KOMATSU
RedMax

Tiller/Cultivator CV225



WARNING

Before using our products, please read this manual carefully to understand the proper use of your unit.

WARNING

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

Owner/ Operator Manual

Engine Unit: 108000 and up

Welcome to the World of KOMATSU/REDMAX Gardening

The KOMATSU/REDMAX Tiller/Cultivator tills and weeds precisely “to handle” your most difficult jobs. It handles smoothly while the “bolo-tine” tines churn soil to ten inches deep. It creates a soft smooth seed bed, even in problem stony soil.



Once you know how to use your Precision Tiller/Cultivator correctly, we guarantee you’ll love it. So first, please read this manual. It shows, step by step, how to use your Tiller/Cultivator safely.

If you have questions about any topic in this Manual contact your local authorized REDMAX dealer.

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Specifications

Model	CV225
Overall Size (L x W x H)	47 (1194) x 11 (280) x 38 (965) in (mm)
Dry weight w/o acc.	21.5 LBS (9.8kg)
Engine Type	Air cooled 2-stroke gasoline
Model	Zenoah
Displacement	1.4cu-in (22.5cm3)
Max. Output	1.08Hp at 8000rpm
Fuel	Mixture (Gasoline 50 : Oil1)
Carburetor	Walbro Diaphragm type
Spark plug	Champion RCJ6Y
Fuel tank capacity	20.3 fl.. oz (0.6L)
Transmission	Centrifugal clutch, Rigid driveshaft
Reduction ratio	42:1
Durability period	150 hrs.

Specifications are subject to change without notice.



KOMATSU
RedMax

Safety Rules and Warnings

You will notice throughout this Owners Manual Safety Rules and Important Notes. Make sure you understand and obey these warnings for your own protection.

Special Safety Information

⚠ WARNING ⚠ DANGER ⚠

ATTENTION: THIS SYMBOL POINTS OUT OUR IMPORTANT SAFETY INSTRUCTIONS

⚠ WHEN YOU SEE THIS SYMBOL ⚠

HEED ITS WARNING! STAY ALERT!

Safety and Warnings

⚠ WARNING ⚠ DANGER ⚠

TO REDUCE THE POTENTIAL FOR ACCIDENTS, COMPLY WITH THE SAFETY INSTRUCTIONS IN THIS MANUAL. FAILURE TO COMPLY MAY RESULT IN SERIOUS PERSONAL INJURY AND OR EQUIPMENT AND PROPERTY DAMAGE.

⚠ WARNING ⚠ DANGER ⚠

IMPROPER USE OR CARE OF THIS TILLER/CULTIVATOR, OR FAILURE TO WEAR PROPER PROTECTION CAN RESULT IN SERIOUS INJURY.

READ AND UNDERSTAND THE RULES FOR SAFE OPERATION AND ALL INSTRUCTIONS IN THIS MANUAL.WEAR HEARING PROTECTION.

⚠ WARNING ⚠ DANGER ⚠

THE ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

Safety Decal Information

An important part of the safety system incorporated in this trimmer are the warning and information decals found on various parts of the trimmer. These decals must be replaced in time due to abrasion, etc. It is your responsibility to replace the decals when they become hard to read. The location of these decals and their part numbers for ordering are shown below.





Safety Decal Information cont.



CUTTING HAZARD; KEEP FEET AND HANDS AWAY FROM ROTATING TINES.



DO NOT CARRY THE TILLER/CULTIVATOR IN THIS POSITION.



READ OWNER'S MANUAL BEFORE USING TILLER/CULTIVATOR, OR PERFORMING ANY REPAIR OR MAINTENANCE. KEEP OWNERS MANUAL IN A SAFE PLACE.



DON'T FUEL, REFUEL, OR CHECK FUEL WHILE SMOKING, OR NEAR AN OPEN FLAME OR OTHER IGNITION SOURCE.



CAUTION: WHEN ASSEMBLING THE HANDLES, MAKE SURE FUEL TANK FACES AWAY FROM OPERATOR. THIS IS THE REAR OF THE TILLER/CULTIVATOR, REFER TO ASSEMBLY INSTRUCTION ON PAGE 8.



INCORRECT ASSEMBLY.



WEAR EAR AND EYE PROTECTION.



Warnings - Do's

⚠ WARNING ⚠ DANGER ⚠

IF THE TILLER/CULTIVATOR PRECAUTIONS ARE NOT FOLLOWED, THE USER RISKS SERIOUS INJURY TO THEMSELVES AND OTHERS.

READ AND UNDERSTAND THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS TILLER/CULTIVATOR.

1. Always keep a firm grip on both handles while the tines are moving and/or the engine is running. BE AWARE!! The tines may coast after throttle trigger is released. Make sure tines have come to a complete stop and engine is off before letting go of the Tiller/Cultivator.
2. Always maintain a firm footing and good balance. Do not overreach while operating the Tiller/Cultivator. Before you start to use the Tiller/Cultivator, check the work area for obstacles that might cause you to lose your footing, balance or control of the machine.
3. Thoroughly inspect the area where equipment is to be used and remove all objects, that can be thrown by the machine.

Warnings - Do's cont.

4. Always keep area clear of children, pets, and bystanders.
5. Always stay alert. Watch what you are doing and use common sense. Do not operate unit when fatigued.
6. Always dress properly. Do not wear loose clothing or jewelry, they might get caught in moving parts. Use sturdy gloves. Gloves reduce the transmission of vibration to your hands. Prolonged exposure to vibration can cause numbness and other ailments.
7. While working, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
8. Always wear ear and eye protection. Eye protection must meet ANSI Z 87.1. To avoid hearing damage, we recommend hearing protection be worn whenever using the equipment.
9. To reduce fire hazard, keep the engine, and petrol/gas storage area free of vegetative material and excessive grease.
10. Start the engine carefully, according to the manufacturer's instructions and with feet well away from tool(s).
11. Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
12. Use extreme caution when reversing or pulling the machine towards you.
13. Work only in daylight or good artificial light.
14. Always be sure of your footing on slopes.
15. Exercise extreme caution when changing direction on slopes.
16. Always keep a safe distance between two or more people when working together.
17. Always inspect your unit before each use and ensure that all handles, guards and fasteners are secure, operating, and in place.
18. Always maintain and examine your Tiller/Cultivator with care. Follow maintenance instructions given in manual.
19. Always store Tiller/Cultivator in a sheltered area (a dry place), not accessible to children. The Tiller/Cultivator as well as fuel should not be stored in a house.

Warnings - Don'ts

Don't use Tiller/Cultivator with one hand. Keep both hands on handles with fingers and thumbs encircling the handles, while tines are moving, and engine is running.

Don't overreach. Keep a good footing at all times.

Don't run with the machine, walk.

Don't work on excessively steep slopes.

Don't attempt to clear tines while they are moving. Never try to remove jammed material before switching the engine off and making sure the tines have stopped completely.

Don't allow children or incapable people to operate this Tiller/Cultivator.

Don't operate while under the influence of alcohol or drugs.

Don't attempt to repair this Tiller/Cultivator. Have repairs made by a qualified dealer or repairman.

⚠ WARNING ⚠ DANGER ⚠

FOR SAFE OPERATION AND MAINTENANCE, SYMBOLS ARE CARVED IN RELIEF ON THE MACHINE. ACCORDING TO THOSE INDICATIONS, PLEASE BE CAREFUL NOT TO MAKE A MISTAKE. THE PORT TO REFUEL THE "MIX GASOLINE" POSITION: FUEL TANK CAP.

⚠ WARNING ⚠ DANGER ⚠

IMPORTANT ENGINE INFORMATION
THIS ENGINE MEETS U.S. EPA PH1 AND 2001 CALIFORNIA EMISSION REGULATIONS FOR SMALL OFF-ROAD ENGINES WITH AN EMISSION DURABILITY PERIOD OF 300 HRS
ENGINE FAMILY : 1KZXS. 0254CD
ENGINE DISPLACEMENT : 22.5CC
REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.

⚠ WARNING ⚠ DANGER ⚠

HANDLE FUEL WITH CARE, IT IS HIGHLY FLAMMABLE. FUELING A HOT ENGINE OR NEAR AN IGNITION SOURCE CAN CAUSE A FIRE AND RESULT IN SERIOUS PERSONAL INJURY AND/ OR PROPERTY DAMAGE.

⚠ WARNING ⚠ DANGER ⚠

DO NOT MODIFY YOUR TILLER/CULTIVATOR . WARRANTY WILL BE VOIDED IF YOU USE THE REMODELED TILLER/CULTIVATOR OR IF YOU DO NOT OBSERVE THE PROPER USAGE WRITTEN IN THE MANUAL.

Engine/ Fuel - Warnings - Do's

Always use fresh gasoline. Stale gasoline can cause damage.

Always store fuel in containers specifically designed for this purpose.

Always pull starter cord slowly until resistance is felt. Then pull cord rapidly to avoid kickback and prevent arm or hand injury.

Always operate engine with spark arrestor installed and operating properly. The use of spark arrestor mufflers is required by law in the state of California (Section 4442 of the California Public Resources Code), as well as in other states or municipalities. Federal laws apply on federal lands.

Stop the engine whenever you leave the machine.

Allow the engine to cool before storing in any enclosure.

If the fuel tank needs to be drained, this should be done outdoors.



Engine/ Fuel Warnings - Don'ts

Don't fuel, refuel or check fuel while smoking, or near an open flame or other ignition source. Stop engine and be sure it is cool before refueling.

Don't leave the engine running while the Tiller/Cultivator is unattended. Stop engine before putting the Tiller/Cultivator down or while transporting from one place to another.

Don't refuel, start or run this Tiller/Cultivator indoors or in an improperly ventilated area.

Don't run engine when electrical system causes spark outside the cylinder. During periodic checks of the spark plug, keep plug a safe distance from cylinder to avoid burning of evaporated fuel from cylinder.

Don't check for spark with spark plug or plug wire removed. Use an approved tester.

Don't crank engine with spark plug removed unless spark plug wire is disconnected. Sparks can ignite fumes.

Don't run engine when the odor of gasoline is present or other explosive conditions exist.

Don't operate the unit if gasoline is spilled. Clean up spill completely before starting engine.

Don't operate your Tiller/Cultivator if there is an accumulation of debris around the muffler, and cooling fins.

Don't touch hot mufflers, cylinders or cooling fins as contact may cause serious burns.

Don't change the engine governor setting or over speed the engine.

