

ROTATECH™

ROTATECH SG 15 STUMP GRINDER

USER MANUAL



CONTENTS

PREFACE	3
SAFETY	4
FUEL SAFETY	5
GETTING STARTED	6
REMOVING STUMPS	7
OPERATING TIPS	7
REMOVING STUMPS	8
MAINTENANCE	9
SPECIFICATIONS	10
ASSEMBLY	11
TROUBLESHOOTING	18

PREFACE



WARNING

This indicates a hazardous situation, which, if not avoided, could result in death or serious injury.



CAUTION

This indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.



NOTICE

This indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

Read this manual carefully beforehand in order to familiarise yourself with this product.

Store this instructional manual for future reference.

Failure to follow the proper protocols listed in the manual may cause personal injury to the operator or damage to equipment.

Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

Always follow directions on safety labels found on your equipment.

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

A Note to All Users

List of warnings and cautions cannot cover every possible scenario. If situations occur that are not covered by this manual, the operator must apply common sense and operate this machine in a safe manner. Contact the dealers for assistance in your area.

SAFETY

SAFETY PRECAUTIONS

- Keep the working area clean and well lit.
- Do not operate the stump grinder in the presence of flammable liquids, gases or dust.
- Keep children and bystanders away while operating the stump grinder. Keep the area free of all distractions.
- Only responsible, properly instructed individuals should operate this machine.
- Inexperienced operators must always be carefully supervised.
- Do not expose stump grinders to rain or wet conditions.
- Stay alert, watch what you are doing and use common sense when operating a stump grinder. Do not use a stump grinder while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating any stump grinders may result in serious personal injury.
- Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- • Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- Always wear earplugs to protect your ears.
- Do not start the engine until the machine is in the cutting position next to the stump.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the stump grinder in unexpected situations.
- If devices are provided for the collection of dust extraction, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.
- Check stumps to be removed for embedded nails, wire, metal fence posts and other metal objects and for rocks or other buried impediments which may become dangerous if thrown or cause unexpected machine movements when hit by the cutting wheel.
- Make sure that all shields and guards are in place and are in good condition prior to operating the machine.
- Check cutting wheel for damage or missing teeth and replace as necessary.
- Ensure that everyone in the vicinity is aware of the danger zone associated with this machine. You must avoid the danger zone at all times when the machine is in operation.
- Make sure that no-one is working on, underneath or close to the machine before starting the engine or beginning to move the machine.
- Don't make any alterations or modifications to your stump grinder.
- Check with your local council and utility providers for the locations of buried pipes and cables where applicable before operating the machine.

FUEL SAFETY

FUEL SAFETY

- Pay attention while handling fuel. They are flammable and the vapours are highly explosive.
- Never remove the fuel cap or add fuel with the power running. Stop the engine and all engine and exhaust components to cool before refuelling.
- Do not smoke while adding fuel.
- Fill your engine with 10x-30/ 10w-40/ 15w-40 non-synthetic engine oil before use or serious damage will occur.
- Use extreme care when handling fuel. Fuel is extremely flammable and the vapours are explosive. Never fuel machine indoors or while engine is hot or running.
- Never refuel or store the machine in a place where there is an open flame, spark or other ignition objects.
- Do not attempt to start the engine if fuel is spilled. Wipe away the spillage and ensure all fuel has dried before starting the machine.
- Always make sure the fuel cap is securely tightened and in place before starting.
- If the fuel tank needs to be drained, it should be done outdoors.

