

# MINI TILLER & WEEDER USER MANUAL KM0411303



WEEDER



TILLER



## 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.

Thank you for purchasing our company products.

This product is designed for tilling and weeding, you can very easy transform function by replacing blade .

Any question please call hotline:**400-0516919**

### Table of Contents

Specifications	2
Safety Rules and Warnings	2-5
Assembly Instructions	6-8
How to use	9-10
How to maintain	11-13
HOW TO STORE	14-15
Troubleshooting Guide	15-16

### Specifications

Model	.....
Overall Size(LxWxH)	.....100*70*109CM
N.W./G.W.	.....26KGS/28KGS
Engine Type	.....2-stroke gasoline
Displacement	.....1E48F/63.3cm <sup>3</sup>
Max.Output	..... 2.2KW/6500rpm
Fuel Mixture	.....(Gasoline 30 : Oil 1)
Transmission Type	.....Turbine
Clutch Type	.....Centrifugal
Till width	.....30-70cm
Till depth	.....10-15cm
Propeling speed	.....0.15-0.25m/s
Durability period	.....120h

### 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.**

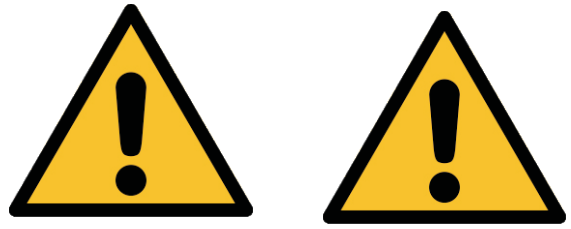
**⚠ WARNING ⚠ DANGER ⚠**  
**IMPROPER USE OR CARE OF THIS TILLER/CULTIVATOR, OR FAILURE TO WEAR PROPER PROTECTION CAN RESULT IN SERIOUS INJURY.**  
**READ AND UNDERSTAND THE RULES FOR SAFE OPERATION AND ALL INSTRUCTIONS IN THIS MANUAL. WEAR HEARING PROTECTION.**

**⚠ 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

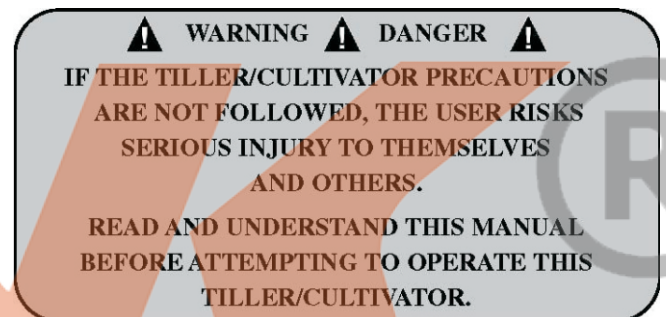
An important part of the safety system incorporated in this trimmer are the warning and information decals found on various parts of the trimmer. These decals must be replaced

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.



**WARNING:**The following information is very very important , please read it very carefully .




## WARNINGS-DO'S



1. Read manual thoroughly and carefully , you must understand content in manual .
2. Wear protective equipment , like goggles , helmet , protective boots etc . when you operate this machine .
3. Before you operating this machine , please make sure the machine is in good status :  
All of the fastener must be tight  
All of the movement component must move fluently  
Throttle must be able to reset fluently , Stop switch must be normal.
4. Add clean and high quality lubricant into gear case to proper level. (For you machine using life , please replace lubricant periodically)

