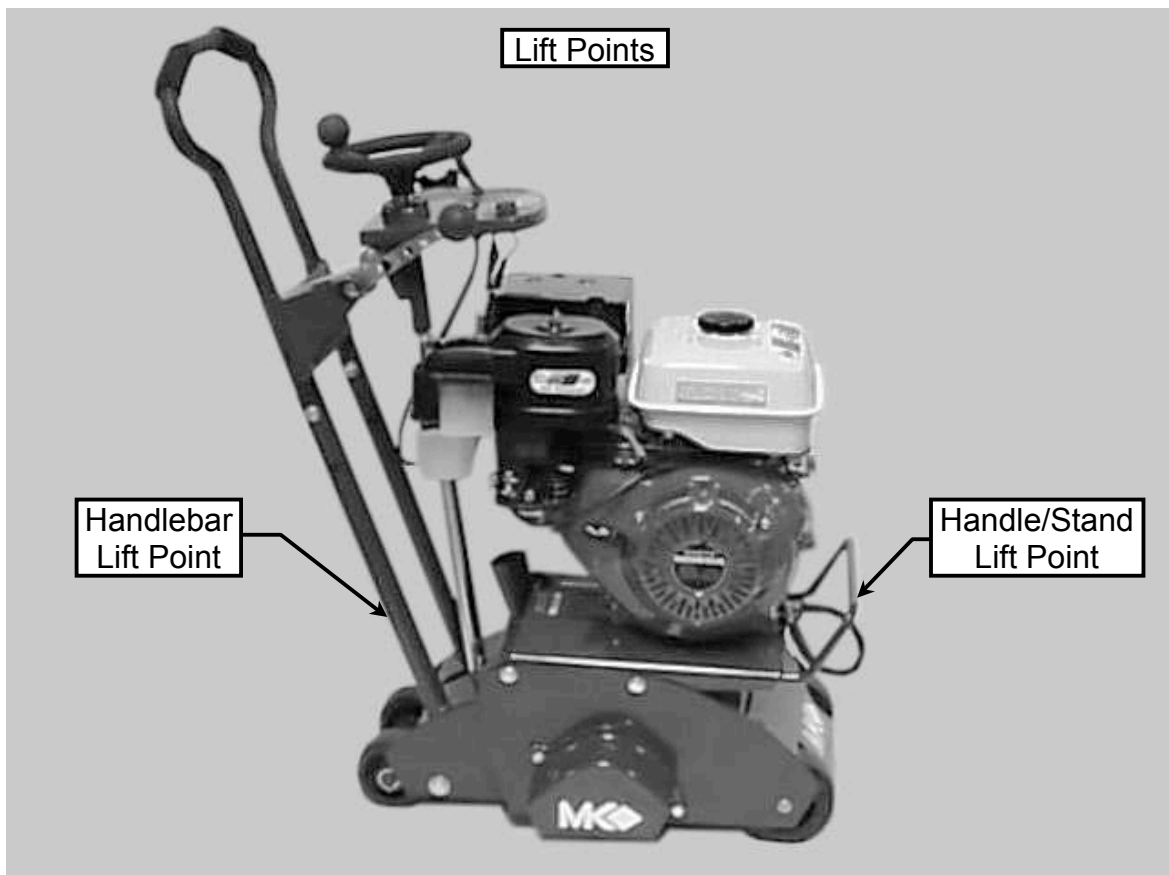
In the containers, you will find one (1) MK SG-2, one (1) cutting drum, one (1) owner's manual, one (1) Honda owner's manual and one (1) warranty card.

				
MK SG-2	Cutting Drum	Owner's Manual	Honda Owner's Manual	Warranty Card

TRANSPORT:

- CAUTION** 1. The MK SG-2 weighs approximately one hundred and eighty-five (185) pounds (with the Cutting Drum assembled the scarifier weighs approximately 230 pounds), use care when transporting.
2. Two people are required to transport the MK SG-2.

To lift the scarifier, each person will stand on opposite sides of the SG-2 and grasp the rear Handlebar and the front Handle/Stand to lift, as shown below.



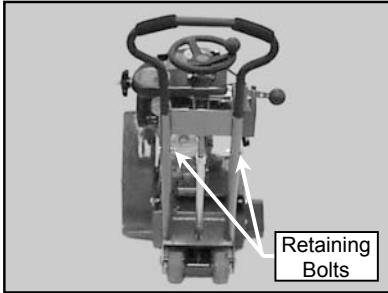
UNPACKING, TRANSPORT and ASSEMBLY

ASSEMBLY:

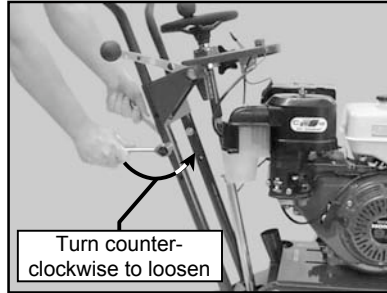
Follow the assembly instructions to prepare your MK SG-2 for operation.

1. Handlebar Adjustment:

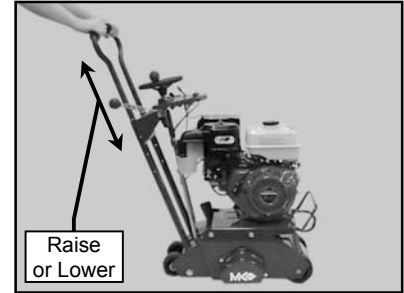
Adjust the Handlebar for for ease of operation and comfort of the user.



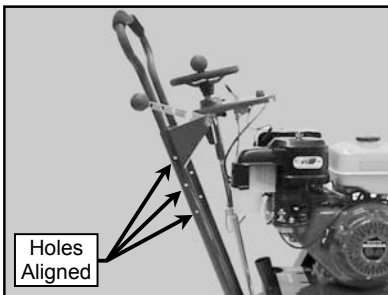
(A)
Locate the Handlebar retaining bolts



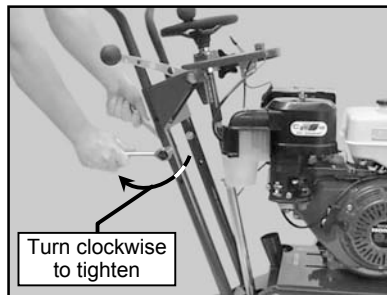
(B)
Remove the Retaining Bolts using 9/16 wrenches and/or sockets



(C)
Raise or lower the Handlebar as needed



(D)
Align one set of Retaining Bolt holes in the Handlebar to the holes in Scarifier Frame



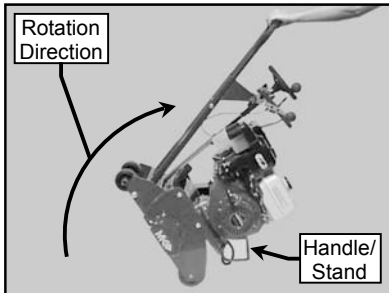
(E)
Install the Retaining Bolts and tighten using 9/16 wrenches and/or sockets

UNPACKING, TRANSPORT and ASSEMBLY

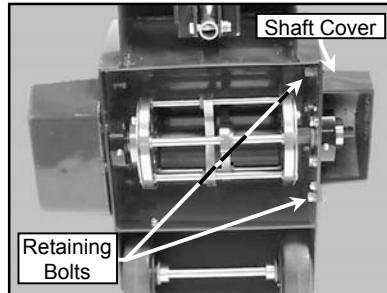
2. Cutting Drum Assembly:

Because the Cutting Drum assembly is a complex process, the assembly procedure will be broken into several parts.

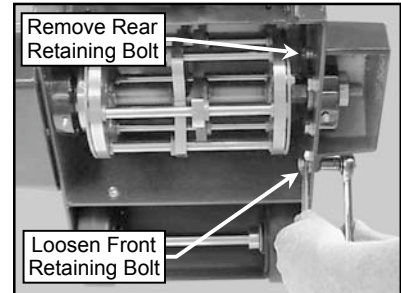
I. Cutting Drum Removal:



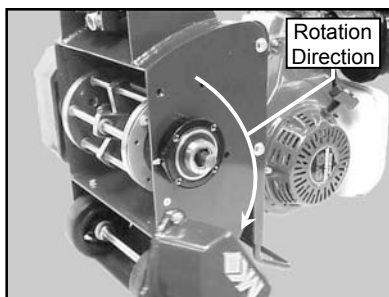
(A)
Rotate the SG-2 to rest on the Handle/Stand



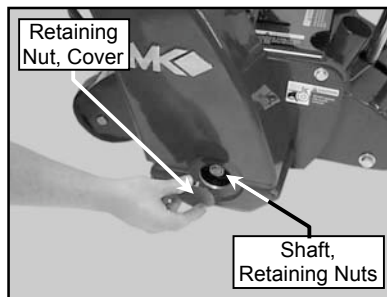
(B)
Locate the Shaft Cover, Retaining Bolts



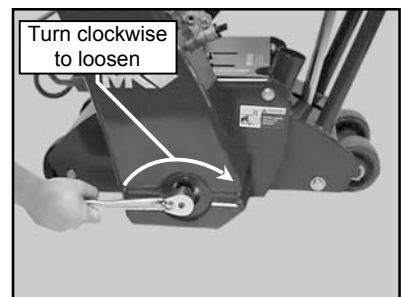
(C)
Remove the Shaft Cover, Rear Retaining Bolt and loosen the Front Retaining Bolt using 9/16 wrenches and/or sockets



(D)
Pivot the Shaft Cover to expose the end of the Cutting Drum Shaft

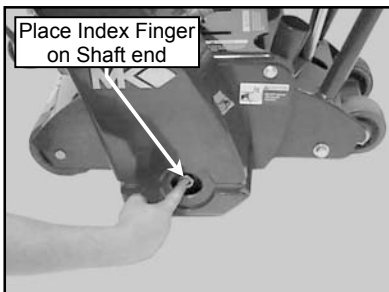


(E)
Remove the Shaft, Retaining Nut Cover from the Belt Guard to expose the Shaft, Retaining Nuts

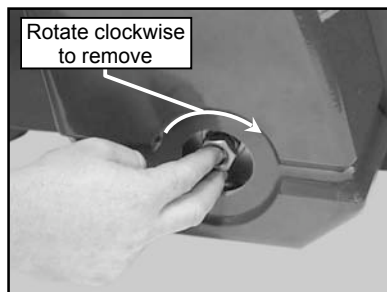


(F)
Using a 15/16-inch socket, loosen the Outer Shaft, Retaining Nut

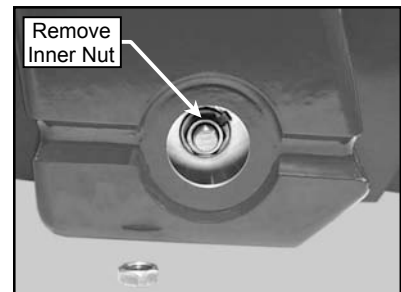
NOTE: Use care when removing the Shaft, Retaining Nuts to prevent the Retaining Nuts from falling inside the Belt Guard.



(G)
Place an Index Finger on the end of the Cutting Drum, Shaft

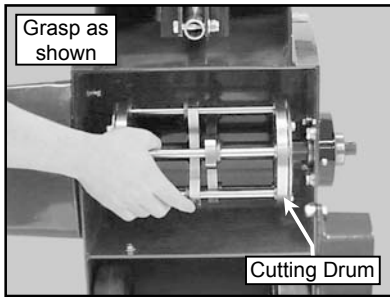


(H)
Remove the Outer Shaft, Retaining Nut using your Middle Finger as shown

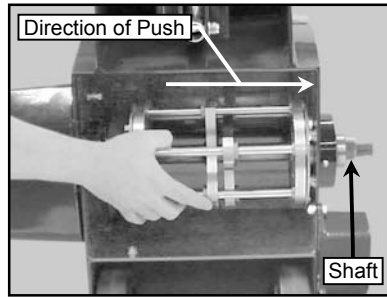


(I)
Repeat Step H for the Inner Shaft, Retaining Nut

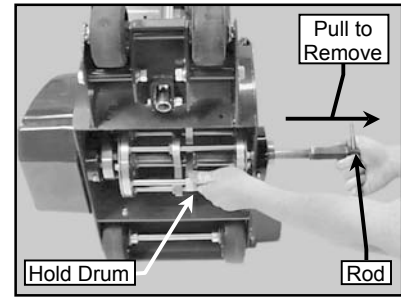
UNPACKING, TRANSPORT and ASSEMBLY



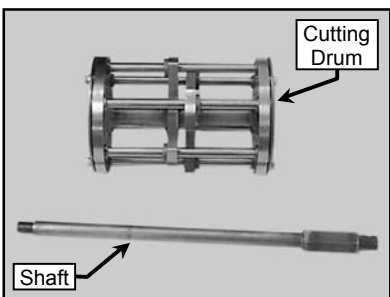
(J)
Grasp the Cutting Drum as shown



(K)
Push the Cutting Drum away from the belt side of the SG-2 to loosen the Shaft



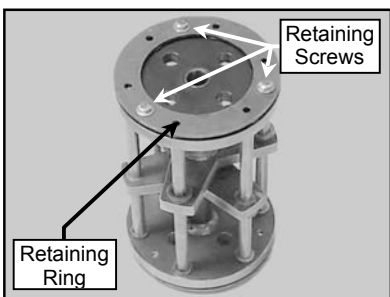
(L)
Place a rod in the hole on the end of the Shaft, and while holding the Cutting Drum, remove the Shaft



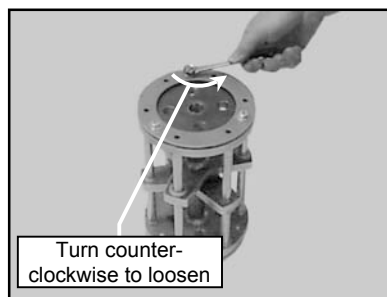
(M)
Remove the Cutting Drum and Shaft from the SG-2

II. Cutting Drum Disassembly:

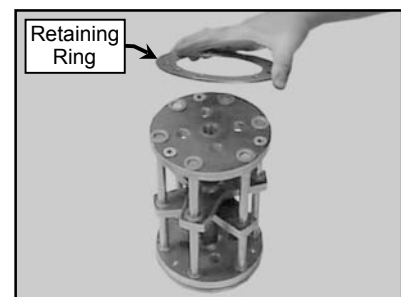
NOTE: The Cutting Drum may be disassembled from either end.



(A)
Rotate the Cutting Drum onto either end and locate the Retaining Ring, Retaining Screws

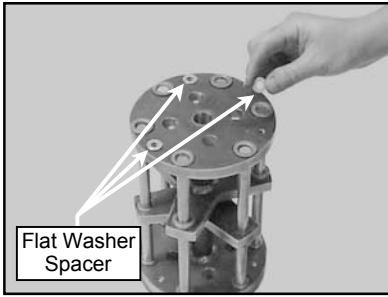


(B)
Remove the 3 Retaining Screws using a 7/16-inch wrench

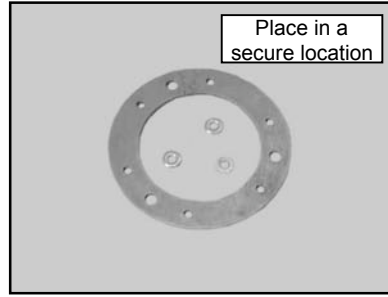


(C)
Remove the Drum Retaining Ring

UNPACKING, TRANSPORT and ASSEMBLY

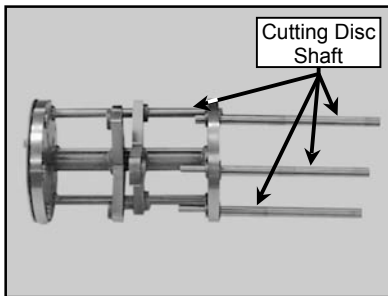


(D)
If present, remove the three Flat Washer Spacers

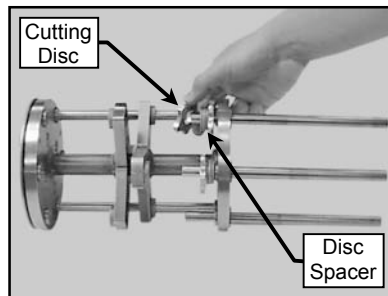


(E)
Place the Retaining Ring and Flat Washer Spacers in a secure location

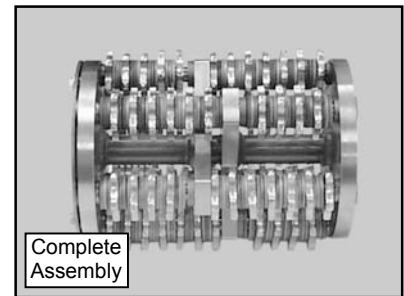
III. Cutting Drum Assembly:



(A)
Pull the Cutting Disc Shafts out the open side of the Cutting Drum as shown

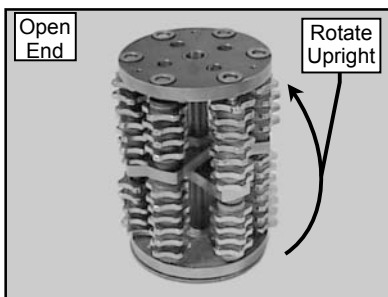


(B)
Assemble the Cutting Drum using Cutting Discs and Disc Spacers (See Cutting Drum Configuration, Page 21)

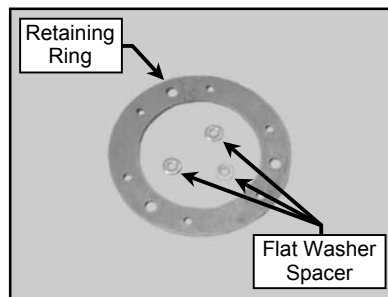


(C)
Continue with Step B until the Cutting Drum assembly is complete

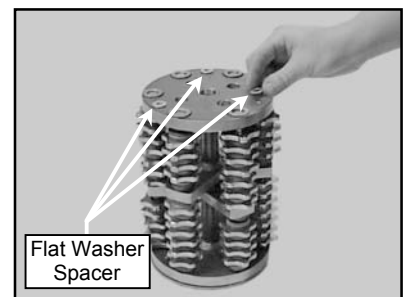
NOTE: When rotating the Cutting Drum on end, ensure the open end of the drum is up.