EMERGENCY STOP

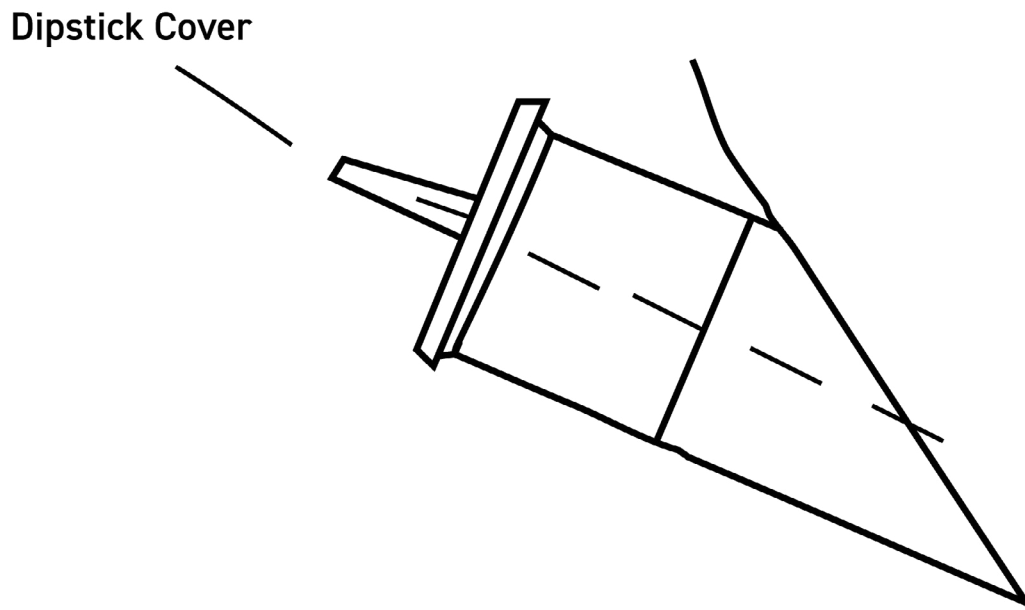
EMERGENCY STOP PROCEDURE

1. Immediately push the emergency (on/off) switch for the engine will be shut off.
2. Be sure to allow all moving parts to come to a complete stop.
3. Pull the brake lever to engage the brake.
4. Rectify the emergency situation and return to normal operation.

GETTING STARTED

ADDING OIL TO THE ENGINE

1. Only fill the fuel tank to a level 15mm lower than the top of the fuel tank. Do not overfill.
2. Use the dipstick to check the oil level. Use low-30/ 10w-40/ 1Sw-30/ 1Sw-40 non-synthetic engine oil. Fill to the correct level before use.



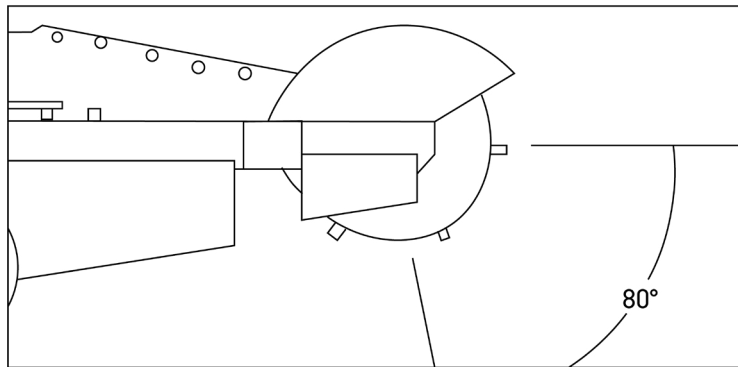
The engine is shipped without oil. Fill to the correct level before use. Operating the engine with no oil or oil at a low level will destroy the engine. This is not covered under warranty.

STARTING THE ENGINE

1. Lock travel wheel by pulling brake lever fully back.
2. Make sure throttle is in slow position.
Do not allow the rope to snap back, return it by hand to prevent damage to the starter.
3. If the engine is cold, move the choke lever to the closed position.
4. Raise the cutter wheel 4 to 5 inches off the ground by pushing downwards on the handle bar, hold it in that position. The next step may cause the cutter wheel to rotate, keep your distance.
6. Move the choke lever to the open position. The next step causes the cutter wheel to rotate, keep your distance.
7. Move the throttle to fast. If the engine is cold, allow the engine to idle (throttle set to slow) for a few minutes before cutting.

REMOVING STUMPS

- Remove all loose pieces of wood, stones, wire and other debris from the area before beginning stump removal.
- Wind direction should be considered, as it influences the direction in which dust and wood chips are directed.
- Never operate the grinder after dark. There will be no adequate light for the operator to use the grinder safely.
- Always allow a cold engine time to warm up before cutting a stump.
- Only the portion of cutting wheel within the 80 degree area shown BELOW should engage the stump.



CAUTION

Never leave the machine unattended when the cutting wheel is rotating.

OPERATING TIPS

- Use a smooth, comfortable side to side motion while operating.
- When cutting smaller roots, it may be more effective to do so before rather than after cutting the stump.
- In order to stop wheels getting stuck in a hole, move the grinder to the other side of the stump or fill hole with wood chips before continuing.
- Should the chip build-up become excessive when cutting, shut off the machine, wait for the cutting wheel to stop rotating, retract the machine from the stump and rake away the chips. It is also possible to use the cutter wheel to push chips off to the side.