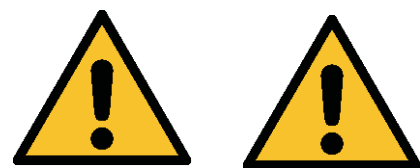
5. Add fuel in ventilative area , without any fire or spark , engine must be stopped , if it have any leakage , you must clean it up , screw fuel tank cap tightly . ( 2 Stroke engine use mixed fuel , ratio is 25:1 ; 4 Stroke engine use pure gasoline as fuel )
6. Make sure the work area is clean , either bystanders nor obstacle are allowed to be existent
7. 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.
8. Maintain a firm footing and good balance Before you start to use the tiller check the work area for obstacle that might cause you to lose your footing, balance or control of the machine.
9. Operating machine in good status instead of drunk or fatigued
10. Operating machine in daylight or good artificial light instead of darkness
11. Please stop the engine thoroughly if you need to remove obstacle or leave momentarily
12. If the tine is stuck by stone , please stop engine and remove stone .
13. Keep a safe distance when more people working together .
14. Pay extreme attention :  
 when reversing or pulling the machine towards you.  
 when changing direction on slopes.
15. Store tiller in a sheltered area (a dry place), not accessible to children.  
 drain the fuel of engine if you want to store machine for a period of time

## WARNINGS-DONT'S

 WARNING  DANGER 

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

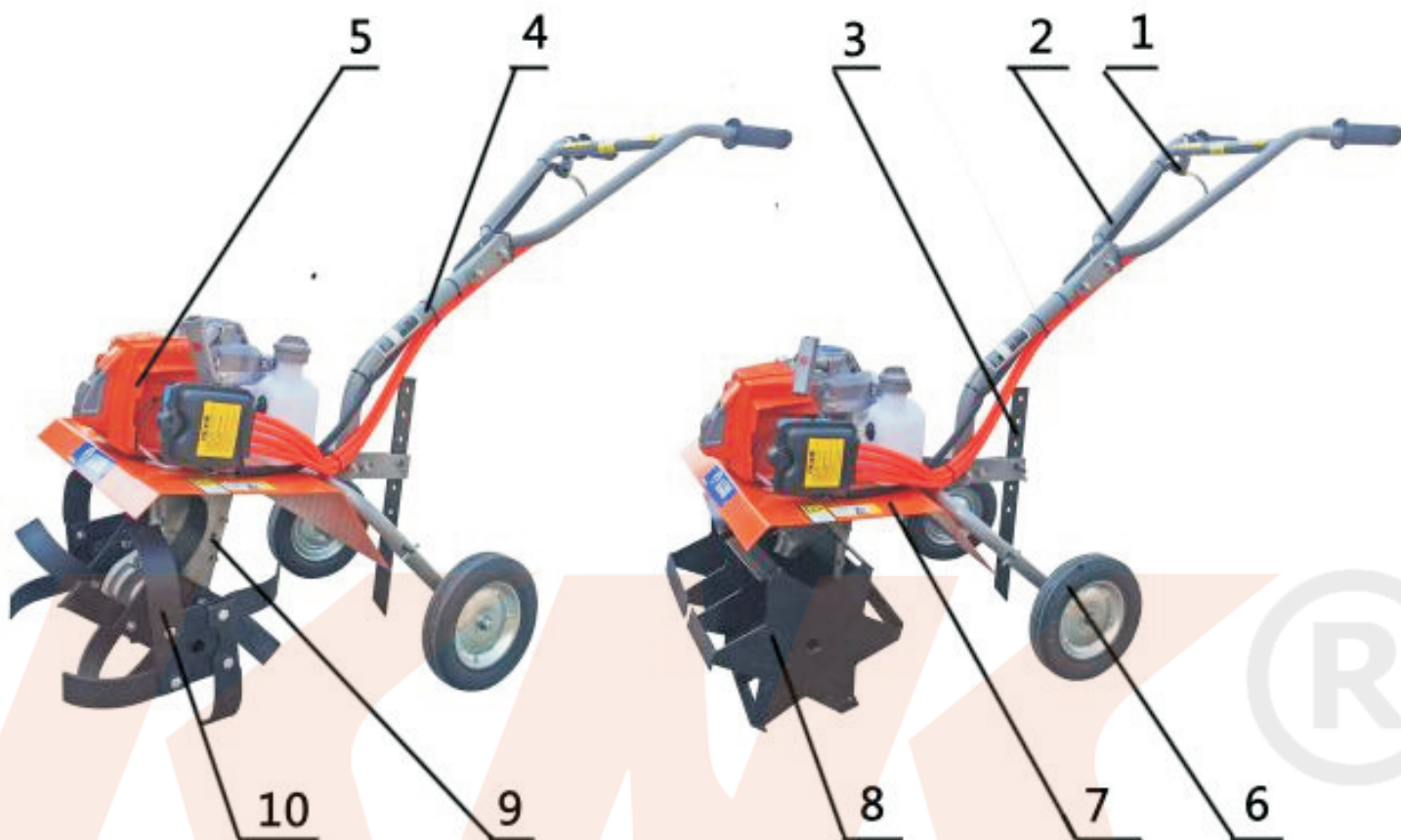
READ AND UNDERSTAND THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS TILLER/CULTIVATOR.



