

BENCHMARK™

5140-041

HH0407



MANUAL



This product is supported by **Midland Power**. Contact us directly for assistance and warranty help. Do not return this product to store.

You must register online for your warranty to be valid. It only takes a minute, do it now while you still have your purchase receipt.

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Support for your product is available online, including parts, service center locations, and live expert advice.

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www.benchmark.midlandpowerinc.com



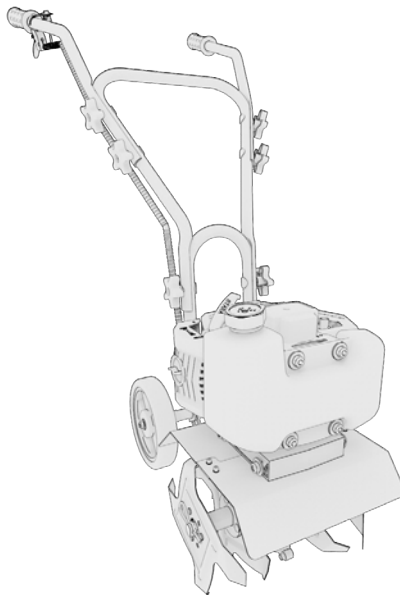
Or call us anytime at **1-877-528-3772**.

Thanks for choosing the HH0407!

You're excited to get started, we'll keep this brief.

READ THIS ENTIRE GUIDE BEFORE USING THIS PRODUCT AND SAVE FOR LATER USE.

This user guide contains important instructions including safety, setup, operation, and maintenance that must be followed. All information in this guide is based on information available at the time of print. This guide or revised editions can be found on our website for download. No part of this publication may be reproduced without written permission.



THIS PRODUCT MEETS ALL CERTIFICATION REQUIREMENTS FROM:



The engine exhaust from this product contains chemicals known to cause cancer, birth defects or other reproductive harm.



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1. SAFETY

⚠ DANGER	
Using a generator indoors CAN KILL YOU IN MINUTES . Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.	
 NEVER use inside a home or garage, EVEN IF doors and windows are open.	 Only use OUTSIDE and far away from windows, doors, and vents.
Avoid other generator hazards. READ MANUAL BEFORE USE.	

⚠ WARNING!

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

1.1 OPERATOR SAFETY

⚠ WARNING!

- Always perform an oil, fuel and air filter check before starting the engine.
- Properly inspect, clean, and maintain the equipment.
- Operate the tiller according to instructions for safe and dependable service.
- Before operating the tiller, read the user guide carefully. Otherwise, it may result in personal injuries or equipment damage.
- Never run the tiller in an enclosed area to avoid harm from exhaust emissions of a poisonous carbon monoxide gas.
- Be careful not to touch the exhaust system during operation due to risk of burns.
- Pay attention to the warning labels. The engine exhaust system will become heated during operation and remain hot immediately after the engine is stopped.
- Gasoline is a highly flammable and explosive liquid. Refuel in a well-ventilated area with the engine stopped.
- Use of gasoline with an ethanol content greater than 10% can damage the engine and fuel system and will void the manufacturer's warranty.
- When refueling the tiller, keep it away from cigarettes, open flames, smoke and/or sparks.

- Place the tiller at least 3 feet away from buildings or other equipment during operation.
- Know how to stop the tiller quickly and understand operation of all the controls. Never permit anyone to operate the tiller without proper instructions.
- Keep children, pets and machinery with rotating parts away during operation.
- DO NOT operate the tiller in rain or snow.
- DO NOT operate the tiller if damaged. Have the machine repaired before use.
- DO NOT touch the spark plug while the engine is operating or shortly after the engine has been shut down.
- Wear ear and eye protection while operating this unit.
- Wear sturdy, rough-soled work shoes (steel-toed shoes are recommended) and close-fitting pants and shirts. Never operate this machine while barefoot, in sandals, slippery or lightweight (e.g. canvas) shoes.

1.2 USE SAFETY

⚠ WARNING!

- This tiller is intended to be used in private home gardens and is not intended to be used in public spaces, parks, or fields.
- DO NOT operate the tiller in a confined space where dangerous carbon monoxide fumes can collect.
- Refuel outdoors only and DO NOT smoke while refueling. Never remove the cap of the fuel tank or add gas while the engine is running or when the engine is hot.
- If gas is spilled, DO NOT attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until gas vapours have dissipated.
- Operate only in daylight or in good artificial light.
- Never operate the tiller without proper shields, guards, control lever or other safety protective devices in place and working.
- Never operate the tiller with damaged safety devices. Failure to do so, can result in personal injury.
- Never pick up or carry the machine while the engine is running.
- Thoroughly inspect the area where the tiller is to be used and remove all foreign objects. Your equipment can propel small objects at high-speed

causing personal injury or property damage.

- Watch for holes, roots, bumps, or other rough ground. Tall grass can hide obstacles.
- Always look behind and down and use caution when using reverse or pulling the tiller towards you.
- Never attempt to start the tiller unless both wheels are locked in the same position.
- Always start the tiller on the level surface.
- Do not till up a slope greater than 10 degrees.
- DO NOT attempt to till hard soil, till too deep or till at an overly fast rate that can overload the tiller.
- Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your balance, release the control lever immediately and the tine will stop rotating.
- DO NOT till near drop-offs, ditches, or embankments, you could lose your footing or balance.
- After striking a foreign object, stop the engine, disconnect the spark plug wire and ground against the engine. Thoroughly inspect the tiller for any damage. Repair the damage before starting and operating the tiller.

1.3 MAINTENANCE SAFETY

⚠ WARNING!

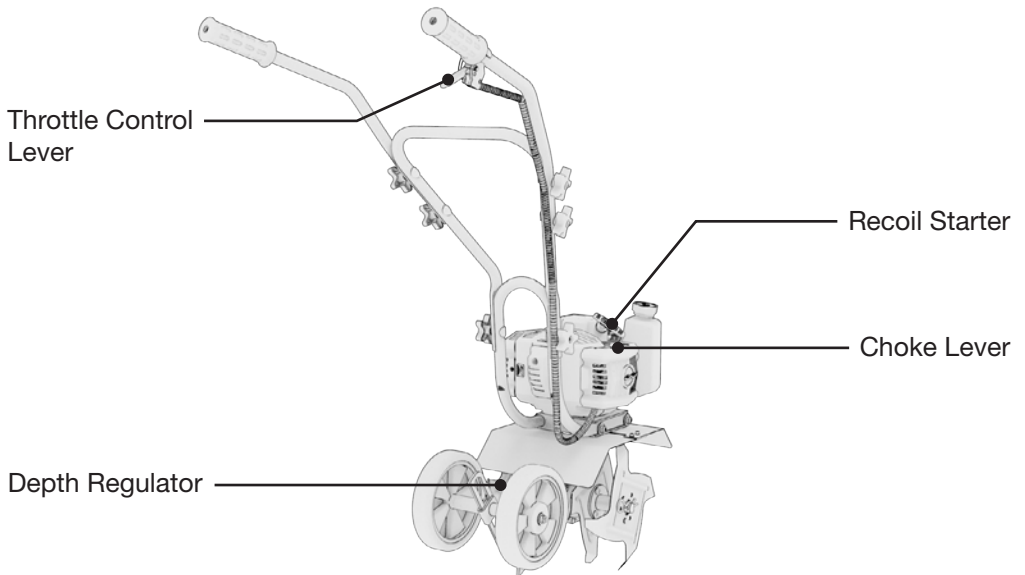
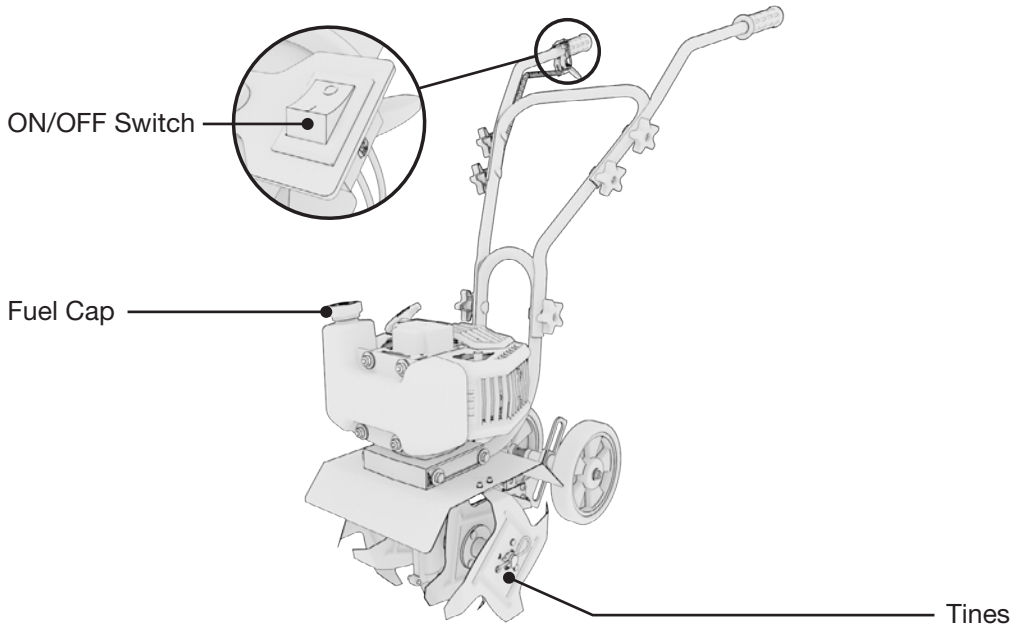
- Turn off the engine before performing any maintenance. Failure to do so can cause severe personal injury or death.
- Use rubber gloves when coming into contact with engine oil.
- After any maintenance is performed, wash immediately using soap and clean water. Repeated exposure to lubricant may cause skin irritation.
- DO NOT clean the filter element with flammable liquids like gasoline; an explosion may occur.
- Allow the tiller to cool down before performing any maintenance.
- Always stop the tiller before removing the oil filler cap.
- To reduce the fire hazard, keep the engine and gasoline storage area free of grass, leaves, or excessive grease.
- Drain the fuel tank outdoors only.
- Tiller components, guards, and shields are subject to wear and damage which could expose moving parts or allow objects to be thrown. Frequently check components and replace immediately with original equipment manufacturer's (O.E.M.) parts only, listed in this manual.

