



Front Tine Tiller

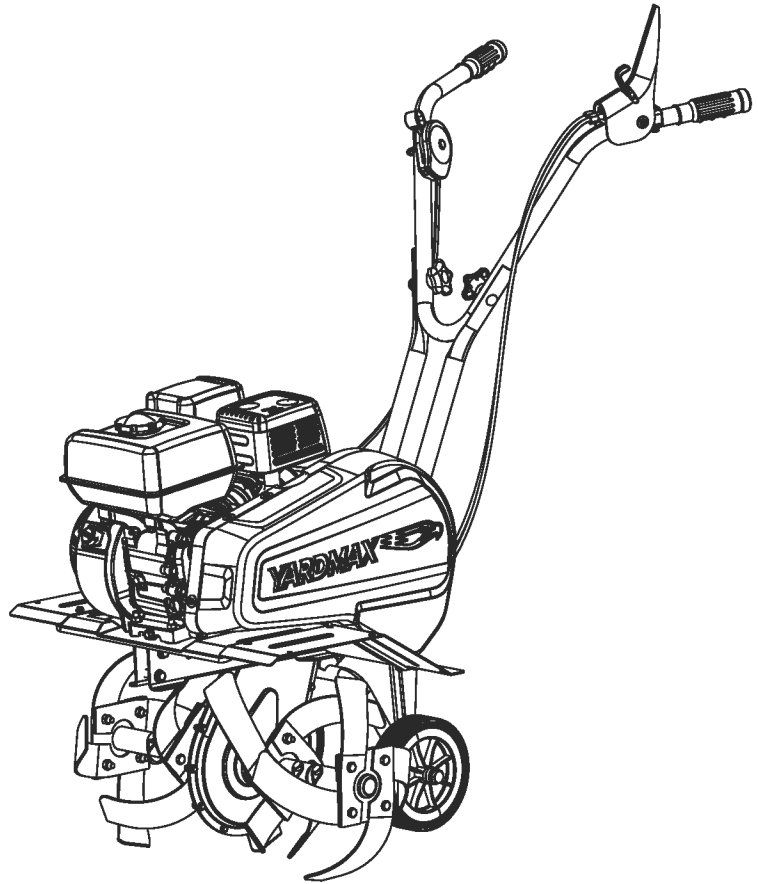
Operator's Manual

MODEL NUMBER
YT5565

SERIAL NUMBER

PURCHASE DATE

Both model number and serial number may be found on the main label (see **Page 2, Figure 1**). You should record both of them in a safe place for future use.



FOR YOUR SAFETY

READ AND UNDERSTAND THE ENTIRE MANUAL BEFORE OPERATING MACHINE

Your new YARDMAX® front tine tiller offers quality construction, and is easy and safe to operate. With proper use and care, it is designed to give you many years of dependable service.

Take on any job with ease, portability, and convenience while experiencing the durability of your new front tine tiller!

Discover the YARDMAX Advantage

At YARDMAX, we understand that land ownership definitely has its privileges, but it also comes with a great deal of responsibility. When duty calls and you need to respond, will you have what it takes to tame the great outdoors?

When looking for outdoor power equipment (OPE) to get the job done right, at the right price, YARDMAX delivers the perfect combination of performance and practicality. YARDMAX has a solution that's right for you.

MAX Performance, MAX Value, MAX Support – that's YARDMAX

- ✓ Backed by decades of proven manufacturing expertise
- ✓ Enhanced design features come standard
- ✓ Engineered for the best user experience
- ✓ Quality metal parts are used instead of plastic
- ✓ A robust warranty supports all products
- ✓ Budget-friendly prices make it practical



Up for the job? YARDMAX is.

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Carefully read through this entire operator's manual before using your new unit. Pay attention to all cautions and warnings.

This machine is a gasoline engine driven front tine tiller. It is a durable, versatile and efficient machine, and it is both easy and safe to operate. With proper use and care, it should give you many years of dependable service.

ENGINE MANUAL

The **Engine Manufacturer** is responsible for all engine-related issues regarding performance, power rating, specifications, warranty and service. Please refer to the **Engine Manufacturer's** owner/operator's manual, packed separately with your unit, for more information.

EMISSION CONTROL SYSTEM

This equipment or its engine may include exhaust and evaporative emission control system components required to meet U.S. Environmental Protection Agency (EPA) and/or California Air Resources Board (CARB) regulations. Tampering with emission controls and components by unauthorized personnel may result in severe fines or penalties. Emission controls and components can only be adjusted by an authorized engine manufacturer's service center.

CALIFORNIA PROPOSITION 65 WARNING

Engine exhaust, some of its constituents and certain product components contain or emit chemicals 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.

ENVIRONMENTAL



Recycle unwanted materials instead of disposing of them as waste. All tools, hoses, and packaging should be taken to the local recycling center and disposed of in an environmentally safe way.

MODEL AND SERIAL NUMBERS

For future reference, record both the model number (see **Figure 1, Illustration a**) and the serial number (see **Figure 1, Illustration b**), as well as date and place of purchase. Have this information available when ordering parts, optional accessories and when making technical or warranty inquiries.

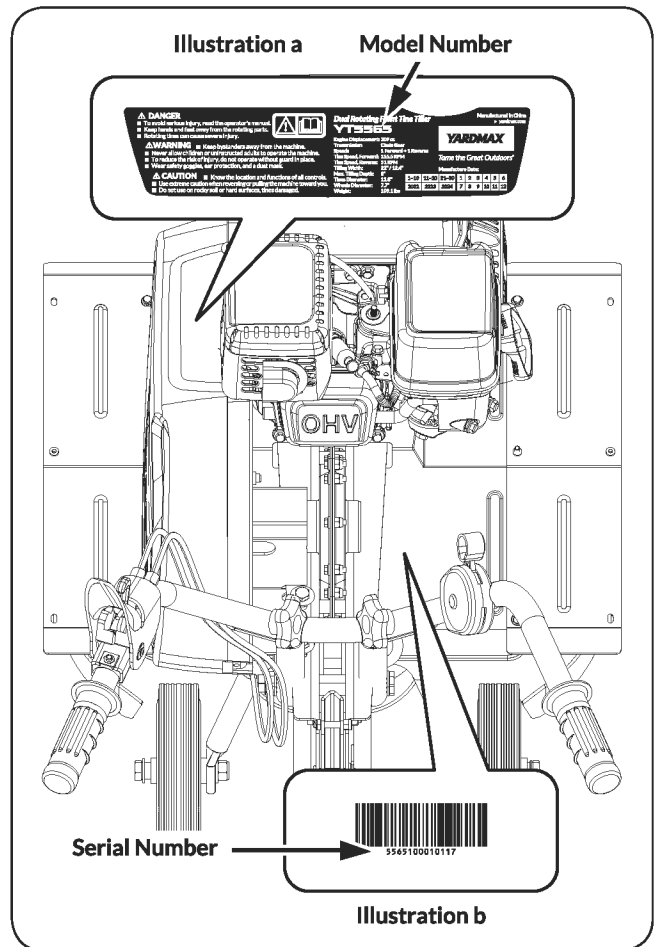


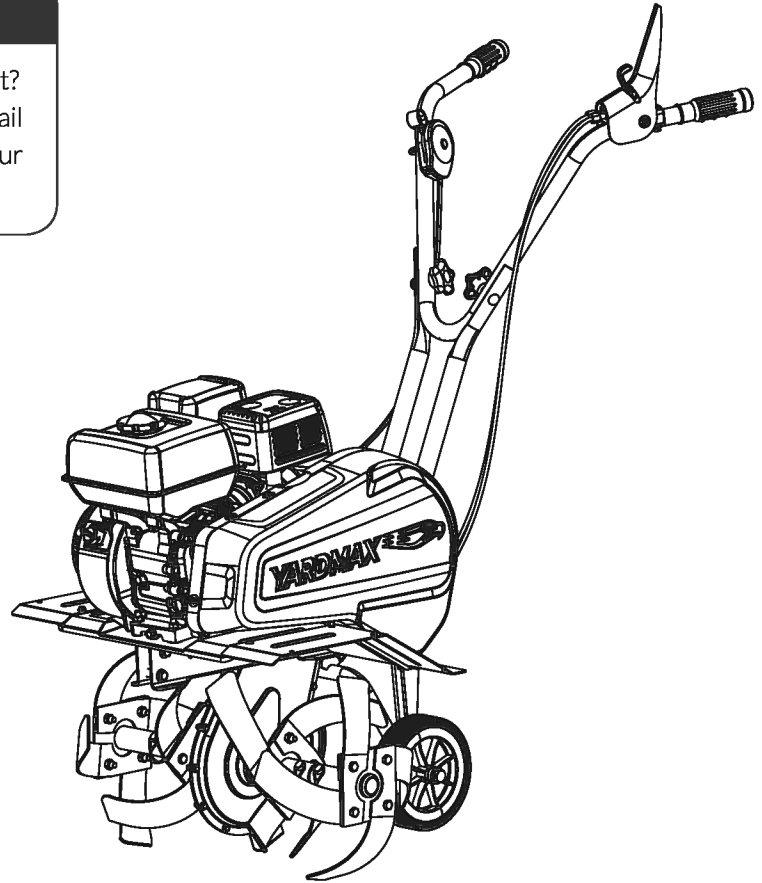
Figure 1

DISCLAIMER

YARDMAX reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your unit.

SUPPORT

Have questions about your YARDMAX equipment? Call us at 847-327-0566 or 844-YARDMAX, email us at support@yardmax.com, or contact us via your favorite social media site.