**WARNING:** The following information is very very important , please read it very carefully .

- 
1. Do not let juveniles or people who don't know this machine to operate
  2. Do not start or run this tiller indoors or in an improperly ventilated area.
  3. Do not refit or repair casually. Have repairs made by a qualified dealer or repairman. See that only original parts are used.
  4. Do not 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.
  5. Do not drive machine with blade on hard road
  6. Do not add fuel when the machine is still running or hot Do not add fuel in unventilated area
  7. Do not approach any rotary component when machine is running
  8. Do not till too deep or too fast , otherwise machine could be overload
  9. Do not work on excessively steep slopes
  10. Do not use tiller with one hand .Do not run with machine ,Walk
  11. Don't run engine when electrical system causes spark outside the cylinder. During periodical checks of the spark plug, keep plug a safe distance from cylinder to avoid burning of evaporated fuel from cylinder.
  12. Do not check for spark with spark plug or plug wire removed. Use an approved tester.
  13. Do not crank engine with spark plug removed unless spark plug wire is disconnected. Sparks can ignite fumes.
  14. Do not run engine when the odor of gas oline is present or other explosive conditions exist.
  15. Do not touch hot mufflers, cylinders or cooling fins as contact may cause serious burns.
  16. Do not touch muffler , gear case with bare hand , it's hot.

## MACHINE MAIN PARTS



1.Throttle Control & Switch

2.Handle

3.Resistance supporter

4.Bent pipe

5.Gaoline engine

6.Wheel

7.Guard cover

8.Weeding Blade

9.Gear box

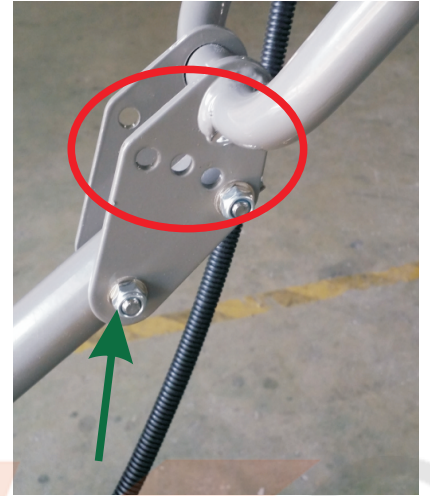
10.Till blade

## How to assemble

- 1.Insert bent pipe into rack , adjust position , fasten bent pipe with M8\*45 bolt and nut(**red arrow**)and fasten M8\*25 bolt(**green arrow**)



2. Align Handle holes with bent pipe holes , fasten them with M8\*45 bolt (see green arrow)  
The 4 holes which is marked by red circle is for adjusting handle angle