REMOVING STUMPS

PREPARE THE GRINDER AT THE STUMP

Place it into position with the cutting wheel near the top edge of the stump.

REMOVING ROOTS

1. Make sure the throttle is set to fast, the cutter wheel will accelerate to cutting speed.
2. Swing the cutting wheel to one side, then lower it into the nearest roots that are buried at the foot of the stump.
3. Swing the cutting wheel before each sweep, until the roots are sufficiently removed.
4. Raise the cutting wheel until the centre of the cutting wheel is just above the top of the stump.
5. Allow the cutter wheel to stop, release the brake and reposition the machine.
6. Lock the brake again.

CUTTING THE FULL STUMP

1. Make sure the throttle is set to fast. The cutter wheel will accelerate to cutting speed.
2. Direct the cutter wheel against the stump, beginning with the nearest top corner of the stump, and steadily sweep it across the stump left and right, cutting away 1/2 inch of wood with each sweep.
3. Raise and lower the cutter wheel between sweeps by lowering and raising the control handle.
4. Roll the machine forward and back, by pushing and pulling on the control handle. To do this, release the brake. Relock it when the machine has been repositioned and continue cutting.

FINAL ROOTS REMOVAL

Cut the remaining roots as described in STEP 2 until satisfactorily removed.

SHUTTING OFF THE ENGINE

1. When stopping the machine after normal operation, lower engine speed to slow, and push the emergency switch.
2. Set park brake before leaving the controls.
3. Shut off the engine by pushing the on/off switch.

In consideration of your own safety and others, you should always use the normal shut-down procedures before departing from the controls for any reason including cleaning, servicing, transporting or inspecting the stump grinder. Never deviate from this procedure unless so instructed in this manual or in an emergency that requires it.



WARNING

A rotating cutting wheel is very dangerous. Stand at controls and ensure that the cutting wheel comes to a complete stop before doing anything else.

EMERGENCY STOP PROCEDURE

1. Immediately push the emergency (on/off) switch for the engine will be shut off.
2. Be sure to allow all moving parts to come to a complete stop.
3. Pull the brake lever to engage the brake.
4. Rectify the emergency situation and return to normal operation.

MAINTENANCE

- Make sure all nuts, bolts and screws are tightened.
- Never store the equipment with petrol in the tank inside a building where fumes can reach an open flame or spark. Allow the engine to cool before moving the grinder.
- To reduce fire hazards, keep the engine and petrol storage area free of grass, dirt and excessive grease.
- Replace worn or damaged parts for safety. If the fuel tank has to be drained, this should be done outdoors.
- Regularly check the oil level and add some oil or replace it if necessary.
- Frequently check the grinder and ensure that all bark and dirt deposits are removed from beneath the deck.
- Lubricate the wheel axle and the bearings with grease regularly.
- Check the cutting wheel often. In order to achieve clean work the blade should always be sharp and well balanced.
- Check the tightening of all bolts and screws at regularly intervals. Nuts and bolts that are worn out or badly tightened can damage the engine or the frame.
- If the grinder hits an obstacle violently, stop the grinder and take it to a specialist for inspection.

TRANSPORTATION:

The stump grinder is designed to be transported via a van or small trailer. The machine is equipped with grab bars that are to be used for both lifting the machine, and strapping it down. This machine weighs approximately 110kg and should only be lifted using correct apparatus or an adequate number of people working as a team. The are legal road requirements for towing equipment and trailer. It is the owner's responsibility to be aware of these laws and to adhere to them.

EMERGENCY STOP RESET

Reinstall emergency stop pull and twist the palm stop switch to the right. Palm stop switch will pop up when reset.

SPECIFICATIONS

GREEN TEETH COMPATIBILITY:

The installed cutting wheel can support Green Teeth's 500 Series Pockets.

500LP-A - 500 Series LoPro Pocket - Angle - qty 4

500LP-S - 500 Series LoPro Pocket - Straight - qty 4

LP-200 - LoPro Bolts 2" - qty 8

500TH-G - 500 Series Standard Dish Green Tooth w/ Nut - qty 8



CUTTING TEETH

To ensure prolonged life and reliability, we recommend to torque the cutting teeth bolts to 60 ft lbs before each use.

BELTS

To tension the belts, loosen the 4 bolts that hold the engine to the frame. Turn the tensioning rod on the back of the unit to slide the engine forwards or backwards to properly tension the belts. Once tensioned, tighten the bolts. The tension of the belts should be about 0.5in deflection.

