TMG INDUSTRIAL®

TMG-GGT40

PRODUCTMANUAL

v.2026.06.05

Gear-Drive Tiller



⚠ WARNING



Please read and understand the product manual completely before assembly

- Check the parts list to make sure all parts are received.
- Wear safety goggles or other protective gear while assembling.
- Do not return products to dealers, who are not equipped to handle returns.

Missing parts or have questions on assembly?
Email: cs@tmgindustrial.com
Or visit: tmgindustrial.com

FORWARD

Thank you for choosing our mini tiller.

·This manual contains information about the operation and maintenance of TMG-GGT40 mini tillers.

·All contents in this manual are based on the latest information when the manual is printed.

·The manufacturer has the right to revise the manual without any prior notice and will not bear any legal responsibility.

·None of the parts in this manual can be copied without formal approval.

·This manual should be regarded as a part of the tiller, so it should be handed over when resold or lent.

SAFETY INFORMATION

In order to save the safety of yourself and others, please pay attention to information in both this manual and the tiller

◇ Pay attention to statements preceded by the following word.

!DANGER: Indicates a possibility of severe personal injury or death if instructions are not followed.

!WARNING: Indicates a possibility of equipment damage or personal injury if instructions are not followed.

!NOTE: Indicates a possibility of equipment damage or personal injury if instructions are not followed.

Damage prevention

You can see other important information is marked with "NOTICE."It means that if you do not follow the instructions, it may cause a breakdown of the tiller.

Attention

- When the engine is starting, turn the shift lever to the "Neutral Position."
- Be careful when the tiller is working.
- Look out for the blades.
- The fuel and oil must be qualified and clean.
- Release the clutch before gear shifting and slow down the engine. It is safer when the engine is slow.
- Fuel is easy to catch fire and explode.
- When working in a paddy field or going downhill, carefully use reverse gear.

Because machines are improved all the time, so pictures may be different from reality.

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1. SAFETY INFORMATION AND WARNING

◇1.Training

a). Carefully read this manual, fully understand all the control functions and the proper operation, and learn how to quickly stop and separate the tiller.

b). Children are not allowed to use a tiller. And adults who don't learn this manual are also not allowed to use this manual.

c). Keep the work area without other people, especially children and pets.

◇2.Preparation

a). Check the working area, and move away all the sundries.

b). Disengage all the clutches and place the gear in the neutral position before starting the engine.

c). Do not use the tiller without suitable clothes and skid-proof shoes.

d). Carefully deal with fuel which is tinder.

1). Use a suitable container to store fuel.

2). Do not add fuel when the engine is working or hot.

3). Carefully add oil outdoors. Don't allow oil to be added indoors.

4). Wrest on the fuel tank cap, and clean out spilled fuel.

e). When the engine is working, do not make any adjustments that are not allowed.

f). Wearing eye protection glasses when preparing, working, and servicing.

◇3.Operate

a). Never use your hand or foot to touch rotary blades when they are working

b). When crossing cobbled roads, crosswalks, and roads, pay more attention to latent danger. Do not let people ride on the tiller.

c). If the tiller bumps something, stop to check. If it is broken, repair it and then start it.

d). Be careful when working, do not fall or slip.

e). If the tiller has abnormal noise, it means that it may have problems. Stop the tiller to check the reason.

f). Stop the engine before leaving, cleaning blades, servicing, adjusting, and checking.

g). When no people are working on the tiller, shift gear to neutral gear and stop the engine.

h). Before checking, cleaning, and repairing the tiller, stop the engine and check if every part is stopped.

i). Do not work the tiller indoors, because the exhaust is poisonous.

j). Do not work when there isn't proper equipment.

k). Keep away from children and pets.

l). Do not let the tiller overload because of deep tilling depth and fast speed.

m). Do not let the tiller run on the slip road. Be careful when reversing.

n). Do not let lookers-on come near the tiller.

o). Only additional equipment allowed by the manufacturer can be used.

p). Do not use a tiller when the weather is dark.

q). When working on hard land, blades may hitch the land and push the tiller forward. In this condition, release the tiller and let it go itself; do not try to control it. Otherwise, there will be danger.

r). Do not work on the sharp slope.

s). When the tiller goes across a slope, be careful and do not let the tiller fall.

◇4. Service and store

a). Keep the tiller and its additional equipment in well-working condition.

b). Periodically check engine bolts and other bolts, make sure they are fixed well, to ensure the tiller is in good working condition.

c). The tiller should be kept indoors and away from fire. Stop and cool the engine before storage.

d). If the tiller needs to be stored for a long time, this manual should also be kept as an important part.

e). Do not try to repair the tiller unless you have the knowledge and proper tools.