(D)
Place the Cutting Drum on the closed end, with the open end facing upward

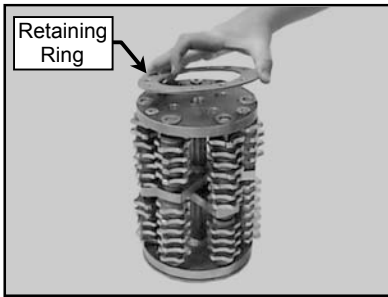


(E)
Obtain the Retaining Ring and Flat Washer Spacers

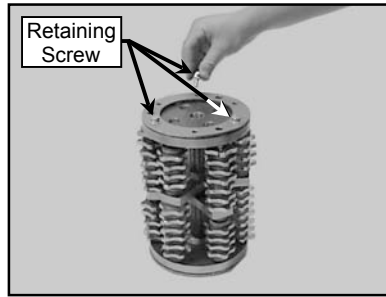


(F)
Install the 3 Flat Washer Spacers (if used) over the 3 Retaining Ring, Retaining Screw holes

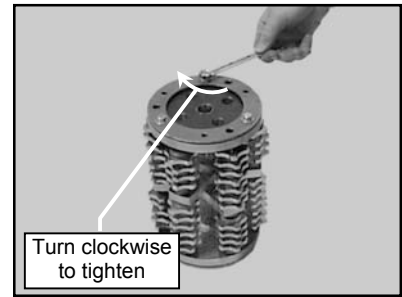
UNPACKING, TRANSPORT and ASSEMBLY



(G)
Place the Retaining Ring onto the end of the Cutting Drum, aligning the Retaining Screw Holes

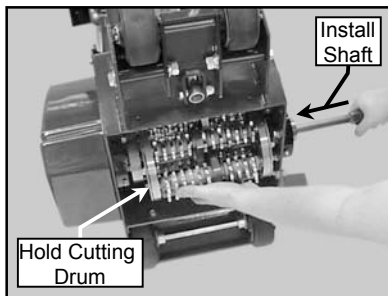


(H)
Install the 3 Retaining Screws into the Cutting Drum (do not cross-thread the screws)

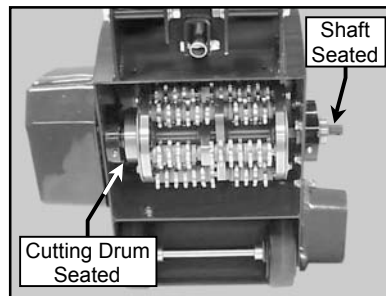


(I)
Tighten the 3 Retaining Screws using a 7/16-inch wrench

IV. Cutting Drum Installation:



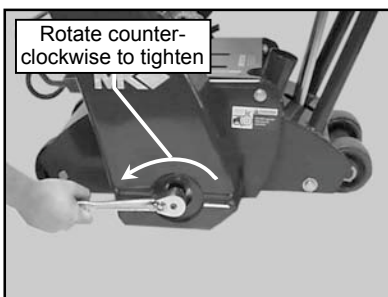
(A)
Install the Cutting Drum into the SG-2; align the Cutting Drum with the Shaft-side Bearing and install the Cutting Drum, Shaft



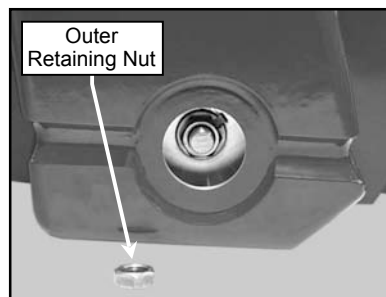
(B)
Verify the Cutting Drum and Shaft are fully installed and seated



(C)
Install the Shaft, Inner Retaining Nut



(D)
Using a 15/16-inch socket tighten the Shaft, Inner Retaining Nut

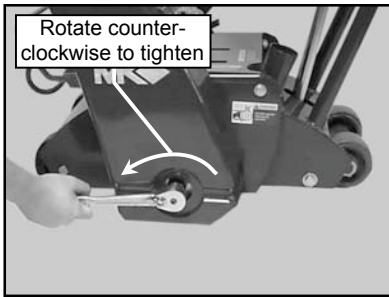


(E)
Obtain the Shaft, Outer Retaining Nut



(F)
Install the Shaft, Outer Retaining Nut

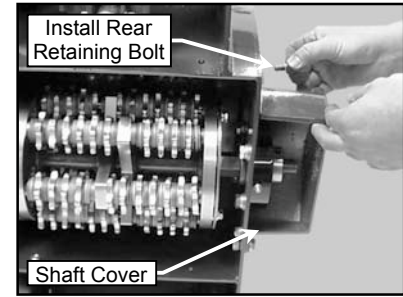
UNPACKING, TRANSPORT and ASSEMBLY



(G)
Using a 15/16-inch socket tighten the Shaft, Outer Retaining Nut



(H)
Install the Shaft, Retaining Nut Cover onto the Belt Guard



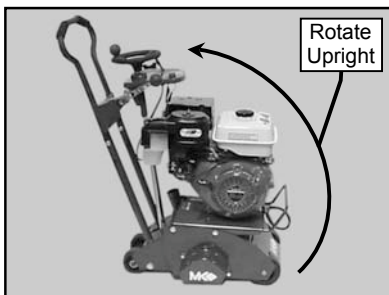
(I)
Pivot the Shaft Guard Cover into position and install the Rear Retaining Bolt



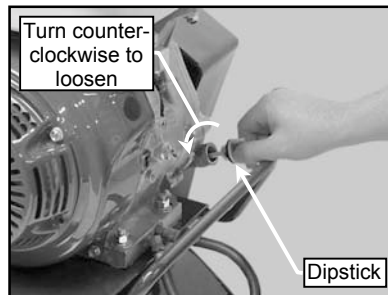
(J)
Tighten the Shaft Guard Cover Retaining Bolts using 9/16 wrenches and/or sockets

3. Filling Oil Reservoir:

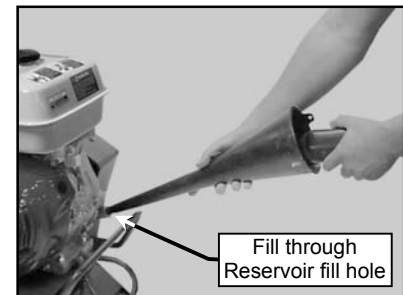
NOTE: SAE 10W-30 is recommended for general use in temperatures of -4°F (20°C) and above. If you are operating outside of this range, consult the chart in this manual. Engine Oil Capacity is 1.16 US qt (1.1l).



(A)
Rotate the SG-2 upright



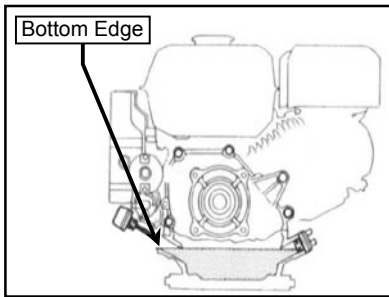
(B)
Remove Dipstick



(C)
Fill Oil Reservoir

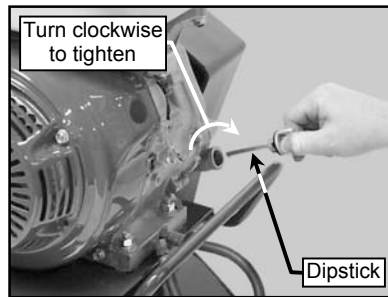
UNPACKING, TRANSPORT and ASSEMBLY

NOTE: When installing the Oil Dipstick, ensure the threads are aligned with the threads of the Oil Reservoir so as not to "cross-thread" the dipstick.



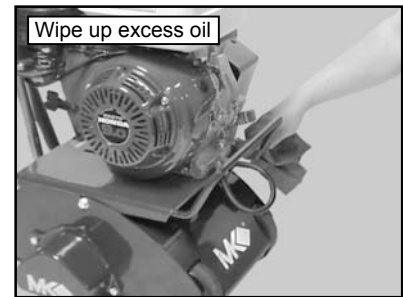
(D)

Add Oil until level reaches the bottom edge of fill hole



(E)

Install Dipstick



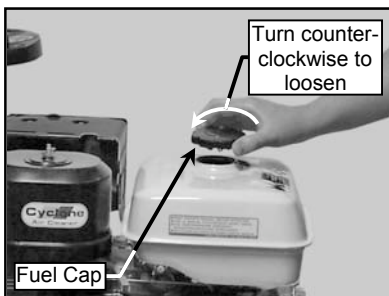
(F)

Clean up excess oil

4. Filling Fuel Tank:

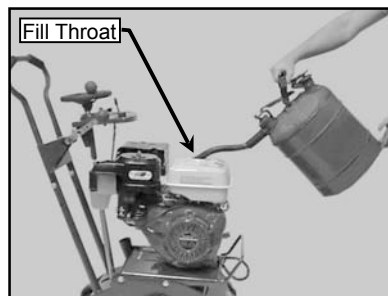
- ⚠WARNING**
1. Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel.
 2. To fuel, stop engine if running, and allow it to cool.
 3. Refuel in a well-ventilated area.
 4. Keep gasoline away from appliance pilot lights, barbecues, electric appliances, power tools, etc.
 5. Wipe up spills immediately.

- NOTES:
1. Fuel can damage paint and plastic. Be careful not to spill fuel when filling the fuel tank. Damage caused by spilled fuel IS NOT covered under the warranty.
 2. DO NOT use stale or contaminated gasoline, or an oil/gasoline mixture.
 3. Use unleaded gasoline with a pump octane rating of 86 or higher.



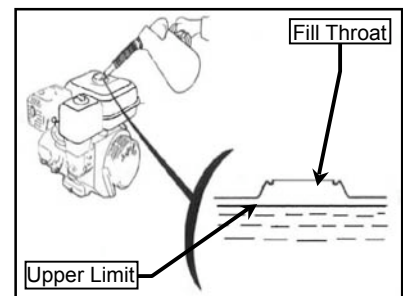
(A)

Remove the Fuel Cap



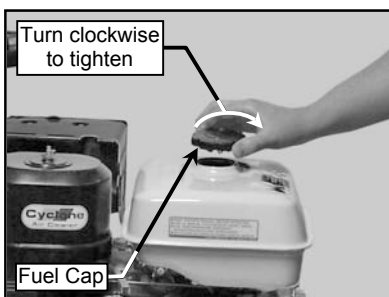
(B)

Fill Fuel Tank



(C)

Verify fuel level is below the throat of the Fuel Tank



(D)

Install the Fuel Cap

UNPACKING, TRANSPORT and ASSEMBLY

5. Vacuum Setup for Operation:

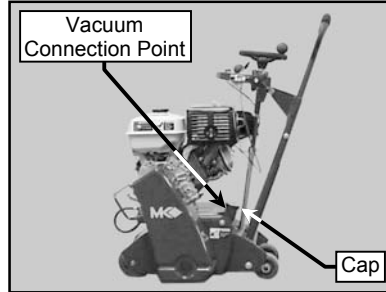
The SG-2 Scarifier is designed for use with a vacuum. MK Diamond recommends using the SG-2 with a vacuum to reduce the amount of dust generated during operation.

MK Diamond does not endorse any specific vacuum type, but does recommend the customer use the SG-2 with a dry dust collector (designed for wood dust) as opposed to a standard wet/dry vacuum.



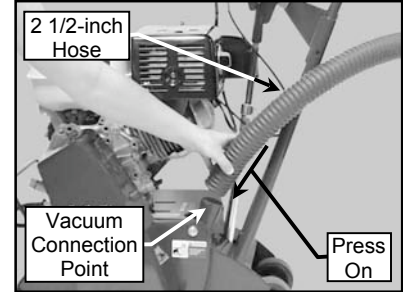
(A)

Obtain a vacuum of the type specified above



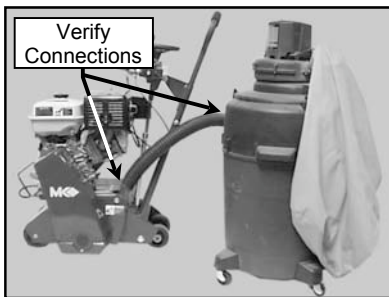
(B)

Remove the Cap from the Vacuum Connection Point



(C)

Using a 2 1/2-inch hose, connect the Vacuum to the SG-2 at the Vacuum Connection Point



(D)

Verify the hose connections are secure at the SG-2 and the Vacuum

SETUP, STARTUP, ADJUSTMENT, OPERATION and SHUTDOWN

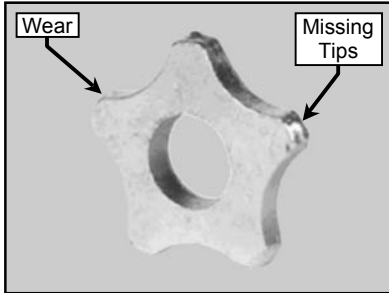
SETUP:

1. Pre-start Inspection:

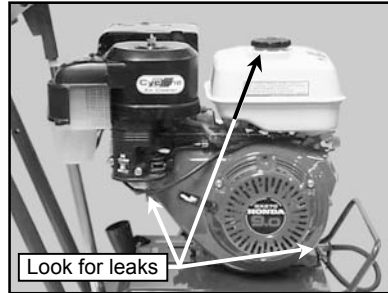
The pre-start inspection should be performed before beginning any job.

If Cutting Discs are worn, or are missing carbide inserts (carbide cutting discs only), replace the discs before starting work.

NOTE: The carbide tips on carbide cutting discs are approximately 1/4-inch in length. When the carbide disc is worn to the end of the carbide tip, the tip may fall out leaving a small hole.



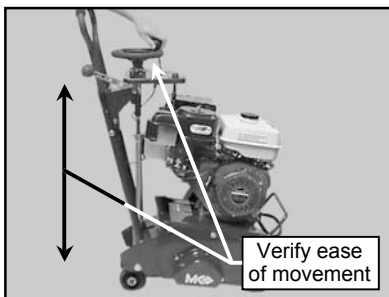
(A)
Inspect the Cutting Discs for excessive wear and missing tips



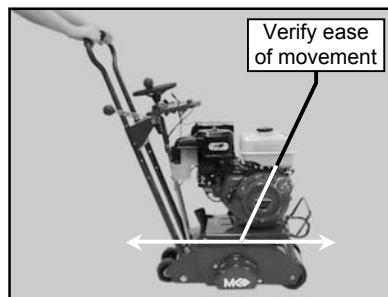
(B)
Inspect Engine for leaks



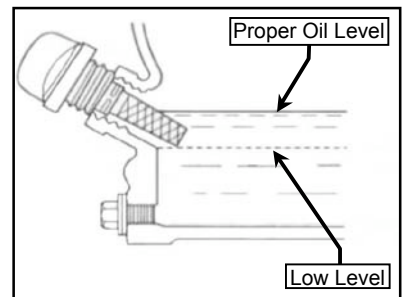
(C)
Inspect the MK SG-2 for general damage and/or loose hardware



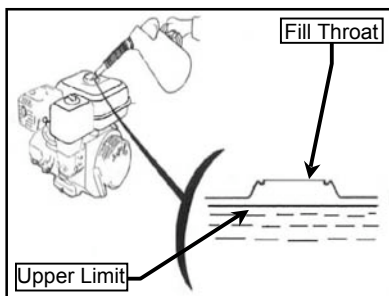
(D)
Verify the Height Adjusting Wheel moves freely and the SG-2 moves up and down smoothly



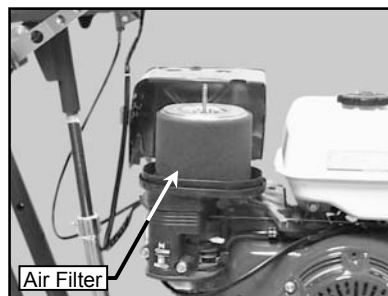
(E)
Verify the SG-2 rolls freely



(F)
Check for proper oil level (See Maintenance section if low)



(G)
Check for proper fuel level (See Maintenance section if low)



(H)
Check Air Filter for cleanliness (See Maintenance section if dirty)

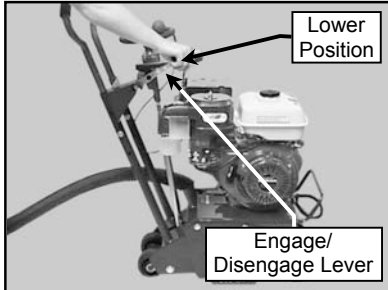
SETUP, STARTUP, ADJUSTMENT, OPERATION and SHUTDOWN

STARTUP:

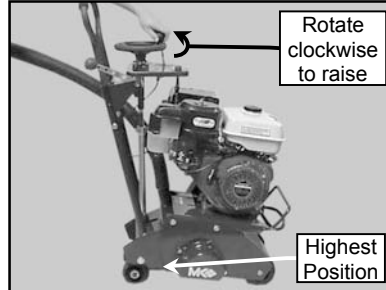
1. Engine Start:

- ⚠️WARNING 1. Carbon monoxide gas is toxic breathing it can cause unconsciousness and/or death.
2. Avoid any areas or actions that expose you to carbon monoxide.

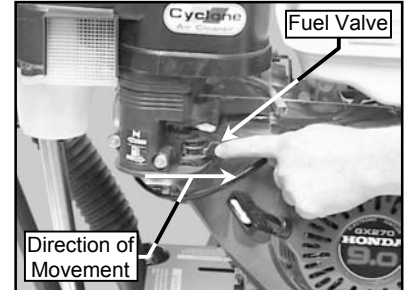
NOTE: If restarting a warm engine leave the Choke Lever in the OPEN position.



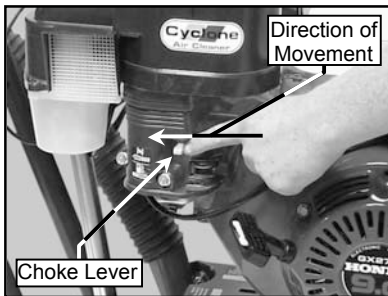
(A)
Verify the Engage/Disengage Lever is in the "Lift" position



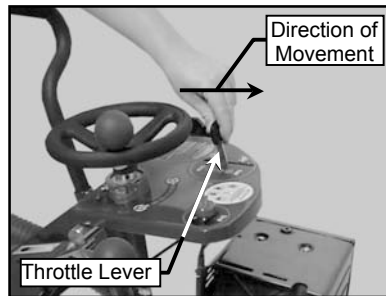
(B)
Raise the Cutting Drum to the highest position



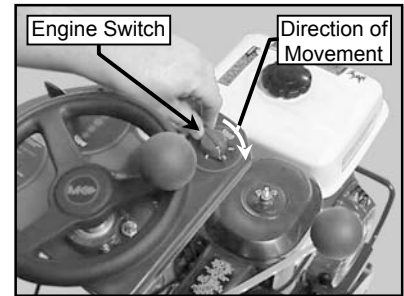
(C)
Place Fuel Valve in the ON position



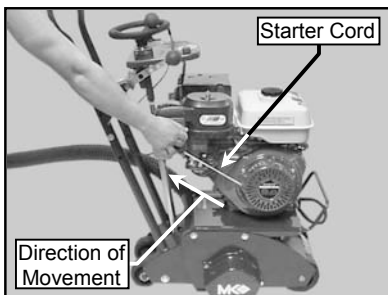
(D)
Place Choke Lever in the CLOSED position



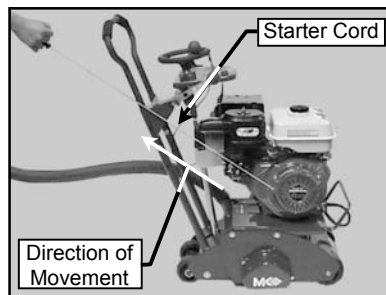
(E)
Move the Throttle Lever to 1/3rd open



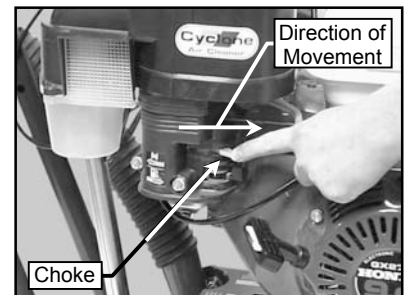
(F)
Place Engine Switch in the ON position



(G)
Pull Starter Cord slowly, until slack is removed and resistance is felt



(H)
Pull Starter Cord straight back in a smooth fast motion



(I)
Place Choke Lever in the OPEN position when engine is warm

SETUP, STARTUP, ADJUSTMENT, OPERATION and SHUTDOWN

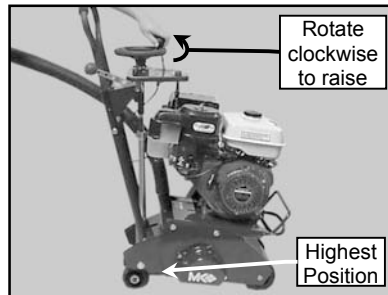
OPERATION:

1. Standard Operation:

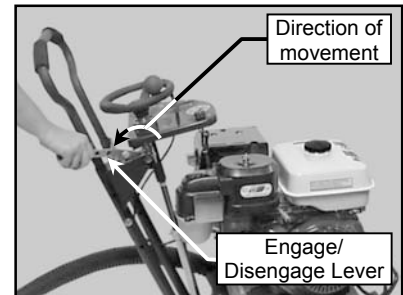
The SG-2 is capable of performing several different operations simply by changing drum configuration. The following steps describe how the SG-2 is operated in any configuration



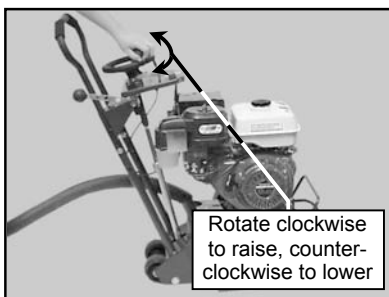
(A)
Start the SG-2 in accordance with Engine Start, Step 1 of the STARTUP section, Page, 18



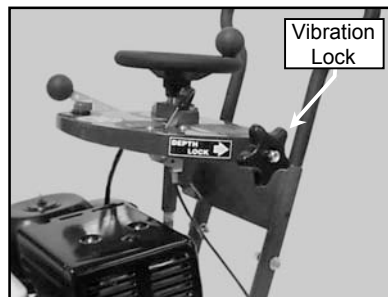
(B)
Raise the Cutting Drum to the highest position



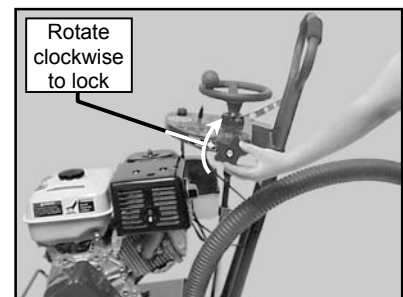
(C)
Place the Engage/Disengage Lever in the "Lower" position



(D)
Adjust the height of the Cutting Drum for the Job being performed
(See Step 2, Page 21 for)

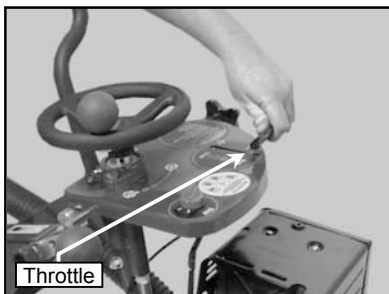


(E)
Locate the Vibration Lock

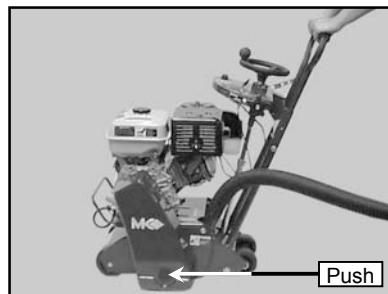


(F)
Lock the height of the drum using the Vibration Lock

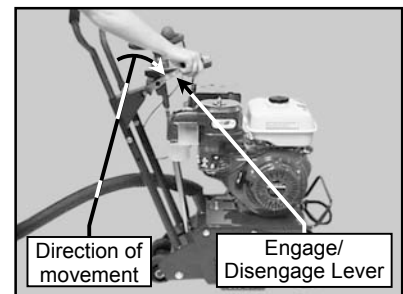
NOTE: When turning the SG-2, lift the Rear Wheels off the ground, and pivot the SG-2 on the Front Wheels.