SPECIFICATIONS

Model Number	YT5565
Engine	YARDMAX
Displacement	209 cc
Torque (ft-lbs, gross)	9.14 lb-ft
Start Type	Recoil Start
Fuel Tank Capacity	0.68 gallons
Oil Capacity	16.9 oz.
Transmission	Chain Drive
Speeds	1 Forward+1 Reverse
Wheels Diameter	7.7"

Model Number	YT5565
Tines	4
Tine Direction	Dual Rotation
Tines Diameter	12.7"
Depth Adjustments	3 Positions
Tine Speed, Forward	155.5 RPM
Tine Speed, Reverse	51 RPM
Tilling Width	12.4"-22"
Max. Tilling Depth:	8"
Dimensions (L x W x H)	46.1"x22.3"x47.3"
Weight	109.1 lbs

SYMBOLS

The rating plate on your machine may show symbols. These represent important information about the product or instructions on its use.



Read these instructions carefully.



Wear eye protection.



Wear protective gloves.



Wear safety footwear.



Do not remove or tamper with the protection and safety devices.



No smoking, sparks, or flames.



Do not touch parts that are hot from operation. Serious burns may result.



Shut off the engine, disconnect spark plug wire, and make certain all moving parts have stopped before cleaning, repairing, or inspecting the unit.



Be aware, objects may be thrown while in use.



Keep children and bystanders at least 75 feet (23m) away.



Gasoline and its vapors are extremely flammable and explosive. Never fuel the machine indoors or while the engine is hot or running. Wipe up any gasoline that spills. Keep away from any inflammable objects when operating the engine.



Never start or run the engine inside a closed area or in a poorly ventilated area. The engine exhaust contains carbon monoxide, and an odorless and deadly gas.



Keep your hands clear from all rotating parts.



Keep your feet clear from all rotating parts.



Do not operate when other persons are present nearby.

SAFETY

GENERAL SAFETY RULES

UNDERSTAND YOUR MACHINE

Read this manual and labels affixed to the machine to understand its limitations and potential hazards.

Be thoroughly familiar with the controls and their proper operation. Know how to stop the machine and disengage the controls quickly.

Make sure to read and understand all the instructions and safety precautions as outlined in the **Engine Manufacturer's** manual packed separately with your unit. Do not attempt to operate the machine until you fully understand how to properly operate and maintain the engine and know how to avoid accidental injuries and/or property damage.

If the unit is to be used by someone other than original purchaser, or is to be loaned, rented, or sold, always provide this manual and any needed safety training before operation. The user can prevent and is responsible for accidents or injuries that may occur to themselves, to other people, or to property.

Do not force the machine beyond its limits. Use the correct machine for your application.

PERSONAL SAFETY

Do not permit children to operate this machine at any time.

Keep children, pets, and other people not using the unit away from the work area. Be alert and shut off the unit if anyone enters work area. Keep children under the watchful care of a responsible adult.

Do not operate the machine while under the influence of drugs, alcohol, or any medication that could affect your ability to use it properly.

Dress properly: Wear long, heavy pants, work boots, and work gloves. Do not wear loose clothing, short pants, or jewelry of any kind. Secure long hair so it is above shoulder level. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.

Protect eyes, face, and head from objects that may be thrown from the unit. Always wear safety goggles or safety glasses with side shields when operating.

Wear appropriate hearing protection.

Always keep hands and feet away from all moving parts during operation. Moving parts can cut or crush body parts.

Always keep hands and feet away from all pinch points.

Do not touch parts that might be hot from operation. Allow parts to cool before attempting to maintain, adjust, or service.

Stay alert, watch what you are doing, and use common sense when operating the machine.

Do not overreach. Do not operate the machine while barefoot or when wearing sandals or similar lightweight footwear. Wear protective footwear that will protect your feet and improve your footing on slippery surfaces. Keep proper footing and balance at all times. This enables better control of the machine in unexpected situations.

INSPECT YOUR MACHINE

Check your machine before starting it. Keep guards in place and in working order. Make sure all nuts, bolts, etc., are securely tightened.

Never operate the machine when it is in need of repair or is in poor mechanical condition. Replace damaged, missing, or failed parts before using it. Check for fuel leaks. Keep the machine in safe working condition.

Do not use the machine if the engine's switch does not turn off the engine when running. Any gasoline powered machine that can't be controlled with the engine switch is dangerous and must be replaced.

Regularly check to see that keys and adjusting wrenches are removed from the machine area before starting it. A wrench or a key that is left attached to a rotating part of the machine may result in personal injury.

Avoid accidental starting. Be sure the engine's switch is off before transporting the machine or performing any maintenance or service on the unit. Transporting or performing maintenance or service on a machine with its switch on invites accidents.

If the machine should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning sign of trouble.

ENGINE SAFETY

This machine is equipped with an internal combustion engine. Do not use on, or near, forest-covered or brush-covered land unless the exhaust system is equipped with a spark arrester meeting applicable local, state, or federal laws.

In the state of California, a spark arrester is required by law. Other states have similar laws. A spark arrester, if used, must be maintained in effective working order by the operator.

Never start or run the engine inside a closed area. The exhaust fumes are dangerous, containing carbon monoxide, an odorless and deadly gas. Operate this unit only in a well-ventilated outdoor area.

Do not tamper with the engine in an effort to get it to run at higher speeds. The maximum engine speed is preset by the manufacturer and is within safety limits. See engine manual.

Keep a Class B fire extinguisher on hand when operating this machine in dry areas as a precautionary measure.

FUEL SAFETY

Fuel is highly flammable, and its vapors can explode if ignited. Take precautions when using to reduce the chance of serious personal injury.

When refilling or draining the fuel tank, use an approved fuel storage container while in a clean, well-ventilated outdoor area. While adding fuel or operating the unit, do not smoke, and stay away from sparks, open flames, or other sources of ignition near the area of operation. Never fill the fuel tank indoors.

To avoid sparking or arcing, keep grounded conductive objects – such as tools – away from exposed, live electrical parts and connections. These events could ignite fumes or vapors.

Always stop the engine and allow it to cool before filling the fuel tank. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot. Do not operate the machine with known leaks in the fuel system.

Loosen the fuel tank cap slowly to relieve any pressure in the tank.

Never overfill the fuel tank. Because engine heat can cause fuel to expand, never fill the tank to more than 1/2" below the bottom of the filler neck. This will provide space for fuel expansion.

Replace all fuel tank and container caps securely and wipe up spilled fuel. Never operate the unit without the fuel cap securely in place.

Avoid creating a source of ignition for spilled fuel. If fuel is spilled, do not attempt to start the engine. Instead, move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated.

When fuel is spilled on yourself or your clothes, wash your skin and change clothes immediately.

Store fuel in containers specifically designed and approved for fuel storage.

Store fuel in a cool, well-ventilated area, safely away from sparks, open flames, or other sources of ignition.

Never store fuel – or a machine with fuel in the tank – inside a building where fumes may reach a spark, open flame, or any other source of ignition (such as a water heater, furnace, or clothes dryer). Allow the engine to cool before storing in any enclosure.

SPECIFIC SAFETY RULES

Thoroughly inspect the area to be tilled, and remove all debris and hard or sharp objects such as stones, sticks, glass, wire, bones, etc. Do not operate tiller in soil with large rocks and foreign objects which can damage the machine.

Do not till above underground electric cables, telephone lines, water lines, gas lines, pipes, or hoses. If in doubt, contact your utility or telephone company to locate underground services.

Keep all bystanders, children, and pets at least 75 feet (23m) away. If you are approached, stop the unit immediately.

This unit has a clutch. Squeeze the drive control handle lever and check that it returns automatically to the neutral position. If it does not, have unit adjusted by a qualified repair personnel.

Disengage drive control handle lever before starting the engine.

Start the engine carefully according to instructions and with feet well away from the tines.

The tines remain stationary when the clutch is disengaged. If it does not, have unit adjusted by a qualified repair personnel.

Always operate the machine from behind, never pass or stand in front of the machine when the engine is running.

Always hold the unit with both hands when operating. Keep a firm grip on the grips. Be aware that the machine may unexpectedly bounce upward or jump forward if the tines should strike buried obstacles such as large stones, roots, or stumps.

If the unit strikes a foreign object, stop the engine, disconnect the spark plug, thoroughly inspect the machine for any damage, and repair the damage before restarting and operating the machine.

Use extreme caution when in reverse or pulling the machine towards you.

Do not overload the machine capacity by tilling too deep in a single pass or at too fast a rate.

Never operate the tiller at high transport speeds on hard or slippery surfaces.

Be careful when tilling in hard ground. The tines may catch in the ground and propel the tiller forward. If this occurs, let go of the handlebars and do not restrain the machine.

Use caution when tilling near fences, buildings and underground utilities. Rotating tines can cause property damage or personal injury.

Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.

Never leave the operating position when the engine is running.