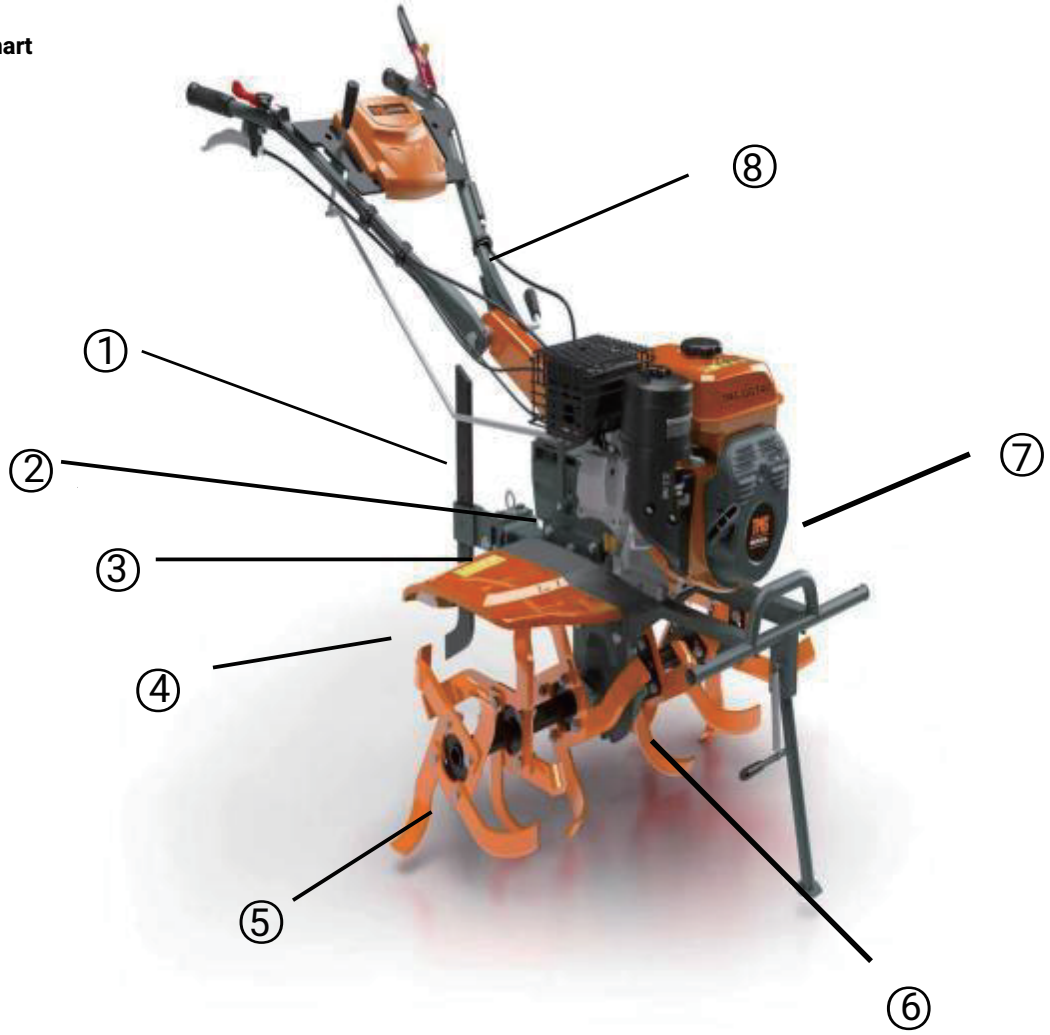
2. PROFILE OF MINI TILLER

◆ 1. Specification

NAME			1000N
ENGINE	ENGINE MODEL		170FB-2/P
	MAX POWER (kW)		4.8/5.0
	RATED POWER (kW)		3.6/3.8
	RATED SPEED (r/min)		3600
TILLING MACHINE	DIMENSION (LX W X H) (mm)		1400x1000x980
	Weight (kg)		100
	Tilling width (cm)		100
	Tilling depth (cm)		⩾10
	Working speed (m/s)		0.13-0.22
	Productivity ($hm^{2/}h$)		⩾0.04
	Fuel consumption (kg/hm^2)		⩽30
	Transmission		Gear transmission
	Connection		Direct shaft connection
	Tilling system	Design speed (r/min)	I: 87 II: 127
		Max turning radius (mm)	180
		Total blades	24 pcs
	Blades type		Dry land blades

Specification may be changed according to improvements in machines.

◆2. General chart



Drawing 1

①.Resistance rod	⑤Wheel
②.Gear box	⑥Walking case
③.Tow bar	⑦Engine
④.Dust fender	⑧Handle bar

3. APPLICABLE SCOPE

◆1. Tilling

Can be used for mountainous areas, hills, paddy fields, orchards, gardens, vegetable fields, sheds, and so on.

Assemble blades on both sides of the tilling system, and use a pin to fix the blades; then you can do tilling work.

◆2. Ditching

Take off the resistance rod, can assemble the ditching blade, and then can do ditching work.

4. OPERATION AND USE OF MINI TILLER

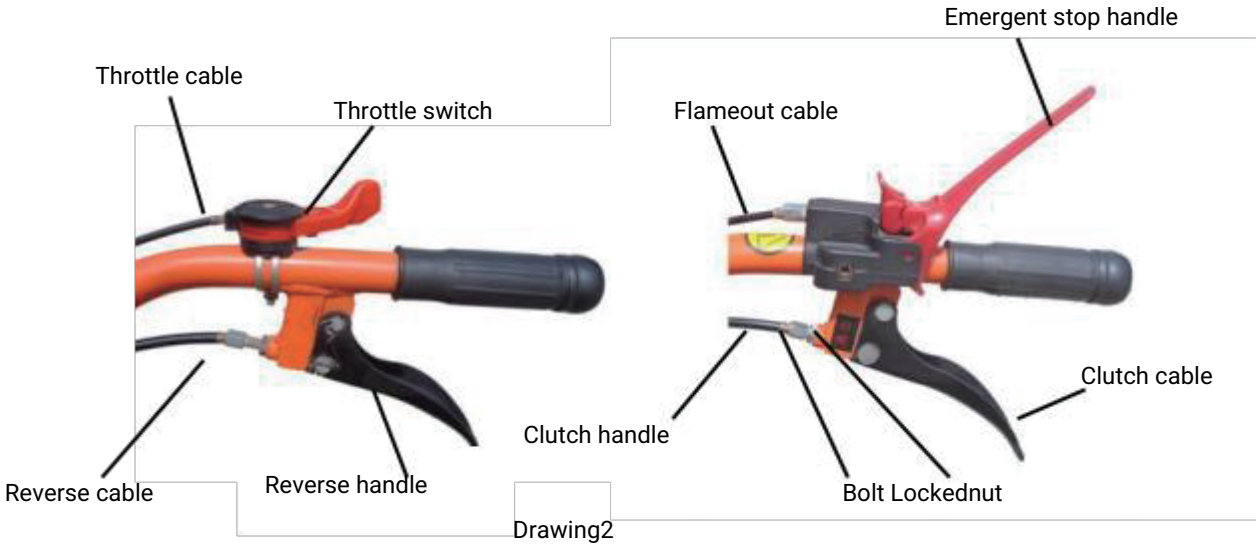
◆1. Assembly

1. Assembling after packing

1.1 Fixed machine, put wheels on both sides of the machines,and use a pin to fix the wheels.

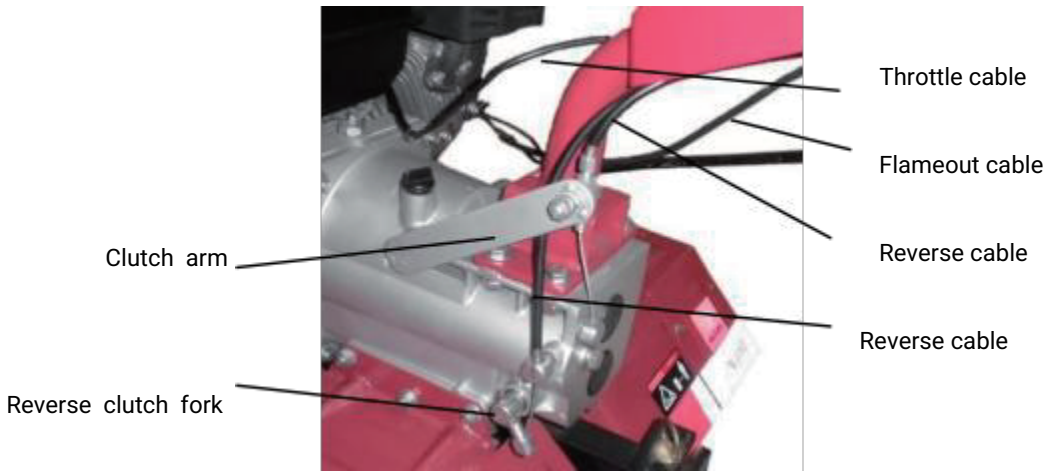
1.2 Handle assembly: Match the gear plate on the handle with the gear plate on the handle seat, and then adjust the straight position of the handle, and then use a long bolt, spring washer, and a locking grip to lock the handle. Then use cable clips to hold the clutch cable,reverse gear cable, and throttle cable on the handle.

2.As semble and adjust cable.



Drawing2

2.1 Adjustment of the clutch cable. (Drawing 2 and Drawing 3)



Drawing 3

① Loose locked nut.
② Deasil turn bolt into shortest.