SPECIFICATIONS

Stump Grinder:

Diameter of Cutting Wheel: 11.8"

Cutting Wheel Thickness: 3.5"

Cutting Depth Below Ground: 11"

Cutting Depth Above Ground: 14"

Machine Width: 29.9"

Teeth: 9pcs

Tire Size: 145 / 70 - 6

Brake Type: Drum

Belts: 2 x B54 V-Belt

Engine:

Engine Type: Kohler CH440 4-Cycle Commercial

Displacement: 429cc

Max Output: 14HP/3600RPM

Fuel Type: Unleaded 87 Octane or Higher

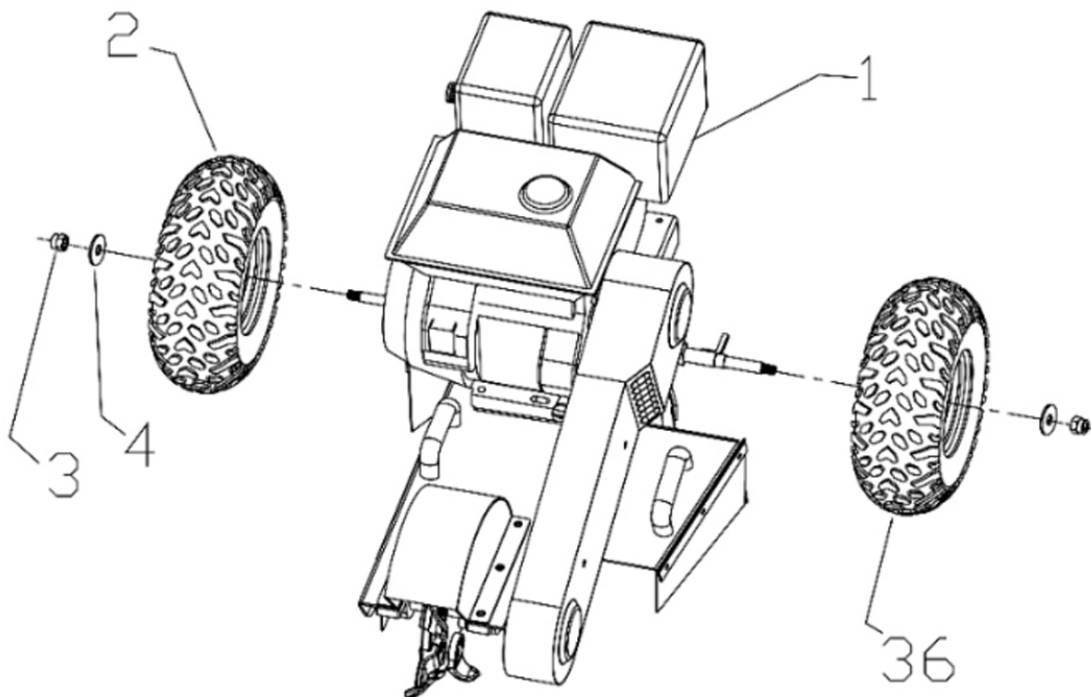
Oil Weight: 10W-30

Oil Capacity: 1.4qts

BRAKE ASSEMBLY

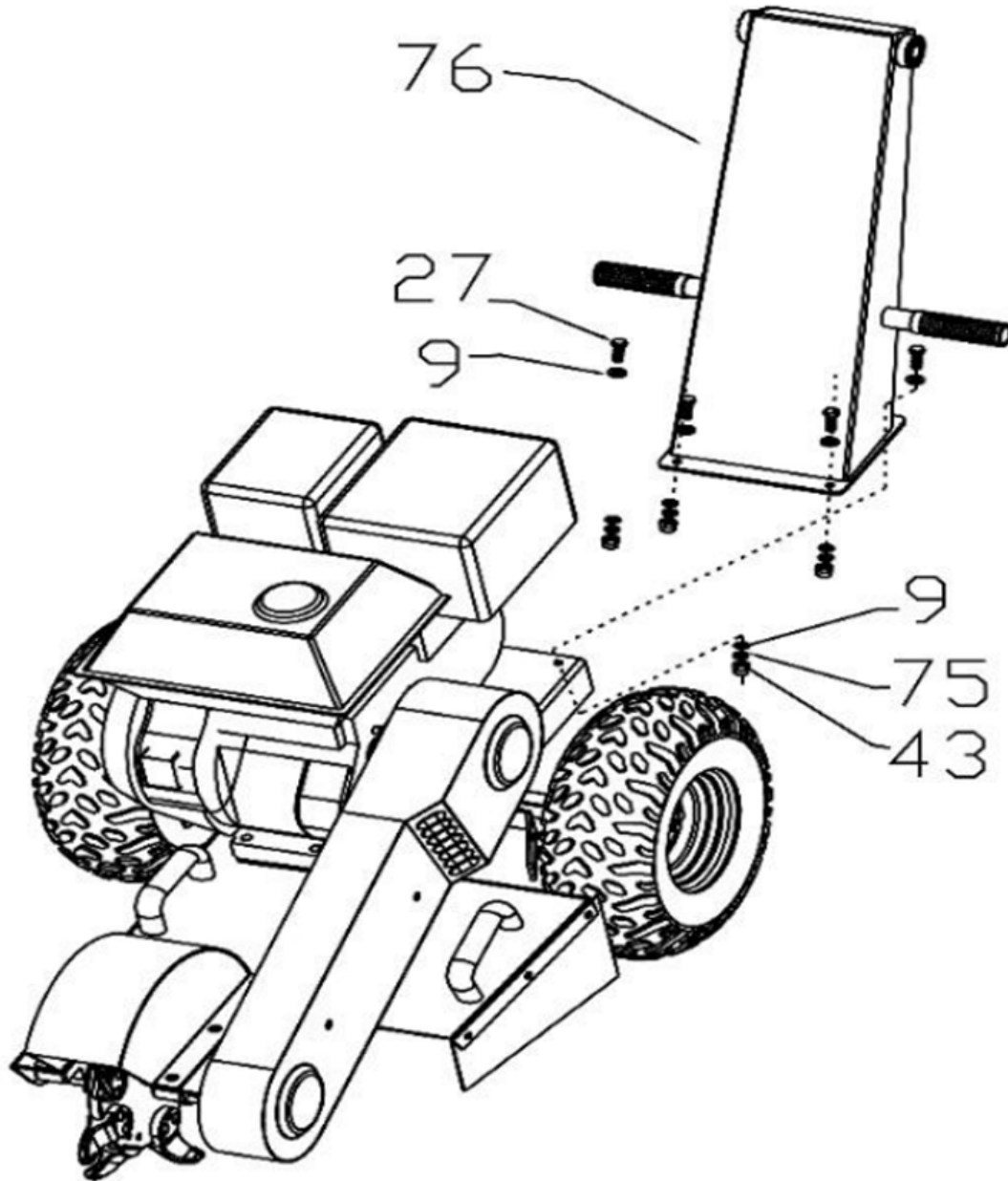
- 1) Place a floor jack under left rear corner of stump grinder. Lift enough to install tire.