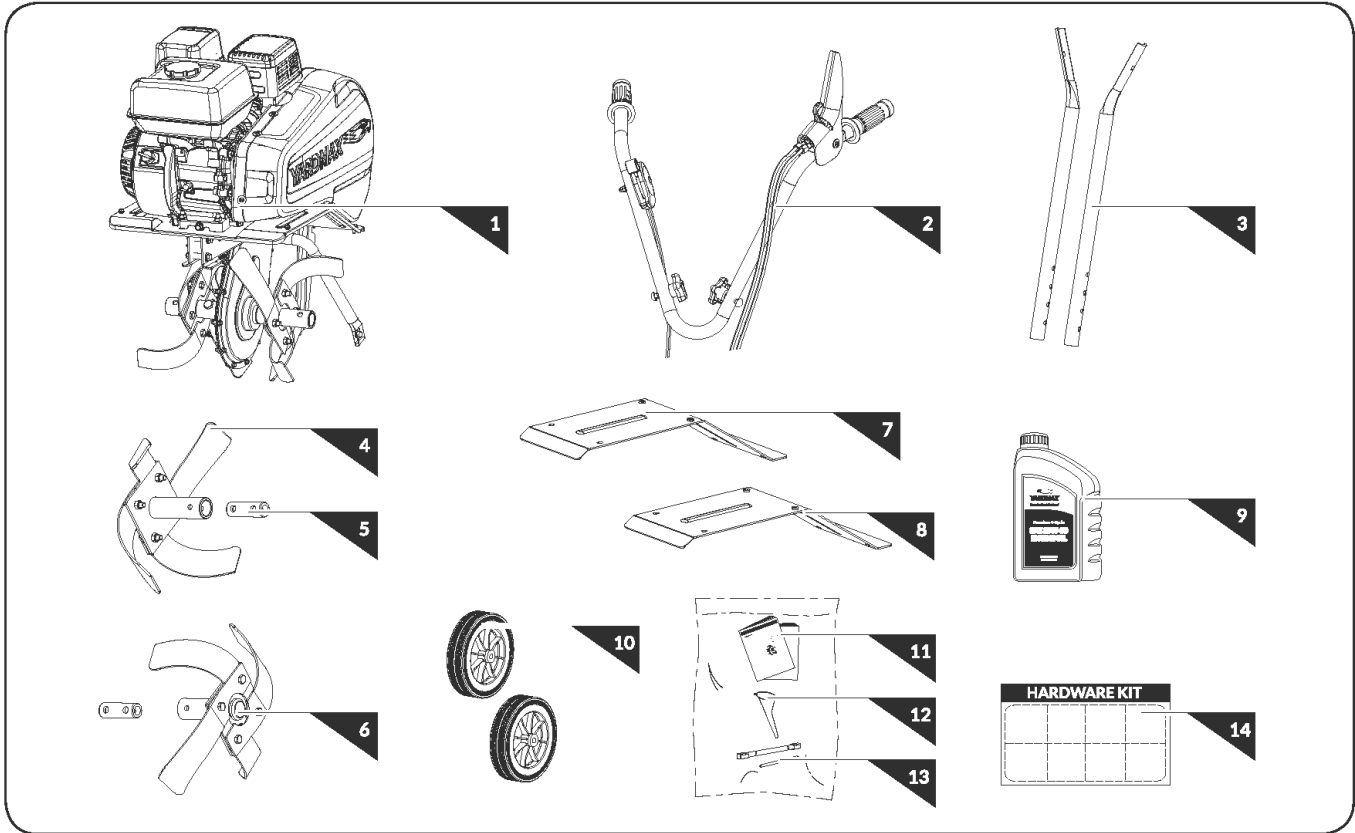
Always stop the engine when tilling is delayed or when walking from one tilling location to another.

Keep unit clean of vegetation and other materials. They may become lodged between the tines. Stop the engine and disconnect the spark plug before unclogging the tines.

To reduce exposure to vibration, limit the hours of operation and take periodic breaks to minimize repetition and rest your hands. Reduce the speed and force in which you do the repetitive movement. Try to fill each day with jobs where operating hand-held power equipment is not required.




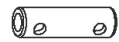





CONTENTS SUPPLIED

Your YARDMAX front tine tiller comes partially assembled and contains the following:



- 1. Main Machine
- 2. Upper Handlebar
- 3. Lower Handlebar (1 pair)
- 4. Outer Tine - Right
- 5. Inner Pipe (1 pair)
- 6. Outer Tine - Left
- 7. Tine Shield - Right
- 8. Tine Shield - Left
- 9. Engine Oil
- 10. Wheel (1 pair)
- 11. Operator's Manual & Engine Manual
- 12. Funnel
- 13. Tools for Spark Plug Assembly

14. Hardware Kit, Including:

	M12 × 85	× 2	1
		× 2	
		× 4	2
		× 2	
	M5 × 12	× 4	3
	M5 × 12	× 2	
	M8 × 130	× 2	4
	M8 × 45	× 2	
		× 2	5

ASSEMBLY

This front tine tiller was partially assembled at the factory. To assemble your machine follow the below instructions.

WHEELS

Slide the tube sleeve into the wheels and mount the wheels on both sides of the bracket with M12X85 screws, washers and nuts. (See **Figure 2**)

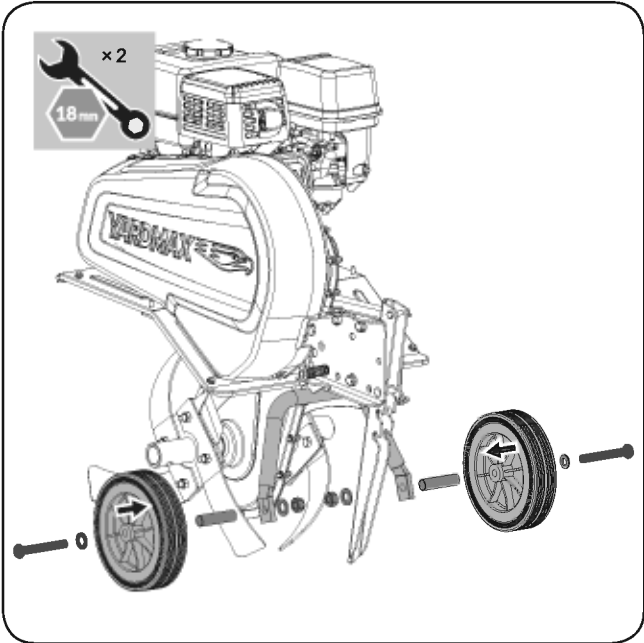




Figure 2

	M12 x 85	x 2	1
		x 2	

TINES

Insert the inner pipe into the outer and inner tine and secure with quick release pins. (See **Figure 3**)

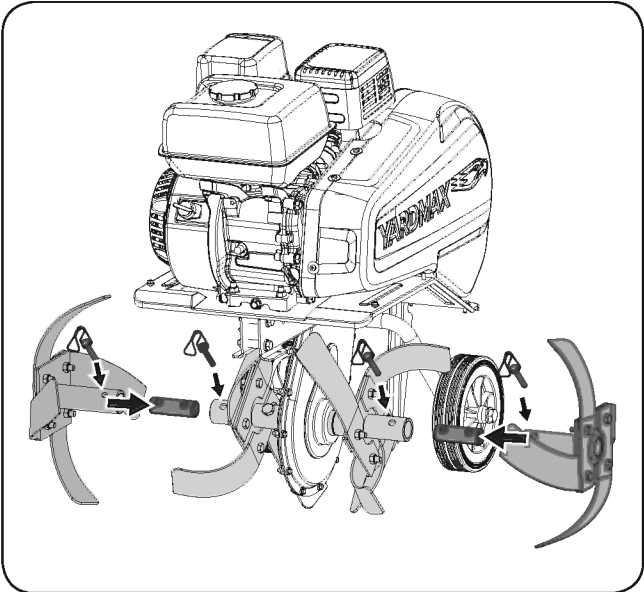




Figure 3

	x 4	2
	x 2	

TINE SHIELD EXTENSIONS

Attach the tine shield extension to the tine shield with M5X12 screws and nuts. Welded nuts do not need to be fixed with nuts. (See **Figure 4**)

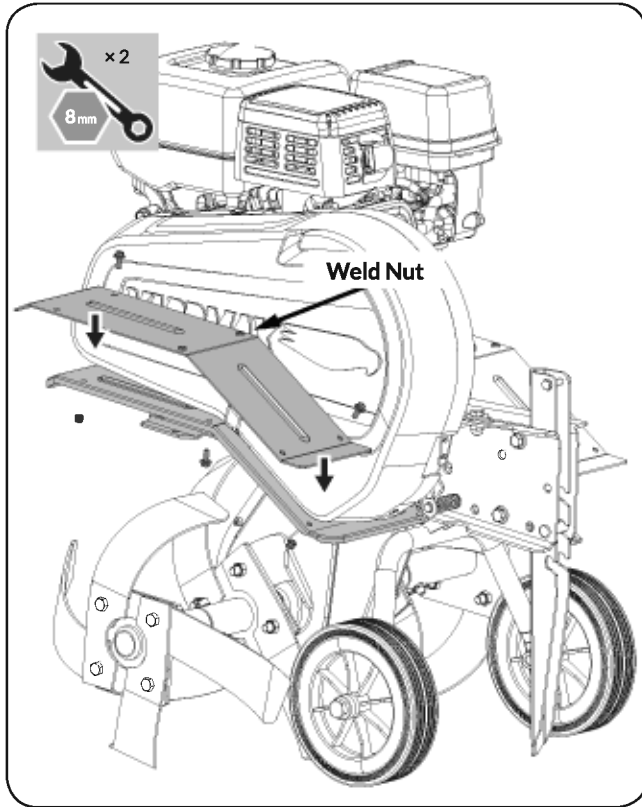


Figure 4



M5 × 12 × 4

M5 × 12 × 2

3

LOWER HANDLES

Mount the lower handles on the end connecting plate with M8x130 bolts, through two holes with proper distance in the handle and secure them with washers and nuts. (See **Figure 5**)