③ Put the cable head into the clutch cable seat of the transmission box, and make sure that the cable head is in the big hole.

④ Put the steel wire into the M8 hole of the clutch arm seat, press the clutch arm fork, and

Hang the cable head on the clutch cable seat.

⑤ Turn off the bolt, and hold it tightly. Loose the clutch handle until the spring in the clutch can return the handle, and then lock the nut.

2.2 Adjustment of the reverse cable.

① Loose locked nut.

② Deasil turn bolt into shortest.

③ Put cable head into clutch cable seat of transmission box, and make sure that cable head is in the big hole.

④ Anticlockwise turn reverse fork axle, and put cable through the narrow slot, and make sure the head goes into the big hole of the seat.

⑤ Turn off the bolt, and hold it tightly. Loose the reverse handle until the spring in the clutch can return the handle, and then tighten the lock nut.

2.3 Adjusting of the throttle cable(Drawing 4)

①Turn the throttle switch to max.

② Put the steel wire of the throttle cable through the wire seat and the

◆**2. Operation**

1. Check and add oil

1.1 Check if connections everywhere are loose and fix them upon the need.

Name	Moment (N·m)
Flange and gasoline engine	20-25
Flange and transmission box	35-40
Transmission reverse axle locked bolt	26-40
Engine support frame and walking case locked bolt	35-40
Walking case end cover locked bolt	10.6-15
Walking case and tow bar locked bolt	50-60
Transmission box and walking case connection bolt	35-40
Tow bar	45-60
Engine bottom seat locked bolt	35-40
Handle bar fixed bolt	35-40

1.2 Check that all rods (oil, clutch, reverse, gear shift) are flexible and adjust them well.

1.3 Turn the gear shift rod to natural.

1.4 Add oil

①Add SAE 10W-40 to the crankcase of the engine, drawing 8.

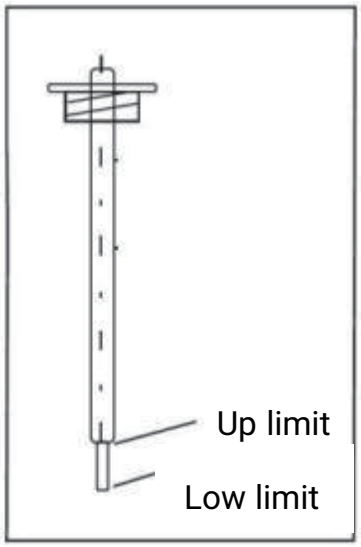
② Add Nr. 20 oil into the transmission box. Put the tiller horizontal, take off the oil ruler, and add oil through t he transmission box filling hole.

Insert the oil ruler to check the oil level. If the oil level is between the upper limit and the lower limit, turn off the oil ruler. (Drawing 5)

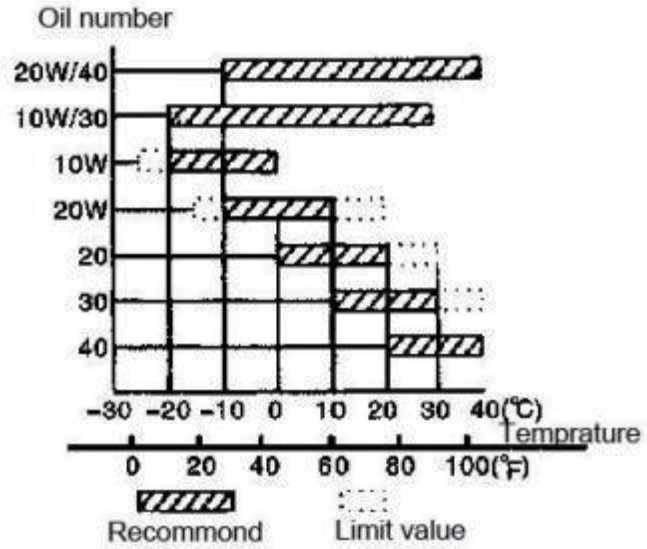
③ Add oil to the air cleaner.

④ According to working conditions, choose different oil.

(Drawing 6) place. **NOTE:** **The gear** shift rod must be in its natural



Drawing 8



Drawing 9

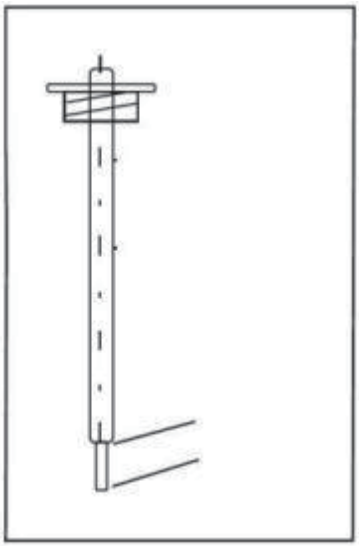
2. Start

Start the engine according to the introduction of engine operation.

The engine should work at idling speed (1450–1750 rpm) for two or three minutes. Check if the engine w orks right; if not, stop to check.

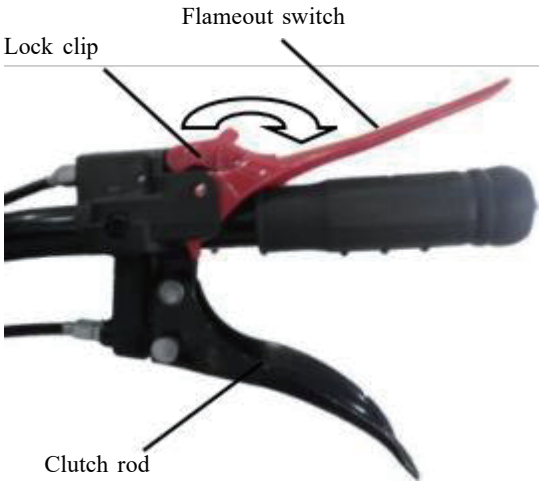
3. Operate

NOTE: The tiller should be broken in before using, according to the introduction of



SECTION NINE.

3.1 Using the flameout switch.



Drawing a start place



DrawingB Stop place

3.1.1 Start: Turn the flameout switch to the position shown in drawing A, and use a lock clip to block the switch. And start the engine according to SECTION FOUR/◆**3/1**.

3.1.2 Work: When working, hold the flameout switch. Turn the lock clip back, and hold on the clutch rod to change gear. Then hold on the flameout switch, and release the clutch rod to do tilling work.

3.1.3 When meeting an emergency situation, release the flameout switch,and the engine will stop.

WARNING **When tilling or walking, you can't turn the lock clip as shown in Drawing A.**

3.2 Slow gear

3.2.1 Left hand hold on clutch rod, and meanwhile press down flameout switch to disengage clutch.

3.2.2 Right hand pull back shift gear rod, and then turn to slow gear.

After shifting gear, use the right hand to hold the handle grip.

NOTE When doing this step, don't hold the reverse handle.

3.2.3 Slowly release the clutch rod, then the clutch will engage, and the tiller can work at slow speed.

3.2.4 Turn the accelerometer to the bigger, then the tiller can work on slow gear at 5 km/h.

3.3 Fast gear

3.3.1 Left hand holds the clutch rod, and meanwhile presses down the flameout switch.

disengage clutch.