- Only qualified maintenance personnel with knowledge of fuels and machinery hazards should perform maintenance procedures.
- See 'Maintenance Schedule' for the recommended maintenance schedule.

2. LEARN ABOUT YOUR TILLER

This section will show you how to identify key parts of your tiller. Going over the terminology below will make sure we're on the same page.

2.1 COMPONENT IDENTIFICATION



2.2 CONTROL FUNCTIONS

Choke Lever

- A carburetor choke lever engages or disengages the choke, subsequently adjusting the amount of air that is enabled to flow through the intake of the carburetor.

Depth Regulator

- In hard compacted soil, it helps restrain the tiller's forward motion. In looser soil, it controls how deeply the tines can dig into the ground.

ON/OFF Switch

- The ON/OFF switch is needed to start and stop the tiller.

Recoil Starter

- The recoil starter is attached to the right side of the upper handle. Stand behind the unit and pull the recoil starter rope to start the unit.

Throttle Control Lever

- The forward lever located on the handle controls the tiller.

Tines

- Tines are rotating metal blades that dig into the soil.

2.3 MAKE SURE YOU HAVE EVERYTHING

Make sure your tiller has everything listed in the table below.

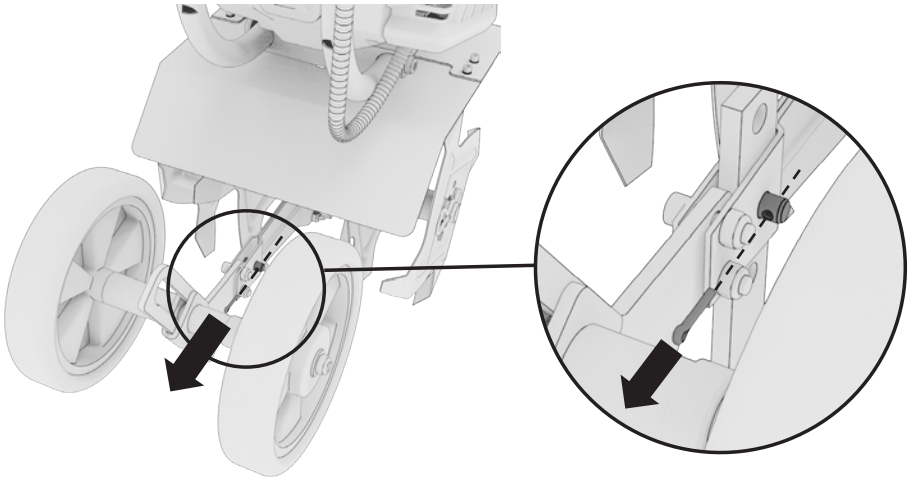
Part Name	Quantity
Tiller	1
User Guide	1
Maintenance Wrench Set	1
Maintenance Screwdriver	1
Spark Plug Wrench	1

3. GETTING STARTED

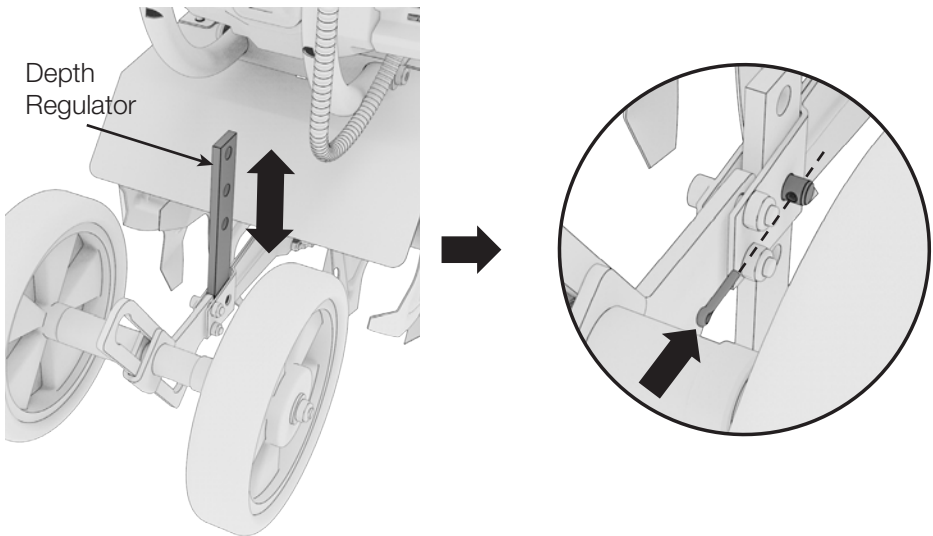
Setup of your tiller is designed to get you up and running as quickly as possible. Cut the four corners of the carton from top to bottom instead of attempting to lift it out of the box.