- 2) Slide brake pad assembly on to the axle and line up notch to keep from spinning. Brake pad assembly can be found in the accessory bag.
- 3) Install brake cable end into holder.
- 4) Loosen lock nut and install brake wire and brake adjuster into brake adjuster mount.
- 5) Install bolt, washer, and nut into brake cable/brake arm.
- 6) Install wheel with brake drum.
- 7) Install washer, nut, and cotter/lock pin.
- 8) Adjustments to tightness of brake can be made with the adjustable knob. Left to loosen and right to tighten.

ASSEMBLY



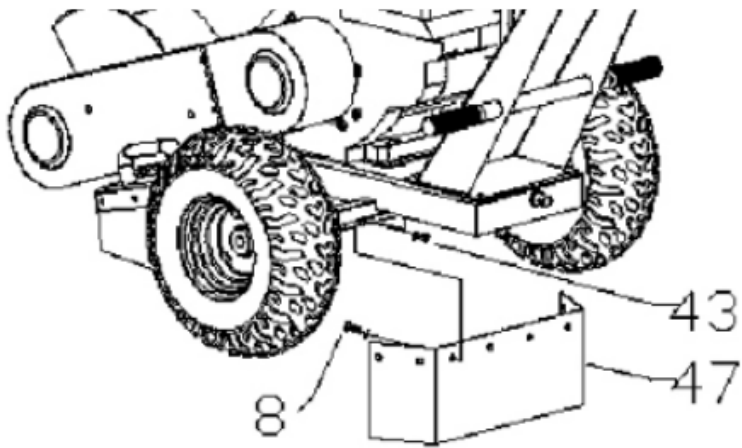
1	2	3	4	36
engine	wheel	Nylon anti loose nut	flat washer	wheel