3.3.2 Right hand pull back shift gear rod, and then turn to fast gear. After shifting gear, use the right hand to hold the handle grip.

NOTE When doing this step, don't hold the reverse handle.

3.3.3 Slowly release the clutch rod, then the clutch will engage, and the tiller can work at slow speed.

3.3.4 Turn the accelerometer to the bigger setting, then the tiller can work on fast gear at 10 km/h.

3.4 Reverse gear

3.4.1 Left hand hold on the clutch rod, and meanwhile press down the flameout switch to disengage the clutch.

3.4.2 Right hand pull back the shift gear rod, and then turn to neutral gear. And then use the right hand to hold on to the reverse handle.

3.4.3 Then slowly release the clutch rod, then the tiller can go into reverse.

NOTE Don't release the reverse handle. And before turning to reverse gear, you must turn the accelerator to smaller (but the engine does not stop, the speed is about 2000 r/min). This will be safer.

3.4.4 When no need to reverse, left hand holds on the clutch ,and right hand releases the reverse handle.

3.5 When the tiller is walking, don't shift gears. First turn the accelerometer to smaller, and then release the clutch, until the tiller stops walking, then shift gear.

3.6 Turning. Turning the handle left or right can turn the tiller.

NOTE: When turning, don't hold the wrong handle or rod, or gears will be damaged

3.7 Stop

3.7.1 Hold the clutch rod, and meanwhile hold the flameout switch to disengage the clutch.

3.7.2 Turn the shift gear rod to neutral, loosen the clutch rod, and the mini tiller will stop working.

3.7.3 If the engine needs to be stopped, please see SECTION FOUR/ **◆3/2.4. Connection of accessories**

4.1 Tilling.

When need tilling, disassemble the walking wheel, and then put blades onto both sides of the axle. And use a pin and clip to fix. After blades are assembled, they must assemble dust fender. Dust fender can protect. Tilling depth can be adjusted by a deep resistance rod.

4.2 Ditching

When you need to do ditching work, take off the deep resistance rod, adjust the ditching blades' height, and then you can do ditching work.Ditching width: 40 cm Ditching depth: 11 – 25 cm

5. Using notice

!NOTE:

When working on the tiller, take care if any strange noise. If strange noise, stop the engine to check.

When the tiller is cool, don't add a heavy load. Especially new machines and machines that have been recently repaired.

Take care of oil in the transmission box; if no oil, add.Not allowed to use pure water to cool down the tiller.When working on a tiller, don't let the tiller fall down. Don't allow a tiller with blades to walk on a hard road.

After using, clean the tiller, which will prolong the using life of the tiller.

Often clean the air cleaner element, and change it when needed.

◆3 .—Engine operation

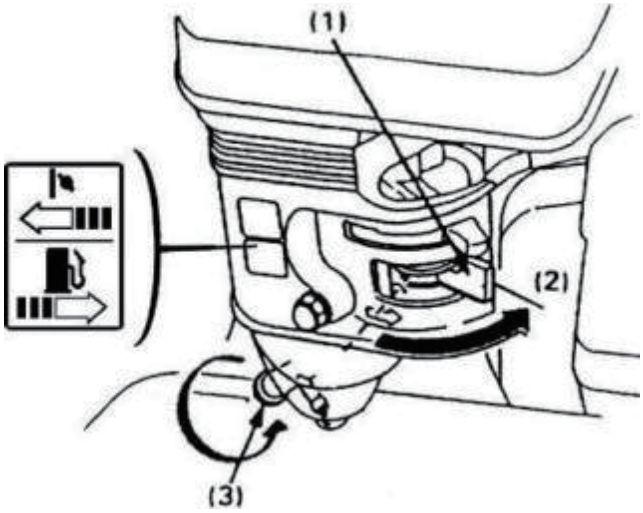
1. How to start engine

1.1 Turn ON the throttle switch and check if it is fast.

(1) Fuel valve

(2) ON

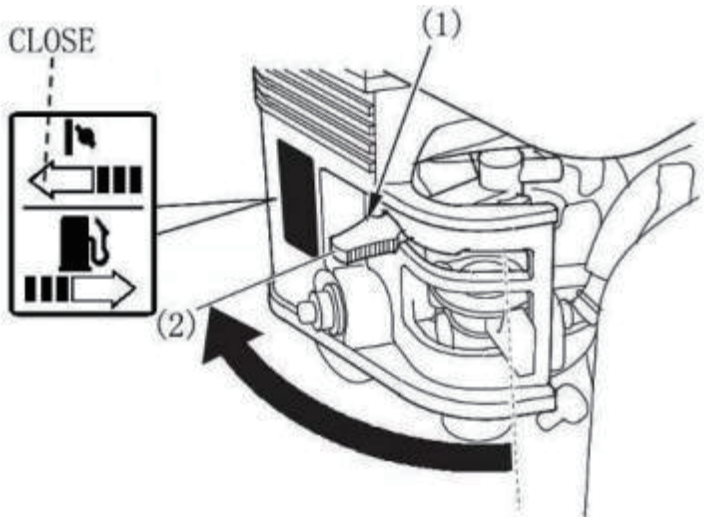
(3) Drain bolt



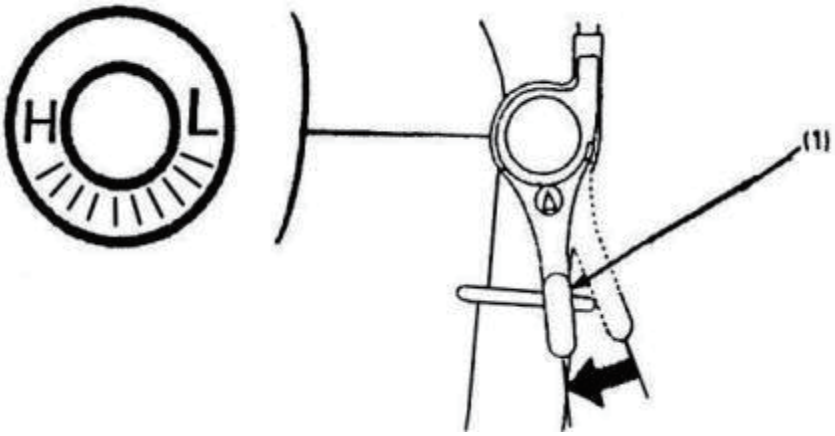
1.2 Close the choke valve.

NOTICE: If the engine is hot or the temperature is high, there is no need to close the choke valve when starting the engine.

