

**POWERED BY**

# **DUCAR**

**PROPULSÉ PAR**

## **Ducar Combo System (DCS) – 2 wheel tractor DUEDCS**



## **OWNER'S MANUAL**

FOR YOUR SAFETY  
READ AND UNDERSTAND THE ENTIRE MANUAL  
BEFORE OPERATING THIS MACHINE

# INTRODUCTION

We congratulate with you for your purchasing the machine from our range. We will grant the assistance and cooperation which has always been a feature of our products.

If use in accordance with the instructions contained in your owner's manual, your machine will last many years and will prove to be an invaluable assistance to you. We therefore recommend that you read this manual carefully and follow the advice given.

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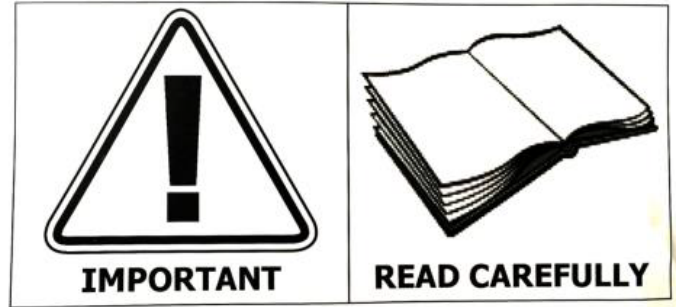
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# DESCRIPTION

Engine	15HP Gasoline Engine						
Fuel capacity	6.5L						
Gearbox oil type	GL5 SAE 80W90 Hydraulic gear oil						
Transmission type	All-gear drive						
Clutch type	dry clutch						
Battery	12V 6.5AH Gasoline engine						
Wheel size	5.00-10/4.00-10						
Gears	3 D, 2 R*						
Speed km/h	wheels	DI	DII	DIII	RI	RII	RIII
	4.00-10	1.15	2.65	3.95	1.22	2.8	4.1
	5.00-10	1.3	3.0	4.4	1.4	3.2	4.7
Output speed	990rpm/Engine speed3600rpm						
Rated traction	0.25KN						
Wheel base	550mm						
Min ground clearance	175mm						
Dry weight	104kg Gasoline engine type						

\*When the working implement is front-mounted, the machine can only achieve 2 F and 2 R gears.

# SAFETY INSTRUCTIONS AND WARNING



Please read the instruction manual carefully before use. This is important for the safety of people, pets, and public facilities near the unit, the user, and the work area.

## IMPORTANT SAFETY PRECAUTIONS

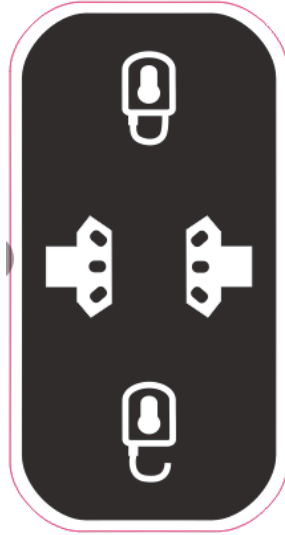
- Pay special attention to the warning safety labels on the machine and its accessories and strictly observe them.
- The engine gearbox is not filled with oil. Please be sure to add a certain amount (1.0 L) of oil and fuel separately
- User must be proficient in starting and stopping the operation of the unit correctly.
- When filling the engine oil, fuel, maintenance or repair, the machine must stop and cold.
- If you notice abnormal vibration during operation, please stop engine immediately and check the relevant status.
- Please turn off the fire when leaving the machine.
- Check the fastening screws and nuts are loose before use.
- It is strictly forbidden to be used by untrained personnel.

- Do not operate the machine without wearing protective gear.
- It is strictly forbidden to bring your hands, feet and any part of your body close to or in contact with the rotating parts.
- Do not fill fuel or oil while the engine is running or not cooling. If there is an overflow when filling the fuel, be sure to clean the spilled fuel before starting the engine.
- Do not start the engine in an enclosed space (such as indoors or garage). The exhaust gas contains deadly carbon monoxide and should be avoided.
- The battery electrolyte contains dilute sulfuric acid and is prohibited from contact with skin, eyes and clothing. If an accident occurs, please rinse immediately with water for 5 minutes and then quickly seek medical attention.
- Do not smoke or use flames in the working area or storage area of this machine.
- Never operate the machine during fatigue.
- Never operate the machine after drinking alcohol.
- It is forbidden to replace the reverse gear and the forward gear position in the non-stationary state, otherwise the gearbox may be damaged or the service life of the machine may be shortened.
- Do not tilt or invert the unit.
- Do not park the machine on the slope.
- Never damage or remove the protective device.

# LABEL INSTRUCTIONS



F & R gear shift



Differential lever



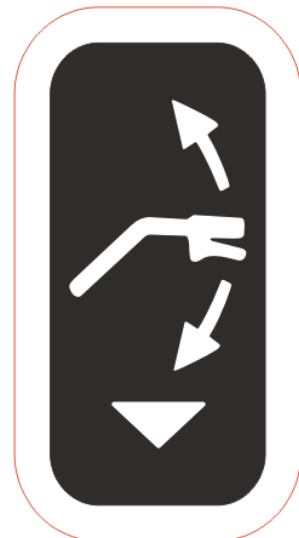
Handle bar turning



PTO Control

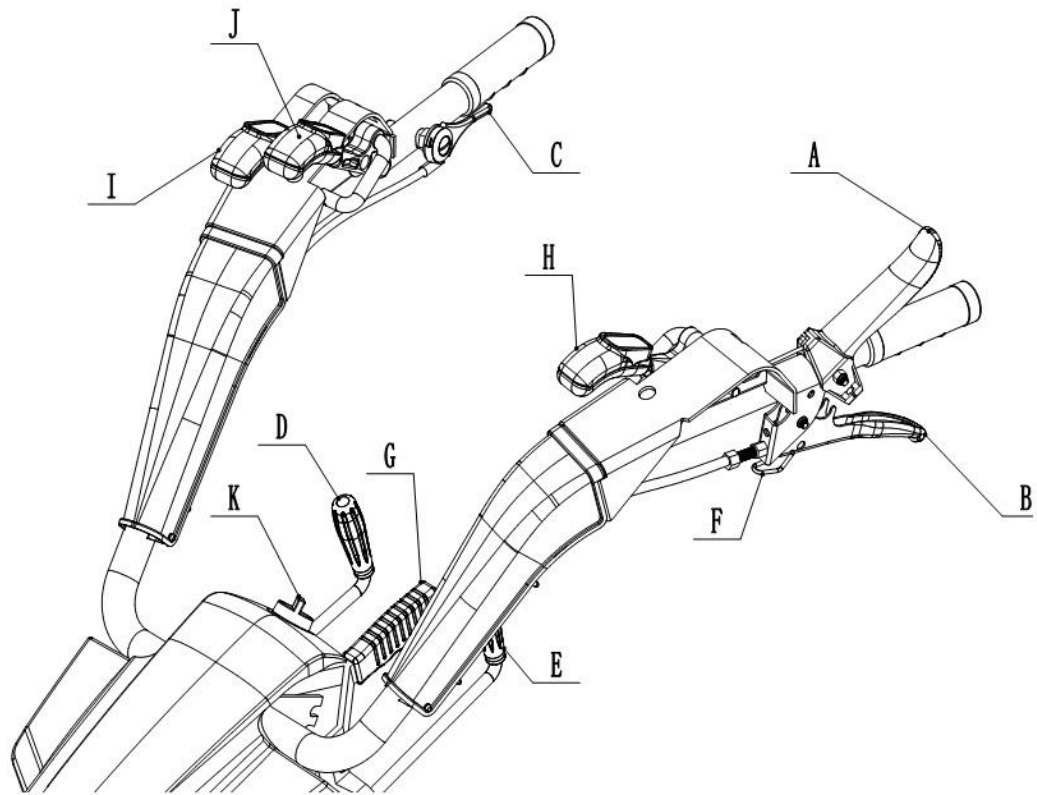


Gear shift



Handle height adjuster

# CONTROL PARTS INTRODUCTION



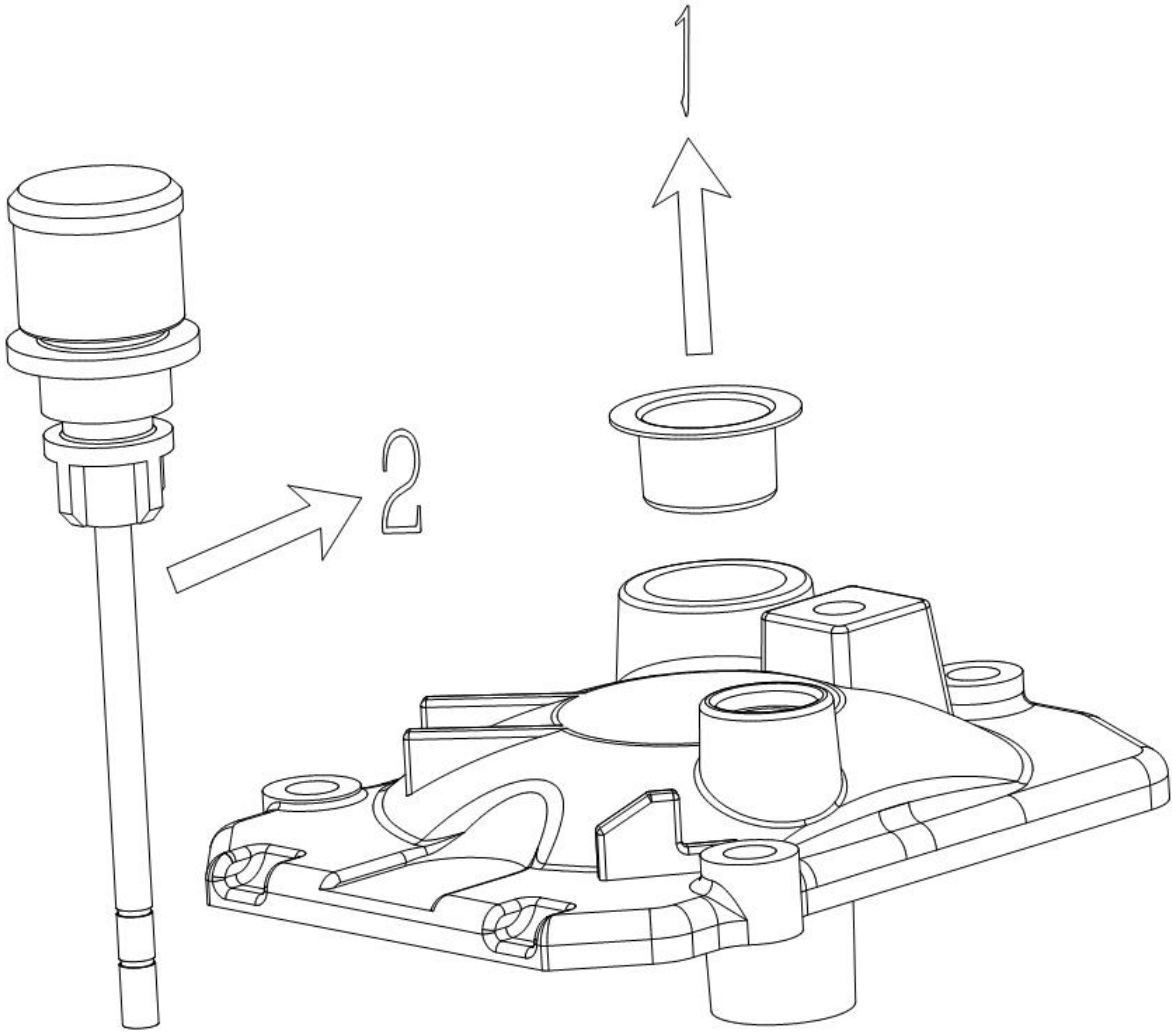
A	Emergency switch	G	Handle height adjuster
B	Clutch grip	H	Handle turning lock
C	Throttle lever	I	D & R gear shift lever
D	Gear lever	J	Differential lever
E	PTO Control lever	K	Switch
F	Clutch lock		

The above operating handles/switches do not mean that all models have. Different functions adapt to different requirements, which are subject to the model purchased. Read the label on the body carefully before operation and check carefully with the operating parts in this manual. If any differences, please consult the local dealer.