3.1 ASSEMBLING THE DEPTH REGULATOR

1. Remove the pin from the depth regulator bracket.

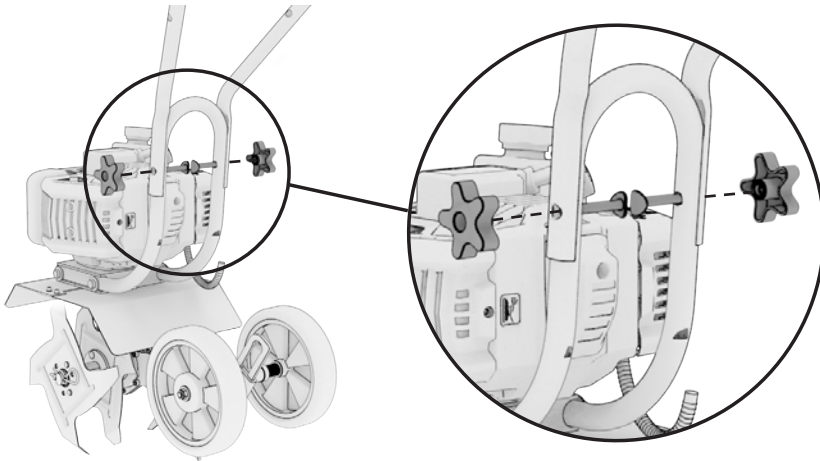


2. Insert the depth regulator and secure back in place in the desired height with the removed pin.

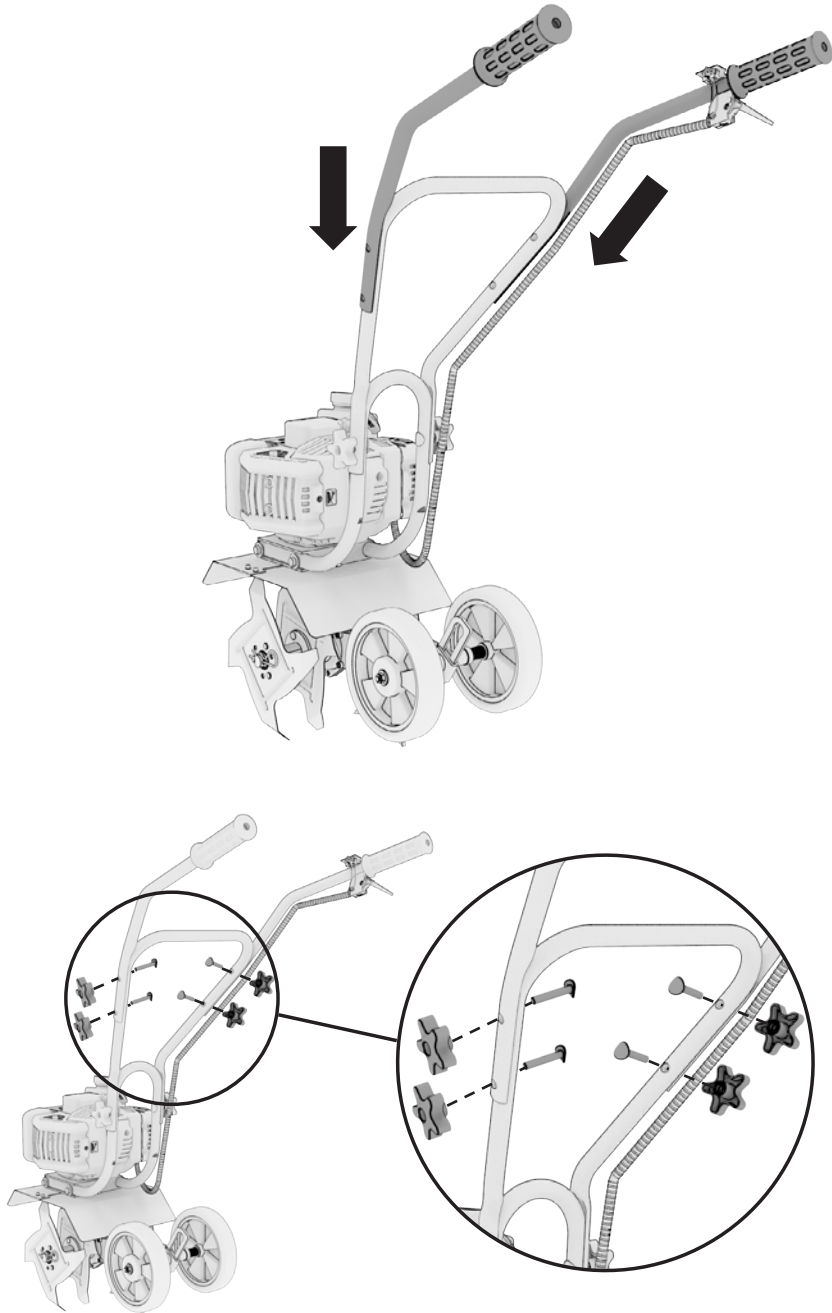


3.2 ASSEMBLING THE HANDLES

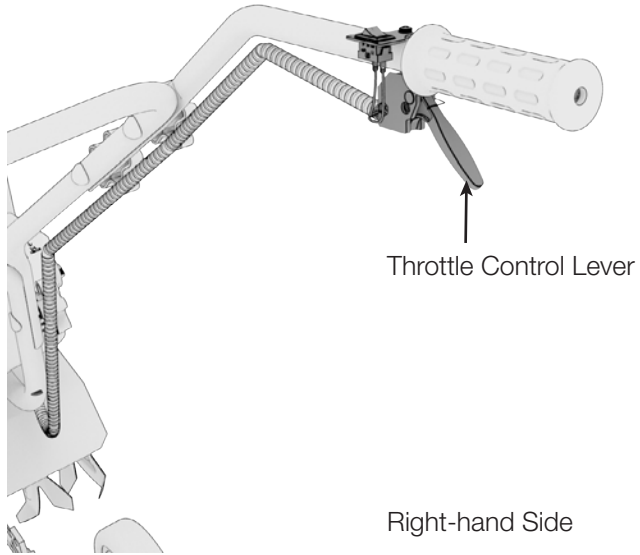
1. Using the knobs and screws, position and secure the lower handle bar to the handle mounting bar on the main body.



2. Secure the lateral handle bars to either side of the lower handle bar with the screws and knobs provided.



3. Ensure that the lateral handle bar with the throttle control lever is on your right-hand side.



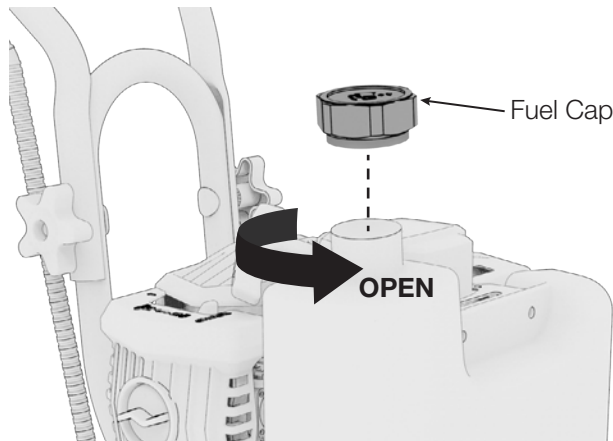
3.3 ADD FUEL AND ENGINE OIL

⚠ WARNING!

Used motor oil can cause skin irritations if left in long-term contact with skin. Thoroughly wash off used oil as soon as possible with soap and water.

Gasoline is highly flammable and explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped. **DO NOT** smoke or allow open flames or sparks in the area where the tiller is being refueled or where gasoline is stored. **DO NOT** overfill the tank. Be careful not to spill fuel when refueling. Wipe up any spilled gasoline and let the area dry before starting the engine.

Gasoline substitutes such as gasohol are not recommended. They may be harmful to the fuel system components.



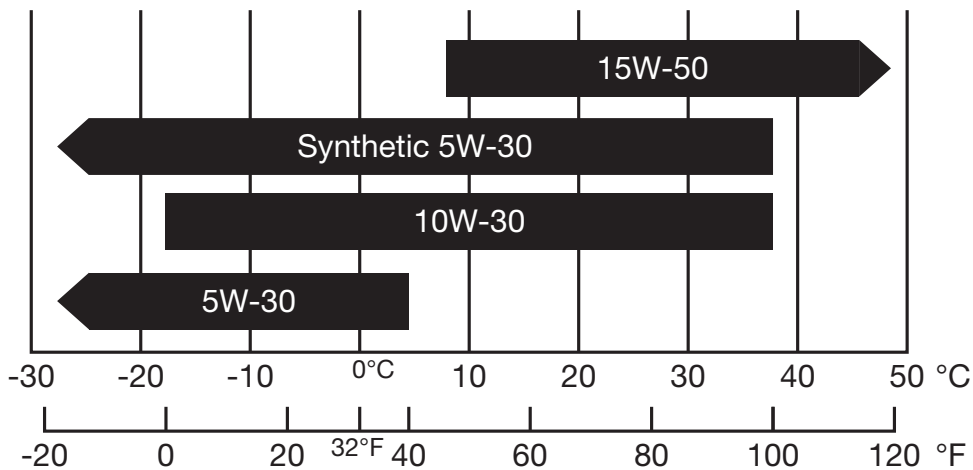
1. Create a mixture of 40 parts fuel and 1 part oil (40:1). Mix thoroughly.
2. Remove fuel tank cap. Place funnel securely in place and add fuel/oil mixture. Do not top off. Do not overfill.
3. Secure the fuel cap and wipe off any excess mixture.

NOTE

- Max fuel tank capacity: 0.23 Gal / 1 L
- Only use unleaded gasoline (Pump Octane 87 or higher).
- NEVER use stale or contaminated gasoline, or an oil/gasoline mixture.
- Avoid getting dirt or water into the fuel tank.
- DO NOT use a mixture of gasoline containing methanol. This will cause serious damage to the engine.
- Use of gasoline with an ethanol content greater than 10% can damage the engine and fuel system and will void the manufacturer's warranty.

- SAE 10W-30 oil is recommended for general use.
- DO NOT OVERFILL.

Effective Viscosity Range of Engine Oils



4. PRE-OPERATION CHECK

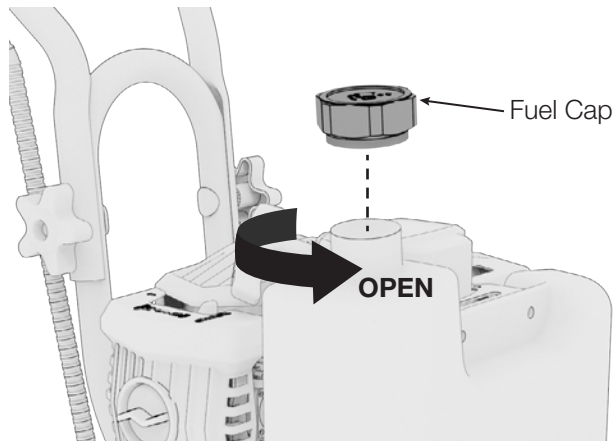
⚠ WARNING!

Exhaust gas contains poisonous carbon monoxide. NEVER run the tiller in an enclosed area. Be sure to provide adequate ventilation. Operate the tiller on a level surface. If the tiller is tilted, fuel spillage may result. Keep away from rotating parts while the tiller is running. The tiller is air-cooled and may be damaged if ventilation is inadequate.

These quick checks should be done each time the tiller is started to ensure you get the most out of your tiller.

Set the tiller on a level surface and the power to OFF.

4.1 CHECK THE FUEL AND OIL LEVEL



1. Check the fuel level by removing the fuel tank cap to visually check the level.
2. Add fuel carefully. DO NOT fill up to the base of the fuel neck. Fill the fuel tank no closer than 1 inch from top of tank to provide space for expansion.
3. Tighten the fuel cap securely after refilling

NOTE



- Only use unleaded gasoline (Pump Octane 87 or higher).
- NEVER use stale or contaminated gasoline, or an oil/gasoline mixture.
- Avoid getting dirt or water into the fuel tank.
- DO NOT use a mixture of gasoline containing methanol. This will cause serious damage to the engine.
- Use of gasoline with an ethanol content greater than 10% can damage the engine and fuel system and will void the manufacturer's warranty.

- SAE 10W-30 oil is recommended for general use.
- DO NOT OVERFILL.

4.2 SURVEY YOUR AREA

- Familiarize yourself with the area in which you plan to operate the tiller. Mark off all boundaries of where you plan to till.
- Ensure the area to be tilled is free of debris or objects that could be picked up by the tines and thrown.
- Ensure the operating area is clear of bystanders, especially children and pets. Be alert and turn the unit off if bystanders enter the area. Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

5. STARTING THE ENGINE

⚠ DANGER	
Using an engine indoors CAN KILL YOU IN MINUTES . Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell.	
	