(1) Choke valve switch.(2) Close



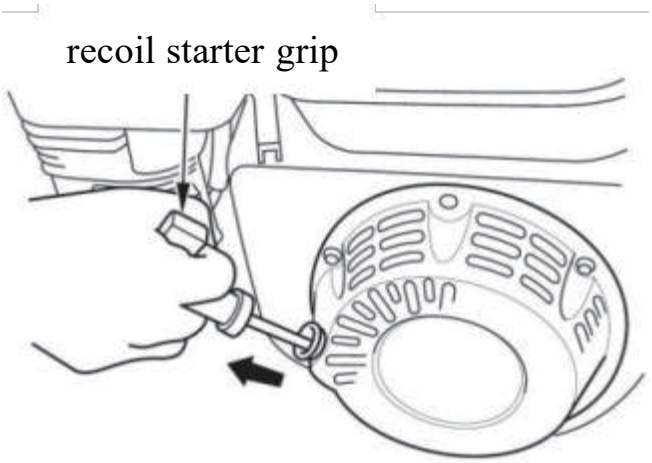
1.3 Slightly turn the oil control rod to the right. (1) Oil control rod.



1.4 Turn the flameout switch to the position shown in the drawing,and use a locking clip to fix the flameout switch.



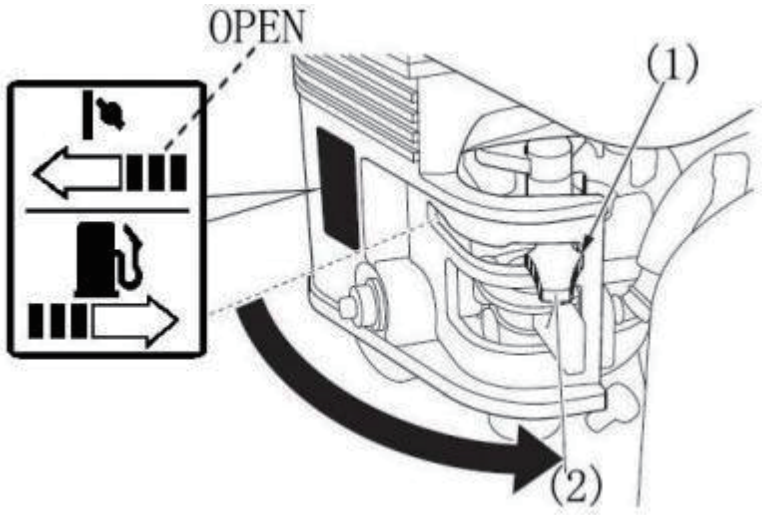
1.5 Slightly pull the recoil starter grip until you feel resistance, and then put it fast.



NOTE: Don't suddenly release the starter grip; let it bounce back. It may break the engine. You need to slowly put the grip back.

1.6 After preheating the engine, gradually move the choke to the OPEN position.

(1) CHOKE LEVER （2）OPEN



1.7 Adjust the rotary speed of the engine through the throttle switch (or throttle handle)

2. Stop engine

In an urgent situation, turn off the engine switch (flameout switch) to stop.



Usually stop the engine as follows:

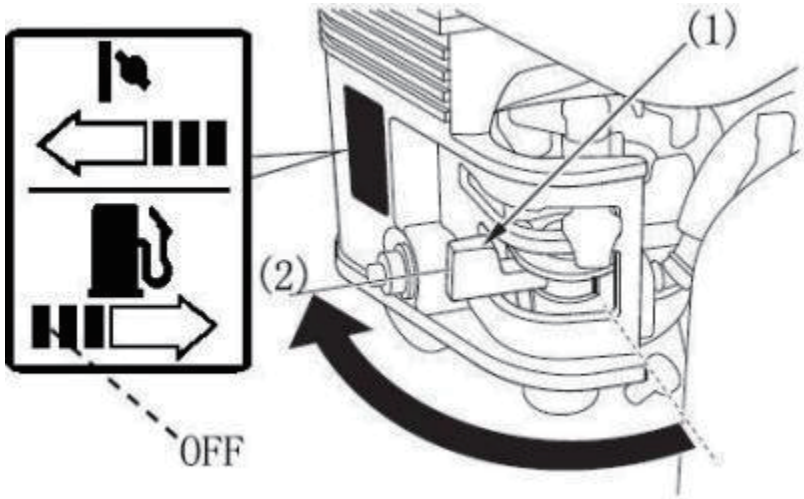
2.1 Turn the throttle switch to the smallest (or turn the choke lever to the most right).

2.2 Turn the flameout switch to the position shown in the drawing.

2.3 Turn the fuel valve to OFF.

(1) Fuel valve

(2) OFF



5. MAINTENANCE

◆1. Maintenance of engine

Do periodic maintenance to keep the tiller in good working condition.Please follow the schedule below.

⚠ WARNING: Stop the engine before doing any maintenance. If the engine must run, keep the place well ventilated. The exhaust contains CO.

NOTICE: Use original spare parts or other qualified substitutes.

Using unqualified spare parts may damage the engine.

MAINTENANCE SCHEDULE

ITEM / PERIOD		Every day	The 1st month or 20 hrs	Every 3 months or 50hrs	Every 6 months or 100hrs	Every year or 300hrs
Oil	Check amount	O				
	Replace		O		O	
Air cleaner element	Check	O				
	Clean			O (1)		
Fuel strainer cup	Clean				O	
Spark plug	Clean Readjust clearan				O	

	ce					
Valve clearance	Check Adjust			O		
Gearbox oil	Check amount	O				
Oil box drainer	Clean					O (2)
Clutch cable	adjust		O		O	
Oil throttle	adjust					O
Tension pulley	adjust		O		O	
Fuel pipe	adjust	Every two years (2) (It is necessary to replace)				

! NOTICE:

(1) Check more frequently when the tiller works in heavy dust circumstances.

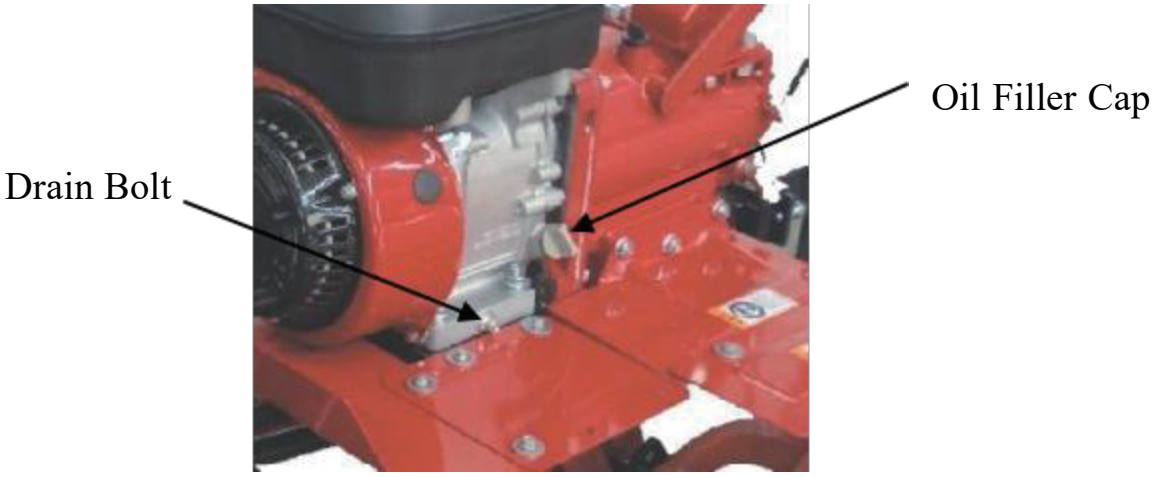
(2) If users neither have special tools nor know mechanical knowledge well, these maintenance should be done by dealers.