# TWO WHEEL TRACTOR ASSEMBLY

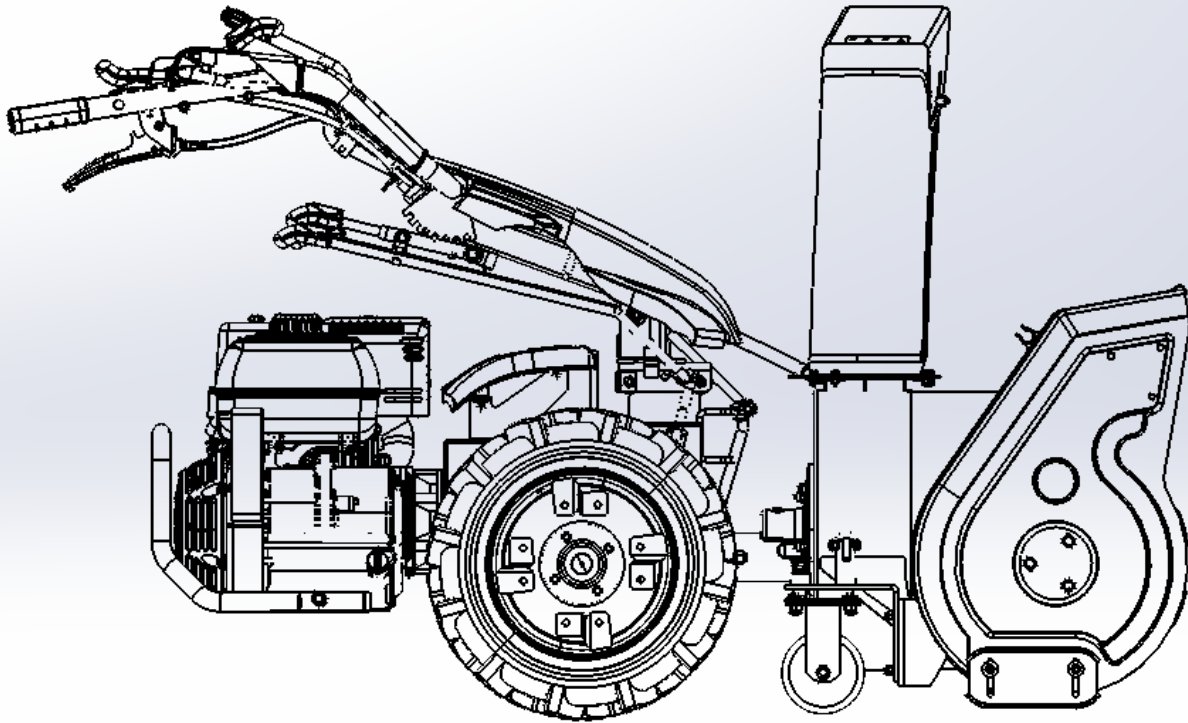
1. After receiving the machine, first check the package for damage; if there are any missing accessories, please contact the dealer and the after-sales personnel immediately.
2. It is very important to change the oil dipstick in the kit to the machine (As below fig show).
3. Check all screw nuts for looseness and use the wrench in the kit for reinforcement.
4. Tire installation direction: There are arrows on both sides of the tire, and the arrow is working in the most common direction of advancement.
5. The package may be inverted or turned over during shipment. Please check if the machine is leaking oil. Place the machine horizontally, wipe the oil dipstick cleanly, insert it into the hole and then pull it out and observe it. The height of the gear oil should be between two grids. If there is any leakage, it should be properly supplemented. Do not exceed the highest scale of the marked gear oil. Gear oil type: GL5 SAE 80W90.
6. Dock the working terminal with the machine, carefully check the three-jaw connecting heads against each other, and then push the gap between the two. After fully splicing, screw on the large nut. The nut must be fully tightened.
7. Adjust the handle to the appropriate working height. For different working terminals, the handle bar can be rotated to suit the needs of the working need.
8. Note: The engine is not filled with oil and fuel at the factory, please refuel before use.



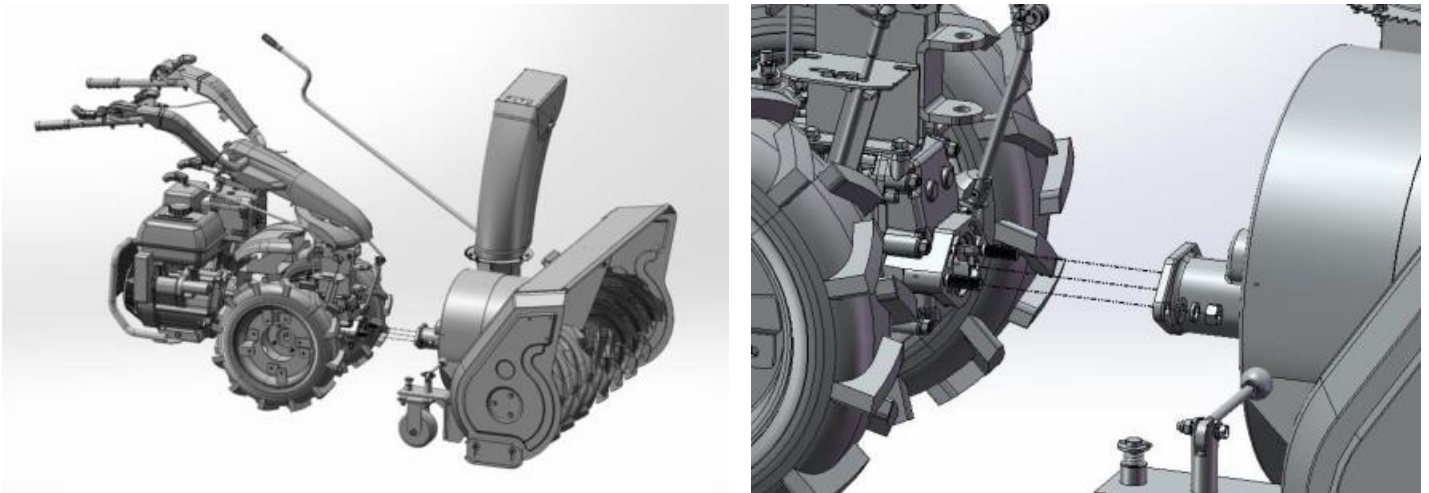
## **TWO WHEEL TRACTOR CONNECTED WITH ALL WORKING IMPLEMENTS**

Attention: For all assembly and repair operations always wear heavy work gloves to protect your hands