Assembly Instructions

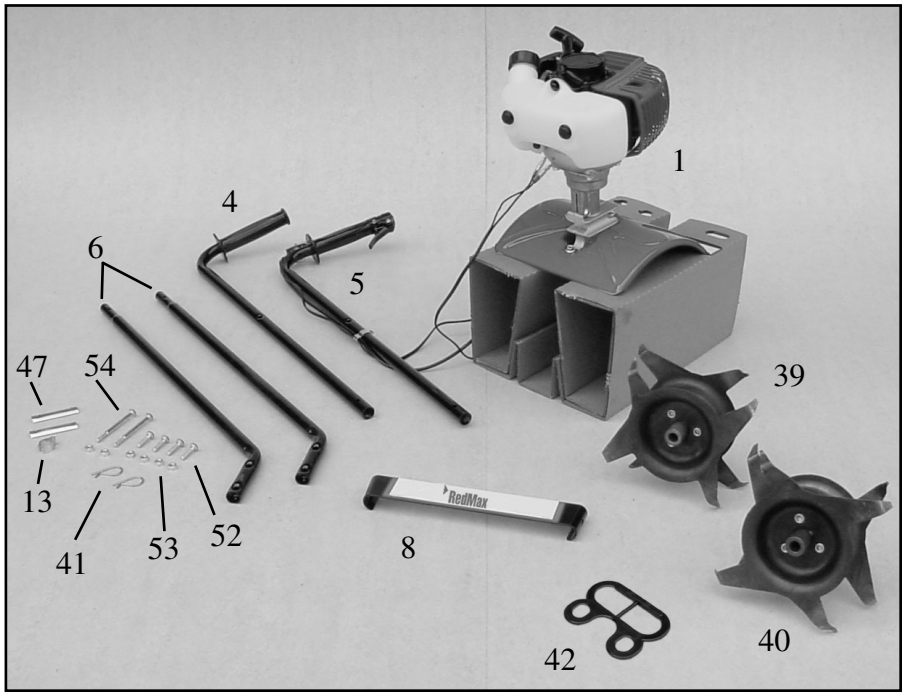
Your KOMATSU/REDMAX Precision Tiller/Cultivator comes partially assembled. You must install only the handlebars, the carrying handle, and the tines. This will take just a few minutes if you follow the directions.

First, take all items out of the carton. But do not remove the cardboard from around the Tiller/Cultivator's base.

The list below, shows the parts that come with your Tiller/Cultivator. Check to make sure you have them.

The bag of hardware is packed in the plastic bag containing the owner's manual.

To assemble your KOMATSU/REDMAX Tiller/Cultivator, you'll need two 7/16" wrenches or two adjustable wrenches. We suggest that you install all nuts and bolts only "finger tight" — that is, one-half to one full turn — until you've completed assembly. **The nuts are self locking, but you must use a wrench to tighten them completely.**



⚠ WARNING ⚠ DANGER ⚠

IMPROPER ASSEMBLY OF THIS TILLER/CULTIVATOR CAN RESULT IN SERIOUS INJURY.

MAKE SURE TO FOLLOW ALL INSTRUCTIONS CAREFULLY. IF YOU HAVE ANY QUESTIONS CONTACT YOUR LOCAL REDMAX DEALER.

Qty	Description	*Key #
1	Upper Handle	4
1	Upper Handle Throttle Side	5
2	Lower Handles	6
1	Pair Cultivator Tines	39/40
1	Engine Assembly (includes Fender Guard & Worm-Gear Transmission)	21, 20, 56
1	Handle Brace	8
1	Plastic Carrying Handle	42
2	Transmission Brackets*	47

Qty	Description	*Key #
1	Bag of Hardware Containing:	
4	Cap Screws	52
6	Lock Nuts	53
2	Bolts (3 1/4" long)	54
2	Tine Retaining Pins	41
1	Transmission Bracket	47
1	Throttle Clip	13

* In hardware bag

II. How to Assemble Lower Handles

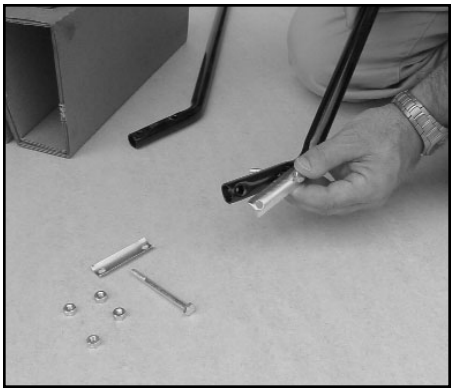
To identify part numbers, see page 8.

1. **Use the protective cardboard sleeve to stabilize your Tiller/Cultivator. Stand the engine assembly up.**
2. Lay the handle parts within easy reach. You'll need the transmission bracket (#47) and one of the lower handles (#6). Note that the lower handles have a short leg on one end. (Picture 1)
3. Fit the transmission bracket along the outside of the short leg. Line up the holes on the clamp and the leg.
4. Using one of the two 3 1/4" bolts (#54), slide it through the hole of the transmission bracket (#47) and lower handle (#6) closest to the elbow. (Picture 2) The fit will be tight.
5. Now slide the bolt completely through the second lower handle and transmission bracket. (Picture 2) Add a nut (#53) and tighten finger tight.
6. Locate the worm-gear housing. It starts just above — and extends down through — the Tiller/Cultivator's red fender. You'll notice that there's a recessed channel on either side of the housing's top.
7. Take the lower handles that you've just put together. Slide them into the two recessed channels.

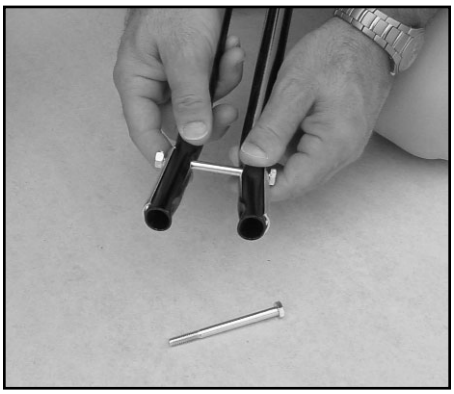
Make sure you insert them from the rear of the Tiller/Cultivator (gasoline tank faces away from the operator) . . . so that the bolt fits along the back of the housing.

8. Slide the second 3 1/4" bolt through the second hole in the short legs. Add a nut (#53) and tighten finger tight. (Picture 4)

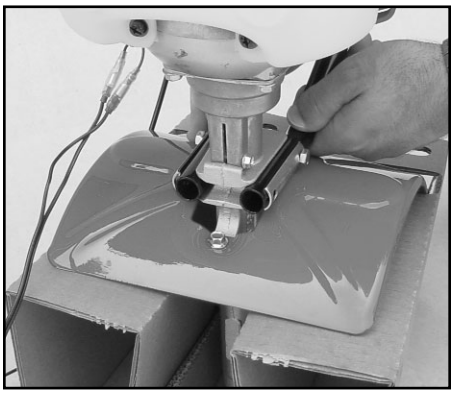
NOTE: THE NUTS ARE SELF LOCKING, BUT YOU MUST USE A WRENCH TO TIGHTEN THEM COMPLETELY.



Picture 1



Picture 2



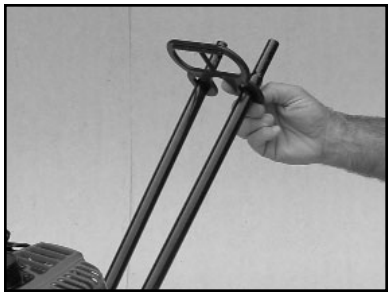
Picture 3



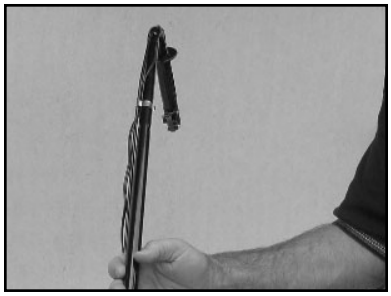
Picture 4

How to Assemble Upper Handles and Plastic Carrying Handle

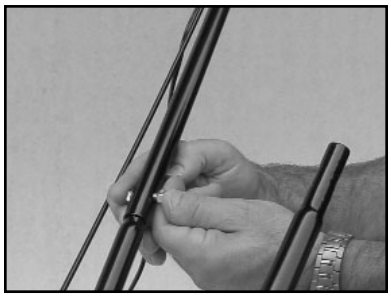
1. Lightly squeeze the lower handles (#6) toward one another so that they line up with the two smaller holes on the carrying handle (#42). Then slide the carrying handle over and down the lower handles. It will rest about four to six inches above the engine. (Picture 1)
2. Gently pull the lower handles out to their original position.
3. Slide the upper handle (#5) — the one with the throttle cable and wire — into either lower handle. (Picture 2) (Choose the lower handle you prefer, depending on which hand, right or left, you'd rather use to press the throttle.) Use a Cap Screw (#52) and a Lock Nut (#53) to secure the upper handle in place. (Picture 3) **Be sure you have proper throttle movements and that the throttle cable is not wrapped or twisted around the handle bar.** Squeeze trigger and let go. The throttle actuator must click in both directions. If there is any doubt, remove air filter and visually check that the throttle actuator hits both the idle screw and the full open stop. THIS MUST BE DONE BEFORE STARTING THE ENGINE.
4. Follow the same steps to install the other upper handle onto the other lower handle. (Picture 4)
5. Use the clip (#13) to secure the throttle cable and wires in place on the lower handle. (Picture 5)
6. Now install the Handle Brace. Line it up with the holes on the upper handles. Then insert a Cap Screw and a Lock Nut on either side (Picture 6)
7. Use a wrench to tighten Cap Screws and Lock Nuts.
8. Now use wrench to tighten all nuts and bolts firmly and securely.



Picture 1



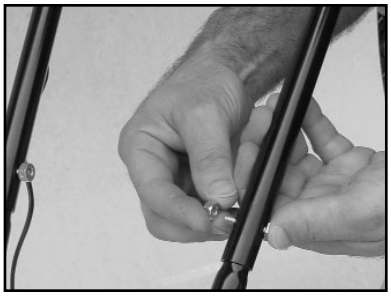
Picture 2



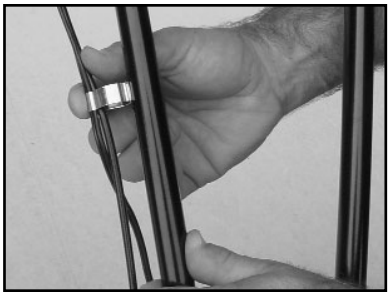
Picture 3

IMPORTANT NOTE:

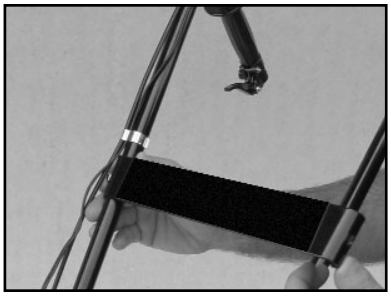
Make sure you have installed the handles properly. When you stand behind your Tiller/Cultivator, holding the handles, gasoline tank should be in front of the unit.