(G)
Adjust the speed of the SG-2 using the Throttle, as desired



(H)
Push the SG-2 at a smooth, even pace to perform the cut



(I)
Place the Engage/Disengage Lever in the "Lift" when the cut is complete

SETUP, STARTUP, ADJUSTMENT, OPERATION and SHUTDOWN

2. Basic Grinding Techniques:

NOTE: The Height Adjustment Hand-wheel will adjust the depth (up or down) of the Cutting Drum by 1/16 of an inch per turn.

I. Leveling a Surface:

- A) Configure the Cutting Drum for Grooving (See Section 3)
- B) Locate the lowest spot and highest spot on the surface
- C) Adjust the height of the Cutting Drum to remove approximately 1/16 of an inch from the High spot
- D) Set the Vibration Lock
- E) Move the SG-2 in a smooth forward motion.
- F) When the Cutting Discs are no longer contacting the surface, return the SG-2 to the starting position
- G) Repeat Steps A through E until the Surface is level (See Figure 1)

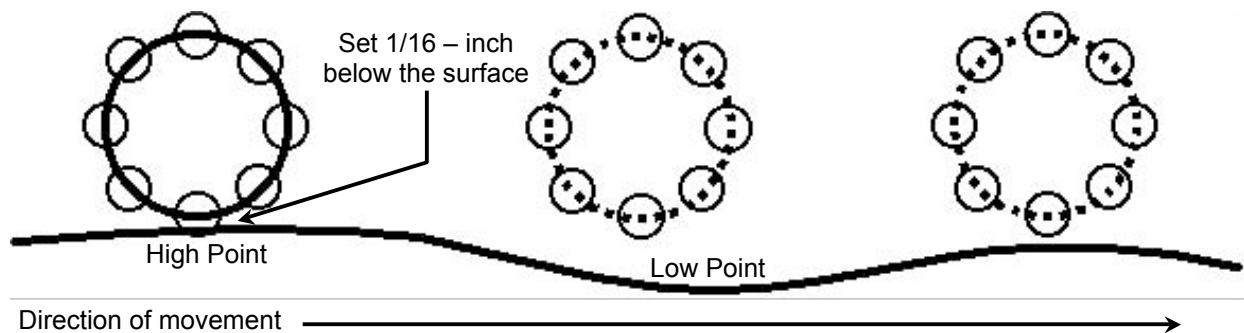


Figure 1

II. Cutting / Grooving a Surface:

- A) Configure the Cutting Drum for Grooving (See Section 3)
- B) Adjust the Cutting Drum Depth until the SG-2 is cutting grooves approximately 1/8 of an inch
- C) Move the SG-2 in a smooth forward motion
- D) Should the Cutting Discs loose contact with the surface, repeat Step B and continue forward motion
- E) Repeat Steps A through D until the desired number of grooves are cut (See Figure 2)

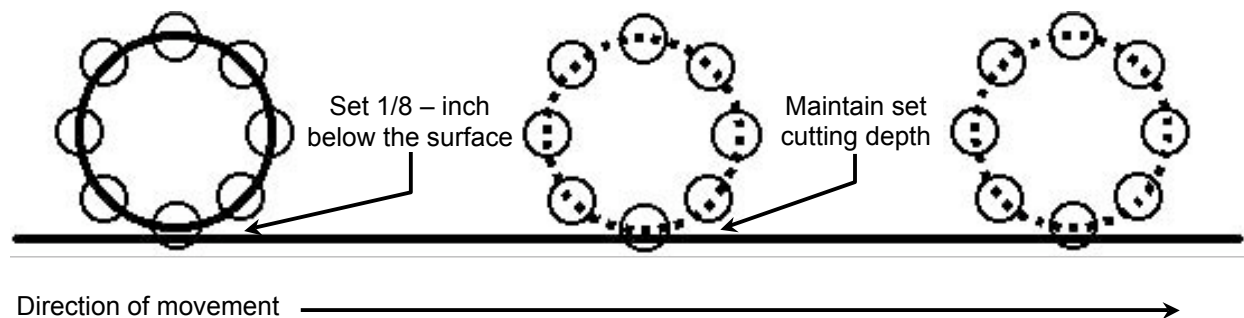


Figure 2

SETUP, STARTUP, ADJUSTMENT, OPERATION and SHUTDOWN

III. Roughening or Preparing a Surface:

- Configure the Cutting Drum for Grooving (See Section 3)
- Adjust the Cutting Drum Depth until the Cutting Discs are contacting the surface (increase the depth of the Cutting Drum as necessary to increase the "roughness of the surface"
- Move the SG-2 in a smooth forward motion
- Should the Cutting Discs loose contact with the surface, repeat Step B and continue forward motion
- Repeat Steps A through D until the desired number of grooves are cut (See Figure 3)

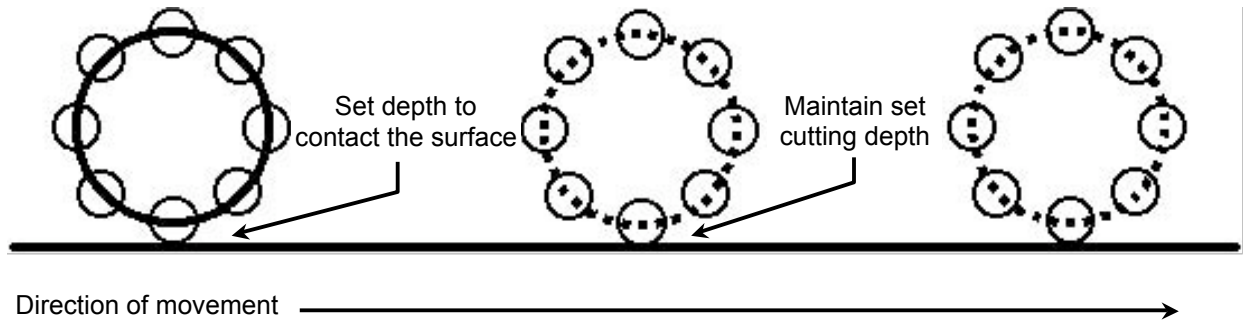
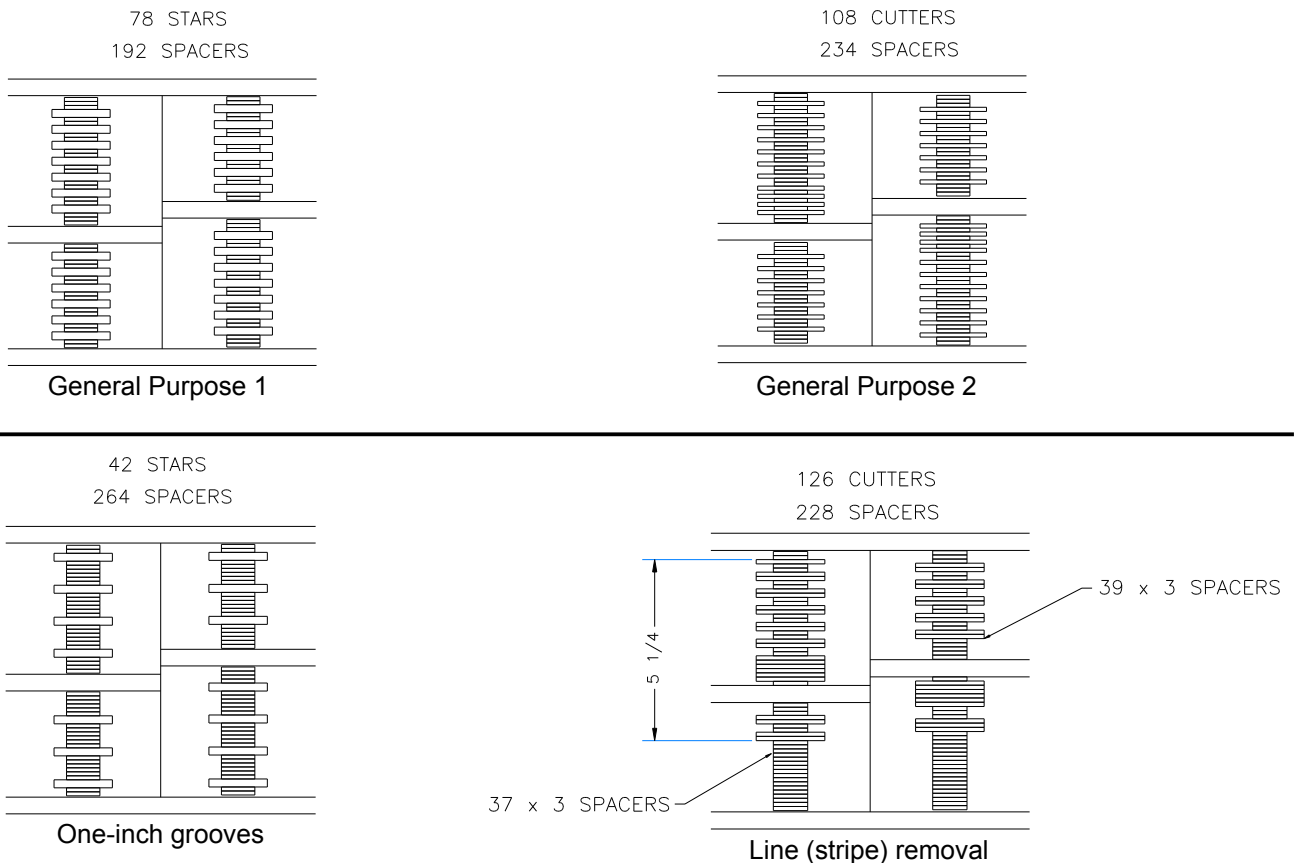


Figure 3

3. Cutting Drum Configurations:

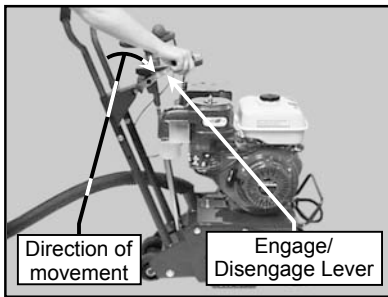
The following Cutting Drum configurations allow the user to set up the SG-2 Cutting Drum for the most commonly used configurations.



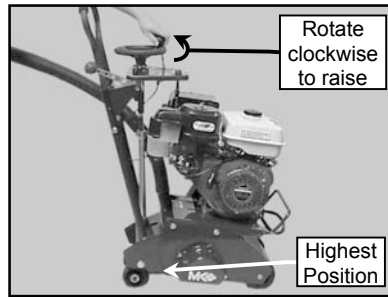
SETUP, STARTUP, ADJUSTMENT, OPERATION and SHUTDOWN

SHUTDOWN:

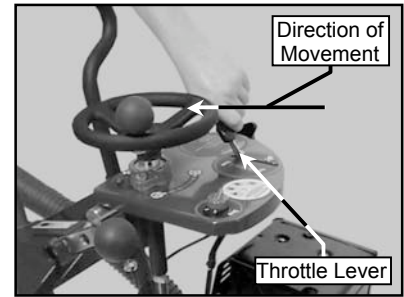
1. Normal Engine Shutdown:



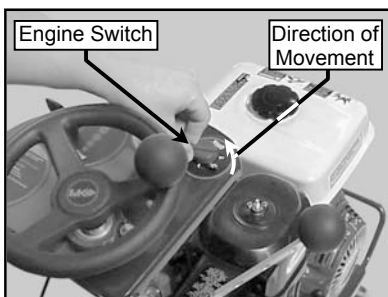
(A)
Verify the Engage/Disengage Lever is in the "Lift" position



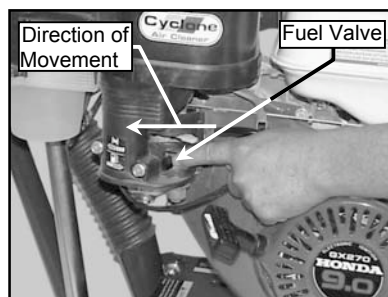
(B)
Raise the Cutting Drum to the highest position



(C)
Move the Throttle Lever to lower blade speed

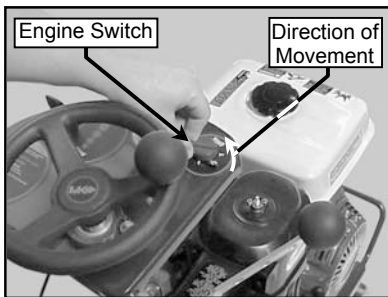


(D)
Place Engine Master Switch in the OFF position

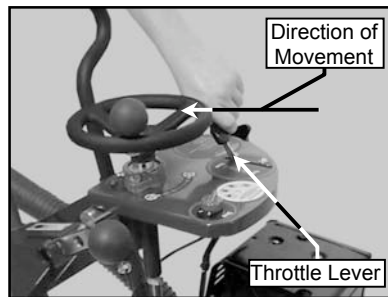


(E)
Place Fuel Valve in the OFF position

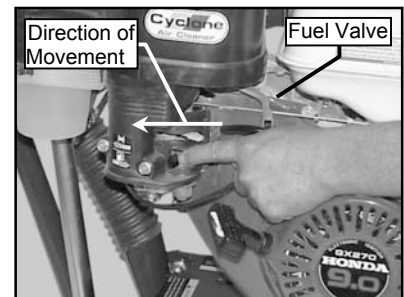
2. Emergency Engine Shutdown:



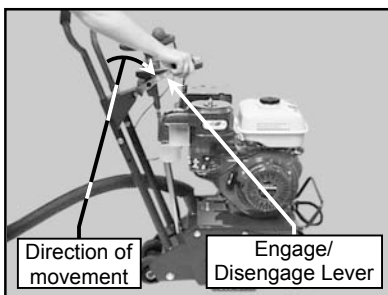
(A)
Place Engine Master Switch in the OFF position



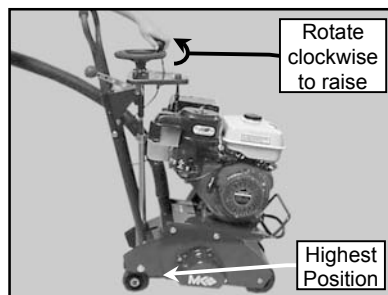
(B)
Move the Throttle Lever to lower blade speed



(C)
Place Fuel Valve in the OFF position



(D)
Verify the Engage/Disengage Lever is in the "Lift" position



(E)
Raise the Cutting Drum to the highest position

SETUP, STARTUP, ADJUSTMENT, OPERATION and SHUTDOWN

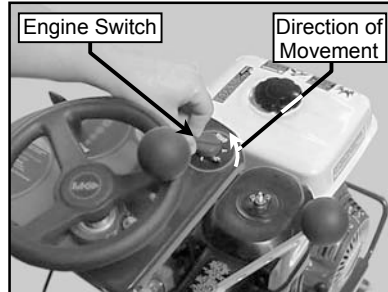
3. Cleanup:

⚠CAUTION Engine parts are extremely hot following use, allow engine to cool 1/2-hour before cleaning. Use care during cleanup to avoid injury.

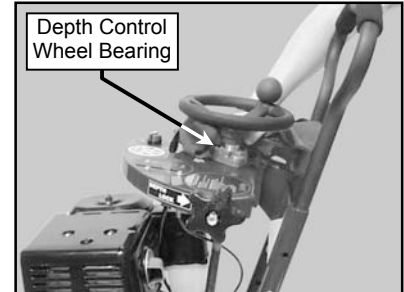
- NOTE:
1. To extend operating life, the scarifier should be cleaned following every use.
 2. Using a garden hose or pressure washer can force water into the air cleaner or muffler opening.
 3. Use care when cleaning around electrical components.