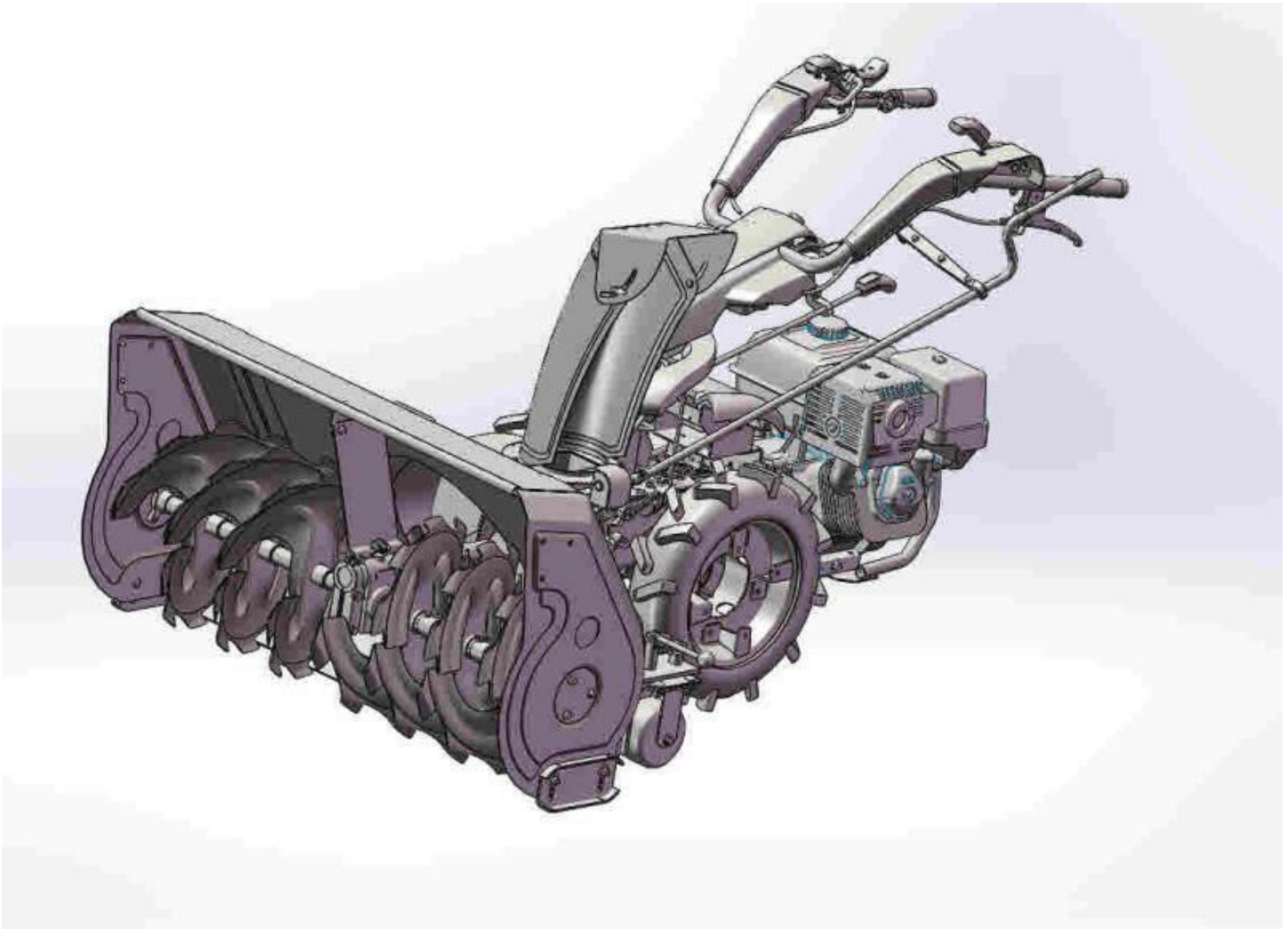
# 1. SNOW THROWER



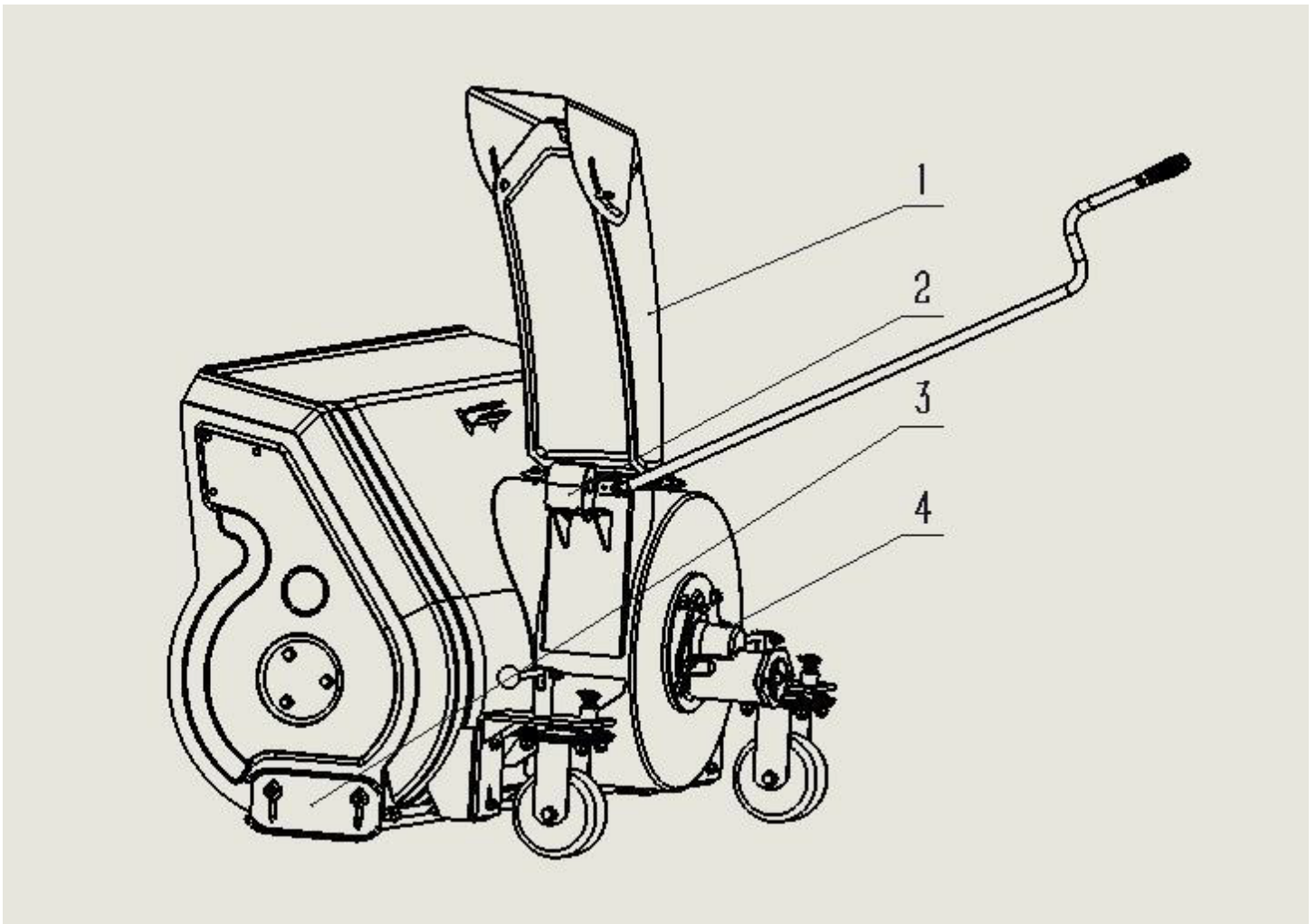
The snow blower consists of a tractor and a snow throwing implement. Remove the snow throwing implement and its components from the package. There are two docking screws on the power output part of the tractor. Two nuts and two elastic washers are attached on the top. The snow throwing implement is docked with the output shaft of the tractor and the nut is tightened.



After the thrower implement is connected to the tractor, the chute rotating adjustment lever is docked with the corresponding rocker on the main body and inserted into the latch, and the snow thrower is assembled. The specific operation steps are as follows.



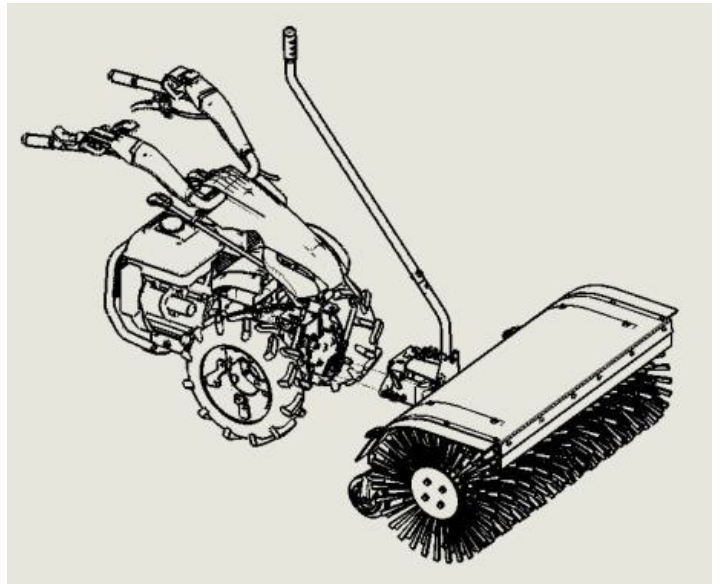
1. Connect the chute 1 to the snow thrower. Apply butter to the gears below the chute, make sure chute rotate easily and prevent rust.
2. Adjust the distance between the turbine base 2 and the chute gear, and then tighten the two nuts below. Make sure to fix it in a smooth position!
3. Adjust the height of the skids 3 on both sides and fasten them with to ensure the ground clearance of the machine and prevent the auger from touch ground.
4. Add butter through the butter port 4 during maintenance.



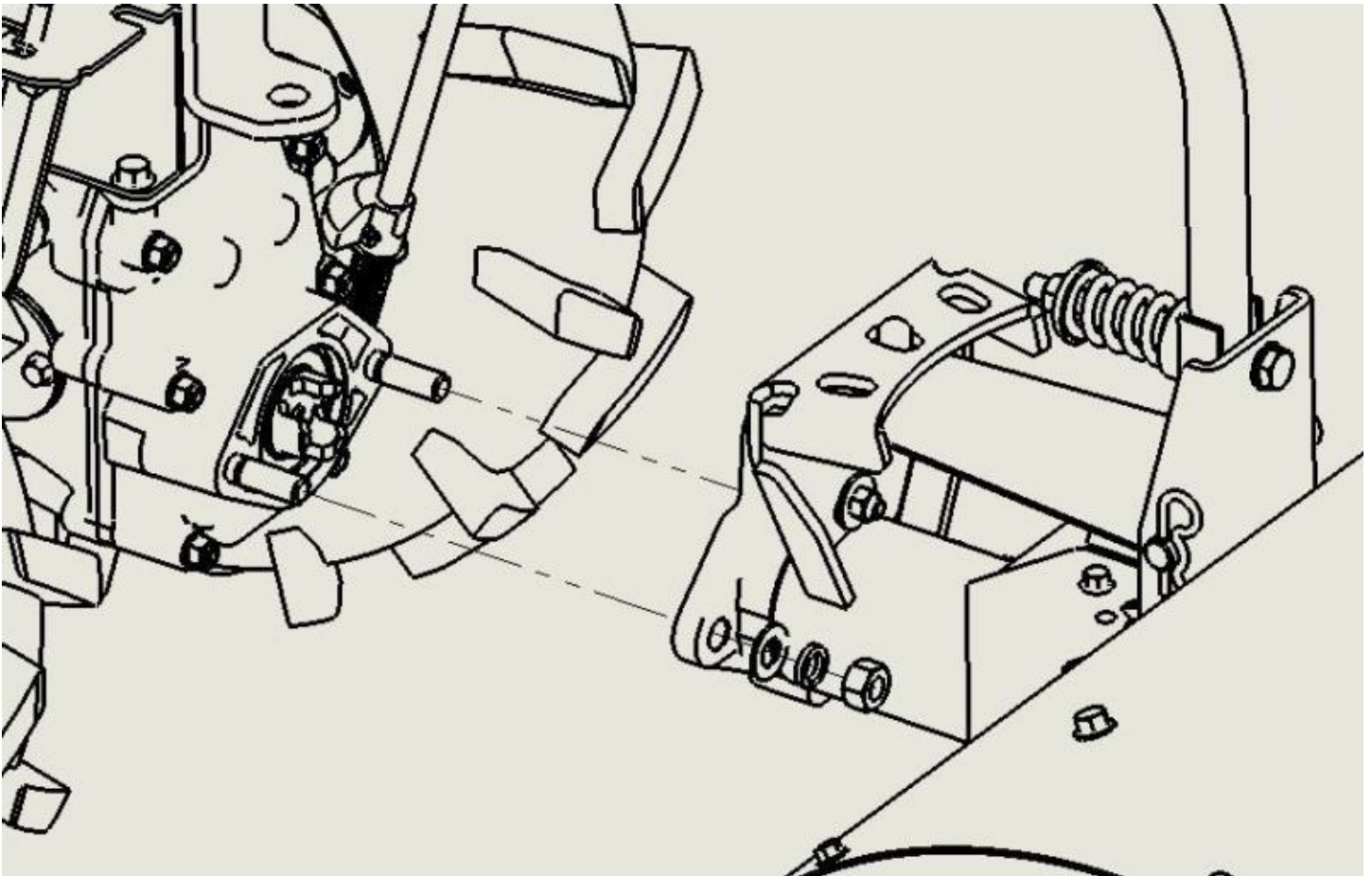
## 2. SNOW SWEEPER

The snow sweeper consists of a tractor and a sweeper. Remove the snow-sweeper implement and its components from the package. First install the handle A with the screw and nut B, and then install the snow-sweeper implement assembly to the tractor.





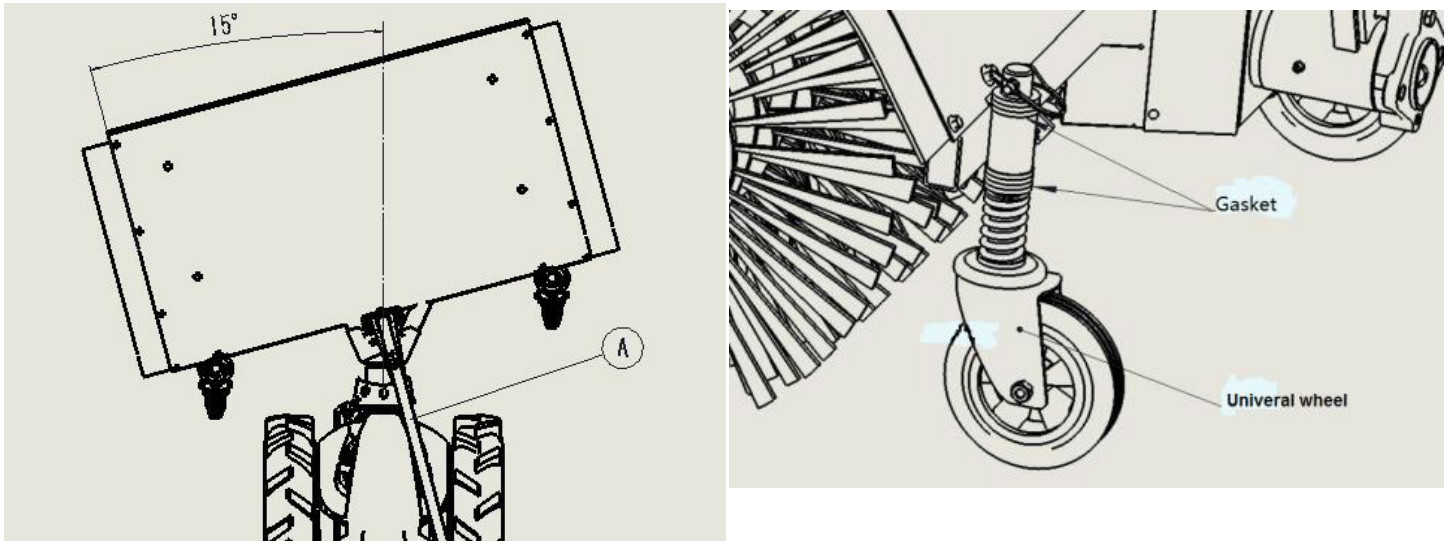
Unscrew the two M12 nuts, two washers and PTO cap from the tractor, close the snow sweeping implement to the tractor, dock the tractor and the implement and then tighten the nuts.