NEVER use inside a home or garage, EVEN IF doors and windows are open.	Only use OUTSIDE and far away from windows, doors, and vents.
Avoid other engine hazards. READ MANUAL BEFORE USE.	

⚠ DANGER! ⚠

Using a gas powered engine indoors WILL KILL YOU IN MINUTES. Engine exhaust contains high levels of carbon monoxide (CO), a poisonous gas you cannot see or smell. If you can smell the engine exhaust, you are breathing CO. Even if you cannot smell the exhaust, you could be breathing CO.

NEVER use an engine inside a home, garage, crawlspace, or other partly enclosed area, deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors will NOT supply enough fresh air.

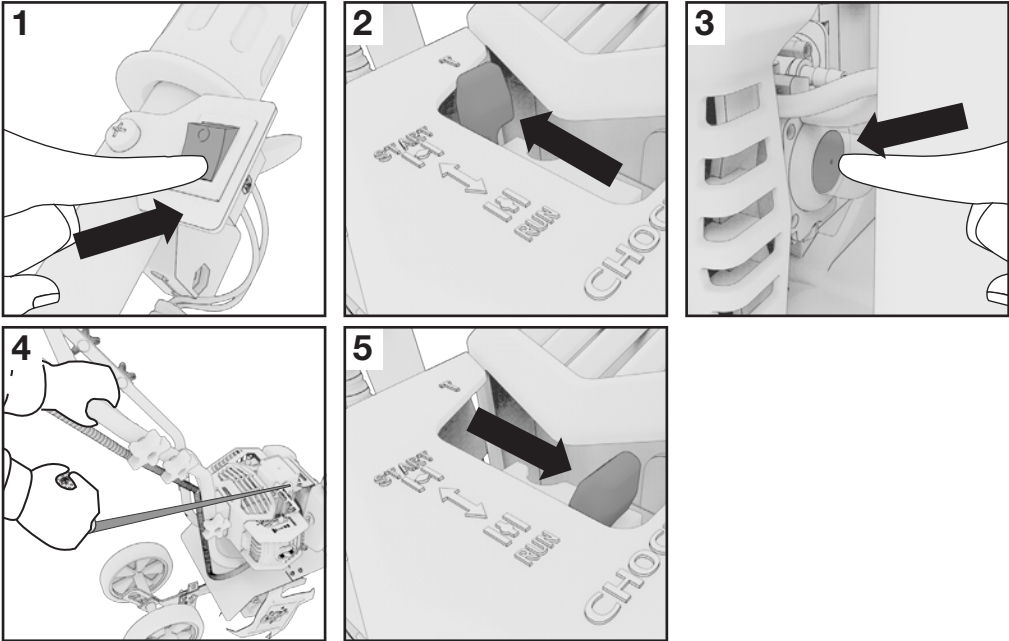
ONLY use an engine outdoors and far away from open windows, doors, and vents. These openings can pull in engine exhaust. Even when you use an engine correctly, CO may leak into the home. ALWAYS use a CO alarm in your home.

If you start to feel sick, dizzy, or weak after the engine has been running, move to fresh air RIGHT AWAY and seek medical attention. You could have carbon monoxide poisoning. Never run the engine in an enclosed space.

NOTE

- DO NOT crank the engine with the spark plug removed.

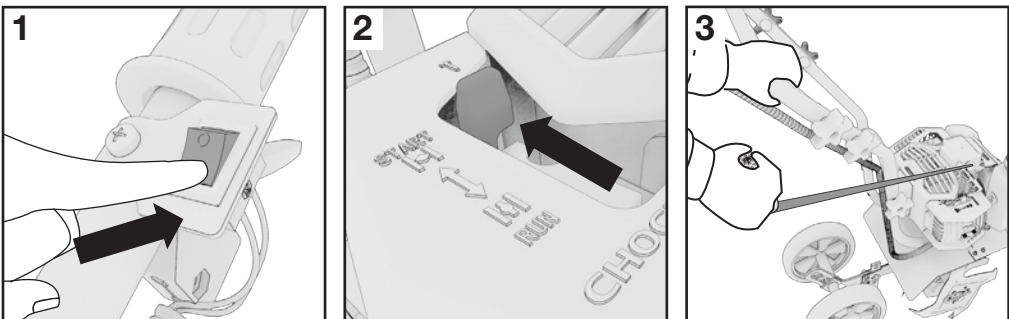
5.1 MANUAL RECOIL START



1. Set the On/Off switch on the right handlebar to the ON position
2. Set the choke lever to the START position.
3. Push the primer bulb 6 times, waiting 2 seconds between each push. Stop when you see the fuel flowing from the fuel tank to the carburetor through the transparent hose.
4. Pull recoil handle out rapidly, to start the engine. Carefully allow the recoil handle to return. Repeat this step until the engine starts.
5. Move the choke lever to the RUN position when the engine warms.

NOTE

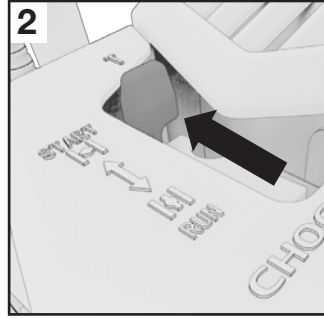
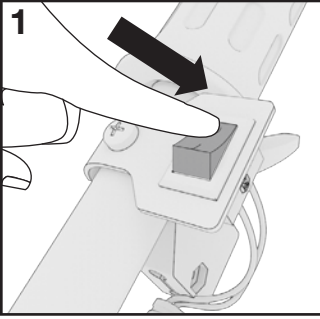
- For restarting a warm engine:



1. Move the ON/OFF switch to the ON position

2. Move the choke lever to the RUN position.
3. Pull the recoil handle rapidly until engine starts. Carefully allow recoil handle to return. Repeat until engine starts.

6. STOPPING THE ENGINE



1. To stop the engine, turn engine ON/OFF switch to the OFF position.
2. Set the choke lever to the START position.

7. USING THE TILLER

7.1 ADJUSTING THE DEPTH REGULATOR

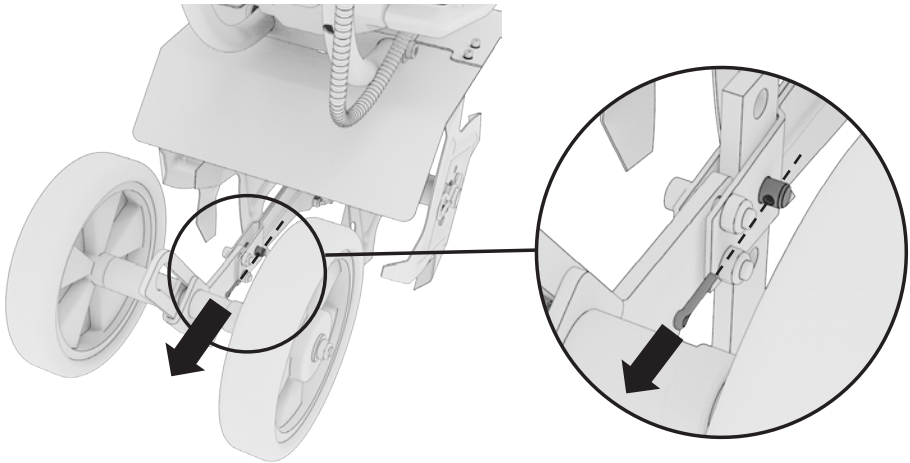
⚠ WARNING!

Always release the throttle lever back to the neutral position and stop the engine before adjusting the depth regulator.

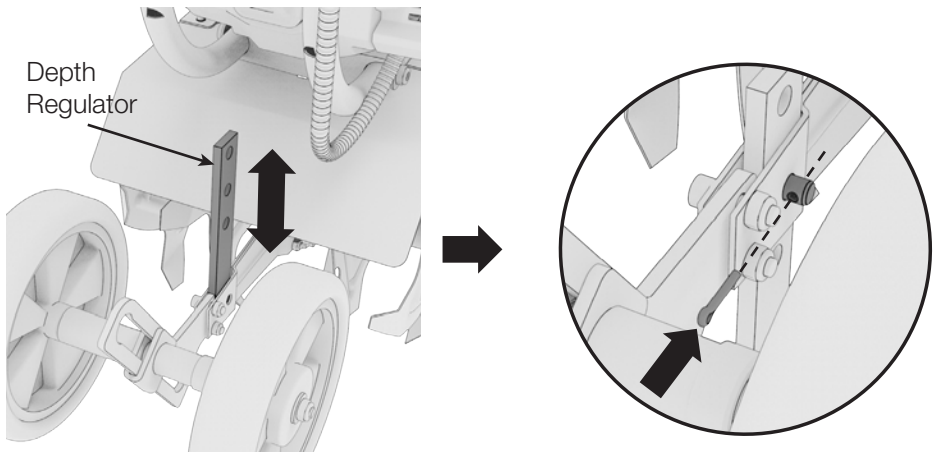
Adjust the depth regulator up one hole at a time, testing tiller operation after each change. Raising the depth regulator too drastically can result in losing control of the tiller.