ASSEMBLY

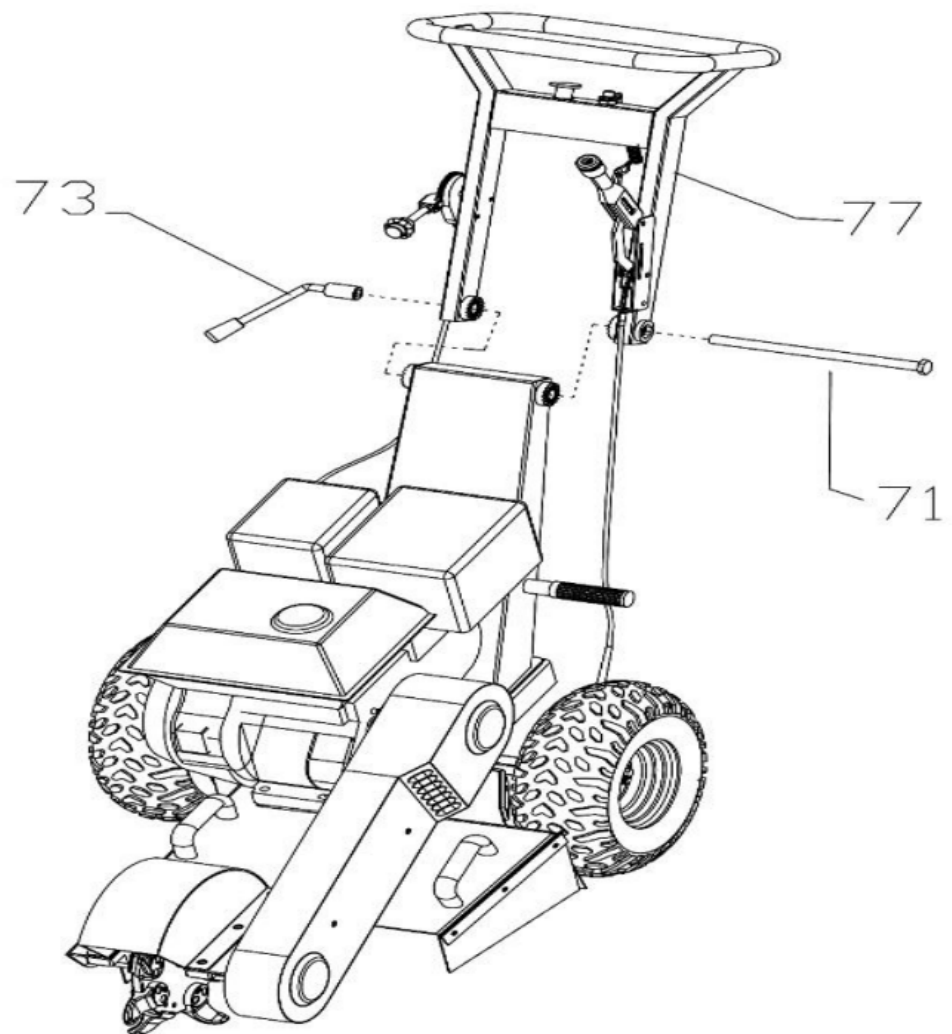


9	27	43	75	76
flat washer	outer six angle bolt	Nylon anti loose nut	spring washer	arm handle