#### INSTRUCTIONS

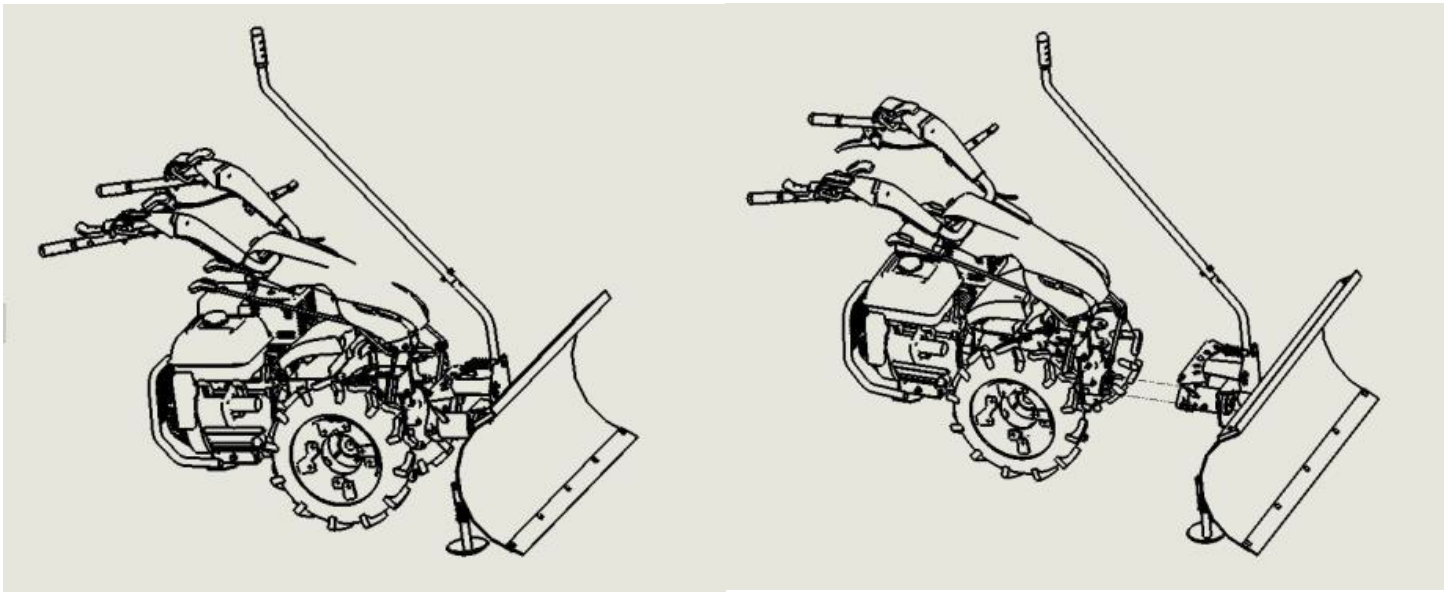
The direction of the brush can be adjusted by adjusting the handle A to 15 degrees on both sides.

The roller brush ground clearance can be adjusted by the height of the universal wheel behind the roller brush. The specific operation can increase or decrease the distance between the roller and the ground by adjusting the upper and lower positions of the gasket on the foot of the universal wheel, make sure the bristles just touch the ground.



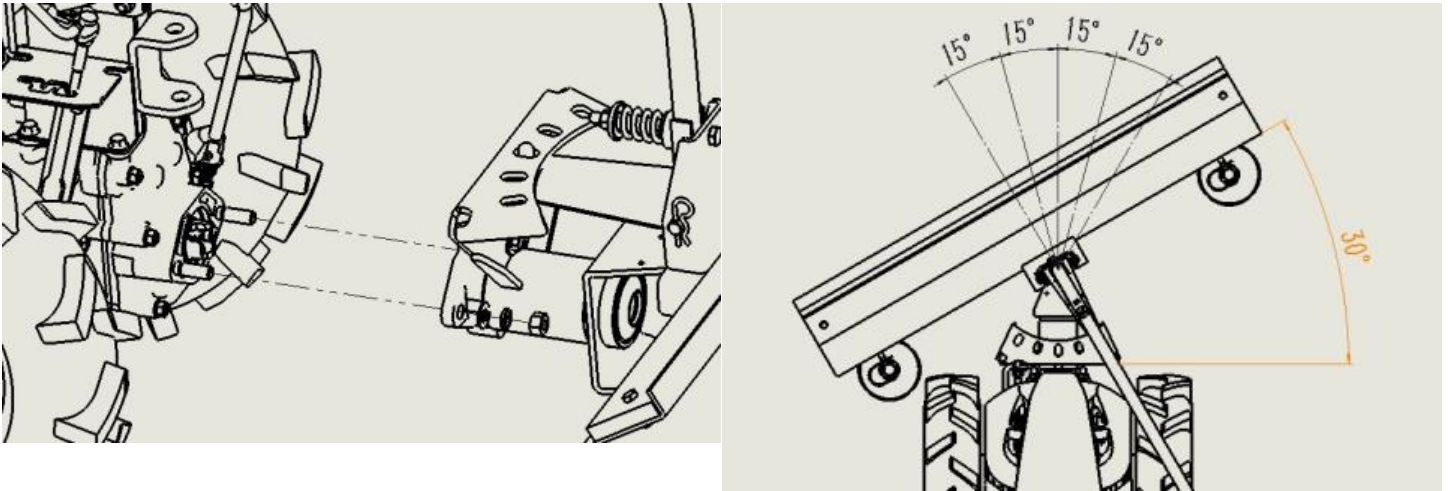
### 3. SNOW SHOVEL

The snow shovel consists of a tractor and a snow plow implement.

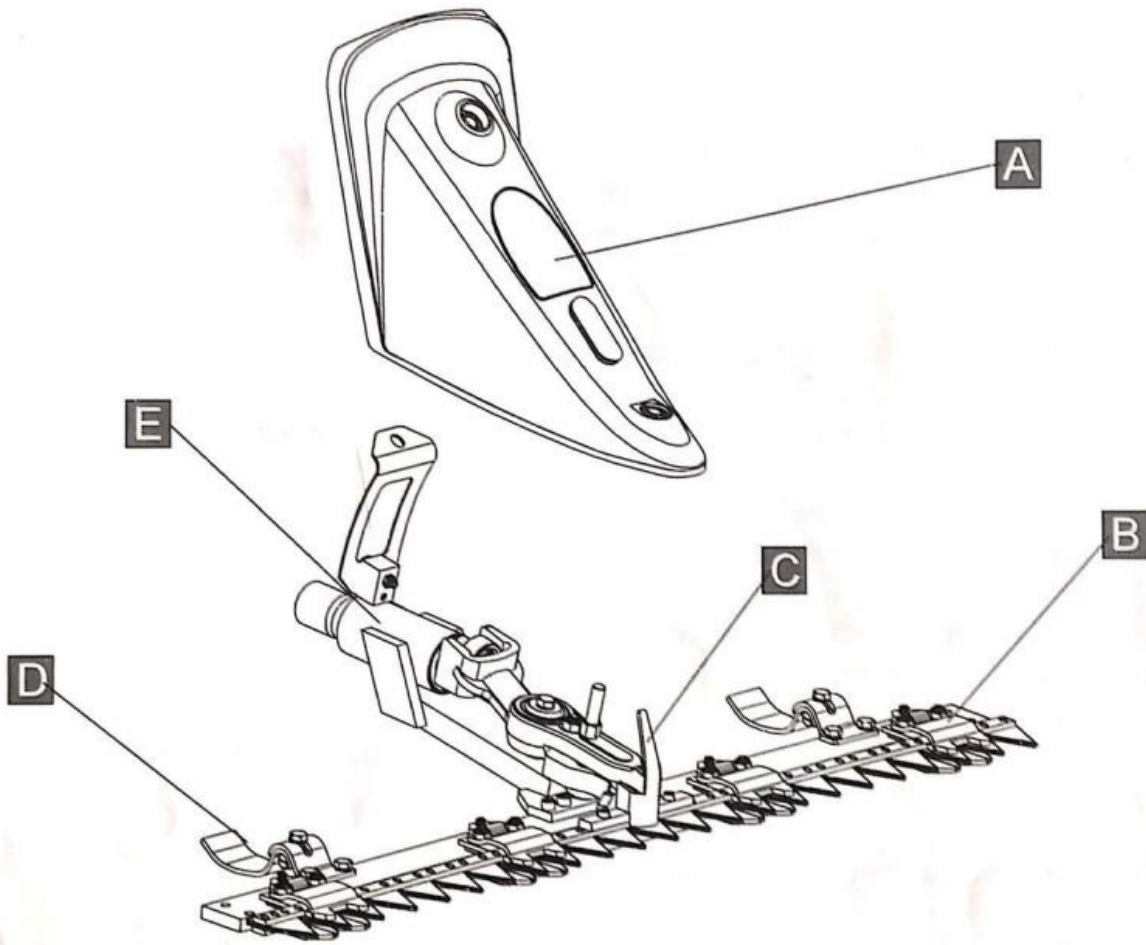


(The snow shovel implement steering adjustment handle is installed in the same way as the snow sweeper above.)

Unscrew the two M12 nuts, two washers and PTO cap from the tractor, close the snow sweeping implement to the tractor, dock the tractor and the implement and then tighten the nut.