Tilling height is controlled by the height of the depth regulator. The higher the hole on the depth regulator, the shallower the tilling.

1. Remove the pin securing the depth regulator.

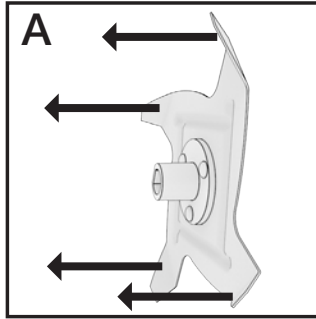


2. Raise or lower the depth regulator to the desired height. Secure in place with the pin.

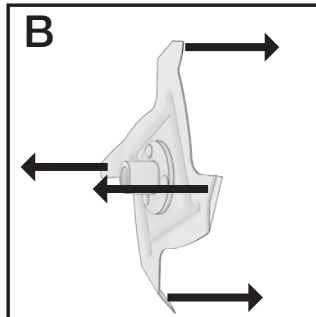


7.2 ADJUSTING THE TILLING WIDTH

Tilling width is controlled by the placement of the tines. There are 2 types of tines. One has all 4 teeth facing the same direction; the other has 2 teeth facing in the opposing direction.



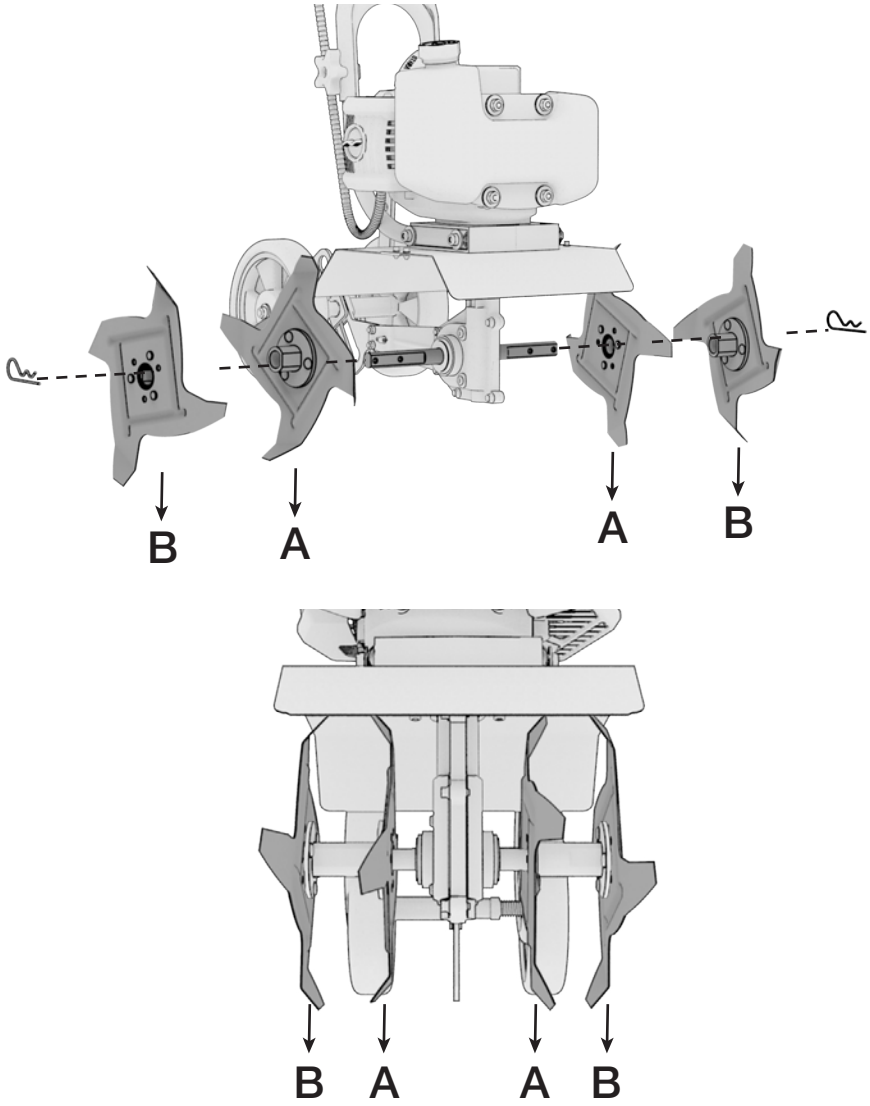
All 4 tips of the blade are pointing the same direction.



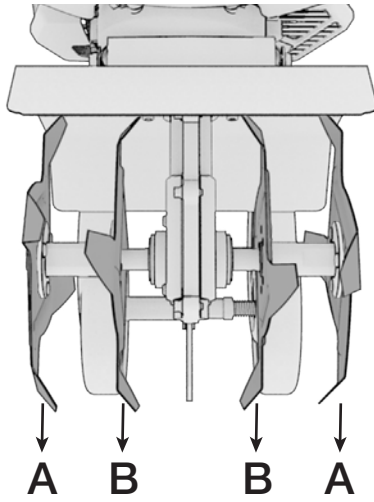
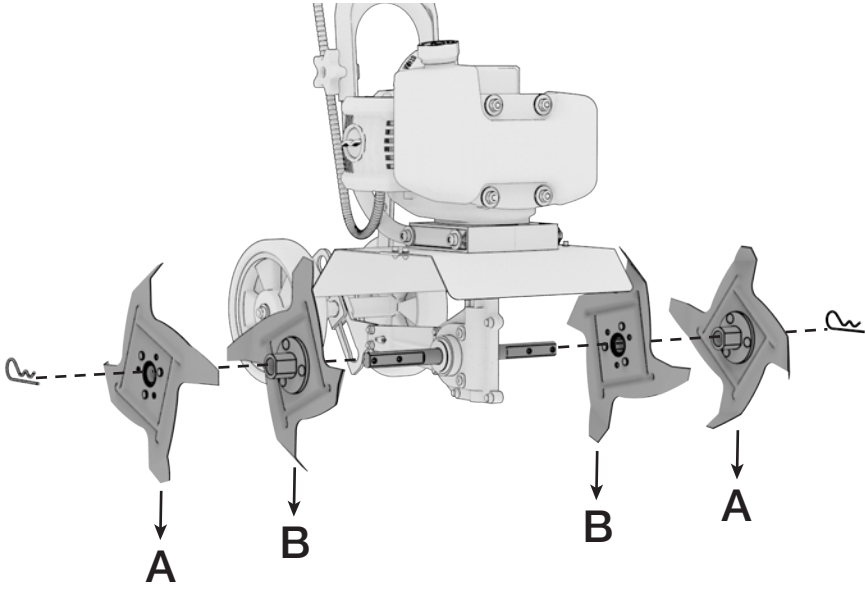
2 tips are pointing in the opposing direction to the other two.

There are two tilling widths available for this model. Position the 4 tines in the specified orders below to achieve the tilling width needed.

For 12 in (30 cm) Tilling Width:

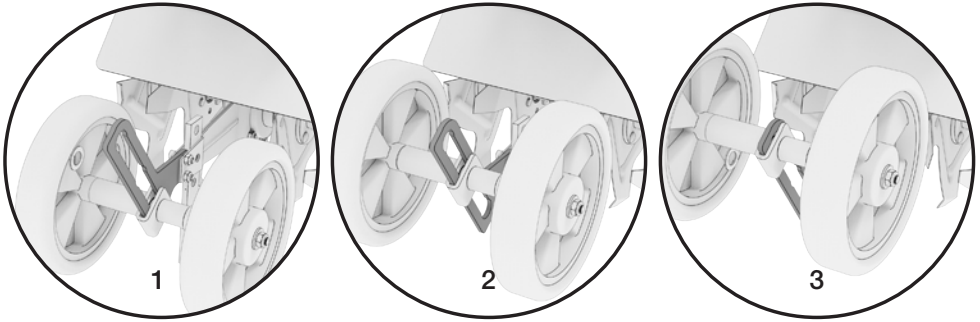


For 9.7 in (25 cm) Tilling Width

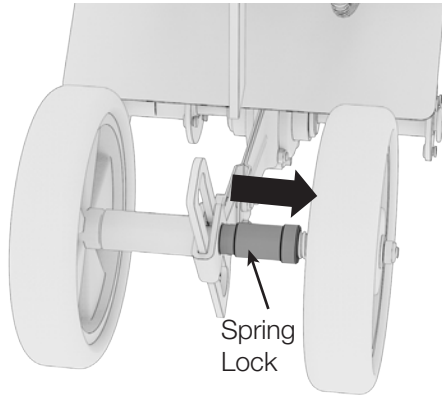


7.3 ADJUSTING THE WHEEL LINKS

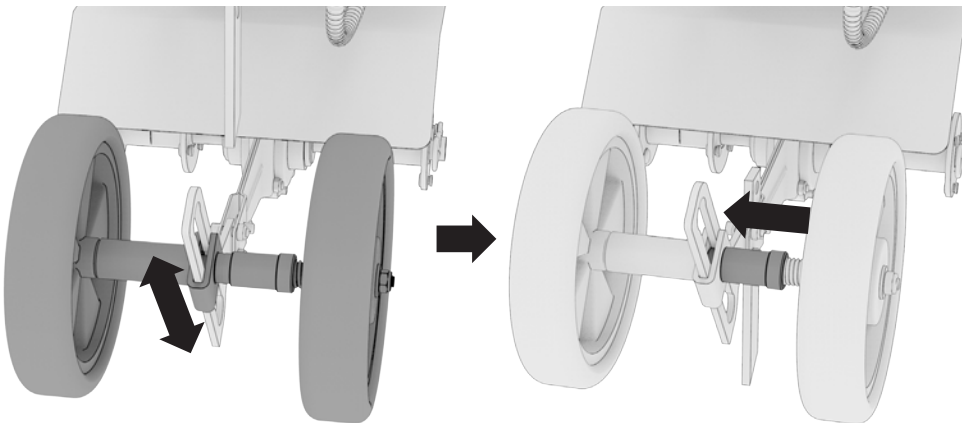
There are 3 grooves in the connector plate. Position the wheels in the highest groove (Slot 3) when operating the tiller. Position the wheels in Slots 1 or 2 when the tiller is not in operation.