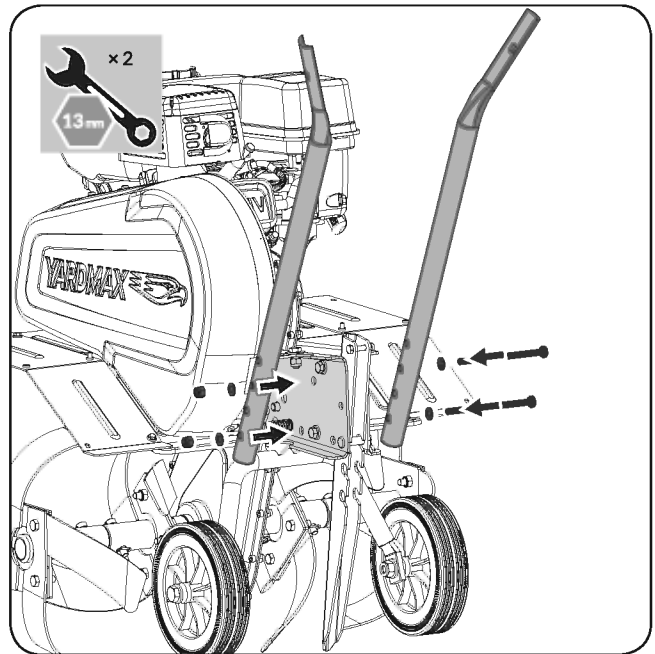


Figure 5



M8 × 130

× 2

4

UPPER HANDLES

Remove the star knobs and bolts from the upper handles. Line up the holes in the lower handles and upper handles, secure them with M8x45 bolts and star knobs. (See **Figure 6**)

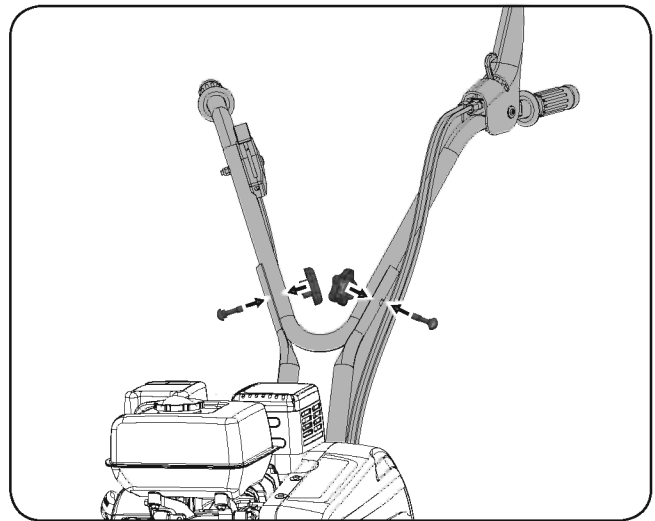


Figure 6



M8 × 45

× 2



× 2

5

KNOW YOUR MACHINE

FEATURES AND CONTROLS

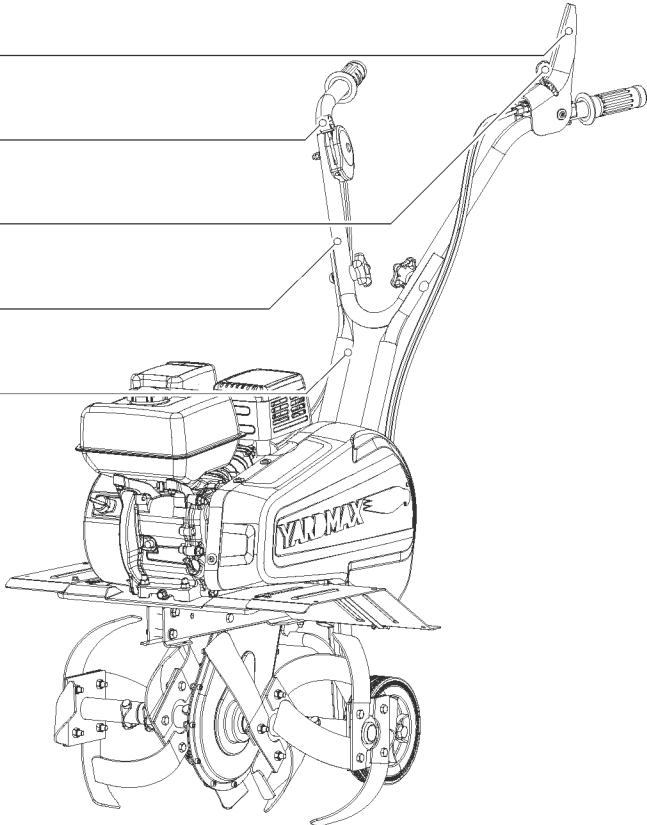
Clutch Control Lever

Throttle lever

Steering Lever

Upper Handle

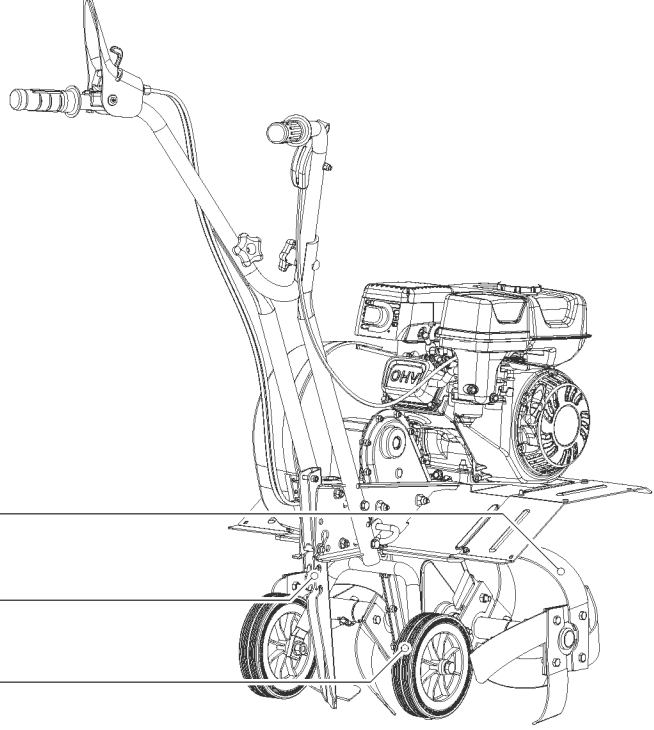
Lower Handle

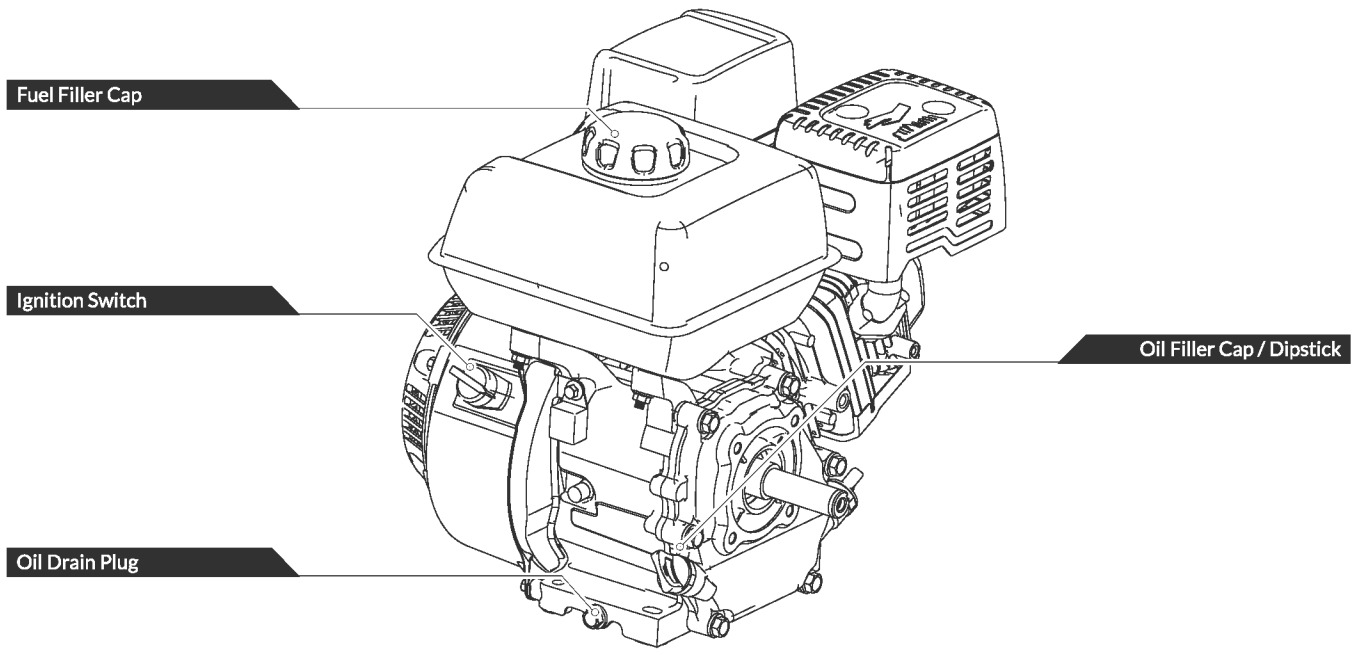
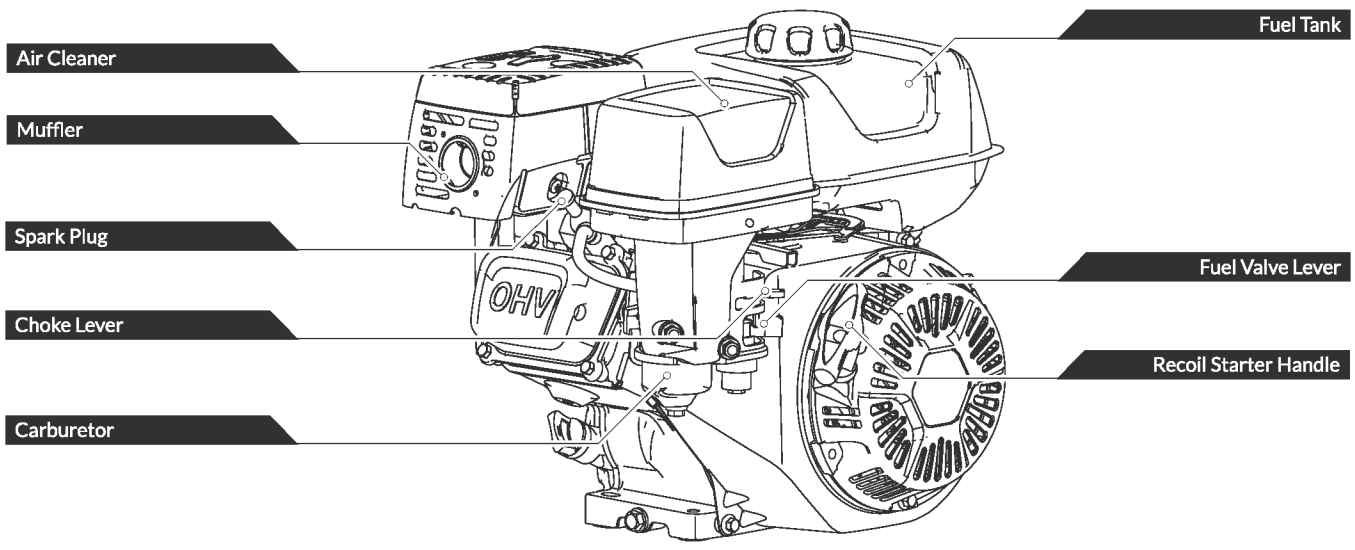