ASSEMBLY

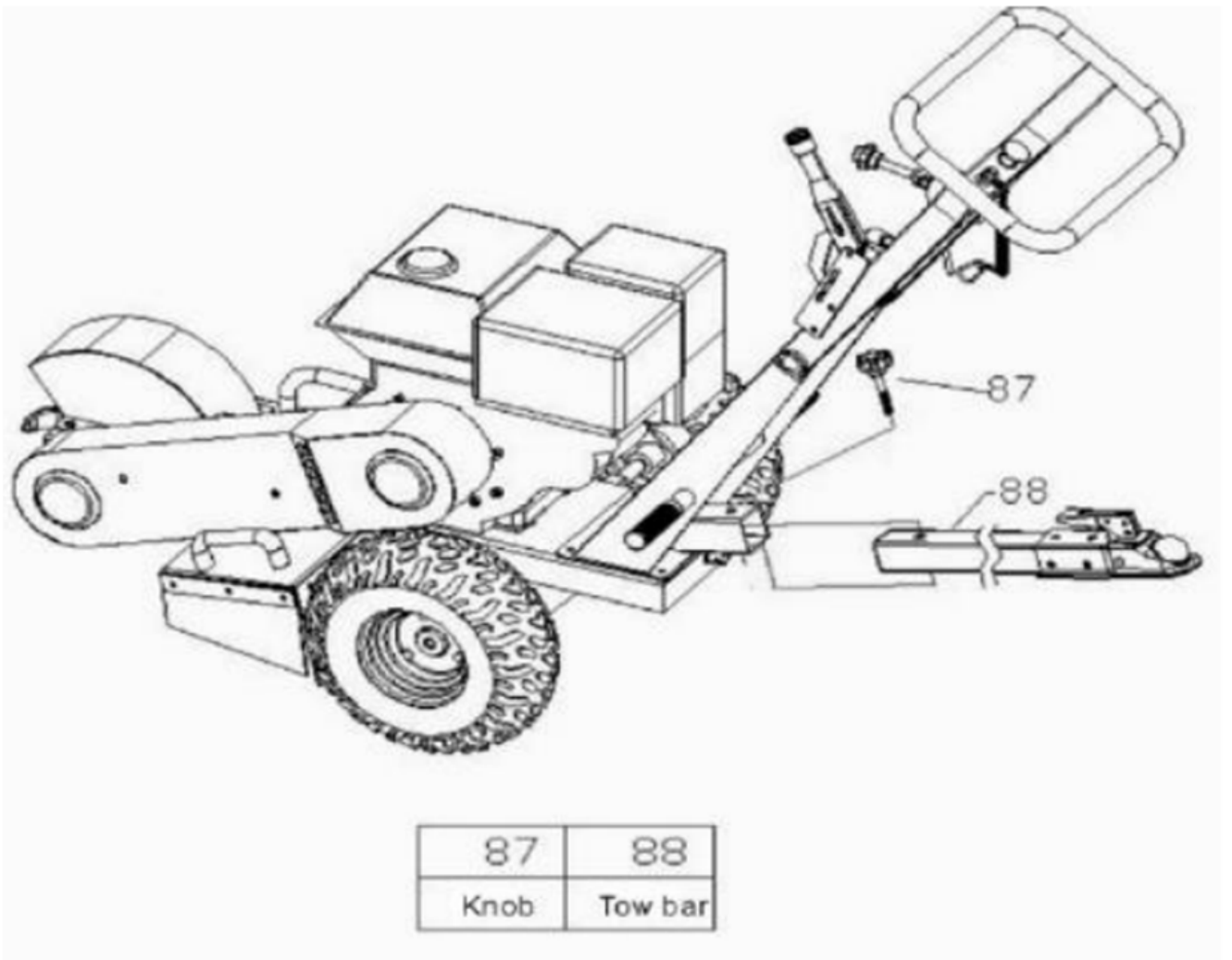


8	43	47
Bolt	lock nut	leather protector



71	73	77
outer six angle bolt	Adjustable handle bar	handle

ASSEMBLY

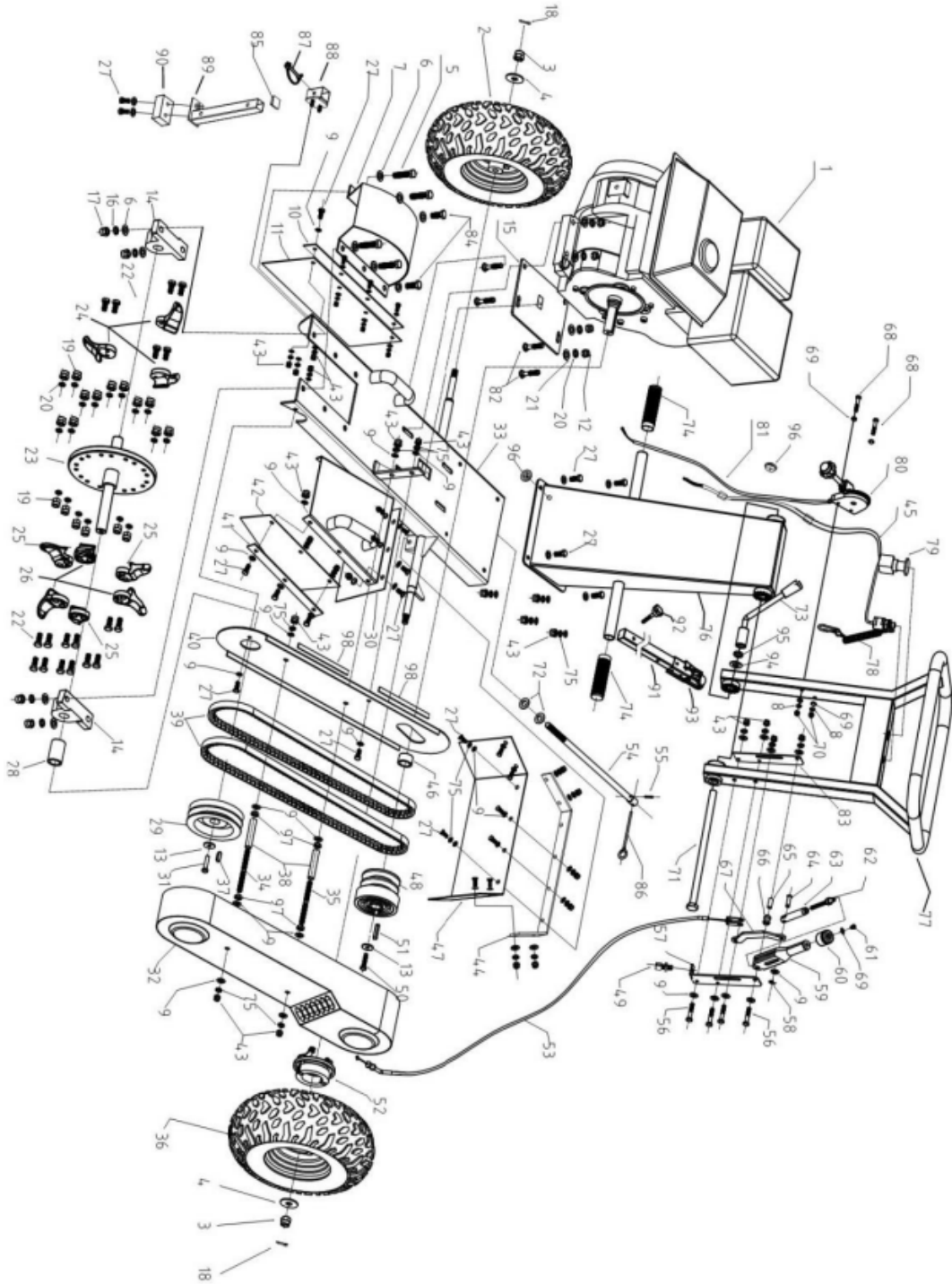


Connect wires as shown



Place the stand when in storage.
Do not make any adjustments to stand when engine is running.

ASSEMBLY



ASSEMBLY

Part No.	Description	Part No.	Description
1	engine	50	bolt
2	right tire	51	key
3	lock nut	52	brake disc
4	washer	53	brake wire
5	bolt	54	Adjustment screw
6	washer	55	Cylindrical spring pin
7	protector for cut plate	56	bolt
8	spring washer	57	mounting plate for handbrake
9	washer	58	Shaft ring
10	side plate	59	handbrake
11	protect sheet	60	handbrake cap
12	lock nut	61	bolt
13	washer	62	Threaded rod
14	bearing with block	63	Connecting pipe
15	engine plate	64	Axle pin
16	spring washer	65	Liner
17	lock nut	66	spacer sleeve
18	pin	67	Connecting plate
19	nut	68	bolt
20	spring washer	69	washer
21	washer	70	lock nut
22	bolt	71	bolt