1. Pull hard on the wheel assembly to release the spring lock.

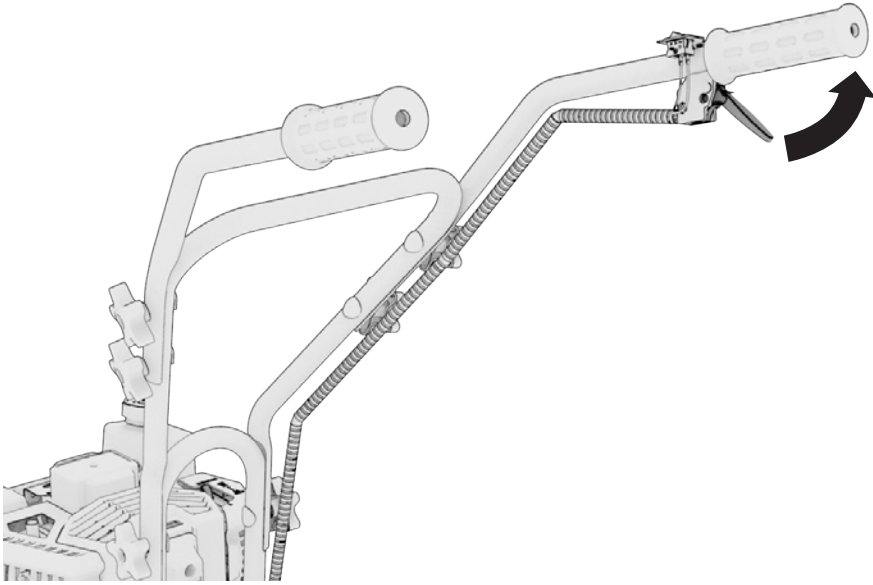


2. Slide the wheel to the desired position and release to lock in place.

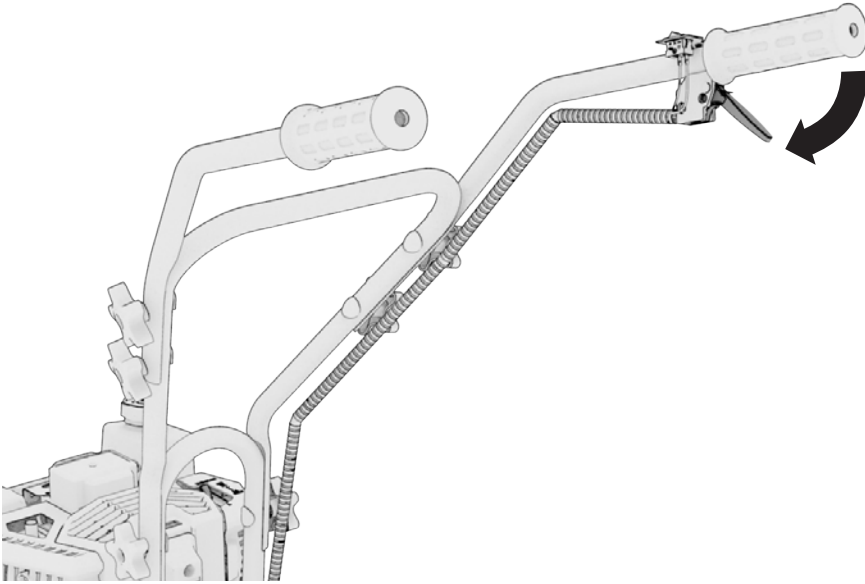


7.4 ENGAGING THE TINES AND WHEELS

Engage the tines by squeezing the throttle lever to the handle.



Releasing the lever stops the tines and brings the tiller to a stationary position.



NOTE

- Always fully engage the throttle lever when tilling.
- Always keep distance between yourself and the tiller. Any contact with the rotating tines can result in serious injury.
- Till at a moderate pace and advance slowly to get comfortable with the controls and with handling the tiller.

8. TILLING TIPS

8.1 TILLING

- To allow for machine cultivating after the plants have grown, leave enough clearance room for the tiller between the seed rows.
- When tilling unbroken ground or extremely hard soil, till at a shallow height by setting the clevis pin in the highest hole of the depth regulator. Make several light passes over the area, then adjust the depth regulator for deeper depths with successive passes.
- If the tiller jumps or skids uncontrollably, set the depth regulator to a shallower height. Hold firmly to the handlebars to control sudden lurches.
- Immediately release the control levers if the tines jam or you strike a foreign object. With the control levers in the neutral position, turn off the engine and wait for the tines to stop. Disengage the spark plug wire. Remove foreign objects and check for damage.

NOTE

- Remove sod from the soil before tilling. It is not recommended to till sod into soil.
- Always begin with a shallow cut on the first pass, and then work an inch or two deeper on each successive pass.
- Avoid working with soggy or wet soil. Wet soil can cause slips and falls, and is more prone to sticking and jamming the working parts of the tiller. Wait a day or two after heavy rain for the ground to dry.

8.2 CULTIVATING

- Plant rows on 20" - 22" (51 - 56cm) centers for ease of turning.
- Set the depth regulator lever with the clevis pin in one of the higher holes. This will allow for shallow cultivation necessary to turn over weeds and break up and aerate the soil.

9. MAINTENANCE

⚠ WARNING!

Fuel and its vapors are extremely flammable, which could cause burns or fire resulting in death or serious injury. When performing maintenance that requires the unit to be tipped, the fuel tank must be empty, or fuel can leak out and result in a fire or explosion.

Proper maintenance keeps your tiller in the best operating condition by ensuring safe, economical and trouble-free operation. Only use genuine parts and recommended fluids to replace the worn components. Improper maintenance may cause the tiller to malfunction and can lead to serious injury. Contact customer support if you have any maintenance questions.

General Inspection Tips

- Look for fuel leaks around the fuel tank, fuel hose, and fuel valve. Close the fuel valve and repair leaks immediately.
- Look and listen for exhaust leaks while the engine is running. Have all the leaks repaired before continuing operation.
- Check for dirt and debris and clean as necessary .
- Check the engine oil level and add oil as necessary.

9.1 MAINTENANCE SCHEDULE

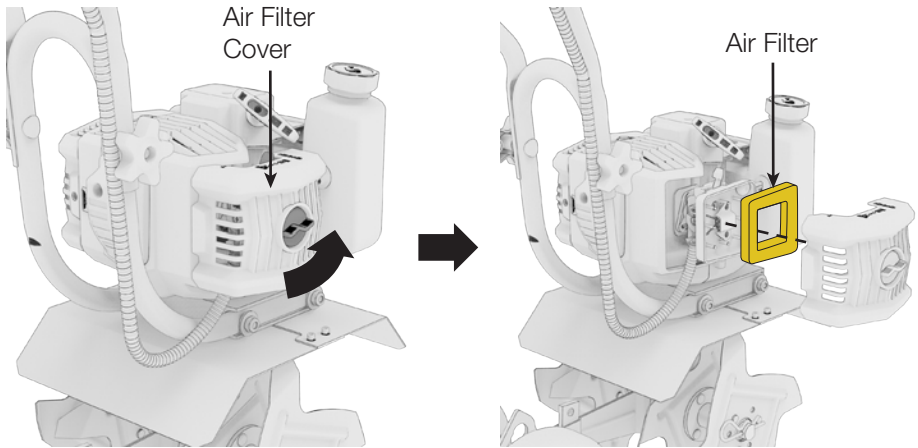
Regular maintenance will improve performance and extend the service life. Maintain the tiller according to the maintenance schedule below.

NOTE

- Service more frequently when used in dusty areas or adverse conditions.
- These items should be serviced by an authorized service center unless you have the proper tools and are mechanically proficient. Refer to user guide for service procedures.

Before Each Use
Check and tighten all screws and nuts
Every 2 Hours
Add lubricating oil to the gear box
Every 10 Hours
Clean and Re-oil air filter
Every 25 Hours
Inspect spark plug and replace is necessary

9.2 CLEANING THE AIR FILTER



1. Remove the screw securing the silencer cover and open. Remove the sponge air filter.
2. Wash the sponge air filter with detergent and water. Rinse thoroughly when cleaned.
3. Squeeze out all excess water and allow to dry completely.
4. Lightly coat the sponge air filter with engine oil. Squeeze to distribute and wring out any excess oil.
5. Place the cover back on and secure with the screw.