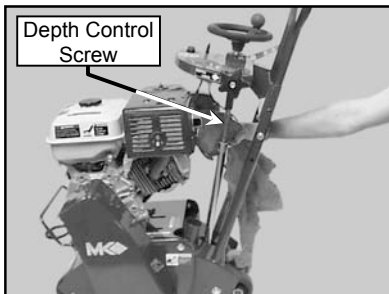
(A)
Clean the SG-2 with soap and water



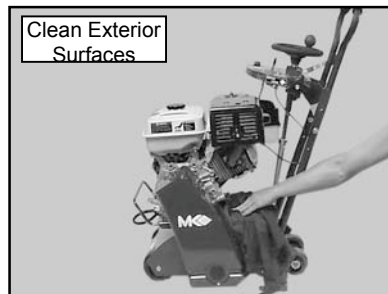
(B)
Verify the engine is off and cool before beginning to clean



(C)
Clean around the Depth Control Wheel bearing



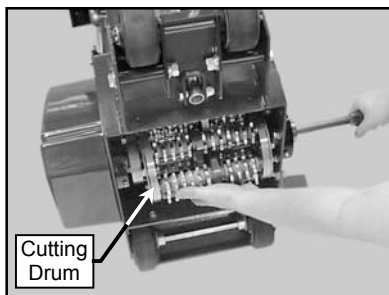
(D)
Clean the Depth Control Screw



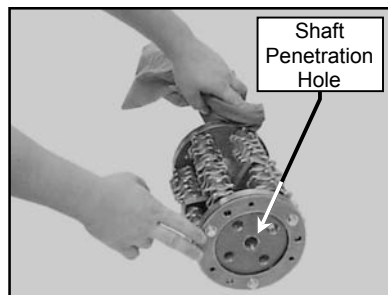
(E)
Clean the remainder of the exterior surface of the scarifier (except the engine)



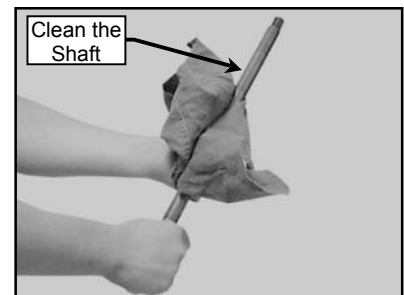
(F)
Clean engine throttle linkage with a dry cloth



(G)
Remove the Cutting Drum (See Setup Section)



(H)
Clean the Shaft Penetration Hole of the Cutting Drum



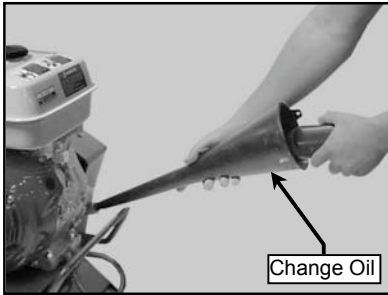
(I)
Clean the Cutting Drum, Shaft

MAINTENANCE AND TROUBLESHOOTING

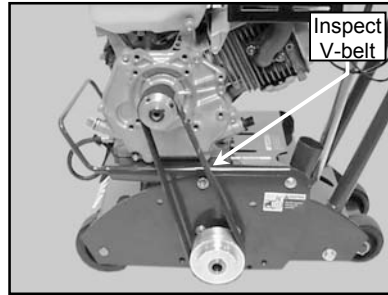
MAINTENANCE:

1. New Maintenance:

Perform the following after initial purchase and operation of the saw.



(A)
Change engine oil after 1st month or 1st 20 operating hours
(See Engine Oil Change)

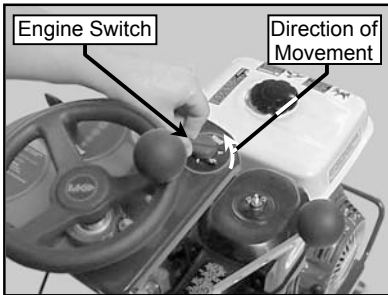


(B)
Check and adjust tension on all V-belts following 1st 48 hours of operation
(See V-belt Inspection)

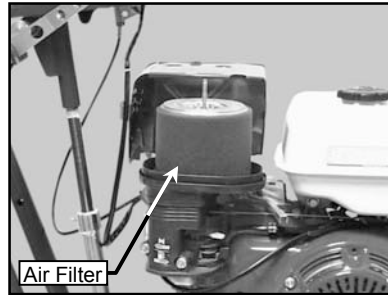
2. Maintenance Following Use:

The following maintenance should be performed following each use. Use Light oil, such as WD-40 or 3 in 1 when lubricating parts.

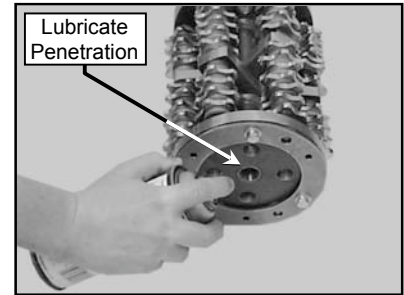
NOTE: Due to the material used in the Cutting Drum and Shaft, it is critical that Steps C and D be performed.



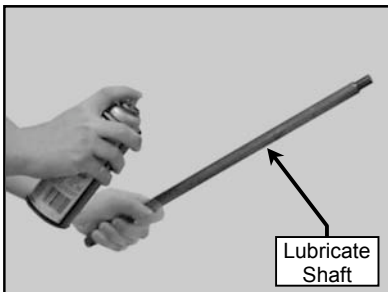
(A)
Shutdown the Engine
(See Normal Engine Shutdown)



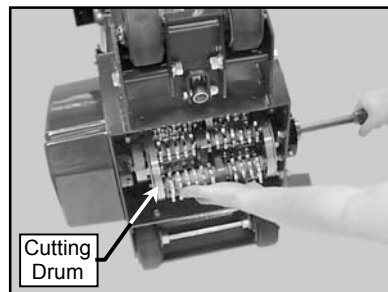
(B)
Check Air Filter for cleanliness
(See Maintenance section if dirty)



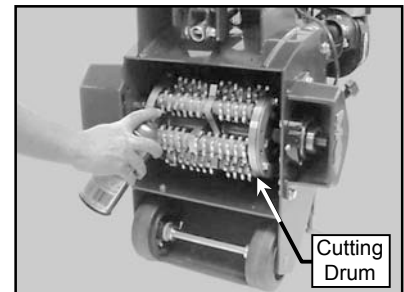
(C)
Lubricate the Shaft Penetration Hole of the Cutting Drum



(D)
Lubricate the Cutting Drum Shaft cleaned in Step I of the Cleanup Section

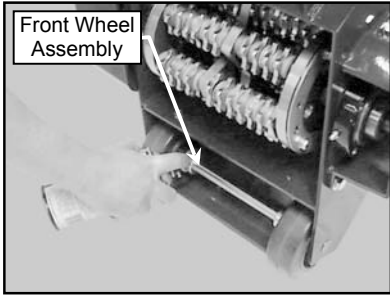


(E)
Reinstall the Cutting Drum into the SG-2

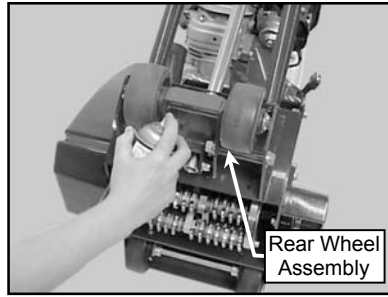


(F)
Lubricate the outer surface of the Cutting Drum

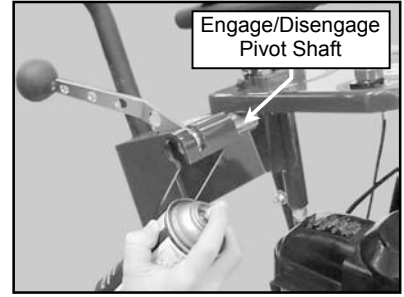
MAINTENANCE AND TROUBLESHOOTING



(G)
Lubricate the Front Wheel Assembly



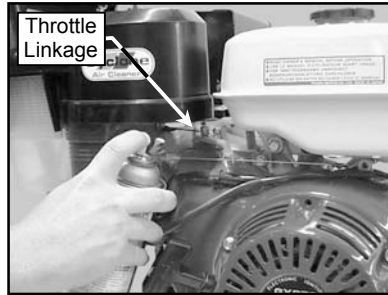
(H)
Lubricate the Rear Wheel Assembly



(I)
Lubricate the Engage/Disengage Pivot Shaft



(J)
Lubricate Clean the Depth Control Screw



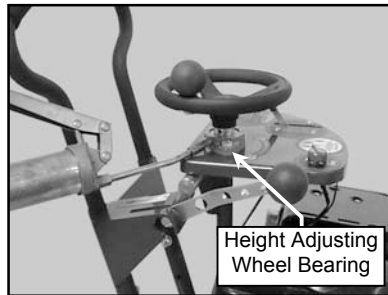
(K)
Reinstall engine Throttle Linkage

3. Monthly Maintenance:

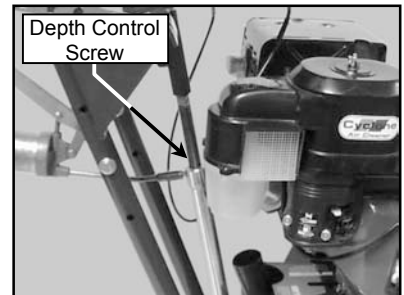
The following should be performed monthly. Items should be lubricated using a waterproof grease.



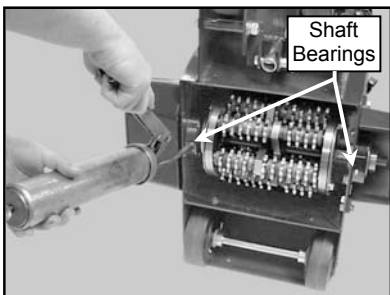
(A)
Verify the tightness of all bolts and screws found on the SG-2



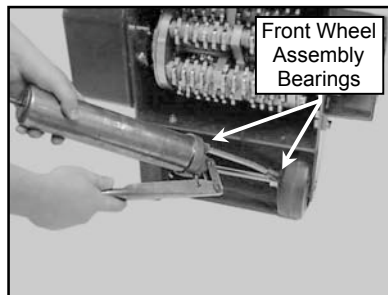
(B)
Lubricate the Height Adjusting Wheel Bearing



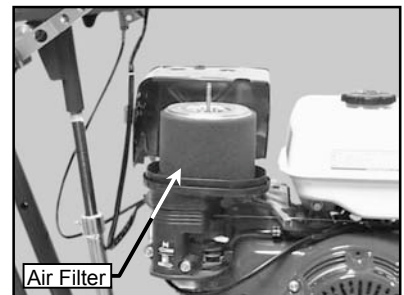
(C)
Lubricate the Depth Control Screw



(D)
Lubricate the Cutting Drum, Shaft Bearings



(E)
Lubricate the Front Wheel Assembly Bearings

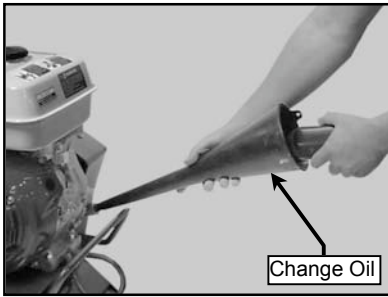


(F)
Clean engine Air Filter
(See Engine Air Filter Inspection Cleaning and Replacement)

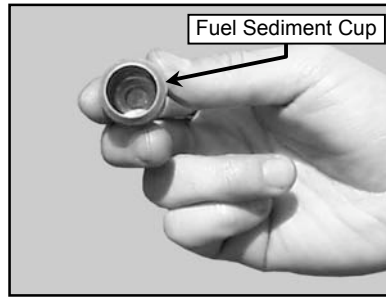
MAINTENANCE AND TROUBLESHOOTING

4. Six (6) Month Maintenance:

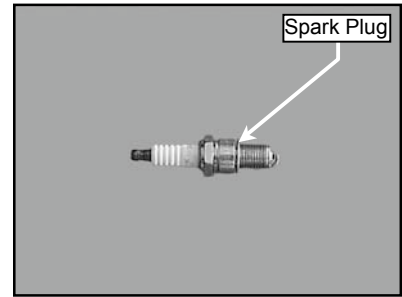
Perform the following maintenance every six months.



(A)
Change engine oil
(See Engine Oil Change)



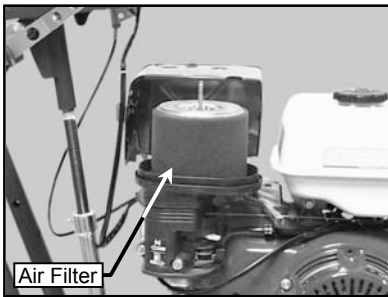
(B)
Clean Fuel Sediment Cup
(See Fuel Sediment
Cup Cleaning)



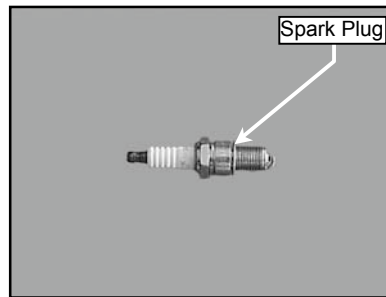
(C)
Clean and Readjust engine
Spark Plug (See Spark Plug
Adjustment and Replacement)

5. Yearly and Two-Year Maintenance:

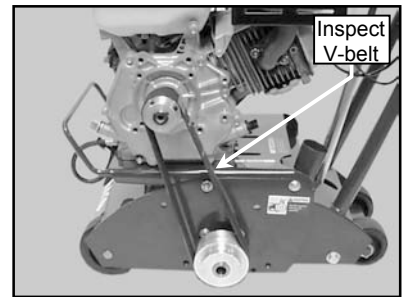
Perform the following maintenance every year.



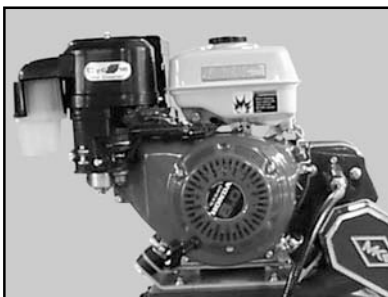
(A)
Replace engine Air Filter
(See Engine Air Filter Inspection
Cleaning and Replacement)



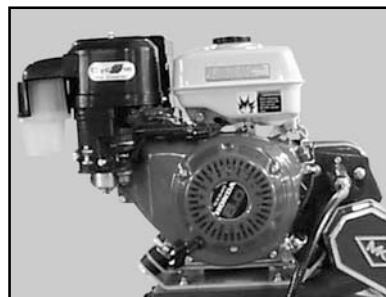
(B)
Replace Spark Plug
(See Spark Plug
Adjustment and Replacement)



(C)
Inspect V-belts
(See V-Belt Inspection,
Adjustment and Replacement)



(D)
Check/Adjust Idle Speed
Check/Adjust Valve Clearance
(Shop Maintenance Required)



(E)
Check Fuel Line
(2-Year Maintenance Only,
Shop Maintenance Required)

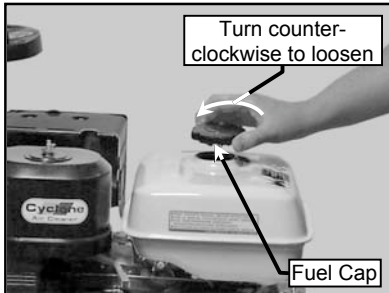
MAINTENANCE AND TROUBLESHOOTING

6. Check Fuel Level:

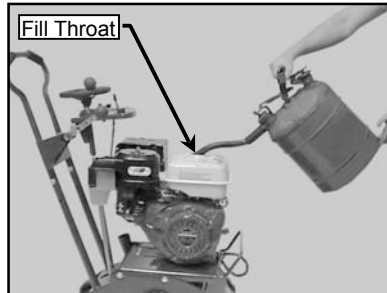
⚠WARNING

1. Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel.
2. To fuel, stop engine if running and allow it to cool.
3. Refuel in a well-ventilated area.
4. Keep gasoline away from appliance pilot lights, barbecues, electric appliances, power tools, etc.
5. Wipe up spills immediately.

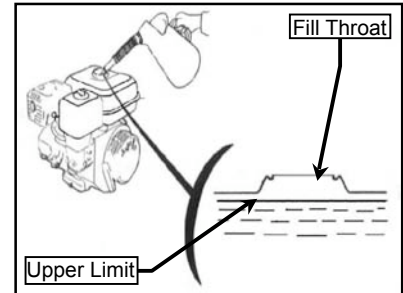
- NOTES:
1. Fuel can damage paint and plastic. Be careful not to spill fuel when filling the fuel tank. Damage caused by spilled fuel IS NOT covered under the warranty.
 2. DO NOT use stale or contaminated gasoline or an oil/gasoline mixture.
 3. Use unleaded gasoline with a pump octane rating of 86 or higher.



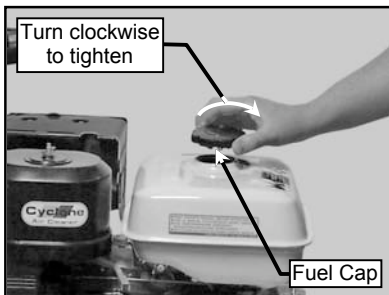
(A)
Remove Fuel Cap



(B)
Fill Fuel Tank



(C)
Verify fuel level is below the throat of the Fuel Tank

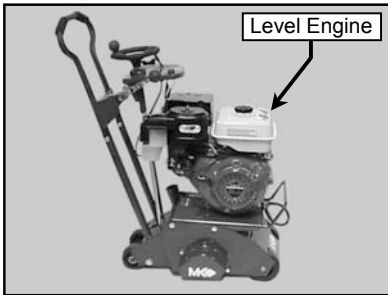


(D)
Install Fuel Cap

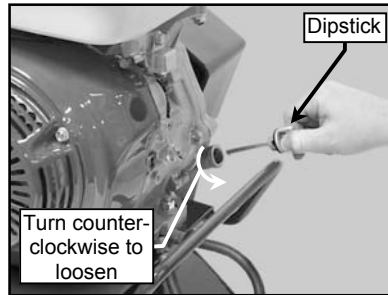
MAINTENANCE AND TROUBLESHOOTING

7. Checking Oil Level:

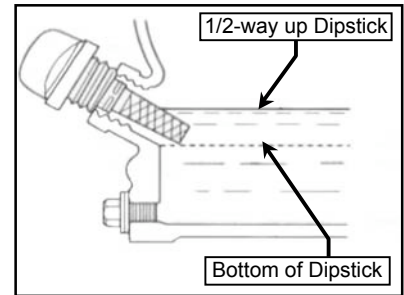
- NOTES: 1. Engine Oil Capacity is 1.16 US qt (1.1 l).
2. When installing the Oil Dipstick, ensure the threads are aligned with the threads of the Oil Reservoir so as not to "cross-thread."



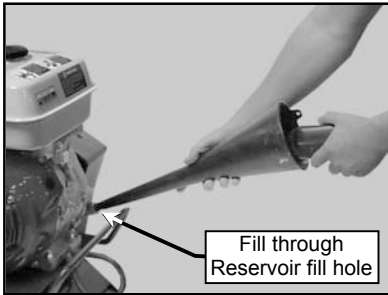
(A)
Verify the Engine is upright and level



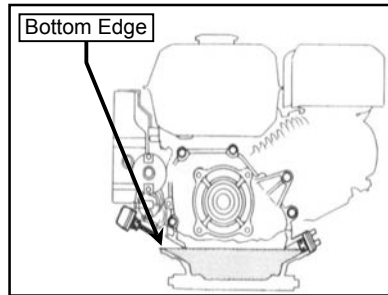
(B)
Remove Dipstick



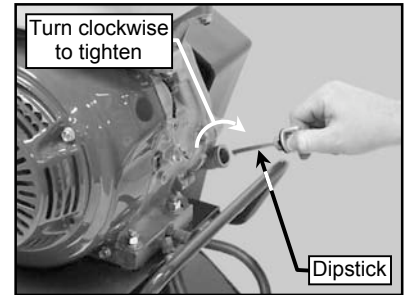
(C)
Check Oil Level
If level is normal, go to step F



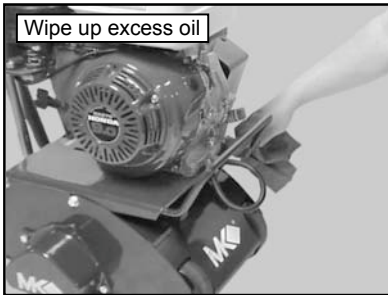
(D)
Fill Oil Reservoir



(E)
Add Oil until level reaches
The bottom edge of fill hole



(F)
Install Dipstick



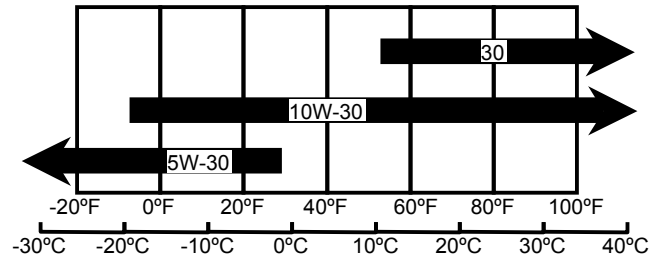
(G)
Clean up excess oil

MAINTENANCE AND TROUBLESHOOTING

8. Changing Oil:

Oil is a major factor affecting performance and service life. Use 4-stroke automotive detergent oil.