Tines

Depth Regulator Rod

Wheel







Clutch Control Lever

- » Push down to engage the clutch.
- » Release to disengage the clutch and return the steering lever to neutral.

Throttle Lever

- » Regulates the speed of engine. Moving towards FAST  to speed up the engine. Moving towards LOW  to lower the engine speed.

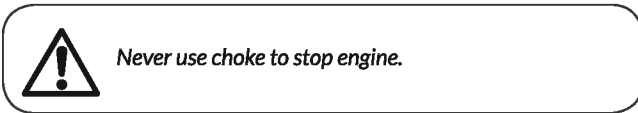


Recoil Starter Handle

- » Used to pull-start the engine.

Choke Control

- » The choke control is used to choke the carburetor and assist in starting the engine. The choke control slides between the CHOKE and RUN positions. The CHOKE position enriches the fuel mixture for starting a cold engine.
- » The RUN position provides the correct fuel mixture for operation after starting, and for restarting a warm engine.



Fuel Valve Lever

- » The fuel valve opens and closes the passage between the fuel tank and the carburetor.
- » The fuel valve lever must be in the ON position for the engine to run.
- » When the engine is not in use, leave the fuel valve lever in the OFF position to prevent carburetor flooding and to reduce the possibility of fuel leakage.

Steering Lever

- » Select gear before pushing down the clutch lever.
- » Pull the lever to the left to engage forward tilling and to the right to engage reverse moving.



Wheel

- » The locating pin locks wheel bracket at different height and distance from the tines.



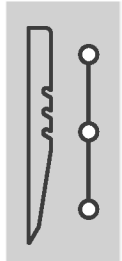
- » When farming, raise the wheels and fix them with locating pin.

- » Set the wheel down when transporting the tiller. Tilt the machine back until the tines clear the ground. Push or pull the unit to the next location.

Depth Regulator Rod

- » It regulates the tilling depth and helps the operator control the direction and speed of the tiller.

- » Insert the depth regulator rod in the groove at the rear of the chassis, with the pointed end downward and the notched side outward.



- » Lowering the depth regulator rod will slow the tiller and make it till deeper. Raising the depth regulator rod will allow it to move faster and till shallower.

- » To adjust the tilling depth.

1. Remove the cotter pin.
2. Raise or lower the depth regulator rod to the desired position.
3. Replace the cotter pin.

OPERATION



Keep all bystanders, especially CHILDREN, away during operation.



Never start or run the engine inside a closed area or in poorly ventilated area. The engine exhaust contains carbon monoxide, and odorless and deadly gas.

ADD OIL TO ENGINE



The engine is shipped without oil. Do not start the engine before adding oil. Please refer to your engine manual for the proper grade of oil to add.

1. Make sure the tiller is on a flat, level surface.

2. Remove the oil fill cap/dipstick to add oil. (See **Figure 7**)

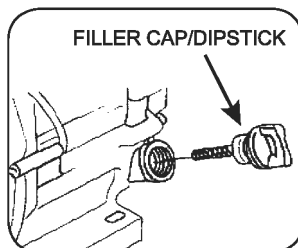


Figure 7

3. Using a funnel, add oil up to the **FULL** mark on the dipstick. (See engine manual for oil capacity, oil recommendation, and location of fill cap.)



DO NOT OVERFILL THE OIL. Check engine oil level daily and add as needed.

ADD GASOLINE TO ENGINE



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



Fill the fuel tank outdoors, never indoors. Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.

1. The engine must be off and allowed to cool at least two minutes before adding fuel.
2. Remove the fuel filler cap and fill the tank. (See engine manual for fuel capacity, fuel recommendation, and location of fuel cap.)
3. Reinstall the fuel cap and tighten. Always clean up spilled fuel.

IMPORTANT: DO NOT OVERFILL!



This equipment and/or its engine may include evaporative emissions control system components, required to meet EPA and/or CARB regulations, that will only function properly when the fuel tank has been filled to the recommended level. Overfilling may cause permanent damage to evaporative emissions control system components. Filling to the recommended level ensures a vapor gap required to allow for fuel expansion. Pay close attention while filling the fuel tank to ensure that the recommended fuel level inside the tank is not exceeded. Use a portable gasoline container with an appropriately sized dispensing spout when filling the tank. Do not use a funnel or other device that obstructs the view of the tank filling process.

STARTING ENGINE

1. Move the fuel valve lever to the ON position. (See **Figure 8**)

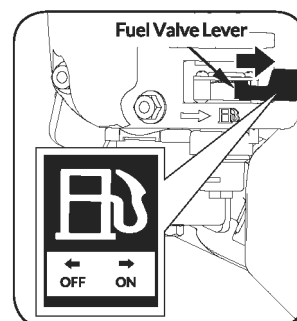


Figure 8

2. Move the choke lever to the CHOKE position. (See **Figure 9**)



To restart a warm engine, leave the choke lever in the RUN position.

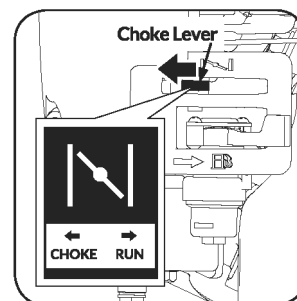


Figure 9

3. Move the throttle control lever slightly forward to about $\frac{1}{4}$ of the way (slightly toward the fast position). (See **Figure 10**)
4. Turn the engine switch to the ON position.

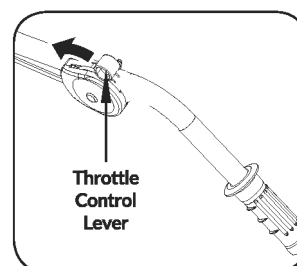


Figure 10

- Pull the recoil starter until the engine starts. Return the recoil to the home position after each pull. Repeat the steps as needed. Once engine has started, set the throttle to the FAST position before you operate the unit.



Rapid retraction of the starter cord (kickback) can occur, which may pull your hand and arm toward the engine faster than you can let go. Broken bones, fractures, bruises, or sprains could result.

- If the choke lever has been moved to the CHOKE position to start the engine, gradually move it to the RUN position as the engine warms up.

IDLE SPEED

Set throttle control lever to its "LOW" position to reduce stress on the engine when tilling is not being performed. Lowering the engine speed to idle the engine will help extend the life of the engine, as well as conserve fuel and reduce the noise level of the machine.

STOP ENGINE

To stop the engine in an emergency, turn the engine switch to the OFF position. Under normal conditions, use the following procedure:

- Move the throttle lever to the SLOW (←) position.
- Let the engine idle for one or two minutes.
- Turn the engine switch to the OFF position.
- Turn the fuel valve lever to the OFF (⊘) position.



Do not move choke control to CHOKE to stop engine. Backfire or engine damage may occur.

REVERSE TINE CONTROL

Do the reverse tine control, so that the tiller can be removed from tight spaces, obstructions or entanglements.

- Move the steering lever to the right. (See **Figure 11a**, Illustration 1)
- Push down the clutch lever to engage the clutch (See **Figure 11a**, Illustration 2), then the tines will rotate reversely.



Ensure all tines have stopped before re-engaging the tines.



DO NOT till in reverse.

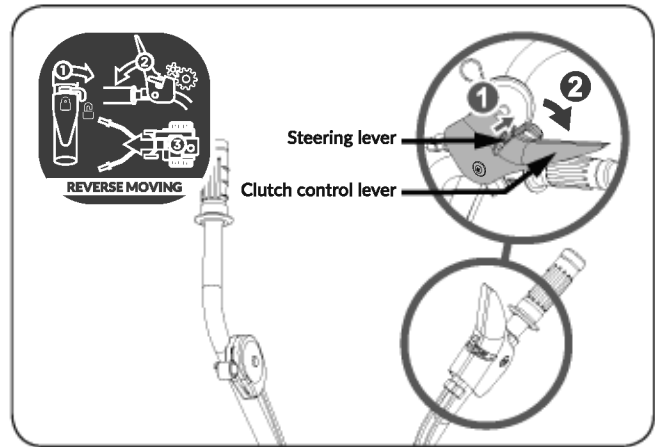


Figure 11a

FORWARD TINE CONTROL

- Move the steering lever to the left. (See **Figure 11b**, Illustration 1)
- Push down the clutch lever to engage the tines in a forward direction pulling the tiller forward. (See **Figure 11b**, Illustration 2)
- The operator will need to hold the machine from moving forward to allow the tines to engage the soil and dig downward.
- Release the clutch lever to disengage the tines, the tines will stop.