9.3 SPARK PLUG SERVICE

NOTE

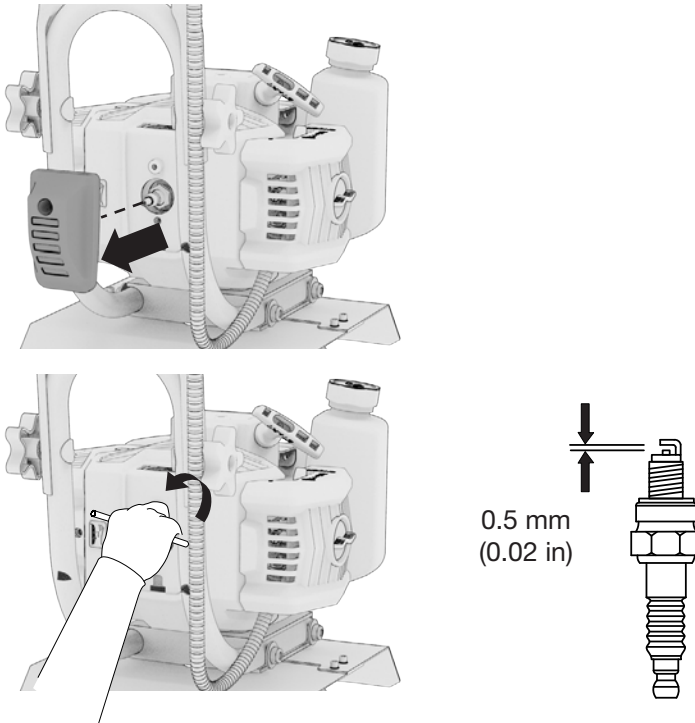
- Do NOT rinse spark plug in water. Follow guidelines and be careful not to overtighten the spark plug.

Recommended spark plug: **RDJ7Y**

Check the spark plug gap and clean the carbon deposits at the bottom of the spark plug.

Tighten 1/2 turn when installing a new spark plug.

Tighten 1/8 TO 1/4 turn when re-installing an old spark plug.



1. Remove the air filter access panel.
2. Remove the spark plug cap.
3. Remove the spark plug with the spark plug wrench.
4. Visually inspect the spark plug. Replace with a new one if the insulation is cracked or chipped. Clean with a wire brush if the spark plug is reused.
5. Measure the spark plug gap with a feeler gauge. The normal value is: 0.5mm (0.02in). Adjust the gap by carefully bending the electrode.
6. Carefully reinstall the spark plug by hand, to avoid cross-threading. A new spark plug should be tightened 1/2 turn with a wrench. A used spark plug should be tightened 1/8 to 1/4 turn with wrench.

7. Reinstall the spark plug cap.
8. Reinstall the spark plug maintenance cover.

NOTE

- The spark plug must be securely tightened or it could cause the spark plug to heat up enough to damage the engine.
- Never use a spark plug with an improper heat range.

9.4 LUBRICATING THE TILLER

1. Unscrew the screw that closes the gear box.
2. Add the gear oil into the compartment.

9.5 CLEAN TINE AXLE SHAFT

1. Turn off engine and allow it to cool.
2. Remove spark plug wire and secure it away from the spark plug.
3. Position the tiller so that the tines are exposed.
4. Remove all vegetation, string, wire, and other material that may have accumulated on the axle between the inside set of tines and the seal on the transmission housing.
5. Slowly tip the tiller back to a level position.
6. Replace spark plug wire.

9.6 ADJUSTING THE IDLE SPEED

1. Start the engine and allow it to warm up, about 2-3 minutes.
2. Release the throttle lever and allow the engine to idle.
 - If the engine cuts out, turn the adjuster clockwise in 1/8th of a turn increments, until the engine idles smoothly.
 - Tines should not be rotating when the engine is on idle. If they are, turn the adjustment screw counter-clockwise in 1/8th of a turn increments.

9.7 CARBURETOR MODIFICATION FOR HIGH ALTITUDE OPERATION (Above 2,000 feet)

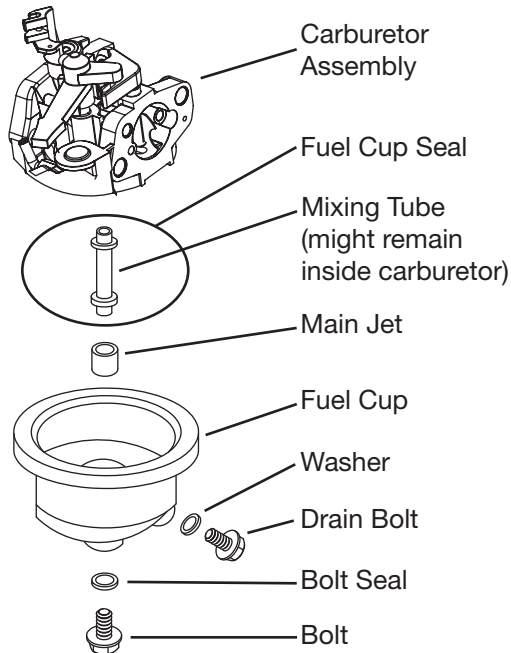
NOTE

- This engine is equipped to run at altitudes below 2,000-ft.
- A high-altitude main jet is recommended when operated at 2,000 to 7,000-ft above sea level.
- At elevations above 7,000-ft the engine may experience decreased performance even with a high-altitude main jet.

At high altitudes the carburetor's air/fuel mixture becomes too rich, resulting in higher fuel consumption, lower performance, and carbon build-up on the spark plug. On the other hand, if the carburetor has been modified for high altitude operation and is operated below 2000-ft, the air/fuel mixture will then be too lean for low altitude use. Always use the correct main jet for your altitude.

The engine's carburetor, governor (if so equipped), and any other parts that control the air/fuel ratio will need to be adjusted by a qualified mechanic to allow efficient high-altitude use, and to prevent damage to the engine and any other devices used with this product. The fuel system on this engine may be influenced by operation at higher altitudes.

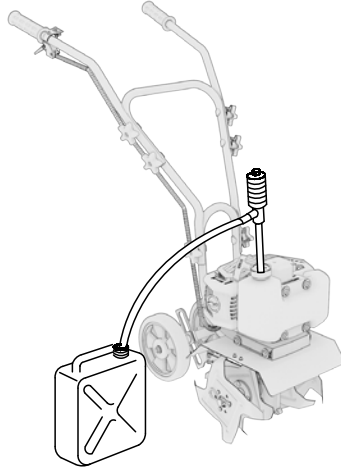
- Carburetor bowl may have gas in it which will leak upon removing the bolt.
- The mixing tube is held in place by the main jet and might fall out when it is removed. If it falls out, replace it in the same orientation before replacing the main jet.
- The fuel cup seal and bolt seal may be damaged during removal and should be replaced with the new ones.



1. Turn off the engine.
2. Close the fuel valve.
3. Place a bowl under the fuel cup to catch any spilled fuel.
4. Unthread the bolt holding the fuel cup.
5. Remove the bolt, bolt seal, fuel cup, fuel cup seal and main jet from the body of the carburetor assembly. A carburetor screwdriver (not included) is needed to remove and install the main jet.
6. Replace the main jet with the replacement main jet needed for your altitude range.
7. Replace the fuel cup seal, fuel cup, bolt seal, and bolt. Tighten in place. Do not cross thread bolt when tightening. Finger tighten first and then use a wrench to make sure the bolt is properly threaded.
8. Wipe up any spilled fuel and allow excess to evaporate before starting engine. To prevent FIRE, do not start the engine while the smell of fuel hangs in the air.

10. TRANSPORTATION & STORAGE

10.1 DRAINING THE FUEL TANK



Drain the old fuel and completely fill the tank with fresh gas and oil mixture. Add a fuel stabilizer according to the manufacturer's directions to keep your fuel fresh over long periods, we recommend B3C fuel additives. Run the engine for 2 minutes to circulate the fuel stabilizer.

10.2 TRANSPORTING THE TILLER

- Do not overfill the fuel tank (No residual fuel on the neck of tank).
- Avoid exposing the tiller to prolonged direct sunlight while in an enclosed vehicle. The high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.
- Drain the tiller of fuel and oil before being transported on rough roads.

10.3 STORAGE

Gasoline can oxidize in as little as 30 days, causing gum and varnish to build up in fuel system components.

NOTE

- Ensure that the storage area is free of excess humidity and dust.
- DO NOT store tiller in an unventilated area where fuel fumes may reach flame, sparks, pilot lights or an ignited object.
- Drain fuel outdoors away from any ignition sources. Use only approved fuel containers.