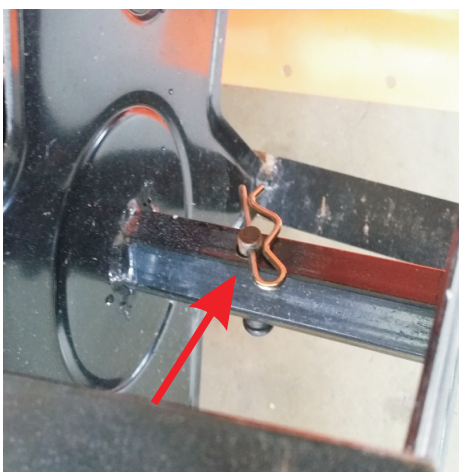
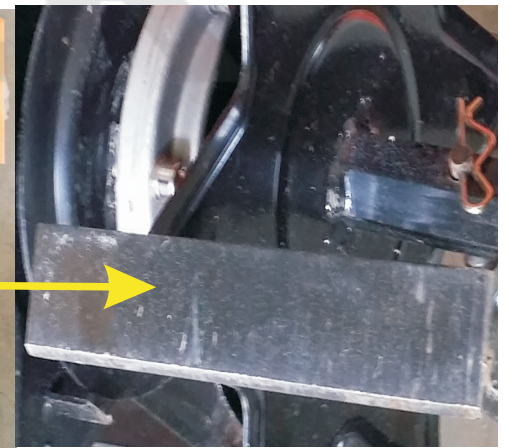
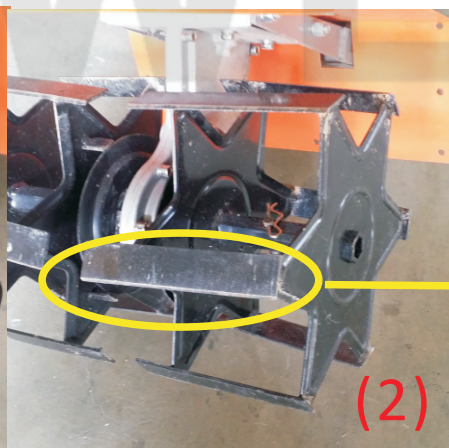
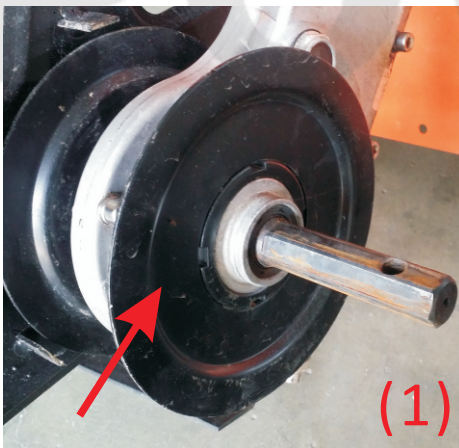


3. Assemble weeding blade:

(1) Assemble disc

(2) Assemble weeding blade and insert pin  
(Note direction of blade edge)