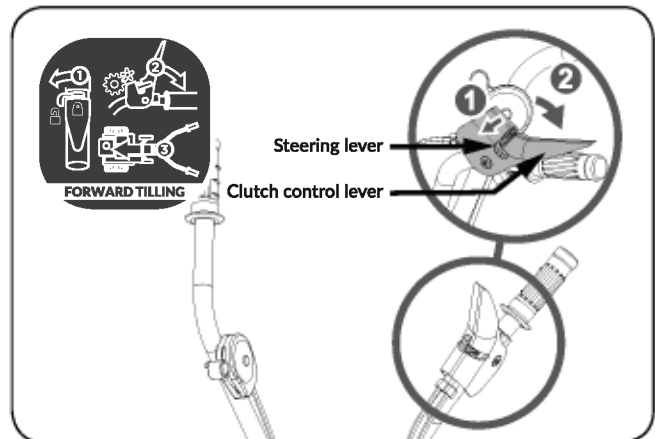


Figure 11b

WHEEL

The locating pin locks the wheel bracket at different height and distance from the tines.

When farming, raise the wheels and fix them with locating pin.

Set the wheel down when transporting the tiller. Tilt the machine back until the tines clear the ground. Push or pull the unit to the next location.

The wheel can be raised or lowered to allow you more versatile tilling and cultivating, or to more easily transport your tiller.

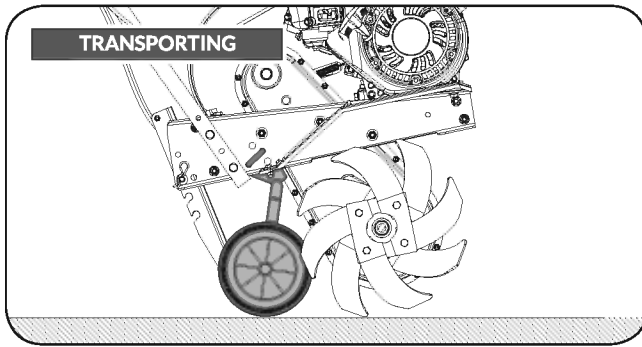


Figure 12a

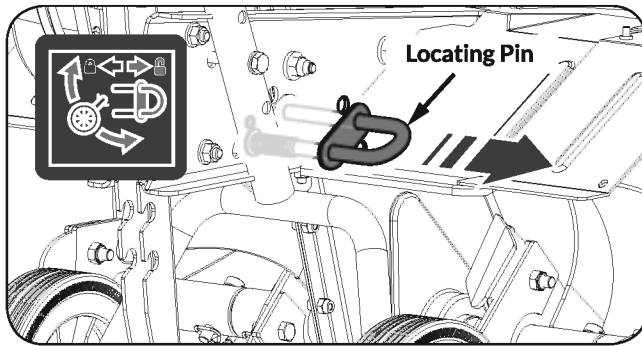


Figure 12b

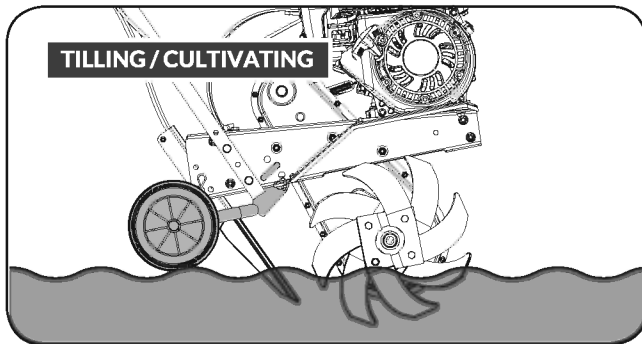


Figure 12c

DEPTH STAKE

The depth stake (see **Figure 13**) can be raised or lowered to allow you more versatile tilling and cultivating, or to more easily transport your tiller.

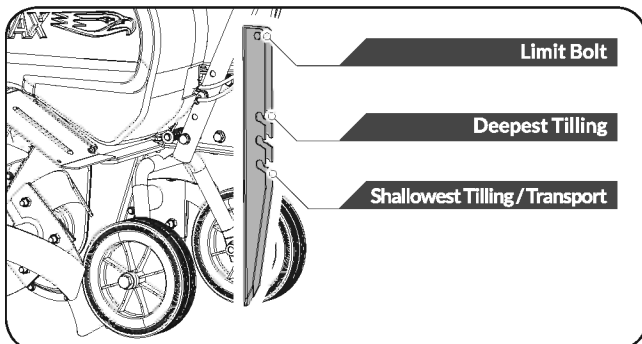


Figure 13

OPERATING SPEED

For normal tilling, set the throttle control lever to “FAST” for best tiller action. The throttle should be set to control forward movement to a slow walking speed for cultivating. Set the throttle control lever to “LOW” to reduce stress on the engine when tilling is not being performed.

Besides depth stake setting, variation of pressure on the handles also helps further control of tilling depth and travel speed. A downward pressure on the handles will reduce the tilling depth and increase the forward speed. An upward pressure on the handles will increase the working depth and reduce the forward speed.

TILLING

Tilling is digging in, turning over and breaking up garden soil to prepare a seedbed for planting. Best tilling depth is 4” (100mm) to 6” (150mm). A tiller will also clear the soil of unwanted vegetation. The decomposition of this vegetation matter enriches the soil.

Avoid tilling soil that is too dry as it will pulverize and produce a dust that will not hold water. Water a few days before tilling. Also, tilling soil that is too wet will produce unsatisfactory clods. Wait a day or two after heavy rain for the soil to dry.

Better growth will be obtained if an area is tilled properly and used soon after tilling to preserve the moisture content.

The type of soil and working conditions will determine the actual setting of the tilling depth. In some soils, the desired depth is reached first pass over garden. In other soils, the desired depth is obtained by going over the garden two or three times. In later case, the depth regulator rod should be lowered before each succeeding pass over the garden. Passes should be made across the length and width of the garden alternately. Do not try to dig too deeply in the first pass. If the machine jumps or bucks, allow the unit to move forward at a lightly faster rate.

If the tiller stops forward motion and tries to dig in one spot, rock the handles from side to side to start it moving forward again.

Rocks which are turned up should be removed from the garden area.

CULTIVATING

Cultivating is loosening or digging around growing plants to disrupt weeds and aerate soil. Less than 2” (50mm) depth is always desirable.

SHUTTING DOWN

Release tine clutch control lever to neutral position to stop the tines.

MAINTENANCE

Maintaining your YARDMAX front tine tiller will ensure long life to the machine and its components.

PREVENTIVE MAINTENANCE

Clean the tiller underside of the tine shield after each use. The dirt washes off tines easier if rinsed off immediately instead of after it dries.

1. Turn off the engine and disengage all command levers. The engine must be cool.
2. Keep the engine's throttle lever in its SLOW position and remove the spark plug wire from the spark plug and secure.
3. Inspect the general condition of the front tine tiller. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, and any other condition that may affect its safe operation.
4. Use a soft brush, vacuum or compressed air to remove all contaminants from the machine. Then use high quality light oil to lubricate all moving parts.
5. Replace the spark plug wire.



Never use a "pressure washer" to clean your unit. Water can penetrate tight areas of the machine and its transmission case and cause damage to spindles, gears, bearings, or the engine. The use of pressure washers will result in shortened life and reduce serviceability.

LUBRICATION

Remove the tine assemblies to lubricate the tine shafts at least once every season. The worm gear housing is pre-lubricated and sealed at the factory. At the beginning of each season, make sure there is enough lubricant inside the worm gear housing. Use portable tool lithium #0 grease such as Lubricate 6300AA , Lubricate GR-132, or Multifak, e.g. EP-O.

1. Remove right side tines and place the tiller on level surface. Allow the transmission to cool before filling with grease.
2. Remove the grease fitting screw and air vent screw to fill the worm gear housing through the lower grease fitting hole until the grease begins to come out from the upper air vent hole. (See **Figure 14**)
3. Reinstall the grease fitting screw and air vent screw.



Do not overfill. Too much grease can create pressure which could damage seals.

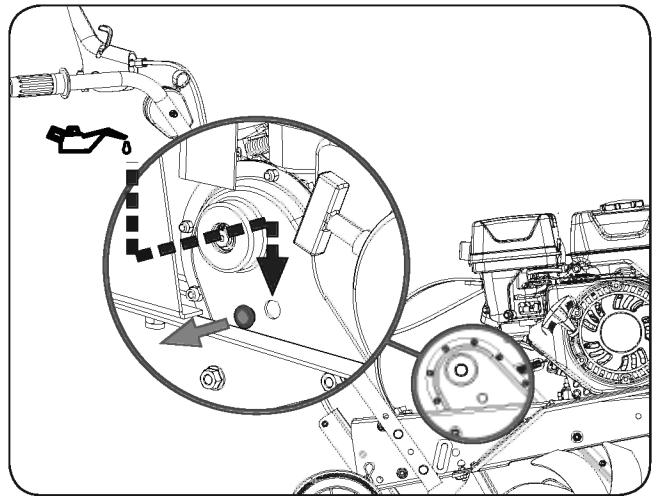


Figure 14

ENGINE MAINTENANCE

Refer to the Engine Manual included in your tiller for the information on engine maintenance. Your engine manual provides detailed information and a maintenance schedule for performing the tasks.