Storage Duration	Preparation Required
Less than 1 Month	<ul style="list-style-type: none"> ■ No storage preparation required, simply store as is.
1 Month to 1 Year	<ul style="list-style-type: none"> ■ Drain the old gas and completely fill the tank with fresh gas before storage. Add fuel stabilizer according to the manufacturer's directions. Adding a quality fuel stabilizer can keep gas fresh for up to a year. ■ Coat the wheel axles lightly with axle grease to protect from rusting
1 Year or More	<ul style="list-style-type: none"> ■ Drain off the gasoline from the fuel tank, and store in a suitable container. This will help prevent deposits from forming in the fuel system. ■ Turn the fuel switch to OPEN and loosen the carburetor drain bolt. Take off the spark plug cap and revolve the engine 3 or 4 times, by pulling the recoil handle, to fully discharge the gasoline from the fuel lines. ■ Turn the fuel switch to CLOSED and tighten the drain bolt of the carburetor. ■ Change oil while engine is still warm from operation. ■ Remove the spark plug, and pour a tablespoon of clean engine oil (10~20ml) into the cylinder. Revolve the engine several times by pulling on the recoil start to distribute the oil. Reinstall the spark plug. Pull the starter grip slowly until you feel resistance. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. This position helps to protect the engine from internal corrosion. ■ Coat the wheel axles lightly with axle grease to protect from rusting.

11. TROUBLESHOOTING

Problem	Cause	Solution
<p>Engine difficult to start.</p>	<ul style="list-style-type: none"> ■ Out of fuel. ■ Engine Switch OFF. ■ Engine is not primed. ■ Spark plug wire disconnected. ■ Fouled spark plug. ■ Dirty Carburetor. ■ Clogged air filter. ■ Contaminated Fuel. 	<ul style="list-style-type: none"> ■ Add fresh fuel. ■ Turn engine switch ON. ■ Press the primer bulb 3 times. ■ Attach spark plug wire to spark plug. ■ Remove spark plug. Inspect. Replace if necessary. ■ Take unit to an authorized service center for carburetor cleaning. ■ Remove and clean air filter. ■ Drain fuel tank. Clean fuel tank. Fill with fresh fuel.
<p>Engine Problems. The engine smokes excessively, runs very “rough,” runs erratically, or cannot maintain full speed.</p>	<ul style="list-style-type: none"> ■ No Engine Oil. ■ Fouled spark plug. ■ Clogged air filter. ■ Contaminated Fuel. ■ Carburetor out of adjustment. 	<ul style="list-style-type: none"> ■ Add engine oil to fuel mixture. ■ Remove spark plug. Inspect. Replace if necessary. ■ Remove and clean air filter. ■ Drain fuel tank. Clean fuel tank. Fill with fresh fuel. ■ Take unit to an authorized service center for carburetor adjustment.
<p>Excessive vibration and noise.</p>	<ul style="list-style-type: none"> ■ Loose parts. ■ Engine problems (above). 	<ul style="list-style-type: none"> ■ Tighten all fasteners. ■ Refer to engine solutions (above).

Tines will not rotate.	<ul style="list-style-type: none"> ■ Debris interfering with the tines. ■ Tines are loose. ■ Damaged drive belts. 	<ul style="list-style-type: none"> ■ Remove debris from around tines. ■ Replace tine bolts and nuts. ■ Replace drive belts.
Engine will not stop.	<ul style="list-style-type: none"> ■ Check the switch. 	<ul style="list-style-type: none"> ■ Replace the switch.
Tines will not cut properly.	<ul style="list-style-type: none"> ■ Damaged or worn tines. ■ The tines assembled incorrectly. 	<ul style="list-style-type: none"> ■ Replace drive belts. ■ Refer to “Adjusting the Tilling Width” Section.
Frequent engine stalling.	<ul style="list-style-type: none"> ■ Excessive tilling speed / depth. ■ Engine problems (above). 	<ul style="list-style-type: none"> ■ Till at a moderate pace. Make multiple passes. ■ Refer to engine solutions (above).

12. TECHNICAL SPECIFICATIONS

	SPECIFICATIONS	PARAMETERS
ENGINE	Type	Two Stroke
	Engine Displacement	52cc
	Engine Speed	7500 rpm
	Spark Plug	RDJ7Y
	Spark Plug Gap	0.02 in (0.5mm)
	Start System	Recoil Start
	Fuel Type	Unleaded Gasoline
	Fuel Tank Volume	0.23 Gal / 1 L
TILLER	Model Name	HH0407
	Tilling Width	Up to 12 in (30 cm)
	Tilling Depth	4.7 in (12 cm)
	Tine diameter	9 in (23 cm)
	Number of Tines (sets)	4
	Front or Rear Tines	Front
OTHER	Dimensions (L*W*H)	31.5 x 17.7 x 39.4 in
	Net Weight	33 lbs / 15 kg

13. LIMITED WARRANTY

This product is distributed by:
Midland Power Inc.
376 Magnetic Drive, Toronto, ON M3J 2C4, Canada

Warranty

Beginning at the time of retail purchase and for the duration of the warranty period Midland Power Inc. (Midland) warrants that Equipment manufactured by it is warranted to be free from defects in material and workmanship. Midland will, at its sole discretion, replace or repair any part(s) which, upon evaluation and testing by Midland or an authorized service center, show a defect in workmanship or material. Valid proof of purchase must be submitted online for registration with Midland, or presented to Midland at time of claim, for warranty to be valid. This warranty is not transferable from the original owner.

Limited Warranty Period:

Non-commercial use:

- Year 1, 2 and 3 - Parts and Labour
- Year 4 and 5 - Parts

Commercial use:

- First 6 Months - Parts and Labour

Replacement parts sold to a consumer or installed by an authorized service center are warranted for a period of 90 days from date of purchase. Labour must be performed by an authorized service center unless given Midland's prior written approval. Midland will not bear any transportation or shipping fees to or from an authorized service center. Service calls, travel charges, overtime, or weekend rates, are not covered.

This warranty does NOT cover:

- a. Any repairs required as a result of any parts not supplied by Midland, and this part is responsible for the failure or malfunction;
- b. Any Equipment modified, altered, disassembled or remodelled;
- c. Any repairs required as a result of a failure to install, maintain, store, transport, or operate the Equipment in accordance with standard practices set out in the user guide;
- d. Damage that occurred after receipt of equipment, not caused by defects in workmanship or material;
- e. Normal maintenance services, as outlined in the user guide and intended for a consumer to perform;

- f. Replacement of parts made in connection with normal maintenance services including oils, adhesives, additives, fuel, filters, brushes, belts, lubricants, spark plugs, gaskets, seals, fasteners, wires, tubes, pipes, fittings, wheels, batteries, and other expendables susceptible to natural wear;
- g. Any accessory or attachment.

Any battery supplied with this Equipment is considered a consumable item and is excluded from this warranty. Batteries can be damaged by shock, shorting terminals, heat, acid spillage, neglect, and other factors. It is the customer's responsibility to take great care when handling a battery so no spillage of acid occurs which may cause corrosion.

Midland disclaims any responsibility for loss of time or use of the product, transportation, or towing costs or any other indirect, incidental, or consequential damage, inconvenience or commercial loss.

This warranty is the entire and only warranty given by Midland for Midland products or equipment. No agent or employee is authorized to extend or enlarge this warranty on behalf of Midland by any written or verbal statement or advertisement.

California

The California Air Resources Board and Midland Power Inc. are pleased to explain the emission control system warranty on your Midland Power Inc. engine. In California, new spark-ignited small off-road equipment engines must be designed, built, and equipped to meet the State's stringent anti-smog standards.

Other States, U.S. territories, and Canada

In other areas of the United States and in Canada, your engine must be designed, built, and equipped to meet the U.S. EPA and Environment Canada emission standards for spark-ignited engines at or below 19 kilowatts.

All of the United States and Canada

Midland Power Inc. must warrant the emission control system on your power equipment engine for the period of time listed below, provided there has been no abuse, neglect, or improper maintenance of your power equipment engine. Where a warrantable condition exists, Midland Power Inc. will repair your power equipment engine at no cost to you including diagnosis, parts, and labor.

Your emission control system may include such parts as the carburetor or fuel injection system, the ignition system, and catalytic converter. Also included may be hoses, connectors, and other emission-related assemblies.

Emission Control System Warranty Parts:

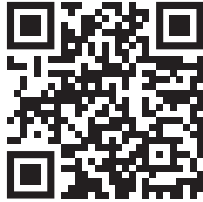
This list applies to parts supplied by Midland Power Inc. and does not cover parts supplied by the equipment manufacturer. Please see the original equipment manufacturer's emissions warranty for non-Midland Power Inc. parts.

Consumable parts are covered up to a maximum of 30 days.

SYSTEMS COVERED IN WARRANTY	PARTS DESCRIPTION
Fuel Metering	Carburetor assembly (includes starting enrichment system), Engine temperature sensor, Engine control module, Fuel regulator, Intake manifold
Evaporative	Fuel Tank, Fuel Cap, Fuel Hoses, Vapor Hoses, Carbon Canister, Canister Mounting Brackets, Fuel Strainer, Fuel cock, Fuel Pump, Fuel Hose Joint, Canister Purge Hose Joint
Exhaust	Catalyst, Exhaust Manifold
Air Induction	Air filter housing, Air filter element
Ignition	Flywheel magneto, Ignition pulse generator, Crankshaft position sensor, Power coil, Ignition coil assembly, Ignition control module, Spark plug cap, Spark plug
Crankcase Emission Control	Crankcase breather tube, Oil filler cap
Miscellaneous Parts	Tubing, fittings, seals, gaskets, and clamps associated with these listed systems

Enjoy!

Be sure to check www.benchmark.midlandpowerinc.com for updates regarding your product.





Customer Service

Online: www.benchmark.midlandpowerinc.com

E-mail: support@midlandpowerinc.com

Toll Free: 1-877-528-3772



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