23	cut plate	72	washer
24	right teeth	73	Angle adjustment handle
25	straight teeth	74	Handlebar cover
26	left teeth	75	spring washer
27	bolt	76	handrail support
28	bushing	77	handle
29	big pulley	78	safety rope switch
30	protect sheet	79	safety switch
31	bolt	80	throttle
32	belt cover	81	Throttle Cable
33	frame	82	bolt
34	bolt	83	Inner mounting plate
35	bolt	84	bolt
36	left tire	85	plug
37	key	86	rocking bar
38	bushing	87	D-pin
39	belt	88	plate for stand foot
40	belt plate	89	stand foot
41	side plate	90	rubber
42	protect sheet	91	tow bar

ASSEMBLY

43	lock nut	92	knob
44	side plate	93	hitch
45	safety switch wire	94	washer
46	bushing	95	spring washer
47	protect sheet	96	protective ring
48	clutch pulley	97	nut
49	bolt	98	strip

SPECIFICATIONS

PART	SPECIFICATION
Engine	15HP Four Strokes
Brake	Drum Brake
Belt	2PCSvBelt
Clutch	Centrifugal Clutch
Cutting Depth	12 inch
Packing Size	1040*780*580mm
Gross Weight	130kgs
Net weight	110kgs
Blades	9 Blades w Tungsten (4x left, 4x right, 4x middle)