Picture 4



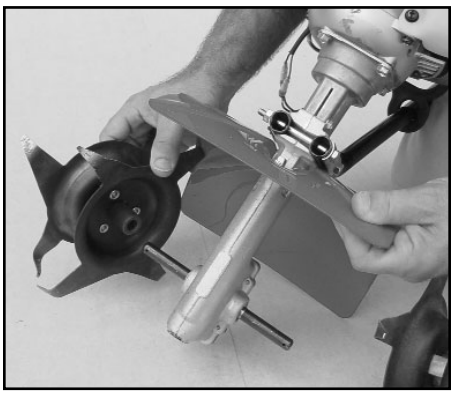
Picture 5



Picture 6

Assembling the Tines for Tilling

1. Remove the cardboard from around your Tiller/Cultivator's base.
2. Slide the tines onto the axle shafts. The "D" hole goes on the outside.
3. Make sure you've installed the tines properly for cultivating. Liken the tines to your fingers. When your palm faces the ground, your fingers curl down. Stand behind the Tiller/Cultivator and hold your hand next to the tines. Do the tine blades curl down, as your fingers do? If so, they are in the *tilling* position. (To switch to the cultivating position, see page 16.)
4. To secure each tine to the axle, insert a tine retaining pin.



IMPORTANT NOTE:

Before you use your KOMATSU/REDMAX Tiller/Cultivator, read the Safety Rules & Warnings on pages 4-7.

Fuel Mix

Your KOMATSU/REDMAX Tiller/Cultivator is powered by a commercial two stroke, air cooled engine which requires a fuel mixture of gasoline and lubricating oil.

Use a mixture of 50 parts unleaded regular gasoline and 1 part two-stroke oil (50:1.) Make sure to use gasoline with a minimum octane number of 90 ROZ (USA/Canada: pump octant Min. 87)

The REDMAX engines are lubricated by oil specially formulated for air-cooled 2-cycle gasoline engine use. If REDMAX oil is not available, use an anti-oxidant added quality oil expressly labeled for air-cooled 2 cycle-engine use. (JASO FC GRADE OIL or ISO EGC GRADE)

Recommended mixing ratio
Gasoline 50: Oil 1

Exhaust emission are controlled by the fundamental engine parameters and components (eq., carburators, ignition timing and port timing) without addition of any major hardware or the introduction of an inert material during combustion.

How to mix fuel:

1. Pour 1/2 of the gasoline into a safe container. Do not mix the fuel and oil in the engine fuel tank.
2. Add 2.6 ounces (.077 liters) of two-cycle engine oil to the gasoline and mix. Then add the rest of the gasoline.
3. Screw the cap onto the gasoline can. Then swirl the can to blend the oil and gas.

Fueling the unit:

1. Carefully pour the fuel mix into the ` Tiller/Cultivator's fuel tank.
2. Put fuel into the fuel tank to 80% of the full capacity.
3. Fasten the fuel cap securely and wipe up any fuel spillage around the unit.

IMPORTANT: Two stroke fuel separates and ages. Do not mix more than you will use in a month. Using old fuel can cause difficult starting or engine damage. Shake fuel container to thoroughly mix fuel before each use. Do not attempt to run your engine on gasoline only, use proper fuel mixture.

Need pre-measured engine oil? Contact your local authorized REDMAX dealer.

Remember …

- Always mix two-cycle oil with gasoline before fueling your Tiller/Cultivator. Never, ever run your Tiller/Cultivator on gasoline alone. This will ruin your engine and void all warranties.
- Always use a clean gas can and always use unleaded gas.
- Never try to mix the oil and gasoline in the engine fuel tank.
- Always mix oil and gas in the proper proportions: 2.6 ounces (.077 liters) of two-cycle engine oil to one gallon (3.785 liters) of unleaded gasoline.
- Gasohol - It can cause deterioration of rubber and/or plastic parts and disruption of engine lubrication.
- Oil for 4-cycle engine use or water coded 2-cycle engine use - it can cause spark plug fouling, exhaust port blocking, or piston ring sticking.

⚠ WARNING ⚠ DANGER ⚠

FUEL IS EXTREMELY FLAMMABLE. HANDLE IT WITH CARE. KEEP AWAY FROM IGNITION SOURCES. DO NOT SMOKE WHILE FUELING YOUR EQUIPMENT.

IMPORTANT NOTE:

Do Not use old or stale oil/gasoline mixture. Always use the proper oil/gasoline mixture. If you do not, your engine will suffer rapid, permanent damage. *And* you will void the engine warranty.

Gasoline gal.	1	2	3	4	5
2-cycle oil fl. oz	2.6	5.2	7.8	10.4	13

Gasoline liter	1	2	3	4	5
2-cycle oil ml	20	40	60	80	100

Starting Instructions

Starting Your Tiller/Cultivator for the First Time

1. Fill the fuel tank with the proper oil/gasoline mixture. (See previous section.)
2. Hand tighten the gasoline cap just until it's snug.
3. Move start/stop lever into the "start" position. (Picture 1)
4. Slide the choke lever back to close the engine choke. (Picture 2)
5. Locate the **purge bulb** on the upper right of the engine, in front of the fuel tank. **(See Picture 3)** It sends fuel into the carburetor, **for easy starting.** Press the **purge bulb** until you see fuel flow through the **clear fuel return line**. Since you're starting "cold," you may need to press six to eight times. As soon as fuel starts flowing through the clear fuel line, stop pressing! (Picture 3)
6. Don't pull the throttle trigger during the starting of the engine.
7. Pull the starter cord (Picture 4) slowly until resistance is felt. Then give the recoil starter cord a few short, brisk pulls until the engine **fires**. **During cold starting,** you may need to pull at least three or four times before the engine **fires.**

NOTE: When the choke is closed, never pull the cord more than four or five times. Overpulling may cause flooding. Also, bear in mind that, when the engine **fires, it only coughs or sputters, and will not run on choke.**

8. Move the choke lever to the Close (Choke) position. (Picture 5)
9. Then pull the starter cord again. The engine should start and run. Let the engine warm up two to three minutes before using.

Follow these steps whenever you are starting the engine "cold", or when the engine has run dry and you have just added fuel. Remember, always use short, brisk pulls. Don't give the cord a long, forceful yank. ***And, do not let the cord snap back into the starter housing.***

⚠ WARNING ⚠ DANGER ⚠

NEVER USE STARTING FLUIDS AS THEY WILL CAUSE PERMANENT ENGINE DAMAGE. USING THEM WILL VOID THE WARRANTY.

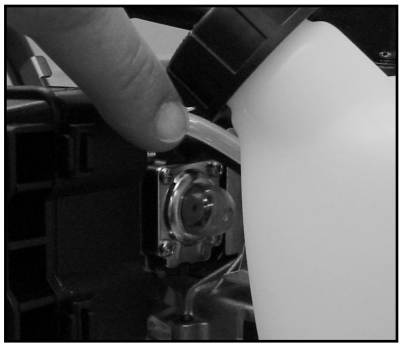
BEFORE YOU USE THE TILLER/CULTIVATOR, READ THE SAFETY WARNING RULES ON PAGES 4-7.



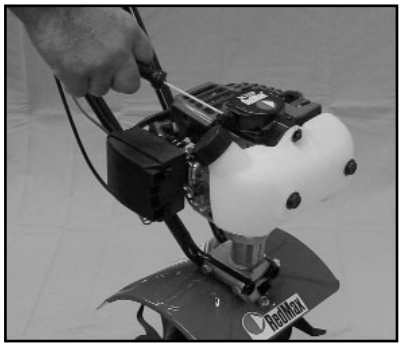
Picture 1



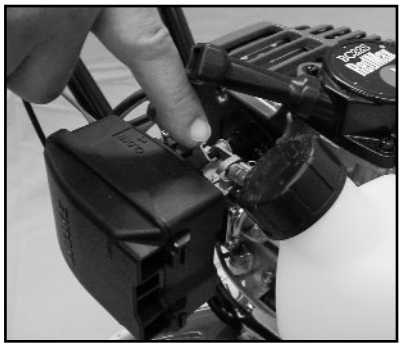
Picture 2



Picture 3



Picture 4



Picture 5

Starting a Warm Engine

1. Slide ignition switch to START position.
2. Move the choke lever to the Open (Run) position.
3. If there is no fuel in the clear return line, push primer bulb 3-4 times or until fuel is visible in the line.
4. Pull starter rope using short pulls, 1/2 to 2/3 of the rope length.
5. If engine fails to start in 4 pulls, use "First Time" starting procedure on page 14.
6. With engine running, and both hands on the handles, squeeze throttle trigger gradually to increase the engine speed and engage the tines.

⚠ WARNING ⚠ DANGER ⚠

AVOID ACCIDENTAL BLADE ENGAGEMENT.

DO NOT SQUEEZE THE THROTTLE TRIGGER WHEN STARTING. MAINTAIN PROPER IDLE SPEED ADJUSTMENT (220 - 2300 RPM).

Additional Information

How to Stop the Engine

Simply push the start/stop switch to "stop." (Picture 1) This will stop the engine instantly. If it should ever fail to do so, just pull out the choke button. The engine will stop at once.



About the Choke

The choke controls the amount of air drawn into the engine. Your Tiller/Cultivator will run only if the choke is open — that is, if the choke is pushed in.

A Special Feature (with the idle set properly and the engine running)

Even when the engine is running, the tines won't turn unless you press the throttle lever on the handlebars. And, when you release the throttle lever, the tines will stop.

⚠ WARNING ⚠ DANGER ⚠

IF ENGINE DOES NOT STOP WHEN SWITCH IS PUT IN THE STOP POSITION, RELEASE THE THROTTLE. ALLOW ENGINE TO IDLE.

PUT THE TILLER/CULTIVATOR DOWN, AND PULL THE CHOKE BUTTON OUT TO COLD START (CLOSED) POSITION.

CHECK AND RETURN IGNITION SWITCH TO ON POSITION BEFORE STARTING ENGINE AGAIN.

A Tip for Extending Your Engine's Life

After you start the engine, let your Tiller/Cultivator warm up for two to three minutes before you use it. Then, before you put your Tiller/Cultivator away, let it idle for a minute to give the engine a chance to cool down.

What to do Just in Case

If you follow the normal starting procedure, you should have no problem starting your Tiller/Cultivator. But, just in case you do have problems, here's what to do.

Make sure the start/stop switch is on "start." You'd be surprised how many people forget to push the switch into the "start" position.

If the switch was on "stop" when you pulled the cord, you may have flooded the engine.

• First, examine the spark plug. Use a 3/4" (19 mm) inch spark plug wrench.