(3) Assemble rear wheel



## 4. Assemble Tilling blade

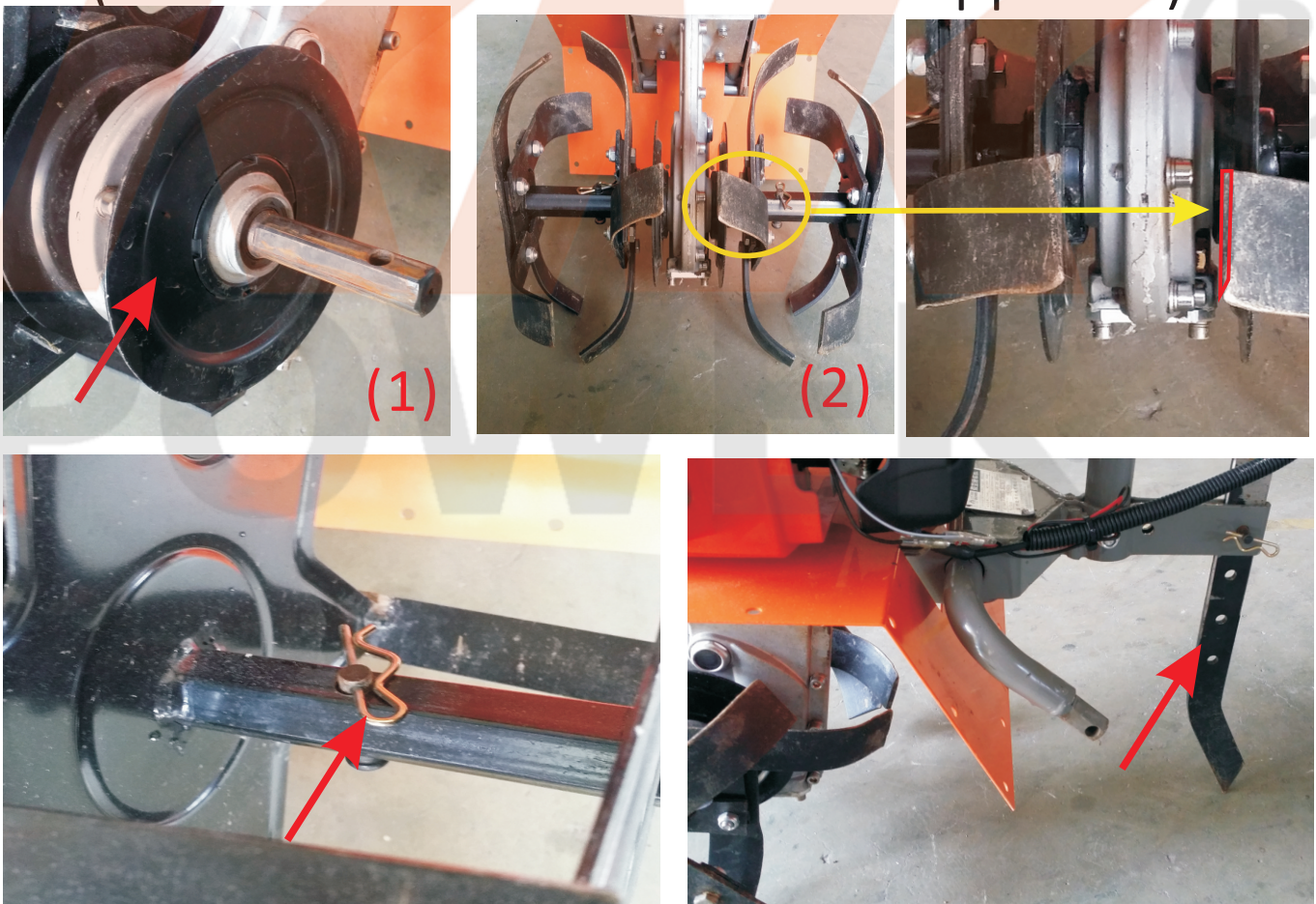
(1) Assemble disc

(2) Assemble Tilling blade and insert pin

(Notic direction of blade edge)

(3) Assemble Resistance supporter instead of rear wheel

(Notic direction of resistance supporter)