REPLACING THE BLADE

Remove the M8x25 bolts that holds the blade B. (See **Figure 15**)

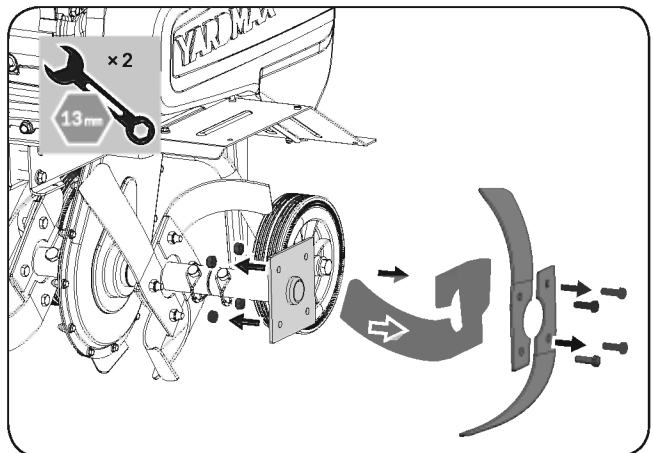


Figure 15

ADJUSTING THE CABLES

1. Loosen jam nut A by rotating them counterclockwise. (See **Figure 16**, Illustration 1)
2. Rotate the cable adjusting nut counterclockwise to tighten the forward clutch cable or reverse clutch cable. Rotate the cable adjusting nut clockwise to loosen the forward clutch cable or reverse clutch cable. (See **Figure 16**, Illustration 2)
3. After the cables are adjusted well, tighten the jam nut A. (See **Figure 16**, Illustration 3)

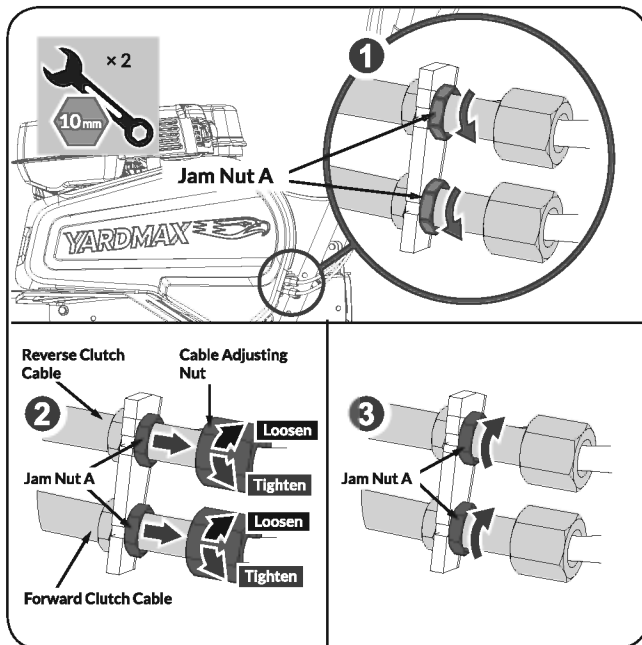


Figure 16

REPLACING THE BELTS

1. Remove the belt cover. (See **Figure 17**)

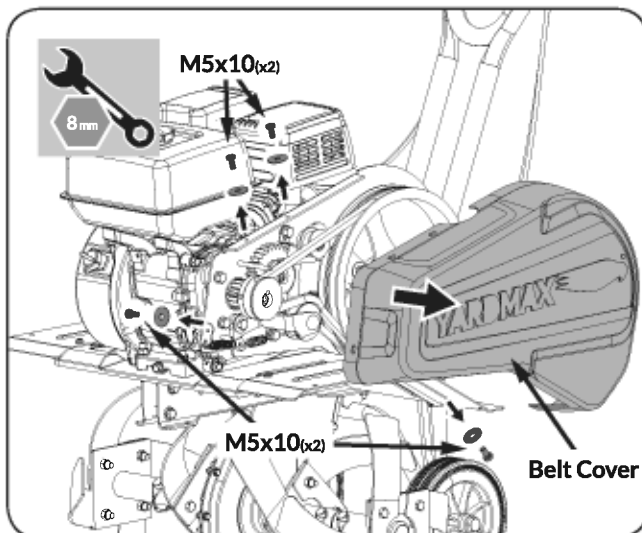


Figure 17

2. Loosen the bolt that holds the belt rack weldment. (See **Figure 18**, Illustration 1)
3. Remove the V-belt and set aside. This V-belt control the blade to rotate forward. (See **Figure 18**, Illustration 2)

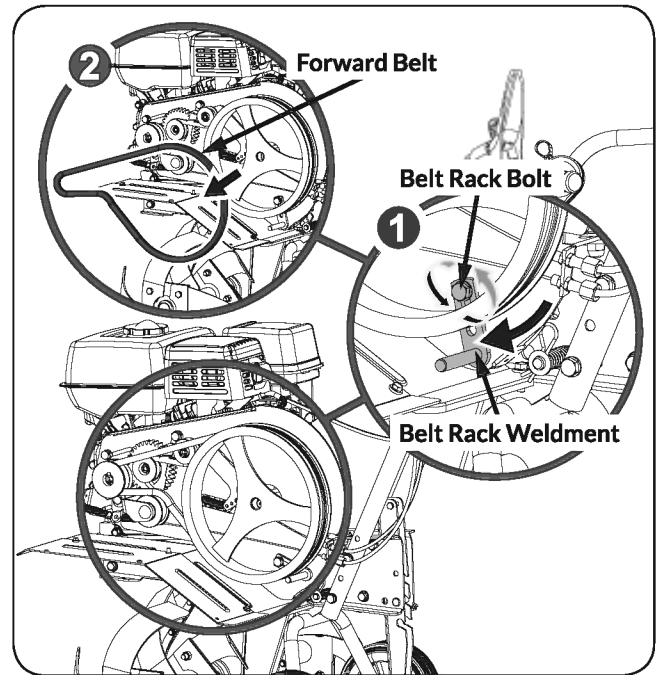


Figure 18

4. Unscrew the bolts M8x14 and washers, remove the belt rack, then take the reverse clutch belt off. (See **Figure 19**)

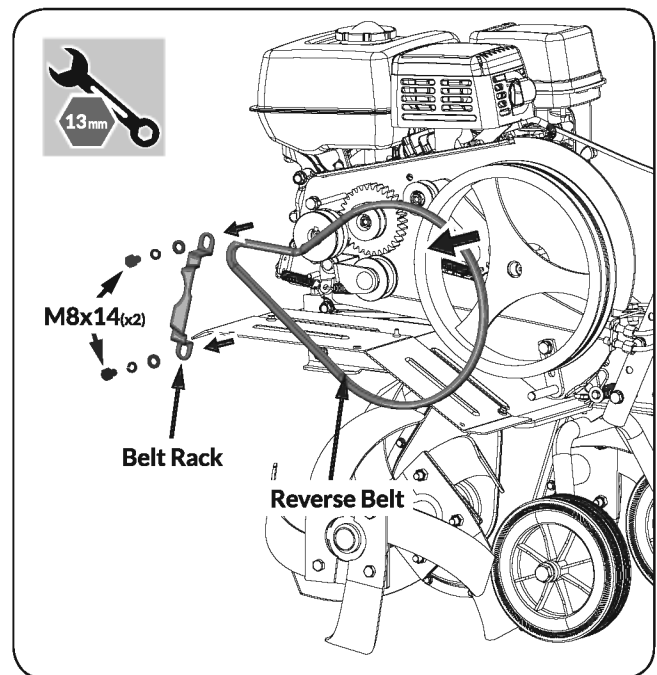


Figure 19

5. Replace the new belts. Then do assembly in reverse order.

STORAGE

If the front tine tiller will not be used for a period longer than 30 days, follow the steps below to prepare your unit for storage.

1. Drain the fuel tank completely. Stored fuel containing ethanol or MTBE can start to go stale in 30 days. Stale fuel has high gum content and can clog the carburetor and restrict fuel flow.
2. Start the engine and run until it stops. This helps prevent gum deposits from forming inside the carburetor and possible engine damage.
3. While the engine is still warm, drain the oil from the engine. Refill with fresh oil of the grade recommended in the Engine Manual.
4. Use clean cloths to clean off the outside of the machine and to keep the air vents free of obstructions.



Do not use strong detergents or petroleum based cleaners when cleaning plastic parts. Chemicals can damage plastics.

5. Inspect for any loose or damaged parts. Repair or replace damaged parts and tighten loose screws, nuts or bolts.
6. Store your unit on flat ground in a clean, dry building that has good ventilation.