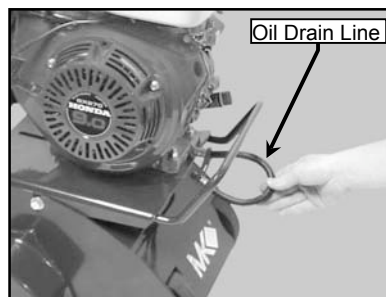
SAE 10W-30 is recommended for general use. Other viscosity oil shown in the chart below may be used when the average temperature in your area is within the recommended range.



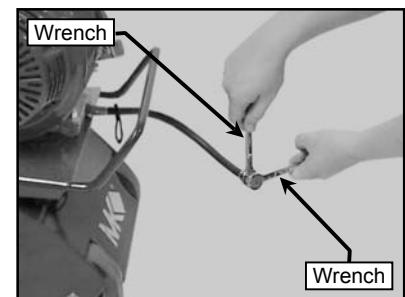
- NOTES:
1. Drain used oil while the engine is warm.
 2. Conform to Federal, State and Local laws, codes and ordinances relative to environmental protection for oil disposal.



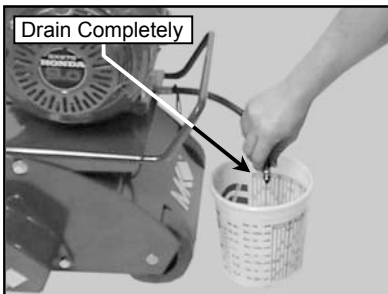
(A)
Lower the SG-2 to its lowest position



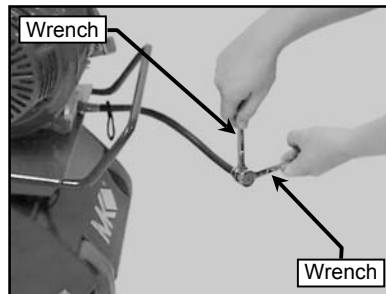
(B)
Free the Oil Drain Line



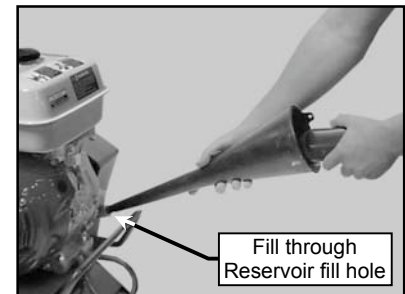
(C)
Place a catch basin below the Oil Drain Line and remove the Drain Cap using two 1/2 –inch wrenches



(D)
Drain Oil the engine oil (conform to Federal, State and Local laws for disposal)



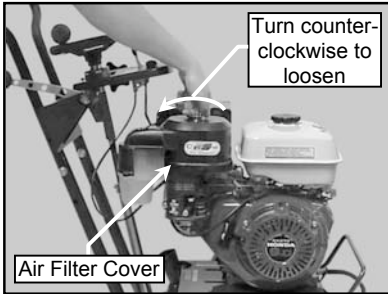
(E)
Using two 1/2 – inch wrenches, install the Drain Cap onto the Oil Drain Line (Ensure the Cap is tight)



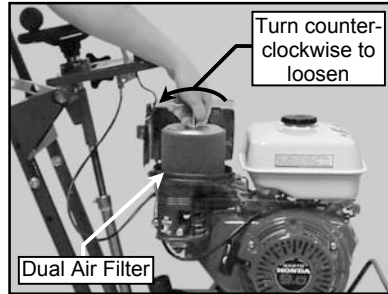
(F)
Fill the Oil Reservoir (See Checking Oil Level for filling instructions)

MAINTENANCE AND TROUBLESHOOTING

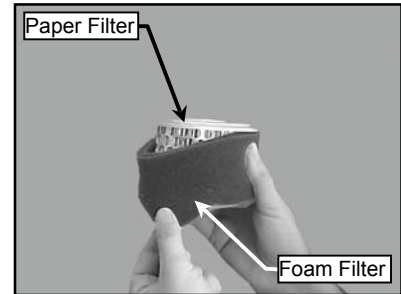
9. Engine Air Filter Inspection Cleaning and Replacement:



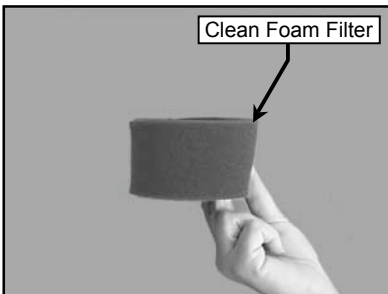
(A)
Remove the Air Filter Cover



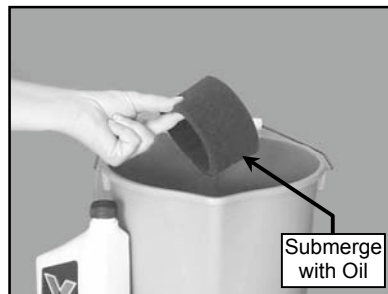
(B)
Remove the Dual Air Filter



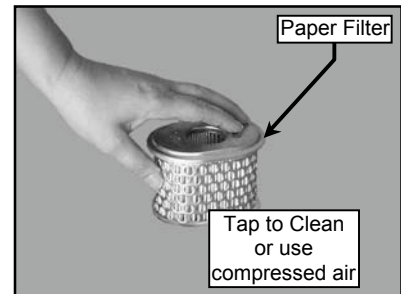
(C)
Separate the outer Foam Filter from the inner Paper Filter



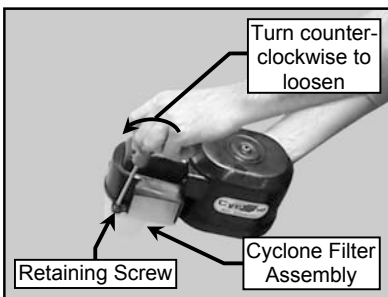
(D)
Clean the Foam Filter with warm soapy water – allow to air dry



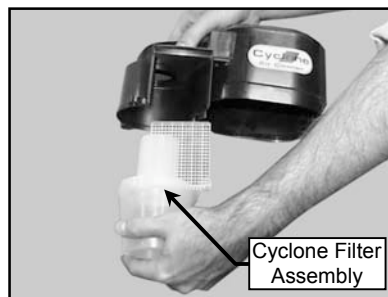
(E)
Dip the Foam Filter in clean engine oil – Squeeze out excess oil



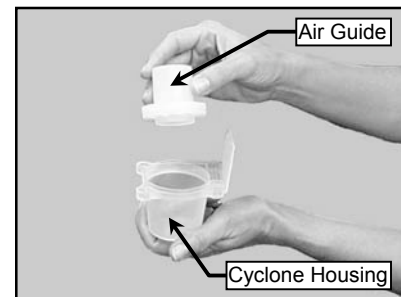
(F)
Inspect Paper Filter, tap on hard surface to clean or use 30psi air (direct air inside filter to clean)



(G)
Remove the 3 Cyclone Filter Assembly retaining screws

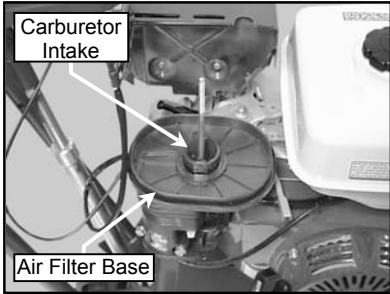


(H)
Remove the Cyclone Filter Assembly from the Air Filter Cover

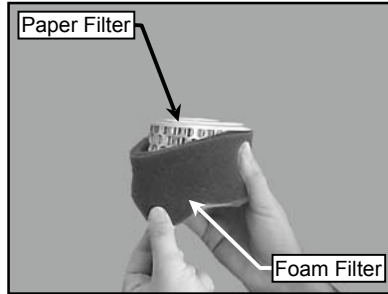


(I)
Separate the Air Guide from the Cyclone Housing and clean using soap and water

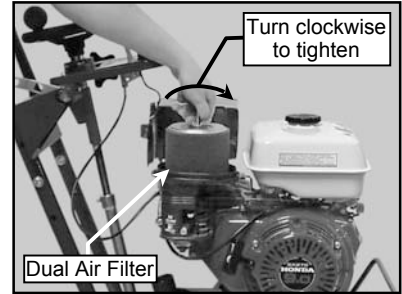
MAINTENANCE AND TROUBLESHOOTING



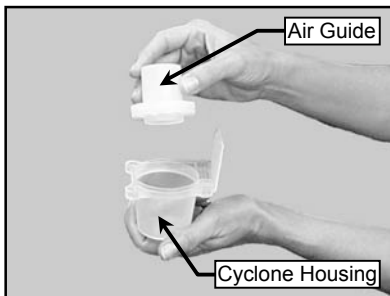
(J)
Clean the Air Filter Base DO NOT allow dirt to enter the carburetor intake



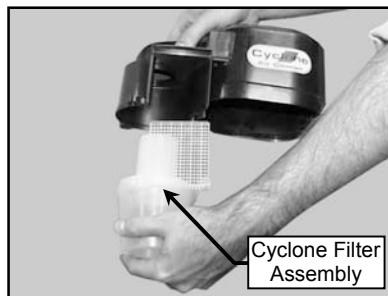
(K)
Install the Foam Filter over the Paper Filter



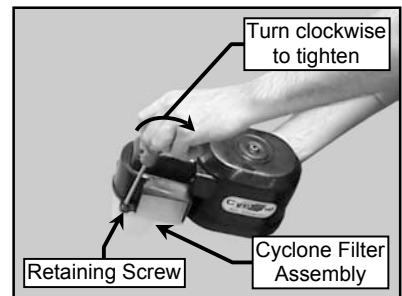
(L)
Install the Dual Air Filter



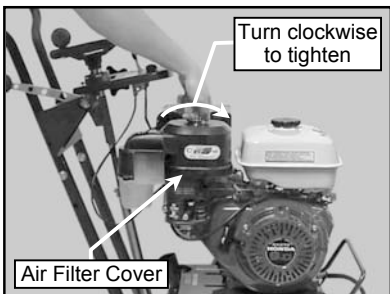
(M)
Install the Air Guide into the Cyclone Housing



(N)
Install the Cyclone Filter Assembly into the Air Filter Cover



(O)
Install the 3 Cyclone Filter Assembly retaining screws



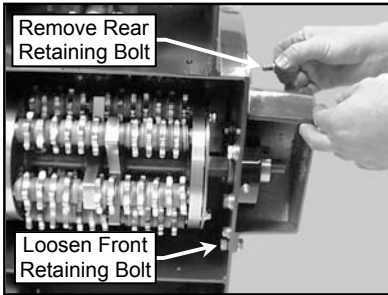
(P)
Install the Air Filter Cover

MAINTENANCE AND TROUBLESHOOTING

10. Cutting Drum Change-out:

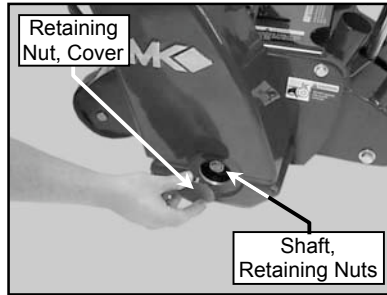


⚠ WARNING Disconnect the tool before servicing and when changing accessories, such as blades, bits, cutters, and the like.



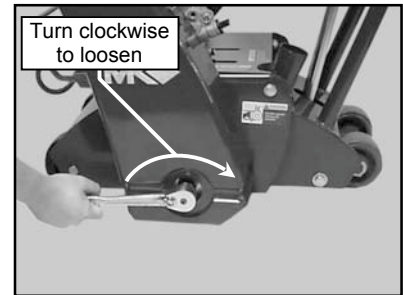
(A)

Remove the Shaft Cover, Rear Retaining Bolt and loosen the Front Retaining Bolt using 9/16 wrenches and/or sockets



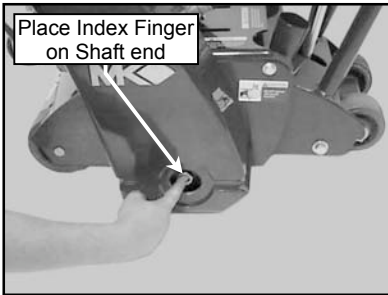
(B)

Remove the Shaft, Retaining Nut Cover from the Belt Guard to expose the Shaft, Retaining Nuts



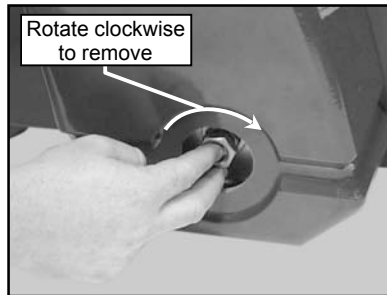
(C)

Using a 15/16-inch socket, loosen the Outer Shaft, Retaining Nut



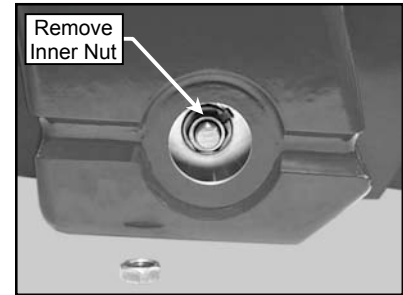
(D)

Place an Index Finger on the end of the Cutting Drum, Shaft



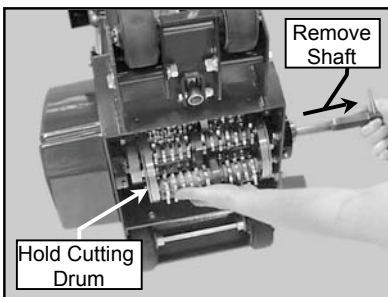
(E)

Remove the Outer Shaft, Retaining Nut using your Middle Finger as shown



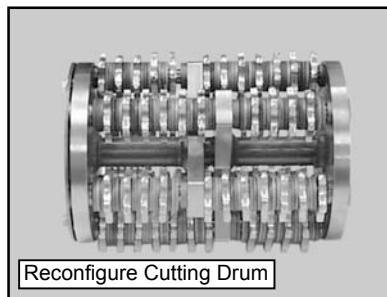
(F)

Repeat Step C through E for the Inner Shaft, Retaining Nut



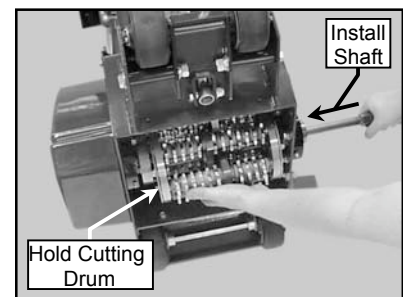
(G)

Remove the Cutting Drum and Shaft



(H)

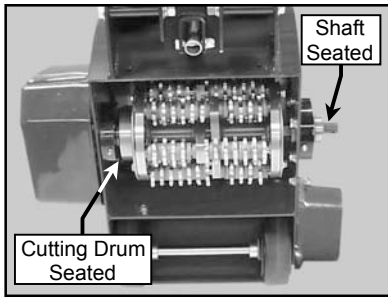
Reconfigure the Cutting Drum as needed



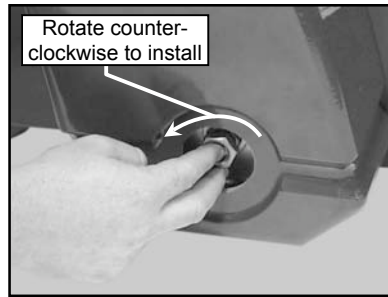
(I)

Install the Cutting Drum into the SG-2; align the Cutting Drum with the Shaft-side Bearing and install the Cutting Drum, Shaft

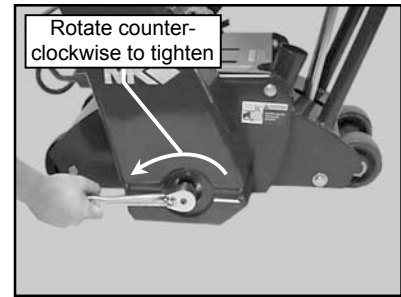
MAINTENANCE AND TROUBLESHOOTING



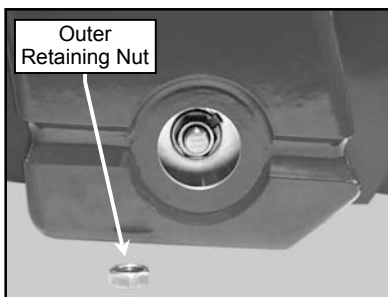
(I)
Verify the Cutting Drum and Shaft are fully installed and seated



(J)
Install the Shaft, Inner Retaining Nut



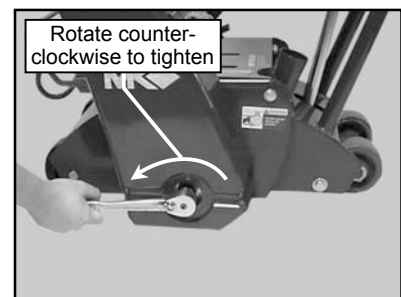
(K)
Using a 15/16-inch socket tighten the Shaft, Inner Retaining Nut



(L)
Obtain the Shaft, Outer Retaining Nut



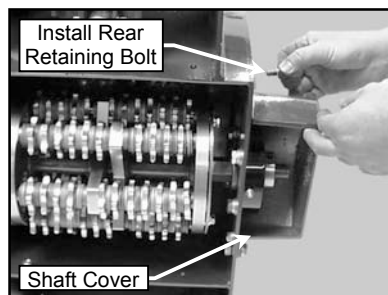
(M)
Install the Shaft, Outer Retaining Nut



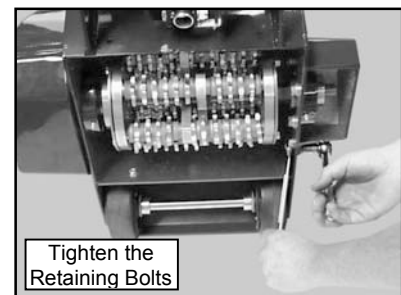
(N)
Using a 15/16-inch socket tighten the Shaft, Outer Retaining Nut



(O)
Install the Shaft, Retaining Nut Cover onto the Belt Guard



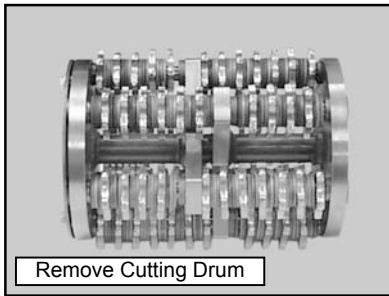
(P)
Pivot the Shaft Guard Cover into position and install the Rear Retaining Bolt



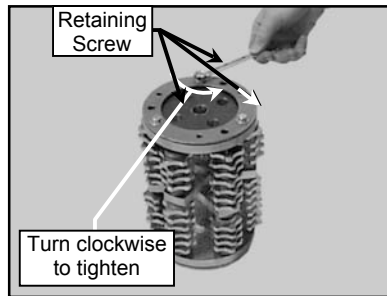
(J)
Tighten the Shaft Guard Cover Retaining Bolts using 9/16 wrenches and/or sockets

MAINTENANCE AND TROUBLESHOOTING

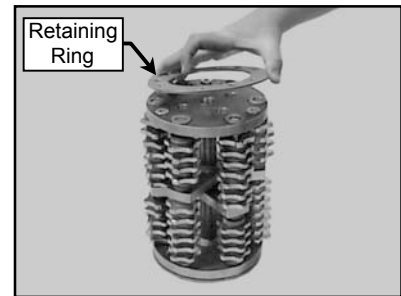
11. Reconfigure the Cutting Drum:



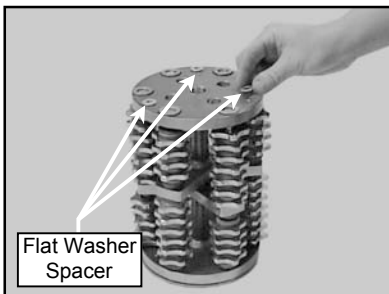
(A)
Remove the Cutting Drum from the SG-2 (See Cutting Drum Change-out, Section 6)



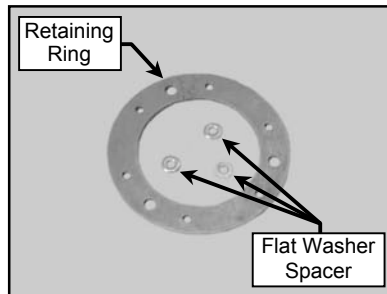
(B)
Place the Cutting Drum on end and remove the 3 Retaining Screws using a 7/16-inch wrench



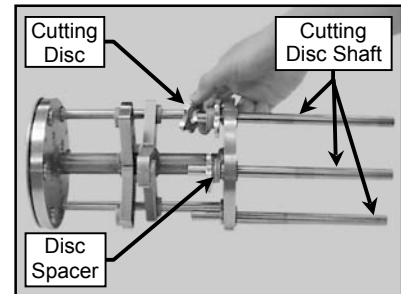
(C)
Remove the Retaining Ring from the Cutting Drum



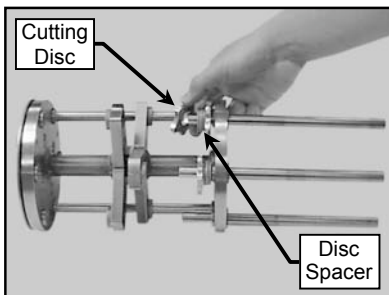
(D)
If present, remove the three Flat Washer Spacers



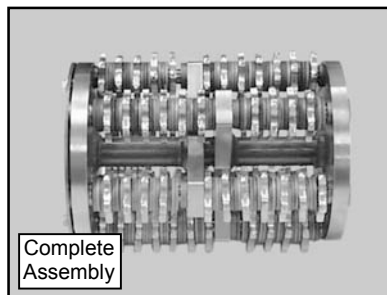
(E)
Place the Retaining Ring and the 3 Flat Washer Spacers in a secure location



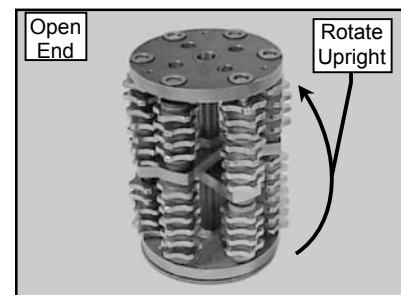
(F)
Pull the Cutting Disc Shafts and remove the Cutting Discs and Disc Spacers



(G)
Assemble the Cutting Drum using Cutting Discs and Disc Spacers (See Cutting Drum Configuration, Page 21)

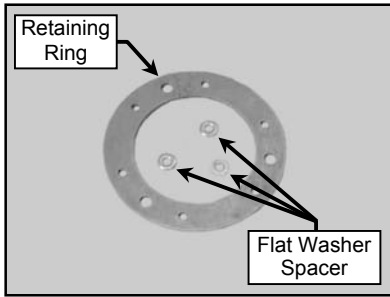


(H)
Continue with Step B until the Cutting Drum assembly is complete

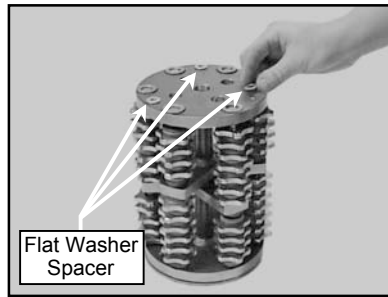


(I)
Place the Cutting Drum on the closed end, with the open end facing upward

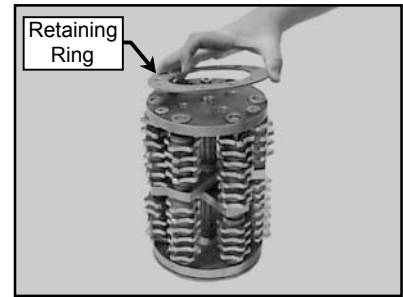
MAINTENANCE AND TROUBLESHOOTING



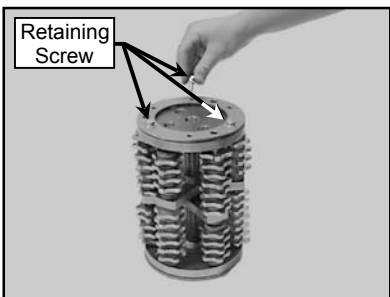
(J)
Obtain the Retaining Ring and Flat Washer Spacers



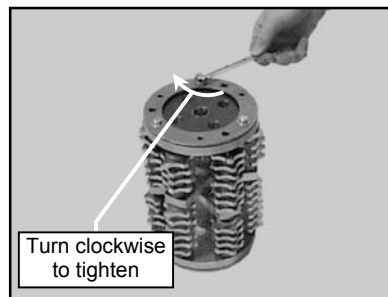
(K)
Install the 3 Flat Washer Spacers (if used) over the 3 Retaining Ring, Retaining Screw holes



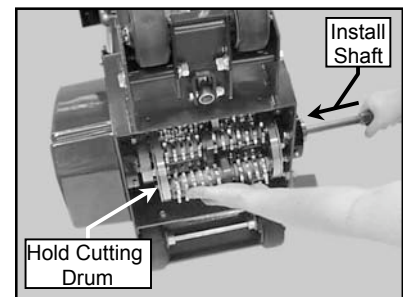
(L)
Place the Retaining Ring onto the end of the Cutting Drum, aligning the Retaining Screw Holes



(M)
Install the 3 Retaining Screws into the Cutting Drum (do not cross-thread the screws)



(N)
Tighten the 3 Retaining Screws using a 7/16-inch wrench



(A)
Install the Cutting Drum into the SG-2; (See Cutting Drum Change-out, Section 6)

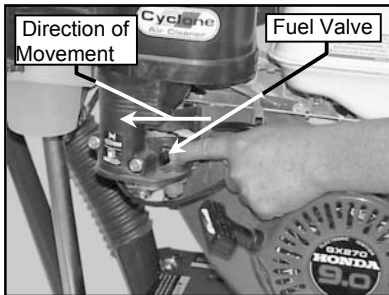
MAINTENANCE AND TROUBLESHOOTING

12. Fuel Sediment Cup Cleaning:

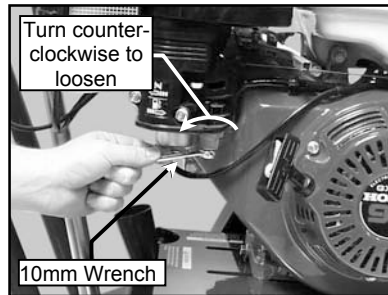
⚠WARNING

1. Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel.
2. To fuel, stop engine if running and allow it to cool.
3. Refuel in a well-ventilated area
4. Keep gasoline away from appliance pilot lights, barbecues, electric appliances, power tools, etc.
5. Wipe up spills immediately.

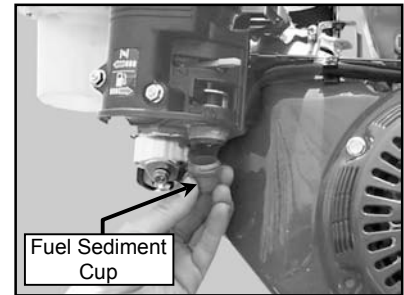
- NOTES:
1. Conform to Federal, State and Local laws for the proper disposal of fuel
 2. Fuel can damage paint and plastic. Be careful not to spill fuel when filling the fuel tank. Damage caused by spilled fuel IS NOT covered under the warranty.
 3. DO NOT use stale or contaminated gasoline or an oil/gasoline mixture.
 4. An OSHA approved ladder is recommended when fueling the saw
 5. When installing the Sediment Cup retaining bolt, ensure the threads of the bolt are aligned with the threads on the Fuel Valve so as not to "cross-thread the nut."



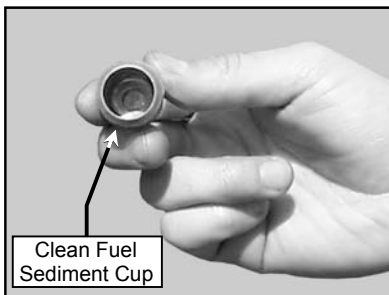
(A)
Place Fuel Valve in the OFF position



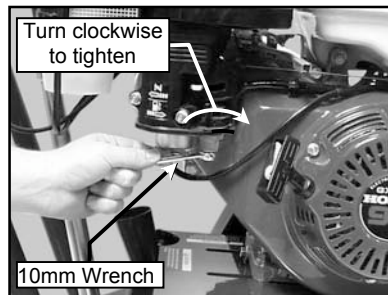
(B)
Loosen the Fuel Sediment Cup



(C)
Remove the Fuel Sediment Cup
(The Fuel Sediment Cup will contain fuel)



(D)
Clean Fuel Sediment Cup using a nonflammable solvent – allow Sediment Cup to dry



(E)
Reinstall and tighten the Fuel Sediment Cup

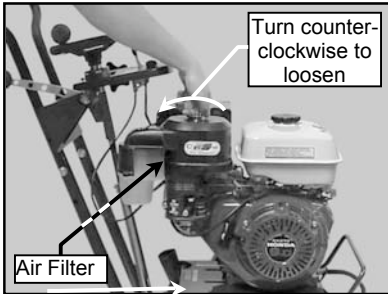
MAINTENANCE AND TROUBLESHOOTING

13. Spark Plug Adjustment and Replacement:

CAUTION DO NOT work around the engine while hot.

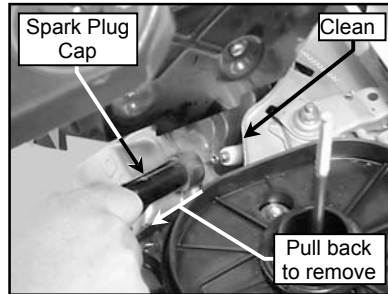
NOTE: 1. Recommended spark plugs are: NGK – BPR6ES or DENSO – W20EPR-U

2. When installing the Spark Plug, ensure the threads of the are aligned with the threads in the engine so as not to “cross-thread” the plug.



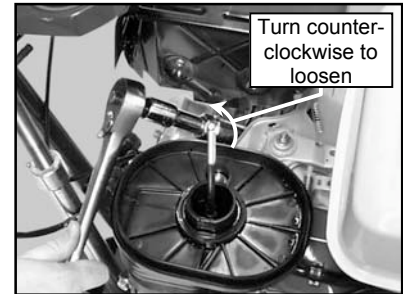
(A)

Remove the Air Filter for easier access to the Spark Plug (See Air Filter Cleaning and Replacement, Section 13)



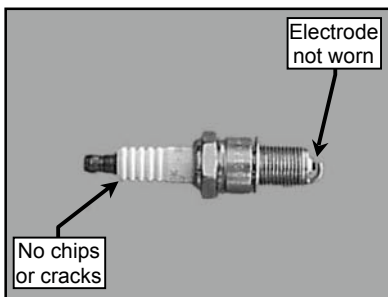
(B)

Remove Spark Plug Cap clean cap and around spark plug



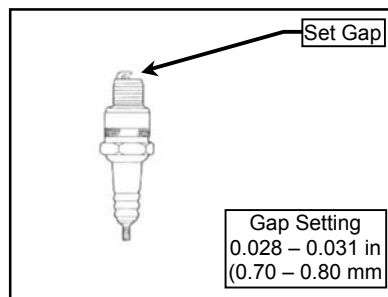
(C)

Remove the Spark Plug using a 13/16-inch Spark Plug Socket



(D)

Inspect Spark Plug if worn replace Spark Plug and go to step E



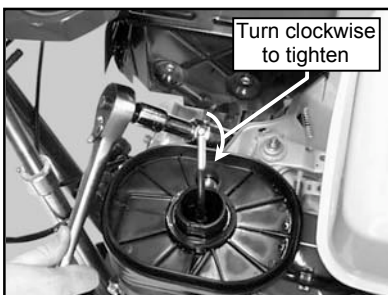
(E)

Clean with a wire brush and re-gap the Spark Plug



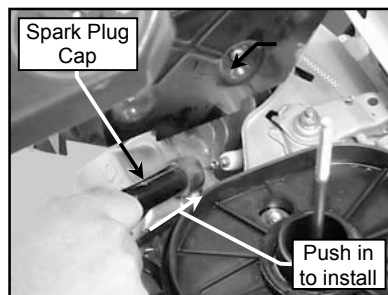
(F)

Install the Spark Plug by Hand DO NOT cross-thread the Spark Plug



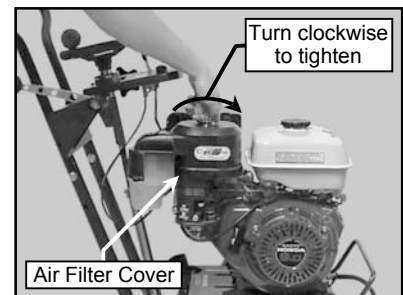
(G)

Tighten the Spark Plug If new, tighten 1/2-turn, if old, tighten 1/8-1/4 turn using a 13/16-inch Spark Plug Socket



(H)

Install the Spark Plug Cap verify the Spark Plug Cap is seated



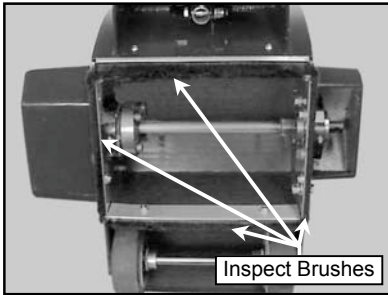
(I)

Install the Air Filter (See Air Filter Cleaning and Replacement, Section 13)

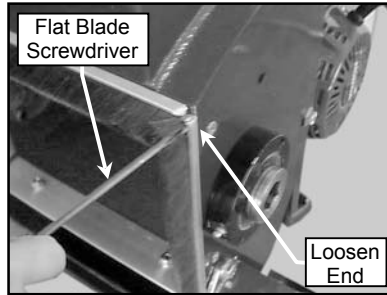
MAINTENANCE AND TROUBLESHOOTING

14. Dust Screen Brush Change Out:

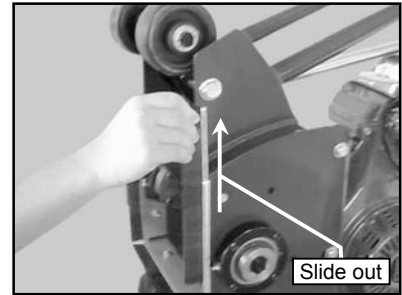
NOTE: The four (4) Brushes should be replaced at the same time (MK Diamond Part No. – 15819).



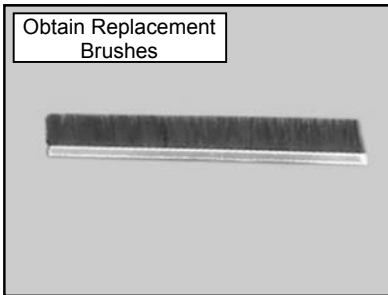
(A)
Inspect the Dust Screen
Brushes for wear



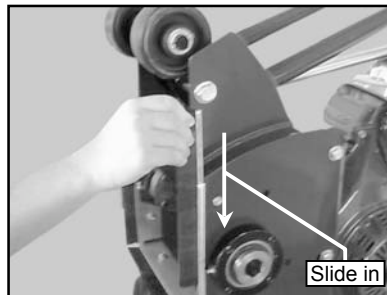
(B)
Loosen the end of each Brush
Holder with a Flat Blade
Screwdriver



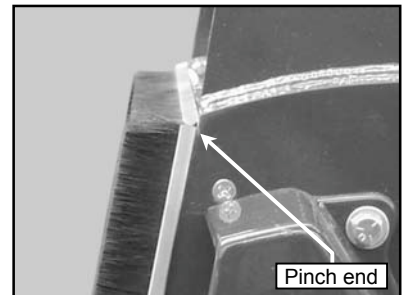
(C)
Slide each Brush out of its
Brush Holder



(D)
Obtain Replacement Brushes



(E)
Slide the new Brushes into the
Brush Holders

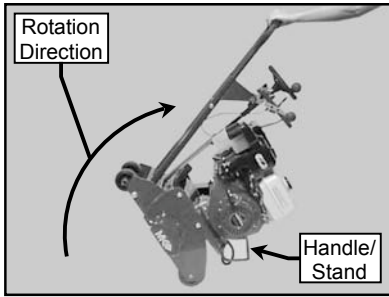


(F)
Pinch the end of the Brush
Holders to hold each
Brush in place

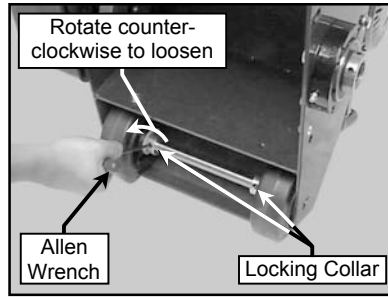
MAINTENANCE AND TROUBLESHOOTING

15. Front Wheel Change Out:

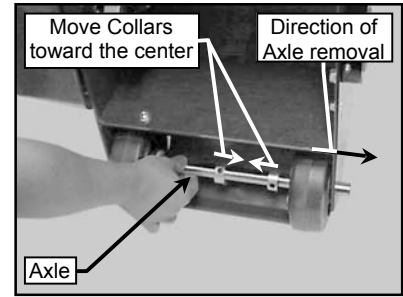
NOTE: The two (2) Front Wheels should be replaced at the same time (MK Diamond Part No. – 138529).



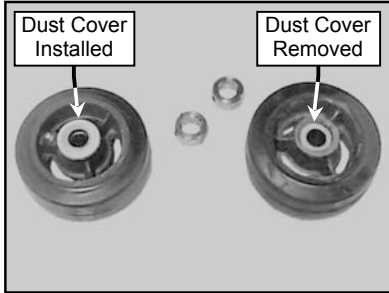
(A)
Rotate the SG-2 to rest on the Handle/Stand



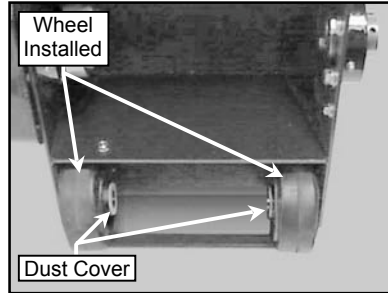
(B)
Loosen the Retaining Collar of each Wheel using a 5/32-inch Allen Wrench



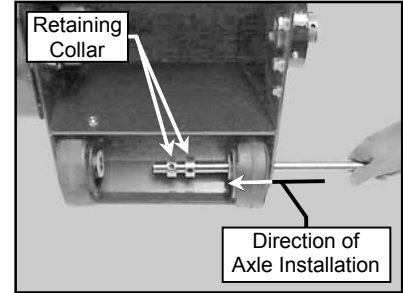
(C)
Move the Retaining Collars toward the center of the Axle and then slide the Axle out of the SG-2



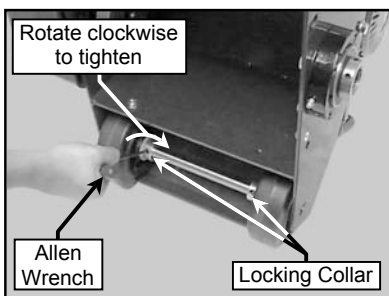
(D)
Obtain 2 replacement Wheels and remove the Dust Cover from one side of each Wheel



(E)
Seat the Front Wheels into the Wheel-well with the Dust Cover side facing inward



(F)
Slide the Axle through one Wheel, Install the 2 Retaining Collars and then slide the Axle through the second Wheel

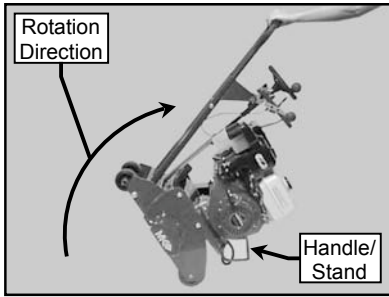


(G)
Push the Retaining Collars against the Front Wheels and then tighten them with a 5/32-inch Allen Wrench

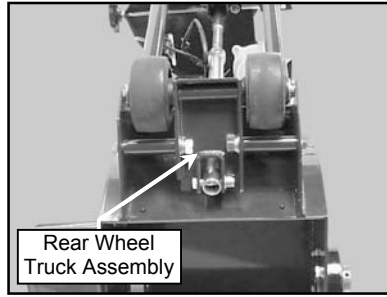
MAINTENANCE AND TROUBLESHOOTING

16. Rear Wheel Change Out:

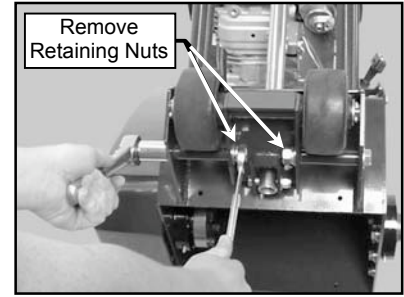
NOTE: The two (2) Rear Wheels should be replaced at the same time (MK Diamond Part No. – 158520).