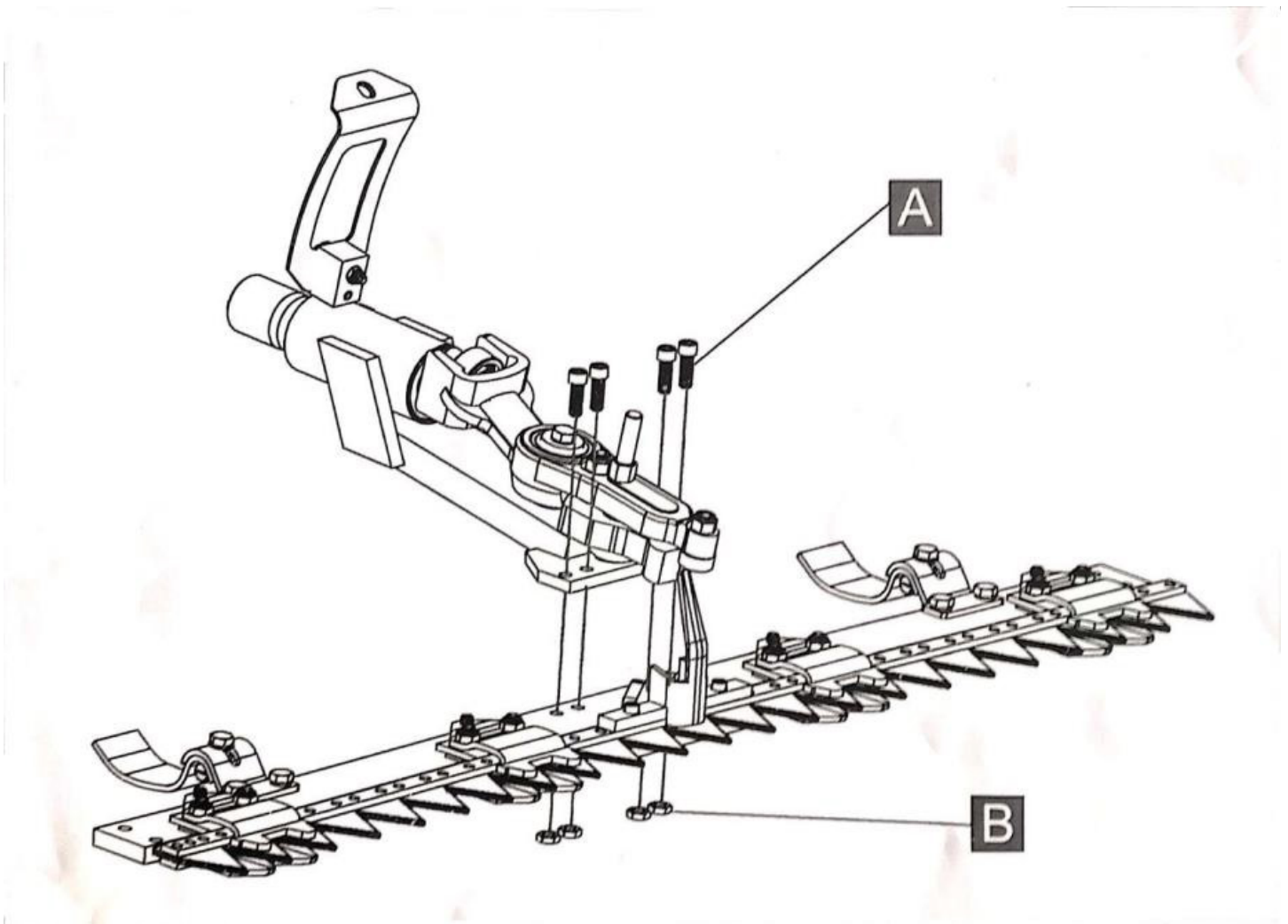
## 4. BAR MOWER



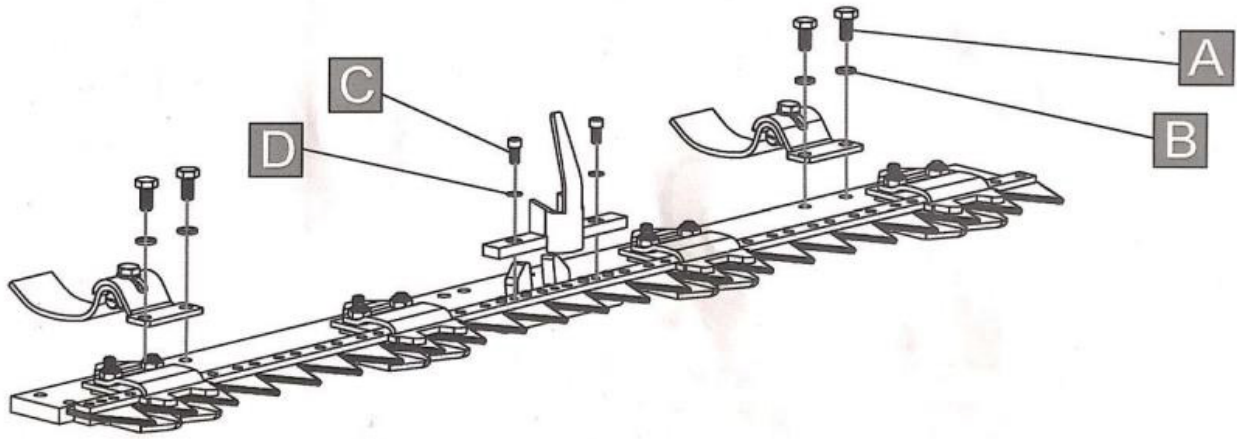


<b>A</b>	Protective cover	<b>B</b>	Blade assembly
<b>C</b>	Swing block assembly	<b>D</b>	Height adjust block
<b>E</b>	Rocker arm assembly		

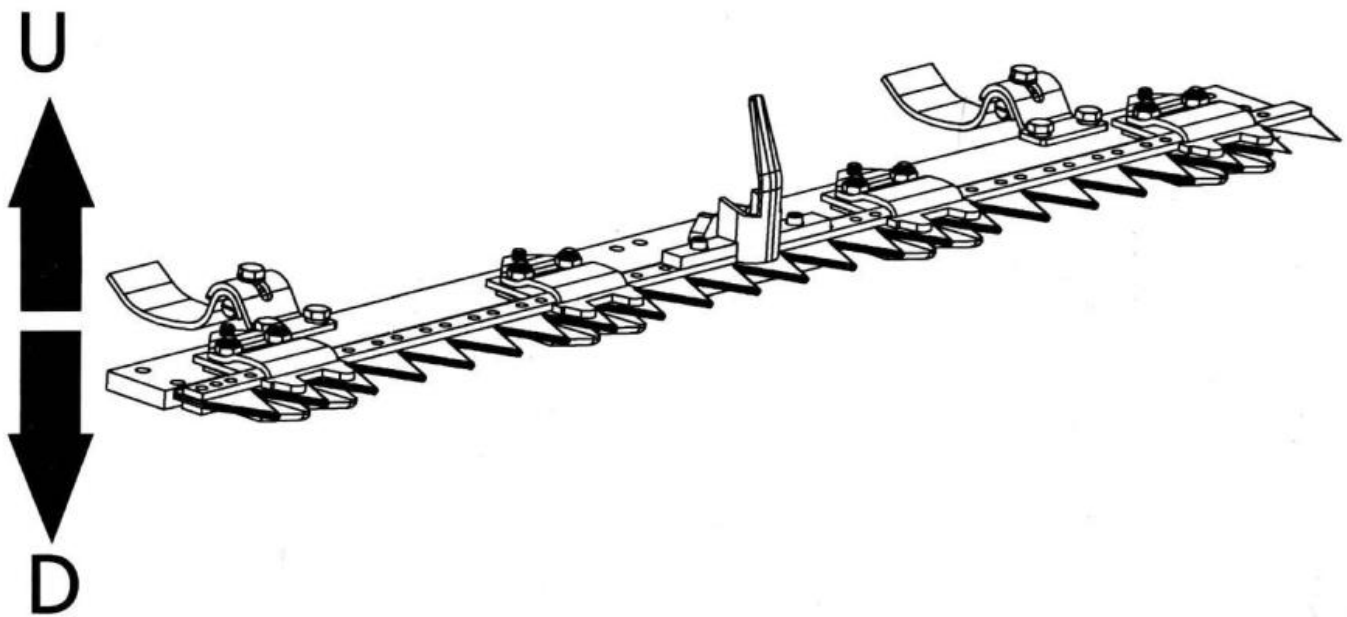
Unscrew the two M12 nuts, two washers and PTO cap from the tractor, close the bar mower implement to the tractor, dock the tractor and the mower, and then tighten the nut.



Insert the bolts A to the rocker arm assembly and blade assembly hole. Install the nuts B, fix them.



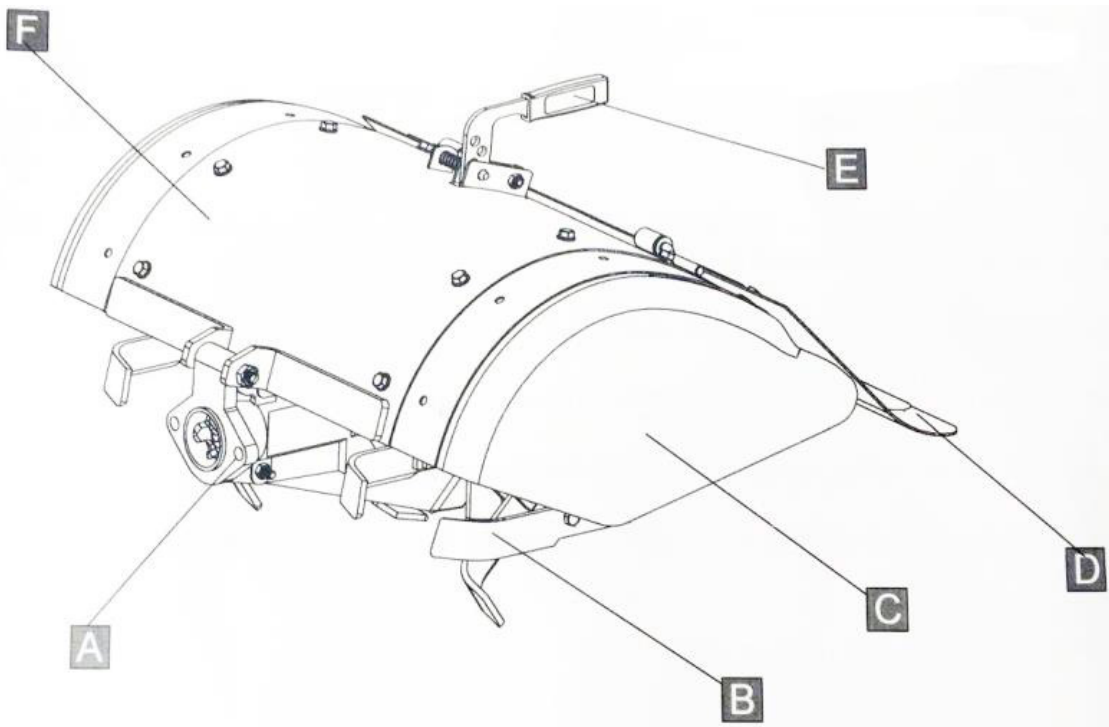
Assembly swing block assembly and height adjust block as above finger show



#### Cutting height adjustment

The cutting height scope is 20-55mm, if the height adjusting is adjusted to U direction, the cutting height will be more, if reverse, and the height will be low.

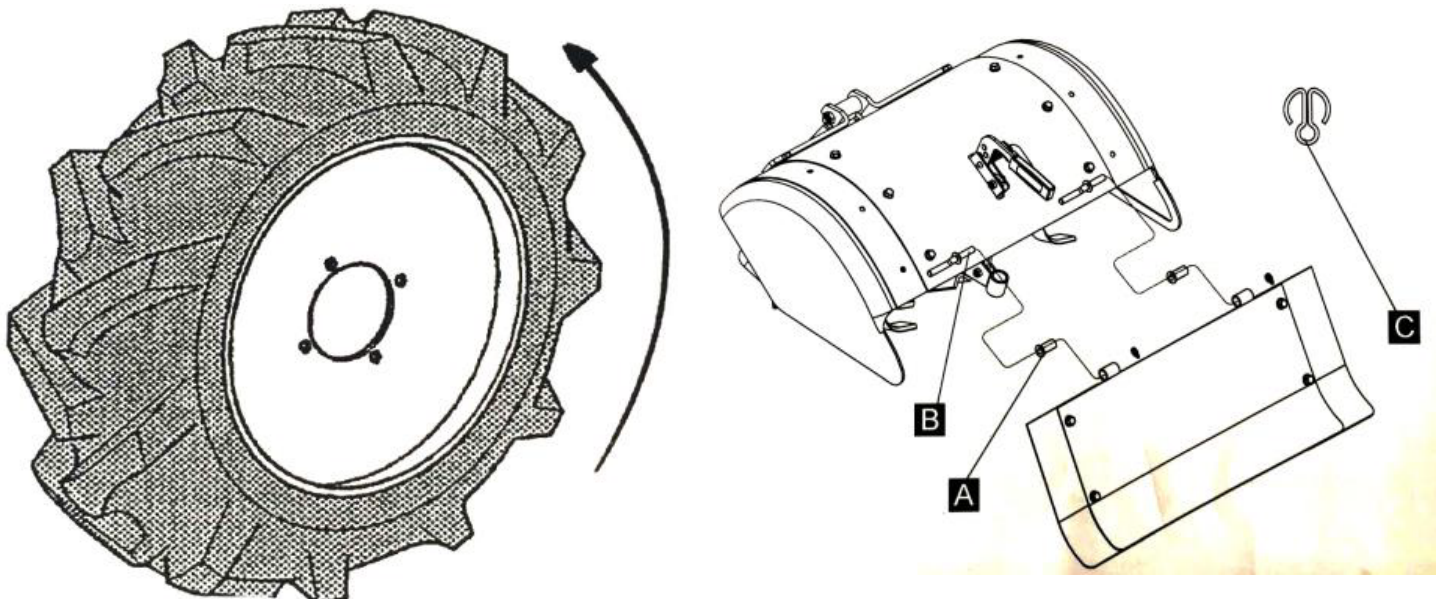
## 5. TILLER



<b>A</b>	Tilling Gear box	<b>B</b>	Blade assembly
<b>C</b>	Side defender	<b>D</b>	Rear defender
<b>E</b>	Depth regulator	<b>F</b>	Main defender