1. Change oil

Drain out oil when the engine is warm.

Screw down the drain bolt and loosen the oil filler cap. Refill with recommended oil and check th e oil level. (Drawing 7)

OIL CAPACITY: 0.6 L



Drawing 7

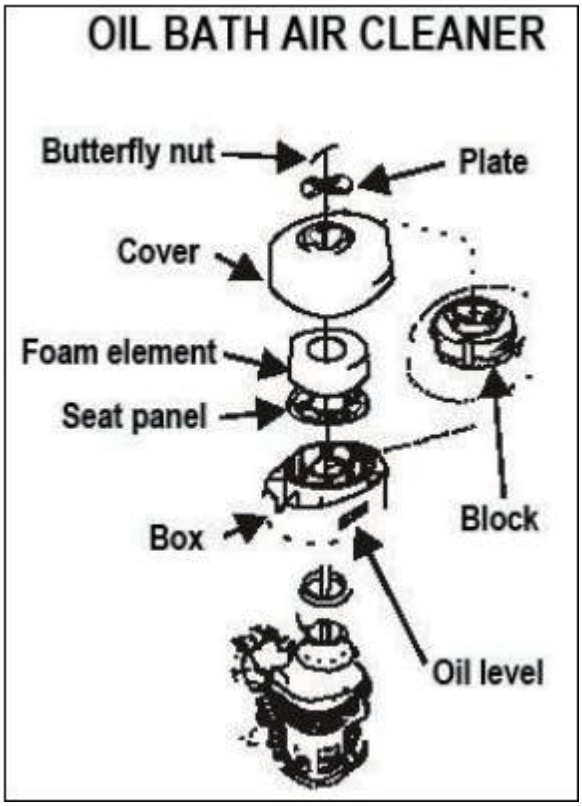
2. Air cleaner maintenance

A dirty air cleaner will restrict air flowing into the carburetor. Check the carburetor regularly to prevent car buretor malfunction. Check and clean it more often if the tiller works in a heavy dirt area.

⚠ WARNING Never use gasoline or a low-flash-point solvent to clean the air cleaner element. It may burn or explode.

NOTICE: Never run the engine without an air cleaner. Impurities will directly enter the engine and speed up wear.

1. Take off the butterfly nut and plate, and then take out the element.
2. Wash the element in warm suds or a high flash point solvent. Then air-dry it naturally. Dip it in paraf fin oil, and squeeze it to make it evenly wettish. The engine may exhaust heavy smoke if it is dipped with too much oil.
3. Pour the oil into the box, clean the box, and let it dry.
4. Add recommended oil to the box.
5. Put back the air cleaner element and plate.



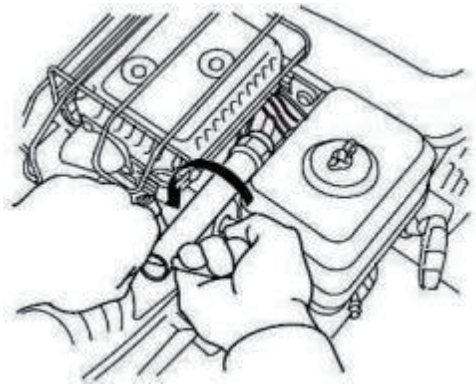
3. Spark plug maintenance

SPARK PLUG RECOMMENDED: F7TC

Spark plug clearance must be suitable, and there shouldn't be carbon deposits.

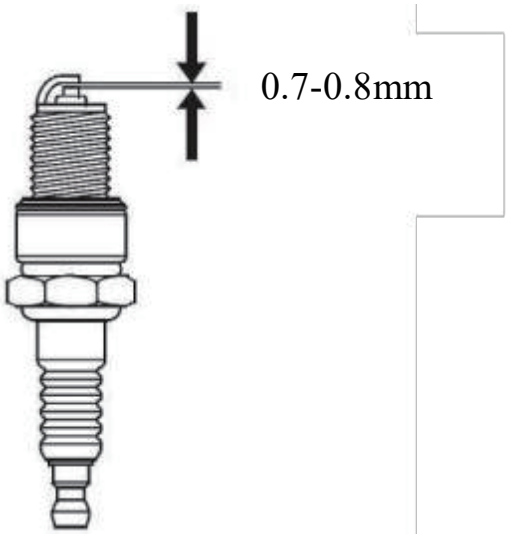
·Take off the spark plug cap.

! WARNING: Do not touch the muffler if the engine is just stopped, because it is very hot.

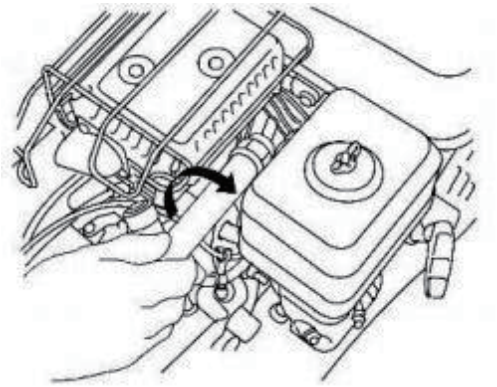


Check the spark plug. If the insulator has a crack or defect, replace it.

Measure spark plug clearance with a feeler gauge. The proper clearance should be from 0.7 mm to 0.8 mm. If the clearance needs to be adjusted, twist the electrode to adjust it.



·Put on the spark plug gasket, and assemble the spark plug with a sleeve wrench.



·After the spark plug is at position, turn 1/2 turn more if it is a new spark plug. If it is an old spark plug, turn 1/4 turn more.

NOTE

The spark plug must be safely fixed. If it is properly fixed, the engine may become overheated or broken. Neither use a spark plug with the wrong
heat value.

4. Adjusting the carburetor

Start the engine to let it reach a normal temperature.

When the engine works at idling speed, adjust the valve fix screw to achieve the right idling speed.

Standard idling speed: 1600 ± 150 r/m

◆**2. Maintenance of the tiller**

Keeping the tiller in good condition will prolong the tiller's life and help it achieve optimum performance whenever you wish to till your garden.

To help you properly care for the rototiller, the following pages include a maintenance schedule, routine inspection procedures, and simple maintenance procedures using basic hand tools. Other service tasks that are more difficult or require special tools are best handled by professionals and are normally performed by a qualified mechanic.

1. Brake-in

New machine, or a machine after a big service, needs first work without load for one hour. And then work under low load for 5 hours. And drain out the oil, and add clean oil. Next, add fresh gasoline to clean it, and then add clean oil, and then brake-in for four hours. Then the machine can work rightly.

2. Maintenance

2.1. Good maintenance is your responsibility. Poor maintenance means trouble. Follow good shop practices

Keep the service area clean and dry

Be sure electrical outlets and tools are properly grounded.

Use adequate light for the job at hand.