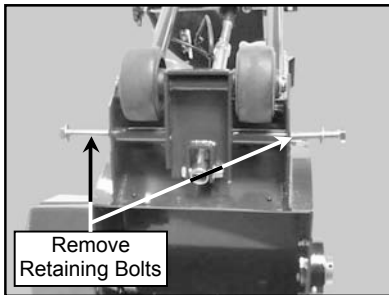
(A)
Rotate the SG-2 to rest on the Handle/Stand



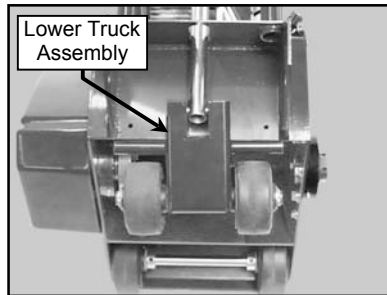
(B)
Locate the Rear Wheel Truck Assembly



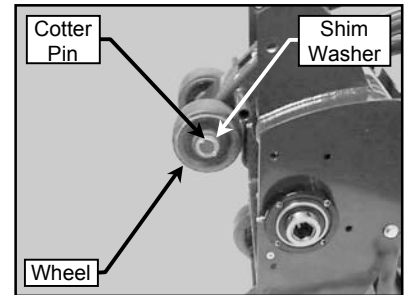
(C)
Remove the Rear Wheel Truck Assembly Retaining Nuts using 3/4-inch wrenches



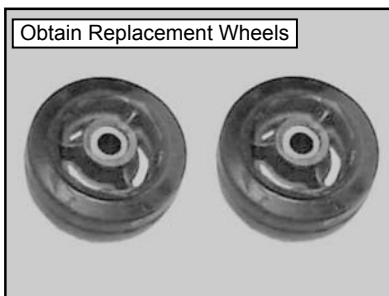
(D)
Remove the Rear Wheel Truck Assembly Retaining Bolts



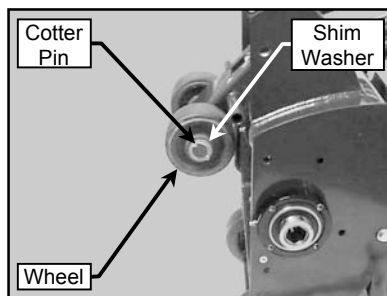
(E)
Lower the Rear Wheel Truck Assembly



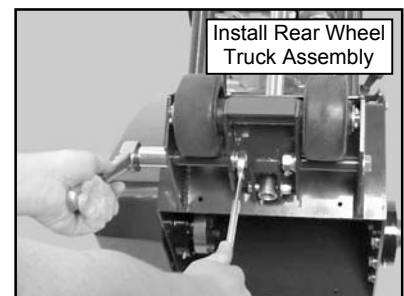
(F)
Remove the Rear Wheel Retaining Cotter Pin, Shim Washer and Rear Wheel from each side of the Assembly



(G)
Obtain replacement wheels



(H)
Install the new Rear Wheel, Shim Washer and Cotter Pin on each side of the Assembly



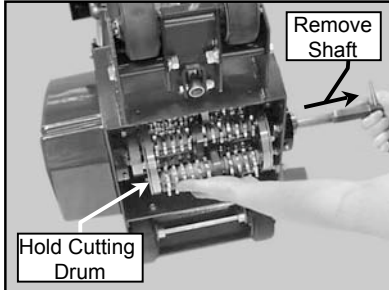
(I)
Install the Rear Wheel Truck Assembly Retaining Nuts and Bolts removed in Steps C and D using 3/4-inch wrenches

MAINTENANCE AND TROUBLESHOOTING

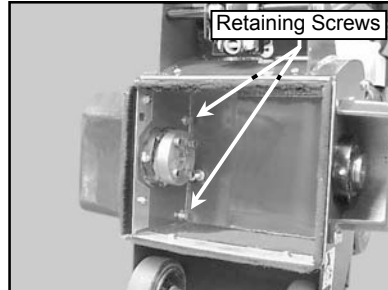
17. V-Belt Inspection, Adjustment and Replacement:

In order to ensure the SG-2 operates at peak efficiency, the power transmission V-belt should be inspected monthly and changed if any signs of damage and/or excessive wear is observed.

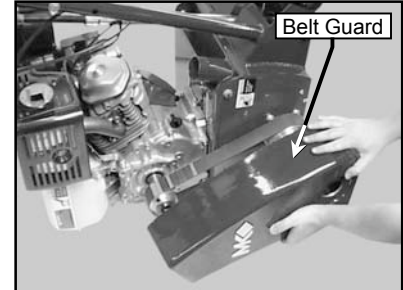
NOTE: 1. When a new belt is installed, it should be inspected and re-tensioned after the first forty-eight (48) hours of operation.



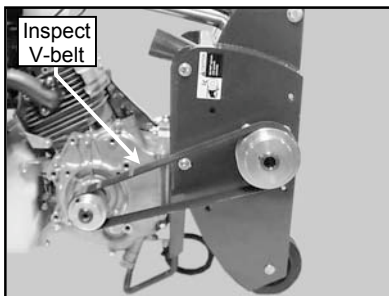
(A)
Remove the Cutting Drum (See Cutting Drum Change-out, Section 10)



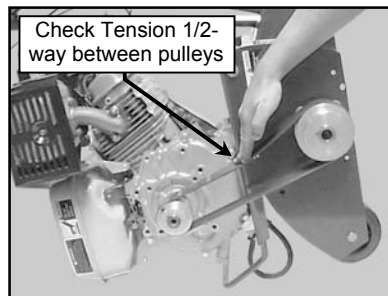
(B)
Locate and remove the Belt Guard Retaining Screws using a 9/16-wrench



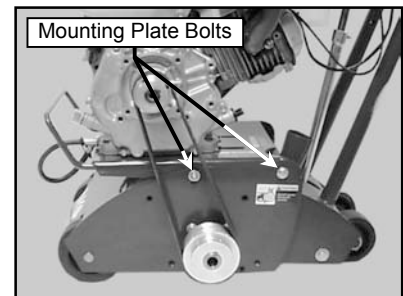
(C)
Remove the Belt Guard



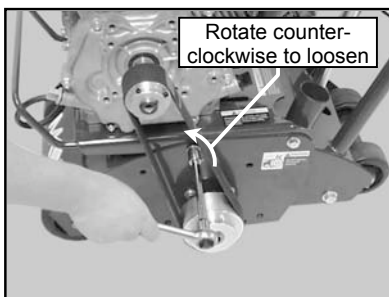
(D)
Inspect the V-belt for excessive wear, cracks and cuts – if worn, proceed to step F



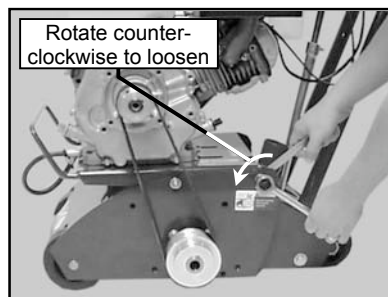
(E)
Check V-belt for proper tension if tension correct, go to step O (proper tension is 1/2-inch deflection of the belt)



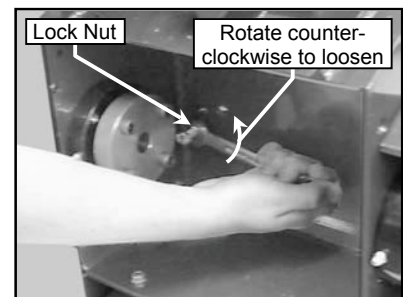
(F)
Locate the Engine Mounting Plate Bolts on both sides of the SG-2



(G)
Loosen the Front Engine Mounting Plate Bolts on both sides of the SG-2 using a 9/16-inch wrench

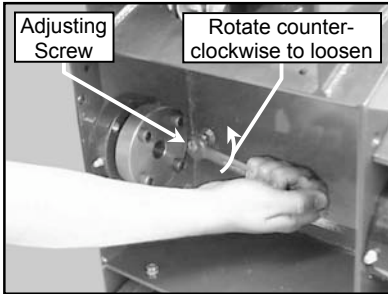


(H)
Loosen the Rear Engine Mounting Plate Bolts on both sides of the SG-2 using a 9/16-inch wrench

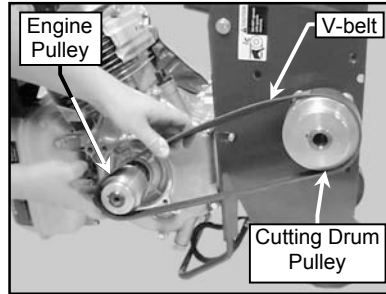


(I)
Locate the V-belt Adjusting Screw Lock Nut inside the Cutting Drum Well. Loosen the nut using a 9/16-inch wrench

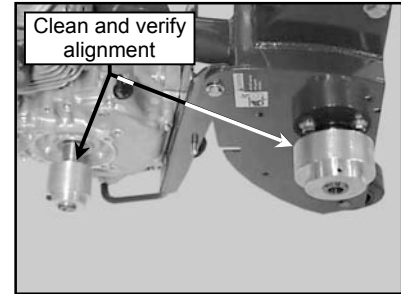
MAINTENANCE AND TROUBLESHOOTING



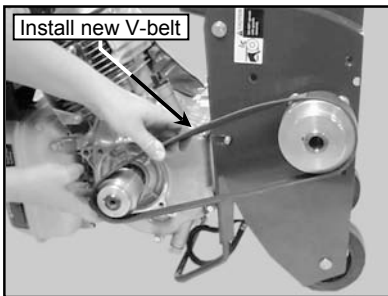
(J)
Locate the V-belt Adjusting Screw inside the Cutting Drum Well. Loosen the screw using a 9/16-inch wrench



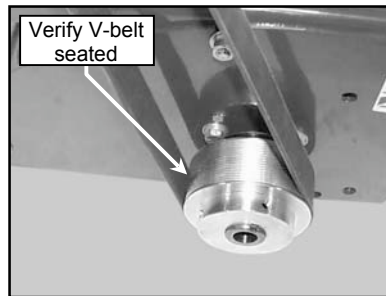
(K)
Remove the V-belt from the Engine and Cutting Drum Pulleys



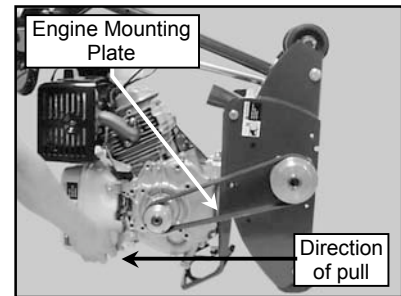
(L)
Clean and verify the alignment of the Engine and Cutting Drum Pulleys



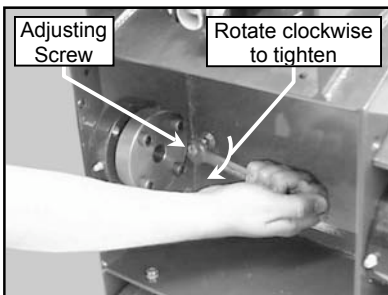
(M)
Obtain and install a new V-belt onto the Engine and Cutting Drum Pulleys



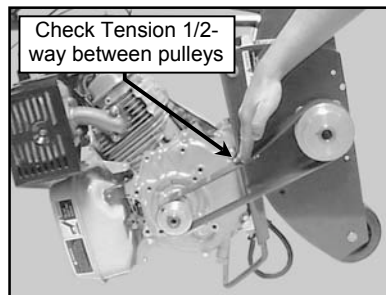
(N)
Verify the V-belt is seated in all grooves of the Engine and Cutting Drum Pulleys



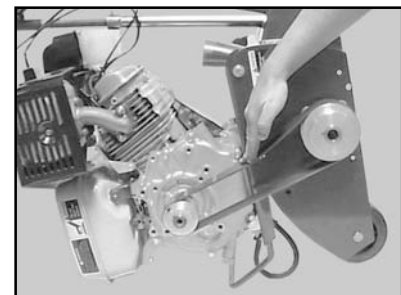
(O)
Pull the front of the Engine Mounting Plate away from the SG-2 Frame to tension the V-belt



(P)
Tighten the V-belt Adjusting Screw one turn using a 9/16-inch wrench

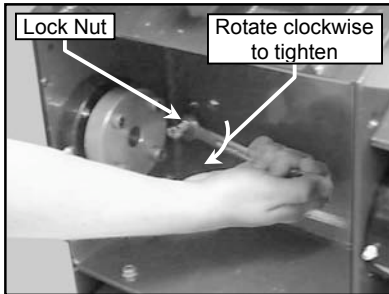


(Q)
Verify the tension of the V-belt (proper tension is 1/2-inch deflection of the belt)

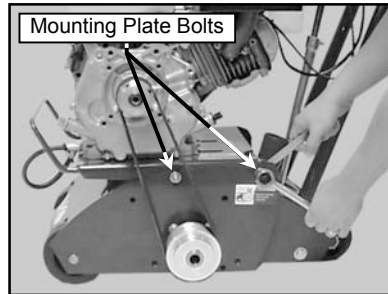


Repeat Steps P and Q until proper tension has been reached (proper tension is 1/2-inch deflection of the belt)

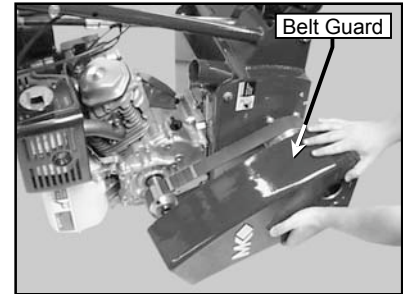
MAINTENANCE AND TROUBLESHOOTING



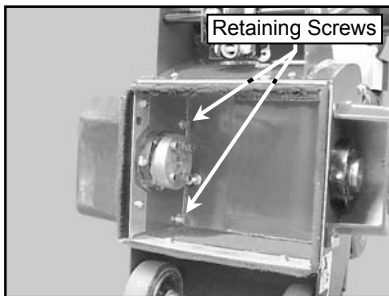
(S)
Tighten the V-belt Adjusting
Screw Lock Nut using a 9/16-
inch wrench



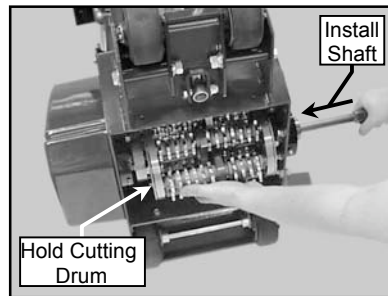
(T)
Tighten the Engine Mounting
Plate Bolts on both sides of the
SG-2 using a 9/16-inch wrench



(U)
Install the Belt Guard



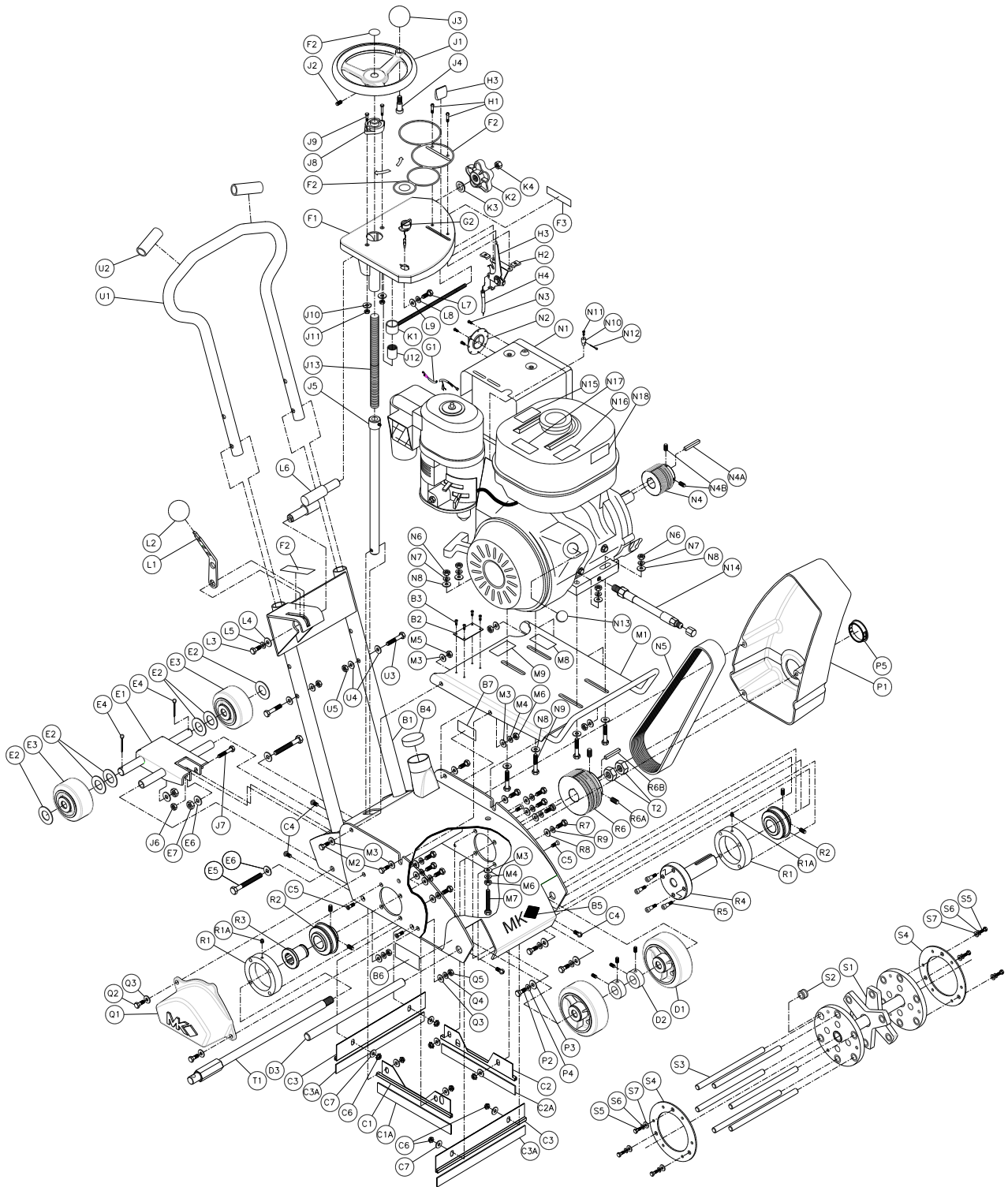
(V)
Tighten the Belt
Guard Retaining Screws using
a 9/16-wrench