• Remove the cap over the spark plug. (Picture 1)

IMPORTANT NOTE:

To avoid possible damage to the threads, do not try to remove the plug from a hot aluminum cylinder head.

• Unscrew the spark plug. (Picture 2)

Starting a Flooded Engine

1. If the end of the spark plug is wet, the engine may be flooded. **Make sure the switch is in the stop position, disconnect spark plug wire and remove plug. Use a paper towel or a clean rag to dry the spark plug, then, with the spark plug out of the engine, pull the starter cord several times. Shake the fuel out of the inside of the plug and air dry.** Next, replace the spark plug. Use the wrench to tighten it and replace the cap. Next, put the switch in the start position and pull the choke button out. Pull the starter cord three or four times until the engine coughs or sputters. Open the choke (push the choke button in) and pull the cord a few times. The engine should start and run.

2. If the end of the spark plug is dry, check to see if the fuel line is blocked. The fuel line runs from the fuel tank to the carburetor. Pull it off at the carburetor end. Fuel should drip slowly from the line. Wipe off any excess or spilled fuel.

   If fuel does not drip from the line, check the line for any bends or pinches. (Picture 3) Kinks in the line restrict the flow of fuel to the engine. Just straighten out the line. Reconnect. Then follow the normal starting procedure.

   If fuel drips too freely, the line may be disconnected from the fuel filter. You'll find the fuel filter inside the fuel tank. Just re-attach the line to the filter, and put the filter back in the tank. Then follow the normal starting procedure.

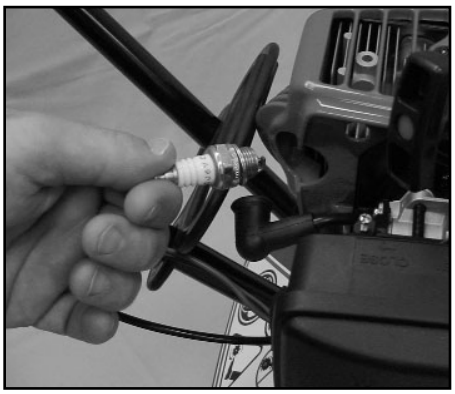
⚠ WARNING ⚠ DANGER ⚠

MAKE SURE THE START/STOP SWITCH IS IN THE STOP POSITION.

KEEP PLUG WIRE AWAY FROM ENGINE TO AVOID UNINTENTIONAL SPARK.



Picture 1



Picture 2

What to do Just in Case cont.

Here's Another Way to Start your KOMATSU/REDMAX Tiller/Cultivator

If you follow the steps above and your engine still won't start, try this:

1. Push the switch to "start."
2. Move the choke lever to open the choke.
3. Press the plastic bubble a few times.
4. Give the starter cord a few short, quick pulls. The engine should start and run.
5. If the engine does not start, then move the choke lever to close the choke. Pull the starter cord four to five times. The engine should sputter or cough.
6. After the engine sputters, push the choke button in. Then pull the starter cord. The engine should start and run.
7. If the engine still does not start, repeat steps 2 through 6.

IMPORTANT NOTE:

Never use starting fluids. Starting fluids will cause permanent engine damage. Using them will void the warranty.

IMPORTANT NOTE:

Before you use your KOMATSU/REDMAX Tiller/Cultivator, read the Safety Rules & Warnings on pages 4-7.

Tilling

Now You're ready to Use Your KOMATSU/REDMAX Tiller/Cultivator.

If you've seen other Tiller/Cultivators, your REDMAX Tiller/Cultivator may surprise you. It tills best when you pull it backward! You see, when you pull your REDMAX Tiller/Cultivator backward, you give extra resistance to the tines, so they dig deeper.

What's more when you go backward, you erase your footprints, So your soil stays light and fluffy. With other Tiller/Cultivators, by contrast, you walk right over the soil you've just cultivated, packing it down, so it's less plantable.

Run Your KOMATSU/REDMAX Tiller/Cultivator like a Vacuum Cleaner.

Place your Tiller/Cultivator at the head of the row or area you want to cultivate. Start it up. Then use an easy rocking motion. First, pull your Tiller/Cultivator backward. Then use an easy rocking motion. Again, pull your Tiller/Cultivator backward. Then, let it move forward just a little bit. Then pull it backward again. This will help you cultivate deeper.

Keep repeating these steps until you've tilled an entire row. Start again on the next row. It's much like running a vacuum cleaner! (Picture 2)

You Can Even Control Depth.

For Deeper Cultivating:

Move your Tiller/Cultivator slowly back and forth, as you would a vacuum cleaner. Work the same area over and over until you've dug to your desired depth.

For Shallow Cultivating:

Switch the tines to the cultivating position. (See page 16 to learn how.) Then move your Tiller/Cultivator quickly over your soil surface.

For Big Weeds or Tough Roots:

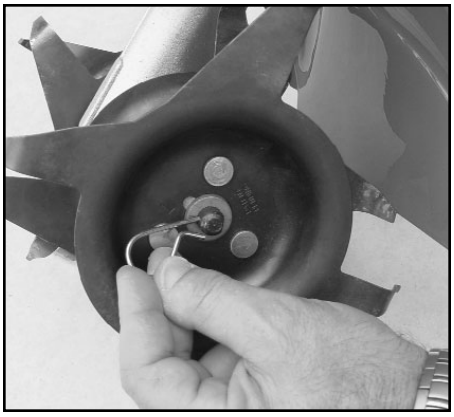
Let your Tiller/Cultivator rock back and forth over the tough spot, until the tines slice through the weed or root.

⚠ WARNING ⚠ DANGER ⚠

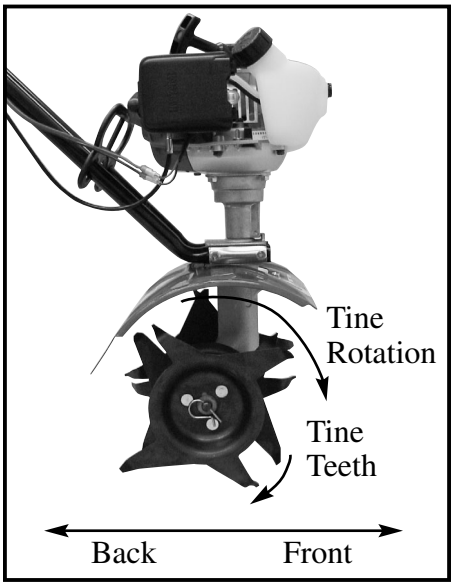
THE OPERATOR OF THIS TILLER/CULTIVATOR IS RESPONSIBLE FOR ACCIDENTS OR HAZARDS OCCURRING TO HIMSELF, OTHER PEOPLE, OR THEIR PROPERTY.

Cultivating

How to Switch From Tilling to Cultivating Position



1. Make sure your Tiller/Cultivator is off.
2. Remove the retaining pins from the tines.
3. Remove the tines from the axle.
4. Place the right-side tine onto the left-side axle. Place the left side tine onto the right-side axle. The “D” hole should be to the outside.
5. Here is how to make sure you’ve installed the tines properly. Stand behind the Tiller/Cultivator and hold your hand, palm up, next to the tines. Do the tine points curl up, as your fingers do? If so, they are in the correct cultivating position.
6. Reinsert the pins.



⚠ WARNING ⚠ DANGER ⚠

IF YOUR TINES GET JAMMED OR ENTANGLED, SHUT OFF THE ENGINE AT ONCE.

REMOVE THE OBSTRUCTION WHILE THE ENGINE IS OFF.

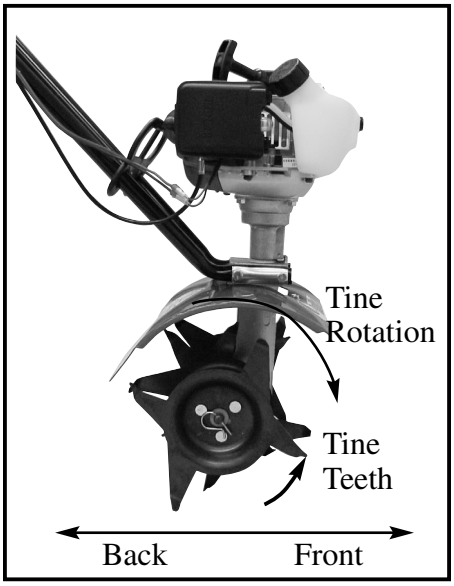
NEVER TRY TO REMOVE AN OBSTRUCTION WHILE THE ENGINE IS RUNNING. SERIOUS INJURY CAN RESULT.

Now You’re Ready to Cultivate or Weed.

Guide your Tiller/Cultivator where you want to weed and start it up. Pull your Tiller/Cultivator backward slowly, then let it move forward a bit, in a gentle rocking motion. Watch it slice, shred, and bury those weeds!

Got tough weeds? Lighten your pressure on the throttle to slow your Tiller/Cultivator down. Then work back and forth until your Tiller/Cultivator chops up the weeds. It’s easy and effective!

Remember, any Tiller/Cultivator will tangle in tall grass, stringy vines, or super-big weeds. So, if you have a “backyard jungle,” first use a knife, pruner, or brush cutter to chop up the overgrowth. If the tines become tangled anyway, **turn the engine off completely** before trying to clear them.



Tilling Position

Tine teeth point in the same direction as the rotation of the tine; or toward the front of the Tiller/Cultivator, away from the operator.

Cultivating Position

Tine teeth point in the opposite direction as the rotation of the tine. Tines point toward the back of the Tiller/Cultivator, or toward the operator.

Maintenance

How to Check, Clean and Change the Air Filter

Check the air filter every 25 hours of use or more frequently if used under dusty conditions. A clogged air filter may increase fuel consumption while cutting down the engine power. Never operate the blower without the air filter or with a deformed filter element because unfiltered dusty air will quickly ruin the engine.

Cleaning air filter

1. Remove the air cleaner cover by pulling the tab on side and take out the 2 filter element.
2. Use neutral detergent and warm water to clean the filter elements. After cleaning, air dry the element completely and moisten with a small amount of motor oil.
3. Place the filter element into the air cleaner housing and press the cover against the housing until it clicks.

Idle Speed Adjustment

1. Warm up engine before adjusting idle speed.
2. The idle speed adjustment screw controls the throttle opening at idle position.
3. When the engine tends to stop frequently at idling mode, turn the adjusting screw clock wise.
4. If the tines continue to rotate after releasing the trigger, turn the adjusting screw counter-clockwise.

Clear Blockages From the Fuel Line & Filter

After you've used your Tiller/Cultivator for a few seasons, check for blockages in the fuel tank and fuel filter. Such blockages can keep your Tiller/Cultivator from starting.