Wheel assembly

1. The tire direction of the figure should be like the picture



2. Assembly the rear defender.

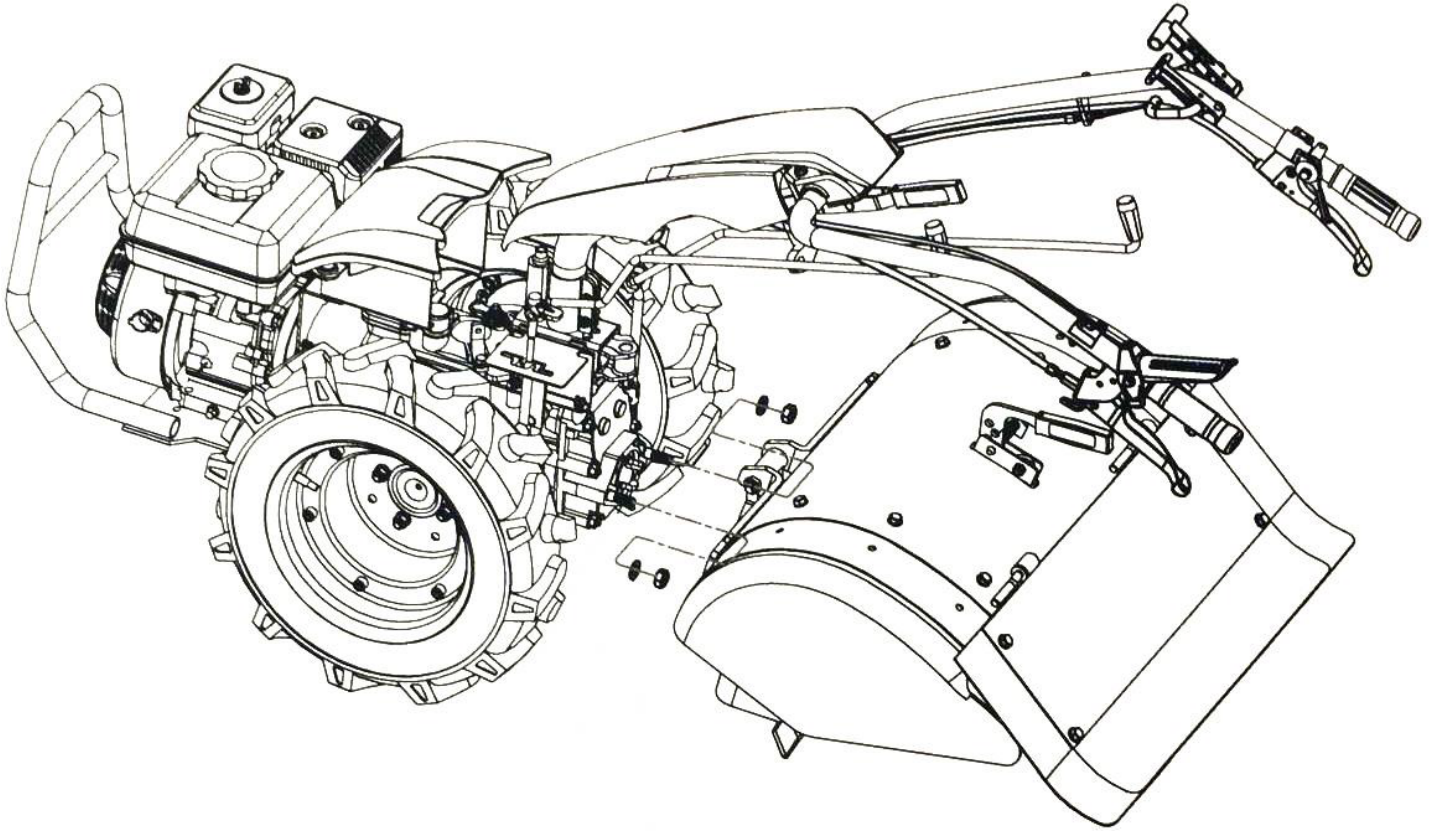
Cover the rubber bush A and spindle B.

Install the rear defender on the spindle B with rubber bush A.

Insert uncork pin to the hole of the spindle B, the uncork pin should be curved like C shape.

3. Assembly the cultivator

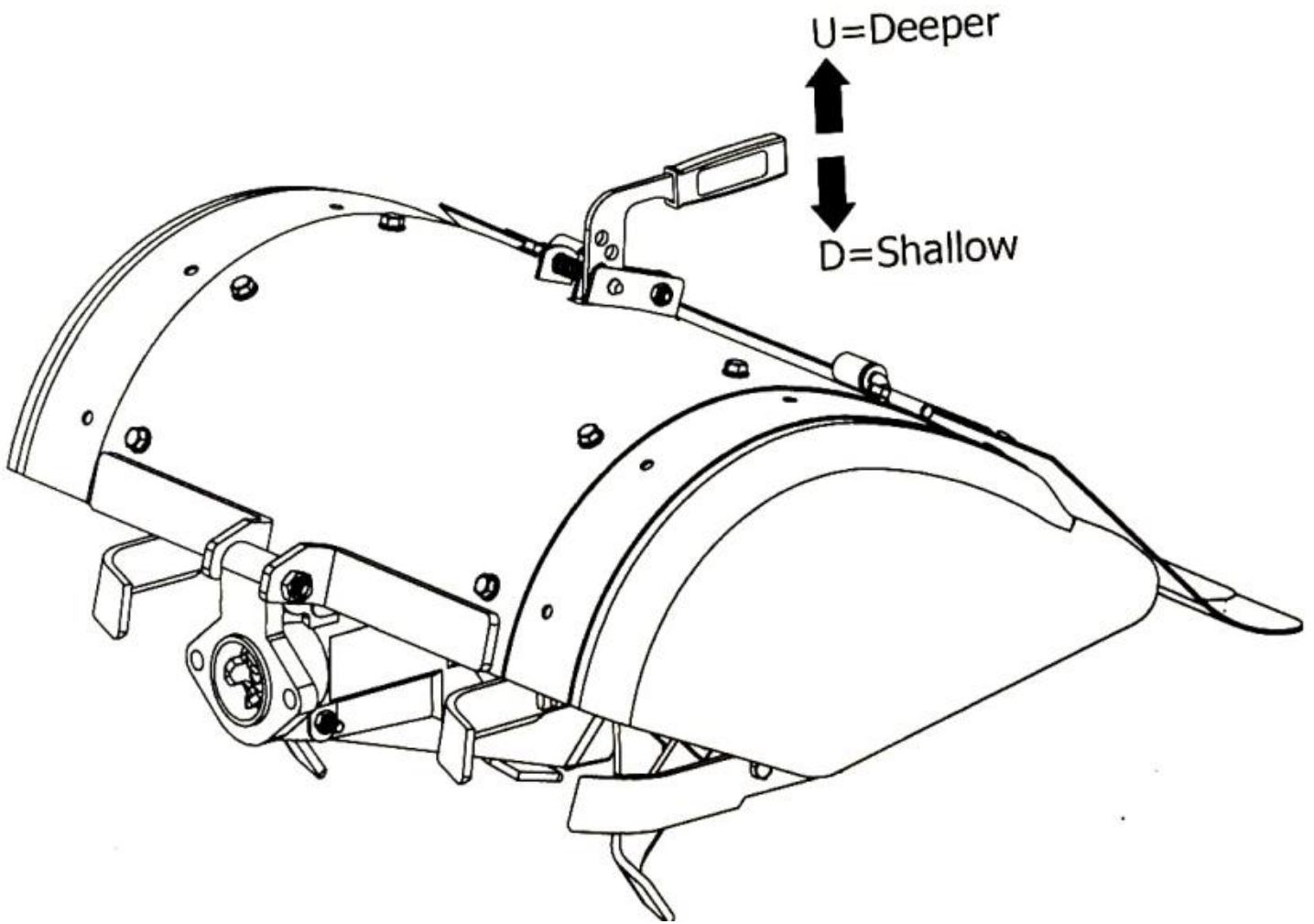
Unscrew the two M12 nuts, two washers and PTO cap from the tractor, close the tiller implement to the tractor, dock the tractor and the tiller implement and then tighten the nuts.



1. Tilling depth adjustment

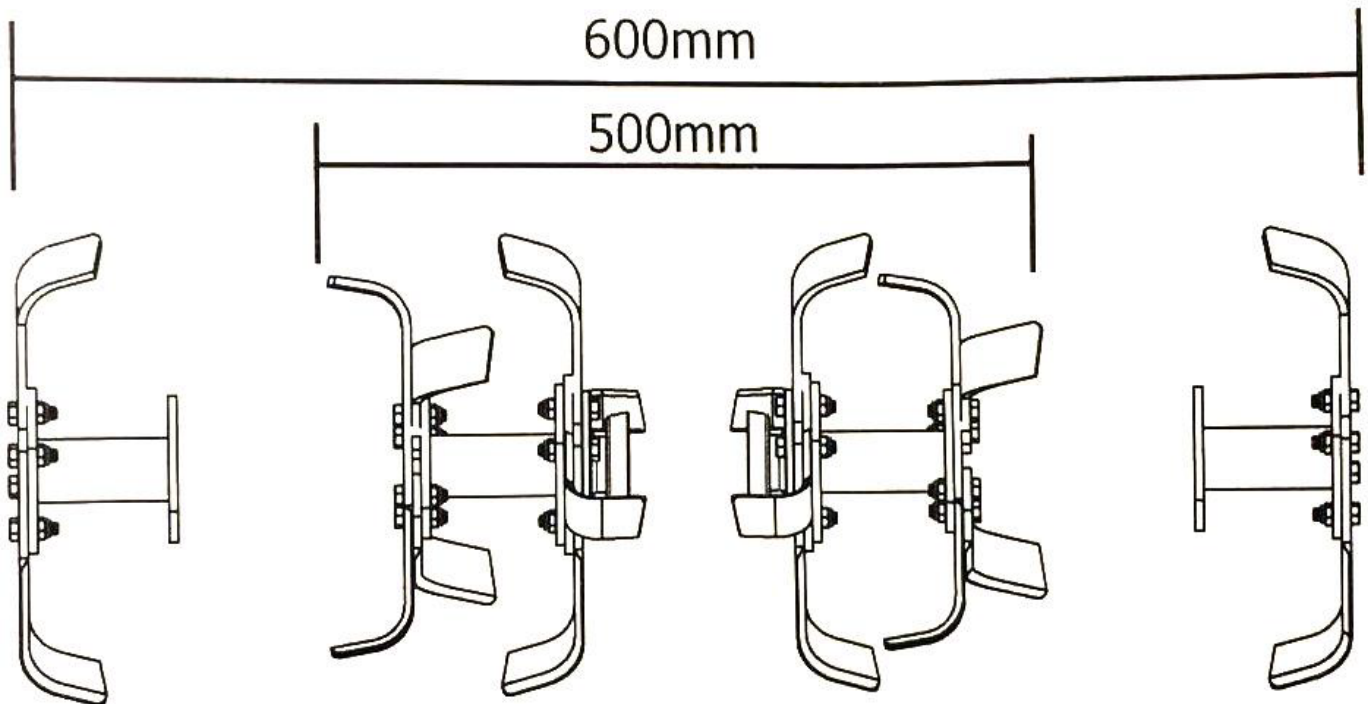
If the depth regulator adjusts to U direction, the tilling depth will be more, if D direction, the depth will be shallow