2.2. Make sure the engine is off before you begin any maintenance or repairs. This will eliminate several potential hazards:

Carbon monoxide poisoning from engine exhaust.

Be sure there is adequate ventilation whenever you operate the engine. Never operate the engine in a closed building.

Let the engine and exhaust system cool before touching. Do not run the engine unless instructed to do so.

2.3. Read the instructions before you begin, and make sure you have the tools and skills required

2.4. To reduce the possibility of fire or explosion, be careful when working around gasoline. Use only a nonflammable solvent, not gasoline, to clean parts. Keep

sparks and flames away from all fuel-related parts.

2.5. Frequently check tiller tines. They should be free of nicks and cracks and securely fastened in place

2.6. Periodically loosen all bolts, nuts, screws, and check that all pills are properly installed to make certain the unit is safe to operate.

2.7. Where replacement parts are necessary for periodic maintenance and servicing, use only new, original replacement parts or their equivalents for repair and replacement to rest ore your equipment to original specifications.

2.8. The manufacturer and/or distributor will not be responsible for injuries or damages caused by the use of unapproved parts and/or accessories.

2.9. A first aid kit should be kept readily accessible while performing maintenance on this equipment.

3. Maintenance sheet

Regular service period Use the time comes first		Every time	Every month or 20 hours	Every 3 months or 50 hours	Every half year or 100 hours	Every year or 300 hours
Drive belt tension	Check	∨				
	Change	∨				
Engine oil	Check level	∨				
	Change		∨		∨	

Air filter	Check	∨				
	Clean			∨（1）	∨（1）	
	Replace					∨
Tiller transmission oil	Check	∨				
	Replace			∨		
Tire pressure	Check	∨				
Tine shaft	Clean	∨				
Wheel axle shaft	Lubricate			∨	∨	

1) Service more frequently when used in dusty areas.

4. Engine long-time storage

Refer to the engine manual for information on engine maintenance. The engine manual provides detailed information and a maintenance schedule for performing the following tasks:

5.1.1. Check the oil level before each use or after every 8 hours of operation.5.1.2. Change oil after 5–8 hours of operation. Change oil while the engine is warm. Refill with new oil of therecommended grade.

5.1.3. Check the spark plug yearly or every 100 hours of operation.

5.1.4. Service air cleaner.

5.1.5 Keep engine and parts clean

5.1.6 Check engine and equipment often for loose nuts and bolts and keep them tightened.

Check or Fill Engine Crankcase

5.2.1 Add oil according to the engine manual. Do not overfill.

5.2.2. Use a clean, high-quality detergent oil. Do not mix oil with gasoline;the oil level must be full. Check the oil level by removing the oil fill plug.

The oil level should be up to the bottom of the fill plug opening

5.2.3. Always check the oil level before starting the engine. Refer to the engine manual for Capacity. And type of oil to use.

5. Tiller long-time storage

Follow the steps below to prepare your tiller for storage. Read your engine manual for detailed instructions on preparing the engine for storage.

1. Protect wheels and axles from ram:

-Loosen the locking bolt inside the wheel. Slide the wheel toward the machine,

-Coat the axles lightly with axle grease

-Move the wheel back into position and lock the jam nut.

-Back off the locked bolt 1/l6 turn and lock the jam nut.

2. Drain the fuel system completely following the engine manufacturer's instructions or

Add fuel stabilizer to prevent fuel from gumming up during an extended storage period.

3 While the engine is still warm, drain the oil from the engine. Refill with fresh oil of the recommended grade.

4. Clean external surfaces and the engine.

5. Remove the spark plug, pour one ounce of SAE 30 oil into the spark plug hole

6. Plug the hole and pull the starter cord slowly to distribute oil evenly in the head area

7. Take off the spark plug, and store it.

8. Transport the unit to a suitable storage location. If you have chosen to use a fuel stabilizer and have not drained the fuel system, follow all safety instructions and storage precautions in this manual to prevent the possibility of fire from the ignition of gasoline fumes. Take care, gasoline fumes can travel to distant sources of ignition and ignite, causing a risk of explosion and fire.

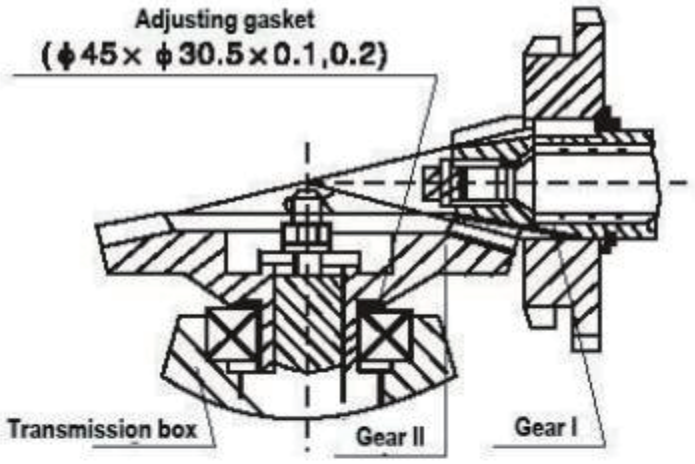
9. Store the unit in an area away from human activity.

10.If there is any possibility of unauthorized use or tampering, remove the spark plug and store it in a safe place before storing the rototiller unit away. Be sure to plug the spark plug hole to prevent foreign material from entering.

◆**3. Adjusting**

1. Umbrella gear adjusting If sure that umbrella gear has big strange noise, immediately adjust as following.

1.1 Umbrella gear clearance in transmission box. (Drawing 8)

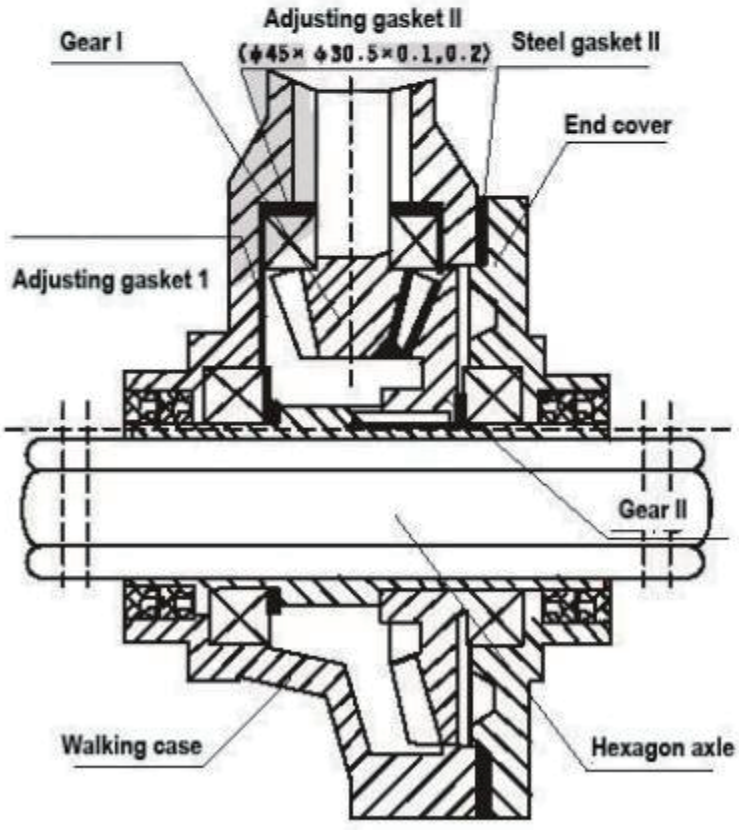


Drawing 8

1.1.1 When vice gear side clearance △<0.05, should add steel gasket between transmission box and walking case.

1.1.2 When vice gear side clearance △>0.3, should add adjusting gasket between bearing and gear II, to make sure clearance between 0.5-.010.