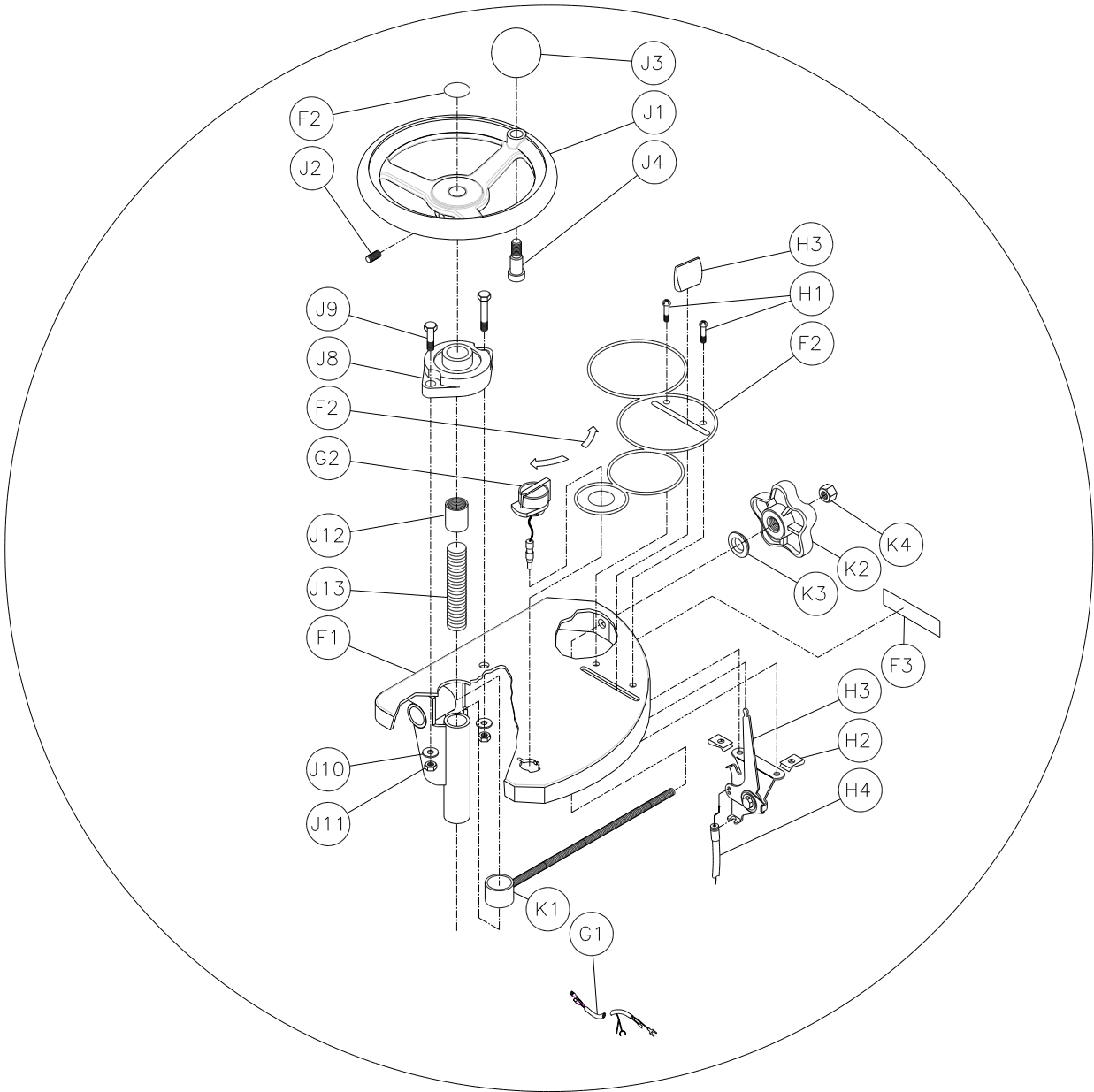
(W)
Install the Cutting Drum into the
SG-2; (See Cutting Drum
Change-out, Section 6)

EXPLODED VIEW AND PARTS LIST

EXPLODED VIEW:



EXPLODED VIEW AND PARTS LIST



EXPLODED VIEW AND PARTS LIST

PARTS LIST:

Item	Description	Qty	Part #
A Assembly, Accessories		-	n/a
A1	Pallet, Shipping (not shown)	1	158535
A2	Box, MK Scarifier Shipping (not shown)	1	158536
A3	Carton, Scarifier Drum (not shown)	1	158825
A4	Manual, Owner's (not shown)	1	158537
A5	Tube, Owner's Manual (not shown)	1	155419
A6	(reference only) Spacer, Harden Steel	-	158575
A7	(reference only) Star, 5 Point Carbide Tip (1-3/4 OD x 5/8" ID)	-	158492
A8	(reference only) Star, 6 Point Carbide Tip (1-3/4 OD x 5/8" ID)	-	158493
A9	(reference only) Cutter, 18 Sharp Tooth Steel (2" OD x 9/16" ID)	-	158494
A10	(reference only) Cutter, 12 Blunt Tooth Steel (2" OD x 5/8" ID)	-	158495
B Assembly, Frame		-	158609
B1	Frame Weldment (MK Red)	1	158098
BA1	Frame Weldment (Orange)	1	158098-OR
B2	Plate, Serial Number	1	157500
B3	#7 X 5/16 Drive Screw	4	227214
B4	Cap, 2" OD Vinyl	1	158914
B5	Label, 1-3/4 x 5" MK Logo	1	154335
B6	Label, Caution, Hands and Feet	1	155585
B7	Label, Caution, Do Not Operate with Guards Removed	1	155587
C Assembly, Frame Dust Screen		-	n/a
C1	Screen, Right Side, Frame Dust	1	158594
C2	Screen, Left Side, Frame Dust	1	158595
C3	Screen, Front / Back, Frame Dust	2	158596
C4	Screw, 1/4-20 x 1/2 Pan Head Phillips Cap	4	155452
C5	Screw, 1/4-20 x 1/2 Flat Head Phillips Cap	4	155812
C6	Nut, 1/4-20 Keps	8	153941
C7	Washer, 1/4 SAE Flat	8	151915
D Assembly, Front Axle		-	n/a
D1	Wheel, Front, 5 Dia. x 2	2	138537
D2	Collar, 3/4 set	2	153814
E Assembly, Truck		1	n/a
E1	Truck, Weldment	1	158099
E2	Washer, 3/4 Shim	~	153699
E5	Bolt, 1/2-13 x 4 Hex Head Tap	2	156626
E6	Washer, 1/2 SAE Flat	4	150924
E7	Nut, 1/2-13 Top Lock, Hex	2	153943
F Assembly, Console		-	n/a
F1	Weldment, Console (MK Red)	1	158100
FA1	Weldment, Console (Orange)	1	158100-OR
F2	Label, Control	1	158287
F3	Label, Depth Lock	1	155577
G Assembly, Standard Wire Harness		1	n/a
G1	Wire Harness, Standard, Honda	1	158232
G2	Switch, Engine On/Off	1	157851

EXPLODED VIEW AND PARTS LIST

Item	Description	Qty	Part #
H	Assembly, Throttle Honda	-	-
H1	Screw, 10-24 X 1/2 Pan Head Phillips Cap	2	151744
H2	Nut, 10-24 Clip	2	155407
H3	Assembly, Throttle Head	1	155406
H4	Cable, Throttle, Honda	1	154158
J	Assembly, Depth Control	-	-
-	Subassembly, Depth Control Wheel	1	155457
J1	Wheel, Depth Control	1	158574
J2	Screw, 3/8-16 X 1/2 Socket Head Set	1	153710
J3	Knob, 1" Ball	1	158519
J4	Screw, 1/2 X 3/4 Socket Head Shoulder, w/ 3/8-16 X 5/8 Thread	1	156177
-	Subassembly, Depth Control Tube	1	155460
J5	Tube, Depth Control	1	155049
J6	Nut, 3/8-16 Nylock Hex	1	152505
J7	Screw, 3/8-16 X 2 Hex Head Cap	1	153485
J8	Bearing, Flange, w/ zerk fitting	1	155151
J9	Screw, 3/8-16 X 1-1/4 Hex Head Cap	2	150774
J10	Washer, 3/8 SAE Flat	1	150923
J11	Nut, 3/8-16 Nylock Hex	2	152505
J12	Spacer, 1.5" Depth Control	1	155161
J13	Screw, 15" Depth Control	1	158521
K	Assembly, Depth Lock	-	n/a
K1	Lock, 8-7/8 Depth Control	1	157846
K2	Knob, Depth Lock	1	155845
K3	Thrust Washer	1	155238
K4	Nut, 3/8-16 Nylock Hex	1	152505
L	Assembly, Quick Lift and Lowering Lever	-	n/a
L1	Lever	1	158102
L2	Knob, 2" Ball	1	158519
L3	Screw, 3/8-24 x 1 Hex Head Cap	1	157803
L4	Washer, 3/8 SAE Flat	1	150923
L5	Washer, 3/8 Split Lock	1	150925
L6	Pivot, Shaft	1	158288
L7	Screw, 1/2-13 x 1-1/4 Hex Head Cap	1	153532
L8	Washer, 1/2 Split Lock	1	153524
L9	Washer, 1/2 SAE Flat	1	150924
M	Assembly, Engine Mount	-	n/a
M1	Engine, Mount (MK Red)	1	158101
MA1	Engine, Mount (Orange)	1	158101-OR
M2	Bolt, 3/8-16 x 1 Hex Head Cap	4	152507
M3	Washer, 3/8 SAE Flat	9	150923
M4	Washer, 3/8 Split Lock	3	150925
M5	Nut, 3/8-16 Nylock Hex	2	152505
M6	Nut, 3/8-16 Hex	3	101188
M7	Bolt, 3/8-16 x 3 Hex Head Tap	1	155830
M8	Label, Caution, Belt Tension	1	155583
M9	Label, Caution, Sparkplug	1	155579

EXPLODED VIEW AND PARTS LIST

Item	Description	Qty	Part #
N	Assembly, Engine, 9HP Honda	1	155396-MK
N1	Engine, Honda GX240 9 Hp w/ cyclone filter	1	155396
N2	Deflector, Honda	1	155375
N3	Screw, 6-32 X 3/8 Pan Head Phillips Self-Tapping Cap	3	153466
N4	Pulley, 2-1/2 OD, Poly-V	1	158470
N5	Polly-V-Belt (350J16)	1	158469
N6	Nut, 3/8-16 Hex	4	101188
N7	Washer, 3/8 Split Lock	4	150925
N8	Washer, 3/8 SAE Flat	8	150923
N9	Screw, 3/8-16 X 2 Hex Head Cap	4	153485
N10	Pin, Throttle Control	1	151284
N11	Screw, 8-32 X 1/2 Pan Head Phillips Cap	1	152517
N12	Pin, Cotter, 1/16 X 3/4	1	152518
N13	Plug, 3/4 Flush Head Button	1	156615
N14	Oil Drain, M12 X 3/8 Push	1	157577-02
N15	Label, Caution, Hot Surface, 1.5 x 3.0	1	155578
N16	Label, Warning, Refueling, 1.5 x 3.0	1	155580
N17	Label, Danger, California, 1.5 x 3.0	1	155581
N18	Label, Danger, Lethal Exhaust, 1.5 x 3.0	1	155582
P	Assembly, Belt Guard	-	n/a
P1	Guard, Belt (MK Red)	1	158104
PA1	Guard, Belt (Orange)	1	158104-OR
P2	Screw, 3/8-16 X 1 Hex Head Cap	3	152507
P3	Washer, 3/8 SAE Flat	3	150923
P4	Washer, 3/8 Split Lock	3	150925
P5	Plug, 2" Dia Removable	1	158538
P6	Label, Caution, Belt Tension	1	155583
P7	Label, Caution, Guards in Place	1	155587
Q	Assembly, Shaft Guard	-	n/a
Q1	Guard, Shaft (MK Red)	1	158581
QA1	Guard, Shaft (Orange)	1	158581-OR
Q2	Screw, 3/8-16 X 1-1/4 Hex Head Cap	2	150774
Q3	Washer, 3/8 SAE Flat	4	150923
Q4	Washer, 3/8 Split Lock	2	150925
Q5	Nut, 3/8-16 Hex	2	101188
R	Assembly, Drum Bearing	-	n/a
R1	Housing, Bearing	2	158467
R2	Bearing	2	158468
R3	Bushing, Hexed Inner	1	158576
R4	Shaft, Pulley	1	158466
R5	Screw, 3/8-24 x 3/4 Soc Head Cap	4	158496
R6	Pulley, 4.0"OD, Poly-V (16J40 x 1-1/4 Bore)	1	158472
R7	Screw, 3/8-24 x 1 Hex Head Cap	8	157803
R8	Washer, 3/8 SAE Flat	8	150923
R9	Washer, 3/8 Split Lock	8	150925

EXPLODED VIEW AND PARTS LIST

Item	Description	Qty	Part #
S	Assembly, 8" Drum	1	158460
S1	Drum, Weldment, 8"	1	158461
S2	Bushing, Drum (33/64 ID)	18	158462
S3	Shaft, 8" Harden Steel	6	158463
S4	Ring, Drum Retaining	2	158464
S5	Screw, 5/16-18 x 3/4 Tap,	6	151369
S6	Washer, 5/16 Split Lock	6	151747
S7	Washer, 5/16 Flat SAE	6	151754
T	Assembly, 8" Drum, Drive Shaft	-	n/a
T1	Shaft, 8" Drum, Drive	1	158465
T2	Nut, 5/8-11 Hex Jam (Left Hand Thread)	2	158577
U	Assembly, Handlebar	-	n/a
U1	Handlebar	1	158359
U2	Handgrip	2	150842
U3	Screw, 3/8-16 X 1 Hex Head Cap	2	156602
U4	Washer, 3/8 Split Lock	4	150925
U5	Washer, 3/8 SAE Flat	4	150923

Optional Drum Assemblies

Item	Description	Qty	Part #
AA	Assembly, 8" Drum, 78 x 5-Point Carbide Star	-	158583
AA1	Assembly, 8" Drum	1	158460
AA2	Star, 5 Point Carbide Tip (1-3/4 OD x 5/8" ID)	78	158492
AA3	Spacer, Harden Steel	192	158575
BB	Assembly, 8" Drum, 78 x 6-Point Carbide Star	-	158584
BB1	Assembly, 8" Drum	1	158460
BB2	Star, 6 Point Carbide Tip (1-3/4 OD x 5/8" ID)	78	158493
BB3	Spacer, Harden Steel	192	158575
CC	Assembly, 8" Drum, 108 x 18 Sharp Tooth Cutter	-	158585
CC1	Assembly, 8" Drum	1	158460
CC2	Cutter, 18 Sharp Tooth Steel (2" OD x 9/16" ID)	108	158494
CC3	Spacer, Harden Steel	234	158575
DD	Assembly, 8" Drum, 108 x 12 Blunt Tooth Cutter	-	158586
DD1	Assembly, 8" Drum	1	158460
DD2	Cutter, 12 Blunt Tooth Steel (2" OD x 5/8" ID)	108	158495
DD3	Spacer, Harden Steel	234	158575

THEORY

THEORY OF SCARIFYING

The purpose of scarifying is to make scratches, superficial incisions or roughen a surface. There are a number of ways in which a concrete surface can be roughened, the advantage of a scarifying machine, is that it allows the user to control the amount of material removed over a large area.

A scarifier can be used to clean, level, roughen, groove, slot, or prepare a concrete surface for coating. The scarifier is able to perform each of these operations by using different types of cutting discs that are setup in different configurations on a cutting drum.

By varying the type of cutting disc and configuration of the cutting drum, a user can:

- Clean a surface of oil, grease, or paint prior to applying a coating or sealer
- Level high spots or misaligned joints
- Remove carpet or tile adhesives as well as paint
- Roughen or create non-slip surfaces
- Slot concrete surfaces for overlays
- Cut safety grooves to minimize slippage








Scarifier cutting discs are either carbide tipped or steel, and are star-shaped in design. Cutting discs may have five or more “points,” and the ends may be round, pointed or blunt depending on application.

Cutting discs designed with carbide inserts tend to be the most commonly used due to their extended life. As the disc is used, more of the carbide insert is exposed until the disc is worn below the bottom of the insert. Once worn below the insert, the disc must be replaced.

ACCESSORIES, ORDERING and RETURN INFORMATION

ACCESSORIES:

ITEM	NUMBER	DESCRIPTION	
1.	158492	Five Point Carbide Tip Cutting Disc Used for grinding, leveling, grooving, cleaning and surface preparation Average Life: 6000 to 8000 Sq Ft	
2.	158493	Six Point Carbide Tip Cutting Disc Used for grinding, leveling, grooving, cleaning and surface preparation Average Life: 8000 to 10000 Sq Ft	
2.	158494	Eighteen Point Sharp Tooth Steel Disc Used for roughening, oil removal, carpet and tile adhesive removal, cleaning and surface preparation Average Life: 500 to 800 Sq Ft	
3.	158495	Twelve Point Blunt Tooth Steel Disc Used for paint and oil removal, traffic and shop floor safety line removal, cleaning and surface preparation Average Life: 500 to 800 Sq Ft	
5.	158575	Hardened Steel Spacer Used to fill empty space between the Cutting Discs	

ACCESSORIES, ORDERING and RETURN INFORMATION

ORDERING INFORMATION:

You may order MK Diamond products through your local MK Diamond distributor or, you may order direct from MK Diamond.

NOTE: There is a \$25.00 minimum order when ordering direct from MK Diamond. All purchases must be made using VISA or MasterCard.

When ordering direct from MK Diamond, please have the following information ready before calling:

- The Model Number of the saw
- The Serial Number of the saw
- Where the saw was purchased and when
- The Part Number for the part(s) being ordered
- The Part Description for the part(s) being ordered

All parts may be ordered by calling toll free to – **800 421-5830** or **310 539-5221** and asking for Customer Service. For technical questions, call – **800 474-5594**.

RETURN MATERIALS POLICY:

To expedite the service relative to the return of a product purchased through MK Diamond, please observe the following:

NOTE: When returning all items, they must have been purchased within the previous twelve (12) months.

- Have the Model Number of the saw
- Have the Serial Number of the saw
- Have the location of where the saw was purchased
- Have the date when the saw was purchased
- Contact Customer Service for approval to return the item(s)
- Obtain a Returned Goods Number (RGA) authorizing the return
- Follow the packaging instructions in the following section
- Ensure your item(s) are prepaid to the destination

For returned items, call toll free to – **800 421-5830** or **310 539-5221** and ask for Customer Service. For technical questions, call – **800 474-5594** or **310 257-2845**.

PACKAGING INSTRUCTIONS:

- Remove the Blade guard and Support Angle Assembly
- Dry the saw before shipping
- When packing, include the following: MK SG-2, Diamond Blade, Blade guard and Support Angle Assembly and Adjustable Cutting Guide (Other Accessories are not required)
- Package the unit in its original container or one of comparable size (do not ship the unit partially exposed)
- Ensure all parts are secured in the packaging to prevent moving

AUTHORIZED SERVICE CENTERS:

For quicker repair time, you may contact MK Diamond Customer Service, toll free, at – **800 421-5830** or **310 539-5221** for the Authorized Service Center closest to you. For technical questions, call – **800 474-5594**.



**MASONRY SAW
OWNER'S MANUAL &
OPERATING INSTRUCTIONS**

CALIFORNIA PROPOSITION 65 MESSAGE:

⚠ WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contain chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead, from lead-based paints
- Crystalline silica, from bricks and cement and other masonry products and
- Arsenic and chromium, from chemically treated lumber

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

**MK DIAMOND PRODUCTS, INC
1315 STORM PARKWAY, TORRANCE, CA 90509-2803
310 539 5158**