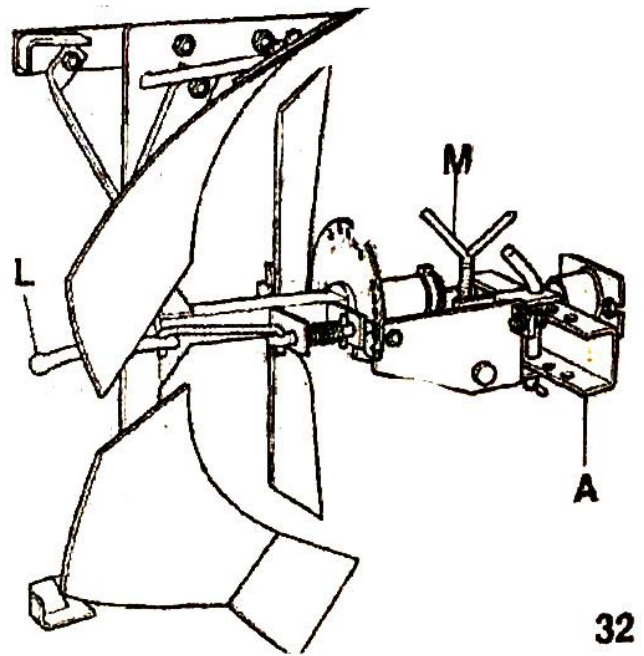
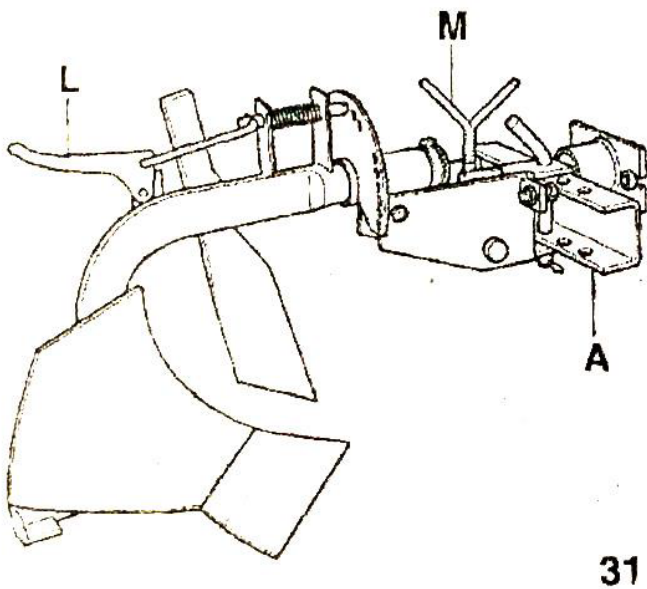
2. Tilling width adjustment.

There are two tilling width like the picture, you can adjust it according your need.



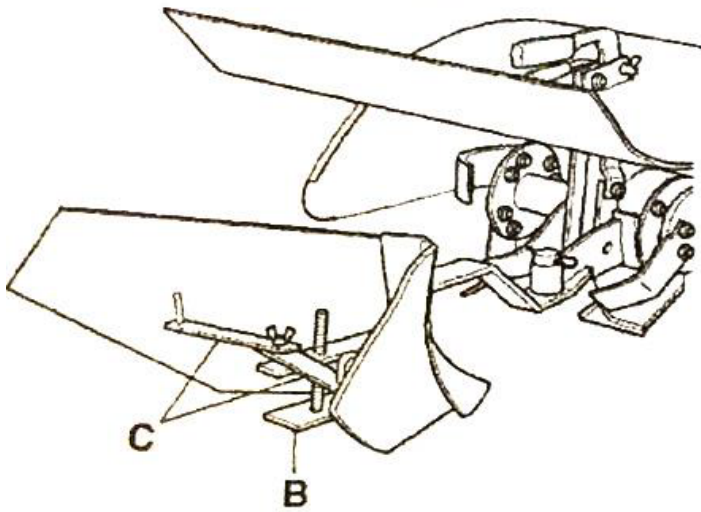
## 6. PLOUGHS

The ploughs designed for two-wheel tractors were especially designed to afford plowing without excessively tiring the operator. They come in two types: one-bottom (fig31) and 180 degree swivel (fig32). The latter type is for use in ridging or cultivating in vineyard or orchard rows. The obtained depth of the furrow can vary from 15 to 25cm depending on the soil.

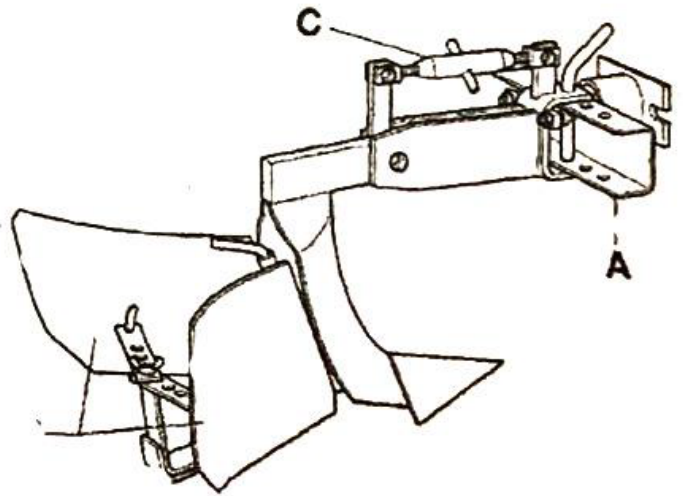


### RIDGE ADAPTABLE BEHIND ROTARY HOE:

It makes furrows for seed and irrigation and is mounted behind the rotary hoe without removing the cover. The furrow depth is adjusted by rising (deeper) or lowering (less deep) slides B. The width is adjusted by changing the wing position by means of tie-rods C (fig 33).



33



35

**ADJUSTABLE RIDGER:**

The adjustable ridge for two-wheel tractors (fig 35) is an implement specially designed for making furrows for seeding or irrigation. It is attached, like ploughs and rotary hoe, to the implement coupling regulation of the furrow width from a minimum of 10cm up to a maximum of 30cm.

Depth can be varied between 10cm and 20cm. Variation is obtained acting on tie-rods C.

When very hard soils have to be worked, it is advisable first to hoe the ground and then to use the ridger.

Performance can be enhanced by mounting 12" pneumatic wheels.

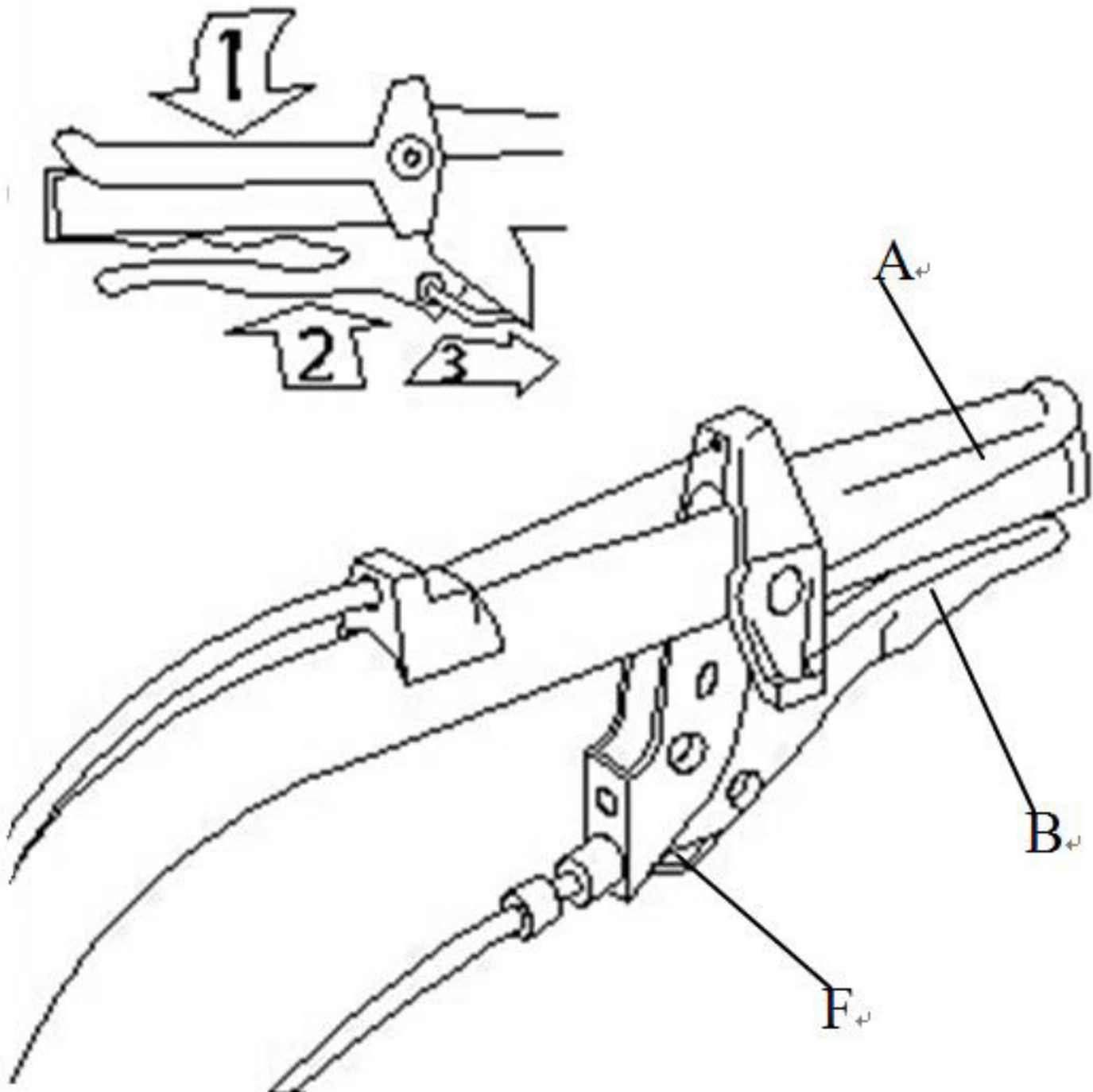
To compensate the difference in diameter of the wheels coupling A to the machine is asymmetrical so that, by disconnecting it from the implement and turning it 180degree, it will compensate the difference between the two wheels.

# ENGINE STARTING AND STOPPING

(The engine start is described in detail by taking the gasoline engine as an example. The diesel engine can be operated according to the instructions of the diesel engine)

## 1: STARTING

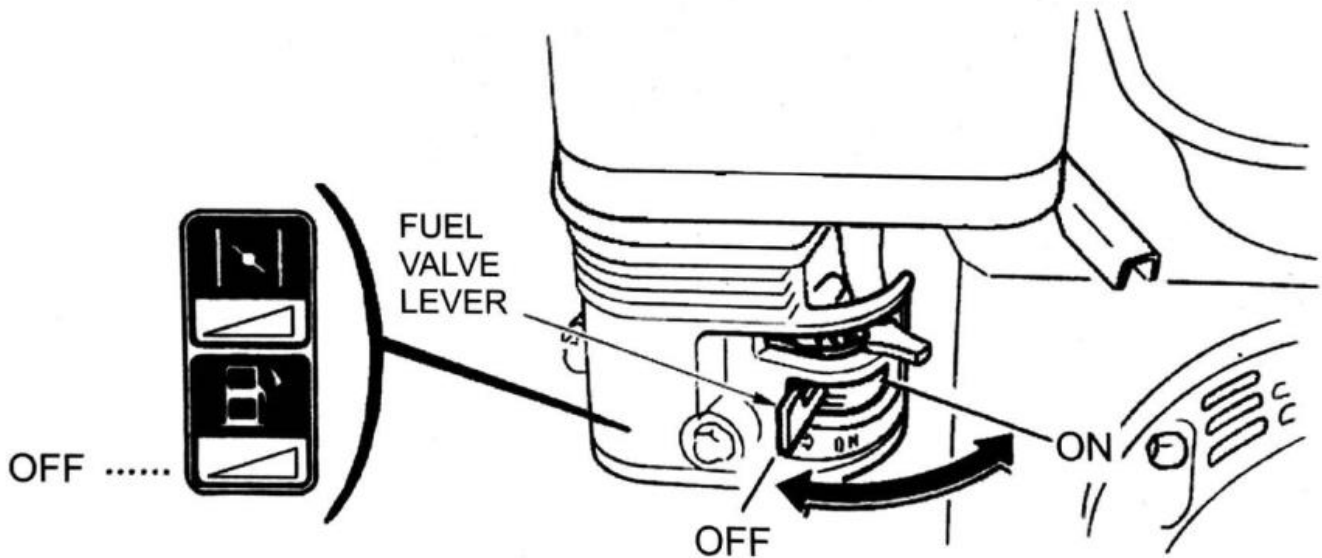
- Check the oil and fuel.
- Make sure the gear lever(D) on Neutral, Press the Emergency switch(A)(Ignore this step if your machine without this parts) ; lift up Clutch grip(B) and locked it with Clutch lock, Put the PTO Control lever to release condition.