1.2 Umbrella gear clearance in walking case. (Drawing 9)



Drawing 9

1.2.1 When vice gear side clearance △<0.05, should add adjusting gasket I 0.2-0.3 to make clearance bigger, and change steel gasket II and to make sure gear II clearance 0.05-0.15.

1.2.2 When vice gear side clearance △>0.3, should reduce adjusting gasket I, and make sure gear II clearance 0.05-0.15; or adjusting gasket II, and meanwhile make sure gear I clearance 0.05-0.15.

2. Reverse gear and cable adjustment

When the tiller can't reverse very well, then you need to adjust the reverse cable according to SECTION THREE.

!NOTE:

2.1. Hold and loosen the reverse handle two or three times. If the tiller still can't reverse very well, adjust the reverse cable.

2.2. When the tiller works, the loose reverse handle, the reverse gear should return. And then the gear box shouldn't be noisy. If there is any noise, the gears may be broken.

3. Clutch cable adjusting

After some time's use, because the friction disk wears out, the clutch fork wears out, and the clutch can't engage very well, then you need to adjust the clutch cable according to SECTION THREE.

!NOTE:

3.1. Hold and loosen the clutch rod two or three times. If the tiller still can't engage very well, adjust the clutch cable.

3.2. If adjusted many times, still can't solve the problem, the clutch must be worn out too much. Then you need to take the machine to the service center to replace the clutch assy or clutch fork.

3.3. Don't disassemble the clutch by yourself, or you may damage the clutch.

4. Throttle cable adjustment

When turning the throttle lever, can't increase or decrease engine speed very well; need adjust the oil throttle cable according to SECTION FOUR.

!NOTE:

4.1 Turn the throttle lever two or three times to see the function.

4.2 The throttle cable and cable head must use a screw to fasten.

6. TROUBLESHOOTING

1. Engine can't start and solution

When the engine can't start:

1.1 Check if the engine switch is ON?

1.2 Check if there is enough oil?

1.3 Check if the fuel valve is ON?

1.4 Check if there is enough fuel in the fuel tank?1.5 Check if fuel arrive s at the carburetor?

! WARNING: If fuel leaks out, clean it completely, and check the spark plug

or engine. Leak out fuel will cause fire.

1.6 Check if the spark plug has spark?

1.6.1 plug. Take off the spark plug cap, clean dust off it. Then take off the spark

1.6.2 Put the spark plug cap back on the spark plug.

1.6.3 Put the spark plug on any grounded point of the engine, and start the engine to see if any spar k in the spark plug clearance.

1.6.4 1. If no spark, please change to a new spark plug.

6.5 If you have spark, please put it back, and start the engine again.

2. Clutch has a problem

! NOTE: Don't disassemble the clutch completely if it has a problem like *, please contact the seller.

Problem	Reason	Solution
Can’t clutch	Clutch rod broken	Change or repair
	Clutch cable broken	Change
	Fork or gasket worn out	Change
	Fork axle, jointing fall	Change or repair
	Fork pin bent or broken	Change
	* The friction disk can’t work	Change
	* Spring disk can’t work	Change
	Friction disk can’t contact with bearing end side	Add adjusting gasket
	Clutch broken	Change
Skid	* Spring is worn out and can’t work	Change
	The fork axle can’t turn well	Clean
	Clutch cable doesn’t adjust well	Adjust

3. The transmission box has a problem

Problem	Reason	Solution
Each gear is not right	Screw and round, but at the back of themain shaft is loose.	Assemble main shaft well, and tight the bolt at the back.
Can't turn to needed forward gear	Block worn out	Change
	Driving umbrella gear loosen	Tighten bolt and nut
	Spring of main shaft invalid	Change
	Main shaft raid, screw of case back cover loosen	Tight
Reverse gear can't hang on	Reverse fork worn	Change
	Reverse cable can't work well	Adjust or change
	Reverse axle loose	Tighten the bolt at the back of the reverse axle
	Reverse fork block	Clean until it turns well
Reverse	Reverse axle loose and causes gear block	Tighten the bolt at the back of the reverse axle

gear doesn't return	The spring on the reverse axle can't work	Change
	Reverse axle bend	Change
Reverse axle loosen	Bolt at back of reverse axle loosen	Tight
	Reverse axle and gear box not fixed well	Change
Gears have big noise	Umbrella axe, reverse axle bend	Change
	Gears worn out seriously	Change
	Umbrella axle, reverse axle can't be fixed well	Change
Mainshaft leak oil	Oil plug on the mainshaft is invalid	Change
Reverse axlel eak oil	O-ring invalid	Change
Clutch forkl eak oil	O-ring invalid	Change
Gear shift axle leak oil	O-ring invalid	Change
Flange connectionl eak oil	Bolt loosen	Tight
	Steel gasket broken	Change

4. Walking case has a problem

Problem	Reason	Solution
Gear has big noise	Gears worn out or not assembled well	Change or assemble again
Gears block	Not assembled well	Assemble again
Overheat	Oil in the case is little	Add oil
	Gears clearance is too narrow	Assemble again
	Axle direction clearance is too small	Adjust
Transmission box connecting place leak oil	Connection bolts loosen	Tight
Oil leak out	Gasket broken	Change
Output shaft sleeve outside leak oil	Oil seal broken	Change
Output shaft sleeve inner hole leak oil	Sleeve broken	Change
Drain holel eaks oil	O-ring broken	Change
	Plug loosen	Tight
Case leaks oil	Case has some small hidden holes	Welding or paint

5. Other problem

Problem	Reason	Solution
Blades broken	Hit a stone or something hard	Change
Cable broken	Worn out	Change

7. EASILY-DAMAGED PARTS OF MINI TILLER

Number	Name	Assy.
1	o-ring 10×2.65	Gear box assy.
2	o-ring 11.2×2.65	Gear box assy.
3	o-ring 18×1.8	Gear box assy.
4	Clutch cable	Handle frame assy.
5	Throttle cable	Handle frame assy.
6	Throttle switch	Handle frame assy.
7	Oil plug	Gearbox assy.
8	Oil seal 30×42×7	Transmission box assy.
9	Rubber handlebar	Handle frame assy.
10	Engine vulnerable parts	Refer to the engine manual and catalogue

WARRANTY INFORMATION:

Please refer to our website for detailed warranty conditions and coverage.

For the most up-to-date and comprehensive warranty information, visit **www.tmgindustrial.com**