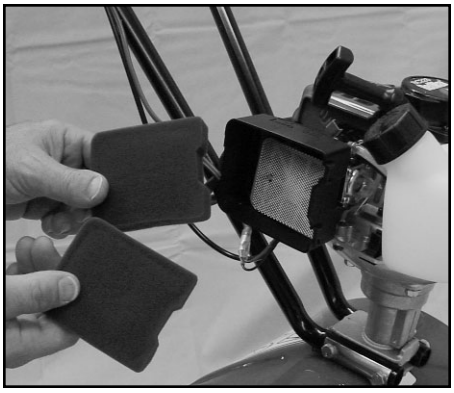
Clear any blockages you see in the tank, fuel filter, or fuel line. Remember: The fuel filter is located inside the tank. (See Picture 3) Then use the normal starting procedure to start your Tiller/Cultivator.

Spark Plug

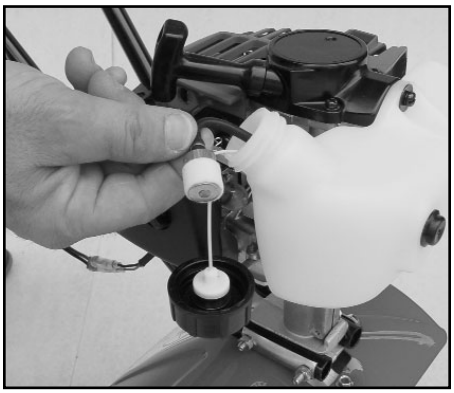
1. Starting failure and mis-firing are often caused by a fouled spark plug. Clean the spark plug and check the that the plug gap is in the correct range. (Picture 4) (.025., 0.65 mm)
2. CAUTION: Do not over tighten the spark plug. To install the spark plug first turn the plug until it is finger tight, then tighten it a quarter turn more with a socket wrench.
3. For a replacement plug, use the correct type specified by RedMax. The replacement plug is Champion RCJ6Y (5602-73110)



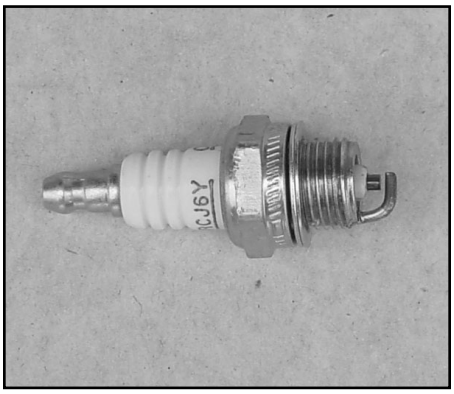
Picture 1



Picture 2



Picture 3



Picture 4

How to Reseat the Flange

At some point, you may find that the tines won't turn when you press the throttle. This may mean the engine isn't sitting all the way down on the worm-gear housing.

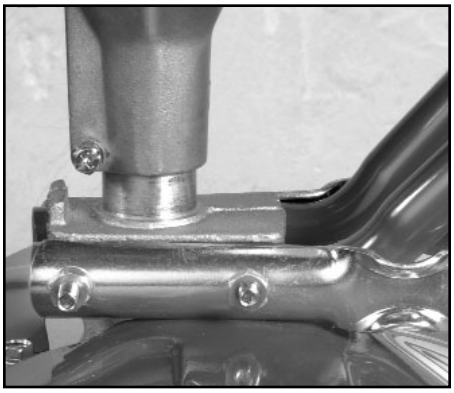
Perhaps you've been using your Tiller/Cultivator for several years. The flange bolt (Key #22) may have come loose and lifted the engine up.

If this happened you'll notice a gap between the bottom of the engine flange (Key #24) and the top of the wormgear housing. (Picture 1)

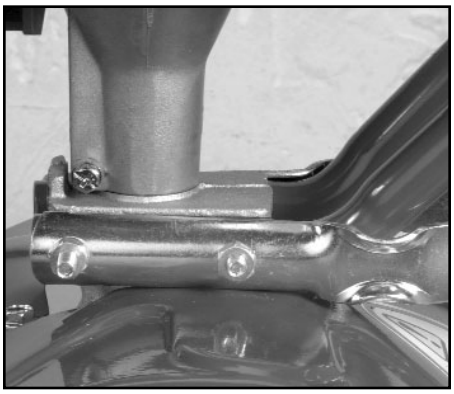
To fix this, loosen the flange bolt. Take the engine off the wormgear housing. Notice the hex head on top of the drive shaft (Key #28). Inside the flange housing, you'll find the clutch drum (Key #25). Make sure the hex head lines up with the clutch drum inside the flange housing.

Then put the engine back on the wormgear housing. Make sure the plastic carrying handle is not under the fuel tank.

If you've followed these steps properly, there will be no gap between the engine flange and the wormgear housing. (Picture 2) Make sure you tighten the flange bolt!



Picture 1



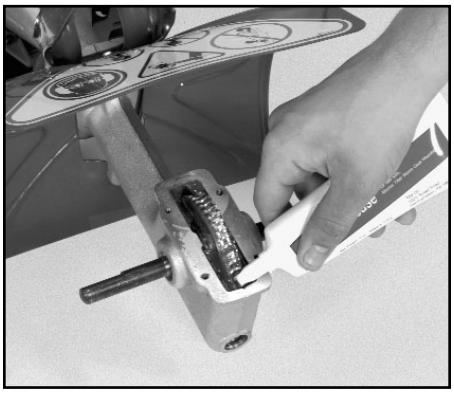
Picture 2

How to Check the Grease Level Inside the Worm-Gear Housing

When we built your KOMATSU/REDMAX Tiller/Cultivator, we lubricated the worm-gear housing thoroughly.

It is imperative that you inspect the grease level once a year. Simply remove the cover plate on the worm-gear housing. (Picture 1) Then check to make sure the grease comes almost to the top of the housing. If it doesn't, add lithium #0 grease. This is the only way to add grease to the worm-gear housing. (Picture 3) To purchase grease, contact your local authorized REDMAX dealer.

Please do not overfill. Too much grease can create pressure, which could cause seals to fail or the clutch to slip.

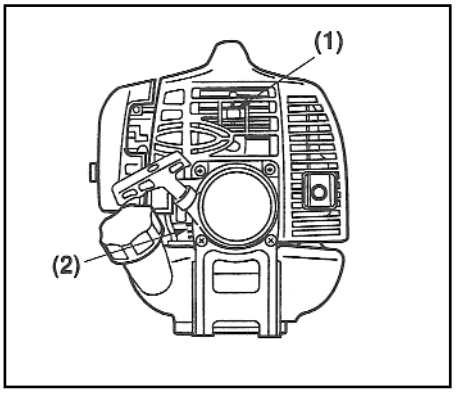


Picture 3

Maintenance cont.

Muffler

- Inspect periodically, the muffler for loose fasteners, any damage or corrosion. If any sign of exhaust leakage is found, stop using the machine and have it repaired immediately.
- Note that failing to do so may result in the engine catching on fire.



Picture 1

Spark Arrester

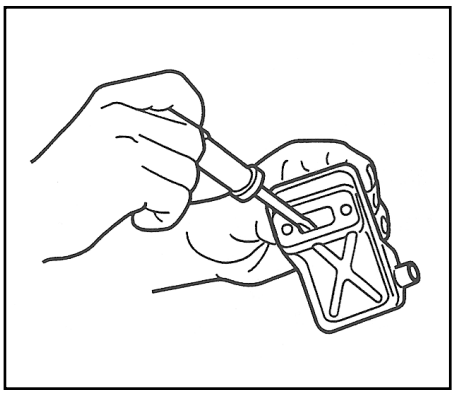
- The muffler is equipped with a spark arrester to prevent red hot carbon from flying out of the exhaust outlet. Periodically inspect and clean as necessary with a wire brush. In the State of California it is required by law (Section 4442 of the California Public Resources Code) to equip a spark arrester when a gas powered tool is used in any forest covered, brush covered, or grass covered unimproved land.

Intake Air Cooling Vent

- Never touch the cylinder, muffler, or spark plugs with your bare hands immediately after stopping the engine. The engine can become very hot when in operation, and doing so could result in severe burns.
- When checking the machine to make sure that it is okay before using it, check the area around the muffler and remove any debris. Failing to do so could cause the muffler to become overheated, and that this in turn could cause the engine to catch on fire. Always make sure that the muffler is clean and free of debris before use.
- Check the intake air cooling vent and the area around the cylinder cooling fins after every 25 hours of use for blockage. Note that it is necessary to remove the engine cover in order to view the upper part of the cylinder.

⚠ WARNING ⚠ DANGER ⚠

IF WASTE GETS STUCK AND CAUSES BLOCKAGE AROUND THE INTAKE AIR COOLING VENT OR BETWEEN THE CYLINDER FINS, IT MAY CAUSE THE ENGINE TO OVERHEAT, AND THAT IN TURN MAY CAUSE MECHANICAL FAILURE ON THE PART OF THE TILLER/CULTIVATOR.



Picture 2

Procedures to be Performed After Every 100 Hours of Use

1. Remove the muffler, insert a screwdriver into the vent, and wipe away any carbon buildup. Wipe away any carbon buildup on the muffler exhaust vent and cylinder exhaust port at the same time.
2. Tighten all screws, bolts, and fittings.
3. Check to see if any oil or grease has worked its way in between the clutch lining and drum, and if it has, wipe it away using oil-free, lead-free gasoline.

Maintenance cont.

	System/ Component	Procedure	Before Use	Every 25 Hours	Every 50 Hours	Every 100 Hours	Note
ENGINE	Fuel Leaks, Fuel Spillage	Wipe out	✔				
	Fuel Tank, Air Filter, Fuel Filter	Inspect, clean	✔	✔			Replace if necessary
	Idle Adjusting Screw	see Adjusting Idling Speed (pg. 9)	✔				Replace carburetor if necessary
	Spark Plug	Clean and readjust plug gap			✔		GAP: .025" (0.6 - 0.7 mm) replace if necessary
	Cylinder Fins, Intake Air Cooling Vent	Clean		✔			
	Muffler, Spark Arrester, Cylinder Exhaust Port	Clean			✔		

IMPORTANT: Time intervals shown are maximum. Actual use and your experience will determine the frequency of required maintenance.