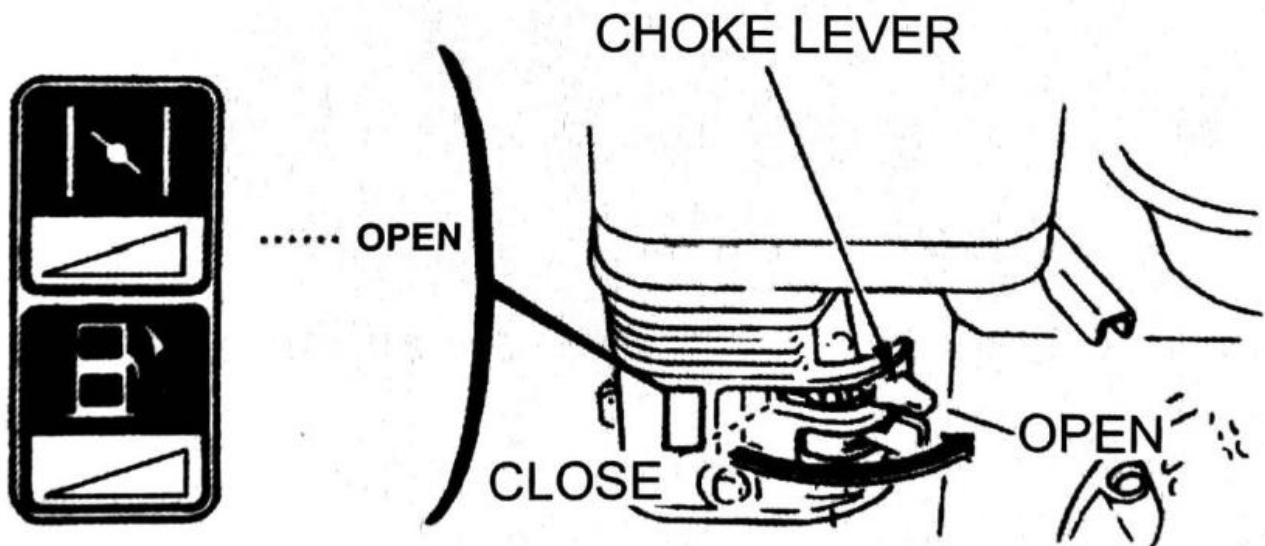
The emergency switch must be pressed in all the working process. The engine will be stopped immediately if release this switch.

- Move the fuel switch to ON position.



- To start the cold engine, move choke lever to CLOSE position.

**To start the warm engine, leave choke lever on OPEN position.**



- Turning the throttle switch lever on the inside of the right handle bar down one-third of the total stroke.
- Turning the Switch to ON position (Turning the key clockwise one stage).

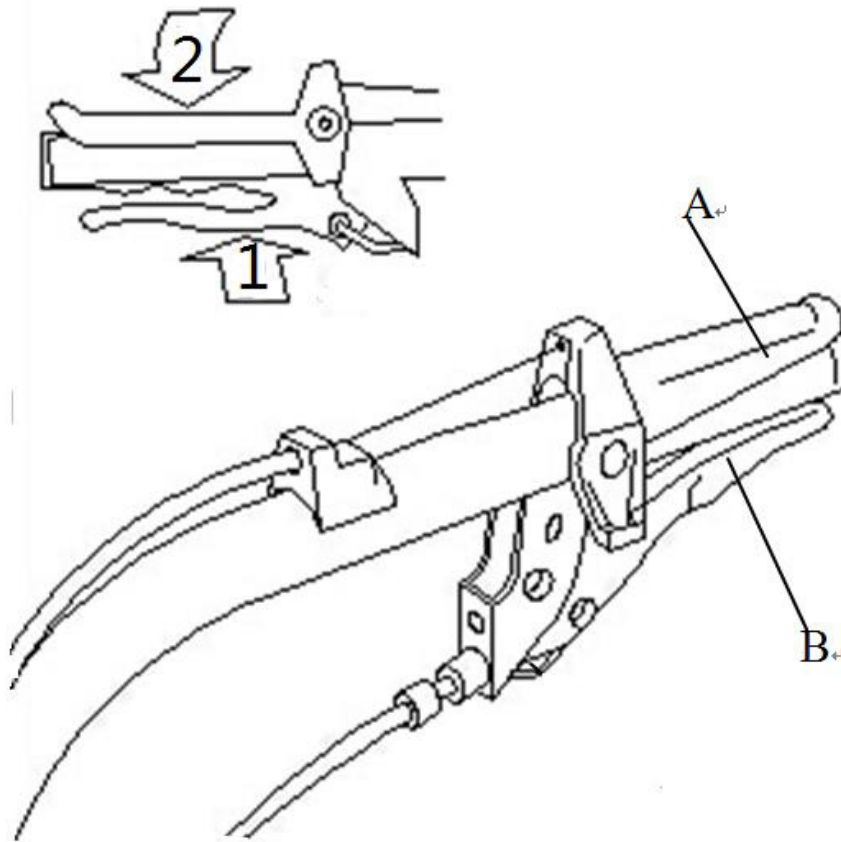
- The cold engine is started in a low temperature environment (about -20 °C), press down 2-3times the red button gently (the warm engine can be started without pressing the red button).
- A: Recoil starter: Pull the start handle lightly until you feel resistance, than pull briskly. Return the starter handle gently.

## **2: STOPPING**

- In an emergency, the simple way to stop is to put the start switch K in the «off» position (Turn the electric start key one counterclockwise) or release the emergency stop pressure A (if the machine has). Under normal condition, the stopping steps are as follows
- Gear lever D set to Neutral, PTO set to release condition.
- Turing the throttle switch lever to Min.
- Set the switch K to STOP position
- Turn off the fuel lever

## **OPERATION INSTRUCTION**

- When shifting gears, you must first lift up the clutch lever B, then operate the gear lever D, and release the clutch lever B during working.
- When the forward and reverse gears are shifted to each other, be sure to that the machine is stationary before operating.



• It is strictly forbidden to press the emergency switch before lifting up the clutch grip, otherwise the internal components of the hydraulic clutch will be damaged.

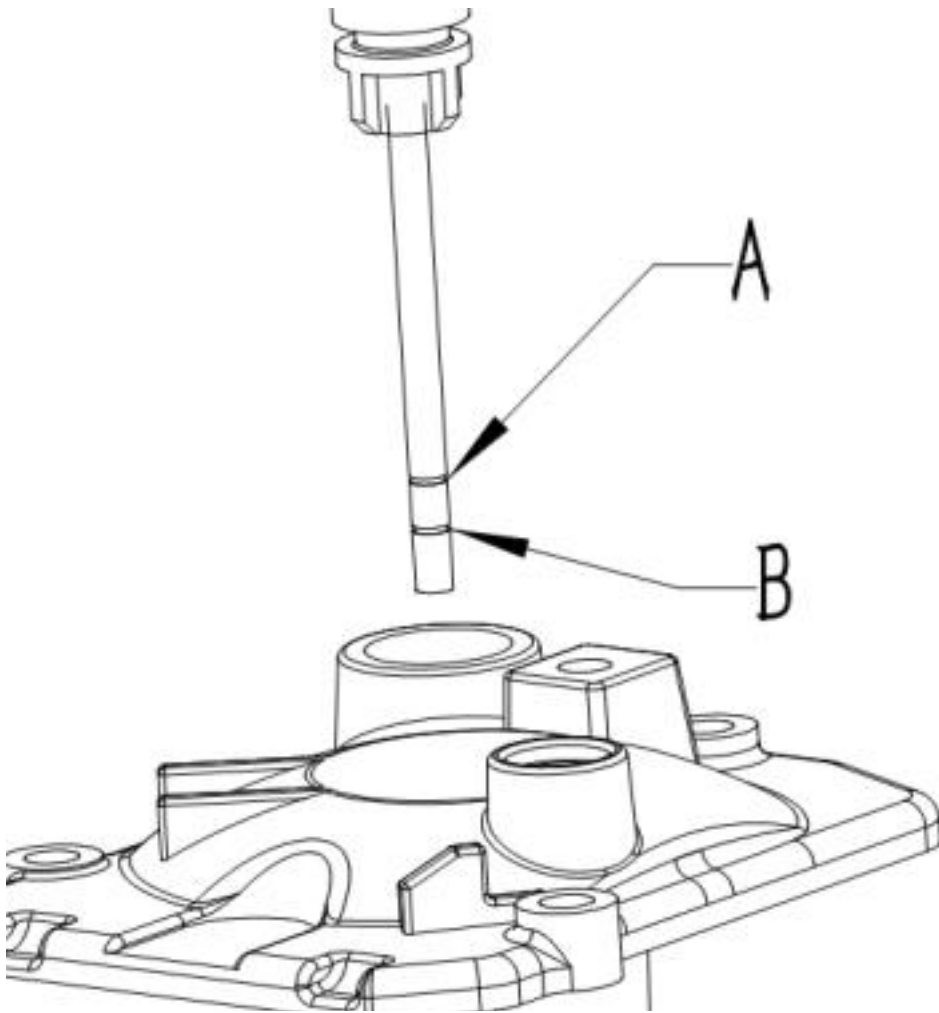
## MAINTENANCE

### 1. TWO WHEEL TRACTOR

Good maintenance is essential for safe, economical and trouble free operation. It will extend the service time of your machine.

Wear maintenance gloves and necessary protective garment during maintenance, turn off the start switch, unplug the starter key, separate the ignition coil cable from the spark plug, ensure that the gear position is set to neutral, the power output control has been separated, if there is brake Pull up and lock the brakes to ensure that the engine does not start during maintenance.

1. Check all screw nuts for looseness, especially the connection between the gearbox and the engine, hub, work terminal, etc., which are not easily noticeable.
2. The engine fuel level needs to be checked every three hours of working. Change the oil every 100-200 hours of work. If not, change the oil every year. Please add the good quality oil according to the local climate. The air filter is a very important component. When it gets dirty, it will affect the engine power. No or damage will accelerate the wear of the engine. Refer to the engine manual for the cleaning method and replacement cycle. The above are the two most important aspects of engine maintenance. The rest of the maintenance is based on the engine manual.
3. The time to replace the gear oil for the first time is 50 hours of work. When checking the amount of lubricant in the gearbox, the machine should be placed horizontally. The oil dipstick should be pulled out and wiped clean. Then insert it and pull it out to see if the oil stain is between AB. If it is not enough, replenish it. Replace all gear oils every 100-200 hours of operation. The Gear box oil type: GL5 SAE 80W90.



## **2. IMPLEMENT PRATS MAINTENANCE**

Warning: Abnormal vibration or irregular running of the engine, mainframe and terminal parts. It is recommended to stop checking the machine immediately or send the machine to the customer service center for inspection, and contact the dealer if necessary.

- If the safety mark is lost or the writing is illegible, it should be replaced in time.
- Keep components such as the engine, mainframe, and terminal parts in good operating condition.
- Check for missing or damaged parts before each use and fill or replace them as soon as they are found.
- Inspect and tighten the parts that are loose due to vibration before each use.

---- Clean and keep the equipment clean and tidy after each use.

---- Replace the gearbox oil every 100 working hours or once a year; the oil level should be within 50 mm (2") below the full line.

As shown in the figure below