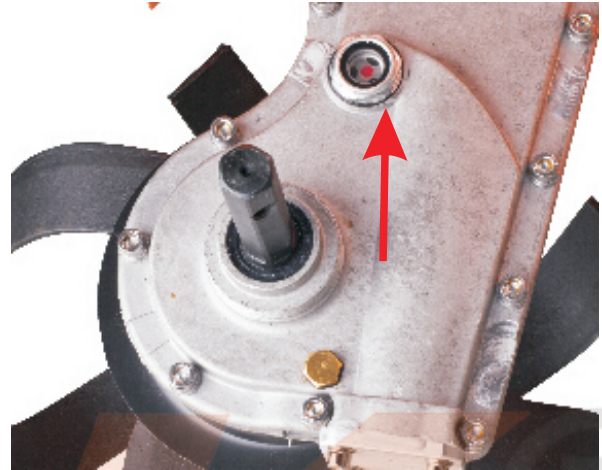


SPEED	FAST	MEDIUM	SLOW	HARD LAND
	<150MM	150-250MM	>250MM	
ANGLE	15°	45°	90°	165°
ILLUSTRATION				



## How to use

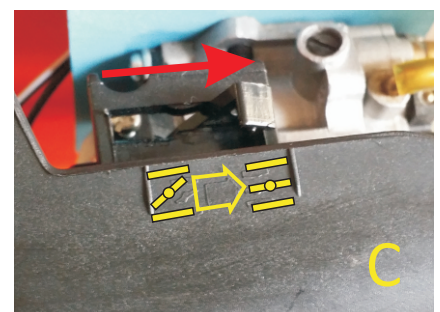
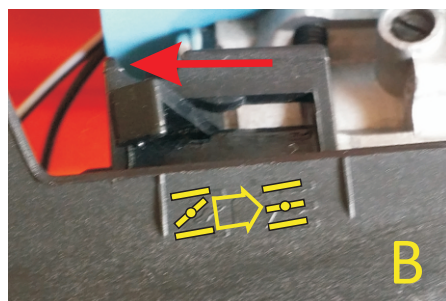
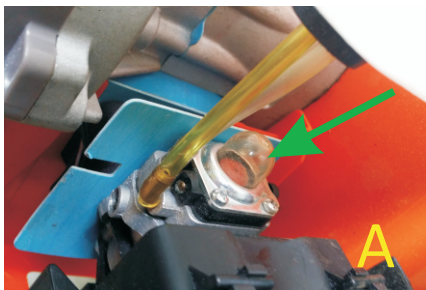
1. Add lubricant into gear case (around 150-200ml) erect machine , check glass window , lubricant level should be on half of widow .



2. Add fuel (2 Stroke engine use 25:1 mixed fuel 4 Stroke engine use pure gasoline) Do not fill tank up to leaking



3. Press primer 5 times (picture A), and pull choke rod to close position (picture B), pull starter until you hear ignition voice , then pull choke rod to open position (picture C), pull starter again engine will be started



---

4. Lift the handle , make tilling blade or weeding blade being off ground . accelerate engine , check it out whether there have any collision or abnormal sound . blade should be rotate smoothly . if every thing is ok , now you can till or weed .

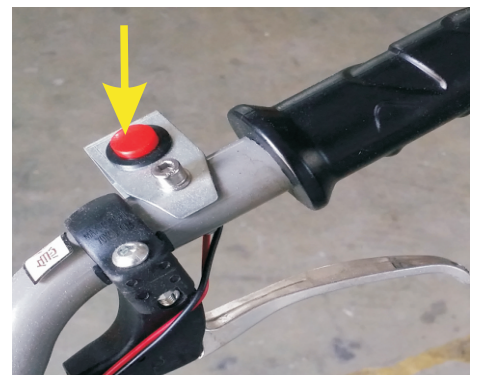
### NOTE:

Running-in is very important for new machine , so before you start to work , please run-in the machine as following instruction:

- 1). Let machine work at low speed zero load for 1 hours and work at light load for 5 hours
- 2). Drain out gear case lubricant (if engine is 4 stroke , drain out engine lubricant as well)
- 3). Add clean diesel into gear case , let machine work at low speed zero load for 5 min. to clean gear case .
- 4). Drain out clean diesel , add lubricant into gear case , let machine work at light load for 4-5hous then you can use machine normally .

### STOP MACHINE:

Press red button to stop engine, when you need starting engine you don't need operate this red button , it's only for stopping



---

## How to maintain

Daily Maintenance (before and after working):

1): Check it out whether there

have any abnormal sound and leakage

2): Check it out whether lubricant level is proper

3): Clean up all of the sludge , grass , greasy dirt

**Class 1 Maintenance (every working for 20 hours)**

1): Including items of daily

2): Clean gear case , replace dirty lubricant with clean lubricant

3): Check and adjust throttle cable . stop wire.