Storage

Each fall — or before you store your KOMATSU/REDMAX Tiller/Cultivator for any long period — be sure to take these measures:

1. Do not store your Tiller/Cultivator with fuel still in it. Even under ideal conditions, stored fuel containing ethanol or MTBE can start to go stale in 30 days. And, since stale fuel has a high gum content, it can clog the carburetor, this, in turn, will restrict fuel flow. S**o, when you're ready to store your Tiller/Cultivator, or will not be using it for more than 2 weeks,** drain the fuel tank completely.
2. Next, restart the engine to make sure no fuel is left in the carburetor. Then run the engine until it stops. This will prevent gum deposits, forming inside of the carburetor and possible engine damage.
3. Disconnect spark plug wire and remove the spark plug. (Use a 19mm or 3/4" spark-plug wrench.) Pour about a teaspoon of clean, air-cooled, two-cycle oil through the spark-plug hole into the combustion chamber. Slowly pull the starter cord two or three times to coat the inside of the cylinder wall.
4. Inspect the spark plug, and, if necessary, clean it. If you need to replace it, buy a Champion RCJ6Y (5602-73110)
5. Install the spark plug, but leave the spark plug wire disconnected.
6. Clean the air filter as described on page 17.
7. Clean dirt, grass, and other materials from the entire machine.
8. Wipe the tines with oil or spray them with WD-40, to prevent rusting.
9. Oil the throttle cable and all visible moving parts. (Do not remove the engine cover.)
10. Check the grease level in the wormgear housing, as described on page 18.
11. Order new parts to replace any that are badly worn or broken. Just contact your local authorized REDMAX dealer. But do it early, so you'll have the parts well before the next gardening season starts.
12. Store your Tiller/Cultivator — in an upright position — in a clean, dry place.
13. Do you have fuel left over from last season? Dispose of it properly. Buy fresh oil and gasoline next season.

How to Prepare Your KOMATSU/REDMAX Tiller/Cultivator for Restarting

In the Spring, when you take your Tiller/Cultivator out of storage, remove the spark plug. Pull the starter cord three or four times to clean oil from the combustion chamber. Wipe oil from the spark plug. Place the spark plug back into the cylinder. Re-connect the spark plug wire back on the spark plug. Then follow the steps on pages 12 to refuel and restart your Tiller/Cultivator.

Again, Check the Carburetor.

If your Tiller/Cultivator won't restart in the Spring — or if it lacks its usual power — the carburetor may need attention.

Check the Spark Plug Too.

If your Tiller/Cultivator won't restart, or if it lacks full power, the spark plug may be at fault. Check to see if the plug is fouled with oily black deposits. Clean or replace it if it is.

Also, check whether the center electrode is rounded at the end, or if the ground electrode is worn. If either is the case, you should replace it with a Champion RCJ6Y spark plug. Use a 19mm or a 3/4" spark-plug wrench to install it. Adjust the plug gap to .025 in. (0.65 mm)

To Install the spark plug first turn the plug until it is finger tight, then tighten it a quarter turn more with a socket wrench.

IMPORTANT NOTE:

To avoid possible damage to the threads, do not try to remove the plug from a hot aluminum cylinder head.

Troubleshooting Guide

Case 1. Starting failure

Check	Probable Causes	Action
Fuel Tank	Incorrect fuel	Drain it and fill with correct fuel
Fuel Filter	Fuel filter is clogged	Clean
Carburetor Adjustment Screw	Out of normal range	Adjust to normal range
Sparking (no spark)	Spark plug is fouled/ wet Plug gap is incorrect	Clean/ dry Correct (GAP: 0.6 ~ 0.7 mm)
Spark Plug	Disconnected	Retighten

Case 2. Engine starts but does not keep running/ hard re-starting.

Check	Probable Causes	Action
Fuel Tank	Incorrect fuel	Drain it and fill with correct fuel
Carburetor Adjustment Screw	Out of normal range	Adjust to normal range
Muffler, Cylinder (exhaust port)	Carbon is built-up	Wipe away
Air Cleaner	Clogged with dust	Wash
Cylinder Fin, Fan Cover	Clogged with dust	Clean

When your unit seems to need further service, please consult with our RedMax service shop in your area.

Tiller/Cultivator

CV225

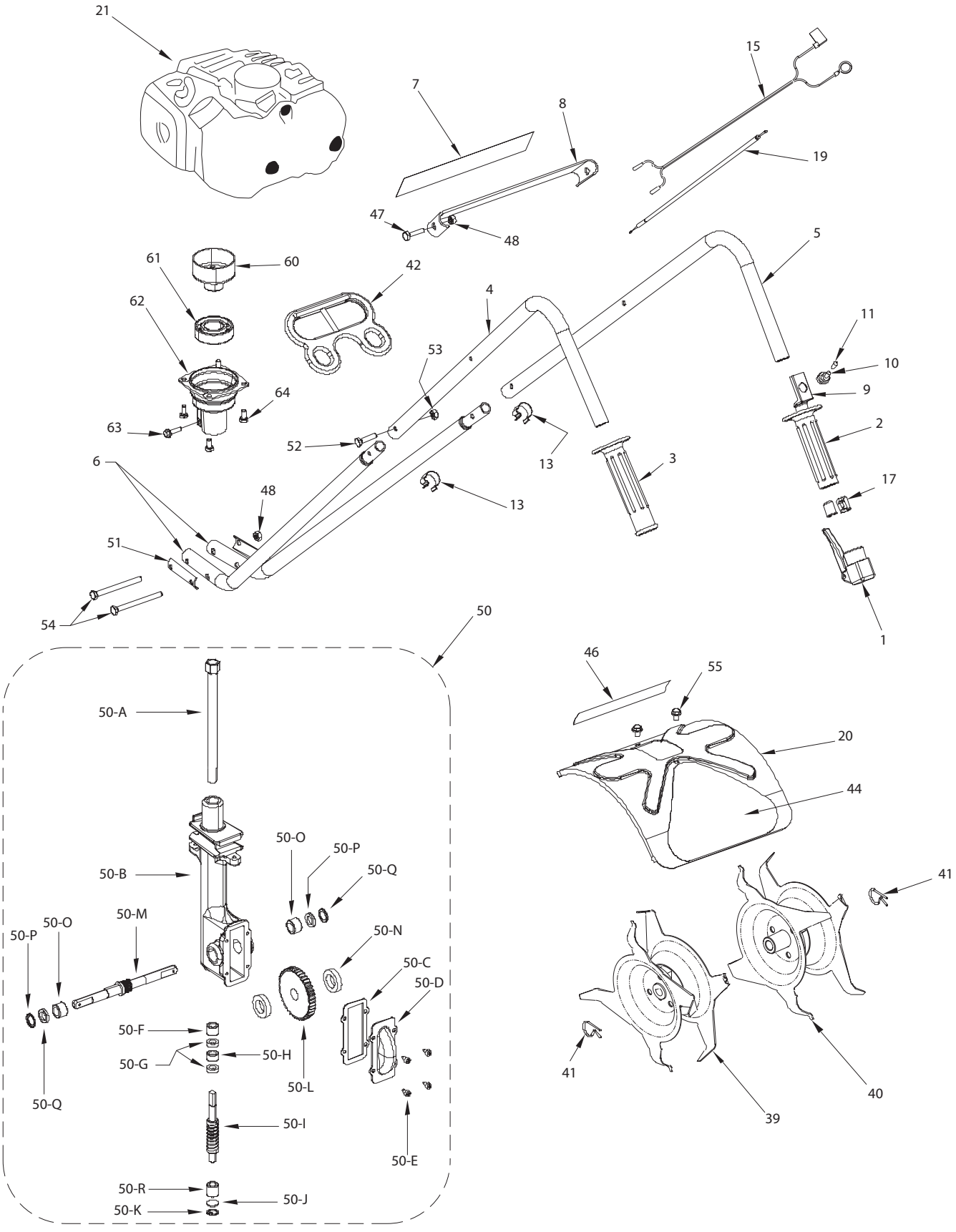
NOTE :

1. Use KOMATSU ZENOAH genuine parts as specified in the parts list for repair and/or replacement.
2. KOMATSU ZENOAH does not warrant the machines, which have been damaged by the use of any parts other than those specified by the company.
3. When placing parts orders for repair and/or replacement, check if the model name and the serial number are applicable to those specified in the parts list, then use parts number described in the parts list.
4. The contents described in the parts list may change due to improvement.
5. The parts for the machine shall be supplied seven (7) years after the machine is discontinued. [It is possible that some specific parts may be subject to change of their delivery term and list price within the limit of seven (7) years after the machine is discontinued. It is also possible that some parts may be available even after the limit of seven (7) years.]

Applicable Serial Numbers:

Engine Unit: 108000 and up

RedMax Cultivator Assembly



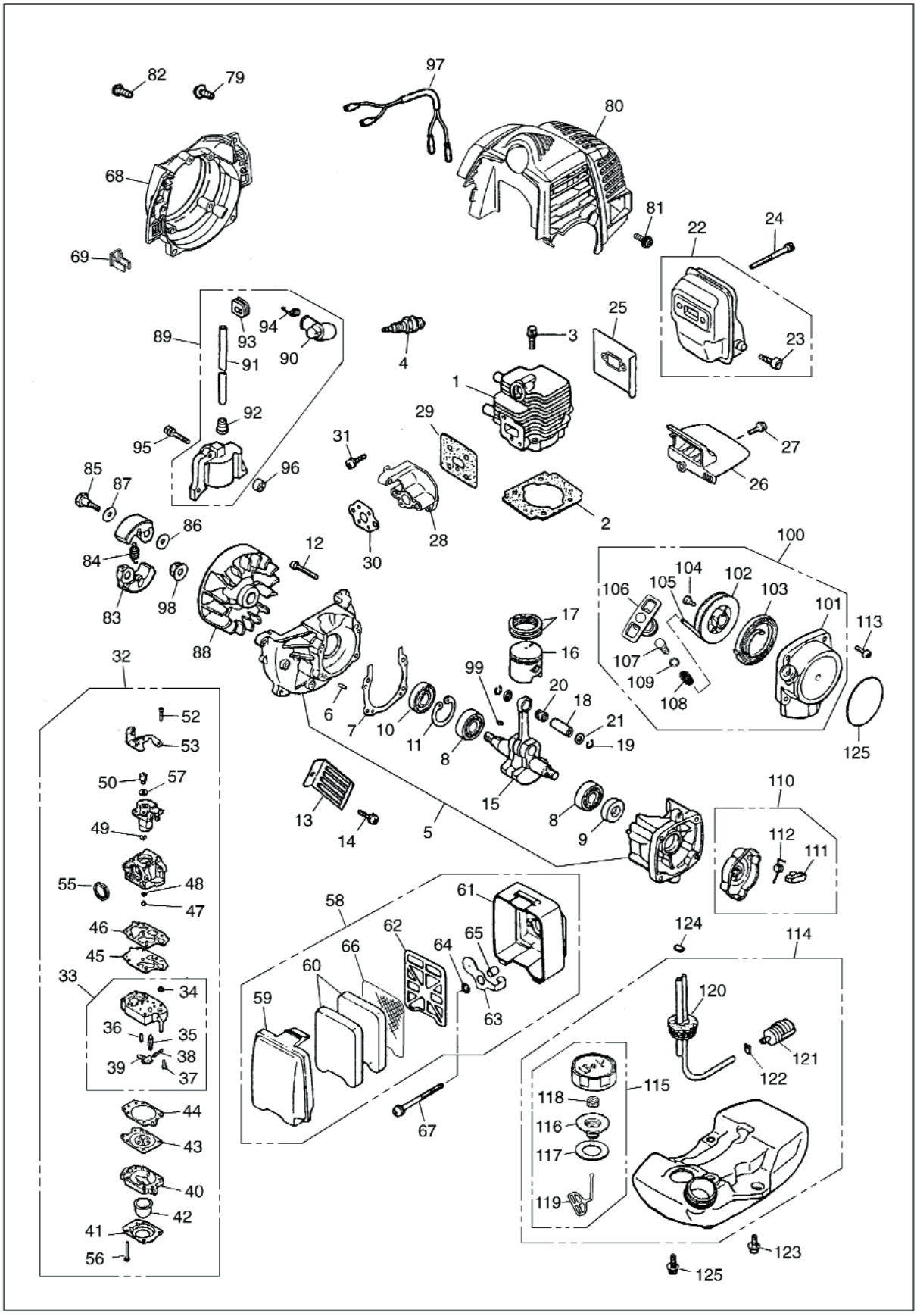
REDMAX CULTIVATOR ASSEMBLY

Key#	Part Number	Q'ty	Description
1	400215	1	Throttle Lever
2	400220	1	Grip-Thru
3	400214	1	Grip
4	400243	1	Upper Handle
5	400242	1	Upper Handle Throttle Side
6	400244	2	Lower Handle
7	400613	1	Label
8	400113	1	Handle Brace
9	464	1	Switch Bracket
10	479	1	Switch
11	1612-70A	1	Switch Cover
13	478	2	Throttle Clip
15	400239	1	Connector Wire
17	379	2	Cable Retainer
19	T1723-83100	1	Throttle Cable Assy.
20	465	1	Fender Guard
21		1	
39	400210	1	Tine Assembly - LT
40	400211	1	Tine Assembly - RT
41	418-1	2	Tine Retaining Hair Pin
42	400214	1	Carrying Handle
44	4043	1	Tine Label
46	400615	1	Komatsu/RedMax Label
50	400010	1	Transmission w/ Drive Shaft
50-A	468	1	Drive Shaft
50-B	466	1	Worm Gear Housing
50-C	436	1	Gasket
50-D	437A	1	Housing Cover
50-E	651	4	Rd. Hd Self Tapping Screw
50-F	423	1	Roller Bearing
50-G	425	2	Worm Bearing Race
50-H	424	1	Worm Thrust Bearing
50-I	422	1	Worm Shaft
50-J	426	1	Worm Disk
50-K	428	1	Retaining Ring
50-L	429	1	Worm Gear
50-M	431	1	Tine Shaft
50-N	430	2	Worm Gear Thrust Washer
50-O	432	2	Worm Gear Bearing
50-P	434	2	Bearing Seal
50-Q	435	2	Bearing Seal Retainer
50-R	458	1	Roller Bearing
52	410	2	Capscrew 1/4-20 x 1” lg
53	972	2	Lock Nut 1/4-20
54	4049	2	1/4-20 x 3 1/4” Bolt
55	140	2	Bolt 1/4-20 x 3/8”
60	400131	1	Clutch Drum
61	400132	1	Bearing
62	400130	1	Transmission Adapter
63	910502	1	10-32 x 3/4 Flange Bolt
64	400511	4	M6 x 12 Flange Bolt



KOMATSU
RedMax

Engine Unit CV225 (S/N 108000 and up)



Engine Unit CV225 (S/N 108000 and up)

Key#	Description	Part Number	Q'ty
1	CYLINDER	5580-12110	1
2	GASKET, base	5500-12213	1
3	BOLT	1850-12130	2
4	PLUG RCJ-6Y	5602-73110	1
5	CRANKCASE-C	5500-21100	1
6	• PIN	2629-21130	3
7	GASKET	5500-21141	1
8	BEARING	06030-06001	2
9	SEAL	2169-21210	1
10	SEAL	1850-21220	1
11	SNAP RING	04065-02812	1
12	BOLT	01252-30530	3
13	GUARD	5500-22110	1
14	SCREW	0263-90514	1
15	CRANKSHAFT-C	5500-42001	1
16	PISTON	5600-41111	1
17	RING	1100-41210	2
18	PIN	1101-41310	1
19	RING	1260-41320	2
20	BEARING	5500-41410	1
21	WASHER	1101-41340	2
22	MUFFLER ASSY	T1702-15100	1
23	ARRESTER	1601-15120	1
24	BOLT	01252-30550	2
25	GASKET	T1600-15210	1
26	PLATE	5500-15221	1
27	SCREW	0263-90416	1
28	INSULATOR	T1700-13160	1
29	GASKET, insulator	5500-13121	1
30	GASKET, carburetor	5500-13131	1
31	SCREW	0263-90520	2
32	CARBURETOR ASS'Y	T1723-81000	1
33	• BODY ASS'Y	1850-81450	1
34	• • SCREEN	3306-81380	1
35	• • VALVE	3356-81310	1
36	• • SPRING	1850-81270	1
37	• • SCREW	1850-81220	1
38	• • PIN	3310-81250	1
39	• • LEVER	3310-81230	1
40	• BODY, purge	1850-81490	1
41	• COVER, pump	1850-81520	1
42	• PUMP, priming	1751-81510	1
43	• DIAPHRAGM	3310-81260	1
44	• GASKET, diaphragm	1850-81470	1
45	• DIAPHRAGM, pump	1065-81420	1
46	• GASKET, pump	1065-81410	1
47	• JET	5500-81251	1
48	• RING	1751-81240	1
49	• RING	1751-81130	1
50	• SWIVEL	1881-81140	1
52	• SCREW	1752-81110	2
53	• BRACKET	5500-81120	1
55	• RING	1881-81130	1
56	• SCREW	1850-81530	4
57	• WASHER	5500-81160	1
58	AIR CLEANER ASS'Y	1918-82001	1
59	• COVER	1918-82110	1
60	• FILTER	1918-82120	2

Key#	Description	Part Number	Q'ty
61	• HOUSING	1918-82130	1
62	• PLATE	1918-82140	1
63	• CHOKE VALVE	1918-82150	1
64	• WASHER	1918-82160	1
65	• SLEEVE	1918-82170	2
66	• SCREEN	1918-82180	1
67	SCREW	0263-90560	2
68	COVER, fan	T1815-31110	1
69	CLAMP	T1600-72210	1
79	SCREW	0263-90520	4
80	COVER, engine	T1815-32110	1
81	SCREW	T1700-32162	1
82	SCREW	0263-90510	1
83	SHOE	T1700-51110	2
84	SPRING	T1700-51220	1
85	SCREW	1140-51250	2
86	WASHER	1140-51230	2
87	WASHER	1970-51241	2
88	ROTOR	T1700-71110	1
89	COIL-A	T1700-71201	1
90	• CAP	5500-72110	1
91	• CORD	T1700-71220	1
92	• CAP	2616-71320	1
93	• GROMMET	5500-72130	1
94	• SPRING	5500-72120	1
95	BOLT	3310-72150	2
96	SPACER	T1700-71260	2
97	CORD-C	T1700-73200	1
98	NUT	1650-43230	1
99	KEY	1000-43240	1
100	RECOIL ASS'Y	T1700-75100	1
101	• CASE-C	5500-75110	1
102	• REEL	1850-75120	1
103	• SPRING	1850-75130	1
104	• SCREW	1850-75151	1
105	• ROPE	T1600-75160	1
106	• KNOB	T1600-75310	1
107	• COLLAR	T1600-75321	1
108	• SPRING	T1600-75330	1
109	• WASHER	T1600-75210	1
110	PULLEYASS'Y	1850-75201	1
111	• RATCHET	1850-75221	1
112	• SPRING	1850-75230	1
113	SCREW	T1700-32162	4
114	TANK ASS'Y	T1700-85001	1
115	• CAP ASS'Y	5607-85201 1	
116	• • HOLDER ASS'Y	5601-85300	1
117	• • PACKING	5500-85220	1
118	• • FILTER	5601-85260	1
119	• • STOPPER	4820-85260	1
120	• PIPE-C	5500-85300	1
121	• FILTER ASS'Y	5500-85400	1
122	• CLIP	1260-85460	1
123	SCREW	5910-85510	1
124	CLIP	1950-86120	1
125	SCREW	5500-85510	2
126	LABEL, recoil	T1716-31120	1

KOMATSU/REDMAX Mini Tiller/Cultivator CV225 2-Year Limited Warranty

EMISSION-RELATED PARTS, FOR TWO (2) YEARS FROM THE DATE OF ORIGINAL DELIVERY OF THE MODEL CV225 UNIT, KOMATSU ZENOAH AMERICA INC. (THE COMPANY),THROUGH ANY RedMax DEALER, WILL REPAIR OR REPLACE, FREE OF CHARGE, FOR THE ORIGINAL AND EACH SUBSEQUENT PURCHASER, ANY PART OR PARTS FOUND TO BE DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP. EMISSION-RELATED PARTS ARE:

THE CARBURETOR ASSY, COIL ASSY, ROTOR, SPARKPLUG,
AIR FILTER, FUEL FILTER, INTAKE MANIFOLD, AND THE GASKETS

ALL OTHER PARTS EXCEPT ABOVE PARTS, FOR TWO (2) YEARS OF HOME USE [ONE (1) YEAR FOR ANY OTHER USE] FROM THE DATE OF ORIGINAL ANY DELIVERY OF THE MODEL CV225 UNIT, THE COMPANY, THROUGH ANY RedMax DEALER, WILL REPAIR OR REPLACE, FREE OF CHARGE, FOR THE ORIGINAL PURCHASER, ANY PART OF PARTS FOUND TO BE DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP. THIS IS THE EXCLUSIVE REMEDY.

THE PURCHASER SHALL BEAR COSTS OF TRANSPORTING THE UNIT TO AND FROM THE RedMax DEALER.

THE PURCHASER SHALL NOT BE CHARGED FOR DIAGNOSTIC LABOR WHICH LEADS TO THE DETERMINATION THAT A WARRANTED PART IS DEFECTIVE, IF THE DIAGNOSTIC WORK IS PERFORMED AT THE RedMax DEALER. THE PURCHASER OR OWNER IS RESPONSIBLE FOR THE PERFORMANCE OF THE REQUIRED MAINTENANCE AS DEFINED BY THE MANUFACTURER IN THE OWNER/OPERATOR MANUAL.