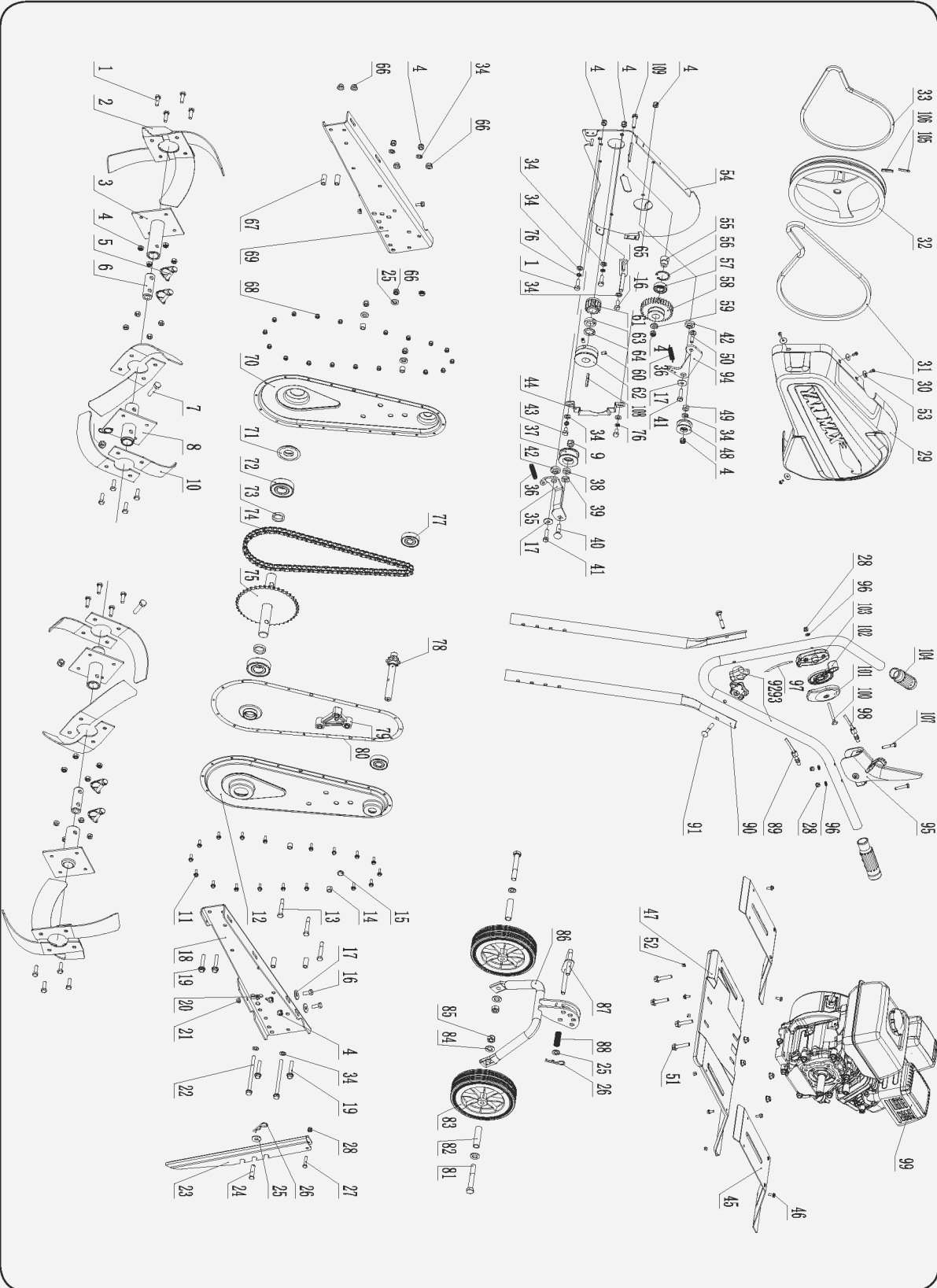
Do not store the machine with fuel in a non-ventilated area where fuel fumes may reach flame, sparks, pilot lights or any ignition sources.

TROUBLESHOOTING

Problem	Cause	Remedy
Engine fails to start	<ol style="list-style-type: none"> 1. Spark plug wire is disconnected 2. Out of fuel or stale fuel 3. Engine and/or Fuel valve is not in ON position 4. Choke lever is not in CLOSE position 5. Blocked fuel line 6. Fouled spark plug 7. Engine flooding 8. Belt tension lever is engaged 	<ol style="list-style-type: none"> 1. Attach spark plug wire securely to spark plug 2. Fill with clean, fresh gasoline 3. Engine and Fuel valve must be in ON position 4. Choke level must be in CLOSE position for a cold start 5. Clean fuel line 6. Clean, adjust gap, or replace 7. Wait a few minutes to restart, but do not prime 8. Disengage the belt tension lever

Problem	Cause	Remedy
Engine runs erratically	<ol style="list-style-type: none"> 1. Spark plug wire is loose 2. Unit running with Choke lever in CLOSE position 3. Blocked fuel line or stale fuel 4. Vent plugged 5. Water or dirt in fuel system 6. Dirty air cleaner 7. Improper carburetor adjustment 	<ol style="list-style-type: none"> 1. Connect and tighten spark plug wire 2. Move choke lever to OPEN position 3. Clean fuel line. Fill tank with clean, fresh gasoline 4. Clear vent 5. Drain fuel tank. Refill with fresh fuel 6. Clean or replace air cleaner 7. Refer to engine manual
Engine overheats	<ol style="list-style-type: none"> 1. Engine oil level low 2. Dirty air cleaner 3. Air flow restricted 4. Carburetor not adjusted properly 	<ol style="list-style-type: none"> 1. Fill crankcase with proper oil 2. Clean air cleaner 3. Remove housing and clean 4. Refer to engine manual
Engine will not stop when throttle control is positioned at stop, or engine speed does not increase properly when throttle control is adjusted.	<ol style="list-style-type: none"> 1. Debris interfering with throttle linkage. 2. Improper throttle linkage adjustment 	<ol style="list-style-type: none"> 1. Clean dirt and debris. 2. Refer to Engine Manual to check and adjust throttle linkage.
Tiller moves forward during starting.	Tine clutch control not in neutral position.	Tine clutch control lever must be released to neutral to start the engine.
Tiller is difficult to control when tilling (machine jumps or lurches forward).	<ol style="list-style-type: none"> 1. Improper tilling depth setting. 2. Too high engine speed on hard ground. 	<ol style="list-style-type: none"> 1. Raise the tines for shallower tilling by raising the depth regulator rod. 2. Set the throttle lever at lower speed.
Tines do not engage.	<ol style="list-style-type: none"> 1. Foreign object lodged in tines. 2. Tine clevis pin(s) missing. 3. Belt worn and/or stretched. 4. Pulley and idler not in correct adjustment. 	<ol style="list-style-type: none"> 1. Stop tiller completely, check and discard foreign object. 2. Replace tine clevis pin(s). 3. Replace belt. 4. Contact dealer.

PARTS DIAGRAM



PARTS LIST

No.	Description	QTY.
1	Bolt M8x25	19
2	Blade B	8
3	Side Blade Bracket B	2
4	Nut M8	25
5	Quick Release Pin	4
6	Inner Pipe	2
7	Bolt M10x50	2
8	Middle Blade Bracket	2
9	Nut M10	3
10	Blade A	8
11	Bolt M5X16	18
12	Right Chain Cover	1
13	Bolt M8x50	3
14	Small Bush	4
15	Oil Plug	2
16	Bolt M8x20	3
17	Washer 8	4
18	Left Connecting Plate	1
19	Nut M8X45	4
20	Nut M6X16	2
21	Nut M6	2
22	Bolt M8x130	2
23	Depth Regulator	1
24	Axis Pin 10X40	1
25	Washer 10	3
26	Pin B type 2.5x17x50	2
27	Nut M6X30	1
28	Nut M6	4
29	Belt Cover	1
30	Screw M5X10	4
31	V-Belt A1070	1
32	Large Pulley	1
33	V-Belt Z914	1
34	Washer 8	9
35	Big Support Wheel	1

No.	Description	QTY.
36	Spring	2
37	Tension Pulley	1
38	Bush	1
39	Bush 2	1
40	Half Round Head Square Neck Bolt M10x40	1
41	Bolt M8x30	1
42	Bushing	2
43	Bolt M8x14	2
44	Belt Rack	1
45	Left-Right Guard Pressing Rivet	2
46	Bolt M5x12	6
47	Middle Cover Plate	1
48	Plastic Wheel Assembly	1
49	Fender Bush	1
50	Half Round Head Square Neck Bolt M8x30	1
51	Bolt M8x40	4
52	Nut M5	4
53	Washer 5	4
54	Mounting plate weldment	1
55	Rubber Sleeve	1
56	Ring	1
57	Bearing 6003-2RS	1
58	Big Gear	1
59	Bearing Press Washer	1
60	Screw M8x12	2
61	Small Gear	1
62	Small Pulley	1
63	Bush	1
64	Spacer	1
65	Belt Rack Weldment	1
66	Nut M8	5
67	Rear Bush	4
68	Anti-skid Insert Nut	18
69	Right Connecting Plate	1

No.	Description	QTY.
70	Left Chain Cover	1
71	Bearing Wahser	2
72	Bearing 6305-2RS	2
73	Bush	2
74	Chain 08B-1-80	1
75	Large Chain Wheel	1
76	Spring Washer 8	4
77	Bearing 6303-2RS	2
78	Small Chain Wheel	1
79	Spacer Block	1
80	Paper Washer	1
81	Bolt M12x85	2
82	Wheel Bush	2
83	Wheel	2
84	Flat Washer 12	4
85	Locknut M12	2
86	Rear Wheel Bracket	1
87	Locating Pin	1
88	Locating Spring	1
89	Forward Clutch Cable	1

No.	Description	QTY.
90	Lower Handle	2
91	Bolt M8x45	2
92	Lock Handle	2
93	Upper Handle	1
94	Small Bracket	1
95	Clutch Lever	1
96	Washer 6	3
97	Throttle Assy.	1
98	Reverse Clutch Cable	1
99	Engine	1
100	Bolt M6x60	1
101	Throttle Lever Cover	1
102	Throttle Lever	1
103	Throttle Lever Seat	1
104	Handlebar Sleeve	2
105	Pin 4X30	1
106	Pin 6X30	1
107	Bolt M6X35	2
108	Key 4.8X40	1
109	Bolt M8X35	1

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