Operate Throttle cable repeatedly , engine speed should be controlled smoothly . press down stop switch repeatedly , engine must be stopped every time .

**Class 2 Maintenance (every working for 80 hours)**

1): Including items of 20 hours

2): check all of the gear and bearing , blade bolts if wear seriously , please replace it

3): Clean air filter

Use neutral detergent and warm water to clean filter elements , after cleaning , air dry the element completely and moisten with a little motor oil

---

#### 4):Clean fuel tank and fuel filter

After you have used machine for a period of time , check for blockages in the fuel tank and fuel filter . clear any blockages you see in the tank , fuel filter or fuel line .

#### 5):Check Spark plug

Starting failure and mis-firing are often caused by a fouled spark plug , clean the spark plug and check whether plug gap is in correct (0.6-0.7mm)  
**DO not over tighten spark plug (torque:25-30N.m)**

#### 6):Check muffler

Check periodically , muffler for loose fasteners any damage or corrosion . if any sign of exhaust leakage is found , stop using machine and have it repaired immediately .

### Class 3 Maintenance(every working for 150 hours)

#### 1):Check Gear and worm

Disassemble gear case , check it out the wear of Gear and worm , oil seal , bearing . if it seriously it must be replaced .

#### 2):Check Clutch and Clutch expander

Check wear of clutch and clutch expander , if it wear seriously , it must be replaced .

**Maintenance cont. (ENGINE)**

System/ Component	Procedure	Before Use	Every 25 Hours	Every 50 Hours	Every 100 Hours	Note
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.



**ABOUT LUBRICATION:**

**DO NOT RUN MACHINE WITHOUT LUBRICANT**

**New machine replace lubricant after using 20 hours**

**Secondary replacement is after using 20 hours**

**afterward replace lubricant every 150 hours**

---

## How to Store

If you want to store machine for long time , please check following instruction :

- 1): Drain out all of fuel from fuel tank , then start engine , keep it running until engine stopped because of running out fuel in carburetor .
- 2): Remove spark plug , and pour a teaspoon of clean 2 stroke engine oil into cylinder , pull starter slowly 2-3 times to coat inside of cylinder wall .
- 3): Wash off dust , sludge , oily dirt , grass , etc .
- 4): Drain out gear case lubricant , and inject fresh lubricant
- 5): Coat surface which is easy to corroded with anti-corrosive paint .
- 6): Place machine in dry , ventilated , safe area .
- 7): Preserve manual and tools well

## How to restart

- 1): Remove spark plug . pull starter 3-4 times to clean oil from combustion chamber , wipe oil from spark plug , then reconnect spark plug
- 2): If you machine won't restart or if it lacks its usual power , probably need to wash carburetor

3):If your machine won't start or lack of power after you washed carburetor , please check spark plug is fouled with black deposits

To avoid possible damage to the threads , do not try to remove spark 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 <sup>14</sup>	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

## CASE 3 PROBLEM OF GEAR CASE

Phenomenon	Reason	solution
Gear case cause load noise	Gear wear seriously or assemble in wrong way	replace gear or adjust assembly
Gear have blockage when it rotate	Assemble in wrong way	Re-assemble
over-heating	<ol style="list-style-type: none"> <li>1.Gear case lack of lubricant</li> <li>2.Gap between gears is too small</li> </ol>	<ol style="list-style-type: none"> <li>1.Add lubricant</li> <li>2.Adjust gear assembly gap</li> </ol>
gear case have leakage	<ol style="list-style-type: none"> <li>1.Fixing bolt is loose</li> <li>2.Gasket is broken</li> <li>3.Oil seal is over-wear</li> </ol>	<ol style="list-style-type: none"> <li>1.Tighten Bolt</li> <li>2. Replace gasket</li> <li>3.Replace oil seal</li> </ol>