ANY WARRANTED PART WHICH IS NOT SCHEDULED FOR REPLACEMENT AS REQUIRED MAINTENANCE, OR WHICH IS SCHEDULED ONLY FOR REGULAR INSPECTION TO THE EFFECT OF "REPAIR OR REPLACE AS NECESSARY" SHALL BE WARRANTED FOR THE WARRANTY PERIOD.ANY WARRANTED PART WHICH IS SCHEDULED FOR REPLACEMENT AS REQUIRED MAINTENANCE SHALL BE WARRANTED FOR THE PERIOD OF TIME UP TO THE FIRST SCHEDULED REPLACEMENT POINT FOR THE PART.

ANY REPLACEMENT PART THAT IS EQUIVALENT IN PERFORMANCE AND DURABILITY MAY BE USED IN NONWARRANTY MAINTENANCE OR REPAIRS, AND SHALL NOT REDUCE THE WARRANTY OBLIGATION OF THE COMPANY.

THE COMPANY IS LIABLE FOR DAMAGES TO OTHER ENGINE COMPONENTS CAUSED BY THE FAILURE OF A WARRANTED PARTS STILL UNDER WARRANTY.

THE WARRANTY DOES NOT APPLY TO THOSE UNITS WHICH HAVE BEEN DAMAGED BY NEGLIGENCE OF

INSTRUCTION LISTED IN THE OWNER/OPERATOR MANUAL FOR PROPER USE AND MAINTENANCE OF THE UNITS, ACCIDENT MISHANDLING, ALTERATION, ABUSE, IMPROPER LUBRICATION, USE OF ANY PARTS OR ACCESSARIES OTHER THAN THOSE SPECIFIED BY THE COMPANY, OR OTHER CAUSES BEYOND THE COMPANY'S CONTROL.

THIS WARRANTY DOES NOT COVER THOSE PARTS REPLACED BY NORMAL WEAR OR HARMLESS CHANGES IN THEIR APPEARANCE.

THERE ARE NO OTHER EXPRESS WARRANTIES.

IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO TWO (2) YEARS OF HOME USE [ONE (1) YEAR FOR ANY OTHER USE] FROM THE ORIGINAL DELIVERY DATE.

LIABILITIES FOR INCIDENTAL OR CONSEQUENTIAL DAMAGE UNDER ANY AND ALL WARRANTIES ARE EXCLUDED.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

IF YOU NEED TO OBTAIN INFORMATION ABOUT THE NEAREST SERVICE CENTER, PLEASE CALL KOMATSU ZENOAH AMERICA INC. AT (770)-381-5147.

IMPORTANT: You will receive a warranty registration card at time of purchase. Pease fill out the card and send it to RedMax / Komatsu Zenoah America Inc. within seven (7) days. Be sure to keep a copy for your records.

KOMATSU/REDMAX Mini Tiller/Cultivator Modèle CV225 Garantie limitée à 2 ans

Pièces en rapport avec les émissions de gaz d'échappement : KOMATSU ZENOAH AMERICA INC., par l'intermédiaire de n'importe quel revendeur RedMax, réparera gratuitement ou remplacera gratuitement pour l'acheteur initial et chaque acheteur successif toute(s) pièce(s) se révélant de constitution et/ou de montage défectueux pendant deux (2) ans à compter de la date initiale de livraison d'une unité du modèle CV225. Les pièces en rapport avec les émissions de gaz d'échappement sont:

l'assemblage carburateur, l'assemblage bobine, le rotor, la bougie, le filtre à air, le filtre à carburant, la tubulure d'admission et les joints Toutes autres pièces exceptées celles mentionnées ci-dessus :

La société, par l'intermédiaire de n'importe quel revendeur RedMax, réparera gratuitement ou remplacera gratuitement pour l'acheteur initial toute(s) pièce (s) se révélant de constitution et/ou de montage défectueux pendant deux (2) ans en cas d'utilisation privée [un (1) an pour toute autre utilisation] à compter de la date de livraison initiale d'une unité du modèle CV225. Telles sont les limites de la garantie.

Le coût du transport de l'unité jusqu'au revendeur RedMax et depuis celui-ci sera à la charge de l'acheteur.

L'acheteur ne supportera pas le coût de main d'oeuvre du diagnostic qui amène à la conclusion qu'une pièce garantie est défectueuse, si ce diagnostic est effectué chez le revendeur RedMax.

L'acheteur ou propriétaire a pour responsabilité d'effectuer l'entretien obligatoire tel que défini par le fabricant dans le manuel du propriétaire/de l'utilisateur.

Toute pièce garantie dont le remplacement n'est pas prévu dans le cadre de l'entretien obligatoire, ou pour laquelle est seulement prévue une inspection périodique pour "remplacement ou réparation si nécessaire" sera garantie pour la période de garantie. Toute pièce garantie arrivée à l'échéance de son premier remplacement prévu sera garantie jusqu'à celui-ci.

Toute pièce de rechange équivalente en performance ou en durabilité peut être utilisée pour l'entretien hors-garantie ou les réparations hors-garantie, et ce sans réduire l'obligation de garantie incombant à la société.

La société sera tenue responsable des dommages aux autres composants du moteur causés par la défaillance de pièce(s) garantie(s) en période de garantie.

La garantie ne s'applique pas aux unités endommagées par suite de: négligence dans la mise en oeuvre des instructions spécifiées dans le manuel du propriétaire/de l'utilisateur en vue d'une utilisation et d'un entretien correct, fausse manœuvre accidentelle, modification, utilisation abusive, lubrification incorrecte, utilisation de pièces ou d'accessoires autres que ceux spécifiés par la société, ou autres causes hors du contrôle de la société.

Cette garantie ne couvre pas les pièces remplacées en raison de leur usure normale ou de changements d'apparence sans effets.

Il n'existe aucune autre garantie explicite.

Les garanties implicites, celles de négociabilité du produit et de son adaptabilité à un usage défini incluses, **sont limitées** à deux (2) ans pour un usage privé [un (1) an pour toute autre utilisation] à compter de la date initiale de livraison.

Les responsabilités pour les dommage conséquents ou incidents sont exclues de toutes les garanties.

Certaines provinces n'autorisant pas les limitations à la durée des garanties implicites, ou les exclusions ou limitations relatives aux dommages incidents ou conséquents, la limitation indiquée ci-dessus peut ne pas vous être applicable.

Cette garantie vous donne des droits juridiques spécifiques, et vous pouvez également jouir d'autres droits variant d'une province à l'autre.

Si vous désirez obtenir des informations sur le centre de service le plus proche, veuillez appeler KOMATSU ZENOAH AMERICA INC. au (770)-381-5147

Note importante: vous recevrez une carte d'enregistrement de garantie au moment de l'achat. Veuillez la remplir et l'adresser à RedMax / KOMATSU ZENOAH AMERICA sous sept (7) jours en prenant soin de conserver une copie pour vous.

CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

THE CALIFORNIA AIR RESOURCES BOARD AND KOMATSU ZENOAH Co. ARE PLEASED TO EXPLAIN THE EMISSION CONTROL SYSTEM WARRANTY ON YOUR 1995 AND LATER LAWN AND GARDEN EQUIPMENT ENGINE. IN CALIFORNIA, NEW UTILITY AND LAWN AND GARDEN EQUIPMENT ENGINES MUST BE DESIGNED, BUILT AND EQUIPPED TO MEET THE STATE'S STRINGENT ANTI-SMOG STANDARDS. KOMATSU ZENOAH Co, MUST WARRANT THE EMISSION CONTROL SYSTEM ON YOUR LAWN AND GARDEN EQUIPMENT ENGINE FOR THE PERIODS OF TIME LISTED BELOW PROVIDED THERE HAS BEEN NO ABUSE, NEGLECT OR IMPROPER MAINTENANCE OF YOUR LAWN AND GARDEN EQUIPMENT ENGINE. YOUR EMISSION CONTROL SYSTEM MAY INCLUDE PARTS SUCH AS THE CARBURETOR, THE IGNITION SYSTEM, AND CATALYTIC CONVERTER. ALSO INCLUDED MAY BE THE HOSES, BELTS, CONNECTORS AND OTHER EMISSION-RELATED ASSEMBLIES. WHERE A WARRANTABLE CONDITION EXISTS, KOMATSU ZENOAH Co. WILL REPAIR YOUR LAWN AND GARDEN EQUIPMENT ENGINE AT NO COST TO YOU INCLUDING DIAGNOSIS, PARTS AND LABOR.

MANUFACTURER'S WARRANTY COVERAGE:
THE 1995 AND LATER UTILITY AND LAWN AND GARDEN EQUIPMENT ENGINES ARE WARRANTED FOR TWO YEARS. IF ANY EMISSION-RELATED PART ON YOUR ENGINE IS DEFECTIVE, THE PART WILL BE REPAIRED OR REPLACED BY KOMATSU ZENOAH Co.

OWNER'S WARRANTY RESPONSIBILITIES:
— AS THE LAWN AND GARDEN EQUIPMENT ENGINE OWNER, YOU ARE RESPONSIBLE FOR THE PERFORMANCE OF THE REQUIRED MAINTENANCE LISTED IN YOUR OWNER'S MANUAL. KOMATSU ZENOAH Co. RECOMMENDS THAT YOU RETAIN ALL RECEIPTS COVERING MAINTENANCE ON YOUR LAWN AND GARDEN ENGINE, BUT KOMATSU ZENOAH Co. CAN NOT DENY WARRANTY SOLELY FOR THE LACK OF RECEIPTS OR FOR YOUR FAILURE TO ENSURE THE PERFORMANCE OF ALL SCHEDULED MAINTENANCE.
— AS THE LAWN AND GARDEN EQUIPMENT ENGINE OWNER, YOU SHOULD HOWEVER BE AWARE THAT KOMATSU ZENOAH Co. MAY DENY YOU WARRANTY COVERAGE IF YOUR LAWN AND GARDEN EQUIPMENT ENGINE OR A PART HAS FAILED DUE TO ABUSE, NEGLECT, IMPROPER MAINTENANCE OR UNAPPROVED MODIFICATION.
— YOU ARE RESPONSIBLE FOR PRESENTING YOUR LAWN AND GARDEN EQUIPMENT ENGINE TO A KOMATSU ZENOAH Co. DISTRIBUTION CENTER AS SOON AS A PROBLEM EXISTS. THE WARRANTY REPAIRS SHOULD BE COMPLETED IN A REASONABLE AMOUNT OF TIME, NOT TO EXCEED 30 DAYS.

IF YOU HAVE ANY QUESTIONS REGARDING YOUR WARRANTY RIGHTS AND RESPONSIBILITIES,YOU SHOULD CONTACT KOMATSU ZENOAH AMERICA INC. AT (770)-381-5147. CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT YOUR WARRANTY RIGHTS AND OBLIGATIONS


KOMATSU
RedMax